

## CERTIFICATE OF ANALYSIS

**REPORTED TO** Prince George, City of - Pump Station  
1100 Patricia Boulevard  
Prince George, BC V2L 3v9

**ATTENTION** Cheyenne Magee

**PO NUMBER**

**PROJECT** Raw Water - PW 624

**PROJECT INFO** [info]

**WORK ORDER** 25D3166

**RECEIVED / TEMP** 2025-04-24 12:30 / 8.5°C

**REPORTED** 2025-05-07 09:43

**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



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 [hhannaoui@caro.ca](mailto:hhannaoui@caro.ca)

#### Authorized By:

Hanane El Hannaoui  
Junior Account Manager

1-888-311-8846 | [www.caro.ca](http://www.caro.ca)

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |  
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

## TEST RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL	Units	Analyzed	Qualifier
<b>PW624 (25D3166-01)   Matrix: Drinking Water   Sampled: 2025-04-23 10:00</b>					
<b>Anions</b>					
Bromide	< 0.1	0.1	mg/L	2025-04-25	
Chloride	<b>8.83</b>	0.10	mg/L	2025-04-25	
Fluoride	< 0.10	0.10	mg/L	2025-04-25	
Nitrate (as N)	<b>0.060</b>	0.010	mg/L	2025-04-25	
Nitrite (as N)	< 0.010	0.010	mg/L	2025-04-25	
Sulfate	<b>10.8</b>	1.0	mg/L	2025-04-25	
<b>Calculated Parameters</b>					
Total Trihalomethanes	< 0.00400	0.00400	mg/L	N/A	
Hardness, Dissolved (as CaCO3)	<b>149</b>	0.500	mg/L	N/A	
Nitrate+Nitrite (as N)	<b>0.0602</b>	0.0100	mg/L	N/A	
Nitrogen, Total	<b>0.171</b>	0.0500	mg/L	N/A	
<b>Dissolved Metals</b>					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2025-04-27	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-04-27	
Arsenic, dissolved	<b>0.00068</b>	0.00050	mg/L	2025-04-27	
Barium, dissolved	<b>0.0332</b>	0.0050	mg/L	2025-04-27	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-04-27	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-04-27	
Boron, dissolved	< 0.0500	0.0500	mg/L	2025-04-27	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2025-04-27	
Calcium, dissolved	<b>41.6</b>	0.20	mg/L	2025-04-27	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-04-27	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2025-04-27	
Copper, dissolved	<b>0.00063</b>	0.00040	mg/L	2025-04-27	
Iron, dissolved	< 0.010	0.010	mg/L	2025-04-27	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-04-27	
Lithium, dissolved	<b>0.00208</b>	0.00010	mg/L	2025-04-27	
Magnesium, dissolved	<b>11.0</b>	0.010	mg/L	2025-04-27	
Manganese, dissolved	<b>0.0202</b>	0.00020	mg/L	2025-04-27	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-04-25	
Molybdenum, dissolved	<b>0.00108</b>	0.00010	mg/L	2025-04-27	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2025-04-27	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2025-04-27	
Potassium, dissolved	<b>1.96</b>	0.10	mg/L	2025-04-27	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2025-04-27	
Silicon, dissolved	<b>5.8</b>	1.0	mg/L	2025-04-27	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-04-27	
Sodium, dissolved	<b>5.77</b>	0.10	mg/L	2025-04-27	
Strontium, dissolved	<b>0.247</b>	0.0010	mg/L	2025-04-27	
Sulfur, dissolved	<b>3.6</b>	3.0	mg/L	2025-04-27	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-04-27	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-04-27	

