Appendix F

Anderson Tailings Impoundment Area Seasonal Water Quality Sampling Program Data Summary (2021-2023)

To: Landice Yestrau
Manager, Environmental Control
Hudbay Minerals Inc.

Date: February 21, 2024
Project #: 60725424
From: James Phibbs

cc: Cliff Samoiloff (AECOM)

Memorandum

Subject: **Anderson Tailings Impoundment Area**
Seasonal Water Quality Sampling Program Data Summary (2021-2023)

1. Introduction

AECOM has completed water quality sampling and testing on the Anderson Tailings Impoundment Area (ATIA) since 2012. The sampling program has generally been completed on a tri-annual basis, with samples being collected in spring, fall, and winter on the Anderson TIA and areas downstream. The most recent three years (2021-2023) of the ATIA program has been completed as planned and a complete description of the historical water quality data obtained during this period are provided in AECOM 2021a; AECOM 2021b; AECOM 2021c; AECOM 2022a; AECOM 2022b; AECOM 2022c; AECOM 2023a; AECOM 2023b; AECOM 2023c.

This memo summarizes the results of the 2021, 2022, and 2023 ATIA seasonal water sampling programs conducted during this timeframe by AECOM on behalf of Hudbay.

2. Scope of Work

This memo summarizes the results of the last three (3) years (2021 to 2023) or nine (9) sampling events and provides a comparison of the 2021 to 2023 results to applicable water quality guidelines for the ATIA and the downstream receiving environment.

3. Methods

3.1 Analysis of Sampling Locations

To summarize the 2021 to 2023 laboratory results and compare the data between historic sampling events, the ATIA data was grouped into three areas prior to analysis. These areas are identified in **Figure 1 (Appendix A)**, and include:

- **Western ATIA** - Near-field (locations identified as AND-01 to AND-15 and AND-22)
- **Central ATIA** - Mid-field (locations identified as AND-16 to AND-18 and AND-23); and
- **Eastern ATIA** - Far-field (locations identified as AND-19 to AND-21)

The downstream aquatic sampling locations were evaluated by analyzing a representative location in:

- Anderson Creek (locations identified as ANC-02A, ANC-05, and ANC-06); and
- Anderson Bay (locations identified as ANB-01A and ANB-07A) in Wekusko Lake.

Surface water sampling locations from these areas was reviewed and a representative sampling location from each area that had historical data from all nine (9) sampling events during 2021 to 2023 was selected for further analysis and summary. These sampling stations include:

- Western ATIA - Near-field (AND-10);
- Central ATIA - Mid-field (AND-18);
- Eastern ATIA - Far-field (AND-20);

- Anderson Creek (ANC-02A); and
- Anderson Bay (ANB-07A).

3.2 Anderson Tailings Impoundment Water Quality Analysis

Water quality data to be analysed in this report will include the following:

- In-Situ Readings
  - pH.
  - Dissolved oxygen (mg/L).
  - Electrical conductivity (mS/cm).
  - Total Dissolved Solids (TDS, g/L).
  - Temperature (°C).
  - Oxygen Reduction Potential (ORP, mV).
- Anions and Nutrients
  - Acidity.
  - Anions (by IC).
  - True colour.
  - Ammonia (by colour).
  - Nitrate and nitrite.
  - Total phosphorus.
  - pH,
  - Total alkalinity.
  - Total dissolved solids.
  - Total suspended solids.
  - Turbidity.
  - Sulphate.
  - Chloride
  - Total fluoride
- Cyanide
- Total metals

4. Selection of Applicable Environmental Quality Guidelines

The Anderson TIA is listed under Schedule 2 (Subsection 5(1) and 27.1(1)) of the Metal and Diamond Mining Effluent Regulations SOR/2002-222 (MDMER) and the quality of the effluent that is discharged from the Anderson TIA is regulated under the MDMER and Environment Act Licence No. 3263.

The environmental quality guideline that applies to the discharge location (Anderson Creek) and the downstream Anderson Bay in Wekusko Lake is also the MDMER, but for the purposes of evaluating the data and identifying any trends in water quality in the downstream environment, the Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines (1999) for the Protection of Freshwater Aquatic Life (PAL) has also been applied during the seasonal sampling program and in this summary.

For discussion purposes in this memo ATIA water quality will be compared to MDMER and water quality in Anderson Creek and Anderson Bay will be compared to MDMER and CCME PAL.

5. Results and Discussion

5.1 Summary of In-Situ Data

Based on the tri-annual ATIA sampling, the water temperature in the ATIA follows typical annual variations for a northern Canadian lake. All sampling stations recorded near zero temperatures in the winter, higher temperatures in the spring and a peak temperature at some point in the summer (**Appendix B; Table 1**). Stratification or the timing of seasonal turnover could not be determined based on the results of the in-situ data.

The pH in the ATIA was generally consistent across seasons and between sampling locations, with average pH readings ranging from 7 to 8 within the ATIA and Anderson Creek and just above 8 in Anderson Bay (**Appendix B; Table 1**).

The conductivity (mS/cm) in the ATIA was generally consistent (approximately 1.4 mS/cm to 2.0 mS/cm) but did increase from winter to spring and again from spring to summer (**Appendix B; Table 1**). Whereas conductivity in Anderson Creek was lower (approximately 0.7 mS/cm to 1.1 mS/cm) and was almost an order of magnitude lower in Anderson Bay (approximately 0.12 mS/cm to 0.15 mS/cm).

Dissolved oxygen also follows a typical seasonal fluctuation pattern with low levels (< 4 mg/L) under the winter ice and then large increase during the ice-free months (**Appendix BA; Table 1**). None of the ice-free dissolved oxygen readings recorded from the ATIA were below 6.5 mg/L which is the CCME guideline for the protection of freshwater aquatic life (CCME, 1999).

The total dissolved solids (TDS) in the ATIA were generally consistent (approximately 1,000 mg/L to 1,500 mg/L) across seasons and between sampling locations (**Appendix B; Table 1**). Whereas TDS levels in Anderson Creek were below 1,000 mg and were almost an order of magnitude lower in Anderson Bay (approximately 100 mg/L) (**Appendix B; Table 1**).

5.2 Summary of Anions and Nutrients

No seasonal or interannual trends were identified for acidity, bicarbonate, carbonate, hydroxide, chloride, fluoride, and sulphate within the western (AND-10), central (AND-18), and eastern (AND-20) ATIA. Several parameters in Anderson Bay were non-detect and therefore no trends were identified at ANB-07A (**Appendix B; Table 2**). Trends in average concentrations within Anderson Creek include:

- Bicarbonate increased by approximately three-fold (3X) to 716 mg/L at ANC-02A during the spring of 2022, but returned to within its previous range by the next sampling event (range 104 mg/L to 238 mg/L)
- Total Alkalinity increased by approximately 3X to 587 mg/L at ANC-02A during the spring of 2022, but returned to within its previous range by the next sampling event (range 85.1 mg/L to 195 mg/L)
- Total Ammonia increased by an order of magnitude at ANC-02A during the spring of 2022 and 2023 (8.9 mg/L and 21.6 mg/L, respectively) but returned to within its previous range by the next sampling events (range 0.04 mg/L to 0.16 mg/L). The net effect is the annual average appears to be rising each year from 2021 to 2023, however, the annual average from each year is entirely driven by the elevated spring sampling results. It should be noted that an increase in total ammonia was expected in 2021 and beyond in the ATIA system due to the tailings from the New Britannia Mill reporting to the ATIA starting in the fall of 2021. The milling process at the New Britannia Mill uses a cyanide-leaching circuit to extract gold and silver. Cyanides oxidize into succeeding nitrogen species, including ammonia. The results of cyanide analysis are discussed in detail in **Section 5.3**.
- During 2021, 2022, and 2023 nitrate increased by 3X to 5X during the September sampling event compared to the June sampling event. Nitrite concentrations were much lower and did not follow the same trend as nitrate.
- No clear trends were observed for phosphorus and sulfate at ANC-02A, but concentrations were notably higher during 2022 and June 2023 before decreasing in September 2023.

The following trends were identified for ammonia (**Figure 2**), nitrogen-based nutrients (**Figure 3**), phosphorus (**Figure 4**), and total alkalinity (**Figure 5**):

- The average total alkalinity nearly doubled in the central ATIA between 2021 (27.5 mg/L) and 2022 (51.9 mg/L) and then nearly doubled again (92.0 mg/L) from 2022 to 2023. The trend in the eastern ATIA was similar starting at 24.3 mg/L in 2021, to approximately double (50.3 mg/L) in 2022, and then nearly double again (93.2 mg/L) in 2023. The average total alkalinity was highest during all years in Anderson Creek (peak 362 mg/L) and was consistent (Range 63.5 mg/L to 65.1 mg/L) between years for Anderson Bay.
- In the central ATIA and eastern ATIA, the nitrate+nitrite does appear to spike (an increase in nitrite coinciding with a corresponding decrease in nitrate) during the 2021 winter sampling event, but this was not repeated in 2022 and 2023. The largest rise in nitrate+nitrite occurred in Anderson Creek (>1.2 mg/L) and the lowest concentrations were in Anderson Bay (<0.4 mg/L).
- Total phosphorus marginally increased between 2021 and 2023 within the eastern, central, and western areas of the ATIA. Anderson Creek increased more than 2X between 2021 and 2022 and remained elevated in 2023. Total phosphorus remained low in Anderson Bay from 2021 to 2023.

No notable trends were observed in Anderson Bay at ANB-07A, except for individual increases during the following sampling events:

- Total ammonia increased by an order of magnitude during May 2023
- Nitrate increased by an order of magnitude during June 2021
- Sulphate increased by more than 3X during May 2023

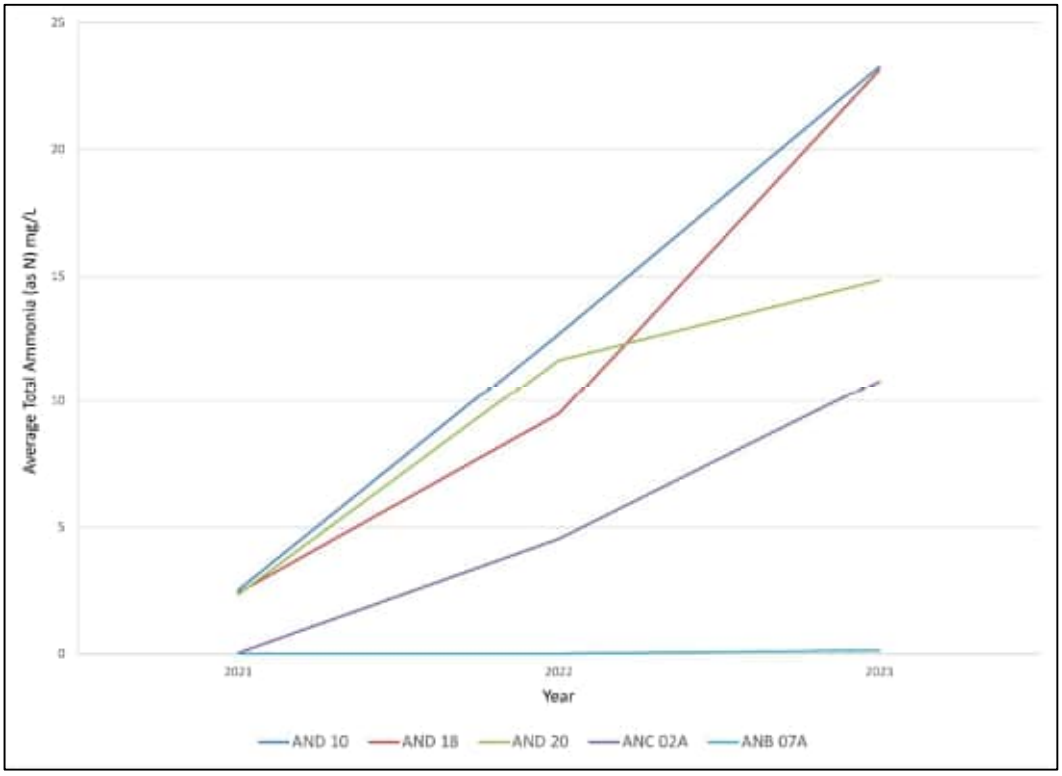

Figure 2 – Average Total Ammonia Concentrations in the ATIA.

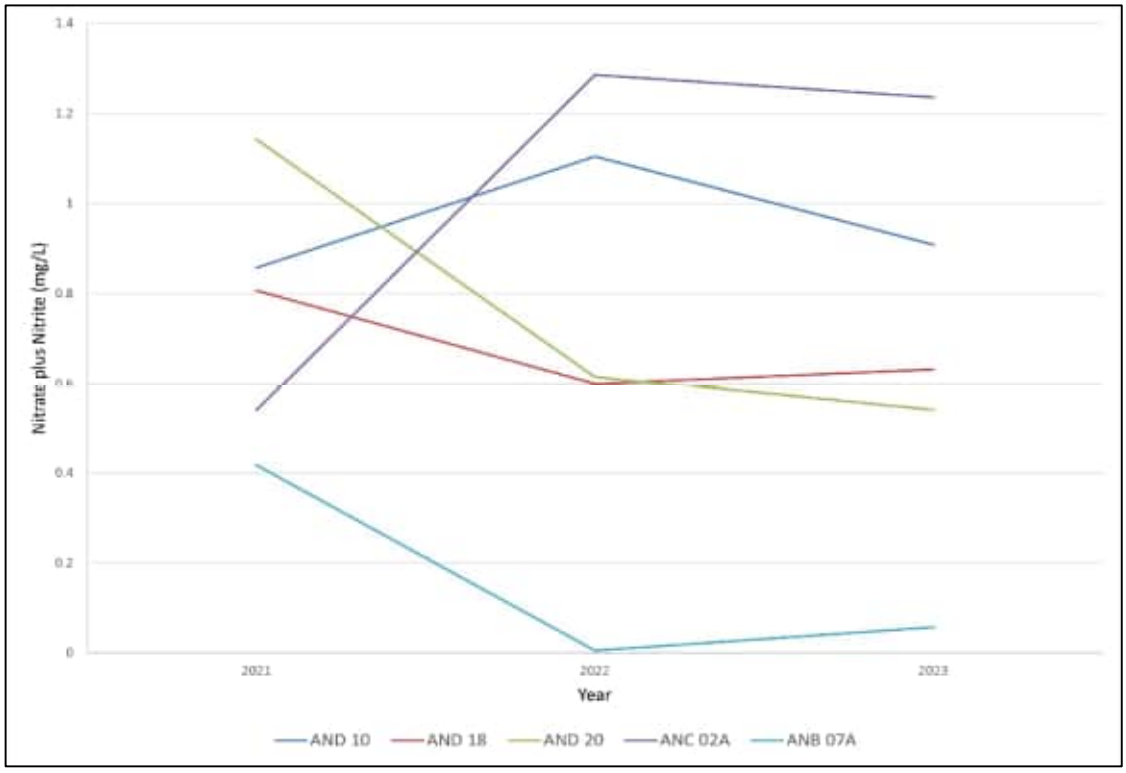

Figure 3 – Average Nitrogen Based Nutrient Concentrations in the ATIA.

