

PAG Contact RSEM Pond Monitoring: Peace River Surface Water Quality and Pond Toxicity – 2025 Annual Report

Site C Clean Energy Project

PREPARED FOR

BC Hydro
900-1111 West Georgia St.
Vancouver, BC V6E 4M3

PREPARED BY

Trinity Consultants Canada
Suite 906 - 595 Howe Street,
Vancouver, BC V6C 2T5

DATE

2026-03-19

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Published by Trinity Consultants Canada, Suite 906 - 595 Howe Street, Vancouver, BC V6C 2T5 and
Aski Reclamation LP, 1717 Civic Core Rd., Moberly Lake, BC V0C 1X0

For inquiries contact: Technical Lead:

DocumentControl.WECanada@trinityconsultants.com

250-334-3042

Citation:

Ganshorn, K., A. Lischka, M. Pruett, and C. Suzanne. 2026. Site C Clean Energy Project PAG Contact RSEM Pond Monitoring: Peace River Surface Water Quality and Pond Toxicity 2025 Annual Report. Consultant's report prepared for BC Hydro by Trinity Consultants Canada and Aski Reclamation LP., March 19, 2026.

Certification: *Certified - stamped version on file.*

Senior Reviewer:

Kevin Ganshorn, M.Sc., R.P.Bio. No. 2448

Project Director, Senior Environmental Scientist

Technical Lead:

Christina Suzanne, M.Sc., R.P.Bio. No. 3749

Aquatic Scientist

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EXECUTIVE SUMMARY

Trinity Consultants Canada (TCC; formerly Ecofish Research Ltd.) was retained by Aski Reclamation LP (Aski) to conduct surface water quality monitoring on behalf of BC Hydro for the Site C Clean Energy Project (the “Project”). The scope of monitoring is specific to relocated surplus excavated material (RSEM) sediment ponds containing water that has come into contact with potentially acid generating (PAG) material. On August 25, 2024, Site C reservoir filling began, and the first turbine came into operation on October 28, 2024; the subsequent units came into service over the following months until the sixth and final generating unit came online on August 9, 2025, marking the start of full operations. We acknowledge this work is being conducted on the traditional territory of Treaty 8 First Nations of Dunne Zaa, Cree and Tse’khene cultural descent.

This report summarizes the monitoring results for the 2025 calendar year¹. Peace River diversion commenced on September 30, 2020, and full diversion was achieved on October 3, 2020. Six new Phase 2 PAG-contact RSEM ponds became operational post-diversion, but they were decommissioned in 2023: four R5A-P2 ponds and two L5-P2 ponds. To date, RSEM R6W, R6E, and L6 ponds remain in place following river diversion, although R6E is no longer in use as of December 2024.

In 2025, the RSEM R6W pond passively discharged water to the Peace River between January and May 2025. Since December 2024, the RSEM L6 pond receives water from the Diversion Tunnel Outlet Area, which resulted in frequent and passive discharge to the Peace River throughout 2025.

In 2025, monitoring included acute toxicity testing of RSEM pond water as well as surface water quality monitoring in the Peace River as it relates to discharge from PAG contact RSEM sediment ponds. RSEM pond toxicity and Peace River surface water quality monitoring are requirements of the Acid Rock Drainage and Metal Leachate (ARD/ML) Management Plan² included as Appendix E of the Construction Environmental Management Plan (CEMP; BC Hydro 2026). The monitoring program was designed to evaluate: 1) RSEM pond water acute toxicity and 2) pond discharge for compliance with BC water quality guidelines (WQG) for the protection of aquatic life at the downstream edge of the 100 m long initial dilution zone (IDZ) in the Peace River. A summary of each monitoring component is provided below.

¹ In addition to this annual report, detailed monthly reports were issued that summarized the current RSEM status, monthly and cumulative monitoring results, and upcoming monitoring requirements. Additional reports are prepared for discharge compliance exceedances when required; this was not required in 2025. Annual and monthly reports were also prepared for the 2017, 2018, 2019, 2020, 2021, 2022, 2023, and 2024 monitoring periods.

² Other requirements of the CEMP, including RSEM in-pond water quality monitoring and mitigation implementation, were the responsibility of the project’s Main Civil Works contractor, West Moberly-DWB Limited Partnership (WM DWB LP). These other requirements are reported on separately by WM DWB LP and/or their Qualified Professional consultants and therefore are not included in this report.

RSEM Pond Acute Toxicity

The toxicity testing program for PAG containing RSEM sediment ponds consists of two components: routine bi-monthly monitoring and targeted monitoring as specified in the CEMP (BC Hydro 2026). In 2025, acute toxicity of RSEM pond water was monitored for the RSEM R6W and L6 ponds, provided sufficient water was available for sampling. Acute toxicity was evaluated using a standard laboratory assay (Rainbow Trout 96-hour LC50 test) performed on water samples collected directly from the pond or from the end of pipe pond outflow.

Considering both RSEM ponds, a total of 13 routine toxicity samples were collected in 2025 and all the tests passed. Six samples were collected from the RSEM R6W pond and seven samples were collected from the RSEM L6 pond.

RSEM Discharge/Peace River and Site C Reservoir Surface Water Quality Monitoring

The ARD/ML Management Plan (BC Hydro 2026) stipulates water quality criteria (i.e., BC WQG for the protection of aquatic life) at the IDZ location 100 m downstream of each RSEM discharge location. To evaluate compliance, a full suite of water quality parameters (including physical parameters, nutrients, anions, total metals, and dissolved metals) was measured in situ and/or sampled for laboratory analysis. Sampling was conducted on monthly and 5 in 30-day sampling schedules (5 sets of samples over a 30-day period during both turbid and clear flow conditions). Sampling was conducted at IDZ sites 100 m downstream of discharging RSEM ponds, as well as at upstream³ (upstream of the Site C dam), immediate background (just upstream of RSEM discharge points), and far-field downstream locations.

In 2025, there were no exceedances of BC WQG measured at IDZ sites that were attributable to discharge of water from RSEM sediment ponds. A single exceedance of the short-term BC WQG for total iron was observed at the RSEM L6 IDZ site in September 2025. This exceedance coincided with the highest total suspended solids concentration measured during the 2025 monitoring period and occurred during upstream in-channel dredging activities, suggesting that the exceedance was likely associated with localized sediment disturbance rather than RSEM pond discharge.

The RSEM ponds have end of pipe (EOP) limits for total suspended solids (TSS). Continuous turbidity gauges installed on the left and right bank of the Peace River located ~1 km downstream of the Site C dam (PBM-LB1 and PBM-RB1) were used to inform the project's Main Civil Works contractor, West Moberly-DWB Limited Partnership (WM DWB LP) of the Peace River background TSS twice daily via automated email as per Section 2.1 in BC Hydro (2017a). To estimate the background Peace River TSS, TCC has developed TSS:turbidity relationships over the course of monitoring which are used to estimate TSS concentrations from the turbidity data logged by the monitoring stations. A total of 372 TSS samples were collected across 13 stations in 2013 and from

³ This upstream site is not a requirement of the CEMP (BC Hydro 2026). Since reservoir filling, this site is located in the lower Site C reservoir. In 2025, this upstream site was sampled from May until December 2025. This site could not be safely accessed between January and April 2025 due to inaccessibility of the boat launch and substantial ice buildup on the reservoir.

December 15, 2017 through December 31, 2025. Eight of these samples were identified as outliers and were omitted from the analysis. These data encompass a wide range of turbidity (1.7 NTU to 2,618 NTU) and TSS (1.2 mg/L to 1,710 mg/L) observations. The 2025 background TSS data are reported by WM DWB LP and are not included in this report.

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1. INTRODUCTION

Trinity Consultants Canada (TCC; formerly Ecofish Research Ltd.) was retained by Aski Reclamation LP (Aski) to conduct surface water quality monitoring on behalf of BC Hydro for the Site C Clean Energy Project (the “Project”) as it relates to sediment ponds in relocated surplus excavated material (RSEM) areas containing potentially acid generating (PAG) material and/or PAG-contact water potentially discharging to the Peace River. Phase 1 of Project construction commenced in July 2015, and in-river works began on October 14, 2015. In 2017, discharge to the Peace River from sediment ponds began. Project construction commenced on July 27, 2015; Phase 2 of Project construction commenced following diversion of the Peace River at the Site C dam site on October 3, 2020. On August 25, 2024, Site C reservoir filling began, and the first turbine came into operation on October 28, 2024; the subsequent units came into service over the following months until the sixth and final generating unit came online on August 9, 2025, marking the start of full operations. We acknowledge this work is being conducted on the traditional territory of Treaty 8 First Nations of Dunne Zaa, Cree, and Tse’khene cultural descent.

Project construction works include management of excavated PAG shale bedrock, including managing surface runoff from RSEM areas. Surface runoff from these RSEM areas and water from PAG excavation sites is directed into the associated active PAG contact RSEM sediment ponds (henceforth referred to as RSEM ponds), and water in these ponds may be discharged to the Peace River.

An Acid Rock Drainage and Metal Leachate (ARD/ML) Management Plan is included as Appendix E of the Construction Environmental Management Plan (CEMP; BC Hydro 2026) for the Project. Section 7.2 of the ARD/ML Management Plan specifies compliance requirements related to the PAG-contact RSEM ponds. Trinity Consultants Canada and Aski’s scope of work is to conduct the monitoring and reporting associated with compliance requirements for acute toxicity (Section 7.2.1 of the ARD/ML Management Plan) and for Peace River water quality downstream of each PAG-contact RSEM area (Section 7.2.3 of the ARD/ML Management Plan). Other requirements of the CEMP, including RSEM in-pond water quality monitoring and mitigation implementation, are the responsibility of the project’s Main Civil Works contractor, West Moberly-DWB Limited Partnership (WM DWB LP); these other requirements are reported on separately by WM DWB LP and/or their Qualified Professional consultants.

In 2025, R6W, R6E, and L6 ponds (Map 1) were the only PAG contact RSEM ponds that were in place, although R6E was no longer in use in 2025. Table 1 provides a summary of PAG contact RSEM pond construction and discharge history; the status of each of these three ponds is further described below.

The RSEM R6 pond is divided by a berm, resulting in two ponds: an east pond (RSEM R6E) and a west pond (RSEM R6W). Discharge from these RSEM R6 sediment ponds commenced in April 2017. Sampling at the RSEM R6E pond was discontinued in December 2024 as the pond is no longer actively used. Since May 9, 2020, RSEM R6W receives treated effluent from the Water Treatment Plant (WTP) sludge pond. The RSEM R6W pond also receives water from several

sources on site as documented in the WM DWB LP Weekly Environmental Monitoring Reports. One of those sources is the west pre-treatment pond which, from April 22 – December 1, 2024, also received accumulated powerhouse seepage water. Water was trucked to the west pre-treatment pond from April 22 – August 22, 2024, and pumped via a pipe from August 23 – December 1, 2024. As of December 2, 2024, BC Hydro began discharging the accumulated powerhouse seepage water directly to the tailrace as per the Powerhouse Seepage Memo (Ecofish 2024). In 2025, the RSEM R6W pond passively discharged water to the Peace River between January and May 2025; the RSEM R6W pond did not discharge between June and December 2025.

Construction of the RSEM L6 sediment pond was completed in March 2019. The pond is used to manage PAG-contact water from the RSEM Area L6 catchment. The RSEM L6 pond has also been designated as a hydrovac dump site for AFDE. Additionally, when conditions are not frozen, the pond may receive runoff from the adjacent laydown area and roadway during heavy rain and melting events. The L6 catchment is small; therefore, the RSEM L6 pond generally did not discharge, and was managed to prevent passive discharge. However, as of December 2024, RSEM L6 receives water from the Diversion Tunnel Outlet Area and as a result, frequent discharge to the Peace River began. Furthermore, starting on October 23, 2025, water was also transferred daily from the Left Bank Drainage Approach to the RSEM L6 pond. In 2025, the RSEM L6 pond passively discharged water to the Peace River.

This report fulfils the annual reporting requirement outlined in Section 7.5 of the ARD/ML Management Plan (CEMP, Appendix E, BC Hydro 2026) for the associated monitoring conducted by TCC and Aski (RSEM pond toxicity testing and Peace River water quality sampling) on behalf of BC Hydro in 2025.

Table 1. PAG contact RSEM pond construction and discharge history as of the end of 2025.

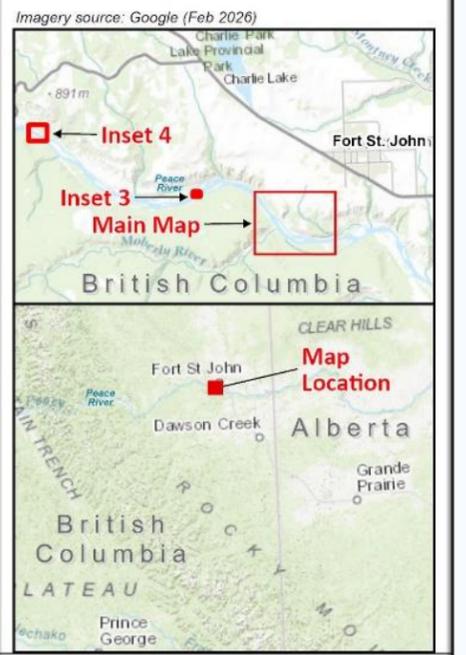
RSEM Pond	RSEM Pond Construction Completed	Discharge to the Peace River Commenced	Status
R6	March 2017	April 2017	Two ponds. The RSEM R6 West pond has been receiving treated effluent from the Water Treatment Plant sludge pond since May 9, 2020. In 2025, the RSEM R6 West pond passively discharged water to the Peace River from January until May 29, 2025, and stopped discharging on May 30, 2025. The RSEM R6 East pond did not discharge to the Peace River in 2025 and sampling was discontinued in December 2024 as the pond is no longer actively used.
L6	March 2019	December 2024 ¹	Single pond which is generally managed to prevent passive discharge into the Peace River. As of December 2024, RSEM L6 receives water from the Diversion Tunnel Outlet Area. Frequent discharge to the Peace River began on December 6, 2024 and the pond passively discharged water to the Peace River in 2025.

¹ Prior to December 6, 2024 the pond was only actively discharged to the Peace River via pumping a few times per year.



SITE C CLEAN ENERGY PROJECT
PAG Contact RSEM
Sediment Ponds and Water
Quality Monitoring Locations

- Legend**
- RSEM Pond Rainbow Trout 96-hr Acute Toxicity Test Sample Collection Point (SP = Sediment Pond, EOP = End of Pipe)
 - Peace River Water Quality Monitoring
 - Continuous Turbidity Gauge (current)
 - Continuous Turbidity Gauge (decommissioned)
 - RSEM Sediment Pond Discharge Point/Channel
 - Debris Boom
 - Site C Reservoir
- Sediment Ponds**
- RSEM Pond constructed and discharge has commenced
 - Decommissioned RSEM Pond
 - RSEM Pond Catchment Area



MAP SHOULD NOT BE USED FOR LEGAL OR NAVIGATIONAL PURPOSES

0 100 200 400 600 800 m

Scale: 1:17,000

NO.	DATE	REVISION	BY
1	2/9/2026	1200 RSEM WQ Annual 0840 20260209	CHW
2			
3			
4			
5			

Date Saved: 2/9/2026
 Coordinate System: NAD 1983 UTM Zone 10N

2. BACKGROUND

2.1. RSEM Pond Acute Toxicity

The acute toxicity (Rainbow Trout 96-hour LC50) monitoring program is designed to confirm that water discharged from the PAG contact RSEM ponds is not acutely toxic to aquatic life at the point of discharge into the Peace River (as per Section 7.1 of ARD/ML Management Plan; BC Hydro 2026). Therefore, prior to discharge into the Peace River, and for the duration of discharge into the Peace River, acute toxicity testing is required for each RSEM pond.

The acute toxicity monitoring program is described in Section 7.3.1 of the ARD/ML Management Plan (BC Hydro 2026) and reflects the toxicity monitoring program (Shelley *et al.* 2018) that was accepted by regulators in February 2019 (CWR 2019). On February 27, 2019, a bi-monthly acute toxicity sampling approach was adopted, and the sampling schedule specified in the CEMP (BC Hydro 2026) switched to a bi-monthly schedule for all RSEM ponds.

The current toxicity monitoring approach specifies that samples be collected from each PAG contact RSEM sediment pond every two months if there is sufficient water to collect a sample (Shelley *et al.* 2018). This will demonstrate regulatory compliance over a range of operating conditions and provide data to confirm or revise the testing program. In the event of an acute toxicity test failure under this monitoring program, an additional sample(s) will be collected to confirm pond water quality returns to non-toxic conditions (Shelley *et al.* 2018). An initial sample will be collected 96 hours after the failed sample; if that sample also fails, additional samples will be collected every 96 hours until a test passes. After a test passes, routine acute toxicity testing will resume at a bi-monthly frequency from the sample date of the passed test (Shelley *et al.* 2018). Additional targeted acute toxicity testing is also conducted if pond pH drops below 6.5 for more than one hour, which is more conservative than the lower end of pipe (EOP) discharge limit of 6.0 for more than one hour (Shelley *et al.* 2018).

A toxicity test “passes” (i.e., the pond water is not acutely toxic) if the result of the test is >50% survival in undiluted pond water. Detailed monthly reports were issued for each month of 2025 which provide results for RSEM pond acute toxicity testing. If a toxicity test fails, results are communicated directly to BC Hydro and WM DWB LP as soon as results are available. A high-level summary of the methods and results of the RSEM pond acute toxicity monitoring conducted in 2025 are provided herein and data summary tables are provided in Appendix A.

2.2. Peace River Water Quality

The compliance requirements for the monitoring program for Peace River water quality downstream of each RSEM pond are described in Section 7.2.3 of the ARD/ML Management Plan (BC Hydro 2026). A compliance requirement includes defining and approving water quality monitoring sites in the Peace River. Compliance requirements also include confirming that the Peace River samples are in fact sampling within the RSEM pond discharge plume and confirming

discharge plume dynamics under a range of river flows and discharge rates to confirm plume modeling predictions (Ganshorn *et al.* 2017a, 2017b, 2019a, and Ganshorn and Philibert 2023).

It is also a compliance requirement that during discharge from RSEM ponds, water quality at the initial dilution zone (IDZ) monitoring locations 100 m downstream of the RSEM discharge points shall meet the Peace River IDZ Limits (i.e., BC Water Quality Guidelines (BC WQG) for the protection of aquatic life) as specified in Table 2 of the ARD/ML Management Plan (BC Hydro 2026). Compliance with this requirement is assessed using a sampling program which is described in Section 7.3.4 of the ARD/ML Management Plan. The program requires sampling only during periods of RSEM discharge and includes monthly and 5 in 30-day sampling (five evenly spaced sampling events over 30 days performed twice per year, once during clear flow conditions and once during turbid flow conditions).

Water quality monitoring within the RSEM ponds is conducted daily by WM DWB LP when the ponds are discharging, and less frequently for RSEM PAG contact water storage ponds that are managed to not discharge but may contain PAG contact water (e.g., L6 sediment pond prior to December 2024). PAG contact RSEM pond water quality data for the dates corresponding to monthly and 5 in 30-day sampling in the Peace River are included for reference in this report in the time series graphs of each water quality parameter for RSEM R6W (Appendix B) and RSEM L6 (Appendix C).

It is a compliance requirement (for WM DWB LP) to meet EOP discharge limits for total suspended solids (TSS) in water that discharges to the Peace River from the RSEM ponds. WM DWB LP reports on compliance with respect to EOP limits, and TCC provides WM DWB LP with background Peace River TSS data to inform the TSS EOP limit twice a day via automated email. The background TSS data are derived from continuous turbidity data collected at two background real time monitoring stations in the Peace River, and TCC and Aski are responsible for developing and maintaining the TSS:turbidity relationships for these stations.

Detailed monthly reports were issued for each month of 2025⁴ which provide water quality data summary tables, figures, and sampling details to meet the monthly reporting requirement outlined in Section 7.5.3 of the ARD/ML Management Plan (BC Hydro 2026). In accordance with Section 7.2.3 of the ARD/ML Management Plan, exceedance reports are issued immediately (i.e., within 24 hours of receipt of in situ or laboratory analytical results) if exceedances of the Peace River IDZ limits are identified in any IDZ sample, provided the cause of the exceedance was attributable to discharge from a PAG contact RSEM pond. There were no exceedance reports issued in 2025. A high-level summary of the methods and results of the Peace River and RSEM IDZ surface water quality sampling conducted in 2025 are provided herein.

⁴ Annual and monthly reports were also prepared for 2017, 2018, 2019, 2020, 2021, 2022, 2023, and 2024.

3. METHODS

3.1. RSEM Pond Acute Toxicity

Four sterile 10 L plastic carboys are provided by ALS Environmental (ALS) for each acute toxicity test. Carboys are filled with pond water either obtained directly from the outflow pipe when a RSEM pond is discharging, or collected from the pond close to the outflow pipe location if there is no discharge from the RSEM pond. Sampling procedures, chain of custody, and quality assurance/quality control (QA/QC) follow the guidelines of the British Columbia Field Sampling Manual (Gov BC 2013).

The acute toxicity testing is performed by Nautilus Environmental Inc. (Nautilus, in Calgary), and in rare cases by Bureau Veritas Laboratories (in Burnaby) or ALS (in Winnipeg) when Nautilus is having issues with their supply of Rainbow Trout. Sample carboys are delivered to ALS in Fort St. John shortly after sampling (on the same day) and the samples are shipped to Nautilus following standard chain of custody and within acceptable hold times.

Toxicity samples are not collected if the water level is too low or the pond is frozen to the bottom, in this case, sampling is postponed until sufficient water is available. A toxicity test “passes” (i.e., the pond water is not acutely toxic) if the result of the test is >50% survival in undiluted pond water.

3.1.1. RSEM R6

In 2025, RSEM R6W toxicity samples were collected on a bi-monthly sampling schedule starting in January. Toxicity sampling for the RSEM R6E pond was discontinued in December 2024.

3.1.2. RSEM L6

In 2025, toxicity sampling of the RSEM L6 pond was done on a monthly basis from January through March to account for the frequent discharge of RSEM L6 as a result of the pond receiving water from the Diversion Tunnel Outlet Area. Due to logistical constraints in the field sampling schedule, the February sampling event was conducted in early March 2025. Sampling followed a bi-monthly schedule from May through November 2025.

3.1.3. Acute Toxicity Test Failure Evaluation

In the event that a toxicity sample is determined to be acutely toxic, the LC50 (i.e., the concentration at which there is mortality in >50% (v/v) of the fish) is estimated and reported by Nautilus based on the toxicity results at serial dilutions of the pond water sample. Data are provided in tabular format as Number Alive for Rainbow Trout for the different serial dilutions (% v/v) of the RSEM pond water. Nautilus provides the final laboratory report to ALS at which point the final report is automatically emailed to TCC and WM DWB LP.

Although it is not a requirement of the CEMP (BC Hydro 2026) to collect water quality samples from the Peace River in conjunction with acute toxicity sampling, sampling schedules can overlap and, in some cases, acute toxicity sampling is done in conjunction with water quality sampling in the Peace River. If an acute toxicity test failure occurs for a discharging PAG contact RSEM pond, and corresponding water quality samples are collected in the Peace River (upstream of the discharge, at

the compliance point 100 m downstream of the discharge and the far-field monitoring sites), data will be reviewed to evaluate any effects of the discharge in the Peace River.

If an acute toxicity test failure occurs for a discharging PAG contact RSEM pond and water quality sampling was not performed in the Peace River on the date of the toxicity test failure, the potential effects of the discharge on the water quality in the IDZ can be modelled using the site-specific mixing model developed for the RSEM IDZs (Ganshorn *et al.* 2017a). The background water quality (general parameters, metals) in the Peace River required for modelling is estimated based on historical data during similar environmental conditions (seasonal flow and turbidity), and the pond water quality is provided by WM DWB LP, who collect laboratory water quality samples from the RSEM sediment ponds twice weekly, provided there is sufficient water for sample collection.

3.2. Peace River and Site C Reservoir Water Quality

3.2.1. RSEM Pond Discharge Plume Characterization

Monitoring of RSEM pond discharge plumes within the IDZ has been conducted to characterize dilution under a variety of pond discharge and Peace River flows to meet the CEMP requirement to confirm discharge plume dynamics and modeling predictions. IDZ characterization relies on measurements of in situ-specific conductivity, as conductivity in the RSEM ponds is reliably higher than the Peace River. In situ-specific conductivity measurements are recorded in the Peace River at different depths (typically 15 and 30 cm below the surface), distances from shore, and distances upstream and downstream from pond discharge points.

3.2.2. Peace River and RSEM IDZ Surface Water Quality Sampling

The following sections describe the methods used to monitor water quality in the Peace River as it relates to discharge from the PAG contact RSEM sediment ponds.

3.2.2.1. Monthly and 5 in 30-day Surface Water Quality Sampling

Monthly and 5 in 30-day water quality sampling (five evenly spaced sampling events over 30 days performed twice per year, once during the clear flow period and once during the turbid flow period) were conducted when the RSEM ponds were discharging in 2025 (Table 2). Sampling consisted of collecting measurements in the field, and collection of water quality samples for laboratory analysis. In situ and laboratory sampling procedures, chain of custody procedures, and QA/QC procedures adhered to the guidelines of the British Columbia Field Sampling Manual (Gov BC 2013). In situ data were collected with a YSI ProDSS multiparameter digital water quality meter. All laboratory samples were collected into sterile bottles provided by ALS. For dissolved parameters, ALS provided single use sterile syringes and 0.45 µm filters. Where applicable, ALS also provided preservatives. Data screening and management followed the QA/QC procedures outlined below in Section 3.2.2.3. Typically, triplicate readings were collected for in situ data and a duplicate sample for laboratory analysis was collected at one site on each sampling date. Field blanks and travel blanks were also collected on each sampling date.

The full suite of laboratory parameters as specified in Section 7.3.2 of the ARD/ML Management Plan (BC Hydro 2026) (physical, anions and nutrients, total metals, and dissolved metals) were sampled monthly when the RSEM ponds were discharging. The same parameters were also sampled for the 5 in 30-day sampling. Monthly sampling was used to also fulfil one or more of the 5 in 30-day sampling requirements. These parameters are consistent with those being measured by WM DWB LP in the RSEM ponds.

The following monthly and 5 in 30-day site locations were sampled in the Peace River to monitor discharge from the RSEM R6W pond (between January and May 2025) and the RSEM L6 pond (sampled monthly in 2025): a control site upstream of the Site C dam (Peace Upstream; PR-2.81), which is located within the lower Site C reservoir since reservoir filling in August 2024, and two far-field locations downstream of the Project on the right bank and left bank of the Peace River (British Columbia Ministry of Environment and Parks (BC ENV) sites). In addition, for each discharging PAG-contact RSEM sediment pond, an upstream site located at least 5 m⁵ upstream of the discharge point, and an IDZ monitoring site located at the edge of the IDZ (100 m downstream of the discharge point) is sampled (Table 3; Map 1).

In situ measurements and laboratory samples were collected by boat 30 cm below the surface of the water to avoid surface contamination from airborne particulate and approximately 2 m from shore, except for at the Peace Upstream (PR-2.81) and the L6 upstream (LBPR-6.50) sites. At PR-2.81, samples were collected mid-reservoir when it was accessible, to provide background data upstream of the Moberly River and Site C dam (this site can not typically be sampled during the winter months due to difficulty in accessing this site by boat); at LBPR-6.50, samples were collected approximately 150 m from shore.

Monthly sampling was conducted during months where discharge occurred from each pond (Table 2). In 2025, monthly sampling during discharge to the Peace River was completed for RSEM R6W between January and May and for RSEM L6 between January and December (Table 2). The 5 in 30-day sampling for RSEM R6W was conducted during the turbid flow period from May 8, 2025 to May 29, 2025; however, only four sampling events were completed because RSEM R6W ceased discharging on May 30, 2025. The 5 in 30-day sampling for RSEM L6 was completed during the turbid flow period from May 8, 2025 to June 2, 2025, and during the clear flow period from October 8, 2025 to November 3, 2025. It should be noted that all flows measured at the Peace Upstream (PR-2.81) and the RSEM pond upstream sites during 2025 were clear (TSS ≤ 25 mg/L) (Table 2).

Detailed monthly reports were issued for each month of 2025; these reports provide water quality data summary tables, figures, and sampling details to meet the monthly reporting requirement outlined in Section 7.5.3 of the ARD/ML Management Plan (BC Hydro 2026). A table of summary statistics (average, minimum, maximum, and standard deviation) is provided for each sample site that considers

⁵ The RSEM L6 upstream site was re-located from LBPR-6.83 to LBPR-6.50 in August 2025 due to in-channel dredging activities. LBPR-6.83 is located 250 m upstream of the discharge point and LBPR-6.50 is located 500 m upstream of the discharge point.

all of the data collected at that site in 2025. Replicate samples and in situ measurements (duplicates and triplicates) were averaged prior to calculating the summary statistics. Parameters with a concentration below the method detection limit (MDL) were assumed to have a concentration equal to the MDL for calculation of the summary statistics.

In the 2025 annual summary statistics tables, the annual average, minimum, and maximum values for each parameter for each Peace River and Site C reservoir monitoring site were screened against the applicable short-term maximum BC WQG for the protection of aquatic life (BC WLRS 2025; Appendix A). The annual average values for each parameter at each site were also screened against the applicable long-term BC WQG (BC WLRS 2025; Appendix A). The 5 in 30-day monitoring results were screened against the applicable long-term BC WQG in the June and November 2025 monthly reports.

Several water quality parameters have BC WQGs that are calculated based on an equation, or the Biotic Ligand Model as is required for dissolved copper and dissolved nickel, that depends on the value of other stream chemistry parameters (e.g., pH, dissolved hardness (as CaCO_3), dissolved organic carbon (DOC), chloride, water temperature). To calculate the short-term BC WQG values using an equation, the site chemistry parameter values as measured at each site/date are used. Exceedances of the short-term BC WQG are shaded in blue in the summary tables and the total number of short-term BC WQG exceedances considering all sites and sampling dates over the 2025 monitoring period is also provided in the summary tables.

To calculate the long-term BC WQGs when the guideline is an equation, the annual average of the required stream chemistry parameter values (e.g., pH, dissolved hardness (as CaCO_3), DOC, chloride, water temperature) at a particular site is used to generate the applicable guideline value. In the summary statistics tables, yellow shading indicates an exceedance of the long-term BC WQG.

Illustrative time series figures depicting monthly and 5 in 30-day data collected at each sampling site for each parameter sampled in 2025 were completed for the RSEM ponds that discharged in 2025 (i.e., RSEM R6W and RSEM L6; Appendix B and Appendix C, respectively). RSEM pond water quality results were also included for each sampling date in the time series figures. Parameters with a concentration below the MDL were assumed to have a concentration equal to the MDL for the purpose of generating the figures.

Short-term and long-term BC WQG are included in the time series figures for illustrative purposes. For those guidelines that are equations which rely on specific stream chemistry parameter values, an average based on previous data collected in the Peace River is used. Details are provided as footnotes to applicable figures.

Table 2. 2025 monthly and 5 in 30-day water quality sampling dates and Peace River background TSS (clear/turbid/very turbid flow).

Month (2025)	Day	Sampling Type	RSEM Area	Background Clear/ Turbid Flow at RSEM Pond Upstream Site ^{1,2}	Background Clear/ Turbid Flow at Peace Upstream/PR-2.81 ^{1,3}
Jan	6	Monthly	RSEM R6	Clear flow	-
	20	Monthly	RSEM L6	Clear flow	-
Feb	11	Monthly	RSEM L6	Clear flow	-
	11	Monthly	RSEM R6	Clear flow	-
Mar	17	Monthly	RSEM L6	Clear flow	-
	17	Monthly	RSEM R6	Clear flow	-
Apr	14	Monthly	RSEM L6	Clear flow	-
	14	Monthly	RSEM R6	Clear flow	-
May	8	Monthly/5 in 30 day	RSEM L6	Clear flow	Clear flow
	8	Monthly/5 in 30 day	RSEM R6	Clear flow	Clear flow
	12	5 in 30 day	RSEM L6	Clear flow	Clear flow
	12	5 in 30 day	RSEM R6	Clear flow	Clear flow
	22	5 in 30 day	RSEM L6	Clear flow	Clear flow
	22	5 in 30 day	RSEM R6	Clear flow	Clear flow
	29	5 in 30 day	RSEM L6	Clear flow	Clear flow
	29	5 in 30 day	RSEM R6	Clear flow	Clear flow
Jun	2	Monthly/5 in 30 day	RSEM L6	Clear flow	Clear flow
Jul	10	Monthly	RSEM L6	Clear flow	Clear flow
Aug	7	Monthly	RSEM L6	Clear flow	Clear flow ⁴
Sep	17	Monthly	RSEM L6	Clear flow	Clear flow
Oct	9	Monthly/5 in 30 day	RSEM L6	Clear flow	Clear flow ⁴
	13	5 in 30 day	RSEM L6	Clear flow	Clear flow ⁴
	20	5 in 30 day	RSEM L6	Clear flow	Clear flow
	27	5 in 30 day	RSEM L6	Clear flow	Clear flow
Nov	3	Monthly/5 in 30 day	RSEM L6	Clear flow	Clear flow
Dec	1	Monthly	RSEM L6	Clear flow	Clear flow ⁴

¹ Clear flow: TSS ≤ 25 mg/L; Turbid flow: TSS > 25 mg/L and ≤ 100 mg/L;
Very turbid flow: TSS > 100 mg/L.

² TSS data for RSEM R6 upstream (RBPR-7.05) and RSEM L6 upstream (LBPR-6.83/6.50) are obtained from ALS laboratory data for each sampling date.

³ Water quality sampling could not be conducted at PR-2.81 between January and April 2025 due to inaccessibility of the boat launch and substantial ice buildup on the reservoir.

⁴ Background water quality sampling at PR-2.81 occurred within one day of the RSEM L6 pond upstream site sample collection.

"-" indicates a water quality sample was not collected at this site during the sampling period.

3.2.2.2. BC WQG Exceedance Evaluation and Exceedance Notifications

To determine if an exceedance of the BC WQG (short-term maximum and long-term average) observed at the Peace River IDZ monitoring sites is related to the RSEM pond discharge, or alternately, is naturally occurring, the following steps are taken upon collection of in situ data and upon receipt of laboratory data:

- The RSEM pond discharge logs (kept by WM DWB LP) are reviewed; if there is no discharge corresponding to the exceedance (including discharge residence time), it is assumed that the exceedance was naturally occurring.
- The IDZ monitoring result is compared to the Peace River upstream location data (i.e., RSEM R6W upstream, or RSEM L6 upstream).
- The IDZ monitoring result is compared to the RSEM pond data (pond data were provided by WM DWB LP/ALS).
- If the IDZ monitoring result is higher than the RSEM pond data, then it is assumed that the exceedance was naturally occurring.
- If the IDZ monitoring result is lower than the RSEM pond data, and the pond data exceeds the Peace River upstream data, then it is assumed that the exceedance was attributed to the RSEM pond, and in accordance with the ARD/ML Management Plan requirements (BC Hydro 2026) an Exceedance Notification memorandum is issued to BC Hydro within 24 hours:
 - Prior to composing the Exceedance Notification memorandum, BC Hydro will be notified immediately following identification of the exceedance.
 - In the Exceedance Notification memorandum, the data are evaluated in the context of the corresponding water quality monitoring results for the Peace Upstream site, the two far-field downstream sites, as well as historical water quality data for the Peace River (Golder 2012; Ganshorn *et al.* 2018, 2019b, 2020, 2021, 2022, 2023, 2024, 2025).
 - The Exceedance Notification memorandum is distributed by BC Hydro to one or more representatives of each of the following parties: the Project's Independent Environmental Monitor (EDI Environmental Dynamics Inc.), BC Government (Ministry of Environment and Parks, Office of the Comptroller of Water Rights, Emergency Management BC), and WM DWB LP.
 - Exceedance Notification summary tables including the distribution list, are also provided as required in the applicable monthly report that TCC prepares for BC Hydro.
 - The exceedance is also logged internally in BC Hydro's enterprise Incident Management System.

3.2.2.3. Peace River Background TSS

The RSEM ponds have end of pipe (EOP) limits for total suspended solids (TSS). Continuous turbidity gauges installed on the left and right bank of the Peace River located ~1 km downstream of the Site C dam (PBM-LB1 and PBM-RB1) were used to inform the Project's Main Civil Works contractor, WM DWB LP, of the Peace River background TSS twice daily via automated email as per Section 2.1 in BC Hydro (2017a).

Prior to the beginning of reservoir filling in late August 2024, the PAM-LB1 and PAM-RB1 stations, located upstream of the Moberly River, were decommissioned. PAM-RB1 was removed on August 12, 2024 and PAM-LB1 ceased to function following damage to the station on June 10, 2024. For the purpose of providing background TSS conditions, these stations were replaced by two stations on the downstream side of the Site C dam, PBM-RB and PBM-LB1 which were established on August 12 and 13, 2024, respectively. On December 4, 2024, the station at PBM-RB was removed permanently and relocated to PBM-RB1, which became operational on March 27, 2025 (Map 1).

To estimate the background Peace River TSS, TCC has developed TSS:turbidity relationships over the course of monitoring which are used to estimate TSS concentrations from the turbidity data logged by the monitoring stations. This relationship between TSS and turbidity is dynamic and depends upon a variety of factors, including snowmelt and precipitation driven changes in the relative contributions of various sediment sources (BC WLRS 2025), as well as hydrology related changes in the sediment carrying capacity of the Peace River. As such, a site-specific TSS:turbidity relationship has been developed for the Peace River over a range of flow and turbidity conditions and this relationship is updated regularly with turbidity data recorded by the gauges paired with additional data from laboratory analysed TSS samples to ensure the relationship reflects current conditions. In 2025, TSS sampling was completed on 12 sampling dates.

Sample data were reviewed and excluded if ratios appeared anomalous or confounded by errors in concurrent sensor data. The TSS:turbidity ratios of these individual samples were then plotted over time along with data from 2017 – 2025 to identify whether shifts in the relationship had occurred. The analysis of this TSS:turbidity ratio consists of using either a linear model with site specific interactions (if Tukey post hoc tests shows that this ratio differs amongst sites) or if there is no clear evidence of site-specific interactions, then a single common linear relationship is used.

The TSS:turbidity ratio is applied to turbidity data collected over periods of 12 hours, starting at 06:00 MST and at 18:00 MST, which are averaged to estimate the Peace River background TSS. These results are automatically emailed to WM DWB LP, BC Hydro, and TCC personnel. These results include averaged data from both the left and right bank gauges. Note that background TSS data are reported by WM DWB LP and are not included in this report.

3.2.3. QA/QC

To ensure accurate and reliable results, all data collection and analyses undergo rigorous QA/QC. In situ measurements are recorded in triplicate for each parameter. In situ meters are maintained and calibrated as per manufacturer's guidelines; repair and calibration data are recorded and stored in a detailed log. QA/QC replicates (duplicates/triplicates), travel blanks, and field blanks are included in water quality sampling for laboratory analysis as required based on sampling frequency. Field blanks are samples prepared by staff in the field using laboratory supplied deionized water and encompass ambient, equipment, and filtration blanks, as deionized water is processed through the same equipment and filters used for water quality sample collection.

Laboratory water quality sample analysis is completed by ALS (in Burnaby or Calgary), and acute toxicity testing is completed by Nautilus (Calgary). Both ALS and Nautilus are registered with the Canadian Association for Laboratory Accreditation (CALA), and both conform with requirements of ISO/IEC 17025:2017. Additionally, both ALS locations (Burnaby and Calgary) and the Nautilus location are qualified under the British Columbia *Environmental Management Act* Environmental Data Quality Assurance Regulation (EDQA) to perform the suite of chemical analyses included for water quality monitoring (ALS) and to perform acute toxicity testing (Nautilus). All samples are transported under standard chain of custody procedures, and comprehensive QC checks are completed by the laboratory with every analysis.

Data are entered into EcoDAT, TCC's proprietary data management system, where comprehensive manual and automated QA/QC procedures are implemented. Sample data and QA/QC results are evaluated based on the BC Guidelines for Interpreting Water Quality Data (RISC 1998) and British Columbia Field Sampling Manual (Gov BC 2013).

The following overall QA/QC objectives were established for the sampling program:

- % QA/QC samples (e.g., replicates, field blanks, and travel blanks) collected should be at least 10% of the overall sampling program (Gov BC 2013).
- Field and travel blanks should not exceed the MDL for any parameter, not including pH which is measurable in both samples and blanks.
- Precision between duplicates is expected to meet the Government of BC (Gov BC 2013) guideline, unless variability between replicates is a natural occurrence (e.g., during highly turbid flow, TSS, metals, and turbidity may be highly variable):
 - Relative percent difference (RPD) between duplicates should be <20%; and
 - This metric is only calculated if at least one of the replicates was >5× the MDL.
- Precision among triplicates is expected to meet the Resource Inventory Standards Committee (RISC 1998) guideline, unless variability among replicates is a natural occurrence (e.g., during highly turbid flow, TSS, metals, and turbidity may be highly variable):
 - Relative standard deviation (RSD) among triplicates should be <18%; and

- This metric is only calculated if at least one of the replicates was $>5\times$ the MDL.
- The cation - anion balance (% difference) should be $<10\%$ for water quality samples that include the necessary major anions and cations for this calculation. The total anion sum and cation sum are expected to be within 10% of each other (ALS 2022). Anion balance calculations which exceed this objective may be attributable to the presence of less common species or organic salts (ALS 2022).
- Considering the water quality parameters having paired dissolved and total concentrations, the dissolved concentration should be $<1.2\times$ the total concentration. This metric is calculated if the dissolved concentration was $>5\times$ the MDL.

Additional QA/QC checks and procedures in 2025 included:

- Review of recorded field data, QA/QC of in situ and toxicity data in EcoDAT;
- Review of electronically uploaded ALS laboratory data;
- Review of laboratory hold time exceedances and sample qualifiers, the hold time for pH is 15 minutes and therefore exceedance of this hold time is unavoidable for all samples; and
- Review of in situ measurements and corresponding laboratory results for pH, turbidity, and specific conductivity. These data are evaluated to ensure that they are comparable. It is expected that these values will vary due to differences in analytical methods and precision between in situ meters and laboratory instruments. This comparison is therefore completed by a Qualified Professional, and is largely qualitative, ensuring that values measured in the field and in the laboratory are within reasonable agreement (samples with $RPD \geq 80\%$ were flagged for further review).

Laboratory hold time exceedances, sample qualifiers, field and travel blank results, and precision between replicates were reviewed by a Qualified Professional for QA/QC issues that may affect interpretation of the data presented in each of the 2025 monthly sampling reports. Duplicate laboratory results were provided individually in the monthly report summary tables for each sampling date; and error bars were included in the illustrative figures where duplicate data were available.

4. RESULTS

4.1. RSEM Pond Acute Toxicity

The sample schedule for RSEM pond toxicity testing as outlined in the CEMP⁶ (BC Hydro 2016) was revised as of February 27, 2019, after acceptance by regulators of an alternate testing program proposed by Shelley *et al.* (2018) on that date (CWR 2019). This revised approach is incorporated into the latest revision (Rev 12.1) of the CEMP (BC Hydro 2026). The updated toxicity testing program for PAG containing RSEM sediment ponds consists of two components: routine monitoring and targeted monitoring. In 2025, only routine monitoring was conducted. Test results are summarized for each pond separately in Table 4 (RSEM R6W) and Table 5 (RSEM L6) in Appendix A.

4.1.1. RSEM R6

In 2025, all six samples collected from the RSEM R6W pond passed the acute toxicity test.

4.1.2. RSEM L6

In 2025, all seven samples collected from the RSEM L6 pond passed the acute toxicity test.

4.1.3. Acute Toxicity Test Failure Evaluation

In 2025, there were no acute toxicity test failures (Appendix A).

4.2. Peace River and Site C Reservoir Water Quality

4.2.1. RSEM Pond Discharge Plume Characterization

Discharge plume characterization was not conducted in 2025. This work is complete as documented in Ganshorn *et al.* (2017a, 2017b, 2019a), and Ganshorn and Philibert (2023).

4.2.2. Peace River and RSEM IDZ Surface Water Quality Sampling

4.2.2.1. Monthly and 5 in 30-day Surface Water Quality Sampling

Annual in situ and laboratory water quality data summary tables based on data collected during monthly and 5 in 30-day sampling in 2025 are provided in Appendix A. Separate tables are provided for each sampling site (Peace Upstream⁷, RSEM R6 upstream, RSEM R6 IDZ, RSEM L6 upstream, RSEM L6 IDZ, and two far-field downstream sites; Map 1). The annual average, median, minimum, maximum, and standard deviation for each parameter is provided in the tables. Data were screened against the long-term and short-term BC WQG for the protection of aquatic life, and exceedances are highlighted in the summary tables (Appendix A). Exceedances are discussed below in Section 4.2.2.2.

Annual time series bar plots for each water quality parameter based on data collected during monthly and 5 in 30-day sampling in 2025 are provided for RSEM R6W and RSEM L6 in Appendix B and Appendix C, respectively. Applicable BC WQG and Site C EOP limits for each parameter are shown

⁶ The previous sampling schedule consisted of three bi-weekly samplings after pond construction, periods without discharge in excess of 30 days, and after test failures. Ponds passing this bi-weekly sampling were then sampled on a monthly schedule for one year, followed by a quarterly schedule.

⁷ This site is located in the lower Site C reservoir since reservoir filling in August 2024.

in the figures along with the corresponding RSEM pond water quality data (from WM DWB LP) for each monthly and 5 in 30-day sampling date. These figures illustrate patterns in Peace River and RSEM pond water quality over the course of 2025.

4.2.2.2. BC WQG Exceedances

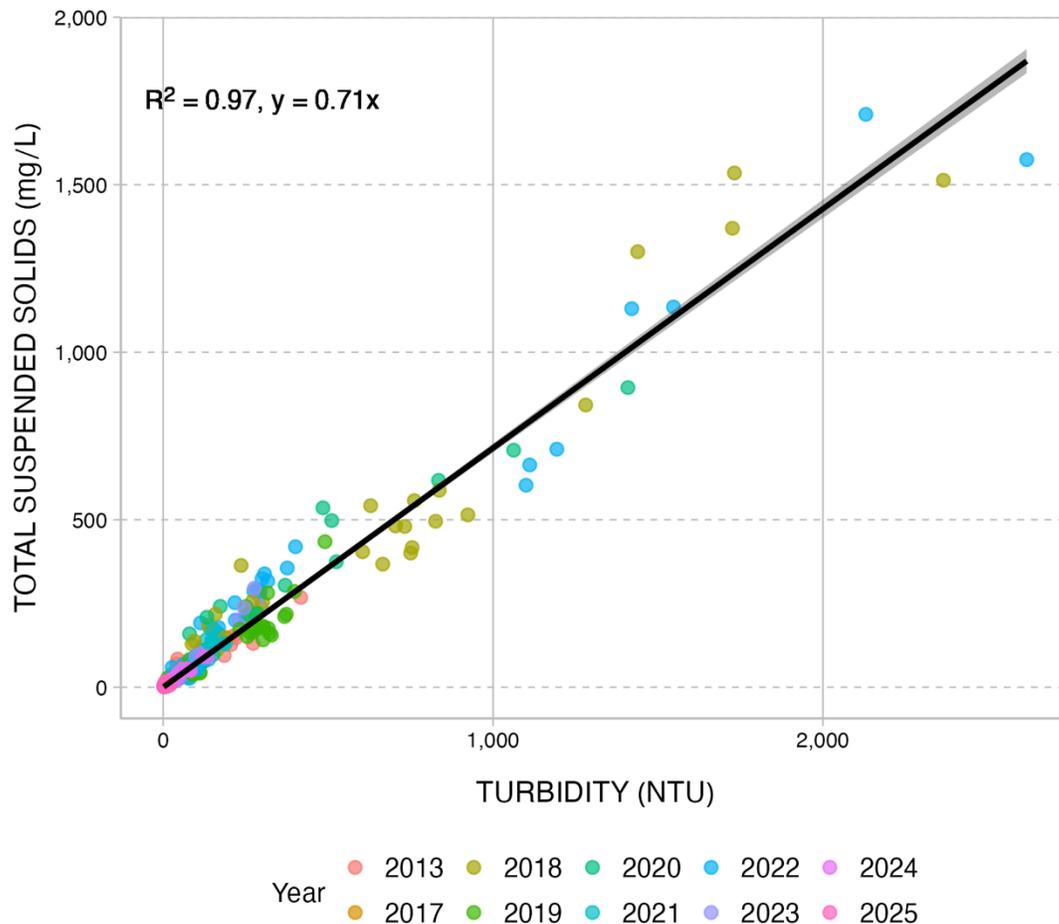
For the monitoring conducted in 2025, there were no observations of exceedances in the Peace River of the BC WQG (short-term or long-term) for the protection of aquatic life that were attributed to discharge of water from the RSEM ponds. A single exceedance of the short-term (maximum) BC WQG for the protection of aquatic life for total iron was observed at the RSEM L6 IDZ site (LBPR-7.21) in September 2025. This exceedance coincided with the highest TSS concentration measured during the 2025 monitoring period (51.7 mg/L) and occurred during in-channel dredging activities upstream, suggesting the exceedance was likely associated with localized sediment disturbance rather than RSEM pond discharge. In 2025, no exceedances in the Peace River were observed during the peak freshet months. This contrasts with annual monitoring conducted between 2017 and 2024 (Ganshorn *et al.* 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025), and baseline monitoring (Golder 2012), where exceedances were primarily associated with elevated concentrations of suspended solids in the Peace River during the freshet period.

4.2.2.3. Peace River Background TSS

Background TSS data are reported by WM DWB LP and are not included in this report. The TSS:turbidity relationship applied to calculate TSS from turbidity data in 2025 was 0.71:1. A total of 372 samples collected over 90 sampling dates between December 15, 2017 to October 12, 2025 were used to develop the updated TSS:turbidity relationship. These data encompassed a wide range of turbidity (1.7 NTU to 2,618 NTU) and TSS (1.2 mg/L to 1,710 mg/L) observations (Figure 1).

The relationship in use at the end of 2025 is shown in Figure 1. Proceeding with a linear model common to all sites in the Peace River including data from 2025, a combined TSS:turbidity relationship of 0.71:1 was found (i.e., $TSS = 0.71 * Turbidity$). This relationship has good agreement amongst the data ($R^2 = 0.97$) (Figure 1).

Figure 1. Combined relationship for TSS:turbidity in the Peace River using data collected from December 2017 to October 2025. Shaded areas are 95% confidence intervals.



4.2.3. QA/QC

The results of the QA/QC checks and procedures completed in 2025 are provided in summary tables in Appendix D. QA/QC issues were reviewed. One anomalously high dissolved tin value from RBPR- 7.05 on May 29, 2025, was excluded from the 2025 dataset.

The number of QA/QC laboratory samples (18 replicates, 18 field blanks, and 18 travel blanks) comprised 34.4% (54 of 157 samples) of the overall sampling program based on the total number of monthly and 5 in 30-day samples collected in 2025. The number of QA/QC in situ measurements is 66% (2/3) based on the triplicate measurement for each parameter. Overall, sampling in 2025 has surpassed the QA/QC objective of at least 10% QA/QC effort.

In 2025, hold times were exceeded for sample analysis for total mercury (one sample date), dissolved orthophosphate (one sample date), nitrate (one sample date), nitrite (one sample date), and turbidity

(three sample dates). Where hold times were exceeded, results were reviewed to ensure parameter values were consistent with previous sampling results, and no data were flagged in 2025 due to hold time exceedances. The number of samples affected by hold time exceedances which occurred in 2025 are summarized in Table 27 in Appendix D, with the exception of pH which has a hold time of only 15 minutes (laboratory analysis within this time frame is not practical).

Elevated variability between duplicate laboratory samples (RPD>20%) and triplicate in situ measurements (RSD>18%) was observed on a number of occasions for TSS, turbidity, total phosphorus, nitrate, and select total and dissolved metals, during turbid and clear flow sampling periods (Table 28 and Table 29 in Appendix D). Variability in excess of the QA/QC objective thresholds occurred on 24 of 1,602 occasions (1.5%) for duplicate samples and 2 of 301 occasions (0.66%) for in situ triplicate sample measurements. In general, these results are thought to reflect real heterogeneity in the Peace River. No substantial effect on data quality is expected.

The 2025 review of in situ measurements and corresponding laboratory results for pH, turbidity, and specific conductivity showed that the majority of results were comparable; however, there were a limited number of occasions for which the in situ and laboratory values for turbidity had elevated variability (i.e., RPD \geq 80%) that required further review (Table 30 in Appendix D). Overall, all turbidity results were within historical ranges and the elevated RPD values were likely the result of natural heterogeneity. Elevated in situ turbidity values observed at RSEM L6 sites in October 2025 were attributed to in-channel dredging activities, which concluded on October 31, 2025. No substantial effect on data quality is expected.

The 2025 field blank and travel blank results were non-detectable (below the MDL) for 99.5% of the field blank data (1,594/1,602) and 100% of the travel blank data (912/912) (Table 31 in Appendix D). Detected concentrations were generally low and less than 5 times the MDL. As such, no substantial effect on data quality is expected.

The cation - anion balance (% difference) was less than 10% in all samples. The majority of dissolved/total parameter pairs met the QA/QC objective where the dissolved concentration was <1.2 * the total concentration for 99.6% or 4,983 out of a total of 5,003 parameter pairs (Table 32 in Appendix D).

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APPENDICES

Appendix A. Site C PAG Contact RSEM Surface Water Quality Monitoring Data Tables

Table 3. Site C reservoir and Peace River water quality monitoring site descriptions and coordinates, 2025.

Site Name ¹	Description	UTM Coordinates (Zone 10V)	
		Easting (m)	Northing (m)
PR-2.81 ²	In the lower Site C reservoir, upstream of the confluence with the Moberly River and upstream of the debris boom installed in September 2020. Phase 2 Peace Upstream site.	627,372	6,232,207
RBPR-7.05 ³	In the Peace River, 5 m upstream of the R6 discharge channel.	630,236	6,229,257
RBPR-7.15 ³	In the Peace River, 100 m downstream of the R6 discharge channel.	630,383	6,229,259
LBPR-6.83 ⁴	In the Peace River, ~250 m upstream of the L6 discharge channel. Site is located more than 5 m upstream of the point of discharge due to the presence of a large back eddy.	630,160	6,229,663
LBPR-6.50 ⁴	In the Peace River, ~500 m upstream of the L6 discharge channel. Site is located more than 5 m upstream of the point of discharge due to the presence of a large back eddy.	629,684	6,229,422
LBPR-7.21	In the Peace River, 100 m downstream of the location where the back eddy flow containing the L6 discharge joins the main Peace River flow.	630,495	6,229,560
LBPR-9.34	In the Peace River, downstream of the project.	632,498	6,229,678
RBPR-9.34	In the Peace River, downstream of the project.	632,614	6,229,369

¹ Site names follow a river chainage convention. The numbers in the site name indicate the distance (in km) downstream of the W.A.C. Bennett Dam less 100 km. River chainages at each site are measured perpendicular to the Peace River center line, obtained from the BC government GIS data set.

² In 2025, water quality sampling at PR-2.81 was not conducted between January and April, due to inaccessibility of the boat launch and substantial ice buildup on the reservoir.

³ RBPR-7.05 and RBPR-7.15 were only sampled when the RSEM R6W pond was discharging between January and May 2025. These sites were not sampled between June and December 2025.

⁴ The RSEM L6 upstream site was re-located from LBPR-6.83 to LBPR-6.50 in August 2025 due to in-channel dredging activities.

Table 4. RSEM R6W pond toxicity sampling results, 2025.

Year	Date	Site ¹	Sampling Schedule	96 hr LC50 % (v/v)
2025	31-Jan	RSEM R6W-EOPTOX	Bi-monthly	>100
	18-Mar	RSEM R6W-EOPTOX	Bi-monthly	>100
	12-May	RSEM R6W-EOPTOX	Bi-monthly	>100
	24-Jul	RSEM R6W-SPTOX	Bi-monthly	>100
	18-Sep	RSEM R6W-SPTOX	Bi-monthly	>100
	20-Nov	RSEM R6W-SPTOX	Bi-monthly	>100

Notes: >100% (v/v) indicates toxicity test passed.

Scheduled collection dates assume toxicity test results will continue to be >100% (v/v).

¹ The acute toxicity sample is collected from the RSEM pond (indicated by SP in the site name), or collected from the outflow of the discharge pipe (indicated by EOP (end of pipe) in the site name).

As of December 2024, RSEM R6E was discontinued from further toxicity sampling.

Table 5. RSEM L6 pond toxicity sampling results, 2025.

Year	Date	Site ¹	Sampling Schedule	96 hr LC50 % (v/v)
2025	30-Jan	RSEM L6-EOPTOX	Monthly ²	>100
	03-Mar ³	RSEM L6-SPTOX	Monthly ²	>100
	18-Mar	RSEM L6-EOPTOX	Monthly ²	>100
	12-May	RSEM L6-EOPTOX	Bi-monthly	>100
	24-Jul	RSEM L6-EOPTOX	Bi-monthly	>100
	22-Sep	RSEM L6-EOPTOX	Bi-monthly	>100
	20-Nov	RSEM L6-EOPTOX	Bi-monthly	>100

Note >100% (v/v) indicates toxicity test passed.

¹ The acute toxicity sample is collected from the RSEM pond (indicated by SP in the site name), or collected from the outflow of the discharge pipe (indicated by EOP (end of pipe) in the site name).

² The bi-monthly sampling schedule was changed to a monthly sampling schedule due to the frequent discharge of RSEM L6 as a result of the pond receiving water from the Diversion Tunnel Outlet Area.

³ The February 2025 sampling was postponed to March 3, 2025 due to logistical constraints in the field sampling schedule.

Table 6. 2025 annual data summary statistics for lab and in situ sampling (organic carbon, physical tests, anions, and nutrients) collected at the PR-2.81 site.

Site	Min MDL	PR-2.81 ¹							BC Long-Term WQG ²	BC Short-Term Maximum	
		n	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ³	# Exc
Physical Tests											
Dissolved Hardness (as CaCO ₃ ; mg/L)	0.60	16	0	107	104	97.6	126	9.1			
Specific Conductivity (in situ, µS/cm)		42		213.8	206.7	196.8	248.8	17.5			
Specific Conductivity (lab, µS/cm)	2.0	16	0	210	205	193	242	15			
Total Dissolved Solids (mg/L)	10	16	0	129	124	104	172	17			
Total Suspended Solids (mg/L)	1.0	16	6	1.5	1.2	1.0	4.5	0.9		EQ	0
Turbidity (in situ, NTU)		42		4.43	3.42	1.11	15.98	3.39			
Turbidity (lab, NTU)	0.10	16	0	2.92	2.15	0.58	16.6	3.76			
pH (in situ, pH units)		42		7.98	7.97	7.70	8.18	0.14	6.5 to 9.0	6.5 to 9.0	0
pH (lab, pH units)	0.10	16	0	8.13	8.11	7.98	8.31	0.12	6.5 to 9.0	6.5 to 9.0	0
Anions and Nutrients (mg/L)											
Alkalinity, Total (as CaCO ₃)	1.0	16	0	93.6	89.8	85.5	109	7.7			
Ammonia, Total (as N)	0.0050	16	12	0.0053	0.0050	0.0050	0.0077	0.0007	0.102 ⁴	0.68 ⁴	0
Bromide (Br)	0.050	16	16	0.050	0.050	0.050	0.050	0			
Chloride (Cl)	0.50	16	16	0.50	0.50	0.50	0.50	0	150	600	0
Fluoride (F)	0.020	16	0	0.046	0.044	0.038	0.057	0.006		EQ	0
Nitrate (as N)	0.0050	16	2	0.0474	0.0626	0.0050	0.0704	0.0248	3	32.8	0
Nitrite (as N)	0.0010	16	16	0.0010	0.0010	0.0010	0.0010	0	0.02	EQ	0
Orthophosphate - Dissolved (as P)	0.0010	16	16	0.0010	0.0010	0.0010	0.0010	0			
Phosphorus (P) - Total	0.0020	16	0	0.0084	0.0064	0.0050	0.0259	0.0055	0.015		
Sulfate (SO ₄)	0.30	16	0	18.9	18.3	15.8	23.7	2.5	309		
Organic Carbon (mg/L)											
Dissolved Organic Carbon	0.50	16	0	2.94	2.65	2.15	5.25	0.86			
Total Organic Carbon	0.50	16	0	2.95	2.70	2.21	5.41	0.97			
Ion Balance (meq/L)											
Anion Sum	0.10	16	0	2.27	2.19	2.04	2.67	0.20			
Cation - Anion Balance (% difference)		16		-1.18	-0.75	-7.13	2.24	2.55			
Cation Sum	0.10	16	0	2.22	2.14	2.02	2.61	0.19			

¹ PR-2.81 was not sampled between January and April 2025 due to inaccessibility of the boat launch and substantial ice buildup on the reservoir.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

⁴ BC WQG for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 7. 2025 annual data summary statistics for dissolved metals collected at the PR-2.81 site.

Site	Min MDL	PR-2.81 ¹							BC Long-Term WQG ²	BC Short-Term Maximum	
		n. n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG ³		# Exc	
Dissolved Metals (mg/L)											
Aluminum (Al) - Dissolved	0.0010	16	0	0.0101	0.0100	0.0043	0.0183	0.0036			
Antimony (Sb) - Dissolved	0.00010	16	14	0.00010	0.00010	0.00010	0.00011	0.00000			
Arsenic (As) - Dissolved	0.00010	16	0	0.00020	0.00020	0.00016	0.00027	0.00003			
Barium (Ba) - Dissolved	0.00010	16	0	0.0381	0.0358	0.0323	0.0492	0.0056			
Beryllium (Be) - Dissolved	0.000020	16	16	0.000020	0.000020	0.000020	0.000020	0			
Bismuth (Bi) - Dissolved	0.000050	16	16	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Dissolved	0.010	16	16	0.010	0.010	0.010	0.010	0			
Cadmium (Cd) - Dissolved	0.0000050	16	0	0.0000116	0.0000118	0.0000057	0.0000171	0.0000028	EQ	EQ	0
Calcium (Ca) - Dissolved	0.050	16	0	30.3	29.5	27.6	34.5	2.3			
Chromium (Cr) - Dissolved	0.00050	16	16	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Dissolved	0.00010	16	16	0.00010	0.00010	0.00010	0.00010	0	EQ		
Copper (Cu) - Dissolved	0.00020	16	0	0.00067	0.00061	0.00056	0.00106	0.00014	EQ	EQ	0
Iron (Fe) - Dissolved	0.010	16	3	0.015	0.013	0.010	0.031	0.006		0.35	0
Lead (Pb) - Dissolved	0.000050	16	16	0.000050	0.000050	0.000050	0.000050	0	EQ		
Lithium (Li) - Dissolved	0.0010	16	0	0.0018	0.0017	0.0014	0.0027	0.0004			
Magnesium (Mg) - Dissolved	0.0050	16	0	7.68	7.40	6.72	9.70	0.88			
Manganese (Mn) - Dissolved	0.00010	16	0	0.0014	0.00125	0.00039	0.0037	0.0009			
Mercury (Hg) - Dissolved	0.0000050	16	16	0.0000050	0.0000050	0.0000050	0.0000050	0			
Molybdenum (Mo) - Dissolved	0.000050	16	0	0.00101	0.00092	0.000814	0.00151	0.00024			
Nickel (Ni) - Dissolved	0.00050	16	0	0.00095	0.00089	0.00070	0.00138	0.00021	EQ	EQ	0
Phosphorus (P) - Dissolved	0.050	16	16	0.050	0.050	0.050	0.050	0			
Potassium (K) - Dissolved	0.050	16	0	0.516	0.513	0.478	0.596	0.031			
Selenium (Se) - Dissolved	0.000050	16	0	0.000353	0.000313	0.000224	0.000697	0.000129			
Silicon (Si) - Dissolved	0.050	16	0	1.98	1.98	1.84	2.15	0.08			
Silver (Ag) - Dissolved	0.000010	16	16	0.000010	0.000010	0.000010	0.000010	0			
Sodium (Na) - Dissolved	0.050	16	0	1.39	1.36	1.19	1.72	0.166			
Strontium (Sr) - Dissolved	0.00020	16	0	0.122	0.118	0.112	0.154	0.013			
Sulfur (S) - Dissolved	0.50	16	0	6.39	6.12	5.38	8.41	0.94			
Thallium (Tl) - Dissolved	0.000010	16	16	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Dissolved	0.00010	16	16	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Dissolved	0.00030	16	13	0.00036	0.00030	0.00030	0.00105	0.00019			
Uranium (U) - Dissolved	0.000010	16	0	0.000508	0.000509	0.000454	0.000554	0.000031			
Vanadium (V) - Dissolved	0.00050	16	16	0.00050	0.00050	0.00050	0.00050	0			
Zinc (Zn) - Dissolved	0.0010	16	12	0.0011	0.0010	0.0010	0.0022	0.0003	EQ	EQ	0
Zirconium (Zr) - Dissolved	0.00020	16	16	0.00020	0.00020	0.00020	0.00020	0			

¹ PR-2.81 was not sampled between January and April 2025 due to inaccessibility of the boat launch and substantial ice buildup on the reservoir.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column. EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 8. 2025 annual data summary statistics for total metals collected at the PR-2.81 site.

Site	Min MDL	PR-2.81 ¹							BC Long-Term WQG ²	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ³	# Exc
Total Metals (mg/L)											
Aluminum (Al) - Total	0.0030	16	0	0.068	0.051	0.0127	0.294	0.067	EQ		
Antimony (Sb) - Total	0.00010	16	13	0.00011	0.00010	0.00010	0.00023	0.00003	0.074	0.25	0
Arsenic (As) - Total	0.00010	16	0	0.00026	0.00025	0.00020	0.00046	0.00007	0.005		
Barium (Ba) - Total	0.00010	16	0	0.0396	0.0366	0.0286	0.0570	0.0073			
Beryllium (Be) - Total	0.000020	16	16	0.000020	0.000020	0.000020	0.000020	0			
Bismuth (Bi) - Total	0.000050	16	16	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Total	0.010	16	16	0.010	0.010	0.010	0.010	0	1.2		
Cadmium (Cd) - Total	0.0000050	16	0	0.0000216	0.0000177	0.0000097	0.0000683	0.0000138			
Calcium (Ca) - Total	0.050	16	0	30.3	30.3	23.6	34.4	3.0			
Chromium (Cr) - Total	0.00050	16	15	0.00051	0.00050	0.00050	0.00061	0.00003			
Cobalt (Co) - Total	0.00010	16	11	0.00011	0.00010	0.00010	0.00020	0.00003			
Copper (Cu) - Total	0.00050	16	0	0.00078	0.00074	0.00054	0.00141	0.00022			
Iron (Fe) - Total	0.010	16	0	0.097	0.069	0.020	0.436	0.097		1	0
Lead (Pb) - Total	0.000050	16	9	0.000069	0.000050	0.000050	0.000278	0.000057			
Lithium (Li) - Total	0.0010	16	0	0.0020	0.0018	0.0015	0.0030	0.0005			
Magnesium (Mg) - Total	0.0050	16	0	7.62	7.45	6.02	9.28	0.84			
Manganese (Mn) - Total	0.00010	16	0	0.00462	0.00405	0.00264	0.00818	0.00148	EQ	EQ	0
Mercury (Hg) - Total	0.0000050	16	15	0.0000052	0.0000050	0.0000050	0.0000080	0.0000008	0.00002		
Molybdenum (Mo) - Total	0.000050	16	0	0.00105	0.000932	0.000833	0.00164	0.00027	7.6	46	0
Nickel (Ni) - Total	0.00050	16	0	0.00108	0.00096	0.00073	0.00183	0.00029			
Phosphorus (P) - Total	0.050	16	16	0.050	0.050	0.050	0.050	0			
Potassium (K) - Total	0.050	16	0	0.528	0.528	0.409	0.701	0.069			
Selenium (Se) - Total	0.000050	16	0	0.000377	0.000345	0.000264	0.000686	0.000121	0.002		
Silicon (Si) - Total	0.10	16	0	2.18	2.17	1.83	2.75	0.20			
Silver (Ag) - Total	0.000010	16	16	0.000010	0.000010	0.000010	0.000010	0	0.00012		
Sodium (Na) - Total	0.050	16	0	1.44	1.38	1.21	1.84	0.18			
Strontium (Sr) - Total	0.00020	16	0	0.124	0.120	0.0898	0.157	0.017			
Sulfur (S) - Total	0.50	16	0	6.81	6.26	5.61	9.54	1.20			
Thallium (Tl) - Total	0.000010	16	15	0.000010	0.000010	0.000010	0.000014	0.000001			
Tin (Sn) - Total	0.00010	16	14	0.00012	0.00010	0.00010	0.00041	0.00008			
Titanium (Ti) - Total	0.00030	16	1	0.00146	0.00103	0.00030	0.00577	0.00143			
Uranium (U) - Total	0.000010	16	0	0.000520	0.0005075	0.000441	0.000634	0.000047			
Vanadium (V) - Total	0.00050	16	10	0.00060	0.00050	0.00050	0.00158	0.00027			
Zinc (Zn) - Total	0.0030	16	14	0.0032	0.0030	0.0030	0.0055	0.0006			
Zirconium (Zr) - Total	0.00020	16	14	0.00021	0.00020	0.00020	0.00035	0.00004			

¹ PR-2.81 was not sampled between January and April 2025 due to inaccessibility of the boat launch and substantial ice buildup on the reservoir.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

Mercury guidelines were calculated assuming that methylmercury was ≤ 0.5% of total mercury concentration.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 9. 2025 annual data summary statistics for lab and in situ sampling (organic carbon, physical tests, anions, and nutrients) collected at the RSEM L6 upstream site (LBPR-6.83/6.50).

Site	Min MDL	LBPR-6.83/6.50 ¹							BC Long-Term WQG ²	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ³	# Exc
Physical Tests											
Dissolved Hardness (as CaCO ₃ ; mg/L)	0.60	20	0	105	102	95.5	126	8.1			
Specific Conductivity (in situ, µS/cm)		53		209.2	205.6	197.5	241.9	12.9			
Specific Conductivity (lab, µS/cm)	2.0	20	0	205	203	188	238	14			
Total Dissolved Solids (mg/L)	10	20	0	120	117	89	174	21			
Total Suspended Solids (mg/L)	1.0	20	3	2.7	1.7	1.0	15.8	3.3		EQ	0
Turbidity (in situ, NTU)		53		5.01	3.57	0.00 ⁴	16.98	3.90			
Turbidity (lab, NTU)	0.10	20	0	3.04	2.07	0.93	17.1	3.61			
pH (in situ, pH units)		53		7.89	7.94	7.63	8.09	0.12	6.5 to 9.0	6.5 to 9.0	0
pH (lab, pH units)	0.10	20	0	8.10	8.08	7.90	8.28	0.09	6.5 to 9.0	6.5 to 9.0	0
Anions and Nutrients (mg/L)											
Alkalinity, Total (as CaCO ₃)	1.0	20	0	90.1	87.8	85.7	106	5.1			
Ammonia, Total (as N)	0.0050	20	12	0.0057	0.0050	0.0050	0.0089	0.0013	0.102 ⁵	0.68 ⁵	0
Bromide (Br)	0.050	20	20	0.050	0.050	0.050	0.050	0			
Chloride (Cl)	0.50	20	20	0.50	0.50	0.50	0.50	0	150	600	0
Fluoride (F)	0.020	20	0	0.045	0.044	0.037	0.056	0.006		EQ	0
Nitrate (as N)	0.0050	20	0	0.0602	0.0616	0.021	0.083	0.0166	3	32.8	0
Nitrite (as N)	0.0010	20	20	0.0010	0.0010	0.0010	0.0010	0	0.02	EQ	0
Orthophosphate - Dissolved (as P)	0.0010	20	19	0.001	0.0010	0.0010	0.003	0			
Phosphorus (P) - Total	0.0020	20	0	0.012	0.0072	0.004	0.065	0.0137			
Sulfate (SO ₄)	0.30	20	0	18.4	17.7	15.7	22.9	2.4	309		
Organic Carbon (mg/L)											
Dissolved Organic Carbon	0.50	20	0	2.80	2.69	2.06	5.46	0.87			
Total Organic Carbon	0.50	20	0	2.82	2.78	2.04	4.78	0.75			
Ion Balance (meq/L)											
Anion Sum	0.10	20	0	2.19	2.14	2.05	2.60	0.14			
Cation - Anion Balance (% difference)		20		-0.59	-0.49	-4.56	2.32	1.78			
Cation Sum	0.10	20	0	2.17	2.10	1.98	2.62	0.17			

¹ This site was re-located from LBPR-6.83 to LBPR-6.50 in August 2025 due to in-channel dredging activities.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

⁴ In situ turbidity values recorded as negative were adjusted to 0.00 NTU, as these values were near detection limits and did not indicate actual turbidity presence.

⁵ BC WQG for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 10. 2025 annual data summary statistics for dissolved metals collected at the RSEM L6 upstream site (LBPR-6.83/6.50).

Site	Min MDL	LBPR-6.83/6.50 ¹							BC Long-Term WQG ²	BC Short-Term Maximum	
		n. n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG ³		# Exc	
Dissolved Metals (mg/L)											
Aluminum (Al) - Dissolved	0.0010	20	0	0.0121	0.0107	0.0058	0.0255	0.0043			
Antimony (Sb) - Dissolved	0.00010	20	19	0.00010	0.00010	0.00010	0.00010	0			
Arsenic (As) - Dissolved	0.00010	20	0	0.00019	0.00019	0.00016	0.00024	0.00002			
Barium (Ba) - Dissolved	0.00010	20	0	0.0366	0.0357	0.0316	0.0474	0.0043			
Beryllium (Be) - Dissolved	0.000020	20	20	0.000027	0.000020	0.000020	0.000100	0.000018			
Bismuth (Bi) - Dissolved	0.000050	20	20	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Dissolved	0.010	20	20	0.010	0.010	0.010	0.010	0			
Cadmium (Cd) - Dissolved	0.0000050	20	0	0.000018	0.000014	0.0000092	0.0000363	0.000008	EQ	EQ	0
Calcium (Ca) - Dissolved	0.050	20	0	29.7	28.9	27.4	35.3	2.2			
Chromium (Cr) - Dissolved	0.00050	20	20	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Dissolved	0.00010	20	16	0.000132	0.00010	0.00010	0.00032	0.000072	EQ		
Copper (Cu) - Dissolved	0.00020	20	0	0.00070	0.00062	0.00057	0.00129	0.00020	EQ	EQ	0
Iron (Fe) - Dissolved	0.010	20	0	0.017	0.014	0.010	0.041	0.008		0.35	0
Lead (Pb) - Dissolved	0.000050	20	20	0.000050	0.000050	0.000050	0.000050	0	EQ		
Lithium (Li) - Dissolved	0.0010	20	0	0.0018	0.0016	0.0014	0.0026	0.0004			
Magnesium (Mg) - Dissolved	0.0050	20	0	7.40	7.12	6.58	9.44	0.72			
Manganese (Mn) - Dissolved	0.00010	20	0	0.00262	0.00183	0.00083	0.00941	0.00227			
Mercury (Hg) - Dissolved	0.0000050	20	20	0.0000050	0.0000050	0.0000050	0.0000050	0			
Molybdenum (Mo) - Dissolved	0.000050	20	0	0.00092	0.000882	0.000772	0.00142	0.00016			
Nickel (Ni) - Dissolved	0.00050	20	0	0.00116	0.00102	0.00065	0.00284	0.00047	EQ	EQ	0
Phosphorus (P) - Dissolved	0.050	20	20	0.050	0.050	0.050	0.050	0			
Potassium (K) - Dissolved	0.050	20	0	0.516	0.516	0.473	0.582	0.031			
Selenium (Se) - Dissolved	0.000050	20	0	0.000308	0.000280	0.000243	0.000636	0.000091			
Silicon (Si) - Dissolved	0.050	20	0	2.01	2.00	1.88	2.14	0.06			
Silver (Ag) - Dissolved	0.000010	20	20	0.000010	0.000010	0.000010	0.000010	0			
Sodium (Na) - Dissolved	0.050	20	0	1.46	1.37	1.17	2.32	0.29			
Strontium (Sr) - Dissolved	0.00020	20	0	0.116	0.117	0.102	0.135	0.009			
Sulfur (S) - Dissolved	0.50	20	0	6.27	5.98	5.49	7.82	0.77			
Thallium (Tl) - Dissolved	0.000010	20	20	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Dissolved	0.00010	20	20	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Dissolved	0.00030	20	16	0.00037	0.00030	0.00030	0.00105	0.00020			
Uranium (U) - Dissolved	0.000010	20	0	0.000501	0.000493	0.000449	0.000565	0.000032			
Vanadium (V) - Dissolved	0.00050	20	20	0.00050	0.00050	0.00050	0.00050	0			
Zinc (Zn) - Dissolved	0.0010	20	9	0.0017	0.0013	0.0010	0.0041	0.0009	EQ	EQ	0
Zirconium (Zr) - Dissolved	0.00020	20	20	0.00020	0.00020	0.00020	0.00020	0			

¹ This site was re-located from LBPR-6.83 to LBPR-6.50 in August 2025 due to in-channel dredging activities.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 11. 2025 annual data summary statistics for total metals collected at the RSEM L6 upstream site (LBPR-6.83/6.50).

Site Date: 2025	Min MDL	LBPR-6.83/6.50 ¹							BC Long-Term	BC Short-Term Maximum	
		n. n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG ²	WQG ³	# Exc	
Total Metals (mg/L)											
Aluminum (Al) - Total	0.0030	20	0	0.091	0.0481	0.0232	0.380	0.098	EQ		
Antimony (Sb) - Total	0.00010	20	18	0.00010	0.00010	0.00010	0.00013	0.00001	0.074	0.25	0
Arsenic (As) - Total	0.00010	20	0	0.00026	0.00024	0.00020	0.00050	0.00008	0.005		
Barium (Ba) - Total	0.00010	20	0	0.0390	0.0374	0.0326	0.0615	0.0077			
Beryllium (Be) - Total	0.000020	20	19	0.000024	0.000020	0.000020	0.000100	0.000018			
Bismuth (Bi) - Total	0.000050	20	20	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Total	0.010	20	20	0.010	0.010	0.010	0.010	0	1.2		
Cadmium (Cd) - Total	0.0000050	20	0	0.000024	0.0000220	0.0000137	0.0000490	0.000009			
Calcium (Ca) - Total	0.050	20	0	30.2	30.1	27.6	34.5	1.8			
Chromium (Cr) - Total	0.00050	20	17	0.00053	0.00050	0.00050	0.00069	0.00006			
Cobalt (Co) - Total	0.00010	20	9	0.00017	0.00011	0.00010	0.00042	0.00010			
Copper (Cu) - Total	0.00050	20	0	0.00080	0.00072	0.00065	0.00151	0.00025			
Iron (Fe) - Total	0.010	20	0	0.139	0.086	0.044	0.596	0.148		1	0
Lead (Pb) - Total	0.000050	20	12	0.000081	0.000050	0.000050	0.000350	0.000085			
Lithium (Li) - Total	0.0010	20	0	0.0019	0.0018	0.0016	0.0029	0.0004			
Magnesium (Mg) - Total	0.0050	20	0	7.28	7.14	6.67	8.82	0.54			
Manganese (Mn) - Total	0.00010	20	0	0.00636	0.00518	0.00343	0.0166	0.00344	EQ	EQ	0
Mercury (Hg) - Total	0.0000050	20	20	0.0000050	0.0000050	0.0000050	0.0000050	0	0.00002		
Molybdenum (Mo) - Total	0.000050	20	0	0.00097	0.00092	0.000816	0.00154	0.00017	7.6	46	0
Nickel (Ni) - Total	0.00050	20	0	0.00136	0.00113	0.00079	0.00312	0.00055			
Phosphorus (P) - Total	0.050	20	20	0.050	0.050	0.050	0.050	0			
Potassium (K) - Total	0.050	20	0	0.535	0.518	0.477	0.718	0.065			
Selenium (Se) - Total	0.000050	20	0	0.000328	0.000309	0.000244	0.000626	0.000089	0.002		
Silicon (Si) - Total	0.10	20	0	2.23	2.19	2.04	2.76	0.20			
Silver (Ag) - Total	0.000010	20	20	0.000010	0.000010	0.000010	0.000010	0	0.00012		
Sodium (Na) - Total	0.050	20	0	1.47	1.39	1.19	2.38	0.32			
Strontium (Sr) - Total	0.00020	20	0	0.120	0.120	0.105	0.145	0.009			
Sulfur (S) - Total	0.50	20	0	6.40	6.09	5.39	8.96	0.91			
Thallium (Tl) - Total	0.000010	20	18	0.000010	0.000010	0.000010	0.000015	0.000001			
Tin (Sn) - Total	0.00010	20	19	0.00010	0.00010	0.00010	0.00014	0.00001			
Titanium (Ti) - Total	0.00030	20	0	0.00168	0.00097	0.00045	0.00792	0.00184			
Uranium (U) - Total	0.000010	20	0	0.000522	0.000510	0.000474	0.000624	0.000040			
Vanadium (V) - Total	0.00050	20	11	0.00068	0.00050	0.00050	0.00188	0.00040			
Zinc (Zn) - Total	0.0030	20	15	0.0033	0.0030	0.0030	0.0059	0.0007			
Zirconium (Zr) - Total	0.00020	20	18	0.00020	0.00020	0.00020	0.00030	0.00002			

¹ This site was re-located from LBPR-6.83 to LBPR-6.50 in August 2025 due to in-channel dredging activities.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

Mercury guidelines were calculated assuming that methylmercury was ≤ 0.5% of total mercury concentration.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 12. 2025 annual data summary statistics for lab and in situ sampling (organic carbon, physical tests, anions, and nutrients) collected at the RSEM L6 IDZ site (LBPR-7.21).

Site	Min MDL	LBPR-7.21							BC Long-Term WQG ¹	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ²	# Exc
Date: 2025											
Physical Tests											
Dissolved Hardness (as CaCO ₃ ; mg/L)	0.60	20	0	104	102	93.8	129	8.4			
Specific Conductivity (in situ, µS/cm)		54		207.9	203.4	196.2	241.7	11.8			
Specific Conductivity (lab, µS/cm)	2.0	20	0	205	203	190	238	13			
Total Dissolved Solids (mg/L)	10	20	0	120	115	91	171	20			
Total Suspended Solids (mg/L)	1.0	20	1	5.9	2.1	1.0	51.7 ³	11.3		EQ	0
Turbidity (in situ, NTU)		54		6.45	4.65	0.00 ⁴	22.53	5.49			
Turbidity (lab, NTU)	0.10	20	0	5.04	2.74	0.90	30.6 ³	7.04			
pH (in situ, pH units)		54		7.87	7.89	7.63	7.99	0.09	6.5 to 9.0	6.5 to 9.0	0
pH (lab, pH units)	0.10	20	0	8.10	8.07	7.87	8.27	0.10	6.5 to 9.0	6.5 to 9.0	0
Anions and Nutrients (mg/L)											
Alkalinity, Total (as CaCO ₃)	1.0	20	0	90.4	88.7	86.2	105	4.7			
Ammonia, Total (as N)	0.0050	20	14	0.0064	0.0050	0.0050	0.018	0.0019	0.102 ⁵	0.68 ⁵	0
Bromide (Br)	0.050	20	20	0.050	0.050	0.050	0.050	0			
Chloride (Cl)	0.50	20	20	0.50	0.50	0.50	0.50	0	150	600	0
Fluoride (F)	0.020	20	0	0.046	0.046	0.038	0.057	0.006		EQ	0
Nitrate (as N)	0.0050	20	0	0.0594	0.064	0.0204	0.0836	0.0149	3	32.8	0
Nitrite (as N)	0.0010	20	20	0.0010	0.0010	0.0010	0.0010	0	0.02	EQ	0
Orthophosphate - Dissolved (as P)	0.0010	20	19	0.0010	0.0010	0.0010	0.0016	0.0001			
Phosphorus (P) - Total	0.0020	20	0	0.0136	0.0087	0.0039	0.0702	0.0155			
Sulfate (SO ₄)	0.30	20	0	18.2	17.9	16.2	22.8	1.9	309		
Organic Carbon (mg/L)											
Dissolved Organic Carbon	0.50	20	0	2.80	2.64	2.04	5.57	0.84			
Total Organic Carbon	0.50	20	0	2.86	2.74	2.00	5.17	0.81			
Ion Balance (meq/L)											
Anion Sum	0.10	20	0	2.19	2.15	2.09	2.58	0.13			
Cation - Anion Balance (% difference)		20		-0.85	-0.70	-4.19	2.19	1.86			
Cation Sum	0.10	20	0	2.16	2.10	1.94	2.66	0.17			

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

³ Intensive instream works were observed at LBPR-6.50 in September 2025, resulting in turbid waters downstream.

⁴ In situ turbidity values recorded as negative were adjusted to 0.00 NTU, as these values were near detection limits and did not indicate actual turbidity presence.

⁵ BC WQG for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 13. 2025 annual data summary statistics for dissolved metals collected at the RSEM L6 IDZ site (LBPR-7.21).

Site	Min MDL	LBPR-7.21							BC Long-Term	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG ¹	WQG ²	# Exc
Dissolved Metals (mg/L)											
Aluminum (Al) - Dissolved	0.0010	20	0	0.0117	0.0111	0.0055	0.0253	0.0043			
Antimony (Sb) - Dissolved	0.00010	20	19	0.00010	0.00010	0.00010	0.00011	0.00000			
Arsenic (As) - Dissolved	0.00010	20	0	0.00020	0.00019	0.00017	0.00027	0.00003			
Barium (Ba) - Dissolved	0.00010	20	0	0.0371	0.0361	0.0308	0.0476	0.0044			
Beryllium (Be) - Dissolved	0.000020	20	20	0.000024	0.000020	0.000020	0.000100	0.000019			
Bismuth (Bi) - Dissolved	0.000050	20	20	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Dissolved	0.010	20	20	0.010	0.010	0.010	0.010	0			
Cadmium (Cd) - Dissolved	0.0000050	20	0	0.0000177	0.0000151	0.0000103	0.0000304	0.0000067	EQ	EQ	0
Calcium (Ca) - Dissolved	0.050	20	0	29.7	28.9	26.8	36.0	2.3			
Chromium (Cr) - Dissolved	0.00050	20	20	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Dissolved	0.00010	20	16	0.00014	0.00010	0.00010	0.00038	0.00008	EQ		
Copper (Cu) - Dissolved	0.00020	20	0	0.00065	0.00061	0.00056	0.00103	0.00012	EQ	EQ	0
Iron (Fe) - Dissolved	0.010	20	3	0.016	0.014	0.010	0.039	0.009		0.35	0
Lead (Pb) - Dissolved	0.000050	20	18	0.000053	0.000050	0.000050	0.000077	0.000008	EQ		
Lithium (Li) - Dissolved	0.0010	20	0	0.0018	0.0017	0.0014	0.0026	0.0004			
Magnesium (Mg) - Dissolved	0.0050	20	0	7.30	7.11	6.31	9.44	0.73			
Manganese (Mn) - Dissolved	0.00010	20	0	0.00258	0.00177	0.00077	0.00905	0.00229			
Mercury (Hg) - Dissolved	0.0000050	20	20	0.0000050	0.0000050	0.0000050	0.0000050	0			
Molybdenum (Mo) - Dissolved	0.000050	20	0	0.000922	0.000873	0.000761	0.00133	0.000149			
Nickel (Ni) - Dissolved	0.00050	20	0	0.00120	0.00102	0.00071	0.00280	0.00050	EQ	EQ	0
Phosphorus (P) - Dissolved	0.050	20	20	0.050	0.050	0.050	0.050	0			
Potassium (K) - Dissolved	0.050	20	0	0.513	0.508	0.469	0.572	0.027			
Selenium (Se) - Dissolved	0.000050	20	0	0.000319	0.000287	0.000236	0.000640	0.000100			
Silicon (Si) - Dissolved	0.050	20	0	2.01	2.01	1.85	2.09	0.07			
Silver (Ag) - Dissolved	0.000010	20	20	0.000010	0.000010	0.000010	0.000010	0			
Sodium (Na) - Dissolved	0.050	20	0	1.41	1.37	1.13	1.70	0.16			
Strontium (Sr) - Dissolved	0.00020	20	0	0.116	0.114	0.102	0.139	0.009			
Sulfur (S) - Dissolved	0.50	20	0	6.19	6.01	5.41	7.89	0.73			
Thallium (Tl) - Dissolved	0.000010	20	20	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Dissolved	0.00010	20	20	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Dissolved	0.00030	20	15	0.00038	0.00030	0.00030	0.00111	0.00022			
Uranium (U) - Dissolved	0.000010	20	0	0.000497	0.000492	0.000450	0.000548	0.000028			
Vanadium (V) - Dissolved	0.00050	20	20	0.00050	0.00050	0.00050	0.00050	0			
Zinc (Zn) - Dissolved	0.0010	20	7	0.0016	0.0011	0.0010	0.0047	0.0011	EQ	EQ	0
Zirconium (Zr) - Dissolved	0.00020	20	19	0.00020	0.00020	0.00020	0.00026	0.00001			

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 14. 2025 annual data summary statistics for total metals collected at the RSEM L6 IDZ site (LBPR-7.21).

Site	Min MDL	LBPR-7.21							BC Long-Term WQG ¹	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ²	# Exc
Total Metals (mg/L)											
Aluminum (Al) - Total	0.0030	20	0	0.132	0.0827	0.0464	0.671	0.154	EQ		
Antimony (Sb) - Total	0.00010	20	18	0.00010	0.00010	0.00010	0.00013	0.00001	0.074	0.25	0
Arsenic (As) - Total	0.00010	20	0	0.00030	0.00026	0.00018	0.00081	0.00014	0.005		
Barium (Ba) - Total	0.00010	20	0	0.0414	0.0392	0.0320	0.0614	0.0078			
Beryllium (Be) - Total	0.000020	20	19	0.000024	0.000020	0.000020	0.000100	0.000019			
Bismuth (Bi) - Total	0.000050	20	20	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Total	0.010	20	20	0.010	0.010	0.010	0.010	0	1.2		
Cadmium (Cd) - Total	0.0000050	20	0	0.0000293	0.0000264	0.0000151	0.0000636	0.0000127			
Calcium (Ca) - Total	0.050	20	0	30.3	30.1	27.8	34.8	1.9			
Chromium (Cr) - Total	0.00050	20	18	0.00054	0.00050	0.00050	0.00113	0.00015			
Cobalt (Co) - Total	0.00010	20	2	0.00020	0.00013	0.00010	0.00058	0.00014			
Copper (Cu) - Total	0.00050	20	0	0.00104	0.00078	0.00067	0.00366	0.00073			
Iron (Fe) - Total	0.010	20	0	0.263	0.161	0.070	1.66	0.373		1	1
Lead (Pb) - Total	0.000050	20	5	0.000112	0.000066	0.000050	0.000571	0.000132			
Lithium (Li) - Total	0.0010	20	0	0.0020	0.0018	0.0016	0.0029	0.0004			
Magnesium (Mg) - Total	0.0050	20	0	7.31	7.32	6.44	8.34	0.46			
Manganese (Mn) - Total	0.00010	20	0	0.00902	0.00649	0.00469	0.0392	0.00809	EQ	EQ	0
Mercury (Hg) - Total	0.0000050	20	20	0.0000050	0.0000050	0.0000050	0.0000050	0	0.00002		
Molybdenum (Mo) - Total	0.000050	20	0	0.000967	0.000902	0.000796	0.00160	0.000195	7.6	46	0
Nickel (Ni) - Total	0.00050	20	0	0.00149	0.00124	0.00102	0.00310	0.00057			
Phosphorus (P) - Total	0.050	20	19	0.052	0.050	0.050	0.090	0.009			
Potassium (K) - Total	0.050	20	0	0.549	0.536	0.464	0.713	0.064			
Selenium (Se) - Total	0.000050	20	0	0.000326	0.000304	0.000220	0.000678	0.000108	0.002		
Silicon (Si) - Total	0.10	20	0	2.30	2.23	2.02	3.04	0.27			
Silver (Ag) - Total	0.000010	20	20	0.000010	0.000010	0.000010	0.000010	0	0.00012		
Sodium (Na) - Total	0.050	20	0	1.43	1.38	1.15	1.72	0.16			
Strontium (Sr) - Total	0.00020	20	0	0.119	0.117	0.110	0.147	0.009			
Sulfur (S) - Total	0.50	20	0	6.39	6.22	5.52	8.62	0.79			
Thallium (Tl) - Total	0.000010	20	18	0.000011	0.000010	0.000010	0.000020	0.000003			
Tin (Sn) - Total	0.00010	20	20	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Total	0.00030	20	2	0.00289	0.00179	0.00052	0.0173	0.00394			
Uranium (U) - Total	0.000010	20	0	0.000522	0.000524	0.000477	0.000601	0.000034			
Vanadium (V) - Total	0.00050	20	8	0.00080	0.00058	0.00050	0.00289	0.00061			
Zinc (Zn) - Total	0.0030	20	14	0.0040	0.0030	0.0030	0.0098	0.0012			
Zirconium (Zr) - Total	0.00020	20	19	0.00020	0.00020	0.00020	0.00027	0.00002			

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

Mercury guidelines were calculated assuming that methylmercury was ≤ 0.5% of total mercury concentration.

No exceedances of the long-term 30 day mean BC WQG occurred. Blue shading indicates an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 15. 2025 annual data summary statistics for lab and in situ sampling (organic carbon, physical tests, anions, and nutrients) collected at the RSEM R6 upstream site (RBPR-7.05).

Site	Min MDL	RBPR-7.05 ¹							BC Long-Term WQG ²	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ³	# Exc
Physical Tests											
Dissolved Hardness (as CaCO ₃ ; mg/L)	0.60	9	0	102	100	98.1	112	5.1			
Specific Conductivity (in situ, µS/cm)		24		204.0	202.7	196.6	218.1	7.0			
Specific Conductivity (lab, µS/cm)	2.0	9	0	201	202	181	219	11			
Total Dissolved Solids (mg/L)	10	9	0	118	113	98	152	15			
Total Suspended Solids (mg/L)	1.0	9	2	1.8	1.8	1.0	3.9	0.9		EQ	0
Turbidity (in situ, NTU)		24		3.58	3.57	1.65	5.75	1.45			
Turbidity (lab, NTU)	0.10	9	0	1.82	1.54	1.14	2.80	0.61			
pH (in situ, pH units)		24		7.95	8.00	7.72	8.15	0.12	6.5 to 9.0	6.5 to 9.0	0
pH (lab, pH units)	0.10	9	0	8.14	8.13	8.03	8.26	0.08	6.5 to 9.0	6.5 to 9.0	0
Anions and Nutrients (mg/L)											
Alkalinity, Total (as CaCO ₃)	1.0	9	0	89.2	88.5	86.0	94.4	2.5			
Ammonia, Total (as N)	0.0050	9	8	0.0050	0.0050	0.0050	0.0052	0.0001	0.102 ⁴	0.68 ⁴	0
Bromide (Br)	0.050	9	9	0.050	0.050	0.050	0.050	0			
Chloride (Cl)	0.50	9	9	0.50	0.50	0.50	0.50	0	150	600	0
Fluoride (F)	0.020	9	0	0.043	0.041	0.037	0.052	0.005		EQ	0
Nitrate (as N)	0.0050	9	0	0.0636	0.0695	0.0372	0.0813	0.0166	3	32.8	0
Nitrite (as N)	0.0010	9	9	0.0010	0.0010	0.0010	0.0010	0	0.02	EQ	0
Orthophosphate - Dissolved (as P)	0.0010	9	9	0.0010	0.0010	0.0010	0.0010	0			
Phosphorus (P) - Total	0.0020	9	0	0.0076	0.0062	0.00374	0.0229	0.0059			
Sulfate (SO ₄)	0.30	9	0	17.3	17.4	15.8	19.1	1.4	309		
Organic Carbon (mg/L)											
Dissolved Organic Carbon	0.50	9	0	2.42	2.30	1.89	3.08	0.37			
Total Organic Carbon	0.50	9	0	2.36	2.30	2.09	2.86	0.26			
Ion Balance (meq/L)											
Anion Sum	0.10	9	0	2.15	2.14	2.08	2.29	0.07			
Cation - Anion Balance (% difference)		9		-0.87	-1.21	-2.88	2.01	1.57			
Cation Sum	0.10	9	0	2.11	2.07	2.02	2.33	0.11			

¹ RBPR-7.05 was only sampled when the RSEM R6W pond was discharging between January and May 2025. This site was not sampled between June and December 2025.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column. EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

⁴ BC WQG for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 16. 2025 annual data summary statistics for dissolved metals collected at the RSEM R6 upstream site (RBPR-7.05).

Site	Min MDL	RBPR-7.05 ¹							BC Long-Term	BC Short-Term Maximum	
		n	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ²	# Exc
Dissolved Metals (mg/L)											
Aluminum (Al) - Dissolved	0.0010	9	0	0.0100	0.0099	0.0050	0.0163	0.0032			
Antimony (Sb) - Dissolved	0.00010	9	9	0.00010	0.00010	0.00010	0.00010	0			
Arsenic (As) - Dissolved	0.00010	9	0	0.00018	0.00018	0.00016	0.00021	0.00002			
Barium (Ba) - Dissolved	0.00010	9	0	0.0334	0.0322	0.0302	0.0400	0.0030			
Beryllium (Be) - Dissolved	0.000020	9	9	0.000020	0.000020	0.000020	0.000020	0			
Bismuth (Bi) - Dissolved	0.000050	9	9	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Dissolved	0.010	9	9	0.010	0.010	0.010	0.010	0			
Cadmium (Cd) - Dissolved	0.0000050	9	1	0.0000158	0.0000145	0.0000050	0.0000309	0.0000070	EQ	EQ	0
Calcium (Ca) - Dissolved	0.050	9	0	29.4	29.0	28.0	31.9	1.4			
Chromium (Cr) - Dissolved	0.00050	9	9	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Dissolved	0.00010	9	6	0.00014	0.00010	0.00010	0.00036	0.00009	EQ		
Copper (Cu) - Dissolved	0.00020	9	0	0.00059	0.00059	0.00055	0.00063	0.00002	EQ	EQ	0
Iron (Fe) - Dissolved	0.010	9	3	0.012	0.011	0.010	0.015	0.002		0.35	0
Lead (Pb) - Dissolved	0.000050	9	9	0.000050	0.000050	0.000050	0.000050	0	EQ		
Lithium (Li) - Dissolved	0.0010	9	0	0.0016	0.0016	0.0013	0.0019	0.0002			
Magnesium (Mg) - Dissolved	0.0050	9	0	7.01	6.77	6.39	7.92	0.49			
Manganese (Mn) - Dissolved	0.00010	9	0	0.00265	0.00226	0.00052	0.00696	0.00193			
Mercury (Hg) - Dissolved	0.0000050	9	9	0.0000050	0.0000050	0.0000050	0.0000050	0			
Molybdenum (Mo) - Dissolved	0.000050	9	0	0.00087	0.00084	0.000788	0.00103	0.00007			
Nickel (Ni) - Dissolved	0.00050	9	0	0.00107	0.00098	0.00074	0.00200	0.00037	EQ	EQ	0
Phosphorus (P) - Dissolved	0.050	9	9	0.050	0.050	0.050	0.050	0			
Potassium (K) - Dissolved	0.050	9	0	0.493	0.482	0.448	0.542	0.032			
Selenium (Se) - Dissolved	0.000050	9	0	0.000299	0.000299	0.000209	0.000389	0.000060			
Silicon (Si) - Dissolved	0.050	9	0	2.03	2.04	1.83	2.14	0.09			
Silver (Ag) - Dissolved	0.000010	9	9	0.000010	0.000010	0.000010	0.000010	0			
Sodium (Na) - Dissolved	0.050	9	0	1.28	1.23	1.08	1.55	0.15			
Strontium (Sr) - Dissolved	0.00020	9	0	0.113	0.112	0.107	0.123	0.005			
Sulfur (S) - Dissolved	0.50	9	0	5.72	5.56	5.34	6.74	0.45			
Thallium (Tl) - Dissolved	0.000010	9	9	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Dissolved	0.00010	8	8	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Dissolved	0.00030	9	8	0.00031	0.00030	0.00030	0.00035	0.00002			
Uranium (U) - Dissolved	0.000010	9	0	0.000496	0.000489	0.000458	0.000530	0.000025			
Vanadium (V) - Dissolved	0.00050	9	9	0.00050	0.00050	0.00050	0.00050	0			
Zinc (Zn) - Dissolved	0.0010	9	3	0.0016	0.0012	0.0010	0.0040	0.0010	EQ	EQ	0
Zirconium (Zr) - Dissolved	0.00020	9	9	0.00020	0.00020	0.00020	0.00020	0			

¹ RBPR-7.05 was only sampled when the RSEM R6W pond was discharging between January and May 2025. This site was not sampled between June and December 2025.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 17. 2025 annual data summary statistics for total metals collected at the RSEM R6 upstream site (RBPR-7.05).

