Hydrogeology
Groundwater Engineering
Water Resource Management

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TECHNICAL MEMORANDUM

Date: February 17, 2026

To: SUNSHINE COAST REGIONAL DISTRICT

Attn: Jesse Waldorf, Manager of Capital Projects
Pria Giri, Capital Projects Coordinator

RE: **Groundwater Monitoring - Test Well TW-5(25) at the Sechelt | shíshálh Hospital Site; Summary of the Results, Conclusions and Recommendations.**

1 Introduction

1.1 Background

Under the Sunshine Coast Regional District (SCRD) **Water Supply Plan Feasibility Study Long-Term Ground Water Supply Sources** (*Groundwater Investigation Phase 5* – 'the Project'), **Test Well No. 5** at Sechelt | shíshálh Hospital (**Figure 1** in **Attachment 1**) was successfully drilled and tested between January 21 and February 21, 2025. The results were presented by Kalwij Water Dynamics (KWD) to the SCRD Committee of the Whole on April 10, 2025. On April 24, 2025, the SCRD Board of Directors approved the following recommendation (from the minutes dated April 24, 2025):

Recommendation No. 2 Water Supply Plan Feasibility Study Long-Term Water Supply Sources (Groundwater Investigation Phase 5) Update (Part):

> THAT the Sunshine Coast Regional District (SCRD) advance engagement with shíshálh Nation and Vancouver Coastal Heath, submit a Water License Application, and initiate groundwater monitoring for the Sechelt | shíshálh Hospital test well site.

On May 8, 2025, KWD submitted to the SCRD a proposal for the additional scope of work pertaining to the water licence application and initiating groundwater monitoring. KWD prepared and submitted the **groundwater licence application** on May 17, 2025**.** The groundwater monitoring program was overseen by KWD's QP Ineke Kalwij, Ph.D., P.Eng. This document, prepared by KWD's QP, summarizes the results of the groundwater monitoring program carried out from May 28 to November 26, 2025. Thierry Carriou, M.Sc., P.Eng. (BC Groundwater Consulting Services Ltd.) completed a formal independent review of the technical aspects presented in this document.

2 Groundwater Monitoring Program

2.1 Objectives and Work Scope

The following are the main objectives of the groundwater monitoring program:

1. **Monitoring of the groundwater levels** – to document seasonal groundwater level trends to establish baseline data, in support of the groundwater licence application.
2. **Monitoring of the groundwater quality** – to determine trends in water quality and confirm microbiology.

To facilitate the groundwater monitoring the following tasks were completed:

Task 1 ***Monitoring groundwater levels*** - a datalogger was installed in the well. The datalogger is designed to record water levels (i.e., water column above the sensor of the device), groundwater temperature and electrical conductivity (EC). A barologger was installed in the well (but not in the water) to compensate for atmospheric pressure. Both dataloggers are programmed at ten (10) minute intervals. Groundwater monitoring commenced on May 28, 2025.

Task 2 ***Monitor groundwater quality*** - water samples were collected towards the end of 6 hours of well flushing. During the flushing selected water quality parameters were monitored, including pH and EC. A total of 4 flushing and water sampling cycles were completed, on May 28, July 29, September 23 and November 26, 2025. Water samples were hand-delivered to Element in Surrey, an accredited water testing laboratory[1]. In situ water quality parameters were collected using a multiparameter digital water quality meter (YSI Inc[2]. rented from Pine Environmental in Burnaby).

Task 3 ***Temporary pumping system installation*** - to facilitate the groundwater quality monitoring – a temporary pumping system was installed in the well, with the capacity to pump at 19 litres per second (L/s); power supply was provided by a (mobile) generator. In order to keep the wellhead properly closed between pumping cycles, the wellhead was retrofitted with a 200 millimetres (mm) casing piece welded onto the (cut) 150-mm casing. The added casing piece was provided with a fitting (a weld-on pitless adaptor) to make above ground discharge possible (a lay-flat would be connected to the fitting, with water discharging into the nearby stormwater system). Fyfe Well & Water Services (FYFE[3]) installed the temporary pumping system and completed the flushing. Following the last flushing, FYFE removed the pumping system on November 27, 2025.

Site illustrations of the field setup during flushing are included in **Attachment 2**.

[1] KWD's QP dropped off the water samples on the day following the collection of the water sample; water bottles and cooler (with ice packs) were provided by Element.
[2] YSI Inc. it is a brand within Xylem Inc (a global water technology company).
[3] Subcontractor to KWD under the Water Supply Plan Feasibility Study Long-Term Ground Water Supply Sources Project.

2.2 Groundwater Monitoring Results

2.2.1 Groundwater Levels

Figure 2 shows the observed groundwater level trend, continuously monitored from May 28 to September 22, 2025. Due to an unforeseen communications issue with the datalogger, not evident until November 26, KWD installed another datalogger on the same day to allow continuity in groundwater level monitoring. *The groundwater level trend between September 22 and November 26 is inferred; based on static water level measurements there was only a slight difference in groundwater levels between the two dates,15.95 metres (m) below ground surface (bgs) and 15.92 m-bgs, respectively*.

Groundwater level monitoring commenced during a time of seasonal decline in groundwater levels; in this geographic region, most of the aquifer recharge typically occurs from late fall to early spring in the following year. Based on the results to date, the overall seasonal decline in groundwater level is 0.45 m (*based on comparing May 28 and Sep 23 static water levels*); and around 0.52 m based on linear extrapolation assuming a period of seasonal decline from May 1 to October 30, 2025 (we infer that aquifer recharge commences mid to late October). *Long term monitoring (i.e., several years) is needed to make any meaningful interpretation of seasonal and annual trends*.

2.2.2 Pumping Groundwater Levels

Figure 3 summarizes the pumping water level trends observed during the flushing. The trends are similar for each flushing showing a rapid stabilization of the water level and instantaneous recovery of the water level following cessation of pumping.

These trends are similar to what was observed during the 72-hours constant rate pumping test completed for TW-5(25) in February 2025 (KWD, 2025). The figure includes a table summarizing hydraulic information. Well hydraulic performance in terms of specific capacity, i.e., discharge rate (L/s) per unit drawdown (m), shows consistent results between all completed tests (pumping test & well flushing).

2.2.3 pH and Electrical Conductivity Monitoring during Flushing

The monitoring of the pH and EC was completed for the flushing cycles completed on July 29, September 23 and November 26, 2025[4]. Results are presented in **Figures 4** and **5** for pH and EC readings, respectively. The graph presents specific conductance because the equipment records EC as specific conductance readings not compensated for temperature. When EC is discussed in this document (and results in water quality reports) it is the EC compensated for temperature (i.e., specific conductance). **Figure 6** provides additional EC data based on the continuous monitoring (datalogger) from May 28 to September 22, 2025.

Results show that:

- ✓ pH readings show a more or less stabilizing trend during the flushing.

[4] KWD's rented the YSI ProQuatro Multiparameter meter (a digital meter) from Pine Environmental; they did not have a unit available for rental on May 28, 2025.

- ✓ pH readings of 6.32 – 6.47 are considered low for (typical) groundwater (but not necessarily uncommon); at this point the cause of the relatively low pH of the groundwater is inconclusive.
- ✓ EC readings show a gradual decline in values (albeit relatively small), suggesting that freshwater is drawn into the well and not brackish or saltwater (during the flushing window).
- ✓ Continuous monitoring of EC suggests a fluctuating trend within a relatively small range of around 135 to 170 micro-Siemens per centimetre (µS/cm), with a reduction in EC to 135-140 µS/cm) starting July 29; long term monitoring is required to determine trends. The cause of this drop is unknown.

Although Health Canada (2025) sets a range of 7.0 to 10.5 for pH for finished water (operation guideline); the US Environmental Protection Agency (US EPA) sets the standard to 6.5 and 8.5. The lower limit is set to 6.5 to prevent metal leaching and corrosion.

2.2.4 Water Quality Analysis Results

Selected results of the water quality analysis are summarized in **Table 1**. **Attachment 3** includes the (4) water quality reports prepared by Element. For comparison purposes, results of the water samples collected on February 21, 2025 (at the end of the 72-hours constant rate pumping test) are included in the table for convenience.

The results of the water quality analysis suggest that for the analyzed constituents (Element Report No. 3109081), the raw water quality meets Canadian Drinking Water Guidelines (Health, 2024) for **maximum acceptable concentration** (MAC), with the exception of:

- ✓ Total coliforms (Sample Jul. 29, 2025), a count of 1 Most Probable Number (MPN) per 100 millilitres (mL) was reported (exceeding 0 MPN / 100 mL); *we suspect that this is an isolated incident and not reflective of the groundwater quality*.

Regarding constituents with **aesthetic objectives** (AO), the raw water quality meets Canadian Drinking Water Guidelines (Health, 2024) for AO for the analyzed constituents, with the exception of:

- ✓ Total & extractable iron concentrations, exceeding AO of 0.1 milligrams per litre (mg/L) for the following samples:
  - ➢ Sep. 23, 2025: total and extractable iron concentration of 0.13 mg/L (both).
  - ➢ Nov. 26, 2025: total and extractable iron concentration of 0.17 mg/L and 0.16 mg/L, respectively.

Reported total iron concentration were 0.05 mg/L and 0.072 mg/L for raw water samples collected on May 28 and July 29, 2025, respectively; the iron concentration in February 2025 was below nominal detection limits of 0.01 mg/L.

The AO guideline of iron was reduced from 0.3 mg/L to 0.1 mg/L[5], intended to minimize the occurrence of discoloured water due to the presence of iron oxides and to improve consumer confidence in drinking water quality (concerns about iron in drinking water are often related to consumer complaints regarding discoloured water) (Health Canada, 2024).

[5] The new AO guideline came into effect on December 28, 2024.

Iron concentration results to date suggest that there is possibly a seasonal variation in iron concentration. A similar trend is observed for manganese concentrations (**Table 1**), however values (ranging from <0.005 to 0.004 mg/L) remain well below the AO of 0.02 mg/L.

Turbidity also shows a similar seasonal variation, from 0.10 Nephelometric Turbidity Unit (NTU) (Feb. 21) to subsequent trends: 0.20 NTU (May 28), 0.30 NTU (Jul. 29), 0.37 NTU (Sep. 23, and 0.61 NTU (Nov. 26). *Elevated turbidity observed during sampling of groundwater wells has been associated with an elevated clay mineral content (Puls et al., 1993) and increases in metal concentrations such as iron and aluminum (Abbott, 2007)*[6].

Long term water quality monitoring would be required to confirm the suspected (seasonal) trends in water quality.

Furthermore (selected parameters):

- ✓ The reported **hardness**, 59-65 mg/L, classifies the water as soft.
- ✓ **Total Dissolved Solids** (minerals, salts, metals, cations, and anions dissolved in water), 111-122 mg/L, is below the AO of 500 mg/L.
- ✓ The **UV Transmittance** value was found to be 99.4 %/cm (Sample - Nov. 26) which suggests clear source water.
- ✓ **Organic Carbon** (a key indicator of organic matter), < 0.5 – 1.0 mg/L, which are values typical for groundwater (*and likely no concern of groundwater under the direct influence of surface water*).

Furthermore, the results for inorganic non-metallic parameters such as *ammonium*, *Kjeldahl nitrogen*, *phosphorus*, *hydrogen sulfide* in addition to results for *nitrogen, sodium, potassium, bicarbonate, and chloride suggest no immediate concern of groundwater contamination as a results of e.g., sewerage system and land uses such as crop farming.* KWD (2025) reported that results of raw groundwater tested for a suite of volatile organic compounds, were found to be below nominal detection limits for all tested constituents.

2.2.5 Water Chemistry (Piper Analysis, Dissolved Oxygen and REDOX Potential)

Based on the **Piper Analysis**[7] **(Figure 7)**, the results suggest that the water chemistry for the raw water samples collected from **TW-5(25)** is of **calcium-bicarbonate** ($Ca\text{-}HCO_3$) type. Generally, flow paths that are short and well flushed have bicarbonate as the dominant anion and usually calcium as the dominant cation (Poeter et al, 2020). $Ca\text{-}HCO_3$ type groundwater is typically associated with local groundwater systems (low solubility).

Groundwater geochemistry is complex, impacted by aquifer material (geology), groundwater flow path, and groundwater age (groundwater solubility increased with age). Dissolved oxygen and oxidation redox potential are useful parameters to interpret some aspects of the groundwater geochemistry. A preliminary interpretation is as follows:

Dissolved oxygen (DO) concentrations in groundwater, measured during the flushing (**Figure 8**) suggest (stabilizing) values around 5.2 – 6.3 mg/L which are numbers reasonably reflective of

[6] Quoted from Health Canada (2012).
[7] Piper (1944); used software: AQ.QA Program by Rockware®.

groundwater (depending on the depth)[8]. The presence of DO creates oxidizing conditions which results in impacting chemical processes and the mobility of constituents; these are natural processes that contributes to the general chemical composition of groundwater. Groundwater with the observed DO values shown in **Figure 8** is typically associated with young water which agrees with the classification of Ca-HCO_3 type groundwater[9].

