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

May 1st, 2021 through May 31st, 2021

Approved for public release; distribution is unlimited

DCN: GLBN-0005-4332-0064

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Prepared for:

Department of the Navy
Naval Facilities Engineering Systems Command Southwest
BRAC PMO West
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San Diego, CA 92147

Prepared by:

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

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Acronyms and Abbreviations

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

1.0 Introduction

This Air Monitoring Summary Report (AMSR) was prepared by 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 from May 1st, 2021 through May 31st, 2021 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 one 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 Hunters Point Station (Bayview Manor - KCASANFR1775) published at Weather Underground (www.wunderground.com). Upwind/downwind station designations were assigned based on the prevalent wind direction. Atmospheric parameters were checked daily at www.wunderground.com (see **Attachment 1**). Monitoring stations remained stationary while sampling was conducted. Each monitoring station included four different monitoring systems:

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

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 Bayview Manor - KCASANFR1775ta 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 E PA Method 6020 (equivalent to IO-3.5 in the Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air [EPA, 1999]), and for lead in accordance with a modified EPA Method 12.

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 (ug/m^3).

Table 4-1: Air Monitoring Threshold Criteria

Test Parameter	Threshold Criteria	Threshold Criteria Reference
Asbestos	0.1 fiber/cm^3	Cal/OSHA PEL
PM10[a]	5,000 ug/m^3	Cal/OSHA PEL
TSP	0.5 mg/m^3	Basewide HPNS Level selected to minimize overall permissible dust release from sites
Copper	1.0 mg/m^3	Cal/OSHA PEL
Lead	0.050 mg/m^3	Cal/OSHA PEL
Manganese	0.200 mg/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:

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

µg/m^3 = micrograms per cubic meter

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

fiber/cm^3 = fiber per cubic centimeter

HPNS = Hunters Point Naval Shipyard

mg/m^3 = milligrams per cubic meter

PEL = permissible exposure limit

PM10 = particulate matter less than 10 microns in diameter

TSP = total suspended particulates

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5.0 Air Monitoring Results

Weather information (including ambient pressure and temperature data) is presented in the table included as **Attachment 1**. Data was collected from Station 1 in Parcel E and Station 2 in Parcel D-1 from May 24th to May 26th, 2021, during which Gilbane was importing crusher dust. Samples were not collected during periods of site inactivity, rain events, and/or while site work was limited to non-earth moving tasks. The site was closed from May 1st to May 23rd, 2021 and May 28th to May 31st, 2021.

Construction and remediation activities conducted from May 1st through May 31st, 2021, did not result in the exceedance of the established threshold criteria, as described in detail below.

Asbestos results from May 1st through May 31st, 2021 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 May 1st through May 31st, 2021 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 3** and **Attachment 4**.

TSP results from May 1st through May 31st, 2021 did not exceed the threshold criteria presented in **Table 4-1**. The results are presented as **Attachment 5**.

Radiological air sampling results from May 1st through May 31st, 2021 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. No data quality issues were noted. The data, as qualified, should be considered usable for their intended purposes.

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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), 1998. 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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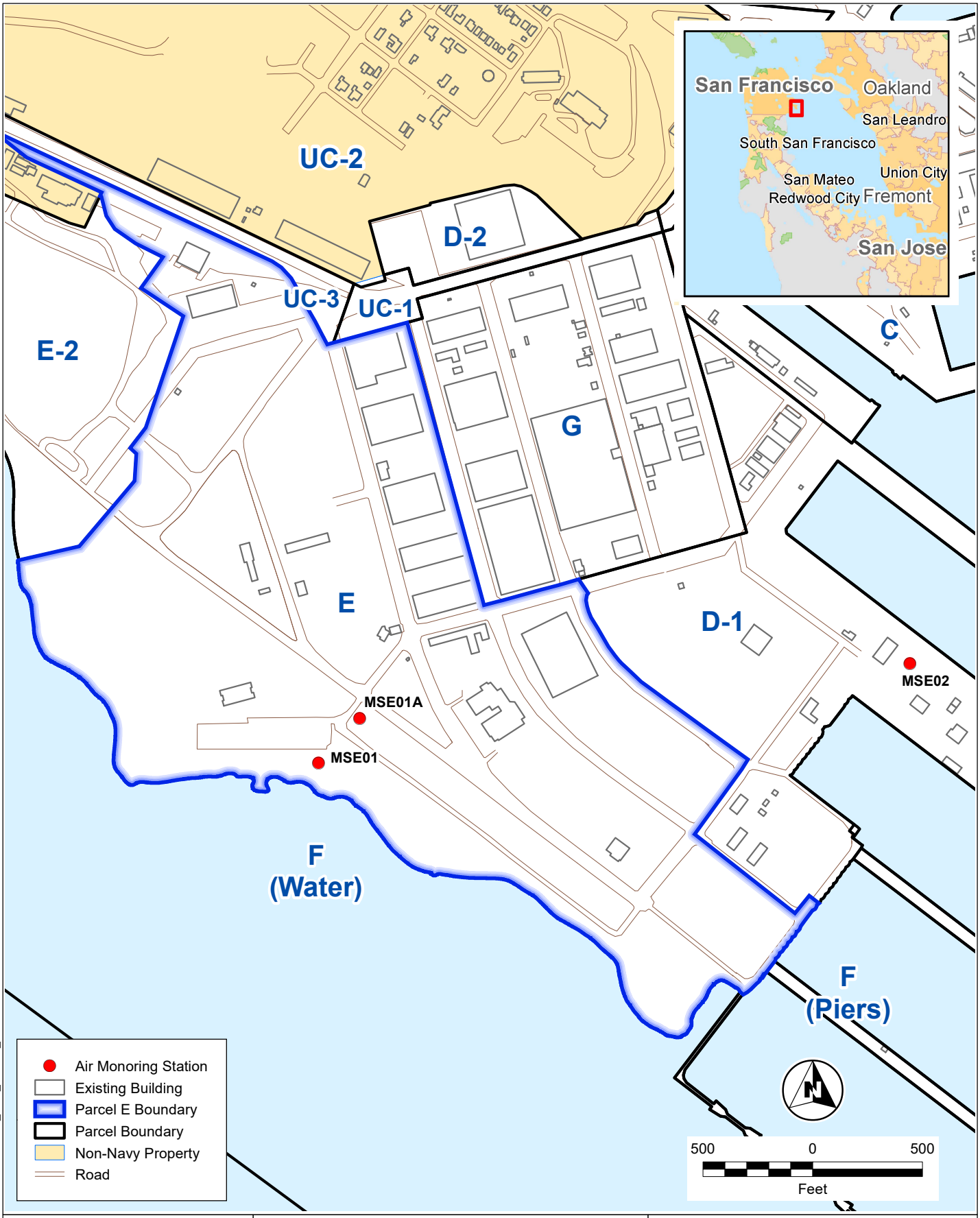

