

REPORTED TO Parksville, City of
P O Box 1390, 100 Jensen Avenue East
Parksville, BC V9P 2H3

TEL (250) 951-2489
FAX

ATTENTION Barbara Silenieks

WORK ORDER 6111040

PO NUMBER 002306

RECEIVED / TEMP 2016-11-15 09:00 / 10°C

PROJECT 361341 - THM Quarterly (Island Health)

REPORTED 2016-11-22

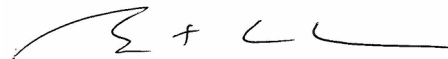
PROJECT INFO

COC NUMBER B35796

General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts, except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the Chain of Custody or Sample Requisition 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. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.



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Analysis Description	Method Reference	Technique	Location
Trihalomethanes in Water	EPA 5030B / APHA 6200 B	Purge&Trap / Purge and Trap Capillary Column GC-MSD	Richmond

Method Reference Descriptions:

EPA United States Environmental Protection Agency Test Methods

Glossary of Terms:

MRL Method Reporting Limit
 < Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences
 mg/L Milligrams per litre

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Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: Temple (6111040-01) [Water] Sampled: 2016-11-14 09:20

<i>Calculated Parameters</i>							
Total Trihalomethanes	0.005	N/A	0.004	mg/L	N/A	N/A	
<i>Volatile Organic Compounds (VOC)</i>							
Bromodichloromethane	0.001	N/A	0.001	mg/L	N/A	2016-11-16	
Bromoform	0.001	N/A	0.001	mg/L	N/A	2016-11-16	
Chloroform	< 0.001	N/A	0.001	mg/L	N/A	2016-11-16	
Dibromochloromethane	0.002	N/A	0.001	mg/L	N/A	2016-11-16	
Surrogate: Toluene-d8	106		70-130	%	N/A	2016-11-16	
Surrogate: 4-Bromofluorobenzene	106		70-130	%	N/A	2016-11-16	

Sample ID: Ermines Kin (6111040-02) [Water] Sampled: 2016-11-14 08:30

<i>Calculated Parameters</i>							
Total Trihalomethanes	< 0.004	N/A	0.004	mg/L	N/A	N/A	
<i>Volatile Organic Compounds (VOC)</i>							
Bromodichloromethane	< 0.001	N/A	0.001	mg/L	N/A	2016-11-16	
Bromoform	< 0.001	N/A	0.001	mg/L	N/A	2016-11-16	
Chloroform	< 0.001	N/A	0.001	mg/L	N/A	2016-11-16	
Dibromochloromethane	0.001	N/A	0.001	mg/L	N/A	2016-11-16	
Surrogate: Toluene-d8	107		70-130	%	N/A	2016-11-16	
Surrogate: 4-Bromofluorobenzene	107		70-130	%	N/A	2016-11-16	

Sample ID: Corfield (6111040-03) [Water] Sampled: 2016-11-14 08:40

<i>Calculated Parameters</i>							
Total Trihalomethanes	0.015	N/A	0.004	mg/L	N/A	N/A	
<i>Volatile Organic Compounds (VOC)</i>							
Bromodichloromethane	0.004	N/A	0.001	mg/L	N/A	2016-11-17	
Bromoform	0.002	N/A	0.001	mg/L	N/A	2016-11-17	
Chloroform	0.004	N/A	0.001	mg/L	N/A	2016-11-17	
Dibromochloromethane	0.004	N/A	0.001	mg/L	N/A	2016-11-17	
Surrogate: Toluene-d8	116		70-130	%	N/A	2016-11-17	
Surrogate: 4-Bromofluorobenzene	116		70-130	%	N/A	2016-11-17	

Sample ID: Works Yard (6111040-04) [Water] Sampled: 2016-11-14 09:00

<i>Calculated Parameters</i>							
Total Trihalomethanes	0.006	N/A	0.004	mg/L	N/A	N/A	
<i>Volatile Organic Compounds (VOC)</i>							
Bromodichloromethane	0.002	N/A	0.001	mg/L	N/A	2016-11-17	
Bromoform	0.001	N/A	0.001	mg/L	N/A	2016-11-17	
Chloroform	0.001	N/A	0.001	mg/L	N/A	2016-11-17	
Dibromochloromethane	0.002	N/A	0.001	mg/L	N/A	2016-11-17	
Surrogate: Toluene-d8	112		70-130	%	N/A	2016-11-17	
Surrogate: 4-Bromofluorobenzene	111		70-130	%	N/A	2016-11-17	

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk):** Laboratory reagent water is carried through sample preparation and analysis steps. Method Blanks indicate that results are free from contamination, i.e. not biased high from sources such as the sample container or the laboratory environment
- **Duplicate (Dup):** Preparation and analysis of a replicate aliquot of a sample. Duplicates provide a measure of the analytical method's precision, i.e. how reproducible a result is. Duplicates are only reported if they are associated with your sample data.
- **Blank Spike (BS):** A known amount of standard is carried through sample preparation and analysis steps. Blank Spikes, also known as laboratory control samples (LCS), are prepared from a different source of standard than used for the calibration. They ensure that the calibration is acceptable (i.e. not biased high or low) and also provide a measure of the analytical method's accuracy (i.e. closeness of the result to a target value).
- **Standard Reference Material (SRM):** A material of similar matrix to the samples, externally certified for the parameter(s) listed. Standard Reference Materials ensure that the preparation steps in the method are adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	MRL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Notes
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Volatile Organic Compounds (VOC), Batch B6K1081

Blank (B6K1081-BLK1)

Prepared: 2016-11-16, Analyzed: 2016-11-16

Bromodichloromethane	< 0.001	0.001 mg/L							
Bromoform	< 0.001	0.001 mg/L							
Chloroform	< 0.001	0.001 mg/L							
Dibromochloromethane	< 0.001	0.001 mg/L							
Surrogate: Toluene-d8	0.0254	mg/L	0.0250		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.0249	mg/L	0.0250		99	70-130			

LCS (B6K1081-BS1)

Prepared: 2016-11-16, Analyzed: 2016-11-16

Bromodichloromethane	0.020	0.001 mg/L	0.0200		98	70-130			
Bromoform	0.017	0.001 mg/L	0.0200		87	70-130			
Chloroform	0.021	0.001 mg/L	0.0200		105	70-130			
Dibromochloromethane	0.018	0.001 mg/L	0.0200		88	70-130			
Surrogate: Toluene-d8	0.0264	mg/L	0.0250		106	70-130			
Surrogate: 4-Bromofluorobenzene	0.0252	mg/L	0.0250		101	70-130			

