TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)**	**Date:**	**30 Sep 2025**
From:	**Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)**	**Project #:**	**A633-9**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #82 for September 14 – 20**		

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 Services Ltd. (Lorax) provides water quality database management and WDA compliance reporting services to Woodfibre LNG.

This technical memorandum (Report #82) was prepared by Lorax and summarizes WDA monitoring conducted for the period of September 14 – 20. 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 #82 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 construction of water management infrastructure commenced in early 2024. 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, 2025, 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 the 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 2450 m^3/day. 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 2, Train 3 and Train 4 have been commissioned, and preparations are underway to commission the remaining two 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 September 14 – 20 monitoring period, with precipitation recorded on September 14 (19.0 mm) and September 20 (5.4 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
2025-09-14	19.0	17.2	14.8	Rain
2025-09-15	0	20.3	14.3	Overcast
2025-09-16	0	25.1	13.8	Sunny
2025-09-17	0	23.1	14.3	Mix of sun and cloud
2025-09-18	0	20.9	12.2	Mix of sun and cloud
2025-09-19	0	21.1	12.1	Mix of sun and cloud
2025-09-20	5.4	21.4	12.0	Scattered showers

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

From September 14 – 20, the East Sedimentation Pond received water from Trench #7 and from the construction water supply system, 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. A total of 1,990 m^3 from the East Sedimentation Pond was transferred to the West Sedimentation Pond from September 14 – 20 (Appendix B, Table B-2).

Routine operation of the East WWTP continued during the monitoring period (September 14 – 20). Concrete contact water was periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was discharged to the East Sedimentation Pond each day during the monitoring period (September 14 – 20) except on September 19 when the East WWTP was not operated. Daily water volumes processed by the East WWTP are provided in Appendix B (Table B-2).

From September 14 – 20, the West Sedimentation Pond received recirculated effluent from the 2700GPM TSS settling system (Appendix A, Figure 3). Implementation of the 2700GPM TSS settling system continued with installation of components for Train 5 and Train 6. West Sedimentation Pond effluent was clarified through the system each day during the monitoring period (September 14 – 20) and recirculated back to the pond. A total of 2,862 m^3 of clarified effluent was intermittently discharged to Howe Sound from station SP-W-OUT on September 14 (12:45 PM to 12:55 PM), September 15 (10:37 AM to 12:00 AM) and September 16 (12:01 AM to 5:58 PM). A total of 227 m^3 of clarified effluent was reclaimed for construction use from September 14 – 20. Daily clarified effluent volumes from the TSS settling system that were recirculated or discharged to Howe Sound, and volumes of water reclaimed for construction use are provided in Appendix C (Table C-6).

2. Monitoring Summary

The locations of PE-111578 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 PE-111578 and supplementary monitoring stations are currently being monitored:

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02 andOUT-06). East Creek water has been temporarily diverted to OUT-11 since 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).

- Supplementary contact water stations at the outlet of each sampling train. These samples are identified as W2700T#-OUT (with # equal to the train number).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT). As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. The SP-W-OUT monitoring station is not currently safe to access. Until safe access is restored, the SP-W-OUT station is monitored at the outlet from the individual 2700GPM TSS settling trains.
- 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-OUT station represents the combined discharge from all six individual treatment trains and is at the same location as the SP-W-OUT station. At times when only one 2700GPM treatment train is operated the 2700GPM-OUT sample is collected at the outlet of that train. Monitoring of the individual 2700GPM settling system treatment trains is supplemental to the PE-111578 monitoring requirements and is conducted at the discretion of field staff. As previously discussed, the SP-W-OUT station (and therefore the 2700GPM-OUT station) is not currently safe to access and is therefore monitored at the outlet of the individual treatment train that is operating at the time of sampling at the frequency specified in PE-111578.

Water quality was monitored at stations SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, 2700GPM-OUT (at the outlet of Train 2 and Train 3), IDZ-W1, IDZ-W2, and WQR2 during the monitoring period (September 14 – 20). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (September 14 – 20) were met. The initial high frequency monitoring requirements outlined in effluent permit PE-111578 for the sedimentation ponds, 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 catchment effluent compliance station (SP-E-OUT) as there was no discharge to Howe Sound from the East

Sedimentation Pond during the monitoring period (September 14 – 20). Daily field parameters were not collected at the west catchment effluent compliance station (SP-W-OUT) from September 17 - 20 when there was no discharge to Howe Sound.

Daily field parameters were not collected at the influent and effluent stations of the East WWTP (WWTP-E-IN and WWTP-E-OUT, respectively) on September 17, 18 and 19 as it was not operational at the time of monitoring. 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 September 14 – 20.

Table 2:
Summary of PE-111578 Monitoring Samples Collected September 14 – 20.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
September 14, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, M, M_2, W
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	P
	2700GPM-OUT (SP-W-OUT)	2700GPM TSS settling system at the effluent meter box of Train 2		D, M, M_2, W
September 15, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT (SP-W-OUT)	2700GPM TSS settling system at the effluent meter box of Train 2	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, M, M_2, W
	IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	M
	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		
September 16, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT (SP-W-OUT)	2700GPM TSS settling system at the effluent meter box of Train 2		D
September 17, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box of Train 2		
September 18, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box of Train 2		
September 19, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box of Train 2		
September 20, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box of Train 3		

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 operational minimum discharge objectives (MDOs) for the East WWTP, and PE-111578 discharge limits for sedimentation pond and TSS settling system stations. Monitoring results are also screened against Canadian (Canadian Council of Ministers of the Environment, CCME), Federal (Environment and Climate Change Canada, ECCC) 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.

The values used for screening are listed in the water quality tables provided in the appendices. Results above a screening value are highlighted in the tables. Samples collected from sedimentation pond effluent that is discharged to Howe Sound (monitored at stations SP-E-OUT and SP-W-OUT) are evaluated for non-compliance to PE-111578 discharge limits. Exceedances in contact water that remains on-site and is not discharged (e.g., WWTP influent and effluent, sedimentation pond influent, TSS settling system influent, and TSS settling system effluent that is recirculated) are highlighted for comparison purposes only, and do not represent non-compliance to the PE-111578 conditions.

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.

A summary of reported and pending results is provided in Section 3.2. Results for effluents from East WWTP, 2700GPM TSS settling system, and East and West Sedimentation Ponds are discussed in Section 3.3 and Section 3.4. The water quality monitored at non-contact water diversion ditch outlets and in the receiving environment is described in Section 3.5, Section 3.6 and Section 3.7. Sediment samples are collected annually at stations IDZ-E-SED and IDZ-W-SED, and the sediment results are discussed in Section 3.7 when they are available.

3.2 Summary of Reported Results

Analytical results and associated field measurements included in this weekly report (Report #82) are listed below in Table 3, with additional field measurements presented in Table B-2 (Appendix B) and Table C-5 (Appendix C). 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:

- SW-02, SW-03 and SW-07 collected September 6 (dioxins and furans);
- SW-01 and SW-04 collected September 7 (methylmercury, dioxins and furans);
- 2700GPM-IN and 2700GPM-OUT collected September 8 (dioxins and furans);
- IDZ-E1 and IDZ-E2 collected September 12 (field and all analytical parameters);
- WQR1 collected September 13 (field and all analytical parameters);
- SP-W-IN, 2700GPM-IN and 2700GPM-OUT collected September 14 (dioxins and furans);
- 2700GPM-OUT collected September 15 (dioxins and furans);
- IDZ-W1, IDZ-W2 and WQR2 collected September 15 (field and all analytical parameters);
- SP-E-IN, WWTP-E-IN and WWTP-E-OUT collected September 20 (all analytical parameters).

Table 3:
Summary of Analytical Results and Associated Field Measurements Included in Weekly Discharge and Compliance Report #82.

Sample	Description	Sampling Date	Parameters Reported
IDZ-E-SED, SED- E, SED-K, SED-L, SED-M, SED-N	East catchment IDZ sediment samples	July 11, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, Methylmercury, Dioxins and Furans.
IDZ-W-SED, SED-F, SED-G, SED-H, SED-I, SED-J	East catchment IDZ sediment samples	July 12, 2025	
2700GPM-IN	2700 GPM TSS settling system at the influent meter box	August 25, 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)	September 6, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	September 7, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	September 14, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
2700GPM-IN	2700 GPM TSS settling system at the influent meter box	September 14, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box	September 15, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.

3.3 East Catchment

The east catchment water quality monitoring results for stations at the East WWTP, East Sedimentation Pond, and the authorized discharge location (SP-E-OUT) 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 CCME, ECCC and BC WQGs for the protection of marine water aquatic life. East WWTP monitoring results for parameters without discharge limits are screened against operational MDOs, which are equivalent to the PE-111578 discharge limits and the lowest of the CCME, ECCC and BC WQGs for the protection of marine water aquatic life.

Samples collected from sedimentation pond effluent that is discharged to Howe Sound (monitored at station SP-E-OUT) are evaluated for non-compliance to PE-111578 discharge limits. Exceedances in contact water that remains on-site and is not discharged (e.g., WWTP influent and effluent, and sedimentation pond influent) are highlighted for comparison purposes only, and do not represent non-compliance to the PE-111578 conditions.

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. East catchment monitoring results included in this weekly report and exceedances of screening values in effluents from the East WWTP and East Sedimentation Pond are summarized below.

Daily effluent volumes for the East WWTP and from SP-E-OUT are listed in Appendix B, Table B-2. There were no discharges to Howe Sound from the SP-E-OUT authorized discharge location during the monitoring period (September 14 – 20), therefore water quality samples and field measurements were not collected at this station.

Field measurements were collected September 14 – 20 for East WWTP influent and effluent and East Sedimentation Pond influent, as outlined in Section 2, and are tabulated in Appendix B, Table B-1. Analytical samples collected during the monitoring period were not available at the time of reporting.

Dissolved oxygen (6.03 - 7.09 mg/L) was below the lower limit of the MDO (≥8 mg/L) in East WWTP effluent (WWTP-E-OUT) collected during the monitoring period (September 14 – 20) on September 14, 15 and 20 (Appendix B, Table B-1). 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 September 14 – 20 monitoring period.

3.4 West Catchment

The west catchment water quality monitoring results for stations at the West Sedimentation Pond, the 2700GPM TSS settling system, and the authorized discharge location (SP-W-OUT) are discussed in this section. 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. 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 CCME, ECCC and BC WQGs for the protection of marine water aquatic life.

Samples collected from sedimentation pond effluent that is discharged to Howe Sound (monitored at station SP-W-OUT) are evaluated for non-compliance to PE-111578 discharge limits. Exceedances in contact water that remains on-site and is not discharged (e.g., sedimentation pond influent, TSS settling system influent, and TSS settling system effluent that is recirculated) are highlighted for comparison purposes only, and do not represent non-compliance to the PE-111578 conditions.

The screened water quality results for analytical samples and field parameters are presented in Appendix C. West catchment monitoring results included in this weekly report and exceedances of screening values in effluents from the 2700GPM TSS settling system and West Sedimentation Pond are summarized below. As described in Section 2, station SP-W-OUT is not currently safe to access for water quality monitoring, therefore monitoring of effluent discharge to Howe Sound was conducted at station 2700GPM-OUT as a proxy for the SP-W-OUT monitoring station.

During the monitoring period (September 14 – 20), implementation of the 2700GPM TSS settling system continued (Section 1.1 and Section 1.2). West Sedimentation Pond water was directed to the 2700GPM TSS settling system each day and clarified effluent was recirculated to the pond or discharged to Howe Sound (refer to Section 1.2). A total of 2,862 m^3 of clarified effluent from the 2700GPM TSS Settling System was intermittently discharged to Howe Sound from the west catchment discharge location (SP-W-OUT) on September 14, 15 and 16. Daily clarified effluent discharge volumes from SP-W-OUT are summarized in Appendix C, Table C-6.

Field measurements of influent and effluent quality for the West Sedimentation Pond and the 2700GPM TSS settling system were collected September 14 – 20, as outlined in Section 2, and are tabulated in Appendix C, Table C-5. Analytical samples collected September 14 (stations SP-W-IN, 2700GPM-IN, and 2700GPM-OUT) and September 15 (station 2700GPM-OUT) were available at the time of reporting. The 2700GPM-OUT samples were collected at the outlet of Train 2, as noted in Section 2. Screening results for west catchment contact water quality are tabulated in Table C-1 and Table C-2 of Appendix C.

During the monitoring period (September 14 – 20), field measurements collected at station 2700GPM-OUT met PE-111578 discharge limits and WQGs except for dissolved oxygen (7.42 - 7.75 mg/L), which was below the lower limit of the WQG (⩾8 mg/L) on September 14, 17, and 20. The September 14 exceedance occurred during discharge to Howe Sound and is summarized in Table 4. The depletion of dissolved oxygen was also observed in contact water during dry conditions in 2024 and is speculated to be seasonally induced by warm temperatures and limited freshwater inputs (*i.e.,* from rain) to the contact water management system during dry and warm conditions. Field measurements collected in September 2024, following the discharge of oxygen depleted effluent from SP-E-OUT, found no discernable influence in Howe Sound dissolved oxygen concentrations along a transect between the IDZ-E1 and IDZ-E2 sampling stations. Based on these results it is inferred that the discharge of low oxygen effluent is unlikely to influence the dissolved oxygen concentration in Howe Sound waters.

Analytical samples and field duplicates collected on September 14 and 15 at 2700GPM-OUT are proxies for the SP-W-OUT monitoring station, as described in Section 2. The West Sedimentation Pond discharged on the days these samples were collected. The analytical results from the 2700GPM-OUT (SP-W-OUT) samples and field duplicates are tabulated in Appendix C, Table C-3 and met PE-111578 discharge limits and WQGs except for total mercury (ranging from 0.0102 to 0.0403 µg/L) and methylmercury (ranging from 0.000290 to 0.000413 µg/L). The WQG exceedances are summarized in Table 4 and are tracked in Table 5.

Dioxin and furan results were reported for 2700GPM TSS settling system influent and effluent samples (2700GPM-IN and 2700GPM-OUT, respectively) collected August 25 (as discussed in Report #79). The lower and upper bound PCDD/F TEQ concentrations in the 2700GPM-OUT sample were 0.00169 and 2.10 pg/L, respectively. Results are tabulated in Appendix C, Table C-4.

