TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)**	**Date:**	**25 July 2025**
From:	**Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)**	**Project #:**	**A633-9**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #73 for July 13 – July 19**		

Waste Discharge Authorization (WDA) Effluent Permit PE-111578 was issued by the British Columbia Energy Regulator (BCER) to Woodfibre LNG on February 9, 2024. The associated WDA discharge and compliance monitoring program is conducted by on-site Environmental Monitors (Roe Environmental) that are sub-contracted to the civil works contractor (LB LNG). Analytical samples are submitted by Roe Environmental to ALS Environmental in Burnaby, BC, for testing. Lorax Environmental provides water quality database management and WDA compliance reporting services to Woodfibre LNG.

This technical memorandum (Report #73) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of July 13 – July 19. Monitoring data and pending results from prior monitoring periods available at the time of reporting are tabulated and included as appendices to this memorandum. Report #73 has been prepared to meet the requirements specified in Condition 4.2 of PE-111578:

> "The Permittee shall summarize the results of the discharge and compliance monitoring program in a report that shall be submitted to the BCER weekly over the term of this permit. Reports must include suitable tabulated data. The table must include any applicable regulatory limits/guidelines e.g. permit limits, BC Water Quality Guidelines etc. Any exceedances of respective regulatory limits/guidelines must be clearly highlighted. Any missed sampling events/missing data must be identified with an explanation provided. Reporting frequency may be reduced upon a history of compliance and by written confirmation from the BCER. These reports shall be submitted to Waste.Management@bc-er.ca. A copy of the reports shall be provided to each First Nation consulted with regarding this subject permit, and also made publicly available on the Woodfibre LNG Environmental Reporting webpage."

Site layout and water management figures, and site images are included in Appendix A. Monitoring results are tabulated in Appendix B through Appendix F for contact water, treated water and receiving environment samples.

1. Current Conditions

1.1 Water Management Infrastructure

The Construction Phase of the Woodfibre LNG Export Facility commenced in October 2023. Shoring works along the foreshore areas were initiated in December 2023, and in early 2024 construction of water management infrastructure commenced. Land-based construction occurs within two water management areas east and west of Mill Creek, referred to as the east and west catchments, respectively. Non-contact water is intercepted and diverted around the construction areas to Howe Sound and Mill Creek. Stormwater runoff collected within the east and west catchment areas (7.12 and 5.92 ha, respectively) is managed as site contact water and is conveyed to the East Wastewater Treatment Plant (WWTP) for treatment or to the East and West Sedimentation Ponds for settling of suspended particulate. Discharge to Howe Sound from the East and West Sedimentation Ponds commenced April and October 2024, respectively.

Non-contact water from the slopes above and outside the Woodfibre LNG construction area is intercepted by diversion ditches and conveyed to Howe Sound or Mill Creek. Diversion ditches for the west catchment convey water to Mill Creek at station OUT-06, or to Howe Sound at station OUT-02 (Appendix A, Figure 1). During heavy precipitation non-contact water is also conveyed to Howe Sound via station OUT-01. East of Mill Creek, non-contact water is intercepted and diverted around the east catchment along pre-existing road ditches that flow to East Creek or Mill Creek. To facilitate the replacement of the East Creek discharge culvert at OUT-12 (station SW-04), the lower reach of East Creek was temporarily diverted to an adjacent culvert, OUT-11, on September 17, 2024.

The East WWTP was commissioned in April 2024 and the West WWTP was commissioned August 2024. Operation of the West WWTP was subsequently suspended September 25, 2024 for a temporary reconfiguration to conduct pilot-scale evaluations of alternative treatment processes. The evaluations were completed April 2025 and did not yield improved treatment outcomes; therefore, the original treatment process has been maintained. Lower than expected volumes of contaminated contact water have been encountered during construction, therefore operation of the West WWTP remains suspended and all site waters that require treatment are directed to the East WWTP with treated effluent discharged to the East Sedimentation Pond.

The east and west catchments contact water conveyance ditches described in PE- 111578 were designed to transport non-contaminated contact water (*i.e.*, stormwater) to the East and West Sedimentation Ponds and will be constructed following completion of site preparation activities (*e.g.*, site grading, bedrock excavation) along the ditch lines. Until the ditches are operational, contact waters within the catchments are managed to remain on site using a system of berms, sumps, temporary ditches and baker tanks for intermediate storage, and are then directed to the East WWTP for treatment, or the East and West Sedimentation Ponds prior to discharge.

Discharge from the East and West Sedimentation Ponds is controlled using pumps. Prior to water management upgrades that commenced implementation during the week of June 22 – 28, water stored in the ponds was pumped to a TSS settling system prior to discharge through the authorized outfall structures associated with each pond. Some of the TSS clarified water was recirculated back to the ponds or was re-used for construction (*e.g.*, dust suppression), and this will continue with the revised configuration. Each sedimentation pond has an associated authorized discharge location (stations SP-E-OUT and SP-W-OUT) with an initial dilution zone (IDZ) where discharged water mixes with Howe Sound surface waters. The IDZ is defined in PE-111578 and extends in a 150 m radius from each point of discharge into Howe Sound.

Flocculant-based TSS settling systems are used at the East and West Sedimentation Ponds to remove TSS from pond effluent. The first West Sedimentation Pond TSS settling system (ESC) was commissioned for use on September 25, 2024, with an 820 m^3/day installed capacity. An additional TSS settling system (W500GPM) was commissioned for use at the West Sedimentation Pond on November 28, 2024, and provided an additional 2,725 m^3/day installed capacity for clarifying water. A third TSS settling system (E500GPM) was commissioned for use at the East Sedimentation Pond on December 4, 2024, also with 2,725 m^3/day installed capacity. The E500GPM and W500GPM TSS settling systems were decommissioned during the June 22 – June 28 monitoring period, and the ESC system was decommissioned July 4. These systems are currently being replaced by a single TSS settling system (2700GPM) at the West Sedimentation Pond that will clarify all non-contaminated construction contact water prior to discharge at SP-W-OUT.

The fully built 2700GPM TSS settling system will have the installed capacity to clarify 15,000 m^3/day of contact water, with the same settling process that was used in the systems that are currently being replaced. The 2700GPM system will consist of six parallel treatment trains, each with an installed capacity of 2,450 m^3/day. The number of active trains will be matched to contact water flows. Only one train will be operated during dry conditions or when contact water flows are below approximately 2450 m^3/day, whereas at higher flows additional trains will be activated as needed to match the influent volumes. The individual treatment trains are being commissioned in stages. Commissioning and pilot testing for the first, third and fourth train of the 2700GPM system continued during the monitoring period (July 13 – July 19).

The construction phase water management layout and monitoring stations are shown in Appendix A, Figure 1. Contact water collection and dewatering locations and photographs of the sedimentation ponds are shown in Appendix A, Figure 2 through Figure 5.

1.2 Weather and Water Management

Generally warm and sunny weather conditions were observed during the July 13 – July 19 monitoring period, with light precipitation recorded on July 14 (2.2 mm). The daily weather conditions are summarized in Table 1.

Table 1: Summary of Certified Project Area (CPA) Daily Weather Conditions.

Date	Precipitation (mm)	Max. Temp (°C)	Min. Temp (°C)	Weather Description
2025-07-13	0	30.1	16.3	Mix of Sun and Cloud
2025-07-14	2.2	24.5	17.3	Mix of Sun and Cloud
2025-07-15	0	30.0	15.8	Mix of Sun and Cloud
2025-07-16	0	27.4	15.9	Mix of Sun and Cloud
2025-07-17	0	26.8	15.9	Mix of Sun and Cloud
2025-07-18	0	24.3	16.0	Mix of Sun and Cloud
2025-07-19	0	22.6	14.8	Mix of Sun and Cloud

Note: Data retrieved from the Woodfibre on-site weather station operated by Stantec.

From July 13 – July 19, the East Sedimentation Pond received water from Woodfibre Creek to support treatment of concrete contact water at the East WWTP during dry conditions, water used for hydrostatic testing underground pipelines as well as recirculated effluent from the East WWTP (Appendix A, Figure 2). There was no discharge to Howe Sound from station SP-E-OUT during the monitoring period. Recirculated effluent from the 2700GPM TSS settling system was directed to the West Sedimentation Pond (Appendix A, Figure 3). No water from the East Sedimentation Pond was transferred to the West Sedimentation Pond from July 13 – July 19 (Appendix B, Table B-6).

Routine operation of the East WWTP continued during the monitoring period (July 13 – July 19). Concrete contact water and water from the construction water baker tank was periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was discharged to the East Sedimentation Pond each day from July 13 – July 19. Daily water volumes processed by the East WWTP are provided in Appendix B (Table B-6).

Commissioning and pilot testing of the 2700GPM TSS settling system continued during the monitoring period (July 13 – July 19). West Sedimentation Pond effluent was clarified through the 2700GPM system each day and was recirculated back to the West Sedimentation Pond. There was no discharge to Howe Sound from station SP-W-OUT during the monitoring period. From July 13 – July 19, clarified effluent was not reclaimed for construction use. Daily clarified effluent volumes from the TSS settling systems and volumes of reclaimed water are provided in Appendix C (Table C-6).

2. Monitoring Summary

The locations of compliance and supplementary monitoring stations are shown on Figure 1. Monitoring is conducted by the on-site Environmental Monitors (Roe Environmental). Analytical samples are submitted by Roe Environmental to ALS Environmental in Burnaby, BC, for testing.

The following compliance and supplementary monitoring stations are currently being monitored:

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02, OUT-06, and OUT-11). East Creek water was temporarily diverted to OUT-11 on September 17, 2024, and is monitored at the inlet to temporary diversion (station SW-04), therefore OUT-11 is not currently monitored.
- Creek water monitoring stations for Woodfibre, Mill and East Creek (SW-01, SW-02, SW-03, SW-04, SW-07).
- Contact water monitoring locations (SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT).
- Howe Sound reference and IDZ monitoring stations (WQR1, WQR2, IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2).

The influent culverts for East and West Sedimentation Ponds are not operational and the associated influent stations defined in PE-111578 (SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2) have been replaced with temporary influent monitoring stations SP-E-IN and SP-W-IN (East and West Sedimentation Pond, respectively) located in-pond, at the influent end of each pond.