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Gilbane

Parcel E
Hunters Point Naval Shipyard
San Franscisco, California

Figure 2-1
Air Monitoring Stations

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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
5/24/2021	30.09	53.64	WSW
5/25/2021	30.05	54.35	WSW
5/26/2021	30.06	53.41	WSW

Notes:

Data collected using wunderground.com from Bayview Manor - KCASANFR1775.

°F = degree Fareheit

in Hg = inches of mercury

E = East

N = North

S = South

W = West

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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[1]	Monitoring Station	Duration of Run (min)	Total Air Volume Monitored (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm^3)	Exceedance (Yes/No)
MSE01-052521	05/25/21	1	479	958	14.0	0.007	No
MSE02-052521	05/25/21	2	491	982	17.5	0.009	No
MSE01-052621	05/26/21	1	495	990	15.0	0.007	No
MSE02-052621	05/26/21	2	514	1028	15.5	0.007	No

Notes:

[1]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

min = minutes

L = liter

fibers/cm^3 = fibers per cubic centimeter

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ATTACHMENT 3

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

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

Sample, Date and Station Information			Sampler Run Information	PM10						
Sample ID	Monitoring Station	Sample End Date[1]	Total Air Volume Monitored (m^3)	Concen-tration in Air (mg/m^3)	Delta between Downwind and Upwind (mg/m^3)	Delta between Downwind and Upwind (ug/m^3)	Cal/OSHA PEL (ug/m^3)	Exceedance (Yes/No)	HERO Action Level[3] (ug/m^3)	Exceedance (Yes/No)
GILBANEPM051321-1195	1	5/26/21	1728.80	0.016						
GILBANEPM051321-1196	2	5/26/21	1257.62	0.012	-0.004	-4.0	5,000	No	50	No
GILBANEPM051321-1197	1	5/26/21[2]	1702.41	0.02						
GILBANEPM051321-1198	2	5/26/21[2]	1700.59	0.018	-0.002	-2.0	5,000	No	50	No
GILBANEPM051321-1999	1	5/27/21	1710.68	0.02						
GILBANEPM051321-1200	2	5/27/21	1727.59	0.019	-0.001	-1.0	5,000	No	50	No

Notes:

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

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

Samples analyzed by Eurofins TestAmerica

Sample locations are shown on Figure 2-1

min = minutes

Cal/OSHA = California Division of Occupational Safety and Health

HERO = Human and Ecological Risk Office

m^3 = cubic meters

mg = milligrams

mg/m^3 = milligrams per cubic meter

PEL = permissible exposure limit

PM_{10}-particulate matter smaller than 10 microns in diameter

ug/m^3 = micrograms per cubic meter

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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[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)	Concentration in Air (mg/m^3)	Exceedance (Yes/No)
GILBANEPM051321-1195	1	5/26/21	1728.80	0.000032	No	0.0000025	No	0.0000048	No
GILBANEPM051321-1196	2	5/26/21	1257.62	0.000013	No	0.0000016	No	0.0000029	No
GILBANEPM051321-1197	1	5/26/21[2]	1702.41	0.000024	No	0.0000017	No	0.0000031	No
GILBANEPM051321-1198	2	5/26/21[2]	1700.59	0.0000089	No	0.000001	No	0.0000021	No
GILBANEPM051321-1999	1	5/27/21	1710.68	0.00001	No	0.0000011	No	0.0000039	No
GILBANEPM051321-1200	2	5/27/21	1727.59	0.000011	No	0.0000012	No	0.0000027	No

Notes:

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

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

Samples analyzed by Eurofins TestAmerica

Sample locations are shown on Figure 2-1

m^3 = cubic meters

mg = milligrams

mg/m^3 = milligrams per cubic meter

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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[1]	Total Air Volume Monitored (m^3)	Concentration in Air (mg/m^3)	Delta between Downwind and Upwind (mg/m^3)	Basewide HPNS Level (mg/m^3)	Exceedance (Yes/No)
GILBANETSP051321-1195	1	5/26/21	1643.42	0.0208103			
GILBANETSP051321-1196	2	5/26/21	1244.99	0.0223295	0.002	0.5	No
GILBANETSP051321-1197	1	5/26/21[2]	1613.37	0.037995			
GILBANETSP051321-1198	2	5/26/21[2]	1696.52	0.0293542	-0.009	0.5	No
GILBANETSP051321-1999	1	5/27/21	1610.78	0.0430847			
GILBANETSP051321-1200	2	5/27/21	1752.53	0.024593	-0.018	0.5	No

Notes:

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

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

Samples analyzed by Eurofins TestAmerica

Sample locations are shown on Figure 2-1

HPNS = Hunters Point Naval Shipyard

m^3 = cubic meters

mg = milligrams

mg/m^3 = milligrams per cubic meter

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ATTACHMENT 6

AIR SAMPLING RESULTS – PUBLIC EXPOSURE MONITORING

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Gilbane

AIR SAMPLE RESULTS - PUBLIC EXPOSURE MONITORING

Project Information			Effluent Air Concentration			Sampling Period	Color Codes	
Contract / Task Order Number:	Project Title / Location:	Gilbane Project Number:		Alpha	Beta	Air samples collected	Value < MDC	Value < 0.1 x Effluent Conc
N62473-17-D-0005 / F4332	Parcel E RA HPNS, SF, CA	J310000400	Radionuclide	Ra-226	Sr-90	between May 1, 2021	< 72 hr decay time	Value > 0.1 x Effluent Conc
Information effective as of: 6/10/2021			Effluent Conc (µCi/ml)	9.E-13	6.E-12	and May 31, 2021	Data reviewed	Value > Effluent Conc

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-0193	Perimeter	MSE01	PE09	60	5/24/21 7:05	5/24/21 16:00	535	3.2E+07	C	6/1/21	1	cpm	0.150	4.950	0.4	10.7	5.9E-15	1.5E-13	***0.7%***	***2.5%***	*DVT*	*BCS*
AS-0194	Perimeter	MSE02	PE10	60	5/24/21 7:15	5/24/21 11:15	240	1.4E+07	C	6/1/21	1	cpm	0.100	4.200	0.3	8.5	8.8E-15	2.7E-13	***1.0%***	***4.4%***	*DVT*	*BCS*
AS-0195	Perimeter	MSE01	PE09	60	5/25/21 5:15	5/25/21 15:45	630	3.8E+07	C	6/1/21	1	cpm	0.200	3.450	0.6	6.4	6.7E-15	7.6E-14	***0.7%***	***1.3%***	*DVT*	*BCS*
AS-0196	Perimeter	MSE02	PE10	60	5/25/21 5:10	5/25/21 15:50	640	3.8E+07	C	6/1/21	1	cpm	0.300	3.700	0.8	7.1	9.9E-15	8.3E-14	***1.1%***	***1.4%***	*DVT*	*BCS*
AS-0197	Perimeter	MSE01	PE09	60	5/26/21 4:55	5/26/21 15:50	655	3.9E+07	C	6/1/21	1	cpm	0.100	3.400	0.3	6.3	3.2E-15	7.2E-14	***0.4%***	***1.2%***	*DVT*	*BCS*
AS-0198	Perimeter	MSE02	PE10	60	5/26/21 4:50	5/26/21 15:45	655	3.9E+07	C	6/1/21	1	cpm	0.200	4.500	0.6	9.4	6.4E-15	1.1E-13	***0.7%***	***1.8%***	*DVT*	*BCS*

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ATTACHMENT 7
LABORATORY REPORTS

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eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: [redacted]

Laboratory Job ID: 320-74177-1
Client Project/Site: Hunters Point, Parcel E, Phase 2

For:
Gilbane Federal
2355 E. Camelback Road
Suite 850
Phoenix, Arizona 85016

Attn: [redacted]

[redacted]

Authorized for release by:
6/4/2021 9:32:38 AM

[redacted]

Table of Contents

Definitions/Glossary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74177-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74177-1

Job ID: 320-74177-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-74177-1

Comments
No additional comments.

Receipt
The samples were received on 5/26/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 19.6º C.

As confirmed by email prior to the start of analysis, metals results are provided by method 6020.

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

Detection Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74177-1

Client Sample ID: GILBANEPM051321-1195 — Lab Sample ID: 320-74177-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0025		0.00069	0.00010	ug/m3 (Air)	1		6020	Total/NA
Copper	0.032		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0048		0.00069	0.000097	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	16		0.29	0.29	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP051321-1195 — Lab Sample ID: 320-74177-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	20.8103		0.3042	0.3042	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM051321-1196 — Lab Sample ID: 320-74177-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0016		0.00095	0.00014	ug/m3 (Air)	1		6020	Total/NA
Copper	0.013		0.0019	0.00014	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0029		0.00095	0.00013	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	12		0.40	0.40	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP051321-1196 — Lab Sample ID: 320-74177-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	22.3295		0.4016	0.4016	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Gilbane Federal
Job ID: 320-74177-1
Project/Site: Hunters Point, Parcel E, Phase 2

Client Sample ID: GILBANEPM051321-1195
Lab Sample ID: 320-74177-1
Date Collected: 05/25/21 07:45
Matrix: Air
Date Received: 05/26/21 10:00
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0025		0.00069	0.00010	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:29	1
Copper	0.032		0.0014	0.00010	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:29	1
Manganese	0.0048		0.00069	0.000097	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	16		0.29	0.29	ug/m3			05/29/21 00:10	1

Client Sample ID: GILBANETSP051321-1195
Lab Sample ID: 320-74177-2
Date Collected: 05/25/21 07:45
Matrix: Air
Date Received: 05/26/21 10:00
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	20.8103		0.3042	0.3042	ug/m3 (Air)			05/29/21 00:10	1

Client Sample ID: GILBANEPM051321-1196
Lab Sample ID: 320-74177-3
Date Collected: 05/25/21 07:30
Matrix: Air
Date Received: 05/26/21 10:00
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0016		0.00095	0.00014	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:39	1
Copper	0.013		0.0019	0.00014	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:39	1
Manganese	0.0029		0.00095	0.00013	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:39	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	12		0.40	0.40	ug/m3			05/29/21 00:10	1

Client Sample ID: GILBANETSP051321-1196
Lab Sample ID: 320-74177-4
Date Collected: 05/25/21 07:30
Matrix: Air
Date Received: 05/26/21 10:00
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	22.3295		0.4016	0.4016	ug/m3 (Air)			05/29/21 00:10	1

