



**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

April 1st, 2020 through May 31th, 2020

Approved for public release; distribution is unlimited

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April 1st, 2020 through May 31st, 2020

Prepared for:



**Department of the Navy
Naval Facilities Engineering Command Southwest
BRAC PMO West
33000 Nixie Way, Bldg, 50
San Diego, CA 92147**

Prepared by:



**Gilbane Federal
1655 Grant Street, Suite 1200
Concord, CA 94520**

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Acronyms and Abbreviations

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

1.0 Introduction

This Air Monitoring Summary Report (AMSR) was prepared by Gilbane Federal (Gilbane) as requested by the United States Department of the Navy (Navy) under Radiological Environmental Multiple Award Contract N62473-17-D-0005, Contract Task Order (CTO) N6247317F4332. Gilbane is performing air monitoring at Hunters Point Naval Shipyard (HPNS) in accordance with the Final Dust Monitoring and Control Plan (DMCP), included as Appendix E to *Final Remedial Action Work Plan, Parcel E Remedial Action Phase 2, Hunters Point Naval Shipyard, San Francisco, California* (RAWP; Gilbane, 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 April 1st, 2020 through May 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. Atmospheric parameters were checked daily at www.weatherunderground.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/m³.

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/m³ = micrograms per cubic meter

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

fiber/cm³ = fiber per cubic centimeter

HPNS = Hunters Point Naval Shipyard

mg/m³ = 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. 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 May 4th, 2020. Data was collected from upwind Station 1 in Parcel E and downwind Station 2 in Parcel D-1 from May 6th to May 13th, 2020, during which Gilbane was grading the RSY Pads in Parcel E. 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 May 15th through May 31st, 2020 as the site was closed, and on May 5th and May 14th, 2020 as there were no earth moving activities.

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

Asbestos results from April 1st through May 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 April 1st through May 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 April 1st through May 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 April 1st through May 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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Parcel E
Hunters Point Naval Shipyard
San Francisco, California

Figure 2-1
Air Monitoring Stations

ATTACHMENTS

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ATTACHMENT 1

AMBIENT PRESSURE AND TEMPERATURE MONITORING RESULTS

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Attachment 1
Ambient Pressure and Temperature Monitoring Result
Remedial Action Parcel E, Phase 2
Hunters Point Naval Shipyard, San Francisco, California



Start Date	Ambient Pressure (in Hg)	Ambient Temperature (°F)
5/6/2020	30.14	60.67
5/7/2020	29.94	62.67
5/8/2020	29.88	58.92
5/12/2020	29.99	59.90
5/13/2020	30.03	59.00
5/14/2020	30.10	57.70

Note:

°F = degree Fahrenheit

in Hg = inches of mercury

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 (L)	Asbestos (fibers)	Conc Asbestos (fibers/cm ³)	Exceedance (Yes/No)
MSE01A-050620	05/06/20	1A	508	1016	11.5	0.006	No
MSE02-050620	05/06/20	2	533	1066	10.5	0.005	No
MSE01A-050720	05/07/20	1A	476	952	8.0	0.004	No
MSE02-050720	05/07/20	2	473	946	12.5	0.006	No
MSE01A-0507820	05/08/20	1A	409	818	9.0	0.005	No
MSE02-050820	05/08/20	2	403	806	12.0	0.007	No
MSE01A-051120	05/11/20	1A	440	880	10.5	0.012	No
MSE02-051120	05/11/20	2	430	860	10.0	0.011	No
MSE01A-051220	05/12/20	1A	480	960	11.0	0.011	No
MSE02-051220	05/12/20	2	480	960	8.0	0.008	No
MSE01A-051320	05/13/20	1A	510	1020	12.5	0.012	No
MSE02-051320	05/13/20	2	470	940	8.5	0.009	No

Notes:

Samples analyzed by A&B Labs
 Sample locations are shown on Figure 2-1
 min = minutes
 L = liter
 fibers/cm³ = fibers per cubic centimeter

ATTACHMENT 3
PM10 MONITORING RESULTS

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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)	Concentration 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)
Q0374057-MSE01A	1A	5/7/20	1663.39	66	0.040				No		No
Q0374056-MSE02	2	5/7/20	1695.48	72	0.042	0.002	2.0	5,000	No	50	No
Q0374055-MSE01A	1A	5/8/20	1588.73	70	0.044				No		No
Q0374054-MSE02	2	5/8/20	1654.31	65	0.039	-0.0050	-5.0	5,000	No	50	No
Q0374053-MSE01A	1A	5/8/20	465.78	24	0.052				No		No
Q0374052-MSE02	2	5/8/20	467.01	22	0.046	-0.0060	-6.0	5,000	No	50	No
Q0374051-MSE01A	1A	5/12/20	1312.81	20	0.015				No		No
Q0374050-MSE02	2	5/12/20	1377.25	19	0.014	-0.0010	-1.0	5,000	No	50	No
Q0374048-MSE01A	1A	5/13/20	1510.43	1.5	0.001				No		No
Q0374049-MSE02	2	5/13/20	1606.32	5.8	0.0036	0.0026	2.6	5,000	No	50	No
Q0374046-MSE01A	1A	5/14/20	1526.49	14	0.0089				No		No
Q0374047-MSE02	2	5/14/20	1708.13	26	0.015	0.0061	6.1	5,000	No	50	No

Notes:

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

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

Samples analyzed by ALS Environmental

Sample locations are shown on Figure 2-1

DTSC = Department of Toxic Substances Control

m³ = cubic meters

mg = milligrams

mg/m³ = milligrams per cubic meter

PM₁₀-particulate matter smaller than 10 microns in diameter

ATTACHMENT 4

TSP MONITORING RESULTS

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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)	Concentration in Air (mg/m ³)	Delta between Downwind and Upwind (mg/m ³)	Basewide HPNS Level (mg/m ³)	Exceedance (Yes/No)
9764160-MSE01A	1A	5/7/20	1697.80	100	0.06			No
9764159-MSE02	2	5/7/20	1749.38	67	0.038	-0.022	0.5	No
9764158-MSE01A	1A	5/8/20	1622.94	88	0.054			No
9764157-MSE02	2	5/8/20	1751.17	63	0.036	-0.018	0.5	No
9764156-MSE01A	1A	5/8/20	480.66	33	0.069			No
9764155-MSE02	2	5/8/20	494.02	20	0.04	-0.029	0.5	No
9764154-MSE01A	1A	5/12/20	1336.95	24	0.018			No
9764153-MSE02	2	5/12/20	1576.39	25	0.016	-0.002	0.5	No
9764151-MSE01A	1A	5/13/20	1624.35	22	0.013			No
9764152-MSE02	2	5/13/20	1561.63	29	0.019	0.006	0.5	No
9764149-MSE01A	1A	5/14/20	1638.75	39	0.024			No
9764150-MSE02	2	5/14/20	1815.56	21	0.012	-0.012	0.5	No

