

Your Project #: B849593
Your C.O.C. #: B849593-QUEV-01-01

Attention:
(SUBCONT) CUSTOMER SERVICE EBC

MAXXAM ANALYTICS
4606 Canada Way
Burnaby, BC
CANADA V5G 1K5

Report Date: 2018/06/28
Report #: R2379331
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B824563
Received: 2018/06/22, 09:15

Sample Matrix: WATER
Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Primary Reference
		Extracted	Analyzed		
Resin and Fatty Acids	1	2018/06/26	2018/06/28	STL SOP-00152	MA414-Aci-g-r-1.0R3m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Note: RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Note: All parameters included in the present certificate are accredited by the MDDELCC unless stated otherwise.

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Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Karima Dlimi, B.Sc., Chemist, Project Manager

Email: KDlimi@maxxam.ca

Phone# (514)448-9001 Ext:7066270

=====
This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B824563
Report Date: 2018/06/28

MAXXAM ANALYTICS
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RESIN AND FATTY ACIDS BY GCMS (WATER)

Maxxam ID		FL3235		
Sampling Date		2018/06/20 08:00		
COC Number		B849593-QUEV-01-01		
	Units	TR7084-COMMUNITY WELL #1	RDL	QC Batch
Palmitoleic acid †	ug/L	<3.0	3.0	1910407
Palmitic acid †	ug/L	<30	30	1910407
Linoleic acid	ug/L	<3.0	3.0	1910407
Linolenic acid	ug/L	<3.0	3.0	1910407
Oleic acid	ug/L	<3.0	3.0	1910407
Stearic acid	ug/L	<30	30	1910407
9,10-Dichlorostearic acid	ug/L	<3.0	3.0	1910407
Total Fatty Acids	ug/L	<30	30	1910407
Pimaric acid	ug/L	<3.0	3.0	1910407
Sandaracopimaric acid	ug/L	<3.0	3.0	1910407
Isopimaric acid	ug/L	<3.0	3.0	1910407
Palustric acid	ug/L	<3.0	3.0	1910407
Levopimaric acid	ug/L	<3.0	3.0	1910407
Dehydroabietic acid	ug/L	<5.0	5.0	1910407
Abietic acid	ug/L	<5.0	5.0	1910407
Neoabietic acid	ug/L	<3.0	3.0	1910407
14-Chlorodehydroabietic acid	ug/L	<3.0	3.0	1910407
12-Chlorodehydroabietic acid	ug/L	<3.0	3.0	1910407
Total Resin Acids	ug/L	<5.0	5.0	1910407
Surrogate Recovery (%)				
O-Methylpodocarpic acid	%	98	N/A	1910407
RDL = Reportable Detection Limit QC Batch = Quality Control Batch † Parameter is not accreditable N/A = Not Applicable				

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GENERAL COMMENTS

RESIN AND FATTY ACIDS BY GCMS (WATER)

Un-rounded results are used in the totals "Total Resin Acids" and "Total Fatty Acids" calculation. These totals results are then rounded to two significant figures.

The total indicated is calculated only for the requested parameters.

Results relate only to the items tested.

Maxxam Job #: B824563
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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits			
1910407	CB5	Spiked Blank	O-Methylpodocarpic acid	2018/06/27		92	%	60 - 130			
			Palmitoleic acid	2018/06/27		89	%	60 - 130			
			Palmitic acid	2018/06/27		140 (1)	%	60 - 130			
			Linoleic acid	2018/06/27		86	%	60 - 130			
			Linolenic acid	2018/06/27		76	%	60 - 130			
			Oleic acid	2018/06/27		85	%	60 - 130			
			Stearic acid	2018/06/27		136 (1)	%	60 - 130			
			9,10-Dichlorostearic acid	2018/06/27		84	%	60 - 130			
			Pimaric acid	2018/06/27		83	%	60 - 130			
			Sandaracopimaric acid	2018/06/27		86	%	60 - 130			
			Isopimaric acid	2018/06/27		91	%	60 - 130			
			Palustric acid	2018/06/27		79	%	60 - 130			
			Levopimaric acid	2018/06/27		65	%	60 - 130			
			Dehydroabietic acid	2018/06/27		95	%	60 - 130			
			Abietic acid	2018/06/27		121	%	60 - 130			
			Neoabietic acid	2018/06/27		76	%	60 - 130			
			14-Chlorodehydroabietic acid	2018/06/27		99	%	60 - 130			
			12-Chlorodehydroabietic acid	2018/06/27		96	%	60 - 130			
			1910407	CB5	Method Blank	O-Methylpodocarpic acid	2018/06/27		89	%	60 - 130
						Palmitoleic acid	2018/06/27	<3.0		ug/L	
Palmitic acid	2018/06/27	<30					ug/L				
Linoleic acid	2018/06/27	<3.0					ug/L				
Linolenic acid	2018/06/27	<3.0					ug/L				
Oleic acid	2018/06/27	<3.0					ug/L				
Stearic acid	2018/06/27	<30					ug/L				
9,10-Dichlorostearic acid	2018/06/27	<3.0					ug/L				
Total Fatty Acids	2018/06/27	<30					ug/L				
Pimaric acid	2018/06/27	<3.0					ug/L				
Sandaracopimaric acid	2018/06/27	<3.0					ug/L				
Isopimaric acid	2018/06/27	<3.0					ug/L				
Palustric acid	2018/06/27	<3.0					ug/L				
Levopimaric acid	2018/06/27	<3.0					ug/L				
Dehydroabietic acid	2018/06/27	<5.0					ug/L				
Abietic acid	2018/06/27	<5.0					ug/L				
Neoabietic acid	2018/06/27	<3.0					ug/L				
14-Chlorodehydroabietic acid	2018/06/27	<3.0					ug/L				
12-Chlorodehydroabietic acid	2018/06/27	<3.0					ug/L				
Total Resin Acids	2018/06/27	<5.0					ug/L				

