

## CERTIFICATE OF ANALYSIS

**REPORTED TO** Keats Island Construction & Services  
PO Box 1342  
Gibsons, BC V0N 1V0

**ATTENTION** Andrew Nadler

**PO NUMBER** 8348

**PROJECT** 60027-PCE-W

**PROJECT INFO**

**WORK ORDER** 24C3431

**RECEIVED / TEMP** 2024-03-27 09:53 / 11.2°C

**REPORTED** 2024-04-09 16:09

**COC NUMBER** eCOC#00011304

### 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*



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.

#### *We've Got Chemistry*



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

#### *Ahead of the Curve*



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

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

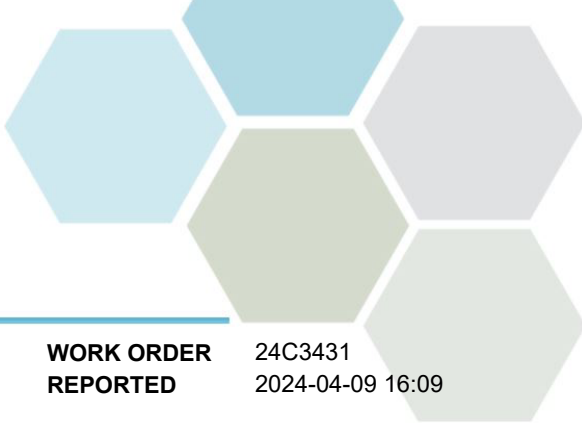
If you have any questions or concerns, please contact me at [TeamCaro@caro.ca](mailto:TeamCaro@caro.ca)

### Authorized By:

Team CARO  
Client Service Representative

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# TEST RESULTS

**REPORTED TO PROJECT** Keats Island Construction & Services  
60027-PCE-W

**WORK ORDER REPORTED** 24C3431  
2024-04-09 16:09

Analyte	Result	RL	Units	Analyzed	Qualifier
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**Treated Water -44B2E (24C3431-01) | Matrix: Potable Water | Sampled: 2024-03-25 16:00**

**Anions**

Chloride	68.2	0.10	mg/L	2024-03-31	
Fluoride	< 0.10	0.10	mg/L	2024-03-31	
Nitrate (as N)	0.054	0.010	mg/L	2024-03-31	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2024-03-31	HT1
Sulfate	< 1.0	1.0	mg/L	2024-03-31	

**Calculated Parameters**

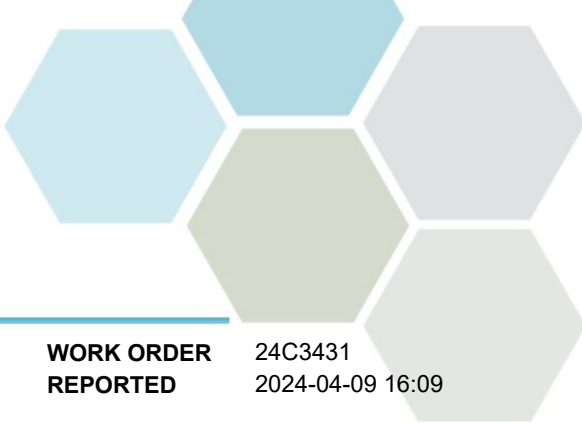
Hardness, Total (as CaCO3)	8.88	0.500	mg/L	N/A	
Solids, Total Dissolved	119	1.00	mg/L	N/A	

**General Parameters**

Alkalinity, Total (as CaCO3)	7.6	1.0	mg/L	2024-04-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2024-04-04	
Alkalinity, Bicarbonate (as CaCO3)	7.6	1.0	mg/L	2024-04-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2024-04-04	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2024-04-04	
Carbon, Total Organic	3.32	0.50	mg/L	2024-04-05	
Conductivity (EC)	265	2.0	µS/cm	2024-04-04	
Cyanide, Total	0.0027	0.0020	mg/L	2024-04-04	
pH	6.16	0.10	pH units	2024-04-04	HT2
Tannin and Lignin	0.38	0.20	mg/L	2024-04-05	
Turbidity	0.28	0.10	NTU	2024-04-04	HT1
UV Transmittance @ 254nm	88.2	0.10	% T	2024-04-03	HT1