A flocculant-based TSS settling system (2700GPM) is used at the West Sedimentation Pond as described in Section 1.1. The W500GPM TSS settling system was decommissioned during the June 22 – June 28 monitoring period and the ESC system was decommissioned July 4. The replacement 2700GPM TSS settling system is currently being commissioned (Section 1.1). Influent and effluent are monitored at stations 2700GPM-IN and 2700GPM-OUT, respectively. The TSS settling system (E500GPM) was also decommissioned during the June 22 – June 28 monitoring period (Section 1.1). Prior to decommissioning, influent and effluent for the W500GPM, ESC, and E500GPM systems were monitored at stations W500GPM-IN, W500GPM-OUT, ESC-W-IN, ESC-W-OUT, E500GPM-IN, and E500GPM-OUT. The TSS settling system stations are supplemental to the PE-111578 monitoring requirements and are monitored at the discretion of field staff.

Water quality was monitored at stations SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT during the monitoring period (July 13 – July 19). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (July 13 – July 19) were met. The initial high frequency monitoring requirements outlined in effluent permit PE-111578 for the sedimentation pond, WWTP and IDZ stations have been met. BCER has approved the implementation of low-frequency (*i.e.,* bi-monthly and monthly) monitoring requirements specified in PE-111578 for all parameters, except for metals, hexavalent chromium and methylmercury which will continue to be monitored weekly at sedimentation pond and WWTP stations.

Daily field parameters and a weekly analytical sample were not collected at the east and west catchment effluent stations (SP-E-OUT and SP-W-OUT, respectively) as there was no discharge to Howe Sound during the monitoring period (July 13 – July 19). Daily field parameters and a weekly analytical sample were not collected at the influent and effluent stations of the West WWTP (WWTP-W-IN and WWTP-W-OUT, respectively) as it was not operational during the monitoring period.

Table 2: Summary of PE-111578 Monitoring Samples Collected July 13 – July 19.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
July 13, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field and Physical Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-IN	East WWTP at the influent meter box	Field and Physical Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 14, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field and Physical Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 15, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 16, 2025	SP-E-IN	East Sedimentation Pond monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 17, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 18, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 19, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		

Notes: Monitoring frequency requirements under PE-111578 are indicated as follows:
D – daily monitoring of field parameters at WWTP and sedimentation pond influent and effluent stations.
M – monthly monitoring for all parameters at WWTP, sedimentation pond and receiving environment stations.
M_2 – bi-monthly monitoring for physical parameters at WWTP and sedimentation pond stations.
W – high frequency monitoring for metals, chromium speciation and methylmercury at WWTP and sedimentation pond influent and effluent stations, effective June 25, 2025.
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

3. Water Quality Results

3.1 Screening and Reporting Overview

Water quality and flow monitoring results are screened against field quality control (QC) criteria, benchmark values, operational minimum discharge objectives (MDOs) that the WWTPs are currently being operated to meet, PE-111578 discharge limits, as well as Canadian, Federal and BC water quality guidelines (WQGs). All water quality data are recorded in the Woodfibre LNG environmental monitoring database. However, for brevity, a sub-set of the results are presented in the weekly report appendices. Results are reported for parameters with a freshwater, estuarine or marine water quality guideline for the protection of aquatic life, parameters with a discharge limit, parameters of potential concern (*i.e.,* dioxins and furans) as well as other parameters that are relevant for water quality interpretation.

Canadian, Federal and BC WQGs are not specified for dioxins and furans. The general term "dioxins and furans" refers to a total of 210 polychlorinated dibenzo-*p*-dioxin (PCDD) and polychlorinated dibenzofuran (PCDF) compounds. A sub-set of 17 of the most toxic PCDDs and PCDFs are typically evaluated for toxicity by converting the individual parameter concentrations to toxic equivalent (TEQ) values that are summed and evaluated as a single PCDD/F TEQ parameter. To address uncertainties for results reported as not detected, two PCDD/F TEQ values are reported. A "lower-bound PCDD/F TEQ" is calculated assuming a concentration of zero for results reported as not detected, therefore, if all 17 of the individual compounds in the sub-set are not detected the lower-bound PCDD/F TEQ will equal zero. An "upper-bound PCDD/F TEQ" is calculated assuming a concentration equal to the detection limit for results reported as not detected. These two parameters span the range of possible TEQs if one or more of the PCDDs and PCDFs are reported as not detected.

The BC WQG for total mercury is a sample-specific calculated value that is based on the concentration of methylmercury in a sample. Although an approved BC WQG for the protection of aquatic life for methylmercury has not been explicitly established, the BC Ambient Water Quality Guidelines for Mercury Overview Report indicates the total mercury WQG is derived from a methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) that is set at a concentration that protects fish from mercury bioaccumulation to levels that could harm wildlife that consumes fish. Therefore, if methylmercury results are reported, the 0.0001 µg/L value is presented as a methylmercury WQG to support the interpretation of total mercury and methylmercury results.

3.2 Summary of Reported Results

Field measurements and analytical results included in this weekly report (Report #73) are listed below in Table 3. Testing for methylmercury, dioxins, furans and toxicity may require four weeks or longer to complete. Analytical results not reported will be included in future weekly reports. Reporting of results is pending for the following samples and parameters:

- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, and WQR2 collected May 27 at 0.5 m below surface (chronic toxicity)
- 2700GPM-IN and 2700GPM-OUT collected June 29 (dioxins and furans)
- SP-W-IN, 2700GPM-IN, and 2700GPM-OUT collected July 7 (dioxins and furans)
- SW-01 and SW-04 collected July 8 (methylmercury, dioxins and furans)
- SW-02, SW-03 and SW-07 collected July 9 (methylmercury, dioxins and furans)
- SP-E-IN, WWTP-E-IN, and WWTP-E-OUT collected July 10 (dioxins and furans)
- IDZ-E1, IDZ-E2, and WQR1 collected July 12 (dioxins and furans)
- 2700GPM-IN and 2700GPM-OUT collected July 14 (dioxins and furans)

Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #73.

Sample	Description	Sampling Date	Parameters Reported
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	June 17, 2025	Dioxins and Furans.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface		
IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
WQR2-0.5	Reference site 2; 0.5 m below surface		
WQR2-2m	Reference site 2; 2 m below surface		
WQR2-SF	Reference site 2; 2 m above the seafloor		
WWTP-E-IN	East WWTP at the influent meter box	June 23, 2025	Dioxins and Furans.
WWTP-E-OUT	East WWTP at the effluent meter box		
2700GPM-IN	2700 GPM TSS settling system at the influent meter box		
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	July 8, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	July 9, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	July 10, 2025	Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	July 12, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
WQR1-0.5	Reference site 1; 0.5 m below surface		
WQR1-2m	Reference site 1; 2 m below surface		
WQR1-SF	Reference site 1; 2 m above the seafloor		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	July 13, 2025	Field and Physical Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	July 14, 2025	Field and Physical Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
2700GPM-IN	2700 GPM TSS settling system at the influent meter box		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		

3.3 East Catchment

The east catchment water quality monitoring results for stations at the East Sedimentation Pond, East WWTP and the authorized discharge location are discussed in this section. Results for the sedimentation pond and authorized discharge location are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. East WWTP monitoring results are screened against operational MDOs which are equivalent to the PE-111578 discharge limits and the lowest applicable WQGs for parameters without discharge limits. The screened water quality results for analytical samples available at the time of reporting and for field parameters collected during the monitoring period are presented in Appendix B. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for methylmercury, dioxins and furans are summarized below.

The east catchment did not discharge during the monitoring period (July 13 – July 19). East WWTP treated effluent volumes and discharge volumes from the east catchment are listed in Appendix B, Table B-6.

Field measurements were collected July 13 – July 19 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-5. Analytical samples collected July 13 (stations SP-E-IN, WWTP-E-IN, and WWTP-E-OUT) were available at the time of reporting. Screening results for east catchment contact water quality are summarized in Table B-1 and Table B-2 of Appendix B.

Dissolved oxygen was below the lower limit of the MDO in East WWTP effluent (WWTP-E-OUT) each day during the July 13 – July 19 monitoring period (Appendix B, Table B-5). The depletion of dissolved oxygen was also observed in contact water during dry conditions in 2024 and is speculated to be induced by warm temperatures and limited freshwater inputs (*i.e.,* from rain) to the contact water management system during dry conditions. East WWTP treated effluent was directed to the East Sedimentation Pond and there was no discharge to Howe Sound from the authorized discharge location (SP-E-OUT) during the July 13 – July 19 monitoring period.

Methylmercury results were available for East Sedimentation Pond influent (SP-E-IN) and East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected July 10 (as discussed in Report #72) and July 13. Methylmercury concentrations were 0.00163 and 0.00194 µg/L in the WWTP-E-OUT samples collected July 10 and 13, respectively (Appendix B, Table B-3), which are above the WQG (0.0001 µg/L). East WWTP effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on July 10 nor on July 13. Total mercury concentrations are also listed in Appendix B, Table B-3 and are above the WQG. Mercury parameters are tracked in Table 4.

Dioxin and furan results were reported for East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected June 23 (as discussed in Report #70). The lower and upper bound PCDD/F TEQ concentrations in the effluent discharged from the East WWTP (WWTP-E-OUT) on June 23 were 0.00114 pg/L and 1.67 pg/L, respectively. Results are tabulated in Appendix B, Table B-4.

3.4 West Catchment

The west catchment water quality monitoring results for stations at the West Sedimentation Pond, the TSS settling systems (ESC and W500GPM) and West WWTP monitoring stations, and the authorized discharge location are discussed in this section. Results for sedimentation pond and TSS settling system influent and effluent stations are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. The screened water quality results for analytical samples and field parameters are presented in Appendix C. Operation of the West WWTP is suspended (refer to Section 1.1) and monitoring results are therefore not available for the stations at this facility. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for methylmercury, dioxins and furans are summarized below.

During the monitoring period (July 13 – July 19), commissioning and pilot testing of the replacement TSS settling system (2700GPM) continued (Section 1.1 and Section 1.2). West Sedimentation Pond effluent was directed to the 2700GPM TSS settling system each day during the monitoring period, and clarified effluent was recirculated to the pond (refer to Section 1.2). There were no discharges to Howe Sound from the west catchment discharge location (SP-W-OUT) during the monitoring period. Daily clarified effluent and discharge volumes from the west catchment are summarized in Appendix C, Table C-6.

Field measurements were collected July 13 – July 19 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-5. Analytical samples collected July 14 (stations SP-W-IN, 2700GPM-IN and 2700GPM-OUT) were available at the time of reporting. Screening results for west catchment contact water quality are tabulated in Table C-1 and Table C-2 of Appendix C.

