# TECHNICAL MEMORANDUM

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| **To:** | **Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)** | **Date:** | **6 June 2025** |
| **From:** | **Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)** | **Project #:** | **A633-9** |
| **Subject:** | **PE-111578 Weekly Discharge and Compliance Report #66 for May 25 - 31** | | |

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 #66) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of May 25 - 31. 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 #66 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 E for contact water and treated water samples.

# 1. Current Conditions

## *1.1 Water Management Infrastructure*

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

The West WWTP was commissioned August and September 2024, but operation of the West WWTP was subsequently suspended September 25, 2024 for temporary reconfiguration to conduct pilot-scale evaluations of alternative treatment processes. The evaluations were completed April 2025 and did not yield improved treatment outcomes; therefore, the approved treatment process is maintained. Lower than expected volumes of contaminated contact water have been encountered during construction, therefore the operation of the West WWTP remains suspended and west catchment waters that require treatment are directed to the East WWTP.

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

The east 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 WWTP for treatment, or 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 pond effluent. The first West Sedimentation Pond TSS settling system (ESC) was commissioned for use on September 25, 2024, with an 820 $m^3$/day installed capacity.

Additional TSS settling systems (W500GPM) was commissioned for use on November 28 and provides an additional 2,725 $m^3$/day installed capacity for clarifying water. A third TSS settling system (E500GPM) was commissioned for use at the East Sedimentation Pond on December 4, 2024, also with 2,725 $m^3$/day installed capacity.

Discharge from the East and West Sedimentation Ponds is controlled using pumps. Water stored in the ponds is pumped to a TSS settling system prior to discharge through the authorized outfall structures adjacent to each pond. Some of the TSS clarified water may be recirculated back to the ponds or used for road dust suppression. Non-contaminated contact water stored in the East Sedimentation Pond is clarified through the E500GPM prior to re-use or discharge to Howe Sound at location SP-E-OUT. The west catchment discharge location, SP-W-OUT, receives the combined clarified effluents from the ESC and W500GPM TSS settling systems. Each of the authorized discharge locations (SP-E-OUT and SP-W-OUT) has an initial dilution zone (IDZ) where discharged water mixes with Howe Sound surface waters. The IDZ is defined in PE-111578 and extends in a 150 m radius from each point of discharge into Howe Sound.

Preparations underway for the next stages of construction will include further upgrades to water management in the east and west catchments and consolidate the three TSS settling systems currently on site into a single high capacity system located adjacent to the West Sedimentation Pond. Commissioning of the planned system is scheduled to commence August 2025. The planned modifications will result in most of the east and west catchments non-contaminated contact water being clarified through the high capacity TSS settling system and discharged at SP-W-OUT.

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 conditions were observed during the monitoring period (May 25 - 31), with precipitation recorded each day except May 27 and 28. The total precipitation amount during the monitoring period was 43.0 mm with the majority occurring on May 26 (13.2 mm), May 29 (14.4 mm) and May 31 (14.8 mm). The daily weather conditions are summarized in Table 1.

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

| Date | Precipitation (mm) | Max. Temp (°C) | Min. Temp (°C) | Weather Description |
|---|---|---|---|---|
| 2025-05-25 | 0.4 | 20.1 | 9.6 | Mix of Sun and Cloud |
| 2025-05-26 | 13.2 | 17.8 | 11.2 | Rain |
| 2025-05-27 | 0 | 20.7 | 10.5 | Mix of Sun and Cloud |
| 2025-05-28 | 0 | 25.8 | 12.3 | Mix of Sun and Cloud |
| 2025-05-29 | 14.4 | 19.2 | 12.1 | Rain |
| 2025-05-30 | 0.2 | 18.7 | 10 | Mix of Sun and Cloud |
| 2025-05-31 | 14.8 | 16.5 | 10.5 | Rain |

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

From May 25 - 31, the East Sedimentation Pond received non-contaminated contact water from Area 1100 North Collection Sump, the MOF sump, and recirculated water from the East WWTP and E500GPM TSS settling system (Appendix A, Figure 2). Non-contaminated contact waters from Area 4100 Collection Sump were directed to the West Sedimentation Pond, as well as recirculated water from the W500GPM and ESC TSS settling systems (Appendix A, Figure 3). During the monitoring period (May 25 - 31), a total of 574 $m^3$ of water from the East Sedimentation Pond was transferred to the West Sedimentation Pond.

Routine operation of the East WWTP continued during the monitoring period (May 25 - 31). Concrete contact waters and water from Area 1200-D sump and the hydrovac pit were periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was discharged to the East Sedimentation Pond each day during the monitoring period (May 25 - 31). Pond effluent was clarified through the E500GPM TSS settling system and recirculated to the East Sedimentation Pond on May 28, 29, 30, and 31. Effluent was not discharged to Howe Sound (station SP-E-OUT) during the monitoring period. Daily water volumes processed by the East WWTP and the East TSS settling system (E500GPM) are provided in Appendix B (Table B-6).

West Sedimentation Pond effluent was clarified through the W500GPM system each day during the monitoring period (May 25 - 31) and recirculated to the West Sedimentation Pond or used for road dust suppression. The West ESC (150 GPM) TSS settling system was not operational. Effluent was not discharged to Howe Sound (station SP-W-OUT) during the monitoring period. From May 25 - 31, at total of 406 $m^3$ clarified effluent was reclaimed (*i.e.*, used for road dust suppression). Daily clarified effluent volumes from the TSS settling systems and volumes of reclaimed water are provided in Appendix C (Table C-5).

## 2. Monitoring Summary

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

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

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02, OUT-06, and OUT-11). East Creek water was temporarily diverted to OUT-11 on September 17, 2024, and is monitored at the inlet to temporary diversion (station SW-04), therefore OUT-11 is not currently monitored.
- Creek water monitoring stations for Woodfibre, Mill and East Creek (SW-01, SW-02, SW-03, SW-04, SW-07).

- Contact water monitoring locations (SP-E-IN, E500GPM-IN, E500GPM-OUT, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 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 operational and the associated influent stations defined in PE-111578 (SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2) have been replaced with temporary influent monitoring stations SP-E-IN and SP-W-IN (East and West Sedimentation Pond, respectively) located in-pond, at the influent end of each pond.

Two flocculant-based TSS settling systems are used at the West Sedimentation Pond (ESC and W500GPM) as described in Section 1.1. 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 (Section 1.1). Influent and effluent are monitored at stations 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 IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2, WWTP-E-IN, WWTP-E-OUT, SP-E-IN, E500GPM-IN, E500GPM-OUT, SP-W-IN, W500GPM-IN, and W500GPM-OUT during the monitoring period (May 25 - 31). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (May 25 - 31) were met.

Daily field parameters and a weekly analytical sample were not collected at the east and west catchment effluent stations (SP-E-OUT and SP-W-OUT, respectively) as there was no discharge to Howe Sound during the monitoring period (May 25 - 31). Daily field parameters and a weekly analytical sample were not collected at the influent and effluent stations of the West WWTP (WWTP-W-IN and WWTP-W-OUT, respectively) as it was not operational during the monitoring period.

## Table 2: Summary of PE-111578 Monitoring Samples Collected May 25 - 31.

| Sampling Date | Sample | Description | Parameters Tested | Monitoring Frequency |
|---|---|---|---|---|
| May 25, 2025 | SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | WWTP-E-IN | East WWTP at the influent meter box | Field Parameters. | D |
| | WWTP-E-OUT | East WWTP at the effluent meter box | | |
| | SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | W500GPM-IN | West 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | | |
| May 26, 2025 | SP-E-IN | East Sedimentation Pond monitored at cell 1 of the pond | Field Parameters. | D |
| | WWTP-E-IN | East WWTP at the influent meter box | Field Parameters. | D |
| | WWTP-E-OUT | East WWTP at the effluent meter box | | |
| | SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | W500GPM-IN | West 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | | |
| May 27, 2025 | SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | WWTP-E-IN | East WWTP at the influent meter box | Field Parameters. | D |
| | WWTP-E-OUT | East WWTP at the effluent meter box | | |
| | SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | W500GPM-IN | West 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | | |
| | IDZ-E1-0.5 | Howe Sound IDZ station E1; 0.5 m below surface | Field, Physical & General Parameters, EPHs & PAHs, Total, Dissolved and Speciated Metals, Chronic toxicity. | $W_3$, Q |
| | IDZ-E2-0.5 | Howe Sound IDZ station E2; 0.5 m below surface | | |
| | IDZ-W1-0.5 | Howe Sound IDZ station W1; 0.5 m below surface | | |
| | IDZ-W2-0.5 | Howe Sound IDZ station W2; 0.5 m below surface | | |
| | WQR1-0.5 | Reference site 1; 0.5 m below surface | | |
| | WQR2-0.5 | Reference site 2; 0.5 m below surface | | |
| | IDZ-E1-2m | Howe Sound IDZ station E1; 2 m below surface | Field and Physical Parameters. | $W_3$ |
| | IDZ-E1-SF | Howe Sound IDZ station E1; 2 m above the seafloor | | |
| | 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-W1-2m | Howe Sound IDZ station W1; 2 m below surface | | |
| | IDZ-W1-SF | Howe Sound IDZ station W1; 2 m above the seafloor | | |
| | IDZ-W2-2m | Howe Sound IDZ station W2; 2 m below surface | | |
| | IDZ-W2-SF | Howe Sound IDZ station W2; 2 m above the seafloor | | |
| May 28, 2025 | SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | WWTP-E-IN | East WWTP at the influent meter box | Field Parameters. | D |
| | WWTP-E-OUT | East WWTP at the effluent meter box | | |
| | SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans. | D, $W_1$, $W_2$ |
| | W500GPM-IN | West 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans. | P |
| May 29, 2025 | SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans. | D, $W_1$, $W_2$ |
| | 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 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | E500GPM-OUT | East 500 GPM TSS settling system at the effluent meter box | Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans. | P |
| | SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | W500GPM-IN | West 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | | |
| May 30, 2025 | SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | WWTP-E-IN | East WWTP at the influent meter box | Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans. | D, $W_1$, $W_2$ |
| | WWTP-E-OUT | East WWTP at the effluent meter box | | |
| | E500GPM-IN | East 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | E500GPM-OUT | East 500 GPM TSS settling system at the effluent meter box | | |
| | SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | W500GPM-IN | West 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | | |
| May 31, 2025 | SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | WWTP-E-IN | East WWTP at the influent meter box | Field Parameters. | D |
| | WWTP-E-OUT | East WWTP at the effluent meter box | | |
| | SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | Field Parameters. | D |
| | W500GPM-IN | West 500 GPM TSS settling system at the influent meter box | Field Parameters. | P |
| | W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | | |

**Notes:**
Monitoring frequency requirements under PE-111578 are indicated as follows:
D – daily monitoring of field parameters at WWTP and sedimentation pond influent and effluent stations.
M – monthly monitoring for all parameters at WWTP, sedimentation pond and receiving environment stations.
$M_5$ – spring high frequency (5-in-30) sampling for receiving environment stations.
$W_1$ – initial high frequency monitoring for physical parameters at WWTP and sedimentation pond influent and effluent stations.
$W_2$ – initial high frequency monitoring for all parameters at WWTP and sedimentation pond influent and effluent stations.
$W_3$ – initial high frequency monitoring for field and physical parameters at IDZ stations.
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.
Q – quarterly chronic toxicity.

# 3. Water Quality Results

## 3.1 Screening and Reporting Overview

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

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

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

## 3.2 Summary of Reported Results

Field measurements and analytical results included in this weekly report (Report #66) are listed below in Table 3. Testing for methylmercury, dioxins and furans typically requires up to four

weeks to complete. Analytical results not reported will be included in future weekly reports. Reporting of results is pending for the following samples and parameters:

- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2 collected March 25 at 0.5 m below surface (chronic toxicity)
- IDZ-E1, IDZ-E2 and WQR1 collected May 9 (field and all analytical parameters)
- SP-E-IN, WWTP-E-IN, and WWTP-E-OUT collected May 10 (dioxins and furans)
- SW-01 and SW-04 collected May 12 (methylmercury, dioxins and furans)
- SW-02, SW-03, and SW-07 collected May 13 (methylmercury, dioxins and furans)
- SP-W-IN and W500GPM-OUT collected May 15 (dioxins and furans)
- SP-W-IN and SP-W-OUT collected May 19 (dioxins and furans)
- OUT-02 collected May 19 (methylmercury)
- OUT-01 collected May 20 (methylmercury)
- SP-E-IN, WWTP-E-IN, and WWTP-E-OUT collected May 22 (dioxins and furans)
- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, and WQR2 collected May 27 (field and all analytical parameters, chronic toxicity)
- IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2 collected May 27 (field and all analytical parameters)
- SP-W-IN and W500GPM-OUT collected May 28 (methylmercury, dioxins and furans)
- SP-E-IN and E500GPM-OUT collected May 29 (methylmercury, dioxins and furans)
- WWTP-E-IN and WWTP-E-OUT collected May 30 (methylmercury, dioxins and furans)

## Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #66.