## TEST RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL	Units	Analyzed	Qualifier
<b>PW624 (25D3166-01)   Matrix: Drinking Water   Sampled: 2025-04-23 10:00, Continued</b>					
<b>Dissolved Metals, Continued</b>					
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-04-27	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-04-27	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-04-27	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-04-27	
Uranium, dissolved	<b>0.000939</b>	0.000020	mg/L	2025-04-27	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-04-27	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-04-27	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2025-04-27	
<b>General Parameters</b>					
Adsorbable Organic Halides	< 6	6	µg/L	2025-04-28	CT5
Alkalinity, Total (as CaCO <sub>3</sub> )	<b>131</b>	1.0	mg/L	2025-04-26	
Alkalinity, Phenolphthalein (as CaCO <sub>3</sub> )	< 1.0	1.0	mg/L	2025-04-26	
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	<b>131</b>	1.0	mg/L	2025-04-26	
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	< 1.0	1.0	mg/L	2025-04-26	
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	< 1.0	1.0	mg/L	2025-04-26	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-04-30	
Carbon, Total Organic	<b>1.69</b>	0.50	mg/L	2025-04-30	
Nitrogen, Total Kjeldahl	<b>0.111</b>	0.050	mg/L	2025-05-01	
Phosphorus, Dissolved Reactive	<b>0.0184</b>	0.0050	mg/L	2025-04-26	
Solids, Total Suspended	<b>2.0</b>	2.0	mg/L	2025-04-30	
<b>Microbiological Parameters</b>					
Coliforms, Total	< 1	1	CFU/100 mL	2025-04-24	
Coliforms, Fecal	< 1	1	CFU/100 mL	2025-04-24	
E. coli	< 1	1	CFU/100 mL	2025-04-24	
<b>Total Metals</b>					
Aluminum, total	< 0.0050	0.0050	mg/L	2025-04-28	
Antimony, total	< 0.00020	0.00020	mg/L	2025-04-28	
Arsenic, total	<b>0.00068</b>	0.00050	mg/L	2025-04-28	
Barium, total	<b>0.0335</b>	0.0050	mg/L	2025-04-28	
Beryllium, total	< 0.00010	0.00010	mg/L	2025-04-28	
Bismuth, total	< 0.00010	0.00010	mg/L	2025-04-28	
Boron, total	< 0.0500	0.0500	mg/L	2025-04-28	
Cadmium, total	< 0.000010	0.000010	mg/L	2025-04-28	
Calcium, total	<b>42.5</b>	0.20	mg/L	2025-04-28	
Chromium, total	< 0.00050	0.00050	mg/L	2025-04-28	
Cobalt, total	< 0.00010	0.00010	mg/L	2025-04-28	
Copper, total	<b>0.00063</b>	0.00040	mg/L	2025-04-28	
Iron, total	< 0.010	0.010	mg/L	2025-04-28	
Lead, total	< 0.00020	0.00020	mg/L	2025-04-28	
Lithium, total	<b>0.00185</b>	0.00010	mg/L	2025-04-28	
Magnesium, total	<b>11.5</b>	0.010	mg/L	2025-04-28	

## TEST RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL	Units	Analyzed	Qualifier
---------	--------	----	-------	----------	-----------

### PW624 (25D3166-01) | Matrix: Drinking Water | Sampled: 2025-04-23 10:00, Continued

#### Total Metals, Continued

Manganese, total	0.0198	0.00020	mg/L	2025-04-28	
Mercury, total	< 0.000010	0.000010	mg/L	2025-04-25	
Molybdenum, total	0.00124	0.00010	mg/L	2025-04-28	
Nickel, total	< 0.00040	0.00040	mg/L	2025-04-28	
Phosphorus, total	< 0.050	0.050	mg/L	2025-04-28	
Potassium, total	1.85	0.10	mg/L	2025-04-28	
Selenium, total	< 0.00050	0.00050	mg/L	2025-04-28	
Silicon, total	5.6	1.0	mg/L	2025-04-28	
Silver, total	< 0.000050	0.000050	mg/L	2025-04-28	
Sodium, total	5.79	0.10	mg/L	2025-04-28	
Strontium, total	0.241	0.0010	mg/L	2025-04-28	
Sulfur, total	4.2	3.0	mg/L	2025-04-28	
Tellurium, total	< 0.00050	0.00050	mg/L	2025-04-28	
Thallium, total	< 0.000020	0.000020	mg/L	2025-04-28	
Thorium, total	< 0.00010	0.00010	mg/L	2025-04-28	
Tin, total	< 0.00020	0.00020	mg/L	2025-04-28	
Titanium, total	< 0.0050	0.0050	mg/L	2025-04-28	
Tungsten, total	< 0.0010	0.0010	mg/L	2025-04-28	
Uranium, total	0.00117	0.000020	mg/L	2025-04-28	
Vanadium, total	< 0.0050	0.0050	mg/L	2025-04-28	
Zinc, total	< 0.0040	0.0040	mg/L	2025-04-28	
Zirconium, total	< 0.00010	0.00010	mg/L	2025-04-28	

#### Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	0.0010	mg/L	2025-04-29	
Bromoform	< 0.0010	0.0010	mg/L	2025-04-29	
Chloroform	< 0.0010	0.0010	mg/L	2025-04-29	
Dibromochloromethane	< 0.0010	0.0010	mg/L	2025-04-29	
Surrogate: Toluene-d8	77	70-130	%	2025-04-29	
Surrogate: 4-Bromofluorobenzene	73	70-130	%	2025-04-29	

#### Sample Qualifiers:

CT5 This sample has been incorrectly preserved for AOX analysis

## APPENDIX 1: SUPPORTING INFORMATION

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

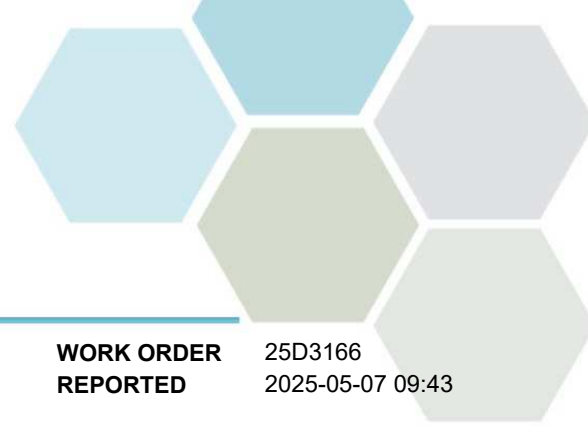
**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analysis Description	Method Ref.	Technique	Accredited	Location
Adsorbable Organic Halides in Water	PAPTAC/ISO - low level	Adsorption, Coulometric Titration		Sublet
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Ammonia, Total in Water	SM 4500-NH3 G* (2021)	Automated Colorimetry (Phenate)	✓	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
Coliforms, Fecal in Water	SM 9222 (2015)	Membrane Filtration		Sublet
Coliforms, Total in Water	SM 9222 (2015)	Membrane Filtration	✓	Sublet
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
E. coli in Water	SM 9222* (2015)	Chromocult Agar	✓	Sublet
Hardness in Water	SM 2340 B (2021)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Nitrogen, Total Kjeldahl in Water	SM 4500-Norg D* (2021)	Block Digestion and Flow Injection Analysis	✓	Kelowna
Phosphorus, Dissolved Reactive in Water	SM 4500-P E (2021)	Colorimetry (Ascorbic Acid)	✓	Richmond
Solids, Total Suspended in Water	SM 2540 D* (2020)	Gravimetry (Dried at 103-105C)	✓	Richmond
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

*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
CFU/100 mL	Colony Forming Units per 100 millilitres
mg/L	Milligrams per litre
µg/L	Micrograms per litre
EPA	United States Environmental Protection Agency Test Methods
PAPTAC	Pulp and Paper Technical Association of Canada Standard Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association



## APPENDIX 1: SUPPORTING INFORMATION

**REPORTED TO** Prince George, City of - Pump Station  
**PROJECT** Raw Water - PW 624

**WORK ORDER** 25D3166  
**REPORTED** 2025-05-07 09:43

### 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: [hhannaoui@caro.ca](mailto:hhannaoui@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** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

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
---------	--------	----------	-------------	---------------	-------	-----------	-------	-----------	-----------

### Anions, Batch B5D3923

<b>Blank (B5D3923-BLK1)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Bromide	< 0.1	0.1 mg/L							
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							

<b>Blank (B5D3923-BLK2)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Bromide	< 0.1	0.1 mg/L							
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							

<b>LCS (B5D3923-BS1)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Bromide	10.6	0.1 mg/L	10.0		106	85-115			
Chloride	3.08	0.10 mg/L	3.00		103	85-115			
Fluoride	2.02	0.10 mg/L	2.00		101	85-115			
Nitrate (as N)	3.18	0.010 mg/L	3.00		106	85-115			
Nitrite (as N)	3.18	0.010 mg/L	3.00		106	85-115			
Sulfate	15.7	1.0 mg/L	15.0		105	85-115			