QC Sample Results

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74177-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-495020/1-B
Matrix: Air
Analysis Batch: 495359

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 495027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:20	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:20	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:20	1

Lab Sample ID: LCS 320-495020/2-B
Matrix: Air
Analysis Batch: 495359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 495027

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	0.242		ug/m3 (Air)		101	85 - 110
Manganese	0.240	0.213		ug/m3 (Air)		89	88 - 110

Lab Sample ID: LCSD 320-495020/3-B
Matrix: Air
Analysis Batch: 495359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 495027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.240	0.238		ug/m3 (Air)		99	86 - 111	3	15
Copper	0.240	0.250		ug/m3 (Air)		104	85 - 110	3	15
Manganese	0.240	0.224		ug/m3 (Air)		94	88 - 110	5	15

QC Association Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74177-1

Metals

Pre Prep Batch: 495020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74177-1	GILBANEPM051321-1195	Total/NA	Air	Filter to Air	
320-74177-3	GILBANEPM051321-1196	Total/NA	Air	Filter to Air	
MB 320-495020/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-495020/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-495020/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

Prep Batch: 495027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74177-1	GILBANEPM051321-1195	Total/NA	Air	3050B	495020
320-74177-3	GILBANEPM051321-1196	Total/NA	Air	3050B	495020
MB 320-495020/1-B	Method Blank	Total/NA	Air	3050B	495020
LCS 320-495020/2-B	Lab Control Sample	Total/NA	Air	3050B	495020
LCSD 320-495020/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	495020

Analysis Batch: 495359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74177-1	GILBANEPM051321-1195	Total/NA	Air	6020	495027
320-74177-3	GILBANEPM051321-1196	Total/NA	Air	6020	495027
MB 320-495020/1-B	Method Blank	Total/NA	Air	6020	495027
LCS 320-495020/2-B	Lab Control Sample	Total/NA	Air	6020	495027
LCSD 320-495020/3-B	Lab Control Sample Dup	Total/NA	Air	6020	495027

General Chemistry

Pre Prep Batch: 493289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74177-2	GILBANETSP051321-1195	Total/NA	Air	Filter to Air	
320-74177-4	GILBANETSP051321-1196	Total/NA	Air	Filter to Air	

Analysis Batch: 495196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74177-1	GILBANEPM051321-1195	Total/NA	Air	PM10	
320-74177-3	GILBANEPM051321-1196	Total/NA	Air	PM10	

Analysis Batch: 495211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74177-2	GILBANETSP051321-1195	Total/NA	Air	40CFR50 App B	493289
320-74177-4	GILBANETSP051321-1196	Total/NA	Air	40CFR50 App B	493289

Lab Chronicle

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74177-1

Client Sample ID: GILBANEPM051321-1195
Lab Sample ID: 320-74177-1
Date Collected: 05/25/21 07:45
Matrix: Air
Date Received: 05/26/21 10:00

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					495020	06/03/21 07:15	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	495027	06/03/21 07:45	NIM	TAL SAC
Total/NA	Analysis	6020		1			495359	06/03/21 14:29	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0277 g	495196	05/29/21 00:10	DPM	TAL SAC

Client Sample ID: GILBANETSP051321-1195
Lab Sample ID: 320-74177-2
Date Collected: 05/25/21 07:45
Matrix: Air
Date Received: 05/26/21 10:00

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					493289	05/27/21 10:40	DPM	TAL SAC
Total/NA	Analysis	40CFR50 App B		1			495211	05/29/21 00:10	DPM	TAL SAC

Client Sample ID: GILBANEPM051321-1196
Lab Sample ID: 320-74177-3
Date Collected: 05/25/21 07:30
Matrix: Air
Date Received: 05/26/21 10:00

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					495020	06/03/21 07:15	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	495027	06/03/21 07:45	NIM	TAL SAC
Total/NA	Analysis	6020		1			495359	06/03/21 14:39	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0147 g	495196	05/29/21 00:10	DPM	TAL SAC

Client Sample ID: GILBANETSP051321-1196
Lab Sample ID: 320-74177-4
Date Collected: 05/25/21 07:30
Matrix: Air
Date Received: 05/26/21 10:00

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					493289	05/27/21 10:40	DPM	TAL SAC
Total/NA	Analysis	40CFR50 App B		1			495211	05/29/21 00:10	DPM	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Gilbane Federal
Job ID: 320-74177-1
Project/Site: Hunters Point, Parcel E, Phase 2

Laboratory: Eurofins TestAmerica, 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	01-30-23

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

Job ID: 320-74177-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL SAC
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	TAL SAC
PM10	Particulate Matter	40CFR50J	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC
Filter to Air	Filter to Air volume ratio	None	TAL 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:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74177-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74177-1	GILBANEPM051321-1195	Air	05/25/21 07:45	05/26/21 10:00	
320-74177-2	GILBANETSP051321-1195	Air	05/25/21 07:45	05/26/21 10:00	
320-74177-3	GILBANEPM051321-1196	Air	05/25/21 07:30	05/26/21 10:00	
320-74177-4	GILBANETSP051321-1196	Air	05/25/21 07:30	05/26/21 10:00	

CHAIN-OF-CUSTODY RECORD

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

COC # KT052521AIR

Gilbane

Project Name: Hunters Point Shipyard, Parcel E RA Phase 2	Laboratory: Eurofins Environment Testing TestAmerica-Sacramento, West Sacramento, CA	Event: Parcel E Phase 2 Air Monitoring
Project Number: J310000400	POC [redacted]	
WBS Code: J310000400-016	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-74177 Chain of Custody

