

**AIR MONITORING SUMMARY REPORT  
Hot Spot Delineation and Excavation  
Remedial Action, Parcel E-2  
Hunters Point Naval Shipyard  
San Francisco, California**

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## LIST OF ABBREVIATIONS AND ACRONYMS

AMSR	Air Monitoring Summary Report
Cal/OSHA	California Occupational Safety and Health Administration
Cfm	cubic feet per minutes
CFR	Code of Federal Regulations
CTO	Contract Task Order
DCP	Dust Control Plan
EPA	United States Environmental Protection Agency
HPNS	Hunters Point Naval Shipyard
ITSI Gilbane	ITSI Gilbane Company
L/min	liters per minute
mg/m <sup>3</sup>	milligrams per cubic meter
Navy	U.S. Department of the Navy
NIOSH	National Institute for Occupational Safety and Health
PAH	polycyclic aromatic hydrocarbon
PEL	permissible exposure limit
PCB	polychlorinated biphenyl
PM10	particulate matter less than 10 microns in diameter
PUF	polyurethane foam
SSHO	Site Safety and Health Officer
TWA	time-weighted average
ug/m <sup>3</sup>	micrograms per cubic meter

## **1.0 INTRODUCTION**

This Air Monitoring Summary Report (AMSR) was prepared by ITSI Gilbane Company (ITSI Gilbane) as requested by the United States Department of the Navy (Navy) under Radiological Environmental Multiple Award Contract N62473-10-D-0808, Contract Task Order (CTO) 0007.

This AMSR summarized the air monitoring activities conducted by ITSI Gilbane at Hunters Point Naval Shipyard (HPNS) in accordance with the Final Dust Control Plan (DCP), included as Appendix D to Hot Spot Delineation and Excavation Remedial Action Final Work Plan for Parcel E2, Hunters Point Naval Shipyard, San Francisco, California (ITSI Gilbane, 2014). This AMSR includes the air monitoring activities conducted between November 11<sup>th</sup>, 2014 and April 22<sup>nd</sup>, 2015, for the ongoing remediation activities in Parcel E-2; and describe 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

## **2.0 MONITORING SITE LOCATIONS**

Air monitoring stations were mobilized at one upwind and one downwind location from the work area. Based on past meteorological data, the prevalent wind direction at HPNS was from the west or west-southwest. Locations of the air monitoring stations are presented on Figure 1.

Air monitoring was performed to estimate and assess the impact of field activities. The location of air monitoring stations were determined based on the prevailing wind direction, and were modified as needed for accessibility consideration and worker safety. Wind direction was monitored daily using a wind sock. Atmospheric parameters were checked daily at [www.wunderground.com](http://www.wunderground.com) from station KCABRISB5 (see Table-2). 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), which was also analyzed for arsenic, lead and manganese.

4. Polyurethane Foam (PUF), which was analyzed for either polychlorinated biphenyl (PCB) or polycyclic aromatic hydrocarbon (PAH).

### **3.0 ANALYTICAL METHODS**

#### **3.1 Asbestos**

Asbestos was 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 were 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 not to exceed 24 hours. Analytical results for Asbestos are summarized in Table 3

#### **3.2 PM10**

PM10 was sampled in accordance with the EPA reference sampling method for PM10, described in 40 CFR 50, Subpart J. Each sample was collected on a filter over an approximately 24-hour period; the filter was then weighted to determine the amount of PM10 collected. Analytical results for PM10 are summarized in Table 4.

#### **3.3 Total Suspended Particulates, Manganese, Arsenic and Lead**

TSP was sampled with a high-volume (39 to 60 cubic feet per minute [cfm]) air sampler in accordance with the U.S. Environmental Protection Agency (EPA) 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 24 hour period; the filter was then weighted to determine the amount of TSP collected. Once the filter weight was determined, the sample was analyzed for manganese and arsenic 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. The equipment specifications and sampling procedures have complied with the specifications provided in the regulations for the sampler, filter, accuracy, calibration, and quality assurance. Analytical results for TSP, manganese, arsenic and lead are summarized in Table 5

#### **3.4 PCBs/PAHs**

PCBs were sampled and analyzed in accordance with EPA TO-4A. A high-volume (approximately 8 cfm) sampler was used to collect PCBs on a sampling cartridge containing polyurethane foam. The same sampler was used for collection of PAH samples and alternated between PCB and PAH samples, in accordance of the DCP. The sampler operated for an approximately 24-hour period, after which the

cartridge was returned to the laboratory for analysis. PAHs were sampled and analyzed in accordance with EPA TO-13A. Analytical results for PCBs and PAHs are summarized in Table 6.

#### **4.0 ANALYSIS OF AIR MONITORING DATA**

Analytical results from air monitoring samples were compared with the threshold criteria listed in Table 1. Construction and remediation activities conducted between November 11<sup>th</sup>, 2014 and April 22<sup>nd</sup>, 2015 did not result in the exceedances of the established threshold criteria.

#### **5.0 AIR MONITORING RESULTS**

Air monitoring results and weather information (including ambient pressure and temperature data) are summarized in Table 2 through Table 6.

#### **6.0 REFERENCE**

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*.

ITSI Gilbane. 2014 Final Work Plan Hot Spot Delineation and Excavation Remedial Action, Parcel E-2, Hunters Point Naval Shipyard, San Francisco, California. March.

## **FIGURES**







## **TABLES**

**Table 1**  
**Air Monitoring Threshold Criteria**

Test Parameter	Threshold Criterion	Threshold Criteria Reference
TSP	0.5 mg/m <sup>3</sup>	Calculated action level for general dust and particulates
Manganese	200 ug/m <sup>3</sup>	Cal/OSHA PEL
Arsenic	10 ug/m <sup>3</sup>	Cal/OSHA PEL
Lead	50 ug/m <sup>3</sup>	Cal/OSHA PEL
PM10	5,000 ug/m <sup>3</sup>	California Ambient Air Quality Standard
Asbestos	0.1 fiber/cm <sup>3</sup>	Cal/OSHA PEL
PCBs	500 ug/m <sup>3</sup>	Cal/OSHA PEL
PAHs	200 ug/m <sup>3</sup>	Cal/OSHA PEL

Note:

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

fiber/cm<sup>3</sup> = fiber per cubic centimeter

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

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

PEL = permissible exposure limit

TSP = total suspended particulates

PM10 = particulate matter less than 10 microns in diameter

PCB = polychlorinated biphenyl

PAH = polycyclic (polynuclear) aromatic hydrocarbon

**Table 2**  
**Ambient Pressure and Temperature Monitoring Results**

<b>Sample Date</b>	<b>Ambient Pressure (in Hg)</b>	<b>Ambient Temperature (°F)</b>
11/11/2014	29.86	58.5
11/12/2014	29.94	59.7
11/13/2014	29.94	59.5
11/17/2014	30.12	58.2
11/18/2014	30.04	58.4
11/24/2014	30.31	58.0
12/1/2014	29.84	58.2
12/8/2014	30.10	60.9
12/9/2014	30.09	59.9
1/7/2015	30.09	58.7
1/8/2015	29.99	56.3
1/12/2015	30.17	53.5
1/13/2015	30.11	56.7
1/14/2015	30.16	53.7
1/19/2015	30.18	56.8
1/20/2015	30.06	53.8
1/21/2015	30.07	54.8
1/26/2015	29.94	56.6
1/27/2015	30.10	61.3
2/9/2015	30.09	58.7
2/10/2015	30.11	56.5
2/11/2015	30.09	58.5
2/12/2015	30.12	62.7
2/17/2015	30.05	53.5
2/18/2015	30.12	57.3
2/19/2015	30.05	56.4
3/9/2015	29.94	55.9
3/10/2015	29.91	54.3
3/16/2015	30.02	55.4
3/17/2015	30.02	55.4
3/24/2015	30.22	56.6
3/25/2015	30.14	59.0
3/26/2015	30.06	60.5
3/30/2015	29.98	55.3
3/31/2015	30.12	53.9
4/1/2015	30.08	53.8
4/2/2015	30.10	56.2
4/14/2015	30.20	56.4
4/15/2015	30.07	64.2
4/20/2015	29.82	54.3
4/21/2015	29.82	52.8
4/22/2014	29.81	55.8

Note:

°F = degree Fahrenheit

in Hg = inches of mercury

Data from ([www.wunderground.com](http://www.wunderground.com)) (Station KCABRISB5)

**Table 3****Asbestos Monitoring Results**

Cal-OSHA Permissible Exposure Limit: 0.1 fiber/cc

Sample, Date and Station Information				Sampler Run Information			Asbestos Fibers		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
MS11-111114	1	11/11/14	11	2.0	464	928	0	<0.0031	No
MS33-111114	2	11/11/14	33	1.9	463	880	0	<0.0031	No
MS11-111214	3	11/12/14	11	2.0	419	838	0	<0.0032	No
MS33-111214	4	11/12/14	33	2.0	407	814	0	<0.0033	No
MS11-111314	5	11/13/14	11	2.0	383	766	0	<0.0035	No
MS33-111314	6	11/13/14	33	2.0	410	820	0	<0.0033	No
MS11-111714	7	11/17/14	11	2.0	497	994	0	<0.0027	No
MS33-111714	8	11/17/14	33	2.0	426	852	0	<0.0032	No
MS11-111814	9	11/18/14	11	2.0	452	904	0	<0.0030	No
MS31-111814	10	11/18/14	31	2.0	408	816	9	0.0054	No
MS11-112414	11	11/24/14	11	2.0	371	742	0	<0.0036	No
MS33-112414	12	11/24/14	33	2.0	373	746	0	<0.0036	No
MS11-120114	13	12/01/14	11	2.0	395	790	0	<0.0034	No
MS13-120114	14	12/01/14	13	2.0	333	666	0	<0.0041	No
MS11-120814	15	12/08/14	11	2.0	505	1010	0	<0.0027	No
MS13-120114	16	12/08/14	13	2.0	461	922	0	<0.0029	No
MS11-120914	17	12/09/14	11	2.0	479	958	0	<0.0028	No
MS13-120914	18	12/09/14	13	2.0	435	870	1	<0.0031	No
MS11-010715	19	01/07/15	11	2.0	362	724	0	<0.0039	No
MS13-010715	20	01/07/15	13	1.9	236	448	0	<0.006	No
MS11-010815	21	01/08/15	11	1.9	336	638	0	<0.0042	No
MS13-010815	22	01/08/15	13	1.9	369	701	0	<0.0038	No
MS11-011215	23	01/12/15	11	2.0	434	846	0	<0.0032	No
MS13-011215	24	01/12/15	13	1.8	386	695	2	0.00141	No
MS11-011315	25	01/13/15	11	1.9	420	798	1	<0.0034	No
MS13-011315	26	01/13/15	13	1.9	408	775	0	<0.0035	No
MS11-011415	27	01/14/15	11	1.9	413	785	0	<0.0034	No
MS13-011415	28	01/14/15	13	1.9	388	737	0	<0.0037	No
MS11-011915	29	01/19/15	11	2.0	377	754	0	<0.0036	No
MS13-011915	30	01/19/15	13	2.0	407	814	0	<0.0033	No
MS11-012015	31	01/20/15	11	2.0	367	734	0	<0.0037	No
MS13-012015	32	01/20/15	13	2.0	394	788	1	<0.0034	No