<b>LCS (B5D3923-BS2)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Bromide	10.7	0.1 mg/L	10.0		107	85-115			
Chloride	2.99	0.10 mg/L	3.00		100	85-115			
Fluoride	2.07	0.10 mg/L	2.00		104	85-115			
Nitrate (as N)	3.16	0.010 mg/L	3.00		105	85-115			
Nitrite (as N)	3.22	0.010 mg/L	3.00		107	85-115			
Sulfate	16.0	1.0 mg/L	15.0		106	85-115			

### Dissolved Metals, Batch B5D3996

<b>Blank (B5D3996-BLK1)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, dissolved	< 0.000010	0.000010 mg/L							



## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>Dissolved Metals, Batch B5D3996, Continued</b>									
<b>Blank (B5D3996-BLK2)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, dissolved	< 0.000010	0.000010 mg/L							
<b>Blank (B5D3996-BLK3)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, dissolved	< 0.000010	0.000010 mg/L							
<b>Blank (B5D3996-BLK4)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, dissolved	< 0.000010	0.000010 mg/L							
<b>LCS (B5D3996-BS1)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, dissolved	0.00231	0.000010 mg/L	0.00250		93	80-120			
<b>LCS (B5D3996-BS2)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, dissolved	0.00240	0.000010 mg/L	0.00250		96	80-120			
<b>LCS (B5D3996-BS3)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, dissolved	0.00204	0.000010 mg/L	0.00250		81	80-120			
<b>LCS (B5D3996-BS4)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, dissolved	0.00184	0.000010 mg/L	0.00250		74	80-120			SPK1

### Dissolved Metals, Batch B5D4069

<b>Blank (B5D4069-BLK1)</b>			Prepared: 2025-04-27, Analyzed: 2025-04-27						
Aluminum, dissolved	< 0.0050	0.0050 mg/L							
Antimony, dissolved	< 0.00020	0.00020 mg/L							
Arsenic, dissolved	< 0.00050	0.00050 mg/L							
Barium, dissolved	< 0.0050	0.0050 mg/L							
Beryllium, dissolved	< 0.00010	0.00010 mg/L							
Bismuth, dissolved	< 0.00010	0.00010 mg/L							
Boron, dissolved	< 0.0500	0.0500 mg/L							
Cadmium, dissolved	< 0.000010	0.000010 mg/L							
Calcium, dissolved	< 0.20	0.20 mg/L							
Chromium, dissolved	< 0.00050	0.00050 mg/L							
Cobalt, dissolved	< 0.00010	0.00010 mg/L							
Copper, dissolved	< 0.00040	0.00040 mg/L							
Iron, dissolved	< 0.010	0.010 mg/L							
Lead, dissolved	< 0.00020	0.00020 mg/L							
Lithium, dissolved	< 0.00010	0.00010 mg/L							
Magnesium, dissolved	< 0.010	0.010 mg/L							
Manganese, dissolved	< 0.00020	0.00020 mg/L							
Molybdenum, dissolved	< 0.00010	0.00010 mg/L							
Nickel, dissolved	< 0.00040	0.00040 mg/L							
Phosphorus, dissolved	< 0.050	0.050 mg/L							
Potassium, dissolved	< 0.10	0.10 mg/L							
Selenium, dissolved	< 0.00050	0.00050 mg/L							
Silicon, dissolved	< 1.0	1.0 mg/L							
Silver, dissolved	< 0.000050	0.000050 mg/L							
Sodium, dissolved	< 0.10	0.10 mg/L							
Strontium, dissolved	< 0.0010	0.0010 mg/L							
Sulfur, dissolved	< 3.0	3.0 mg/L							
Tellurium, dissolved	< 0.00050	0.00050 mg/L							
Thallium, dissolved	< 0.000020	0.000020 mg/L							
Thorium, dissolved	< 0.00010	0.00010 mg/L							
Tin, dissolved	< 0.00020	0.00020 mg/L							
Titanium, dissolved	< 0.0050	0.0050 mg/L							
Tungsten, dissolved	< 0.0010	0.0010 mg/L							
Uranium, dissolved	< 0.000020	0.000020 mg/L							



## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>Dissolved Metals, Batch B5D4069, Continued</b>									
<b>Blank (B5D4069-BLK1), Continued</b>					Prepared: 2025-04-27, Analyzed: 2025-04-27				
Vanadium, dissolved	< 0.0050	0.0050 mg/L							
Zinc, dissolved	< 0.0040	0.0040 mg/L							
Zirconium, dissolved	< 0.00010	0.00010 mg/L							
<b>LCS (B5D4069-BS1)</b>					Prepared: 2025-04-27, Analyzed: 2025-04-27				
Aluminum, dissolved	3.94	0.0050 mg/L	4.00		99	80-120			
Antimony, dissolved	0.0387	0.00020 mg/L	0.0400		97	80-120			
Arsenic, dissolved	0.398	0.00050 mg/L	0.400		100	80-120			
Barium, dissolved	0.0385	0.0050 mg/L	0.0400		96	80-120			
Beryllium, dissolved	0.0393	0.00010 mg/L	0.0400		98	80-120			
Bismuth, dissolved	0.0393	0.00010 mg/L	0.0400		98	80-120			
Boron, dissolved	0.402	0.0500 mg/L	0.400		101	80-120			
Cadmium, dissolved	0.0387	0.000010 mg/L	0.0400		97	80-120			
Calcium, dissolved	3.92	0.20 mg/L	4.00		98	80-120			
Chromium, dissolved	0.0398	0.00050 mg/L	0.0400		99	80-120			
Cobalt, dissolved	0.0397	0.00010 mg/L	0.0400		99	80-120			
Copper, dissolved	0.0398	0.00040 mg/L	0.0400		100	80-120			
Iron, dissolved	3.91	0.010 mg/L	4.00		98	80-120			
Lead, dissolved	0.0386	0.00020 mg/L	0.0400		96	80-120			
Lithium, dissolved	0.0399	0.00010 mg/L	0.0400		100	80-120			
Magnesium, dissolved	4.10	0.010 mg/L	4.00		102	80-120			
Manganese, dissolved	0.0397	0.00020 mg/L	0.0400		99	80-120			
Molybdenum, dissolved	0.0389	0.00010 mg/L	0.0400		97	80-120			
Nickel, dissolved	0.0396	0.00040 mg/L	0.0400		99	80-120			
Phosphorus, dissolved	4.01	0.050 mg/L	4.00		100	80-120			
Potassium, dissolved	4.01	0.10 mg/L	4.00		100	80-120			
Selenium, dissolved	0.394	0.00050 mg/L	0.400		99	80-120			
Silicon, dissolved	4.0	1.0 mg/L	4.00		101	80-120			
Silver, dissolved	0.0388	0.000050 mg/L	0.0400		97	80-120			
Sodium, dissolved	4.00	0.10 mg/L	4.00		100	80-120			
Strontium, dissolved	0.0401	0.0010 mg/L	0.0400		100	80-120			
Sulfur, dissolved	39.9	3.0 mg/L	40.0		100	80-120			
Tellurium, dissolved	0.0389	0.00050 mg/L	0.0400		97	80-120			
Thallium, dissolved	0.0385	0.000020 mg/L	0.0400		96	80-120			
Thorium, dissolved	0.0380	0.00010 mg/L	0.0400		95	80-120			
Tin, dissolved	0.0397	0.00020 mg/L	0.0400		99	80-120			
Titanium, dissolved	0.0404	0.0050 mg/L	0.0400		101	80-120			
Tungsten, dissolved	0.0379	0.0010 mg/L	0.0400		95	80-120			
Uranium, dissolved	0.0389	0.000020 mg/L	0.0400		97	80-120			
Vanadium, dissolved	0.0397	0.0050 mg/L	0.0400		99	80-120			
Zinc, dissolved	0.399	0.0040 mg/L	0.400		100	80-120			
Zirconium, dissolved	0.0396	0.00010 mg/L	0.0400		99	80-120			

### General Parameters, Batch B5D4021

<b>Blank (B5D4021-BLK1)</b>			Prepared: 2025-04-26, Analyzed: 2025-04-26						
Alkalinity, Total (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
<b>Blank (B5D4021-BLK2)</b>			Prepared: 2025-04-26, Analyzed: 2025-04-26						
Alkalinity, Total (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							

## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>General Parameters, Batch B5D4021, Continued</b>									
<b>Blank (B5D4021-BLK2), Continued</b>				Prepared: 2025-04-26, Analyzed: 2025-04-26					
Alkalinity, Carbonate (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO <sub>3</sub> )	< 1.0	1.0 mg/L							
<b>LCS (B5D4021-BS1)</b>				Prepared: 2025-04-26, Analyzed: 2025-04-26					
Alkalinity, Total (as CaCO <sub>3</sub> )	88.7	1.0 mg/L	100		89	80-120			
<b>LCS (B5D4021-BS3)</b>				Prepared: 2025-04-26, Analyzed: 2025-04-26					
Alkalinity, Total (as CaCO <sub>3</sub> )	88.4	1.0 mg/L	100		88	80-120			
<b>General Parameters, Batch B5D4033</b>									
<b>Blank (B5D4033-BLK1)</b>				Prepared: 2025-04-26, Analyzed: 2025-04-26					
Phosphorus, Dissolved Reactive	< 0.0050	0.0050 mg/L							
<b>LCS (B5D4033-BS1)</b>				Prepared: 2025-04-26, Analyzed: 2025-04-26					
Phosphorus, Dissolved Reactive	0.0350	0.0050 mg/L	0.0320		110	75-125			
<b>General Parameters, Batch B5D4127</b>									
<b>Blank (B5D4127-BLK1)</b>				Prepared: 2025-04-23, Analyzed: 2025-04-30					
Carbon, Total Organic	< 0.50	0.50 mg/L							
<b>Blank (B5D4127-BLK2)</b>				Prepared: 2025-04-28, Analyzed: 2025-04-30					
Carbon, Total Organic	< 0.50	0.50 mg/L							
<b>Blank (B5D4127-BLK3)</b>				Prepared: 2025-04-29, Analyzed: 2025-04-30					
Carbon, Total Organic	< 0.50	0.50 mg/L							
<b>LCS (B5D4127-BS1)</b>				Prepared: 2025-04-23, Analyzed: 2025-04-30					
Carbon, Total Organic	9.30	0.50 mg/L	10.0		93	78-116			
<b>LCS (B5D4127-BS2)</b>				Prepared: 2025-04-28, Analyzed: 2025-04-30					
Carbon, Total Organic	9.43	0.50 mg/L	10.0		94	78-116			
<b>LCS (B5D4127-BS3)</b>				Prepared: 2025-04-29, Analyzed: 2025-04-30					
Carbon, Total Organic	9.29	0.50 mg/L	10.0		93	78-116			
<b>General Parameters, Batch B5D4432</b>									
<b>Blank (B5D4432-BLK1)</b>				Prepared: 2025-04-30, Analyzed: 2025-04-30					
Ammonia, Total (as N)	0.021	0.010 mg/L							
<b>LCS (B5D4432-BS1)</b>				Prepared: 2025-04-30, Analyzed: 2025-04-30					
Ammonia, Total (as N)	0.979	0.010 mg/L	1.00		98	85-115			
<b>General Parameters, Batch B5D4495</b>									
<b>Blank (B5D4495-BLK1)</b>				Prepared: 2025-04-30, Analyzed: 2025-05-01					
Nitrogen, Total Kjeldahl	< 0.050	0.050 mg/L							
<b>Blank (B5D4495-BLK2)</b>				Prepared: 2025-04-30, Analyzed: 2025-05-01					
Nitrogen, Total Kjeldahl	< 0.050	0.050 mg/L							
<b>LCS (B5D4495-BS1)</b>				Prepared: 2025-04-30, Analyzed: 2025-05-01					
Nitrogen, Total Kjeldahl	1.02	0.050 mg/L	1.00		102	85-115			

## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
---------	--------	----------	-------------	---------------	-------	-----------	-------	-----------	-----------

### General Parameters, Batch B5D4495, Continued

<b>LCS (B5D4495-BS2)</b>			Prepared: 2025-04-30, Analyzed: 2025-05-01						
Nitrogen, Total Kjeldahl	1.05	0.050 mg/L	1.00		105	85-115			

### General Parameters, Batch B5D4501

<b>Blank (B5D4501-BLK1)</b>			Prepared: 2025-05-02, Analyzed: 2025-05-02						
Solids, Total Suspended	< 2.0	2.0 mg/L							
<b>LCS (B5D4501-BS1)</b>			Prepared: 2025-05-02, Analyzed: 2025-05-02						
Solids, Total Suspended	95.0	5.0 mg/L	100		95	83-107			

