



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

## **AIR MONITORING SUMMARY REPORT FOR PARCEL E REMEDIAL ACTION PHASE 2**

HUNTERS POINT NAVAL SHIPYARD

SAN FRANCISCO, CALIFORNIA

November 1<sup>st</sup>, 2022 through December 1<sup>st</sup>, 2022

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DCN: GLBN-0005-4332-0112

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Contract Number: N62473-17-D-0005; Task Order No. N6247317F4332

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## Acronyms and Abbreviations

AMSR .....	<i>Air Monitoring Summary Report</i>
Cal/OSHA .....	<i>California Occupational Safety and Health Administration</i>
Cfm .....	<i>cubic feet per minute</i>
CFR .....	<i>Code of Federal Regulations</i>
CTO .....	<i>Contract Task Order</i>
DMCP .....	<i>Dust Monitoring and Control Plan</i>
DTSC .....	<i>State of California Department of Toxic Substances Control</i>
EPA .....	<i>United States Environmental Protection Agency</i>
fiber/cm <sup>3</sup> .....	<i>fibers per cubic centimeter</i>
Gilbane .....	<i>Gilbane Federal</i>
HPNS .....	<i>Hunters Point Naval Shipyard</i>
L/min .....	<i>liters per minute</i>
mg/m <sup>3</sup> .....	<i>milligrams per cubic meter</i>
Navy .....	<i>U.S. Department of the Navy</i>
NIOSH .....	<i>National Institute for Occupational Safety and Health</i>
PEL .....	<i>permissible exposure limit</i>
PM10 .....	<i>particulate matter less than 10 microns in diameter</i>
RAWP .....	<i>Remedial Action Work Plan</i>
TSP .....	<i>total suspended particulates</i>
TWA .....	<i>time-weighted average</i>
µg/m <sup>3</sup> .....	<i>micrograms per cubic meter</i>

## 1.0 Introduction

This Air Monitoring Summary Report (AMSR) was prepared by Gilbane Federal (Gilbane) 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) N6247317F4332. Gilbane is performing air monitoring at Hunters Point Naval Shipyard (HPNS) in accordance with the Final Dust Monitoring and Control Plan (DMCP), included as Appendix E to *Final Remedial Action Work Plan, Parcel E Remedial Action Phase 2, Hunters Point Naval Shipyard, San Francisco, California* (RAWP; Gilbane, 2019a). The Dust Monitoring and Control Plan (DMCP) describes the procedures that minimize dust during work activities and requires air monitoring to ensure these procedures are effective. The DMCP helps 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 Gilbane at HPNS Parcel E from November 1<sup>st</sup>, 2022 through December 1<sup>st</sup>, 2022 and compares the results with the established action levels presented in the DMCP (Appendix E of the RAWP [Gilbane, 2019a]).

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## 2.0 Monitoring Site Locations

Air monitoring stations were deployed at one upwind and downwind location from the work area whenever active soil handling operations were in progress. Based on past meteorological data, the prevalent wind direction at HPNS was from the west or west-southwest. The locations of Parcel E 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 HPNS - KCASANFR1504 published at Weather Underground ([www.wunderground.com](http://www.wunderground.com)). If the APTIM station did not have available data, the Bayview Manor - KCASANFR1775 was used.

Upwind/downwind station designations were assigned based on the prevalent wind direction. Atmospheric parameters were checked daily at [www.wunderground.com](http://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 (Copper, Lead, and Manganese)
3. Total suspended particulates (TSP)
4. Radiological air samplers

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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 a period of less than 24 hours. Asbestos results were reviewed for anomalies and compliance with the action levels listed below.

### **3.2 PM10, Copper, 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 a period of time (usually 8 or 24 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. 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 a certified analytical laboratory where 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 copper, 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, 1999])

### **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 an approximately 8 to 24-hour period (depending on the duration of the work activity). 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, 2019b).

The radiological air sample concentration is counted on a Low Background Protean WPC-9950 and analyzed for gross alpha and beta activity. The calculated airborne concentration in microcuries is 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 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 and radiological samples were compared with the threshold criteria listed in **Table 4-1** reproduced from Table 1 of the approved DMCP (Appendix E of the RAWP [Gilbane, 2019a]. The PM10 delta was additionally compared to the criterion taken from the *Technical Memorandum: Draft Dust Action Levels for Parcel E, Hunters Point Shipyard, San Francisco, California* (Department of Toxic Substances Control [DTSC] 2017) of 50 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

**Table 4-1: Air Monitoring Threshold Criteria**

Test Parameter	Threshold Criteria	Threshold Criteria Reference
Asbestos	0.1 fiber/ $\text{cm}^3$	Cal/OSHA PEL
PM10 <sup>a</sup>	5,000 $\mu\text{g}/\text{m}^3$	Cal/OSHA PEL
TSP	0.5 $\text{mg}/\text{m}^3$	Basewide HPNS Level selected to minimize overall permissible dust release from sites
Copper	1.0 $\text{mg}/\text{m}^3$	Cal/OSHA PEL
Lead	0.050 $\text{mg}/\text{m}^3$	Cal/OSHA PEL
Manganese	0.200 $\text{mg}/\text{m}^3$	Cal/OSHA PEL
Radiological	10% of Effluent Concentration Values	Occupational and public air concentration limits for ROCs are published in 10 Code of Federal Regulations Part 20, Appendix B.

**Notes:**

<sup>a</sup> = The Cal/OSHA PEL for particulates not otherwise regulated (respiratory) is used for PM10 comparison.

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

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

fiber/ $\text{cm}^3$  = fibers per cubic centimeter

HPNS = Hunters Point Naval Shipyard

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

PEL = permissible exposure limit

PM10 = particulate matter less than 10 microns in diameter

ROC = radionuclide of concern

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 and 2 were sourced from the Weather Underground (wunderground.com) station APTIM HPNS - KCASANFR1504. If the APTIM station did not have available data, the Bayview Manor - KCASANFR1775 was used.

Air Monitoring Data was collected from Station 1 in Parcel E (MSE01) and Station 2 in Parcel D-1 (MSE02) from November 1<sup>st</sup>, 2022, through December 1<sup>st</sup>, 2022, during which Gilbane was excavating, grading and maintaining radiological screening yard pads, and transporting excavated material and clean import. Samples were not collected during periods of site inactivity, rain events, and/or while site work was limited to non-earth moving tasks.

Construction and remediation activities conducted from November 1<sup>st</sup>, 2022, through December 1<sup>st</sup>, 2022, did not result in the exceedance of the established threshold criteria, as described in detail below.

Asbestos results from November 1<sup>st</sup>, 2022, through December 1<sup>st</sup>, 2022, did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 2**.

PM10, lead, manganese, and copper results from November 1<sup>st</sup>, 2022, through December 1<sup>st</sup>, 2022 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 3** and **Attachment 4**.

TSP results from November 1<sup>st</sup>, 2022 through December 1<sup>st</sup>, 2022 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 5**.

Radiological air sampling results from November 1<sup>st</sup>, 2022 through December 1<sup>st</sup>, 2022 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 6**.

Analytical laboratory reports are included as **Attachment 7** and were subjected to cursory review by the Project Chemist. It was noted at sample receipt that the laboratory updated the sample nomenclature for filter naming to reflect the change in company name. No data quality issues were noted. The data should be considered usable for their intended purposes.

On November 8<sup>th</sup>, 2022 there were no earth-moving tasks onsite due to rain, therefore no air monitoring was conducted. No results will be presented for November 9<sup>th</sup>, 2022.

Due to changing wind direction onsite the delta calculation was switched and taken from subtracting the downwind from the upwind results for sampling dates November 10<sup>th</sup>, November 22<sup>nd</sup>, and November 23<sup>rd</sup>, 2022. The site will be shut down for the remainder of 2022, with no site activities occurring and subsequently no air monitoring.

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## 6.0 References

Department of Toxic Substances Control (DTSC), 2017. Draft Technical Memorandum: Dust Action Levels for Parcel E, Hunters Point. May.

National Institute for Occupational Safety and Health, (NIOSH), 1994. Manual of Analytical Methods.

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

Gilbane Federal, 2019a. Final Remedial Action Work Plan, Parcel E Remedial Action, Phase 2, Hunters Point Naval Shipyard, San Francisco, California. October

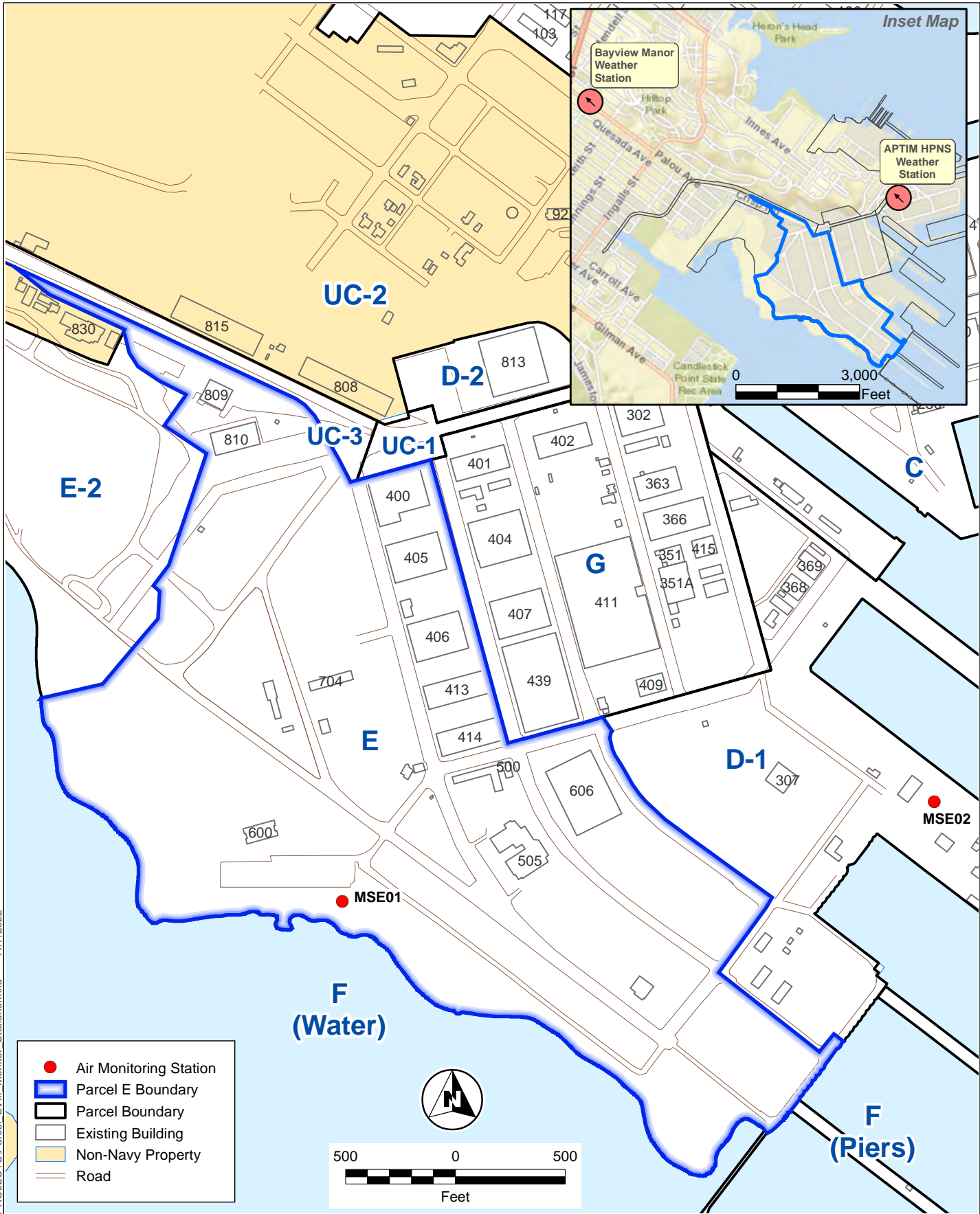
Gilbane Federal, 2019b. Radiological Procedure PR-RP-150 *Radiological Survey and Sampling, Version 01*, October 1.



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## FIGURES

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**Parcel E**  
Hunters Point Naval Shipyard  
San Francisco, California

**Figure 2-1**  
Air Monitoring Stations

**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
10/31/2022 <sup>1</sup>	29.95	60.42	WSW
11/1/2022 <sup>1</sup>	30.02	53.61	WSW
11/2/2022 <sup>1</sup>	30.17	52.59	W
11/3/2022 <sup>1</sup>	30.29	52.23	NNW
11/7/2022 <sup>1</sup>	29.87	53.33	SW
11/9/2022 <sup>1</sup>	30.27	53.10	W
11/10/2022 <sup>1</sup>	30.35	53.22	ENE
11/16/2022 <sup>1</sup>	30.40	55.05	SSW
11/17/2022 <sup>1</sup>	30.34	54.44	NNW
11/21/2022 <sup>1</sup>	30.25	49.30	N
11/22/2022 <sup>1</sup>	30.24	53.74	NNE
11/28/2022 <sup>1</sup>	30.07	51.95	WNW
11/29/2022 <sup>1</sup>	30.10	49.12	NNW
11/30/2022 <sup>1</sup>	29.99	52.18	S

**Notes:**

<sup>1</sup>Data collected using wunderground.com from APTIM HPNS Station - KCASANFR1504

°F = degree Fahrenheit

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 Start Date <sup>1</sup>	Monitoring Station	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
MSE01-110122	11/01/22	1	409	818	2.5	<0.003	No
MSE02-110122	11/01/22	2	435	870	1.0	<0.003	No
MSE01-110222	11/02/22	1	533	1066	1.5	<0.003	No
MSE02-110222	11/02/22	2	535	1070	5.5	0.003	No
MSE01-110322	11/03/22	1	470	940	3.5	<0.003	No
MSE02-110322	11/03/22	2	477	954	3.5	<0.003	No
MSE01-110722	11/07/22	1	492	984	7.0	0.003	No
MSE02-110722	11/07/22	2	517	1034	1.0	<0.003	No
MSE01-110922	11/09/22	1	507	1014	1.0	<0.003	No
MSE02-110922	11/09/22	2	514	1028	1.5	<0.003	No
MSE01-111722	11/17/22	1	422	844	5.5	0.003	No
MSE02-111722	11/17/22	2	426	852	2.0	<0.003	No
MSE01-112122	11/21/22	1	482	964	5.5	0.003	No
MSE02-112122	11/21/22	2	498	996	7.5	0.004	No
MSE01-112222	11/22/22	1	521	1042	2.5	<0.003	No
MSE02-112222	11/22/22	2	536	1072	4.0	<0.003	No
MSE01-112822	11/28/22	1	486	972	6.5	0.003	No
MSE02-112822	11/28/22	2	471	942	92.5	0.048	No
MSE01-112922	11/29/22	1	513	1026	4.0	<0.003	No
MSE02-112922	11/29/22	2	527	1054	2.0	<0.003	No
MSE01-113022	11/30/22	1	510	1020	5.5	0.003	No
MSE02-113022	11/30/22	2	510	1020	4.0	<0.003	No

**Notes:**

<sup>1</sup>Sample "start" date indicates the date upon which sample collection began.

Samples analyzed by A&B Labs

Sample locations are shown on Figure 2-1

L = liter

min = minutes

fibers/cm<sup>3</sup> = 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 <sup>1</sup>	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Delta between Downwind and Upwind (mg/m <sup>3</sup> )	Delta between Downwind and Upwind (ug/m <sup>3</sup> )	Cal/OSHA PEL (ug/m <sup>3</sup> )	Exceedance (Yes/No)	HERO Action Level <sup>3</sup> (ug/m <sup>3</sup> )	Exceedance (Yes/No)
GESPM100322-368	1	11/01/22	1683.45	0.022						
GESPM100322-369	2	11/01/22	1758.61	0.023	0.0010	1.0	5,000	No	50	No
GESPM100322-370	1	11/02/22	1713.94	0.0095						
GESPM100322-371	2	11/02/22	1753.53	0.015	0.0055	5.5	5,000	No	50	No
GESPM100322-372	1	11/03/22	1650.22	0.0078						
GESPM100322-373	2	11/03/22	1757.31	0.011	0.0032	3.2	5,000	No	50	No
GESPM100322-374	1	11/03/22 <sup>2</sup>	555.35	0.010						
GESPM100322-375	2	11/03/22 <sup>2</sup>	580.62	0.0017	-0.0083	-8.3	5,000	No	50	No
GESPM100322-376	1	11/08/22	1719.13	0.0098						
GESPM100322-377	2	11/08/22	1749.60	0.0047	-0.0051	-5.1	5,000	No	50	No
GESPM100322-378	1	11/10/22	1709.41	0.0098						
GESPM101722-433	2	11/10/22	1730.23	0.012	0.0022	2.2	5,000	No	50	No
GESPM101722-434	1	11/10/22 <sup>2</sup>	573.7	0.0051						
GESPM101722-435	2	11/10/22 <sup>2</sup>	582.94	0.0034	0.0017	1.7	5,000	No	50	No
GESPM101722-436	1	11/17/22	1716.29	0.021						
GESPM101722-437	2	11/17/22	1416.47	0.015	-0.0060	-6.0	5,000	No	50	No
GESPM101722-438	1	11/17/22 <sup>2</sup>	494.37	0.031						
GESPM101722-439	2	11/17/22 <sup>2</sup>	498.04	0.023	-0.0080	-8.0	5,000	No	50	No
GESPM101722-440	1	11/22/22	1711.10	0.021						
GESPM101722-441	2	11/22/22	1718.76	0.029	-0.0080	-8.0	5,000	No	50	No
GESPM101722-442	1	11/23/22	1703.32	0.032						
GESPM101722-443	2	11/23/22	1768.57	0.031	0.0010	1.0	5,000	No	50	No
GESPM101722-444	1	11/29/22	1717.75	0.034						
GESPM101722-445	2	11/29/22	1716.78	0.063	0.0290	29.0	5,000	No	50	No
GESPM101722-446	1	11/30/22	1712.60	0.019						
GESPM101722-447	2	11/30/22	1705.16	0.000013	-0.0190	-19.0	5,000	No	50	No
GESPM101722-448	1	12/01/22	1753.19	0.020						
GESPM101722-449	2	12/01/22	1742.48	0.0063	-0.0137	-13.7	5,000	No	50	No

**Notes:**

<sup>1</sup>Air sample was not collected on days with rain or when contaminated soil was not disturbed.

<sup>2</sup>Air sample was taken down during the afternoon after field activities ceased.

<sup>3</sup>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.