Site	Min MDL	RBPR-7.05 ¹							BC Long-Term	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG ¹	WQG ²	# Exc
Total Metals (mg/L)											
Aluminum (Al) - Total	0.0030	9	0	0.0523	0.0459	0.0340	0.0828	0.0176	EQ		
Antimony (Sb) - Total	0.00010	9	9	0.00010	0.00010	0.00010	0.00010	0	0.074	0.25	0
Arsenic (As) - Total	0.00010	9	0	0.00023	0.00023	0.00021	0.00028	0.00002	0.005		
Barium (Ba) - Total	0.00010	9	0	0.0345	0.0331	0.0321	0.0403	0.0028			
Beryllium (Be) - Total	0.000020	9	9	0.000020	0.000020	0.000020	0.000020	0			
Bismuth (Bi) - Total	0.000050	9	9	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Total	0.010	9	9	0.010	0.010	0.010	0.010	0	1.2		
Cadmium (Cd) - Total	0.0000050	9	0	0.0000240	0.0000220	0.0000150	0.0000366	0.0000070			
Calcium (Ca) - Total	0.050	9	0	29.6	29.8	27.0	32.2	1.6			
Chromium (Cr) - Total	0.00050	9	9	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Total	0.00010	9	3	0.00016	0.00013	0.00010	0.00041	0.00010			
Copper (Cu) - Total	0.00050	9	0	0.00071	0.00070	0.00065	0.00076	0.00004			
Iron (Fe) - Total	0.010	9	0	0.074	0.060	0.0453	0.108	0.024		1	0
Lead (Pb) - Total	0.000050	9	6	0.000052	0.000050	0.000050	0.000057	0.000003			
Lithium (Li) - Total	0.0010	9	0	0.0017	0.0017	0.00144	0.0020	0.0002			
Magnesium (Mg) - Total	0.0050	9	0	7.17	7.17	6.64	8.01	0.40			
Manganese (Mn) - Total	0.00010	9	0	0.00533	0.00516	0.00392	0.00852	0.00138	EQ	EQ	0
Mercury (Hg) - Total	0.0000050	9	9	0.0000050	0.0000050	0.0000050	0.0000050	0	0.00002		
Molybdenum (Mo) - Total	0.000050	9	0	0.00090	0.00088	0.000806	0.00111	0.00009	7.6	46	0
Nickel (Ni) - Total	0.00050	9	0	0.00116	0.00112	0.00086	0.00206	0.00036			
Phosphorus (P) - Total	0.050	9	9	0.050	0.050	0.050	0.050	0			
Potassium (K) - Total	0.050	9	0	0.498	0.493	0.445	0.543	0.036			
Selenium (Se) - Total	0.000050	9	0	0.000307	0.000292	0.000267	0.000367	0.000035	0.002		
Silicon (Si) - Total	0.10	9	0	2.19	2.18	2.03	2.35	0.10			
Silver (Ag) - Total	0.000010	9	9	0.000010	0.000010	0.000010	0.000010	0	0.00012		
Sodium (Na) - Total	0.050	9	0	1.35	1.29	1.10	1.59	0.19			
Strontium (Sr) - Total	0.00020	9	0	0.116	0.116	0.108	0.127	0.005			
Sulfur (S) - Total	0.50	9	0	5.95	5.86	5.38	6.90	0.49			
Thallium (Tl) - Total	0.000010	9	9	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Total	0.00010	9	9	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Total	0.00030	9	0	0.00099	0.00089	0.00040	0.00176	0.00052			
Uranium (U) - Total	0.000010	9	0	0.000510	0.000521	0.000470	0.000559	0.000029			
Vanadium (V) - Total	0.00050	9	7	0.00053	0.00050	0.00050	0.00069	0.00007			
Zinc (Zn) - Total	0.0030	9	8	0.0033	0.0030	0.0030	0.0053	0.0008			
Zirconium (Zr) - Total	0.00020	9	9	0.00020	0.00020	0.00020	0.00020	0			

¹ RBPR-7.05 was only sampled when the RSEM R6W pond was discharging between January and May 2025. This site was not sampled between June and December 2025.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

Mercury guidelines were calculated assuming that methylmercury was ≤ 0.5% of total mercury concentration.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 18. 2025 annual data summary statistics for lab and in situ sampling (organic carbon, physical tests, anions, and nutrients) collected at the RSEM R6 IDZ site (RBPR-7.15).

Site	Min MDL	RBPR-7.15 ¹							BC Long-Term WQG ²	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ³	# Exc
Date: 2025											
Physical Tests											
Dissolved Hardness (as CaCO ₃ ; mg/L)	0.60	10	0	103	99.7	96.7	117	6.1			
Specific Conductivity (in situ, µS/cm)		24		206.2	206.1	197.7	218.8	7.1			
Specific Conductivity (lab, µS/cm)	2.0	10	0	205	207	190	225	11			
Total Dissolved Solids (mg/L)	10	10	0	121	118	103	178	21			
Total Suspended Solids (mg/L)	1.0	10	1	2.0	2.0	1.0	3.4	0.7		EQ	0
Turbidity (in situ, NTU)		23		3.75	3.66	1.75	6.09	1.44			
Turbidity (lab, NTU)	0.10	10	0	1.87	1.49	1.03	3.12	0.84			
pH (in situ, pH units)		24		7.95	7.94	7.77	8.17	0.13	6.5 to 9.0	6.5 to 9.0	0
pH (lab, pH units)	0.10	10	0	8.16	8.16	8.05	8.24	0	6.5 to 9.0	6.5 to 9.0	0
Anions and Nutrients (mg/L)											
Alkalinity, Total (as CaCO ₃)	1.0	10	0	89.3	88.6	86.5	94.7	2.6			
Ammonia, Total (as N)	0.0050	10	8	0.0051	0.0050	0.0050	0.0055	0.0002	0.102 ⁴	0.68 ⁴	0
Bromide (Br)	0.050	10	10	0.050	0.050	0.050	0.050	0			
Chloride (Cl)	0.50	10	6	0.63	0.50	0.50	1.28	0.25	150	600	0
Fluoride (F)	0.020	10	0	0.045	0.045	0.038	0.059	0.006		EQ	0
Nitrate (as N)	0.0050	10	0	0.0659	0.0627	0.0404	0.0843	0.0149	3	32.8	0
Nitrite (as N)	0.0010	10	10	0.0010	0.0010	0.0010	0.0010	0	0.02	EQ	0
Orthophosphate - Dissolved (as P)	0.0010	10	10	0.0010	0.0010	0.0010	0.0010	0			
Phosphorus (P) - Total	0.0020	10	0	0.0065	0.0068	0.00404	0.0104	0.0021			
Sulfate (SO ₄)	0.30	10	0	18.5	18.1	16.4	21.7	1.7	309		
Organic Carbon (mg/L)											
Dissolved Organic Carbon	0.50	10	0	2.37	2.26	1.91	2.73	0.29			
Total Organic Carbon	0.50	10	0	2.48	2.41	2.14	2.87	0.22			
Ion Balance (meq/L)											
Anion Sum	0.10	10	0	2.18	2.17	2.09	2.35	0.09			
Cation - Anion Balance (% difference)		10		-0.73	-0.96	-3.27	3.29	1.72			
Cation Sum	0.10	10	0	2.16	2.08	2.03	2.51	0.15			

¹ RBPR-7.15 was only sampled when the RSEM R6W pond was discharging between January and May 2025. This site was not sampled between June and December 2025.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column. EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

⁴ BC WQG for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 19. 2025 annual data summary statistics for dissolved metals collected at the RSEM R6 IDZ site (RBPR-7.15).

Site	Min MDL	RBPR-7.15 ¹							BC Long-Term WQG ²	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ³	# Exc
Dissolved Metals (mg/L)											
Aluminum (Al) - Dissolved	0.0010	10	0	0.0096	0.0098	0.0054	0.0157	0.0031			
Antimony (Sb) - Dissolved	0.00010	10	10	0.00010	0.00010	0.00010	0.00010	0			
Arsenic (As) - Dissolved	0.00010	10	0	0.00018	0.00018	0.00014	0.00022	0.00002			
Barium (Ba) - Dissolved	0.00010	10	0	0.0352	0.0338	0.0309	0.0459	0.0042			
Beryllium (Be) - Dissolved	0.000020	10	10	0.000020	0.000020	0.000020	0.000020	0			
Bismuth (Bi) - Dissolved	0.000050	10	10	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Dissolved	0.010	10	10	0.010	0.010	0.010	0.010	0			
Cadmium (Cd) - Dissolved	0.0000050	10	0	0.0000160	0.0000130	0.0000100	0.0000334	0.0000070	EQ	EQ	0
Calcium (Ca) - Dissolved	0.050	10	0	29.4	28.8	27.8	33.2	1.6			
Chromium (Cr) - Dissolved	0.00050	10	10	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Dissolved	0.00010	10	8	0.00013	0.00010	0.00010	0.00036	0	EQ		
Copper (Cu) - Dissolved	0.00020	10	0	0.00060	0.00060	0.000550	0.00065	0.00003	EQ	EQ	0
Iron (Fe) - Dissolved	0.010	10	6	0.011	0.010	0.010	0.013	0.001		0.35	0
Lead (Pb) - Dissolved	0.000050	10	10	0.000050	0.000050	0.000050	0.000050	0	EQ		
Lithium (Li) - Dissolved	0.0010	10	0	0.0018	0.0018	0.0015	0.0027	0.0004			
Magnesium (Mg) - Dissolved	0.0050	10	0	7.16	6.92	6.62	8.28	0.54			
Manganese (Mn) - Dissolved	0.00010	10	0	0.00246	0.00198	0.00064	0.00666	0.00167			
Mercury (Hg) - Dissolved	0.0000050	10	10	0.0000050	0.0000050	0.0000050	0.0000050	0			
Molybdenum (Mo) - Dissolved	0.000050	10	0	0.00090	0.00087	0.000804	0.00117	0.00010			
Nickel (Ni) - Dissolved	0.00050	10	0	0.00102	0.00095	0.00075	0.00198	0.00036	EQ	EQ	0
Phosphorus (P) - Dissolved	0.050	10	10	0.050	0.050	0.050	0.050	0			
Potassium (K) - Dissolved	0.050	10	0	0.545	0.530	0.472	0.729	0.075			
Selenium (Se) - Dissolved	0.000050	10	0	0.000298	0.000294	0.000236	0.000406	0.000044			
Silicon (Si) - Dissolved	0.050	10	0	2.01	2.03	1.86	2.12	0.08			
Silver (Ag) - Dissolved	0.000010	10	10	0.000010	0.000010	0.000010	0.000010	0			
Sodium (Na) - Dissolved	0.050	10	0	1.98	1.73	1.28	3.46	0.77			
Strontium (Sr) - Dissolved	0.00020	10	0	0.116	0.115	0.110	0.128	0.006			
Sulfur (S) - Dissolved	0.50	10	0	6.08	6.09	5.36	7.20	0.51			
Thallium (Tl) - Dissolved	0.000010	10	10	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Dissolved	0.00010	10	10	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Dissolved	0.00030	10	8	0.00031	0.00030	0.00030	0.00035	0.00002			
Uranium (U) - Dissolved	0.000010	10	0	0.000503	0.000495	0.000460	0.000538	0.000024			
Vanadium (V) - Dissolved	0.00050	10	10	0.00050	0.00050	0.00050	0.00050	0			
Zinc (Zn) - Dissolved	0.0010	10	2	0.0016	0.0012	0.0010	0.0041	0.0009	EQ	EQ	0
Zirconium (Zr) - Dissolved	0.00020	10	10	0.00020	0.00020	0.00020	0.00020	0			

¹ RBPR-7.15 was only sampled when the RSEM R6W pond was discharging between January and May 2025. This site was not sampled between June and December 2025.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 20. 2025 annual data summary statistics for total metals collected at the RSEM R6 IDZ site (RBPR-7.15).

Site	Min MDL	RBPR-7.15 ¹							BC Long-Term	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG ²	WQG ³	# Exc
Total Metals (mg/L)											
Aluminum (Al) - Total	0.0030	10	0	0.063	0.053	0.0369	0.106	0.024	EQ		
Antimony (Sb) - Total	0.00010	10	9	0.00010	0.00010	0.00010	0.00012	0.00001	0.074	0.25	0
Arsenic (As) - Total	0.00010	10	0	0.00024	0.00023	0.00020	0.00033	0.00004	0.005		
Barium (Ba) - Total	0.00010	10	0	0.0355	0.0347	0.0316	0.0451	0.0042			
Beryllium (Be) - Total	0.000020	10	10	0.000020	0.000020	0.000020	0.000020	0			
Bismuth (Bi) - Total	0.000050	10	10	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Total	0.010	10	10	0.010	0.010	0.010	0.010	0	1.2		
Cadmium (Cd) - Total	0.0000050	10	0	0.0000212	0.0000210	0.0000108	0.0000388	0.0000074			
Calcium (Ca) - Total	0.050	10	0	29.9	30.3	27.7	32.5	1.6			
Chromium (Cr) - Total	0.00050	10	10	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Total	0.00010	10	3	0.00016	0.00013	0.00010	0.00041	0.00010			
Copper (Cu) - Total	0.00050	10	0	0.00076	0.00072	0.00066	0.00104	0.00011			
Iron (Fe) - Total	0.010	10	0	0.086	0.083	0.045	0.171	0.038		1	0
Lead (Pb) - Total	0.000050	10	6	0.000059	0.000050	0.000050	0.000103	0.000017			
Lithium (Li) - Total	0.0010	10	0	0.0019	0.0019	0.0015	0.0025	0.0003			
Magnesium (Mg) - Total	0.0050	10	0	7.20	7.12	6.68	7.95	0.37			
Manganese (Mn) - Total	0.00010	10	0	0.0058	0.0054	0.00377	0.0102	0.0021	EQ	EQ	0
Mercury (Hg) - Total	0.0000050	10	10	0.0000050	0.0000050	0.0000050	0.0000050	0	0.00002		
Molybdenum (Mo) - Total	0.000050	10	0	0.00093	0.00092	0.000813	0.00117	0.00010	7.6	46	0
Nickel (Ni) - Total	0.00050	10	0	0.00113	0.00107	0.00082	0.00206	0.00035			
Phosphorus (P) - Total	0.050	10	10	0.050	0.050	0.050	0.050	0			
Potassium (K) - Total	0.050	10	0	0.530	0.516	0.455	0.653	0.063			
Selenium (Se) - Total	0.000050	10	0	0.000301	0.000308	0.000236	0.000400	0.000047	0.002		
Silicon (Si) - Total	0.10	10	0	2.17	2.17	2.06	2.32	0.08			
Silver (Ag) - Total	0.000010	10	10	0.000010	0.000010	0.000010	0.000010	0	0.00012		
Sodium (Na) - Total	0.050	10	0	1.95	1.94	1.30	2.99	0.57			
Strontium (Sr) - Total	0.00020	10	0	0.119	0.119	0.109	0.135	0.007			
Sulfur (S) - Total	0.50	10	0	6.24	6.01	5.56	7.27	0.61			
Thallium (Tl) - Total	0.000010	10	10	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Total	0.00010	10	10	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Total	0.00030	10	0	0.00130	0.00100	0.00054	0.00261	0.00077			
Uranium (U) - Total	0.000010	10	0	0.000526	0.000523	0.000502	0.000561	0.000019			
Vanadium (V) - Total	0.00050	10	6	0.00055	0.00050	0.00050	0.00065	0.00007			
Zinc (Zn) - Total	0.0030	10	9	0.0032	0.0030	0.0030	0.0051	0.0007			
Zirconium (Zr) - Total	0.00020	10	10	0.00020	0.00020	0.00020	0.00020	0			

¹ RBPR-7.15 was only sampled when the RSEM R6W pond was discharging between January and May 2025. This site was not sampled between June and December 2025.

² Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

³ The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

Mercury guidelines were calculated assuming that methylmercury was ≤ 0.5% of total mercury concentration.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 21. 2025 annual data summary statistics for lab and in situ sampling (organic carbon, physical tests, anions, and nutrients) collected at the BC ENV far-field downstream left bank site (LBPR-9.34).

Site	Min MDL	LBPR-9.34							BC Long-Term WQG ¹	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ²	# Exc
Date: 2025											
Physical Tests											
Dissolved Hardness (as CaCO ₃ ; mg/L)	0.60	22	0	104	101	96.7	126	7.1			
Specific Conductivity (in situ, µS/cm)		54		208.0	203.9	197.8	242.1	11.8			
Specific Conductivity (lab, µS/cm)	2.0	22	0	205	203	189	238	11			
Total Dissolved Solids (mg/L)	10	22	0	123	120	94	168	17			
Total Suspended Solids (mg/L)	1.0	22	0	6.6	2.9	1.4	25.3	7.3		EQ	0
Turbidity (in situ, NTU)		54		6.55	4.99	2.01	17.51	4.41			
Turbidity (lab, NTU)	0.10	22	0	4.67	2.77	1.19	16.8	4.58			
pH (in situ, pH units)		54		7.85	7.88	7.62	8.00	0.10	6.5 to 9.0	6.5 to 9.0	0
pH (lab, pH units)	0.10	22	0	8.10	8.11	7.87	8.27	0.11	6.5 to 9.0	6.5 to 9.0	0
Anions and Nutrients (mg/L)											
Alkalinity, Total (as CaCO ₃)	1.0	22	0	89.9	88.1	85.7	106	4.6			
Ammonia, Total (as N)	0.0050	22	14	0.0061	0.0050	0.0050	0.0110	0.0019	0.102 ³	0.68 ³	0
Bromide (Br)	0.050	22	22	0.050	0.050	0.050	0.050	0			
Chloride (Cl)	0.50	22	22	0.50	0.50	0.50	0.50	0	150	600	0
Fluoride (F)	0.020	22	0	0.045	0.043	0.038	0.058	0.006		EQ	0
Nitrate (as N)	0.0050	22	0	0.0617	0.0654	0.0215	0.0812	0.0163	3	32.8	0
Nitrite (as N)	0.0010	22	22	0.0010	0.0010	0.0010	0.0010	0	0.02	EQ	0
Orthophosphate - Dissolved (as P)	0.0010	22	21	0.0010	0.0010	0.0010	0.0013	0.0001			
Phosphorus (P) - Total	0.0020	22	0	0.0137	0.0097	0.0039	0.0428	0.0106			
Sulfate (SO ₄)	0.30	22	0	18.2	17.8	16.1	22.9	2.0	309		
Organic Carbon (mg/L)											
Dissolved Organic Carbon	0.50	22	0	2.77	2.56	2.05	5.44	0.83			
Total Organic Carbon	0.50	22	0	2.82	2.69	1.92	5.19	0.79			
Ion Balance (meq/L)											
Anion Sum	0.10	22	0	2.18	2.13	2.08	2.60	0.12			
Cation - Anion Balance (% difference)		22		-0.665	-0.843	-4.24	2.44	1.75			
Cation Sum	0.10	22	0	2.16	2.08	2.00	2.61	0.15			

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

³ BC WQG for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 22. 2025 annual data summary statistics for dissolved metals collected at the BC ENV far-field downstream left bank site (LBPR-9.34).

Site	Min MDL	LBPR-9.34						BC Long-Term WQG ¹	BC Short-Term Maximum		
		n. n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ²	# Exc	
Dissolved Metals (mg/L)											
Aluminum (Al) - Dissolved	0.0010	22	0	0.0122	0.0109	0.0058	0.0270	0.0049			
Antimony (Sb) - Dissolved	0.00010	22	22	0.00010	0.00010	0.00010	0.00010	0			
Arsenic (As) - Dissolved	0.00010	22	0	0.00019	0.00019	0.00015	0.00026	0.00003			
Barium (Ba) - Dissolved	0.00010	22	0	0.0365	0.0352	0.0315	0.0467	0.0044			
Beryllium (Be) - Dissolved	0.000020	22	22	0.000027	0.000020	0.000020	0.000100	0.000024			
Bismuth (Bi) - Dissolved	0.000050	22	22	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Dissolved	0.010	22	22	0.010	0.010	0.010	0.010	0			
Cadmium (Cd) - Dissolved	0.0000050	22	0	0.0000200	0.0000100	0.0000080	0.0000323	0.0000071	EQ	EQ	0
Calcium (Ca) - Dissolved	0.050	22	0	29.7	28.9	27.4	35.3	2.0			
Chromium (Cr) - Dissolved	0.00050	22	22	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Dissolved	0.00010	22	16	0.00015	0.00010	0.00010	0.00038	0.00009	EQ		
Copper (Cu) - Dissolved	0.00020	22	0	0.00064	0.00061	0.00057	0.00102	0.00011	EQ	EQ	0
Iron (Fe) - Dissolved	0.010	22	2	0.017	0.014	0.010	0.040	0.009		0.35	0
Lead (Pb) - Dissolved	0.000050	22	22	0.000050	0.000050	0.000050	0.000050	0	EQ		
Lithium (Li) - Dissolved	0.0010	22	0	0.0018	0.0017	0.0014	0.0026	0.0004			
Magnesium (Mg) - Dissolved	0.0050	22	0	7.29	7.31	6.61	9.20	0.62			
Manganese (Mn) - Dissolved	0.00010	22	0	0.00320	0.00205	0.00089	0.00928	0.00267			
Mercury (Hg) - Dissolved	0.0000050	22	21	0.0000051	0.0000050	0.0000050	0.0000064	0.0000003			
Molybdenum (Mo) - Dissolved	0.000050	22	0	0.000908	0.000880	0.000753	0.00134	0.000135			
Nickel (Ni) - Dissolved	0.00050	22	0	0.00127	0.00101	0.00070	0.00290	0.00061	EQ	EQ	0
Phosphorus (P) - Dissolved	0.050	22	22	0.050	0.050	0.050	0.050	0			
Potassium (K) - Dissolved	0.050	22	0	0.512	0.508	0.459	0.606	0.032			
Selenium (Se) - Dissolved	0.000050	22	0	0.000306	0.000285	0.000234	0.000635	0.000086			
Silicon (Si) - Dissolved	0.050	22	0	2.02	2.03	1.88	2.18	0.07			
Silver (Ag) - Dissolved	0.000010	22	22	0.000010	0.000010	0.000010	0.000010	0			
Sodium (Na) - Dissolved	0.050	22	0	1.38	1.34	1.10	1.66	0.16			
Strontium (Sr) - Dissolved	0.00020	22	0	0.116	0.114	0.106	0.130	0.007			
Sulfur (S) - Dissolved	0.50	22	0	6.24	5.99	5.34	8.18	0.81			
Thallium (Tl) - Dissolved	0.000010	22	22	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Dissolved	0.00010	22	21	0.00010	0.00010	0.00010	0.00020	0.00002			
Titanium (Ti) - Dissolved	0.00030	22	17	0.00038	0.00030	0.00030	0.00120	0.00022			
Uranium (U) - Dissolved	0.000010	22	0	0.000498	0.000492	0.000464	0.000548	0.000026			
Vanadium (V) - Dissolved	0.00050	22	22	0.00050	0.00050	0.00050	0.00050	0			
Zinc (Zn) - Dissolved	0.0010	22	6	0.0019	0.0014	0.0010	0.0039	0.0011	EQ	EQ	0
Zirconium (Zr) - Dissolved	0.00020	22	22	0.00020	0.00020	0.00020	0.00020	0			

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 23. 2025 annual data summary statistics for total metals collected at the BC ENV far-field downstream left bank site (LBPR-9.34).

Site	Min MDL	LBPR-9.34							BC Long-Term WQG ¹	BC Short-Term Maximum	
		n. n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG ²		# Exc	
Total Metals (mg/L)											
Aluminum (Al) - Total	0.0030	22	0	0.118	0.0842	0.0401	0.346	0.097	EQ		
Antimony (Sb) - Total	0.00010	22	21	0.00010	0.00010	0.00010	0.00013	0.00001	0.074	0.25	0
Arsenic (As) - Total	0.00010	22	0	0.00030	0.00026	0.00021	0.00058	0.00010	0.005		
Barium (Ba) - Total	0.00010	22	0	0.0403	0.0385	0.0319	0.0588	0.0071			
Beryllium (Be) - Total	0.000020	22	21	0.000027	0.000020	0.000020	0.000100	0.000024			
Bismuth (Bi) - Total	0.000050	22	22	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Total	0.010	22	22	0.010	0.010	0.010	0.010	0	1.2		
Cadmium (Cd) - Total	0.0000050	22	0	0.0000294	0.0000280	0.0000152	0.0000432	0.0000094			
Calcium (Ca) - Total	0.050	22	0	30.3	30.1	28.0	33.8	1.6			
Chromium (Cr) - Total	0.00050	22	19	0.00052	0.00050	0.00050	0.00066	0.00004			
Cobalt (Co) - Total	0.00010	22	3	0.00021	0.00015	0.00010	0.00044	0.00011			
Copper (Cu) - Total	0.00050	22	0	0.00091	0.00078	0.00069	0.00173	0.00029			
Iron (Fe) - Total	0.010	22	0	0.210	0.123	0.066	0.734	0.201		1	0
Lead (Pb) - Total	0.000050	22	9	0.000104	0.000056	0.000050	0.000308	0.000090			
Lithium (Li) - Total	0.0010	22	0	0.0020	0.0018	0.0016	0.0029	0.0004			
Magnesium (Mg) - Total	0.0050	22	0	7.41	7.26	6.73	8.63	0.48			
Manganese (Mn) - Total	0.00010	22	0	0.00872	0.00689	0.00453	0.0217	0.00488	EQ	EQ	0
Mercury (Hg) - Total	0.0000050	22	22	0.0000050	0.0000050	0.0000050	0.0000050	0	0.00002		
Molybdenum (Mo) - Total	0.000050	22	0	0.00095	0.000898	0.000809	0.00162	0.00019	7.6	46	0
Nickel (Ni) - Total	0.00050	22	0	0.00155	0.00131	0.00105	0.00321	0.00062			
Phosphorus (P) - Total	0.050	22	21	0.050	0.050	0.050	0.052	0.000			
Potassium (K) - Total	0.050	22	0	0.538	0.527	0.457	0.716	0.059			
Selenium (Se) - Total	0.000050	22	0	0.000328	0.000305	0.000254	0.000634	0.000081	0.002		
Silicon (Si) - Total	0.10	22	0	2.26	2.21	2.02	2.79	0.19			
Silver (Ag) - Total	0.000010	22	22	0.000010	0.000010	0.000010	0.000010	0	0.00012		
Sodium (Na) - Total	0.050	22	0	1.40	1.35	1.15	1.67	0.17			
Strontium (Sr) - Total	0.00020	22	0	0.119	0.115	0.108	0.148	0.010			
Sulfur (S) - Total	0.50	22	0	6.41	6.15	5.42	9.02	0.85			
Thallium (Tl) - Total	0.000010	22	19	0.000010	0.000010	0.000010	0.000015	0.000000			
Tin (Sn) - Total	0.00010	22	22	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Total	0.00030	22	1	0.00242	0.00156	0.00052	0.00867	0.00231			
Uranium (U) - Total	0.000010	22	0	0.000526	0.000522	0.000473	0.000610	0.000030			
Vanadium (V) - Total	0.00050	22	9	0.00076	0.00060	0.00050	0.00180	0.00038			
Zinc (Zn) - Total	0.0030	22	13	0.0037	0.0030	0.0030	0.0082	0.0014			
Zirconium (Zr) - Total	0.00020	22	20	0.00020	0.00020	0.00020	0.00023	0.00001			

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

Mercury guidelines were calculated assuming that methylmercury was ≤ 0.5% of total mercury concentration.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 24. 2025 annual data summary statistics for lab and in situ sampling (organic carbon, physical tests, anions, and nutrients) collected at the BC ENV far-field downstream right bank site (RBPR-9.34).

Site	Min MDL	RBPR-9.34							BC Long- Term WQG ¹	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.	S.D.		WQG ²	# Exc
Date: 2025											
Physical Tests											
Dissolved Hardness (as CaCO ₃ ; mg/L)	0.60	23	0	106	103	95.3	128	8.8			
Specific Conductivity (in situ, µS/cm)		51		206.5	202.7	196.7	244.8	11.9			
Specific Conductivity (lab, µS/cm)	2.0	23	0	207	202	186	241	15			
Total Dissolved Solids (mg/L)	10	23	0	129	120	93	185	25			
Total Suspended Solids (mg/L)	1.0	23	1	3.0	1.8	1.0	16.5	3.3		EQ	0
Turbidity (in situ, NTU)		51		4.38	3.69	1.72	16.33	3.23			
Turbidity (lab, NTU)	0.10	23	0	3.70	2.34	0.99	17.6	4.56			
pH (in situ, pH units)		51		7.90	7.93	7.57	8.05	0.14	6.5 to 9.0	6.5 to 9.0	0
pH (lab, pH units)	0.10	23	0	8.12	8.13	7.89	8.28	0.10	6.5 to 9.0	6.5 to 9.0	0
Anions and Nutrients (mg/L)											
Alkalinity, Total (as CaCO ₃)	1.0	23	0	91.7	88.6	86.0	108	6.4			
Ammonia, Total (as N)	0.0050	23	14	0.0061	0.0050	0.0050	0.0119	0.0021	0.102 ³	0.68 ³	0
Bromide (Br)	0.050	23	23	0.050	0.050	0.050	0.050	0			
Chloride (Cl)	0.50	23	23	0.50	0.50	0.50	0.50	0	150	600	0
Fluoride (F)	0.020	23	0	0.0462	0.046	0.038	0.058	0.006		EQ	0
Nitrate (as N)	0.0050	23	0	0.0549	0.0587	0.0208	0.0817	0.0161	3	32.8	0
Nitrite (as N)	0.0010	23	23	0.0010	0.0010	0.0010	0.0010	0	0.02	EQ	0
Orthophosphate - Dissolved (as P)	0.0010	23	23	0.0010	0.0010	0.0010	0.0010	0			
Phosphorus (P) - Total	0.0020	23	0	0.0098	0.0075	0.0044	0.0397	0.0076			
Sulfate (SO ₄)	0.30	23	0	18.3	17.5	15.7	23.0	2.2	309		
Organic Carbon (mg/L)											
Dissolved Organic Carbon	0.50	23	0	3.01	2.67	1.92	5.38	1.05			
Total Organic Carbon	0.50	23	0	2.99	2.73	1.97	5.01	0.90			
Ion Balance (meq/L)											
Anion Sum	0.10	23	0	2.22	2.18	2.06	2.64	0.16			
Cation - Anion Balance (% difference)		23		-0.55	-0.96	-6.48	2.95	2.05			
Cation Sum	0.10	23	0	2.20	2.14	1.96	2.65	0.18			

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

³ BC WQG for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 25. 2025 annual data summary statistics for dissolved metals collected at the BC ENV far-field downstream right bank site (RBPR-9.34).

Site	Min MDL	RBPR-9.34							BC Long-Term WQG ¹	BC Short-Term Maximum	
		n. n<MDL	Avg.	Median	Min.	Max.	S.D.	WQG ²		# Exc	
Dissolved Metals (mg/L)											
Aluminum (Al) - Dissolved	0.0010	23	0	0.0117	0.0108	0.0060	0.0245	0.0043			
Antimony (Sb) - Dissolved	0.00010	23	22	0.00010	0.00010	0.00010	0.00010	0			
Arsenic (As) - Dissolved	0.00010	23	0	0.00020	0.00020	0.00015	0.00025	0.00003			
Barium (Ba) - Dissolved	0.00010	23	0	0.0375	0.0358	0.0302	0.0504	0.0056			
Beryllium (Be) - Dissolved	0.000020	23	23	0.000024	0.000020	0.000020	0.000100	0.000017			
Bismuth (Bi) - Dissolved	0.000050	23	23	0.000050	0.000050	0.000050	0.000050	0			
Boron (B) - Dissolved	0.010	23	23	0.010	0.010	0.010	0.010	0			
Cadmium (Cd) - Dissolved	0.0000050	23	0	0.0000200	0.0000100	0.0000100	0.0000418 ³	0.0000100	EQ	EQ	0
Calcium (Ca) - Dissolved	0.050	23	0	30.2	29.3	27.3	35.2	2.2			
Chromium (Cr) - Dissolved	0.00050	23	23	0.00050	0.00050	0.00050	0.00050	0			
Cobalt (Co) - Dissolved	0.00010	23	19	0.00013	0.00010	0.00010	0.00036	0.00008	EQ		
Copper (Cu) - Dissolved	0.00020	23	0	0.00068	0.00061	0.000547	0.00103	0.00014	EQ	EQ	0
Iron (Fe) - Dissolved	0.010	23	4	0.017	0.014	0.010	0.042	0.009		0.35	0
Lead (Pb) - Dissolved	0.000050	23	23	0.000050	0.000050	0.000050	0.000050	0	EQ		
Lithium (Li) - Dissolved	0.0010	23	0	0.0018	0.0017	0.0013	0.0027	0.0004			
Magnesium (Mg) - Dissolved	0.0050	23	0	7.52	7.22	6.47	9.74	0.85			
Manganese (Mn) - Dissolved	0.00010	23	0	0.00228	0.00173	0.00061	0.00868	0.00216			
Mercury (Hg) - Dissolved	0.0000050	23	23	0.0000050	0.0000050	0.0000050	0.0000050	0			
Molybdenum (Mo) - Dissolved	0.000050	23	0	0.000946	0.000869	0.000776	0.00140	0.000186			
Nickel (Ni) - Dissolved	0.00050	23	0	0.00116	0.00098	0.00071	0.00275	0.00048	EQ	EQ	0
Phosphorus (P) - Dissolved	0.050	23	23	0.050	0.050	0.050	0.050	0			
Potassium (K) - Dissolved	0.050	23	0	0.518	0.510	0.460	0.591	0.035			
Selenium (Se) - Dissolved	0.000050	23	0	0.000344	0.000309	0.000264	0.000666	0.000105			
Silicon (Si) - Dissolved	0.050	23	0	2.01	2.02	1.86	2.11	0.06			
Silver (Ag) - Dissolved	0.000010	23	23	0.000010	0.000010	0.000010	0.000010	0			
Sodium (Na) - Dissolved	0.050	23	0	1.39	1.34	1.11	1.73	0.18			
Strontium (Sr) - Dissolved	0.00020	23	0	0.117	0.115	0.104	0.140	0.010			
Sulfur (S) - Dissolved	0.50	23	0	6.10	5.86	5.26	7.98	0.79			
Thallium (Tl) - Dissolved	0.000010	23	23	0.000010	0.000010	0.000010	0.000010	0			
Tin (Sn) - Dissolved	0.00010	23	23	0.00010	0.00010	0.00010	0.00010	0			
Titanium (Ti) - Dissolved	0.00030	23	17	0.00042	0.00030	0.00030	0.00140	0.00028			
Uranium (U) - Dissolved	0.000010	23	0	0.000502	0.000492	0.000470	0.000553	0.000027			
Vanadium (V) - Dissolved	0.00050	23	23	0.00050	0.00050	0.00050	0.00050	0			
Zinc (Zn) - Dissolved	0.0010	23	10	0.0016	0.0010	0.0010	0.0039	0.0009	EQ	EQ	0
Zirconium (Zr) - Dissolved	0.00020	23	23	0.00020	0.00020	0.00020	0.00020	0			

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

³ Dissolved metal concentration exceeded total metal concentration for field-filtered sample on May 29, 2025. Metallic contaminants may have been introduced to dissolved sample during field filtration.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Table 26. 2025 annual data summary statistics for total metals collected at the BC ENV far-field downstream right bank site (RBPR-9.34).

Site	Min MDL	RBPR-9.34						BC Long-Term WQG ¹	BC Short-Term Maximum	
		n.	n<MDL	Avg.	Median	Min.	Max.		S.D.	WQG ²
Total Metals (mg/L)										
Aluminum (Al) - Total	0.0030	23	0	0.100	0.0708	0.0265	0.375	0.095	EQ	
Antimony (Sb) - Total	0.00010	23	21	0.00010	0.00010	0.00010	0.00015	0.00001	0.074	0.25
Arsenic (As) - Total	0.00010	23	0	0.00028	0.00025	0.00022	0.00049	0.00007	0.005	
Barium (Ba) - Total	0.00010	23	0	0.0399	0.0368	0.0318	0.0600	0.0079		
Beryllium (Be) - Total	0.000020	23	22	0.000024	0.000020	0.000020	0.000100	0.000017		
Bismuth (Bi) - Total	0.000050	23	23	0.000050	0.000050	0.000050	0.000050	0		
Boron (B) - Total	0.010	23	23	0.010	0.010	0.010	0.010	0	1.2	
Cadmium (Cd) - Total	0.0000050	23	0	0.0000200	0.0000200	0.0000108	0.0000398	0.0000090		
Calcium (Ca) - Total	0.050	23	0	30.4	30.3	27.6	34.5	1.9		
Chromium (Cr) - Total	0.00050	23	21	0.00052	0.00050	0.00050	0.00076	0.00007		
Cobalt (Co) - Total	0.00010	23	11	0.00016	0.00012	0.00010	0.00043	0.00010		
Copper (Cu) - Total	0.00050	23	0	0.00082	0.00073	0.00064	0.00156	0.00026		
Iron (Fe) - Total	0.010	23	0	0.140	0.098	0.048	0.529	0.129		1
Lead (Pb) - Total	0.000050	23	12	0.000083	0.000050	0.000050	0.000320	0.000078		
Lithium (Li) - Total	0.0010	23	0	0.0020	0.0018	0.0014	0.0030	0.0005		
Magnesium (Mg) - Total	0.0050	23	0	7.41	7.21	6.60	8.84	0.61		
Manganese (Mn) - Total	0.00010	23	0	0.00593	0.00492	0.00331	0.0127	0.00251	EQ	EQ
Mercury (Hg) - Total	0.0000050	23	23	0.0000050	0.0000050	0.0000050	0.0000050	0	0.00002	
Molybdenum (Mo) - Total	0.000050	23	0	0.00101	0.000925	0.000801	0.00165	0.00023	7.6	46
Nickel (Ni) - Total	0.00050	23	0	0.00134	0.00113	0.00076	0.00300	0.00053		
Phosphorus (P) - Total	0.050	23	23	0.050	0.050	0.050	0.050	0		
Potassium (K) - Total	0.050	23	0	0.536	0.520	0.474	0.719	0.067		
Selenium (Se) - Total	0.000050	23	0	0.000358	0.000324	0.000227	0.000675	0.000116	0.002	
Silicon (Si) - Total	0.10	23	0	2.24	2.18	1.97	2.83	0.22		
Silver (Ag) - Total	0.000010	23	22	0.000010	0.000010	0.000010	0.000014	0.000001	0.00012	
Sodium (Na) - Total	0.050	23	0	1.40	1.34	1.16	1.66	0.17		
Strontium (Sr) - Total	0.00020	23	0	0.121	0.116	0.109	0.151	0.012		
Sulfur (S) - Total	0.50	23	0	6.44	6.06	5.11	9.00	0.99		
Thallium (Tl) - Total	0.000010	23	21	0.000010	0.000010	0.000010	0.000016	0.000002		
Tin (Sn) - Total	0.00010	23	23	0.00010	0.00010	0.00010	0.00010	0		
Titanium (Ti) - Total	0.00030	23	2	0.00206	0.00127	0.00045	0.00743	0.00204		
Uranium (U) - Total	0.000010	23	0	0.000522	0.000513	0.000457	0.000616	0.000038		
Vanadium (V) - Total	0.00050	23	11	0.00071	0.00051	0.00050	0.00194	0.00040		
Zinc (Zn) - Total	0.0030	23	19	0.0033	0.0030	0.0030	0.0058	0.0008		
Zirconium (Zr) - Total	0.00020	23	18	0.00022	0.00020	0.00020	0.00032	0.00004		

¹ Only average parameter values are compared to the long-term BC WQG. See the methods section of the report for details on how the comparisons are made.

² The average, minimum, and maximum values are compared to the short-term max BC WQG. See the methods section of the report for details on how the comparisons are made. A count of the total number of exceedances considering all sampling dates is provided in the "# Exc" column.

EQ indicates that the guidelines values varies per sample based on applicable equations defined by BC WLRS (2025).

Mercury guidelines were calculated assuming that methylmercury was ≤ 0.5% of total mercury concentration.

No exceedances occurred. Yellow shading would indicate an exceedance of the long-term 30 day mean BC WQG, and blue shading would indicate an exceedance of the short-term max BC WQG.

Parameters with a concentration below the method detection limit (MDL) are assumed to have a concentration equal to the detection limit for calculation of the summary statistics.

n<MDL = number of samples below the method detection limit, Avg. = Average, Min. = Minimum, Max. = Maximum, S.D. = Standard Deviation.

Appendix B. Site C PAG Contact RSEM Surface Water Quality Monitoring Time Series Plots – R6 Monthly and 5 in 30-day Sampling Data

The following time series plots depict data collected between January and May 2025 at PAG-contact RSEM pond R6W and the corresponding Site C reservoir and Peace River monitoring sites. Unless otherwise specified, all data are laboratory analytical results. Site C reservoir and Peace River samples were collected by Aski and included a field blank, travel blank, and duplicate sample for QA/QC purposes. RSEM pond data were provided by WM DWB LP. Error bars are included when duplicate samples are collected for laboratory data and are also included for all in situ data where triplicate readings are recorded (error bars for in situ data are generally too small to be visible on the plots). The location of duplicate sampling is varied with each sampling date. Similarly pond sampling duplicates are collected periodically, and error bars are included when duplicate sampling in the pond has occurred. Sampling in the Site C reservoir and Peace River was not conducted in months when there was no discharge from the R6 pond.

Figure 2. 2025 Site C reservoir and Peace River in situ, and lab (RSEM R6 pond) specific conductivity.

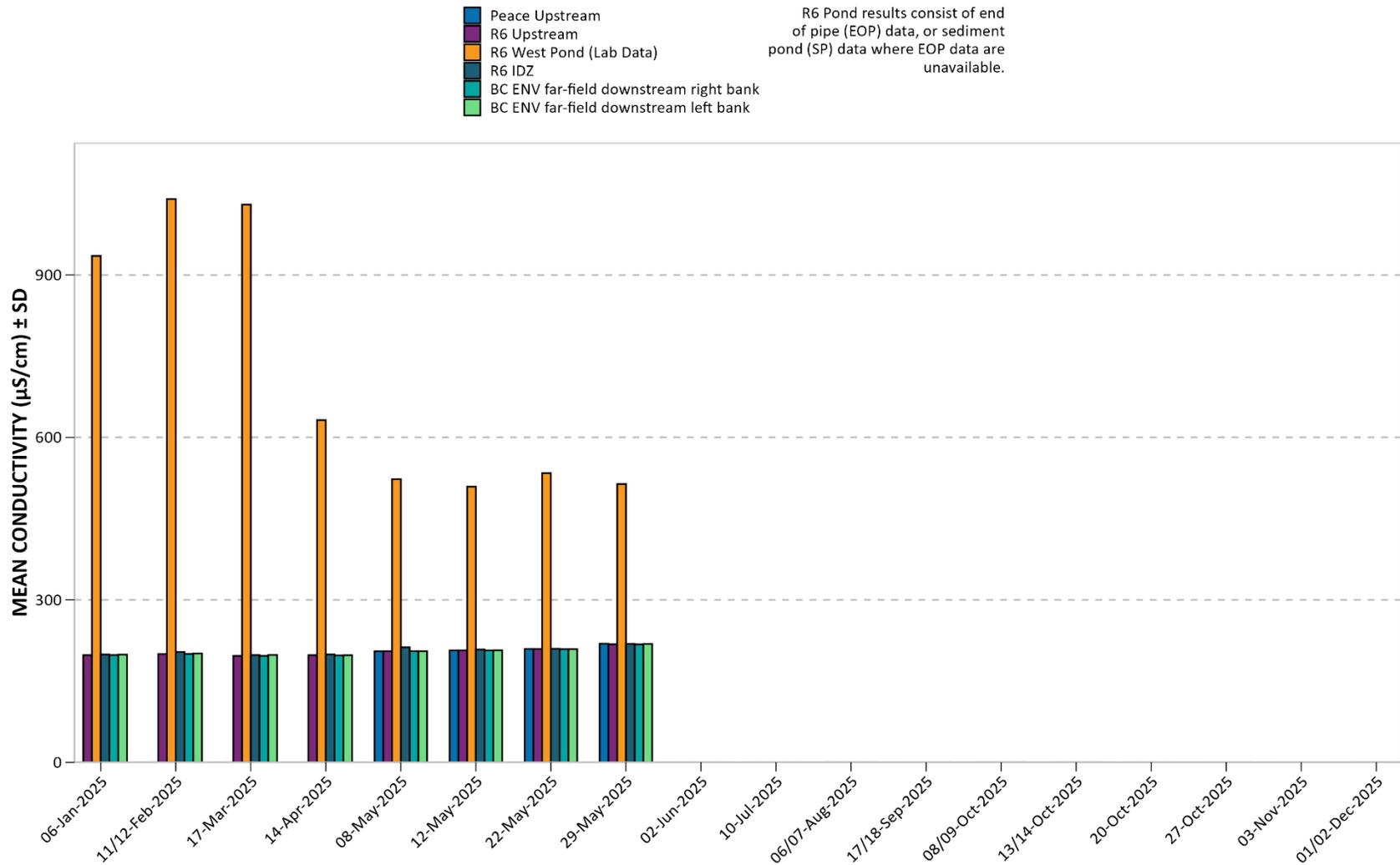


Figure 3. 2025 Site C reservoir, Peace River, and RSEM R6 pond lab specific conductivity.

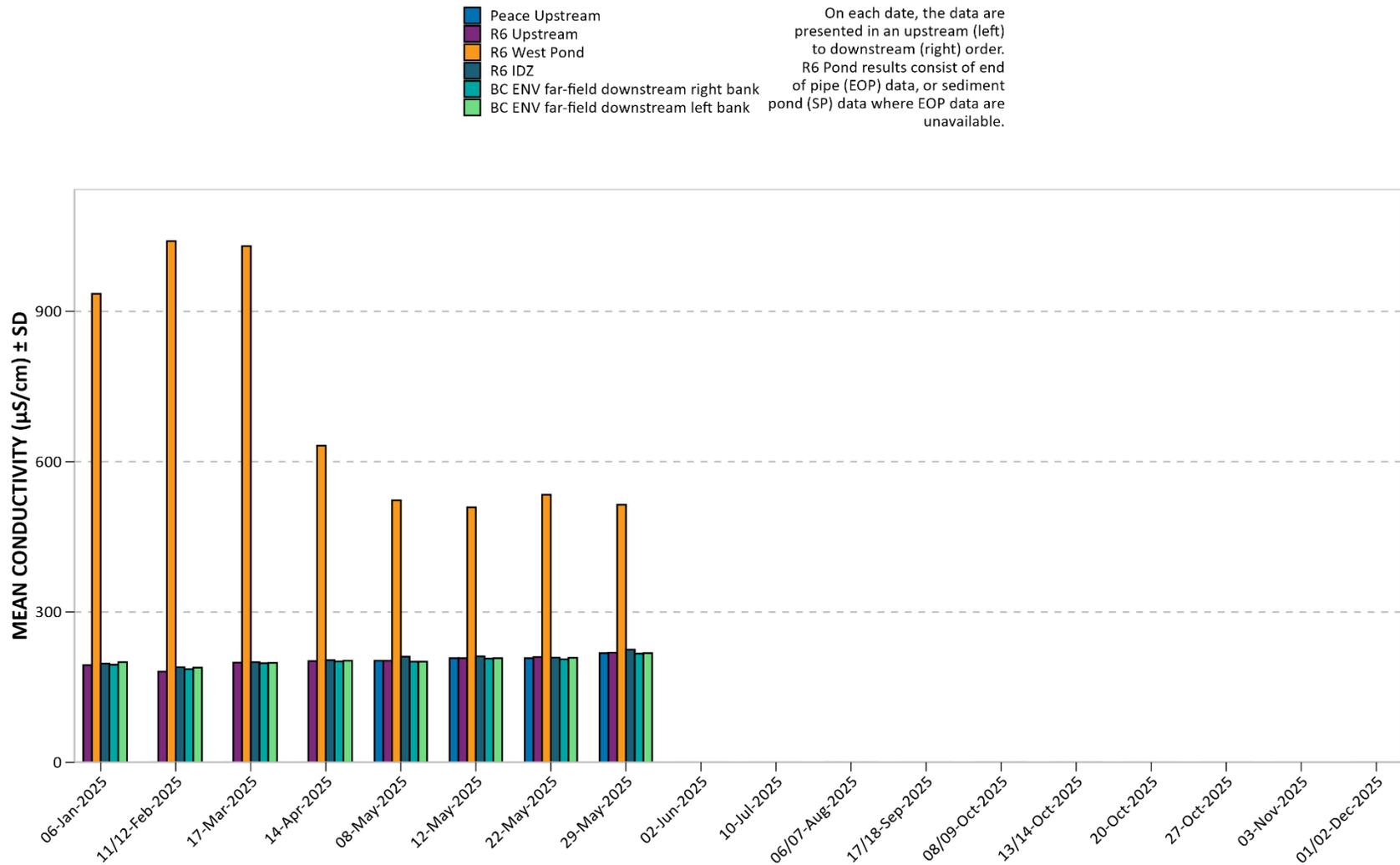


Figure 4. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved hardness (as CaCO₃).

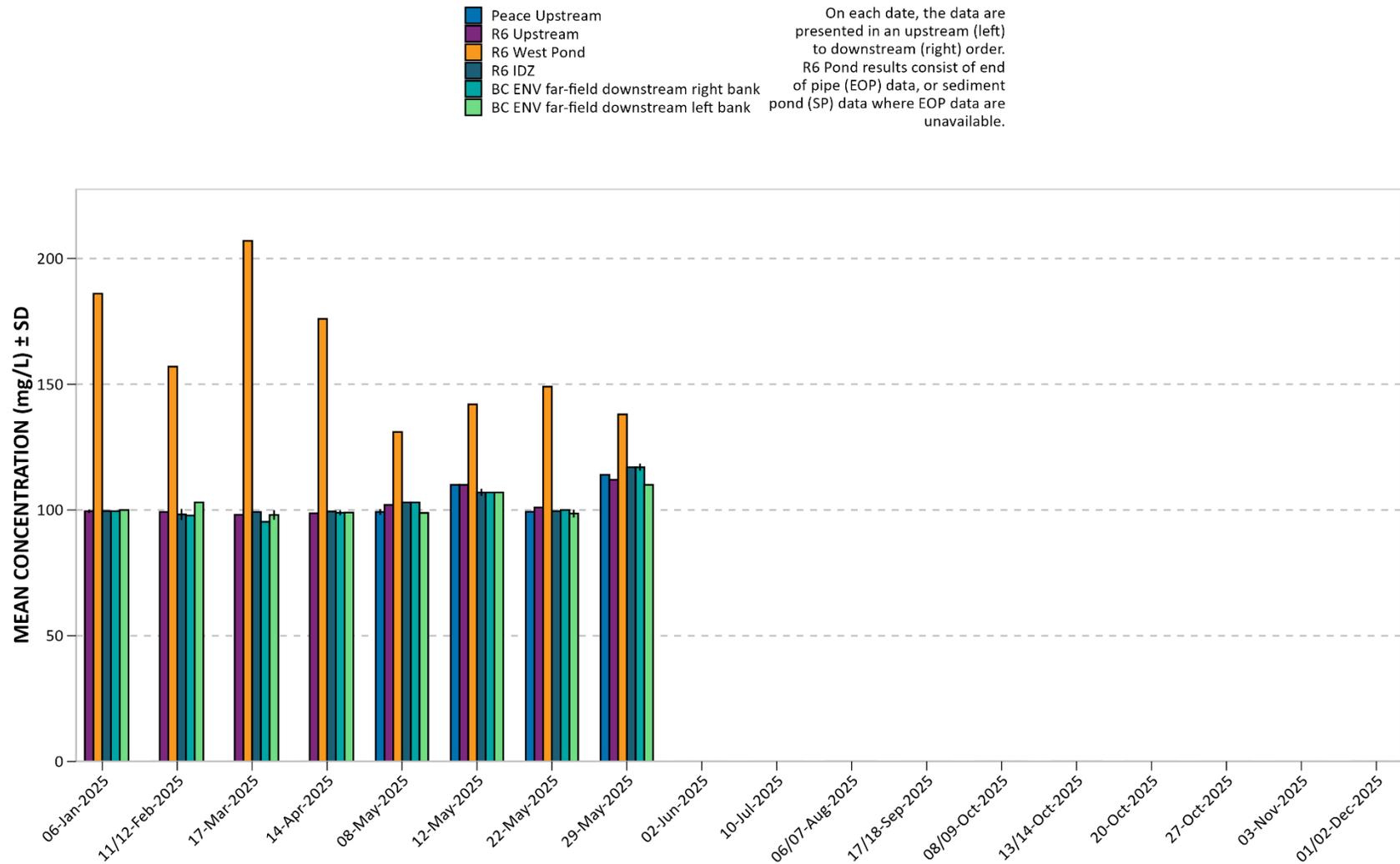


Figure 5. 2025 Site C reservoir, Peace River, and RSEM R6 pond total dissolved solids (TDS).

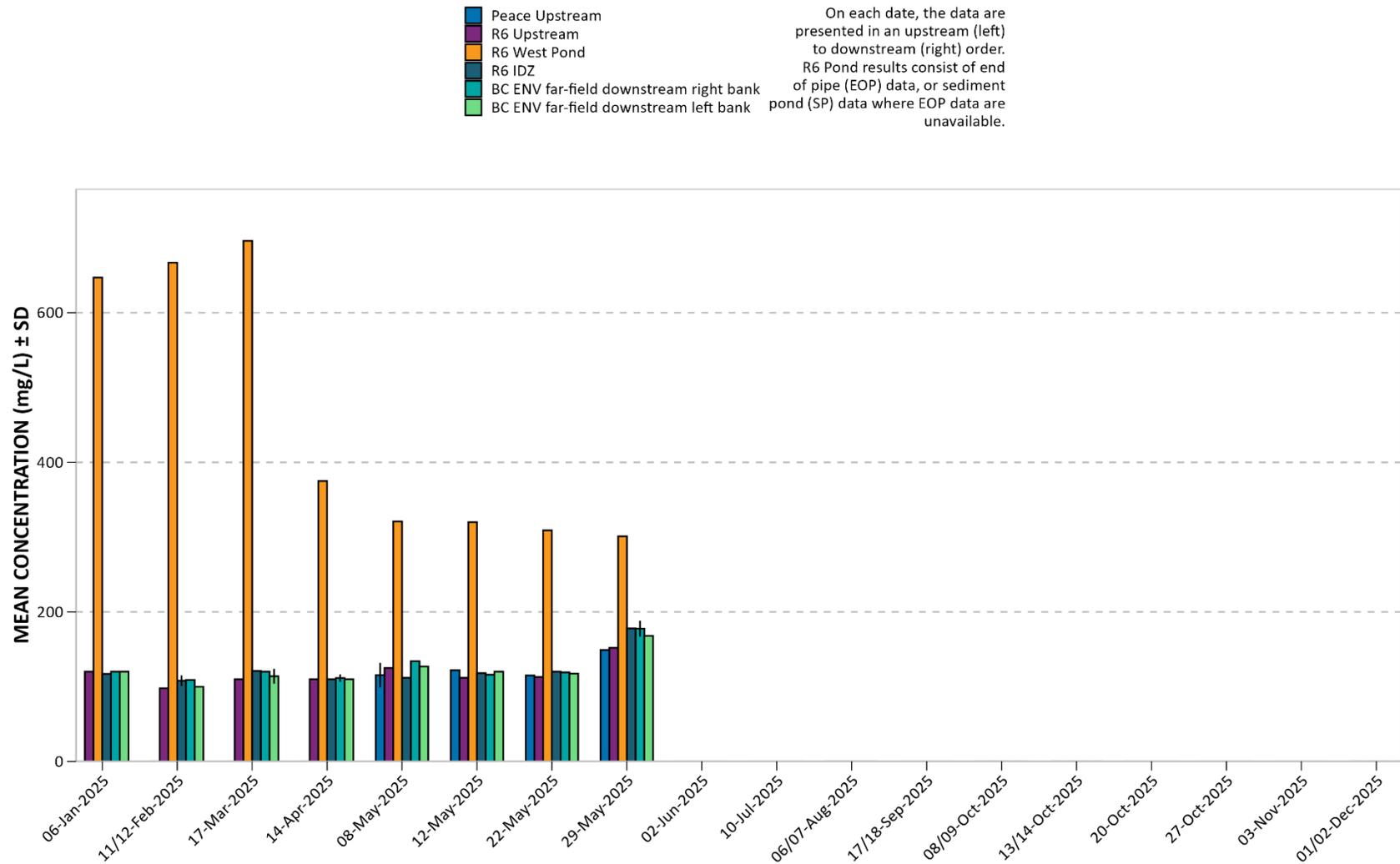


Figure 6. 2025 Site C reservoir, Peace River, and RSEM R6 pond total suspended solids (TSS).

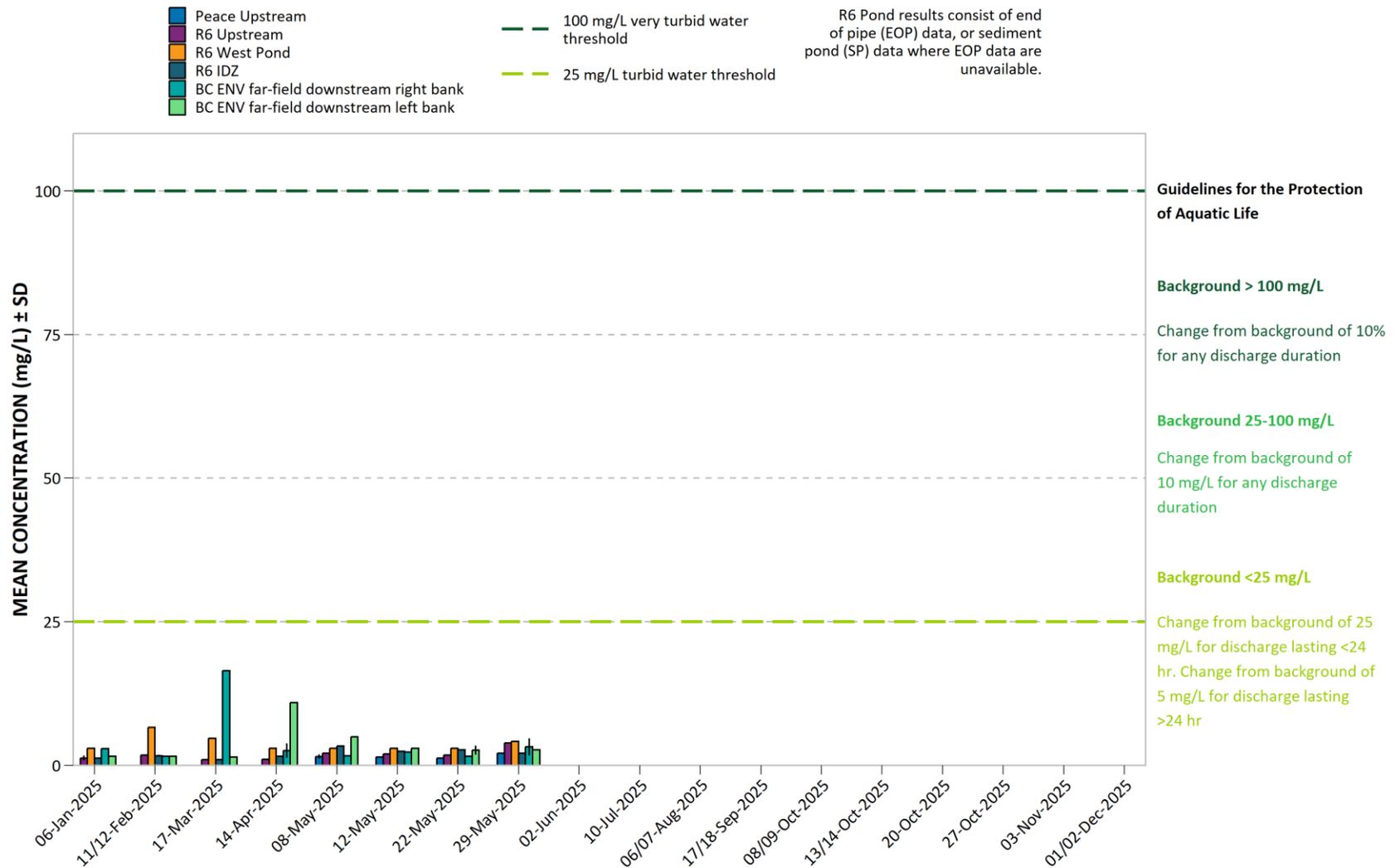


Figure 7. 2025 Site C reservoir and Peace River in situ, and lab (RSEM R6 pond) turbidity.

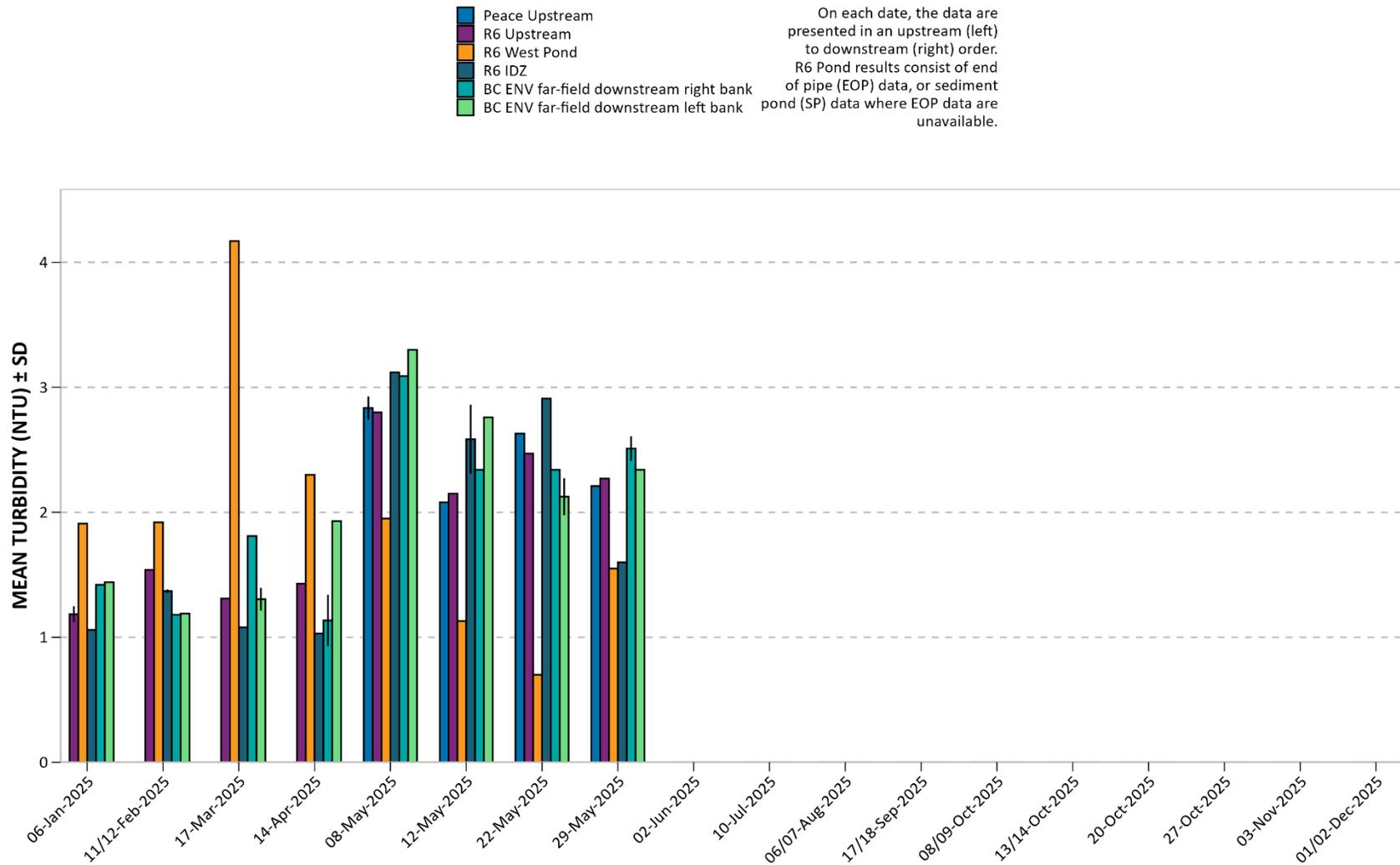


Figure 8. 2025 Site C reservoir and Peace River in situ, and lab (RSEM R6 pond) pH.

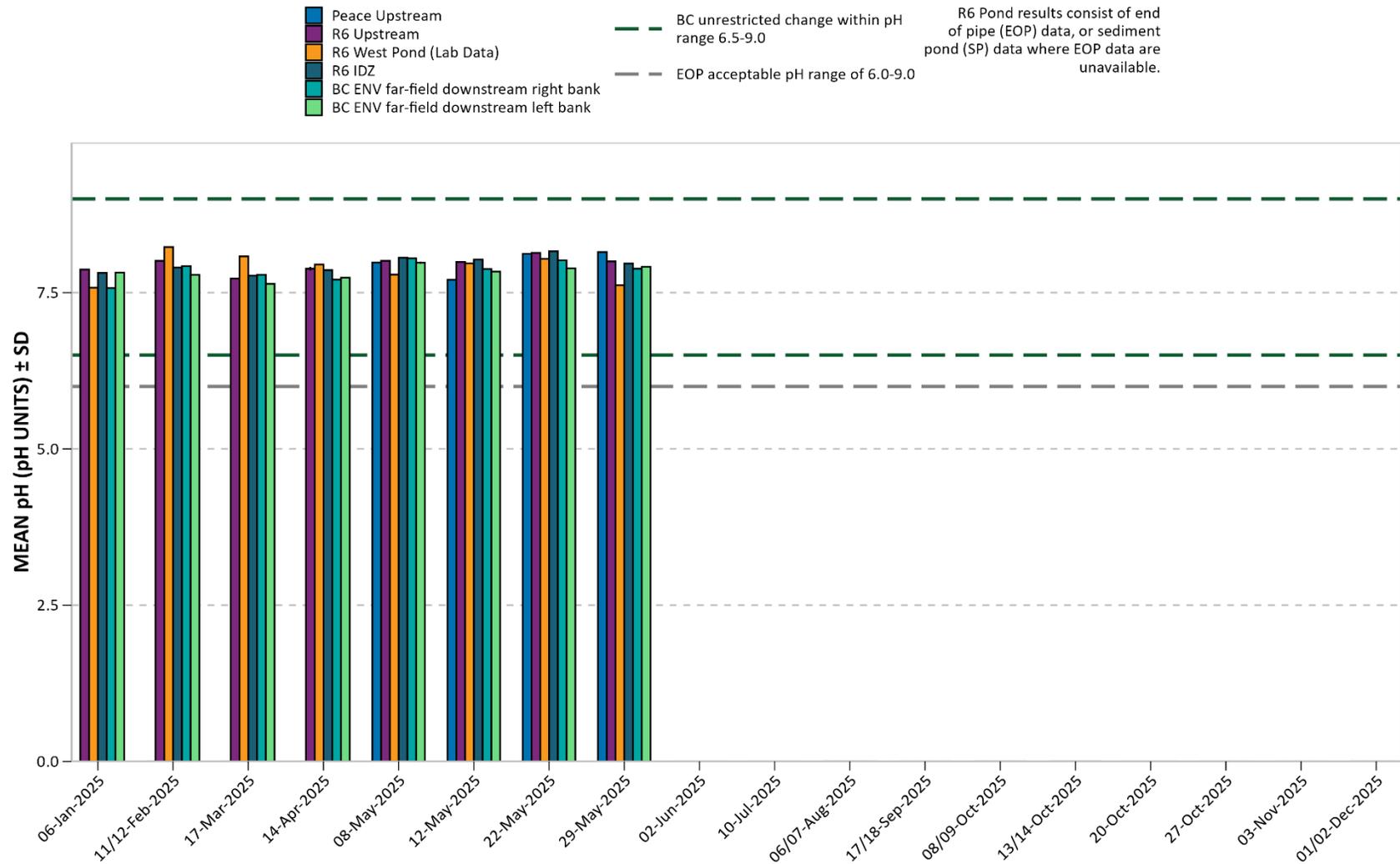


Figure 9. Site C reservoir, Peace River, and RSEM R6 pond lab pH.

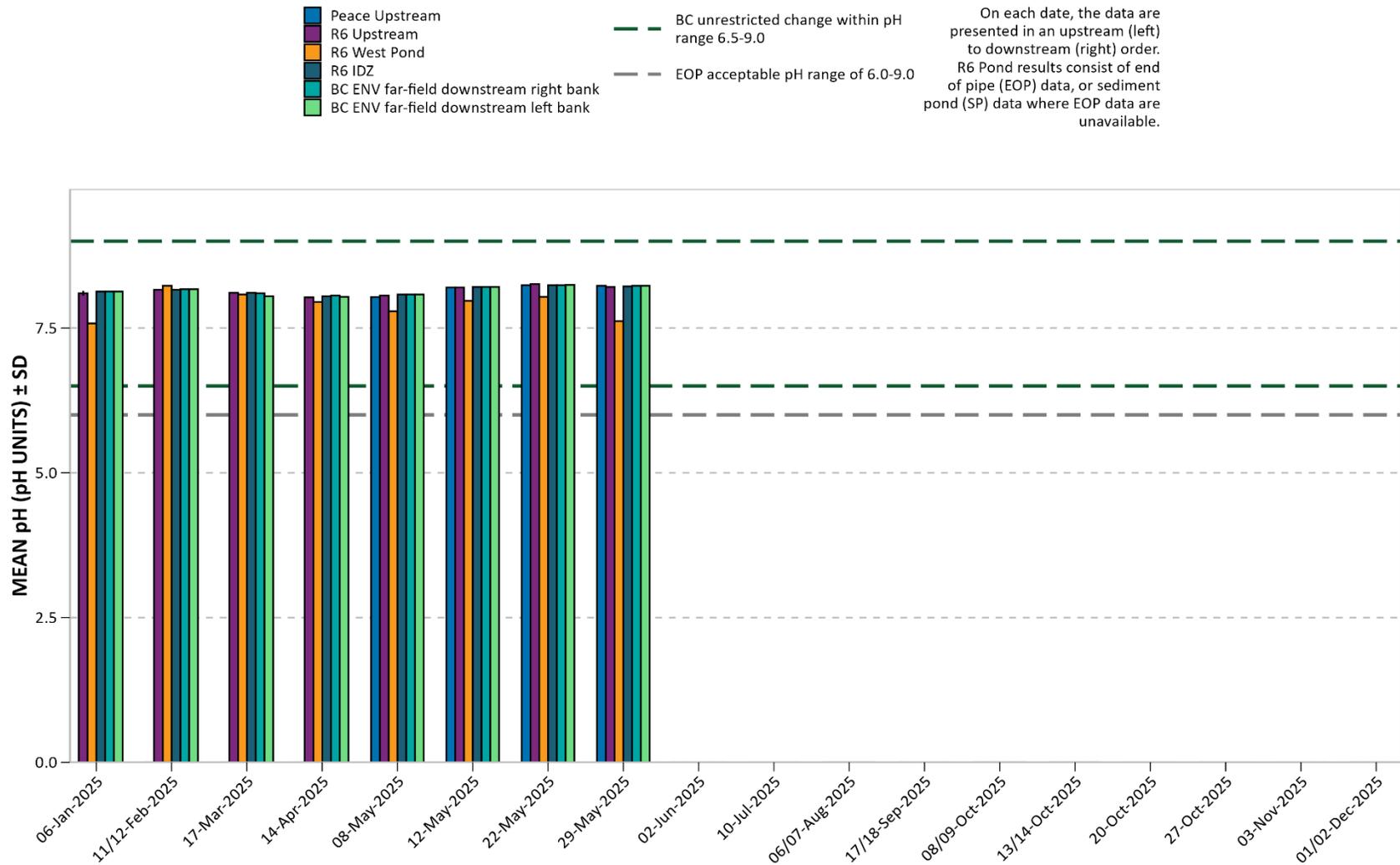


Figure 10. 2025 Site C reservoir, Peace River, and RSEM R6 pond total alkalinity (as CaCO₃).

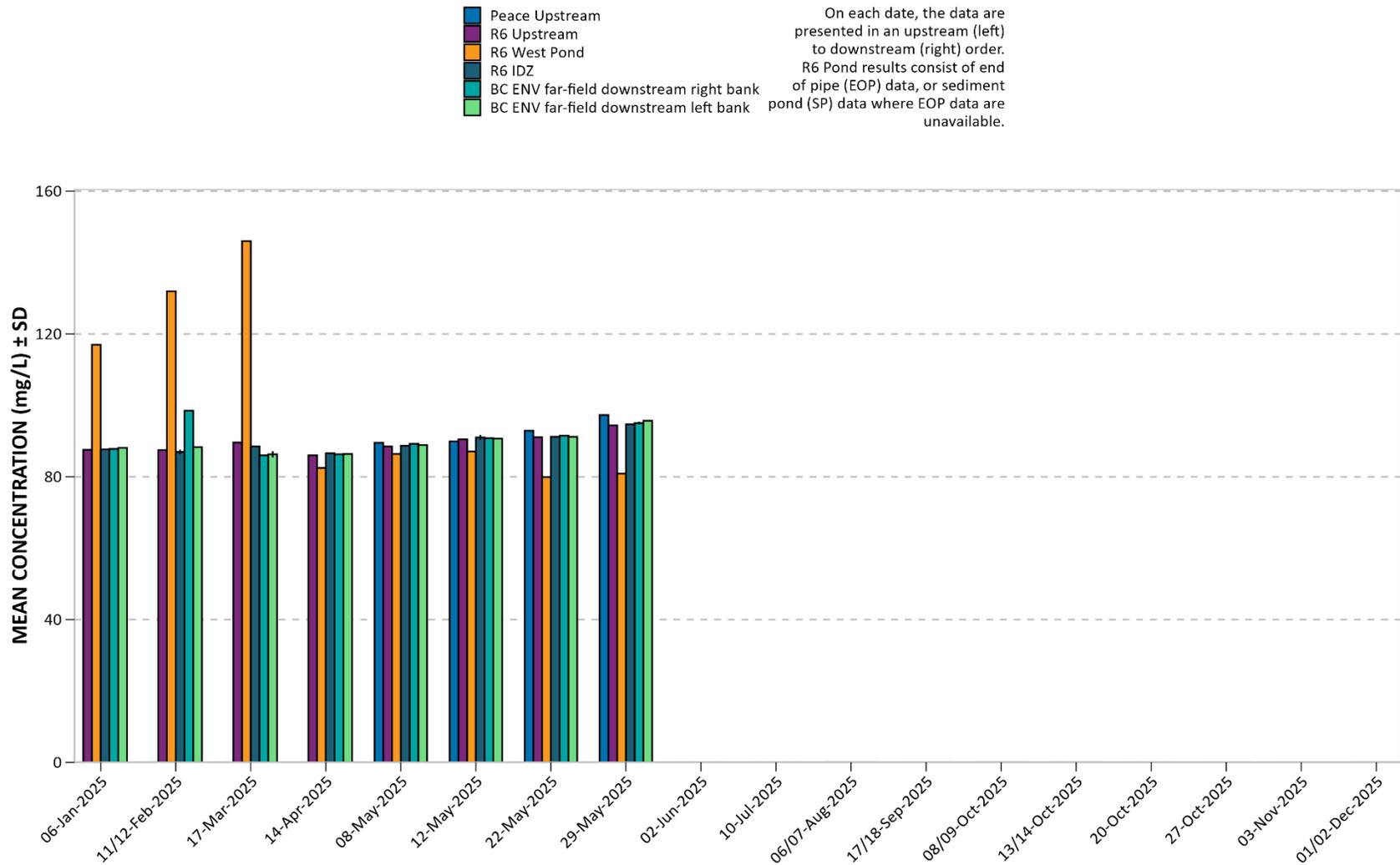
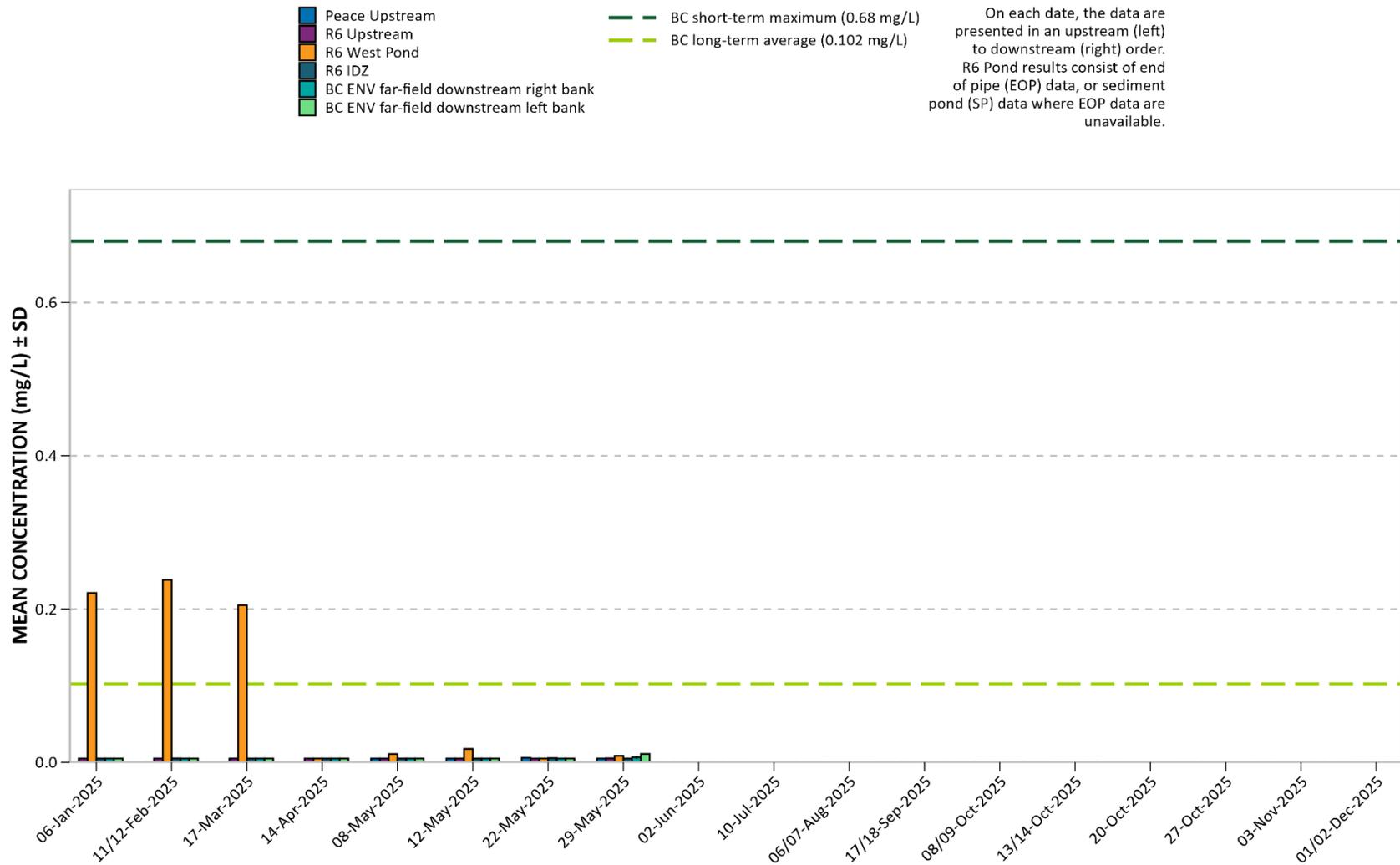


Figure 11. 2025 Site C reservoir, Peace River, and RSEM R6 pond total ammonia (as N).



Note: BC WQGs for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

Figure 12. 2025 Site C reservoir, Peace River, and RSEM R6 pond bromide (Br).

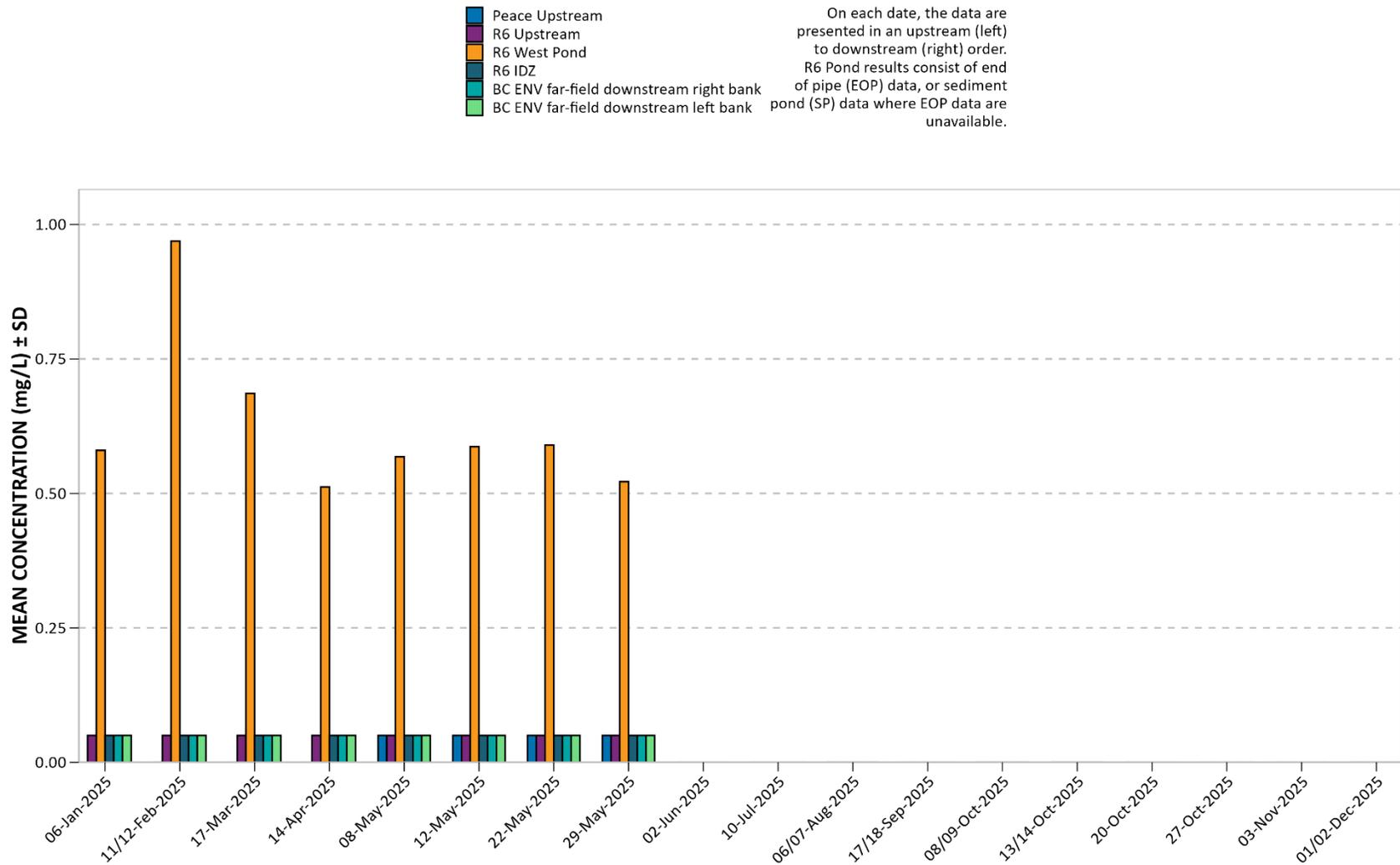


Figure 13. 2025 Site C reservoir, Peace River, and RSEM R6 pond chloride (Cl).

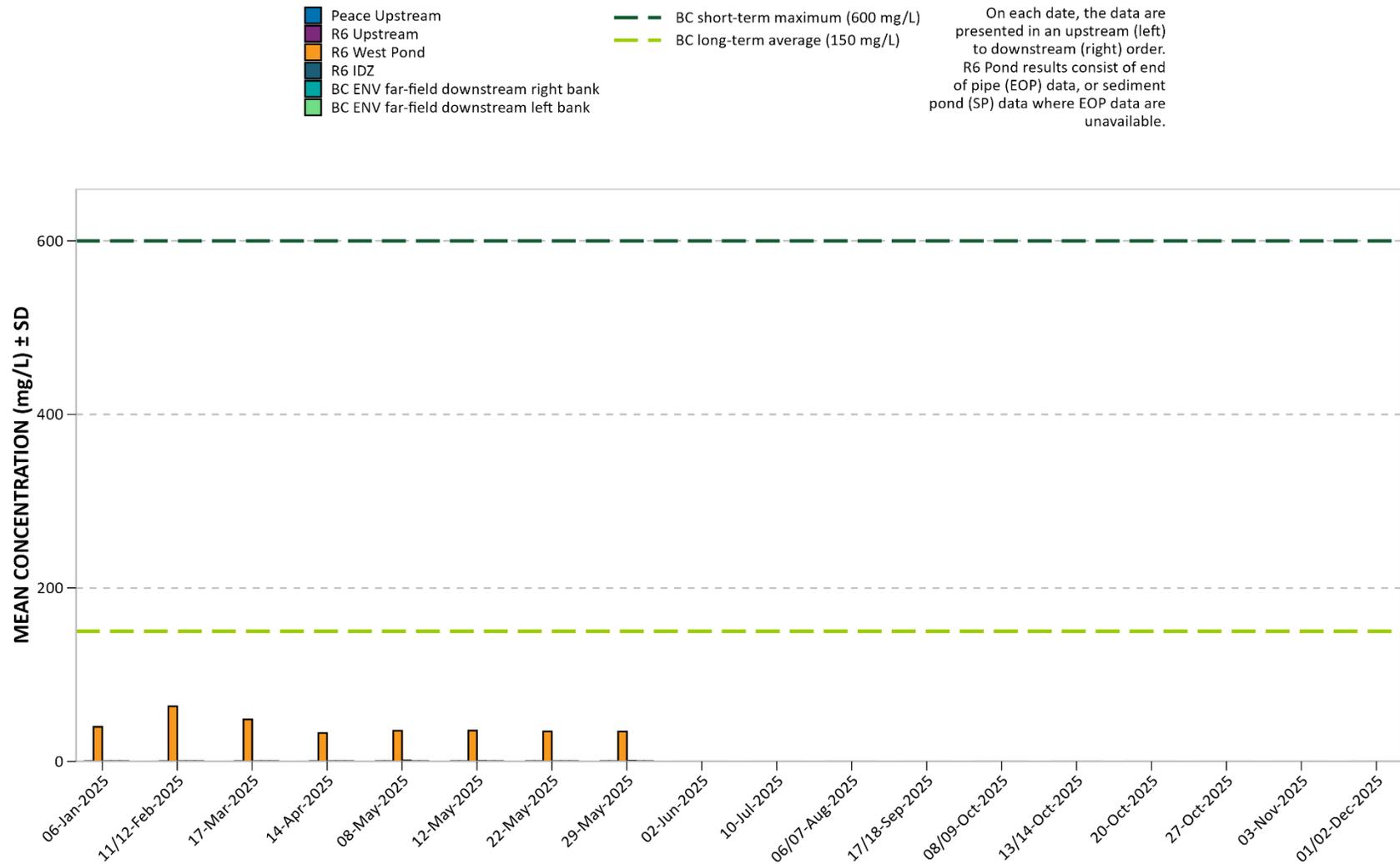


Figure 14. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved orthophosphate.

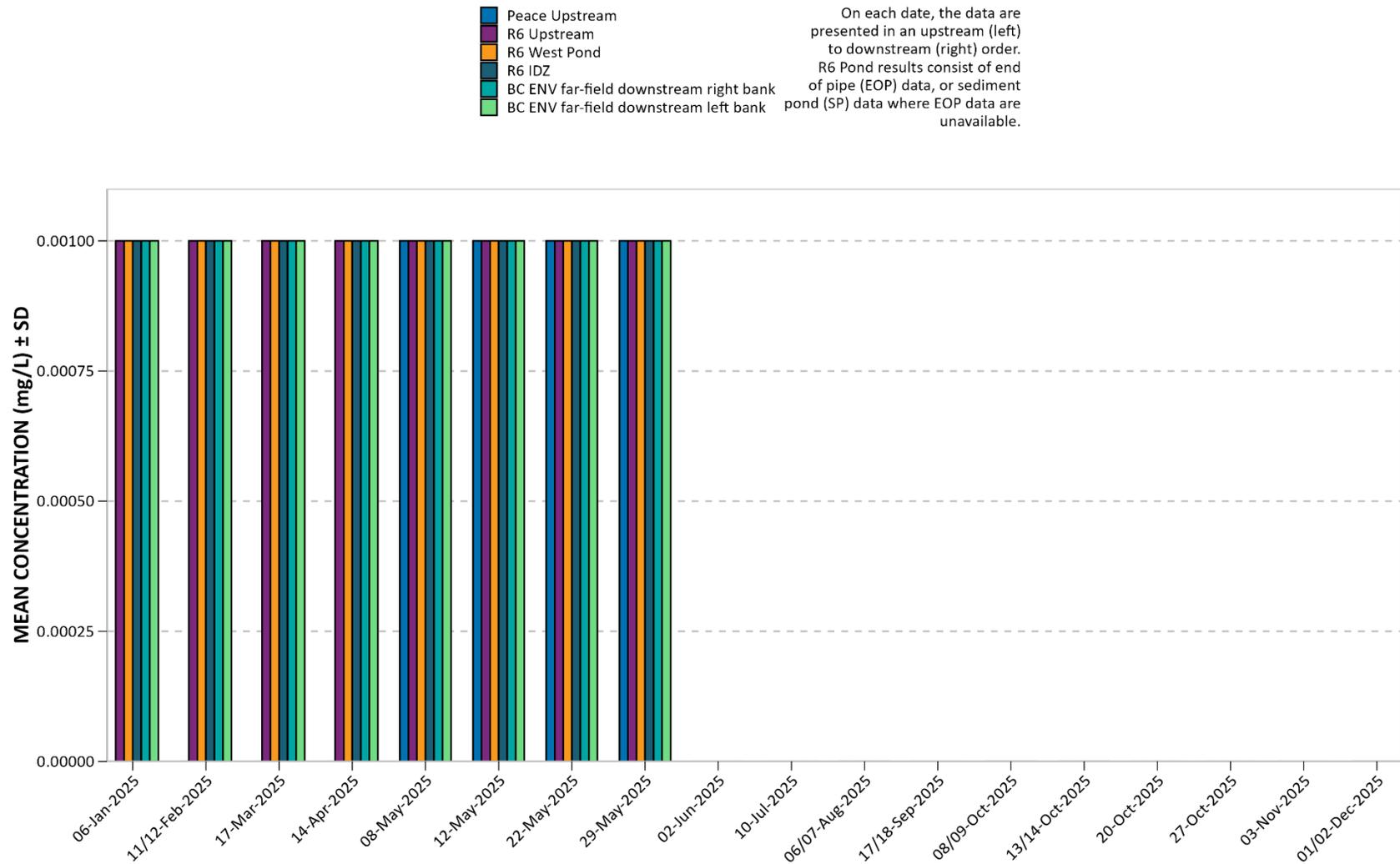
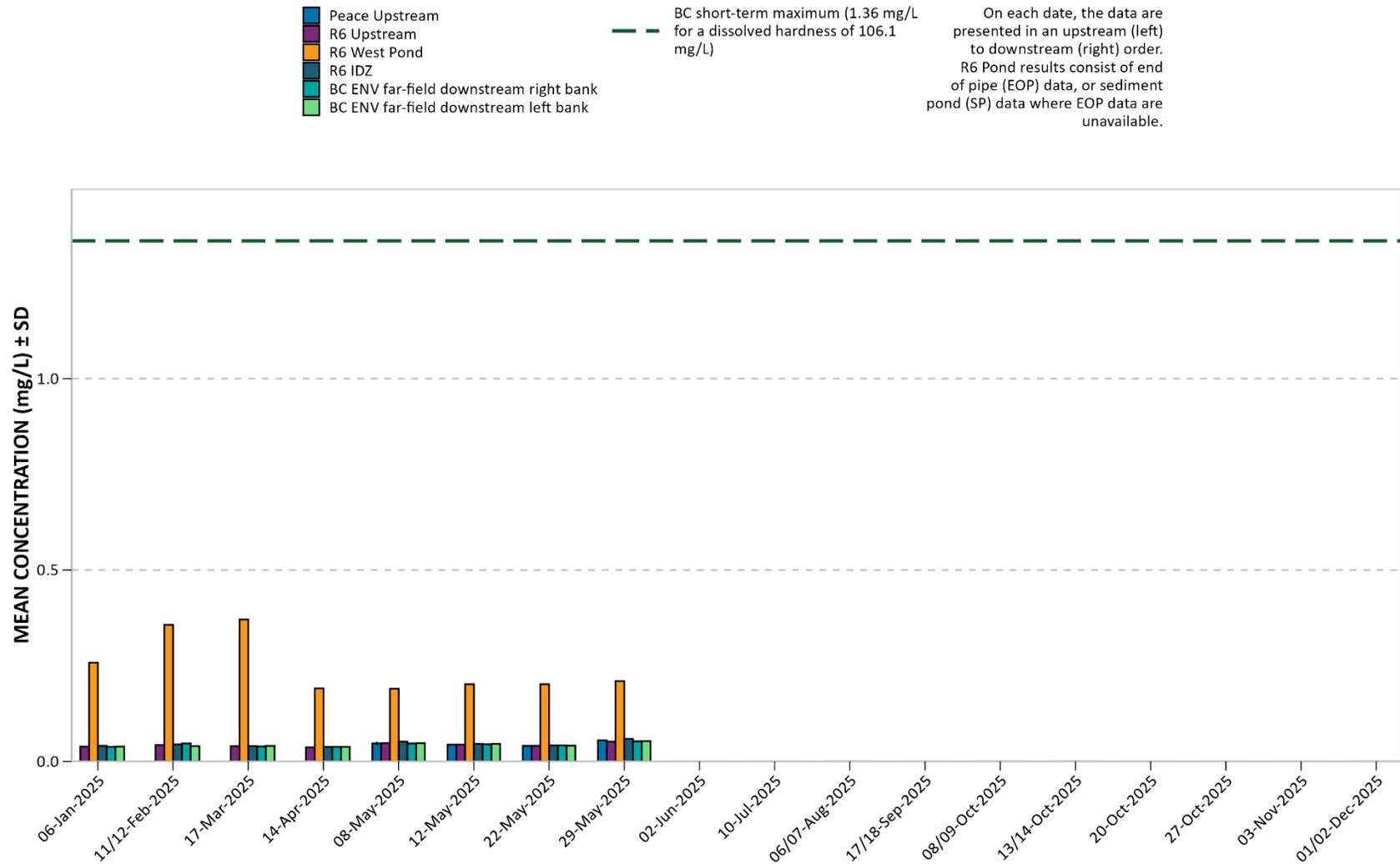


Figure 15. 2025 Site C reservoir, Peace River, and RSEM R6 pond fluoride (F).



Note: BC short-term WQG for fluoride is dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the maximum guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against the guideline in the data tables (Appendix A).

Figure 16. 2025 Site C reservoir, Peace River, and RSEM R6 pond nitrate (as N).

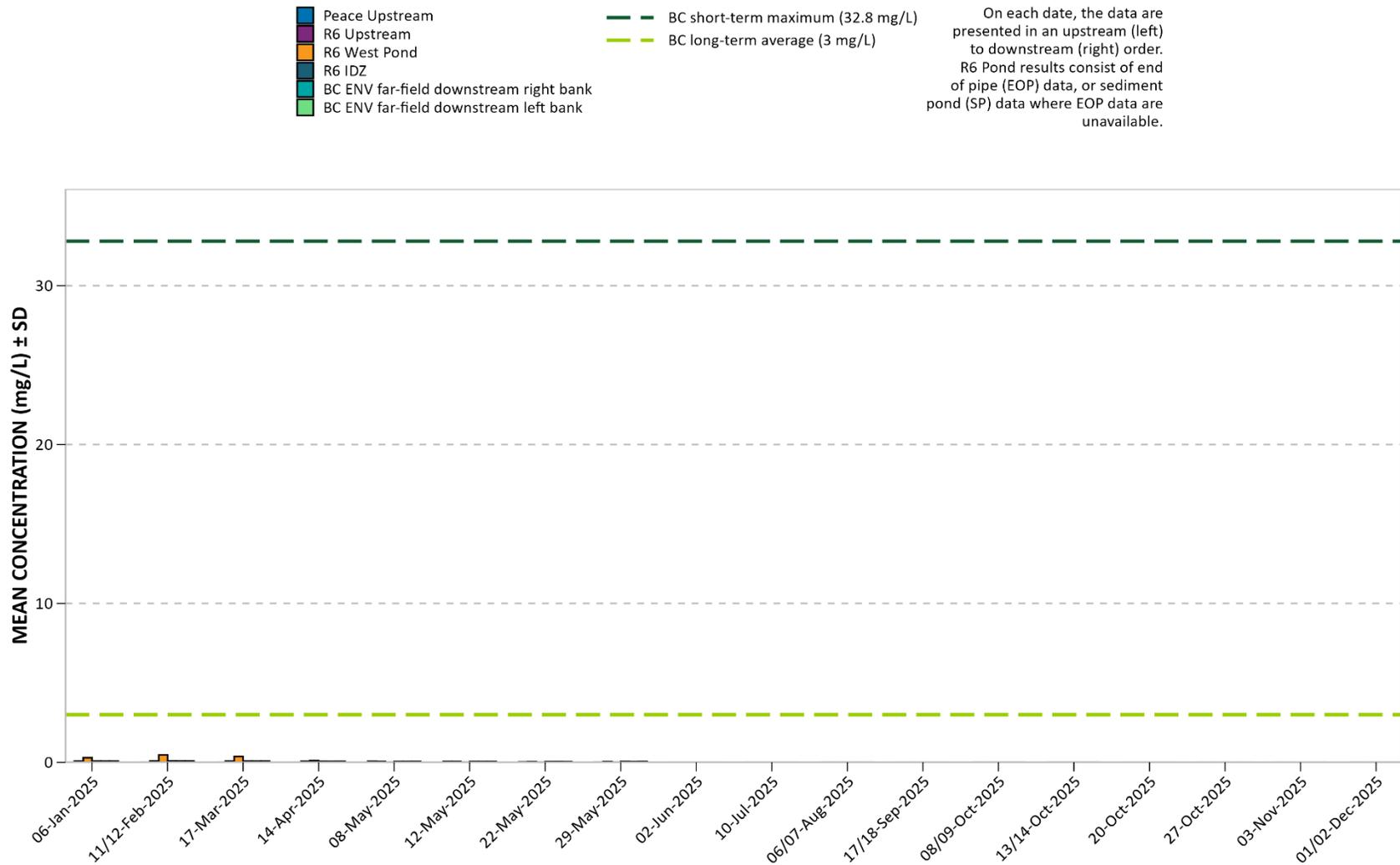
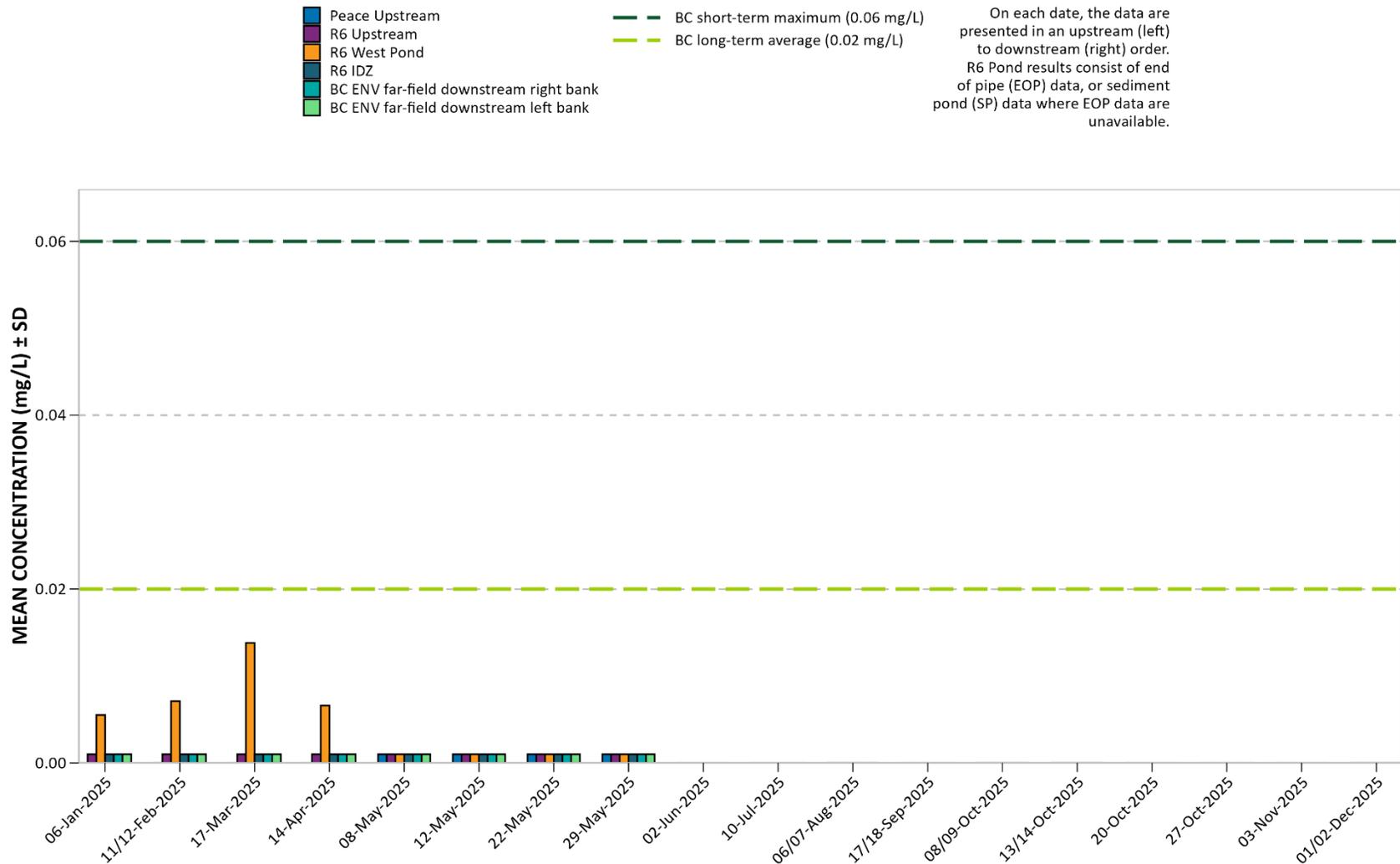
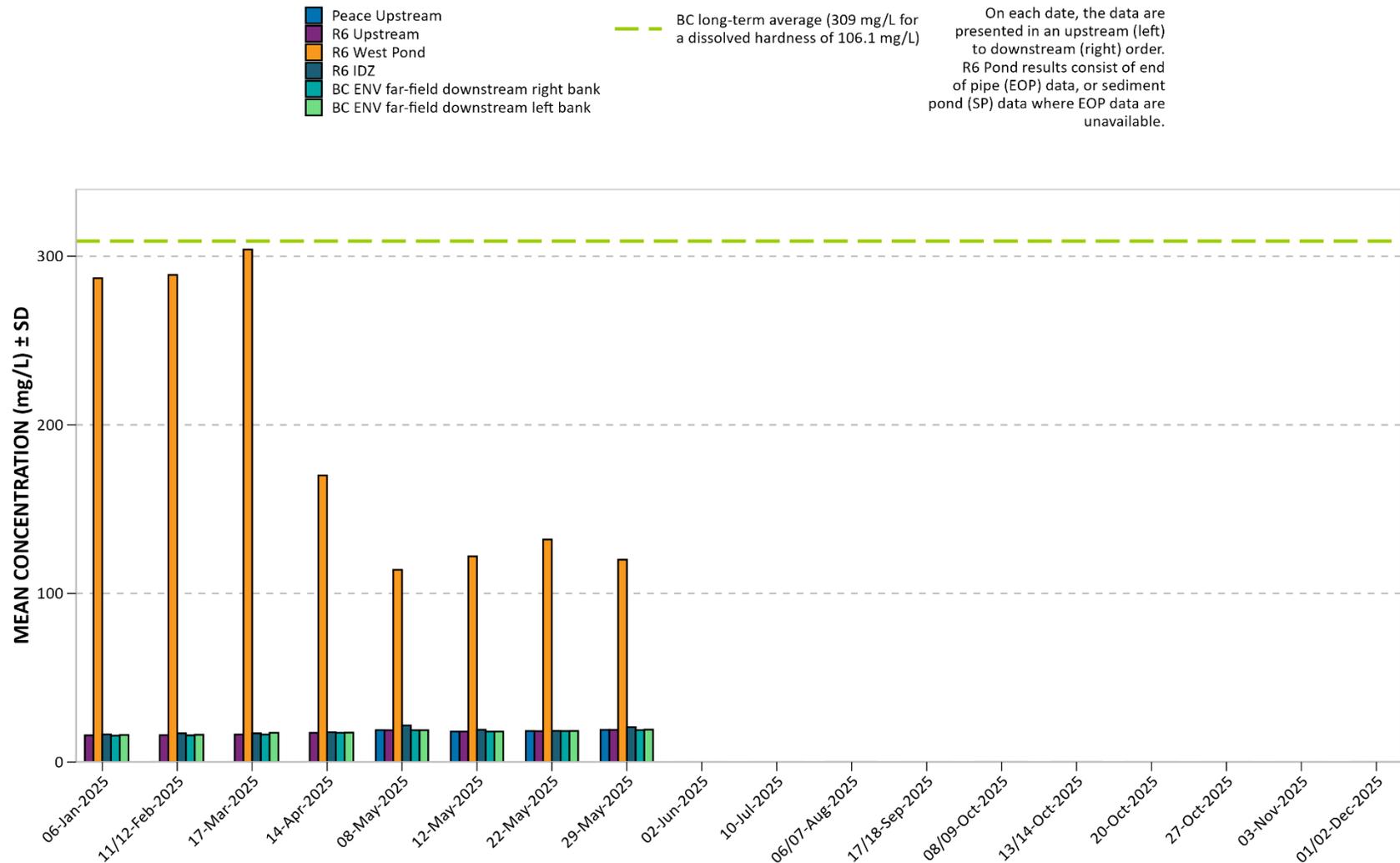


Figure 17. 2025 Site C reservoir, Peace River, and RSEM R6 pond nitrite (as N).