During the well flushing, the oxidation – reduction potential was recorded (ORP, a measure to determine the overall reducing or oxidizing capacity of water). The results are presented in **Figure 9**. The results suggest that ORP values show a gradually increasing trend over time; it is unclear if the increase trend would continue with longer duration pumping. The observed positive ORP values suggest oxidizing conditions; however, values in 0 - 100 millivolts (mV) (*platinum electrodes are used*) are also considered moderately reducing which would allow for dissolution of constituents such as iron and manganese, resulting in increased concentration values.

However, based on the results to date for iron and manganese concentration, there is no evidence of a strong reducing condition. This possibly explains the relatively low concentrations of iron and manganese. The interpretation of DO and ORP is not straightforward with chemical reactions impacted by other conditions such as water pH and temperature. The presented results are useful for gaining insight into groundwater geochemistry but values should not be considered absolute.

3 Conclusions and Recommendations

The groundwater monitoring program, implemented from May 28 to November 26, 2025, provided some informative preliminary insight in groundwater levels and water quality:

- ✓ **Groundwater levels**: seasonal variation in groundwater levels is observed with an overall gentle declining trend observed during the period of low precipitation. The overall amplitude in the seasonal decline of 0.52 m is typically considered small; it suggests that anthropogenic groundwater discharge (groundwater production) is not significantly impacting groundwater levels during periods of low aquifer recharge (likely due to the prolific nature of the aquifer).
- ✓ **Water quality**: there is seasonal variation in iron and manganese concentrations, in addition for turbidity; although manganese concentrations remain below AO, iron concentrations exceeded AO for water samples collected on Sep. 23 and Nov. 26, 2025 with values of 0.13 mg/L and 0.17 mg/L (total iron), respectively. Additional water quality monitoring will be required to ascertain consistency in seasonal variation; we anticipate that iron concentrations will be less (i.e., below AO) in the distribution system when blended with water from Chapman Water System.
- ✓ **Water quality**: Turbidity (0.10 – 0.61 NTU) is below 1 NTU. Health Canada recommends, to ensure effectiveness of disinfection and for good operation of the distribution system, that

[8] Freshwater (such as lakes) can have similar values (but also much higher and lower); DO tends to decline with depth; DO values around 2 to 3 mg/L are also typical for an unconfined aquifer; very deep groundwater (confined aquifer): typically DO < 1 mg/L; anaerobic conditions: DO: 0 mg/L.
[9] Young groundwater is commonly defined as water that entered the aquifer since about 1950 because several chemical and isotopic substances related to human activities were released into the atmosphere since that time (Water Resources Mission Area, 2019).

water entering the distribution system have turbidity levels of 1.0 NTU or less; for systems that are not required to filter by the appropriate authority, a higher turbidity level may be considered acceptable, provided that it does not hinder disinfection (Health Canada, 2013).

- ✓ **Water quality**: the pH of the groundwater was found to be around 6.32 - 6.47, lower than typically observed in aquifers (however not necessarily uncommon), and outside the 7.0 -10.5 range (guideline) set by Health Canada (2025). It is possible that the relatively low pH is a result of (natural) geochemical processes. However, KWD cannot not rule out that surrounding land use practices impact groundwater. The lower-than-usual pH (for groundwater) does not necessarily suggest that there is a problem with the water quality.

  A low pH (< 7.0) suggests that water is acidic and presents an increased risk of corrosion of metal-based components (e.g., ductile water mains, copper piping / fixtures, lead plumbing / fixtures in old houses). In case of SCRD's water system, the overall corrosion risk may be low given that the groundwater will blend with water from Chapman Water System (the corrosion risk should be investigated further).

  Following chlorine disinfection (e.g., sodium hypochlorite, a base) and prior to distribution, enhancing the pH, if found necessary, can be accomplished by different treatment technologies. Treatment chemicals used for adjusting pH include, among others, caustic soda, potash, lime and sulfuric acid (Health Canada, 2015; p. 22).

Moving forward we recommend:

1. Continuing to monitor the groundwater levels and ambient groundwater electrical conductivity to build a database that supports the interpretation of groundwater levels and EC trends; this will also support the groundwater licence application.
2. Reaching out to shíshálh Nation (sN), to inquire about land use practices in the area, in particular the crop farming on the BC Hydro right of way and the gravel mining (Heidelberg Material). It would be prudent to have access to groundwater quality information Heidelberg Materials has on record. This to gain insight into spatial variability of groundwater quality, while at the same time gaining an understanding of the processes involved in the gravel mining including possible impact on the groundwater quality.

A recommendation for a next project phase:

3. Making groundwater quality monitoring an integral part of the proposed wellfield development at the Hospital site; this would require the ability to periodically flush new production wells and/or test well to collect in-situ parameters such as pH, DO, ORP in addition to standard water quality parameters (chemical, physical, microbiology) to establish a baseline of the data and better inform water treatment requirements, operational requirements, and to facilitate discussions with Vancouver Coastal Health.
4. The SCRD may consider sharing the results presented in this technical memorandum with a chemical engineer specializing in water treatment who can provide a technical evaluation of the water quality results from a water treatment perspective and recommend specific treatment processes. This could also be part of a cost risk assessment and value engineering analysis should the SCRD plan to proceed with that.

4 Closure

Thank you for giving Kalwij Water Dynamics Inc. the opportunity to prepare this technical memorandum, presenting the results of the groundwater monitoring program for Test Well TW-5(25) at the Sechelt | shíshálh Hospital Site, added scope to the *Water Supply Plan Feasibility Study Long-Term Ground Water Supply Sources.*

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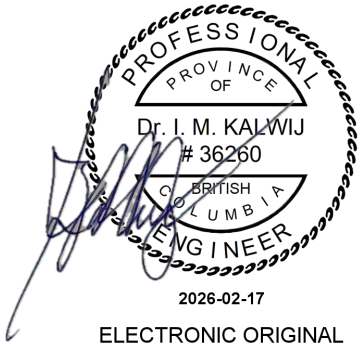
Yours Truly,

Kalwij Water Dynamics Inc.



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Attachments

Attachment 1: Tables and Figures.

Tables

Figures

Attachment 2: Site Illustrations Sechelt | shíshálh Hospital Test Well.

Attachment 3: Water Quality Reports TW-5(25).

- Water Quality Reports No. 3142937 (Element), May 28, 2025.
- Water Quality Reports No. 3163873 (Element), July 29, 2025.
- Water Quality Reports No. 3182685 (Element), September 23, 2025.
- Water Quality Reports No. 3219455 (Element), November 26, 2025.

ATTACHMENT 1 – TABLE AND FIGURES

Table 1 Selected Water Quality Results – TW-5(25).

Analyte	Note	Units	Results					Guideline Limit	Guideline Type
Well ID no.			69710	69710	69710	69710	69710		
Sample date			21-Feb-2025	28-May-2025	29-Jul-2025	23-Sep-2025	26-Nov-2025		
Report number			3109081	3142937	3163873	3182685	3219455		
Matrix	Groundwater		raw	raw	raw	raw	raw		
Aggregate Organic Constituents									
UV Transmittance		%/cm					99.4		
Inorganic Nonmetallic Parameters									
Ammonium		mg/L	<0.025	<0.025	<0.025	<0.025	<0.025		
Kjeldahl Nitrogen		mg/L	-	-	-	0.27	-		
Phosphorus		mg/L	-	-	-	<0.05	-		
Hydrogen Sulfide	Calculated	mg/L	<0.002	<0.002	<0.002	<0.002	0.002		
Sulfide	Total	mg/L					0.002	0.05	AO
Organic Carbon	Total	mg/L	0.8	0.7	1.0	0.8	<0.5		
Metals Extractable									
Arsenic		mg/L	<0.0002	0.0002	0.0002	0.0002	0.0002	0.01	MAC
Trace Metals Total									
Iron	Total	mg/L	0.014	0.05	0.072	**0.13**	**0.17**	0.3	AO
Manganese	Total	mg/L	<0.001	0.002	0.004	0.003	0.003	0.02 AO; 0.12 MAC	
Arsenic	Total	mg/L		0.0002	0.0002	0.0002	0.0002	0.01	MAC
Microbiology									
Total Coliform		MPN/ 100 mL	<1.0	<1.0	**1**	<1.0	<1.0	0 per 100 mL MAC	
Escherichia coli			<1.0	<1.0	<1.0	<1.0	<1.0	0 per 100 mL MAC	
Heterotrophic Plate Count		MPN / mL	28.0	56	2.0	19	35	-	
Physical and Aggregate Properties									
Turbidity		NTU	0.10	0.20	0.30	0.37	0.61		
Routine Water									
pH*		-	6.67	6.85	6.89	7.07	6.88	7.0-10.5 (recommended)	
Electrical Conductivity	at 25 °C	µS/cm	158	158	161	167	161		
Calcium	Extractable	mg/L	17.4	17	18	18	18		
Iron	Extractable	mg/L	<0.01	0.034	0.063	0.13	0.16	0.3	AO
Magnesium	Extractable	mg/L	4.1	4.0	3.9	4.7	4.1		
Manganese	Extractable	mg/L	<0.005	0.002	0.003	0.003	0.004	0.02 AO; 0.12 MAC	
Potassium	Extractable	mg/L	1.5	1.5	1.5	1.7	1.9		
Silicon	Extractable	mg/L	13	13	13	14	11		
Sodium	Extractable	mg/L	6.4	6.1	6.2	6.6	6.6	200	AO
Bicarbonate		mg/L	75	69	70	73	70		
Carbonate		mg/L	<6	<6	<6	<6	<6		
T-Alkalinity as $CaCO_3$	Extractable	mg/L	61	57	58	60	58		
Chloride	Dissolved	mg/L	5.10	5.3	5.27	5.22	5.25	250	AO
Fluoride	Dissolved	mg/L	0.02	< 0.01	0.02	0.01	<0.01	1.5	MAC
Nitrate - N	Dissolved	mg/L	0.77	0.9	0.9	0.9	0.89	10	MAC
Nitrite - N	Dissolved	mg/L	<0.005	<0.01	<0.01	<0.01	<0.01	1	MAC
Sulfate (SO_4)	Dissolved	mg/L	7.4	7.3	7.2	6.9	7.6		
Hardness (as $CaCO_3$)	Extractable	mg/L	62	59	60	65	61		
Total Dissolved Solids	Extractable	mg/L	79	115	116	122	111	500	AO
<[value] = analyte concentration was below the nominal detection limit.									
MAC = Maximum Acceptable Concentration; AO = Aesthetic Objective; OG = Operator Guideline for Water Treatment Plants.									
Red = Exceeding MAC; Orange = Exceeding AO.									

* pH holding time was exceeded; field-recorded pH values are considered more accurate than the laboratory results.

Test well, TW-5(25).

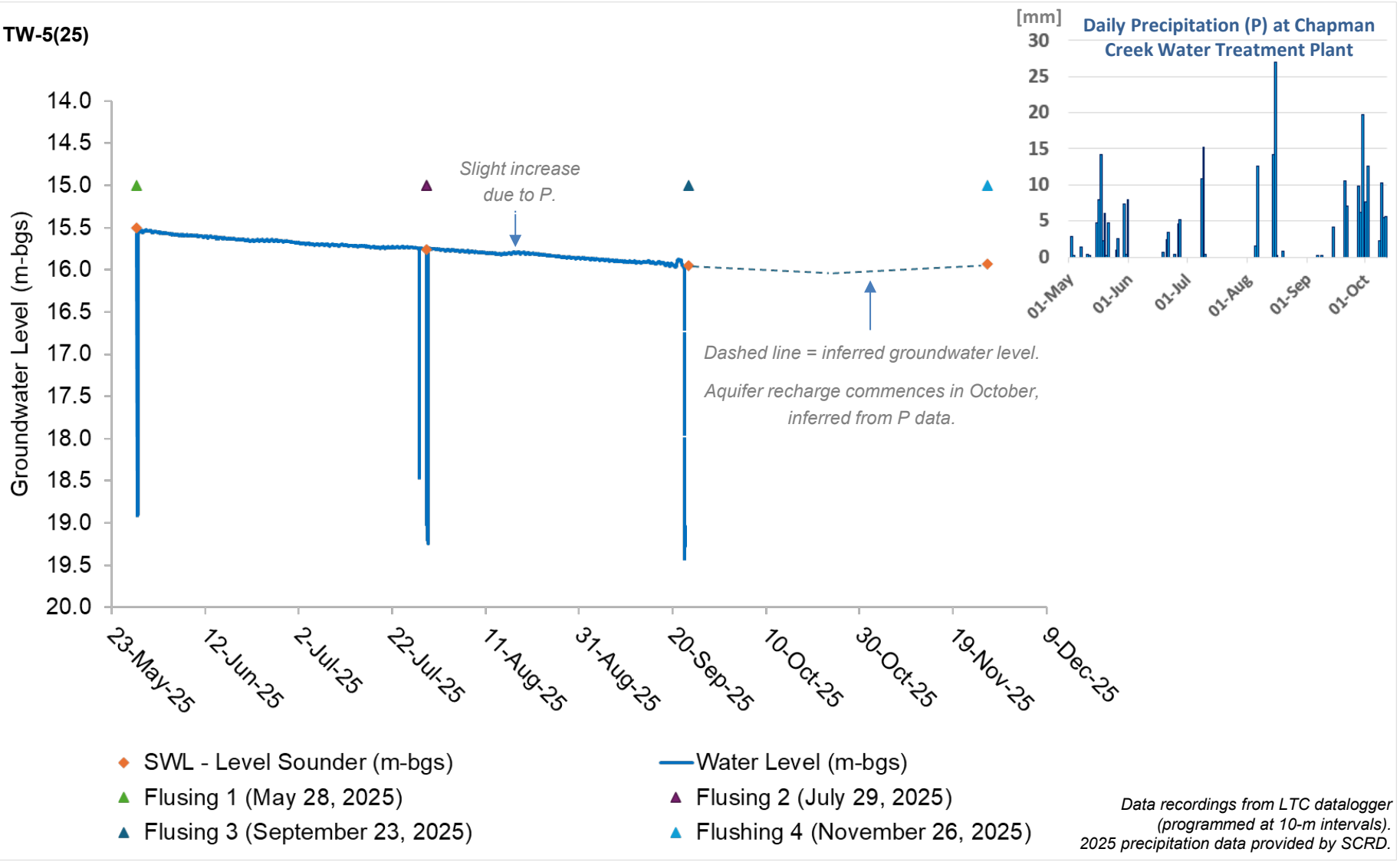
Parcel boundaries.

