2101 Williams Associates, LLC
2228 Livingston Street
Oakland, CA 94606
Telephone (510) 261-5500

September 15, 2016

Mr. Mark Detterman
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: SUB-SLAB SOIL GAS INVESTIGATION REPORT CERTIFICATION
County Case # RO 2468
Former James River Corporation Site
2101 Williams Street
San Leandro, CA

Dear Mr. Detterman:

You will find enclosed one copy of the following document prepared by P&D Environmental, Inc. for the subject site.

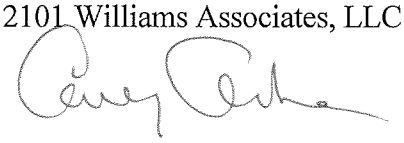
- Sub-Slab Soil Gas Investigation Report dated September 15, 2016.

I declare under penalty of perjury that the contents and conclusions in the document are true and correct to the best of my knowledge.

Please don't hesitate to call me if you have any questions.

Sincerely,

2101 Williams Associates, LLC



Carey Andre

0660.L11

P&D ENVIRONMENTAL, INC.

55 Santa Clara Avenue, Suite 240
Oakland, CA 94610
(510) 658-6916

September 15, 2016
Report 0660.R4

Ms. Carey Andre
Jones Development Company, LLC
2228 Livingston Street
Oakland, CA 94606

SUBJECT: SUB-SLAB SOIL GAS INVESTIGATION REPORT
(VP13 THROUGH VP19)
County Case # RO 2468
Former James River Corporation Site
2101 Williams Street
San Leandro, California

Dear Ms. Andre:

P&D Environmental, Inc. (P&D) has prepared this report documenting the installation on April 29, 2016 and sampling on May 2, 2016 of seven Vapor Pins designated as VP13 through VP19 for evaluation of tetrachloroethene (PCE) sub-slab soil gas concentrations at the subject site. The Vapor Pins were installed and sampled in accordance with procedures set forth in P&D's Sub-Slab Soil Gas Investigation Work Plan (document 0660.W4) dated February 22, 2016, an e-mail to the Alameda County Department of Environmental Health (ACDEH) dated April 19, 2016 proposing the addition of Vapor Pin VP18, and an e-mail to the ACDEH dated April 27, 2016 proposing the addition of Vapor Pin VP19. The purpose of the additional investigation was to address data gaps identified by the ACDEH and to assist in the development of any necessary mitigation measures at the subject site. The work plan was approved in a letter from the ACDEH dated April 18, 2016, additional Vapor Pin VP18 was approved in an e-mail from the ACDEH dated April 19, 2016, and additional Vapor Pin VP19 was approved in an e-mail from the ACDEH dated April 28, 2016.

The February 22, 2016 work plan by P&D proposed the installation of five sub-slab soil gas Vapor Pins. An April 18, 2016 letter from ACDEH requested that one additional Vapor Pin (VP18) be installed and sampled. P&D subsequently recommended the addition of VP19 to further delineate the extent of PCE in soil gas. The objective of this report is to transmit the sample results to the ACDEH and provide proposed mitigation measures for the subject site based on all available data in order to move the case to closure.

A Site Location Map (Figure 1), a Site Plan Aerial Photograph Showing Property Boundaries (Figure 2), and a Site Plan Aerial Photograph Detail Showing PCE concentrations in sub-slab soil gas (Figure 3) are included with this report. The Site Plan (Figure 2) has been corrected to properly reflect the boundaries of the subject site. Prior

site plans dating back to the mid-1990s incorrectly included the downgradient property known as 2199 Williams Street within the site boundary. No sampling has been performed on 2199 Williams Street and that property is not part of the subject site. In addition, some of the Vapor Pin locations shown on Figure 3 have been slightly modified based on more accurate site measurements. The Vapor Pin locations shown on Figure 3 supersede the locations shown in previous site documents. All work was performed under the direct supervision of a California professional geologist.

BACKGROUND

PCE that originates from sources offsite and upgradient of the subject site has been detected in groundwater on the upgradient and downgradient sides of the building on subject site. The presence of the PCE groundwater plume has been well-documented on the adjacent upgradient property at 2075 Williams Street in San Leandro and is recognized by the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) to originate from some unknown upgradient location.

Vapor Pins VP1 through VP6 were installed on November 4, 2014 and were sampled on November 5, 2014. Based on the initial sample results, Vapor Pins VP3 through VP6 were sampled a second time on December 10, 2014. Following discussions with the ACDEH regarding the sample results and related data gaps, Vapor Pins VP7 through VP12 were installed on February 3, 2015 and sampled on February 16 and 17, 2015. The ACDEH had approved the locations for Vapor Pins VP7 through VP12 in an e-mail dated January 29, 2015. The historical Vapor Pin sub-slab soil gas sample results with the highest detected PCE concentrations at each location are shown on Figure 2 of this report.

Based on the sub-slab soil gas sample results and existing groundwater data for the site, the ACDEH required submittal of a work plan for sampling of indoor air in existing site structures, as well as further subsurface sampling designed to identify the extent of contamination at the site. In response, P&D prepared an Indoor Air Investigation Work Plan (document 0660.W2) dated May 13, 2015 and, following a May 24, 2015 meeting with the ACDEH, a Subsurface Investigation Work Plan (document 0660.W3) dated May 26, 2015. The May 13, 2015 Indoor Air Investigation Work Plan was conditionally approved in a letter from the ACDEH dated June 1, 2015.

Indoor air samples IA1 through IA3 and ambient air sample AA1 were collected during a 24-hour period from August 24, 2015 to August 25, 2015. Further discussion of indoor and ambient air sample collection and the results of the investigation are provided in P&D's Indoor Air Investigation Report dated October 29, 2015 (document 0660.R2).

Between August 31, 2015 and September 10, 2015 P&D personnel oversaw drilling at six locations designated as M1 through M6 to a depth of 40 feet below the ground surface (bgs) using a MiHpt probe, which combines a Membrane Interface Probe (MIP), a Hydraulic Profiling Tool (HPT), and an Electrical Conductivity Probe (EC). Additionally, depth-discrete groundwater samples were collected at two different depths at each of locations M1 through M6 using Geoprobe continuous coring for collection of

first-encountered groundwater samples and a Geoprobe Hydropunch for collection of deeper depth-discrete groundwater samples. The objective of the investigation was to evaluate the extent of PCE in soil gas and groundwater along the upgradient property boundary and at the center of the site. A discussion of the investigation and sample results is provided in P&D's Subsurface Investigation Report dated October 30, 2015 (document 0660.R3). Based on the sample results P&D recommended that the extent of PCE in sub-slab soil gas be further evaluated.

FIELD ACTIVITIES

No permits were required for installation of the Vapor Pins. Prior to installing the Vapor Pins the drilling locations were marked with white paint, Underground Service Alert was notified for underground utility location, a health and safety plan was prepared, and site access was arranged with the property owner and property tenants.

Vapor Pin Installation and Sampling

Seven flush-mounted Vapor Pins were installed at locations VP13 through VP19 on April 29, 2016 (see Figure 3) in accordance with manufacturer recommended methods, as described below.

At each location a rotohammer was used to drill a 1.5-inch diameter hole 1.75 inches into the concrete floor slab. A 5/8-inch diameter hole was then drilled through the center of the 1.5-inch diameter hole in the slab to two inches below the bottom of the concrete slab. The total concrete floor slab thickness was measured to be 6.0 inches at drilling locations VP 13 through VP15; 7.0 inches at drilling location VP18 and VP19; 8.0 inches at drilling location VP17; and 10.0 inches at location VP6. Once the desired depth was reached the hole was cleaned with a vacuum and a bottle brush. The Vapor Pin was then installed in the 5/8-inch diameter hole in the concrete slab and covered with a flush-mounted stainless steel cover. Prior to placement of the flush-mounted stainless steel cover, a plastic cap was placed on the top of the Vapor Pin barb fitting.

Vapor Pin sub-slab soil gas samples were collected by P&D personnel as described below from Vapor Pins VP13 through VP19 on May 2, 2016. A soil gas sampling manifold with a 1-liter Summa canister as the sampling canister for each location (see Figure 4) was assembled in a shroud consisting of a 35-gallon Rubbermaid bin that had been modified by cutting viewing ports into the sides of the shroud and covering the viewing ports with transparent polycarbonate sheets. A hole measuring approximately two inches square in the bottom of the shroud allowed the shroud to cover the Vapor Pin while still allowing access to the Vapor Pin through the bottom of the shroud. At the time that the sampling manifold was assembled, the vacuum for the sample canister was verified with a vacuum gauge and recorded.

Prior to sampling each Vapor Pin, a 10 minute shut-in test of the sampling manifold was performed by closing the valve located between the filter and the pressure gauge, opening the purge canister valve, and recording the manifold system vacuum (see Figure 4). In

accordance with regulatory agency guidance, no purge testing for purge volume determination was performed. Following successful verification of the manifold shut-in test, a default of three purge volumes was extracted prior to sample collection. The purge volume was calculated based on the void space below the Vapor Pin plus the volume of the tube that extends through the Vapor Pin and the volume of the 2.0-foot length of 0.187-inch diameter tubing that connected the Vapor Pin to the Summa canister. The purge time was calculated using a nominal flow rate provided by the flow controller of 150 cubic centimeters per minute.

Following completion of the purging of three volumes and opening the sample canister valve, a lid was placed onto the shroud and a tracer gas 1,1-Difluoroethane (DFA) was sprayed into the shroud interior for one second through a tube connected to a hole in the side of the shroud. After verifying that low flow conditions are not present associated with the sub-slab soil gas sample, an air sample was collected from the shroud atmosphere to quantify the shroud tracer gas concentration while the soil gas sample was being collected. The shroud atmosphere sample was collected into a Tedlar bag that was placed into a vacuum chamber with the Tedlar bag inlet connected to a new piece of polyethylene tubing that was inserted into the shroud atmosphere through a hole in the side of the shroud.

Once the vacuum for the sample canister valve had decreased to 5 inches of mercury, the lid of the shroud was removed to close the sample canister valve. The pressure gage on the inlet side of the flow controller (see Figure 4) was monitored during sample collection to ensure that the vacuum applied to the Vapor Pins did not exceed 100 inches of water.

One duplicate soil gas sample was collected into a Summa canister from Vapor Pin VP13 during the sub-slab soil gas sampling event using a stainless steel sampling tee for the Summa canisters and using methods described above. The soil gas Summa canisters were stored in a box and promptly shipped to the laboratory for extraction and analysis.

Chain of custody procedures were observed for all sample handling. Vapor Pin purge volume calculations for the different floor slab thicknesses are attached with this report as Appendix A. Measurements of vacuums and purging time intervals were recorded on a Soil Gas Sampling Data Sheet, which is also attached with this report as Appendix A.

All Vapor Pin construction equipment was cleaned with an Alconox solution wash followed by a clean water rinse prior to use at each location. New Vapor Pins with new silicone sleeves were installed at each sample collection location, and clean, unused vacuum gages and stainless steel sampling manifolds were used at each sample collection location during sample collection.

WEATHER INFORMATION

Weather data, including precipitation and barometric pressure for the two weeks preceding and following the date of the sampling event (May 2, 2016) are provided with this report as Appendix B. Review of Appendix B shows that during the 5 days prior to

each sampling event no precipitation occurred, and also that on the date of the sampling event no precipitation occurred.

The weather station used for the weather information is located immediately to the west of the intersection of Aurora Drive and Williams Street in San Leandro at an elevation of 10 feet above sea level, approximately 0.4 miles to the west-northwest of the subject site. The subject site is located at an elevation of approximately 25 feet above sea level. An internet link to the weather station information is provided with this report in Appendix B.

LABORATORY ANALYSIS

All of the sub-slab soil gas samples were analyzed at Eurofins Air Toxics Limited of Folsom for Volatile Organic Compounds (VOCs), including PCE and DFA (the tracer gas) using EPA Method TO-15. The analyses were performed with detection limits that equal or are less than San Francisco Bay Regional Water Quality Control Board (RWQCB) February 2016 (Revision 3) Table SG-1 soil gas commercial/industrial Environmental Screening Level (ESL) values.

All of the shroud air Tedlar bag samples were analyzed using EPA Method TO-15 for the tracer gas DFA.

The sub-slab soil gas sample results are summarized in Table 1A and the shroud air sample results are summarized in Table 1B. Copies of the laboratory analytical reports are attached with this report as Appendix C.

Review of the Table 1A Percent Shroud column shows that the tracer gas concentrations detected in the samples are less than 5 percent of the associated shroud atmosphere tracer gas concentrations (see Table 1B), indicating that atmospheric dilution of the samples during sample collection is not a concern.

DISCUSSION AND RECOMMENDATIONS

During our initial discussions with ACDEH regarding the sampling results (maximum sub-slab PCE soil gas detection of 520,000 ug/m^3 at VP7, commercial screening level of 2,100 ug/$m^{3)}$ the ACDEH advised that reduction of sub-slab PCE soil gas concentrations will be required. Accordingly, P&D recommends the following activities to reduce sub-slab PCE soil gas concentrations, to mitigate PCE vapor intrusion to indoor air and to move the subject site toward final closure.

- Perform a sub-slab depressurization (SSD) feasibility test with extraction performed sequentially at locations approximately 10 feet south of each of VP3, VP7, and VP19, and measurement of vacuum at all of the Vapor Pins during extraction at each of the proposed extraction locations.
- Based on the measured flow rates at the extraction locations, the measured vacuums at the Vapor Pins during extraction, and the measured PCE vapor

concentrations during extraction, prepare a report for submittal to the ACDEH documenting the results of the SSD feasibility test with recommendations for SSD system installation.