During the monitoring period (July 13 – July 19), field measurements and analytical results for samples collected at station 2700GPM-OUT met PE-111578 discharge limits and WQGs except for dissolved oxygen each day during the monitoring period with the exception of July 14. The depletion of dissolved oxygen was also observed in contact water during dry conditions in 2024 and is speculated to be induced by warm temperatures and limited freshwater inputs (*i.e.*, from rain) to the contact water management system during dry conditions. Clarified effluent from the

2700GPM system was recirculated to the West Sedimentation Pond and there was no discharge to Howe Sound from the authorized discharge location (SP-W-OUT) during the July 13 – July 19 monitoring period.

Methylmercury results were available for West Sedimentation Pond influent (SP-W-IN) and 2700GPM TSS settling system influent and effluent (2700GPM-IN and 2700GPM-OUT, respectively) collected July 14. The methylmercury concentration was 0.000361 µg/L in the 2700GPM-OUT sample collected July 14 (Appendix C, Table C-3), which is above the WQG (0.0001 µg/L). Clarified effluent from the 2700GPM system was recirculated to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound on July 14. The total mercury concentration is also listed in Appendix C, Table C-3 and is above the WQG. Mercury parameters are tracked in Table 4.

Dioxin and furan results were reported for 2700GPM TSS settling system influent and effluent (2700GPM-IN and 2700GPM-OUT, respectively) collected June 23 (as discussed in Reports #70). The lower and upper bound PCDD/F TEQ concentrations in the 2700GPM-OUT sample collected June 23 were 0.00203 pg/L and 1.93 pg/L, respectively. Results are tabulated in Appendix C, Table C-4.

3.5 Non-Contact Water Diversion Ditch Outlets

Non-contact water diversion ditch samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater aquatic life.

East Creek was temporarily diverted to OUT-11 on September 17, 2024, to facilitate replacement of the OUT-12 culvert through which East Creek previously discharged. Only East Creek water is flowing through the OUT-11 culvert. East Creek is monitored at freshwater receiving environment station SW-04 and station OUT-11 is not monitored while the diversion is in place.

There are no outstanding analytical results for non-contact diversion ditch outlet stations at the time of reporting.

3.6 Freshwater and Estuarine Water Receiving Environment

Freshwater and estuarine water receiving environment samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater and estuarine aquatic life. Parameter concentrations above a WQG value, but within the range of values observed in the baseline monitoring program are considered to represent the natural condition of the water and are not flagged as a possible indicator of project influence. The analytical results, field parameters, and WQGs are summarized in Appendix D (freshwater) and Appendix E (estuarine).

Analytical results were available at the time of reporting for freshwater and estuarine water samples collected near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on July 8 as well as at the lower freshwater reach of Mill Creek (station SW-02), the Mill Creek estuary (SW-03) and upstream on Mill Creek (SW-07) on July 9 (as discussed in Report #72).

Parameter concentrations met WQGs except field pH, total aluminum and dissolved copper in some samples. Field pH at stations SW-02 (pH 6.2), SW-03 (pH 6.5) and SW-07 (pH 5.5) were below the lower ranges of the WQGs (pH 6.5 for freshwater and pH 7.0 for estuarine water) on July 9. Total aluminum was above the long-term WQG in the samples collected from Woodfibre Creek (0.121 mg/L), East Creek (0.209 mg/L), and Mill Creek stations SW-02 and SW-07 (0.0949 and 0.0875 mg/L, respectively). Dissolved copper was above the short-term and long-term WQG in samples collected from Woodfibre Creek (0.00022 mg/L) and upstream on Mill Creek (0.00044 mg/L).

The field pH values, and the total aluminum and dissolved copper concentrations observed at downstream stations (SW-01, SW-02, SW-03, and SW-04) are within ranges observed in the pre-construction baseline monitoring program for the freshwater receiving environment stations. The samples collected from upstream Mill Creek (station SW-07) represent background water quality in Mill Creek. The field pH, total aluminum and dissolved copper concentrations measured in all samples are considered to represent background conditions and are not attributed to project influence.

Dioxin and furan results were available at the time of reporting for freshwater and estuarine water samples collected June 17 (SW-02, SW-03, and SW-07) (as discussed in Reports #69). The lower bound PCDD/F TEQ concentration measured in these samples was 0 pg/L and the upper bound values ranged from 1.82 to 2.43 pg/L. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the baseline monitoring program. Results are tabulated in Appendix D, Table D-2 (freshwater) and Appendix E, Table E-2 (estuarine).

3.7 Marine Water Receiving Environment

Marine water receiving environment samples are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. Parameter concentrations above a WQG value, but within the range of values observed in the baseline monitoring program or reference stations are considered to represent the natural condition of the water and not flagged as a possible indicator of project influence. Similarly, WQG exceedances at marine reference stations are considered to represent background conditions that are not influenced by the project. It is expected that samples collected within the IDZ (*i.e.*, mixing zone) defined in PE-111578 for the authorized discharge locations may have parameter concentrations above baseline or background

(*i.e.,* reference station) concentrations due to project influence. The analytical results, field parameters and WQGs are summarized in Appendix F.

Analytical results and field measurements were available at the time of reporting for marine water samples collected at 0.5 and 2 m below the water surface and 2 m above the seafloor on July 12 at IDZ-E1, IDZ-E2, and marine reference station WQR1 (as discussed in Report #72).

Parameter concentrations met WQGs except dissolved oxygen and total boron in some samples (Appendix F; Tables F-1 and Table F-2). In samples collected at 2 m above the seafloor at IDZ-E2 and marine reference station WQR1 on July 12, dissolved oxygen ranged from 6.18 to 7.38 mg/L and was below the lower limit of the WQG (8 mg/L). In samples collected at 2 m above the seafloor at IDZ-E1, IDZ-E2 and marine reference station WQR1 on July 12, total boron was above the WQG (1.2 mg/L) and ranged from 2.19 to 2.96 mg/L. The observed concentrations of dissolved oxygen and total boron at the IDZ stations are indicative of influence from the deeper saline waters in the northern basin of Howe Sound and are a natural condition of marine water at the WDA monitoring stations as demonstrated by the results for reference station WQR1, and are not attributed to project influence.

Methylmercury analytical results were available at the time of reporting for marine samples collected from 0.5 and 2 m below the water surface and 2 m above the seafloor on July 12 at IDZ-E1, IDZ-E2 and marine reference station WQR1 (as discussed in Report #72). For all samples, methylmercury concentrations ranged from <0.000020 to 0.000067 µg/L. Methylmercury results met the WQG and the corresponding total mercury results also met WQGs (Appendix F, Table F-3).

Dioxins and furans analytical results were available at the time of reporting for marine samples collected from 0.5 and 2 m below the water surface and 2 m above the seafloor at stations IDZ-W1, IDZ-W2 and reference station WQR2 on June 17 (as discussed in Report #69). For all samples, the lower and upper bound PCDD/F TEQ concentrations ranged from 0 to 0.0214 pg/L, and 1.40 to 2.15 pg/L, respectively. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the baseline monitoring program or within background ranges observed at marine reference stations. Results are tabulated in Appendix F, Table F-4.

4. Quality Control

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 4). The evaluation includes a review of field and lab QC, completeness of the weekly report (*e.g.,* pending data), completeness of the monitoring program, confirmation of recordkeeping, evaluation of compliance and review of water management activities. Items flagged for follow-up in Section 3 are also tracked in Table 4. Any items flagged for follow-up are carried forward to future reports until they are closed.

Table 4: Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (July 13 – July 19, Report #73)		
Authorized Works and Monitoring Program Evaluation	The authorized works and monitoring stations have not been established as described in PE-111578.	The PE-111578 authorized works for water management have been constructed, except for some of the conveyance ditches which require completion of site grading prior to installation. Sumps, pumps and hoses are used for temporary conveyance until the ditches are completed. The lower reach of East Creek has been temporarily diverted through OUT-11 outfall since September 17, 2024, to facilitate replacement of the East Creek outfall culvert (OUT-12). All monitoring stations have been established except at SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2 where substitute stations are established in lieu of those listed in PE-111578 (refer to Section 2). This item remains open.
Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected July 14 were not included with Report #73. The pending results will be included in future weekly reports when available. This item remains open.
Ongoing Items from Previous Weekly Reports		
Report #62: WWTP Performance Evaluation	Total copper above the MDO.	This item was first noted in Report #46 (January 8 sample). From January 8 onwards the WWTP-E-OUT total copper concentrations were 0.00809, 0.00595, 0.00895, 0.00518, 0.00542, 0.00525, 0.00450, 0.00734, 0.00464, 0.00462, and 0.00573 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, 28, February 24, March 8, 17, April 24, May 10, June 3, and June 9, respectively, and ranged from 0.00613 to 0.0108 mg/L in four replicate samples collected on February 15. The HSMT metal removal media was replaced on June 5 and the fresh media was expected to improve copper removal; however, the total copper result for WWTP-E-OUT collected June 9 (0.00573 mg/L) following the media replacement was above the MDO. Follow-up samples collected June 19, 23, July 2, 10, and 13 returned total copper concentrations of 0.00264, 0.00263, 0.00181, 0.00185, and 0.00215 mg/L, respectively, and met the MDO. A detailed process evaluation was conducted on July 13 and a modification to how the treatment reagents are added was developed to improve copper removal. BCER was notified of the planned modification on July 21, and it was subsequently implemented. As of Weekly Report #73, and total copper in East WWTP effluent samples collected after June 9 has met the MDO; however, the WWTP treatment performance for total copper continues to be reviewed. This item remains open.
Report #66: Pending Data	Analytical results not reported.	Chronic toxicity results for receiving environment samples collected May 27 were not included with Report #73. The pending results will be included in future weekly reports when available. This item remains open.
Report #67: WQG Evaluation	Total mercury and methylmercury above WQG.	In general, there has been an increased incidence of total mercury and methylmercury concentrations above the WQGs in site contact waters since late April. In contrast, as of Weekly Report #73, receiving environment samples have met WQGs since May 19. Since late April site conditions have been drier than through the winter months. Total methylmercury results in contact water from SP-E-OUT, SP-W-OUT, WWTP-E-OUT and 2700GPM-OUT from May 3 to July 14 have been generally above the WQG (0.0001 µg/L) ranging from 0.000089 to 0.00194 µg/L with the highest values observed at WWTP-E-OUT on July 10 and 13 (0.00163 and 0.00194 µg/L, respectively). Possible project related sources have been evaluated, and upstream contact water monitoring data indicate methylmercury is elevated in the hydrovac sump. Excess water from this sump directed to the East WWTP. Further investigation is underway. This item remains open.
Report #69: Pending Data	Analytical results not reported.	Dioxin and furans results for freshwater and marine water receiving environment samples collected June 17 are discussed in Sections 3.6 and 3.7 of Report #73. This item is closed.
Report #70: Pending Data	Analytical results not reported.	Dioxins and furans results for treated water samples collected June 23 are discussed in Sections 3.3 and 3.4 of Report #73. This item is closed.
Report #71: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected June 29 were not included with Report #73. The pending results will be included in future weekly reports when available. This item remains open.
Report #72: Pending Data	Analytical results not reported.	Field parameters and analytical results for freshwater receiving environment samples collected July 8 and 9 and marine water receiving environment samples collected July 12 are discussed in Sections 3.6 and 3.7 of Report #73. Methylmercury results for contact water and treated water samples collected July 10 are discussed in Section 3.3 of Report #73. Methylmercury results for freshwater receiving environment samples collected July 8 and 9 as well as dioxins and furans results for contact water and treated water samples collected July 7 and 10 and freshwater and marine water receiving environment samples collected July 8, 9 and 12 were not included with Report #73. The pending results will be included in future weekly reports when available. This item remains open.