Kalwij Water Dynamics

Sunshine Coast Regional District			
Groundwater Investigation Phase 5 – Added Scope			
TW-5(25) | Groundwater Monitoring	REV0	IMK	08/01/2026

Test Well Location - Sechelt / shíshálh Hospital Site.

Figure 1

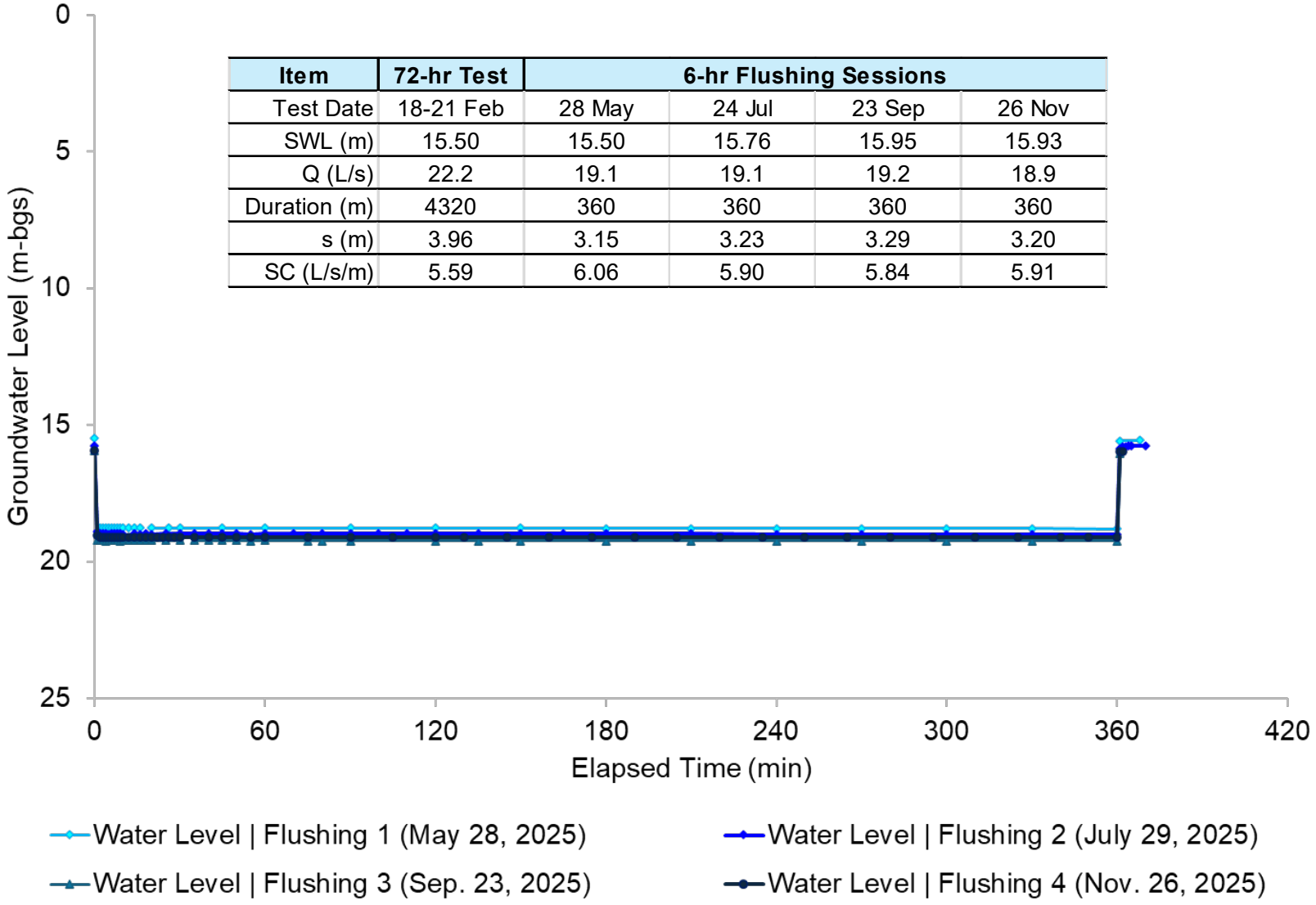


Data recordings from LTC datalogger (programmed at 10-m intervals).
2025 precipitation data provided by SCRD.

Kalwij Water Dynamics	**Sunshine Coast Regional District**			Groundwater Level Trends - TW-5(25) - Datalogger.
	Groundwater Investigation Phase 5 – Added Scope			
	TW-5(25) | Groundwater Monitoring	REV0	IMK	08/01/2026
				Figure 2

TW-5(25)

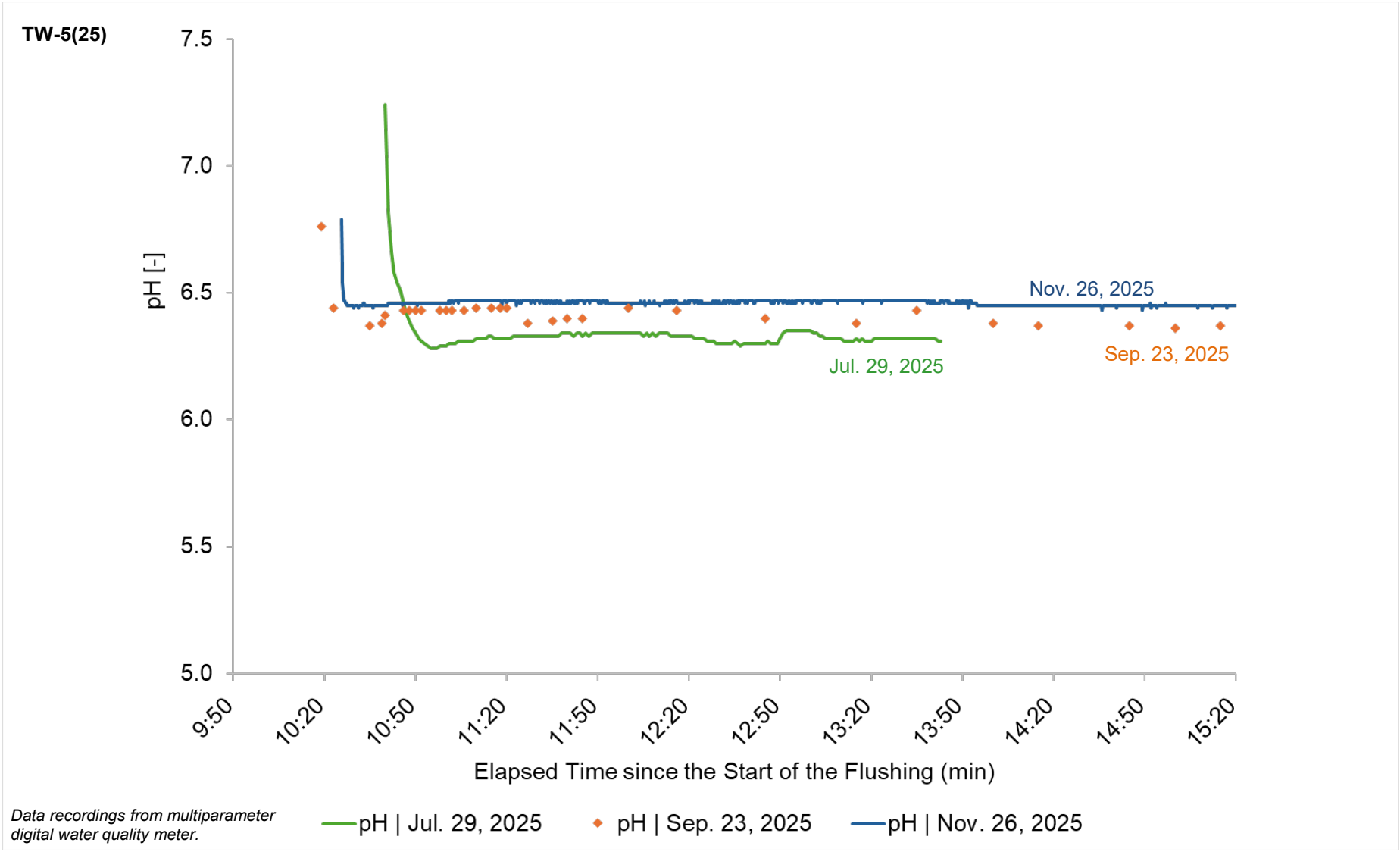
Item	72-hr Test	6-hr Flushing Sessions			
Test Date	18-21 Feb	28 May	24 Jul	23 Sep	26 Nov
SWL (m)	15.50	15.50	15.76	15.95	15.93
Q (L/s)	22.2	19.1	19.1	19.2	18.9
Duration (m)	4320	360	360	360	360
s (m)	3.96	3.15	3.23	3.29	3.20
SC (L/s/m)	5.59	6.06	5.90	5.84	5.91



Kalwij Water Dynamics	Sunshine Coast Regional District			
	Groundwater Investigation Phase 5 – Added Scope			
	TW-5(25) | Groundwater Monitoring	REV0	IMK	08/01/2026

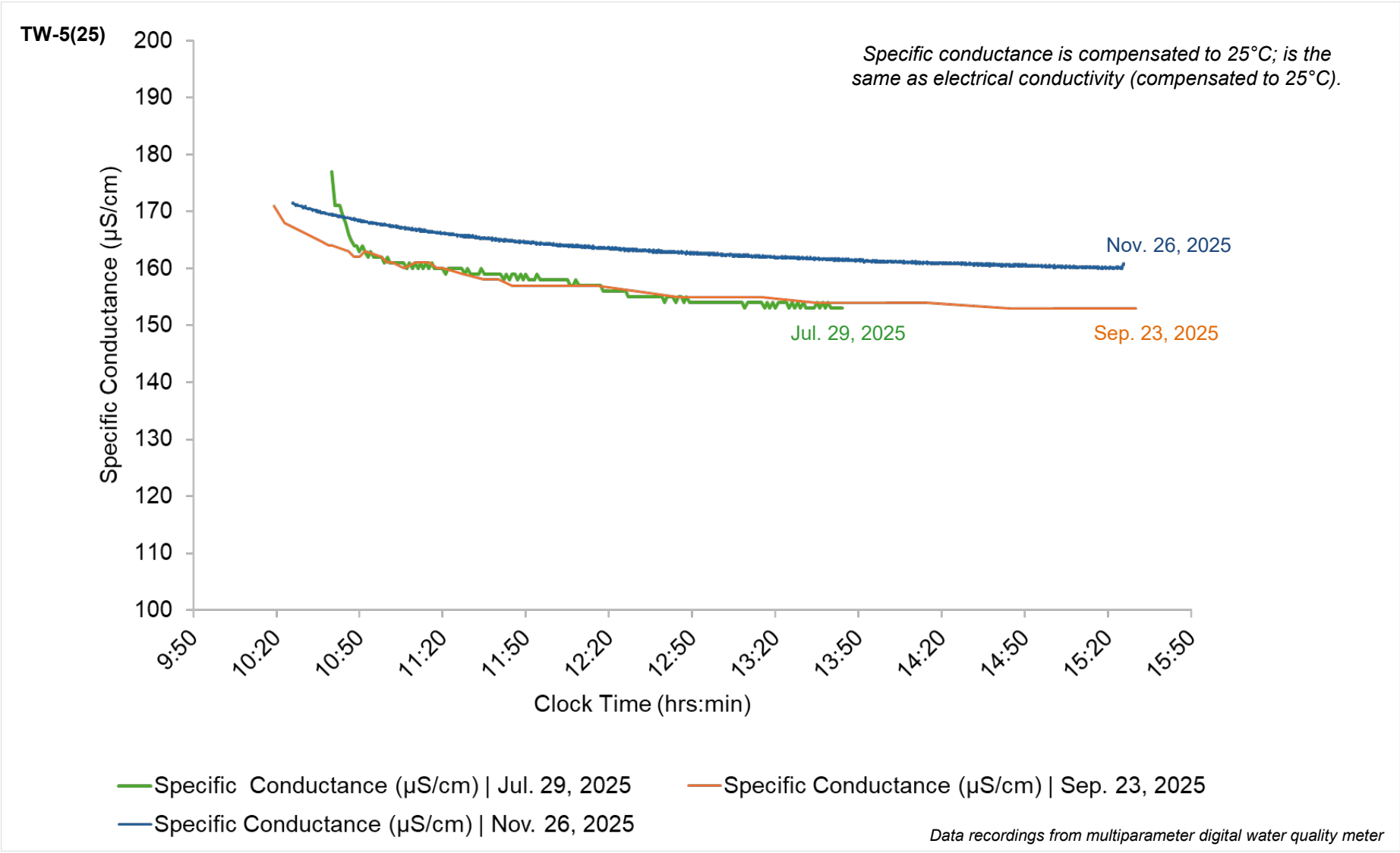
Pumping Water Levels during 6-Hours Flushing & Well Hydraulic Data – TW-5(25).