- Following ACDEH approval of the SSD system recommendations, obtain an Authority to Construct and a Permit to Operate from the Bay Area Air Quality Management District to install a SSD system to mitigate PCE vapor intrusion.
- Following SSD system installation and start up, perform SSD system performance testing by collecting air samples from each of the SSD extraction locations.
- Following SSD system installation and start up, perform a chemical inventory followed by indoor air and ambient air sample collection at locations in the warehouse that were sampled in 2015 (there is no Heating, Ventilation and Air Conditioning (HVAC) in this portion of the building) to verify effective indoor air vapor intrusion mitigation. In addition, perform a chemical inventory followed by indoor air testing in the offices located along the north side (the Williams Street side) of the building for the Moore Newton Quality Hardwood and the Sunlink portions of the building (with the HVAC for these spaces on and off) to verify effective indoor air vapor intrusion mitigation for these locations.
- Prepare a report for submittal to the ACDEH documenting the SSD installation, start up, performance testing, and the results of the indoor air vapor intrusion mitigation effectiveness testing.
- Continue to operate the SSD system on a full-time basis with periodic SSD system performance testing, indoor air quality testing, and associated report preparation and submittal to the ACDEH.
- Following verification of reduction of sub-slab PCE soil gas concentrations during two consecutive quarterly sampling events, shut off the SSD system, and after two weeks of non-SSD system operation to allow for sub-slab soil gas concentration equilibration, collect sub-slab soil gas and indoor air samples to verify that sub-slab PCE soil gas concentration rebound and indoor air PCE vapor intrusion are not a concern.
- Following verification of ACDEH agreement that sub-slab PCE soil gas concentration rebound and indoor air PCE vapor intrusion are not a concern, request case closure from the ACDEH.

LIMITATIONS

This report was prepared solely for the use of Jones Development Company, LLC. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological

conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

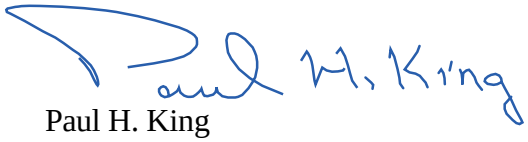
This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King
Professional Geologist #5901
Expires: 12/31/17

Attachments:

Table 1 - Summary of Soil Gas Sample Analytical Results
Table 2 - Summary of Soil Gas Shroud Sample Analytical Results

Figure 1 - Site Location Map
Figure 2 – Site Plan Aerial Photograph Showing Property Boundaries
Figure 3 - Site Plan Aerial Photograph Detail Showing PCE Concentrations in Sub-Slab Soil Gas
Figure 4 - Typical Soil Gas Sampling Manifold

Appendix A - Purge Volume Calculations and Soil Gas Sampling Data Sheets
Appendix B - Weather Information
Appendix C - Laboratory Analytical Results and Chain of Custody Documentation

PHK/mlbd/sjc
0660.R4

TABLES

Table 1A
Summary of Soil Gas Sample Analytical Results

Sample ID	Land Use	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1,1-TCA	Vinyl Chloride	Chloroform	Other VOCs by TO-15	DFA	Percent Shroud
VP1	Commercial	11/5/2014	180	ND<6.0	ND<4.4	ND<4.4	ND<6.1	ND<2.9	69	ND, except Acetone = 96, Ethanol = 26, 2-Propanol = 20	49	0
VP2	Commercial	11/5/2014	ND<6.6	ND<5.3	ND<3.9	610	ND<5.3	ND<2.5	ND<4.8	ND, except Acetone = 34, Toluene = 9.8, Tetrahydrofuran = 6.3, Ethanol = 38, 2-Propanol = 11	3,000, a	0
VP2-DUP	Commercial	11/5/2014	ND<7.7	ND<6.1	ND<4.5	740	ND<6.2	ND<2.9	ND<5.5	ND, except Acetone = 31, Toluene = 9.9, Ethanol = 35	38,000, a	0.2
VP3	Commercial	12/10/2014	**320,000**	ND<2,000	ND<1,400	ND<1,400	ND<2,000	ND<940	ND<1,800	ND, except Toluene = 3,400, Ethanol = 3,600,	ND<4,000	0
VP3-DUP	Commercial	12/10/2014	**310,000**	ND<990	ND<730	ND<730	ND<1,000	ND<470	ND<900	ND, except Toluene = 3,000	ND<2,000	0
VP3	Commercial	11/5/2014	**320,000**	ND<1,600	ND<1,200	ND<1,200	ND<1,600	ND<760	ND<1,400	ND, except Toluene = 4,000	41,000	0.2
VP4	Commercial	12/10/2014	**6,600**	ND<17	ND<13	ND<13	ND<18	ND<8.2	ND<16	ND, except 1,2,4-Trichlorobenzene = 140, Hexachlorobutadiene = 240	ND<35	0
VP4	Commercial	11/5/2014	**4,700**	ND<21	ND<15	ND<15	ND<21	ND<9.9	ND<19	ND, except Ethanol = 40	190,000, a	0.95
VP5	Commercial	12/10/2014	**65,000**	ND<130	ND<99	ND<99	ND<140	ND<64	ND<120	All ND	ND<270	0
VP5	Commercial	11/5/2014	**67,000**	ND<130	ND<97	ND<97	ND<130	ND<62	ND<120	All ND	320	0
VP6	Commercial	12/10/2014	**18,000**	ND<64	ND<47	ND<47	80	ND<30	ND<58	All ND	140	0
VP6	Commercial	11/5/2014	**18,000**	ND<52	ND<38	ND<38	76	ND<25	ND<47	ND, except Ethanol = 84	2,600	0
VP7	Commercial	2/16/2015	**520,000**	ND<640	ND<470	ND<470	ND<650	ND<300	ND<580	All ND	ND<1,300	0
VP8	Commercial	2/16/2015	**84,000**	880	ND<56	ND<56	ND<77	ND<36	ND<69	ND, except 1,2,4-Trimethylbenzene = 85	4,000	0
VP9	Commercial	2/16/2015	**3,700**	ND<92	13,000	ND<68	ND<94	ND<44	ND<84	ND, except Ethanol = 190	ND<180	0
VP10	Commercial	2/16/2015	**130,000**	ND<130	ND<98	ND<98	ND<130	ND<63	ND<120	All ND	ND<260	0
VP10- DUP	Commercial	2/16/2015	**140,000**	ND<130	ND<95	ND<95	ND<130	ND<61	ND<120	All ND	ND<260	0
VP11	Commercial	2/17/2015	**250,000**	ND<390	ND<280	ND<280	ND<390	ND<180	ND<350	All ND	ND<780	0
VP12	Commercial	2/17/2015	**150,000**	ND<210	ND<160	ND<160	ND<220	ND<100	ND<ND<190	All ND	ND<430	0

Table 1A
Summary of Soil Gas Sample Analytical Results

Sample ID	Land Use	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1,1-TCA	Vinyl Chloride	Chloroform	Other VOCs by TO-15	DFA	Percent Shroud
VP13	Commercial	5/2/2016	**210,000**	ND<260	ND<190	ND<190	ND<260	ND<120	ND<230	All ND, except m,p-Xylene = 940	9,400	0
VP13-DUP	Commercial	5/2/2016	**210,000**	ND<260	ND<190	ND<190	ND<260	ND<120	ND<230	All ND, except m,p-Xylene = 890	8,100	0
VP14	Commercial	5/2/2016	**190,000**	ND<220	ND<170	ND<170	420	ND<110	ND<200	All ND, except Ethanol = 400	ND<450	0
VP15	Commercial	5/2/2016	**48,000**	240	ND<47	ND<47	390	ND<30	ND<58	All ND, except Ethanol = 420	ND<130	0
VP16	Commercial	5/2/2016	**36,000**	ND<63	ND<47	ND<47	87	ND<30	ND<58	All ND, except Ethanol = 100	350	0
VP17	Commercial	5/2/2016	**140,000**	ND<150	ND<110	ND<110	ND<150	ND<70	ND<130	All ND, except Ethanol = 280	ND<300	0
VP18	Commercial	5/2/2016	**250,000**	ND<280	ND<210	ND<210	ND<290	ND<140	ND<260	All ND	ND<570	0
VP19	Commercial	5/2/2016	**410,000**	ND<540	ND<400	ND<400	ND<540	ND<260	ND<490	All ND	ND<1,100	0
ESL			*2,100*	*3,000*	*35,000*	*350,000*	*4,400,000*	*160*	*530*	*Acetone = 140,000,000, Toluene = 1,300,000, Xylenes = 440,000, 1,2,4-Trichlorobenzene = 8,800, Hexachlorobutadiene = No Value, Tetrahydrofuran = No Value, Ethanol = No Value, 2-Propanol = No Value*	*No Value*	*No Value*

Notes:

PCE = Tetrachloroethene.

TCE = Trichloroethene.

cis-1,2-DCE = cis-1,2-Dichloroethene.

trans-1,2-DCE = trans-1,2-Dichloroethene.

1,1,1-TCA = 1,1,1-Trichloroethane.

VOCs = Volatile Organic Compounds.

DFA = 1,1-Difluoroethane. (Tracer Gas)

ND = Not Detected.

NA = Not Analyzed.

a = Laboratory Note: exceeds instrument calibration range.

Percent Shroud = The ratio of tracer gas concentration detected in the soil gas sample to the tracer gas concentration detected in the shroud air sample, expressed as a percentage.

ESL = Environmental Screening Level, by San Francisco Bay – Regional Water Quality Control Board , updated February 2016 (Revision 2), from Table SG-1 – Subslab/Soil Gas Vapor Intrusion Human Health Risk Screening Levels for Commerical/Industrial Land Use.

Values in bold exceed their respective ESL values.

Results and ESLs reported in micrograms per cubic meter (µg/m3), unless otherwise indicated.

Table 1B

Summary of Soil Gas Shroud Sample Analytical Results - 1,1-Difluoroethane

Sample ID	Sample Date	DFA, #
VP1	11/5/2014	17,000,000, a
VP2	11/5/2014	19,000,000, a
VP3	12/10/2014	13,000,000
VP3	11/5/2014	18,000,000, a
VP4	12/10/2014	11,000,000
VP4	11/5/2014	20,000,000, a
VP5	12/10/2014	9,400,000
VP5	11/5/2014	22,000,000, a
VP6	12/10/2014	19,000,000
VP6	11/5/2014	17,000,000, a
VP7	2/16/2015	19,000,000
VP8	2/16/2015	16,000,000
VP9	2/16/2015	15,000,000
VP10	2/16/2015	18,000,000
VP11	2/17/2015	13,000,000
VP12	2/17/2015	10,000,000

Table 1B

Summary of Soil Gas Shroud Sample Analytical Results - 1,1-Difluoroethane

Sample ID	Sample Date	DFA, #
VP13	5/2/2016	19,000,000
VP14	5/2/2016	24,000,000
VP15	5/2/2016	16,000,000
VP16	5/2/2016	12,000,000
VP17	5/2/2016	8,800,000
VP18	5/2/2016	21,000,000
VP19	5/2/2016	19,000,000
Notes:		
ND = Not Detected.		
NA = Not Analyzed.		
# = 1,1-Difluoroethane (DFA) used as leak detection compound		
for TO-15 analysis.		
a = Laboratory Note: exceeds instrument calibration range.		
Results in micrograms per cubic meter ($\mu g/m^3$), unless otherwise		
indicated.		

FIGURES

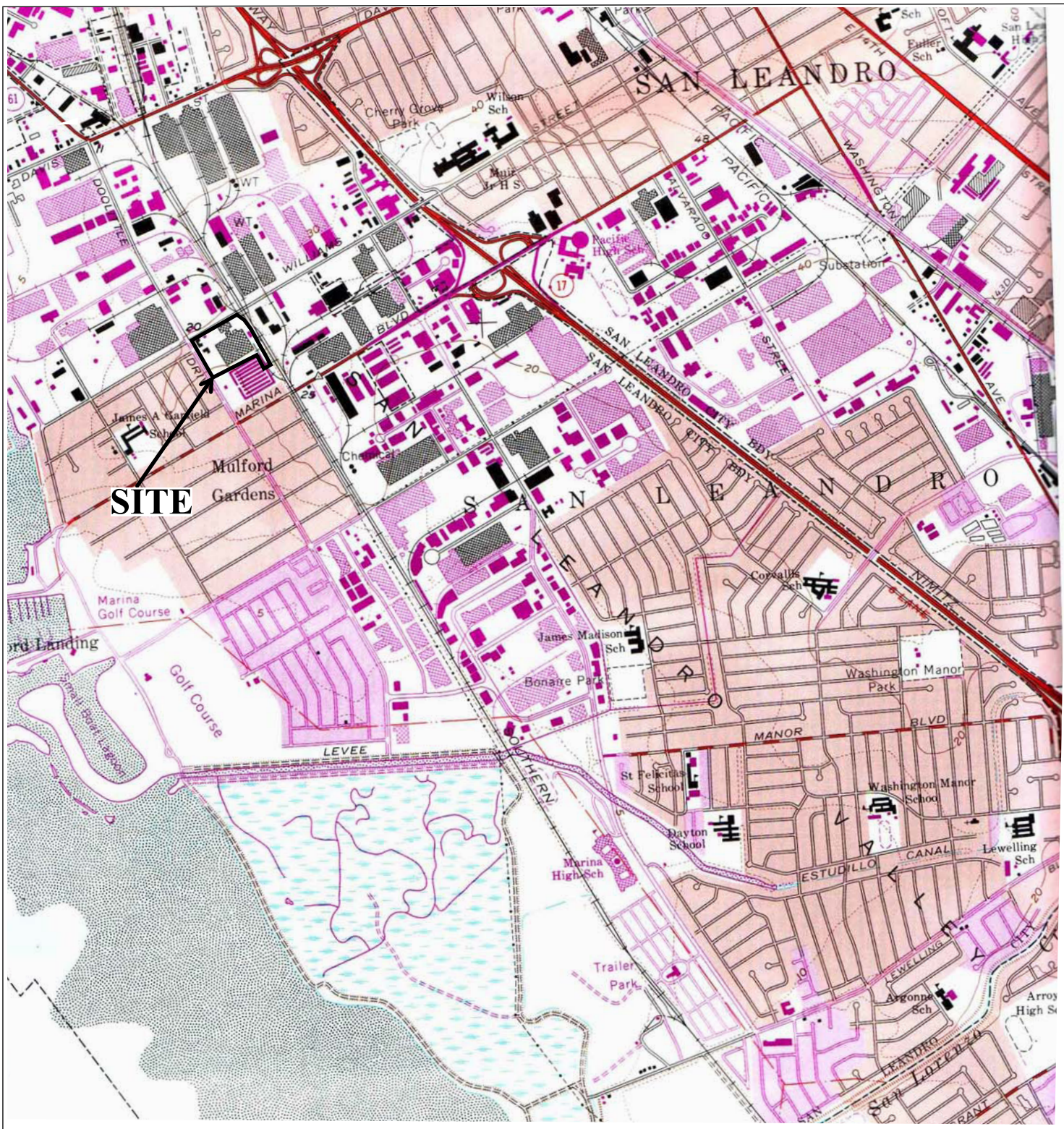


Figure 1
Site Location Map
2101 Williams Street
San Leandro, California

Base Map From:
US Geological Survey San Leandro, California, 7.5-Minute Quadrangles
Map Edited 1980