Event: Parcel E Phase 2 Air Monitoring

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: CAAIR - Air PM10	E12 - Air Pb Mn Cu	N0500 - Air TSP	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						1	1	1						
1	GILBANEPM051321-1195	A	05/25/2021	0745	KT	X	X		AMSE1	N1	0.00	0.00	1	VOLUME: 1728.80
2	GILBANETSP051321-1195	A	05/25/2021	0745	KT			X	AMSE1	N1	0.00	0.00	1	VOLUME: 1643.42
3	GILBANEPM051321-1196	A	05/25/2021	0730	KT	X	X		AMSE2	N1	0.00	0.00	1	VOLUME: 1257.62
4	GILBANETSP051321-1196	A	05/25/2021	0730	KT			X	AMSE2	N1	0.00	0.00	1	VOLUME: 1244.99
5									[redacted]					
6														
7														
8														
9														
10														

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time
[redacted]	5/25/21	1400

Received by: *(Signature)*	Date	Time
FedEx	5/25/21	1400
[redacted]	5/26/21	1000

Shipping Date / Carrier / Airbill Number

Shipping Date: 5/25/2021 / FedEx 7738 1945 2507

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

Gilbane.Navy_COC_Field
May 25, 2021

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Login Sample Receipt Checklist

Client: Gilbane Federal

Job Number: 320-74177-1

Login Number: 74177

List Source: Eurofins TestAmerica, 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.	N/A	
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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: [redacted]

Laboratory Job ID: 320-74322-1
Client Project/Site: Hunters Point, Parcel E, Phase 2
Revision: 1

For:
Gilbane Federal
2355 E. Camelback Road
Suite 850
Phoenix, Arizona 85016

Attn: [redacted]

[redacted]

Authorized for release by:
6/8/2021 4:23:24 PM

[redacted]

Table of Contents

Definitions/Glossary

Client: Gilbane Federal
Job ID: 320-74322-1
Project/Site: Hunters Point, Parcel E, Phase 2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74322-1

Job ID: 320-74322-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-74322-1

Revision
This report and the associated EDD were revised June 8,2 021 to correct the sample IDs for 320-74322-5 and -6 to match the COC. No data changed as a result of this revision.

Receipt
The samples were received on 5/28/2021 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 20.4º C.

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

Detection Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74322-1

Client Sample ID: GILBANEPM051321-1197 — Lab Sample ID: 320-74322-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0017		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.024		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0031		0.00070	0.000099	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: GILBANETSP051321-1197 — Lab Sample ID: 320-74322-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	37.9950		0.3099	0.3099	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM051321-1198 — Lab Sample ID: 320-74322-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0010		0.00071	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.0089		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0021		0.00071	0.000099	ug/m3 (Air)	1		6020	Total/NA
Particulate Matter as PM 10	18		0.29	0.29	ug/m3	1		PM10	Total/NA

Client Sample ID: GILBANETSP051321-1198 — Lab Sample ID: 320-74322-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	29.3542		0.2947	0.2947	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM051321-1999 — Lab Sample ID: 320-74322-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.0011		0.00070	0.00011	ug/m3 (Air)	1		6020	Total/NA
Copper	0.010		0.0014	0.00011	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0039		0.00070	0.000098	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: GILBANETSP051321-1999 — Lab Sample ID: 320-74322-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	43.0847		0.3104	0.3104	ug/m3 (Air)	1		40CFR50 App B	Total/NA

Client Sample ID: GILBANEPM051321-1200 — Lab Sample ID: 320-74322-7

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	0.011		0.0014	0.00010	ug/m3 (Air)	1		6020	Total/NA
Manganese	0.0027		0.00069	0.000097	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: GILBANETSP051321-1200 — Lab Sample ID: 320-74322-8

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Particulates	24.5930		0.2853	0.2853	ug/m3 (Air)	1		40CFR50 App B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Gilbane Federal
Job ID: 320-74322-1
Project/Site: Hunters Point, Parcel E, Phase 2

Client Sample ID: GILBANEPM051321-1197
Lab Sample ID: 320-74322-1
Date Collected: 05/26/21 07:10
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0017		0.00070	0.00011	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:01	1
Copper	0.024		0.0014	0.00011	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:01	1
Manganese	0.0031		0.00070	0.000099	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:01	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	20		0.29	0.29	ug/m3			05/29/21 00:10	1

Client Sample ID: GILBANETSP051321-1197
Lab Sample ID: 320-74322-2
Date Collected: 05/26/21 07:10
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	37.9950		0.3099	0.3099	ug/m3 (Air)			05/29/21 00:10	1

Client Sample ID: GILBANEPM051321-1198
Lab Sample ID: 320-74322-3
Date Collected: 05/26/21 07:00
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0010		0.00071	0.00011	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:04	1
Copper	0.0089		0.0014	0.00011	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:04	1
Manganese	0.0021		0.00071	0.000099	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	18		0.29	0.29	ug/m3			05/29/21 00:10	1

Client Sample ID: GILBANETSP051321-1198
Lab Sample ID: 320-74322-4
Date Collected: 05/26/21 07:00
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	29.3542		0.2947	0.2947	ug/m3 (Air)			05/29/21 00:10	1

Client Sample ID: GILBANEPM051321-1999
Lab Sample ID: 320-74322-5
Date Collected: 05/27/21 06:45
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0011		0.00070	0.00011	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:08	1
Copper	0.010		0.0014	0.00011	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:08	1
Manganese	0.0039		0.00070	0.000098	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:08	1

Client Sample ID: GILBANEPM051321-1999
Lab Sample ID: 320-74322-5
Date Collected: 05/27/21 06:45
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	20		0.29	0.29	ug/m3			05/29/21 00:10	1

Client Sample ID: GILBANETSP051321-1999
Lab Sample ID: 320-74322-6
Date Collected: 05/27/21 06:45
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	43.0847		0.3104	0.3104	ug/m3 (Air)			05/29/21 00:10	1

