



PO Bag 4000
Vegreville, Alberta
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(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: 986b-20181209 DESCRIPTION: Three Creeks - 986b Station DATE SAMPLED: 09-Dec-18 20:25 REPORT CREATED: 07-Jan-19	CANISTER ID: B1938 DATE RECEIVED: 11-Dec-18 REPORT NUMBER: 18120103 VERSION: Version 01	Matrix: Ambient Air Priority: Normal
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Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
18120103-001	1-Butene	K, T, U	< 0.14	ppmv	0.14	NA-025	13-Dec-18
18120103-001	Acetylene	K, T, U	< 0.12	ppmv	0.12	NA-025	13-Dec-18
18120103-001	n-Butane	K, T, U	< 0.3	ppmv	0.3	NA-025	13-Dec-18
18120103-001	cis-2-Butene	K, T, U	< 0.06	ppmv	0.06	NA-025	13-Dec-18
18120103-001	Ethane	K, T, U	< 0.1	ppmv	0.1	NA-025	13-Dec-18
18120103-001	Ethylacetylene	K, T, U	< 0.09	ppmv	0.09	NA-025	13-Dec-18
18120103-001	Ethylene	K, T, U	< 0.10	ppmv	0.10	NA-025	13-Dec-18
18120103-001	Isobutane	K, T, U	< 0.1	ppmv	0.1	NA-025	13-Dec-18
18120103-001	Isobutylene	K, T, U	< 0.1	ppmv	0.1	NA-025	13-Dec-18
18120103-001	Methane		2.0	ppmv	0.1	NA-025	13-Dec-18
18120103-001	n-Propane	K, T, U	< 0.10	ppmv	0.10	NA-025	13-Dec-18
18120103-001	Propylene	K, T, U	< 0.1	ppmv	0.1	NA-025	13-Dec-18
18120103-001	Propyne	K, T, U	< 0.1	ppmv	0.1	NA-025	13-Dec-18
18120103-001	trans-2-Butene	K, T, U	< 0.13	ppmv	0.13	NA-025	13-Dec-18
18120103-001	2,5-Dimethylthiophene	K, T, U	< 0.4	ppbv	0.4	NA-024	11-Dec-18
18120103-001	2-Ethylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	11-Dec-18
18120103-001	2-Methylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	11-Dec-18
18120103-001	3-Methylthiophene	K, T, U	< 0.4	ppbv	0.4	NA-024	11-Dec-18

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

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

Date: January 7, 2019

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID 986b-20181209	CANISTER ID B1938	Matrix Ambient Air	DATE SAMPLED 09-Dec-18 20:25
DESCRIPTION: Three Creeks - 986b Station			
REPORT NUMBER: 18120103	REPORT CREATED: 07-Jan-19	VERSION: Version 01	

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
18120103-001	Butyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	11-Dec-18
18120103-001	Carbon disulphide		2.0 ppbv	0.3	NA-024	11-Dec-18
18120103-001	Carbonyl sulphide		4.1 ppbv	0.4	NA-024	11-Dec-18
18120103-001	Dimethyl disulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	11-Dec-18
18120103-001	Dimethyl sulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	11-Dec-18
18120103-001	Ethyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	11-Dec-18
18120103-001	Ethyl sulphide	K, T, U	< 0.4 ppbv	0.4	NA-024	11-Dec-18
18120103-001	Hydrogen sulphide		1.5 ppbv	0.1	NA-024	11-Dec-18
18120103-001	Isobutyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	11-Dec-18
18120103-001	Isopropyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	11-Dec-18
18120103-001	Methyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	11-Dec-18
18120103-001	Pentyl mercaptan	K, T, U	< 0.6 ppbv	0.6	NA-024	11-Dec-18
18120103-001	Propyl mercaptan	K, T, U	< 0.6 ppbv	0.6	NA-024	11-Dec-18
18120103-001	tert-Butyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	11-Dec-18
18120103-001	Thiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	11-Dec-18
18120103-001	1,1,1-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	19-Dec-18
18120103-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	19-Dec-18
18120103-001	1,1,2-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	19-Dec-18
18120103-001	1,1-Dichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	19-Dec-18
18120103-001	1,1-Dichloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	19-Dec-18
18120103-001	1,2,3-Trimethylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	19-Dec-18
18120103-001	1,2,4-Trichlorobenzene	K, T, U	< 1.2 ppbv	1.2	AC-058	19-Dec-18
18120103-001	1,2,4-Trimethylbenzene		0.11 ppbv	0.07	AC-058	19-Dec-18
18120103-001	1,2-Dibromoethane	K, T, U	< 0.03 ppbv	0.03	AC-058	19-Dec-18
18120103-001	1,2-Dichlorobenzene	K, T, U	< 0.04 ppbv	0.04	AC-058	19-Dec-18