P&D Environmental, Inc.
55 Santa Clara Avenue
Oakland, CA 94610

0 1000 2000
Approximate Scale in Feet

N

Figure 2
Site Plan Aerial Photograph Showing Property Boundaries
2101 Williams Street
San Leandro, California

Base Map from:
Justin W. Capp, Inc., Site Plan, Building Remodel & Ramp Addition, dated November 27, 2012, and Google Earth, image dated August 28, 2012

P&D Environmental, Inc.
55 Santa Clara Avenue
Oakland, CA 94610

0 80 160
Approximate Scale in Feet

N

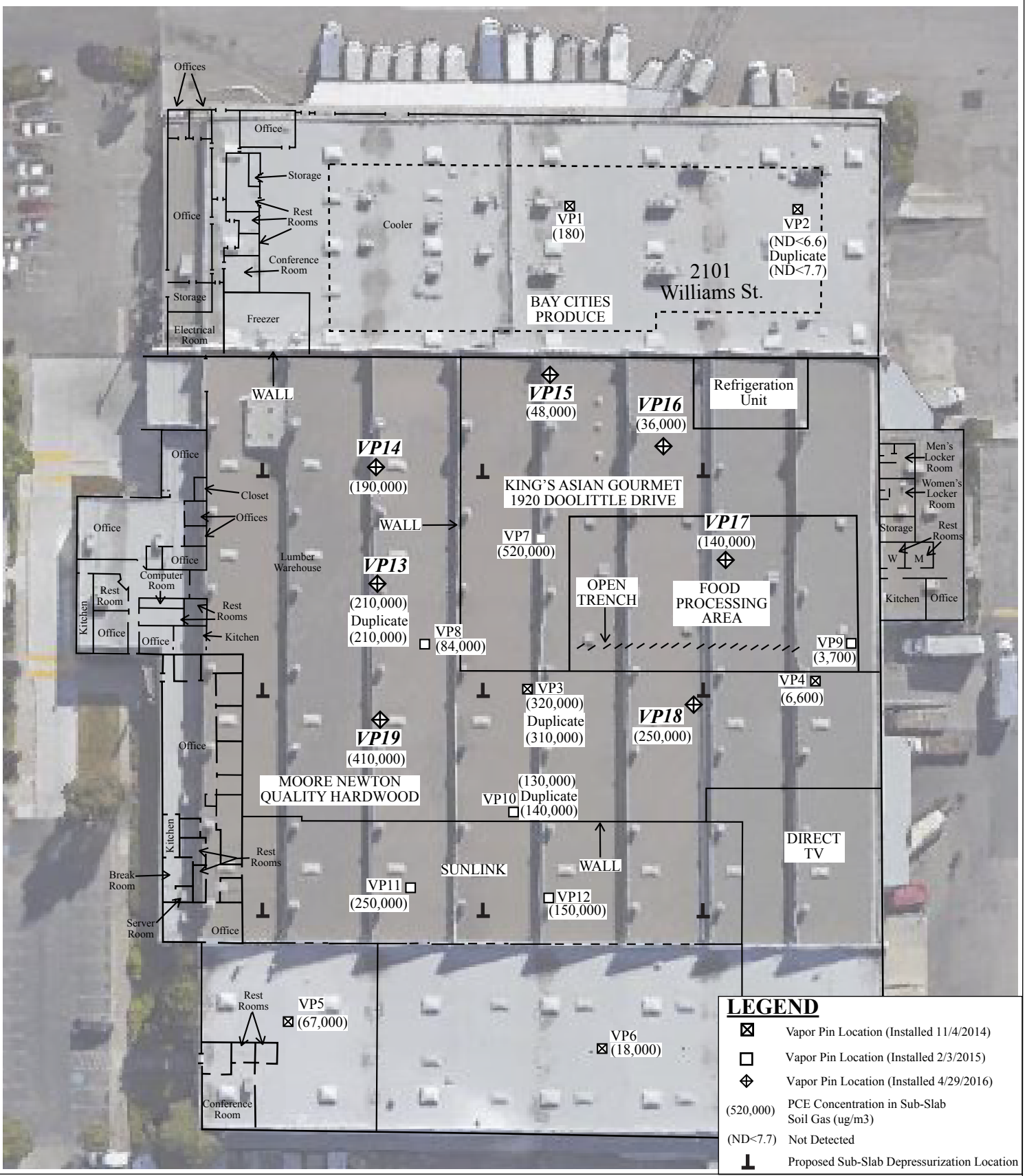


Figure 3
Site Plan Aerial Photograph Detail Showing PCE Concentrations in Sub-Slab Soil Gas
2101 Williams Street
San Leandro, California

Base Map from:
Google Earth, image dated August 28, 2012

P&D Environmental, Inc.
55 Santa Clara Avenue
Oakland, CA 94610

0 30 60
Approximate Scale in Feet

N

APPENDIX A

Soil Gas Purge Volume Calculations and Soil Gas Sampling Data Sheets

Report 0660.R4
6.0 inch slab, recessed Vapor Pin, 2.0 feet tubing

Soil Gas Purge Volume Calculations

One Purge Volume is calculated as

1 The volume of the hole through the slab,
2 Plus the volume of the hole beneath the slab,
3 Plus the volume of the tube in the Vapor Pin,
4 Plus the volume of the tube connecting the Vapor Pin to the sample container,
5 Less the volume of the hole through the slab for any drilling for recessed Vapor Pin placement
6 Less the volume of the Vapor Pin

1 The slab borehole volume is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)
Slab Thickness = 6 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 6.0 in.
V borehole = 3.14 x (0.3125 x 0.3125) x (6.0 in.) = 1.84 cubic inches.

2 The sub-slab borehole volume is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)
Depth below slab = 2 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 2.0 in.
V borehole = 3.14 x (0.3125 x 0.3125) x (2.0 in.) = 0.61 cubic inches.

3 The Vapor Pin tube volume is calculated as follows:

Tubing diameter = 0.125 inches
Tubing Length = 2 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.125 in./2, and h = 2.0 in.
V borehole = 3.14 x (0.0625 x 0.0625) x (2.0 in.) = 0.02 cubic inches.

4 The tube volume connecting the Vapor Pin to the sample container is calculated as follows:

Tubing diameter = 0.187 inches
Tubing Length = 24 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.187 in./2, and h = 24.0 in.
V borehole = 3.14 x (0.0935 x 0.0935) x (24.0 in.) = 0.66 cubic inches.

5 The slab borehole volume that is removed for the recessed Vapor Pin is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)
Slab Thickness = 1.75 inches (if Vapor Pin is recessed this is 1.75 inches)
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 1.8 in.
V borehole = 3.14 x (0.3125 x 0.3125) x (1.8 in.) = 0.54 cubic inches.

6 The Vapor Pin volume is calculated as follows:

Vapor Pin diameter = 0.625 inches (this is 5/8 inch diameter)
Vapor Pin Length = 2 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 2.0 in.
V borehole = 3.14 x (0.3125 x 0.3125) x (2.0 in.) = 0.61 cubic inches.

The total volume for one purge volume is V slab borehole + V sub-slab borehole + V vapor pin tube + V tubing connecting vapor pin to sample container

.- V slab borehole for recessed vapor pin - V vapor pin

V total = 1.84 cubic inches + 0.61 cubic inches + 0.02 cubic inches +
0.66 cubic inches - 0.54 cubic inches - 0.61 cubic inches = 1.99 cubic inches.

To convert to cubic centimeters:

V total = 1.99 cubic inches x 16.39 cubic centimeters/cubic inches = 32.6 cubic centimeters.

The total volume for 3 purge volume(s) is calculated as follows:

V purge total = 32.6 cubic centimeters x 3 = 97.7 cubic centimeters.

The flow controller has a nominal flow rate of 150 cubic centimeters per minute.

The purge time is calculated as follows:

T purge = 98 cubic centimeters/ 150 cubic centimeters per minute = 0.65 minutes.
Converting the purge time to seconds, 0.65 minutes x 60 seconds/ minute = 39 seconds.

Notes:

Yellow hi-lite indicates data entry required.
Blue hi-lite indicates values are calculated or automatically updated.

Report 0660.R4
7.0 inch slab, recessed Vapor Pin, 2.0 feet tubing

Soil Gas Purge Volume Calculations

One Purge Volume is calculated as

1 The volume of the hole through the slab,
2 Plus the volume of the hole beneath the slab,
3 Plus the volume of the tube in the Vapor Pin,
4 Plus the volume of the tube connecting the Vapor Pin to the sample container,
5 Less the volume of the hole through the slab for any drilling for recessed Vapor Pin placement
6 Less the volume of the Vapor Pin

1 The slab borehole volume is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)

Slab Thickness = 7 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 7.0 in.

V borehole = 3.14 x (0.3125 x 0.3125) x (7.0 in.) = 2.15 cubic inches.

2 The sub-slab borehole volume is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)

Depth below slab = 2 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 2.0 in.

V borehole = 3.14 x (0.3125 x 0.3125) x (2.0 in.) = 0.61 cubic inches.

3 The Vapor Pin tube volume is calculated as follows:

Tubing diameter = 0.125 inches

Tubing Length = 2 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.125 in./2, and h = 2.0 in.

V borehole = 3.14 x (0.0625 x 0.0625) x (2.0 in.) = 0.02 cubic inches.

4 The tube volume connecting the Vapor Pin to the sample container is calculated as follows:

Tubing diameter = 0.187 inches

Tubing Length = 24 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.187 in./2, and h = 24.0 in.

V borehole = 3.14 x (0.0935 x 0.0935) x (24.0 in.) = 0.66 cubic inches.

5 The slab borehole volume that is removed for the recessed Vapor Pin is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)

Slab Thickness = 1.75 inches (if Vapor Pin is recessed this is 1.75 inches)

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 1.8 in.

V borehole = 3.14 x (0.3125 x 0.3125) x (1.8 in.) = 0.54 cubic inches.

6 The Vapor Pin volume is calculated as follows:

Vapor Pin diameter = 0.625 inches (this is 5/8 inch diameter)

Vapor Pin Length = 2 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 2.0 in.

V borehole = 3.14 x (0.3125 x 0.3125) x (2.0 in.) = 0.61 cubic inches.

The total volume for one purge volume is V slab borehole + V sub-slab borehole + V vapor pin tube + V tubing connecting vapor pin to sample container

.- V slab borehole for recessed vapor pin - V vapor pin

V total = 2.15 cubic inches + 0.61 cubic inches + 0.02 cubic inches +
0.66 cubic inches - 0.54 cubic inches - 0.61 cubic inches = 2.29 cubic inches.

To convert to cubic centimeters:

V total = 2.29 cubic inches x 16.39 cubic centimeters/cubic inches = 37.6 cubic centimeters.

The total volume for 3 **purge volume(s)** is calculated as follows:

V purge total = 37.6 cubic centimeters x 3 = 112.8 cubic centimeters.

The flow controller has a nominal flow rate of 150 cubic centimeters per minute.

The purge time is calculated as follows:

T purge = 113 cubic centimeters/ 150 cubic centimeters per minute = 0.75 minutes.

Converting the purge time to seconds, 0.75 minutes x 60 seconds/ minute = 45 seconds.

Notes:

Yellow hi-lite indicates data entry required.
Blue hi-lite indicates values are calculated or automatically updated.

Report 0660.R4
8.0 inch slab, recessed Vapor Pin, 2.0 feet tubing

Soil Gas Purge Volume Calculations

One Purge Volume is calculated as

1 The volume of the hole through the slab,
2 Plus the volume of the hole beneath the slab,
3 Plus the volume of the tube in the Vapor Pin,
4 Plus the volume of the tube connecting the Vapor Pin to the sample container,
5 Less the volume of the hole through the slab for any drilling for recessed Vapor Pin placement
6 Less the volume of the Vapor Pin

1 The slab borehole volume is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)
Slab Thickness = 8 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 8.0 in.
V borehole = 3.14 x (0.3125 x 0.3125) x (8.0 in.) = 2.45 cubic inches.

2 The sub-slab borehole volume is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)
Depth below slab = 2 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 2.0 in.
V borehole = 3.14 x (0.3125 x 0.3125) x (2.0 in.) = 0.61 cubic inches.

3 The Vapor Pin tube volume is calculated as follows:

Tubing diameter = 0.125 inches
Tubing Length = 2 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.125 in./2, and h = 2.0 in.
V borehole = 3.14 x (0.0625 x 0.0625) x (2.0 in.) = 0.02 cubic inches.

4 The tube volume connecting the Vapor Pin to the sample container is calculated as follows:

Tubing diameter = 0.187 inches
Tubing Length = 24 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.187 in./2, and h = 24.0 in.
V borehole = 3.14 x (0.0935 x 0.0935) x (24.0 in.) = 0.66 cubic inches.

5 The slab borehole volume that is removed for the recessed Vapor Pin is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)
Slab Thickness = 1.75 inches (if Vapor Pin is recessed this is 1.75 inches)
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 1.8 in.
V borehole = 3.14 x (0.3125 x 0.3125) x (1.8 in.) = 0.54 cubic inches.