Figure 3



Data recordings from multiparameter digital water quality meter.

Kalwij Water Dynamics	**Sunshine Coast Regional District**			pH Trends during Well Flushing – TW-5(25).
	Groundwater Investigation Phase 5 – Added Scope			
	TW-5(25) | Groundwater Monitoring	REV0	IMK	08/01/2026
				Figure 4



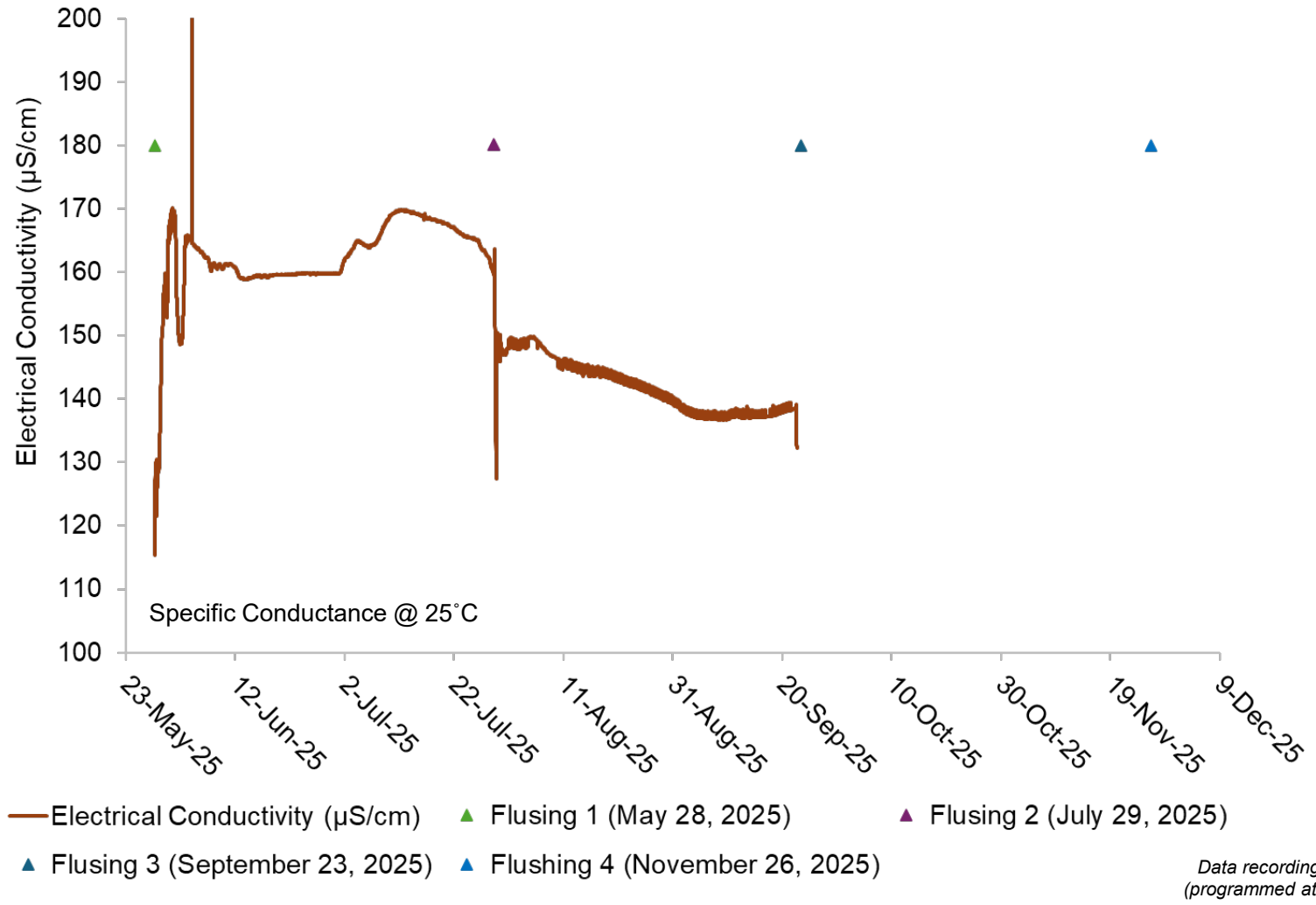
Kalwij Water Dynamics	Sunshine Coast Regional District			
	Groundwater Investigation Phase 5 – Added Scope			
	TW-5(25) | Groundwater Monitoring	REV0	IMK	08/01/2026

Specific Conductance (EC) Trends during 6-Hours Flushing – TW-5(25).

Figure 5

TW-5(25)

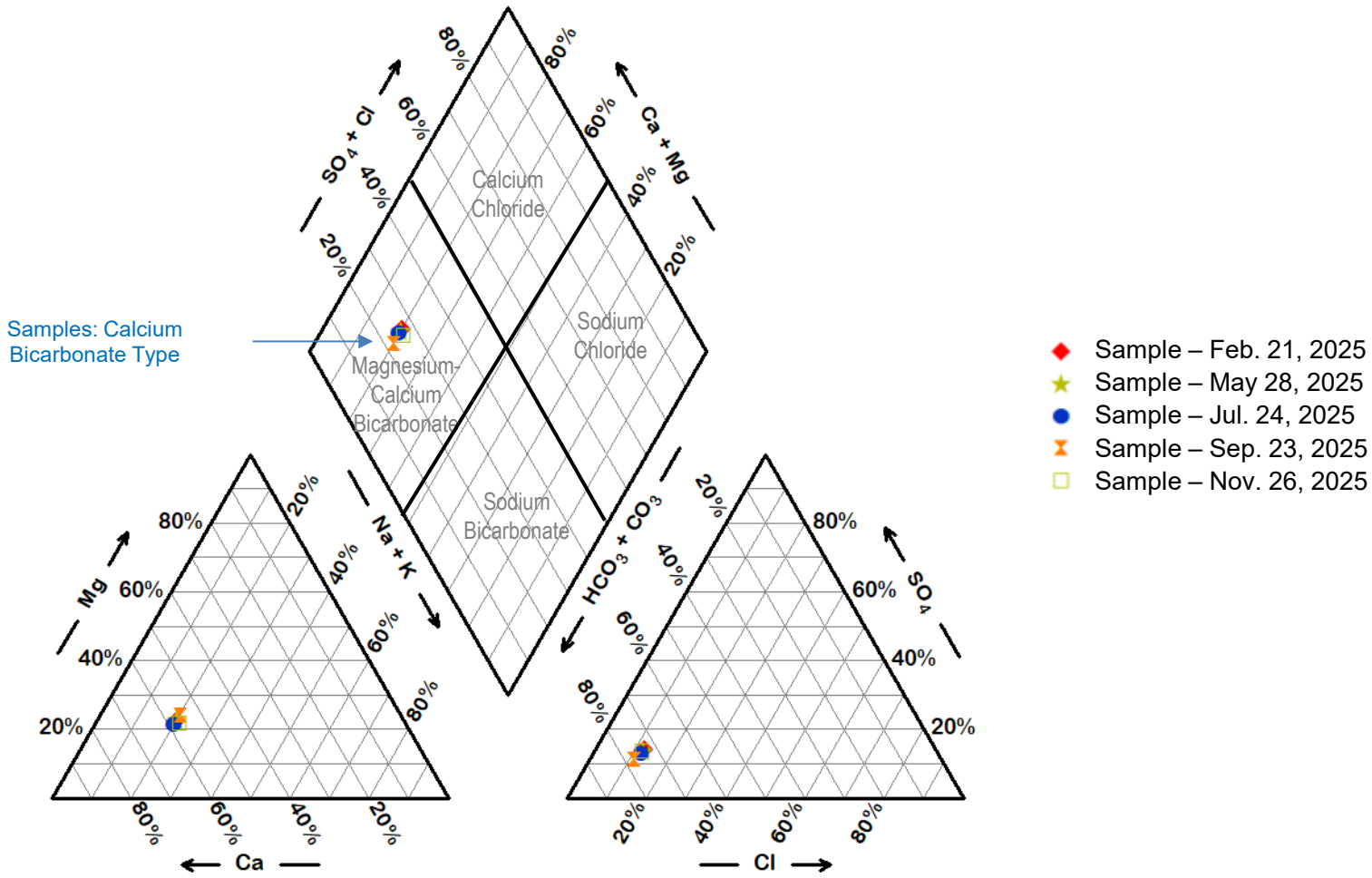
For Information Purposes



Data recordings from datalogger (programmed at 10-min intervals).

Kalwij Water Dynamics	**Sunshine Coast Regional District**			Electrical Conductivity Trends– TW-5(25) - Datalogger.
	Groundwater Investigation Phase 5 – Added Scope			
	TW-5(25) | Groundwater Monitoring	REV0	IMK	08/01/2026
				Figure 6

TW-5(25)



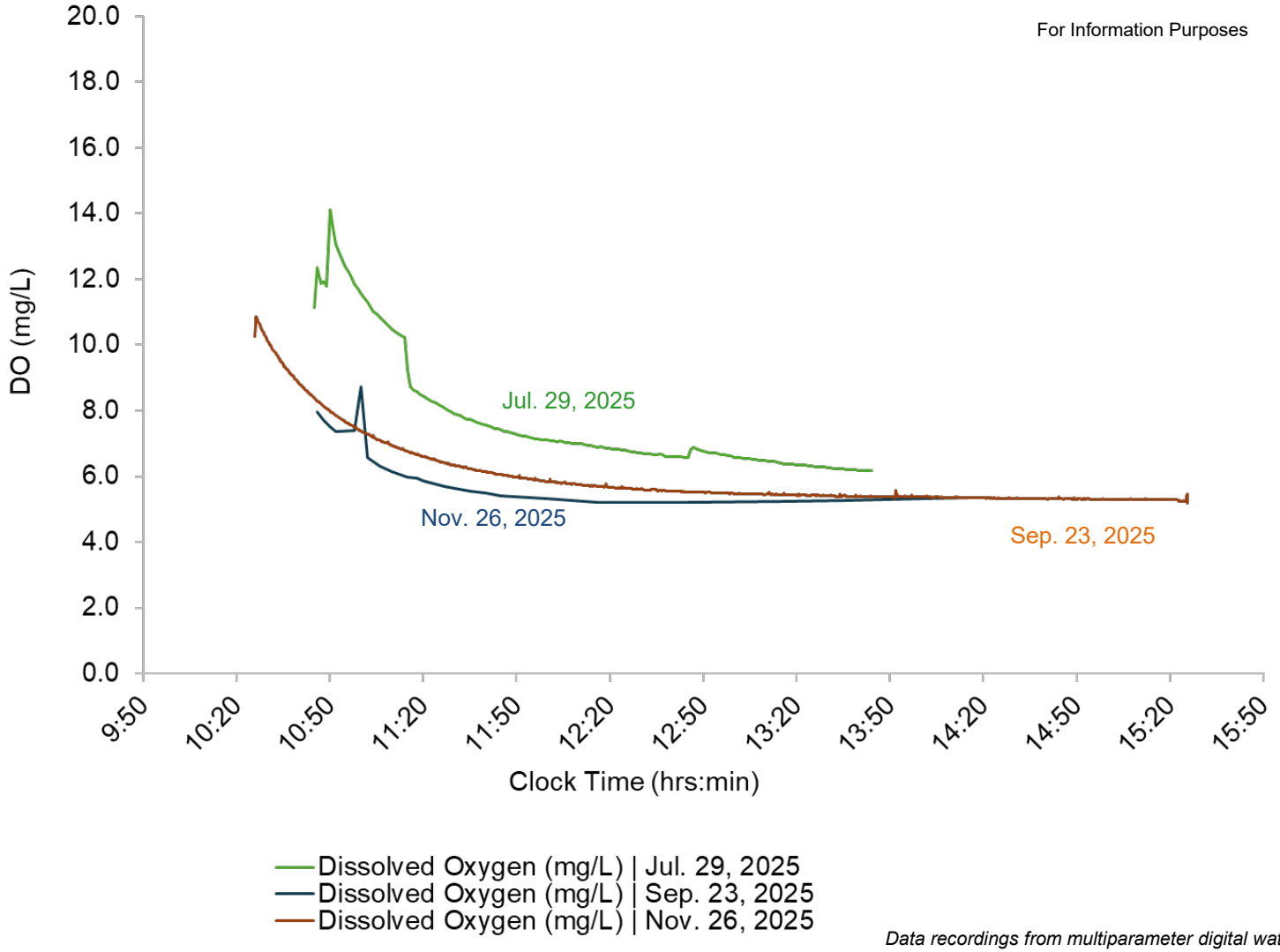
Kalwij Water Dynamics	Sunshine Coast Regional District			
	Groundwater Investigation Phase 5 – Added Scope			
	TW-5(25) | Groundwater Monitoring	REV0	IMK	08/01/2026

Piper Diagram (Water Chemistry) – TW-5(25).