Report certified by: Rebecca Holgate, Account Coordinator

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

Date: January 7, 2019

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED	
986b-20181209	B1938	Ambient Air	09-Dec-18	20:25
DESCRIPTION:	Three Creeks - 986b Station			
REPORT NUMBER:	18120103	REPORT CREATED:	07-Jan-19	VERSION: Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
18120103-001	1,2-Dichloroethane	I	0.05	ppbv	0.01	AC-058	19-Dec-18
18120103-001	1,2-Dichloropropane	I	0.05	ppbv	0.01	AC-058	19-Dec-18
18120103-001	1,3,5-Trimethylbenzene		0.15	ppbv	0.03	AC-058	19-Dec-18
18120103-001	1,3-Butadiene	I	0.42	ppbv	0.03	AC-058	19-Dec-18
18120103-001	1,3-Dichlorobenzene	K, T, U	< 0.4	ppbv	0.4	AC-058	19-Dec-18
18120103-001	1,4-Dichlorobenzene	K, T, U	< 0.6	ppbv	0.6	AC-058	19-Dec-18
18120103-001	1,4-Dioxane	K, T, U	< 0.6	ppbv	0.6	AC-058	19-Dec-18
18120103-001	1-Butene/Isobutylene		2.15	ppbv	0.03	AC-058	19-Dec-18
18120103-001	1-Hexene/2-Methyl-1-pentene	I	0.31	ppbv	0.03	AC-058	19-Dec-18
18120103-001	1-Pentene		0.33	ppbv	0.01	AC-058	19-Dec-18
18120103-001	2,2,4-Trimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	19-Dec-18
18120103-001	2,2-Dimethylbutane		0.14	ppbv	0.01	AC-058	19-Dec-18
18120103-001	2,3,4-Trimethylpentane		0.04	ppbv	0.01	AC-058	19-Dec-18
18120103-001	2,3-Dimethylbutane		0.14	ppbv	0.03	AC-058	19-Dec-18
18120103-001	2,3-Dimethylpentane		0.19	ppbv	0.03	AC-058	19-Dec-18
18120103-001	2,4-Dimethylpentane		0.12	ppbv	0.01	AC-058	19-Dec-18
18120103-001	2-Methylheptane		0.18	ppbv	0.01	AC-058	19-Dec-18
18120103-001	2-Methylhexane		0.25	ppbv	0.01	AC-058	19-Dec-18
18120103-001	2-Methylpentane		0.42	ppbv	0.01	AC-058	19-Dec-18
18120103-001	3-Methylheptane		0.07	ppbv	0.03	AC-058	19-Dec-18
18120103-001	3-Methylhexane		0.17	ppbv	0.03	AC-058	19-Dec-18
18120103-001	3-Methylpentane		0.31	ppbv	0.01	AC-058	19-Dec-18
18120103-001	Acetone		25.6	ppbv	0.6	AC-058	19-Dec-18
18120103-001	Acrolein		1.7	ppbv	0.4	AC-058	19-Dec-18
18120103-001	Benzene		1.95	ppbv	0.01	AC-058	19-Dec-18