**Table 3****Asbestos Monitoring Results**

Cal-OSHA Permissible Exposure Limit: 0.1 fiber/cc

Sample, Date and Station Information				Sampler Run Information			Asbestos Fibers		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
MS11-012115	33	01/21/15	11	2.0	258	516	0	<0.0052	No
MS13-012115	34	01/21/15	13	2.0	292	584	2	<0.0046	No
MS11-012615	35	01/26/15	11	2.0	397	794	0	<0.0034	No
MS13-012615	36	01/26/15	13	1.9	375	694	0	<0.0039	No
MS11-012715	37	01/27/15	11	2.0	415	809	0	<0.0033	No
MS13-012715	38	01/27/15	13	2.0	385	770	0	<0.0035	No
MS11-020915	39	02/09/15	11	2.0	447	894	0	<0.003	No
MS13-020915	40	02/09/15	13	1.9	477	906	0	<0.003	No
MS11-021015	41	02/10/15	11	2.0	412	824	0	<0.0033	No
MS13-021015	42	02/10/15	13	2.0	410	820	0	<0.0033	No
MS11-021115	43	02/11/15	11	2.0	475	950	0	<0.0028	No
MS13-021115	44	02/11/15	13	2.0	450	900	0	<0.003	No
MS11-021215	45	02/12/15	11	2.0	430	860	0	<0.0031	No
MS13-021215	46	02/12/15	13	2.0	405	810	0	<0.0033	No
MS11-021715	47	02/17/15	11	2.0	443	886	0	<0.003	No
MS13-021715	48	02/17/15	13	2.0	413	826	0	<0.0033	No
MS11-021815	49	02/18/15	11	2.0	480	960	0	<0.0028	No
MS13-021815	50	02/18/15	13	2.0	592	1184	0	<0.0027	No
MS11-021915	51	02/19/15	11	2.0	476	952	0	<0.0028	No
MS13-021915	52	02/19/15	13	2.0	458	916	0	<0.0029	No
MS11-030915	53	03/09/15	11	2.0	440	880	0	<0.0031	No
MS13-030915	54	03/09/15	13	2.0	421	842	0	<0.0032	No
MS11-031015	55	03/10/15	11	2.0	409	818	0	<0.0033	No
MS13-031015	56	03/10/15	13	2.0	453	906	0	<0.0030	No
MS11-031615	57	03/16/15	11	2.0	489	978	0	<0.0028	No
MS13-031615	58	03/16/15	13	2.0	470	940	0	<0.0029	No
MS11-031715	59	03/17/15	11	2.0	335	670	0	<0.0030	No
MS13-031715	60	03/17/15	13	2.0	405	810	0	<0.0033	No
MS11-032415	61	03/24/15	11	2.0	430	860	0	<0.0031	No
MS13-032415	62	03/24/15	13	2.0	383	766	0	<0.0035	No
MS11-032515	63	03/25/15	11	2.0	442	884	0	<0.0031	No
MS13-032515	64	03/25/15	13	2.0	437	874	0	<0.0031	No

**Table 3****Asbestos Monitoring Results**

Cal-OSHA Permissible Exposure Limit: 0.1 fiber/cc

Sample, Date and Station Information				Sampler Run Information			Asbestos Fibers		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Asbestos (fibers)	Conc Asbestos (fibers/cm <sup>3</sup> )	Exceedance (Yes/No)
MS11-032615	65	03/26/15	11	2.0	437	874	0	<0.0031	No
MS13-032615	66	03/26/15	13	2.0	420	840	1	<0.0032	No
MS11-033015	67	03/30/15	11	2.0	435	870	0	<0.0031	No
MS13-033015	68	03/30/15	13	2.0	418	836	0	<0.0032	No
MS11-033115	69	03/31/15	11	2.0	475	950	1	<0.0028	No
MS13-033115	70	03/31/15	13	2.0	462	924	0	<0.0029	No
MS11-040115	71	04/01/15	11	2.0	425	850	0	<0.0032	No
MS13-040115	72	04/01/15	13	2.0	391	782	0	<0.0034	No
MS11-040214	73	04/02/15	11	2.0	427	854	0	<0.0032	No
MS13-040215	74	04/02/15	13	2.0	429	858	0	<0.0031	No
MS11-041415	75	04/14/15	11	2.0	515	1030	0	<0.0026	No
MS13-041415	76	04/14/15	13	2.0	480	960	0	<0.0028	No
MS11-041515	77	04/15/15	11	2.0	470	940	0	<0.0029	No
MS13-041515	78	04/15/15	13	2.0	430	860	0	<0.0031	No
MS11-042015	79	04/20/15	11	2.0	459	918	0	<0.0029	No
MS13-042015	80	04/20/15	13	2.0	453	906	0	<0.0030	No
MS11-042115	81	04/21/15	11	2.0	505	1010	0	<0.0027	No
MS13-042115	82	04/21/15	13	2.0	473	946	0	<0.0029	No
MS11-042215	83	04/22/15	11	2.0	485	970	0	<0.0028	No
MS13-042215	84	04/22/15	13	2.0	456	912	0	<0.0030	No

## Notes:

<sup>1</sup>Air sample was not collected on days with rain.

