

## TECHNICAL MEMORANDUM

---

**To:** Ian McAllister, Ashleigh Crompton, Mike Champion,  
Jackie Boruch and Ryan Schucroft (Woodfibre LNG) **Date:** 07 Feb 2025

**From:** Holly Pelletier and Patrick Mueller (Lorax) **Project #:** A633-9

**Subject:** PE-111578 Weekly Discharge and Compliance Report #49 for January 26 –  
February 1

---

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

This technical memorandum (Report #49) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of January 26 – February 1. 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 #49 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 D 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. Early-stage civil works are ongoing, and these include site grading, levelling, overburden and bedrock excavation, pouring of concrete foundations and construction of contact water management facilities. Shoring works along the foreshore areas were initiated in December 2023, and in early 2024 construction of water management infrastructure commenced and has continued through the January 26 – February 1, 2025 monitoring period. The East Wastewater Treatment Plant (WWTP), East Sedimentation Pond and West Sedimentation Pond are commissioned for operation.

Operation of the West WWTP was suspended September 25, 2024. The suspension was implemented for the temporary reconfiguration of the plant to conduct pilot-scale evaluation of alternative treatment processes for improving treatment outcomes. Any process modifications that may result from the pilot-scale evaluation will be submitted to BCER for approval prior to full-scale implementation. Site waters that require treatment will continue to be directed to the East WWTP while the operation of the West WWTP is suspended.

Non-contact water diversion ditches west of Mill Creek have been fully or partially upgraded and discharge 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 from the diversion ditches is also conveyed to Howe Sound via station OUT-01. East of Mill Creek, non-contact water is 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, the lower reach of East Creek was temporarily diverted to an adjacent culvert, OUT-11, on September 17, 2024.

The East and West catchments 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 and West Sedimentation Ponds for TSS settling prior to discharge.

Flocculant-based TSS settling systems are used at the East and West Sedimentation Ponds to remove TSS from non-contaminated contact water at the time of discharge. Some of the clarified water may be recirculated back to the ponds. The first West Sedimentation Pond TSS settling system (ESC) was commissioned for use on September 25, 2024, with an 820 m<sup>3</sup>/day installed capacity. A second TSS settling system (W500GPM) was added and commissioned for use on

November 28 and provides an additional 2,725 m<sup>3</sup>/day installed capacity for clarifying water. A TSS settling system (E500GPM) for the East Sedimentation Pond was commissioned on December 4, 2024, also with 2,725 m<sup>3</sup>/day installed capacity.

Contaminated contact water from within the East and West Catchments, and non-contaminated contact water stored in the East Sedimentation Pond are directed to the East WWTP for treatment prior to discharge to Howe Sound. Direct discharge of East WWTP treated contact water to Howe Sound has been implemented since October 28, 2024.

The East and West Catchment permanent outfall structures have not been completed. Temporary discharge systems (*i.e.*, pumps, hosing and diffusers) are used to convey clarified or treated effluent to the discharge locations authorized for the East and West Catchments. In the East Catchment, treated WWTP effluent and clarified E500GPM effluent are combined in a tank prior to discharge at location SP-E-OUT since December 2, 2024. The West Catchment discharge location, SP-W-OUT receives the combined clarified effluents from the ESC and W500GPM TSS settling systems since November 28, 2024. Each of the authorized discharge locations has an initial dilution zone (IDZ) where discharged water mixes with Howe Sound surface waters. The IDZ is defined in PE-111578 and extends 150 m from each point of discharge into Howe Sound.

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

Variable weather was observed during the monitoring period (January 26 – February 1), with precipitation recorded January 30, 31, and February 1. The total precipitation amount during the monitoring period was 59 mm, with the majority occurring on January 31 (38 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
01-26-2025	0	6.5	-1.2	Mix of sun and cloud
01-27-2025	0	8	-1.2	Mix of sun and cloud
01-28-2025	0	7.7	-0.9	Mix of sun and cloud
01-29-2025	0	7.3	-1.4	Cloudy
01-30-2025	8.8	4.8	1.3	Overcast, Showers
01-31-2025	37.6	6.9	1.5	Rain
02-01-2025	12.6	3.6	0.4	Overcast, rain showers mixed with flurries

**Note:** Data retrieved from the Stantec Woodfibre site weather station.

From January 26 – February 1, the East Sedimentation Pond received contact water from Area 1100 sump, Area 1300 sump, and Flare Stack sump (Appendix A, Figure 2). Contact waters from Area 4100 sump and Area 1200 sump were directed to the West Sedimentation Pond (Appendix A, Figure 3).

Routine operation of the East WWTP continued during the monitoring period. Contact waters from the West Catchment wash bay, the concrete batch plant, and the fuel farm containment were periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was recirculated to the East Sedimentation Pond each day during the monitoring period. The E500GPM TSS settling system was not operational on January 26. A total of 695 m<sup>3</sup> of East Sedimentation Pond effluent clarified through the TSS settling system (E500GPM) was directed to the authorized discharge location SP-E-OUT on January 31. Daily discharge volumes from East WWTP, East TSS settling system (E500GPM) and the authorized discharge location SP-E-OUT are provided in Appendix B (Table B-9).

West Sedimentation Pond water was clarified through the W500GPM settling system prior to discharge. A total of 373 m<sup>3</sup> of effluent was clarified through the W500GPM system and directed to the SP-W-OUT discharge location on February 1. The ESC and W500GPM TSS settling systems were not operational January 26 – January 30 and January 26 – January 31, respectively. Daily clarified effluent volumes from the TSS settling systems, and volumes discharged to Howe Sound from the West Catchment authorized discharge location (SP-W-OUT) are provided in Appendix C (Table C-4).

## 2. Monitoring Summary

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

Compliance and supplementary monitoring stations have been established:

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02, OUT-06, and OUT-11). East Creek water was temporarily diverted to OUT-11 on September 17 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, SP-E-NE, SP-E-NW, E500GPM-IN, E500GPM-OUT, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, SP-W-W, SP-W-E, ESC-W-IN, ESC-W-OUT, W500GPM-IN and W500GPM-OUT.).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT)
- Howe Sound reference and IDZ monitoring stations (WQR1, WQR2, IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2).

The influent culverts for East and West Sedimentation Ponds are not yet 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).

Two flocculant-based TSS settling systems are used at the West Sedimentation Pond (ESC and W500GPM). Influent and effluent are monitored for each system at stations ESC-W-IN, ESC-W-OUT, W500GPM-IN and W500GPM-OUT. One TSS settling system (E500GPM) is used at the East Sedimentation Pond. The influent and effluent stations for this system are E500GPM-IN and E500GPM-OUT, respectively. The TSS settling system stations are supplemental to the PE-111578 monitoring requirements and are monitored at the discretion of field staff.

Water quality was monitored at stations OUT-01, OUT-02, OUT-06, IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WWTP-E-IN, WWTP-E-OUT, SP-E-IN, SP-E-OUT, E500GPM-IN, E500GPM-OUT, SP-W-IN, SP-W-OUT, W500GPM-IN, and W500GPM-OUT during the monitoring period (January 26 – February 1). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (January 26 – February 1) were met.

Daily field parameters were not collected at effluent stations SP-E-OUT (January 26 – January 30, February 1) and SP-W-OUT (January 26 – January 31) since there was no effluent discharged from the authorized discharge locations 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 the West WWTP was not operational during the monitoring period.

**Table 2: Summary of PE-111578 Monitoring Samples Collected January 26 – February 1.**

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency	
January 26, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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 entering the pond and collected at cell 1	Field Parameters.	D	
January 27, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D	
	SP-E-OUT	East Sedimentation Pond clarified effluent recirculated to the pond, residual water in the discharge pipe collected at sampling port <sup>1</sup>			
	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 entering the pond and collected at cell 1	Field Parameters.	D	
January 28, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D	
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>	
	WWTP-E-OUT	East WWTP at the effluent meter box			
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1			Field Parameters.
	IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	Field and Physical Parameters.	W <sub>3</sub>	
	IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface			
	IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor			
	IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface			
	IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface			
	IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor			
	IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface			
	IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface			
	IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor			
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface				
IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface				
IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor				
January 29, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>	
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, and VOCs.	D, W <sub>1</sub>	
	WWTP-E-OUT	East WWTP at the effluent meter box			
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, and VOCs.	P	
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box			
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D	
January 30, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D	
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, and VOCs.	D, W <sub>1</sub>	
	WWTP-E-OUT	East WWTP at the effluent meter box			
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P	
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box			
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>	
January 31, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D	
	SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>	
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D	
	WWTP-E-OUT	East WWTP at the effluent meter box			
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P	
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box			
		SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
		OUT-01	Non-contact water diversion ditch outlet	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	M
	OUT-02	Non-contact water diversion ditch outlet			
February 1, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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			
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P	
E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box				

**Table 2 (continued): Summary of PE-111578 Monitoring Samples Collected January 26 – February 1.**

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
February 1, 2025 (continued)	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W <sub>1</sub> , W <sub>2</sub>
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	OUT-06	Non-contact water diversion ditch outlet	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	M

**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.

W<sub>1</sub> – initial high frequency monitoring for physical parameters at WWTP and sedimentation pond influent and effluent stations.

W<sub>2</sub> – initial high frequency monitoring for all parameters at WWTP and sedimentation pond influent and effluent stations.

W<sub>3</sub> – initial high frequency monitoring for physical parameters at IDZ stations.

P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

<sup>1</sup> The East Catchment did not discharge to Howe Sound on January 27. Field measurements of residual water in the discharge pipe were collected at the SP-E-OUT sampling port.

### 3. Water Quality Results

#### 3.1 Screening and Reporting Overview

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

Canadian, Federal and BC WQGs are not specified for dioxins and furans. The general term “dioxins and furans” refers to chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans. A sub-set of 17 polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) are typically evaluated for toxicity and the individual parameter concentrations are converted to toxic equivalent (TEQ) values that are summed and reported 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 sub-set of 17 individual 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 that may harm wildlife that consumes fish. Therefore, if methylmercury results are reported, the 0.0001 µg/L value is presented as a methylmercury WQG to support the interpretation of total mercury and methylmercury results.



### **3.2 Summary of Reported Results**

Field measurements and analytical results available at the time of reporting for samples collected during the monitoring period (January 26 – February 1) and for other samples that have not been previously reported are listed below in Table 3. Testing for methylmercury, dioxins and furans typically requires up to four weeks to complete. Analytical results not available at the time of reporting will be included in future weekly reports when testing is completed. Reporting of results is pending for the following samples and parameters:

- WWTP-E-IN and WWTP-E-OUT collected January 24 (dioxins and furans)
- WWTP-E-IN and WWTP-E-OUT collected January 28 (methylmercury, dioxins and furans)
- IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2 collected January 28 (field and all analytical parameters)
- SP-E-IN collected January 29 (methylmercury, dioxins and furans)
- SP-W-IN collected January 30 (methylmercury, dioxins and furans)
- SP-E-OUT collected January 31 (methylmercury, dioxins and furans)
- OUT-01 and OUT-02 collected January 31 (field and all analytical parameters)
- SP-W-OUT collected February 1 (all analytical parameters)
- OUT-06 collected February 1 (field and all analytical parameters)

**Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #49.**

Sample	Description	Sampling Date	Parameters Reported
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	December 22, 2025	Dioxins and Furans
SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	January 1, 2025	Dioxins and Furans
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1		
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	January 3, 2025	Dioxins and Furans
SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	January 8, 2025	Dioxins and Furans
SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	January 9, 2025	Dioxins and Furans
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	January 23, 2025	Field and Physical Parameters.
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface		
IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
WWTP-E-IN	East WWTP at the influent meter box	January 24, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
WWTP-E-OUT	East WWTP at the effluent meter box		
WWTP-E-IN	East WWTP at the influent meter box	January 28, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	January 29, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box		
E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box	January 30, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1		
SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port	January 31, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.