**Total Metals**

Aluminum, total	0.0386	0.0050	mg/L	2024-04-03	
Antimony, total	< 0.00020	0.00020	mg/L	2024-04-03	
Arsenic, total	< 0.00050	0.00050	mg/L	2024-04-03	
Barium, total	0.0080	0.0050	mg/L	2024-04-03	
Boron, total	< 0.0500	0.0500	mg/L	2024-04-03	
Cadmium, total	< 0.000010	0.000010	mg/L	2024-04-03	
Calcium, total	2.10	0.20	mg/L	2024-04-03	
Chromium, total	< 0.00050	0.00050	mg/L	2024-04-03	
Copper, total	0.00768	0.00040	mg/L	2024-04-03	
Iron, total	0.254	0.010	mg/L	2024-04-03	
Lead, total	< 0.00020	0.00020	mg/L	2024-04-03	
Magnesium, total	0.885	0.010	mg/L	2024-04-03	
Manganese, total	0.0586	0.00020	mg/L	2024-04-03	
Potassium, total	0.49	0.10	mg/L	2024-04-03	
Selenium, total	< 0.00050	0.00050	mg/L	2024-04-03	
Sodium, total	42.3	0.10	mg/L	2024-04-03	
Strontium, total	0.0232	0.0010	mg/L	2024-04-03	
Uranium, total	< 0.000020	0.000020	mg/L	2024-04-03	
Zinc, total	0.0067	0.0040	mg/L	2024-04-03	



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Analyte	Result	RL	Units	Analyzed	Qualifier
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**Raw Water - 42939 (24C3431-02) | Matrix: Potable Water | Sampled: 2024-03-25 16:30**

**Anions**

Chloride	660	0.10	mg/L	2024-03-31	
Fluoride	< 0.10	0.10	mg/L	2024-03-31	
Nitrate (as N)	0.036	0.010	mg/L	2024-03-31	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2024-03-31	HT1
Sulfate	< 10.0	1.0	mg/L	2024-03-31	RA1

**Calculated Parameters**

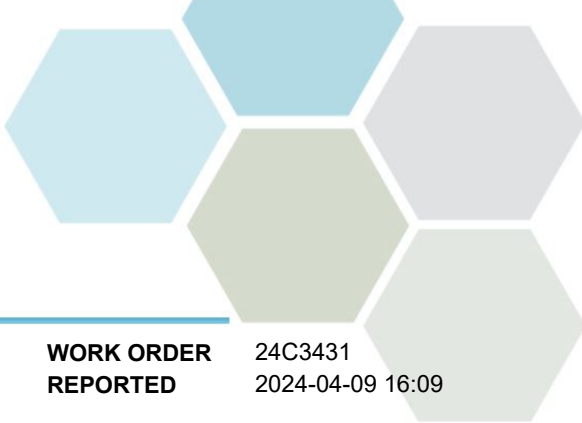
Hardness, Total (as CaCO3)	8.56	0.500	mg/L	N/A	
Solids, Total Dissolved	709	10.0	mg/L	N/A	

**General Parameters**

Alkalinity, Total (as CaCO3)	7.3	1.0	mg/L	2024-04-04	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2024-04-04	
Alkalinity, Bicarbonate (as CaCO3)	7.3	1.0	mg/L	2024-04-04	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2024-04-04	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2024-04-04	
Carbon, Total Organic	3.88	0.50	mg/L	2024-04-05	
Conductivity (EC)	259	2.0	µS/cm	2024-04-04	
Cyanide, Total	< 0.0020	0.0020	mg/L	2024-04-04	
pH	6.13	0.10	pH units	2024-04-04	HT2
Tannin and Lignin	0.24	0.20	mg/L	2024-04-05	
Turbidity	0.61	0.10	NTU	2024-04-04	HT1

