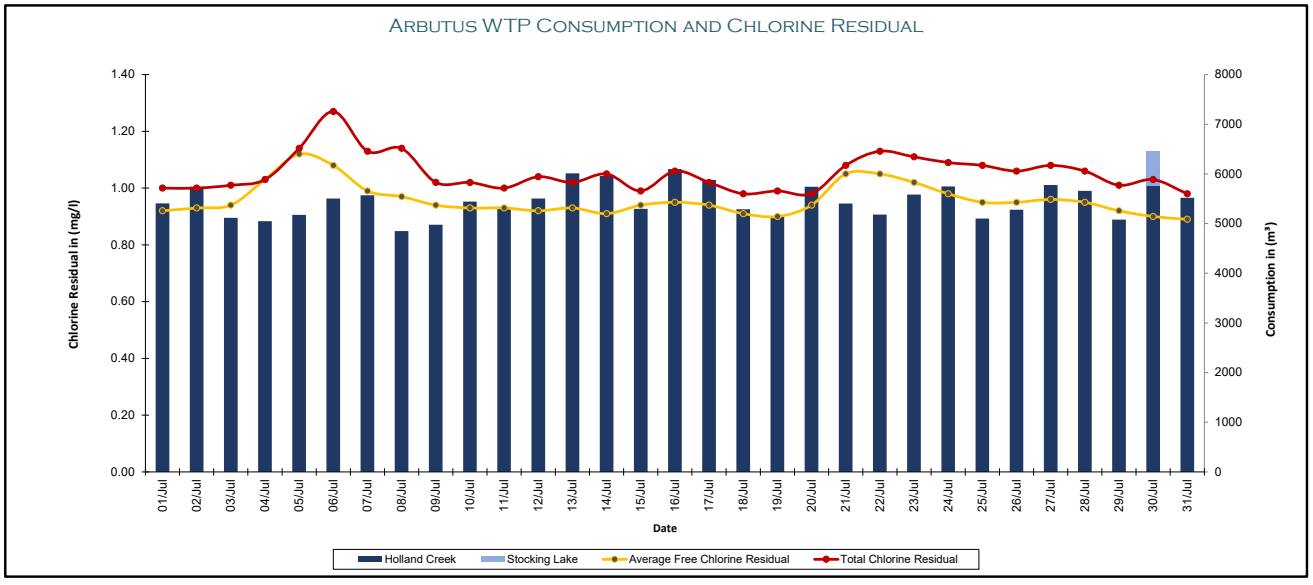
Town of Ladysmith - Arbutus Water treatment Plant

July 2025 - Monthly Report

Date	Daily Flow			Chlorine Residual				CT*	External Lab Testing					
	Stocking Lake	Holland Creek	Combined Flow	Free Min	Free Max	Free Avg	Total		HPC	E.coli	Total Coliforms	Aluminum	THM	HAA
	m³	m³	m³	mg/l	mg/l	mg/l	mg/l	Minutes·mg/l	CFU	MPN	MPN	mg/l	mg/l	mg/l
01-Jul	0	5408	5408	0.92	0.95	0.92	1.00	149						
02-Jul	0	5741	5741	1.00	0.93	0.93	1.00	146	< 1	< 1	< 1	0.0145	0.0123	0.0068
03-Jul	0	5116	5116	0.91	0.94	0.94	1.01	149						
04-Jul	0	5049	5049	0.93	1.03	1.03	1.03	145						
05-Jul	0	5175	5175	1.03	1.12	1.12	1.14	171						
06-Jul	0	5504	5504	1.08	1.15	1.08	1.27	170						
07-Jul	0	5569	5569	0.99	1.08	0.99	1.13	143						
08-Jul	0	4849	4849	0.96	1.98	0.97	1.14	153						
09-Jul	0	4976	4976	0.93	1.97	0.94	1.02	148	< 1	< 1	< 1			
10-Jul	0	5442	5442	0.93	0.95	0.93	1.02	135						
11-Jul	0	5337	5337	0.91	0.94	0.93	1.00	139						
12-Jul	0	5505	5505	0.91	0.94	0.92	1.04	145						
13-Jul	0	6013	6013	0.91	0.94	0.93	1.02	138						
14-Jul	0	5958	5958	0.91	0.94	0.91	1.05	154						
15-Jul	0	5296	5296	0.88	0.94	0.94	0.99	187						
16-Jul	0	6099	6099	0.93	0.96	0.95	1.06	146	< 1	< 1	< 1			
17-Jul	0	5878	5878	0.91	0.96	0.94	1.02	191						
18-Jul	0	5287	5287	0.91	0.94	0.91	0.98	173						
19-Jul	0	5134	5134	0.87	0.92	0.90	0.99	174						
20-Jul	0	5741	5741	0.89	0.94	0.94	0.98	179						
21-Jul	0	5403	5403	0.92	1.05	1.05	1.08	224						
22-Jul	0	5180	5180	1.04	1.06	1.05	1.13	196	< 1	< 1	< 1			
23-Jul	0	5584	5584	1.02	1.05	1.02	1.11	183						
24-Jul	0	5748	5748	0.98	1.02	0.98	1.09	153						
25-Jul	0	5100	5100	0.94	0.99	0.95	1.08	146						
26-Jul	0	5280	5280	0.94	0.97	0.95	1.06	155						
27-Jul	0	5778	5778	0.93	0.97	0.96	1.08	160						
28-Jul	0	5659	5659	0.94	0.97	0.95	1.06	161						
29-Jul	0	5081	5081	0.90	0.95	0.92	1.01	189						
30-Jul	691	5758	6449	0.90	0.93	0.90	1.03	278	< 1	< 1	< 1			
31-Jul	0	5520	5520	0.88	0.90	0.89	0.98	150						
Total	691	169168	169859											
Average	22	5457	5479	0.94	1.04	0.96	1.05	165	< 1	< 1	< 1	0.0145	0.0123	0.00684