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CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED	
986b-20181209	B1938	Ambient Air	09-Dec-18	20:25
DESCRIPTION:	Three Creeks - 986b Station			
REPORT NUMBER:	18120103	REPORT CREATED:	07-Jan-19	VERSION: Version 01

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
18120103-001	Benzyl chloride	K, T, U	< 0.6	ppbv	0.6	AC-058	19-Dec-18
18120103-001	Bromodichloromethane	K, T, U	< 0.03	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Bromoform	K, T, U	< 0.03	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Bromomethane	K, T, U	< 0.01	ppbv	0.01	AC-058	19-Dec-18
18120103-001	Carbon disulfide	I	0.21	ppbv	0.01	AC-058	19-Dec-18
18120103-001	Carbon tetrachloride	I	0.09	ppbv	0.01	AC-058	19-Dec-18
18120103-001	Chlorobenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Chloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Chloroform	K, T, U	< 0.03	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Chloromethane		0.79	ppbv	0.03	AC-058	19-Dec-18
18120103-001	cis-1,2-Dichloroethene	K, T, U	< 0.01	ppbv	0.01	AC-058	19-Dec-18
18120103-001	cis-1,3-Dichloropropene	K, T, U	< 0.06	ppbv	0.06	AC-058	19-Dec-18
18120103-001	cis-2-Butene		0.23	ppbv	0.03	AC-058	19-Dec-18
18120103-001	cis-2-Pentene		2.36	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Cyclohexane		0.43	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Cyclopentane		0.08	ppbv	0.01	AC-058	19-Dec-18
18120103-001	Dibromochloromethane	K, T, U	< 0.01	ppbv	0.01	AC-058	19-Dec-18
18120103-001	Ethanol		9.1	ppbv	0.4	AC-058	19-Dec-18
18120103-001	Ethyl acetate	K, T, U	< 0.6	ppbv	0.6	AC-058	19-Dec-18
18120103-001	Ethylbenzene		0.38	ppbv	0.01	AC-058	19-Dec-18
18120103-001	Freon-11	I	0.37	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Freon-113	I	0.12	ppbv	0.01	AC-058	19-Dec-18
18120103-001	Freon-114	I	0.08	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Freon-12		0.54	ppbv	0.03	AC-058	19-Dec-18
18120103-001	Hexachloro-1,3-butadiene	K, T, U	< 0.72	ppbv	0.72	AC-058	19-Dec-18

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CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED
986b-20181209	B1938	Ambient Air	09-Dec-18 20:25
DESCRIPTION:	Three Creeks - 986b Station		
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			VERSION: Version 01

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
18120103-001	Isobutane		1.51 ppbv	0.03	AC-058	19-Dec-18
18120103-001	Isopentane		0.48 ppbv	0.04	AC-058	19-Dec-18
18120103-001	Isoprene		0.22 ppbv	0.01	AC-058	19-Dec-18
18120103-001	Isopropyl alcohol		1.1 ppbv	0.6	AC-058	19-Dec-18
18120103-001	Isopropylbenzene		0.10 ppbv	0.01	AC-058	19-Dec-18
18120103-001	m,p-Xylene		0.50 ppbv	0.04	AC-058	19-Dec-18
18120103-001	m-Diethylbenzene	K, T, U	< 0.06 ppbv	0.06	AC-058	19-Dec-18
18120103-001	m-Ethyltoluene	I	0.16 ppbv	0.12	AC-058	19-Dec-18
18120103-001	Methyl butyl ketone	K, T, U	< 0.72 ppbv	0.72	AC-058	19-Dec-18
18120103-001	Methyl ethyl ketone		5.1 ppbv	0.4	AC-058	19-Dec-18
18120103-001	Methyl isobutyl ketone		0.9 ppbv	0.6	AC-058	19-Dec-18
18120103-001	Methyl methacrylate	K, T, U	< 0.10 ppbv	0.10	AC-058	19-Dec-18
18120103-001	Methyl tert butyl ether	K, T, U	< 0.04 ppbv	0.04	AC-058	19-Dec-18
18120103-001	Methylcyclohexane		0.73 ppbv	0.01	AC-058	19-Dec-18
18120103-001	Methylcyclopentane		0.27 ppbv	0.03	AC-058	19-Dec-18
18120103-001	Methylene chloride	K, T, U	< 0.4 ppbv	0.4	AC-058	19-Dec-18
18120103-001	n-Butane		1.25 ppbv	0.04	AC-058	19-Dec-18
18120103-001	n-Decane	K, T, U	< 0.09 ppbv	0.09	AC-058	19-Dec-18
18120103-001	n-Dodecane	K, T, U	< 0.6 ppbv	0.6	AC-058	19-Dec-18
18120103-001	n-Heptane		0.50 ppbv	0.01	AC-058	19-Dec-18
18120103-001	n-Hexane		0.74 ppbv	0.01	AC-058	19-Dec-18
18120103-001	n-Octane		0.17 ppbv	0.03	AC-058	19-Dec-18
18120103-001	n-Pentane		0.7 ppbv	0.1	AC-058	19-Dec-18
18120103-001	n-Propylbenzene		0.16 ppbv	0.07	AC-058	19-Dec-18
18120103-001	n-Undecane	K, T, U	< 0.7 ppbv	0.7	AC-058	19-Dec-18