### 3.3 East Catchment

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

During the monitoring period (January 26 – February 1), clarified water from the East Sedimentation Pond TSS settling system (E500GPM) discharged to Howe Sound at the authorized discharge location (station SP-E-OUT) on January 31. Daily discharge volumes from the East Catchment are summarized in Appendix B, Table B-9.

Field measurements were collected January 26 – February 1 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-8. Analytical samples collected on January 24 (stations WWTP-E-IN and WWTP-E-OUT, as discussed in Report #48), January 28 (stations WWTP-E-IN and WWTP-E-OUT), January 29 (E500GPM-IN, E500GPM-OUT, WWTP-E-IN, WWTP-E-OUT, and SP-E-IN), January 30 (stations WWTP-E-IN and WWTP-E-OUT), and January 31 (station SP-E-OUT) were available at the time of reporting. Screening results for East Catchment contact water influent and effluent quality are tabulated in Table B-1 through Table B-5 of Appendix B.

During the monitoring period (January 26 – February 1), analytical results and field measurements monitored at station SP-E-OUT met PE-111578 discharge limits and WQGs except total copper and total mercury on January 31 (Table 4 and Table 5).

Total copper and hexavalent chromium were above the MDO in the East WWTP effluent samples (WWTP-E-OUT) collected January 24 and January 28. Total mercury and total zinc were above the MDO in WWTP-E-OUT samples collected January 24. Total mercury was also above the MDO in the WWTP-E-OUT sample collected January 30. East WWTP treated effluent was recirculated to the East Sedimentation Pond and did not discharge to Howe Sound on January 24 to January 30. This item is tracked in Table 6.

**Table 4:**  
**Summary of Parameters Exceeding PE-111578 Discharge Limits in Effluent Discharged from SP-E-OUT for Field and Analytical Results Available at the Time of Reporting**

Parameter	Units	Discharge Limit	N	N >Limit	Commentary
Total Copper	mg/L	0.0043	4	1	Total copper measured in one of four replicate samples collected for total copper at station SP-E-OUT on January 31 was 1.2 times greater than the PE-111578 discharge limit. BCER was notified on February 3.

N = number of samples.

**Table 5:**  
**Summary of Parameters Exceeding WQGs in Effluent Discharged from SP-E-OUT for Field and Analytical Results Available at the Time of Reporting**

Parameter	Units	WQG <sup>1</sup>	N	N >WQG	Commentary
Total Mercury	mg/L	0.000016	2	2	Total mercury measured in the monitoring and duplicate samples at station SP-E-OUT on January 31 (0.000123 and 0.000122 mg/L, respectively) was 7.7 and 7.6 times greater than the long-term WQG, respectively.

N = number of samples.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

Methylmercury analytical results were available at the time of reporting for WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected January 24 (as discussed in Report #48) (Appendix B, Table B-6). Methylmercury was detected at 0.000102 µg/L in the WWTP-E-OUT sample and was above the WQG (0.0001 µg/L, refer to Section 3.1). The East WWTP effluent was recirculated to the East Sedimentation Pond and did not discharge to Howe Sound on January 24.

Dioxin and furan results were reported for WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively), East Sedimentation Pond influent (station SP-E-IN), and effluent discharged at station SP-E-OUT on December 22 and January 3 (as discussed in Report #45) and January 8 (as discussed in Report #46). The PCDD/F TEQ concentrations in the December 22, January 3 and January 8 station SP-E-OUT effluent samples ranged from 0.00102 to 0.00231 pg/L (lower bound) and from 0.962 to 1.21 pg/L (upper bound). Results are presented in Appendix B, Table B-7.

### 3.4 West Catchment

The West Catchment water quality monitoring results for stations at the West Sedimentation Pond, the TSS settling systems (ESC and W500GPM) and West WWTP monitoring stations, and the authorized discharge location are discussed in this section. Results for sedimentation pond and TSS settling system influent and effluent stations are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. The screened water quality results for analytical

samples and field parameters are presented in Appendix C. Operation of the West WWTP is currently suspended (refer to Section 1.1) and monitoring results are therefore not available. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for dioxins and furans are summarized below.

During the monitoring period (January 26 – February 1), the TSS settling system (W500GPM) treated water stored in the West Sedimentation Pond and produced clarified effluent that was discharged to Howe Sound on February 1 at the authorized discharge location, SP-W-OUT. The smaller TSS settling system (ESC) was operated January 31 and February 1 and clarified effluent was recirculated to the West Sedimentation Pond. Daily clarified effluent and discharge volumes from the West Catchment are summarized in Appendix C, Table C-4.

Field measurements were collected January 26 – February 1 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-3. An analytical sample collected on January 30 (SP-W-IN) was available at the time of reporting. Screening results for West Catchment contact water influent quality are tabulated in Table C-1 of Appendix C. Analytical results were not available at the time of reporting for West Catchment effluent monitored at station SP-W-OUT on February 1.

During the monitoring period (January 26 – February 1), field measurements monitored at station SP-W-OUT met PE-111578 discharge limits and WQGs.

Dioxin and furan results were reported for West Sedimentation Pond influent (station SP-W-IN) and effluent discharged at station SP-W-OUT on December 22 and January 1 (as discussed in Report #45) and January 9 (as discussed in Report #46). The PCDD/F TEQ concentrations in the December 22, January 1 and January 9 station SP-W-OUT effluent samples ranged from 0 to 0.146 pg/L (lower bound) and from 0.796 to 1.61 pg/L (upper bound). Results are presented in Appendix C, Table C-2.

### **3.5 Non-Contact Water Diversion Ditch Outlets**

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

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

Analytical results for samples of the non-contact water diversion ditch outlets were not available at the time of reporting.

### **3.6 Freshwater and Estuarine Water Receiving Environment**

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

Analytical results for samples of the freshwater and estuarine water receiving environment were not available at the time of reporting.

### **3.7 Marine Water Receiving Environment**

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

Analytical results and field measurements were available at the time of reporting for marine water samples collected at 0.5 and 2 m below the water surface and 2 m above the seafloor on January 23 at IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2. Only field and physical parameters were collected on January 23. Parameter concentrations met WQGs except dissolved oxygen in some samples (Appendix D; Tables D-1 and D-2).

In the marine samples collected 2 m above the seafloor on January 23 at IDZ-W1 and IDZ-W2, dissolved oxygen was below the lower limit of the WQG (<8 mg/L) and ranged from 6.49 to 6.60 mg/L. Low concentrations of dissolved oxygen are indicative of influence from the deeper saline waters in the northern basin of Howe Sound and are a natural condition of the marine water at the WDA monitoring stations. The dissolved oxygen concentrations observed at the IDZ monitoring stations are within concentrations that have been observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations and are therefore not attributed to project influence.

#### **4. Quality Control**

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 6). 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 6. Any items flagged for follow-up are carried forward to future reports until they are closed.

**Table 6: Weekly Report QC Evaluations and Ongoing Items**

QC Procedure	Observation	Investigation/Resolution
<b>Reporting Period (January 26 – February 1, Report #49)</b>		
<b>Authorized Works and Monitoring Program Evaluation</b>	The authorized works and monitoring stations have not been established as described in PE-111578.	The PE-111578 authorized works were under construction during the reporting period. The East and West Sedimentation Ponds and WWTPs have been constructed. The sedimentation pond conveyance ditches have not been constructed and influent culverts have not been activated, and the associated influent monitoring stations have not been established. Temporary outfalls are used for the East and West authorized discharge locations until the permanent structures are completed. Operation of the West WWTP has been suspended since September 25, 2024, and the plant has been repurposed to evaluate alternative treatment processes. The lower reach of East Creek has been temporarily diverted through OUT-11 outfall since September 17, 2024, to facilitate replacement of the East Creek outfall culvert (OUT-12). East Creek is monitored at SW-04 therefore monitoring at OUT-11 has been suspended. As communicated to BCER, the East Catchment discharge pathway for authorized discharge location SP-E-OUT was reconfigured on October 28, 2024, to direct sedimentation pond water to the East WWTP and to discharge East WWTP treated effluent. On November 28 and December 4, 2024, TSS settling systems were commissioned for use at the West and East Sedimentation Ponds, respectively, and are configured to discharge the clarified sediment pond water to Howe Sound. This item remains open.
<b>Non-Compliant Effluent</b>	Non-compliant discharge from the East Catchment on January 31.	Total copper measured in one of four replicate samples collected at station SP-E-OUT on January 31 was 1.2 times above the PE-111578 discharge limit. These results are included in an enhanced sampling and testing program for total copper and zinc that is ongoing. Results to date suggest copper contamination is introduced in the sampling and/or testing process; however, the source has not yet been isolated. BCER was notified on February 3. Review of the non-compliance is underway, and outcomes will be communicated to BCER. This item remains open.
<b>WWTP Performance Evaluation</b>	T-Cu, T-Hg, T-Zn, and hexavalent Cr above the MDO	This item was first noted in Report #46 (January 8 sample) and has been updated with January 14 results (Report #47), and January 24 and January 28 results. The total copper concentration was 0.00809, 0.00595, 0.00895, and 0.00518 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, and 28, respectively. The total mercury concentrations were 0.0000355 and 0.000185 mg/L in samples collected on January 24 and 30, the total zinc concentration was 0.0137 mg/L in the sample collected on January 24, and hexavalent chromium concentrations were 0.00197 and 0.00166 mg/L in samples collected January 24 and 28 at WWTP-E-OUT. Review of possible causes is ongoing. The effluent discharged to Howe Sound at SP-E-OUT met the discharge limits on January 8. East WWTP effluent was routed to the pre-discharge holding tank and did not discharge to Howe Sound on January 14. East WWTP effluent was recirculated to the East Sedimentation Pond on January 24 through January 30. This item remains open.
<b>Data QC</b>	D-Cu and D-Zn greater than T-Cu and T-Zn	The dissolved copper and zinc concentrations were 2.2 to 2.5 times greater than the total copper concentration and 1.5 to 1.8 times the total zinc concentrations in two of four replicate samples collected at SP-E-OUT on January 31. It is suspected that the dissolved metal sample bottles were contaminated during sample processing. Enhanced sampling and testing for copper and zinc is ongoing to identify specific sources of contamination. This item remains open.
<b>Pending Data</b>	Analytical results not reported.	Analytical results for samples collected January 28, 31, and February 1 were not complete at the time of Report #49 preparation. Methylmercury, dioxin and furans results for samples collected January 28, 29, 30, and 31 were not complete at the time of Report #49 preparation. The pending results will be included in future weekly reports when available. This item remains open.
<b>Ongoing Items from Previous Weekly Reports</b>		
<b>Report #45: Pending Data</b>	Analytical results not reported.	Dioxins and furans results for samples collected December 22, January 1 and 3 are discussed in Sections 3.3 and 3.4 of Report #49. This item is closed.
<b>Report #46: Pending Data</b>	Analytical results not reported.	Dioxins and furans results for samples collected January 8 and 9 are discussed in Sections 3.3 and 3.4, respectively, of Report #49. Dioxins and furans results for marine receiving environment samples collected January 8 and 9 were not complete at the time of Report #49 preparation. The pending results will be included in future weekly reports when available. This item remains open.
<b>Report #47: Non-Compliant Effluent</b>	Non-compliant discharge from the East Catchment on January 16.	Total copper and total zinc concentrations measured at station SP-E-OUT on January 16 were, respectively, 3.8 and 1.3 times above the PE-111578 discharge limits. BCER was notified on January 23. Review of the non-compliance is complete, and outcomes have been communicated to BCER. The monitoring data suggest there may have been copper and zinc contamination of the sample bottle. Enhanced monitoring to identify sources of contamination was initiated January 24 and was on-going during the January 26 – February 1 monitoring period. This item is closed.
<b>Report #47: Pending Data</b>	Analytical results not reported.	Dioxins and furans results for samples collected January 14 and 16 were not complete at the time of Report #49 preparation. The pending results will be included in future weekly reports when available. This item remains open.
<b>Report #48: Pending Data</b>	Analytical results not reported.	Analytical results for samples collected January 23, 24, and 25 are discussed in Sections 3.3, 3.6, and 3.7 of Report #49. Dioxins and furans results for samples collected January 24 and 25 were not complete at the time of Report #49 preparation. The pending results will be included in future weekly reports when available. This item remains open.