*CT - Recorded as the minimum value at the highest daily flow ** Manual Residual were not taken

Arbutus WTP Consumption and Chlorine Residual



VEOLIA

InSight

Town of Ladysmith Arbutus DWTP

Monthly LRV and Turbidity Report

07/01/2025 - 08/01/2025

LRV Monthly Average

Asset	Parameter	Health	Avg	Std. Dev	Points	LL	L	%In	% between L and LL	% < LL	Unit
UF 1	LRV		5.0	0.0	32	4.25	4.5	100 %	0 %	0 %	#
UF 2	LRV		5.0	0.0	32	4.25	4.5	100 %	0 %	0 %	#
UF 3	LRV		5.0	0.0	32	4.25	4.5	100 %	0 %	0 %	#

LRV Daily Values

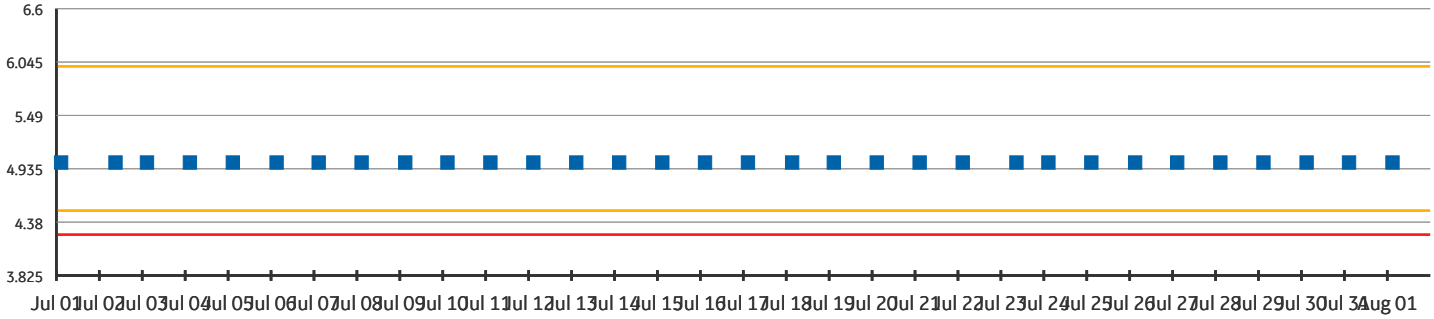
Asset	Parameter	Jul 01	Jul 02	Jul 03	Jul 04	Jul 05	Jul 06	Jul 07	Jul 08	Jul 09	Jul 10	Jul 11	Jul 12
UF 1	LRV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UF 2	LRV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UF 3	LRV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Asset	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28
UF 1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UF 2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UF 3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

