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

Air Monitoring Summary Report
April 1 to April 30, 2021

Phase IV Non-Time Critical Removal Action, Solid Waste Disposal Area Westside, Installation Restoration Site 12
Former Naval Station Treasure Island
San Francisco, CA
May 2021

DCN: GLBN-0005-F5271-0009

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DCN: GLBN-0005-F5271-0009

Prepared for:

Department of the Navy
Naval Facilities Engineering Command Southwest
BRAC PMO West
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Acronyms and Abbreviations

AMP	Air Monitoring Plan
BAAQMD	Bay Area Air Quality Management District
BAP(Eq)	benzo(a)pyrene equivalency
cfm	cubic feet per minute
CFR	Code of Federal Regulations
DAC	derived air concentration
DTSC	Department of Toxic Substances Control
HERO	Human and Ecological Risk Office
Gilbane	Gilbane Federal
DCP	Dust Control Plan
IR	Installation Restoration
mg/m^3	milligram per cubic meter
Navy	U.S. Department of the Navy
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PDR	personal data-logging real-time aerosol monitor
PM10	particulate matter less than 10 microns in diameter
PUF	polyurethane foam
Ra-226	radium-226
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TLV	threshold limit value
TSP	total suspended particulates
$\mu g/m^3$	microgram per cubic meter
USEPA	United States Environmental Protection Agency
Work Plan	*Final Work Plan, Phase IV Non-Time Critical Removal Action, Solid Waste Disposal Area Westside, Installation Restoration Site 12, Former Naval Station Treasure Island, San Francisco, California*

1.0 Introduction

This Air Monitoring Report was prepared by Gilbane Federal (Gilbane) as requested by the United States Department of the Navy (Navy) under the Radiological Multiple Award Contract (RADMAC II) N62473-12-D-D005, Contract Task Order N6247317F5271. Gilbane is performing dust and air monitoring at Former Naval Station Treasure Island in accordance with the Final Dust Control Plan (DCP) and Air Monitoring Plan (AMP), included as appendices to *Phase IV Non-Time Critical Removal Action Work Plan, Solid Waste Disposal Area Westside, Installation Restoration Site 12, Former Naval Station Treasure Island, San Francisco, California* (Work Plan; Gilbane, 2021).

The DCP describes best management practices and procedures to be implemented to minimize dust generation during work activities. Dust monitoring is conducted to ensure that these procedures are effective. Dust monitoring is also conducted to verify that the working environment meets occupational health and safety standards and that workers are safe. The AMP outlines the requirements for prevention of exposure for construction workers to dust and potential airborne chemicals of concern from the work area. The AMP also establishes the conservative project action levels for dust at the work area boundary to protect residents.

This summary report describes the following:

- Dust and air monitoring sampling locations – **Section 2.0**,
- Dust and air monitoring sample collection and analytical methods – **Section 3.0**,
- Dust and air monitoring data – **Section 4.0**, and,
- Dust and air monitoring results – **Section 5.0**.

This summary report presents the dust and air monitoring test results at Installation Restoration (IR) Site 12 from April 1st through April 30th, 2021 and compares the results with the established action levels included in the Work Plan (Gilbane, 2021). During this reporting period, the Site 12 air monitoring stations (AMSW1 and AMSW2) operated on April 1st, 2nd, 7th, 8th, 9th, 10th, 13th, 14th, 15th, 16th, 17th, 20th, 21st, 22nd, 23rd, 24th, 27th, 28th, 29th, and 30th, for earth-moving tasks involving potentially contaminated soil.

During the reporting period, personal data-logging real-time aerosol monitoring (PDR) dust data was collected. Air samples were collected and analyzed for lead, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), dioxin [2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)], total suspended particulates (TSP), and particulate matter less than 10 microns in diameter (PM10). In addition, air samples were analyzed for radiological gross alpha and beta levels.

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2.0 Monitoring Site Locations

2.1 Dust Monitoring

During earthmoving activities, several PDR stations are set up to monitor real-time airborne dust concentrations. The purpose of the PDR stations is to act as a first line of defense in protecting workers' health, and ultimately the public's health, during field activities. PDR stations are situated immediately adjacent to the current work area locations most likely to generate the greatest volume of airborne dust and are adjusted as necessary due to changes in wind direction and/or work location. Real-time dust monitoring ensures dust levels remain below action levels during fieldwork operations.

The general locations for dust monitors in IR Site 12 are shown on **Figure 1**. Specific locations of each PDR are described in the individual PDR daily data files. Field forms from each location are presented in **Attachment 1** of this report. During earth moving activities at IR Site 12 (i.e., transportation of excavated soil to the radiological screening yard, excavation, and backfilling), one PDR serves as the upwind (background) location (DMW7) and two PDRs are placed in downwind perimeter locations (DMW8 and DMW9). Weather forecasts including wind direction are checked daily with a weather station located at Building 572. The weather station records temperature, pressure, wind speed and direction, etc., every 30 minutes, 24 hours per day. Wind speed is also monitored near the work site during soil excavation and handling to ensure that work is stopped if sustained winds over 25 miles per hour are encountered. No work stoppages due to sustained wind speed exceedances were required during this reporting period. Detailed weather data is not reported in this document but can be provided upon request.

2.2 Air Monitoring

Air monitoring samples collected using high volume samplers are collected to identify and quantify airborne contaminants and to confirm the results recorded during dust (PDR) monitoring. Air monitoring stations are mobilized to collect air monitoring samples upwind and downwind of work areas. General locations of the IR Site 12 air monitoring stations are shown on **Figure 1**. The locations of the air monitoring stations are determined based on the prevailing wind direction (typically from the northwest) and are modified as needed. A weather station is erected to monitor the wind direction.

High volume air monitoring stations remain stationary while sampling is being conducted; however, locations may be adjusted when the wind direction changes and when overall excavation work areas change from one site to another. Each upwind and downwind high-volume monitoring station includes separate monitoring systems for the following:

- TSP - collected daily
- PM10 - collected daily

- Lead - collected daily
- PAHs, PCBs, and dioxin - collected on alternating days

2.3 Radiological Air Monitoring

Radiological air samplers are positioned adjacent to excavation work activities for radiologically impacted soil at one upwind and one downwind location during earthmoving activities associated with radiologically impacted soil. The radiological air samplers may be co-located with PDRs or the high-volume samplers.

3.0 Sampling and Analytical Methods

Dust and air samples are collected during earthmoving activities. However, during precipitation events, the dust and air monitoring units may not be operable. An attempt will be made to collect samples and readings regardless of the weather. If dust or air monitors are found to be malfunctioning or nonfunctional, earthmoving activities will stop until monitors can be repaired or replaced. The Site Health and Safety Officer is responsible for monitoring the air and dust monitoring sampling equipment. In rare cases, due to ancillary equipment malfunction such as generator failure during the night, a sample may be collected that represents a period of less than 24 hours. If this situation occurs, a note is added to the sample result data tables indicating why the full sampling period was not achieved.

3.1 Dust Samples

The PDR is a high sensitivity photometric monitor with a light-scattering sensing configuration that has been optimized for the measurement of the respirable fraction of airborne dust, smoke, fumes, and mists. PDRs are used to evaluate real-time monitoring of airborne dust concentrations, to determine if there is a need for additional dust control or personal protection.

3.2 Air Samples

Air samples were sampled in accordance with the United States Environmental Protection Agency (USEPA) reference sampling method for PM10, described in 40 Code of Federal Regulations (CFR) 50, Subpart J. Each sample was collected on a filter over an approximately 24-hour period; the filter was then weighed to determine the amount of PM10 collected.

TSP samples were collected with a high-volume (39 to 60 cubic feet per minute [cfm]) air sampler in accordance with USEPA's reference sampling method for TSP, described in Title 40 CFR, Part 50, Subpart B. Each sample was collected on a filter over an approximately 24-hour period; the filter was then weighed to determine the amount of TSP collected. Once the filter weight was determined, the sample was analyzed for lead in accordance with USEPA Method 6020 using inductively coupled mass spectrometry.

Air samples for PCBs, PAHs, and dioxin are collected and analyzed in accordance with USEPA Methods TO-4A, TO-13, TO-9A, respectively, using TISCH polyurethane (PUF) samplers. The filter media collected from the air samplers is submitted to the analytical laboratory for appropriate analysis.

PCB, PAH, and dioxin samples are collected on alternating days at the downwind and upwind stations during earthmoving activities.

3.3 Radiological Air Samples

Radiological air monitoring is also conducted upwind and downwind on days of earthmoving activities. Radiological samples are collected with a LV-1 low volume air sampler. Air filters are counted on site 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 (often but incorrectly refer to as a derived air concentration [DAC] which applies only to occupational exposures) limit specified in Table 2 of Appendix B to 10 CFR 20. The effluent concentration is the 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.

