Naval Facilities Engineering 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

March 1st, 2020 through March 31th, 2020

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DCN: GLBN-0005-4332-0039

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March 1st, 2020 through March 31st, 2020

Prepared for:

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Naval Facilities Engineering Command Southwest
BRAC PMO West
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Contract Number: N62473-17-D-0005; Task Order No. N6247317F4332
DCN: GLBN-0005-4332-0039

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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/cm3……*fiber per cubic centimeter*

Gilbane……..*Gilbane Federal*

HERO……*Human and Ecological Risk Office*

HPNS……*Hunters Point Naval Shipyard*

L/min……*liters per minute*

mg/m3……..milligrams per cubic meter

Navy……*U.S. Department of the Navy*

NIOSH……*National Institute for Occupational Safety and Health*

PDR……..personal data-logging real-time

PEL……*permissible exposure limit*

PM10……*particulate matter less than 10 microns in diameter*

TSP……*total suspended particulates*

TWA……*time-weighted average*

µg/m3……*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, 2019). The 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 March 1st, 2020 through March 31st, 2020 and compares the results with the established action levels presented in the DMCP (Appendix E of the RAWP [Gilbane, 2019]).

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 (KCASANFR994) published at Weather Underground (www.wunderground.com). 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.

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.

3.2 PM10

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 40 CFR 50, Subpart J, during which time 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 sample results are gravimetrically determined, after which the results are validated for quality assurance. In this way the precise amount of PM10 present in each cubic meter of air is determined.

3.3 TSP, Copper, Lead, and Manganese

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 Title 40 Code of Federal Regulations (CFR), Part 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. Once the filter weight was determined, the sample was analyzed for copper and manganese in accordance with one of the IO-3 methods identified in 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.

3.4 Radionuclides of Concern

Radiological air samples were collected with a LV-1 low-volume air sampler. Air filters are 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, 2016).

The radiological air sample 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 air monitoring 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, 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. Negative results indicating that the upwind concentration was greater than the downwind concentration, or instances where no delta was calculated due to non-detected results, 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, 2019]. 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 ug/m^3.

Table 4-1: Air Monitoring Threshold Criteria

Test Parameter	Threshold Criterion	Threshold Criteria Reference
Asbestos	0.1 fiber/cm^3	Cal/OSHA PEL
PM10	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

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 downwind Station 1 in Parcel D-1 and upwind Station 2 in Parcel E from March 2nd to March 12th, 2020, during which Gilbane was relocating stockpiles from Parcel E to Parcel D-1. Samples were not collected during periods of site inactivity, rain events, and/or while site work was limited to non-earth moving tasks. Air samples were not run on March 16th and March 17th, 2020 since there were no earth-moving tasks during that time. On March 16th, 2020, a shelter in place order was issued by the City and County of San Francisco Department of Public Health due to the risk of the rapid spread of the virus that causes Coronavirus 2019 Disease. Subsequently on March 19th, 2020, the California State Public Health Officer and Director of the California Department of Public Health issued a stay home order in effect until further notice. As a result, the site was shut down on March 17th, 2020, and remained closed from March 18th, 2020 through March 31st, 2020.

Construction and remediation activities conducted from March 1st through March 31st, 2020, did not result in the exceedance of the established threshold criteria, as described in detail below.

Asbestos results from March 1st through March 31st, 2020 did not exceed the project-specific screening criteria presented in Table 4-1. The results are presented as Attachment 2.

PM10 results from March 1st through March 31st, 2020 did not exceed the project-specific screening criteria presented in Table 4-1. The results are presented as Attachment 3.

TSP, lead, manganese, and copper results from March 1st through March 31st, 2020 did not exceed the project-specific screening criteria presented in Table 4-1. The results are presented as Attachments 4 and 5.

Radiological air sampling results from March 1st through March 31st, 2020 did not exceed the project-specific screening criteria presented in Table 4-1. The results are presented as Attachment 6.

Analytical laboratory reports are included as Attachment 7.

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, 2014. Final Remedial Action Work Plan, Parcel E Remedial Action, Phase 2, Hunters Point Naval Shipyard, San Francisco, California. October

FIGURES

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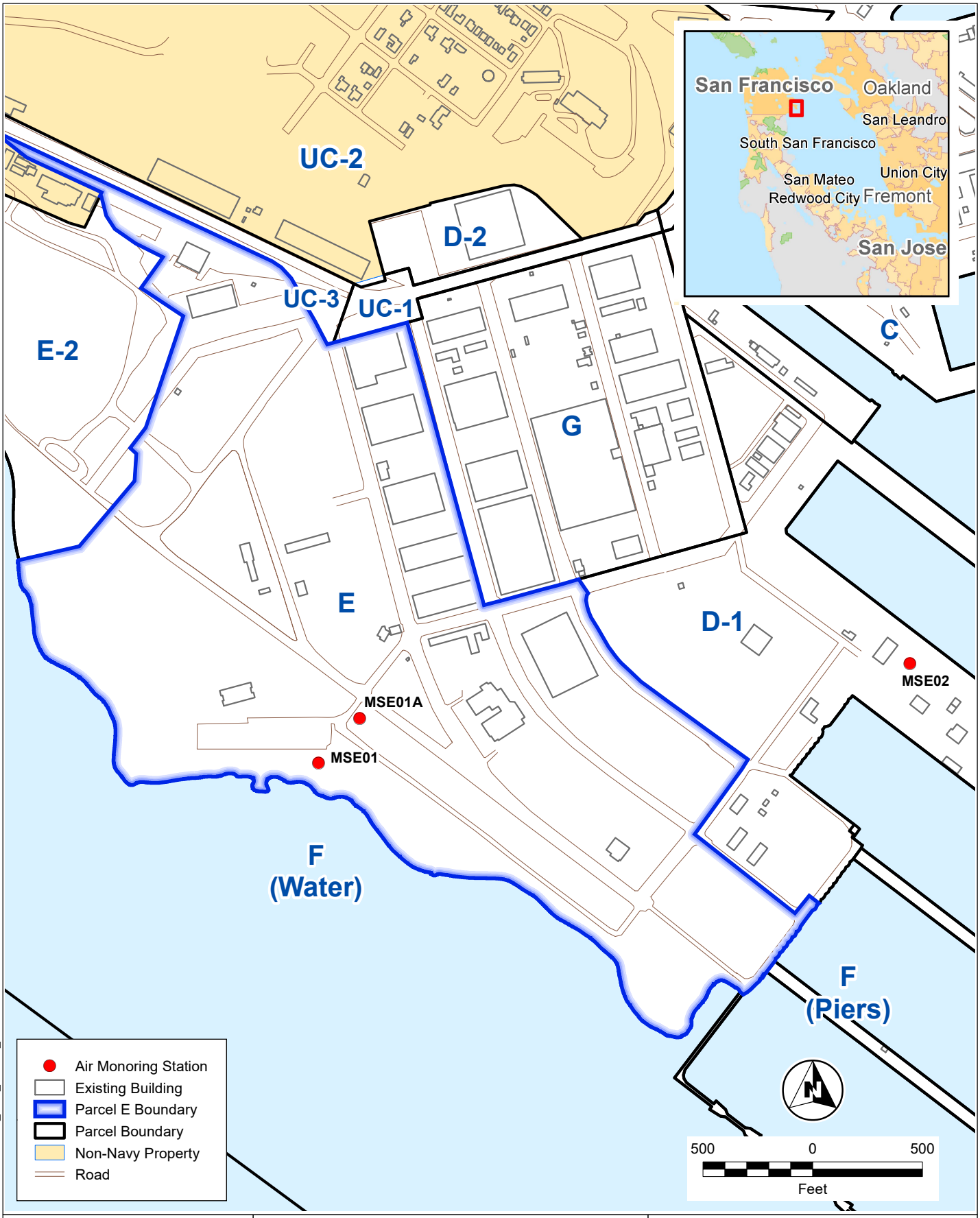