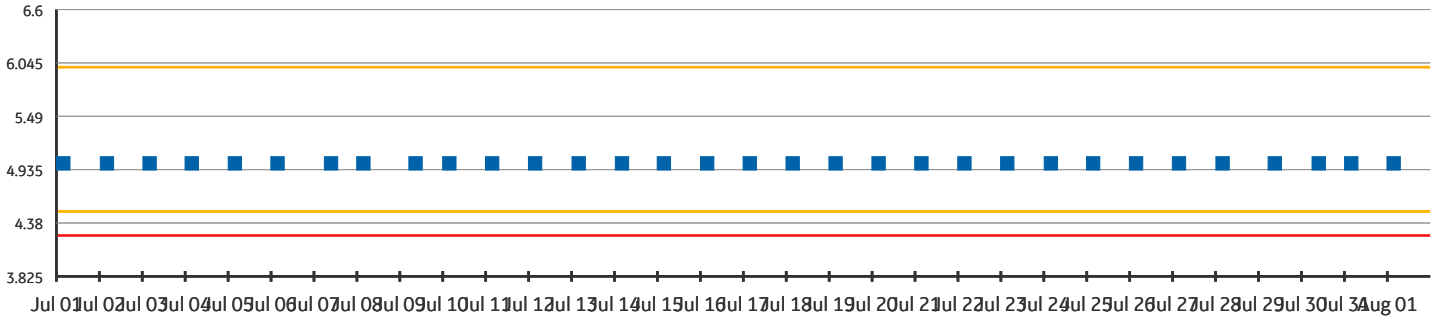
Asset	Jul 29	Jul 30	Jul 31	Aug 01
UF 1	5.0	5.0	5.0	5.0
UF 2	5.0	5.0	5.0	5.0
UF 3	5.0	5.0	5.0	5.0

LRV Raw Data

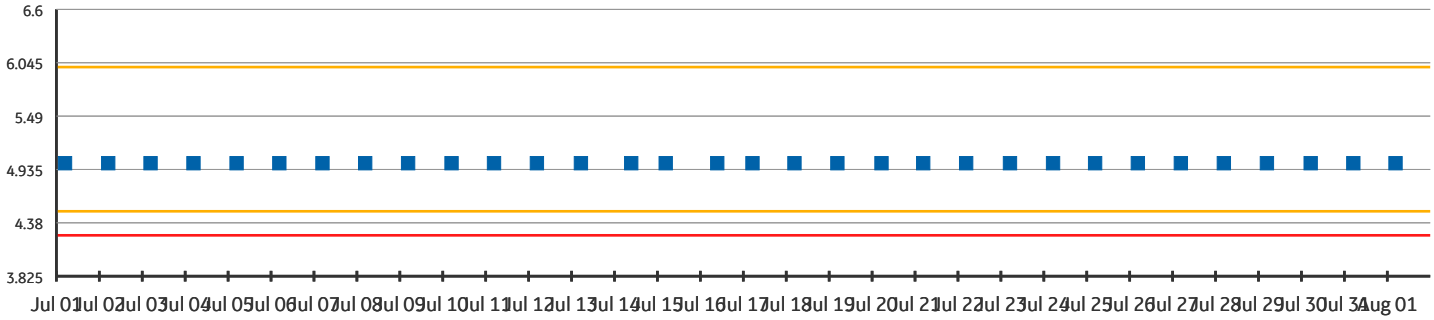
UF 1 - LRV (#)



UF 2 - LRV (#)



UF 3 - LRV (#)



Turbidity Monthly Average

Asset	Parameter	Health	Avg	Std. Dev	Points	H	HH	%In	% between H and HH	% > HH	Unit
UF 1	PermeateTurbidity		0.013	0.0	45217	--	--	100 %	0 %	0 %	NTU
UF 2	PermeateTurbidity		0.014	0.0	45217	--	--	100 %	0 %	0 %	NTU
UF 3	PermeateTurbidity		0.013	0.0	45217	--	--	100 %	0 %	0 %	NTU
UF 1	PermeateTurbidityAfterBP	●	0.013	0.0	568	0.1	0.3	100 %	0 %	0 %	NTU
UF 2	PermeateTurbidityAfterBP	●	0.014	0.0	681	0.1	0.3	100 %	0 %	0 %	NTU
UF 3	PermeateTurbidityAfterBP	●	0.013	0.0	650	0.1	0.3	100 %	0 %	0 %	NTU

Turbidity Daily Averages

Asset	Parameter	Jul 01	Jul 02	Jul 03	Jul 04	Jul 05	Jul 06	Jul 07	Jul 08	Jul 09	Jul 10	Jul 11
UF 1	PermeateTurbidity	0.017	0.018	0.017	0.015	0.013	0.012	0.013	0.012	0.012	0.013	0.012
UF 2	PermeateTurbidity	0.023	0.024	0.025	0.017	0.013	0.012	0.012	0.012	0.012	0.012	0.012
UF 3	PermeateTurbidity	0.017	0.017	0.017	0.013	0.011	0.012	0.011	0.011	0.011	0.011	0.012