**Total Metals**

Aluminum, total	0.0373	0.0050	mg/L	2024-04-03	
Antimony, total	< 0.00020	0.00020	mg/L	2024-04-03	
Arsenic, total	< 0.00050	0.00050	mg/L	2024-04-03	
Barium, total	0.0079	0.0050	mg/L	2024-04-03	
Boron, total	< 0.0500	0.0500	mg/L	2024-04-03	
Cadmium, total	0.000037	0.000010	mg/L	2024-04-03	
Calcium, total	1.99	0.20	mg/L	2024-04-03	
Chromium, total	< 0.00050	0.00050	mg/L	2024-04-03	
Copper, total	0.0150	0.00040	mg/L	2024-04-03	
Iron, total	0.323	0.010	mg/L	2024-04-03	
Lead, total	0.0179	0.00020	mg/L	2024-04-03	
Magnesium, total	0.868	0.010	mg/L	2024-04-03	
Manganese, total	0.0657	0.00020	mg/L	2024-04-03	
Potassium, total	0.48	0.10	mg/L	2024-04-03	
Selenium, total	< 0.00050	0.00050	mg/L	2024-04-03	
Sodium, total	41.6	0.10	mg/L	2024-04-03	
Strontium, total	0.0234	0.0010	mg/L	2024-04-03	
Uranium, total	< 0.000020	0.000020	mg/L	2024-04-03	
Zinc, total	0.130	0.0040	mg/L	2024-04-03	



## TEST RESULTS

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2024-04-09 16:09

Analyte	Result	RL	Units	Analyzed	Qualifier
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**Distribution - 42963 (24C3431-03) | Matrix: Potable Water | Sampled: 2024-03-25 16:09**

**Calculated Parameters**

Total Trihalomethanes	<b>0.0544</b>	0.00400	mg/L	N/A	
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**Haloacetic Acids**

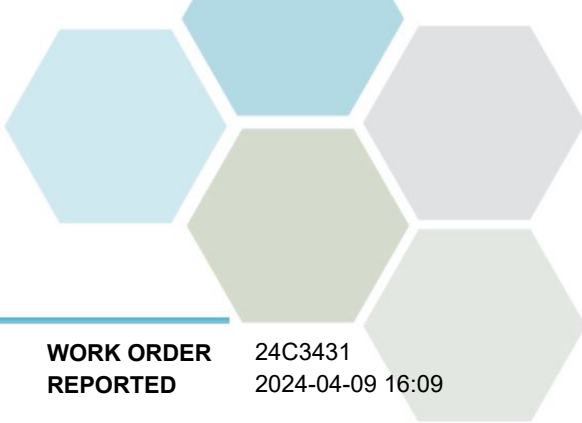
Monochloroacetic Acid	<b>0.0055</b>	0.0020	mg/L	2024-04-03	
Monobromoacetic Acid	< 0.0020	0.0020	mg/L	2024-04-03	
Dichloroacetic Acid	<b>0.0579</b>	0.0020	mg/L	2024-04-03	
Trichloroacetic Acid	<b>0.0565</b>	0.0020	mg/L	2024-04-03	
Dibromoacetic Acid	< 0.0020	0.0020	mg/L	2024-04-03	
Total Haloacetic Acids (HAA5)	<b>0.120</b>	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	112	70-130	%	2024-04-03	

**Volatile Organic Compounds (VOC)**

Bromodichloromethane	< 0.0010	0.0010	mg/L	2024-04-03	
Bromoform	< 0.0010	0.0010	mg/L	2024-04-03	
Chloroform	<b>0.0544</b>	0.0010	mg/L	2024-04-03	
Dibromochloromethane	< 0.0010	0.0010	mg/L	2024-04-03	
Surrogate: Toluene-d8	88	70-130	%	2024-04-03	
Surrogate: 4-Bromofluorobenzene	78	70-130	%	2024-04-03	

**Sample Qualifiers:**

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
- RA1 The Reporting Limit for this sample has been raised due to matrix interference.