Figure 7

TW-5(25)

For Information Purposes

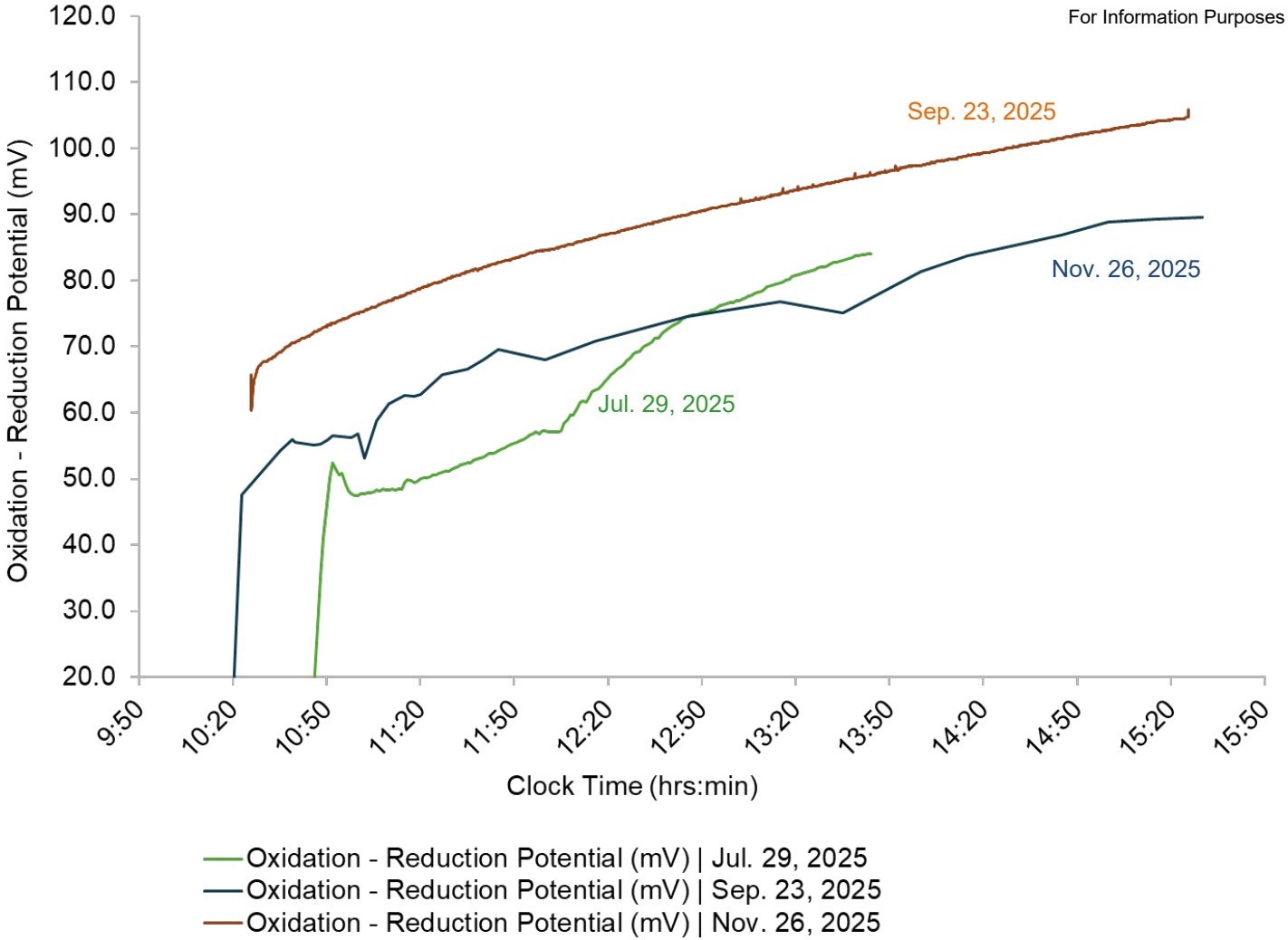


Data recordings from multiparameter digital water quality meter

Kalwij Water Dynamics	**Sunshine Coast Regional District**			Dissolved Oxygen Trends during Well Flushing – TW-5(25).
	Groundwater Investigation Phase 5 – Added Scope			
	TW-5(25) | Groundwater Monitoring	REV0	IMK	12/01/2026
				Figure 8

TW-5(25)

For Information Purposes



Data recordings from multiparameter digital water quality meter

Kalwij Water Dynamics	**Sunshine Coast Regional District**			Oxidation – Reduction Potential Trends during Well Flushing – TW-5(25).
	Groundwater Investigation Phase 5 – Added Scope			
	TW-5(25) | Groundwater Monitoring	REV0	IMK	12/01/2026
				Figure 9

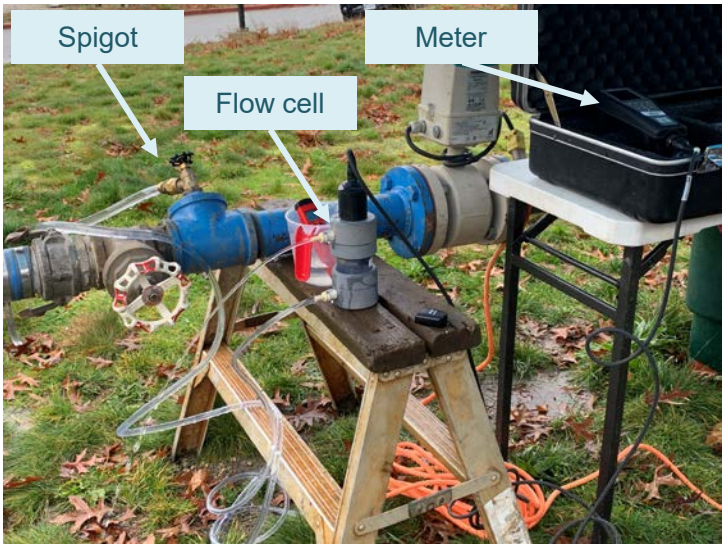
ATTACHMENT 2

SITE ILLUSTRATIONS SECHELT | SHÍSHÁLH HOSPITAL TEST WELL.

Field setup of the well flushing.

Manual readings were taken during the flushing.

Discharge to ground during the flushing.



In situ water quality monitoring (YSI multi parameter water quality meter); the sensor of the device in in the flow cell receiving continuously water via a spigot (via a clear plastic).

TW-5(25) wellhead; well cap and discharge point are securely capped (locked).

ATTACHMENT 3

WATER QUALITY REPORTS TW-5(25)

Water Quality Reports No. 3142937 (Element), May 28, 2025

Element
#104, 19575-55 A Ave.
Surrey, British Columbia
V3S 8P8, Canada

T: +1 (604) 514-3322
E: info.vancouver@element.com
W: www.element.com

Report Transmission Cover Page

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1817764**
Control Number:
Date Received: May 30, 2025
Date Reported: Jun 5, 2025
Report Number: 3142937
Report Type: Final Report

Contact	Company	Address
Ineke Kalwij	**Kalwij Water Dynamics Inc**	P.O. Box 684 Station Main Port Coquitlam, BC V3B 6H9 Phone: (604) 615-4932 Fax: (604) 475-4062 Email: ineke@kalwijwaterdynamics.com

Delivery	Format	Deliverables
Email	PDF	COC / Test Report
Email	Standard Crosstab Without Tabs	Test Report
Email - Merge	PDF	COA
Email - Merge	PDF	COA / COC
Email - Merge	PDF	COC / Invoice

Notes To Clients:

- Upon receipt, sample had exceeded the 30 hour recommended hold time for microbiology testing. Excess time between sampling and testing may affect the validity of the test result.

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Analytical Report

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1817764**
Control Number:
Date Received: May 30, 2025
Date Reported: Jun 5, 2025
Report Number: 3142937
Report Type: Final Report

Reference Number	1817764-1
Sample Date	May 28, 2025
Sample Time	15:54
Sample Location	
Sample Description	Hospital Site Test Well / ID 69710 / 4.9 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Aggregate Organic Constituents						
UV Transmittance		%/cm	99.5	0.1		
Inorganic Nonmetallic Parameters						
Ammonium - N		mg/L	<0.025	0.025		
Ammonium/Ammonia Preservation			Yes			
Hydrogen Sulfide	Calculated	mg/L	<0.002			
Sulfide	Total	mg/L	<0.002	0.002	0.05	Below AO
Organic Carbon	Total Nonpurgeable	mg/L	0.7	0.5		
Metals Extractable						
Aluminum	Extractable	mg/L	<0.001	0.001	0.1 OG, 2.9 MAC	Below OG
Antimony	Extractable	mg/L	<0.00002	0.00002	0.006	Below MAC
Arsenic	Extractable	mg/L	0.0002	0.0001	0.010	Below MAC
Barium	Extractable	mg/L	0.0047	0.0001	2.0	Below MAC
Boron	Extractable	mg/L	0.008	0.002	5	Below MAC
Cadmium	Extractable	mg/L	0.00001	0.00001	0.007	Below MAC
Chromium	Extractable	mg/L	<0.00005	0.00005	0.05	Below MAC
Copper	Extractable	mg/L	0.0028	0.0005	1 AO, 2 MAC	Below AO
Lead	Extractable	mg/L	0.00011	0.00001	0.005	Below MAC
Selenium	Extractable	mg/L	<0.0002	0.0002	0.05	Below MAC
Strontium	Extractable	mg/L	0.076	0.0001	7.0	Below MAC
Uranium	Extractable	mg/L	0.00024	0.00001	0.02	Below MAC
Vanadium	Extractable	mg/L	0.00092	0.00005		
Zinc	Extractable	mg/L	0.034	0.0005	5.0	Below AO
Metals Total						
Calcium	Total	mg/L	16	0.01		
Magnesium	Total	mg/L	3.8	0.02		
Potassium	Total	mg/L	1.7	0.04		
Silicon	Total	mg/L	12	0.005		
Sulfur	Total	mg/L	2.7	0.02		
Sodium	Total	mg/L	5.9	0.1		
Titanium	Total	mg/L	<0.002	0.002		
Microbiological Analysis						
Total Coliforms	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
Escherichia coli	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
Heterotrophic Count - Aerobic	SimPlate	MPN/mL	56.0	2		

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Analytical Report

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1817764**
Control Number:
Date Received: May 30, 2025
Date Reported: Jun 5, 2025
Report Number: 3142937
Report Type: Final Report

Reference Number	1817764-1
Sample Date	May 28, 2025
Sample Time	15:54
Sample Location	
Sample Description	Hospital Site Test Well / ID 69710 / 4.9 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Physical and Aggregate Properties						
Colour	True	Colour units	<5	5		
Turbidity		NTU	0.20	0.1		
Routine Water						
pH			6.85	0.01	7.0-10.5	Below Recommended Range
pH - Holding Time			Exceeded			
Temp. of observed pH		°C	23.6			
Electrical Conductivity	at 25 °C	µS/cm	158	1		
Calcium	Extractable	mg/L	17	0.01		
Iron	Extractable	mg/L	0.034	0.004	0.1	Below AO
Magnesium	Extractable	mg/L	4.0	0.02		
Manganese	Extractable	mg/L	0.002	0.001	0.02 AO, 0.12 MAC	Below AO
Potassium	Extractable	mg/L	1.5	0.04		
Silicon	Extractable	mg/L	13	0.005		
Sodium	Extractable	mg/L	6.1	0.1	200	Below AO
Bicarbonate		mg/L	69	5		
Carbonate		mg/L	<6	6		
T-Alkalinity	as CaCO3	mg/L	57	5		
Chloride	Dissolved	mg/L	5.26	0.05	250	Below AO
Fluoride	Dissolved	mg/L	<0.01	0.01	1.5	Below MAC
Nitrate - N	Dissolved	mg/L	0.90	0.01	10	Below MAC
Nitrite - N	Dissolved	mg/L	<0.01	0.01	1.0	Below MAC
Sulfate (SO4)	Dissolved	mg/L	7.3	0.1	500	Below AO
Hardness	as CaCO3 (extractable)	mg/L	59	1		
Total Dissolved Solids	Extractable	mg/L	115	1	500	Below AO
Trace Metals Total						
Aluminum	Total	mg/L	0.002	0.001	0.1 OG, 2.9 MAC	Below OG
Antimony	Total	mg/L	<0.00002	0.00002	0.006	Below MAC
Arsenic	Total	mg/L	0.0002	0.0001	0.010	Below MAC
Barium	Total	mg/L	0.0047	0.0001	2.0	Below MAC
Beryllium	Total	mg/L	<0.00005	0.00005		
Bismuth	Total	mg/L	<0.0001	0.0001		
Boron	Total	mg/L	0.007	0.002	5	Below MAC
Cadmium	Total	mg/L	0.00001	0.00001	0.007	Below MAC
Chromium	Total	mg/L	<0.00005	0.00005	0.05	Below MAC
Cobalt	Total	mg/L	0.00002	0.00002		
Copper	Total	mg/L	0.0039	0.0002	1 AO, 2 MAC	Below AO
Iron	Total	mg/L	0.050	0.002		