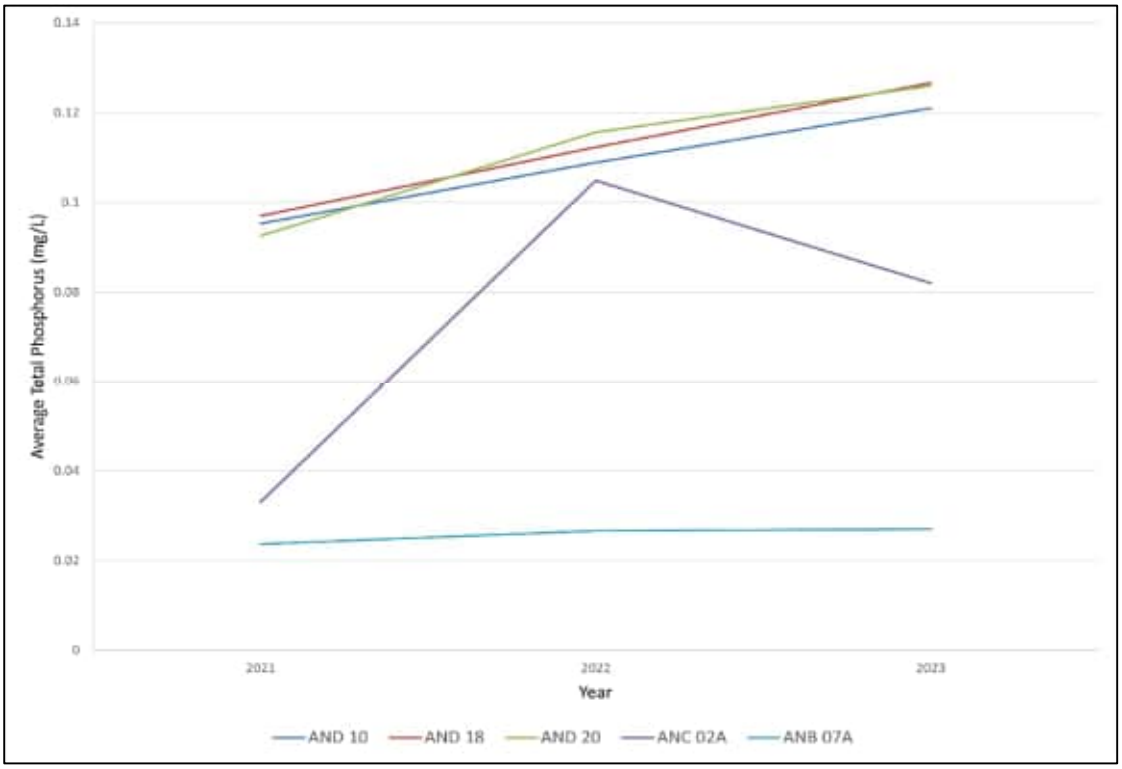

Figure 4 – Average Phosphorus Concentrations in the ATIA.

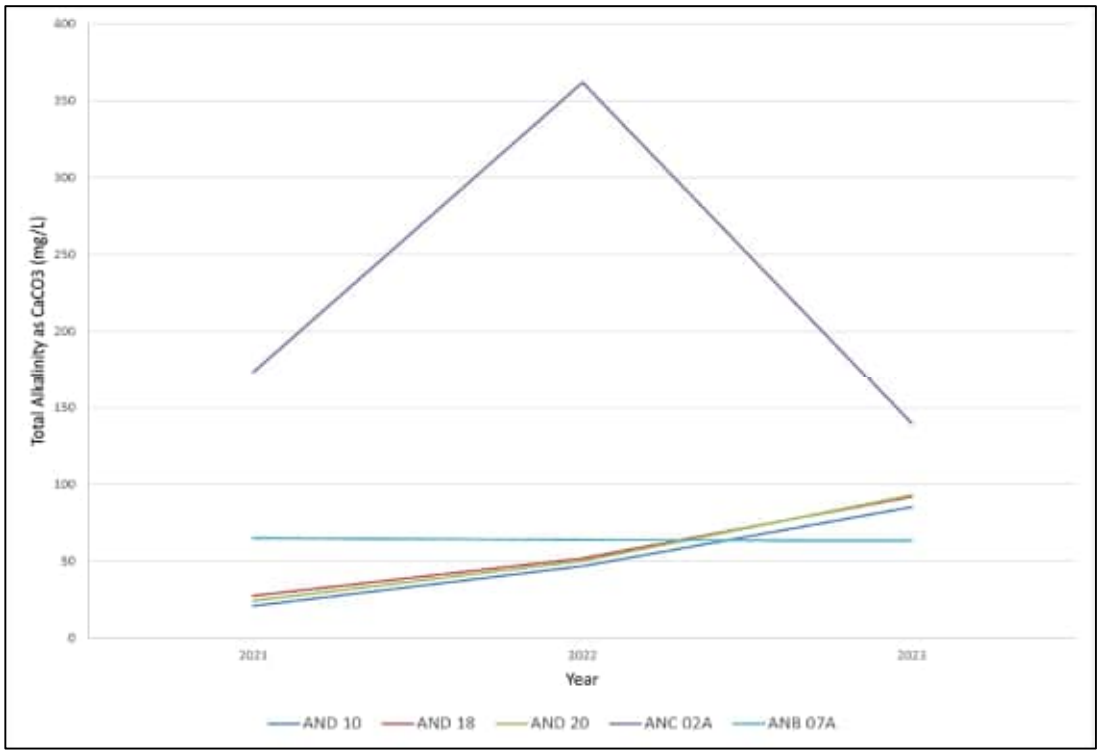

Figure 5 – Average Total Alkalinity Concentrations in the ATIA.

Total suspended solids (TSS) readings were less than 3 mg/L, or less than the method detection limit, during the winter sampling events at all sites between 2021 and 2023 (**Figure 6**). No trends in TSS results were observed in the ATIA and the TSS was less than half of the MDMER limits during every sampling event between 2021 and 2023.

No trends in TSS results were observed in Anderson Bay. However, an increasing trend in TSS was observed in Anderson Creek (**Figure 6**). This was driven by a high TSS during each year, but no seasonal trend was observed. Overall, TSS was less than half of the MDMER limits during every sampling event between 2021 and 2023.

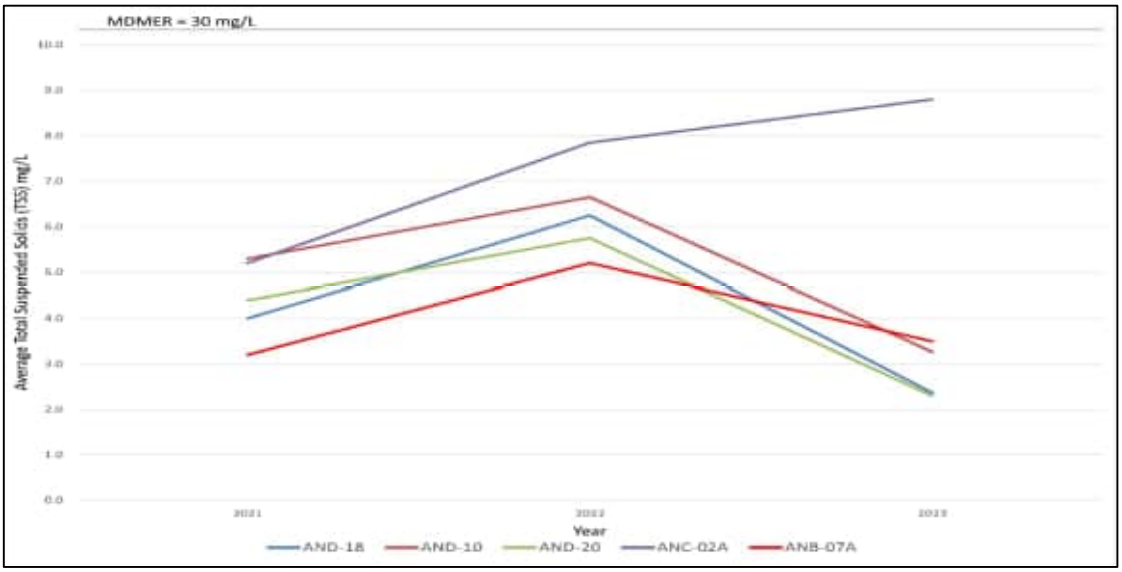

Figure 6 – Average Total Suspended Solids Concentrations in the ATIA, Anderson Creek and Anderson Bay.

5.3 Summary of Cyanide

Total cyanide is a more recent addition to the ATIA sampling program (**Figure 7; Appendix B, Table 3**), as cyanide analysis in the ATIA samples were added to the seasonal sampling program immediately prior to the New Britannia Mill coming on-line in 2021 (cyanide is not used at the Stall Concentrator).

From 2021 to 2023, total cyanide results were more than an order of magnitude less than the MDMER limit of 1.0 mg/L in samples collected from AND-10, ANC-02A, and ANB-07A. Data from AND-18 was collected starting in September 2021. Total cyanide increased at AND-18 by approximately 4X from 2021 to 2022 and nearly doubled from 2022 to 2023. Total cyanide at AND-20 was below the detection limit during the summer and fall in 2021. Total cyanide at AND-20 increased by approximately 7X the detection limit in the summer of 2022, but then returned to near the detection limit in the fall of 2022.

During the winter sampling in March and May of 2023, the total cyanide concentration was an order of magnitude higher than the detection limit but had returned to near the detection limit by the fall of 2023.

Overall, the total cyanide levels display a general increased in spring, followed by a decreased in the summer, and has remained low during the winter sampling events. Therefore, the upward seasonal trend in total cyanide concentrations appears to be driven by the concentrations observed during the June sampling event.

Free cyanide and WAD cyanide at AND-18 and AND-20 varied between non-detect concentrations and detectable concentrations that were close to the method detection limit (within 3X). The cyanide dataset from ANC-02A and ANB-07A was incomplete (due to limited site accessibility) and no trends could be identified.

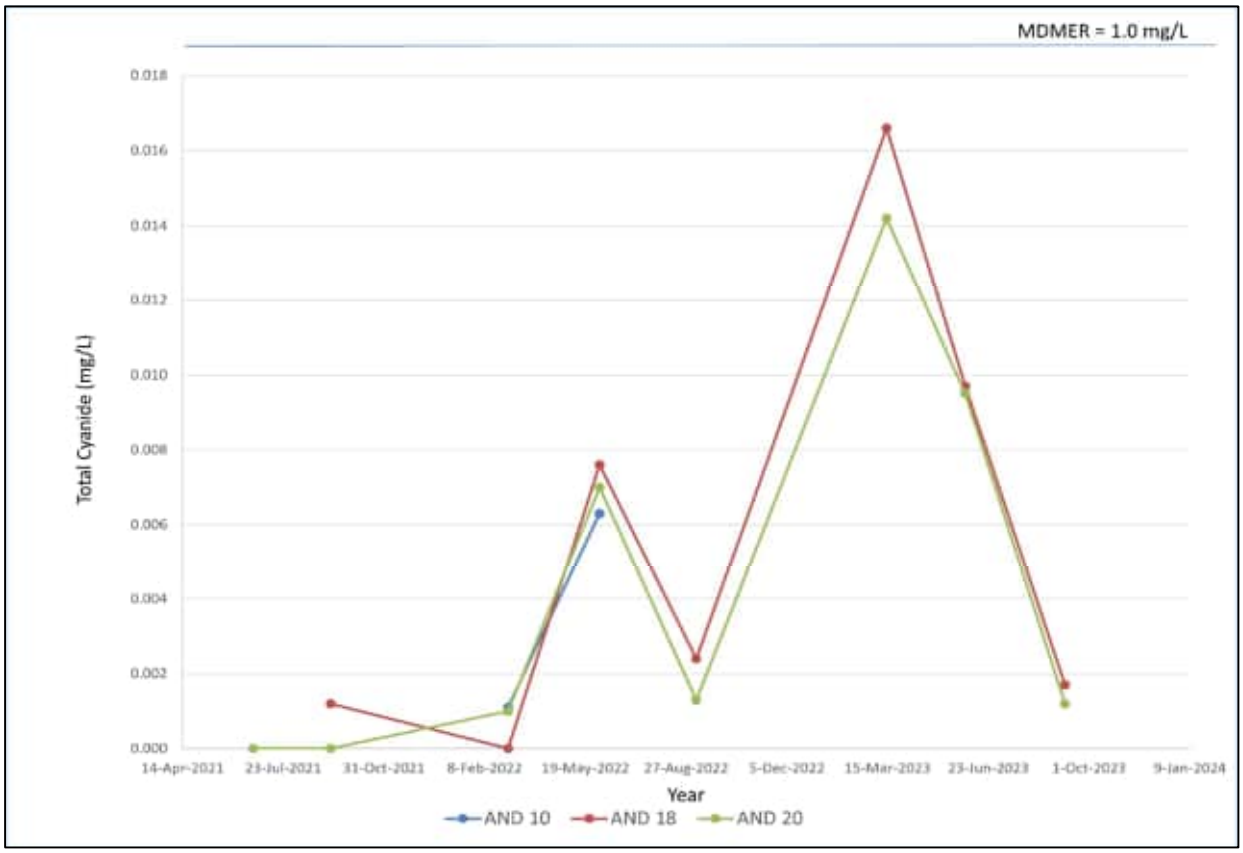

Figure 7 – Average Cyanide Concentrations in the ATIA.

5.4 Summary of MDMER Metals (AND-10, AND-18, and AND-20).

The follow section provides a discussion on the results of water quality analysis specific to the metals identified in Table 2, Schedule 4 of the MDMER (except for radium 226) performed over the 3-year summary period. Tabular summaries of the total metals results for the ATIA from 2021 to 2023 are provided in **Table 4** (**Appendix B**).

Arsenic

No seasonal or annual trends were observed for arsenic (**Figure 8**). Throughout the TIA the average arsenic concentrations did increase each year between 2021 and 2023. However, all arsenic concentrations were approximately an order of magnitude lower than the MDMER limits.

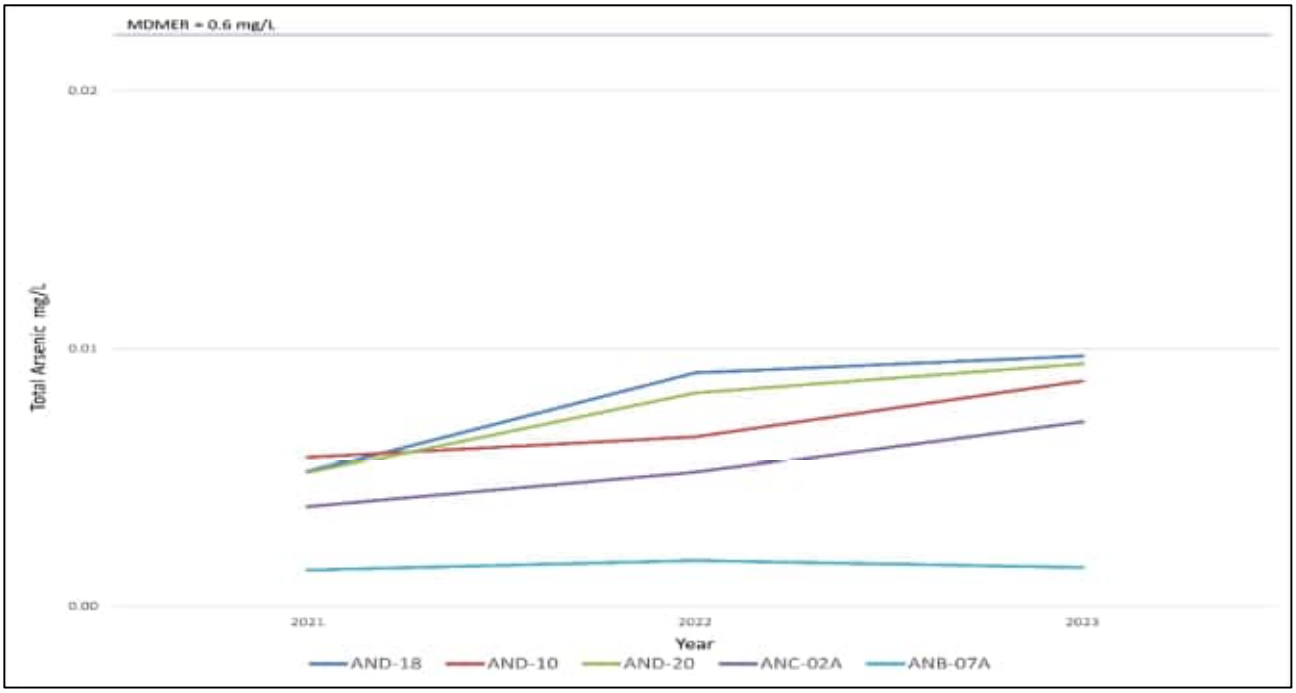

Figure 8 – Average Total Arsenic Concentrations in the ATIA, Anderson Creek, and Anderson Bay

Copper

The highest concentrations of copper were observed in the western ATIA, but no seasonal trends were observed within the ATIA and only small increases were observed in the average concentration between 2021 and 2023 (**Figure 9**). In the western ATIA copper concentrations were 5X-10X lower than the MDMER, and in the central and eastern ATIA they were consistently closer to an order of magnitude lower.