**Notes:**

Result QA/QC screening includes the evaluation of field and lab QC results, comparison of total and dissolved metal results and review for modified detection limits.

Pending data are outstanding results from monitoring samples reported in the current or previous weekly reports.

Authorized works and monitoring program evaluation is an assessment of the completeness of the authorized works and monitoring program compared to PE-111578 specified or implied requirements.

WWTP performance evaluation is an assessment of WWTP effluent quality compared to operational MDOs.

Data QC indicates an evaluation of data trends or inter-parameter relationships that suggest a test result may not be representative of water quality at the time of monitoring.

Non-compliant discharge indicates exceedance of a discharge limit or a discharge that bypasses the sedimentation pond discharge location.

Potential project influence is an assessment that water quality at creek and Howe Sound baseline stations are above the baseline concentration range and may indicate project influence at these stations.



## 5. Closure

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

Regards,

**LORAX ENVIRONMENTAL SERVICES LTD.**



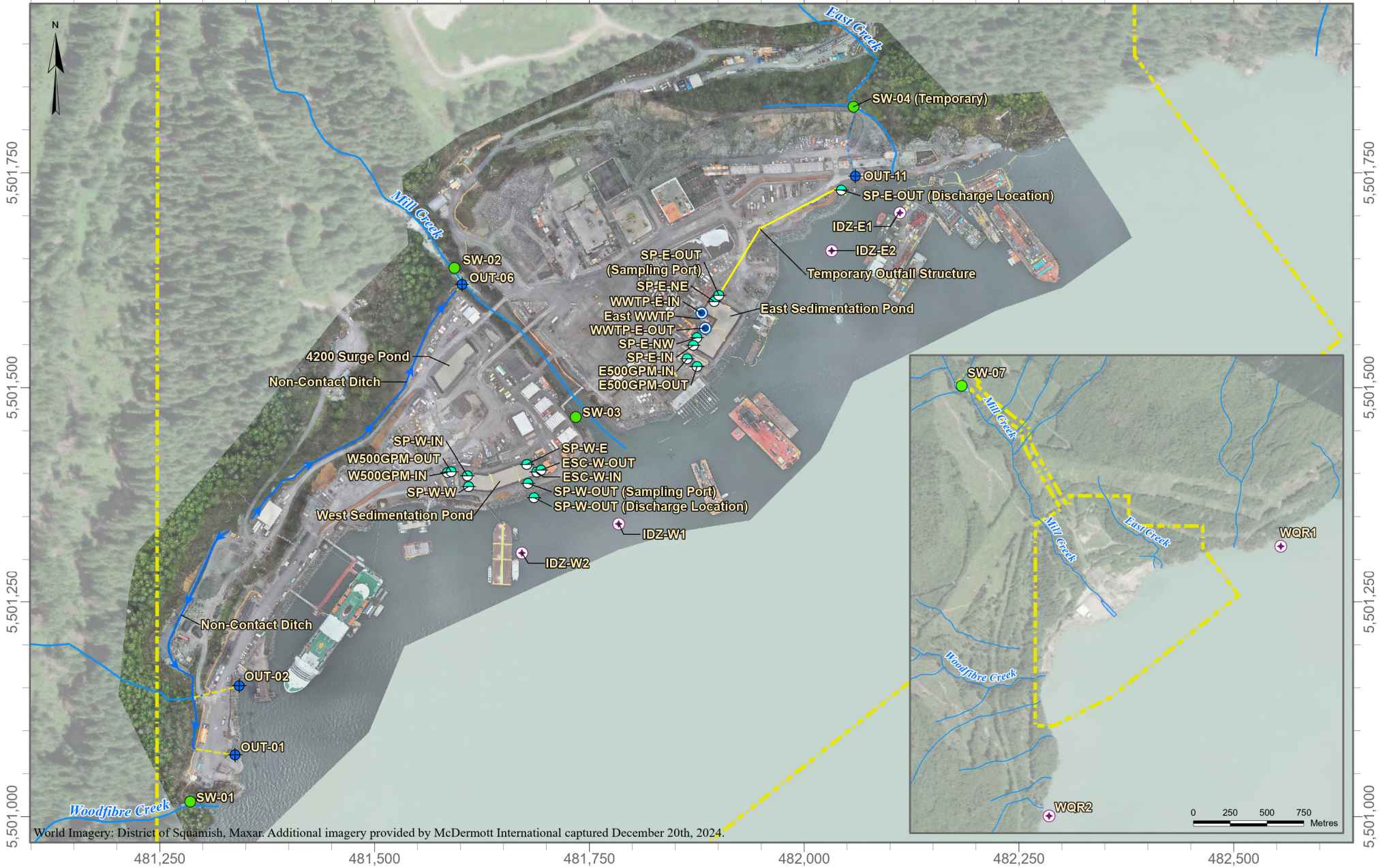
**Holly Pelletier, B.Sc., GIT.  
Environmental Geoscientist**



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

## ***Appendix A: Figures and Site Images***

481,250 481,500 481,750 482,000 482,250 482,500



World Imagery: District of Squamish, Maxar. Additional imagery provided by McDermott International captured December 20th, 2024.

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

DATE SAVED:	Feb 06, 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

CLIENT:

PROJECT:

## Woodfibre LNG Project Construction Phase

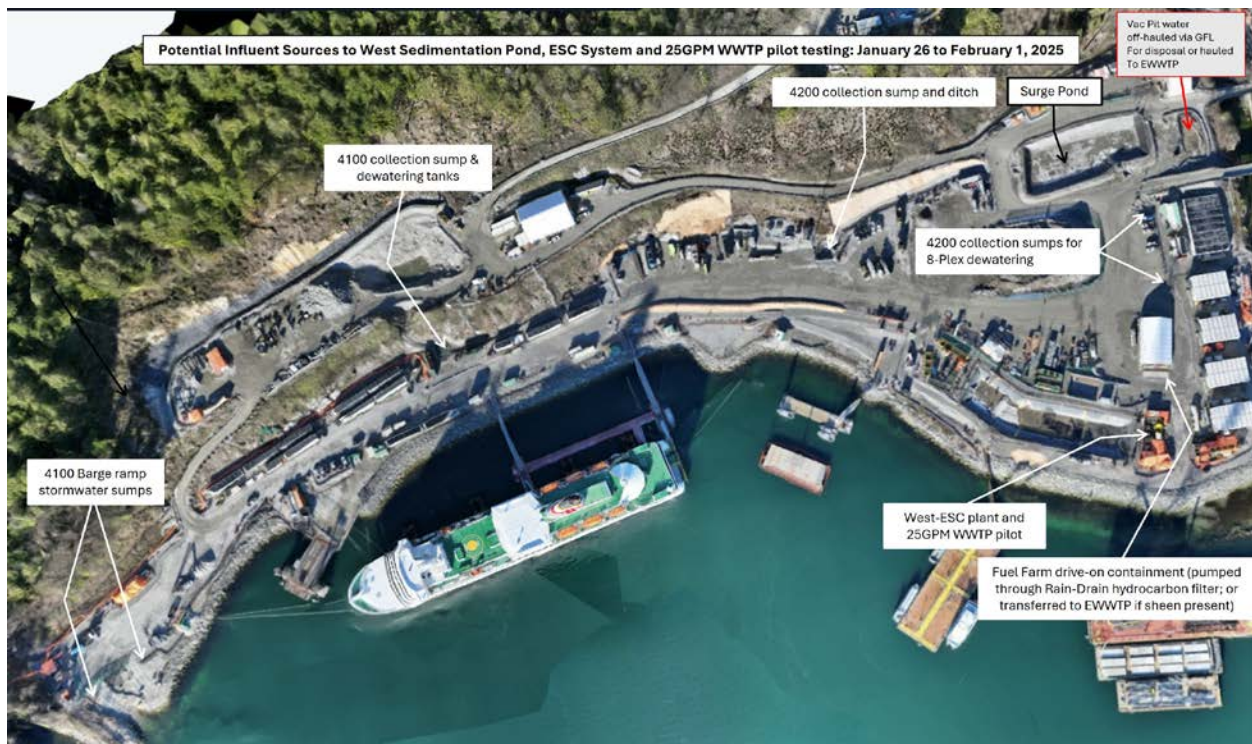
TITLE:  
 Completed or Under Construction Water Management Facilities and Established PE-111578 Monitoring Stations (February 1, 2025)