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Gilbane

Parcel E
Hunters Point Naval Shipyard
San Franscisco, California

Figure 2-1
Air Monitoring Stations

ATTACHMENTS

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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 Result
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

Start Date	Ambient Pressure (in Hg)	Ambient Temperature (°F)	Prevalent Wind Direction
3/2/2020	30.07	62.0	SW
3/3/2020	30.06	60.0	SSW
3/4/2020	30.13	59.0	W
3/5/2020	30.20	58.0	WNW
3/9/2020	30.12	57.0	NW
3/10/2020	30.05	61.0	NNW
3/11/2020	30.05	56.0	WNW
3/12/2020	29.94	56.0	NW

Note:
Data collected using wunderground.com from Hunters Point Station - KCASANSFR994.
°F = degree Fareheit
in Hg = inches of mercury
N = North
S= South
W = West

ATTACHMENT 2

ASBESTOS MONITORING RESULTS

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Attachment 2
Asbestos Monitoring Results
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

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 (m^3)	Asbestos (fibers)	Conc Asbestos (fibers/cm^3)	Exceedance (Yes/No)
MSE01A-030220	03/02/20	1A	476	952	13.5	0.007	No
MSE02-030220	03/02/20	2	461	922	23.0	0.012	No
MSE01A-030320	03/03/20	1A	468	936	11.0	0.006	No
MSE02-030320	03/03/20	2	462	924	11.5	0.006	No
MSE01A-030420	03/04/20	1A	475	950	11.0	0.006	No
MSE02-030420	03/04/20	2	464	928	11.0	0.006	No
MSE01A-030520	03/05/20	1A	441	882	18.5	0.100	No
MSE02-030520	03/05/20	2	432	864	10.0	0.006	No
MSE01A-030920	03/09/20	1A	436	872	13.5	0.008	No
MSE02-030920	03/09/20	2	412	824	18.0	0.011	No
MSE01A-031020	03/10/20	1A	453	906	12.0	0.006	No
MSE02-031020	03/10/20	2	430	860	18.0	0.010	No
MSE01A-031120	3/11/20	1A	473	946	13.0	0.007	No
MSE02-031120	3/11/20	2	470	940	14.0	0.007	No
MSE01A-031220	3/12/20	1A	414	828	12.5	0.007	No
MSE02-031220	3/12/20	2	404	808	17.0	0.010	No

Notes:
Samples analyzed by A&B Labs
Sample locations are shown on Figure 2-1
min = minutes
m^3 = cubic meters
fibers/cm^3 = fibers per cubic centimeter

ATTACHMENT 3

PM10 MONITORING RESULTS

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Attachment 3
Particulate Matter, Smaller than Ten Microns (PM10) Monitoring Results
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

Sample, Date and Station Information			Sampler Run Information	PM10s							
Sample ID	Monitoring Station	Sample Start Date[1]	Total Air Volume Monitored (m^3)	Total Mass (mg)	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[2] (ug/m^3)	Exceedance (Yes/No)
Q0374064-MSE01A	1A	3/2/20	1661.04	31	0.019				No		No
Q0374065-MSE02	2	3/2/20	1629.04	22	0.014	0.005	5.0	5,000	No	50	No
Q0374062-MSE01A	1A	3/3/20	1589.83	34	0.021				No		No
Q0374063-MSE02	2	3/3/20	1100.19	11	0.0099	0.0111	11.1	5,000	No	50	No
Q0374076-MSE01A	1A	3/4/20	1628.24	32	0.019				No		No
Q0374077-MSE02	2	3/4/20	1617.41	26	0.016	0.003	3.0	5,000	No	50	No
Q0374070-MSE01A	1A	3/5/20	505.16	5.2	0.01				No		No
Q0374071-MSE02	2	3/5/20	495.45	3.6	0.0073	0.0027	2.7	5,000	No	50	No
Q0374074-MSE01A	1A	3/9/20	1601.77	4.5	0.0028				No		No
Q0374075-MSE02	2	3/9/20	1587.43	3.1	0.002	0.0008	0.8	5,000	No	50	No
Q0374072-MSE01A	1A	3/10/20	1655.51	4.3	0.0026				No		No
Q0374073-MSE02	2	3/10/20	1634.10	4.5	0.0028	-0.0002	-0.2	5,000	No	50	No
Q0374060-MSE01A	1A	3/11/20	1634.30	12	0.0076				No		No
Q0374061-MSE02	2	3/11/20	1623.96	10	0.0064	0.0012	1.2	5,000	No	50	No
Q0374058-MSE01A	1A	3/12/20	472.59	12	0.026				No		No
Q0374059-MSE02	2	3/12/20	456.56	11	0.025	0.0010	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]PM10 data is additionally compared to the recommended dust action level of 50 ug/m^3 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.

Samples analyzed by ALS Environmental

Sample locations are shown on Figure 2-1

DTSC = Department of Toxic Substances Control

m^3 = cubic meters

mg = milligrams

mg/m^3 = milligrams per cubic meter

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

ATTACHMENT 4

TSP MONITORING RESULTS

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Attachment 4
Total Suspended Particulates Monitoring Results
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

Sample, Date and Station Information			Sampler Run Information	Total Suspended Particulates				
Sample ID	Monitoring Station	Sample Start Date[1]	Total Air Volume Monitored (m^3)	Total Mass (mg)	Concen-tration in Air (mg/m^3)	Delta between Downwind and Upwind (mg/m^3)	Basewide HPNS Level (mg/m^3)	Exceedance (Yes/No)
9764167-MSE01A	1A	3/2/20	1745.45	68	0.039			
9764168-MSE02	2	3/2/20	1664.17	47	0.028	0.011	0.5	No
9764165-MSE01A	1A	3/3/20	1752.79	70	0.040			
9764166-MSE02	2	3/3/20	1662.20	54	0.032	0.008	0.5	No
9764179-MSE01A	1A	3/4/20	1724.85	80	0.046			
9764180-MSE02	2	3/4/20	1663.95	58	0.035	0.011	0.5	No
9764177-MSE01A	1A	3/5/20	536.62	28	0.053			
9764178-MSE02	2	3/5/20	505.49	12	0.023	0.030	0.5	No
9764175-MSE01A	1A	3/9/20	1690.53	38	0.022			
9764176-MSE02	2	3/9/20	1616.85	20	0.013	0.009	0.5	No
9764173-MSE01A	1A	3/10/20	1753.54	52	0.029			
9764174-MSE02	2	3/10/20	1662.49	33	0.020	0.009	0.5	No
9764163-MSE01A	1A	3/11/20	1726.81	57	0.033			
9764164-MSE02	2	3/11/20	1653.02	36	0.022	0.011	0.5	No
9764161-MSE01A	1A	3/12/20	500.86	17	0.034			
9764162-MSE02	2	3/12/20	465.55	6.6	0.014	0.020	0.5	No