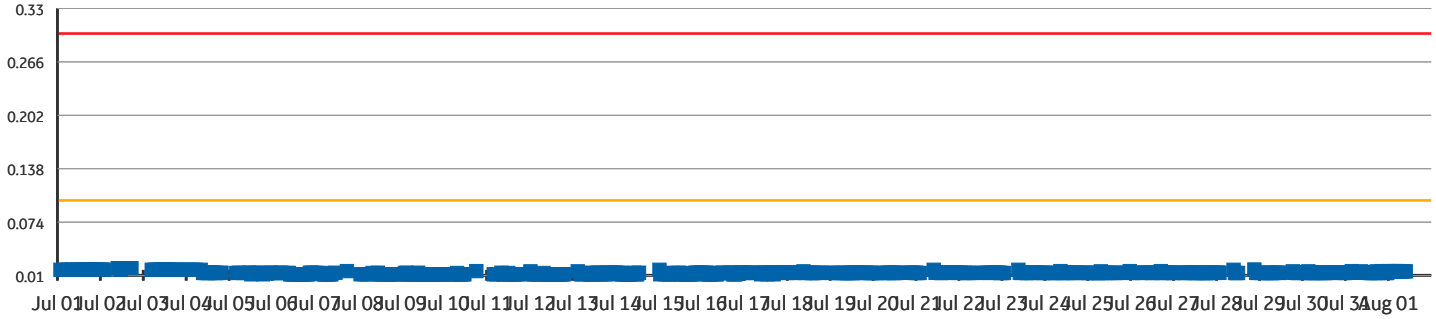
Asset	Parameter	Jul 01	Jul 02	Jul 03	Jul 04	Jul 05	Jul 06	Jul 07	Jul 08	Jul 09	Jul 10	Jul 11
UF 1	PermeateTurbidityAfterBP	0.017	0.018	0.017	0.014	0.013	0.012	0.012	0.012	0.012	0.012	0.012
UF 2	PermeateTurbidityAfterBP	0.023	0.024	0.024	0.017	0.013	0.012	0.012	0.012	0.012	0.012	0.012
UF 3	PermeateTurbidityAfterBP	0.017	0.017	0.017	0.014	0.011	0.012	0.011	0.011	0.011	0.012	0.012

Asset	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26
UF 1	0.012	0.012	0.013	0.012	0.012	0.013	0.013	0.013	0.013	0.014	0.013	0.013	0.013	0.013	0.013
UF 2	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.013	0.013	0.013
UF 3	0.011	0.012	0.012	0.012	0.012	0.012	0.011	0.012	0.012	0.012	0.013	0.013	0.013	0.013	0.013
UF 1	0.012	0.012	0.012	0.012	0.012	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013
UF 2	0.012	0.012	0.012	0.012	0.011	0.012	0.012	0.012	0.012	0.011	0.012	0.013	0.013	0.013	0.013
UF 3	0.011	0.011	0.012	0.012	0.012	0.011	0.011	0.012	0.012	0.012	0.013	0.013	0.013	0.013	0.013

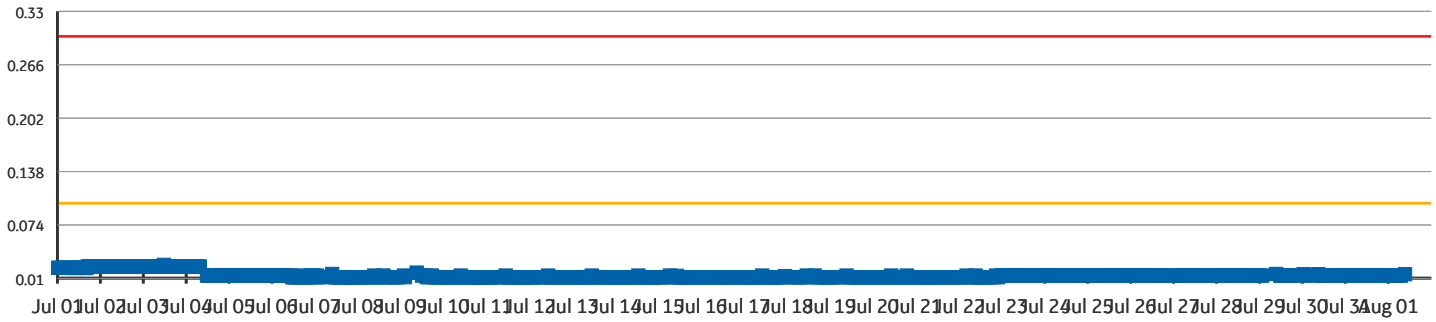
Asset	Jul 27	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01
UF 1	0.013	0.014	0.013	0.013	0.014	0.015
UF 2	0.013	0.013	0.013	0.013	0.013	0.014
UF 3	0.013	0.014	0.015	0.015	0.016	0.015
UF 1	0.013	0.014	0.013	0.013	0.014	0.015
UF 2	0.013	0.013	0.013	0.014	0.013	0.014
UF 3	0.013	0.014	0.014	0.015	0.015	0.014