Element
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Analytical Report

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1817764**
Control Number:
Date Received: May 30, 2025
Date Reported: Jun 5, 2025
Report Number: 3142937
Report Type: Final Report

Reference Number	1817764-1
Sample Date	May 28, 2025
Sample Time	15:54
Sample Location	
Sample Description	Hospital Site Test Well / ID 69710 / 4.9 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Trace Metals Total - Continued						
Lead	Total	mg/L	0.00020	0.00001	0.005	Below MAC
Lithium	Total	mg/L	0.0015	0.0005		
Manganese	Total	mg/L	0.002	0.001		
Molybdenum	Total	mg/L	0.00008	0.00002		
Nickel	Total	mg/L	0.0007	0.0002		
Selenium	Total	mg/L	<0.0002	0.0002	0.05	Below MAC
Silver	Total	mg/L	0.00009	0.00001		
Strontium	Total	mg/L	0.079	0.0001	7.0	Below MAC
Tellurium	Total	mg/L	0.00008	0.00005		
Thallium	Total	mg/L	<0.00001	0.00001		
Thorium	Total	mg/L	0.00006	0.00005		
Tin	Total	mg/L	<0.0001	0.0001		
Uranium	Total	mg/L	0.00025	0.00001	0.02	Below MAC
Vanadium	Total	mg/L	0.00096	0.00005		
Zinc	Total	mg/L	0.035	0.0005	5.0	Below AO
Zirconium	Total	mg/L	<0.0001	0.0001		

Approved by:

Misato Perry, B.Sc Biology
Operations Customer Support

Data have been validated by Analytical Quality Control and Element's Integrated Data Validation System (IDVS).
Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.

Element
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Methodology and Notes

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1817764**
Control Number:
Date Received: May 30, 2025
Date Reported: Jun 5, 2025
Report Number: 3142937
Report Type: Final Report

Method of Analysis

Method Name	Reference		Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	*	Alkalinity - Titration Method, 2320 B	Jun 03, 2025	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	*	Conductivity, 2510 B	Jun 03, 2025	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	*	pH - Electrometric Method, 4500-H+ B	Jun 03, 2025	Element Vancouver
Ammonium-N in Water	APHA	*	Automated Phenate Method, 4500-NH3 G	Jun 04, 2025	Element Edmonton - Roper Road
Anions by IEC in water (VAN)	APHA	*	Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	May 30, 2025	Element Vancouver
Carbon Organic (Total) in water (TOC)	APHA		High-Temperature Combustion Method, 5310 B	Jun 02, 2025	Element Edmonton - Roper Road
Heterotrophic (Standard) Plate Count (Aerobic SP) - VAN	APHA		Enzyme Substrate Method, 9215 E	May 30, 2025	Element Vancouver
Metals SemiTrace (Extractable) in water (VAN)	US EPA	*	Metals & Trace Elements by ICP-AES, 6010C	Jun 02, 2025	Element Vancouver
Metals SemiTrace (Total) in Water (VAN)	US EPA	*	Metals & Trace Elements by ICP-AES, 6010C	Jun 02, 2025	Element Vancouver
Sulfide in water	APHA	*	Gas Dialysis, Automated Methylene Blue Method, 4500-S2- E	Jun 05, 2025	Element Edmonton - Roper Road
Total and E-Coli - Colilert - DW (VAN)	APHA		Enzyme Substrate Test, APHA 9223 B	May 30, 2025	Element Vancouver
Trace Metals (extractable) in Water (VAN)	US EPA	*	Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Jun 02, 2025	Element Vancouver
Trace Metals (Total) in Water (VAN)	US EPA	*	Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Jun 02, 2025	Element Vancouver
True Color in water (VAN)	APHA	*	Spectrophotometric - Single Wavelength Method, 2120 C	Jun 02, 2025	Element Vancouver
Turbidity - Water (VAN)	APHA	*	Turbidity - Nephelometric Method, 2130 B	May 30, 2025	Element Vancouver
Ultraviolet Transmittance in Water	APHA	*	Ultraviolet Absorption Method, 5910 B	Jun 02, 2025	Element Vancouver

** Reference Method Modified*

References

APHA	Standard Methods for the Examination of Water and Wastewater
US EPA	US Environmental Protection Agency Test Methods

Guidelines

Guideline Description	Health Canada GCDWQ
Guideline Source	Guidelines for Canadian Drinking Water Quality, Health Canada, August 2024
Guideline Comments	MAC = Maximum Acceptable Concentration AO = Aesthetic Objective OG = Operational Guideline for Water Treatment Plants (does not apply to private groundwater wells). Refer to Health Canada for complete guidelines at www.hc-sc.gc.ca

Comments:

- Upon receipt, sample had exceeded the 30 hour recommended hold time for microbiology testing. Excess time between sampling and testing may affect the validity of the test result.

Element
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Methodology and Notes

Bill To:	Kalwij Water Dynamics Inc P.O. Box 684 Station Main Port Coquitlam, BC, Canada V3B 6H9
Attn:	Ineke Kalwij
Sampled By:	
Company:	

Project ID:	
Project Name:	SCRD - Test Well Monitoring
Project Location:	
LSD:	
P.O.:	
Proj. Acct. code:	

Lot ID:	**1817764**
Control Number:	
Date Received:	May 30, 2025
Date Reported:	Jun 5, 2025
Report Number:	3142937
Report Type:	Final Report

The comparison of test results to guideline limits is provided for information purposes only. This is not to be taken as a statement of conformance / nonconformance to any guideline, regulation or limit. The data user is responsible for all conclusions drawn with respect to the data and is advised to consult official regulatory references when evaluating compliance.

Please direct any inquiries regarding this report to our Client Services group.
Results relate only to samples as submitted.

Water Quality Reports No. 3163876 (Element) – July 28, 2025

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Report Transmission Cover Page

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
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V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1832321**
Control Number:
Date Received: Jul 30, 2025
Date Reported: Aug 7, 2025
Report Number: 3163873
Report Type: Final Report

Contact	Company	Address
Ineke Kalwij	**Kalwij Water Dynamics Inc**	P.O. Box 684 Station Main Port Coquitlam, BC V3B 6H9 Phone: (604) 615-4932 Fax: (604) 475-4062 Email: ineke@kalwijwaterdynamics.com

Delivery	Format	Deliverables
Email	PDF	COC / Test Report
Email	Standard Crosstab Without Tabs	Test Report
Email - Merge	PDF	COA
Email - Merge	PDF	COA / COC
Email - Merge	PDF	COC / Invoice

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Analytical Report

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1832321**
Control Number:
Date Received: Jul 30, 2025
Date Reported: Aug 7, 2025
Report Number: 3163873
Report Type: Final Report

Reference Number	1832321-1
Sample Date	July 29, 2025
Sample Time	16:20
Sample Location	
Sample Description	Hospital Site Test Well / ID 69710 / 8.4 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Aggregate Organic Constituents						
UV Transmittance		%/cm	99.3	0.1		
Inorganic Nonmetallic Parameters						
Ammonium - N		mg/L	<0.025	0.025		
Ammonium/Ammonia Preservation			Yes			
Hydrogen Sulfide	Calculated	mg/L	<0.002			
Sulfide	Total	mg/L	<0.002	0.002	0.05	Below AO
Organic Carbon	Total Nonpurgeable	mg/L	1.0	0.5		
Metals Extractable						
Aluminum	Extractable	mg/L	<0.001	0.001	0.1 OG, 2.9 MAC	Below OG
Antimony	Extractable	mg/L	<0.00002	0.00002	0.006	Below MAC
Arsenic	Extractable	mg/L	0.0002	0.0001	0.010	Below MAC
Barium	Extractable	mg/L	0.0048	0.0001	2.0	Below MAC
Boron	Extractable	mg/L	0.006	0.002	5	Below MAC
Cadmium	Extractable	mg/L	0.00001	0.00001	0.007	Below MAC
Chromium	Extractable	mg/L	<0.00005	0.00005	0.05	Below MAC
Copper	Extractable	mg/L	0.0007	0.0005	1 AO, 2 MAC	Below AO
Lead	Extractable	mg/L	0.00004	0.00001	0.005	Below MAC
Selenium	Extractable	mg/L	<0.0002	0.0002	0.05	Below MAC
Strontium	Extractable	mg/L	0.081	0.0001	7.0	Below MAC
Uranium	Extractable	mg/L	0.00026	0.00001	0.02	Below MAC
Vanadium	Extractable	mg/L	0.00097	0.00005		
Zinc	Extractable	mg/L	0.034	0.0005	5.0	Below AO
Metals Total						
Calcium	Total	mg/L	18	0.01		
Magnesium	Total	mg/L	4.1	0.02		
Potassium	Total	mg/L	1.6	0.04		
Silicon	Total	mg/L	13	0.005		
Sulfur	Total	mg/L	2.6	0.02		
Sodium	Total	mg/L	6.4	0.1		
Titanium	Total	mg/L	0.003	0.002		
Microbiological Analysis						
Total Coliforms	Enzyme Substrate Test	MPN/100 mL	1.0	1.0	0 per 100 mL	Above MAC
Escherichia coli	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
Heterotrophic Count - Aerobic	SimPlate	MPN/mL	2.0	2		

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Analytical Report

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1832321**
Control Number:
Date Received: Jul 30, 2025
Date Reported: Aug 7, 2025
Report Number: 3163873
Report Type: Final Report

Reference Number	1832321-1
Sample Date	July 29, 2025
Sample Time	16:20
Sample Location	
Sample Description	Hospital Site Test Well / ID 69710 / 8.4 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Physical and Aggregate Properties						
Colour	True	Colour units	<5	5		
Turbidity		NTU	0.30	0.1		
Routine Water						
pH			6.89	0.01	7.0-10.5	Below Recommended Range
pH - Holding Time			Exceeded			
Temp. of observed pH		°C	24.0			
Electrical Conductivity	at 25 °C	µS/cm	161	1		
Calcium	Extractable	mg/L	18	0.01		
Iron	Extractable	mg/L	0.063	0.004	0.1	Below AO
Magnesium	Extractable	mg/L	3.9	0.02		
Manganese	Extractable	mg/L	0.003	0.001	0.02 AO, 0.12 MAC	Below AO
Potassium	Extractable	mg/L	1.5	0.04		
Silicon	Extractable	mg/L	13	0.005		
Sodium	Extractable	mg/L	6.2	0.1	200	Below AO
Bicarbonate		mg/L	70	5		
Carbonate		mg/L	<6	6		
T-Alkalinity	as CaCO3	mg/L	58	5		
Chloride	Dissolved	mg/L	5.27	0.05	250	Below AO
Fluoride	Dissolved	mg/L	0.02	0.01	1.5	Below MAC
Nitrate - N	Dissolved	mg/L	0.90	0.01	10	Below MAC
Nitrite - N	Dissolved	mg/L	<0.01	0.01	1.0	Below MAC
Sulfate (SO4)	Dissolved	mg/L	7.2	0.1	500	Below AO
Hardness	as CaCO3 (extractable)	mg/L	60	1		
Total Dissolved Solids	Extractable	mg/L	116	1	500	Below AO
Trace Metals Total						
Aluminum	Total	mg/L	0.002	0.001	0.1 OG, 2.9 MAC	Below OG
Antimony	Total	mg/L	<0.00002	0.00002	0.006	Below MAC
Arsenic	Total	mg/L	0.0002	0.0001	0.010	Below MAC
Barium	Total	mg/L	0.0050	0.0001	2.0	Below MAC
Beryllium	Total	mg/L	<0.00005	0.00005		
Bismuth	Total	mg/L	<0.0001	0.0001		
Boron	Total	mg/L	0.006	0.002	5	Below MAC
Cadmium	Total	mg/L	0.00003	0.00001	0.007	Below MAC
Chromium	Total	mg/L	0.0012	0.00005	0.05	Below MAC
Cobalt	Total	mg/L	0.00003	0.00002		
Copper	Total	mg/L	0.0010	0.0002	1 AO, 2 MAC	Below AO
Iron	Total	mg/L	0.072	0.002		

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Analytical Report

Bill To: Kalwij Water Dynamics Inc
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Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1832321**
Control Number:
Date Received: Jul 30, 2025
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Reference Number	1832321-1
Sample Date	July 29, 2025
Sample Time	16:20
Sample Location	
Sample Description	Hospital Site Test Well / ID 69710 / 8.4 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Trace Metals Total - Continued						
Lead	Total	mg/L	0.0033	0.00001	0.005	Below MAC
Lithium	Total	mg/L	0.0015	0.0005		
Manganese	Total	mg/L	0.004	0.001		
Molybdenum	Total	mg/L	0.0015	0.00002		
Nickel	Total	mg/L	0.0007	0.0002		
Selenium	Total	mg/L	<0.0002	0.0002	0.05	Below MAC
Silver	Total	mg/L	<0.00001	0.00001		
Strontium	Total	mg/L	0.073	0.0001	7.0	Below MAC
Tellurium	Total	mg/L	<0.00005	0.00005		
Thallium	Total	mg/L	<0.00001	0.00001		
Thorium	Total	mg/L	<0.00005	0.00005		
Tin	Total	mg/L	0.0012	0.0001		
Uranium	Total	mg/L	0.00025	0.00001	0.02	Below MAC
Vanadium	Total	mg/L	0.0011	0.00005		
Zinc	Total	mg/L	0.13	0.0005	5.0	Below AO
Zirconium	Total	mg/L	<0.0001	0.0001		

Approved by:

Benjamin Morris, B.Sc
Operations Manager

Data have been validated by Analytical Quality Control and Element's Integrated Data Validation System (IDVS).
Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.