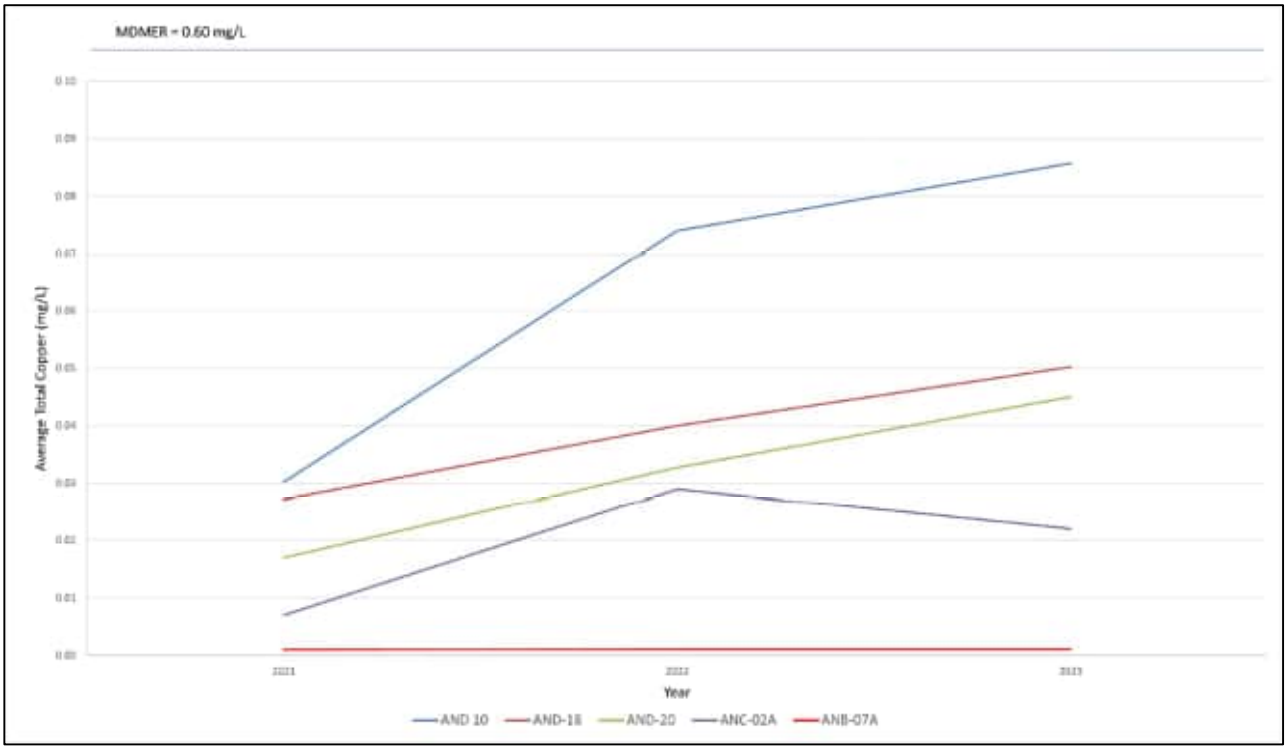

Figure 9 – Average Total Copper Concentrations in the ATIA, Anderson Creek, and Anderson Bay

Lead

No seasonal or annual trends were observed for lead. Throughout the ATIA the lead concentrations were lower than the MDMER limits during each sampling event from 2021 to 2023 (**Figure 10**). The only outlier was an increase observed during the spring of 2022.

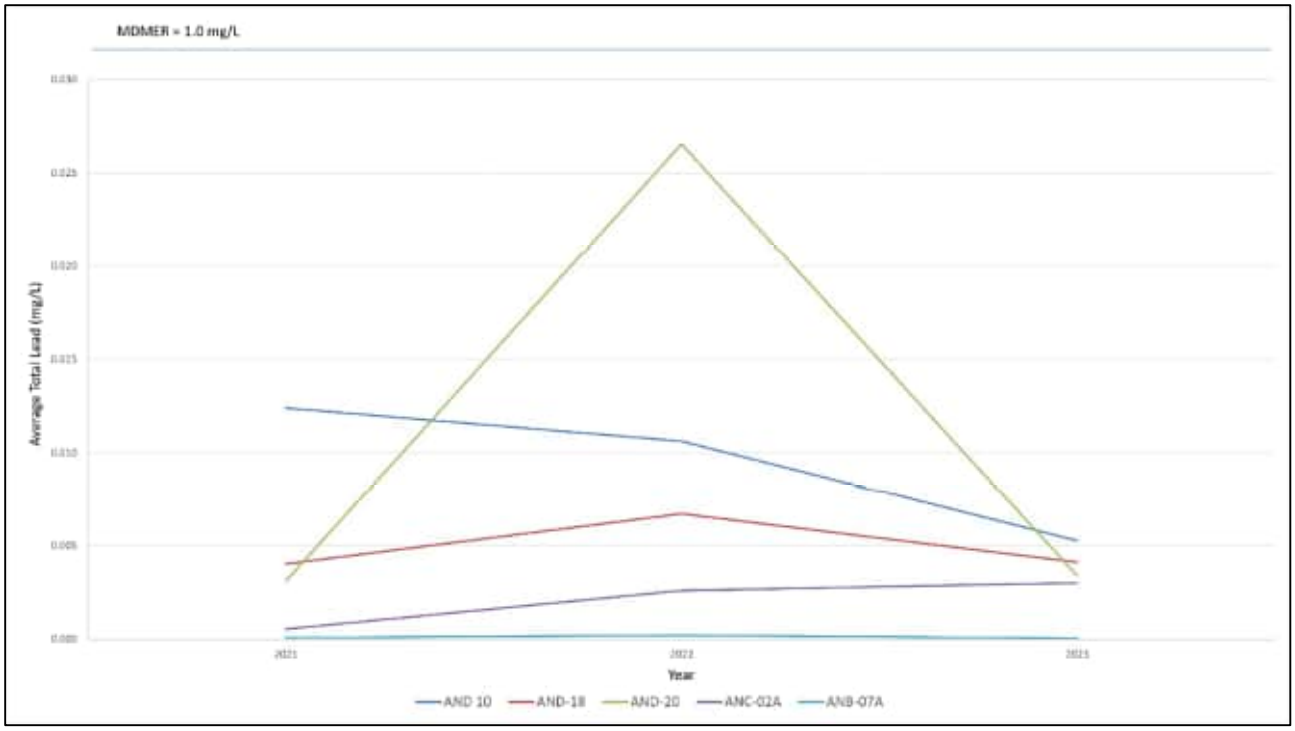

Figure 10 – Average Lead Concentrations in the ATIA, Anderson Creek, and Anderson Bay

Nickel

Nickel concentrations in the ATIA, Anderson Creek, and Anderson Bay all decreased dramatically between 2021 and 2022 and remained low or below the detection limit (ANB-07A) in 2023 (**Figure 11**). Throughout the ATIA the nickel concentrations were lower than the MDMER limits during each sampling event from 2021 to 2023. The only outlier was an increase during the spring of 2021 at all sampling sites that only occurred during that sampling event.

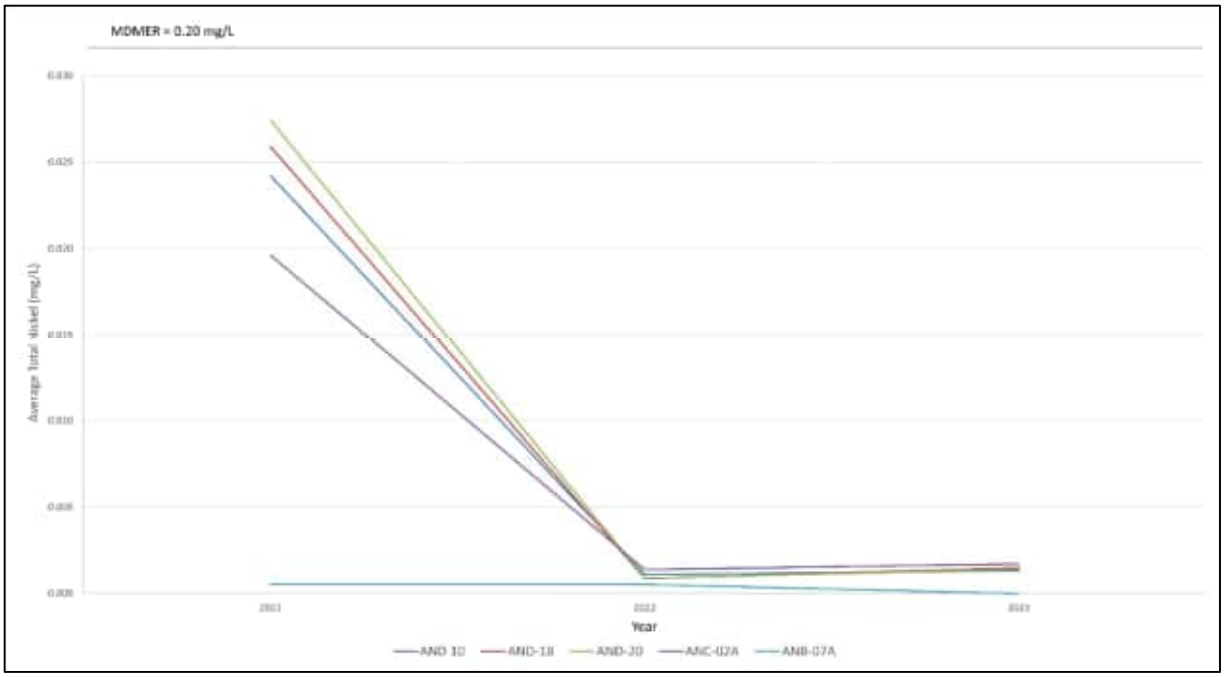

Figure 11 – Average Nickel Concentrations in the ATIA, Anderson Creek, and Anderson Bay

Zinc

No seasonal were observed for zinc (Figure 12). Throughout the TIA the zinc concentrations were lower than the MDMER limits during each sampling event from 2021 to 2023. The zinc concentrations were higher in 2021 than in 2022 and 2023 and therefore a decreasing annual trend was noted in zinc concentration in the TIA.

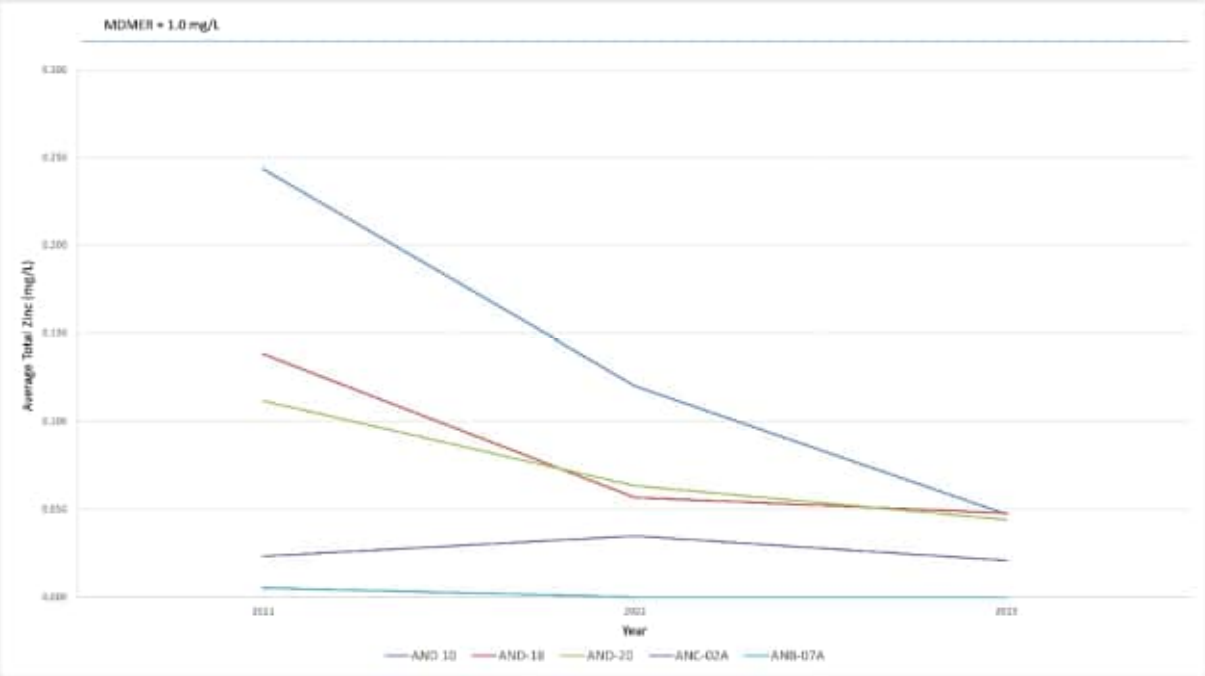

Figure 12 – Average Zinc Concentrations in the ATIA, Anderson Creek, and Anderson Bay

5.5 Summary of TSS and Metals in Anderson Creek and Anderson Bay

5.5.1 Anderson Creek (ANC-02A)

MDMER

No metal parameters or TSS exceeded the MDMER in Anderson Creek (ANC-02A). The TSS in Anderson Creek is lower than the MDMER limit of 1.0 mg/L but the average TSS increased in both 2022 and 2023. This contrasted with the other locations which were lower in 2023 than they were in 2022.

CCME-PAL

The concentration of aluminum, copper, iron, and selenium exceeded their respective CCME guidelines during all or all but one sampling event between 2021 and 2023.

The concentrations of arsenic, chromium, and zinc were below their respective CCME guidelines except for an exceedance for arsenic in the spring of 2022 and the spring of 2023, chromium during the spring of 2021 and the fall of 2023, and zinc in the spring of 2022 and the spring of 2023.

The concentrations of silver and selenium at ANC-02A were several orders of magnitude higher in June 2021, above their respective CCME guidelines, than during the other sampling events between 2021 and 2023.

5.5.2 Anderson Bay (ANB-07A)

MDMER

No metal parameters or TSS exceeded the MDMER in Anderson Bay (ANB-07A).

CCME-PAL

In Anderson Bay the total aluminum concentration increased by an order of magnitude in June 2021 to a concentration above the CCME guidelines. Aluminum remained elevated above the CCME guideline through September 2021, June 2022, and September 2022 before dropping below the CCME guideline in 2023.

Similar to Anderson Creek (ANC-02A), the concentrations of mercury, silver, and selenium increased by several orders of magnitude in June 2021, to concentrations above their respective CCME guidelines, before declining to concentrations in the range of those observed during the fall of 2021.

The concentrations of cadmium and zinc in Anderson Bay were below their respective method detection limits, and therefore their respective CCME guidelines, during all sampling in between 2021 and 2023.

6. Conclusions

Based on our review of the analytical results from 2021 to 2023 the following conclusions can be made with respect to the water quality results when considering the MDMER:

- **No parameters exceeded the MDMER in the ATIA.**
- **No parameters exceeded the MDMER in Anderson Creek or Anderson Bay.**
- No seasonal or annual trends were observed for arsenic and all arsenic concentrations were approximately an order of magnitude lower than the MDMER limits.
- The highest concentrations of copper were in the western ATIA, but no seasonal trends were observed within the ATIA and small increases was observed in the average concentration between 2021 and 2023. In the western ATIA copper concentrations were 5-10 times lower than the MDMER limit and in the central and eastern ATIA they were consistently closer to an order of magnitude lower than the MDMER limit.
- Throughout the ATIA the lead concentrations were lower than the MDMER limits during each sampling event from 2021 to 2023. No seasonal or annual trends were observed for lead.
- Nickel concentrations in the ATIA, Anderson Creek, and Anderson Bay all decreased dramatically between 2021 and 2022 and remained low in 2023. Throughout the TIA the nickel concentrations were lower than the MDMER limits during each sampling event from 2021 to 2023.
- Throughout the ATIA the zinc concentrations were lower than the MDMER limits during each sampling event from 2021 to 2023. The zinc concentrations were higher in 2021 than in 2022 and 2023 and therefore a decreasing annual trend was noted in zinc concentration in the ATIA. No seasonal trends were observed for zinc.
- No trends in TSS results were observed in the ATIA and the TSS was less than half of the MDMER limits during every sampling event between 2021 and 2023.
- TSS was less than half of the MDMER limits during every sampling event between 2021 and 2023 and no trends were observed in the ATIA and Anderson Bay. However, an increasing trend in TSS was observed in Anderson Creek.
- All total cyanide results were more than an order of magnitude less than the MDMER limit of 1.0 mg/L. Total cyanide concentrations increased each spring and decreased somewhat in the summer but has remained low during the winter sampling events. Therefore, the upward seasonal trend in total cyanide concentrations appears to be driven by the concentrations observed during the June sampling event.