| Sample | Description | Sampling Date | Parameters Reported |
|---|---|---|---|
| IDZ-W1-0.5 | Howe Sound IDZ station W1; 0.5 m below surface | May 5, 2025 | Dioxins and Furans. |
| IDZ-W1-2m | Howe Sound IDZ station W1; 2 m below surface | | |
| IDZ-W1-SF | Howe Sound IDZ station W1; 2 m above the seafloor | | |
| IDZ-W2-0.5 | Howe Sound IDZ station W2; 0.5 m below surface | | |
| IDZ-W2-2m | Howe Sound IDZ station W2; 2 m below surface | | |
| IDZ-W2-SF | Howe Sound IDZ station W2; 2 m above the seafloor | | |
| IDZ-E1-0.5 | Howe Sound IDZ station E1; 0.5 m below surface | May 6, 2025 | Methylmercury, Dioxins and Furans. |
| IDZ-E1-2m | Howe Sound IDZ station E1; 2 m below surface | | |
| IDZ-E1-SF | Howe Sound IDZ station E1; 2 m above the seafloor | | |
| IDZ-E2-0.5 | Howe Sound IDZ station E2; 0.5 m below surface | | |
| IDZ-E2-2m | Howe Sound IDZ station E2; 2 m below surface | | |
| IDZ-E2-SF | Howe Sound IDZ station E2; 2 m above the seafloor | | |
| WQR1-0.5 | Reference site 1; 0.5 m below surface | | |
| WQR1-2m | Reference site 1; 2 m below surface | | |
| WQR1-SF | Reference site 1; 2 m above the seafloor | | |
| WQR2-0.5 | Reference site 2; 0.5 m below surface | | |
| WQR2-2m | Reference site 2; 2 m below surface | | |
| WQR2-SF | Reference site 2; 2 m above the seafloor | | |
| IDZ-W1-0.5 | Howe Sound IDZ station W1; 0.5 m below surface | May 7, 2025 | Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, Methylmercury, Dioxins and Furans. |
| IDZ-W1-2m | Howe Sound IDZ station W1; 2 m below surface | | |
| IDZ-W1-SF | Howe Sound IDZ station W1; 2 m above the seafloor | | |
| IDZ-W2-0.5 | Howe Sound IDZ station W2; 0.5 m below surface | | |
| IDZ-W2-2m | Howe Sound IDZ station W2; 2 m below surface | | |
| IDZ-W2-SF | Howe Sound IDZ station W2; 2 m above the seafloor | | |
| WQR2-0.5 | Reference site 2; 0.5 m below surface | | |
| WQR2-2m | Reference site 2; 2 m below surface | | |
| WQR2-SF | Reference site 2; 2 m above the seafloor | | |
| SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | May 9, 2025 | Dioxins and Furans. |
| W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | | |
| SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | May 14, 2025 | Dioxins and Furans. |
| WWTP-E-IN | East WWTP at the influent meter box | | |
| WWTP-E-OUT | East WWTP at the effluent meter box | | |
| OUT-01 | Non-contact water diversion ditch outlet | May 20, 2025 | Field, Physical and General Parameters, Total and Dissolved Metals. |
| IDZ-E1-0.5 | Howe Sound IDZ station E1; 0.5 m below surface | | 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 | | |
| SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | May 22, 2025 | Methylmercury. |
| WWTP-E-IN | East WWTP at the influent meter box | | |
| WWTP-E-OUT | East WWTP at the effluent meter box | | |
| SP-W-IN | West Sedimentation Pond influent monitored at cell 1 of the pond | May 28, 2025 | Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs. |
| W500GPM-OUT | West 500 GPM TSS settling system at the effluent meter box | | |
| SP-E-IN | East Sedimentation Pond influent monitored at cell 1 of the pond | May 29, 2025 | Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs. |
| E500GPM-OUT | East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box | | |
| WWTP-E-IN | East WWTP at the influent meter box | May 30, 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 | | |

### 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 (May 25 - 31), the TSS settling system (E500GPM) was operated on May 28, 29, 30, and 31 and produced clarified East Sedimentation Pond effluent that was recirculated to the pond. The east catchment did not discharge during the monitoring period. Daily clarified effluent volumes, East WWTP treated effluent volumes, and discharge volumes from the east catchment are listed in Appendix B, Table B-6.

Field measurements were collected May 25 - 31 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-5. Analytical samples collected on May 29 (stations SP-E-IN and E500GPM-OUT) and May 30 (stations WWTP-E-IN and WWTP-E-OUT) were available at the time of reporting. Screening results for east catchment contact water quality are summarized in Table B-1 and Table B-2 of Appendix B.

During the monitoring period (May 25 - 31), field measurements and analytical results for samples collected at E500GPM-OUT met discharge limits and WQGs except for total mercury on May 29 (Appendix B; Table B-2, Table B-5). Clarified effluent from the E500GPM system was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on May 29.

Methylmercury results were available for East Sedimentation Pond influent (SP-E-IN) and East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected May 22 (as discussed in Report #65). Methylmercury met the MDO however total mercury was above the MDO in East WWTP effluent (WWTP-E-OUT) collected May 22 (Appendix B, Table B-3). East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on May 22. This item is tracked in Table 4.

Dioxin and furan results were reported for East Sedimentation Pond influent (station SP-E-IN) and East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected

May 14 (as discussed in Report #64). The lower and upper bound PCDD/F TEQ concentrations in effluent discharged from the East WWTP (WWTP-E-OUT) on May 14 were 0 pg/L and 1.17 pg/L, respectively. Results are tabulated in Appendix B, Table B-4.

### *3.4 West Catchment*

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

During the monitoring period (May 25 - 31), West Sedimentation Pond effluent was directed to the TSS settling system (W500GPM) each day and clarified effluent was either recirculated to the pond or used for road dust suppression. The smaller TSS settling system (ESC) was not operational. Daily clarified effluent and discharge volumes from the west catchment are summarized in Appendix C, Table C-5.

Field measurements were collected May 25 - 31 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-4. Analytical samples collected May 28 (stations SP-W-IN and W500GPM-OUT) were available at the time of reporting. Screening results for west catchment contact water quality are tabulated in Table C-1 and Table C-2 of Appendix C.

During the monitoring period (May 25 - 31), field measurements and analytical results for samples collected at station W500GPM-OUT met PE-111578 discharge limits and WQGs (Appendix C; Table C-2 and Table C-4).

Dioxin and furan results were reported for West Sedimentation Pond influent (station SP-W-IN) and TSS settling system effluent (W500GPM-OUT) on May 9 (as discussed in Report #63). The lower and upper bound PCDD/F TEQ concentrations in effluent discharged from the W500GPM system (W500GPM-OUT) on May 9 were 0.0182 pg/L and 0.760 pg/L, respectively. Results are tabulated in Appendix C, Table C-3.

### 3.5 Non-Contact Water Diversion Ditch Outlets

Non-contact water diversion ditch samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater aquatic life. The analytical results, field parameters, and WQGs are summarized in Appendix D.

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 the diversion is in place.

Analytical results were available at the time of reporting for the May 20 non-contact water diversion ditch outlet sample collected at station OUT-01. Parameter concentrations met WQGs except field pH (6.3), total aluminum (0.112 mg/L) and dissolved copper (0.00084 mg/L). The field pH, total aluminum and dissolved copper results are comparable to the baseline concentration ranges observed for diversion ditch water quality. The measured concentrations are considered to represent natural conditions for non-contact waters, therefore field pH, total aluminum and dissolved copper results above the WQGs are not flagged as project influenced exceedances.

### 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 were not available at the time of reporting for freshwater and estuarine water receiving environment stations.

### 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 E.

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 May 7 at IDZ-W1, IDZ-W2 and marine reference station WQR2 as well as on May 20 at IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2.

Parameter concentrations met WQGs except dissolved oxygen and total boron in some samples (Appendix E; Tables E-1 through E-4). In samples collected at 2 m above the seafloor at IDZ-W1 and IDZ-W2 on May 7 and at IDZ-W2 on May 20, dissolved oxygen (7.10, 7.17 and 7.72 mg/L, respectively) was below the lower limit of the WQG (8 mg/L). In samples collected at 2 m below surface and 2 m above the seafloor at IDZ and marine reference stations on May 7, total boron was above the WQG (1.2 mg/L) and ranged from 1.30 to 2.80 mg/L. Low concentrations of dissolved oxygen and elevated concentrations of total boron are indicative of influence from the deeper saline waters in the northern basin of Howe Sound and are a natural condition of marine water at the WDA monitoring stations. The dissolved oxygen and total boron concentrations observed at the IDZ monitoring stations are within concentrations that have been observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations and are therefore not attributed to project influence.

Methylmercury analytical results were available at the time of reporting for marine samples collected from 0.5 and 2 m below the water surface and 2 m above the seafloor on May 6 at IDZ-E1, IDZ-E2 and reference stations WQR1 and WQR2 and on May 7 at IDZ-W1, IDZ-W2 and reference station WQR2 (as discussed in Report #63). For all samples, methylmercury concentrations ranged from <0.000020 to 0.000101 µg/L. Methylmercury results met the WQG and the corresponding total mercury results also met WQGs except in the sample collected at 2 m below the surface on May 7 at IDZ-W1 (Appendix E, Table E-5). The methylmercury (0.000101 µg/L) and total mercury (<0.0050 µg/L) concentrations observed May 7 at the IDZ-W1 monitoring station 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. The methylmercury results for the IDZ-W1 samples collected at 2 m below surface (IDZ-W1-2m) and at 2 m above the seafloor (IDZ-W1-SF) are being verified by the laboratory (Table 4).

Dioxins and furans analytical results were available at the time of reporting for marine samples collected from 0.5 and 2 m below the water surface and 2 m above the seafloor at stations IDZ-W1 and IDZ-W2 on May 5, at stations IDZ-E1, IDZ-E2 and reference stations WQR1 and WQR2 on May 6, and at stations IDZ-W1, IDZ-W2 and reference station WQR2 on May 7 (as discussed in Report #63). For all samples, the lower and upper bound PCDD/F TEQ concentrations ranged

from 0 to 0.285 pg/L, and 0.668 to 1.85 pg/L, respectively. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the baseline monitoring program or within background ranges observed at marine reference stations. Results are tabulated in Appendix E, Table E-6.

# 4. Quality Control

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

## Table 4: Weekly Report QC Evaluations and Ongoing Items

| QC Procedure | Observation | Investigation/Resolution |
|---|---|---|
| **Reporting Period (May 25 - 31, Report #66)** | | |
| **Authorized Works and Monitoring Program Evaluation** | The authorized works and monitoring stations have not been established as described in PE-111578. | The PE-111578 authorized works for water management have been constructed, except for some of the conveyance ditches which require completion of site grading prior to installation. Sumps, pumps and hoses are used for temporary conveyance until the ditches are completed. The lower reach of East Creek has been temporarily diverted through OUT-11 outfall since September 17, 2024, to facilitate replacement of the East Creek outfall culvert (OUT-12). All monitoring stations have been established except at SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2 where substitute stations are established in lieu of those listed in PE-111578 (refer to Section 2). This item remains open. |
| **Pending Data** | Analytical results not reported. | Analytical results, field parameters, and chronic toxicity results for receiving environment samples collected May 27 were not included with Report #66. Methylmercury, dioxins and furans results for contact water and treated water samples collected May 28, 29, and 30 were not included with Report #66. The pending results will be included in future weekly reports when available. This item remains open. |
| **Data QC** | Methylmercury results in marine environment samples higher than expected. | The methylmercury results for marine receiving environment samples collected at 2 m below surface and at 2 m above the seafloor at IDZ-W1 are being verified by the laboratory. This item remains open. |
| **Ongoing Items from Previous Weekly Reports** | | |
| **Report #57: Pending Data** | Analytical results not reported. | Chronic toxicity results for marine receiving environment samples collected March 25 were not included with Report #66. The pending results will be included in future weekly reports when available. This item remains open. |
| **Report #62: WWTP Performance Evaluation** | Field pH, total copper, total mercury, total zinc, 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), January 24 and January 28 results (Report #49), February 5 and 6 results (Report #50), February 10 results (Report #51), February 15 and 20 results (Report #52), February 24 results (Report #53), March 8 results (Report #55), March 17 results (Report #56), April 24 results (Reports #61 and #62), May 3 results (Report #63), May 10 results (Report #64), May 14 results (Report #64 and #65), and May 22 results (Report #65 and #66). The total copper concentrations were 0.00809, 0.00595, 0.00895, 0.00518, 0.00542, 0.00525, 0.00450, 0.00734, and 0.00464 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, 28, February 24, March 8, 17, April 24, and May 10, respectively, and ranged from 0.00613 to 0.0108 mg/L in four replicate samples collected on February 15. The total mercury concentrations were 0.0355, 0.185, 0.223, 0.0882, 0.0101, 0.0269, 0.0524, 0.0404, and 0.0217 µg/L in samples collected on January 24, 30, February 20, 24, April 24, May 3, May 10, May 14, and May 22, respectively, and were 0.0615 and 0.0644 mg/L in two replicate samples collected February 15. The total zinc concentrations were 0.0137, 0.0152, and 0.0156 mg/L in the samples collected on January 24, February 20 and 24, and were 0.0223 and 0.0234 mg/L in two of four replicate samples collected February 15. Hexavalent chromium concentrations were 0.00197 and 0.00166 mg/L in samples collected January 24 and 28 at WWTP-E-OUT. Field pH was 9.1, 9.2, and 9.6 in samples collected at WWTP-E-OUT on February 5, 6 and 10, respectively.<br><br>As of May 10, and since February/March, field pH and total metals have been consistently meeting MDOs except total copper (April/May) and total mercury (April/May). The WWTP is not designed to treat mercury, therefore possible contact water sources of mercury are being evaluated. Treatment performance for total copper continues to be monitored; the metal removal media was scheduled for replacement on May 29 and the fresh media is expected to improve copper removal. This item remains open. |
| **Report #62: Discharge WQG Evaluation** | Total mercury and methylmercury above WQG. | Total mercury and methylmercury measured at station SP-E-OUT on April 24 (0.00851 and 0.000264 µg/L, respectively) were 2.6 times greater than the calculated WQG. Potential sources are being reviewed. This item remains open. |
| **Report #63: Pending Data** | Analytical results not reported. | Methylmercury results for receiving environment samples collected May 6 and field parameters and analytical results for receiving environment samples collected May 7 are discussed in Section 3.7 of Report #66. Dioxins and furans results for receiving environment samples collected May 5, 6, 7 and contact water and treated water samples collected May 9 are discussed in Sections 3.4 and 3.7 of Report #66. Field parameters and analytical results for receiving environment samples collected May 9 and dioxins and furans results for contact water and treated water samples collected May 10 were not included in Report #66. The pending results will be included in future weekly reports when available. This item remains open. |
| **Report #64: Pending Data** | Analytical results not reported. | Dioxins and furans results for contact water and treated water samples collected May 14 are discussed in Section 3.3 of Report #66. Methylmercury, dioxins and furans results for receiving environment samples collected May 12 and 13 and dioxins and furans results for contact water and treated water samples collected May 15 were not included with Report #66. The pending results will be included in future weekly reports when available. This item remains open. |
| **Report #65: Discharge WQG Evaluation** | Total mercury and methylmercury above WQG. | Total mercury (0.00821 and 0.00825 µg/L) and methylmercury (0.000149 and 0.000158 µg/L) measured in two replicate samples at station SP-W-OUT on May 19 were 1.5 to 1.6 times greater than the WQGs. Potential sources are being reviewed. This item remains open. |
| **Report #65: Potential Project Influence** | Hexavalent chromium at East Creek above WQG and the baseline concentration range. | Hexavalent chromium concentration (0.00212 mg/L) observed at the East Creek station (SW-04) on May 12 was 2.1 times greater than the WQG and 6.8 times greater than the maximum concentration observed in the pre-construction baseline monitoring program (0.00031 mg/L). Potential influences to East Creek water quality at station SW-04 are being reviewed. This item remains open. |
| **Report #65: Pending Data** | Analytical results not reported. | Analytical results and field parameters for diversion ditch outlet and receiving environment samples collected May 20 are discussed in Sections 3.5 and 3.7 of Report #66. Methylmercury results for contact water and treated water samples collected May 22 are discussed in Section 3.3 of Report #66. Methylmercury results for diversion ditch outlet samples collected May 19 and 20 and dioxins and furans results for contact water and treated water samples collected May 19 and May 22 were not included with Report #66. The pending results will be included in future weekly reports when available. This item remains open. |

