



PO Bag 4000
 Vegreville, Alberta
 Canada T9C 1T4
 (780) 632-8211

ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

RESULTS: Karla Reesor Peace River Area Monitoring Program Committee INVOICE: Office Manager	403 807 2995 CLIENT SAMPLE ID PRAMP_986-20190320 (Background) DESCRIPTION: DATE SAMPLED: 19-Mar-19 8:00 REPORT CREATED: 24-Apr-19	CANISTER ID 28953 DATE RECEIVED: 27-Mar-19 REPORT NUMBER: 19030234 VERSION: Version 01	Matrix Ambient Air Priority Normal
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Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19030234-001	1-Butene	K, T, U	< 0.14 ppmv	0.14	NA-025	27-Mar-19
19030234-001	Acetylene	K, T, U	< 0.11 ppmv	0.11	NA-025	27-Mar-19
19030234-001	n-Butane	K, T, U	< 0.3 ppmv	0.3	NA-025	27-Mar-19
19030234-001	cis-2-Butene	K, T, U	< 0.06 ppmv	0.06	NA-025	27-Mar-19
19030234-001	Ethane	K, T, U	< 0.1 ppmv	0.1	NA-025	27-Mar-19
19030234-001	Ethylacetylene	K, T, U	< 0.08 ppmv	0.08	NA-025	27-Mar-19
19030234-001	Ethylene	K, T, U	< 0.10 ppmv	0.10	NA-025	27-Mar-19
19030234-001	Isobutane	K, T, U	< 0.1 ppmv	0.1	NA-025	27-Mar-19
19030234-001	Isobutylene	K, T, U	< 0.1 ppmv	0.1	NA-025	27-Mar-19
19030234-001	Methane		2.0 ppmv	0.1	NA-025	27-Mar-19
19030234-001	n-Propane	K, T, U	< 0.10 ppmv	0.10	NA-025	27-Mar-19
19030234-001	Propylene	K, T, U	< 0.1 ppmv	0.1	NA-025	27-Mar-19
19030234-001	Propyne	K, T, U	< 0.1 ppmv	0.1	NA-025	27-Mar-19
19030234-001	trans-2-Butene	K, T, U	< 0.13 ppmv	0.13	NA-025	27-Mar-19
19030234-001	2,5-Dimethylthiophene	K, T, U, Q	< 0.4 ppbv	0.4	NA-024	27-Mar-19
19030234-001	2-Ethylthiophene	K, T, U, Q	< 0.3 ppbv	0.3	NA-024	27-Mar-19
19030234-001	2-Methylthiophene	K, T, U, Q	< 0.3 ppbv	0.3	NA-024	27-Mar-19
19030234-001	3-Methylthiophene	K, T, U, Q	< 0.4 ppbv	0.4	NA-024	27-Mar-19

Report certified by: Graham Knox, Admin. & Ops. Supervisor

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: April 24, 2019

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
RAMP_986-20190320 (Background	28953	Ambient Air	19-Mar-19 8:00
DESCRIPTION:			
REPORT NUMBER: 19030234	REPORT CREATED: 24-Apr-19	VERSION: Version 01	