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[1]	N	N >WQG	Commentary
Dissolved Oxygen	mg/L	≥8	6	2	Dissolved oxygen measured at station 2700GPM-OUT (represents SP-W-OUT) on September 14 ranged from 7.42 to 7.70 mg/L. The discharge event was short-term (approximately 10 minutes) and low volume (12 m^3). Field measurements collected in September 2024, following the discharge of oxygen depleted effluent from SP-E-OUT, found no discernable influence in Howe Sound dissolved oxygen concentrations along a transect between the IDZ-E1 and IDZ-E2 sampling stations. Therefore, discharge of low oxygen effluent on September 14 is unlikely to have influenced the dissolved oxygen concentration in Howe Sound waters.
Total Mercury	µg/L	0.0032-0.0107	4	4	Total mercury measured in two samples and two field duplicates at station 2700GPM-OUT (represents SP-W-OUT) on September 14 and 15 ranged from 0.0102 to 0.0403 µg/L, 2.9 to 4.1 times the calculated sample specific long-term WQG (ranging from 0.0032 to 0.0107 µg/L). The discharge event was short-term (intermittent discharge from September 14 to 16), low volume (total discharge of 2,862 m^3) and the total mercury concentrations were within 10 times the long-term WQG, therefore the on-site QEP has determined there was low risk of an adverse impact to the receiving environment.
Methyl-mercury	µg/L	0.0001	4	4	Methylmercury measured in two samples and two field duplicates at station 2700GPM-OUT (represents SP-W-OUT) on September 14 and 15 ranged from 0.000290 to 0.000413 µg/L, 2.9 to 4.1 times the WQG (0.0001 µg/L). The discharge event was short-term (intermittent discharge from September 14 to 16), low volume (total discharge of 2,862 m^3) and the total mercury concentrations were within 10 times the long-term WQG, therefore the on-site QEP has determined there was low risk of an adverse impact to the receiving environment.

N = number of samples.
[1] The lowest value from the BC, Canadian (CCME) and Federal (ECCC) water quality guidelines (WQGs).

3.5 Non-Contact Water Diversion Ditch Outlets

Non-contact water diversion ditch samples are screened against CCME, ECCC and BC WQGs for the protection of freshwater aquatic life; however, 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 CCME, ECCC 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 water).

Analytical results were available at the time of reporting for freshwater and estuarine water samples collected at Mill Creek estuary, mid-stream and background stations (SW-03, SW-02 and SW-07, respectively) on September 6, as well as near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on September 7.

Parameter concentrations met WQGs except total aluminum and dissolved zinc in two freshwater samples (Appendix D, Table D-1 and Appendix E, Table E-1). Total aluminum was above the long-term WQG (0.14 mg/L) in the sample collected from East Creek station SW-04 (0.266 mg/L). Dissolved zinc was above the long-term WQG (0.0022 mg/L) in the mid-stream freshwater sample collected from station SW-02 on Mill Creek (0.0035 mg/L).

The total aluminum concentration (0.266 mg/L) measured in East Creek at station SW-04 was approximately equal to the upper range observed in the pre-construction baseline monitoring program (0.264 mg/L) and is considered to represent background conditions.

The dissolved zinc concentration measured in Mill Creek (station SW-02; 0.0035 mg/L) is within the baseline concentration range and is considered to represent background conditions. It is slightly greater than the total zinc value (<0.0030 mg/L) measured in the sample. The dissolved zinc value has been confirmed with the laboratory (Table 5). The range of analytical measurement uncertainty for the total and dissolved zinc concentrations (+/- 0.0005 mg/L) overlap and indicate the variance in the total and dissolved concentrations are within measurement uncertainty.

3.7 Marine Receiving Environment

3.7.1 Marine Water Quality

Marine water receiving environment samples are screened against CCME, ECCC 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 are 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.

Analytical results were not available at the time of reporting for marine water receiving environment stations.

3.7.2 Marine Sediment Quality

Annual monitoring of marine sediment collected within the IDZ was conducted in July 2025. Sediment quality was screened against BC Contaminated Sites Regulation (CSR) Schedule 3.4 generic numerical marine and estuarine sediment standard for sensitive use, CCME interim sediment quality guidelines (ISQG) and probable effects levels (PEL), as well as the BC lower and upper working sediment quality guidelines for the protection of benthic aquatic life in marine environments. Parameter concentrations above a reference value and outside the upper range of values observed in the 2023 IDZ baseline study were evaluated for project influence.

Analytical results are presented in Appendix F. Although they have been screened against BC and CCME reference values, for consistency the following discussion only describes the screening results for the CCME reference values as these are generally similar to BC values and have reference values for dioxins and furans.

During baseline monitoring in 2023, variability was observed in the dioxin and furan PCDD/F TEQ results. Pronounced variability was noted for the west IDZ duplicate samples collected at station IDZ-W-SED in 2024; and it was speculated the PCDD/F TEQ results reflected heterogeneous distribution of dioxins and furans in marine sediments rather than influence from construction contact water effluent. To further characterize the distribution of dioxins, furans and other parameters in the sediments within the east and west IDZs, the 2025 sediment monitoring included replicate samples (*i.e.,* triplicates) collected at the IDZ sediment stations listed in PE-111578, and supplemental samples collected at stations within the IDZs that were monitored during the IDZ baseline study in 2023.

On July 11 and 12, 2025, marine sediments were collected by the on-site environmental monitor (Roe Environmental) at the east and west IDZ sediment stations (IDZ-E-SED and IDZ-W-SED, respectively) as well as at the 2023 baseline monitoring locations in the east IDZ (stations SED-E, SED-K, SED-L, SED-M and SED-N) and the west IDZ (SED-F, SED-G, SED-H, SED-I, SED-J). Samples were collected in triplicate at the IDZ-E-SED and IDZ-W-SED stations. The station locations are shown in Figure 6. Surface grab samples were collected at each station using a petite ponar grab sampler, and multiple grabs were collected for each sample to obtain the volume of sediment required for analytical testing. Replicate samples were collected sequentially from fresh grabs. The marine vessel used for monitoring was repositioned as needed while sampling at each station to counter drift induced by wind and ocean currents.

Field observations of the individual sediment grabs indicate the IDZ sediments are non-homogeneous with a large variation in grain size and composition. Grabs frequently contained woody debris in the east IDZ. Oily sheen and creosote were occasionally observed in grabs from the east and west IDZ, as well as coarse grained material (*i.e.,* rocks) and bits of metal (*i.e.,* wire and corroded metal fragments). These observed variation of material composition and grain sizes

would likely contribute to the variability of analytical results between samples. Contaminated site investigations and remediation of sediments conducted prior construction of the Woodfibre LNG facility determined that woody debris, creosote and other contaminants in the vicinity of the IDZ sediments are associated with the historic pulp mill operations.

Concentrations of several total metals (arsenic, copper, lead, mercury and zinc) were above the corresponding CCME ISQG and PEL, by up to 22.1 times and 3.8 times respectively. Of the metal parameters, concentrations of copper most frequently exceeded the guideline with the highest values observed at the west IDZ stations.

Concentrations of PAHs (acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenz(a,h)anthracene, fluoranthene, fluorene, 2-methylnaphthalene, naphthalene, phenanthrene and pyrene) in the samples collected from the east and west IDZ areas and baseline stations were up to 511 and 16.6 times, respectively, above the corresponding CCME ISQG and PEL reference values. Field records indicate that creosote, which contains PAHs, was observed at the time of sampling in some of the samples with elevated PAHs. The PAH concentrations were generally significantly higher at the west IDZ stations compared to samples collected from within the east IDZ. Significant variation was observed in the PAH concentrations between the three replicate samples collected from the IDZ-W-SED station, as represented by the results for acenaphthene which ranged from 95 to 511 times the CCME ISQG value. This observation confirms PAHs are heterogeneously (*i.e.*, unevenly) distributed in the IDZ sediments.

Concentrations of polychlorinated biphenyl (PCB) aroclor 1254 were below detection limits in all of the marine sediment samples except stations SED-J and SED-L. The marine sediment sample collected at the west IDZ station SED-J showed a detectable Aroclor 1254 concentration (0.0996 mg/kg) that was 1.6 times greater than the CCME ISQG value.

The total PCB parameter is the sum of the results for the individual PCB aroclors, and total PCB was reported to be not detected in all samples except the west IDZ station SED-J; however, the reported detection limits were up to 4.3 times greater than the CCME ISQG value. The marine sediment sample collected at station SED-J where total PCB was reported as detected showed a concentration (0.125 mg/kg) that was 5.8 times greater than the ISQG value.

For dioxins and furans, the lower-bound and upper-bound PCDD/F TEQ concentrations in all samples were up to 60 and 67 times, respectively, greater than the CCME ISQG value, and up to 2.4 and 2.6 times, respectively, greater than the CCME PEL value. The PCDD/F TEQ concentrations in the west IDZ sediment samples were generally elevated compared to samples collected from the east IDZ stations. There is substantial variation in the replicate samples collected at IDZ-W-SED station with the upper bound PCDD/F TEQ results ranging from 26 to

67 times the CCME ISQG value, and indicating uneven distribution of dioxins and furans in the west IDZ sediments.

The concentrations of parameters that exceed BC and CCME reference values at the east and west IDZ sediment stations were within the upper ranges observed during baseline monitoring, except total mercury, total zinc, PCB aroclor 1254, total PCBs, PAHs, dioxins and furans. The replicate samples indicate there is non-homogeneous distribution of PAHs, dioxins and furans in the IDZ sediments, in particular in the west IDZ where almost all of the elevated parameter concentrations were observed. The high variability of the replicate samples from the IDZ-W-SED station (compared to IDZ-E-SED station) indicates that parameters present at elevated concentrations (*i.e.*, above the ranges from the 2023 IDZ sediment baseline) are heterogeneously distributed in the IDZ sediments, in particular in the west IDZ. Observations during site investigation and remediation conducted prior to construction of the LNG facility suggest the non-homogeneous distribution of sediment grain size and material composition, as well as parameters present at elevated concentrations, are due to influence from the historic pulp mill activities. Therefore, the results are unlikely to represent influence from construction contact water that has been intermittently discharged to Howe Sound since April 2024.

3.8 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 (September 14 – 20, Report #82)		
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 the 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. Since July the SP-W-OUT monitoring station has not been safe to access. Options for safe access are being evaluated and will be implemented when feasible to do so. Until safe access is restored, the effluent quality for the SP-W-OUT station will be monitored at the outlet from the individual 2700GPM TSS settling train that is operating at the time of monitoring.
Report #82: Discharge Water Quality Exceeds WQGs	Discharge at SP-W-OUT was above WQGs on September 14 and 15.	Dissolved oxygen measured in effluent on September 14 (7.42 to 7.70 mg/L) was below the lower limit of the WQG (≥ 8 mg/L).Total mercury (ranging from 0.0102 to 0.0403 µg/L) and methylmercury (ranging from 0.000290 to 0.000413 µg/L) were above the WQGs in analytical samples collected September 14 and 15. Field measurements collected in September 2024, following the discharge of oxygen depleted effluent from SP-E-OUT, found no discernable influence in Howe Sound dissolved oxygen concentrations along a transect between the IDZ-E1 and IDZ-E2 sampling stations. Based on these results it is inferred that the discharge of low oxygen effluent on September 14 is unlikely to have influenced the dissolved oxygen concentration in Howe Sound waters. The discharge of clarified effluent from the West Sedimentation Pond was short-term in duration (intermittent discharge from September 14 to 16), low volume (total discharge of 2,862 m^3) and the total mercury and methylmercury concentrations were within 10 times the long-term WQG; therefore, the on-site QEP has determined the total and methyl mercury concentrations presented low risk of adverse impact to the receiving environment. This item is closed.
Report #82: Pending Data	Analytical results not reported.	Field parameters and analytical results for marine receiving environment samples collected September 15, analytical results for contact water and treated water samples collected September 20, and dioxins and furans results for contact water and treated water samples collected September 14 and 15 were not included with Report #82. The pending results will be included in future weekly reports when available. This item remains open.
Report #82: Data QC	Dissolved zinc greater than total zinc.	The dissolved zinc concentration measured at station SW-02 on September 6 (0.0035 mg/L) was above the WQG and is slightly greater than the total zinc value (<0.0030 mg/L) measured in the sample. The total and dissolved zinc values were confirmed with the laboratory. The range of analytical measurement uncertainty for the total and dissolved zinc concentrations (+/- 0.0005 mg/L) overlap and indicate the variance in the total and dissolved concentrations are within measurement uncertainty. The dissolved zinc concentration measured at Mill Creek is within the range observed in the pre-construction baseline monitoring program. This item is closed.

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.