**Notes**:

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

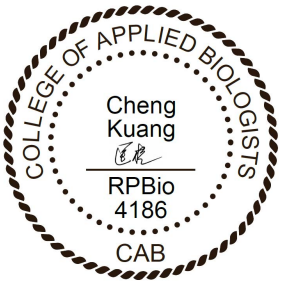
# 5. Closure

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

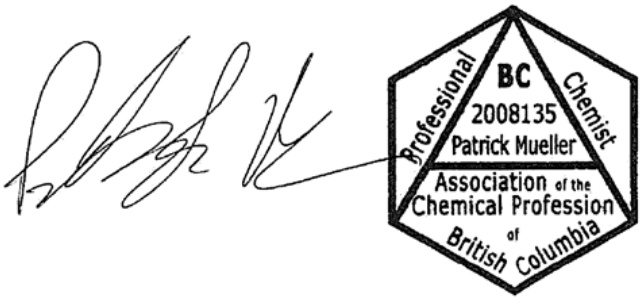
Regards,

**LORAX ENVIRONMENTAL SERVICES LTD.**

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




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




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

# *Appendix A: Figures and Site Images*


**LEGEND**

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

| | |
|---|---|
| DATE SAVED: | Jun 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**

0 50 100 150 Metres

CLIENT: Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT:

# Woodfibre LNG Project Construction Phase

TITLE: Water Management Facilities and Established PE-111578 Monitoring Stations (May 31, 2025)

PROJECT #: A633-7

FIGURE: 1

P:\@Drafting\Woodfibre\Drafting Figures\APRX\WLNG Construction Phase 2024\WLNG Construction Phase 2024 - Weekly Reporting.aprx Figure 1 Monitoring and Compliance Locations

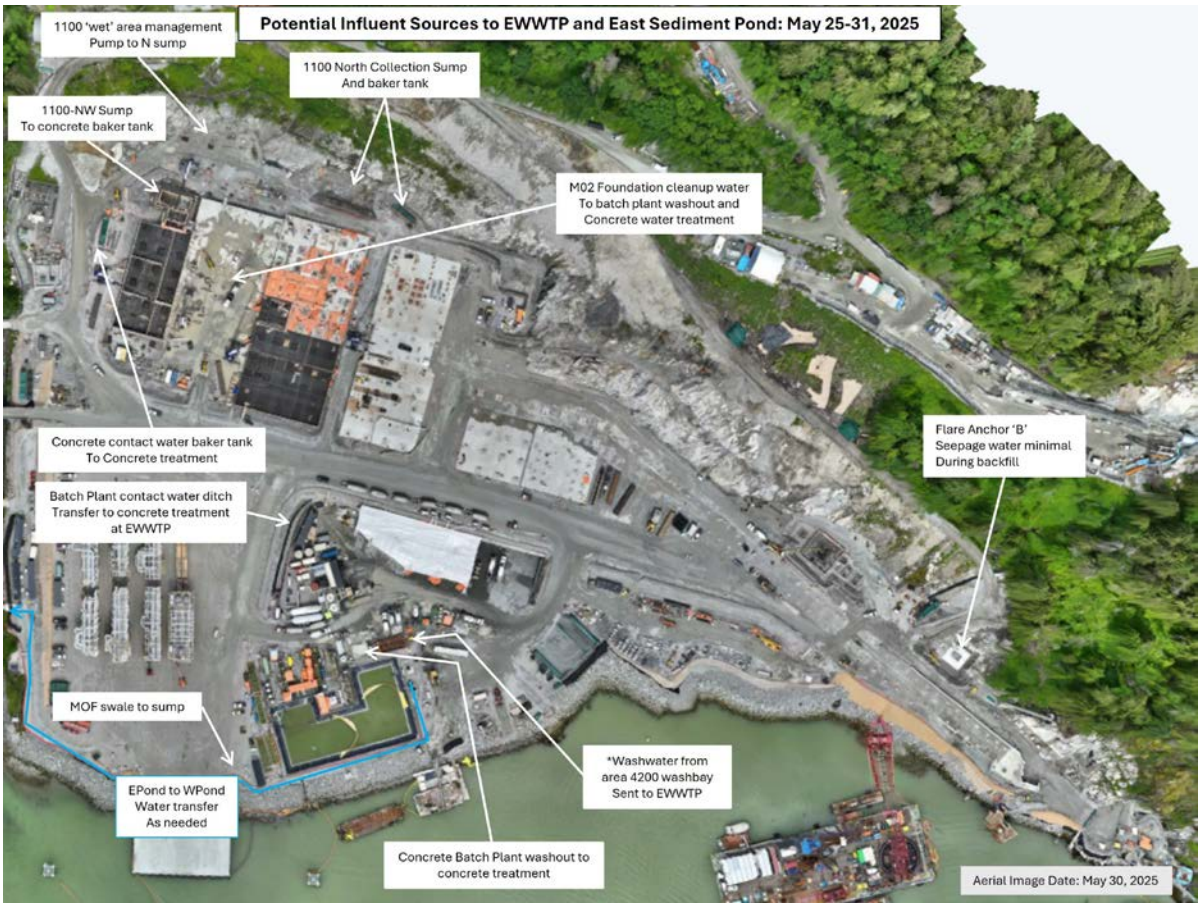



**Figure 2: East Catchment contact water management facilities (May 25 - 31).**


**Figure 3: West Catchment contact water management facilities (May 25 - 31).**

**Figure 4: Aerial view of the East Sedimentation Pond (May 31, 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 (May 30, 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 [1] | | PE-111578 Discharge Limit | Station SP-E-IN | Station WWTP-E-IN |
|---|---|---|---|---|---|---|
| | | | | | Influent | Influent |
| | | | | | SP-E-IN | WWTP-E-IN |
| | | | | | VA25B2668-004 | VA25B2819-001 |
| | | Long Term | Short Term | | 2025-05-29 10:45 | 2025-05-30 13:30 |
| **General Parameters** | | | | | | |
| pH - Field | pH units | - [2] | - | 5.5 - 9.0 | 7.1 | 7.3 |
| Specific Conductivity - Field | µS/cm | - | - | - | 1691 | 1388 |
| Temperature - Field | °C | - | - | - | 20.0 | 18.6 |
| Salinity - Field | ppt | - | - | - | 0.86 | 0.7 |
| Turbidity - Field | NTU | - | - | - | 93.99 | 14.76 |
| TSS | mg/L | - | - | 25 or 75 [6] | 49.2 | 9.4 |
| Dissolved Oxygen - Field | mg/L | ≥8 | - | - | 9.40 | 9.76 |
| **Anions and Nutrients** | | | | | | |
| Sulphate | mg/L | - | - | - | 582 | 444 |
| Chloride | mg/L | - | - | - | 19 | 15 |
| Fluoride | mg/L | - | 1.5 | - | 0.286 | 0.221 |
| Ammonia ($N\text{-}NH_3$) | mg/L | 8.7-9.4 [3] | 58-62 [3] | - | 0.0105 | <0.0050 |
| Nitrite ($N\text{-}NO_2$) | mg/L | - | - | - | <0.0100 | <0.0050 |
| Nitrate ($N\text{-}NO_3$) | mg/L | 3.7 | 339 | - | <0.0500 | <0.0250 |
| **Total Metals** | | | | | | |
| Aluminum, total (T-Al) | mg/L | - | - | - | 3.8 | 0.863 |
| Antimony, total (T-Sb) | mg/L | - | 0.27 [4] | - | 0.00104 | 0.00138 |
| Arsenic, total (T-As) | mg/L | 0.0125 | 0.0125 | - | 0.00198 | 0.00206 |
| Barium, total (T-Ba) | mg/L | - | - | - | 0.0302 | 0.013 |
| Beryllium, total (T-Be) | mg/L | 0.1 | - | - | 0.000067 | <0.000020 |
| Boron, total (T-B) | mg/L | 1.2 | - | - | 0.121 | 0.089 |
| Cadmium, total (T-Cd) | mg/L | 0.00012 | - | - | <0.0000650 | <0.0000400 |
| Chromium, total (T-Cr) | mg/L | - | - | - | 0.0017 | 0.00132 |
| Cobalt, total (T-Co) | mg/L | - | - | - | 0.00106 | 0.00024 |
| Copper, total (T-Cu) | mg/L | - [2] | - [2] | 0.0043 | 0.00409 | 0.00287 |
| Iron, total (T-Fe) | mg/L | - | - | - | 3.21 | 0.648 |
| Lead, total (T-Pb) | mg/L | - [2] | - [2] | 0.0035 | 0.00118 | 0.00119 |
| Manganese, total (T-Mn) | mg/L | - | - | - | 0.144 | 0.0269 |
| Mercury, total (T-Hg) | mg/L | 0.000016 [5] | - | - | ***0.000047*** | ***0.0000314*** |
| Molybdenum, total (T-Mo) | mg/L | - | - | - | 0.115 | 0.106 |
| Nickel, total (T-Ni) | mg/L | 0.0083 | - | - | <0.00100 | 0.00076 |
| Selenium, total (T-Se) | mg/L | 0.002 | - | - | 0.000411 | 0.000444 |
| Silver, total (T-Ag) | mg/L | 0.0005 | 0.0037 | - | 0.00014 | <0.000010 |
| Thallium, total (T-Tl) | mg/L | - | - | - | 0.000031 | 0.000027 |
| Uranium, total (T-U) | mg/L | - | - | - | 0.0264 | 0.0269 |
| Vanadium, total (T-V) | mg/L | - [2] | - | 0.0081 | 0.0064 | 0.00355 |
| Zinc, total (T-Zn) | mg/L | - [2] | - [2] | 0.0133 | 0.0167 | 0.0170 |
| Hexavalent Chromium, total | mg/L | 0.0015 | - | - | <0.00050 | ***0.00061*** |
| **Dissolved Metals** | | | | | | |
| Cadmium, dissolved (D-Cd) | mg/L | - | - | - | <0.0000350 | <0.0000350 |
| Copper, dissolved (D-Cu) | mg/L | - | - | - | 0.00135 | 0.00144 |
| Iron, dissolved (D-Fe) | mg/L | - | - | - | 0.026 | 0.02 |
| Lead, dissolved (D-Pb) | mg/L | - | - | - | <0.000100 | 0.00006 |
| Manganese, dissolved (D-Mn) | mg/L | - | - | - | 0.015 | 0.00812 |
| Nickel, dissolved (D-Ni) | mg/L | - | - | - | <0.00100 | <0.00050 |
| Strontium, dissolved (D-Sr) | mg/L | - | - | - | 0.198 | 0.167 |
| Vanadium, dissolved (D-V) | mg/L | - | - | - | 0.00185 | 0.00219 |
| Zinc, dissolved (D-Zn) | mg/L | - | - | - | 0.0022 | 0.0086 |
| **Polycyclic Aromatic Hydrocarbons (PAHs)** | | | | | | |
| Acenaphthene | mg/L | 0.006 | - | - | <0.000010 | <0.000010 |
| Acridine | mg/L | - | - | - | <0.000010 | <0.000010 |
| Anthracene | mg/L | - | - | - | <0.000010 | <0.000010 |
| Benz(a)anthracene | mg/L | - | - | - | <0.000010 | <0.000010 |
| Benzo(a)pyrene | mg/L | 0.00001 | - | - | <0.0000050 | <0.0000050 |
| Chrysene | mg/L | 0.0001 | - | - | <0.000010 | <0.000010 |
| Fluoranthene | mg/L | - | - | - | <0.000010 | <0.000010 |
| Fluorene | mg/L | 0.012 | - | - | <0.000010 | <0.000010 |
| 1-methylnaphthalene | mg/L | 0.001 | - | - | <0.000010 | <0.000010 |
| 2-methylnaphthalene | mg/L | 0.001 | - | - | <0.000010 | <0.000010 |
| Naphthalene | mg/L | 0.001 | - | - | <0.000050 | <0.000050 |
| Phenanthrene | mg/L | - | - | - | <0.000020 | <0.000020 |
| Pyrene | mg/L | - | - | - | <0.000010 | <0.000010 |
| Quinoline | mg/L | - | - | - | <0.000050 | <0.000050 |
| **Volatile Organic Compounds (VOCs)** | | | | | | |
| Benzene | mg/L | 0.11 | - | - | <0.00050 | <0.00050 |
| Ethylbenzene | mg/L | 0.25 | - | - | <0.00050 | <0.00050 |
| Methyl-tert-butyl-ether | mg/L | 5 | 0.44 | - | <0.00050 | <0.00050 |
| Styrene | mg/L | - | - | - | <0.00050 | <0.00050 |
| Toluene | mg/L | 0.215 | - | - | <0.00040 | <0.00040 |
| Total Xylenes | mg/L | - | - | - | <0.00050 | <0.00050 |
| Chlorobenzene | mg/L | 0.025 | - | - | <0.00050 | <0.00050 |
| 1,2-Dichlorobenzene | mg/L | 0.042 | - | - | <0.00050 | <0.00050 |

