TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)**	**Date:**	**29 Aug 2025**
From:	**Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)**	**Project #:**	**A633-9**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #78 for August 17 – 23**		

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 #78) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of August 17 – 23. 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 #78 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. Intermittent 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 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 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 re-use or 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 for clarification and then discharged 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.

A flocculant-based TSS settling system (2700GPM) is being implemented at West Sedimentation Pond to clarify all non-contaminated construction contact water prior to re-use at site or discharge at SP-W-OUT. The fully built 2700GPM TSS settling system will have the installed capacity to clarify 14,700 m^3/day of contact water and 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. Train 1, Train 3 and Train 4 have been commissioned, and preparations are underway to commission the remaining three treatment trains.

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 August 17 – 23 monitoring period, with minor precipitation recorded on August 19 (0.4 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
2025-08-17	0	22.1	14.4	Sunny
2025-08-18	0	20.7	14.1	Sunny
2025-08-19	0.4	19.3	14.5	Sunny
2025-08-20	0	23.0	13.7	Sunny
2025-08-21	0	24.3	13.1	Sunny
2025-08-22	0	28.6	14.9	Sunny
2025-08-23	0	29.0	16.1	Sunny

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

From August 17 – 23, the East Sedimentation Pond received water from Woodfibre Creek to support treatment of concrete contact water at the East WWTP and from the Area 1100 Sump 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. No water from the East Sedimentation Pond was transferred to the West Sedimentation Pond from August 17 – 23 (Appendix B, Table B-5).

Routine operation of the East WWTP continued during the monitoring period (August 17 – 23). Concrete contact water and water from the Hydrovac Pit were 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 during the monitoring period (August 17 – 23). Daily water volumes processed by the East WWTP are provided in Appendix B (Table B-5).

From August 17 – 23, the West Sedimentation Pond received water from the Area 4100 Sump as well as recirculated effluent from the 2700GPM TSS settling system (Appendix A, Figure 3). Implementation of the 2700GPM TSS settling system continued and West Sedimentation Pond effluent was clarified through the system on August 17 and 18 and recirculated back to the pond. There was no discharge to Howe Sound from station SP-W-OUT during the monitoring period. From August 17 – 23, a total of 111 m^3 of clarified effluent was reclaimed for construction use. Daily clarified effluent volumes from the TSS settling system and volumes of reclaimed water are provided in Appendix C (Table C-5).

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. Influent and effluent are monitored at stations 2700GPM-IN and 2700GPM-OUT, respectively. The 2700GPM 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 WQR2, SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, and 2700GPM-OUT during the monitoring period (August 17 – 23). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (August 17 – 23) 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. On June 25, 2025, BCER 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 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 from the East and West Sedimentation Ponds during the monitoring period (August 17 – 23). 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 August 17 – 23.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
August 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-OUT	2700GPM TSS settling system at the effluent meter box	Field Parameters.	P
	WQR2-0.5	Reference site 2; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M
	WQR2-2m	Reference site 2; 2 m below surface		
	WQR2-SF	Reference site 2; 2 m above the seafloor		
August 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		
August 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
August 20, 2025	SP-E-IN	East Sedimentation Pond monitored at cell 1 of the pond	Field & Physical Parameters, Nitrogen Species, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-IN	East WWTP at the influent meter box	Field & Physical Parameters, Nitrogen Species, 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
August 21, 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
August 22, 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, Nitrogen Species, Total, Dissolved and Speciated Metals, and Methylmercury.	D, W
August 23, 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

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. Monthly monitoring for General parameters except ammonia, nitrate and nitrite (i.e., nitrogen species) are monitored weekly during blasting season.
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 #78) 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 and WQR1 collected August 11 (methylmercury)
- SP-E-IN, WWTP-E-IN and WWTP-E-OUT collected August 14 (dioxins and furans)
- SP-W-IN, SP-W-OUT and 2700GPM-IN collected August 15 (dioxins and furans)
- 2700GPM-OUT collected August 16 (dioxins and furans)
- IDZ-W1 and IDZ-W2 collected August 16 (dioxins and furans)
- WQR2 collected August 17 (dioxins and furans)
- SP-E-IN, WWTP-E-IN and WWTP-E-OUT (methylmercury)
- SP-W-IN collected August 22 (methylmercury)

Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #78.

Sample	Description	Sampling Date	Parameters Reported
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	July 22, 2025	Dioxins and Furans.
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		
2700GPM-IN	2700 GPM TSS settling system at the influent meter box	July 29, 2025	Dioxins and Furans.
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	August 4, 2025	Methylmercury, Dioxins and Furans.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	August 5, 2025	Methylmercury, Dioxins and Furans.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
2700GPM-IN	2700 GPM TSS settling system at the influent meter box	August 7, 2025	Dioxins and Furans.
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	August 11, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, Dioxins and Furans.
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	August 14, 2025	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	August 15, 2025	Methylmercury.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
2700GPM-IN	2700 GPM TSS settling system at the influent meter box		
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		
IDZ-OUT-11-Surface	Opportunistic sample collected within the Howe Sound IDZ for OUT-11; at surface	August 15, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, VOCs and Methylmercury.
IDZ-OUT-11-2m	Opportunistic sample collected within the Howe Sound IDZ for OUT-11; 2 m below surface		
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box	August 16, 2025	Methylmercury.
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	August 16, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs and Methylmercury.
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	August 17, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs and Methylmercury.
WQR2-2m	Reference site 2; 2 m below surface		
WQR2-SF	Reference site 2; 2 m above the seafloor		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	August 20, 2025	Field & Physical Parameters, Nitrogen Species, Total and Dissolved Metals, and Hexavalent Chromium.
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	August 22, 2025	Field Parameters, Nitrogen Species, Total and Dissolved Metals, and Hexavalent Chromium.

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.

There were no discharges from the SP-E-OUT authorized discharge location during the monitoring period (August 17 – 23). East WWTP treated effluent volumes and discharge volumes from SP-E-OUT are listed in Appendix B, Table B-5.

Field measurements were collected August 17 – 23 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-4. Analytical samples collected August 20 (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 (7.39 – 7.57 mg/L) was below the lower limit of the MDO (≥8 mg/L) in East WWTP effluent (WWTP-E-OUT) in field measurements collected August 18, 19 and 20 (Appendix B, Table B-4), and the total mercury (0.0000345 mg/L) and hexavalent chromium (0.00216 mg/L) concentrations were above the MDOs (0.000016 and 0.0015 mg/L, respectively) in East WWTP effluent collected August 20 (Appendix B, Table B-2). 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 August 17 – 23 monitoring period. Mercury parameters and hexavalent chromium are tracked in Table 5.

The methylmercury concentration was 0.000878 µg/L in the WWTP-E-OUT sample collected August 14 (Appendix B, Table B-3), which is 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 August 14. The total mercury concentration is also listed in Appendix B,

Table B-3 and is above the MDO (as discussed in Report #77). Mercury parameters are tracked in Table 5.

3.4 West Catchment

The west catchment water quality monitoring results for stations at the West Sedimentation Pond, the 2700GPM TSS settling system, the 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 (August 17 – 23), implementation of the 2700GPM TSS settling system continued (Section 1.1 and Section 1.2). West Sedimentation Pond effluent was directed to the 2700GPM TSS settling system on August 17 and 18, 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 SP-W-OUT are summarized in Appendix C, Table C-5.

