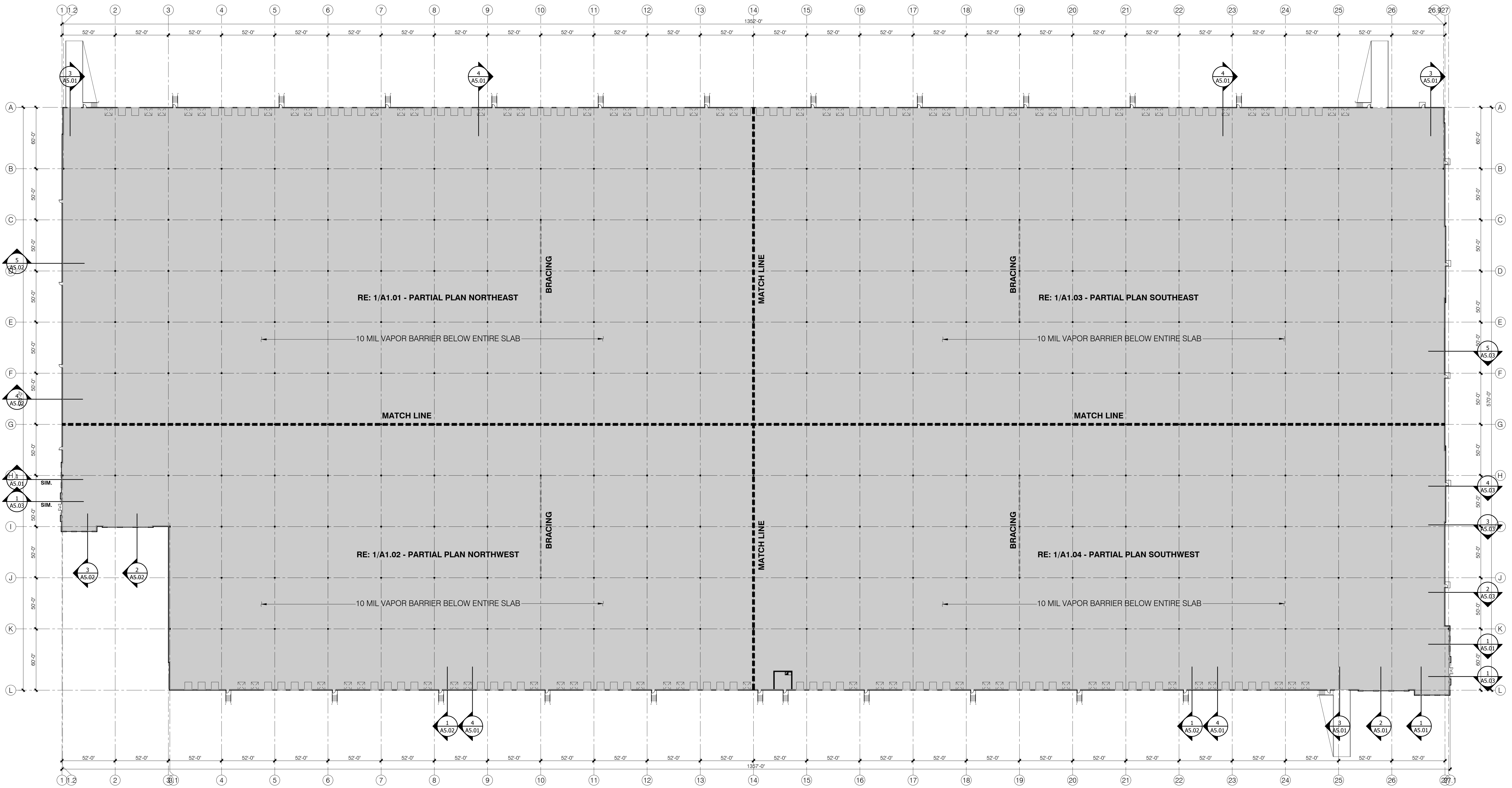




**studioNorth**  
ARCHITECTURE  
5018 NW Canal Street | Suite 200 | Riverside, MO 64150  
816 | 888 | 7380

CIVIL NUTEC DESIGN ASSOCIATES, INC.  
LANDSCAPE NUTEC DESIGN ASSOCIATES, INC.  
FOUNDATIONS PROVIDENCE ENGINEERING CORPORATION  
STRUCTURAL PROVIDENCE ENGINEERING CORPORATION  
PLUMBING R.A. WALTON & COMPANY, INC.  
MECHANICAL R.A. WALTON & COMPANY, INC.  
ELECTRICAL BBEC, INC.  
FIRE PROTECTION SA COMUNALE, INC.  
CONTRACTOR STEWART & TATE



**1 OVERALL FLOOR PLAN**  
Scale: 1" = 40'



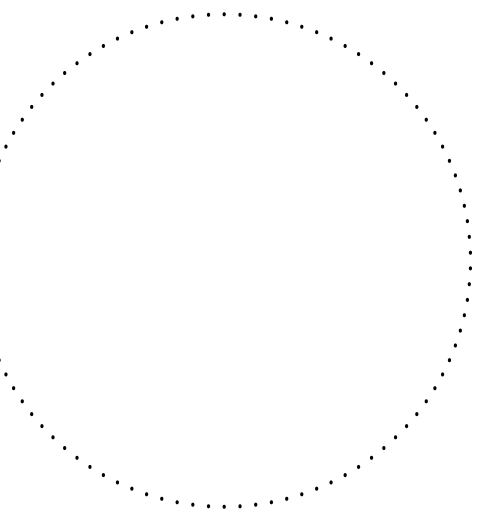
**Eden Road Logistics Center**

1448 Eden Road  
Springettsburg Township | York County, PA 17402

Project No. 2015-04  
Date: 02.08.16  
Issued For: Permit Submittal

Revisions:

No.	Date	Description



Robert H. Waters III - Architect  
Pennsylvania License No. RA407235

**A1.00**  
FLOOR PLAN

I:\PROJECTS\2015\EDEN\ACTIVE PROJECTS\EDEN\1-EDEN\WORK\BASE.DWG - 2/10/2016 10:15:48 AM - rschaeffer



CONCRETE CONTRACTORS / COMMERCIAL • INDUSTRIAL • RESIDENTIAL

---

PA Home Improvement Contractor Registration #: PA036258  
65 Carlisle Road • PO Box 443 • Dillsburg, PA, 17019  
(717) 432-5020 • Fax: (717) 432-8937

Attn: Jim Hollinger

Ref: Vapor Barrier under Slab on Grade

The procedure for placing and taping of the vapor barrier under the slab on grade will be as follows.

- Vapor barrier shall be installed as the SOG pours are being made and will be place 1 to 2 sheets ahead of the concrete.
- A separate 4 man crew will be responsible for installing and the taping the barrier during SOG pours.
- The vapor barriers will be place running the width of the pours with overlapping by 6" on all sides.
- When setting forms for the SOG pours, a 4' piece shall be placed under the form. This will give us the ability to overlap the barrier and the ability to tape it properly.
- 4" red vapor barrier tape will be used to seal the seams, allowing 2" of cover on both sides of the seams.
- All clean outs, monitoring wells, etc., will have the vapor barrier cut to fit and will be tape to seal all edges.
- Any damages to the vapor barrier during the pour will be re-tape or have an additional section of vapor barrier placed over the area with all side taped.

This is the procedure we follow on all of our projects that require a vapor barrier. If you have any questions, please feel free to contact me.

Mark Senft

Project Manager



65 Carlisle Road  
P.O. Box 443

Dillsburg, PA 17019

Phone: (717) 432-5020 / Fax: (717) 432-8937

# SUBMITTAL COVER SHEET

Attention: Jim Hollinger  
Company:  
Stewart & Tate Construction  
950 Smile Way  
York, PA 17402  
717-747-4538

Date: 3/30/16  
Job Number: 16101  
Job Name: Eden Road Logistic Center  
Job Description: Warehouse

**INCLUDED IN THIS PACKET ARE:**  
Materials for Concrete Construction

SPECIFICATION SECTION	CONTRACTOR SUBMITTAL NO.	ITEM DESCRIPTION
03300	12	10 Mil Vapor

**Lorne G. Seifert, Inc.**

NO EXCEPTION TAKEN  
APPROVED AS NOTED  
REVISE AND RESUBMIT

SPECIFICATION      Project Armor Dated 10-9-15  
PARAGRAPH

DATE                      3/30/2016  
SIGNED BY                Mark Senft

**SHOP DRAWING | SUBMITTAL REVIEW**

Reviewed       Furnish as Noted  
 Rejected          Revise and Resubmit  
 Returned: No Architectural Review Required

This review is limited to checking for conformance with the information given and the design concept expressed in the contract documents. The contractor and/or construction manager remains fully responsible for all dimensions, quantities, construction means and methods, techniques, sequences in the work, procedures and for coordination of the work of all trades.

Architect's review of shop drawings and/or submittals does not modify the requirements reflected in the construction documents and specifications.