- Increase in total ammonia were expected in 2021 and beyond in the ATIA system due to the tailings from the New Britannia Mill reporting to the ATIA starting in the fall of 2021. The milling process at the New Britannia Mill uses a cyanide-leaching circuit to extract gold and silver. Cyanides oxidize into succeeding nitrogen species, including ammonia.
- No trends in TSS results were observed in the ATIA and the TSS was less than half of the MDMER limits during every sampling event between 2021 and 2023.
- TSS was less than half of the MDMER limits during every sampling event between 2021 and 2023 and no trends were observed in the ATIA and Anderson Bay. However, an increasing trend in TSS was observed in Anderson Creek.

Based on our review of the analytical results from 2021 to 2023 the following conclusions can be made with respect to the water quality results in Anderson Creek and Anderson Bay when considering CCME-PAL:

- In Anderson Creek the concentration of aluminum, copper, iron, and selenium exceeded their respective CCME guidelines during all or all but one sampling event between 2021 and 2023.
- In Anderson Creek the concentrations of arsenic, chromium, and zinc were below their respective CCME guidelines except for an exceedance for arsenic in the spring of 2022 and the spring of 2023, chromium during the spring of 2021 and the fall of 2023, and zinc in the spring of 2022 and the spring of 2023.
- Turbidity and concentrations of silver and selenium in Anderson Creek were several orders of magnitude higher in June 2021, which were above their respective CCME guidelines, than during the other sampling events between 2021 and 2023.
- In Anderson Bay the total aluminum concentration increased by an order of magnitude in June 2021 to a concentration above the CCME guidelines. Aluminum remained elevated in Anderson Bay above the CCME guideline through September 2021, June 2022, and September 2022 before dropping below the CCME guideline in 2023.
- The concentrations of mercury, silver, and selenium in Anderson Bay increased by several orders of magnitude in June 2021, to concentrations above their respective CCME guidelines, before declining to concentrations in the range of those observed during the fall of 2021.
- The concentrations of cadmium and zinc in Anderson Bay were below their respective method detection limits, and therefore their respective CCME guidelines, during all sampling in between 2021 and 2023.
- No seasonal or interannual trends were identified for acidity, bicarbonate, carbonate, hydroxide, chloride, fluoride, and sulphate within Anderson Bay. Increasing trends were observed in Anderson Creek for bicarbonate, total alkalinity, total ammonia, and nitrate, some elevated results were observed for phosphorus, but no clear trend was observed for sulphate.
- The average total alkalinity was highest during all years in Anderson Creek and was consistent between years for Anderson Bay.
- Total ammonia increased by an order of magnitude in Anderson Creek during the spring of 2022 and 2023 but returned to within its previous range by the next sampling events. As indicated previously, increases in ammonia were not unexpected due to the use of cyanide leaching in the New Britannia Mill.
- Total phosphorus increased in Anderson Creek between 2021 and 2022 and remained elevated in 2023. Total phosphorus consistently remained low in Anderson Bay.

Sincerely,
AECOM Canada Ltd.

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Environmental Scientist
Environment

Reviewed by:

[redacted]

Cliff Samoiloff, B.Sc., EP(CEA)
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Environment

7. References

AECOM memorandum “Anderson Tailings Impoundment Area March 2021 Water Quality Sampling Summary” dated May 17, 2021.

AECOM memorandum “Anderson Tailings Impoundment Area June 2021 Water Quality Sampling Summary” dated August 18, 2021.

AECOM memorandum “Anderson Tailings Impoundment Area September 2021 Water Quality Sampling Summary” dated November 9, 2021.

AECOM memorandum “Anderson Tailings Impoundment Area March 2022 Water Quality Sampling Summary” dated April 12, 2023.

AECOM memorandum “Anderson Tailings Impoundment Area June 2022 Water Quality Sampling Summary” dated August 12, 2022.

AECOM memorandum “Anderson Tailings Impoundment Area September 2022 Water Quality Sampling Summary” dated November 2, 2022.

AECOM memorandum “Anderson Tailings Impoundment Area March 2023 Water Quality Sampling Summary” dated May 1, 2023.

AECOM memorandum “Anderson Tailings Impoundment Area June 2023 Water Quality Sampling Summary” dated July 31, 2023.

AECOM memorandum “Anderson Tailings Impoundment Area September 2023 Water Quality Sampling Summary” dated November 17, 2023.

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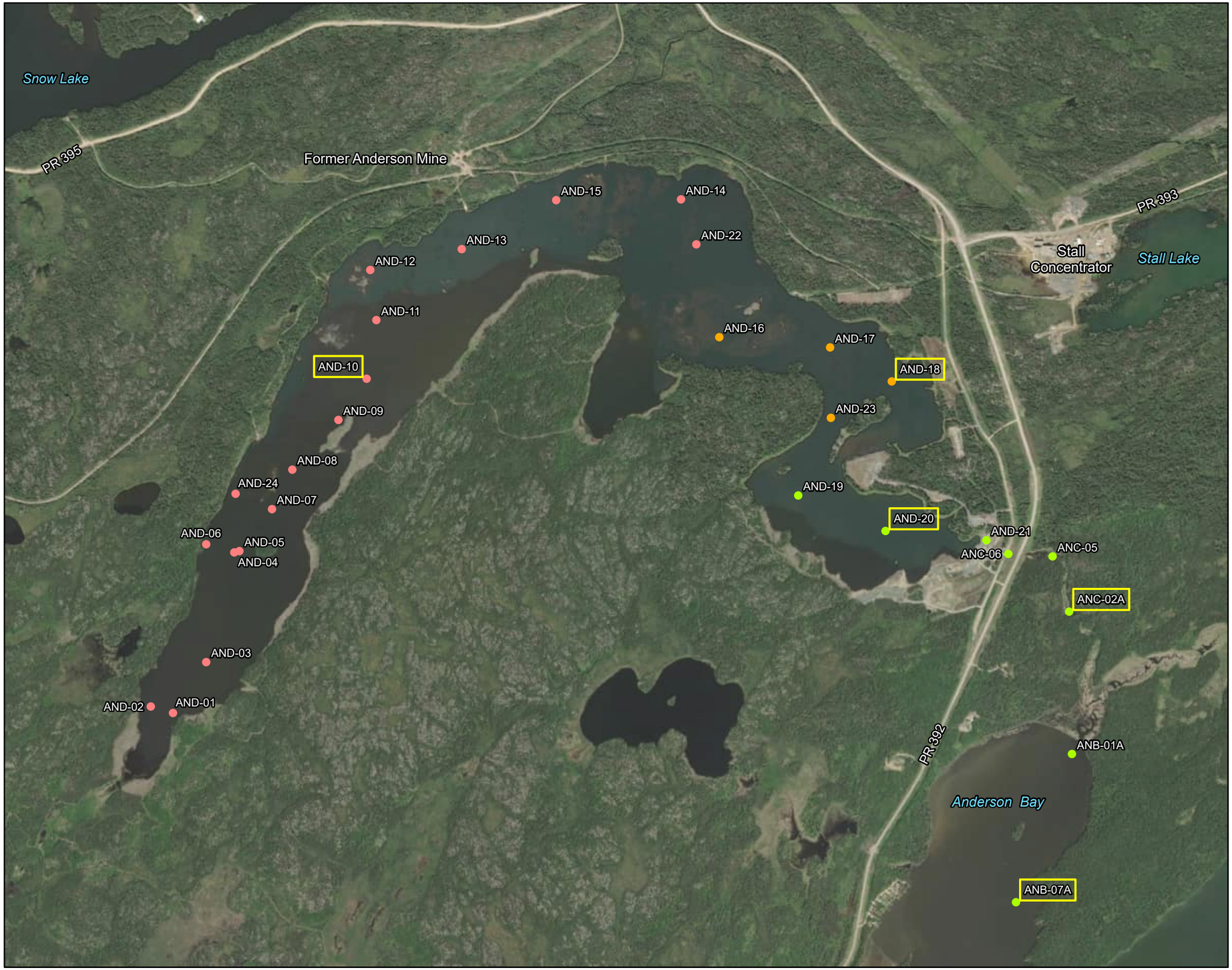
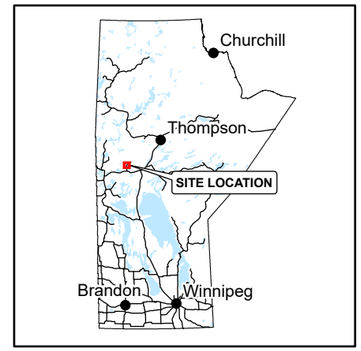
Appendix A Figures





Key Map

Legend

- Western TIA - Close Proximity to Tailings Deposition
- Central TIA - Moderate Proximity to Tailings Deposition
- Eastern TIA - Far Proximity to Tailings Deposition
- Representative Locations for 3-Year Water Quality Summary

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S

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NAD 1983 UTM Zone 14N

200 0 200 400 600 800 m

Service Layer Credits: World Imagery: Maxar

AECOM

Figure: 1

ANDERSON TIA WATER QUALITY SUMMARY SAMPLING STATIONS

ANDERSON TAILINGS IMPOUNDMENT AREA (TIA)
WATER QUALITY STUDY
HUDBAY MINERALS INC.
Project No.: 60725424 Date: February 2024

Appendix B
Tables

Table 1. Anderson TIA, Anderson Creek and Anderson Bay *In situ Water Quality Measurements* and Summary Stats.

Station ID	Northing	Easting	Measurement Date	Snow Thickness (m)	Ice thickness (m)	Total Water Depth (m)	Measurement Depth (m)	Water Temperature (°C)	pH	Specific Conductivity (mS/cm)	Conductance (mS/cm)	Turbidity (NTU)	DO (mg/L)	DO (%)	TDS (g/L)
							AND-10 Winter Average	**1.53**	**7.57**	**1.71**	**1.76**	**-**	**2.83**	**20.40**	**1.37**
							AND-10 Spring Average	**14.76**	**7.65**	**1.41**	**1.67**	**10.41**	**9.48**	**90.70**	**1.02**
							AND-10 Fall Average	**17.54**	**7.89**	**2.05**	**2.05**	**4.50**	**8.22**	**88.90**	**1.43**
							AND-10 2021-2023 Average	**11.28**	**7.70**	**1.72**	**1.79**	**7.45**	**6.84**	**63.66**	**1.24**
			7-Sep-2023	-	-	0.60	-	15.80	7.90	2.4870	2.047	-	6.21	65.3	1.617
			31-May-2023	-	-	1.10		17.20	7.93	1.9150	1.628		9.00	94.0	1.241
			15-Mar-2023	-	-	2.00		0.40	8.11	2.4490	-		1.18	8.2	1.593
AND-10	6078548	435748	6-Sep-2022	-	-	2.30	-	19.82	8.38	1.9400	-	3.60	7.65	87.2	1.240
			3-Jun-2022	-	-	1.40	0.50	9.39	7.52	1.2080	1.721	14.70	9.49	87.4	1.119
			3-Mar-2022	-	-	-	-	1.10	7.54	0.9660	1.755	-	6.52	47.1	1.144
			8-Sep-2021	-	-	1.80	-	17.01	7.38	1.7200	-	5.4	10.79	114.2	-
			23-Jun-2021	-	-	1.50	-	17.70	7.49	1.0920	-	6.11	9.95	-	0.709
			16-Mar-2021	-	-	0.75	-	3.09	7.05	-	-	-	0.80	5.9	
							AND-18 Winter Average	**0.92**	**7.68**	**1.66**	**1.55**	**-**	**3.67**	**25.50**	**1.34**
							AND-18 Spring Average	**14.37**	**7.81**	**1.48**	**1.77**	**6.70**	**9.98**	**62.04**	**1.25**
							AND-18 Fall Average	**17.16**	**7.99**	**1.83**	**1.98**	**5.95**	**9.75**	**105.13**	**1.36**
							AND-18 2021-2023 Average	**10.82**	**7.82**	**1.66**	**1.77**	**6.33**	**7.80**	**64.23**	**1.32**
			7-Sep-2023	-	-	3.00	-	16.40	7.89	2.3660	1.979	-	7.35	78.6	1.538
			3-May-2023	-	-	4.60		17.10	8.15	2.1030	1.788		8.62	90.6	1.365
			14-Mar-2023	-	-	3.20		0.80	8.77	2.4630	-		2.15	15.3	1.606
			7-Sep-2022	-	-	3.90	-	19.06	8.46	1.8600	-	4.40	10.13	113.3	1.190
AND-18	6078534	438516	3-Jun-2022	-	-	4.10	0.70	9.02	7.55	1.2160	1.750	10.00	10.89	94.8	1.138
			3-Mar-2022	-	-	-	-	0.30	7.19	0.8650	1.547	-	8.77	60.6	1.078
			9-Sep-2021	-	-	2.20	-	16.03	7.61	1.2700	-	7.5	11.76	123.5	-
			22-Jun-2021	-	-	2.90	-	17.00	7.72	1.1127	-	3.4	10.43	0.7	-
			17-Mar-2021	-	-	0.75	-	1.65	7.08	-	-	-	0.09	0.6	-
							AND-20 Winter Average	**1.74**	**7.57**	**1.70**	**1.67**	**-**	**3.40**	**25.90**	**1.33**
							AND-20 Spring Average	**14.45**	**7.32**	**1.48**	**1.78**	**5.57**	**10.07**	**93.05**	**1.08**
							AND-20 Fall Average	**17.29**	**7.95**	**1.81**	**1.94**	**4.30**	**7.93**	**85.20**	**1.35**
							AND-20 2021-2023 Average	**11.16**	**7.61**	**1.66**	**1.79**	**4.93**	**7.13**	**64.93**	**1.23**
			7-Sep-2023	-	-	2.50	-	16.50	7.75	2.3260	1.944	-	6.27	66.6	1.512
			31-May-2023	-	-	3.30		17.50	6.58	2.1100	1.807		8.57	89.4	1.371
			14-Mar-2023	-	-	3.20		1.00	8.14	2.4380	-		1.48	11.7	1.586
			7-Sep-2022	-	-	3.15	-	19.00	8.48	1.8600	-	5.20	7.63	84.7	1.190
AND-20	6077746	438483	3-Jun-2022	-	-	-	3.20	8.85	7.63	1.2070	1.745	8.40	11.13	96.7	1.134
			3-Mar-2022	-	-	-	-	2.20	7.34	0.9670	1.666	-	8.47	64.1	1.083
			9-Sep-2021	-	-	2.80	-	16.38	7.61	1.2300	-	3.4	9.88	104.3	-
			22-Jun-2021	-	-	3.00	-	17.00	7.76	1.1330	-	2.73	10.50		0.737
			17-Mar-2021	-	-	0.75	-	2.01	7.23	-	-	-	0.25	1.9	-
							ANC-02A Winter Average	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
							ANC-02A Spring Average	**12.06**	**7.72**	**0.86**	**1.32**	**11.74**	**9.21**	**92.25**	**0.84**
							ANC-02A Fall Average	**16.33**	**7.90**	**0.97**	**0.72**	**5.45**	**8.71**	**90.53**	**0.70**
							ANC-02A 2021-2023 Average	**14.20**	**7.81**	**0.92**	**1.12**	**8.59**	**8.96**	**91.22**	**0.78**
			7-Sep-2023	-	-	0.5	-	14.10	7.55	0.9130	0.723	-	5.76	57.0	0.593
			1-Jun-2023	-	-	0.5	-	14.90	8.14	2.0900	1.685		8.95	88.4	1.358
ANC-02A	6077321	439451	6-Sep-2022	-	-	-	-	20.08	8.47	1.2600	-	5.5	8.12	92.1	0.804
			2-Jun-2022	-	-	-	-	7.09	7.61	0.1440	0.964	13	11.39	96.1	0.936
			9-Sep-2021	-	-	0.25	-	14.82	7.67	0.7350	-	5.4	12.25	122.5	-
			22-Jun-2021	-	-	-	-	14.20	7.40	0.3580	-	10.47	7.29	-	0.233
							ANB-07A Winter Average	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
							ANB-07A Spring Average	**13.26**	**8.00**	**0.16**	**0.12**	**2.98**	**10.17**	**98.35**	**0.09**
							ANB-07A Fall Average	**17.83**	**8.24**	**0.16**	**0.15**	**7.10**	**8.78**	**96.30**	**0.11**
							ANB-07A 2021-2023 Average	**13.30**	**8.00**	**0.16**	**0.13**	**5.04**	**10.02**	**96.00**	**0.09**
			6-Sep-2023	-	-	2.20	-	17.10	8.16	0.1814	0.1542	-	6.97	74.4	0.118
			31-May-2023	-	-	2.50	-	15.20	8.39	0.1790	0.1455		9.56	95.4	0.116
			7-Sep-2022	-	-	2.65	-	19.56	8.37	0.1480	-	6	8.50	96.2	0.096
ANB-07A	6075790	439171	2-Jun-2022	-	-	3.20	1.20	8.18	7.94	0.1510	0.103	3.7	11.58	101.3	0.048
			9-Sep-2021	-	-	2.30	-	16.84	8.19	0.1500	-	8.2	10.88	118.3	-
			23-Jun-2021	-	-	3.60	-	16.40	7.67	0.1430	-	2.25	9.36	-	0.093
			17-Mar-2021	-	-	-	-	-0.20	7.25	-	-	-	13.32	90.4	-

Notes:
m = metres; °C = degrees Celsuis; mS/cm = milliSiemens per centimetre; NTU = Nephelometric Turbidity Units; DO = dissolved oxygen; mg/L = milligrams per Litre; % = percent saturation; TDS = Total Dissolved Solids; g/L = grams per Litre; - = not applicable/measured.