Turbidity Raw Data

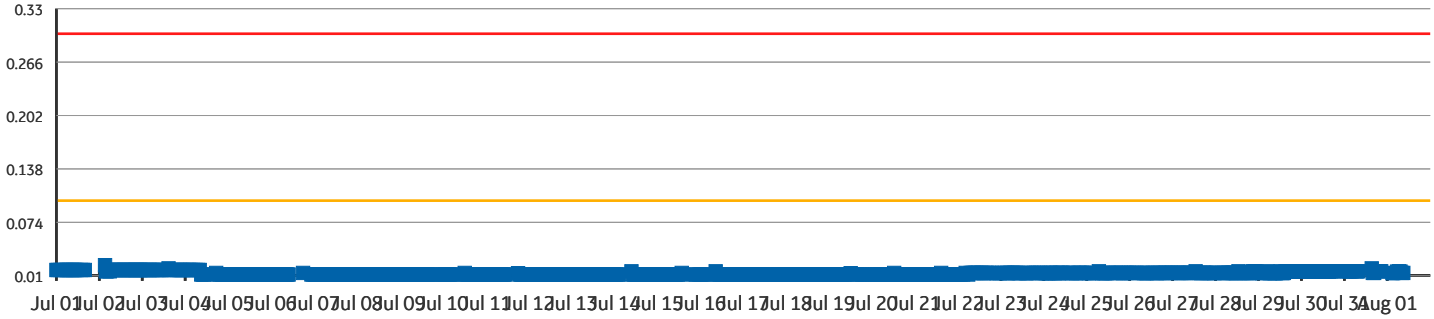
UF 1 - PermeateTurbidityAfterBP (NTU)



UF 2 - PermeateTurbidityAfterBP (NTU)



UF 3 - PermeateTurbidityAfterBP (NTU)



CERTIFICATE OF ANALYSIS

Work Order	:	**VA25B6136**			
Client	:	**Town of Ladysmith**	Laboratory	:	ALS Environmental - Vancouver
Contact	:	Shawn Baker	Account Manager	:	Kevin Bhikadia
Address	:	410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2	Address	:	8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	----	E-mail	:	Kevin.Bhikadia@alsglobal.com
Project	:	Arbutus Water Treatment Plant - Monthly Sampling	Telephone	:	+1 604 253 4188
PO	:	10940	Date Samples Received	:	03-Jul-2025 16:45
C-O-C number	:	----	Date Analysis Commenced	:	07-Jul-2025
Sampler	:	----	Issue Date	:	13-Jul-2025 13:27
Site	:	Town of Ladysmith			
Quote number	:	Town of Ladysmith Standing Offer			
No. of samples received	:	1			
No. of samples analysed	:	1			

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Janice Leung		Organics, Burnaby, British Columbia
Kevin Duarte		Metals, Burnaby, British Columbia
Parth Goswami		LCMS, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
µg/L	micrograms per litre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior 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.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Treated Water (post reservoir) ----	----	----	----	----
Client sample ID					Treated Water (post reservoir) ----	----	----	----	----
Client sampling date / time					02-Jul-2025 10:30	----	----	----	----
					VA25B6136-001	----	----	----	----
					Result	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0145	----	----	----	----
Volatile Organic Compounds [THMs]									
Bromodichloromethane	75-27-4	E611B/VA	1.0	µg/L	1.2	----	----	----	----
Bromoform	75-25-2	E611B/VA	1.0	µg/L	<1.0	----	----	----	----
Chloroform	67-66-3	E611B/VA	1.0	µg/L	11.1	----	----	----	----
Dibromochloromethane	124-48-1	E611B/VA	1.0	µg/L	<1.0	----	----	----	----
Trihalomethanes [THMs], total	----	E611B/VA	2.0	µg/L	12.3	----	----	----	----
Volatile Organic Compounds [THMs] Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611B/VA	1.0	%	103	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611B/VA	1.0	%	100	----	----	----	----
Haloacetic Acids									
Bromochloroacetic acid	5589-96-8	E750/WT	1.00	µg/L	<1.00	----	----	----	----
Dibromoacetic acid	631-64-1	E750/WT	1.00	µg/L	<1.00	----	----	----	----
Dichloroacetic acid	79-43-6	E750/WT	1.00	µg/L	3.38	----	----	----	----
Monobromoacetic acid	79-08-3	E750/WT	1.00	µg/L	<1.00	----	----	----	----
Monochloroacetic acid	79-11-8	E750/WT	1.00	µg/L	<1.00	----	----	----	----
Trichloroacetic acid	76-03-9	E750/WT	1.00	µg/L	3.46	----	----	----	----
Haloacetic acids, total [HAA5]	n/a	E750/WT	5.00	µg/L	6.84	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Canada Ltd.