**Notes:**
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (May 25 – May 31).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

| Parameter | Unit | Lowest Applicable Guideline [1] | | PE-111578 Discharge Limit | Station E500GPM-OUT | Station WWTP-E-OUT |
|---|---|---|---|---|---|---|
| | | | | | Effluent | Effluent |
| | | | | | E500GPM-OUT | WWTP-E-OUT |
| | | | | | VA25B2668-001 | VA25B2819-002 |
| | | Long Term | Short Term | | 2025-05-29 10:39 | 2025-05-30 12:51 |
| **General Parameters** | | | | | | |
| pH - Field | pH units | - [2] | - | 5.5 - 9.0 | 7.7 | 6.4 |
| Specific Conductivity - Field | µS/cm | - | - | - | 1765 | 1897 |
| Temperature - Field | °C | - | - | - | 19.4 | 18.3 |
| Salinity - Field | ppt | - | - | - | 0.9 | 0.97 |
| Turbidity - Field | NTU | - | - | - | 3.83 | 3.26 |
| TSS | mg/L | - | - | 25 or 75 [6] | <3.0 | <3.0 |
| Dissolved Oxygen - Field | mg/L | ≥8 | - | - | 8.79 | 9.28 |
| **Anions and Nutrients** | | | | | | |
| Sulphate | mg/L | - | - | - | 633 | 692 |
| Chloride | mg/L | - | - | - | 19.7 | 20.8 |
| Fluoride | mg/L | - | 1.5 | - | 0.301 | 0.259 |
| Ammonia ($N\text{-}NH_3$) | mg/L | 3.4-14 [3] | 23-92 [3] | - | 0.0074 | 0.0226 |
| Nitrite ($N\text{-}NO_2$) | mg/L | - | - | - | <0.0100 | <0.0100 |
| Nitrate ($N\text{-}NO_3$) | mg/L | 3.7 | 339 | - | <0.0500 | <0.0500 |
| **Total Metals** | | | | | | |
| Aluminum, total (T-Al) | mg/L | - | - | - | 0.216 | 0.222 |
| Antimony, total (T-Sb) | mg/L | - | 0.27 [4] | - | 0.00117 | 0.00125 |
| Arsenic, total (T-As) | mg/L | 0.0125 | 0.0125 | - | 0.0016 | 0.0014 |
| Barium, total (T-Ba) | mg/L | - | - | - | 0.00643 | 0.00592 |
| Beryllium, total (T-Be) | mg/L | 0.1 | - | - | <0.000040 | <0.000040 |
| Boron, total (T-B) | mg/L | 1.2 | - | - | 0.138 | 0.151 |
| Cadmium, total (T-Cd) | mg/L | 0.00012 | - | - | <0.0000300 | <0.0000350 |
| Chromium, total (T-Cr) | mg/L | - | - | - | <0.00100 | <0.00100 |
| Cobalt, total (T-Co) | mg/L | - | - | - | <0.00020 | <0.00020 |
| Copper, total (T-Cu) | mg/L | - [2] | - [2] | 0.0043 | 0.00208 | 0.00337 |
| Iron, total (T-Fe) | mg/L | - | - | - | 0.181 | 0.111 |
| Lead, total (T-Pb) | mg/L | - [2] | - [2] | 0.0035 | 0.000323 | 0.000293 |
| Manganese, total (T-Mn) | mg/L | - | - | - | 0.00378 | 0.0139 |
| Mercury, total (T-Hg) | mg/L | 0.000016 [5] | - | - | ***0.0000277*** | ***0.0000478*** |
| Molybdenum, total (T-Mo) | mg/L | - | - | - | 0.132 | 0.128 |
| Nickel, total (T-Ni) | mg/L | 0.0083 | - | - | <0.00100 | <0.00100 |
| Selenium, total (T-Se) | mg/L | 0.002 | - | - | 0.000602 | 0.000515 |
| Silver, total (T-Ag) | mg/L | 0.0005 | 0.0037 | - | <0.000020 | <0.000020 |
| Thallium, total (T-Tl) | mg/L | - | - | - | 0.000029 | 0.000031 |
| Uranium, total (T-U) | mg/L | - | - | - | 0.0292 | 0.0177 |
| Vanadium, total (T-V) | mg/L | - [2] | - | 0.0081 | 0.00241 | 0.00293 |
| Zinc, total (T-Zn) | mg/L | - [2] | - [2] | 0.0133 | <0.0060 | <0.0060 |
| Hexavalent Chromium, total | mg/L | 0.0015 | - | - | <0.00050 | <0.00050 |
| **Dissolved Metals** | | | | | | |
| Cadmium, dissolved (D-Cd) | mg/L | - | - | - | <0.0000400 | <0.0000400 |
| Copper, dissolved (D-Cu) | mg/L | - | - | - | 0.00119 | 0.00166 |
| Iron, dissolved (D-Fe) | mg/L | - | - | - | 0.025 | <0.020 |
| Lead, dissolved (D-Pb) | mg/L | - | - | - | <0.000100 | <0.000100 |
| Manganese, dissolved (D-Mn) | mg/L | - | - | - | 0.00095 | 0.0108 |
| Nickel, dissolved (D-Ni) | mg/L | - | - | - | <0.00100 | <0.00100 |
| Strontium, dissolved (D-Sr) | mg/L | - | - | - | 0.198 | 0.171 |
| Vanadium, dissolved (D-V) | mg/L | - | - | - | 0.00192 | 0.00293 |
| Zinc, dissolved (D-Zn) | mg/L | - | - | - | <0.0020 | 0.0034 |
| **Polycyclic Aromatic Hydrocarbons (PAHs)** | | | | | | |
| Acenaphthene | mg/L | 0.006 | - | - | <0.000010 | <0.000010 |
| Acridine | mg/L | - | - | - | <0.000010 | <0.000010 |
| Anthracene | mg/L | - | - | - | <0.000010 | <0.000010 |
| Benz(a)anthracene | mg/L | - | - | - | <0.000010 | <0.000010 |
| Benzo(a)pyrene | mg/L | 0.00001 | - | - | <0.0000050 | <0.0000050 |
| Chrysene | mg/L | 0.0001 | - | - | <0.000010 | <0.000010 |
| Fluoranthene | mg/L | - | - | - | <0.000010 | <0.000010 |
| Fluorene | mg/L | 0.012 | - | - | <0.000010 | <0.000010 |
| 1-methylnaphthalene | mg/L | 0.001 | - | - | <0.000010 | <0.000010 |
| 2-methylnaphthalene | mg/L | 0.001 | - | - | <0.000010 | <0.000010 |
| Naphthalene | mg/L | 0.001 | - | - | <0.000050 | <0.000050 |
| Phenanthrene | mg/L | - | - | - | <0.000020 | <0.000020 |
| Pyrene | mg/L | - | - | - | <0.000010 | <0.000010 |
| Quinoline | mg/L | - | - | - | <0.000050 | <0.000050 |
| **Volatile Organic Compounds (VOCs)** | | | | | | |
| Benzene | mg/L | 0.11 | - | - | <0.00050 | <0.00050 |
| Ethylbenzene | mg/L | 0.25 | - | - | <0.00050 | <0.00050 |
| Methyl-tert-butyl-ether | mg/L | 5 | 0.44 | - | <0.00050 | <0.00050 |
| Styrene | mg/L | - | - | - | <0.00050 | <0.00050 |
| Toluene | mg/L | 0.215 | - | - | <0.00040 | <0.00040 |
| Total Xylenes | mg/L | - | - | - | <0.00050 | <0.00050 |
| Chlorobenzene | mg/L | 0.025 | - | - | <0.00050 | <0.00050 |
| 1,2-Dichlorobenzene | mg/L | 0.042 | - | - | <0.00050 | <0.00050 |

**Notes:**

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

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

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

The East Catchment did not discharge during the monitoring period (May 25 – May 31).

[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.

[2] The WQG was not evaluated for parameters with discharge limits.

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

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

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

[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

| **Parameter** | | | | | **Total Methylmercury** | **Total Mercury** |
|---|---|---|---|---|---|---|
| **Unit** | | | | | **µg/L** | **µg/L** |
| **Lowest Applicable Guideline[1]** | | | | | 0.0001 [2] | 0.012 – 0.014 [3,4] |
| **Station** | **Water Type** | **Sample ID** | **Lab ID** | **Sampling Date** | | |
| Influent | | | | | | |
| SP-E-IN | Influent | SP-E-IN | VA25B1983-003 | 2025-05-22 | ***0.000204*** | ***0.0651*** |
| WWTP-E-IN | Influent | WWTP-E-IN | VA25B1983-001 | 2025-05-22 | ***0.000243*** | ***0.0652*** |
| Effluent | | | | | | |
| WWTP-E-OUT | Effluent | WWTP-E-OUT | VA25B1983-002 | 2025-05-22 | 0.000093 | ***0.0217*** [5] |

**Notes:**
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.
[5] East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on May 22.
Non-detect results are screened using the detection limit value.

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

| **Parameter** | | | | | **Lower Bound PCDD/F TEQ** | **Upper Bound PCDD/F TEQ** |
|---|---|---|---|---|---|---|
| **Unit** | | | | | **pg/L** | **pg/L** |
| **Station** | **Water Type** | **Sample ID** | **Lab ID** | **Sampling Date** | | |
| Influent | | | | | | |
| SP-E-IN | Influent | SP-E-IN | VA25B1185-001 | 2025-05-14 | 0.0145 | 0.776 |
| WWTP-E-IN | Influent | WWTP-E-IN | VA25B1185-002 | 2025-05-14 | 0.0326 | 1.16 |
| Effluent | | | | | | |
| WWTP-E-OUT | Effluent | WWTP-E-OUT | VA25B1185-003 | 2025-05-14 | 0 | 1.17 |

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

## Table B-5: East Catchment Field Measurements Collected During the Monitoring Period (May 25 - 31).

| **Parameter** | | | **Temp.** | **Dissolved Oxygen (DO)** | **Salinity** | **Turbidity** | **Estimated TSS [3]** | **pH** | **Specific Conductivity** | **Visibility of Sheen** |
|---|---|---|---|---|---|---|---|---|---|---|
| **Unit** | | | **°C** | **mg/L** | **ppt** | **NTU** | **mg/L** | **s.u.** | **µS/cm** | |
| **PE-111578 Discharge Limit** | | | - | - | - | - | 25 or 75 [6] | 5.5 - 9.0 | - | - |
| **Lowest Applicable Guideline [1]** | | | - | ≥8 | - | - | - [2] | - [2] | - | - |
| **Station ID** | **Water Type** | **Date** | | | | | | | | |
| Influent [4] | | | | | | | | | | |
| SP-E-IN | Influent | 2025-05-25 14:33 | 20.0 | 11.89 | 1.06 | 3.11 | 5.3 | 6.7 | 2073 | No |
| SP-E-IN | Influent | 2025-05-26 13:26 | 18.9 | 10.68 | 0.92 | 28.89 | 24.5 | 6.8 | 1809 | No |
| SP-E-IN | Influent | 2025-05-27 12:49 | 19.2 | 11.80 | 0.90 | 19.30 | 17.4 | 6.7 | 1776 | No |
| SP-E-IN | Influent | 2025-05-28 12:57 | 21.6 | 10.08 | 0.75 | 9.82 | 10.3 | 6.7 | 1493 | No |
| SP-E-IN | Influent | 2025-05-29 11:01 | 20.0 | 9.40 | 0.86 | 93.99 | 73.1 | 7.1 | 1691 | No |
| SP-E-IN | Influent | 2025-05-30 14:04 | 19.4 | 10.75 | 0.91 | 7.86 | 8.9 | 7.5 | 1787 | No |
| SP-E-IN | Influent | 2025-05-31 14:59 | 17.4 | 10.02 | 0.88 | 93.01 | 72.4 | 6.8 | 1729 | No |
| WWTP-E-IN | Influent | 2025-05-25 14:22 | 19.9 | 12.55 | 1.06 | 3.91 | 5.9 | 7.0 | 2060 | No |
| WWTP-E-IN | Influent | 2025-05-26 13:17 | 19.1 | 11.4 | 0.93 | 33.84 | 28.2 | 7.2 | 1827 | No |
| WWTP-E-IN | Influent | 2025-05-27 12:44 | 19.7 | 12.51 | 0.93 | 14.84 | 14.1 | 6.9 | 1833 | No |
| WWTP-E-IN | Influent | 2025-05-28 12:27 | 21.5 | 15.08 | 0.94 | 11.13 | 11.3 | 6.9 | 1852 | No |
| WWTP-E-IN | Influent | 2025-05-29 10:43 | 19.7 | 9.42 | 0.89 | 25.31 | 21.9 | 7.4 | 1758 | No |
| WWTP-E-IN | Influent | 2025-05-30 13:30 | 18.6 | 9.76 | 0.70 | 14.76 | 14.0 | 7.3 | 1388 | No |
| WWTP-E-IN | Influent | 2025-05-31 14:46 | 17.5 | 10.14 | 0.86 | 76.86 | 60.3 | 7.0 | 1697 | No |
| E500GPM-IN | Influent | 2025-05-29 10:56 | 19.9 | 9.41 | 0.90 | 11.52 | 11.6 | 7.5 | 1763 | No |
| E500GPM-IN | Influent | 2025-05-30 14:06 | 19.6 | 11.65 | 0.89 | 16.82 | 15.5 | 7.4 | 1751 | No |
| Effluent [5] | | | | | | | | | | |
| WWTP-E-OUT | Effluent | 2025-05-25 14:26 | 18.8 | 8.77 | 1.12 | 1.91 | 4.4 | 6.2 | 2177 | No |
| WWTP-E-OUT | Effluent | 2025-05-26 13:20 | 18.5 | 9.11 | 1.04 | 2.72 | 5.0 | 6.3 | 2028 | No |
| WWTP-E-OUT | Effluent | 2025-05-27 12:37 | 18.6 | 8.56 | 0.98 | 5.75 | 7.3 | 6.4 | 1917 | No |
| WWTP-E-OUT | Effluent | 2025-05-28 12:30 | 19.6 | 9.13 | 0.99 | 5.04 | 6.8 | 6.2 | 1935 | No |
| WWTP-E-OUT | Effluent | 2025-05-29 10:49 | 20.3 | 8.16 | 0.96 | 3.60 | 5.7 | 6.4 | 1886 | No |
| WWTP-E-OUT | Effluent | 2025-05-30 12:51 | 18.3 | 9.28 | 0.97 | 3.26 | 5.4 | 6.4 | 1897 | No |
| WWTP-E-OUT | Effluent | 2025-05-31 14:42 | 17.3 | 9.33 | 0.95 | 3.43 | 5.6 | 6.4 | 1862 | No |
| E500GPM-OUT | Effluent | 2025-05-29 10:39 | 19.4 | 8.79 | 0.90 | 3.83 | 5.9 | 7.7 | 1765 | No |
| E500GPM-OUT | Effluent | 2025-05-30 14:00 | 19.6 | 10.48 | 0.88 | 7.55 | 8.6 | 7.7 | 1742 | 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.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-E-IN were collected from cell 1 of the East Sedimentation Pond.
[5] There was no discharge at the authorized discharge location (SP-E-OUT) during the monitoring period (May 25 – May 31), therefore daily field measurements for SP-E-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

## Table B-6: East Catchment Daily Discharge Volumes for the Monitoring Period (May 25 - 31).

| | East Sedimentation Pond Effluent | Transfer to West Sedimentation Pond | 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** | **$m^3$** | **$m^3$** | **$m^3$** | **$m^3$** | **$m^3$** |
| **PE-111578 Discharge Limit** | - [1] | - [1] | - [1] | 1100 | - [1] |
| **Date** | | | | | |
| 2025-05-25 | 0 | 0 | 0 | 630 [3] | 0 |
| 2025-05-26 | 0 | 0 | 0 | 840 [3] | 0 |
| 2025-05-27 | 0 | 574 | 0 | 652 [3] | 0 |
| 2025-05-28 | 0 | 0 | 790 [2] | 570 [3] | 0 |
| 2025-05-29 | 0 | 0 | 1,796 [2] | 756 [3] | 0 |
| 2025-05-30 | 0 | 0 | 2,084 [2] | 665 [3] | 0 |
| 2025-05-31 | 0 | 0 | 1,253 [2] | 647 [3] | 0 |

**Notes:**
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.
[1] The annual average authorized discharge rate from the East Sedimentation Pond is 650 $m^3$/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.
[2] E500GPM clarified effluent is discharged to Howe Sound or recirculated to the East Sedimentation Pond based on operational considerations. Therefore, the E500GPM clarified effluent volume is generally higher than the volume discharged to Howe Sound. The E500GPM was operational during the monitoring period (May 25 – May 31) from May 28 through May 31.
[3] East WWTP treated effluent was recirculated to the East Sedimentation Pond.