PROJECT #: A633-7

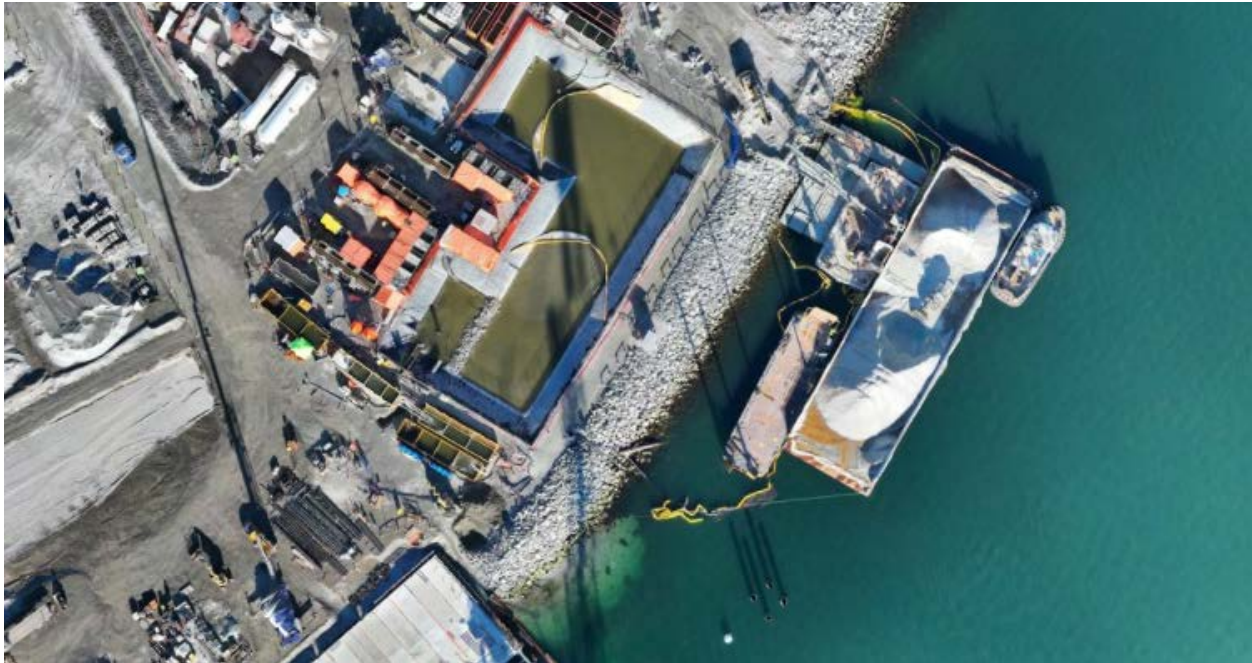
FIGURE: 1



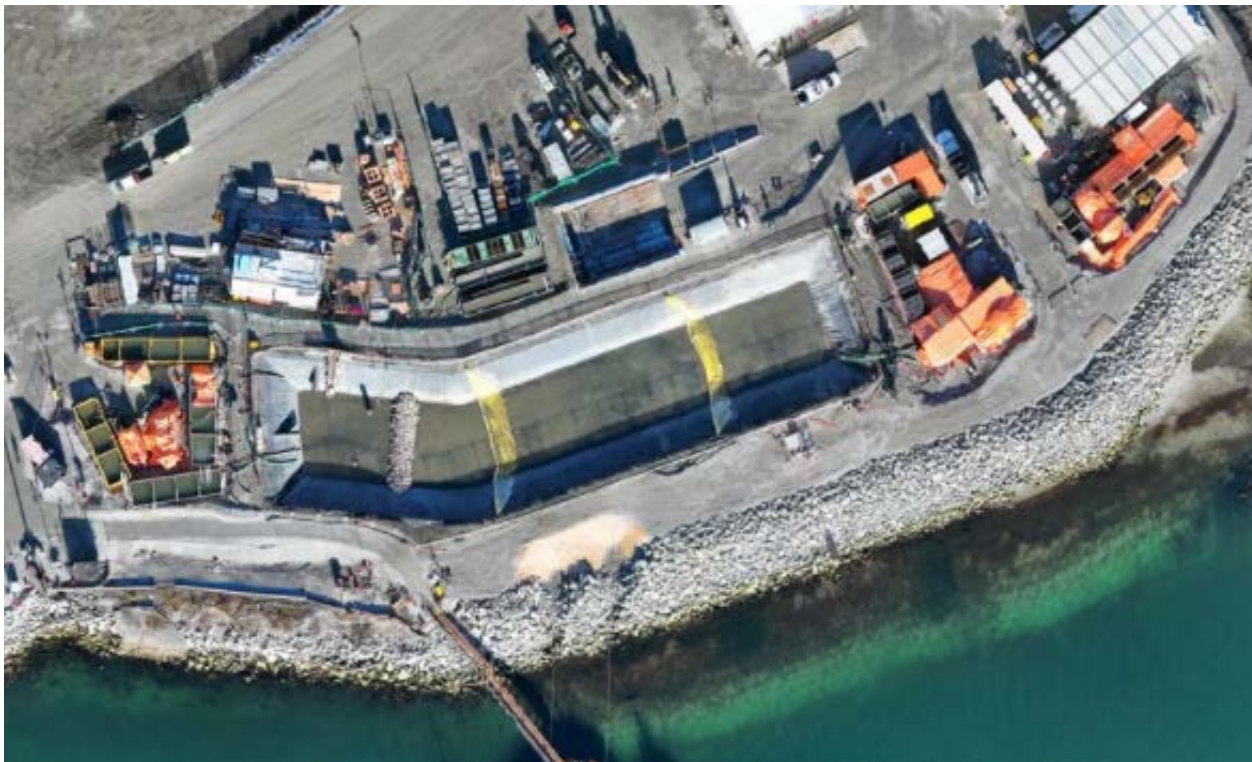
**Figure 2: East Catchment contact water management facilities (January 26 – February 1).**



**Figure 3: West Catchment contact water management facilities (January 26 – February 1).**



**Figure 4:** Aerial view of the East Sedimentation Pond (January 29, 2025). The East WWTP is located on the left side and the E500GPM TSS settling system is situated along the bottom edge of the pond.



**Figure 5:** Aerial view of the West Sedimentation Pond (January 29, 2025). The TSS settling systems are located to the left (W500GPM) and right (ESC) of the pond.

## ***Appendix B: East Catchment Monitoring Results***

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

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		PE-111578 Discharge Limit	Station WWTP-E-IN	Station WWTP-E-IN	Station WWTP-E-IN	Station WWTP-E-IN	Station WWTP-E-IN
					Influent	Influent	Influent	Influent	Influent
					WWTP-E-IN	WWTP-E-IN-Lab <sup>7</sup>	WWTP-E-IN	WWTP-E-IN	WWTP-E-IN
					VA25A1725-001	VA25A1725-003	VA25A1912-001	VA25A1975-002	VA25A2168-003
					Long Term	Short Term			
					2025-01-24 15:40	2025-01-24 15:45	2025-01-28 11:55	2025-01-29 9:46	2025-01-30 12:31
<b>General Parameters</b>									
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	7.1	- <sup>7</sup>	7.8	8.1	6.9
Conductivity - Field	µS/cm	-	-	-	661	- <sup>7</sup>	1110	1183	1417
Temperature - Field	°C	-	-	-	4.6	- <sup>7</sup>	4.5	4.9	5.6
Salinity - Field	ppt	-	-	-	0.5	- <sup>7</sup>	0.92	0.97	1.15
Turbidity - Field	NTU	-	-	-	14.6	- <sup>7</sup>	7.03	9.49	7.49
TSS	mg/L	-	-	25 <sup>6</sup>	7.2	- <sup>7</sup>	9.0	4.9	3.8
Dissolved Oxygen - Field	mg/L	≥8	-	-	11.10	- <sup>7</sup>	12.49	13.26	12.14
<b>Anions and Nutrients</b>									
Sulphate	mg/L	-	-	-	94.9	- <sup>7</sup>	100	99.6	257
Chloride	mg/L	-	-	-	11.6	- <sup>7</sup>	16.1	16.4	17
Fluoride	mg/L	-	1.5	-	0.188	- <sup>7</sup>	0.356	0.286	<0.400
Ammonia (N-NH <sub>3</sub> )	mg/L	4.1-41 <sup>3</sup>	27-270 <sup>3</sup>	-	0.0503	- <sup>7</sup>	0.0673	0.0510	0.0309
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	0.0666	- <sup>7</sup>	0.0399	0.0374	0.0434
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	0.774	- <sup>7</sup>	0.48	0.509	0.566
<b>Total Metals</b>									
Aluminum, total (T-Al)	mg/L	-	-	-	0.895	0.930	0.451	0.281	0.538
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.00173	0.00167	0.00144	0.00137	0.00149
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00388	0.00396	0.0042	0.00422	0.00457
Barium, total (T-Ba)	mg/L	-	-	-	0.017	0.0176	0.0122	0.0081	0.011
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000022	<0.000020	<0.000040	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.034	0.033	<0.020	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000350	<0.0000400	0.0000289	<0.0000100	<0.0000300
Chromium, total (T-Cr)	mg/L	-	-	-	0.00124	0.00121	0.00174	<0.00100	0.00258
Cobalt, total (T-Co)	mg/L	-	-	-	0.00044	0.00046	0.0002	<0.00020	0.00026
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	0.00386	0.00393	0.00274	0.00207	0.00314
Iron, total (T-Fe)	mg/L	-	-	-	0.714	0.698	0.307	0.227	0.452
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.00145	0.00142	0.000643	0.000404	0.000719
Manganese, total (T-Mn)	mg/L	-	-	-	0.0587	0.0596	0.0361	0.0263	0.0281
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	<b>0.0000317</b>	- <sup>7</sup>	0.0000143	0.0000100	<b>0.000119</b>
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0652	0.0670	0.0827	0.0767	0.0856
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00102	0.00105	<0.00100	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000239	0.000249	0.000314	0.000288	0.00036
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	0.000011	<0.000010	<0.000020	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000033	0.000030	0.000056	0.000046	0.000047
Uranium, total (T-U)	mg/L	-	-	-	0.0354	0.0330	0.0435	0.0419	0.0446
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.00528	0.00554	0.00382	0.00265	0.00373
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	0.0330	0.0347	0.0222	0.0089	0.0105
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	- <sup>7</sup>	0.00104	0.00055	0.00095
<b>Dissolved Metals</b>									
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000200	<0.0000250	<0.0000100	<0.0000100	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00232	0.00237	0.00190	0.00158	0.00234
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.022	0.022	<0.020	<0.020	0.055
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000102	0.000094	<0.000100	<0.000100	0.000136
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0422	0.0421	0.0278	0.0201	0.0196
Nickel, dissolved (D-Ni)	mg/L	-	-	-	0.00069	0.00066	<0.00100	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.107	0.112	0.126	0.113	0.125
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00380	0.00384	0.0029	0.00214	0.00279
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0295	0.0240	0.0129	0.0087	0.0164
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Acenaphthene	mg/L	0.006	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	- <sup>7</sup>	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	- <sup>7</sup>	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	- <sup>7</sup>	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	- <sup>7</sup>	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	-	<0.000050	- <sup>7</sup>	<0.000050	<0.000050	<0.000050
<b>Volatile Organic Compounds (VOCs)</b>									
Benzene	mg/L	0.11	-	-	<0.00050	- <sup>7</sup>	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	- <sup>7</sup>	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	- <sup>7</sup>	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	-	<0.00050	- <sup>7</sup>	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	- <sup>7</sup>	<0.00040	<0.00040	<0.00050
Total Xylenes	mg/L	-	-	-	<0.00050	- <sup>7</sup>	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	- <sup>7</sup>	<0.00050	<0.00050	- <sup>8</sup>
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	- <sup>7</sup>	<0.00050	<0.00050	- <sup>8</sup>

**Notes:** Results underlined in bold italics exceeded the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.

The East Sedimentation Pond discharged during the monitoring period (January 26 – February 1) on January 31.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.