Notes:

¹Air 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/m³ = milligrams per cubic meter

m³ = 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)	Concentration in Air (mg/m ³)	Exceedance (Yes/No)	Result (ug)	Concentration in Air (mg/m ³)	Exceedance (Yes/No)	Result (ug)	Concentration in Air (mg/m ³)	Exceedance (Yes/No)
9764160-MSE01A	1A	5/7/20	1697.78	2,400	0.0014	No	ND	<0.000015	No	41	0.000024	No
9764159-MSE02	2	5/7/20	1749.38	320	0.00018	No	ND	<0.000014	No	ND	<0.000014	No
9764158-MSE01A	1A	5/8/20	1622.94	1,400	0.00087	No	ND	<0.000015	No	35	0.000022	No
9764157-MSE02	2	5/8/20	1751.17	140	0.000079	No	ND	<0.000014	No	ND	<0.000014	No
9764156-MSE01A	1A	5/8/20	480.66	370	0.00078	No	ND	<0.000052	No	ND	<0.000052	No
9764155-MSE02	2	5/8/20	494.02	550	0.0011	No	ND	<0.000051	No	ND	<0.000051	No
9764154-MSE01A	1A	5/12/20	1336.95	770	0.00057	No	ND	<0.000019	No	ND	<0.000019	No
9764153-MSE02	2	5/12/20	1576.39	230	0.00015	No	ND	<0.000016	No	ND	<0.000016	No
9764151-MSE01A	1A	5/13/20	1624.35	570	0.00035	No	ND	<0.000015	No	ND	<0.000015	No
9764152-MSE02	2	5/13/20	1561.63	230	0.00015	No	ND	<0.000016	No	ND	<0.000016	No
9764149-MSE01A	1A	5/14/20	1638.75	3,100	0.0019	No	ND	<0.000015	No	ND	<0.000015	No
9764150-MSE02	2	5/14/20	1815.56	570	0.00031	No	ND	<0.000014	No	ND	<0.000014	No

Notes:

¹Air 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/m³ = milligrams per cubic meter

< = below detection limit

m³ = cubic meters

ug = micrograms

ATTACHMENT 6
RADIOLOGICAL AIR MONITORING RESULTS

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AIR SAMPLE RESULTS - PUBLIC EXPOSURE MONITORING

Project Information									Effluent Air Concentration				Sampling Period				Color Codes					
Contract / Task Order Number: N62473-17-D-0005 / F4332			Project Title / Location: Parcel E RA HPNS, SF, CA			Gilbane Project Number: J310000400				Alpha	Beta	Air samples collected between April 1,2020 and May 31,2020				Value < MDC		Value < 0.1 x Effluent Conc				
Information effective as of: 5/29/2020									Radionuclide	Ra-226	Sr-90					< 72 hr decay time		Value > 0.1 x Effluent Conc				
									Effluent Conc (µCi/ml)	9.E-13	6.E-12					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-0061	Perimeter	MSE01A	PE03	60	5/6/20 7:16	5/6/20 16:20	544	3.3E+07	A	5/19/20	1	cpm	0.500	3.750	1.3	7.9	1.8E-14	1.1E-13	1.9%	1.8%	DVT	CB
AS-0062	Perimeter	MSE02	PE04	60	5/6/20 6:57	5/6/20 16:10	553	3.3E+07	A	5/19/20	1	cpm	0.200	3.400	0.5	6.9	6.9E-15	9.4E-14	0.8%	1.6%	DVT	CB
AS-0063	Perimeter	MSE01A	PE03	60	5/7/20 7:15	5/7/20 16:20	545	3.3E+07	A	5/19/20	1	cpm	0.350	4.250	0.9	9.3	1.2E-14	1.3E-13	1.4%	2.1%	DVT	CB
AS-0064	Perimeter	MSE02	PE04	60	5/7/20 7:00	5/7/20 16:10	550	3.3E+07	A	5/19/20	1	cpm	0.050	3.800	0.1	8.0	1.7E-15	1.1E-13	0.2%	1.8%	DVT	CB
AS-0065	Perimeter	MSE01A	PE03	60	5/8/20 6:45	5/8/20 14:55	490	2.9E+07	A	5/19/20	1	cpm	0.400	3.900	1.0	8.3	1.6E-14	1.3E-13	1.7%	2.1%	DVT	CB
AS-0066	Perimeter	MSE02	PE04	60	5/8/20 6:40	5/8/20 14:48	488	2.9E+07	A	5/19/20	1	cpm	0.200	4.400	0.5	9.7	7.8E-15	1.5E-13	0.9%	2.5%	DVT	CB
AS-0067	Perimeter	MSE01A	PE03	60	5/11/20 8:38	5/11/20 15:39	421	2.5E+07	A	5/19/20	1	cpm	0.150	3.700	0.4	7.8	6.8E-15	1.4E-13	0.8%	2.3%	DVT	CB
AS-0068	Perimeter	MSE02	PE04	60	5/11/20 8:58	5/11/20 15:30	392	2.4E+07	A	5/19/20	1	cpm	0.150	3.350	0.4	6.8	7.3E-15	1.3E-13	0.8%	2.2%	DVT	CB
AS-0069	Perimeter	MSE01A	PE03	60	5/12/20 7:06	5/12/20 16:00	534	3.2E+07	A	5/19/20	1	cpm	0.100	4.600	0.3	10.2	3.6E-15	1.4E-13	0.4%	2.4%	DVT	CB
AS-0070	Perimeter	MSE02	PE04	60	5/12/20 7:00	5/12/20 16:05	545	3.3E+07	A	5/19/20	1	cpm	0.100	3.150	0.3	6.2	3.5E-15	8.6E-14	0.4%	1.4%	DVT	CB
AS-0071	Perimeter	MSE01A	PE03	60	5/13/20 6:43	5/13/20 15:20	517	3.1E+07	A	5/19/20	1	cpm	0.100	3.900	0.3	8.3	3.7E-15	1.2E-13	0.4%	2.0%	DVT	CB
AS-0072	Perimeter	MSE02	PE04	60	5/13/20 6:30	5/13/20 15:25	535	3.2E+07	A	5/19/20	1	cpm	0.150	3.800	0.4	8.0	5.3E-15	1.1E-13	0.6%	1.9%	DVT	CB

ATTACHMENT 7

LABORATORY REPORTS

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18-May-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: **2005223**

Dear Kristen,

ALS Environmental received 12 samples on 11-May-2020 09:22 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 12.