Note: BC WQGs for nitrite are chloride dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of chloride values observed in the Peace River, the applicable BC Maximum and 30-day guidelines are 0.06 mg/L and 0.02 mg/L, respectively.

Figure 18. 2025 Site C reservoir, Peace River, and RSEM R6 pond sulfate (SO₄).



Note: BC long-term WQG for sulfate is dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the 30-day guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against the guideline in the data tables (Appendix A).

Figure 19. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved organic carbon (DOC).

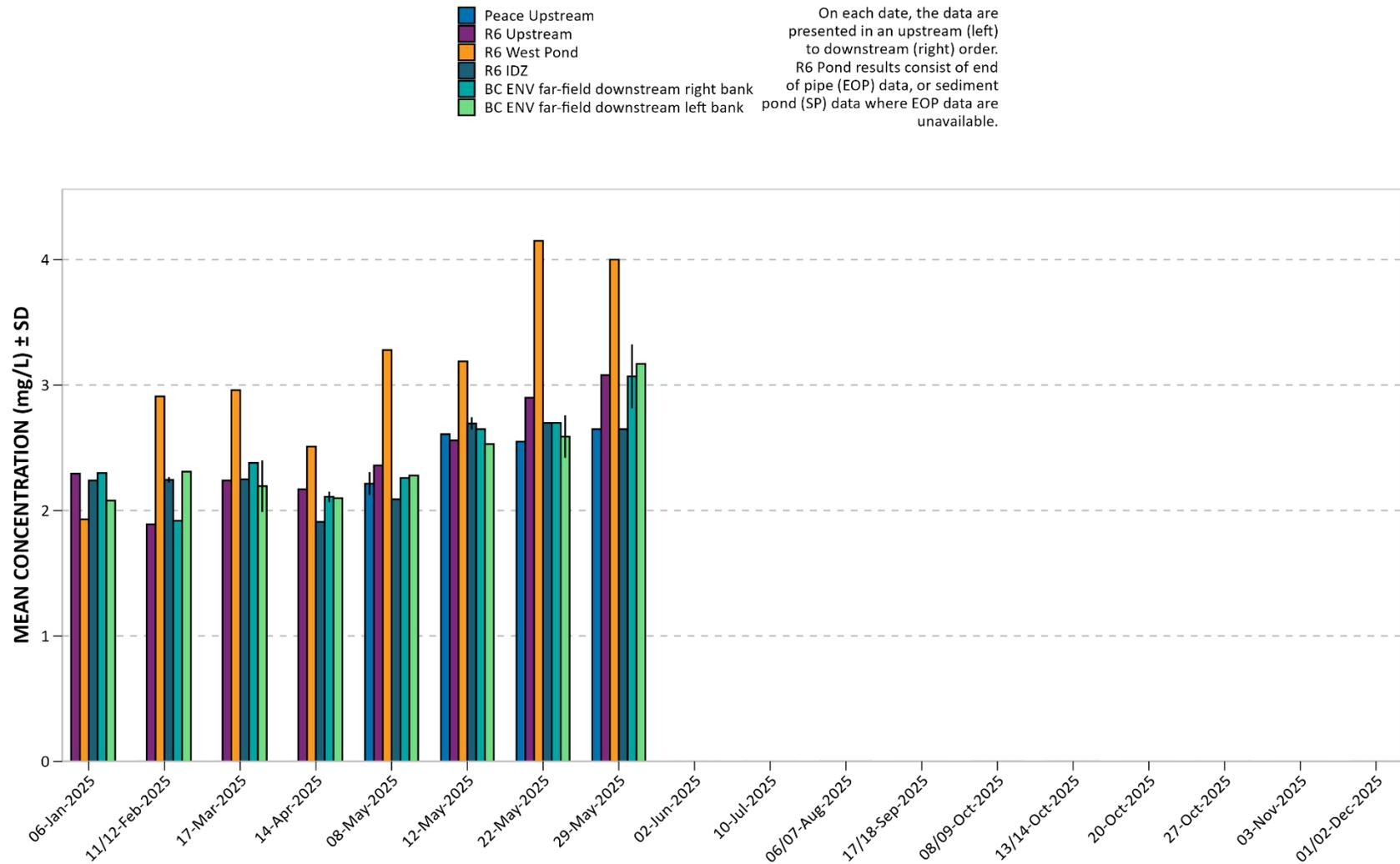


Figure 20. 2025 Site C reservoir, Peace River, and RSEM R6 pond total organic carbon (TOC).

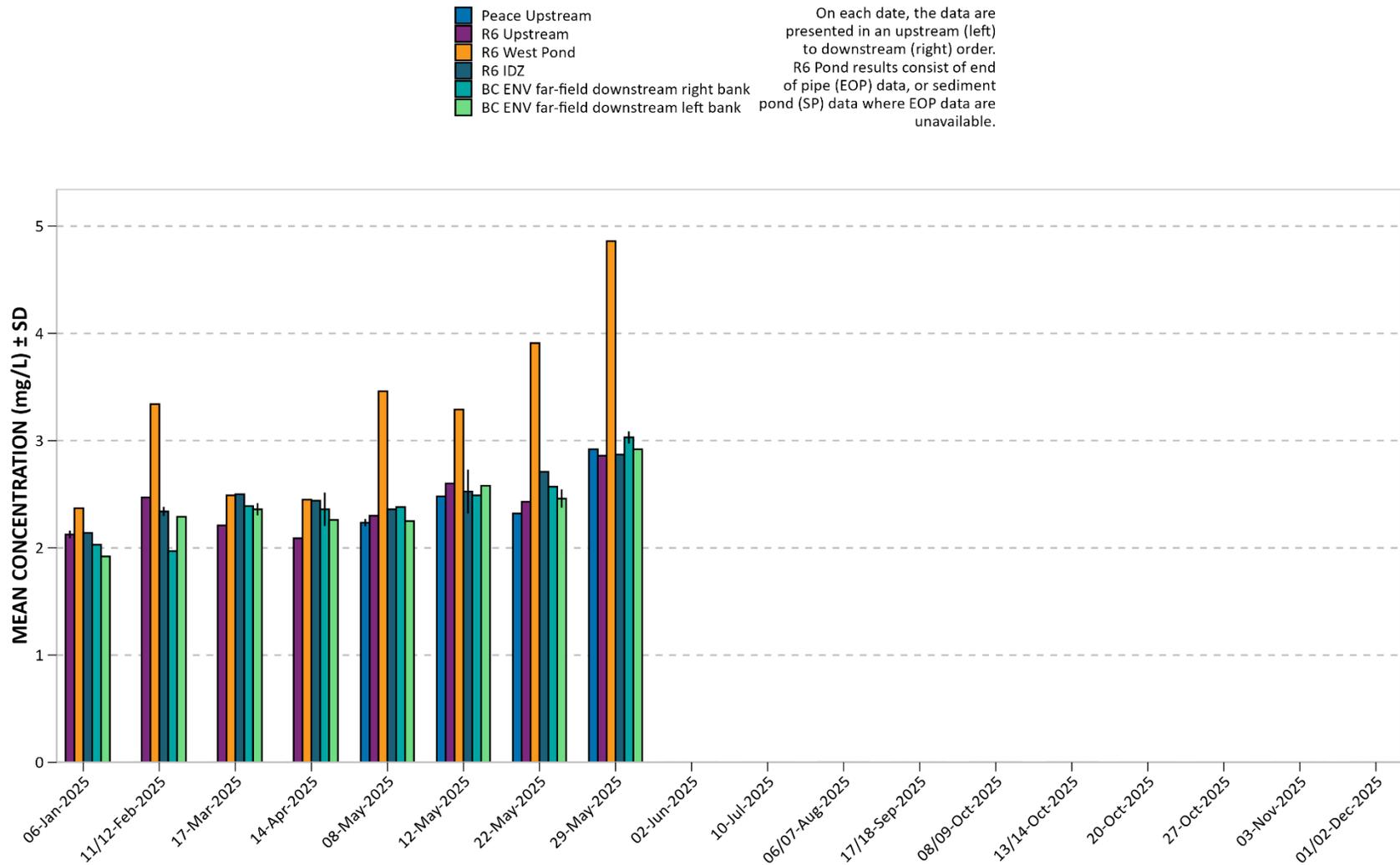
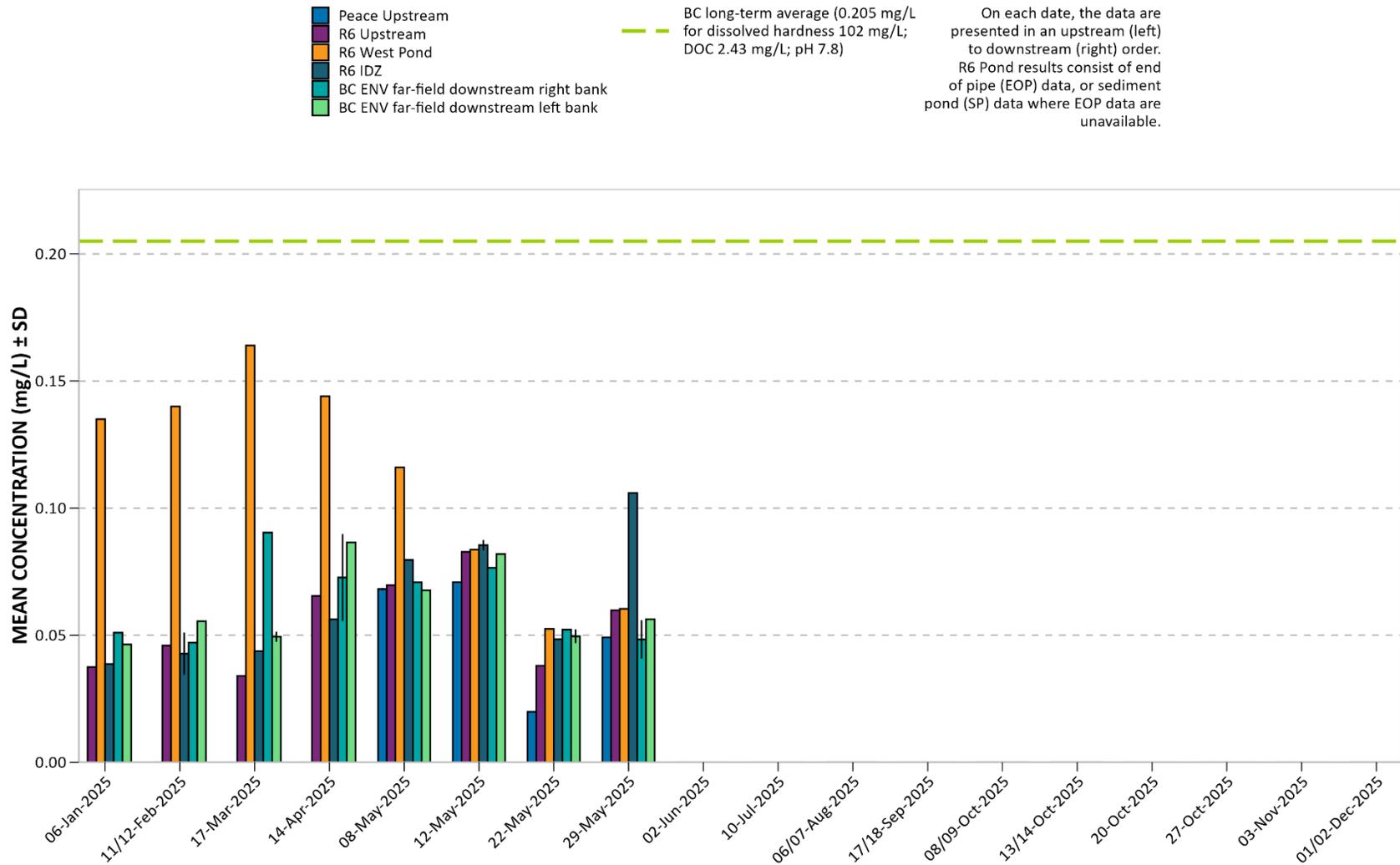


Figure 21. 2025 Site C reservoir, Peace River, and RSEM R6 pond total aluminum (Al).



Note: BC long-term WQG for total aluminum is dissolved hardness, DOC, and pH dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness, DOC, and pH values observed in the Peace River, the applicable BC 30-day guideline is 0.205 mg/L.

Figure 22. 2025 Site C reservoir, Peace River, and RSEM R6 pond total antimony (Sb). Note that sample results are very low compared to guidelines and as a result the data are not visible on the plot.

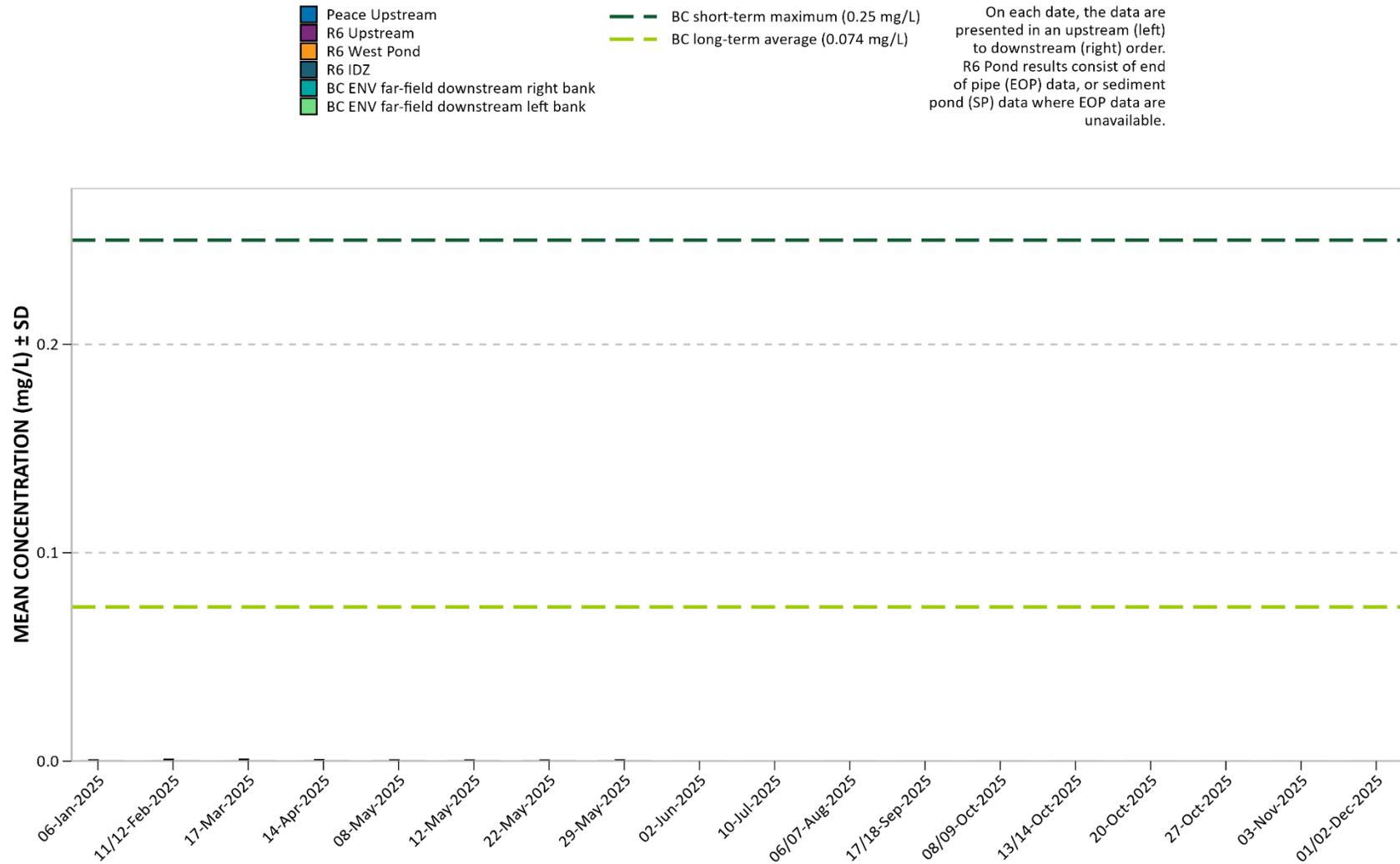


Figure 23. 2025 Site C reservoir, Peace River, and RSEM R6 pond total arsenic (As).

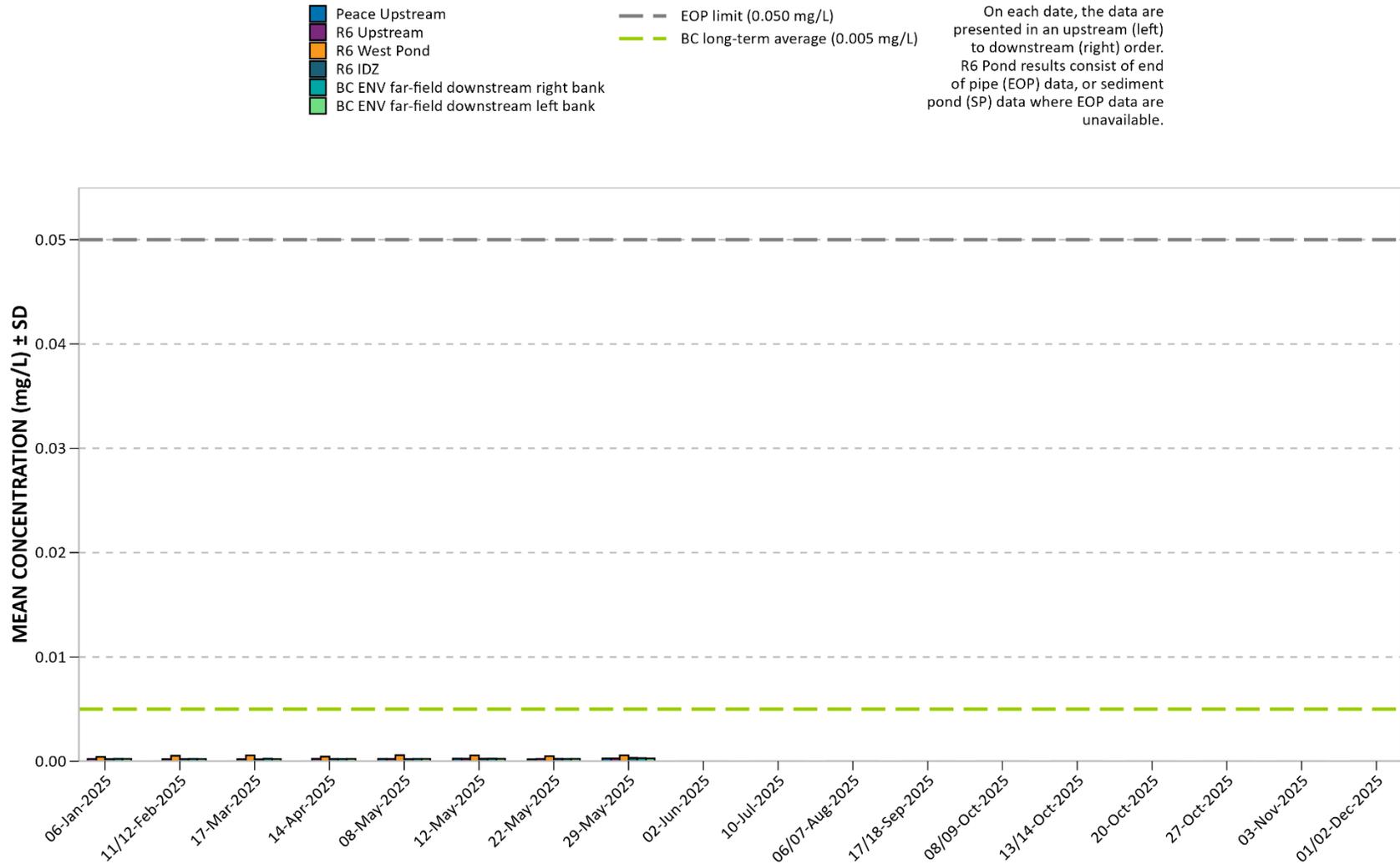


Figure 24. 2025 Site C reservoir, Peace River, and RSEM R6 pond total barium (Ba).

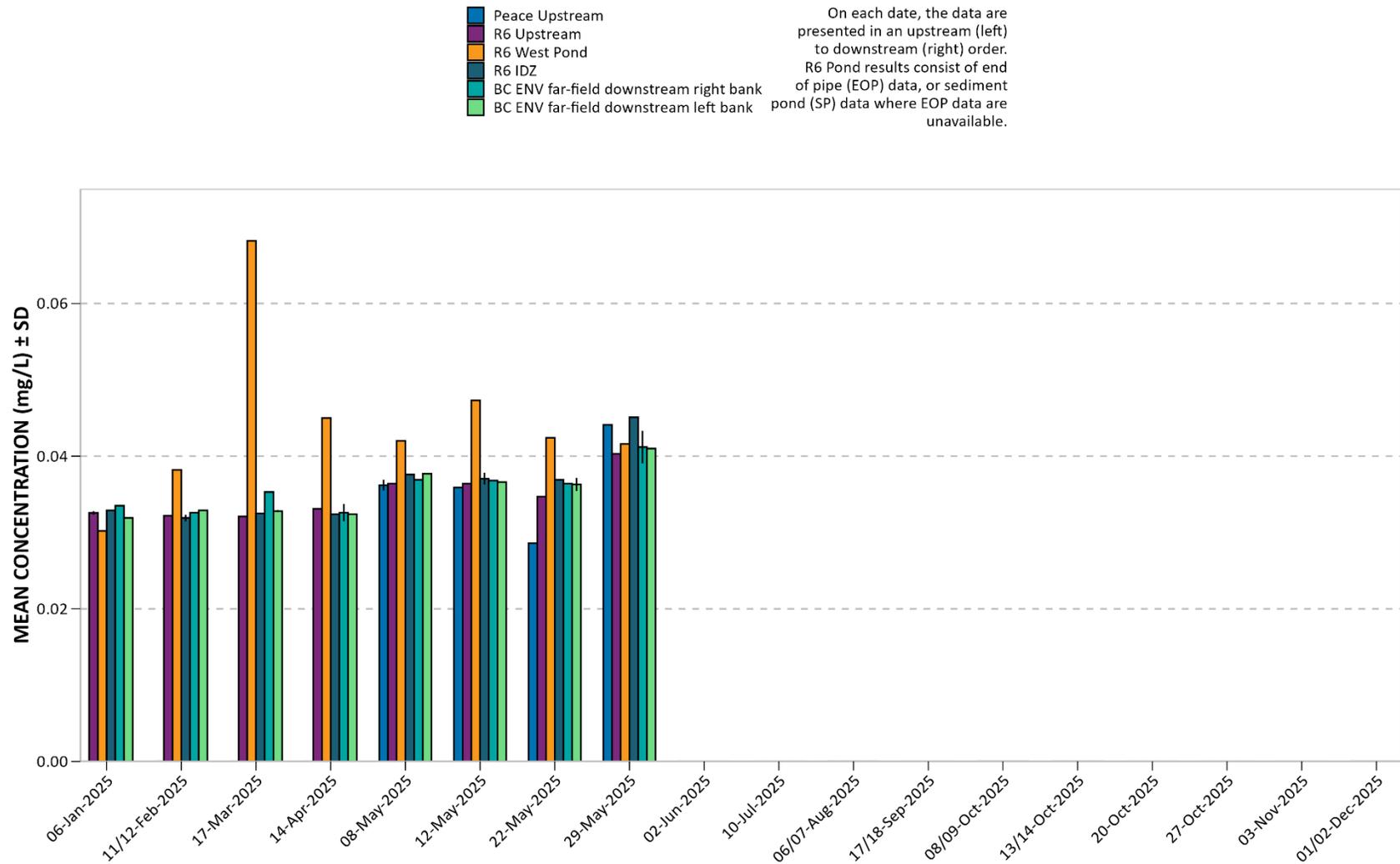


Figure 25. 2025 Site C reservoir, Peace River, and RSEM R6 pond total beryllium (Be).

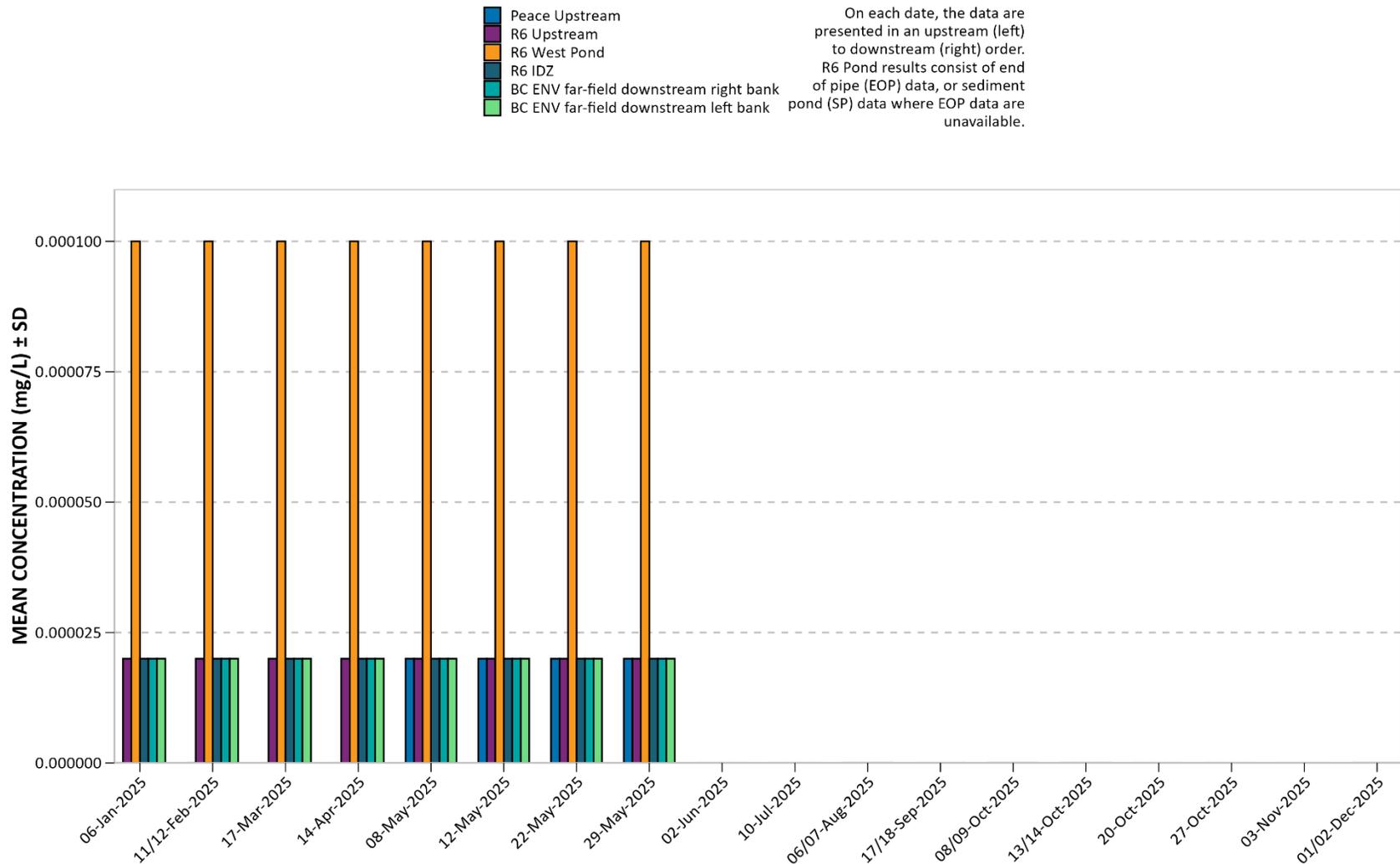


Figure 26. 2025 Site C reservoir, Peace River, and RSEM R6 pond total bismuth (Bi).

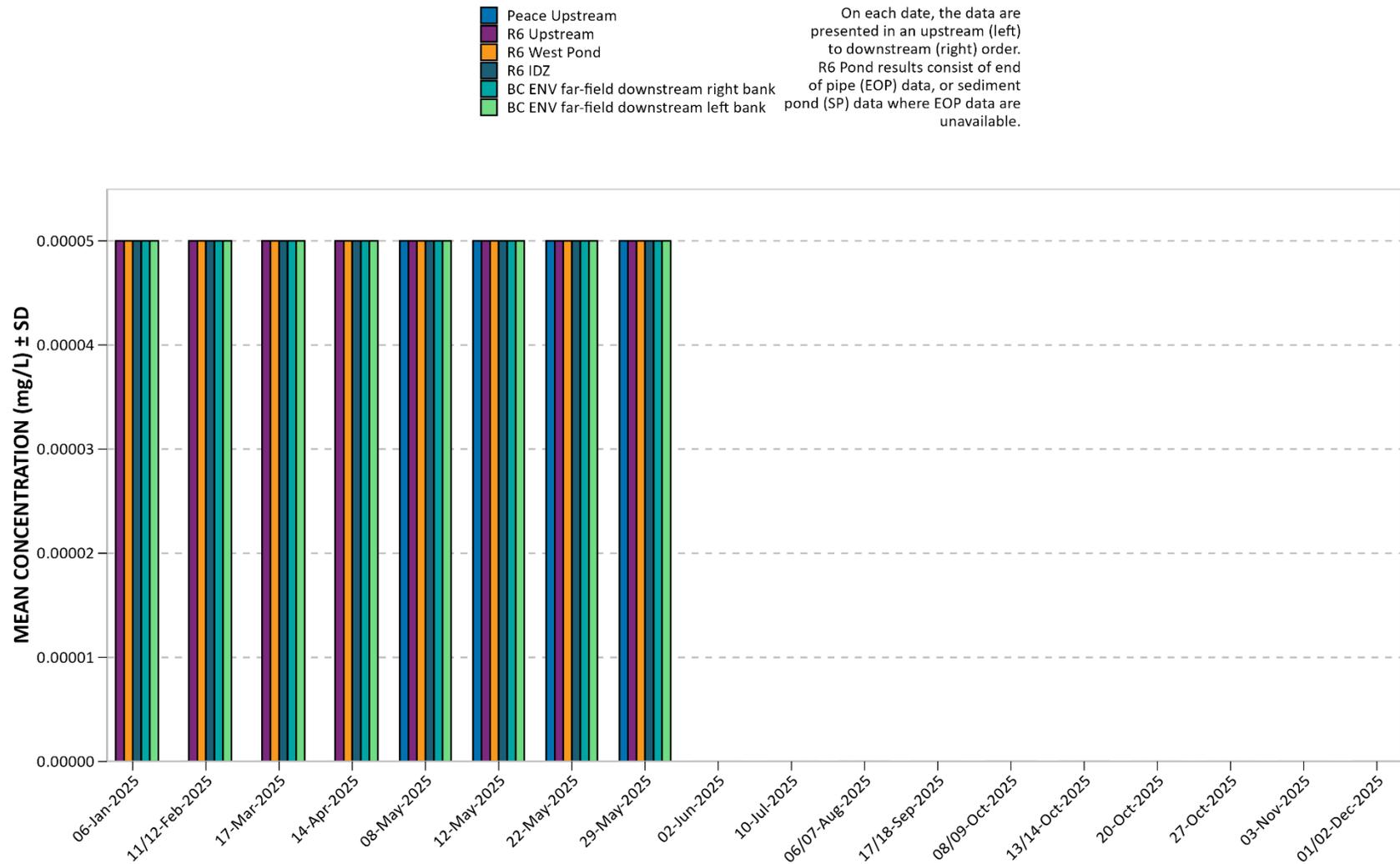


Figure 27. 2025 Site C reservoir, Peace River, and RSEM R6 pond total boron (B).

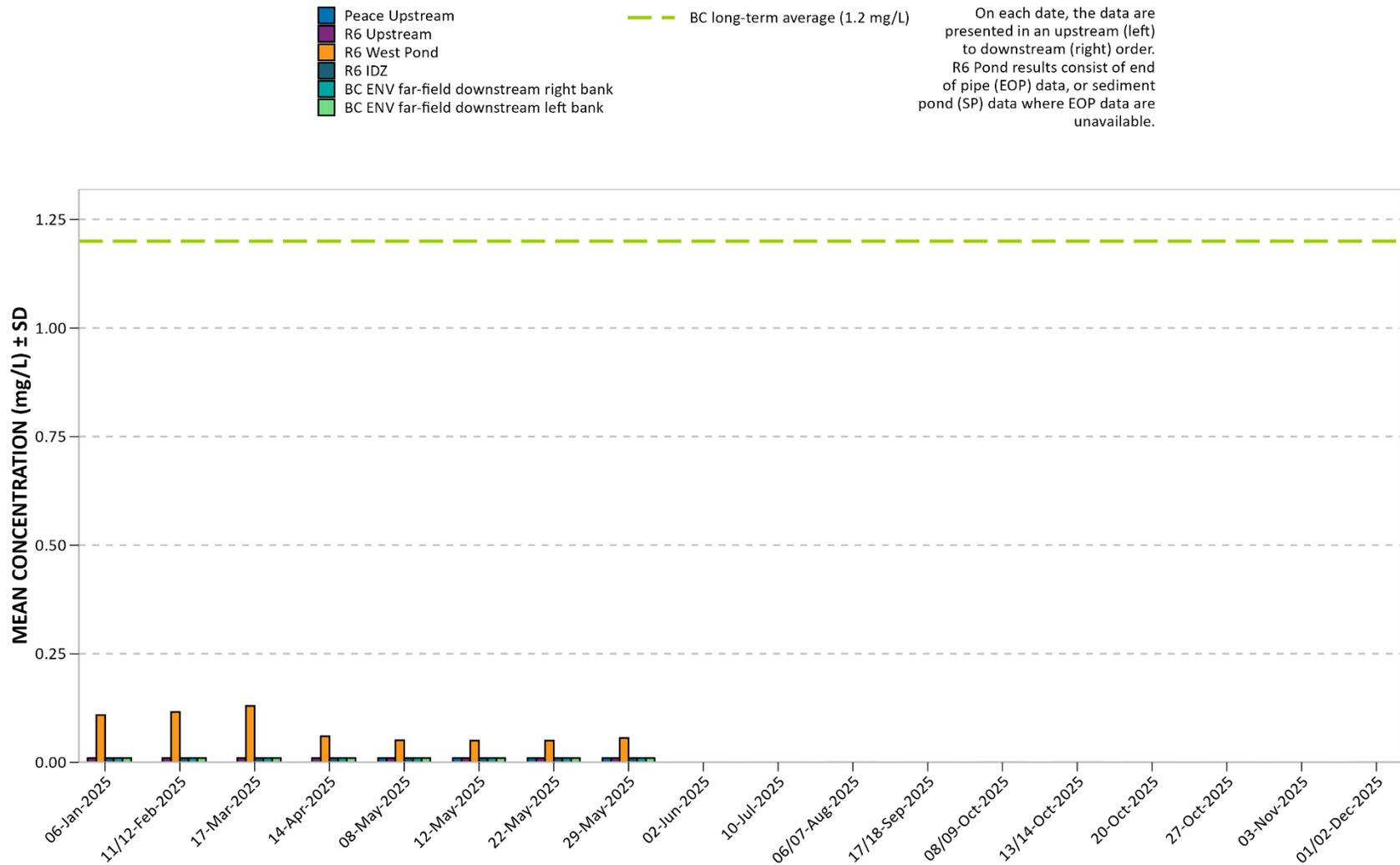


Figure 28. 2025 Site C reservoir, Peace River, and RSEM R6 pond total cadmium (Cd).

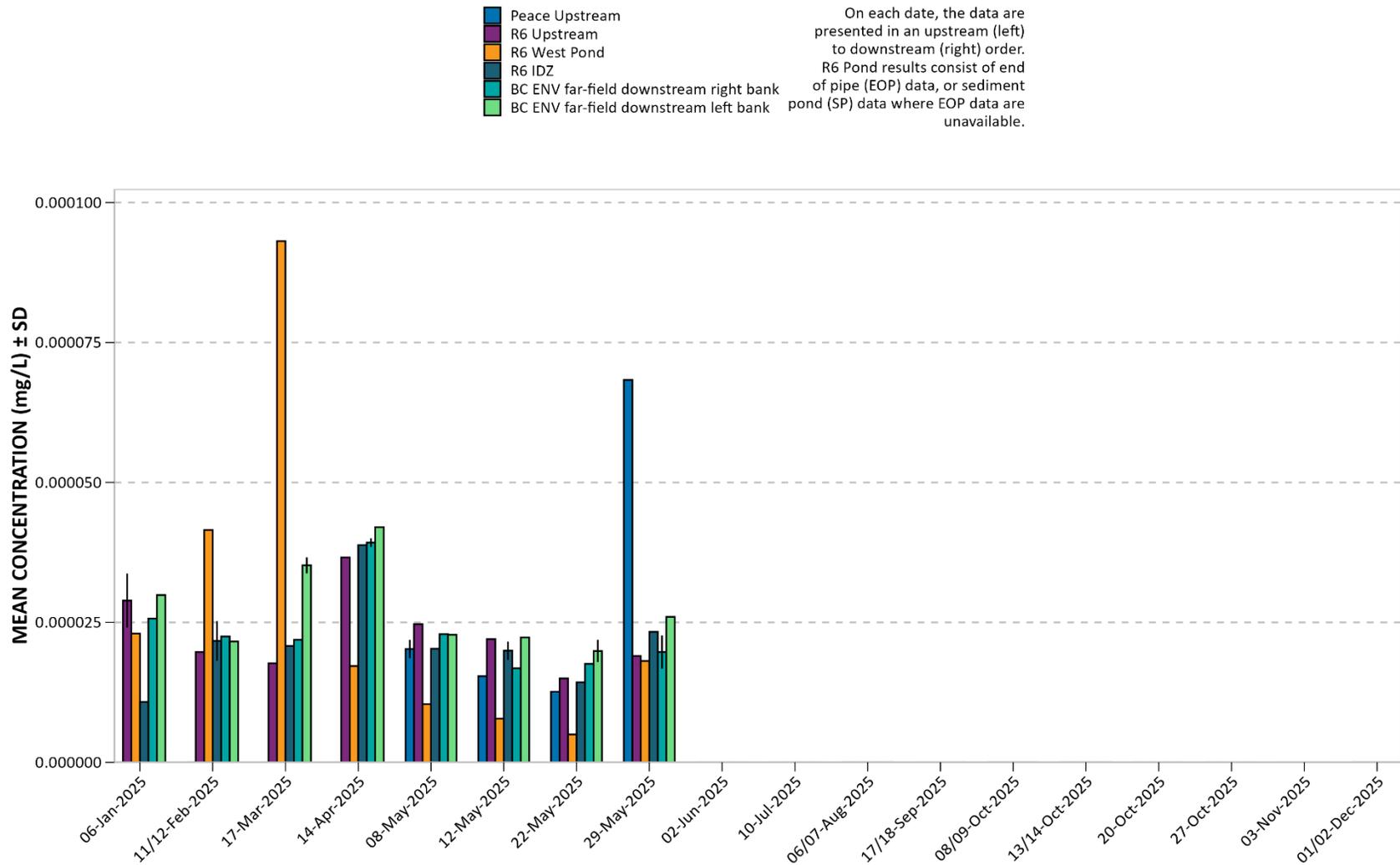


Figure 29. 2025 Site C reservoir, Peace River, and RSEM R6 pond total calcium (Ca).

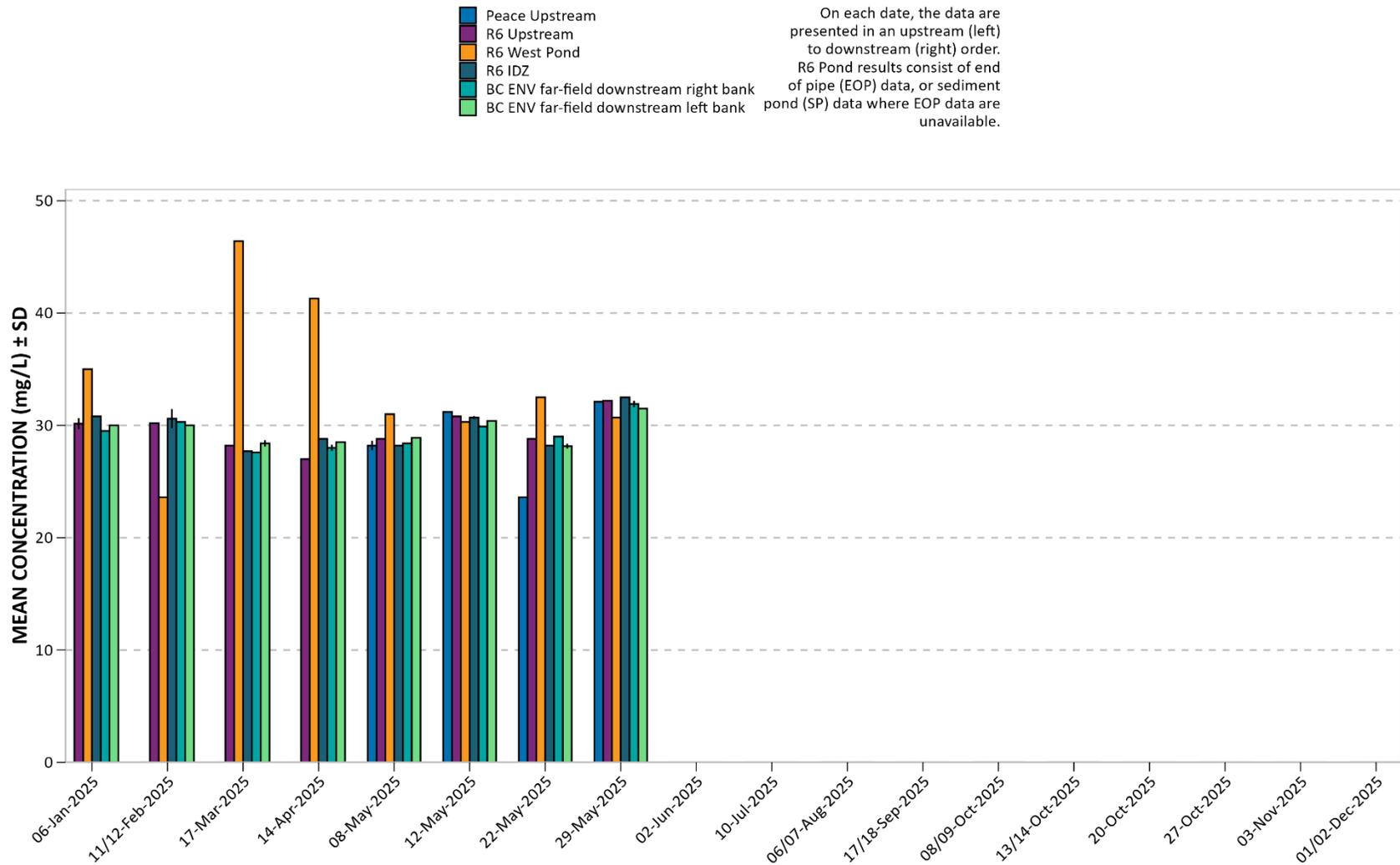


Figure 30. 2025 Site C reservoir, Peace River, and RSEM R6 pond total chromium (Cr).

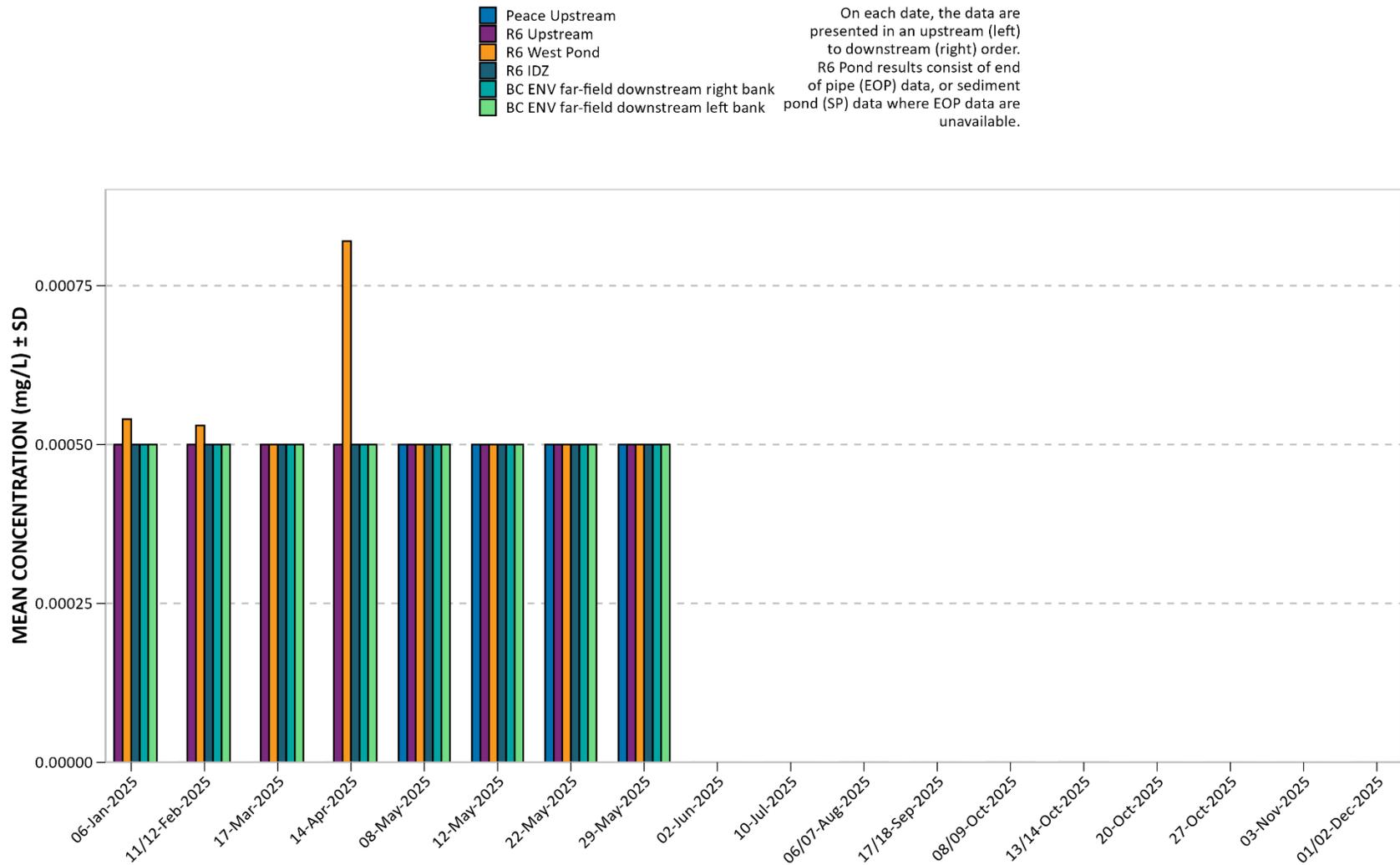


Figure 31. 2025 Site C reservoir, Peace River, and RSEM R6 pond total cobalt (Co).

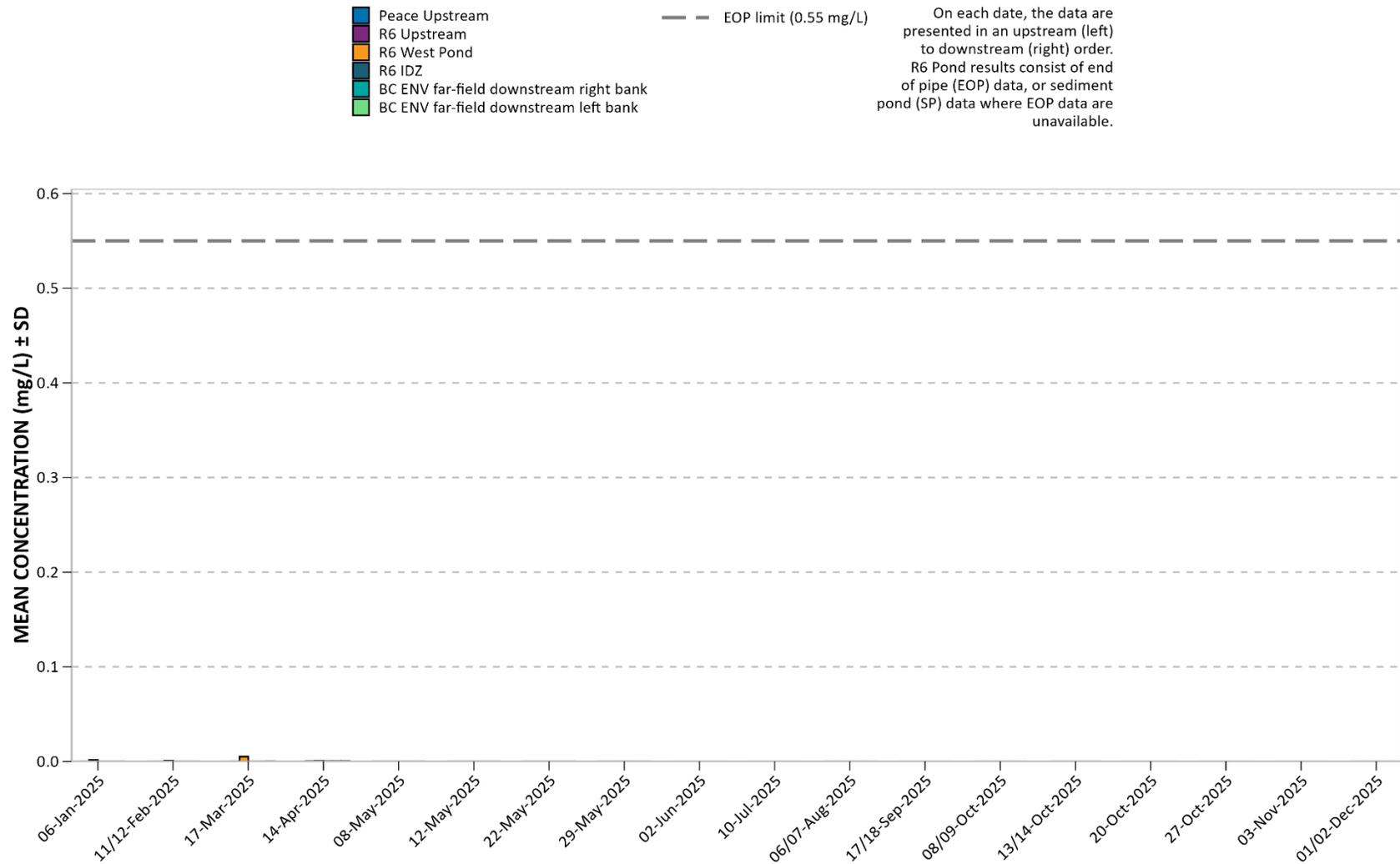


Figure 32. 2025 Site C reservoir, Peace River, and RSEM R6 pond total copper (Cu).

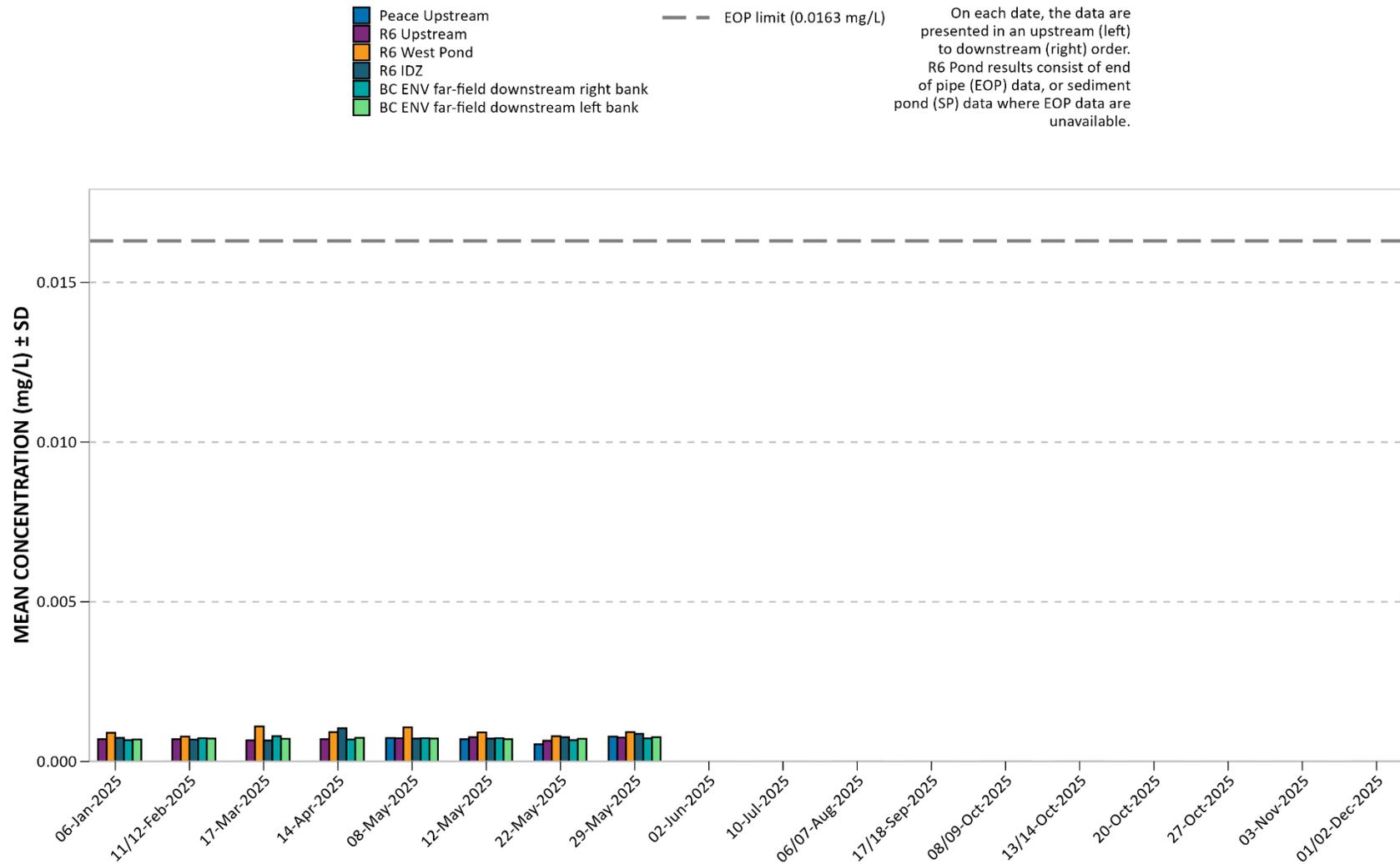


Figure 33. 2025 Site C reservoir, Peace River, and RSEM R6 pond total iron (Fe).

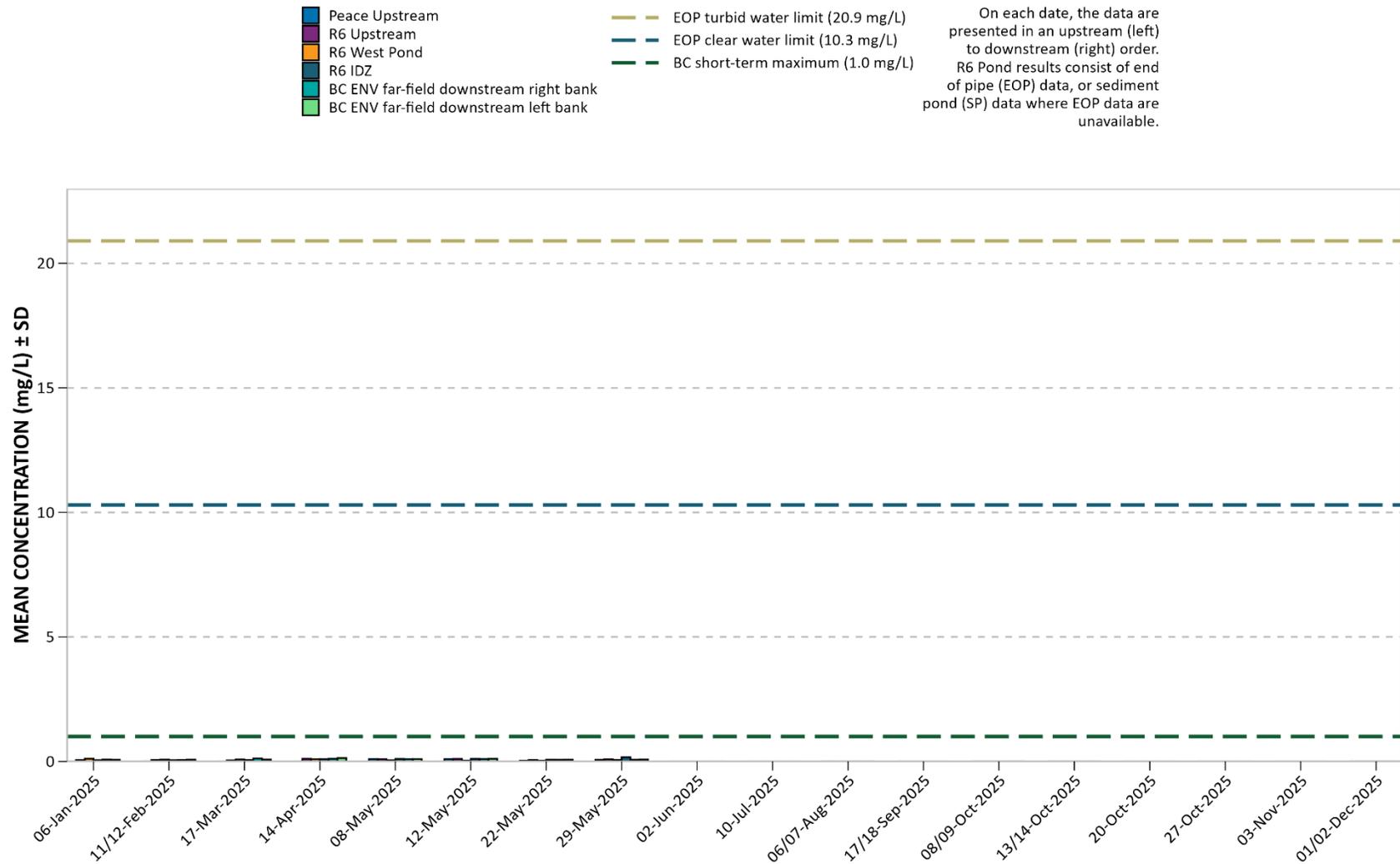


Figure 34. 2025 Site C reservoir, Peace River, and RSEM R6 pond total lead (Pb).

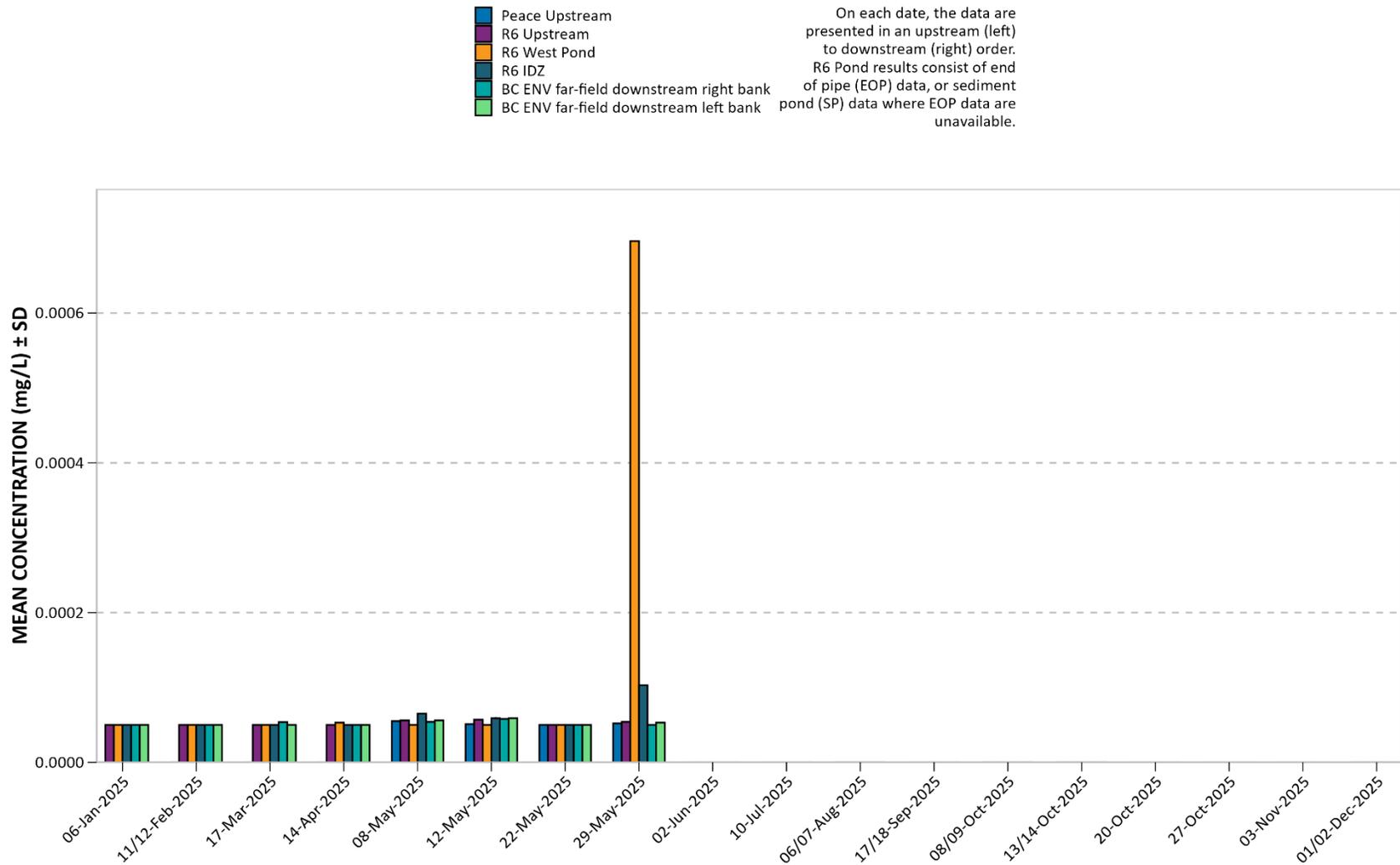


Figure 35. 2025 Site C reservoir, Peace River, and RSEM R6 pond total lithium (Li).

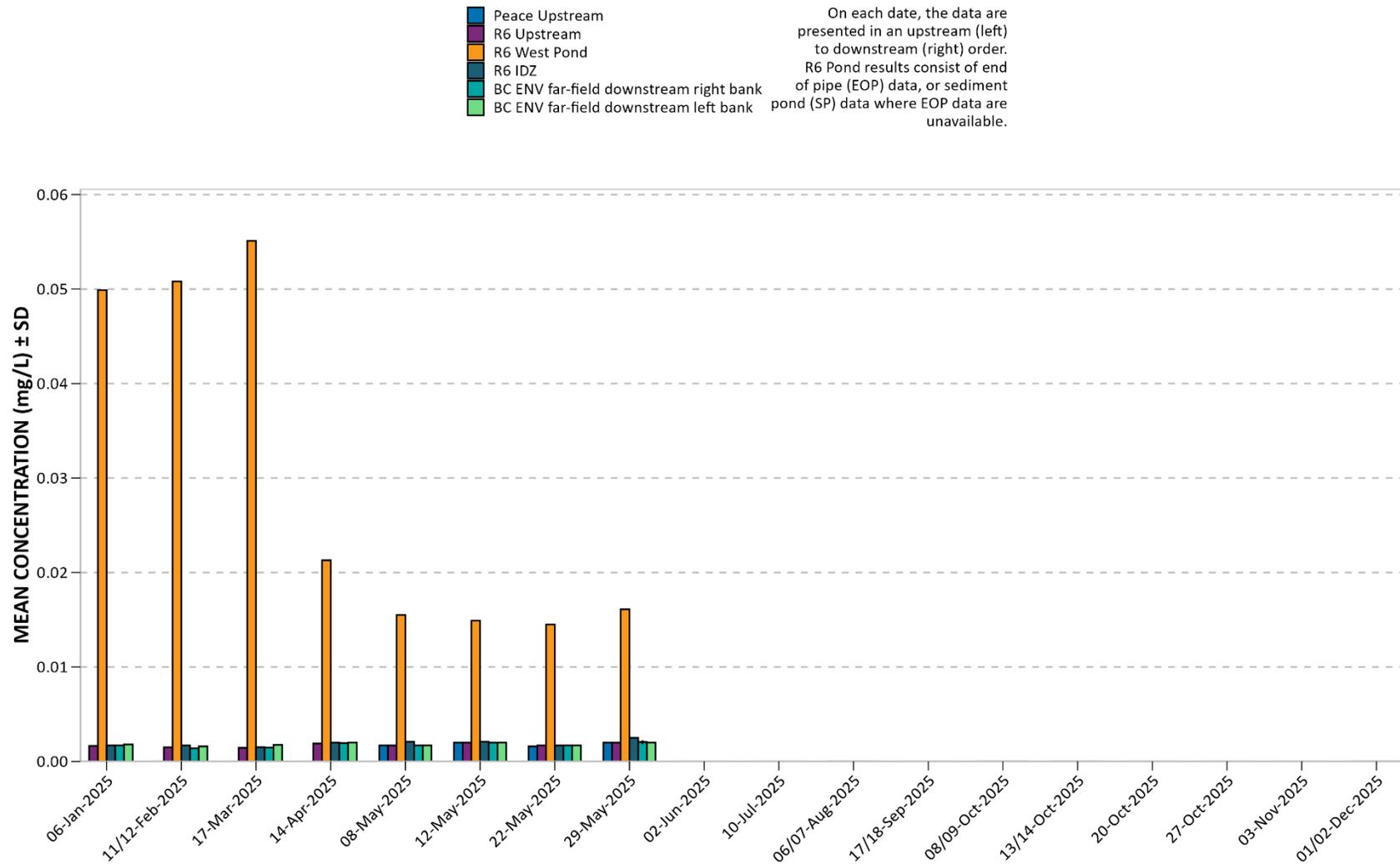


Figure 36. 2025 Site C reservoir, Peace River, and RSEM R6 pond total magnesium (Mg).

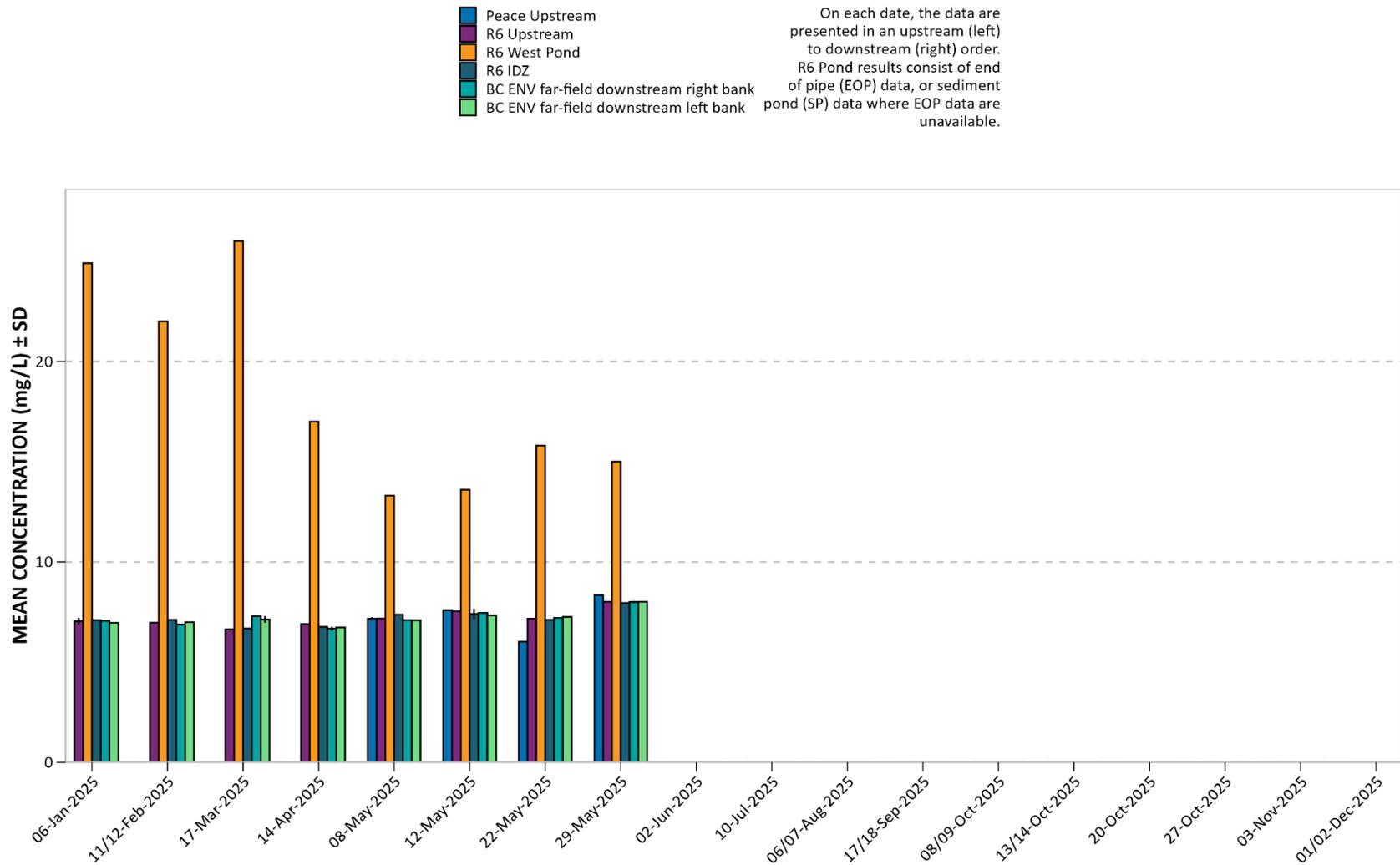
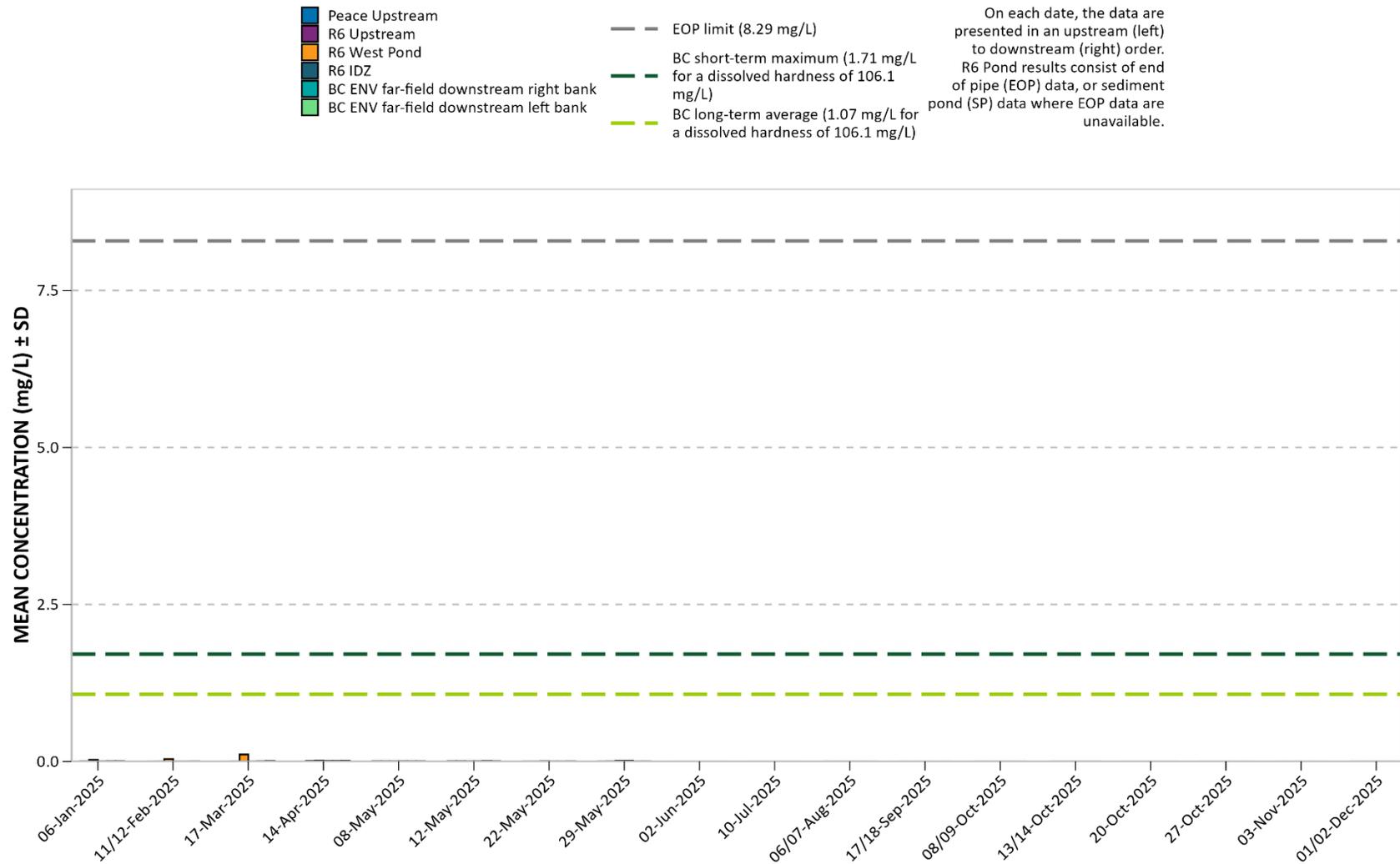


Figure 37. 2025 Site C reservoir, Peace River, and RSEM R6 pond total manganese (Mn).



Note: BC WQGs for total manganese are dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the maximum and 30-day guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against guidelines in the data tables (Appendix A).

Figure 38. 2025 Site C reservoir, Peace River, and RSEM R6 pond total mercury (Hg).

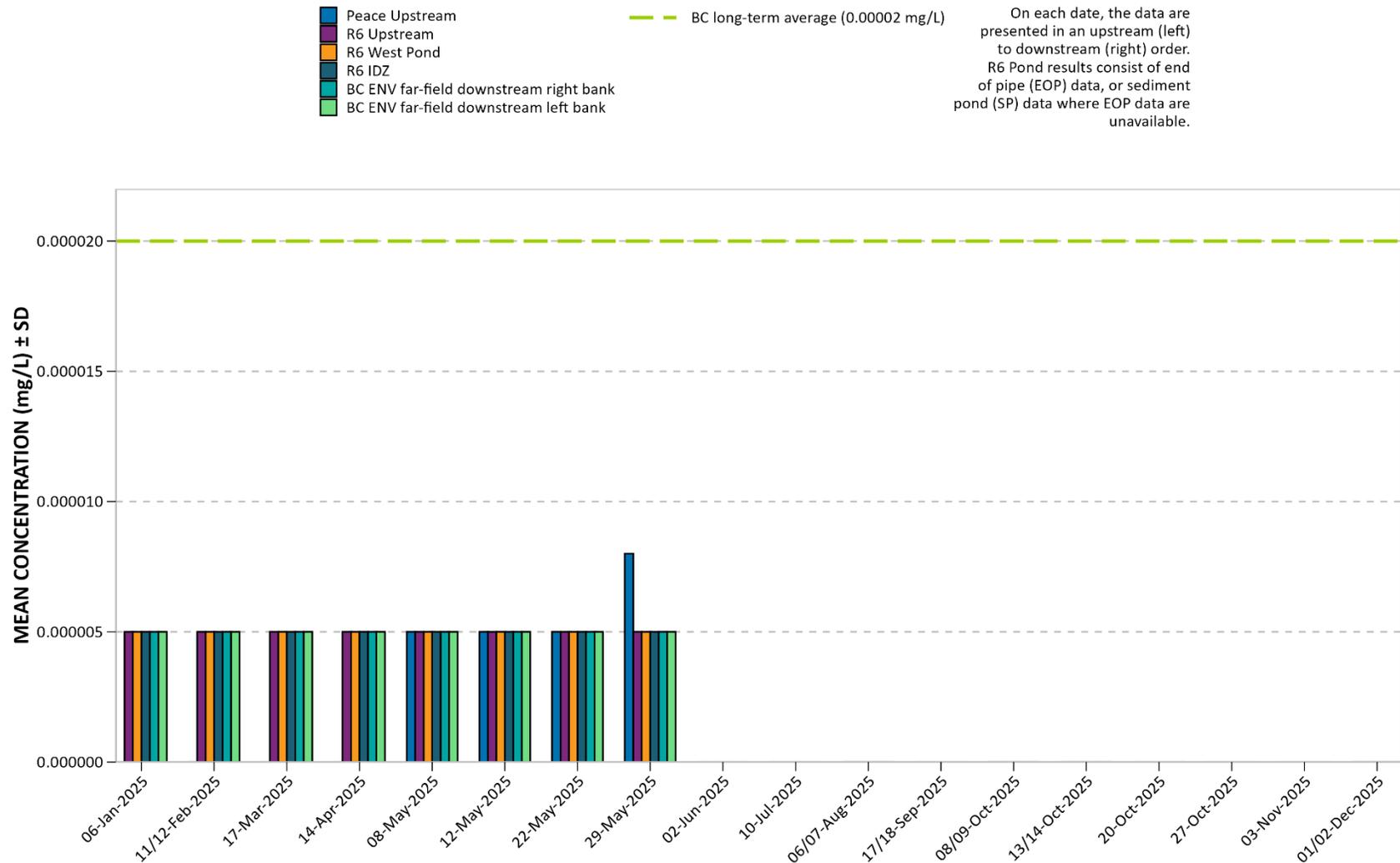


Figure 39. 2025 Site C reservoir, Peace River, and RSEM R6 pond total molybdenum (Mo). Note that sample results are very low compared to guidelines and as a result the data are not visible on the plot.

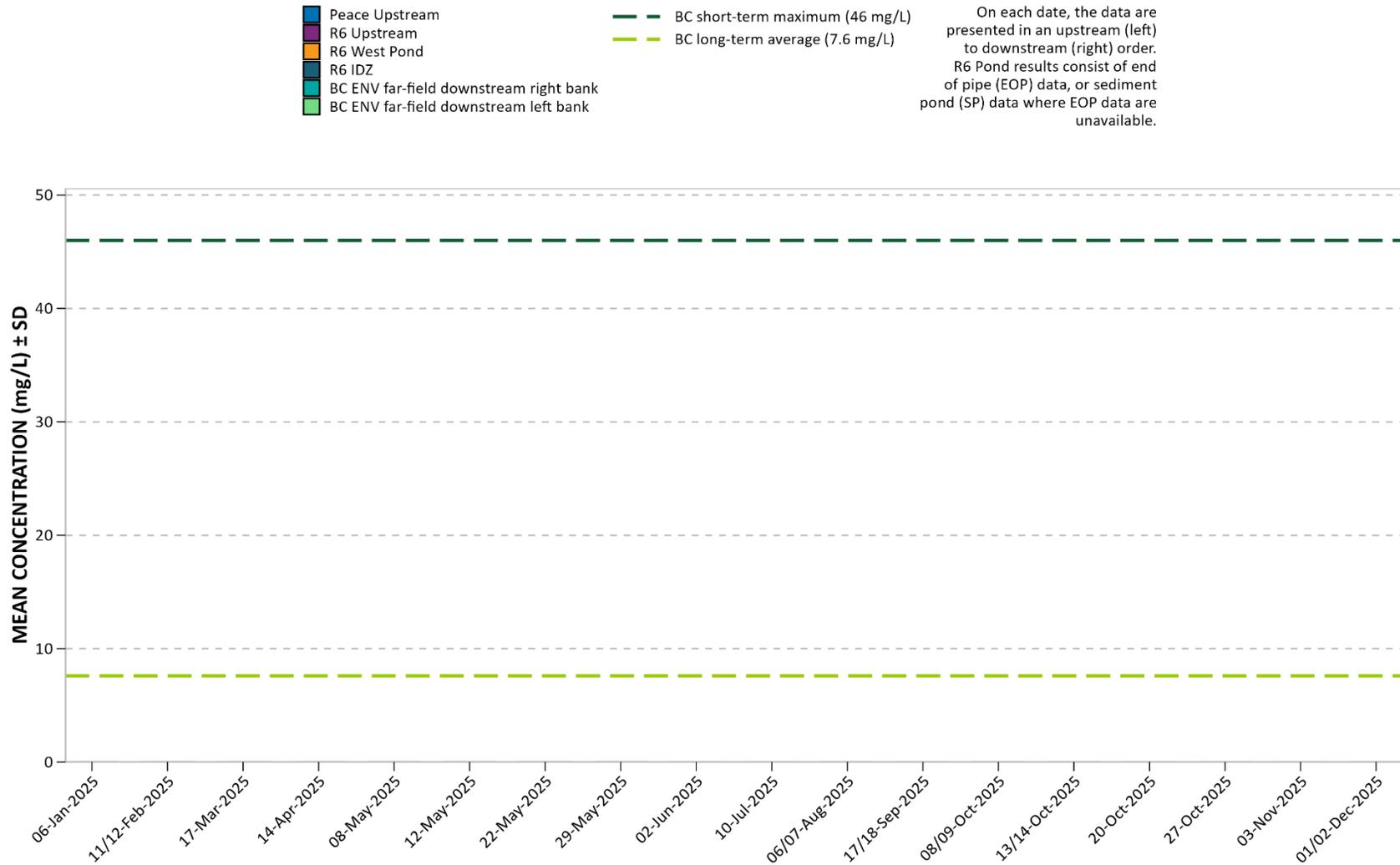


Figure 40. 2025 Site C reservoir, Peace River, and RSEM R6 pond total nickel (Ni).

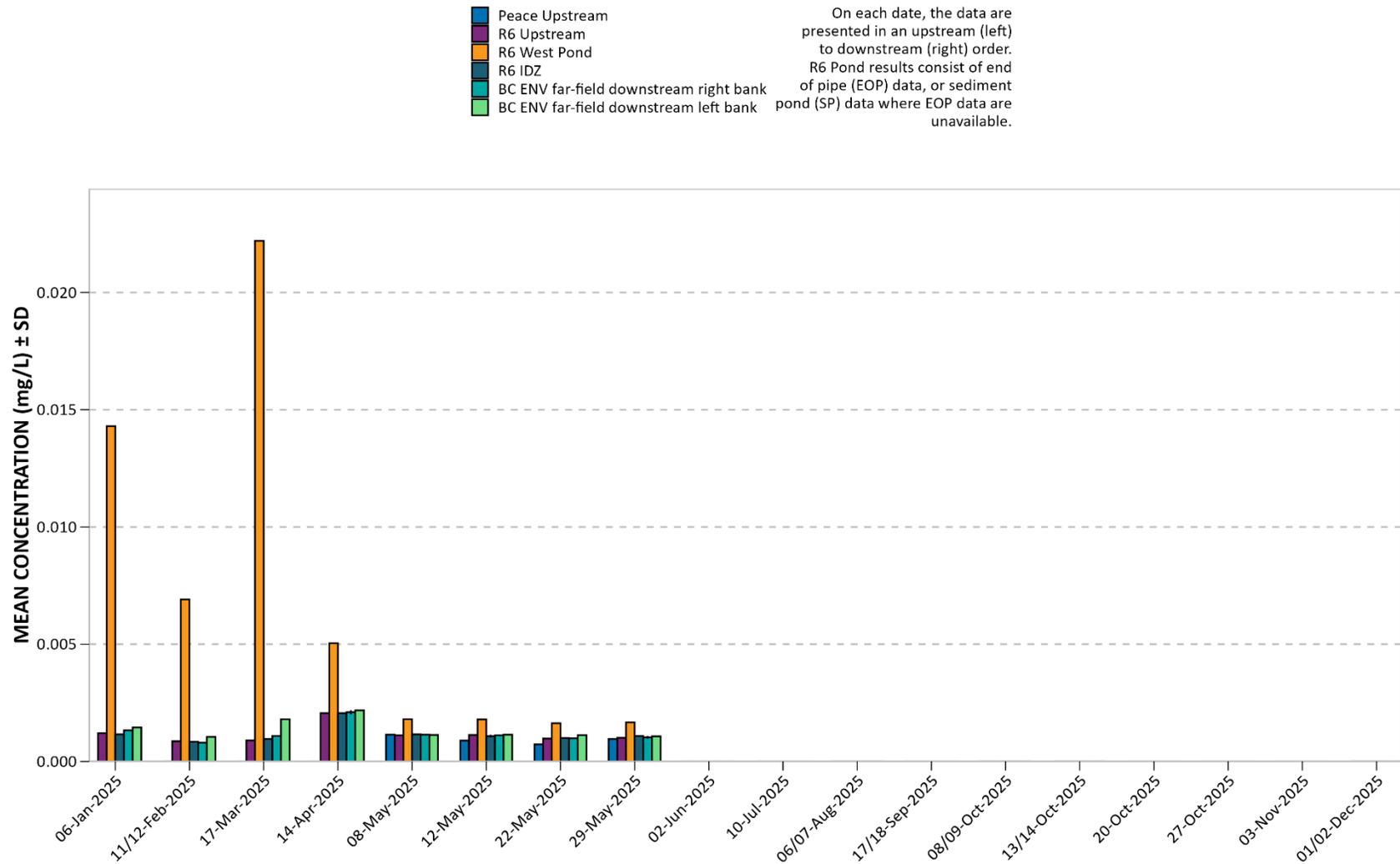


Figure 41. 2025 Site C reservoir, Peace River, and RSEM R6 pond total potassium (K).

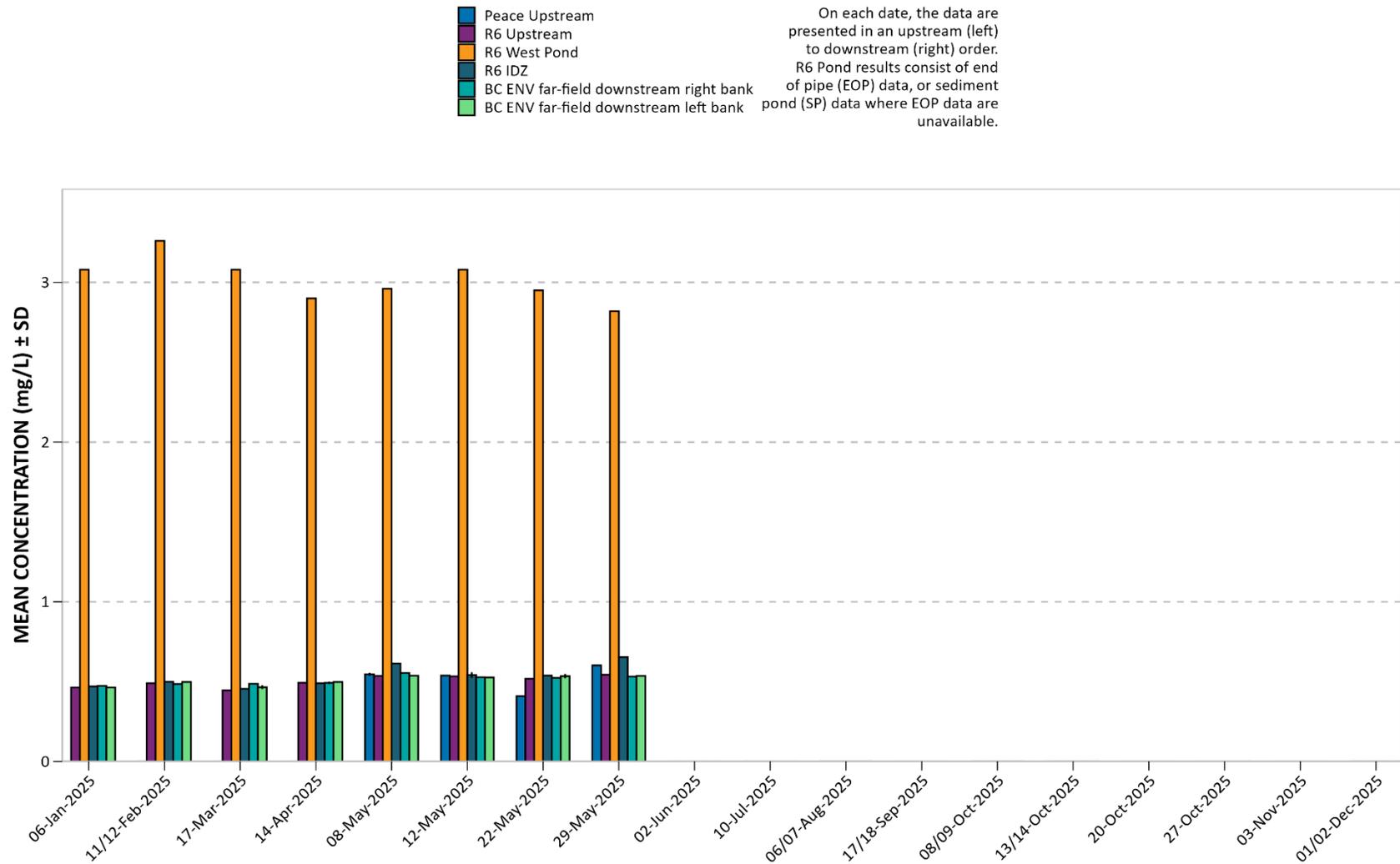


Figure 42. 2025 Site C reservoir, Peace River, and RSEM R6 pond total selenium (Se).

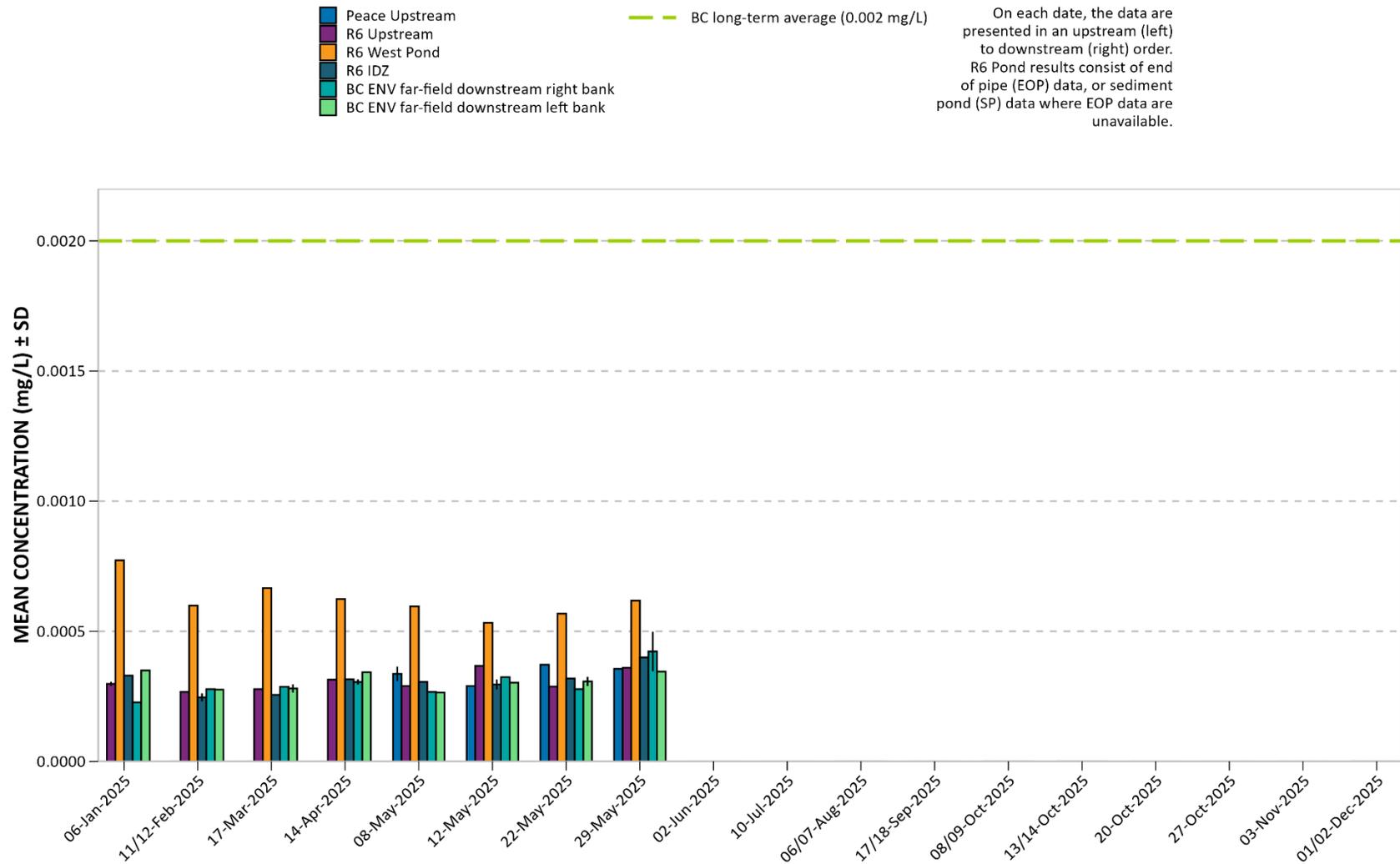


Figure 43. 2025 Site C reservoir, Peace River, and RSEM R6 pond total silicon (Si).

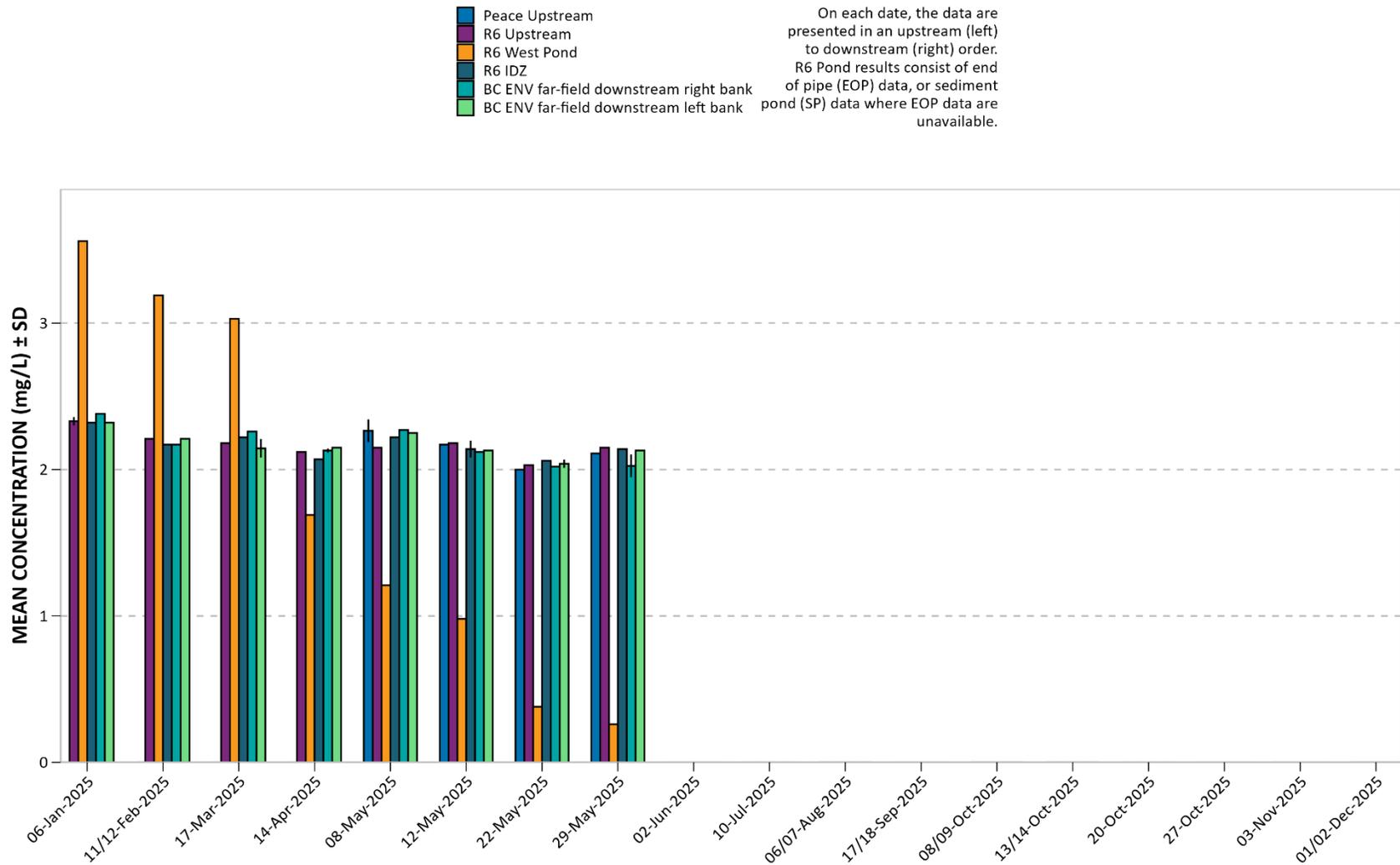


Figure 44. 2025 Site C reservoir, Peace River, and RSEM R6 pond total silver (Ag).

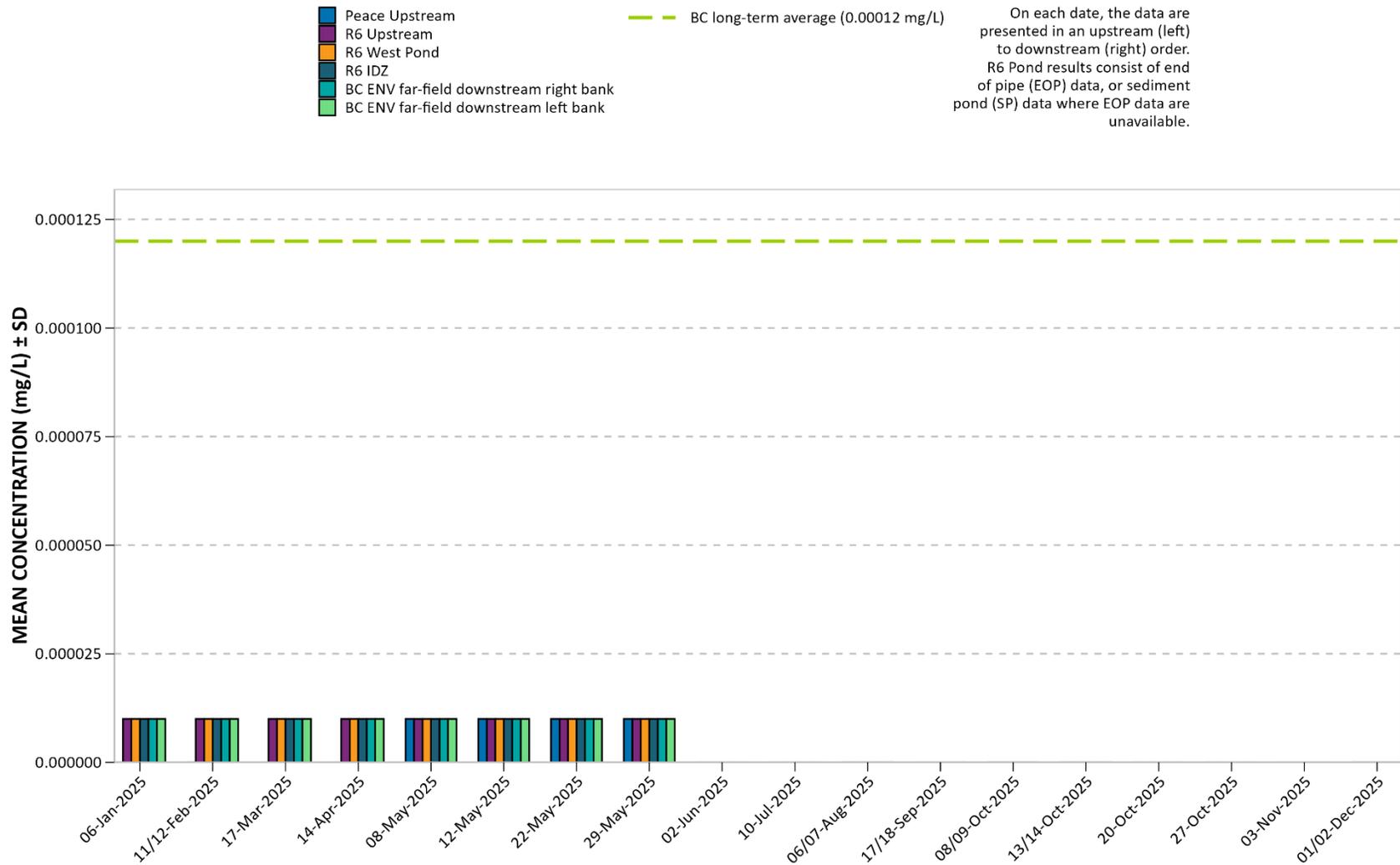


Figure 45. 2025 Site C reservoir, Peace River, and RSEM R6 pond total sodium (Na).

