



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

**Interim**

**Air Sampling Summary Report No. 08**

Data Date Range: November 20, 2019 through  
August 28, 2020, Parcel E Remedial Action—Phase 1

Hunters Point Naval Shipyard, CA

October 2020

**Approved for public release: distribution unlimited.**



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DCN: APTM-2005-0024-0082

**Prepared for:**

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Contract Number: N62473-12-D-2005; Task Order: 0024



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## **Acronyms and Abbreviations**

APTM .....	Optim Federal Services, LLC
DCP .....	dust control plan
EPA .....	U.S. Environmental Protection Agency
PM10 .....	particulate matter larger than 10 microns in size
TSP .....	total suspended particulates
Work Plan.....	<i>Final Remedial Action Work Plan, Parcel E Remedial Action—Phase 1, Hunters Point Naval Shipyard, San Francisco, California</i>

**Acronyms and Abbreviations**

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## 1.0      Introduction

Aptim Federal Services, LLC (APTIM) is providing environmental remediation services to the U.S. Department of the Navy under the Environmental Multiple Award Contract, Contract No. N62473-12-D-2005, Task Order 0024. APTIM is performing air sampling at Hunters Point Naval Shipyard in accordance with the dust control plan (DCP) included in Appendix C of the *Final Remedial Action Work Plan, Parcel E Remedial Action—Phase 1, Hunters Point Naval Shipyard, San Francisco, California* (Work Plan; APTIM, 2019). The DCP describes procedures that minimize dust during work activities and requires air sampling to ensure these procedures are effective. The DCP helps prevent exposure of residents and construction crews to potential airborne chemicals of concern, and dust from the work area.

This summary report describes the following:

- Where and how air samples are collected
- What test methods are used to analyze air samples
- How air sampling data are evaluated

This summary report also presents the air sampling analytical results from November 20, 2019 through August 28, 2020, and compares the results with the established action levels included in the Work Plan (APTIM, 2019).

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## 2.0 Sampling Site Locations

Air sampling stations were mobilized to collect air samples upwind and downwind of work areas for the duration of the project. The predominant wind direction at Hunters Point Naval Shipyard is from the west. Figure 1 shows locations of air sampling stations and wind direction. For the fieldwork conducted during this period, APTIM uses upwind and downwind sampling locations marked as “Air Sampling Station #1 Upwind” near Crisp Road and “Air Sampling Station #2 Downwind” in Parcel D-1 near the Finger Piers (Figure 1). Air sampling is being performed to help ensure effective dust control. The locations of the air sampling stations were determined based on the prevailing wind direction and can be modified as needed. A windsock installed onsite is used to show wind direction and weather forecasts are checked daily at [www.noaa.gov](http://www.noaa.gov). Sampling stations remain stationary while sampling is being conducted. Each sampling station includes three separate air sampling systems for the following:

- Total suspended particulates (TSP) and for arsenic, lead, and manganese
- Particulate matter larger than 10 microns in size (PM10)
- Asbestos

2.0 Sampling Site Locations

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## 3.0 Analytical Methods

**TSP, Arsenic, Lead, and Manganese:** TSP samples are collected with a high-volume (39 to 60 cubic feet per minute) air sampler in accordance with U.S. Environmental Protection Agency's (EPA's) reference sampling method for TSP, described in Title 40 Code of Federal Regulations, Part 50, Appendix B. Each sample is collected on a filter over an approximately 8-hour workday period; the filter is then weighed to determine the amount of TSP collected. Once the amount of TSP has been determined, the sample is analyzed for arsenic, lead and manganese in accordance with one of the IO-3 methods identified in the *Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air* (EPA, 1999a). The equipment specifications and sampling procedures used, including the sampling apparatus, filters, equipment accuracy, equipment calibration, and quality assurance checks, all conform to those specified in the analytical method.

**PM10:** Air samples are collected and analyzed for PM10 in accordance with EPA's reference sampling method for PM10, described in 40 Code of Federal Regulations Part 50, Appendix J. Each sample is collected on a filter over an approximately 8-hour workday period; the filter is then weighed to evaluate the concentrations of PM10 in ambient air.

**Asbestos:** Air samples are collected and analyzed for asbestos in accordance with the National Institute for Occupational Safety and Health Method 7400, in the *NIOSH Manual of Analytical Methods* (1994). Method 7400 requires that samples be collected on three-piece cellulose ester filters, which are fitted with conductive cowlings, at a sampling rate of between 0.5 liter per minute and 16 liters per minute.

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## 4.0 Analysis of Air Sampling Data

Analytical results from air sampling samples are compared with the action levels listed in Table 4-1 and in accordance with the Work Plan (APTM, 2019).

**Table 4-1: Air Sampling Action Levels**

Test Parameters	Action Level <sup>b</sup>	Basis
PM10 (by air sampling laboratory analysis)	5,000 µg/m <sup>3</sup> (basewide)	Cal/OSHA PEL <sup>a</sup>
TSP	0.5 mg/m <sup>3</sup>	Basewide HPNS Level selected to minimize overall permissible dust release from sites
Arsenic	10 µg/m <sup>3</sup>	Cal/OSHA PEL
Lead	50 µg/m <sup>3</sup>	Cal/OSHA PEL
Manganese	200 µg/m <sup>3</sup>	Cal/OSHA PEL
Asbestos	0.1 fiber/cm <sup>3</sup>	Cal/OSHA PEL

Notes:

<sup>a</sup> Cal/OSHA PEL for particulates not otherwise regulated (respiratory) used for PM10.

<sup>b</sup> Basewide action levels are from the *Final Basewide Dust Control Plan, Revision 1, Hunters Point Shipyard, San Francisco, California* (TetraTech EC, Inc., 2010).

µg/m <sup>3</sup>	micrograms per cubic meter
Cal/OSHA	California Occupational Safety and Health Administration
fiber/cm <sup>3</sup>	fibers per cubic centimeter
HPNS	Hunters Point Naval Shipyard
mg/m <sup>3</sup>	milligrams per cubic meter
PEL	permissible exposure limit
PM10	particulate matter smaller than 10 microns in diameter
TSP	total suspended particulates

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## 5.0 Air Sampling Results

The tables included as Attachment 1 present weather information (including ambient pressure and temperature data) and air sampling results. Air sampling data were collected from the upwind sampling station and downwind sampling station, identified in Section 2.0. Attachment 2 includes analytical laboratory results. Table 5-1 lists each interim air sampling report, the dates covered in each report, and if there were anomalies in the sample collection/sample results. If there is an anomaly identified, further clarification is provided.

**Table 5-1: Air Sampling Report Summary**

Interim Report Number	New Data Date Range	Anomaly Noted (Yes/No)
01	11/20/2019 – 11/30/2019	Yes
02	12/02/2019 – 12/31/2019	Yes
03	01/02/2020 – 01/31/2020	Yes
04	02/03/2020 – 02/28/2020	Yes
05	03/02/2020 – 05/22/2020	Yes
06	05/25/2020 – 06/27/2020	Yes
07	06/27/2020 – 07/31/2020	Yes
08	08/03/2020 – 08/28/2020	No

### 5.1 Report 01

Air sampling samples were not collected on November 27, 2019, because rain and/or wet field conditions prohibited earth-moving activities. Due to the Thanksgiving holiday, samples were not collected November 28 and 29, 2019. Air sampling results collected during this sampling period were below the action levels identified in Table 4-1.

### 5.2 Report 02

Air samples were not collected on December 2 to 6 and December 11 to 20, 2019, as no earth-moving activities were conducted. Due to the Christmas holiday, samples were not collected December 25, 2019. Air sampling results collected during this sampling period were below the action levels identified in Table 4-1.

### **5.3        Report 03**

Air samples were not collected on January 1 to 2 and January 8 to 31, 2020, as no earth-moving activities were conducted. Air sampling results collected during this sampling period were below the action levels identified in Table 4-1.

### **5.4        Report 04**

Air samples were not collected on February 3 to 10 and February 20 to 28, 2020, as no earth-moving activities were conducted. Air sampling results collected during this sampling period were below the action levels identified in Table 4-1.

### **5.5        Report 05**

Air samples were not collected from March 2 through April 28, 2020, as no earth-moving activities were conducted. Air sampling results collected during this sampling period were below the action levels identified in Table 4-1.

### **5.6        Report 06**

Air samples were not collected on May 25, 2020, as no earth-moving activities were conducted. Air sampling results collected during this sampling period were below the action levels identified in Table 4-1.

### **5.7        Report 07**

Air samples were not collected on July 03, 2020, as no earth-moving activities were conducted. Air sampling results collected during this sampling period were below the action levels identified in Table 4-1.

### **5.8        Report 08**

Air sampling results collected during this sampling period were below the action levels identified in Table 4-1.

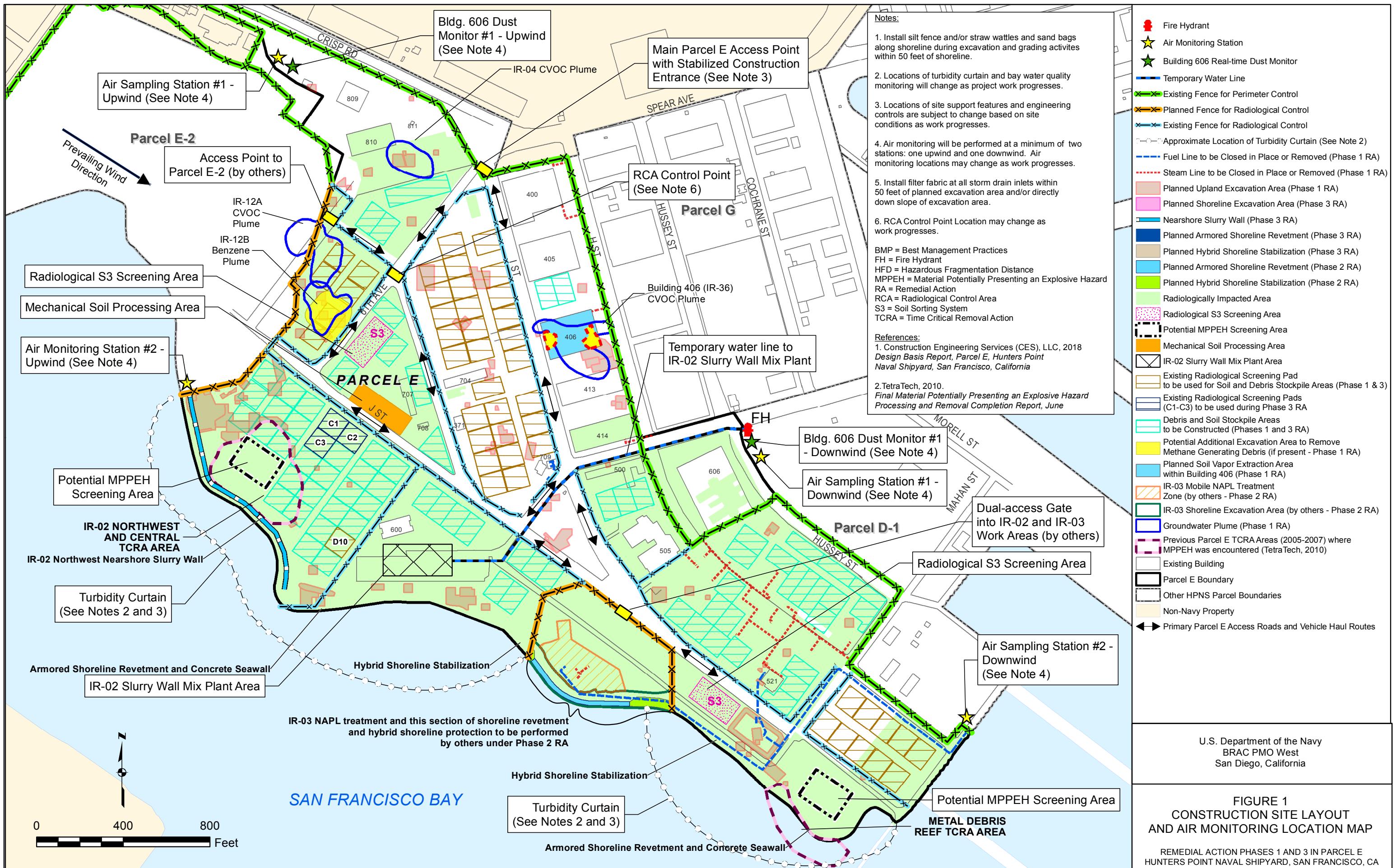
## 6.0 References

- Aptim Federal Services, LLC, 2019, *Final Remedial Action Work Plan, Parcel E Remedial Action—Phase 1, Hunters Point Naval Shipyard, San Francisco, California*, September.
- National Institute for Occupational Safety and Health, 1994, *NIOSH Manual of Analytical Methods*, Method 7400, August.
- Tetra Tech EC, Inc., 2010, *Final Basewide Dust Control Plan, Revision 1, Hunters Point Naval Shipyard, San Francisco, California*, November 29.
- U.S. Environmental Protection Agency (EPA), 1999a, *Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air*.
- EPA, 1999b, *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition. Compendium Method TO-4A, Determination of Pesticides and Polychlorinated Biphenyls in Ambient Air Using High Volume Polyurethane Foam (PUF) Sampling Followed by Gas Chromatographic/Multi-Detector Detection (GC/MD)*. EPA/625/R-96-010b, Office of Research and Development, January. Available Online at: <<http://www.epa.gov/ttnamti1/files/ambient/airtox/to-4ar2r.pdf>>.
- EPA, 1999c, *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition. Compendium Method TO-13A, Determination of Polycyclic Aromatic Hydrocarbons in Ambient Air Using Gas Chromatography/Mass Spectrometry (GC/MS)*, EPA/625/R-96/010b, January. Available Online at: <<http://www.epa.gov/ttnamti1/files/ambient/airtox/to-13arr.pdf>>.

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## **ATTACHMENT 1** **AIR SAMPLING RESULTS**

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**Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results**

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)
20-Nov-19	30.24	8.7
21-Nov-19	30.24	11.2
22-Nov-19	30.30	15.1
25-Nov-19	30.22	11.2
26-Nov-19	30.20	12.3
27-Nov-19	30.12	13.9
28-Nov-19	30.02	12.7
29-Nov-19	30.12	17.6
2-Dec-19	30.18	12.7
3-Dec-19	30.19	13.1
4-Dec-19	30.03	12.2
5-Dec-19	30.14	12.7
6-Dec-19	30.08	14.3
9-Dec-19	30.27	11.6
10-Dec-19	30.32	12.2
11-Dec-19	30.29	12.8
12-Dec-19	30.36	14.9
13-Dec-19	30.33	12.9
16-Dec-19	30.42	10.4
17-Dec-19	30.30	10.6
18-Dec-19	30.17	11.5
19-Dec-19	30.30	12.5
20-Dec-19	30.30	11.2
23-Dec-19	29.99	9.6
24-Dec-19	30.00	9.8
25-Dec-19	29.92	10.0
26-Dec-19	30.07	10.6
27-Dec-19	30.16	10.1
30-Dec-19	30.23	11.1
31-Dec-19	30.23	11.4
1-Jan-20	30.24	11.7
2-Jan-20	30.23	12.1
3-Jan-20	30.32	11.1
6-Jan-20	30.57	10.5
7-Jan-20	30.37	10.3
8-Jan-20	30.21	11.2
9-Jan-20	30.28	10.8
10-Jan-20	30.40	9.7
13-Jan-20	30.29	10.6

**Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results**

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)
14-Jan-20	30.33	10.4
15-Jan-20	30.23	9.0
16-Jan-20	30.17	9.1
17-Jan-20	30.39	9.1
20-Jan-20	30.12	10.3
21-Jan-20	30.23	11.9
22-Jan-20	30.33	11.8
23-Jan-20	30.31	12.0
24-Jan-20	30.25	12.7
27-Jan-20	30.48	11.9
28-Jan-20	30.42	12.1
29-Jan-20	30.36	11.8
30-Jan-20	30.32	12.9
31-Jan-20	30.39	13.3
3-Feb-20	30.25	9.2
4-Feb-20	30.37	10.3
5-Feb-20	30.35	10.3
6-Feb-20	30.26	12.2
7-Feb-20	30.23	11.4
10-Feb-20	30.11	15.4
11-Feb-20	30.14	17.0
12-Feb-20	30.12	13.1
13-Feb-20	30.18	10.3
14-Feb-20	30.21	11.4
17-Feb-20	30.20	15.7
18-Feb-20	30.12	13.5
19-Feb-20	30.20	11.7
20-Feb-20	30.21	13.6
21-Feb-20	30.16	15.2
24-Feb-20	30.46	12.7
25-Feb-20	30.35	16.2
26-Feb-20	30.40	12.5
27-Feb-20	30.31	16.6
28-Feb-20	30.20	13.8
2-Mar-20	30.00	15.8
3-Mar-20	30.00	15.4
4-Mar-20	30.10	14.9
5-Mar-20	30.10	13.1
6-Mar-20	30.00	12.4

**Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results**

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)
9-Mar-20	30.10	13.4
10-Mar-20	30.00	15.7
11-Mar-20	30.00	15.0
12-Mar-20	29.90	12.9
13-Mar-20	29.80	12.7
16-Mar-20	29.90	9.3
17-Mar-20	29.90	9.4
18-Mar-20	29.90	10.8
19-Mar-20	30.00	11.8
20-Mar-20	30.20	12.2
23-Mar-20	30.10	11.7
24-Mar-20	30.10	11.2
25-Mar-20	30.10	10.3
26-Mar-20	30.10	10.4
27-Mar-20	30.10	11.7
30-Mar-20	30.30	13.1
31-Mar-20	30.20	13.3
1-Apr-20	30.00	12.3
2-Apr-20	30.10	11.6
3-Apr-20	30.00	11.5
6-Apr-20	29.90	8.7
7-Apr-20	30.10	10.2
8-Apr-20	29.90	12.8
9-Apr-20	30.00	13.8
10-Apr-20	30.00	13.9
13-Apr-20	30.10	13.4
14-Apr-20	30.20	16.0
15-Apr-20	30.00	14.9
16-Apr-20	29.90	13.0
17-Apr-20	29.90	13.6
20-Apr-20	30.10	13.8
21-Apr-20	30.20	13.4
22-Apr-20	30.30	14.9
23-Apr-20	30.20	15.3
24-Apr-20	30.10	16.4
27-Apr-20	30.10	15.4
28-Apr-20	30.10	15.3
29-Apr-20	30.00	14.2
30-Apr-20	30.10	13.8

**Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results**

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)
1-May-20	30.10	14.8
4-May-20	30.10	14.4
5-May-20	30.10	14.5
6-May-20	30.10	15.9
7-May-20	29.90	17.1
8-May-20	29.90	15.7
11-May-20	29.90	15.3
12-May-20	30.00	14.9
13-May-20	30.00	15.3
14-May-20	30.10	16.2
15-May-20	30.10	15.2
18-May-20	29.90	14.9
19-May-20	30.00	15.3
20-May-20	30.10	14.9
21-May-20	30.00	15.3
22-May-20	29.90	14.6
25-May-20	29.90	19.6
26-May-20	29.90	21.9
27-May-20	29.90	18.4
28-May-20	29.90	14.9
29-May-20	29.90	16.2
1-Jun-20	30.00	16.5
2-Jun-20	30.00	20.4
3-Jun-20	29.90	20.4
4-Jun-20	29.80	18.3
5-Jun-20	29.80	14.7
8-Jun-20	30.20	16.7
9-Jun-20	30.10	17.9
10-Jun-20	30.00	17.1
11-Jun-20	30.00	17.1
12-Jun-20	30.10	15.6
13-Jun-20	30.10	16.2
15-Jun-20	30.00	16.4
16-Jun-20	30.00	15.7
17-Jun-20	30.00	13.8
18-Jun-20	29.69	25.22
19-Jun-20	29.71	19.00
22-Jun-20	29.74	19.78
23-Jun-20	29.71	19.39
24-Jun-20	29.65	19.89

**Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results**

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)
25-Jun-20	29.63	19.39
26-Jun-20	29.68	19.11
27-Jun-20	29.65	17.00
28-Jun-20	29.54	15.94
29-Jun-20	29.68	16.30
30-Jun-20	29.71	16.60
1-Jul-20	29.62	15.39
2-Jul-20	29.82	19.39
3-Jul-20	29.82	15.17
4-Jul-20	29.82	17.22
7-Jul-20	29.75	16.33
8-Jul-20	29.68	15.83
9-Jul-20	29.71	16.61
10-Jul-20	29.80	14.94
13-Jul-20	29.67	14.56
14-Jul-20	29.71	16.00
15-Jul-20	29.70	16.17
16-Jul-20	29.70	15.83
17-Jul-20	29.75	16.56
20-Jul-20	29.80	15.22
21-Jul-20	29.70	15.72
22-Jul-20	29.64	16.78
23-Jul-20	29.70	15.50
24-Jul-20	29.72	14.94
27-Jul-20	29.72	15.33
28-Jul-20	29.72	15.11
29-Jul-20	29.73	15.28
30-Jul-20	29.80	15.39
31-Jul-20	29.82	16.00
3-Aug-20	30.01	17.33
4-Aug-20	29.97	16.89
5-Aug-20	29.95	16.28
6-Aug-20	29.90	17.17
7-Aug-20	29.92	17.83
10-Aug-20	29.90	17.22
11-Aug-20	29.92	17.67
12-Aug-20	29.91	16.83
13-Aug-20	29.90	19.67
14-Aug-20	29.86	24.56
17-Aug-20	29.93	19.67
18-Aug-20	29.94	20.50

**Attachment 1, Table 1: Ambient Pressure and Temperature Monitoring Results**

Date	Ambient Pressure (in Hg)	Ambient Temperature (°C)
19-Aug-20	29.91	19.39
20-Aug-20	29.88	16.89
21-Aug-20	29.85	18.94
24-Aug-20	29.83	17.11
25-Aug-20	29.86	16.94
26-Aug-20	29.85	15.06
27-Aug-20	29.82	15.00
28-Aug-20	29.81	15.39

Notes:

Ambient pressure and ambient temperature data were gathered from the Wunderground weather website ([www.wunderground.com](http://www.wunderground.com)).

Ambient pressure and ambient temperature data were gathered from the Ambient Weather website ([www.ambientweather.net](http://www.ambientweather.net)) starting August 3, 2020.

Data were collected from KSFO, San Francisco, San Francisco International Airport

°C - degrees Celsius

in Hg - inches of mercury

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
20-Nov-19	Upwind	9.8	0.076	No	0.096	No	<0.016	No	0.050	No
20-Nov-19	Downwind	9.9	0.072	No	0.130	No	<0.016	No	0.022	No
21-Nov-19	Upwind	7.5	0.071	No	0.148	No	<0.016	No	0.050	No
21-Nov-19	Downwind	7.5	0.041	No	0.164	No	<0.016	No	<0.016	No
22-Nov-19	Upwind	8.8	0.060	No	0.122	No	0.023	No	0.203	No
22-Nov-19	Downwind	8.8	0.045	No	0.142	No	<0.016	No	<0.016	No
25-Nov-19	Upwind	8.9	0.052	No	0.116	No	<0.016	No	0.051	No
25-Nov-19	Downwind	8.7	0.043	No	0.127	No	<0.016	No	<0.016	No
26-Nov-19	Upwind	7.4	0.038	No	0.145	No	<0.016	No	<0.016	No
26-Nov-19	Downwind	7.5	0.024	No	0.122	No	<0.016	No	<0.016	No
27-Nov-19	Upwind	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
27-Nov-19	Downwind	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1	Note 1
28-Nov-19	Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
28-Nov-19	Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
29-Nov-19	Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
29-Nov-19	Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
2-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
3-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
3-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
4-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
4-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
5-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
5-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
6-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
6-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
9-Dec-19	Upwind	4.3	0.080	No	0.074	No	0.191	No	0.144	No
9-Dec-19	Downwind	4.1	0.105	No	<0.016	No	0.190	No	<0.016	No
10-Dec-19	Upwind	9.4	0.077	No	<0.016	No	0.056	No	0.099	No
10-Dec-19	Downwind	9.4	0.069	No	<0.016	No	0.064	No	<0.016	No
11-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
11-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
12-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
12-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
13-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
13-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
16-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
16-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
17-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
17-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
18-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
18-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
19-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
19-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
20-Dec-19	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
20-Dec-19	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
23-Dec-19	Upwind	7.5	0.028	No	0.095	No	0.069	No	0.294	No
23-Dec-19	Downwind	7.5	0.013	No	0.083	No	0.050	No	0.063	No
24-Dec-19	Upwind	6.8	0.016	No	0.082	No	0.082	No	0.087	No
24-Dec-19	Downwind	6.9	0.018	No	0.090	No	0.090	No	0.060	No
25-Dec-19	Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
25-Dec-19	Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
26-Dec-19	Upwind	7.433	0.009	No	0.118	No	0.078	No	0.053	No
26-Dec-19	Downwind	7.5	<0.016	No	0.1	No	0.047	No	0.042	No
27-Dec-19	Upwind	7.517	0.019	No	0.049	No	0.036	No	0.054	No
27-Dec-19	Downwind	7.667	0.011	No	0.119	No	0.065	No	0.046	No
30-Dec-19	Upwind	7.317	<0.016	No	0.076	No	0.089	No	0.055	No
30-Dec-19	Downwind	7.3	0.007	No	0.1	No	0.065	No	0.046	No
31-Dec-19	Upwind	7.067	0.010	No	0.128	No	0.080	No	0.130	No
31-Dec-19	Downwind	7.1	0.0	No	0.1	No	0.1	No	0.0	No
1-Jan-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
1-Jan-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
2-Jan-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
2-Jan-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
3-Jan-20	Upwind	7.6	0.039	No	<0.016	No	<0.016	No	0.040	No
3-Jan-20	Downwind	7.6	0.024	No	0.050	No	0.044	No	0.054	No
6-Jan-20	Upwind	7.6	0.022	No	<0.016	No	<0.016	No	0.030	No
6-Jan-20	Downwind	7.6	0.017	No	<0.016	No	<0.016	No	0.017	No
7-Jan-20	Upwind	7.9	0.019	No	<0.016	No	<0.016	No	0.015	No
7-Jan-20	Downwind	8.0	0.016	No	<0.016	No	<0.016	No	0.016	No
8-Jan-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
8-Jan-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
9-Jan-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
9-Jan-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
10-Jan-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
10-Jan-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
13-Jan-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
13-Jan-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3

## **Attachment 1, Table 2: TSP and Metals Sampling Results**

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
10-Feb-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
11-Feb-20	Upwind	7.2	0.029	No	<0.016	No	<0.016	No	0.0203	No
11-Feb-20	Downwind	7.2	0.042	No	<0.016	No	<0.016	No	<0.016	No
12-Feb-20	Upwind	5.5	0.023	No	<0.016	No	0.0396	No	<0.016	No
12-Feb-20	Downwind	5.6	0.032	No	<0.016	No	<0.016	No	<0.016	No
13-Feb-20	Upwind	5.3	0.018	No	<0.016	No	<0.016	No	<0.016	No
13-Feb-20	Downwind	5.1	0.015	No	<0.016	No	<0.016	No	<0.016	No
14-Feb-20	Upwind	7.8	0.010	No	<0.016	No	<0.016	No	<0.016	No
14-Feb-20	Downwind	7.7	0.008	No	<0.016	No	<0.016	No	<0.016	No
17-Feb-20	Upwind	7.7	0.013	No	<0.016	No	<0.016	No	0.1849	No
17-Feb-20	Downwind	7.6	0.007	No	<0.016	No	0.0284	No	<0.016	No
18-Feb-20	Upwind	7.0	0.008	No	<0.016	No	<0.016	No	<0.016	No
18-Feb-20	Downwind	7.1	0.012	No	<0.016	No	<0.016	No	<0.016	No
19-Feb-20	Upwind	3.8	0.018	No	<0.016	No	0.0560	No	<0.016	No
19-Feb-20	Downwind	3.9	<0.016	No	<0.016	No	<0.016	No	<0.016	No
20-Feb-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
20-Feb-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
21-Feb-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
21-Feb-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
24-Feb-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
24-Feb-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
25-Feb-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
25-Feb-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
26-Feb-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
26-Feb-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
27-Feb-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
27-Feb-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
28-Feb-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
28-Feb-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
2-Mar-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
2-Mar-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
3-Mar-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
3-Mar-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
4-Mar-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
4-Mar-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
5-Mar-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
5-Mar-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
6-Mar-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
6-Mar-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3

## **Attachment 1, Table 2: TSP and Metals Sampling Results**

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
3-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
6-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
6-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
7-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
7-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
8-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
8-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
9-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
9-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
10-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
10-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
13-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
13-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
14-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
14-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
15-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
15-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
16-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
16-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
17-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
17-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
20-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
20-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
21-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
21-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
22-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
22-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
23-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
23-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
24-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
24-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
27-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
27-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
28-Apr-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
28-Apr-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
29-Apr-20	Upwind	9.5	0.0090	No	<0.016	No	<0.016	No	<0.016	No
29-Apr-20	Downwind	9.4	0.0394	No	<0.016	No	<0.016	No	0.0363	No
30-Apr-20	Upwind	9.5	0.0188	No	<0.016	No	0.0240	No	0.0150	No
30-Apr-20	Downwind	9.6	0.0699	No	<0.016	No	0.0351	No	0.0519	No

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
1-May-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
1-May-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
4-May-20	Upwind	9.6	0.0223	No	<0.016	No	<0.016	No	0.0136	No
4-May-20	Downwind	9.6	0.0049	No	<0.016	No	<0.016	No	0.0410	No
5-May-20	Upwind	9.5	0.0428	No	<0.016	No	<0.016	No	0.0225	No
5-May-20	Downwind	9.4	0.0568	No	<0.016	No	0.0226	No	0.0351	No
6-May-20	Upwind	9.6	0.0226	No	<0.016	No	0.0215	No	0.0141	No
6-May-20	Downwind	9.5	0.0507	No	<0.016	No	0.0247	No	0.0322	No
7-May-20	Upwind	9.4	0.0543	No	<0.016	No	0.0429	No	0.0334	No
7-May-20	Downwind	9.5	0.0541	No	<0.016	No	0.0390	No	0.0336	No
8-May-20	Upwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
8-May-20	Downwind	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3	Note 3
11-May-20	Upwind	9.7	0.0356	No	<0.016	No	<0.016	No	0.0344	No
11-May-20	Downwind	9.6	0.0315	No	<0.016	No	0.0	No	0.0238	No
12-May-20	Upwind	9.6	0.0181	No	<0.016	No	<0.016	No	0.0135	No
12-May-20	Downwind	9.5	0.0239	No	<0.016	No	<0.016	No	0.0159	No
13-May-20	Upwind	9.6	0.0179	No	<0.016	No	<0.016	No	0.0187	No
13-May-20	Downwind	9.5	0.0131	No	<0.016	No	<0.016	No	<0.016	No
14-May-20	Upwind	9.5	0.0123	No	<0.016	No	<0.016	No	0.0144	No
14-May-20	Downwind	9.5	0.0101	No	<0.016	No	<0.016	No	0.0144	No
15-May-20	Upwind	9.4	0.0289	No	<0.016	No	<0.016	No	0.0146	No
15-May-20	Downwind	9.4	0.0206	No	<0.016	No	<0.016	No	0.0129	No
18-May-20	Upwind	9.7	0.0146	No	<0.016	No	<0.016	No	0.0093	No
18-May-20	Downwind	9.7	0.0220	No	<0.016	No	0.020	No	0.0258	No
19-May-20	Upwind	9.6	0.0342	No	<0.016	No	0.022	No	0.0176	No
19-May-20	Downwind	9.6	0.0137	No	<0.016	No	0.022	No	0.0153	No
20-May-20	Upwind	9.6	0.0266	No	<0.016	No	<0.016	No	0.0136	No
20-May-20	Downwind	9.5	0.0221	No	<0.016	No	<0.016	No	0.0139	No
21-May-20	Upwind	9.6	0.0393	No	<0.016	No	<0.016	No	0.0217	No
21-May-20	Downwind	9.7	0.0266	No	<0.016	No	0.019	No	0.0153	No
22-May-20	Upwind	9.5	0.0216	No	<0.016	No	0.019	No	0.0128	No
22-May-20	Downwind	9.5	0.0232	No	<0.016	No	<0.016	No	0.0154	No
25-May-20	Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
25-May-20	Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
26-May-20	Upwind	9.7	0.0485	No	<0.027	No	0.019	No	<0.0091	No
26-May-20	Downwind	9.6	0.0332	No	<0.028	No	<0.018	No	<0.0092	No
27-May-20	Upwind	9.6	0.0478	No	<0.028	No	<0.018	No	<0.0092	No
27-May-20	Downwind	9.5	0.0427	No	<0.028	No	<0.018	No	<0.0092	No
28-May-20	Upwind	9.6	0.0229	No	<0.028	No	<0.018	No	<0.0092	No

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
28-May-20	Downwind	9.5	0.0265	No	<0.028	No	<0.019	No	<0.0093	No
29-May-20	Upwind	9.5	0.0341	No	<0.028	No	<0.019	No	0.0105	No
29-May-20	Downwind	9.5	0.0158	No	<0.028	No	<0.019	No	<0.0093	No
30-May-20	Upwind	7.5	0.0340	No	<0.035	No	<0.023	No	<0.0117	No
30-May-20	Downwind	7.4	0.0280	No	<0.036	No	<0.024	No	<0.0119	No
1-Jun-20	Upwind	7.6	0.0532	No	<0.035	No	<0.023	No	<0.0116	No
1-Jun-20	Downwind	7.6	0.0407	No	<0.035	No	<0.023	No	<0.0116	No
2-Jun-20	Upwind	7.6	0.0991	No	<0.035	No	<0.023	No	<0.0208	No
2-Jun-20	Downwind	7.6	0.0564	No	<0.035	No	<0.023	No	<0.0117	No
3-Jun-20	Upwind	8.6	0.0917	No	<0.031	No	<0.021	No	0.0202	No
3-Jun-20	Downwind	7.6	0.0924	No	<0.035	No	<0.023	No	<0.026	No
4-Jun-20	Upwind	7.5	0.1180	No	<0.035	No	<0.029	No	0.0440	No
4-Jun-20	Downwind	7.5	0.0364	No	<0.035	No	<0.023	No	0.0117	No
5-Jun-20	Upwind	9.8	0.0302	No	<0.027	No	0.029	No	0.0090	No
5-Jun-20	Downwind	9.7	0.0255	No	<0.027	No	<0.018	No	<0.0091	No
8-Jun-20	Upwind	9.7	0.0443	No	<0.027	No	<0.018	No	<0.0091	No
8-Jun-20	Downwind	9.8	0.0295	No	<0.027	No	<0.018	No	<0.0090	No
9-Jun-20	Upwind	9.7	0.0478	No	<0.027	No	<0.018	No	<0.0091	No
9-Jun-20	Downwind	9.8	0.0335	No	<0.027	No	<0.018	No	<0.0090	No
10-Jun-20	Upwind	9.8	0.0438	No	<0.027	No	<0.018	No	<0.0091	No
10-Jun-20	Downwind	9.8	0.0323	No	<0.027	No	<0.018	No	<0.0091	No
11-Jun-20	Upwind	9.6	0.0328	No	<0.027	No	<0.018	No	<0.0092	No
11-Jun-20	Downwind	9.8	0.0201	No	<0.027	No	<0.018	No	<0.0091	No
12-Jun-20	Upwind	9.5	0.0370	No	<0.028	No	<0.019	No	<0.0138	No
12-Jun-20	Downwind	9.6	0.0154	No	<0.028	No	<0.018	No	<0.0092	No
13-Jun-20	Upwind	9.7	0.0561	No	<0.027	No	<0.018	No	<0.0428	No
13-Jun-20	Downwind	9.7	0.0451	No	<0.027	No	<0.018	No	<0.0431	No
15-Jun-20	Upwind	9.8	0.0436	No	<0.027	No	<0.018	No	0.0208	No
15-Jun-20	Downwind	9.8	0.0325	No	<0.027	No	<0.018	No	0.0174	No
17-Jun-20	Upwind	9.6	0.0580	No	<0.028	No	<0.018	No	0.0370	No
17-Jun-20	Downwind	9.7	0.0331	No	<0.027	No	<0.018	No	0.0232	No
18-Jun-20	Upwind	9.7	0.0753	No	<0.027	No	<0.018	No	0.0418	No
18-Jun-20	Downwind	9.7	0.0625	No	<0.027	No	<0.018	No	0.0343	No
19-Jun-20	Upwind	9.8	0.0531	No	<0.027	No	<0.018	No	0.0275	No
19-Jun-20	Downwind	9.8	0.0380	No	<0.027	No	<0.018	No	0.0237	No
20-Jun-20	Upwind	9.8	0.0421	No	<0.027	No	<0.018	No	0.0406	No
20-Jun-20	Downwind	9.8	0.0171	No	<0.027	No	<0.018	No	0.0107	No
22-Jun-20	Upwind	9.6	0.0468	No	<0.028	No	<0.018	No	0.0359	No
22-Jun-20	Downwind	9.7	0.0335	No	<0.027	No	<0.018	No	0.0229	No