Sample locations are shown on Figure 2-1

Cal/OSHA = California Division of Occupational Safety and Health

HERO = Human and Ecological Risk Office

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

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

PEL = permissible exposure limit

PM10 = particulate matter smaller than 10 microns in diameter

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

# **ATTACHMENT 4**

## **COPPER, LEAD, AND MANGANESE MONITORING RESULTS**

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**Attachment 4: Copper, Lead, and Manganese Monitoring Results**

Sample, Date and Station Information			Sampler Run Information	Copper		Lead		Manganese	
Sample ID	Monitoring Station	Sample End Date <sup>1</sup>	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
GESPM100322-368	1	11/01/22	1683.45	0.000085	No	0.0000027	No	0.0000091	No
GESPM100322-369	2	11/01/22	1758.61	0.00035	No	0.0000023	No	0.0000064	No
GESPM100322-370	1	11/02/22	1713.94	0.000082	No	0.00000097	No	0.0000017	No
GESPM100322-371	2	11/02/22	1753.53	0.00042	No	0.0000015	No	0.0000022	No
GESPM100322-372	1	11/03/22	1650.22	0.000035	No	0.0000017	No	0.0000023	No
GESPM100322-373	2	11/03/22	1757.31	0.00039	No	0.0000029	No	0.0000034	No
GESPM100322-374	1	11/03/22 <sup>2</sup>	555.35	0.000054	No	0.0000061	No	0.000017	No
GESPM100322-375	2	11/03/22 <sup>2</sup>	580.62	0.00002	No	0.0000017 J	No	0.000013	No
GESPM100322-376	1	11/08/22	1719.13	0.000032	No	0.0000022	No	0.0000052	No
GESPM100322-377	2	11/08/22	1749.60	0.000023	No	0.0000071	No	0.0000015	No
GESPM100322-378	1	11/10/22	1709.41	0.000026	No	0.0000014	No	0.0000028	No
GESPM101722-433	2	11/10/22	1730.23	0.00043	No	0.0000018	No	0.0000025	No
GESPM101722-434	1	11/10/22 <sup>2</sup>	573.7	0.000054	No	0.0000018 J	No	0.0000045	No
GESPM101722-435	2	11/10/22 <sup>2</sup>	582.94	0.000067	No	0.0000017 J	No	0.0000038	No
GESPM101722-436	1	11/17/22	1716.29	0.000051	No	0.0000042	No	0.000011	No
GESPM101722-437	2	11/17/22	1416.47	0.00011	No	0.0000036	No	0.000011	No
GESPM101722-438	1	11/17/22 <sup>2</sup>	494.37	0.000083	No	0.0000053	No	0.000015	No
GESPM101722-439	2	11/17/22 <sup>2</sup>	498.04	0.00017	No	0.0000046	No	0.00001	No
GESPM101722-440	1	11/22/22	1711.10	0.000042	No	0.0000057	No	0.000014	No
GESPM101722-441	2	11/22/22	1718.76	0.000069	No	0.0000048	No	0.000013	No
GESPM101722-442	1	11/23/22	1703.32	0.000045	No	0.0000039	No	0.000011	No
GESPM101722-443	2	11/23/22	1768.57	0.00016	No	0.0000036	No	0.0000097	No
GESPM101722-444	1	11/29/22	1717.75	0.00011	No	0.000015	No	0.000026	No
GESPM101722-445	2	11/29/22	1716.78	0.000034	No	0.000015	No	0.000025	No
GESPM101722-446	1	11/30/22	1712.60	0.000068	No	0.0000034	No	0.0000072	No
GESPM101722-447	2	11/30/22	1705.16	0.000027	No	0.0000016	No	0.0000035	No
GESPM101722-448	1	12/01/22	1753.19	0.000052	No	0.0000025	No	0.0000083	No
GESPM101722-449	2	12/01/22	1742.48	0.000024	No	0.0000012	No	0.000002	No

**Notes:**

<sup>1</sup>Air sample was not collected on days with rain or when contaminated soil was not disturbed.

<sup>2</sup>Air sample was taken down during the afternoon after field activities ceased.

Sample locations are shown on Figure 2-1

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

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

J = estimated concentration. See data review report for details.

< = 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	Total Suspended Particulates			
Sample ID	Monitoring Station	Sample End Date <sup>1</sup>	Total Air Volume Monitored (m <sup>3</sup> )	Concentration in Air (mg/m <sup>3</sup> )	Delta between Downwind and Upwind (mg/m <sup>3</sup> )	Basewide HPNS Level (mg/m <sup>3</sup> )	Exceedance (Yes/No)
GESTSP100322-368	1	11/01/22	1610.74	0.029			
GESTSP100322-369	2	11/01/22	1758.15	0.0255	-0.004	0.5	No
GESTSP100322-370	1	11/02/22	1644.11	0.0171			
GESTSP100322-371	2	11/02/22	1762.84	0.0166	-0.001	0.5	No
GESTSP100322-372	1	11/03/22	1649.11	0.00891			
GESTSP100322-373	2	11/03/22	1763.21	0.00987	0.001	0.5	No
GESTSP100322-374	1	11/03/22 <sup>2</sup>	530.73	0.0307			
GESTSP100322-375	2	11/03/22 <sup>2</sup>	574.71	0.00435	-0.0264	0.5	No
GESTSP100322-376	1	11/08/22	1625.66	0.0189			
GESTSP100322-377	2	11/08/22	1759.94	0.0174	-0.002	0.5	No
GESTSP100322-378	1	11/10/22	1636.3	0.0113			
GESTSP101722-433	2	11/10/22	1751.75	0.0138	0.003	0.5	No
GESTSP101722-434	1	11/10/22 <sup>2</sup>	547.1	0.00384			
GESTSP101722-435	2	11/10/22 <sup>2</sup>	586.64	0.00511	-0.001	0.5	No
GESTSP101722-436	1	11/17/22	1634.4	0.0302			
GESTSP101722-437	2	11/17/22	1417.27	0.0226	-0.0076	0.5	No
GESTSP101722-438	1	11/17/22 <sup>2</sup>	471.67	0.0437			
GESTSP101722-439	2	11/17/22 <sup>2</sup>	508.18	0.0226	-0.021	0.5	No
GESTSP101722-440	1	11/22/22	1629.64	0.0399			
GESTSP101722-441	2	11/22/22	1722.26	0.0402	-0.0003	0.5	No
GESTSP101722-442	1	11/23/22	1625.83	0.0438			
GESTSP101722-443	2	11/23/22	1770.69	0.0321	0.0117	0.5	No
GESTSP101722-444	1	11/29/22	1643.51	0.0761			
GESTSP101722-445	2	11/29/22	1723.91	0.0987	0.0226	0.5	No
GESTSP101722-446	1	11/30/22	1637.13	0.0297			
GESTSP101722-447	2	11/30/22	1719.6	0.0215	-0.008	0.5	No
GESTSP101722-448	1	12/01/22	1673.62	0.0387			
GESTSP101722-449	2	12/01/22	1751.8	0.0126	-0.026	0.5	No

**Notes:**

<sup>1</sup>Air sample was not collected on days with rain or when contaminated soil was not disturbed.

<sup>2</sup>Air sample was taken down during the afternoon after field activities ceased.

Sample locations are shown on Figure 2-1

HPNS = Hunters Point Naval Shipyard

J = estimated concentration. See data review report for details.

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

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

**ATTACHMENT 6**  
**AIR SAMPLING RESULTS –**  
**PUBLIC EXPOSURE MONITORING**

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## AIR SAMPLE RESULTS - PUBLIC EXPOSURE MONITORING

Project Information									Effluent Air Concentration				Sampling Period				Color Codes					
Contract / Task Order Number: N62473-17-D-0005 / F4332			Project Title / Location: HPNS Parcel E Phase 2 RA / San Francisco, CA			GES Project Number: J310000400				Alpha	Beta	Air samples collected between 01 Nov 2022 and 30 Nov 2022				Value < 0.1 x Effluent Conc (i.e., < 10%)						
Information effective as of: 21 Dec 2022										Radionuclide	Ra-226	Sr-90					Value > 0.1 x Effluent Conc (i.e., > 10%)					
										Effluent Conc (µCi/ml)	9.E-13	6.E-12					Value > Effluent Conc (i.e., > 100%)					
Sample Collection									Count Information				Sample Results				Initials					
Sample Number	Sample Type	Sample Location	Equip No	Ave Flow Rate (lpm)	Start Day Time	End Date Time	Elapsed Time (min)	Volume (ml)	Inst No	Count Date	Time (min)	Counting Units	Gross Activity		Net dpm		Activity (µCi/ml)		Effluent Conc (%)		Count Tech	Data Reviewer
													Alpha	Beta	Alpha	Beta	Alpha	Beta	Alpha	Beta		
AS-0739	Perimeter	MSE01	PE13	50	11/1/22 4:25	11/1/22 12:51	506	2.5E+07	B	11/07/22	1	cpm	0.10	4.30	0.0	6.1	0.0E+00	1.1E-13	0.0%	1.8%	JSV	BCS
AS-0740	Perimeter	MSE02	PE14	50	11/1/22 4:20	11/1/22 12:57	517	2.6E+07	B	11/07/22	1	cpm	0.30	3.80	0.7	4.6	1.2E-14	8.1E-14	1.3%	1.3%	JSV	BCS
AS-0741	Perimeter	MSE01	PE13	50	11/2/22 4:15	11/2/22 15:27	672	3.4E+07	B	11/07/22	1	cpm	0.05	4.00	-0.2	5.2	N/A	7.0E-14	N/A	1.2%	JSV	BCS
AS-0742	Perimeter	MSE02	PE14	50	11/2/22 4:20	11/2/22 15:33	673	3.4E+07	B	11/07/22	1	cpm	0.05	3.50	-0.2	3.8	N/A	5.0E-14	N/A	0.8%	JSV	BCS
AS-0743	Perimeter	MSE01	PE13	50	11/3/22 4:10	11/3/22 14:32	622	3.1E+07	B	11/07/22	1	cpm	0.10	4.10	0.0	5.5	0.0E+00	8.0E-14	0.0%	1.3%	JSV	BCS
AS-0744	Perimeter	MSE02	PE14	50	11/3/22 4:05	11/3/22 14:43	638	3.2E+07	B	11/07/22	1	cpm	0.25	4.60	0.5	7.0	7.1E-15	9.8E-14	0.8%	1.6%	JSV	BCS
AS-0745	Perimeter	MSE01	PE13	50	11/7/22 6:38	11/7/22 15:17	519	2.6E+07	B	11/14/22	1	cpm	0.40	4.30	1.0	6.1	1.8E-14	1.1E-13	1.9%	1.8%	DFB	BCS
AS-0746	Perimeter	MSE02	PE14	50	11/7/22 6:45	11/7/22 15:30	525	2.6E+07	B	11/14/22	1	cpm	0.05	3.60	-0.2	4.1	N/A	7.0E-14	N/A	1.2%	DFB	BCS
AS-0747	Perimeter	MSE01	PE13	50	11/9/22 4:10	11/9/22 15:07	657	3.3E+07	B	11/14/22	1	cpm	0.20	3.50	0.3	3.8	4.6E-15	5.2E-14	0.5%	0.9%	DFB	BCS
AS-0748	Perimeter	MSE02	PE14	50	11/9/22 4:00	11/9/22 15:02	662	3.3E+07	B	11/14/22	1	cpm	0.10	4.90	0.0	7.8	0.0E+00	1.1E-13	0.0%	1.8%	DFB	BCS
AS-0749	Perimeter	MSE01	PE13	50	11/10/22 4:00	11/10/22 14:40	640	3.2E+07	B	11/14/22	1	cpm	0.20	4.70	0.3	7.2	4.7E-15	1.0E-13	0.5%	1.7%	DFB	BCS
AS-0750	Perimeter	MSE02	PE14	50	11/10/22 3:50	11/10/22 15:00	670	3.4E+07	B	11/14/22	1	cpm	0.10	3.45	0.0	3.6	0.0E+00	4.9E-14	0.0%	0.8%	DFB	BCS
AS-0751	Perimeter	MSE01	PE13	50	11/16/22 4:10	11/16/22 14:11	601	3.0E+07	B	11/21/22	1	cpm	0.40	5.45	1.0	9.4	1.5E-14	1.4E-13	1.7%	2.4%	JSV	BCS
AS-0752	Perimeter	MSE02	PE14	50	11/16/22 4:16	11/16/22 14:16	600	3.0E+07	B	11/21/22	1	cpm	0.10	5.05	0.0	8.3	0.0E+00	1.2E-13	0.0%	2.1%	JSV	BCS
AS-0753	Perimeter	MSE01	PE13	50	11/17/22 4:20	11/17/22 15:13	653	3.3E+07	B	11/21/22	1	cpm	0.25	5.10	0.5	8.4	7.0E-15	1.2E-13	0.8%	1.9%	JSV	BCS
AS-0754	Perimeter	MSE02	PE14	50	11/17/22 4:15	11/17/22 14:59	644	3.2E+07	B	11/21/22	1	cpm	0.05	5.40	-0.2	9.3	N/A	1.3E-13	N/A	2.2%	JSV	BCS
AS-0755	Perimeter	MSE01	PE13	50	11/21/22 6:35	11/21/22 14:34	479	2.4E+07	B	11/28/22	1	cpm	0.15	5.15	0.2	8.6	3.2E-15	1.6E-13	0.4%	2.7%	JSV	BCS
AS-0756	Perimeter	MSE02	PE14	50	11/21/22 6:31	11/21/22 14:39	488	2.4E+07	B	11/28/22	1	cpm	0.25	5.15	0.5	8.6	9.3E-15	1.6E-13	1.0%	2.6%	JSV	BCS
AS-0757	Perimeter	MSE01	PE13	50	11/22/22 4:10	11/22/22 15:41	691	3.5E+07	B	11/28/22	1	cpm	0.20	4.65	0.3	7.1	4.4E-15	9.3E-14	0.5%	1.5%	JSV	BCS
AS-0758	Perimeter	MSE02	PE14	50	11/22/22 4:05	11/22/22 15:44	699	3.5E+07	B	11/28/22	1	cpm	0.15	5.75	0.2	10.3	2.2E-15	1.3E-13	0.2%	2.2%	JSV	BCS
AS-0759	Perimeter	MSE01	PE13	50	11/28/22 6:45	11/28/22 15:06	501	2.5E+07	B	12/05/22	1	cpm	0.45	4.75	1.2	7.4	2.1E-14	1.3E-13	2.4%	2.2%	DFB	BCS
AS-0760	Perimeter	MSE02	PE14	50	11/28/22 7:10	11/28/22 15:13	483	2.4E+07	B	12/05/22	1	cpm	0.20	3.95	0.3	5.1	6.3E-15	9.5E-14	0.7%	1.6%	DFB	BCS
AS-0761	Perimeter	MSE01	PE13	50	11/29/22 4:20	11/29/22 15:00	640	3.2E+07	B	12/05/22	1	cpm	0.25	3.95	0.5	5.1	7.1E-15	7.1E-14	0.8%	1.2%	DFB	BCS
AS-0762	Perimeter	MSE02	PE14	50	11/29/22 4:15	11/29/22 15:05	650	3.2E+07	B	12/05/22	1	cpm	0.20	4.30	0.3	6.1	4.7E-15	8.4E-14	0.5%	1.4%	DFB	BCS
AS-0763	Perimeter	MSE01	PE13	50	11/29/22 4:20	11/30/22 15:25	2105	1.1E+08	B	12/05/22	1	cpm	0.15	3.35	0.2	3.3	7.2E-16	1.4E-14	0.1%	0.2%	DFB	BCS
AS-0764	Perimeter	MSE02	PE14	50	11/29/22 4:15	11/30/22 15:21	2106	1.1E+08	B	12/05/22	1	cpm	0.30	3.80	0.7	4.6	2.9E-15	2.0E-14	0.3%	0.3%	DFB	BCS

# **ATTACHMENT 7**

## **LABORATORY REPORTS**

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# Laboratory Analysis Report

Job ID : 22110702



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

---

**Client Project Name :**  
**HPNS Parcel E Phase II J310000400**

**Report To :** Client Name: GES - ASRC Industrial Total Number of Pages: 5  
Attn: [REDACTED] P.O.#. : J310000400-0015  
Client Address: 1501 West Fountainhead Parkway, Ste. #550 Date Received : 11/04/2022 15:12  
City, State, Zip: Tempe, Arizona, 85282 Sample Collected By : [REDACTED]

---

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-110122	11/1/2022 13:31	Cassette	22110702.01
MSE02-110122	11/1/2022 13:43	Cassette	22110702.02
MSE01-110222	11/2/2022 15:32	Cassette	22110702.03
MSE02-110222	11/2/2022 15:57	Cassette	22110702.04

[REDACTED]  
Released By: [REDACTED]  
Title: Vice President Operations

Analyst: [REDACTED]

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Any TWA calculations are based on client supplied data not lab observation.

ab-q210-0321

11/11/2022



**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 # 30080**

Date 11/11/202

Job ID : 22110702  
Analytical Method: NIOSH 7400-I2-Aug1994

Client: GES - ASRC Industrial			Project: HPNS Parcel E Phase II J310000400									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
22110702.01	MSE01-110122	11/01/2022	Area	2			409	818	100	2.5	3.185	< 0.003		11/11/22	[REDACTED]
22110702.02	MSE02-110122	11/01/2022	Area	2			435	870	100	1	1.274	< 0.003		11/11/22	[REDACTED]
22110702.03	MSE01-110222	11/02/2022	Area	2			533	1066	100	1.5	1.911	< 0.003		11/11/22	[REDACTED]
22110702.04	MSE02-110222	11/02/2022	Area	2			535	1070	100	5.5	7.006	0.003		11/11/22	[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



## Sample Condition Checklist

A&B JobID : <b>22110702</b>	Date Received : <b>11/04/2022</b>	Time Received : <b>3:12PM</b>		
Client Name : <b>GES - ASRC Industrial</b>				
Temperature : <b>21.7°C</b>	Sample pH : <b>NA</b>			
Thermometer ID : <b>IR4</b>	pH Paper ID : <b>NA</b>			
Perservative :				
	<b>Check Points</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>1.</b>	<b>Cooler Seal present and signed.</b>	X		
<b>2.</b>	<b>Sample(s) in a cooler.</b>		X	
<b>3.</b>	<b>If yes, ice in cooler.</b>			X
<b>4.</b>	<b>Sample(s) received with chain-of-custody.</b>	X		
<b>5.</b>	<b>C-O-C signed and dated.</b>	X		
<b>6.</b>	<b>Sample(s) received with signed sample custody seal.</b>		X	
<b>7.</b>	<b>Sample containers arrived intact. (If No comment)</b>	X		
<b>8.</b>	<b>Matrix:</b> <b>Water</b> <b>Soil</b> <b>Liquid</b> <b>Sludge</b> <b>Solid</b> <b>Cassette</b> <b>Tube</b> <b>Bulk</b> <b>Badge</b> <b>Food</b> <b>Other</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
<b>9.</b>	<b>Samples were received in appropriate container(s)</b>	X		
<b>10.</b>	<b>Sample(s) were received with Proper preservative</b>			X
<b>11.</b>	<b>All samples were tagged or labeled.</b>	X		
<b>12.</b>	<b>Sample ID labels match C-O-C ID's.</b>	X		
<b>13.</b>	<b>Bottle count on C-O-C matches bottles found.</b>	X		
<b>14.</b>	<b>Sample volume is sufficient for analyses requested.</b>	X		
<b>15.</b>	<b>Samples were received with in the hold time.</b>	X		
<b>16.</b>	<b>VOA vials completely filled.</b>			X
<b>17.</b>	<b>Sample accepted.</b>	X		
<b>18.</b>	<b>Has client been contacted about sub-out</b>			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. ~ 11/07/22

Received by : ██████████

Check in by/date : ██████████ / 11/07/2022

ab-s005-0321



# Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400 Laboratory Name: A&B Labs 11/03/2022  
 Project Manager: [Redacted] Address: 10100 East Fwy Ste. 100 Contact Name: [Redacted] Page: 1 of 1  
 Site Location: Hunters Point, San Francisco, CA 94124 Houston TX 77029

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Analysis:			Flow Rate = 2 L/min	Special Instructions/Comments Total Time (min)	
							Asbestos	Preservative:	Container Type:			
								F	i	lter		
MSE01-110122	11/01/2022	1331	NA	NA	1	AA	X				409	01A
MSE02-110122	11/01/2022	1343	NA	NA	1	AA	X				435	02A
MSE01-110222	11/02/2022	1532	NA	NA	1	AA	X				533	03A
MSE02-110222	11/02/2022	1527	NA	NA	1	AA	X				535	04A

Job ID: 22110702



11/04/2022 GES - ASRC Industrial ACH

[Redacted] 11-3-22

Sampled By: [Redacted] Sampler: [Redacted] Courier/Airbill No.: FedEx/ 7703 8751 0114

Signature: [Redacted] Relinquished By/Amiation: [Redacted] Date: 11/3/22 Time: 1600 Received By/ Affiliation: FEDEX Date: 11/3/22 Time: 1600

Special Instructions: Fedex [Redacted] 11/3/22 1512

Send Results to: [Redacted]

Turnaround Time: Standard

21.7<sup>05</sup> IRA [Redacted]

ORIGIN ID: JCCA [REDACTED]

200 FISHER STREET  
SAN FRANCISCO, CA 94124  
UNITED STATES US

SHIP DATE: 03NOV22  
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

REF. J31000.400.00.18.04

INV  
PO

DEPT



581.04.07F5FEZD

**FRI - 04 NOV 4:30P**

**STANDARD OVERNIGHT**

TRK#  
0201

**7703 8751 0114**

**77029**

TX-US

**IAH**

**UL HBYA**



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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.