By: R. Schauwecker Date: 04.05.16

**studioNorth ARCHITECTURE**

REMARKS:

Copy to: \_\_\_\_\_

CHECKED FOR CONFORMITY TO ARCHITECTS DRAWINGS AND SPECIFICATIONS

**STEWART & TATE CONSTRUCTION**

BY    DG    DATE    4/5/16     
 JOB NAME    Eden Rd. Logistics Ctr.     
 SUBMITTAL #    03100-5    JOB #:    15-0094

# POLYHEDRON LABORATORIES®, INC.

PLASTICS, POLYMERS and RUBBER TESTING

10626 KINGHURST ST. HOUSTON, TX 77099

281-879-8600 • FAX: 281-879-8666

e-mail techsales@polyhedronlab.com

April 10, 2015

Rodeo Plastic Bag & Film, Inc.  
3328 Executive Blvd.  
Mesquite, TX 75149

Attn: Mr. Erin McMasters

## Analytical Report

**Sample -** 10 mil Poly Film (Re-test)

### Tensile Strength @ Break by ASTM D 882

Machine Direction (lb·f/in)	50.97
Transverse (lb·f/in)	51.16
Specification	45.0
Class	A

### Puncture Resistance by ASTM D 1709 B


Puncture Resistance (g)	570
Specification	475 min
Class	C

### Water Vapor Permeance by ASTM E 96

<u>(g/hr)</u>	<u>(g/hr m<sup>2</sup>)</u>	<u>Permeance (g/Pa·s·m<sup>2</sup>)</u>	<u>Permeance (Perms)</u>	<u>Specification</u>	<u>Class</u>
0.0000625					
0.0001370					
0.0000538					
AV = $8.44 \times 10^{-5}$	0.0186	$3.26 \times 10^{-9}$	0.056	0.3 max	A, B, C
$\pm 4.57 \times 10^{-5}$	$\pm 0.01$	$\pm 1.75 \times 10^{-9}$	$\pm 0.030$		

### Conclusions

This material falls into class A for tensile strength, but class C for puncture resistance according to ASTM E 1745.

  
Howard Kaye, Ph.D., FAIC  
Director

HK/dr





## Electro Tape Specialties, Inc.

P.O. BOX 1014  
13221 BYRD DRIVE  
ODESSA, FLORIDA 33556  
TELEPHONE: (813) 920-2218  
FAX: (813) 920-2272 TOLL FREE (800) 999-2218

### PRODUCT DATA SHEET

# #133

## Limited UV LOW DENSITY POLYETHYLENE FILM TAPE

#### DESCRIPTION:

133 is a 7.5 mil Low Density Polyethylene Film Tape coated on one side with a Synthetic Rubber Adhesive System. **NO UV additives so tape is not recommended for long term outdoor use.**

#### FEATURES / BENEFITS:

Low residue yet aggressive adhesive allows for use in surface protection applications. Its adhesive system provides high adhesion and cohesion which yields a permanent bond with virtually no edge bleed out. The tough polyethylene backing delivers good abrasion and tear resistance. It is highly conformable and resistant to chemical deterioration.

#### APPLICATIONS:

- Used for various wrapping and patching applications.
- Suitable for splicing, seaming & patching, joint taping of poly films for construction
- Designed for use in separation of dissimilar metals for insulation, roofing, metal fabrication, etc.

#### PHYSICAL PROPERTIES:

Adhesive Type	Synthetic Rubber
Total Thickness	7.5 mil
Colors Available	Red and White
Tensile Strength	24 lb/inch
Elongation	70%
Adhesion to Steel	60 oz/inch
Adhesion to Backing	35 oz/inch
Service Temperature	Minimum: 32°F and Maximum: 160°F

#### APPLICATION TO SURFACE:

Unwind adhesive tape and apply the adhesive side to the mounting surface. Apply firm pressure. Recommended application temperature to achieve best results is 65°F (18°C) or above. Proper bonding may not occur unless adhesive and surface material are both at 65°F (18°C). NOTE: When applying pressure sensitive adhesive films to any surface, be sure that the surface is free from oil, dust, dirt or other contaminants such as release or slip agents (sometimes used in manufacture of poly as process aid) as these can adversely affect tape performance.

**NOTE:** The physical properties listed above are typical test results obtained from a series of laboratory tests and should not be used for the purpose of writing specifications. **Before using this product, user shall determine the suitability of the product for his/her use; and user assumes all risks and liabilities in connection therewith.** All test procedures used are in accordance with ASTM and PSTC methods.



# ARM Group Inc.

Earth Resource Engineers and Consultants

---

May 12, 2016

Larry Lapinski – Vice President  
NorthPoint Development  
5015 NW Canal Street  
Suite 200  
Riverside, MO 64150

Re: Soil-Gas Sampling and Vapor Intrusion  
Former Harley Davidson West Campus Site  
1445 Eden Road  
Springettsbury Township, York County, PA  
ARM Project No. 150274

Dear Mr. Lapinski,

ARM Group Inc. (ARM) has prepared this report to present the results and recommendations of a vapor intrusion study at the above-referenced project site located in Springettsbury Township, York County, Pennsylvania. Although previous sampling of soils, groundwater and soil-gas at the site did not identify any vapor intrusion problems within the previous buildings located on the site, supplemental soil-gas sampling was conducted to better characterize the existing conditions and potential vapor intrusion risks associated with the proposed new warehouse to be constructed at the site above the foundations of the pre-existing structures.

## Soil-Gas Sampling

Soil-gas sampling was conducted at three (3) locations across the proposed development area, as shown on the attached Figure 1. Sampling procedures were in accordance with the applicable provisions of the Pennsylvania Department of Environmental Protection's (PADEP's) current guidance for soil-gas sampling (i.e., "Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard"). As recommended by the guidance, sampling was conducted on 2 separate locations, spaced approximately 2 months apart. At each sampling location, ARM drilled an approximately 3/4-inch diameter hole through the concrete floor of the pre-existing building, and then used a slam-bar to create a narrow hole in the underlying soils to a depth of approximately 42 inches below the concrete slab at locations V-2 and V-3. Shallow groundwater was suspected at sampling location V-1, so soil-gas sampling was conducted at approximately 36 inches below the concrete slab at that location. The ARM scientist then inserted a flexible 1/8-inch plastic tube into each hole, sealed around each tube at the ground surface with modeling clay and a bentonite plug, purged at least two bore volumes of air through a hand-held air metering pump, and then collected a soil-gas sample through each tube into an evacuated 1L Summa canister over a ten-minute testing period (to result in an air flow rate of approximately 100 mL/min, consistent with PADEP recommendations). A stainless-steel shroud

with leak detection monitoring was also used during the sampling consistent with USEPA and draft PADEP guidance to ensure that leakage or short-circuiting was not occurring. All of the collected samples were submitted to ALS environmental testing laboratory for analysis of volatile organic compounds by Method TO+15.

### **Soil-Gas Results**

The analytical results from the soil-gas samples (see Appendix A) were compared to the PADEP Chapter 250 Medium Specific Concentrations (MSCs) for vapor intrusion to indoor air (see attached Table 1). The results were also compared to 1/10<sup>th</sup> of the PADEP's proposed screening values for sub-slab soil gas samples in accordance with the PADEP's proposed draft revised guidelines for vapor intrusion assessments. As shown on Table 1, a number of constituents were detected at trace concentrations in the soil-gas samples, but none of the concentrations exceeded any of the current non-residential MSCs for the protection of indoor air or 1/10<sup>th</sup> of the proposed draft sub-slab soil gas screening values, and most of the concentrations were several orders of magnitude below the MSCs and screening values.

### **Conclusions and Recommendations**

Based on these results, the following conclusions and recommendations are presented:

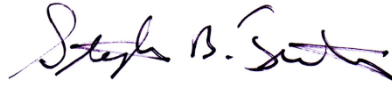
- These results do not indicate any unacceptable vapor intrusion risks, consistent with previous vapor intrusion assessments conducted for the site by others.
- The floor slab of the proposed new building will be at a higher elevation than the recent soil-gas sampling activities following the placement of a number of feet of compacted fill, and the additional compacted fill is expected to provide additional protection against potential vapor intrusion.
- These results support the current plans to install a 10-mil vapor barrier below the floor slab and sealed at all penetrations. Consistent with current plans, the 10-mil vapor barrier should be handled and placed in a manner to minimize potential damage to the vapor barrier, and any holes or other damage should be sealed prior to concrete placement.
- In addition to sealing the vapor barrier at all penetrations, and consistent with current plans, all utility trenches that enter and exit the building footprint should be sealed with a concrete or clay trench plug to prevent preferential flow along any permeable utility bedding.



## CLOSING

ARM appreciates the opportunity to support you with this project. If you have any questions or comments, or require further assistance, please contact the undersigned at 717-508-0521.

Respectfully submitted,  
ARM Group Inc.