4.0 Dust and Air Monitoring Data

The Human and Ecological Risk Office (HERO) at the request of the California Department of Toxic Substances Control (DTSC) developed dust action levels for community air monitoring for IR Site 12. Subchronic and chronic dust action levels as PM10 were calculated for lead, dioxin, benzo(a)pyrene (BAP) equivalency (Eq) by PAHs analysis, and PCBs. As presented in the document *Dust Action Levels for Installation Restoration Site 12, Former Naval Station Treasure Island, San Francisco, California* (HERO, 2018), the action levels were calculated using the maximum chemicals of concern soil concentrations at IR Site 12.

Based on HERO's recommendations, a PM10 dust action level of 50 microgram per cubic meter (ug/m^3) will be implemented for all excavation areas at IR Site 12. TSP is expected to be further controlled based on the limit employed for PM10, in accordance with guidance provided by the San Francisco Bay Area Air Quality Management District (BAAQMD), which estimates that PM10 makes up approximately 55 percent of TSP. If it is apparent that project activities are the cause of exceedances, additional control measures will be considered and implemented.

Dust monitoring action levels that are implemented on a real-time basis are listed in **Table 1**. PDR data are collected and reviewed each day by the Site Health and Safety Manager. PDR data are included in **Attachment 1**.

Analytical results from air monitoring samples are compared with the project screening criteria (threshold limit values [TLV]) listed in **Table 2**. Air monitoring results are included in **Attachment 2**.

Table 1: Dust Monitoring Project Action Levels

Method	Monitoring Location	Monitoring Frequency [a]	Action Level [b]	Action
PDR	Near Workers' Breathing Zones (typically on equipment)	Periodically [c]	<2.0 mg/m^3 >2.0 mg/m^3	<2.0 mg/m^3 continue work in Level D. Increase dust control (i.e., apply water or other suppression method) and/or upgrade to Level C if concentrations >2.0 mg/m^3.
	Job Site Perimeter	Continuously	<1.0 mg/m^3 >1.0 mg/m^3	Continue work. STOP work, apply water or other dust suppression methods until levels decrease below 1.0 mg/m^3

Notes:

Only the Health and Safety Manager is authorized to downgrade levels of personal protective equipment.

a Frequency of air monitoring may be adjusted by the project Certified Industrial Hygienist after sufficient characterization of site contaminants has been completed, tasks have been modified, or site controls have proven effective.

b Five readings exceeding the action level in any 15-minute period or a sustained reading exceeding the action level for five minutes will trigger a response. Action levels represent airborne particulate concentrations in excess of background particulate concentrations.

c PDR will be monitored a minimum of three times a day.

< less than

> greater than

mg/m^3 milligrams per cubic meter

PDR personal data-logging real-time aerosol monitor

Table 2: Air Monitoring Project Screening Criteria

Chemicals of Concern	Project Screening Criteria (Threshold Limit Value) µg/m^3	Basis
Lead	1,575	TI Site 12 Subchronic Dust Action Level
TSP	50	TI Site 12 Dust Action Level
PM10	50	BAAQMD Ambient Air Quality Standard
BAP(Eq)	55,330	TI Site 12 Chronic Dust Action Level
PCBs[a]	NA	TI Site 12 Dust Action Level
Dioxin[a]	1E+07	TI Site 12 Chronic Dust Action Level
Radiological (Ra-226)	10% of DAC[c]	Occupational and public air concentration limits for Ra-226 published in 10 Code of Federal Regulations Part 20.

Notes:

a The dust action level was increased by a factor of 10 to account for the short-term duration of the project relative to the lifetime assumptions incorporated into the toxicity criteria and exposure assumption.

b BAP(Eq) action level will be ~55 mg/m^3 for all excavations

c Public air concentration limits are commonly referred to as DAC, but are actually Effluent Concentrations from Table 2 for 10 CFR Part 20.

BAAQMD	Bay Area Air Quality Management District
BAP(Eq)	benzo(a)pyrene equivalency
DAC	derived air concentration
mg/m^3	milligrams per cubic meter
PCBs	polychlorinated biphenyls
PM10	particulate matter smaller than 10 microns in diameter
Ra-226	radium-226
TSP	total suspended particulates
µg/m^3	micrograms per cubic meter

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5.0 Air Monitoring Results

If dust (PDR) monitoring equipment alarms, the source of exceedance will be determined by evaluating both upwind and downwind dust (PDR) sample locations. If the difference between upwind and downwind concentrations is greater than the action level for a sustained period of 15 minutes, then earthmoving activities will be halted until dust control measures are implemented. These may include, but are not limited to, adding water to the work area during earth moving tasks, evaluation of alternate work procedures or equipment, and/or cessation of the activity that is creating the dust until the PDR readings are below the screening criteria.

PDR summary results are presented in **Attachment 1**. Weather information (including ambient pressure and temperature data) and high-volume air monitoring sample results are presented in Attachment 2. Weather information was collected from the weather station at Building 572, Avenue M, Treasure Island, San Francisco, California. Radiological air monitoring results are presented in **Attachment 3**.

PM10 analytical results from April 1 to April 30, 2021 did not exceed the project-specific screening criteria presented in **Table 2**.

TSP analytical results from April 1 to April 30, 2021 did not exceed the project-specific screening criteria presented in **Table 2**.

There were no exceedances recorded for the PDR results on the corresponding dust monitoring days (April 1st through April 30th, 2021).

Metals (lead), PAHs, total PCBs, and dioxin analytical results from April 1 to April 30, 2021 did not exceed the project-specific screening criteria presented in **Table 2**.

Dust (PDR) delta action levels did not exceed project action levels during the reporting period. The field data sheets are found in **Attachment 1**.

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6.0 References

Gilbane, 2016. *Radiological Procedure PR-RP-150 Radiological Survey and Sampling*. January.

Gilbane, 2021. *Phase IV Non-Time Critical Removal Action Work Plan, Solid Waste Disposal Area Westside, Installation Restoration Site 12, Former Naval Station Treasure Island, San Francisco, California*. March.

Gilbane, 2021. *Phase IV Non-Time Critical Removal Action Work Plan, Air Monitoring Plan, Solid Waste Disposal Area Westside, Installation Restoration Site 12, Former Naval Station Treasure Island, San Francisco, California*. March.

Gilbane, 2021. *Phase IV Non-Time Critical Removal Action Work Plan, Dust Control Plan, Solid Waste Disposal Area Westside, Installation Restoration Site 12, Former Naval Station Treasure Island, San Francisco, California*. March.

HERO, 2018. *Dust Action Levels for Installation Restoration Site 12, Former Naval Station Treasure Island, San Francisco, California. September*.

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FIGURES

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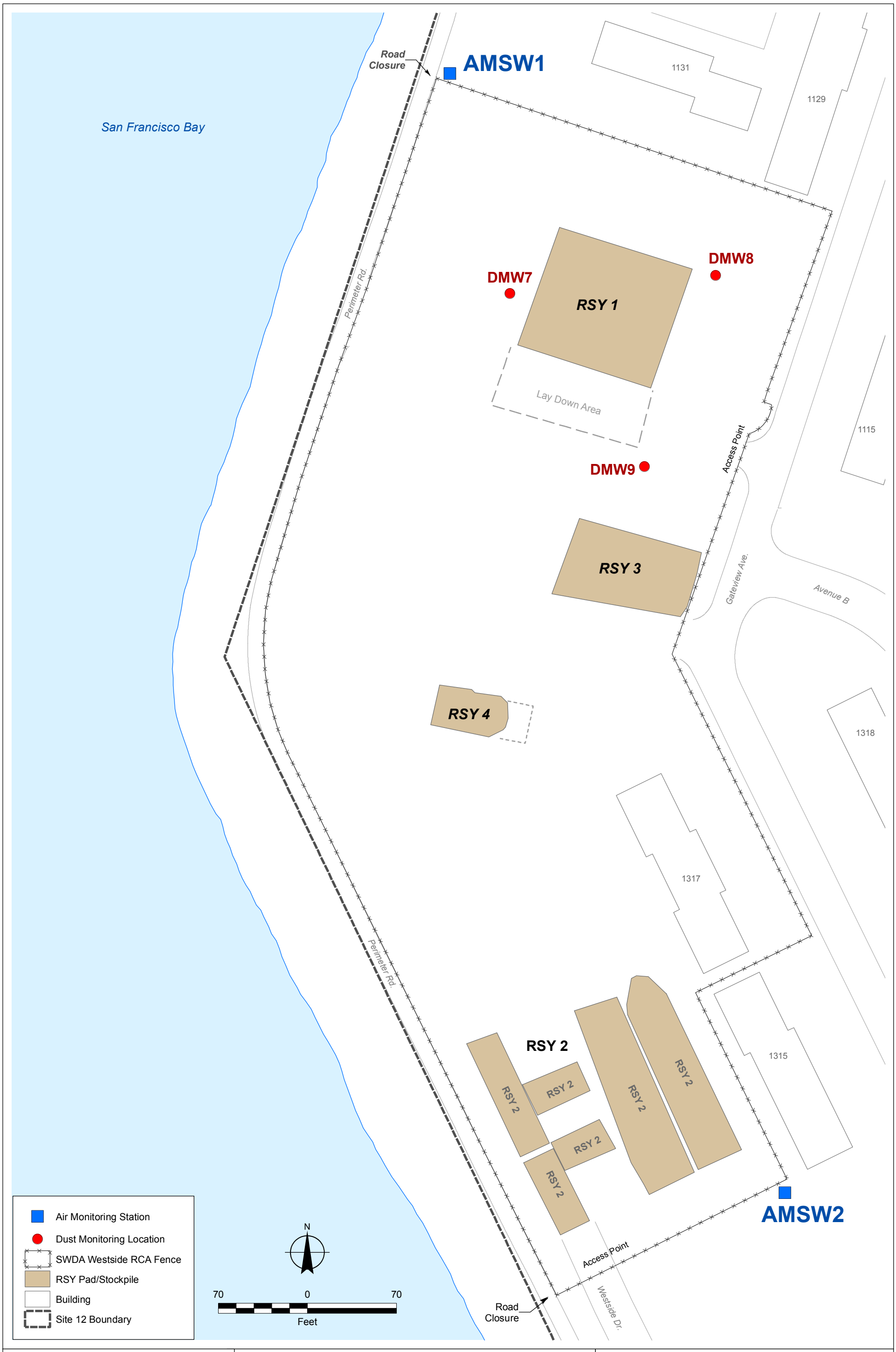

