Matrix Solutions Inc.
A Montrose Environmental Company

BEAVERLODGE RIVER WEIR MONITORING PROGRAM – 2023 MONITORING REPORT

BEAVERLODGE RIVER
SE ½ 34-071-10 W6M

Prepared for:
MIGHTY PEACE WATERSHED ALLIANCE

Prepared by:
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December 2023
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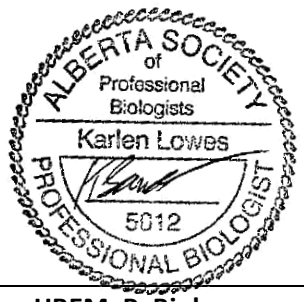

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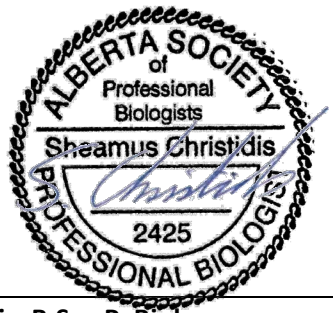
Aquatic Scientist December 18, 2023

reviewed by



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1 INTRODUCTION

The Mighty Peace Watershed Alliance (MPWA) conducted work in 2018 to improve fish passage at the Beaverlodge River weir, located southwest of the Town of Beaverlodge, Alberta (Figure 1-1). Two engineered riffle structures were built with riprap at the weir and 50 m downstream; the purpose of these structures was to create conditions suitable for fish to migrate/pass the weir. The design focused on the passage requirements of Arctic Grayling (*Thymallus arcticus*), but also considered other resident fish species such as Bull Trout (*Salvelinus confluentus*), Burbot (*Lota lota*), and Northern Pike (*Esox lucius*).

The fish passage improvement project (the Project) was supported by Alberta Transportation to meet offset conditions in their *Fisheries Act* authorization to twin the Peace River Bridge, near Peace River, Alberta. Two separate monitoring plans were prepared and submitted to Alberta Environment and Parks (AEP) and Fisheries and Oceans Canada (DFO):

- **AEP**: A monitoring plan was initially submitted to AEP to meet monitoring conditions under Alberta *Water Act* Approval No. 00372572-00-00 (Matrix 2017a). The AEP monitoring plan focused on the structural integrity of the riffles and maintaining water velocities suitable for passage of the target fish species. Monitoring under the AEP plan was to be completed annually for 3 years, starting in 2019; monitoring requirements of the AEP monitoring plan were fulfilled in 2021.

- **DFO:** DFO requested monitoring of fish movement through the fish passage structures over a 3-year period, beginning the first-year post-construction (i.e., 2019), and for the structural integrity assessments, water quality monitoring and water velocity measures to continue for a further 2 years beyond the AEP monitoring duration i.e., continue through 2022 and 2023. A separate monitoring plan that included fish passage monitoring was submitted to, and approved by, DFO (Matrix 2017b). Fish passage monitoring concluded in 2021. The remaining monitoring requirements of the DFO Monitoring Plan (Matrix 2017b) continued in 2022 and 2023.

This report presents the results of the 2023 monitoring activities, and concludes all monitoring requirements from the forementioned AEP and DFO approvals (Matrix 2017a, 2017b).

1.1 Background

Historical activities in the Beaverlodge River watershed, including agriculture, logging, the installation of a weir for municipal water supply, recreational activities and wetland modifications among other elements have altered streamflow, water quality, and fish habitat in the watershed. The MPWA has been working with stakeholders in the watershed to improve and restore watershed conditions, facilitating a return of natural environmental processes and healthier aquatic ecosystems. This Project focuses on improving fish passage at the Beaverlodge River weir.