Table 6 (Continued): Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
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 (0.0043 mg./L). 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 (0.0043 mg/L). Evaluation of the concrete contact water treatment circuit is ongoing to identify additional measures to improve the consistency of copper removal. Total copper concentrations in WWTP-E-OUT samples collected August 8, 14, 20 met the MDO (0.0043 mg/L), but samples collected on August 26 (0.00448 mg/L), September 5 (0.0117 mg/L), and September 10 sample (0.0100 mg/L) were above 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. Since late April, site conditions have been drier and warmer 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 September 15 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 suggests microbially mediated mercury methylation processes can occur in the water column and bottom sediments of sumps and ponds and that these processes are significantly accelerated during warmer temperatures. Further data evaluation will be conducted after additional data are collected. This item remains open.
Report #72: Pending Data	Analytical results not reported.	Analytical results for marine sediment samples collected July 11 and 12 are discussed in Section 3.7 of Report #82. This item is closed.
Report #79: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected August 25 are discussed in Section 3.4 of Report #82. This item is closed.
Report #80: Pending Data	Analytical results not reported.	Field parameters and analytical results for freshwater and estuarine water receiving environment samples collected September 6 are discussed in Section 3.6 of Report #82. Dioxins and furans results were not included with Report #82. The pending results will be included in future weekly reports when available. This item remains open.
Report #81: Pending Data	Analytical results not reported.	Field parameters and analytical results for freshwater receiving environment samples collected September 7 are discussed in Section 3.6 of Report #82. Methylmercury, dioxins and furans results for freshwater receiving environment samples collected September 7, dioxin and furans results for contact water and treated water samples collected September 8, and field parameters and analytical results for marine water receiving environment samples collected September 12 and 13 were not included with Report #82. The pending results will be included in future weekly reports when available. This item remains open.
Report #81: Data QC	Total zinc detection limit was above the MDO.	Raised detection limits (<0.015 mg/L) were reported for East WWTP influent and effluent samples collected September 10 and were above the MDO for total zinc (0.0133 mg/L). A laboratory re-analysis was completed to achieve a detection limit (0.0075 mg/L) lower than the MDO. Revised total zinc concentrations for East WWTP influent and effluent are 0.0135 and 0.132 mg/L, respectively. East WWTP effluent met the MDO for total zinc. This item is closed.
Report #81: WWTP Performance Evaluation	Parameter concentrations higher in WWTP effluent compared to influent.	Multiple parameter concentrations measured in the East WWTP effluent (WWTP-E-OUT) samples collected September 5 and 10 are higher compared to concentrations measured in the corresponding influent samples (WWTP-E-IN). The WWTP-E-IN station is located upstream of the concrete contact water treatment circuit. The results from the WWTP-E-OUT station were likely influenced by water quality from the concrete circuit on the days these samples were collected. Monitoring of WWTP influent downstream of the concrete contact water circuit has been temporarily implemented to evaluate the influence of the treated concrete contact water on the WWTP effluent. This item is closed.

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.

4. 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

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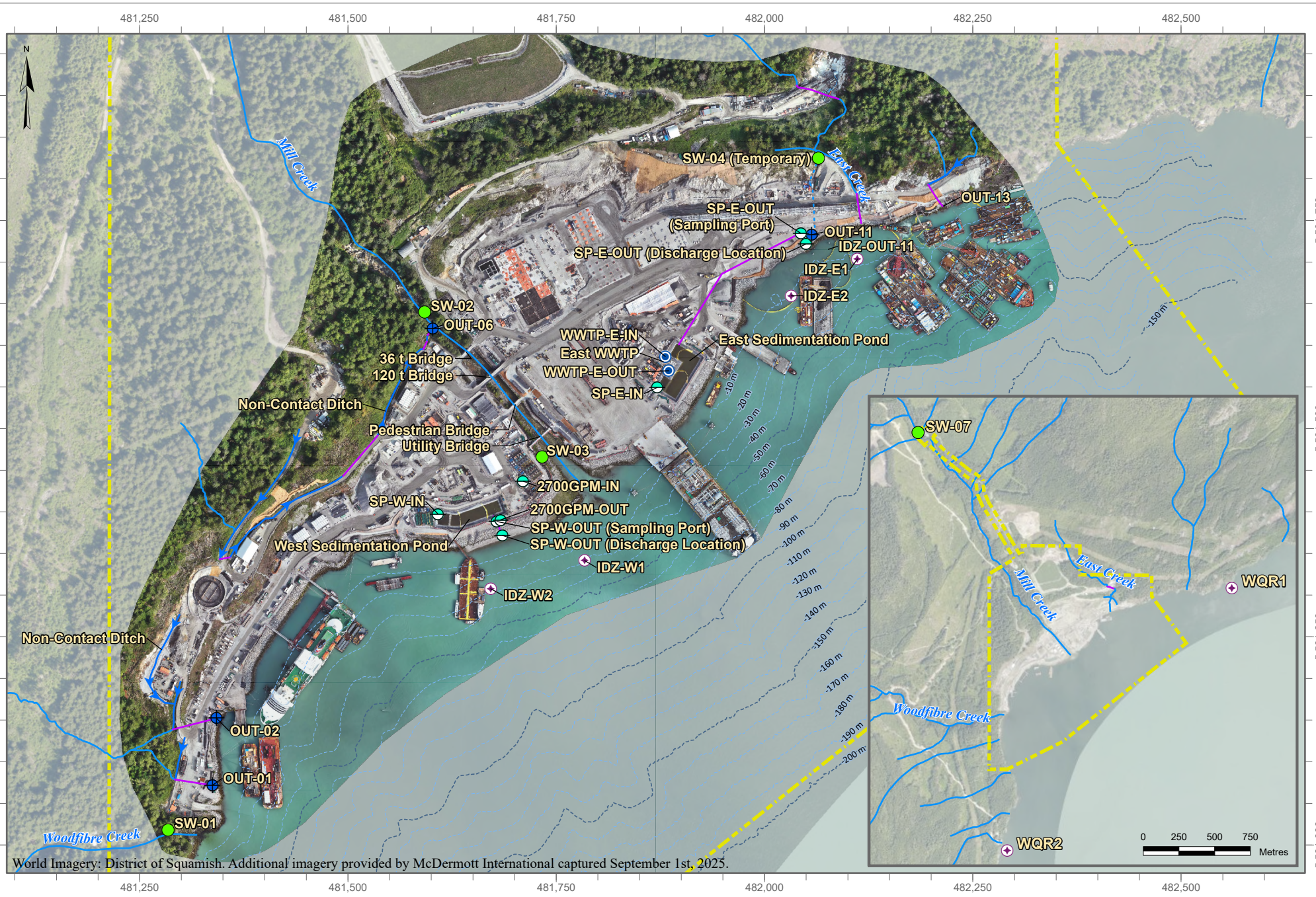
Environmental Chemist

Appendix A:
Figures and Site Images



World Imagery: District of Squamish. Additional imagery provided by McDermott International captured September 1st, 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:	Sep 25, 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 (September 20, 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

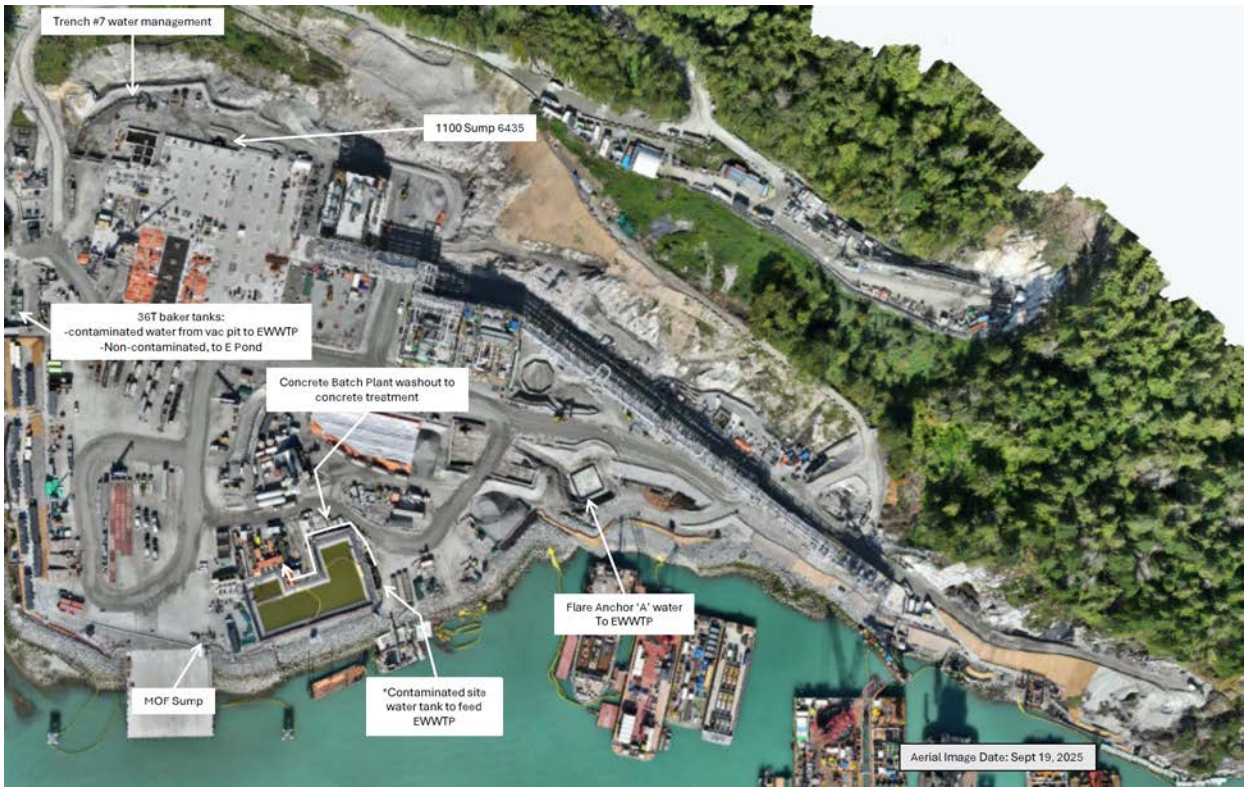


Figure 2: East Catchment contact water management facilities (September 14 – 20).

Figure 3: West Catchment contact water management facilities (September 14 – 20).

Figure 4: Aerial view of the East Sedimentation Pond (September 19, 2025). The East WWTP is located on the left side of the pond.

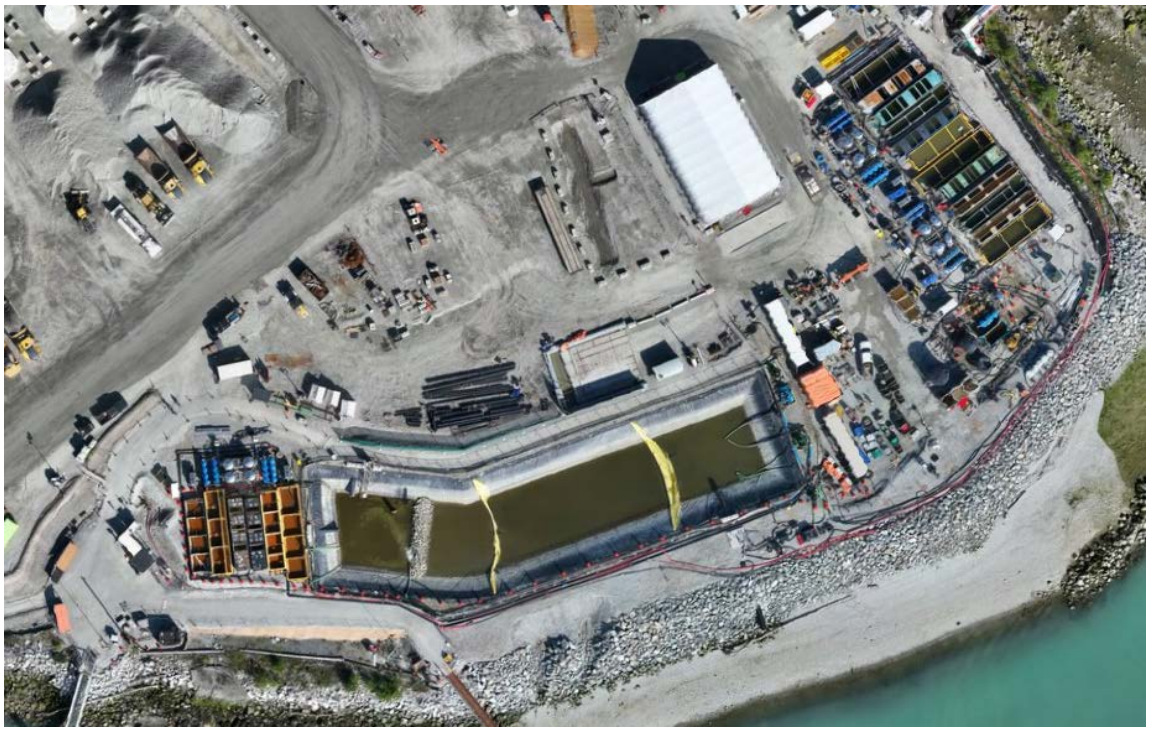
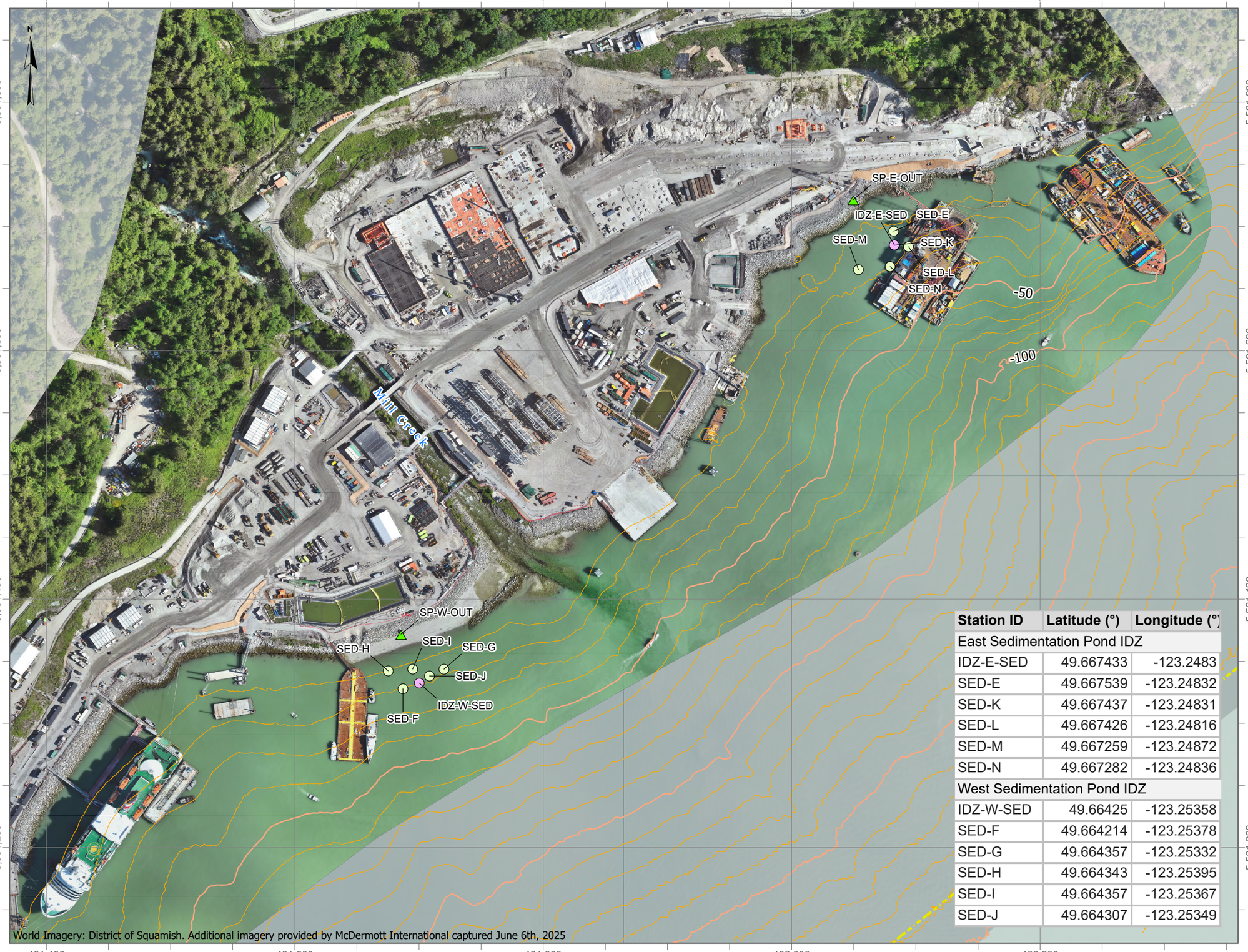


Figure 5: Aerial view of the West Sedimentation Pond (September 19, 2025).