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# Laboratory Analysis Report

Job ID : 22111144



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

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**Client Project Name :**  
**HPNS Parcel E Phase II J310000400**

**Report To :** Client Name: GES - ASRC Industrial Total Number of Pages: 5  
Attn: [REDACTED] P.O.#. : J310000400-0015  
Client Address: 1501 West Fountainhead Parkway, Ste. #550 Date Received : 11/09/2022 14:59  
City, State, Zip: Tempe, Arizona, 85282 Sample Collected By : [REDACTED]

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-110322	11/3/2022 14:45	Cassette	22111144.01
MSE02-110322	11/3/2022 14:36	Cassette	22111144.02
MSE01-110722	11/7/2022 15:31	Cassette	22111144.03
MSE02-110722	11/7/2022 15:26	Cassette	22111144.04

[REDACTED]  
Released By: [REDACTED]  
Title: Vice President Operations

Analyst: [REDACTED]

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ab-q210-0321

11/16/2022



**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 # 30080**

Date 11/16/202

Job ID : 22111144  
 Analytical Method: NIOSH 7400-I2-Aug1994

Client: GES - ASRC Industrial			Project: HPNS Parcel E Phase II J310000400							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
22111144.01	MSE01-110322	11/03/2022	Area	2			470	940	100	3.5	4.459	< 0.003		11/11/22	[REDACTED]
22111144.02	MSE02-110322	11/03/2022	Area	2			477	954	100	3.5	4.459	< 0.003		11/11/22	[REDACTED]
22111144.03	MSE01-110722	11/07/2022	Area	2			492	984	100	7.0	8.917	0.003		11/11/22	[REDACTED]
22111144.04	MSE02-110722	11/07/2022	Area	2			517	1034	100	1	1.274	< 0.003		11/11/22	[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



# Sample Condition Checklist

A&B JobID : <b>22111144</b>	Date Received : <b>11/09/2022</b>	Time Received : <b>2:59PM</b>		
Client Name : <b>GES - ASRC Industrial</b>				
Temperature : <b>22.1°C</b>	Sample pH : <b>NA</b>			
Thermometer ID : <b>IR4</b>	pH Paper ID : <b>NA</b>			
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 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
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.~ [REDACTED] 11/9/22

Received by : [REDACTED]

Check in by/date : [REDACTED] / 11/09/2022

ab-s005-0321



Event ID: Air Monitoring

COC# KT110822ASBE



# Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400 Laboratory Name: A&B Labs 11/08/2022  
 Project Manager: [Redacted] Address: 10100 East Fwy Ste. 100 Contact Name: [Redacted] Page: 1 of 1  
 Site Location: Hunters Point, San Francisco, CA 94124 Houston TX 77029

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Analysis:			Special Instructions/Comments Total Time (min)	
							Asbestos	Preservative:	Container Type:		
							None	F	i	lter	
MSE01-110322	11/03/2022	1445	NA	NA	1	AA	X				470
MSE02-110322	11/03/2022	1436	NA	NA	1	AA	X				477
MSE01-110722	11/07/2022	1531	NA	NA	1	AA	X				492
MSE02-110722	11/07/2022	1526	NA	NA	1	AA	X				517

**Job ID: 22111144**



11/08/2022 GES - ASRC Industrial ACH

Flow Rate = 2 L/min

[Redacted]  
11-8-22

Sampled By: [Redacted]  
 Signature: [Redacted]  
 Special Instructions: \_\_\_\_\_  
 Send Results to: [Redacted]  
 Turnaround Time: Standard

Sampler: <u>[Redacted]</u>	Courier/Airbill No.: FedEx/ 7704 1957 7374	
Relinquished By: <u>[Redacted]</u>	Date: <u>11/8/22</u> Time: <u>1600</u>	Received By/ Affiliation: <u>FEDEX</u>
<u>FEDEX</u>	<u>2:59</u>	<u>[Redacted]</u>
	Date: <u>11/8/22</u> Time: <u>1600</u>	Date: <u>11/9/22</u> Time: <u>2:59</u>

22.1 IR4

ORIGIN ID: JCCA  
200 FISHER STREET  
SAN FRANCISCO, CA 94124  
UNITED STATES US

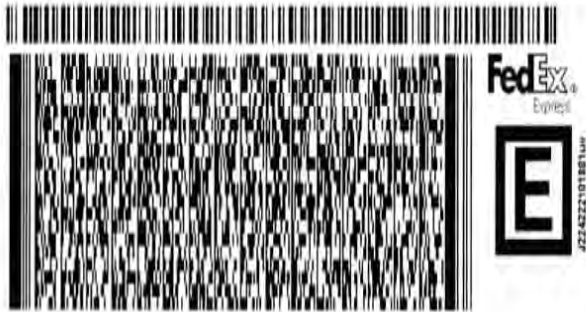
SHIP DATE: 08NOV22  
ACTWGT: 1.00 LB  
CAD: 254128867/NET4530

BILL SENDER

TO  
A & B LABS  
10100 EAST FREEWAY, SUITE 100  
HOUSTON TX 77029

SN: J407F5FE2D

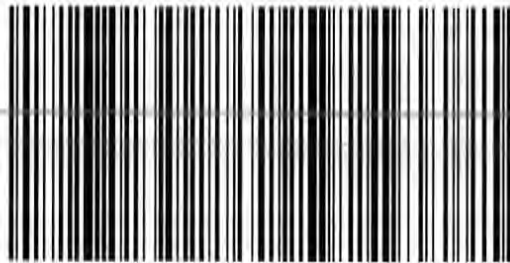
(713) 453-8060 REF: J310004000011704  
INW DEP1  
PO.



WED - 09 NOV 4:30P  
STANDARD OVERNIGHT

TRK# 7704 1957 7374  
0201

UL HBYA TX-US 77029 IAH



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# Laboratory Analysis Report

Job ID : 22111468



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

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**Client Project Name :**  
**HPNS Parcel E Phase II 1310000400**

**Report To :** Client Name: GES - ASRC Industrial Total Number of Pages: 5  
Attn: [REDACTED] P.O.#. : J310000400-0015  
Client Address: 1501 West Fountainhead Parkway, Ste. #550 Date Received : 11/11/2022 15:02  
City, State, Zip: Tempe, Arizona, 85282 Sample Collected By : [REDACTED]

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-110922	11/9/2022 15:13	Cassette	22111468.01
MSE02-110922	11/9/2022 15:07	Cassette	22111468.02

[REDACTED]  
Released By: [REDACTED]  
Title: Vice President Operations

Analyst: [REDACTED]

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ab-q210-0321

11/18/2022



**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 11/18/202

Job ID : 22111468  
Analytical Method: NIOSH 7400-I2-Aug1994

Client: GES - ASRC Industrial			Project: HPNS Parcel E Phase II 1310000400									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
22111468.01	MSE01-110922	11/09/2022	Area	2			507	1014	100	1	1.274	< 0.003		11/17/22	[REDACTED]
22111468.02	MSE02-110922	11/09/2022	Area	2			514	1028	100	1.5	1.911	< 0.003		11/17/22	[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



## Sample Condition Checklist

A&B JobID : <b>22111468</b>	Date Received : <b>11/11/2022</b>	Time Received : <b>3:02PM</b>		
Client Name : <b>GES - ASRC Industrial</b>				
Temperature : <b>23.1°C</b>	Sample pH : <b>NA</b>			
Thermometer ID : <b>IR4</b>	pH Paper ID : <b>NA</b>			
Perservative :				
	<b>Check Points</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>1.</b>	<b>Cooler Seal present and signed.</b>	X		
<b>2.</b>	<b>Sample(s) in a cooler.</b>		X	
<b>3.</b>	<b>If yes, ice in cooler.</b>			X
<b>4.</b>	<b>Sample(s) received with chain-of-custody.</b>	X		
<b>5.</b>	<b>C-O-C signed and dated.</b>	X		
<b>6.</b>	<b>Sample(s) received with signed sample custody seal.</b>		X	
<b>7.</b>	<b>Sample containers arrived intact. (If No comment)</b>	X		
<b>8.</b>	<b>Matrix:</b> <b>Water</b> <b>Soil</b> <b>Liquid</b> <b>Sludge</b> <b>Solid</b> <b>Cassette</b> <b>Tube</b> <b>Bulk</b> <b>Badge</b> <b>Food</b> <b>Other</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
<b>9.</b>	<b>Samples were received in appropriate container(s)</b>	X		
<b>10.</b>	<b>Sample(s) were received with Proper preservative</b>			X
<b>11.</b>	<b>All samples were tagged or labeled.</b>	X		
<b>12.</b>	<b>Sample ID labels match C-O-C ID's.</b>	X		
<b>13.</b>	<b>Bottle count on C-O-C matches bottles found.</b>	X		
<b>14.</b>	<b>Sample volume is sufficient for analyses requested.</b>	X		
<b>15.</b>	<b>Samples were received with in the hold time.</b>	X		
<b>16.</b>	<b>VOA vials completely filled.</b>			X
<b>17.</b>	<b>Sample accepted.</b>	X		
<b>18.</b>	<b>Has client been contacted about sub-out</b>			X

**Comments : Include actions taken to resolve discrepancies/problem:**  
 Black Cassettes. No cooler was received, however samples are received in a box with a custody seal. ~ 11/14/22

Received by : ██████████

Check in by/date : ██████████ / 11/14/2022

ab-s005-0321



# Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400 Laboratory Name: A&B Labs 11/10/2022  
 Project Manager: [Redacted] Address: 10100 East Fwy Ste. 100 Contact Name: [Redacted] Page: 1 of 1  
 Site Location: Hunters Point, San Francisco, CA 94124 Houston TX 77029

Analysis:

## Job ID: 22111468



11/11/2022 GES - ASRC Industrial ACH

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Asbestos	Analysis:		Flow Rate = 2 L/min	Special Instructions/Comments Total Time (min)
								Preservative:	Container Type:		
MSE01-110922	11/09/2022	1513	NA	NA	1	AA	X	None	F i lter		507 01A
MSE02-110922	11/09/2022	1507	NA	NA	1	AA	X				514 02A
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; background-color: black;"></div> <div style="text-align: center;"> <p>11/10/2022</p> <p>[Redacted]</p> </div> </div>											

Sampled By: <u>[Redacted]</u> Signature: <u>[Redacted]</u> Special Instructions: _____ Send Results to: <u>[Redacted]</u> Turnaround Time: <u>Standard</u>	Sampler: <u>[Redacted]</u> Relinquished By/Affiliation: <u>[Redacted]</u> <div style="text-align: center; font-size: 1.2em;">Fed-ex</div>	Courier/Airbill No.: FedEx/ 7704 4691 9538 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Date:</th> <th>Time:</th> <th>Received By/ Affiliation:</th> <th>Date:</th> <th>Time:</th> </tr> <tr> <td>11/10/22</td> <td>1600</td> <td>FedEx</td> <td>11/10/22</td> <td>1600</td> </tr> <tr> <td></td> <td></td> <td>[Redacted]</td> <td>11/11/22</td> <td>1502</td> </tr> </table>	Date:	Time:	Received By/ Affiliation:	Date:	Time:	11/10/22	1600	FedEx	11/10/22	1600			[Redacted]	11/11/22	1502
Date:	Time:	Received By/ Affiliation:	Date:	Time:													
11/10/22	1600	FedEx	11/10/22	1600													
		[Redacted]	11/11/22	1502													

23-100  
124

11/9/22, 11:00 AM

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID: JCCA [REDACTED]

200 FISHER STREET

SAN FRANCISCO, CA 94124  
UNITED STATES US

TO [REDACTED]

**A & B LABS**  
10100 EAST FREEWAY, SUITE 100

**HOUSTON TX 77029**

(713) 453-6060  
INV  
PO

REF: J31000 400 00 18 04

DEPT



**FedEx**  
Express



591.5/54.88/FE2D

**FRI - 11 NOV 4:30P**

**STANDARD OVERNIGHT**

TRK# 7704 4691 9538  
0201

**UL HBYA**

77029  
TX-US IAH



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# Laboratory Analysis Report

Job ID : 22112725



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

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**Client Project Name :**  
**HPNS Parcel E Phase II J310000400**

**Report To :** Client Name: GES - ASRC Industrial Total Number of Pages: 5  
Attn: [REDACTED] P.O.#. : J310000400-0015  
Client Address: 1501 West Fountainhead Parkway, Ste. #550 Date Received : 11/23/2022 15:42  
City, State, Zip: Tempe, Arizona, 85282 Sample Collected By : [REDACTED]

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-111722	11/17/2022 13:51	Cassette	22112725.01
MSE02-111722	11/17/2022 13:58	Cassette	22112725.02
MSE01-112122	11/21/2022 14:52	Cassette	22112725.03
MSE02-112122	11/21/2022 14:44	Cassette	22112725.04

[REDACTED]  
Released By: [REDACTED]  
Title: Vice President Operations

Analyst: [REDACTED]

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ab-q210-0321

12/2/2022





**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 12/2/2022

Job ID : 22112725  
Analytical Method: NIOSH 7400-I2-Aug1994

Client: GES - ASRC Industrial			Project: HPNS Parcel E Phase II J310000400										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
22112725.01	MSE01-111722	11/17/2022	Area	2			422	844	100	5.5	7.006	0.003		12/02/22	[REDACTED]
22112725.02	MSE02-111722	11/17/2022	Area	2			426	852	100	2	2.548	< 0.003		12/02/22	[REDACTED]
22112725.03	MSE01-112122	11/21/2022	Area	2			482	964	100	5.5	7.006	0.003		12/02/22	[REDACTED]
22112725.04	MSE02-112122	11/21/2022	Area	2			498	996	100	7.5	9.554	0.004		12/02/22	[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



## Sample Condition Checklist

A&B JobID : <b>22112725</b>	Date Received : <b>11/23/2022</b>	Time Received : <b>3:42PM</b>		
Client Name : <b>GES - ASRC Industrial</b>				
Temperature : <b>22.1°C</b>	Sample pH : <b>NA</b>			
Thermometer ID : <b>IR4</b>	pH Paper ID : <b>NA</b>			
Perservative :				
	<b>Check Points</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>1.</b>	<b>Cooler Seal present and signed.</b>	X		
<b>2.</b>	<b>Sample(s) in a cooler.</b>		X	
<b>3.</b>	<b>If yes, ice in cooler.</b>			X
<b>4.</b>	<b>Sample(s) received with chain-of-custody.</b>	X		
<b>5.</b>	<b>C-O-C signed and dated.</b>	X		
<b>6.</b>	<b>Sample(s) received with signed sample custody seal.</b>		X	
<b>7.</b>	<b>Sample containers arrived intact. (If No comment)</b>	X		
<b>8.</b>	<b>Matrix:</b> <b>Water</b> <b>Soil</b> <b>Liquid</b> <b>Sludge</b> <b>Solid</b> <b>Cassette</b> <b>Tube</b> <b>Bulk</b> <b>Badge</b> <b>Food</b> <b>Other</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
<b>9.</b>	<b>Samples were received in appropriate container(s)</b>	X		
<b>10.</b>	<b>Sample(s) were received with Proper preservative</b>			X
<b>11.</b>	<b>All samples were tagged or labeled.</b>	X		
<b>12.</b>	<b>Sample ID labels match C-O-C ID's.</b>	X		
<b>13.</b>	<b>Bottle count on C-O-C matches bottles found.</b>	X		
<b>14.</b>	<b>Sample volume is sufficient for analyses requested.</b>	X		
<b>15.</b>	<b>Samples were received with in the hold time.</b>	X		
<b>16.</b>	<b>VOA vials completely filled.</b>			X
<b>17.</b>	<b>Sample accepted.</b>	X		
<b>18.</b>	<b>Has client been contacted about sub-out</b>			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. ~ 11/23/2022

Received by : ██████████

Check in by/date : ██████████ / 11/23/2022

ab-s005-0321



# Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400 Laboratory Name: A&B Labs 11/22/2022  
 Project Manager: [Redacted] Address: 10100 East Fwy Ste. 100 Contact Name: [Redacted] Page: 1 of 1  
 Site Location: Hunters Point, San Francisco, CA 94124 Houston TX 77029

Analysis:

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Asbestos		Flow Rate = 2 L/min	Special Instructions/Comments Total Time (min)	
							Preservative:	None			
							Container Type:				
							F	i	l	l	ter
01A MSE01-111722	11/17/2022	1351	NA	NA	1	AA	X			422	
02A MSE02-111722	11/17/2022	1338	NA	NA	1	AA	X			426	
03A MSE01-112122	11/21/2022	1452	NA	NA	1	AA	X			482	
04A MSE02-112122	11/21/2022	1444	NA	NA	1	AA	X			498	

Job ID: 22112725



11/23/2022 GES - ASRC Industrial ACH

11/22/22

Sampled By: <u>[Redacted]</u>	Sampler: <u>[Redacted]</u>	Courier/Airbill No.: FedEx/ 7705 6788 0969				
Signature: <u>[Redacted]</u>	Relinquished By/Affiliation: <u>[Redacted]</u>	Date: <u>11/22/2022</u>	Time: <u>16:00</u>	Received By/ Affiliation: <u>FedEx</u>	Date: <u>11/22/2022</u>	Time: <u>16:00</u>
Special Instructions: <u>[Redacted]</u>	<u>Fedex</u>	<u>11/23</u>	<u>15:42</u>	<u>[Redacted]</u>	<u>11/23</u>	<u>15:42</u>
Send Results to: <u>[Redacted]</u>						
Turnaround Time: <u>Standard</u>						

22.1°C  
TR4 [Redacted] 5

ORIGIN ID: JCCA

200 FISHER STREET

SAN FRANCISCO, CA 94124  
UNITED STATES US

SHIP DATE: 22NOV22  
ACTWGT: 1.00 LB  
CAD: 254128867/NET4530

BILL SENDER

TO

A & B LABS  
10100 EAST FREEWAY, SUITE 100

HOUSTON TX 77029

(713) 453-6060

REF: J31000400001004

INV  
PO

DEPT



581 LB/E 166 FE2D

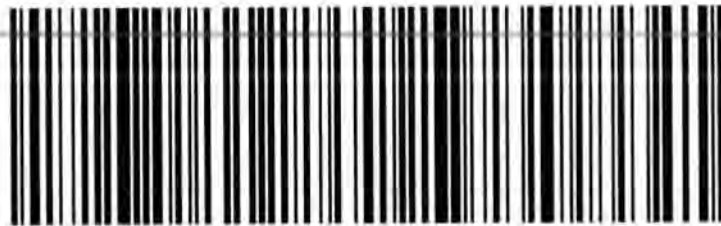
J242210101UW

WED - 23 NOV 4:30P  
STANDARD OVERNIGHT

TRK# 7705 6788 0969  
0201

UL HBYA

77029  
TX-US IAH



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# Laboratory Analysis Report