The Beaverlodge River weir is located 20 km upstream from the confluence of the Beaverlodge and the Redwillow River, and 24.5 km upstream of the Wapiti River (Figure 1-1). The weir was constructed in the early-1980s to hold back water and provide a place to withdraw drinking water for the Town of Beaverlodge. Once constructed, it was observed that fish were having difficulty moving upstream (Sharp 2019). Due to the shape of the weir, summer flows have been insufficient to maintain upstream fish passage at the weir. Consequently, fish populations upstream of the weir were reduced, with historical runs of Arctic Grayling and Bull Trout being reduced and access to spawning habitats severely limited. Arctic Grayling, a once abundant fish population, are now absent and considered functionally extirpated from the upper Beaverlodge River (CharettePellPoscente Environmental Corp. 2012, GoA 2018). Several fish ladders have been installed at the Beaverlodge River weir since 1981; however, the ladders had all fallen into various states of disrepair. The ladder that existed prior to 2018 had broken and missing baffles and was clogged up with old debris jams (Appendix A1; Photographs 1 to 4). In this state, the ladder was not functioning to provide upstream or downstream fish passage.

As part of the MPWA's larger plans for watershed restoration and water quality improvement in the Beaverlodge River, fish passage improvement structures comprising two rock riffles were installed in the fall of 2018 (Figure 2-1). The objective of these improvements was to create conditions suitable for fish to migrate/pass the weir situated on the Beaverlodge River in a manner that complements the need to keep the existing weir. The objective considered the following:

1. Maintaining weir (water level) for water supply for the Town of Beaverlodge.

2. Allowing passage of Arctic Grayling, among other resident large-bodied fish, including Northern Pike, Bull Trout, Burbot, Longnose Sucker (*Catostomus catostomus),* White Sucker (*Catostomus commersonii*), and small-bodied fish during spring freshet, but also as importantly, during summer as the hydrograph declines.

3. Minimizing maintenance (e.g., the movement of woody debris, sediment accumulation, and bank erosion) to maximize weir capacity to function without attention.

The fish passage design considered the extent of different flows to facilitate the passage of fish upstream and downstream past the weir, particularly during the decreasing portion of the hydrograph. The design concentrates river flow into the centre of the riffle structures to permit swimming during low flow periods, but not so much that fish cannot swim and pass; this feature is dependent on having river discharge that allows water to flow through the riffle features. Historically, flow in the Beaverlodge River at the Weir have all but ceased in various late summer periods (Appendix A1; Photograph 1).

1.2 Project Activity Summary

To achieve the objectives of the Project and create conditions suitable for fish to migrate/pass the weir, the following activities were completed:

- The fish ladder was removed. The void left by the removal of the fish ladder was filled with similar sized riprap as was used for the riffle construction. A steel plate was welded to the sheet pile weir to prevent seepage through the rock voids at the former fish ladder location.