Table 2. Anderson TIA, Anderson Creek and Anderson Bay Water Analytical and Summary Stats - Nutrients and Inorganics

Parameter	Units	LDL[f]	AND 10									Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average
Anions and Nutrients (Water)		Date Sampled	16-Mar-2021	23-Jun-2021	8-Sep-2021	3-Mar-2022	2-Jun-2022	6-Sep-2022	15-Mar-2023	31-May-2023	7-Sep-2023						
Acidity (as CaCO3)	mg/L	2	6.3	4.3	3.3	6.9	7.6	<5.0	7.1	6.9	6.1	6.77	6.27	4.70	4.63	7.25	6.70
Bicarbonate (HCO3)	mg/L	1.2	34	23.4	19	50.1	57.6	63.6	122	96.2	93.7	68.70	59.07	58.77	25.47	57.10	103.97
Carbonate (CO3)	mg/L	0.6	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<1.0	<1.0	<1.0	-	-	-	-	-	-
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<1.0	<1.0	<1.0	-	-	-	-	-	-
Alkalinity, Total (as CaCO3)	mg/L	1	27.9	19.2	15.6	41.1	47.52	52.1	100	78.9	76.8	56.33	48.54	48.17	20.90	46.91	85.23
Ammonia, Total (as N)	mg/L	0.01	1.92	2.09	3.56	9.05	14.80	14.3	24.3	18.9	26.6	11.76	11.93	14.82	2.52	12.72	23.27
Chloride (Cl)	mg/L	0.1	27	23.3	30.8	44	32.40	36.2	47.7	46	47.4	39.57	33.90	38.13	27.03	37.53	47.03
Fluoride (F)	mg/L	0.02	0.32	0.332	0.45	0.55	0.44	0.47	0.639	0.724	0.578	0.50	0.50	0.50	0.37	0.49	0.65
Nitrate (as N)	mg/L	0.005	0.787	0.848	0.938	1.64	0.7150	0.657	0.602	0.357	0.995	1.01	0.64	0.86	0.86	1.00	0.65
Nitrate and Nitrite as N	mg/L	0.0051	0.793	0.779	1	1.69	0.81	0.813	0.945	0.48	1.3	1.14	0.69	1.04	0.86	1.10	0.91
Nitrite (as N)	mg/L	0.001	0.0062	0.0688	0.0629	0.0541	0.0949	0.156	0.343	0.123	0.306	0.13	0.10	0.17	0.05	0.10	0.26
Phosphorus (P)-Total	mg/L	0.003	0.115	0.0753	0.0957	0.117	0.0937	0.116	0.137	0.112	0.114	0.12	0.09	0.11	0.10	0.11	0.12
Sulfate (SO4)	mg/L	0.3	616	551	728	1020	834	937	1260	1280	1310	965.33	888.33	991.67	631.67	930.33	1283.33

Parameter	Units	LDL[f]	AND 18									Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average
Anions and Nutrients (Water)		Date Sampled	17-Mar-2021	22-Jun-2021	8-Sep-2021	3-Mar-2022	2-Jun-2022	7-Sep-2022	14-Mar-2023	31-May-2023	7-Sep-2023						
Acidity (as CaCO3)	mg/L	2	5.2	4.7	4	7.8	7	<5.0	5.4	3.9	6.1	6.13	5.20	5.05	4.63	7.40	5.13
Bicarbonate (HCO3)	mg/L	1.2	37.5	30.1	33.1	64.3	58	67.7	140	101	95.4	80.60	63.03	65.40	33.57	63.33	112.13
Carbonate (CO3)	mg/L	0.6	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<1.0	<1.0	<1.0	-	-	-	-	-	-
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<1.0	<1.0	<1.0	-	-	-	-	-	-
Alkalinity, Total (as CaCO3)	mg/L	1	30.7	24.7	27.1	52.7	47.5	55.5	115	82.8	78.2	66.13	51.67	53.60	27.50	51.90	92.00
Ammonia, Total (as N)	mg/L	0.01	3.3	2.17	1.76	6.37	13.1	8.95	25	21.4	23	11.56	12.22	11.24	2.41	9.47	23.13
Chloride (Cl)	mg/L	0.1	38.1	25.9	29.6	46	37.4	35.8	49.6	43.7	47.6	44.57	35.67	37.67	31.20	39.73	46.97
Fluoride (F)	mg/L	0.02	0.43	0.337	0.417	0.52	0.47	0.48	0.642	0.656	0.575	0.53	0.49	0.49	0.39	0.49	0.62
Nitrate (as N)	mg/L	0.005	0.03	0.677	0.6	<0.025	0.535	0.46	0.237	0.413	0.588	0.13	0.54	0.55	0.44	0.50	0.41
Nitrate and Nitrite as N	mg/L	0.0051	1.19	0.601	0.63	<0.025	0.596	0.603	0.505	0.533	0.856	0.85	0.58	0.70	0.81	0.60	0.63
Nitrite (as N)	mg/L	0.001	1.16	0.0761	0.0303	0.0071	0.0613	0.143	0.268	0.12	0.268	0.48	0.09	0.15	0.42	0.07	0.22
Phosphorus (P)-Total	mg/L	0.003	0.119	0.08	0.0921	0.121	0.102	0.114	0.143	0.12	0.117	0.13	0.10	0.11	0.10	0.11	0.13
Sulfate (SO4)	mg/L	0.3	828	566	648	964	872	920	1280	1180	1260	1024.00	872.67	942.67	680.67	918.67	1240.00

Parameter	Units	LDL[f]	AND 20									Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average
Anions and Nutrients (Water)		Date Sampled	17-Mar-2021	23-Jun-2021	8-Sep-2021	3-Mar-2022	2-Jun-2022	7-Sep-2022	14-Mar-2023	31-May-2023	7-Sep-2023						
Acidity (as CaCO3)	mg/L	2	5.3	4.8	3.5	**7.3**	5.8	<5.0	6.6	**7.3**	6	6.40	5.97	4.75	4.53	6.55	6.63
Bicarbonate (HCO3)	mg/L	1.2	25.9	30.4	32.6	57.1	57.8	69.7	**139**	102	99.8	74.00	63.40	67.37	29.63	61.53	113.60
Carbonate (CO3)	mg/L	0.6	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<1.0	<1.0	<1.0	-	-	-	-	-	-
Hydroxide (OH)	mg/L	0.34	<0.34	<0.60	<0.34	<0.34	<0.34	<0.34	<1.0	<1.0	<1.0	-	-	-	-	-	-
Alkalinity, Total (as CaCO3)	mg/L	1	21.2	24.9	26.7	46.8	47.1	57.1	**114**	83.7	81.8	60.67	51.90	55.20	24.27	50.33	93.17
Ammonia, Total (as N)	mg/L	0.01	3.23	2.28	1.53	5.94	12.2	16.9	0.53	21.5	**22.5**	3.23	11.99	13.64	2.35	11.68	14.84
Chloride (Cl)	mg/L	0.1	35.7	25.7	28.9	49.8	37.6	35.5	**50.4**	43.8	47.3	45.30	35.70	37.23	30.10	40.97	47.17
Fluoride (F)	mg/L	0.02	0.36	0.342	0.398	0.53	0.46	0.47	0.652	**0.706**	0.557	0.51	0.50	0.48	0.37	0.49	0.64
Nitrate (as N)	mg/L	0.005	**1.1**	0.588	0.43	0.723	0.454	0.335	0.304	0.396	0.495	0.71	0.48	0.42	0.71	0.50	0.40
Nitrate and Nitrite as N	mg/L	0.0051	**2.46**	0.513	0.453	0.881	0.504	0.459	0.506	0.52	0.592	1.28	0.51	0.50	1.14	0.61	0.54
Nitrite (as N)	mg/L	0.001	**1.37**	0.0747	0.0237	0.157	0.0504	0.124	0.202	0.124	0.0974	0.58	0.08	0.08	0.49	0.11	0.14
Phosphorus (P)-Total	mg/L	0.003	0.108	0.0799	0.0898	0.137	0.1	0.11	**0.144**	0.123	0.111	0.13	0.10	0.10	0.09	0.12	0.13
Sulfate (SO4)	mg/L	0.3	816	573	628	992	854	899	1310	**1360**	1250	1039.33	929.00	925.67	672.33	915.00	1306.67

Parameter	Units	LDL[f]	ANC 02A						Spring Average	Fall Average	2021	2022	2023
Anions and Nutrients (Water)		Date Sampled	22-Jun-2021	9-Sep-2021	2-Jun-2022	6-Sep-2022	1-Jun-2023	7-Sep-2023					
Acidity (as CaCO3)	mg/L	2	<2.0	3.10	**5.90**	<5.0	7.5	3.9	6.70	3.50	3.10	5.90	5.70
Bicarbonate (HCO3)	mg/L	1.2	186	238	**716.00**	167	104	238	335.33	214.33	212.00	441.50	171.00
Carbonate (CO3)	mg/L	0.6	<0.60	<0.60	<0.60	<0.60	<1.0	<1.0	-	-	-	-	-
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	<0.34	<0.34	<1.0	<1.0	-	-	-	-	-
Alkalinity, Total (as CaCO3)	mg/L	1	152.00	195.00	**587.00**	137	85.1	195	274.70	175.67	173.50	362.00	140.05
Ammonia, Total (as N)	mg/L	0.01	0.04	0.047	8.9	0.156	**21.60**	0.086	10.18	0.10	0.04	4.53	10.84
Chloride (Cl)	mg/L	0.1	21.30	21.30	35.30	43.5	57	**58.90**	37.87	41.23	21.30	39.40	57.95
Fluoride (F)	mg/L	0.02	0.167	0.325	0.39	0.328	**0.77**	0.367	0.44	0.34	0.25	0.36	0.57
Nitrate (as N)	mg/L	0.005	0.15	0.93	0.51	1.72	0.496	**1.81**	0.38	1.49	0.54	1.11	1.15
Nitrate and Nitrite as N	mg/L	0.0051	0.146	0.933	0.551	**2.02**	0.632	1.84	0.44	1.60	0.54	1.29	1.24
Nitrite (as N)	mg/L	0.001	0.01	0.002	0.04	**0.30**	0.136	0.0288	0.06	0.11	0.00	0.17	0.08
Phosphorus (P)-Total	mg/L	0.003	0.0312	0.035	0.0827	**0.13**	0.122	0.042	0.08	0.07	0.03	0.10	0.08
Sulfate (SO4)	mg/L	0.3	15.70	169.00	656.00	489	**1520.00**	219	730.57	292.33	92.35	572.50	869.50

Parameter	Units	LDL[f]	ANB 07A							Winter Average	Spring Average	Fall Average	2021	2022	2023
Anions and Nutrients (Water)		Date Sampled	17-Mar-2021	22-Jun-2021	9-Sep-2021	2-Jun-2022	6-Sep-2022	31-May-2023	6-Sep-2023						
Acidity (as CaCO3)	mg/L	2	2.90	2.20	<2.0	2.30	<2.0	**4.2**	<2.0	2.90	2.90	-	2.20	2.30	4.20
Bicarbonate (HCO3)	mg/L	1.2	80.5	78.4	80.5	74.9	**81.3**	73.9	80.9	80.50	75.73	80.70	79.45	78.10	77.40
Carbonate (CO3)	mg/L	0.6	<0.60	<0.60	<0.60	<0.60	<0.60	<1.0	<1.0	-	-	-			
Hydroxide (OH)	mg/L	0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<1.0	<1.0	-	-	-			
Alkalinity, Total (as CaCO3)	mg/L	1	66.00	64.30	66.00	61.40	**66.6**	60.6	66.3	66.00	62.10	66.15	65.15	64.00	63.45
Ammonia, Total (as N)	mg/L	0.01	<0.010	0.013	0.012	0.017	<0.010	**0.266**	0.014	-	0.10	0.01	0.01	0.02	0.14
Chloride (Cl)	mg/L	0.1	**5.43**	4.43	5.33	4.72	4.8	5	5.38	5.43	4.72	5.36	4.88	4.76	5.19
Fluoride (F)	mg/L	0.02	0.065	0.065	0.067	0.064	0.061	**0.078**	0.075	0.07	0.07	0.07	0.07	0.06	0.08
Nitrate (as N)	mg/L	0.005	0.07	**0.417**	<0.0050	<0.0050	<0.0050	0.0513	<0.0050	0.07	0.23	-	0.42	#DIV/0!	0.05
Nitrate and Nitrite as N	mg/L	0.0051	0.0667	**0.417**	<0.0051	<0.0051	<0.0051	0.0569	<0.0051	0.07	0.24	-	0.42	0.0051	0.06
Nitrite (as N)	mg/L	0.001	<0.0010	<0.0010	<0.0010	0.00	<0.0010	**0.0056**	0.0013	-	0.00	0.00	#DIV/0!	0.00	0.00
Phosphorus (P)-Total	mg/L	0.003	0.0208	0.0217	0.0256	0.0228	**0.0304**	<0.020	0.027	0.02	0.02	0.03	0.02	0.03	0.03
Sulfate (SO4)	mg/L	0.3	3.57	4.90	7.10	8.69	7.72	**26.9**	19.8	3.57	13.50	13.45	6.00	8.21	23.35

Table 3. Anderson TIA, Anderson Creek and Anderson Bay Water Analytical and Summary Stats - Cyanide

	AND 10														
	23-Jun-2021	8-Sep-2021	3-Mar-2022	2-Jun-2022	6-Sep-2022	15-Mar-2023	31-May-2023	7-Sep-2023	Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average	2021-2023 Average
Cyanides (Water)															
Cyanide, Weak Acid Diss (WAD)	-	-		0.0012	-	-	-	-	-	-	-	-	-	-	-
Cyanide, Total	-	-	0.0011	0.0063	-	-	-	-	0.0011	0.0063	-	-	0.004	-	-
Cyanide, Free	-	-	0.70	<0.0010	-	-	-	-	-	-	-	-	-	-	-

	AND 18								Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average	2021-2023 Average
	22-Jun-2021	8-Sep-2021	3-Mar-2022	2-Jun-2022	6-Sep-2022	14-Mar-2023	31-May-2023	7-Sep-2023							
Cyanides (Water)															
Cyanide, Weak Acid Diss (WAD)	-	<0.0010	<0.0010	0.0015	0.0010	0.0026	<0.0050	<0.0010	0.0026	0.0015	0.0010	-	0.0013	0.0026	0.0017
Cyanide, Total	-	0.0012	<0.0010	0.0076	0.0024	0.0166	0.0097	0.0017	0.0166	0.0087	0.0018	0.0012	0.0050	0.0093	0.0065
Cyanide, Free	-	<0.0010	<0.0010	0.0012	<0.0010	<0.0020	<0.0050	<0.0010	-	0.0012	-	-	0.0012	-	0.0012

	AND 20								Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average	2021-2023 Average
	23-Jun-2021	8-Sep-2021	3-Mar-2022	2-Jun-2022	6-Sep-2022	14-Mar-2023	31-May-2023	7-Sep-2023							
Cyanides (Water)															
Cyanide, Weak Acid Diss (WAD)	0.0015	<0.0010	<0.0010	0.0015	0.0011	0.0022	<0.0050	0.0012	0.0022	0.0015	0.0012	0.0015	0.0013	0.0017	0.0015
Cyanide, Total	<0.0010	<0.0010	0.0010	0.0070	0.0013	0.0142	0.0095	0.0012	0.0076	0.0083	0.0013	0.0010	0.0031	0.0083	0.0057
Cyanide, Free	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0020	<0.0050	<0.0010	-	0.0011	-	-	0.0011	-	0.0011