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Methodology and Notes

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Attn: Ineke Kalwij
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Company:

Project ID:
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Lot ID: **1832321**
Control Number:
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Date Reported: Aug 7, 2025
Report Number: 3163873
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Method of Analysis

Method Name	Reference		Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	*	Alkalinity - Titration Method, 2320 B	Jul 30, 2025	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	*	Conductivity, 2510 B	Jul 30, 2025	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	*	pH - Electrometric Method, 4500-H+ B	Jul 30, 2025	Element Vancouver
Ammonium-N in Water	APHA	*	Automated Phenate Method, 4500-NH3 G	Aug 05, 2025	Element Edmonton - Roper Road
Anions by IEC in water (VAN)	APHA	*	Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Jul 30, 2025	Element Vancouver
Carbon Organic (Total) in water (TOC)	APHA		High-Temperature Combustion Method, 5310 B	Aug 01, 2025	Element Edmonton - Roper Road
Heterotrophic (Standard) Plate Count (Aerobic SP) - VAN	APHA		Enzyme Substrate Method, 9215 E	Jul 30, 2025	Element Vancouver
Metals SemiTrace (Extractable) in water (VAN)	US EPA	*	Metals & Trace Elements by ICP-AES, 6010C	Jul 31, 2025	Element Vancouver
Metals SemiTrace (Total) in Water (VAN)	US EPA	*	Metals & Trace Elements by ICP-AES, 6010C	Jul 30, 2025	Element Vancouver
Sulfide in water	APHA	*	Gas Dialysis, Automated Methylene Blue Method, 4500-S2- E	Aug 06, 2025	Element Edmonton - Roper Road
Total and E-Coli - Colilert - DW (VAN)	APHA		Enzyme Substrate Test, APHA 9223 B	Jul 30, 2025	Element Vancouver
Trace Metals (extractable) in Water (VAN)	US EPA	*	Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Jul 31, 2025	Element Vancouver
Trace Metals (Total) in Water (VAN)	US EPA	*	Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Jul 30, 2025	Element Vancouver
True Color in water (VAN)	APHA	*	Spectrophotometric - Single Wavelength Method, 2120 C	Jul 30, 2025	Element Vancouver
Turbidity - Water (VAN)	APHA	*	Turbidity - Nephelometric Method, 2130 B	Jul 30, 2025	Element Vancouver
Ultraviolet Transmittance in Water	APHA	*	Ultraviolet Absorption Method, 5910 B	Jul 30, 2025	Element Vancouver

** Reference Method Modified*

References

APHA	Standard Methods for the Examination of Water and Wastewater
US EPA	US Environmental Protection Agency Test Methods

Guidelines

Guideline Description	Health Canada GCDWQ
Guideline Source	Guidelines for Canadian Drinking Water Quality, Health Canada, August 2024
Guideline Comments	MAC = Maximum Acceptable Concentration AO = Aesthetic Objective OG = Operational Guideline for Water Treatment Plants (does not apply to private groundwater wells). Refer to Health Canada for complete guidelines at www.hc-sc.gc.ca

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Methodology and Notes

Bill To:	Kalwij Water Dynamics Inc P.O. Box 684 Station Main Port Coquitlam, BC, Canada V3B 6H9	Project ID:		Lot ID:	**1832321**
Attn:	Ineke Kalwij	Project Name:	SCRD - Test Well Monitoring	Control Number:	
Sampled By:		Project Location:		Date Received:	Jul 30, 2025
Company:		LSD:		Date Reported:	Aug 7, 2025
		P.O.:		Report Number:	3163873
		Proj. Acct. code:		Report Type:	Final Report

The comparison of test results to guideline limits is provided for information purposes only. This is not to be taken as a statement of conformance / nonconformance to any guideline, regulation or limit. The data user is responsible for all conclusions drawn with respect to the data and is advised to consult official regulatory references when evaluating compliance.

Please direct any inquiries regarding this report to our Client Services group.
Results relate only to samples as submitted.

Water Quality Reports No. 3182685 (Element) – September 23, 2025

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Company:

Project ID:
Project Name:
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1845248**
Control Number:
Date Received: Sep 24, 2025
Date Reported: Oct 1, 2025
Report Number: 3182685
Report Type: Final Report

Contact	Company	Address
Ineke Kalwij	**Kalwij Water Dynamics Inc**	P.O. Box 684 Station Main Port Coquitlam, BC V3B 6H9 Phone: (604) 615-4932 Fax: (604) 475-4062 Email: ineke@kalwijwaterdynamics.com

Delivery	Format	Deliverables
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Email	Standard Crosstab Without Tabs	Test Report
Email - Merge	PDF	COA
Email - Merge	PDF	COA / COC
Email - Merge	PDF	COC / Invoice

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Analytical Report

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Port Coquitlam, BC, Canada
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Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name:
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1845248**
Control Number:
Date Received: Sep 24, 2025
Date Reported: Oct 1, 2025
Report Number: 3182685
Report Type: Final Report

Reference Number	1845248-1
Sample Date	September 23, 2025
Sample Time	15:45
Sample Location	
Sample Description	SCRD / TW-5(25) Hospital Site / 5.8 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Aggregate Organic Constituents						
UV Transmittance		%/cm	99.9	0.1		
Inorganic Nonmetallic Parameters						
Ammonium - N		mg/L	<0.025	0.025		
Ammonium/Ammonia Preservation			Yes			
Kjeldahl Nitrogen	Total	mg/L	0.27	0.1		
Phosphorus	Total	mg/L	<0.05	0.05		
Total Phosphorus Preservation			Yes			
Hydrogen Sulfide	Calculated	mg/L	<0.002			
Sulfide	Total	mg/L	<0.002	0.002	0.05	Below AO
Organic Carbon	Total Nonpurgeable	mg/L	0.8	0.5		
Metals Extractable						
Aluminum	Extractable	mg/L	0.001	0.001	0.1 OG, 2.9 MAC	Below OG
Antimony	Extractable	mg/L	<0.00002	0.00002	0.006	Below MAC
Arsenic	Extractable	mg/L	0.0002	0.0001	0.010	Below MAC
Barium	Extractable	mg/L	0.0046	0.0001	2.0	Below MAC
Boron	Extractable	mg/L	0.011	0.002	5	Below MAC
Cadmium	Extractable	mg/L	0.00001	0.00001	0.007	Below MAC
Chromium	Extractable	mg/L	0.00008	0.00005	0.05	Below MAC
Copper	Extractable	mg/L	0.0008	0.0005	1 AO, 2 MAC	Below AO
Lead	Extractable	mg/L	0.00003	0.00001	0.005	Below MAC
Selenium	Extractable	mg/L	<0.0002	0.0002	0.05	Below MAC
Strontium	Extractable	mg/L	0.077	0.0001	7.0	Below MAC
Uranium	Extractable	mg/L	0.00025	0.00001	0.02	Below MAC
Vanadium	Extractable	mg/L	0.00089	0.00005		
Zinc	Extractable	mg/L	0.032	0.0005	5.0	Below AO
Metals Total						
Calcium	Total	mg/L	18	0.01		
Magnesium	Total	mg/L	4.2	0.02		
Potassium	Total	mg/L	1.6	0.04		
Silicon	Total	mg/L	13	0.005		
Sulfur	Total	mg/L	2.6	0.02		
Sodium	Total	mg/L	6.3	0.1		
Titanium	Total	mg/L	0.004	0.002		
Microbiological Analysis						
Total Coliforms	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
Escherichia coli	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC

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Sampled By:
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Project ID:
Project Name:
Project Location:
LSD:
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Proj. Acct. code:

Lot ID: **1845248**
Control Number:
Date Received: Sep 24, 2025
Date Reported: Oct 1, 2025
Report Number: 3182685
Report Type: Final Report

Reference Number	1845248-1
Sample Date	September 23, 2025
Sample Time	15:45
Sample Location	
Sample Description	SCRD / TW-5(25) Hospital Site / 5.8 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Microbiological Analysis - Continued						
Heterotrophic Count - Aerobic	SimPlate	MPN/mL	19.0	2		
Physical and Aggregate Properties						
Colour	True	Colour units	<5	5		
Turbidity		NTU	0.37	0.1		
Routine Water						
pH			7.07	0.01	7.0-10.5	Within Range
pH - Holding Time			Exceeded			
Temp. of observed pH		°C	21.8			
Electrical Conductivity	at 25 °C	µS/cm	167	1		
Calcium	Extractable	mg/L	18	0.01		
Iron	Extractable	mg/L	0.13	0.004	0.1	Above AO
Magnesium	Extractable	mg/L	4.7	0.02		
Manganese	Extractable	mg/L	0.003	0.001	0.02 AO, 0.12 MAC	Below AO
Potassium	Extractable	mg/L	1.7	0.04		
Silicon	Extractable	mg/L	14	0.005		
Sodium	Extractable	mg/L	6.6	0.1	200	Below AO
Bicarbonate		mg/L	73	5		
Carbonate		mg/L	<6	6		
T-Alkalinity	as CaCO3	mg/L	60	5		
Chloride	Dissolved	mg/L	5.22	0.05	250	Below AO
Fluoride	Dissolved	mg/L	0.01	0.01	1.5	Below MAC
Nitrate - N	Dissolved	mg/L	0.90	0.01	10	Below MAC
Nitrite - N	Dissolved	mg/L	<0.01	0.01	1.0	Below MAC
Sulfate (SO4)	Dissolved	mg/L	6.9	0.1	500	Below AO
Hardness	as CaCO3 (extractable)	mg/L	65	1		
Total Dissolved Solids	Extractable	mg/L	122	1	500	Below AO
Trace Metals Total						
Aluminum	Total	mg/L	0.022	0.001	0.1 OG, 2.9 MAC	Below OG
Antimony	Total	mg/L	<0.00002	0.00002	0.006	Below MAC
Arsenic	Total	mg/L	0.0002	0.0001	0.010	Below MAC
Barium	Total	mg/L	0.0048	0.0001	2.0	Below MAC
Beryllium	Total	mg/L	<0.00005	0.00005		
Bismuth	Total	mg/L	<0.0001	0.0001		
Boron	Total	mg/L	0.005	0.002	5	Below MAC
Cadmium	Total	mg/L	0.00001	0.00001	0.007	Below MAC
Chromium	Total	mg/L	0.00010	0.00005	0.05	Below MAC
Cobalt	Total	mg/L	<0.00002	0.00002		

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Analytical Report

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Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name:
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1845248**
Control Number:
Date Received: Sep 24, 2025
Date Reported: Oct 1, 2025
Report Number: 3182685
Report Type: Final Report

Reference Number	1845248-1
Sample Date	September 23, 2025
Sample Time	15:45
Sample Location	
Sample Description	SCRD / TW-5(25) Hospital Site / 5.8 °C
Sample Matrix	Drinking Water

Analyte		Units	Result	Nominal DL	Guideline Limit	Guideline Comments
Trace Metals Total - Continued						
Copper	Total	mg/L	0.0011	0.0002	1 AO, 2 MAC	Below AO
Iron	Total	mg/L	0.13	0.002		
Lead	Total	mg/L	0.00005	0.00001	0.005	Below MAC
Lithium	Total	mg/L	0.0014	0.0005		
Manganese	Total	mg/L	0.003	0.001		
Molybdenum	Total	mg/L	0.00006	0.00002		
Nickel	Total	mg/L	<0.0002	0.0002		
Selenium	Total	mg/L	<0.0002	0.0002	0.05	Below MAC
Silver	Total	mg/L	<0.00001	0.00001		
Strontium	Total	mg/L	0.070	0.0001	7.0	Below MAC
Tellurium	Total	mg/L	<0.00005	0.00005		
Thallium	Total	mg/L	<0.00001	0.00001		
Thorium	Total	mg/L	<0.00005	0.00005		
Tin	Total	mg/L	<0.0001	0.0001		
Uranium	Total	mg/L	0.00026	0.00001	0.02	Below MAC
Vanadium	Total	mg/L	0.0013	0.00005		
Zinc	Total	mg/L	0.038	0.0005	5.0	Below AO
Zirconium	Total	mg/L	<0.0001	0.0001		

Approved by:

Benjamin Morris, B.Sc
Operations Manager

Data have been validated by Analytical Quality Control and Element's Integrated Data Validation System (IDVS).
Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.