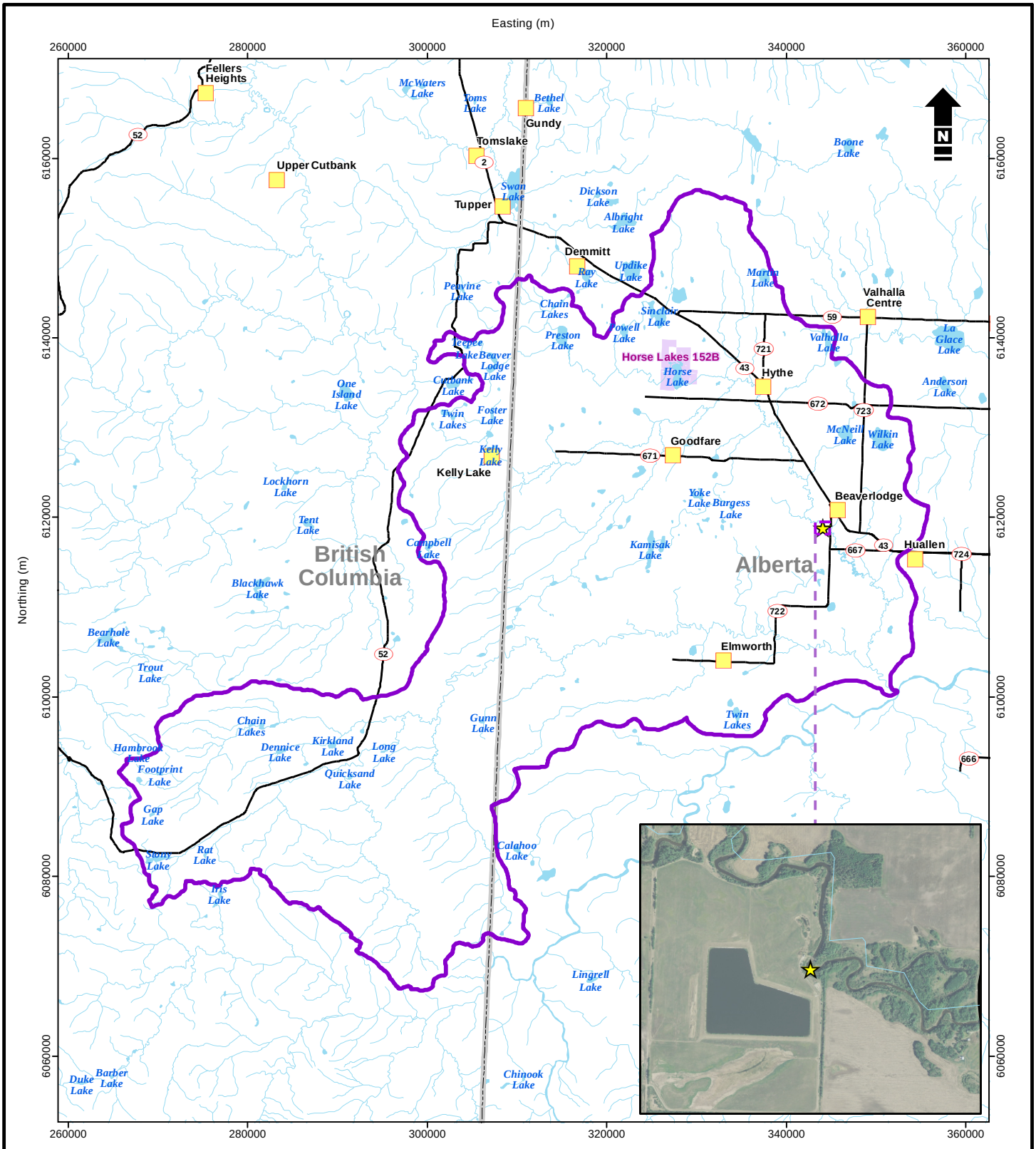
- Two riprap riffles were constructed to provide fish passage in a more natural way, with no foreign objects and presenting the lowest possible stress to fish while moving through the weir area.

- The riprap riffles were constructed with large keystone boulders at the crests to ensure the riffles are stable over a range of flows and the relative elevation drop between the riffles is maintained.

    a. A scour hole just downstream of the sheet pile weir was filled with riprap and incorporated into the upstream riffle.

    b. The riprap riffles were keyed-in on the banks and beds of the river.

    c. Gravels were placed among the riprap voids to concentrate flow at the surface of the riffles (vs. the flow passing through the riprap voids below the surface). The surfaces of the riffles were kept irregular with protruding boulders to provide cover for fish transiting the riffles.



Redwillow Watershed Boundary
Provincial Boundary
Community
Indian Reserve
Water Body
Watercourse
Highway
Existing Weir Location

1:600,000
kilometres
6 0 6 12
NAD 1983 UTM Zone 11N

Reference: Data obtained from AltaLIS © Government of Alberta, GeoBase® and GeoGratis © Department of Natural Resources Canada (all rights reserved) used under license. GDM transportation infrastructure data provided by IHS © 2015 used under license. Imagery (2012) provided by Valtus Image Service © (2020). Used under license.