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
23-Jun-20	Upwind	9.7	0.0375	No	<0.027	No	<0.018	No	0.0281	No
23-Jun-20	Downwind	9.7	0.0273	No	<0.027	No	<0.018	No	0.0216	No
24-Jun-20	Upwind	9.7	0.0344	No	<0.027	No	<0.018	No	0.0206	No
24-Jun-20	Downwind	9.7	0.0297	No	<0.027	No	<0.018	No	0.0228	No
25-Jun-20	Upwind	9.7	0.0354	No	<0.027	No	<0.018	No	0.0251	No
25-Jun-20	Downwind	9.7	0.0201	No	<0.027	No	<0.018	No	0.0126	No
26-Jun-20	Upwind	9.6	0.0305	No	<0.027	No	<0.018	No	0.0108	No
26-Jun-20	Downwind	9.7	0.0229	No	<0.027	No	<0.018	No	0.0130	No
27-Jun-20	Upwind	9.7	0.0741	No	<0.027	No	0.028	No	0.0620	No
27-Jun-20	Downwind	9.5	0.0352	No	<0.027	No	<0.018	No	0.0162	No
29-Jun-20	Upwind	9.5	0.0615	No	<0.028	No	0.0112	No	0.0204	No
29-Jun-20	Downwind	9.6	0.0491	No	<0.028	No	0.0135	No	0.0167	No
30-Jun-20	Upwind	9.1	0.0622	No	<0.029	No	0.0147	No	0.0275	No
30-Jun-20	Downwind	9.0	0.0449	No	<0.029	No	0.0159	No	0.0163	No
1-Jul-20	Upwind	9.2	0.0665	No	<0.029	No	0.0173	No	0.0385	No
1-Jul-20	Downwind	9.3	0.0353	No	<0.029	No	0.0073	No	0.0152	No
2-Jul-20	Upwind	9.6	0.0279	No	<0.028	No	0.0183	No	0.0167	No
2-Jul-20	Downwind	9.3	0.0166	No	<0.028	No	0.0197	No	0.0240	No
3-Jul-20	Upwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
3-Jul-20	Downwind	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
6-Jul-20	Upwind	9.1	0.1110	No	0.02330	No	0.0190	No	<0.038	No
6-Jul-20	Downwind	9.1	0.0630	No	<0.029	No	0.0078	No	<0.010	No
7-Jul-20	Upwind	9.7	0.0460	No	<0.027	No	0.0088	No	<0.009	No
7-Jul-20	Downwind	9.7	0.0287	No	<0.027	No	0.0092	No	<0.009	No
8-Jul-20	Upwind	9.8	0.0690	No	<0.027	No	0.0130	No	<0.009	No
8-Jul-20	Downwind	9.5	0.0329	No	<0.028	No	0.0112	No	<0.009	No
9-Jul-20	Upwind	9.4	0.0462	No	<0.028	No	<0.019	No	<0.009	No
9-Jul-20	Downwind	9.4	0.0366	No	0.01090	No	<0.019	No	<0.009	No
10-Jul-20	Upwind	9.2	0.0302	No	<0.029	No	0.0069	No	<0.010	No
10-Jul-20	Downwind	9.1	0.0566	No	<0.029	No	0.0107	No	<0.010	No
13-Jul-20	Upwind	8.5	0.1370	No	<0.031	No	0.0312	No	0.1264	No
13-Jul-20	Downwind	8.4	0.0434	No	<0.031	No	0.0210	No	0.0107	No
14-Jul-20	Upwind	9.1	0.0612	No	<0.029	No	0.0092	No	0.0470	No
14-Jul-20	Downwind	8.8	0.0351	No	<0.030	No	0.0200	No	0.0090	No
15-Jul-20	Upwind	9.3	0.0497	No	<0.028	No	0.0050	No	0.0177	No
15-Jul-20	Downwind	8.8	0.0385	No	<0.030	No	0.0200	No	0.0157	No
16-Jul-20	Upwind	9.1	0.0486	No	<0.029	No	0.0194	No	0.0224	No
16-Jul-20	Downwind	8.9	0.0458	No	<0.030	No	0.0198	No	0.0262	No
17-Jul-20	Upwind	9.6	0.0380	No	<0.028	No	0.0073	No	0.0148	No

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
17-Jul-20	Downwind	9.2	0.0280	No	0.02386	No	0.0191	No	0.0235	No
20-Jul-20	Upwind	9.3	Note 4	NA	0.01086	No	0.0200	No	0.0218	No
20-Jul-20	Downwind	8.9	Note 4	NA	<0.03	No	0.0185	No	0.0178	No
21-Jul-20	Upwind	9.5	Note 4	NA	<0.028	No	0.0076	No	0.0143	No
21-Jul-20	Downwind	9.1	Note 4	NA	<0.029	No	0.0277	No	0.0321	No
22-Jul-20	Upwind	8.6	Note 4	NA	<0.031	No	0.0294	No	0.0795	No
22-Jul-20	Downwind	9.1	Note 4	NA	<0.029	No	0.0309	No	0.0159	No
23-Jul-20	Upwind	9.7	Note 4	NA	0.01198	No	0.0266	No	0.0233	No
23-Jul-20	Downwind	9.7	Note 4	NA	<0.028	No	0.0125	No	0.0225	No
24-Jul-20	Upwind	9.8	Note 4	NA	<0.027	No	0.0217	No	0.0904	No
24-Jul-20	Downwind	9.3	Note 4	NA	<0.028	No	0.0166	No	0.0268	No
27-Jul-20	Upwind	9.8	0.0361	No	0.01000	No	0.0145	No	0.0172	No
27-Jul-20	Downwind	9.3	0.0398	No	0.01500	No	0.0201	No	0.0315	No
28-Jul-20	Upwind	9.7	0.0447	No	<0.027	No	0.0236	No	0.0274	No
28-Jul-20	Downwind	9.4	0.0250	No	0.03300	No	0.0206	No	0.0155	No
29-Jul-20	Upwind	9.7	0.0313	No	0.01500	No	0.0116	No	0.0180	No
29-Jul-20	Downwind	9.4	0.0276	No	<0.028	No	0.0201	No	0.0176	No
30-Jul-20	Upwind	9.8	0.0314	No	<0.027	No	0.0196	No	0.0147	No
30-Jul-20	Downwind	9.4	0.0212	No	0.01052	No	0.0167	No	0.0142	No
31-Jul-20	Upwind	9.7	0.0364	No	<0.027	No	0.0159	No	0.0136	No
31-Jul-20	Downwind	9.3	0.0215	No	0.02626	No	0.0226	No	0.0127	No
3-Aug-20	Upwind	9.7	0.0569	No	<0.027	No	0.0242	No	0.0280	No
3-Aug-20	Downwind	9.3	0.0883	No	<0.028	No	0.0463	No	0.0599	No
4-Aug-20	Upwind	9.5	0.0503	No	<0.028	No	0.0358	No	0.0278	No
4-Aug-20	Downwind	9.2	0.0458	No	<0.029	No	0.0359	No	0.0195	No
5-Aug-20	Upwind	9.7	0.0741	No	<0.027	No	0.0346	No	0.0357	No
5-Aug-20	Downwind	9.3	0.0391	No	<0.029	No	0.0299	No	0.0208	No
6-Aug-20	Upwind	9.7	0.0499	No	<0.027	No	0.0310	No	0.0235	No
6-Aug-20	Downwind	9.3	0.0452	No	<0.028	No	0.0388	No	0.0223	No
7-Aug-20	Upwind	9.6	0.0669	No	<0.028	No	0.0349	No	0.0192	No
7-Aug-20	Downwind	9.3	0.0756	No	<0.029	No	0.0270	No	0.0239	No
10-Aug-20	Upwind	8.8	0.0539	No	0.01631	No	0.0352	No	0.0537	No
10-Aug-20	Downwind	8.5	0.0568	No	0.01513	No	0.0312	No	0.0573	No
11-Aug-20	Upwind	9.8	0.0395	No	0.00994	No	0.0346	No	0.0578	No
11-Aug-20	Downwind	9.4	0.0224	No	<0.028	No	0.0374	No	0.0244	No
12-Aug-20	Upwind	9.8	0.0373	No	0.03365	No	0.0235	No	0.0231	No
12-Aug-20	Downwind	9.4	0.0347	No	<0.028	No	0.0287	No	0.0320	No
13-Aug-20	Upwind	9.8	0.0598	No	<0.027	No	0.0373	No	0.0341	No
13-Aug-20	Downwind	9.5	0.0590	No	<0.028	No	0.0300	No	0.0363	No

**Attachment 1, Table 2: TSP and Metals Sampling Results**

Date	Sample Location	Sampling Period (hours)	TSP (mg/m <sup>3</sup> )	TSP Exceedance? (Yes/No)	Arsenic (µg/m <sup>3</sup> )	Arsenic Exceedance? (Yes/No)	Lead (µg/m <sup>3</sup> )	Lead Exceedance? (Yes/No)	Manganese (µg/m <sup>3</sup> )	Manganese Exceedance? (Yes/No)
14-Aug-20	Upwind	9.8	0.0708	No	0.01277	No	0.0534	No	0.0521	No
14-Aug-20	Downwind	9.4	0.0519	No	0.01341	No	0.0391	No	0.0361	No
17-Aug-20	Upwind	4.9	0.0731	No	<0.054	No	0.0240	No	0.0811	No
17-Aug-20	Downwind	4.7	0.0371	No	<0.057	No	0.0327	No	0.0619	No
18-Aug-20	Upwind	8.2	0.0663	No	<0.032	No	0.0184	No	0.0764	No
18-Aug-20	Downwind	7.8	0.0748	No	<0.034	No	0.0301	No	0.0789	No
19-Aug-20	Upwind	10.7	0.0899	No	<0.025	No	0.0225	No	0.1014	No
19-Aug-20	Downwind	10.3	0.1090	No	<0.026	No	0.0236	No	0.1175	No
20-Aug-20	Upwind	10.7	0.0447	No	<0.025	No	<0.017	No	0.0510	No
20-Aug-20	Downwind	10.3	0.0382	No	<0.026	No	0.0066	No	0.0439	No
21-Aug-20	Upwind	10.7	0.0430	No	<0.025	No	0.0083	No	0.0322	No
21-Aug-20	Downwind	10.4	0.0608	No	<0.026	No	0.0063	No	0.0427	No
24-Aug-20	Upwind	7.4	0.1020	No	0.02400	No	<0.024	No	0.0637	No
24-Aug-20	Downwind	7.5	0.0918	No	0.01659	No	0.0187	No	0.0719	No
25-Aug-20	Upwind	7.6	0.0846	No	<0.035	No	0.0069	No	0.0541	No
25-Aug-20	Downwind	8.3	0.0744	No	<0.032	No	0.0122	No	0.0519	No
26-Aug-20	Upwind	9.7	0.0438	No	<0.027	No	0.0160	No	0.0560	No
26-Aug-20	Downwind	9.4	0.0307	No	<0.028	No	0.0073	No	0.1356	No
27-Aug-20	Upwind	7.6	0.0710	No	0.02188	No	0.0124	No	0.0689	No
27-Aug-20	Downwind	7.2	0.0374	No	<0.037	No	<0.026	No	0.0424	No
28-Aug-20	Upwind	9.8	0.0917	No	<0.027	No	0.0125	No	0.0352	No
28-Aug-20	Downwind	9.4	0.1080	No	<0.028	No	0.0142	No	0.0590	No

Notes:

Note 1 - Sample not collected due to inclement conditions: Rain.

Note 2 - Samples were not collected as project site was closed for holidays.

Note 3 - Samples were not collected as no excavation was conducted.

Sample locations are shown on Figure 1.

The threshold criteria are as follows: TSP = 0.5 mg/m<sup>3</sup>, arsenic = 10 µg/m<sup>3</sup>, lead = 50 µg/m<sup>3</sup>, manganese = 200 µg/m<sup>3</sup>.

The detection limit for TSP is 0.06 µg/m<sup>3</sup> assuming a minimum sample volume of 1,600 m<sup>3</sup>. The detection limits for arsenic, lead and manganese are 16 ng/m<sup>3</sup> assuming minimum sample volumes of 1,600 m<sup>3</sup>.

µg/m<sup>3</sup> - microgram per cubic meter

mg/m<sup>3</sup> - milligram per cubic meter

N/A - not applicable

TSP - total suspended particulates

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
20-Nov-19	Upwind	9.8	43.7	No
20-Nov-19	Downwind	9.9	29.7	No
21-Nov-19	Upwind	7.5	45.5	No
21-Nov-19	Downwind	7.5	33.4	No
22-Nov-19	Upwind	8.8	5.35	No
22-Nov-19	Downwind	8.8	38.8	No
25-Nov-19	Upwind	8.9	31.3	No
25-Nov-19	Downwind	8.7	24.1	No
26-Nov-19	Upwind	7.4	23.1	No
26-Nov-19	Downwind	7.5	16.4	No
27-Nov-19	Upwind	Note 1	Note 1	Note 1
27-Nov-19	Downwind	Note 1	Note 1	Note 1
28-Nov-19	Upwind	Note 2	Note 2	Note 2
28-Nov-19	Downwind	Note 2	Note 2	Note 2
29-Nov-19	Upwind	Note 2	Note 2	Note 2
29-Nov-19	Downwind	Note 2	Note 2	Note 2
2-Dec-19	Upwind	Note 3	Note 3	Note 3
2-Dec-19	Downwind	Note 3	Note 3	Note 3
3-Dec-19	Upwind	Note 3	Note 3	Note 3
3-Dec-19	Downwind	Note 3	Note 3	Note 3
4-Dec-19	Upwind	Note 3	Note 3	Note 3
4-Dec-19	Downwind	Note 3	Note 3	Note 3
5-Dec-19	Upwind	Note 3	Note 3	Note 3
5-Dec-19	Downwind	Note 3	Note 3	Note 3
6-Dec-19	Upwind	Note 3	Note 3	Note 3
6-Dec-19	Downwind	Note 3	Note 3	Note 3
9-Dec-19	Upwind	4.3	3.960	No
9-Dec-19	Downwind	4.1	<0.06	No
10-Dec-19	Upwind	9.4	4.3	No
10-Dec-19	Downwind	9.4	7.5	No
11-Dec-19	Upwind	Note 3	Note 3	Note 3
11-Dec-19	Downwind	Note 3	Note 3	Note 3
12-Dec-19	Upwind	Note 3	Note 3	Note 3
12-Dec-19	Downwind	Note 3	Note 3	Note 3
13-Dec-19	Upwind	Note 3	Note 3	Note 3
13-Dec-19	Downwind	Note 3	Note 3	Note 3
16-Dec-19	Upwind	Note 3	Note 3	Note 3
16-Dec-19	Downwind	Note 3	Note 3	Note 3
17-Dec-19	Upwind	Note 3	Note 3	Note 3
17-Dec-19	Downwind	Note 3	Note 3	Note 3

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
18-Dec-19	Upwind	Note 3	Note 3	Note 3
18-Dec-19	Downwind	Note 3	Note 3	Note 3
19-Dec-19	Upwind	Note 3	Note 3	Note 3
19-Dec-19	Downwind	Note 3	Note 3	Note 3
20-Dec-19	Upwind	Note 3	Note 3	Note 3
20-Dec-19	Downwind	Note 3	Note 3	Note 3
23-Dec-19	Upwind	7.5	<0.06	No
23-Dec-19	Downwind	7.5	<0.06	No
24-Dec-19	Upwind	6.8	<0.06	No
24-Dec-19	Downwind	6.9	<0.06	No
25-Dec-19	Upwind	Note 2	Note 2	Note 2
25-Dec-19	Downwind	Note 2	Note 2	Note 2
26-Dec-19	Upwind	7.433	<0.06	No
26-Dec-19	Downwind	7.5	<0.06	No
27-Dec-19	Upwind	7.517	<0.06	No
27-Dec-19	Downwind	7.667	<0.06	No
30-Dec-19	Upwind	7.317	<0.06	No
30-Dec-19	Downwind	7.3	<0.06	No
31-Dec-19	Upwind	7.067	<0.06	No
31-Dec-19	Downwind	7.1	10.8	No
1-Jan-20	Upwind	Note 3	Note 3	Note 3
1-Jan-20	Downwind	Note 3	Note 3	Note 3
2-Jan-20	Upwind	Note 3	Note 3	Note 3
2-Jan-20	Downwind	Note 3	Note 3	Note 3
3-Jan-20	Upwind	7.6	<0.06	No
3-Jan-20	Downwind	7.6	18.5	No
6-Jan-20	Upwind	7.6	<0.06	No
6-Jan-20	Downwind	7.6	9.2	No
7-Jan-20	Upwind	7.9	10.4	No
7-Jan-20	Downwind	8.0	7.8	No
8-Jan-20	Upwind	Note 3	Note 3	Note 3
8-Jan-20	Downwind	Note 3	Note 3	Note 3
9-Jan-20	Upwind	Note 3	Note 3	Note 3
9-Jan-20	Downwind	Note 3	Note 3	Note 3
10-Jan-20	Upwind	Note 3	Note 3	Note 3
10-Jan-20	Downwind	Note 3	Note 3	Note 3
13-Jan-20	Upwind	Note 3	Note 3	Note 3
13-Jan-20	Downwind	Note 3	Note 3	Note 3
14-Jan-20	Upwind	Note 3	Note 3	Note 3
14-Jan-20	Downwind	Note 3	Note 3	Note 3

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
15-Jan-20	Upwind	Note 3	Note 3	Note 3
15-Jan-20	Downwind	Note 3	Note 3	Note 3
16-Jan-20	Upwind	Note 3	Note 3	Note 3
16-Jan-20	Downwind	Note 3	Note 3	Note 3
17-Jan-20	Upwind	Note 3	Note 3	Note 3
17-Jan-20	Downwind	Note 3	Note 3	Note 3
20-Jan-20	Upwind	Note 3	Note 3	Note 3
20-Jan-20	Downwind	Note 3	Note 3	Note 3
21-Jan-20	Upwind	Note 3	Note 3	Note 3
21-Jan-20	Downwind	Note 3	Note 3	Note 3
22-Jan-20	Upwind	Note 3	Note 3	Note 3
22-Jan-20	Downwind	Note 3	Note 3	Note 3
23-Jan-20	Upwind	Note 3	Note 3	Note 3
23-Jan-20	Downwind	Note 3	Note 3	Note 3
24-Jan-20	Upwind	Note 3	Note 3	Note 3
24-Jan-20	Downwind	Note 3	Note 3	Note 3
27-Jan-20	Upwind	Note 3	Note 3	Note 3
27-Jan-20	Downwind	Note 3	Note 3	Note 3
28-Jan-20	Upwind	Note 3	Note 3	Note 3
28-Jan-20	Downwind	Note 3	Note 3	Note 3
29-Jan-20	Upwind	Note 3	Note 3	Note 3
29-Jan-20	Downwind	Note 3	Note 3	Note 3
30-Jan-20	Upwind	Note 3	Note 3	Note 3
30-Jan-20	Downwind	Note 3	Note 3	Note 3
31-Jan-20	Upwind	Note 3	Note 3	Note 3
31-Jan-20	Downwind	Note 3	Note 3	Note 3
3-Feb-20	Upwind	Note 3	Note 3	Note 3
3-Feb-20	Downwind	Note 3	Note 3	Note 3
4-Feb-20	Upwind	Note 3	Note 3	Note 3
4-Feb-20	Downwind	Note 3	Note 3	Note 3
5-Feb-20	Upwind	Note 3	Note 3	Note 3
5-Feb-20	Downwind	Note 3	Note 3	Note 3
6-Feb-20	Upwind	Note 3	Note 3	Note 3
6-Feb-20	Downwind	Note 3	Note 3	Note 3
7-Feb-20	Upwind	Note 3	Note 3	Note 3
7-Feb-20	Downwind	Note 3	Note 3	Note 3
10-Feb-20	Upwind	Note 3	Note 3	Note 3
10-Feb-20	Downwind	Note 3	Note 3	Note 3
11-Feb-20	Upwind	7.2	<0.06	No
11-Feb-20	Downwind	7.2	21.7	No

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
12-Feb-20	Upwind	5.5	<0.06	No
12-Feb-20	Downwind	5.6	<0.06	No
13-Feb-20	Upwind	5.3	25.0	No
13-Feb-20	Downwind	5.1	<0.06	No
14-Feb-20	Upwind	7.8	<0.06	No
14-Feb-20	Downwind	7.7	<0.06	No
17-Feb-20	Upwind	7.7	<0.06	No
17-Feb-20	Downwind	7.6	<0.06	No
18-Feb-20	Upwind	7.0	<0.06	No
18-Feb-20	Downwind	7.1	14.0	No
19-Feb-20	Upwind	3.8	<0.06	No
19-Feb-20	Downwind	3.9	<0.06	No
20-Feb-20	Upwind	Note 3	Note 3	Note 3
20-Feb-20	Downwind	Note 3	Note 3	Note 3
21-Feb-20	Upwind	Note 3	Note 3	Note 3
21-Feb-20	Downwind	Note 3	Note 3	Note 3
24-Feb-20	Upwind	Note 3	Note 3	Note 3
24-Feb-20	Downwind	Note 3	Note 3	Note 3
25-Feb-20	Upwind	Note 3	Note 3	Note 3
25-Feb-20	Downwind	Note 3	Note 3	Note 3
26-Feb-20	Upwind	Note 3	Note 3	Note 3
26-Feb-20	Downwind	Note 3	Note 3	Note 3
27-Feb-20	Upwind	Note 3	Note 3	Note 3
27-Feb-20	Downwind	Note 3	Note 3	Note 3
28-Feb-20	Upwind	Note 3	Note 3	Note 3
28-Feb-20	Downwind	Note 3	Note 3	Note 3
2-Mar-20	Upwind	Note 3	Note 3	Note 3
2-Mar-20	Downwind	Note 3	Note 3	Note 3
3-Mar-20	Upwind	Note 3	Note 3	Note 3
3-Mar-20	Downwind	Note 3	Note 3	Note 3
4-Mar-20	Upwind	Note 3	Note 3	Note 3
4-Mar-20	Downwind	Note 3	Note 3	Note 3
5-Mar-20	Upwind	Note 3	Note 3	Note 3
5-Mar-20	Downwind	Note 3	Note 3	Note 3
6-Mar-20	Upwind	Note 3	Note 3	Note 3
6-Mar-20	Downwind	Note 3	Note 3	Note 3
9-Mar-20	Upwind	Note 3	Note 3	Note 3
9-Mar-20	Downwind	Note 3	Note 3	Note 3
10-Mar-20	Upwind	Note 3	Note 3	Note 3
10-Mar-20	Downwind	Note 3	Note 3	Note 3

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
11-Mar-20	Upwind	Note 3	Note 3	Note 3
11-Mar-20	Downwind	Note 3	Note 3	Note 3
12-Mar-20	Upwind	Note 3	Note 3	Note 3
12-Mar-20	Downwind	Note 3	Note 3	Note 3
13-Mar-20	Upwind	Note 3	Note 3	Note 3
13-Mar-20	Downwind	Note 3	Note 3	Note 3
16-Mar-20	Upwind	Note 3	Note 3	Note 3
16-Mar-20	Downwind	Note 3	Note 3	Note 3
17-Mar-20	Upwind	Note 3	Note 3	Note 3
17-Mar-20	Downwind	Note 3	Note 3	Note 3
18-Mar-20	Upwind	Note 3	Note 3	Note 3
18-Mar-20	Downwind	Note 3	Note 3	Note 3
19-Mar-20	Upwind	Note 3	Note 3	Note 3
19-Mar-20	Downwind	Note 3	Note 3	Note 3
20-Mar-20	Upwind	Note 3	Note 3	Note 3
20-Mar-20	Downwind	Note 3	Note 3	Note 3
23-Mar-20	Upwind	Note 3	Note 3	Note 3
23-Mar-20	Downwind	Note 3	Note 3	Note 3
24-Mar-20	Upwind	Note 3	Note 3	Note 3
24-Mar-20	Downwind	Note 3	Note 3	Note 3
25-Mar-20	Upwind	Note 3	Note 3	Note 3
25-Mar-20	Downwind	Note 3	Note 3	Note 3
26-Mar-20	Upwind	Note 3	Note 3	Note 3
26-Mar-20	Downwind	Note 3	Note 3	Note 3
27-Mar-20	Upwind	Note 3	Note 3	Note 3
27-Mar-20	Downwind	Note 3	Note 3	Note 3
30-Mar-20	Upwind	Note 3	Note 3	Note 3
30-Mar-20	Downwind	Note 3	Note 3	Note 3
31-Mar-20	Upwind	Note 3	Note 3	Note 3
31-Mar-20	Downwind	Note 3	Note 3	Note 3
1-Apr-20	Upwind	Note 3	Note 3	Note 3
1-Apr-20	Downwind	Note 3	Note 3	Note 3
2-Apr-20	Upwind	Note 3	Note 3	Note 3
2-Apr-20	Downwind	Note 3	Note 3	Note 3
3-Apr-20	Upwind	Note 3	Note 3	Note 3
3-Apr-20	Downwind	Note 3	Note 3	Note 3
6-Apr-20	Upwind	Note 3	Note 3	Note 3
6-Apr-20	Downwind	Note 3	Note 3	Note 3
7-Apr-20	Upwind	Note 3	Note 3	Note 3
7-Apr-20	Downwind	Note 3	Note 3	Note 3

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
8-Apr-20	Upwind	Note 3	Note 3	Note 3
8-Apr-20	Downwind	Note 3	Note 3	Note 3
9-Apr-20	Upwind	Note 3	Note 3	Note 3
9-Apr-20	Downwind	Note 3	Note 3	Note 3
10-Apr-20	Upwind	Note 3	Note 3	Note 3
10-Apr-20	Downwind	Note 3	Note 3	Note 3
13-Apr-20	Upwind	Note 3	Note 3	Note 3
13-Apr-20	Downwind	Note 3	Note 3	Note 3
14-Apr-20	Upwind	Note 3	Note 3	Note 3
14-Apr-20	Downwind	Note 3	Note 3	Note 3
15-Apr-20	Upwind	Note 3	Note 3	Note 3
15-Apr-20	Downwind	Note 3	Note 3	Note 3
16-Apr-20	Upwind	Note 3	Note 3	Note 3
16-Apr-20	Downwind	Note 3	Note 3	Note 3
17-Apr-20	Upwind	Note 3	Note 3	Note 3
17-Apr-20	Downwind	Note 3	Note 3	Note 3
20-Apr-20	Upwind	Note 3	Note 3	Note 3
20-Apr-20	Downwind	Note 3	Note 3	Note 3
21-Apr-20	Upwind	Note 3	Note 3	Note 3
21-Apr-20	Downwind	Note 3	Note 3	Note 3
22-Apr-20	Upwind	Note 3	Note 3	Note 3
22-Apr-20	Downwind	Note 3	Note 3	Note 3
23-Apr-20	Upwind	Note 3	Note 3	Note 3
23-Apr-20	Downwind	Note 3	Note 3	Note 3
24-Apr-20	Upwind	Note 3	Note 3	Note 3
24-Apr-20	Downwind	Note 3	Note 3	Note 3
27-Apr-20	Upwind	Note 3	Note 3	Note 3
27-Apr-20	Downwind	Note 3	Note 3	Note 3
28-Apr-20	Upwind	Note 3	Note 3	Note 3
28-Apr-20	Downwind	Note 3	Note 3	Note 3
29-Apr-20	Upwind	9.5	<0.06	No
29-Apr-20	Downwind	9.4	13.9	No
30-Apr-20	Upwind	9.5	5.6	No
30-Apr-20	Downwind	9.6	12.1	No
1-May-20	Upwind	Note 3	Note 3	Note 3
1-May-20	Downwind	Note 3	Note 3	Note 3
4-May-20	Upwind	9.6	15.4	No
4-May-20	Downwind	9.6	27.1	No
5-May-20	Upwind	9.5	10.5	No
5-May-20	Downwind	9.4	26.8	No

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
6-May-20	Upwind	9.6	11.1	No
6-May-20	Downwind	9.5	33.7	No
7-May-20	Upwind	9.4	22.6	No
7-May-20	Downwind	9.5	43.7	No
8-May-20	Upwind	Note 3	Note 3	Note 3
8-May-20	Downwind	Note 3	Note 3	Note 3
11-May-20	Upwind	9.7	9.4	No
11-May-20	Downwind	9.6	17.4	No
12-May-20	Upwind	9.6	6.8	No
12-May-20	Downwind	9.5	13.1	No
13-May-20	Upwind	9.6	7.7	No
13-May-20	Downwind	9.5	10.8	No
14-May-20	Upwind	9.5	5.9	No
14-May-20	Downwind	9.5	10.4	No
15-May-20	Upwind	9.4	10.6	No
15-May-20	Downwind	9.4	13.7	No
18-May-20	Upwind	9.7	5.9	No
18-May-20	Downwind	9.7	14.9	No
19-May-20	Upwind	9.6	11.0	No
19-May-20	Downwind	9.6	6.5	No
20-May-20	Upwind	9.6	11.7	No
20-May-20	Downwind	9.5	19.0	No
21-May-20	Upwind	9.6	14.8	No
21-May-20	Downwind	9.7	22.0	No
22-May-20	Upwind	9.5	4.8	No
22-May-20	Downwind	9.5	11.1	No
25-May-20	Upwind	Note 2	Note 2	Note 2
25-May-20	Downwind	Note 2	Note 2	Note 2
26-May-20	Upwind	9.7	20.9	No
26-May-20	Downwind	9.6	40.1	No
27-May-20	Upwind	9.6	28.8	No
27-May-20	Downwind	9.5	40.5	No
28-May-20	Upwind	9.6	14.1	No
28-May-20	Downwind	9.5	22.5	No
29-May-20	Upwind	9.5	15.5	No
29-May-20	Downwind	9.5	15.3	No
1-Jun-20	Upwind	7.5	24.4	No
1-Jun-20	Downwind	7.4	30.8	No
2-Jun-20	Upwind	7.6	32.9	No
2-Jun-20	Downwind	7.6	45.9	No

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
3-Jun-20	Upwind	7.6	49.1	No
3-Jun-20	Downwind	7.6	75.2	No
4-Jun-20	Upwind	8.6	49.9	No
4-Jun-20	Downwind	7.6	86.7	No
5-Jun-20	Upwind	7.5	31.5	No
5-Jun-20	Downwind	7.5	32.3	No
8-Jun-20	Upwind	9.8	20.0	No
8-Jun-20	Downwind	9.7	25.7	No
9-Jun-20	Upwind	9.7	28.3	No
9-Jun-20	Downwind	9.8	35.7	No
10-Jun-20	Upwind	9.7	26.0	No
10-Jun-20	Downwind	9.8	35.0	No
11-Jun-20	Upwind	9.8	24.8	No
11-Jun-20	Downwind	9.8	32.7	No
12-Jun-20	Upwind	9.6	20.9	No
12-Jun-20	Downwind	9.8	22.0	No
13-Jun-20	Upwind	9.5	20.8	No
13-Jun-20	Downwind	9.6	17.3	No
15-Jun-20	Upwind	9.7	27.8	No
15-Jun-20	Downwind	9.7	31.7	No
16-Jun-20	Upwind	9.8	27.4	No
16-Jun-20	Downwind	9.8	31.7	No
17-Jun-20	Upwind	9.6	33.4	No
17-Jun-20	Downwind	9.7	37.7	No
18-Jun-20	Upwind	9.7	50.3	No
18-Jun-20	Downwind	9.7	68.5	No
19-Jun-20	Upwind	9.8	32.3	No
19-Jun-20	Downwind	9.8	40.6	No
20-Jun-20	Upwind	9.8	23.8	No
20-Jun-20	Downwind	9.8	24.7	No
22-Jun-20	Upwind	9.6	34.5	No
22-Jun-20	Downwind	9.7	43.3	No
23-Jun-20	Upwind	9.7	27.3	No
23-Jun-20	Downwind	9.7	33.7	No
24-Jun-20	Upwind	9.7	28.8	No
24-Jun-20	Downwind	9.7	35.6	No
25-Jun-20	Upwind	9.7	27.3	No
25-Jun-20	Downwind	9.7	30.4	No
26-Jun-20	Upwind	9.6	32.8	No
26-Jun-20	Downwind	9.7	36.8	No

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
27-Jun-20	Upwind	9.7	21.2	No
27-Jun-20	Downwind	9.5	24.0	No
29-Jun-20	Upwind	9.5	41.9	No
29-Jun-20	Downwind	9.6	49.6	No
30-Jun-20	Upwind	9.1	42.9	No
30-Jun-20	Downwind	9.0	100	No
1-Jul-20	Upwind	9.2	55.7	No
1-Jul-20	Downwind	9.3	40.7	No
2-Jul-20	Upwind	9.6	25.9	No
2-Jul-20	Downwind	9.3	26.8	No
6-Jul-20	Upwind	9.1	31.4	No
6-Jul-20	Downwind	9.1	43.1	No
7-Jul-20	Upwind	9.7	29.0	No
7-Jul-20	Downwind	9.7	32.0	No
8-Jul-20	Upwind	9.8	33.7	No
8-Jul-20	Downwind	9.5	32.5	No
9-Jul-20	Upwind	9.4	29.8	No
9-Jul-20	Downwind	9.4	42.5	No
10-Jul-20	Upwind	9.2	10.5	No
10-Jul-20	Downwind	9.1	23.2	No
13-Jul-20	Upwind	6.3	54.3	No
13-Jul-20	Downwind	8.4	168	No
14-Jul-20	Upwind	9.1	62.4	No
14-Jul-20	Downwind	8.8	44.8	No
15-Jul-20	Upwind	9.3	40.2	No
15-Jul-20	Downwind	8.8	39.4	No
16-Jul-20	Upwind	9.1	35.5	No
16-Jul-20	Downwind	8.9	33.0	No
17-Jul-20	Upwind	9.6	28.6	No
17-Jul-20	Downwind	9.2	26.2	No
20-Jul-20	Upwind	9.3	25.4	No
20-Jul-20	Downwind	8.9	23.6	No
21-Jul-20	Upwind	9.5	23.7	No
21-Jul-20	Downwind	9.1	25.9	No
22-Jul-20	Upwind	8.6	13.2	No
22-Jul-20	Downwind	9.1	26.1	No
23-Jul-20	Upwind	9.7	14.4	No
23-Jul-20	Downwind	9.4	30.5	No
24-Jul-20	Upwind	9.8	13.7	No
24-Jul-20	Downwind	9.3	37.5	No

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
27-Jul-20	Upwind	9.8	17.3	No
27-Jul-20	Downwind	9.3	31.3	No
28-Jul-20	Upwind	9.7	16.1	No
28-Jul-20	Downwind	9.4	27.5	No
29-Jul-20	Upwind	9.7	15.9	No
29-Jul-20	Downwind	9.4	26.1	No
30-Jul-20	Upwind	9.8	15.0	No
30-Jul-20	Downwind	9.4	23.7	No
31-Jul-20	Upwind	9.7	15.0	No
31-Jul-20	Downwind	9.3	26.4	No
3-Aug-20	Upwind	9.7	127	No
3-Aug-20	Downwind	9.3	19.9	No
4-Aug-20	Upwind	9.5	34.4	No
4-Aug-20	Downwind	9.2	39.4	No
5-Aug-20	Upwind	9.7	39.9	No
5-Aug-20	Downwind	9.3	41.8	No
6-Aug-20	Upwind	9.7	32.5	No
6-Aug-20	Downwind	9.3	42.3	No
7-Aug-20	Upwind	9.6	49.1	No
7-Aug-20	Downwind	9.3	65.2	No
10-Aug-20	Upwind	8.8	127.0	No
10-Aug-20	Downwind	8.5	19.9	No
11-Aug-20	Upwind	9.8	34.4	No
11-Aug-20	Downwind	9.4	39.4	No
12-Aug-20	Upwind	9.8	39.9	No
12-Aug-20	Downwind	9.4	41.8	No
13-Aug-20	Upwind	9.8	32.5	No
13-Aug-20	Downwind	9.5	42.3	No
14-Aug-20	Upwind	9.8	49.1	No
14-Aug-20	Downwind	9.4	65.2	No
17-Aug-20	Upwind	4.9	28.3	No
17-Aug-20	Downwind	4.7	33.0	No
18-Aug-20	Upwind	8.2	14.6	No
18-Aug-20	Downwind	7.8	28.9	No
19-Aug-20	Upwind	10.7	20.7	No
19-Aug-20	Downwind	10.3	66.4	No
20-Aug-20	Upwind	10.7	13.1	No
20-Aug-20	Downwind	10.3	15.9	No
21-Aug-20	Upwind	10.7	20.2	No
21-Aug-20	Downwind	10.4	46.3	No

**Attachment 1, Table 3: PM10 Air Sampling Results**

Date	Sample Location	Sampling Period (hours)	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM10 Exceedance? (Yes/No)
24-Aug-20	Upwind	7.4	37.3	No
24-Aug-20	Downwind	7.5	64.6	No
25-Aug-20	Upwind	7.6	32.1	No
25-Aug-20	Downwind	8.3	58.4	No
26-Aug-20	Upwind	9.7	16.5	No
26-Aug-20	Downwind	9.4	19.5	No
27-Aug-20	Upwind	7.6	27.9	No
27-Aug-20	Downwind	7.2	24.8	No
28-Aug-20	Upwind	9.8	67.4	No
28-Aug-20	Downwind	9.4	98.1	No

Notes:

Note 1 - Sample not collected due to inclement conditions: Rain.

Note 2 - Samples were not collected as project site was closed for holidays.

Note 3 - Samples were not collected as no excavation was conducted.

Sample locations are shown on Figure 1.

The threshold criteria are as follows: Cal/OSHA PEL = 5,000  $\mu\text{g}/\text{m}^3$

The detection limit for PM10 is 0.06  $\mu\text{g}/\text{m}^3$  assuming a minimum sample volume of 1,600  $\text{m}^3$ .