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

ADDRESS 4388 Glendale Milford Rd Cincinnati, OH 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347

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Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Gilbane Company
Project: HPNS Parcel E Phase II; J310000400
Work Order: 2005223

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
2005223-01	9764160-MSE01A	Air		5/7/2020 07:28	5/11/2020 09:22	<input type="checkbox"/>
2005223-02	Q0374057-MSE01A	Air		5/7/2020 07:28	5/11/2020 09:22	<input type="checkbox"/>
2005223-03	9764159-MSE02	Air		5/7/2020 07:40	5/11/2020 09:22	<input type="checkbox"/>
2005223-04	Q0374056-MSE02	Air		5/7/2020 07:40	5/11/2020 09:22	<input type="checkbox"/>
2005223-05	9764158-MSE01A	Air		5/8/2020 07:10	5/11/2020 09:22	<input type="checkbox"/>
2005223-06	Q0374055-MSE01A	Air		5/8/2020 07:10	5/11/2020 09:22	<input type="checkbox"/>
2005223-07	9764157-MSE02	Air		5/8/2020 07:30	5/11/2020 09:22	<input type="checkbox"/>
2005223-08	Q0374054-MSE02	Air		5/8/2020 07:30	5/11/2020 09:22	<input type="checkbox"/>
2005223-09	9764156-MSE01A	Air		5/8/2020 14:00	5/11/2020 09:22	<input type="checkbox"/>
2005223-10	Q0374053-MSE01A	Air		5/8/2020 14:00	5/11/2020 09:22	<input type="checkbox"/>
2005223-11	Q0374052-MSE02	Air		5/8/2020 14:30	5/11/2020 09:22	<input type="checkbox"/>
2005223-12	9764155-MSE02	Air		5/8/2020 14:30	5/11/2020 09:22	<input type="checkbox"/>

Client: Gilbane Company
Project: HPNS Parcel E Phase II; J310000400
Work Order: 2005223

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: 18-May-20

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

Work Order: 2005223

Analytical Results

Lab ID: 2005223-01A
Client Sample ID: 9764160-MSE01A

Collection Date: 5/7/2020 7:28:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: TSP	Air Volume (L): 1697800	Analyst: SRL
Date Analyzed: 5/14/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	100	1.0	0.060	

METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 1697800	Analyst: AZ
Date Analyzed: 5/15/2020 13:12		Reporting Limit		
	µg/sample	µg/sample	mg/m3	
Copper	2,400	25	0.0014	
Lead	ND	25	<0.000015	
Manganese	41	25	0.000024	

Lab ID: 2005223-02A
Client Sample ID: Q0374057-MSE01A

Collection Date: 5/7/2020 7:28:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: PM10	Air Volume (L): 1663390	Analyst: SRL
Date Analyzed: 5/14/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Particulate as PM10	66	1.0	0.040	

Lab ID: 2005223-03A
Client Sample ID: 9764159-MSE02

Collection Date: 5/7/2020 7:40:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: TSP	Air Volume (L): 1749380	Analyst: SRL
Date Analyzed: 5/14/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	67	1.0	0.038	

METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 1749380	Analyst: AZ
Date Analyzed: 5/15/2020 13:16		Reporting Limit		
	µg/sample	µg/sample	mg/m3	
Copper	320	25	0.00018	
Lead	ND	25	<0.000014	
Manganese	ND	25	<0.000014	

Note:

ALS Environmental

Date: 18-May-20

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

Work Order: 2005223**Analytical Results**

Lab ID: 2005223-04A
Client Sample ID: Q0374056-MSE02

Collection Date: 5/7/2020 7:40:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J	Method: PM10		Air Volume (L): 1695480	Analyst: SRL
Date Analyzed: 5/14/2020	mg/sample	Reporting Limit mg/sample	mg/m3	
Particulate as PM10	72	1.0	0.042	

Lab ID: 2005223-05A
Client Sample ID: 9764158-MSE01A

Collection Date: 5/8/2020 7:10:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B	Method: TSP		Air Volume (L): 1622940	Analyst: SRL
Date Analyzed: 5/14/2020	mg/sample	Reporting Limit mg/sample	mg/m3	
Total suspended particulate	88	1.0	0.054	

METALS BY EPA METHOD 12 MOD.	Method: E12		Air Volume (L): 1622940	Analyst: AZ
Date Analyzed: 5/15/2020 13:28	µg/sample	Reporting Limit µg/sample	mg/m3	
Copper	1,400	25	0.00087	
Lead	ND	25	<0.000015	
Manganese	35	25	0.000022	

Lab ID: 2005223-06A
Client Sample ID: Q0374055-MSE01A

Collection Date: 5/8/2020 7:10:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J	Method: PM10		Air Volume (L): 1588730	Analyst: SRL
Date Analyzed: 5/14/2020	mg/sample	Reporting Limit mg/sample	mg/m3	
Particulate as PM10	70	1.0	0.044	

Note:

ALS Environmental

Date: 18-May-20

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

Work Order: 2005223

Analytical Results

Lab ID: 2005223-07A
Client Sample ID: 9764157-MSE02

Collection Date: 5/8/2020 7:30:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: TSP	Air Volume (L): 1751170	Analyst: SRL
Date Analyzed: 5/14/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	63	1.0	0.036	
METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 1751170	Analyst: AZ
Date Analyzed: 5/15/2020 13:40		Reporting Limit		
	µg/sample	µg/sample	mg/m3	
Copper	140	25	0.000079	
Lead	ND	25	<0.000014	
Manganese	ND	25	<0.000014	

Lab ID: 2005223-08A
Client Sample ID: Q0374054-MSE02

Collection Date: 5/8/2020 7:30:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: PM10	Air Volume (L): 1654310	Analyst: SRL
Date Analyzed: 5/14/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Particulate as PM10	65	1.0	0.039	

Lab ID: 2005223-09A
Client Sample ID: 9764156-MSE01A

Collection Date: 5/8/2020 2:00:00 PM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: TSP	Air Volume (L): 480660	Analyst: SRL
Date Analyzed: 5/14/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	33	1.0	0.069	
METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 480660	Analyst: AZ
Date Analyzed: 5/15/2020 13:45		Reporting Limit		
	µg/sample	µg/sample	mg/m3	
Copper	370	25	0.00078	
Lead	ND	25	<0.000052	
Manganese	ND	25	<0.000052	