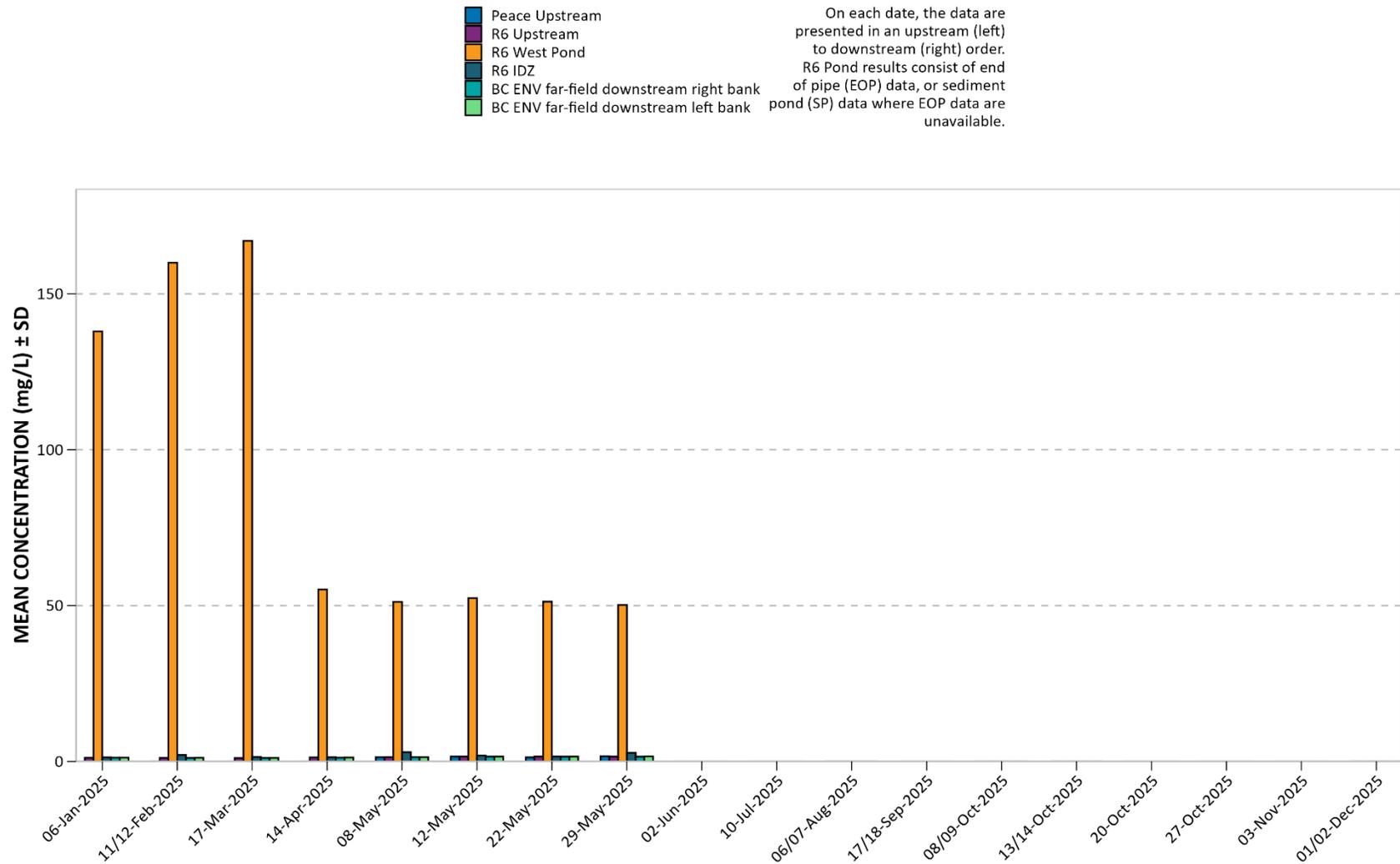


Figure 46. 2025 Site C reservoir, Peace River, and RSEM R6 pond total strontium (Sr).

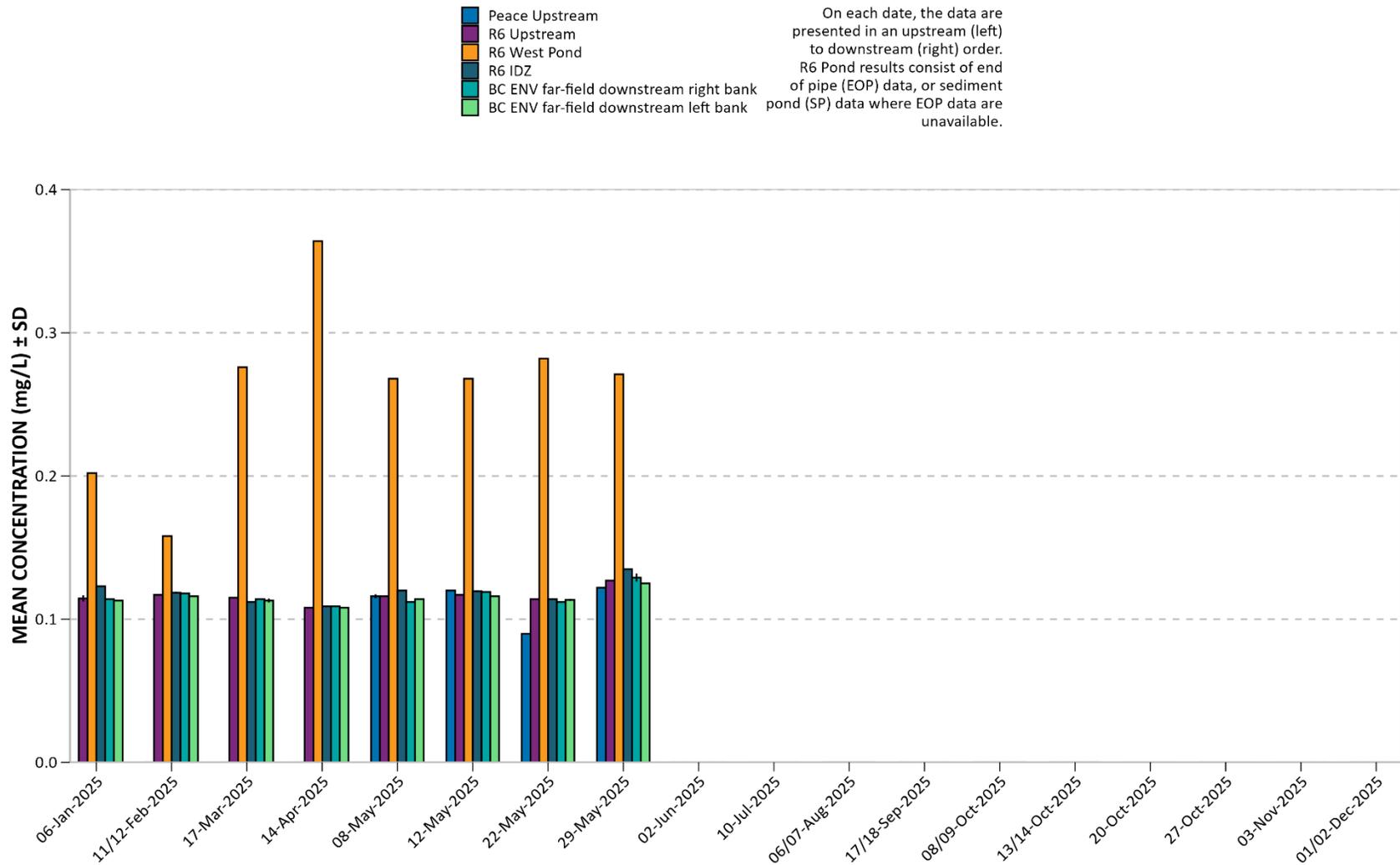


Figure 47. 2025 Site C reservoir, Peace River, and RSEM R6 pond total sulfur (S).

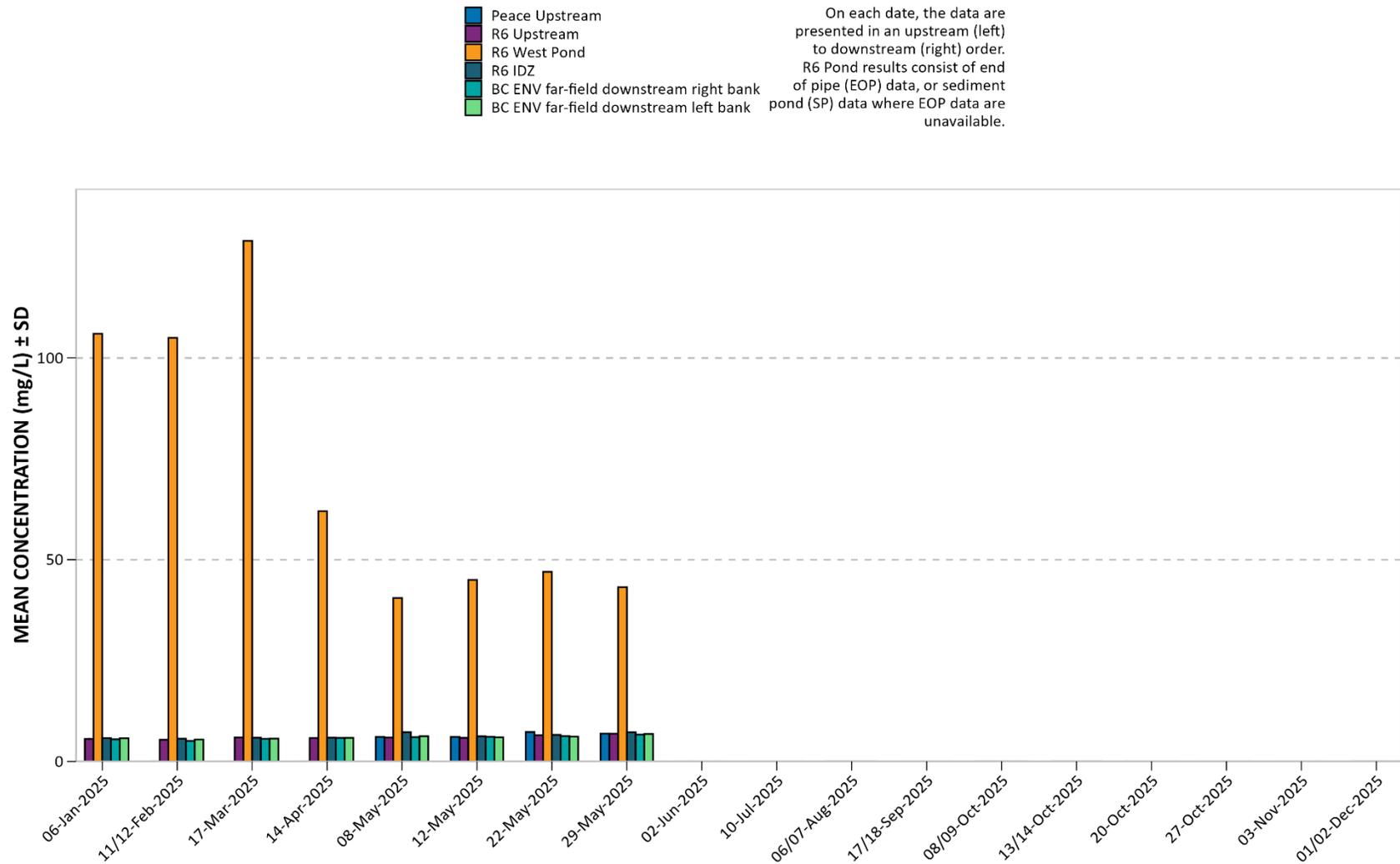


Figure 48. 2025 Site C reservoir, Peace River, and RSEM R6 pond total thallium (Tl).

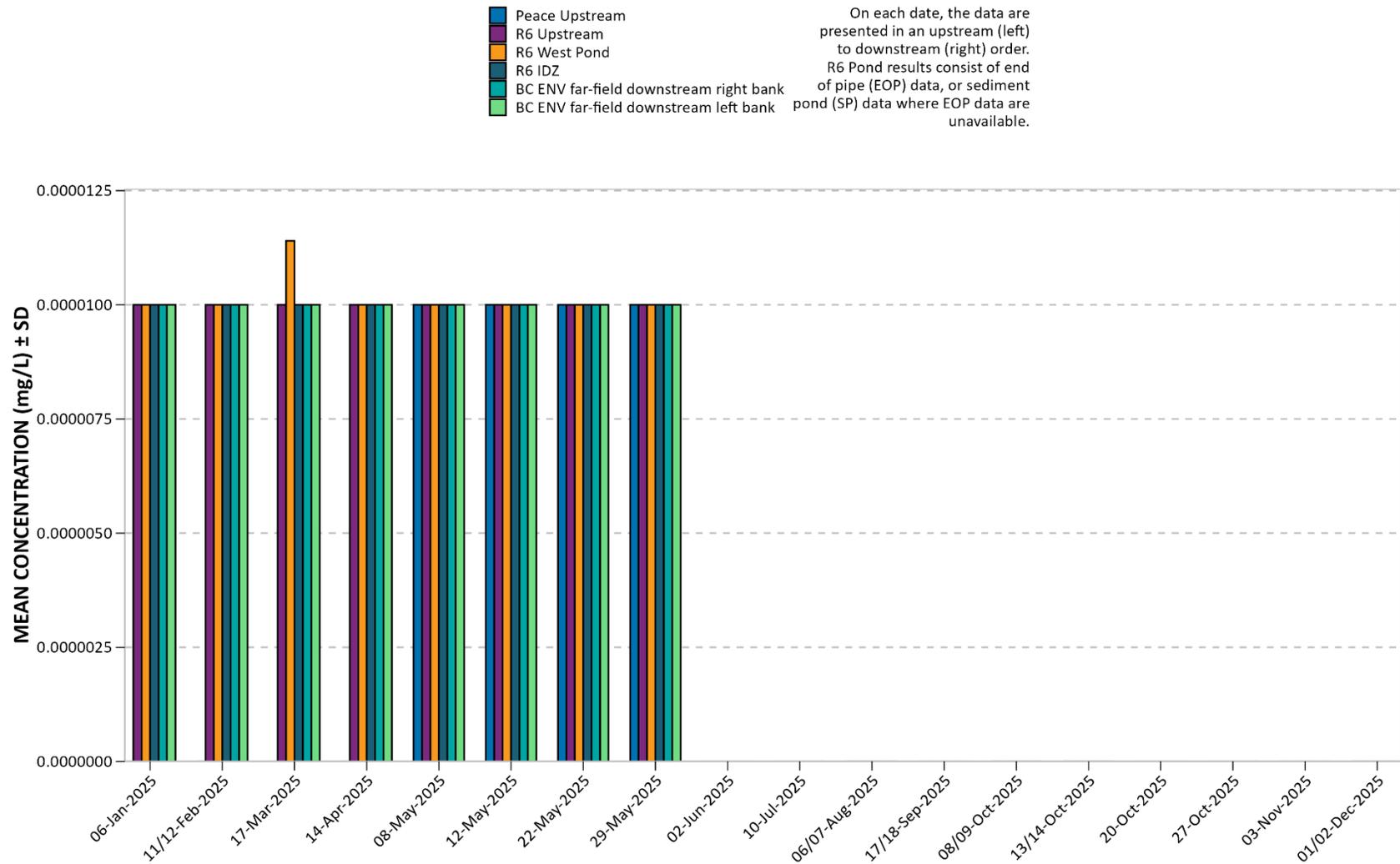


Figure 49. 2025 Site C reservoir, Peace River, and RSEM R6 pond total tin (Sn).

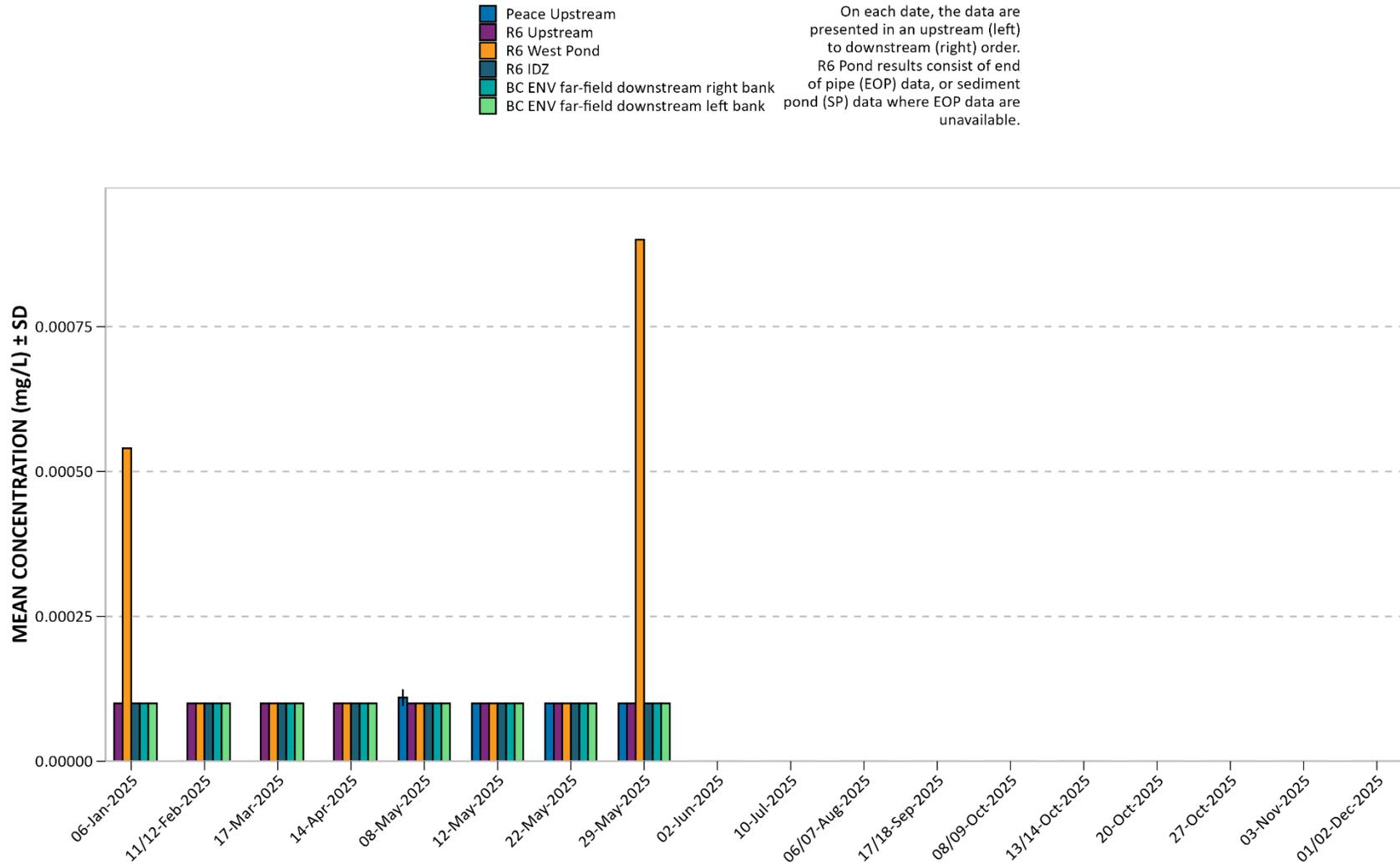


Figure 50. 2025 Site C reservoir, Peace River, and RSEM R6 pond total titanium (Ti).

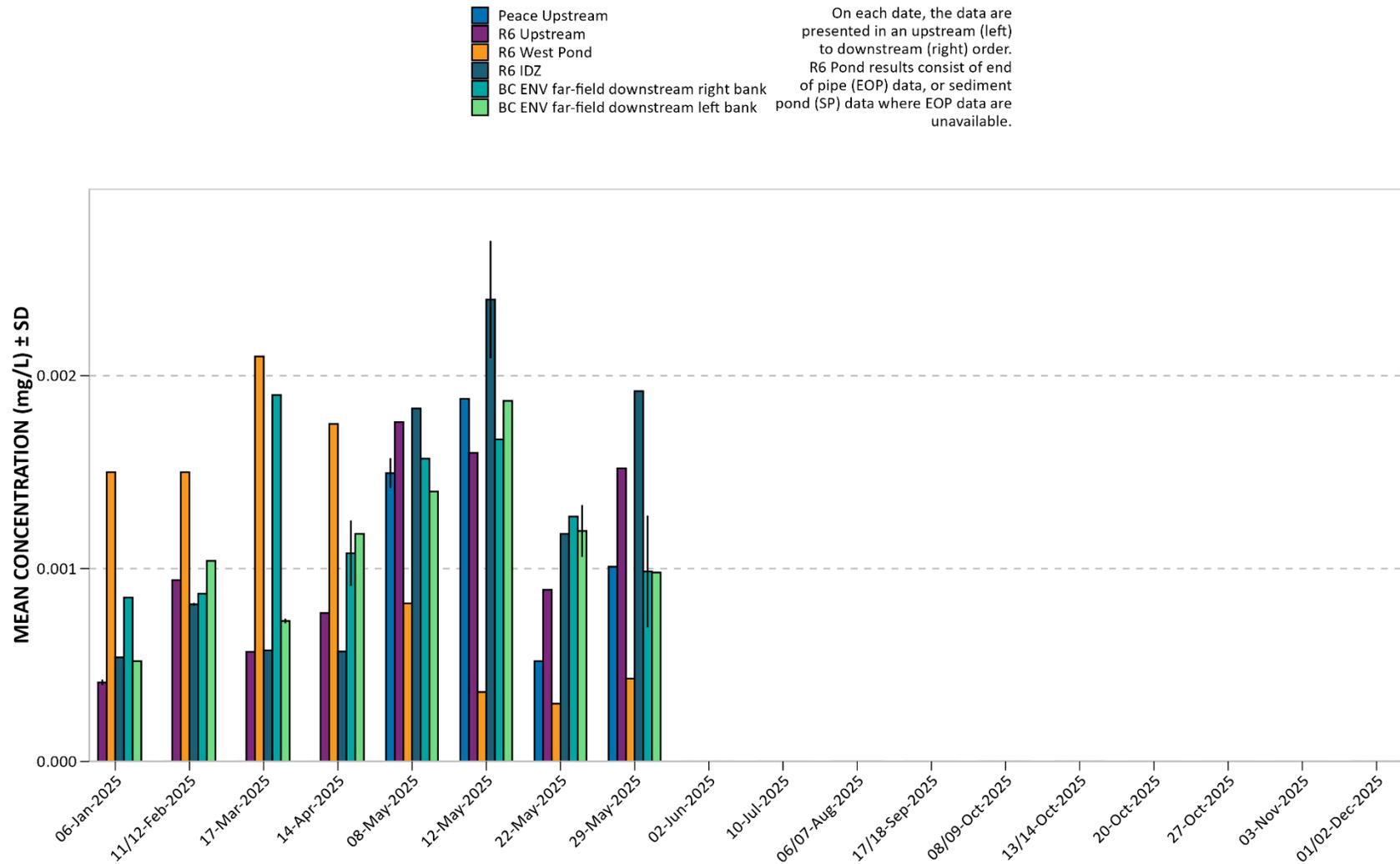


Figure 51. 2025 Site C reservoir, Peace River, and RSEM R6 pond total uranium (U).

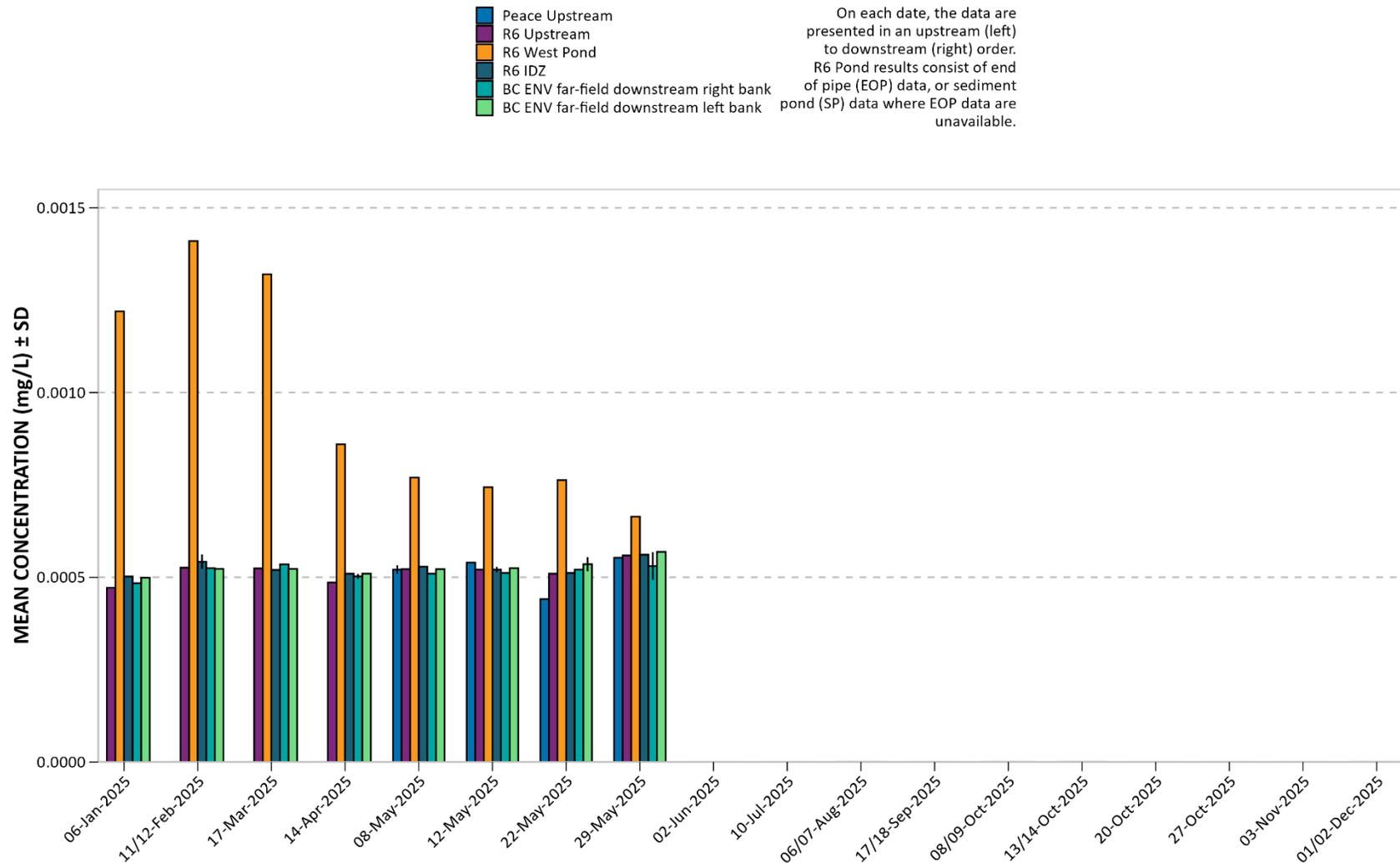


Figure 52. 2025 Site C reservoir, Peace River, and RSEM R6 pond total vanadium (V).

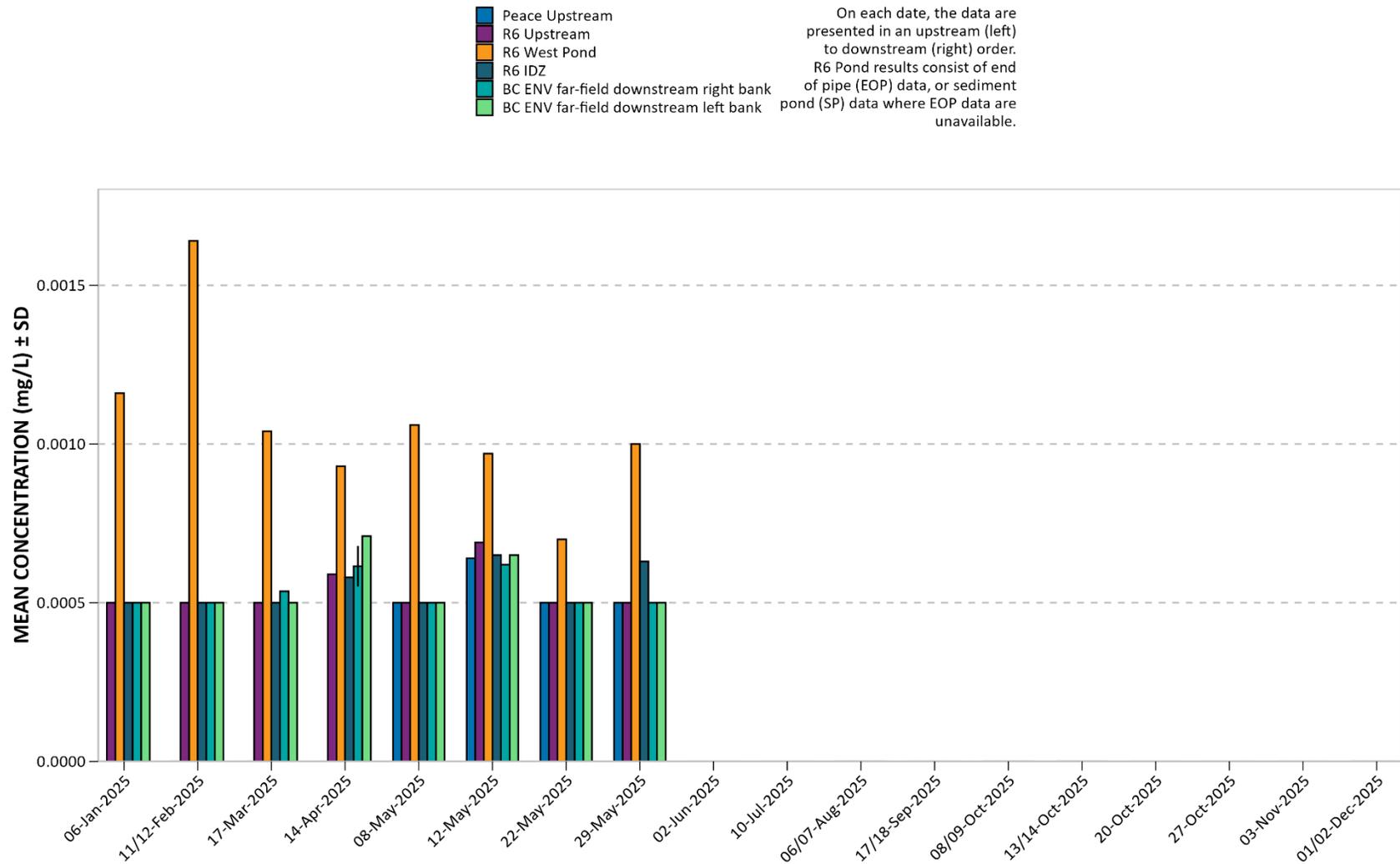


Figure 53. 2025 Site C reservoir, Peace River, and RSEM R6 pond total zinc (Zn).

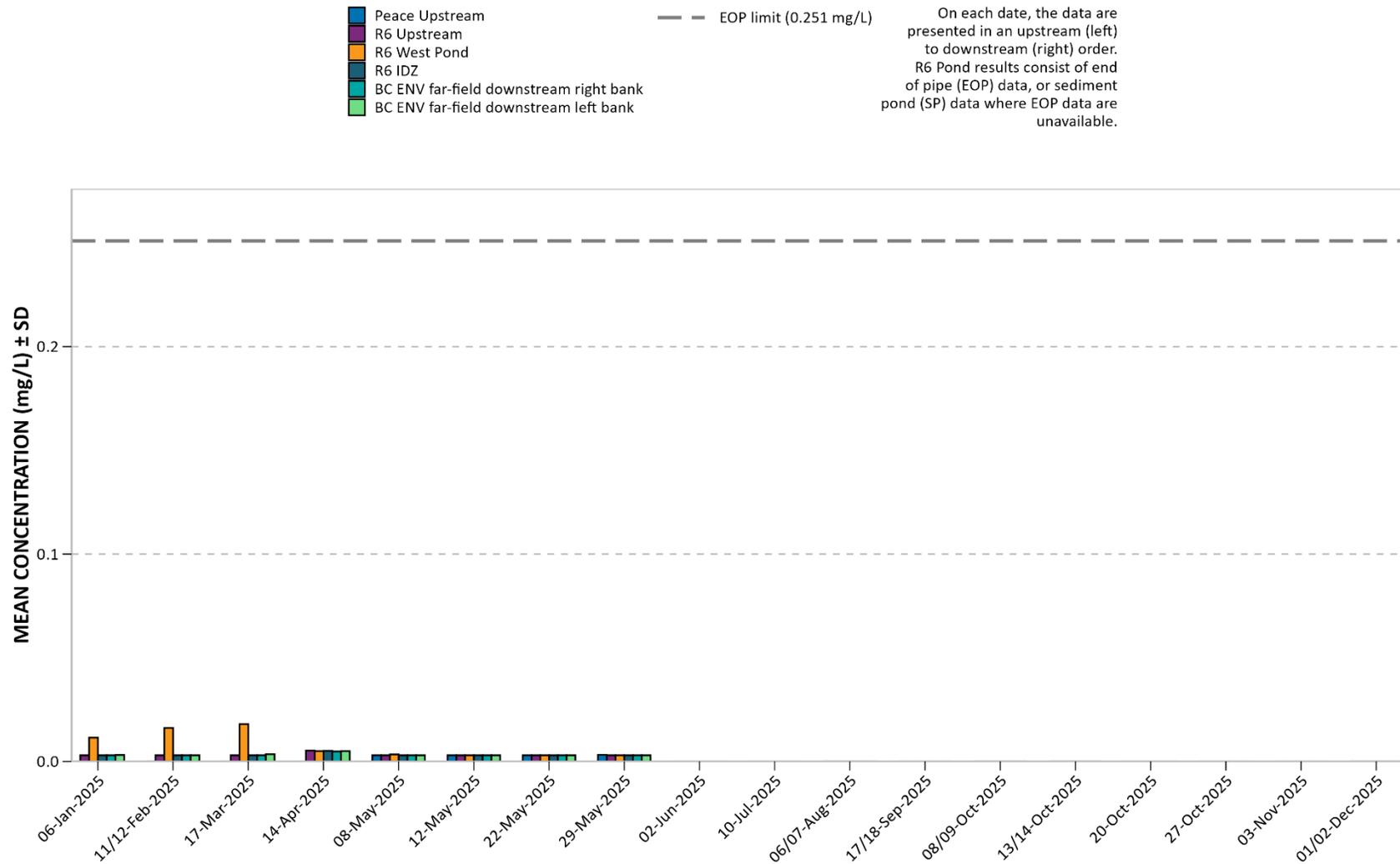


Figure 54. 2025 Site C reservoir, Peace River, and RSEM R6 pond total zirconium (Zr).

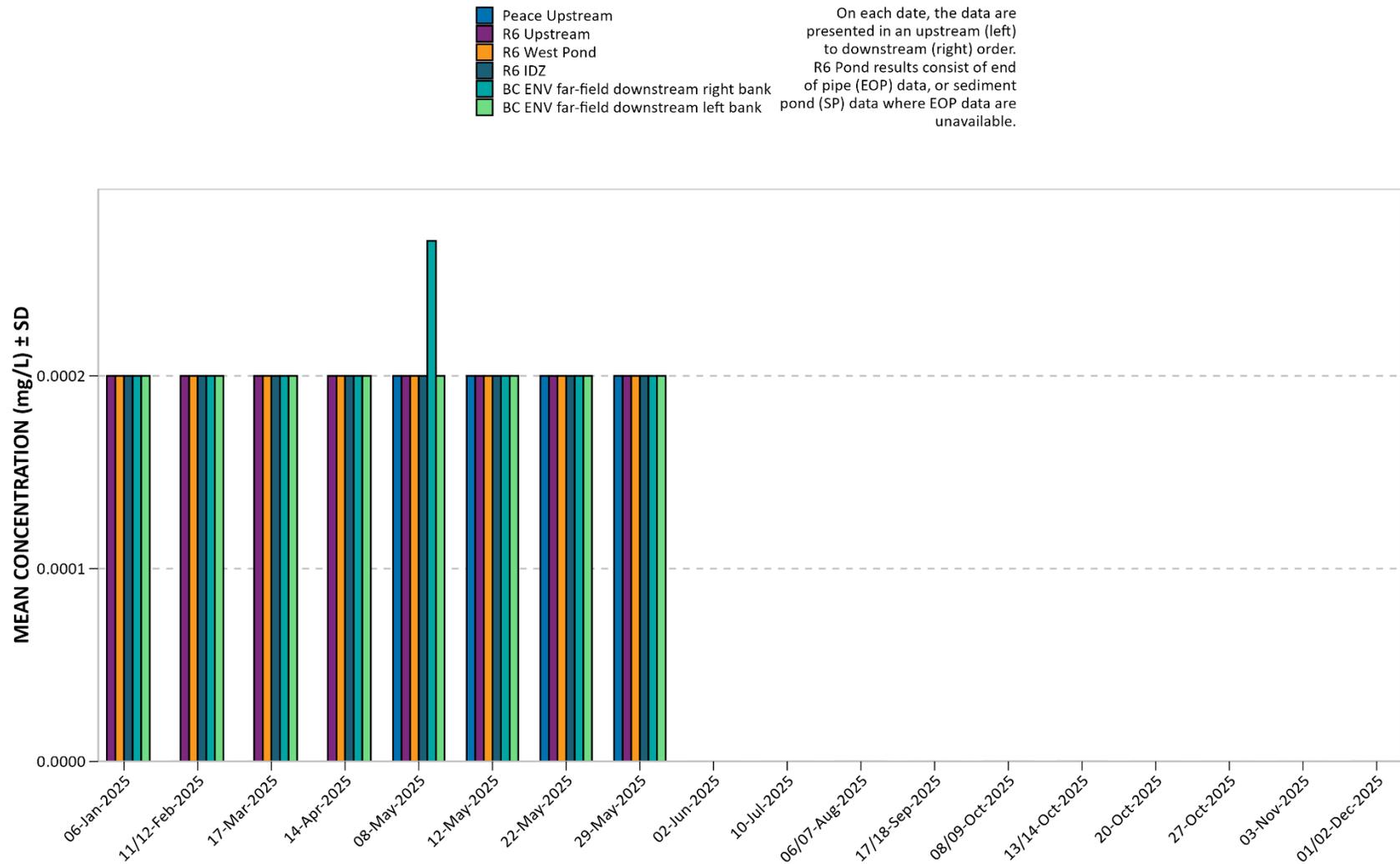


Figure 55. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved aluminum (Al).

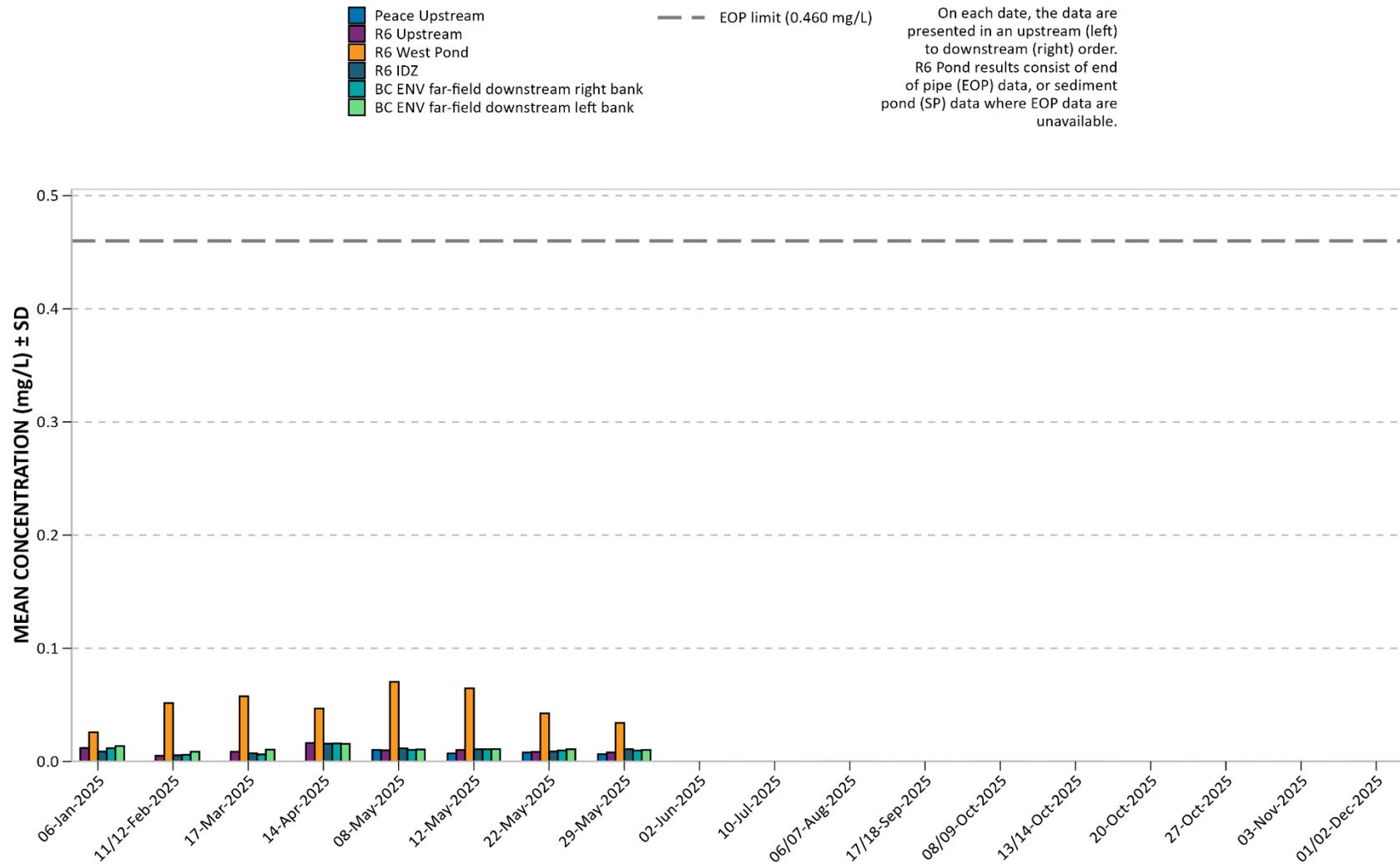


Figure 56. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved antimony (Sb).

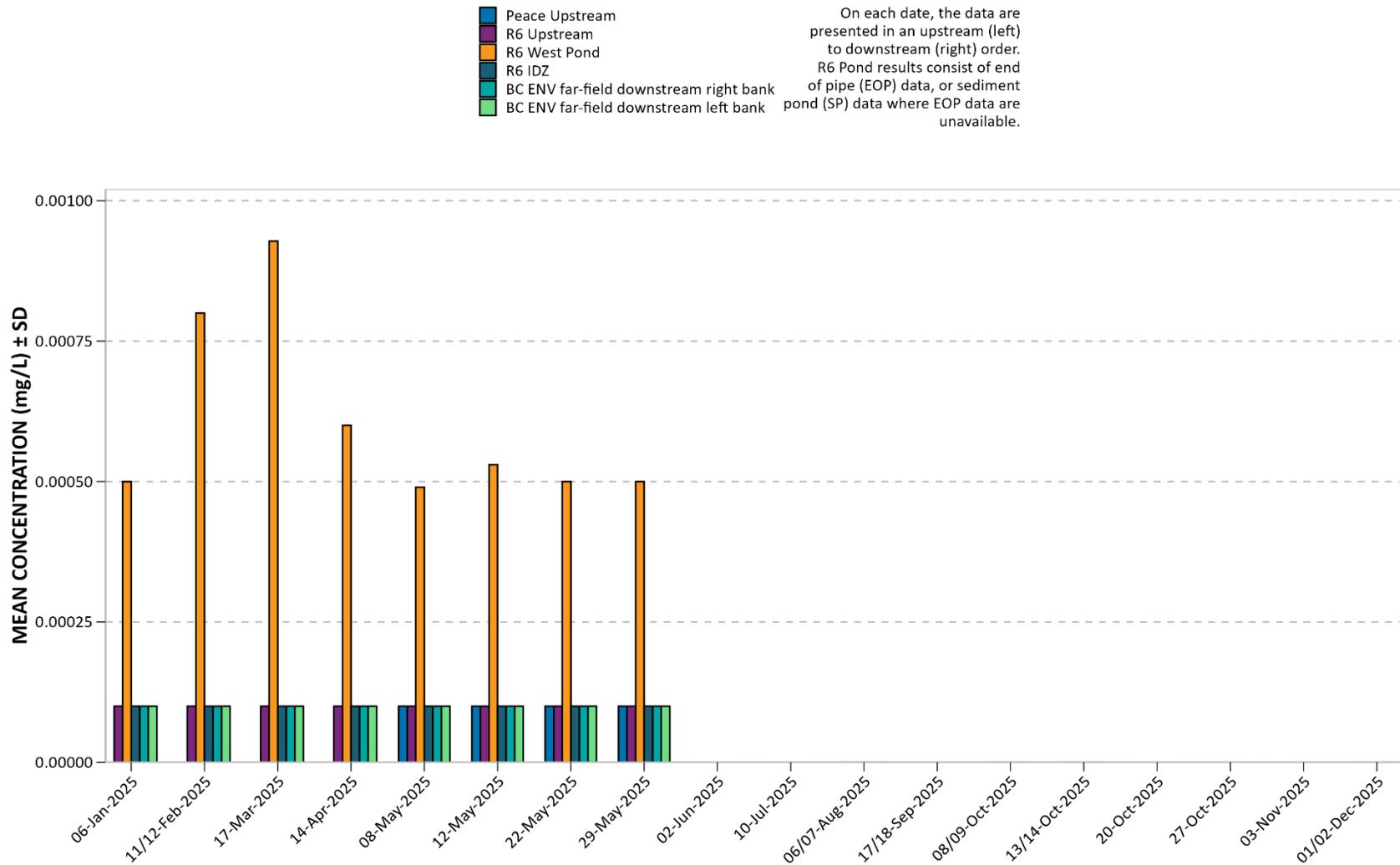


Figure 57. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved arsenic (As).

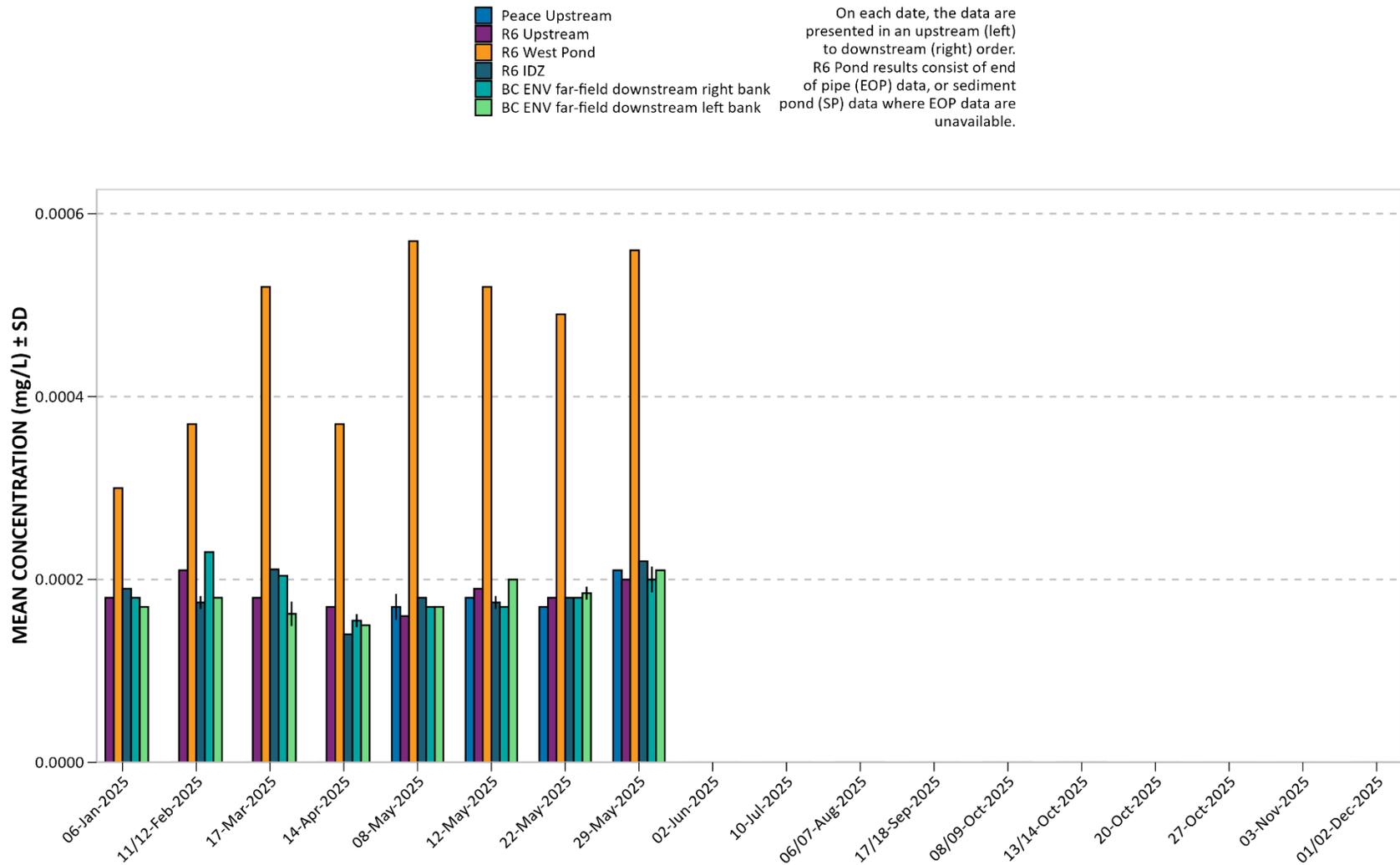


Figure 58. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved barium (Ba).

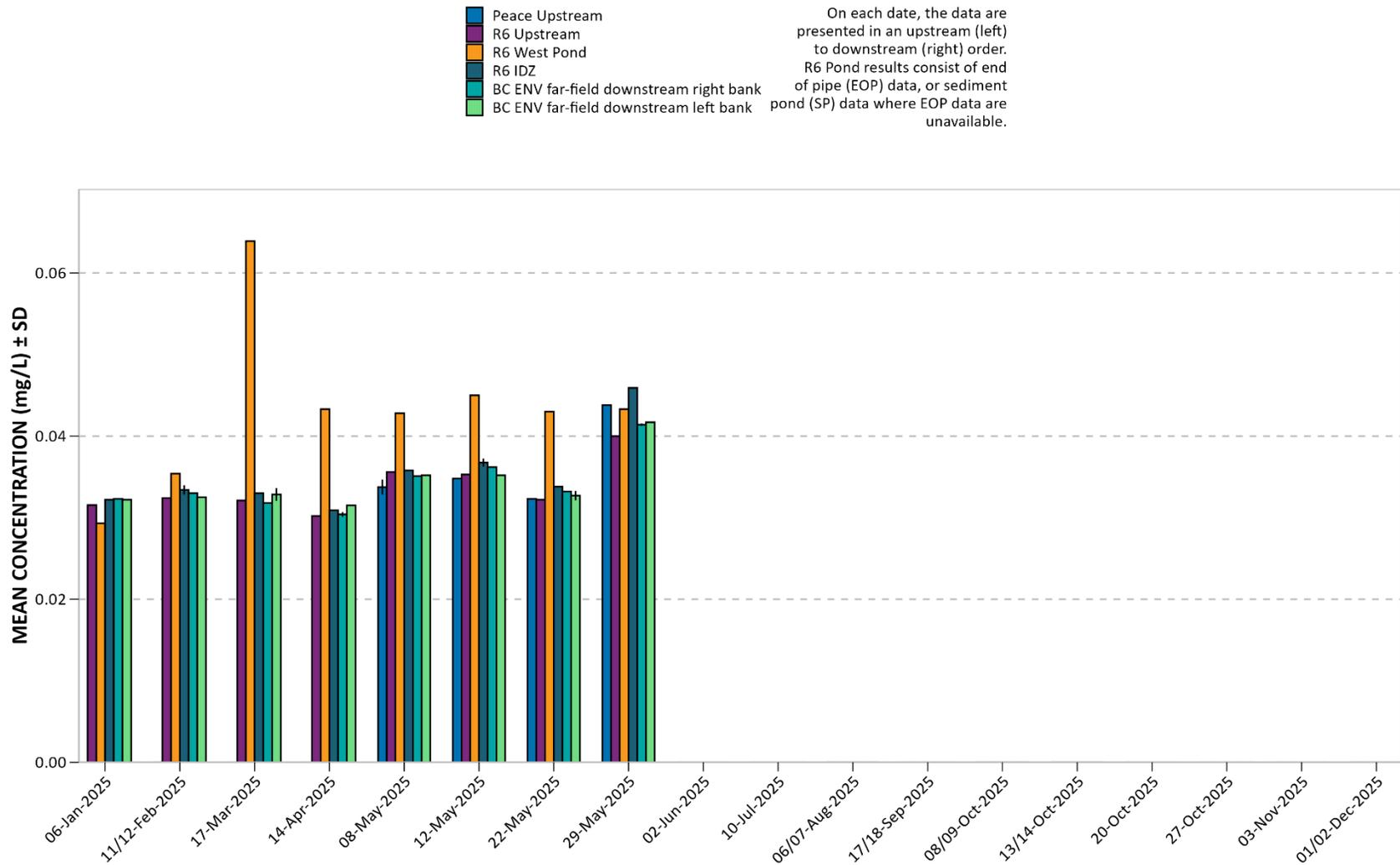


Figure 59. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved beryllium (Be).

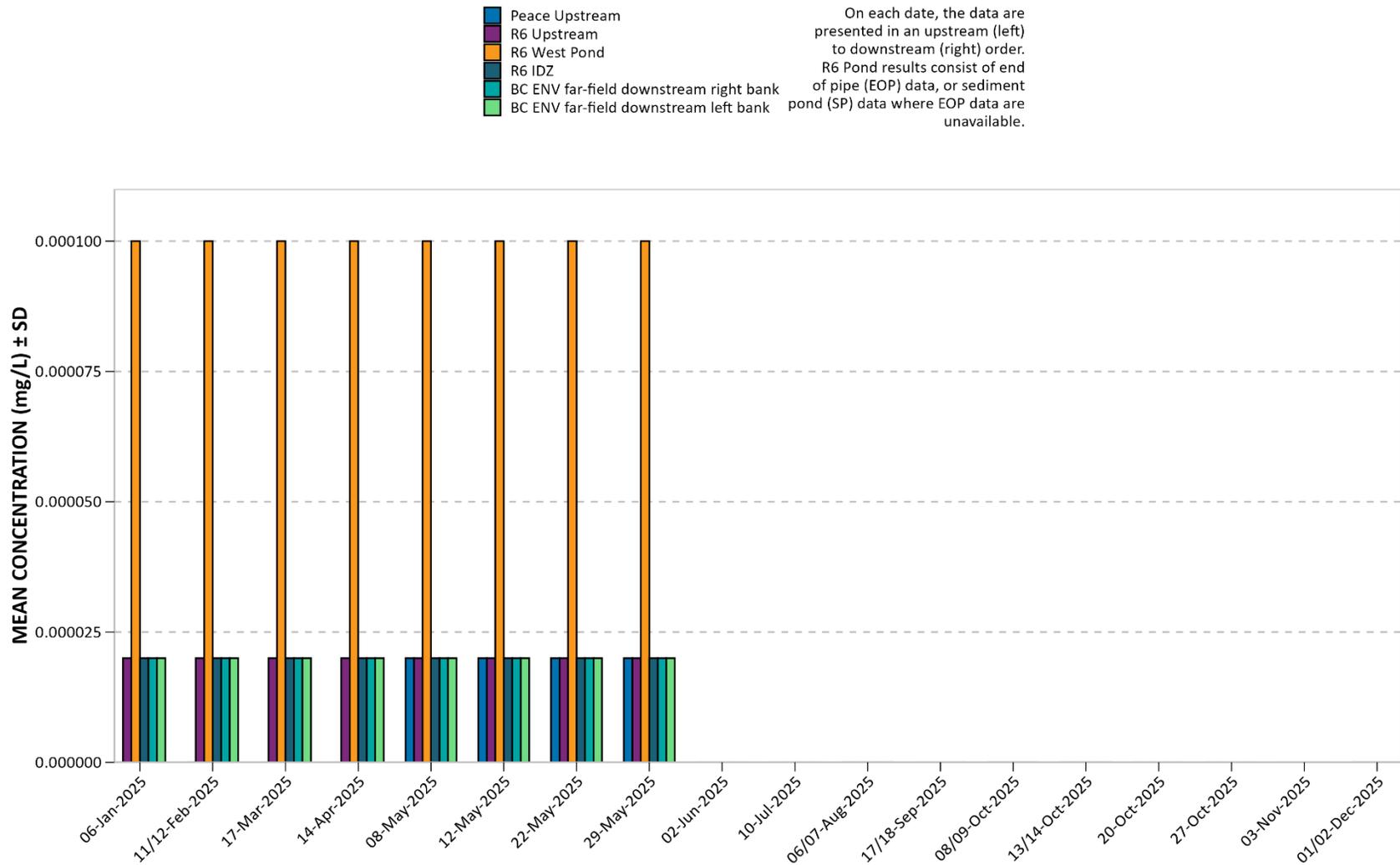


Figure 60. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved bismuth (Bi).

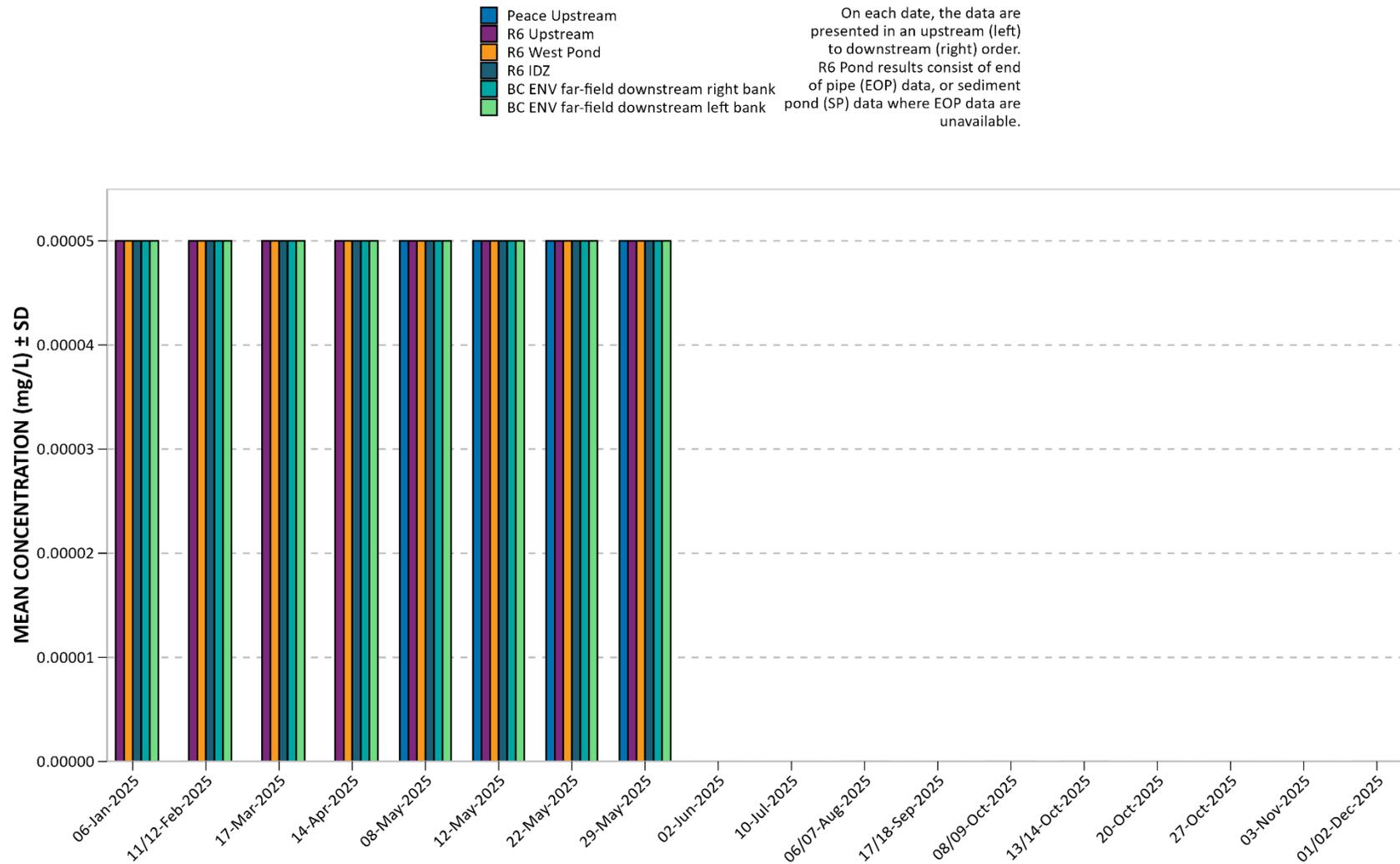


Figure 61. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved boron (B).

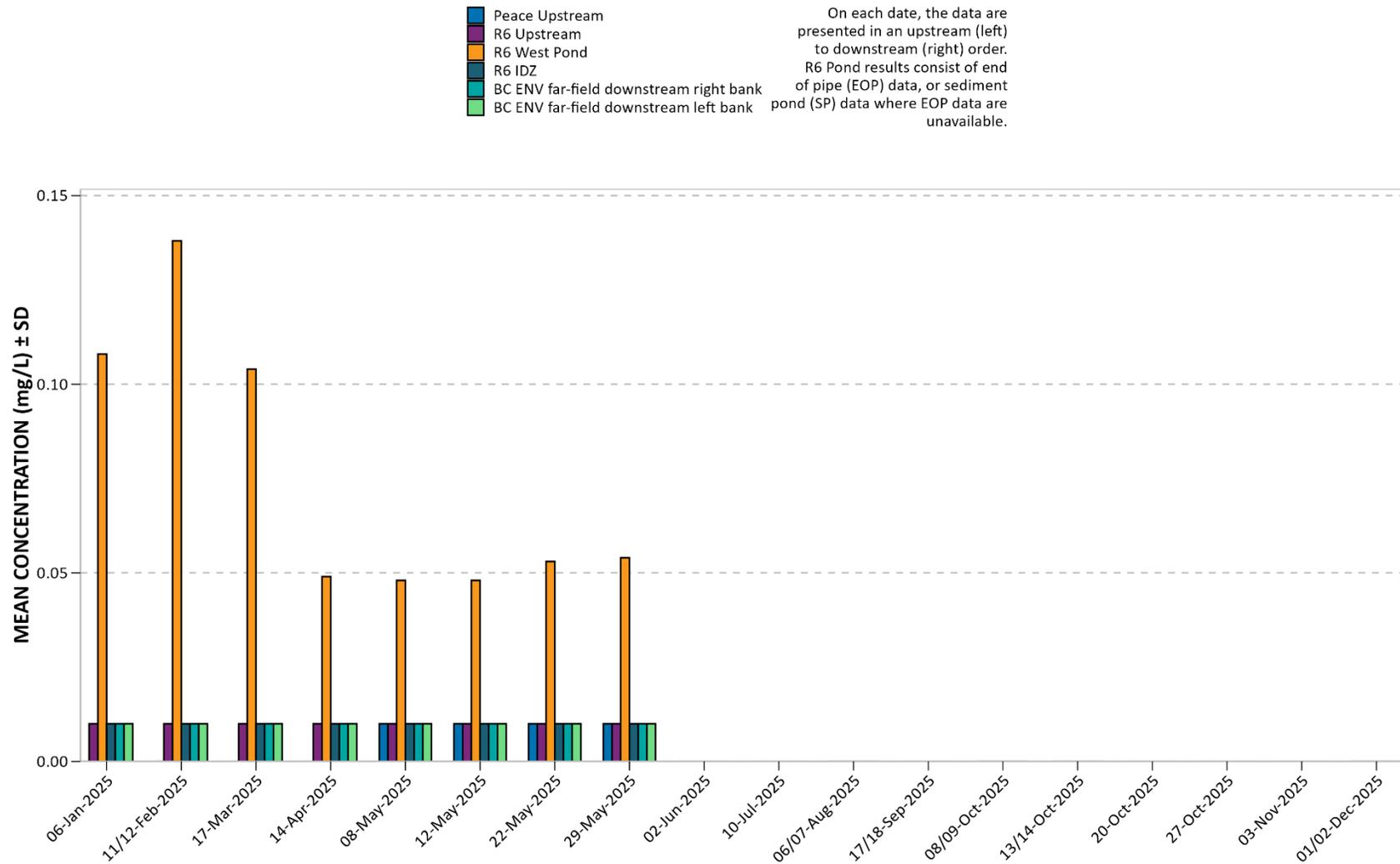
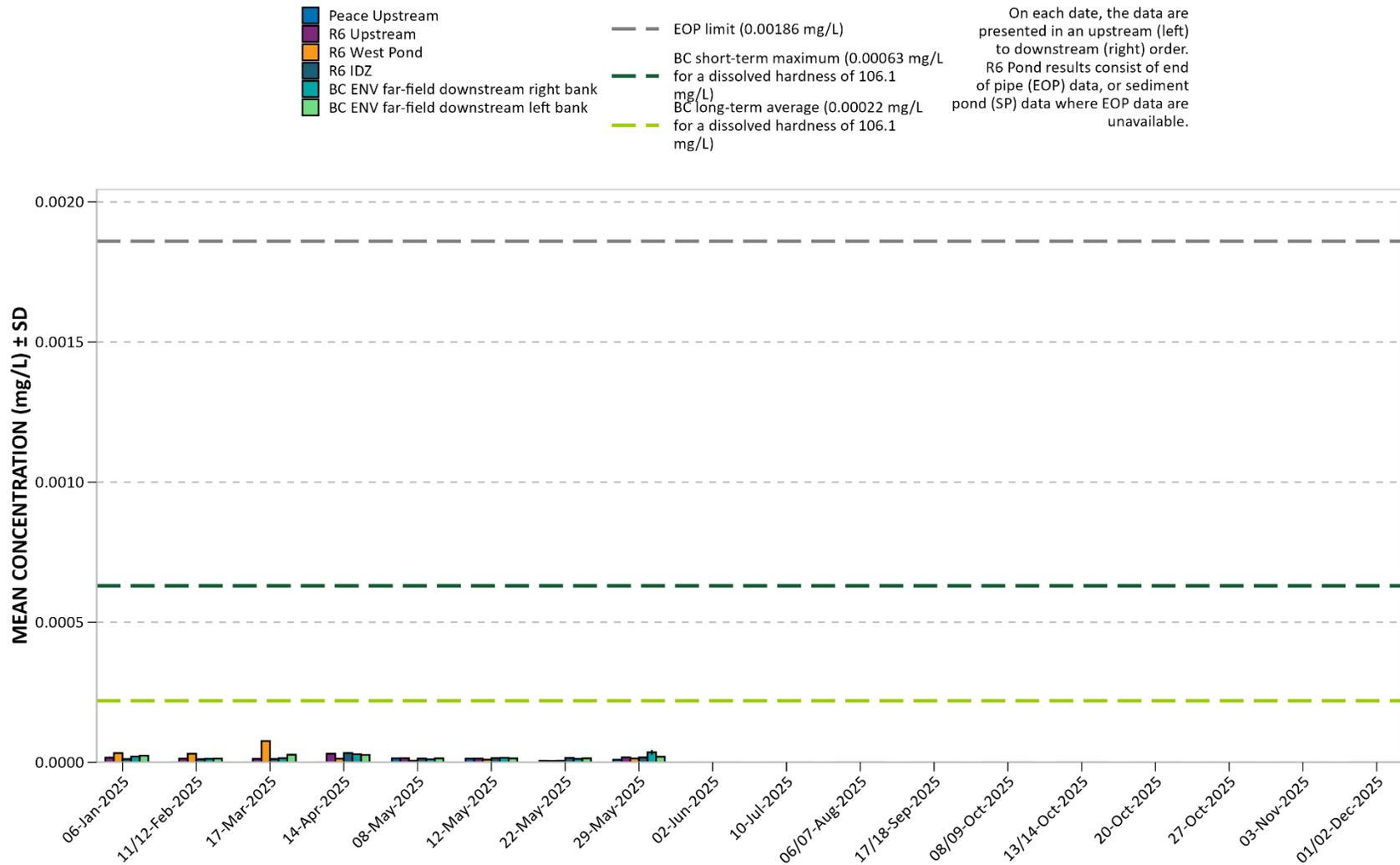


Figure 62. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved cadmium (Cd).



Note: BC WQGs for dissolved cadmium are dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the maximum and 30-day guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against guidelines in the data tables (Appendix A).

Figure 63. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved calcium (Ca).

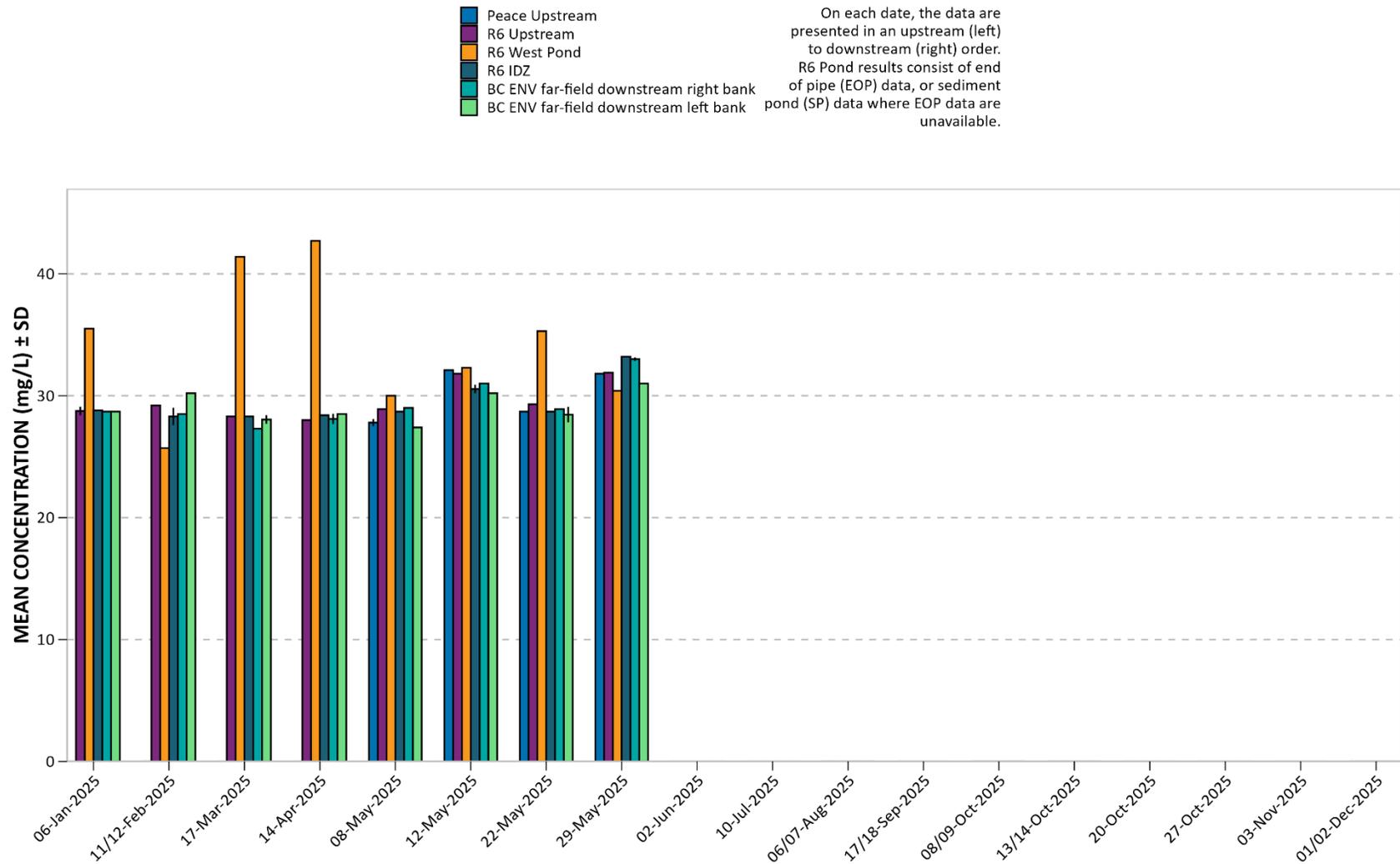


Figure 64. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved chromium (Cr).

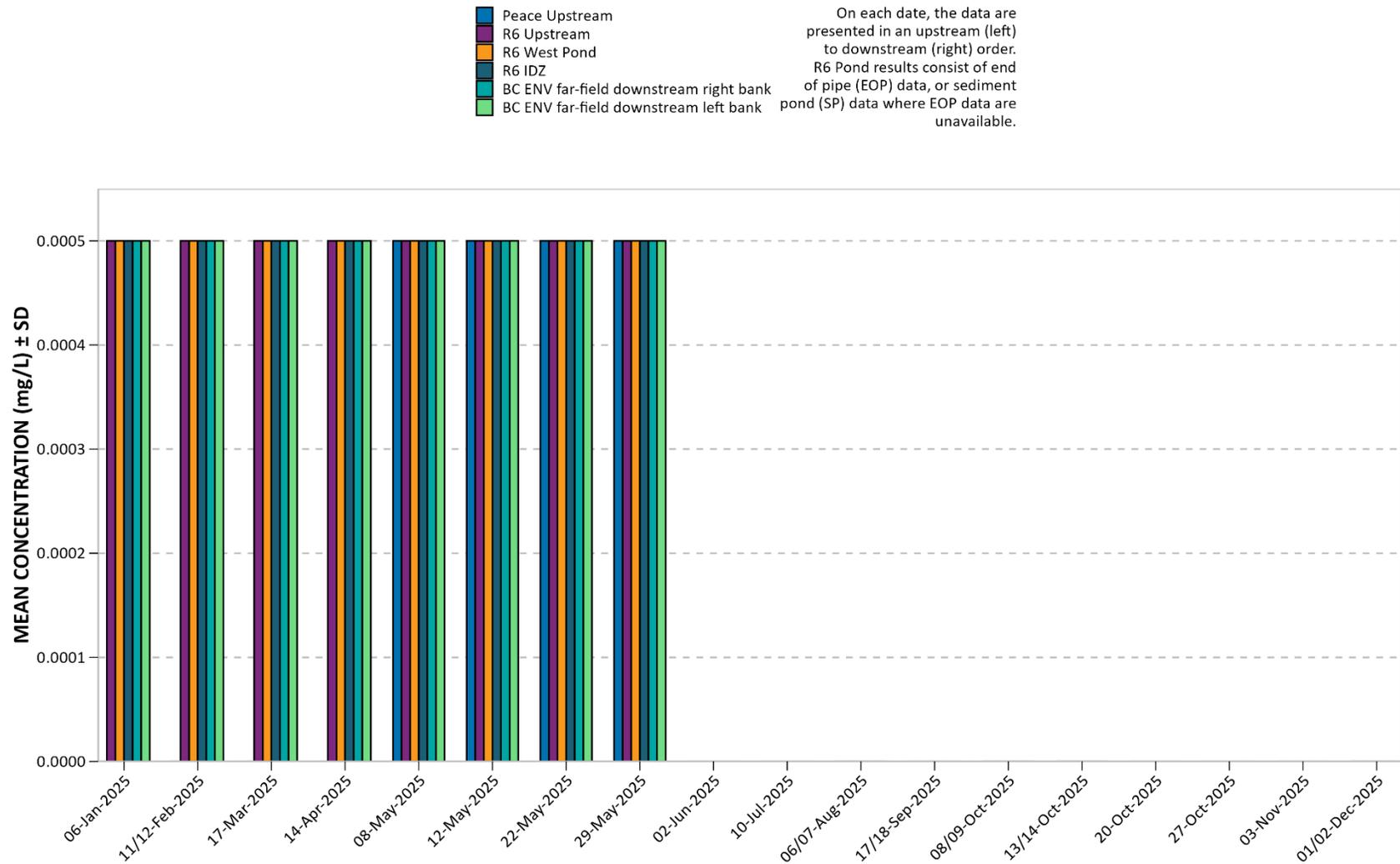
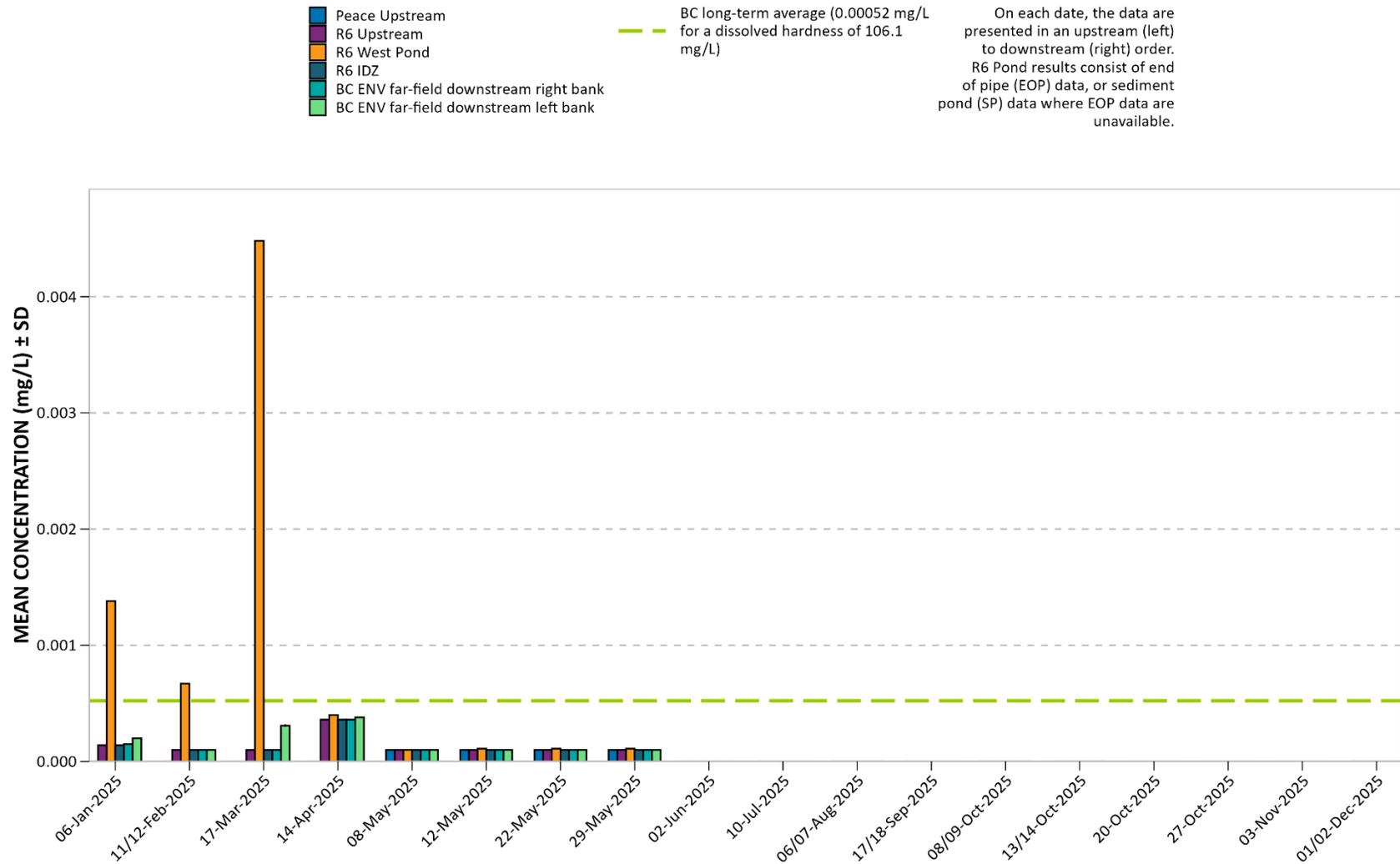
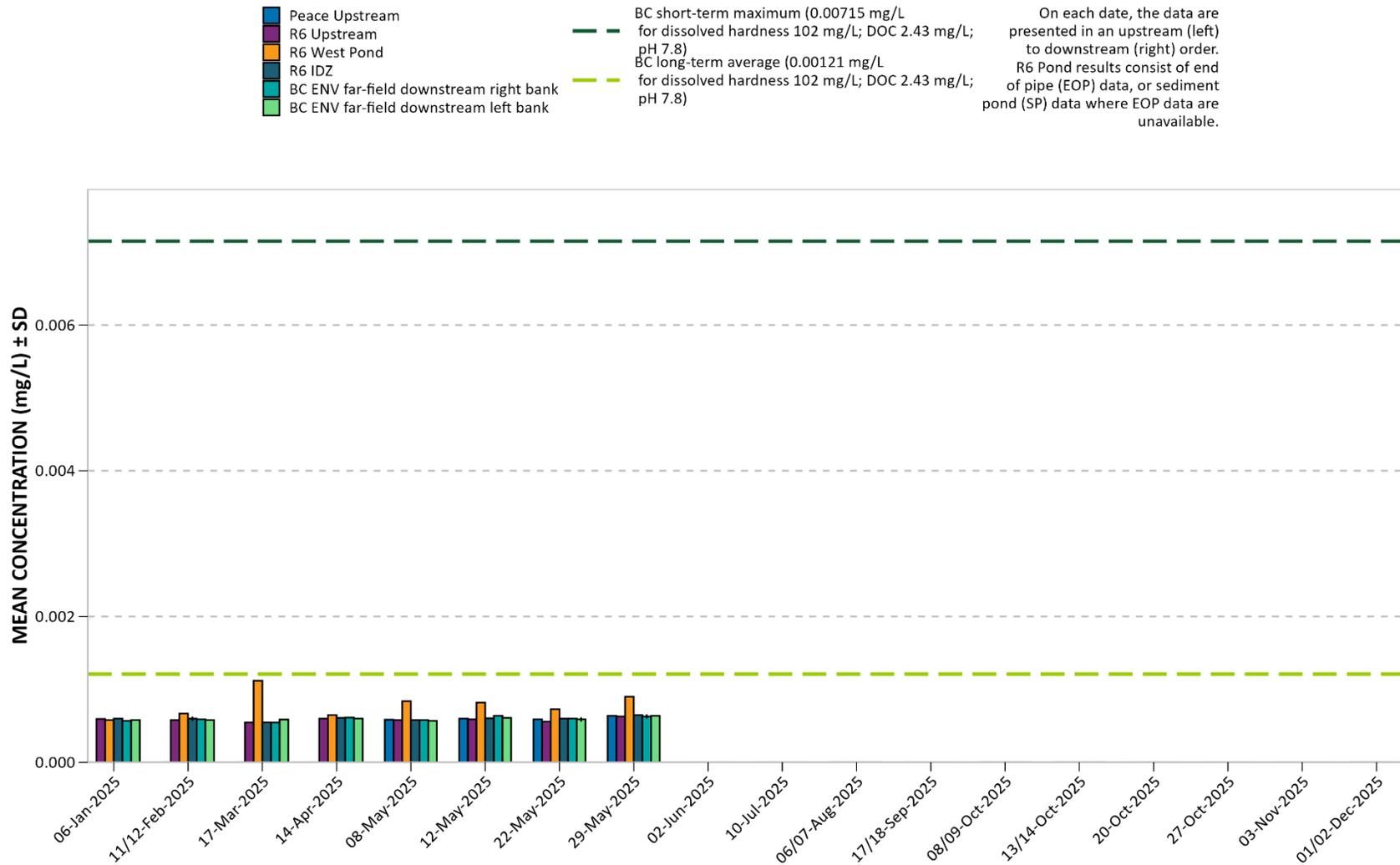


Figure 65. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved cobalt (Co).



Note: BC long-term WQG for dissolved cobalt is dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the 30-day guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against the guideline in the data tables (Appendix A).

Figure 66. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved copper (Cu).



Note: BC WQGs for dissolved copper are dissolved hardness, DOC, and pH dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness, DOC, and pH values observed in the Peace River, the applicable BC maximum and 30-day guidelines are 0.00715 mg/L and 0.00121 mg/L, respectively.

Figure 67. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved iron (Fe).

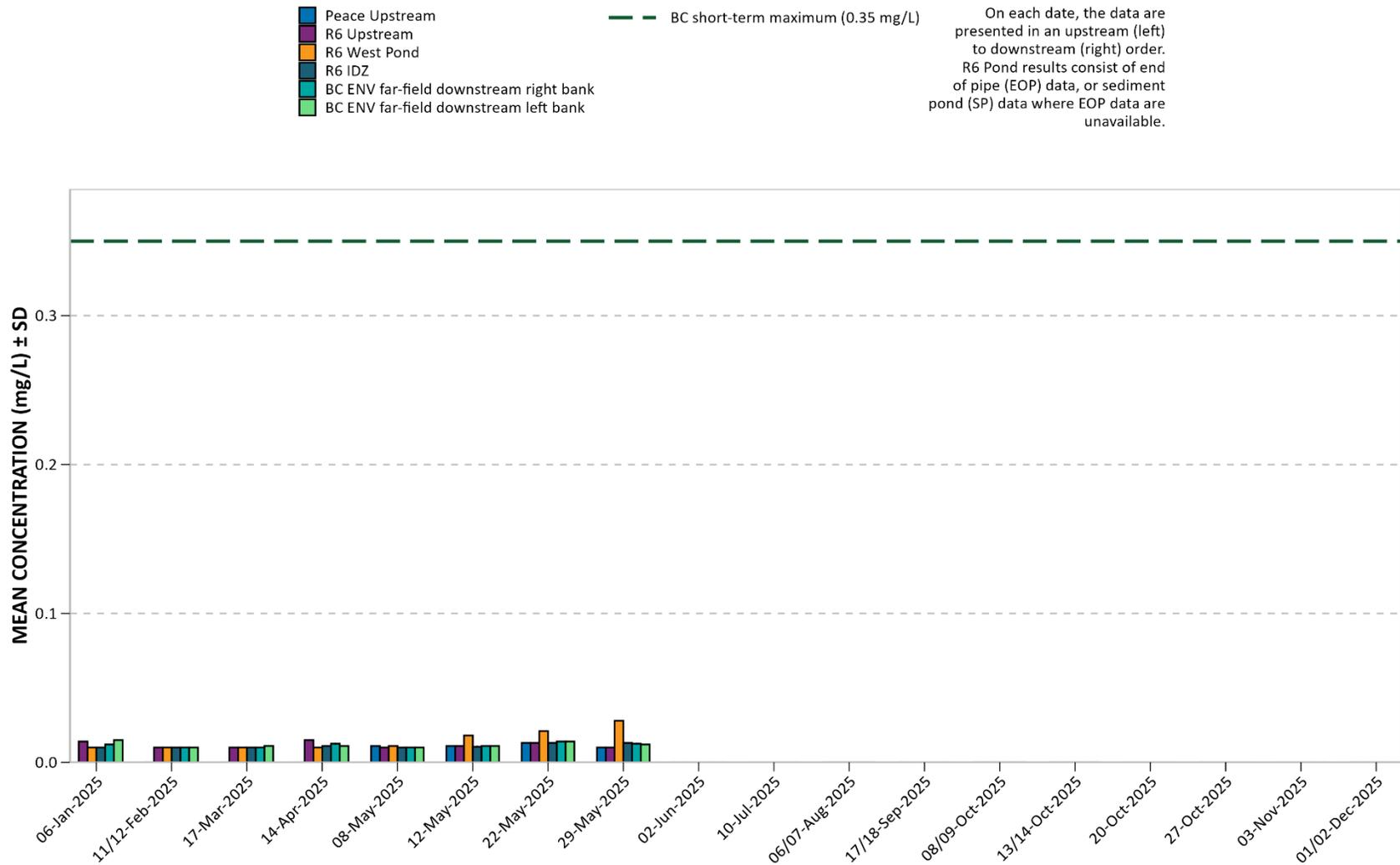
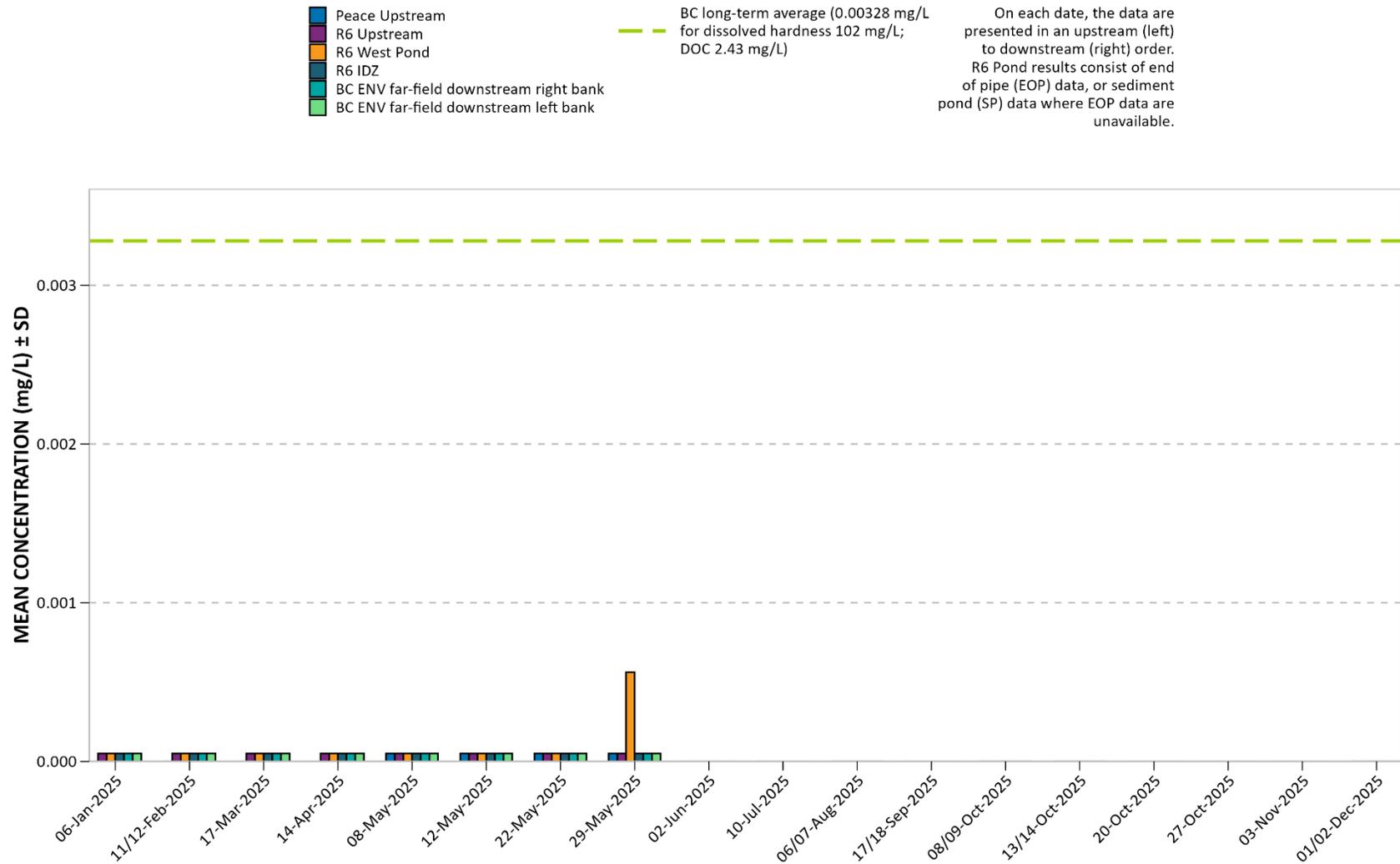


Figure 68. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved lead (Pb).



Note: BC long-term WQG for dissolved lead is dissolved hardness and DOC dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness and DOC values observed in the Peace River, the applicable BC 30-day guideline is 0.00328 mg/L.

Figure 69. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved lithium (Li).

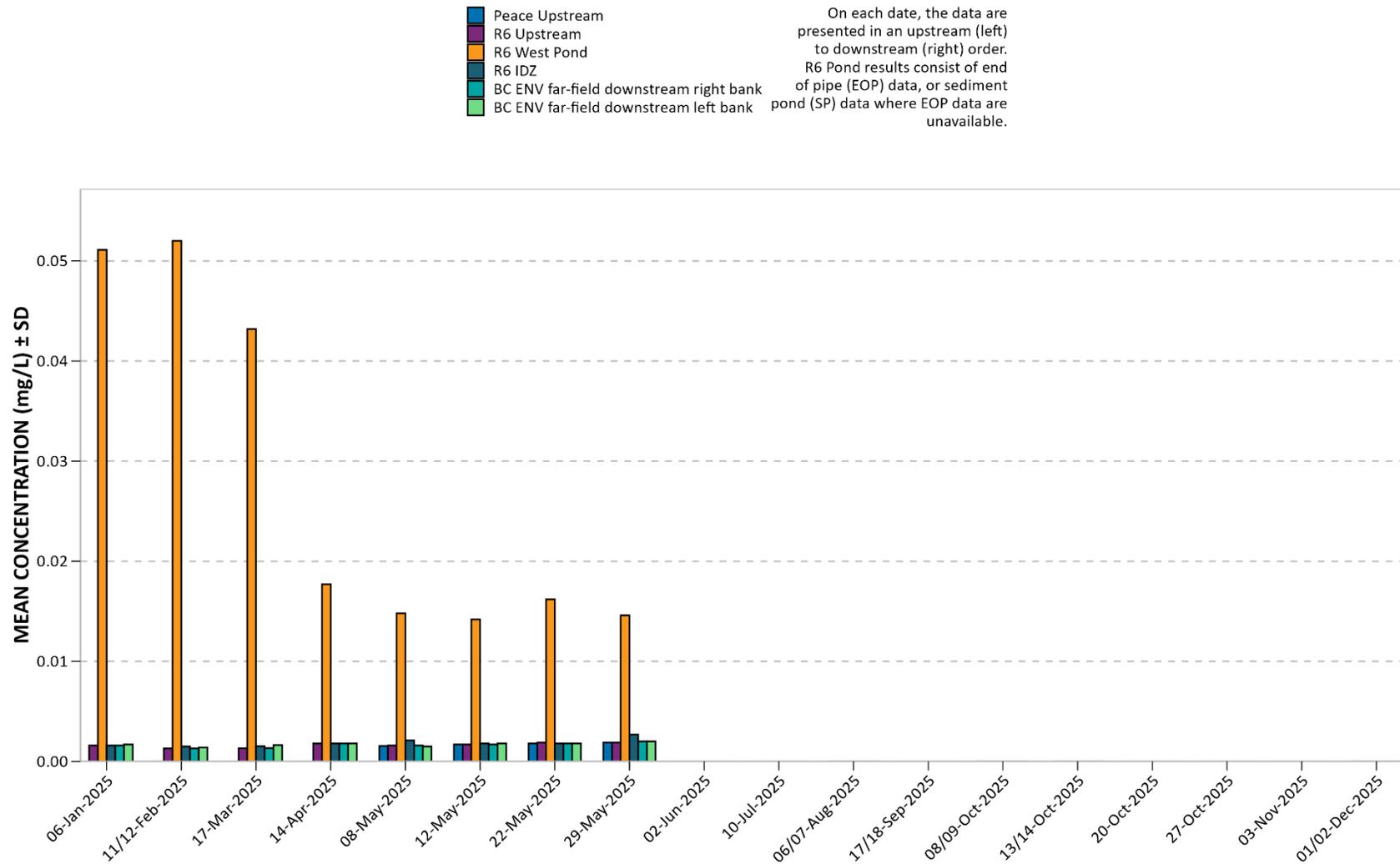


Figure 70. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved magnesium (Mg).

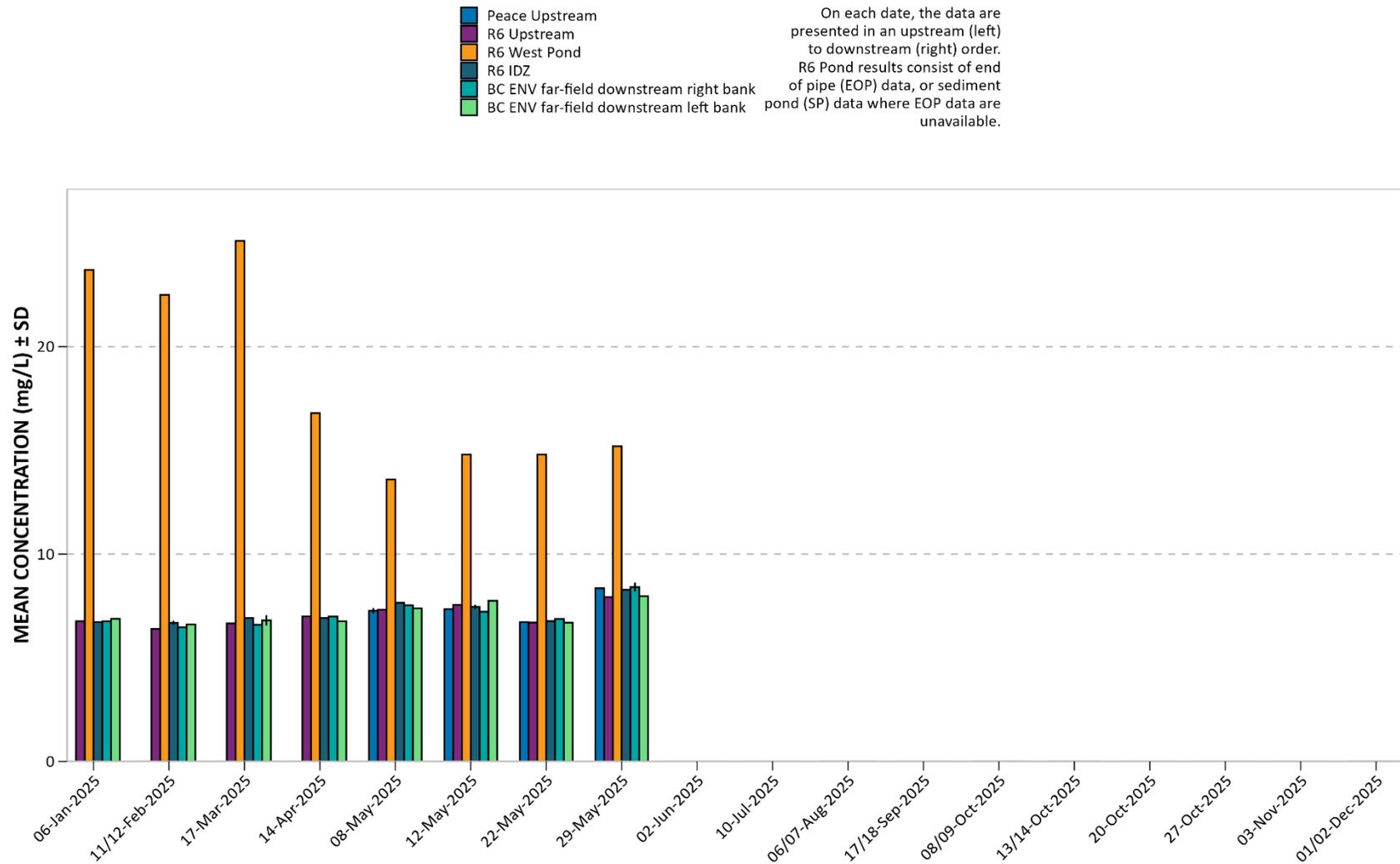


Figure 71. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved manganese (Mn).