Station ID	Latitude (°)	Longitude (°)
East Sedimentation Pond IDZ		
IDZ-E-SED	49.667433	-123.2483
SED-E	49.667539	-123.24832
SED-K	49.667437	-123.24831
SED-L	49.667426	-123.24816
SED-M	49.667259	-123.24872
SED-N	49.667282	-123.24836
West Sedimentation Pond IDZ		
IDZ-W-SED	49.66425	-123.25358
SED-F	49.664214	-123.25378
SED-G	49.664357	-123.25332
SED-H	49.664343	-123.25395
SED-I	49.664357	-123.25367
SED-J	49.664307	-123.25349

LEGEND

- Sediment Pond Outfall
- Annual IDZ Sampling Station
- 2023 Baseline Station
- Hydrographic Contour (50m)
- Hydrographic Contour (10m)
- Certified Project Area

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

1:3,000

0 50 100 150 Metres

DATE SAVED:	Sep 26, 2025
DRAWN BY:	GM
REVIEWED:	PM
VERSION:	1

CLIENT:

Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT:

Woodfibre LNG Project Construction Phase

TITLE:

WDA Sediment Sampling

PROJECT #: A633-9 *FIGURE:* 6

WDA Sediment Sampling

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Appendix B:
East Catchment Monitoring Results

Table B-1:
East Catchment Field Measurements Collected During the Monitoring Period (September 14 – 20).

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	2025-09-14 15:37	21.0	8.57	1.36	19.30	17.4	7.0	2617	No
SP-E-IN	Influent	2025-09-15 9:08	19.8	8.25	1.34	32.52	27.3	7.3	2580	No
SP-E-IN	Influent	2025-09-16 11:03	20.7	9.27	1.51	21.96	19.4	7.4	2892	No
SP-E-IN	Influent	2025-09-17 10:14	19.7	9.06	1.60	17.54	16.1	7.5	3062	No
SP-E-IN	Influent	2025-09-18 12:01	22.9	9.74	1.62	12.11	12.0	7.2	3109	No
SP-E-IN	Influent	2025-09-19 14:33	22.6	10.49	1.62	16.74	15.5	7.6	3106	No
SP-E-IN	Influent	2025-09-20 8:09	18.0	9.07	1.59	28.43	24.2	7.0	3030	No
WWTP-E-IN	Influent	2025-09-14 15:54	21.3	8.95	1.30	10.33	10.7	7.1	2506	No
WWTP-E-IN	Influent	2025-09-15 16:16	20.8	9.26	1.30	25.37	21.9	7.3	2512	No
WWTP-E-IN	Influent	2025-09-16 11:19	20.9	9.03	1.41	29.53	25.0	7.4	2722	No
WWTP-E-IN	Influent	2025-09-20 13:01	23.0	9.84	1.57	14.23	13.6	7.8	3015	No
Effluent [5]										
WWTP-E-OUT	Effluent	2025-09-14 15:47	20.6	***6.03*** [7]	1.48	11.17	11.3	6.3	2843	No
WWTP-E-OUT	Effluent	2025-09-15 16:21	20.7	***6.03*** [7]	1.50	22.97	20.1	6.7	2878	No
WWTP-E-OUT	Effluent	2025-09-16 12:54	20.5	8.83	1.53	9.25	9.9	6.8	2934	No
WWTP-E-OUT	Effluent	2025-09-20 19:19	19.7	***7.09*** [7]	1.65	9.78	10.3	6.7	3150	No

Notes:
The east catchment did not discharge to Howe Sound during the monitoring period (September 14 - 20). Results above screening values are highlighted for comparative purposes.
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 (September 14 - 20), therefore daily field measurements for SP-E-OUT were not collected on those days. The East WWTP was not operational at the time of monitoring on September 17, 18 and 19 for maintenance, therefore daily field measurements for WWTP-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 (September 14 - 20).

Table B-2:
East Catchment Daily Discharge Volumes for the Monitoring Period (September 14 – 20).

	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				
2025-09-14	0	1,442	415	0
2025-09-15	0	0	393	0
2025-09-16	0	548	620	0
2025-09-17	0	0	284	0
2025-09-18	0	0	134	0
2025-09-19	0	0	0	0
2025-09-20	0	0	577	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.

Table B-3:
Correction of Total Mercury Reported for the Monitoring Period (August 24 – 30).

Parameter				Total Mercury (Report #79, Table B-2)	Total Mercury (Report #80, Table B-1)
Unit				**mg/L**	**µg/L**
Lowest Applicable Guideline[1]				0.00000069 [3,4]	0.00069 [3,4]
Station	**Sample ID**	**Lab ID**	**Sampling Date**		
Effluent					
Original Value	WWTP-E-OUT	VA25C1737-006	2025-08-26	***0.00165***	***1.65***
Revised Value				***0.0000513*** [5]	***0.0513*** [5]

Notes:
The original value was issued August 28, 2025. After an internal lab investigation determined an error in the original result the revised value was issued September 18, 2025.
The east catchment did not discharge to Howe Sound during the monitoring period (August 24 - 30). Results above screening values are only highlighted for comparative purposes.
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 26.

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 VA25C4116-001 2025-09-14 11:06	Station 2700GPM-IN Influent 2700GPM-IN VA25C4116-002 2025-09-14 11:33
		Long Term	Short Term			
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.5	8.3
Specific Conductivity - Field	µS/cm	-	-	-	2026	1763
Temperature - Field	℃	-	-	-	20.1	20.4
Salinity - Field	ppt	-	-	-	1.04	0.9
Turbidity - Field	NTU	-	-	-	6.85	5.23
TSS	mg/L	-	-	25 or 75 [6]	4.9	3.7
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.25	8.35
Anions and Nutrients						
Sulphate	mg/L	-	-	-	519	478
Chloride	mg/L	-	-	-	15.4	18.2
Fluoride	mg/L	-	1.5	-	<0.200	0.204
Ammonia (N-NH_3)	mg/L	0.62-3.7 [3]	4.2-25 [3]	-	0.0674	0.0412
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0100	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	<0.0500	0.0773
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.254	0.242
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00096	0.00098
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.0036	0.00456
Barium, total (T-Ba)	mg/L	-	-	-	0.00733	0.00968
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.032	0.021
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000400	<0.0000400
Chromium, total (T-Cr)	mg/L	-	-	-	0.0015	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00195	0.00279
Iron, total (T-Fe)	mg/L	-	-	-	0.563	0.301
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000644	0.000497
Manganese, total (T-Mn)	mg/L	-	-	-	0.0233	0.0167
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	Refer to Table C-3	Refer to Table C-3
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0696	0.0685
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000309	0.000308
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000048	0.000052
Uranium, total (T-U)	mg/L	-	-	-	0.0128	0.0129
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.0037	0.0038
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0062	<0.0060
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	-	-	-	0.00125	0.00199
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.183	0.121
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000256	0.000269
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0198	0.0119
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.123	0.139
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00334	0.00349
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.003	0.0024
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	<0.000010
Quinoline	mg/L	-	-	-	<0.000050	<0.000050
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:
West catchment influents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
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 discharged during the monitoring period (September 14 - 20) on September 14, 15 and 16.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station 2700GPM-OUT (SP-W-OUT)	Station 2700GPM-OUT (SP-W-OUT)	Station 2700GPM-OUT (SP-W-OUT)	Station 2700GPM-OUT (SP-W-OUT)
					Effluent	Effluent	Effluent	Effluent
					W2700T2-OUT[7]	W2700T2-OUT-DUP[7]	W2700T2-OUT[7]	W2700T2-OUT-DUP[7]
					VA25C4116-003	VA25C4116-004	VA25C4118-001	VA25C4118-002
		Long Term	Short Term		2025-09-14 14:40	2025-09-14 14:50	2025-09-15 10:55	2025-09-15 12:20
General Parameters								
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.6	7.6	7.4	7.4
Specific Conductivity - Field	µS/cm	-	-	-	1773	1773	2149	2149
Temperature - Field	°C	-	-	-	20.3	20.3	20.0	20.0
Salinity - Field	ppt	-	-	-	0.9	0.9	1.1	1.1
Turbidity - Field	NTU	-	-	-	4.1	4.1	5.21	5.21
TSS	mg/L	-	-	25 or 75 [6]	4.3	3.5	3.9	4.1
Dissolved Oxygen - Field	mg/L	≥8	-	-	***7.7***	***7.7***	9.77	9.77
Anions and Nutrients								
Sulphate	mg/L	-	-	-	480	476	558	568
Chloride	mg/L	-	-	-	18.1	17.8	18.3	18.8
Fluoride	mg/L	-	1.5	-	<0.200	<0.200	<0.200	<0.400
Ammonia (N-NH_3)	mg/L	2.4-3.7 [3]	16-25 [3]	-	0.0774	0.0892	0.0066	0.0072
Nitrite (N-NO_2)	mg/L	-	-	-	0.0133	<0.0100	<0.0100	<0.0200
Nitrate (N-NO_3)	mg/L	3.7	339	-	<0.0500	<0.0500	<0.0500	<0.100
Total Metals								
Aluminum, total (T-Al)	mg/L	-	-	-	0.156	0.149	0.18	0.178
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00098	0.001	0.001	0.00099
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00455	0.00457	0.00224	0.00231
Barium, total (T-Ba)	mg/L	-	-	-	0.00415	0.0039	0.00446	0.00434
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	<0.020	<0.020	0.032	0.032
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000450	<0.0000400	<0.0000350	<0.0000550
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100	<0.00100	0.00125	0.00132
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00216	0.002	0.00168	0.00168
Iron, total (T-Fe)	mg/L	-	-	-	0.239	0.236	0.419	0.413
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.00053	0.00047	0.00106	0.00108
Manganese, total (T-Mn)	mg/L	-	-	-	0.0252	0.025	0.0185	0.0187
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	Refer to Table C-3	Refer to Table C-3	Refer to Table C-3	Refer to Table C-3
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0664	0.0693	0.0645	0.0639
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000345	0.000384	0.000372	0.000375
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	<0.000020	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000085	0.000086	0.000062	0.000065
Uranium, total (T-U)	mg/L	-	-	-	0.0128	0.0127	0.00971	0.00976
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00343	0.00343	0.00248	0.0025
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060	<0.0060	<0.0060	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals								
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000200	<0.0000200	<0.0000150	<0.0000150
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00145	0.00142	0.00106	0.00105
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.132	0.125	0.167	0.133
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000317	0.000312	0.000487	0.000387
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0241	0.0223	0.0173	0.0176
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100	<0.00100	0.00109
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.146	0.141	0.128	0.131
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00318	0.00309	0.00208	0.00205
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0025	<0.0020	0.002	<0.0020
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	-	<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
Ethylbenzene	mg/L	0.25	-	-	<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
Styrene	mg/L	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050	<0.00050	<0.00050

Notes:
Water quality at station 2700GPM-OUT is representative of effluent quality discharged at SP-W-OUT.
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 discharged during the monitoring period (September 14 - 20) on September 14, 15 and 16.
[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.
[7] 2700GPM clarified effluent from Train 2 was intermittently discharged to Howe Sound at the authorized discharge location (SP-W-OUT) on September 14 and 15 and samples were collected at the outlet of Train 2 (W2700T2-OUT). As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. The SP-W-OUT monitoring station is not currently safe to access. Until safe access is restored, the SP-W-OUT station is monitored at the outlet from the individual 2700GPM TSS settling trains. Only Train 2 discharged to Howe Sound via station SP-W-OUT on September 14 and 15.

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

Parameter					**Total Methylmercury**	**Total Mercury**
Unit					**µg/L**	**µg/L**
Lowest Applicable Guideline[1]					0.0001 [2]	0.0024-0.0107 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25C4116-001	2025-09-14	***0.000567***	***0.0414***
2700GPM-IN	Influent	2700GPM-IN	VA25C4116-002	2025-09-14	***0.000433***	***0.0105***
Effluent						
2700GPM-OUT (SP-W-OUT)	Effluent	W2700T2-OUT	VA25C4116-003	2025-09-14	***0.000318*** [7]	***0.0102*** [7]
2700GPM-OUT (SP-W-OUT)	Effluent	W2700T2-OUT-DUP	VA25C4116-004	2025-09-14	***0.000290*** [7]	***0.0104*** [7]
2700GPM-OUT (SP-W-OUT)	Effluent	W2700T2-OUT	VA25C4118-001	2025-09-15	***0.000375*** [7]	***0.0403*** [7]
2700GPM-OUT (SP-W-OUT)	Effluent	W2700T2-OUT-DUP	VA25C4118-002	2025-09-15	***0.000413*** [7]	***0.0402*** [7]

Notes:
West catchment influents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
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 collected at the outlet of Train 2 (W2700T2-OUT). 2700GPM clarified effluent from Train 2 was intermittently discharged to Howe Sound at the authorized discharge location (SP-W-OUT) on September 14 and 15. As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. The SP-W-OUT monitoring station is not currently safe to access. Until safe access is restored, the SP-W-OUT station is monitored at the outlet from the individual 2700GPM TSS settling trains. Only clarified effluent from Train 2 of the 2700GPM TSS settling system discharged to Howe Sound via station SP-W-OUT on September 14 and 15.