<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.

<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.

<sup>5</sup> When MeHg ≤ 0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for Wet Conditions. Wet Conditions applied January 31 and February 1.

<sup>7</sup> A second set of total and dissolved metals bottles were submitted to the laboratory, excluding mercury and speciated metals, for the WWTP-E-IN sample collected January 24. The additional metal bottles were filtered, digested and preserved by the laboratory.

<sup>8</sup> Chlorobenzene and 1,2-dichlorobenzene were not tested in the WWTP-E-IN sample collected January 29.

**Table B-2: East Catchment Contact Water Influent Analytical Results Received at the Time of Reporting.**

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		PE-111578 Discharge Limit	Station E500GPM-IN	Station SP-E-IN
					Influent	Influent
		E500GPM-IN	SP-E-IN			
		VA25A1975-005 2025-01-29 11:37	VA25A1975-001 2025-01-29 10:58			
Long Term	Short Term					
<b>General Parameters</b>						
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	8.3	8.5
Conductivity - Field	µS/cm	-	-	-	23	1142
Temperature - Field	°C	-	-	-	5.9	4.4
Salinity - Field	ppt	-	-	-	0.02	0.95
Turbidity - Field	NTU	-	-	-	7.16	7.87
TSS	mg/L	-	-	25 <sup>6</sup>	6.9	9.7
Dissolved Oxygen - Field	mg/L	≥8	-	-	13.94	13.83
<b>Anions and Nutrients</b>						
Sulphate	mg/L	-	-	-	100	99.1
Chloride	mg/L	-	-	-	16.5	16.3
Fluoride	mg/L	-	1.5	-	0.294	0.291
Ammonia (N-NH <sub>3</sub> )	mg/L	1.7-1.8 <sup>3</sup>	11-12 <sup>3</sup>	-	0.0446	0.0469
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	0.0368	0.0368
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	0.508	0.516
<b>Total Metals</b>						
Aluminum, total (T-Al)	mg/L	-	-	-	0.291	0.474
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.0014	0.0014
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00401	0.00411
Barium, total (T-Ba)	mg/L	-	-	-	0.00811	0.00979
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000200	<0.0000100
Chromium, total (T-Cr)	mg/L	-	-	-	0.001	0.00104
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	<b>0.00461</b>	0.00217
Iron, total (T-Fe)	mg/L	-	-	-	0.22	0.352
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.000894	0.000533
Manganese, total (T-Mn)	mg/L	-	-	-	0.0251	0.0279
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	0.0000104	0.0000130
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0752	0.0763
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000262	0.000284
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000042	0.000046
Uranium, total (T-U)	mg/L	-	-	-	0.042	0.0431
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.0025	0.00268
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	0.0084	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00052	0.00062
<b>Dissolved Metals</b>						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000100	<0.0000100
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00184	0.00141
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.02	0.0188
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.114	0.118
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00216	0.00203
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0026	<0.0020
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>						
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
<b>Volatile Organic Compounds (VOCs)</b>						
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050
Styrene	mg/L	-	-	-	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050

Notes: Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange** text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.

The East Sedimentation Pond discharged during the monitoring period (January 26 – February 1) on January 31.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.

<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.

<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.

<sup>5</sup> When MeHg ≤ 0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for Wet Conditions. Wet Conditions applied January 31 and February 1.



**Table B-3: East Catchment Effluent Analytical Results Received at the Time of Reporting**

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		PE-111578 Discharge Limit	Station WWTP-E-OUT <sup>7</sup>	Station WWTP-E-OUT <sup>7</sup>	Station WWTP-E-OUT <sup>7</sup>	Station WWTP-E-OUT <sup>7</sup>	Station WWTP-E-OUT <sup>7</sup>
					Effluent	Effluent	Effluent	Effluent	Effluent
					WWTP-E-OUT	WWTP-E-OUT-Lab <sup>8</sup>	WWTP-E-OUT	WWTP-E-OUT-Lab <sup>8</sup>	WWTP-E-OUT
					VA25A1725-002 2025-01-24 16:10	VA25A1725-004 2025-01-24 16:15	VA25A1912-002 2025-01-28 12:54	VA25A1912-003 2025-01-28 12:30	VA25A1975-003 2025-01-29 10:44
<b>General Parameters</b>									
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	6.2	- <sup>8</sup>	7.3	- <sup>8</sup>	8.4
Conductivity - Field	µS/cm	-	-	-	775	- <sup>8</sup>	1422	- <sup>8</sup>	1212
Temperature - Field	°C	-	-	-	5.5	- <sup>8</sup>	6.9	- <sup>8</sup>	5.8
Salinity - Field	ppt	-	-	-	0.6	- <sup>8</sup>	1.11	- <sup>8</sup>	0.97
Turbidity - Field	NTU	-	-	-	5.7	- <sup>8</sup>	2.19	- <sup>8</sup>	4.7
TSS	mg/L	-	-	25 <sup>6</sup>	<3.0	- <sup>8</sup>	4.0	- <sup>8</sup>	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	12.10	- <sup>8</sup>	12.75	- <sup>8</sup>	13.53
<b>Anions and Nutrients</b>									
Sulphate	mg/L	-	-	-	126	- <sup>8</sup>	96.6	- <sup>8</sup>	100
Chloride	mg/L	-	-	-	11.6	- <sup>8</sup>	17.4	- <sup>8</sup>	16.4
Fluoride	mg/L	-	1.5	-	0.178	- <sup>8</sup>	<0.400	- <sup>8</sup>	0.284
Ammonia (N-NH <sub>3</sub> )	mg/L	1.2-29 <sup>3</sup>	7.9-191 <sup>3</sup>	-	0.0579	- <sup>8</sup>	0.0574	- <sup>8</sup>	0.0322
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	0.0271	- <sup>8</sup>	0.0495	- <sup>8</sup>	0.0361
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	0.682	- <sup>8</sup>	0.662	- <sup>8</sup>	0.471
<b>Total Metals</b>									
Aluminum, total (T-Al)	mg/L	-	-	-	0.284	0.297	0.0857	0.0845	0.0580
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.0017	0.00165	0.00143	0.00150	0.00141
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00337	0.00335	0.00399	0.00407	0.00406
Barium, total (T-Ba)	mg/L	-	-	-	0.00567	0.00584	0.00366	0.00344	0.00395
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.00002	0.000020	<0.000040	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.019	0.020	<0.020	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000250	<0.0000250	<0.0000100	<0.0000200	<0.0000100
Chromium, total (T-Cr)	mg/L	-	-	-	0.00289	0.00289	0.00214	0.00223	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	0.00017	0.00017	<0.00020	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	<b>0.00895</b>	<b>0.00659</b>	<b>0.00518</b>	0.00352	0.00247
Iron, total (T-Fe)	mg/L	-	-	-	0.164	0.169	0.058	0.056	0.037
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.00093	0.000807	0.000847	0.000635	0.000393
Manganese, total (T-Mn)	mg/L	-	-	-	0.0305	0.0311	0.00689	0.00698	0.0113
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	<b>0.0000355</b>	- <sup>8</sup>	0.0000102	- <sup>8</sup>	0.00000736
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0895	0.0912	0.0898	0.0934	0.0766
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00059	0.00060	<0.00100	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000347	0.000396	0.000326	0.000332	0.000216
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000010	<0.000010	<0.000020	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000047	0.000047	0.000041	0.000042	0.000036
Uranium, total (T-U)	mg/L	-	-	-	0.0243	0.0242	0.0459	0.0464	0.0438
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.00433	0.00435	0.00438	0.00451	0.00224
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	<b>0.0137</b>	0.0133	<0.0060	<0.0060	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<b>0.00197</b>	- <sup>8</sup>	<b>0.00166</b>	- <sup>8</sup>	0.00066
<b>Dissolved Metals</b>									
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000200	<0.0000200	<0.0000100	<0.0000250	<0.0000100
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00245	0.00548	0.00301	0.00301	0.00197
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.017	0.022	<0.020	0.044	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000097	0.000249	0.000309	0.000543	0.00022
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0271	0.0275	0.00628	0.00686	0.0106
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050	<0.00100	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0772	0.0818	0.0778	0.0787	0.140
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00384	0.00391	0.00401	0.00423	0.00195
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0044	0.0121	0.0024	0.0021	<0.0020
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Acenaphthene	mg/L	0.006	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
Acridine	mg/L	-	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	- <sup>8</sup>	<0.0000050	- <sup>8</sup>	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	- <sup>8</sup>	<0.000050	- <sup>8</sup>	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	- <sup>8</sup>	<0.000020	- <sup>8</sup>	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	- <sup>8</sup>	<0.000010	- <sup>8</sup>	<0.000010
Quinoline	mg/L	-	-	-	<0.000050	- <sup>8</sup>	<0.000050	- <sup>8</sup>	<0.000050
<b>Volatile Organic Compounds (VOCs)</b>									
Benzene	mg/L	0.11	-	-	<0.00050	- <sup>8</sup>	<0.00050	- <sup>8</sup>	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	- <sup>8</sup>	<0.00050	- <sup>8</sup>	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	- <sup>8</sup>	<0.00050	- <sup>8</sup>	<0.00050
Styrene	mg/L	-	-	-	<0.00050	- <sup>8</sup>	<0.00050	- <sup>8</sup>	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	- <sup>8</sup>	<0.00040	- <sup>8</sup>	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	- <sup>8</sup>	<0.00050	- <sup>8</sup>	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	- <sup>8</sup>	<0.00050	- <sup>8</sup>	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	- <sup>8</sup>	<0.00050	- <sup>8</sup>	<0.00050

**Notes:** Results underlined in bold italics exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.

The East Sedimentation Pond discharged during the monitoring period (January 26 – February 1) on January 31.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.

<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.

<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.

<sup>5</sup> When MeHg ≤ 0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for Wet Conditions. Wet Conditions applied January 31 and February 1.

<sup>7</sup> East WWTP treated effluent was recirculated to the East Sedimentation Pond and did not discharge to Howe Sound.

<sup>8</sup> A second set of total and dissolved metals bottles were submitted to the laboratory, excluding mercury and speciated metals, for WWTP-E-OUT samples collected January 24 and 28. The additional metal bottles were filtered, digested and preserved by the laboratory.