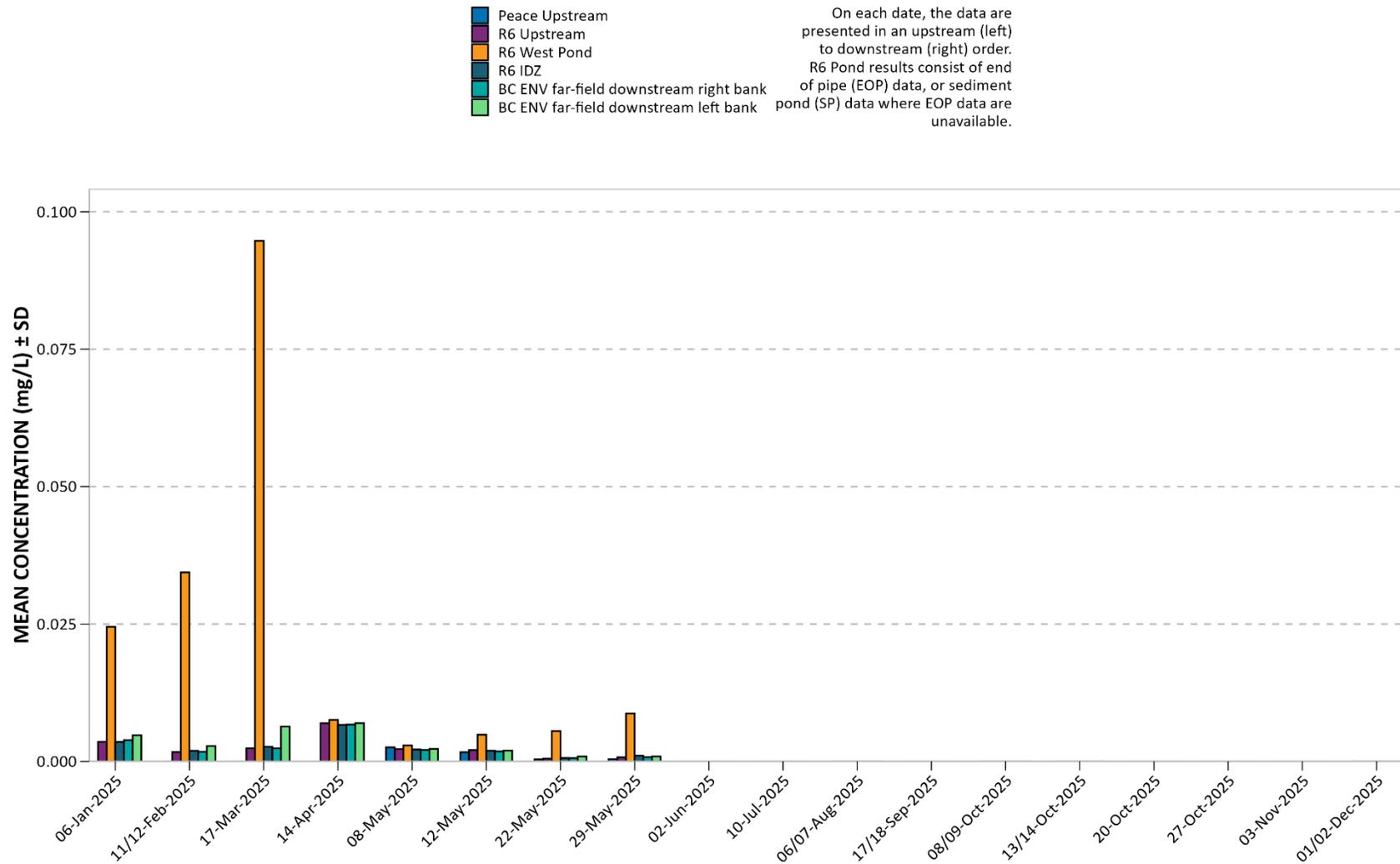


Figure 72. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved mercury (Hg).

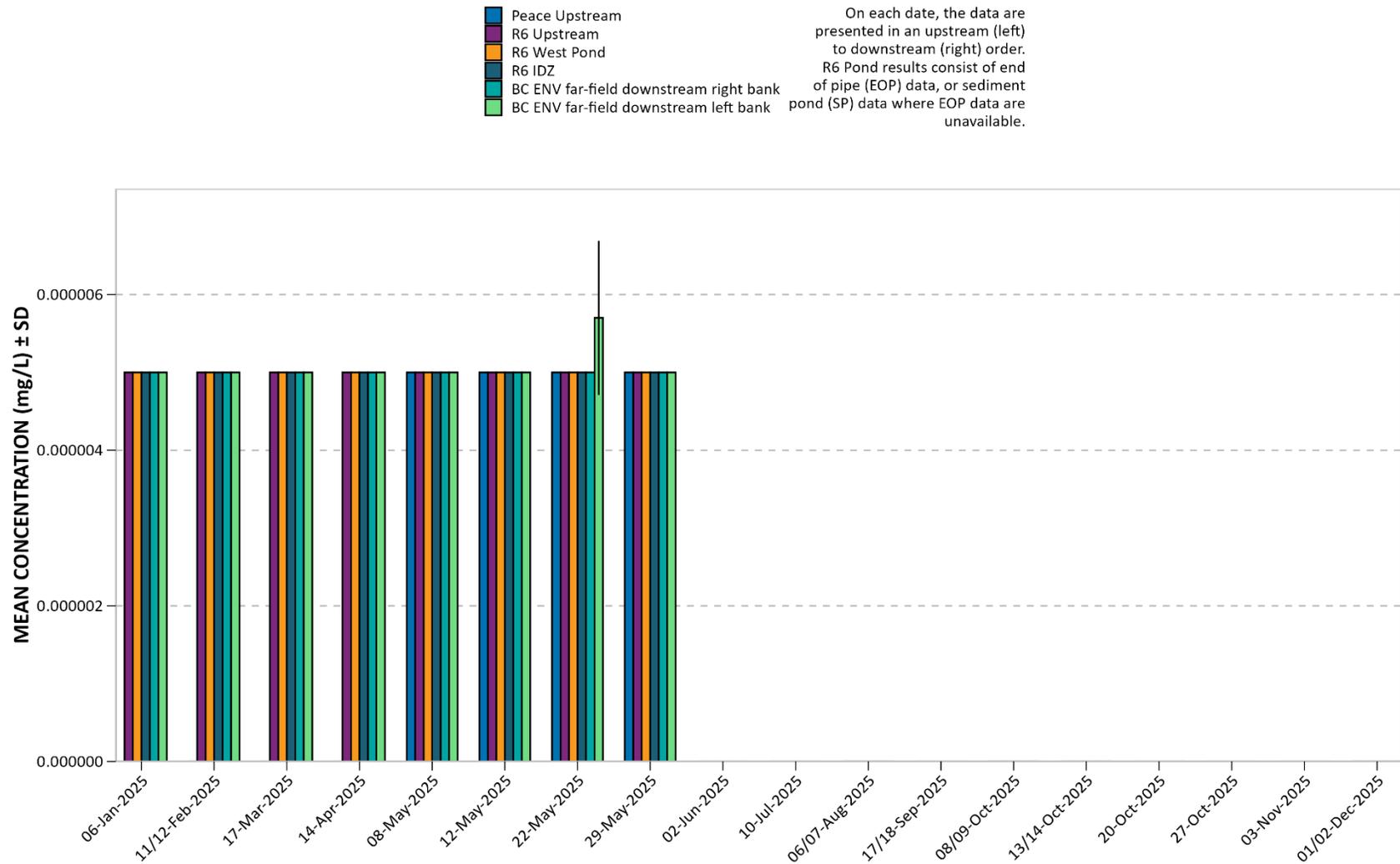


Figure 73. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved molybdenum (Mo).

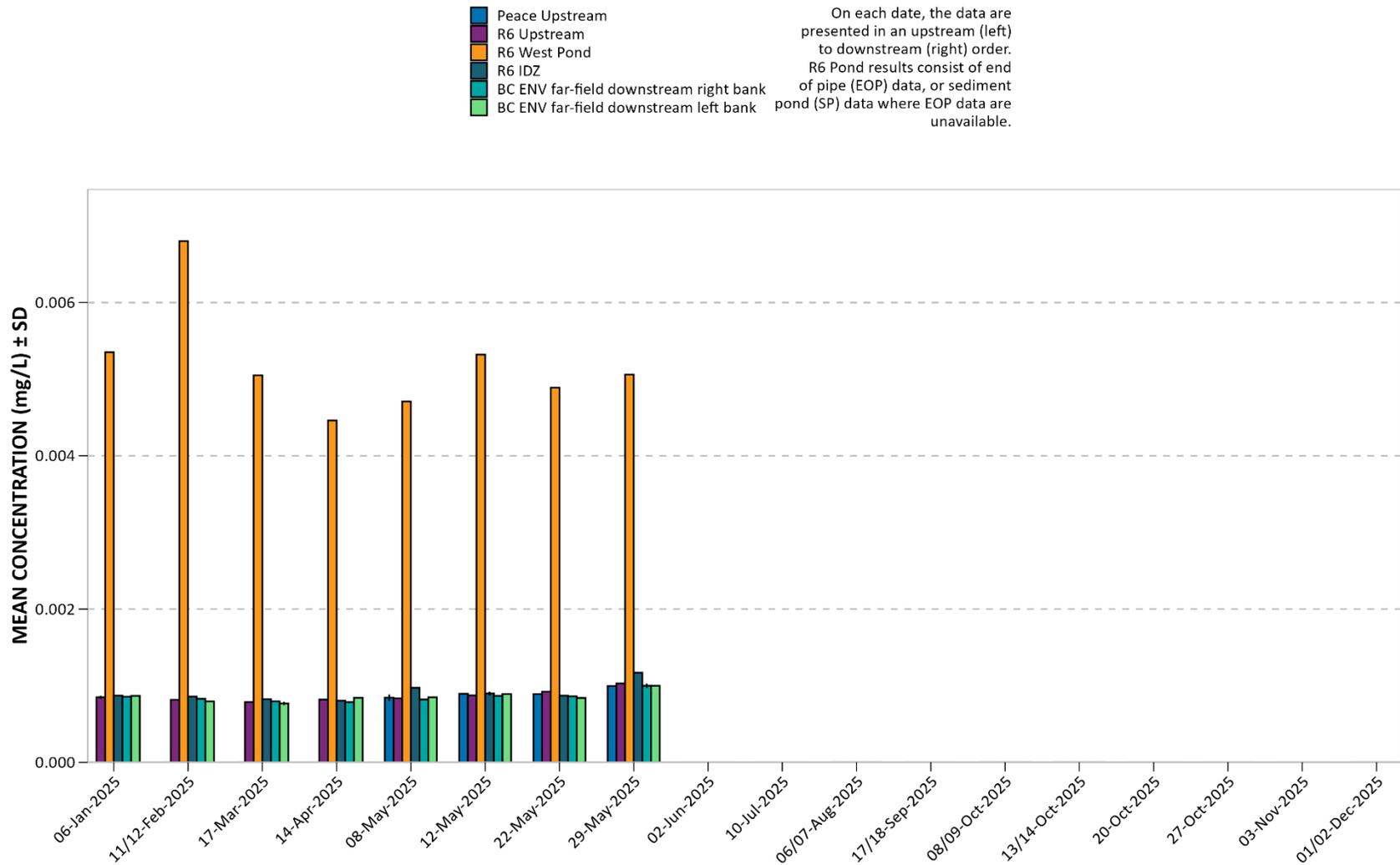
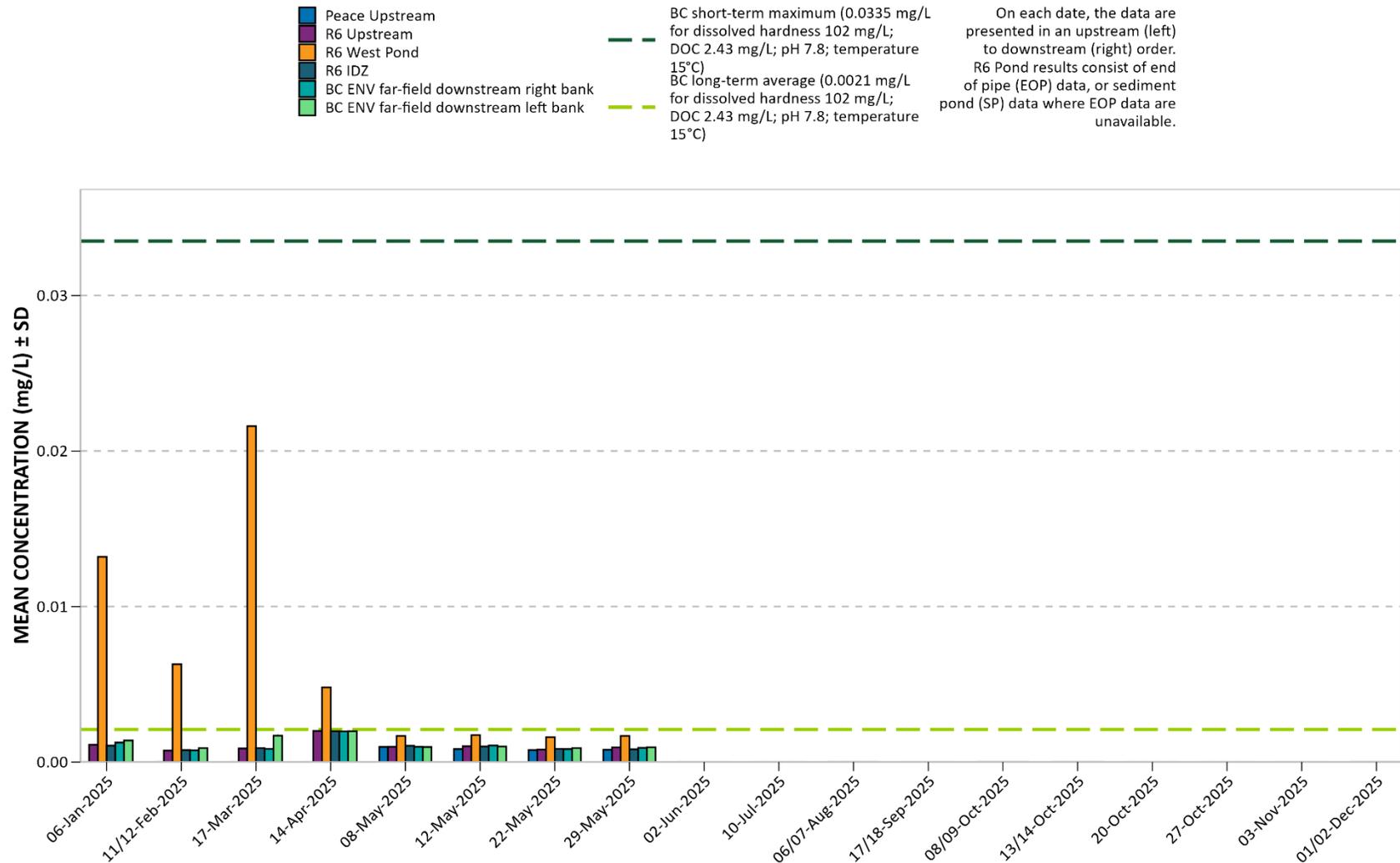


Figure 74. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved nickel (Ni).



Note: BC WQGs for dissolved nickel are dissolved hardness, DOC, pH, and temperature dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness, DOC, pH, and temperature values observed in the Peace River, the applicable BC maximum and 30-day guidelines are 0.0335 mg/L and 0.0021 mg/L, respectively.

Figure 75. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved potassium (K).

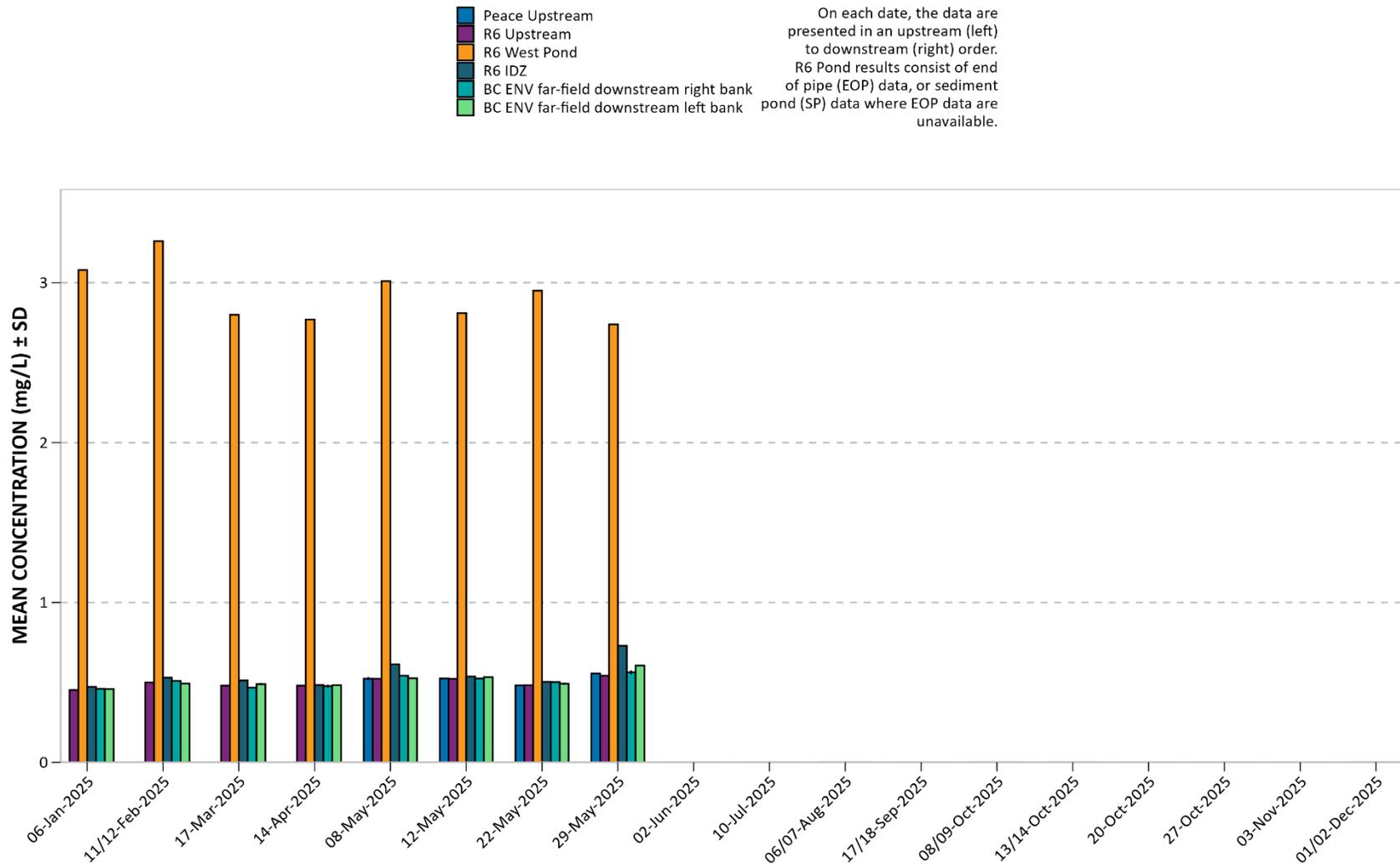


Figure 76. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved selenium (Se).

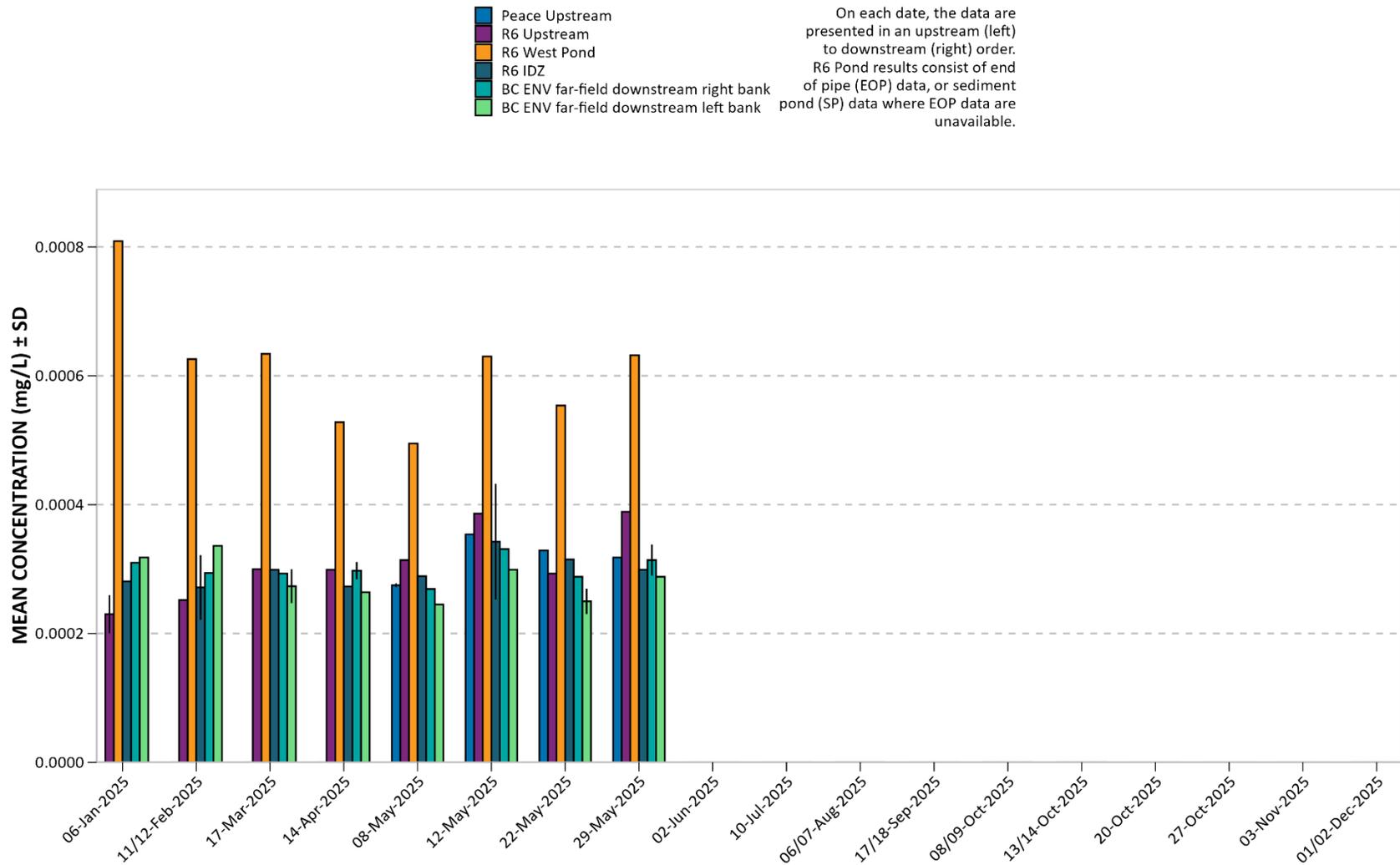


Figure 77. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved silicon (Si).

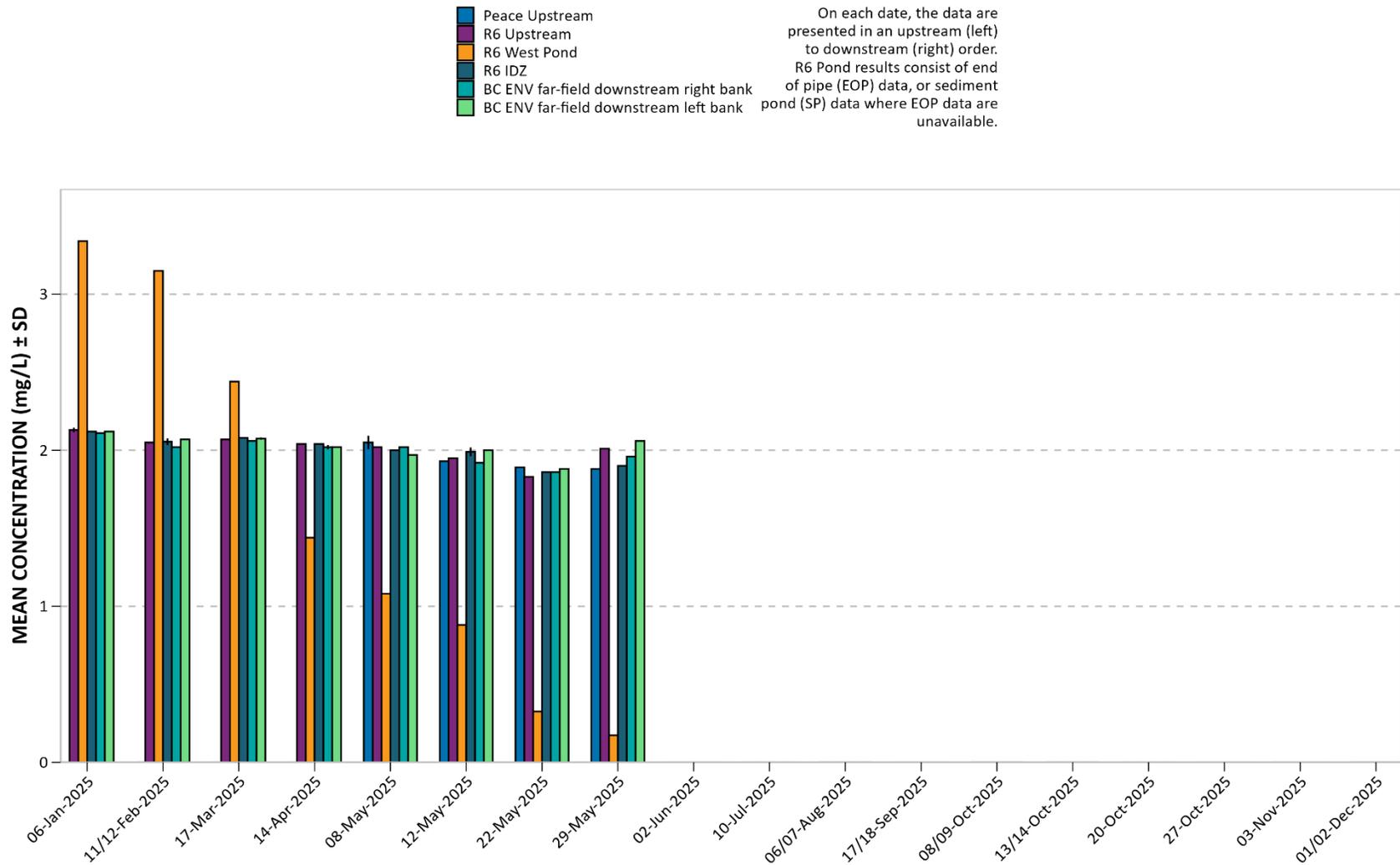


Figure 78. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved silver (Ag).

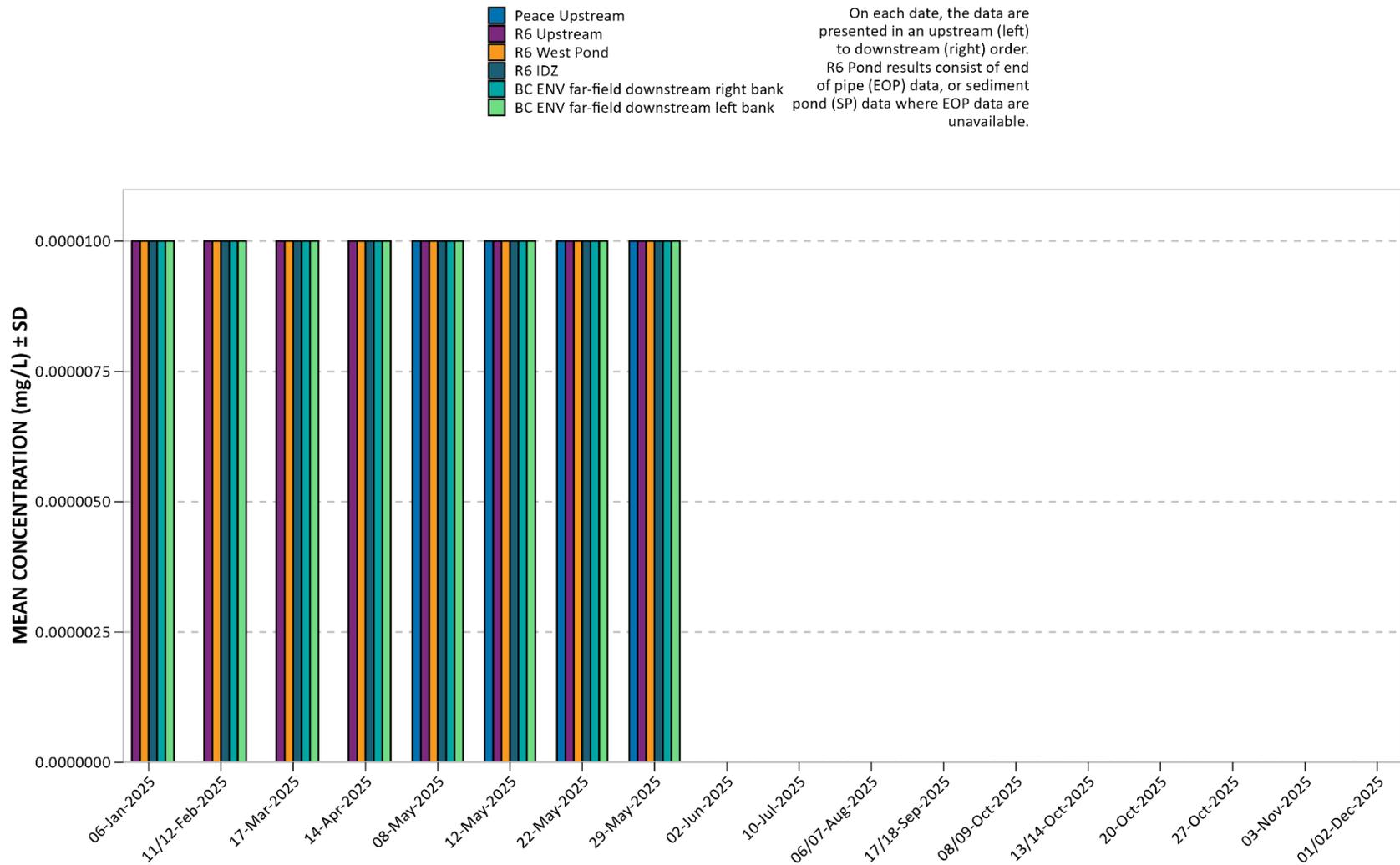


Figure 79. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved sodium (Na).

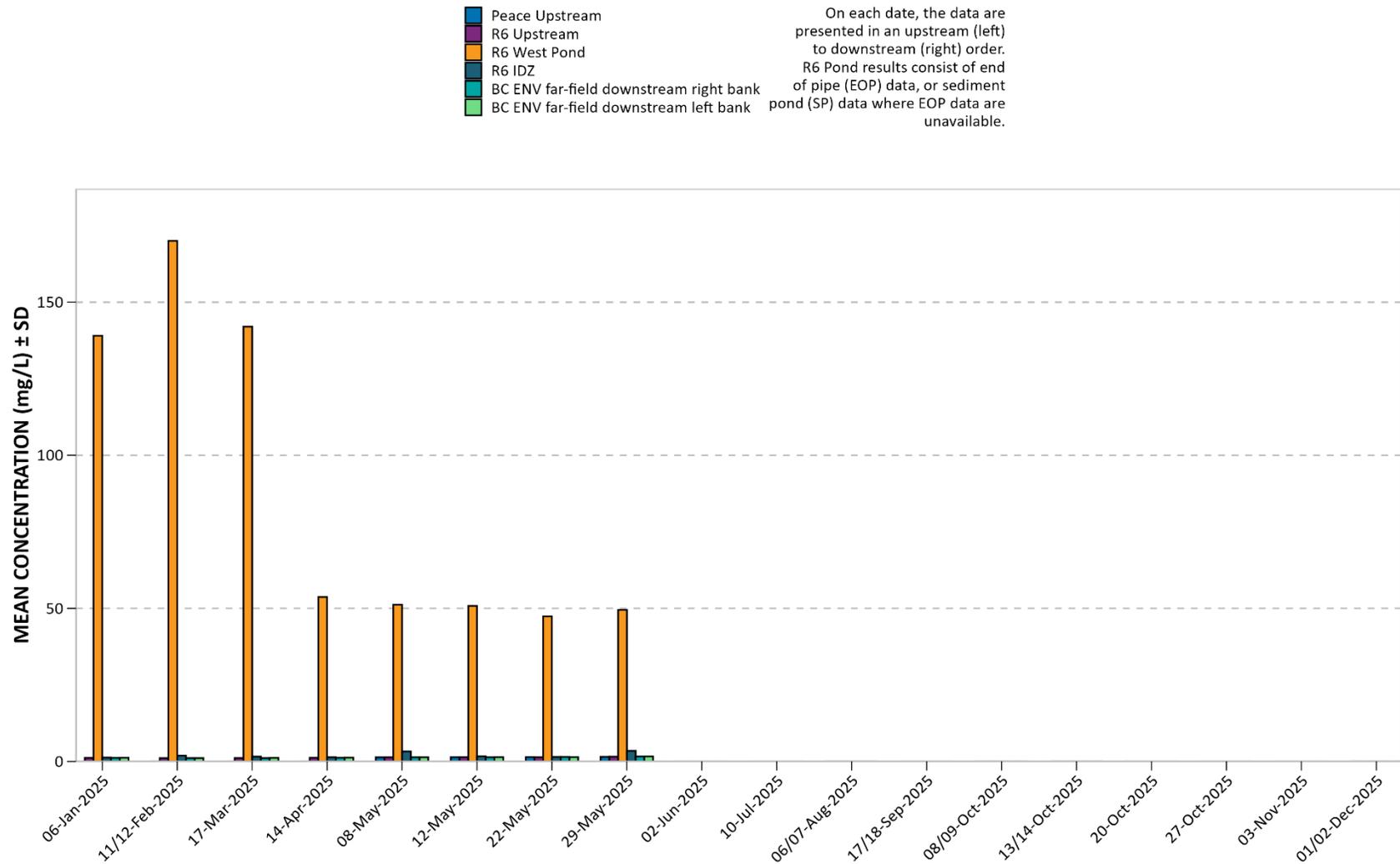


Figure 80. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved strontium (Sr).

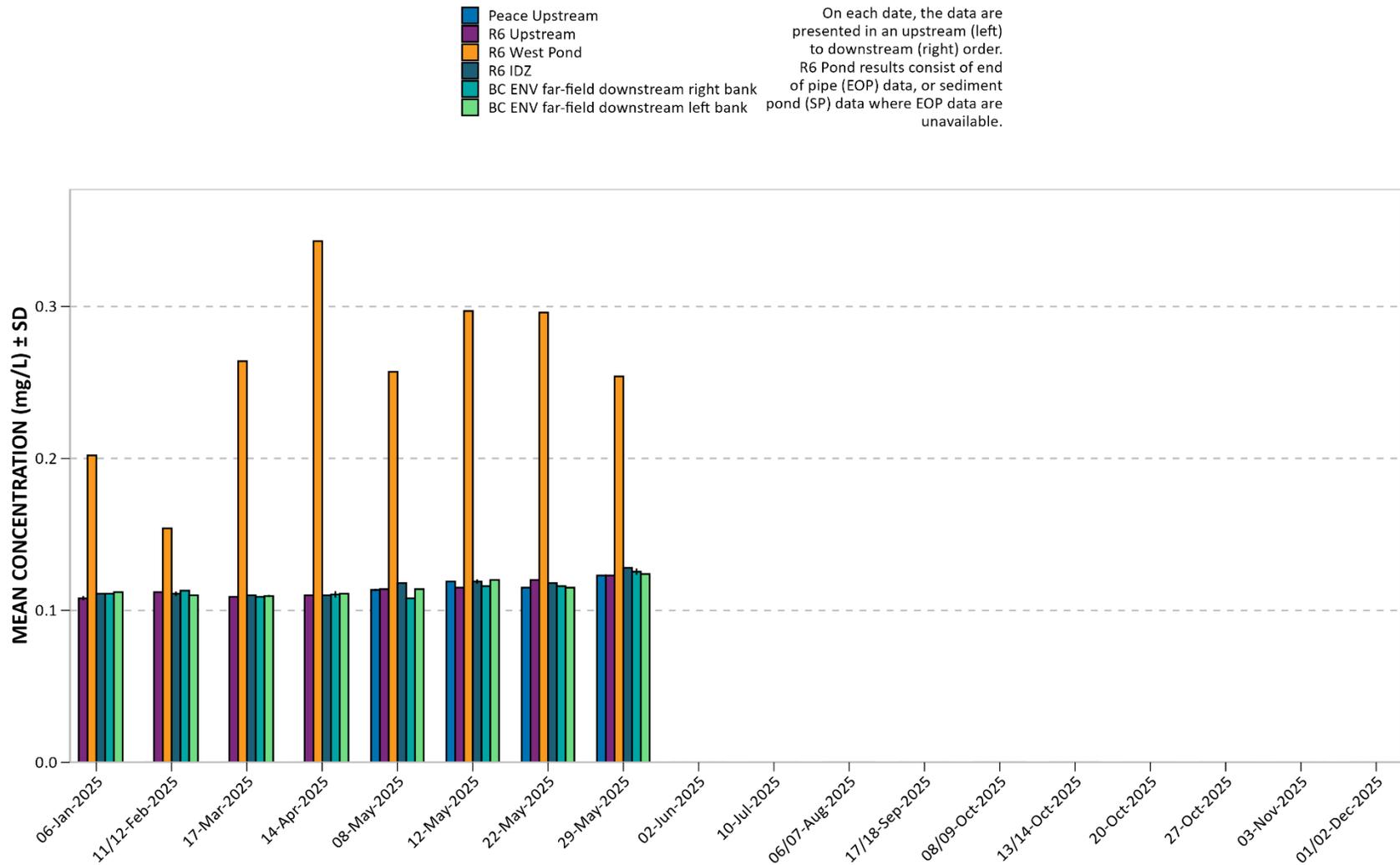


Figure 81. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved sulfur (S).

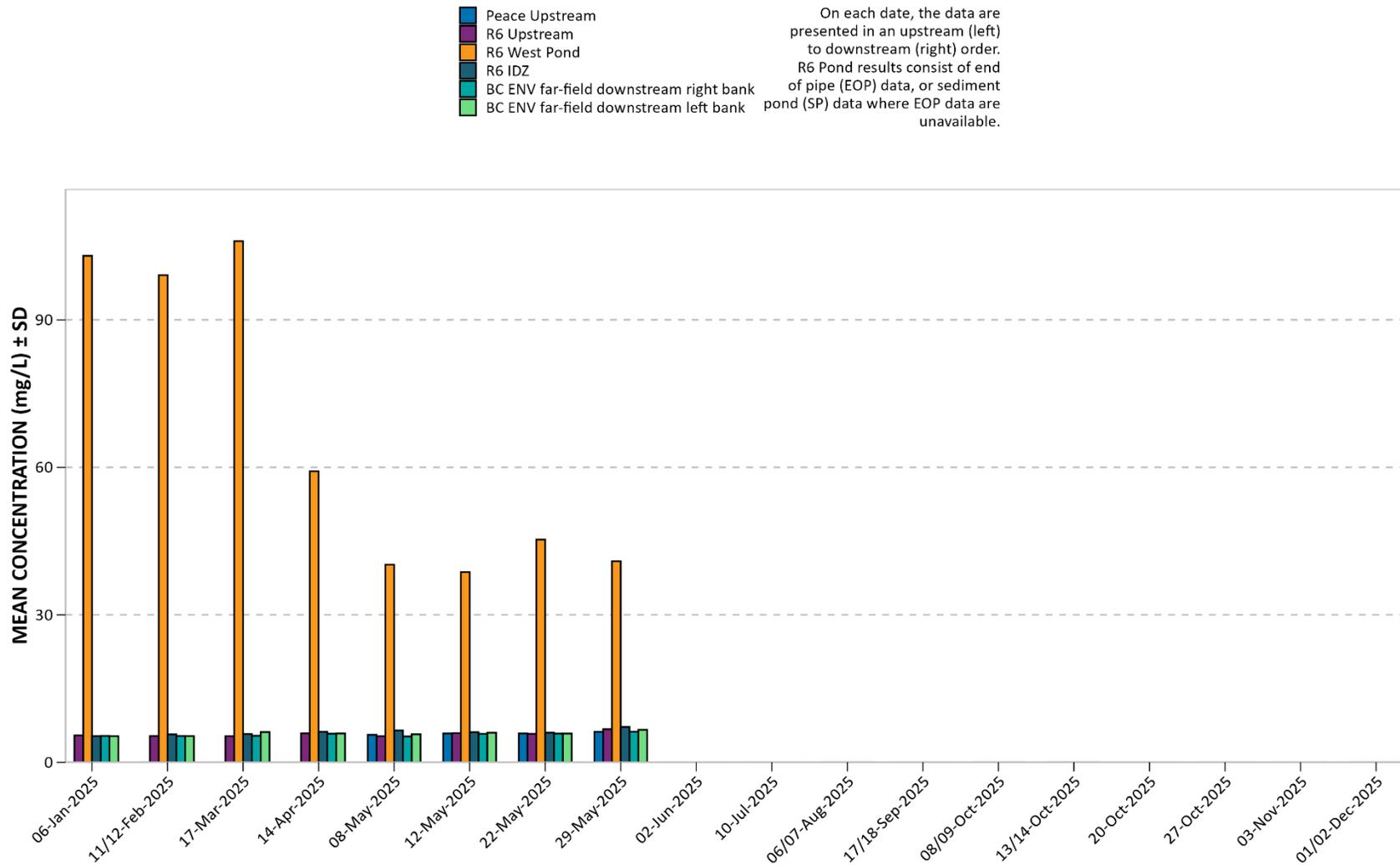


Figure 82. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved thallium (Tl).

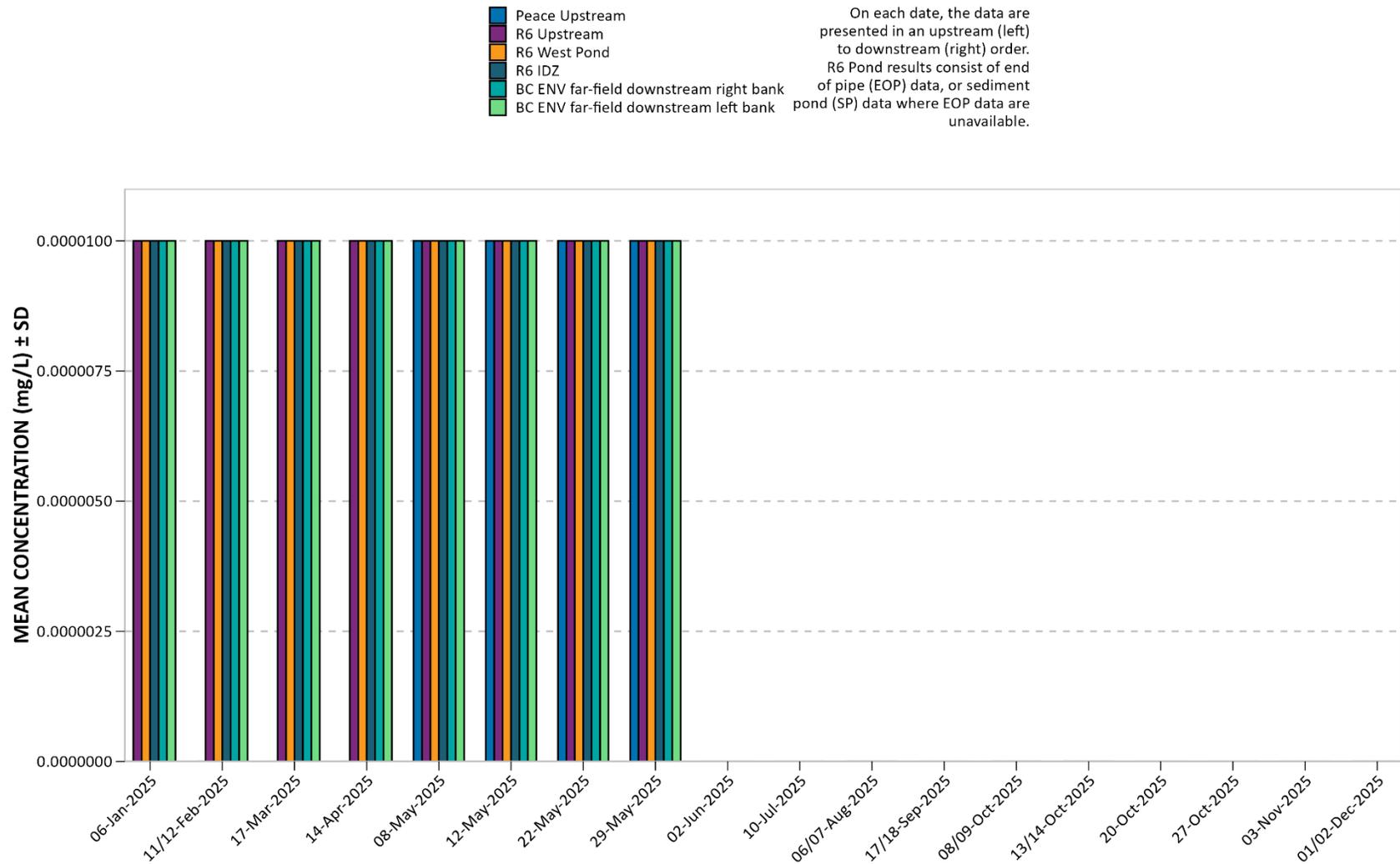


Figure 83. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved tin (Sn).

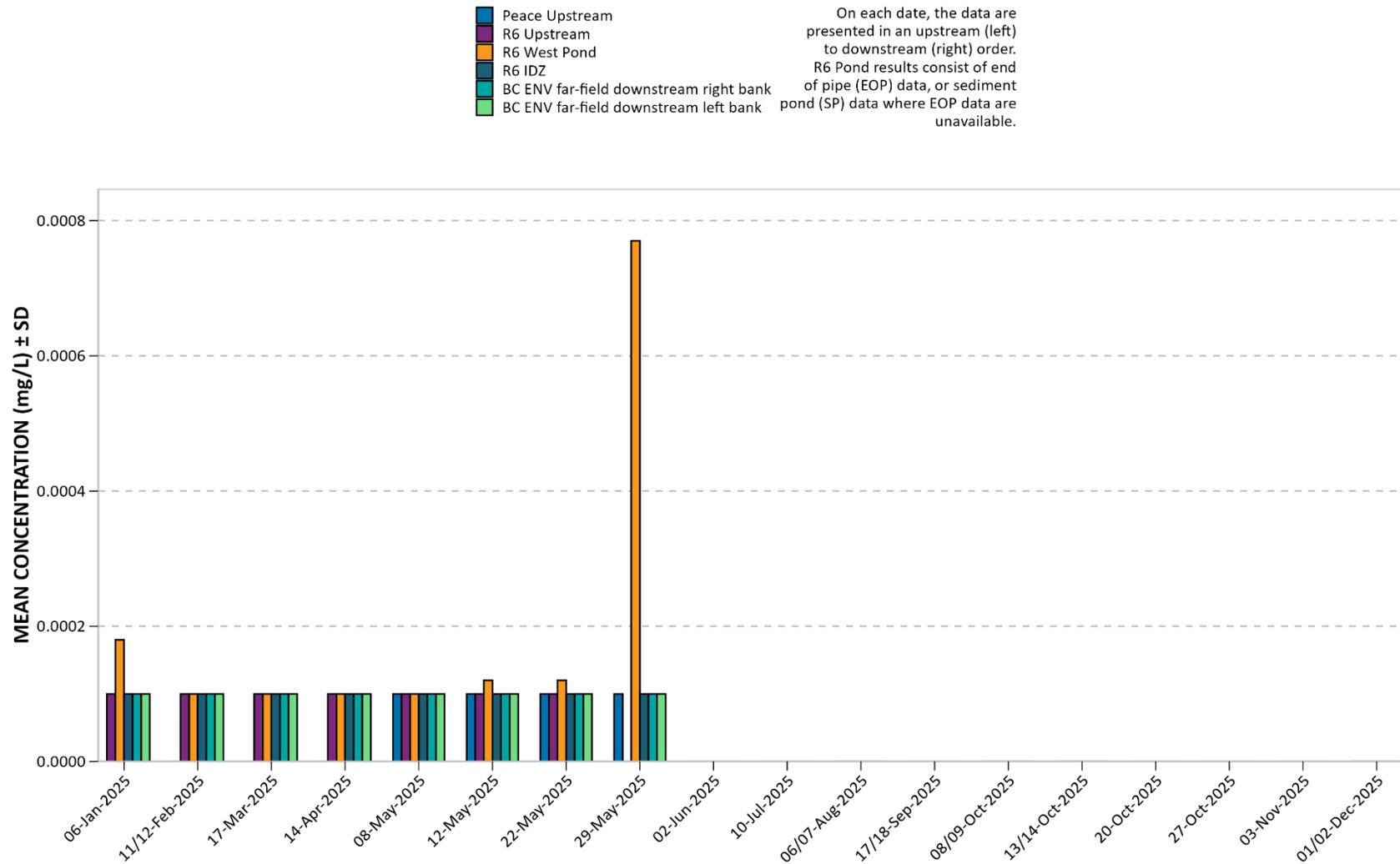


Figure 84. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved titanium (Ti).

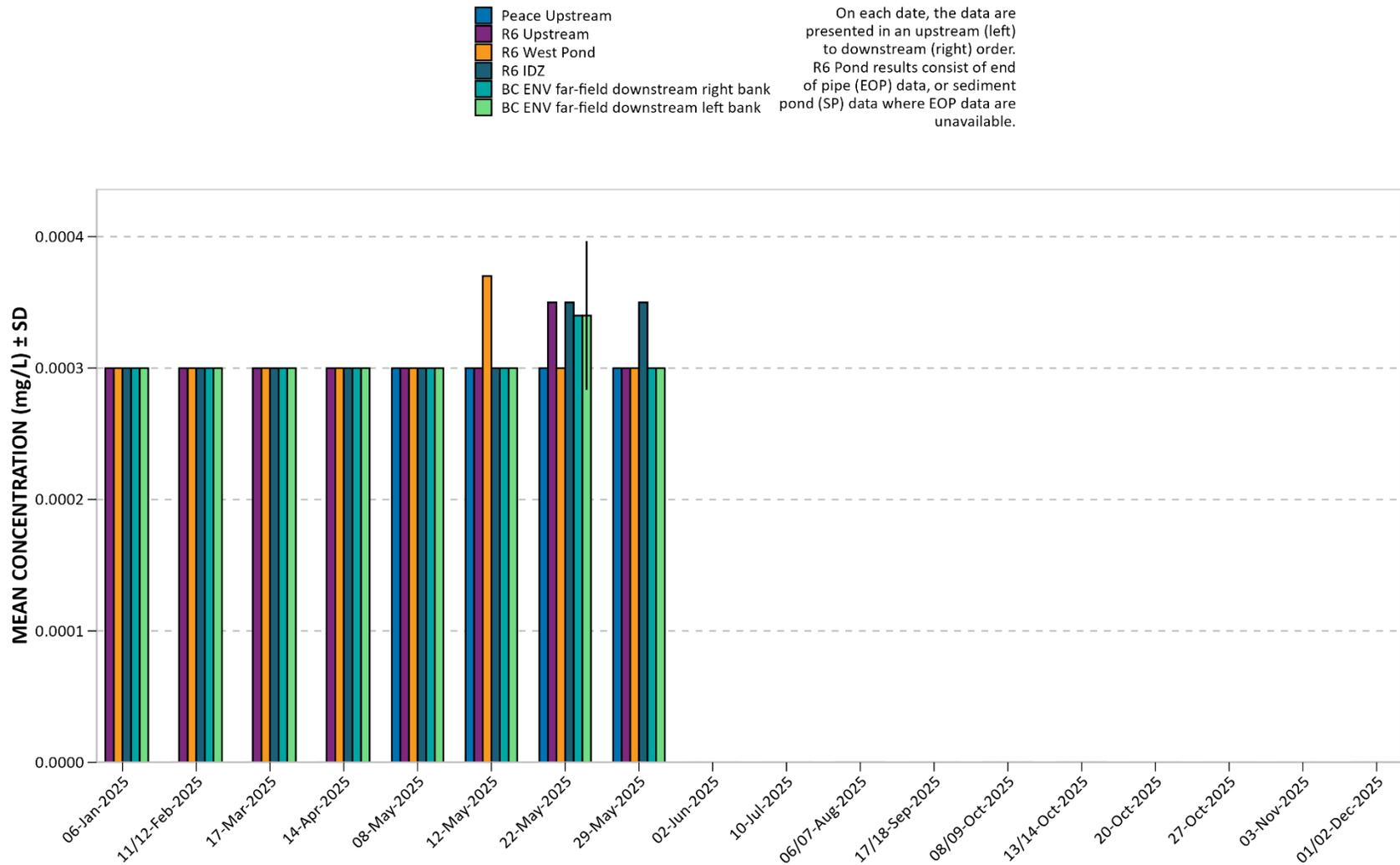


Figure 85. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved uranium (U).

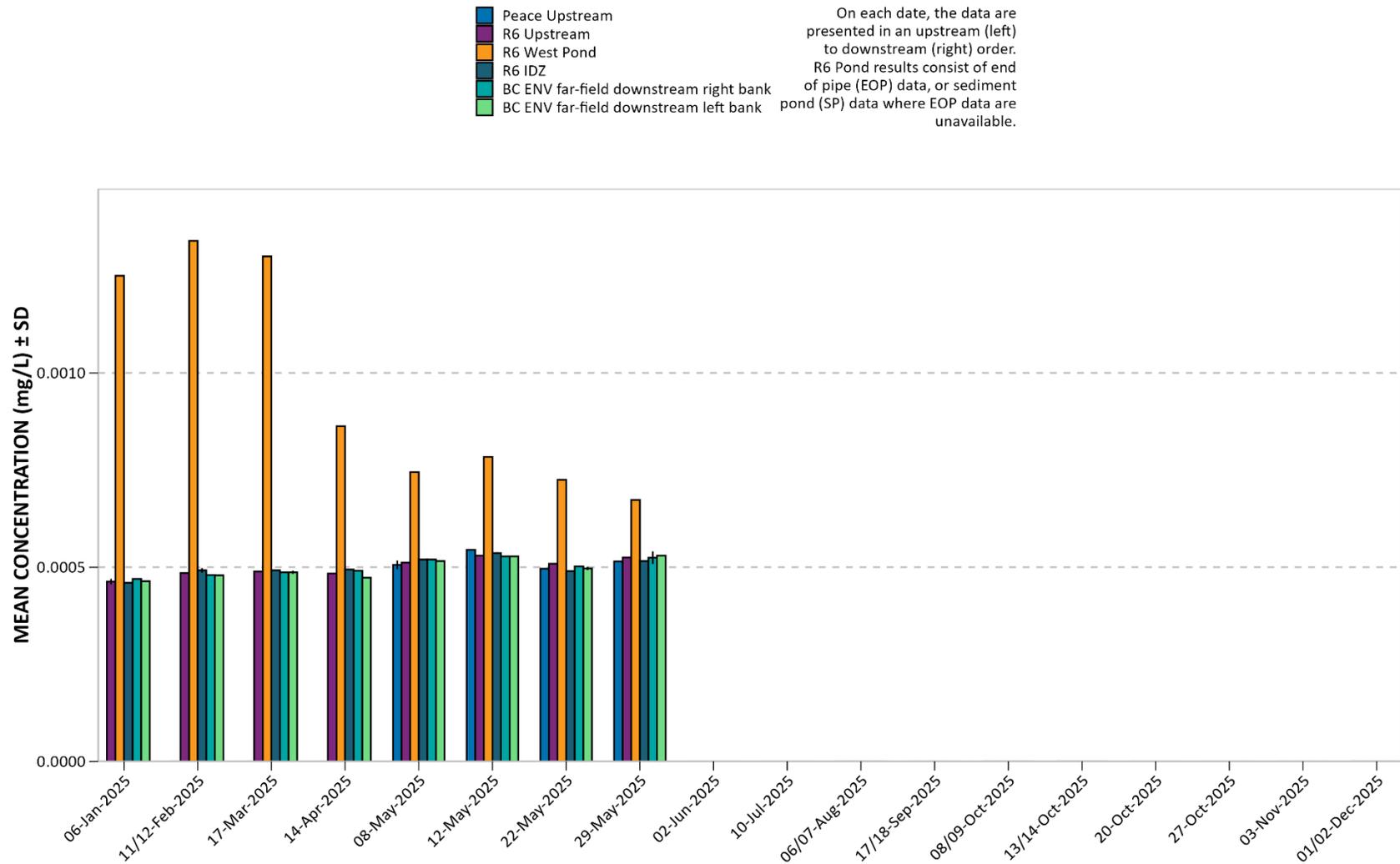


Figure 86. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved vanadium (V).

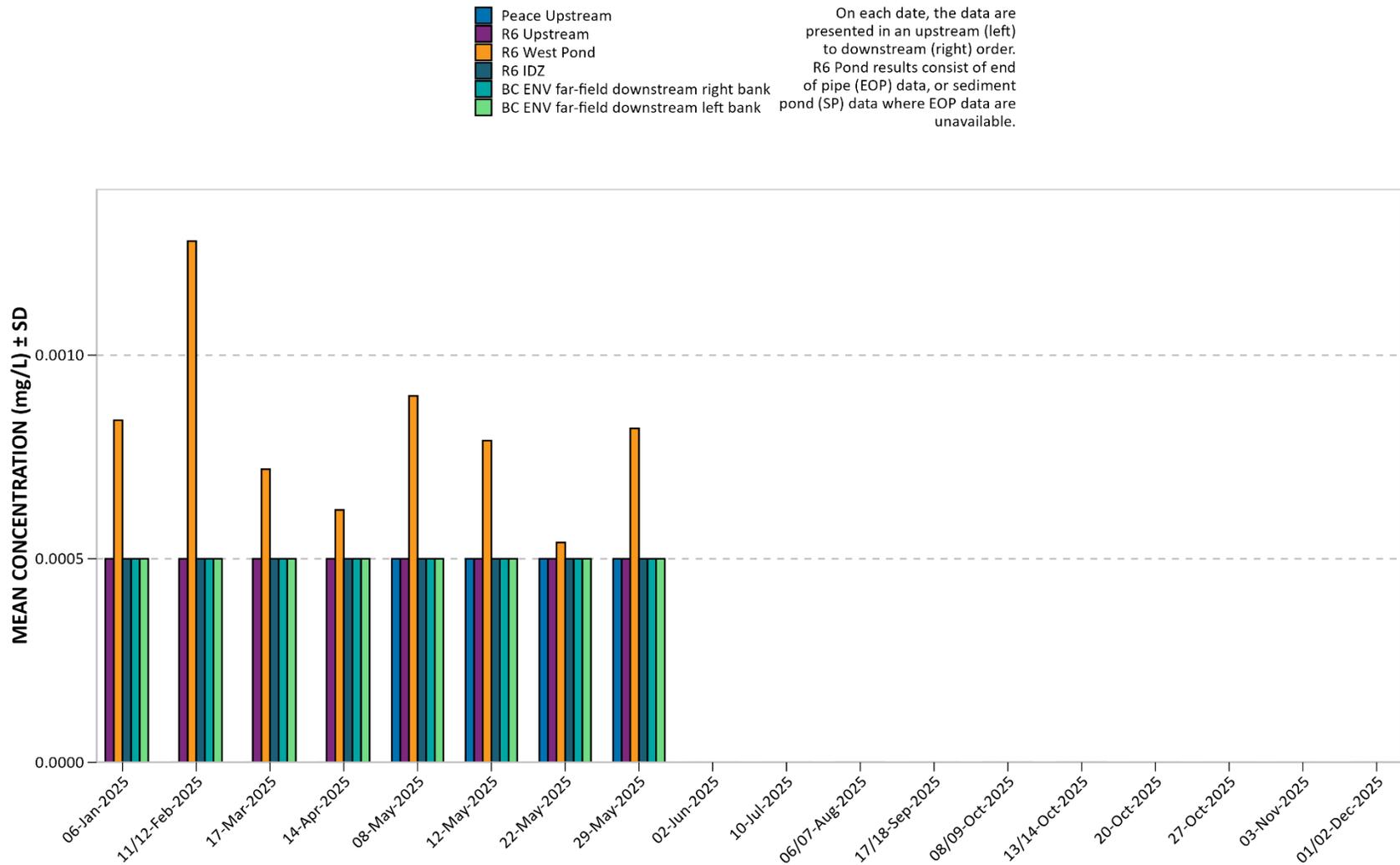
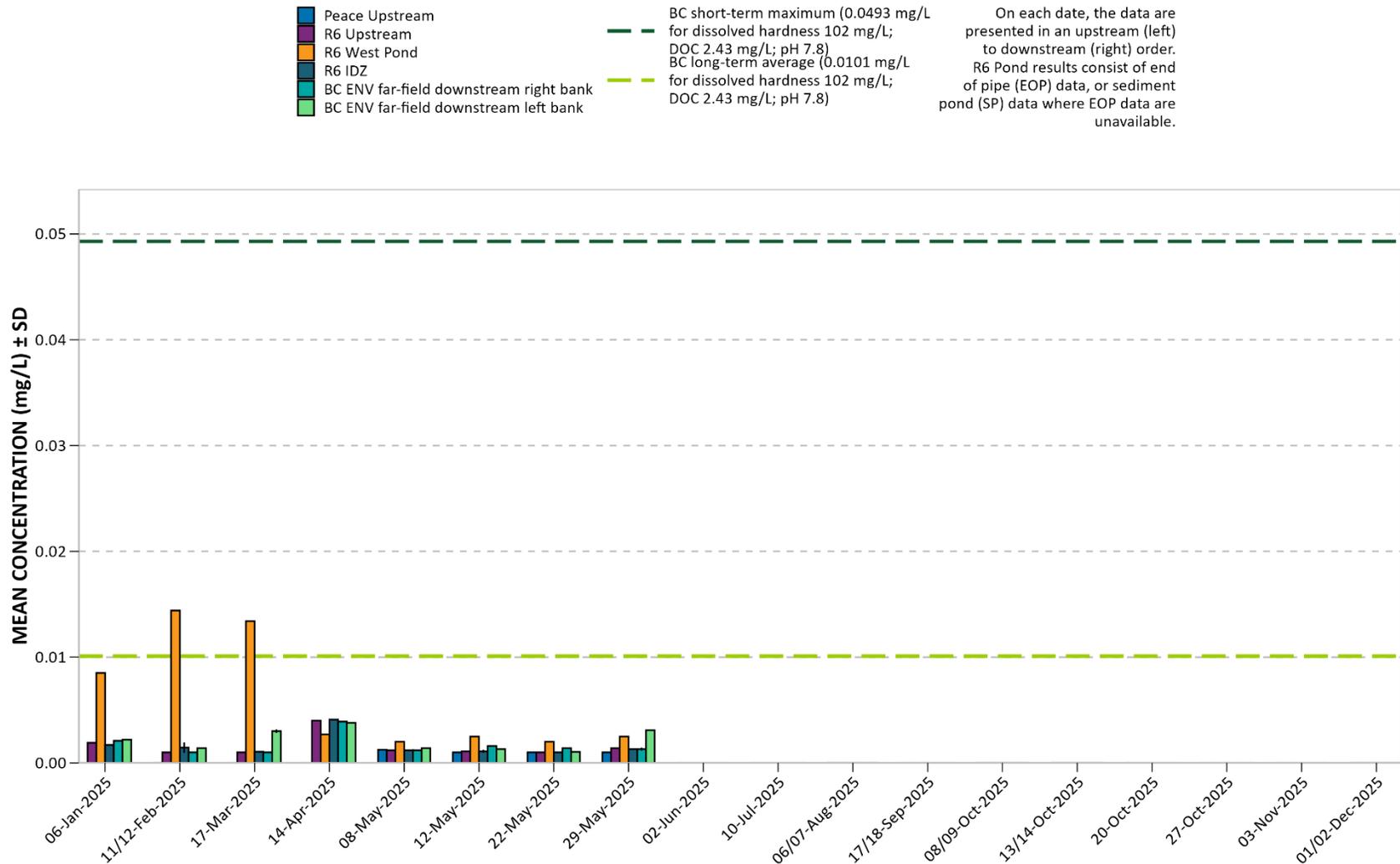
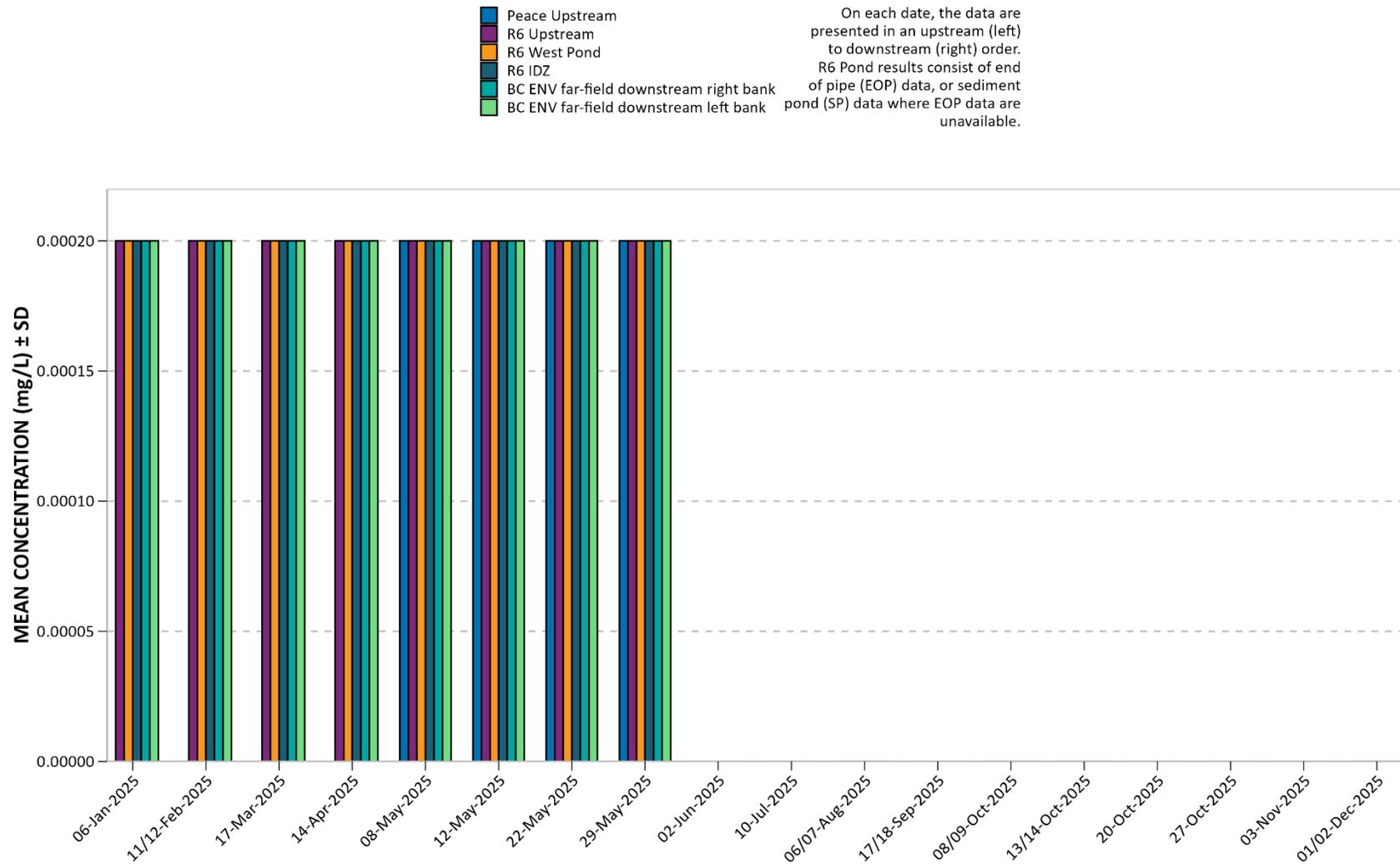


Figure 87. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved zinc (Zn).



Note: BC WQGs for dissolved zinc are dissolved hardness, DOC, and pH dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness, DOC, and pH values observed in the Peace River, the applicable BC maximum and 30-day guidelines are 0.0493 mg/L and 0.0101 mg/L, respectively.

Figure 88. 2025 Site C reservoir, Peace River, and RSEM R6 pond dissolved zirconium (Zr).



Appendix C. Site C PAG Contact RSEM Surface Water Quality Monitoring Time Series Plots – L6 Monthly Data

Prior to December 2024, RSEM L6 did not normally discharge to the Peace River. As of December 2024, L6 receives water from the Diversion Tunnel Outlet Area and as a result, frequent discharge to the Peace River began. The following time series plots depict data collected in 2025 at PAG-contact RSEM pond L6 and the corresponding Site C reservoir and Peace River monitoring sites. Unless otherwise specified, all data are laboratory analytical results. Site C reservoir and Peace River samples were collected by Aski and included a field blank, travel blank and duplicate sample for QA/QC purposes. RSEM pond data were provided by WM DWB LP. Error bars are included when duplicate samples are collected for laboratory data and are also included for all in situ data where triplicate readings are recorded (error bars for in situ data are generally too small to be visible on the plots). The location of duplicate sampling is varied with each sampling date. Similarly pond sampling duplicates are collected periodically, and error bars are included when duplicate sampling in the pond has occurred.

Figure 89. 2025 Site C reservoir and Peace River in situ, and lab (RSEM L6 pond) specific conductivity.

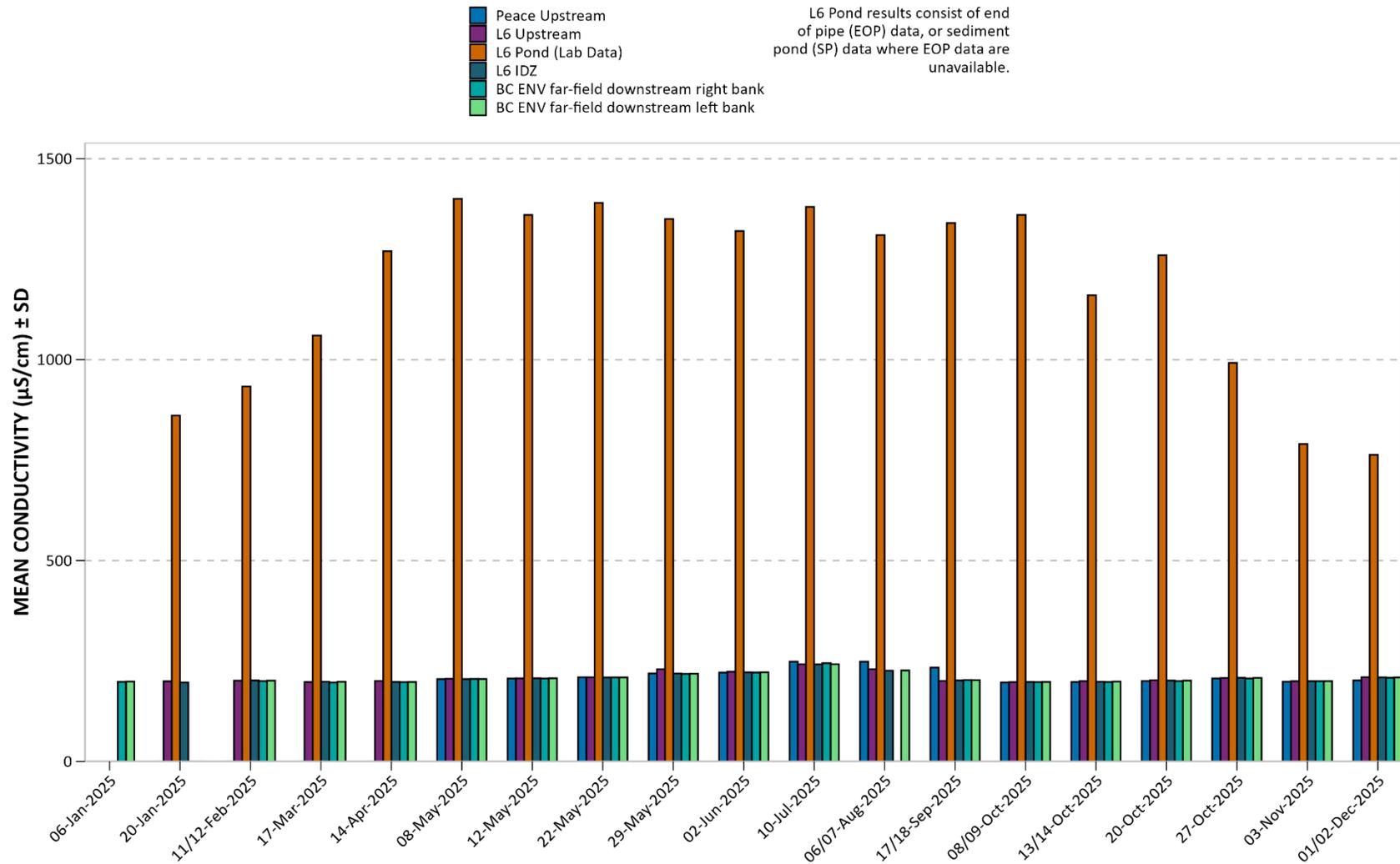


Figure 90. 2025 Site C reservoir, Peace River, and RSEM L6 pond lab specific conductivity.

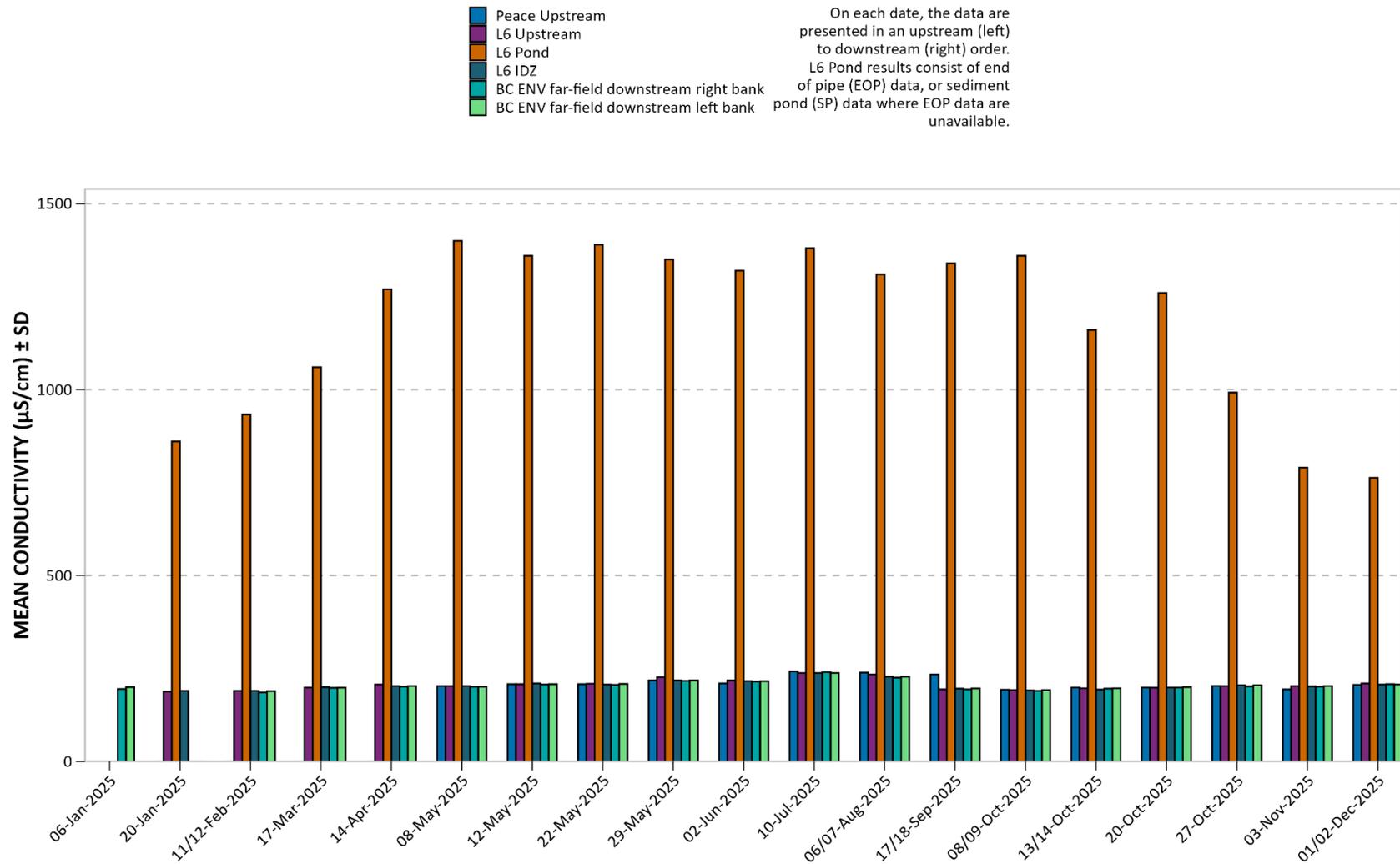


Figure 91. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved hardness (as CaCO₃).

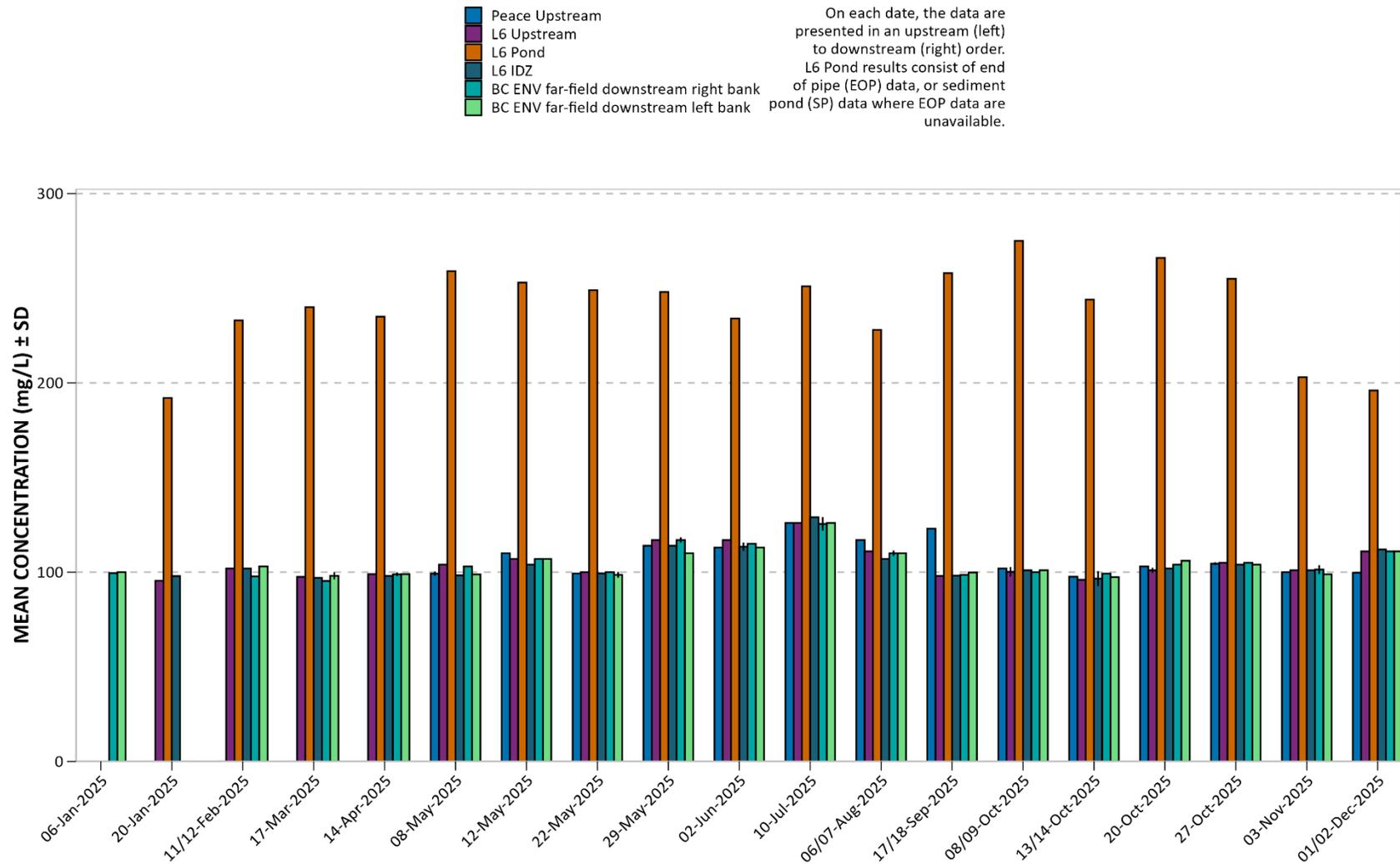


Figure 92. 2025 Site C reservoir, Peace River, and RSEM L6 pond total dissolved solids (TDS).

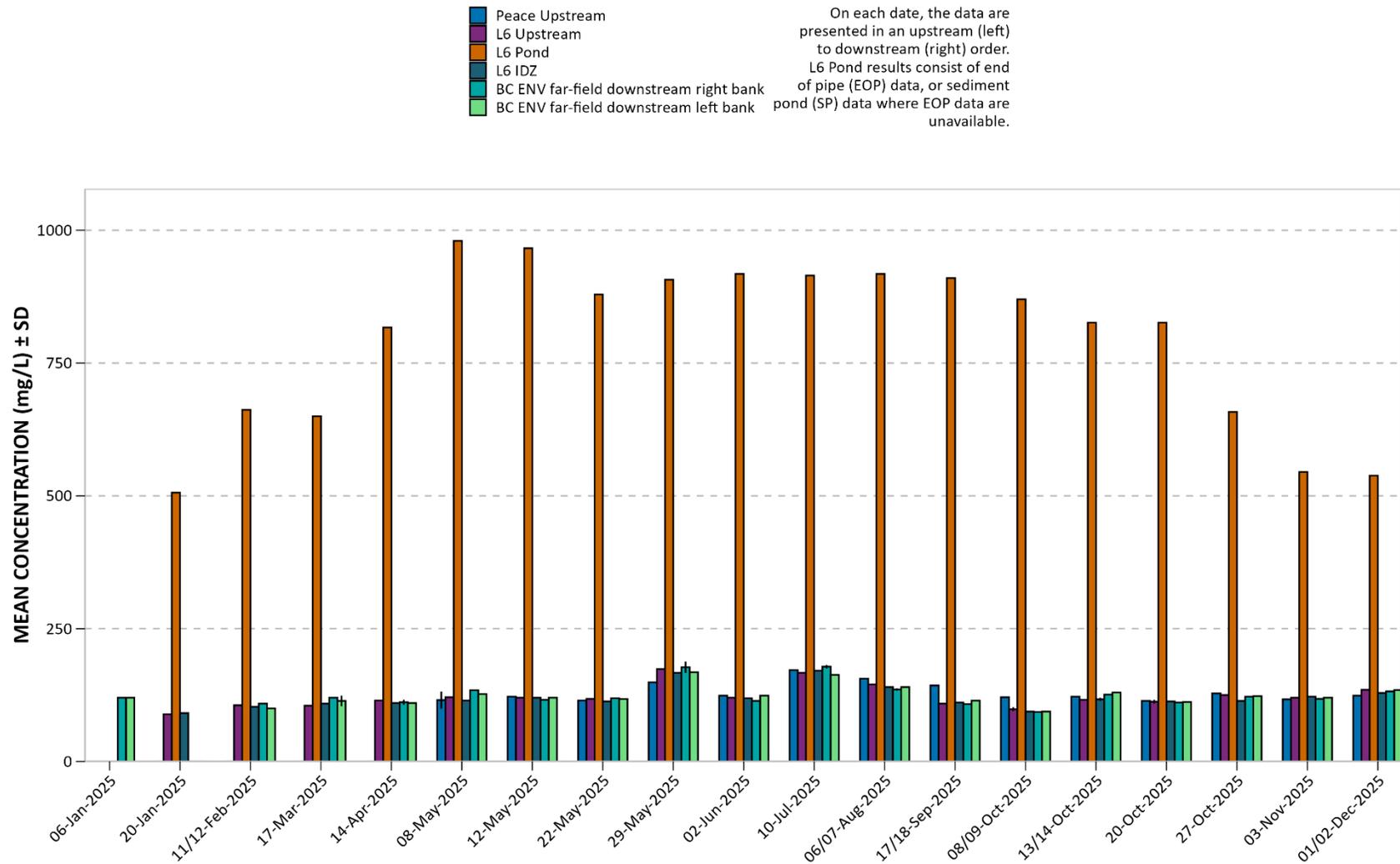


Figure 93. 2025 Site C reservoir, Peace River, and RSEM L6 pond total suspended solids (TSS).

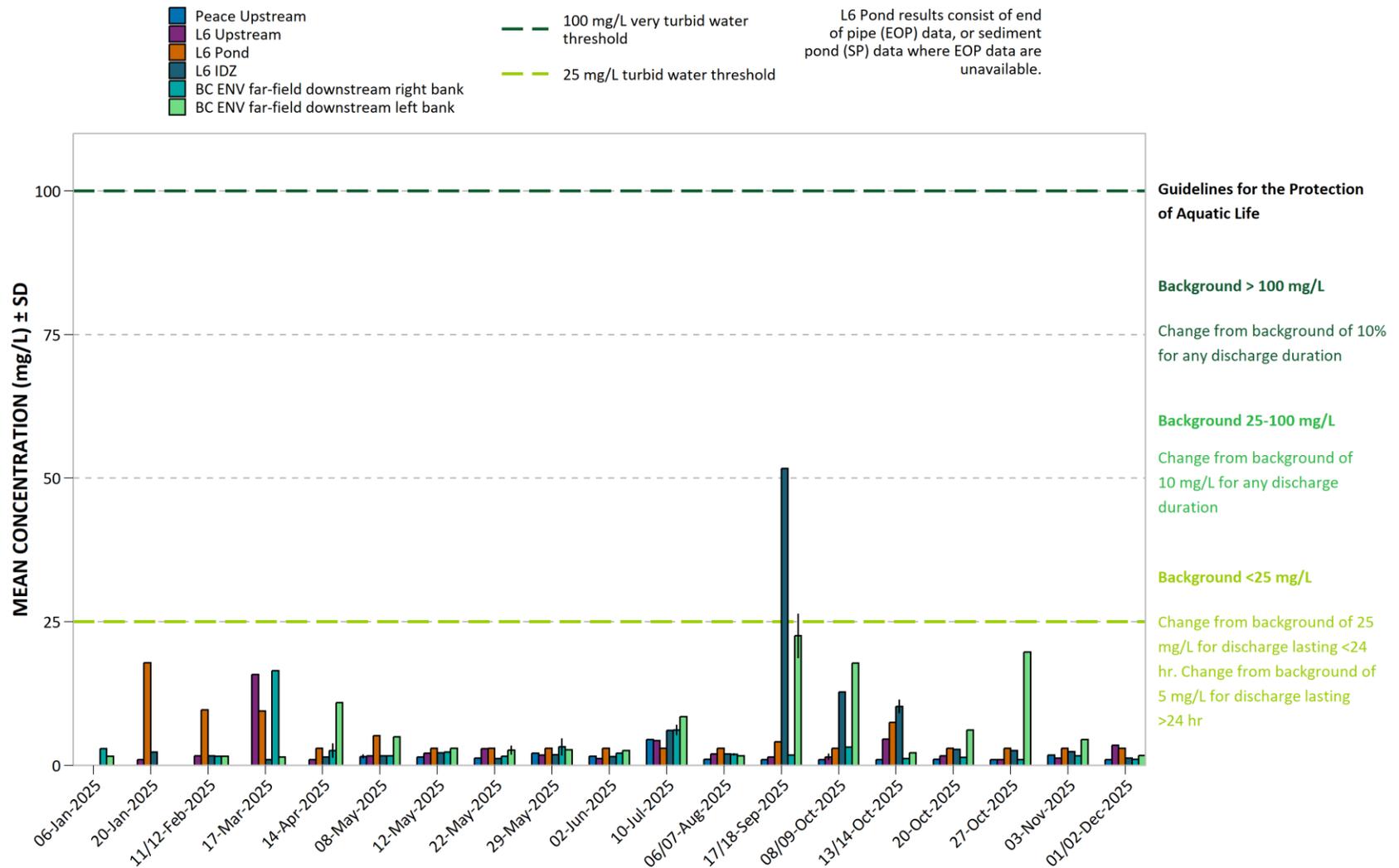


Figure 94. 2025 Site C reservoir and Peace River in situ, and lab (RSEM L6 pond) turbidity.

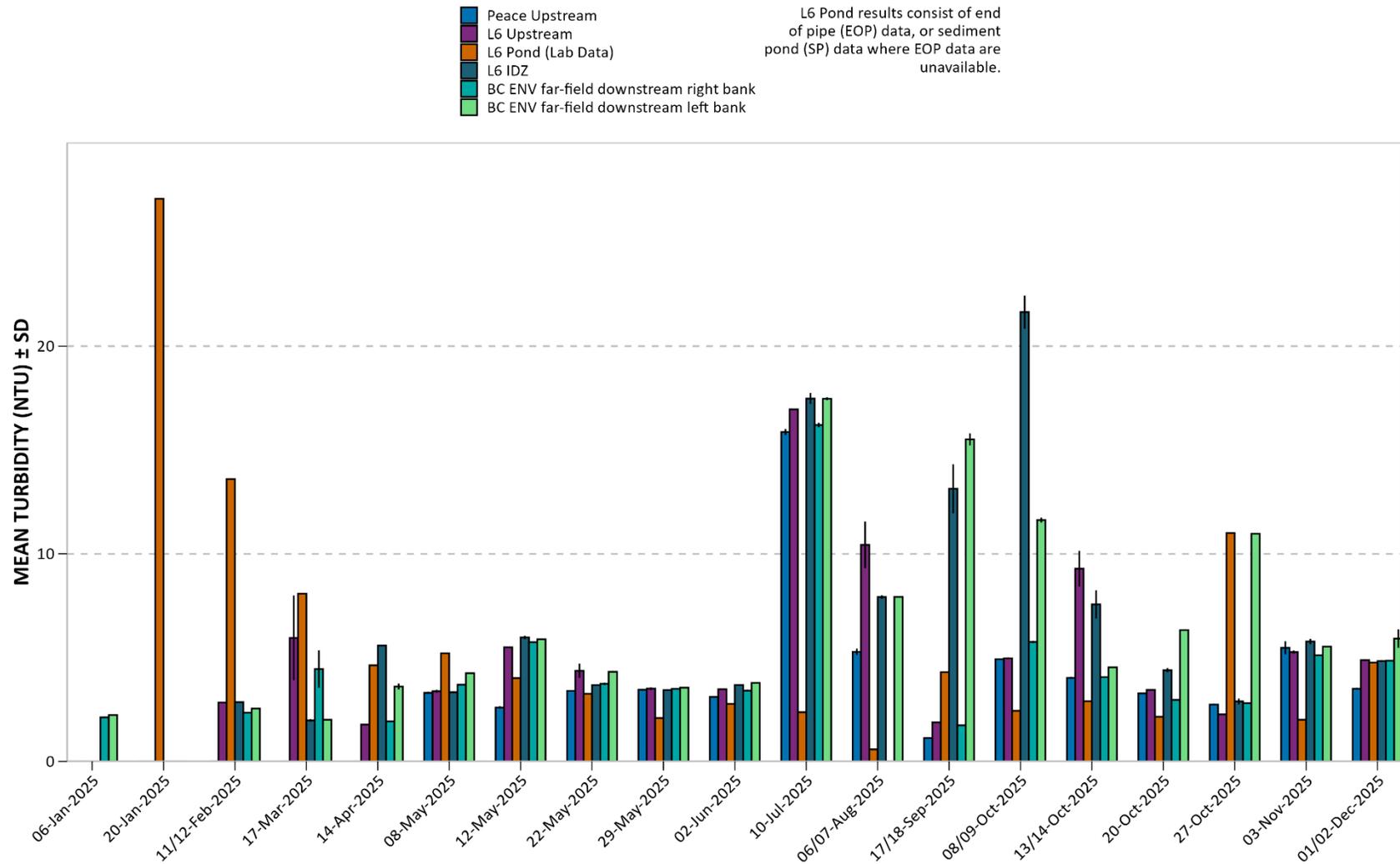


Figure 95. 2025 Site C reservoir and Peace River in situ, and lab (RSEM L6 pond) pH.

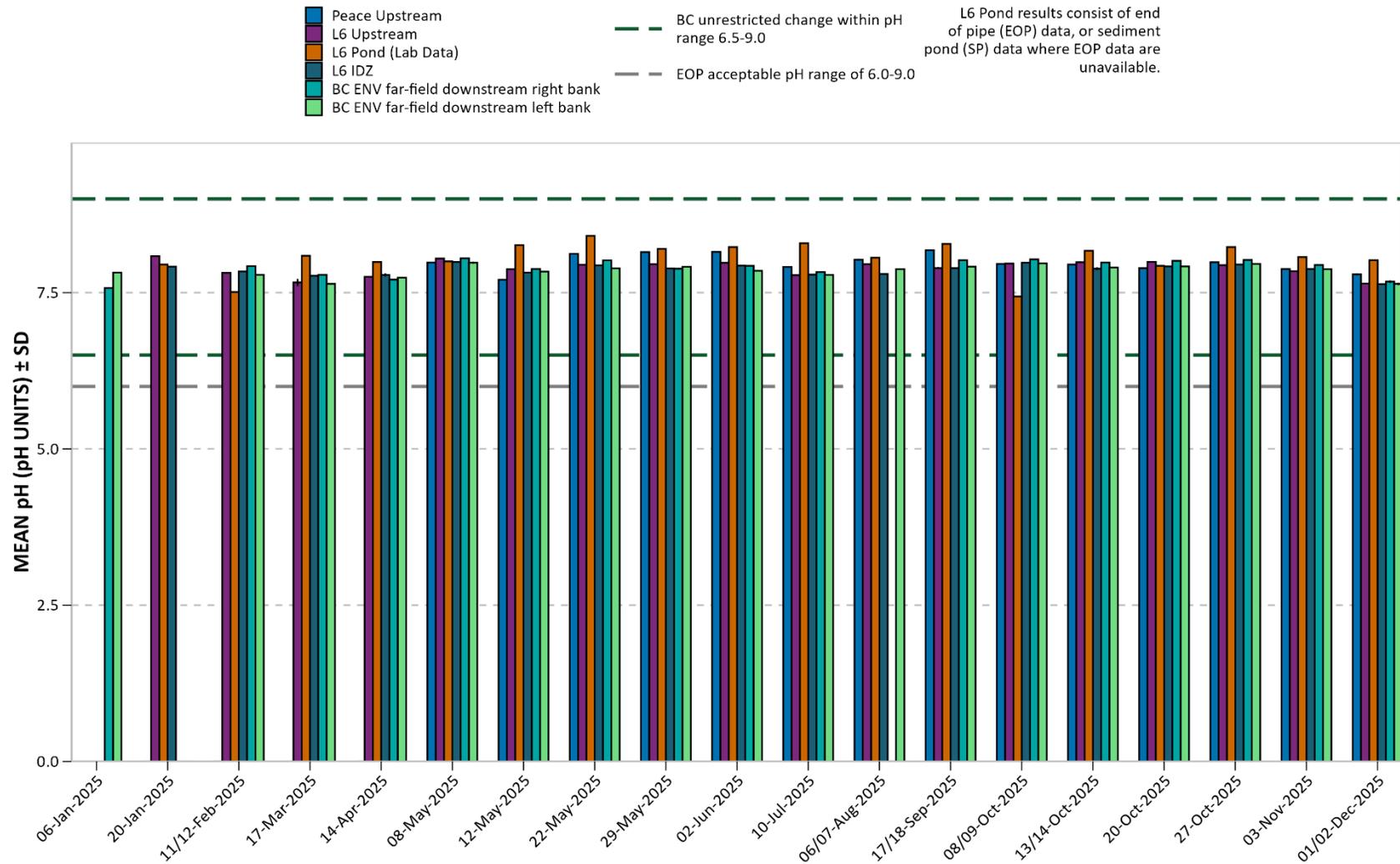


Figure 96. 2025 Site C reservoir, Peace River, and RSEM L6 pond lab pH.

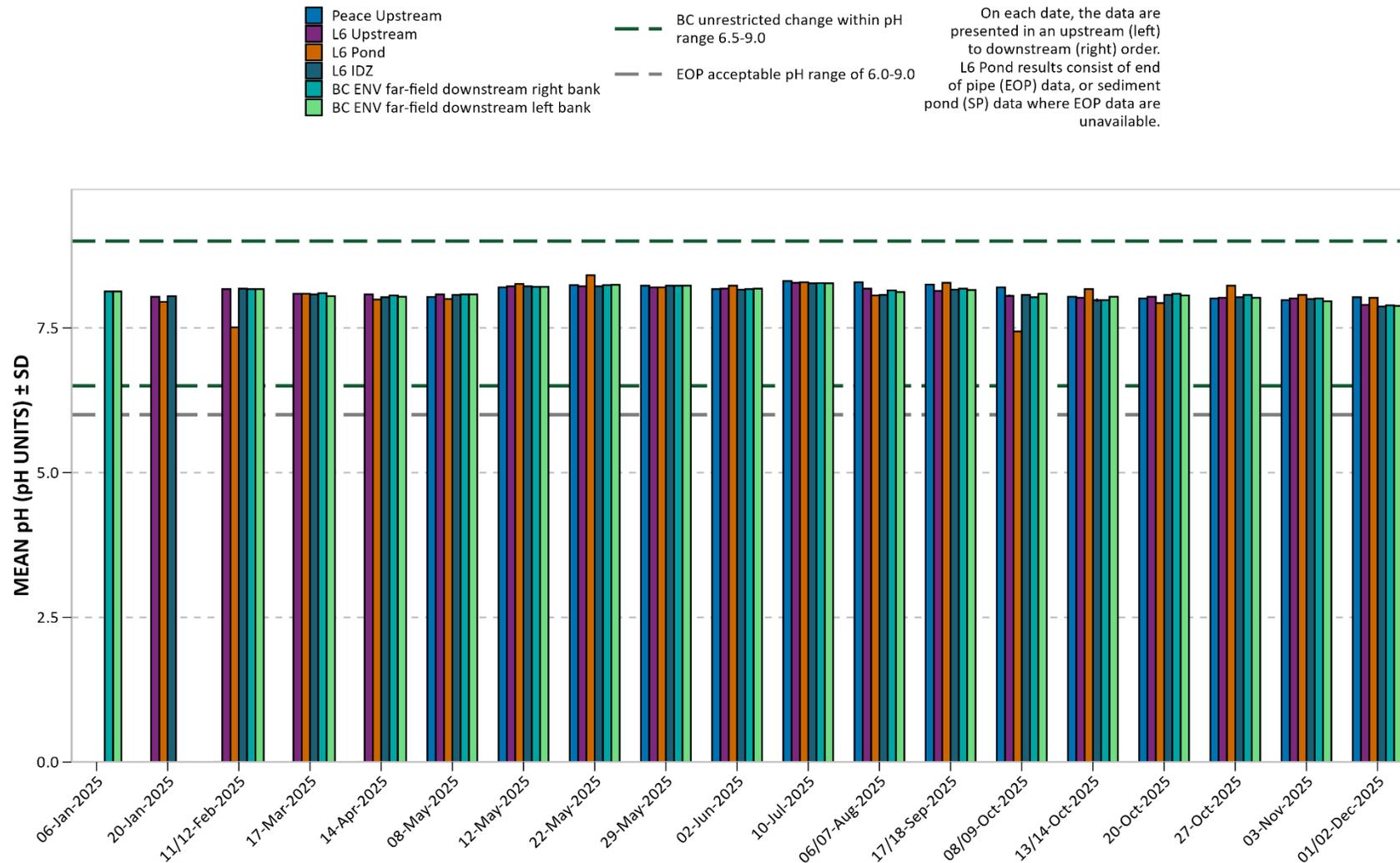


Figure 97. 2025 Site C reservoir, Peace River, and RSEM L6 pond total alkalinity (as CaCO₃).