Job ID : 22113234



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

---

**Client Project Name :**  
**HPNS Parcel E Phase II 1310000400**

**Report To :** Client Name: GES - ASRC Industrial Total Number of Pages: 5  
Attn: [REDACTED] P.O.#. : J310000400-0015  
Client Address: 1501 West Fountainhead Parkway, Ste. #550 Date Received : 11/30/2022 15:13  
City, State, Zip: Tempe, Arizona, 85282 Sample Collected By : [REDACTED]

---

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-112222	11/22/2022 15:45	Cassette	22113234.01
MSE02-112222	11/22/2022 15:33	Cassette	22113234.02
MSE01-112822	11/28/2022 15:03	Cassette	22113234.03
MSE02-112822	11/28/2022 14:53	Cassette	22113234.04

[REDACTED]  
Released By: [REDACTED]  
Title: Vice President Operations

Analyst: [REDACTED]

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ab-q210-0321

12/7/2022



**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 12/7/2022

Job ID : 22113234  
Analytical Method: NIOSH 7400-I2-Aug1994

Client: GES - ASRC Industrial			Project: HPNS Parcel E Phase II 1310000400										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
22113234.01	MSE01-112222	11/22/2022	Area	2			521	1042	100	2.5	3.185	< 0.003		12/02/22	[REDACTED]
22113234.02	MSE02-112222	11/22/2022	Area	2			536	1072	100	4.0	5.096	< 0.003		12/02/22	[REDACTED]
22113234.03	MSE01-112822	11/28/2022	Area	2			486	972	100	6.5	8.280	0.003		12/02/22	[REDACTED]
22113234.04	MSE02-112822	11/28/2022	Area	2			471	942	100	92.5	117.834	0.048		12/02/22	[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



## Sample Condition Checklist

A&B JobID : <b>22113234</b>	Date Received : <b>11/30/2022</b>	Time Received : <b>3:13PM</b>		
Client Name : <b>GES - ASRC Industrial</b>				
Temperature : <b>22.1°C</b>	Sample pH : <b>NA</b>			
Thermometer ID : <b>IR4</b>	pH Paper ID : <b>NA</b>			
Perservative :				
	<b>Check Points</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>1.</b>	<b>Cooler Seal present and signed.</b>	X		
<b>2.</b>	<b>Sample(s) in a cooler.</b>		X	
<b>3.</b>	<b>If yes, ice in cooler.</b>			X
<b>4.</b>	<b>Sample(s) received with chain-of-custody.</b>	X		
<b>5.</b>	<b>C-O-C signed and dated.</b>	X		
<b>6.</b>	<b>Sample(s) received with signed sample custody seal.</b>		X	
<b>7.</b>	<b>Sample containers arrived intact. (If No comment)</b>	X		
<b>8.</b>	<b>Matrix:</b> <b>Water</b> <b>Soil</b> <b>Liquid</b> <b>Sludge</b> <b>Solid</b> <b>Cassette</b> <b>Tube</b> <b>Bulk</b> <b>Badge</b> <b>Food</b> <b>Other</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
<b>9.</b>	<b>Samples were received in appropriate container(s)</b>	X		
<b>10.</b>	<b>Sample(s) were received with Proper preservative</b>			X
<b>11.</b>	<b>All samples were tagged or labeled.</b>	X		
<b>12.</b>	<b>Sample ID labels match C-O-C ID's.</b>	X		
<b>13.</b>	<b>Bottle count on C-O-C matches bottles found.</b>	X		
<b>14.</b>	<b>Sample volume is sufficient for analyses requested.</b>	X		
<b>15.</b>	<b>Samples were received with in the hold time.</b>	X		
<b>16.</b>	<b>VOA vials completely filled.</b>			X
<b>17.</b>	<b>Sample accepted.</b>	X		
<b>18.</b>	<b>Has client been contacted about sub-out</b>			X

**Comments : Include actions taken to resolve discrepancies/problem:**  
 Black Cassettes. No cooler was received, however samples are received in a box with a custody seal. ~ 11/30/22

Received by : ██████████

Check in by/date : ██████████ / 11/30/2022



# Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400 Laboratory Name: A&B Labs 11/29/2022  
 Project Manager: [Redacted] Address: 10100 East Fwy Ste. 100 Contact Name: [Redacted] Page: 1 of 1  
 Site Location: Hunters Point, San Francisco, CA 94124 Houston TX 77029

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Analysis:			Flow Rate = 2 L/min	Special Instructions/Comments Total Time (min)
							Asbestos	Preservative:	Container Type:		
							F	i	lter		
MSE01-112222 <i>01A</i>	11/22/2022	1545	NA	NA	1	AA	X				521
MSE02-112222 <i>02A</i>	11/22/2022	1533	NA	NA	1	AA	X				536
MSE01-112822 <i>03A</i>	11/28/2022	1503	NA	NA	1	AA	X				486
MSE02-112822 <i>04A</i>	11/28/2022	1453	NA	NA	1	AA	X				471

**Job ID: 22113234**



11/30/2022 GES - ASRC Industrial ACH



*11-29-22*

Sampled By: [Redacted]  
 Signature: [Redacted]  
 Special Instructions: \_\_\_\_\_  
 Send Results to: [Redacted]  
 Turnaround Time: Standard

Relinquished By/Affiliation: [Redacted] Date: 11-29-22 Time: 1600  
 Received By/ Affiliation: [Redacted] Date: 11-29-22 Time: 1600  
 Date: 11-30-22 Time: 3:13  
 Courier/Airbill No.: FedEx/ 7706 1906 0381  
*Fuser*



ORIGIN ID: JCCA [REDACTED]

200 FISHER STREET  
SAN FRANCISCO, CA 94124  
UNITED STATES US

SHIP DATE: 29NOV22  
ACTWGT: 1.00 LB  
CAD: 254128867/NET4530

BILL SENDER

TO [REDACTED]

A & B LABS  
10100 EAST FREEWAY, SUITE 100

HOUSTON TX 77029

(713) 453-6060 REF J31000 400 00 18 04

INV PO DEPT



581 039467 FE20

FedEx Ship Manager - Print Your Label(s)

WED - 30 NOV 4:30P  
STANDARD OVERNIGHT

TRK# 7706 1906 0381  
0201

UA HBYA

77029  
TX-US IAH



Date: 11-29-22  
Signature: [REDACTED]



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# Laboratory Analysis Report

Job ID : 22120249



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

---

**Client Project Name :**  
**HPNS Parcel E Phase II J1310000400**

**Report To :** Client Name: GES - ASRC Industrial Total Number of Pages: 5  
Attn: [REDACTED] P.O.#. : J310000400-0015  
Client Address: 1501 West Fountainhead Parkway, Ste. #550 Date Received : 12/02/2022 15:18  
City, State, Zip: Tempe, Arizona, 85282 Sample Collected By : [REDACTED]

---

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01-112922	11/29/2022 16:01	Cassette	22120249.01
MSE02-112922	11/29/2022 15:58	Cassette	22120249.02
MSE01-113022	11/30/2022 15:42	Cassette	22120249.03
MSE02-113022	11/30/2022 15:36	Cassette	22120249.04

[REDACTED]  
Released By: [REDACTED]  
Title: Vice President Operations

Analyst: [REDACTED]

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ab-q210-0321

12/9/2022



**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 # 30080**

Date 12/9/2022

Job ID : 22120249  
Analytical Method: NIOSH 7400-I2-Aug1994

Client: GES - ASRC Industrial			Project: HPNS Parcel E Phase II J1310000400								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
22120249.01	MSE01-112922	11/29/2022	Area	2			513	1026	100	4.0	5.096	< 0.003		12/07/22	[REDACTED]
22120249.02	MSE02-112922	11/29/2022	Area	2			527	1054	100	2	2.548	< 0.003		12/07/22	[REDACTED]
22120249.03	MSE01-113022	11/30/2022	Area	2			510	1020	100	5.5	7.006	0.003		12/07/22	[REDACTED]
22120249.04	MSE02-113022	11/30/2022	Area	2			510	1020	100	4	5.096	< 0.003		12/07/22	[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



## Sample Condition Checklist

A&B JobID : <b>22120249</b>	Date Received : <b>12/02/2022</b>	Time Received : <b>3:18PM</b>		
Client Name : <b>GES - ASRC Industrial</b>				
Temperature : <b>22.1°C</b>	Sample pH : <b>NA</b>			
Thermometer ID : <b>IR4</b>	pH Paper ID : <b>NA</b>			
Perservative :				
	<b>Check Points</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>1.</b>	<b>Cooler Seal present and signed.</b>	X		
<b>2.</b>	<b>Sample(s) in a cooler.</b>		X	
<b>3.</b>	<b>If yes, ice in cooler.</b>			X
<b>4.</b>	<b>Sample(s) received with chain-of-custody.</b>	X		
<b>5.</b>	<b>C-O-C signed and dated.</b>	X		
<b>6.</b>	<b>Sample(s) received with signed sample custody seal.</b>		X	
<b>7.</b>	<b>Sample containers arrived intact. (If No comment)</b>	X		
<b>8.</b>	<b>Matrix:</b> <b>Water</b> <b>Soil</b> <b>Liquid</b> <b>Sludge</b> <b>Solid</b> <b>Cassette</b> <b>Tube</b> <b>Bulk</b> <b>Badge</b> <b>Food</b> <b>Other</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
<b>9.</b>	<b>Samples were received in appropriate container(s)</b>	X		
<b>10.</b>	<b>Sample(s) were received with Proper preservative</b>			X
<b>11.</b>	<b>All samples were tagged or labeled.</b>	X		
<b>12.</b>	<b>Sample ID labels match C-O-C ID's.</b>	X		
<b>13.</b>	<b>Bottle count on C-O-C matches bottles found.</b>	X		
<b>14.</b>	<b>Sample volume is sufficient for analyses requested.</b>	X		
<b>15.</b>	<b>Samples were received with in the hold time.</b>	X		
<b>16.</b>	<b>VOA vials completely filled.</b>			X
<b>17.</b>	<b>Sample accepted.</b>	X		
<b>18.</b>	<b>Has client been contacted about sub-out</b>			X

**Comments : Include actions taken to resolve discrepancies/problem:**  
 No cooler was received, however samples are received in a box with a custody seal. Samples received in black cassettes. ~ 12/2/2022

Received by : ██████████

Check in by/date : ██████████ / 12/02/2022

ab-s005-0321



# Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400 Laboratory Name: A&B Labs 12/01/2022  
 Project Manager: [Redacted] Address: 10100 East Fwy Ste. 100 Contact Name: [Redacted] Page: 1 of 1  
 Site Location: Hunters Point, San Francisco, CA 94124 Houston TX 77029

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Analysis:			Special Instructions/Comments Total Time (min)	
							Asbestos	Preservative:	Container Type:		
								F	i	lter	
01A MSE01-112922	11/29/2022	1601	NA	NA	1	AA	X				513
02A MSE02-112922	11/29/2022	1558	NA	NA	1	AA	X				527
03A MSE01-113022	11/30/2022	1542	NA	NA	1	AA	X				510
04A MSE02-113022	11/30/2022	1536	NA	NA	1	AA	X				510

Job ID: 22120249



12/02/2022 GES - ASRC Industrial ACH

[Redacted] 12/01/22

Sampled By: <u>[Redacted]</u>	Sampler: <u>[Redacted]</u>	Courier/Airbill No.: FedEx 7706 3310 6645			
Signature: <u>[Redacted]</u>	Relinquished By/Affiliation: <u>[Redacted]</u>	Date: <u>12/01/22</u>	Time: <u>16:00</u>	Received By/ Affiliation: <u>FedEx</u>	Date: <u>12/01/22</u>
Special Instructions: _____	<u>Fed-ex</u>	<u>12/2/22</u>	<u>15:18</u>	<u>[Redacted]</u>	<u>12/2/22</u>
Send Results to: <u>[Redacted]</u>					<u>15:13</u>
Turnaround Time: <u>Standard</u>					



ORIGIN ID: ICCA  
200 FISHER STREET  
SAN FRANCISCO, CA 94124  
UNITED STATES US

SHIP DATE: 01DEC22  
ACTWGT: 1.00 LB  
CAD: 254128867/NET4530

BILL SENDER

TO  
A & B LABS  
10100 EAST FREEWAY, SUITE 100

HOUSTON TX 77029

(713) 453-6060

REF \_J31000.400.00.18.04

INV  
PO DEPT



581\_J3A9A7/FEZD

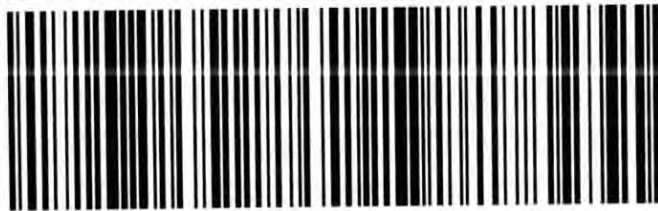
FRI - 02 DEC 4:30P

STANDARD OVERNIGHT

TRK# 7706 3310 6645  
0201

UA HBYA

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TX-US IAH



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## ANALYTICAL REPORT

Eurofins Sacramento  
880 Riverside Parkway  
West Sacramento, CA 95605  
Tel: (916)373-5600

Laboratory Job ID: 320-94004-1  
Client Project/Site: Hunters Point, Parcel E, Phase 2

For:  
GES-AIS LLC  
1501 W Fountainhead Parkway  
Ste 550  
Tempe, Arizona 85282

Attn: [REDACTED]

*Authorized for release by:*  
11/14/2022 10:08:13 AM

[REDACTED] Project Manager I  
[REDACTED]  
[REDACTED]

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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 {0} Project Manager.



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# Definitions/Glossary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

# Case Narrative

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

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**Job ID: 320-94004-1**

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**Laboratory: Eurofins Sacramento**

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**Narrative**

**Job Narrative**  
**320-94004-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 11/4/2022 10:20 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 15.3° C.

**Metals**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

## Client Sample ID: GESPM100322-370

## Lab Sample ID: 320-94004-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00097		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.082		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0017		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	9.5		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-370

## Lab Sample ID: 320-94004-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	17.0913		0.3041	0.3041	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM100322-371

## Lab Sample ID: 320-94004-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0015		0.00068	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.42		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0022		0.00068	0.000096	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	15		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-371

## Lab Sample ID: 320-94004-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	16.5642		0.2836	0.2836	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM100322-372

## Lab Sample ID: 320-94004-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0017		0.00073	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.035		0.0015	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0023		0.00073	0.00010	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	7.8		0.30	0.30	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-372

## Lab Sample ID: 320-94004-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	8.9139		0.3032	0.3032	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM100322-373

## Lab Sample ID: 320-94004-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0029		0.00068	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.39		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0034		0.00068	0.000096	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	11		0.28	0.28	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-373

## Lab Sample ID: 320-94004-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	9.8684		0.2836	0.2836	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

**Client Sample ID: GESPM100322-370**

**Lab Sample ID: 320-94004-1**

Date Collected: 11/02/22 06:47

Matrix: Air

Date Received: 11/04/22 10:20

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00097		0.00070	0.00011	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:02	1
Copper	0.082		0.0014	0.00011	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:02	1
Manganese	0.0017		0.00070	0.000098	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:02	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	9.5		0.29	0.29	ug/m3			11/07/22 15:30	1

**Client Sample ID: GESTSP100322-370**

**Lab Sample ID: 320-94004-2**

Date Collected: 11/02/22 06:47

Matrix: Air

Date Received: 11/04/22 10:20

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	17.0913		0.3041	0.3041	ug/m3 (Air)			11/07/22 15:30	1

**Client Sample ID: GESPM100322-371**

**Lab Sample ID: 320-94004-3**

Date Collected: 11/02/22 06:36

Matrix: Air

Date Received: 11/04/22 10:20

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0015		0.00068	0.00010	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:11	1
Copper	0.42		0.0014	0.00010	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:11	1
Manganese	0.0022		0.00068	0.000096	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	15		0.29	0.29	ug/m3			11/07/22 15:30	1

**Client Sample ID: GESTSP100322-371**

**Lab Sample ID: 320-94004-4**

Date Collected: 11/02/22 06:36

Matrix: Air

Date Received: 11/04/22 10:20

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	16.5642		0.2836	0.2836	ug/m3 (Air)			11/07/22 15:30	1

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

**Client Sample ID: GESPM100322-372**

**Lab Sample ID: 320-94004-5**

Date Collected: 11/03/22 06:53

Matrix: Air

Date Received: 11/04/22 10:20

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0017		0.00073	0.00011	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:14	1
Copper	0.035		0.0015	0.00011	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:14	1
Manganese	0.0023		0.00073	0.00010	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:14	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	7.8		0.30	0.30	ug/m3			11/07/22 15:30	1

**Client Sample ID: GESTSP100322-372**

**Lab Sample ID: 320-94004-6**

Date Collected: 11/03/22 06:53

Matrix: Air

Date Received: 11/04/22 10:20

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	8.9139		0.3032	0.3032	ug/m3 (Air)			11/07/22 15:30	1

**Client Sample ID: GESPM100322-373**

**Lab Sample ID: 320-94004-7**

Date Collected: 11/03/22 06:39

Matrix: Air

Date Received: 11/04/22 10:20

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0029		0.00068	0.00010	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:18	1
Copper	0.39		0.0014	0.00010	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:18	1
Manganese	0.0034		0.00068	0.000096	ug/m3 (Air)		11/11/22 06:30	11/11/22 12:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	11		0.28	0.28	ug/m3			11/07/22 15:30	1

**Client Sample ID: GESTSP100322-373**

**Lab Sample ID: 320-94004-8**

Date Collected: 11/03/22 06:39

Matrix: Air

Date Received: 11/04/22 10:20

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	9.8684		0.2836	0.2836	ug/m3 (Air)			11/07/22 15:30	1

# QC Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 320-632201/1-B**  
**Matrix: Air**  
**Analysis Batch: 632552**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 632228**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		11/11/22 06:30	11/11/22 11:17	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		11/11/22 06:30	11/11/22 11:17	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		11/11/22 06:30	11/11/22 11:17	1

**Lab Sample ID: LCS 320-632201/2-B**  
**Matrix: Air**  
**Analysis Batch: 632552**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 632228**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.240	0.251		ug/m3 (Air)		105	86 - 111
Copper	0.240	0.252		ug/m3 (Air)		105	85 - 110
Manganese	0.240	0.251		ug/m3 (Air)		104	88 - 110

**Lab Sample ID: LCSD 320-632201/3-B**  
**Matrix: Air**  
**Analysis Batch: 632552**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 632228**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.240	0.249		ug/m3 (Air)		104	86 - 111	1	15
Copper	0.240	0.248		ug/m3 (Air)		103	85 - 110	2	15
Manganese	0.240	0.249		ug/m3 (Air)		104	88 - 110	1	15