Note:

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

Work Order: 2005223

Analytical Results

Lab ID: 2005223-10A
Client Sample ID: Q0374053-MSE01A

Collection Date: 5/8/2020 2:00:00 PM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J	Method: PM10		Air Volume (L): 465780	Analyst: SRL
Date Analyzed: 5/14/2020	mg/sample	Reporting Limit mg/sample	mg/m3	
Particulate as PM10	24	1.0	0.052	

Lab ID: 2005223-11A
Client Sample ID: Q0374052-MSE02

Collection Date: 5/8/2020 2:30:00 PM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J	Method: PM10		Air Volume (L): 467010	Analyst: SRL
Date Analyzed: 5/14/2020	mg/sample	Reporting Limit mg/sample	mg/m3	
Particulate as PM10	22	1.0	0.046	

Lab ID: 2005223-12A
Client Sample ID: 9764155-MSE02

Collection Date: 5/8/2020 2:30:00 PM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B	Method: TSP		Air Volume (L): 494020	Analyst: SRL
Date Analyzed: 5/14/2020	mg/sample	Reporting Limit mg/sample	mg/m3	
Total suspended particulate	20	1.0	0.040	

METALS BY EPA METHOD 12 MOD.	Method: E12		Air Volume (L): 494020	Analyst: AZ
Date Analyzed: 5/15/2020 13:49	µg/sample	Reporting Limit µg/sample	mg/m3	
Copper	550	25	0.0011	
Lead	ND	25	<0.000051	
Manganese	ND	25	<0.000051	

Note:

Client: Gilbane Company
Work Order: 2005223
Project: HPNS Parcel E Phase II; J310000400

QC BATCH REPORT

Batch ID: **R177398** Instrument ID **BAL2** Method: **PM10**

DUP	Sample ID: 2005223-08A DUP			Units: mg/sample		Analysis Date: 5/14/2020				
Client ID: Q0374054-MSE02	Run ID: BAL2_200514A			SeqNo: 2239292		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	66.4	1.0	0	0	0		65.24	1.76		

The following samples were analyzed in this batch:

2005223-02A	2005223-04A	2005223-06A
2005223-08A	2005223-10A	2005223-11A

Client: Gilbane Company
Work Order: 2005223
Project: HPNS Parcel E Phase II; J310000400

QC BATCH REPORT

Batch ID: **R177399** Instrument ID **BAL2** Method: **TSP**

DUP		Sample ID: 2005223-05a dup			Units: mg/sample		Analysis Date: 5/14/2020			
Client ID: 9764158-MSE01A		Run ID: BAL2_200514B			SeqNo: 2239298		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	88.14	1.0	0	0	0		87.62	0.592	20	

The following samples were analyzed in this batch:

2005223-01a	2005223-03a	2005223-05a
2005223-07a	2005223-09a	2005223-12A

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

Client: Gilbane Company
 Work Order: 2005223
 Project: HPNS Parcel E Phase II; J310000400

QC BATCH REPORT

Batch ID: **66581** Instrument ID **ICP3** Method: **E12**

MBLK		Sample ID: MBLK-66581-66581			Units: µg/sample		Analysis Date: 5/15/2020 12:59 PM			
Client ID:		Run ID: ICP3_200515A			SeqNo: 2239854		Prep Date: 5/14/2020		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-66581-66581			Units: µg/sample		Analysis Date: 5/15/2020 01:03 PM			
Client ID:		Run ID: ICP3_200515A			SeqNo: 2239855		Prep Date: 5/14/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	447.5	25	450	0	99.4	75-125	0			
Lead	437.4	25	450	0	97.2	75-125	0			
Manganese	445.4	25	450	0	99	75-125	0			

LCSD		Sample ID: LCSD-66581-66581			Units: µg/sample		Analysis Date: 5/15/2020 01:07 PM			
Client ID:		Run ID: ICP3_200515A			SeqNo: 2239856		Prep Date: 5/14/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	428.1	25	450	0	95.1	75-125	447.5	4.42	20	
Lead	425.2	25	450	0	94.5	75-125	437.4	2.82	20	
Manganese	425.9	25	450	0	94.6	75-125	445.4	4.46	20	

The following samples were analyzed in this batch:

2005223-01A	2005223-03A	2005223-05A
2005223-07A	2005223-09A	2005223-12A

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

Client: Gilbane Company
Project: HPNS Parcel E Phase II; J310000400
WorkOrder: 2005223

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	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

<u>Acronym</u>	<u>Description</u>
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 Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<u>Units Reported</u>	<u>Description</u>
µg/sample	
mg/sample	

Sample Receipt Checklist

Client Name: GILBANE-WALNUTCREEK

Date/Time Received: 11-May-20 09:22

Work Order: 2005223

Received by: SNH

Checklist completed by Stephanie Harrington 11-May-20
eSignature Date

Reviewed by: Rob Nieman 13-May-20
eSignature 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:



22-May-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: **2005364**

Dear Kristen,

ALS Environmental received 12 samples on 15-May-2020 09:30 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 12.

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

ADDRESS 4388 Glendale Milford Rd Cincinnati, OH 45242- | PHONE (513) 733-5336 | FAX (513) 733-5347

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Gilbane Company
Project: HPNS Parcel E Phase II J310000400
Work Order: 2005364

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
2005364-01	Q0374051-MSE01A	Air		5/12/2020 09:00	5/15/2020 09:30	<input type="checkbox"/>
2005364-02	9764154-MSE01A	Air		5/12/2020 09:00	5/15/2020 09:30	<input type="checkbox"/>
2005364-03	Q0374050-MSE02	Air		5/12/2020 08:00	5/15/2020 09:30	<input type="checkbox"/>
2005364-04	9764153-MSE02	Air		5/12/2020 08:00	5/15/2020 09:30	<input type="checkbox"/>
2005364-05	Q0374048-MSE01A	Air		5/13/2020 10:00	5/15/2020 09:30	<input type="checkbox"/>
2005364-06	9764151-MSE01A	Air		5/13/2020 10:00	5/15/2020 09:30	<input type="checkbox"/>
2005364-07	Q0374049-MSE02	Air		5/13/2020 07:05	5/15/2020 09:30	<input type="checkbox"/>
2005364-08	9764152-MSE02	Air		5/13/2020 07:05	5/15/2020 09:30	<input type="checkbox"/>
2005364-09	Q0374046-MSE01A	Air		5/14/2020 08:10	5/15/2020 09:30	<input type="checkbox"/>
2005364-10	9764149-MSE01A	Air		5/14/2020 08:10	5/15/2020 09:30	<input type="checkbox"/>
2005364-11	Q0374047-MSE02	Air		5/14/2020 08:00	5/15/2020 09:30	<input type="checkbox"/>
2005364-12	9764150-MSE02	Air		5/14/2020 08:00	5/15/2020 09:30	<input type="checkbox"/>