Table 4. Anderson TIA, Anderson Creek and Anderson Bay Water Analytical Summary Stats - Metals

Parameter	Units	LDL[f]	CCME WQG [a]	MDMER [b]	AND-10									Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average	2021-2023 Average
Date					16-Mar-21	23-Jun-21	08-Sep-21	02-Mar-22	02-Jun-22	06-Sep-22	15-Mar-23	31-May-23	07-Sep-23							
Conventional Parameters						-														
Alkalinity, Total (as CaCO3)	mg/L	1	-		27.9	19.2	15.6	41.1	47.2	52.1	100	78.9	76.8	56.33	48.43	48.17	20.90	46.80	85.23	50.98
Conductivity	umhos/cm	1	-		1240	1130	1400	2000	1660	1940	2550	2030	2470	1930.00	1606.67	1936.67	1256.67	1866.67	2350.00	1824.44
pH	pH units	0.1	6.5 - 9.0		6.98	7.29	7.2	7.49	7.35	7.79	7.89	7.92	7.85	7.45	7.52	7.61	7.16	7.54	7.89	7.53
Sulfate	mg/L	0.3	-		616	551	728	1020	834	937	1260	1280	1310	965.33	888.33	991.67	631.67	930.33	1283.33	948.44
Total Dissolved Solids	mg/L	4	-		921	886	1140	1520	1280	1490	1950	1550	2000	1463.67	1238.67	1543.33	982.33	1430.00	1833.33	1415.22
Total Suspended Solids	mg/L	5	-	30.00	<3.0	7.2	3.4	<3.0	6.5	6.8	2	3.8	4	2.00	5.83	4.73	5.30	6.65	3.27	4.81
Turbidity	NTU	0.10	8		5.27	4.13	2.96	3.84	7.41	1.67	2.07	4.36	3.18	3.73	5.30	2.60	4.12	4.31	3.20	3.88
Hardness (as CaCO3)	mg/L	0.2	-		629	537	857	980	-	813	1030	748	912	879.67	642.50	860.67	674.33	896.50	896.67	813.25
Total Metals																				
Aluminum	mg/L	0.003	0.1		0.126	0.0833	0.0738	0.0511	0.258	0.0569	0.0477	0.0796	0.0912	0.0749	0.1403	0.0740	0.0944	0.1220	0.0728	0.0964
Antimony	mg/L	0.0001			0.00782	0.00789	0.00997	0.0138	0.00835	0.00886	0.0103	0.00864	0.0109	0.0106	0.0083	0.0099	0.0086	0.0103	0.0099	0.0096
Arsenic	mg/L	0.0001	0.005	0.60	0.00681	0.00591	0.00471	0.00789	0.00644	0.00547	0.00953	0.00919	0.00753	0.0081	0.0072	0.0059	0.0058	0.0066	0.0088	0.0071
Barium	mg/L	0.0001			0.0428	0.0328	0.0371	0.0475	0.0389	0.0538	0.056	0.0429	0.053	0.0488	0.0382	0.0480	0.0376	0.0467	0.0506	0.0450
Beryllium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000020	<0.000020	-	-	-				-
Bismuth	mg/L	0.00005			<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	-	-	-				-
Boron	mg/L	0.01	1.5		0.023	0.011	0.012	0.025	0.013	0.022	0.026	0.016	0.016	0.0247	0.0133	0.0167	0.0153	0.0200	0.0193	0.0182
Cadmium	mg/L	0.000005	0.00037		0.000955	0.000371	0.00034	0.000505	0.00045	0.000135	0.000424	0.000283	0.000343	0.0006	0.0004	0.0003	0.0006	0.0004	0.0004	0.0004
Calcium	mg/L	0.05			248	186	254	426	258	317	392	285	340	355.3333	243.0000	303.6667	229.3333	333.6667	339.0000	300.6667
Cesium	mg/L	0.00001			0.000016	0.000018	0.000021	0.000023	0.000027	0.000034	0.000035	0.000027	0.000042	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Chromium	mg/L	0.0001	0.001		0.0003	0.00013	<0.00010	0.00013	0.00021	<0.00010	<0.00050	<0.00050	<0.00050	0.0002	0.0002	-	0.0002	0.0002	-	0.0002
Cobalt	mg/L	0.0001			0.00349	0.00064	0.00101	0.00355	0.0085	0.00646	0.011	0.0076	0.0164	0.0060	0.0056	0.0080	0.0017	0.0062	0.0117	0.0065
Copper	mg/L	0.0005	0.004	0.60	0.035	0.0183	0.0373	0.0478	0.151	0.0232	0.069	0.0393	0.149	0.0506	0.0695	0.0698	0.0302	0.0740	0.0858	0.0633
Iron	mg/L	0.01	0.3		1.16	0.353	0.266	0.333	0.81	0.095	0.211	0.273	0.165	0.5680	0.4787	0.1753	0.5930	0.4127	0.2163	0.4073
Lead	mg/L	0.00005	0.007	0.20	0.0168	0.01	0.0104	0.0144	0.0155	0.00196	0.00303	0.00627	0.00651	0.0114	0.0106	0.0063	0.0124	0.0106	0.0053	0.0094
Lithium	mg/L	0.001			0.0072	0.0039	0.0061	0.0089	0.0067	0.0064	0.0084	0.0063	0.0089	0.0082	0.0056	0.0071	0.0057	0.0073	0.0079	0.0070
Magnesium	mg/L	0.005			10	7.99	9.48	12.9	8.84	10.2	12.2	9.32	10.1	11.7000	8.7167	9.9267	9.1567	10.6467	10.5400	10.1144
Manganese	mg/L	0.0001			0.552	0.122	0.115	0.379	0.26	0.0417	0.405	0.211	0.0798	0.4453	0.1977	0.0788	0.2630	0.2269	0.2319	0.2406
Mercury	mg/L	0.0000005	0.000026		0.0000189	0.00745			-	-	-		-	0.0000	0.0075	-	0.0037	-	-	0.0037
Molybdenum	mg/L	0.00005	0.073		0.00522	0.00108	0.0121	0.0192	0.0189	0.0228	0.0318	0.0245	0.0388	0.0187	0.0148	0.0246	0.0061	0.0203	0.0317	0.0194
Nickel	mg/L	0.0005	0.15	1.00	0.00167	0.07	0.00092	0.00133	0.00121	0.00076	0.00138	0.00136	0.00123	0.0015	0.0242	0.0010	0.0242	0.0011	0.0013	0.0089
Phosphorus	mg/L	0.05			0.13	10	0.102	0.131	0.103	0.139	0.143	0.100 0.100	0.126	0.1347	5.0515	0.1223	3.4107	0.1243	0.1345	1.3593
Potassium	mg/L	0.05			13.4	0.00694	14	19.9	15.6	19.2	22.8	17.6	23.8	18.7000	11.0690	19.0000	9.1356	18.2333	21.4000	16.2563
Rubidium	mg/L	0.0002			0.00844	0.00858	0.00891	0.0125	0.00951	0.0127	0.0147	0.0114	0.0155	0.0119	0.0098	0.0124	0.0086	0.0116	0.0139	0.0114
Selenium	mg/L	0.00005	0.001		0.00528	0.29	0.0149	0.0134	0.0157	0.0183	0.0307	0.0326	0.0459	0.0165	0.1128	0.0264	0.1034	0.0158	0.0364	0.0519
Silicon	mg/L	0.1			1.86	0.000107	0.42	1.16	1.98	1.86	2.95	2.42	2.66	1.9900	1.4667	1.6467	0.7600	1.6667	2.6767	1.7011
Silver	mg/L	0.00001	0.00025		0.000101	15.5	0.000158	0.000359	0.000611	0.000088	0.000359	0.000293	0.000212	0.0003	5.1670	0.0002	5.1668	0.0004	0.0003	1.7225
Sodium	mg/L	0.05			19.9	0.311	31.9	68.4	96.7	134	192	152	241	93.4333	83.0037	135.6333	17.3703	99.7000	195.0000	104.0234
Strontium	mg/L	0.0002			0.389	188	0.443	0.698	0.473	0.581	0.678	0.517	0.635	0.5883	62.9967	0.5530	62.9440	0.5840	0.6100	21.3793
Tellurium	mg/L	0.0002			<0.00020	<0.00020	<0.00020	0.00021	0.00027	<0.00020	<0.00020	<0.00020	0.00025	0.0002	0.0003	0.0003	-	0.0002	0.0003	0.0002
Thallium	mg/L	0.00001	0.0008		0.000064	0.000063	0.000065	0.000048	0.000073	0.000061	0.000061	0.000083	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Thorium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-	-	-	-	-	-	-
Tin	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	0.00012	<0.00010	<0.00010	<0.00010	<0.00010	-	0.0001	-	-	0.0001	-	0.0001
Titanium	mg/L	0.0003			0.00408	0.00165	0.00089	0.00117	0.00449	0.00094	0.00054	0.00241	0.00114	0.0019	0.0029	0.0010	0.0022	0.0022	0.0014	0.0019
Tungsten	mg/L	0.0001			0.00015	0.00022	0.00024	0.00051	0.0006	0.0006	0.00097	0.00102	0.00111	0.0005	0.0006	0.0007	0.0002	0.0006	0.0010	0.0006
Uranium	mg/L	0.00001	0.015		0.000084	0.000076	0.000072	0.000172	0.000218	0.000189	0.000227	0.000197	0.000334	0.0002	0.0002	0.0002	0.0001	0.0002	0.0003	0.0002
Vanadium	mg/L	0.0005			<0.00050	<0.00050	<0.00050	<0.00050	0.00058	<0.00050	<0.00050	<0.00050	<0.00050	-	0.0006	-	-	0.0006	-	0.0006
Zinc	mg/L	0.003	0.03	1.00	0.454	0.144	0.132	0.196	0.14	0.0247	0.0546	0.0381	0.0488	0.2349	0.1074	0.0685	0.2433	0.1202	0.0472	0.1369
Zirconium	mg/L	0.00006			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-	-	-				-

LDL = lowest detection limit; TDS = total dissolved solids; TSS = total suspended solids; µmhos/cm = micromhos

Notes:

[a] *Canadian Council of Ministers of Environment (CCME) Water Quality Guidelines (2011) for the Protection of*

[b] *Metal and Diamond Mining Effluent Regulations (MDMER) SOR/2002-222 Maximum Authorized Concentration in*

[1] Cadmium and Copper standards represented are based on average hardness within the Anderson TIA

[2] Aluminum standard presented is based on average hardness within the Anderson TIA pH >6.5. Where pH < 6.5,

Table 4. Anderson TIA, Anderson Creek and Anderson Bay Water Analytical Summary Stats - Metals

Parameter	Units	LDL[f]	CCME WQG [a]	MDMER [b]	AND-18									Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average	2021-2023 Average
Date					17-Mar-21	22-Jun-21	08-Sep-21	03-Mar-22	02-Jun-22	07-Sep-22	14-Mar-23	31-May-23	07-Sep-23							
											Dup (AND-18)									
Conventional Parameters					-	-														
Alkalinity, Total (as CaCO3)	mg/L	1	-		30.7	24.7	27.1	52.7	47.5	55.5	115	82.8	78.2	66.13	51.67	53.60	27.50	51.90	92.00	57.13
Conductivity	umhos/cm	1	-		1610	1150	1280	1870	1700	1900	2600	2200	2370	2026.67	1683.33	1850.00	1346.67	1823.33	2390.00	1853.33
pH	pH units	0.1	6.5 - 9.0		7.16	7.34	7.48	7.42	7.38	7.63	7.91	7.9	7.91	7.50	7.54	7.67	7.33	7.48	7.91	7.57
Sulfate	mg/L	0.3	-		828	566	648	964	872	920	1280	1180	1260	1024.00	872.67	942.67	680.67	918.67	1240.00	946.44
Total Dissolved Solids	mg/L	4	-		1220	901	1020	1440	1270	1420	2000	1700	1860	1553.33	1290.33	1433.33	1047.00	1376.67	1853.33	1425.67
Total Suspended Solids	mg/L	5	-	30.00	<3.0	4	<3.0	<3.0	7.5	5	2.4	3.2	1.5	2.40	4.90	3.25	4.00	6.25	2.37	3.93
Turbidity	NTU	0.10	8		3.16	3.67	1.96	4.04	7.54	2.46	2.05	4.1	1.11	3.08	5.10	1.84	2.93	4.68	2.42	3.34
Hardness (as CaCO3)	mg/L	0.2	-		848	571	787	1060		712	1050	824	875	986.00	697.50	791.33	735.33	886.00	916.33	840.88
Total Metals																				
Aluminum	mg/L	0.003	0.1		0.0411	0.0573	0.0297	0.057	0.162	0.0414	0.0545	0.0853	0.0318	0.05	0.10	0.03	0.04	0.09	0.06	0.06
Antimony	mg/L	0.0001			0.0155	0.00756	0.00771	0.0111	0.00919	0.00733	0.0102	0.0108	0.0105	0.0123	0.0092	0.0085	0.0103	0.0092	0.0105	0.0100
Arsenic	mg/L	0.0001	0.005	0.60	0.00826	0.00399	0.00344	0.0159	0.00624	0.00505	0.0104	0.0122	0.00657	0.0115	0.0075	0.0050	0.0052	0.0091	0.0097	0.0080
Barium	mg/L	0.0001			0.037	0.035	0.0321	0.0531	0.0422	0.0463	0.0577	0.0457	0.0563	0.0493	0.0410	0.0449	0.0347	0.0472	0.0532	0.0450
Beryllium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000020	<0.000020	-	-	-				-
Bismuth	mg/L	0.00005			<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	-	-	-				-
Boron	mg/L	0.01	1.5		0.019	0.012	0.013	0.023	0.013	0.017	0.028	0.019	0.014	0.0233	0.0147	0.0147	0.0147	0.0177	0.0203	0.0176
Cadmium	mg/L	0.000005	0.00037		0.000454	0.000324	0.000266	0.00025	0.000212	0.0000571	0.000532	0.000322	0.00027	0.0004	0.0003	0.0002	0.0003	0.0002	0.0004	0.0003
Calcium	mg/L	0.05			342	198	264	375	279	306	400	324	334	372.3333	267.0000	301.3333	268.0000	320.0000	352.6667	313.5556
Cesium	mg/L	0.00001			0.000012	0.00002	0.000016	0.00002	0.00003	0.00003	0.000029	0.000028	0.000039	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Chromium	mg/L	0.0001	0.001		0.00017	0.00013	<0.00010	<0.00010	0.0003	<0.00010	<0.00050	<0.00050	<0.00050	0.0002	0.0002	-	0.0002	0.0003	-	0.0002
Cobalt	mg/L	0.0001			0.0014	0.00056	0.00032	0.00141	0.000689	0.00532	0.0112	0.00925	0.00801	0.0047	0.0035	0.0046	0.0008	0.0025	0.0095	0.0042
Copper	mg/L	0.0005	0.004	0.60	0.054	0.0128	0.0149	0.0191	0.0877	0.0132	0.0893	0.0441	0.0172	0.0541	0.0482	0.0151	0.0272	0.0400	0.0502	0.0391
Iron	mg/L	0.01	0.3		0.476	0.208	0.11	0.474	0.525	0.085	0.152	0.223	0.083	0.3673	0.3187	0.0927	0.2647	0.3613	0.1527	0.2596
Lead	mg/L	0.00005	0.007	0.20	0.0051	0.00422	0.00276	0.00968	0.00917	0.00128	0.00372	0.0067	0.00191	0.0062	0.0067	0.0020	0.0040	0.0067	0.0041	0.0049
Lithium	mg/L	0.001			0.0086	0.0043	0.0067	0.0093	0.0066	0.006	0.008	0.0069	0.0083	0.0086	0.0059	0.0070	0.0065	0.0073	0.0077	0.0072
Magnesium	mg/L	0.005			10.9	8.1	9.69	11.9	9.02	10.3	12.3	10.2	9.89	11.7000	9.1067	9.9600	9.5633	10.4067	10.7967	10.2556
Manganese	mg/L	0.0001			0.306	0.131	0.087	0.414	0.271	0.0782	0.256	0.215	0.0957	0.3253	0.2057	0.0870	0.1747	0.2544	0.1889	0.2060
Mercury	mg/L	0.0000005	0.000026		0.0000263	0.00704					-		-	0.0000	0.0070	-	0.0035	-	-	0.0035
Molybdenum	mg/L	0.00005	0.073		0.0129	0.00124	0.00841	0.0119	0.0168	0.0196	0.0281	0.0255	0.0397	0.0176	0.0145	0.0226	0.0075	0.0161	0.0311	0.0182
Nickel	mg/L	0.0005	0.15	1.00	0.0017	0.075	0.00095	0.0009	0.00104	0.00071	0.00154	0.00166	0.00129	0.0014	0.0259	0.0010	0.0259	0.0009	0.0015	0.0094
Phosphorus	mg/L	0.05			0.122	10.4	0.103	0.124	0.122	0.115	0.154	0.125 0.125	0.126	0.1333	5.2610	0.1147	3.5417	0.1203	0.1400	1.4083
Potassium	mg/L	0.05			15.5	0.00723	12.8	20.1	17	17.2	23.6	19.5	21.9	19.7333	12.1691	17.3000	9.4357	18.1000	21.6667	16.4008
Rubidium	mg/L	0.0002			0.00981	0.00681	0.00832	0.0118	0.0105	0.0111	0.0144	0.0129	0.0144	0.0120	0.0101	0.0113	0.0083	0.0111	0.0139	0.0111
Selenium	mg/L	0.00005	0.001		0.0091	0.19	0.00641	0.00729	0.0184	0.0151	0.0346	0.0448	0.0301	0.0170	0.0844	0.0172	0.0685	0.0136	0.0365	0.0395
Silicon	mg/L	0.1			1.28	0.000048	0.13	1.74	1.76	2.12	2.91	2.64	2.71	1.9767	1.4667	1.6533	0.4700	1.8733	2.7533	1.6989
Silver	mg/L	0.00001	0.00025		0.000197	16.2	0.000024	0.000201	0.000317	0.000039	0.00039	0.000332	0.00093	0.0003	5.4002	0.0001	5.4001	0.0002	0.0003	1.8002
Sodium	mg/L	0.05			25.8	0.313	21.5	48.4	83.3	118	199	174	203	91.0667	85.8710	114.1667	15.8710	83.2333	192.0000	97.0348
Strontium	mg/L	0.0002			0.53	198	0.402	0.699	0.522	0.53	0.662	0.577	0.649	0.6303	66.3663	0.5270	66.3107	0.5837	0.6293	22.5079
Tellurium	mg/L	0.0002			<0.00020	<0.00020	<0.00020	<0.00020	0.00026	<0.00020	<0.00020	<0.00020	<0.00020	-	0.0003	-	-	0.0003	-	0.0003
Thallium	mg/L	0.00001	0.0008		0.000041	0.000044	0.000045	0.000027	0.000038	0.000034	0.00007	0.000106	0.000077	0.0000	0.0001	0.0001	0.0000	0.0000	0.0001	0.0001
Thorium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-	-	-	-	-	-	-
Tin	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	0.00015	<0.00010	<0.00010	<0.00010	<0.00010	-	0.0002	-	-	0.0002	-	0.0002
Titanium	mg/L	0.0003			0.0005	0.00182	0.00063	0.00075	0.00588	0.00185	0.00082	0.00184	0.0005	0.0007	0.0032	0.0010	0.0010	0.0028	0.0011	0.0016
Tungsten	mg/L	0.0001			0.00076	0.00023	0.00014	0.0009	0.00077	0.00052	0.0012	0.00128	0.00086	0.0010	0.0008	0.0005	0.0004	0.0007	0.0011	0.0007
Uranium	mg/L	0.00001	0.015		0.000086	0.000083	0.000067	0.000092	0.000192	0.000185	0.000211	0.000188	0.000338	0.0001	0.0002	0.0002	0.0001	0.0002	0.0002	0.0002
Vanadium	mg/L	0.0005			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	-	-	-	-	-	-	-
Zinc	mg/L	0.003	0.03	1.00	0.153	0.117	0.145	0.0886	0.0665	0.0151	0.055	0.0425	0.0458	0.0989	0.0753	0.0686	0.1383	0.0567	0.0478	0.0809
Zirconium	mg/L	0.00006			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-	-	-				-