Notes:
[1]Air sample was not collected on days with rain or when contaminated soil was not disturbed.
Samples analyzed by ALS Environmental
Sample locations are shown on Figure 2-1
-- indicates difference was not calculated
< = below detection limit
HPNS = Hunters Point Naval Shipyard
mg = milligrams
mg/m^3 = milligrams per cubic meter
m^3 = cubic meters
NA = not applicable
ug = micrograms

ATTACHMENT 5

COPPER, LEAD, AND MANGANESE MONITORING RESULTS

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Attachment 5
Copper, Lead, and Manganese Monitoring Results
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California

Sample, Date and Station Information			Sampler Run Information	Copper			Lead			Manganese		
Sample ID	Monitoring Station	Sample Start Date[1]	Total Air Volume Monitored (m^3)	Result (ug)	Concen-tration in Air (mg/m^3)	Exceedance (Yes/No)	Result (ug)	Concen-tration in Air (mg/m^3)	Exceedance (Yes/No)	Result (ug)	Concen-tration in Air (mg/m^3)	Exceedance (Yes/No)
9764167-MSE01A	1A	3/2/20	1745.45	2,300	0.0013	No	ND	<0.000014	No	30	0.000017	No
9764168-MSE02	2	3/2/20	1664.17	240	0.00015	No	ND	<0.000015	No	ND	<0.000015	No
9764165-MSE01A	1A	3/3/20	1752.79	3,600	0.0020	No	ND	<0.000014	No	28	0.000016	No
9764166-MSE02	2	3/3/20	1662.20	260	0.00016	No	ND	<0.000015	No	ND	<0.000015	No
9764179-MSE01A	1A	3/4/20	1724.85	3,000	0.0018	No	ND	<0.000014	No	36	0.000021	No
9764180-MSE02	2	3/4/20	1663.95	390	0.00024	No	ND	<0.000015	No	ND	<0.000015	No
9764177-MSE01A	1A	3/5/20	536.62	440	0.00081	No	ND	<0.000047	No	27	0.000051	No
9764178-MSE02	2	3/5/20	505.49	130	0.00025	No	ND	<0.000049	No	ND	<0.000049	No
9764175-MSE01A	1A	3/9/20	1690.53	2,700	0.0016	No	ND	<0.000015	No	ND	<0.000015	No
9764176-MSE02	2	3/9/20	1616.85	520	0.00032	No	ND	<0.000015	No	ND	<0.000015	No
9764173-MSE01A	1A	3/10/20	1753.54	3,000	0.0017	No	ND	<0.000014	No	38	0.000022	No
9764174-MSE02	2	3/10/20	1662.49	1,000	0.00061	No	ND	<0.000015	No	ND	<0.000015	No
9764163-MSE01A	1A	3/11/20	1726.81	2,200	0.0012	No	ND	<0.000014	No	28	0.000016	No
9764164-MSE02	2	3/11/20	1653.02	480	0.00029	No	ND	<0.000015	No	ND	<0.000015	No
9764161-MSE01A	1A	3/12/20	500.86	660	0.0013	No	ND	<0.000050	No	ND	<0.000050	No
9764162-MSE02	2	3/12/20	465.55	350	0.00076	No	ND	<0.000054	No	ND	<0.000054	No

Notes:
[1]Air sample was not collected on days with rain or when contaminated soil was not disturbed.
Samples analyzed by ALS Environmental
Sample locations are shown on Figure 2-1
mg = milligrams
mg/m^3 = milligrams per cubic meter
< = below detection limit
m^3 = cubic meters
ug = micrograms

ATTACHMENT 6

RADIOLOGICAL AIR MONITORING RESULTS

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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 March 1, 2020	< 72 hr decay time	Value > 0.1 x Effluent Conc
Information effective as of: 3/23/2020			Effluent Conc (µCi/ml)	9.E-13	6.E-12	and March 31, 2020	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-0045	Perimeter	MSE01A	PE03	60	3/2/20 7:50	3/2/20 15:46	476	2.9E+07	A	3/16/20	20	cpm	0.250	4.550	0.6	10.1	1.0E-14	1.6E-13	***1.1%***	***2.7%***	*DVT*	*DB*
AS-0046	Perimeter	MSE02	PE04	60	3/2/20 7:00	3/2/20 15:52	532	3.2E+07	A	3/17/20	20	cpm	0.350	4.100	0.9	8.9	1.3E-14	1.3E-13	***1.4%***	***2.1%***	*DVT*	*DB*
AS-0047	Perimeter	MSE01A	PE03	60	3/3/20 7:06	3/3/20 14:15	429	2.6E+07	A	3/18/20	20	cpm	0.200	3.550	0.5	7.3	8.9E-15	1.3E-13	***1.0%***	***2.1%***	*DVT*	*DB*
AS-0048	Perimeter	MSE02	PE04	60	3/3/20 7:00	3/3/20 14:20	440	2.6E+07	A	3/19/20	20	cpm	0.050	3.800	0.1	8.0	2.2E-15	1.4E-13	***0.2%***	***2.3%***	*DVT*	*DB*
AS-0049	Perimeter	MSE01A	PE03	60	3/4/20 5:35	3/4/20 14:45	550	3.3E+07	A	3/20/20	20	cpm	0.050	3.250	0.1	6.5	1.7E-15	8.9E-14	***0.2%***	***1.5%***	*DVT*	*DB*
AS-0050	Perimeter	MSE02	PE04	60	3/4/20 5:40	3/4/20 15:00	560	3.4E+07	A	3/21/20	20	cpm	0.250	4.500	0.6	10.0	8.5E-15	1.3E-13	***0.9%***	***2.2%***	*DVT*	*DB*
AS-0051	Perimeter	MSE01A	PE03	60	3/5/20 5:05	3/5/20 14:05	540	3.2E+07	A	3/22/20	20	cpm	0.200	3.700	0.5	7.8	7.1E-15	1.1E-13	***0.8%***	***1.8%***	*DVT*	*DB*
AS-0052	Perimeter	MSE02	PE04	60	3/5/20 5:00	3/5/20 14:00	540	3.2E+07	A	3/23/20	20	cpm	0.200	3.500	0.5	7.2	7.1E-15	1.0E-13	***0.8%***	***1.7%***	*DVT*	*DB*
AS-0053	Perimeter	MSE01A	PE03	60	3/9/20 6:30	3/9/20 14:30	480	2.9E+07	A	3/24/20	20	cpm	0.150	4.050	0.4	8.7	6.0E-15	1.4E-13	***0.7%***	***2.3%***	*DVT*	*DB*
AS-0054	Perimeter	MSE02	PE04	60	3/9/20 6:00	3/9/20 14:35	515	3.1E+07	A	3/25/20	20	cpm	0.100	3.050	0.3	6.0	3.7E-15	8.7E-14	***0.4%***	***1.4%***	*DVT*	*DB*
AS-0055	Perimeter	MSE01A	PE03	60	3/10/20 5:30	3/10/20 14:30	540	3.2E+07	A	3/26/20	20	cpm	0.150	4.050	0.4	8.7	5.3E-15	1.2E-13	***0.6%***	***2.0%***	*DVT*	*DB*
AS-0056	Perimeter	MSE02	PE04	60	3/10/20 5:26	3/10/20 14:35	549	3.3E+07	A	3/27/20	20	cpm	0.150	4.150	0.4	9.0	5.2E-15	1.2E-13	***0.6%***	***2.1%***	*DVT*	*DB*
AS-0057	Perimeter	MSE01A	PE03	60	3/11/20 5:20	3/11/20 14:45	565	3.4E+07	A	3/28/20	20	cpm	0.150	4.400	0.4	9.7	5.1E-15	1.3E-13	***0.6%***	***2.1%***	*DVT*	*DB*
AS-0058	Perimeter	MSE02	PE04	60	3/11/20 5:15	3/11/20 14:30	555	3.3E+07	A	3/29/20	20	cpm	0.100	4.000	0.3	8.6	3.4E-15	1.2E-13	***0.4%***	***1.9%***	*DVT*	*DB*
AS-0059	Perimeter	MSE01A	PE03	60	3/12/20 5:00	3/12/20 14:02	542	3.3E+07	A	3/30/20	20	cpm	0.450	3.600	1.1	7.5	1.6E-14	1.0E-13	***1.8%***	***1.7%***	*DVT*	*DB*
AS-0060	Perimeter	MSE02	PE04	60	3/12/20 4:55	3/12/20 14:05	550	3.3E+07	A	3/31/20	20	cpm	0.250	5.150	0.6	11.8	8.7E-15	1.6E-13	***1.0%***	***2.7%***	*DVT*	*DB*