Sample locations are shown on Figure 1

l/min = liters per minute

min = minutes

m<sup>3</sup> = cubic metersfibers/cm<sup>3</sup> = fibers per cubic centimeter

&lt; = below detection limit

**Table 4**

**Particulate Matter, smaller than Ten Microns (PM10) Monitoring Results**

Cal-OSHA Permissible Exposure Limit: 5.0 mg/m<sup>3</sup>

Sample, Date and Station Information				Sampler Run Information			PM10s		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Air Flow (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Total Mass (mg)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
Q0329230-MS11	1	11/11/14	11	1.139	1454	1374.41	31	0.022	No
Q0329231-MS33	2	11/11/14	33	1.126	1452	1370.69	32	0.023	No
Q0329236-MS11	3	11/12/14	11	1.138	1081	1019.01	14	0.014	No
Q0329237-MS33	4	11/12/14	33	1.129	1436	1355.40	18	0.013	No
Q0329240-MS11	5	11/13/14	11	1.137	1384	1304.73	15	0.011	No
Q0329238-MS33	6	11/13/14	33	1.127	1385	1307.25	17	0.013	No
Q0329241-MS11 <sup>2</sup>	7	11/17/14	11	NA	NA	NA	NA	NA	NA
Q0313160-MS33	8	11/17/14	33	1.129	1488	1814.16	34	0.025	No
Q0329242-MS11	9	11/18/14	11	1.136	1418	1336.99	59	0.044	No
Q0329243-MS33	10	11/18/14	33	1.126	1411	1332.17	52	0.039	No
Q0324838-MS11	11	11/24/14	11	1.140	1397	1321.94	24	0.018	No
Q0324839-MS33	12	11/24/14	33	1.130	1416	1340.95	30	0.023	No
Q0329245-MS11	13	12/01/14	11	1.136	1369	1291.16	21	0.016	No
Q0329244-MS13	14	12/01/14	13	1.126	1438	1357.09	21	0.015	No
Q0324837-MS11	15	12/08/14	11	1.142	1417	1339.25	26	0.019	No
Q0324836-MS13	16	12/08/14	13	1.131	1463	1384.38	25	0.018	No
Q0328436-MS11	17	12/09/14	11	1.142	1391	1315.70	43	0.032	No
Q0328437-MS13	18	12/09/14	13	1.132	1409	1335.54	45	0.034	No
Q0328460-MS11	19	01/07/15	11	1.141	1337	1264.61	67	0.053	No
Q0328459-MS13	20	01/07/15	13	1.130	1405	1330.72	88	0.066	No
Q0328446-MS11	21	01/08/15	11	1.139	1360	1286.75	99	0.077	No
Q0328445-MS13	22	01/08/15	13	1.128	1365	1292.66	110	0.084	No
Q0328447-MS11	23	01/12/15	11	1.140	1399	1352.61	28	0.021	No
Q0328448-MS13	24	01/12/15	13	1.126	1427	1327.84	23	0.017	No
Q0328449-MS11	25	01/13/15	11	1.141	1410	1336.68	24	0.018	No
Q0328450-MS13	26	01/13/15	13	1.129	1419	1345.21	46	0.034	No
Q0328452-MS13	27	01/14/15	11	1.138	1419	1342.94	78	0.058	No
Q0328451-MS11	28	01/14/15	13	1.126	1417	1343.79	74	0.055	No
Q0328454-MS11	29	01/19/15	11	1.145	1288	1318.79	40	0.030	No
Q0328453-MS13	30	01/19/15	13	1.129	1393	1226.02	32	0.026	No
Q0328439-MS11	31	01/20/15	11	1.136	1424	1346.91	37	0.028	No
Q0328438-MS13	32	01/20/15	13	1.125	1439	1362.54	40	0.029	No
Q0328457-MS11	33	01/21/15	11	1.137	1274	1205.80	39	0.032	No
Q0328458-MS13	34	01/21/15	13	1.126	1414	1339.25	48	0.036	No
Q0328455-MS11	35	01/26/15	11	1.139	1383	1309.70	55	0.042	No
Q0328456-MS13	36	01/26/15	13	1.128	1398	1323.91	53	0.040	No
Q0327270-MS11	37	01/27/15	11	1.143	1413	1336.70	49	0.037	No
Q0327269-MS13	38	01/27/15	13	1.133	1415	1339.82	56	0.042	No
Q0327267-MS11	39	02/09/15	11	1.142	1388	1314.81	40	0.031	No
Q0327268-MS13	40	02/09/15	13	1.129	1455	1382.11	54	0.039	No
Q0327265-MS11	41	02/10/15	11	1.140	1384	1310.27	31	0.024	No
Q0327266-MS13	42	02/10/15	13	1.129	1447	1371.38	37	0.027	No
Q0327263-MS11	43	02/11/15	11	1.141	1457	1379.59	36	0.026	No
Q0327264-MS13	44	02/11/15	13	1.130	1438	1361.98	38	0.028	No
Q0327262-MS11	45	02/12/15	11	1.146	1370	1297.77	33	0.025	No
Q0327261-MS11	46	02/12/15	13	1.134	1370	1297.77	42	0.032	No
Q0327260-MS11	47	02/17/15	11	1.137	1397	1322.77	28	0.010	No
Q0327259-MS13	48	02/17/15	13	1.136	1407	1331.02	33	0.021	No
Q0327257-MS11	49	02/18/15	11	1.140	1432	1356.29	33	0.024	No
Q0327258-MS13	50	02/18/15	13	1.128	1442	1363.94	32	0.024	No
Q0327256-MS11*	51	02/19/15	11	1.140	1424	1348.34	NA	NA	NA



**Table 4****Particulate Matter, smaller than Ten Microns (PM10) Monitoring Results**Cal-OSHA Permissible Exposure Limit: 5.0 mg/m<sup>3</sup>

Sample, Date and Station Information				Sampler Run Information			PM10s		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Air Flow (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Total Mass (mg)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
Q0327252-MS13*	52	02/19/15	13	1.128	1420	1347.78	NA	NA	NA
Q0327254-MS11	53	03/09/15	11	1.139	1413	1338.11	41	0.031	No
Q0327253-MS13	54	03/09/15	13	1.127	1421	1345.50	38	0.028	No
Q0327252-MS11	55	03/10/15	11	1.137	1441	1364.82	42	0.031	No
Q0327251-MS13	56	03/10/15	13	1.213	1440	1746.16	42	0.024	No
Q0340464-MS11	57	03/16/15	11	1.128	1414	1327.27	15	0.012	No
Q0340465-MS13	58	03/16/15	13	1.114	1425	1335.23	26	0.019	No
Q0340462-MS11	59	03/17/15	11	1.128	1568	1472.16	36	0.024	No
Q0340463-MS13	60	03/17/15	13	1.115	1550	1332.71	46	0.035	No
Q0340461-MS11	61	03/24/15	11	1.130	1427	1340.33	23	0.017	No
Q0340460-MS13	62	03/24/15	13	1.113	1439	1348.72	38	0.029	No
Q0340456-MS11	63	03/25/15	11	1.132	1420	1333.00	31	0.023	No
Q0340457-MS13	64	03/25/15	13	1.120	1420	1333.57	46	0.035	No
Q0340459-MS11	65	03/26/15	11	1.133	1432	1342.82	26	0.019	No
Q0340458-MS13	66	03/26/15	13	1.122	1432	1344.84	20	0.015	No
Q0340455-MS11	67	03/30/15	11	1.133	1393	1306.82	28	0.021	No
Q0340454-MS13	68	03/30/15	13	1.113	1448	1355.14	63	0.046	No
Q0340453-MS11	69	03/31/15	11	1.127	1415	1328.50	37	0.028	No
Q0340452-MS13	70	03/31/15	13	1.113	1424	1334.66	55	0.041	No
Q0340450-MS11	71	04/01/15	11	1.128	1427	1341.19	47	0.035	No
Q0340451-MS13	72	04/01/15	13	1.113	1417	1327.35	57	0.043	No
Q0340448-MS11	73	04/02/15	11	1.130	1421	1334.13	45	0.034	No
Q0340449-MS13	74	04/02/15	13	1.120	1400	1317.21	48	0.037	No
Q0340447-MS11	75	04/14/15	11	1.134	1504	1417.89	32	0.022	No
Q0340446-MS13	76	04/14/15	13	1.120	1468	1381.08	38	0.027	No
Q0328576-MS11	77	04/15/15	11	1.141	1580	1488.17	51	0.034	No
Q0328575-MS13	78	04/15/15	13	1.128	1600	1506.82	60	0.040	No
Q0328573-MS11	79	04/20/15	11	1.134	1402	1323.68	34	0.026	No
Q0328574-MS13	80	04/20/15	13	1.124	1398	1322.51	35	0.027	No
Q0328571-MS11 <sup>2</sup>	81	04/21/15	11	NA	NA	NA	NA	NA	NA
Q0328572-MS13	82	04/21/15	13	1.122	1433	1356.00	32	0.024	No
Q0328569-MS11	83	04/22/15	11	1.136	1454	1372.39	110	0.078	No
Q0328570-MS13	84	04/22/15	13	1.125	1614	1525.23	60	0.039	No