Notes:

Result QA/QC screening includes the evaluation of field and lab QC results, comparison of total and dissolved metal results and review for modified detection limits.
Pending data are outstanding results from monitoring samples reported in the current or previous weekly reports.
Authorized works and monitoring program evaluation is an assessment of the completeness of the authorized works and monitoring program compared to PE-111578 specified or implied requirements.
WWTP performance evaluation is an assessment of WWTP effluent quality compared to operational MDOs.
Data QC indicates an evaluation of data trends or inter-parameter relationships that suggest a test result may not be representative of water quality at the time of monitoring.
Non-compliant discharge indicates exceedance of a discharge limit or a discharge that bypasses the sedimentation pond discharge location.
Potential project influence is an assessment that water quality at creek and Howe Sound baseline stations are above the baseline concentration range and may indicate project influence at these stations.

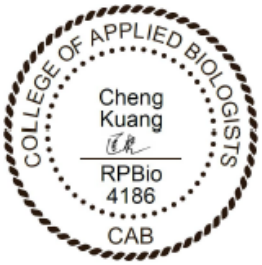
5. Closure

This weekly report is a desktop review by Lorax of the PE-111578 discharge and compliance monitoring program records, reports and results provided by Woodfibre LNG and prime contractor McDermott International and their sub-contractors. The records reviewed and analyzed by Lorax include ALS Environmental laboratory test reports and site reports (from Roe Environmental, LB LNG, McDermott and Woodfibre LNG). Verbal or electronic communications between Lorax, and Roe Environmental, LB LNG, McDermott, and Woodfibre LNG staff are conducted as needed to confirm the information presented in this report.

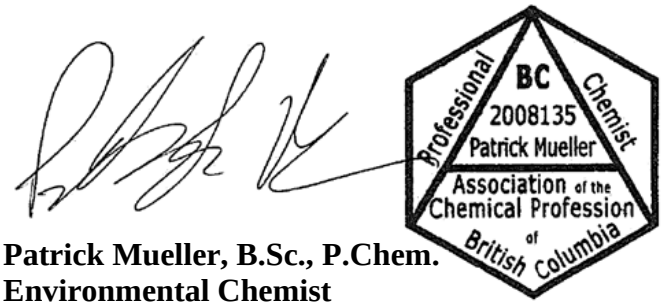
Regards,

LORAX ENVIRONMENTAL SERVICES LTD.

Holly Pelletier, B.Sc., GIT.
Environmental Geoscientist



Cheng Kuang, M.Sc., RPBio.
Environmental Scientist



Patrick Mueller, B.Sc., P.Chem.
Environmental Chemist

Appendix A: Figures and Site Images

LEGEND

- Freshwater Monitoring Station
- Marine Water Monitoring Station
- Clean Water Diversion Discharge Station
- Sedimentation Pond Monitoring Stations (Water Quality)
- Wastewater Treatment Plant (WWTP)
- Certified Project Area
- Watercourse
- East Creek Temporary Diversion
- Non-Contact Ditch
- Culvert / Outfall / Pipeline

DATE SAVED:	Jul 23, 2025
DRAWN BY:	DM
REVIEWED:	PM
VERSION:	1

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Metre*

1:6,000

0 100 200 Metres

CLIENT: Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT:

Woodfibre LNG Project Construction Phase

TITLE: Water Management Facilities and Established PE-111578 Monitoring Stations (July 19, 2025)

PROJECT #: A633-9

FIGURE: 1

P:\@202506\Woodfibre\Drafting Figures\APRX\WLNG Weekly Report Figure\WLNG Weekly Report.aprx Figure 1 - Monitoring and Compliance Locations

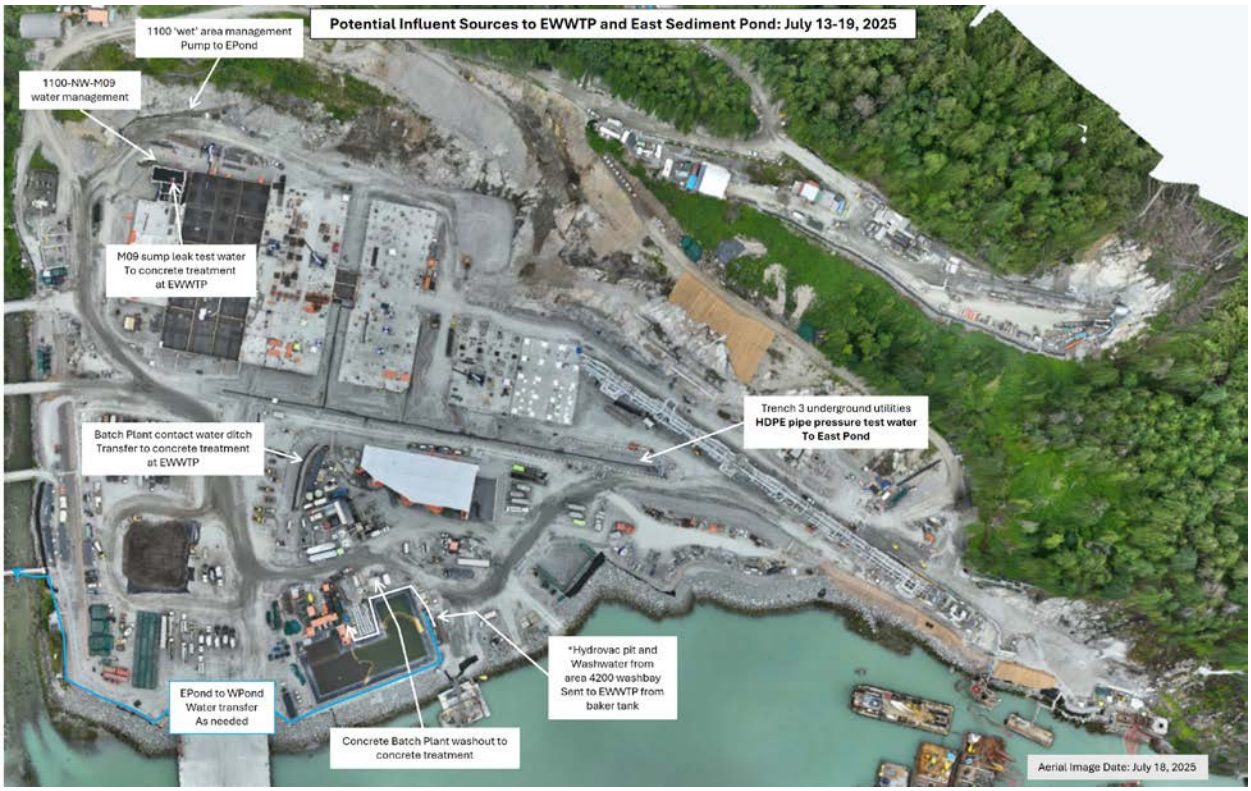


Figure 2: East Catchment contact water management facilities (July 13 – July 19).

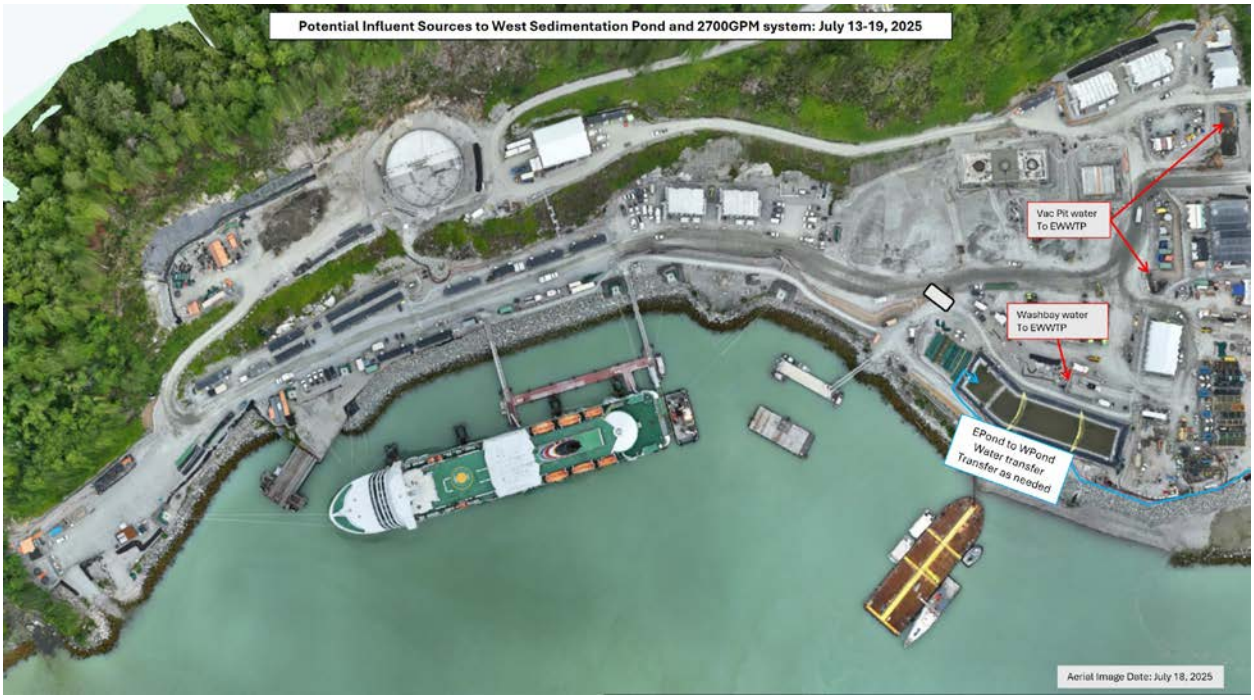


Figure 3: West Catchment contact water management facilities (July 13 – July 19).