$\mu\text{g}/\text{m}^3$  - micrograms per cubic meter

N/A - not applicable

PM10 - particulate matter smaller than 10 microns in diameter

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
20-Nov-19	Upwind	9.8	0.0030	No
20-Nov-19	Downwind	9.9	<0.002	No
21-Nov-19	Upwind	7.5	<0.003	No
21-Nov-19	Downwind	7.5	<0.003	No
22-Nov-19	Upwind	8.8	<0.003	No
22-Nov-19	Downwind	8.8	<0.003	No
25-Nov-19	Upwind	8.9	<0.003	No
25-Nov-19	Downwind	8.7	<0.003	No
26-Nov-19	Upwind	7.4	<0.003	No
26-Nov-19	Downwind	7.5	<0.003	No
27-Nov-19	Upwind	Note 1	Note 1	Note 1
27-Nov-19	Downwind	Note 1	Note 1	Note 1
28-Nov-19	Upwind	Note 2	Note 2	Note 2
28-Nov-19	Downwind	Note 2	Note 2	Note 2
29-Nov-19	Upwind	Note 2	Note 2	Note 2
29-Nov-19	Downwind	Note 2	Note 2	Note 2
2-Dec-19	Upwind	Note 3	Note 3	Note 3
2-Dec-19	Downwind	Note 3	Note 3	Note 3
3-Dec-19	Upwind	Note 3	Note 3	Note 3
3-Dec-19	Downwind	Note 3	Note 3	Note 3
4-Dec-19	Upwind	Note 3	Note 3	Note 3
4-Dec-19	Downwind	Note 3	Note 3	Note 3
5-Dec-19	Upwind	Note 3	Note 3	Note 3
5-Dec-19	Downwind	Note 3	Note 3	Note 3
6-Dec-19	Upwind	Note 3	Note 3	Note 3
6-Dec-19	Downwind	Note 3	Note 3	Note 3
9-Dec-19	Upwind	4.3	<0.005	No
9-Dec-19	Downwind	4.1	<0.006	No
10-Dec-19	Upwind	9.4	<0.002	No
10-Dec-19	Downwind	9.4	<0.002	No
11-Dec-19	Upwind	Note 3	Note 3	Note 3
11-Dec-19	Downwind	Note 3	Note 3	Note 3
12-Dec-19	Upwind	Note 3	Note 3	Note 3
12-Dec-19	Downwind	Note 3	Note 3	Note 3
13-Dec-19	Upwind	Note 3	Note 3	Note 3
13-Dec-19	Downwind	Note 3	Note 3	Note 3
16-Dec-19	Upwind	Note 3	Note 3	Note 3
16-Dec-19	Downwind	Note 3	Note 3	Note 3
17-Dec-19	Upwind	Note 3	Note 3	Note 3

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
17-Dec-19	Downwind	Note 3	Note 3	Note 3
18-Dec-19	Upwind	Note 3	Note 3	Note 3
18-Dec-19	Downwind	Note 3	Note 3	Note 3
19-Dec-19	Upwind	Note 3	Note 3	Note 3
19-Dec-19	Downwind	Note 3	Note 3	Note 3
20-Dec-19	Upwind	Note 3	Note 3	Note 3
20-Dec-19	Downwind	Note 3	Note 3	Note 3
23-Dec-19	Upwind	7.5	<0.003	No
23-Dec-19	Downwind	7.5	<0.003	No
24-Dec-19	Upwind	6.8	<0.003	No
24-Dec-19	Downwind	6.9	<0.003	No
25-Dec-19	Upwind	Note 2	Note 2	Note 2
25-Dec-19	Downwind	Note 2	Note 2	Note 2
26-Dec-19	Upwind	7.4	<0.003	No
26-Dec-19	Downwind	7.5	<0.003	No
27-Dec-19	Upwind	7.5	<0.003	No
27-Dec-19	Downwind	7.7	<0.003	No
30-Dec-19	Upwind	7.3	<0.003	No
30-Dec-19	Downwind	7.3	<0.003	No
31-Dec-19	Upwind	7.067	<0.003	No
31-Dec-19	Downwind	7.1	0.0	No
1-Jan-20	Upwind	Note 3	Note 3	Note 3
1-Jan-20	Downwind	Note 3	Note 3	Note 3
2-Jan-20	Upwind	Note 3	Note 3	Note 3
2-Jan-20	Downwind	Note 3	Note 3	Note 3
3-Jan-20	Upwind	7.6	<0.003	No
3-Jan-20	Downwind	7.6	<0.003	No
6-Jan-20	Upwind	7.6	<0.003	No
6-Jan-20	Downwind	7.6	<0.003	No
7-Jan-20	Upwind	7.9	<0.003	No
7-Jan-20	Downwind	8.0	<0.003	No
8-Jan-20	Upwind	Note 3	Note 3	Note 3
8-Jan-20	Downwind	Note 3	Note 3	Note 3
9-Jan-20	Upwind	Note 3	Note 3	Note 3
9-Jan-20	Downwind	Note 3	Note 3	Note 3
10-Jan-20	Upwind	Note 3	Note 3	Note 3
10-Jan-20	Downwind	Note 3	Note 3	Note 3
13-Jan-20	Upwind	Note 3	Note 3	Note 3
13-Jan-20	Downwind	Note 3	Note 3	Note 3

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
14-Jan-20	Upwind	Note 3	Note 3	Note 3
14-Jan-20	Downwind	Note 3	Note 3	Note 3
15-Jan-20	Upwind	Note 3	Note 3	Note 3
15-Jan-20	Downwind	Note 3	Note 3	Note 3
16-Jan-20	Upwind	Note 3	Note 3	Note 3
16-Jan-20	Downwind	Note 3	Note 3	Note 3
17-Jan-20	Upwind	Note 3	Note 3	Note 3
17-Jan-20	Downwind	Note 3	Note 3	Note 3
20-Jan-20	Upwind	Note 3	Note 3	Note 3
20-Jan-20	Downwind	Note 3	Note 3	Note 3
21-Jan-20	Upwind	Note 3	Note 3	Note 3
21-Jan-20	Downwind	Note 3	Note 3	Note 3
22-Jan-20	Upwind	Note 3	Note 3	Note 3
22-Jan-20	Downwind	Note 3	Note 3	Note 3
23-Jan-20	Upwind	Note 3	Note 3	Note 3
23-Jan-20	Downwind	Note 3	Note 3	Note 3
24-Jan-20	Upwind	Note 3	Note 3	Note 3
24-Jan-20	Downwind	Note 3	Note 3	Note 3
27-Jan-20	Upwind	Note 3	Note 3	Note 3
27-Jan-20	Downwind	Note 3	Note 3	Note 3
28-Jan-20	Upwind	Note 3	Note 3	Note 3
28-Jan-20	Downwind	Note 3	Note 3	Note 3
29-Jan-20	Upwind	Note 3	Note 3	Note 3
29-Jan-20	Downwind	Note 3	Note 3	Note 3
30-Jan-20	Upwind	Note 3	Note 3	Note 3
30-Jan-20	Downwind	Note 3	Note 3	Note 3
31-Jan-20	Upwind	Note 3	Note 3	Note 3
31-Jan-20	Downwind	Note 3	Note 3	Note 3
3-Feb-20	Upwind	Note 3	Note 3	Note 3
3-Feb-20	Downwind	Note 3	Note 3	Note 3
4-Feb-20	Upwind	Note 3	Note 3	Note 3
4-Feb-20	Downwind	Note 3	Note 3	Note 3
5-Feb-20	Upwind	Note 3	Note 3	Note 3
5-Feb-20	Downwind	Note 3	Note 3	Note 3
6-Feb-20	Upwind	Note 3	Note 3	Note 3
6-Feb-20	Downwind	Note 3	Note 3	Note 3
7-Feb-20	Upwind	Note 3	Note 3	Note 3
7-Feb-20	Downwind	Note 3	Note 3	Note 3
10-Feb-20	Upwind	Note 3	Note 3	Note 3

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
10-Feb-20	Downwind	Note 3	Note 3	Note 3
11-Feb-20	Upwind	7.2	<0.0031	No
11-Feb-20	Downwind	7.2	<0.0031	No
12-Feb-20	Upwind	5.5	<0.0041	No
12-Feb-20	Downwind	5.6	<0.0040	No
13-Feb-20	Upwind	5.3	<0.0043	No
13-Feb-20	Downwind	5.1	<0.0044	No
14-Feb-20	Upwind	7.8	<0.0029	No
14-Feb-20	Downwind	7.7	<0.0029	No
17-Feb-20	Upwind	7.7	<0.0029	No
17-Feb-20	Downwind	7.6	<0.0029	No
18-Feb-20	Upwind	7.0	<0.0032	No
18-Feb-20	Downwind	7.1	<0.0032	No
19-Feb-20	Upwind	3.8	<0.0059	No
19-Feb-20	Downwind	3.9	<0.0058	No
20-Feb-20	Upwind	Note 3	Note 3	Note 3
20-Feb-20	Downwind	Note 3	Note 3	Note 3
21-Feb-20	Upwind	Note 3	Note 3	Note 3
21-Feb-20	Downwind	Note 3	Note 3	Note 3
24-Feb-20	Upwind	Note 3	Note 3	Note 3
24-Feb-20	Downwind	Note 3	Note 3	Note 3
25-Feb-20	Upwind	Note 3	Note 3	Note 3
25-Feb-20	Downwind	Note 3	Note 3	Note 3
26-Feb-20	Upwind	Note 3	Note 3	Note 3
26-Feb-20	Downwind	Note 3	Note 3	Note 3
27-Feb-20	Upwind	Note 3	Note 3	Note 3
27-Feb-20	Downwind	Note 3	Note 3	Note 3
28-Feb-20	Upwind	Note 3	Note 3	Note 3
28-Feb-20	Downwind	Note 3	Note 3	Note 3
2-Mar-20	Upwind	Note 3	Note 3	Note 3
2-Mar-20	Downwind	Note 3	Note 3	Note 3
3-Mar-20	Upwind	Note 3	Note 3	Note 3
3-Mar-20	Downwind	Note 3	Note 3	Note 3
4-Mar-20	Upwind	Note 3	Note 3	Note 3
4-Mar-20	Downwind	Note 3	Note 3	Note 3
5-Mar-20	Upwind	Note 3	Note 3	Note 3
5-Mar-20	Downwind	Note 3	Note 3	Note 3
6-Mar-20	Upwind	Note 3	Note 3	Note 3
6-Mar-20	Downwind	Note 3	Note 3	Note 3

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
9-Mar-20	Upwind	Note 3	Note 3	Note 3
9-Mar-20	Downwind	Note 3	Note 3	Note 3
10-Mar-20	Upwind	Note 3	Note 3	Note 3
10-Mar-20	Downwind	Note 3	Note 3	Note 3
11-Mar-20	Upwind	Note 3	Note 3	Note 3
11-Mar-20	Downwind	Note 3	Note 3	Note 3
12-Mar-20	Upwind	Note 3	Note 3	Note 3
12-Mar-20	Downwind	Note 3	Note 3	Note 3
13-Mar-20	Upwind	Note 3	Note 3	Note 3
13-Mar-20	Downwind	Note 3	Note 3	Note 3
16-Mar-20	Upwind	Note 3	Note 3	Note 3
16-Mar-20	Downwind	Note 3	Note 3	Note 3
17-Mar-20	Upwind	Note 3	Note 3	Note 3
17-Mar-20	Downwind	Note 3	Note 3	Note 3
18-Mar-20	Upwind	Note 3	Note 3	Note 3
18-Mar-20	Downwind	Note 3	Note 3	Note 3
19-Mar-20	Upwind	Note 3	Note 3	Note 3
19-Mar-20	Downwind	Note 3	Note 3	Note 3
20-Mar-20	Upwind	Note 3	Note 3	Note 3
20-Mar-20	Downwind	Note 3	Note 3	Note 3
23-Mar-20	Upwind	Note 3	Note 3	Note 3
23-Mar-20	Downwind	Note 3	Note 3	Note 3
24-Mar-20	Upwind	Note 3	Note 3	Note 3
24-Mar-20	Downwind	Note 3	Note 3	Note 3
25-Mar-20	Upwind	Note 3	Note 3	Note 3
25-Mar-20	Downwind	Note 3	Note 3	Note 3
26-Mar-20	Upwind	Note 3	Note 3	Note 3
26-Mar-20	Downwind	Note 3	Note 3	Note 3
27-Mar-20	Upwind	Note 3	Note 3	Note 3
27-Mar-20	Downwind	Note 3	Note 3	Note 3
30-Mar-20	Upwind	Note 3	Note 3	Note 3
30-Mar-20	Downwind	Note 3	Note 3	Note 3
31-Mar-20	Upwind	Note 3	Note 3	Note 3
31-Mar-20	Downwind	Note 3	Note 3	Note 3
1-Apr-20	Upwind	Note 3	Note 3	Note 3
1-Apr-20	Downwind	Note 3	Note 3	Note 3
2-Apr-20	Upwind	Note 3	Note 3	Note 3
2-Apr-20	Downwind	Note 3	Note 3	Note 3
3-Apr-20	Upwind	Note 3	Note 3	Note 3

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
3-Apr-20	Downwind	Note 3	Note 3	Note 3
6-Apr-20	Upwind	Note 3	Note 3	Note 3
6-Apr-20	Downwind	Note 3	Note 3	Note 3
7-Apr-20	Upwind	Note 3	Note 3	Note 3
7-Apr-20	Downwind	Note 3	Note 3	Note 3
8-Apr-20	Upwind	Note 3	Note 3	Note 3
8-Apr-20	Downwind	Note 3	Note 3	Note 3
9-Apr-20	Upwind	Note 3	Note 3	Note 3
9-Apr-20	Downwind	Note 3	Note 3	Note 3
10-Apr-20	Upwind	Note 3	Note 3	Note 3
10-Apr-20	Downwind	Note 3	Note 3	Note 3
13-Apr-20	Upwind	Note 3	Note 3	Note 3
13-Apr-20	Downwind	Note 3	Note 3	Note 3
14-Apr-20	Upwind	Note 3	Note 3	Note 3
14-Apr-20	Downwind	Note 3	Note 3	Note 3
15-Apr-20	Upwind	Note 3	Note 3	Note 3
15-Apr-20	Downwind	Note 3	Note 3	Note 3
16-Apr-20	Upwind	Note 3	Note 3	Note 3
16-Apr-20	Downwind	Note 3	Note 3	Note 3
17-Apr-20	Upwind	Note 3	Note 3	Note 3
17-Apr-20	Downwind	Note 3	Note 3	Note 3
20-Apr-20	Upwind	Note 3	Note 3	Note 3
20-Apr-20	Downwind	Note 3	Note 3	Note 3
21-Apr-20	Upwind	Note 3	Note 3	Note 3
21-Apr-20	Downwind	Note 3	Note 3	Note 3
22-Apr-20	Upwind	Note 3	Note 3	Note 3
22-Apr-20	Downwind	Note 3	Note 3	Note 3
23-Apr-20	Upwind	Note 3	Note 3	Note 3
23-Apr-20	Downwind	Note 3	Note 3	Note 3
24-Apr-20	Upwind	Note 3	Note 3	Note 3
24-Apr-20	Downwind	Note 3	Note 3	Note 3
27-Apr-20	Upwind	Note 3	Note 3	Note 3
27-Apr-20	Downwind	Note 3	Note 3	Note 3
28-Apr-20	Upwind	Note 3	Note 3	Note 3
28-Apr-20	Downwind	Note 3	Note 3	Note 3
29-Apr-20	Upwind	9.5	0.0026	No
29-Apr-20	Downwind	9.4	<0.0024	No
30-Apr-20	Upwind	9.5	<0.0024	No
30-Apr-20	Downwind	9.6	<0.0023	No

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
1-May-20	Upwind	Note 3	Note 3	Note 3
1-May-20	Downwind	Note 3	Note 3	Note 3
4-May-20	Upwind	9.6	0.0030	No
4-May-20	Downwind	9.6	<0.0024	No
5-May-20	Upwind	9.5	0.0026	No
5-May-20	Downwind	9.4	<0.0024	No
6-May-20	Upwind	9.6	<0.0023	No
6-May-20	Downwind	9.5	<0.0024	No
7-May-20	Upwind	9.4	<0.0024	No
7-May-20	Downwind	9.5	<0.0024	No
8-May-20	Upwind	Note 3	Note 3	Note 3
8-May-20	Downwind	Note 3	Note 3	Note 3
11-May-20	Upwind	9.7	<0.0023	No
11-May-20	Downwind	9.6	<0.0023	No
12-May-20	Upwind	9.6	<0.0023	No
12-May-20	Downwind	9.5	<0.0024	No
13-May-20	Upwind	9.6	<0.0023	No
13-May-20	Downwind	9.5	<0.0024	No
14-May-20	Upwind	9.5	<0.0024	No
14-May-20	Downwind	9.5	<0.0024	No
15-May-20	Upwind	9.4	<0.0024	No
15-May-20	Downwind	9.4	<0.0024	No
18-May-20	Upwind	9.7	<0.0023	No
18-May-20	Downwind	9.7	<0.0023	No
19-May-20	Upwind	9.6	<0.0023	No
19-May-20	Downwind	9.6	<0.0023	No
20-May-20	Upwind	9.6	<0.0023	No
20-May-20	Downwind	9.5	0.0030	No
21-May-20	Upwind	9.6	<0.0023	No
21-May-20	Downwind	9.7	<0.0023	No
22-May-20	Upwind	9.5	<0.0024	No
22-May-20	Downwind	9.5	<0.0024	No
25-May-20	Upwind	Note 2	Note 2	Note 2
25-May-20	Downwind	Note 2	Note 2	Note 2
26-May-20	Upwind	9.7	0.0038	No
26-May-20	Downwind	9.6	<0.0023	No
27-May-20	Upwind	9.6	0.0066	No
27-May-20	Downwind	9.5	<0.0024	No
28-May-20	Upwind	9.6	0.0068	No

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
28-May-20	Downwind	9.5	<0.0024	No
29-May-20	Upwind	9.5	<0.0024	No
29-May-20	Downwind	9.5	0.0125	No
1-Jun-20	Upwind	7.5	0.0038	No
1-Jun-20	Downwind	7.4	<0.0030	No
2-Jun-20	Upwind	7.6	<0.0030	No
2-Jun-20	Downwind	7.6	0.0035	No
3-Jun-20	Upwind	7.6	0.0059	No
3-Jun-20	Downwind	7.6	<0.0030	No
4-Jun-20	Upwind	8.6	0.0045	No
4-Jun-20	Downwind	7.6	<0.0030	No
5-Jun-20	Upwind	7.5	0.0033	No
5-Jun-20	Downwind	7.5	<0.0030	No
8-Jun-20	Upwind	9.8	0.0046	No
8-Jun-20	Downwind	9.7	<0.0023	No
9-Jun-20	Upwind	9.7	<0.0023	No
9-Jun-20	Downwind	9.8	0.0029	No
10-Jun-20	Upwind	9.7	0.0040	No
10-Jun-20	Downwind	9.8	<0.0023	No
11-Jun-20	Upwind	9.8	0.0126	No
11-Jun-20	Downwind	9.8	0.0033	No
12-Jun-20	Upwind	9.6	0.0047	No
12-Jun-20	Downwind	9.8	0.0034	No
13-Jun-20	Upwind	9.5	0.0026	No
13-Jun-20	Downwind	9.6	<0.0023	No
15-Jun-20	Upwind	9.7	0.0070	No
15-Jun-20	Downwind	9.7	0.0039	No
16-Jun-20	Upwind	9.8	0.0059	No
16-Jun-20	Downwind	9.8	0.0092	No
17-Jun-20	Upwind	9.6	0.0026	No
17-Jun-20	Downwind	9.7	<0.0023	No
18-Jun-20	Upwind	9.7	0.0030	No
18-Jun-20	Downwind	9.7	0.0026	No
19-Jun-20	Upwind	9.8	0.0047	No
19-Jun-20	Downwind	9.8	0.0030	No
20-Jun-20	Upwind	9.8	<0.0023	No
20-Jun-20	Downwind	9.8	<0.0023	No
22-Jun-20	Upwind	9.6	0.0116	No
22-Jun-20	Downwind	9.7	<0.0023	No

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
23-Jun-20	Upwind	9.7	0.0026	No
23-Jun-20	Downwind	9.7	<0.0023	No
24-Jun-20	Upwind	9.7	0.0026	No
24-Jun-20	Downwind	9.7	<0.0023	No
25-Jun-20	Upwind	9.7	<0.0023	No
25-Jun-20	Downwind	9.7	<0.0023	No
26-Jun-20	Upwind	9.6	0.0047	No
26-Jun-20	Downwind	9.7	<0.0023	No
27-Jun-20	Upwind	9.7	<0.0023	No
27-Jun-20	Downwind	9.5	0.0052	No
29-Jun-20	Upwind	9.5	0.0026	No
29-Jun-20	Downwind	9.6	0.0043	No
30-Jun-20	Upwind	9.1	0.0066	No
30-Jun-20	Downwind	9.0	0.0046	No
1-Jul-20	Upwind	9.2	0.0049	No
1-Jul-20	Downwind	9.3	0.0031	No
2-Jul-20	Upwind	9.6	<0.0025	No
2-Jul-20	Downwind	9.3	<0.0024	No
6-Jul-20	Upwind	9.1	0.0026	No
6-Jul-20	Downwind	9.1	<0.0024	No
7-Jul-20	Upwind	9.7	<0.0023	No
7-Jul-20	Downwind	9.7	0.0032	No
8-Jul-20	Upwind	9.8	<0.0023	No
8-Jul-20	Downwind	9.5	<0.0023	No
9-Jul-20	Upwind	9.4	0.0026	No
9-Jul-20	Downwind	9.4	<0.0023	No
10-Jul-20	Upwind	9.2	0.0047	No
10-Jul-20	Downwind	9.1	<0.0023	No
13-Jul-20	Upwind	8.5	<0.0026	No
13-Jul-20	Downwind	8.4	0.0047	No
14-Jul-20	Upwind	9.1	0.0066	No
14-Jul-20	Downwind	8.8	<0.0025	No
15-Jul-20	Upwind	9.3	<0.0013	No
15-Jul-20	Downwind	8.8	0.0018	No
16-Jul-20	Upwind	9.1	0.0037	No
16-Jul-20	Downwind	8.9	<0.0023	No
17-Jul-20	Upwind	9.6	0.0044	No
17-Jul-20	Downwind	9.2	<0.0024	No
20-Jul-20	Upwind	9.3	0.0029	No

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
20-Jul-20	Downwind	8.9	<0.0025	No
21-Jul-20	Upwind	9.5	0.0041	No
21-Jul-20	Downwind	9.1	<0.0025	No
22-Jul-20	Upwind	8.6	<0.0026	No
22-Jul-20	Downwind	14.7	<0.0015	No
23-Jul-20	Upwind	15.8	0.0040	No
23-Jul-20	Downwind	16.0	<0.0014	No
24-Jul-20	Upwind	9.7	<0.0023	No
24-Jul-20	Downwind	9.3	0.0024	No
27-Jul-20	Upwind	16.1	0.0034	No
27-Jul-20	Downwind	14.6	<0.0015	No
28-Jul-20	Upwind	16.8	0.0022	No
28-Jul-20	Downwind	16.2	<0.0014	No
29-Jul-20	Upwind	14.9	0.0018	No
29-Jul-20	Downwind	15.1	<0.0015	No
30-Jul-20	Upwind	15.9	0.0026	No
30-Jul-20	Downwind	21.7	Note 4	Note 4
31-Jul-20	Upwind	9.7	<0.0023	No
31-Jul-20	Downwind	9.3	<0.0024	No
3-Aug-20	Upwind	17.6	0.0037	No
3-Aug-20	Downwind	14.6	0.0020	No
4-Aug-20	Upwind	17.5	0.0016	No
4-Aug-20	Downwind	17.0	<0.0013	No
5-Aug-20	Upwind	15.7	0.0034	No
5-Aug-20	Downwind	14.1	<0.0016	No
6-Aug-20	Upwind	16.6	0.0027	No
6-Aug-20	Downwind	15.3	0.0020	No
7-Aug-20	Upwind	9.6	0.0040	No
7-Aug-20	Downwind	9.3	<0.0024	No
10-Aug-20	Upwind	16.1	0.0039	No
10-Aug-20	Downwind	16.3	<0.0014	No
11-Aug-20	Upwind	14.9	0.0020	No
11-Aug-20	Downwind	15.5	<0.0014	No
12-Aug-20	Upwind	8.9	0.0118	No
12-Aug-20	Downwind	15.6	<0.0014	No
13-Aug-20	Upwind	16.6	0.0022	No
13-Aug-20	Downwind	15.4	<0.0015	No
14-Aug-20	Upwind	16.9	0.0017	No
14-Aug-20	Downwind	16.4	<0.0014	No

**Attachment 1, Table 4: Asbestos Sampling Results**

Date	Sample Location	Sampling Period (hours)	Asbestos (fibers/cm <sup>3</sup> )	Asbestos Exceedance? (Yes/No)
17-Aug-20	Upwind	17.4	0.0031	No
17-Aug-20	Downwind	17.7	<0.0013	No
18-Aug-20	Upwind	14.4	0.0053	No
18-Aug-20	Downwind	14.0	0.0019	No
19-Aug-20	Upwind	9.8	0.0138	No
19-Aug-20	Downwind	16.5	0.0027	No
20-Aug-20	Upwind	17.5	0.0056	No
20-Aug-20	Downwind	16.3	0.0026	No
21-Aug-20	Upwind	17.9	0.0014	No
21-Aug-20	Downwind	17.3	<0.0013	No
24-Aug-20	Upwind	15.9	0.0034	No
24-Aug-20	Downwind	15.1	<0.0015	No
25-Aug-20	Upwind	17.6	0.0029	No
25-Aug-20	Downwind	15.8	<0.0014	No
26-Aug-20	Upwind	12.4	<0.0018	No
26-Aug-20	Downwind	13.4	<0.0017	No
27-Aug-20	Upwind	16.1	0.0017	No
27-Aug-20	Downwind	14.8	<0.0015	No
28-Aug-20	Upwind	9.8	0.0059	No
28-Aug-20	Downwind	9.5	<0.0024	No

Notes:

Note 1 - Sample not collected due to inclement weather conditions: Rain.

Note 2 - Samples were not collected as project site was closed for holidays.

Note 3 - Samples were not collected as no excavation was conducted.

Note 4 - Filter cartridge damaged, no Asbestos result.

Sample locations are shown on Figure 1.

The threshold value for asbestos is 0.1 fibers/cm<sup>3</sup>.

The detection limit is 0.003 fibers/cm<sup>3</sup> assuming a minimum sample volume of 900 liters.

fibers/cm<sup>3</sup> - fibers per cubic centimeter

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**ATTACHMENT 2**  
**ANALYTICAL LABORATORY REPORTS**

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## Environment Testing America



# ANALYTICAL REPORT

Eurofins Calscience LLC  
7440 Lincoln Way  
Garden Grove, CA 92841  
Tel: (714)895-5494

Laboratory Job ID: 570-35656-1  
Client Project/Site: HPNS - Parcel E / 500712

For:  
Aptim Federal Services LLC  
Hunters Point Shipyard  
200 Fisher Blvd  
San Francisco, California 94124

Attn: Rose Condit

Authorized for release by:  
8/26/2020 12:04:00 AM  
Terri Chang, Project Manager I  
(714)895-5494  
[Terri.Chang@eurofinset.com](mailto:Terri.Chang@eurofinset.com)

### LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Definitions/Glossary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
L	A negative instrument reading had an absolute value greater than the reporting limit

## Glossary

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

# Case Narrative

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## Job ID: 570-35656-1

Laboratory: Eurofins Calscience LLC

### Narrative

#### Job Narrative 570-35656-1

### Comments

No additional comments.

### Receipt

The samples were received on 8/12/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 22.0° C.

### Metals

Method 6010B: The absolute response for Arsenic was greater than the method reporting limit (RL) in the following samples: PE-TSP080520-B606DOWNWIND (570-35656-22) and PE-TSP080620-B606DOWNWIND (570-35656-26). The instrument raw data has been manually reviewed and the result can be reported as ND.

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

### General Chemistry

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

### Lab Admin

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

### Subcontract Work

Method Asbestos - Low Flow: This method was subcontracted to EMSL - LA Testing - Huntington Beach. The subcontract laboratory certification is different from that of the facility issuing the final report.

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: PE-TSP080320-B606UPWIND**

**Date Collected: 08/03/20 07:00**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:11	08/21/20 20:57	1
Lead	15.9		12.0	3.16	ug/Sample		08/18/20 19:11	08/21/20 20:57	1
Manganese	18.4		6.00	3.34	ug/Sample		08/18/20 19:11	08/21/20 20:57	1

**Lab Sample ID: 570-35656-13**

**Matrix: Air**

**Client Sample ID: PE-TSP080320-B606DOWNWIND**

**Date Collected: 08/03/20 07:10**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 20:59	1
Lead	29.4		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 20:59	1
Manganese	38.0		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 20:59	1

**Lab Sample ID: 570-35656-14**

**Matrix: Air**

**Client Sample ID: PE-TSP080420-B606UPWIND**

**Date Collected: 08/04/20 07:08**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 21:01	1
Lead	23.2		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 21:01	1
Manganese	18.0		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 21:01	1

**Lab Sample ID: 570-35656-17**

**Matrix: Air**

**Client Sample ID: PE-TSP080420-B606UDOWNWIND**

**Date Collected: 08/04/20 07:17**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 21:03	1
Lead	22.5		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 21:03	1
Manganese	12.2		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 21:03	1

**Lab Sample ID: 570-35656-18**

**Matrix: Air**

**Client Sample ID: PE-TSP080520-B606UPWIND**

**Date Collected: 08/05/20 07:01**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 21:06	1
Lead	22.7		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 21:06	1
Manganese	23.4		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 21:06	1

**Lab Sample ID: 570-35656-21**

**Matrix: Air**

**Client Sample ID: PE-TSP080520-B606DOWNWIND**

**Date Collected: 08/05/20 07:15**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	L	18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 21:08	1
Lead	18.8		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 21:08	1
Manganese	13.1		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 21:08	1

**Lab Sample ID: 570-35656-22**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: PE-TSP080620-B606UPWIND**

**Date Collected: 08/06/20 07:01**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 21:11	1
Lead	20.3		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 21:11	1
Manganese	15.4		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 21:11	1

**Lab Sample ID: 570-35656-25**

**Matrix: Air**

**Client Sample ID: PE-TSP080620-B606DOWNWIND**

**Date Collected: 08/06/20 07:11**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	L	18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 21:13	1
Lead	24.6		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 21:13	1
Manganese	14.1		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 21:13	1

**Lab Sample ID: 570-35656-26**

**Matrix: Air**

**Client Sample ID: PE-TSP080720-B606UPWIND**

**Date Collected: 08/07/20 07:05**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 21:15	1
Lead	22.7		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 21:15	1
Manganese	12.5		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 21:15	1

**Lab Sample ID: 570-35656-29**

**Matrix: Air**

**Client Sample ID: PE-TSP080720-B606DOWNWIND**

**Date Collected: 08/07/20 07:15**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:34	08/21/20 21:17	1
Lead	17.0		12.0	3.16	ug/Sample		08/18/20 19:34	08/21/20 21:17	1
Manganese	15.0		6.00	3.34	ug/Sample		08/18/20 19:34	08/21/20 21:17	1

**Lab Sample ID: 570-35656-30**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## General Chemistry

**Client Sample ID: PE-TSP080320-B606UPWIND**

**Date Collected: 08/03/20 07:00**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	56.9		4.57	4.57	ug/m3	D		08/17/20 15:15	1

**Lab Sample ID: 570-35656-13**

**Matrix: Air**

**Client Sample ID: PE-TSP080320-B606DOWNWIND**

**Date Collected: 08/03/20 07:10**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	88.3		4.73	4.73	ug/m3	D		08/17/20 15:15	1

**Lab Sample ID: 570-35656-14**

**Matrix: Air**

**Client Sample ID: PE\_PM10080320-B606UPWIND**

**Date Collected: 08/03/20 07:00**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	127		4.53	NaN	ug/m3	D		08/17/20 14:28	1

**Lab Sample ID: 570-35656-15**

**Matrix: Air**

**Client Sample ID: PE\_PM10080320-B606DOWNWIND**

**Date Collected: 08/03/20 07:10**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	19.9		4.73	NaN	ug/m3	D		08/17/20 14:28	1

**Lab Sample ID: 570-35656-16**

**Matrix: Air**

**Client Sample ID: PE-TSP080420-B606UPWIND**

**Date Collected: 08/04/20 07:08**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	50.3		4.63	4.63	ug/m3	D		08/17/20 15:15	1

**Lab Sample ID: 570-35656-17**

**Matrix: Air**

**Client Sample ID: PE-TSP080420-B606UDOWNWIND**

**Date Collected: 08/04/20 07:17**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	45.8		4.79	4.79	ug/m3	D		08/17/20 15:15	1

**Lab Sample ID: 570-35656-18**

**Matrix: Air**

**Client Sample ID: PE\_PM10080420-B606UPWIND**

**Date Collected: 08/04/20 07:08**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	34.4		4.63	NaN	ug/m3	D		08/17/20 14:28	1

**Lab Sample ID: 570-35656-19**

**Matrix: Air**

**Client Sample ID: PE\_PM10080420-B606DOWNWIND**

**Date Collected: 08/04/20 07:17**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	39.4		4.79	NaN	ug/m3	D		08/17/20 14:28	1

**Lab Sample ID: 570-35656-20**

**Matrix: Air**

Eurofins Calscience LLC

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## General Chemistry

**Client Sample ID: PE-TSP080520-B606UPWIND**

**Date Collected: 08/05/20 07:01**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	74.1		4.57	4.57	ug/m3	D		08/17/20 15:15	1

**Lab Sample ID: 570-35656-21**

**Matrix: Air**

**Client Sample ID: PE-TSP080520-B606DOWNWIND**

**Date Collected: 08/05/20 07:15**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	39.1		4.77	4.77	ug/m3	D		08/17/20 15:15	1

**Lab Sample ID: 570-35656-22**

**Matrix: Air**

**Client Sample ID: PE\_PM10080520-B606UPWIND**

**Date Collected: 08/05/20 07:01**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	39.9		4.57	NaN	ug/m3	D		08/17/20 14:28	1

**Lab Sample ID: 570-35656-23**

**Matrix: Air**

**Client Sample ID: PE\_PM10080520-B606DOWNWIND**

**Date Collected: 08/05/20 07:15**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	41.8		4.77	NaN	ug/m3	D		08/17/20 14:28	1

**Lab Sample ID: 570-35656-24**

**Matrix: Air**

**Client Sample ID: PE-TSP080620-B606UPWIND**

**Date Collected: 08/06/20 07:01**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	49.9		4.57	4.57	ug/m3	D		08/17/20 15:15	1

**Lab Sample ID: 570-35656-25**

**Matrix: Air**

**Client Sample ID: PE-TSP080620-B606DOWNWIND**

**Date Collected: 08/06/20 07:11**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	45.2		4.74	4.74	ug/m3	D		08/17/20 15:15	1

**Lab Sample ID: 570-35656-26**

**Matrix: Air**

**Client Sample ID: PE\_PM10080620-B606UPWIND**

**Date Collected: 08/06/20 07:01**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	32.5		4.57	NaN	ug/m3	D		08/17/20 14:28	1

**Lab Sample ID: 570-35656-27**

**Matrix: Air**

**Client Sample ID: PE\_PM10080620-B606DOWNWIND**

**Date Collected: 08/06/20 07:11**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	42.3		4.74	NaN	ug/m3	D		08/17/20 14:28	1

**Lab Sample ID: 570-35656-28**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## General Chemistry

**Client Sample ID: PE-TSP080720-B606UPWIND**

**Date Collected: 08/07/20 07:05**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	66.9		4.61	4.61	ug/m3			08/17/20 15:15	1

**Lab Sample ID: 570-35656-29**

**Matrix: Air**

**Client Sample ID: PE-TSP080720-B606DOWNWIND**

**Date Collected: 08/07/20 07:15**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	75.6		4.77	4.77	ug/m3			08/17/20 15:15	1

**Lab Sample ID: 570-35656-30**

**Matrix: Air**

**Client Sample ID: PE\_PM10080720-B606UPWIND**

**Date Collected: 08/07/20 07:05**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	49.1		4.61	NaN	ug/m3			08/17/20 14:28	1

**Lab Sample ID: 570-35656-31**

**Matrix: Air**

**Client Sample ID: PE\_PM10080720-B606DOWNWIND**

**Date Collected: 08/07/20 07:15**

**Date Received: 08/12/20 10:30**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	65.2		4.77	NaN	ug/m3			08/17/20 14:28	1

**Lab Sample ID: 570-35656-32**

**Matrix: Air**

# QC Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 570-88709/1-A**

**Matrix: Air**

**Analysis Batch: 88680**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 88709**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/18/20 19:10	08/19/20 00:11	1
Lead	ND		12.0	3.16	ug/Sample		08/18/20 19:10	08/19/20 00:11	1
Manganese	ND		6.00	3.34	ug/Sample		08/18/20 19:10	08/19/20 00:11	1

**Lab Sample ID: LCS 570-88709/2-A**

**Matrix: Air**

**Analysis Batch: 88680**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 88709**

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
								Limits	
Arsenic		600	567.2		ug/Sample		94	80 - 120	
Lead		600	601.0		ug/Sample		100	80 - 120	
Manganese		600	591.0		ug/Sample		98	80 - 120	

**Lab Sample ID: LCSD 570-88709/3-A**

**Matrix: Air**

**Analysis Batch: 88680**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 88709**

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
								Limits			
Arsenic		600	566.9		ug/Sample		94	80 - 120	0	20	
Lead		600	598.5		ug/Sample		100	80 - 120	0	20	
Manganese		600	590.5		ug/Sample		98	80 - 120	0	20	

**Lab Sample ID: 570-35217-A-13-D MS**

**Matrix: Air**

**Analysis Batch: 88680**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

**Prep Batch: 88709**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	
								Limits		
Arsenic	6.74	J	600	561.1		ug/Sample		92	75 - 125	
Lead	9.58	J	600	604.8		ug/Sample		99	75 - 125	
Manganese	11.4		600	592.4		ug/Sample		97	75 - 125	

**Lab Sample ID: 570-35217-A-13-E MSD**

**Matrix: Air**

**Analysis Batch: 88680**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 88709**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
								Limits				
Arsenic	6.74	J	600	572.8		ug/Sample		94	75 - 125	2	20	
Lead	9.58	J	600	607.7		ug/Sample		100	75 - 125	0	20	
Manganese	11.4		600	600.8		ug/Sample		98	75 - 125	1	20	

## Method: 40CFR50 App B - Suspended Particulate Matter in Ambient Air

**Lab Sample ID: MB 570-88387/1-A**

**Matrix: Air**

**Analysis Batch: 88403**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	ND		1.23	1.23	ug/m3		08/17/20 15:15		1

Eurofins Calscience LLC

# QC Sample Results

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## Method: 40CFR50 App B - Suspended Particulate Matter in Ambient Air (Continued)

**Lab Sample ID: 570-35656-13 DU**

**Matrix: Air**

**Analysis Batch: 88403**

**Client Sample ID: PE-TSP080320-B606UPWIND**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Particulates	56.9		56.93		ug/m3		0	25

## Method: PM10 - Particulate Matter

**Lab Sample ID: MB 570-88389/1**

**Matrix: Air**

**Analysis Batch: 88389**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	ND		1.23	1.23	ug/m3			08/17/20 14:28	1

**Lab Sample ID: 570-35656-15 DU**

**Matrix: Air**

**Analysis Batch: 88389**

**Client Sample ID: PE\_PM10080320-B606UPWIND**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Particulate Matter	127		127.1		ug/m3		0	25

# QC Association Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## Metals

### Analysis Batch: 88680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-88709/1-A	Method Blank	Total/NA	Air	6010B	88709
LCS 570-88709/2-A	Lab Control Sample	Total/NA	Air	6010B	88709
LCSD 570-88709/3-A	Lab Control Sample Dup	Total/NA	Air	6010B	88709
570-35217-A-13-D MS	Matrix Spike	Total/NA	Air	6010B	88709
570-35217-A-13-E MSD	Matrix Spike Duplicate	Total/NA	Air	6010B	88709

### Prep Batch: 88709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35656-13	PE-TSP080320-B606UPWIND	Total/NA	Air	3050B	88709
570-35656-14	PE-TSP080320-B606DOWNWIND	Total/NA	Air	3050B	88709
570-35656-17	PE-TSP080420-B606UPWIND	Total/NA	Air	3050B	88709
570-35656-18	PE-TSP080420-B606UDOWNWIND	Total/NA	Air	3050B	88709
570-35656-21	PE-TSP080520-B606UPWIND	Total/NA	Air	3050B	88709
570-35656-22	PE-TSP080520-B606DOWNWIND	Total/NA	Air	3050B	88709
570-35656-25	PE-TSP080620-B606UPWIND	Total/NA	Air	3050B	88709
570-35656-26	PE-TSP080620-B606DOWNWIND	Total/NA	Air	3050B	88709
570-35656-29	PE-TSP080720-B606UPWIND	Total/NA	Air	3050B	88709
570-35656-30	PE-TSP080720-B606DOWNWIND	Total/NA	Air	3050B	88709
MB 570-88709/1-A	Method Blank	Total/NA	Air	3050B	88709
LCS 570-88709/2-A	Lab Control Sample	Total/NA	Air	3050B	88709
LCSD 570-88709/3-A	Lab Control Sample Dup	Total/NA	Air	3050B	88709
570-35217-A-13-D MS	Matrix Spike	Total/NA	Air	3050B	88709
570-35217-A-13-E MSD	Matrix Spike Duplicate	Total/NA	Air	3050B	88709