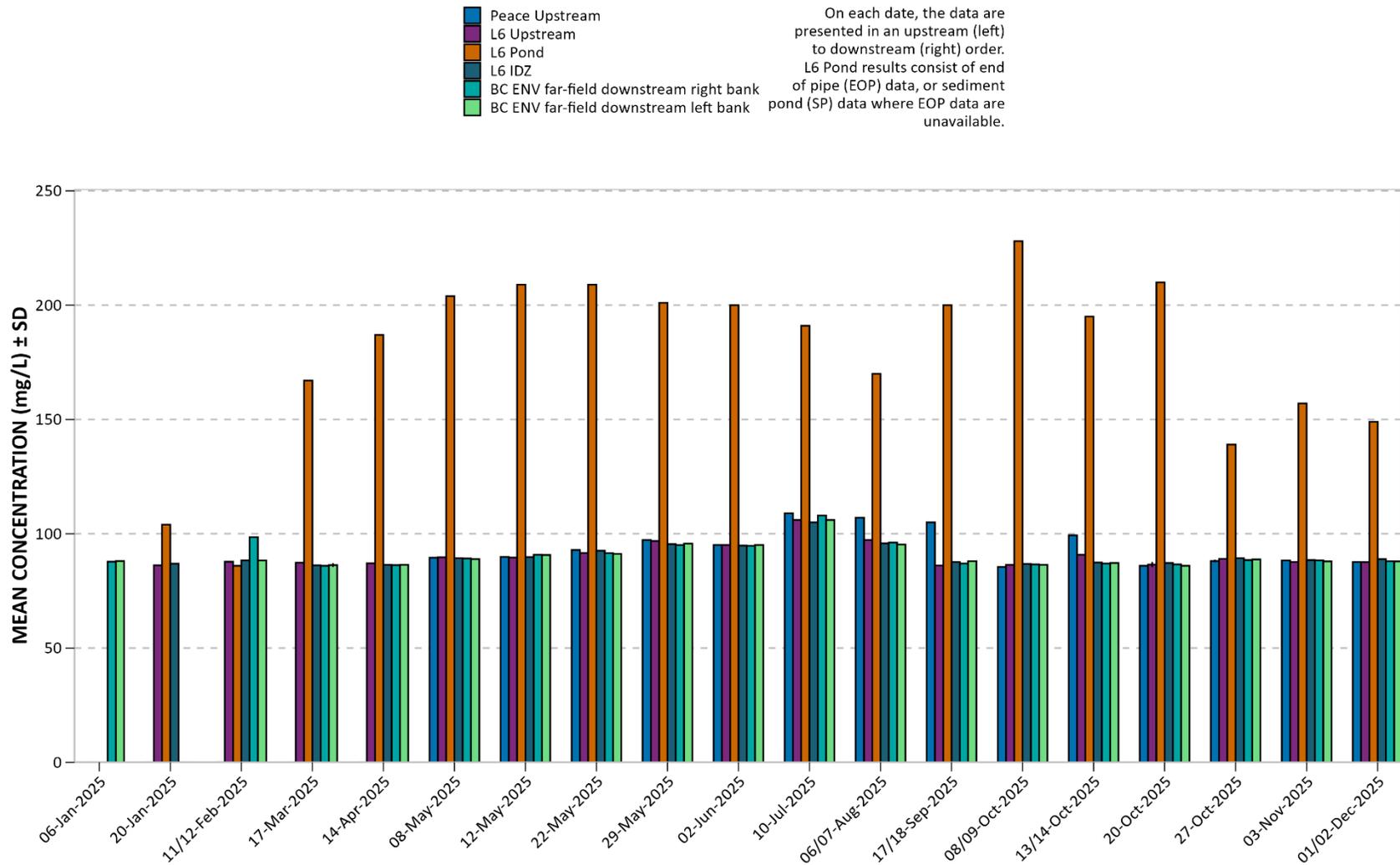
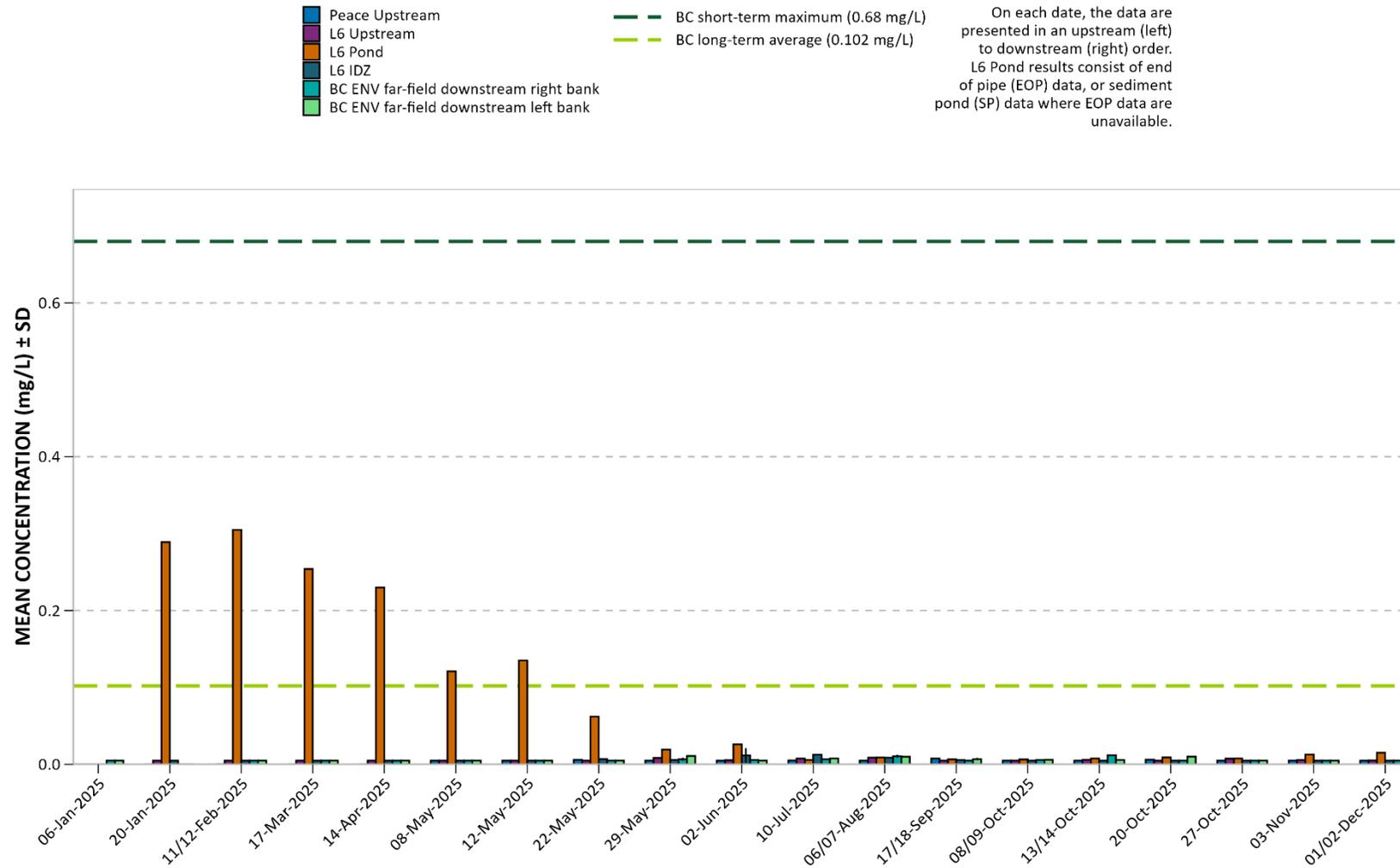


Figure 98. 2025 Site C reservoir, Peace River, and RSEM L6 pond total ammonia (as N).



Note: BC WQGs for total ammonia are pH and temperature dependent; guidelines used are the most conservative.

Figure 99. 2025 Site C reservoir, Peace River, and RSEM L6 pond bromide (Br).

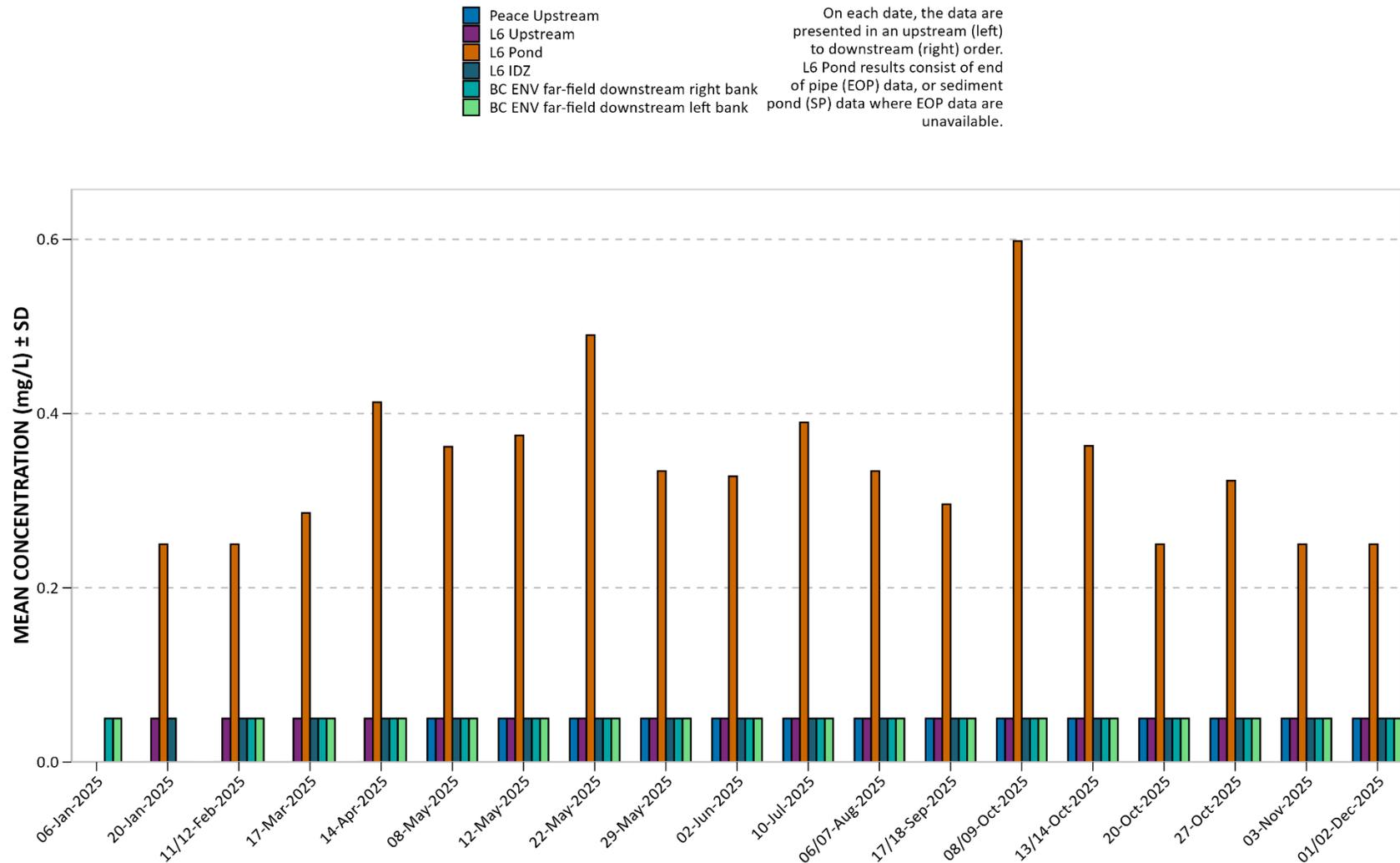


Figure 100. 2025 Site C reservoir, Peace River, and RSEM L6 pond chloride (Cl).

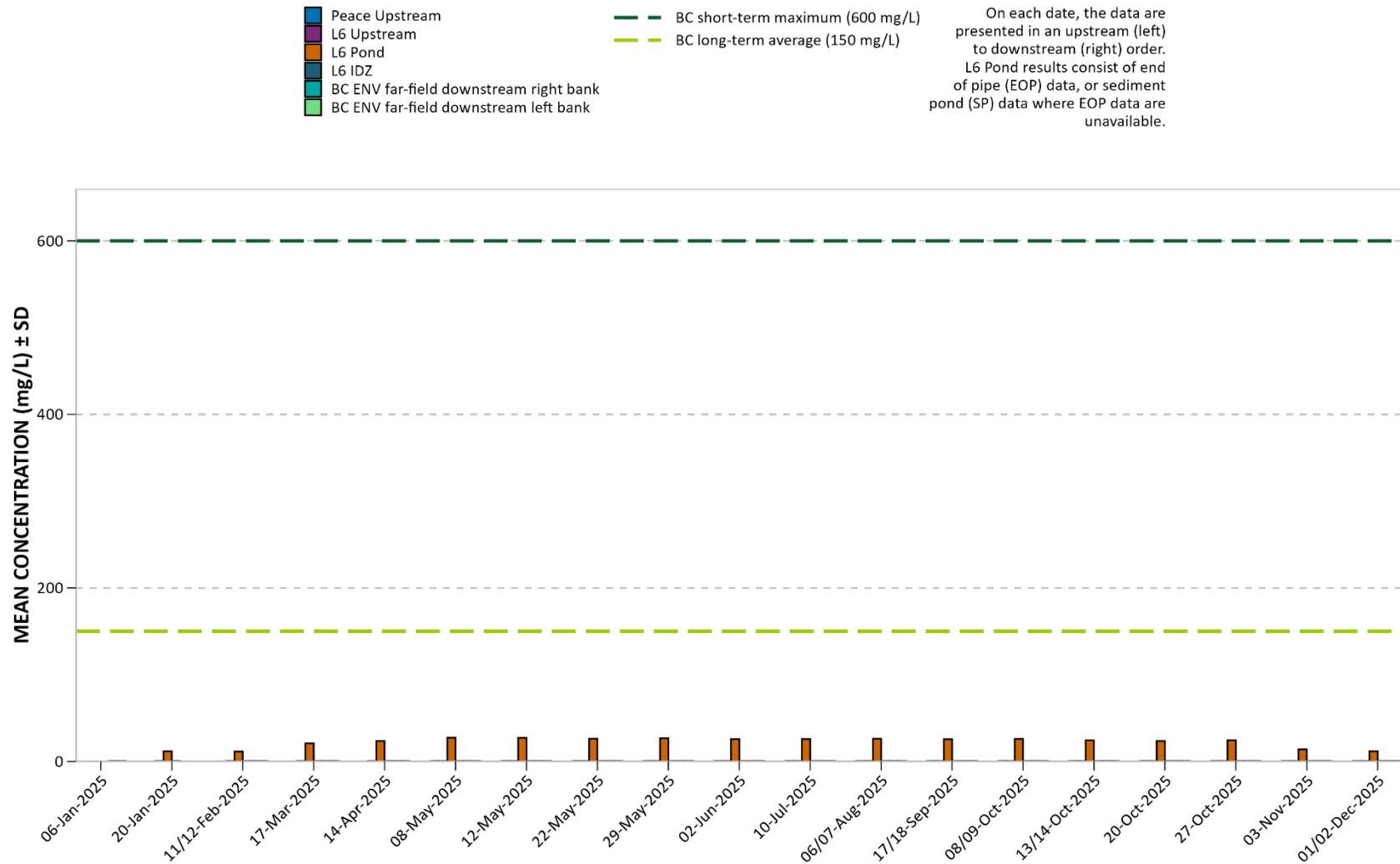


Figure 101. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved orthophosphate.

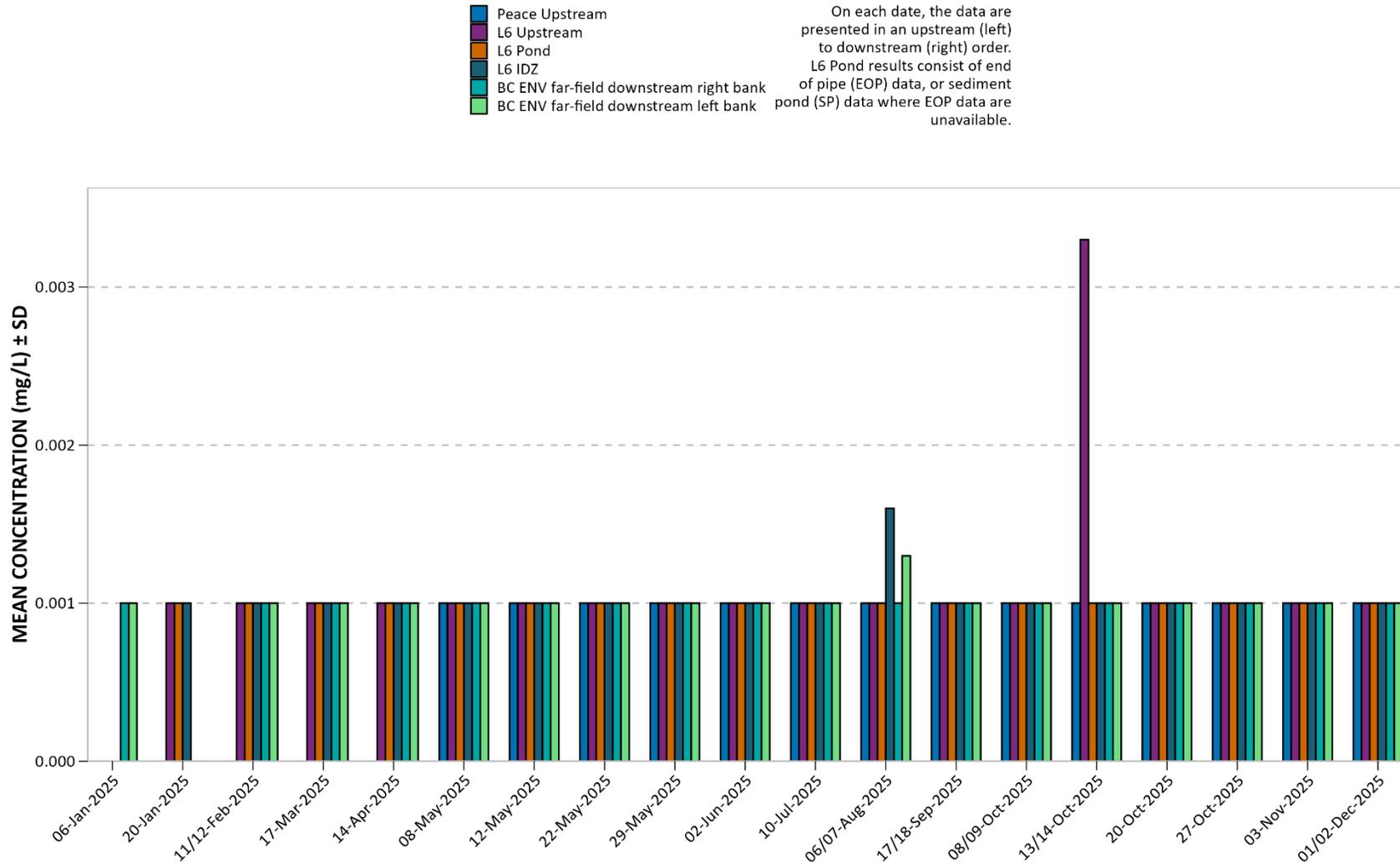
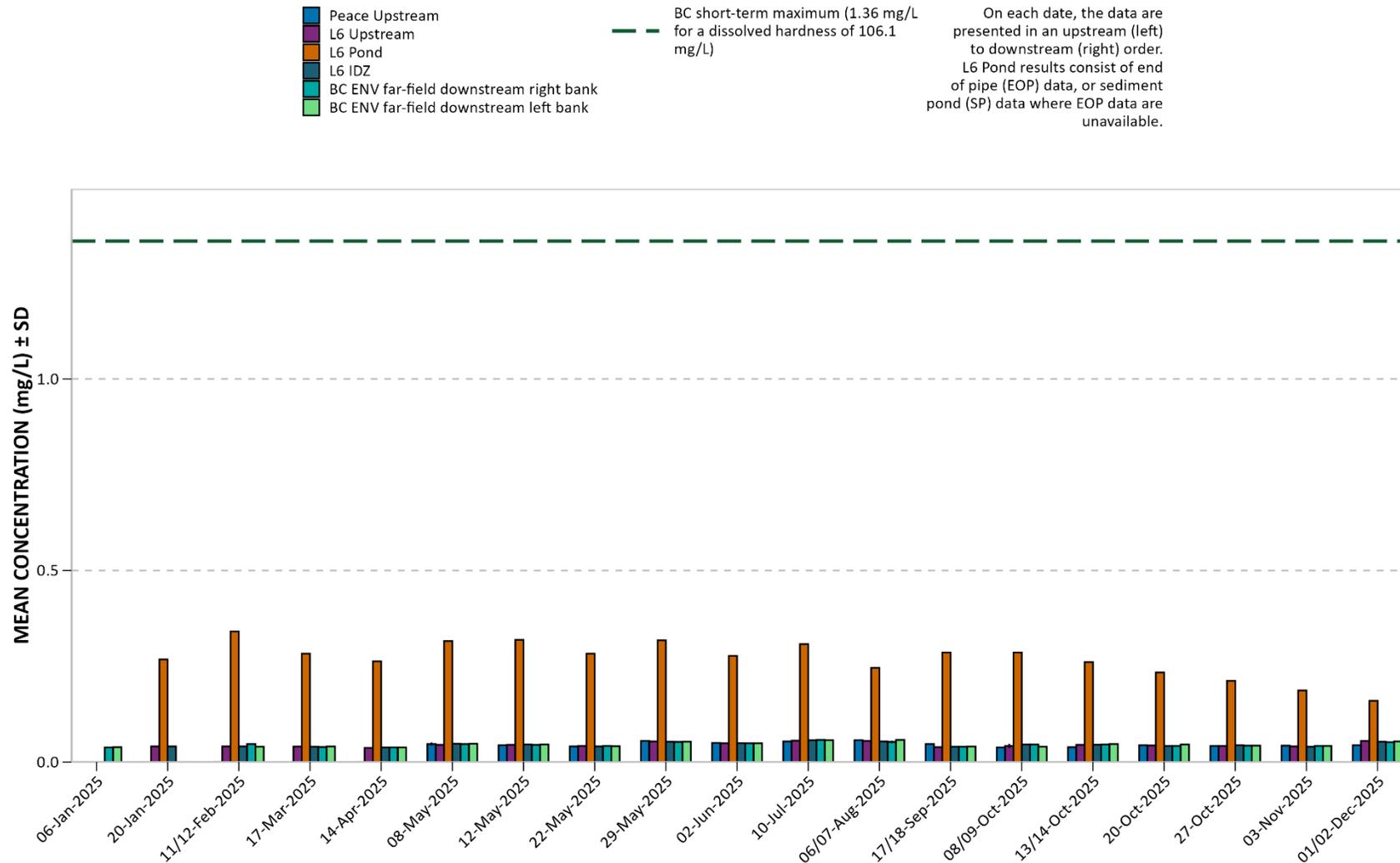


Figure 102. 2025 Site C reservoir, Peace River, and RSEM L6 pond fluoride (F).



Note: BC short-term WQG for fluoride is dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the maximum guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against the guideline in the data tables (Appendix A).

Figure 103. 2025 Site C reservoir, Peace River, and RSEM L6 pond nitrate (as N).

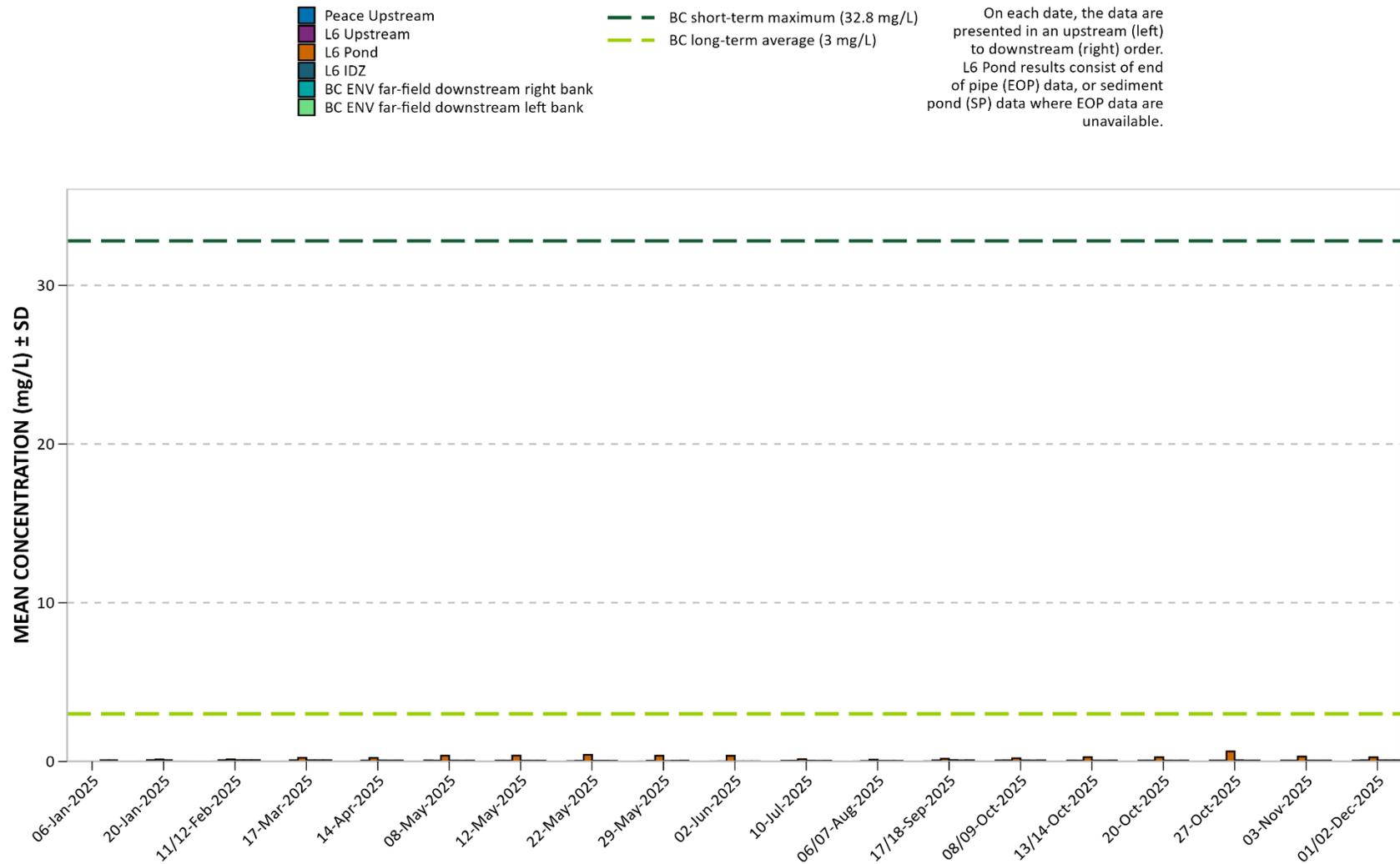
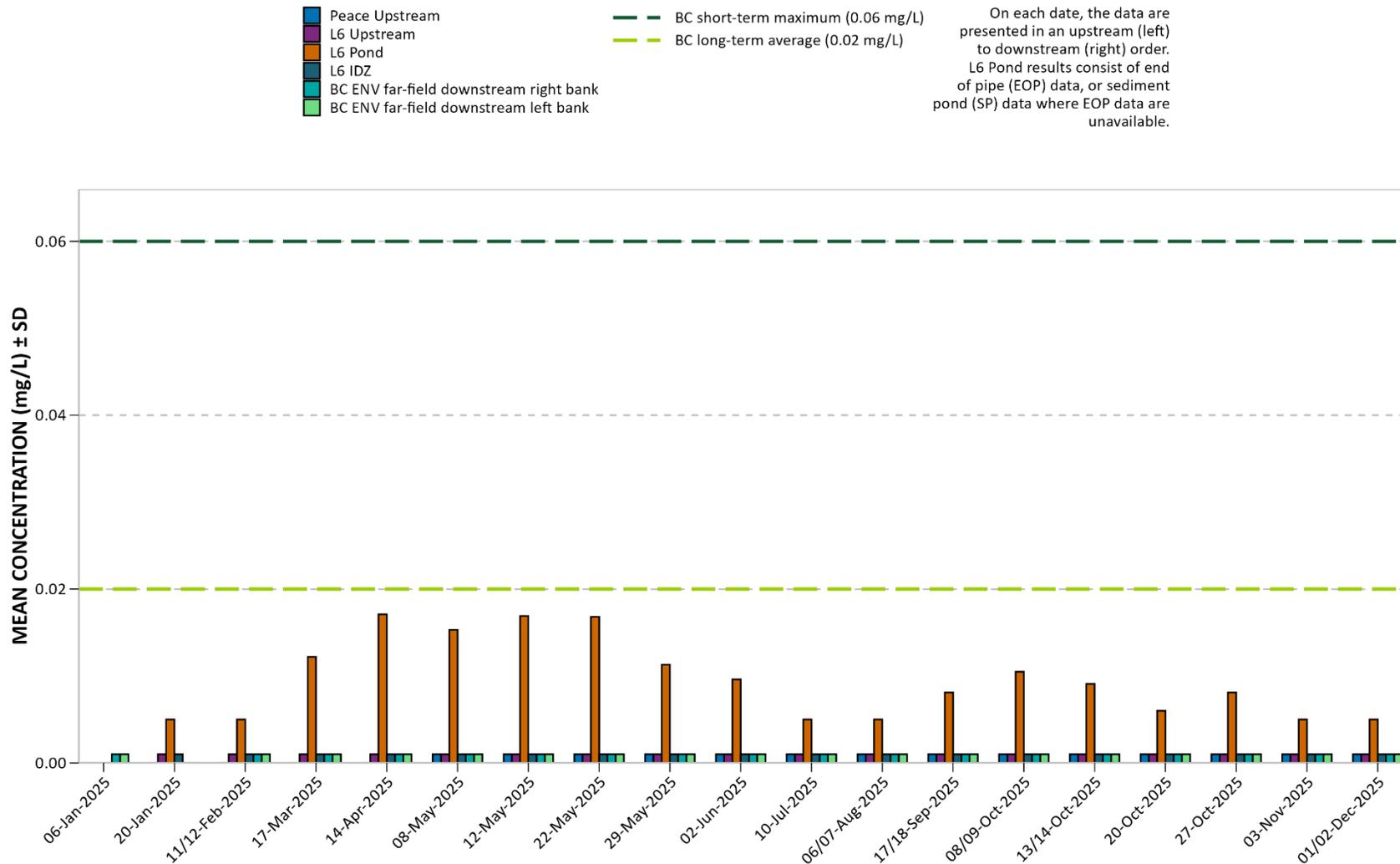
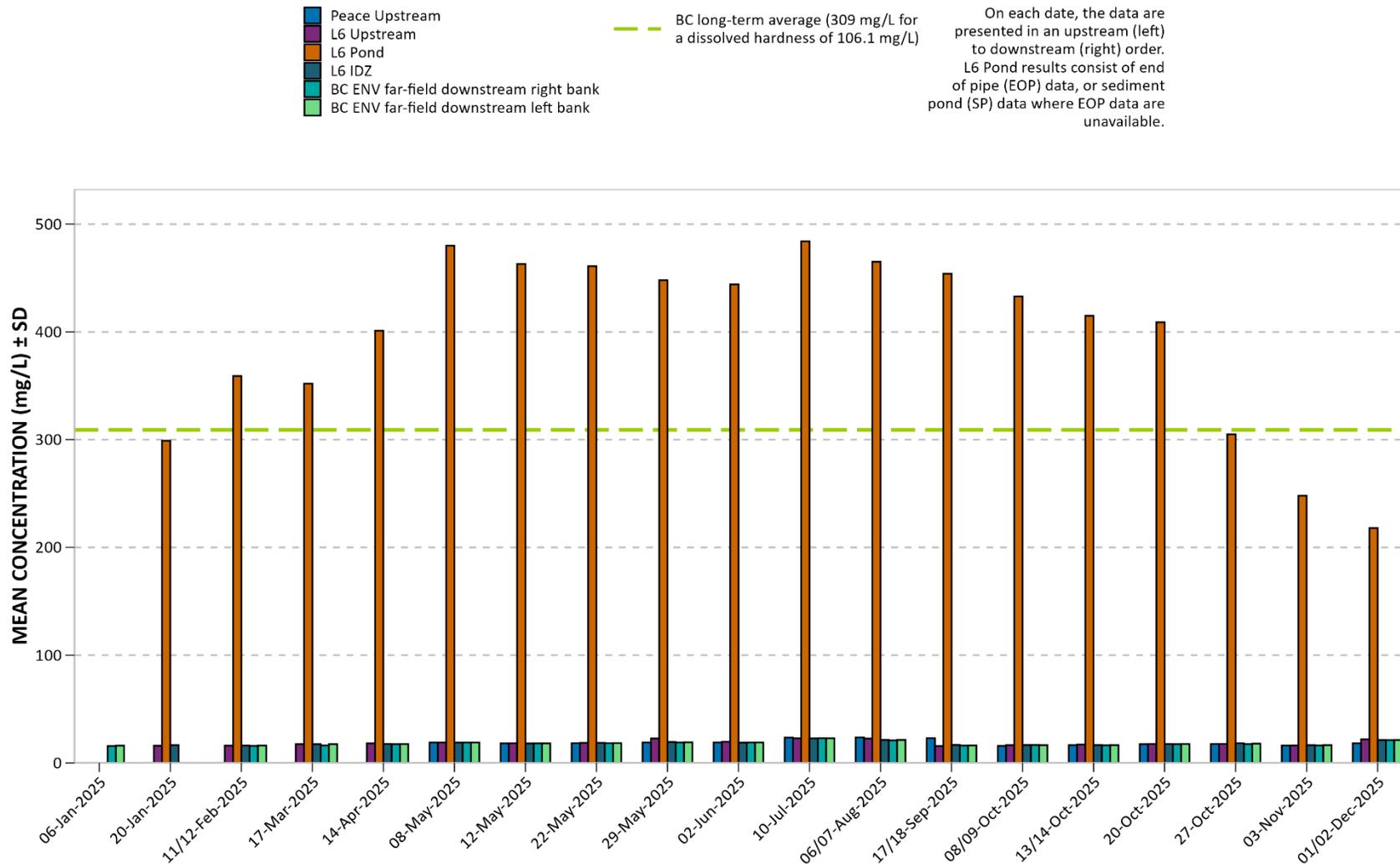


Figure 104. 2025 Site C reservoir, Peace River, and RSEM L6 pond nitrite (as N).



Note: BC WQGs for nitrite are chloride dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of chloride values observed in the Peace River, the applicable BC Maximum and 30-day guidelines are 0.06 mg/L and 0.02 mg/L, respectively.

Figure 105. 2025 Site C reservoir, Peace River, and RSEM L6 pond sulfate (SO₄).



Note: BC long-term WQG for sulfate is dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the 30-day guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against the guideline in the data tables (Appendix A).

Figure 106. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved organic carbon (DOC).

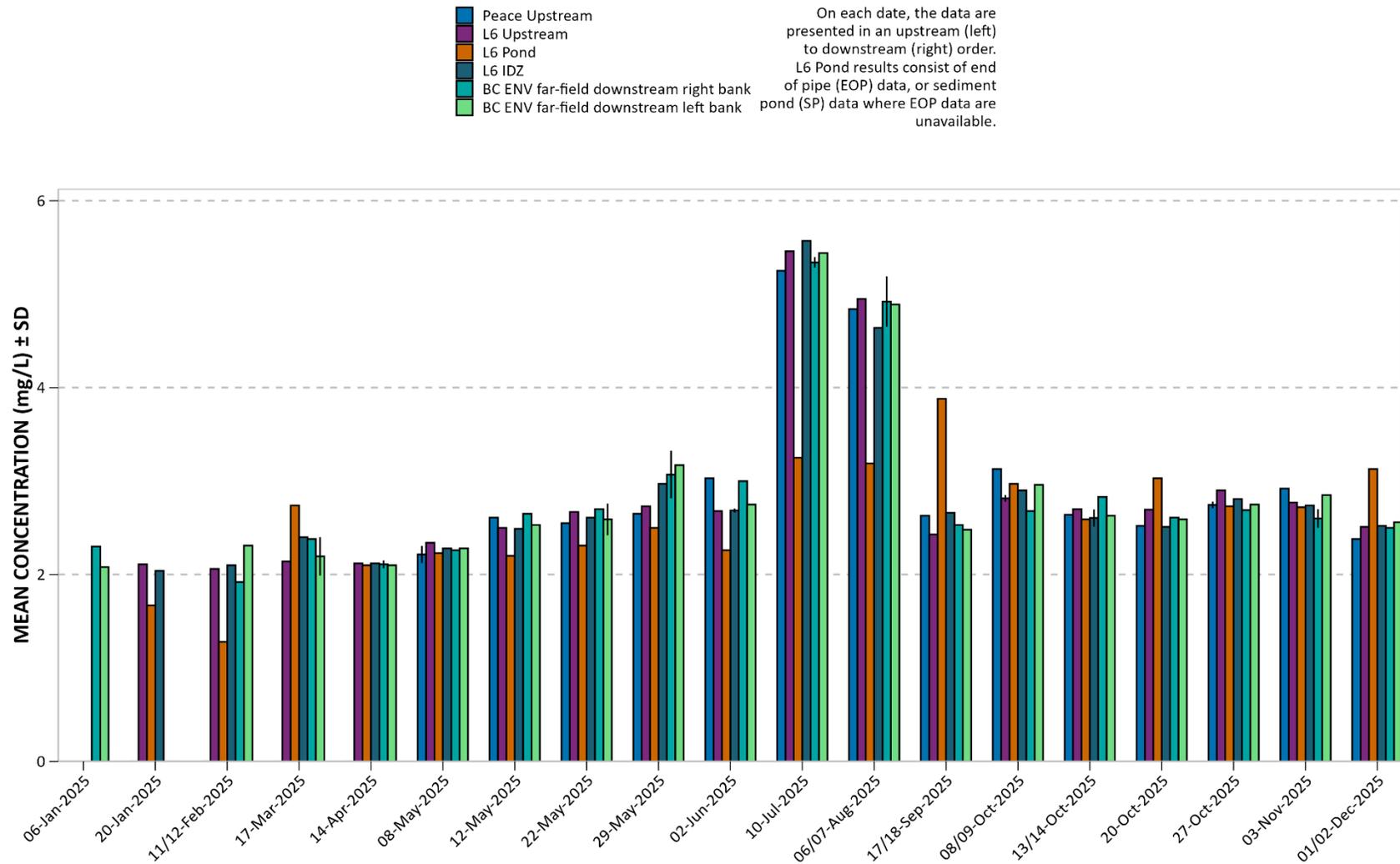


Figure 107. 2025 Site C reservoir, Peace River, and RSEM L6 pond total organic carbon (TOC).

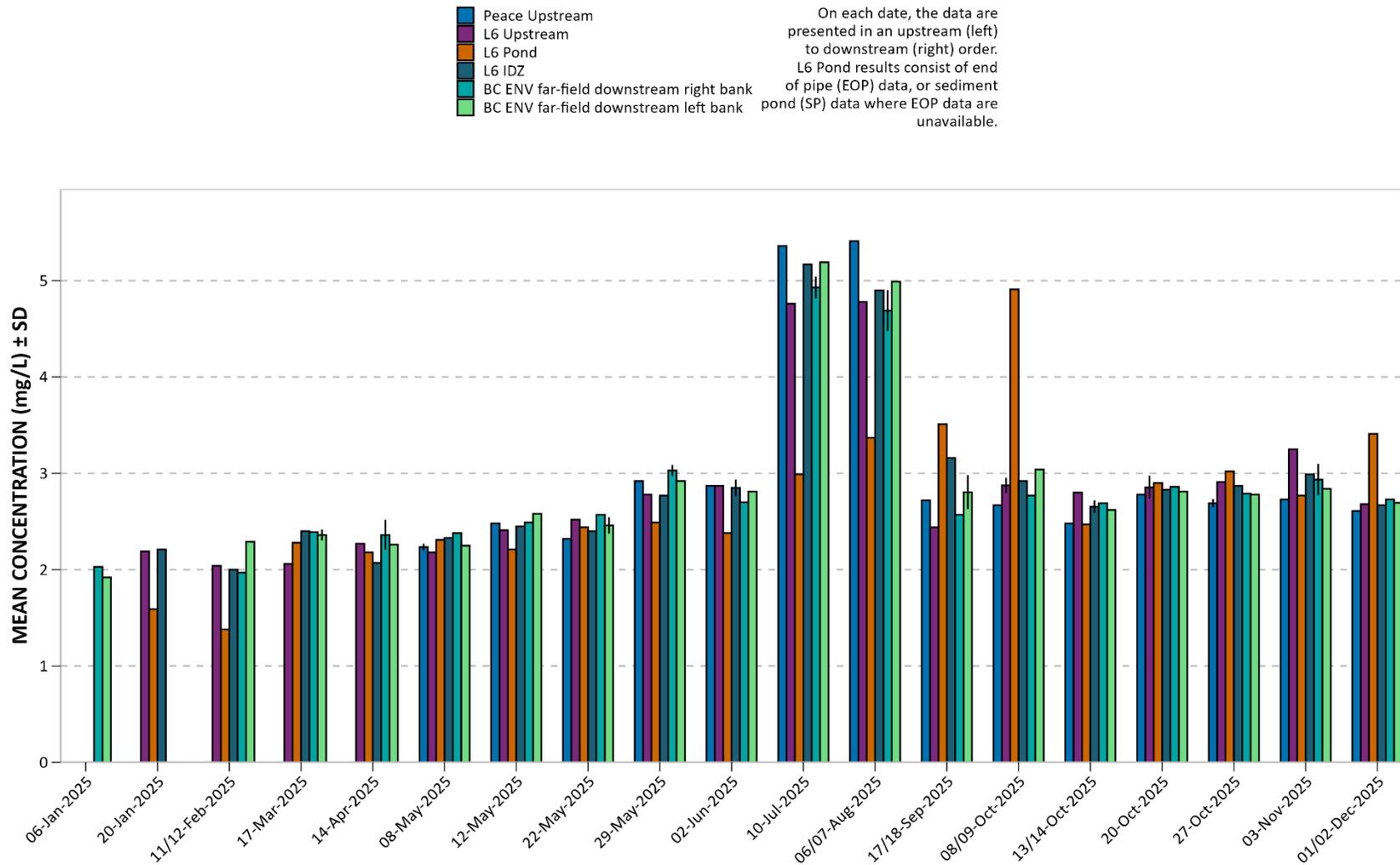
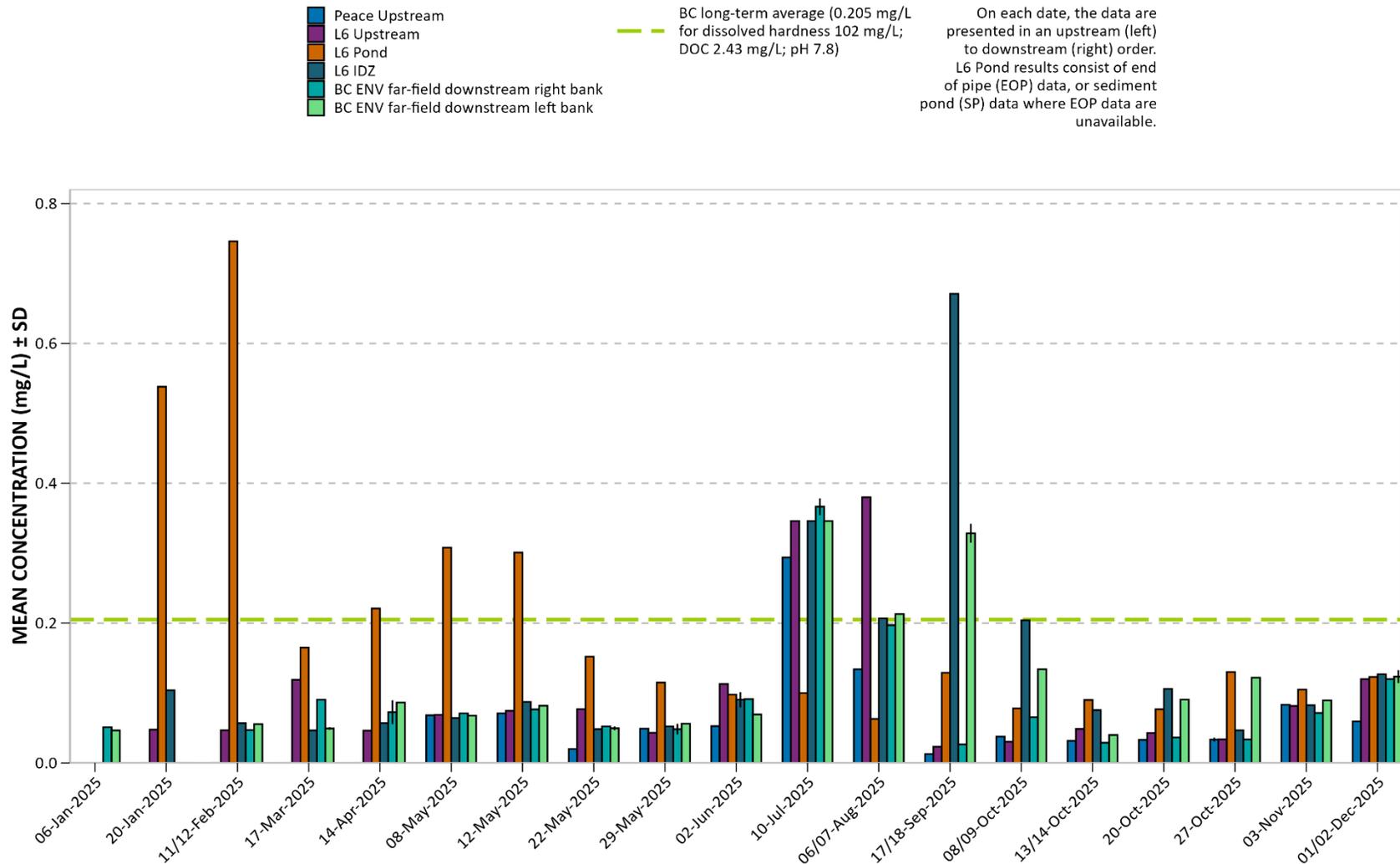


Figure 108. 2025 Site C reservoir, Peace River, and RSEM L6 pond total aluminum (Al).



Note: BC long-term WQG for total aluminum is dissolved hardness, DOC, and pH dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness, DOC, and pH values observed in the Peace River, the applicable BC 30-day guideline is 0.205 mg/L.

Figure 109. 2025 Site C reservoir, Peace River, and RSEM L6 pond total antimony (Sb). Note that sample results are very low compared to guidelines and as a result the data are not visible on the plot.

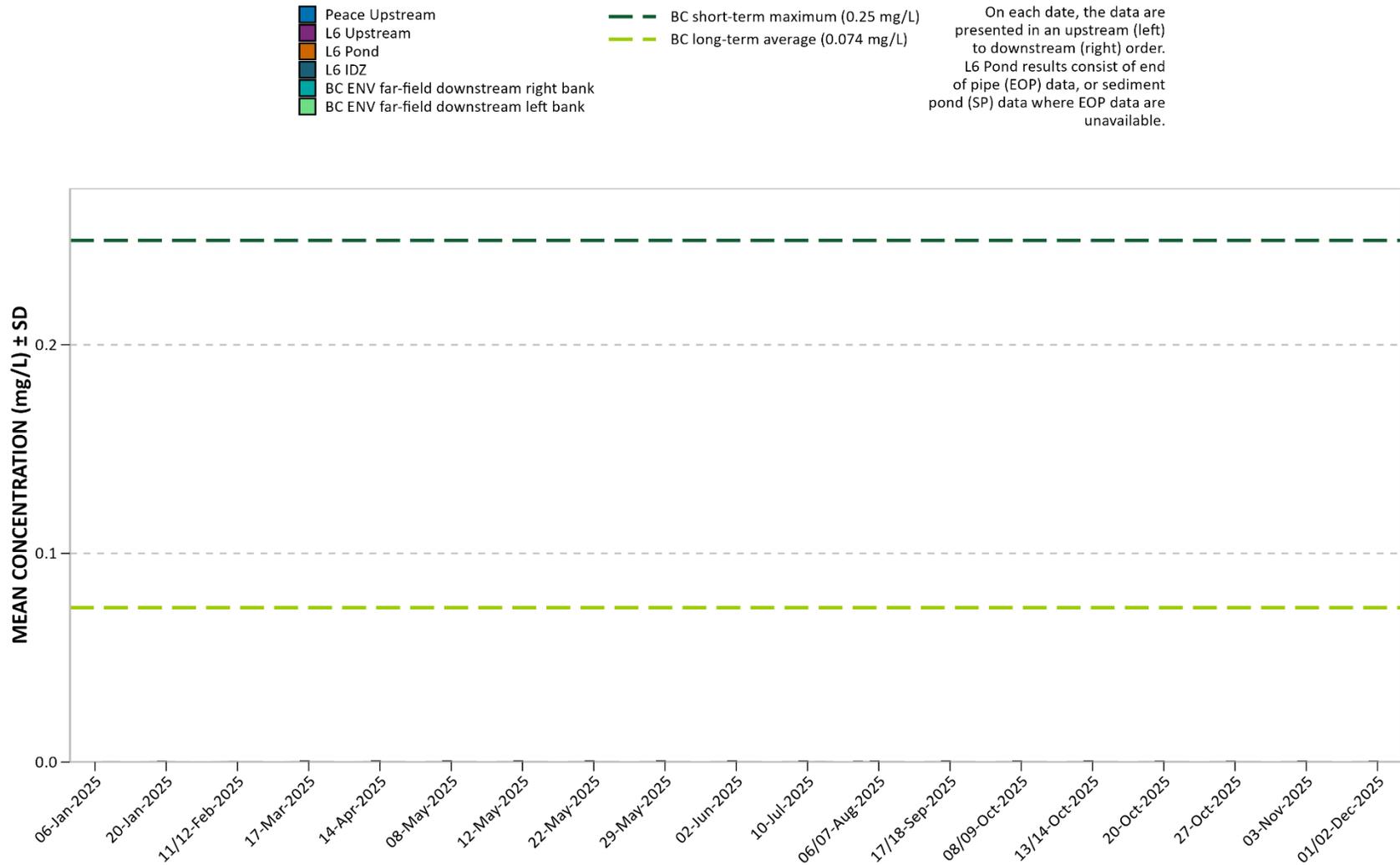


Figure 110. 2025 Site C reservoir, Peace River, and RSEM L6 pond total arsenic (As).

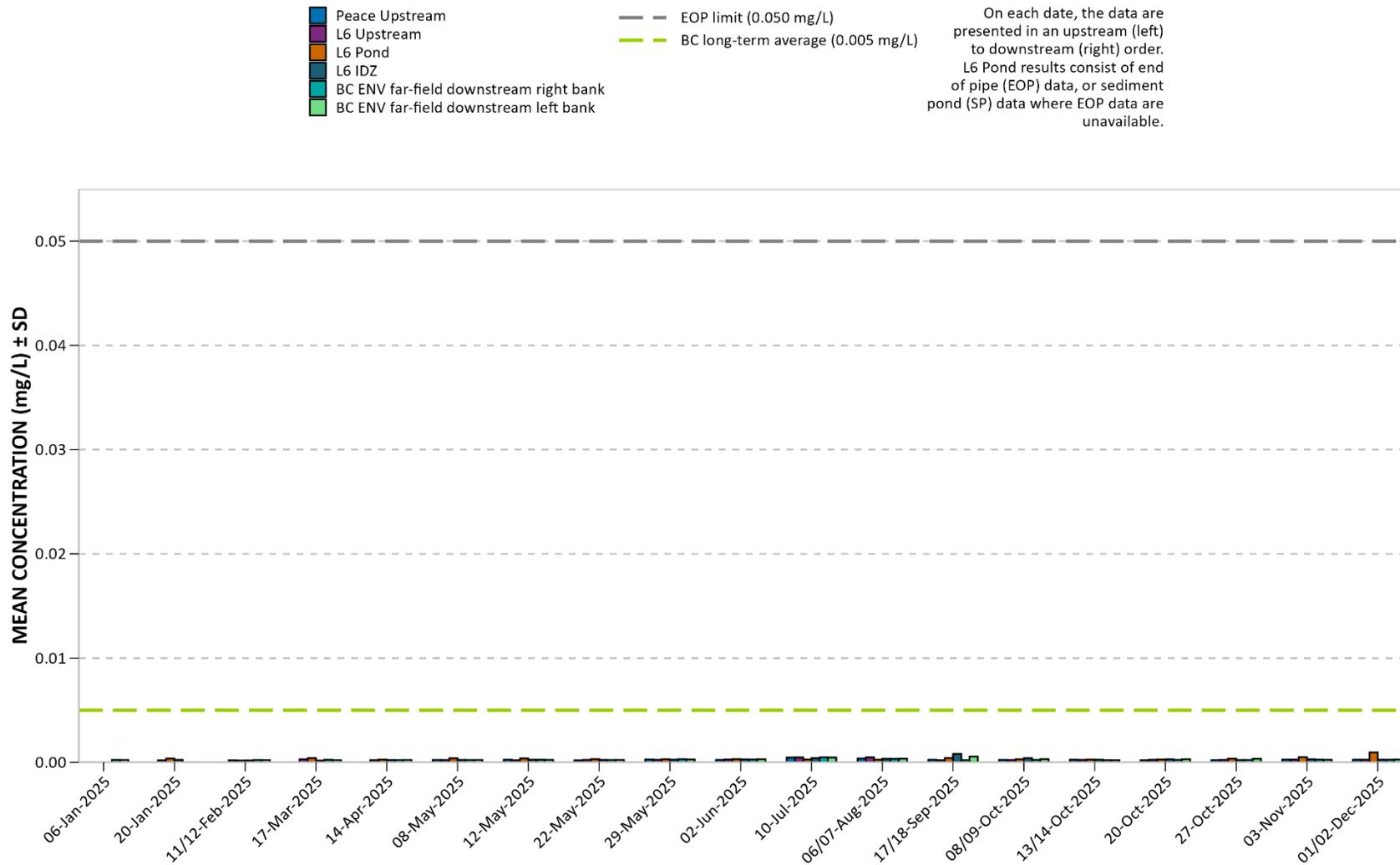


Figure 111. 2025 Site C reservoir, Peace River, and RSEM L6 pond total barium (Ba).

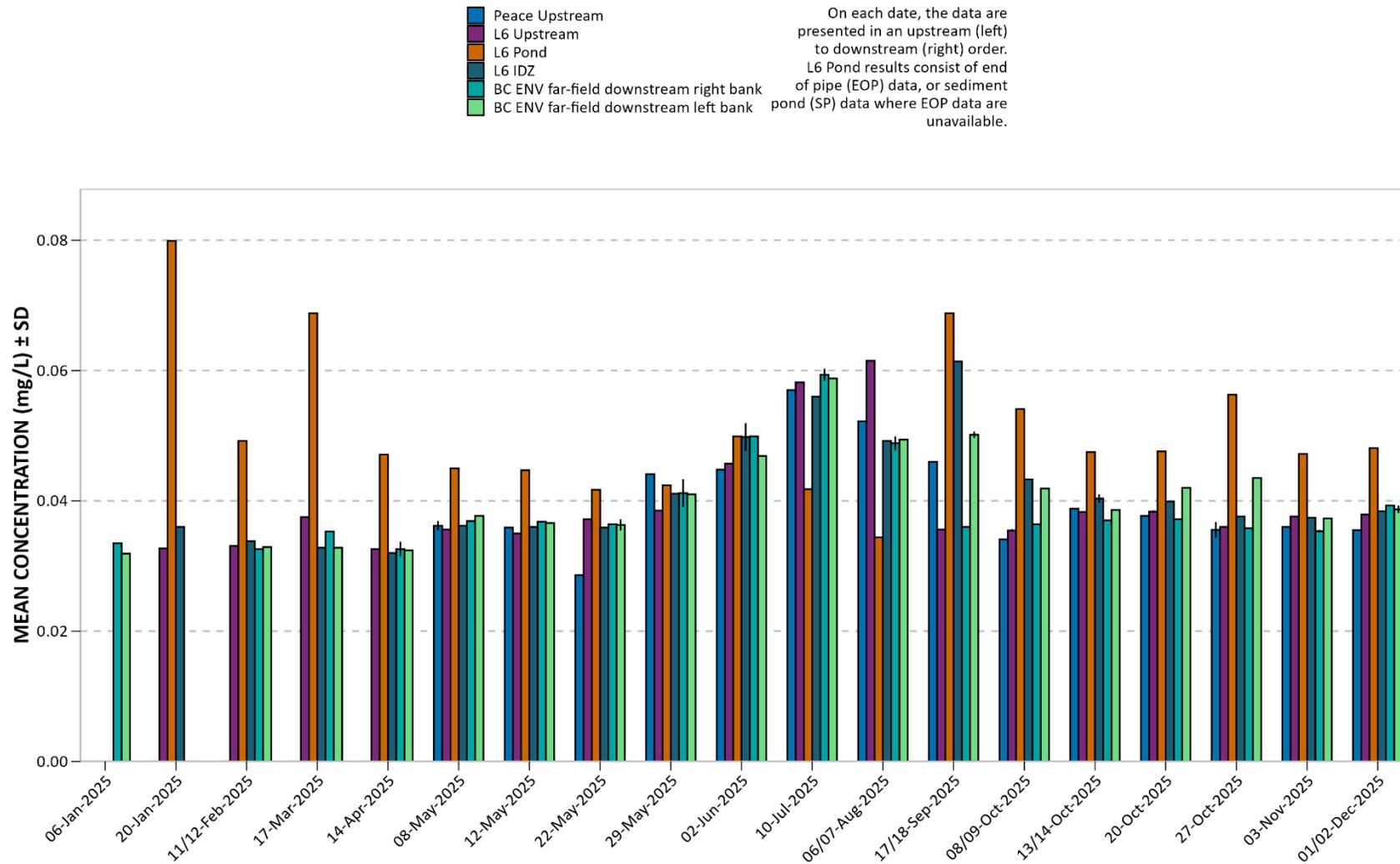


Figure 112. 2025 Site C reservoir, Peace River, and RSEM L6 pond total beryllium (Be).

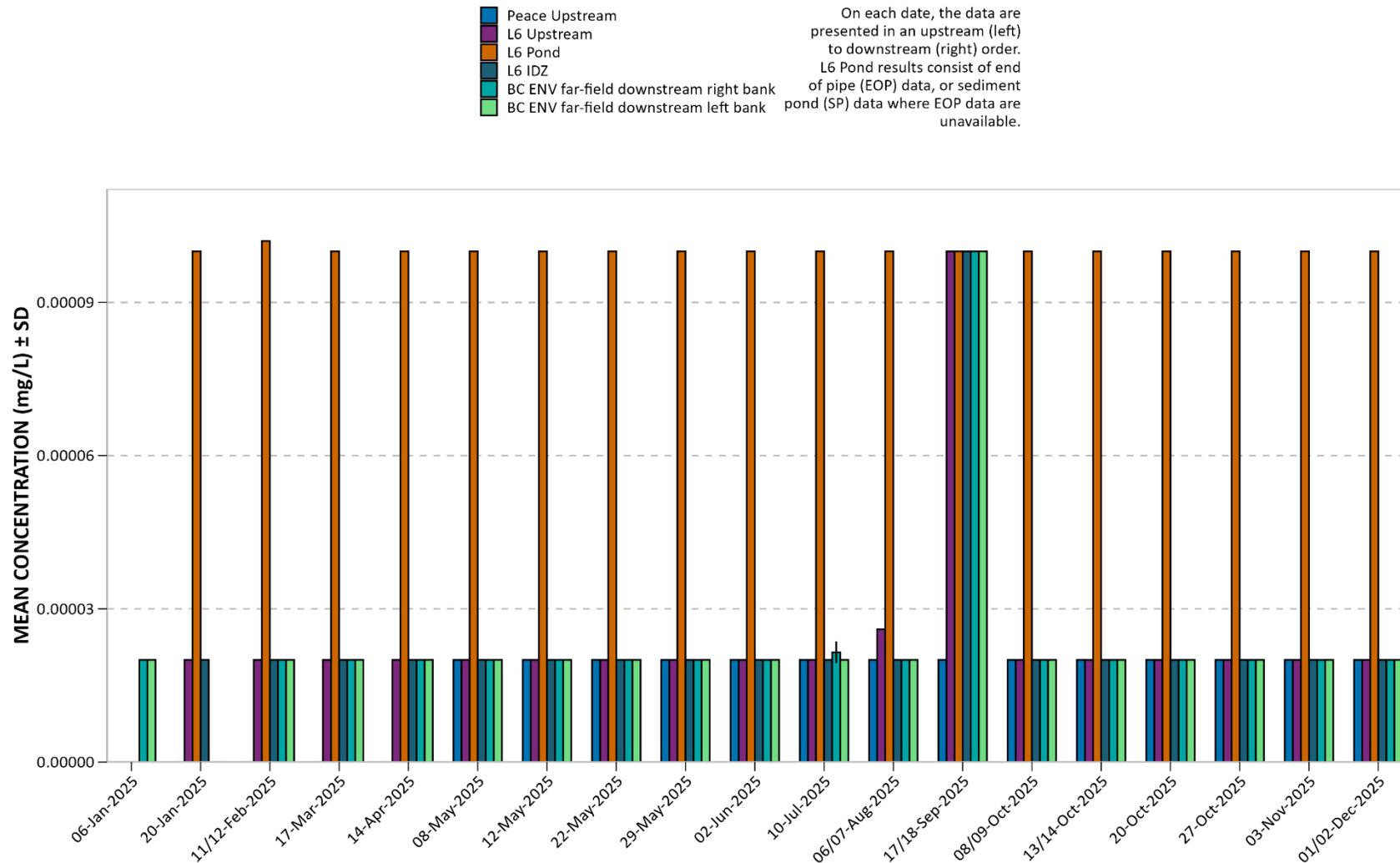


Figure 113. 2025 Site C reservoir, Peace River, and RSEM L6 pond total bismuth (Bi).

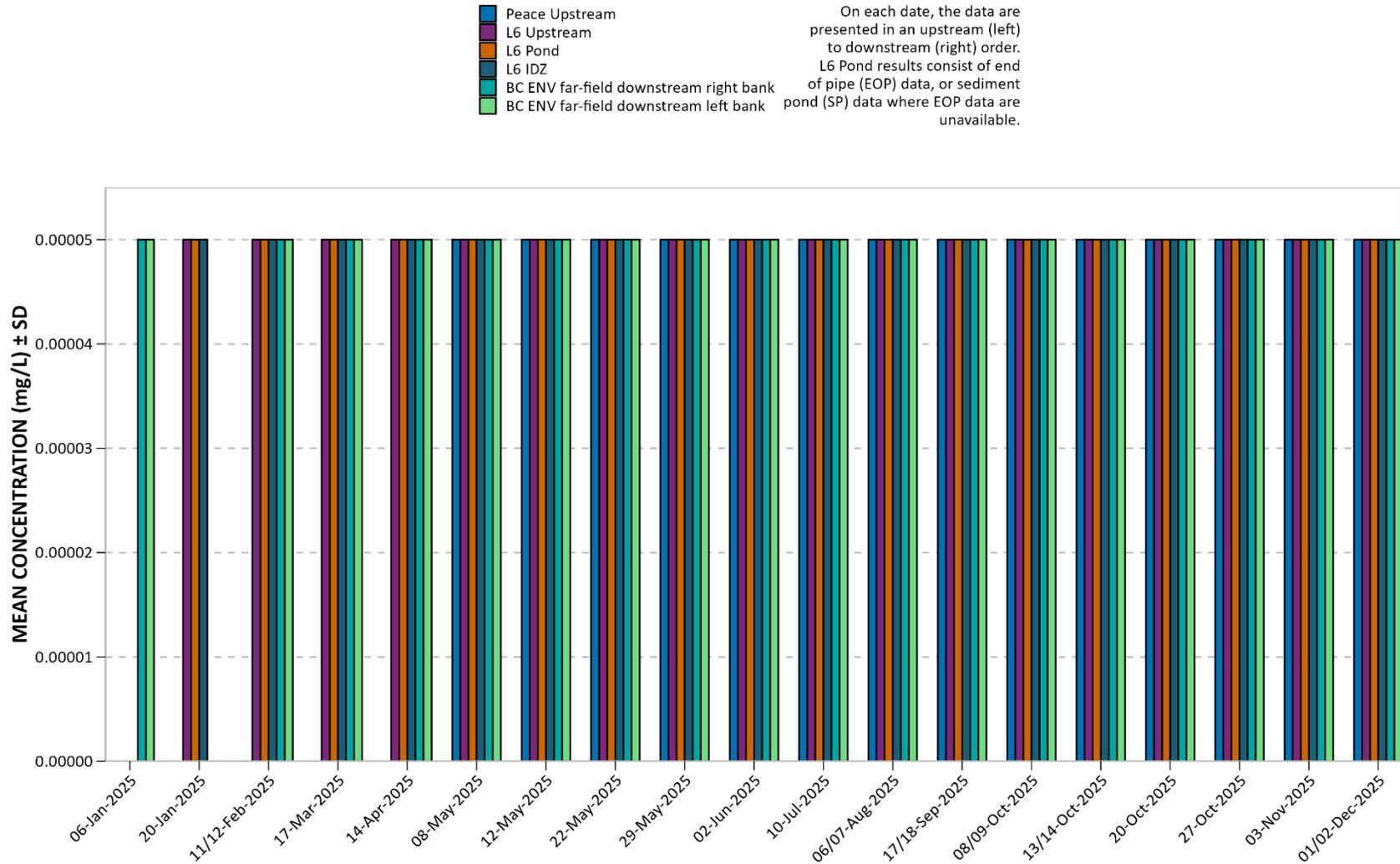


Figure 114. 2025 Site C reservoir, Peace River, and RSEM L6 pond total boron (B).

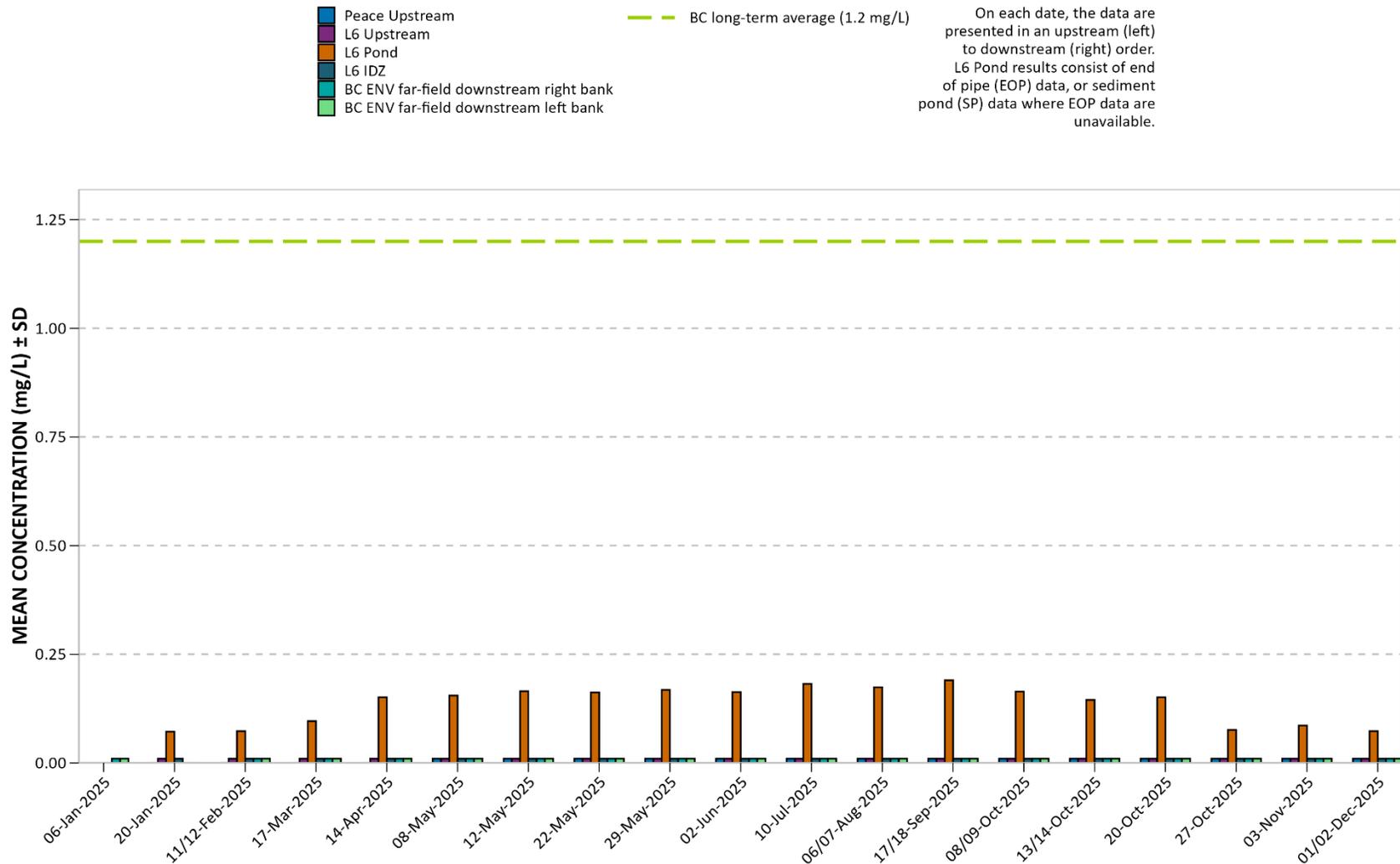


Figure 115. 2025 Site C reservoir, Peace River, and RSEM L6 pond total cadmium (Cd).

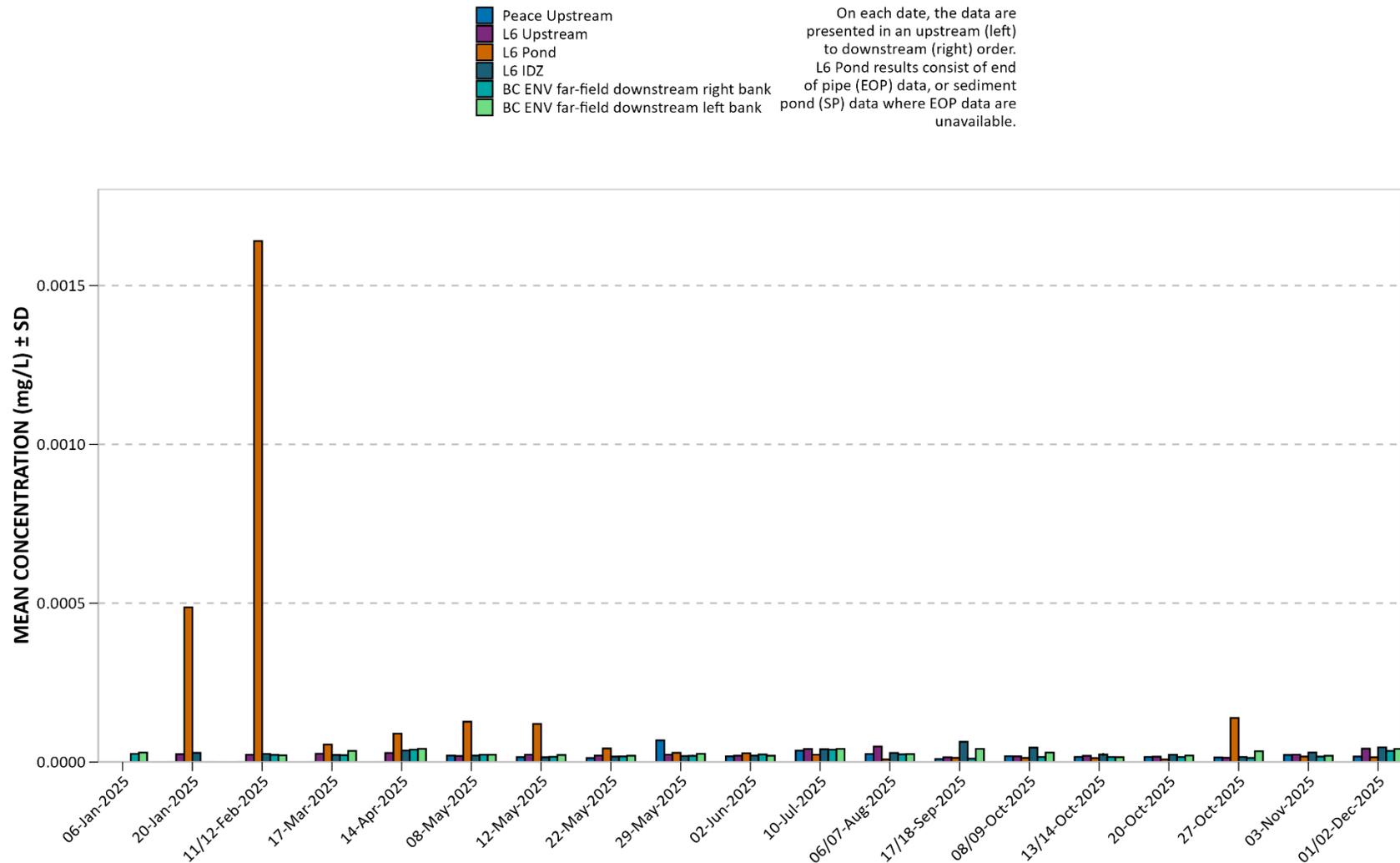


Figure 116. 2025 Site C reservoir, Peace River, and RSEM L6 pond total calcium (Ca).

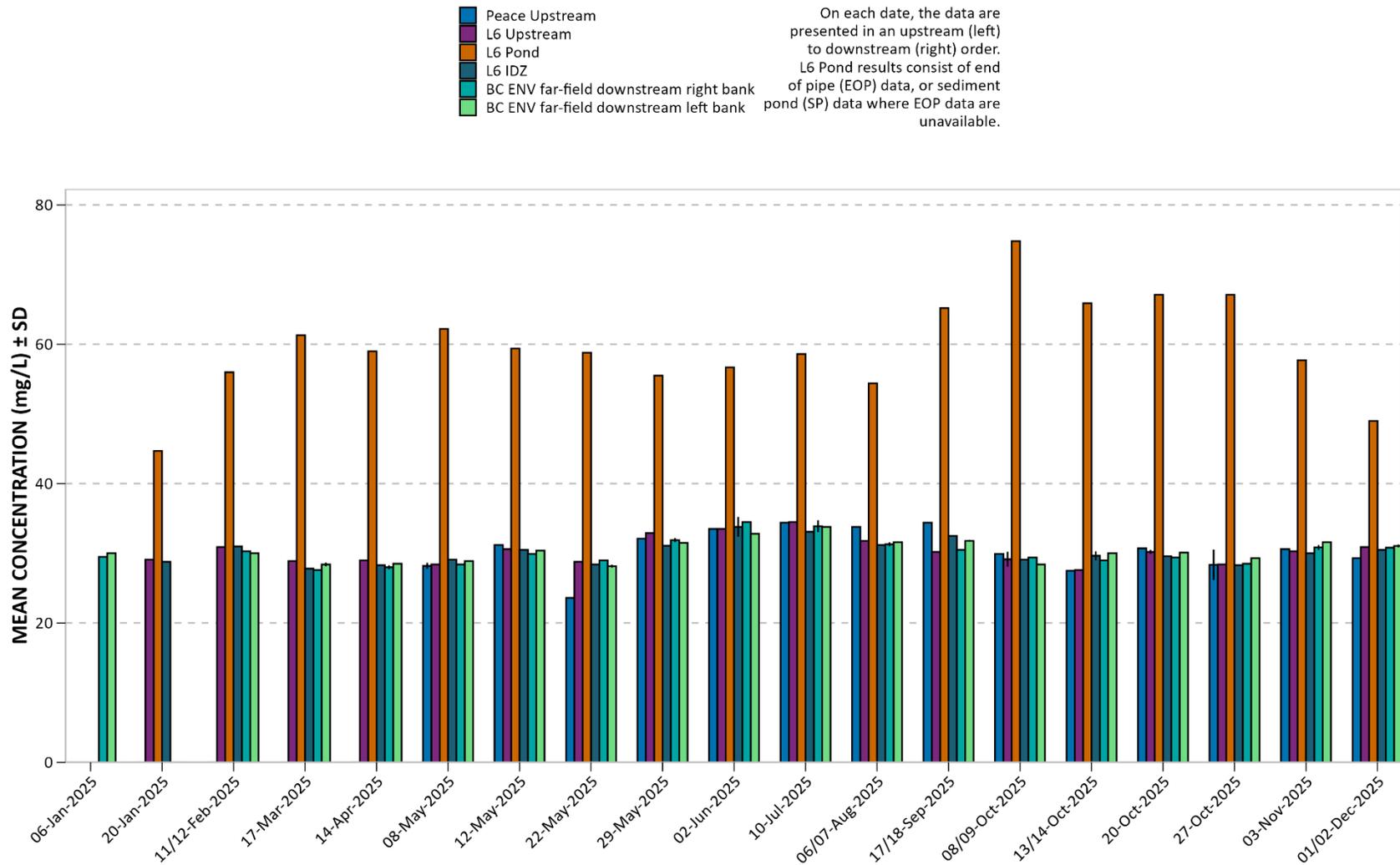


Figure 117. 2025 Site C reservoir, Peace River, and RSEM L6 pond total chromium (Cr).

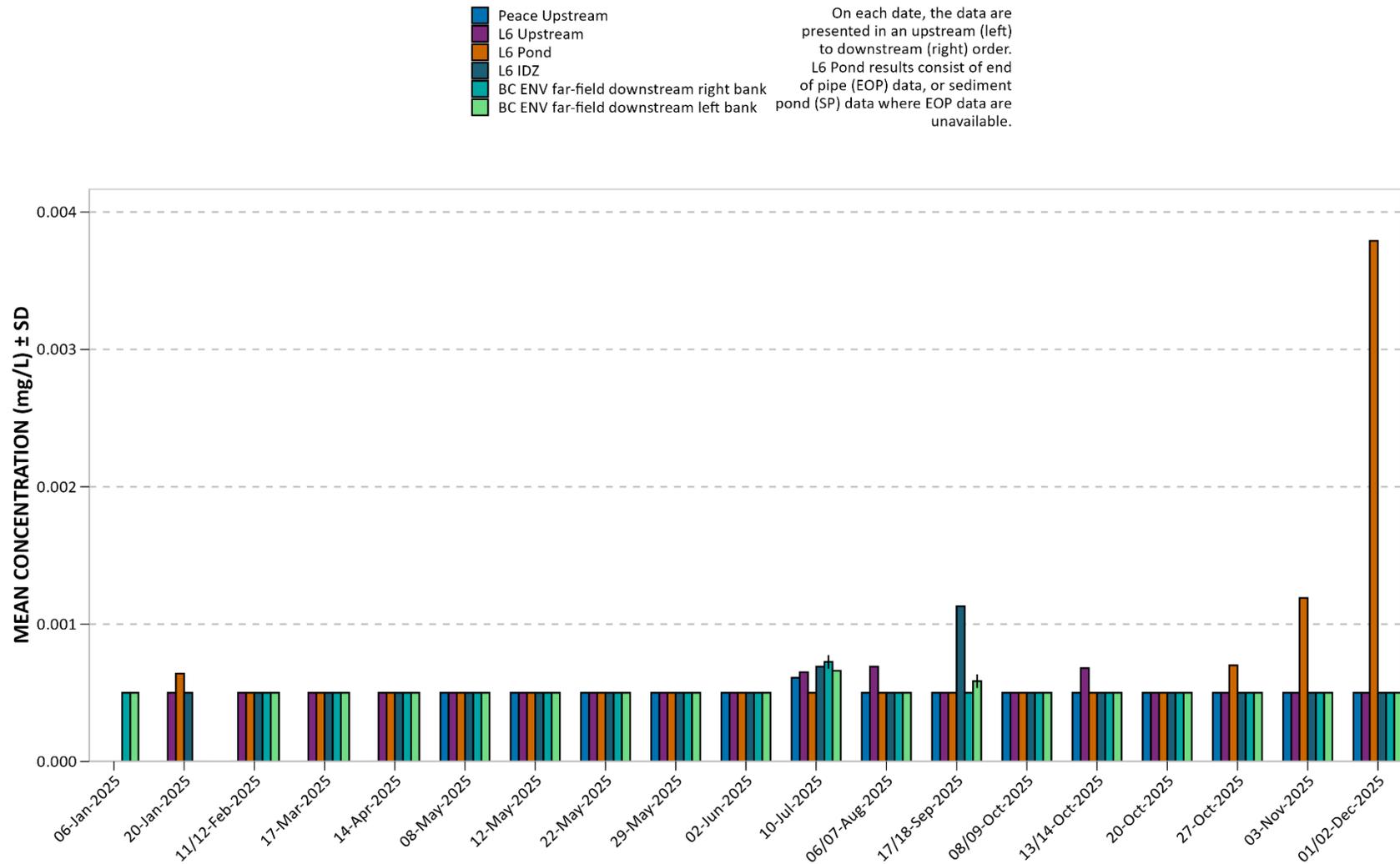


Figure 118. 2025 Site C reservoir, Peace River, and RSEM L6 pond total cobalt (Co).

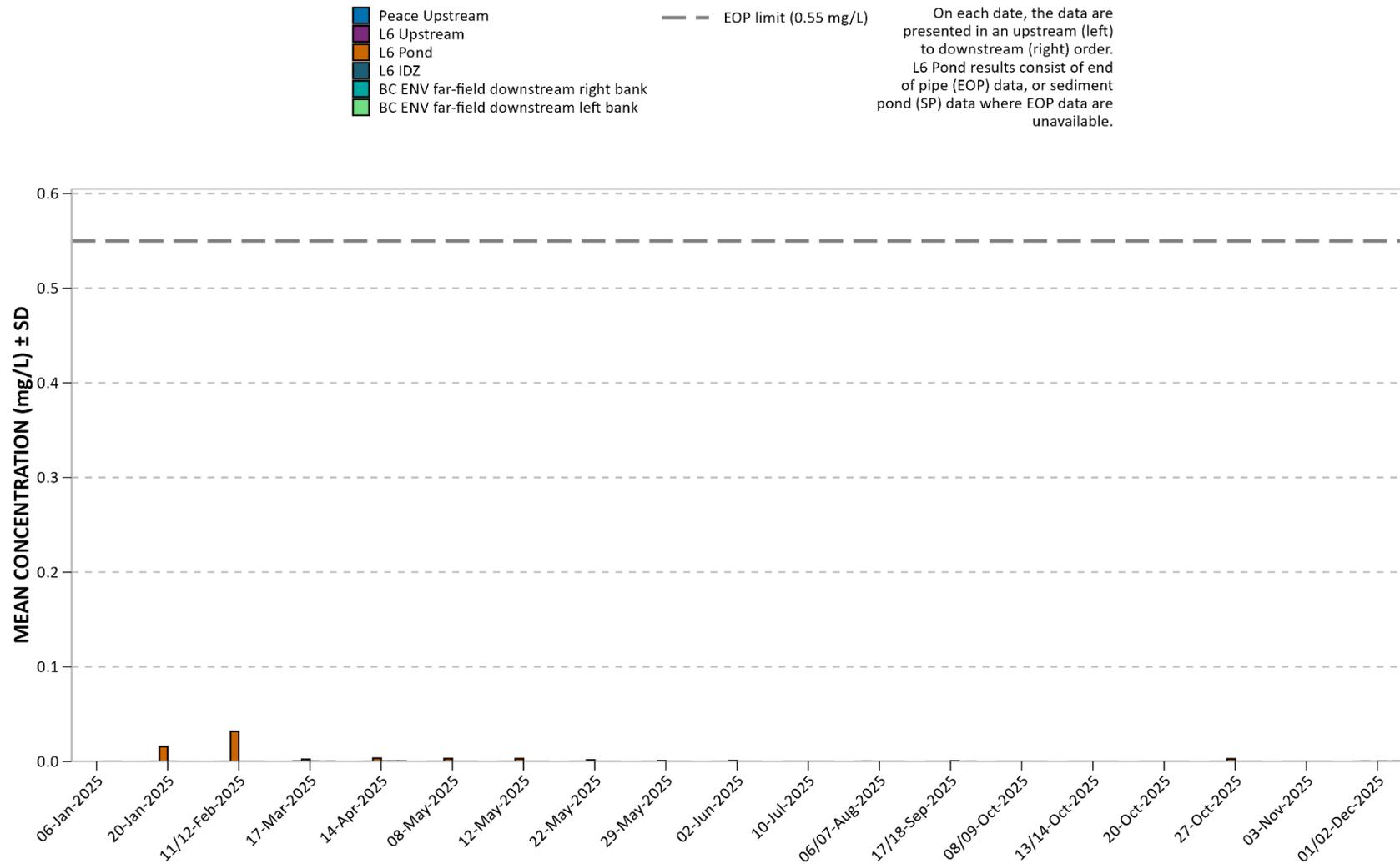


Figure 119. 2025 Site C reservoir, Peace River, and RSEM L6 pond total copper (Cu).

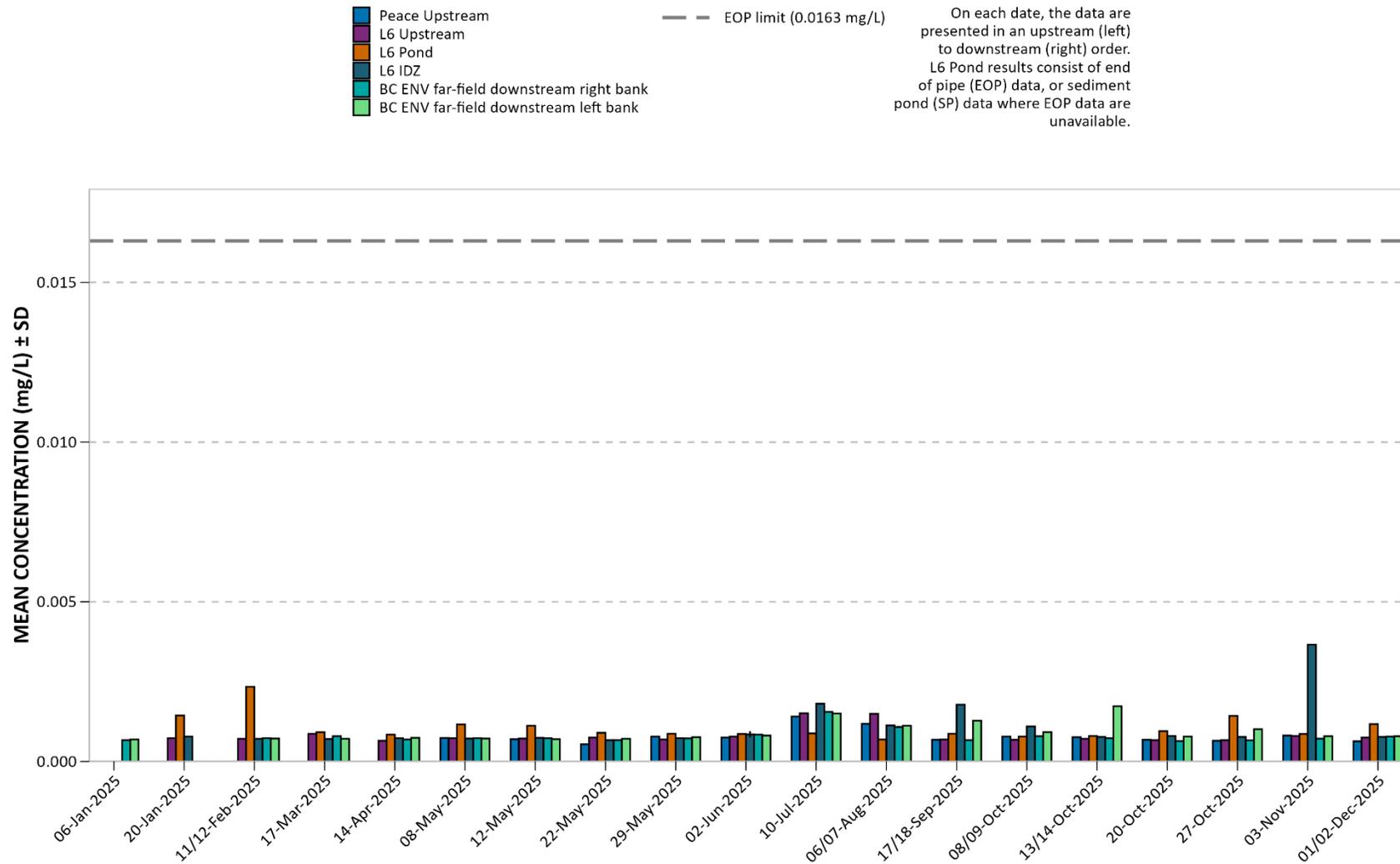


Figure 120. 2025 Site C reservoir, Peace River, and RSEM L6 pond total iron (Fe).

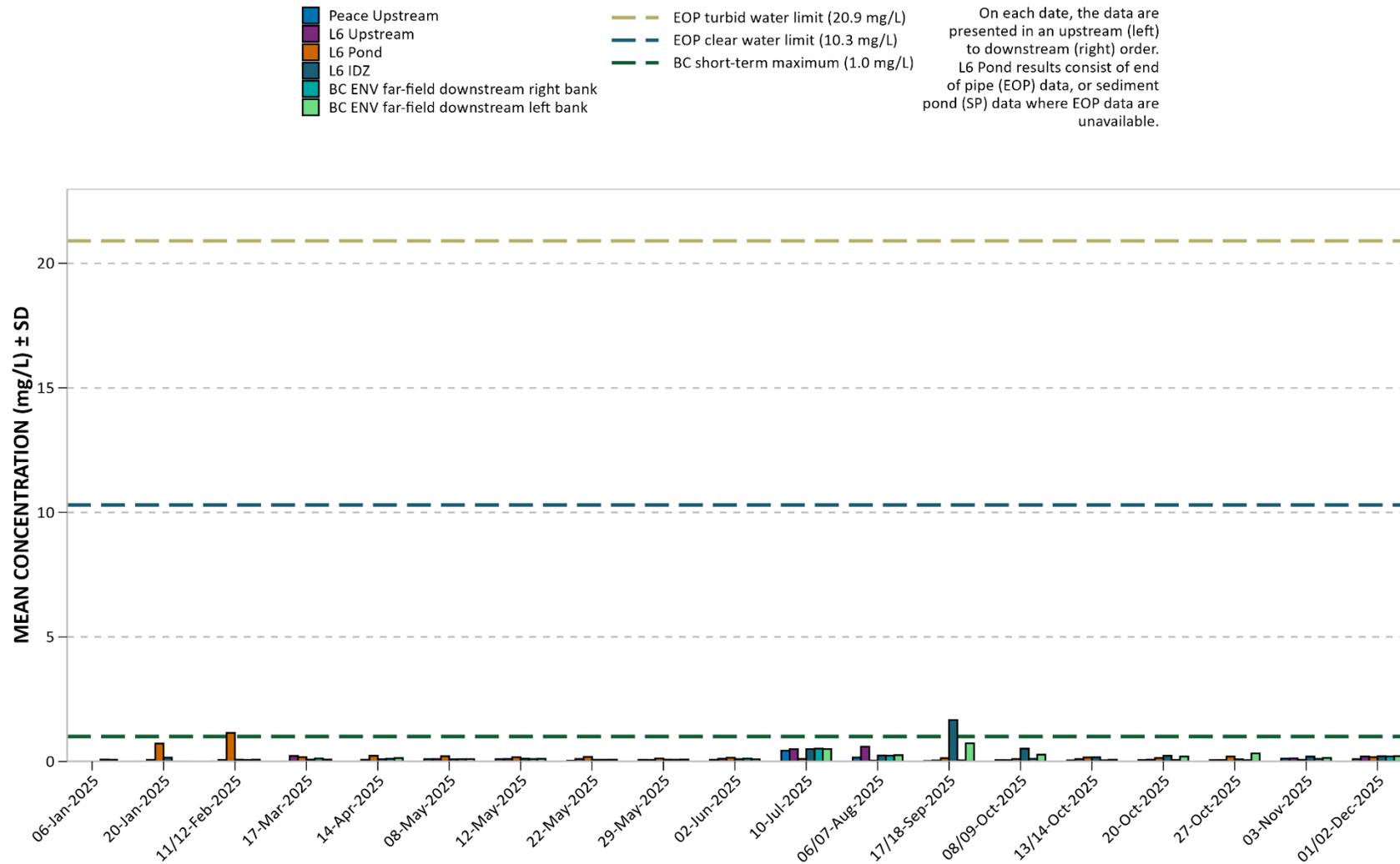


Figure 122. 2025 Site C reservoir, Peace River, and RSEM L6 pond total lithium (Li).

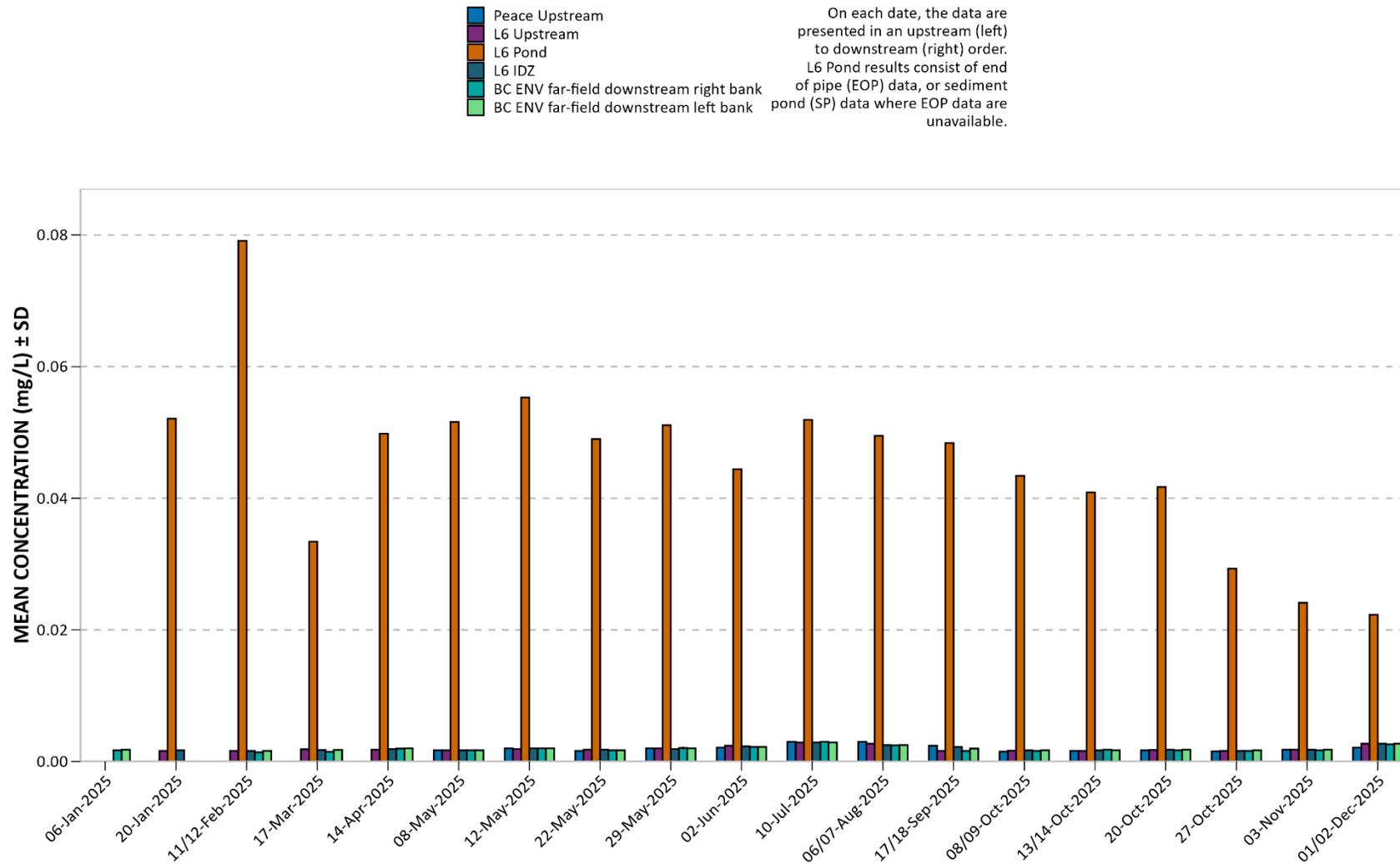


Figure 123. 2025 Site C reservoir, Peace River, and RSEM L6 pond total magnesium (Mg).

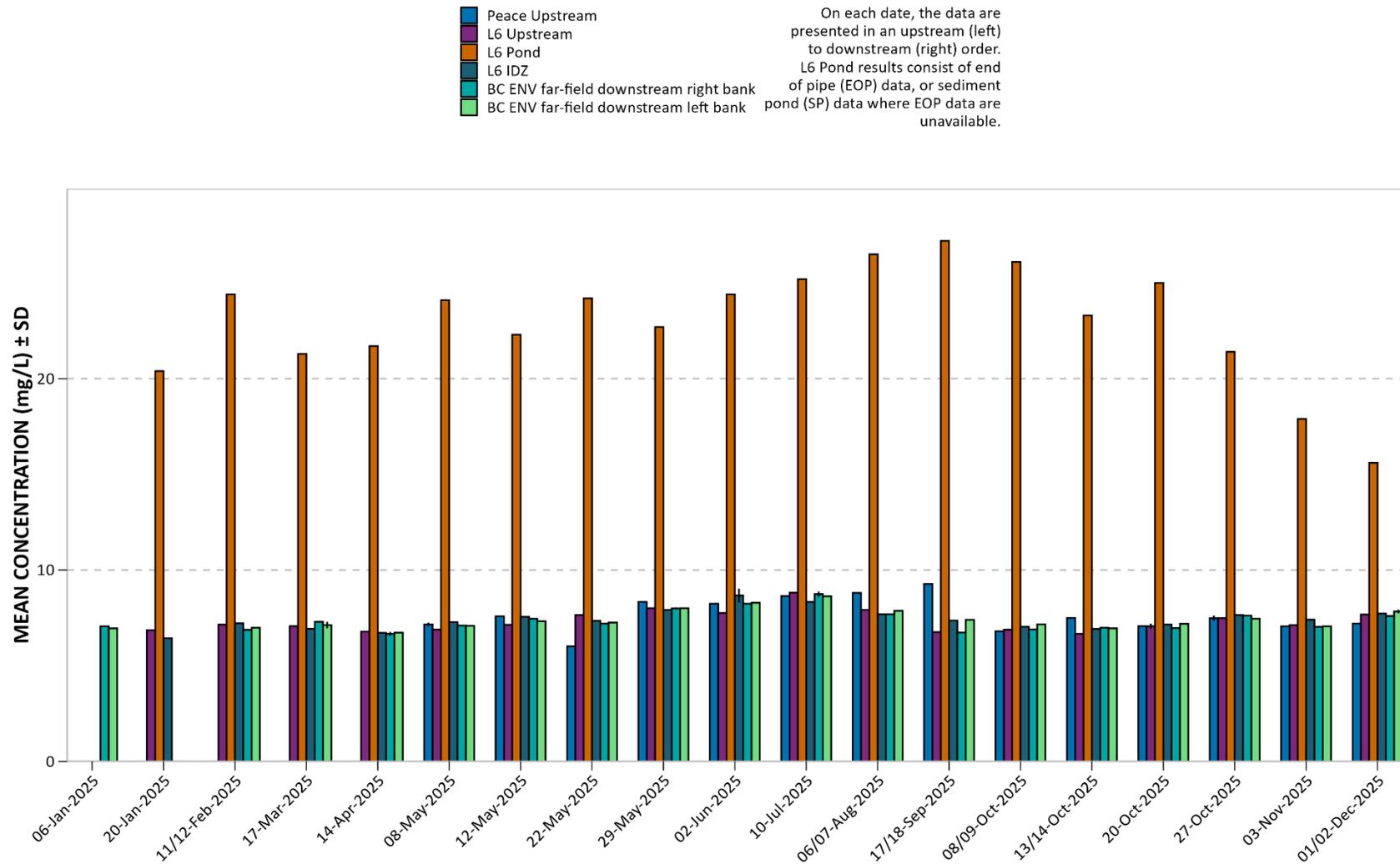
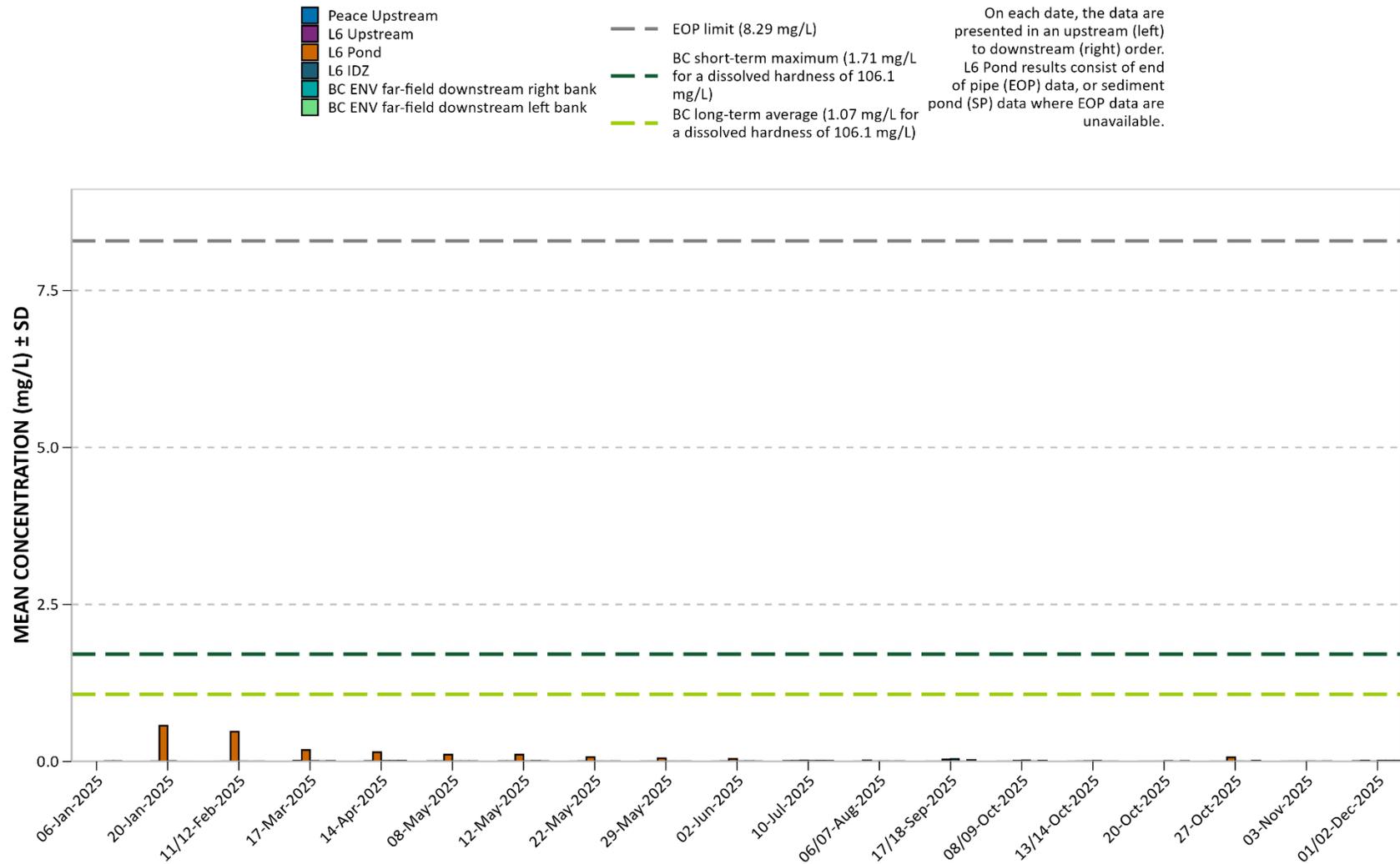


Figure 124. 2025 Site C reservoir, Peace River, and RSEM L6 pond total manganese (Mn).



Note: BC WQGs for total manganese are dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the maximum and 30-day guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against guidelines in the data tables (Appendix A).

Figure 125. 2025 Site C reservoir, Peace River, and RSEM L6 pond total mercury (Hg).