**Table B-4: East Catchment Effluent Analytical Results Received at the Time of Reporting**

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		PE-111578 Discharge Limit	Station WWTP-E-OUT <sup>7</sup>	Station WWTP-E-OUT <sup>7</sup>	Station WWTP-E-OUT <sup>7</sup>	Station E500GPM-OUT	Station E500GPM-OUT
					Effluent	Effluent	Effluent	Effluent	Effluent
					WWTP-E-OUT-Lab <sup>8</sup>	WWTP-E-OUT	WWTP-E-OUT-Lab <sup>8</sup>	E500GPM-OUT	E500GPM-OUT-Lab <sup>8</sup>
					VA25A1975-004 2025-01-29 10:30	VA25A2168-001 2025-01-30 12:16	VA25A2168-002 2025-01-30 12:10	VA25A1975-006 2025-01-29 11:18	VA25A1975-007 2025-01-29 11:00
		Long Term	Short Term						
<b>General Parameters</b>									
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	-.8	6.7	-.8	8.4	-.8
Conductivity - Field	µS/cm	-	-	-	-.8	1681	-.8	1129	-.8
Temperature - Field	°C	-	-	-	-.8	6.8	-.8	4.1	-.8
Salinity - Field	ppt	-	-	-	-.8	1.33	-.8	0.95	-.8
Turbidity - Field	NTU	-	-	-	-.8	2.0	-.8	2.14	-.8
TSS	mg/L	-	-	25 <sup>6</sup>	-.8	<3.0	-.8	<3.0	-.8
Dissolved Oxygen - Field	mg/L	≥8	-	-	-.8	11.98	-.8	14.05	-.8
<b>Anions and Nutrients</b>									
Sulphate	mg/L	-	-	-	-.8	466	-.8	97.7	-.8
Chloride	mg/L	-	-	-	-.8	17.1	-.8	16	-.8
Fluoride	mg/L	-	1.5	-	-.8	<0.400	-.8	0.282	-.8
Ammonia (N-NH <sub>3</sub> )	mg/L	1.7-7.2 <sup>3</sup>	11-48 <sup>3</sup>	-	-.8	0.0328	-.8	0.0536	-.8
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	-.8	0.043	-.8	0.036	-.8
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	-.8	0.539	-.8	0.516	-.8
<b>Total Metals</b>									
Aluminum, total (T-Al)	mg/L	-	-	-	0.0534	0.200	0.202	0.0605	0.0582
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.00149	0.00154	0.00164	0.00135	0.00150
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00406	0.00463	0.00443	0.00398	0.00399
Barium, total (T-Ba)	mg/L	-	-	-	0.00400	0.00559	0.00539	0.00583	0.00598
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040	<0.000040	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	<0.020	<0.020	<0.020	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000200	<0.0000200	<0.0000250	<0.0000150	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100	0.00151	0.00154	<0.00100	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	0.00206	0.00297	0.00298	0.00151	0.00149
Iron, total (T-Fe)	mg/L	-	-	-	0.032	0.16	0.167	0.038	0.036
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.000214	0.00039	0.000394	<0.000100	<0.000100
Manganese, total (T-Mn)	mg/L	-	-	-	0.0113	0.0109	0.0103	0.0233	0.0241
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	-.8	<b>0.000185</b>	-.8	0.00000579	-.8
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0792	0.0847	0.0943	0.0748	0.0802
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000308	0.000463	0.000310	0.000246	0.000285
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000036	0.000044	0.000044	0.000045	0.000044
Uranium, total (T-U)	mg/L	-	-	-	0.0452	0.0458	0.0429	0.0428	0.0430
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.00223	0.00364	0.00342	0.00201	0.00197
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	-.8	<0.00050	-.8	<0.00050	-.8
<b>Dissolved Metals</b>									
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000100	<0.0000200	<0.0000150	<0.0000200	<0.0000150
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00277	0.00274	0.00271	0.00130	0.00155
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020	0.097	0.087	<0.020	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000377	0.000303	0.000231	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0105	0.00969	0.00952	0.0224	0.0222
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.140	0.118	0.121	0.107	0.107
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00205	0.00326	0.00340	0.0018	0.00186
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0021	0.0027	0.0022	<0.0020	<0.0020
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
Acenaphthene	mg/L	0.006	-	-	-.8	<0.000010	-.8	<0.000010	-.8
Acridine	mg/L	-	-	-	-.8	<0.000010	-.8	<0.000010	-.8
Anthracene	mg/L	-	-	-	-.8	<0.000010	-.8	<0.000010	-.8
Benz(a)anthracene	mg/L	-	-	-	-.8	<0.000010	-.8	<0.000010	-.8
Benzo(a)pyrene	mg/L	0.00001	-	-	-.8	<0.0000050	-.8	<0.0000050	-.8
Chrysene	mg/L	0.0001	-	-	-.8	<0.000010	-.8	<0.000010	-.8
Fluoranthene	mg/L	-	-	-	-.8	<0.000010	-.8	<0.000010	-.8
Fluorene	mg/L	0.012	-	-	-.8	<0.000010	-.8	<0.000010	-.8
1-methylnaphthalene	mg/L	0.001	-	-	-.8	<0.000010	-.8	<0.000010	-.8
2-methylnaphthalene	mg/L	0.001	-	-	-.8	<0.000010	-.8	<0.000010	-.8
Naphthalene	mg/L	0.001	-	-	-.8	<0.000050	-.8	<0.000050	-.8
Phenanthrene	mg/L	-	-	-	-.8	<0.000020	-.8	<0.000020	-.8
Pyrene	mg/L	-	-	-	-.8	<0.000010	-.8	<0.000010	-.8
Quinoline	mg/L	-	-	-	-.8	<0.000050	-.8	<0.000050	-.8
<b>Volatile Organic Compounds (VOCs)</b>									
Benzene	mg/L	0.11	-	-	-.8	<0.00050	-.8	<0.00050	-.8
Ethylbenzene	mg/L	0.25	-	-	-.8	<0.00050	-.8	<0.00050	-.8
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-.8	<0.00050	-.8	<0.00050	-.8
Styrene	mg/L	-	-	-	-.8	<0.00050	-.8	<0.00050	-.8
Toluene	mg/L	0.215	-	-	-.8	<0.00050	-.8	<0.00040	-.8
Total Xylenes	mg/L	-	-	-	-.8	<0.00050	-.8	<0.00050	-.8
Chlorobenzene	mg/L	0.025	-	-	-.8	-.9	-.8	<0.00050	-.8
1,2-Dichlorobenzene	mg/L	0.042	-	-	-.8	-.9	-.8	<0.00050	-.8

**Notes:** Results underlined in bold italics exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.

The East Sedimentation Pond discharged during the monitoring period (January 26 – February 1) on January 31.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.

<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.

<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.

<sup>5</sup> When MeHg ≤ 0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for Wet Conditions. Wet Conditions applied January 31 and February 1.

<sup>7</sup> East WWTP treated effluent was recirculated to the East Sedimentation Pond and did not discharge to Howe Sound.

<sup>8</sup> A second set of total and dissolved metals bottles were submitted to the laboratory, excluding mercury and speciated metals, for WWTP-E-OUT samples collected January 29 and 30 and the E500GPM-OUT sample collected January 30. The additional metal bottles were filtered, digested and preserved by the laboratory.

<sup>9</sup> Chlorobenzene and 1,2-dichlorobenzene were not tested in the WWTP-E-OUT sample collected January 29.

**Table B-5: East Catchment Effluent Analytical Results Received at the Time of Reporting**

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		PE-111578 Discharge Limit	Station SP-E-OUT <sup>7</sup>	Station SP-E-OUT <sup>7</sup>	Station SP-E-OUT <sup>7</sup>	Station SP-E-OUT <sup>7</sup>
					Effluent	Effluent	Effluent	Effluent
		SP-E-Out	SP-E-Out-Dup		SP-E-OUT-Lab <sup>8</sup>	SP-E-OUT-Dup-Lab <sup>8</sup>		
		VA25A2287-001	VA25A2287-003		VA25A2287-002	VA25A2287-004		
		Long Term	Short Term		2025-01-31 10:10	2025-01-31 10:10	2025-01-31 10:10	2025-01-31 10:10
<b>General Parameters</b>								
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	7.6	7.6	-.8	-.8
Conductivity - Field	µS/cm	-	-	-	15	15	-.8	-.8
Temperature - Field	°C	-	-	-	5.0	5.0	-.8	-.8
Salinity - Field	ppt	-	-	-	1.24	1.24	-.8	-.8
Turbidity - Field	NTU	-	-	-	4.64	4.64	-.8	-.8
TSS	mg/L	-	-	75 <sup>6</sup>	<3.0	<3.0	-.8	-.8
Dissolved Oxygen - Field	mg/L	≥8	-	-	12.75	12.75	-.8	-.8
<b>Anions and Nutrients</b>								
Sulphate	mg/L	-	-	-	430	429	-.8	-.8
Chloride	mg/L	-	-	-	16.6	15.8	-.8	-.8
Fluoride	mg/L	-	1.5	-	<0.400	<0.400	-.8	-.8
Ammonia (N-NH <sub>3</sub> )	mg/L	1.7-7.2 <sup>3</sup>	11-48 <sup>3</sup>	-	0.0237	0.0222	-.8	-.8
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	<0.0200	0.0206	-.8	-.8
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	0.503	0.481	-.8	-.8
<b>Total Metals</b>								
Aluminum, total (T-Al)	mg/L	-	-	-	0.128	0.138	0.155	0.199
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.00144	0.00143	0.00133	0.00134
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00386	0.00391	0.00366	0.00353
Barium, total (T-Ba)	mg/L	-	-	-	0.0067	0.00685	0.00686	0.00705
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	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000300	<0.0000350	<0.0000250	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	-	0.00161	0.00175	0.00153	0.00149
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	0.00263	0.00264	0.00323	0.00500
Iron, total (T-Fe)	mg/L	-	-	-	0.129	0.131	0.158	0.158
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.000376	0.000346	0.000725	0.000745
Manganese, total (T-Mn)	mg/L	-	-	-	0.034	0.0344	0.0341	0.0336
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	<b>0.000123</b>	<b>0.000122</b>	-.8	-.8
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0781	0.0791	0.0800	0.0802
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000241	0.000468	0.000253	0.000369
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000020	<0.000020	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000058	0.000054	0.000048	0.000046
Uranium, total (T-U)	mg/L	-	-	-	0.0381	0.0373	0.0328	0.0346
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.00183	0.00183	0.00173	0.00172
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	<0.0060	<0.0060	0.0070	0.0086
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	-.8	-.8
<b>Dissolved Metals</b>								
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250	<0.0000250	<0.0000300	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00176	0.00659	0.00719	0.00176
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.052	0.091	0.046	0.048
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000153	0.000505	0.000321	0.000139
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0314	0.031	0.0315	0.0316
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.141	0.151	0.145	0.144
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00155	0.0016	0.00156	0.00154
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0024	0.0108	0.0103	<0.0020
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>								
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010	-.8	-.8
Acridine	mg/L	-	-	-	<0.000010	<0.000010	-.8	-.8
Anthracene	mg/L	-	-	-	<0.000010	<0.000010	-.8	-.8
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010	-.8	-.8
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050	-.8	-.8
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010	-.8	-.8
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010	-.8	-.8
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010	-.8	-.8
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	-.8	-.8
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	-.8	-.8
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050	-.8	-.8
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020	-.8	-.8
Pyrene	mg/L	-	-	-	<0.000010	<0.000010	-.8	-.8
Quinoline	mg/L	-	-	-	<0.000050	<0.000050	-.8	-.8
<b>Volatile Organic Compounds (VOCs)</b>								
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050	-.8	-.8
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050	-.8	-.8
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050	-.8	-.8
Styrene	mg/L	-	-	-	<0.00050	<0.00050	-.8	-.8
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040	-.8	-.8
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050	-.8	-.8
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050	-.8	-.8
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050	-.8	-.8

Notes: Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.