Air Monitoring Report
Phase IV Non-Time Critical Removal Action
Solid Waste Disposal Area Westside, IR Site 12
Former Naval Station Treasure Island
San Francisco, CA

Figure 1

Air and Dust Monitoring Locations
IR Site 12 SWDA Westside

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ATTACHMENT 1
PDR SUMMARY TABLE AND FIELD FORMS
(Provided on CD)

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Table 1-1: Personal Data-Logging Real-Time (PDR) Aerosol Montoring Results

DustTrak Unit	IR Site	Date	Maximum (mg/m^3)	Average (mg/m^3)	Delta Between Upwind and Downwind Stations (mg/m^3)	Below action level? (0.050 mg/m^3) (Yes/No)
DMW7	Site 12	4/1/2021	0.022	0.017	NA	Yes
DMW8	Site 12		0.018	0.014	0.003	Yes
DMW9	Site 12		0.018	0.014	0.003	Yes
DMW7	Site 12	4/5/2021	0.016	0.013	NA	Yes
DMW8	Site 12		0.014	0.012	0.001	Yes
DMW9	Site 12		0.022	0.014	0.001	Yes
DMW7	Site 12	4/6/2021	0.023	0.022	NA	Yes
DMW8	Site 12		0.030	0.021	0.001	Yes
DMW9	Site 12		0.026	0.022	0.000	Yes
DMW7	Site 12	4/7/2021	0.019	0.017	NA	Yes
DMW8	Site 12		0.030	0.023	0.006	Yes
DMW9	Site 12		0.022	0.019	0.002	Yes
DMW7	Site 12	4/8/2021	0.022	0.016	NA	Yes
DMW8	Site 12		0.02	0.013	0.003	Yes
DMW9	Site 12		0.017	0.014	0.002	Yes
DMW7	Site 12	4/9/2021	0.018	0.015	NA	Yes
DMW8	Site 12		0.016	0.013	0.002	Yes
DMW9	Site 12		0.019	0.015	0.000	Yes
DMW7	Site 12	4/12/2021	0.041	0.03	NA	Yes
DMW8	Site 12		0.047	0.033	0.003	Yes
DMW9	Site 12		0.045	0.033	0.003	Yes
DMW7	Site 12	4/13/2021	0.041	0.037	NA	Yes
DMW8	Site 12		0.042	0.04	0.003	Yes
DMW9	Site 12		0.045	0.041	0.004	Yes
DMW7	Site 12	4/14/2021	0.029	0.026	NA	Yes
DMW8	Site 12		0.033	0.028	0.002	Yes
DMW9	Site 12		0.030	0.027	0.001	Yes
DMW7	Site 12	4/15/2021	0.03	0.024	NA	Yes
DMW8	Site 12		0.031	0.025	0.001	Yes
DMW9	Site 12		0.028	0.021	0.003	Yes
DMW7	Site 12	4/16/2021	0.024	0.018	NA	Yes
DMW8	Site 12		0.023	0.02	0.002	Yes
DMW9	Site 12		0.021	0.019	0.001	Yes
DMW7	Site 12	4/19/2021	0.027	0.03	NA	Yes
DMW8	Site 12		0.030	0.029	0.001	Yes
DMW9	Site 12		0.029	0.027	0.003	Yes
DMW7	Site 12	4/20/2021	0.023	0.021	NA	Yes
DMW8	Site 12		0.035	0.027	0.006	Yes
DMW9	Site 12		0.026	0.020	0.001	Yes
DMW7	Site 12	4/21/2021	0.041	0.038	NA	Yes
DMW8	Site 12		0.042	0.039	0.001	Yes
DMW9	Site 12		0.039	0.037	0.001	Yes
DMW7	Site 12	4/22/2021	0.037	0.033	NA	Yes
DMW8	Site 12		0.035	0.031	0.002	Yes
DMW9	Site 12		0.029	0.027	0.006	Yes
DMW7	Site 12	4/23/2021	0.034	0.031	NA	Yes
DMW8	Site 12		0.042	0.035	0.004	Yes
DMW9	Site 12		0.047	0.041	0.010	Yes
DMW7	Site 12	4/26/2021	0.019	0.013	NA	Yes
DMW8	Site 12		0.015	0.01	0.003	Yes
DMW9	Site 12		0.008	0.006	0.007	Yes

Table 1-1: Personal Data-Logging Real-Time (PDR) Aerosol Montoring Results

DustTrak Unit	IR Site	Date	Maximum (mg/m^3)	Average (mg/m^3)	Delta Between Upwind and Downwind Stations (mg/m^3)	Below action level? (0.050 mg/m^3) (Yes/No)
DMW7	Site 12	4/27/2021	0.017	0.013	NA	Yes
DMW8	Site 12		0.013	0.012	0.001	Yes
DMW9	Site 12		0.014	0.011	0.002	Yes
DMW7	Site 12	4/28/2021	0.022	0.013	NA	Yes
DMW8	Site 12		0.023	0.019	0.006	Yes
DMW9	Site 12		0.020	0.019	0.006	Yes
DMW7	Site 12	4/29/2021	0.019	0.015	NA	Yes
DMW8	Site 12		0.022	0.016	0.001	Yes
DMW9	Site 12		0.027	0.019	0.004	Yes
DMW7	Site 12	4/30/2021	0.016	0.012	NA	Yes
DMW8	Site 12		0.037	0.023	0.011	Yes
DMW9	Site 12		0.027	0.022	0.010	Yes

Notes:
mg/m^3 = milligrams per cubic meter
NA = not applicable

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AIR MONITORING LOG

Client Name NAVFAC Date 4/1/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 73°F Sunny

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
1040	DMW7	upwind RSY Pad 1	0.022	2341	Intrusive activities prepping to begin
↓	DMW8	Downwind RSY Pad 1	0.018	2845	
↓	DMW9	Downwind RSY Pad 1	0.018	2726	non-intrusive when readings tak
1200	DMW7		0.016		no intrusive work while data collected
↓	DMW8		0.013		
↓	DMW9		0.014		
1645	DMW7		0.012		Activities wrapped up for today
↓	DMW8		0.012		
↓	DMW9		0.011		

LSS 4/1/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/5/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 51°F partly cloudy.

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0800	DMW7	•Upwind RSP Pad 1	0.016	2845	•no intrusive work as of now.
↓	DMW8	•Downwind RSP Pad 1	0.014	2341	
↓	DMW9	•Downwind RSP Pad 1	0.009	2726	
1245	DMW7		0.013		•UXO crew on touch.
↓	DMW8		0.013		
↓	DMW9		0.010		
1700	DMW7		0.011		•operation wrapping up for today.
↓	DMW8		0.010		
↓	DMW9		0.022		

LSS 4/5/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/6/21

Project No. J310000300 Page 1 of 1

Logged by Logan Echaving

Weather 53°F partly cloudy.