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

Parameter					**Lower Bound PCDD/F TEQ**	**Upper Bound PCDD/F TEQ**
Unit					**pg/L**	**pg/L**
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
2700GPM-IN	Influent	2700GPM-IN	VA25C1592-001	2025-08-25	0.0222	1.12
Effluent						
2700GPM-OUT	Effluent	2700GPM-OUT	VA25C1592-002	2025-08-25	0.00169	2.10

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

Table C-5:
West Catchment Field Measurements Collected During the Monitoring Period (September 14 – 20).

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	2025-09-14 11:06	20.1	8.25	1.04	6.85	8.1	7.5	2026	No
SP-W-IN	Influent	2025-09-15 9:17	19.9	8.97	1.12	12.58	12.4	7.3	2171	No
SP-W-IN	Influent	2025-09-16 8:44	19.1	8.16	1.15	8.50	9.3	7.2	2227	No
SP-W-IN	Influent	2025-09-17 10:35	20.3	8.18	1.31	4.85	6.6	7.4	2524	No
SP-W-IN	Influent	2025-09-18 11:35	19.7	9.11	1.3	2.78	5.1	8.0	2508	No
SP-W-IN	Influent	2025-09-19 14:15	20.7	9.47	1.31	1.87	4.4	8.4	2529	No
SP-W-IN	Influent	2025-09-20 15:16	20.7	8.13	1.19	3.17	5.4	8.2	2320	No
2700GPM-IN	Influent	2025-09-14 11:33	20.4	8.35	0.90	5.23	6.9	8.3	1763	No
2700GPM-IN	Influent	2025-09-15 8:57	19.7	8.48	1.10	12.45	12.3	7.4	2151	No
2700GPM-IN	Influent	2025-09-16 8:37	19.0	9.06	1.12	7.99	9.0	7.5	2186	No
2700GPM-IN	Influent	2025-09-17 10:30	20.1	8.15	1.31	3.95	5.9	7.4	2522	No
2700GPM-IN	Influent	2025-09-18 13:06	21.8	9.59	1.31	2.67	5.0	8.0	2538	No
2700GPM-IN	Influent	2025-09-19 14:22	22.2	10.03	1.31	1.81	4.3	8.4	2540	No
2700GPM-IN	Influent	2025-09-20 15:12	20.8	8.90	1.17	7.39	8.5	8.3	2275	No
Effluent [5]										
2700GPM-OUT (SP-W-OUT)	Effluent	2025-09-14 11:57	19.8	***7.42*** [7]	10.88	4.27	6.2	8.3	1725	No
2700GPM-OUT (SP-W-OUT)	Effluent	2025-09-14 14:40	20.3	***7.70*** [7]	0.90	4.10	6.1	7.6	1773	No
2700GPM-OUT	Effluent	2025-09-15 8:53	19.6	9.78	1.09	4.83	6.6	7.4	2131	No
2700GPM-OUT (SP-W-OUT)	Effluent	2025-09-15 10:55	20.0	9.77	1.1	5.21	6.9	7.4	2149	No
2700GPM-OUT (SP-W-OUT)	Effluent	2025-09-16 8:34	19.5	8.22	1.13	4.47	6.3	7.2	2200	No
2700GPM-OUT (SP-W-OUT)	Effluent	2025-09-16 13:49	21.1	8.45	1.15	4.17	6.1	7.3	2243	No
2700GPM-OUT	Effluent	2025-09-17 10:28	20.3	***7.75*** [7]	1.31	3.01	5.2	7.6	2524	No
2700GPM-OUT	Effluent	2025-09-18 11:41	19.8	8.65	1.31	2.25	4.7	8.0	2625	No
2700GPM-OUT	Effluent	2025-09-19 14:20	21.1	8.68	1.31	2.11	4.6	8.3	2537	No
2700GPM-OUT	Effluent	2025-09-20 15:09	21.1	***7.75*** [7]	1.23	2.62	5.0	8.3	2380	No

Notes:
West catchment influents for September 14-20, and effluent from September 17-20 were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
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 from Train 2 was intermittently discharged to Howe Sound at the authorized discharge location (SP-W-OUT) on September 14, 15 and 16. As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. The SP-W-OUT monitoring station is not currently safe to access. Until safe access is restored, the SP-W-OUT station is monitored at the outlet from the individual 2700GPM TSS settling trains. Only Train 2 of the 2700GPM TSS settling system discharged to Howe Sound via station SP-W-OUT on September 14, 15 and 16. From September 17 through September 20, 2700GPM clarified effluent was directed to the West Sedimentation Pond and there was no discharge at the authorized discharge location (SP-W-OUT); therefore, daily field measurements for SP-W-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.
[7] 2700GPM clarified effluent was collected at the outlet of Train 2 (W2700-T2-OUT) and directed to the West Sedimentation Pond; and there was no discharge from the pond to Howe Sound at the time of monitoring on September 14, 17 or 20.

Table C-6:
West Catchment Daily Discharge Volumes for the Monitoring Period (September 14 – 20).

	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**	**m^3**
PE-111578 Discharge Limit	-	-	-	120	- [2]
Date					
2025-09-14	0	1,143	0	0	12
2025-09-15	0	2,123	0	0	2,123
2025-09-16	0	1,430	22	0	727
2025-09-17	0	1,456	49	0	0
2025-09-18	0	1,610	83	0	0
2025-09-19	0	1,133	74	0	0
2025-09-20	0	560	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 (September 14 - 20). 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. Daily discharge volumes are a sum of all active treatment trains.

Appendix D:
Freshwater Receiving Environment Results

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

Parameter	Unit	Lowest Applicable Guideline [1, 2]		Station SW-01 Woodfibre Creek Lower Reach SW-01 VA25C3147-001 2025-09-07 10:30	Station SW-02 Mill Creek Lower Reach SW-02 VA25C3080-001 2025-09-06 10:32	Station SW-07 Upstream Mill Creek SW-07 VA25C3080-003 2025-09-06 13:10	Station SW-04 East Creek Lower Reach SW-04 VA25C3147-002 2025-09-07 9:30
		Long Term	Short Term				
General Parameters							
pH - Field	pH units	6.5 - 9.0	-	7.5	7.5	7.1	7.6
Specific Conductivity - Field	µS/cm	-	-	10	42	40	192
Temperature - Field	℃	-	-	14.6	15.3	14.8	14.1
Salinity - Field	ppt	-	-	0	0.02	0.02	0.09
Turbidity - Field	NTU	-	-	1.37	0.3	0.22	2.11
TSS	mg/L	-	-	<3.0	<3.0	<3.0	<3.0
Dissolved Oxygen - Field	mg/L	>=8	>=5	10.51	10.00	10.09	10.46
Anions and Nutrients							
Sulphate [2]	mg/L	128-218	-	0.34	5.14	5.14	14.2
Chloride	mg/L	120	600	0.68	4.00	3.93	13.6
Fluoride [2]	mg/L	-	0.400-1.16	<0.020	<0.020	<0.020	0.239
Ammonia ($N\text{-}NH_3$) [2]	mg/L	0.715-3.26	10.8-18.5	<0.0050	0.0248	<0.0050	<0.0050
Nitrite ($N\text{-}NO_2$) [2]	mg/L	0.0200-0.200	0.06-0.6	<0.0010	<0.0010	<0.0010	<0.0010
Nitrate ($N\text{-}NO_3$)	mg/L	3	32.8	0.0403	0.178	0.174	<0.0050
Total Metals							
Aluminum, total (T-Al) [2]	mg/L	0.114-0.410	-	0.102	0.0235	0.0279	***0.266***
Antimony, total (T-Sb)	mg/L	0.074	-	<0.00010	<0.00010	<0.00010	0.00174
Arsenic, total (T-As)	mg/L	0.005	-	0.0001	0.00013	0.00012	0.00208
Barium, total (T-Ba)	mg/L	1	-	0.00193	0.00627	0.00584	0.012
Beryllium, total (T-Be)	mg/L	0.00013	-	<0.000020	<0.000020	<0.000020	<0.000020
Boron, total (T-B)	mg/L	1.2	29	<0.010	0.058	0.054	0.014
Cadmium, total (T-Cd) [2]	mg/L	0.000036-0.00011	0.00011-0.0014	<0.0000050	0.0000074	0.0000086	<0.0000150
Chromium, total (T-Cr) [4]	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	0.00069
Cobalt, total (T-Co)	mg/L	0.00039-0.00085	-	<0.00010	<0.00010	<0.00010	<0.00010
Copper, total (T-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Iron, total (T-Fe)	mg/L	0.3	1	0.034	<0.010	<0.010	0.101
Lead, total (T-Pb)	mg/L	-	-	0.000066	<0.000050	<0.000050	0.00006
Manganese, total (T-Mn) [2]	mg/L	0.768-0.890	0.816-1.25	0.0015	0.00027	0.00047	0.0282
Mercury, total (T-Hg) [3]	mg/L	0.00002	-	Refer to Table D-2	Refer to Table D-2	Refer to Table D-2	Refer to Table D-2
Molybdenum, total (T-Mo)	mg/L	0.073	46	0.000288	0.000906	0.000811	0.0427
Nickel, total (T-Ni) [2]	mg/L	0.0250-0.0533	-	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.001	-	<0.000050	<0.000050	<0.000050	<0.000050
Silver, total (T-Ag)	mg/L	0.00012	-	<0.000010	<0.000010	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	0.0008	-	<0.000010	<0.000010	<0.000010	0.000015
Uranium, total (T-U)	mg/L	0.0085	0.033	0.000525	0.000121	0.000074	0.00199
Vanadium, total (T-V)	mg/L	0.12	-	<0.00050	<0.00050	<0.00050	0.00121
Zinc, total (T-Zn)	mg/L	-	-	<0.0030	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals							
Cadmium, dissolved (D-Cd) [2]	mg/L	0.000018-0.00015	0.000038-0.00038	<0.0000050	0.0000081	0.0000077	<0.0000150
Copper, dissolved (D-Cu) [2]	mg/L	0.000200-0.00152	0.000762-0.00307	<0.00020	<0.00020	<0.00020	0.00032
Iron, dissolved (D-Fe)	mg/L	-	0.35	0.019	<0.010	<0.010	0.023
Lead, dissolved (D-Pb) [2]	mg/L	0.00158-0.00489	-	<0.000050	<0.000050	<0.000050	<0.000050
Manganese, dissolved (D-Mn) [2]	mg/L	0.350-0.430	1.97-4.55	0.00034	0.00026	0.00177	0.0286
Nickel, dissolved (D-Ni) [2]	mg/L	0.000600-0.00130	0.00960-0.0128	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	2.5	-	0.0034	0.0169	0.0169	0.07
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	<0.00050	0.00101
Zinc, dissolved (D-Zn) [2]	mg/L	0.00218-0.0134	0.00738-0.0622	<0.0010	***0.0035***	<0.0010	0.0018
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.0058	-	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	0.000012	-	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	0.000018	-	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	0.00004	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	0.001	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0003	-	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	0.00002	-	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	0.0034	-	<0.000050	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.04	-	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.09	-	<0.00050	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	10	3.4	<0.00050	<0.00050	<0.00050	<0.00050
Styrene	mg/L	0.072	-	<0.00050	<0.00050	<0.00050	0.00103
Toluene	mg/L	0.0005	-	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	0.03	-	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050

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

Table D-2:
Freshwater 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]	0.0019-0.0025 [3,4]
Station	**Description**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-01	Woodfibre Creek Lower Reach	SW-01	VA25C3147-001	2025-09-07	-	-
SW-02	Lower Freshwater Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25C3080-001	2025-09-06	0.000027	<0.00050
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25C3080-003	2025-09-06	<0.000020	<0.00050
SW-04	East Creek Lower Reach	SW-04	VA25C3147-002	2025-09-07	-	-

Notes:
Methylmercury results for SW-01 and SW-04 were not available at the time of reporting (refer to Section 3.2). Total and methyl mercury results will be reported when methylmercury results are received.
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.