right solutions.
right partner.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25B6136**	Page	: 1 of 5
Client	: **Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	: Shawn Baker	Account Manager	: Kevin Bhikadia
Address	: 410 Esplanade PO Box 220 Ladysmith BC Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Arbutus Water Treatment Plant - Monthly Sampling	Date Samples Received	: 03-Jul-2025 16:45
PO	: 10940	Issue Date	: 13-Jul-2025 13:25
C-O-C number	: ----		
Sampler	: ----		
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Matrix Spike Duplicate (MSD) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25B6134**		
Client	:	**Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	:	Shawn Baker	Account Manager	: Kevin Bhikadia
Address	:	410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	:	Arbutus Water Treatment Plant- Weekly Sampling	Telephone	: +1 604 253 4188
PO	:	10940	Date Samples Received	: 03-Jul-2025 16:45
C-O-C number	:	----	Date Analysis Commenced	: 03-Jul-2025
Sampler	:	----	Issue Date	: 07-Jul-2025 16:05
Site	:	Town of Ladysmith		
Quote number	:	Town of Ladysmith Standing Offer		
No. of samples received	:	4		
No. of samples analysed	:	4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Anita Chuang		Inorganics, Burnaby, British Columbia
Miles Gropen		Inorganics, Burnaby, British Columbia
Miles Gropen		Microbiology, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

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Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
CFU/mL	colony forming units per millilitre
CU	colour units (1 cu = 1 mg/l pt)
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
NTU	nephelometric turbidity units
pH units	pH units
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior 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.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Raw Water	DAF Effluent	UF Effluent	Treated Water (post reservoir)	----
Client sample ID									
Client sampling date / time					02-Jul-2025 10:30	02-Jul-2025 10:30	02-Jul-2025 10:30	02-Jul-2025 10:30	----
					VA25B6134-001	VA25B6134-002	VA25B6134-003	VA25B6134-004	----
					Result	Result	Result	Result	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/VA	-	-	lab	lab	lab	----	----
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	----	----	----	13.0	----
Colour, true	----	E329/VA	5.0	CU	----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm	----	----	----	57.9	----
pH	----	E108/VA	0.10	pH units	----	----	----	7.39	----
Turbidity	----	E121/VA	0.10	NTU	----	----	----	<0.10	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	2.08	0.95	1.06	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L	2.18	1.27	0.86	----	----
Microbiological Tests									
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL	----	----	----	<1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25B6134**	Page	: 1 of 7
Client	: **Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	: Shawn Baker	Account Manager	: Kevin Bhikadia
Address	: 410 Esplanade PO Box 220 Ladysmith BC Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Arbutus Water Treatment Plant- Weekly Sampling	Date Samples Received	: 03-Jul-2025 16:45
PO	: 10940	Issue Date	: 07-Jul-2025 16:04
C-O-C number	: ----		
Sampler	: ----		
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25B6795**			
Client	:	**Town of Ladysmith**	Laboratory	:	ALS Environmental - Vancouver
Contact	:	Shawn Baker	Account Manager	:	Kevin Bhikadia
Address	:	410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2	Address	:	8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	----	E-mail	:	Kevin.Bhikadia@alsglobal.com
Project	:	Arbutus Water Treatment Plant - Weekly Sampling	Telephone	:	+1 604 253 4188
PO	:	10940	Date Samples Received	:	10-Jul-2025 11:10
C-O-C number	:	----	Date Analysis Commenced	:	10-Jul-2025
Sampler	:	----	Issue Date	:	16-Jul-2025 08:55
Site	:	Town of Ladysmith			
Quote number	:	Town of Ladysmith Standing Offer			
No. of samples received	:	4			
No. of samples analysed	:	4			