### Analysis Batch: 89701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35656-13	PE-TSP080320-B606UPWIND	Total/NA	Air	6010B	88709
570-35656-14	PE-TSP080320-B606DOWNWIND	Total/NA	Air	6010B	88709
570-35656-17	PE-TSP080420-B606UPWIND	Total/NA	Air	6010B	88709
570-35656-18	PE-TSP080420-B606UDOWNWIND	Total/NA	Air	6010B	88709
570-35656-21	PE-TSP080520-B606UPWIND	Total/NA	Air	6010B	88709
570-35656-22	PE-TSP080520-B606DOWNWIND	Total/NA	Air	6010B	88709
570-35656-25	PE-TSP080620-B606UPWIND	Total/NA	Air	6010B	88709
570-35656-26	PE-TSP080620-B606DOWNWIND	Total/NA	Air	6010B	88709
570-35656-29	PE-TSP080720-B606UPWIND	Total/NA	Air	6010B	88709
570-35656-30	PE-TSP080720-B606DOWNWIND	Total/NA	Air	6010B	88709

## General Chemistry

### Pre Prep Batch: 88387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35656-13	PE-TSP080320-B606UPWIND	Total/NA	Air	Filter to Air	
570-35656-14	PE-TSP080320-B606DOWNWIND	Total/NA	Air	Filter to Air	
570-35656-17	PE-TSP080420-B606UPWIND	Total/NA	Air	Filter to Air	
570-35656-18	PE-TSP080420-B606UDOWNWIND	Total/NA	Air	Filter to Air	
570-35656-21	PE-TSP080520-B606UPWIND	Total/NA	Air	Filter to Air	
570-35656-22	PE-TSP080520-B606DOWNWIND	Total/NA	Air	Filter to Air	
570-35656-25	PE-TSP080620-B606UPWIND	Total/NA	Air	Filter to Air	
570-35656-26	PE-TSP080620-B606DOWNWIND	Total/NA	Air	Filter to Air	
570-35656-29	PE-TSP080720-B606UPWIND	Total/NA	Air	Filter to Air	
570-35656-30	PE-TSP080720-B606DOWNWIND	Total/NA	Air	Filter to Air	

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# QC Association Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

## General Chemistry (Continued)

### Pre Prep Batch: 88387 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-883871-A	Method Blank	Total/NA	Air	Filter to Air	
570-35656-13 DU	PE-TSP080320-B606UPWIND	Total/NA	Air	Filter to Air	

### Analysis Batch: 88389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35656-15	PE_PM10080320-B606UPWIND	Total/NA	Air	PM10	
570-35656-16	PE_PM10080320-B606DOWNWIND	Total/NA	Air	PM10	
570-35656-19	PE_PM10080420-B606UPWIND	Total/NA	Air	PM10	
570-35656-20	PE_PM10080420-B606DOWNWIND	Total/NA	Air	PM10	
570-35656-23	PE_PM10080520-B606UPWIND	Total/NA	Air	PM10	
570-35656-24	PE_PM10080520-B606DOWNWIND	Total/NA	Air	PM10	
570-35656-27	PE_PM10080620-B606UPWIND	Total/NA	Air	PM10	
570-35656-28	PE_PM10080620-B606DOWNWIND	Total/NA	Air	PM10	
570-35656-31	PE_PM10080720-B606UPWIND	Total/NA	Air	PM10	
570-35656-32	PE_PM10080720-B606DOWNWIND	Total/NA	Air	PM10	
MB 570-88389/1	Method Blank	Total/NA	Air	PM10	
570-35656-15 DU	PE_PM10080320-B606UPWIND	Total/NA	Air	PM10	

### Analysis Batch: 88403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35656-13	PE-TSP080320-B606UPWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-14	PE-TSP080320-B606DOWNWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-17	PE-TSP080420-B606UPWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-18	PE-TSP080420-B606UDOWNWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-21	PE-TSP080520-B606UPWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-22	PE-TSP080520-B606DOWNWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-25	PE-TSP080620-B606UPWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-26	PE-TSP080620-B606DOWNWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-29	PE-TSP080720-B606UPWIND	Total/NA	Air	40CFR50 App B	88387
570-35656-30	PE-TSP080720-B606DOWNWIND	Total/NA	Air	40CFR50 App B	88387
MB 570-88387/1-A	Method Blank	Total/NA	Air	40CFR50 App B	88387
570-35656-13 DU	PE-TSP080320-B606UPWIND	Total/NA	Air	40CFR50 App B	88387

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

**Client Sample ID: PE-TSP080320-B606UPWIND**

**Lab Sample ID: 570-35656-13**

Matrix: Air

Date Collected: 08/03/20 07:00

Date Received: 08/12/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:11	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 20:57	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP080320-B606DOWNWIND**

**Lab Sample ID: 570-35656-14**

Matrix: Air

Date Collected: 08/03/20 07:10

Date Received: 08/12/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 20:59	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10080320-B606UPWIND**

**Lab Sample ID: 570-35656-15**

Matrix: Air

Date Collected: 08/03/20 07:00

Date Received: 08/12/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3861 g	4.4703 g	88389	08/17/20 14:28	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10080320-B606DOWNWIND**

**Lab Sample ID: 570-35656-16**

Matrix: Air

Date Collected: 08/03/20 07:10

Date Received: 08/12/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4236 g	4.4362 g	88389	08/17/20 14:28	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP080420-B606UPWIND**

**Lab Sample ID: 570-35656-17**

Matrix: Air

Date Collected: 08/04/20 07:08

Date Received: 08/12/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 21:01	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

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# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

**Client Sample ID: PE-TSP080420-B606UDOWNWIND**

Date Collected: 08/04/20 07:17

Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-18**

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 21:03	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10080420-B606UPWIND**

Date Collected: 08/04/20 07:08

Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-19**

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4214 g	4.4437 g	88389	08/17/20 14:28	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10080420-B606DOWNWIND**

Date Collected: 08/04/20 07:17

Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-20**

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4136 g	4.4383 g	88389	08/17/20 14:28	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP080520-B606UPWIND**

Date Collected: 08/05/20 07:01

Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-21**

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 21:06	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP080520-B606DOWNWIND**

Date Collected: 08/05/20 07:15

Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-22**

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 21:08	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

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# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

**Client Sample ID: PE\_PM10080520-B606UPWIND**  
Date Collected: 08/05/20 07:01  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-23**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4160 g	4.4422 g	88389	08/17/20 14:28	UWCT	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE\_PM10080520-B606DOWNWIND**  
Date Collected: 08/05/20 07:15  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-24**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4112 g	4.4375 g	88389	08/17/20 14:28	UWCT	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE-TSP080620-B606UPWIND**  
Date Collected: 08/06/20 07:01  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-25**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 21:11	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP080620-B606DOWNWIND**  
Date Collected: 08/06/20 07:11  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-26**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 21:13	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10080620-B606UPWIND**  
Date Collected: 08/06/20 07:01  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-27**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3911 g	4.4124 g	88389	08/17/20 14:28	UWCT	ECL 1

Instrument ID: NOEQUIP

Eurofins Calscience LLC

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

**Client Sample ID: PE\_PM10080620-B606DOWNWIND**  
Date Collected: 08/06/20 07:11  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-28**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4291 g	4.4559 g	88389	08/17/20 14:28	UWCT	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE-TSP080720-B606UPWIND**  
Date Collected: 08/07/20 07:05  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-29**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 21:15	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP080720-B606DOWNWIND**  
Date Collected: 08/07/20 07:15  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-30**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	88709	08/18/20 19:34	OYW3	ECL 1
Total/NA	Analysis	6010B		1			89701	08/21/20 21:17	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					88387	08/17/20 14:24	UWCT	ECL 1
Total/NA	Analysis	40CFR50 App B		1			88403	08/17/20 15:15	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10080720-B606UPWIND**  
Date Collected: 08/07/20 07:05  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-31**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3737 g	4.4057 g	88389	08/17/20 14:28	UWCT	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE\_PM10080720-B606DOWNWIND**  
Date Collected: 08/07/20 07:15  
Date Received: 08/12/20 10:30

**Lab Sample ID: 570-35656-32**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4094 g	4.4504 g	88389	08/17/20 14:28	UWCT	ECL 1

Instrument ID: NOEQUIP

## Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

EMSL = EMSL - LA Testing - Huntington Beach, 5431 Industrial Drive, Huntington Beach, CA 92649

Eurofins Calscience LLC

## Accreditation/Certification Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

### Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

## Method Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	ECL 1
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	ECL 1
PM10	Particulate Matter	40CFR50J	ECL 1
NIOSH 7400 Rev	NIOSH 7400 Rev. 3	NIOSH	EMSL
3050B	Preparation, Metals	SW846	ECL 1
Filter to Air	Filter to Air volume ratio	None	ECL 1

### Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and its Supplements

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

EMSL = EMSL - LA Testing - Huntington Beach, 5431 Industrial Drive, Huntington Beach, CA 92649

# Sample Summary

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-35656-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-35656-1	PE-ASB080320-B606UPWIND	Air	08/03/20 07:00	08/12/20 10:30	
570-35656-2	PE-ASB080320-B606DOWNWIND	Air	08/03/20 07:10	08/12/20 10:30	
570-35656-3	PE-ASB080420-B606UPWIND	Air	08/04/20 07:08	08/12/20 10:30	
570-35656-4	PE-ASB080420-B606DOWNWIND	Air	08/04/20 07:14	08/12/20 10:30	
570-35656-5	PE-ASB080520-B606UPWIND	Air	08/05/20 07:01	08/12/20 10:30	
570-35656-6	PE-ASB080520-B606DOWNWIND	Air	08/05/20 07:15	08/12/20 10:30	
570-35656-7	PE-ASB080620-B606UPWIND	Air	08/06/20 07:00	08/12/20 10:30	
570-35656-8	PE-ASB080620-B606DOWNWIND	Air	08/06/20 07:11	08/12/20 10:30	
570-35656-9	PE-ASB080720-B606UPWIND	Air	08/07/20 07:05	08/12/20 10:30	
570-35656-10	PE-ASB080720-B606DOWNWIND	Air	08/07/20 07:15	08/12/20 10:30	
570-35656-11	PE-ASB-BLANK-B606UPWIND	Air	08/07/20 07:05	08/12/20 10:30	
570-35656-12	PE-ASB-BLANK-B606DOWNWIND	Air	08/07/20 07:15	08/12/20 10:30	
570-35656-13	PE-TSP080320-B606UPWIND	Air	08/03/20 07:00	08/12/20 10:30	
570-35656-14	PE-TSP080320-B606DOWNWIND	Air	08/03/20 07:10	08/12/20 10:30	
570-35656-15	PE_PM10080320-B606UPWIND	Air	08/03/20 07:00	08/12/20 10:30	
570-35656-16	PE_PM10080320-B606DOWNWIND	Air	08/03/20 07:10	08/12/20 10:30	
570-35656-17	PE-TSP080420-B606UPWIND	Air	08/04/20 07:08	08/12/20 10:30	
570-35656-18	PE-TSP080420-B606UDOWNWIND	Air	08/04/20 07:17	08/12/20 10:30	
570-35656-19	PE_PM10080420-B606UPWIND	Air	08/04/20 07:08	08/12/20 10:30	
570-35656-20	PE_PM10080420-B606DOWNWIND	Air	08/04/20 07:17	08/12/20 10:30	
570-35656-21	PE-TSP080520-B606UPWIND	Air	08/05/20 07:01	08/12/20 10:30	
570-35656-22	PE-TSP080520-B606DOWNWIND	Air	08/05/20 07:15	08/12/20 10:30	
570-35656-23	PE_PM10080520-B606UPWIND	Air	08/05/20 07:01	08/12/20 10:30	
570-35656-24	PE_PM10080520-B606DOWNWIND	Air	08/05/20 07:15	08/12/20 10:30	
570-35656-25	PE-TSP080620-B606UPWIND	Air	08/06/20 07:01	08/12/20 10:30	
570-35656-26	PE-TSP080620-B606DOWNWIND	Air	08/06/20 07:11	08/12/20 10:30	
570-35656-27	PE_PM10080620-B606UPWIND	Air	08/06/20 07:01	08/12/20 10:30	
570-35656-28	PE_PM10080620-B606DOWNWIND	Air	08/06/20 07:11	08/12/20 10:30	
570-35656-29	PE-TSP080720-B606UPWIND	Air	08/07/20 07:05	08/12/20 10:30	
570-35656-30	PE-TSP080720-B606DOWNWIND	Air	08/07/20 07:15	08/12/20 10:30	
570-35656-31	PE_PM10080720-B606UPWIND	Air	08/07/20 07:05	08/12/20 10:30	
570-35656-32	PE_PM10080720-B606DOWNWIND	Air	08/07/20 07:15	08/12/20 10:30	



**LA Testing**

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**LA Testing Order:** 332014592

**Customer ID:** 32CAL51

**Customer PO:**

**Project ID:**

**Attention:** Terri Chang  
Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841

**Phone:** (714) 895-5494

**Fax:** (714) 894-7501

**Received Date:** 08/13/2020 02:00 PM

**Analysis Date:** 08/25/2020

**Collected Date:** 08/03/2020 - 08/07/2020

**Project:** HPNS - Parcel E / 500712 / 570-35656

**Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules,  
Revision 3, Issue 3, 6/15/2019**

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm <sup>2</sup>	Fibers/cc	Notes
PE-ASB080320-B606UPW IND (570-35656-1) 332014592-0001		08/03/2020	2118.54	16	100	0.0013	20.4	0.0037	
PE-ASB080320-B606DOW NWIND (570-35656-2) 332014592-0002		08/03/2020	1754	7	100	0.0015	8.92	0.0020	
PE-ASB080420-B606UPW IND (570-35656-3) 332014592-0003		08/04/2020	2096	7	100	0.0013	8.92	0.0016	
PE-ASB080420-B606DOW NWIND (570-35656-4) 332014592-0004		08/04/2020	2052.21	<5.5	100	0.0013	<7.01	<0.0013	
PE-ASB080520-B606UPW IND (570-35656-5) 332014592-0005		08/05/2020	1891.41	13	100	0.0014	16.6	0.0034	
PE-ASB080520-B606DOW NWIND (570-35656-6) 332014592-0006		08/05/2020	1688	<5.5	100	0.0016	<7.01	<0.0016	
PE-ASB080620-B606UPW IND (570-35656-7) 332014592-0007		08/06/2020	1986	11	100	0.0014	14.0	0.0027	Sample pulled for 10% duplicate count.
PE-ASB080620-B606DOW NWIND (570-35656-8) 332014592-0008		08/06/2020	1838	7.5	100	0.0015	9.55	0.0020	
PE-ASB080720-B606UPW IND (570-35656-9) 332014592-0009		08/07/2020	1155.75	9.5	100	0.0023	12.1	0.0040	
PE-ASB080720-B606DOW NWIND (570-35656-10) 332014592-0010		08/07/2020	1114	<5.5	100	0.0024	<7.01	<0.0024	
PE-ASB-BLANK-B606UP WIND (570-35656-11) 332014592-0011		08/07/2020		<5.5	100		<7.01		Field Blank
PE-ASB-BLANK-B606DO WNWIND (570-35656-12) 332014592-0012		08/07/2020		<5.5	100		<7.01		Field Blank
PE-ASB080620-B606UPW IND (570-35656-7)		08/06/2020	1986	12.5	100	0.0014	15.9	0.0031	10% Duplicate.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Limit of detection is 7 fibers/mm<sup>2</sup>. Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm<sup>2</sup>) have greater than optimal variability and are probably biased. Field blank results, when available, are used to blank correct results. NIOSH 7400 requires field blanks be submitted at a rate of 10%, with a minimum of 2 per set. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAC standards unless otherwise noted.

Intra-laboratory Sr values: 5-20 fibers = 0.35, 21-50 fibers = 0.24, 51-100 fibers = 0.19. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34.  
Samples analyzed by LA Testing Huntington Beach, CAAIHA-LAP, LLC-IHLAP Accredited #101650

Initial report from: 08/25/2020 12:47 PM



# LA Testing

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LA Testing Order: 332014592

Customer ID: 32CAL51

Customer PO:

Project ID:

Attention: Terri Chang  
Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841

Phone: (714) 895-5494

Fax: (714) 894-7501

Received Date: 08/13/2020 02:00 PM

Analysis Date: 08/25/2020

Collected Date: 08/03/2020 - 08/07/2020

Project: HPNS - Parcel E / 500712 / 570-35656

## Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/15/2019

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm <sup>2</sup>	Fibers/cc	Notes
332014592-0013									

The results reported have been blank corrected as applicable.

Analyst(s):

Dennies Ly PCM 13

Michael Chapman, Laboratory Manager  
or other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Limit of detection is 7 fibers/mm<sup>2</sup>. Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm<sup>2</sup>) have greater than optimal variability and are probably biased. Field blank results, when available, are used to blank correct results. NIOSH 7400 requires field blanks be submitted at a rate of 10%, with a minimum of 2 per set. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAC standards unless otherwise noted.

Intra-laboratory Sr values: 5-20 fibers = 0.35, 21-50 fibers = 0.24, 51-100 fibers = 0.19. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34.

Samples analyzed by LA Testing Huntington Beach, CAAIHA-LAP, LLC-IHLAP Accredited #101650

Initial report from: 08/25/2020 12:47 PM





*APTIM Federal Services, LLC  
4005 Port Chicago Hwy  
Concord, CA 94520*

## CHAIN OF CUSTODY

Ref. Document #

CTO 0024 - AIR 019

Page 2 of 2

Send Report To: *Edgar Ruiz*  
Phone/Fax Number: *8056808279*  
Address: *4005 Port Chicago Hwy*  
City: *Concord, CA 94520*

Project Number: 500712

Project Name: HPNS - Parcel E

Project Location: San Francisco, CA

Lab Destination: Calscience

7440 Lincoln Way

Garden Grove CA 92841

Lab Contact: Terri Chang

edgar.ruiz@aptim.com

Sampler's Name(s): ER

### Collection Information

Sample ID Number	Lot No.	Date	Time	Method	Matrix	# of containers	Container Type	PCB (EPA 8032 / TO-04)	PAH (EPA 8270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Subpt J; BAAQMD Reg 6)	TSP, Mn, Pb, As (40 CFR 50 App B; NIOSH 2000)	Flow Rate (L/min.)	Sample Volume (m³)
PE-TSP080320-B606UPWIND	847	08/03/20	7:00	G	A	1	8X10 EPM Whatman				X	1132.80	657.0	
PE-TSP08020-B606DOWNWIND	848	08/03/20	7:10	G	A	1	8X10 EPM Whatman				X	1132.80	634.4	
PE_PM10080320-B606UPWIND	Q0398964	08/03/20	7:00	G	A	1	8X10 EPM Whatman			X		1132.80	662.7	
PE_PM10080320-B606DOWNWIND	Q0398965	08/03/20	7:10	G	A	1	8X10 EPM Whatman			X		1132.80	634.4	
PE-TSP080420-B606UPWIND	849	08/04/20	7:08	G	A	1	8X10 EPM Whatman				X	1132.80	648.0	
PE-TSP080420-B606DOWNWIND	850	08/04/20	7:17	G	A	1	8X10 EPM Whatman				X	1132.80	626.4	
PE_PM10080420-B606UPWIND	Q0398967	08/04/20	7:08	G	A	1	8X10 EPM Whatman			X		1132.80	648.0	
PE_PM10080420-B606DOWNWIND	Q0398968	08/04/20	7:17	G	A	1	8X10 EPM Whatman			X		1132.80	626.4	
PE-TSP080520-B606UPWIND	851	08/05/20	7:01	G	A	1	8X10 EPM Whatman				X	1132.80	655.9	
PE-TSP080520-B606DOWNWIND	852	08/05/20	7:15	G	A	1	8X10 EPM Whatman				X	1132.80	628.7	
PE_PM10080520-B606UPWIND	Q0398969	08/05/20	7:01	G	A	1	8X10 EPM Whatman			X		1132.80	655.9	
PE_PM10080520-B606DOWNWIND	Q0398970	08/05/20	7:15	G	A	1	8X10 EPM Whatman			X		1132.80	628.7	
PE-TSP080620-B606UPWIND	853	08/06/20	7:01	G	A	1	8X10 EPM Whatman				X	1132.80	655.9	
PE-TSP080620-B606DOWNWIND	854	08/06/20	7:11	G	A	1	8X10 EPM Whatman				X	1132.80	633.2	
PE_PM10080620-B606UPWIND	Q0398971	08/06/20	7:01	G	A	1	8X10 EPM Whatman			X		1132.80	655.9	
PE_PM10080620-B606DOWNWIND	Q0398972	08/06/20	7:11	G	A	1	8X10 EPM Whatman			X		1132.80	633.2	
PE-TSP080720-B606UPWIND	855	08/07/20	7:05	G	A	1	8X10 EPM Whatman				X	1132.80	651.4	
PE-TSP080720-B606DOWNWIND	856	08/07/20	7:15	G	A	1	8X10 EPM Whatman				X	1132.80	628.7	
PE_PM10080720-B606UPWIND	Q0398975	08/07/20	7:05	G	A	1	8X10 EPM Whatman			X		1132.80	651.4	
PE_PM10080720-B606DOWNWIND	Q0398974	08/07/20	7:15	G	A	1	8X10 EPM Whatman			X		1132.80	628.7	

PROJECT NAME: HPNS Parcel E PROJ. NO. 500712 Asbestos TSP PM-10

## STATION

COC# 019

SAMPLE NO. PE-TSP080320-B606UPWIND

8/3/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
847	40.0	40.0	40.0	8/03/20 07:00	8/03/20 16:40	580	657.0	TSP	1132.80

SAMPLE NO. PE-TSP08020-B606DOWNWIND

8/3/2020 Building 606 Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
848	40.0	40.0	40.0	8/03/20 07:10	8/03/20 16:30	560	634.4	TSP	1132.80

SAMPLE NO. PE PM10080320-B606UPWIND

8/3/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398964	40.0	40.0	40.0	8/03/20 07:00	8/03/20 16:45	585	662.7	PM-10	1132.80

SAMPLE NO. PE PM10080320-B606DOWNWIND

8/3/2020 Building 606 Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398965	40.0	40.0	40.0	8/03/20 07:10	8/03/20 16:30	560	634.4	PM-10	1132.80

SAMPLE NO. PE-TSP080420-B606UPWIND

8/4/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
849	40.0	40.0	40.0	8/04/20 07:08	8/04/20 16:40	572	648.0	TSP	1132.80

SAMPLE NO. PE-TSP080420-B606DOWNWIND

8/4/2020 Building 606 Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
850	40.0	40.0	40.0	8/04/20 07:17	8/04/20 16:30	553	626.4	TSP	1132.80

SAMPLE NO. PE PM10080420-B606UPWIND

8/4/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398967	40.0	40.0	40.0	8/04/20 07:08	8/04/20 16:40	572	648.0	PM-10	1132.80

SAMPLE NO. PE PM10080420-B606DOWNWIND

8/4/2020 Building 606 Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398968	40.0	40.0	40.0	8/04/20 07:17	8/04/20 16:30	553	626.4	PM-10	1132.80

35656

SAMPLE NO.	PE-TSP080520-B606UPWIND					8/5/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
851	40.0	40.0	40.0	8/05/20 07:01	8/05/20 16:40	579	655.9	TSP	1132.80

SAMPLE NO.	PE-TSP080520-B606DOWNWIND					8/5/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
852	40.0	40.0	40.0	8/05/20 07:15	8/05/20 16:30	555	628.7	TSP	1132.80

SAMPLE NO.	PE PM10080520-B606UPWIND					8/5/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398969	40.0	40.0	40.0	8/05/20 07:01	8/05/20 16:40	579	655.9	PM-10	1132.80

SAMPLE NO.	PE PM10080520-B606DOWNWIND					8/5/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398970	40.0	40.0	40.0	8/05/20 07:15	8/05/20 16:30	555	628.7	PM-10	1132.80

SAMPLE NO.	PE-TSP080620-B606UPWIND					8/6/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
853	40.0	40.0	40.0	8/06/20 07:01	8/06/20 16:40	579	655.9	TSP	1132.80

SAMPLE NO.	PE-TSP080620-B606DOWNWIND					8/6/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
854	40.0	40.0	40.0	8/06/20 07:11	8/06/20 16:30	559	633.2	TSP	1132.80

SAMPLE NO.	PE PM10080620-B606UPWIND					8/6/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398971	40.0	40.0	40.0	8/06/20 07:01	8/06/20 16:40	579	655.9	PM-10	1132.80

SAMPLE NO.	PE PM10080620-B606DOWNWIND					8/6/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398972	40.0	40.0	40.0	8/06/20 07:11	8/06/20 16:30	559	633.2	PM-10	1132.80

SAMPLE NO.	PE-TSP080720-B606UPWIND					8/7/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				

35656

855	40.0	40.0	40.0	8/07/20 07:05	8/07/20 16:40	575	651.4	TSP	1132.80
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SAMPLE NO.	PE-TSP080720-B606DOWNWIND					8/7/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
856	40.0	40.0	40.0	8/07/20 07:15	8/07/20 16:30	555	628.7	TSP	1132.80

SAMPLE NO.	PE PM10080720-B606UPWIND					8/7/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398975	40.0	40.0	40.0	8/07/20 07:05	8/07/20 16:40	575	651.4	PM-10	1132.80

SAMPLE NO.	PE PM10080720-B606DOWNWIND					8/7/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398974	40.0	40.0	40.0	8/07/20 07:15	8/07/20 16:30	555	628.7	PM-10	1132.80

35656

## AIR MONITORING LOG

PROJECT NAME: HPNS Parcel E PROJ. NO. 500712 Asbestos TSP PM-10

## STATION

COC# 019

SAMPLE NO.	PE-ASB080320-B606UPWIND			8/3/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125031	2.005	2.005	2.005	8/03/20 07:00	8/04/20 00:34	1054	2.11	Asbestos	2.01

SAMPLE NO.	PE-ASB080320-B606DOWNWIND			8/3/2020 Building 606 Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125190	2.000	2.000	2.000	8/03/20 07:10	8/03/20 21:47	877	1.75	Asbestos	2.00

SAMPLE NO.	PE-ASB080420-B606UPWIND			8/4/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125041	2.000	2.000	2.000	8/04/20 07:08	8/05/20 00:36	1048	2.10	Asbestos	2.00

SAMPLE NO.	PE-ASB080420-B606DOWNWIND			8/4/2020 Building 606 Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125106	2.005	2.005	2.005	8/04/20 07:17	8/05/20 00:18	1021	2.05	Asbestos	2.01

SAMPLE NO.	PE-ASB080520-B606UPWIND			8/5/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU085977	2.005	2.005	2.005	8/05/20 07:01	8/05/20 22:42	941	1.89	Asbestos	2.01

SAMPLE NO.	PE-ASB080520-B606DOWNWIND			8/5/2020 Building 606 Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125130	2.000	2.000	2.000	8/05/20 07:15	8/05/20 21:19	844	1.69	Asbestos	2.00

SAMPLE NO.	PE-ASB080620-B606UPWIND			8/6/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU085997	2.000	2.000	2.000	8/06/20 07:00	8/06/20 23:33	993	1.99	Asbestos	2.00

SAMPLE NO.	PE-ASB080620-B606DOWNWIND			8/6/2020 Building 606 Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125220	2.000	2.000	2.000	8/06/20 07:11	8/06/20 22:30	919	1.84	Asbestos	2.00

35656

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SAMPLE NO.	PE-ASB080720-B606UPWIND					8/7/2020 Building 606 Upwind			
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125036	2.005	2.005	2.005	8/07/20 07:05	8/07/20 16:40	575	1.15	Asbestos	2.01

SAMPLE NO.	PE-ASB080720-B606DOWNWIND					8/7/2020 Building 606 Downwind			
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125039	2.000	2.000	2.0	8/07/20 07:15	8/07/20 16:32	557	1.11	Asbestos	2.00

SAMPLE NO.	PE-ASB-BLANK-B606UPWIND					8/7/2020 Building 606 Upwind			
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125061				07:05 8/07/20 07:00	ER 8/11		0.0	Asbestos	

SAMPLE NO.	PE-ASB-BLANK-B606DOWNWIND					8/7/2020 Building 606 Downwind			
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125069				8/07/20 07:15			0.0	Asbestos	

35656

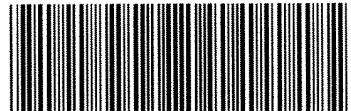
8/11/2020



Ship From  
CAL SCIENCE- CONCORD  
ALAN KEMP  
5063 COMMERCIAL CIRCLE  
#H  
CONCORD, CA 94520

california  
MAIL

Tracking #: 550032413



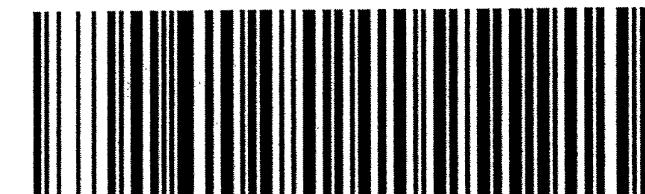
570-35656 Waybill

NPS

Ship To  
CEL  
SAMPLE RECEIVING  
7440 LINCOLN WAY  
GARDEN GROVE, CA 92841

GARDEN GROVE

S92841A



25132007

Signature Type: STANDARD

ORC CA927-CL0

Print Date: 8/11/2020 1:40 PM

## Login Sample Receipt Checklist

Client: Aptim Federal Services LLC

Job Number: 570-35656-1

**Login Number: 35656**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Patel, Jayesh**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Environment Testing  
America



## ANALYTICAL REPORT

Eurofins Calscience LLC  
7440 Lincoln Way  
Garden Grove, CA 92841  
Tel: (714)895-5494

Laboratory Job ID: 570-36252-1

Client Project/Site: HPNS - Parcel E / 500712

For:

Aptim Federal Services LLC  
Hunters Point Shipyard  
200 Fisher Blvd  
San Francisco, California 94124

Attn: Rose Condit

Authorized for release by:  
9/1/2020 1:08:25 PM

Terri Chang, Project Manager I  
(714)895-5494  
[Terri.Chang@eurofinset.com](mailto:Terri.Chang@eurofinset.com)

### LINKS

Review your project  
results through

**Total Access**

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Definitions/Glossary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

# Case Narrative

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## Job ID: 570-36252-1

Laboratory: Eurofins Calscience LLC

### Narrative

Job Narrative  
570-36252-1

### Comments

No additional comments.

### Receipt

The samples were received on 8/19/2020 10:25 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 22.0° C.

### Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-91198 and analytical batch 570-91581 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

### General Chemistry

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

### Lab Admin

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

### Subcontract Work

Method Asbestos - Low Flow: This method was subcontracted to EMSL - LA Testing - Huntington Beach. The subcontract laboratory certification is different from that of the facility issuing the final report.

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: PE-TSP081020-B606UPWIND**

**Date Collected: 08/10/20 07:04**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.72	J	18.0	6.22	ug/Sample	D	08/29/20 11:00	08/31/20 17:41	1
Lead	21.0	F1	12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 17:41	1
Manganese	32.0		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 17:41	1

**Client Sample ID: PE-TSP081020-B606DOWNWIND**

**Date Collected: 08/10/20 07:13**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.69	J	18.0	6.22	ug/Sample	D	08/29/20 11:00	08/31/20 17:47	1
Lead	17.9		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 17:47	1
Manganese	32.9		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 17:47	1

**Client Sample ID: PE-TSP081120-B606UPWIND**

**Date Collected: 08/11/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.59	J	18.0	6.22	ug/Sample	D	08/29/20 11:00	08/31/20 17:49	1
Lead	22.9		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 17:49	1
Manganese	38.3		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 17:49	1

**Client Sample ID: PE-TSP081120-B606DOWNWIND**

**Date Collected: 08/11/20 07:11**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample	D	08/29/20 11:00	08/31/20 17:51	1
Lead	23.9		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 17:51	1
Manganese	15.6		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 17:51	1

**Client Sample ID: PE-TSP081220-B606UPWIND**

**Date Collected: 08/12/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	22.3		18.0	6.22	ug/Sample	D	08/29/20 11:00	08/31/20 18:05	1
Lead	15.6		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 18:05	1
Manganese	15.3		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 18:05	1

**Client Sample ID: PE-TSP081220-B606UDOWNWIND**

**Date Collected: 08/12/20 07:10**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample	D	08/29/20 11:00	08/31/20 18:07	1
Lead	18.4		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 18:07	1
Manganese	20.5		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 18:07	1

**Lab Sample ID: 570-36252-13**

**Matrix: Air**

**Lab Sample ID: 570-36252-14**

**Matrix: Air**

**Lab Sample ID: 570-36252-17**

**Matrix: Air**

**Lab Sample ID: 570-36252-18**

**Matrix: Air**

**Lab Sample ID: 570-36252-21**

**Matrix: Air**

**Lab Sample ID: 570-36252-22**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: PE-TSP081320-B606UPWIND**

**Date Collected: 08/13/20 06:58**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/29/20 11:00	08/31/20 18:09	1
Lead	24.8		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 18:09	1
Manganese	22.7		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 18:09	1

**Client Sample ID: PE-TSP081320-B606DOWNWIND**

**Date Collected: 08/13/20 07:08**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/29/20 11:00	08/31/20 18:11	1
Lead	19.3		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 18:11	1
Manganese	23.3		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 18:11	1

**Client Sample ID: PE-TSP081420-B606UPWIND**

**Date Collected: 08/14/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.46	J	18.0	6.22	ug/Sample		08/29/20 11:00	08/31/20 18:13	1
Lead	35.4		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 18:13	1
Manganese	34.5		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 18:13	1

**Client Sample ID: PE-TSP081420-B606DOWNWIND**

**Date Collected: 08/14/20 07:10**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.58	J	18.0	6.22	ug/Sample		08/29/20 11:00	08/31/20 18:15	1
Lead	25.0		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 18:15	1
Manganese	23.1		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 18:15	1

**Lab Sample ID: 570-36252-25**

**Matrix: Air**

**Lab Sample ID: 570-36252-26**

**Matrix: Air**

**Lab Sample ID: 570-36252-29**

**Matrix: Air**

**Lab Sample ID: 570-36252-30**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## General Chemistry

**Client Sample ID: PE-TSP081020-B606UPWIND**

**Date Collected: 08/10/20 07:04**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	53.9		5.03	5.03	ug/m3	D		08/25/20 13:53	1

**Lab Sample ID: 570-36252-13**

**Matrix: Air**

**Client Sample ID: PE-TSP081020-B606DOWNWIND**

**Date Collected: 08/10/20 07:13**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	56.8		5.22	5.22	ug/m3	D		08/25/20 13:53	1

**Lab Sample ID: 570-36252-14**

**Matrix: Air**

**Client Sample ID: PE-PM10081020-B606UPWIND**

**Date Collected: 08/10/20 07:04**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	33.6		5.03	NaN	ug/m3	D		08/25/20 11:00	1

**Lab Sample ID: 570-36252-15**

**Matrix: Air**

**Client Sample ID: PE-PM10081020-B606DOWNWIND**

**Date Collected: 08/10/20 07:13**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	42.3		5.22	NaN	ug/m3	D		08/25/20 11:00	1

**Lab Sample ID: 570-36252-16**

**Matrix: Air**

**Client Sample ID: PE-TSP081120-B606UPWIND**

**Date Collected: 08/11/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	39.5		4.53	4.53	ug/m3	D		08/25/20 13:53	1

**Lab Sample ID: 570-36252-17**

**Matrix: Air**

**Client Sample ID: PE-TSP081120-B606DOWNWIND**

**Date Collected: 08/11/20 07:11**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	22.4		4.70	4.70	ug/m3	D		08/25/20 13:53	1

**Lab Sample ID: 570-36252-18**

**Matrix: Air**

**Client Sample ID: PE-PM10081120-B606UPWIND**

**Date Collected: 08/11/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	26.7		4.53	NaN	ug/m3	D		08/25/20 11:00	1

**Lab Sample ID: 570-36252-19**

**Matrix: Air**

**Client Sample ID: PE-PM10081120-B606DOWNWIND**

**Date Collected: 08/11/20 07:11**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	29.0		4.70	NaN	ug/m3	D		08/25/20 11:00	1

**Lab Sample ID: 570-36252-20**

**Matrix: Air**

Eurofins Calscience LLC

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## General Chemistry

**Client Sample ID: PE-TSP081220-B606UPWIND**

**Date Collected: 08/12/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	37.3		4.53	4.53	ug/m3	D		08/25/20 13:53	1

**Lab Sample ID: 570-36252-21**

**Matrix: Air**

**Client Sample ID: PE-TSP081220-B606UDOWNWIND**

**Date Collected: 08/12/20 07:10**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	34.7		4.69	4.69	ug/m3	D		08/25/20 13:53	1

**Lab Sample ID: 570-36252-22**

**Matrix: Air**

**Client Sample ID: PE-PM10081220-B606UPWIND**

**Date Collected: 08/12/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	28.4		4.53	NaN	ug/m3	D		08/25/20 11:00	1

**Lab Sample ID: 570-36252-23**

**Matrix: Air**

**Client Sample ID: PE-PM10081220-B606DOWNWIND**

**Date Collected: 08/12/20 07:10**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	32.7		4.69	NaN	ug/m3	D		08/25/20 11:00	1

**Lab Sample ID: 570-36252-24**

**Matrix: Air**

**Client Sample ID: PE-TSP081320-B606UPWIND**

**Date Collected: 08/13/20 06:58**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	59.8		4.51	4.51	ug/m3	D		08/25/20 13:53	1

**Lab Sample ID: 570-36252-25**

**Matrix: Air**

**Client Sample ID: PE-TSP081320-B606DOWNWIND**

**Date Collected: 08/13/20 07:08**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	59.0		4.67	4.67	ug/m3	D		08/25/20 13:53	1

**Lab Sample ID: 570-36252-26**

**Matrix: Air**

**Client Sample ID: PE-PM10081320-B606UPWIND**

**Date Collected: 08/13/20 06:58**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	45.9		4.51	NaN	ug/m3	D		08/25/20 11:00	1

**Lab Sample ID: 570-36252-27**

**Matrix: Air**

**Client Sample ID: PE-PM10081320-B606DOWNWIND**

**Date Collected: 08/13/20 07:08**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	60.4		4.67	NaN	ug/m3	D		08/25/20 11:00	1