Stephen B. Fulton, P.E., P.G.  
Vice President – Environmental Services

### Attachments:

- Figure 1 – Soil-Gas Sampling Location Map
- Table 1 – Soil-Gas Sample Analytical Results
- Appendix A – Analytical Laboratory Results





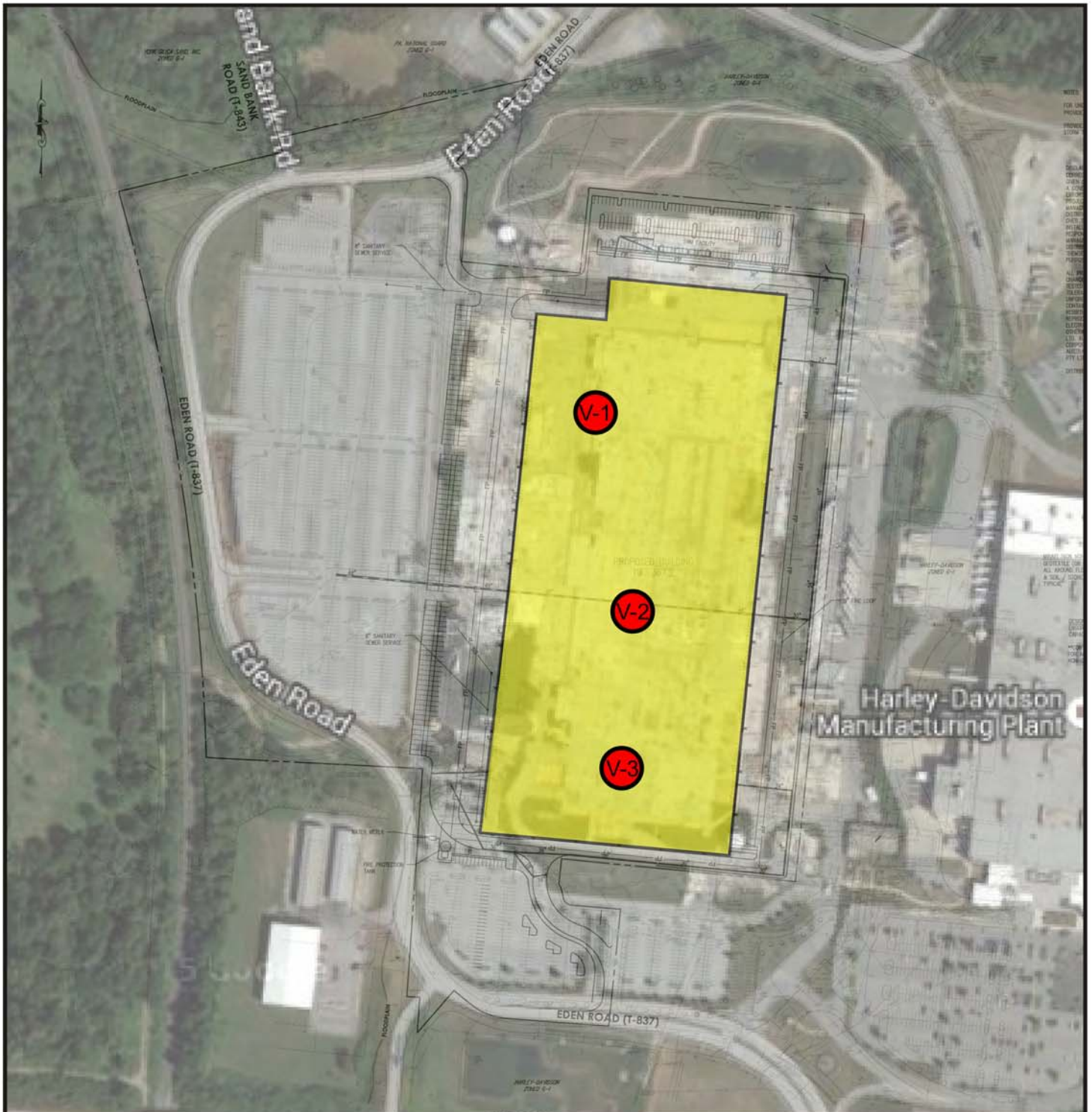
---

---



## **FIGURES**

---

---




**Figure 1**

-  = Approximate Sampling Location
-  = Proposed Building Location

NOT TO SCALE



<b>Samplings Location Map</b>	
1445 Eden Road Springettsbury Township York County, Pennsylvania	
January 2016	 <b>ARM Group Inc.</b> Earth Resource Engineers and Consultants 1129 West Governor Road · Hershey, PA 17033
150274	

---

---

## **TABLES**

---

---

**TABLE 1**  
**SOIL-GAS SAMPLE ANALYTICAL RESULTS**  
**Former Harley Davidson West Campus Property**  
**Springettsbury Township, York County, PA**  
**ARM Project 150274**

Regulated Substance	PADEP MSCs for Soil Gas*	DRAFT (7/25/15) PADEP MSCs for Soil Gas**	Samples Collected					
			V-1		V-2		V-3	
			1/12/2016 (2.5' bgs)	3/17/2016 (2.5' bgs)	1/12/2016 (3.4' bgs)	3/17/2016 (3.4' bgs)	1/12/2016 (3.4' bgs)	3/17/2016 (3.4' bgs)
Acetone	9,100	1,700	0.076	0.066	0.023	0.092	0.16	0.15
Benzene	1.1	0.2	0.0079	0.0035	ND	0.0025	ND	0.0036
n-Butane	-	-	0.025	0.003	0.0016	0.0061	0.0022	0.0089
2-Butanone	290	280	0.0047	0.0073	0.0018	0.0086	0.003	0.016
tert-Butyl Alcohol	-	-	ND	0.0016	ND	0.0018	ND	0.001
Carbon Disulfide	200	39	0.0038	ND	ND	ND	ND	0.0041
Chloromethane	4.5	0.87	0.00078	0.00084	ND	ND	0.00057	ND
cis-1,2-Dichloroethene	10	-	0.001	0.0012	ND	ND	ND	ND
Cyclohexane	-	340	ND	0.0022	ND	0.0019	ND	0.00099
Dichlorodifluoromethane	51	5.6	0.0016	0.0018	0.0016	0.0019	0.0016	0.0018
Ethanol	-	-	0.0057	0.0057	0.0014	0.064	0.0055	0.02
Ethyl Acetate	920	3.9	ND	0.0022	ND	0.0024	ND	ND
Ethylbenzene	7.3	0.63	0.002	0.0053	ND	0.0054	0.00089	0.0081
Ethyltoluene 4-	-	-	ND	0.0012	ND	0.0013	ND	0.0026
Heptane	-	-	0.0024	0.0028	ND	0.0023	ND	0.0019
Hexane	58	39	0.0062	0.013	0.0021	0.0095	0.0017	0.0053
Isopropyl Alcohol	-	11	0.00083	0.0044	ND	0.0049	0.00085	0.0025
Methylene Chloride	17	34	0.017	0.0085	0.0041	0.0075	0.0061	0.0043
Iso-Octane	-	-	0.0047	0.0069	ND	0.0068	ND	ND
n-Propylbenzene	41	56	ND	ND	ND	ND	ND	0.0016
Propylene	-	-	0.025	0.0019	0.0023	0.015	0.0047	0.0097
Tetrachloroethene (PCE)	14	2.2	ND	0.070	ND	ND	ND	ND
Tetrahydrofuran	-	0.81	ND	0.0057	ND	0.0059	ND	0.002
Toluene	120	280	0.014	0.026	0.0038	0.029	0.004	0.051
Trichloroethene (TCE)	4.8	0.11	0.0072	0.003	ND	ND	ND	ND
Trichlorofluoromethane	200	39	ND	0.0015	ND	0.0014	0.0047	ND
Trimethylbenzene 1,2,4-	1.7	0.39	0.0018	0.0039	ND	0.0049	ND	0.0089
Trimethylbenzene 1,3,5-	1.7	0.39	ND	0.0014	ND	0.0016	ND	0.0024
Trimethylbenzene 1,2,3-	-	-	ND	0.001	ND	0.0012	ND	0.0022
Xylenes, o-	-	-	0.0026	0.0073	0.0011	0.0077	0.0015	0.01
Xylene, mp	-	-	0.0072	0.018	0.0025	0.019	0.0035	0.03
Xylenes, Total	30	5.6	0.0097	0.025	0.0035	0.027	0.0051	0.04

Notes:

- All units shown are milligrams per cubic meter (mg/m<sup>3</sup>)
- MSC = 25 PA Code Chapter 250 medium-specific concentration.
- \* Soil gas MSC is a function of the indoor air MSC and transfer (or attenuation) factor of 0.01.
- \*\* Values from Sub-Slab Soil Gas Statewide Health Standard Table (Table 4), reduced by a factor of 10 per the draft guidance for screening.
- Only detected constituents are shown; see lab data sheets for full analysis and results.
- = No MSC established for comparison.
- ND = Parameter not detected at the laboratory reporting detection limit (below the MSCs)

---

---

**APPENDIX A**

**Analytical Lab Results**

---

---



January 20, 2016

Mr. Steve Fulton  
ARM Group  
1129 W. Governor Road  
PO Box 797  
Hershey, PA 17033

## Certificate of Analysis

Project Name: <b>2016-NORTH POINT</b>	Workorder: <b>2118412</b>
Purchase Order:	Workorder ID: <b>TO15 (01/12/16)</b>

Dear Mr. Fulton:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, January 12, 2016.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

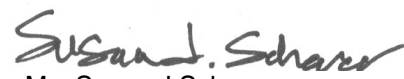
If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*



Ms. Susan J Scherer  
Project Coordinator

### ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

### SAMPLE SUMMARY

Workorder: 2118412 TO15 (01/12/16)

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2118412001	V-1	Air	1/12/2016 13:05	1/12/2016 17:10	Mr. John Brakeall
2118412002	V-2	Air	1/12/2016 09:00	1/12/2016 17:10	Mr. John Brakeall
2118412003	V-3	Air	1/12/2016 08:30	1/12/2016 17:10	Mr. John Brakeall

**Notes**

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".