# QC Association Summary

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

## Metals

### Pre Prep Batch: 632201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94004-1	GESPM100322-370	Total/NA	Air	Filter to Air	
320-94004-3	GESPM100322-371	Total/NA	Air	Filter to Air	
320-94004-5	GESPM100322-372	Total/NA	Air	Filter to Air	
320-94004-7	GESPM100322-373	Total/NA	Air	Filter to Air	
MB 320-632201/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-632201/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-632201/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

### Prep Batch: 632228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94004-1	GESPM100322-370	Total/NA	Air	3050B	632201
320-94004-3	GESPM100322-371	Total/NA	Air	3050B	632201
320-94004-5	GESPM100322-372	Total/NA	Air	3050B	632201
320-94004-7	GESPM100322-373	Total/NA	Air	3050B	632201
MB 320-632201/1-B	Method Blank	Total/NA	Air	3050B	632201
LCS 320-632201/2-B	Lab Control Sample	Total/NA	Air	3050B	632201
LCSD 320-632201/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	632201

### Analysis Batch: 632552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94004-1	GESPM100322-370	Total/NA	Air	6020	632228
320-94004-3	GESPM100322-371	Total/NA	Air	6020	632228
320-94004-5	GESPM100322-372	Total/NA	Air	6020	632228
320-94004-7	GESPM100322-373	Total/NA	Air	6020	632228
MB 320-632201/1-B	Method Blank	Total/NA	Air	6020	632228
LCS 320-632201/2-B	Lab Control Sample	Total/NA	Air	6020	632228
LCSD 320-632201/3-B	Lab Control Sample Dup	Total/NA	Air	6020	632228

## General Chemistry

### Pre Prep Batch: 631107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94004-2	GESTSP100322-370	Total/NA	Air	Filter to Air	
320-94004-4	GESTSP100322-371	Total/NA	Air	Filter to Air	
320-94004-6	GESTSP100322-372	Total/NA	Air	Filter to Air	
320-94004-8	GESTSP100322-373	Total/NA	Air	Filter to Air	

### Analysis Batch: 631963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94004-1	GESPM100322-370	Total/NA	Air	PM10	
320-94004-3	GESPM100322-371	Total/NA	Air	PM10	
320-94004-5	GESPM100322-372	Total/NA	Air	PM10	
320-94004-7	GESPM100322-373	Total/NA	Air	PM10	

### Analysis Batch: 631969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94004-2	GESTSP100322-370	Total/NA	Air	40CFR50 App B	631107
320-94004-4	GESTSP100322-371	Total/NA	Air	40CFR50 App B	631107
320-94004-6	GESTSP100322-372	Total/NA	Air	40CFR50 App B	631107
320-94004-8	GESTSP100322-373	Total/NA	Air	40CFR50 App B	631107

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# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

**Client Sample ID: GESPM100322-370**

**Lab Sample ID: 320-94004-1**

Date Collected: 11/02/22 06:47

Matrix: Air

Date Received: 11/04/22 10:20

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					632201	11/11/22 04:45	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	632228	11/11/22 06:30	█	EET SAC
Total/NA	Analysis	6020		1			632552	11/11/22 12:02	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0162 g	631963	11/07/22 15:30	█	EET SAC

**Client Sample ID: GESTSP100322-370**

**Lab Sample ID: 320-94004-2**

Date Collected: 11/02/22 06:47

Matrix: Air

Date Received: 11/04/22 10:20

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			631969	11/07/22 15:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					631107	11/08/22 09:01	█	EET SAC

**Client Sample ID: GESPM100322-371**

**Lab Sample ID: 320-94004-3**

Date Collected: 11/02/22 06:36

Matrix: Air

Date Received: 11/04/22 10:20

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					632201	11/11/22 04:45	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	632228	11/11/22 06:30	█	EET SAC
Total/NA	Analysis	6020		1			632552	11/11/22 12:11	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0256 g	631963	11/07/22 15:30	█	EET SAC

**Client Sample ID: GESTSP100322-371**

**Lab Sample ID: 320-94004-4**

Date Collected: 11/02/22 06:36

Matrix: Air

Date Received: 11/04/22 10:20

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			631969	11/07/22 15:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					631107	11/08/22 09:01	█	EET SAC

**Client Sample ID: GESPM100322-372**

**Lab Sample ID: 320-94004-5**

Date Collected: 11/03/22 06:53

Matrix: Air

Date Received: 11/04/22 10:20

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					632201	11/11/22 04:45	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	632228	11/11/22 06:30	█	EET SAC
Total/NA	Analysis	6020		1			632552	11/11/22 12:14	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0128 g	631963	11/07/22 15:30	█	EET SAC



# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

**Client Sample ID: GESTSP100322-372**

**Lab Sample ID: 320-94004-6**

Date Collected: 11/03/22 06:53

Matrix: Air

Date Received: 11/04/22 10:20

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			631969	11/07/22 15:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					631107	11/08/22 09:01	█	EET SAC

**Client Sample ID: GESPM100322-373**

**Lab Sample ID: 320-94004-7**

Date Collected: 11/03/22 06:39

Matrix: Air

Date Received: 11/04/22 10:20

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					632201	11/11/22 04:45	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	632228	11/11/22 06:30	█	EET SAC
Total/NA	Analysis	6020		1			632552	11/11/22 12:18	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0196 g	631963	11/07/22 15:30	█	EET SAC

**Client Sample ID: GESTSP100322-373**

**Lab Sample ID: 320-94004-8**

Date Collected: 11/03/22 06:39

Matrix: Air

Date Received: 11/04/22 10:20

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			631969	11/07/22 15:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					631107	11/08/22 09:01	█	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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

## 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

- 1
- 2
- 3
- 4
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# Method Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94004-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-94004-1	GESPM100322-370	Air	11/02/22 06:47	11/04/22 10:20
320-94004-2	GESTSP100322-370	Air	11/02/22 06:47	11/04/22 10:20
320-94004-3	GESPM100322-371	Air	11/02/22 06:36	11/04/22 10:20
320-94004-4	GESTSP100322-371	Air	11/02/22 06:36	11/04/22 10:20
320-94004-5	GESPM100322-372	Air	11/03/22 06:53	11/04/22 10:20
320-94004-6	GESTSP100322-372	Air	11/03/22 06:53	11/04/22 10:20
320-94004-7	GESPM100322-373	Air	11/03/22 06:39	11/04/22 10:20
320-94004-8	GESTSP100322-373	Air	11/03/22 06:39	11/04/22 10:20

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**CHAIN-OF-CUSTODY RECORD**

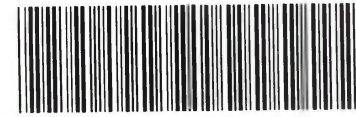
Gilbane Federal  
 2300 Clayton Road, Suite 1050, Concord, CA 94520

**COC # KT110322AIRE**



<b>Project Name:</b> Hunters Point Shipyard, Parcel E RA Phase 2	<b>Laboratory:</b> EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN)	<b>Event:</b> Parcel E Phase 2 Air Monitoring
<b>Project Number:</b> J310000400	<b>POC:</b> [Redacted]	
<b>WBS Code:</b> J310000400-016	<b>Ship to:</b> 880 Riverside Parkway, West Sacramento, CA 95605	

<b>Comments:</b>	<b>Analytical Test Method</b>	CAAIR - Air PM10 N0500 - Air TSP SW6020 - Air Pb Mn Cu	<b>Code</b> Matrix	
			A Air	
<b>Equipment:</b>			<b>Code</b> Container/Preservative	
			1 1x Envelope, None	



320-94004 Chain of Custody

Event: Parcel E Phase 2 Air Monitoring															
Sample ID	Matrix	Date	Time	Samp Init.							Location ID	Sample Type	Depth (ft bgs) Top - Bottom	Cooler	Comments
1	GESPM100322-370	A	11/02/2022	0647	[Redacted]	X	X				AMSE1	N1	0.00 0.00	1	VOLUME: 1713.94 (M3)
2	GESTSP100322-370	A	11/02/2022	0647	[Redacted]		X				AMSE1	N1	0.00 0.00	1	VOLUME: 1644.11 (M3)
3	GESPM100322-371	A	11/02/2022	0636	[Redacted]	X	X				AMSE2	N1	0.00 0.00	1	VOLUME: 1753.53 (M3)
4	GESTSP100322-371	A	11/02/2022	0636	[Redacted]		X				AMSE2	N1	0.00 0.00	1	VOLUME: 1762.84 (M3)
5	GESPM100322-372	A	11/03/2022	0653	[Redacted]	X	X				AMSE1	N1	0.00 0.00	1	VOLUME: 1650.22 (M3)
6	GESTSP100322-372	A	11/03/2022	0653	[Redacted]		X				AMSE1	N1	0.00 0.00	1	VOLUME: 1649.11 (M3)
7	GESPM100322-373	A	11/03/2022	0639	[Redacted]	X	X				AMSE2	N1	0.00 0.00	1	VOLUME: 1757.31 (M3)
8	GESTSP100322-373	A	11/03/2022	0639	[Redacted]		X				AMSE2	N1	0.00 0.00	1	VOLUME: 1763.21 (M3)
9															
10															

Turnaround Time: 5 days

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[Redacted]	11-3-22	1600	FEDEX [Redacted]	11-3-22	1600	Shipping Date: 11/3/2022 / FedEx 7703 8751 0478
			[Redacted]	11/4/22	1020	
						Received by Laboratory: (Signature, Date, Time) & condition

15.3°C



# Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-94004-1

**Login Number: 94004**

**List Source: Eurofins Sacramento**

**List Number: 1**

**Creator:** [REDACTED]

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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 <math><6\text{mm}</math> (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: 

GES-AIS LLC

1501 W Fountainhead Parkway

Ste 550

Tempe Arizona 85282

Generated 11/16/2022 9:07:49 AM

## JOB DESCRIPTION

Hunters Point, Parcel E, Phase 2

## JOB NUMBER

320-94134-1



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# Definitions/Glossary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

## 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.
α	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

# Case Narrative

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

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**Job ID: 320-94134-1**

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**Laboratory: Eurofins Sacramento**

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**Narrative**

**Job Narrative  
320-94134-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 11/9/2022 9:35 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 18.3° C.

**Metals**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

## Client Sample ID: GESPM100322-374

## Lab Sample ID: 320-94134-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0061		0.0022	0.00032	ug/m3 (Air)	1		6020	Total/NA
Copper	0.054		0.0043	0.00032	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.017		0.0022	0.00030	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	10		0.90	0.90	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-374

## Lab Sample ID: 320-94134-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	30.7124		0.9421	0.9421	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM100322-375

## Lab Sample ID: 320-94134-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0017	J	0.0021	0.00031	ug/m3 (Air)	1		6020	Total/NA
Copper	0.020		0.0041	0.00031	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.013		0.0021	0.00029	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	1.7		0.86	0.86	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-375

## Lab Sample ID: 320-94134-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	4.3500		0.8700	0.8700	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM100322-376

## Lab Sample ID: 320-94134-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0022		0.00070	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.032		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0052		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	9.8		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-376

## Lab Sample ID: 320-94134-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	18.9462		0.3076	0.3076	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM100322-377

## Lab Sample ID: 320-94134-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00071		0.00069	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.023		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0015		0.00069	0.000096	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	4.7		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-377

## Lab Sample ID: 320-94134-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	17.3870		0.2841	0.2841	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

## Client Sample ID: GESPM100322-374

Lab Sample ID: 320-94134-1

Date Collected: 11/03/22 14:44

Matrix: Air

Date Received: 11/09/22 09:35

Sample Container: Folder/Filter

### Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0061		0.0022	0.00032	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:47	1
Copper	0.054		0.0043	0.00032	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:47	1
Manganese	0.017		0.0022	0.00030	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:47	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	10		0.90	0.90	ug/m3			11/10/22 07:30	1

## Client Sample ID: GESTSP100322-374

Lab Sample ID: 320-94134-2

Date Collected: 11/03/22 14:44

Matrix: Air

Date Received: 11/09/22 09:35

Sample Container: Folder/Filter

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	30.7124		0.9421	0.9421	ug/m3 (Air)			11/10/22 07:30	1

## Client Sample ID: GESPM100322-375

Lab Sample ID: 320-94134-3

Date Collected: 11/03/22 14:34

Matrix: Air

Date Received: 11/09/22 09:35

Sample Container: Folder/Filter

### Method: SW846 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0017	J	0.0021	0.00031	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:57	1
Copper	0.020		0.0041	0.00031	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:57	1
Manganese	0.013		0.0021	0.00029	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:57	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	1.7		0.86	0.86	ug/m3			11/10/22 07:30	1

## Client Sample ID: GESTSP100322-375

Lab Sample ID: 320-94134-4

Date Collected: 11/03/22 14:34

Matrix: Air

Date Received: 11/09/22 09:35

Sample Container: Folder/Filter

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	4.3500		0.8700	0.8700	ug/m3 (Air)			11/10/22 07:30	1

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

**Client Sample ID: GESPM100322-376**

**Lab Sample ID: 320-94134-5**

Date Collected: 11/08/22 07:07

Matrix: Air

Date Received: 11/09/22 09:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0022		0.00070	0.00010	ug/m3 (Air)		11/15/22 09:00	11/15/22 14:00	1
Copper	0.032		0.0014	0.00010	ug/m3 (Air)		11/15/22 09:00	11/15/22 14:00	1
Manganese	0.0052		0.00070	0.000098	ug/m3 (Air)		11/15/22 09:00	11/15/22 14:00	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	9.8		0.29	0.29	ug/m3			11/10/22 07:30	1

**Client Sample ID: GESTSP100322-376**

**Lab Sample ID: 320-94134-6**

Date Collected: 11/08/22 07:07

Matrix: Air

Date Received: 11/09/22 09:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	18.9462		0.3076	0.3076	ug/m3 (Air)			11/10/22 07:30	1

**Client Sample ID: GESPM100322-377**

**Lab Sample ID: 320-94134-7**

Date Collected: 11/08/22 06:55

Matrix: Air

Date Received: 11/09/22 09:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00071		0.00069	0.00010	ug/m3 (Air)		11/15/22 09:00	11/15/22 14:04	1
Copper	0.023		0.0014	0.00010	ug/m3 (Air)		11/15/22 09:00	11/15/22 14:04	1
Manganese	0.0015		0.00069	0.000096	ug/m3 (Air)		11/15/22 09:00	11/15/22 14:04	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	4.7		0.29	0.29	ug/m3			11/10/22 07:30	1

**Client Sample ID: GESTSP100322-377**

**Lab Sample ID: 320-94134-8**

Date Collected: 11/08/22 06:55

Matrix: Air

Date Received: 11/09/22 09:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	17.3870		0.2841	0.2841	ug/m3 (Air)			11/10/22 07:30	1

# QC Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 320-633057/1-B**  
**Matrix: Air**  
**Analysis Batch: 633265**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 633091**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:38	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:38	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		11/15/22 09:00	11/15/22 13:38	1

**Lab Sample ID: LCS 320-633057/2-B**  
**Matrix: Air**  
**Analysis Batch: 633265**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 633091**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.240	0.231		ug/m3 (Air)		96	86 - 111
Copper	0.240	0.239		ug/m3 (Air)		100	85 - 110
Manganese	0.240	0.243		ug/m3 (Air)		101	88 - 110

**Lab Sample ID: LCSD 320-633057/3-B**  
**Matrix: Air**  
**Analysis Batch: 633265**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 633091**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.240	0.234		ug/m3 (Air)		98	86 - 111	1	15
Copper	0.240	0.244		ug/m3 (Air)		102	85 - 110	2	15
Manganese	0.240	0.249		ug/m3 (Air)		104	88 - 110	2	15

# QC Association Summary

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

## Metals

### Pre Prep Batch: 633057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94134-1	GESPM100322-374	Total/NA	Air	Filter to Air	
320-94134-3	GESPM100322-375	Total/NA	Air	Filter to Air	
320-94134-5	GESPM100322-376	Total/NA	Air	Filter to Air	
320-94134-7	GESPM100322-377	Total/NA	Air	Filter to Air	
MB 320-633057/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-633057/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-633057/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

### Prep Batch: 633091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94134-1	GESPM100322-374	Total/NA	Air	3050B	633057
320-94134-3	GESPM100322-375	Total/NA	Air	3050B	633057
320-94134-5	GESPM100322-376	Total/NA	Air	3050B	633057
320-94134-7	GESPM100322-377	Total/NA	Air	3050B	633057
MB 320-633057/1-B	Method Blank	Total/NA	Air	3050B	633057
LCS 320-633057/2-B	Lab Control Sample	Total/NA	Air	3050B	633057
LCSD 320-633057/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	633057

### Analysis Batch: 633265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94134-1	GESPM100322-374	Total/NA	Air	6020	633091
320-94134-3	GESPM100322-375	Total/NA	Air	6020	633091
320-94134-5	GESPM100322-376	Total/NA	Air	6020	633091
320-94134-7	GESPM100322-377	Total/NA	Air	6020	633091
MB 320-633057/1-B	Method Blank	Total/NA	Air	6020	633091
LCS 320-633057/2-B	Lab Control Sample	Total/NA	Air	6020	633091
LCSD 320-633057/3-B	Lab Control Sample Dup	Total/NA	Air	6020	633091

## General Chemistry

### Pre Prep Batch: 633273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94134-2	GESTSP100322-374	Total/NA	Air	Filter to Air	
320-94134-4	GESTSP100322-375	Total/NA	Air	Filter to Air	
320-94134-6	GESTSP100322-376	Total/NA	Air	Filter to Air	
320-94134-8	GESTSP100322-377	Total/NA	Air	Filter to Air	

### Analysis Batch: 633274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94134-2	GESTSP100322-374	Total/NA	Air	40CFR50 App B	633273
320-94134-4	GESTSP100322-375	Total/NA	Air	40CFR50 App B	633273
320-94134-6	GESTSP100322-376	Total/NA	Air	40CFR50 App B	633273
320-94134-8	GESTSP100322-377	Total/NA	Air	40CFR50 App B	633273

### Analysis Batch: 633275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94134-1	GESPM100322-374	Total/NA	Air	PM10	
320-94134-3	GESPM100322-375	Total/NA	Air	PM10	
320-94134-5	GESPM100322-376	Total/NA	Air	PM10	
320-94134-7	GESPM100322-377	Total/NA	Air	PM10	

Eurofins Sacramento

# Lab Chronicle

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

**Client Sample ID: GESPM100322-374**

**Lab Sample ID: 320-94134-1**

Date Collected: 11/03/22 14:44

Matrix: Air

Date Received: 11/09/22 09:35

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					633057	11/15/22 08:22		EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	633091	11/15/22 09:00		EET SAC
Total/NA	Analysis	6020		1			633265	11/15/22 13:47		EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0057 g	633275	11/10/22 07:30		EET SAC

**Client Sample ID: GESTSP100322-374**

**Lab Sample ID: 320-94134-2**

Date Collected: 11/03/22 14:44

Matrix: Air

Date Received: 11/09/22 09:35

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			633274	11/10/22 07:30		EET SAC
Total/NA	Pre Prep	Filter to Air					633273	11/15/22 16:13		EET SAC

**Client Sample ID: GESPM100322-375**

**Lab Sample ID: 320-94134-3**

Date Collected: 11/03/22 14:34

Matrix: Air

Date Received: 11/09/22 09:35

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					633057	11/15/22 08:22		EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	633091	11/15/22 09:00		EET SAC
Total/NA	Analysis	6020		1			633265	11/15/22 13:57		EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0010 g	633275	11/10/22 07:30		EET SAC