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

Mighty Peace Watershed Alliance
Beaverlodge River

Site Location

Date:	Project:	Submitter:	Reviewer:
November 2021	2199	K. Lowes	S. Christidis

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Figure 1-1

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1.3 Monitoring Program Parameters

The final year of the DFO monitoring program (Year 5 of 5) was structured to assess fish passage conditions at both riffle structures throughout the open water season (April to October). Fish passage was assessed based on continuous hydrometric monitoring at the riffles, and the collection of velocity and depth measurements within each structure. It should be noted that fish use of the structures is dependent on the presence of the target species being present within the watershed, which relies on overall improvements to the watershed. Monitoring parameters approved by DFO were developed based on available information on hydrology and potential fish species use and include:

1. Visual inspection of the fish passage structures by a qualified engineer to assess erosion and redistribution of sediments (i.e., degradation and aggradation) caused by altered hydraulic dynamics and assess the ongoing structural integrity of the structures.

    - Rationale: ensure that the structures are stable and provide recommendations for improvement in consultation with a fisheries biologist, if needed.

2. Assessment of the passage structures channel shape – channel depth and width, stream discharge, and water depth.

    - Rationale: the channel has been constructed with an inverted parabolic shape concentrating stream flows through the middle of the fish passage structures and these parameters will be used to determine if the channel shape changes over time.

3. Monitoring of water depth and velocity over each of the passage structure steps, and water depth in each associated downstream pool.

    - Rationale: the fish passage structures were designed with the intent that flow velocities over each step will be less than burst speeds for anguilliform and subcarangiform fish 20 cm or larger, which is 1.2 m/s (Katapodis 1992).

4. Monitoring of in situ water quality parameters including water temperature, dissolved oxygen (DO) concentrations, pH, specific conductivity, and turbidity upstream and downstream of the fish passage structures.

    - Rationale: concentrating the flows through the central portion of the fish passage structures will decrease the width of the flow and increase flow velocity. Thus, water temperatures and DO levels should be maintained.

5. Visual inspection by a fish biologist to identify potential conditions that may prevent fish using the fish passage structure.

    - Rationale: changes to site conditions from variable stream flows and hydraulic forces may result in subtle changes to the structures and adjacent habitat that discourage fish from passing.

6. Visual inspection of the watercourse banks and the outside bend of the river immediately downstream of the structures.

    - Rationale: ensure that vegetation is establishing, document any form of erosion, and provide recommendations, as needed.

7. Monitoring of fish habitat use around fish habitat structures.

    - Rationale: Fish sampling around the riffle structures will confirm habitat use by various species and life stages of resident fish populations. In addition, fish sampling effort will determine if fish are staging below riffle structures.

2 METHODS

The following subsections describe the methods used to assess the parameters identified in Section 1.3. Quality assurance and quality control protocols were followed during the monitoring program described in this report and were designed to ensure production of data of known and defensible quality. Field sampling, data recording, and equipment operations were completed using an approach that included standardized procedures for sample and data collection.

2.1 Spatial Monitoring Extent

Site inspections, hydrology, water quality monitoring, and fish use monitoring were focused on a 160 m study reach of the Beaverlodge River which extended 20 m upstream of Riffle 1, included a large scour pool between both riffle structures, and extended 20 m downstream of Riffle 2 (Table 2-1; Figure 2-1).