Field measurements were collected August 17 – 23 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-4. Analytical samples collected August 22 (station SP-W-IN) were available at the time of reporting. Screening results for west catchment contact water quality are tabulated in Table C-1 of Appendix C.

During the monitoring period (August 17 – 23), field measurements at station 2700GPM-OUT on August 17 met PE-111578 discharge limits and WQGs. Clarified effluent from the 2700GPM system was recirculated to the West Sedimentation Pond on August 17.

Methylmercury was reported for the 2700GPM-OUT sample collected August 16, which had a concentration of 0.000455 µg/L (Appendix C, Table C-2), and was 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 at the time of monitoring on August 16. The total mercury concentration is listed in Appendix C, Table C-2 and is above the WQG. Mercury parameters are tracked in Table 5.

Methylmercury results were available for West Sedimentation Pond influent and effluent (stations SP-W-IN and SP-W-OUT, respectively) and 2700GPM TSS settling system influent

(2700GPM-IN) collected August 15. The methylmercury concentrations in the monitoring and duplicate samples collected at SP-W-OUT on August 15 were 0.000371 and 0.000362 µg/L, respectively, which are above the WQG (0.0001 µg/L; Table 4). The total mercury concentrations are listed in Appendix C, Table C-2 and are above the WQG.

Table 4:
Summary of Parameters Exceeding WQGs in Effluent Discharged from SP-W-OUT for Field and Analytical Results Available at the Time of Reporting

Parameter	Units	WQG	N	N >Limit	Commentary
Total Mercury	µg/L	0.00031-0.00036	2	2	Total mercury measured at station SP-W-OUT in both the monitoring and duplicate sample on August 15 (0.00133 and 0.00112 µg/L, respectively) were 3.7 and 3.6 times greater than the calculated WQG, respectively.
Methylmercury	µg/L	0.0001	2	2	Methylmercury measured at station SP-W-OUT in both the monitoring and duplicate sample on August 15 (0.000371 and 0.000362 µg/L, respectively) were 3.7 and 3.6 times greater than the WQG, respectively.

N = number of samples.

Dioxin and furan results were reported for 2700GPM TSS settling system influent and effluent (2700GPM-IN and 2700GPM-OUT, respectively) collected July 29 and August 7 (as discussed in Reports #75 and #76). The lower bound PCDD/F TEQ concentrations in the 2700GPM-OUT samples were 0 pg/L and the upper bound PCDD/F TEQ concentrations ranged from 1.28 to 1.81 pg/L, respectively. Results are tabulated in Appendix C, Table C-3.

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 were no 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).

Methylmercury analytical results were available at the time of reporting for freshwater and estuarine water samples collected 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 August 4 as well as near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on August 5 (as discussed in Report #76). Methylmercury concentrations were <0.000020 µg/L in all samples and met the WQG. The corresponding total mercury results also met WQGs (Appendix D, Table D-1 and Appendix E, Table E-1).

Dioxin and furan results were reported for freshwater and estuarine water samples collected 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 August 4 as well as near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on August 5 (as discussed in Report #76). The lower and upper bound PCDD/F TEQ concentrations measured in these samples ranged from 0 to 0.000699 pg/L and from 1.65 to 2.17 pg/L, respectively. 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 and Appendix E, Table E-2.

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 August 11 (stations IDZ-E1, IDZ-E2 and WQR1), August 15 (station IDZ-OUT-11, surface and 2 m below surface), August 16 (stations IDZ-W1 and IDZ-W2) and August 17 (station WQR2).

During the heavy rain event on August 15 (refer to weekly report #77) turbid water was observed at East Creek station SW-04 and flowed into Howe Sound via the OUT-11 culvert. Opportunistic field measurements and analytical samples were collected approximately 20 m from the outlet of

culvert OUT-11 (station IDZ-OUT-11, Figure 1 and Figure 6). Site reports indicate the turbid water originated from the upstream reaches of East Creek, outside the LNG export facility construction area.

Parameter concentrations met WQGs except dissolved oxygen, total boron, total copper and total zinc in some samples (Appendix F; Tables F-1 through Table F-4). In samples collected at 2 m above the seafloor on August 11 (stations IDZ-E1, IDZ-E2 and WQR1) and August 16 (station IDZ-W2), dissolved oxygen ranged from 5.52 to 7.30 mg/L and was below the lower limit of the WQG (8 mg/L). Total boron was also above the WQG (1.2 mg/L) and ranged from 2.32 to 3.31 mg/L in samples collected at 2 m above the seafloor at all stations monitored August 11, 16 and 17. Low concentrations of dissolved oxygen and elevated concentrations of total boron 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. The dissolved oxygen and total boron concentrations observed at the IDZ monitoring stations are within concentrations that have been observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations.

Total copper was above the long- and short-term WQGs (0.002 and 0.003 mg/L, respectively) in the August 11 sample (IDZ-E2) collected 2 m below the surface (0.0109 mg/L). The measurement uncertainty reported by the laboratory for this result is +/-0.00152 mg/L. Therefore, accounting for measurement uncertainty the reported result (0.0109 +/-0.00152 mg/L) overlaps with the pre-construction baseline maximum value (0.00974 mg/L) and is considered to be within the range of baseline conditions.

The total copper concentration was above the long-term WQG (0.002 mg/L) in samples collected August 15 (station IDZ-OUT-11, surface), August 16 (station IDZ-W2, 0.5 m below the surface) and August 17 (reference station WQR2, 0.5 and 2 m below the surface). The total copper concentration observed at the IDZ monitoring stations are within concentrations that have been observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations.

Total copper and total zinc were not detected (<0.0025 and <0.015 mg/L) in the August 15 sample collected from station IDZ-OUT-11 at 2 m below surface. Although the detection limits reported for these parameters were above the long-term WQGs (0.002 and 0.01 mg/L for total copper and total zinc, respectively), the reported detection limit values are below corresponding maximum values in the pre-construction dataset.

Methylmercury analytical results were available at the time of reporting for all marine samples collected August 15 (station IDZ-OUT-11), August 16 (stations IDZ-W1 and IDZ-W2) and August 17 (station WQR2). For all samples, methylmercury concentrations ranged from

<0.000020 to 0.000044 µg/L and met the WQG. The corresponding total mercury results also met WQGs. Results are tabulated in Appendix F, Table F-5.

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 July 22 (as discussed in Report #74) and at stations IDZ-E1, IDZ-E2 and reference station WQR1 on August 11 (as discussed in Report #77). For all samples, the lower bound PCDD/F TEQ concentrations ranged from 0 to 0.0277 pg/L and the upper bound PCDD/F TEQ concentrations ranged from 1.43 to 2.18 pg/L. 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-6.

4. Quality Control

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 5). 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 5. Any items flagged for follow-up are carried forward to future reports until they are closed.