Client Sample ID: GILBANEPM051321-1200
Lab Sample ID: 320-74322-7
Date Collected: 05/27/21 06:52
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

Method: 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)		06/03/21 07:45	06/03/21 15:11	1
Copper	0.011		0.0014	0.00010	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:11	1
Manganese	0.0027		0.00069	0.000097	ug/m3 (Air)		06/03/21 07:45	06/03/21 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter as PM 10	19		0.29	0.29	ug/m3			05/29/21 00:10	1

Client Sample ID: GILBANETSP051321-1200
Lab Sample ID: 320-74322-8
Date Collected: 05/27/21 06:52
Matrix: Air
Date Received: 05/28/21 09:20
Sample Container: Folder/Filter

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	24.5930		0.2853	0.2853	ug/m3 (Air)			05/29/21 00:10	1

QC Sample Results

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74322-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 320-495020/1-B
Matrix: Air
Analysis Batch: 495359

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 495027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0012	0.00018	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:20	1
Copper	ND		0.0024	0.00018	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:20	1
Manganese	ND		0.0012	0.00017	ug/m3 (Air)		06/03/21 07:45	06/03/21 14:20	1

Lab Sample ID: LCS 320-495020/2-B
Matrix: Air
Analysis Batch: 495359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 495027

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	0.242		ug/m3 (Air)		101	85 - 110
Manganese	0.240	0.213		ug/m3 (Air)		89	88 - 110

Lab Sample ID: LCSD 320-495020/3-B
Matrix: Air
Analysis Batch: 495359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 495027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.240	0.238		ug/m3 (Air)		99	86 - 111	3	15
Copper	0.240	0.250		ug/m3 (Air)		104	85 - 110	3	15
Manganese	0.240	0.224		ug/m3 (Air)		94	88 - 110	5	15

QC Association Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74322-1

Metals

Pre Prep Batch: 495020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74322-1	GILBANEPM051321-1197	Total/NA	Air	Filter to Air	
320-74322-3	GILBANEPM051321-1198	Total/NA	Air	Filter to Air	
320-74322-5	GILBANEPM051321-1999	Total/NA	Air	Filter to Air	
320-74322-7	GILBANEPM051321-1200	Total/NA	Air	Filter to Air	
MB 320-495020/1-B	Method Blank	Total/NA	Air	Filter to Air	
LCS 320-495020/2-B	Lab Control Sample	Total/NA	Air	Filter to Air	
LCSD 320-495020/3-B	Lab Control Sample Dup	Total/NA	Air	Filter to Air	

Prep Batch: 495027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74322-1	GILBANEPM051321-1197	Total/NA	Air	3050B	495020
320-74322-3	GILBANEPM051321-1198	Total/NA	Air	3050B	495020
320-74322-5	GILBANEPM051321-1999	Total/NA	Air	3050B	495020
320-74322-7	GILBANEPM051321-1200	Total/NA	Air	3050B	495020
MB 320-495020/1-B	Method Blank	Total/NA	Air	3050B	495020
LCS 320-495020/2-B	Lab Control Sample	Total/NA	Air	3050B	495020
LCSD 320-495020/3-B	Lab Control Sample Dup	Total/NA	Air	3050B	495020

Analysis Batch: 495359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74322-1	GILBANEPM051321-1197	Total/NA	Air	6020	495027
320-74322-3	GILBANEPM051321-1198	Total/NA	Air	6020	495027
320-74322-5	GILBANEPM051321-1999	Total/NA	Air	6020	495027
320-74322-7	GILBANEPM051321-1200	Total/NA	Air	6020	495027
MB 320-495020/1-B	Method Blank	Total/NA	Air	6020	495027
LCS 320-495020/2-B	Lab Control Sample	Total/NA	Air	6020	495027
LCSD 320-495020/3-B	Lab Control Sample Dup	Total/NA	Air	6020	495027

General Chemistry

Pre Prep Batch: 495157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74322-2	GILBANETSP051321-1197	Total/NA	Air	Filter to Air	
320-74322-4	GILBANETSP051321-1198	Total/NA	Air	Filter to Air	
320-74322-6	GILBANETSP051321-1999	Total/NA	Air	Filter to Air	
320-74322-8	GILBANETSP051321-1200	Total/NA	Air	Filter to Air	

Analysis Batch: 495196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74322-1	GILBANEPM051321-1197	Total/NA	Air	PM10	
320-74322-3	GILBANEPM051321-1198	Total/NA	Air	PM10	
320-74322-5	GILBANEPM051321-1999	Total/NA	Air	PM10	
320-74322-7	GILBANEPM051321-1200	Total/NA	Air	PM10	

Analysis Batch: 495211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-74322-2	GILBANETSP051321-1197	Total/NA	Air	40CFR50 App B	495157
320-74322-4	GILBANETSP051321-1198	Total/NA	Air	40CFR50 App B	495157
320-74322-6	GILBANETSP051321-1999	Total/NA	Air	40CFR50 App B	495157
320-74322-8	GILBANETSP051321-1200	Total/NA	Air	40CFR50 App B	495157

Lab Chronicle

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74322-1

Client Sample ID: GILBANEPM051321-1197
Lab Sample ID: 320-74322-1
Date Collected: 05/26/21 07:10
Matrix: Air
Date Received: 05/28/21 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					495020	06/03/21 07:15	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	495027	06/03/21 07:45	NIM	TAL SAC
Total/NA	Analysis	6020		1			495359	06/03/21 15:01	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0339 g	495196	05/29/21 00:10	DPM	TAL SAC

Client Sample ID: GILBANETSP051321-1197
Lab Sample ID: 320-74322-2
Date Collected: 05/26/21 07:10
Matrix: Air
Date Received: 05/28/21 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			495211	05/29/21 00:10	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					495157	06/03/21 11:49	DPM	TAL SAC

