





### **CERTIFICATE OF ANALYSIS**

**REPORTED TO** Stettler, Town of (Alberta)

You know that the sample you collected after

snowshoeing to site, digging 5 meters, and

racing to get it on a plane so you can submit it

to the lab for time sensitive results needed to

make important and expensive decisions

(whew) is VERY important. We know that too.

5031 - 50 Street Stettler, AB T0C 2L0

**ATTENTION Grant McQuay WORK ORDER** 24G0496

**PO NUMBER** 

2024-07-04 09:00 / 15.6°C **RECEIVED / TEMP REPORTED** 2024-07-12 15:30 **PROJECT** THM+HAA

**PROJECT INFO COC NUMBER** no#

### Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

We've Got Chemistry

opportunities to support you.

It's simple. We figure the more you working with enjoy fun and our engaged team the more members; likely you are to give us continued

Ahead of the Curve

research, regulation and instrumentation, analytical centre the knowledge technical you BEFORE you need it, so you can stay up to date and in the know.

Through knowledge, are your

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at efex@caro.ca

Authorized By:

Echo Fex

Junior Account Manager



## **TEST RESULTS**

REPORTED TO	Stettler, Town of (Alberta)	<b>WORK ORDER</b>	24G0496
PROJECT	THM+HAA	REPORTED	2024-07-12 15:30

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifie
GT Hydraulic (24G0496-01)   Matrix: Wa	iter   Sampled: 2024	-07-03 10:00				
Calculated Parameters						
Total Trihalomethanes	0.0648	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-07-09	
Monobromoacetic Acid	0.0020	N/A	0.0020	mg/L	2024-07-09	
Dichloroacetic Acid	0.0372	N/A	0.0020	mg/L	2024-07-09	
Trichloroacetic Acid	0.0231	N/A	0.0020		2024-07-09	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-07-09	
Total Haloacetic Acids (HAA5)	0.0624	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	97		70-130	%	2024-07-09	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	0.0028	N/A	0.0010	mg/L	2024-07-04	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2024-07-04	
Chloroform	0.0620	N/A	0.0010	mg/L	2024-07-04	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2024-07-04	
Surrogate: Toluene-d8	105		70-130	%	2024-07-04	
Surrogate: 4-Bromofluorobenzene	93		70-130	%	2024-07-04	
Town Shop (24C0405 02)   Matrice Wate	u I Compled: 2024 0	7 00 40-07				
Town Shop (24G0496-02)   Matrix: Wate	er   Sampled: 2024-0	7-03 10:07				
	0.0726	7-03 10:07 MAC = 0.1	0.00400	mg/L	N/A	
Calculated Parameters  Total Trihalomethanes			0.00400	mg/L	N/A	
Calculated Parameters  Total Trihalomethanes			0.00400	<u> </u>	N/A 2024-07-09	
Calculated Parameters  Total Trihalomethanes  Haloacetic Acids	0.0726	MAC = 0.1	0.0020	mg/L		
Calculated Parameters  Total Trihalomethanes  Haloacetic Acids  Monochloroacetic Acid	<b>0.0726</b>	MAC = 0.1		mg/L mg/L	2024-07-09	
Calculated Parameters Total Trihalomethanes Haloacetic Acids Monochloroacetic Acid Monobromoacetic Acid	<b>0.0726</b> < 0.0020 < 0.0020	MAC = 0.1 N/A N/A	0.0020 0.0020	mg/L mg/L mg/L	2024-07-09 2024-07-09	
Calculated Parameters Total Trihalomethanes Haloacetic Acids Monochloroacetic Acid Monobromoacetic Acid Dichloroacetic Acid	0.0726 < 0.0020 < 0.0020 0.0290	MAC = 0.1  N/A  N/A  N/A	0.0020 0.0020 0.0020	mg/L mg/L mg/L mg/L	2024-07-09 2024-07-09 2024-07-09	
Calculated Parameters Total Trihalomethanes Haloacetic Acids Monochloroacetic Acid Monobromoacetic Acid Dichloroacetic Acid Trichloroacetic Acid	0.0726 < 0.0020 < 0.0020 0.0290 0.0211	MAC = 0.1  N/A  N/A  N/A  N/A  N/A	0.0020 0.0020 0.0020 0.0020	mg/L mg/L mg/L mg/L mg/L	2024-07-09 2024-07-09 2024-07-09 2024-07-09	
Calculated Parameters Total Trihalomethanes Haloacetic Acids Monochloroacetic Acid Monobromoacetic Acid Dichloroacetic Acid Trichloroacetic Acid Dibromoacetic Acid	0.0726 < 0.0020 < 0.0020 0.0290 0.0211 < 0.0020	MAC = 0.1  N/A  N/A  N/A  N/A  N/A  N/A	0.0020 0.0020 0.0020 0.0020 0.0020	mg/L mg/L mg/L mg/L mg/L	2024-07-09 2024-07-09 2024-07-09 2024-07-09 2024-07-09	
Calculated Parameters Total Trihalomethanes Haloacetic Acids Monochloroacetic Acid Monobromoacetic Acid Dichloroacetic Acid Trichloroacetic Acid Dibromoacetic Acid Dibromoacetic Acid Total Haloacetic Acids (HAA5) Surrogate: 2-Bromopropionic Acid	0.0726  < 0.0020 < 0.0020 0.0290 0.0211 < 0.0020 0.0501	MAC = 0.1  N/A  N/A  N/A  N/A  N/A  N/A	0.0020 0.0020 0.0020 0.0020 0.0020 0.00200	mg/L mg/L mg/L mg/L mg/L	2024-07-09 2024-07-09 2024-07-09 2024-07-09 2024-07-09 N/A	
Calculated Parameters Total Trihalomethanes  Haloacetic Acids  Monochloroacetic Acid  Monobromoacetic Acid  Dichloroacetic Acid  Trichloroacetic Acid  Dibromoacetic Acid  Total Haloacetic Acids (HAA5)	0.0726  < 0.0020 < 0.0020 0.0290 0.0211 < 0.0020 0.0501	MAC = 0.1  N/A  N/A  N/A  N/A  N/A  N/A	0.0020 0.0020 0.0020 0.0020 0.0020 0.00200	mg/L mg/L mg/L mg/L mg/L mg/L %	2024-07-09 2024-07-09 2024-07-09 2024-07-09 2024-07-09 N/A	