### Total Metals, Batch B5D3996

<b>Blank (B5D3996-BLK1)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, total	< 0.000010	0.000010 mg/L							
<b>Blank (B5D3996-BLK2)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, total	< 0.000010	0.000010 mg/L							
<b>Blank (B5D3996-BLK3)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, total	< 0.000010	0.000010 mg/L							
<b>Blank (B5D3996-BLK4)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, total	< 0.000010	0.000010 mg/L							
<b>LCS (B5D3996-BS1)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, total	0.00231	0.000010 mg/L	0.00250		93	80-120			
<b>LCS (B5D3996-BS2)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, total	0.00240	0.000010 mg/L	0.00250		96	80-120			
<b>LCS (B5D3996-BS3)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, total	0.00204	0.000010 mg/L	0.00250		81	80-120			
<b>LCS (B5D3996-BS4)</b>			Prepared: 2025-04-25, Analyzed: 2025-04-25						
Mercury, total	0.00184	0.000010 mg/L	0.00250		74	80-120			SPK1
<b>Duplicate (B5D3996-DUP4)</b>			<b>Source: 25D3166-01</b>		Prepared: 2025-04-25, Analyzed: 2025-04-25				
Mercury, total	< 0.000010	0.000010 mg/L		< 0.000010			20		

### Total Metals, Batch B5D4054

<b>Blank (B5D4054-BLK1)</b>			Prepared: 2025-04-26, Analyzed: 2025-04-28						
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							
Beryllium, total	< 0.00010	0.00010 mg/L							
Bismuth, total	< 0.00010	0.00010 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							
Cobalt, total	< 0.00010	0.00010 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							

## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
---------	--------	----------	-------------	---------------	-------	-----------	-------	-----------	-----------

### Total Metals, Batch B5D4054, Continued

#### Blank (B5D4054-BLK1), Continued

Prepared: 2025-04-26, Analyzed: 2025-04-28

Lithium, total	< 0.00010	0.00010 mg/L							
Magnesium, total	< 0.010	0.010 mg/L							
Manganese, total	< 0.00020	0.00020 mg/L							
Molybdenum, total	< 0.00010	0.00010 mg/L							
Nickel, total	< 0.00040	0.00040 mg/L							
Phosphorus, total	< 0.050	0.050 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 mg/L							
Silicon, total	< 1.0	1.0 mg/L							
Silver, total	< 0.000050	0.000050 mg/L							
Sodium, total	< 0.10	0.10 mg/L							
Strontium, total	< 0.0010	0.0010 mg/L							
Sulfur, total	< 3.0	3.0 mg/L							
Tellurium, total	< 0.00050	0.00050 mg/L							
Thallium, total	< 0.000020	0.000020 mg/L							
Thorium, total	< 0.00010	0.00010 mg/L							
Tin, total	< 0.00020	0.00020 mg/L							
Titanium, total	< 0.0050	0.0050 mg/L							
Tungsten, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Vanadium, total	< 0.0050	0.0050 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							
Zirconium, total	< 0.00010	0.00010 mg/L							

#### LCS (B5D4054-BS1)

Prepared: 2025-04-26, Analyzed: 2025-04-28

Aluminum, total	3.76	0.0050 mg/L	4.00		94	80-120			
Antimony, total	0.0386	0.00020 mg/L	0.0400		97	80-120			
Arsenic, total	0.394	0.00050 mg/L	0.400		98	80-120			
Barium, total	0.0400	0.0050 mg/L	0.0400		100	80-120			
Beryllium, total	0.0366	0.00010 mg/L	0.0400		92	80-120			
Bismuth, total	0.0395	0.00010 mg/L	0.0400		99	80-120			
Boron, total	0.384	0.0500 mg/L	0.400		96	80-120			
Cadmium, total	0.0393	0.000010 mg/L	0.0400		98	80-120			
Calcium, total	3.99	0.20 mg/L	4.00		100	80-120			
Chromium, total	0.0398	0.00050 mg/L	0.0400		99	80-120			
Cobalt, total	0.0400	0.00010 mg/L	0.0400		100	80-120			
Copper, total	0.0393	0.00040 mg/L	0.0400		98	80-120			
Iron, total	3.92	0.010 mg/L	4.00		98	80-120			
Lead, total	0.0400	0.00020 mg/L	0.0400		100	80-120			
Lithium, total	0.0361	0.00010 mg/L	0.0400		90	80-120			
Magnesium, total	3.79	0.010 mg/L	4.00		95	80-120			
Manganese, total	0.0395	0.00020 mg/L	0.0400		99	80-120			
Molybdenum, total	0.0395	0.00010 mg/L	0.0400		99	80-120			
Nickel, total	0.0411	0.00040 mg/L	0.0400		103	80-120			
Phosphorus, total	3.79	0.050 mg/L	4.00		95	80-120			
Potassium, total	3.81	0.10 mg/L	4.00		95	80-120			
Selenium, total	0.398	0.00050 mg/L	0.400		99	80-120			
Silicon, total	4.0	1.0 mg/L	4.00		101	80-120			
Silver, total	0.0393	0.000050 mg/L	0.0400		98	80-120			
Sodium, total	3.84	0.10 mg/L	4.00		96	80-120			
Strontium, total	0.0393	0.0010 mg/L	0.0400		98	80-120			
Sulfur, total	39.0	3.0 mg/L	40.0		98	80-120			
Tellurium, total	0.0376	0.00050 mg/L	0.0400		94	80-120			
Thallium, total	0.0393	0.000020 mg/L	0.0400		98	80-120			
Thorium, total	0.0397	0.00010 mg/L	0.0400		99	80-120			
Tin, total	0.0387	0.00020 mg/L	0.0400		97	80-120			