Client: Gilbane Company
Project: HPNS Parcel E Phase II J310000400
Work Order: 2005364

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: 22-May-20

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

Work Order: 2005364**Analytical Results**

Lab ID: 2005364-01A
Client Sample ID: Q0374051-MSE01A

Collection Date: 5/12/2020 9:00:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: PM10	Air Volume (L): 1312810	Analyst: SRL
Date Analyzed: 5/19/2020				
	mg/sample	Reporting Limit mg/sample	mg/m3	
Particulate as PM10	20	1.0	0.015	

Lab ID: 2005364-02A
Client Sample ID: 9764154-MSE01A

Collection Date: 5/12/2020 9:00:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDIX B		Method: TSP	Air Volume (L): 1336950	Analyst: SRL
Date Analyzed: 5/19/2020				
	mg/sample	Reporting Limit mg/sample	mg/m3	
Total suspended particulate	24	1.0	0.018	

METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 1336950	Analyst: SRL
Date Analyzed: 5/22/2020 12:15				
	µg/sample	Reporting Limit µg/sample	mg/m3	
Copper	770	25	0.00057	
Lead	ND	25	<0.000019	
Manganese	ND	25	<0.000019	

Lab ID: 2005364-03A
Client Sample ID: Q0374050-MSE02

Collection Date: 5/12/2020 8:00:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: PM10	Air Volume (L): 1377250	Analyst: SRL
Date Analyzed: 5/19/2020				
	mg/sample	Reporting Limit mg/sample	mg/m3	
Particulate as PM10	19	1.0	0.014	

Note:

ALS Environmental

Date: 22-May-20

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

Work Order: 2005364

Analytical Results

Lab ID: 2005364-04A
Client Sample ID: 9764153-MSE02

Collection Date: 5/12/2020 8:00:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: TSP	Air Volume (L): 1576390	Analyst: SRL
Date Analyzed: 5/19/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	25	1.0	0.016	

METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 1576390	Analyst: SRL
Date Analyzed: 5/22/2020 12:27		Reporting Limit		
	µg/sample	µg/sample	mg/m3	
Copper	230	25	0.00015	
Lead	ND	25	<0.000016	
Manganese	ND	25	<0.000016	

Lab ID: 2005364-05A
Client Sample ID: Q0374048-MSE01A

Collection Date: 5/13/2020 10:00:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: PM10	Air Volume (L): 1510430	Analyst: SRL
Date Analyzed: 5/19/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Particulate as PM10	1.5	1.0	0.0010	

Lab ID: 2005364-06A
Client Sample ID: 9764151-MSE01A

Collection Date: 5/13/2020 10:00:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: TSP	Air Volume (L): 1624350	Analyst: SRL
Date Analyzed: 5/19/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	22	1.0	0.013	

METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 1624350	Analyst: SRL
Date Analyzed: 5/22/2020 12:30		Reporting Limit		
	µg/sample	µg/sample	mg/m3	
Copper	570	25	0.00035	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Note:

ALS Environmental

Date: 22-May-20

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

Work Order: 2005364

Analytical Results

Lab ID: 2005364-07A
Client Sample ID: Q0374049-MSE02

Collection Date: 5/13/2020 7:05:00 AM
Matrix: AIR

Analyses

Method: PM10	Air Volume (L): 1606320	Analyst: SRL
Reporting Limit mg/sample	mg/m3	
PM : PM10 40CFR 50 APPDIX J Date Analyzed: 5/19/2020		
Particulate as PM10	5.8	1.0

Lab ID: 2005364-08A
Client Sample ID: 9764152-MSE02

Collection Date: 5/13/2020 7:05:00 AM
Matrix: AIR

Analyses

Method: TSP	Air Volume (L): 1561630	Analyst: SRL
Reporting Limit mg/sample	mg/m3	
TSP 40 CFR 50 APPDX B Date Analyzed: 5/19/2020		
Total suspended particulate	29	1.0

Method: E12	Air Volume (L): 1561630	Analyst: SRL
Reporting Limit µg/sample	mg/m3	
METALS BY EPA METHOD 12 MOD. Date Analyzed: 5/22/2020 12:42		
Copper	230	25
Lead	ND	25
Manganese	ND	25

Lab ID: 2005364-09A
Client Sample ID: Q0374046-MSE01A

Collection Date: 5/14/2020 8:10:00 AM
Matrix: AIR

Analyses

Method: PM10	Air Volume (L): 1526490	Analyst: SRL
Reporting Limit mg/sample	mg/m3	
PM : PM10 40CFR 50 APPDIX J Date Analyzed: 5/19/2020		
Particulate as PM10	14	1.0

Note:

ALS Environmental

Date: 22-May-20

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

Work Order: 2005364**Analytical Results**

Lab ID: 2005364-10A
Client Sample ID: 9764149-MSE01A

Collection Date: 5/14/2020 8:10:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: TSP	Air Volume (L): 1638750	Analyst: SRL
Date Analyzed: 5/19/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	39	1.0	0.024	

METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 1638750	Analyst: SRL
Date Analyzed: 5/22/2020 12:45		Reporting Limit		
	µg/sample	µg/sample	mg/m3	
Copper	3,100	25	0.0019	
Lead	ND	25	<0.000015	
Manganese	ND	25	<0.000015	

Lab ID: 2005364-11A
Client Sample ID: Q0374047-MSE02

Collection Date: 5/14/2020 8:00:00 AM
Matrix: AIR

Analyses

PM : PM10 40CFR 50 APPDIX J		Method: PM10	Air Volume (L): 1708130	Analyst: SRL
Date Analyzed: 5/19/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Particulate as PM10	26	1.0	0.015	

Lab ID: 2005364-12A
Client Sample ID: 9764150-MSE02

Collection Date: 5/14/2020 8:00:00 AM
Matrix: AIR

Analyses

TSP 40 CFR 50 APPDX B		Method: TSP	Air Volume (L): 1815560	Analyst: SRL
Date Analyzed: 5/19/2020		Reporting Limit		
	mg/sample	mg/sample	mg/m3	
Total suspended particulate	21	1.0	0.012	