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0800	DMW7	• Upwind RS41 Pad 1	0.023	2726	• Site setup/prep
↓	DMW8	• Downwind RS41 pad	0.030	2341	• no intrusive activities as of now.
↓	DMW9	• Downwind RS41 pad	0.022	2845	
1250	DMW7		0.019		• UXO Lunch. non-intrusive
↓	DMW8		0.016		
↓	DMW9		0.017		
1700	DMW7		0.023		• operation wrapping up for day
↓	DMW8		0.018		
↓	DMW9		0.026		
		LSS 4/6/21			

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AIR MONITORING LOG

Client Name NAVFAC Date 4/7/21

Project No. J310000300 Page 1 of 1

Logged by Logan Elwing

Weather 53°F partly cloudy/windy

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0750	DMW7	• upwind RSY pad 1	0.017	2726	• Site prep. • non-intrusive
↓	DMW8	• Downwind RSY pad 1	0.015	2341	
↓	DMW9	• Downwind RSY pad 1	0.014	2845	
1330	DMW7		0.015		• Dust readings collected before intrusive activities have begun after lunch.
↓	DMW8		0.023		
↓	DMW9		0.021		
1700	DMW7		0.019		• operation finished for day
↓	DMW8		0.030		
↓	DMW9		0.022		

LSS 4/7/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/8/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 55°F Sunny

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0800	DMW7	• upwind RSY Pad 1	0.018	2726	• non-intrusive as of now.
↓	DMW8	• Downwind RSY Pad 1	0.020	2341	
↓	DMW9	• Downwind RSY Pad 1	0.017	2845	
1015	DMW7		0.014		• UXO team on break. • dust readings collected.
↓	DMW8		0.010		
↓	DMW9		0.011		
1225	DMW7		0.012		• non-intrusive • team on lunch
↓	DMW8		0.008		
↓	DMW9		0.011		
1700	DMW7		0.022		• operation wrapping up for today.
↓	DMW8		0.014		
↓	DMW9		0.015		

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/9/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 56°F Sunny

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0750	DMW7	• Upwind RSP pad 1	0.018	2726	• non-intrusive • site prep
↓	DMW8	• Downwind RSP pad 1	0.016	2845	
↓	DMW9	• Downwind RSP pad 1	0.019	2341	
1015	DMW7		0.014		• UXO team on break.
↓	DMW8		0.012		
↓	DMW9		0.015		
1130	DMW7		0.015		• Gilbane personnel collected reading
↓	DMW8		0.014		
↓	DMW9		0.015		
1650	DMW7		0.013		• Activities wrapping up for today.
↓	DMW8		0.010		
↓	DMW9		0.011		
		LSS	4/9/21		

Gilbane

AIR MONITORING LOG

Client Name NAVFAC

Project No. J310000300

Logged by TR

Weather Sunny 49 - 65°F

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Date 4/12/2021 (original entry "10th" struck through and corrected to "12")

Page 1 of 1

Time	Dust Monitoring Station Number	Location (upwind)	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0756	DMW7	RSY/pad lot 3	0.041	2875	up wind
↓	DMW8	Down wind	0.047	2341	down wind
↓	DMW9	Down wind	0.042	2726	down wind
0930	DMW7	upwind	0.029		
↓	DMW8	down wind	0.023		
↓	DMW9	down wind	0.028		
1200	DMW7		0.014		
↓	DMW8		0.020		
↓	DMW9		0.018		
1600	DMW7		0.035		
↓	DMW8		0.042		
↓	DMW9		0.045		

TR

Gilbane

AIR MONITORING LOG

Client Name NAVFAC
Project No. J310000300
Logged by Logan Schwing
Weather 54°F Sunny, windy
Instrument Type: Dust Trak II
Calibration Standards Used Factory Calibrated

Date 4/13/21
Page 1 of 1

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0745	DMW7	• Upwind RSYPad 1	0.036	2845	• non-intrusive
↓	DMW8	• Downwind RSYPad 1	0.040	2726	+ site prep.
↓	DMW9	• Downwind RSYPad 1	0.034	2341	
1250	DMW7		0.035		• UXO team on lunch
↓	DMW8		0.042		
↓	DMW9		0.045		
1705	DMW7		0.041		• Of wrapping up for day.
↓	DMW8		0.037		
↓	DMW9		0.043		

LSS 4/13/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/14/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 56°F Sunny

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0800	DMW7	•upwind RSY pad 1	0.027	2845	• non-intrusive • op just beginning
↓	DMW8	•Downwind RSY pad 1	0.028	2341	
↓	DMW9	•Downwind RSY pad 1	0.030	2726	
0945	DMW7		0.022		•UXO team on break •no dirt movement when readings collected.
↓	DMW8		0.023		
↓	DMW9		0.021		
1710	DMW7		0.029		• Activities wrapping up for today.
↓	DMW8		0.033		
↓	DMW9		0.030		

LSS 4/14/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/15/21

Project No. J310000300 Page 1 of 1

Logged by Logan Echwing

Weather 44°F - 55°F Sunny

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0755	DMW7	•upwind RSY pad 1	0.030	2845	•non-intrusive
↓	DMW8	•Downwind RSY pad 1	0.031	2341	
↓	DMW9	•Downwind RSY pad 1	0.028	2726	
1230	DMW7		0.020		•UXO team at lunch •no movement of soil
↓	DMW8		0.019		
↓	DMW9		0.016		
1700	DMW7		0.021		•operation wrapping up for today.
↓	DMW8		0.024		
↓	DMW9		0.018		

LSS 4/15/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC

Project No. J310000300

Logged by Logan Schwing

Weather 46°F - 55°F Sunny, mild wind

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Date 4/16/21

Page 1 of 1

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0750	DMW7	• Upwind RSP pad 1	0.012	2845	• setup/site prep
↓	DMW8	• Downwind RSP pad 1	0.017	2726	• non-intrusive
↓	DMW9	• Downwind RSP pad 1	0.019	2341	
1250	DMW7		0.019		• Reading collected while loader is relocating Lot #3 onto holding pad.
↓	DMW8		0.021		
↓	DMW9		0.018		• Soil is USCS cleared. Frag distance does not apply.
1700	DMW7		0.024		• Gilbane personnel collected readings.
↓	DMW8		0.023		
↓	DMW9		0.021		

LSS 4/16/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC
Date 4/19/21
Project No. J310000300
Page 1 of 1
Logged by Logan Schwing
Weather 48°F - 57°F partly cloudy. Afternoon wind.
Instrument Type: Dust Trak II
Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0800	DMW7	•Upwind RSY Pad 1	0.027	2726	•site prep/setup •non-intrusive
↓	DMW8	•Downwind RSY Pad 1	0.030	2845	
↓	DMW9	•Downwind RSY Pad 1	0.029	2341	
1300	DMW7		0.022		•UXO team still on lunch
↓	DMW8		0.029		
↓	DMW9		0.025		
1650	DMW7		0.024		•operation finishing up for today.
↓	DMW8		0.028		•Tools, equipment, etc back to yard.
↓	DMW9		0.026		

LSS 4/19/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/20/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 55°F - 46°F Partly cloudy. Afternoon wind.

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0750	DMW7	• upwind RSP Pad 1	0.019	2726	• site prep/setup
↓	DMW8	• Downwind RSP Pad 1	0.021	2341	
↓	DMW9	• Downwind RSP Pad 1	0.015	2845	
1300	DMW7		0.022		• non intrusive
↓	DMW8		0.026		• UXO team on lunch
↓	DMW9		0.018		
1700	DMW7		0.023		• Operation wrapping up for day.
↓	DMW8		0.035		
↓	DMW9		0.026		

55

4/20/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/21/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 46°F - 51°F . Partly cloudy. Fog.

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0745	DMW7	•upwind RSP Pad 1	0.036	2845	•operation setup.
↓	DMW8	•Downwind RSP pad 1	0.039	2341	
↓	DMW9	•Downwind RSP pad 1	0.038	2726	
1300	DMW7		0.041		•USO team taking lunch.
↓	DMW8		0.036		- non-intrusive when readings taken.
↓	DMW9		0.039		
1705	DMW7		0.038		•operation finished for today.
↓	DMW8		0.042		
↓	DMW9		0.035		

L55

4/21/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/22/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 46°F - 51°F cloudy. Windy.

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0755	DMW7	• upwind RSY pad 1	0.036	2341	• site prep
↓	DMW8	• Downwind RSY pad 1	0.034	2845	
↓	DMW9	• Downwind RSY pad 1	0.028	2726	
1245	DMW7		0.026		• UXO team on lunch. • non-intrusive activities
↓	DMW8		0.025		
↓	DMW9		0.023		
1705	DMW7		0.037		• operation wrapping up for today.
↓	DMW8		0.035		
↓	DMW9		0.029		

LSS 4/22/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/23/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 49°F - 51°F cloudy.

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0755	DMW7	• upwind RSV pad 1	0.032	2726	• site prep / setup • non-intrusive.
↓	DMW8	• downwind RSV pad 1	0.034	2845	
↓	DMW9	• downwind RSV pad 1	0.040	2341	
1245	DMW7		0.027		• Oxo team on lunch • no activities while reading collected.
↓	DMW8		0.030		
↓	DMW9		0.036		
1655	DMW7		0.034		• operation wrapping up for week.
↓	DMW8		0.042		
↓	DMW9		0.047		
		1655	4/23/21		

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/26/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 44°F - 53°F Partly cloudy.