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lindsay Gung		Microbiology, Burnaby, British Columbia
Monica Ko		Inorganics, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
CFU/mL	colony forming units per millilitre
CU	colour units (1 cu = 1 mg/l pt)
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
NTU	nephelometric turbidity units
pH units	pH units
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior 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.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Raw Water ----	DAF Effluent ----	UF Effluent ----	Treated Water (post reservoir) ----	----
					Client sampling date / time	09-Jul-2025 10:30	09-Jul-2025 10:30	09-Jul-2025 10:30	09-Jul-2025 10:30	----
						VA25B6795-001	VA25B6795-002	VA25B6795-003	VA25B6795-004	----
						Result	Result	Result	Result	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/VA	-	-		lab	lab	lab	----	----
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L		----	----	----	11.8	----
Colour, true	----	E329/VA	5.0	CU		----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm		----	----	----	57.1	----
pH	----	E108/VA	0.10	pH units		----	----	----	7.32	----
Turbidity	----	E121/VA	0.10	NTU		----	----	----	<0.10	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L		2.03	0.90	0.90	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L		2.14	1.16	0.84	----	----
Microbiological Tests										
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL		----	----	----	<1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL		----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL		----	----	----	<1	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25B6795**	Page	: 1 of 7
Client	: **Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	: Shawn Baker	Account Manager	: Kevin Bhikadia
Address	: 410 Esplanade PO Box 220 Ladysmith BC Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Arbutus Water Treatment Plant - Weekly Sampling	Date Samples Received	: 10-Jul-2025 11:10
PO	: 10940	Issue Date	: 16-Jul-2025 08:55
C-O-C number	: ----		
Sampler	: ----		
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

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RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25B7496**		
Client	:	**Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	:	Shawn Baker	Account Manager	: Kevin Bhikadia
Address	:	410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	:	Arbutus Water Treatment Plant - Weekly Sampling	Telephone	: +1 604 253 4188
PO	:	10940	Date Samples Received	: 17-Jul-2025 10:05
C-O-C number	:	----	Date Analysis Commenced	: 17-Jul-2025
Sampler	:	----	Issue Date	: 23-Jul-2025 09:24
Site	:	Town of Ladysmith		
Quote number	:	Town of Ladysmith Standing Offer		
No. of samples received	:	4		
No. of samples analysed	:	4		

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- General Comments
- Analytical Results

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Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Anita Chuang		Inorganics, Burnaby, British Columbia
Lindsay Gung		Inorganics, Burnaby, British Columbia
Lindsay Gung		Microbiology, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

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Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
CFU/mL	colony forming units per millilitre
CU	colour units (1 cu = 1 mg/l pt)
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
NTU	nephelometric turbidity units
pH units	pH units
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior 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.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Raw Water ----	DAF Effluent ----	UF Effluent ----	Treated Water (post reservoir) ----	----
					Client sampling date / time: 16-Jul-2025 10:30	16-Jul-2025 10:30	16-Jul-2025 10:30	16-Jul-2025 10:30	----
					VA25B7496-001	VA25B7496-002	VA25B7496-003	VA25B7496-004	----
					Result	Result	Result	Result	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/VA	-	-	lab	lab	lab	----	----
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	----	----	----	12.3	----
Colour, true	----	E329/VA	5.0	CU	----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm	----	----	----	54.4	----
pH	----	E108/VA	0.10	pH units	----	----	----	7.23	----
Turbidity	----	E121/VA	0.10	NTU	----	----	----	<0.10	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	2.16	1.26	0.98	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L	2.15	0.89	0.77	----	----
Microbiological Tests									
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL	----	----	----	<1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25B7496**	Page	: 1 of 7
Client	: **Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	: Shawn Baker	Account Manager	: Kevin Bhikadia
Address	: 410 Esplanade PO Box 220 Ladysmith BC Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Arbutus Water Treatment Plant - Weekly Sampling	Date Samples Received	: 17-Jul-2025 10:05
PO	: 10940	Issue Date	: 23-Jul-2025 09:23
C-O-C number	: ----		
Sampler	: ----		
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

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Key

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CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25B8002**		
Client	:	**Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	:	Shawn Baker	Account Manager	: Kevin Bhikadia
Address	:	410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	:	Arbutus Water Treatment Plant - Weekly Sampling	Telephone	: +1 604 253 4188
PO	:	10940	Date Samples Received	: 23-Jul-2025 10:22
C-O-C number	:	----	Date Analysis Commenced	: 23-Jul-2025
Sampler	:	----	Issue Date	: 29-Jul-2025 09:38
Site	:	Town of Ladysmith		
Quote number	:	Town of Ladysmith Standing Offer		
No. of samples received	:	4		
No. of samples analysed	:	4		

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- Analytical Results

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Signatories

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Signatories	*Position*	*Laboratory Department*
Lindsay Gung		Microbiology, Burnaby, British Columbia
Miles Gropen		Inorganics, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

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Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
CFU/mL	colony forming units per millilitre
CU	colour units (1 cu = 1 mg/l pt)
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
NTU	nephelometric turbidity units
pH units	pH units
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior 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.