**Client Sample ID: GESTSP100322-375**

**Lab Sample ID: 320-94134-4**

Date Collected: 11/03/22 14:34

Matrix: Air

Date Received: 11/09/22 09:35

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			633274	11/10/22 07:30		EET SAC
Total/NA	Pre Prep	Filter to Air					633273	11/15/22 16:13		EET SAC

**Client Sample ID: GESPM100322-376**

**Lab Sample ID: 320-94134-5**

Date Collected: 11/08/22 07:07

Matrix: Air

Date Received: 11/09/22 09:35

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					633057	11/15/22 08:22		EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	633091	11/15/22 09:00		EET SAC
Total/NA	Analysis	6020		1			633265	11/15/22 14:00		EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0169 g	633275	11/10/22 07:30		EET SAC



# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

**Client Sample ID: GESTSP100322-376**

**Lab Sample ID: 320-94134-6**

Date Collected: 11/08/22 07:07

Matrix: Air

Date Received: 11/09/22 09:35

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			633274	11/10/22 07:30		EET SAC
Total/NA	Pre Prep	Filter to Air					633273	11/15/22 16:13		EET SAC

**Client Sample ID: GESPM100322-377**

**Lab Sample ID: 320-94134-7**

Date Collected: 11/08/22 06:55

Matrix: Air

Date Received: 11/09/22 09:35

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					633057	11/15/22 08:22		EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	633091	11/15/22 09:00		EET SAC
Total/NA	Analysis	6020		1			633265	11/15/22 14:04		EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0082 g	633275	11/10/22 07:30		EET SAC

**Client Sample ID: GESTSP100322-377**

**Lab Sample ID: 320-94134-8**

Date Collected: 11/08/22 06:55

Matrix: Air

Date Received: 11/09/22 09:35

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			633274	11/10/22 07:30		EET SAC
Total/NA	Pre Prep	Filter to Air					633273	11/15/22 16:13		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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

## 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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94134-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-94134-1	GESPM100322-374	Air	11/03/22 14:44	11/09/22 09:35
320-94134-2	GESTSP100322-374	Air	11/03/22 14:44	11/09/22 09:35
320-94134-3	GESPM100322-375	Air	11/03/22 14:34	11/09/22 09:35
320-94134-4	GESTSP100322-375	Air	11/03/22 14:34	11/09/22 09:35
320-94134-5	GESPM100322-376	Air	11/08/22 07:07	11/09/22 09:35
320-94134-6	GESTSP100322-376	Air	11/08/22 07:07	11/09/22 09:35
320-94134-7	GESPM100322-377	Air	11/08/22 06:55	11/09/22 09:35
320-94134-8	GESTSP100322-377	Air	11/08/22 06:55	11/09/22 09:35

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**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal  
2300 Clayton Road, Suite 1050, Concord, CA 94520

**COC # KT110822AIRE**



<b>Project Name:</b> Hunters Point Shipyard, Parcel E RA Phase 2	<b>Laboratory:</b> EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN)	<b>Event:</b> Parcel E Phase 2 Air Monitoring
<b>Project Number:</b> J310000400	<b>POC:</b> [Redacted]	
<b>WBS Code:</b> J310000400-016	<b>Ship to:</b> 880 Riverside Parkway, West Sacramento, CA 95605	

<b>Comments:</b>	<b>Analytical Test Method</b> CAAIR - Air PM10 N0500 - Air TSP SW6020 - Air Pb Mn Cu	<b>Code</b> Matrix	A Air
		<b>Code</b> Container/Preservative	1 1x Envelope, None
<b>Equipment:</b>		 320-94134 Chain of Custody	

Event: Parcel E Phase 2 Air Monitoring													
Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method			Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments
					CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn Cu			Top	Bottom		
1	GESPM100322-374	A	11/03/2022	1444	[Redacted]	X	X	AMSE1	N2	0.00	0.00	1	VOLUME: 555.35 (M3)
2	GESTSP100322-374	A	11/03/2022	1444	[Redacted]		X	AMSE1	N2	0.00	0.00	1	VOLUME: 530.73 (M3)
3	GESPM100322-375	A	11/03/2022	1434	[Redacted]	X	X	AMSE2	N2	0.00	0.00	1	VOLUME: 580.62 (M3)
4	GESTSP100322-375	A	11/03/2022	1434	[Redacted]		X	AMSE2	N2	0.00	0.00	1	VOLUME: 574.71 (M3)
5	GESPM100322-376	A	11/08/2022	0707	[Redacted]	X	X	AMSE1	N1	0.00	0.00	1	VOLUME: 1719.13 (M3)
6	GESTSP100322-376	A	11/08/2022	0707	[Redacted]		X	AMSE1	N1	0.00	0.00	1	VOLUME: 1625.66 (M3)
7	GESPM100322-377	A	11/08/2022	0655	[Redacted]	X	X	AMSE2	N1	0.00	0.00	1	VOLUME: 1749.60 (M3)
8	GESTSP100322-377	A	11/08/2022	0655	[Redacted]		X	AMSE2	N1	0.00	0.00	1	VOLUME: 1759.94 (M3)
9					[Redacted]								
10					[Redacted]								

**Turnaround Time: 5 days**

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[Redacted]	11/8/22	1600	FEDEX	11/8/22	1600	Shipping Date: 11/8/2022 / FedEx 7704 1960 3868
			[Redacted]	11-9-22	0935	
						<b>Received by Laboratory: (Signature, Date, Time) &amp; condition</b>

GES.Navy COC Field  
November 08, 2022

18.3°C

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11/16/2022



# Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-94134-1

**Login Number: 94134**

**List Source: Eurofins Sacramento**

**List Number: 1**

**Creator:** [REDACTED]

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Eurofins Sacramento

## 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

Generated  
11/16/2022 9:07:49 AM

Authorized for release by  
Project Manager I



# ANALYTICAL REPORT

## PREPARED FOR

Attn: 

GES-AIS LLC

1501 W Fountainhead Parkway

Ste 550

Tempe Arizona 85282

Generated 11/21/2022 12:08:07 PM

## JOB DESCRIPTION

Hunters Point, Parcel E, Phase 2

## JOB NUMBER

320-94312-1





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# Definitions/Glossary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

# Case Narrative

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

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**Job ID: 320-94312-1**

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**Laboratory: Eurofins Sacramento**

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**Narrative**

**Job Narrative**  
**320-94312-1**

**Receipt**

The samples were received on 11/11/2022 9:35 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 18.0° C.

**Metals**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

## Client Sample ID: GESPM100322-378

## Lab Sample ID: 320-94312-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0014		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.026		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0028		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	9.8		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP100322-378

## Lab Sample ID: 320-94312-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	11.3060		0.3056	0.3056	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-433

## Lab Sample ID: 320-94312-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0018		0.00069	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.43		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0025		0.00069	0.000097	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	12		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-433

## Lab Sample ID: 320-94312-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	13.7577		0.2854	0.2854	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

**Client Sample ID: GESPM100322-378**

**Lab Sample ID: 320-94312-1**

Date Collected: 11/10/22 06:39

Matrix: Air

Date Received: 11/11/22 09:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0014		0.00070	0.00011	ug/m3 (Air)		11/17/22 11:34	11/17/22 15:27	1
Copper	0.026		0.0014	0.00011	ug/m3 (Air)		11/17/22 11:34	11/17/22 15:27	1
Manganese	0.0028		0.00070	0.000098	ug/m3 (Air)		11/17/22 11:34	11/17/22 15:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	9.8		0.29	0.29	ug/m3			11/14/22 16:00	1

**Client Sample ID: GESTSP100322-378**

**Lab Sample ID: 320-94312-2**

Date Collected: 11/10/22 06:39

Matrix: Air

Date Received: 11/11/22 09:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	11.3060		0.3056	0.3056	ug/m3 (Air)			11/14/22 16:00	1

**Client Sample ID: GESPM101722-433**

**Lab Sample ID: 320-94312-3**

Date Collected: 11/10/22 06:31

Matrix: Air

Date Received: 11/11/22 09:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0018		0.00069	0.00010	ug/m3 (Air)		11/17/22 11:34	11/17/22 15:36	1
Copper	0.43		0.0014	0.00010	ug/m3 (Air)		11/17/22 11:34	11/17/22 15:36	1
Manganese	0.0025		0.00069	0.000097	ug/m3 (Air)		11/17/22 11:34	11/17/22 15:36	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	12		0.29	0.29	ug/m3			11/14/22 16:00	1

**Client Sample ID: GESTSP101722-433**

**Lab Sample ID: 320-94312-4**

Date Collected: 11/10/22 06:31

Matrix: Air

Date Received: 11/11/22 09:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	13.7577		0.2854	0.2854	ug/m3 (Air)			11/14/22 16:00	1

# QC Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 320-633580/1-B**  
**Matrix: Air**  
**Analysis Batch: 633979**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 633648**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	ND		0.0012	0.00018	ug/m3 (Air)		11/17/22 11:34	11/18/22 11:12	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		11/17/22 11:34	11/18/22 11:12	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		11/17/22 11:34	11/18/22 11:12	1

**Lab Sample ID: LCS 320-633580/2-B**  
**Matrix: Air**  
**Analysis Batch: 633979**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 633648**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	0.240	0.253		ug/m3 (Air)		105	85 - 110
Manganese	0.240	0.258		ug/m3 (Air)		107	88 - 110

**Lab Sample ID: LCSD 320-633580/3-B**  
**Matrix: Air**  
**Analysis Batch: 633979**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 633648**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Lead	0.240	0.258		ug/m3 (Air)		107	86 - 111	0	15
Copper	0.240	0.255		ug/m3 (Air)		106	85 - 110	1	15
Manganese	0.240	0.260		ug/m3 (Air)		108	88 - 110	1	15

# QC Association Summary

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

## Metals

### Pre Prep Batch: 633580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94312-1	GESPM100322-378	Total/NA	Air	Filter to Air	
320-94312-3	GESPM101722-433	Total/NA	Air	Filter to Air	
MB 320-633580/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-633580/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-633580/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

### Prep Batch: 633648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94312-1	GESPM100322-378	Total/NA	Air	3050B	633580
320-94312-3	GESPM101722-433	Total/NA	Air	3050B	633580
MB 320-633580/1-B	Method Blank	Total/NA	Air	3050B	633580
LCS 320-633580/2-B	Lab Control Sample	Total/NA	Air	3050B	633580
LCSD 320-633580/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	633580

### Analysis Batch: 633830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94312-1	GESPM100322-378	Total/NA	Air	6020	633648
320-94312-3	GESPM101722-433	Total/NA	Air	6020	633648

### Analysis Batch: 633979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-633580/1-B	Method Blank	Total/NA	Air	6020	633648
LCS 320-633580/2-B	Lab Control Sample	Total/NA	Air	6020	633648
LCSD 320-633580/3-B	Lab Control Sample Dup	Total/NA	Air	6020	633648

## General Chemistry

### Pre Prep Batch: 633727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94312-2	GESTSP100322-378	Total/NA	Air	Filter to Air	
320-94312-4	GESTSP101722-433	Total/NA	Air	Filter to Air	

### Analysis Batch: 633732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94312-1	GESPM100322-378	Total/NA	Air	PM10	
320-94312-3	GESPM101722-433	Total/NA	Air	PM10	

### Analysis Batch: 633822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94312-2	GESTSP100322-378	Total/NA	Air	40CFR50 App B	633727
320-94312-4	GESTSP101722-433	Total/NA	Air	40CFR50 App B	633727

# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

**Client Sample ID: GESPM100322-378**

**Lab Sample ID: 320-94312-1**

Date Collected: 11/10/22 06:39

Matrix: Air

Date Received: 11/11/22 09:35

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					633580	11/17/22 07:44	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	633648	11/17/22 11:34	█	EET SAC
Total/NA	Analysis	6020		1			633830	11/17/22 15:27	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0168 g	633732	11/14/22 16:00	█	EET SAC

**Client Sample ID: GESTSP100322-378**

**Lab Sample ID: 320-94312-2**

Date Collected: 11/10/22 06:39

Matrix: Air

Date Received: 11/11/22 09:35

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			633822	11/14/22 16:00	█	EET SAC
Total/NA	Pre Prep	Filter to Air					633727	11/17/22 14:04	█	EET SAC

**Client Sample ID: GESPM101722-433**

**Lab Sample ID: 320-94312-3**

Date Collected: 11/10/22 06:31

Matrix: Air

Date Received: 11/11/22 09:35

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					633580	11/17/22 07:44	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	633648	11/17/22 11:34	█	EET SAC
Total/NA	Analysis	6020		1			633830	11/17/22 15:36	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0202 g	633732	11/14/22 16:00	█	EET SAC

**Client Sample ID: GESTSP101722-433**

**Lab Sample ID: 320-94312-4**

Date Collected: 11/10/22 06:31

Matrix: Air

Date Received: 11/11/22 09:35

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			633822	11/14/22 16:00	█	EET SAC
Total/NA	Pre Prep	Filter to Air					633727	11/17/22 14:04	█	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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

## 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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94312-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-94312-1	GESPM100322-378	Air	11/10/22 06:39	11/11/22 09:35
320-94312-2	GESTSP100322-378	Air	11/10/22 06:39	11/11/22 09:35
320-94312-3	GESPM101722-433	Air	11/10/22 06:31	11/11/22 09:35
320-94312-4	GESTSP101722-433	Air	11/10/22 06:31	11/11/22 09:35

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**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal  
 2300 Clayton Road, Suite 1050, Concord, CA 94520

**COC # KT111022AIRE**



<b>Project Name:</b> Hunters Point Shipyard, Parcel E RA Phase 2	<b>Laboratory:</b> EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN)	<b>Event:</b> Parcel E Phase 2 Air Monitoring
<b>Project Number:</b> J310000400	<b>POC:</b> [Redacted]	
<b>WBS Code:</b> J310000400-016	<b>Ship to:</b> 880 Riverside Parkway, West Sacramento, CA 95605	

<b>Comments:</b>	<b>Analytical Test Method</b>	CAAIR - Air PM10 N0500 - Air TSP SW6020 - Air Pb Mn Cu	<b>Code</b> Matrix	
			A Air	
<b>Equipment:</b>			<b>Code</b> Container/Preservative	
			1 1x Envelope, None	



320-94312 Chain of Custody

Event: Parcel E Phase 2 Air Monitoring																		
Sample ID	Matrix	Date	Time	Samp Init.									Location ID	Sample Type	Depth (ft bgs) Top - Bottom	Cooler	Comments	
1	GESPM100322-378	A	11/10/2022	0639	[Redacted]	X	X						AMSE1	N1	0.00	0.00	1	VOLUME: 1709.41 (M3)
2	GESTSP100322-378	A	11/10/2022	0639	[Redacted]		X						AMSE1	N1	0.00	0.00	1	VOLUME: 1636.30 (M3)
3	GESPM101722-433	A	11/10/2022	0631	[Redacted]	X	X						AMSE2	N1	0.00	0.00	1	VOLUME: 1730.23 (M3)
4	GESTSP101722-433	A	11/10/2022	0631	[Redacted]		X						AMSE2	N1	0.00	0.00	1	VOLUME: 1751.75 (M3)
5					[Redacted]													
6					[Redacted]													

Turnaround Time: 5 days

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[Redacted]	11/10/22	1600	FedEx	11/10/22	1600	Shipping Date: 11/10/2022 / FedEx 7704 4700 2523
			[Redacted]	11/11/22	955	
						<b>Received by Laboratory: (Signature, Date, Time) &amp; condition</b>

GES.Navy\_COC\_Field  
November 10, 2022

18.0°

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11/21/2022



# Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-94312-1

**Login Number: 94312**

**List Source: Eurofins Sacramento**

**List Number: 1**

**Creator:** [REDACTED]

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Eurofins Sacramento

## 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.

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Authorized for release by  
[REDACTED], Project Manager I

Designee for  
[REDACTED], Project Manager I

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: [REDACTED]

GES-AIS LLC

1501 W Fountainhead Parkway

Ste 550

Tempe, Arizona 85282

Generated 12/5/2022 11:06:36 AM

## JOB DESCRIPTION

Hunters Point, Parcel E, Phase 2

## JOB NUMBER

320-94682-1

# Eurofins Sacramento

## 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.

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# Definitions/Glossary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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.
α	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

# Case Narrative

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

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**Job ID: 320-94682-1**

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**Laboratory: Eurofins Sacramento**

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**Narrative**

**Job Narrative**  
**320-94682-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 11/23/2022 9:35 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 20.5° C.

**Receipt Exceptions**

The container label for the samples did not match the information listed on the Chain-of-Custody (COC). There was no date or time on the samples.

**Metals**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

## Client Sample ID: GESPM101722-438

## Lab Sample ID: 320-94682-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0053		0.0024	0.00036	ug/m3 (Air)	1		6020	Total/NA
Copper	0.083	B	0.0049	0.00036	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.015		0.0024	0.00034	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	31		1.0	1.0	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-438

## Lab Sample ID: 320-94682-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	43.6746		1.0601	1.0601	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-439

## Lab Sample ID: 320-94682-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0046		0.0024	0.00036	ug/m3 (Air)	1		6020	Total/NA
Copper	0.17	B	0.0048	0.00036	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.010		0.0024	0.00034	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	23		1.0	1.0	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-439

## Lab Sample ID: 320-94682-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	22.6298		0.9839	0.9839	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-440

## Lab Sample ID: 320-94682-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0057		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.042	B	0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.014		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	21		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-440

## Lab Sample ID: 320-94682-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	39.8861		0.3068	0.3068	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-441

## Lab Sample ID: 320-94682-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0048		0.00070	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.069	B	0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.013		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	29		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-441

## Lab Sample ID: 320-94682-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	40.2378		0.2903	0.2903	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

**Client Sample ID: GESPM101722-438**

**Lab Sample ID: 320-94682-1**

Date Collected: 11/17/22 13:50

Matrix: Air

Date Received: 11/23/22 09:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0053		0.0024	0.00036	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:41	1
Copper	0.083	B	0.0049	0.00036	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:41	1
Manganese	0.015		0.0024	0.00034	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:41	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	31		1.0	1.0	ug/m3			11/30/22 07:30	1

**Client Sample ID: GESTSP101722-438**

**Lab Sample ID: 320-94682-2**

Date Collected: 11/17/22 13:50

Matrix: Air

Date Received: 11/23/22 09:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	43.6746		1.0601	1.0601	ug/m3 (Air)			11/30/22 07:30	1

**Client Sample ID: GESPM101722-439**

**Lab Sample ID: 320-94682-3**

Date Collected: 11/17/22 13:38

Matrix: Air

Date Received: 11/23/22 09:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0046		0.0024	0.00036	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:51	1
Copper	0.17	B	0.0048	0.00036	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:51	1
Manganese	0.010		0.0024	0.00034	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:51	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	23		1.0	1.0	ug/m3			11/30/22 07:30	1

**Client Sample ID: GESTSP101722-439**

**Lab Sample ID: 320-94682-4**

Date Collected: 11/17/22 13:38

Matrix: Air

Date Received: 11/23/22 09:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	22.6298		0.9839	0.9839	ug/m3 (Air)			11/30/22 07:30	1

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

**Client Sample ID: GESPM101722-440**

**Lab Sample ID: 320-94682-5**

Date Collected: 11/22/22 07:04

Matrix: Air

Date Received: 11/23/22 09:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0057		0.00070	0.00011	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:54	1
Copper	0.042	B	0.0014	0.00011	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:54	1
Manganese	0.014		0.00070	0.000098	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:54	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	21		0.29	0.29	ug/m3			11/30/22 07:30	1