6 The Vapor Pin volume is calculated as follows:

Vapor Pin diameter = 0.625 inches (this is 5/8 inch diameter)
Vapor Pin Length = 2 inches
V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 2.0 in.
V borehole = 3.14 x (0.3125 x 0.3125) x (2.0 in.) = 0.61 cubic inches.

The total volume for one purge volume is V slab borehole + V sub-slab borehole + V vapor pin tube + V tubing connecting vapor pin to sample container

.- V slab borehole for recessed vapor pin - V vapor pin

V total = 2.45 cubic inches + 0.61 cubic inches + 0.02 cubic inches +
0.66 cubic inches - 0.54 cubic inches - 0.61 cubic inches = 2.60 cubic inches.

To convert to cubic centimeters:

V total = 2.60 cubic inches x 16.39 cubic centimeters/cubic inches = 42.6 cubic centimeters.

The total volume for 3 purge volume(s) is calculated as follows:

V purge total = 42.6 cubic centimeters x 3 = 127.8 cubic centimeters.

The flow controller has a nominal flow rate of 150 cubic centimeters per minute.

The purge time is calculated as follows:

T purge = 128 cubic centimeters/ 150 cubic centimeters per minute = 0.85 minutes.
Converting the purge time to seconds, 0.85 minutes x 60 seconds/ minute = 51 seconds.

Notes:

Yellow hi-lite indicates data entry required.
Blue hi-lite indicates values are calculated or automatically updated.

Report 0660.R4
10.0 inch slab, recessed Vapor Pin, 2.0 feet tubing

Soil Gas Purge Volume Calculations

One Purge Volume is calculated as

1 The volume of the hole through the slab,
2 Plus the volume of the hole beneath the slab,
3 Plus the volume of the tube in the Vapor Pin,
4 Plus the volume of the tube connecting the Vapor Pin to the sample container,
5 Less the volume of the hole through the slab for any drilling for recessed Vapor Pin placement
6 Less the volume of the Vapor Pin

1 The slab borehole volume is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)

Slab Thickness = 10 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 10.0 in.

V borehole = 3.14 x (0.3125 x 0.3125) x (10.0 in.) = 3.07 cubic inches.

2 The sub-slab borehole volume is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)

Depth below slab = 2 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 2.0 in.

V borehole = 3.14 x (0.3125 x 0.3125) x (2.0 in.) = 0.61 cubic inches.

3 The Vapor Pin tube volume is calculated as follows:

Tubing diameter = 0.125 inches

Tubing Length = 2 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.125 in./2, and h = 2.0 in.

V borehole = 3.14 x (0.0625 x 0.0625) x (2.0 in.) = 0.02 cubic inches.

4 The tube volume connecting the Vapor Pin to the sample container is calculated as follows:

Tubing diameter = 0.187 inches

Tubing Length = 24 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.187 in./2, and h = 24.0 in.

V borehole = 3.14 x (0.0935 x 0.0935) x (24.0 in.) = 0.66 cubic inches.

5 The slab borehole volume that is removed for the recessed Vapor Pin is calculated as follows:

Borehole slab dia. = 0.625 inches (this is 5/8 inch diameter)

Slab Thickness = 1.75 inches (if Vapor Pin is recessed this is 1.75 inches)

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 1.8 in.

V borehole = 3.14 x (0.3125 x 0.3125) x (1.8 in.) = 0.54 cubic inches.

6 The Vapor Pin volume is calculated as follows:

Vapor Pin diameter = 0.625 inches (this is 5/8 inch diameter)

Vapor Pin Length = 2 inches

V borehole = pi x (r x r) x h, where pi = 3.14, r = 0.625 in./2, and h = 2.0 in.

V borehole = 3.14 x (0.3125 x 0.3125) x (2.0 in.) = 0.61 cubic inches.

The total volume for one purge volume is V slab borehole + V sub-slab borehole + V vapor pin tube + V tubing connecting vapor pin to sample container

.- V slab borehole for recessed vapor pin - V vapor pin

V total = 3.07 cubic inches + 0.61 cubic inches + 0.02 cubic inches +
0.66 cubic inches - 0.54 cubic inches - 0.61 cubic inches = 3.21 cubic inches.

To convert to cubic centimeters:

V total = 3.21 cubic inches x 16.39 cubic centimeters/cubic inches = 52.7 cubic centimeters.

The total volume for 3 **purge volume(s)** is calculated as follows:

V purge total = 52.7 cubic centimeters x 3 = 158.0 cubic centimeters.

The flow controller has a nominal flow rate of 150 cubic centimeters per minute.

The purge time is calculated as follows:

T purge = 158 cubic centimeters/ 150 cubic centimeters per minute = 1.05 minutes.

Converting the purge time to seconds, 1.05 minutes x 60 seconds/ minute = 63 seconds.

Notes:

Yellow hi-lite indicates data entry required.
Blue hi-lite indicates values are calculated or automatically updated.

SOIL GAS SAMPLING DATA SHEET

Address 2101 Williams St. San Leandro

Job # 0669.16

Date 5/2/16

Sampler Name MLBD

Drilling Company JHX

Probe Method (check one)

- o PRT
- o Temp Well
- o Permanent Well
- x Vapor Pin

Soil Gas Location Designation	Probe Depth (Ft.)	Time Probe Installation Completed	Canister #	Sample Canister Initial Vacuum Check (In. Hg) and time	Start leak check vacuum (In. Hg) and time	End leak check vacuum (In. Hg) and time	ADDITIONAL leak check vacuum (In. Hg) and time	Start PURGE time	End PURGE time	Start of tracer gas injection time	Begin sample collection vacuum (In. Hg) and time	End sample collection vacuum (In. Hg) and time	PID value in Teflon tube after sample collection	NOTES
VP 13			37831	vac -30 time 1330	vac - 26 time 1345	vac - 26 time 1355	vac time	time 134800	time 134839	time 1359	vac -30 time 135800	vac - 5 time 141107	ppm time	DFA 1359
VP 13 DUP			37653	vac -29 time 1331	vac -26 time 1345	vac - 26 time 1355	vac time	time 134800	time 134839	time	vac - 29 time 135800	vac - 5 time 141107	ppm time	
VP 14			37355	vac -30 time 1405	vac -26 time 1425	vac - 26 time 1435	vac time	time 143500	time 143539	time 1445	vac -30 time 144430	vac -5 time 145120	ppm time	DFA 1445
VP 15			34581	vac -30 time 1000	vac -26 time 100500	vac -26 time 101500	vac time	time 102300	time 102339	time 1028	vac -30 time 102700	vac - 5 time 103710	ppm time	DFA 1028
VP 16			37815	vac -27 time 0915	vac -26 time 0920	vac -26 time 0930	vac time	time 094200	time 094303	time 0948	vac -27 time 094700	vac -5 time 095350	ppm time	DFA 0948
VP 17			37782	vac -30 time 0815	vac -27 time 0830	vac -27 time 0840	vac time	time 085300	time 085351	time 0857	vac -30 time 085600	vac -5 time 090445	ppm time	DFA 0857
VP 18			30823	vac -30 time 1200	vac -26 time 120500	vac -26 time 121500	vac time	time 121600	time 121645	time 1224	vac -30 time 122300	vac -5 time 122935	ppm time	DFA 1224
VP 19			36440	vac -29 time 1100	vac -27 time 1105	vac -27 time 1115	vac time	time 113600	time 113645	time 1144	vac -29 time 114300	vac -5 time 115010	ppm time	DFA 1144
VP				vac time	vac time	vac time	vac time	time	time	time	vac time	vac time	ppm time	
VP				vac time	vac time	vac time	vac time	time	time	time	vac time	vac time	ppm time	
VP				vac time	vac time	vac time	vac time	time	time	time	vac time	vac time	ppm time	
VP				vac time	vac time	vac time	vac time	time	time	time	vac time	vac time	ppm time	
VP				vac time	vac time	vac time	vac time	time	time	time	vac time	vac time	ppm time	

APPENDIX B

Weather Information

https://www.wunderground.com/personal-weather-station/dashboard?ID=KCASANLE11#history/s20160418/e20160516/mcustom

About This Weather Station

Weather Station ID: KCASANLE11
Station Name: Davis Street
Latitude / Longitude: N 37 ° 43 ' 26 ", W 122 ° 9 ' 43 "
Elevation: 59
City: San Leandro
State: CA
Hardware: Netatmo Weather Station
Software: Netatmo

Weather History Table
April 18, 2016 - May 17, 2016

2016	Temperature			Dew Point			Humidity			Speed			Pressure			Precip. Accum.
Apr	High	Avg	Low	High	Avg	Low	High	Avg	Low	High	Avg	Gust	High	Avg	Low	Sum
18	84.6 °F	68.7 °F	57.2 °F	56.2 °F	46.6 °F	37.5 °F	69 %	46 %	30 %	0 mph	0 mph	0 mph	29.36 in	29.33 in	29.29 in	0 in
19	80.4 °F	66.5 °F	56.8 °F	52 °F	43 °F	35.5 °F	66 %	43 %	25 %	0 mph	0 mph	0 mph	29.32 in	29.25 in	29.18 in	0 in
20	74.8 °F	63.1 °F	52.7 °F	54.7 °F	44.5 °F	32.3 °F	87 %	53 %	28 %	0 mph	0 mph	0 mph	29.25 in	29.23 in	29.2 in	0 in
21	71.1 °F	61.2 °F	54.9 °F	58 °F	54.2 °F	52 °F	92 %	78 %	59 %	0 mph	0 mph	0 mph	29.23 in	29.19 in	29.16 in	0 in
22	61.2 °F	57.1 °F	50.4 °F	54.4 °F	49.9 °F	45.6 °F	93 %	77 %	60 %	0 mph	0 mph	0 mph	29.39 in	29.24 in	29.1 in	0 in
23	68.5 °F	56.8 °F	47.7 °F	52.3 °F	48.4 °F	45.8 °F	96 %	75 %	53 %	0 mph	0 mph	0 mph	29.48 in	29.43 in	29.38 in	0 in
24	68.4 °F	57.1 °F	49.3 °F	51.7 °F	47.1 °F	39 °F	92 %	70 %	50 %	0 mph	0 mph	0 mph	29.4 in	29.31 in	29.23 in	0 in
25	65.7 °F	54.3 °F	43.5 °F	43.6 °F	38.8 °F	33.5 °F	76 %	57 %	37 %	0 mph	0 mph	0 mph	29.33 in	29.3 in	29.27 in	0 in
26	67.1 °F	55.3 °F	45.9 °F	49.3 °F	45.1 °F	40.3 °F	93 %	70 %	47 %	0 mph	0 mph	0 mph	29.37 in	29.34 in	29.31 in	0 in
27	63.5 °F	53 °F	46.2 °F	53.8 °F	46.7 °F	40.3 °F	93 %	80 %	59 %	0 mph	0 mph	0 mph	29.33 in	29.23 in	29.13 in	0 in
28	70.9 °F	56.9 °F	45.3 °F	52.8 °F	48.1 °F	42.9 °F	93 %	74 %	50 %	0 mph	0 mph	0 mph	29.26 in	29.21 in	29.16 in	0 in
29	68 °F	57.3 °F	49.5 °F	53 °F	48.8 °F	44.9 °F	91 %	74 %	56 %	0 mph	0 mph	0 mph	29.34 in	29.26 in	29.19 in	0 in
30	77.5 °F	64.6 °F	49.8 °F	47.5 °F	43.1 °F	39.9 °F	81 %	48 %	29 %	0 mph	0 mph	0 mph	29.22 in	29.16 in	29.1 in	0 in

2016	Temperature			Dew Point			Humidity			Speed			Pressure			Precip. Accum.
May	High	Avg	Low	High	Avg	Low	High	Avg	Low	High	Avg	Gust	High	Avg	Low	Sum
1	82 °F	68.8 °F	57.7 °F	52.6 °F	46 °F	40.3 °F	60 %	44 %	31 %	0 mph	0 mph	0 mph	29.24 in	29.17 in	29.09 in	0 in
2	70.2 °F	58.8 °F	49.3 °F	54.5 °F	49.9 °F	44.1 °F	90 %	73 %	56 %	0 mph	0 mph	0 mph	29.34 in	29.29 in	29.24 in	0 in
3	74.5 °F	60.5 °F	49.6 °F	57 °F	52 °F	47.1 °F	92 %	75 %	52 %	0 mph	0 mph	0 mph	29.33 in	29.26 in	29.19 in	0 in
4	69.3 °F	59.2 °F	53.1 °F	54.4 °F	51.2 °F	48.7 °F	89 %	76 %	54 %	0 mph	0 mph	0 mph	29.22 in	29.17 in	29.13 in	0 in
5	68.2 °F	59.5 °F	53.8 °F	54.1 °F	51.4 °F	48.5 °F	85 %	75 %	57 %	0 mph	0 mph	0 mph	29.18 in	29.16 in	29.14 in	0 in
6	57.2 °F	54.6 °F	52 °F	54.2 °F	51.6 °F	49.1 °F	95 %	89 %	84 %	0 mph	0 mph	0 mph	29.18 in	29.15 in	29.12 in	0 in
7	61.3 °F	56.3 °F	52.9 °F	56 °F	53.1 °F	51.1 °F	95 %	89 %	79 %	0 mph	0 mph	0 mph	29.28 in	29.23 in	29.17 in	0 in
8	68.9 °F	58.6 °F	53.6 °F	56.8 °F	53.2 °F	50.2 °F	96 %	83 %	63 %	0 mph	0 mph	0 mph	29.27 in	29.24 in	29.22 in	0 in
9	66.9 °F	57.4 °F	51.3 °F	55.2 °F	51.8 °F	49.8 °F	96 %	82 %	63 %	0 mph	0 mph	0 mph	29.28 in	29.25 in	29.22 in	0 in
10	71.8 °F	58.7 °F	51.1 °F	57.8 °F	52.4 °F	49.2 °F	96 %	81 %	59 %	0 mph	0 mph	0 mph	29.29 in	29.26 in	29.23 in	0 in
11	70 °F	58 °F	49.1 °F	55.9 °F	51.6 °F	47.7 °F	97 %	80 %	59 %	0 mph	0 mph	0 mph	29.34 in	29.31 in	29.27 in	0 in
12	69.3 °F	58.1 °F	51.3 °F	54.5 °F	51 °F	48.7 °F	92 %	78 %	58 %	0 mph	0 mph	0 mph	29.35 in	29.32 in	29.28 in	0 in
13	67.6 °F	57.6 °F	51.8 °F	53.1 °F	49.7 °F	46.1 °F	88 %	76 %	56 %	0 mph	0 mph	0 mph	29.32 in	29.3 in	29.27 in	0 in
14	69.6 °F	58.7 °F	48.9 °F	56.8 °F	51.6 °F	45.1 °F	89 %	78 %	62 %	0 mph	0 mph	0 mph	29.37 in	29.33 in	29.28 in	0 in
15	71.8 °F	61.3 °F	53.2 °F	57 °F	53.9 °F	50.4 °F	92 %	78 %	58 %	0 mph	0 mph	0 mph	29.29 in	29.26 in	29.23 in	0 in
16	76.8 °F	62.3 °F	52.9 °F	57.5 °F	53.2 °F	50.1 °F	92 %	74 %	46 %	0 mph	0 mph	0 mph	29.29 in	29.24 in	29.19 in	0 in