TABLE 2-1 Site Location

Site ID	Location (UTM Location NAD 83 11 U)
Riffle Structures	
Riffle 1 (weir, upstream)	344044E 6118864N
Riffle 2 (downstream)	344093E 6118823N
Hydrology	
Manual Flow Measurement Location	344056E 6118871N
Pressure Transducer Location	344050E 6118876N

Site ID	Location (UTM Location NAD 83 11 U)
Monitoring Locations	
BL1	344049E 6118870N
BL2	344039E 6118857N
BL3	344019E 6118815N
BL4	344038E 6118833N
BL5	344086E 6118811N
BL6	344105E 6118827N
Instream Water Quality Sonde Monitoring Locations	
Upstream	344064E 6118869N
Downstream	344104E 6118823N

UTM - Universal Transverse Mercator Coordinate system

2.2 Timing

Four scheduled monitoring events took place in 2023 (Table 2-2), with an additional monitoring event conducted on June 30, 2023, to install the water quality sonde downstream of Riffle 2.

TABLE 2-2 Summary of Monitoring Events of 2023

Date	Monitoring Task
April 21, 2023	• General site inspection • Hydrometric field work, including the installation of a pressure transducer and streamflow measurement with corresponding water level survey
June 7 and 12, 2023	• General site inspection • Installation of water quality data sonde upstream of Riffle 1 • Fish sampling • Hydrometric field work including streamflow measurement and corresponding water level surveys
June 30, 2023	• Installation of water quality data sonde downstream of Riffle 2
August 9, 2023	• General site inspection • Water quality sonde data download • Hydrometric field work including streamflow measurement and corresponding water level surveys
October 6, 2023	• General site inspection • Hydrotechnical engineering inspection of both riffle structures • Water quality sonde data download • Water quality sondes and pressure transducer removal

2.3 Site Inspections

Six site inspection monitoring locations within the study reach were established in 2019 and remained the same for each subsequent monitoring year (BL1 to BL6; Figure 2-1). All six site inspection monitoring locations were used for photographic documentation of site conditions, and assessment of erosion and structure/bank stability.

2.3.1 Fish Habitat Structure

Current fish habitat conditions within the riffle structures and study reach were documented, and consisted of the following components:

- documenting fish habitat and evaluating the effect of the riffle structures, if any (e.g., flow velocity, substrate composition)
- documenting site-specific channel morphology and biophysical habitat (channel depths, wetted widths, substrate composition and distribution, and instream and overhead habitat cover)
- identifying the suitability of the fish habitat for fish species and utilization within the study reach
- documenting significant changes to site conditions and the fish habitat structure, if any

2.3.2 Hydrotechnical Engineering Assessment

A hydrotechnical engineering assessment was completed during the October 2023 monitoring event to meet monitoring program parameter #1 as outlined in Section 1.2. The following items were assessed:

1. Stability and effectiveness of the riffle structures in the context of allowing fish passage. This includes monitoring the following:

    a. Whether the riprap and gravel positioning within the riffles is relatively stable; some re-modelling is expected but there should not be significant loss of material in any locations.

    b. Whether the riffle crest elevations (i.e., the keystone riprap) are stable.

    c. Whether the riffle shapes concentrate flow (and especially low flow) at a designated low spot on the riffle crest to allow fish passage, and do not prevent fish passage due to the downstream riffle slopes becoming oversteepened.

    d. Whether the riffles have stability against outflanking (caused by bank erosion) and undermining (caused by toe erosion).

2. Erosion and redistribution of sediments at the riffles (i.e., to determine whether aggradation and degradation are occurring at the riffles).

The hydrotechnical engineering assessment is based on:

1. Site reconnaissance on October 6, 2023, by Kevin Seasons, P.Eng., accompanied by Karlen Lowes, P. Biol.

2. Review of site photographs and site notes from before, during, and after construction by Kevin Seasons, P.Eng., and Katy Curtis, P.Eng. – including photographs and qualitative notes from the 2023 monitoring event. Comparison photographs between subsequent monitoring years are provided in Appendix A1 while comprehensive 2023 monitoring photographs are provided in Appendix A2.