# *Appendix C: West Catchment Monitoring Results*

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

| Parameter | Unit | Lowest Applicable Guideline [1] | | PE-111578 Discharge Limit | Station SP-W-IN |
|---|---|---|---|---|---|
| | | | | | Influent |
| | | | | | SP-W-IN |
| | | | | | VA25B2498-004 |
| | | Long Term | Short Term | | 2025-05-28 14:55 |
| **General Parameters** | | | | | |
| pH - Field | pH units | - [2] | - | 5.5 - 9.0 | 8.2 |
| Specific Conductivity - Field | µS/cm | - | - | - | 1255 |
| Temperature - Field | °C | - | - | - | 22.9 |
| Salinity - Field | ppt | - | - | - | 0.65 |
| Turbidity - Field | NTU | - | - | - | 15.79 |
| TSS | mg/L | - | - | 25 or 75 [6] | 16.7 |
| Dissolved Oxygen - Field | mg/L | ≥8 | - | - | 10.47 |
| **Anions and Nutrients** | | | | | |
| Sulphate | mg/L | - | - | - | 401 |
| Chloride | mg/L | - | - | - | 17.9 |
| Fluoride | mg/L | - | 1.5 | - | 0.268 |
| Ammonia (N-$NH_3$) | mg/L | 0.62 [3] | 4.2 [3] | - | 0.0138 |
| Nitrite (N-$NO_2$) | mg/L | - | - | - | 0.0072 |
| Nitrate (N-$NO_3$) | mg/L | 3.7 | 339 | - | 0.0963 |
| **Total Metals** | | | | | |
| Aluminum, total (T-Al) | mg/L | - | - | - | 0.869 |
| Antimony, total (T-Sb) | mg/L | - | 0.27 [4] | - | 0.00102 |
| Arsenic, total (T-As) | mg/L | 0.0125 | 0.0125 | - | 0.00154 |
| Barium, total (T-Ba) | mg/L | - | - | - | 0.0113 |
| Beryllium, total (T-Be) | mg/L | 0.1 | - | - | <0.000020 |
| Boron, total (T-B) | mg/L | 1.2 | - | - | 0.034 |
| Cadmium, total (T-Cd) | mg/L | 0.00012 | - | - | <0.0000400 |
| Chromium, total (T-Cr) | mg/L | - | - | - | 0.00076 |
| Cobalt, total (T-Co) | mg/L | - | - | - | 0.00027 |
| Copper, total (T-Cu) | mg/L | - [2] | - [2] | 0.0043 | 0.00233 |
| Iron, total (T-Fe) | mg/L | - | - | - | 0.759 |
| Lead, total (T-Pb) | mg/L | - [2] | - [2] | 0.0035 | 0.00159 |
| Manganese, total (T-Mn) | mg/L | - | - | - | 0.0277 |
| Mercury, total (T-Hg) | mg/L | 0.000016 [5] | - | - | 0.0000069 |
| Molybdenum, total (T-Mo) | mg/L | - | - | - | 0.0977 |
| Nickel, total (T-Ni) | mg/L | 0.0083 | - | - | 0.00051 |
| Selenium, total (T-Se) | mg/L | 0.002 | - | - | 0.000362 |
| Silver, total (T-Ag) | mg/L | 0.0005 | 0.0037 | - | <0.000010 |
| Thallium, total (T-Tl) | mg/L | - | - | - | 0.000034 |
| Uranium, total (T-U) | mg/L | - | - | - | 0.0237 |
| Vanadium, total (T-V) | mg/L | - [2] | - | 0.0081 | 0.00279 |
| Zinc, total (T-Zn) | mg/L | - [2] | - [2] | 0.0133 | 0.0054 |
| Hexavalent Chromium, total | mg/L | 0.0015 | - | - | <0.00050 |
| **Dissolved Metals** | | | | | |
| Cadmium, dissolved (D-Cd) | mg/L | - | - | - | <0.0000300 |
| Copper, dissolved (D-Cu) | mg/L | - | - | - | 0.001 |
| Iron, dissolved (D-Fe) | mg/L | - | - | - | <0.010 |
| Lead, dissolved (D-Pb) | mg/L | - | - | - | 0.000053 |
| Manganese, dissolved (D-Mn) | mg/L | - | - | - | 0.00102 |
| Nickel, dissolved (D-Ni) | mg/L | - | - | - | <0.00050 |
| Strontium, dissolved (D-Sr) | mg/L | - | - | - | 0.143 |
| Vanadium, dissolved (D-V) | mg/L | - | - | - | 0.0016 |
| Zinc, dissolved (D-Zn) | mg/L | - | - | - | <0.0010 |
| **Polycyclic Aromatic Hydrocarbons (PAHs)** | | | | | |
| Acenaphthene | mg/L | 0.006 | - | - | <0.000010 |
| Acridine | mg/L | - | - | - | <0.000010 |
| Anthracene | mg/L | - | - | - | <0.000010 |
| Benz(a)anthracene | mg/L | - | - | - | <0.000010 |
| Benzo(a)pyrene | mg/L | 0.00001 | - | - | <0.0000050 |
| Chrysene | mg/L | 0.0001 | - | - | <0.000010 |
| Fluoranthene | mg/L | - | - | - | <0.000010 |
| Fluorene | mg/L | 0.012 | - | - | <0.000010 |
| 1-methylnaphthalene | mg/L | 0.001 | - | - | <0.000010 |
| 2-methylnaphthalene | mg/L | 0.001 | - | - | <0.000010 |
| Naphthalene | mg/L | 0.001 | - | - | <0.000050 |
| Phenanthrene | mg/L | - | - | - | <0.000020 |
| Pyrene | mg/L | - | - | - | <0.000010 |
| Quinoline | mg/L | - | - | - | <0.000050 |
| **Volatile Organic Compounds (VOCs)** | | | | | |
| Benzene | mg/L | 0.11 | - | - | <0.00050 |
| Ethylbenzene | mg/L | 0.25 | - | - | <0.00050 |
| Methyl-tert-butyl-ether | mg/L | 5 | 0.44 | - | <0.00050 |
| Styrene | mg/L | - | - | - | <0.00050 |
| Toluene | mg/L | 0.215 | - | - | <0.00040 |
| Total Xylenes | mg/L | - | - | - | <0.00050 |
| Chlorobenzene | mg/L | 0.025 | - | - | <0.00050 |
| 1,2-Dichlorobenzene | mg/L | 0.042 | - | - | <0.00050 |

**Notes:**
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 Catchment did not discharge during the monitoring period (May 25 – May 31).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

| Parameter | Unit | Lowest Applicable Guideline [1] | | PE-111578 Discharge Limit | Station W500GPM-OUT Effluent W500GPM-OUT VA25B2498-001 2025-05-28 13:40 |
|---|---|---|---|---|---|
| | | Long Term | Short Term | | |
| **General Parameters** | | | | | |
| pH - Field | pH units | - [2] | - | 5.5 - 9.0 | 8.1 |
| Specific Conductivity - Field | µS/cm | - | - | - | 1304 |
| Temperature - Field | °C | - | - | - | 22.4 |
| Salinity - Field | ppt | - | - | - | 0.65 |
| Turbidity - Field | NTU | - | - | - | 2.65 |
| TSS | mg/L | - | - | 25 or 75 [6] | 3.5 |
| Dissolved Oxygen - Field | mg/L | ≥8 | - | - | 9.86 |
| **Anions and Nutrients** | | | | | |
| Sulphate | mg/L | - | - | - | 399 |
| Chloride | mg/L | - | - | - | 17.8 |
| Fluoride | mg/L | - | 1.5 | - | 0.265 |
| Ammonia ($N\text{-}NH_3$) | mg/L | 0.97 [3] | 6.4 [3] | - | 0.0326 |
| Nitrite ($N\text{-}NO_2$) | mg/L | - | - | - | 0.0074 |
| Nitrate ($N\text{-}NO_3$) | mg/L | 3.7 | 339 | - | 0.102 |
| **Total Metals** | | | | | |
| Aluminum, total (T-Al) | mg/L | - | - | - | 0.141 |
| Antimony, total (T-Sb) | mg/L | - | 0.27 [4] | - | 0.00105 |
| Arsenic, total (T-As) | mg/L | 0.0125 | 0.0125 | - | 0.00145 |
| Barium, total (T-Ba) | mg/L | - | - | - | 0.00419 |
| Beryllium, total (T-Be) | mg/L | 0.1 | - | - | <0.000020 |
| Boron, total (T-B) | mg/L | 1.2 | - | - | 0.03 |
| Cadmium, total (T-Cd) | mg/L | 0.00012 | - | - | <0.0000300 |
| Chromium, total (T-Cr) | mg/L | - | - | - | <0.00050 |
| Cobalt, total (T-Co) | mg/L | - | - | - | <0.00010 |
| Copper, total (T-Cu) | mg/L | - [2] | - [2] | 0.0043 | 0.0012 |
| Iron, total (T-Fe) | mg/L | - | - | - | 0.07 |
| Lead, total (T-Pb) | mg/L | - [2] | - [2] | 0.0035 | 0.000267 |
| Manganese, total (T-Mn) | mg/L | - | - | - | 0.00395 |
| Mercury, total (T-Hg) | mg/L | 0.000016 [5] | - | - | 0.00000383 |
| Molybdenum, total (T-Mo) | mg/L | - | - | - | 0.107 |
| Nickel, total (T-Ni) | mg/L | 0.0083 | - | - | <0.00050 |
| Selenium, total (T-Se) | mg/L | 0.002 | - | - | 0.000346 |
| Silver, total (T-Ag) | mg/L | 0.0005 | 0.0037 | - | <0.000010 |
| Thallium, total (T-Tl) | mg/L | - | - | - | 0.000029 |
| Uranium, total (T-U) | mg/L | - | - | - | 0.0245 |
| Vanadium, total (T-V) | mg/L | - [2] | - | 0.0081 | 0.00175 |
| Zinc, total (T-Zn) | mg/L | - [2] | - [2] | 0.0133 | <0.0030 |
| Hexavalent Chromium, total | mg/L | 0.0015 | - | - | <0.00050 |
| **Dissolved Metals** | | | | | |
| Cadmium, dissolved (D-Cd) | mg/L | - | - | - | <0.0000250 |
| Copper, dissolved (D-Cu) | mg/L | - | - | - | 0.00085 |
| Iron, dissolved (D-Fe) | mg/L | - | - | - | <0.010 |
| Lead, dissolved (D-Pb) | mg/L | - | - | - | <0.000050 |
| Manganese, dissolved (D-Mn) | mg/L | - | - | - | 0.00042 |
| Nickel, dissolved (D-Ni) | mg/L | - | - | - | <0.00050 |
| Strontium, dissolved (D-Sr) | mg/L | - | - | - | 0.148 |
| Vanadium, dissolved (D-V) | mg/L | - | - | - | 0.00159 |
| Zinc, dissolved (D-Zn) | mg/L | - | - | - | <0.0010 |
| **Polycyclic Aromatic Hydrocarbons (PAHs)** | | | | | |
| Acenaphthene | mg/L | 0.006 | - | - | <0.000010 |
| Acridine | mg/L | - | - | - | <0.000010 |
| Anthracene | mg/L | - | - | - | <0.000010 |
| Benz(a)anthracene | mg/L | - | - | - | <0.000010 |
| Benzo(a)pyrene | mg/L | 0.00001 | - | - | <0.0000050 |
| Chrysene | mg/L | 0.0001 | - | - | <0.000010 |
| Fluoranthene | mg/L | - | - | - | <0.000010 |
| Fluorene | mg/L | 0.012 | - | - | <0.000010 |
| 1-methylnaphthalene | mg/L | 0.001 | - | - | <0.000010 |
| 2-methylnaphthalene | mg/L | 0.001 | - | - | <0.000010 |
| Naphthalene | mg/L | 0.001 | - | - | <0.000050 |
| Phenanthrene | mg/L | - | - | - | <0.000020 |
| Pyrene | mg/L | - | - | - | <0.000010 |
| Quinoline | mg/L | - | - | - | <0.000050 |
| **Volatile Organic Compounds (VOCs)** | | | | | |
| Benzene | mg/L | 0.11 | - | - | <0.00050 |
| Ethylbenzene | mg/L | 0.25 | - | - | <0.00050 |
| Methyl-tert-butyl-ether | mg/L | 5 | 0.44 | - | <0.00050 |
| Styrene | mg/L | - | - | - | <0.00050 |
| Toluene | mg/L | 0.215 | - | - | <0.00040 |
| Total Xylenes | mg/L | - | - | - | <0.00050 |
| Chlorobenzene | mg/L | 0.025 | - | - | <0.00050 |
| 1,2-Dichlorobenzene | mg/L | 0.042 | - | - | <0.00050 |