Figure 4: Aerial view of the East Sedimentation Pond (July 18, 2025). The East WWTP is located on the left side of the pond.

Figure 5: Aerial view of the West Sedimentation Pond (July 18, 2025). The 2700GPM TSS settling system is located to the left of the pond. Algal mats are visible in the centre and final cells of the pond.

Appendix B: East Catchment Monitoring Results

Table B-1: East Catchment Contact Water Influent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-E-IN Influent	Station WWTP-E-IN Influent
					SP-E-IN	WWTP-E-IN
					VA25B7078-001	VA25B7078-002
		Long Term	Short Term		2025-07-13 9:15	2025-07-13 9:47
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.9	7.4
Specific Conductivity - Field	µS/cm	-	-	-	1894	1955
Temperature - Field	°C	-	-	-	23.5	28.7
Salinity - Field	ppt	-	-	-	0.96	0.99
Turbidity - Field	NTU	-	-	-	12.11	7.18
TSS	mg/L	-	-	25 or 75 [6]	11.6	6.2
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.43	***4.18***
Anions and Nutrients						
Sulphate	mg/L	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-
Fluoride	mg/L	-	1.5	-	-	-
Ammonia (N-NH_3)	mg/L	1.5-3.7 [3]	10-25 [3]	-	-	-
Nitrite (N-NO_2)	mg/L	-	-	-	-	-
Nitrate (N-NO_3)	mg/L	3.7	339	-	-	-
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.879	0.275
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00206	0.002
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00566	0.00499
Barium, total (T-Ba)	mg/L	-	-	-	0.0145	0.00894
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.189	0.173
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000550	<0.0000400
Chromium, total (T-Cr)	mg/L	-	-	-	0.00303	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	0.0003	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00258	0.00148
Iron, total (T-Fe)	mg/L	-	-	-	0.743	0.178
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.0011	0.000226
Manganese, total (T-Mn)	mg/L	-	-	-	0.0486	0.0126
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.000050***	0.0000142
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.171	0.162
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00065	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000663	0.000648
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000063	0.000076
Uranium, total (T-U)	mg/L	-	-	-	0.0329	0.031
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00855	0.00698
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0069	0.0077
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000350	<0.0000350
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00103	0.00098
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020	0.116
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	0.00009
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00875	0.0106
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	0.00094
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.142	0.167
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00717	0.00706
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020	0.0096
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	-	-
Acridine	mg/L	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-
Benz(a)anthracene	mg/L	-	-	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	-	-
Chrysene	mg/L	0.0001	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-
Fluorene	mg/L	0.012	-	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	-	-
Naphthalene	mg/L	0.001	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-
Quinoline	mg/L	-	-	-	-	-
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	-
Styrene	mg/L	-	-	-	-	-
Toluene	mg/L	0.215	-	-	-	-
Total Xylenes	mg/L	-	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	-

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (July 13 – July 19).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table B-2: East Catchment Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station WWTP-E-OUT Effluent WWTP-E-OUT VA25B7078-003 2025-07-13 9:38
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.5
Specific Conductivity - Field	µS/cm	-	-	-	1649
Temperature - Field	°C	-	-	-	23.7
Salinity - Field	ppt	-	-	-	0.83
Turbidity - Field	NTU	-	-	-	5.72
TSS	mg/L	-	-	25 or 75 [6]	4.6
Dissolved Oxygen - Field	mg/L	≥8	-	-	***4.0***
Anions and Nutrients					
Sulphate	mg/L	-	-	-	-
Chloride	mg/L	-	-	-	-
Fluoride	mg/L	-	1.5	-	-
Ammonia (N-NH_3)	mg/L	9.4 [3]	62 [3]	-	-
Nitrite (N-NO_2)	mg/L	-	-	-	-
Nitrate (N-NO_3)	mg/L	3.7	339	-	-
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.224
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00233
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00444
Barium, total (T-Ba)	mg/L	-	-	-	0.00423
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.196
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000400
Chromium, total (T-Cr)	mg/L	-	-	-	0.00061
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00215
Iron, total (T-Fe)	mg/L	-	-	-	0.10
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000387
Manganese, total (T-Mn)	mg/L	-	-	-	0.00833
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000169***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.144
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000515
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000055
Uranium, total (T-U)	mg/L	-	-	-	0.0282
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.0067
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.003
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000350
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00275
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.03
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000279
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00748
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0913
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00662
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.012
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	-
Acridine	mg/L	-	-	-	-
Anthracene	mg/L	-	-	-	-
Benz(a)anthracene	mg/L	-	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	-
Chrysene	mg/L	0.0001	-	-	-
Fluoranthene	mg/L	-	-	-	-
Fluorene	mg/L	0.012	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	-
Naphthalene	mg/L	0.001	-	-	-
Phenanthrene	mg/L	-	-	-	-
Pyrene	mg/L	-	-	-	-
Quinoline	mg/L	-	-	-	-
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-
Styrene	mg/L	-	-	-	-
Toluene	mg/L	0.215	-	-	-
Total Xylenes	mg/L	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (July 13 – July 19).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table B-3: East Catchment Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter					**Total Methylmercury**	**Total Mercury**
Unit					**µg/L**	**µg/L**
Lowest Applicable Guideline[1]					0.0001 [2]	0.00042-0.0021 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25B6907-003	2025-07-10	***0.00232***	***0.00971***
SP-E-IN	Influent	SP-E-IN	VA25B7078-001	2025-07-13	***0.00238***	***0.0500***
WWTP-E-IN	Influent	WWTP-E-IN	VA25B6907-001	2025-07-10	***0.00233***	***0.0113***
WWTP-E-IN	Influent	WWTP-E-IN	VA25B7078-002	2025-07-13	***0.00277***	***0.0142***
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B6907-002	2025-07-10	***0.00163*** [5]	***0.00805*** [5]
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B7078-003	2025-07-13	***0.00194*** [5]	***0.0169*** [5]

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.
[5] East WWTP effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on July 10 nor on July 13.

Table B-4: East Catchment Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					**Lower Bound PCDD/F TEQ**	**Upper Bound PCDD/F TEQ**
Unit					**pg/L**	**pg/L**
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
WWTP-E-IN	Influent	WWTP-E-IN	VA25B5144-003	2025-06-23	0	1.72
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B5144-004	2025-06-23	0.00114	1.67

Notes:
PCDD = polychlorinated dibenzodioxins (dioxins)
PCDF = polychlorinated dibenzofurans (furans)
TEQ = toxic equivalency
Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).
Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.

Table B-5: East Catchment Field Measurements Collected During the Monitoring Period (July 13 – July 19).

Parameter			**Temp.**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**Estimated TSS [3]**	**pH**	**Specific Conductivity**	**Visibility of Sheen**
Unit			**°C**	**mg/L**	**ppt**	**NTU**	**mg/L**	**s.u.**	**µS/cm**	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 [6]	5.5 - 9.0	-	-
Lowest Applicable Guideline [1]			-	≥8	-	-	- [2]	- [2]	-	-
Station ID	**Water Type**	**Date**								
Influent [4]										
SP-E-IN	Influent	2025-07-13 9:15	23.5	8.43	0.96	12.11	12.0	7.9	1894	No
SP-E-IN	Influent	2025-07-14 8:30	24.9	***7.48***	1.05	13.25	12.9	7.2	2054	No
SP-E-IN	Influent	2025-07-15 9:11	24.8	***7.81***	1.10	9.60	10.2	7.5	2154	No
SP-E-IN	Influent	2025-07-16 11:50	25.7	8.43	1.13	12.43	12.3	7.2	2208	No
SP-E-IN	Influent	2025-07-17 13:19	26.4	***7.68***	1.23	7.23	8.4	6.8	2408	No
SP-E-IN	Influent	2025-07-18 16:33	23.8	8.35	0.84	4.38	6.3	7.5	1658	No
SP-E-IN	Influent	2025-07-19 14:22	24.4	8.41	0.98	5.64	7.2	7.5	1928	No
WWTP-E-IN	Influent	2025-07-13 9:47	28.7	***4.18***	0.99	7.18	8.4	7.4	1955	No
WWTP-E-IN	Influent	2025-07-14 8:24	24.5	8.29	1.01	7.28	8.4	7.3	1978	No
WWTP-E-IN	Influent	2025-07-15 9:03	26.6	***7.39***	1.06	8.27	9.2	7.2	2084	No
WWTP-E-IN	Influent	2025-07-16 11:34	26.7	8.86	1.09	8.63	9.4	7.4	2137	No
WWTP-E-IN	Influent	2025-07-17 12:47	26.9	***7.82***	1.20	7.75	8.8	6.8	2347	No
WWTP-E-IN	Influent	2025-07-18 16:23	24.4	8.78	0.93	6.37	7.8	8.1	1843	No
WWTP-E-IN	Influent	2025-07-19 14:28	25.1	8.28	0.98	4.98	6.7	7.4	1933	No
Effluent [5]										
WWTP-E-OUT	Effluent	2025-07-13 9:38	23.7	***4.00*** [7]	0.83	5.72	7.3	6.5	1649	No
WWTP-E-OUT	Effluent	2025-07-14 8:26	25.4	***6.18*** [7]	1.05	7.84	8.8	6.8	2065	No
WWTP-E-OUT	Effluent	2025-07-15 9:06	24.9	***3.11*** [7]	1.15	9.25	9.9	6.4	2246	No
WWTP-E-OUT	Effluent	2025-07-16 11:38	25.0	***6.88*** [7]	1.19	9.63	10.2	6.6	2331	No
WWTP-E-OUT	Effluent	2025-07-17 12:49	25.1	***3.83*** [7]	1.34	6.22	7.6	6.8	2594	No
WWTP-E-OUT	Effluent	2025-07-18 16:30	24.8	***3.98*** [7]	1.40	3.59	5.7	6.5	2711	No
WWTP-E-OUT	Effluent	2025-07-19 14:34	22.5	***5.98*** [7]	1.03	3.64	5.7	6.7	2026	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-E-IN were collected from cell 1 of the East Sedimentation Pond.
[5] There was no discharge at the authorized discharge location (SP-E-OUT) during the monitoring period (July 13 – July 19), therefore daily field measurements for SP-E-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.
[7] East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound during the monitoring period (July 13 – July 19).