Turtle Club (24G0496-03) | Matrix: Water | Sampled: 2024-07-03 10:23

Dibromochloromethane

Surrogate: Toluene-d8

Surrogate: 4-Bromofluorobenzene

Chloroform

2024-07-04

2024-07-04

2024-07-04

2024-07-04

N/A

N/A

0.0693

103

92

< 0.0010

0.0010 mg/L

0.0010 mg/L

70-130 %

70-130 %



# **TEST RESULTS**

 REPORTED TO
 Stettler, Town of (Alberta)
 WORK ORDER
 24G0496

 PROJECT
 THM+HAA
 REPORTED
 2024-07-12 15:30

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Turtle Club (24G0496-03)   Matrix: Wate	r   Sampled: 2024-0	7-03 10:23, Contin	ued			
Calculated Parameters, Continued						
Total Trihalomethanes	0.0600	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-07-09	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-07-09	
Dichloroacetic Acid	0.0317	N/A	0.0020	mg/L	2024-07-09	
Trichloroacetic Acid	0.0218	N/A	0.0020	mg/L	2024-07-09	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-07-09	
Total Haloacetic Acids (HAA5)	0.0535	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	104		70-130	%	2024-07-09	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	0.0028	N/A	0.0010	mg/L	2024-07-04	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2024-07-04	
Chloroform	0.0572	N/A	0.0010	mg/L	2024-07-04	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2024-07-04	
Surrogate: Toluene-d8	100		70-130	%	2024-07-04	
Surrogate: 4-Bromofluorobenzene	90		70-130	%	2024-07-04	



### **APPENDIX 1: SUPPORTING INFORMATION**

REPORTED TO Stettler, Town of (Alberta) WORK ORDER 24G0496

**PROJECT** THM+HAA **REPORTED** 2024-07-12 15:30

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Edmonton

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

### Glossary of Terms:

RL Reporting Limit (default)

Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors

MAC Maximum Acceptable Concentration (health based)

mg/L Milligrams per litre

EPA United States Environmental Protection Agency Test Methods

### Guidelines Referenced in this Report:

Guidelines for Canadian Drinking Water Quality (Health Canada, September 2022)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

#### **General Comments:**

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted red. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do <u>not</u> take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager:efex@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.