**Standard Acronyms/Flags**

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**ANALYTICAL RESULTS**

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412001**

Date Collected: 1/12/2016 13:05

Matrix: Air

Sample ID: **V-1**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
<b>VOLATILE ORGANICS @ STP</b>									
Acetone	76		ug/m3	0.5	TO-15		1/18/16 20:11	ECB	A
Acrylonitrile	ND		ug/m3	0.4	TO-15		1/18/16 20:11	ECB	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
Benzene	7.9		ug/m3	0.6	TO-15		1/18/16 20:11	ECB	A
Benzyl Chloride	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Bromoform	ND		ug/m3	2	TO-15		1/18/16 20:11	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15		1/18/16 20:11	ECB	A
n-Butane	25		ug/m3	0.5	TO-15		1/18/16 20:11	ECB	A
2-Butanone	4.7		ug/m3	0.6	TO-15		1/18/16 20:11	ECB	A
tert-Butyl Alcohol	ND		ug/m3	0.6	TO-15		1/18/16 20:11	ECB	A
Carbon Disulfide	3.8		ug/m3	0.6	TO-15		1/18/16 20:11	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		1/18/16 20:11	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		1/18/16 20:11	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15		1/18/16 20:11	ECB	A
Chloroform	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Chloromethane	0.78		ug/m3	0.4	TO-15		1/18/16 20:11	ECB	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15		1/18/16 20:11	ECB	A
o-Chlorotoluene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Cyclohexane	ND		ug/m3	0.7	TO-15		1/18/16 20:11	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		1/18/16 20:11	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Dichlorodifluoromethane	1.6		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
cis-1,2-Dichloroethene	1.0		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		1/18/16 20:11	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		1/18/16 20:11	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		1/18/16 20:11	ECB	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15		1/18/16 20:11	ECB	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A

**ALS Environmental Laboratory Locations Across North America**

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

**ANALYTICAL RESULTS**

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412001**

Date Collected: 1/12/2016 13:05

Matrix: Air

Sample ID: **V-1**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15		1/18/16 20:11	ECB	A
Ethanol	5.7		ug/m3	0.4	TO-15		1/18/16 20:11	ECB	A
Ethyl Acetate	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
Ethylbenzene	2.0		ug/m3	0.9	TO-15		1/18/16 20:11	ECB	A
4-Ethyltoluene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Freon 113	ND		ug/m3	2	TO-15		1/18/16 20:11	ECB	A
Freon-114	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Heptane	2.4		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		1/18/16 20:11	ECB	A
Hexane	6.2		ug/m3	0.7	TO-15		1/18/16 20:11	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
Isopropyl Alcohol	0.83		ug/m3	0.5	TO-15		1/18/16 20:11	ECB	A
Isopropylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		1/18/16 20:11	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
Methylene Chloride	17		ug/m3	0.7	TO-15		1/18/16 20:11	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
iso-Octane	4.7		ug/m3	0.9	TO-15		1/18/16 20:11	ECB	A
n-Propylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Propylene	25		ug/m3	0.3	TO-15		1/18/16 20:11	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Tetrahydrofuran	ND		ug/m3	0.6	TO-15		1/18/16 20:11	ECB	A
Toluene	14		ug/m3	0.8	TO-15		1/18/16 20:11	ECB	A
Total Xylenes	9.7		ug/m3	3	TO-15		1/18/16 20:11	ECB	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Trichloroethene	7.2		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,2,4-Trimethylbenzene	1.8		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,3,5-Trimethylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A
1,2,3-Trimethylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:11	ECB	A

**ALS Environmental Laboratory Locations Across North America**
**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412001**

Date Collected: 1/12/2016 13:05

Matrix: Air

Sample ID: **V-1**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15		1/18/16 20:11	ECB	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15		1/18/16 20:11	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		1/18/16 20:11	ECB	A
o-Xylene	2.6		ug/m3	0.9	TO-15		1/18/16 20:11	ECB	A
mp-Xylene	7.2		ug/m3	2	TO-15		1/18/16 20:11	ECB	A
Acetone	32		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Acrylonitrile	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Benzene	2.5		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Benzyl Chloride	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,3-Butadiene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
n-Butane	11		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
2-Butanone	1.6		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
tert-Butyl Alcohol	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Carbon Disulfide	1.2		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Chloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Chloromethane	0.38		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Cyclohexane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Dichlorodifluoromethane	0.33		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
cis-1,2-Dichloroethene	0.26		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A

### ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey



### ANALYTICAL RESULTS

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412001**

Date Collected: 1/12/2016 13:05

Matrix: Air

Sample ID: **V-1**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15		1/18/16 20:11	ECB	A
Diisopropyl ether	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Ethanol	3.0		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Ethyl Acetate	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Ethylbenzene	0.47		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
4-Ethyltoluene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Freon 113	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Freon-114	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Heptane	0.58		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Hexane	1.8		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Isopropyl Alcohol	0.34		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Isopropylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Methyl methacrylate	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Methylene Chloride	4.9		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
iso-Octane	1.0		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
n-Propylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Propylene	15		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Styrene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Tetrahydrofuran	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Toluene	3.7		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Total Xylenes	2.2		ppbv	0.60	TO-15		1/18/16 20:11	ECB	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Trichloroethene	1.3		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**ANALYTICAL RESULTS**

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412001**

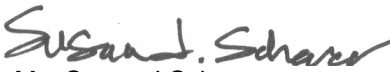
Date Collected: 1/12/2016 13:05

Matrix: Air

Sample ID: **V-1**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,2,4-Trimethylbenzene	0.37		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,3,5-Trimethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
1,2,3-Trimethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Vinyl Acetate	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Vinyl Bromide	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
o-Xylene	0.59		ppbv	0.20	TO-15		1/18/16 20:11	ECB	A
mp-Xylene	1.6		ppbv	0.40	TO-15		1/18/16 20:11	ECB	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	86		%	70 - 130	TO-15		1/18/16 20:11	ECB	A



Ms. Susan J Scherer  
Project Coordinator

**ALS Environmental Laboratory Locations Across North America**

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**ANALYTICAL RESULTS**

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412002**

Date Collected: 1/12/2016 09:00

Matrix: Air

Sample ID: **V-2**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
<b>VOLATILE ORGANICS @ STP</b>									
Acetone	23		ug/m3	0.5	TO-15		1/18/16 20:57	ECB	A
Acrylonitrile	ND		ug/m3	0.4	TO-15		1/18/16 20:57	ECB	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		1/18/16 20:57	ECB	A
Benzyl Chloride	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Bromoform	ND		ug/m3	2	TO-15		1/18/16 20:57	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15		1/18/16 20:57	ECB	A
n-Butane	1.6		ug/m3	0.5	TO-15		1/18/16 20:57	ECB	A
2-Butanone	1.8		ug/m3	0.6	TO-15		1/18/16 20:57	ECB	A
tert-Butyl Alcohol	ND		ug/m3	0.6	TO-15		1/18/16 20:57	ECB	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15		1/18/16 20:57	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		1/18/16 20:57	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		1/18/16 20:57	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15		1/18/16 20:57	ECB	A
Chloroform	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Chloromethane	ND		ug/m3	0.4	TO-15		1/18/16 20:57	ECB	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15		1/18/16 20:57	ECB	A
o-Chlorotoluene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Cyclohexane	ND		ug/m3	0.7	TO-15		1/18/16 20:57	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		1/18/16 20:57	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Dichlorodifluoromethane	1.6		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		1/18/16 20:57	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		1/18/16 20:57	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		1/18/16 20:57	ECB	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15		1/18/16 20:57	ECB	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A

**ALS Environmental Laboratory Locations Across North America**
**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**ANALYTICAL RESULTS**

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412002**

Date Collected: 1/12/2016 09:00

Matrix: Air

Sample ID: **V-2**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15		1/18/16 20:57	ECB	A
Ethanol	1.4		ug/m3	0.4	TO-15		1/18/16 20:57	ECB	A
Ethyl Acetate	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
Ethylbenzene	ND		ug/m3	0.9	TO-15		1/18/16 20:57	ECB	A
4-Ethyltoluene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Freon 113	ND		ug/m3	2	TO-15		1/18/16 20:57	ECB	A
Freon-114	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Heptane	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		1/18/16 20:57	ECB	A
Hexane	2.1		ug/m3	0.7	TO-15		1/18/16 20:57	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
Isopropyl Alcohol	ND		ug/m3	0.5	TO-15		1/18/16 20:57	ECB	A
Isopropylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		1/18/16 20:57	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
Methylene Chloride	4.1		ug/m3	0.7	TO-15		1/18/16 20:57	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
iso-Octane	ND		ug/m3	0.9	TO-15		1/18/16 20:57	ECB	A
n-Propylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Propylene	2.3		ug/m3	0.3	TO-15		1/18/16 20:57	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Tetrahydrofuran	ND		ug/m3	0.6	TO-15		1/18/16 20:57	ECB	A
Toluene	3.8		ug/m3	0.8	TO-15		1/18/16 20:57	ECB	A
Total Xylenes	3.5		ug/m3	3	TO-15		1/18/16 20:57	ECB	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Trichloroethene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,2,4-Trimethylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,3,5-Trimethylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A
1,2,3-Trimethylbenzene	ND		ug/m3	1	TO-15		1/18/16 20:57	ECB	A