APPENDIX C

Laboratory Analytical Reports and Chain of Custody Documentation

- **Air Toxics Work Order # 1605082 - Vapor Pin Soil Gas Sample VP13, VP13-DUP, and VP14 Through VP19 TO-15 Results**
- **Air Toxics Work Order # 1605048 - Shroud Air Sample VP13 Through VP19 DFA Results**

eurofins | Air Toxics

5/16/2016
Mr. Paul King
P & D Environmental
55 Santa Clara
Suite 240
Oakland CA 94610

Project Name: 2101 Williams St.
Project #: 0660
Workorder #: 1605082

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 5/3/2016 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1605082

Work Order Summary

CLIENT:	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	**BILL TO:**	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
PHONE:	510-658-6916	**P.O. #**	
FAX:	510-834-0772	**PROJECT #**	0660 2101 Williams St.
DATE RECEIVED:	05/03/2016	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	05/16/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	VP13	TO-15	4.7 "Hg	14.8 psi
02A	VP13-DUP	TO-15	4.3 "Hg	15.2 psi
03A	VP14	TO-15	2.9 psi	14.9 psi
04A	VP15	TO-15	4.1 "Hg	15.4 psi
05A	VP16	TO-15	4.3 "Hg	15 psi
06A	VP17	TO-15	2.8 "Hg	14.7 psi
07A	VP18	TO-15	7.3 "Hg	14.7 psi
08A	VP19	TO-15	4.7 "Hg	15.1 psi
09A	Lab Blank	TO-15	NA	NA
10A	CCV	TO-15	NA	NA
11A	LCS	TO-15	NA	NA
11AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 05/16/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
P & D Environmental
Workorder# 1605082

Eight 1 Liter Summa Canister samples were received on May 03, 2016. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

Despite the use of flow controllers for sample collection, the final canister vacuums for sample VP14 was measured at ambient pressure in the field. These ambient pressure readings were confirmed by the laboratory upon sample receipt.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Dilution was performed on samples VP13, VP13-DUP, VP14, VP17, VP18 and VP19 due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: VP13

Lab ID#: 1605082-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	48	31000	320	210000
m,p-Xylene	48	220	210	940
1,1-Difluoroethane	190	3500	510	9400

Client Sample ID: VP13-DUP

Lab ID#: 1605082-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	48	31000	320	210000
m,p-Xylene	48	200	210	890
1,1-Difluoroethane	190	3000	510	8100

Client Sample ID: VP14

Lab ID#: 1605082-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	170	210	320	400
1,1,1-Trichloroethane	42	78	230	420
Tetrachloroethene	42	27000	280	190000

Client Sample ID: VP15

Lab ID#: 1605082-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	47	220	89	420
1,1,1-Trichloroethane	12	72	65	390
Trichloroethene	12	44	64	240
Tetrachloroethene	12	7000	80	48000

Client Sample ID: VP16

Lab ID#: 1605082-05A

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: VP16

Lab ID#: 1605082-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	47	56	89	100
1,1,1-Trichloroethane	12	16	64	87
Tetrachloroethene	12	5400	80	36000
1,1-Difluoroethane	47	130	130	350

Client Sample ID: VP17

Lab ID#: 1605082-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	110	150	210	280
Tetrachloroethene	28	21000	190	140000

Client Sample ID: VP18

Lab ID#: 1605082-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	53	36000	360	250000

Client Sample ID: VP19

Lab ID#: 1605082-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	100	61000	680	410000

eurofins | Air Toxics

Client Sample ID: VP13

Lab ID#: 1605082-01A

EPA METHOD TO-15 GC/MS

File Name:	**j051608**	**Date of Collection:**	**5/2/16 2:11:00 PM**
Dil. Factor:	**9.52**	**Date of Analysis:**	**5/16/16 03:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	48	Not Detected	240	Not Detected
Freon 114	48	Not Detected	330	Not Detected
Chloromethane	190	Not Detected	390	Not Detected
Vinyl Chloride	48	Not Detected	120	Not Detected
1,3-Butadiene	48	Not Detected	100	Not Detected
Bromomethane	48	Not Detected	180	Not Detected
Chloroethane	190	Not Detected	500	Not Detected
Freon 11	48	Not Detected	270	Not Detected
Ethanol	190	Not Detected	360	Not Detected
Freon 113	48	Not Detected	360	Not Detected
1,1-Dichloroethene	48	Not Detected	190	Not Detected
Acetone	190	Not Detected	450	Not Detected
2-Propanol	190	Not Detected	470	Not Detected
Carbon Disulfide	48	Not Detected	150	Not Detected
3-Chloropropene	190	Not Detected	600	Not Detected
Methylene Chloride	48	Not Detected	160	Not Detected
Methyl tert-butyl ether	48	Not Detected	170	Not Detected
trans-1,2-Dichloroethene	48	Not Detected	190	Not Detected
Hexane	48	Not Detected	170	Not Detected
1,1-Dichloroethane	48	Not Detected	190	Not Detected
2-Butanone (Methyl Ethyl Ketone)	190	Not Detected	560	Not Detected
cis-1,2-Dichloroethene	48	Not Detected	190	Not Detected
Tetrahydrofuran	48	Not Detected	140	Not Detected
Chloroform	48	Not Detected	230	Not Detected
1,1,1-Trichloroethane	48	Not Detected	260	Not Detected
Cyclohexane	48	Not Detected	160	Not Detected
Carbon Tetrachloride	48	Not Detected	300	Not Detected
2,2,4-Trimethylpentane	48	Not Detected	220	Not Detected
Benzene	48	Not Detected	150	Not Detected
1,2-Dichloroethane	48	Not Detected	190	Not Detected
Heptane	48	Not Detected	200	Not Detected
Trichloroethene	48	Not Detected	260	Not Detected
1,2-Dichloropropane	48	Not Detected	220	Not Detected
1,4-Dioxane	190	Not Detected	690	Not Detected
Bromodichloromethane	48	Not Detected	320	Not Detected
cis-1,3-Dichloropropene	48	Not Detected	220	Not Detected
4-Methyl-2-pentanone	48	Not Detected	190	Not Detected
Toluene	48	Not Detected	180	Not Detected
trans-1,3-Dichloropropene	48	Not Detected	220	Not Detected
1,1,2-Trichloroethane	48	Not Detected	260	Not Detected
Tetrachloroethene	48	31000	320	210000
2-Hexanone	190	Not Detected	780	Not Detected

eurofins | Air Toxics

Client Sample ID: VP13

Lab ID#: 1605082-01A

EPA METHOD TO-15 GC/MS

File Name:	**j051608**	**Date of Collection: 5/2/16 2:11:00 PM**	
Dil. Factor:	**9.52**	**Date of Analysis: 5/16/16 03:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	48	Not Detected	400	Not Detected
1,2-Dibromoethane (EDB)	48	Not Detected	360	Not Detected
Chlorobenzene	48	Not Detected	220	Not Detected
Ethyl Benzene	48	Not Detected	210	Not Detected
m,p-Xylene	48	220	210	940
o-Xylene	48	Not Detected	210	Not Detected
Styrene	48	Not Detected	200	Not Detected
Bromoform	48	Not Detected	490	Not Detected
Cumene	48	Not Detected	230	Not Detected
1,1,2,2-Tetrachloroethane	48	Not Detected	330	Not Detected
Propylbenzene	48	Not Detected	230	Not Detected
4-Ethyltoluene	48	Not Detected	230	Not Detected
1,3,5-Trimethylbenzene	48	Not Detected	230	Not Detected
1,2,4-Trimethylbenzene	48	Not Detected	230	Not Detected
1,3-Dichlorobenzene	48	Not Detected	290	Not Detected
1,4-Dichlorobenzene	48	Not Detected	290	Not Detected
alpha-Chlorotoluene	48	Not Detected	250	Not Detected
1,2-Dichlorobenzene	48	Not Detected	290	Not Detected
1,2,4-Trichlorobenzene	190	Not Detected	1400	Not Detected
Hexachlorobutadiene	190	Not Detected	2000	Not Detected
1,1-Difluoroethane	190	3500	510	9400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: VP13-DUP

Lab ID#: 1605082-02A

EPA METHOD TO-15 GC/MS

File Name:	**j051609**	**Date of Collection: 5/2/16 2:11:00 PM**	
Dil. Factor:	**9.50**	**Date of Analysis: 5/16/16 03:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	48	Not Detected	230	Not Detected
Freon 114	48	Not Detected	330	Not Detected
Chloromethane	190	Not Detected	390	Not Detected
Vinyl Chloride	48	Not Detected	120	Not Detected
1,3-Butadiene	48	Not Detected	100	Not Detected
Bromomethane	48	Not Detected	180	Not Detected
Chloroethane	190	Not Detected	500	Not Detected
Freon 11	48	Not Detected	270	Not Detected
Ethanol	190	Not Detected	360	Not Detected
Freon 113	48	Not Detected	360	Not Detected
1,1-Dichloroethene	48	Not Detected	190	Not Detected
Acetone	190	Not Detected	450	Not Detected
2-Propanol	190	Not Detected	470	Not Detected
Carbon Disulfide	48	Not Detected	150	Not Detected
3-Chloropropene	190	Not Detected	590	Not Detected
Methylene Chloride	48	Not Detected	160	Not Detected
Methyl tert-butyl ether	48	Not Detected	170	Not Detected
trans-1,2-Dichloroethene	48	Not Detected	190	Not Detected
Hexane	48	Not Detected	170	Not Detected
1,1-Dichloroethane	48	Not Detected	190	Not Detected
2-Butanone (Methyl Ethyl Ketone)	190	Not Detected	560	Not Detected
cis-1,2-Dichloroethene	48	Not Detected	190	Not Detected
Tetrahydrofuran	48	Not Detected	140	Not Detected
Chloroform	48	Not Detected	230	Not Detected
1,1,1-Trichloroethane	48	Not Detected	260	Not Detected
Cyclohexane	48	Not Detected	160	Not Detected
Carbon Tetrachloride	48	Not Detected	300	Not Detected
2,2,4-Trimethylpentane	48	Not Detected	220	Not Detected
Benzene	48	Not Detected	150	Not Detected
1,2-Dichloroethane	48	Not Detected	190	Not Detected
Heptane	48	Not Detected	190	Not Detected
Trichloroethene	48	Not Detected	260	Not Detected
1,2-Dichloropropane	48	Not Detected	220	Not Detected
1,4-Dioxane	190	Not Detected	680	Not Detected
Bromodichloromethane	48	Not Detected	320	Not Detected
cis-1,3-Dichloropropene	48	Not Detected	220	Not Detected
4-Methyl-2-pentanone	48	Not Detected	190	Not Detected
Toluene	48	Not Detected	180	Not Detected
trans-1,3-Dichloropropene	48	Not Detected	220	Not Detected
1,1,2-Trichloroethane	48	Not Detected	260	Not Detected
Tetrachloroethene	48	31000	320	210000
2-Hexanone	190	Not Detected	780	Not Detected

eurofins | Air Toxics

Client Sample ID: VP13-DUP

Lab ID#: 1605082-02A

EPA METHOD TO-15 GC/MS

File Name:	**j051609**	**Date of Collection:**	**5/2/16 2:11:00 PM**
Dil. Factor:	**9.50**	**Date of Analysis:**	**5/16/16 03:39 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	48	Not Detected	400	Not Detected
1,2-Dibromoethane (EDB)	48	Not Detected	360	Not Detected
Chlorobenzene	48	Not Detected	220	Not Detected
Ethyl Benzene	48	Not Detected	210	Not Detected
m,p-Xylene	48	200	210	890
o-Xylene	48	Not Detected	210	Not Detected
Styrene	48	Not Detected	200	Not Detected
Bromoform	48	Not Detected	490	Not Detected
Cumene	48	Not Detected	230	Not Detected
1,1,2,2-Tetrachloroethane	48	Not Detected	330	Not Detected
Propylbenzene	48	Not Detected	230	Not Detected
4-Ethyltoluene	48	Not Detected	230	Not Detected
1,3,5-Trimethylbenzene	48	Not Detected	230	Not Detected
1,2,4-Trimethylbenzene	48	Not Detected	230	Not Detected
1,3-Dichlorobenzene	48	Not Detected	280	Not Detected
1,4-Dichlorobenzene	48	Not Detected	280	Not Detected
alpha-Chlorotoluene	48	Not Detected	240	Not Detected
1,2-Dichlorobenzene	48	Not Detected	280	Not Detected
1,2,4-Trichlorobenzene	190	Not Detected	1400	Not Detected
Hexachlorobutadiene	190	Not Detected	2000	Not Detected
1,1-Difluoroethane	190	3000	510	8100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: VP14