ATTACHMENT 7

LABORATORY REPORTS

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07-Jul-2020

Brett Womack
Gilbane Company
2730 Shadelands Drive
Walnut Creek, CA 94598

Tel: (925) 946-3220
Fax: (925) 946-3292

Re: HPNS Parcel E-2; J310000400-016 Work Order: **2003259**

Dear Brett,

ALS Environmental received 16 samples on 06-Mar-2020 10:38 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 14.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 07-Jul-20

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400-016
Work Order: **2003259**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2003259-01	Q0374064-MSE01A	Air		3/3/2020 07:45	3/6/2020 10:38	☐
2003259-02	9764167-MSE01A	Air		3/3/2020 07:45	3/6/2020 10:38	☐
2003259-03	Q0374065-MSE02	Air		3/3/2020 08:00	3/6/2020 10:38	☐
2003259-04	9764168-MSE02	Air		3/3/2020 08:00	3/6/2020 10:38	☐
2003259-05	Q0374062-MSE01A	Air		3/4/2020 07:46	3/6/2020 10:38	☐
2003259-06	9764165-MSE01A	Air		3/4/2020 07:46	3/6/2020 10:38	☐
2003259-07	Q0374063-MSE02	Air		3/4/2020 08:00	3/6/2020 10:38	☐
2003259-08	9764166-MSE02	Air		3/4/2020 08:00	3/6/2020 10:38	☐
2003259-09	Q0374076-MSE01A	Air		3/5/2020 07:24	3/6/2020 10:38	☐
2003259-10	9764179-MSE01A	Air		3/5/2020 07:24	3/6/2020 10:38	☐
2003259-11	Q0374077-MSE02	Air		3/5/2020 07:43	3/6/2020 10:38	☐
2003259-12	9764180-MSE02	Air		3/5/2020 07:43	3/6/2020 10:38	☐
2003259-13	Q0374070-MSE01A	Air		3/5/2020 14:48	3/6/2020 10:38	☐
2003259-14	9764177-MSE01A	Air		3/5/2020 14:48	3/6/2020 10:38	☐
2003259-15	Q0374071-MSE02	Air		3/5/2020 15:01	3/6/2020 10:38	☐
2003259-16	9764178-MSE02	Air		3/5/2020 15:01	3/6/2020 10:38	☐

Client:	Gilbane Company
Project:	HPNS Parcel E-2; J310000400-016
Work Order:	2003259

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

This report was revised as follows: TSP results were corrected.

ALS Environmental

Date: *07-Jul-20*

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400-016

Work Order: 2003259

Analytical Results

Lab ID: 2003259-01A **Collection Date:** 3/3/2020 7:45:00 AM
Client Sample ID: Q0374064-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1661040**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**31**	**1.0**	**0.019**	

Lab ID: 2003259-02A **Collection Date:** 3/3/2020 7:45:00 AM
Client Sample ID: 9764167-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1745450**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**68**	**1.0**	**0.039**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1745450**	Analyst: **AZ**
Date Analyzed: 3/12/2020 15:48		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**2,300**	**25**	**0.0013**	
Lead	ND	25	<0.000014	
Manganese	**30**	**25**	**0.000017**	

Lab ID: 2003259-03A **Collection Date:** 3/3/2020 8:00:00 AM
Client Sample ID: Q0374065-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1629040**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**22**	**1.0**	**0.014**	

Note:

Client: Gilbane Company **Work Order:** 2003259
Project: HPNS Parcel E-2; J310000400-016

Analytical Results

Lab ID: 2003259-04A **Collection Date:** 3/3/2020 8:00:00 AM
Client Sample ID: 9764168-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1664170**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**47**	**1.0**	**0.028**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1664170**	Analyst: **AZ**
Date Analyzed: 3/12/2020 15:51		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**240**	**25**	**0.00015**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2003259-05A **Collection Date:** 3/4/2020 7:46:00 AM
Client Sample ID: Q0374062-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1589830**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**34**	**1.0**	**0.021**	

Lab ID: 2003259-06A **Collection Date:** 3/4/2020 7:46:00 AM
Client Sample ID: 9764165-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1752790**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**70**	**1.0**	**0.040**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1752790**	Analyst: **AZ**
Date Analyzed: 3/12/2020 15:55		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**3,600**	**25**	**0.0020**	
Lead	ND	25	<0.000014	
Manganese	**28**	**25**	**0.000016**	

Note:

Client: Gilbane Company **Work Order:** 2003259
Project: HPNS Parcel E-2; J310000400-016

Analytical Results

Lab ID: 2003259-07A **Collection Date:** 3/4/2020 8:00:00 AM
Client Sample ID: Q0374063-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1100190**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**11**	**1.0**	**0.0099**	

Lab ID: 2003259-08A **Collection Date:** 3/4/2020 8:00:00 AM
Client Sample ID: 9764166-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1662200**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**54**	**1.0**	**0.032**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1662200**	Analyst: **AZ**
Date Analyzed: 3/12/2020 15:59		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**260**	**25**	**0.00016**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2003259-09A **Collection Date:** 3/5/2020 7:24:00 AM
Client Sample ID: Q0374076-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1628240**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**32**	**1.0**	**0.019**	

Note:

Client: Gilbane Company **Work Order:** 2003259
Project: HPNS Parcel E-2; J310000400-016