**Notes:**
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 Catchment did not discharge during the monitoring period (May 25 – May 31).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

## Table C-3: West Catchment 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 | VA25B0797-004 | 2025-05-09 | 0.00333 | 0.871 |
| Effluent | | | | | | |
| W500GPM-OUT | Effluent | W500GPM-OUT | VA25B0797-001 | 2025-05-09 | 0.0182 | 0.760 |

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

## Table C-4: West Catchment Field Measurements Collected During the Monitoring Period (May 25 - 31).

| **Parameter** | | | **Temperature** | **Dissolved Oxygen (DO)** | **Salinity** | **Turbidity** | **Estimated TSS [3]** | **pH** | **Specific Conductivity** | **Visibility of Sheen** |
|---|---|---|---|---|---|---|---|---|---|---|
| **Unit** | | | **°C** | **mg/L** | **ppt** | **NTU** | **mg/L** | **s.u.** | **µS/cm** | |
| **PE-111578 Discharge Limit** | | | - | - | - | - | 25 or 75 [6] | 5.5 - 9.0 | - | - |
| **Lowest Applicable Guideline [1]** | | | - | ≥8 | - | - | - [2] | - [2] | - | - |
| **Station ID** | **Water Type** | **Date** | | | | | | | | |
| Influent [4] | | | | | | | | | | |
| SP-W-IN | Influent | 2025-05-25 14:48 | 20.9 | 11.18 | 0.62 | 10.88 | 11.1 | 7.9 | 1240 | No |
| SP-W-IN | Influent | 2025-05-26 13:44 | 20.0 | 10.16 | 0.56 | 37.61 | 31.0 | 8.1 | 1134 | No |
| SP-W-IN | Influent | 2025-05-27 13:51 | 21.2 | 11.39 | 0.72 | 12.42 | 12.3 | 7.8 | 1432 | No |
| SP-W-IN | Influent | 2025-05-28 15:04 | 22.9 | 10.47 | 0.65 | 15.79 | 14.8 | 8.2 | 1255 | No |
| SP-W-IN | Influent | 2025-05-29 15:27 | 21.6 | 9.66 | 0.63 | 19.66 | 17.7 | 8.3 | 1263 | No |
| SP-W-IN | Influent | 2025-05-30 14:25 | 20.2 | 9.74 | 0.64 | 26.49 | 22.8 | 8.3 | 1269 | No |
| SP-W-IN | Influent | 2025-05-31 10:07 | 17.9 | 9.06 | 0.61 | 33.92 | 28.3 | 8.1 | 1212 | No |
| W500GPM-IN | Influent | 2025-05-25 14:53 | 20.6 | 11.94 | 0.63 | 8.25 | 9.2 | 7.8 | 1253 | No |
| W500GPM-IN | Influent | 2025-05-26 13:50 | 20.2 | 10.43 | 0.57 | 24.25 | 21.1 | 8.1 | 1136 | No |
| W500GPM-IN | Influent | 2025-05-27 13:43 | 21.4 | 10.15 | 0.62 | 18.92 | 17.1 | 8.1 | 1239 | No |
| W500GPM-IN | Influent | 2025-05-28 14:48 | 23.7 | 10.88 | 0.66 | 17.67 | 16.2 | 8.2 | 1313 | No |
| W500GPM-IN | Influent | 2025-05-29 15:23 | 21.1 | 9.68 | 0.64 | 18.01 | 16.4 | 8.3 | 1279 | No |
| W500GPM-IN | Influent | 2025-05-30 14:35 | 20.4 | 9.79 | 0.64 | 20.81 | 18.5 | 8.4 | 1270 | No |
| W500GPM-IN | Influent | 2025-05-31 9:06 | 18.7 | 8.96 | 0.63 | 19.69 | 17.7 | 8.2 | 1253 | No |
| Effluent [5] | | | | | | | | | | |
| W500GPM-OUT | Effluent | 2025-05-25 14:59 | 21.3 | 9.40 | 0.63 | 2.99 | 5.2 | 7.9 | 1254 | No |
| W500GPM-OUT | Effluent | 2025-05-26 13:58 | 20.4 | 9.15 | 0.56 | 5.24 | 6.9 | 8.0 | 1134 | No |
| W500GPM-OUT | Effluent | 2025-05-27 13:47 | 21.1 | 8.88 | 0.59 | 3.68 | 5.7 | 8.1 | 1192 | No |
| W500GPM-OUT | Effluent | 2025-05-28 13:31 | 22.4 | 9.86 | 0.65 | 2.65 | 5.0 | 8.1 | 1304 | No |
| W500GPM-OUT | Effluent | 2025-05-29 15:34 | 21.2 | 8.73 | 0.64 | 3.14 | 5.3 | 8.2 | 1277 | No |
| W500GPM-OUT | Effluent | 2025-05-30 14:32 | 20.1 | 9.43 | 0.63 | 6.33 | 7.7 | 8.3 | 1263 | No |
| W500GPM-OUT | Effluent | 2025-05-31 8:44 | 18.4 | 8.80 | 0.63 | 7.25 | 8.4 | 8.0 | 1255 | No |
| W500GPM-OUT | Effluent | 2025-05-31 9:01 | 18.2 | 8.92 | 0.63 | 5.69 | 7.2 | 8.0 | 1256 | 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.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-W-IN were collected from cell 1 of the West Sedimentation Pond.
[5] There was no discharge at the authorized discharge location (SP-W-OUT) during the monitoring period (May 25 – May 31), therefore daily field measurements for SP-W-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

## Table C-5: West Catchment Daily Discharge Volumes for the Monitoring Period (May 25 - 31).

| | 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) | Water Reclaimed for Dust Suppression (Station W500GPM-OUT) | West WWTP Treated Effluent [1] (Station WWTP-W-OUT) | Discharge to Howe Sound (Station SP-W-OUT) |
|---|---|---|---|---|---|---|
| **Unit** | **$m^3$** | **$m^3$** | **$m^3$** | **$m^3$** | **$m^3$** | **$m^3$** |
| **PE-111578 Discharge Limit** | - [2] | - [2] | - [2] | - [2] | 120 | - [2] |
| **Date** | | | | | | |
| 2025-05-25 | 0 | 1,784 [3] | 0 | 104 | 0 | 0 |
| 2025-05-26 | 0 | 2,175 [3] | 0 | 9 | 0 | 0 |
| 2025-05-27 | 0 | 1,843 [3] | 0 | 63 | 0 | 0 |
| 2025-05-28 | 0 | 2,196 [3] | 0 | 150 | 0 | 0 |
| 2025-05-29 | 0 | 2,197 [3] | 0 | 18 | 0 | 0 |
| 2025-05-30 | 0 | 2,198 [3] | 0 | 54 | 0 | 0 |
| 2025-05-31 | 0 | 2,198 [3] | 0 | 7 | 0 | 0 |

**Notes:**
Results in orange text exceeded the PE-111578 West Sedimentation Pond Discharge Limit.
[1] The West WWTP is not being operated, therefore discharges are not expected from this facility.
[2] The annual average authorized discharge rate from the West Sedimentation Pond is 310 $m^3$/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.
[3] W500GPM clarified effluent is discharged to Howe Sound, recirculated to the West Sedimentation Pond or is reclaimed for road dust suppression based on operational considerations. Therefore, the W500GPM clarified effluent volume may be higher than the volume discharged to Howe Sound at station SP-W-OUT. The W500GPM operated each day during the monitoring period (May 25 – May 31).
[4] The ESC system was not operational during the monitoring period (May 25 – May 31).

# *Appendix D: Non-Contact Water Diversion Ditch Outlets Results*

## Table D-1: Summary of Non-Contact Water Diversion Ditch Outlet Water Quality Results Received at the Time of Reporting.

| Parameter | Unit | Lowest Applicable Guideline [1, 2] | | Station OUT-01<br>Non-Contact Water Diversion Ditch Outlet<br>OUT-01<br>VA25B1692-001 |
|---|---|---|---|---|
| | | Long Term | Short Term | 2025-05-20 15:25 |
| **General Parameters** | | | | |
| pH - Field | pH units | 6.5 - 9.0 | - | ***6.3*** |
| Specific Conductivity - Field | µS/cm | - | - | 23 |
| Temperature - Field | °C | - | - | 9.9 |
| Salinity - Field | ppt | - | - | 0.01 |
| Turbidity - Field | NTU | - | - | 1.34 |
| TSS | mg/L | - | - | <3.0 |
| Dissolved Oxygen - Field | mg/L | >=8 | >=5 | 12.21 |
| **Anions and Nutrients** | | | | |
| Sulphate [2] | mg/L | 128 | - | 2.25 |
| Chloride | mg/L | 120 | 600 | <0.50 |
| Fluoride [2] | mg/L | - | 0.40 | <0.020 |
| Ammonia ($N\text{-}NH_3$) [2] | mg/L | 1.86 | 25.7 | 0.0062 |
| Nitrite ($N\text{-}NO_2$) [2] | mg/L | 0.02 | 0.06 | <0.0010 |
| Nitrate ($N\text{-}NO_3$) | mg/L | 3 | 32.8 | 0.104 |
| **Total Metals** | | | | |
| Aluminum, total (T-Al) [2] | mg/L | 0.033 | - | ***0.112*** |
| Antimony, total (T-Sb) | mg/L | 0.074 | - | <0.00010 |
| Arsenic, total (T-As) | mg/L | 0.005 | - | 0.00012 |
| Barium, total (T-Ba) | mg/L | 1 | - | 0.00445 |
| Beryllium, total (T-Be) | mg/L | 0.00013 | - | <0.000020 |
| Boron, total (T-B) | mg/L | 1.2 | 29 | <0.010 |
| Cadmium, total (T-Cd) [2] | mg/L | 0.000036 | 0.00018 | <0.0000050 |
| Chromium, total (T-Cr) [4] | mg/L | 0.001 | - | <0.00050 |
| Cobalt, total (T-Co) | mg/L | 0.001 | 0.11 | <0.00010 |
| Copper, total (T-Cu) | mg/L | - | - | 0.00082 |
| Iron, total (T-Fe) | mg/L | 0.3 | 1 | 0.025 |
| Lead, total (T-Pb) | mg/L | - | - | 0.000059 |
| Manganese, total (T-Mn) [2] | mg/L | 0.768 | 0.816 | 0.00247 |
| Mercury, total (T-Hg) [3] | mg/L | 0.00002 | - | 0.00000204 |
| Molybdenum, total (T-Mo) | mg/L | 0.073 | 46 | 0.000337 |
| Nickel, total (T-Ni) [2] | mg/L | 0.025 | - | <0.00050 |
| Selenium, total (T-Se) | mg/L | 0.001 | - | <0.000050 |
| Silver, total (T-Ag) | mg/L | 0.00012 | - | <0.000010 |
| Thallium, total (T-Tl) | mg/L | 0.0008 | - | <0.000010 |
| Uranium, total (T-U) | mg/L | 0.0085 | 0.033 | 0.000084 |
| Vanadium, total (T-V) | mg/L | 0.12 | - | <0.00050 |
| Zinc, total (T-Zn) | mg/L | - | - | <0.0030 |
| Hexavalent Chromium, total | mg/L | 0.001 | - | - |
| **Dissolved Metals** | | | | |
| Cadmium, dissolved (D-Cd) [2] | mg/L | 0.000036 | 0.000049 | <0.0000050 |
| Copper, dissolved (D-Cu) [2] | mg/L | 0.00020 | 0.00061 | ***0.00084*** |
| Iron, dissolved (D-Fe) | mg/L | - | 0.35 | 0.04 |
| Lead, dissolved (D-Pb) [2] | mg/L | 0.0024 | - | 0.000104 |
| Manganese, dissolved (D-Mn) [2] | mg/L | 0.31 | 1.97 | 0.00263 |
| Nickel, dissolved (D-Ni) [2] | mg/L | 0.00070 | 0.012 | <0.00050 |
| Strontium, dissolved (D-Sr) | mg/L | 2.5 | - | 0.0132 |
| Vanadium, dissolved (D-V) | mg/L | - | - | <0.00050 |
| Zinc, dissolved (D-Zn) [2] | mg/L | 0.0086 | 0.010 | 0.0010 |
| **Polycyclic Aromatic Hydrocarbons (PAHs)** | | | | |
| Acenaphthene | mg/L | 0.0058 | - | - |
| Acridine | mg/L | 0.003 | - | - |
| Anthracene | mg/L | 0.000012 | - | - |
| Benz(a)anthracene | mg/L | 0.000018 | - | - |
| Benzo(a)pyrene | mg/L | 0.00001 | - | - |
| Chrysene | mg/L | - | - | - |
| Fluoranthene | mg/L | 0.00004 | - | - |
| Fluorene | mg/L | 0.003 | - | - |
| 1-methylnaphthalene | mg/L | - | - | - |
| 2-methylnaphthalene | mg/L | - | - | - |
| Naphthalene | mg/L | 0.001 | 0.001 | - |
| Phenanthrene | mg/L | 0.0003 | - | - |
| Pyrene | mg/L | 0.00002 | - | - |
| Quinoline | mg/L | 0.0034 | - | - |
| **Volatile Organic Compounds (VOCs)** | | | | |
| Benzene | mg/L | 0.04 | - | - |
| Ethylbenzene | mg/L | 0.09 | - | - |
| Methyl-tert-butyl-ether | mg/L | 10 | 3.4 | - |
| Styrene | mg/L | 0.072 | - | - |
| Toluene | mg/L | 0.0005 | - | - |
| Total Xylenes | mg/L | 0.03 | - | - |
| Chlorobenzene | mg/L | - | - | - |
| 1,2-Dichlorobenzene | mg/L | - | - | - |