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0755	DMW7	•upwind RSY Pad 1	0.019	2845	•setup/prep •no activities present during reading.
↓	DMW8	•Downwind RSY Pad 1	0.015	2726	
↓	DMW9	•Downwind RSY Pad 1	0.008	2341	
1300	DMW7		0.011		•UXO team on lunch.
↓	DMW8		0.007		
↓	DMW9		0.005		
1700	DMW7		0.008		•operation wrapping up for day.
↓	DMW8		0.009		
↓	DMW9		0.006		

LSS 4/26/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/27/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 44°F - 58°F Sunny.

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0800	DMW7	•upwind RSP Pad 1	0.017	2341	•Site prep •UXO team non-intrusive as of now.
↓	DMW8	•Downwind RSP Pad 1	0.013	2845	
↓	DMW9	•Downwind RSP Pad 1	0.013	2726	
1240	DMW7		0.011		•UXO team on lunch
↓	DMW8		0.009		
↓	DMW9		0.007		
1700	DMW7		0.010		•operation wrapping up for day.
↓	DMW8		0.013		
↓	DMW9		0.014		

LSS 4/27/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/28/21

Project No. J310000300 Page 1 of 1

Logged by Logan Schwing

Weather 46°F - 66°F Sunny

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0755	DMW7	•upwind RSY Pad 1	0.022	2341	•site setup •no work as of yet
↓	DMW8	•downwind RSY Pad 1	0.023	2845	
↓	DMW9	•downwind RSY Pad 1	0.020	2726	
1220	DMW7		0.007		•UXO Boys on lunch while readings corrected
↓	DMW8		0.017		
↓	DMW9		0.019		
1655	DMW8? LSS 4/28/21		0.011		•operation wrapping up for today.
↓	DMW8		0.016		
↓	DMW9		0.019		

1655 LSS 4/28/21

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/29/2021

Project / No. T.I. Westside Phase IV NTCRA / J310000800 Page 1 of 1

Logged by TGK

Weather sunny 58°F

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0815	DMW7	upwind RSY pad 1	0.016	2726	Begin UXO clearance
↓	DMW8	downwind RSY pad 1	0.022	2341	↓
↓	DMW9	downwind RSY 1	0.027	2845	↓
1200	DMW7	upWind	0.010	↓	right before lunch
↓	DMW8	down wind	0.011	↓	↓
↓	DMW9	downwind	0.014	↓	↓
1615	DMW7	up wind	0.019	↓	UXO clearing
↓	DMW8	downwind	0.015	↓	↓
↓	DMW9	down wing	0.016	↓	↓

TK 4/29/2021

Gilbane

AIR MONITORING LOG

Client Name NAVFAC Date 4/30/2021

Project / No. T.I. Westside Phase IV NTCRA / J310000800 Page 1 of 1

Logged by TON

Weather cloudy 52 - 65°F

Instrument Type: Dust Trak II

Calibration Standards Used Factory Calibrated

Time	Dust Monitoring Station Number	Location	Instrument Reading (mg/m3)	Unit Number	Activities, Remarks
0755	DMW7	upwind	0.016	2726	RS4pad1 Lot 5
↓	DMW8	downwind	0.016	2341	
↓	DMW9	downwind	0.027	2845	
1145	DMW7		0.012		moving soil w/ loader
↓	DMW8		0.015		
↓	DMW9		0.017		
1530	DMW7		0.007		moving soil w/ loader
↓	DMW8		0.037		
↓	DMW9		0.022		

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ATTACHMENT 2

SUMMARY OF AIR MONITORING AND AIR SAMPLING RESULTS

(Provided on CD)

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Table 2-1: Ambient Pressure and Temperature Monitoring Results

Sample Date	Ambient Pressure (inches of Hg)	Ambient Temperature (°F)	Ambient Temperature (°K)
4/1/2021	30.00	62.90	290.32
4/2/2021	29.90	57.51	287.32
4/6/2021	30.00	51.21	283.82
4/7/2021	30.07	50.64	283.51
4/8/2021	30.13	50.68	283.53
4/9/2021	30.10	52.83	284.72
4/10/2021	30.07	51.79	284.14
4/13/2021	29.81	51.82	284.16
4/14/2021	29.83	52.65	284.62
4/15/2021	29.97	52.59	284.59
4/16/2021	30.00	50.98	283.69
4/17/2021	30.00	50.79	283.59
4/20/2021	29.98	53.64	285.17
4/21/2021	29.82	53.47	285.08
4/22/2021	29.86	51.58	284.03
4/23/2021	29.93	51.50	283.98
4/24/2021	30.00	52.16	284.35
4/27/2021	29.92	52.53	284.56
4/28/2021	30.06	55.79	286.37
4/29/2021	30.15	56.03	286.50
4/30/2021	30.15	53.96	285.35

Notes:

Weather data collected from weather station at Building 572, Avenue M, Treasure Island, San Francisco, CA

°F = Degrees Fahrenheit

Hg = mercury

°K = Degrees Kelvin

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Table 2-2: Particulate Matter Smaller than Ten Microns (PM10)

Location ID	Sampling Period (Hours)	Sample Date	Particulate Matter Less Than 10 Microns in Diameter (ug/m^3)	Delta between Downwind and Upwind Stations (ug/m^3)	PM10 Exceedance? (Yes/No)
Screening Criteria					**50**
AMSW1	23.96	4/1/2021	23	NA	NA
	24.74	4/2/2021	26	NA	NA
	23.99	4/6/2021	20	NA	NA
	14.77*	4/7/2021	30	NA	NA
	8.1*	4/8/2021	23	NA	NA
	24.50	4/9/2021	23	NA	NA
	23.92	4/10/2021	27	NA	NA
	23.56	4/13/2021	41	NA	NA
	23.84	4/14/2021	42	NA	NA
	24.37	4/15/2021	38	NA	NA
	23.62	4/16/2021	27	NA	NA
	24.24	4/17/2021	24	NA	NA
	23.97	4/20/2021	25	NA	NA
	24.76	4/21/2021	32	NA	NA
	23.66	4/22/2021	31	NA	NA
	23.20	4/23/2021	27	NA	NA
	24.01	4/24/2021	20	NA	NA
	10.34*	4/27/2021	14	NA	NA
	24.11	4/28/2021	21	NA	NA
	24.72	4/29/2021	21	NA	NA
	24.88	4/30/2021	17	NA	NA
AMSW2	23.79	4/1/2021	19	-4	No
	24.71	4/2/2021	19	-7	No
	23.59	4/6/2021	15	-5	No
	24.13	4/7/2021	18	-12	No
	23.84	4/8/2021	12	-11	No
	24.11	4/9/2021	16	-7	No
	24.38	4/10/2021	18	-9	No
	23.79	4/13/2021	34	-7	No
	23.76	4/14/2021	34	-8	No
	24.35	4/15/2021	31	-7	No
	23.62	4/16/2021	19	-8	No
	24.05	4/17/2021	16	-8	No
	24.11	4/20/2021	20	-5	No
	24.62	4/21/2021	26	-6	No
	23.70	4/22/2021	24	-7	No
	23.42	4/23/2021	22	-5	No
	21.21	4/24/2021	14	-6	No
	23.92	4/27/2021	8.4	-5.6	No
	24.18	4/28/2021	16	-5	No
	24.92	4/29/2021	15	-6	No
	24.89	4/30/2021	12	-5	No