Lab ID#: 1605082-03A

EPA METHOD TO-15 GC/MS

File Name:	**j051610**	**Date of Collection: 5/2/16 2:51:00 PM**	
Dil. Factor:	**8.41**	**Date of Analysis: 5/16/16 04:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	42	Not Detected	210	Not Detected
Freon 114	42	Not Detected	290	Not Detected
Chloromethane	170	Not Detected	350	Not Detected
Vinyl Chloride	42	Not Detected	110	Not Detected
1,3-Butadiene	42	Not Detected	93	Not Detected
Bromomethane	42	Not Detected	160	Not Detected
Chloroethane	170	Not Detected	440	Not Detected
Freon 11	42	Not Detected	240	Not Detected
Ethanol	170	210	320	400
Freon 113	42	Not Detected	320	Not Detected
1,1-Dichloroethene	42	Not Detected	170	Not Detected
Acetone	170	Not Detected	400	Not Detected
2-Propanol	170	Not Detected	410	Not Detected
Carbon Disulfide	42	Not Detected	130	Not Detected
3-Chloropropene	170	Not Detected	530	Not Detected
Methylene Chloride	42	Not Detected	150	Not Detected
Methyl tert-butyl ether	42	Not Detected	150	Not Detected
trans-1,2-Dichloroethene	42	Not Detected	170	Not Detected
Hexane	42	Not Detected	150	Not Detected
1,1-Dichloroethane	42	Not Detected	170	Not Detected
2-Butanone (Methyl Ethyl Ketone)	170	Not Detected	500	Not Detected
cis-1,2-Dichloroethene	42	Not Detected	170	Not Detected
Tetrahydrofuran	42	Not Detected	120	Not Detected
Chloroform	42	Not Detected	200	Not Detected
1,1,1-Trichloroethane	42	78	230	420
Cyclohexane	42	Not Detected	140	Not Detected
Carbon Tetrachloride	42	Not Detected	260	Not Detected
2,2,4-Trimethylpentane	42	Not Detected	200	Not Detected
Benzene	42	Not Detected	130	Not Detected
1,2-Dichloroethane	42	Not Detected	170	Not Detected
Heptane	42	Not Detected	170	Not Detected
Trichloroethene	42	Not Detected	220	Not Detected
1,2-Dichloropropane	42	Not Detected	190	Not Detected
1,4-Dioxane	170	Not Detected	610	Not Detected
Bromodichloromethane	42	Not Detected	280	Not Detected
cis-1,3-Dichloropropene	42	Not Detected	190	Not Detected
4-Methyl-2-pentanone	42	Not Detected	170	Not Detected
Toluene	42	Not Detected	160	Not Detected
trans-1,3-Dichloropropene	42	Not Detected	190	Not Detected
1,1,2-Trichloroethane	42	Not Detected	230	Not Detected
Tetrachloroethene	42	27000	280	190000
2-Hexanone	170	Not Detected	690	Not Detected

eurofins | Air Toxics

Client Sample ID: VP14

Lab ID#: 1605082-03A

EPA METHOD TO-15 GC/MS

File Name:	**j051610**	**Date of Collection:**	**5/2/16 2:51:00 PM**
Dil. Factor:	**8.41**	**Date of Analysis:**	**5/16/16 04:03 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	42	Not Detected	360	Not Detected
1,2-Dibromoethane (EDB)	42	Not Detected	320	Not Detected
Chlorobenzene	42	Not Detected	190	Not Detected
Ethyl Benzene	42	Not Detected	180	Not Detected
m,p-Xylene	42	Not Detected	180	Not Detected
o-Xylene	42	Not Detected	180	Not Detected
Styrene	42	Not Detected	180	Not Detected
Bromoform	42	Not Detected	430	Not Detected
Cumene	42	Not Detected	210	Not Detected
1,1,2,2-Tetrachloroethane	42	Not Detected	290	Not Detected
Propylbenzene	42	Not Detected	210	Not Detected
4-Ethyltoluene	42	Not Detected	210	Not Detected
1,3,5-Trimethylbenzene	42	Not Detected	210	Not Detected
1,2,4-Trimethylbenzene	42	Not Detected	210	Not Detected
1,3-Dichlorobenzene	42	Not Detected	250	Not Detected
1,4-Dichlorobenzene	42	Not Detected	250	Not Detected
alpha-Chlorotoluene	42	Not Detected	220	Not Detected
1,2-Dichlorobenzene	42	Not Detected	250	Not Detected
1,2,4-Trichlorobenzene	170	Not Detected	1200	Not Detected
Hexachlorobutadiene	170	Not Detected	1800	Not Detected
1,1-Difluoroethane	170	Not Detected	450	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: VP15

Lab ID#: 1605082-04A

EPA METHOD TO-15 GC/MS

File Name:	**j051611**	**Date of Collection:**	**5/2/16 10:37:00 AM**
Dil. Factor:	**2.37**	**Date of Analysis:**	**5/16/16 04:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	Not Detected	59	Not Detected
Freon 114	12	Not Detected	83	Not Detected
Chloromethane	47	Not Detected	98	Not Detected
Vinyl Chloride	12	Not Detected	30	Not Detected
1,3-Butadiene	12	Not Detected	26	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	47	Not Detected	120	Not Detected
Freon 11	12	Not Detected	66	Not Detected
Ethanol	47	220	89	420
Freon 113	12	Not Detected	91	Not Detected
1,1-Dichloroethene	12	Not Detected	47	Not Detected
Acetone	47	Not Detected	110	Not Detected
2-Propanol	47	Not Detected	120	Not Detected
Carbon Disulfide	12	Not Detected	37	Not Detected
3-Chloropropene	47	Not Detected	150	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	12	Not Detected	43	Not Detected
trans-1,2-Dichloroethene	12	Not Detected	47	Not Detected
Hexane	12	Not Detected	42	Not Detected
1,1-Dichloroethane	12	Not Detected	48	Not Detected
2-Butanone (Methyl Ethyl Ketone)	47	Not Detected	140	Not Detected
cis-1,2-Dichloroethene	12	Not Detected	47	Not Detected
Tetrahydrofuran	12	Not Detected	35	Not Detected
Chloroform	12	Not Detected	58	Not Detected
1,1,1-Trichloroethane	12	72	65	390
Cyclohexane	12	Not Detected	41	Not Detected
Carbon Tetrachloride	12	Not Detected	74	Not Detected
2,2,4-Trimethylpentane	12	Not Detected	55	Not Detected
Benzene	12	Not Detected	38	Not Detected
1,2-Dichloroethane	12	Not Detected	48	Not Detected
Heptane	12	Not Detected	48	Not Detected
Trichloroethene	12	44	64	240
1,2-Dichloropropane	12	Not Detected	55	Not Detected
1,4-Dioxane	47	Not Detected	170	Not Detected
Bromodichloromethane	12	Not Detected	79	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	54	Not Detected
4-Methyl-2-pentanone	12	Not Detected	48	Not Detected
Toluene	12	Not Detected	45	Not Detected
trans-1,3-Dichloropropene	12	Not Detected	54	Not Detected
1,1,2-Trichloroethane	12	Not Detected	65	Not Detected
Tetrachloroethene	12	7000	80	48000
2-Hexanone	47	Not Detected	190	Not Detected

eurofins | Air Toxics

Client Sample ID: VP15

Lab ID#: 1605082-04A

EPA METHOD TO-15 GC/MS

File Name:	**j051611**	**Date of Collection: 5/2/16 10:37:00 AM**	
Dil. Factor:	**2.37**	**Date of Analysis: 5/16/16 04:27 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	12	Not Detected	100	Not Detected
1,2-Dibromoethane (EDB)	12	Not Detected	91	Not Detected
Chlorobenzene	12	Not Detected	54	Not Detected
Ethyl Benzene	12	Not Detected	51	Not Detected
m,p-Xylene	12	Not Detected	51	Not Detected
o-Xylene	12	Not Detected	51	Not Detected
Styrene	12	Not Detected	50	Not Detected
Bromoform	12	Not Detected	120	Not Detected
Cumene	12	Not Detected	58	Not Detected
1,1,2,2-Tetrachloroethane	12	Not Detected	81	Not Detected
Propylbenzene	12	Not Detected	58	Not Detected
4-Ethyltoluene	12	Not Detected	58	Not Detected
1,3,5-Trimethylbenzene	12	Not Detected	58	Not Detected
1,2,4-Trimethylbenzene	12	Not Detected	58	Not Detected
1,3-Dichlorobenzene	12	Not Detected	71	Not Detected
1,4-Dichlorobenzene	12	Not Detected	71	Not Detected
alpha-Chlorotoluene	12	Not Detected	61	Not Detected
1,2-Dichlorobenzene	12	Not Detected	71	Not Detected
1,2,4-Trichlorobenzene	47	Not Detected	350	Not Detected
Hexachlorobutadiene	47	Not Detected	500	Not Detected
1,1-Difluoroethane	47	Not Detected	130	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: VP16

Lab ID#: 1605082-05A

EPA METHOD TO-15 GC/MS

File Name:	**j051612**	**Date of Collection:**	**5/2/16 9:53:00 AM**
Dil. Factor:	**2.36**	**Date of Analysis:**	**5/16/16 04:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	Not Detected	58	Not Detected
Freon 114	12	Not Detected	82	Not Detected
Chloromethane	47	Not Detected	97	Not Detected
Vinyl Chloride	12	Not Detected	30	Not Detected
1,3-Butadiene	12	Not Detected	26	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	47	Not Detected	120	Not Detected
Freon 11	12	Not Detected	66	Not Detected
Ethanol	47	56	89	100
Freon 113	12	Not Detected	90	Not Detected
1,1-Dichloroethene	12	Not Detected	47	Not Detected
Acetone	47	Not Detected	110	Not Detected
2-Propanol	47	Not Detected	120	Not Detected
Carbon Disulfide	12	Not Detected	37	Not Detected
3-Chloropropene	47	Not Detected	150	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	12	Not Detected	42	Not Detected
trans-1,2-Dichloroethene	12	Not Detected	47	Not Detected
Hexane	12	Not Detected	42	Not Detected
1,1-Dichloroethane	12	Not Detected	48	Not Detected
2-Butanone (Methyl Ethyl Ketone)	47	Not Detected	140	Not Detected
cis-1,2-Dichloroethene	12	Not Detected	47	Not Detected
Tetrahydrofuran	12	Not Detected	35	Not Detected
Chloroform	12	Not Detected	58	Not Detected
1,1,1-Trichloroethane	12	16	64	87
Cyclohexane	12	Not Detected	41	Not Detected
Carbon Tetrachloride	12	Not Detected	74	Not Detected
2,2,4-Trimethylpentane	12	Not Detected	55	Not Detected
Benzene	12	Not Detected	38	Not Detected
1,2-Dichloroethane	12	Not Detected	48	Not Detected
Heptane	12	Not Detected	48	Not Detected
Trichloroethene	12	Not Detected	63	Not Detected
1,2-Dichloropropane	12	Not Detected	54	Not Detected
1,4-Dioxane	47	Not Detected	170	Not Detected
Bromodichloromethane	12	Not Detected	79	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	54	Not Detected
4-Methyl-2-pentanone	12	Not Detected	48	Not Detected
Toluene	12	Not Detected	44	Not Detected
trans-1,3-Dichloropropene	12	Not Detected	54	Not Detected
1,1,2-Trichloroethane	12	Not Detected	64	Not Detected
Tetrachloroethene	12	5400	80	36000
2-Hexanone	47	Not Detected	190	Not Detected

eurofins | Air Toxics

Client Sample ID: VP16

Lab ID#: 1605082-05A

EPA METHOD TO-15 GC/MS

File Name:	**j051612**	**Date of Collection:**	**5/2/16 9:53:00 AM**
Dil. Factor:	**2.36**	**Date of Analysis:**	**5/16/16 04:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	12	Not Detected	100	Not Detected
1,2-Dibromoethane (EDB)	12	Not Detected	91	Not Detected
Chlorobenzene	12	Not Detected	54	Not Detected
Ethyl Benzene	12	Not Detected	51	Not Detected
m,p-Xylene	12	Not Detected	51	Not Detected
o-Xylene	12	Not Detected	51	Not Detected
Styrene	12	Not Detected	50	Not Detected
Bromoform	12	Not Detected	120	Not Detected
Cumene	12	Not Detected	58	Not Detected
1,1,2,2-Tetrachloroethane	12	Not Detected	81	Not Detected
Propylbenzene	12	Not Detected	58	Not Detected
4-Ethyltoluene	12	Not Detected	58	Not Detected
1,3,5-Trimethylbenzene	12	Not Detected	58	Not Detected
1,2,4-Trimethylbenzene	12	Not Detected	58	Not Detected
1,3-Dichlorobenzene	12	Not Detected	71	Not Detected
1,4-Dichlorobenzene	12	Not Detected	71	Not Detected
alpha-Chlorotoluene	12	Not Detected	61	Not Detected
1,2-Dichlorobenzene	12	Not Detected	71	Not Detected
1,2,4-Trichlorobenzene	47	Not Detected	350	Not Detected
Hexachlorobutadiene	47	Not Detected	500	Not Detected
1,1-Difluoroethane	47	130	130	350