Appendix E:
Estuarine Water Receiving Environment Results

Table E-1:
Estuarine Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		Station SW-03 Mill Creek Estuary SW-03 VA25C3080-002 2025-09-06 9:42
		Long Term	Short Term	
General Parameters				
pH - Field	pH units	7.0 - 8.7	-	7.3
Specific Conductivity - Field	µS/cm	-	-	3630
Temperature - Field	°C	-	-	15.8
Salinity - Field	ppt	-	-	1.9
Turbidity - Field	NTU	-	-	4.07
TSS	mg/L	-	-	<9.4
Dissolved Oxygen - Field	mg/L	-	-	10.63
Anions and Nutrients				
Sulphate	mg/L	-	-	183
Chloride	mg/L	-	-	1310
Fluoride	mg/L	-	-	<0.400
Ammonia (N-NH_3)	mg/L	-	-	0.0132
Nitrite (N-NO_2)	mg/L	-	-	<0.0200
Nitrate (N-NO_3)	mg/L	-	-	<0.100
Total Metals				
Aluminum, total (T-Al)	mg/L	-	-	0.297
Antimony, total (T-Sb)	mg/L	-	-	<0.00050
Arsenic, total (T-As)	mg/L	-	-	<0.00050
Barium, total (T-Ba)	mg/L	-	-	0.0127
Beryllium, total (T-Be)	mg/L	-	-	<0.000100
Boron, total (T-B)	mg/L	-	-	0.398
Cadmium, total (T-Cd)	mg/L	-	-	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	<0.00250
Cobalt, total (T-Co)	mg/L	-	-	<0.00050
Copper, total (T-Cu)	mg/L	0.002	0.003	<0.00250
Iron, total (T-Fe)	mg/L	-	-	0.211
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.000250
Manganese, total (T-Mn)	mg/L	-	-	0.0173
Mercury, total (T-Hg) [2]	mg/L	0.00002	-	Refer to Table E-2
Molybdenum, total (T-Mo)	mg/L	-	-	0.00184
Nickel, total (T-Ni)	mg/L	-	-	<0.00250
Selenium, total (T-Se)	mg/L	-	-	<0.000250
Silver, total (T-Ag)	mg/L	-	-	<0.000050
Thallium, total (T-Tl)	mg/L	-	-	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.000642
Vanadium, total (T-V)	mg/L	-	-	<0.00250
Zinc, total (T-Zn)	mg/L	-	-	<0.0150
Hexavalent Chromium, total	mg/L	-	-	<0.00050
Dissolved Metals				
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00100
Iron, dissolved (D-Fe)	mg/L	-	-	<0.050
Lead, dissolved (D-Pb)	mg/L	-	-	<0.000250
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0199
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00250
Strontium, dissolved (D-Sr)	mg/L	-	-	0.723
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00250
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0050
Polycyclic Aromatic Hydrocarbons (PAHs)				
Acenaphthene	mg/L	-	-	<0.000010
Acridine	mg/L	-	-	<0.000010
Anthracene	mg/L	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010
Benzo(a)pyrene	mg/L	-	-	<0.0000050
Chrysene	mg/L	-	-	<0.000010
Fluoranthene	mg/L	-	-	<0.000010
Fluorene	mg/L	-	-	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010
Naphthalene	mg/L	-	-	<0.000050
Phenanthrene	mg/L	-	-	<0.000020
Pyrene	mg/L	-	-	<0.000010
Quinoline	mg/L	-	-	<0.000050
Volatile Organic Compounds (VOCs)				
Benzene	mg/L	-	-	<0.00050
Ethylbenzene	mg/L	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	-	-	<0.00050
Styrene	mg/L	-	-	<0.00050
Toluene	mg/L	-	-	<0.00040
Total Xylenes	mg/L	-	-	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050

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

Table E-2:
Estuarine Water 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]	0.0013 [3,4]
Station	**Description**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-03	Mill Creek Estuary	SW-03	VA25C3080-002	2025-09-06	0.000046	0.00060

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.

Appendix F:
Marine Sediment Quality Results

Table F-1: Marine Sediment Quality Results

Intial Dilution Zone (IDZ)								East Sedimentation Pond IDZ							
Sample		UNITS	CSR[1]	CCME[2]		BC ENV[3]		IDZ-E-SED-A	IDZ-E-SED-B	IDZ-E-SED-C	SED-E	SED-K	SED-L	SED-M	SED-N
Laboratory ID								VA25B7089-001	VA25B7089-002	VA25B7089-003	VA25B7089-004	VA25B7089-005	VA25B7089-006	VA25B7089-007	VA25B7089-008
Sampling Date			Sensitive Use	ISQG	PEL	Lower WSQG	Upper WSQG	2025-07-11	2025-07-11	2025-07-11	2025-07-11	2025-07-11	2025-07-11	2025-07-11	2025-07-11
General Parameters	Soluble (2:1) pH	pH	-	-	-	-	-	7.58	7.59	7.45	7.50	7.45	7.37	7.47	7.39
	Moisture	%	-	-	-	-	-	58.4	64.7	59.3	58.7	62.5	61.9	67.8	60.8
	Total Carbon	%	-	-	-	-	-	1.74	2.77	2.11	2.58	2.42	2.76	2.33	2.2
	Total Inorganic Carbon (TIC)	%	-	-	-	-	-	0.182	0.222	0.185	0.178	0.2	0.187	0.171	0.154
	Total Organic Carbon (TOC)	%	-	-	-	-	-	1.56	2.55	1.92	2.4	2.22	2.57	2.16	2.05
Particle Size	Passing(0.063mm)	%	-	-	-	-	-	60.4	57.8	63.0	72.5	74.5	64.2	84.0	78.5
	Passing(0.125mm)	%	-	-	-	-	-	70.3	65.5	74.2	78.8	81.0	73.4	89.5	85.4
	Passing(0.250mm)	%	-	-	-	-	-	82.8	78.6	86.7	89.2	89.3	86.4	94.7	92.2
	Passing(0.50mm)	%	-	-	-	-	-	91.1	88.5	95.4	95.4	96.0	94.8	98.0	96.4
	Passing(1.0mm)	%	-	-	-	-	-	94.4	92.1	98.2	96.8	98.2	96.9	98.9	97.7
	Passing(2.0mm)	%	-	-	-	-	-	95.8	93.6	98.9	97.2	98.9	97.5	99.2	98.4
Metals	Aluminum (Al)	mg/kg	-	-	-	-	-	23500	22700	22900	23100	23300	22600	23400	22200
	Antimony (Sb)	mg/kg	-	-	-	-	-	0.46	0.86	0.41	0.46	0.50	0.39	0.52	0.35
	Arsenic (As)	mg/kg	26	7.24	41.6	7.24	41.6	5.39	**7.56**	5.53	5.96	5.32	5.18	6.03	4.95
	Barium (Ba)	mg/kg	-	-	-	-	-	173	162	147	169	168	168	181	172
	Beryllium (Be)	mg/kg	-	-	-	-	-	0.24	0.22	0.24	0.23	0.22	0.22	0.24	0.22
	Bismuth (Bi)	mg/kg	-	-	-	-	-	0.12	0.13	0.14	0.12	0.13	0.11	0.12	0.1
	Boron (B)	mg/kg	-	-	-	-	-	26.3	38.1	27.6	29.3	32.8	29.2	31.1	25
	Cadmium (Cd)	mg/kg	2.6	0.7	4.2	0.7	4.2	0.263	0.362	0.23	0.268	0.322	0.291	0.315	0.216
	Calcium (Ca)	mg/kg	-	-	-	-	-	10400	11500	11000	9790	11400	10200	11000	9650
	Chromium (Cr)	mg/kg	99	52.3	160	52.3	160	34.9	43.9	31.9	22.7	24.5	28.2	14.3	24.6
	Cobalt (Co)	mg/kg	-	-	-	-	-	12.5	13.4	13.2	11.6	12	11.4	12.2	11
	Copper (Cu)	mg/kg	67	18.7	108	18.7	108	**59.8**	**77.4**	**59**	**59.1**	**66.3**	**63.8**	**62.4**	**53.2**
	Iron (Fe)	mg/kg	-	-	-	-	-	34400	42000	35600	33500	35700	33300	35800	30700
	Lead (Pb)	mg/kg	69	30.2	112	30.2	112	19.6	**34.1**	18.2	19.4	23.7	23.6	20.2	15.6
	Lithium (Li)	mg/kg	-	-	-	-	-	18.5	18.1	17.3	18	20.1	18.7	18	18.3
	Magnesium (Mg)	mg/kg	-	-	-	-	-	12400	12600	12000	12200	12400	11900	12800	11400
	Manganese (Mn)	mg/kg	-	-	-	-	-	542	568	512	544	558	544	565	524
	Mercury (Hg)	mg/kg	0.43	0.13	0.7	0.13	0.7	0.0829	0.0968	0.0741	0.0976	0.086	**0.529**	0.0904	0.0767
	Molybdenum (Mo)	mg/kg	-	-	-	-	-	4.76	8.33	3.55	4.68	4.09	4.79	4.65	3.36
	Nickel (Ni)	mg/kg	-	-	-	30	50	19.7	24	22	17.6	19.9	17.7	19.9	15.8
	Phosphorous (P)	mg/kg	-	-	-	-	-	1020	1420	1370	1210	948	989	1210	985
	Potassium (K)	mg/kg	-	-	-	-	-	5370	4950	4800	5570	5320	5290	5610	5480
	Selenium (Se)	mg/kg	-	-	-	-	-	0.22	0.34	0.28	0.35	0.23	0.23	0.34	0.23
	Silver (Ag)	mg/kg	-	-	-	1	2.2	0.122	0.142	0.119	0.133	0.132	0.122	0.131	0.114
	Sodium (Na)	mg/kg	-	-	-	-	-	5770	7280	5720	6160	6700	5910	6760	5910
	Strontium (Sr)	mg/kg	-	-	-	-	-	108	113	98.8	107	137	109	116	107
	Sulfur (S)	mg/kg	-	-	-	-	-	6200	11800	7170	8660	7840	9570	9040	7080
	Thallium (Tl)	mg/kg	-	-	-	-	-	0.197	0.196	0.182	0.209	0.216	0.207	0.228	0.202
	Tin (Sn)	mg/kg	-	-	-	-	-	2.73	5.83	2.63	2.45	3.38	2.63	2.68	1.98
	Titanium (Ti)	mg/kg	-	-	-	-	-	1220	1640	1560	1570	983	1300	1670	1340
	Uranium (U)	mg/kg	-	-	-	-	-	1.5	1.91	1.44	1.77	1.52	1.66	1.44	1.49
	Vanadium (V)	mg/kg	-	-	-	-	-	87.1	91.6	88.6	78.8	79.4	74.8	82.3	74.4
	Zinc (Zn)	mg/kg	170	124	271	124	271	104	**130**	98.8	105	**197**	113	108	99
	Zirconium (Zr)	mg/kg	-	-	-	-	-	2.1	3.8	3.3	3.6	2.1	2.7	4.1	2.9
Speciated Metals	Methyl Mercury	mg/kg	-	-	-	-	-	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	Trivalent Chromium	mg/kg	-	-	-	-	-	26.9	34	31.9	22.7	24.5	14.7	14.3	22.4
	Hexavalent Chromium	mg/kg	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.17	<0.1	<0.1
Polycyclic Aromatics	Acenaphthene	mg/kg	0.055	0.00671	0.0889	0.00671	0.0889	**0.0804**	**0.0652**	**0.071**	**0.097**	**0.085**	**0.165**	**0.0924**	**0.155**
	Acenaphthylene	mg/kg	0.079	0.00587	0.128	0.00587	0.128	**0.0343**	**0.0206**	**0.0355**	**0.0492**	**0.0268**	**0.0341**	**0.0441**	**0.0509**
	Acridine	mg/kg	-	-	-	-	-	0.023	<0.018	0.021	<0.018	0.019	0.032	<0.046	0.03
	Anthracene	mg/kg	0.15	0.0469	0.245	0.0469	0.245	**0.174**	**0.0862**	**0.154**	**0.124**	**0.104**	**0.164**	**0.2**	**0.198**
	Benzene	mg/kg	-	-	-	-	-	0.0159	0.0285	0.016	0.0353	0.0388	0.0558	0.0138	0.0288
	Benzo(a)anthracene	mg/kg	0.43	0.0748	0.693	0.0748	0.693	**0.395**	**0.179**	**0.29**	**0.184**	**0.198**	**0.408**	**0.364**	**0.32**
	Benzo(a)pyrene	mg/kg	0.47	0.0888	0.763	0.0888	0.763	**0.326**	**0.12**	**0.23**	**0.251**	**0.165**	**0.5**	**0.318**	**0.315**
	Benzo(b&j)fluoranthene	mg/kg	-	-	-	2.3	4.5	0.46	0.217	0.382	0.362	0.26	0.383	0.518	0.478
	Benzo(b+j+k)fluoranthene	mg/kg	-	-	-	-	-	0.651	0.29	0.514	0.484	0.341	0.493	0.702	0.646
	Benzo(g,h,i)perylene	mg/kg	-	-	-	0.31	0.78	0.174	0.053	0.102	0.154	0.087	0.238	0.128	0.111
	Benzo(k)fluoranthene	mg/kg	-	-	-	2.3	4.5	0.191	0.073	0.132	0.122	0.081	0.11	0.184	0.168
	Chrysene	mg/kg	0.52	0.108	0.846	0.108	0.846	**0.593**	**0.21**	**0.34**	**<0.211**	**0.179**	**0.58**	**0.382**	**0.343**
	Dibenz(a,h)anthracene	mg/kg	0.084	0.00622	0.135	0.00622	0.135	**0.0529**	**0.0185**	**0.0328**	**0.0408**	**0.0246**	**<0.126**	**<0.048**	**0.0388**
	Fluoranthene	mg/kg	0.93	0.113	1.494	0.113	1.494	**1.00**	**0.558**	**0.782**	**0.48**	**0.548**	**0.694**	**1.24**	**0.672**
	Fluorene	mg/kg	0.089	0.0212	0.144	0.0212	0.144	**0.085**	**0.05**	**0.073**	**0.073**	**0.064**	**0.12**	**0.081**	**0.112**
	Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	0.34	0.88	0.194	0.062	0.104	0.152	0.082	0.145	0.156	0.136
	1-Methylnaphthalene	mg/kg	-	-	-	-	-	0.022	0.025	0.024	0.036	0.029	0.04	0.03	0.04
	2-Methylnaphthalene	mg/kg	0.12	0.02	0.202	0.02	0.202	**0.03**	**0.035**	**0.032**	**0.041**	**0.035**	**0.056**	**0.05**	**0.053**
	Naphthalene	mg/kg	0.24	0.0346	0.391	0.0346	0.391	**0.106**	**0.127**	**0.119**	**0.142**	**0.145**	**0.219**	**0.13**	**0.234**
	Phenanthrene	mg/kg	0.34	0.0867	0.544	0.0867	0.544	**0.524**	**0.161**	**0.254**	**0.215**	**0.223**	**0.446**	**0.271**	**0.359**
	Pyrene	mg/kg	0.87	0.153	1.398	0.153	1.398	**0.863**	**0.533**	**0.664**	**0.55**	**0.454**	**0.689**	**1.08**	**0.635**
	Quinoline	mg/kg	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Toluene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	0.053	<0.05	<0.05	<0.05
VOCs	1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-2-Tetrachloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-Dichloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-Dichloroethylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-Dichloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-Dichloropropane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-(cis+trans)-dichloropropylene	mg/kg	-	-	-	-	-	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075
	1,3-cis-dichloropropylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-trans-dichloropropylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon Tetrachloride	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorobenzene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroform	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dibromochloromethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	-	-	-	-	-	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
	Ethylbenzene	mg/kg	-	-	-	-	-	<0.016	<0.016	<0.015	<0.019	<0.019	<0.017	<0.022	<0.017
	meta-para-Xylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Methyl-tert-butyl-ether	mg/kg	-	-	-	-	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
	ortho-Xylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Styrene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Total BTEX	mg/kg	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Total Xylenes	mg/kg	-	-	-	-	-	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075
	Trichloroethylene	mg/kg	-	-	-	-	-	<0.016	<0.016	<0.013	<0.019	<0.019	<0.017	<0.022	<0.017
	Trichlorofluoromethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Vinyl Chloride	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Petroleum Hydrocarbon Fractions	VH (C6-C10)	mg/kg	-	-	-	-	-	<10	<10	<10	<11	<11	<10	<13	<10
	EPH (C10-C19)	mg/kg	-	-	-	-	-	<200	<200	<200	<200	<200	<200	<200	<200
	EPH (C19-C32)	mg/kg	-	-	-	-	-	<200	310	210	<200	360	360	280	410
	F1 (C6-C10)	mg/kg	-	-	-	-	-	<9.3	<9.4	<7.4	<10.8	<10.9	<9.9	<13	<9.6
	F2 (C10-C16)	mg/kg	-	-	-	-	-	<41	<48	<43	<47	<48	<49	<53	<48
	F3 (C16-C34)	mg/kg	-	-	-	-	-	180	322	220	187	314	395	264	358
	F4 (C34-C50)	mg/kg	-	-	-	-	-	168	254	158	134	219	241	203	236
Dioxins and Furans	2,3,7,8-TCDD	ng/kg	-	-	-	-	-	0.667	0.6	0.368	1.17	1.4	1.37	1.04	<0.61
	1,2,3,7,8-PeCDD	ng/kg	-	-	-	-	-	3.02	<2.1	1.33	4.17	4.83	3.99	3.55	2.32
	1,2,3,4,7,8-HxCDD	ng/kg	-	-	-	-	-	1.5	<1.2	<0.54	2.23	1.98	2.25	<1.6	<1.0
	1,2,3,6,7,8-HxCDD	ng/kg	-	-	-	-	-	17.2	<13	11.5	26.9	41	37.9	31.7	27.2
	1,2,3,7,8,9-HxCDD	ng/kg	-	-	-	-	-	6.98	6.05	4.43	11.8	18.9	17.6	13.7	11.2
	1,2,3,4,6,7,8-HpCDD	ng/kg	-	-	-	-	-	71.9	61.6	78	81.2	83.8	80.5	116	450
	OCDD	ng/kg	-	-	-	-	-	430	351	499	380	368	400	581	1860
	2,3,7,8-TCDF	ng/kg	-	-	-	-	-	22.4	17.3	13.7	26.3	39.6	32.4	50	27.1
	1,2,3,7,8-PeCDF	ng/kg	-	-	-	-	-	<6.4	<4.1	<4.6	<7.7	<9.8	<6.1	<6.2	<4.4
	2,3,4,7,8-PeCDF	ng/kg	-	-	-	-	-	3.89	4.06	1.96	7.37	8.38	6.69	5.48	3.81
	1,2,3,4,7,8-HxCDF	ng/kg	-	-	-	-	-	<1.5	1.47	0.6	2.91	2.14	3.01	2.94	1.37
	1,2,3,6,7,8-HxCDF	ng/kg	-	-	-	-	-	1.16	<1.3	0.532	2.48	2.56	2.53	<2.4	<1.0
	1,2,3,7,8,9-HxCDF	ng/kg	-	-	-	-	-	0.61	0.674	0.245	<0.89	<0.67	<0.85	1.56	<0.40
	2,3,4,6,7,8-HxCDF	ng/kg	-	-	-	-	-	<1.5	<1.4	<0.45	<2.9	<3.8	<1.8	<2.5	<1.7
	1,2,3,4,6,7,8-HpCDF	ng/kg	-	-	-	-	-	24	18.9	10.8	26.9	27.9	37.2	43.3	24.8
	1,2,3,4,7,8,9-HpCDF	ng/kg	-	-	-	-	-	<0.68	<0.69	<0.35	1.22	<0.64	1.27	1.64	<0.86
	OCDF	ng/kg	-	-	-	-	-	26.0	17.2	17.5	26.1	26	22.4	29.8	51.3
	Total TCDD	ng/kg	-	-	-	-	-	39.1	42.2	9.21	81.3	72.5	72.8	51.2	21.4
	Total PeCDD	ng/kg	-	-	-	-	-	40.4	51.9	19.1	68.1	87.4	95.9	68.1	36.4
	Total HxCDD	ng/kg	-	-	-	-	-	155	124	114	248	367	329	248	307
	Total HpCDD	ng/kg	-	-	-	-	-	232	159	246	215	220	209	338	1220
	Total TCDF	ng/kg	-	-	-	-	-	74.1	81.4	26.7	133	192	118	156	94.6
	Total PeCDF	ng/kg	-	-	-	-	-	44.3	40.9	19	74.8	109	65.9	49.4	32.9
	Total HxCDF	ng/kg	-	-	-	-	-	27.5	25.5	9.11	46.9	52	34.3	41.6	27.7
	Total HpCDF	ng/kg	-	-	-	-	-	43.3	32.4	23.1	49.4	50.2	60.4	74.3	55.0
	PCDD/F Lower Bound TEQ	ng/kg	-	0.85	21.5	-	-	10.9	5.28	6.43	16.0	20.6	18.3	18	15.5
	PCDD/F Upper Bound TEQ	ng/kg	-	0.85	21.5	-	-	11.4	9.2	6.67	16.6	21.3	18.7	18.9	16.6
Polychlorinated Biphenyls (PCBs)	Aroclor 1016	mg/kg	-	-	-	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	<0.031	<0.025
	Aroclor 1221	mg/kg	-	-	-	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	<0.031	<0.025
	Aroclor 1232	mg/kg	-	-	-	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	<0.031	<0.025
	Aroclor 1242	mg/kg	-	-	-	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	<0.031	<0.025
	Aroclor 1248	mg/kg	-	-	-	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	<0.031	<0.025
	Aroclor 1254	mg/kg	-	0.0633	0.709	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	0.0542	<0.025
	Aroclor 1260	mg/kg	-	-	-	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	<0.031	<0.025
	Aroclor 1262	mg/kg	-	-	-	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	<0.031	<0.025
	Aroclor 1268	mg/kg	-	-	-	-	-	<0.024	<0.0278	<0.0241	<0.0246	<0.026	<0.0259	<0.031	<0.025
	Total PCB	mg/kg	-	0.0215	0.189	0.0000037	-	**<0.072**	**<0.083**	**<0.072**	**<0.074**	**<0.078**	**<0.078**	**<0.093**	**<0.075**