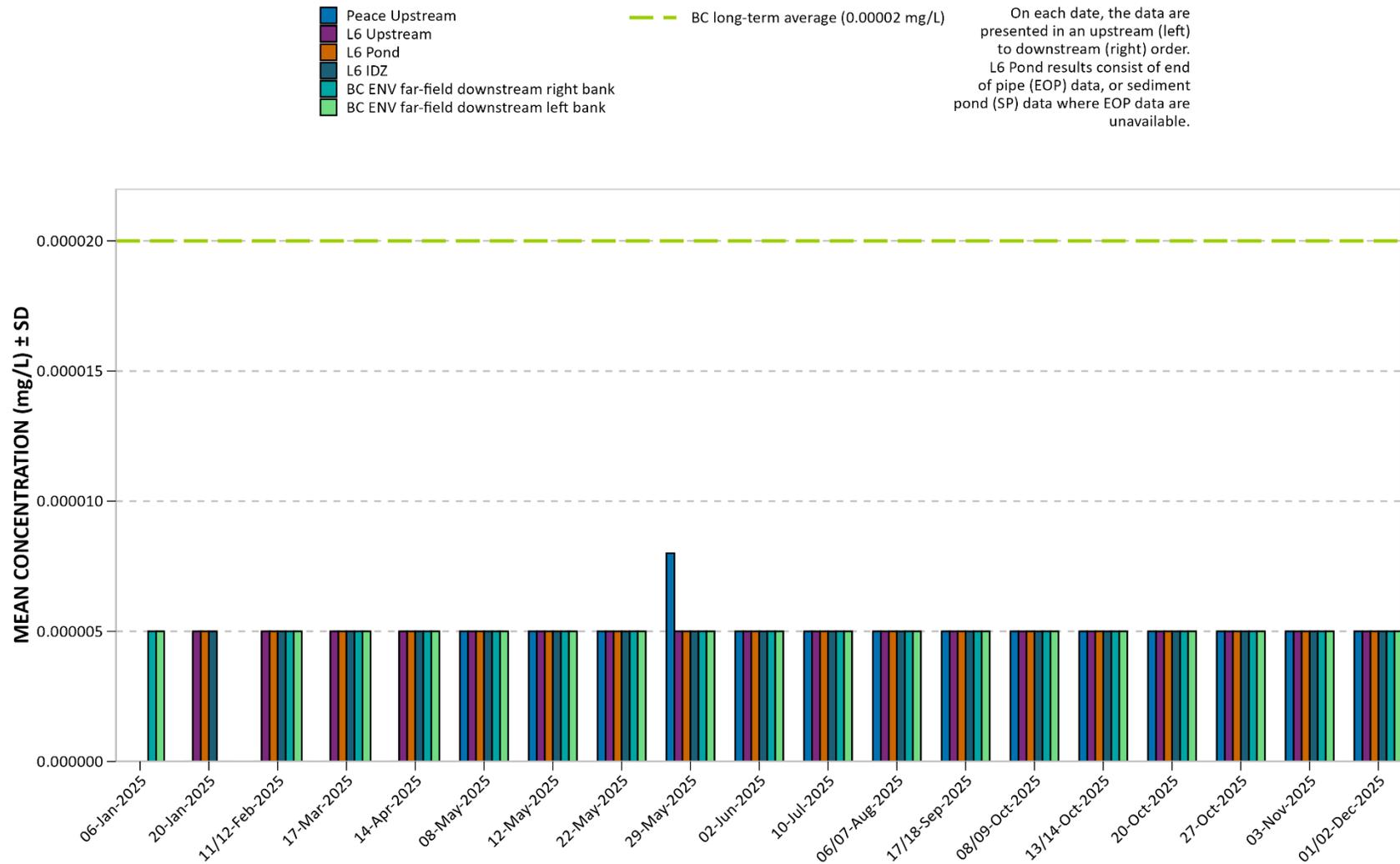


Figure 126. 2025 Site C reservoir, Peace River, and RSEM L6 pond total molybdenum (Mo). Note that sample results are very low compared to guidelines and as a result the data are not visible on the plot.

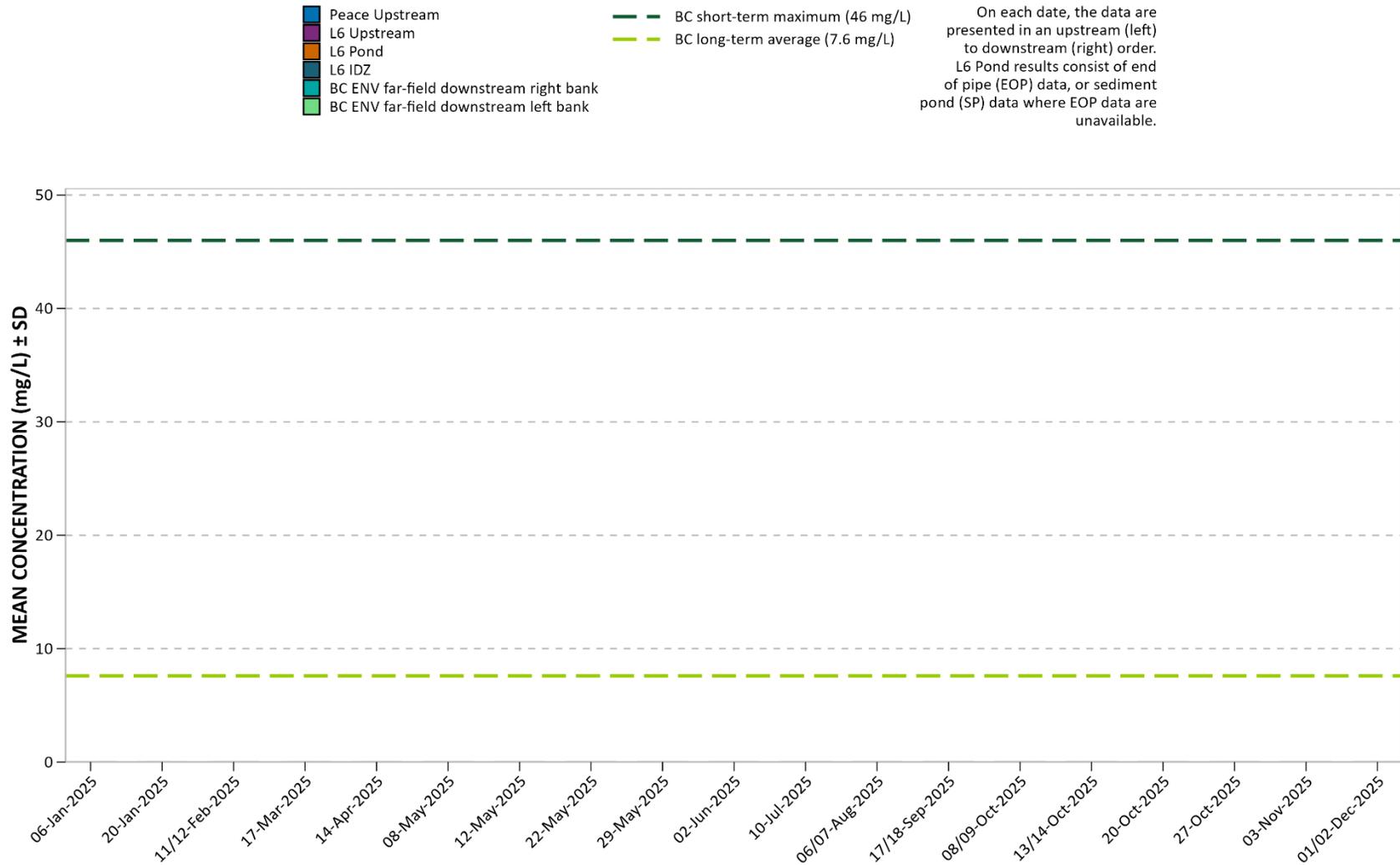


Figure 127. 2025 Site C reservoir, Peace River, and RSEM L6 pond total nickel (Ni).

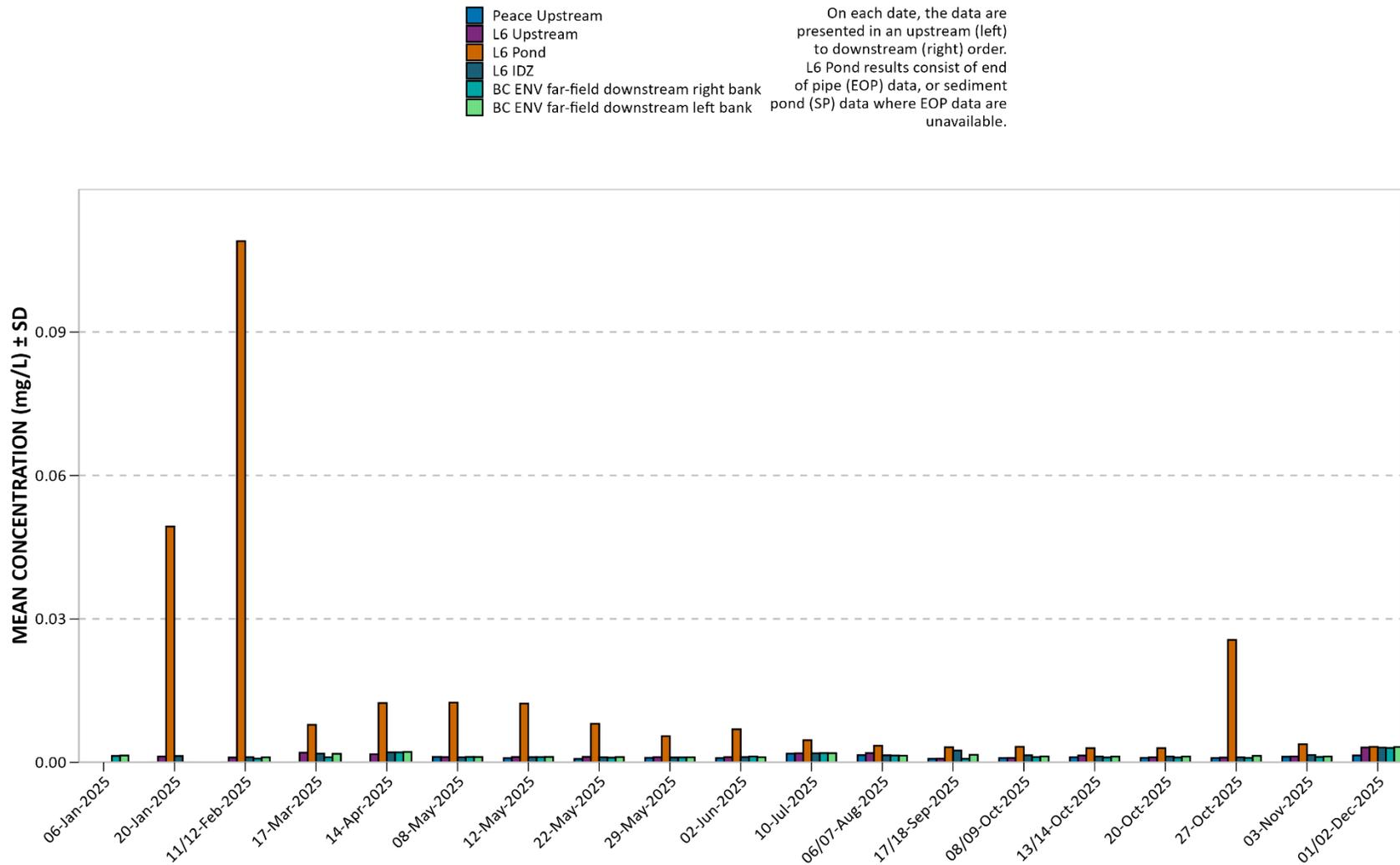


Figure 128. 2025 Site C reservoir, Peace River, and RSEM L6 pond total potassium (K).

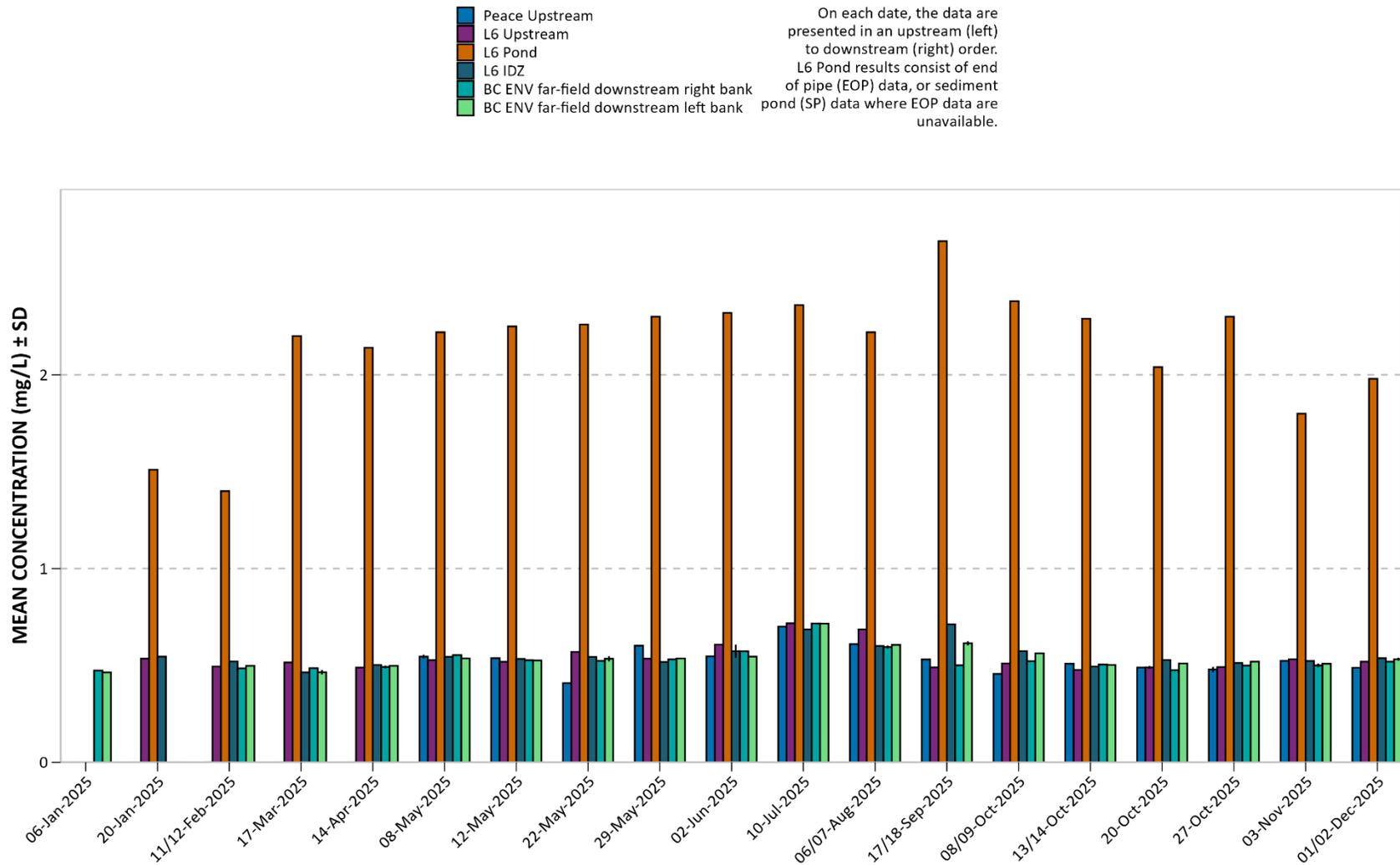


Figure 129. 2025 Site C reservoir, Peace River, and RSEM L6 pond total selenium (Se).

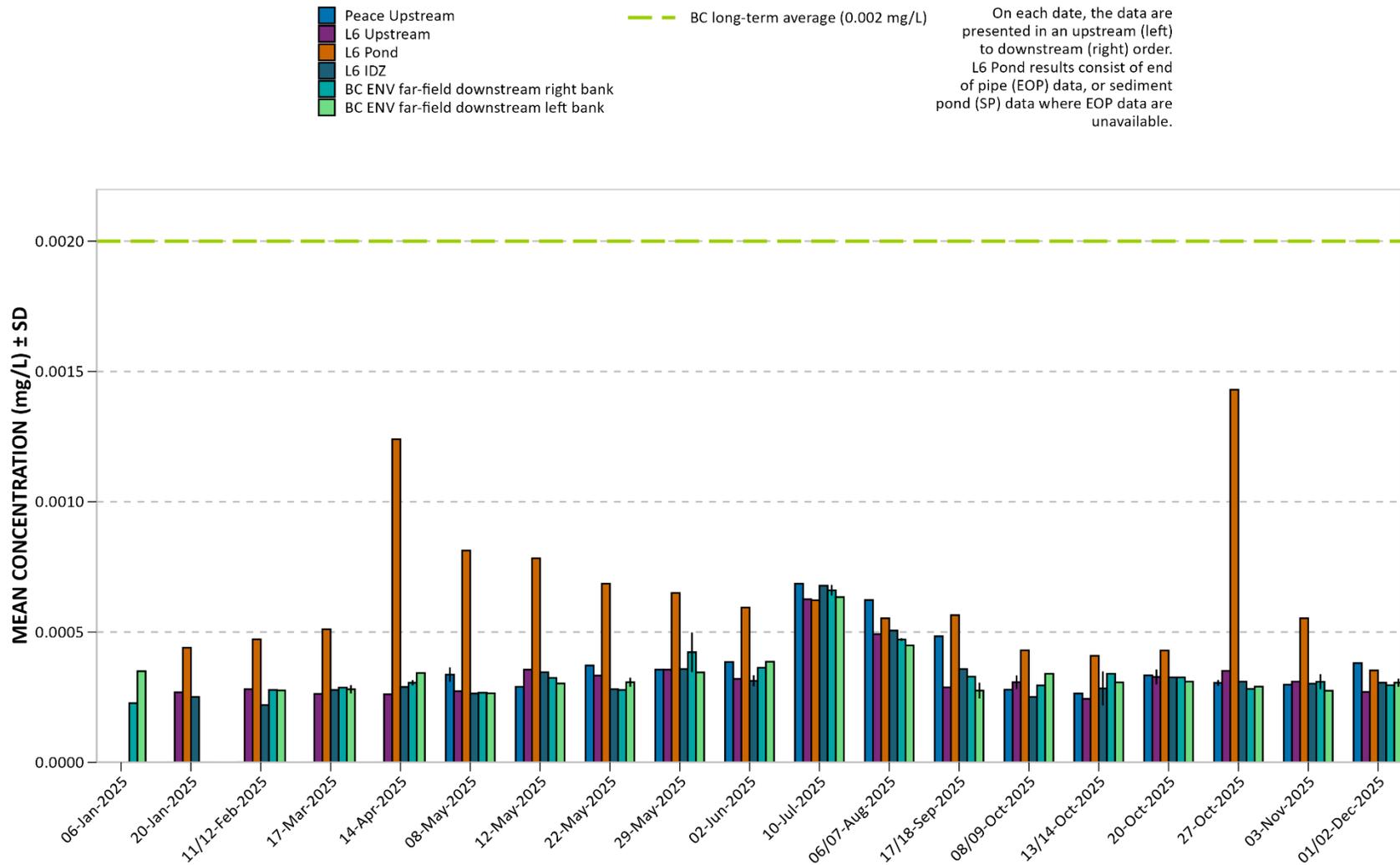


Figure 130. 2025 Site C reservoir, Peace River, and RSEM L6 pond total silicon (Si).

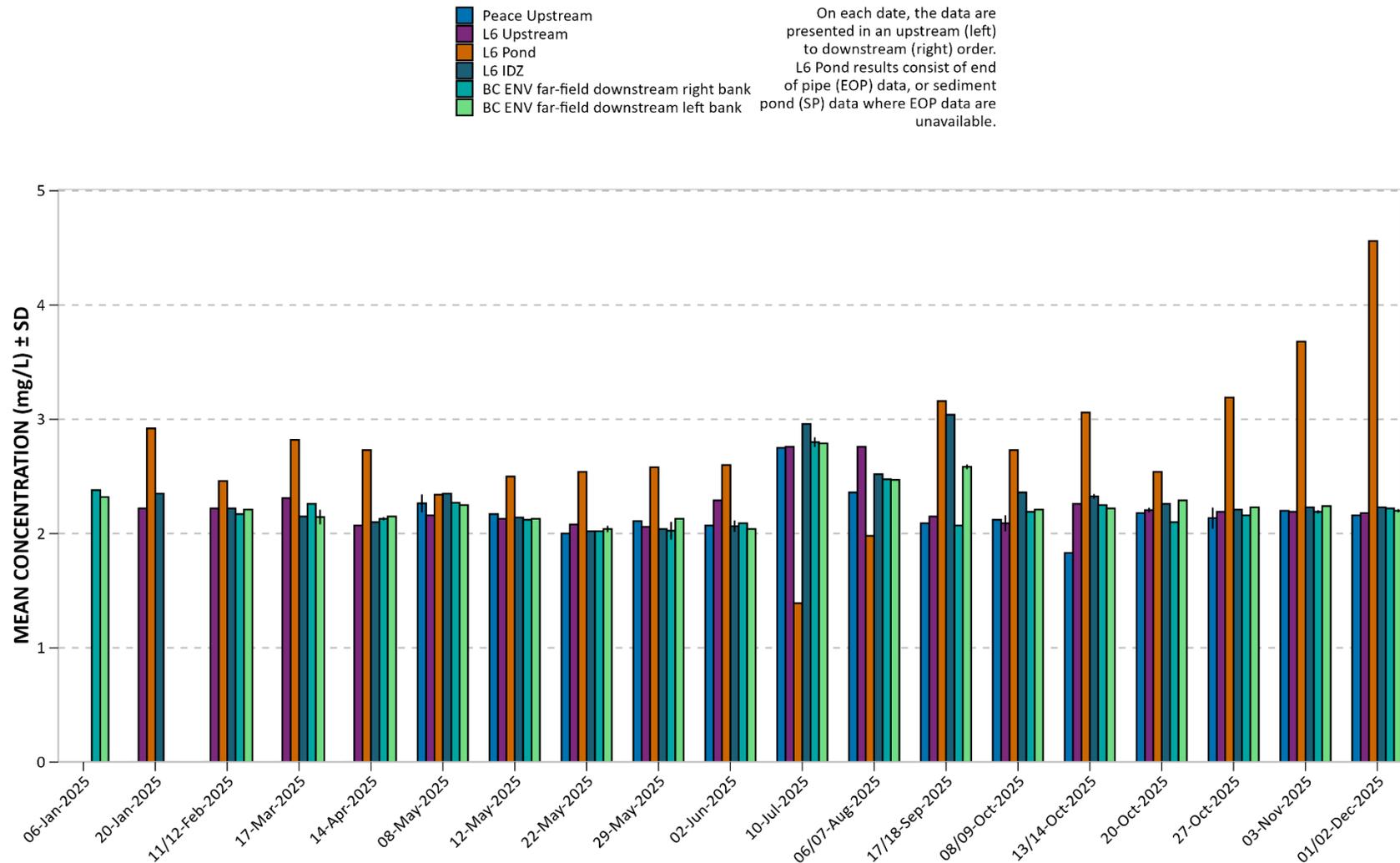


Figure 131. 2025 Site C reservoir, Peace River, and RSEM L6 pond total silver (Ag).

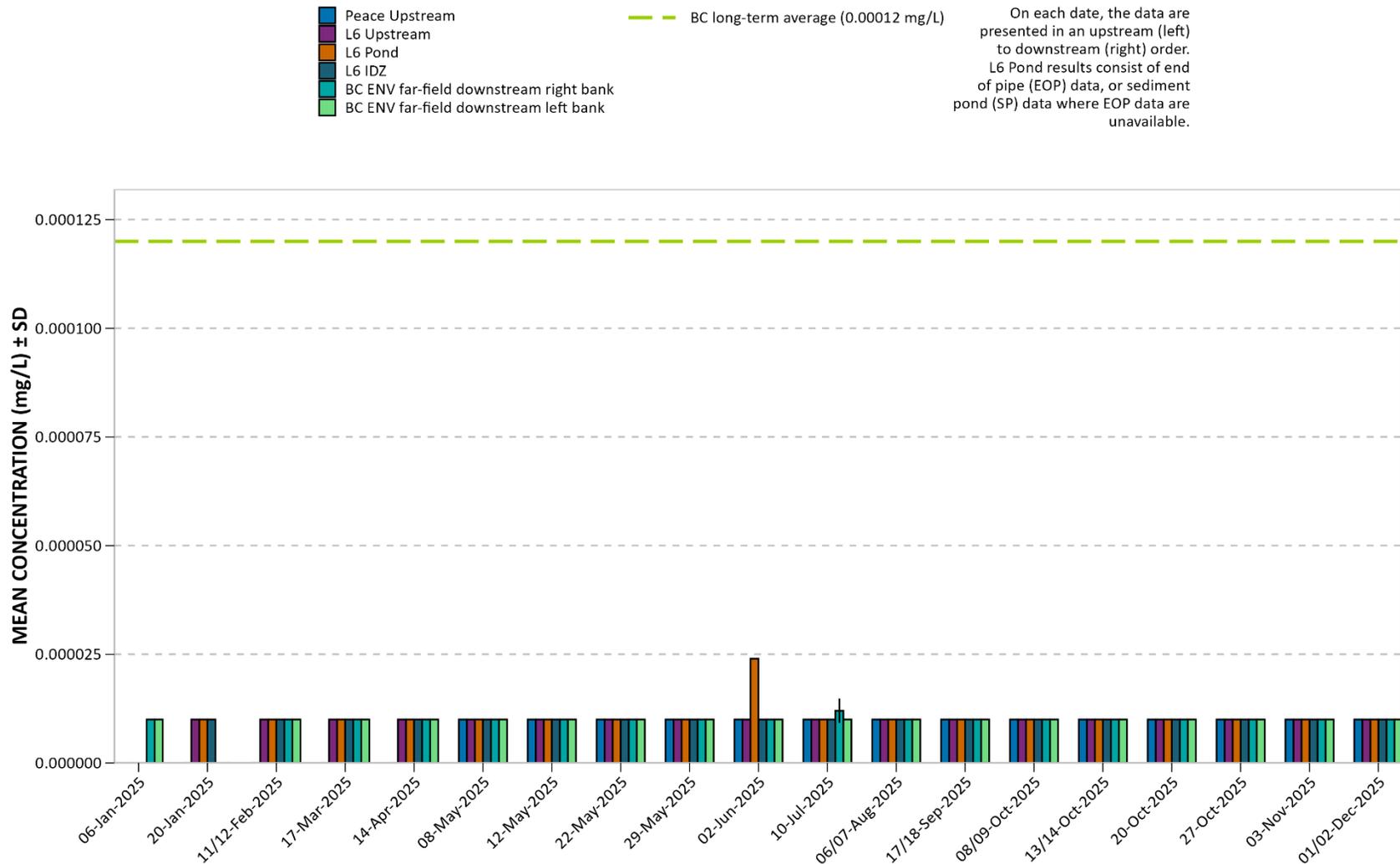


Figure 132. 2025 Site C reservoir, Peace River, and RSEM L6 pond total sodium (Na).

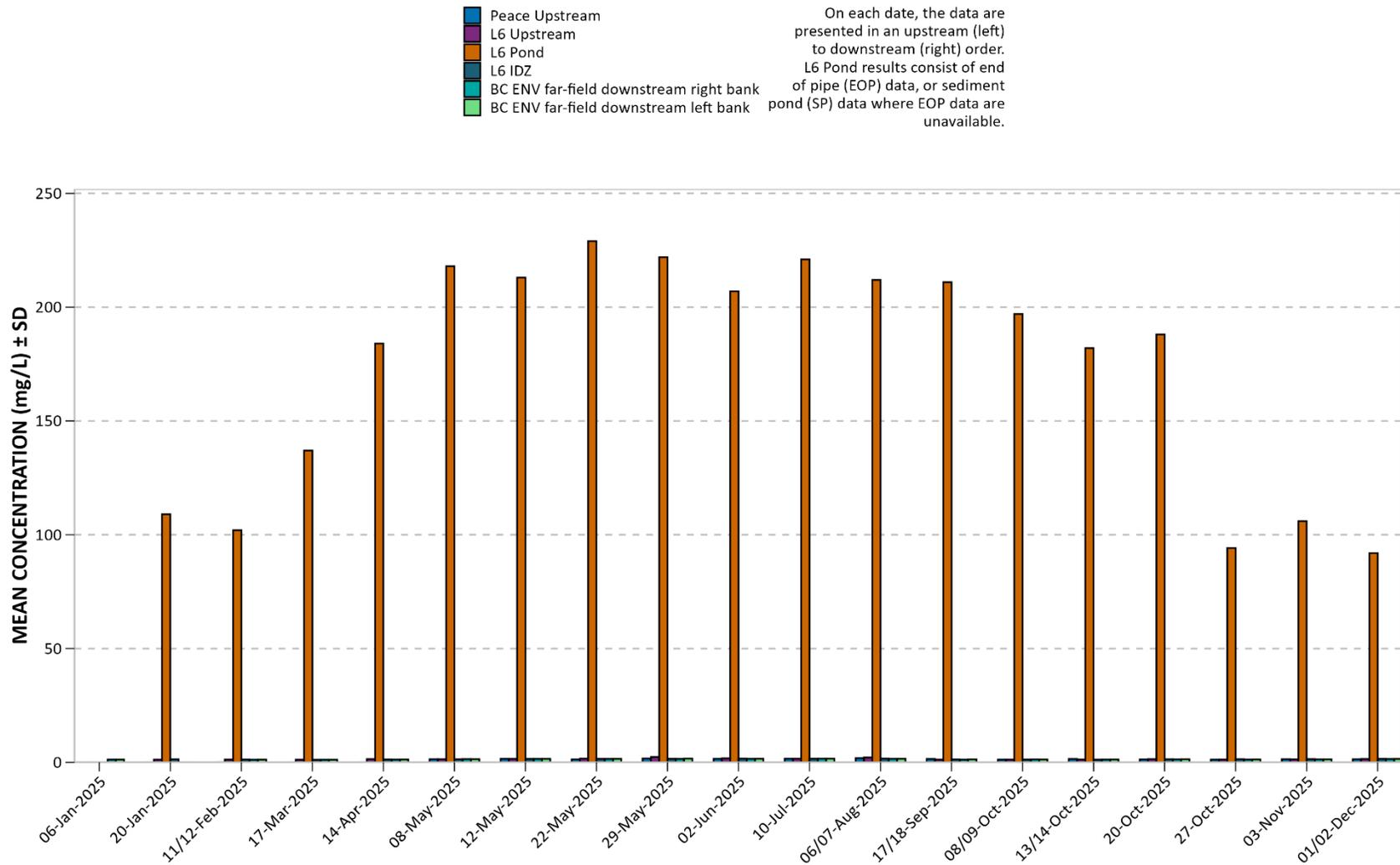


Figure 133. 2025 Site C reservoir, Peace River, and RSEM L6 pond total strontium (Sr).

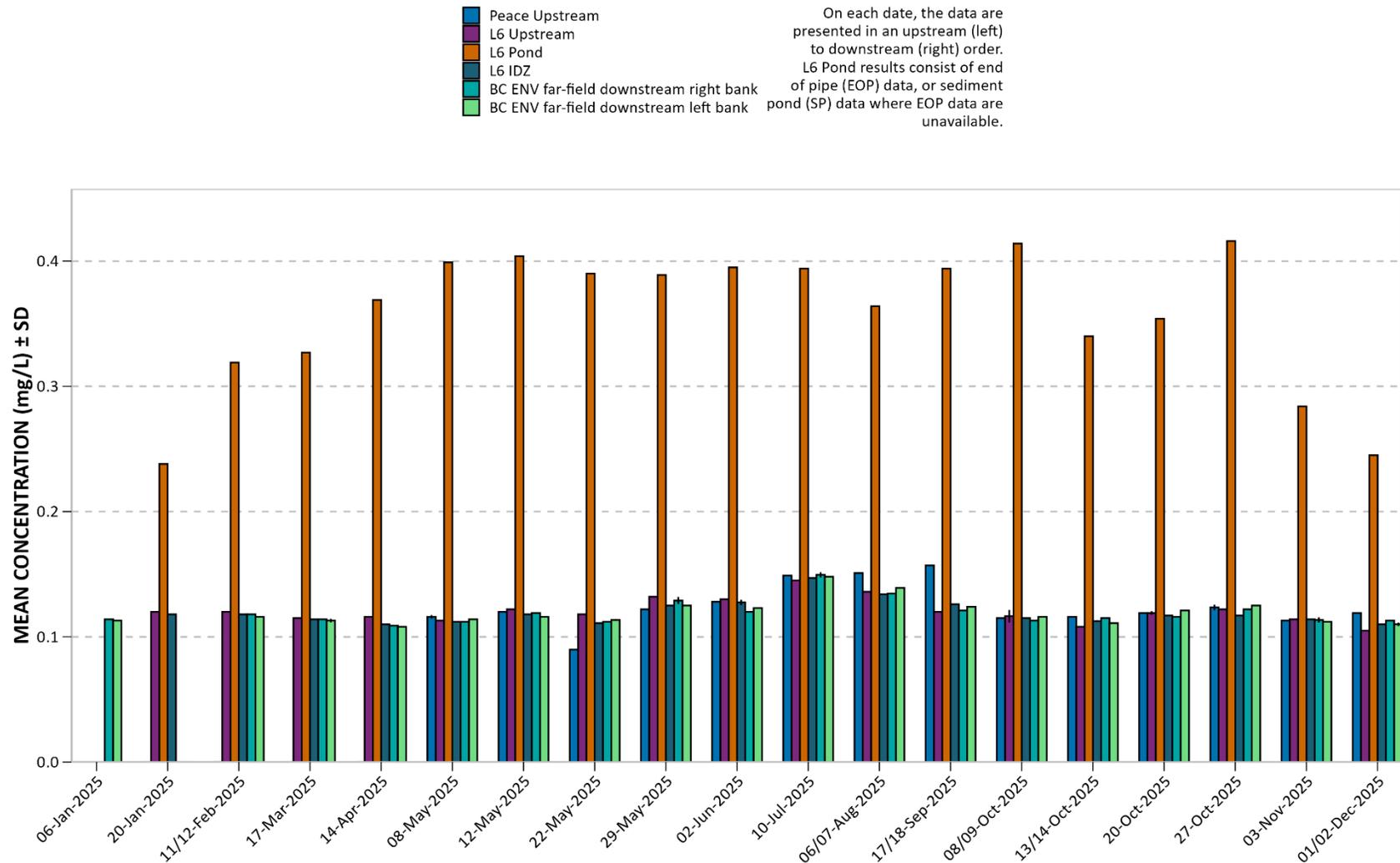


Figure 134. 2025 Site C reservoir, Peace River, and RSEM L6 pond total sulfur (S).

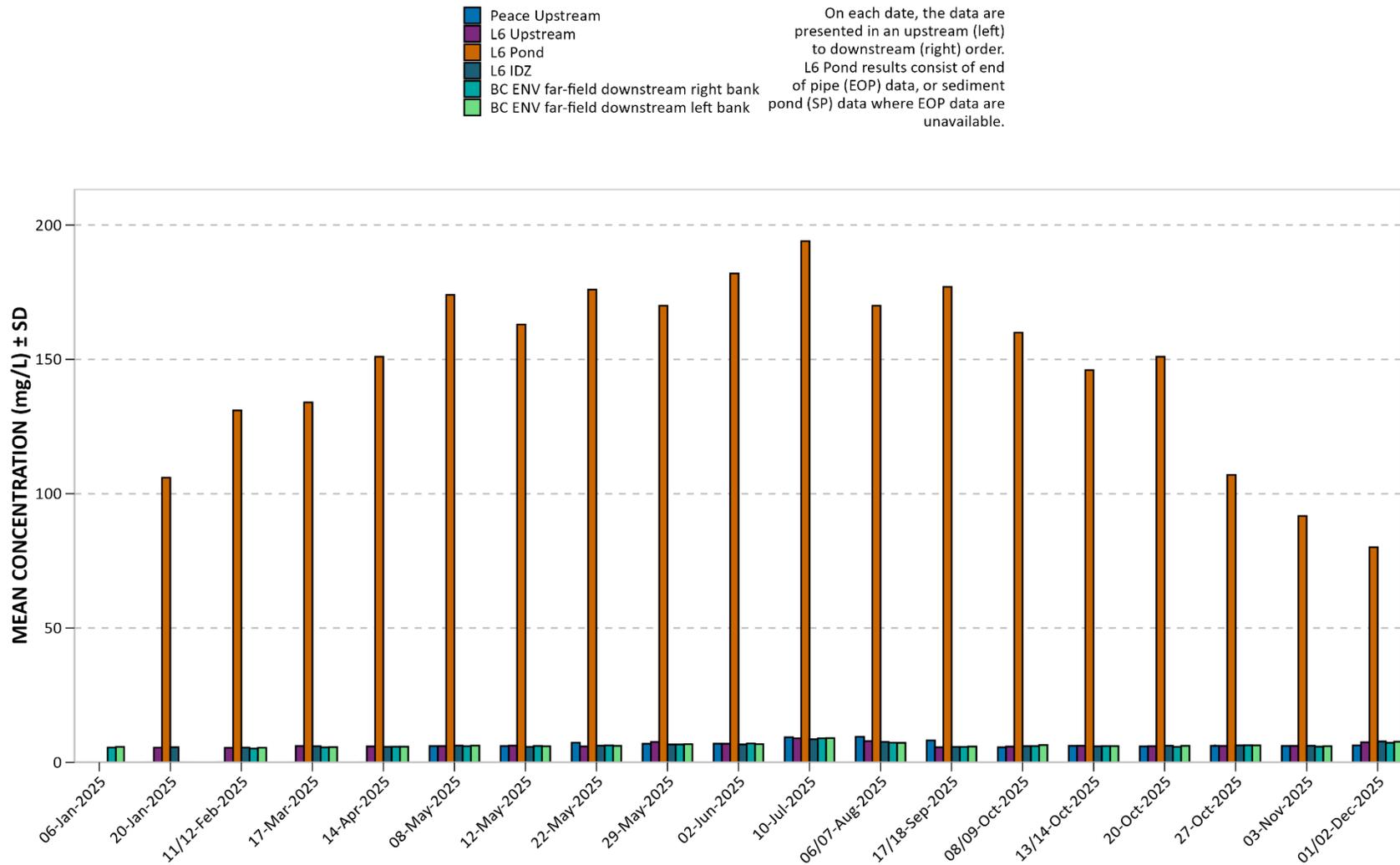


Figure 135. 2025 Site C reservoir, Peace River, and RSEM L6 pond total thallium (Tl).

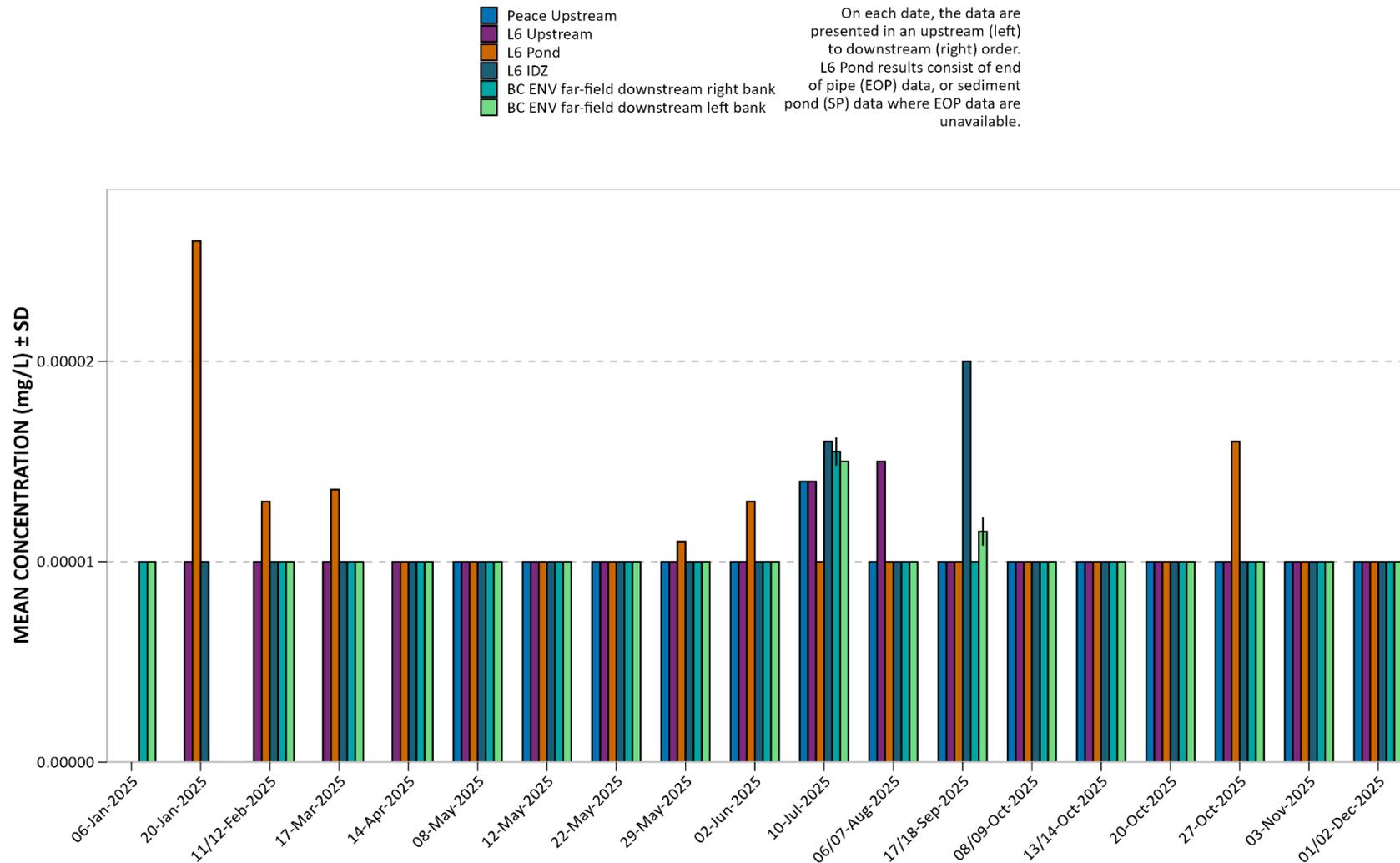


Figure 136. 2025 Site C reservoir, Peace River, and RSEM L6 pond total tin (Sn).

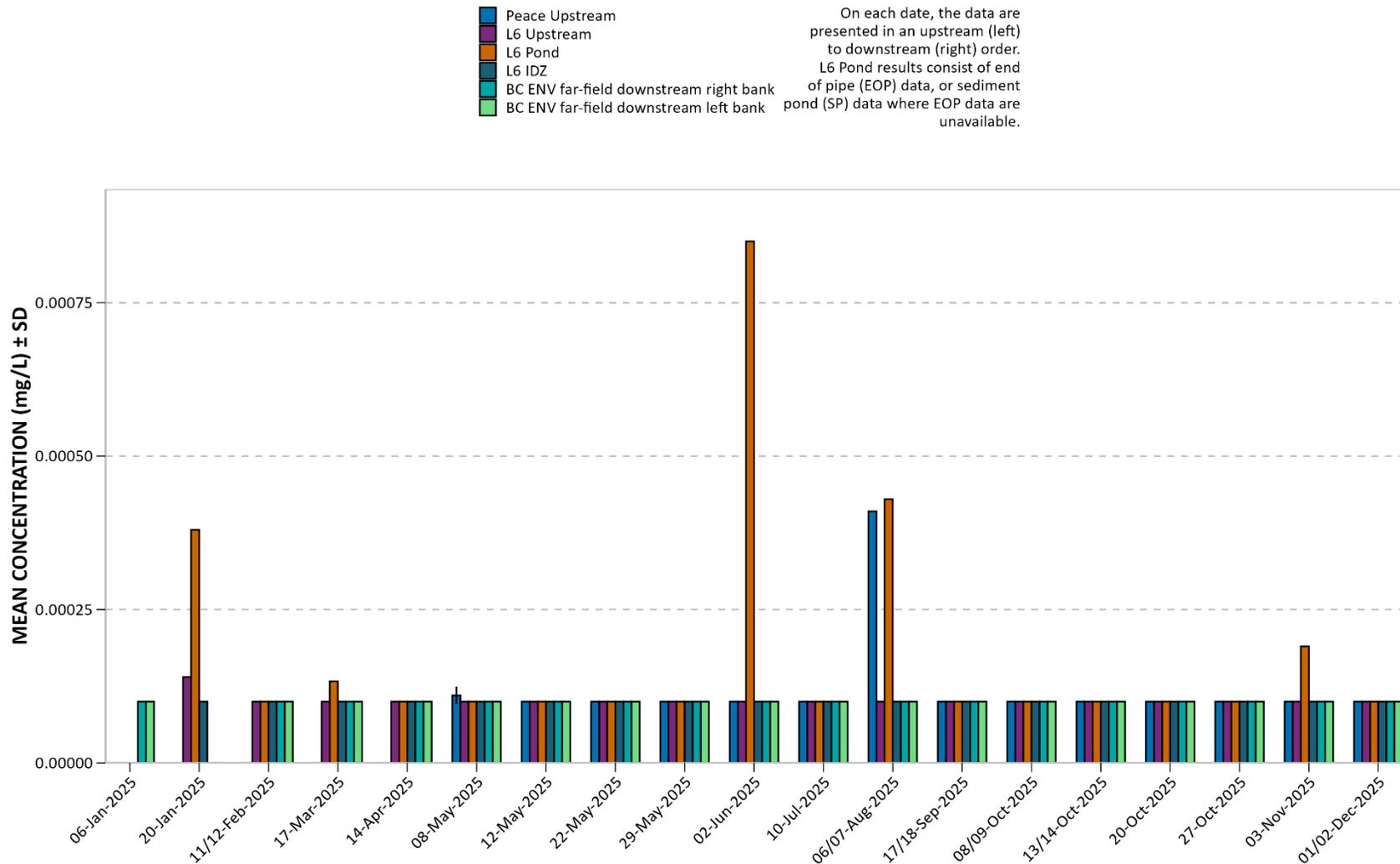


Figure 137. 2025 Site C reservoir, Peace River, and RSEM L6 pond total titanium (Ti).

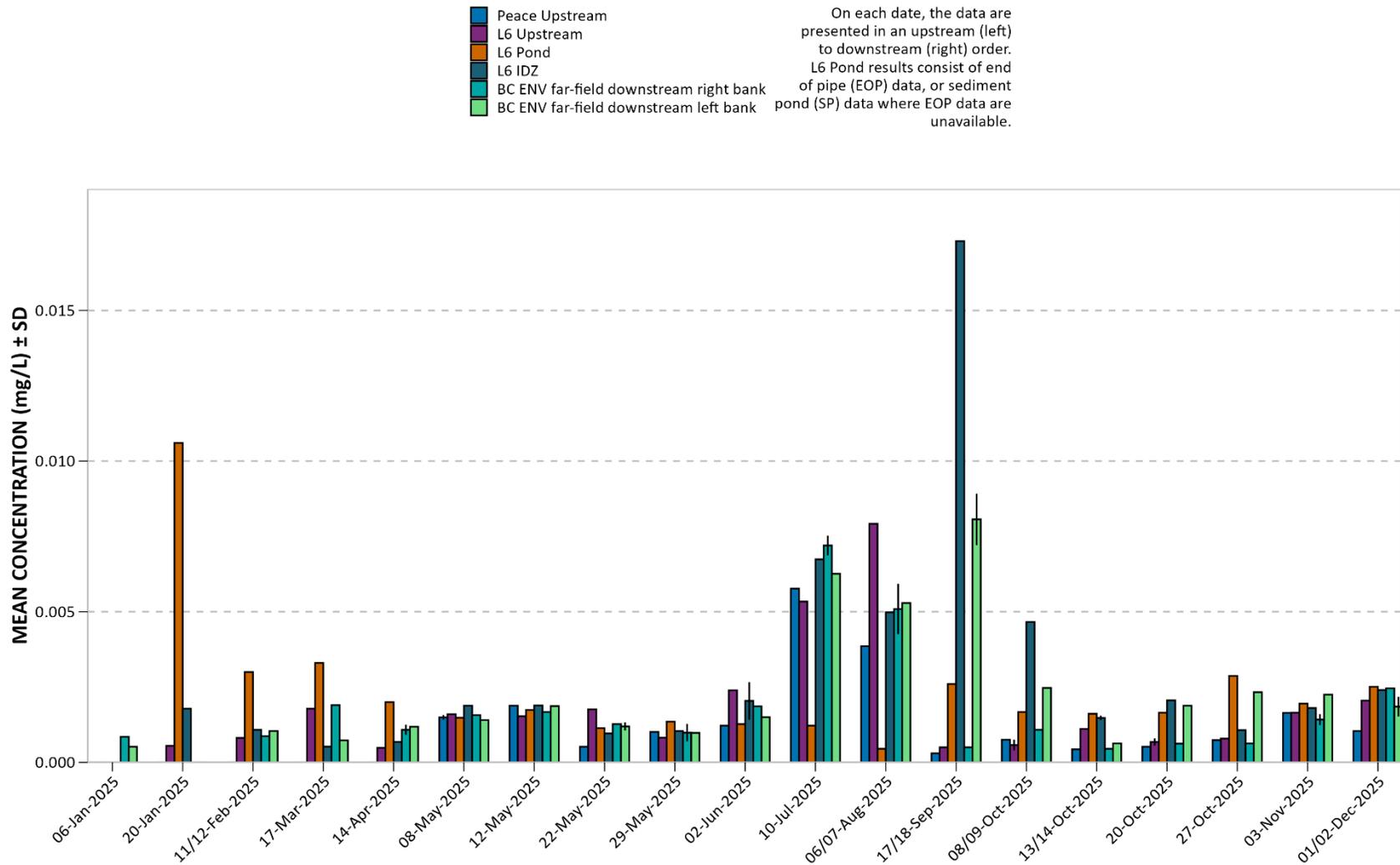


Figure 138. 2025 Site C reservoir, Peace River, and RSEM L6 pond total uranium (U).

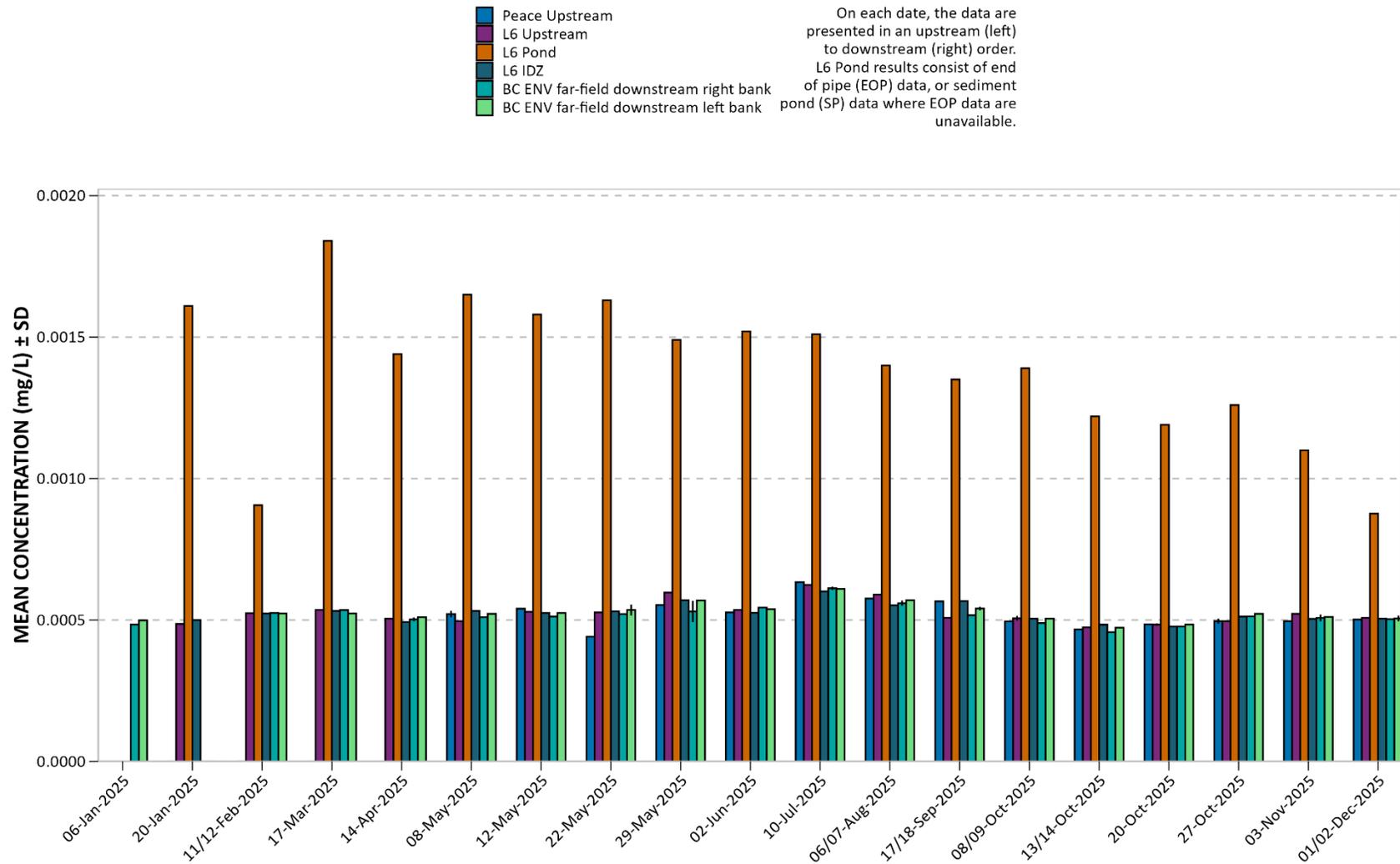


Figure 139. 2025 Site C reservoir, Peace River, and RSEM L6 pond total vanadium (V).

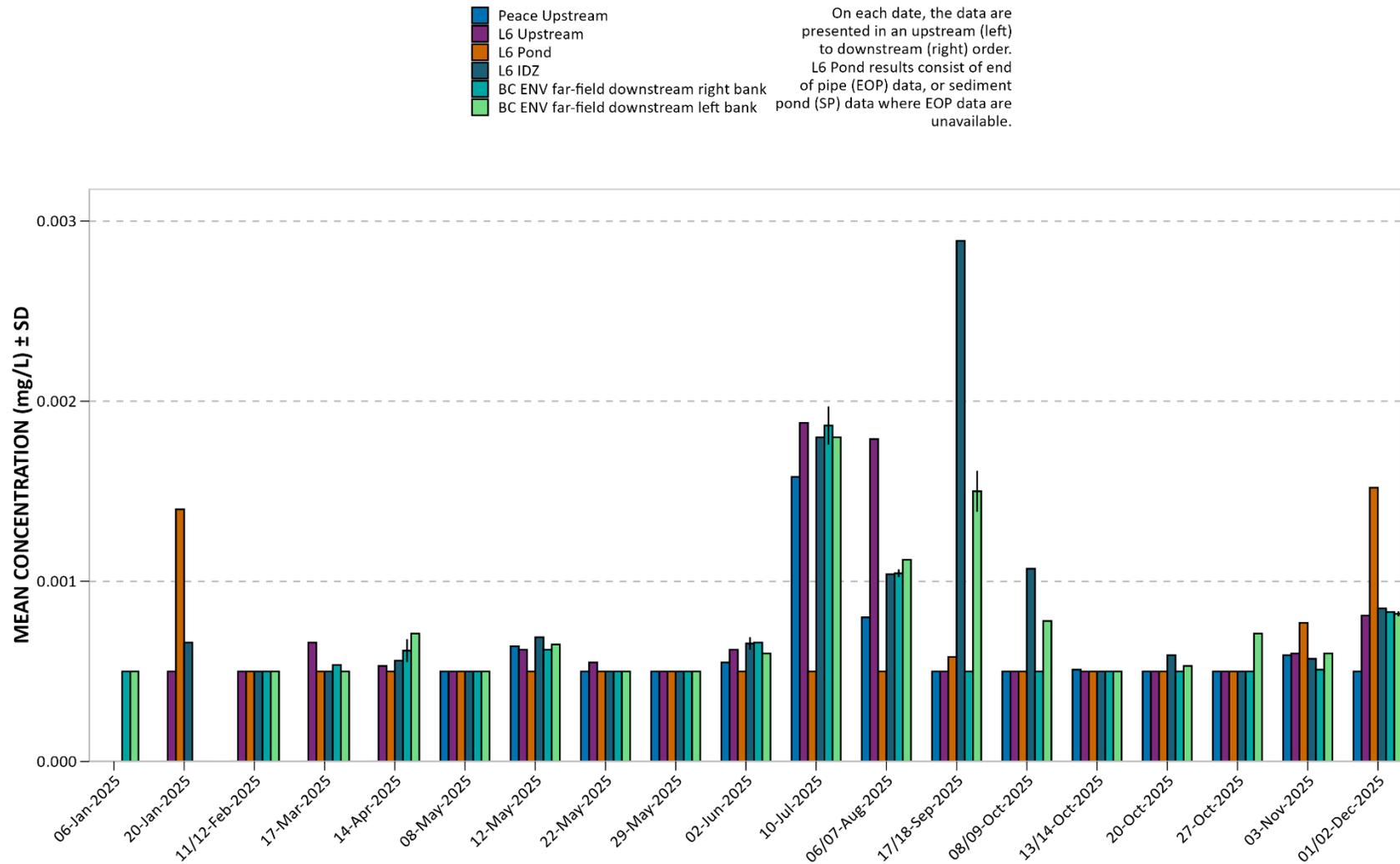


Figure 140. 2025 Site C reservoir, Peace River, and RSEM L6 pond total zinc (Zn).

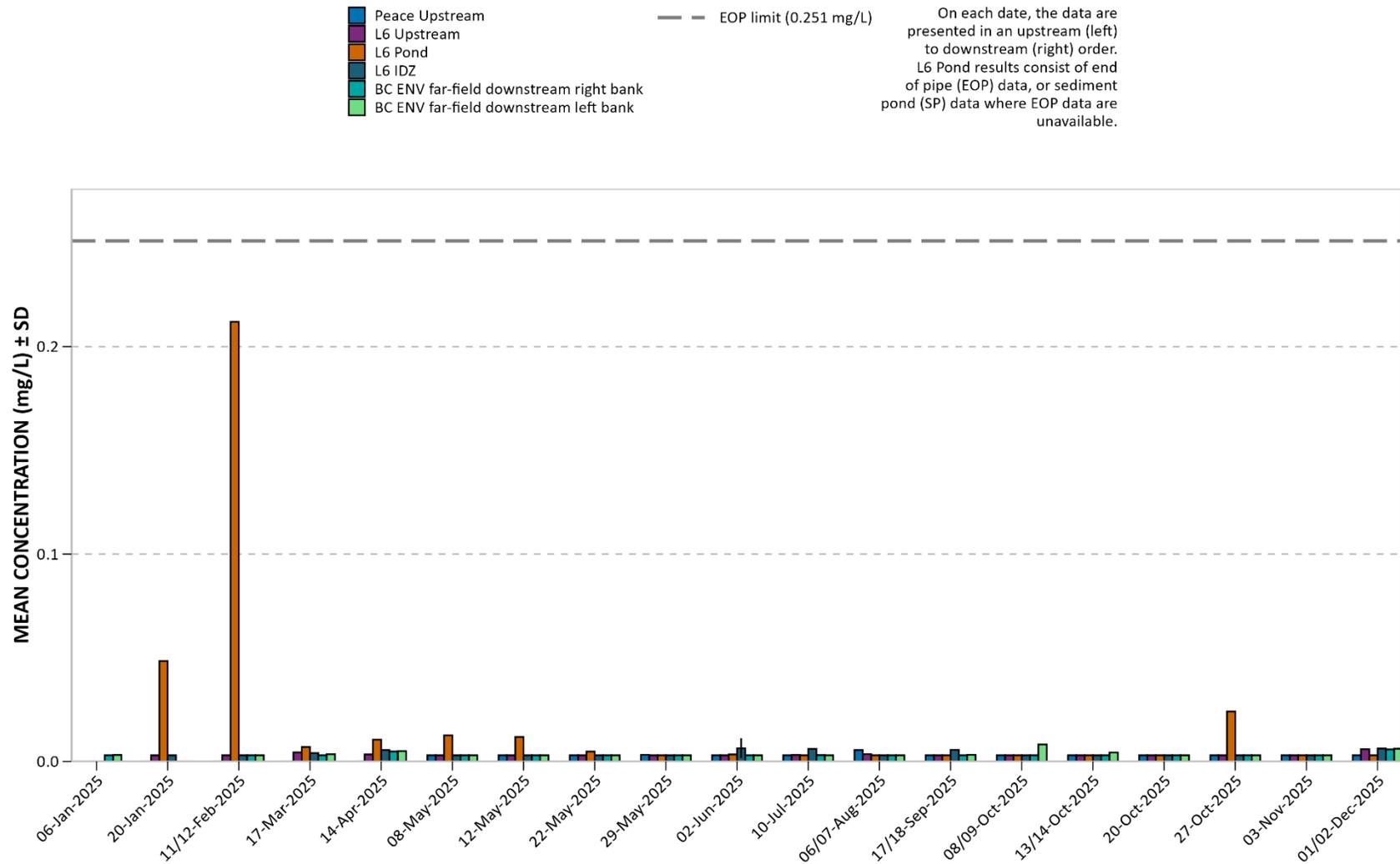


Figure 141. 2025 Site C reservoir, Peace River, and RSEM L6 pond total zirconium (Zr).

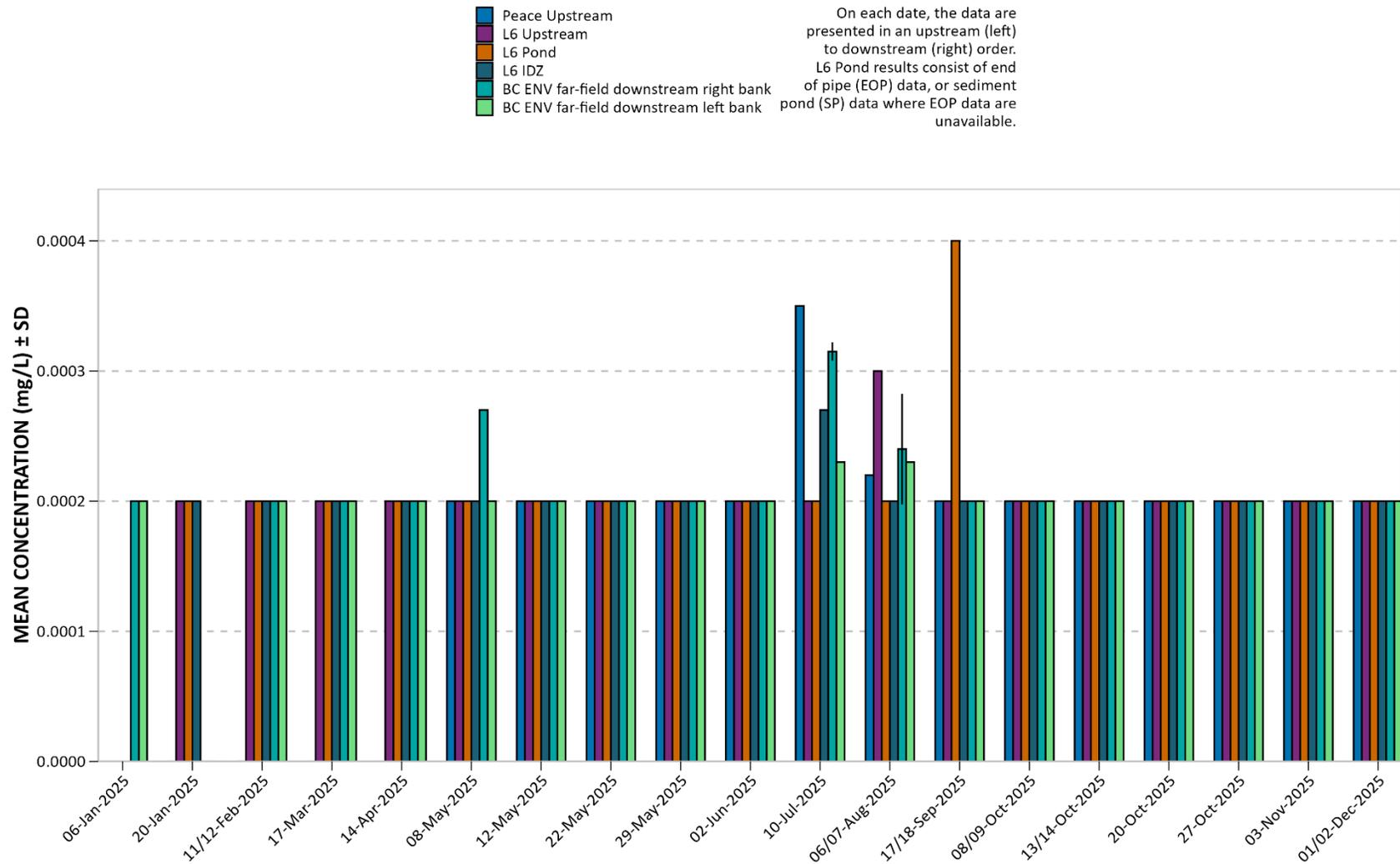


Figure 142. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved aluminum (Al).

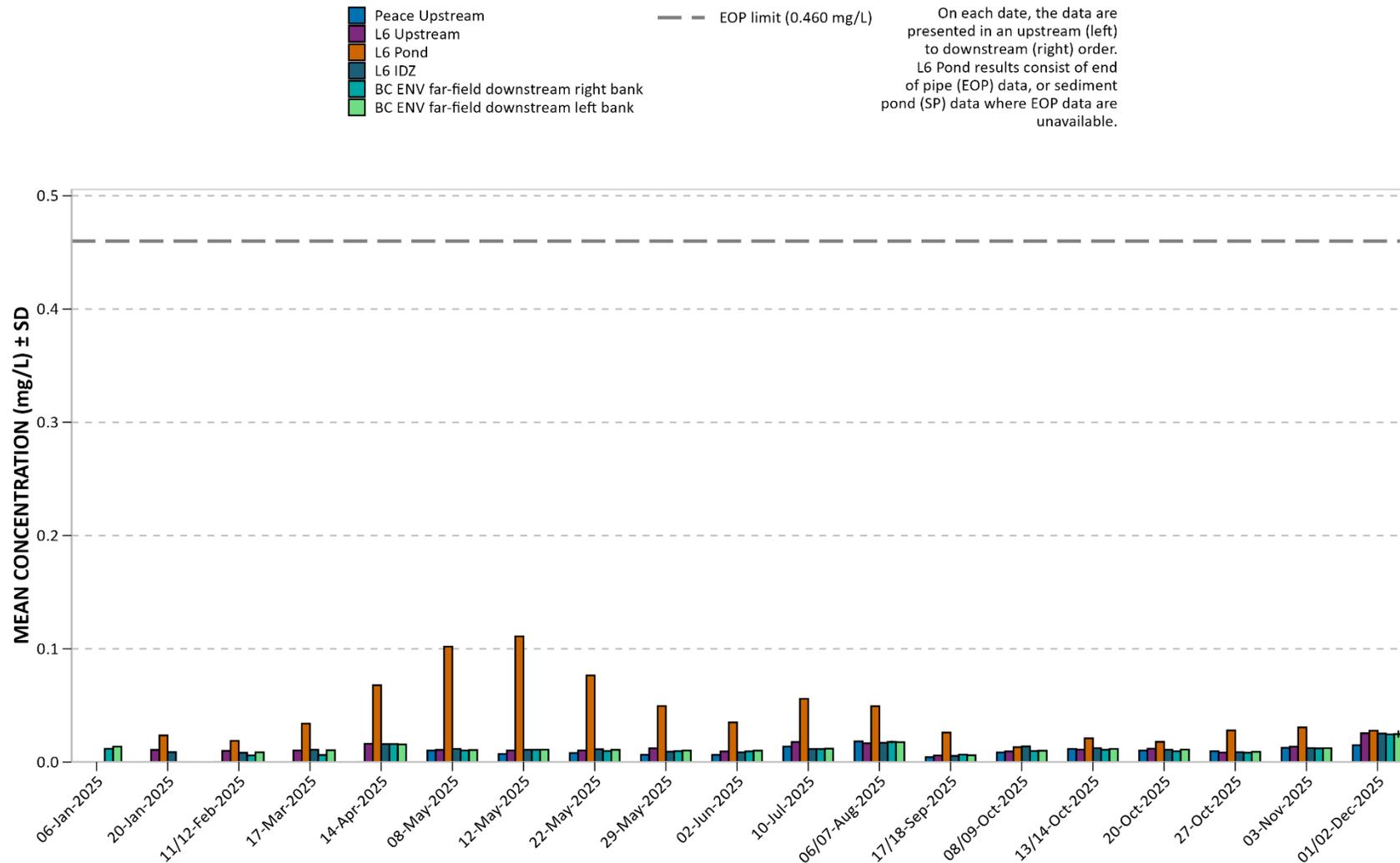


Figure 143. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved antimony (Sb).

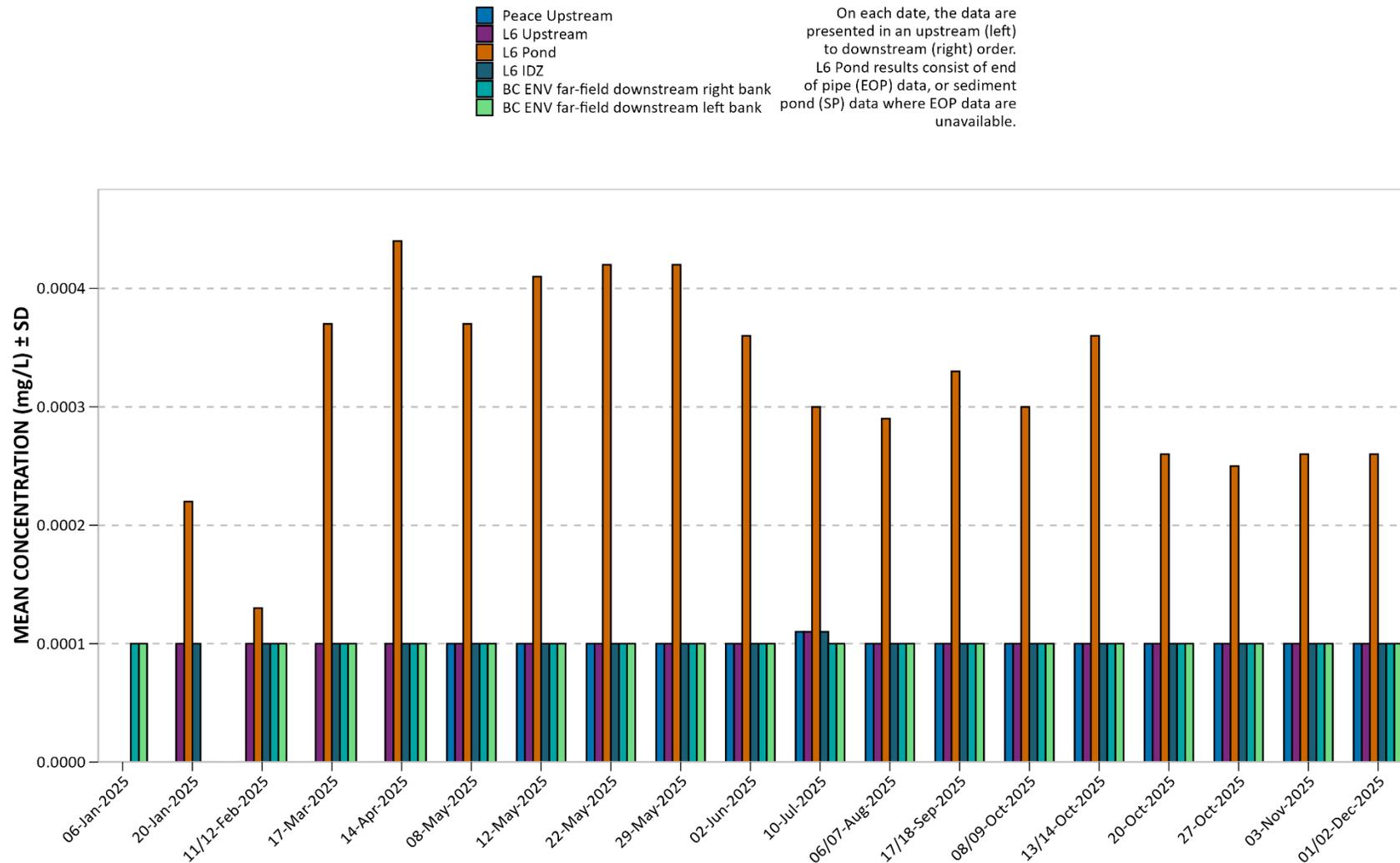


Figure 144. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved arsenic (As).

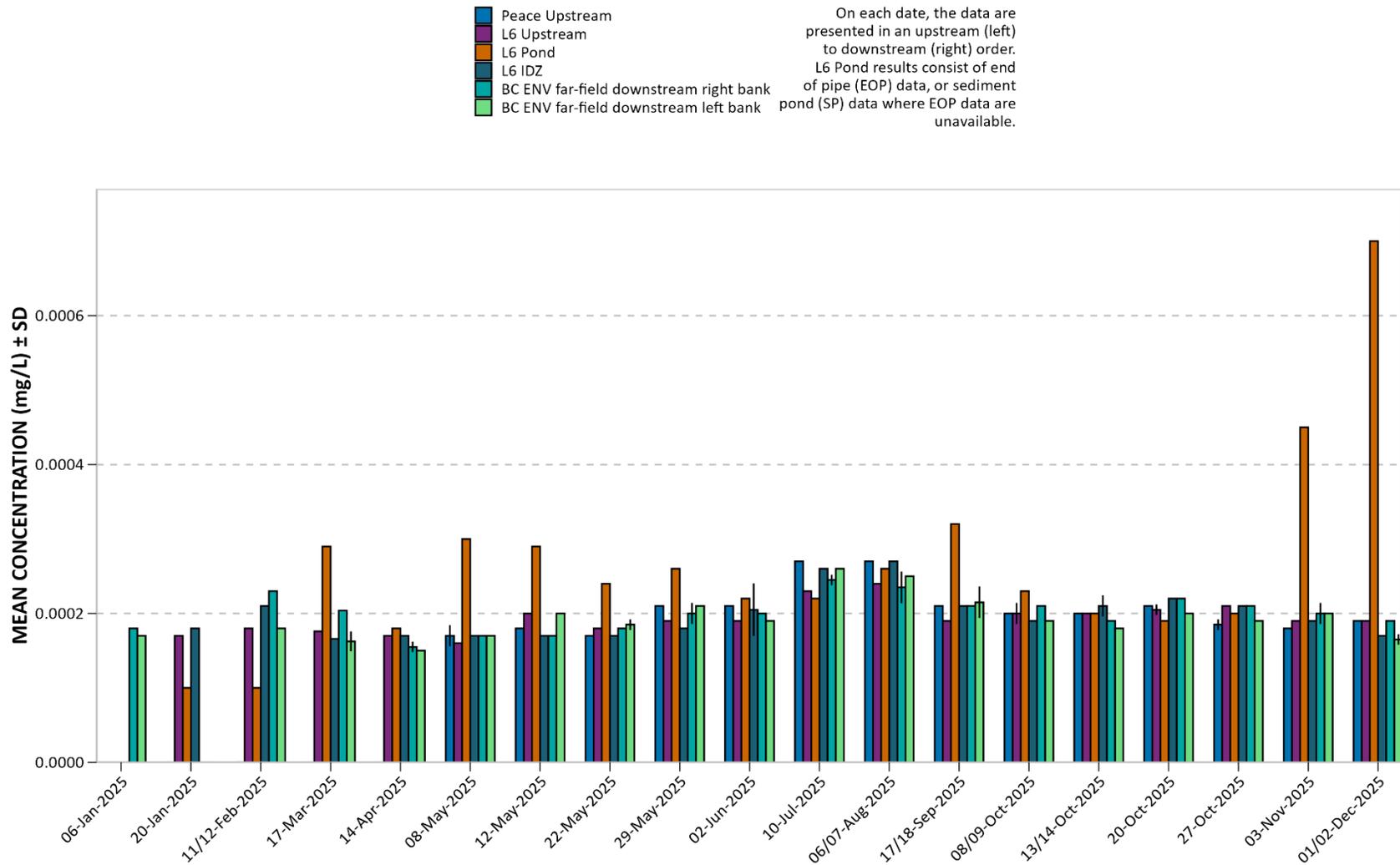


Figure 145. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved barium (Ba).

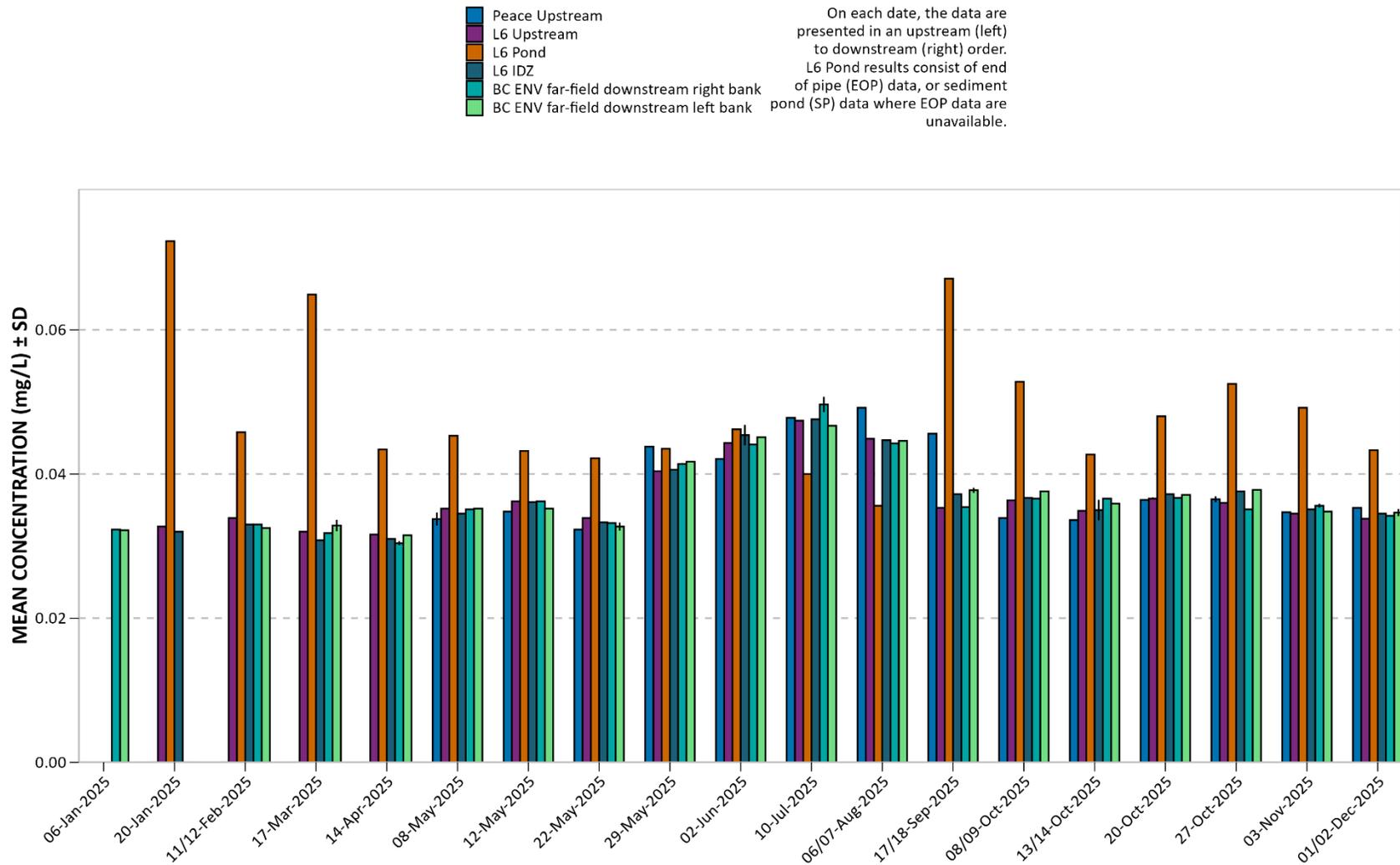


Figure 146. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved beryllium (Be).

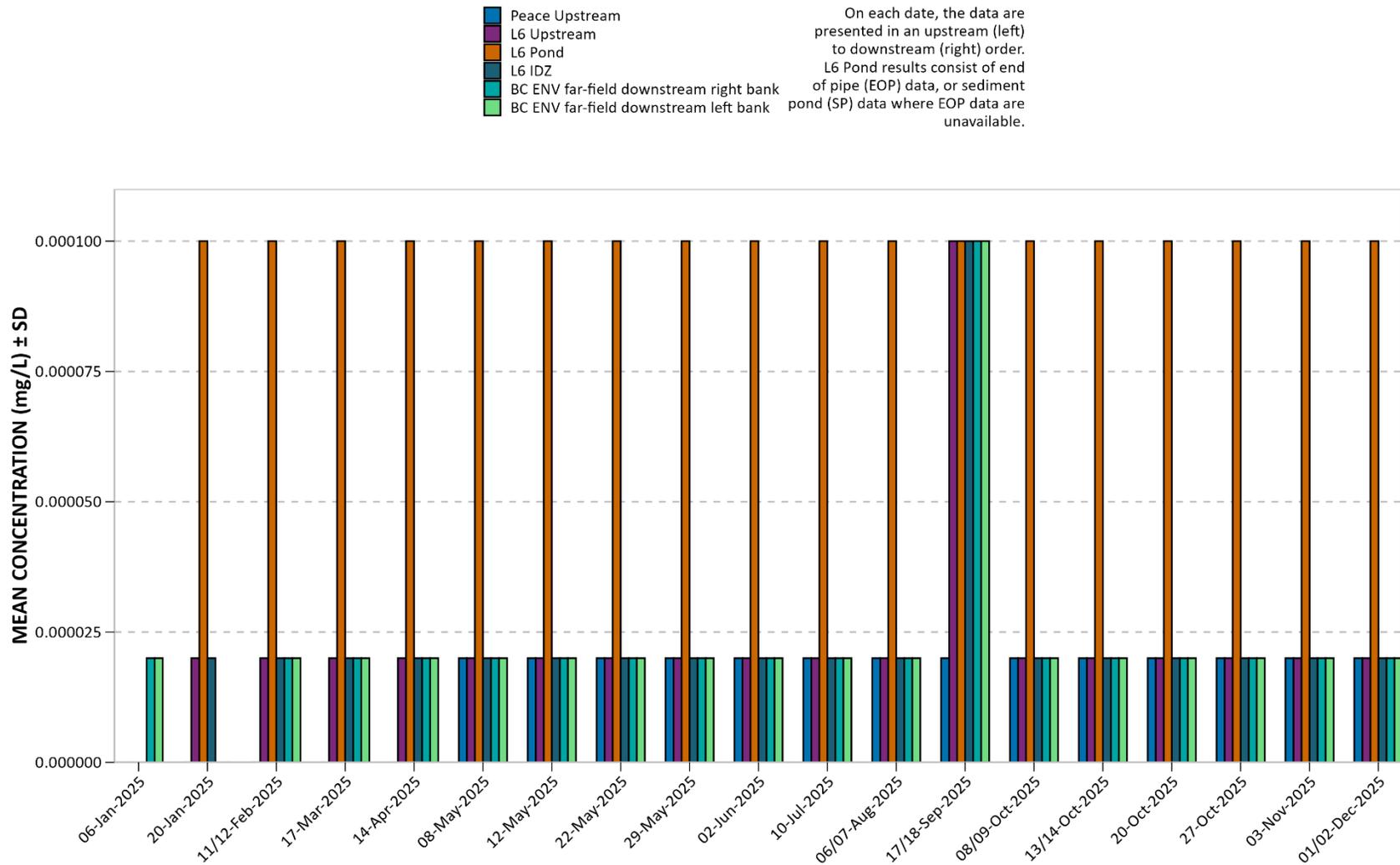


Figure 147. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved bismuth (Bi).

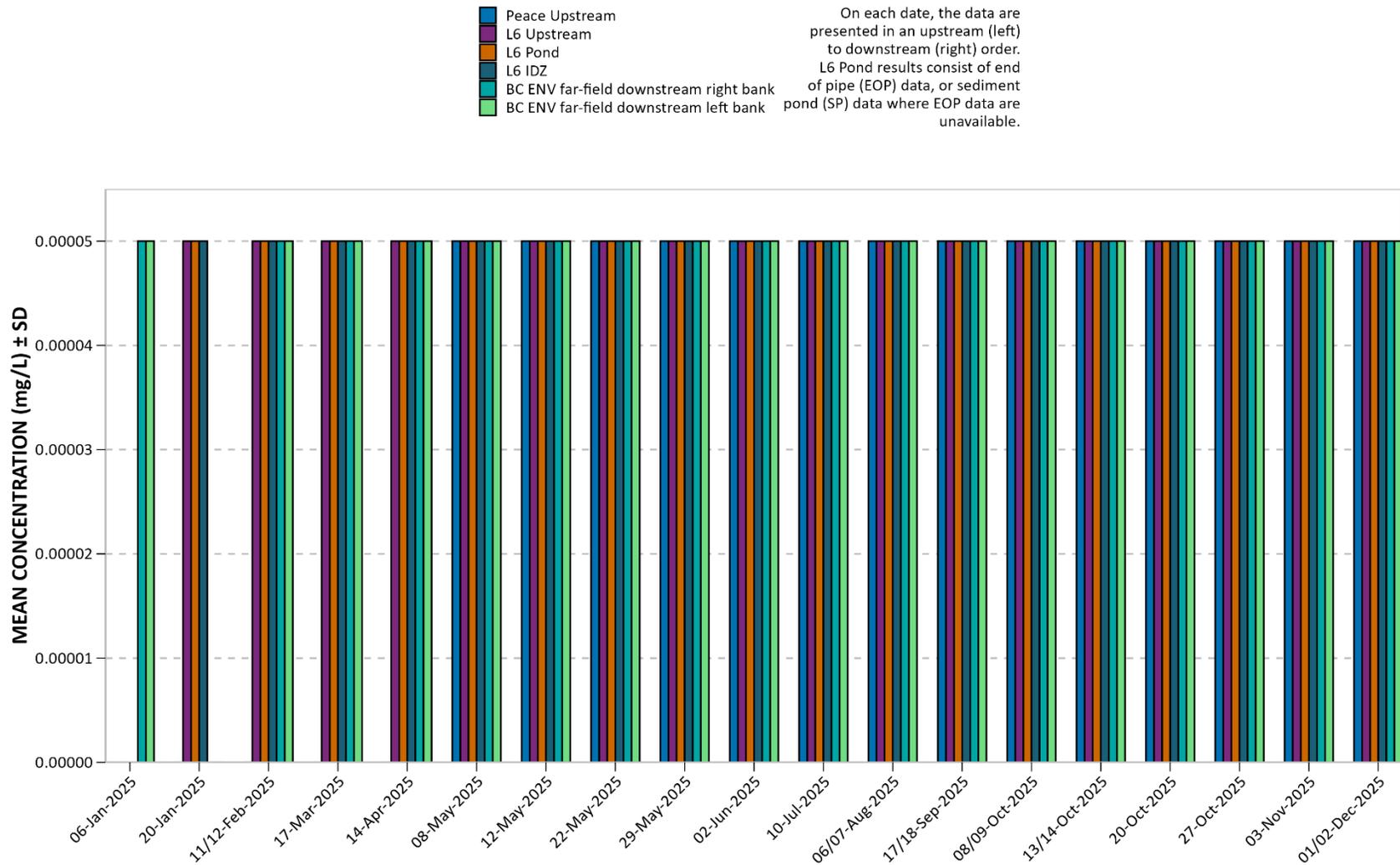


Figure 148. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved boron (B).

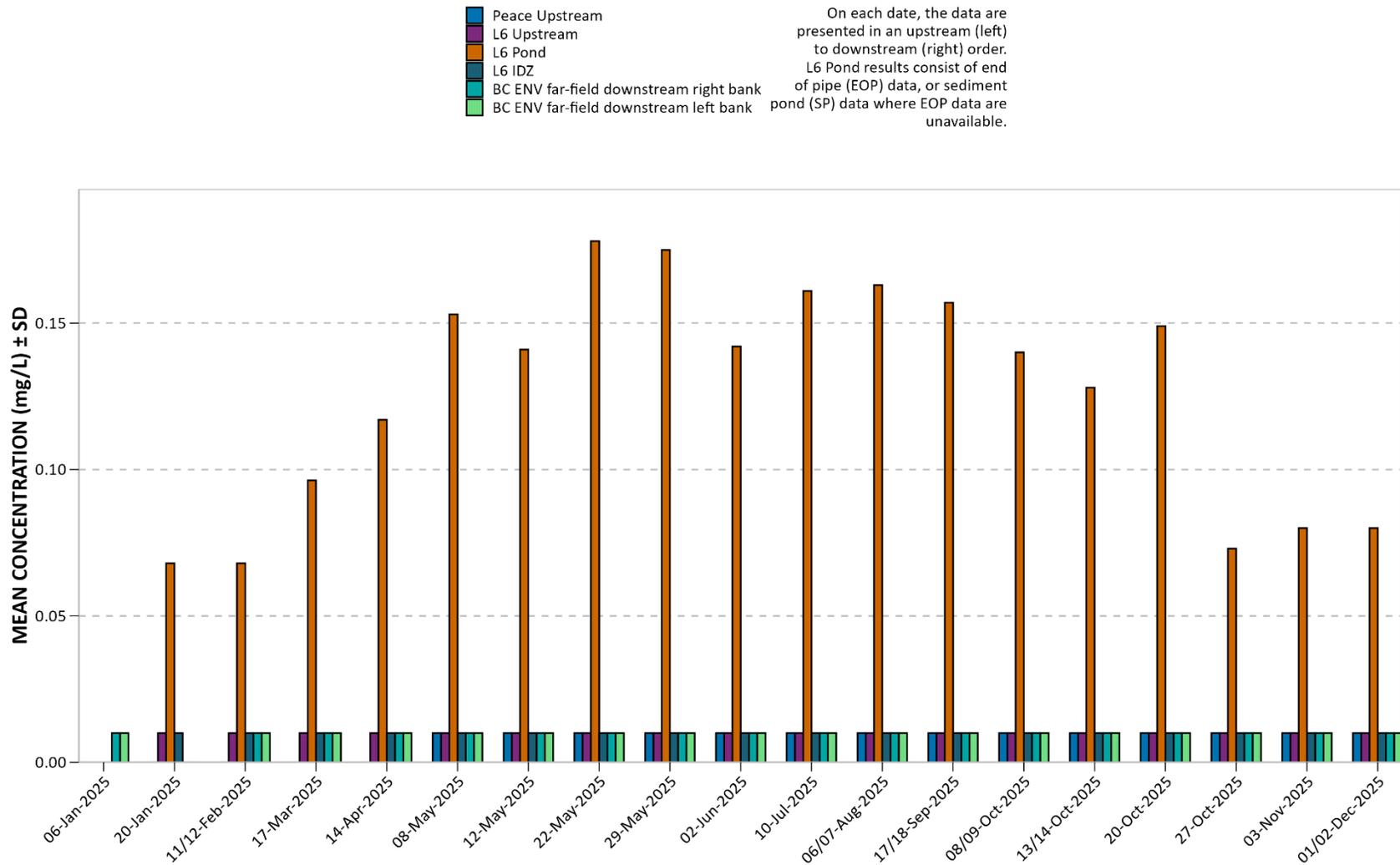
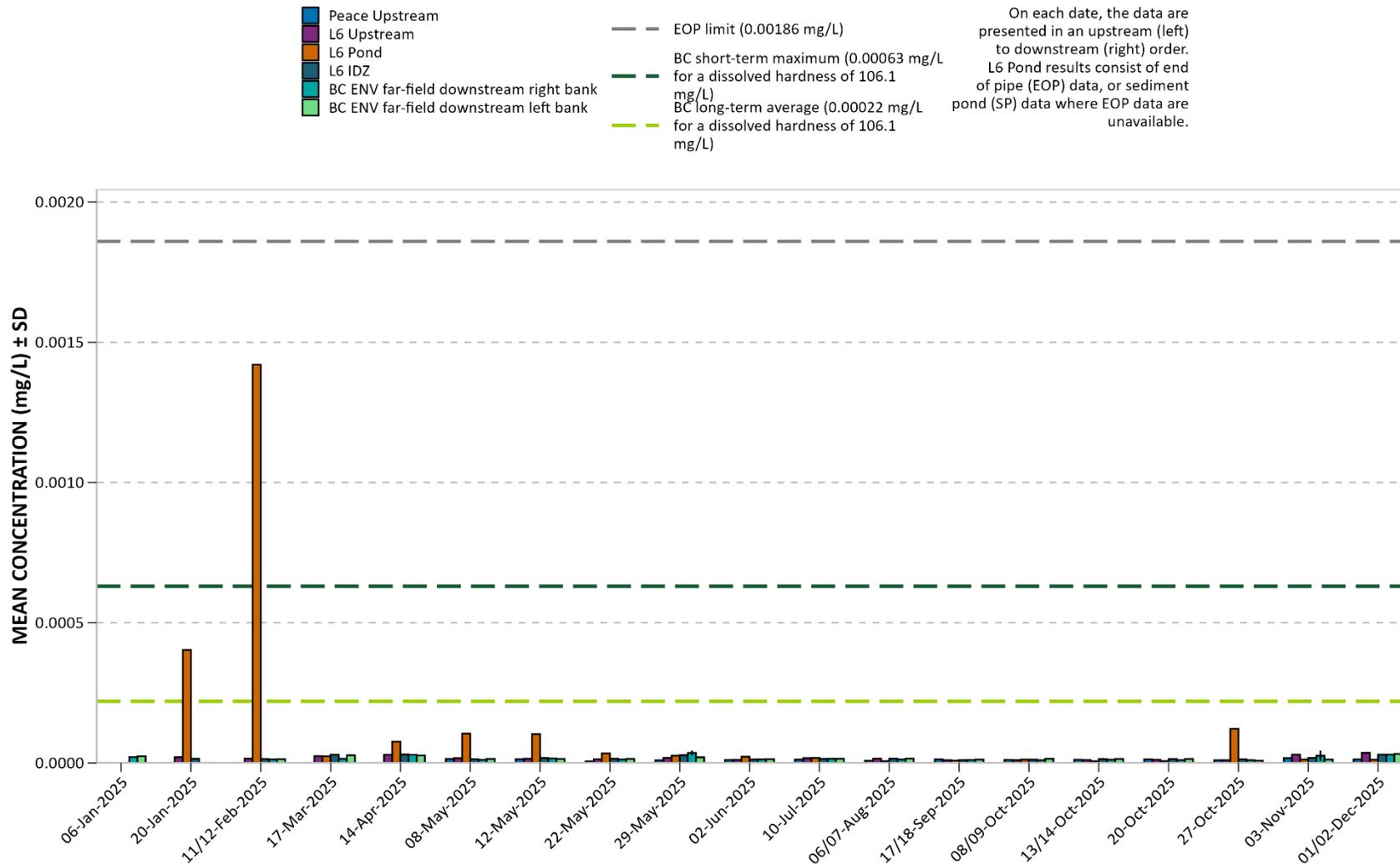


Figure 149. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved cadmium (Cd).



On each date, the data are presented in an upstream (left) to downstream (right) order. L6 Pond results consist of end of pipe (EOP) data, or sediment pond (SP) data where EOP data are unavailable.

Note: BC WQGs for dissolved cadmium are dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the maximum and 30-day guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against guidelines in the data tables (Appendix A).

Figure 150. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved calcium (Ca).

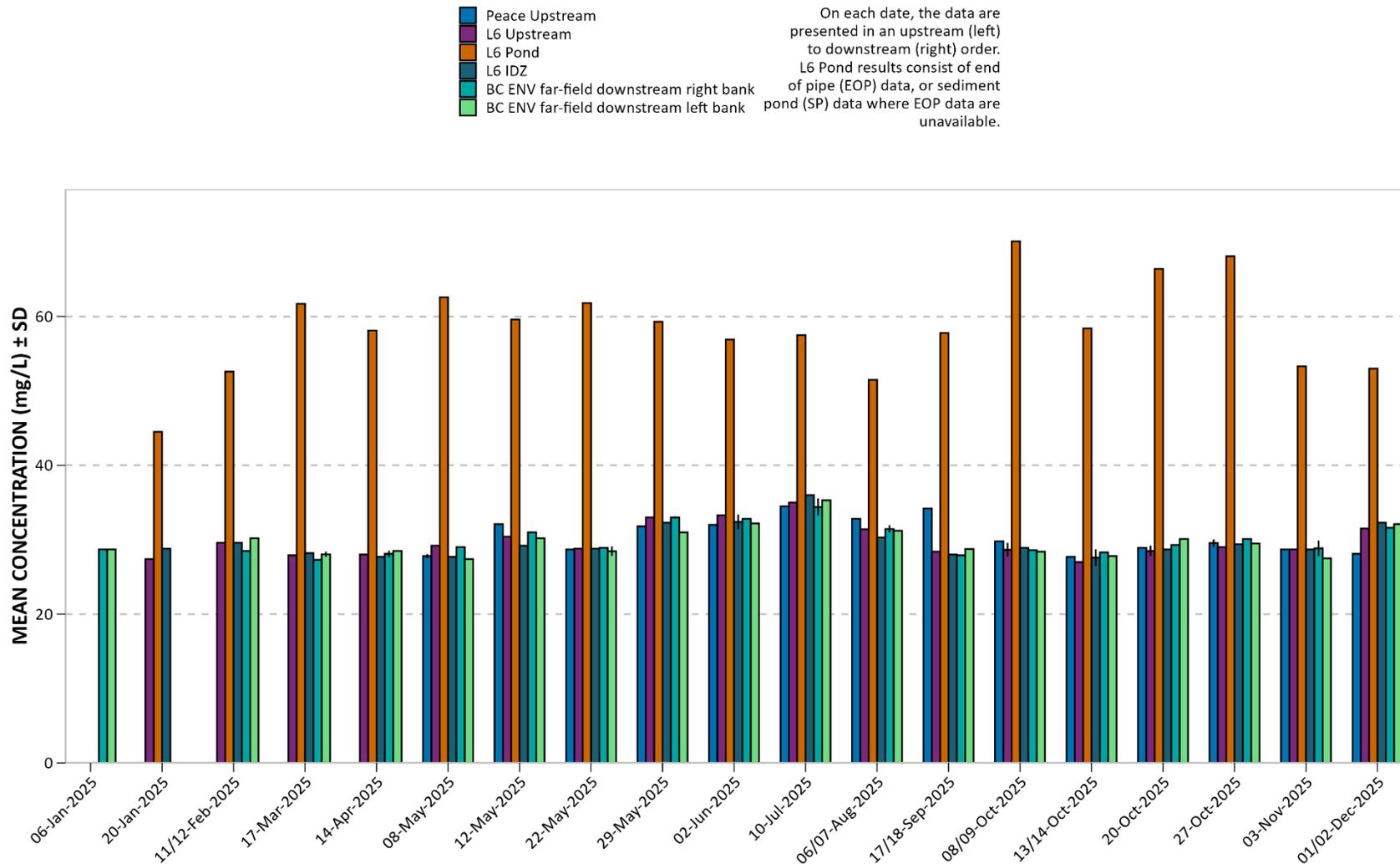


Figure 151. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved chromium (Cr).