**ALS Environmental Laboratory Locations Across North America**
**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412002**

Date Collected: 1/12/2016 09:00

Matrix: Air

Sample ID: **V-2**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15		1/18/16 20:57	ECB	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15		1/18/16 20:57	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		1/18/16 20:57	ECB	A
o-Xylene	1.1		ug/m3	0.9	TO-15		1/18/16 20:57	ECB	A
mp-Xylene	2.5		ug/m3	2	TO-15		1/18/16 20:57	ECB	A
Acetone	9.5		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Acrylonitrile	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Benzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Benzyl Chloride	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,3-Butadiene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
n-Butane	0.67		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
2-Butanone	0.60		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
tert-Butyl Alcohol	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Carbon Disulfide	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Chloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Chloromethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Cyclohexane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Dichlorodifluoromethane	0.33		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife   
**United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York   
**Mexico:** Monterrey



### ANALYTICAL RESULTS

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412002**

Date Collected: 1/12/2016 09:00

Matrix: Air

Sample ID: **V-2**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15		1/18/16 20:57	ECB	A
Diisopropyl ether	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Ethanol	0.77		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Ethyl Acetate	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Ethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
4-Ethyltoluene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Freon 113	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Freon-114	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Heptane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Hexane	0.59		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Isopropyl Alcohol	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Isopropylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Methyl methacrylate	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Methylene Chloride	1.2		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
iso-Octane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
n-Propylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Propylene	1.4		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Styrene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Tetrahydrofuran	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Toluene	1.0		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Total Xylenes	0.81		ppbv	0.60	TO-15		1/18/16 20:57	ECB	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife
**United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York
**Mexico:** Monterrey

**ANALYTICAL RESULTS**

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412002**

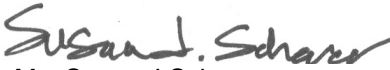
Date Collected: 1/12/2016 09:00

Matrix: Air

Sample ID: **V-2**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,2,4-Trimethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,3,5-Trimethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
1,2,3-Trimethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Vinyl Acetate	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Vinyl Bromide	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
o-Xylene	0.25		ppbv	0.20	TO-15		1/18/16 20:57	ECB	A
mp-Xylene	0.56		ppbv	0.40	TO-15		1/18/16 20:57	ECB	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	86		%	70 - 130	TO-15		1/18/16 20:57	ECB	A



Ms. Susan J Scherer  
Project Coordinator

**ALS Environmental Laboratory Locations Across North America**

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412003**

Date Collected: 1/12/2016 08:30

Matrix: Air

Sample ID: **V-3**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
<b>VOLATILE ORGANICS @ STP</b>									
Acetone	160		ug/m3	5	TO-15		1/15/16 02:34	ECB	A
Acrylonitrile	ND		ug/m3	0.4	TO-15		1/18/16 21:43	ECB	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
Benzene	ND		ug/m3	0.6	TO-15		1/18/16 21:43	ECB	A
Benzyl Chloride	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Bromoform	ND		ug/m3	2	TO-15		1/18/16 21:43	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15		1/18/16 21:43	ECB	A
n-Butane	2.2		ug/m3	0.5	TO-15		1/18/16 21:43	ECB	A
2-Butanone	3.0		ug/m3	0.6	TO-15		1/18/16 21:43	ECB	A
tert-Butyl Alcohol	ND		ug/m3	0.6	TO-15		1/18/16 21:43	ECB	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15		1/18/16 21:43	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		1/18/16 21:43	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		1/18/16 21:43	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15		1/18/16 21:43	ECB	A
Chloroform	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Chloromethane	0.57		ug/m3	0.4	TO-15		1/18/16 21:43	ECB	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15		1/18/16 21:43	ECB	A
o-Chlorotoluene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Cyclohexane	ND		ug/m3	0.7	TO-15		1/18/16 21:43	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		1/18/16 21:43	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Dichlorodifluoromethane	1.6		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		1/18/16 21:43	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		1/18/16 21:43	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		1/18/16 21:43	ECB	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15		1/18/16 21:43	ECB	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A

### ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

### ANALYTICAL RESULTS

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412003**

Date Collected: 1/12/2016 08:30

Matrix: Air

Sample ID: **V-3**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15		1/18/16 21:43	ECB	A
Ethanol	5.5		ug/m3	0.4	TO-15		1/18/16 21:43	ECB	A
Ethyl Acetate	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
Ethylbenzene	0.89		ug/m3	0.9	TO-15		1/18/16 21:43	ECB	A
4-Ethyltoluene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Freon 113	ND		ug/m3	2	TO-15		1/18/16 21:43	ECB	A
Freon-114	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Heptane	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		1/18/16 21:43	ECB	A
Hexane	1.7		ug/m3	0.7	TO-15		1/18/16 21:43	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
Isopropyl Alcohol	0.85		ug/m3	0.5	TO-15		1/18/16 21:43	ECB	A
Isopropylbenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		1/18/16 21:43	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
Methylene Chloride	6.1		ug/m3	0.7	TO-15		1/18/16 21:43	ECB	A
Naphthalene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
iso-Octane	ND		ug/m3	0.9	TO-15		1/18/16 21:43	ECB	A
n-Propylbenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Propylene	4.7		ug/m3	0.3	TO-15		1/18/16 21:43	ECB	A
Styrene	ND		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Tetrahydrofuran	ND		ug/m3	0.6	TO-15		1/18/16 21:43	ECB	A
Toluene	4.0		ug/m3	0.8	TO-15		1/18/16 21:43	ECB	A
Total Xylenes	5.1		ug/m3	3	TO-15		1/18/16 21:43	ECB	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Trichloroethene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
Trichlorofluoromethane	4.7		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,2,4-Trimethylbenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,3,5-Trimethylbenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A
1,2,3-Trimethylbenzene	ND		ug/m3	1	TO-15		1/18/16 21:43	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife
**United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York
**Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412003**

Date Collected: 1/12/2016 08:30

Matrix: Air

Sample ID: **V-3**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15		1/18/16 21:43	ECB	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15		1/18/16 21:43	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		1/18/16 21:43	ECB	A
o-Xylene	1.5		ug/m3	0.9	TO-15		1/18/16 21:43	ECB	A
mp-Xylene	3.5		ug/m3	2	TO-15		1/18/16 21:43	ECB	A
Acetone	66		ppbv	2.0	TO-15		1/15/16 02:34	ECB	A
Acrylonitrile	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Benzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Benzyl Chloride	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Bromoform	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,3-Butadiene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
n-Butane	0.92		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
2-Butanone	1.0		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
tert-Butyl Alcohol	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Carbon Disulfide	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Chloroethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Chloroform	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Chloromethane	0.28		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Cyclohexane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Dichlorodifluoromethane	0.33		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



### ANALYTICAL RESULTS

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412003**

Date Collected: 1/12/2016 08:30

Matrix: Air

Sample ID: **V-3**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15		1/18/16 21:43	ECB	A
Diisopropyl ether	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Ethanol	2.9		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Ethyl Acetate	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Ethylbenzene	0.20		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
4-Ethyltoluene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Freon 113	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Freon-114	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Heptane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Hexane	0.48		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Isopropyl Alcohol	0.35		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Isopropylbenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Methyl methacrylate	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Methylene Chloride	1.8		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
iso-Octane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
n-Propylbenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Propylene	2.7		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Styrene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Tetrahydrofuran	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Toluene	1.1		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Total Xylenes	1.2		ppbv	0.60	TO-15		1/18/16 21:43	ECB	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Trichlorofluoromethane	0.84		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife   
**United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York   
**Mexico:** Monterrey

**ANALYTICAL RESULTS**

Workorder: 2118412 TO15 (01/12/16)

Lab ID: **2118412003**

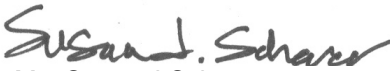
Date Collected: 1/12/2016 08:30

Matrix: Air

Sample ID: **V-3**

Date Received: 1/12/2016 17:10

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,2,4-Trimethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,3,5-Trimethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
1,2,3-Trimethylbenzene	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Vinyl Acetate	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Vinyl Bromide	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
o-Xylene	0.36		ppbv	0.20	TO-15		1/18/16 21:43	ECB	A
mp-Xylene	0.81		ppbv	0.40	TO-15		1/18/16 21:43	ECB	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	86		%	70 - 130	TO-15		1/18/16 21:43	ECB	A
4-Bromofluorobenzene (S)	91		%	70 - 130	TO-15		1/15/16 02:34	ECB	A



Ms. Susan J Scherer  
Project Coordinator

**ALS Environmental Laboratory Locations Across North America**

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# AIR ANALYSIS CHAIN-OF-CUSTODY/FIELD TEST DATA SHEET

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/SAMPLER.