## APPENDIX 1: SUPPORTING INFORMATION

**REPORTED TO PROJECT** Keats Island Construction & Services  
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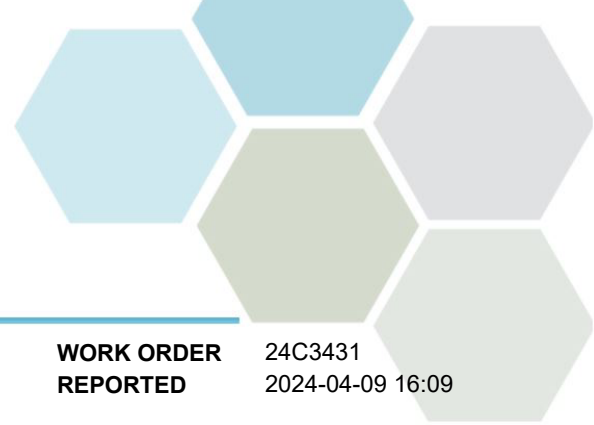
**WORK ORDER REPORTED** 24C3431  
2024-04-09 16:09

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Richmond
Carbon, Total Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	✓	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓	Kelowna
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	SM 1030 E (2021)	SM 1030 E		N/A
Tannin and Lignin in Water	SM 5550 B (2021)	Colorimetry	✓	Edmonton
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Transmittance at 254 nm in Water	SM 5910 B* (2021)	Ultraviolet Absorption	✓	Kelowna
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

*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)
% T	Percent Transmittance
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
pH units	pH < 7 = acidic, pH > 7 = basic
µS/cm	Microsiemens per centimetre
ASTM	ASTM International Test Methods
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association



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60027-PCE-W

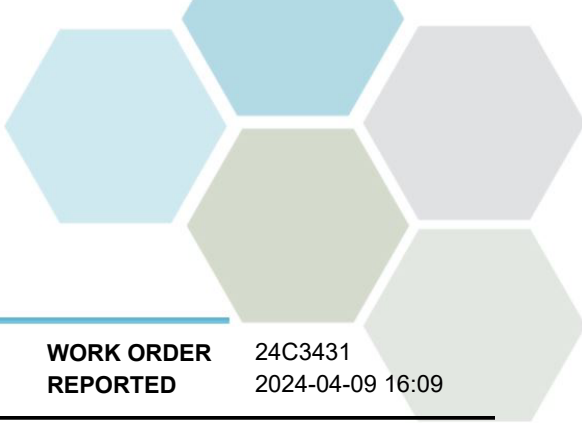
**WORK ORDER REPORTED** 24C3431  
2024-04-09 16:09

### 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.

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 not 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: [TeamCaro@caro.ca](mailto:TeamCaro@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.*



## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Keats Island Construction & Services  
60027-PCE-W

**WORK ORDER REPORTED** 24C3431  
2024-04-09 16:09

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):** A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup):** An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS):** A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS):** A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM):** A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is 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 10-20 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	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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### Anions, Batch B4C4189

Blank (B4C4189-BLK1)			Prepared: 2024-03-31, Analyzed: 2024-03-31						
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.010	0.010 mg/L							
Nitrite (as N)	< 0.010	0.010 mg/L							
Sulfate	< 1.0	1.0 mg/L							

LCS (B4C4189-BS1)			Prepared: 2024-03-31, Analyzed: 2024-03-31						
Chloride	2.93	0.10 mg/L	3.00		98	85-115			
Fluoride	2.22	0.10 mg/L	2.00		111	85-115			
Nitrate (as N)	2.90	0.010 mg/L	3.00		97	85-115			
Nitrite (as N)	2.94	0.010 mg/L	3.00		98	85-115			
Sulfate	15.9	1.0 mg/L	15.0		106	85-115			