Notes:

<sup>1</sup>Air sample was not collected on days with rain.<sup>2</sup>Generator breaker at MS#11 was tripped during sample collection on 11/17/14 and 4/21/15.

l/min = liters per minute

min = minutes

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

mg = milligrams

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

ug = micrograms

PM<sub>10</sub>-particulate matter smaller than 10 microns in diameter

Samples analyzed by ALS Environmental

Sample locations are shown on Figure 1

\* Filter damaged during shipment

Table 5

## Total Suspended Particulates, Arsenic, Manganese, and Lead Monitoring Results

Cal-OSHA Permissible Exposure Limits: TSP - 0.5 mg/m<sup>3</sup>; Arsenic - 0.010 mg/m<sup>3</sup>; Manganese - 0.2 mg/m<sup>3</sup>; Lead - 0.05 mg/m<sup>3</sup>

Sample, Date and Station Information				Sampler Run Information			Total Suspended Particulates			Arsenic			Lead			Manganese		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Total Mass (mg)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Total Mass (ug)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Total Mass (ug)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Total Mass (ug)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
9028411-MS11	1	11/11/14	11	1.231	1463	1801.94	91	0.051	No	<25	<0.000014	No	<25	<0.000014	No	39	0.000022	No
9028412-MS33	2	11/11/14	33	1.229	1449	1780.44	58	0.032	No	<25	<0.000014	No	<25	<0.000014	No	<25	<0.000014	No
9030120-MS11	3	11/12/14	11	1.216	1081	1313.55	48	0.036	No	<25	<0.000019	No	<25	<0.000019	No	<25	<0.000019	No
9030116-MS33	4	11/12/14	33	1.223	1435	1754.34	49	0.028	No	<25	<0.000014	No	<25	<0.000014	No	<25	<0.000014	No
9028416-MS11	5	11/13/14	11	1.214	1380	1675.38	26	0.015	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No
9028417-MS33	6	11/13/14	33	1.220	1384	1688.52	30	0.018	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No
8926493-MS11 <sup>2</sup>	7	11/17/14	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8926495-MS33	8	11/17/14	33	1.220	1487	1407.65	61	0.034	No	<25	<0.000014	No	120	0.000068	No	33	0.000018	No
8926494-MS11	9	11/18/14	11	1.212	1420	1721.20	94	0.055	No	<25	<0.000015	No	<25	<0.000015	No	49	0.000028	No
9030115-MS33	10	11/18/14	33	1.212	1413	1725.35	100	0.060	No	<25	<0.000014	No	32	0.000018	No	53	0.000031	No
9028419-MS11	11	11/24/14	11	1.213	1402	1699.47	53	0.031	No	<25	<0.000015	No	35	0.000021	No	25	0.000015	No
9028418-MS33	12	11/24/14	33	1.220	1415	1726.21	60	0.035	No	<25	<0.000014	No	32	0.000019	No	33	0.000019	No
9028424-MS11	13	12/01/14	11	1.211	1364	1652.22	38	0.023	No	<25	<0.000015	No	33	0.000020	No	33	0.000020	No
9028425-MS13	14	12/01/14	13	1.219	1443	1759.59	33	0.019	No	<25	<0.000014	No	150	0.000086	No	50	0.000029	No
9028421-MS11	15	12/08/14	11	1.215	1423	1727.87	52	0.030	No	<25	<0.000014	No	<25	<0.000014	No	<25	<0.000014	No
9028420-MS13	16	12/08/14	13	1.222	1253	1752.14	42	0.024	No	<25	<0.000014	No	<25	<0.000014	No	<25	<0.000014	No
9028427-MS11	17	12/09/14	11	1.214	1389	1686.02	58	0.035	No	<25	<0.000015	No	<25	<0.000015	No	25	0.000015	No
9028426-MS13	18	12/09/14	13	1.221	1411	1722.98	60	0.035	No	<25	<0.000015	No	<25	<0.000015	No	27	0.000016	No
9028331-MS11	19	01/07/15	11	1.215	1334	1264.61	90	0.055	No	<25	<0.000015	No	68	0.000042	No	47	0.000029	No
9028430-MS13	20	01/07/15	13	1.221	1406	1715.79	130	0.073	No	<25	<0.000015	No	90	0.000053	No	80	0.000046	No
9028432-MS11	21	01/08/15	11	1.221	1363	1651.60	130	0.079	No	<25	<0.000015	No	170	0.000100	No	58	0.000035	No
9028433-MS13	22	01/08/15	13	1.217	1369	1665.68	170	0.100	No	<25	<0.000015	No	170	0.000100	No	110	0.000064	No
9028434-MS11	23	01/12/15	11	1.201	1393	1674.35	41	0.025	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No
9028435-MS13	24	01/12/15	13	1.215	1422	1727.50	82	0.047	No	<25	<0.000014	No	31	0.000018	No	72	0.000042	No
9028437-MS11	25	01/13/15	11	1.214	1415	1718.00	50	0.029	No	<25	<0.000015	No	28	0.000016	No	35	0.000020	No
9028436-MS13	26	01/13/15	13	1.217	1424	1732.23	88 J	0.051 J	No	130	0.000073	No	71	0.000041	No	<25	<0.000014	No
9028438-MS11	27	01/14/15	11	1.211	1426	1726.74	94	0.054	No	<25	<0.000014	No	64	0.000037	No	44	0.000026	No
9028429-MS11	28	01/14/15	13	1.215	1417	1720.75	100	0.059	No	<25	<0.000015	No	70	0.000040	No	61	0.000035	No
9028440-MS11	29	01/19/15	11	1.214	1415	1223.79	48 J	0.039 J	No	<25	<0.000020	No	<25	<0.000020	No	28	0.000023	No
9028441-MS13	30	01/19/15	13	1.218	1393	1696.71	100	0.060	No	<25	<0.000015	No	26	0.000015	No	97	0.000057	No
9028443-MS11	31	01/20/15	11	1.209	1439	1739.95	120	0.071	No	<25	<0.000014	No	120	0.000068	No	85	0.000049	No
9028442-MS13	32	01/20/15	13	1.215	1434	1741.94	69	0.040	No	<25	<0.000014	No	<25	<0.000014	No	42	0.000024	No
9028449-MS11	33	01/21/15	11	1.210	1250	1512.43	77	0.051	No	<25	<0.000017	No	28	0.000018	No	56	0.000037	No
9028448-MS13	34	01/21/15	13	1.214	1420	1724.62	120	0.069	No	<25	<0.000014	No	48	0.000028	No	100	0.000059	No
9028447-MS11	35	01/26/15	11	1.212	1326	1606.45	120	0.072	No	<25	<0.000016	No	200	0.000120	No	69	0.000043	No
9028446-MS13	36	01/26/15	13	1.216	1402	1704.97	87	0.051	No	<25	<0.000015	No	160	0.000094	No	52	0.000030	No
9028445-MS11	37	01/27/15	11	1.217	1412	1717.66	110	0.062	No	<25	<0.000015	No	47	0.000027	No	70	0.000041	No
9028444-MS13	38	01/27/15	13	1.221	1411	1721.84	110	0.063	No	<25	<0.000015	No	33	0.000019	No	76	0.000044	No
9028451-MS11	39	02/09/15	11	1.213	1396	1693.19	60	0.035	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No
9028450-MS13	40	02/09/15	13	1.211	1457	1763.87	81	0.046	No	<25	<0.000014	No	<25	<0.000014	No	<25	<0.000014	No
9028453-MS11	41	02/10/15	11	1.213	1378	1670.47	51	0.031	No	<25	<0.000015	No	38	0.000022	No	<25	<0.000015	No
9028452-MS13	42	02/10/15	13	1.216	1396	1697.17	65	0.038	No	<25	<0.000015	No	26	0.000016	No	35	0.000021	No
9028455-MS11	43	02/11/15	11	1.213	1468	1780.96	70	0.040	No	<25	<0.000014	No	58	0.000033	No	43	0.000024	No
9028454-MS13	44	02/11/15	13	1.220	1462	1783.60	73	0.041	No	<25	<0.000014	No	85	0.000048	No	42	0.000024	No
9028456-MS11	45	02/12/15	11	1.219	1370	1670.45	59	0.035	No	<25	<0.000015	No	<25	<0.000015	No	34	0.000020	No
9028457-MS13	46	02/12/15	13	1.223	1369	1673.24	78	0.047	No	<25	<0.000015	No	38	0.000023	No	55	0.000033	No
9028458-MS11	47	02/17/15	11	1.211	1396	1690.91	26	0.015	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No
9028459-MS13	48	02/17/15	13	1.208	1408	1700.83	55	0.032	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No