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19030234-001	Butyl mercaptan	K, T, U, Q	< 0.4 ppbv	0.4	NA-024	27-Mar-19
19030234-001	Carbon disulphide	K, T, U, Q	< 0.3 ppbv	0.3	NA-024	27-Mar-19
19030234-001	Carbonyl sulphide	Q	2.2 ppbv	0.4	NA-024	27-Mar-19
19030234-001	Dimethyl disulphide	K, T, U, Q	< 0.3 ppbv	0.3	NA-024	27-Mar-19
19030234-001	Dimethyl sulphide	K, T, U, Q	< 0.3 ppbv	0.3	NA-024	27-Mar-19
19030234-001	Ethyl mercaptan	K, T, U, Q	< 0.4 ppbv	0.4	NA-024	27-Mar-19
19030234-001	Ethyl sulphide	K, T, U, Q	< 0.4 ppbv	0.4	NA-024	27-Mar-19
19030234-001	Hydrogen sulphide	Q	1.9 ppbv	0.1	NA-024	27-Mar-19
19030234-001	Isobutyl mercaptan	K, T, U, Q	< 0.4 ppbv	0.4	NA-024	27-Mar-19
19030234-001	Isopropyl mercaptan	K, T, U, Q	< 0.4 ppbv	0.4	NA-024	27-Mar-19
19030234-001	Methyl mercaptan	K, T, U, Q	< 0.3 ppbv	0.3	NA-024	27-Mar-19
19030234-001	Pentyl mercaptan	K, T, U, Q	< 0.6 ppbv	0.6	NA-024	27-Mar-19
19030234-001	Propyl mercaptan	K, T, U, Q	< 0.6 ppbv	0.6	NA-024	27-Mar-19
19030234-001	tert-Butyl mercaptan	K, T, U, Q	< 0.4 ppbv	0.4	NA-024	27-Mar-19
19030234-001	Thiophene	K, T, U, Q	< 0.3 ppbv	0.3	NA-024	27-Mar-19
19030234-001	1,1,1-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1,1,2-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1,1-Dichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1,1-Dichloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	29-Mar-19
19030234-001	1,2,3-Trimethylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Mar-19
19030234-001	1,2,4-Trichlorobenzene	K, T, U	< 1.1 ppbv	1.1	AC-058	29-Mar-19
19030234-001	1,2,4-Trimethylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Mar-19
19030234-001	1,2-Dibromoethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1,2-Dichlorobenzene	K, T, U	< 0.04 ppbv	0.04	AC-058	29-Mar-19

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: April 24, 2019

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RAMP_986-20190320 (Background	28953	Ambient Air	19-Mar-19 8:00
DESCRIPTION:			
REPORT NUMBER:	19030234	REPORT CREATED:	24-Apr-19
			VERSION: Version 01

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19030234-001	1,2-Dichloroethane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	1,2-Dichloropropane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	1,3,5-Trimethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1,3-Butadiene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1,3-Dichlorobenzene	K, T, U	< 0.4 ppbv	0.4	AC-058	29-Mar-19
19030234-001	1,4-Dichlorobenzene	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	1,4-Dioxane	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	1-Butene/Isobutylene	I	0.13 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	1-Pentene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	2,2,4-Trimethylpentane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	2,2-Dimethylbutane		0.06 ppbv	0.01	AC-058	29-Mar-19
19030234-001	2,3,4-Trimethylpentane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	2,3-Dimethylbutane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	2,3-Dimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	2,4-Dimethylpentane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	2-Methylheptane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	2-Methylhexane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	2-Methylpentane		0.20 ppbv	0.01	AC-058	29-Mar-19
19030234-001	3-Methylheptane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	3-Methylhexane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	3-Methylpentane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Acetone		8.1 ppbv	0.6	AC-058	29-Mar-19
19030234-001	Acrolein	K, T, U	< 0.4 ppbv	0.4	AC-058	29-Mar-19
19030234-001	Benzene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19

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Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19030234-001	Benzyl chloride	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	Bromodichloromethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Bromoform	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Bromomethane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Carbon disulfide	I	0.05 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Carbon tetrachloride	I	0.08 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Chlorobenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Chloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Chloroform	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Chloromethane		0.49 ppbv	0.03	AC-058	29-Mar-19
19030234-001	cis-1,2-Dichloroethene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	cis-1,3-Dichloropropene	K, T, U	< 0.06 ppbv	0.06	AC-058	29-Mar-19
19030234-001	cis-2-Butene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	cis-2-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Cyclohexane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Cyclopentane		25.5 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Dibromochloromethane	I	0.04 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Ethanol		2.2 ppbv	0.4	AC-058	29-Mar-19
19030234-001	Ethyl acetate	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	Ethylbenzene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Freon-11	I	0.20 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Freon-113	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Freon-114	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Freon-12	I	0.40 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Hexachloro-1,3-butadiene	K, T, U	< 0.70 ppbv	0.70	AC-058	29-Mar-19