**Lab Sample ID: 570-36252-28**

**Matrix: Air**

Eurofins Calscience LLC

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## General Chemistry

**Client Sample ID: PE-TSP081420-B606UPWIND**

**Date Collected: 08/14/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	70.8		4.53	4.53	ug/m3			08/25/20 13:53	1

**Lab Sample ID: 570-36252-29**

**Matrix: Air**

**Client Sample ID: PE-TSP081420-B606DOWNWIND**

**Date Collected: 08/14/20 07:10**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	51.9		4.69	4.69	ug/m3			08/25/20 13:53	1

**Lab Sample ID: 570-36252-30**

**Matrix: Air**

**Client Sample ID: PE-PM10081420-B606UPWIND**

**Date Collected: 08/14/20 07:00**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	38.8		4.53	NaN	ug/m3			08/25/20 11:00	1

**Lab Sample ID: 570-36252-31**

**Matrix: Air**

**Client Sample ID: PE-PM10081420-B606DOWNWIND**

**Date Collected: 08/14/20 07:10**

**Date Received: 08/19/20 10:25**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	44.7		4.69	NaN	ug/m3			08/25/20 11:00	1

**Lab Sample ID: 570-36252-32**

**Matrix: Air**

# QC Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 570-91198/1-A**

**Matrix: Air**

**Analysis Batch: 91581**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 91198**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		08/29/20 11:00	08/31/20 17:33	1
Lead	ND		12.0	3.16	ug/Sample		08/29/20 11:00	08/31/20 17:33	1
Manganese	ND		6.00	3.34	ug/Sample		08/29/20 11:00	08/31/20 17:33	1

**Lab Sample ID: LCS 570-91198/2-A**

**Matrix: Air**

**Analysis Batch: 91581**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 91198**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limts
Arsenic	600	648.5		ug/Sample		108	80 - 120
Lead	600	663.3		ug/Sample		111	80 - 120
Manganese	600	658.1		ug/Sample		110	80 - 120

**Lab Sample ID: LCSD 570-91198/3-A**

**Matrix: Air**

**Analysis Batch: 91581**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 91198**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Arsenic	600	641.5		ug/Sample		107	80 - 120	1 20
Lead	600	660.9		ug/Sample		110	80 - 120	0 20
Manganese	600	658.2		ug/Sample		110	80 - 120	0 20

**Lab Sample ID: 570-36252-13 MS**

**Matrix: Air**

**Analysis Batch: 91581**

**Client Sample ID: PE-TSP081020-B606UPWIND**

**Prep Type: Total/NA**

**Prep Batch: 91198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limts
Arsenic	9.72	J	600	683.0		ug/Sample		112	75 - 125
Lead	21.0	F1	600	811.7	F1	ug/Sample		132	75 - 125
Manganese	32.0		600	689.3		ug/Sample		110	75 - 125

**Lab Sample ID: 570-36252-13 MSD**

**Matrix: Air**

**Analysis Batch: 91581**

**Client Sample ID: PE-TSP081020-B606UPWIND**

**Prep Type: Total/NA**

**Prep Batch: 91198**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	Limit
Arsenic	9.72	J	600	644.3		ug/Sample		106	75 - 125	6 20
Lead	21.0	F1	600	827.6	F1	ug/Sample		134	75 - 125	2 20
Manganese	32.0		600	694.4		ug/Sample		110	75 - 125	1 20

## Method: 40CFR50 App B - Suspended Particulate Matter in Ambient Air

**Lab Sample ID: MB 570-90203/1-A**

**Matrix: Air**

**Analysis Batch: 90230**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	ND		1.23	1.23	ug/m3		08/25/20 13:53		1

Eurofins Calscience LLC

# QC Sample Results

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## Method: 40CFR50 App B - Suspended Particulate Matter in Ambient Air (Continued)

**Lab Sample ID: 570-36252-13 DU**

**Matrix: Air**

**Analysis Batch: 90230**

**Client Sample ID: PE-TSP081020-B606UPWIND**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Suspended Particulates	53.9		54.04		ug/m3		0.3	25

## Method: PM10 - Particulate Matter

**Lab Sample ID: MB 570-91652/1**

**Matrix: Air**

**Analysis Batch: 91652**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	ND		1.23	1.23	ug/m3			08/25/20 11:00	1

**Lab Sample ID: 570-36252-15 DU**

**Matrix: Air**

**Analysis Batch: 91652**

**Client Sample ID: PE-PM10081020-B606UPWIND**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Particulate Matter	33.6		33.56		ug/m3		0	25

# QC Association Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## Metals

### Prep Batch: 91198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36252-13	PE-TSP081020-B606UPWIND	Total/NA	Air	3050B	
570-36252-14	PE-TSP081020-B606DOWNWIND	Total/NA	Air	3050B	
570-36252-17	PE-TSP081120-B606UPWIND	Total/NA	Air	3050B	
570-36252-18	PE-TSP081120-B606DOWNWIND	Total/NA	Air	3050B	
570-36252-21	PE-TSP081220-B606UPWIND	Total/NA	Air	3050B	
570-36252-22	PE-TSP081220-B606UDOWNWIND	Total/NA	Air	3050B	
570-36252-25	PE-TSP081320-B606UPWIND	Total/NA	Air	3050B	
570-36252-26	PE-TSP081320-B606DOWNWIND	Total/NA	Air	3050B	
570-36252-29	PE-TSP081420-B606UPWIND	Total/NA	Air	3050B	
570-36252-30	PE-TSP081420-B606DOWNWIND	Total/NA	Air	3050B	
MB 570-91198/1-A	Method Blank	Total/NA	Air	3050B	
LCS 570-91198/2-A	Lab Control Sample	Total/NA	Air	3050B	
LCSD 570-91198/3-A	Lab Control Sample Dup	Total/NA	Air	3050B	
570-36252-13 MS	PE-TSP081020-B606UPWIND	Total/NA	Air	3050B	
570-36252-13 MSD	PE-TSP081020-B606UPWIND	Total/NA	Air	3050B	

### Analysis Batch: 91581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36252-13	PE-TSP081020-B606UPWIND	Total/NA	Air	6010B	91198
570-36252-14	PE-TSP081020-B606DOWNWIND	Total/NA	Air	6010B	91198
570-36252-17	PE-TSP081120-B606UPWIND	Total/NA	Air	6010B	91198
570-36252-18	PE-TSP081120-B606DOWNWIND	Total/NA	Air	6010B	91198
570-36252-21	PE-TSP081220-B606UPWIND	Total/NA	Air	6010B	91198
570-36252-22	PE-TSP081220-B606UDOWNWIND	Total/NA	Air	6010B	91198
570-36252-25	PE-TSP081320-B606UPWIND	Total/NA	Air	6010B	91198
570-36252-26	PE-TSP081320-B606DOWNWIND	Total/NA	Air	6010B	91198
570-36252-29	PE-TSP081420-B606UPWIND	Total/NA	Air	6010B	91198
570-36252-30	PE-TSP081420-B606DOWNWIND	Total/NA	Air	6010B	91198
MB 570-91198/1-A	Method Blank	Total/NA	Air	6010B	91198
LCS 570-91198/2-A	Lab Control Sample	Total/NA	Air	6010B	91198
LCSD 570-91198/3-A	Lab Control Sample Dup	Total/NA	Air	6010B	91198
570-36252-13 MS	PE-TSP081020-B606UPWIND	Total/NA	Air	6010B	91198
570-36252-13 MSD	PE-TSP081020-B606UPWIND	Total/NA	Air	6010B	91198

## General Chemistry

### Pre Prep Batch: 90203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36252-13	PE-TSP081020-B606UPWIND	Total/NA	Air	Filter to Air	
570-36252-14	PE-TSP081020-B606DOWNWIND	Total/NA	Air	Filter to Air	
570-36252-17	PE-TSP081120-B606UPWIND	Total/NA	Air	Filter to Air	
570-36252-18	PE-TSP081120-B606DOWNWIND	Total/NA	Air	Filter to Air	
570-36252-21	PE-TSP081220-B606UPWIND	Total/NA	Air	Filter to Air	
570-36252-22	PE-TSP081220-B606UDOWNWIND	Total/NA	Air	Filter to Air	
570-36252-25	PE-TSP081320-B606UPWIND	Total/NA	Air	Filter to Air	
570-36252-26	PE-TSP081320-B606DOWNWIND	Total/NA	Air	Filter to Air	
570-36252-29	PE-TSP081420-B606UPWIND	Total/NA	Air	Filter to Air	
570-36252-30	PE-TSP081420-B606DOWNWIND	Total/NA	Air	Filter to Air	
MB 570-90203/1-A	Method Blank	Total/NA	Air	Filter to Air	
570-36252-13 DU	PE-TSP081020-B606UPWIND	Total/NA	Air	Filter to Air	

# QC Association Summary

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

## General Chemistry

### Analysis Batch: 90230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36252-13	PE-TSP081020-B606UPWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-14	PE-TSP081020-B606DOWNWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-17	PE-TSP081120-B606UPWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-18	PE-TSP081120-B606DOWNWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-21	PE-TSP081220-B606UPWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-22	PE-TSP081220-B606UDOWNWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-25	PE-TSP081320-B606UPWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-26	PE-TSP081320-B606DOWNWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-29	PE-TSP081420-B606UPWIND	Total/NA	Air	40CFR50 App B	90203
570-36252-30	PE-TSP081420-B606DOWNWIND	Total/NA	Air	40CFR50 App B	90203
MB 570-90203/1-A	Method Blank	Total/NA	Air	40CFR50 App B	90203
570-36252-13 DU	PE-TSP081020-B606UPWIND	Total/NA	Air	40CFR50 App B	90203

### Analysis Batch: 91652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36252-15	PE-PM10081020-B606UPWIND	Total/NA	Air	PM10	11
570-36252-16	PE-PM10081020-B606DOWNWIND	Total/NA	Air	PM10	12
570-36252-19	PE-PM10081120-B606UPWIND	Total/NA	Air	PM10	13
570-36252-20	PE-PM10081120-B606DOWNWIND	Total/NA	Air	PM10	13
570-36252-23	PE-PM10081220-B606UPWIND	Total/NA	Air	PM10	14
570-36252-24	PE-PM10081220-B606DOWNWIND	Total/NA	Air	PM10	14
570-36252-27	PE-PM10081320-B606UPWIND	Total/NA	Air	PM10	14
570-36252-28	PE-PM10081320-B606DOWNWIND	Total/NA	Air	PM10	14
570-36252-31	PE-PM10081420-B606UPWIND	Total/NA	Air	PM10	14
570-36252-32	PE-PM10081420-B606DOWNWIND	Total/NA	Air	PM10	14
MB 570-91652/1	Method Blank	Total/NA	Air	PM10	14
570-36252-15 DU	PE-PM10081020-B606UPWIND	Total/NA	Air	PM10	14

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

**Client Sample ID: PE-TSP081020-B606UPWIND**

**Lab Sample ID: 570-36252-13**

Matrix: Air

Date Collected: 08/10/20 07:04

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 17:41	ULPF	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP081020-B606DOWNWIND**

**Lab Sample ID: 570-36252-14**

Matrix: Air

Date Collected: 08/10/20 07:13

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 17:47	ULPF	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-PM10081020-B606UPWIND**

**Lab Sample ID: 570-36252-15**

Matrix: Air

Date Collected: 08/10/20 07:04

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4027 g	4.4227 g	91652	08/25/20 11:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-PM10081020-B606DOWNWIND**

**Lab Sample ID: 570-36252-16**

Matrix: Air

Date Collected: 08/10/20 07:13

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4113 g	4.4356 g	91652	08/25/20 11:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP081120-B606UPWIND**

**Lab Sample ID: 570-36252-17**

Matrix: Air

Date Collected: 08/11/20 07:00

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 17:49	ULPF	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
		Instrument ID: NOEQUIP								

Eurofins Calscience LLC

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

**Client Sample ID: PE-TSP081120-B606DOWNWIND**  
Date Collected: 08/11/20 07:11  
Date Received: 08/19/20 10:25

**Lab Sample ID: 570-36252-18**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 17:51	ULPF	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-PM10081120-B606UPWIND**  
Date Collected: 08/11/20 07:00  
Date Received: 08/19/20 10:25

**Lab Sample ID: 570-36252-19**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4062 g	4.4239 g	91652	08/25/20 11:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-PM10081120-B606DOWNWIND**  
Date Collected: 08/11/20 07:11  
Date Received: 08/19/20 10:25

**Lab Sample ID: 570-36252-20**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4032 g	4.4217 g	91652	08/25/20 11:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP081220-B606UPWIND**  
Date Collected: 08/12/20 07:00  
Date Received: 08/19/20 10:25

**Lab Sample ID: 570-36252-21**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 18:05	ULPF	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP081220-B606UDOWNWIND**  
Date Collected: 08/12/20 07:10  
Date Received: 08/19/20 10:25

**Lab Sample ID: 570-36252-22**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 18:07	ULPF	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
		Instrument ID: NOEQUIP								

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

**Client Sample ID: PE-PM10081220-B606UPWIND**

**Lab Sample ID: 570-36252-23**

Matrix: Air

Date Collected: 08/12/20 07:00

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4044 g	4.4232 g	91652	08/25/20 11:00	UAPD	ECL 1
Instrument ID: NOEQUIP										

**Client Sample ID: PE-PM10081220-B606DOWNWIND**

**Lab Sample ID: 570-36252-24**

Matrix: Air

Date Collected: 08/12/20 07:10

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4232 g	4.4441 g	91652	08/25/20 11:00	UAPD	ECL 1
Instrument ID: NOEQUIP										

**Client Sample ID: PE-TSP081320-B606UPWIND**

**Lab Sample ID: 570-36252-25**

Matrix: Air

Date Collected: 08/13/20 06:58

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 18:09	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
	Instrument ID: NOEQUIP									

**Client Sample ID: PE-TSP081320-B606DOWNWIND**

**Lab Sample ID: 570-36252-26**

Matrix: Air

Date Collected: 08/13/20 07:08

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 18:11	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
	Instrument ID: NOEQUIP									

**Client Sample ID: PE-PM10081320-B606UPWIND**

**Lab Sample ID: 570-36252-27**

Matrix: Air

Date Collected: 08/13/20 06:58

Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4129 g	4.4434 g	91652	08/25/20 11:00	UAPD	ECL 1
Instrument ID: NOEQUIP										

Eurofins Calscience LLC

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

**Client Sample ID: PE-PM10081320-B606DOWNWIND**

**Lab Sample ID: 570-36252-28**

Matrix: Air

Date Collected: 08/13/20 07:08  
Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3984 g	4.4372 g	91652	08/25/20 11:00	UAPD	ECL 1
Instrument ID: NOEQUIP										

**Client Sample ID: PE-TSP081420-B606UPWIND**

**Lab Sample ID: 570-36252-29**

Matrix: Air

Date Collected: 08/14/20 07:00  
Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 18:13	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
	Instrument ID: NOEQUIP									

**Client Sample ID: PE-TSP081420-B606DOWNWIND**

**Lab Sample ID: 570-36252-30**

Matrix: Air

Date Collected: 08/14/20 07:10  
Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	91198	08/29/20 11:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			91581	08/31/20 18:15	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Pre Prep	Filter to Air					90203	08/25/20 12:56	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			90230	08/25/20 13:53	UAPD	ECL 1
	Instrument ID: NOEQUIP									

**Client Sample ID: PE-PM10081420-B606UPWIND**

**Lab Sample ID: 570-36252-31**

Matrix: Air

Date Collected: 08/14/20 07:00  
Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4002 g	4.4259 g	91652	08/25/20 11:00	UAPD	ECL 1
Instrument ID: NOEQUIP										

**Client Sample ID: PE-PM10081420-B606DOWNWIND**

**Lab Sample ID: 570-36252-32**

Matrix: Air

Date Collected: 08/14/20 07:10  
Date Received: 08/19/20 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4191 g	4.4477 g	91652	08/25/20 11:00	UAPD	ECL 1
Instrument ID: NOEQUIP										

## Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

EMSL = EMSL - LA Testing - Huntington Beach, 5431 Industrial Drive, Huntington Beach, CA 92649

Eurofins Calscience LLC

## Accreditation/Certification Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

### Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

# Method Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	ECL 1
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	ECL 1
PM10	Particulate Matter	40CFR50J	ECL 1
NIOSH 7400 Rev	NIOSH 7400 Rev. 3	NIOSH	EMSL
3050B	Preparation, Metals	SW846	ECL 1
Filter to Air	Filter to Air volume ratio	None	ECL 1

## Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and its Supplements

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

EMSL = EMSL - LA Testing - Huntington Beach, 5431 Industrial Drive, Huntington Beach, CA 92649

# Sample Summary

Client: Optim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36252-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-36252-1	PE-ASB081020-B606UPWIND	Air	08/10/20 07:04	08/19/20 10:25	
570-36252-2	PE-ASB081020-B606DOWNWIND	Air	08/10/20 07:13	08/19/20 10:25	
570-36252-3	PE-ASB081120-B606UPWIND	Air	08/11/20 07:00	08/19/20 10:25	
570-36252-4	PE-ASB081120-B606DOWNWIND	Air	08/11/20 07:11	08/19/20 10:25	
570-36252-5	PE-ASB081220-B606UPWIND	Air	08/12/20 07:00	08/19/20 10:25	
570-36252-6	PE-ASB081220-B606DOWNWIND	Air	08/12/20 07:10	08/19/20 10:25	
570-36252-7	PE-ASB081320-B606UPWIND	Air	08/13/20 06:58	08/19/20 10:25	
570-36252-8	PE-ASB081320-B606DOWNWIND	Air	08/13/20 07:08	08/19/20 10:25	
570-36252-9	PE-ASB081420-B606UPWIND	Air	08/14/20 07:00	08/19/20 10:25	
570-36252-10	PE-ASB081420-B606DOWNWIND	Air	08/14/20 07:10	08/19/20 10:25	
570-36252-11	PE-ASB-BLANK-B606UPWIND	Air	08/14/20 07:00	08/19/20 10:25	
570-36252-12	PE-ASB-BLANK-B606DOWNWIND	Air	08/14/20 07:10	08/19/20 10:25	
570-36252-13	PE-TSP081020-B606UPWIND	Air	08/10/20 07:04	08/19/20 10:25	
570-36252-14	PE-TSP081020-B606DOWNWIND	Air	08/10/20 07:13	08/19/20 10:25	
570-36252-15	PE-PM10081020-B606UPWIND	Air	08/10/20 07:04	08/19/20 10:25	
570-36252-16	PE-PM10081020-B606DOWNWIND	Air	08/10/20 07:13	08/19/20 10:25	
570-36252-17	PE-TSP081120-B606UPWIND	Air	08/11/20 07:00	08/19/20 10:25	
570-36252-18	PE-TSP081120-B606DOWNWIND	Air	08/11/20 07:11	08/19/20 10:25	
570-36252-19	PE-PM10081120-B606UPWIND	Air	08/11/20 07:00	08/19/20 10:25	
570-36252-20	PE-PM10081120-B606DOWNWIND	Air	08/11/20 07:11	08/19/20 10:25	
570-36252-21	PE-TSP081220-B606UPWIND	Air	08/12/20 07:00	08/19/20 10:25	
570-36252-22	PE-TSP081220-B606UDOWNWIND	Air	08/12/20 07:10	08/19/20 10:25	
570-36252-23	PE-PM10081220-B606UPWIND	Air	08/12/20 07:00	08/19/20 10:25	
570-36252-24	PE-PM10081220-B606DOWNWIND	Air	08/12/20 07:10	08/19/20 10:25	
570-36252-25	PE-TSP081320-B606UPWIND	Air	08/13/20 06:58	08/19/20 10:25	
570-36252-26	PE-TSP081320-B606DOWNWIND	Air	08/13/20 07:08	08/19/20 10:25	
570-36252-27	PE-PM10081320-B606UPWIND	Air	08/13/20 06:58	08/19/20 10:25	
570-36252-28	PE-PM10081320-B606DOWNWIND	Air	08/13/20 07:08	08/19/20 10:25	
570-36252-29	PE-TSP081420-B606UPWIND	Air	08/14/20 07:00	08/19/20 10:25	
570-36252-30	PE-TSP081420-B606DOWNWIND	Air	08/14/20 07:10	08/19/20 10:25	
570-36252-31	PE-PM10081420-B606UPWIND	Air	08/14/20 07:00	08/19/20 10:25	
570-36252-32	PE-PM10081420-B606DOWNWIND	Air	08/14/20 07:10	08/19/20 10:25	



**LA Testing**

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

<http://www.LATesting.com> / [gardengrovelab@lateseting.com](mailto:gardengrovelab@lateseting.com)

**LA Testing Order:** 332015118

**Customer ID:** 32CAL51

**Customer PO:**

**Project ID:**

**Attention:** Terri Chang  
Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841

**Phone:** (714) 895-5494

**Fax:** (714) 894-7501

**Received Date:** 08/20/2020 02:15 PM

**Analysis Date:** 09/01/2020

**Collected Date:** 08/10/2020 - 08/14/2020

**Project:** HPNS - Parcel E / 500712 / 570-36252

**Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules,  
Revision 3, Issue 3, 6/15/2019**

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm <sup>2</sup>	Fibers/cc	Notes
PE-ASB081020-B606UPW IND (570-36252-1) 332015118-0001		08/10/2020	1941.66	15.5	100	0.0014	19.7	0.0039	
PE-ASB081020-B606DOW NWIND (570-36252-2) 332015118-0002		08/10/2020	1960	<5.5	100	0.0014	<7.01	<0.0014	
PE-ASB081120-B606UPW IND (570-36252-3) 332015118-0003		08/11/2020	1962	8	100	0.0014	10.2	0.0020	
PE-ASB081120-B606DOW NWIND (570-36252-4) 332015118-0004		08/11/2020	1871.31	<5.5	100	0.0014	<7.01	<0.0014	
PE-ASB081220-B606UPW IND (570-36252-5) 332015118-0005		08/12/2020	1062	25.5	100	0.0025	32.5	0.0118	
PE-ASB081220-B606DOW NWIND (570-36252-6) 332015118-0006		08/12/2020	1875.33	<5.5	100	0.0014	<7.01	<0.0014	
PE-ASB081320-B606UPW IND (570-36252-7) 332015118-0007		08/13/2020	1999.95	9	100	0.0013	11.5	0.0022	
PE-ASB081320-B606DOW NWIND (570-36252-8) 332015118-0008		08/13/2020	1853.22	<5.5	100	0.0015	<7.01	<0.0015	
PE-ASB081420-B606UPW IND (570-36252-9) 332015118-0009		08/14/2020	2032	7	100	0.0013	8.92	0.0017	
PE-ASB081420-B606DOW NWIND (570-36252-10) 332015118-0010		08/14/2020	1962	<5.5	100	0.0014	<7.01	<0.0014	Sample pulled for 10% duplicate count.
PE-ASB-BLANK-B606UP WIND (570-36252-11) 332015118-0011		08/14/2020		<5.5	100		<7.01		Field Blank
PE-ASB-BLANK-B606DO WNWIND (570-36252-12) 332015118-0012		08/14/2020		<5.5	100		<7.01		Field Blank
PE-ASB081420-B606DOW NWIND (570-36252-10)			1962	<5.5	100	0.0014	<7.01	<0.0014	10% duplicate count.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Limit of detection is 7 fibers/mm<sup>2</sup>. Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm<sup>2</sup>) have greater than optimal variability and are probably biased. Field blank results, when available, are used to blank correct results. NIOSH 7400 requires field blanks be submitted at a rate of 10%, with a minimum of 2 per set. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAC standards unless otherwise noted.

Intra-laboratory Sr values: 5-20 fibers = 0.35, 21-50 fibers = 0.24, 51-100 fibers = 0.19. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34.  
Samples analyzed by LA Testing Huntington Beach, CAAIHA-LAP, LLC-IHLAP Accredited #101650

Initial report from: 09/01/2020 10:23 AM



# LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

<http://www.LATesting.com> / [gardengrovelab@lateseting.com](mailto:gardengrovelab@lateseting.com)

LA Testing Order: 332015118

Customer ID: 32CAL51

Customer PO:

Project ID:

Attention: Terri Chang  
Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841

Phone: (714) 895-5494

Fax: (714) 894-7501

Received Date: 08/20/2020 02:15 PM

Analysis Date: 09/01/2020

Collected Date: 08/10/2020 - 08/14/2020

Project: HPNS - Parcel E / 500712 / 570-36252

## Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/15/2019

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm <sup>2</sup>	Fibers/cc	Notes
332015118-0013									

The results reported have been blank corrected as applicable.

Analyst(s):

Dennies Ly PCM 13

Michael Chapman, Laboratory Manager  
or other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Limit of detection is 7 fibers/mm<sup>2</sup>. Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm<sup>2</sup>) have greater than optimal variability and are probably biased. Field blank results, when available, are used to blank correct results. NIOSH 7400 requires field blanks be submitted at a rate of 10%, with a minimum of 2 per set. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAC standards unless otherwise noted.

Intra-laboratory Sr values: 5-20 fibers = 0.35, 21-50 fibers = 0.24, 51-100 fibers = 0.19. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34.

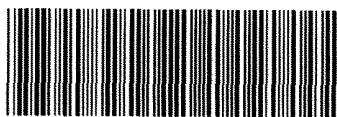
Samples analyzed by LA Testing Huntington Beach, CAAIHA-LAP, LLC-IHLAP Accredited #101650

Initial report from: 09/01/2020 10:23 AM

36252



570-36252 Chain of Custody



APTIM Federal Services, LLC

4005 Port Chicago Hwy  
Concord, CA 94520

## CHAIN OF CUSTODY

Ref. Document # CTO 0024 - AIR 020  
Page 1 of 2

Project Manager: **Nels Johnson**  
 Send Report To: **Edgar Ruiz**  
 Phone/Fax Number: **805.680.8279**  
 Address: **4005 Port Chicago Hwy**  
 City: **Concord, CA 94520**  
[edgar.ruiz@aptim.com](mailto:edgar.ruiz@aptim.com)

Project Number: **500712**Project Name: **HPNS - Parcel E**Project Location: **San Francisco, CA**Purchase Order #: **115718**Lab Destination: **Eurofins-Calscience**

7440 Lincoln Way

Garden Grove CA 92841

Lab Contact: **Terri Chang**

Analyses Requested										
PCB (EPA 8082 / TO-04)	PAH (EPA 28270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Subpt J; BAAQMD Reg 6)	TSP, Mn, Pb, As (40 CFR 50 App B; NIOSH 7300/6100B)	Flow Rate (L/min.)	Sample Volume (m³)				
		X			2.01	1.94				
		X			2.00	1.96				
		X			2.00	1.96				
		X			2.01	1.87				
		X			2.00	1.06				
		X			2.01	1.87				
		X			2.01	1.99				
		X			2.01	1.85				
		X			2.01	2.03				
		X			2.01	1.96				
		X			NA					
		X			NA					

Sampler's Name(s): ER

Sample ID Number	Filter No.	Collection Information			Matrix	# of containers	Container Type	PCB (EPA 8082 / TO-04)	PAH (EPA 28270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Subpt J; BAAQMD Reg 6)	TSP, Mn, Pb, As (40 CFR 50 App B; NIOSH 7300/6100B)	Flow Rate (L/min.)	Sample Volume (m³)
		Date	Time	Method										
PE-ASB081020-B606UPWIND	CU201251	08/10/20	7:04	G	A	1	PCM			X			2.01	1.94
PE-ASB081020-B606DOWNWIND	CU201685	08/10/20	7:13	G	A	1	PCM			X			2.00	1.96
PE-ASB081120-B606UPWIND	CU201454	08/11/20	7:00	G	A	1	PCM			X			2.00	1.96
PE-ASB081120-B606DOWNWIND	CU201455	08/11/20	7:11	G	A	1	PCM			X			2.01	1.87
PE-ASB081220-B606UPWIND	CU201456	08/12/20	7:00	G	A	1	PCM			X			2.00	1.06
PE-ASB081220-B606DOWNWIND	CU201668	08/12/20	7:10	G	A	1	PCM			X			2.01	1.87
PE-ASB081320-B606UPWIND	CU201433	08/13/20	6:58	G	A	1	PCM			X			2.01	1.99
PE-ASB081320-B606DOWNWIND	CU201438	08/13/20	7:08	G	A	1	PCM			X			2.01	1.85
PE-ASB081420-B606UPWIND	CU201450	08/14/20	7:00	G	A	1	PCM			X			2.01	2.03
PE-ASB081420-B606DOWNWIND	CU201651	08/14/20	7:10	G	A	1	PCM			X			2.01	1.96
PE-ASB-BLANK-B606UPWIND	CU201435	08/14/20	7:00	G	A	1	PCM			X			NA	
PE-ASB-BLANK-B606DOWNWIND	CU201444	08/14/20	7:10	G	A	1	PCM			X			NA	
Temperature Blank														x

## Special Instructions:

24-hr     5-day  10-day

## Level Of QC Required:

III Project Specific:

## Method Codes

C = Composite

G = Grab

## Matrix Codes

SO = Soil

DW = Drinking Water

SL = Sludge

GW = Ground Water

CP = Chip Samples

WW = Waste Water

A=Air

ABS=Asbestos, PO=Pipe Opening

Relinquished By: Edgar Ruiz <i>Edgar Ruiz</i>	Date: 8/14/20 Time: 1700	Received By: <i>Lock &amp; Storage</i>	Date: 8/14/20 Time: 1700
Relinquished By: <i>Lock &amp; Storage</i>	Date: 8/18/20 Time: 0800	Received By: <i>Edgar Ruiz</i>	Date: 8/18/20 Time: 0800
Relinquished By: <i>Edgar Ruiz</i>	Date: 1055 Time: 8/18/20	Received By: <i>Edgar Ruiz</i>	Date: 1055 Time: 8/18/20

Relinquished by *Edgar Ruiz* to *Lock & Storage* 8/18/20 1055 AM  
*Lock & Storage* to *Edgar Ruiz* 8/18/20 1630 PM  
*Edgar Ruiz* to *Lock & Storage* 8/19/20 0258 \*C.S.  
*Lock & Storage* to *Edgar Ruiz* 8/19/20 1241AM



**APTIM Federal Services, LLC**  
4005 Port Chicago Hwy  
Concord, CA 94520

## CHAIN OF CUSTODY

Ref. Document # **CTO 0024 - AIR 020**  
Page 2 of 2

Send Report To: *Edgar Ruiz*  
Phone/Fax Number: 8056808279  
Address: 4005 Port Chicago Hwy  
City: Concord, CA 94520

[edgar.ruiz@aptim.com](mailto:edgar.ruiz@aptim.com)

Project Number: 500712

Project Name: HPNS - Parcel E

Project Location: San Francisco, CA

Lab Destination: Calscience

7440 Lincoln Way

Garden Grove CA 92841

Lab Contact: Terri Chang

Analyses Requested										
PCB (EPA 8082 / TO-04)	PAH (EPA 8270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Subpt J; BAAQMD Reg 6)	TSP, Mn, Pb, As (40 CFR 50 App B; NIOSH 7400)	Flow Rate (L/min.)	Sample Volume (m³)				
				X	1132.80	595.9				
				X	1132.80	574.3				
			X		1132.80	595.9				
			X		1132.80	574.3				
			X		1132.80	662.7				
			X		1132.80	638.9				
			X		1132.80	662.7				
			X		1132.80	638.9				
			X		1132.80	662.7				
			X		1132.80	640.0				
			X		1132.80	662.7				
			X		1132.80	640.0				
			X		1132.80	665.0				
			X		1132.80	642.3				
			X		1132.80	665.0				
			X		1132.80	642.3				
			X		1132.80	662.7				
			X		1132.80	640.0				
			X		1132.80	662.7				
			X		1132.80	640.0				

36252

AIR MONITORING LOG  
 PROJECT NAME: HPNS Parcel E PROJ. NO. 500712 Asbestos TSP PM-10

## STATION

COC# 020

SAMPLE NO.			PE-ASB081020-B606UPWIND					8/10/2020 Building 606 Upwind		
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)	
	START	STOP	AVERAGE	START	STOP					
CU201251	2.005	2.005	2.005	8/10/20 07:04	8/10/20 23:10	966	1.94	Asbestos	2.01	

SAMPLE NO.			PE-ASB081020-B606DOWNWIND					8/10/2020 Building 606 Downwind		
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)	
	START	STOP	AVERAGE	START	STOP					
CU201685	2.000	2.000	2.000	8/10/20 07:13	8/10/20 23:33	980	1.96	Asbestos	2.00	

SAMPLE NO.			PE-ASB081120-B606UPWIND					8/11/2020 Building 606 Upwind		
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)	
	START	STOP	AVERAGE	START	STOP					
CU201454	2.000	2.000	2.000	8/11/20 07:00	8/11/20 23:21	981	1.96	Asbestos	2.00	

SAMPLE NO.			PE-ASB081120-B606DOWNWIND					8/11/2020 Building 606 Downwind		
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)	
	START	STOP	AVERAGE	START	STOP					
CU201455	2.005	2.005	2.005	8/11/20 07:11	8/11/20 22:42	931	1.87	Asbestos	2.01	

SAMPLE NO.			PE-ASB081220-B606UPWIND					8/12/2020 Building 606 Upwind		
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)	
	START	STOP	AVERAGE	START	STOP					
CU201456	2.000	2.000	2.000	8/12/20 07:00	8/12/20 15:51	531	1.06	Asbestos	2.00	

SAMPLE NO.			PE-ASB081220-B606DOWNWIND					8/12/2020 Building 606 Downwind		
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)	
	START	STOP	AVERAGE	START	STOP					
CU201668	2.005	2.005	2.005	8/12/20 07:10	8/12/20 22:43	933	1.87	Asbestos	2.01	

SAMPLE NO.			PE-ASB081320-B606UPWIND					8/13/2020 Building 606 Upwind		
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)	
	START	STOP	AVERAGE	START	STOP					
CU201433	2.005	2.005	2.005	8/13/20 06:58	8/13/20 23:33	995	1.99	Asbestos	2.01	

SAMPLE NO.			PE-ASB081320-B606DOWNWIND					8/13/2020 Building 606 Downwind		
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)	
	START	STOP	AVERAGE	START	STOP					
CU201438	2.005	2.005	2.005	8/13/20 07:08	8/13/20 22:30	922	1.85	Asbestos	2.01	

SAMPLE NO. PE-ASB081420-B606UPWIND

8/14/2020 Building 606 Upwind

LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201450	2.000	2.000	2.000	8/14/20 07:00	8/14/20 23:56	1016	2.03	Asbestos	2.00

SAMPLE NO. PE-ASB081420-B606DOWNWIND

8/14/2020 Building 606 Downwind

LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201651	2.000	2.000	2.0	8/14/20 07:10	8/14/20 23:31	981	1.96	Asbestos	2.00

SAMPLE NO. PE-ASB-BLANK-B606UPWIND

8/14/2020 Building 606 Upwind

LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201435				8/14/20 07:00			0.0	Asbestos	

SAMPLE NO. PE-ASB-BLANK-B606DOWNWIND

8/14/2020 Building 606 Downwind

LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201444				8/14/20 07:15			0.0	Asbestos	

PROJECT NAME: HPNS Parcel E PROJ. NO. 500712 Asbestos TSP PM-10

## STATION

COC# 020

SAMPLE NO.	PE-TSP081020-B606UPWIND					8/10/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
857	40.0	40.0	40.0	8/10/20 07:04	8/10/20 15:50	526	595.9	TSP	1132.80

SAMPLE NO.	PE-TSP081020-B606DOWNWIND					8/10/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
858	40.0	40.0	40.0	8/10/20 07:13	8/10/20 15:40	507	574.3	TSP	1132.80

SAMPLE NO.	PE PM10081020-B606UPWIND					8/10/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398976	40.0	40.0	40.0	8/10/20 07:04	8/10/20 15:50	526	595.9	PM-10	1132.80

SAMPLE NO.	PE PM10081020-B606DOWNWIND					8/10/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398977	40.0	40.0	40.0	8/10/20 07:13	8/10/20 15:40	507	574.3	PM-10	1132.80

SAMPLE NO.	PE-TSP081120-B606UPWIND					8/11/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
861	40.0	40.0	40.0	8/11/20 07:00	8/11/20 16:45	585	662.7	TSP	1132.80

SAMPLE NO.	PE-TSP081120-B606DOWNWIND					8/11/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
862	40.0	40.0	40.0	8/11/20 07:11	8/11/20 16:35	564	638.9	TSP	1132.80

SAMPLE NO.	PE PM10081120-B606UPWIND					8/11/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398980	40.0	40.0	40.0	8/11/20 07:00	8/11/20 16:45	585	662.7	PM-10	1132.80

SAMPLE NO.	PE PM10081120-B606DOWNWIND					8/11/2020 Building 606 Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398981	40.0	40.0	40.0	8/11/20 07:11	8/11/20 16:35	564	638.9	PM-10	1132.80

SAMPLE NO. PE-TSP081220-B606UPWIND			8/12/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
859	40.0	40.0	40.0	8/12/20 07:00	8/12/20 16:45	585	662.7	TSP	1132.80

SAMPLE NO. PE-TSP081220-B606DOWNWIND			8/12/2020 Building 606 Downwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
860	40.0	40.0	40.0	8/12/20 07:10	8/12/20 16:35	565	640.0	TSP	1132.80

SAMPLE NO. PE PM10081220-B606UPWIND			8/12/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398978	40.0	40.0	40.0	8/12/20 07:00	8/12/20 16:45	585	662.7	PM-10	1132.80

SAMPLE NO. PE PM10081220-B606DOWNWIND			8/12/2020 Building 606 Downwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398979	40.0	40.0	40.0	8/12/20 07:10	8/12/20 16:35	565	640.0	PM-10	1132.80

SAMPLE NO. PE-TSP081320-B606UPWIND			8/13/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
863	40.0	40.0	40.0	8/13/20 06:58	8/13/20 16:45	587	665.0	TSP	1132.80

SAMPLE NO. PE-TSP081320-B606DOWNWIND			8/13/2020 Building 606 Downwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
864	40.0	40.0	40.0	8/13/20 07:08	8/13/20 16:35	567	642.3	TSP	1132.80

SAMPLE NO. PE PM10081320-B606UPWIND			8/13/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398982	40.0	40.0	40.0	8/13/20 06:58	8/13/20 16:45	587	665.0	PM-10	1132.80

SAMPLE NO. PE PM10081320-B606DOWNWIND			8/13/2020 Building 606 Downwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398983	40.0	40.0	40.0	8/13/20 07:08	8/13/20 16:35	567	642.3	PM-10	1132.80

SAMPLE NO. PE-TSP081420-B606UPWIND			8/14/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				