## 1. CLIENT INFORMATION

Client Name/Address: **ARM Group**  
 1129 W Governor Rd HERSHEY, PA 17033  
 Contact: **Steve Fulton**  
 Phone#: **(717) 508-0521**  
 Project Name/#: **NorthPoint/Harley David son**  
 Bill To: **150274**  
 Normal Standard TAT is 10-12 business days.  
 Rush TAT subject to ALS approval and surcharges.  
 Approved By: \_\_\_\_\_  
 Email:  **SFulton@armgroup.net**  
 Fax: \_\_\_\_\_

## 2. ANALYSES/METHOD REQUESTED

NO.	10-15 ANALYSIS	STD LIST	JUST LIST	OTHER
1	X			
2	X			
3	X			
4				
5				
6				
7				
8				
9				
10				

## 3. LABORATORY

LABORATORY CAMISTER CERTIFIED BY: \_\_\_\_\_ RECEIVING INFORMATION: \_\_\_\_\_  
 GC/MS Analyst Signature: **Erin C Boyd**  
 Name: **Erin C Boyd**  
 Title: **SR GC/MS Analyst**  
 Custody Sealed Date/Time: **1/18/16 1145**  
 Date Shipped to Client: **1/18/16**  
 Custody Seal # (s): **# 2186**  
 Courier/Tracking #: \_\_\_\_\_

## 4. FIELD DATA SHEET

Sample Description/Location (as it will appear on the lab report)	Sample Type: Choose one: <input type="checkbox"/> No-refill air <input type="checkbox"/> No-refill soil <input type="checkbox"/> No-refill <input type="checkbox"/> No-refill	SAMPLE INFORMATION FOR TO-15			TO-15 FIELD DATA			LABORATORY RECORD		
		Start Time	Stop Time	Temp Deg C	Flow Controller No.	Canister Pressure (C/Hg) Start	Canister Pressure (C/Hg) Stop	Canister Certification File	Canister Pressure (C/Hg) Out	Canister Pressure (C/Hg) In
V-1	SS	1/12/16 13:05	13:15	X	1099 a	30	3.5	2121415	0.2	100
V-2	SS	1/12/16 8:51	9:00	X	1869 a	29	1.5	2121415	0.0	100
V-3	SS	1/12/16 8:20	8:30	X	1866 a	30	1.5	2121415	4.0	100
4										
5										
6										
7										
8										
9										
10										

## 5. SAMPLED BY (Please Print):

**John Brakeall**  
 Relinquished By / Company Name  
 1/12/16 17:10 **John Brakeall / ARM Group**  
 Date Time Received By / Company Name  
 1/12/16 17:10 **John Brakeall / ARM Group**  
 Date Time

## 6. PROJECT INFORMATION

LOGGED BY (signature): **SSchwarz**  
 REVIEWED BY (signature): \_\_\_\_\_  
 State Samples Collected In  
 NY  NJ  PA  NC  other  
 Deliverables  
 Standard  CLP-like  TO-15  
 DOD  Other  
 EDS+ Type:  
 Pickup  Labor  
 Other: \_\_\_\_\_



March 28, 2016

Mr. Steve Fulton  
ARM Group  
1129 W. Governor Road  
PO Box 797  
Hershey, PA 17033

## Certificate of Analysis

Project Name: <b>2016-NORTH POINT</b>	Workorder: <b>2131200</b>
Purchase Order:	Workorder ID: <b>TO15 (03/17/2016)</b>

Dear Mr. Fulton:

Enclosed are the analytical results for samples received by the laboratory on Thursday, March 17, 2016.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

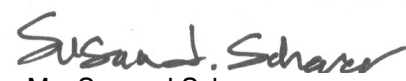
If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

  
Ms. Susan J Scherer  
Project Coordinator

### ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey



### SAMPLE SUMMARY

Workorder: 2131200 TO15 (03/17/2016)

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2131200001	S-1	Air	3/17/2016 14:20	3/17/2016 18:30	Mr. John Brakeall
2131200002	S-2	Air	3/17/2016 15:04	3/17/2016 18:30	Mr. John Brakeall
2131200003	S-3	Air	3/17/2016 15:50	3/17/2016 18:30	Mr. John Brakeall

#### Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

#### Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

### ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200001**

Date Collected: 3/17/2016 14:20

Matrix: Air

Sample ID: **S-1**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
<b>VOLATILE ORGANICS @ STP</b>										
Acetone	66		ug/m3	0.5	TO-15			3/24/16 23:47	ECB	A
Acrylonitrile	ND		ug/m3	0.4	TO-15			3/24/16 23:47	ECB	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
Benzene	3.5		ug/m3	0.6	TO-15			3/24/16 23:47	ECB	A
Benzyl Chloride	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Bromoform	ND		ug/m3	2	TO-15			3/24/16 23:47	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15			3/24/16 23:47	ECB	A
n-Butane	3.0		ug/m3	0.5	TO-15			3/24/16 23:47	ECB	A
2-Butanone	7.3		ug/m3	0.6	TO-15			3/24/16 23:47	ECB	A
tert-Butyl Alcohol	1.6		ug/m3	0.6	TO-15			3/24/16 23:47	ECB	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15			3/24/16 23:47	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15			3/24/16 23:47	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15			3/24/16 23:47	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15			3/24/16 23:47	ECB	A
Chloroform	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Chloromethane	0.84		ug/m3	0.4	TO-15			3/24/16 23:47	ECB	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15			3/24/16 23:47	ECB	A
o-Chlorotoluene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Cyclohexane	2.2		ug/m3	0.7	TO-15			3/24/16 23:47	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15			3/24/16 23:47	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Dichlorodifluoromethane	1.8		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
cis-1,2-Dichloroethene	1.2		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15			3/24/16 23:47	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/24/16 23:47	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/24/16 23:47	ECB	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15			3/24/16 23:47	ECB	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife
**United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York
**Mexico:** Monterrey



**ANALYTICAL RESULTS**

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200001**

Date Collected: 3/17/2016 14:20

Matrix: Air

Sample ID: **S-1**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15			3/24/16 23:47	ECB	A
Ethanol	57		ug/m3	0.4	TO-15			3/24/16 23:47	ECB	A
Ethyl Acetate	2.2		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
Ethylbenzene	5.3		ug/m3	0.9	TO-15			3/24/16 23:47	ECB	A
4-Ethyltoluene	1.2		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Freon 113	ND		ug/m3	2	TO-15			3/24/16 23:47	ECB	A
Freon-114	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Heptane	2.8		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15			3/24/16 23:47	ECB	A
Hexane	13		ug/m3	0.7	TO-15			3/24/16 23:47	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
Isopropyl Alcohol	4.4		ug/m3	0.5	TO-15			3/24/16 23:47	ECB	A
Isopropylbenzene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15			3/24/16 23:47	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
Methylene Chloride	8.5		ug/m3	0.7	TO-15			3/24/16 23:47	ECB	A
Naphthalene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
iso-Octane	6.9		ug/m3	0.9	TO-15			3/24/16 23:47	ECB	A
n-Propylbenzene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Propylene	1.9		ug/m3	0.3	TO-15			3/24/16 23:47	ECB	A
Styrene	ND		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Tetrachloroethene	70		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Tetrahydrofuran	5.7		ug/m3	0.6	TO-15			3/24/16 23:47	ECB	A
Toluene	26		ug/m3	0.8	TO-15			3/24/16 23:47	ECB	A
Total Xylenes	25		ug/m3	3	TO-15			3/24/16 23:47	ECB	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Trichloroethene	3.0		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
Trichlorofluoromethane	1.5		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,2,4-Trimethylbenzene	3.9		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,3,5-Trimethylbenzene	1.4		ug/m3	1	TO-15			3/24/16 23:47	ECB	A
1,2,3-Trimethylbenzene	1.0		ug/m3	1	TO-15			3/24/16 23:47	ECB	A

**ALS Environmental Laboratory Locations Across North America**

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200001**

Date Collected: 3/17/2016 14:20

Matrix: Air

Sample ID: **S-1**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15			3/24/16 23:47	ECB	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15			3/24/16 23:47	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			3/24/16 23:47	ECB	A
o-Xylene	7.3		ug/m3	0.9	TO-15			3/24/16 23:47	ECB	A
mp-Xylene	18		ug/m3	2	TO-15			3/24/16 23:47	ECB	A
Acetone	28		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Acrylonitrile	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Benzene	1.1		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Benzyl Chloride	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Bromoform	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,3-Butadiene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
n-Butane	1.2		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
2-Butanone	2.5		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
tert-Butyl Alcohol	0.54		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Carbon Disulfide	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Chloroethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Chloroform	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Chloromethane	0.41		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Cyclohexane	0.64		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Dichlorodifluoromethane	0.36		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
cis-1,2-Dichloroethene	0.29		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A

#### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife   
**United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York   
**Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200001**