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

# *Appendix E: Marine Water Receiving Environment Results*

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

| Parameter | Unit | Lowest Applicable Guideline [1] | | Station IDZ-W1 | | | Station IDZ-W2 | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 0.5 m Below Surface | 2 m Below Surface | 2 m Above Seafloor | 0.5 m Below Surface | 2 m Below Surface | 2 m Above Seafloor |
| | | | | IDZ-W1-0.5 | IDZ-W1-2m | IDZ-W1-SF | IDZ-W2-0.5 | IDZ-W2-2m | IDZ-W2-SF |
| | | | | VA25B0499-001 | VA25B0499-002 | VA25B0499-003 | VA25B0499-004 | VA25B0499-005 | VA25B0499-006 |
| | | Long Term | Short Term | 2025-05-07 13:05 | 2025-05-07 13:25 | 2025-05-07 13:35 | 2025-05-07 12:05 | 2025-05-07 12:20 | 2025-05-07 12:30 |
| **General Parameters** | | | | | | | | | |
| pH - Field | pH units | 7.0 - 8.7 | - | 7.76 | 8.13 | 7.50 | 8.09 | 8.10 | 7.49 |
| Specific Conductivity - Field | µS/cm | - | - | 11899 | 26128 | 31756 | 11018 | 16665 | 31716 |
| Temperature - Field | ℃ | - | - | 11.4 | 11.8 | 8.6 | 11.1 | 11.7 | 8.6 |
| Salinity - Field | ppt | Narrative [2] | - | 8.69 | 13.45 | 29.69 | 9.5 | 22.01 | 29.75 |
| Turbidity - Field | NTU | Narrative [2] | Narrative [2] | 2.61 | 1.73 | 0.14 | 1.99 | 0.61 | 0.26 |
| TSS | mg/L | Narrative [2] | Narrative [2] | 2.8 | 5.4 | <2.0 | 2.8 | <2.0 | 2.0 |
| Dissolved Oxygen - Field | mg/L | >=8 | - | 10.70 | 11.15 | ***7.10*** | 11.42 | 11.21 | ***7.17*** |
| **Anions and Nutrients** | | | | | | | | | |
| Sulphate | mg/L | - | - | 484 | 1070 | 2360 | 451 | 1130 | 2300 |
| Chloride | mg/L | - | - | 3670 | 7990 | 16900 | 3530 | 8650 | 17000 |
| Fluoride | mg/L | - | 1.5 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Ammonia (N-$NH_3$) | mg/L | 2-12 [3] | 13-78 [3] | 0.0106 | 0.015 | 0.0402 | 0.0109 | 0.0205 | 0.0366 |
| Nitrite (N-$NO_2$) | mg/L | - | - | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 |
| Nitrate (N-$NO_3$) | mg/L | 3.7 | 339 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| **Total Metals** | | | | | | | | | |
| Aluminum, total (T-Al) | mg/L | - | - | 0.0816 | 0.0519 | <0.0050 | 0.0878 | 0.0502 | <0.0050 |
| Antimony, total (T-Sb) | mg/L | - | 0.27 [4] | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0010 |
| Arsenic, total (T-As) | mg/L | 0.0125 | 0.0125 | 0.00044 | 0.00075 | 0.00167 | 0.0004 | 0.00087 | 0.00167 |
| Barium, total (T-Ba) | mg/L | - | - | 0.0069 | 0.0083 | 0.0089 | 0.0073 | 0.0084 | 0.0086 |
| Beryllium, total (T-Be) | mg/L | 0.1 | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Boron, total (T-B) | mg/L | 1.2 | - | 0.71 | ***1.85*** | ***2.80*** | 0.68 | ***1.49*** | ***2.59*** |
| Cadmium, total (T-Cd) | mg/L | 0.00012 | - | <0.000020 | 0.00004 | 0.000075 | 0.000022 | 0.00003 | 0.00008 |
| Chromium, total (T-Cr) | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Cobalt, total (T-Co) | mg/L | - | - | 0.000083 | 0.000087 | 0.00008 | 0.000091 | 0.000096 | 0.000071 |
| Copper, total (T-Cu) | mg/L | 0.002 | 0.003 | 0.0006 | 0.00071 | <0.00050 | 0.00065 | 0.00068 | <0.00050 |
| Iron, total (T-Fe) | mg/L | - | - | 0.101 | 0.076 | <0.010 | 0.109 | 0.067 | <0.010 |
| Lead, total (T-Pb) | mg/L | 0.002 | 0.14 | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| Manganese, total (T-Mn) | mg/L | - | - | 0.00518 | 0.00535 | 0.00137 | 0.00557 | 0.00501 | 0.00113 |
| Mercury, total (T-Hg) | mg/L | 0.000016 [5] | - | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| Molybdenum, total (T-Mo) | mg/L | - | - | 0.00233 | 0.00472 | 0.00993 | 0.00239 | 0.00494 | 0.00976 |
| Nickel, total (T-Ni) | mg/L | 0.0083 | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Selenium, total (T-Se) | mg/L | 0.002 | - | <0.00050 | <0.00050 | <0.00080 | <0.00050 | <0.00050 | <0.00060 |
| Silver, total (T-Ag) | mg/L | 0.0005 | 0.0037 | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| Thallium, total (T-Tl) | mg/L | - | - | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| Uranium, total (T-U) | mg/L | - | - | 0.000636 | 0.00131 | 0.00258 | 0.000615 | 0.00136 | 0.00255 |
| Vanadium, total (T-V) | mg/L | 0.005 | - | 0.00064 | 0.00087 | 0.00164 | 0.00065 | 0.00092 | 0.00159 |
| Zinc, total (T-Zn) | mg/L | 0.01 | 0.055 | <0.0030 | <0.0030 | <0.0030 | <0.0030 | <0.0030 | <0.0030 |
| Hexavalent Chromium, total | mg/L | 0.0015 | - | <0.00150 | <0.00150 | <0.00150 | <0.00150 | <0.00150 | <0.00150 |
| **Dissolved Metals** | | | | | | | | | |
| Cadmium, dissolved (D-Cd) | mg/L | - | - | <0.000020 | 0.000051 | 0.000061 | 0.000022 | 0.000028 | 0.000079 |
| Copper, dissolved (D-Cu) | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Iron, dissolved (D-Fe) | mg/L | - | - | 0.016 | <0.010 | <0.010 | 0.013 | <0.010 | <0.010 |
| Lead, dissolved (D-Pb) | mg/L | - | - | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 | <0.00010 |
| Manganese, dissolved (D-Mn) | mg/L | - | - | 0.00386 | 0.00318 | 0.00205 | 0.00396 | 0.00378 | 0.00212 |
| Nickel, dissolved (D-Ni) | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Strontium, dissolved (D-Sr) | mg/L | - | - | 1.59 | 4.35 | 6.47 | 1.56 | 2.66 | 6.36 |
| Vanadium, dissolved (D-V) | mg/L | - | - | 0.00051 | 0.00083 | 0.00179 | 0.0005 | 0.00066 | 0.00179 |
| Zinc, dissolved (D-Zn) | mg/L | - | - | <0.0010 | <0.0010 | <0.0010 | <0.0010 | 0.0162 | <0.0010 |
| **Polycyclic Aromatic Hydrocarbons (PAHs)** | | | | | | | | | |
| Acenaphthene | mg/L | 0.006 | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| Acridine | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| Anthracene | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| Benz(a)anthracene | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| Benzo(a)pyrene | mg/L | 0.00001 | - | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 | <0.0000050 |
| Chrysene | mg/L | 0.0001 | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| Fluoranthene | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| Fluorene | mg/L | 0.012 | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| 1-methylnaphthalene | mg/L | 0.001 | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| 2-methylnaphthalene | mg/L | 0.001 | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| Naphthalene | mg/L | 0.001 | - | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| Phenanthrene | mg/L | - | - | <0.000020 | <0.000020 | <0.000020 | <0.000020 | <0.000020 | <0.000020 |
| Pyrene | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 | <0.000010 |
| Quinoline | mg/L | - | - | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| **Volatile Organic Compounds (VOCs)** | | | | | | | | | |
| Benzene | mg/L | 0.11 | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Ethylbenzene | mg/L | 0.25 | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Methyl-tert-butyl-ether | mg/L | 5 | 0.44 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Styrene | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Toluene | mg/L | 0.215 | - | <0.00040 | <0.00040 | <0.00040 | <0.00040 | <0.00040 | <0.00040 |
| Total Xylenes | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| Chlorobenzene | mg/L | 0.025 | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |
| 1,2-Dichlorobenzene | mg/L | 0.042 | - | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 | <0.00050 |

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

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

| Parameter | Unit | Lowest Applicable Guideline [1] | | Reference Station WQR2 | | |
|---|---|---|---|---|---|---|
| | | | | 0.5 m Below Surface | 2 m Below Surface | 2 m Above Seafloor |
| | | | | WQR2-0.5 | WQR2-2m | WQR2-SF |
| | | | | VA25B0499-007 | VA25B0499-008 | VA25B0499-009 |
| | | Long Term | Short Term | 2025-05-07 10:50 | 2025-05-07 11:15 | 2025-05-07 11:05 |
| **General Parameters** | | | | | | |
| pH - Field | pH units | 7.0 - 8.7 | - | 8.10 | 8.14 | 7.72 |
| Conductivity - Field | µS/cm | - | - | 10579 | 12582 | 31102 |
| Temperature - Field | °C | - | - | 10.7 | 11.0 | 9.2 |
| Salinity - Field | ppt | Narrative [2] | - | 8.46 | 10.12 | 28.58 |
| Turbidity - Field | NTU | Narrative [2] | Narrative [2] | 2.45 | 2.17 | 0.21 |
| TSS | mg/L | Narrative [2] | Narrative [2] | 3 | <2.0 | 7.5 |
| Dissolved Oxygen - Field | mg/L | >=8 | - | 11.44 | 11.48 | 9.82 |
| **Anions and Nutrients** | | | | | | |
| Sulphate | mg/L | - | - | 435 | 963 | 2180 |
| Chloride | mg/L | - | - | 3550 | 7250 | 15800 |
| Fluoride | mg/L | - | 1.5 | <1.0 | <1.0 | <1.0 |
| Ammonia ($N\text{-}NH_3$) | mg/L | 2.0-7.2 [3] | 13-48 [3] | 0.0126 | 0.0172 | 0.047 |
| Nitrite ($N\text{-}NO_2$) | mg/L | - | - | <0.10 | <0.10 | <0.10 |
| Nitrate ($N\text{-}NO_3$) | mg/L | 3.7 | 339 | <0.50 | <0.50 | <0.50 |
| **Total Metals** | | | | | | |
| Aluminum, total (T-Al) | mg/L | - | - | 0.109 | 0.0643 | 0.0051 |
| Antimony, total (T-Sb) | mg/L | - | 0.27 [4] | <0.0010 | <0.0010 | <0.0010 |
| Arsenic, total (T-As) | mg/L | 0.0125 | 0.0125 | <0.00040 | 0.00068 | 0.00147 |
| Barium, total (T-Ba) | mg/L | - | - | 0.0086 | 0.0087 | 0.0092 |
| Beryllium, total (T-Be) | mg/L | 0.1 | - | <0.00050 | <0.00050 | <0.00050 |
| Boron, total (T-B) | mg/L | 1.2 | - | 0.67 | ***1.30*** | ***2.52*** |
| Cadmium, total (T-Cd) | mg/L | 0.00012 | - | <0.000020 | 0.000029 | 0.000068 |
| Chromium, total (T-Cr) | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 |
| Cobalt, total (T-Co) | mg/L | - | - | 0.000106 | 0.000094 | 0.000088 |
| Copper, total (T-Cu) | mg/L | 0.002 | 0.003 | 0.00082 | 0.00067 | <0.00050 |
| Iron, total (T-Fe) | mg/L | - | - | 0.159 | 0.088 | <0.010 |
| Lead, total (T-Pb) | mg/L | 0.002 | 0.14 | <0.00010 | <0.00010 | <0.00010 |
| Manganese, total (T-Mn) | mg/L | - | - | 0.00702 | 0.00553 | 0.00216 |
| Mercury, total (T-Hg) | mg/L | 0.000016 [5] | - | <0.0000050 | <0.0000050 | <0.0000050 |
| Molybdenum, total (T-Mo) | mg/L | - | - | 0.00236 | 0.00468 | 0.0094 |
| Nickel, total (T-Ni) | mg/L | 0.0083 | - | <0.00050 | <0.00050 | <0.00050 |
| Selenium, total (T-Se) | mg/L | 0.002 | - | <0.00050 | <0.00050 | <0.00070 |
| Silver, total (T-Ag) | mg/L | 0.0005 | 0.0037 | <0.00010 | <0.00010 | <0.00010 |
| Thallium, total (T-Tl) | mg/L | - | - | <0.000050 | <0.000050 | <0.000050 |
| Uranium, total (T-U) | mg/L | - | - | 0.00055 | 0.00116 | 0.00247 |
| Vanadium, total (T-V) | mg/L | 0.005 | - | 0.00078 | 0.00083 | 0.00154 |
| Zinc, total (T-Zn) | mg/L | 0.01 | 0.055 | <0.0030 | <0.0030 | <0.0030 |
| Hexavalent Chromium, total | mg/L | 0.0015 | - | <0.00150 | <0.00150 | <0.00150 |
| **Dissolved Metals** | | | | | | |
| Cadmium, dissolved (D-Cd) | mg/L | - | - | <0.000020 | 0.000026 | 0.000055 |
| Copper, dissolved (D-Cu) | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 |
| Iron, dissolved (D-Fe) | mg/L | - | - | 0.021 | <0.010 | <0.010 |
| Lead, dissolved (D-Pb) | mg/L | - | - | <0.00010 | <0.00010 | <0.00010 |
| Manganese, dissolved (D-Mn) | mg/L | - | - | 0.00442 | 0.00375 | 0.00287 |
| Nickel, dissolved (D-Ni) | mg/L | - | - | <0.00050 | 0.00107 | <0.00050 |
| Strontium, dissolved (D-Sr) | mg/L | - | - | 1.07 | 2.72 | 5.80 |
| Vanadium, dissolved (D-V) | mg/L | - | - | <0.00050 | 0.00062 | 0.00113 |
| Zinc, dissolved (D-Zn) | mg/L | - | - | <0.0010 | <0.0010 | <0.0010 |
| **Polycyclic Aromatic Hydrocarbons (PAHs)** | | | | | | |
| Acenaphthene | mg/L | 0.006 | - | <0.000010 | <0.000010 | <0.000010 |
| Acridine | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 |
| Anthracene | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 |
| Benz(a)anthracene | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 |
| Benzo(a)pyrene | mg/L | 0.00001 | - | <0.0000050 | <0.0000050 | <0.0000050 |
| Chrysene | mg/L | 0.0001 | - | <0.000010 | <0.000010 | <0.000010 |
| Fluoranthene | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 |
| Fluorene | mg/L | 0.012 | - | <0.000010 | <0.000010 | <0.000010 |
| 1-methylnaphthalene | mg/L | 0.001 | - | <0.000010 | <0.000010 | <0.000010 |
| 2-methylnaphthalene | mg/L | 0.001 | - | <0.000010 | <0.000010 | <0.000010 |
| Naphthalene | mg/L | 0.001 | - | <0.000050 | <0.000050 | <0.000050 |
| Phenanthrene | mg/L | - | - | <0.000020 | <0.000020 | <0.000020 |
| Pyrene | mg/L | - | - | <0.000010 | <0.000010 | <0.000010 |
| Quinoline | mg/L | - | - | <0.000050 | <0.000050 | <0.000050 |
| **Volatile Organic Compounds (VOCs)** | | | | | | |
| Benzene | mg/L | 0.11 | - | <0.00050 | <0.00050 | <0.00050 |
| Ethylbenzene | mg/L | 0.25 | - | <0.00050 | <0.00050 | <0.00050 |
| Methyl-tert-butyl-ether | mg/L | 5 | 0.44 | <0.00050 | <0.00050 | <0.00050 |
| Styrene | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 |
| Toluene | mg/L | 0.215 | - | <0.00040 | <0.00040 | <0.00040 |
| Total Xylenes | mg/L | - | - | <0.00050 | <0.00050 | <0.00050 |
| Chlorobenzene | mg/L | 0.025 | - | <0.00050 | <0.00050 | <0.00050 |
| 1,2-Dichlorobenzene | mg/L | 0.042 | - | <0.00050 | <0.00050 | <0.00050 |