Notes:

ug/m3 = micrograms per cubic meter

NA = Not applicable

PM10 = particulate matter less then 10 microns in diameter

* = generator/sampler malfunction

Table 2-3: Total Suspended Particulates Monitoring Results

Location ID	Sampling Period (Hours)	Sample Date	Total Suspended Particulate (ug/m^3)	Delta Between Downwind and Upwind Stations (ug/m^3)	TSP Exceedance? (Yes/No)
Screening Criteria					**50**
AMSW1	23.94	4/1/2021	39.84	NA	NA
	24.73	4/2/2021	37.90	NA	NA
	24.00	4/6/2021	30.77	NA	NA
	14.76*	4/7/2021	46.25	NA	NA
	6.93*	4/8/2021	52.53	NA	NA
	24.50	4/9/2021	42.97	NA	NA
	23.92	4/10/2021	50.79	NA	NA
	23.56	4/13/2021	50.05	NA	NA
	23.83	4/14/2021	62.41	NA	NA
	24.36	4/15/2021	52.94	NA	NA
	23.61	4/16/2021	35.59	NA	NA
	24.23	4/17/2021	35.84	NA	NA
	23.96	4/20/2021	37.33	NA	NA
	24.76	4/21/2021	49.14	NA	NA
	23.65	4/22/2021	42.52	NA	NA
	23.22	4/23/2021	38.87	NA	NA
	24.00	4/24/2021	30.08	NA	NA
	10.33*	4/27/2021	30.73	NA	NA
	24.11	4/28/2021	35.63	NA	NA
	24.72	4/29/2021	30.84	NA	NA
	24.91	4/30/2021	26.91	NA	NA
AMSW2	23.81	4/1/2021	31.14	-8.70	No
	24.71	4/2/2021	29.66	-8.24	No
	23.61	4/6/2021	23.45	-7.32	No
	24.13	4/7/2021	24.65	-21.61	No
	23.83	4/8/2021	19.70	-32.83	No
	24.11	4/9/2021	26.28	-16.69	No
	24.39	4/10/2021	30.25	-20.55	No
	23.70	4/13/2021	41.22	-8.83	No
	23.77	4/14/2021	51.09	-11.32	No
	24.35	4/15/2021	42.83	-10.11	No
	23.63	4/16/2021	26.19	-9.40	No
	24.05	4/17/2021	26.55	-9.29	No
	24.13	4/20/2021	34.44	-2.89	No
	24.63	4/21/2021	39.50	-9.64	No
	23.68	4/22/2021	36.95	-5.56	No
	23.44	4/23/2021	32.77	-6.10	No
	21.21	4/24/2021	21.71	-8.37	No
	23.92	4/27/2021	15.32	-15.41	No
	24.21	4/28/2021	25.33	-10.30	No
	24.94	4/29/2021	20.72	-10.12	No
	24.89	4/30/2021	19.33	-7.58	No

Notes:

ug/m^3 = micrograms per cubic meter

NA = Not applicable

TSP = total suspended particulate

* = generator/sampler malfunction

Table 2-4: Lead by EPA 6020 Monitoring Results

Location ID	Sampling Period (Hours)	Sample Date	Lead (ug/m^3)	Lead Exceedance? (Yes/No)
Screening Criteria				**1,575**
AMSW1	23.96	4/1/2021	0.0023	No
	24.74	4/2/2021	0.0014	No
	23.99	4/6/2021	0.00061 J	No
	14.77*	4/7/2021	0.0008 J	No
	8.1*	4/8/2021	0.00084 J	No
	24.50	4/9/2021	0.00068 J	No
	23.92	4/10/2021	0.00072 J	No
	23.56	4/13/2021	0.001	No
	23.84	4/14/2021	0.00066 J	No
	24.37	4/15/2021	0.00068 J	No
	23.62	4/16/2021	0.00054 J	No
	24.24	4/17/2021	0.00076	No
	23.97	4/20/2021	0.0005 J	No
	24.76	4/21/2021	0.00087	No
	23.66	4/22/2021	0.0008	No
	23.20	4/23/2021	0.0007 J	No
	24.01	4/24/2021	0.00051 J	No
	10.34*	4/27/2021	0.0021	No
	24.11	4/28/2021	0.00052 J	No
	24.72	4/29/2021	0.00048 J	No
	24.88	4/30/2021	0.0006 J	No
AMSW2	23.79	4/1/2021	0.0014	No
	24.71	4/2/2021	0.0011	No
	23.59	4/6/2021	0.0007 J	No
	24.13	4/7/2021	0.00055 J	No
	23.84	4/8/2021	0.00064 J	No
	24.11	4/9/2021	0.00054 J	No
	24.38	4/10/2021	0.00075	No
	23.79	4/13/2021	0.00078	No
	23.76	4/14/2021	0.00086	No
	24.35	4/15/2021	0.00098	No
	23.62	4/16/2021	0.00049 J	No
	24.05	4/17/2021	0.00076	No
	24.11	4/20/2021	1.9	No
	24.62	4/21/2021	0.0013	No
	23.70	4/22/2021	0.0014	No
	23.42	4/23/2021	0.00085	No
	21.21	4/24/2021	0.00099	No
	23.92	4/27/2021	0.00097	No
	24.18	4/28/2021	0.00046 J	No
	24.92	4/29/2021	0.00052 J	No
	24.89	4/30/2021	0.00065 J	No

Notes:

J = indicates an estimated value

ug/m^3 = micrograms per cubic meter

* = generator/sampler malfunction

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Table 2-5: Polycyclic Aromatic Hydrocarbons by TO-13 Monitoring Results

Location ID	Sampling Period (Hours)	Sample Date	BAP(Eq) Exceed-ance? (Yes/No)	BAP(Eq)	2-Methyl-naph-thalene (ug/m^3)	Acenaph-thene (ug/m^3)	Acenaph-thylene (ug/m^3)	Anthracene (ug/m^3)	Benzo(a) anthracene (ug/m^3)	Benzo(a) pyrene (ug/m^3)	Benzo(b) fluoran-thene (ug/m^3)	Benzo(g,h,i) perylene (ug/m^3)	Benzo(k) fluoran-thene (ug/m^3)	Chrysene (ug/m^3)	Dibenz(a,h)anth racene (ug/m^3)	Fluoran-thene (ug/m3)	Fluorene (ug/m3)	Indeno (1,2,3-c,d) pyrene (ug/m3)	Naph-thalene (ug/m3)	Phenan-threne (ug/m3)	Pyrene (ug/m3)
Screening Criteria[1]				**55,330**	NE	NE	NE	NE	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	NE	NE	**NE**	NE	NE	NE
AMSW1	24.75	4/2/2021	No	0	0.0019	0.00084	< 0.00047	0.00039 J	< 0.00047	< 0.00047	< 0.00047	< 0.00047	< 0.00047	< 0.00047	< 0.00047	0.0013	0.0014	< 0.00047	0.0032	0.0051	0.00074
	8.1*	4/8/2021	No	0	0.0017 J	0.00061 J	< 0.0015	0.00063 J	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015	0.00089 J	0.0016	< 0.0015	0.0031	0.0051	< 0.0015
	23.55	4/13/2021	No	0	0.0015	0.00046 J	< 0.00059	0.00038 J	< 0.00059	< 0.00059	< 0.00059	< 0.00059	< 0.00059	< 0.00059	< 0.00059	0.00064	0.0011	< 0.00059	0.0027	0.0036	0.00037 J
	23.61	4/16/2021	No	0	0.0014	0.00031 J	< 0.00057	< 0.00057	< 0.00057	< 0.00057	< 0.00057	< 0.00057	< 0.00057	< 0.00057	< 0.00057	0.00037 J	0.00051 J	< 0.00057	0.0024	0.0016	0.00024 J
	24.77	4/21/2021	No	0	0.002	0.0006	< 0.00054	0.00043 J	< 0.00054	< 0.00054	< 0.00054	< 0.00054	< 0.00054	< 0.00054	< 0.00054	0.001	0.0012	< 0.00054	0.0038	0.0045	0.00057
	24.00	4/24/2021	No	0	0.0013	0.00035 J	< 0.00053	0.00025 J	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053	0.0005 J	0.00072	< 0.00053	0.0023	0.0024	0.00029 J
	24.73	4/29/2021	No	0	0.0019	0.00054	< 0.00054	0.00033 J	< 0.00054	< 0.00054	< 0.00054	< 0.00054	< 0.00054	< 0.00054	< 0.00054	0.0007	0.00086	< 0.00054	0.0033	0.0032	0.0004 J
AMSW2	24.71	4/2/2021	No	0	0.0016	0.0007 J	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	0.00094	0.0007 J	< 0.00071	0.0034	0.0018	0.00062 J
	23.83	4/8/2021	No	0	< 0.0014	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	0.0012 J	0.00047 J	< 0.00071
	23.74	4/13/2021	No	0	< 0.0015	0.00043 J	< 0.00073	< 0.00073	< 0.00073	< 0.00073	< 0.00073	< 0.00073	< 0.00073	< 0.00073	< 0.00073	0.00045 J	0.00041 J	< 0.00073	0.0015	0.001	0.00031 J
	23.62	4/16/2021	No	0	< 0.0014	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	< 0.00072	0.0011 J	0.00051 J	< 0.00072
	24.62	4/21/2021	No	0	0.0015	0.00029 J	< 0.00067	< 0.00067	< 0.00067	< 0.00067	< 0.00067	< 0.00067	< 0.00067	< 0.00067	< 0.00067	< 0.00067	< 0.00067	< 0.00067	0.0036	0.00061 J	< 0.00067
	21.21	4/24/2021	No	0	< 0.0016	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	0.0015 J	0.00037 J	< 0.00079
	24.93	4/29/2021	No	0	0.0013 J	0.00037 J	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	0.00047 J	0.00033 J	< 0.00068	0.0032	0.00085	0.00031 J

Notes:

[1] The dust action level was adjusted by a factor of 10 to account for the short-term duration of the project.