Analytical Results

Lab ID: 2003259-10A **Collection Date:** 3/5/2020 7:24:00 AM
Client Sample ID: 9764179-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1724850**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**80**	**1.0**	**0.046**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1724850**	Analyst: **AZ**
Date Analyzed: 3/12/2020 16:11		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**3,000**	**25**	**0.0018**	
Lead	ND	25	<0.000014	
Manganese	**36**	**25**	**0.000021**	

Lab ID: 2003259-11A **Collection Date:** 3/5/2020 7:43:00 AM
Client Sample ID: Q0374077-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1617410**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**26**	**1.0**	**0.016**	

Lab ID: 2003259-12A **Collection Date:** 3/5/2020 7:43:00 AM
Client Sample ID: 9764180-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1663950**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**58**	**1.0**	**0.035**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1663950**	Analyst: **AZ**
Date Analyzed: 3/12/2020 16:15		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**390**	**25**	**0.00024**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Note:

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400-016

Work Order: 2003259

Analytical Results

Lab ID: 2003259-13A **Collection Date:** 3/5/2020 2:48:00 PM
Client Sample ID: Q0374070-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **505160** Analyst: **CS**
Date Analyzed: 3/10/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Particulate as PM10	**5.2**	**1.0**	**0.010**

Lab ID: 2003259-14A **Collection Date:** 3/5/2020 2:48:00 PM
Client Sample ID: 9764177-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B Method: **TSP** Air Volume (L): **536620** Analyst: **CS**
Date Analyzed: 3/10/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Total suspended particulate	**28**	**1.0**	**0.053**

METALS BY EPA METHOD 12 MOD. Method: **E12** Air Volume (L): **536620** Analyst: **AZ**
Date Analyzed: 3/12/2020 16:19

	µg/sample	Reporting Limit µg/sample	mg/m3
Copper	**440**	**25**	**0.00081**
Lead	ND	25	<0.000047
Manganese	**27**	**25**	**0.000051**

Lab ID: 2003259-15A **Collection Date:** 3/5/2020 3:01:00 PM
Client Sample ID: Q0374071-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J Method: **PM10** Air Volume (L): **495450** Analyst: **CS**
Date Analyzed: 3/10/2020

	mg/sample	Reporting Limit mg/sample	mg/m3
Particulate as PM10	**3.6**	**1.0**	**0.0073**

Note:

ALS Environmental

Date: *07-Jul-20*

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400-016

Work Order: 2003259

Analytical Results

Lab ID: 2003259-16A
Client Sample ID: 9764178-MSE02

Collection Date: 3/5/2020 3:01:00 PM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **505490**	Analyst: **CS**
Date Analyzed: 3/10/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**12**	**1.0**	**0.023**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **505490**	Analyst: **AZ**
Date Analyzed: 3/12/2020 16:23		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**130**	**25**	**0.00025**	
Lead	ND	25	<0.000049	
Manganese	ND	25	<0.000049	

Note:

ALS Environmental

Date: 07-Jul-20

Client: Gilbane Company

QC BATCH REPORT

Work Order: 2003259

Project: HPNS Parcel E-2; J310000400-016

Batch ID: **R175702** Instrument ID **BAL2** Method: **PM10**

DUP Sample ID: **2003259-01a dup** Units: **mg/sample** Analysis Date: **3/10/2020**

Client ID: **Q0374064-MSE01A** Run ID: **BAL2_200310A** SeqNo: **2206927** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Particulate as PM10	31.1	1.0	0	0	0		31.4	0.96		

The following samples were analyzed in this batch:

2003259-01a	2003259-03a	2003259-05a
2003259-07a	2003259-09a	2003259-11a
2003259-13a	2003259-15a	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2003259
Project: HPNS Parcel E-2; J310000400-016

QC BATCH REPORT

Batch ID: **R175704** Instrument ID **BAL2** Method: **TSP**

DUP Sample ID: **2003259-02a dup** Units: **mg/sample** Analysis Date: **3/10/2020**
Client ID: **9764167-MSE01A** Run ID: **BAL2_200310B** SeqNo: **2206942** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended particulate	67.9	1.0	0	0	0		68.2	0.441		

The following samples were analyzed in this batch:

2003259-02a	2003259-04a	2003259-06a
2003259-08a	2003259-10a	2003259-12a
2003259-14a	2003259-16a	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2003259
Project: HPNS Parcel E-2; J310000400-016

QC BATCH REPORT

Batch ID: **65547** Instrument ID **ICP1** Method: **E12**

MBLK Sample ID: **MBLK-65547-65547** Units: **µg/sample** Analysis Date: **3/12/2020 03:36 PM**
Client ID: Run ID: **ICP1_200312B** SeqNo: **2209403** Prep Date: **3/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	ND	25								
Lead	ND	25								
Manganese	ND	25								

LCS Sample ID: **LCS-65547-65547** Units: **µg/sample** Analysis Date: **3/12/2020 03:40 PM**
Client ID: Run ID: **ICP1_200312B** SeqNo: **2209404** Prep Date: **3/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	398.9	25	450	0	88.6	75-125	0			
Lead	429.2	25	450	0	95.4	75-125	0			
Manganese	411.4	25	450	0	91.4	75-125	0			

LCSD Sample ID: **LCSD-65547-65547** Units: **µg/sample** Analysis Date: **3/12/2020 03:44 PM**
Client ID: Run ID: **ICP1_200312B** SeqNo: **2209405** Prep Date: **3/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	395.1	25	450	0	87.8	75-125	398.9	0.964	20	
Lead	429	25	450	0	95.3	75-125	429.2	0.0315	20	
Manganese	407	25	450	0	90.4	75-125	411.4	1.08	20	

MS Sample ID: **2003259-16A MS** Units: **µg/sample** Analysis Date: **3/12/2020 04:27 PM**
Client ID: **9764178-MSE02** Run ID: **ICP1_200312B** SeqNo: **2209399** Prep Date: **3/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	513.9	25	450	0	114	75-125	0			
Lead	435.6	25	450	0	96.8	75-125	0			
Manganese	419	25	450	0	93.1	75-125	0			

MSD Sample ID: **2003259-16A MSD** Units: **µg/sample** Analysis Date: **3/12/2020 04:31 PM**
Client ID: **9764178-MSE02** Run ID: **ICP1_200312B** SeqNo: **2209400** Prep Date: **3/12/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	511.2	25	450	0	114	75-125	0	0	20	
Lead	432.8	25	450	0	96.2	75-125	0	0	20	
Manganese	423.1	25	450	0	94	75-125	0	0	20	

The following samples were analyzed in this batch:

2003259-02A	2003259-04A	2003259-06A
2003259-08A	2003259-10A	2003259-12A
2003259-14A	2003259-16A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 07-Jul-20

Client: Gilbane Company
Project: HPNS Parcel E-2; J310000400-016
WorkOrder: **2003259**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	
mg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **GILBANE-WALNUTCREEK** Date/Time Received: **06-Mar-20 10:38**

Work Order: **2003259** Received by: **DNS**

Checklist completed by H annah P onder (eSignature) 06-Mar-20 (Date) Reviewed by: R ob N ieman (eSignature) 10-Mar-20 (Date)

Matrices: air
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	n/a		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

24-Mar-2020

Kristen Carlyon
Gilbane Company
2730 Shadelands Drive
Walnut Creek, CA 94598

Tel: (925) 946-3220
Fax: (925) 946-3292

Re: HPNS Parcel E Phase II; J310000400 Work Order: **2003603**

Dear Kristen,

ALS Environmental received 16 samples on 13-Mar-2020 10:12 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 24-Mar-20