Table 5: Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (August 17 – 23, Report #78)		
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.
WWTP Performance Evaluation	Hexavalent chromium above the MDO.	The WWTP-E-OUT hexavalent chromium concentration was 0.00216 mg/L in the sample collected August 20 which is above the MDO. The WWTP treatment performance for hexavalent chromium is being reviewed with site staff. This item remains open.
Pending Data	Analytical results not reported.	Dioxins and furans results for marine receiving environment samples collected August 17 were not included with Report #78. Methylmercury results for contact water and treated water samples collected August 20 and 22 were not included with Report #78. 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 which are above the MDO. 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, 13 and 21 returned total copper concentrations of 0.00264, 0.00263, 0.00181, 0.00185, 0.00215 and 0.00174 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. A sample collected July 28 returned a total copper concentration of 0.00797 mg/L and was above the MDO while samples collected August 8, 14 and 20 returned total copper concentrations of 0.00206, 0.00298 and 0.00227 mg/L, respectively, and were below the MDO. The WWTP treatment performance for total copper continues to be reviewed. 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 #78, 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 August 16 have been generally above the WQG (0.0001 µg/L) ranging from 0.000089 to 0.00194 µg/L with the highest value observed at WWTP-E-OUT on July 13 (0.00194 µg/L). 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 is directed to the East WWTP. Literature review of mercury methylation processes is ongoing and further data evaluation will be conducted after additional data are collected. This item remains open.
Report #74: Pending Data	Analytical results not reported.	Dioxins and furans results for marine water receiving environment samples collected July 22 are discussed in Section 3.7 of Report #78. This item is closed.
Report #75: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected July 29 are discussed in Section 3.4 of Report #78. This item is closed.
Report #76: Pending Data	Analytical results not reported.	Methylmercury, dioxins and furans results for freshwater and estuarine receiving environment samples collected August 4 and 5 are discussed in Section 3.6 of Report #78. Dioxins and furans results for contact water and treated water samples collected August 7 are discussed in Section 3.4 of Report #78. This item is closed.
Report #77: Potential Project Influence	Total aluminum at East Creek above WQG and the baseline concentration range.	Total aluminum concentration (1.10 mg/L) observed at the East Creek station (SW-04) on August 5 was 3.1 times greater than the WQG and 4.2 times greater than the maximum concentration observed in the pre-construction baseline monitoring program (0.264 mg/L). The total aluminum value has been confirmed by the laboratory. Site staff indicate there were no LNG facility construction activities on August 5 in the vicinity of East Creek. Other potential potential influences to East Creek water quality at station SW-04 are being reviewed with Woodfibre LNG. This item remains open.
Report #77: Pending Data	Analytical results not reported.	Field parameters and analytical results for marine receiving environment samples collected August 11 and 16 are discussed in Section 3.7 of Report #78. Methylmercury results for contact water and treated water samples collected August 14, 15, and 16 are discussed in Sections 3.3 and 3.4 of Report #78. Methylmercury results for marine receiving environment samples collected August 11 as well as dioxins and furans results for contact water and treated water samples collected August 14, 15, and 16 and for marine receiving environment samples collected August 16 were not included with Report #78. 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.

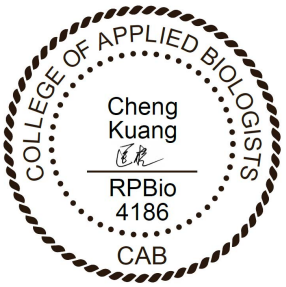
5. Closure

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.

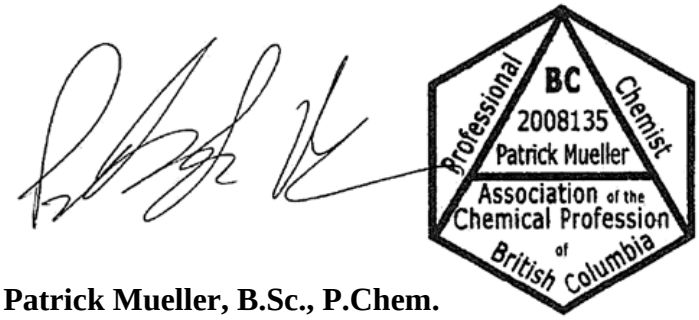
Regards,

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

World Imagery: District of Squamish. Additional imagery provided by McDermott International captured August 4th, 2025.

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
- Bathymetry Contour (Major: 50m)
- Bathymetry Contour (Minor: 10m)

DATE SAVED:	Aug 28, 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: Site Layout and Water Quality Monitoring Stations for PE-111578 (August 23, 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

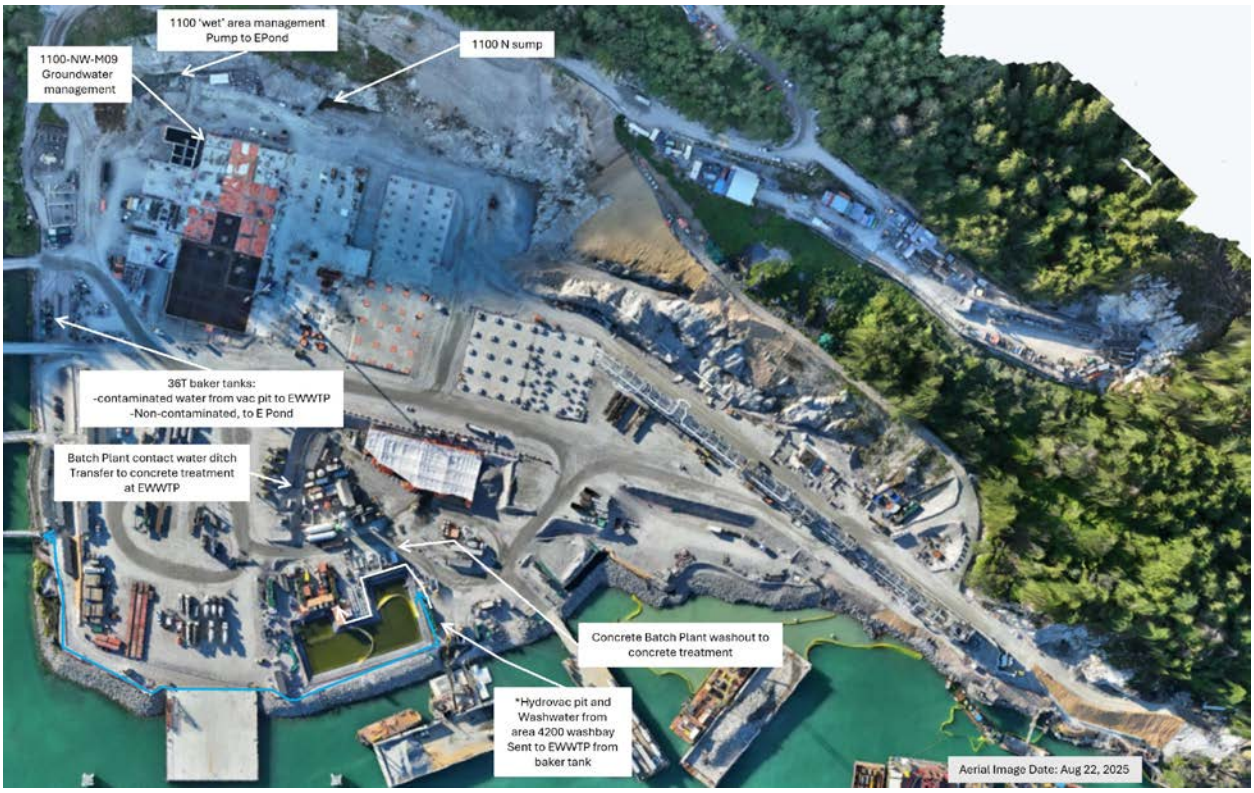


Figure 2: East Catchment contact water management facilities (August 17 – 23).