METALS BY EPA METHOD 12 MOD.		Method: E12	Air Volume (L): 1815560	Analyst: SRL
Date Analyzed: 5/22/2020 12:49		Reporting Limit		
	µg/sample	µg/sample	mg/m3	
Copper	570	25	0.00031	
Lead	ND	25	<0.000014	
Manganese	ND	25	<0.000014	

Note:

Client: Gilbane Company
Work Order: 2005364
Project: HPNS Parcel E Phase II J310000400

QC BATCH REPORT

Batch ID: **R177509** Instrument ID **BAL2** Method: **TSP**

DUP	Sample ID: 2005364-10A DUP			Units: mg/sample		Analysis Date: 5/19/2020				
Client ID: 9764149-MSE01A	Run ID: BAL2_200519A			SeqNo: 2240688		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	39.29	1.0	0	0	0		39.25	0.102	20	

The following samples were analyzed in this batch:

2005364-02A	2005364-04A	2005364-06A
2005364-08A	2005364-10A	2005364-12A

Client: Gilbane Company
Work Order: 2005364
Project: HPNS Parcel E Phase II J310000400

QC BATCH REPORT

Batch ID: **R177513** Instrument ID **BAL2** Method: **PM10**

DUP		Sample ID: 2005364-03A DUP			Units: mg/sample		Analysis Date: 5/19/2020			
Client ID: Q0374050-MSE02		Run ID: BAL2_200519B			SeqNo: 2240731		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	20.07	1.0	0	0	0		19.34	3.7	20	

The following samples were analyzed in this batch:

2005364-01A	2005364-03A	2005364-05A
2005364-07A	2005364-09A	2005364-11A

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

Client: Gilbane Company
 Work Order: 2005364
 Project: HPNS Parcel E Phase II J310000400

QC BATCH REPORT

Batch ID: **66669** Instrument ID **ICP1** Method: **E12**

MBLK		Sample ID: MBLK-66669-66669			Units: µg/sample		Analysis Date: 5/22/2020 12:00 PM			
Client ID:		Run ID: ICP1_200522A			SeqNo: 2242823		Prep Date: 5/20/2020		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-66669-66669			Units: µg/sample		Analysis Date: 5/22/2020 12:04 PM			
Client ID:		Run ID: ICP1_200522A			SeqNo: 2242824		Prep Date: 5/20/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	450.9	25	450	0	100	75-125	0			
Lead	442.4	25	450	0	98.3	75-125	0			
Manganese	480.2	25	450	0	107	75-125	0			

LCSD		Sample ID: LCSD-66669-66669			Units: µg/sample		Analysis Date: 5/22/2020 12:08 PM			
Client ID:		Run ID: ICP1_200522A			SeqNo: 2242825		Prep Date: 5/20/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	457.2	25	450	0	102	75-125	450.9	1.39	20	
Lead	444.9	25	450	0	98.9	75-125	442.4	0.558	20	
Manganese	487.8	25	450	0	108	75-125	480.2	1.58	20	

MS		Sample ID: 2005364-02A MS			Units: µg/sample		Analysis Date: 5/22/2020 12:19 PM			
Client ID: 9764154-MSE01A		Run ID: ICP1_200522A			SeqNo: 2242828		Prep Date: 5/20/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	1131	25	450	767.2	80.8	75-125	0			
Lead	451.4	25	450	3.42	99.5	75-125	0			
Manganese	475.6	25	450	12.1	103	75-125	0			

MSD		Sample ID: 2005364-02A MSD			Units: µg/sample		Analysis Date: 5/22/2020 12:23 PM			
Client ID: 9764154-MSE01A		Run ID: ICP1_200522A			SeqNo: 2242829		Prep Date: 5/20/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	1112	25	450	767.2	76.5	75-125	1131	1.73	20	
Lead	444.3	25	450	3.42	98	75-125	451.4	1.57	20	
Manganese	469.8	25	450	12.1	102	75-125	475.6	1.24	20	

The following samples were analyzed in this batch:

2005364-02A	2005364-04A	2005364-06A
2005364-08A	2005364-10A	2005364-12A

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

ALS Environmental

Date: 22-May-20

Client: Gilbane Company
Project: HPNS Parcel E Phase II J310000400
WorkOrder: 2005364

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	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

<u>Acronym</u>	<u>Description</u>
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 Quantitation Limit
SDL	Sample Detection Limit
SW	SW-846 Method

<u>Units Reported</u>	<u>Description</u>
µg/sample	
mg/sample	

Sample Receipt Checklist

Client Name: GILBANE-WALNUTCREEK

Date/Time Received: 15-May-20 09:30

Work Order: 2005364

Received by: RDN

Checklist completed by J an Wilcox 15-May-20
eSignature Date

Reviewed by: Rob Nieman 19-May-20
eSignature 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):
- 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 : 20050617



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

Client Project Name :
Parcel E Phase II RA 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 : 05/11/2020 09:30
City, State, Zip: Concord, California, 94520 Sample Collected By : Kimberly Tom

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

Client Sample ID	Sample Collection Date & Time	Matrix	A&B Job Sample ID
MSE02-050620	5/6/2020 15:53	Cassette	20050617.01
MSE01A-050620	5/6/2020 15:57	Cassette	20050617.02
MSE01A-050720	5/7/2020 15:34	Cassette	20050617.03
MSE02-050720	5/7/2020 15:38	Cassette	20050617.04
MSE02-050820	5/8/2020 14:15	Cassette	20050617.05
MSE01A-050820	5/8/2020 14:00	Cassette	20050617.06

A handwritten signature in black ink, appearing to read 'Senthilkumar Sevukan'.

Released By: Senthilkumar Sevukan

Title: Assistant Lab Manager

Analyst:

A handwritten signature in black ink, appearing to read 'Kimberly Tom'.