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

(1) Recovery or relative percent difference (RPD) for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria

FUNDAMENTAL LABORATORY ACCEPTANCE GUIDELINE

Invoice To:

MAXXAM ANALYTICS
BURNABY
4606 Canada Way
Burnaby, BC
CANADA V5G 1K5

Client Contact:
(SUBCONT) CUSTOMER SERVICE EBC

Maxxam Job #: B824563
Date Received: 2018/06/22
Your C.O.C. #: B849593-QUEV-01-01
Your Project #: B849593
Maxxam Project Manager: Karima Dlimi
Quote #: B20512

No discrepancies noted.

Report Comments

Received Date: 2018/06/22 Time: 09:15 By: _____
Inspected Date: _____ Time: _____ By: _____
FLAG Created Date: _____ Time: _____ By: _____

Maxxam Job #: B824563
Report Date: 2018/06/28

MAXXAM ANALYTICS
Client Project #: B849593

VALIDATION SIGNATURE PAGE


The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Caroline Bougie

Caroline Bougie, B.Sc. Chemist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

REPORT INFORMATION							ANALYSIS REQUESTED										Job Barcode Label				
Company: Maxxam							<div style="border: 1px solid black; padding: 5px; text-align: center;">  B824563_COC </div>										<div style="border: 1px solid black; padding: 5px; text-align: center;"> ADDITIONAL SAMPLE INFORMATION </div>				
Address: 4606 Canada Way, Burnaby, British Columbia, V5G 1K5																					
Contact Name: BC Env Customer Service																					
Email: Enviro.CS.BC@maxxam.ca, customerservicebc@maxxamanalytics.com																					
Phone:																					
Maxxam Project #: B849593																					
Client Invoice To: Village of Tahsis (5529)																					
Client Report To: Village of Tahsis (5529) Incl. on Report? Yes / No																					
#	SAMPLE ID	MATRIX	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	SAMPLER INITIALS	# CONT.	REA Water Subcontract														
1	TR7084-COMMUNITY WELL # 1	WATER	2018/06/20	08:00		1	X													(P: 11)	
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
SITE LOCATION:							REGULATORY CRITERIA				SPECIAL INSTRUCTIONS				REQUIRED EDDs		TURNAROUND TIME				
SITE #:							2017 Canadian OW Quality				Please inform Maxxam immediately if you are not accredited for the requested test(s). **Please return a copy of this form with the report.**						<input type="checkbox"/> Rush Required 2018/06/28 Date Required Please inform us if rush charges will be incurred.				
PROJECT #:																					
PO/A/E, TASK ORDER/SERVICE ORDER, LINE ITEM:																					
COOLER ID:			COOLER ID:			COOLER ID:			RECEIVING LAB USE ONLY		Maxxam Job #										
Custody Seal Present	YES	NO	Temp: (°C)	1	2	3	Custody Seal Present	YES	NO	Temp: (°C)	1	2	3	Custody Seal Present		YES	NO	Temp: (°C)	1	2	3
Custody Seal Intact	✓		4	2	3	Custody Seal Intact								Custody Seal Intact							
Cooling Media Present	✓					Cooling Media Present								Cooling Media Present							
RELINQUISHED BY: (SIGN & PRINT)			DATE: (YYYY/MM/DD)		TIME: (HH:MM)		RECEIVED BY: (SIGN & PRINT)			DATE: (YYYY/MM/DD)		TIME: (HH:MM)		Samples Labelled By:		Labels Verified By:					
1. Nidalagani NDAKAZMI			2018/06/21		15:00		1. [Signature]			2018/06/22		09:15									
2.							2.														