Client: Gilbane Company
Project: HPNS Parcel E Phase II; J310000400
Work Order: **2003603**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2003603-01	Q0374074-MSE01A	Air		3/10/2020 07:51	3/13/2020 10:12	☐
2003603-02	9764175-MSE01A	Air		3/10/2020 07:51	3/13/2020 10:12	☐
2003603-03	Q0374075-MSE02	Air		3/10/2020 08:11	3/13/2020 10:12	☐
2003603-04	9764176-MSE02	Air		3/10/2020 08:11	3/13/2020 10:12	☐
2003603-05	Q0374072-MSE01A	Air		3/11/2020 07:54	3/13/2020 10:12	☐
2003603-06	9764713-MSE01A	Air		3/11/2020 07:54	3/13/2020 10:12	☐
2003603-07	Q0374073-MSE02	Air		3/11/2020 08:07	3/13/2020 10:12	☐
2003603-08	9764174-MSE02	Air		3/11/2020 08:07	3/13/2020 10:12	☐
2003603-09	Q0374060-MSE01A	Air		3/12/2020 07:36	3/13/2020 10:12	☐
2003603-10	9764163-MSE01A	Air		3/12/2020 07:36	3/13/2020 10:12	☐
2003603-11	Q0374061-MSE02	Air		3/12/2020 07:56	3/13/2020 10:12	☐
2003603-12	9764164-MSE02	Air		3/12/2020 07:56	3/13/2020 10:12	☐
2003603-13	Q0374058-MSE01A	Air		3/12/2020 14:36	3/13/2020 10:12	☐
2003603-14	9764161-MSE01A	Air		3/12/2020 14:36	3/13/2020 10:12	☐
2003603-15	Q0374059-MSE02	Air		3/12/2020 14:48	3/13/2020 10:12	☐
2003603-16	9764162-MSE02	Air		3/12/2020 14:48	3/13/2020 10:12	☐

ALS Environmental

Date: 24-Mar-20

Client:	Gilbane Company
Project:	HPNS Parcel E Phase II; J310000400
Work Order:	2003603

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *24-Mar-20*

Client: Gilbane Company
Project: HPNS Parcel E Phase II; J310000400

Work Order: 2003603

Analytical Results

Lab ID: 2003603-01A **Collection Date:** 3/10/2020 7:51:00 AM
Client Sample ID: Q0374074-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1601770**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**4.5**	**1.0**	**0.0028**	

Lab ID: 2003603-02A **Collection Date:** 3/10/2020 7:51:00 AM
Client Sample ID: 9764175-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1690530**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**38**	**1.0**	**0.022**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1690530**	Analyst: **AZ**
Date Analyzed: 3/23/2020 14:54		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**2,700**	**25**	**0.0016**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2003603-03A **Collection Date:** 3/10/2020 8:11:00 AM
Client Sample ID: Q0374075-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1587430**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**3.1**	**1.0**	**0.0020**	

Note:

Client: Gilbane Company **Work Order:** 2003603
Project: HPNS Parcel E Phase II; J310000400

Analytical Results

Lab ID: 2003603-04A **Collection Date:** 3/10/2020 8:11:00 AM
Client Sample ID: 9764176-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1616850**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**20**	**1.0**	**0.013**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1616850**	Analyst: **AZ**
Date Analyzed: 3/23/2020 14:58		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**520**	**25**	**0.00032**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2003603-05A **Collection Date:** 3/11/2020 7:54:00 AM
Client Sample ID: Q0374072-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1655510**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**4.3**	**1.0**	**0.0026**	

Lab ID: 2003603-06A **Collection Date:** 3/11/2020 7:54:00 AM
Client Sample ID: 9764713-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1753540**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**52**	**1.0**	**0.029**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1753540**	Analyst: **AZ**
Date Analyzed: 3/23/2020 15:19		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**3,000**	**25**	**0.0017**	
Lead	ND	25	<0.000014	
Manganese	**38**	**25**	**0.000022**	

Note:

Client: Gilbane Company **Work Order:** 2003603
Project: HPNS Parcel E Phase II; J310000400

Analytical Results

Lab ID: 2003603-07A **Collection Date:** 3/11/2020 8:07:00 AM
Client Sample ID: Q0374073-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1634100**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**4.5**	**1.0**	**0.0028**	

Lab ID: 2003603-08A **Collection Date:** 3/11/2020 8:07:00 AM
Client Sample ID: 9764174-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1662490**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**33**	**1.0**	**0.020**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1662490**	Analyst: **AZ**
Date Analyzed: 3/23/2020 15:23		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**1,000**	**25**	**0.00061**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2003603-09A **Collection Date:** 3/12/2020 7:36:00 AM
Client Sample ID: Q0374060-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1634300**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**12**	**1.0**	**0.0076**	

Note:

Client: Gilbane Company **Work Order:** 2003603
Project: HPNS Parcel E Phase II; J310000400

Analytical Results

Lab ID: 2003603-10A **Collection Date:** 3/12/2020 7:36:00 AM
Client Sample ID: 9764163-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1726810**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Total suspended particulate	**57**	**1.0**	**0.033**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1726810**	Analyst: **AZ**
Date Analyzed: 3/23/2020 15:27		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**2,200**	**25**	**0.0012**	
Lead	ND	25	<0.000014	
Manganese	**28**	**25**	**0.000016**	

Lab ID: 2003603-11A **Collection Date:** 3/12/2020 7:56:00 AM
Client Sample ID: Q0374061-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **1623960**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**10**	**1.0**	**0.0064**	

Lab ID: 2003603-12A **Collection Date:** 3/12/2020 7:56:00 AM
Client Sample ID: 9764164-MSE02 **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **1653020**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**36**	**1.0**	**0.022**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **1653020**	Analyst: **AZ**
Date Analyzed: 3/23/2020 15:31		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**480**	**25**	**0.00029**	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Note:

Client: Gilbane Company **Work Order:** 2003603
Project: HPNS Parcel E Phase II; J310000400

Analytical Results

Lab ID: 2003603-13A **Collection Date:** 3/12/2020 2:36:00 PM
Client Sample ID: Q0374058-MSE01A **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **472590**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**12**	**1.0**	**0.026**	

Lab ID: 2003603-14A **Collection Date:** 3/12/2020 2:36:00 PM
Client Sample ID: 9764161-MSE01A **Matrix:** AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **500860**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**17**	**1.0**	**0.034**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **500860**	Analyst: **AZ**
Date Analyzed: 3/23/2020 15:42		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**660**	**25**	**0.0013**	
Lead	ND	25	<0.000050	
Manganese	ND	25	<0.000050	

Lab ID: 2003603-15A **Collection Date:** 3/12/2020 2:48:00 PM
Client Sample ID: Q0374059-MSE02 **Matrix:** AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: **PM10**	Air Volume (L): **456560**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	**mg/m3**	
Particulate as PM10	**11**	**1.0**	**0.025**	

Note:

ALS Environmental

Date: *24-Mar-20*

Client: Gilbane Company
Project: HPNS Parcel E Phase II; J310000400

Work Order: 2003603

Analytical Results

Lab ID: 2003603-16A
Client Sample ID: 9764162-MSE02

Collection Date: 3/12/2020 2:48:00 PM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: **TSP**	Air Volume (L): **465550**	Analyst: **CS**
Date Analyzed: 3/17/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	**6.6**	**1.0**	**0.014**	

METALS BY EPA METHOD 12 MOD.		Method: **E12**	Air Volume (L): **465550**	Analyst: **AZ**
Date Analyzed: 3/23/2020 15:46		Reporting Limit		
	µg/sample	µg/sample	**mg/m3**	
Copper	**350**	**25**	**0.00076**	
Lead	ND	25	<0.000054	
Manganese	ND	25	<0.000054	

Note:

ALS Environmental

Date: 24-Mar-20

Client: Gilbane Company

QC BATCH REPORT

Work Order: 2003603

Project: HPNS Parcel E Phase II; J310000400

Batch ID: **R175971** Instrument ID **BAL2** Method: **PM10**

DUP Sample ID: **2003603-01a dup** Units: **mg/sample** Analysis Date: **3/17/2020**

Client ID: **Q0374074-MSE01A** Run ID: **BAL2_200317A** SeqNo: **2211558** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Particulate as PM10	4.6	1.0	0	0	0		4.5	2.2		

The following samples were analyzed in this batch:

2003603-01a	2003603-03a	2003603-05a
2003603-07a	2003603-09a	2003603-11a
2003603-13a	2003603-15a	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2003603
Project: HPNS Parcel E Phase II; J310000400

QC BATCH REPORT

Batch ID: **R175972** Instrument ID **BAL2** Method: **TSP**

DUP Sample ID: **2003603-02A DUP** Units: **mg/sample** Analysis Date: **3/17/2020**
Client ID: **9764175-MSE01A** Run ID: **BAL2_200317B** SeqNo: **2211566** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total suspended particulate	38	1.0	0	0	0		37.8	0.528		

The following samples were analyzed in this batch:

2003603-02A	2003603-04a	2003603-06a
2003603-08a	2003603-10a	2003603-12a
2003603-14a	2003603-16a	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Gilbane Company
Work Order: 2003603
Project: HPNS Parcel E Phase II; J310000400

QC BATCH REPORT

Batch ID: **65702** Instrument ID **ICP3** Method: **E12**

MBLK Sample ID: **MBLK-65702-65702** Units: **µg/sample** Analysis Date: **3/23/2020 02:43 PM**
Client ID: Run ID: **ICP3_200323A** SeqNo: **2216091** Prep Date: **3/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	ND	25								
Lead	ND	25								
Manganese	ND	25								

LCS Sample ID: **LCS-65702-65702** Units: **µg/sample** Analysis Date: **3/23/2020 02:47 PM**
Client ID: Run ID: **ICP3_200323A** SeqNo: **2216092** Prep Date: **3/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	499	25	450	0	111	75-125	0			
Lead	514.8	25	450	0	114	75-125	0			
Manganese	500	25	450	0	111	75-125	0			

LCSD Sample ID: **LCSD-65702-65702** Units: **µg/sample** Analysis Date: **3/23/2020 02:51 PM**
Client ID: Run ID: **ICP3_200323A** SeqNo: **2216093** Prep Date: **3/19/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	502.6	25	450	0	112	75-125	499	0.719	20	
Lead	498.6	25	450	0	111	75-125	514.8	3.2	20	
Manganese	484.6	25	450	0	108	75-125	500	3.11	20	

The following samples were analyzed in this batch:

2003603-02A	2003603-04A	2003603-06A
2003603-08A	2003603-10A	2003603-12A
2003603-14A	2003603-16A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 24-Mar-20

Client: Gilbane Company
Project: HPNS Parcel E Phase II; J310000400
WorkOrder: **2003603**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/sample	
mg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **GILBANE-WALNUTCREEK** Date/Time Received: **13-Mar-20 10:12**

Work Order: **2003603** Received by: **DNS**

Checklist completed by Stephanie Harrington (eSignature) 13-Mar-20 (Date) Reviewed by: Rob Nieman (eSignature) 17-Mar-20 (Date)

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Laboratory Analysis Report

Job ID : 20030565

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:	Gilbane	Total Number of Pages:	5
	Attn:	Brett Womack	P.O.#. :	
	Client Address:	1655 Grant Street, Suite 1200	Date Received :	03/06/2020 09:45
	City, State, Zip:	Concord, California, 94520	Sample Collected By :	

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01A - 030220	3/2/2020 15:49	Cassette	20030565.01
MSE02 - 030220	3/2/2020 15:56	Cassette	20030565.02
MSE01A - 030320	3/3/2020 15:40	Cassette	20030565.03
MSE02 - 030320	3/3/2020 15:47	Cassette	20030565.04
MSE01A - 030420	3/4/2020 15:45	Cassette	20030565.05
MSE02 - 030420	3/4/2020 15:50	Cassette	20030565.06
MSE01A - 030520	3/5/2020 14:49	Cassette	20030565.07
MSE02 - 030520	3/5/2020 14:59	Cassette	20030565.08

Released By: Senthilkumar Sevukan

Title: Assistant Lab Manager

Analyst:

3/13/2020

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 3/13/2020

Job ID : 20030565
Analytical Method: NIOSH 7400-I2-Aug1994

Client: Gilbane Project: HPNS Parcel E Phase II J310000400 Attn: Brett Womack

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
20030565.01	MSE01A - 030220	03/02/2020	Area	2			476	952	100	13.5	17.197	0.007		03/13/20	Habedi
20030565.02	MSE02 - 030220	03/02/2020	Area	2			461	922	100	23.0	29.299	0.012		03/13/20	Habedi
20030565.03	MSE01A - 030320	03/03/2020	Area	2			468	936	100	11.0	14.013	0.006		03/13/20	Habedi
20030565.04	MSE02 - 030320	03/03/2020	Area	2			462	924	100	11.5	14.650	0.006		03/13/20	Habedi
20030565.05	MSE01A - 030420	03/04/2020	Area	2			475	950	100	11.0	14.013	0.006		03/13/20	Habedi
20030565.06	MSE02 - 030420	03/04/2020	Area	2			464	928	100	11.0	14.013	0.006		03/13/20	Habedi
20030565.07	MSE01A - 030520	03/05/2020	Area	2			441	882	100	18.5	23.567	0.010		03/13/20	Habedi
20030565.08	MSE02 - 030520	03/05/2020	Area	2			432	864	100	10.0	12.739	0.006		03/13/20	Habedi

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

Sample Condition Checklist

A&B JobID : **20030565**	Date Received : **03/06/2020**	Time Received : **9:45AM**
Client Name : **Gilbane**		
Temperature : **18.8-0.3cf=18.5°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 by : VHernandez