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

5/18/2020



**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 # 30080**

Date 5/18/2020

Job ID : 20050617
Analytical Method: NIOSH 7400-I2-Aug1994

Client: Gilbane			Project: Parcel E Phase II RA 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
20050617.01	MSE02-050620	05/06/2020	Area	2			533	1066	100	10.5	13.376	0.005		05/18/20	Habedi
20050617.02	MSE01A-050620	05/06/2020	Area	2			508	1016	100	11.5	14.650	0.006		05/18/20	Habedi
20050617.03	MSE01A-050720	05/07/2020	Area	2			476	952	100	8.0	10.191	0.004		05/18/20	Habedi
20050617.04	MSE02-050720	05/07/2020	Area	2			473	946	100	12.5	15.924	0.006		05/18/20	Habedi
20050617.05	MSE02-050820	05/08/2020	Area	2			403	806	100	12.0	15.287	0.007		05/18/20	Habedi
20050617.06	MSE01A-050820	05/08/2020	Area	2			409	818	100	9.0	11.465	0.005		05/18/20	Habedi

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



Sample Condition Checklist

A&B JobID : 20050617	Date Received : 05/11/2020	Time Received : 9:30AM																										
Client Name : Gilbane																												
Temperature : 24.7-0.3cf=24.4°C	Sample pH : N/A																											
Thermometer ID : 1709629	pH Paper ID : N/A																											
Perservative :																												
Check Points																												
1.	Cooler seal present and signed.	Yes	No	N/A																								
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.	<table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">Matrix</td> <td style="width: 10%;">Water</td> <td style="width: 10%;">Soil</td> <td style="width: 10%;">Liquid</td> <td style="width: 10%;">Sludge</td> <td style="width: 10%;">Solid</td> <td style="width: 10%;">Cassette</td> <td style="width: 10%;">Tube</td> <td style="width: 10%;">Bulk</td> <td style="width: 10%;">Badge</td> <td style="width: 10%;">Food</td> <td style="width: 10%;">Other</td> </tr> <tr> <td>:</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Matrix	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other	:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Matrix	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other																	
:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																	
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 : AArnett

Check in by/date : JMontemayor / 05/11/2020

Job ID: 20050617



TAT: 5 Days

COC # KT050820-2

Local Address:

Chain-Of-Custody

Project Name and Number: Parcel E Phase II RA J310000400
 Project Manager: Brett Womack (925) 250-8027
 Site Location: Hunters Point, San Francisco, CA 94124

Laboratory Name: A&B Labs
 Address: 10100 East Freeway, Ste. 100
 Houston, Texas 77029
 Contact Name: Shantall Carpenter
 Phone: 713-453-6060 x 136

Date: 05/8/20

Page: 1 of 1

Sample I.D.	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Analysis:	Preservative:	Container Type:	Special Instructions/Comments
D1A MSE02-050620	5/6/20	1553	NA	NA	1	AA	Asbestos NIOSH 7400	None	Cassette	Total flow (min): 533
D2A MSE01A-050620	5/6/20	1557	→	→	→	→	→	→	→	508
D3A MSE01A-050720	5/7/20	1534	→	→	→	→	→	→	→	476
D1A MSE02-050720	5/7/20	1538	→	→	→	→	→	→	→	473
D5A MSE02-050820	5/8/20	1415	→	→	→	→	→	→	→	403
D4A MSE01A-050820	5/8/20	1400	→	→	→	→	→	→	→	409

Flow rate for all samples = 2 L/min

Sampler: K. To Courier/Airbill No.: FedEx/ 7704 2284 0198

Relinquished By/Affiliation: K. To / A&B Labs Date: 5/8/20 Time: 1600

Special Instructions: None Received By/Affiliation: FedEx Date: 5-11-2020 Time: 1600

Send Results to: kcarlyon@gilbaneco.com Turnaround Time: 5 days

(w/fax #) ktom@gilbaneco.com

217-035-2111 1706609

ORIGIN ID: JCCA
KIMBERLY TOM
GILBANE
GILBANE TRAILER
FISHER AVE @ SPEAR AVE BLDG 241
SAN FRANCISCO, CA 94124
UNITED STATES US

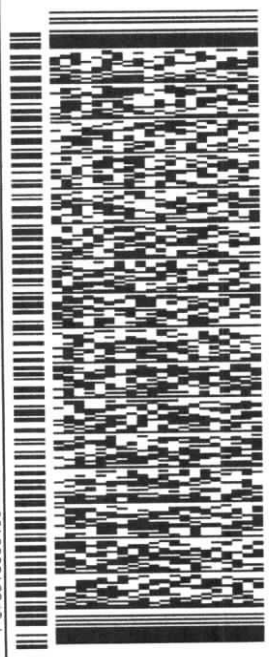
(925) 946-3135
SHIP DATE: 08MAY20
ACTWGT: 1.00 LB
CAD: 102700259/INET4220

BILL SENDER

TO SHANTALL CARPENTER
ABLABS
10100 EAST FWY, STE.100

56BJ3/2925/FE4A

HOUSTON TX 77029
(713) 453-6060 REF: 0310000400
INV
PO: 0310000400 DEPT:

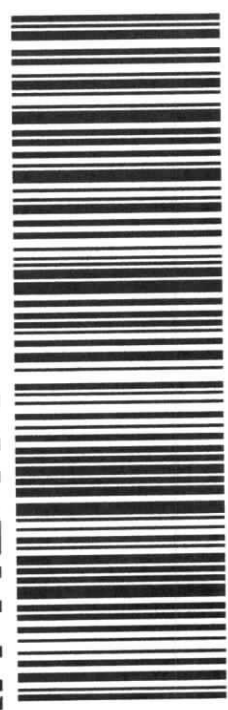


MON - 11 MAY 3:00P
STANDARD OVERNIGHT

TRK# 7704 2284 0198
0201

77029
TX-US IAH

XH HBYA



After printing this label:
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AMENDED
Laboratory Analysis Report

Job ID : 20051028



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: 6
	Attn: Brett Womack	P.O.#. :
	Client Address: 1655 Grant Street, Suite 1200	Date Received : 05/15/2020 09:30
	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-051120	5/11/2020	Cassette	20051028.01
MSE02-051120	5/11/2020	Cassette	20051028.02
MSE01A-051220	5/12/2020	Cassette	20051028.03
MSE02-051220	5/12/2020	Cassette	20051028.04
MSE01A-051320	5/13/2020	Cassette	20051028.05
MSE02-051320	5/13/2020	Cassette	20051028.06

Alisha Hughes

Released By: Alisha Hughes

Title: Project Manager

Analyst:

[Signature]

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REVISED

5/27/2020



Laboratory Report: Case Narrative

A&B Job ID: 20051028

Date: 05/27/20

Client Name: Gilbane

Attn: Brett Womack

Project Name: HPNS Parcel E Phase II J310000400

Date Received: 05/15/20

Collected By:

REVISED REPORT -

The attached report was revised for the total volumes.