Table B-6: East Catchment Daily Discharge Volumes for the Monitoring Period (July 13 – July 19).

	East Sedimentation Pond Effluent	Transfer to West Sedimentation Pond	East WWTP Treated Effluent (Station WWTP-E-OUT)[2]	Discharge to Howe Sound (Station SP-E-OUT)
Unit	**m^3**	**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	-	-	1100	- [1]
Date				
2025-07-13	0	0	464	0
2025-07-14	0	0	623	0
2025-07-15	0	0	138	0
2025-07-16	0	0	423	0
2025-07-17	0	0	511	0
2025-07-18	0	0	324	0
2025-07-19	0	0	569	0

Notes:
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
[1] As noted in PE-111578 Condition 2.1.4, the annual average authorized discharge rate from the East Sedimentation Pond to Howe Sound was set to 650 m^3/day for the purpose of calculating discharge fees as required by the Permit and Approval Fees and Charges Regulation. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[2] East WWTP treated effluent was recirculated to the East Sedimentation Pond.

Appendix C: West Catchment Monitoring Results

Table C-1: West Catchment Contact Water Influent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-W-IN Influent SP-W-IN VA25B7145-001 2025-07-14 12:35	Station 2700GPM-IN Influent 2700GPM-IN VA25B7145-002 2025-07-14 11:34
		Long Term	Short Term			
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	8.1	8.1
Specific Conductivity - Field	µS/cm	-	-	-	2065	2059
Temperature - Field	°C	-	-	-	27.2	26.7
Salinity - Field	ppt	-	-	-	1.05	1.05
Turbidity - Field	NTU	-	-	-	2.81	2.71
TSS	mg/L	-	-	25 or 75 [6]	<3.0	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.17	***7.85***
Anions and Nutrients						
Sulphate	mg/L	-	-	-	-	700
Chloride	mg/L	-	-	-	-	25.3
Fluoride	mg/L	-	1.5	-	-	0.25
Ammonia (N-NH_3)	mg/L	0.97 [3]	6.4 [3]	-	-	<0.0050
Nitrite (N-NO_2)	mg/L	-	-	-	-	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	-	<0.0500
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.105	0.0823
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.0013	0.00132
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.0036	0.00362
Barium, total (T-Ba)	mg/L	-	-	-	0.00671	0.00727
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.025	0.029
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000350	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010	<0.00010
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00051	0.00058
Iron, total (T-Fe)	mg/L	-	-	-	0.067	0.052
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000136	0.000202
Manganese, total (T-Mn)	mg/L	-	-	-	0.00859	0.0101
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.00000117	0.0000012
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.145	0.156
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050	0.00072
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000518	0.000513
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000055	0.000055
Uranium, total (T-U)	mg/L	-	-	-	0.0127	0.0128
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00284	0.00271
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000300	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00039	0.00043
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.015	0.017
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050	0.000074
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00566	0.00582
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	0.00064
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.303	0.307
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00265	0.00259
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0010	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	-	<0.000010
Acridine	mg/L	-	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	<0.00050
Styrene	mg/L	-	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (July 13 – July 19).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table C-2: West Catchment Contact Water Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station 2700GPM-OUT Effluent 2700GPM-OUT VA25B7145-003 2025-07-14 12:17
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	8.1
Specific Conductivity - Field	µS/cm	-	-	-	2058
Temperature - Field	°C	-	-	-	26.8
Salinity - Field	ppt	-	-	-	1.04
Turbidity - Field	NTU	-	-	-	6.12
TSS	mg/L	-	-	25 or 75 [6]	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.58
Anions and Nutrients					
Sulphate	mg/L	-	-	-	700
Chloride	mg/L	-	-	-	25.2
Fluoride	mg/L	-	1.5	-	0.252
Ammonia (N-NH_3)	mg/L	0.97 [3]	6.4 [3]	-	0.0174
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	<0.0500
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.056
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.0013
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00355
Barium, total (T-Ba)	mg/L	-	-	-	0.00665
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.026
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000350
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00051
Iron, total (T-Fe)	mg/L	-	-	-	0.033
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000085
Manganese, total (T-Mn)	mg/L	-	-	-	0.0052
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.00000085
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.148
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000465
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000049
Uranium, total (T-U)	mg/L	-	-	-	0.0123
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00272
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00055
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.038
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000061
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00404
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.31
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00264
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	<0.000010
Acridine	mg/L	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	<0.000050
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (July 13 – July 19).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table C-3: West Catchment Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter					**Total Methylmercury**	**Total Mercury**
Unit					**µg/L**	**µg/L**
Lowest Applicable Guideline[1]					0.0001 [2]	0.00024-0.00030 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25B7145-001	2025-07-14	***0.000389***	***0.00117***
2700GPM-IN	Influent	2700GPM-IN	VA25B7145-002	2025-07-14	***0.000465***	***0.00120***
Effluent						
2700GPM-OUT	Effluent	2700GPM-OUT	VA25B7145-003	2025-07-14	***0.000361*** [5]	***0.00085*** [5]

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.
[5] 2700GPM clarified effluent was directed to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound on July 14.

Table C-4: West Catchment Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					**Lower Bound PCDD/F TEQ**	**Upper Bound PCDD/F TEQ**
Unit					**pg/L**	**pg/L**
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
2700GPM-IN	Influent	2700GPM-IN	VA25B5147-001	2025-06-23	0.0550	1.56
Effluent						
2700GPM-OUT	Effluent	2700GPM-OUT	VA25B5147-002	2025-06-23	0.00203	1.93

Notes:
PCDD = polychlorinated dibenzodioxins (dioxins)
PCDF = polychlorinated dibenzofurans (furans)
TEQ = toxic equivalency
Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).
Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.

Table C-5: West Catchment Field Measurements Collected During the Monitoring Period (July 13 – July 19).

Parameter			**Temperature**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**Estimated TSS [3]**	**pH**	**Specific Conductivity**	**Visibility of Sheen**
Unit			**°C**	**mg/L**	**ppt**	**NTU**	**mg/L**	**s.u.**	**µS/cm**	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 [6]	5.5 - 9.0	-	-
Lowest Applicable Guideline [1]			-	≥8	-	-	- [2]	- [2]	-	-
Station ID	**Water Type**	**Date**								
Influent [4]										
SP-W-IN	Influent	2025-07-13 12:14	26.9	***7.06***	1.04	1.70	4.3	8.1	2052	No
SP-W-IN	Influent	2025-07-14 12:35	27.2	8.17	1.05	2.81	5.1	8.1	2065	No
SP-W-IN	Influent	2025-07-15 15:39	28.3	7.97	1.05	3.35	5.5	8.2	2066	No
SP-W-IN	Influent	2025-07-16 11:05	25.5	8.05	1.03	2.31	4.7	8.1	2035	No
SP-W-IN	Influent	2025-07-17 14:18	28.2	8.28	1.06	2.01	4.5	8.3	2094	No
SP-W-IN	Influent	2025-07-18 17:00	27.5	7.42	1.05	3.84	5.9	6.7	2068	No
SP-W-IN	Influent	2025-07-19 10:04	22.7	***7.56***	1.04	2.45	4.8	7.8	2041	No
2700GPM-IN	Influent	2025-07-13 12:03	26.5	8.08	0.51	3.59	5.7	8.2	1032	No
2700GPM-IN	Influent	2025-07-14 11:34	26.7	7.85	1.05	2.71	5.0	8.1	2059	No
2700GPM-IN	Influent	2025-07-15 15:27	28.2	9.33	1.04	2.54	4.9	8.3	2060	No
2700GPM-IN	Influent	2025-07-16 11:10	26.2	8.37	1.05	2.21	4.6	8.3	2069	No
2700GPM-IN	Influent	2025-07-17 13:40	27.6	8.91	1.06	2.87	5.1	8.4	2085	No
2700GPM-IN	Influent	2025-07-18 16:52	28.6	***7.86***	1.05	4.81	6.6	7.4	2069	No
2700GPM-IN	Influent	2025-07-19 10:00	22.8	***6.91***	1.04	9.26	9.9	7.5	2037	No
Effluent [5]										
2700GPM-OUT	Effluent	2025-07-13 12:10	26.6	***7.44*** [7]	0.52	6.96	8.2	8.1	1059	No
2700GPM-OUT	Effluent	2025-07-14 12:17	26.8	8.58	1.04	6.12	7.6	8.1	2058	No
2700GPM-OUT	Effluent	2025-07-15 15:34	28.1	***7.24*** [7]	1.05	2.13	4.6	8.1	2065	No
2700GPM-OUT	Effluent	2025-07-16 11:21	26.1	***7.95*** [7]	1.05	2.14	4.6	8.2	2069	No
2700GPM-OUT	Effluent	2025-07-17 14:10	27.6	***7.89*** [7]	1.06	2.60	4.9	8.2	2084	No
2700GPM-OUT	Effluent	2025-07-18 16:54	27.3	***3.90*** [7]	1.04	2.80	5.1	6.4	2055	No
2700GPM-OUT	Effluent	2025-07-19 9:56	22.3	***6.18*** [7]	1.04	2.80	5.1	7.7	2039	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-W-IN were collected from cell 1 of the West Sedimentation Pond.
[5] There was no discharge at the authorized discharge location (SP-W-OUT) during the monitoring period (July 13 – July 19), therefore daily field measurements for SP-W-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.
[7] 2700GPM clarified effluent is directed to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound during the monitoring period (July 13 – July 19).

Table C-6: West Catchment Daily Discharge Volumes for the Monitoring Period (July 13 – July 19).