### General Parameters, Batch B4D1376

Blank (B4D1376-BLK1)			Prepared: 2024-04-03, Analyzed: 2024-04-03						
UV Transmittance @ 254nm	< 0.10	0.10 % T							

LCS (B4D1376-BS1)			Prepared: 2024-04-03, Analyzed: 2024-04-03						
UV Transmittance @ 254nm	43.0	0.10 % T	43.5		99	95-105			

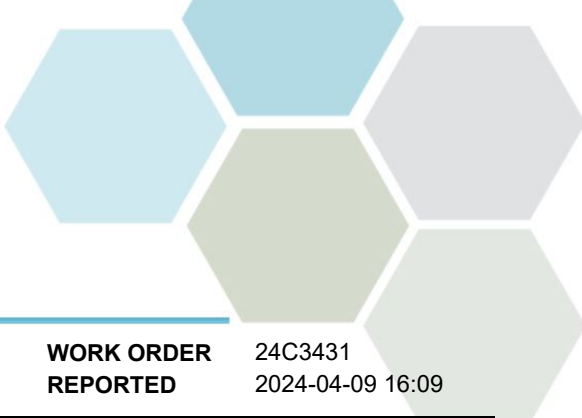
### General Parameters, Batch B4D1448

Blank (B4D1448-BLK1)			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Cyanide, Total	< 0.0020	0.0020 mg/L							

Blank (B4D1448-BLK2)			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Cyanide, Total	< 0.0020	0.0020 mg/L							

LCS (B4D1448-BS1)			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Cyanide, Total	0.0205	0.0020 mg/L	0.0200		103	82-120			

LCS (B4D1448-BS2)			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Cyanide, Total	0.0201	0.0020 mg/L	0.0200		101	82-120			

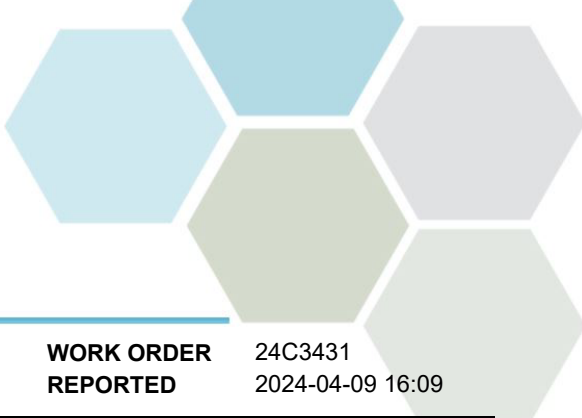


## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Keats Island Construction & Services  
60027-PCE-W