**Client Sample ID: GESTSP101722-440**

**Lab Sample ID: 320-94682-6**

Date Collected: 11/22/22 07:04

Matrix: Air

Date Received: 11/23/22 09:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	39.8861		0.3068	0.3068	ug/m3 (Air)			11/30/22 07:30	1

**Client Sample ID: GESPM101722-441**

**Lab Sample ID: 320-94682-7**

Date Collected: 11/22/22 07:26

Matrix: Air

Date Received: 11/23/22 09:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0048		0.00070	0.00010	ug/m3 (Air)		12/02/22 06:00	12/02/22 12:04	1
Copper	0.069	B	0.0014	0.00010	ug/m3 (Air)		12/02/22 06:00	12/02/22 12:04	1
Manganese	0.013		0.00070	0.000098	ug/m3 (Air)		12/02/22 06:00	12/02/22 12:04	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	29		0.29	0.29	ug/m3			11/30/22 07:30	1

**Client Sample ID: GESTSP101722-441**

**Lab Sample ID: 320-94682-8**

Date Collected: 11/22/22 07:26

Matrix: Air

Date Received: 11/23/22 09:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	40.2378		0.2903	0.2903	ug/m3 (Air)			11/30/22 07:30	1

# QC Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 320-636765/1-B**  
**Matrix: Air**  
**Analysis Batch: 636896**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 636772**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:32	1
Copper	0.000240	J	0.0024	0.00018	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:32	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		12/02/22 06:00	12/02/22 11:32	1

**Lab Sample ID: LCS 320-636765/2-B**  
**Matrix: Air**  
**Analysis Batch: 636896**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 636772**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.240	0.256		ug/m3 (Air)		107	86 - 111
Copper	0.240	0.255		ug/m3 (Air)		106	85 - 110
Manganese	0.240	0.257		ug/m3 (Air)		107	88 - 110

**Lab Sample ID: LCSD 320-636765/3-B**  
**Matrix: Air**  
**Analysis Batch: 636896**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 636772**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.240	0.249		ug/m3 (Air)		104	86 - 111	3	15
Copper	0.240	0.254		ug/m3 (Air)		106	85 - 110	0	15
Manganese	0.240	0.257		ug/m3 (Air)		107	88 - 110	0	15

# QC Association Summary

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

## Metals

### Pre Prep Batch: 636765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94682-1	GESPM101722-438	Total/NA	Air	Filter to Air	
320-94682-3	GESPM101722-439	Total/NA	Air	Filter to Air	
320-94682-5	GESPM101722-440	Total/NA	Air	Filter to Air	
320-94682-7	GESPM101722-441	Total/NA	Air	Filter to Air	
MB 320-636765/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-636765/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-636765/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

### Prep Batch: 636772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94682-1	GESPM101722-438	Total/NA	Air	3050B	636765
320-94682-3	GESPM101722-439	Total/NA	Air	3050B	636765
320-94682-5	GESPM101722-440	Total/NA	Air	3050B	636765
320-94682-7	GESPM101722-441	Total/NA	Air	3050B	636765
MB 320-636765/1-B	Method Blank	Total/NA	Air	3050B	636765
LCS 320-636765/2-B	Lab Control Sample	Total/NA	Air	3050B	636765
LCSD 320-636765/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	636765

### Analysis Batch: 636896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94682-1	GESPM101722-438	Total/NA	Air	6020	636772
320-94682-3	GESPM101722-439	Total/NA	Air	6020	636772
320-94682-5	GESPM101722-440	Total/NA	Air	6020	636772
320-94682-7	GESPM101722-441	Total/NA	Air	6020	636772
MB 320-636765/1-B	Method Blank	Total/NA	Air	6020	636772
LCS 320-636765/2-B	Lab Control Sample	Total/NA	Air	6020	636772
LCSD 320-636765/3-B	Lab Control Sample Dup	Total/NA	Air	6020	636772

## General Chemistry

### Pre Prep Batch: 636842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94682-2	GESTSP101722-438	Total/NA	Air	Filter to Air	
320-94682-4	GESTSP101722-439	Total/NA	Air	Filter to Air	
320-94682-6	GESTSP101722-440	Total/NA	Air	Filter to Air	
320-94682-8	GESTSP101722-441	Total/NA	Air	Filter to Air	

### Analysis Batch: 636853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94682-1	GESPM101722-438	Total/NA	Air	PM10	
320-94682-3	GESPM101722-439	Total/NA	Air	PM10	
320-94682-5	GESPM101722-440	Total/NA	Air	PM10	
320-94682-7	GESPM101722-441	Total/NA	Air	PM10	

### Analysis Batch: 636919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94682-2	GESTSP101722-438	Total/NA	Air	40CFR50 App B	636842
320-94682-4	GESTSP101722-439	Total/NA	Air	40CFR50 App B	636842
320-94682-6	GESTSP101722-440	Total/NA	Air	40CFR50 App B	636842
320-94682-8	GESTSP101722-441	Total/NA	Air	40CFR50 App B	636842

Eurofins Sacramento



# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

**Client Sample ID: GESPM101722-438**

**Lab Sample ID: 320-94682-1**

Date Collected: 11/17/22 13:50

Matrix: Air

Date Received: 11/23/22 09:35

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					636765	12/02/22 05:08	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	636772	12/02/22 06:00	█	EET SAC
Total/NA	Analysis	6020		1			636896	12/02/22 11:41	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0152 g	636853	11/30/22 07:30	█	EET SAC

**Client Sample ID: GESTSP101722-438**

**Lab Sample ID: 320-94682-2**

Date Collected: 11/17/22 13:50

Matrix: Air

Date Received: 11/23/22 09:35

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			636919	11/30/22 07:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					636842	12/02/22 09:58	█	EET SAC

**Client Sample ID: GESPM101722-439**

**Lab Sample ID: 320-94682-3**

Date Collected: 11/17/22 13:38

Matrix: Air

Date Received: 11/23/22 09:35

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					636765	12/02/22 05:08	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	636772	12/02/22 06:00	█	EET SAC
Total/NA	Analysis	6020		1			636896	12/02/22 11:51	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0113 g	636853	11/30/22 07:30	█	EET SAC

**Client Sample ID: GESTSP101722-439**

**Lab Sample ID: 320-94682-4**

Date Collected: 11/17/22 13:38

Matrix: Air

Date Received: 11/23/22 09:35

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			636919	11/30/22 07:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					636842	12/02/22 09:58	█	EET SAC

**Client Sample ID: GESPM101722-440**

**Lab Sample ID: 320-94682-5**

Date Collected: 11/22/22 07:04

Matrix: Air

Date Received: 11/23/22 09:35

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					636765	12/02/22 05:08	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	636772	12/02/22 06:00	█	EET SAC
Total/NA	Analysis	6020		1			636896	12/02/22 11:54	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0359 g	636853	11/30/22 07:30	█	EET SAC

# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

**Client Sample ID: GESTSP101722-440**

**Lab Sample ID: 320-94682-6**

Date Collected: 11/22/22 07:04

Matrix: Air

Date Received: 11/23/22 09:35

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			636919	11/30/22 07:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					636842	12/02/22 09:58	█	EET SAC

**Client Sample ID: GESPM101722-441**

**Lab Sample ID: 320-94682-7**

Date Collected: 11/22/22 07:26

Matrix: Air

Date Received: 11/23/22 09:35

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					636765	12/02/22 05:08	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	636772	12/02/22 06:00	█	EET SAC
Total/NA	Analysis	6020		1			636896	12/02/22 12:04	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0507 g	636853	11/30/22 07:30	█	EET SAC

**Client Sample ID: GESTSP101722-441**

**Lab Sample ID: 320-94682-8**

Date Collected: 11/22/22 07:26

Matrix: Air

Date Received: 11/23/22 09:35

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			636919	11/30/22 07:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					636842	12/02/22 09:58	█	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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

## 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

- 1
- 2
- 3
- 4
- 5
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- 7
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- 9
- 10
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# Method Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94682-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-94682-1	GESPM101722-438	Air	11/17/22 13:50	11/23/22 09:35
320-94682-2	GESTSP101722-438	Air	11/17/22 13:50	11/23/22 09:35
320-94682-3	GESPM101722-439	Air	11/17/22 13:38	11/23/22 09:35
320-94682-4	GESTSP101722-439	Air	11/17/22 13:38	11/23/22 09:35
320-94682-5	GESPM101722-440	Air	11/22/22 07:04	11/23/22 09:35
320-94682-6	GESTSP101722-440	Air	11/22/22 07:04	11/23/22 09:35
320-94682-7	GESPM101722-441	Air	11/22/22 07:26	11/23/22 09:35
320-94682-8	GESTSP101722-441	Air	11/22/22 07:26	11/23/22 09:35

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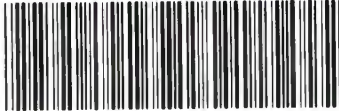
**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal  
2300 Clayton Road, Suite 1050, Concord, CA 94520

**COC # KT112222AIRE**



<b>Project Name:</b> Hunters Point Shipyard, Parcel E RA Phase 2	<b>Laboratory:</b> EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN)	<b>Event:</b> Parcel E Phase 2 Air Monitoring
<b>Project Number:</b> J310000400	<b>POC:</b> [Redacted]	
<b>WBS Code:</b> J310000400-016	<b>Ship to:</b> 880 Riverside Parkway, West Sacramento, CA 95605	

<b>Comments:</b>   Equipme 320-94682 Chain of Custody	<b>Analytical Test Method</b> CAAIR - Air PM10 N0500 - Air TSP SW6020 - Air Pb Mn Cu	Code Matrix A Air
		Code Container/Preservative 1 1x Envelope, None

Event: Parcel E Phase 2 Air Monitoring																		
Sample ID	Matrix	Date	Time	Samp Init.														
					Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments								
1	GESPM101722-438	A	11/17/2022	1350	X	X									AMSE1	N2	0.00	0.00
2	GESTSP101722-438	A	11/17/2022	1350		X							AMSE1	N2	0.00	0.00	1	VOLUME: 471.67 (M3)
3	GESPM101722-439	A	11/17/2022	1338	X	X							AMSE2	N2	0.00	0.00	1	VOLUME: 498.04 (M3)
4	GESTSP101722-439	A	11/17/2022	1338		X							AMSE2	N2	0.00	0.00	1	VOLUME: 508.18 (M3)
5	GESPM101722-440	A	11/22/2022	0704	X	X							AMSE1	N1	0.00	0.00	1	VOLUME: 1711.10 (M3)
6	GESTSP101722-440	A	11/22/2022	0704		X							AMSE1	N1	0.00	0.00	1	VOLUME: 1629.64 (M3)
7	GESPM101722-441	A	11/22/2022	0726	X	X							AMSE2	N1	0.00	0.00	1	VOLUME: 1718.76 (M3)
8	GESTSP101722-441	A	11/22/2022	0726		X							AMSE2	N1	0.00	0.00	1	VOLUME: 1722.26 (M3)
9																		
10																		

Turnaround Time: NA

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[Redacted]	11/22/2022	1600	FEDEX	11/22/2022	1600	Shipping Date: / FEDEX / 7705 6792 9941
			[Redacted]	11/23/22	938	
						<b>Received by Laboratory: (Signature, Date, Time) &amp; condition</b>

20.5 °C



# Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-94682-1

**Login Number: 94682**

**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	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: 

GES-AIS LLC

1501 W Fountainhead Parkway

Ste 550

Tempe, Arizona 85282

Generated 12/7/2022 3:49:47 PM

## JOB DESCRIPTION

Hunters Point, Parcel E, Phase 2

## JOB NUMBER

320-94754-1



# Eurofins Sacramento

## 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

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12/7/2022 3:49:47 PM

Authorized for release by  
Project Manager I



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# Definitions/Glossary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

# Case Narrative

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

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**Job ID: 320-94754-1**

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**Laboratory: Eurofins Sacramento**

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**Narrative**

**Job Narrative**  
**320-94754-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 11/30/2022 10:35 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 16.9° C.

**Metals**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

## Client Sample ID: GESPM101722-442

## Lab Sample ID: 320-94754-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0039		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.045		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.011		0.00070	0.000099	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	32		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-442

## Lab Sample ID: 320-94754-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	43.7930		0.3075	0.3075	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-443

## Lab Sample ID: 320-94754-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0036		0.00068	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.16		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0097		0.00068	0.000095	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	31		0.28	0.28	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-443

## Lab Sample ID: 320-94754-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	32.0779		0.2824	0.2824	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-444

## Lab Sample ID: 320-94754-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.015		0.00070	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.11		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.026		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	34		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-444

## Lab Sample ID: 320-94754-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	76.1176		0.3042	0.3042	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-445

## Lab Sample ID: 320-94754-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.015		0.00070	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.034		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.025		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	63		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-445

## Lab Sample ID: 320-94754-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	98.7291		0.2900	0.2900	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

**Client Sample ID: GESPM101722-442**

**Lab Sample ID: 320-94754-1**

Date Collected: 11/23/22 07:01

Matrix: Air

Date Received: 11/30/22 10:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0039		0.00070	0.00011	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:12	1
Copper	0.045		0.0014	0.00011	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:12	1
Manganese	0.011		0.00070	0.000099	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:12	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	32		0.29	0.29	ug/m3			12/02/22 16:00	1

**Client Sample ID: GESTSP101722-442**

**Lab Sample ID: 320-94754-2**

Date Collected: 11/23/22 07:01

Matrix: Air

Date Received: 11/30/22 10:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	43.7930		0.3075	0.3075	ug/m3 (Air)			12/02/22 16:00	1

**Client Sample ID: GESPM101722-443**

**Lab Sample ID: 320-94754-3**

Date Collected: 11/23/22 07:10

Matrix: Air

Date Received: 11/30/22 10:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0036		0.00068	0.00010	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:22	1
Copper	0.16		0.0014	0.00010	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:22	1
Manganese	0.0097		0.00068	0.000095	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	31		0.28	0.28	ug/m3			12/02/22 16:00	1

**Client Sample ID: GESTSP101722-443**

**Lab Sample ID: 320-94754-4**

Date Collected: 11/23/22 07:10

Matrix: Air

Date Received: 11/30/22 10:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	32.0779		0.2824	0.2824	ug/m3 (Air)			12/02/22 16:00	1

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

**Client Sample ID: GESPM101722-444**

**Lab Sample ID: 320-94754-5**

Date Collected: 11/29/22 07:31

Matrix: Air

Date Received: 11/30/22 10:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.015		0.00070	0.00010	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:25	1
Copper	0.11		0.0014	0.00010	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:25	1
Manganese	0.026		0.00070	0.000098	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:25	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	34		0.29	0.29	ug/m3			12/02/22 16:00	1

**Client Sample ID: GESTSP101722-444**

**Lab Sample ID: 320-94754-6**

Date Collected: 11/29/22 07:31

Matrix: Air

Date Received: 11/30/22 10:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	76.1176		0.3042	0.3042	ug/m3 (Air)			12/02/22 16:00	1

**Client Sample ID: GESPM101722-445**

**Lab Sample ID: 320-94754-7**

Date Collected: 11/29/22 07:13

Matrix: Air

Date Received: 11/30/22 10:35

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.015		0.00070	0.00010	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:34	1
Copper	0.034		0.0014	0.00010	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:34	1
Manganese	0.025		0.00070	0.000098	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:34	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	63		0.29	0.29	ug/m3			12/02/22 16:00	1

**Client Sample ID: GESTSP101722-445**

**Lab Sample ID: 320-94754-8**

Date Collected: 11/29/22 07:13

Matrix: Air

Date Received: 11/30/22 10:35

Sample Container: Folder/Filter

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates (EPA 40CFR50 App B)	98.7291		0.2900	0.2900	ug/m3 (Air)			12/02/22 16:00	1

# QC Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 320-637681/1-B**  
**Matrix: Air**  
**Analysis Batch: 637942**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 637683**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:02	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:02	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		12/06/22 05:49	12/06/22 15:02	1

**Lab Sample ID: LCS 320-637681/2-B**  
**Matrix: Air**  
**Analysis Batch: 637942**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 637683**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.240	0.243		ug/m3 (Air)		101	86 - 111
Copper	0.240	0.243		ug/m3 (Air)		101	85 - 110
Manganese	0.240	0.246		ug/m3 (Air)		102	88 - 110

**Lab Sample ID: LCSD 320-637681/3-B**  
**Matrix: Air**  
**Analysis Batch: 637942**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 637683**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.240	0.235		ug/m3 (Air)		98	86 - 111	3	15
Copper	0.240	0.236		ug/m3 (Air)		98	85 - 110	3	15
Manganese	0.240	0.237		ug/m3 (Air)		99	88 - 110	4	15



# QC Association Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

## Metals

### Pre Prep Batch: 637681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94754-1	GESPM101722-442	Total/NA	Air	Filter to Air	
320-94754-3	GESPM101722-443	Total/NA	Air	Filter to Air	
320-94754-5	GESPM101722-444	Total/NA	Air	Filter to Air	
320-94754-7	GESPM101722-445	Total/NA	Air	Filter to Air	
MB 320-637681/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-637681/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-637681/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

### Prep Batch: 637683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94754-1	GESPM101722-442	Total/NA	Air	3050B	637681
320-94754-3	GESPM101722-443	Total/NA	Air	3050B	637681
320-94754-5	GESPM101722-444	Total/NA	Air	3050B	637681
320-94754-7	GESPM101722-445	Total/NA	Air	3050B	637681
MB 320-637681/1-B	Method Blank	Total/NA	Air	3050B	637681
LCS 320-637681/2-B	Lab Control Sample	Total/NA	Air	3050B	637681
LCSD 320-637681/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	637681

### Analysis Batch: 637942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94754-1	GESPM101722-442	Total/NA	Air	6020	637683
320-94754-3	GESPM101722-443	Total/NA	Air	6020	637683
320-94754-5	GESPM101722-444	Total/NA	Air	6020	637683
320-94754-7	GESPM101722-445	Total/NA	Air	6020	637683
MB 320-637681/1-B	Method Blank	Total/NA	Air	6020	637683
LCS 320-637681/2-B	Lab Control Sample	Total/NA	Air	6020	637683
LCSD 320-637681/3-B	Lab Control Sample Dup	Total/NA	Air	6020	637683

## General Chemistry

### Pre Prep Batch: 637742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94754-2	GESTSP101722-442	Total/NA	Air	Filter to Air	
320-94754-4	GESTSP101722-443	Total/NA	Air	Filter to Air	
320-94754-6	GESTSP101722-444	Total/NA	Air	Filter to Air	
320-94754-8	GESTSP101722-445	Total/NA	Air	Filter to Air	

### Analysis Batch: 637793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94754-1	GESPM101722-442	Total/NA	Air	PM10	
320-94754-3	GESPM101722-443	Total/NA	Air	PM10	
320-94754-5	GESPM101722-444	Total/NA	Air	PM10	
320-94754-7	GESPM101722-445	Total/NA	Air	PM10	

### Analysis Batch: 638002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94754-2	GESTSP101722-442	Total/NA	Air	40CFR50 App B	637742
320-94754-4	GESTSP101722-443	Total/NA	Air	40CFR50 App B	637742
320-94754-6	GESTSP101722-444	Total/NA	Air	40CFR50 App B	637742
320-94754-8	GESTSP101722-445	Total/NA	Air	40CFR50 App B	637742

Eurofins Sacramento

# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

**Client Sample ID: GESPM101722-442**

**Lab Sample ID: 320-94754-1**

Date Collected: 11/23/22 07:01

Matrix: Air

Date Received: 11/30/22 10:35

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					637681	12/06/22 05:06		EET SAC
Total/NA	Prep	3050B			0.083333 Sample	100 mL	637683	12/06/22 05:49		EET SAC
Total/NA	Analysis	6020		1			637942	12/06/22 15:12		EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0543 g	637793	12/02/22 16:00		EET SAC