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Methodology and Notes

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Lot ID: **1845248**
Control Number:
Date Received: Sep 24, 2025
Date Reported: Oct 1, 2025
Report Number: 3182685
Report Type: Final Report

Method of Analysis

Method Name	Reference		Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	*	Alkalinity - Titration Method, 2320 B	Sep 25, 2025	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	*	Conductivity, 2510 B	Sep 25, 2025	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	*	pH - Electrometric Method, 4500-H+ B	Sep 25, 2025	Element Vancouver
Ammonium-N in Water	APHA	*	Automated Phenate Method, 4500-NH3 G	Oct 01, 2025	Element Edmonton - Roper Road
Anions by IEC in water (VAN)	APHA	*	Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Sep 24, 2025	Element Vancouver
Carbon Organic (Total) in water (TOC)	APHA		High-Temperature Combustion Method, 5310 B	Sep 29, 2025	Element Edmonton - Roper Road
Heterotrophic (Standard) Plate Count (Aerobic SP) - VAN	APHA		Enzyme Substrate Method, 9215 E	Sep 24, 2025	Element Vancouver
Metals SemiTrace (Extractable) in water (VAN)	US EPA	*	Metals & Trace Elements by ICP-AES, 6010C	Sep 25, 2025	Element Vancouver
Metals SemiTrace (Total) in Water (VAN)	US EPA	*	Metals & Trace Elements by ICP-AES, 6010C	Sep 25, 2025	Element Vancouver
Phosphorus - Total in Water	APHA	*	Automated Ascorbic Acid Reduction Method, 4500-P F	Sep 30, 2025	Element Edmonton - Roper Road
Sulfide in water	APHA	*	Gas Dialysis, Automated Methylene Blue Method, 4500-S2- E	Sep 30, 2025	Element Edmonton - Roper Road
Total and E-Coli - Colilert - DW (VAN)	APHA		Enzyme Substrate Test, APHA 9223 B	Sep 24, 2025	Element Vancouver
Total and Kjeldahl Nitrogen (Total) in Water	ISO	*	Water Quality - Determination of nitrogen, ISO/TR 11905-2	Sep 26, 2025	Element Edmonton - Roper Road
Trace Metals (extractable) in Water (VAN)	US EPA	*	Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Sep 24, 2025	Element Vancouver
Trace Metals (Total) in Water (VAN)	US EPA	*	Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Sep 25, 2025	Element Vancouver
True Color in water (VAN)	APHA	*	Spectrophotometric - Single Wavelength Method, 2120 C	Sep 25, 2025	Element Vancouver
Turbidity - Water (VAN)	APHA	*	Turbidity - Nephelometric Method, 2130 B	Sep 24, 2025	Element Vancouver
Ultraviolet Transmittance in Water	APHA	*	Ultraviolet Absorption Method, 5910 B	Sep 25, 2025	Element Vancouver

** Reference Method Modified*

References

APHA	Standard Methods for the Examination of Water and Wastewater
ISO	International Organization for Standardization
US EPA	US Environmental Protection Agency Test Methods

Guidelines

Guideline Description	Health Canada GCDWQ
Guideline Source	Guidelines for Canadian Drinking Water Quality, Health Canada, August 2024
Guideline Comments	MAC = Maximum Acceptable Concentration AO = Aesthetic Objective OG = Operational Guideline for Water Treatment Plants (does not apply to private groundwater wells). Refer to Health Canada for complete guidelines at www.hc-sc.gc.ca

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Lot ID: **1845248**
Control Number:
Date Received: Sep 24, 2025
Date Reported: Oct 1, 2025
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Report Type: Final Report

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Results relate only to samples as submitted.

Water Quality Reports No. 3219455 (Element) – November 26, 2025

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Report Transmission Cover Page

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Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
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Proj. Acct. code:

Lot ID: **1862324**
Control Number:
Date Received: Nov 27, 2025
Date Reported: Dec 3, 2025
Report Number: 3217030
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Contact	Company	Address
Ineke Kalwij	**Kalwij Water Dynamics Inc**	P.O. Box 684 Station Main Port Coquitlam, BC V3B 6H9 Phone: (604) 615-4932 Fax: (604) 475-4062 Email: ineke@kalwijwaterdynamics.com

Delivery	Format	Deliverables
Email	PDF	COC / Test Report
Email	Standard Crosstab Without Tabs	Test Report
Email - Merge	PDF	COA
Email - Merge	PDF	COA / COC
Email - Merge	PDF	COC / Invoice

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Analytical Report

Bill To: Kalwij Water Dynamics Inc
P.O. Box 684 Station Main
Port Coquitlam, BC, Canada
V3B 6H9
Attn: Ineke Kalwij
Sampled By:
Company:

Project ID:
Project Name: SCRD - Test Well Monitoring
Project Location:
LSD:
P.O.:
Proj. Acct. code:

Lot ID: **1862324**
Control Number:
Date Received: Nov 27, 2025
Date Reported: Dec 3, 2025
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Reference Number	1862324-1
Sample Date	Nov 26, 2025
Sample Time	15:50
Sample Location	
Sample Description	Hospital Site Test Well / ID 69710 / 6.3 °C
Matrix	Water

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Aggregate Organic Constituents						
UV Transmittance		%/cm	99.4			0.1
Inorganic Nonmetallic Parameters						
Ammonium - N		mg/L	<0.025			0.025
Ammonium/Ammonia Preservation			Yes			
Hydrogen Sulfide	Calculated	mg/L	0.002			
Sulfide	Total	mg/L	0.002			0.002
Organic Carbon	Total Nonpurgeable	mg/L	<0.5			0.5
Metals Extractable						
Aluminum	Extractable	mg/L	<0.001			0.001
Antimony	Extractable	mg/L	<0.00002			0.00002
Arsenic	Extractable	mg/L	0.0002			0.0001
Barium	Extractable	mg/L	0.0050			0.0001
Boron	Extractable	mg/L	0.009			0.002
Cadmium	Extractable	mg/L	0.00001			0.00001
Chromium	Extractable	mg/L	<0.00005			0.00005
Copper	Extractable	mg/L	<0.0005			0.0005
Lead	Extractable	mg/L	0.00002			0.00001
Selenium	Extractable	mg/L	<0.0002			0.0002
Strontium	Extractable	mg/L	0.080			0.0001
Uranium	Extractable	mg/L	0.00028			0.00001
Vanadium	Extractable	mg/L	0.00085			0.00005
Zinc	Extractable	mg/L	0.033			0.0005
Metals Total						
Calcium	Total	mg/L	17			0.01
Magnesium	Total	mg/L	4.0			0.02
Potassium	Total	mg/L	1.6			0.04
Silicon	Total	mg/L	11			0.005
Sulfur	Total	mg/L	2.1			0.02
Sodium	Total	mg/L	6.0			0.1
Titanium	Total	mg/L	0.009			0.002
Digestion	Preparation		Field Pres, digest as total Hg			
Mercury	Total	mg/L	<0.00001			0.00001
Microbiological Analysis						
Total Coliforms	Enzyme Substrate Test	MPN/100 mL	<1.0			1.0
Escherichia coli	Enzyme Substrate Test	MPN/100 mL	<1.0			1.0
Heterotrophic Count -	SimPlate	MPN/mL	35.0			2

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Sample Description	Hospital Site Test Well / ID 69710 / 6.3 °C
Matrix	Water

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Microbiological Analysis - Continued						
Aerobic						
Physical and Aggregate Properties						
Colour	True	Colour units	<5			5
Turbidity		NTU	0.61			0.1
Routine Water						
pH			6.88			0.01
pH - Holding Time			Exceeded			
Temp. of observed pH		°C	21.4			
Electrical Conductivity	at 25 °C	µS/cm	161			1
Calcium	Extractable	mg/L	18			0.01
Iron	Extractable	mg/L	0.16			0.004
Magnesium	Extractable	mg/L	4.1			0.02
Manganese	Extractable	mg/L	0.004			0.001
Potassium	Extractable	mg/L	1.9			0.04
Silicon	Extractable	mg/L	11			0.005
Sodium	Extractable	mg/L	6.6			0.1
Bicarbonate		mg/L	70			5
Carbonate		mg/L	<6			6
T-Alkalinity	as CaCO3	mg/L	58			5
Chloride	Dissolved	mg/L	5.25			0.05
Fluoride	Dissolved	mg/L	<0.01			0.01
Nitrate - N	Dissolved	mg/L	0.89			0.01
Nitrite - N	Dissolved	mg/L	<0.01			0.01
Sulfate (SO4)	Dissolved	mg/L	7.6			0.1
Hardness	as CaCO3 (extractable)	mg/L	61			1
Total Dissolved Solids	Extractable	mg/L	111			1
Trace Metals Total						
Aluminum	Total	mg/L	<0.001			0.001
Antimony	Total	mg/L	0.00002			0.00002
Arsenic	Total	mg/L	0.0002			0.0001
Barium	Total	mg/L	0.0047			0.0001
Beryllium	Total	mg/L	<0.00005			0.00005
Bismuth	Total	mg/L	<0.0001			0.0001
Boron	Total	mg/L	0.004			0.002
Cadmium	Total	mg/L	0.00001			0.00001
Chromium	Total	mg/L	0.00006			0.00005
Cobalt	Total	mg/L	0.00002			0.00002

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Sample Description	Hospital Site Test Well / ID 69710 / 6.3 °C
Matrix	Water

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Trace Metals Total - Continued						
Copper	Total	mg/L	0.0005			0.0002
Iron	Total	mg/L	0.17			0.002
Lead	Total	mg/L	0.00003			0.00001
Lithium	Total	mg/L	0.0012			0.0005
Manganese	Total	mg/L	0.003			0.001
Molybdenum	Total	mg/L	0.00006			0.00002
Nickel	Total	mg/L	<0.0002			0.0002
Selenium	Total	mg/L	<0.0002			0.0002
Silver	Total	mg/L	<0.00001			0.00001
Strontium	Total	mg/L	0.075			0.0001
Tellurium	Total	mg/L	<0.00005			0.00005
Thallium	Total	mg/L	<0.00001			0.00001
Thorium	Total	mg/L	<0.00005			0.00005
Tin	Total	mg/L	<0.0001			0.0001
Uranium	Total	mg/L	0.00026			0.00001
Vanadium	Total	mg/L	0.0011			0.00005
Zinc	Total	mg/L	0.030			0.0005
Zirconium	Total	mg/L	<0.0001			0.0001

Approved by:

Benjamin Morris, B.Sc
Operations Manager

Data have been validated by Analytical Quality Control and Element's Integrated Data Validation System (IDVS).
Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.

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Methodology and Notes

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Method of Analysis

Method Name	Reference		Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	*	Alkalinity - Titration Method, 2320 B	Nov 27, 2025	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	*	Conductivity, 2510 B	Nov 27, 2025	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	*	pH - Electrometric Method, 4500-H+ B	Nov 27, 2025	Element Vancouver
Ammonium-N in Water	APHA	*	Automated Phenate Method, 4500-NH3 G	Dec 02, 2025	Element Edmonton - Roper Road
Anions by IEC in water (VAN)	APHA	*	Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Nov 27, 2025	Element Vancouver
Carbon Organic (Total) in water (TOC)	APHA		High-Temperature Combustion Method, 5310 B	Dec 03, 2025	Element Edmonton - Roper Road
Heterotrophic (Standard) Plate Count (Aerobic SP) - VAN	APHA		Enzyme Substrate Method, 9215 E	Nov 27, 2025	Element Vancouver
Mercury Low Level (Total) in water (VAN)	EPA	*	Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	Nov 28, 2025	Element Vancouver
Metals SemiTrace (Extractable) in water (VAN)	US EPA	*	Metals & Trace Elements by ICP-AES, 6010C	Dec 01, 2025	Element Vancouver
Metals SemiTrace (Total) in Water (VAN)	US EPA	*	Metals & Trace Elements by ICP-AES, 6010C	Dec 01, 2025	Element Vancouver
Sulfide in water	APHA	*	Gas Dialysis, Automated Methylene Blue Method, 4500-S2- E	Dec 03, 2025	Element Edmonton - Roper Road
Total and E-Coli - Colilert - DW (VAN)	APHA		Enzyme Substrate Test, APHA 9223 B	Nov 27, 2025	Element Vancouver
Trace Metals (extractable) in Water (VAN)	US EPA	*	Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Dec 01, 2025	Element Vancouver
Trace Metals (Total) in Water (VAN)	US EPA	*	Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Dec 01, 2025	Element Vancouver
True Color in water (VAN)	APHA	*	Spectrophotometric - Single Wavelength Method, 2120 C	Nov 28, 2025	Element Vancouver
Turbidity - Water (VAN)	APHA	*	Turbidity - Nephelometric Method, 2130 B	Nov 27, 2025	Element Vancouver
Ultraviolet Transmittance in Water	APHA	*	Ultraviolet Absorption Method, 5910 B	Nov 28, 2025	Element Vancouver

** Reference Method Modified*

References

APHA	Standard Methods for the Examination of Water and Wastewater
EPA	Environmental Protection Agency Test Methods - US
US EPA	US Environmental Protection Agency Test Methods

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