Table 5

**Total Suspended Particulates, Arsenic, Manganese, and Lead Monitoring Results**

Cal-OSHA Permissible Exposure Limits: TSP - 0.5 mg/m<sup>3</sup>; Arsenic - 0.010 mg/m<sup>3</sup>; Manganese - 0.2 mg/m<sup>3</sup>; Lead - 0.05 mg/m<sup>3</sup>

Sample, Date and Station Information				Sampler Run Information			Total Suspended Particulates			Arsenic			Lead			Manganese		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Total Mass (mg)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Total Mass (ug)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Total Mass (ug)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)	Total Mass (ug)	Concentration in Air (mg/m <sup>3</sup> )	Exceedance (Yes/No)
9028460-MS11	49	02/18/15	11	1.213	1432	1737.22	120	0.069	No	<25	<0.000014	No	70	0.000041	No	78	0.000045	No
9028461-MS13	50	02/18/15	13	1.212	1436	1740.95	77	0.044	No	<25	<0.000014	No	42	0.000024	No	<25	<0.000014	No
9028462-MS11*	51	02/19/15	11	1.212	1422	1723.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9028463-MS13*	52	02/19/15	13	1.215	1416	1719.76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9028465-MS11	53	03/09/15	11	1.213	1415	1716.46	120	0.072	No	<25	<0.000015	No	63	0.000037	No	75	0.000044	No
9028464-MS13	54	03/09/15	13	1.213	1428	1732.72	59	0.034	No	<25	<0.000014	No	<25	<0.000014	No	<25	<0.000014	No
9028470-MS11	55	03/10/15	11	1.210	1439	1741.63	100	0.058	No	<25	<0.000014	No	65	0.000037	No	51	0.000029	No
9028471-MS13	56	03/10/15	13	1.211	1437	1739.91	75	0.043	No	<25	<0.000014	No	<25	<0.000014	No	29	0.000017	No
9028466-MS11	57	03/16/15	11	1.212	1408	1705.38	33	0.019	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No
9028467-MS13	58	03/16/15	13	1.208	1427	1723.26	56	0.032	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No
9028469-MS11	59	03/17/15	11	1.213	1585	1923.42	140	0.075	No	<25	<0.000013	No	120	0.000065	No	82	0.000043	No
9028468-MS13	60	03/17/15	13	1.205	1546	1863.14	120	0.066	No	<25	<0.000013	No	<25	<0.000013	No	54	0.000029	No
9028472-MS11	61	03/24/15	11	1.212	1409	1708.85	36	0.021	No	<25	<0.000015	No	<25	<0.000015	No	<25	<0.000015	No
9028473-MS13	62	03/24/15	13	1.206	1433	1728.61	76	0.044	No	<25	<0.000014	No	<25	<0.000014	No	27	0.000016	No
9028476-MS11	63	03/25/15	11	1.215	1385	1683.00	51	0.031	No	<25	<0.000015	No	33	0.000020	No	<25	<0.000015	No
9028477-MS13	64	03/25/15	13	1.214	1426	1731.45	93	0.054	No	<25	<0.000014	No	58	0.000034	No	37	0.000021	No
9028474-MS11	65	03/26/15	11	1.216	1436	1746.01	55	0.031	No	<25	<0.000014	No	96	0.000055	No	29	0.000017	No
9028475-MS13	66	03/26/15	13	1.219	1408	1716.89	47	0.028	No	<25	<0.000015	No	75	0.000044	No	<25	<0.000015	No
9028478-MS11	67	03/30/15	11	1.198	1446	1691.32	130	0.076	No	<25	<0.000015	No	290	0.000170	No	63	0.000037	No
9028479-MS13	68	03/30/15	13	1.198	1446	1732.32	160	0.094	No	<25	<0.000014	No	<25	<0.000014	No	69	0.000040	No
9028481-MS11	69	03/31/15	11	1.213	1416	1718.26	110	0.064	No	<25	<0.000015	No	57	0.000033	No	59	0.000034	No
9028480-MS13	70	03/31/15	13	1.215	1426	1732.79	110	0.062	No	<25	<0.000014	No	25	0.000015	No	50	0.000029	No
9028482-MS11	71	04/01/15	11	1.215	1427	1733.66	88	0.051	No	<25	<0.000014	No	32	0.000018	No	35	0.000020	No
9028483-MS13	72	04/01/15	13	1.220	1417	1728.81	120	0.071	No	<25	<0.000014	No	29	0.000017	No	61	0.071000	No
9028485-MS11	73	04/02/15	11	1.213	1420	1723.04	90	0.052	No	<25	<0.000015	No	<25	<0.000015	No	36	0.000021	No
9028484-MS13	74	04/02/15	13	1.215	1399	1699.42	100	0.060	No	<25	<0.000015	No	<25	<0.000015	No	50	0.000029	No
9028486-MS11	75	04/14/15	11	1.215	1480	1797.11	70	0.039	No	<25	<0.000014	No	<25	<0.000014	No	32	0.000018	No
9028487-MS13	76	04/14/15	13	1.214	1466	1780.67	85	0.048	No	<25	<0.000014	No	<25	<0.000014	No	40	0.000022	No
9028489-MS11	77	04/15/15	11	1.218	1575	1918.56	110	0.055	No	<25	<0.000013	No	30	0.000015	No	56	0.000029	No
9028488-MS13	78	04/15/15	13	1.226	1603	1965.44	140	0.072	No	<25	<0.000013	No	30	0.000015	No	80	0.000041	No
9028490-MS11	79	04/20/15	11	1.211	1409	1705.47	110	0.066	No	<25	<0.000015	No	140	0.000082	No	59	0.000035	No
9028491-MS13	80	04/20/15	13	1.220	1406	1714.87	63	0.037	No	<25	<0.000015	No	<25	<0.000015	No	31	0.000018	No
9028493-MS11 <sup>2</sup>	81	04/21/15	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9028492-MS13	82	04/21/15	13	1.218	1433	1745.00	42	0.024	No	<25	<0.000014	No	<25	<0.000014	No	<25	<0.000014	No
9028495-MS11	83	04/22/15	11	1.138	1453	1756.69	540	0.310	No	<25	<0.000014	No	710	0.000400	No	290	0.000160	No
9028494-MS13	84	04/22/15	13	1.222	1610	1968.06	93	0.047	No	<25	<0.000013	No	<25	<0.000013	No	26	0.000013	No