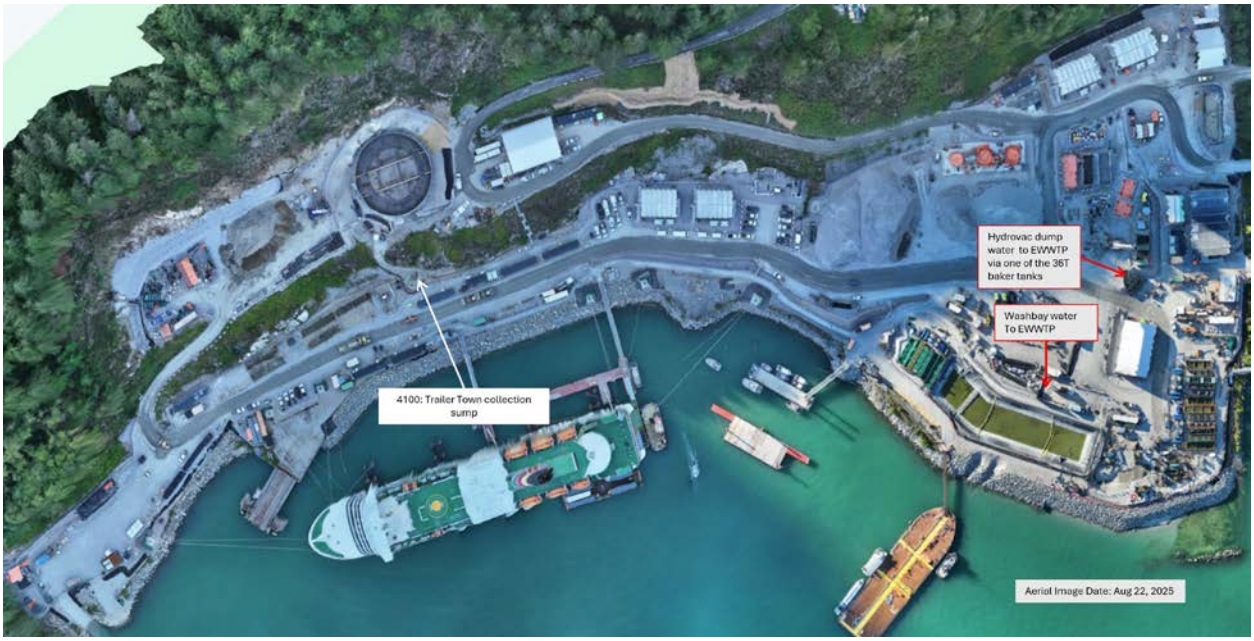


Figure 3: West Catchment contact water management facilities (August 17 – 23).

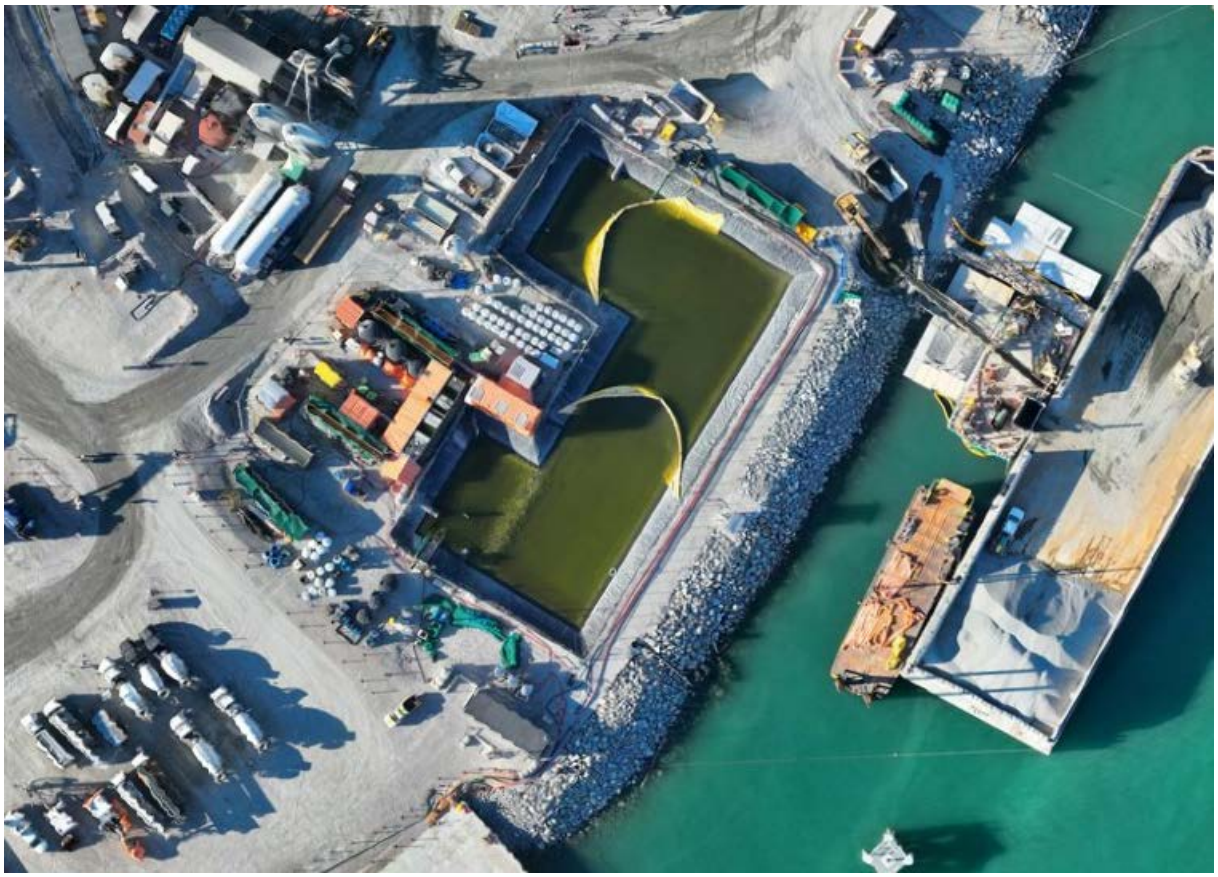


Figure 4: Aerial view of the East Sedimentation Pond (August 22, 2025). The East WWTP is located on the left side of the pond.

Figure 5: Aerial view of the West Sedimentation Pond (August 22, 2025).

Figure 6: Turbid East Creek water discharging from the OUT-11 culvert on August 15, 2025. Site staff report that the turbid water originated from the upstream reaches of East Creek, outside the LNG export facility construction area.