Notes:

CSR= British Columbia Contaminated Sites Regulation (CSR) Schedule 3.4 generic numerical sediment standard – marine and estuarine sediment standard for sensitive use.

CCME = Canadian Council of Ministers of the Environment. ISQG = Interim Sediment Quality Guidelines. PEL = Probable Effects Level.

BC WSQG = British Columbia working sediment quality guideline for the protection of benthic aquatic life in marine environments. The lower BC WSQG is equivalent to the CCME ISQG and the upper BC WSQG is equivalent to the CCME PEL.

Dioxin and furan abbreviations: PCDD = polychorodibenzo-p-dioxins, PCDF = polychlorodibenzofurans, TCDD = tertrachlorodibenzo-p-dioxin, TCDF = tetrachlorodibenzofuran , OCDD = octachlorodibenzo-p-dioxin , OCDF = octachlorodibenzofuran, CDD = chlorodibenzo-p-dioxin, CDF = chlorodibenzofuran, Pe = penta, Hx = hexa, Hp = hepta, TEQ = Toxic Equivalency

Results in red font are above the CSR numerical standard.
Results in light grey shading are above the CCME ISQG.
Results in dark grey shading are above the CCME PEL.
Results in **bold text** are above the lower BC WSQG.
Results in **bold and underlined** are above the upper BC WSQG.