Client Sample ID: GILBANEPM051321-1198
Lab Sample ID: 320-74322-3
Date Collected: 05/26/21 07:00
Matrix: Air
Date Received: 05/28/21 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					495020	06/03/21 07:15	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	495027	06/03/21 07:45	NIM	TAL SAC
Total/NA	Analysis	6020		1			495359	06/03/21 15:04	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0304 g	495196	05/29/21 00:10	DPM	TAL SAC

Client Sample ID: GILBANETSP051321-1198
Lab Sample ID: 320-74322-4
Date Collected: 05/26/21 07:00
Matrix: Air
Date Received: 05/28/21 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			495211	05/29/21 00:10	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					495157	06/03/21 11:49	DPM	TAL SAC

Client Sample ID: GILBANEPM051321-1999
Lab Sample ID: 320-74322-5
Date Collected: 05/27/21 06:45
Matrix: Air
Date Received: 05/28/21 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					495020	06/03/21 07:15	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	495027	06/03/21 07:45	NIM	TAL SAC
Total/NA	Analysis	6020		1			495359	06/03/21 15:08	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0350 g	495196	05/29/21 00:10	DPM	TAL SAC

Lab Chronicle

Client: Gilbane Federal
Job ID: 320-74322-1
Project/Site: Hunters Point, Parcel E, Phase 2

Client Sample ID: GILBANETSP051321-1999
Lab Sample ID: 320-74322-6
Date Collected: 05/27/21 06:45
Matrix: Air
Date Received: 05/28/21 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			495211	05/29/21 00:10	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					495157	06/03/21 11:49	DPM	TAL SAC

Client Sample ID: GILBANEPM051321-1200
Lab Sample ID: 320-74322-7
Date Collected: 05/27/21 06:52
Matrix: Air
Date Received: 05/28/21 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					495020	06/03/21 07:15	NIM	TAL SAC
Total/NA	Prep	3050B			0.08333 Sample	100 mL	495027	06/03/21 07:45	NIM	TAL SAC
Total/NA	Analysis	6020		1			495359	06/03/21 15:11	DPM	TAL SAC
Total/NA	Analysis	PM10		1	0 g	0.0331 g	495196	05/29/21 00:10	DPM	TAL SAC

Client Sample ID: GILBANETSP051321-1200
Lab Sample ID: 320-74322-8
Date Collected: 05/27/21 06:52
Matrix: Air
Date Received: 05/28/21 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			495211	05/29/21 00:10	DPM	TAL SAC
Total/NA	Pre Prep	Filter to Air					495157	06/03/21 11:49	DPM	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Gilbane Federal
Job ID: 320-74322-1
Project/Site: Hunters Point, Parcel E, Phase 2

Laboratory: Eurofins TestAmerica, 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	01-30-23

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

Job ID: 320-74322-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL SAC
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	TAL SAC
PM10	Particulate Matter	40CFR50J	TAL SAC
3050B	Preparation, Metals	SW846	TAL SAC
Filter to Air	Filter to Air volume ratio	None	TAL 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:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Gilbane Federal
Project/Site: Hunters Point, Parcel E, Phase 2

Job ID: 320-74322-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-74322-1	GILBANEPM051321-1197	Air	05/26/21 07:10	05/28/21 09:20	
320-74322-2	GILBANETSP051321-1197	Air	05/26/21 07:10	05/28/21 09:20	
320-74322-3	GILBANEPM051321-1198	Air	05/26/21 07:00	05/28/21 09:20	
320-74322-4	GILBANETSP051321-1198	Air	05/26/21 07:00	05/28/21 09:20	
320-74322-5	GILBANEPM051321-1999	Air	05/27/21 06:45	05/28/21 09:20	
320-74322-6	GILBANETSP051321-1999	Air	05/27/21 06:45	05/28/21 09:20	
320-74322-7	GILBANEPM051321-1200	Air	05/27/21 06:52	05/28/21 09:20	
320-74322-8	GILBANETSP051321-1200	Air	05/27/21 06:52	05/28/21 09:20	

CHAIN-OF-CUSTODY RECORD

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

COC # KT052721AIR

Gilbane

Project Name: Hunters Point Shipyard, Parcel E RA Phase 2	Laboratory: Eurofins Environment Testing TestAmerica-Sacramento, West Sacramento, CA	Event: Parcel E Phase 2 Air Monitoring
Project Number: J310000400	POC: [redacted]	
WBS Code: J310000400-016	Ship to: 880 Riverside Parkway, West Sacramento, CA 95605	

Comments:

Equipment:

Code	Matrix
A	Air

Code	Container/Preservative
1	1x 250-mL Plastic, 4 Degrees C
1	1x Envelope, None

320-74322 Chain of Custody

						Analytical Test Method													
						CAAIR - Air PM10	N0500 - Air TSP	SW6020 - Air Pb Mn Cu											
	Event: Parcel E Phase 2 Air Monitoring					1	1	1											
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	GILBANEPM051321-1197	A	05/26/2021	0710	KT	X		X								AMSE1	N1	0.00	0.00	1	VOLUME: 1702.41
2	GILBANETSP051321-1197	A	05/26/2021	0710	KT		X									AMSE1	N1	0.00	0.00	1	VOLUME: 1613.37
3	GILBANEPM051321-1198	A	05/26/2021	0700	KT	X		X								AMSE2	N1	0.00	0.00	1	VOLUME: 1700.59
4	GILBANETSP051321-1198	A	05/26/2021	0700	KT		X									AMSE2	N1	0.00	0.00	1	VOLUME: 1696.52
5	GILBANEPM051321-1999	A	05/27/2021	0645	KT	X		X								AMSE1	N1	0.00	0.00	1	VOLUME: 1710.68
6	GILBANETSP051321-1999	A	05/27/2021	0645	KT		X									AMSE1	N1	0.00	0.00	1	VOLUME: 1610.78
7	GILBANEPM051321-1200	A	05/27/2021	0652	KT	X		X								AMSE2	N1	0.00	0.00	1	VOLUME: 1727.59
8	GILBANETSP051321-1200	A	05/27/2021	0652	KT		X									AMSE2	N1	0.00	0.00	1	VOLUME: 1752.53
9																			[redacted]		
10																					