Notes:

<sup>1</sup>Air sample was not collected on days with rain.

<sup>2</sup>Generator breaker at MS#11 was tripped during sample collection on 11/17/14 and 4/21/15.

l/min = liters per minute

min = minutes

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

mg = milligrams

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

ug = micrograms

< = below detection limit

Samples analyzed by ALS Environmental

Sample locations are shown on Figure 1

\* Filter damaged during shipment

J = estimated value

Table 6

## Polychlorinated Biphenyl and Polycyclic Aromatic Hydrocarbons Monitoring Results

Cal-OSHA Permissible Exposure Limits: Total Polychlorinated Biphenyls - 500 ug/m<sup>3</sup>; Total Polyaromatic Hydrocarbons - 200 ug/m<sup>3</sup>

Sample, Date and Station Information				Sampler Run Information			Total PCBs			PAHs		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Total Mass (ug/sample)	Concentration in Air (ug/m <sup>3</sup> )	Exceedance (Yes/No)	Total Mass (ug/sample)	Concentration in Air (ug/m <sup>3</sup> )	Exceedance (Yes/No)
MS11-111114	1	11/11/14	11	0.272	1458	397.14	<0.5	<0.0013	No	--	--	--
MS33-111114	2	11/11/14	33	0.270	1451	391.47	<0.5	<0.0013	No	--	--	--
MS11-111214	3	11/12/14	11	0.272	1076	292.24	--	--	--	<5	<0.017	No
MS33-111214	4	11/12/14	33	0.272	1428	387.83	--	--	--	<5	<0.013	No
MS11-111314	5	11/13/14	11	0.273	1243	339.72	0.98	0.003	No	--	--	--
MS33-111314	6	11/13/14	33	0.274	1379	377.24	<0.5	<0.0013	No	--	--	--
MS11-111714 <sup>2</sup>	7	11/17/14	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
MS33-111714	8	11/17/14	33	0.271	1484	401.84	--	--	--	<5	<0.012	No
MS11-111814	9	11/18/14	11	0.272	1417	385.50	<0.5	<0.0013	No	--	--	--
MS33-111814	10	11/18/14	33	0.272	1411	383.99	<0.5	<0.0013	No	--	--	--
MS11-112414	11	11/24/14	11	0.270	1396	376.06	--	--	--	<5	<0.013	No
MS33-112414	12	11/24/14	33	0.268	1414	378.50	--	--	--	<5	<0.013	No
MS11-120114	13	12/01/14	11	0.271	1367	369.74	0.56	0.002	No	--	--	--
MS13-120114	14	12/01/14	13	0.269	1436	385.89	<0.5	<0.0013	No	--	--	--
MS11-120814	15	12/08/14	11	0.268	1433	384.27	--	--	--	<5	<0.013	No
MS13-120814	16	12/08/14	13	0.267	1481	395.88	--	--	--	<5	<0.013	No
MS11-120914	17	12/09/14	11	0.272	1391	378.32	<0.5	<0.0013	No	--	--	--
MS13-120914	18	12/09/14	13	0.272	1406	382.66	<0.5	<0.0013	No	--	--	--
MS11-010715	19	01/07/15	11	0.270	1341	362.61	--	--	--	<5	<0.014	No
MS13-010715	20	01/07/15	13	0.272	1401	380.39	--	--	--	9.4 J	0.025 J	No
MS11-010815	21	01/08/15	11	0.273	1085	296.53	<0.5	<0.0017	No	--	--	--
MS13-010815	22	01/08/15	13	0.270	1367	368.86	<0.5	<0.0014	No	--	--	--
MS11-011215	23	01/12/15	11	0.270	1397	377.02	0.83	0.0022	No	--	--	--
MS13-011215	24	01/12/15	13	0.269	1423	382.99	<0.5	<0.0013	No	--	--	--
MS11-011315	25	01/13/15	11	0.273	1402	382.49	--	--	--	<5	<0.013	No
MS13-011315	26	01/13/15	13	0.272	1417	385.36	--	--	--	5.8	0.015	No
MS11-011415	27	01/14/15	11	0.278	1411	390.96	<0.5	<0.0013	No	--	--	--
MS13-011415	28	01/14/15	13	0.277	1413	391.38	<0.5	<0.0013	No	--	--	--
MS11-011915	29	01/19/15	11	0.273	1302	355.47	--	--	--	<5	<0.014	No
MS13-011915	30	01/19/15	13	0.272	1394	379.50	--	--	--	5.6	0.015	No
MS11-012015	31	01/20/15	11	0.269	1421	379.50	0.69	0.002	No	--	--	--
MS13-012915	32	01/20/15	13	0.268	1375	368.08	<0.5	<0.0014	No	--	--	--
MS11-012115	33	01/21/15	11	0.276	1222	336.95	--	--	--	<5	<0.015	No
MS13-012115	34	01/21/15	13	0.274	1410	386.63	--	--	--	6.1	0.016	No
MS11-012615	45	01/26/15	11	0.271	1393	377.72	<0.5	<0.0013	No	--	--	--
MS13-012615	46	01/26/15	13	0.266	1406	373.57	<0.5	<0.0013	No	--	--	--
MS11-012715	47	01/27/15	11	0.275	1409	396.91	--	--	--	<5	<0.013	No
MS13-012715	48	01/27/15	13	0.272	1411	383.74	--	--	--	9.6	0.025	No