36252

865	40.0	40.0	40.0	8/14/20 07:00	8/14/20 16:45	585	662.7	TSP	1132.80
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SAMPLE NO.	PE-TSP081420-B606DOWNWIND	8/14/2020 Building 606 Downwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
866	40.0	40.0	40.0	8/14/20 07:10	8/14/20 16:35	565	640.0	TSP	1132.80

SAMPLE NO.	PE PM10081420-B606UPWIND	8/14/2020 Building 606 Upwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398984	40.0	40.0	40.0	8/14/20 07:00	8/14/20 16:45	585	662.7	PM-10	1132.80

SAMPLE NO.	PE PM10081420-B606DOWNWIND	8/14/2020 Building 606 Downwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398985	40.0	40.0	40.0	8/14/20 07:10	8/14/20 16:35	565	640.0	PM-10	1132.80

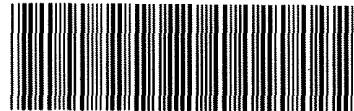
## Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Sampler:		Lab PM: Chang, Terri		Carrier Tracking No(s):		COC No: 570-46429.1																																																																																																														
Client Contact: Shipping/Receiving		Phone:		E-Mail: Terri.Chang@eurofinset.com		State of Origin: California		Page: Page 1 of 2																																																																																																														
Company: EMSL Analytical, Inc.				Accreditations Required (See note):				Job #: 570-36252-1																																																																																																														
Address: 5431 Industrial Drive,		Due Date Requested: 9/1/2020		TAT Requested (days):		Analysis Requested		Preservation Codes:																																																																																																														
City: Huntington Beach								A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA  M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)																																																																																																														
State, Zip: CA, 92649		PO #:		WO #:				Other:																																																																																																														
Phone:																																																																																																																						
Email:																																																																																																																						
Project Name: HPNS - Parcel E / 500712		Project #: <b>57003235 570-36252</b>																																																																																																																				
Site:		SSOW#:																																																																																																																				
		Sample Date	Sample Time	Sample Type (C=comp, G=grab) BT=Tissue, A=Air	Matrix (W=water, S=solid, O=wastewater, L=oil)	Field/Filled Sample Label (as to No.)	SUB (Abilities - Low Flow/High Flow/H <sub>2</sub> O)	HSN (HSN 7404)	Total Number of containers																																																																																																													
<b>Sample Identification - Client ID (Lab ID)</b>																																																																																																																						
<table border="1"> <thead> <tr> <th></th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab) BT=Tissue, A=Air</th> <th>Matrix (W=water, S=solid, O=wastewater, L=oil)</th> <th>Field/Filled Sample Label (as to No.)</th> <th>SUB (Abilities - Low Flow/High Flow/H<sub>2</sub>O)</th> <th>HSN (HSN 7404)</th> <th></th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr><td>PE-ASB081020-B606UPWIND (570-36252-1)</td><td>8/10/20</td><td>07:04 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> <tr><td>PE-ASB081020-B606DOWNWIND (570-36252-2)</td><td>8/10/20</td><td>07:13 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> <tr><td>PE-ASB081120-B606UPWIND (570-36252-3)</td><td>8/11/20</td><td>07:00 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> <tr><td>PE-ASB081120-B606DOWNWIND (570-36252-4)</td><td>8/11/20</td><td>07:11 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> <tr><td>PE-ASB081220-B606UPWIND (570-36252-5)</td><td>8/12/20</td><td>07:00 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> <tr><td>PE-ASB081220-B606DOWNWIND (570-36252-6)</td><td>8/12/20</td><td>07:10 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> <tr><td>PE-ASB081320-B606UPWIND (570-36252-7)</td><td>8/13/20</td><td>06:58 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> <tr><td>PE-ASB081320-B606DOWNWIND (570-36252-8)</td><td>8/13/20</td><td>07:08 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> <tr><td>PE-ASB081420-B606UPWIND (570-36252-9)</td><td>8/14/20</td><td>07:00 Pacific</td><td>Air</td><td></td><td>X</td><td></td><td></td><td></td><td>1</td><td>please provide standard excel EDD.</td></tr> </tbody> </table>											Sample Date	Sample Time	Sample Type (C=comp, G=grab) BT=Tissue, A=Air	Matrix (W=water, S=solid, O=wastewater, L=oil)	Field/Filled Sample Label (as to No.)	SUB (Abilities - Low Flow/High Flow/H <sub>2</sub> O)	HSN (HSN 7404)		Special Instructions/Note:	PE-ASB081020-B606UPWIND (570-36252-1)	8/10/20	07:04 Pacific	Air		X				1	please provide standard excel EDD.	PE-ASB081020-B606DOWNWIND (570-36252-2)	8/10/20	07:13 Pacific	Air		X				1	please provide standard excel EDD.	PE-ASB081120-B606UPWIND (570-36252-3)	8/11/20	07:00 Pacific	Air		X				1	please provide standard excel EDD.	PE-ASB081120-B606DOWNWIND (570-36252-4)	8/11/20	07:11 Pacific	Air		X				1	please provide standard excel EDD.	PE-ASB081220-B606UPWIND (570-36252-5)	8/12/20	07:00 Pacific	Air		X				1	please provide standard excel EDD.	PE-ASB081220-B606DOWNWIND (570-36252-6)	8/12/20	07:10 Pacific	Air		X				1	please provide standard excel EDD.	PE-ASB081320-B606UPWIND (570-36252-7)	8/13/20	06:58 Pacific	Air		X				1	please provide standard excel EDD.	PE-ASB081320-B606DOWNWIND (570-36252-8)	8/13/20	07:08 Pacific	Air		X				1	please provide standard excel EDD.	PE-ASB081420-B606UPWIND (570-36252-9)	8/14/20	07:00 Pacific	Air		X				1	please provide standard excel EDD.
	Sample Date	Sample Time	Sample Type (C=comp, G=grab) BT=Tissue, A=Air	Matrix (W=water, S=solid, O=wastewater, L=oil)	Field/Filled Sample Label (as to No.)	SUB (Abilities - Low Flow/High Flow/H <sub>2</sub> O)	HSN (HSN 7404)		Special Instructions/Note:																																																																																																													
PE-ASB081020-B606UPWIND (570-36252-1)	8/10/20	07:04 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
PE-ASB081020-B606DOWNWIND (570-36252-2)	8/10/20	07:13 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
PE-ASB081120-B606UPWIND (570-36252-3)	8/11/20	07:00 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
PE-ASB081120-B606DOWNWIND (570-36252-4)	8/11/20	07:11 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
PE-ASB081220-B606UPWIND (570-36252-5)	8/12/20	07:00 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
PE-ASB081220-B606DOWNWIND (570-36252-6)	8/12/20	07:10 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
PE-ASB081320-B606UPWIND (570-36252-7)	8/13/20	06:58 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
PE-ASB081320-B606DOWNWIND (570-36252-8)	8/13/20	07:08 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
PE-ASB081420-B606UPWIND (570-36252-9)	8/14/20	07:00 Pacific	Air		X				1	please provide standard excel EDD.																																																																																																												
Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.																																																																																																																						
<b>Possible Hazard Identification</b>					<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>																																																																																																																	
Unconfirmed					<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For	Months																																																																																																														
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:																																																																																																																		
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:																																																																																																																		
Relinquished by: <i>Terri Chang</i>		Date/Time: <i>8/20/20 2:09pm</i>	Company: <i>E.C.</i>	Received by: <i>JS(LWI)</i>	Date/Time: <i>8/20/20 2:15pm</i>	Company																																																																																																																
Relinquished by:		Date/Time:	Company	Received by:	Date/Time:	Company																																																																																																																
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Custody Seals Intact: △ Yes △ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																																																																																																																		

## Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Chang, Terri		Carrier Tracking No(s):		COC No: 570-46429.2	
Client Contact: Shipping/Receiving		Phone:		E-Mail: Terri.Chang@eurofinset.com		State of Origin: California		Page: Page 2 of 2	
Company: EMSL Analytical, Inc.				Accreditations Required (See note):				Job #: 570-36252-1	
Address: 5431 Industrial Drive,		Due Date Requested: 9/1/2020				Analysis Requested		Preservation Codes:	
City: Huntington Beach		TAT Requested (days):						A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
State, Zip: CA, 92649		PO #:						Other:	
Phone:		WO #:							
Email:									
Project Name: HPNS - Parcel E / 500712		Project #: 57005235 S70-36252							
Site:		SSOW#:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Asbestos - Low Flow) NIOSH 7400	Total Number of containers
PE-ASB081420-B606DOWNWIND (570-36252-10)		8/14/20	07:10 Pacific		Air	X			1. please provide standard excel EDD.
PE-ASB-BLANK-B606UPWIND (570-36252-11)		8/14/20	07:00 Pacific		Air	X			1. please provide standard excel EDD.
PE-ASB-BLANK-B606DOWNWIND (570-36252-12)		8/14/20	07:10 Pacific		Air	X			1. please provide standard excel EDD.
Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.									
Possible Hazard Identification Unconfirmed					Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Primary Deliverable Rank: 2 Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>Terri L.</i>		Date/Time: <i>8/20/20 2:09 PM</i>		Company: <i>C-E</i>		Received by: <i>JS(wt)</i>		Date/Time: <i>8/20/20 2:15PM</i>	
Relinquished by:		Date/Time:		Company		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company		Received by:		Date/Time:	
Custody Seals Intact: △ Yes △ No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:			



570-36252 Waybill

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**Ship From**

CAL SCIENCE- CONCORD  
 ALAN KEMP  
 5063 COMMERCIAL CIRCLE  
 #H  
 CONCORD, CA 94520

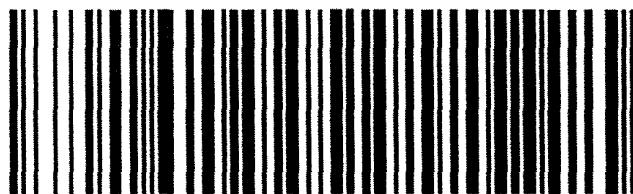
Tracking #: 550112121

**NPS****Ship To**

CEL  
 SAMPLE RECEIVING  
 7440 LINCOLN WAY  
 GARDEN GROVE, CA 92841

**GARDEN GROVE**

S92841A



25505627

**Signature Type:** STANDARD**ORC CA927-CL0**

Print Date: 8/18/2020 1:16 PM

**LABEL INSTRUCTIONS:**

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.

Step 2: Fold this page in half.

Step 3: Securely attach this label to your package and do not cover the barcode.

**TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all of the General Logistics Systems US, Inc. (GLS) service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at [www.gls-us.com](http://www.gls-us.com).

## Login Sample Receipt Checklist

Client: Aptim Federal Services LLC

Job Number: 570-36252-1

**Login Number:** 36252

**List Source:** Eurofins Calscience

**List Number:** 1

**Creator:** Patel, Jayesh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



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Environment Testing  
America



## ANALYTICAL REPORT

Eurofins Calscience LLC  
7440 Lincoln Way  
Garden Grove, CA 92841  
Tel: (714)895-5494

Laboratory Job ID: 570-36380-1

Client Project/Site: HPNS - Parcel E / 500712

For:

Aptim Federal Services LLC  
Hunters Point Shipyard  
200 Fisher Blvd  
San Francisco, California 94124

Attn: Rose Condit

Authorized for release by:  
9/9/2020 4:02:53 PM

Terri Chang, Project Manager I  
(714)895-5494  
[Terri.Chang@eurofinset.com](mailto:Terri.Chang@eurofinset.com)

### LINKS

Review your project  
results through

**Total Access**

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Definitions/Glossary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

# Case Narrative

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## Job ID: 570-36380-1

Laboratory: Eurofins Calscience LLC

### Narrative

Job Narrative  
570-36380-1

### Comments

No additional comments.

### Receipt

The samples were received on 8/26/2020 9:50 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 22.0° C.

### Metals

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

### General Chemistry

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

### Lab Admin

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

### Subcontract Work

Method Asbestos - Low Flow: This method was subcontracted to EMSL - LA Testing - Huntington Beach. The subcontract laboratory certification is different from that of the facility issuing the final report.

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: PE-TSP081720-B606UPWIND**

**Date Collected: 08/17/20 07:19**

**Date Received: 08/26/20 09:50**

**Sample Container: Other Client Container - unpreserved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:08	1
Lead	8.05	J B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:08	1
Manganese	27.2		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:08	1

**Lab Sample ID: 570-36380-13**

**Matrix: Air**

**Client Sample ID: PE-TSP081720-12ADOWNWIND**

**Date Collected: 08/17/20 07:34**

**Date Received: 08/26/20 09:50**

**Sample Container: Other Client Container - unpreserved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:14	1
Lead	10.4	J B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:14	1
Manganese	19.7		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:14	1

**Lab Sample ID: 570-36380-14**

**Matrix: Air**

**Client Sample ID: PE-TSP081820-B606UPWIND**

**Date Collected: 08/18/20 08:35**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:15	1
Lead	10.2	J B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:15	1
Manganese	42.4		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:15	1

**Lab Sample ID: 570-36380-17**

**Matrix: Air**

**Client Sample ID: PE-TSP081820-12ADOWNWIND**

**Date Collected: 08/18/20 08:45**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:17	1
Lead	16.0	B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:17	1
Manganese	42.0		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:17	1

**Lab Sample ID: 570-36380-18**

**Matrix: Air**

**Client Sample ID: PE-TSP081920-B606UPWIND**

**Date Collected: 08/19/20 06:05**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:31	1
Lead	16.3	B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:31	1
Manganese	73.5		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:31	1

**Lab Sample ID: 570-36380-21**

**Matrix: Air**

**Client Sample ID: PE-TSP081920-12ADOWNWIND**

**Date Collected: 08/19/20 06:15**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:33	1
Lead	16.6	B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:33	1
Manganese	82.5		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:33	1

**Lab Sample ID: 570-36380-22**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: PE-TSP082020-B606UPWIND**

**Date Collected: 08/20/20 06:05**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:35	1
Lead	ND		12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:35	1
Manganese	37.0		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:35	1

**Lab Sample ID: 570-36380-25**

**Matrix: Air**

**Client Sample ID: PE-TSP082020-12ADOWNWIND**

**Date Collected: 08/20/20 06:15**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:37	1
Lead	4.66	J B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:37	1
Manganese	30.8		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:37	1

**Lab Sample ID: 570-36380-26**

**Matrix: Air**

**Client Sample ID: PE-TSP082120-B606UPWIND**

**Date Collected: 08/21/20 06:04**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:39	1
Lead	6.04	J B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:39	1
Manganese	23.4		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:39	1

**Lab Sample ID: 570-36380-29**

**Matrix: Air**

**Client Sample ID: PE-TSP082120-12ADOWNWIND**

**Date Collected: 08/21/20 06:12**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:41	1
Lead	4.42	J B	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:41	1
Manganese	30.1		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:41	1

**Lab Sample ID: 570-36380-30**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## General Chemistry

**Client Sample ID: PE-TSP081720-B606UPWIND**

**Date Collected: 08/17/20 07:19**

**Date Received: 08/26/20 09:50**

**Sample Container: Other Client Container - unpreserved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	73.1		8.95	8.95	ug/m3	D		08/28/20 15:03	1

**Lab Sample ID: 570-36380-13**

**Matrix: Air**

**Client Sample ID: PE-TSP081720-12ADOWNWIND**

**Date Collected: 08/17/20 07:34**

**Date Received: 08/26/20 09:50**

**Sample Container: Other Client Container - unpreserved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	37.1		9.43	9.43	ug/m3	D		08/28/20 15:03	1

**Lab Sample ID: 570-36380-14**

**Matrix: Air**

**Client Sample ID: PE\_PM10081720-B606UPWIND**

**Date Collected: 08/17/20 07:19**

**Date Received: 08/26/20 09:50**

**Sample Container: Other Client Container - unpreserved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	28.3		8.95	NaN	ug/m3	D		09/02/20 09:24	1

**Lab Sample ID: 570-36380-15**

**Matrix: Air**

**Client Sample ID: PE\_PM10081720-12ADOWNWIND**

**Date Collected: 08/17/20 07:34**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	33.0		9.43	NaN	ug/m3	D		09/02/20 09:24	1

**Lab Sample ID: 570-36380-16**

**Matrix: Air**

**Client Sample ID: PE-TSP081820-B606UPWIND**

**Date Collected: 08/18/20 08:35**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	66.3		5.40	5.40	ug/m3	D		08/28/20 15:03	1

**Lab Sample ID: 570-36380-17**

**Matrix: Air**

**Client Sample ID: PE-TSP081820-12ADOWNWIND**

**Date Collected: 08/18/20 08:45**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	74.8		5.63	5.63	ug/m3	D		08/28/20 15:03	1

**Lab Sample ID: 570-36380-18**

**Matrix: Air**

**Client Sample ID: PE\_PM10081820-B606UPWIND**

**Date Collected: 08/18/20 08:35**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	14.6		5.40	NaN	ug/m3	D		09/02/20 09:24	1

**Lab Sample ID: 570-36380-19**

**Matrix: Air**

**Client Sample ID: PE\_PM10081820-12ADOWNWIND**

**Date Collected: 08/18/20 08:45**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	28.9		5.63	NaN	ug/m3	D		09/02/20 09:24	1

**Lab Sample ID: 570-36380-20**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## General Chemistry

**Client Sample ID: PE-TSP081920-B606UPWIND**

**Date Collected: 08/19/20 06:05**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	89.9		4.14	4.14	ug/m3	D		08/28/20 15:03	1

**Lab Sample ID: 570-36380-21**

**Matrix: Air**

**Client Sample ID: PE-TSP081920-12ADOWNWIND**

**Date Collected: 08/19/20 06:15**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	109		4.27	4.27	ug/m3	D		08/28/20 15:03	1

**Lab Sample ID: 570-36380-22**

**Matrix: Air**

**Client Sample ID: PE\_PM10081920-B606UPWIND**

**Date Collected: 08/19/20 06:05**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	20.7		4.14	NaN	ug/m3	D		09/02/20 09:24	1

**Lab Sample ID: 570-36380-23**

**Matrix: Air**

**Client Sample ID: PE\_PM10081920-12ADOWNWIND**

**Date Collected: 08/19/20 06:15**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	66.4		4.27	NaN	ug/m3	D		09/02/20 09:24	1

**Lab Sample ID: 570-36380-24**

**Matrix: Air**

**Client Sample ID: PE-TSP082020-B606UPWIND**

**Date Collected: 08/20/20 06:05**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	44.7		4.14	4.14	ug/m3	D		08/28/20 15:03	1

**Lab Sample ID: 570-36380-25**

**Matrix: Air**

**Client Sample ID: PE-TSP082020-12ADOWNWIND**

**Date Collected: 08/20/20 06:15**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	38.2		4.27	4.27	ug/m3	D		09/01/20 19:50	1

**Lab Sample ID: 570-36380-26**

**Matrix: Air**

**Client Sample ID: PE\_PM10082020-B606UPWIND**

**Date Collected: 08/20/20 06:05**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	13.1		4.14	NaN	ug/m3	D		09/02/20 09:24	1

**Lab Sample ID: 570-36380-27**

**Matrix: Air**

**Client Sample ID: PE\_PM10082020-12ADOWNWIND**

**Date Collected: 08/20/20 06:15**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	15.9		4.27	NaN	ug/m3	D		09/02/20 09:24	1

**Lab Sample ID: 570-36380-28**

**Matrix: Air**

Eurofins Calscience LLC

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## General Chemistry

**Client Sample ID: PE-TSP082120-B606UPWIND**

**Date Collected: 08/21/20 06:04**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	43.0		4.13	4.13	ug/m3			09/01/20 19:50	1

**Lab Sample ID: 570-36380-29**

**Matrix: Air**

**Client Sample ID: PE-TSP082120-12ADOWNWIND**

**Date Collected: 08/21/20 06:12**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	60.8		4.25	4.25	ug/m3			09/01/20 19:50	1

**Lab Sample ID: 570-36380-30**

**Matrix: Air**

**Client Sample ID: PE\_PM10082120-B606UPWIND**

**Date Collected: 08/21/20 06:04**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	20.2		4.13	NaN	ug/m3			09/02/20 09:24	1

**Lab Sample ID: 570-36380-31**

**Matrix: Air**

**Client Sample ID: PE\_PM10082120-12ADOWNWIND**

**Date Collected: 08/21/20 06:12**

**Date Received: 08/26/20 09:50**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	46.3		4.25	NaN	ug/m3			09/02/20 09:24	1

**Lab Sample ID: 570-36380-32**

**Matrix: Air**

# QC Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 570-92639/1-A**

**Matrix: Air**

**Analysis Batch: 92915**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 92639**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15.21	J	18.0	6.22	ug/Sample		09/04/20 16:00	09/05/20 02:01	1
Lead	3.443	J	12.0	3.16	ug/Sample		09/04/20 16:00	09/05/20 02:01	1
Manganese	ND		6.00	3.34	ug/Sample		09/04/20 16:00	09/05/20 02:01	1

**Lab Sample ID: LCS 570-92639/2-A**

**Matrix: Air**

**Analysis Batch: 92915**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 92639**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Arsenic	600	548.5		ug/Sample		91	80 - 120
Lead	600	589.9		ug/Sample		98	80 - 120
Manganese	600	608.9		ug/Sample		101	80 - 120

**Lab Sample ID: LCSD 570-92639/3-A**

**Matrix: Air**

**Analysis Batch: 92915**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 92639**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit
Arsenic	600	562.7		ug/Sample		94	80 - 120	3 20
Lead	600	599.1		ug/Sample		100	80 - 120	2 20
Manganese	600	614.3		ug/Sample		102	80 - 120	1 20

**Lab Sample ID: 570-36380-13 MS**

**Matrix: Air**

**Analysis Batch: 92915**

**Client Sample ID: PE-TSP081720-B606UPWIND**

**Prep Type: Total/NA**

**Prep Batch: 92639**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Arsenic	ND		600	546.6		ug/Sample		91	75 - 125
Lead	8.05	J B	600	565.3		ug/Sample		93	75 - 125
Manganese	27.2		600	596.4		ug/Sample		95	75 - 125

**Lab Sample ID: 570-36380-13 MSD**

**Matrix: Air**

**Analysis Batch: 92915**

**Client Sample ID: PE-TSP081720-B606UPWIND**

**Prep Type: Total/NA**

**Prep Batch: 92639**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	Limit
Arsenic	ND		600	547.1		ug/Sample		91	75 - 125	0 20
Lead	8.05	J B	600	561.3		ug/Sample		92	75 - 125	1 20
Manganese	27.2		600	586.2		ug/Sample		93	75 - 125	2 20

## Method: 40CFR50 App B - Suspended Particulate Matter in Ambient Air

**Lab Sample ID: MB 570-91813/1-A**

**Matrix: Air**

**Analysis Batch: 91905**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	ND		1.23	1.23	ug/m3		08/28/20 15:03		1

Eurofins Calscience LLC

# QC Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## Method: 40CFR50 App B - Suspended Particulate Matter in Ambient Air (Continued)

**Lab Sample ID: 570-36380-14 DU**

**Client Sample ID: PE-TSP081720-12ADOWNWIND**

**Matrix: Air**

**Analysis Batch: 91905**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Particulates	37.1		37.07		ug/m3		0	25

## Method: PM10 - Particulate Matter

**Lab Sample ID: MB 570-91911/1**

**Client Sample ID: Method Blank**

**Matrix: Air**

**Analysis Batch: 91911**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	ND		1.23	1.23	ug/m3			09/02/20 09:24	1

**Lab Sample ID: 570-36380-15 DU**

**Client Sample ID: PE\_PM10081720-B606UPWIND**

**Matrix: Air**

**Analysis Batch: 91911**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Particulate Matter	28.3		28.33		ug/m3		0	25

# QC Association Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## Metals

### Prep Batch: 92639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36380-13	PE-TSP081720-B606UPWIND	Total/NA	Air	3050B	1
570-36380-14	PE-TSP081720-12ADOWNWIND	Total/NA	Air	3050B	2
570-36380-17	PE-TSP081820-B606UPWIND	Total/NA	Air	3050B	3
570-36380-18	PE-TSP081820-12ADOWNWIND	Total/NA	Air	3050B	4
570-36380-21	PE-TSP081920-B606UPWIND	Total/NA	Air	3050B	5
570-36380-22	PE-TSP081920-12ADOWNWIND	Total/NA	Air	3050B	6
570-36380-25	PE-TSP082020-B606UPWIND	Total/NA	Air	3050B	7
570-36380-26	PE-TSP082020-12ADOWNWIND	Total/NA	Air	3050B	8
570-36380-29	PE-TSP082120-B606UPWIND	Total/NA	Air	3050B	9
570-36380-30	PE-TSP082120-12ADOWNWIND	Total/NA	Air	3050B	10
MB 570-92639/1-A	Method Blank	Total/NA	Air	3050B	11
LCS 570-92639/2-A	Lab Control Sample	Total/NA	Air	3050B	12
LCSD 570-92639/3-A	Lab Control Sample Dup	Total/NA	Air	3050B	13
570-36380-13 MS	PE-TSP081720-B606UPWIND	Total/NA	Air	3050B	14
570-36380-13 MSD	PE-TSP081720-B606UPWIND	Total/NA	Air	3050B	

### Analysis Batch: 92915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36380-13	PE-TSP081720-B606UPWIND	Total/NA	Air	6010B	92639
570-36380-14	PE-TSP081720-12ADOWNWIND	Total/NA	Air	6010B	92639
570-36380-17	PE-TSP081820-B606UPWIND	Total/NA	Air	6010B	92639
570-36380-18	PE-TSP081820-12ADOWNWIND	Total/NA	Air	6010B	92639
570-36380-21	PE-TSP081920-B606UPWIND	Total/NA	Air	6010B	92639
570-36380-22	PE-TSP081920-12ADOWNWIND	Total/NA	Air	6010B	92639
570-36380-25	PE-TSP082020-B606UPWIND	Total/NA	Air	6010B	92639
570-36380-26	PE-TSP082020-12ADOWNWIND	Total/NA	Air	6010B	92639
570-36380-29	PE-TSP082120-B606UPWIND	Total/NA	Air	6010B	92639
570-36380-30	PE-TSP082120-12ADOWNWIND	Total/NA	Air	6010B	92639
MB 570-92639/1-A	Method Blank	Total/NA	Air	6010B	92639
LCS 570-92639/2-A	Lab Control Sample	Total/NA	Air	6010B	92639
LCSD 570-92639/3-A	Lab Control Sample Dup	Total/NA	Air	6010B	92639
570-36380-13 MS	PE-TSP081720-B606UPWIND	Total/NA	Air	6010B	92639
570-36380-13 MSD	PE-TSP081720-B606UPWIND	Total/NA	Air	6010B	92639

## General Chemistry

### Pre Prep Batch: 91813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36380-13	PE-TSP081720-B606UPWIND	Total/NA	Air	Filter to Air	
570-36380-14	PE-TSP081720-12ADOWNWIND	Total/NA	Air	Filter to Air	
570-36380-17	PE-TSP081820-B606UPWIND	Total/NA	Air	Filter to Air	
570-36380-18	PE-TSP081820-12ADOWNWIND	Total/NA	Air	Filter to Air	
570-36380-21	PE-TSP081920-B606UPWIND	Total/NA	Air	Filter to Air	
570-36380-22	PE-TSP081920-12ADOWNWIND	Total/NA	Air	Filter to Air	
570-36380-25	PE-TSP082020-B606UPWIND	Total/NA	Air	Filter to Air	
570-36380-26	PE-TSP082020-12ADOWNWIND	Total/NA	Air	Filter to Air	
570-36380-29	PE-TSP082120-B606UPWIND	Total/NA	Air	Filter to Air	
570-36380-30	PE-TSP082120-12ADOWNWIND	Total/NA	Air	Filter to Air	
MB 570-91813/1-A	Method Blank	Total/NA	Air	Filter to Air	
570-36380-14 DU	PE-TSP081720-12ADOWNWIND	Total/NA	Air	Filter to Air	

# QC Association Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## General Chemistry

### Analysis Batch: 91905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36380-13	PE-TSP081720-B606UPWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-14	PE-TSP081720-12ADOWNWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-17	PE-TSP081820-B606UPWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-18	PE-TSP081820-12ADOWNWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-21	PE-TSP081920-B606UPWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-22	PE-TSP081920-12ADOWNWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-25	PE-TSP082020-B606UPWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-26	PE-TSP082020-12ADOWNWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-29	PE-TSP082120-B606UPWIND	Total/NA	Air	40CFR50 App B	91813
570-36380-30	PE-TSP082120-12ADOWNWIND	Total/NA	Air	40CFR50 App B	91813
MB 570-91813/1-A	Method Blank	Total/NA	Air	40CFR50 App B	91813
570-36380-14 DU	PE-TSP081720-12ADOWNWIND	Total/NA	Air	40CFR50 App B	91813

### Analysis Batch: 91911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-36380-15	PE_PM10081720-B606UPWIND	Total/NA	Air	PM10	11
570-36380-16	PE_PM10081720-12ADOWNWIND	Total/NA	Air	PM10	12
570-36380-19	PE_PM10081820-B606UPWIND	Total/NA	Air	PM10	13
570-36380-20	PE_PM10081820-12ADOWNWIND	Total/NA	Air	PM10	13
570-36380-23	PE_PM10081920-B606UPWIND	Total/NA	Air	PM10	14
570-36380-24	PE_PM10081920-12ADOWNWIND	Total/NA	Air	PM10	14
570-36380-27	PE_PM10082020-B606UPWIND	Total/NA	Air	PM10	14
570-36380-28	PE_PM10082020-12ADOWNWIND	Total/NA	Air	PM10	14
570-36380-31	PE_PM10082120-B606UPWIND	Total/NA	Air	PM10	14
570-36380-32	PE_PM10082120-12ADOWNWIND	Total/NA	Air	PM10	14
MB 570-91911/1	Method Blank	Total/NA	Air	PM10	14
570-36380-15 DU	PE_PM10081720-B606UPWIND	Total/NA	Air	PM10	14

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

**Client Sample ID: PE-TSP081720-B606UPWIND**

**Lab Sample ID: 570-36380-13**

Matrix: Air

Date Collected: 08/17/20 07:19

Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:08	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					91813	08/28/20 15:03	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	08/28/20 15:03	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP081720-12ADOWNWIND**

**Lab Sample ID: 570-36380-14**

Matrix: Air

Date Collected: 08/17/20 07:34

Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:14	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					91813	08/28/20 15:03	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	08/28/20 15:03	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10081720-B606UPWIND**

**Lab Sample ID: 570-36380-15**

Matrix: Air

Date Collected: 08/17/20 07:19

Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3730 g	4.3825 g	91911	09/02/20 09:24	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10081720-12ADOWNWIND**

**Lab Sample ID: 570-36380-16**

Matrix: Air

Date Collected: 08/17/20 07:34

Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.4297 g	4.4402 g	91911	09/02/20 09:24	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP081820-B606UPWIND**

**Lab Sample ID: 570-36380-17**

Matrix: Air

Date Collected: 08/18/20 08:35

Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:15	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					91813	08/28/20 15:03	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	08/28/20 15:03	UWCT	ECL 1
		Instrument ID: NOEQUIP								

Eurofins Calscience LLC

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

**Client Sample ID: PE-TSP081820-12ADOWNWIND**  
Date Collected: 08/18/20 08:45  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-18**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:17	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					91813	08/28/20 15:03	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	08/28/20 15:03	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10081820-B606UPWIND**  
Date Collected: 08/18/20 08:35  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-19**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3540 g	4.3621 g	91911	09/02/20 09:24	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10081820-12ADOWNWIND**  
Date Collected: 08/18/20 08:45  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-20**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3302 g	4.3456 g	91911	09/02/20 09:24	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP081920-B606UPWIND**  
Date Collected: 08/19/20 06:05  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-21**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:31	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					91813	08/28/20 15:03	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	08/28/20 15:03	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP081920-12ADOWNWIND**  
Date Collected: 08/19/20 06:15  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-22**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:33	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					91813	08/28/20 15:03	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	08/28/20 15:03	UWCT	ECL 1
		Instrument ID: NOEQUIP								

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

**Client Sample ID: PE\_PM10081920-B606UPWIND**  
Date Collected: 08/19/20 06:05  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-23**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3313 g	4.3463 g	91911	09/02/20 09:24	UWCT	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE\_PM10081920-12ADOWNWIND**  
Date Collected: 08/19/20 06:15  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-24**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.2742 g	4.3208 g	91911	09/02/20 09:24	UWCT	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE-TSP082020-B606UPWIND**  
Date Collected: 08/20/20 06:05  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-25**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:35	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					91813	08/28/20 15:03	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	08/28/20 15:03	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP082020-12ADOWNWIND**  
Date Collected: 08/20/20 06:15  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-26**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:37	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					91813	09/01/20 19:50	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	09/01/20 19:50	UWCT	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10082020-B606UPWIND**  
Date Collected: 08/20/20 06:05  
Date Received: 08/26/20 09:50

**Lab Sample ID: 570-36380-27**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3021 g	4.3116 g	91911	09/02/20 09:24	UWCT	ECL 1

Instrument ID: NOEQUIP

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

**Client Sample ID: PE\_PM10082020-12ADOWNWIND**

**Lab Sample ID: 570-36380-28**

Matrix: Air

Date Collected: 08/20/20 06:15  
Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3359 g	4.3471 g	91911	09/02/20 09:24	UWCT	ECL 1
Instrument ID: NOEQUIP										

**Client Sample ID: PE-TSP082120-B606UPWIND**

**Lab Sample ID: 570-36380-29**

Matrix: Air

Date Collected: 08/21/20 06:04  
Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:39	OYW3	ECL 1
	Instrument ID: ICP8									
Total/NA	Pre Prep	Filter to Air					91813	09/01/20 19:50	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	09/01/20 19:50	UWCT	ECL 1
	Instrument ID: NOEQUIP									

**Client Sample ID: PE-TSP082120-12ADOWNWIND**

**Lab Sample ID: 570-36380-30**

Matrix: Air

Date Collected: 08/21/20 06:12  
Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92639	09/04/20 16:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92915	09/05/20 02:41	OYW3	ECL 1
	Instrument ID: ICP8									
Total/NA	Pre Prep	Filter to Air					91813	09/01/20 19:50	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			91905	09/01/20 19:50	UWCT	ECL 1
	Instrument ID: NOEQUIP									

**Client Sample ID: PE\_PM10082120-B606UPWIND**

**Lab Sample ID: 570-36380-31**

Matrix: Air

Date Collected: 08/21/20 06:04  
Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3081 g	4.3228 g	91911	09/02/20 09:24	UWCT	ECL 1
Instrument ID: NOEQUIP										

**Client Sample ID: PE\_PM10082120-12ADOWNWIND**

**Lab Sample ID: 570-36380-32**

Matrix: Air

Date Collected: 08/21/20 06:12  
Date Received: 08/26/20 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3009 g	4.3336 g	91911	09/02/20 09:24	UWCT	ECL 1
Instrument ID: NOEQUIP										

## Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

EMSL = EMSL - LA Testing - Huntington Beach, 5431 Industrial Drive, Huntington Beach, CA 92649

Eurofins Calscience LLC

# Accreditation/Certification Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

## Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

## Method Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	ECL 1
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	ECL 1
PM10	Particulate Matter	40CFR50J	ECL 1
NIOSH 7400 Rev	NIOSH 7400 Rev. 3	NIOSH	EMSL
3050B	Preparation, Metals	SW846	ECL 1
Filter to Air	Filter to Air volume ratio	None	ECL 1

### Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and its Supplements

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

EMSL = EMSL - LA Testing - Huntington Beach, 5431 Industrial Drive, Huntington Beach, CA 92649

# Sample Summary

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-36380-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-36380-1	PE-ASB081720-B606UPWIND	Air	08/17/20 07:19	08/26/20 09:50	
570-36380-2	PE-ASB081720-12ADOWNWIND	Air	08/17/20 07:34	08/26/20 09:50	
570-36380-3	PE-ASB081820-B606UPWIND	Air	08/18/20 08:35	08/26/20 09:50	
570-36380-4	PE-ASB081820-12ADOWNWIND	Air	08/18/20 08:45	08/26/20 09:50	
570-36380-5	PE-ASB081920-B606UPWIND	Air	08/19/20 06:05	08/26/20 09:50	
570-36380-6	PE-ASB081920-12ADOWNWIND	Air	08/19/20 06:15	08/26/20 09:50	
570-36380-7	PE-ASB082020-B606UPWIND	Air	08/20/20 06:05	08/26/20 09:50	
570-36380-8	PE-ASB082020-12ADOWNWIND	Air	08/20/20 06:15	08/26/20 09:50	
570-36380-9	PE-ASB082120-B606UPWIND	Air	08/21/20 06:04	08/26/20 09:50	
570-36380-10	PE-ASB082120-12ADOWNWIND	Air	08/21/20 06:10	08/26/20 09:50	
570-36380-11	PE-ASB-BLANK-B606UPWIND	Air	08/21/20 06:04	08/26/20 09:50	
570-36380-12	PE-ASB-BLANK-12ADOWNWIND	Air	08/21/20 06:12	08/26/20 09:50	
570-36380-13	PE-TSP081720-B606UPWIND	Air	08/17/20 07:19	08/26/20 09:50	
570-36380-14	PE-TSP081720-12ADOWNWIND	Air	08/17/20 07:34	08/26/20 09:50	
570-36380-15	PE_PM10081720-B606UPWIND	Air	08/17/20 07:19	08/26/20 09:50	
570-36380-16	PE_PM10081720-12ADOWNWIND	Air	08/17/20 07:34	08/26/20 09:50	
570-36380-17	PE-TSP081820-B606UPWIND	Air	08/18/20 08:35	08/26/20 09:50	
570-36380-18	PE-TSP081820-12ADOWNWIND	Air	08/18/20 08:45	08/26/20 09:50	
570-36380-19	PE_PM10081820-B606UPWIND	Air	08/18/20 08:35	08/26/20 09:50	
570-36380-20	PE_PM10081820-12ADOWNWIND	Air	08/18/20 08:45	08/26/20 09:50	
570-36380-21	PE-TSP081920-B606UPWIND	Air	08/19/20 06:05	08/26/20 09:50	
570-36380-22	PE-TSP081920-12ADOWNWIND	Air	08/19/20 06:15	08/26/20 09:50	
570-36380-23	PE_PM10081920-B606UPWIND	Air	08/19/20 06:05	08/26/20 09:50	
570-36380-24	PE_PM10081920-12ADOWNWIND	Air	08/19/20 06:15	08/26/20 09:50	
570-36380-25	PE-TSP082020-B606UPWIND	Air	08/20/20 06:05	08/26/20 09:50	
570-36380-26	PE-TSP082020-12ADOWNWIND	Air	08/20/20 06:15	08/26/20 09:50	
570-36380-27	PE_PM10082020-B606UPWIND	Air	08/20/20 06:05	08/26/20 09:50	
570-36380-28	PE_PM10082020-12ADOWNWIND	Air	08/20/20 06:15	08/26/20 09:50	
570-36380-29	PE-TSP082120-B606UPWIND	Air	08/21/20 06:04	08/26/20 09:50	
570-36380-30	PE-TSP082120-12ADOWNWIND	Air	08/21/20 06:12	08/26/20 09:50	
570-36380-31	PE_PM10082120-B606UPWIND	Air	08/21/20 06:04	08/26/20 09:50	
570-36380-32	PE_PM10082120-12ADOWNWIND	Air	08/21/20 06:12	08/26/20 09:50	



**LA Testing**

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

<http://www.LATesting.com> / [gardengrovelab@lateseting.com](mailto:gardengrovelab@lateseting.com)

**LA Testing Order:** 332015541

**Customer ID:** 32CAL51

**Customer PO:**

**Project ID:**

**Attention:** Terri Chang  
Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841

**Phone:** (714) 895-5494

**Fax:** (714) 894-7501

**Received Date:** 08/26/2020 03:10 PM

**Analysis Date:** 09/09/2020

**Collected Date:** 08/17/2020 - 08/21/2020

**Project:** HPNS - Parcel E / 500712 / 570-36380-1

**Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules,  
Revision 3, Issue 3, 6/15/2019**

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm <sup>2</sup>	Fibers/cc	Notes
PE-ASB081720-B606UPW IND (570-36380-1) <u>332015541-0001</u>		08/17/2020	2088	13	100	0.0013	16.6	0.0031	
PE-ASB081720-12ADOW NWIND (570-36380-2) <u>332015541-0002</u>		08/17/2020	2126	<5.5	100	0.0013	<7.01	<0.0013	
PE-ASB081820-B606UPW IND (570-36380-3) <u>332015541-0003</u>		08/18/2020	1772	19	100	0.0015	24.2	0.0053	
PE-ASB081820-12ADOW NWIND (570-36380-4) <u>332015541-0004</u>		08/18/2020	1674	6.5	100	0.0016	8.28	0.0019	
PE-ASB081920-B606UPW IND (570-36380-5) <u>332015541-0005</u>		08/19/2020	1172	33	100	0.0023	42.0	0.0138	
PE-ASB081920-12ADOW NWIND (570-36380-6) <u>332015541-0006</u>		08/19/2020	1980.94	11	100	0.0014	14.0	0.0027	
PE-ASB082020-B606UPW IND (570-36380-7) <u>332015541-0007</u>		08/20/2020	2096	24	100	0.0013	30.6	0.0056	
PE-ASB082020-12ADOW NWIND (570-36380-8) <u>332015541-0008</u>		08/20/2020	1954.88	10.5	100	0.0014	13.4	0.0026	
PE-ASB082120-B606UPW IND (570-36380-9) <u>332015541-0009</u>		08/21/2020	2144	6	100	0.0013	7.64	0.0014	Sample pulled for 10% duplicate count.
PE-ASB082120-12ADOW NWIND (570-36380-10) <u>332015541-0010</u>		08/21/2020	2078	<5.5	100	0.0013	<7.01	<0.0013	
PE-ASB-BLANK-B606UP WIND (570-36380-11) <u>332015541-0011</u>		08/21/2020		<5.5	100		<7.01		Field Blank
PE-ASB-BLANK-12ADOW NWIND (570-36380-12) <u>332015541-0012</u>		08/21/2020		<5.5	100		<7.01		Field Blank
PE-ASB082120-B606UPW IND (570-36380-9) DUP		08/21/2020	2144	7	100	0.0013	8.92	0.0016	10% Duplicate count.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Limit of detection is 7 fibers/mm<sup>2</sup>. Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm<sup>2</sup>) have greater than optimal variability and are probably biased. Field blank results, when available, are used to blank correct results. NIOSH 7400 requires field blanks be submitted at a rate of 10%, with a minimum of 2 per set. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAC standards unless otherwise noted.