**Client Sample ID: GESTSP101722-442**

**Lab Sample ID: 320-94754-2**

Date Collected: 11/23/22 07:01

Matrix: Air

Date Received: 11/30/22 10:35

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			638002	12/02/22 16:00		EET SAC
Total/NA	Pre Prep	Filter to Air					637742	12/06/22 11:49		EET SAC

**Client Sample ID: GESPM101722-443**

**Lab Sample ID: 320-94754-3**

Date Collected: 11/23/22 07:10

Matrix: Air

Date Received: 11/30/22 10:35

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					637681	12/06/22 05:06		EET SAC
Total/NA	Prep	3050B			0.083333 Sample	100 mL	637683	12/06/22 05:49		EET SAC
Total/NA	Analysis	6020		1			637942	12/06/22 15:22		EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0550 g	637793	12/02/22 16:00		EET SAC

**Client Sample ID: GESTSP101722-443**

**Lab Sample ID: 320-94754-4**

Date Collected: 11/23/22 07:10

Matrix: Air

Date Received: 11/30/22 10:35

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			638002	12/02/22 16:00		EET SAC
Total/NA	Pre Prep	Filter to Air					637742	12/06/22 11:49		EET SAC

**Client Sample ID: GESPM101722-444**

**Lab Sample ID: 320-94754-5**

Date Collected: 11/29/22 07:31

Matrix: Air

Date Received: 11/30/22 10:35

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					637681	12/06/22 05:06		EET SAC
Total/NA	Prep	3050B			0.083333 Sample	100 mL	637683	12/06/22 05:49		EET SAC
Total/NA	Analysis	6020		1			637942	12/06/22 15:25		EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0583 g	637793	12/02/22 16:00		EET SAC

# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

**Client Sample ID: GESTSP101722-444**

**Lab Sample ID: 320-94754-6**

Date Collected: 11/29/22 07:31

Matrix: Air

Date Received: 11/30/22 10:35

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			638002	12/02/22 16:00	█	EET SAC
Total/NA	Pre Prep	Filter to Air					637742	12/06/22 11:49	█	EET SAC

**Client Sample ID: GESPM101722-445**

**Lab Sample ID: 320-94754-7**

Date Collected: 11/29/22 07:13

Matrix: Air

Date Received: 11/30/22 10:35

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					637681	12/06/22 05:06	█	EET SAC
Total/NA	Prep	3050B			0.083333 Sample	100 mL	637683	12/06/22 05:49	█	EET SAC
Total/NA	Analysis	6020		1			637942	12/06/22 15:34	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.1086 g	637793	12/02/22 16:00	█	EET SAC

**Client Sample ID: GESTSP101722-445**

**Lab Sample ID: 320-94754-8**

Date Collected: 11/29/22 07:13

Matrix: Air

Date Received: 11/30/22 10:35

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			638002	12/02/22 16:00	█	EET SAC
Total/NA	Pre Prep	Filter to Air					637742	12/06/22 11:49	█	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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

## 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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94754-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-94754-1	GESPM101722-442	Air	11/23/22 07:01	11/30/22 10:35
320-94754-2	GESTSP101722-442	Air	11/23/22 07:01	11/30/22 10:35
320-94754-3	GESPM101722-443	Air	11/23/22 07:10	11/30/22 10:35
320-94754-4	GESTSP101722-443	Air	11/23/22 07:10	11/30/22 10:35
320-94754-5	GESPM101722-444	Air	11/29/22 07:31	11/30/22 10:35
320-94754-6	GESTSP101722-444	Air	11/29/22 07:31	11/30/22 10:35
320-94754-7	GESPM101722-445	Air	11/29/22 07:13	11/30/22 10:35
320-94754-8	GESTSP101722-445	Air	11/29/22 07:13	11/30/22 10:35

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**CHAIN-OF-CUSTODY  
RECORD**

Gilbane Federal  
2300 Clayton Road, Suite 1050, Concord, CA 94520

**COC # KT112922AIRE**



<b>Project Name:</b> Hunters Point Shipyard, Parcel E RA Phase 2	Laboratory: EUROFINS ENVIRONMENT TESTING NORTHERN CALIFORNIA, LLC (EETN)	<b>Event:</b> Parcel E Phase 2 Air Monitoring
<b>Project Number:</b> J310000400	POC [Redacted]	
<b>WBS Code:</b> J310000400-016	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

<b>Comments:</b>	<b>Analytical Test Method</b>	CAAIR - Air PM10 N0500 - Air TSP SW6020 - Air Pb Mn Cu	<b>Code</b> Matrix	
			A Air	
<b>Equipment:</b>			<b>Code</b> Container/Preservative	
			1 1x Envelope, None	



Event: Parcel E Phase 2 Air Monitoring																				
Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs)		Cooler	Comments
1	GESPM101722-442	A	11/23/2022	0701	[Redacted]	X		X							AMSE1	N1	0.00	0.00	1	VOLUME: 1703.32 (M3)
2	GESTSP101722-442	A	11/23/2022	0701	[Redacted]	X		X							AMSE1	N1	0.00	0.00	1	VOLUME: 1625.83 (M3)
3	GESPM101722-443	A	11/23/2022	0710	[Redacted]	X		X							AMSE2	N1	0.00	0.00	1	VOLUME: 1768.57 (M3)
4	GESTSP101722-443	A	11/23/2022	0710	[Redacted]	X		X							AMSE2	N1	0.00	0.00	1	VOLUME: 1770.69 (M3)
5	GESPM101722-444	A	11/29/2022	0731	[Redacted]	X		X							AMSE1	N1	0.00	0.00	1	VOLUME: 1717.75 (M3)
6	GESTSP101722-444	A	11/29/2022	0731	[Redacted]	X		X							AMSE1	N1	0.00	0.00	1	VOLUME: 1643.51 (M3)
7	GESPM101722-445	A	11/29/2022	0713	[Redacted]	X		X							AMSE2	N1	0.00	0.00	1	VOLUME: 1716.78 (M3)
8	GESTSP101722-445	A	11/29/2022	0713	[Redacted]	X		X							AMSE2	N1	0.00	0.00	1	VOLUME: 1723.91 (M3)
9																				
10																				

Turnaround Time: 5 days

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Shipping Date / Carrier / Airbill Number
[Redacted]	11/29/2022	1600	FedEx	11/29/2022	1600	Shipping Date: 11/29/2022 / FEDEX / 7706 1908 8580
			[Redacted]	11-30-22	1035	
						<b>Received by Laboratory: (Signature, Date, Time) &amp; condition</b>

16.9°C



# Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-94754-1

**Login Number: 94754**

**List Source: Eurofins Sacramento**

**List Number: 1**

**Creator:** [REDACTED]

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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 <math><6\text{mm}</math> (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: 

GES-AIS LLC

1501 W Fountainhead Parkway

Ste 550

Tempe, Arizona 85282

Generated 12/13/2022 10:54:50 AM

## JOB DESCRIPTION

Hunters Point, Parcel E, Phase 2

## JOB NUMBER

320-94840-1

# Eurofins Sacramento

## 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 Signature]

Generated  
12/13/2022 10:54:50 AM

Authorized for release by  
[Redacted Name], Project Manager I  
[Redacted Phone]  
(916)374-4414



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# Definitions/Glossary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

# Case Narrative

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

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**Job ID: 320-94840-1**

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**Laboratory: Eurofins Sacramento**

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**Narrative**

**Job Narrative**  
**320-94840-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/2/2022 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 18.2° C.

**Metals**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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- 13
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# Detection Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

## Client Sample ID: GESPM101722-446

## Lab Sample ID: 320-94840-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0034		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.068		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0072		0.00070	0.000098	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	19		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-446

## Lab Sample ID: 320-94840-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	29.7472		0.3054	0.3054	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-447

## Lab Sample ID: 320-94840-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0016		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.027		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0035		0.00070	0.000099	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	0.013		0.00029	0.00029	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-447

## Lab Sample ID: 320-94840-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	21.4585		0.2908	0.2908	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-448

## Lab Sample ID: 320-94840-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0025		0.00068	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.052		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0083		0.00068	0.000096	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	20		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-448

## Lab Sample ID: 320-94840-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	38.7185		0.2988	0.2988	ug/m3 (Air)	1		40CFR50 App B	Total/NA

## Client Sample ID: GESPM101722-449

## Lab Sample ID: 320-94840-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0012		0.00069	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.024		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0020		0.00069	0.000096	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	6.3		0.29	0.29	ug/m3	1		PM10	Total/NA

## Client Sample ID: GESTSP101722-449

## Lab Sample ID: 320-94840-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	12.5585		0.2854	0.2854	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Sacramento

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

**Client Sample ID: GESPM101722-446**

**Lab Sample ID: 320-94840-1**

Date Collected: 11/30/22 07:20

Matrix: Air

Date Received: 12/02/22 09:20

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0034		0.00070	0.00011	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:44	1
Copper	0.068		0.0014	0.00011	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:44	1
Manganese	0.0072		0.00070	0.000098	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:44	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	19		0.29	0.29	ug/m3			12/06/22 07:30	1

**Client Sample ID: GESTSP101722-446**

**Lab Sample ID: 320-94840-2**

Date Collected: 11/30/22 07:20

Matrix: Air

Date Received: 12/02/22 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)	29.7472		0.3054	0.3054	ug/m3 (Air)			12/06/22 07:30	1

**Client Sample ID: GESPM101722-447**

**Lab Sample ID: 320-94840-3**

Date Collected: 11/30/22 07:09

Matrix: Air

Date Received: 12/02/22 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		0.00070	0.00011	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:53	1
Copper	0.027		0.0014	0.00011	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:53	1
Manganese	0.0035		0.00070	0.000099	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:53	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	0.013		0.00029	0.00029	ug/m3			12/06/22 07:30	1

**Client Sample ID: GESTSP101722-447**

**Lab Sample ID: 320-94840-4**

Date Collected: 11/30/22 07:09

Matrix: Air

Date Received: 12/02/22 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)	21.4585		0.2908	0.2908	ug/m3 (Air)			12/06/22 07:30	1

# Client Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

**Client Sample ID: GESPM101722-448**

**Lab Sample ID: 320-94840-5**

Date Collected: 12/01/22 07:36

Matrix: Air

Date Received: 12/02/22 09:20

Sample Container: Folder/Filter

**Method: SW846 6020 - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0025		0.00068	0.00010	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:56	1
Copper	0.052		0.0014	0.00010	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:56	1
Manganese	0.0083		0.00068	0.000096	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:56	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	20		0.29	0.29	ug/m3			12/06/22 07:30	1

**Client Sample ID: GESTSP101722-448**

**Lab Sample ID: 320-94840-6**

Date Collected: 12/01/22 07:36

Matrix: Air

Date Received: 12/02/22 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)	38.7185		0.2988	0.2988	ug/m3 (Air)			12/06/22 07:30	1

**Client Sample ID: GESPM101722-449**

**Lab Sample ID: 320-94840-7**

Date Collected: 12/01/22 07:30

Matrix: Air

Date Received: 12/02/22 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		0.00069	0.00010	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:59	1
Copper	0.024		0.0014	0.00010	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:59	1
Manganese	0.0020		0.00069	0.000096	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10 (40CFR50J PM10)	6.3		0.29	0.29	ug/m3			12/06/22 07:30	1

**Client Sample ID: GESTSP101722-449**

**Lab Sample ID: 320-94840-8**

Date Collected: 12/01/22 07:30

Matrix: Air

Date Received: 12/02/22 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)	12.5585		0.2854	0.2854	ug/m3 (Air)			12/06/22 07:30	1



# QC Sample Results

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 320-638293/1-B**  
**Matrix: Air**  
**Analysis Batch: 638578**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 638295**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.6	0.40	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:34	1
Copper	ND		5.3	0.40	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:34	1
Manganese	ND		2.6	0.37	ug/m3 (Air)		12/08/22 07:31	12/08/22 14:34	1

**Lab Sample ID: LCS 320-638293/2-B**  
**Matrix: Air**  
**Analysis Batch: 638578**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 638295**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.240	0.237		ug/m3 (Air)		99	86 - 111
Copper	0.240	0.229		ug/m3 (Air)		96	85 - 110
Manganese	0.240	0.227		ug/m3 (Air)		95	88 - 110

**Lab Sample ID: LCSD 320-638293/3-B**  
**Matrix: Air**  
**Analysis Batch: 638578**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 638295**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	0.240	0.230		ug/m3 (Air)		96	86 - 111	3	15
Copper	0.240	0.223		ug/m3 (Air)		93	85 - 110	3	15
Manganese	0.240	0.220		ug/m3 (Air)		92	88 - 110	3	15

# QC Association Summary

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

## Metals

### Pre Prep Batch: 638293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94840-1	GESPM101722-446	Total/NA	Air	Filter to Air	
320-94840-3	GESPM101722-447	Total/NA	Air	Filter to Air	
320-94840-5	GESPM101722-448	Total/NA	Air	Filter to Air	
320-94840-7	GESPM101722-449	Total/NA	Air	Filter to Air	
MB 320-638293/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-638293/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-638293/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

### Prep Batch: 638295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94840-1	GESPM101722-446	Total/NA	Air	3050B	638293
320-94840-3	GESPM101722-447	Total/NA	Air	3050B	638293
320-94840-5	GESPM101722-448	Total/NA	Air	3050B	638293
320-94840-7	GESPM101722-449	Total/NA	Air	3050B	638293
MB 320-638293/1-B	Method Blank	Total/NA	Air	3050B	638293
LCS 320-638293/2-B	Lab Control Sample	Total/NA	Air	3050B	638293
LCSD 320-638293/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	638293

### Analysis Batch: 638578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94840-1	GESPM101722-446	Total/NA	Air	6020	638295
320-94840-3	GESPM101722-447	Total/NA	Air	6020	638295
320-94840-5	GESPM101722-448	Total/NA	Air	6020	638295
320-94840-7	GESPM101722-449	Total/NA	Air	6020	638295
MB 320-638293/1-B	Method Blank	Total/NA	Air	6020	638295
LCS 320-638293/2-B	Lab Control Sample	Total/NA	Air	6020	638295
LCSD 320-638293/3-B	Lab Control Sample Dup	Total/NA	Air	6020	638295

## General Chemistry

### Pre Prep Batch: 639210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94840-2	GESTSP101722-446	Total/NA	Air	Filter to Air	
320-94840-4	GESTSP101722-447	Total/NA	Air	Filter to Air	
320-94840-6	GESTSP101722-448	Total/NA	Air	Filter to Air	
320-94840-8	GESTSP101722-449	Total/NA	Air	Filter to Air	

### Analysis Batch: 639216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94840-1	GESPM101722-446	Total/NA	Air	PM10	
320-94840-3	GESPM101722-447	Total/NA	Air	PM10	
320-94840-5	GESPM101722-448	Total/NA	Air	PM10	
320-94840-7	GESPM101722-449	Total/NA	Air	PM10	

### Analysis Batch: 639231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-94840-2	GESTSP101722-446	Total/NA	Air	40CFR50 App B	639210
320-94840-4	GESTSP101722-447	Total/NA	Air	40CFR50 App B	639210
320-94840-6	GESTSP101722-448	Total/NA	Air	40CFR50 App B	639210
320-94840-8	GESTSP101722-449	Total/NA	Air	40CFR50 App B	639210

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# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

**Client Sample ID: GESPM101722-446**

**Lab Sample ID: 320-94840-1**

Date Collected: 11/30/22 07:20

Matrix: Air

Date Received: 12/02/22 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					638293	12/08/22 07:15	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	638295	12/08/22 07:31	█	EET SAC
Total/NA	Analysis	6020		1			638578	12/08/22 14:44	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0329 g	639216	12/06/22 07:30	█	EET SAC

**Client Sample ID: GESTSP101722-446**

**Lab Sample ID: 320-94840-2**

Date Collected: 11/30/22 07:20

Matrix: Air

Date Received: 12/02/22 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			639231	12/06/22 07:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					639210	12/12/22 13:17	█	EET SAC

**Client Sample ID: GESPM101722-447**

**Lab Sample ID: 320-94840-3**

Date Collected: 11/30/22 07:09

Matrix: Air

Date Received: 12/02/22 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					638293	12/08/22 07:15	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	638295	12/08/22 07:31	█	EET SAC
Total/NA	Analysis	6020		1			638578	12/08/22 14:53	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0224 g	639216	12/06/22 07:30	█	EET SAC

**Client Sample ID: GESTSP101722-447**

**Lab Sample ID: 320-94840-4**

Date Collected: 11/30/22 07:09

Matrix: Air

Date Received: 12/02/22 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			639231	12/06/22 07:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					639210	12/12/22 13:17	█	EET SAC

**Client Sample ID: GESPM101722-448**

**Lab Sample ID: 320-94840-5**

Date Collected: 12/01/22 07:36

Matrix: Air

Date Received: 12/02/22 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					638293	12/08/22 07:15	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	638295	12/08/22 07:31	█	EET SAC
Total/NA	Analysis	6020		1			638578	12/08/22 14:56	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0343 g	639216	12/06/22 07:30	█	EET SAC

# Lab Chronicle

Client: GES-AIS LLC  
 Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

**Client Sample ID: GESTSP101722-448**

**Lab Sample ID: 320-94840-6**

Date Collected: 12/01/22 07:36

Matrix: Air

Date Received: 12/02/22 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			639231	12/06/22 07:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					639210	12/12/22 13:17	█	EET SAC

**Client Sample ID: GESPM101722-449**

**Lab Sample ID: 320-94840-7**

Date Collected: 12/01/22 07:30

Matrix: Air

Date Received: 12/02/22 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					638293	12/08/22 07:15	█	EET SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	638295	12/08/22 07:31	█	EET SAC
Total/NA	Analysis	6020		1			638578	12/08/22 14:59	█	EET SAC
Total/NA	Analysis	PM10		1	0 g	0.0109 g	639216	12/06/22 07:30	█	EET SAC

**Client Sample ID: GESTSP101722-449**

**Lab Sample ID: 320-94840-8**

Date Collected: 12/01/22 07:30

Matrix: Air

Date Received: 12/02/22 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			639231	12/06/22 07:30	█	EET SAC
Total/NA	Pre Prep	Filter to Air					639210	12/12/22 13:17	█	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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

## 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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Method Summary

Client: GES-AIS LLC  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

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  
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-94840-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-94840-1	GESPM101722-446	Air	11/30/22 07:20	12/02/22 09:20
320-94840-2	GESTSP101722-446	Air	11/30/22 07:20	12/02/22 09:20
320-94840-3	GESPM101722-447	Air	11/30/22 07:09	12/02/22 09:20
320-94840-4	GESTSP101722-447	Air	11/30/22 07:09	12/02/22 09:20
320-94840-5	GESPM101722-448	Air	12/01/22 07:36	12/02/22 09:20
320-94840-6	GESTSP101722-448	Air	12/01/22 07:36	12/02/22 09:20
320-94840-7	GESPM101722-449	Air	12/01/22 07:30	12/02/22 09:20
320-94840-8	GESTSP101722-449	Air	12/01/22 07:30	12/02/22 09:20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 9
- 10
- 11
- 12
- 13
- 14





# Login Sample Receipt Checklist

Client: GES-AIS LLC

Job Number: 320-94840-1

**Login Number: 94840**

**List Source: Eurofins Sacramento**

**List Number: 1**

**Creator:** [REDACTED]

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