Table F-2: Marine Sediment Quality Results

Intial Dilution Zone (IDZ)								West Sedimentation Pond IDZ							
Sample		UNITS	CSR[1]	CCME[2]		BC ENV[3]		IDZ-W-SED-A	IDZ-W-SED-B	IDZ-W-SED-C	SED-F	SED-G	SED-H	SED-I	SED-J
Laboratory ID								VA25B7092-001	VA25B7092-002	VA25B7092-003	VA25B7092-004	VA25B7092-005	VA25B7092-006	VA25B7092-007	VA25B7092-008
Sampling Date			Sensitive Use	ISQG	PEL	Lower WSQG	Upper WSQG	2025-07-12	2025-07-12	2025-07-12	2025-07-12	2025-07-12	2025-07-12	2025-07-12	2025-07-12
General Parameters	Soluble (2:1) pH	pH	-	-	-	-	-	7.99	8.22	8.05	8.23	8.02	7.85	7.97	7.97
	Moisture	%	-	-	-	-	-	59.6	39	47.5	32.9	46.2	60.8	46.1	48.8
	Total Carbon	%	-	-	-	-	-	3.17	2.98	3.09	3.51	2.84	3.78	2.64	2.63
	Total Inorganic Carbon (TIC)	%	-	-	-	-	-	0.414	0.439	0.431	0.599	0.386	0.346	0.376	0.337
	Total Organic Carbon (TOC)	%	-	-	-	-	-	2.76	2.54	2.66	2.91	2.45	3.43	2.26	2.29
Particle Size	Passing(0.063mm)	%	-	-	-	-	-	74.7	30.6	42.7	30.3	63.6	52.0	59.7	52.6
	Passing(0.125mm)	%	-	-	-	-	-	87.8	39.4	53.1	43.5	75.0	63.4	70.8	65.3
	Passing(0.250mm)	%	-	-	-	-	-	95.9	52.5	69.0	66.0	93.6	75.4	85.6	83.6
	Passing(0.50mm)	%	-	-	-	-	-	99.0	64.7	79.2	79.4	97.8	85.3	94.3	92.7
	Passing(1.0mm)	%	-	-	-	-	-	99.6	75.8	85.4	83.6	99.0	93.5	97.4	94.4
	Passing(2.0mm)	%	-	-	-	-	-	99.7	88.8	90.3	86.3	99.5	95.2	98.3	96.3
Metals	Aluminum (Al)	mg/kg	-	-	-	-	-	27100	23900	22100	19600	23900	25400	25200	26000
	Antimony (Sb)	mg/kg	-	-	-	-	-	8.45	4.54	3.46	6.58	5.81	12.5	1.67	7.72
	Arsenic (As)	mg/kg	26	7.24	41.6	7.24	41.6	**15.6**	**10.4**	**8.37**	**9.67**	**10.9**	**19.1**	6.23	**12.6**
	Barium (Ba)	mg/kg	-	-	-	-	-	231	205	190	181	203	239	192	225
	Beryllium (Be)	mg/kg	-	-	-	-	-	0.44	0.32	0.25	0.24	0.3	0.42	0.24	0.35
	Bismuth (Bi)	mg/kg	-	-	-	-	-	0.44	0.28	0.19	0.21	0.3	0.42	0.17	0.3
	Boron (B)	mg/kg	-	-	-	-	-	56.3	38.1	30.4	26.8	42	56	29.7	45.1
	Cadmium (Cd)	mg/kg	2.6	0.7	4.2	0.7	4.2	0.467	0.335	0.287	0.287	0.279	0.535	0.311	0.356
	Calcium (Ca)	mg/kg	-	-	-	-	-	16700	14200	16400	17100	13000	15100	10800	13700
	Chromium (Cr)	mg/kg	99	52.3	160	52.3	160	35.4	30.4	24	28.4	28.8	37.6	21.3	23.9
	Cobalt (Co)	mg/kg	-	-	-	-	-	14.7	12.9	11.5	11.1	12.4	15.4	11.9	14.1
	Copper (Cu)	mg/kg	67	18.7	108	18.7	108	**272**	**167**	**142**	**158**	**182**	**414**	**91.2**	**246**
	Iron (Fe)	mg/kg	-	-	-	-	-	46400	40800	34700	38300	39200	52800	32800	44400
	Lead (Pb)	mg/kg	69	30.2	112	30.2	112	**186**	**117**	**72.8**	**88.1**	**108**	**234**	**42.2**	**146**
	Lithium (Li)	mg/kg	-	-	-	-	-	29.7	23.8	20.3	18.6	22.5	26	20.3	24.7
	Magnesium (Mg)	mg/kg	-	-	-	-	-	13300	12600	11300	9760	12000	12900	12000	12900
	Manganese (Mn)	mg/kg	-	-	-	-	-	962	711	578	567	650	823	603	775
	Mercury (Hg)	mg/kg	0.43	0.13	0.7	0.13	0.7	**0.192**	**0.136**	**0.132**	**0.176**	**0.163**	**0.208**	0.0792	**0.136**
	Molybdenum (Mo)	mg/kg	-	-	-	-	-	9.1	6.54	4.85	6.65	6.18	11.9	4.75	7.76
	Nickel (Ni)	mg/kg	-	-	-	30	50	**41.7**	29.2	23.6	**34.3**	**33.2**	**55.5**	19	**42.8**
	Phosphorous (P)	mg/kg	-	-	-	-	-	1890	1400	1260	1410	1440	2230	1150	1620
	Potassium (K)	mg/kg	-	-	-	-	-	5460	5730	5420	4570	5440	5610	5930	5710
	Selenium (Se)	mg/kg	-	-	-	-	-	0.62	0.4	0.34	0.27	0.4	0.6	0.34	0.48
	Silver (Ag)	mg/kg	-	-	-	1	2.2	0.197	0.147	0.135	0.317	0.162	0.209	0.111	0.183
	Sodium (Na)	mg/kg	-	-	-	-	-	8150	7360	6560	5460	8000	9130	6680	7990
	Strontium (Sr)	mg/kg	-	-	-	-	-	187	154	132	144	156	206	119	174
	Sulfur (S)	mg/kg	-	-	-	-	-	8130	9370	8600	8170	12700	13000	9180	9820
	Thallium (Tl)	mg/kg	-	-	-	-	-	0.222	0.203	0.209	0.185	0.191	0.217	0.224	0.212
	Tin (Sn)	mg/kg	-	-	-	-	-	26.1	16.2	11.6	22.9	19.3	39.7	5.92	24.3
	Titanium (Ti)	mg/kg	-	-	-	-	-	1600	1430	1520	1300	1370	1570	1750	1390
	Uranium (U)	mg/kg	-	-	-	-	-	3.48	2.63	1.83	1.98	2.28	3.05	1.73	2.73
	Vanadium (V)	mg/kg	-	-	-	-	-	99.7	87.7	79.6	83.9	89.7	106	86.6	101
	Zinc (Zn)	mg/kg	170	124	271	124	271	**185**	**142**	119	120	**133**	**231**	104	**160**
	Zirconium (Zr)	mg/kg	-	-	-	-	-	4.8	3.6	4	3.5	3.2	4.9	3.6	3.6
Speciated Metals	Methyl Mercury	mg/kg	-	-	-	-	-	0.000059	<0.00005	<0.00005	<0.00005	0.000756	<0.00005	<0.00005	0.000236
	Trivalent Chromium	mg/kg	-	-	-	-	-	30.8	23.5	24	20.6	17.6	37.6	21.3	23.9
	Hexavalent Chromium	mg/kg	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Polycyclic Aromatics	Acenaphthene	mg/kg	0.055	0.00671	0.0889	0.00671	0.0889	**3.43**	**0.67**	**0.634**	**0.126**	**0.74**	**2.02**	**0.454**	**1.48**
	Acenaphthylene	mg/kg	0.079	0.00587	0.128	0.00587	0.128	**0.302**	**0.0913**	**0.14**	**0.0186**	**0.0974**	**0.273**	**0.123**	**0.179**
	Acridine	mg/kg	-	-	-	-	-	0.709	0.151	0.116	0.026	0.17	0.386	0.126	0.422
	Anthracene	mg/kg	0.15	0.0469	0.245	0.0469	0.245	**5.87**	**0.952**	**0.845**	**0.152**	**1.01**	**3.49**	**1.58**	**3.87**
	Benzene	mg/kg	-	-	-	-	-	0.0922	0.0432	0.0751	0.179	0.0116	0.0866	0.0249	0.0157
	Benzo(a)anthracene	mg/kg	0.43	0.0748	0.693	0.0748	0.693	**7.02**	**1.38**	**1.62**	**0.258**	**1.62**	**3.77**	**2.3**	**3.8**
	Benzo(a)pyrene	mg/kg	0.47	0.0888	0.763	0.0888	0.763	**2.77**	**0.683**	**0.938**	**0.132**	**0.696**	**1.55**	**1.15**	**1.52**
	Benzo(b&j)fluoranthene	mg/kg	-	-	-	2.3	4.5	**3.94**	1.02	1.58	0.204	1.13	**2.69**	1.73	**2.62**
	Benzo(b+j+k)fluoranthene	mg/kg	-	-	-	-	-	5.41	1.38	2.07	0.277	1.53	3.63	2.39	3.55
	Benzo(g,h,i)perylene	mg/kg	-	-	-	0.31	0.78	**0.785**	0.216	**0.361**	0.056	0.236	**0.592**	**0.326**	**0.43**
	Benzo(k)fluoranthene	mg/kg	-	-	-	2.3	4.5	1.47	0.358	0.493	0.073	0.401	0.944	0.663	0.933
	Chrysene	mg/kg	0.52	0.108	0.846	0.108	0.846	**9.08**	**1.97**	**2.01**	**0.39**	**2.15**	**5.33**	**3.21**	**5.24**
	Dibenz(a,h)anthracene	mg/kg	0.084	0.00622	0.135	0.00622	0.135	**0.314**	**0.0866**	**0.118**	**0.0184**	**0.0832**	**0.206**	**0.129**	**0.172**
	Fluoranthene	mg/kg	0.93	0.113	1.494	0.113	1.494	**27.6**	**5.55**	**5.54**	**0.83**	**6.12**	**14.7**	**4.54**	**13.6**
	Fluorene	mg/kg	0.089	0.0212	0.144	0.0212	0.144	**3.02**	**0.747**	**0.492**	**0.102**	**0.668**	**1.8**	**0.478**	**2.24**
	Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	0.34	0.88	**0.89**	0.236	**0.383**	0.058	0.247	**0.618**	**0.375**	**0.491**
	1-Methylnaphthalene	mg/kg	-	-	-	-	-	0.421	0.172	0.172	0.035	0.197	0.487	0.138	0.319
	2-Methylnaphthalene	mg/kg	0.12	0.02	0.202	0.02	0.202	**0.636**	**0.248**	**0.239**	**0.043**	**0.248**	**0.628**	**0.171**	**0.44**
	Naphthalene	mg/kg	0.24	0.0346	0.391	0.0346	0.391	**1.45**	**0.482**	**0.678**	**0.098**	**0.502**	**1.5**	**0.388**	**1.04**
	Phenanthrene	mg/kg	0.34	0.0867	0.544	0.0867	0.544	**8.95**	**1.96**	**1.4**	**0.303**	**1.6**	**4.87**	**2.04**	**6.64**
	Pyrene	mg/kg	0.87	0.153	1.398	0.153	1.398	**15.8**	**3.44**	**3.43**	**0.488**	**3.68**	**8.42**	**3.1**	**7.99**
	Quinoline	mg/kg	-	-	-	-	-	0.049	0.021	0.019	<0.01	0.02	0.059	0.016	0.034
	Toluene	mg/kg	-	-	-	-	-	0.06	<0.05	<0.05	0.068	<0.05	0.053	<0.05	<0.05
VOCs	1,1,1,2-Tetrachloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,1-Trichloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-2-Tetrachloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-Trichloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-Dichloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-Dichloroethylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-Dichlorobenzene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-Dichloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-Dichloropropane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-Dichlorobenzene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-(cis+trans)-dichloropropylene	mg/kg	-	-	-	-	-	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075
	1,3-cis-dichloropropylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-trans-dichloropropylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon Tetrachloride	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorobenzene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroform	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dibromochloromethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	-	-	-	-	-	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
	Ethylbenzene	mg/kg	-	-	-	-	-	<0.015	<0.015	<0.015	<0.015	<0.015	<0.016	<0.015	<0.015
	meta-para-Xylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Methyl-tert-butyl-ether	mg/kg	-	-	-	-	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
	ortho-Xylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Styrene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethylene	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Total BTEX	mg/kg	-	-	-	-	-	0.15	<0.1	<0.1	0.25	<0.1	0.14	<0.1	<0.1
	Total Xylenes	mg/kg	-	-	-	-	-	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075
	Trichloroethylene	mg/kg	-	-	-	-	-	<0.015	<0.01	<0.013	<0.011	<0.01	<0.016	<0.01	<0.012
	Trichlorofluoromethane	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Vinyl Chloride	mg/kg	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Petroleum Hydrocarbon Fractions	VH (C6-C10)	mg/kg	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10
	EPH (C10-C19)	mg/kg	-	-	-	-	-	<200	<200	<200	<200	<200	<200	<200	<200
	EPH (C19-C32)	mg/kg	-	-	-	-	-	620	<200	<200	<200	<200	300	<200	320
	F1 (C6-C10)	mg/kg	-	-	-	-	-	<8.6	<5	<7.4	<6.5	<6	<9.4	<5.8	<7.1
	F2 (C10-C16)	mg/kg	-	-	-	-	-	69	<31	<34	<29	<36	50	<32	36
	F3 (C16-C34)	mg/kg	-	-	-	-	-	879	246	235	50	244	456	236	336
	F4 (C34-C50)	mg/kg	-	-	-	-	-	571	167	111	<50	142	206	115	174
Dioxins and Furans	2,3,7,8-TCDD	ng/kg	-	-	-	-	-	0.616	0.654	0.73	0.929	0.532	1.65	1.03	0.972
	1,2,3,7,8-PeCDD	ng/kg	-	-	-	-	-	3.97	5.86	<5.2	6.21	<2.7	<6.9	<3.9	6.78
	1,2,3,4,7,8-HxCDD	ng/kg	-	-	-	-	-	<1.9	<0.49	<2.4	<0.70	1.76	4.2	<1.7	4.09
	1,2,3,6,7,8-HxCDD	ng/kg	-	-	-	-	-	36.5	84.3	70.3	98.1	26.7	44.3	73	47.8
	1,2,3,7,8,9-HxCDD	ng/kg	-	-	-	-	-	14.7	35.5	31	41.4	10.8	18.8	31	19.7
	1,2,3,4,6,7,8-HpCDD	ng/kg	-	-	-	-	-	385	295	2720	161	281	587	446	689
	OCDD	ng/kg	-	-	-	-	-	2120	1610	12500	804	1400	3110	2500	3480
	2,3,7,8-TCDF	ng/kg	-	-	-	-	-	14	23.1	30	37.6	18.6	24.2	40.4	21.1
	1,2,3,7,8-PeCDF	ng/kg	-	-	-	-	-	<15	<5.8	<6.0	<3.2	<5.7	<16	<20	<16
	2,3,4,7,8-PeCDF	ng/kg	-	-	-	-	-	<11	7.06	12.2	6.03	11.1	25.8	13.1	24.3
	1,2,3,4,7,8-HxCDF	ng/kg	-	-	-	-	-	2.82	2.16	2.89	1.3	2.54	5.48	3.74	5.23
	1,2,3,6,7,8-HxCDF	ng/kg	-	-	-	-	-	<3.3	<2.2	<2.8	<1.8	<2.6	<6.6	<2.9	<7.0
	1,2,3,7,8,9-HxCDF	ng/kg	-	-	-	-	-	1.58	<0.79	1.58	<0.67	<1.1	<2.2	2.39	3.13
	2,3,4,6,7,8-HxCDF	ng/kg	-	-	-	-	-	6.31	3.54	4.82	2.78	4.65	11.8	5.62	12.4
	1,2,3,4,6,7,8-HpCDF	ng/kg	-	-	-	-	-	92.1	80.8	137	43.9	69.1	180	134	148
	1,2,3,4,7,8,9-HpCDF	ng/kg	-	-	-	-	-	<1.3	<0.43	7.39	<0.69	<1.3	2.6	<1.9	<2.5
	OCDF	ng/kg	-	-	-	-	-	82.9	57.5	361	36.2	61.7	144	110	151
	Total TCDD	ng/kg	-	-	-	-	-	51.5	38.2	35.1	55.7	36.7	98.6	51.8	74.2
	Total PeCDD	ng/kg	-	-	-	-	-	52.5	43.6	55.8	81.1	48.5	105	73.9	95.1
	Total HxCDD	ng/kg	-	-	-	-	-	394	684	1210	730	292	544	604	589
	Total HpCDD	ng/kg	-	-	-	-	-	1560	1260	9650	605	1010	2160	1480	2600
	Total TCDF	ng/kg	-	-	-	-	-	189	124	181	127	126	371	225	303
	Total PeCDF	ng/kg	-	-	-	-	-	163	93.5	140	75.2	118	351	153	343
	Total HxCDF	ng/kg	-	-	-	-	-	137	91.4	103	58.3	89.7	246	148	237
	Total HpCDF	ng/kg	-	-	-	-	-	168	142	363	79.2	125	324	243	281
	PCDD/F Lower Bound TEQ	ng/kg	-	0.85	21.5	-	-	17.6	27.8	51	29.4	14.3	28.9	27.2	35.8
	PCDD/F Upper Bound TEQ	ng/kg	-	0.85	21.5	-	-	21.9	28.3	56.9	29.8	17.6	37.2	32.1	37.1
Polychlorinated Biphenyls (PCBs)	Aroclor 1016	mg/kg	-	-	-	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	<0.0192
	Aroclor 1221	mg/kg	-	-	-	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	<0.0192
	Aroclor 1232	mg/kg	-	-	-	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	<0.0192
	Aroclor 1242	mg/kg	-	-	-	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	<0.0192
	Aroclor 1248	mg/kg	-	-	-	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	<0.0192
	Aroclor 1254	mg/kg	-	0.0633	0.709	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	0.0996
	Aroclor 1260	mg/kg	-	-	-	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	0.025
	Aroclor 1262	mg/kg	-	-	-	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	<0.0192
	Aroclor 1268	mg/kg	-	-	-	-	-	<0.024	<0.0159	<0.0191	<0.0145	<0.0184	<0.0252	<0.0179	<0.0192
	Total PCB	mg/kg	-	0.0215	0.189	0.0000037	-	**<0.072**	**<0.048**	**<0.057**	**<0.044**	**<0.055**	**<0.076**	**<0.054**	**0.125**

Notes:

CSR= British Columbia Contaminated Sites Regulation (CSR) Schedule 3.4 generic numerical sediment standard – marine and estuarine sediment standard for sensitive use.

CCME = Canadian Council of Ministers of the Environment. ISQG = Interim Sediment Quality Guidelines. PEL = Probable Effects Level.

BC WSQG = British Columbia working sediment quality guideline for the protection of benthic aquatic life in marine environments. The lower BC WSQG is equivalent to the CCME ISQG and the upper BC WSQG is equivalent to the CCME PEL.

Dioxin and furan abbreviations: PCDD = polychorodibenzo-p-dioxins, PCDF = polychlorodibenzofurans, TCDD = tertrachlorodibenzo-p-dioxin, TCDF = tetrachlorodibenzofuran , OCDD = octachlorodibenzo-p-dioxin , OCDF = octachlorodibenzofuran, CDD = chlorodibenzo-p-dioxin, CDF = chlorodibenzofuran, Pe = penta, Hx = hexa, Hp = hepta, TEQ = Toxic Equivalency

Results in red font are above the CSR numerical standard.
Results in light grey shading are above the CCME ISQG.
Results in dark grey shading are above the CCME PEL.
Results in **bold text** are above the lower BC WSQG.
Results in **bold and underlined** are above the upper BC WSQG.