**WORK ORDER REPORTED** 24C3431  
2024-04-09 16:09

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>General Parameters, Batch B4D1448, Continued</b>									
<b>LCS Dup (B4D1448-BSD1)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Cyanide, Total	0.0214	0.0020 mg/L	0.0200		107	82-120	4	10	
<b>LCS Dup (B4D1448-BSD2)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Cyanide, Total	0.0210	0.0020 mg/L	0.0200		105	82-120	4	10	
<b>General Parameters, Batch B4D1459</b>									
<b>Blank (B4D1459-BLK1)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Turbidity	< 0.10	0.10 NTU							
<b>Blank (B4D1459-BLK2)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Turbidity	< 0.10	0.10 NTU							
<b>LCS (B4D1459-BS1)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Turbidity	15.2	0.10 NTU	14.6		104	90-110			
<b>LCS (B4D1459-BS2)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Turbidity	15.3	0.10 NTU	14.6		105	90-110			
<b>General Parameters, Batch B4D1460</b>									
<b>Blank (B4D1460-BLK1)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Alkalinity, Total (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0 mg/L							
Conductivity (EC)	< 2.0	2.0 µS/cm							
pH	6.18	0.10 pH units							HT2
<b>Blank (B4D1460-BLK2)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Alkalinity, Total (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0 mg/L							
Conductivity (EC)	< 2.0	2.0 µS/cm							
pH	5.92	0.10 pH units							HT2
<b>Blank (B4D1460-BLK3)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Alkalinity, Total (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0 mg/L							
Conductivity (EC)	< 2.0	2.0 µS/cm							
pH	5.99	0.10 pH units							HT2
<b>LCS (B4D1460-BS1)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Alkalinity, Total (as CaCO3)	101	1.0 mg/L	100		101	80-120			
Alkalinity, Phenolphthalein (as CaCO3)	70.4	1.0 mg/L	50.0		141	0-200			
<b>LCS (B4D1460-BS2)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Alkalinity, Total (as CaCO3)	97.1	1.0 mg/L	100		97	80-120			
Alkalinity, Phenolphthalein (as CaCO3)	66.7	1.0 mg/L	50.0		133	0-200			

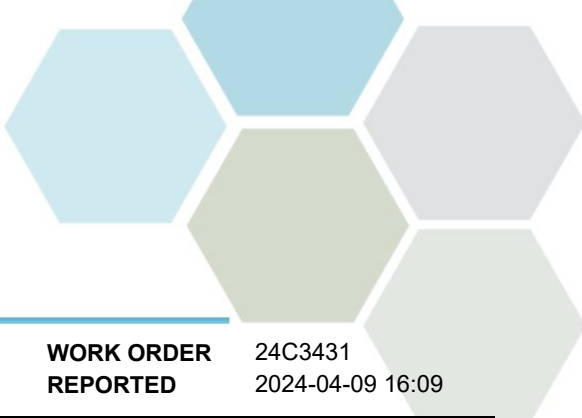


## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Keats Island Construction & Services  
60027-PCE-W

**WORK ORDER REPORTED** 24C3431  
2024-04-09 16:09

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>General Parameters, Batch B4D1460, Continued</b>									
<b>LCS (B4D1460-BS3)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Conductivity (EC)	1400	2.0 µS/cm	1410		99	95-105			
<b>LCS (B4D1460-BS4)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
Conductivity (EC)	1400	2.0 µS/cm	1410		100	95-105			
<b>Duplicate (B4D1460-DUP2)</b>			<b>Source: 24C3431-02</b>		Prepared: 2024-04-04, Analyzed: 2024-04-04				
Alkalinity, Total (as CaCO3)	7.6	1.0 mg/L		7.3			4	10	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0 mg/L		< 1.0				10	
Alkalinity, Bicarbonate (as CaCO3)	7.6	1.0 mg/L		7.3			4	10	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0 mg/L		< 1.0				10	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0 mg/L		< 1.0				10	
Conductivity (EC)	261	2.0 µS/cm		259			< 1	5	
pH	6.13	0.10 pH units		6.13			< 1	4	HT2
<b>Reference (B4D1460-SRM1)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
pH	7.04	0.10 pH units		7.01			100	98-102	
<b>Reference (B4D1460-SRM2)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-04						
pH	7.03	0.10 pH units		7.01			100	98-102	
<b>General Parameters, Batch B4D1547</b>									
<b>Blank (B4D1547-BLK1)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-05						
Carbon, Total Organic	< 0.50	0.50 mg/L							
<b>Blank (B4D1547-BLK2)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-05						
Carbon, Total Organic	< 0.50	0.50 mg/L							
<b>Blank (B4D1547-BLK3)</b>			Prepared: 2024-04-05, Analyzed: 2024-04-05						
Carbon, Total Organic	< 0.50	0.50 mg/L							
<b>LCS (B4D1547-BS1)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-05						
Carbon, Total Organic	10.1	0.50 mg/L		10.0		101		78-116	
<b>LCS (B4D1547-BS2)</b>			Prepared: 2024-04-04, Analyzed: 2024-04-05						
Carbon, Total Organic	9.51	0.50 mg/L		10.0		95		78-116	
<b>LCS (B4D1547-BS3)</b>			Prepared: 2024-04-05, Analyzed: 2024-04-05						
Carbon, Total Organic	10.9	0.50 mg/L		10.0		109		78-116	
<b>General Parameters, Batch B4D1669</b>									
<b>Blank (B4D1669-BLK1)</b>			Prepared: 2024-04-05, Analyzed: 2024-04-05						
Tannin and Lignin	< 0.20	0.20 mg/L							
<b>LCS (B4D1669-BS1)</b>			Prepared: 2024-04-05, Analyzed: 2024-04-05						
Tannin and Lignin	5.12	0.20 mg/L		5.00		102		90-110	
<b>Haloacetic Acids, Batch B4D1221</b>									
<b>Blank (B4D1221-BLK1)</b>			Prepared: 2024-04-02, Analyzed: 2024-04-03						
Monochloroacetic Acid	< 0.0020	0.0020 mg/L							
Monobromoacetic Acid	< 0.0020	0.0020 mg/L							
Dichloroacetic Acid	< 0.0020	0.0020 mg/L							
Trichloroacetic Acid	< 0.0020	0.0020 mg/L							
Dibromoacetic Acid	< 0.0020	0.0020 mg/L							