	West Sedimentation Pond Effluent	West TSS Settling System (2700GPM) Clarified Effluent (Station 2700GPM-OUT)[3]	Water Reclaimed for Construction Purposes (Station 2700GPM-OUT)	West WWTP Treated Effluent [1] (Station WWTP-W-OUT)	Discharge to Howe Sound (Station SP-W-OUT)
Unit	**m^3**		**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	-		-	120	- [2]
Date					
2025-07-13	0	1,492	0	0	0
2025-07-14	0	2,964	0	0	0
2025-07-15	0	2,165	0	0	0
2025-07-16	0	2,149	0	0	0
2025-07-17	0	1,582	0	0	0
2025-07-18	0	756	0	0	0
2025-07-19	0	1,113	0	0	0

Notes:
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
[1] The West WWTP is not being operated, therefore discharges are not expected from this facility.
[2] As noted in PE-111578 Condition 2.2.4, the annual average authorized discharge rate from the West Sedimentation Pond to Howe Sound was set to 310 m^3/day for the purpose of calculating discharge fees as required by the Permit and Approval Fees and Charges Regulation. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[3] Commissioning and pilot testing of a larger TSS settling system (2700GPM) continued during the monitoring period (July 13 – July 19). Clarified effluent from the 2700GPM TSS settling system is recirculated to the West Sedimentation Pond or reclaimed for construction purposes based on operational considerations.

Appendix D: Freshwater Receiving Environment Results

Table D-1: Summary of Freshwater Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1, 2]		Station SW-01	Station SW-04	Station SW-02	Station SW-07
				Woodfibre Creek Lower Reach	East Creek Lower Reach	Mill Creek Lower Reach	Upstream Mill Creek
				SW-01	SW-04	SW-02	SW-07
				VA25B6720-001	VA25B6720-002	VA25B6720-003	VA25B6720-005
		Long Term	Short Term	2025-07-08 13:00	2025-07-08 14:30	2025-07-09 10:00	2025-07-09 11:25
General Parameters							
pH - Field	pH units	6.5 - 9.0	-	6.5	7.9	***6.2***	***5.5***
Specific Conductivity - Field	µS/cm	-	-	8	143	8	8
Temperature - Field	°C	-	-	11.7	12.9	12.2	11.6
Salinity - Field	ppt	-	-	0	0.07	0	0
Turbidity - Field	NTU	-	-	0.87	2.52	0.77	1.55
TSS	mg/L	-	-	<3.0	3.8	<3.0	<3.0
Dissolved Oxygen - Field	mg/L	>=8	>=5	10.99	10.52	11.07	11.01
Anions and Nutrients							
Sulphate [2]	mg/L	128-218	-	0.32	7.33	0.67	0.86
Chloride	mg/L	120	600	0.56	8.47	<0.50	1.86
Fluoride [2]	mg/L	-	0.400-1.09	<0.020	0.176	<0.020	<0.020
Ammonia ($N\text{-}NH_3$) [2]	mg/L	1.04-102	6.88-25.2	<0.0050	0.0088	<0.0050	<0.0050
Nitrite ($N\text{-}NO_2$) [2]	mg/L	0.0200-0.200	0.06-0.6	<0.0010	0.0010	<0.0010	<0.0010
Nitrate ($N\text{-}NO_3$)	mg/L	3.0	32.8	0.0269	<0.0050	0.0226	0.0268
Total Metals							
Aluminum, total (T-Al) [2]	mg/L	0.0309-0.436	-	***0.121***	***0.209***	***0.0949***	***0.0875***
Antimony, total (T-Sb)	mg/L	0.074	-	<0.00010	0.00038	<0.00010	<0.00010
Arsenic, total (T-As)	mg/L	0.005	-	<0.00010	0.00154	<0.00010	<0.00010
Barium, total (T-Ba)	mg/L	1	-	0.00182	0.00932	0.00182	0.00138
Beryllium, total (T-Be)	mg/L	0.00013	-	<0.000020	<0.000020	<0.000020	<0.000020
Boron, total (T-B)	mg/L	1.2	29	<0.010	0.014	<0.010	<0.010
Cadmium, total (T-Cd) [2]	mg/L	0.000036-0.000096	0.00011-0.0011	<0.0000050	0.0000287	<0.0000050	<0.0000050
Chromium, total (T-Cr) [4]	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	0.000389-0.000795	-	<0.00010	<0.00010	<0.00010	<0.00010
Copper, total (T-Cu)	mg/L	-	-	0.00064	<0.00050	0.00059	0.00052
Iron, total (T-Fe)	mg/L	0.3	1	0.034	0.125	0.026	0.019
Lead, total (T-Pb)	mg/L	-	-	0.000061	0.000072	<0.000050	<0.000050
Manganese, total (T-Mn) [2]	mg/L	0.768-0.846	0.816-1.14	0.00119	0.0704	0.00104	0.00076
Mercury, total (T-Hg) [3]	mg/L	0.00002	-	0.00000126	<0.00000050	0.00000096	0.00000141
Molybdenum, total (T-Mo)	mg/L	0.073	46	0.000264	0.0259	0.000307	0.000285
Nickel, total (T-Ni) [2]	mg/L	0.0250	-	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.001	-	<0.000050	0.00005	<0.000050	<0.000050
Silver, total (T-Ag)	mg/L	0.00012	-	<0.000010	<0.000010	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	0.0008	-	<0.000010	0.000013	<0.000010	<0.000010
Uranium, total (T-U)	mg/L	0.0085	0.033	0.000563	0.000571	0.000181	0.00019
Vanadium, total (T-V)	mg/L	0.12	-	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total (T-Zn)	mg/L	-	-	<0.0030	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals							
Cadmium, dissolved (D-Cd) [2]	mg/L	0.000018-0.00014	0.000038-0.00032	<0.0000050	<0.0000250	<0.0000050	<0.0000050
Copper, dissolved (D-Cu) [2]	mg/L	0.000200-0.00203	0.000200-0.00390	***0.00022***	<0.00020	<0.00020	***0.00044***
Iron, dissolved (D-Fe)	mg/L	-	0.35	0.019	<0.010	<0.010	0.01
Lead, dissolved (D-Pb) [2]	mg/L	0.00163-0.00408	-	<0.000050	<0.000050	<0.000050	<0.000050
Manganese, dissolved (D-Mn) [2]	mg/L	0.29-0.39	1.97-3.93	0.00101	0.0659	0.00205	0.002
Nickel, dissolved (D-Ni) [2]	mg/L	0.000600-0.00110	0.00920-0.0109	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	2.5	-	0.00325	0.0499	0.00329	0.00402
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved (D-Zn) [2]	mg/L	0.00401-0.00695	0.00842-0.025	<0.0010	0.0014	<0.0010	0.0036
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.0058	-	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	0.000012	-	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	0.000018	-	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	0.00004	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	0.001	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0003	-	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	0.00002	-	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	0.0034	-	<0.000050	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.04	-	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.09	-	<0.00050	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	10	3.4	<0.00050	<0.00050	<0.00050	<0.00050
Styrene	mg/L	0.072	-	<0.00050	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.0005	-	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	0.03	-	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of freshwater aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of freshwater aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] BC WQG or CWQG indicated to be variable are calculated from sample-specific measurements for temperature, field pH, total hardness and dissolved organic carbon (DOC) content.
[3] When MeHg ⩽ 0.5% of total Hg, BC WQG = 0.00002 mg/L.
[4] The approved BC WQG for hexavalent chromium [Cr(VI)] is 0.001 mg/L and 0.0089 mg/L for trivalent chromium [Cr(III)]. The more conservative criteria for Cr(VI) is applied to total chromium results.
The lowest applicable guidelines are shown in the table; however, water quality data was screened to all applicable guidelines.

Table D-2: Freshwater Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					**Lower Bound PCDD/F TEQ**	**Upper Bound PCDD/F TEQ**
Unit					**pg/L**	**pg/L**
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25B4484-002	2025-06-17	0	2.43
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25B4484-001	2025-06-17	0	1.98

Notes:
PCDD = polychlorinated dibenzodioxins (dioxins)
PCDF = polychlorinated dibenzofurans (furans)
TEQ = toxic equivalency
Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).
Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.

Appendix E: Estuarine Water Receiving Environment Results

Table E-1: Summary of Mill Creek Estuary Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		Station SW-03 Mill Creek Estuary SW-03 VA25B6720-004
		Long Term	Short Term	2025-07-09 9:45
General Parameters				
pH - Field	pH units	7.0 - 8.7	-	***6.5***
Specific Conductivity - Field	µS/cm	-	-	67
Temperature - Field	℃	-	-	12.2
Salinity - Field	ppt	-	-	0.0
Turbidity - Field	NTU	-	-	2.61
TSS	mg/L	-	-	<3.0
Dissolved Oxygen - Field	mg/L	-	-	10.97
Anions and Nutrients				
Sulphate	mg/L	-	-	4.52
Chloride	mg/L	-	-	27.1
Fluoride	mg/L	-	-	<0.020
Ammonia ($N\text{-}NH_3$)	mg/L	-	-	<0.0050
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	<0.0010
Nitrate ($N\text{-}NO_3$)	mg/L	-	-	0.0178
Total Metals				
Aluminum, total (T-Al)	mg/L	-	-	0.112
Antimony, total (T-Sb)	mg/L	-	-	<0.00010
Arsenic, total (T-As)	mg/L	-	-	0.0001
Barium, total (T-Ba)	mg/L	-	-	0.00195
Beryllium, total (T-Be)	mg/L	-	-	<0.000020
Boron, total (T-B)	mg/L	-	-	0.014
Cadmium, total (T-Cd)	mg/L	-	-	<0.0000050
Chromium, total (T-Cr)	mg/L	-	-	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	<0.00010
Copper, total (T-Cu)	mg/L	0.002	0.003	<0.00050
Iron, total (T-Fe)	mg/L	-	-	0.05
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.000050
Manganese, total (T-Mn)	mg/L	-	-	0.00185
Mercury, total (T-Hg) [2]	mg/L	0.00002	-	0.0000011
Molybdenum, total (T-Mo)	mg/L	-	-	0.000385
Nickel, total (T-Ni)	mg/L	-	-	<0.00050
Selenium, total (T-Se)	mg/L	-	-	<0.000050
Silver, total (T-Ag)	mg/L	-	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	<0.000010
Uranium, total (T-U)	mg/L	-	-	0.000184
Vanadium, total (T-V)	mg/L	-	-	<0.00050
Zinc, total (T-Zn)	mg/L	-	-	<0.0030
Hexavalent Chromium, total	mg/L	-	-	<0.00050
Dissolved Metals				
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.0000050
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00020
Iron, dissolved (D-Fe)	mg/L	-	-	0.01
Lead, dissolved (D-Pb)	mg/L	-	-	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00172
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.013
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)				
Acenaphthene	mg/L	-	-	<0.000010
Acridine	mg/L	-	-	<0.000010
Anthracene	mg/L	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010
Benzo(a)pyrene	mg/L	-	-	<0.0000050
Chrysene	mg/L	-	-	<0.000010
Fluoranthene	mg/L	-	-	<0.000010
Fluorene	mg/L	-	-	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010
Naphthalene	mg/L	-	-	<0.000050
Phenanthrene	mg/L	-	-	<0.000020
Pyrene	mg/L	-	-	<0.000010
Quinoline	mg/L	-	-	<0.000050
Volatile Organic Compounds (VOCs)				
Benzene	mg/L	-	-	<0.00050
Ethylbenzene	mg/L	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	-	-	<0.00050
Styrene	mg/L	-	-	<0.00050
Toluene	mg/L	-	-	<0.00040
Total Xylenes	mg/L	-	-	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Results in ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of estuarine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of estuarine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] When MeHg ⩽ 0.5% of total Hg, BC WQG = 0.00002 mg/L.