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: VP17

Lab ID#: 1605082-06A

EPA METHOD TO-15 GC/MS

File Name:	**j051613**	**Date of Collection: 5/2/16 9:04:00 AM**	
Dil. Factor:	**5.51**	**Date of Analysis: 5/16/16 05:15 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	28	Not Detected	140	Not Detected
Freon 114	28	Not Detected	190	Not Detected
Chloromethane	110	Not Detected	230	Not Detected
Vinyl Chloride	28	Not Detected	70	Not Detected
1,3-Butadiene	28	Not Detected	61	Not Detected
Bromomethane	28	Not Detected	110	Not Detected
Chloroethane	110	Not Detected	290	Not Detected
Freon 11	28	Not Detected	150	Not Detected
Ethanol	110	150	210	280
Freon 113	28	Not Detected	210	Not Detected
1,1-Dichloroethene	28	Not Detected	110	Not Detected
Acetone	110	Not Detected	260	Not Detected
2-Propanol	110	Not Detected	270	Not Detected
Carbon Disulfide	28	Not Detected	86	Not Detected
3-Chloropropene	110	Not Detected	340	Not Detected
Methylene Chloride	28	Not Detected	96	Not Detected
Methyl tert-butyl ether	28	Not Detected	99	Not Detected
trans-1,2-Dichloroethene	28	Not Detected	110	Not Detected
Hexane	28	Not Detected	97	Not Detected
1,1-Dichloroethane	28	Not Detected	110	Not Detected
2-Butanone (Methyl Ethyl Ketone)	110	Not Detected	320	Not Detected
cis-1,2-Dichloroethene	28	Not Detected	110	Not Detected
Tetrahydrofuran	28	Not Detected	81	Not Detected
Chloroform	28	Not Detected	130	Not Detected
1,1,1-Trichloroethane	28	Not Detected	150	Not Detected
Cyclohexane	28	Not Detected	95	Not Detected
Carbon Tetrachloride	28	Not Detected	170	Not Detected
2,2,4-Trimethylpentane	28	Not Detected	130	Not Detected
Benzene	28	Not Detected	88	Not Detected
1,2-Dichloroethane	28	Not Detected	110	Not Detected
Heptane	28	Not Detected	110	Not Detected
Trichloroethene	28	Not Detected	150	Not Detected
1,2-Dichloropropane	28	Not Detected	130	Not Detected
1,4-Dioxane	110	Not Detected	400	Not Detected
Bromodichloromethane	28	Not Detected	180	Not Detected
cis-1,3-Dichloropropene	28	Not Detected	120	Not Detected
4-Methyl-2-pentanone	28	Not Detected	110	Not Detected
Toluene	28	Not Detected	100	Not Detected
trans-1,3-Dichloropropene	28	Not Detected	120	Not Detected
1,1,2-Trichloroethane	28	Not Detected	150	Not Detected
Tetrachloroethene	28	21000	190	140000
2-Hexanone	110	Not Detected	450	Not Detected

eurofins | Air Toxics

Client Sample ID: VP17

Lab ID#: 1605082-06A

EPA METHOD TO-15 GC/MS

File Name:	**j051613**	**Date of Collection:**	**5/2/16 9:04:00 AM**
Dil. Factor:	**5.51**	**Date of Analysis:**	**5/16/16 05:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	28	Not Detected	230	Not Detected
1,2-Dibromoethane (EDB)	28	Not Detected	210	Not Detected
Chlorobenzene	28	Not Detected	130	Not Detected
Ethyl Benzene	28	Not Detected	120	Not Detected
m,p-Xylene	28	Not Detected	120	Not Detected
o-Xylene	28	Not Detected	120	Not Detected
Styrene	28	Not Detected	120	Not Detected
Bromoform	28	Not Detected	280	Not Detected
Cumene	28	Not Detected	140	Not Detected
1,1,2,2-Tetrachloroethane	28	Not Detected	190	Not Detected
Propylbenzene	28	Not Detected	140	Not Detected
4-Ethyltoluene	28	Not Detected	140	Not Detected
1,3,5-Trimethylbenzene	28	Not Detected	140	Not Detected
1,2,4-Trimethylbenzene	28	Not Detected	140	Not Detected
1,3-Dichlorobenzene	28	Not Detected	160	Not Detected
1,4-Dichlorobenzene	28	Not Detected	160	Not Detected
alpha-Chlorotoluene	28	Not Detected	140	Not Detected
1,2-Dichlorobenzene	28	Not Detected	160	Not Detected
1,2,4-Trichlorobenzene	110	Not Detected	820	Not Detected
Hexachlorobutadiene	110	Not Detected	1200	Not Detected
1,1-Difluoroethane	110	Not Detected	300	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: VP18

Lab ID#: 1605082-07A

EPA METHOD TO-15 GC/MS

File Name:	**j051614**	**Date of Collection:**	**5/2/16 12:29:00 PM**
Dil. Factor:	**10.6**	**Date of Analysis:**	**5/16/16 05:39 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	53	Not Detected	260	Not Detected
Freon 114	53	Not Detected	370	Not Detected
Chloromethane	210	Not Detected	440	Not Detected
Vinyl Chloride	53	Not Detected	140	Not Detected
1,3-Butadiene	53	Not Detected	120	Not Detected
Bromomethane	53	Not Detected	200	Not Detected
Chloroethane	210	Not Detected	560	Not Detected
Freon 11	53	Not Detected	300	Not Detected
Ethanol	210	Not Detected	400	Not Detected
Freon 113	53	Not Detected	410	Not Detected
1,1-Dichloroethene	53	Not Detected	210	Not Detected
Acetone	210	Not Detected	500	Not Detected
2-Propanol	210	Not Detected	520	Not Detected
Carbon Disulfide	53	Not Detected	160	Not Detected
3-Chloropropene	210	Not Detected	660	Not Detected
Methylene Chloride	53	Not Detected	180	Not Detected
Methyl tert-butyl ether	53	Not Detected	190	Not Detected
trans-1,2-Dichloroethene	53	Not Detected	210	Not Detected
Hexane	53	Not Detected	190	Not Detected
1,1-Dichloroethane	53	Not Detected	210	Not Detected
2-Butanone (Methyl Ethyl Ketone)	210	Not Detected	620	Not Detected
cis-1,2-Dichloroethene	53	Not Detected	210	Not Detected
Tetrahydrofuran	53	Not Detected	160	Not Detected
Chloroform	53	Not Detected	260	Not Detected
1,1,1-Trichloroethane	53	Not Detected	290	Not Detected
Cyclohexane	53	Not Detected	180	Not Detected
Carbon Tetrachloride	53	Not Detected	330	Not Detected
2,2,4-Trimethylpentane	53	Not Detected	250	Not Detected
Benzene	53	Not Detected	170	Not Detected
1,2-Dichloroethane	53	Not Detected	210	Not Detected
Heptane	53	Not Detected	220	Not Detected
Trichloroethene	53	Not Detected	280	Not Detected
1,2-Dichloropropane	53	Not Detected	240	Not Detected
1,4-Dioxane	210	Not Detected	760	Not Detected
Bromodichloromethane	53	Not Detected	360	Not Detected
cis-1,3-Dichloropropene	53	Not Detected	240	Not Detected
4-Methyl-2-pentanone	53	Not Detected	220	Not Detected
Toluene	53	Not Detected	200	Not Detected
trans-1,3-Dichloropropene	53	Not Detected	240	Not Detected
1,1,2-Trichloroethane	53	Not Detected	290	Not Detected
Tetrachloroethene	53	36000	360	250000
2-Hexanone	210	Not Detected	870	Not Detected

eurofins | Air Toxics

Client Sample ID: VP18

Lab ID#: 1605082-07A

EPA METHOD TO-15 GC/MS

File Name:	**j051614**	**Date of Collection: 5/2/16 12:29:00 PM**	
Dil. Factor:	**10.6**	**Date of Analysis: 5/16/16 05:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	53	Not Detected	450	Not Detected
1,2-Dibromoethane (EDB)	53	Not Detected	410	Not Detected
Chlorobenzene	53	Not Detected	240	Not Detected
Ethyl Benzene	53	Not Detected	230	Not Detected
m,p-Xylene	53	Not Detected	230	Not Detected
o-Xylene	53	Not Detected	230	Not Detected
Styrene	53	Not Detected	220	Not Detected
Bromoform	53	Not Detected	550	Not Detected
Cumene	53	Not Detected	260	Not Detected
1,1,2,2-Tetrachloroethane	53	Not Detected	360	Not Detected
Propylbenzene	53	Not Detected	260	Not Detected
4-Ethyltoluene	53	Not Detected	260	Not Detected
1,3,5-Trimethylbenzene	53	Not Detected	260	Not Detected
1,2,4-Trimethylbenzene	53	Not Detected	260	Not Detected
1,3-Dichlorobenzene	53	Not Detected	320	Not Detected
1,4-Dichlorobenzene	53	Not Detected	320	Not Detected
alpha-Chlorotoluene	53	Not Detected	270	Not Detected
1,2-Dichlorobenzene	53	Not Detected	320	Not Detected
1,2,4-Trichlorobenzene	210	Not Detected	1600	Not Detected
Hexachlorobutadiene	210	Not Detected	2300	Not Detected
1,1-Difluoroethane	210	Not Detected	570	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: VP19

Lab ID#: 1605082-08A

EPA METHOD TO-15 GC/MS

File Name:	**j051615**	**Date of Collection:**	**5/2/16 11:50:00 AM**
Dil. Factor:	**20.0**	**Date of Analysis:**	**5/16/16 06:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	100	Not Detected	490	Not Detected
Freon 114	100	Not Detected	700	Not Detected
Chloromethane	400	Not Detected	830	Not Detected
Vinyl Chloride	100	Not Detected	260	Not Detected
1,3-Butadiene	100	Not Detected	220	Not Detected
Bromomethane	100	Not Detected	390	Not Detected
Chloroethane	400	Not Detected	1000	Not Detected
Freon 11	100	Not Detected	560	Not Detected
Ethanol	400	Not Detected	750	Not Detected
Freon 113	100	Not Detected	770	Not Detected
1,1-Dichloroethene	100	Not Detected	400	Not Detected
Acetone	400	Not Detected	950	Not Detected
2-Propanol	400	Not Detected	980	Not Detected
Carbon Disulfide	100	Not Detected	310	Not Detected
3-Chloropropene	400	Not Detected	1200	Not Detected
Methylene Chloride	100	Not Detected	350	Not Detected
Methyl tert-butyl ether	100	Not Detected	360	Not Detected
trans-1,2-Dichloroethene	100	Not Detected	400	Not Detected
Hexane	100	Not Detected	350	Not Detected
1,1-Dichloroethane	100	Not Detected	400	Not Detected
2-Butanone (Methyl Ethyl Ketone)	400	Not Detected	1200	Not Detected
cis-1,2-Dichloroethene	100	Not Detected	400	Not Detected
Tetrahydrofuran	100	Not Detected	290	Not Detected
Chloroform	100	Not Detected	490	Not Detected
1,1,1-Trichloroethane	100	Not Detected	540	Not Detected
Cyclohexane	100	Not Detected	340	Not Detected
Carbon Tetrachloride	100	Not Detected	630	Not Detected
2,2,4-Trimethylpentane	100	Not Detected	470	Not Detected
Benzene	100	Not Detected	320	Not Detected
1,2-Dichloroethane	100	Not Detected	400	Not Detected
Heptane	100	Not Detected	410	Not Detected
Trichloroethene	100	Not Detected	540	Not Detected
1,2-Dichloropropane	100	Not Detected	460	Not Detected
1,4-Dioxane	400	Not Detected	1400	Not Detected
Bromodichloromethane	100	Not Detected	670	Not Detected
cis-1,3-Dichloropropene	100	Not Detected	450	Not Detected
4-Methyl-2-pentanone	100	Not Detected	410	Not Detected
Toluene	100	Not Detected	380	Not Detected
trans-1,3-Dichloropropene	100	Not Detected	450	Not Detected
1,1,2-Trichloroethane	100	Not Detected	540	Not Detected
Tetrachloroethene	100	61000	680	410000
2-Hexanone	400	Not Detected	1600	Not Detected

eurofins | Air Toxics

Client Sample ID: VP19

Lab ID#: 1605082-08A

EPA METHOD TO-15 GC/MS

File Name:	**j051615**	**Date of Collection:**	**5/2/16 11:50:00 AM**
Dil. Factor:	**20.0**	**Date of Analysis:**	**5/16/16 06:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	100	Not Detected	850	Not Detected
1,2-Dibromoethane (EDB)	100	Not Detected	770	Not Detected
Chlorobenzene	100	Not Detected	460	Not Detected
Ethyl Benzene	100	Not Detected	430	Not Detected
m,p-Xylene	100	Not Detected	430	Not Detected
o-Xylene	100	Not Detected	430	Not Detected
Styrene	100	Not Detected	420	Not Detected
Bromoform	100	Not Detected	1000	Not Detected
Cumene	100	Not Detected	490	Not Detected
1,1,2,2-Tetrachloroethane	100	Not Detected	690	Not Detected
Propylbenzene	100	Not Detected	490	Not Detected
4-Ethyltoluene	100	Not Detected	490	Not Detected
1,3,5-Trimethylbenzene	100	Not Detected	490	Not Detected
1,2,4-Trimethylbenzene	100	Not Detected	490	Not Detected
1,3-Dichlorobenzene	100	Not Detected	600	Not Detected
1,4-Dichlorobenzene	100	Not Detected	600	Not Detected
alpha-Chlorotoluene	100	Not Detected	520	Not Detected
1,2-Dichlorobenzene	100	Not Detected	600	Not Detected
1,2,4-Trichlorobenzene	400	Not Detected	3000	Not Detected
Hexachlorobutadiene	400	Not Detected	4300	Not Detected
1,1-Difluoroethane	400	Not Detected	1100	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1605082-09A

EPA METHOD TO-15 GC/MS

File Name:	**j051607a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/16/16 12:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1605082-09A

EPA METHOD TO-15 GC/MS

File Name:	**j051607a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/16/16 12:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected
1,1-Difluoroethane	20	Not Detected	54	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1605082-10A

EPA METHOD TO-15 GC/MS

File Name:	**j051603**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/16/16 09:57 AM**