LDL = lowest detection limit; TDS = total dissolved solids; TSS = total suspended solids; µmhos/cm = micromhos

Notes:

[a] *Canadian Council of Ministers of Environment (CCME) Water Quality Guidelines (2011) for the Protection of*

[b] *Metal and Diamond Mining Effluent Regulations (MDMER) SOR/2002-222 Maximum Authorized Concentration in*

[1] Cadmium and Copper standards represented are based on average hardness within the Anderson TIA

[2] Aluminum standard presented is based on average hardness within the Anderson TIA pH >6.5. Where pH < 6.5,

Table 4. Anderson TIA, Anderson Creek and Anderson Bay Water Analytical Summary Stats - Metals

Parameter	Units	LDL[f]	CCME WQG [a]	MDMER [b]	AND-20									Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average	2021-2023 Average
Date					17-Mar-21	23-Jun-21	08-Sep-21	03-Mar-22	02-Jun-22	07-Sep-22	14-Mar-23	31-May-23	07-Sep-23							
Conventional Parameters					-	-														
Alkalinity, Total (as CaCO3)	mg/L	1	-		21.2	24.9	26.7	46.8	47.1	57.1	114	83.7	81.8	60.67	51.90	55.20	24.27	50.33	93.17	55.92
Conductivity	umhos/cm	1	-		1580	1170	1250	1920	1680	1860	2620	2230	2350	2040.00	1693.33	1820.00	1333.33	1820.00	2400.00	1851.11
pH	pH units	0.1	6.5 - 9.0		6.84	7.44	7.39	7.43	7.4	7.66	7.92	7.92	7.83	7.40	7.59	7.63	7.22	7.50	7.89	7.54
Sulfate	mg/L	0.3	-		816	573	628	992	854	899	1310	1360	1250	1039.33	929.00	925.67	672.33	915.00	1306.67	964.67
Total Dissolved Solids	mg/L	4	-		1150	890	947	1510	1310	1390	1870	1630	1800	1510.00	1276.67	1379.00	995.67	1403.33	1766.67	1388.56
Total Suspended Solids	mg/L	5	-	30.00	<3.0	4.4	<3.0	<3.0	5.7	5.8	2.1	2.7	2.1	2.10	4.27	3.95	4.40	5.75	2.30	3.80
Turbidity	NTU	0.10	8		2.67	3	1.48	3.31	6.07	2.53	2.16	3.49	1.01	2.71	4.19	1.67	2.38	3.97	2.22	2.86
Hardness (as CaCO3)	mg/L	0.2	-		840	558	616	1010		681	1050	817	868	966.67	687.50	721.67	671.33	845.50	911.67	805.00
Total Metals																				
Aluminum	mg/L	0.003	0.1		0.0329	0.0446	0.0267	0.0597	0.18	0.0376	0.0615	0.0692	0.0208	0.0514	0.0979	0.0284	0.0347	0.0924	0.0505	0.0592
Antimony	mg/L	0.0001			0.0156	0.00756	0.00739	0.0149	0.00954	0.00665	0.0104	0.0106	0.0102	0.0136	0.0092	0.0081	0.0102	0.0104	0.0104	0.0103
Arsenic	mg/L	0.0001	0.005	0.60	0.00834	0.00394	0.00328	0.014	0.00599	0.00489	0.01	0.0115	0.00675	0.0108	0.0071	0.0050	0.0052	0.0083	0.0094	0.0076
Barium	mg/L	0.0001			0.0364	0.0342	0.0301	0.0523	0.0441	0.0465	0.0578	0.0468	0.0588	0.0488	0.0417	0.0451	0.0336	0.0476	0.0545	0.0452
Beryllium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000020	<0.000020	-	-	-				-
Bismuth	mg/L	0.00005			<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	-	-	-				-
Boron	mg/L	0.01	1.5		0.019	0.013	0.013	0.029	0.013	0.017	0.027	0.023	0.011	0.0250	0.0163	0.0137	0.0150	0.0197	0.0203	0.0183
Cadmium	mg/L	0.000005	0.00037		0.000391	0.000256	0.000181	0.000337	0.00016	0.0000437	0.000569	0.000282	0.000114	0.0004	0.0002	0.0001	0.0003	0.0002	0.0003	0.0003
Calcium	mg/L	0.05			340	205	257	370	293	305	403	319	342	371.0000	272.3333	301.3333	267.3333	322.6667	354.6667	314.8889
Cesium	mg/L	0.00001			<0.000010	0.000016	0.000013	0.000021	0.000026	0.000027	0.000026	0.000027	0.000036	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Chromium	mg/L	0.0001	0.001		<0.00010	0.00013	<0.00010	<0.00010	0.00034	<0.00010	<0.00050	<0.00050	<0.00050	-	0.0002	-	0.0001	0.0003	#DIV/0!	0.0002
Cobalt	mg/L	0.0001			0.00112	0.00048	0.00022	0.00164	0.00616	0.00506	0.0109	0.00931	0.0062	0.0046	0.0053	0.0038	0.0006	0.0043	0.0088	0.0046
Copper	mg/L	0.0005	0.004	0.60	0.0327	0.0104	0.00771	0.0222	0.0647	0.0113	0.0863	0.0431	0.00556	0.0471	0.0394	0.0082	0.0169	0.0327	0.0450	0.0316
Iron	mg/L	0.01	0.3		0.285	0.169	0.089	0.335	0.481	0.074	0.139	0.193	0.108	0.2530	0.2810	0.0903	0.1810	0.2967	0.1467	0.2081
Lead	mg/L	0.00005	0.007	0.20	0.00556	0.00273	0.00107	0.00973	0.0695	0.000398	0.0037	0.00547	0.00103	0.0063	0.0259	0.0008	0.0031	0.0265	0.0034	0.0110
Lithium	mg/L	0.001			0.0084	0.0046	0.0068	0.0102	0.0063	0.006	0.0084	0.0082	0.0076	0.0090	0.0064	0.0068	0.0066	0.0075	0.0081	0.0074
Magnesium	mg/L	0.005			10	8.33	9.8	13.3	9.01	10	12.1	11	10	11.8000	9.4467	9.9333	9.3767	10.7700	11.0333	10.3933
Manganese	mg/L	0.0001			0.276	0.133	0.0715	0.414	0.264	0.103	0.228	0.224	0.116	0.3060	0.2070	0.0968	0.1602	0.2603	0.1893	0.2033
Mercury	mg/L	0.0000005	0.000026		0.0000191	0.00698				-	-	-	-	0.0000	0.0070	-	0.0035	#DIV/0!	#DIV/0!	0.0035
Molybdenum	mg/L	0.00005	0.073		0.0112	0.00111	0.0082	0.0156	0.0166	0.0177	0.028	0.0249	0.0414	0.0183	0.0142	0.0224	0.0068	0.0166	0.0314	0.0183
Nickel	mg/L	0.0005	0.15	1.00	0.00141	0.08	0.00082	0.00107	0.00095	0.00072	0.00148	0.00163	0.00109	0.0013	0.0275	0.0009	0.0274	0.0009	0.0014	0.0099
Phosphorus	mg/L	0.05			0.101	10.8	0.097	0.153	0.123	0.103	0.136	0.125 0.125	0.12	0.1300	5.4615	0.1067	3.6660	0.1263	0.1280	1.4541
Potassium	mg/L	0.05			15	0.00706	12.6	21.5	15.7	16.5	22.9	20.8	21.1	19.8000	12.1690	16.7333	9.2024	17.9000	21.6000	16.2341
Rubidium	mg/L	0.0002			0.00917	0.00551	0.00813	0.0131	0.0102	0.0109	0.0142	0.0122	0.0144	0.0122	0.0093	0.0111	0.0076	0.0114	0.0136	0.0109
Selenium	mg/L	0.00005	0.001		0.00823	0.13	0.00512	0.0129	0.0151	0.0132	0.035	0.0497	0.0168	0.0187	0.0649	0.0117	0.0478	0.0137	0.0338	0.0318
Silicon	mg/L	0.1			1.08	0.000034	0.22	1.38	1.75	2.33	2.98	2.69	3.23	1.8133	1.4800	1.9267	0.4333	1.8200	2.9667	1.7400
Silver	mg/L	0.00001	0.00025		0.000143	17.2	<0.000010	0.00019	0.000243	0.000025	0.00043	0.000313	0.000022	0.0003	5.7335	0.0000	8.6001	0.0002	0.0003	2.1502
Sodium	mg/L	0.05			24.6	0.329	20	52	76.2	113	196	198	190	90.8667	91.5097	107.6667	14.9763	80.4000	194.6667	96.6810
Strontium	mg/L	0.0002			0.518	195	0.388	0.698	0.548	0.533	0.678	0.592	0.633	0.6313	65.3800	0.5180	65.3020	0.5930	0.6343	22.1764
Tellurium	mg/L	0.0002			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-	-	-	-	-	-	-
Thallium	mg/L	0.00001	0.0008		0.000042	0.000038	0.000033	0.000042	0.000032	0.000023	0.000077	0.000094	0.000046	0.0001	0.00005	0.00003	0.00004	0.00003	0.00007	0.0000
Thorium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-	-	-	-	-	-	-
Tin	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010	0.0001	-	-	-	-	0.0001	0.0001
Titanium	mg/L	0.0003			0.00047	0.00158	0.00101	0.00078	0.00777	0.00161	0.00073	0.0012	0.00073	0.0007	0.0035	0.0011	0.0010	0.0034	0.0009	0.0018
Tungsten	mg/L	0.0001			0.00075	0.00024	0.00013	0.00072	0.0008	0.00052	0.00113	0.00123	0.00061	0.0009	0.0008	0.0004	0.0004	0.0007	0.0010	0.0007
Uranium	mg/L	0.00001	0.015		0.000073	0.000073	0.000064	0.000098	0.000169	0.00018	0.000216	0.000174	0.000378	0.0001	0.0001	0.0002	0.0001	0.0001	0.0003	0.0002
Vanadium	mg/L	0.0005			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	-	-	-	-	-	-	-
Zinc	mg/L	0.003	0.03	1.00	0.126	0.0973	0.112	0.129	0.0519	0.0095	0.0533	0.0335	0.0454	0.10	0.06	0.06	0.11	0.06	0.04	0.07
Zirconium	mg/L	0.00006			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-	-	-				-

LDL = lowest detection limit; TDS = total dissolved solids; TSS = total suspended solids; µmhos/cm = micromhos

Notes:

[a] *Canadian Council of Ministers of Environment (CCME) Water Quality Guidelines (2011) for the Protection of*

[b] *Metal and Diamond Mining Effluent Regulations (MDMER) SOR/2002-222 Maximum Authorized Concentration in*

[1] Cadmium and Copper standards represented are based on average hardness within the Anderson TIA

[2] Aluminum standard presented is based on average hardness within the Anderson TIA pH >6.5. Where pH < 6.5,

Table 4. Anderson TIA, Anderson Creek and Anderson Bay Water Analytical Summary Stats - Metals