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

## Table E-3: Summary of Marine Water Quality Results Received at the Time of Reporting

| Parameter | Unit | Lowest Applicable Guideline [1] | | Station IDZ-E1 | | | Station IDZ-E2 | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 0.5 m Below Surface | 2 m Below Surface | 2 m Above Seafloor | 0.5 m Below Surface | 2 m Below Surface | 2 m Above Seafloor |
| | | | | IDZ-E1-0.5 | IDZ-E1-2m | IDZ-E1-SF | IDZ-E2-0.5 | IDZ-E2-2m | IDZ-E2-SF |
| | | | | VA25B1690-001 | VA25B1690-002 | VA25B1690-003 | VA25B1690-004 | VA25B1690-005 | VA25B1690-006 |
| | | Long Term | Short Term | 2025-05-20 12:50 | 2025-05-20 12:52 | 2025-05-20 12:54 | 2025-05-20 12:30 | 2025-05-20 12:32 | 2025-05-20 0:34 |
| **General Parameters** | | | | | | | | | |
| pH - Field | pH units | 7.0 - 8.7 | - | 7.88 | 7.54 | 8.07 | 7.71 | 7.57 | 8.09 |
| Specific Conductivity - Field | µS/cm | - | - | 4034 | 6493 | 33389 | 3939 | 4821 | 33628 |
| Temperature - Field | ℃ | - | - | 10.5 | 10.6 | 13.2 | 10.4 | 10.4 | 13.1 |
| Salinity - Field | ppt | Narrative [2] | - | 2.15 | 3.56 | 20.93 | 2.09 | 2.60 | 21.09 |
| Turbidity - Field | NTU | Narrative [2] | Narrative [2] | 2.94 | 2.57 | 0.46 | 2.74 | 2.91 | 0.35 |
| TSS | mg/L | Narrative [2] | Narrative [2] | 3.3 | <2.0 | 2.6 | 2.6 | 2.3 | 5.7 |
| Dissolved Oxygen - Field | mg/L | >=8 | - | 11.30 | 11.45 | 11.05 | 11.37 | 11.50 | 11.09 |

**Notes:**
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.

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

| Parameter | Unit | Lowest Applicable Guideline [1] | | Station IDZ-W1 | | | Station IDZ-W2 | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 0.5 m Below Surface | 2 m Below Surface | 2 m Above Seafloor | 0.5 m Below Surface | 2 m Below Surface | 2 m Above Seafloor |
| | | | | IDZ-W1-0.5 | IDZ-W1-2m | IDZ-W1-SF | IDZ-W2-0.5 | IDZ-W2-2m | IDZ-W2-SF |
| | | | | VA25B1690-007 | VA25B1690-008 | VA25B1690-009 | VA25B1690-010 | VA25B1690-011 | VA25B1690-012 |
| | | Long Term | Short Term | 2025-05-20 13:00 | 2025-05-20 13:02 | 2025-05-20 13:04 | 2025-05-20 13:20 | 2025-05-20 13:22 | 2025-05-20 13:24 |
| **General Parameters** | | | | | | | | | |
| pH - Field | pH units | 7.0 - 8.7 | - | 7.78 | 7.53 | 7.72 | 7.76 | 7.67 | 7.52 |
| Specific Conductivity - Field | µS/cm | - | - | 3632 | 6851 | 44216 | 3755 | 4818 | 45471 |
| Temperature - Field | ℃ | - | - | 8.8 | 10.3 | 9.6 | 10.1 | 10.2 | 8.9 |
| Salinity - Field | ppt | Narrative [2] | - | 1.92 | 3.77 | 28.36 | 1.99 | 2.59 | 29.21 |
| Turbidity - Field | NTU | Narrative [2] | Narrative [2] | 1.32 | 2.14 | 0.63 | 2.61 | 2.73 | 0.38 |
| TSS | mg/L | Narrative [2] | Narrative [2] | <2.0 | 2.0 | <2.0 | <2.0 | 2.4 | <2.0 |
| Dissolved Oxygen - Field | mg/L | >=8 | - | 11.94 | 11.67 | 9.08 | 11.67 | 11.67 | ***7.72*** |

**Notes:**
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.

## Table E-5: Marine Water Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

| Parameter | | | | | Total Methylmercury | Total Mercury |
|---|---|---|---|---|---|---|
| **Unit** | | | | | **µg/L** | **µg/L** |
| **Lowest Applicable Guideline[1]** | | | | | 0.0001 [2] | 0.0050-0.020 [3,4] |
| **Station** | **Position in Water Column** | **Sample ID** | **Lab ID** | **Sampling Date** | | |
| Station IDZ-E1 | | | | | | |
| IDZ-E1 | 0.5 m Below Surface | IDZ-E1-0.5 | VA25B0359-001 | 2025-05-06 | <0.000020 | <0.0050 |
| IDZ-E1 | 2 m Below Surface | IDZ-E1-2m | VA25B0359-002 | 2025-05-06 | <0.000020 | <0.0050 |
| IDZ-E1 | 2 m Above Seafloor | IDZ-E1-SF | VA25B0359-003 | 2025-05-06 | 0.000020 | <0.0050 |
| Station IDZ-E2 | | | | | | |
| IDZ-E2 | 0.5 m Below Surface | IDZ-E2-0.5 | VA25B0359-004 | 2025-05-06 | <0.000020 | <0.0050 |
| IDZ-E2 | 2 m Below Surface | IDZ-E2-2m | VA25B0359-005 | 2025-05-06 | <0.000020 | <0.0050 |
| IDZ-E2 | 2 m Above Seafloor | IDZ-E2-SF | VA25B0359-006 | 2025-05-06 | <0.000020 | <0.0050 |
| Station IDZ-W1 | | | | | | |
| IDZ-W1 | 0.5 m Below Surface | IDZ-W1-0.5 | VA25B0499-001 | 2025-05-07 | <0.000020 | <0.0050 |
| IDZ-W1 | 2 m Below Surface | IDZ-W1-2m | VA25B0499-002 | 2025-05-07 | ***0.000101*** | ***<0.0050*** |
| IDZ-W1 | 2 m Above Seafloor | IDZ-W1-SF | VA25B0499-003 | 2025-05-07 | 0.000092 | <0.0050 |
| Station IDZ-W2 | | | | | | |
| IDZ-W2 | 0.5 m Below Surface | IDZ-W2-0.5 | VA25B0499-004 | 2025-05-07 | <0.000020 | <0.0050 |
| IDZ-W2 | 2 m Below Surface | IDZ-W2-2m | VA25B0499-005 | 2025-05-07 | <0.000020 | <0.0050 |
| IDZ-W2 | 2 m Above Seafloor | IDZ-W2-SF | VA25B0499-006 | 2025-05-07 | 0.000030 | <0.0050 |
| Reference Station WQR1 | | | | | | |
| WQR1 | 0.5 m Below Surface | WQR1-0.5 | VA25B0359-009 | 2025-05-06 | <0.000020 | <0.0050 |
| WQR1 | 2 m Below Surface | WQR1-2m | VA25B0359-008 | 2025-05-06 | <0.000020 | <0.0050 |
| WQR1 | 2 m Above Seafloor | WQR1-SF | VA25B0359-007 | 2025-05-06 | <0.000020 | <0.0050 |
| Reference Station WQR2 | | | | | | |
| WQR2 | 0.5 m Below Surface | WQR2-0.5 | VA25B0359-012 | 2025-05-06 | <0.000020 | <0.0050 |
| WQR2 | 0.5 m Below Surface | WQR2-0.5 | VA25B0499-007 | 2025-05-07 | <0.000020 | <0.0050 |
| WQR2 | 2 m Below Surface | WQR2-2m | VA25B0359-011 | 2025-05-06 | <0.000020 | <0.0050 |
| WQR2 | 2 m Below Surface | WQR2-2m | VA25B0499-008 | 2025-05-07 | <0.000020 | <0.0050 |
| WQR2 | 2 m Above Seafloor | WQR2-SF | VA25B0359-010 | 2025-05-06 | <0.000020 | <0.0050 |
| WQR2 | 2 m Above Seafloor | WQR2-SF | VA25B0499-009 | 2025-05-07 | <0.000020 | <0.0050 |

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

**Table E-6: Marine Water Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.**

| **Parameter** | | | | | **Lower Bound PCDD/F TEQ** | **Upper Bound PCDD/F TEQ** |
|---|---|---|---|---|---|---|
| **Unit** | | | | | **pg/L** | **pg/L** |
| **Station** | **Position in Water Column** | **Sample ID** | **Lab ID** | **Sampling Date** | | |
| Station IDZ-E1 | | | | | | |
| IDZ-E1 | 0.5 m Below Surface | IDZ-E1-0.5 | VA25B0360-001 | 2025-05-06 | 0.0303 | 0.941 |
| IDZ-E1 | 2 m Below Surface | IDZ-E1-2m | VA25B0360-002 | 2025-05-06 | 0.00368 | 0.668 |
| IDZ-E1 | 2 m Above Seafloor | IDZ-E1-SF | VA25B0360-003 | 2025-05-06 | 0.00993 | 0.734 |
| Station IDZ-E2 | | | | | | |
| IDZ-E2 | 0.5 m Below Surface | IDZ-E2-0.5 | VA25B0360-004 | 2025-05-06 | 0.000870 | 0.755 |
| IDZ-E2 | 2 m Below Surface | IDZ-E2-2m | VA25B0360-005 | 2025-05-06 | 0.00155 | 0.860 |
| IDZ-E2 | 2 m Above Seafloor | IDZ-E2-SF | VA25B0360-006 | 2025-05-06 | 0 | 0.680 |
| Station IDZ-W1 | | | | | | |
| IDZ-W1 | 0.5 m Below Surface | IDZ-W1-0.5 | VA25B0263-001 | 2025-05-05 | 0.0395 | 1.36 |
| IDZ-W1 | 0.5 m Below Surface | IDZ-W1-0.5 | VA25B0502-001 | 2025-05-07 | 0.00543 | 1.28 |
| IDZ-W1 | 2 m Below Surface | IDZ-W1-2m | VA25B0263-002 | 2025-05-05 | 0.00648 | 1.54 |
| IDZ-W1 | 2 m Below Surface | IDZ-W1-2m | VA25B0502-002 | 2025-05-07 | 0.00990 | 1.36 |
| IDZ-W1 | 2 m Above Seafloor | IDZ-W1-SF | VA25B0263-003 | 2025-05-05 | 0.00636 | 0.964 |
| IDZ-W1 | 2 m Above Seafloor | IDZ-W1-SF | VA25B0502-003 | 2025-05-07 | 0 | 0.993 |
| Station IDZ-W2 | | | | | | |
| IDZ-W2 | 0.5 m Below Surface | IDZ-W2-0.5 | VA25B0263-004 | 2025-05-05 | 0 | 1.49 |
| IDZ-W2 | 0.5 m Below Surface | IDZ-W2-0.5 | VA25B0502-004 | 2025-05-07 | 0.00108 | 1.05 |
| IDZ-W2 | 2 m Below Surface | IDZ-W2-2m | VA25B0263-005 | 2025-05-05 | 0.00609 | 0.962 |
| IDZ-W2 | 2 m Below Surface | IDZ-W2-2m | VA25B0502-005 | 2025-05-07 | 0.285 | 0.916 |
| IDZ-W2 | 2 m Above Seafloor | IDZ-W2-SF | VA25B0263-006 | 2025-05-05 | 0.00447 | 1.85 |
| IDZ-W2 | 2 m Above Seafloor | IDZ-W2-SF | VA25B0502-006 | 2025-05-07 | 0.00389 | 0.808 |
| Reference Station WQR1 | | | | | | |
| WQR1 | 0.5 m Below Surface | WQR1-0.5 | VA25B0360-009 | 2025-05-06 | 0.00406 | 0.714 |
| WQR1 | 2 m Below Surface | WQR1-2m | VA25B0360-008 | 2025-05-06 | 0.0175 | 0.732 |
| WQR1 | 2 m Above Seafloor | WQR1-SF | VA25B0360-007 | 2025-05-06 | 0.0107 | 0.751 |
| Reference Station WQR2 | | | | | | |
| WQR2 | 0.5 m Below Surface | WQR2-0.5 | VA25B0360-012 | 2025-05-06 | 0.0325 | 0.732 |
| WQR2 | 0.5 m Below Surface | WQR2-0.5 | VA25B0502-007 | 2025-05-07 | 0 | 1.02 |
| WQR2 | 2 m Below Surface | WQR2-2m | VA25B0360-011 | 2025-05-06 | 0.000864 | 0.732 |
| WQR2 | 2 m Below Surface | WQR2-2m | VA25B0502-008 | 2025-05-07 | 0.0166 | 0.821 |
| WQR2 | 2 m Above Seafloor | WQR2-SF | VA25B0360-010 | 2025-05-06 | 0.0190 | 0.906 |
| WQR2 | 2 m Above Seafloor | WQR2-SF | VA25B0502-009 | 2025-05-07 | 0.0800 | 1.15 |

**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