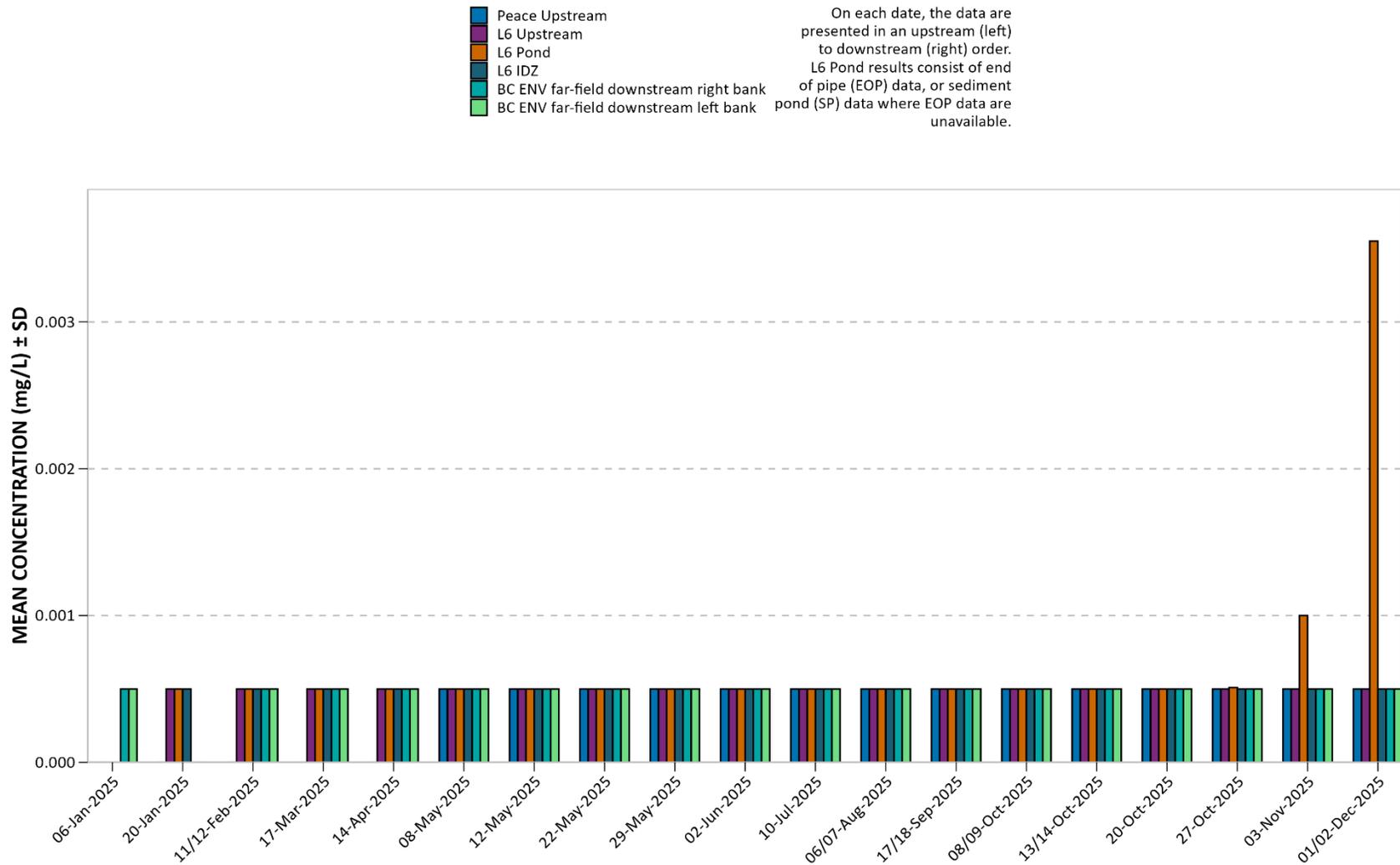
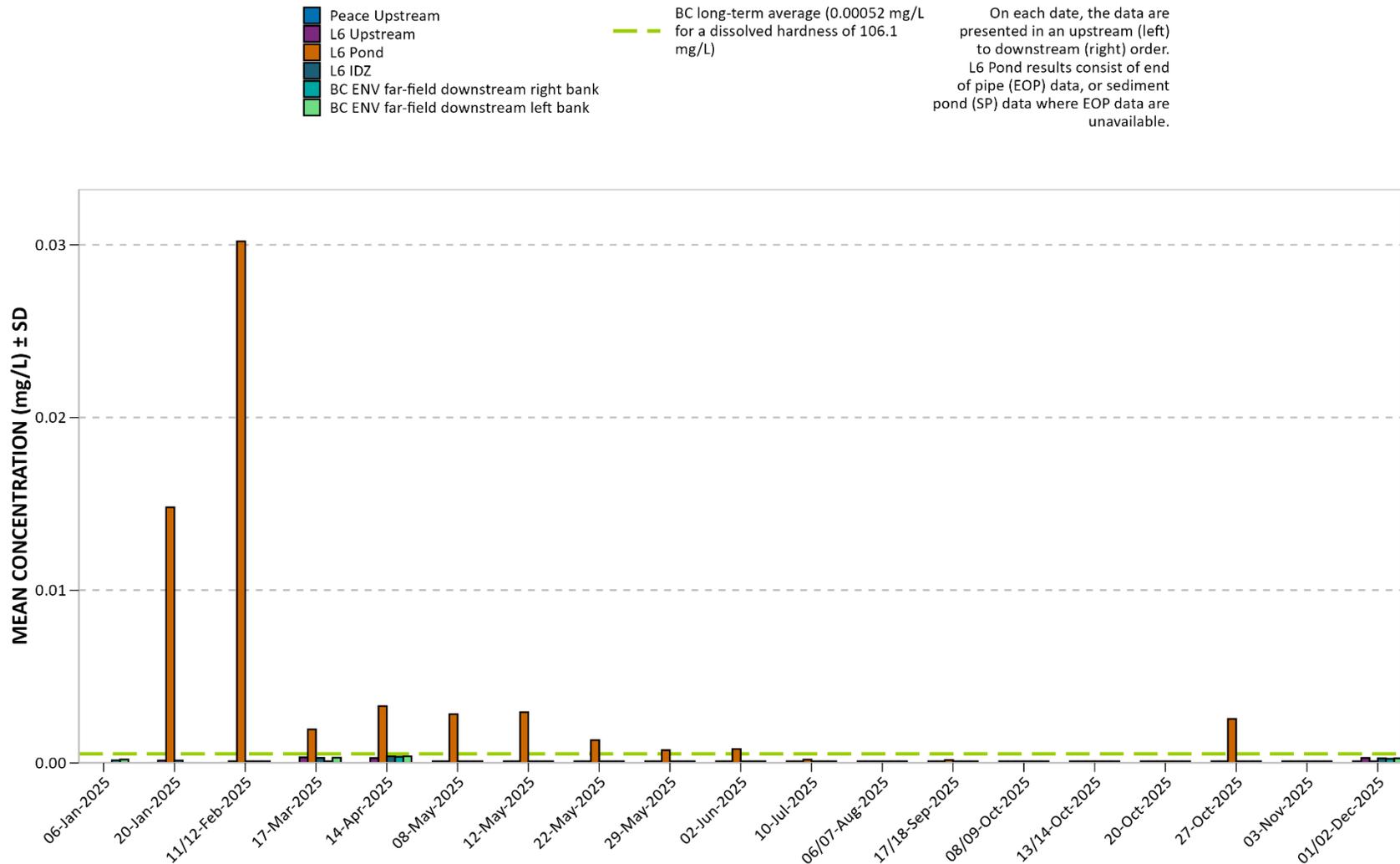
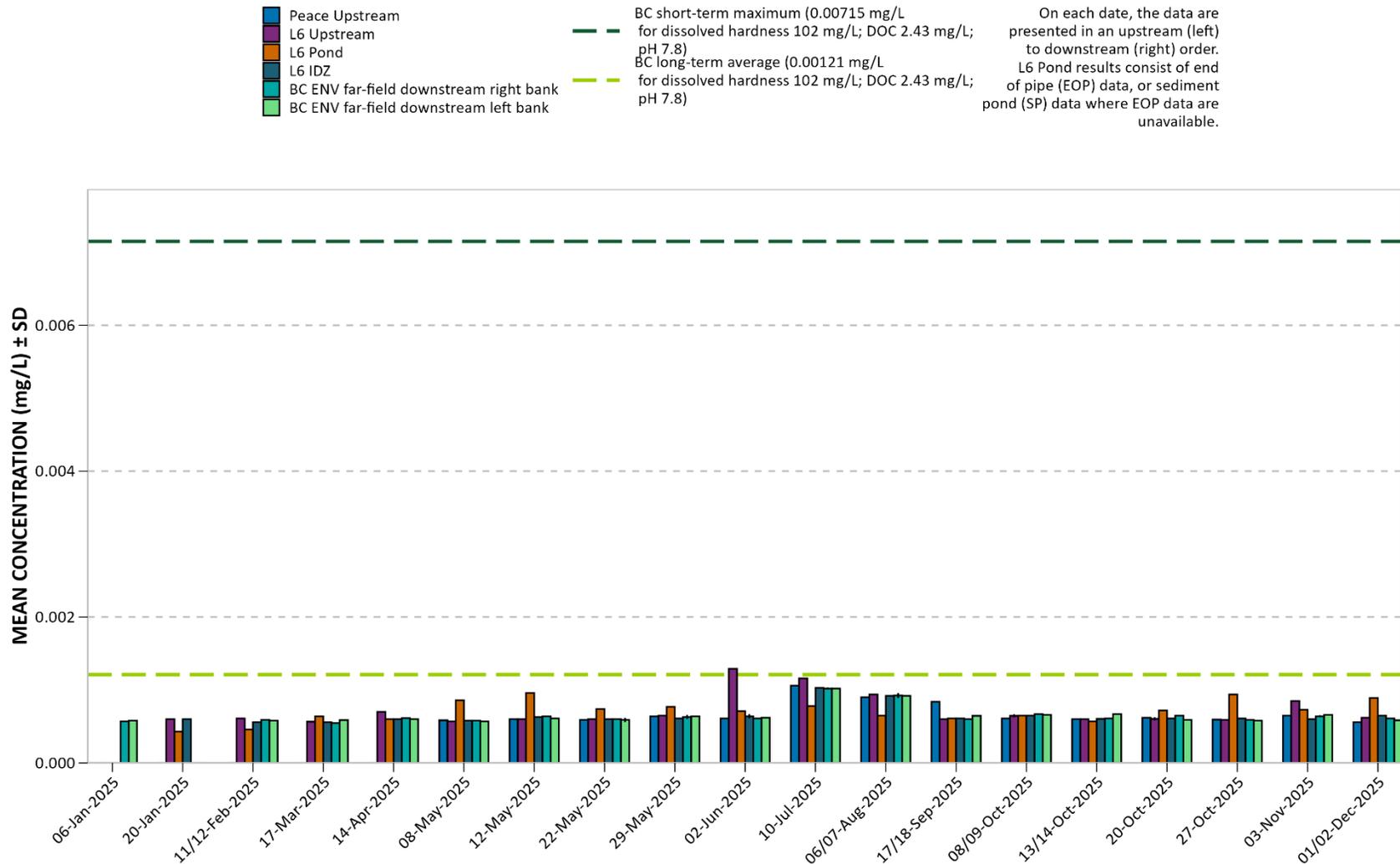


Figure 152. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved cobalt (Co).



Note: BC long-term WQG for dissolved cobalt is dissolved hardness dependent. An average Peace River dissolved hardness of 106.1 mg/L (based on 26 samples collected between April 2007 – Jan. 2017; BC Hydro 2017b) was used in the plot to depict the 30-day guidelines for ease of interpretation. Sample specific dissolved hardness was used to screen individual sample results against the guideline in the data tables (Appendix A).

Figure 153. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved copper (Cu).



Note: BC WQGs for dissolved copper are dissolved hardness, DOC, and pH dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness, DOC, and pH values observed in the Peace River, the applicable BC maximum and 30-day guidelines are 0.00715 mg/L and 0.00121 mg/L, respectively.

Figure 154. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved iron (Fe).

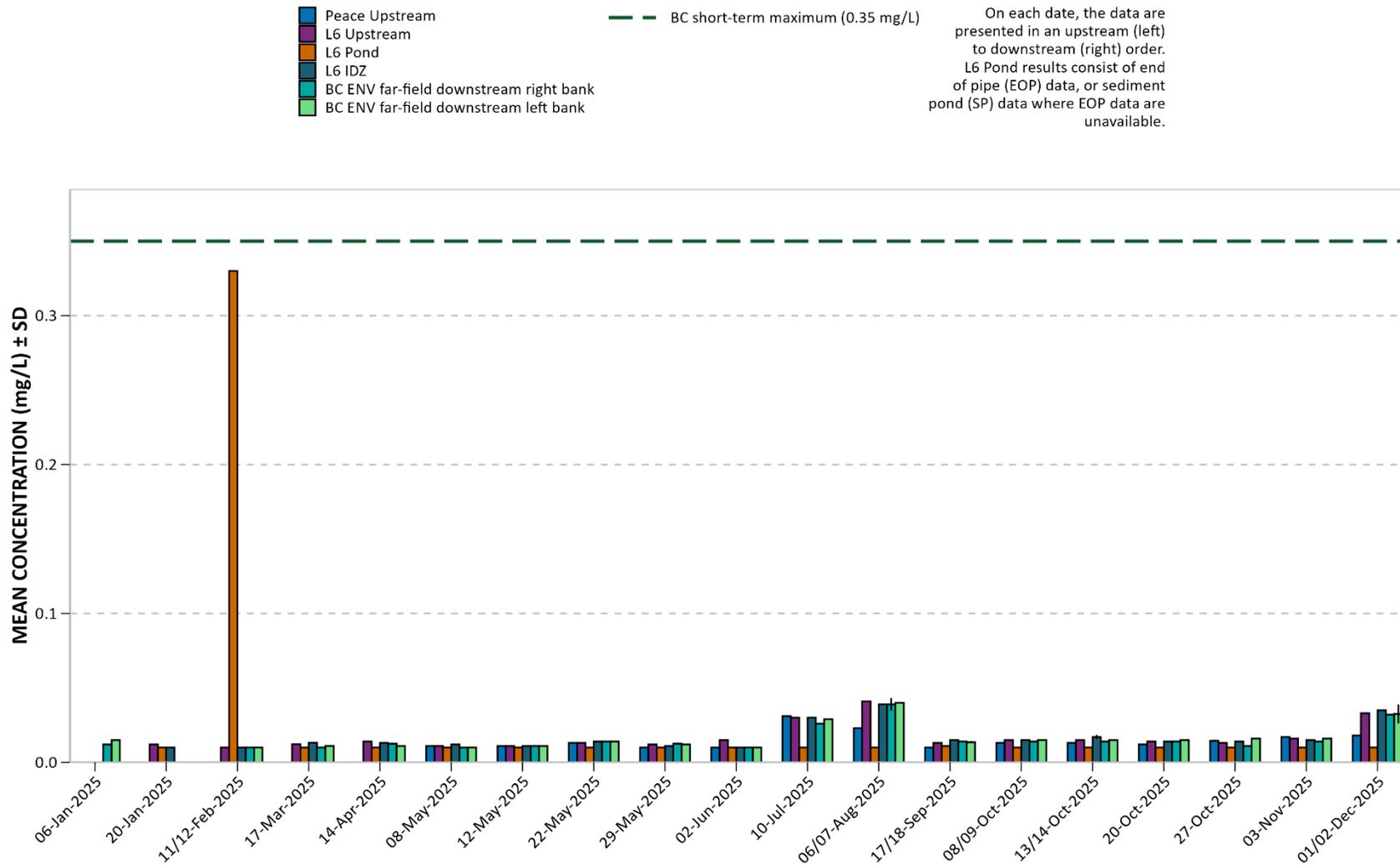
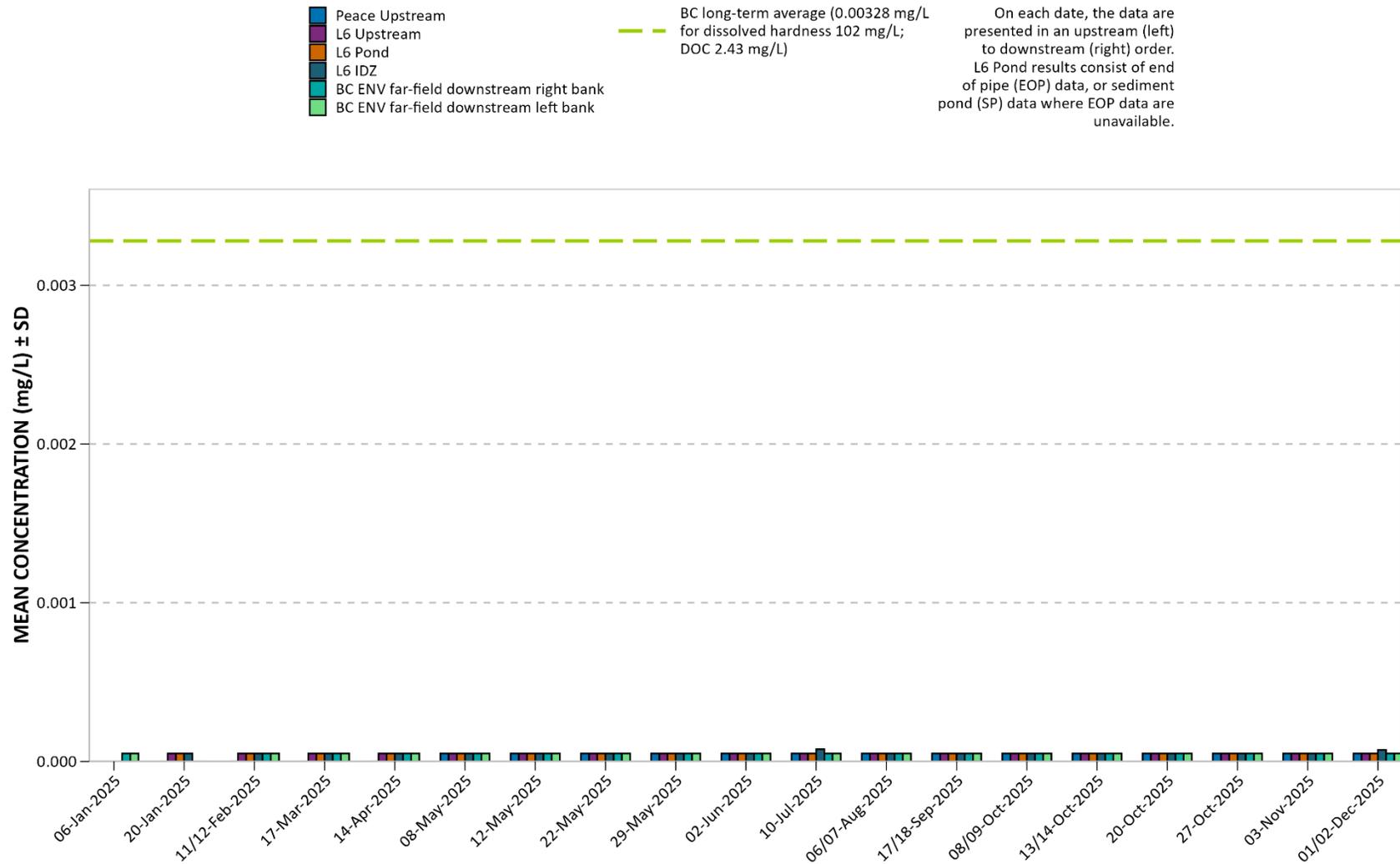


Figure 155. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved lead (Pb).



Note: BC long-term WQG for dissolved lead is dissolved hardness and DOC dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness and DOC values observed in the Peace River, the applicable BC 30-day guideline is 0.00328 mg/L.

Figure 156. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved lithium (Li).

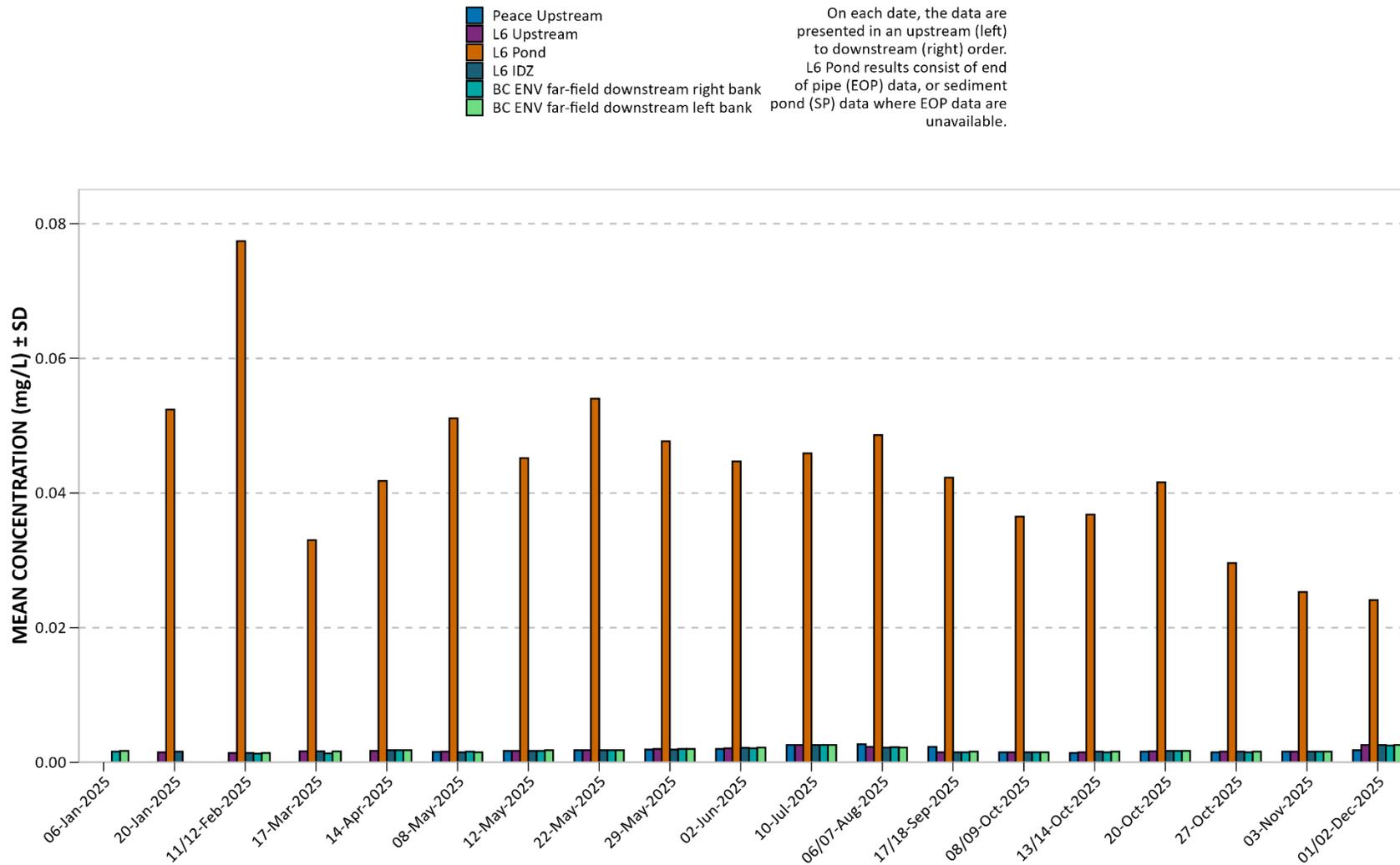


Figure 157. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved magnesium (Mg).

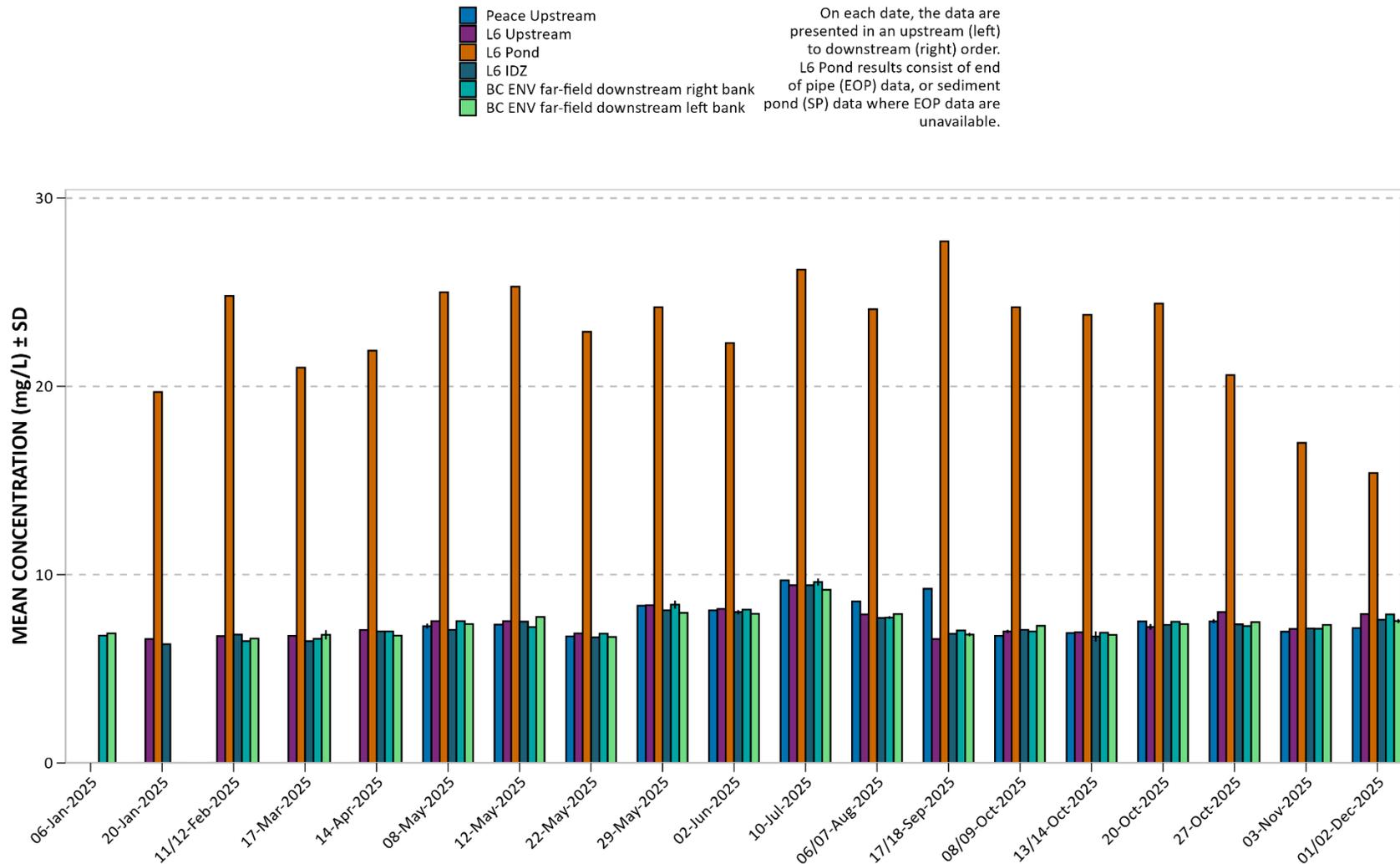


Figure 158. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved manganese (Mn).

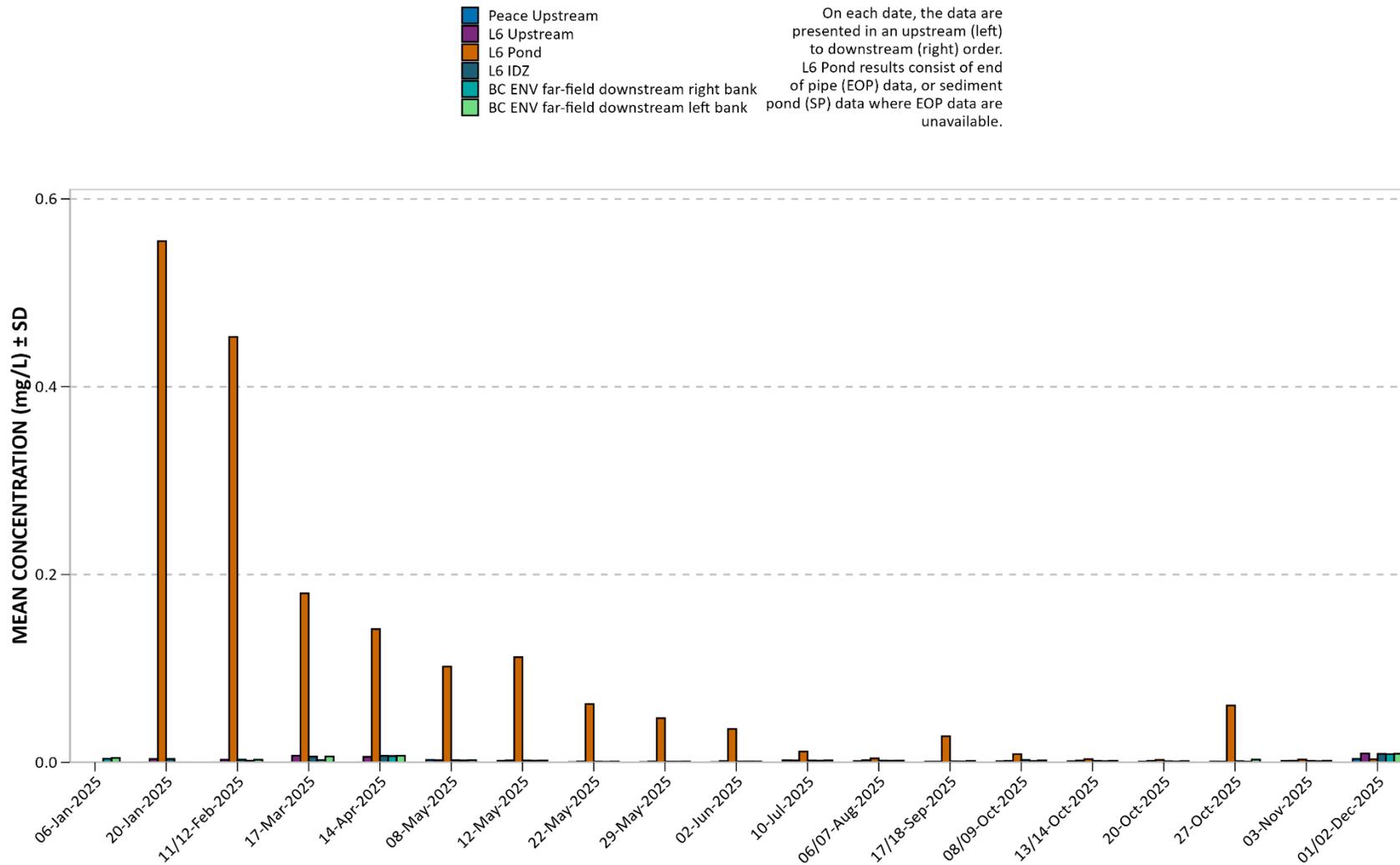


Figure 159. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved mercury (Hg).

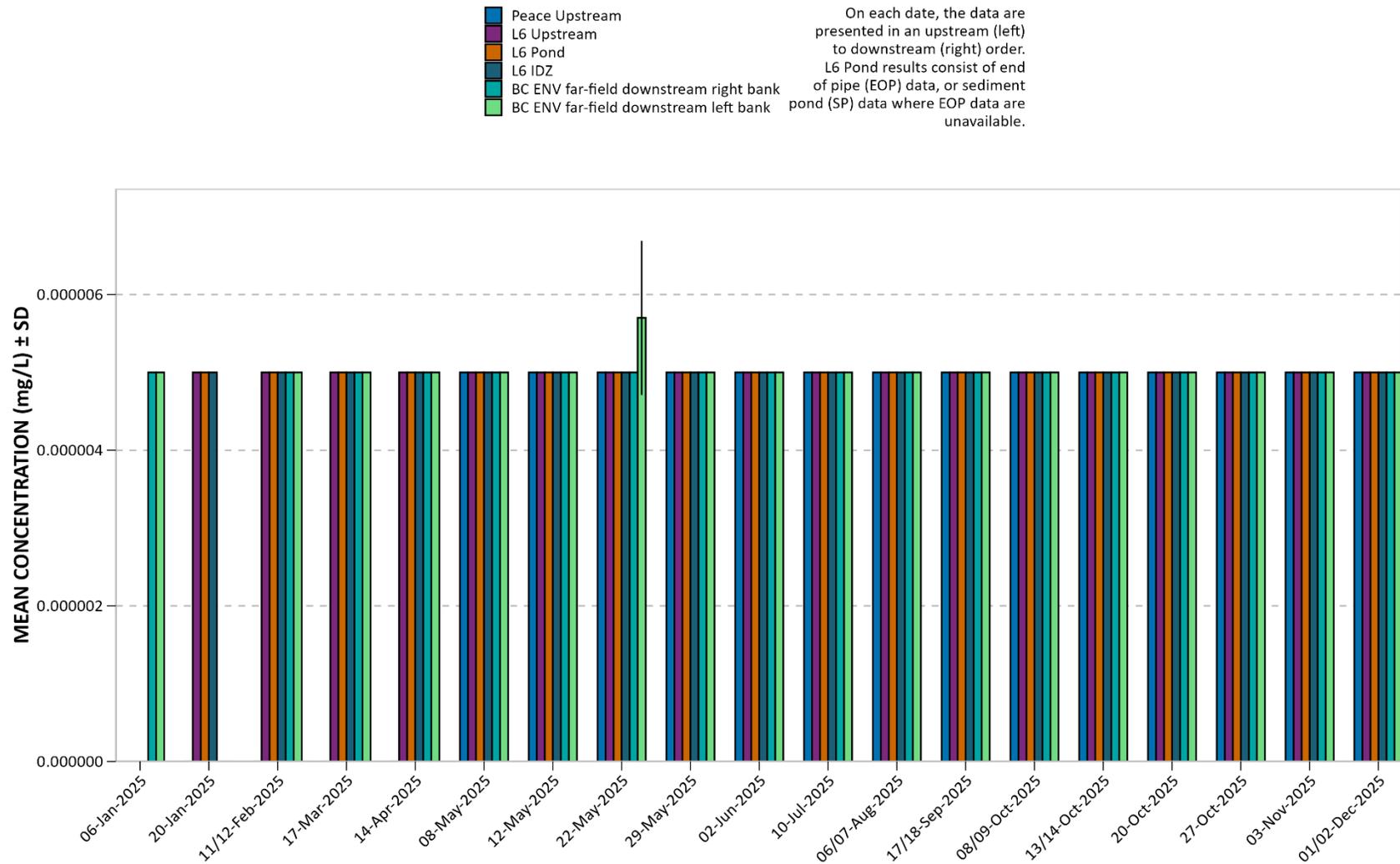


Figure 160. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved molybdenum (Mo).

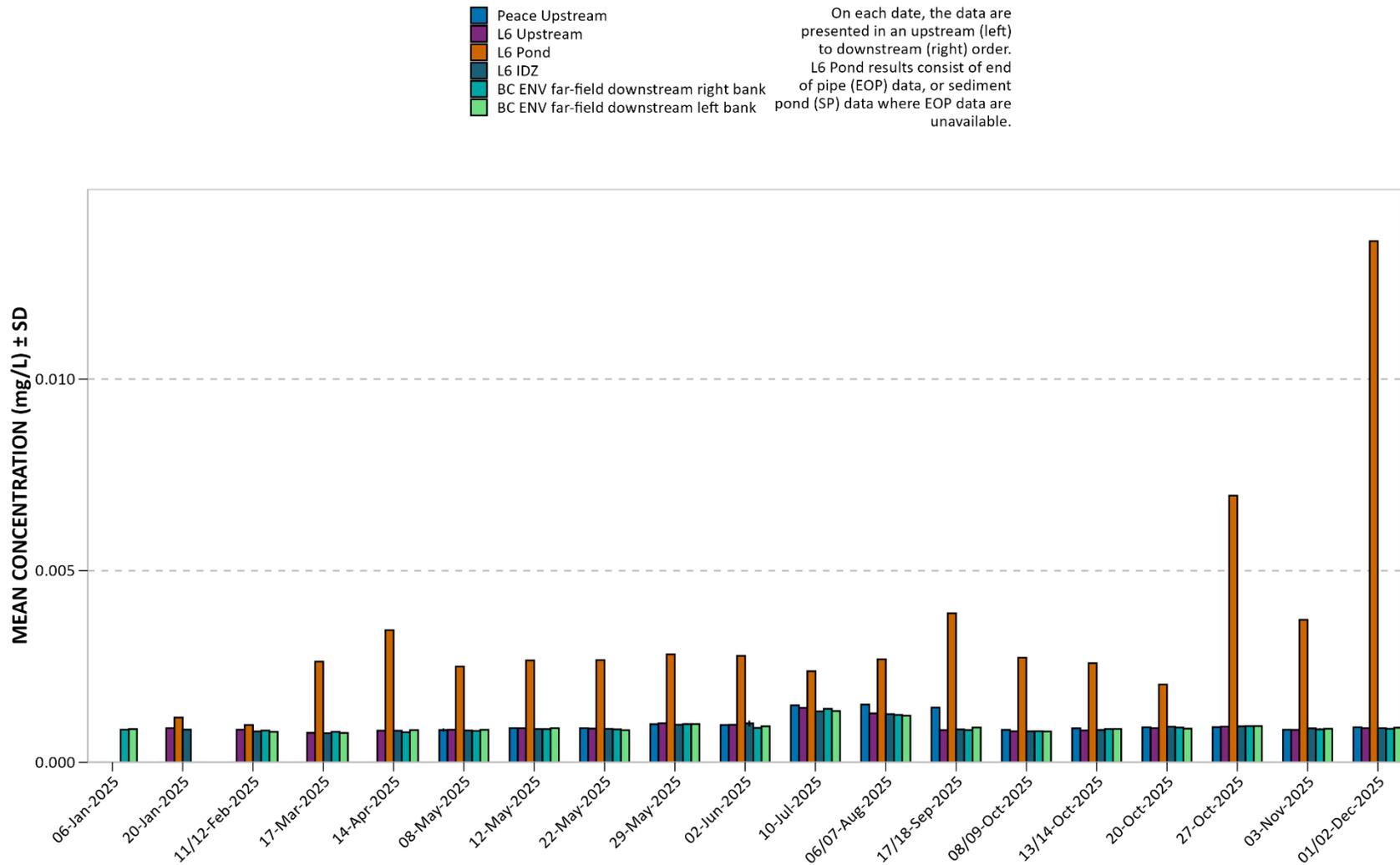
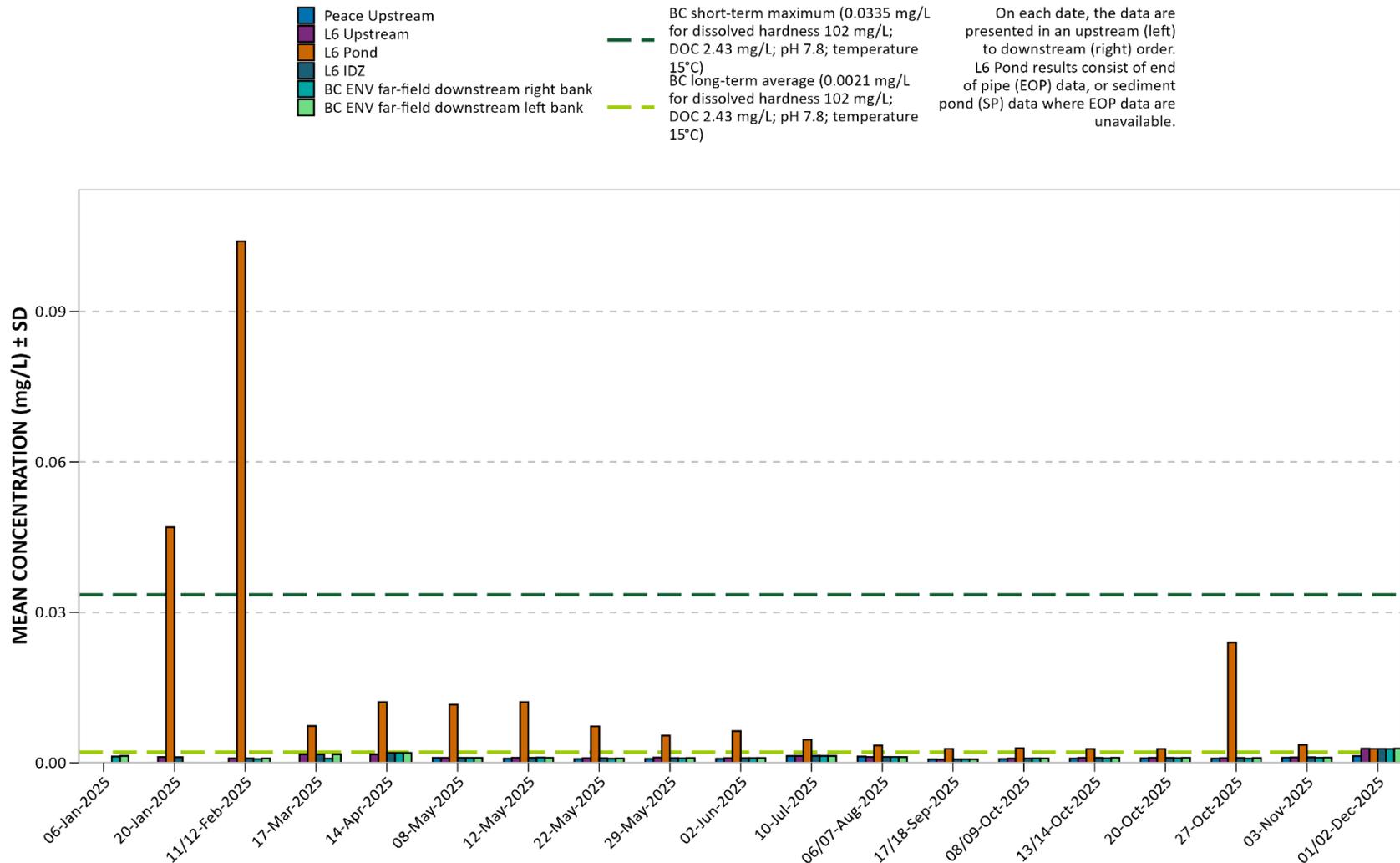


Figure 161. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved nickel (Ni).



Note: BC WQGs for dissolved nickel are dissolved hardness, DOC, pH, and temperature dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness, DOC, pH, and temperature values observed in the Peace River, the applicable BC maximum and 30-day guidelines are 0.0335 mg/L and 0.0021 mg/L, respectively.

Figure 162. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved potassium (K).

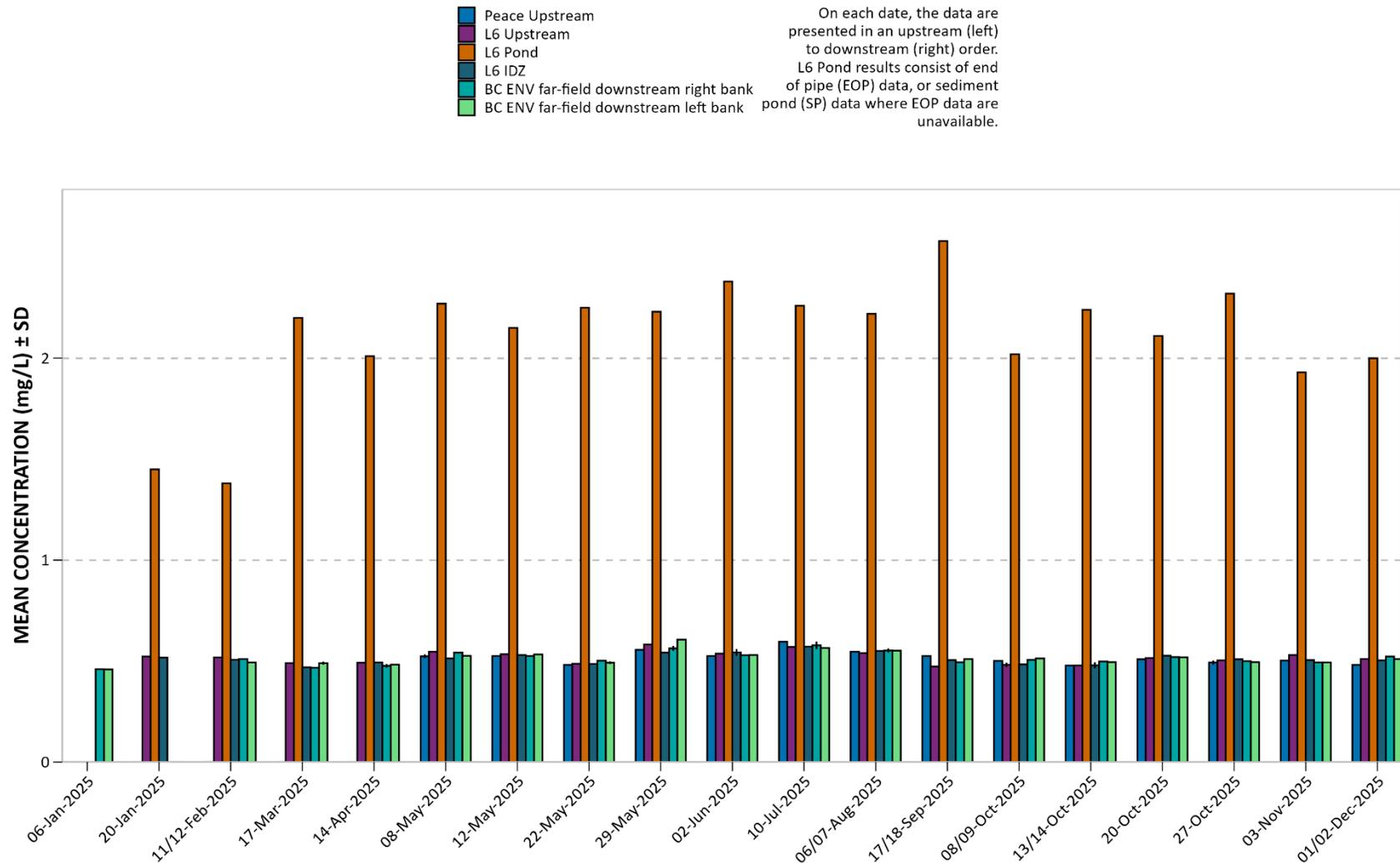


Figure 163. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved selenium (Se).

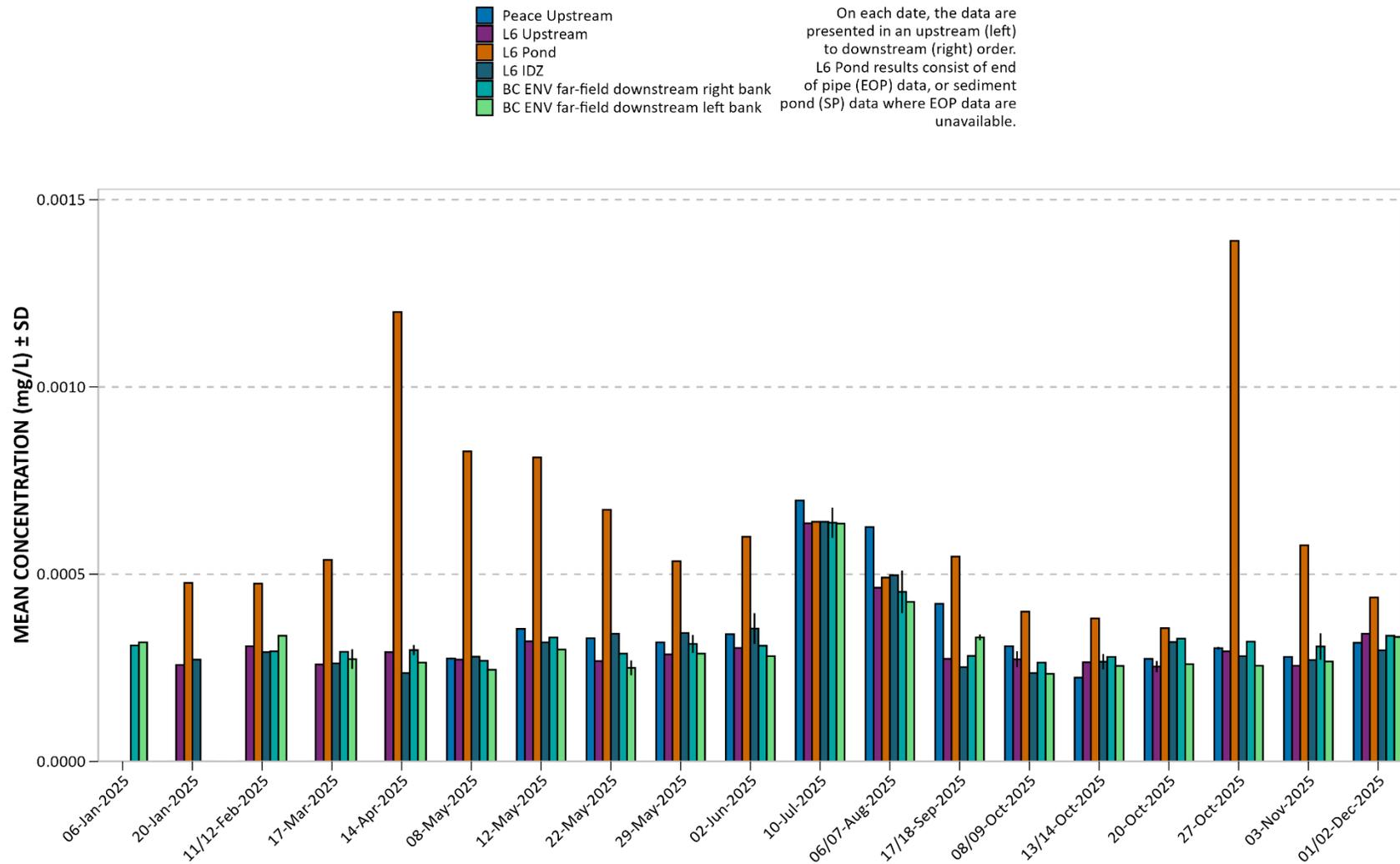


Figure 164. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved silicon (Si).

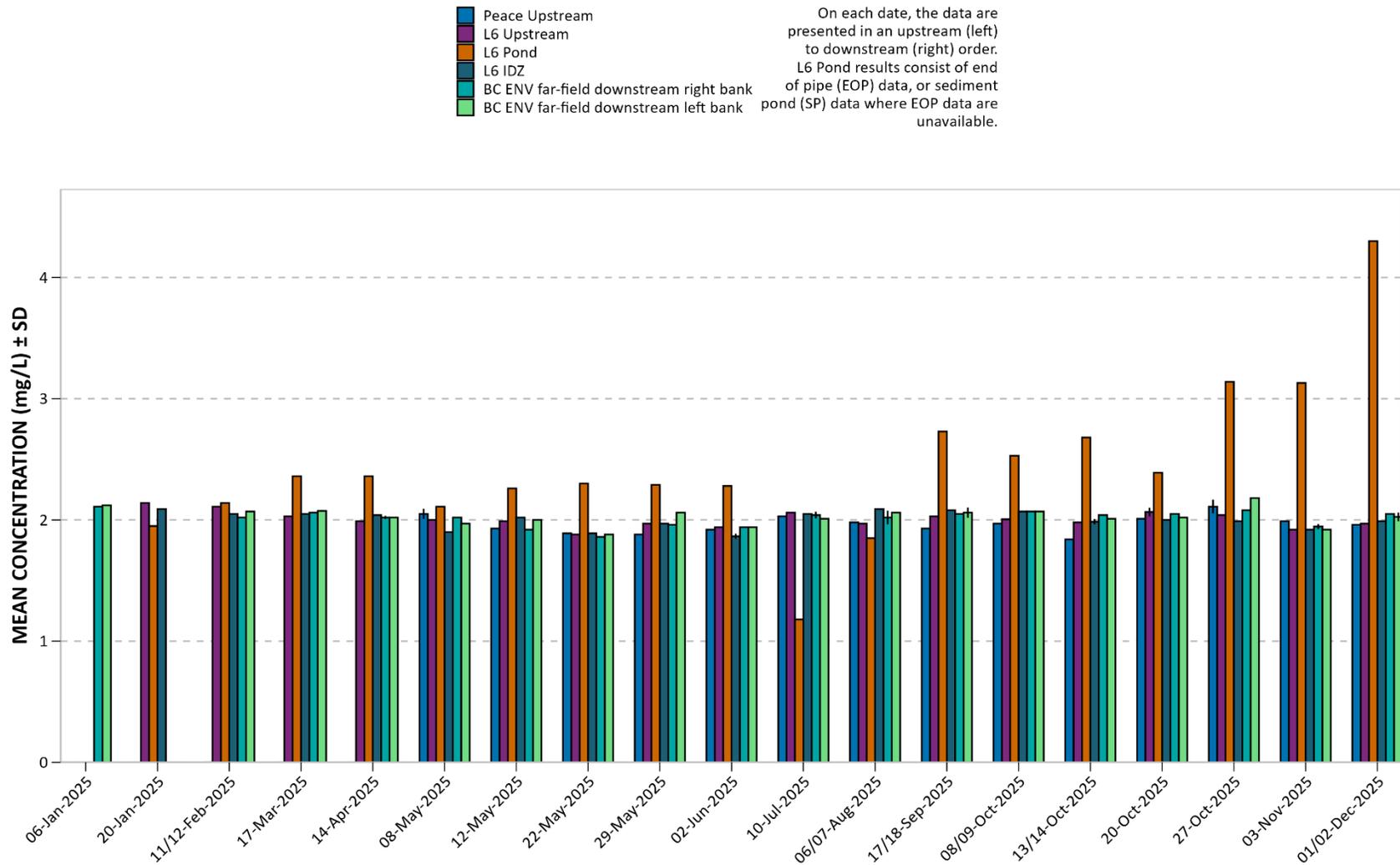


Figure 165. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved silver (Ag).

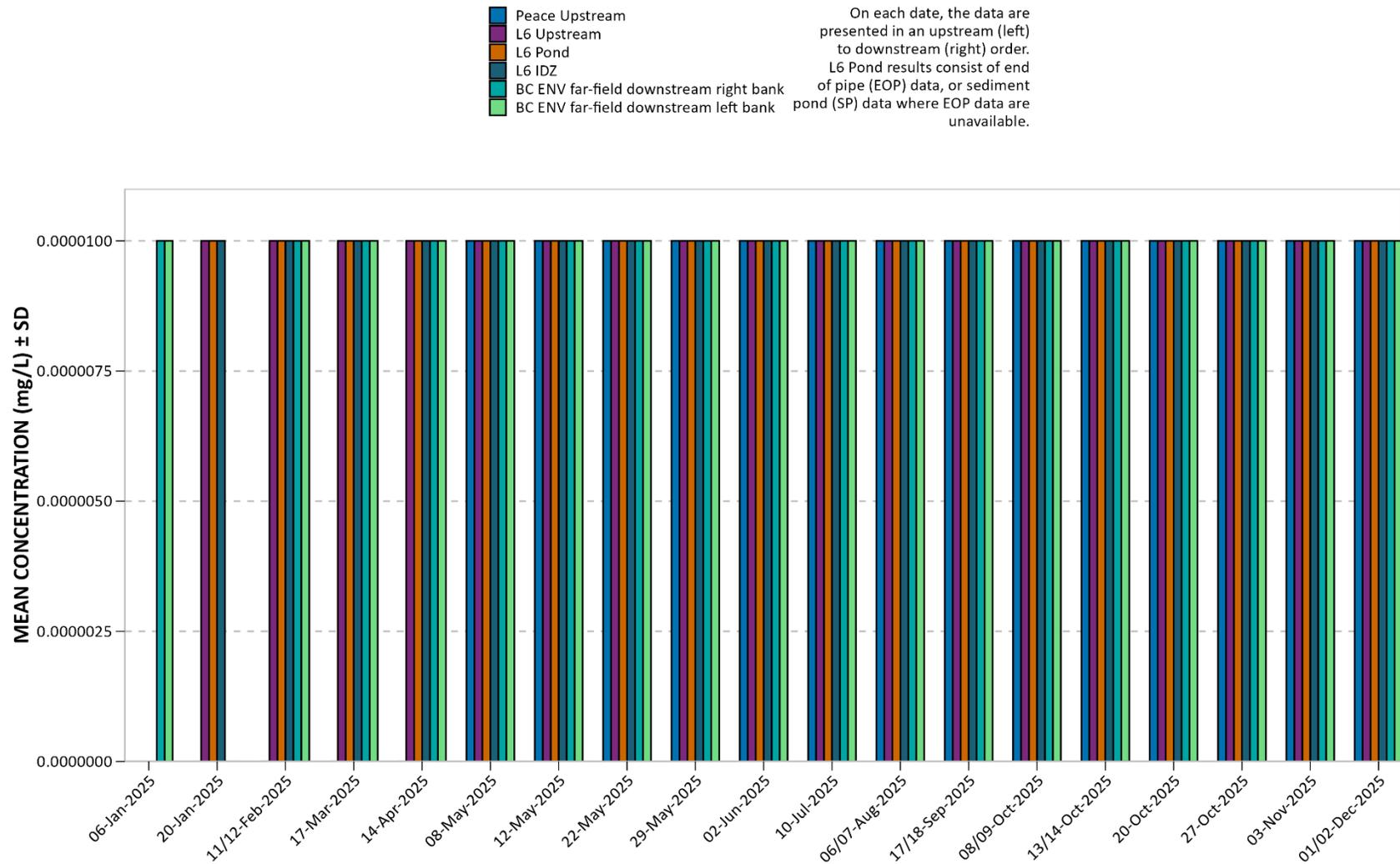


Figure 166. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved sodium (Na).

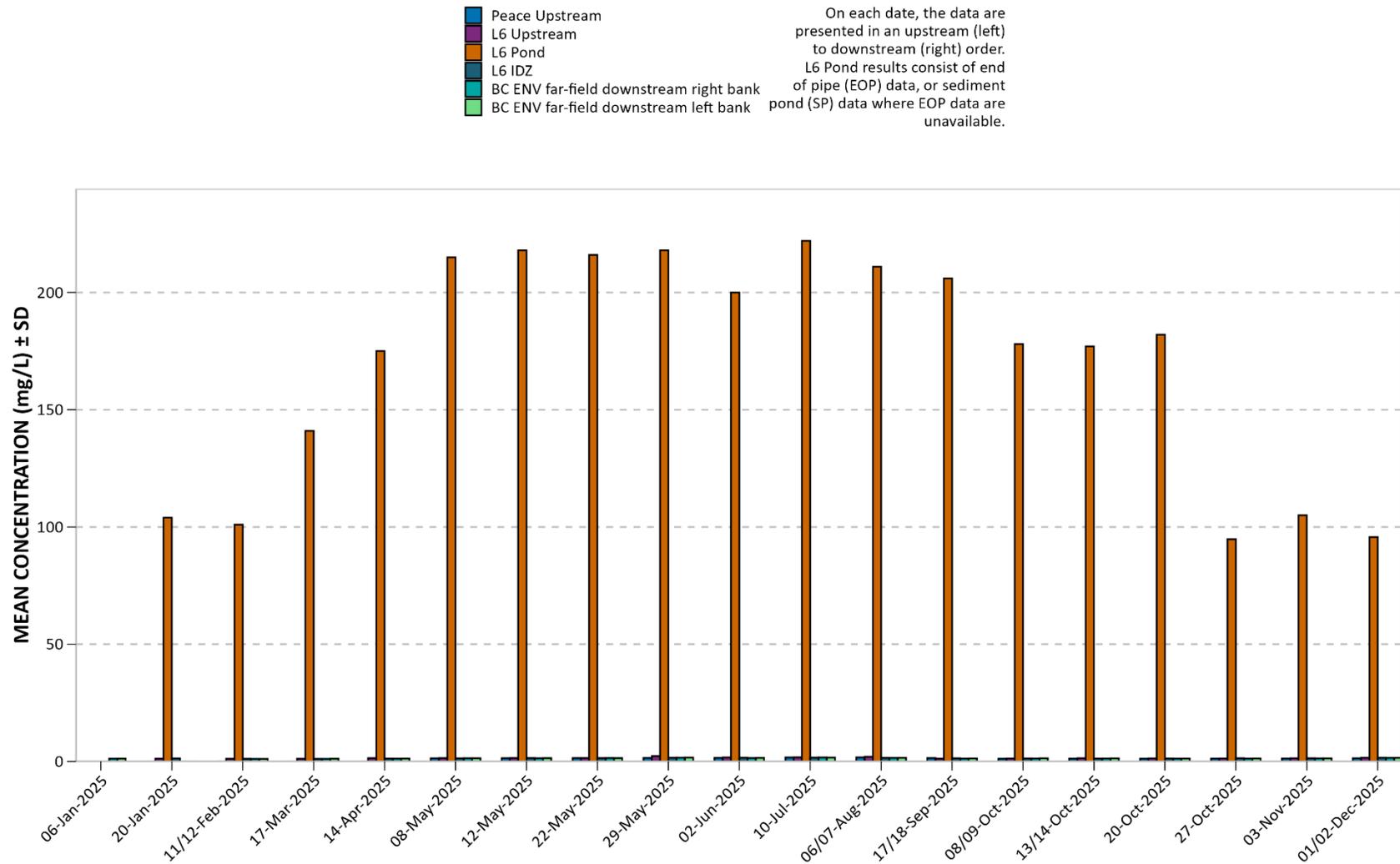


Figure 167. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved strontium (Sr).

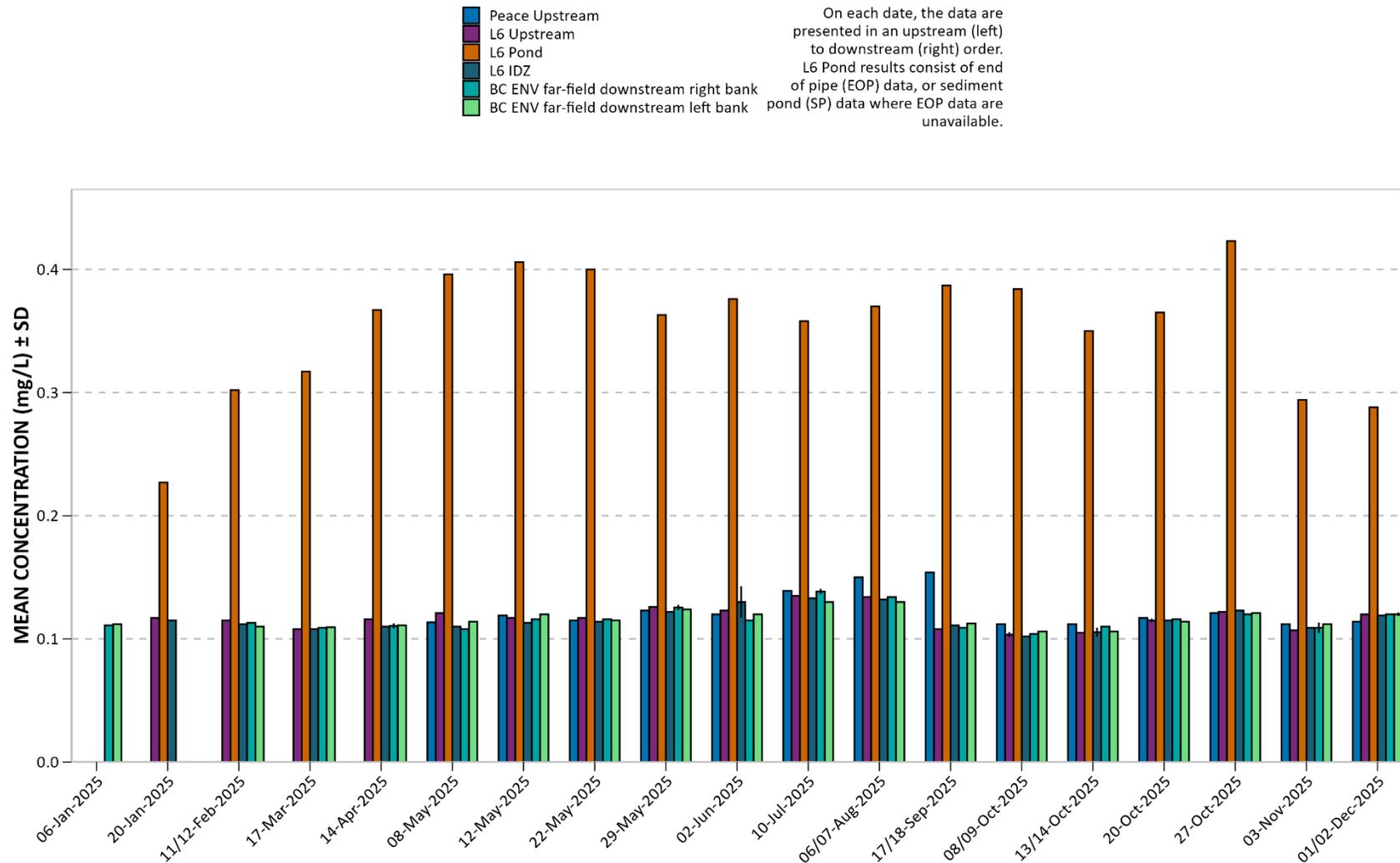


Figure 168. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved sulfur (S).

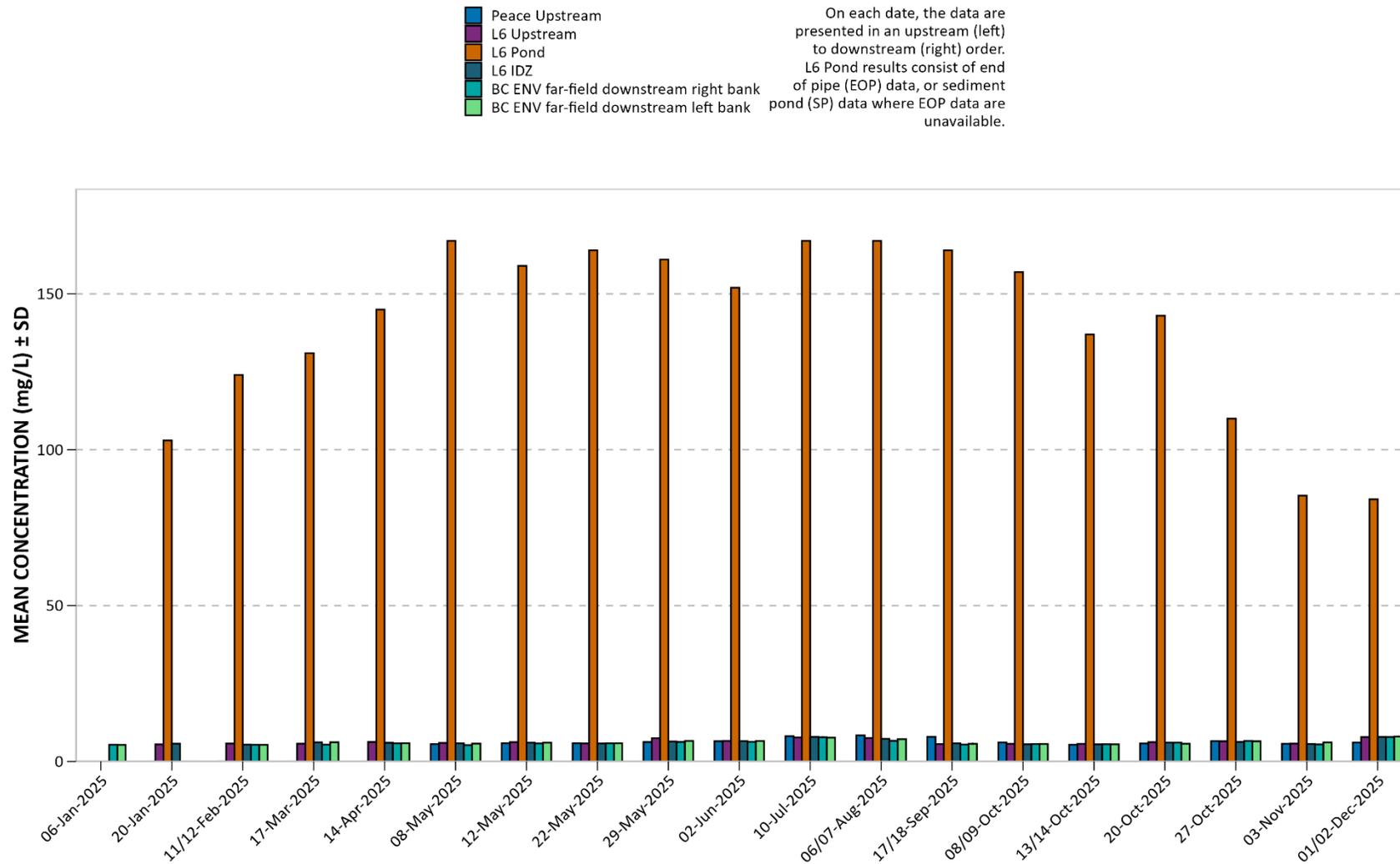


Figure 169. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved thallium (Tl).

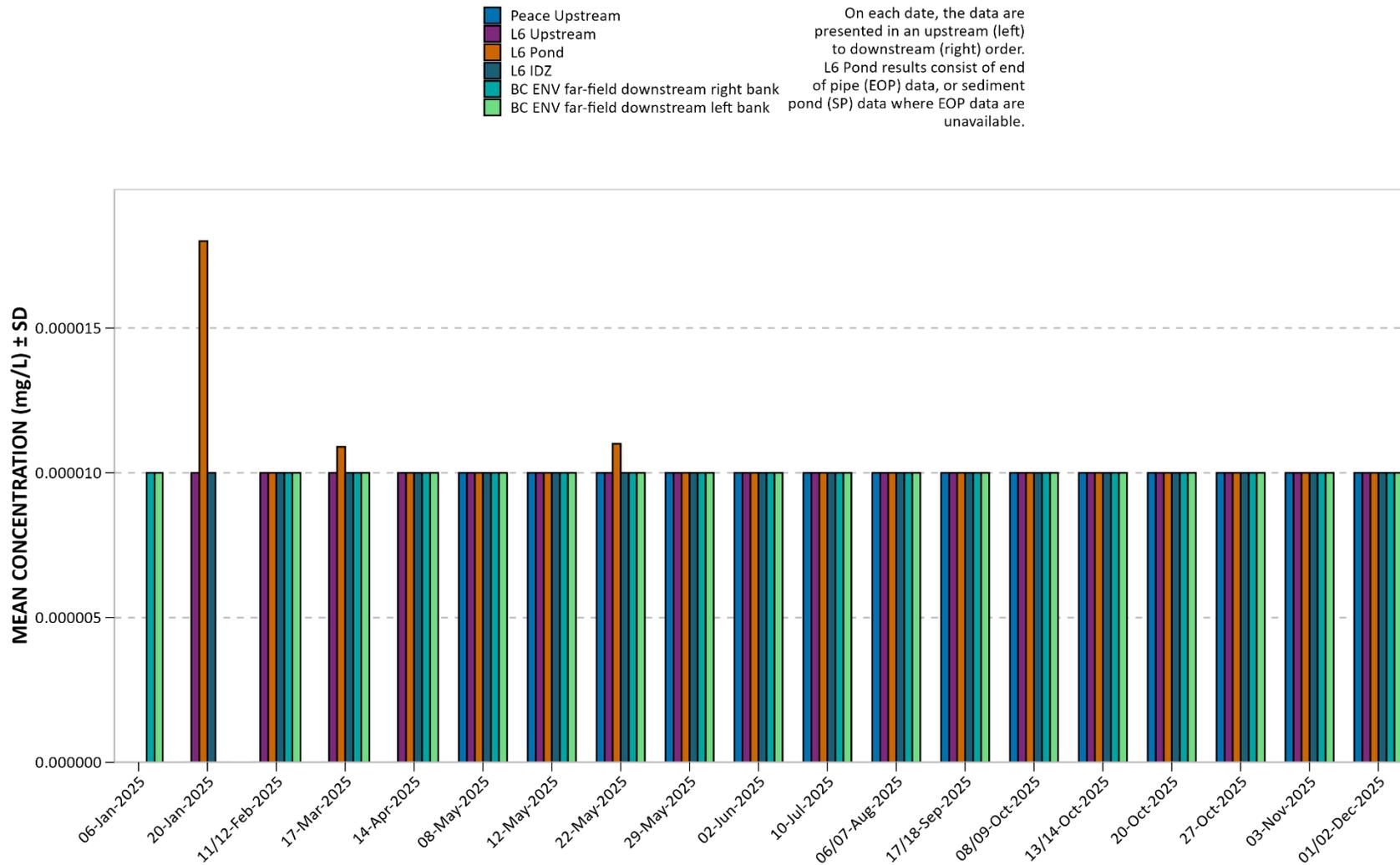


Figure 170. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved tin (Sn).

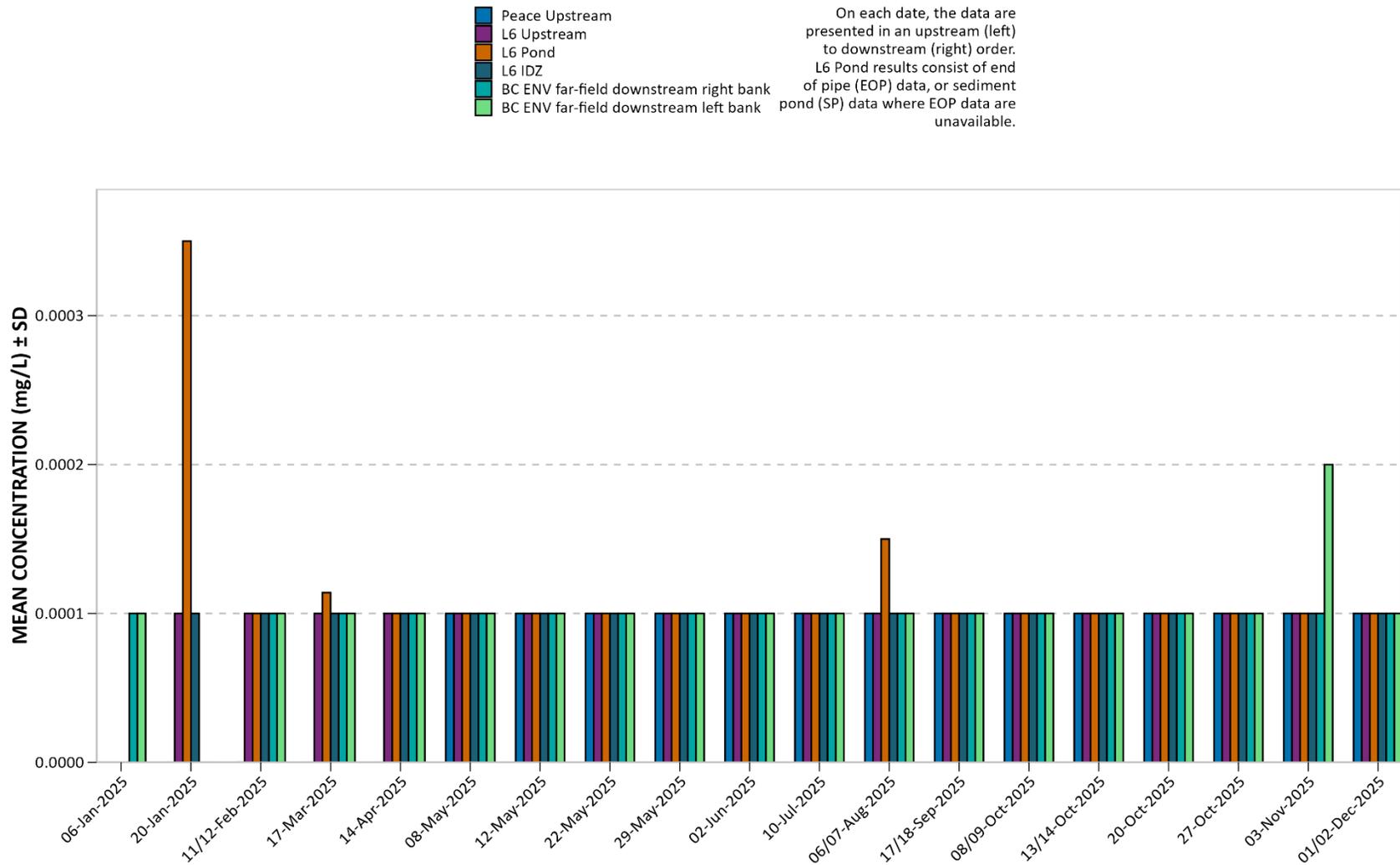


Figure 171. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved titanium (Ti).

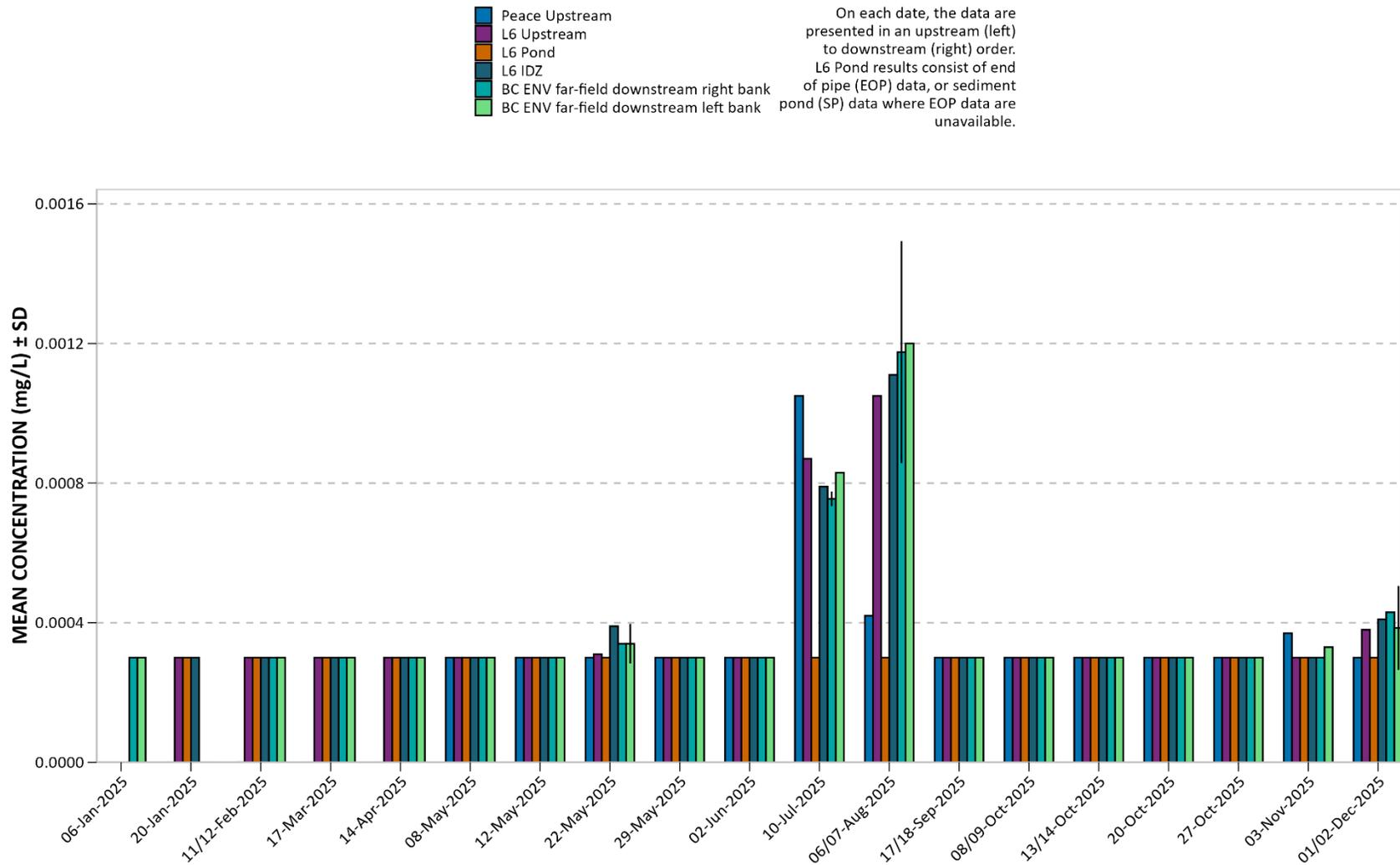


Figure 172. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved uranium (U).

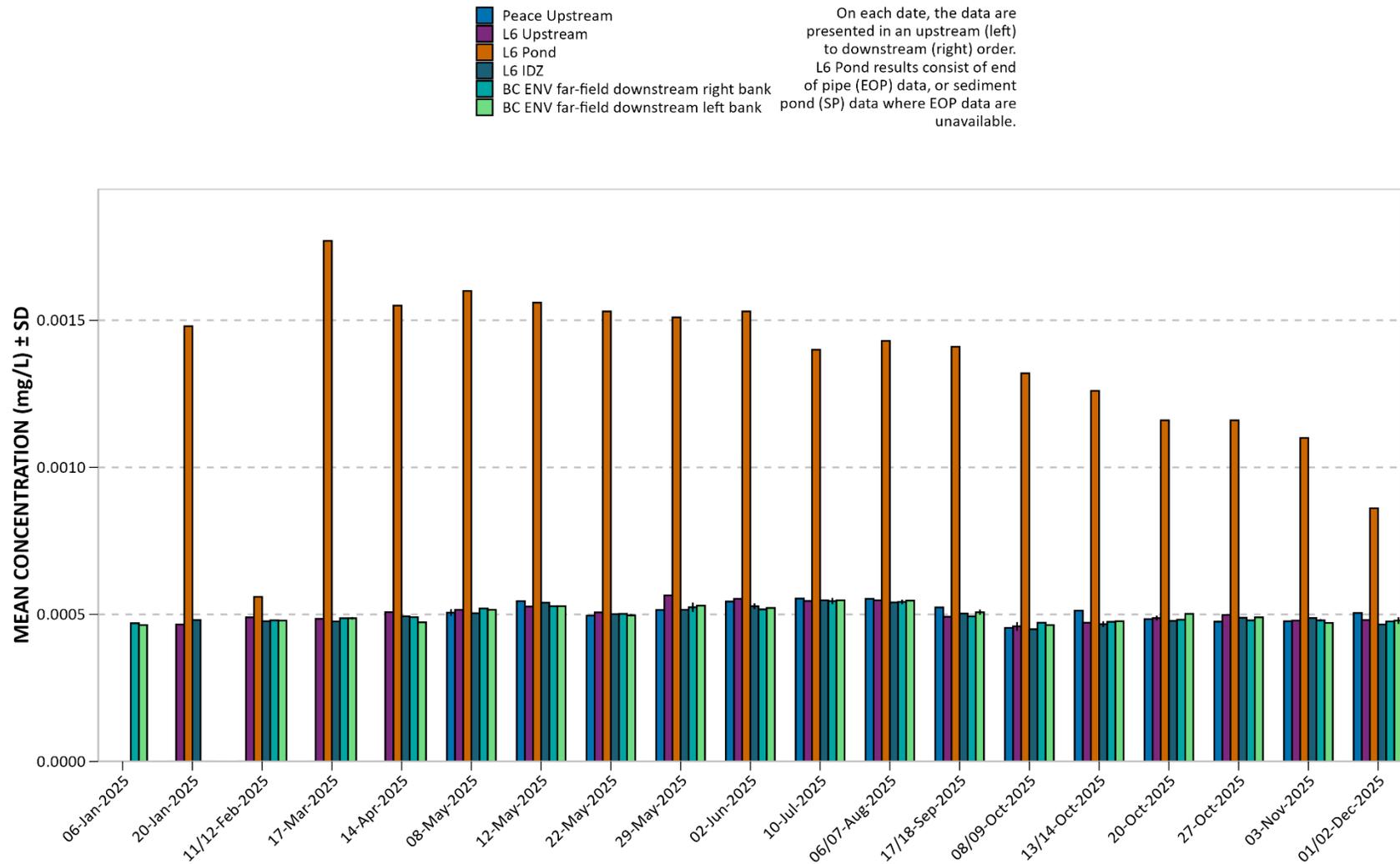


Figure 173. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved vanadium (V).

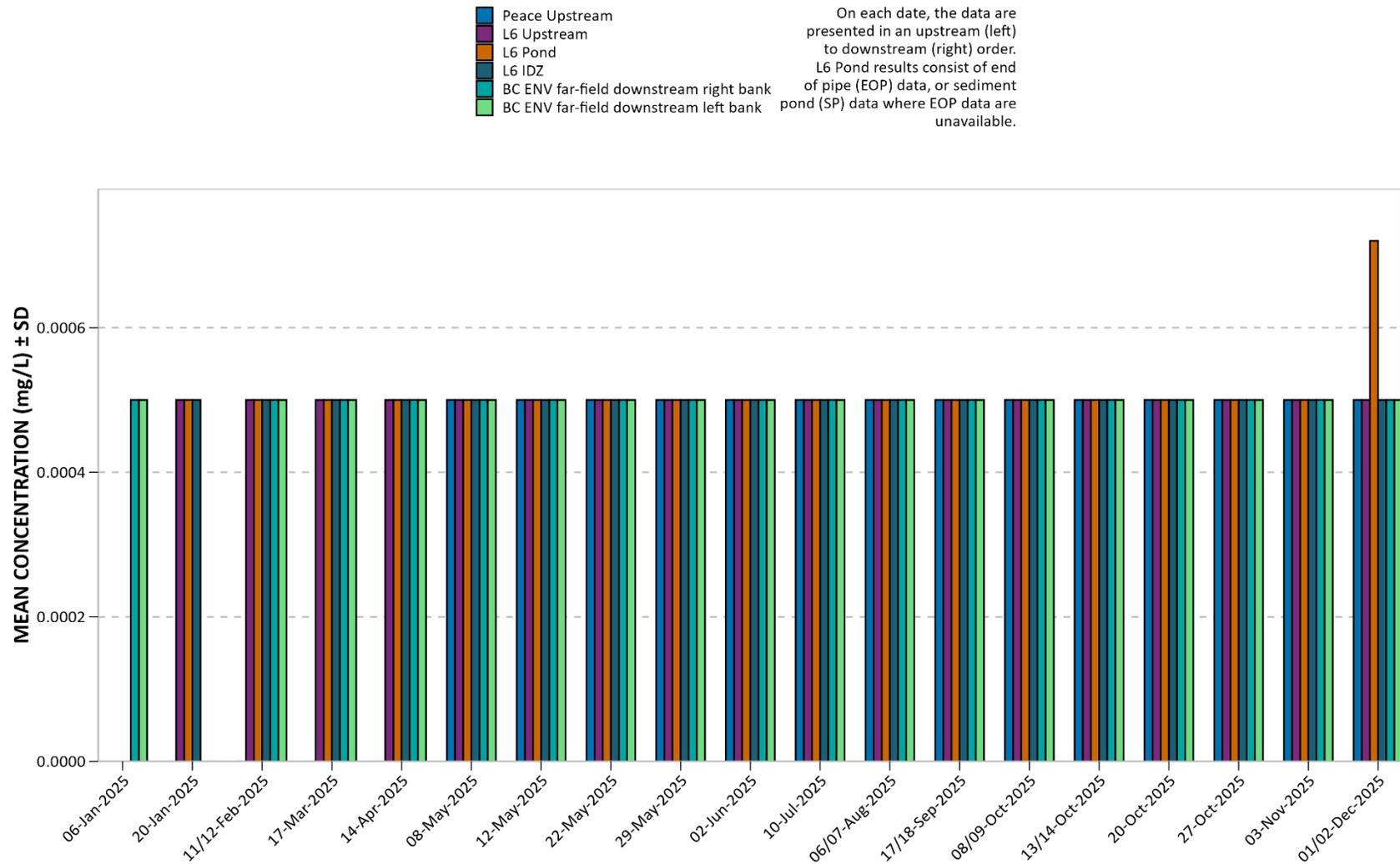
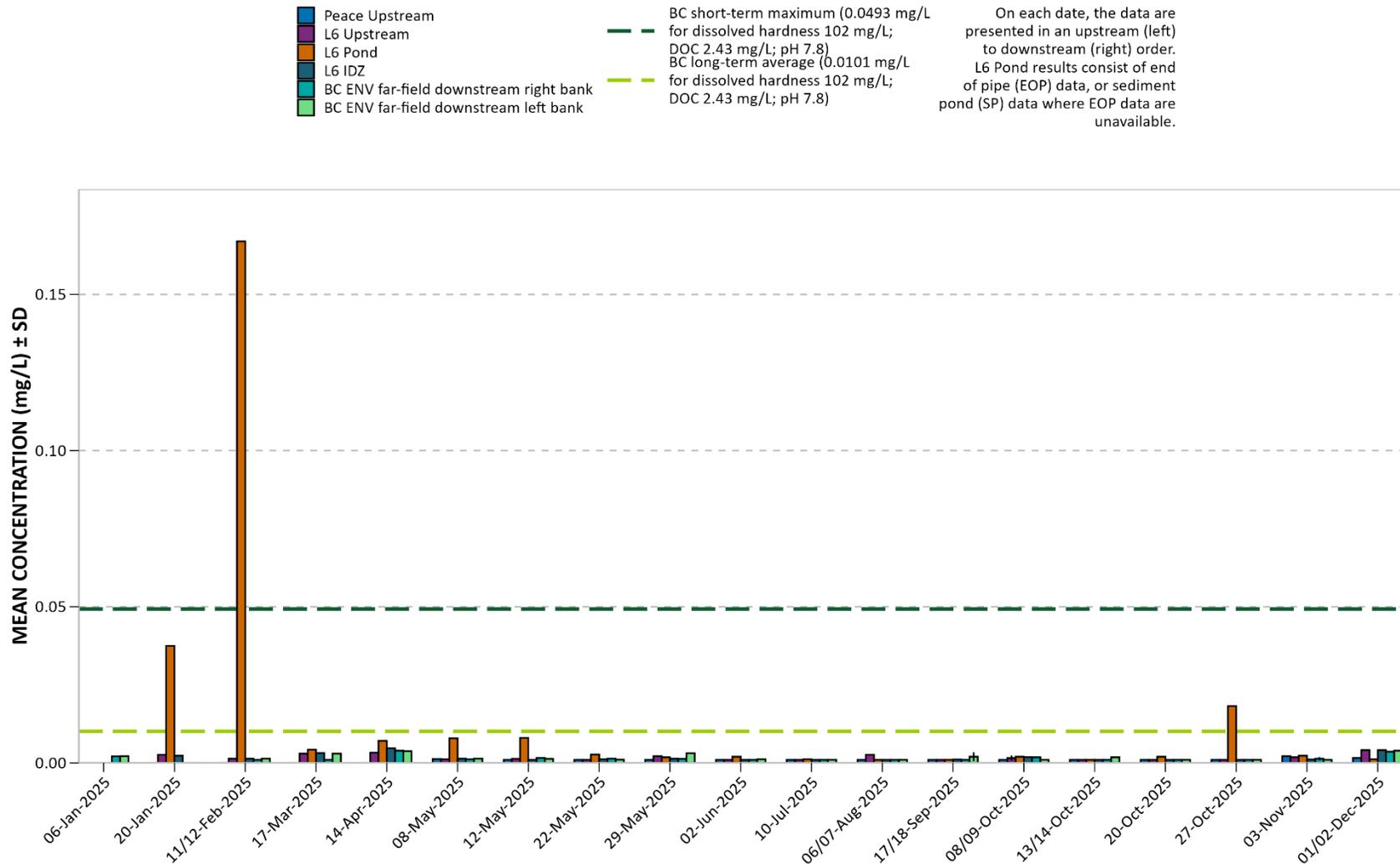
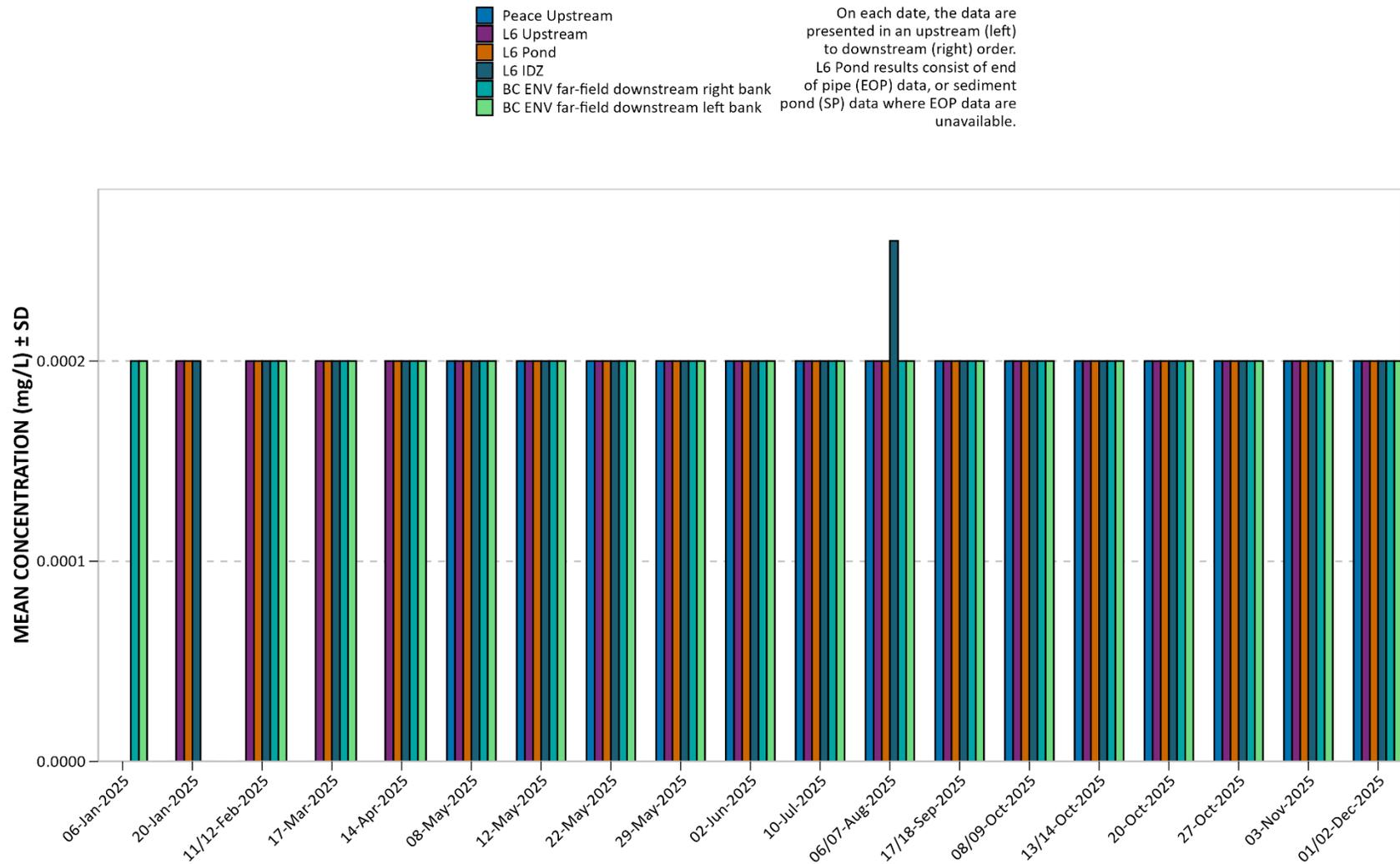


Figure 174. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved zinc (Zn).



Note: BC WQGs for dissolved zinc are dissolved hardness, DOC, and pH dependent, and therefore guidelines depicted in the plot are applicable for Peace River sites only. Based on the range of dissolved hardness, DOC, and pH values observed in the Peace River, the applicable BC maximum and 30-day guidelines are 0.0493 mg/L and 0.0101 mg/L, respectively.

Figure 175. 2025 Site C reservoir, Peace River, and RSEM L6 pond dissolved zirconium (Zr).



Appendix D. 2025 Quality Assurance and Quality Control Summary

Table 27. ALS hold time exceedance summary for 2025.

Sampling Date	Parameter	Site	Final			
			Recommended Holdtime	Actual Holdtime	Units	Qualifier
14-Apr-25	Mercury (Hg) - Total	RBPR-9.34-B	0 ¹	179	hrs	UCP
02-Jun-25	Turbidity (lab)	LBPR-7.21-A	3	16	days	EHT
06-Aug-25	Orthophosphate - Dissolved (as P)	PR-2.81	3	6	days	EHT
	Nitrate (as N)	PR-2.81	3	6	days	EHT
	Nitrite (as N)	PR-2.81	3	6	days	EHT
	Turbidity (lab)	PR-2.81	3	6	days	EHT
07-Aug-25	Turbidity (lab)	Travel Blank	3	5	days	EHT
	Turbidity (lab)	LBPR-6.83	3	5	days	EHT
	Turbidity (lab)	LBPR-7.21	3	5	days	EHT
	Turbidity (lab)	RBPR-9.34-A	3	5	days	EHT
	Turbidity (lab)	RBPR-9.34-B	3	5	days	EHT
	Turbidity (lab)	LBPR-9.34	3	5	days	EHT
	Turbidity (lab)	RBPR-9.34-FB	3	6	days	EHT

Legend & Qualifier Definitions

EHT: Exceeded ALS recommended hold time prior to analysis.

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

¹Total Mercury recommended hold time for RBPR-9.34 (Replicate B) was invalidated because the sample was not collected, requiring the sample to be analyzed from the total metals bottle.

Table 28. Summary of cases with a relative percent difference (RPD) >20% for duplicate samples in 2025.

Date	Site	Parameter	Units	Replicate A	Replicate B	Method Detection Limit	Relative Percent Difference (%)
06-Jan-2025	RBPR-7.05	Cadmium (Cd) - Total	mg/L	0.0000323	0.0000255	0.0000050	23.5
11-Feb-2025	RBPR-7.15	Phosphorus (P) - Total ¹	mg/L	0.0044	0.0104	0.0020	81.1
		Selenium (Se) - Dissolved	mg/L	0.000307	0.000236	0.000050	26.2
		Aluminum (Al) - Total	mg/L	0.0486	0.0369	0.0030	27.4
		Iron (Fe) - Total	mg/L	0.058	0.045	0.010	25.2
14-Apr-2025	RBPR-9.34	Turbidity (lab)	NTU	1.28	0.99	0.10	25.6
		Aluminum (Al) - Total	mg/L	0.0848	0.0606	0.0030	33.3
		Iron (Fe) - Total	mg/L	0.124	0.095	0.010	26.5
12-May-2025	RBPR-7.15	Selenium (Se) - Dissolved	mg/L	0.000406	0.000279	0.000050	37.1
29-May-2025	RBPR-9.34	Nitrate (as N)	mg/L	0.0490	0.0316	0.0050	43.2
		Cadmium (Cd) - Dissolved	mg/L	0.0000418 ²	0.0000300	0.0000050	32.9
		Aluminum (Al) - Total	mg/L	0.0537	0.0430	0.0030	22.1
		Selenium (Se) - Total	mg/L	0.000369	0.000476	0.000050	25.3
02-Jun-2025	LBPR-7.21	Titanium (Ti) - Total	mg/L	0.00160	0.00248	0.00030	43.1
10-Jul-2025	RBPR-9.34	Phosphorus (P) - Total ¹	mg/L	0.0209	0.0397	0.0020	62.0
		Total Suspended Solids	mg/L	5.50	6.80	1.0	21.1
07-Aug-2025	RBPR-9.34	Titanium (Ti) - Total	mg/L	<0.00450 ³	0.00568	0.00030 ⁴	23.2
17-Sep-2025	LBPR-9.34	Phosphorus (P) - Total ¹	mg/L	0.0343	0.0428	0.0020	22.0
		Total Suspended Solids	mg/L	25.3	19.8	1.0	24.4
13-Oct-2025	LBPR-7.21	Turbidity (lab)	NTU	3.10	4.67	0.10	40.4
		Cadmium (Cd) - Total	mg/L	0.0000210	0.0000271	0.0000050	25.4
		Selenium (Se) - Total	mg/L	0.000238	0.000330	0.000050	32.4
03-Nov-2025	RBPR-9.34	Cadmium (Cd) - Dissolved	mg/L	0.0000387 ²	0.0000126	0.0000050	102
01-Dec-2025	LBPR-9.34	Titanium (Ti) - Total	mg/L	0.00208	0.00162	0.00030	24.9

Shading indicates that the replicate is less than 5 times the ALS method detection limit.

¹ Analyzed by colourimetry.

² Dissolved metal concentration exceeds total metal concentration for field-filtered sample. Metallic contaminants may have been introduced to dissolved sample during field filtration. The value was within historical ranges and therefore retained in the dataset.

³ The laboratory adjusted the method detection limit to 0.00450 mg/L for Replicate A due to sample matrix effects (e.g., chemical interference, colour, turbidity).

⁴ The method detection limit only applies to Replicate B.

Table 29. Summary of cases with a relative standard deviation (RSD) >18% for triplicate samples in 2025.

Date	Site	Parameter	Replicate A	Replicate B	Replicate C	Relative Standard Deviation (%)
17-Mar-25	LBPR-6.83	Turbidity (in situ, NTU)	4.16	5.52	8.17	34.3
	RBPR-9.34	Turbidity (in situ, NTU)	5.5	4.1	3.8	20.2

Table 30. Summary of cases with a relative percent difference (RPD) >80% between in situ and laboratory values in 2025.

Date	Site	Turbidity (NTU)		Relative Percent Difference (%)
		Laboratory Value	Average In Situ Value	
2025-02-11	LBPR-7.21-A	0.90	2.86	104
	LBPR-6.83-A	1.12	2.83	86.6
2025-03-17	RBPR-9.34-A	1.81	5.48	101
2025-04-14	RBPR-7.15-A	1.03	5.45	136
	LBPR-7.21-A	1.14	5.57	132
	RBPR-7.05-A	1.43	5.67	119
2025-05-12	RBPR-7.05-A	2.15	5.76	91.3
	RBPR-7.15-A	2.39	6.03	86.5
	RBPR-9.34-A	2.34	5.75	84.3
	LBPR-6.83-A	2.24	5.47	83.8
2025-10-08	PR-2.81-A	1.28	4.93	118
2025-10-09	LBPR-6.50-A ¹	1.35	5.00	115
	LBPR-6.50-B ¹	1.45	4.94	109
	RBPR-9.34-A	1.65	5.81 ²	112
	LBPR-7.21-A	7.57	20.98 ²	93.9
2025-10-13	LBPR-6.50-A ¹	2.27	8.29	114
	RBPR-9.34-A	1.11	4.04	114
	LBPR-9.34-A	1.66	4.53	92.7
2025-10-13	LBPR-7.21-A	3.10	8.31	91.3
2025-10-14	PR-2.81-A	0.93	3.98	124
2025-10-20	PR-2.81-A	1.39	3.28	80.9
2025-10-27	RBPR-9.34-A	1.17	2.82	82.7
	PR-2.81-B	1.19	2.79	80.4
2025-11-03	PR-2.81-A	2.45	5.80	81.2

¹ The RSEM L6 upstream site was re-located from LBPR-6.83 to LBPR-6.50 in August 2025 due to in-channel dredging activities.

² Intensive instream works were conducted at LBPR-6.50, resulting in turbid waters downstream.

Table 31. Field blank and travel blank detections in 2025.

Sample Type	No. of Sampling Dates (2025)	Field and Travel Blank Detections		
		No. of Parameter Results (n) ¹	No. of Detectable Results (>Method Detection Limit)	% Detectable Results
Field Blanks	18	1,602	8	0.5%
Travel Blanks	18	912	0	0.0%

¹n refers to the total number of parameters analyzed in the field and travel blanks (non-detectable and detectable).

pH and cation-anion balance are not included in the calculation of detectable results.

Table 32. Summary of cases where the dissolved/total concentration ratio was >1.2 in 2025.

Date	Parameter	Site	Total Concentration (mg/L)	Dissolved Concentration (mg/L)	Total Method Detection Limit (mg/L)	Dissolved Method Detection Limit (mg/L)	Ratio Dissolved/Total Concentration
06-Jan-25	Selenium (Se)	RBPR-9.34	0.000227	0.00031	0.000050	0.000050	1.37
11-Feb-25	Selenium (Se)	RBPR-7.15-A	0.000236	0.000307	0.000050	0.000050	1.30
	Selenium (Se)	LBPR-7.21	0.00022	0.000292	0.000050	0.000050	1.33
12-Feb-25	Selenium (Se)	LBPR-9.34	0.000276	0.000336	0.000050	0.000050	1.22
17-Mar-25	Cadmium (Cd)	LBPR-7.21	0.0000224	0.0000295	0.0000050	0.0000050	1.32
12-May-25	Selenium (Se)	RBPR-7.15-A	0.000282	0.000406	0.000050	0.000050	1.44
	Selenium (Se)	PR-2.81	0.00029	0.000354	0.000050	0.000050	1.22
22-May-25	Selenium (Se)	LBPR-7.21	0.000281	0.000341	0.000050	0.000050	1.21
	Calcium (Ca)	PR-2.81	23.6	28.7	0.050	0.050	1.22
	Strontium (Sr)	PR-2.81	0.0898	0.115	0.00020	0.00020	1.28
29-May-25	Sodium (Na)	RBPR-7.15	2.77	3.46	0.050	0.050	1.25
	Cadmium (Cd)	RBPR-9.34-A	0.0000176	0.0000418 ¹	0.0000050	0.0000050	2.38
	Cadmium (Cd)	RBPR-9.34-B	0.0000218	0.0000300	0.0000050	0.0000050	1.38
	Cadmium (Cd)	LBPR-7.21	0.0000193	0.0000279	0.0000050	0.0000050	1.45
02-Jun-25	Copper (Cu)	LBPR-6.83	0.00078	0.00129	0.00050	0.00020	1.65
	Selenium (Se)	LBPR-7.21-A	0.000298	0.000384	0.000050	0.000050	1.29
17-Sep-25	Selenium (Se)	LBPR-9.34-A	0.000254	0.000337	0.000050	0.000050	1.33
03-Nov-25	Cadmium (Cd)	RBPR-9.34-A	0.0000168	0.0000387 ¹	0.0000050	0.0000050	2.30
	Cadmium (Cd)	LBPR-6.83	0.0000232	0.0000298	0.0000050	0.0000050	1.28
01-Dec-25	Selenium (Se)	LBPR-6.83	0.00027	0.000341	0.000050	0.000050	1.26

Shading indicates that the replicate is less than 5 times the method detection limit. Precision of the analytical result decreases when the concentration is close to the method detection limit.

¹Dissolved metal concentration exceeds total metal concentration for field-filtered sample. Metallic contaminants may have been introduced to dissolved sample during field filtration. The value was within historical ranges and therefore retained in the dataset.