Alisha Hughes

Released By: Alisha Hughes

Title: Project Manager



**ANALYSIS OF AIRBORNE FIBER SAMPLING
 SAMPLING PERFORMED BY CLIENT
 ANALYSIS CONDUCTED BY A & B ENVIRONMENTAL SERVICES, INC.
 AIHA Lab Accreditation # 101470 TDH PLM/PCM Lab License # 30080**

Date 5/27/2020

Job ID : 20051028
 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
20051028.01	MSE01A-051120	05/11/2020	Area	2			440	880	100	10.5	13.376	0.012		05/22/20	Habedi
20051028.02	MSE02-051120	05/11/2020	Area	2			430	860	100	10.0	12.739	0.011		05/22/20	Habedi
20051028.03	MSE01A-051220	05/12/2020	Area	2			480	960	100	11.0	14.013	0.011		05/22/20	Habedi
20051028.04	MSE02-051220	05/12/2020	Area	2			480	960	100	8.0	10.191	0.008		05/22/20	Habedi
20051028.05	MSE01A-051320	05/13/2020	Area	2			510	1020	100	12.5	15.924	0.012		05/22/20	Habedi
20051028.06	MSE02-051320	05/13/2020	Area	2			470	940	100	8.5	10.828	0.009		05/22/20	Habedi

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



Sample Condition Checklist

A&B JobID : 20051028	Date Received : 05/15/2020	Time Received : 9:30AM
Client Name : Gilbane		
Temperature : 25.2-0.3cf=24.9°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.	<table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">Matrix</td> <td style="width: 10%;">Water</td> <td style="width: 10%;">Soil</td> <td style="width: 10%;">Liquid</td> <td style="width: 10%;">Sludge</td> <td style="width: 10%;">Solid</td> <td style="width: 10%;">Cassette</td> <td style="width: 10%;">Tube</td> <td style="width: 10%;">Bulk</td> <td style="width: 10%;">Badge</td> <td style="width: 10%;">Food</td> <td style="width: 10%;">Other</td> </tr> <tr> <td>:</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Matrix	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other	:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Matrix	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other																	
:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																	
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 / 05/15/2020



TAT: 5 Days



Chain-Of-Custody

COC # *KT051420-1*

Project Name and Number: **HPNS Parcel E Phase II J310000400**
 Project Manager: **Brett Womack (925) 250-6027**
 Site Location: **Hunters Point, San Francisco, CA 94124**

Local Address: _____
 Laboratory Name: **A&B Labs**
 Address: **10100 East Freeway, Ste. 100**
Houston, Texas 77029
 Contact Name: **Shantell Carpenter**
 Phone: **713-453-6060 x 136**

Date: **5/14/20**
 Page: **1** of **1**

Flow rate for all samples = **2 L/min**

Sample I.D.	Date	Time	Sample Depth (top)	Sample Depth (bottom)	No. of Containers	Sample Matrix	Analyse		Special Instructions/Comments
							Asbestos NIOSH 7400	Condition Type Cassette	
<i>MSE01A-051120</i>	<i>5/11/20</i>	<i>1600</i>	<i>NA</i>	<i>NA</i>	<i>1</i>	<i>AA</i>	<i>X</i>		<i>440</i>
<i>MSE02-051120</i>	<i>5/11/20</i>	<i>1610</i>	<i> </i>	<i> </i>	<i> </i>	<i>X</i>			<i>430</i>
<i>MSE01A-051220</i>	<i>5/12/20</i>	<i>1610</i>	<i> </i>	<i> </i>	<i> </i>	<i>X</i>			<i>480</i>
<i>MSE02-051220</i>	<i>5/12/20</i>	<i>1600</i>	<i> </i>	<i> </i>	<i> </i>	<i>X</i>			<i>480</i>
<i>MSE01A-051320</i>	<i>5/13/20</i>	<i>1535</i>	<i> </i>	<i> </i>	<i> </i>	<i>X</i>			<i>510</i>
<i>MSE02-051320</i>	<i>5/13/20</i>	<i>1530</i>	<i> </i>	<i> </i>	<i> </i>	<i>X</i>			<i>470</i>

Sampled By: *Kimberly*
 Signature: _____
 Special Instructions: *None*

Sampler: *Kimberly*
 Relinquished By/Affiliation: *Kimberly Feder*
 Date: *5/14/20*
 Time: *1600*

Courier/Airbill No.: *FedEx 7704 5093 9153*
 Received By/Affiliation: *Ed G*
 Date: *5/14/20*
 Time: *1600*

Send Results to: *Kearlyyon@gilbaneco.com*
 (w/ fax #) *Kiom@gilbaneco.com*
 Turnaround Time: *5 days*

Original - Laboratory
 Yellow - Field/Office

Gilbane/Scalbert/Chair - custid00614 at
 1709625
 25.2-3 = 24.9
 AIR

ORIGIN ID: JCCA
KIMBERLY TOM
GILBANE TRAILER
FISHER AVE @ SPEAR AVE BLDG 241
SAN FRANCISCO CA 94124
UNITED STATES US

SHIP DATE: 13MAY20
ACTWGT: 1.00 LB
CAD: 102700259/INNET4220

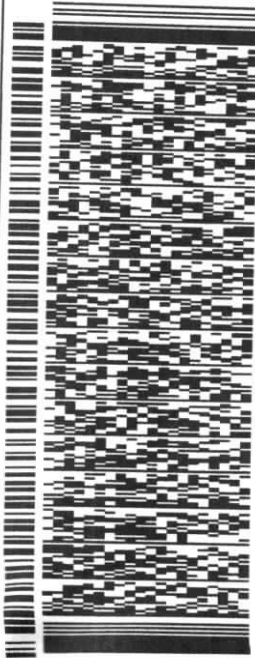
BILL SENDER

TO SHANTALL CARPENTER
ABLABS
10100 EAST FWY, STE.100

56BJ3/2925/FE4A

HOUSTON TX 77029

(713) 453-6060 REF: J310000400
INV PO: J310000400 DEPT



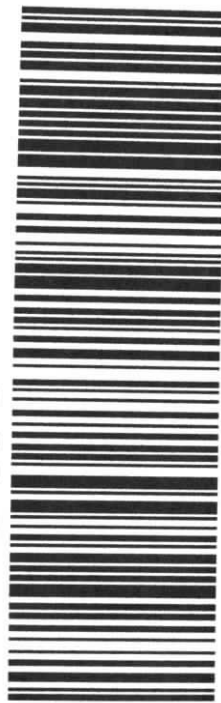
J281128042401TW

TRK# 7704 5093 9153

THU - 14 MAY 3:00P
STANDARD OVERNIGHT

XH HBYA

77029
IAH
TX-US



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