The East Sedimentation Pond discharged during the monitoring period (January 26 – February 1) on January 31.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.

<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.

<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.

<sup>5</sup> When MeHg ≤ 0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for Wet Conditions. Wet Conditions applied January 31 and February 1.

<sup>7</sup> Field measurements and analytical samples were collected at the SP-E-OUT sample collection port.

<sup>8</sup> A second set of total and dissolved metals bottles were submitted to the laboratory, excluding mercury and speciated metals, for SP-E-OUT samples collected January 31. The additional metal bottles were filtered, digested and preserved by the laboratory.

**Table B-6: East Catchment Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.**

Parameter					Total Methylmercury	Total Mercury
Unit					µg/L	µg/L
Lowest Applicable Guideline <sup>1</sup>					0.0001 <sup>2</sup>	0.016 – 0.020 <sup>3,4</sup>
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
WWTP-E-IN	Influent	WWTP-E-IN	VA25A1725-001	2025-01-24	<u><b>0.000196</b></u>	<u><b>0.0317</b></u>
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25A1725-002	2025-01-24	<u><b>0.000102</b></u> <sup>5</sup>	<u><b>0.0355</b></u>

**Notes:**

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> 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.

<sup>3</sup> CCME guideline for total mercury = 0.016 µg/L.

<sup>4</sup> 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.

<sup>5</sup> East WWTP treated effluent was recirculated to the East Sedimentation Pond and did not discharge to Howe Sound on January 24.

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

**Table B-7: East Catchment Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.**

Parameter					Lower Bound PCDD/F TEQ	Upper Bound PCDD/F TEQ
Unit					pg/L	pg/L
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-E-IN	Influent	SP-E-IN	L2758506-1	2024-12-22	0.0150	0.00231
SP-E-IN	Influent	SP-E-IN	L2758580-4	2025-01-03	0	0.913
SP-E-IN	Influent	SP-E-IN	L2758616-4	2025-01-08	0.0172	1.03
WWTP-E-IN	Influent	WWTP-E-IN	L2758506-5	2024-12-22	0.136	1.17
WWTP-E-IN	Influent	WWTP-E-IN	L2758580-2	2025-01-03	0.000315	0.968
WWTP-E-IN	Influent	WWTP-E-IN	L2758616-2	2025-01-08	0.00991	1.38
Effluent						
SP-E-OUT	Effluent	SP-E-OUT	L2758506-2	2024-12-22	0.00231	1.21
SP-E-OUT	Effluent	SP-E-OUT	L2758580-1	2025-01-03	0.00192	0.962
SP-E-OUT	Effluent	SP-E-OUT	L2758616-1	2025-01-08	0.00102	0.984
WWTP-E-OUT	Effluent	WWTP-E-OUT	L2758506-6	2024-12-22	0.00137	0.919
WWTP-E-OUT	Effluent	WWTP-E-OUT	L2758580-3	2025-01-03	0	1.16
WWTP-E-OUT	Effluent	WWTP-E-OUT	L2758616-3	2025-01-08	0.00226	0.959

**Notes:**

PCDD = polychlorinated dibenzodioxins (dioxins)

PCDF = polychlorinated dibenzofurans (furans)

TEQ = toxic equivalency

Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).

Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.

**Table B-8: East Catchment Field Measurements Collected During the Monitoring Period (January 26 – February 1).**

Parameter			Temp.	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS <sup>3</sup>	pH	Conductivity	Visibility of Sheen
Unit			°C	mg/L	ppt	NTU	mg/L	s.u.	µS/cm	
<b>PE-111578 Discharge Limit</b>			-	-	-	-	25 <sup>6</sup>	5.5 - 9.0	-	-
<b>Lowest Applicable Guideline<sup>1</sup></b>			-	≥8	-	-	- <sup>2</sup>	- <sup>2</sup>	-	-
Station ID	Water Type	Date								
<b>Influent<sup>4</sup></b>										
SP-E-IN	Influent	2025-01-26 15:18	5.2	12.91	0.83	21.80	19.3	7.3	1021	No
SP-E-IN	Influent	2025-01-27 14:13	5.4	12.66	1.04	9.27	9.9	7.0	1272	No
SP-E-IN	Influent	2025-01-28 12:33	5.0	13.15	1.05	4.67	6.5	9.0	1280	No
SP-E-IN	Influent	2025-01-29 10:58	4.4	13.83	0.95	7.87	8.9	8.5	1142	No
SP-E-IN	Influent	2025-01-30 12:50	4.9	13.04	1.10	15.42	14.5	7.3	1329	No
SP-E-IN	Influent	2025-01-31 10:56	5.4	12.02	1.25	153.95	117.8	6.8	1519	No
SP-E-IN	Influent	2025-02-01 14:53	4.4	12.87	1.27	45.51	36.9	7.6	1504	No
WWTP-E-IN	Influent	2025-01-26 15:32	5.4	12.55	0.75	7.10	8.3	7.2	930	No
WWTP-E-IN	Influent	2025-01-27 14:01	5.8	12.55	0.94	9.79	10.3	7.3	1171	No
WWTP-E-IN	Influent	2025-01-28 11:55	4.5	12.49	0.92	7.03	8.2	7.8	1110	No
WWTP-E-IN	Influent	2025-01-29 9:46	4.9	13.26	0.97	9.49	10.1	8.1	1183	No
WWTP-E-IN	Influent	2025-01-30 12:31	5.6	12.14	1.15	7.49	8.6	6.9	1417	No
WWTP-E-IN	Influent	2025-01-31 9:59	5.0	12.32	1.23	10.66	11.0	7.1	1503	No
WWTP-E-IN	Influent	2025-02-01 14:36	4.4	12.94	1.28	29.14	24.7	7.6	1516	No
E500GPM-IN	Influent	2025-01-29 11:37	5.9	13.94	0.02	7.16	8.3	8.3	23	No
E500GPM-IN	Influent	2025-01-30 13:04	5.5	13.48	1.15	8.31	9.2	7.1	1406	No
E500GPM-IN	Influent	2025-01-31 10:49	5.4	12.81	1.25	11.71	11.7	7.3	1523	No
E500GPM-IN	Influent	2025-02-01 14:44	4.3	14.14	1.25	31.81	26.7	7.6	1478	No
<b>Effluent<sup>5</sup></b>										
SP-E-OUT <sup>5</sup>	Effluent	2025-01-27 13:56	5.7	11.68	0.90	0.88	3.7	7.0	1127	No
SP-E-OUT	Effluent	2025-01-31 10:14	5.0	12.75	1.24	4.64	6.5	7.6	15	No
WWTP-E-OUT	Effluent	2025-01-26 15:23	6.2	12.63	0.85	2.89	5.2	7.1	1074	No
WWTP-E-OUT	Effluent	2025-01-27 14:06	5.5	11.74	1.05	2.84	5.1	6.9	1296	No
WWTP-E-OUT	Effluent	2025-01-28 12:54	6.9	12.75	1.11	2.19	4.6	7.3	1422	No
WWTP-E-OUT	Effluent	2025-01-29 10:44	5.8	13.53	0.97	4.70	6.5	8.4	1212	No
WWTP-E-OUT	Effluent	2025-01-30 12:16	6.8	11.98	1.33	2.00	4.5	6.7	1681	No
WWTP-E-OUT	Effluent	2025-01-31 10:04	6.2	10.94	1.31	2.79	5.1	6.4	1626	No
WWTP-E-OUT	Effluent	2025-02-01 14:33	5.3	12.38	1.36	3.72	5.8	8.7	1645	No
E500GPM-OUT	Effluent	2025-01-29 11:18	4.1	14.05	0.95	2.14	4.6	8.4	1129	No
E500GPM-OUT	Effluent	2025-01-30 13:00	5.1	12.93	0.05	2.39	4.8	7.5	65	No
E500GPM-OUT	Effluent	2025-01-31 10:53	5.1	12.71	0.63	2.16	4.6	7.4	784	No
E500GPM-OUT	Effluent	2025-02-01 14:50	7.0	12.98	1.27	0.20	3.1	7.6	1617	No

**Notes:**

Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange** text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.

<sup>3</sup> TSS concentration is estimated from field turbidity measurements using a site-specific relationship  $TSS = 0.7458 * [turbidity \text{ as NTU}] + 3$ .

<sup>4</sup> Site staff noted there was no active input of influent to the pond at the time of monitoring on January 26 through February 1. East WWTP treated effluent and clarified water from the E500GPM system were recirculated to the East Sedimentation Pond during the monitoring period. Daily field measurements for station SP-E-IN were collected from cell 1 of the pond.

<sup>5</sup> There was no discharge January 26 through January 30 and February 1, therefore daily field measurements for SP-E-OUT were not collected on those days. Field measurements were collected from residual water in the SP-E-OUT discharge pipe on January 27. East WWTP treated effluent and clarified water was recirculated to the East Sedimentation Pond and did not discharge to Howe Sound on January 27.

<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for Wet Conditions. Wet Conditions applied January 31 and February 1.

**Table B-9: East Catchment Daily Discharge Volumes for the Monitoring Period (January 26 – February 1).**

	East Sedimentation Pond Effluent	East TSS Settling System (E500GPM) Clarified Effluent (Station E500GPM-OUT)	East WWTP Treated Effluent (Station WWTP-E-OUT)	Discharge to Howe Sound (Station SP-E-OUT)
Unit	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>
<b>PE-111578 Discharge Limit</b>	- <sup>1</sup>	- <sup>1</sup>	1100	- <sup>1</sup>
<b>Date</b>				
2025-01-26	0	0	0	0
2025-01-27	0	0	0	0
2025-01-28	0	0	0	0
2025-01-29	0	0	0	0
2025-01-30	0	0	0	0
2025-01-31	0	695	0	695
2025-02-01	0	0	0	0

**Notes:**

Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in **orange** text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.

<sup>1</sup> The annual average authorized discharge rate from the East Sedimentation Pond is 650 m<sup>3</sup>/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.