Parameter	Units	LDL[f]	CCME WQG [a]	MDMER [b]	ANC-02A						Spring Average	Fall Average	2021 Average	2022 Average	2023 Average	2021-2023 Average
Date					22-Jun-21	09-Sep-21	02-Jun-22	06-Sep-22	01-Jun-23	07-Sep-23						
Conventional Parameters					-											
Alkalinity, Total (as CaCO3)	mg/L	1	-		152.0	195.0	587.0	137.0	85.1	195	274.70	175.67	173.50	362.00	140.05	225.18
Conductivity	umhos/cm	1	-		373	767	1390	1290	2130	950	1297.67	1002.33	570.00	1340.00	1540.00	1150.00
pH	pH units	0.1	6.5 - 9.0		8.27	8.21	7.53	8.11	7.95	8.02	7.92	8.11	8.24	7.82	7.99	8.02
Sulfate	mg/L	0.3	-		16	169	656	489	1520	219	730.57	292.33	92.35	572.50	869.50	511.45
Total Dissolved Solids	mg/L	4	-		262	512	1050	962	1700	620	1004.00	698.00	387.00	1006.00	1160.00	851.00
Total Suspended Solids	mg/L	5	-	30.00	5.2	<3.0	11.9	3.8	4	13.6	7.03	8.70	5.20	7.85	8.80	7.70
Turbidity	NTU	0.10	8		11.20	1.29	5.94	1.59	3.73	23.3	6.96	8.73	6.25	3.77	13.52	7.84
Hardness (as CaCO3)	mg/L	0.2	-		167	350		506	798	331	482.50	395.67	258.50	506.00	564.50	430.40
Total Metals																
Aluminum	mg/L	0.003	0.1		0.5640	0.2350	0.4620	0.2040	0.0936	0.871	0.37	0.44	0.40	0.33	0.48	0.40
Antimony	mg/L	0.0001			0.00147	0.00305	0.00688	0.00331	0.0101	0.00358	0.01	0.00	0.00	0.01	0.01	0.00
Arsenic	mg/L	0.0001	0.005	0.60	0.00469	0.00303	0.00476	0.00562	0.0106	0.00375	0.01	0.00	0.00	0.01	0.01	0.01
Barium	mg/L	0.0001			0.0223	0.0186	0.0461	0.0321	0.0487	0.043	0.04	0.03	0.02	0.04	0.05	0.04
Beryllium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	0.000029	-	0.00	-	-	0.00	0.00
Bismuth	mg/L	0.00005			<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	-	-	-	-	-	-
Boron	mg/L	0.01	1.5		0.028	0.047	0.016	0.037	0.019	0.028	0.0210	0.0373	0.0375	0.0265	0.0235	0.0292
Cadmium	mg/L	0.000005	0.00037		0.000051	0.000033	0.000120	0.000111	0.000242	0.0000221	0.0001	0.0001	0.0000	0.0001	0.0001	0.0001
Calcium	mg/L	0.05			39	109	220	197	321	104	193.1667	136.6667	73.7500	208.5000	212.5000	164.9167
Cesium	mg/L	0.00001			0.000050	0.000028	0.000056	0.000024	0.000029	0.000077	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
Chromium	mg/L	0.0001	0.001		0.00106	0.00057	0.00095	0.00066	<0.00050	0.00164	0.0010	0.0010	0.0008	0.0008	0.0016	0.0010
Cobalt	mg/L	0.0001			0.00038	0.00031	0.00482	0.00179	0.00842	0.00074	0.0045	0.0009	0.0003	0.0033	0.0046	0.0027
Copper	mg/L	0.0005	0.004	0.60	0.00839	0.00563	0.04520	0.01270	0.0367	0.00719	0.0301	0.0085	0.0070	0.0290	0.0219	0.0193
Iron	mg/L	0.01	0.3		0.722	0.439	0.716	0.708	0.216	0.782	0.5513	0.6430	0.5805	0.7120	0.4990	0.5972
Lead	mg/L	0.00005	0.007	0.20	0.000597	0.000470	0.004220	0.000984	0.00561	0.00042	0.0035	0.0006	0.0005	0.0026	0.0030	0.0021
Lithium	mg/L	0.001			0.0041	0.0072	0.0066	0.0068	0.0075	0.0071	0.0061	0.0070	0.0057	0.0067	0.0073	0.0066
Magnesium	mg/L	0.005			16.00	21.00	10.70	17.80	10.4	19.2	12.3667	19.3333	18.5000	14.2500	14.8000	15.8500
Manganese	mg/L	0.0001			0.0605	0.0330	0.2070	0.3410	0.204	0.0586	0.1572	0.1442	0.0468	0.2740	0.1313	0.1507
Mercury	mg/L	0.0000005	0.000026		0.00309			-		-	0.0031		0.0031	-	-	0.0031
Molybdenum	mg/L	0.00005	0.073		0.00178	0.00699	0.01160	0.00725	0.0243	0.014	0.0126	0.0094	0.0044	0.0094	0.0192	0.0110
Nickel	mg/L	0.0005	0.15	1.00	0.03800	0.00123	0.00135	0.00143	0.00151	0.00194	0.0136	0.0015	0.0196	0.0014	0.0017	0.0076
Phosphorus	mg/L	0.05			3.810	0.054	0.107	0.161	0.117 0.117	<0.050	1.9585	0.1075	1.9320	0.1340	-	1.0330
Potassium	mg/L	0.05			0.0	7.9	14.3	11.2	19.5	8.29	11.2674	9.1400	3.9662	12.7500	13.8950	10.2037
Rubidium	mg/L	0.0002			0.00172	0.00364	0.00867	0.00453	0.0129	0.00397	0.0078	0.0040	0.0027	0.0066	0.0084	0.0059
Selenium	mg/L	0.00005	0.001		3.41000	0.00305	0.01380	0.00789	0.039	0.00779	1.1543	0.0062	1.7065	0.0108	0.0234	0.5803
Silicon	mg/L	0.1			0.00	0.87	2.70	3.15	2.67	2.84	1.7900	2.2867	0.4350	2.9250	2.7550	2.0383
Silver	mg/L	0.00001	0.00025		14.80	<0.000010	0.000186	0.000015	0.000312	<0.000010	4.9335	0.0000	14.8000	0.0001	0.0003	3.7001
Sodium	mg/L	0.05			0.1	29.8	61.1	76.7	168	63.6	76.3938	56.7000	14.9408	68.9000	115.8000	66.5469
Strontium	mg/L	0.0002			5.720	0.203	0.421	0.358	0.579	0.237	2.2400	0.2660	2.9615	0.3895	0.4080	1.2530
Tellurium	mg/L	0.0002			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-	-	-	-	-	-
Thallium	mg/L	0.00001	0.0008		0.000012	0.000013	0.000025	0.000012	0.000094	0.000014	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
Thorium	mg/L	0.0001			0.00016	<0.00010	0.00013	<0.00010	<0.00010	0.00016	0.0001	0.0002	0.0002	0.0001	0.0002	0.0002
Tin	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-	-	-	-	-	-
Titanium	mg/L	0.0003			0.02280	0.01210	0.02400	0.01290	0.00252	0.0373	0.0164	0.0208	0.0175	0.0185	0.0199	0.0186
Tungsten	mg/L	0.0001			0.00017	0.00020	0.00055	0.00024	0.00117	0.00031	0.0006	0.0003	0.0002	0.0004	0.0007	0.0004
Uranium	mg/L	0.00001	0.015		0.000654	0.001540	0.000340	0.000896	0.000205	0.002	0.0004	0.0015	0.0011	0.0006	0.0011	0.0009
Vanadium	mg/L	0.0005			0.00204	0.00111	0.00121	0.00123	<0.00050	0.00206	0.0016	0.0015	0.0016	0.0012	0.0021	0.0015
Zinc	mg/L	0.003	0.03	1.00	0.021	0.026	0.043	0.027	0.0333	0.0086	0.0324	0.0203	0.0233	0.0349	0.0210	0.0264
Zirconium	mg/L	0.00006			0.00094	0.00049	0.00047	0.00025	<0.00020	0.00077	0.0007	0.0005	0.0007	0.0004	0.0008	0.0006

LDL = lowest detection limit; TDS = total dissolved solids; TSS = total suspended solids; µmhos/cm = micromhos

Notes:

[a] *Canadian Council of Ministers of Environment (CCME) Water Quality Guidelines (2011) for the Protection of*

[b] *Metal and Diamond Mining Effluent Regulations (MDMER) SOR/2002-222 Maximum Authorized Concentration in*

[1] Cadmium and Copper standards represented are based on average hardness within the Anderson TIA

[2] Aluminum standard presented is based on average hardness within the Anderson TIA pH >6.5. Where pH < 6.5,

Table 4. Anderson TIA, Anderson Creek and Anderson Bay Water Analytical Summary Stats - Metals

Parameter	Units	LDL[f]	CCME WQG [a]	MDMER [b]	ANB-07A							Winter Average	Spring Average	Fall Average	2021 Average	2022 Average	2023 Average	2021-2023 Average
Date					17-Mar-21	22-Jun-21	09-Sep-21	02-Jun-22	07-Sep-22	31-May-23	07-Sep-23							
Conventional Parameters					-	-												
Alkalinity, Total (as CaCO3)	mg/L	1	-		66	64.3	66	61.4	66.6	60.6	66.3	66.00	62.10	66.30	65.43	64.00	63.45	64.46
Conductivity	umhos/cm	1	-		158	153	159	151	161	196	188	158.00	166.67	169.33	156.67	156.00	192.00	166.57
pH	pH units	0.1	6.5 - 9.0		7.93	8.01	7.99	7.83	7.91	7.89	7.87	7.93	7.91	7.92	7.98	7.87	7.88	7.92
Sulfate	mg/L	0.3	-		3.57	4.9	7.1	8.69	7.72	26.9	19.8	3.57	13.50	11.54	5.19	8.21	23.35	11.24
Total Dissolved Solids	mg/L	4	-		95	99	92	102	103	130	119	95.00	110.33	104.67	95.33	102.50	124.50	105.71
Total Suspended Solids	mg/L	5	-	30.00	<3.0	<3.0	3.2	<3.0	5.2	2.4	4.6	-	2.40	4.33	3.20	5.20	3.50	3.85
Turbidity	NTU	0.10	8		0.55	2.78	3.93	3.53	<0.10	1.61	2.47	0.55	2.64	3.20	2.42	3.53	2.04	2.48
Hardness (as CaCO3)	mg/L	0.2	-		79.3	70.1	75		76.6	81.2	82.3	79.30	75.65	77.97	74.80	76.60	81.75	77.42
Total Metals																		
Aluminum	mg/L	0.003	0.1		0.0213	0.109	0.132	0.155	0.12	0.0534	0.0948	0.02	0.11	0.12	0.0874	0.1375	0.0741	0.10
Antimony	mg/L	0.0001			<0.00010	0.00017	0.00011	0.00011	0.00013	0.00019	0.00016	-	0.00016	0.00013	0.00014	0.00012	0.00018	0.00015
Arsenic	mg/L	0.0001	0.005	0.60	0.00074	0.00133	0.00213	0.00123	0.00232	0.00108	0.00193	0.00074	0.00121	0.00213	0.00140	0.00178	0.00151	0.00154
Barium	mg/L	0.0001			0.0119	0.0112	0.0114	0.0114	0.0108	0.0124	0.0127	0.01190	0.01167	0.01163	0.01150	0.01110	0.01255	0.01169
Beryllium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000020	-	-	-	-	-	-	-
Bismuth	mg/L	0.00005			<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	-	-	-	-	-	-	-
Boron	mg/L	0.01	1.5		0.012	0.011	<0.010	<0.010	<0.010	0.011	<0.010	0.01200	0.01100	-	0.01150	-	0.01100	0.01133
Cadmium	mg/L	0.000005	0.00037		0.000006	0.0000052	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.00001	0.00001	-	0.00001	-	-	0.00001
Calcium	mg/L	0.05			17.6	15.7	18.7	18.1	18.6	22.6	22.1	17.60000	18.80000	19.80000	17.33333	18.35000	22.35000	19.05714
Cesium	mg/L	0.00001			<0.000010	0.000014	0.000015	0.00002	0.000012	<0.000010	<0.000010	-	0.00002	0.00001	0.00001	0.00002	-	0.00002
Chromium	mg/L	0.0001	0.001		<0.00010	0.00024	0.00024	0.00038	0.00022	<0.00050	<0.00050	-	0.00031	0.00023	0.00024	0.00030	-	0.00027
Cobalt	mg/L	0.0001			<0.00010	<0.00010	<0.00010	0.00011	<0.00010	0.00019	0.00014	-	0.00015	0.00014	-	0.00011	0.00017	0.00015
Copper	mg/L	0.0005	0.004	0.60	0.00097	0.00105	0.00103	0.00129	0.00098	0.00129	0.00098	0.00097	0.00121	0.00100	0.00102	0.00114	0.00114	0.00108
Iron	mg/L	0.01	0.3		0.042	0.143	0.153	0.198	0.119	0.073	0.115	0.04200	0.13800	0.12900	0.11267	0.15850	0.09400	0.12043
Lead	mg/L	0.00005	0.007	0.20	0.000055	0.000083	0.000089	0.000338	0.000066	0.000057	0.000055	0.00006	0.00016	0.00007	0.00008	0.00020	0.00006	0.00011
Lithium	mg/L	0.001			0.0028	0.002	0.0028	0.0031	0.0027	0.0036	0.0029	0.00280	0.00290	0.00280	0.00253	0.00290	0.00325	0.00284
Magnesium	mg/L	0.005			8.91	6.84	7.7	7.02	7.75	7.84	7.48	8.91000	7.23333	7.64333	7.81667	7.38500	7.66000	7.64857
Manganese	mg/L	0.0001			0.00276	0.0118	0.0235	0.0173	0.0112	0.0107	0.029	0.00276	0.01327	0.02123	0.01269	0.01425	0.01985	0.01518
Mercury	mg/L	0.0000005	0.000026		<0.0000050	0.000161						-	0.00016	-	0.00016	-	-	0.00016
Molybdenum	mg/L	0.00005	0.073		0.000069	<0.00050	0.000194	0.000197	0.000246	0.000444	0.00064	0.00007	0.00032	0.00036	0.00013	0.00022	0.00054	0.00030
Nickel	mg/L	0.0005	0.15	1.00	0.00059	<0.030	0.00054	0.00054	<0.00050	<0.00050	<0.00050	0.00059	0.00054	0.00054	0.00057	0.00054	-	0.00056
Phosphorus	mg/L	0.05			<0.030	1.1	<0.030	<0.030	<0.030	<0.050 <0.030	<0.050	-	1.10000	-	1.10000	-	-	1.10000
Potassium	mg/L	0.05			1.25	0.00112	1.28	1.17	1.26	1.48	1.49	1.25000	0.88371	1.34333	0.84371	1.21500	1.48500	1.13302
Rubidium	mg/L	0.0002			0.00121	0.000164	0.00152	0.00139	0.00145	0.00127	0.00147	0.00121	0.00094	0.00148	0.00096	0.00142	0.00137	0.00121
Selenium	mg/L	0.00005	0.001		<0.000050	1.37	0.000074	0.000136	0.00017	0.000557	0.00031	-	0.45690	0.00018	0.68504	0.00015	0.00043	0.22854
Silicon	mg/L	0.1			1.66	<0.000010	0.85	1.19	2.46	1.33	2.62	1.66000	1.26000	1.97667	1.25500	1.82500	1.97500	1.68500
Silver	mg/L	0.00001	0.00025		<0.000010	3.13	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	-	3.13000	-	3.13000	-	-	3.13000
Sodium	mg/L	0.05			3.59	0.0407	3.4	3.38	3.92	7.27	5.88	3.59000	3.56357	4.40000	2.34357	3.65000	6.57500	3.92581
Strontium	mg/L	0.0002			0.0521	1.64	0.0486	0.049	0.0517	0.0542	0.0571	0.05210	0.58107	0.05247	0.58023	0.05035	0.05565	0.27896
Tellurium	mg/L	0.0002			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-	-	-	-	-	-	-
Thallium	mg/L	0.00001	0.0008		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	-	-	-	-	-	-	-
Thorium	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-	-	-	-	-	-	-
Tin	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-	-	-	-	-	-	-
Titanium	mg/L	0.0003			0.00071	0.00451	0.00568	0.00661	0.00521	0.00197	0.0039	0.00	0.00	0.00	0.0036	0.0059	0.0029	0.00
Tungsten	mg/L	0.0001			<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	-	-	-	-	-	-	-
Uranium	mg/L	0.00001	0.015		0.000043	0.000069	0.000077	0.000065	0.000055	0.000056	0.000045	0.00	0.00	0.00	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.0005			<0.00050	0.0007	0.001	<0.00050	0.00075	<0.00050	0.00073	-	0.00	0.00	0.0009	0.0008	0.0007	0.00
Zinc	mg/L	0.003	0.03	1.00	0.004	0.0031	0.0088	<0.0030	<0.0030	<0.0030	<0.0030	0.00	0.00	0.01	0.0053	-	-	0.01
Zirconium	mg/L	0.00006			<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	-	-	-	-	-	-	-

LDL = lowest detection limit; TDS = total dissolved solids; TSS = total suspended solids; µmhos/cm = micromhos

Notes:

[a] *Canadian Council of Ministers of Environment (CCME) Water Quality Guidelines (2011) for the Protection of*

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[1] Cadmium and Copper standards represented are based on average hardness within the Anderson TIA

[2] Aluminum standard presented is based on average hardness within the Anderson TIA pH >6.5. Where pH < 6.5,