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 SP-E-IN VA25C1095-001 2025-08-20 9:25	Station WWTP-E-IN Influent WWTP-E-IN VA25C1095-002 2025-08-20 8:45
		Long Term	Short Term			
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.6	7.0
Specific Conductivity - Field	µS/cm	-	-	-	2095	1967
Temperature - Field	°C	-	-	-	20.1	19.8
Salinity - Field	ppt	-	-	-	1.07	1.01
Turbidity - Field	NTU	-	-	-	3.01	3.46
TSS	mg/L	-	-	25 or 75 [6]	3.4	3.2
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.81	9.00
Anions and Nutrients						
Sulphate	mg/L	-	-	-	-	
Chloride	mg/L	-	-	-	-	
Fluoride	mg/L	-	1.5	-	-	
Ammonia ($N\text{-}NH_3$)	mg/L	9.4-14 [3]	62-92 [3]	-	0.0271	0.0071
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	<0.0100	0.0102
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	0.315	0.320
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.118	0.185
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00174	0.00165
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00165	0.00183
Barium, total (T-Ba)	mg/L	-	-	-	0.00323	0.00857
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.066	0.102
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000200	<0.0000300
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00145	0.00192
Iron, total (T-Fe)	mg/L	-	-	-	0.084	0.107
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000196	0.000266
Manganese, total (T-Mn)	mg/L	-	-	-	0.00891	0.0167
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.00000706	0.00000692
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0761	0.0783
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000349	0.000281
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000028	0.000027
Uranium, total (T-U)	mg/L	-	-	-	0.0155	0.0203
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00318	0.00334
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060	0.0137
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.0012	0.00159
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.021	0.029
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00635	0.0128
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0877	0.115
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00301	0.00300
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020	0.0084
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 (August 17 – 23).
[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
					VA25C1095-006
		Long Term	Short Term		2025-08-20 12:40
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.3
Specific Conductivity - Field	µS/cm	-	-	-	2163
Temperature - Field	°C	-	-	-	20
Salinity - Field	ppt	-	-	-	1.11
Turbidity - Field	NTU	-	-	-	3.62
TSS	mg/L	-	-	25 or 75 [6]	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.21
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]	-	0.0247
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0200
Nitrate (N-NO_3)	mg/L	3.7	339	-	0.35
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.0863
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00162
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00169
Barium, total (T-Ba)	mg/L	-	-	-	0.00198
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.065
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000450
Chromium, total (T-Cr)	mg/L	-	-	-	0.00988
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00227
Iron, total (T-Fe)	mg/L	-	-	-	0.162
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000223
Manganese, total (T-Mn)	mg/L	-	-	-	0.00645
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000345***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.178
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000858
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.00003
Uranium, total (T-U)	mg/L	-	-	-	0.0132
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00294
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	***0.00216***
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000500
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00227
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.086
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000122
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0079
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0968
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00292
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0054
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 (August 17 – 23).
[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]	0.0031-0.0058 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25C0432-001	2025-08-14	***0.00123***	***0.0385***
WWTP-E-IN	Influent	WWTP-E-IN	VA25C0432-002	2025-08-14	***0.000894***	***0.0315***
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25C0432-006	2025-08-14	***0.000878*** [5]	***0.0506*** [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 August 14.

Table B-4: East Catchment Field Measurements Collected During the Monitoring Period (August 17 – 23).

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	2025-08-17 14:32	20.6	8.97	0.97	4.16	6.1	7.0	1909	No
SP-E-IN	Influent	2025-08-18 13:02	20.4	8.86	1.08	2.54	4.9	6.9	2102	No
SP-E-IN	Influent	2025-08-19 13:10	20.6	8.92	1.14	2.71	5.0	7.0	2222	No
SP-E-IN	Influent	2025-08-20 9:25	20.1	8.81	1.07	3.01	5.2	6.6	2095	No
SP-E-IN	Influent	2025-08-21 14:22	20.1	9.77	0.65	5.28	6.9	7.0	1307	No
SP-E-IN	Influent	2025-08-22 11:03	21.4	9.39	0.72	2.24	4.7	6.9	1434	No
SP-E-IN	Influent	2025-08-23 11:35	22.4	9.17	0.76	3.59	5.7	7.0	1512	No
WWTP-E-IN	Influent	2025-08-17 13:56	22.4	9.52	1.03	15.14	14.3	7.4	2017	No
WWTP-E-IN	Influent	2025-08-18 13:06	20.8	9.27	1.03	3.5	5.6	7.2	2014	No
WWTP-E-IN	Influent	2025-08-19 12:59	19.7	9.31	0.94	8.74	9.5	7.0	1838	No
WWTP-E-IN	Influent	2025-08-20 8:45	19.8	9.00	1.01	3.46	5.6	7.0	1967	No
WWTP-E-IN	Influent	2025-08-21 15:01	20.0	10.24	0.64	2.54	4.9	7.0	1274	No
WWTP-E-IN	Influent	2025-08-22 11:13	20.6	10.19	0.65	1.75	4.3	6.9	1301	No
WWTP-E-IN	Influent	2025-08-23 11:45	22.2	9.77	0.71	1.79	4.3	7.0	1416	No
Effluent [5]										
WWTP-E-OUT	Effluent	2025-08-17 14:00	19.8	8.99	0.98	2.46	4.8	6.9	1914	No
WWTP-E-OUT	Effluent	2025-08-18 13:20	20.5	***7.57*** [7]	0.96	1.15	3.9	6.6	1883	No
WWTP-E-OUT	Effluent	2025-08-19 13:06	20.4	***7.39*** [7]	1.14	1.20	3.9	6.8	2221	No
WWTP-E-OUT	Effluent	2025-08-20 12:40	20.0	8.21	1.11	3.62	5.7	6.3	2163	No
WWTP-E-OUT	Effluent	2025-08-20 15:42	20.8	***7.41*** [7]	1.16	2.52	4.9	6.3	2253	No
WWTP-E-OUT	Effluent	2025-08-21 14:56	20.7	8.12	0.91	2.49	4.9	6.7	1782	No
WWTP-E-OUT	Effluent	2025-08-22 11:10	20.4	8.86	0.73	2.67	5.0	6.6	1452	No
WWTP-E-OUT	Effluent	2025-08-23 11:42	22.0	8.15	0.80	1.95	4.5	6.7	1593	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 (August 17 – 23), 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 (August 17 – 23).

Table B-5: East Catchment Daily Discharge Volumes for the Monitoring Period (August 17 – 23).

	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				
2025-08-17	0	0	528	0
2025-08-18	0	0	691	0
2025-08-19	0	0	583	0
2025-08-20	0	0	747	0
2025-08-21	0	0	681	0
2025-08-22	0	0	783	0
2025-08-23	0	0	719	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
					VA25C1385-001
		Long Term	Short Term		2025-08-22 10:40
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	8.6
Specific Conductivity - Field	µS/cm	-	-	-	1681
Temperature - Field	°C	-	-	-	21.4
Salinity - Field	ppt	-	-	-	0.85
Turbidity - Field	NTU	-	-	-	3.29
TSS	mg/L	-	-	25 or 75 [6]	-
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.26
Anions and Nutrients					
Sulphate	mg/L	-	-	-	492
Chloride	mg/L	-	-	-	23.4
Fluoride	mg/L	-	1.5	-	<0.200
Ammonia ($N\text{-}NH_3$)	mg/L	0.27 [3]	1.8 [3]	-	<0.0050
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	<0.0100
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	<0.0500
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.231
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00112
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.0036
Barium, total (T-Ba)	mg/L	-	-	-	0.00976
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.023
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00199
Iron, total (T-Fe)	mg/L	-	-	-	0.076
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000259
Manganese, total (T-Mn)	mg/L	-	-	-	0.00494
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.0000033
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.071
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00032
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000033
Uranium, total (T-U)	mg/L	-	-	-	0.0138
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00343
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000200
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00162
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00126
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.137
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.0033
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020
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 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (August 17 – 23).
[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 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]	0.00031-0.0022 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25C0644-001	2025-08-15	***0.00244***	***0.0478***
2700GPM-IN	Influent	2700GPM-IN	VA25C0644-002	2025-08-15	***0.00142***	***0.0308***
Effluent						
SP-W-OUT	Effluent	SP-W-OUT	VA25C0644-003	2025-08-15	***0.000371***	***0.00133***
SP-W-OUT	Effluent	SP-W-OUT-DUP	VA25C0644-004	2025-08-15	***0.000362***	***0.00112***
2700GPM-OUT	Effluent	2700GPM-OUT	VA25C0644-007	2025-08-16	***0.000455*** [5]	***0.00507*** [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 August 16 at the time of monitoring.