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60027-PCE-W

**WORK ORDER REPORTED** 24C3431  
2024-04-09 16:09

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>Haloacetic Acids, Batch B4D1221, Continued</b>									
<b>Blank (B4D1221-BLK1), Continued</b>					Prepared: 2024-04-02, Analyzed: 2024-04-03				
Surrogate: 2-Bromopropionic Acid	0.0113	mg/L	0.0116		97	70-130			
<b>LCS (B4D1221-BS1)</b>					Prepared: 2024-04-02, Analyzed: 2024-04-03				
Monochloroacetic Acid	0.0557	0.0020 mg/L	0.0564		99	75-117			
Monobromoacetic Acid	0.0373	0.0020 mg/L	0.0374		100	83-113			
Dichloroacetic Acid	0.0559	0.0020 mg/L	0.0558		100	78-112			
Trichloroacetic Acid	0.0187	0.0020 mg/L	0.0186		101	81-110			
Dibromoacetic Acid	0.0203	0.0020 mg/L	0.0187		109	89-112			
Surrogate: 2-Bromopropionic Acid	0.0122	mg/L	0.0116		105	70-130			
<b>LCS Dup (B4D1221-BSD1)</b>					Prepared: 2024-04-02, Analyzed: 2024-04-03				
Monochloroacetic Acid	0.0569	0.0020 mg/L	0.0564		101	75-117	2	30	
Monobromoacetic Acid	0.0379	0.0020 mg/L	0.0374		101	83-113	2	30	
Dichloroacetic Acid	0.0563	0.0020 mg/L	0.0558		101	78-112	< 1	30	
Trichloroacetic Acid	0.0187	0.0020 mg/L	0.0186		100	81-110	< 1	30	
Dibromoacetic Acid	0.0172	0.0020 mg/L	0.0187		92	89-112	17	30	
Surrogate: 2-Bromopropionic Acid	0.0111	mg/L	0.0116		96	70-130			
<b>Total Metals, Batch B4D1287</b>									
<b>Blank (B4D1287-BLK1)</b>					Prepared: 2024-04-02, Analyzed: 2024-04-03				
Aluminum, total	< 0.0050	0.0050 mg/L							
Antimony, total	< 0.00020	0.00020 mg/L							
Arsenic, total	< 0.00050	0.00050 mg/L							
Barium, total	< 0.0050	0.0050 mg/L							
Boron, total	< 0.0500	0.0500 mg/L							
Cadmium, total	< 0.000010	0.000010 mg/L							
Calcium, total	< 0.20	0.20 mg/L							
Chromium, total	< 0.00050	0.00050 mg/L							
Copper, total	< 0.00040	0.00040 mg/L							
Iron, total	< 0.010	0.010 mg/L							
Lead, total	< 0.00020	0.00020 mg/L							
Magnesium, total	< 0.010	0.010 mg/L							
Manganese, total	< 0.00020	0.00020 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 mg/L							
Sodium, total	< 0.10	0.10 mg/L							
Strontium, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							
<b>LCS (B4D1287-BS1)</b>					Prepared: 2024-04-02, Analyzed: 2024-04-03				
Aluminum, total	3.99	0.0050 mg/L	4.00		100	80-120			
Antimony, total	0.0395	0.00020 mg/L	0.0400		99	80-120			
Arsenic, total	0.407	0.00050 mg/L	0.400		102	80-120			
Barium, total	0.0403	0.0050 mg/L	0.0400		101	80-120			
Boron, total	0.410	0.0500 mg/L	0.400		103	80-120			
Cadmium, total	0.0398	0.000010 mg/L	0.0400		100	80-120			
Calcium, total	4.07	0.20 mg/L	4.00		102	80-120			
Chromium, total	0.0406	0.00050 mg/L	0.0400		101	80-120			
Copper, total	0.0407	0.00040 mg/L	0.0400		102	80-120			
Iron, total	4.12	0.010 mg/L	4.00		103	80-120			
Lead, total	0.0405	0.00020 mg/L	0.0400		101	80-120			
Magnesium, total	4.01	0.010 mg/L	4.00		100	80-120			
Manganese, total	0.0408	0.00020 mg/L	0.0400		102	80-120			
Potassium, total	3.98	0.10 mg/L	4.00		100	80-120			

## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Keats Island Construction & Services  
60027-PCE-W

**WORK ORDER REPORTED** 24C3431  
2024-04-09 16:09

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>Total Metals, Batch B4D1287, Continued</b>									
<b>LCS (B4D1287-BS1), Continued</b>					Prepared: 2024-04-02, Analyzed: 2024-04-03				
Selenium, total	0.398	0.00050 mg/L	0.400		99	80-120			
Sodium, total	4.02	0.10 mg/L	4.00		100	80-120			
Strontium, total	0.0404	0.0010 mg/L	0.0400		101	80-120			
Uranium, total	0.0407	0.000020 mg/L	0.0400		102	80-120			
Zinc, total	0.403	0.0040 mg/L	0.400		101	80-120			

### Volatile Organic Compounds (VOC), Batch B4D1219

<b>Blank (B4D1219-BLK1)</b>					Prepared: 2024-04-02, Analyzed: 2024-04-02				
Bromodichloromethane	< 0.0010	0.0010 mg/L							
Bromoform	< 0.0010	0.0010 mg/L							
Chloroform	< 0.0010	0.0010 mg/L							
Dibromochloromethane	< 0.0010	0.0010 mg/L							
Surrogate: Toluene-d8	0.0190	mg/L	0.0250		76	70-130			
Surrogate: 4-Bromofluorobenzene	0.0195	mg/L	0.0249		78	70-130			
<b>LCS (B4D1219-BS1)</b>					Prepared: 2024-04-02, Analyzed: 2024-04-02				
Bromodichloromethane	0.0209	0.0010 mg/L	0.0201		104	70-130			
Bromoform	0.0214	0.0010 mg/L	0.0201		107	70-130			
Chloroform	0.0219	0.0010 mg/L	0.0201		109	70-130			
Dibromochloromethane	0.0213	0.0010 mg/L	0.0201		106	70-130			
Surrogate: Toluene-d8	0.0164	mg/L	0.0250		66	70-130			S02
Surrogate: 4-Bromofluorobenzene	0.0179	mg/L	0.0249		72	70-130			

#### QC Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

S02 Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.