Date Collected: 3/17/2016 14:20

Matrix: Air

Sample ID: **S-1**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15			3/24/16 23:47	ECB	A
Diisopropyl ether	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Ethanol	30		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Ethyl Acetate	0.60		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Ethylbenzene	1.2		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
4-Ethyltoluene	0.25		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Freon 113	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Freon-114	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Heptane	0.69		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Hexane	3.6		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Isopropyl Alcohol	1.8		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Isopropylbenzene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Methyl methacrylate	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Methylene Chloride	2.4		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
iso-Octane	1.5		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
n-Propylbenzene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Propylene	1.1		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Styrene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Tetrachloroethene	10		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Tetrahydrofuran	1.9		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Toluene	7.0		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Total Xylenes	5.7		ppbv	0.60	TO-15			3/24/16 23:47	ECB	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Trichloroethene	0.56		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Trichlorofluoromethane	0.26		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A

#### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200001**

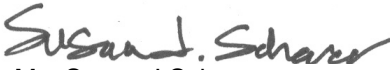
Date Collected: 3/17/2016 14:20

Matrix: Air

Sample ID: **S-1**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,2,4-Trimethylbenzene	0.79		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,3,5-Trimethylbenzene	0.29		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
1,2,3-Trimethylbenzene	0.21		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Vinyl Acetate	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Vinyl Bromide	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
o-Xylene	1.7		ppbv	0.20	TO-15			3/24/16 23:47	ECB	A
mp-Xylene	4.1		ppbv	0.40	TO-15			3/24/16 23:47	ECB	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15			3/24/16 23:47	ECB	A



Ms. Susan J Scherer  
Project Coordinator

#### ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200002**

Date Collected: 3/17/2016 15:04

Matrix: Air

Sample ID: **S-2**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
<b>VOLATILE ORGANICS @ STP</b>										
Acetone	92		ug/m3	0.5	TO-15			3/24/16 20:47	ECB	A
Acrylonitrile	ND		ug/m3	0.4	TO-15			3/24/16 20:47	ECB	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
Benzene	2.5		ug/m3	0.6	TO-15			3/24/16 20:47	ECB	A
Benzyl Chloride	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Bromoform	ND		ug/m3	2	TO-15			3/24/16 20:47	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15			3/24/16 20:47	ECB	A
n-Butane	6.1		ug/m3	0.5	TO-15			3/24/16 20:47	ECB	A
2-Butanone	8.6		ug/m3	0.6	TO-15			3/24/16 20:47	ECB	A
tert-Butyl Alcohol	1.8		ug/m3	0.6	TO-15			3/24/16 20:47	ECB	A
Carbon Disulfide	ND		ug/m3	0.6	TO-15			3/24/16 20:47	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15			3/24/16 20:47	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15			3/24/16 20:47	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15			3/24/16 20:47	ECB	A
Chloroform	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Chloromethane	ND		ug/m3	0.4	TO-15			3/24/16 20:47	ECB	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15			3/24/16 20:47	ECB	A
o-Chlorotoluene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Cyclohexane	1.9		ug/m3	0.7	TO-15			3/24/16 20:47	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15			3/24/16 20:47	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Dichlorodifluoromethane	1.9		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15			3/24/16 20:47	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/24/16 20:47	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/24/16 20:47	ECB	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15			3/24/16 20:47	ECB	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200002**

Date Collected: 3/17/2016 15:04

Matrix: Air

Sample ID: **S-2**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15			3/24/16 20:47	ECB	A
Ethanol	64		ug/m3	0.4	TO-15			3/24/16 20:47	ECB	A
Ethyl Acetate	2.4		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
Ethylbenzene	5.4		ug/m3	0.9	TO-15			3/24/16 20:47	ECB	A
4-Ethyltoluene	1.3		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Freon 113	ND		ug/m3	2	TO-15			3/24/16 20:47	ECB	A
Freon-114	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Heptane	2.3		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15			3/24/16 20:47	ECB	A
Hexane	9.5		ug/m3	0.7	TO-15			3/24/16 20:47	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
Isopropyl Alcohol	4.9		ug/m3	0.5	TO-15			3/24/16 20:47	ECB	A
Isopropylbenzene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15			3/24/16 20:47	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
Methylene Chloride	7.5		ug/m3	0.7	TO-15			3/24/16 20:47	ECB	A
Naphthalene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
iso-Octane	6.8		ug/m3	0.9	TO-15			3/24/16 20:47	ECB	A
n-Propylbenzene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Propylene	15		ug/m3	0.3	TO-15			3/24/16 20:47	ECB	A
Styrene	ND		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Tetrahydrofuran	5.9		ug/m3	0.6	TO-15			3/24/16 20:47	ECB	A
Toluene	29		ug/m3	0.8	TO-15			3/24/16 20:47	ECB	A
Total Xylenes	27		ug/m3	3	TO-15			3/24/16 20:47	ECB	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Trichloroethene	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
Trichlorofluoromethane	1.4		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,2,4-Trimethylbenzene	4.9		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,3,5-Trimethylbenzene	1.6		ug/m3	1	TO-15			3/24/16 20:47	ECB	A
1,2,3-Trimethylbenzene	1.2		ug/m3	1	TO-15			3/24/16 20:47	ECB	A

#### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife
**United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York
**Mexico:** Monterrey



### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200002**

Date Collected: 3/17/2016 15:04

Matrix: Air

Sample ID: **S-2**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15			3/24/16 20:47	ECB	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15			3/24/16 20:47	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			3/24/16 20:47	ECB	A
o-Xylene	7.7		ug/m3	0.9	TO-15			3/24/16 20:47	ECB	A
mp-Xylene	19		ug/m3	2	TO-15			3/24/16 20:47	ECB	A
Acetone	39		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Acrylonitrile	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Benzene	0.79		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Benzyl Chloride	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Bromoform	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,3-Butadiene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
n-Butane	2.6		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
2-Butanone	2.9		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
tert-Butyl Alcohol	0.60		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Carbon Disulfide	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Chloroethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Chloroform	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Chloromethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Cyclohexane	0.56		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Dichlorodifluoromethane	0.38		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200002**

Date Collected: 3/17/2016 15:04

Matrix: Air

Sample ID: **S-2**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15			3/24/16 20:47	ECB	A
Diisopropyl ether	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Ethanol	34		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Ethyl Acetate	0.65		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Ethylbenzene	1.2		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
4-Ethyltoluene	0.27		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Freon 113	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Freon-114	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Heptane	0.56		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Hexane	2.7		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Isopropyl Alcohol	2.0		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Isopropylbenzene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Methyl methacrylate	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Methylene Chloride	2.2		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
iso-Octane	1.4		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
n-Propylbenzene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Propylene	8.8		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Styrene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Tetrahydrofuran	2.0		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Toluene	7.6		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Total Xylenes	6.2		ppbv	0.60	TO-15			3/24/16 20:47	ECB	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Trichlorofluoromethane	0.25		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A

#### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**ANALYTICAL RESULTS**

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200002**

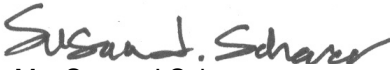
Date Collected: 3/17/2016 15:04

Matrix: Air

Sample ID: **S-2**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,2,4-Trimethylbenzene	0.99		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,3,5-Trimethylbenzene	0.32		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
1,2,3-Trimethylbenzene	0.23		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Vinyl Acetate	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Vinyl Bromide	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
o-Xylene	1.8		ppbv	0.20	TO-15			3/24/16 20:47	ECB	A
mp-Xylene	4.4		ppbv	0.40	TO-15			3/24/16 20:47	ECB	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	102		%	70 - 130	TO-15			3/24/16 20:47	ECB	A



Ms. Susan J Scherer  
Project Coordinator

**ALS Environmental Laboratory Locations Across North America**

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200003**

Date Collected: 3/17/2016 15:50

Matrix: Air

Sample ID: **S-3**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
<b>VOLATILE ORGANICS @ STP</b>										
Acetone	150		ug/m3	5	TO-15			3/24/16 23:01	ECB	A
Acrylonitrile	ND		ug/m3	0.4	TO-15			3/24/16 22:17	ECB	A
tert-Amyl methyl ether	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
Benzene	3.6		ug/m3	0.6	TO-15			3/24/16 22:17	ECB	A
Benzyl Chloride	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Bromodichloromethane	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Bromoform	ND		ug/m3	2	TO-15			3/24/16 22:17	ECB	A
Bromomethane	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
1,3-Butadiene	ND		ug/m3	0.4	TO-15			3/24/16 22:17	ECB	A
n-Butane	8.9		ug/m3	0.5	TO-15			3/24/16 22:17	ECB	A
2-Butanone	16		ug/m3	0.6	TO-15			3/24/16 22:17	ECB	A
tert-Butyl Alcohol	1.0		ug/m3	0.6	TO-15			3/24/16 22:17	ECB	A
Carbon Disulfide	4.1		ug/m3	0.6	TO-15			3/24/16 22:17	ECB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15			3/24/16 22:17	ECB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15			3/24/16 22:17	ECB	A
Chloroethane	ND		ug/m3	0.5	TO-15			3/24/16 22:17	ECB	A
Chloroform	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Chloromethane	ND		ug/m3	0.4	TO-15			3/24/16 22:17	ECB	A
3-Chloro-1-propene	ND		ug/m3	0.6	TO-15			3/24/16 22:17	ECB	A
o-Chlorotoluene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Cyclohexane	0.99		ug/m3	0.7	TO-15			3/24/16 22:17	ECB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15			3/24/16 22:17	ECB	A
1,2-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,3-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Dichlorodifluoromethane	1.8		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15			3/24/16 22:17	ECB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/24/16 22:17	ECB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15			3/24/16 22:17	ECB	A
1,3-Dichloropropene, Total	ND		ug/m3	2	TO-15			3/24/16 22:17	ECB	A
Diisopropyl ether	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200003**