Check in by/date : JMontemayor / 03/06/2020

Event ID: Air Monitoring

Job ID: 20030565

TAT: 5 Days

COC# KL-030520-2

Gilbane

Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400

Project Manager: Brett Womack (925) 250-8027

Site Location: Hunters Point, San Francisco, CA 94124

Laboratory Name: AB Labs

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

Contact Name: Shantall Carpenter

Phone: 713-453-6060

Date: 05 MARCH 2020

Page: 1 of 1

Analysis: ASBESTOS

Preservative: NONE

Container Type: FILTER

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	ASBESTOS	Special Instructions/Comments
MSE01A-030220	3/2/20	1549	NA	NA	1	AA	X	Flow rate: 2 L/min
MSE02-030220	3/2/20	1556	↓	↓	↓	↓	X	Total Flow: 476 min
MSE01A-030320	3/3/20	1540					X	" " 461 min
MSE02-030320	3/3/20	1547					X	" " 468 min
MSE01A-030420	3/4/20	1545					X	" " 462 min
MSE02-030420	3/4/20	1550					X	" " 475 min
MSE01A-030520	3/5/20	1449					X	" " 464 min
~~MSE02-030520~~								" " 441 min
MSE02-030520	3/5/20	1459	NA	NA	1	AA	X	" " 432 min

Sampled By: K. LEONARD

Signature: K Leonard

Special Instructions:

Send Results to: kcarlyon@gilbaneco.com, ktom@gilbaneco.com

Turnaround Time: ~~10 days~~ 5

Sampler: Kenneth R. Leonard

Courier/Airbill No.: FedEX/ 7779 1637 1222

Relinquished By/Affiliation:	Date:	Time:	Received By/ Affiliation:	Date:	Time:
K Leonard Fed ex	3/5/20	1630	FEDEX VH	3/5/20	1630
				3.6.2020	0945

Temp - 18.8°C - 0.3 = 18.5°C

1709629 VH

ORIGIN ID:JCCA (925) 946-3135
KIMBERLY TOM
GILBANE
GILBANE TRAILER
FISHER AVE @ SPEAR AVE BLDG 241
SAN FRANCISCO, CA 94124
UNITED STATES US

SHIP DATE: 05MAR20
ACTWGT: 1.00 LB
CAD: 102700259/INET4220

BILL SENDER

TO **SHANTALL CARPENTER**
ABLABS
10100 EAST FWY, STE.100
HOUSTON TX 77029
(713) 453-6060
INV
PO J310000400

REF J310000400
DEPT

FedEx Express

J201029011301uv

56BJ2/64E0/FE4A

FRI - 06 MAR 3:00P
STANDARD OVERNIGHT

TRK# 0201 **7779 1637 1222**

AB HBYA

77029
IAH
TX-US

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Laboratory Analysis Report

Job ID : 20031147

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:	Gilbane	Total Number of Pages:	5
	Attn:	Brett Womack	P.O.#. :	
	Client Address:	1655 Grant Street, Suite 1200	Date Received :	03/13/2020 12:50
	City, State, Zip:	Concord, California, 94520	Sample Collected By :	Kenneth R. Leonard

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE01A-030920	3/9/2020 15:58	Cassette	20031147.01
MSE02-030920	3/9/2020 15:53	Cassette	20031147.02
MSE01A-031020	3/10/2020 15:33	Cassette	20031147.03
MSE02-031020	3/10/2020 15:30	Cassette	20031147.04
MSE01A-031120	3/11/2020 15:53	Cassette	20031147.05
MSE02-031120	3/11/2020 16:02	Cassette	20031147.06
MSE01A-031220	3/12/2020 14:39	Cassette	20031147.07
MSE02-031220	3/12/2020 14:49	Cassette	20031147.08

Released By: Senthilkumar Sevukan

Title: Assistant Lab Manager

Analyst:

3/20/2020

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 3/20/2020

Job ID : 20031147
Analytical Method: NIOSH 7400-I2-Aug1994

Client: Gilbane Project: HPNS Parcel E Phase II 1310000400 Attn: Brett Womack

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
20031147.01	MSE01A-030920	03/09/2020	Area	2			436	872	100	13.5	17.197	0.008		03/20/20	Habedi
20031147.02	MSE02-030920	03/09/2020	Area	2			412	824	100	18.0	22.930	0.011		03/20/20	Habedi
20031147.03	MSE01A-031020	03/10/2020	Area	2			453	906	100	12.0	15.287	0.006		03/20/20	Habedi
20031147.04	MSE02-031020	03/10/2020	Area	2			430	860	100	18.0	22.930	0.010		03/20/20	Habedi
20031147.05	MSE01A-031120	03/11/2020	Area	2			473	946	100	13.0	16.561	0.007		03/20/20	Habedi
20031147.06	MSE02-031120	03/11/2020	Area	2			470	940	100	14.0	17.834	0.007		03/20/20	Habedi
20031147.07	MSE01A-031220	03/12/2020	Area	2			414	828	100	12.5	15.924	0.007		03/20/20	Habedi
20031147.08	MSE02-031220	03/12/2020	Area	2			404	808	100	17.0	21.656	0.010		03/20/20	Habedi

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

Sample Condition Checklist

A&B JobID : **20031147**	Date Received : **03/13/2020**	Time Received : **12:50PM**
Client Name : **Gilbane**		
Temperature : **24.9-0.3CF=24.6°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 by : AOballe

Check in by/date : AArnett / 03/13/2020

Job ID: 20031147

TAT: 5 Days

COC# KL-031220-2

Chain-Of-Custody

Project Name and Number: HPNS Parcel E Phase II J310000400

Project Manager: Brett Womack (925) 250-8027

Site Location: Hunters Point, San Francisco, CA 94124

Laboratory Name: AB Labs

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

Contact Name: Shantall Carpenter

Phone: 713-453-6060

Date: 12 MAR 2020

Page: 1 of 1

Analysis: ASBESTOS

Preservative: NONE

Container Type: FILTER

Sample ID	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Special Instructions/Comments
MSE01A-030920	3/9/20	1558	NA	NA	1	AA	2 L/min flow — Total Flow: 436 min 01
MSE02-030920	3/9/20	1553					" " 412 min 02
MSE01A-031020	3/10/20	1533					" " 453 min 03
MSE02-031020	3/10/20	1530					" " 430 min 04
MSE01A-031120	3/11/20	1553					" " 473 min 05
MSE02-031120	3/11/20	1602					" " 470 min 06
MSE01A-031220	3/12/20	1439					" " 414 min 07
MSE02-031220	3/12/20	1449					" " 404 min 08

NOT USED KL 3/12/20

Sampled By: K. LEONARD

Signature: KL Leonard

Special Instructions: 249-0.3=246. 1709429 NC/NI

Send Results to: kcarlyon@gilbaneco.com, ktom@gilbaneco.com

Turnaround Time: 5 days

Sampler: Kenneth R. Leonard

Courier/Airbill No.: FedEX/ 7779 9727 0639

Relinquished By/Affiliation:	Date:	Time:	Received By/ Affiliation:	Date:	Time:
KL Leonard	3/12/20	1630	FEDEX	3/12/20	1630
FedEx	3/13/2020	1250	Amarildo	3/13/2020	1250

ORIGIN ID:JCCA (925) 946-3135
KIMBERLY TOM
GILBANE
GILBANE TRAILER
FISHER AVE @ SPEAR AVE BLDG 241
SAN FRANCISCO, CA 94124
UNITED STATES US

SHIP DATE: 11MAR20
ACTWGT: 1.00 LB
CAD: 102700259/INET4220

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10100 EAST FWY, STE.100
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