2.4 Hydrology

Manual discharge measurements collected across a variety of flow conditions were used to generate a water level (stage)-discharge relationship. The initial stage-discharge rating (2019-001) was created in 2019 and updated as necessary to account for natural fluctuations in the stream profile. Each update to the base rating was recorded with a new suffix (2019-001, 2019-002, etc.) A hydrometric station, Beaverlodge River at the Weir, was installed by Matrix immediately upstream of Riffle 1 to measure water level in the Beaverlodge River. Water level was monitored continuously over the open season from April 21 to September 8 and used to calculate continuous discharge. A hydrology data summary is included in Table 2-3.

Matrix identified that if the flow in the Beaverlodge River dropped below a discharge threshold, there would be insufficient water to submerge the riffle structures, making fish passage unlikely. The discharge threshold required to raise water levels to the height of the riffle is Q-fish$_{min}$. An elevation survey of the riffle structures was completed on October 6, 2021. Although some flow is possible within the large rocks of the riffle structure, fish passage is unlikely unless the flow is sufficient to raise the height of the gauge pool to an elevation greater than that of the lowest point of the riffle structure. Once Q-fish$_{min}$ was calculated for the Beaverlodge River at the Weir hydrometric station, it was possible to transfer the information to the datum collected by the Water Survey of Canada (WSC) hydrometric gauge 07GFD001 (located 1.5 km downstream of the riffles) if the Beaverlodge River at the Weir station is decommissioned or damaged. In 2021, Q-fish$_{min}$ was calculated to be 0.040 m^3/s (Matrix 2021).

TABLE 2-3 Hydrology Data Summary

Year	Monitoring Period	Number of Discharge Measurements Completed	Active Stage-Discharge Rating Curve
2019	May 31 to October 31	4	2019 - 001
2020	June 21 to October 1	3	2019 - 002
2021	April 29 to October 4	2	2019 - 002
2022	April 22 to August 9	3	2019 - 003
2023	April 21 to September 8	2	2019 - 003

Since data collection began in 2019 at the Beaverlodge River, the greatest discharge measurement collected was 4.70 m^3/s. Extending the rating curve beyond twice the highest manually measured discharge (9.4 m^3/s) is associated with a high uncertainty (WSC 2016). In 2022 however, to derive flows for the range of water levels recorded at the station, extending the rating curve beyond this range was required. High flows measured by WSC at the nearby 07GFD001 gauge were used to estimate rating points for the Beaverlodge River at the Weir station and generate a new base rating (2019-003). A copy of the base rating is included in Appendix B.

Q-$fish_{min}$ calculated in 2021 was based on the 2019-002 rating. Changes from 2019-002 to 2019-003 adjusted rated flows above 7.030 m^3/s. Discharge values below this are unaffected by the changes, and the Q-$fish_{min}$ calculated in 2021 remains unchanged.

The stage-discharge rating curve(s) was constructed using AQUARIUS™ and followed WSC methods where possible. Hydrometric monitoring instrumentation used in 2023 was identical to instrumentation used in previous years and is detailed in Matrix (2019).

2.5 Water Quality

Two In-Situ Inc. Aquatroll 600 multiparameter sondes were introduced into the monitoring plan in 2020 based on a technical suggestion by AEP. From 2020 onward, the multiparameter sondes were installed upstream of Riffle 1, and downstream of Riffle 2 to continuously monitor in situ water quality parameters throughout the open water season. Continuous water quality monitoring parameters included water temperature, DO, pH, specific conductivity (SC), and turbidity (NTU). The sonde located upstream of Riffle 1 was deployed on June 7, 2023. Deployment of the downstream sonde was delayed until June 30, 2023, due to a faulty conductivity probe. During data download in August, it was discovered that the turbidity probe on the downstream sonde had subsequently failed, and no turbidity data was recorded beyond June 7, 2023. The decision was made to not replace the turbidity probe as replacement parts were unlikely to arrive before the end of the monitoring period. Sonde maintenance (e.g., removal of debris, cleaning algae off probes) and probe reading accuracy were completed during each site visit. Sondes were removed on October 6, 2023.