Intra-laboratory Sr values: 5-20 fibers = 0.35, 21-50 fibers = 0.24, 51-100 fibers = 0.19. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34.  
Samples analyzed by LA Testing Huntington Beach, CAAIHA-LAP, LLC-IHLAP Accredited #101650

Initial report from: 09/09/2020 03:01 PM



**LA Testing**

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

<http://www.LATesting.com> / [gardengrovelab@lateseting.com](mailto:gardengrovelab@lateseting.com)

**LA Testing Order:** 332015541

**Customer ID:** 32CAL51

**Customer PO:**

**Project ID:**

**Attention:** Terri Chang  
Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841

**Phone:** (714) 895-5494

**Fax:** (714) 894-7501

**Received Date:** 08/26/2020 03:10 PM

**Analysis Date:** 09/09/2020

**Collected Date:** 08/17/2020 - 08/21/2020

**Project:** HPNS - Parcel E / 500712 / 570-36380-1

**Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules,  
Revision 3, Issue 3, 6/15/2019**

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm <sup>2</sup>	Fibers/cc	Notes
332015541-0013									

The results reported have been blank corrected as applicable.

**Analyst(s):**

Tony Salgado PCM 13

Michael Chapman, Laboratory Manager  
or other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Limit of detection is 7 fibers/mm<sup>2</sup>. Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm<sup>2</sup>) have greater than optimal variability and are probably biased. Field blank results, when available, are used to blank correct results. NIOSH 7400 requires field blanks be submitted at a rate of 10%, with a minimum of 2 per set. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAC standards unless otherwise noted.

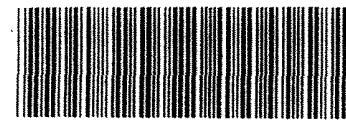
Intra-laboratory Sr values: 5-20 fibers = 0.35, 21-50 fibers = 0.24, 51-100 fibers = 0.19. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34.

Samples analyzed by LA Testing Huntington Beach, CAAIHA-LAP, LLC-IHLAP Accredited #101650

Initial report from: 09/09/2020 03:01 PM



APTIM Federal Services, LLC

4005 Port Chicago Hwy  
Concord, CA 94520

570-36380 Chain of Custody

## CHAIN OF CUSTODY

Ref. Document # CTO 0024 - AIR 021  
Page 1 of 2

Project Manager: **Nels Johnson**  
 Send Report To: **Edgar Ruiz**  
 Phone/Fax Number: **805.680.8279**  
 Address: **4005 Port Chicago Hwy**  
 City: **Concord, CA 94520**  
[edgar.ruiz@aptim.com](mailto:edgar.ruiz@aptim.com)

Sampler's Name(s): ER	Collection Information					Matrix	# of containers	Container Type	PCB (EPA 8082 / TO-04)	PAH (EPA 8270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Subpt J, BAAQMD Reg 6)	TSP, Mn, Pb, As (40 CFR 50 App B; NIOSH 7300/9010B)	Flow Rate (L/min.)	Sample Volume (m³)	
	Sample ID Number	Filter No.	Date	Time	Method											
PE-ASB081720-B606UPWIND	CU201504	08/17/20	7:19	G	A	I	1	PCM			X				2.00	2.09
PE-ASB081720-12ADOWNWIND	CU201519	08/17/20	7:34	G	A	I	1	PCM			X				2.00	2.13
PE-ASB081820-B606UPWIND	CU201459	08/18/20	8:35	G	A	I	1	PCM			X				2.00	1.77
PE-ASB081820-12ADOWNWIND	CU201621	08/18/20	8:45	G	A	I	1	PCM			X				2.00	1.67
PE-ASB081920-B606UPWIND	CU201437	08/19/20	6:05	G	A	I	1	PCM			X				2.00	1.17
PE-ASB081920-12ADOWNWIND	CU201473	08/19/20	6:15	G	A	I	1	PCM			X				2.01	1.98
PE-ASB082020-B606UPWIND	CU201531	08/20/20	6:05	G	A	I	1	PCM			X				2.00	2.10
PE-ASB082020-12ADOWNWIND	CU201516	08/20/20	6:15	G	A	I	1	PCM			X				2.01	1.95
PE-ASB082120-B606UPWIND	CU201491	08/21/20	6:04	G	A	I	1	PCM			X				2.00	2.14
PE-ASB082120-12ADOWNWIND	CU201582	08/21/20	6:12	G	A	I	1	PCM			X				2.01	2.08
PE-ASB-BLANK-B606UPWIND	CU201452	08/21/20	6:04	G	A	I	1	PCM			X				NA	
PE-ASB-BLANK-B606DOWNWIND	CU125034	08/21/20	6:12	G	A	I	1	PCM			X				NA	
Temperature Blank																x

## Special Instructions:

Turn Around Time  
 24-hr     5-day     10-day

I

II

Level Of QC Required:  
III Project Specific:

Relinquished By Edgar Ruiz Date: 8/25/20

Time: 1012 Received By: MHP ECT Date: 8/25/20

Time: 1630 Received By: JMW Date: 8/26/20

Time: Received By: Date: 8/26/20

## Method Codes

G = Grab

## Matrix Codes

SO = Soil

DW = Drinking Water

SL = Sludge

GW = Ground Water

CP = Chip Samples

WW = Waste Water

A=Air

ABS=Asbestos, PO=Pipe Opening

# C.S. # 1241844



APTIM Federal Services, LLC  
4005 Port Chicago Hwy  
Concord, CA 94520

## CHAIN OF CUSTODY

Ref. Document #

CTO 0024 - AIR 021

Page 2 of 2

Send Report To: *Edgar Ruiz*  
Phone/Fax Number: 8056808279  
Address: 4005 Port Chicago Hwy  
City: Concord, CA 94520

edgar.ruiz@aptim.com

Sampler's Name(s): ER	Collection Information					Matrix	# of containers	Container Type	Analyses Requested				
	Sample ID Number	Lot No.	Date	Time	Method				PCB (EPA 8082 / TO-04)	PAH (EPA 8270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Subpt J; BAAQMD Reg 6)	TSP, Mn, Pb, As (40 CFR 50 App B; NIOSH)
PE_TSP081720-B606UPWIND	867	08/17/20	7:19	G	A	1	8X10 EPM Whatman			X	1132.80	335.3	
PE_TSP081720-12ADOWNWIND	868	08/17/20	7:34	G	A	1	8X10 EPM Whatman			X	1132.80	318.3	
PE_PM10081720-B606UPWIND	Q0398985	08/17/20	7:19	G	A	1	8X10 EPM Whatman			X	1132.80	335.3	
PE_PM10081720-12ADOWNWIND	Q0398987	08/17/20	7:34	G	A	1	8X10 EPM Whatman			X	1132.80	318.3	
PE-TSP081820-B606UPWIND	871	08/18/20	8:35	G	A	1	8X10 EPM Whatman			X	1132.80	555.1	
PE-TSP081820-12ADOWNWIND	873	08/18/20	8:45	G	A	1	8X10 EPM Whatman			X	1132.80	532.4	
PE_PM10081820-B606UPWIND	Q0409439	08/18/20	8:35	G	A	1	8X10 EPM Whatman			X	1132.80	555.1	
PE_PM10081820-12ADOWNWIND	Q0409440	08/18/20	8:45	G	A	1	8X10 EPM Whatman			X	1132.80	532.4	
PE_TSP081920-B606UPWIND	869	08/19/20	6:05	G	A	1	8X10 EPM Whatman			X	1132.80	725.0	
PE_TSP081920-12ADOWNWIND	870	08/19/20	6:15	G	A	1	8X10 EPM Whatman			X	1132.80	702.3	
PE_PM10081920-B606UPWIND	Q0409441	08/19/20	6:05	G	A	1	8X10 EPM Whatman			X	1132.80	725.0	
PE_PM10081920-12ADOWNWIND	Q0409442	08/19/20	6:15	G	A	1	8X10 EPM Whatman			X	1132.80	702.3	
PE-TSP082020-B606UPWIND	Q0409444	08/20/20	6:05	G	A	1	8X10 EPM Whatman			X	1132.80	725.0	
PE-TSP082020-12ADOWNWIND	Q0409443	08/20/20	6:15	G	A	1	8X10 EPM Whatman			X	1132.80	702.3	
PE_PM10082020-B606UPWIND	Q0409445	08/20/20	6:05	G	A	1	8X10 EPM Whatman			X	1132.80	725.0	
PE_PM10082020-12ADOWNWIND	Q0409446	08/20/20	6:15	G	A	1	8X10 EPM Whatman			X	1132.80	702.3	
PE_TSP082120-B606UPWIND	Q0409449	08/21/20	6:04	G	A	1	8X10 EPM Whatman			X	1132.80	726.1	
PE_TSP082120-12ADOWNWIND	Q0409451	08/21/20	6:12	G	A	1	8X10 EPM Whatman			X	1132.80	705.7	
PE_PM10082120-B606UPWIND	Q0409450	08/21/20	6:04	G	A	1	8X10 EPM Whatman			X	1132.80	726.1	
PE_PM10082120-12ADOWNWIND	Q0409452	08/21/20	6:12	G	A	1	8X10 EPM Whatman			X	1132.80	705.7	

PROJECT NAME: HPNS Parcel E PROJ. NO. 500712 Asbestos TSP PM-10

## AIR MONITORING LOG

STATION

**COC# 021**

SAMPLE NO.	PE-ASB081720-B606UPWIND			8/17/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201504	2.000	2.000	2.000	8/17/20 07:19	8/18/20 00:43	1044	2.09	Asbestos	2.00

SAMPLE NO.	PE-ASB081720-I2A DOWNWIND			8/17/2020 I2A Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201519	2.000	2.000	2.000	8/17/20 07:34	8/18/20 01:17	1063	2.13	Asbestos	2.00

SAMPLE NO.	PE-ASB081820-B606UPWIND			8/18/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201459	2.000	2.000	2.000	8/18/20 08:35	8/18/20 23:21	886	1.77	Asbestos	2.00

SAMPLE NO.	PE-ASB081820-I2A DOWNWIND			8/18/2020 I2A Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201621	2.000	2.000	2.000	8/18/20 08:45	8/18/20 22:42	837	1.67	Asbestos	2.00

SAMPLE NO.	PE-ASB081920-B606UPWIND			8/19/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201437	2.000	2.000	2.000	8/19/20 06:05	8/19/20 15:51	586	1.17	Asbestos	2.00

SAMPLE NO.	PE-ASB081920-I2A DOWNWIND			8/19/2020 I2A Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201473	2.005	2.005	2.005	8/19/20 06:15	8/19/20 22:43	988	1.98	Asbestos	2.01

SAMPLE NO.	PE-ASB082020-B606UPWIND			8/20/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201531	2.000	2.000	2.000	8/20/20 06:05	8/20/20 23:33	1048	2.10	Asbestos	2.00

SAMPLE NO.	PE-ASB082020-I2A DOWNWIND			8/20/2020 I2A Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201516	2.005	2.005	2.005	8/20/20 06:15	8/20/20 22:30	975	1.95	Asbestos	2.01

SAMPLE NO.

8/21/2020 Building 606 Upwind

LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201491	2.000	2.000	2.000	8/21/20 06:04	8/21/20 23:56	1072	2.14		2.00

SAMPLE NO.

8/21/2020 12A Downwind

LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201582	2.000	2.000	2.00	8/21/20 06:12	8/21/20 23:31	1039	2.08		2.00

SAMPLE NO.

8/21/2020 Building 606 Upwind

LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201452				8/21/20 06:04			0.0		

SAMPLE NO.

8/21/2020 12A Downwind

LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU125034				8/21/20 06:12			0.0		

PROJECT NAME: HPNS Parcel E

PROJ. NO.

500712

Asbestos

TSP

PM-10

STATION

COC# 021

SAMPLE NO. PE-TSP081720-B606UPWIND

8/17/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
867	40.0	40.0	40.0	8/20/20 07:19	8/20/20 12:15	296	335.3	TSP	1132.80

SAMPLE NO. PE-TSP081720-12ADOWNWIND

8/17/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
868	40.0	40.0	40.0	8/20/20 07:34	8/20/20 12:15	281	318.3	TSP	1132.80

SAMPLE NO. PE PMI0081720-B606UPWIND

8/17/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398985	40.0	40.0	40.0	8/20/20 07:19	8/20/20 12:15	296	335.3	PM-10	1132.80

SAMPLE NO. PE PMI0081720-12ADOWNWIND

8/17/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0398987	40.0	40.0	40.0	8/20/20 07:34	8/20/20 12:15	281	318.3	PM-10	1132.80

SAMPLE NO. PE-TSP081820-B606UPWIND

8/18/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
871	40.0	40.0	40.0	8/21/20 08:35	8/21/20 16:45	490	565.1	TSP	1132.80

SAMPLE NO. PE-TSP081820-12ADOWNWIND

8/18/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
873	40.0	40.0	40.0	8/21/20 08:45	8/21/20 16:35	470	532.4	TSP	1132.80

SAMPLE NO. PE PMI0081820-B606UPWIND

8/18/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409439	40.0	40.0	40.0	8/21/20 08:35	8/21/20 16:45	490	555.1	PM-10	1132.80

SAMPLE NO. PE PMI0081820-12ADOWNWIND

8/18/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				

Q0409440	40.0	40.0	40.0	8/21/20 08:45	8/21/20 16:35	470	532.4	PM-10	1132.80
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SAMPLE NO. PE-TSP081920-B606UPWIND		8/19/2020 Building 606 Upwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
869	40.0	40.0	40.0	8/19/20 06:05	8/19/20 16:45	640	725.0	TSP	1132.80

SAMPLE NO. PE-TSP081920-12A DOWNWIND		8/19/2020 12A Downwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
870	40.0	40.0	40.0	8/19/20 06:15	8/19/20 16:35	620	702.3	TSP	1132.80

SAMPLE NO. PE-TSP081920-B606UPWIND		8/19/2020 Building 606 Upwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409441	40.0	40.0	40.0	8/19/20 06:05	8/19/20 16:45	640	725.0	PM-10	1132.80

SAMPLE NO. PE-TSP081920-12A DOWNWIND		8/19/2020 12A Downwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409442	40.0	40.0	40.0	8/19/20 06:15	8/19/20 16:35	620	702.3	PM-10	1132.80

SAMPLE NO. PE-TSP082020-B606UPWIND		8/20/2020 Building 606 Upwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409444	40.0	40.0	40.0	8/20/20 06:05	8/20/20 16:45	640	725.0	TSP	1132.80

SAMPLE NO. PE-TSP082020-12A DOWNWIND		8/20/2020 12A Downwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409443	40.0	40.0	40.0	8/20/20 06:15	8/20/20 16:35	620	702.3	TSP	1132.80

SAMPLE NO. PE-TSP082020-B606UPWIND		8/20/2020 Building 606 Upwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409445	40.0	40.0	40.0	8/20/20 06:05	8/20/20 16:45	640	725.0	PM-10	1132.80

SAMPLE NO. PE-TSP082020-12A DOWNWIND		8/20/2020 12A Downwind							
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409446	40.0	40.0	40.0	8/20/20 06:15	8/20/20 16:35	620	702.3	PM-10	1132.80

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SAMPLE NO.	PE-TSP082120-B606UPWIND					8/21/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409449	40.0	40.0	40.0	8/20/20 06:04	8/20/20 16:45	641	726.1	TSP	1132.80

SAMPLE NO.	PE-TSP082120-12ADOWNWIND					8/21/2020 12A Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409451	40.0	40.0	40.0	8/20/20 06:12	8/20/20 16:35	623	705.7	TSP	1132.80

SAMPLE NO.	PE PMI0082120-B606UPWIND					8/21/2020 Building 606 Upwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409450	40.0	40.0	40.0	8/20/20 06:04	8/20/20 16:45	641	726.1	PM-10	1132.80

SAMPLE NO.	PE PMI0082120-12ADOWNWIND					8/21/2020 12A Downwind			
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409452	40.0	40.0	40.0	8/20/20 06:12	8/20/20 16:35	623	705.7	PM-10	1132.80



APTM Federal Services, LLC

4005 Port Chicago Hwy  
Concord, CA 94520Project Manager: **Nels Johnson**Send Report To: **Edgar Ruiz**Phone/Fax Number: **805.680.8279**Address: **4005 Port Chicago Hwy**City: **Concord, CA 94520**[edgar.ruiz@aptm.com](mailto:edgar.ruiz@aptm.com)

Sampler's Name(s): ER		Collection Information				Matrix	# of Containers	Container Type	Analyses Requested																							
Sample ID Number	Filter No.	Date	Time	Method					PCB (EPA 8082 / TO-04)	PAH (EPA 8270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Suppl 1; BAAQMD Reg 6)	ISP, Mn, Pb, As (40 CFR 50 App B; NIOSH 7300/60/0B)	Flow Rate (L/min.)	Sample Volume (m³)																	
PE-ASB081720-B606UPWIND	CU201504	08/17/20	7:19	G	A	1	PCM		X			2.00	2.09																			
PE-ASB081720-12ADOWNWIND	CU201519	08/17/20	7:34	G	A	1	PCM		X			2.00	2.13																			
PE-ASB081820-B606UPWIND	CU201459	08/18/20	8:35	G	A	1	PCM		X			2.00	1.77																			
PE-ASB081820-12ADOWNWIND	CU201621	08/18/20	8:45	G	A	1	PCM		X			2.00	1.67																			
PE-ASB081920-B606UPWIND	CU201437	08/19/20	6:05	G	A	1	PCM		X			2.00	1.17																			
PE-ASB081920-12ADOWNWIND	CU201473	08/19/20	6:15	G	A	1	PCM		X			2.01	1.98																			
PE-ASB082020-B606UPWIND	CU201531	08/20/20	6:05	G	A	1	PCM		X			2.00	2.10																			
PE-ASB082020-12ADOWNWIND	CU201516	08/20/20	6:15	G	A	1	PCM		X			2.01	1.95																			
PE-ASB082120-B606UPWIND	CU201491	08/21/20	6:04	G	A	1	PCM		X			2.00	2.14																			
PE-ASB082120-12ADOWNWIND	CU201582	08/21/20	6:12	G	A	1	PCM		X			2.01	2.08																			
PE-ASB-BLANK-B606UPWIND	CU201452	08/21/20	6:04	G	A	1	PCM		X			NA																				
PE-ASB-BLANK-B606DOWNWIND	CU125034	08/21/20	6:12	G	A	1	PCM		X			NA																				
Temperature Blank	12A ER												x																			
Special Instructions: <b>8/28/20</b>																																
Turn Around Time				Level Of QC Required:									Method Codes																			
<input type="checkbox"/> 24-hr				<input type="checkbox"/> 5-day <input checked="" type="radio"/> 10-day				<table border="1"> <tr> <td>I</td> <td>II</td> <td>III</td> <td>Project Specific</td> </tr> <tr> <td>Received By <i>Edgar Ruiz</i></td> <td><i>MMO ECT</i></td> <td>Date 8/25/20</td> <td>Date 8/25/20</td> </tr> <tr> <td>Date 10/2</td> <td>Time 1012</td> <td>Time 1012</td> <td>Time 1012</td> </tr> </table>									I	II	III	Project Specific	Received By <i>Edgar Ruiz</i>	<i>MMO ECT</i>	Date 8/25/20	Date 8/25/20	Date 10/2	Time 1012	Time 1012	Time 1012	C = Composite		G = Grab	
I	II	III	Project Specific																													
Received By <i>Edgar Ruiz</i>	<i>MMO ECT</i>	Date 8/25/20	Date 8/25/20																													
Date 10/2	Time 1012	Time 1012	Time 1012																													
Relinquished By				Received By									Matrix Codes		SO = Soil																	
<i>Edgar Ruiz</i>				<i>MMO ECT</i>									DW = Drinking Water		SL = Sludge																	
													GW = Ground Water		CP = Chip Samples																	
Relinquished By				Received By									WW = Waste Water																			
													A = Air																			
													ABS = Asbestos, PO = Pipe Operator																			



800-322-5555  
www.gls-us.com

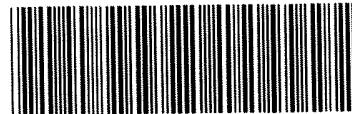
**Ship From**  
CAL SCIENCE- CONCORD  
ALAN KEMP  
5063 COMMERCIAL CIRCLE  
#H  
CONCORD, CA 94520

**Ship To**  
CEL  
**SAMPLE RECEIVING**  
**7440 LINCOLN WAY**  
**GARDEN GROVE, CA 92841**

**COD:** \$0.00  
**Weight:** 0 lb(s)  
**Reference:**  
APTIM  
**Delivery Instructions:**  
  
**Signature Type:** STANDARD

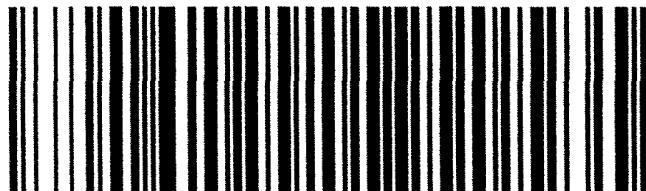
Tracking #: 550188555

NPS



**GARDEN GROVE**

**S92841A**



25897424

**ORC CA927-CL0**

Print Date: 8/25/2020 11:27 AM

#### LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.

Step 2: Fold this page in half.

Step 3: Securely attach this label to your package and do not cover the barcode.

#### TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all of the General Logistics Systems US, Inc. (GLS) service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at [www.gls-us.com](http://www.gls-us.com).

## Login Sample Receipt Checklist

Client: Aptim Federal Services LLC

Job Number: 570-36380-1

**Login Number:** 36380

**List Source:** Eurofins Calscience

**List Number:** 1

**Creator:** Cruise, Noel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



eurofins

Environment Testing  
America



## ANALYTICAL REPORT

Eurofins Calscience LLC  
7440 Lincoln Way  
Garden Grove, CA 92841  
Tel: (714)895-5494

Laboratory Job ID: 570-37381-1

Client Project/Site: HPNS - Parcel E / 500712

For:

Aptim Federal Services LLC  
Hunters Point Shipyard  
200 Fisher Blvd  
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Authorized for release by:  
9/16/2020 5:51:11 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Definitions/Glossary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

# Case Narrative

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## Job ID: 570-37381-1

Laboratory: Eurofins Calscience LLC

### Narrative

Job Narrative  
570-37381-1

### Comments

No additional comments.

### Receipt

The samples were received on 9/2/2020 10:35 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 22.0° C.

### Metals

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

### General Chemistry

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

### Lab Admin

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

### Subcontract Work

Method Asbestos - Low Flow: This method was subcontracted to EMSL - LA Testing - Huntington Beach. The subcontract laboratory certification is different from that of the facility issuing the final report.

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: PE-TSP082420-B606UPWIND**

**Date Collected: 08/24/20 06:55**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12.1	J	18.0	6.22	ug/Sample	D	09/03/20 20:30	09/04/20 15:00	1
Lead	ND		12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:00	1
Manganese	32.1		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:00	1

**Lab Sample ID: 570-37381-12**

**Matrix: Air**

**Client Sample ID: PE-TSP082420-12ADOWNWIND**

**Date Collected: 08/24/20 07:02**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.42	J	18.0	6.22	ug/Sample	D	09/03/20 20:30	09/04/20 15:06	1
Lead	9.49	J	12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:06	1
Manganese	36.5		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:06	1

**Lab Sample ID: 570-37381-13**

**Matrix: Air**

**Client Sample ID: PE-TSP082520-B606UPWIND**

**Date Collected: 08/25/20 07:03**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample	D	09/03/20 20:30	09/04/20 15:07	1
Lead	3.58	J	12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:07	1
Manganese	28.0		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:07	1

**Lab Sample ID: 570-37381-16**

**Matrix: Air**

**Client Sample ID: PE-TSP082520-12ADOWNWIND**

**Date Collected: 08/25/20 07:13**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample	D	09/03/20 20:30	09/04/20 15:09	1
Lead	6.86	J	12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:09	1
Manganese	29.2		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:09	1

**Lab Sample ID: 570-37381-17**

**Matrix: Air**

**Client Sample ID: PE-TSP082620-B606UPWIND**

**Date Collected: 08/26/20 07:06**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample	D	09/03/20 20:30	09/04/20 15:23	1
Lead	10.5	J	12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:23	1
Manganese	36.7		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:23	1

**Lab Sample ID: 570-37381-20**

**Matrix: Air**

**Client Sample ID: PE-TSP082620-12ADOWNWIND**

**Date Collected: 08/26/20 07:14**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample	D	09/03/20 20:30	09/04/20 15:25	1
Lead	4.66	J	12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:25	1
Manganese	86.2		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:25	1

**Lab Sample ID: 570-37381-21**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## Method: 6010B - Metals (ICP)

**Client Sample ID: PE-TSP082720-B606UPWIND**

**Date Collected: 08/27/20 07:04**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11.3	J	18.0	6.22	ug/Sample		09/03/20 20:30	09/04/20 16:05	1
Lead	6.43	J	12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 16:05	1
Manganese	35.6		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 16:05	1

**Lab Sample ID: 570-37381-24**

**Matrix: Air**

**Client Sample ID: PE-TSP082720-12ADOWNWIND**

**Date Collected: 08/27/20 07:19**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/03/20 20:30	09/04/20 15:30	1
Lead	ND		12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:30	1
Manganese	20.7		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:30	1

**Lab Sample ID: 570-37381-25**

**Matrix: Air**

**Client Sample ID: PE-TSP082820-B606UPWIND**

**Date Collected: 08/28/20 06:58**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/03/20 20:30	09/04/20 15:32	1
Lead	8.30	J	12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:32	1
Manganese	23.4		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:32	1

**Lab Sample ID: 570-37381-28**

**Matrix: Air**

**Client Sample ID: PE-TSP082820-12ADOWNWIND**

**Date Collected: 08/28/20 07:11**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/03/20 20:30	09/04/20 15:34	1
Lead	9.09	J	12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 15:34	1
Manganese	37.7		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 15:34	1

**Lab Sample ID: 570-37381-29**

**Matrix: Air**

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## General Chemistry

**Client Sample ID: PE-TSP082420-B606UPWIND**

**Date Collected: 08/24/20 06:55**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	102		5.95	5.95	ug/m3	D		09/03/20 13:00	1

**Lab Sample ID: 570-37381-12**

**Matrix: Air**

**Client Sample ID: PE-TSP082420-12ADOWNWIND**

**Date Collected: 08/24/20 07:02**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	91.8		5.91	5.91	ug/m3	D		09/03/20 13:00	1

**Lab Sample ID: 570-37381-13**

**Matrix: Air**

**Client Sample ID: PE\_PM10082420-B606UPWIND**

**Date Collected: 08/24/20 06:55**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	37.3		5.95	NaN	ug/m3	D		09/04/20 11:00	1

**Lab Sample ID: 570-37381-14**

**Matrix: Air**

**Client Sample ID: PE\_PM10082420-12ADOWNWIND**

**Date Collected: 08/24/20 07:02**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	64.6		5.91	NaN	ug/m3	D		09/04/20 11:00	1

**Lab Sample ID: 570-37381-15**

**Matrix: Air**

**Client Sample ID: PE-TSP082520-B606UPWIND**

**Date Collected: 08/25/20 07:03**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	84.6		5.79	5.79	ug/m3	D		09/03/20 13:00	1

**Lab Sample ID: 570-37381-16**

**Matrix: Air**

**Client Sample ID: PE-TSP082520-12ADOWNWIND**

**Date Collected: 08/25/20 07:13**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	74.4		5.33	5.33	ug/m3	D		09/03/20 13:00	1

**Lab Sample ID: 570-37381-17**

**Matrix: Air**

**Client Sample ID: PE\_PM10082520-B606UPWIND**

**Date Collected: 08/25/20 07:03**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	32.1		5.79	NaN	ug/m3	D		09/04/20 11:00	1

**Lab Sample ID: 570-37381-18**

**Matrix: Air**

**Client Sample ID: PE\_PM10082520-12ADOWNWIND**

**Date Collected: 08/25/20 07:13**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	58.4		5.33	NaN	ug/m3	D		09/04/20 11:00	1

**Lab Sample ID: 570-37381-19**

**Matrix: Air**

Eurofins Calscience LLC

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## General Chemistry

**Client Sample ID: PE-TSP082620-B606UPWIND**

**Date Collected: 08/26/20 07:06**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	43.8		4.57	4.57	ug/m3	D		09/03/20 13:00	1

**Lab Sample ID: 570-37381-20**

**Matrix: Air**

**Client Sample ID: PE-TSP082620-12ADOWNWIND**

**Date Collected: 08/26/20 07:14**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	30.7		4.72	4.72	ug/m3	D		09/03/20 13:00	1

**Lab Sample ID: 570-37381-21**

**Matrix: Air**

**Client Sample ID: PE\_PM10082620-B606UPWIND**

**Date Collected: 08/26/20 07:06**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	16.5		4.57	NaN	ug/m3	D		09/04/20 11:00	1

**Lab Sample ID: 570-37381-22**

**Matrix: Air**

**Client Sample ID: PE\_PM10082620-12ADOWNWIND**

**Date Collected: 08/26/20 07:14**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	19.5		4.72	NaN	ug/m3	D		09/04/20 11:00	1

**Lab Sample ID: 570-37381-23**

**Matrix: Air**

**Client Sample ID: PE-TSP082720-B606UPWIND**

**Date Collected: 08/27/20 07:04**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	71.0		5.81	5.81	ug/m3	D		09/03/20 13:00	1

**Lab Sample ID: 570-37381-24**

**Matrix: Air**

**Client Sample ID: PE-TSP082720-12ADOWNWIND**

**Date Collected: 08/27/20 07:19**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	37.4		6.30	6.30	ug/m3	D		09/03/20 13:00	1

**Lab Sample ID: 570-37381-25**

**Matrix: Air**

**Client Sample ID: PE\_PM10082720-B606UPWIND**

**Date Collected: 08/27/20 07:04**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	27.9		5.81	NaN	ug/m3	D		09/04/20 11:00	1

**Lab Sample ID: 570-37381-26**

**Matrix: Air**

**Client Sample ID: PE\_PM10082720-12ADOWNWIND**

**Date Collected: 08/27/20 07:19**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	24.8		6.30	NaN	ug/m3	D		09/04/20 11:00	1

**Lab Sample ID: 570-37381-27**

**Matrix: Air**

Eurofins Calscience LLC

# Client Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## General Chemistry

**Client Sample ID: PE-TSP082820-B606UPWIND**

**Date Collected: 08/28/20 06:58**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	91.7		4.51	4.51	ug/m3			09/03/20 13:00	1

**Lab Sample ID: 570-37381-28**

**Matrix: Air**

**Client Sample ID: PE-TSP082820-12ADOWNWIND**

**Date Collected: 08/28/20 07:11**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	108		4.82	4.82	ug/m3			09/03/20 13:00	1

**Lab Sample ID: 570-37381-29**

**Matrix: Air**

**Client Sample ID: PE\_PM10082820-B606UPWIND**

**Date Collected: 08/28/20 06:58**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	67.4		4.51	NaN	ug/m3			09/04/20 11:00	1

**Lab Sample ID: 570-37381-30**

**Matrix: Air**

**Client Sample ID: PE\_PM10082820-12ADOWNWIND**

**Date Collected: 08/28/20 07:11**

**Date Received: 09/02/20 10:35**

**Sample Container: Folder/Filter**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	98.1		4.82	NaN	ug/m3			09/04/20 11:00	1

**Lab Sample ID: 570-37381-31**

**Matrix: Air**

# QC Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 570-92399/1-A**

**Matrix: Air**

**Analysis Batch: 92589**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 92399**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		18.0	6.22	ug/Sample		09/03/20 20:30	09/04/20 14:50	1
Lead	ND		12.0	3.16	ug/Sample		09/03/20 20:30	09/04/20 14:50	1
Manganese	ND		6.00	3.34	ug/Sample		09/03/20 20:30	09/04/20 14:50	1

**Lab Sample ID: LCS 570-92399/2-A**

**Matrix: Air**

**Analysis Batch: 92589**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 92399**

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limts
Arsenic		600	605.1		ug/Sample		101	80 - 120
Lead		600	637.4		ug/Sample		106	80 - 120
Manganese		600	604.4		ug/Sample		101	80 - 120

**Lab Sample ID: LCSD 570-92399/3-A**

**Matrix: Air**

**Analysis Batch: 92589**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 92399**

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
Arsenic		600	604.9		ug/Sample		101	80 - 120	0 20
Lead		600	639.7		ug/Sample		107	80 - 120	0 20
Manganese		600	599.3		ug/Sample		100	80 - 120	1 20

**Lab Sample ID: 570-37381-12 MS**

**Matrix: Air**

**Analysis Batch: 92589**

**Client Sample ID: PE-TSP082420-B606UPWIND**

**Prep Type: Total/NA**

**Prep Batch: 92399**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limts
Arsenic	12.1	J	600	590.6		ug/Sample		96	75 - 125
Lead	ND		600	620.0		ug/Sample		103	75 - 125
Manganese	32.1		600	606.9		ug/Sample		96	75 - 125

**Lab Sample ID: 570-37381-12 MSD**

**Matrix: Air**

**Analysis Batch: 92589**

**Client Sample ID: PE-TSP082420-B606UPWIND**

**Prep Type: Total/NA**

**Prep Batch: 92399**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	RPD	Limit
Arsenic	12.1	J	600	577.4		ug/Sample		94	75 - 125	2 20
Lead	ND		600	608.7		ug/Sample		101	75 - 125	2 20
Manganese	32.1		600	597.8		ug/Sample		94	75 - 125	2 20

## Method: 40CFR50 App B - Suspended Particulate Matter in Ambient Air

**Lab Sample ID: MB 570-92336/1-A**

**Matrix: Air**

**Analysis Batch: 92511**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Particulates	ND		1.23	1.23	ug/m3		09/03/20 13:00		1

Eurofins Calscience LLC

# QC Sample Results

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## Method: 40CFR50 App B - Suspended Particulate Matter in Ambient Air (Continued)

**Lab Sample ID: 570-37381-12 DU**

**Matrix: Air**

**Analysis Batch: 92511**

**Client Sample ID: PE-TSP082420-B606UPWIND**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Particulates	102		101.8		ug/m3		0	25

## Method: PM10 - Particulate Matter

**Lab Sample ID: MB 570-92565/1**

**Matrix: Air**

**Analysis Batch: 92565**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Particulate Matter	ND		1.23	1.23	ug/m3			09/04/20 11:00	1

**Lab Sample ID: 570-37381-14 DU**

**Matrix: Air**

**Analysis Batch: 92565**

**Client Sample ID: PE\_PM10082420-B606UPWIND**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Particulate Matter	37.3		37.49		ug/m3		0.5	25