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Qualifiers

Qualifier	Description
RRV	Reported result verified by repeat analysis.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Raw Water ----	DAF Effluent ----	UF Effluent ----	Treated Water (post reservoir) ----	----
Client sampling date / time					22-Jul-2025 10:00	22-Jul-2025 10:05	22-Jul-2025 10:10	22-Jul-2025 10:20	----
					VA25B8002-001	**VA25B8002-002**	**VA25B8002-003**	**VA25B8002-004**	**----**
					Result	Result	Result	Result	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/VA	-	-	lab	lab	lab	----	----
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	----	----	----	12.2	----
Colour, true	----	E329/VA	5.0	CU	----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm	----	----	----	54.9	----
pH	----	E108/VA	0.10	pH units	----	----	----	7.42	----
Turbidity	----	E121/VA	0.10	NTU	----	----	----	<0.10	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	2.18 RRV	1.32 RRV	0.91	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L	2.24 RRV	1.03 RRV	0.86	----	----
Microbiological Tests									
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL	----	----	----	<1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25B8002**	Page	: 1 of 7
Client	: **Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	: Shawn Baker	Account Manager	: Kevin Bhikadia
Address	: 410 Esplanade PO Box 220 Ladysmith BC Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Arbutus Water Treatment Plant - Weekly Sampling	Date Samples Received	: 23-Jul-2025 10:22
PO	: 10940	Issue Date	: 29-Jul-2025 09:38
C-O-C number	: ----		
Sampler	: ----		
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

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LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

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Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	:	**VA25B8920**		
Client	:	**Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	:	Shawn Baker	Account Manager	: Kevin Bhikadia
Address	:	410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	:	----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	:	Arbutus Water Treatment Plant - Weekly Sampling	Telephone	: +1 604 253 4188
PO	:	10940	Date Samples Received	: 31-Jul-2025 10:40
C-O-C number	:	----	Date Analysis Commenced	: 31-Jul-2025
Sampler	:	----	Issue Date	: 06-Aug-2025 16:05
Site	:	Town of Ladysmith		
Quote number	:	Town of Ladysmith Standing Offer		
No. of samples received	:	4		
No. of samples analysed	:	4		

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- Analytical Results

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Signatories

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Signatories	*Position*	*Laboratory Department*
Anita Chuang		Inorganics, Burnaby, British Columbia
Miles Gropen		Inorganics, Burnaby, British Columbia
Miles Gropen		Microbiology, Burnaby, British Columbia

General Comments

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Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
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Unit	*Description*
-	no units
CFU/mL	colony forming units per millilitre
CU	colour units (1 cu = 1 mg/l pt)
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MPN/100mL	most probable number per hundred millilitres
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pH units	pH units
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<: less than.
>: greater than.
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UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: Raw Water ----	DAF Effluent ----	UF Effluent ----	Treated Water (post reservoir) ----	----
					Client sampling date / time: 30-Jul-2025 09:30	30-Jul-2025 09:30	30-Jul-2025 09:30	30-Jul-2025 09:30	----
					VA25B8920-001	VA25B8920-002	VA25B8920-003	VA25B8920-004	----
					Result	Result	Result	Result	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/VA	-	-	lab	lab	lab	----	----
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	----	----	----	12.6	----
Colour, true	----	E329/VA	5.0	CU	----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm	----	----	----	56.7	----
pH	----	E108/VA	0.10	pH units	----	----	----	7.42	----
Turbidity	----	E121/VA	0.10	NTU	----	----	----	<0.10	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	2.26	1.08	1.16	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L	2.08	1.07	1.08	----	----
Microbiological Tests									
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL	----	----	----	<1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **VA25B8920**	Page	: 1 of 8
Client	: **Town of Ladysmith**	Laboratory	: ALS Environmental - Vancouver
Contact	: Shawn Baker	Account Manager	: Kevin Bhikadia
Address	: 410 Esplanade PO Box 220 Ladysmith BC Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby, British Columbia Canada V5A 1W9
Telephone	: ----	Telephone	: +1 604 253 4188
Project	: Arbutus Water Treatment Plant - Weekly Sampling	Date Samples Received	: 31-Jul-2025 10:40
PO	: 10940	Issue Date	: 06-Aug-2025 16:05
C-O-C number	: ----		
Sampler	: ----		
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.