Turnaround Time: 5 days

Relinquished by: *(Signature)*	Date	Time	Received by: *(Signature)*	Date	Time	Shipping Date / Carrier / Airbill Number
[redacted]	5/27/21	1500	FedEx	5/27/21	1500	Shipping Date: 5/27/2021 / FedEx 7738 4524 0229
			[redacted]	5/28/21	0920	**Received by Laboratory:** *(Signature, Date, Time)* **& condition**

20.4°C

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Login Sample Receipt Checklist

Client: Gilbane Federal

Job Number: 320-74322-1

Login Number: 74322

List Source: Eurofins TestAmerica, 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	
Cooler Temperature is acceptable.	True	Ambient
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Laboratory Analysis Report

Job ID : 21052245

10100 East Freeway, Suite 100, Houston, TX 77029 [redacted], http://www.ablabs.com

Client Project Name :
HPNS Parcel E Phase II J310000400

Report To :	Client Name:	Gilbane	Total Number of Pages:	5
	Attn:	[redacted]	P.O.#. :	J310000400-0015
	Client Address:	1655 Grant Street, Suite 1200	Date Received :	05/28/2021 11:25
	City, State, Zip:	Concord, California, 94520	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
MSE01-052521	5/25/2021 15:49	Cassette	21052245.01
MSE02-052521	5/25/2021 15:45	Cassette	21052245.02
MSE01-052621	5/26/2021 15:30	Cassette	21052245.03
MSE02-052621	5/26/2021 15:39	Cassette	21052245.04

[redacted]

Released By: [redacted]

Title: Vice President Operations

Analyst: [redacted]

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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 6/7/2021

Job ID : 21052245
Analytical Method: NIOSH 7400-I2-Aug1994

Client: Gilbane 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
21052245.01	MSE01-052521	05/25/2021	Area	2			479	958	100	14.0	17.834	0.007		06/07/21	[redacted]
21052245.02	MSE02-052521	05/25/2021	Area	2			491	982	100	17.5	22.293	0.009		06/07/21	[redacted]
21052245.03	MSE01-052621	05/26/2021	Area	2			495	990	100	15.0	19.108	0.007		06/07/21	[redacted]
21052245.04	MSE02-052621	05/26/2021	Area	2			514	1028	100	15.5	19.745	0.007		06/07/21	[redacted]

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

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

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Sample Condition Checklist

A&B JobID : **21052245**	Date Received : **05/28/2021**	Time Received : **11:25AM**
Client Name : **Gilbane**		
Temperature : **21.8-0.1cf=21.7°C**	Sample pH : **N/A**	
Thermometer ID : **1709629**	pH Paper ID : **N/A**	
Perservative :		

	Check Points	Yes	No	N/A
1.	**Cooler seal present and signed.**	X		
2.	**Sample(s) in a cooler.**		X	
3.	**If yes, ice in cooler.**			X
4.	**Sample(s) received with chain-of-custody.**	X		
5.	**C-O-C signed and dated.**	X		
6.	**Sample(s) received with signed sample custody seal.**		X	
7.	**Sample containers arrived intact. (If no comment).**	X		
8.	**Matrix :** **Water** ☐ **Soil** ☐ **Liquid** ☐ **Sludge** ☐ **Solid** ☐ **Cassette** ☑ **Tube** ☐ **Bulk** ☐ **Badge** ☐ **Food** ☐ **Other** ☐			
9.	**Sample(s) were received in appropriate container(s).**	X		
10.	**Sample(s) were received with proper preservative**			X
11.	**All samples were logged 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 within 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:

Received in box with custody seal. - [redacted] 05-28-21

Received by : [redacted]

Check in by/date : [redacted] / 05/28/2021

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Event ID: Air Monitoring

Job ID:21052245

COC# KT052721ASB

Gilbane

Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II I310000400

Project Manager: [redacted]

Site Location: Hunters Point, San Francisco, CA 94124

Laboratory Name: A&B Labs

Address: 10100 East Fwy Ste. 100, Houston TX 77029

Contact Name: [redacted]

Date: 5/27/2021

Page: 1 of 1

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Analysis: Asbestos	Preservative: None	Container Type: Filter	Flow Rate = 2 L/min Special Instructions/Comments Total Time (min)
MSE01-052521	5/25/2021	1549	NA	NA	1	AA	X			479
MSE02-052521	5/25/2021	1545	NA	NA	1	AA	X			491
MSE01-052621	5/26/2021	1530	NA	NA	1	AA	X			495
MSE02-052621	5/26/2021	1539	NA	NA	1	AA	X			514

[redacted]

Sampled By: [redacted]

Signature: [redacted]

Special Instructions: None

Send Results to: [redacted]

Turnaround Time: Standard

Sampler: [redacted]

Courier/Airbill No.: FedEx/ 7738 4515 8310

Relinquished By/Affiliation:	Date:	Time:	Received By/ Affiliation:	Date:	Time:
[redacted] / Gilbane FEDEX	5/27/21 5.28.21	1500 1125	FedEx [redacted]	5/27/21 5.28.21	1500 1125

TEMP: 21.8 - 0.1 = 21.7°C IA: 1709670 [redacted]

After printing this label:
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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.