# QC Association Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## Metals

### Prep Batch: 92399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-37381-12	PE-TSP082420-B606UPWIND	Total/NA	Air	3050B	1
570-37381-13	PE-TSP082420-12ADOWNWIND	Total/NA	Air	3050B	2
570-37381-16	PE-TSP082520-B606UPWIND	Total/NA	Air	3050B	3
570-37381-17	PE-TSP082520-12ADOWNWIND	Total/NA	Air	3050B	4
570-37381-20	PE-TSP082620-B606UPWIND	Total/NA	Air	3050B	5
570-37381-21	PE-TSP082620-12ADOWNWIND	Total/NA	Air	3050B	6
570-37381-24	PE-TSP082720-B606UPWIND	Total/NA	Air	3050B	7
570-37381-25	PE-TSP082720-12ADOWNWIND	Total/NA	Air	3050B	8
570-37381-28	PE-TSP082820-B606UPWIND	Total/NA	Air	3050B	9
570-37381-29	PE-TSP082820-12ADOWNWIND	Total/NA	Air	3050B	10
MB 570-92399/1-A	Method Blank	Total/NA	Air	3050B	11
LCS 570-92399/2-A	Lab Control Sample	Total/NA	Air	3050B	12
LCSD 570-92399/3-A	Lab Control Sample Dup	Total/NA	Air	3050B	13
570-37381-12 MS	PE-TSP082420-B606UPWIND	Total/NA	Air	3050B	14
570-37381-12 MSD	PE-TSP082420-B606UPWIND	Total/NA	Air	3050B	

### Analysis Batch: 92589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-37381-12	PE-TSP082420-B606UPWIND	Total/NA	Air	6010B	92399
570-37381-13	PE-TSP082420-12ADOWNWIND	Total/NA	Air	6010B	92399
570-37381-16	PE-TSP082520-B606UPWIND	Total/NA	Air	6010B	92399
570-37381-17	PE-TSP082520-12ADOWNWIND	Total/NA	Air	6010B	92399
570-37381-20	PE-TSP082620-B606UPWIND	Total/NA	Air	6010B	92399
570-37381-21	PE-TSP082620-12ADOWNWIND	Total/NA	Air	6010B	92399
570-37381-24	PE-TSP082720-B606UPWIND	Total/NA	Air	6010B	92399
570-37381-25	PE-TSP082720-12ADOWNWIND	Total/NA	Air	6010B	92399
570-37381-28	PE-TSP082820-B606UPWIND	Total/NA	Air	6010B	92399
570-37381-29	PE-TSP082820-12ADOWNWIND	Total/NA	Air	6010B	92399
MB 570-92399/1-A	Method Blank	Total/NA	Air	6010B	92399
LCS 570-92399/2-A	Lab Control Sample	Total/NA	Air	6010B	92399
LCSD 570-92399/3-A	Lab Control Sample Dup	Total/NA	Air	6010B	92399
570-37381-12 MS	PE-TSP082420-B606UPWIND	Total/NA	Air	6010B	92399
570-37381-12 MSD	PE-TSP082420-B606UPWIND	Total/NA	Air	6010B	92399

## General Chemistry

### Pre Prep Batch: 92336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-37381-12	PE-TSP082420-B606UPWIND	Total/NA	Air	Filter to Air	
570-37381-13	PE-TSP082420-12ADOWNWIND	Total/NA	Air	Filter to Air	
570-37381-16	PE-TSP082520-B606UPWIND	Total/NA	Air	Filter to Air	
570-37381-17	PE-TSP082520-12ADOWNWIND	Total/NA	Air	Filter to Air	
570-37381-20	PE-TSP082620-B606UPWIND	Total/NA	Air	Filter to Air	
570-37381-21	PE-TSP082620-12ADOWNWIND	Total/NA	Air	Filter to Air	
570-37381-24	PE-TSP082720-B606UPWIND	Total/NA	Air	Filter to Air	
570-37381-25	PE-TSP082720-12ADOWNWIND	Total/NA	Air	Filter to Air	
570-37381-28	PE-TSP082820-B606UPWIND	Total/NA	Air	Filter to Air	
570-37381-29	PE-TSP082820-12ADOWNWIND	Total/NA	Air	Filter to Air	
MB 570-92336/1-A	Method Blank	Total/NA	Air	Filter to Air	
570-37381-12 DU	PE-TSP082420-B606UPWIND	Total/NA	Air	Filter to Air	

# QC Association Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## General Chemistry

### Analysis Batch: 92511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-37381-12	PE-TSP082420-B606UPWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-13	PE-TSP082420-12ADOWNWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-16	PE-TSP082520-B606UPWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-17	PE-TSP082520-12ADOWNWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-20	PE-TSP082620-B606UPWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-21	PE-TSP082620-12ADOWNWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-24	PE-TSP082720-B606UPWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-25	PE-TSP082720-12ADOWNWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-28	PE-TSP082820-B606UPWIND	Total/NA	Air	40CFR50 App B	92336
570-37381-29	PE-TSP082820-12ADOWNWIND	Total/NA	Air	40CFR50 App B	92336
MB 570-92336/1-A	Method Blank	Total/NA	Air	40CFR50 App B	92336
570-37381-12 DU	PE-TSP082420-B606UPWIND	Total/NA	Air	40CFR50 App B	92336

### Analysis Batch: 92565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-37381-14	PE_PM10082420-B606UPWIND	Total/NA	Air	PM10	11
570-37381-15	PE_PM10082420-12ADOWNWIND	Total/NA	Air	PM10	12
570-37381-18	PE_PM10082520-B606UPWIND	Total/NA	Air	PM10	13
570-37381-19	PE_PM10082520-12ADOWNWIND	Total/NA	Air	PM10	13
570-37381-22	PE_PM10082620-B606UPWIND	Total/NA	Air	PM10	14
570-37381-23	PE_PM10082620-12ADOWNWIND	Total/NA	Air	PM10	14
570-37381-26	PE_PM10082720-B606UPWIND	Total/NA	Air	PM10	14
570-37381-27	PE_PM10082720-12ADOWNWIND	Total/NA	Air	PM10	14
570-37381-30	PE_PM10082820-B606UPWIND	Total/NA	Air	PM10	14
570-37381-31	PE_PM10082820-12ADOWNWIND	Total/NA	Air	PM10	14
MB 570-92565/1	Method Blank	Total/NA	Air	PM10	14
570-37381-14 DU	PE_PM10082420-B606UPWIND	Total/NA	Air	PM10	14

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

**Client Sample ID: PE-TSP082420-B606UPWIND**

**Lab Sample ID: 570-37381-12**

Matrix: Air

Date Collected: 08/24/20 06:55

Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:00	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP082420-12ADOWNWIND**

**Lab Sample ID: 570-37381-13**

Matrix: Air

Date Collected: 08/24/20 07:02

Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:06	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10082420-B606UPWIND**

**Lab Sample ID: 570-37381-14**

Matrix: Air

Date Collected: 08/24/20 06:55

Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3344 g	4.3532 g	92565	09/04/20 11:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10082420-12ADOWNWIND**

**Lab Sample ID: 570-37381-15**

Matrix: Air

Date Collected: 08/24/20 07:02

Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3173 g	4.3501 g	92565	09/04/20 11:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP082520-B606UPWIND**

**Lab Sample ID: 570-37381-16**

Matrix: Air

Date Collected: 08/25/20 07:03

Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:07	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

Eurofins Calscience LLC

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

**Client Sample ID: PE-TSP082520-12ADOWNWIND**  
Date Collected: 08/25/20 07:13  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-17**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:09	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10082520-B606UPWIND**  
Date Collected: 08/25/20 07:03  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-18**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3634 g	4.3800 g	92565	09/04/20 11:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10082520-12ADOWNWIND**  
Date Collected: 08/25/20 07:13  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-19**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3443 g	4.3772 g	92565	09/04/20 11:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP082620-B606UPWIND**  
Date Collected: 08/26/20 07:06  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-20**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:23	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP082620-12ADOWNWIND**  
Date Collected: 08/26/20 07:14  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-21**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:25	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

Eurofins Calscience LLC

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

**Client Sample ID: PE\_PM10082620-B606UPWIND**  
Date Collected: 08/26/20 07:06  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-22**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3299 g	4.3407 g	92565	09/04/20 11:00	UAPD	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE\_PM10082620-12ADOWNWIND**  
Date Collected: 08/26/20 07:14  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-23**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3268 g	4.3392 g	92565	09/04/20 11:00	UAPD	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE-TSP082720-B606UPWIND**  
Date Collected: 08/27/20 07:04  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-24**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 16:05	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP082720-12ADOWNWIND**  
Date Collected: 08/27/20 07:19  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-25**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:30	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10082720-B606UPWIND**  
Date Collected: 08/27/20 07:04  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-26**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3176 g	4.3320 g	92565	09/04/20 11:00	UAPD	ECL 1

Instrument ID: NOEQUIP

Eurofins Calscience LLC

# Lab Chronicle

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

**Client Sample ID: PE\_PM10082720-12ADOWNWIND**  
Date Collected: 08/27/20 07:19  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-27**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3178 g	4.3296 g	92565	09/04/20 11:00	UAPD	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE-TSP082820-B606UPWIND**  
Date Collected: 08/28/20 06:58  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-28**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:32	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE-TSP082820-12ADOWNWIND**  
Date Collected: 08/28/20 07:11  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-29**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			.0833 Filter	100 mL	92399	09/03/20 20:30	SP7J	ECL 1
Total/NA	Analysis	6010B		1			92589	09/04/20 15:34	OYW3	ECL 1
		Instrument ID: ICP8								
Total/NA	Pre Prep	Filter to Air					92336	09/03/20 12:00	UAPD	ECL 1
Total/NA	Analysis	40CFR50 App B		1			92511	09/03/20 13:00	UAPD	ECL 1
		Instrument ID: NOEQUIP								

**Client Sample ID: PE\_PM10082820-B606UPWIND**  
Date Collected: 08/28/20 06:58  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-30**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3389 g	4.3837 g	92565	09/04/20 11:00	UAPD	ECL 1

Instrument ID: NOEQUIP

**Client Sample ID: PE\_PM10082820-12ADOWNWIND**  
Date Collected: 08/28/20 07:11  
Date Received: 09/02/20 10:35

**Lab Sample ID: 570-37381-31**  
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	PM10		1	4.3423 g	4.4034 g	92565	09/04/20 11:00	UAPD	ECL 1

Instrument ID: NOEQUIP

## Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

EMSL = EMSL - LA Testing - Huntington Beach, 5431 Industrial Drive, Huntington Beach, CA 92649

Eurofins Calscience LLC

# Accreditation/Certification Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

## Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

## Method Summary

Client: Aptim Federal Services LLC  
Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	ECL 1
40CFR50 App B	Suspended Particulate Matter in Ambient Air	EPA	ECL 1
PM10	Particulate Matter	40CFR50J	ECL 1
NIOSH 7400 Rev	NIOSH 7400 Rev. 3	NIOSH	EMSL
3050B	Preparation, Metals	SW846	ECL 1
Filter to Air	Filter to Air volume ratio	None	ECL 1

### Protocol References:

40CFR50J = 40 CFR Part 50 Appendix J

EPA = US Environmental Protection Agency

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994 and its Supplements

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

EMSL = EMSL - LA Testing - Huntington Beach, 5431 Industrial Drive, Huntington Beach, CA 92649

# Sample Summary

Client: Aptim Federal Services LLC  
 Project/Site: HPNS - Parcel E / 500712

Job ID: 570-37381-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-37381-1	PE-ASB082420-B606UPWIND	Air	08/24/20 06:55	09/02/20 10:35	
570-37381-2	PE-ASB082420-12ADOWNWIND	Air	08/24/20 07:02	09/02/20 10:35	
570-37381-3	PE-ASB082520-B606UPWIND	Air	08/25/20 07:03	09/02/20 10:35	
570-37381-4	PE-ASB082520-12ADOWNWIND	Air	08/25/20 07:13	09/02/20 10:35	
570-37381-5	PE-ASB082620-B606UPWIND	Air	08/26/20 07:06	09/02/20 10:35	
570-37381-6	PE-ASB082620-12ADOWNWIND	Air	08/26/20 07:14	09/02/20 10:35	
570-37381-7	PE-ASB082720-B606UPWIND	Air	08/27/20 07:04	09/02/20 10:35	
570-37381-8	PE-ASB082720-12ADOWNWIND	Air	08/27/20 07:19	09/02/20 10:35	
570-37381-9	PE-ASB082820-B606UPWIND	Air	08/28/20 06:58	09/02/20 10:35	
570-37381-10	PE-ASB082820-12ADOWNWIND	Air	08/28/20 07:11	09/02/20 10:35	
570-37381-11	PE-ASB082820-BLANK	Air	08/28/20 06:58	09/02/20 10:35	
570-37381-12	PE-TSP082420-B606UPWIND	Air	08/24/20 06:55	09/02/20 10:35	
570-37381-13	PE-TSP082420-12ADOWNWIND	Air	08/24/20 07:02	09/02/20 10:35	
570-37381-14	PE_PM10082420-B606UPWIND	Air	08/24/20 06:55	09/02/20 10:35	
570-37381-15	PE_PM10082420-12ADOWNWIND	Air	08/24/20 07:02	09/02/20 10:35	
570-37381-16	PE-TSP082520-B606UPWIND	Air	08/25/20 07:03	09/02/20 10:35	
570-37381-17	PE-TSP082520-12ADOWNWIND	Air	08/25/20 07:13	09/02/20 10:35	
570-37381-18	PE_PM10082520-B606UPWIND	Air	08/25/20 07:03	09/02/20 10:35	
570-37381-19	PE_PM10082520-12ADOWNWIND	Air	08/25/20 07:13	09/02/20 10:35	
570-37381-20	PE-TSP082620-B606UPWIND	Air	08/26/20 07:06	09/02/20 10:35	
570-37381-21	PE-TSP082620-12ADOWNWIND	Air	08/26/20 07:14	09/02/20 10:35	
570-37381-22	PE_PM10082620-B606UPWIND	Air	08/26/20 07:06	09/02/20 10:35	
570-37381-23	PE_PM10082620-12ADOWNWIND	Air	08/26/20 07:14	09/02/20 10:35	
570-37381-24	PE-TSP082720-B606UPWIND	Air	08/27/20 07:04	09/02/20 10:35	
570-37381-25	PE-TSP082720-12ADOWNWIND	Air	08/27/20 07:19	09/02/20 10:35	
570-37381-26	PE_PM10082720-B606UPWIND	Air	08/27/20 07:04	09/02/20 10:35	
570-37381-27	PE_PM10082720-12ADOWNWIND	Air	08/27/20 07:19	09/02/20 10:35	
570-37381-28	PE-TSP082820-B606UPWIND	Air	08/28/20 06:58	09/02/20 10:35	
570-37381-29	PE-TSP082820-12ADOWNWIND	Air	08/28/20 07:11	09/02/20 10:35	
570-37381-30	PE_PM10082820-B606UPWIND	Air	08/28/20 06:58	09/02/20 10:35	
570-37381-31	PE_PM10082820-12ADOWNWIND	Air	08/28/20 07:11	09/02/20 10:35	



**LA Testing**

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

<http://www.LATesting.com> / [gardengrovelab@latesesting.com](mailto:gardengrovelab@latesesting.com)

**LA Testing Order:** 332016391

**Customer ID:** 32CAL51

**Customer PO:**

**Project ID:**

**Attention:** Terri Chang  
Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841

**Phone:** (714) 895-5494

**Fax:** (714) 894-7501

**Received Date:** 09/02/2020 05:00 PM

**Analysis Date:** 09/15/2020

**Collected Date:** 08/24/2020 - 08/28/2020

**Project:** HPNS - Parcel E / 500712 / 570-37381

**Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules,  
Revision 3, Issue 3, 6/15/2019**

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm <sup>2</sup>	Fibers/cc	Notes
PE-ASB082420-B606UPW IND (570-37381-1) 332016391-0001		08/24/2020	1906	13	100	0.0014	16.6	0.0034	
PE-ASB082420-12ADOW NWIND (570-37381-2) 332016391-0002		08/24/2020	1806	<5.5	100	0.0015	<7.01	<0.0015	
PE-ASB082520-B606UPW IND (570-37381-3) 332016391-0003		08/25/2020	2112	12.5	100	0.0013	15.9	0.0029	
PE-ASB082520-12ADOW NWIND (570-37381-4) 332016391-0004		08/25/2020	1896	<5.5	100	0.0014	<7.01	<0.0014	Sample pulled for 10% duplicate count.
PE-ASB082620-B606UPW IND (570-37381-5) 332016391-0005		08/26/2020	1482	<5.5	100	0.0018	<7.01	<0.0018	
PE-ASB082620-12ADOW NWIND (570-37381-6) 332016391-0006		08/26/2020	1610	<5.5	100	0.0017	<7.01	<0.0017	
PE-ASB082720-B606UPW IND (570-37381-7) 332016391-0007		08/27/2020	1932	6.5	100	0.0014	8.28	0.0017	
PE-ASB082720-12ADOW NWIND (570-37381-8) 332016391-0008		08/27/2020	1776	<5.5	100	0.0015	<7.01	<0.0015	
PE-ASB082820-B606UPW IND (570-37381-9) 332016391-0009		08/28/2020	1174	14	100	0.0023	17.8	0.0059	
PE-ASB082820-12ADOW NWIND (570-37381-10) 332016391-0010		08/28/2020	1134	<5.5	100	0.0024	<7.01	<0.0024	
PE-ASB082820-BLANK (570-37381-11) 332016391-0011		08/28/2020		<5.5	100		<7.01		Field Blank
PE-ASB082520-12ADOW NWIND (570-37381-4) 332016391-0012		08/24/2020	1896	<5.5	100	0.0014	<7.01	<0.0014	10% duplicate count.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Limit of detection is 7 fibers/mm<sup>2</sup>. Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm<sup>2</sup>) have greater than optimal variability and are probably biased. Field blank results, when available, are used to blank correct results. NIOSH 7400 requires field blanks be submitted at a rate of 10%, with a minimum of 2 per set. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAC standards unless otherwise noted.

Intra-laboratory Sr values: 5-20 fibers = 0.35, 21-50 fibers = 0.24, 51-100 fibers = 0.19. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34.  
Samples analyzed by LA Testing Huntington Beach, CA AIHA-LAP, LLC-IHLAP Accredited #101650

Initial report from: 09/15/2020 10:35 AM



# LA Testing

5431 Industrial Drive Huntington Beach, CA 92649

Tel/Fax: (714) 828-4999 / (714) 828-4944

<http://www.LATesting.com> / [gardengrovelab@latesting.com](mailto:gardengrovelab@latesting.com)

LA Testing Order: 332016391

Customer ID: 32CAL51

Customer PO:

Project ID:

Attention: Terri Chang  
Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841

Phone: (714) 895-5494

Fax: (714) 894-7501

Received Date: 09/02/2020 05:00 PM

Analysis Date: 09/15/2020

Collected Date: 08/24/2020 - 08/28/2020

Project: HPNS - Parcel E / 500712 / 570-37381

## Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/15/2019

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm <sup>2</sup>	Fibers/cc	Notes
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The results reported have been blank corrected as applicable.

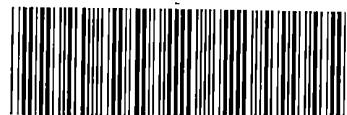
Analyst(s):  
Dennies Ly PCM 12

Michael Chapman, Laboratory Manager  
or other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Limit of detection is 7 fibers/mm<sup>2</sup>. Fiber counts outside the recommended fiber density range of the method (100-1300 f/mm<sup>2</sup>) have greater than optimal variability and are probably biased. Field blank results, when available, are used to blank correct results. NIOSH 7400 requires field blanks be submitted at a rate of 10%, with a minimum of 2 per set. Measurement of uncertainty available upon request. The results in this report meet all requirements of the NELAC standards unless otherwise noted.

Intra-laboratory Sr values: 5-20 fibers = 0.35, 21-50 fibers = 0.24, 51-100 fibers = 0.19. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.34.  
Samples analyzed by LA Testing Huntington Beach, CA AIHA-LAP, LLC-IHLAP Accredited #101650

Initial report from: 09/15/2020 10:35 AM



570-37381 Chain of Custody

**CHAIN OF CUSTODY**

Ref. Document #

CTO 0024 - AIR 022

Page 1 of 2

APTIM Federal Services, LLC

4005 Port Chicago Hwy  
Concord, CA 94520Project Manager: **Nels Johnson**Send Report To: **Edgar Ruiz**Phone/Fax Number: **805.680.8279**Address: **4005 Port Chicago Hwy**City: **Concord, CA 94520**[edgar.ruiz@aptim.com](mailto:edgar.ruiz@aptim.com)Sampler's Name(s): **ER****Collection Information**

Sample ID Number	Filter No.	Date	Time	Method	Matrix	# of containers	Container Type	PCB (EPA 8082 / TO-04)	PAH (EPA 8270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Subpt J; BAAQMD Reg 6)	TSP, Mn, Pb, As (40 CFR 50 App B; NIOSH 7300/6010B)	Flow Rate (L/min.)	Sample Volume (m³)
PE-ASB082420-B606UPWIND	CU201410	08/24/20	6:55	G	A	1	PCM		X				2.00	1.91
PE-ASB082420-12A DOWNWIND	CU201419	08/24/20	7:02	G	A	1	PCM		X				2.00	1.81
PE-ASB0825420-B606UPWIND	CU201443	08/25/20	7:03	G	A	1	PCM		X				2.00	2.11
PE-ASB082520-12A DOWNWIND	CU201465	08/25/20	7:13	G	A	1	PCM		X				2.00	1.90
PE-ASB082620-B606UPWIND	CU201422	08/26/20	7:06	G	A	1	PCM		X				2.00	1.48
PE-ASB082620-12A DOWNWIND	CU201449	08/26/20	7:14	G	A	1	PCM		X				2.00	1.61
PE-ASB082720-B606UPWIND	CU201431	08/27/20	7:04	G	A	1	PCM		X				2.00	1.93
PE-ASB082720-12A DOWNWIND	CU201447	08/27/20	7:19	G	A	1	PCM		X				2.00	1.78
PE-ASB082820-B606UPWIND	CU201441	08/28/20	6:58	G	A	1	PCM		X				2.00	1.17
PE-ASB082820-12A DOWNWIND	CU201528	08/28/20	7:11	G	A	1	PCM		X				2.00	1.13
PE-ASB082820-BLANK	CU201430	08/28/20	6:58	G	A	1	PCM		X				NA	
Temperature Blank														x

Special Instructions: *13 9/2/20*

Turn Around Time		Level Of QC Required:			Method Codes			
<input type="checkbox"/> 24-hr	<input type="checkbox"/> 5-day	<input checked="" type="checkbox"/> 10-day	I	II	III	Project Specific:	C = Composite	G = Grab
Relinquished By: Edgar Ruiz <i>Edgar Ruiz</i>			Date: 9/1/20	Received By: <i>Mrs EET</i>		Date: 9/1/20	Matrix Codes	SO = Soil
			Time: 11:15			Time: 11:15	DW = Drinking Water	SL = Sludge
Relinquished By: <i>WA to 650</i>			Date: 9/1/20	Received By: <i>WA</i>		Date: 9/2/2020	GW = Ground Water	CP = Chip Samples
			Time: 6:00			Time: 10:30	WW = Waste Water	
Relinquished By:			Date:	Received By:		Date:	A=Air	
			Time:			Time:		

ABS=Asbestos, PO=Pipe Opening

37381



**APTIM Federal Services, LLC**  
4005 Port Chicago Hwy  
Concord, CA 94520

Send Report To: *Edgar Ruiz*  
Phone/Fax Number: 8056808279  
Address: 4005 Port Chicago Hwy  
City: Concord, CA 94520

## CHAIN OF CUSTODY

Ref. Document #

CTO 0024 - AIR 022

Page 2 of 2

Project Number: 500712

Project Name: HPNS - Parcel E

Project Location: San Francisco, CA

Lab Destination: Calscience

7440 Lincoln Way

Garden Grove CA 92841

Lab Contact: Terri Chang

Sampler's Name(s): ER							Analyses Requested							
Sampler's Name(s)		Collection Information			Matrix	# of containers	Container Type	PCB (EPA 8082 / TO-04)	PAH (EPA 8270-SIM / TO-13)	Asbestos (NIOSH 7400)	PM10 (40 CFR, Subpt J; BAAQMD Reg 6)	TSP, Mn, Pb, As (40 CFR 50 App B; NIOSH 7400)	Flow Rate (L/min.)	Sample Volume (m³)
Sample ID Number	Lot No.	Date	Time	Method										
PE-TSP082420-B606UPWIND 12	Q0397464	08/24/20	6:55	G	A	1	8X10 EPM Whatman			X	1132.8	504.1		
PE-TSP082420-12ADOWNWIND 13	Q0397466	08/24/20	7:02	G	A	1	8X10 EPM Whatman			X	1132.8	507.5		
PE_PM10082420-B606UPWIND 14	Q0397465	08/24/20	6:55	G	A	1	8X10 EPM Whatman			X	1132.8	504.1		
PE_PM10082420-12ADOWNWIND 15	Q0397467	08/24/20	7:02	G	A	1	8X10 EPM Whatman			X	1132.8	507.5		
PE-TSP082520-B606UPWIND 16	Q0409457	08/25/20	7:03	G	A	1	8X10 EPM Whatman			X	1132.8	517.7		
PE-TSP082520-12ADOWNWIND 17	Q0409459	08/25/20	7:13	G	A	1	8X10 EPM Whatman			X	1132.8	563.0		
PE_PM10082520-B606UPWIND 18	Q0409458	08/25/20	7:03	G	A	1	8X10 EPM Whatman			X	1132.8	517.7		
PE_PM10082520-12ADOWNWIND 19	Q0409460	08/25/20	7:13	G	A	1	8X10 EPM Whatman			X	1132.8	563.0		
PE-TSP082620-B606UPWIND 20	Q0409465	08/26/20	7:06	G	A	1	8X10 EPM Whatman			X	1132.8	655.9		
PE-TSP082620-12ADOWNWIND 21	Q0409467	08/26/20	7:14	G	A	1	8X10 EPM Whatman			X	1132.8	635.5		
PE_PM10082620-B606UPWIND 22	Q0409466	08/26/20	7:06	G	A	1	8X10 EPM Whatman			X	1132.8	655.9		
PE_PM10082620-12ADOWNWIND 23	Q0409468	08/26/20	7:14	G	A	1	8X10 EPM Whatman			X	1132.8	635.5		
PE-TSP082720-B606UPWIND 24	Q0397460	08/27/20	7:04	G	A	1	8X10 EPM Whatman			X	1132.8	516.6		
PE-TSP082720-12ADOWNWIND 25	Q0397462	08/27/20	7:19	G	A	1	8X10 EPM Whatman			X	1104.5	476.0		
PE_PM10082720-B606UPWIND 26	Q0397461	08/27/20	7:04	G	A	1	8X10 EPM Whatman			X	1132.8	516.6		
PE_PM10082720-12ADOWNWIND 27	Q0397463	08/27/20	7:19	G	A	1	8X10 EPM Whatman			X	1104.5	476.0		
PE-TSP082820-B606UPWIND 28	Q0397456	08/28/20	6:58	G	A	1	8X10 EPM Whatman			X	1132.8	665.0		
PE-TSP082820-12ADOWNWIND 29	Q0397458	08/28/20	7:11	G	A	1	8X10 EPM Whatman			X	1104.5	622.9		
PE_PM10082820-B606UPWIND 30	Q0397457	08/28/20	6:58	G	A	1	8X10 EPM Whatman			X	1132.8	665.0		
PE_PM10082820-12ADOWNWIND 31	Q0397459	08/28/20	7:11	G	A	1	8X10 EPM Whatman			X	1104.5	622.9		

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AIR MONITORING LOG  
 PROJECT NAME: HPNS Parcel E PROJ. NO. 500712 Asbestos TSP PM-10

## STATION

COC# 022

SAMPLE NO.	PE-ASB082420-B606UPWIND			8/24/2020 Building 606 Upwind				
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis
	START	STOP	AVERAGE	START	STOP			

CU201410	2.000	2.000	2.000	8/24/20 06:55	8/24/20 22:48	953	1.91	Asbestos	2.00
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SAMPLE NO.	PE-ASB082420-12A DOWNWIND			8/24/2020 12A Downwind				
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis
	START	STOP	AVERAGE	START	STOP			

CU201419	2.000	2.000	2.000	8/24/20 07:02	8/24/20 22:05	903	1.81	Asbestos	2.00
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SAMPLE NO.	PE-ASB0825420-B606UPWIND			8/25/2020 Building 606 Upwind				
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis
	START	STOP	AVERAGE	START	STOP			

CU201443	2.000	2.000	2.000	8/25/20 07:03	8/26/20 00:39	1056	2.11	Asbestos	2.00
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SAMPLE NO.	PE-ASB082520-12A DOWNWIND			8/25/2020 12A Downwind				
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis
	START	STOP	AVERAGE	START	STOP			

CU201465	2.000	2.000	2.000	8/25/20 07:13	8/25/20 23:01	948	1.90	Asbestos	2.00
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SAMPLE NO.	PE-ASB082620-B606UPWIND			8/26/2020 Building 606 Upwind				
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis
	START	STOP	AVERAGE	START	STOP			

CU201422	2.000	2.000	2.000	8/26/20 07:06	8/26/20 19:27	741	1.48	Asbestos	2.00
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SAMPLE NO.	PE-ASB082620-12A DOWNWIND			8/26/2020 12A Downwind				
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis
	START	STOP	AVERAGE	START	STOP			

CU201449	2.000	2.000	2.000	8/26/20 07:14	8/26/20 20:39	805	1.61	Asbestos	2.00
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SAMPLE NO.	PE-ASB082720-B606UPWIND			8/27/2020 Building 606 Upwind				
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis
	START	STOP	AVERAGE	START	STOP			

CU201431	2.000	2.000	2.000	8/27/20 07:04	8/27/20 23:10	966	1.93	Asbestos	2.00
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SAMPLE NO.	PE-ASB082720-12A DOWNWIND			8/27/2020 12A Downwind				
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis
	START	STOP	AVERAGE	START	STOP			

CU201447	2.000	2.000	2.000	8/27/20 07:19	8/27/20 22:07	888	1.78	Asbestos	2.00
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SAMPLE NO.	PE-ASB082820-B606UPWIND			8/28/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201441	2.000	2.000	2.000	8/28/20 06:58	8/28/20 16:45	587	1.17	Asbestos	2.00

SAMPLE NO.	PE-ASB082820-12A DOWNWIND			8/28/2020 12A Downwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201528	2.000	2.000	2.0	8/28/20 07:11	8/28/20 16:38	567	1.13	Asbestos	2.00

SAMPLE NO.	PE-ASB-BLANK			8/28/2020 Building 606 Upwind					
LOT No.	FLOW RATE (L/min)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
CU201430				8/28/20 06:58			0.0	Asbestos	

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PROJECT NAME: HPNS Parcel E PROJ. NO. 500712 Asbestos TSP PM-10

STATION

COC# 022

SAMPLE NO. PE-TSP082420-B606UPWIND			8/24/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397464	40.0	40.0	40.0	8/24/20 06:55	8/24/20 14:20	445	504.1	TSP	1132.80

SAMPLE NO. PE-TSP082420-12ADOWNWIND			8/24/2020 12A Downwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397466	40.0	40.0	40.0	8/24/20 07:02	8/24/20 14:30	448	507.5	TSP	1132.80

SAMPLE NO. PE_PM10082420-B606UPWIND			8/24/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397465	40.0	40.0	40.0	8/24/20 06:55	8/24/20 14:20	445	504.1	PM-10	1132.80

SAMPLE NO. PE_PM10082420-12ADOWNWIND			8/24/2020 12A Downwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397467	40.0	40.0	40.0	8/24/20 07:02	8/24/20 14:30	448	507.5	PM-10	1132.80

SAMPLE NO. PE-TSP082520-B606UPWIND			8/25/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409457	40.0	40.0	40.0	8/25/20 07:03	8/25/20 14:40	457	517.7	TSP	1132.80

SAMPLE NO. PE-TSP082520-12ADOWNWIND			8/25/2020 12A Downwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409459	40.0	40.0	40.0	8/25/20 07:13	8/25/20 15:30	497	563.0	TSP	1132.80

SAMPLE NO. PE_PM10082520-B606UPWIND			8/25/2020 Building 606 Upwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409458	40.0	40.0	40.0	8/25/20 07:03	8/25/20 14:40	457	517.7	PM-10	1132.80

SAMPLE NO. PE_PM10082520-12ADOWNWIND			8/25/2020 12A Downwind						
LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m³)	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				

Q0409460	40.0	40.0	40.0	8/25/20 07:13	8/25/20 15:30	497	563.0	PM-10	1132.80
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SAMPLE NO. PE-TSP082620-B606UPWIND 8/26/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409465	40.0	40.0	40.0	8/26/20 07:06	8/26/20 16:45	579	655.9	TSP	1132.80

SAMPLE NO. PE-TSP082620-12ADOWNWIND 8/26/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409467	40.0	40.0	40.0	8/26/20 07:14	8/26/20 16:35	561	635.5	TSP	1132.80

SAMPLE NO. PE\_PM10082620-B606UPWIND 8/26/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409466	40.0	40.0	40.0	8/26/20 07:06	8/26/20 16:45	579	655.9	PM-10	1132.80

SAMPLE NO. PE\_PM10082620-12ADOWNWIND 8/26/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0409468	40.0	40.0	40.0	8/26/20 07:14	8/26/20 16:35	561	635.5	PM-10	1132.80

SAMPLE NO. PE-TSP082720-B606UPWIND 8/27/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397460	40.0	40.0	40.0	8/27/20 07:04	8/27/20 14:40	456	516.6	TSP	1132.80

SAMPLE NO. PE-TSP082720-12ADOWNWIND 8/27/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397462	39.0	39.0	39.0	8/27/20 07:19	8/27/20 14:30	431	476.0	TSP	1104.48

SAMPLE NO. PE\_PM10082720-B606UPWIND 8/27/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397461	40.0	40.0	40.0	8/27/20 07:04	8/27/20 14:40	456	516.6	PM-10	1132.80

SAMPLE NO. PE\_PM10082720-12ADOWNWIND 8/27/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397463	39.0	39.0	39.0	8/27/20 07:19	8/27/20 14:30	431	476.0	PM-10	1104.48

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SAMPLE NO. PE-TSP082820-B606UPWIND

8/28/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397456	40.0	40.0	40.0	8/28/20 06:58	8/28/20 16:45	587	665.0	TSP	1132.80

SAMPLE NO. PE-TSP082820-12ADOWNWIND

8/28/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397458	39.0	39.0	39.0	8/28/20 07:11	8/28/20 16:35	564	622.9	TSP	1104.48

SAMPLE NO. PE\_PM10082820-B606UPWIND

8/28/2020 Building 606 Upwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397457	40.0	40.0	40.0	8/28/20 06:58	8/28/20 16:45	587	665.0	PM-10	1132.80

SAMPLE NO. PE\_PM10082820-12ADOWNWIND

8/28/2020 12A Downwind

LOT No.	FLOW RATE (CFM)			RUNNING TIME (HRS)		TOTAL TIME (min)	TOTAL VOL. (std m <sup>3</sup> )	Analysis	Flow Rate (L/min.)
	START	STOP	AVERAGE	START	STOP				
Q0397459	39.0	39.0	39.0	8/28/20 07:11	8/28/20 16:35	564	622.9	PM-10	1104.48



APTIM Federal Services, LLC

4005 Port Chicago Hwy  
Concord, CA 94520

Project Manager: **Nels Johnson**  
 Send Report To: **Edgar Ruiz**  
 Phone/Fax Number: **805.680.8279**  
 Address: **4005 Port Chicago Hwy**  
 City: **Concord, CA 94520**  
**edgar.ruiz@aptim.com**

Ref. Document # CTO 0024 - AIR 022

Page 1 of 2**CHAIN OF CUSTODY**

Project Number: 500712  
 Project Name: HPNS - Parcel E  
 Project Location: San Francisco, CA  
 Purchase Order #: 115718  
 Lab Destination: Eurofins-Calscience  
7440 Lincoln Way  
Garden Grove CA 92841

Lab Contact: Terri Chang

Sampler's Name(s): ER		Collection Information				Matrix	# of containers	Container Type	Analyses Requested		
Sample ID Number	Filter No.	Date	Time	Method							
PE-ASB082420-B606UPWIND	CU201410	08/24/20	6:55	G	A	1	PCM		X	2.00	1.91
PE-ASB082420-12A DOWNWIND	CU201419	08/24/20	7:02	G	A	1	PCM		X	2.00	1.81
PE-ASB082520-B606UPWIND	CU201443	08/25/20	7:03	G	A	1	PCM		X	2.00	2.11
PE-ASB082520-12A DOWNWIND	CU201465	08/25/20	7:13	G	A	1	PCM		X	2.00	1.90
PE-ASB082620-B606UPWIND	CU201422	08/26/20	7:06	G	A	1	PCM		X	2.00	1.48
PE-ASB082620-12A DOWNWIND	CU201449	08/26/20	7:14	G	A	1	PCM		X	2.00	1.61
PE-ASB082720-B606UPWIND	CU201431	08/27/20	7:04	G	A	1	PCM		X	2.00	1.93
PE-ASB082720-12A DOWNWIND	CU201447	08/27/20	7:19	G	A	1	PCM		X	2.00	1.78
PE-ASB082820-B606UPWIND	CU201441	08/28/20	6:58	G	A	1	PCM		X	2.00	1.17
PE-ASB082820-12A DOWNWIND	CU201528	08/28/20	7:11	G	A	1	PCM		X	2.00	1.13
PE-ASB082820-BLANK	CU201430	08/28/20	6:58	G	A	1	PCM		X	NA	
Temperature Blank											x

Special Instructions:											
Turn Around Time				Level Of QC Required:				Method Codes			
<input type="checkbox"/> 24-hr		<input type="checkbox"/> 5-day <input checked="" type="checkbox"/> 10-day		I	II	III	Project Specific	C = Composite	G = Grab		
Relinquished By: Edgar Ruiz <i>[Signature]</i>		Date 9/1/20	Received By <i>[Signature]</i>	Date 9/1/20	Received By <i>[Signature]</i>	Date 9/1/20	Received By <i>[Signature]</i>	Matrix Codes	DW = Drinking Water	SL = Sludge	
		Time 11:15		Time 11:15		Time 11:15		GW = Ground Water	CP = Chip Samples		
Relinquished By:		Date	Received By	Date	Received By	Date	Received By	WW = Waste Water	Air = Air		
		Time		Time		Time					
Relinquished By:		Date	Received By	Date	Received By	Date	Received By	ABBS = Asbestos	PO = Pipe Opening		
		Time		Time		Time					

## Login Sample Receipt Checklist

Client: Aptim Federal Services LLC

Job Number: 570-37381-1

**Login Number:** 37381

**List Source:** Eurofins Calscience

**List Number:** 1

**Creator:** Liao, Gineyau

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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