Table C-3: 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	VA25B8728-005	2025-07-29	0.00139	1.39
2700GPM-IN	Influent	2700GPM-IN	VA25B9631-001	2025-08-07	0	2.32
Effluent						
2700GPM-OUT	Effluent	2700GPM-OUT	VA25B8728-003	2025-07-29	0	1.28
2700GPM-OUT	Effluent	2700GPM-OUT-DUP	VA25B8728-002	2025-07-29	0	1.30
2700GPM-OUT	Effluent	2700GPM-OUT	VA25B9631-002	2025-08-07	0	1.81

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-4: West Catchment Field Measurements Collected During the Monitoring Period (August 17 – 23).

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	2025-08-17 15:23	22.0	8.07	0.85	3.44	5.6	8.0	1682	No
SP-W-IN	Influent	2025-08-18 13:39	21.1	8.97	0.89	5.95	7.4	8.3	1747	No
SP-W-IN	Influent	2025-08-19 14:14	19.9	10.74	0.8	11.48	11.6	8.5	1591	No
SP-W-IN	Influent	2025-08-20 10:05	20.4	10.69	0.82	13.36	13.0	8.4	1630	No
SP-W-IN	Influent	2025-08-21 13:39	23.3	10.52	0.84	5.41	7.0	8.7	1659	No
SP-W-IN	Influent	2025-08-22 10:40	21.4	9.26	0.85	3.29	5.5	8.6	1681	No
SP-W-IN	Influent	2025-08-23 11:11	22.4	8.90	0.86	2.59	4.9	8.6	1709	No
Effluent [5]										
2700GPM-OUT	Effluent	2025-08-17 15:05	22.3	8.12	0.86	3.07	5.3	8.0	1697	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] 2700GPM clarified effluent was directed to the West Sedimentation Pond and there was no discharge at the authorized discharge location (SP-W-OUT) during the monitoring period (August 17 – 23), 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.

Table C-5: West Catchment Daily Discharge Volumes for the Monitoring Period (August 17 – 23).

	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					
2025-08-17	0	2,683	34	0	0
2025-08-18	0	2,203	77	0	0
2025-08-19	0	0	0	0	0
2025-08-20	0	0	0	0	0
2025-08-21	0	0	0	0	0
2025-08-22	0	0	0	0	0
2025-08-23	0	0	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 (August 17 – 23). Clarified effluent from the 2700GPM TSS settling system is recirculated to the West Sedimentation Pond, discharged to Howe Sound or reclaimed for construction purposes based on operational considerations.

Appendix D: Freshwater Receiving Environment Results

Table D-1: Freshwater 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]	0.0025-0.0092 [3,4]
Station	**Description**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	SW-01	VA25B9315-001	2025-08-05	<0.000020	0.00184
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25B9315-002	2025-08-05	<0.000020	0.00056
SW-02	Lower Freshwater Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25B9328-001	2025-08-04	<0.000020	0.00052
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25B9328-003	2025-08-04	<0.000020	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-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] 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 = 0.026 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.
Non-detect results are screened using the detection limit value.

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-01	Lower Reach of Woodfibre Creek (near the mouth)	SW-01	VA25B9317-001	2025-08-05	0	1.70
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25B9317-002	2025-08-05	0	2.17
SW-02	Lower Freshwater Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25B9332-001	2025-08-04	0.000699	1.91
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25B9332-003	2025-08-04	0	2.02

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: Estuarine 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]	0.0047 [3,4]
Station	**Description**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-03	Mill Creek Estuary	SW-03	VA25B9328-002	2025-08-04	<0.000020	0.00094

Notes:
Results ***underlined in bold italics*** exceed the applicable long-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] 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 = 0.026 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.
Non-detect results are screened using the detection limit value.

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	VA25B9332-002	2025-08-04	0	1.65