## APPENDIX 2: QUALITY CONTROL RESULTS

**REPORTED TO PROJECT** Prince George, City of - Pump Station  
Raw Water - PW 624

**WORK ORDER REPORTED** 25D3166  
2025-05-07 09:43

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
<b>Total Metals, Batch B5D4054, Continued</b>									
<b>LCS (B5D4054-BS1), Continued</b>				Prepared: 2025-04-26, Analyzed: 2025-04-28					
Titanium, total	0.0378	0.0050 mg/L	0.0400		95	80-120			
Tungsten, total	0.0406	0.0010 mg/L	0.0400		102	80-120			
Uranium, total	0.0402	0.000020 mg/L	0.0400		101	80-120			
Vanadium, total	0.0395	0.0050 mg/L	0.0400		99	80-120			
Zinc, total	0.391	0.0040 mg/L	0.400		98	80-120			
Zirconium, total	0.0390	0.00010 mg/L	0.0400		98	80-120			
<b>Volatile Organic Compounds (VOC), Batch B5D4280</b>									
<b>Blank (B5D4280-BLK1)</b>				Prepared: 2025-04-29, Analyzed: 2025-04-29					
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	0.0198	mg/L	0.0250		79	70-130			
Surrogate: 4-Bromofluorobenzene	0.0187	mg/L	0.0249		75	70-130			
<b>Blank (B5D4280-BLK2)</b>				Prepared: 2025-04-30, Analyzed: 2025-04-30					
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	0.0183	mg/L	0.0250		73	70-130			
Surrogate: 4-Bromofluorobenzene	0.0173	mg/L	0.0249		70	70-130			
<b>LCS (B5D4280-BS1)</b>				Prepared: 2025-04-29, Analyzed: 2025-04-29					
Bromodichloromethane	0.0202	0.0010 mg/L	0.0201		101	70-130			
Bromoform	0.0192	0.0010 mg/L	0.0201		95	70-130			
Chloroform	0.0196	0.0010 mg/L	0.0201		97	70-130			
Dibromochloromethane	0.0183	0.0010 mg/L	0.0201		91	70-130			
Surrogate: Toluene-d8	0.0206	mg/L	0.0250		82	70-130			
Surrogate: 4-Bromofluorobenzene	0.0242	mg/L	0.0249		97	70-130			
<b>LCS (B5D4280-BS3)</b>				Prepared: 2025-04-30, Analyzed: 2025-04-30					
Bromodichloromethane	0.0194	0.0010 mg/L	0.0201		96	70-130			
Bromoform	0.0183	0.0010 mg/L	0.0201		91	70-130			
Chloroform	0.0190	0.0010 mg/L	0.0201		94	70-130			
Dibromochloromethane	0.0176	0.0010 mg/L	0.0201		88	70-130			
Surrogate: Toluene-d8	0.0206	mg/L	0.0250		82	70-130			
Surrogate: 4-Bromofluorobenzene	0.0228	mg/L	0.0249		92	70-130			

### QC Qualifiers:

SPK1 The recovery of this analyte was outside of established control limits. The data was accepted based on performance of other batch QC.