## ***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 <sup>1</sup>		PE-111578 Discharge Limit	Station SP-W-IN Influent SP-W-IN VA25A2168-004
		Long Term	Short Term		2025-01-30 13:25
<b>General Parameters</b>					
pH - Field	pH units	- <sup>2</sup>	-	5.5 - 9.0	8.0
Conductivity - Field	µS/cm	-	-	-	110
Temperature - Field	°C	-	-	-	3.6
Salinity - Field	ppt	-	-	-	0.09
Turbidity - Field	NTU	-	-	-	74.44
TSS	mg/L	-	-	25 <sup>6</sup>	14.2
Dissolved Oxygen - Field	mg/L	≥8	-	-	13.36
<b>Anions and Nutrients</b>					
Sulphate	mg/L	-	-	-	12
Chloride	mg/L	-	-	-	7.96
Fluoride	mg/L	-	1.5	-	0.121
Ammonia (N-NH <sub>3</sub> )	mg/L	4.1 <sup>3</sup>	27 <sup>3</sup>	-	0.226
Nitrite (N-NO <sub>2</sub> )	mg/L	-	-	-	0.0296
Nitrate (N-NO <sub>3</sub> )	mg/L	3.7	339	-	1.21
<b>Total Metals</b>					
Aluminum, total (T-Al)	mg/L	-	-	-	4.32
Antimony, total (T-Sb)	mg/L	-	0.27 <sup>4</sup>	-	0.00077
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.0019
Barium, total (T-Ba)	mg/L	-	-	-	0.0378
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000081
Boron, total (T-B)	mg/L	1.2	-	-	0.035
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.000115
Chromium, total (T-Cr)	mg/L	-	-	-	0.00145
Cobalt, total (T-Co)	mg/L	-	-	-	0.00122
Copper, total (T-Cu)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0043	0.00876
Iron, total (T-Fe)	mg/L	-	-	-	2.94
Lead, total (T-Pb)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0035	0.00809
Manganese, total (T-Mn)	mg/L	-	-	-	0.117
Mercury, total (T-Hg)	mg/L	0.000016 <sup>5</sup>	-	-	0.0000125
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0315
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00105
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00012
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	0.000027
Thallium, total (T-Tl)	mg/L	-	-	-	0.000021
Uranium, total (T-U)	mg/L	-	-	-	0.021
Vanadium, total (T-V)	mg/L	- <sup>2</sup>	-	0.0081	0.00677
Zinc, total (T-Zn)	mg/L	- <sup>2</sup>	- <sup>2</sup>	0.0133	0.0287
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
<b>Dissolved Metals</b>					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000150
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00145
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0122
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0714
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00132
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0014
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>					
Acenaphthene	mg/L	0.006	-	-	0.000019
Acridine	mg/L	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	0.000011
Benzo(a)pyrene	mg/L	0.00001	-	-	0.000008
Chrysene	mg/L	0.0001	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	0.000024
Fluorene	mg/L	0.012	-	-	0.000019
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	0.000011
Naphthalene	mg/L	0.001	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	0.00003
Pyrene	mg/L	-	-	-	0.000024
Quinoline	mg/L	-	-	-	<0.000050
<b>Volatile Organic Compounds (VOCs)</b>					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

**Notes:** Results underlined in bold italics exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in orange text exceeded the PE-111578 West Sedimentation Pond Discharge Limit.

The West Sedimentation Pond discharged during the monitoring period (January 26 – February 1) on February 1.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.

<sup>3</sup> The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.

<sup>4</sup> The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.

<sup>5</sup> When MeHg ≤ 0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions. Wet Conditions applied January 31 and February 1.

**Table C-2: 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						
SP-W-IN	Influent	SP-W-IN	L2758506-3	2024-12-22	0.146	1.61
SP-W-IN	Influent	SP-W-IN	L2758577-2	2025-01-01	0.0218	1.24
SP-W-IN	Influent	SP-W-IN	L2758633-2	2025-01-09	0.00947	1.10
Effluent						
SP-W-OUT	Effluent	SP-W-OUT	L2758506-4	2024-12-22	0.00249	1.11
SP-W-OUT	Effluent	SP-W-OUT	L2758577-1	2025-01-01	0	0.796
SP-W-OUT	Effluent	SP-W-OUT	L2758633-1	2025-01-09	0.00285	0.907

**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-3: West Catchment Field Measurements Collected During the Monitoring Period (January 26 – February 1).**

Parameter			Temperature	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS <sup>3</sup>	pH	Conductivity	Visibility of Sheen
Unit			°C	mg/L	ppt	NTU	mg/L	s.u.	µS/cm	
<b>PE-111578 Discharge Limit</b>			-	-	-	-	25 <sup>6</sup>	5.5 - 9.0	-	-
<b>Lowest Applicable Guideline<sup>1</sup></b>			-	≥8	-	-	- <sup>2</sup>	- <sup>2</sup>	-	-
Station ID	Water Type	Date								
<b>Influent<sup>4</sup></b>										
SP-W-IN	Influent	2025-01-26 16:28	2.6	14.47	0.05	71.87	56.6	7.6	58	No
SP-W-IN	Influent	2025-01-27 14:45	5.7	12.90	0.07	25.01	21.7	7.7	88	No
SP-W-IN	Influent	2025-01-28 13:09	5.2	13.14	0.09	15.47	14.5	7.7	114	No
SP-W-IN	Influent	2025-01-29 11:54	4.6	13.56	0.07	15.00	14.2	7.9	88	No
SP-W-IN	Influent	2025-01-30 13:25	3.6	13.36	0.09	74.44	58.5	8.0	110	No
SP-W-IN	Influent	2025-01-31 11:13	3.0	13.48	0.15	486.26	365.7	8.4	187	No
SP-W-IN	Influent	2025-02-01 15:31	3.4	13.83	0.10	107.06	82.8	8.4	120	No
W500GPM-IN	Influent	2025-02-01 15:52	2.3	13.7	0.11	156.58	119.8	8.3	129	No
<b>Effluent<sup>5</sup></b>										
SP-W-OUT	Effluent	2025-02-01 16:50	2.2	16.99	0.08	2.57	4.9	7.9	100	No
W500GPM-OUT	Effluent	2025-02-01 15:49	2.6	15.77	0.08	10.88	11.1	8.0	98	No

**Notes:** Results underlined in bold italics exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in orange text exceeded the PE-111578 West Sedimentation Pond Discharge Limit.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> The WQG was not evaluated for parameters with discharge limits.

<sup>3</sup> TSS concentration is estimated from field turbidity measurements using a site-specific relationship  $TSS = 0.7458 * [turbidity \text{ as NTU}] + 3$ .

<sup>4</sup> Site staff noted there was no active input of influent sources to the pond at the time of monitoring on January 29. Daily field measurements for station SP-W-IN were collected from cell 1 of the pond.

<sup>5</sup> There was no discharge January 26 through January 31, therefore daily field measurements for SP-W-OUT were not collected on those days.

<sup>6</sup> The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions. Wet Conditions applied January 31 and February 1.

**Table C-4: West Catchment Daily Discharge Volumes for the Monitoring Period (January 26 – February 1).**

	West Sedimentation Pond Effluent	West TSS Settling System (W500GPM) Clarified Effluent (Station W500GPM-OUT)	West TSS Settling System (ESC) Clarified Effluent (Station ESC-W-OUT)	West WWTP Treated Effluent <sup>1</sup> (Station WWTP-W-OUT)	Discharge to Howe Sound (Station SP-W-OUT)
Unit	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>
<b>PE-111578 Discharge Limit</b>	- <sup>2</sup>	- <sup>2</sup>	- <sup>2</sup>	120	- <sup>2</sup>
<b>Date</b>					
2025-01-26	0	0	0	0	0
2025-01-27	0	0	0	0	0
2025-01-28	0	0	0	0	0
2025-01-29	0	0	0	0	0
2025-01-30	0	0	0	0	0
2025-01-31	0	0	0	0	0
2025-02-01	0	373	0	0	373

**Notes:**

Results underlined in bold italics exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

Results in orange text exceeded the PE-111578 West Sedimentation Pond Discharge Limit.

<sup>1</sup> The West WWTP is not being operated, therefore discharges are not expected from this facility.

<sup>2</sup> The annual average authorized discharge rate from the West Sedimentation Pond is 310 m<sup>3</sup>/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.

## ***Appendix D: Marine Water Receiving Environment Results***

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

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		Station IDZ-E1			Station IDZ-E2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-E1-0.5	IDZ-E1-2m	IDZ-E1-SF	IDZ-E2-0.5	IDZ-E2-2m	IDZ-E2-SF
				VA25A1686-001	VA25A1686-002	VA25A1686-003	VA25A1686-004	VA25A1686-005	VA25A1686-006
		Long Term	Short Term	2025-01-23 15:25	2025-01-23 15:24	2025-01-23 15:20	2025-01-23 15:36	2025-01-23 15:35	2025-01-23 15:33
<b>General Parameters</b>									
pH - Field	pH units	7.0 - 8.7	-	7.7	7.6	7.6	7.8	7.6	7.6
Specific Conductivity - Field	µS/cm	-	-	18824	27850	29587	20073	28733	29487
Temperature - Field	°C	-	-	5.4	7.9	8.6	5.6	8.2	8.5
Salinity - Field	ppt	Narrative <sup>2</sup>	-	18.39	26.22	27.52	19.63	26.91	27.46
Turbidity - Field	NTU	Narrative <sup>2</sup>	Narrative <sup>2</sup>	1.05	0.77	0.69	1.92	0.71	0.76
TSS	mg/L	Narrative <sup>2</sup>	Narrative <sup>2</sup>	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Oxygen - Field	mg/L	≥8	-	10.64	8.97	8.06	10.79	8.90	8.29

**Notes:**

Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.

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

Parameter	Unit	Lowest Applicable Guideline <sup>1</sup>		Station IDZ-W1			Station IDZ-W2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-W1-0.5	IDZ-W1-2m	IDZ-W1-SF	IDZ-W2-0.5	IDZ-W2-2m	IDZ-W2-SF
				VA25A1686-007	VA25A1686-008	VA25A1686-009	VA25A1686-010	VA25A1686-011	VA25A1686-012
		Long Term	Short Term	2025-01-23 12:27	2025-01-23 12:29	2025-01-23 12:25	2025-01-23 12:58	2025-01-23 12:56	2025-01-23 12:54
<b>General Parameters</b>									
pH - Field	pH units	7.0 - 8.7	-	7.7	7.7	7.5	7.7	7.6	7.5
Specific Conductivity - Field	µS/cm	-	-	21043	25645	31205	21400	25537	31144
Temperature - Field	°C	-	-	5.2	6.5	9.2	5.3	6.9	9.2
Salinity - Field	ppt	Narrative <sup>2</sup>	-	20.91	24.94	28.66	21.20	24.56	28.62
Turbidity - Field	NTU	Narrative <sup>2</sup>	Narrative <sup>2</sup>	1.30	1.03	0.58	0.89	0.82	0.61
TSS	mg/L	Narrative <sup>2</sup>	Narrative <sup>2</sup>	<2.0	<2.0	2.5	<2.0	<2.0	2.5
Dissolved Oxygen - Field	mg/L	≥8	-	10.46	9.92	<b><u>6.49</u></b>	10.22	9.34	<b><u>6.60</u></b>

**Notes:**

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.

Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.

<sup>1</sup> The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

<sup>2</sup> Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.