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
				VA25B9934-001	VA25B9934-002	VA25B9934-003	VA25B9934-004	VA25B9934-005	VA25B9934-006
		Long Term	Short Term	2025-08-11 11:45	2025-08-11 11:30	2025-08-11 11:15	2025-08-11 13:45	2025-08-11 13:30	2025-08-11 13:15
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.81	8.03	7.36	8.01	8.02	7.53
Specific Conductivity - Field	µS/cm	-	-	4822	5391	48239	8173	14018	46269
Temperature - Field	℃	-	-	16.3	15.9	9.3	16.7	16.4	11.0
Salinity - Field	ppt	Narrative [2]	-	2.6	2.93	31.22	4.56	8.15	29.9
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	19.87	20.06	1.21	17.26	14.82	1.15
TSS	mg/L	Narrative [2]	Narrative [2]	10.4	11.2	<2.0	9.9	13.4	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	10.31	10.27	***6.17***	10.21	9.68	***7.23***
Anions and Nutrients									
Sulphate	mg/L	-	-	124	145	2210	238	304	2200
Chloride	mg/L	-	-	1260	1410	16100	2180	2660	16300
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH_3)	mg/L	1.4-20 [3]	9.4-135 [3]	<0.0050	0.0068	0.0061	<0.0050	<0.0050	0.0066
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	0.54	<0.50
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	0.571	0.724	0.019	0.557	0.653	0.0655
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	0.00163	<0.00040	0.0004	0.00153
Barium, total (T-Ba)	mg/L	-	-	0.023	0.0262	0.0104	0.0238	0.0251	0.012
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	-	<0.30	0.42	***3.09***	0.51	0.57	***3.11***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	<0.000020	0.000101	<0.000020	0.000023	0.000076
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000249	0.000331	0.000096	0.000266	0.000283	0.000134
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00147	0.00136	0.00121	0.0012	***0.0109***	0.0008
Iron, total (T-Fe)	mg/L	-	-	0.456	0.628	0.025	0.492	0.61	0.098
Lead, total (T-Pb)	mg/L	0.002	0.14	0.00017	0.00013	<0.00010	0.00011	0.00014	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0251	0.0293	0.00554	0.0243	0.0276	0.00823
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	-	-	0.00112	0.00129	0.00964	0.00156	0.00175	0.00902
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	-	-	0.000221	0.000259	0.00274	0.00039	0.000487	0.00267
Vanadium, total (T-V)	mg/L	0.005	-	0.00148	0.00185	0.00144	0.00154	0.0019	0.00154
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	<0.000020	0.000082	<0.000020	<0.000020	0.00005
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050	0.00056	<0.00050	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0119	0.0114	0.00732	0.0107	0.0118	0.00712
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	0.00062	<0.00050	<0.00050	0.00057
Strontium, dissolved (D-Sr)	mg/L	-	-	0.54	0.541	7.05	0.911	1.08	6.86
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	0.0014	<0.00050	0.00053	0.00131
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010	<0.0010	0.0015	<0.0010	<0.0010	0.0025
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	0.000015	0.000011	<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:
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]		Station IDZ-W1			Station IDZ-W2		
				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-W1-0.5	IDZ-W1-2m	IDZ-W1-SF	IDZ-W2-0.5	IDZ-W2-2m	IDZ-W2-SF
				VA25C0683-001	VA25C0683-002	VA25C0683-006	VA25C0683-007	VA25C0683-008	VA25C0683-009
		Long Term	Short Term	2025-08-16 15:30	2025-08-16 15:00	2025-08-16 14:30	2025-08-16 10:45	2025-08-16 11:15	2025-08-16 12:10
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.64	7.87	7.64	7.62	7.83	7.54
Specific Conductivity - Field	µS/cm	-	-	6208	7128	44586	6209	7529	46026
Temperature - Field	℃	-	-	13.2	14.2	13.2	12.9	13.1	11.7
Salinity - Field	ppt	Narrative [2]	-	3.4	3.94	28.79	3.4	4.18	29.77
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	23.28	19.04	1.84	31.71	31.06	0.96
TSS	mg/L	Narrative [2]	Narrative [2]	16.7	17.3	6.7	22.9	20.4	3.9
Dissolved Oxygen - Field	mg/L	>=8	-	10.39	10.48	8.28	10.45	10.46	***7.30***
Anions and Nutrients									
Sulphate	mg/L	-	-	177	252	2070	186	272	2200
Chloride	mg/L	-	-	1490	2000	14800	1540	2160	15700
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]	0.0056	<0.0050	0.0201	0.0077	0.0058	0.0091
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	-	-	0.537	0.526	0.076	1.05	0.815	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	0.00137	<0.00040	<0.00040	0.00145
Barium, total (T-Ba)	mg/L	-	-	0.0253	0.0264	0.0102	0.0328	0.0301	0.0101
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	-	0.33	0.39	***2.32***	0.33	0.45	***2.46***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	0.000023	0.000076	0.00002	0.000027	0.00007
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	0.00142	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.00024	0.000304	0.000116	0.000367	0.000317	0.000106
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00145	0.00168	0.00076	***0.00203***	0.00171	0.00061
Iron, total (T-Fe)	mg/L	-	-	0.463	0.527	0.089	0.727	0.569	0.06
Lead, total (T-Pb)	mg/L	0.002	0.14	0.00018	0.00019	<0.00010	0.0003	0.00024	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0243	0.0263	0.00602	0.0343	0.0288	0.00563
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	-	-	0.00124	0.00142	0.00859	0.0011	0.00157	0.0091
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	0.00117	<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	-	-	0.000286	0.000368	0.00228	0.000303	0.000398	0.00235
Vanadium, total (T-V)	mg/L	0.005	-	0.00131	0.00167	0.00144	0.00193	0.00169	0.00139
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	0.0063	<0.0030	0.0046	0.0034	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	<0.000020	0.000074	<0.000020	0.000022	0.000064
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050	0.00057	<0.00050	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010	0.012	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0114	0.012	0.00493	0.0137	0.0149	0.00227
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.599	0.701	6.31	0.65	0.779	6.24
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	0.00134	<0.00050	<0.00050	0.00125
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010	<0.0010	<0.0010	0.0019	0.0012	<0.0010
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:
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-3: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Reference Station WQR1			Reference Station WQR2		
				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
				WQR1-0.5	WQR1-2m	WQR1-SF	WQR2-0.5	WQR2-2m	WQR2-SF
				VA25B9934-007	VA25B9934-008	VA25B9934-009	VA25C0683-010	VA25C0683-011	VA25C0683-012
		Long Term	Short Term	2025-08-11 10:00	2025-08-11 9:45	2025-08-11 9:15	2025-08-17 8:45	2025-08-17 8:30	2025-08-17 8:15
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.81	8.33	7.39	7.86	8.01	7.81
Specific Conductivity - Field	µS/cm	-	-	4348	5312	48031	3218	6325	34228
Temperature - Field	℃	-	-	15.3	15.9	9.5	12.4	13.1	14.8
Salinity - Field	ppt	Narrative [2]	-	2.33	2.88	31.08	2.26	4.58	27.32
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	26.15	14.96	0.93	25.93	19.04	3.86
TSS	mg/L	Narrative [2]	Narrative [2]	18.0	18.6	<2.0	15.9	19.1	6.1
Dissolved Oxygen - Field	mg/L	>=8	-	10.30	10.85	***5.52***	10.87	10.8	8.81
Anions and Nutrients									
Sulphate	mg/L	-	-	70	115	2320	100	180	1920
Chloride	mg/L	-	-	783	1140	16900	904	1510	13800
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia ($N\text{-}NH_3$)	mg/L	0.87-20 [3]	5.8-135 [3]	<0.0050	<0.0050	0.0065	0.0141	0.0088	0.0321
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate ($N\text{-}NO_3$)	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	-	-	1.09	1.15	0.0544	1.23	1.23	0.0994
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	0.00155	<0.00040	<0.00040	0.00133
Barium, total (T-Ba)	mg/L	-	-	0.0314	0.0297	0.0112	0.0384	0.0379	0.0109
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	-	<0.30	0.30	***3.31***	<0.30	0.34	***2.47***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	0.00002	0.000082	<0.000020	<0.000020	0.000055
Chromium, total (T-Cr)	mg/L	-	-	0.00057	0.00057	<0.00050	0.00058	0.00058	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000441	0.000435	0.000133	0.000492	0.000471	0.000126
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00194	0.00195	0.00061	***0.00214***	***0.00233***	0.00087
Iron, total (T-Fe)	mg/L	-	-	0.906	0.909	0.069	0.971	0.959	0.114
Lead, total (T-Pb)	mg/L	0.002	0.14	0.00021	0.00021	<0.00010	0.00021	0.00022	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0365	0.0358	0.00786	0.0392	0.0375	0.00605
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	-	-	0.00072	0.00094	0.00953	0.00081	0.00097	0.00824
Nickel, total (T-Ni)	mg/L	0.0083	-	0.00052	<0.00050	<0.00050	0.0005	0.00061	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	0.00071	<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	-	-	0.000201	0.000247	0.00249	0.000146	0.000265	0.00215
Vanadium, total (T-V)	mg/L	0.005	-	0.00234	0.00246	0.00148	0.00269	0.00261	0.00144
Zinc, total (T-Zn)	mg/L	0.01	0.055	0.0043	<0.0030	0.0038	0.0035	0.0036	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	<0.000020	0.00007	<0.000020	0.000022	0.000047
Copper, dissolved (D-Cu)	mg/L	-	-	0.00075	<0.00050	0.00059	<0.00050	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	0.068	<0.010	<0.010	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0146	0.0115	0.007	0.0137	0.0133	0.00272
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	0.00056	<0.00050	0.00084	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.352	0.459	6.88	0.356	0.682	5.7
Vanadium, dissolved (D-V)	mg/L	-	-	0.00063	<0.00050	0.00144	<0.00050	<0.00050	0.0013
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0037	0.0025	0.0074	<0.0010	<0.0010	<0.0010
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:
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 ⩽ 0.5% of total Hg, BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