NA = Not applicable

NE = None established

BAP(Eq) = Benzo(a)pyrene equivalency

J = estimated value

ug/m^3 = micrograms per cubic meter

< = nondetected less than associated reporting limit

* = PUF sampler/generator malfunction

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Table 2-6: Polychlorinated Biphenyls by TO-4A Monitoring Results

Location ID	Sampling Period (Hours)	Sample Date	Total PCB Exceedance? (Yes/No)	Total PCB	PCB-1016 (Aroclor 1016) (ug/m^3)	PCB-1221 (Aroclor 1221) (ug/m^3)	PCB-1232 (Aroclor 1232) (ug/m^3)	PCB-1242 (Aroclor 1242) (ug/m^3)	PCB-1248 (Aroclor 1248) (ug/m^3)	PCB-1254 (Aroclor 1254) (ug/m^3)	PCB-1260 (Aroclor 1260) (ug/m^3)
Screening Criteria				**NE**							
AMSW1	23.94	04/01/2021	NA	0	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071	< 0.00071
	14.78*	04/07/2021	NA	0	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012
	23.94	04/10/2021	NA	0	< 0.00081	< 0.00081	< 0.00081	< 0.00081	< 0.00081	< 0.00081	< 0.00081
	24.36	04/15/2021	NA	0	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079	< 0.00079
	23.96	04/20/2021	NA	0	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074
	23.18	04/23/2021	NA	0	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
	23.32	04/28/2021	NA	0	< 0.00081	< 0.00081	< 0.00081	< 0.00081	< 0.00081	< 0.00081	< 0.00081
AMSW2	23.8	04/01/2021	NA	0	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
	24.13	04/07/2021	NA	0	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	24.39	04/10/2021	NA	0	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097
	24.35	04/15/2021	NA	0	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	24.12	04/20/2021	NA	0	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095
	23.43	04/23/2021	NA	0	< 0.00099	< 0.00099	< 0.00099	< 0.00099	< 0.00099	< 0.00099	< 0.00099
	24.19	04/28/2021	NA	0	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes:

NA = Not applicable

NE = None established

PCB = polychlorinated biphenyl

ug/m^3 = micrograms per cubic meter

< = nondetected less than associated reporting limit

* = sampler/generator malfunction

Table 2-7: Dioxin as 2,3,4,7,8-TCDD by TO-9A Monitoring Results

Location ID	Sampling Period (Hours)	Sample Date	2,3,7,8-Tetrachlorodibenzo-p-dioxin (ug/m^3)	Dioxin Exceedance? (Yes/No)
Screening Criteria				**10,000,000 ug/m^3**
AMSW1	24	04/06/2021	< 0.00000002	No
	24.51	04/09/2021	< 0.00000002	No
	23.83	04/14/2021	< 0.00000002	No
	24.23	04/17/2021	< 0.00000002	No
	23.58	04/22/2021	< 0.00000002	No
	24.03	04/27/2021	< 0.00000002	No
	24.95	04/30/2021	< 0.00000002 J	No
AMSW2	23.6	04/06/2021	< 0.00000003	No
	24.11	04/09/2021	< 0.00000003	No
	23.76	04/14/2021	< 0.00000003	No
	24.05	04/17/2021	< 0.00000003	No
	23.69	04/22/2021	< 0.00000003	No
	23.92	04/27/2021	< 0.00000003	No
	24.89	04/30/2021	< 0.00000002 J	No

Notes:

J = estimated value

ug/m^3 = micrograms per cubic meter

< = nondetected less than associated reporting limit

ATTACHMENT 3
RADIOLOGICAL AIR MONITORING RESULTS
(Provided on CD)

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AIR SAMPLING EQUIPMENT

Project Information		Effective as of: 5/3/2021
Contract / Task Order Number:	Project Title / Location:	Gilbane Project Number:
N62473-17-D-0005	IR Site 12 RD/RA, Treasure Island, SF, CA	J310000300

Perimeter/Effluent Air Sampling Equipment				Breathing Zone Air Sampling Equipment			
Equip Number	Air Sampler Make/Model	Serial Number	Cal Due Date	Equip Number	Air Sampler Make/Model	Serial Number	Cal Due Date
PE01	LV-1	4532	5/20/21	BZ01			
PE02	LV-1	4360	5/20/21	BZ02			
PE03				BZ03			
PE04				BZ04			
PE05				BZ05			
PE06				BZ06			
PE07				BZ07			
PE08				BZ08			
PE09				BZ09			
PE10				BZ10			
PE11				BZ11			
PE12				BZ12			
PE13				BZ13			
PE14				BZ14			
PE15				BZ15			
PE16				BZ16			
PE17				BZ17			
PE18				BZ18			
PE19				BZ19			
PE20				BZ20			

Sample Counting Instruments

Inst Number	Model Number	Serial Number	Cal Due Date	Count Time (min)		Background (cpm)[a]		Abs Ct Eff (cnts/dis)[b]		MDC (dpm/sample)[c]	
				Bkgrd	Source	Alpha	Beta	Alpha	Beta	Alpha	Beta
A	Protean	615068	9/15/21	1	1	0.0	1.1	0.352	0.355	15.4	29.0
B											
C											
D											
E											

Notes

[a] background values obtained from instrument set-up worksheet

[b] absolute counting efficiency = 4π efficiency calculated as ratio of measured count rate and contained activity [total dpm] of source (see IN-RP-141, *Alpha/Beta Scaler Instrument Set-Up and Operation*)

[c] MDC calculated using the Stapleton approximation (see IN-RP-141, *Alpha/Beta Scaler Instrument Set-Up and Operation)*

Gilbane

AIR SAMPLE RESULTS - PUBLIC EXPOSURE MONITORING

Project Information		
Contract / Task Order Number:	Project Title / Location:	Gilbane Project Number:
N62473-17-D-0005	IR Site 12 RD/RA, Treasure Island, SF, CA	J310000800
Information effective as of: 6/9/2021		

Effluent Air Concentration		
	Alpha	Beta
Radionuclide	Ra-226	Sr-90
Effluent Conc (µCi/ml)	9.E-13	6.E-12

