



Pre-Pay Clients - Vancouver
ATTN: Ms. Kathy McCauley
Box 133
Wasa BC VOB 2K0

Date Received: 08-SEP-17
Report Date: 15-SEP-17 11:19 (MT)
Version: FINAL

Client Phone: --

Certificate of Analysis

Lab Work Order #: L1988165
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers: 15-608462
Legal Site Desc:



Fred Liu
Account Manager

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ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID Description Sampled Date Sampled Time Client ID	L1988165-1 Lake Water 06-SEP-17 10:30 ABBOLTS BAY	L1988165-2 Lake Water 06-SEP-17 10:30 ABBOLTS BAY	L1988165-3 Lake Water 06-SEP-17 10:45 HANSEN CHANNEL ENTRANCE	L1988165-4 Lake Water 06-SEP-17 10:45 HANSEN CHANNEL ENTRANCE
Grouping	Analyte				
WATER					
Anions and Nutrients	Total Nitrogen (mg/L)	0.390		0.331	
	Phosphorus (P)-Total (mg/L)		0.0056		0.0053

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
N-T-COL-VA	Water	Total Nitrogen in water by Colour	APHA4500-P(J)/NEMI9171/USGS03-4174
This analysis is carried out using procedures adapted from APHA Method 4500-P (J) "Persulphate Method for Simultaneous Determination of Total Nitrogen and Total Phosphorus" and National Environmental Methods Index - Nemi method 5735.			
P-T-PRES-COL-VA	Water	Total P in Water by Colour	APHA 4500-P Phosphorus
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
Samples with very high dissolved solids (i.e. seawaters, brackish waters) may produce a negative bias by this method. Alternate methods are available for these types of samples.			
Arsenic (5+), at elevated levels, is a positive interference on colourimetric phosphate analysis.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

15-608462

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level below - Please confirm all E&P TATs with your AM - surcharges will apply								
Company: <u>WASA LAKE LAND IMPROVEMENT</u>		Select Report Format: <input checked="" type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply								
Contact: <u>Ms KATHY McCAULEY DISTRICT</u>		Quality Control (QC) Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)		EMERGENCY						
Phone: <u>250 422 37519</u>		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			4 day [P4] <input type="checkbox"/>		1 Business day [E1] <input type="checkbox"/>						
Company address below will appear on the final report		Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			3 day [P3] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>						
Street: <u>Box 133</u>		Email 1 or Fax: <u>admin@wasalake.ca</u>			Date and Time Required for all E&P TATs:								
City/Province: <u>WASA BC</u>		Email 2:			For tests that can not be performed according to the service level selected, you will be contacted.								
Postal Code: <u>V0B2K0</u>		Email 3:			Analysis Request								
Invoice To: Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below								
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX											
Company:		Email 1 or Fax: <u>admin@wasalake.ca</u>											
Contact:		Email 2:											
Project Information		Oil and Gas Required Fields (client use)			Number of Containers								
ALS Account # / Quote #:		AFE/Cost Center:	PO#										
Job #:		Major/Minor Code:	Routing Code:										
PO / AFE:		Requisitioner:											
LSD:		Location:											
ALS Lab Work Order # (lab use only)		ALS Contact:		Sampler:									
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type									
	<u>Abbotts BAY</u>	<u>06/09/17</u>	<u>10:30 AM</u>	<u>Lake Water</u>	<u>Preserved Total Nitrogen</u>				<u>1</u>				
	<u>Abbotts BAY</u>	<u>"</u>	<u>"</u>	<u>lake water</u>	<u>Preserved Total Phosphorus</u>				<u>1</u>				
	<u>HANSEN CHANNEL Entrance</u>	<u>"</u>	<u>10:45</u>	<u>"</u>	<u>Preserved Total Nitrogen</u>				<u>1</u>				
	<u>HANSEN CHANNEL Entrance</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>Preserved Total Phosphorus</u>				<u>1</u>				
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)								
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO					Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>								
Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>								
					Cooling Initiated <input type="checkbox"/>								
					INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C						
							<u>5.9</u>						
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)								
Released by:	Date: <u>06-09-2017</u>	Time:	Received by: <u>Shayan</u>	Date: <u>Sept. 8</u>	Time: <u>930</u>	Received by:	Date:	Time:					

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.