MS11-020715	49	02/09/15	11	0.269	1389	372.96	0.54	0.001	No	--	--	--
MS13-020715	50	02/09/15	13	0.260	1458	378.77	<0.5	<0.0013	No	--	--	--
MS11-021015	51	02/10/15	11	0.272	1372	372.92	--	--	--	<5	<0.013	No
MS13-021015	52	02/10/15	13	0.273	1340	365.97	--	--	--	<5	<0.014	No
MS11-021115	53	02/11/15	11	0.273	1441	393.54	<0.5	<0.0013	No	--	--	--
MS13-021115	54	02/11/15	13	0.285	1446	412.33	<0.5	<0.0012	No	--	--	--
MS11-021215	55	02/12/15	11	0.272	1365	370.58	--	--	--	5.6	0.015	No
MS13-021215	56	02/12/15	13	0.285	1446	395.16	--	--	--	9.8	0.025	No
MS11-021715	57	02/17/15	11	0.276	1398	385.31	<0.5	<0.0013	No	--	--	--
MS13-021715	58	02/17/15	13	0.283	1409	399.42	<0.5	<0.0013	No	--	--	--
MS11-021815	59	02/18/15	11	0.266	1431	380.88	--	--	--	<5	<0.013	No
MS13-021815	60	02/18/15	13	0.286	1439	410.92	--	--	--	<5	<0.012	No
MS11-021915	61	02/19/15	11	0.274	1421	389.58	<0.5	<0.0013	No	--	--	--
MS13-021915	62	02/19/15	13	0.285	1446	409.47	<0.5	<0.0012	No	--	--	--
MS11-030915	63	03/09/15	11	0.267	1415	377.80	--	--	--	<5	<0.013	No
MS13-030915	64	03/09/15	13	0.283	1436	402.87	--	--	--	<5	<0.012	No
MS11-031015	65	03/10/15	11	0.271	1433	387.89	0.57	0.0015	No	--	--	--
MS13-031015	66	03/10/15	13	0.293	1421	409.00	<0.5	<0.0012	No	--	--	--
MS11-031615	67	03/16/15	11	0.270	1421	383.64	0.63	0.0017	No	--	--	--
MS13-031615	68	03/16/15	13	0.284	1446	410.32	<0.5	<0.0012	No	--	--	--
MS11-031715	69	03/17/15	11	0.272	1582	429.94	--	--	--	<5	<0.012	No
MS13-031715	70	03/17/15	13	0.279	1547	432.21	--	--	--	<5	<0.012	No
MS11-033115	71	03/31/15	11	0.274	1717	470.52	0.61	0.0011	No	--	--	--
MS13-033115	72	03/31/15	13	0.282	1421	400.55	<0.5	<0.0012	No	--	--	--

**Table 6**

**Polychlorinated Biphenyl and Polycyclic Aromatic Hydrocarbons Monitoring Results**

Cal-OSHA Permissible Exposure Limits: Total Polychlorinated Biphenyls - 500 ug/m<sup>3</sup>; Total Polyaromatic Hydrocarbons - 200 ug/m<sup>3</sup>

Sample, Date and Station Information				Sampler Run Information			Total PCBs			PAHs		
Sample ID	Sample Field ID	Sample Date <sup>1</sup>	Monitoring Station	Ave Flow Rate (l/min)	Duration of Run (min)	Total Air Volume Monitored (m <sup>3</sup> )	Total Mass (ug/sample)	Concentration in Air (ug/m <sup>3</sup> )	Exceedance (Yes/No)	Total Mass (ug/sample)	Concentration in Air (ug/m <sup>3</sup> )	Exceedance (Yes/No)
MS11-041415	73	04/14/15	11	0.267	1624	433.38	--	--	--	<5	<0.012	No
MS13-041415	74	04/14/15	13	0.285	1466	417.87	--	--	--	<5	<0.012	No
MS11-041515	75	04/15/15	11	0.264	1576	416.30	<0.5	<0.0012	No	--	--	--
MS13-041515	76	04/15/15	13	0.287	1595	457.12	<0.5	<0.0011	No	--	--	--
MS11-042015	77	04/20/15	11	0.274	1470	402.52	--	--	--	<5	<0.012	No
MS13-042015	78	04/20/15	13	0.286	1414	402.96	--	--	--	<5	<0.012	No
MS11-042115 <sup>2</sup>	79	04/21/15	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
MS13-042115	80	04/21/15	13	0.287	1432	410.95	<0.5	<0.0012	--	--	--	--
MS11-042215	81	04/22/15	11	0.270	1452	392.16	--	--	--	<5	<0.013	No
MS13-042215	82	04/22/15	13	0.291	1596	468.37	--	--	--	<5	<0.011	No

Notes:

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

<sup>2</sup>Generator breaker at MS#11 was tripped during sample collection on 11/17/14 and 4/21/2015.

PCB = polychlorinated biphenyl

PAH = polycyclic aromatic hydrocarbon

PUF samples are analyzed for PCBs and PAHs alternately on a daily basis.

Total PAHs and PCBs concentrations are calculated based on only detected results.

-- = did not collect sample

J = estimated value

l/min = liters per minute

min = minutes

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

ug = micrograms

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

< = below detection limit