Compound	%Recovery
Freon 12	104
Freon 114	97
Chloromethane	93
Vinyl Chloride	104
1,3-Butadiene	105
Bromomethane	91
Chloroethane	89
Freon 11	118
Ethanol	100
Freon 113	112
1,1-Dichloroethene	112
Acetone	107
2-Propanol	104
Carbon Disulfide	93
3-Chloropropene	95
Methylene Chloride	109
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	91
Hexane	95
1,1-Dichloroethane	102
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	104
Tetrahydrofuran	84
Chloroform	104
1,1,1-Trichloroethane	104
Cyclohexane	100
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	96
Benzene	92
1,2-Dichloroethane	106
Heptane	84
Trichloroethene	104
1,2-Dichloropropane	80
1,4-Dioxane	92
Bromodichloromethane	96
cis-1,3-Dichloropropene	91
4-Methyl-2-pentanone	80
Toluene	92
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	96
Tetrachloroethene	102
2-Hexanone	90

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1605082-10A

EPA METHOD TO-15 GC/MS

File Name:	**j051603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/16/16 09:57 AM**	

Compound	%Recovery
Dibromochloromethane	99
1,2-Dibromoethane (EDB)	94
Chlorobenzene	89
Ethyl Benzene	90
m,p-Xylene	98
o-Xylene	94
Styrene	89
Bromoform	96
Cumene	92
1,1,2,2-Tetrachloroethane	87
Propylbenzene	92
4-Ethyltoluene	95
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	95
alpha-Chlorotoluene	92
1,2-Dichlorobenzene	92
1,2,4-Trichlorobenzene	91
Hexachlorobutadiene	93
1,1-Difluoroethane	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1605082-11A

EPA METHOD TO-15 GC/MS

File Name:	**j051604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/16/16 10:22 AM**	

Compound	%Recovery	Method Limits
Freon 12	98	70-130
Freon 114	96	70-130
Chloromethane	88	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	89	70-130
Bromomethane	93	70-130
Chloroethane	100	70-130
Freon 11	114	70-130
Ethanol	114	70-130
Freon 113	106	70-130
1,1-Dichloroethene	101	70-130
Acetone	99	70-130
2-Propanol	103	70-130
Carbon Disulfide	76	70-130
3-Chloropropene	86	70-130
Methylene Chloride	101	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	89	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	85	70-130
cis-1,2-Dichloroethene	95	70-130
Tetrahydrofuran	83	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	99	70-130
2,2,4-Trimethylpentane	81	70-130
Benzene	96	70-130
1,2-Dichloroethane	106	70-130
Heptane	85	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	81	70-130
1,4-Dioxane	97	70-130
Bromodichloromethane	99	70-130
cis-1,3-Dichloropropene	84	70-130
4-Methyl-2-pentanone	85	70-130
Toluene	92	70-130
trans-1,3-Dichloropropene	89	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	96	70-130
2-Hexanone	94	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1605082-11A

EPA METHOD TO-15 GC/MS

File Name:	**j051604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/16/16 10:22 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	89	70-130
Chlorobenzene	88	70-130
Ethyl Benzene	93	70-130
m,p-Xylene	88	70-130
o-Xylene	97	70-130
Styrene	92	70-130
Bromoform	97	70-130
Cumene	89	70-130
1,1,2,2-Tetrachloroethane	89	70-130
Propylbenzene	92	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	99	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	92	70-130
1,4-Dichlorobenzene	92	70-130
alpha-Chlorotoluene	99	70-130
1,2-Dichlorobenzene	90	70-130
1,2,4-Trichlorobenzene	91	70-130
Hexachlorobutadiene	96	70-130
1,1-Difluoroethane	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1605082-11AA

EPA METHOD TO-15 GC/MS

File Name:	**j051605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/16/16 10:46 AM**	

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	96	70-130
Chloromethane	89	70-130
Vinyl Chloride	105	70-130
1,3-Butadiene	94	70-130
Bromomethane	91	70-130
Chloroethane	98	70-130
Freon 11	117	70-130
Ethanol	109	70-130
Freon 113	107	70-130
1,1-Dichloroethene	104	70-130
Acetone	91	70-130
2-Propanol	101	70-130
Carbon Disulfide	77	70-130
3-Chloropropene	98	70-130
Methylene Chloride	106	70-130
Methyl tert-butyl ether	97	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	92	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	95	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	84	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	101	70-130
Cyclohexane	95	70-130
Carbon Tetrachloride	102	70-130
2,2,4-Trimethylpentane	84	70-130
Benzene	93	70-130
1,2-Dichloroethane	104	70-130
Heptane	93	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	88	70-130
1,4-Dioxane	103	70-130
Bromodichloromethane	103	70-130
cis-1,3-Dichloropropene	85	70-130
4-Methyl-2-pentanone	83	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	103	70-130
2-Hexanone	96	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1605082-11AA

EPA METHOD TO-15 GC/MS

File Name:	**j051605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/16/16 10:46 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	94	70-130
Chlorobenzene	89	70-130
Ethyl Benzene	93	70-130
m,p-Xylene	97	70-130
o-Xylene	100	70-130
Styrene	99	70-130
Bromoform	100	70-130
Cumene	94	70-130
1,1,2,2-Tetrachloroethane	92	70-130
Propylbenzene	96	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	93	70-130
alpha-Chlorotoluene	102	70-130
1,2-Dichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	103	70-130
Hexachlorobutadiene	109	70-130
1,1-Difluoroethane	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	105	70-130

CHAIN OF CUSTODY RECORD

P&D ENVIRONMENTAL, INC.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610
(510) 658-6916

PROJECT NUMBER: 0660

PROJECT NAME: FORMER JAMES RIVER CORPORATION SITE
2101 WILLIAMS ST
SAN LEANDRO, CA

SAMPLED BY: (PRINTED & SIGNATURE)
MICHAEL BASS-DESCHENES

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION / SUMMA # / INIT. VAC / FINAL VAC	NUMBER OF CONTAINERS	ANALYSIS(ES): EPA TO-15 INCLUDING DEA	PRESERVATIVE	REMARKS
01A	VP13	5/2/16	1358 1411	AIR	37831 -30 -5	1	X	NONE	NORMAL ~~+WEEK~~ TAT
02A	VP13-DUP	"	1358 1411	"	37653 -29 -5	1	X	"	"
03A	VP14	"	1443 1451	"	37355 -30 -5	1	X	"	"
04A	VP15	"	1027 1037	"	34581 -30 -5	1	X	"	"
05A	VP16	"	0947 0953	"	37815 -27 -5	1	X	"	"
06A	VP17	"	0856 0904	"	37782 -30 -5	1	X	"	"
07A	VP18	"	1223 1329	"	30823 -30 -5	1	X	"	"
08A	VP19	"	1143 1150	"	36440 -29 -5	1	X	"	"

RELINQUISHED BY: (SIGNATURE) Michael Bass-Deschenes	DATE 5/3/16	TIME 1221	RECEIVED BY: (SIGNATURE)	Total No. of Samples (This Shipment) 8 Total No. of Containers (This Shipment) 8	LABORATORY: EUROFINS/AIR TOXICS, LTD
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	LABORATORY CONTACT: KYLE VAGANTINI	LABORATORY PHONE NUMBER: (916) 605-3339
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO	

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS: 1-LITER SUMMA.

1605082

eurofins | Air Toxics

5/16/2016
Mr. Paul King
P & D Environmental
55 Santa Clara
Suite 240
Oakland CA 94610

Project Name: 2101 Williams St.
Project #: 0660
Workorder #: 1605048

Dear Mr. Paul King

The following report includes the data for the above referenced project for sample(s) received on 5/3/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 (5&20 ppbv) are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1605048

Work Order Summary

CLIENT:	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610	**BILL TO:**	Mr. Paul King P & D Environmental 55 Santa Clara Suite 240 Oakland, CA 94610
PHONE:	510-658-6916	**P.O. #**	
FAX:	510-834-0772	**PROJECT #**	0660 2101 Williams St.
DATE RECEIVED:	05/03/2016	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	05/16/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	VP13	Modified TO-15 (5&20 ppbv	Tedlar Bag	Tedlar Bag
02A	VP14	Modified TO-15 (5&20 ppbv	Tedlar Bag	Tedlar Bag
03A	VP15	Modified TO-15 (5&20 ppbv	Tedlar Bag	Tedlar Bag
04A	VP16	Modified TO-15 (5&20 ppbv	Tedlar Bag	Tedlar Bag
05A	VP17	Modified TO-15 (5&20 ppbv	Tedlar Bag	Tedlar Bag
06A	VP18	Modified TO-15 (5&20 ppbv	Tedlar Bag	Tedlar Bag
07A	VP19	Modified TO-15 (5&20 ppbv	Tedlar Bag	Tedlar Bag
08A	Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
08B	Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
09A	CCV	Modified TO-15 (5&20 ppbv	NA	NA
09B	CCV	Modified TO-15 (5&20 ppbv	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 05/16/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15 Soil Gas
P & D Environmental
Workorder# 1605048

Six 1 Liter Tedlar Bag samples were received on May 03, 2016 and one 1 Liter Tedlar Bag was received on May 5, 2016. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The number of samples initially received did not match the information on the Chain of Custody (COC). Sample VP14 was received separately on May 5, 2016.

Analytical Notes

Dilution was performed on all of the samples due to the presence of high level target species.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds. Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Sample VP14 was analyzed one day past the recommended holding time of 3 days for Tedlar bags.

Method TO-15 is validated for samples collected in specially treated canisters. As such, the use of Tedlar bags for sample collection is outside the scope of the method and not recommended for ambient or indoor air samples. It is the responsibility of the data user to determine the usability of TO-15 results generated from Tedlar bags.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: VP13

Lab ID#: 1605048-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	7000000	540000	19000000

Client Sample ID: VP14

Lab ID#: 1605048-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	8700000	540000	24000000

Client Sample ID: VP15

Lab ID#: 1605048-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	5800000	540000	16000000

Client Sample ID: VP16

Lab ID#: 1605048-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	140000	4500000	380000	12000000

Client Sample ID: VP17

Lab ID#: 1605048-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	100000	3300000	270000	8800000

Client Sample ID: VP18

Lab ID#: 1605048-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	7700000	540000	21000000

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: VP19

Lab ID#: 1605048-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	7000000	540000	19000000

eurofins | Air Toxics

Client Sample ID: VP13

Lab ID#: 1605048-01A

EPA METHOD TO-15 GC/MS

File Name:	**14050507**	**Date of Collection: 5/2/16 1:59:00 PM**	
Dil. Factor:	**10000**	**Date of Analysis: 5/5/16 09:54 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	7000000	540000	19000000

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: VP14

Lab ID#: 1605048-02A

EPA METHOD TO-15 GC/MS

File Name:	**14050609**	**Date of Collection: 5/2/16 2:45:00 PM**	
Dil. Factor:	**10000**	**Date of Analysis: 5/6/16 10:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	8700000	540000	24000000

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: VP15

Lab ID#: 1605048-03A

EPA METHOD TO-15 GC/MS

File Name:	**14050508**	**Date of Collection: 5/2/16 10:28:00 AM**	
Dil. Factor:	**10000**	**Date of Analysis: 5/5/16 10:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	5800000	540000	16000000

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: VP16

Lab ID#: 1605048-04A

EPA METHOD TO-15 GC/MS

File Name:	**14050509**	**Date of Collection: 5/2/16 9:48:00 AM**	
Dil. Factor:	**7140**	**Date of Analysis: 5/5/16 11:01 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	140000	4500000	380000	12000000

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: VP17

Lab ID#: 1605048-05A

EPA METHOD TO-15 GC/MS

File Name:	**14050510**	**Date of Collection: 5/2/16 8:57:00 AM**	
Dil. Factor:	**5000**	**Date of Analysis: 5/5/16 11:34 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	100000	3300000	270000	8800000

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: VP18

Lab ID#: 1605048-06A

EPA METHOD TO-15 GC/MS

File Name:	**14050511**	**Date of Collection: 5/2/16 12:24:00 PM**	
Dil. Factor:	**10000**	**Date of Analysis: 5/5/16 11:53 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	7700000	540000	21000000

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: VP19

Lab ID#: 1605048-07A

EPA METHOD TO-15 GC/MS

File Name:	**14050512**	**Date of Collection: 5/2/16 11:44:00 AM**	
Dil. Factor:	**10000**	**Date of Analysis: 5/5/16 12:18 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	200000	7000000	540000	19000000

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1605048-08A

EPA METHOD TO-15 GC/MS

File Name:	**14050506**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/5/16 09:26 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	20	Not Detected	54	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1605048-08B

EPA METHOD TO-15 GC/MS

File Name:	**14050608a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/6/16 10:08 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	20	Not Detected	54	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1605048-09A

EPA METHOD TO-15 GC/MS

File Name:	**14050502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/5/16 07:27 AM**	

Compound	%Recovery
1,1-Difluoroethane	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1605048-09B

EPA METHOD TO-15 GC/MS

File Name:	**14050602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/6/16 07:51 AM**	

Compound	%Recovery
1,1-Difluoroethane	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

P&D ENVIRONMENTAL, INC.

55 Santa Clara Ave., Suite 240
Oakland, CA 94610
(510) 658-6916

PROJECT NUMBER: 0660

PROJECT NAME: FORMER JAMES RIVER CORPORATION SITE
2101 WILLIAMS ST.
SAN LEANDRO, CA

SAMPLED BY: (PRINTED & SIGNATURE)
MICHAEL BASS-DESCHENES

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): 3C BY EPA TO-15	PRESERVATIVE	REMARKS
01A	VP13	5/2/16	1359	AIR		1	X	NONE	NORMAL ~~WEEK~~ TAT
02A	VP14		1445			1	X		
03A	VP15		1028			1	X		
04A	VP16		0948			1	X		
05A	VP17		0857			1	X		
06A	VP18		1224			1	X		
07A	VP19		1144			1	X		

	DATE	TIME			
RELINQUISHED BY: (SIGNATURE) MICHAEL BASS-DESCHENES	5-3-16	1221	RECEIVED BY: (SIGNATURE)	Total No. of Samples (This Shipment): 7	LABORATORY: EUROFINS/AIR TOXICS, LTD.
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	Total No. of Containers (This Shipment): 7	
				LABORATORY CONTACT: KYLE VALADORI	LABORATORY PHONE NUMBER: (916) 605-3339
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO	

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS: 1- LITER TEDLAR BAG

1605048