Date Collected: 3/17/2016 15:50

Matrix: Air

Sample ID: **S-3**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,4-Dioxane	ND		ug/m3	0.7	TO-15			3/24/16 22:17	ECB	A
Ethanol	20		ug/m3	0.4	TO-15			3/24/16 22:17	ECB	A
Ethyl Acetate	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
Ethyl tert-butyl ether	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
Ethylbenzene	8.1		ug/m3	0.9	TO-15			3/24/16 22:17	ECB	A
4-Ethyltoluene	2.6		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Freon 113	ND		ug/m3	2	TO-15			3/24/16 22:17	ECB	A
Freon-114	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Heptane	1.9		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15			3/24/16 22:17	ECB	A
Hexane	5.3		ug/m3	0.7	TO-15			3/24/16 22:17	ECB	A
2-Hexanone	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
Isopropyl Alcohol	2.5		ug/m3	0.5	TO-15			3/24/16 22:17	ECB	A
Isopropylbenzene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
p-Isopropyltoluene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Methyl Methacrylate	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15			3/24/16 22:17	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
Methylene Chloride	4.3		ug/m3	0.7	TO-15			3/24/16 22:17	ECB	A
Naphthalene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
iso-Octane	ND		ug/m3	0.9	TO-15			3/24/16 22:17	ECB	A
n-Propylbenzene	1.6		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Propylene	9.7		ug/m3	0.3	TO-15			3/24/16 22:17	ECB	A
Styrene	ND		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Tetrahydrofuran	2.0		ug/m3	0.6	TO-15			3/24/16 22:17	ECB	A
Toluene	51		ug/m3	0.8	TO-15			3/24/16 22:17	ECB	A
Total Xylenes	40		ug/m3	3	TO-15			3/24/16 22:17	ECB	A
1,2,4-Trichlorobenzene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Trichloroethene	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,2,3-Trichloropropane	ND		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,2,4-Trimethylbenzene	8.9		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,3,5-Trimethylbenzene	2.4		ug/m3	1	TO-15			3/24/16 22:17	ECB	A
1,2,3-Trimethylbenzene	2.2		ug/m3	1	TO-15			3/24/16 22:17	ECB	A

#### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife
**United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York
**Mexico:** Monterrey



### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200003**

Date Collected: 3/17/2016 15:50

Matrix: Air

Sample ID: **S-3**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Acetate	ND		ug/m3	0.7	TO-15			3/24/16 22:17	ECB	A
Vinyl Bromide	ND		ug/m3	0.9	TO-15			3/24/16 22:17	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			3/24/16 22:17	ECB	A
o-Xylene	10		ug/m3	0.9	TO-15			3/24/16 22:17	ECB	A
mp-Xylene	30		ug/m3	2	TO-15			3/24/16 22:17	ECB	A
Acetone	64		ppbv	2.0	TO-15			3/24/16 23:01	ECB	A
Acrylonitrile	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
tert-Amyl methyl ether	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Benzene	1.1		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Benzyl Chloride	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Bromoform	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Bromomethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,3-Butadiene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
n-Butane	3.8		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
2-Butanone	5.3		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
tert-Butyl Alcohol	0.33		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Carbon Disulfide	1.3		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Chlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Chloroethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Chloroform	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Chloromethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
3-Chloro-1-propene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
o-Chlorotoluene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Cyclohexane	0.29		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,2-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,3-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Dichlorodifluoromethane	0.36		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A

### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



### ANALYTICAL RESULTS

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200003**

Date Collected: 3/17/2016 15:50

Matrix: Air

Sample ID: **S-3**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,3-Dichloropropene, Total	ND		ppbv	0.40	TO-15			3/24/16 22:17	ECB	A
Diisopropyl ether	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Ethanol	10		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Ethyl Acetate	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Ethyl tert-butyl ether	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Ethylbenzene	1.9		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
4-Ethyltoluene	0.53		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Freon 113	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Freon-114	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Heptane	0.46		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Hexane	1.5		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
2-Hexanone	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Isopropyl Alcohol	1.0		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Isopropylbenzene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
p-Isopropyltoluene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Methyl methacrylate	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Methylene Chloride	1.2		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Naphthalene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
iso-Octane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
n-Propylbenzene	0.32		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Propylene	5.6		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Styrene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Tetrahydrofuran	0.68		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Toluene	13		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Total Xylenes	9.2		ppbv	0.60	TO-15			3/24/16 22:17	ECB	A
1,2,4-Trichlorobenzene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A

#### ALS Environmental Laboratory Locations Across North America

**Canada:** Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

**ANALYTICAL RESULTS**

Workorder: 2131200 TO15 (03/17/2016)

Lab ID: **2131200003**

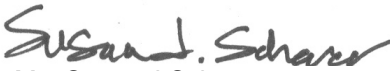
Date Collected: 3/17/2016 15:50

Matrix: Air

Sample ID: **S-3**

Date Received: 3/17/2016 18:30

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2,3-Trichloropropane	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,2,4-Trimethylbenzene	1.8		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,3,5-Trimethylbenzene	0.49		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
1,2,3-Trimethylbenzene	0.45		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Vinyl Acetate	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Vinyl Bromide	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
o-Xylene	2.3		ppbv	0.20	TO-15			3/24/16 22:17	ECB	A
mp-Xylene	6.9		ppbv	0.40	TO-15			3/24/16 22:17	ECB	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
4-Bromofluorobenzene (S)	92		%	70 - 130	TO-15			3/24/16 23:01	ECB	A
4-Bromofluorobenzene (S)	102		%	70 - 130	TO-15			3/24/16 22:17	ECB	A



Ms. Susan J Scherer  
Project Coordinator

**ALS Environmental Laboratory Locations Across North America**

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey



34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# AIR ANALYSIS CHAIN-OF-CUSTODY/FIELD TEST DATA SHEET

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/SAMPLER.

### 1. CLIENT INFORMATION

Client Name/Address: ARM Group  
Hershey, PA  
 Contact: Steve Fulton  
 Phone#: (717) 508-0321  
 Project Name/#: North Point / 150274  
 Bill To: North Point / 150274  
 Normal Standard TAT is 10-12 business days.  
 Rush TAT subject to ALS approval and surcharges.  
 Over Required: \_\_\_\_\_ Approved by: \_\_\_\_\_  
 Email/Fax?  Y  N SFulton@armgroup.net  
 Y No: \_\_\_\_\_

### 2. ANALYSES/METHOD REQUESTED

No.	TO-15 Analyte	STD LIST	UST LIST	OTHER
1	X			
2	X			
3	X			
4				
5				
6				
7				
8				
9				
10				

### 3. LABORATORY

LABORATORY CANISTER CERTIFIED BY: \_\_\_\_\_  
 GC/MS Analyst Signature: [Signature]  
 CANISTERS PREPARED BY: [Signature]  
 Name: Eric Boyd  
 Title: Chemist II  
 Custody Sealed Date/Time: 3/15/16 18:05  
 Date Shipped to Client: 3/16/16  
 Custody Seal #(s): A2329  
 Courier/Tracking #: \_\_\_\_\_

RECEIVING INFORMATION:  
 Y N Initial  
 COC Complete/Accurate?   PS  
 Labels Complete/Accurate?   PS  
 Cont. In Good Cond?   PS  
 Custody Seals Present?   PS  
 (If present Seals Impact?   PS  
 Returned in 5 days?   PS  
 Custody Seal #(s): \_\_\_\_\_  
 Courier/Tracking #: \_\_\_\_\_

### 4. FIELD DATA SHEET

Sample Description/Location (as it will appear on the lab report)	Sample Date	Start Time	Stop Time	Temp Deg C	1L	6L	Canister No.	TO-15 FIELD DATA		Flow Controller No.	Canister Pressure (Psi)	Canister Certification File	Canister Pressure (Psi)	Flow Controller Setpoint (mL/min)
								Flow Controller No.	Stop					
S-1	3/17/16	14:10	14:20		X		1866 a	ALSI #3	28	2	21031407	-18	99.2	
S-2	3/17/16	14:54	15:04		X		1862 a	7212000	31	3	21031407	0.0	99.2	
S-3	3/17/16	15:41	15:50		X		1968 a	7286512	28	1	21031407	-26	102.3	
4														
5														
6														
7														
8														
9														
10														

5. SAMPLED BY (Please Print): John Brakeall  
 LOGGED BY (signature): [Signature]  
 REVIEWED BY (signature): \_\_\_\_\_  
 Relinquished By / Company Name: John Brakeall / ARM Group  
 Date: 3/17/16 18:15  
 Received By / Company Name: PS  
 Date: 3/17 18:30  
 State Samples Collected In:  NY  NJ  PA  NC  other  
 Deliverables:  Standard  CLP-like  TO-15  
 DOD  Other  
 EDDs - Type:  Pickup  Labor  
 Other: \_\_\_\_\_

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057  
 Phone: 1-717-944-5541  
 Rev 03Mar2011