Table F-4: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		IDZ at OUT-11	
				0.5 m Below Surface	2 m Below Surface
				IDZ-OUT-11-Surface	IDZ-OUT-11-2m
				VA25C0645-001	VA25C0645-002
		Long Term	Short Term	2025-08-15 20:10	2025-08-15 20:20
General Parameters					
pH - Field	pH units	7.0 - 8.7	-	7.91	7.95
Specific Conductivity - Field	µS/cm	-	-	6357	28303
Temperature - Field	℃	-	-	15.2	16.9
Salinity - Field	ppt	Narrative [2]	-	3.49	21.30
Turbidity - Field	NTU	21.0-28.2 [2]	27.0-34.2 [2]	12.74	3.43
TSS	mg/L	23.0-24.1 [2]	43.0-44.1 [2]	9.7	11.3
Dissolved Oxygen - Field	mg/L	>=8	-	10.19	9.33
Anions and Nutrients					
Sulphate	mg/L	-	-	187	348
Chloride	mg/L	-	-	1220	2420
Fluoride	mg/L	-	1.5	<0.400	<1.00
Ammonia ($N\text{-}NH_3$)	mg/L	2.2-2.3 [3]	15 [3]	0.0053	0.0062
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	<0.0200	<0.0500
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	0.390	<0.250
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	0.440	0.397
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	0.00052	<0.00050
Arsenic, total (T-As)	mg/L	0.0125	0.0125	0.00075	0.00050
Barium, total (T-Ba)	mg/L	-	-	0.0200	0.0228
Beryllium, total (T-Be)	mg/L	0.1	-	<0.000040	<0.000100
Boron, total (T-B)	mg/L	1.2	-	0.214	0.606
Cadmium, total (T-Cd)	mg/L	0.00012	-	0.0000244	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	<0.00100	<0.00250
Cobalt, total (T-Co)	mg/L	-	-	0.00023	<0.00050
Copper, total (T-Cu)	mg/L	0.002	0.003	***0.00282***	***<0.00250***
Iron, total (T-Fe)	mg/L	-	-	0.491	0.302
Lead, total (T-Pb)	mg/L	0.002	0.14	0.000232	<0.000250
Manganese, total (T-Mn)	mg/L	-	-	0.0402	0.0194
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	-
Molybdenum, total (T-Mo)	mg/L	-	-	0.00768	0.00226
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00100	<0.00250
Selenium, total (T-Se)	mg/L	0.002	-	<0.000100	<0.000250
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.000020	<0.000050
Thallium, total (T-Tl)	mg/L	-	-	<0.000020	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.000672	0.000477
Vanadium, total (T-V)	mg/L	0.005	-	0.00122	<0.00250
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0060	***<0.0150***
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00050	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	0.0000149	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	0.00078	<0.00100
Iron, dissolved (D-Fe)	mg/L	-	-	<0.020	<0.050
Lead, dissolved (D-Pb)	mg/L	-	-	<0.000100	<0.000250
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0135	0.0119
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00100	<0.00250
Strontium, dissolved (D-Sr)	mg/L	-	-	0.726	0.980
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00100	<0.00250
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0021	<0.0050
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	-	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050
Styrene	mg/L	-	-	<0.00050	<0.00050
Toluene	mg/L	0.215	-	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050

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.

[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 discharging, therefore the turbidity and TSS WQGs were evaluated. Background values used to evaluate the August 15 IDZ-OUT-11 samples are the maximum values measured in the August 11 and 17 WQR1 and WQR2 reference station samples, respectively, at 0.5 and 2 m below the surface (Report #78).

[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-5: 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]	0.011-0.025 [3,4]
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	VA25C0683-001	2025-08-16	0.000026	<0.0050
IDZ-W1	2 m Below Surface	IDZ-W1-2m	VA25C0683-002	2025-08-16	0.000024	<0.0050
IDZ-W1	2 m Above Seafloor	IDZ-W1-SF	VA25C0683-006	2025-08-16	0.000021	<0.0050
Station IDZ-W2						
IDZ-W2	0.5 m Below Surface	IDZ-W2-0.5	VA25C0683-007	2025-08-16	0.000036	<0.0050
IDZ-W2	2 m Below Surface	IDZ-W2-2m	VA25C0683-008	2025-08-16	0.000035	<0.0050
IDZ-W2	2 m Above Seafloor	IDZ-W2-SF	VA25C0683-009	2025-08-16	0.000044	<0.0050
Reference Station WQR2						
WQR2	0.5 m Below Surface	WQR2-0.5	VA25C0683-010	2025-08-17	0.000028	<0.0050
WQR2	2 m Below Surface	WQR2-2m	VA25C0683-011	2025-08-17	0.000028	<0.0050
WQR2	2 m Above Seafloor	WQR2-SF	VA25C0683-012	2025-08-17	<0.000020	<0.0050
IDZ-OUT-11						
IDZ-OUT-11	<0.5 m Below Surface	IDZ-OUT-11-Surface	VA25C0645-001	2025-08-15	0.000022	-
IDZ-OUT-11	2 m Below Surface	IDZ-OUT-11-2m	VA25C0645-002	2025-08-15	0.000020	-

Notes:
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.
Non-detect results are screened using the detection limit value.

Table F-6: 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-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25B9935-001	2025-08-11	0.0277	1.86
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25B9935-002	2025-08-11	0.0144	1.97
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25B9935-003	2025-08-11	0	1.43
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25B9935-004	2025-08-11	0.0111	1.72
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25B9935-005	2025-08-11	0	1.95
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25B9935-006	2025-08-11	0	1.56
Station IDZ-W1						
IDZ-W1	0.5 m Below Surface	IDZ-W1-0.5	VA25B7939-001	2025-07-22	0.0124	1.73
IDZ-W1	2 m Below Surface	IDZ-W1-2m	VA25B7939-002	2025-07-22	0	1.46
IDZ-W1	2 m Above Seafloor	IDZ-W1-SF	VA25B7939-003	2025-07-22	0	1.52
Station IDZ-W2						
IDZ-W2	0.5 m Below Surface	IDZ-W2-0.5	VA25B7939-004	2025-07-22	0.00760	1.95
IDZ-W2	2 m Below Surface	IDZ-W2-2m	VA25B7939-005	2025-07-22	0	2.18
IDZ-W2	2 m Above Seafloor	IDZ-W2-SF	VA25B7939-006	2025-07-22	0	1.76
Reference Station WQR1						
WQR1	0.5 m Below Surface	WQR1-0.5	VA25B9935-007	2025-08-11	0	1.86
WQR1	2 m Below Surface	WQR1-2m	VA25B9935-008	2025-08-11	0	1.71
WQR1	2 m Above Seafloor	WQR1-SF	VA25B9935-009	2025-08-11	0	1.80
Reference Station WQR2						
WQR2	0.5 m Below Surface	WQR2-0.5	VA25B7939-007	2025-07-22	0.000612	1.65
WQR2	2 m Below Surface	WQR2-2m	VA25B7939-008	2025-07-22	0	1.92
WQR2	2 m Above Seafloor	WQR2-SF	VA25B7939-009	2025-07-22	0	2.03

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.