Table E-2: Estuarine Water Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					**Lower Bound PCDD/F TEQ**	**Upper Bound PCDD/F TEQ**
Unit					**pg/L**	**pg/L**
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-03	Mill Creek Estuary	SW-03	VA25B4484-003	2025-06-17	0	1.82

Notes:
PCDD = polychlorinated dibenzodioxins (dioxins)
PCDF = polychlorinated dibenzofurans (furans)
TEQ = toxic equivalency
Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).
Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.

Appendix F: Marine Water Receiving Environment Results

Table F-1: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Station IDZ-E1			Station IDZ-E2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-E1-0.5	IDZ-E1-2m	IDZ-E1-SF	IDZ-E2-0.5	IDZ-E2-2m	IDZ-E2-SF
				VA25B7086-001	VA25B7086-002	VA25B7086-003	VA25B7086-004	VA25B7086-005	VA25B7086-006
		Long Term	Short Term	2025-07-12 12:00	2025-07-12 11:40	2025-07-12 11:05	2025-07-12 14:30	2025-07-12 14:10	2025-07-12 13:45
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.69	7.5	7.96	7.64	7.75	7.69
Specific Conductivity - Field	µS/cm	-	-	2236	3376	46669	4883	18092	50011
Temperature - Field	℃	-	-	14.3	14	13.4	15.6	14.7	11.3
Salinity - Field	ppt	Narrative [2]	-	1.15	1.79	30.3	2.63	10.65	32.62
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	20.84	20.37	1.74	17.13	15.27	6.25
TSS	mg/L	Narrative [2]	Narrative [2]	9.7	12.0	4.3	10.1	12.2	8.7
Dissolved Oxygen - Field	mg/L	>=8	-	10.59	10.61	8.97	10.28	10.03	***7.38***
Anions and Nutrients									
Sulphate	mg/L	-	-	80	139	1950	165	265	1580
Chloride	mg/L	-	-	607	1060	13800	1250	1960	11200
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH_3)	mg/L	3.1-8.7 [3]	21-58 [3]	<0.0050	<0.0050	0.0302	<0.0050	0.0053	0.0097
Nitrite (N-NO_2)	mg/L	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate (N-NO_3)	mg/L	3.7	339	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	0.623	0.696	0.0398	0.489	0.649	0.0546
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	<0.00040	<0.00040	0.00129	<0.00040	<0.00040	0.00135
Barium, total (T-Ba)	mg/L	-	-	0.0207	0.0213	0.0135	0.0192	0.0195	0.0134
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	0.31	0.34	***2.19***	0.39	0.53	***2.68***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	<0.000020	0.000058	<0.000020	<0.000020	0.000068
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000271	0.000307	0.0001	0.000229	0.00029	0.000114
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00162	0.00167	0.00088	0.00128	0.00145	0.00079
Iron, total (T-Fe)	mg/L	-	-	0.593	0.609	0.036	0.448	0.567	0.054
Lead, total (T-Pb)	mg/L	0.002	0.14	0.00015	0.00013	<0.00010	0.00012	0.00012	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0213	0.0216	0.00387	0.0174	0.0196	0.00444
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00079	0.00095	0.00784	0.00099	0.00146	0.00785
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.000139	0.000242	0.00218	0.000238	0.000398	0.00218
Vanadium, total (T-V)	mg/L	0.005	-	0.00173	0.00184	0.0013	0.00177	0.00177	0.00135
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030	<0.0030	<0.0030	0.0036	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00500	<0.00150	<0.00150	<0.00500
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	<0.000020	0.000065	<0.000020	<0.000020	0.000047
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	0.015
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0054	0.00508	0.00338	0.0053	0.00501	0.00422
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00097
Strontium, dissolved (D-Sr)	mg/L	-	-	0.253	0.602	5.36	0.504	0.809	4.23
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	0.0012	<0.00050	<0.00050	0.001
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0019	<0.0010	<0.0010	0.0017	0.0031	0.0036
Polycyclic Aromatic Hydrocarbons (PAHs)									
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)									
Benzene	mg/L	0.11	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Non-detect results are screened using the detection limit value.Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.
[3] The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

Table F-2: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Reference Station WQR1		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				WQR1-0.5	WQR1-2m	WQR1-SF
				VA25B7086-007	VA25B7086-008	VA25B7086-009
		Long Term	Short Term	2025-07-12 15:45	2025-07-12 15:25	2025-07-12 15:00
General Parameters						
pH - Field	pH units	7.0 - 8.7	-	7.62	7.98	7.51
Specific Conductivity - Field	µS/cm	-	-	5417	20447	52884
Temperature - Field	°C	-	-	14.9	14.4	9.5
Salinity - Field	ppt	Narrative [2]	-	2.94	12.56	34.59
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	14.03	10.19	1.5
TSS	mg/L	Narrative [2]	Narrative [2]	8.3	9.5	4.6
Dissolved Oxygen - Field	mg/L	>=8	-	10.59	10.11	***6.18***
Anions and Nutrients						
Sulphate	mg/L	-	-	212	148	2240
Chloride	mg/L	-	-	1560	1090	15900
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0
Ammonia ($N\text{-}NH_3$)	mg/L	3.1-13 [3]	21-85 [3]	0.0061	<0.0050	0.0059
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	<0.10	<0.10	<0.10
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	<0.50	<0.50	<0.50
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	0.43	0.407	0.0532
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	<0.00040	<0.00040	0.00154
Barium, total (T-Ba)	mg/L	-	-	0.0195	0.0195	0.0114
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	0.38	0.57	***2.96***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	0.000024	0.000075
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000223	0.000211	0.000116
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00118	0.00114	0.00067
Iron, total (T-Fe)	mg/L	-	-	0.378	0.345	0.065
Lead, total (T-Pb)	mg/L	0.002	0.14	0.0001	0.00013	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0154	0.0144	0.00538
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00109	0.00152	0.00909
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.000271	0.000462	0.00251
Vanadium, total (T-V)	mg/L	0.005	-	0.00136	0.00125	0.00158
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00500
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	<0.000020	0.000063
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00524	0.00521	0.00391
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	0.00102
Strontium, dissolved (D-Sr)	mg/L	-	-	0.542	0.905	6.4
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	0.00142
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010	<0.0010	0.0031
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000014	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000090	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table are marine reference stations and represent background conditions, therefore the turbidity and TSS WQGs were not evaluated.
[3] The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg $\leqslant$ 0.5% of total Hg, BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

Table F-3: Marine Water Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter					**Total Methylmercury**	**Total Mercury**
Unit					**µg/L**	**µg/L**
Lowest Applicable Guideline[1]					0.0001 [2]	0.015-0.020 [3,4]
Station	**Position in Water Column**	**Sample ID**	**Lab ID**	**Sampling Date**		
Station IDZ-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25B7086-001	2025-07-12	0.000020	<0.0050
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25B7086-002	2025-07-12	0.000067	<0.0050
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25B7086-003	2025-07-12	<0.000020	<0.0050
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25B7086-004	2025-07-12	<0.000020	<0.0050
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25B7086-005	2025-07-12	0.000023	<0.0050
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25B7086-006	2025-07-12	<0.000020	<0.0050
Reference Station WQR1						
WQR1	0.5 m Below Surface	WQR1-0.5	VA25B7086-007	2025-07-12	<0.000020	<0.0050
WQR1	2 m Below Surface	WQR1-2m	VA25B7086-008	2025-07-12	<0.000020	<0.0050
WQR1	2 m Above Seafloor	WQR1-SF	VA25B7086-009	2025-07-12	<0.000020	<0.0050

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.

Table F-4: Marine Water Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					**Lower Bound PCDD/F TEQ**	**Upper Bound PCDD/F TEQ**
Unit					**pg/L**	**pg/L**
Station	**Position in Water Column**	**Sample ID**	**Lab ID**	**Sampling Date**		
Station IDZ-W1						
IDZ-W1	0.5 m Below Surface	IDZ-W1-0.5	VA25B4485-001	2025-06-17	0	1.90
IDZ-W1	2 m Below Surface	IDZ-W1-2m	VA25B4485-002	2025-06-17	0	1.83
IDZ-W1	2 m Above Seafloor	IDZ-W1-SF	VA25B4485-003	2025-06-17	0	1.58
Station IDZ-W2						
IDZ-W2	0.5 m Below Surface	IDZ-W2-0.5	VA25B4485-004	2025-06-17	0	2.15
IDZ-W2	2 m Below Surface	IDZ-W2-2m	VA25B4485-005	2025-06-17	0	1.61
IDZ-W2	2 m Above Seafloor	IDZ-W2-SF	VA25B4485-006	2025-06-17	0.0144	1.44
Reference Station WQR2						
WQR2	0.5 m Below Surface	WQR2-0.5	VA25B4485-007	2025-06-17	0	1.40
WQR2	2 m Below Surface	WQR2-2m	VA25B4485-008	2025-06-17	0	1.74
WQR2	2 m Above Seafloor	WQR2-SF	VA25B4485-009	2025-06-17	0.0214	1.98

Notes:
PCDD = polychlorinated dibenzodioxins (dioxins)
PCDF = polychlorinated dibenzofurans (furans)
TEQ = toxic equivalency
Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).
Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.