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19030234-001	Isobutane		0.87 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Isopentane		1.68 ppbv	0.04	AC-058	29-Mar-19
19030234-001	Isoprene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Isopropyl alcohol	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	Isopropylbenzene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	m,p-Xylene	K, T, U	< 0.04 ppbv	0.04	AC-058	29-Mar-19
19030234-001	m-Diethylbenzene	K, T, U	< 0.06 ppbv	0.06	AC-058	29-Mar-19
19030234-001	m-Ethyltoluene	K, T, U	< 0.11 ppbv	0.11	AC-058	29-Mar-19
19030234-001	Methyl butyl ketone	K, T, U	< 0.70 ppbv	0.70	AC-058	29-Mar-19
19030234-001	Methyl ethyl ketone	K, T, U	< 0.4 ppbv	0.4	AC-058	29-Mar-19
19030234-001	Methyl isobutyl ketone	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	Methyl methacrylate	K, T, U	< 0.10 ppbv	0.10	AC-058	29-Mar-19
19030234-001	Methyl tert butyl ether	K, T, U	< 0.04 ppbv	0.04	AC-058	29-Mar-19
19030234-001	Methylcyclohexane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	Methylcyclopentane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Methylene chloride	K, T, U	< 0.4 ppbv	0.4	AC-058	29-Mar-19
19030234-001	n-Butane		1.94 ppbv	0.04	AC-058	29-Mar-19
19030234-001	n-Decane	K, T, U	< 0.08 ppbv	0.08	AC-058	29-Mar-19
19030234-001	n-Dodecane	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	n-Heptane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	n-Hexane		0.03 ppbv	0.01	AC-058	29-Mar-19
19030234-001	n-Octane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	n-Pentane		1.0 ppbv	0.1	AC-058	29-Mar-19
19030234-001	n-Propylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Mar-19
19030234-001	n-Undecane	K, T, U	< 0.7 ppbv	0.7	AC-058	29-Mar-19

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

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CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
RAMP_986-20190320 (Background	28953	Ambient Air	19-Mar-19 8:00
DESCRIPTION:			
REPORT NUMBER: 19030234	REPORT CREATED: 24-Apr-19	VERSION: Version 01	

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19030234-001	Naphthalene	K, T, U	< 0.7 ppbv	0.7	AC-058	29-Mar-19
19030234-001	n-Nonane	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	o-Ethyltoluene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	o-Xylene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	p-Diethylbenzene	K, T, U	< 0.06 ppbv	0.06	AC-058	29-Mar-19
19030234-001	p-Ethyltoluene	K, T, U	< 0.10 ppbv	0.10	AC-058	29-Mar-19
19030234-001	Styrene	K, T, U	< 0.06 ppbv	0.06	AC-058	29-Mar-19
19030234-001	Tetrachloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	29-Mar-19
19030234-001	Tetrahydrofuran	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	Toluene		0.17 ppbv	0.01	AC-058	29-Mar-19
19030234-001	trans-1,2-Dichloroethylene	I	0.14 ppbv	0.01	AC-058	29-Mar-19
19030234-001	trans-1,3-Dichloropropylene	K, T, U	< 0.06 ppbv	0.06	AC-058	29-Mar-19
19030234-001	trans-2-Butene	K, T, U	< 0.01 ppbv	0.01	AC-058	29-Mar-19
19030234-001	trans-2-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19
19030234-001	Trichloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	29-Mar-19
19030234-001	Vinyl acetate	K, T, U	< 0.6 ppbv	0.6	AC-058	29-Mar-19
19030234-001	Vinyl chloride	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Mar-19



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 7 of 12

Revision History

Order ID	Ver	Date	Reason
19030234	01	24-Apr-19	Report created



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 8 of 12

Methods

Method	Description
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-024	Analysis for Reduced Sulfur Compounds in Air Samples
NA-025	Determination of Light Hydrocarbons (C1C4) in Ambient Air by Gas Chromatography Flame Ionization Detector

Qualifiers

Data Qualifier Translation

B	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
K	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
N	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
T	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



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ENVIRONMENTAL ANALYTICAL SERVICES

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Page 10 of 12

Order Comments

19030234

Send results to Pramp tech. Unknowns to be reported.



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 11 of 12

Sample Comments

19030234-001

RSC past hold time due to late submission from client.



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Page 12 of 12

Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.*
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.*