Report certified by: Rebecca Holgate, Account Coordinator

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

Date: January 7, 2019

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CLIENT SAMPLE ID	CANISTER ID	Matrix	DATE SAMPLED	
986b-20181209	B1938	Ambient Air	09-Dec-18	20:25
DESCRIPTION: Three Creeks - 986b Station				
REPORT NUMBER:	18120103	REPORT CREATED:	07-Jan-19	VERSION: Version 01

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
18120103-001	Naphthalene	K, T, U	< 0.7 ppbv	0.7	AC-058	19-Dec-18
18120103-001	n-Nonane		0.15 ppbv	0.01	AC-058	19-Dec-18
18120103-001	o-Ethyltoluene	I	0.12 ppbv	0.01	AC-058	19-Dec-18
18120103-001	o-Xylene		0.25 ppbv	0.01	AC-058	19-Dec-18
18120103-001	p-Diethylbenzene	K, T, U	< 0.06 ppbv	0.06	AC-058	19-Dec-18
18120103-001	p-Ethyltoluene	I	0.11 ppbv	0.10	AC-058	19-Dec-18
18120103-001	Styrene	I	0.35 ppbv	0.06	AC-058	19-Dec-18
18120103-001	Tetrachloroethylene	I	0.17 ppbv	0.06	AC-058	19-Dec-18
18120103-001	Tetrahydrofuran	K, T, U	< 0.6 ppbv	0.6	AC-058	19-Dec-18
18120103-001	Toluene		1.33 ppbv	0.01	AC-058	19-Dec-18
18120103-001	trans-1,2-Dichloroethylene		1.37 ppbv	0.01	AC-058	19-Dec-18
18120103-001	trans-1,3-Dichloropropylene	K, T, U	< 0.06 ppbv	0.06	AC-058	19-Dec-18
18120103-001	trans-2-Butene		0.30 ppbv	0.01	AC-058	19-Dec-18
18120103-001	trans-2-Pentene		0.22 ppbv	0.03	AC-058	19-Dec-18
18120103-001	Trichloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	19-Dec-18
18120103-001	Vinyl acetate	K, T, U	< 0.6 ppbv	0.6	AC-058	19-Dec-18
18120103-001	Vinyl chloride	I	0.09 ppbv	0.03	AC-058	19-Dec-18



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Revision History

Order ID	Ver	Date	Reason
18120103	01	07-Jan-19	Report created



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Vegreville, Alberta
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ENVIRONMENTAL ANALYTICAL SERVICES

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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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Order Comments

18120103

Send results to Robert Fisher, and pramptech@prampairshed.ca.



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ENVIRONMENTAL ANALYTICAL SERVICES

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Sample Comments



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Result Comments

Note: Results relate only to items tested