Sampling Period: Air samples collected between March 22, 2021 and May 14, 2021

Color Codes	
Value < MDC	Value < 0.1 x Effluent Conc
< 72 hr decay time	Value > 0.1 x Effluent Conc
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 Alpha	Gross Activity Beta	Net dpm Alpha	Net dpm Beta	Activity (µCi/ml) Alpha	Activity (µCi/ml) Beta	*Effluent Conc (%) Alpha	*Effluent Conc (%) Beta	Count Tech	Data Reviewer
		AS-0015	PE02	60	4/1/21 7:57	4/1/21 17:10	553	3.3E+07	A	4/27/21	1	cpm	0.20	3.95	0.6	8.0	7.7E-15	1.1E-13	0.9%	1.8%	IH	CB
		AS-0016	PE01	60	4/1/21 8:03	4/1/21 17:03	540	3.2E+07	A	4/27/21	1	cpm	0.00	4.80	0.0	10.4	0.0E+00	1.4E-13	0.0%	2.4%	IH	CB
		AS-0017	PE02	60	4/2/21 7:57	4/2/21 17:13	556	3.3E+07	A	4/27/21	1	cpm	0.05	3.60	0.1	7.0	1.9E-15	9.5E-14	0.2%	1.6%	IH	CB
		AS-0018	PE01	60	4/2/21 7:50	4/2/21 17:08	558	3.3E+07	A	4/27/21	1	cpm	0.25	2.75	0.7	4.6	9.6E-15	6.3E-14	1.1%	1.0%	IH	CB
		AS-0019	PE01	60	4/5/21 7:59	4/5/21 16:51	532	3.2E+07	A	4/27/21	1	cpm	0.05	4.15	0.1	8.6	2.0E-15	1.2E-13	0.2%	2.0%	IH	CB
		AS-0020	PE02	60	4/5/21 7:45	4/5/21 16:58	553	3.3E+07	A	4/27/21	1	cpm	0.10	4.65	0.3	10.0	3.9E-15	1.4E-13	0.4%	2.3%	IH	CB
		AS-0021	PE01	60	4/6/21 8:10	4/6/21 17:10	540	3.2E+07	A	4/27/21	1	cpm	0.20	4.10	0.6	8.5	7.9E-15	1.2E-13	0.9%	2.0%	IH	CB
		AS-0022	PE02	60	4/6/21 7:53	4/6/21 17:03	550	3.3E+07	A	4/27/21	1	cpm	0.20	3.50	0.6	6.8	7.8E-15	9.2E-14	0.9%	1.5%	IH	CB
		AS-0023	PE02	60	4/7/21 8:00	4/7/21 17:13	553	3.3E+07	A	4/27/21	1	cpm	0.10	3.75	0.3	7.5	3.9E-15	1.0E-13	0.4%	1.7%	IH	CB
		AS-0024	PE01	60	4/7/21 8:30	4/7/21 17:00	510	3.1E+07	A	4/27/21	1	cpm	0.00	3.90	0.0	7.9	0.0E+00	1.2E-13	0.0%	1.9%	IH	CB
		AS-0025	PE02	60	4/9/21 7:55	4/9/21 17:15	560	3.4E+07	A	4/27/21	1	cpm	0.30	4.80	0.9	10.4	1.1E-14	1.4E-13	1.3%	2.3%	IH	CB
		AS-0026	PE01	60	4/9/21 7:45	4/9/21 17:20	575	3.4E+07	A	4/27/21	1	cpm	0.20	4.35	0.6	9.2	7.4E-15	1.2E-13	0.8%	2.0%	IH	CB
		AS-0027	PE01	60	4/12/21 8:00	4/12/21 17:05	545	3.3E+07	A	4/27/21	1	cpm	0.05	3.35	0.1	6.3	2.0E-15	8.7E-14	0.2%	1.5%	IH	CB
		AS-0028	PE02	60	4/12/21 8:05	4/12/21 17:15	550	3.3E+07	A	4/27/21	1	cpm	0.10	4.05	0.3	8.3	3.9E-15	1.1E-13	0.4%	1.9%	IH	CB
		AS-0029	PE01	60	4/13/21 6:43	4/13/21 17:07	624	3.7E+07	A	4/27/21	1	cpm	0.10	3.40	0.3	6.5	3.4E-15	7.8E-14	0.4%	1.3%	IH	CB
		AS-0030	PE02	60	4/13/21 6:53	4/13/21 17:15	622	3.7E+07	A	4/27/21	1	cpm	0.20	4.60	0.6	9.9	6.9E-15	1.2E-13	0.8%	2.0%	IH	CB
		AS-0031	PE01	60	4/14/21 6:47	4/14/21 17:09	622	3.7E+07	A	4/27/21	1	cpm	0.15	4.50	0.4	9.6	5.1E-15	1.2E-13	0.6%	1.9%	IH	CB
		AS-0032	PE02	60	4/14/21 6:51	4/14/21 17:13	622	3.7E+07	A	4/27/21	1	cpm	0.15	4.00	0.4	8.2	5.1E-15	9.9E-14	0.6%	1.6%	IH	CB
		AS-0033	PE01	60	4/15/21 6:50	4/15/21 17:03	613	3.7E+07	A	4/27/21	1	cpm	0.05	4.85	0.1	10.6	1.7E-15	1.3E-13	0.2%	2.2%	IH	CB
		AS-0034	PE02	60	4/15/21 6:45	4/15/21 17:10	625	3.8E+07	A	4/27/21	1	cpm	0.10	4.55	0.3	9.7	3.4E-15	1.2E-13	0.4%	1.9%	IH	CB
		AS-0035	PE01	60	4/16/21 7:00	4/16/21 17:10	610	3.7E+07	A	4/27/21	1	cpm	0.10	4.20	0.3	8.7	3.5E-15	1.1E-13	0.4%	1.8%	IH	CB
		AS-0036	PE02	60	4/16/21 6:45	4/16/21 17:15	630	3.8E+07	A	4/27/21	1	cpm	0.00	4.25	0.0	8.9	0.0E+00	1.1E-13	0.0%	1.8%	IH	CB
		AS-0037	PE01	60	4/19/21 9:10	4/19/21 17:05	475	2.8E+07	A	4/27/21	1	cpm	0.15	4.05	0.4	8.3	6.7E-15	1.3E-13	0.7%	2.2%	IH	CB
		AS-0038	PE02	60	4/19/21 9:00	4/19/21 17:00	480	2.9E+07	A	4/27/21	1	cpm	0.05	4.20	0.1	8.7	2.2E-15	1.4E-13	0.2%	2.3%	IH	CB
		AS-0039	PE01	60	4/20/21 6:45	4/20/21 17:15	630	3.8E+07	A	4/27/21	1	cpm	0.10	4.40	0.3	9.3	3.4E-15	1.1E-13	0.4%	1.8%	IH	CB
		AS-0040	PE02	60	4/20/21 6:55	4/20/21 17:05	610	3.7E+07	A	4/27/21	1	cpm	0.15	4.45	0.4	9.4	5.2E-15	1.2E-13	0.6%	1.9%	IH	CB
		AS-0041	PE02	60	4/21/21 6:56	4/21/21 17:01	605	3.6E+07	A	4/27/21	1	cpm	0.10	4.80	0.3	10.4	3.5E-15	1.3E-13	0.4%	2.2%	IH	CB
		AS-0042	PE01	60	4/21/21 6:45	4/21/21 17:10	625	3.8E+07	A	4/27/21	1	cpm	0.05	5.50	0.1	12.4	1.7E-15	1.5E-13	0.2%	2.5%	IH	CB
		AS-0043	PE02	60	4/22/21 6:45	4/22/21 17:10	625	3.8E+07	A	4/27/21	1	cpm	0.05	3.80	0.1	7.6	1.7E-15	9.1E-14	0.2%	1.5%	IH	CB
		AS-0044	PE01	60	4/22/21 6:55	4/22/21 17:05	610	3.7E+07	A	4/27/21	1	cpm	0.05	3.45	0.1	6.6	1.7E-15	8.1E-14	0.2%	1.4%	IH	CB
		AS-0045	PE02	60	4/23/21 7:00	4/23/21 17:03	603	3.6E+07	A	4/27/21	1	cpm	0.10	4.20	0.3	8.7	3.5E-15	1.1E-13	0.4%	1.8%	IH	CB
		AS-0046	PE01	60	4/23/21 6:55	4/23/21 17:07	612	3.7E+07	A	4/27/21	1	cpm	0.10	2.95	0.3	5.2	3.5E-15	6.4E-14	0.4%	1.1%	IH	CB
		AS-0047	PE01	60	4/26/21 6:45	4/26/21 17:05	620	3.7E+07	A	5/3/21	1	cpm	0.20	4.55	0.6	9.7	6.9E-15	1.2E-13	0.8%	2.0%	IH	CB
		AS-0048	PE02	60	4/26/21 6:55	4/26/21 17:17	622	3.7E+07	A	5/3/21	1	cpm	0.00	3.80	0.0	7.6	0.0E+00	9.2E-14	0.0%	1.5%	IH	CB
		AS-0049	PE01	60	4/27/21 6:48	4/27/21 17:15	627	3.8E+07	A	5/3/21	1	cpm	0.35	4.15	1.0	8.6	1.2E-14	1.0E-13	1.3%	1.7%	IH	CB
		AS-0050	PE02	60	4/27/21 7:00	4/27/21 17:10	610	3.7E+07	A	5/3/21	1	cpm	0.05	4.30	0.1	9.0	1.7E-15	1.1E-13	0.2%	1.8%	IH	CB
		AS-0051	PE02	60	4/28/21 6:49	4/28/21 17:07	618	3.7E+07	A	5/3/21	1	cpm	0.25	4.00	0.7	8.2	8.6E-15	9.9E-14	1.0%	1.7%	IH	CB
		AS-0052	PE01	60	4/28/21 6:55	4/28/21 17:11	616	3.7E+07	A	5/3/21	1	cpm	0.05	4.15	0.1	8.6	1.7E-15	1.0E-13	0.2%	1.7%	IH	CB
		AS-0053	PE02	60	4/29/21 7:10	4/29/21 17:10	600	3.6E+07	A	5/3/21	1	cpm	0.10	4.30	0.3	9.0	3.6E-15	1.1E-13	0.4%	1.9%	IH	CB
		AS-0054	PE01	60	4/29/21 7:05	4/29/21 17:03	598	3.6E+07	A	5/3/21	1	cpm	0.00	4.00	0.0	8.2	0.0E+00	1.0E-13	0.0%	1.7%	IH	CB
		AS-0055	PE01	60	4/30/21 7:05	4/30/21 17:08	603	3.6E+07	A	5/4/21	1	cpm	0.10	4.15	0.3	8.6	3.5E-15	1.1E-13	0.4%	1.8%	IH	CB
		AS-0056	PE02	60	4/30/21 6:55	4/30/21 17:15	620	3.7E+07	A	5/4/21	1	cpm	0.20	3.55	0.6	6.9	6.9E-15	8.4E-14	0.8%	1.4%	IH	CB

CFM to LPM Converter

1 cfm = 28.316846592 lpm

Enter cfm: 2.1

lpm: 60.0

Sample Types
Perimeter
Effluent

Counting Units
cnts
cpm

Beta-Emitting Radionuclide	Retention Class	Column 1 Air (µCi/ml)
Sr-90	Y	6.E-12
Eu-152	W	3.E-11
Eu-154	W	3.E-11
Co-60	Y	5.E-11
Cs-137	D	2.E-10

Color Legend
No exceedance above regulatory criteria
Elevated however no exceedance above regulatory criteria
Exceedance above regulatory criteria

* Effluent concentration is a regulatory number from the NRC considered protective of the public