In situ water quality was also measured during each site visit at four of the six in situ monitoring locations (BL1, BL2, BL5, and BL6; Table 2-3; Figure 2-1) using YSI550 or YSO Pro Plus multimeter and a Orbecco Hellige TB 200 turbidity meter.

Mean daily DO concentrations and pH levels were compared to the *Environmental Quality Guidelines for Alberta Surface Waters* (AEP 2018).

2.6 Fish Sampling

Fish sampling completed in monitoring Years 4 (2022) and 5 (2023) focused on habitat utilization within and around each riffle structure, and within the pool habitat located in Reach 2 (Figure 2-1). Fish sampling

was completed on June 12 and August 9, 2023, under Research Licence (RL) 23-1006, issued by AEP, and included electrofishing and angling. Monitoring of fish movement concluded in Year 3 (2021) of the monitoring program.

Electrofishing was completed during the June monitoring event using a SmithRoot Generator Powered Pulse 2.5 portable electrofishing unit mounted on an inflatable zodiac boat. Electrofishing was conduct directly upstream of Riffle 1, and within the pool located within both riffle structure over a 1-day period. Temperature and electrical conductivity were measured prior to each electrofishing event to calculate appropriate unit settings. Pulse bursts of 5 to 15 seconds were conducted while moving the boat slowly against the flow.

Angling was completed during the June and August monitoring events by one crew member using spin cast rods with spoon lures. Casting was conducted from the shoreline. Arctic Grayling, Bull Trout, and Northern Pike were targeted during angling. Angling effort in August was limited due to the amount of floating macrophytes impeding the sampling success.

Captured fish were placed in an aerated holding container and held for up to 15 minutes before being processed. All fish captured were identified to species and enumerated. Sport fish and sucker species were weighed, and forks lengths measured. All fish species that may have been tagged in 2020 and 2021 were scanned with a handheld PIT tag reader to identify previously tagged fish.

2.6.1 Riffle Water Velocities for Fish Passage

At each riffle structure, point velocity measurements were recorded upstream, at the mid-section of the riffle, and downstream at 25%, 50%, and 75% of the riffle structure wetted width in April, June, and August (Table 2-1). The velocity measurements were completed at the surface and bottom (April and June) of the of the water column. During the April monitoring event, velocity measurements were not collected within the middle and downstream areas of the Riffle 1, and within Riffle 2 at 50% and 75% of the wetted width due unsafe flow conditions. During the June and August monitoring event insufficient wetted depths (<0.10 m) within Riffles 1 and 2 limited the collected of surface and bottom measurements; absent spot measurements indicate no water present.

Easting (m)

344000 344025 344050 344075 344100 344125

Northing (m)

6118900 6118875 6118850 6118825 6118800

BL1

BL2

BL3

BL4

BL5

BL6

Water Quality Sonde - Upstream

Water Quality Sonde - Downstream

N

Flow Direction

Monitoring Location

Level Logger Location

Water Quality Sonde

1:500

metres

5 0 5 10

NAD 1983 UTM Zone 11N

Reference: UAV imagery (June 12, 2023) obtained by Mighty Peace Watershed Alliance and Matrix Solutions Inc. used under license. Imagery (2018)

Matrix Solutions Inc.
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Mighty Peace Watershed Alliance
Beaverlodge River

Site Plan

Date:	Project:	Submitter:	Reviewer:
December 2023	2199	K. Lowes	S. Christidis

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Figure 2-1

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3 RESULTS

3.1 Site Inspections

3.1.1 Fish Habitat Structures

Channel habitat units within the study reach have largely remained consistent throughout the monitoring years (2019 to 2023). Run habitat units were present during the April and June monitoring visit, directly upstream of Riffle 1 and downstream of Riffle 2 (Appendix A2, Photographs 1, 2, 32, and 33). Beaver activity (dam construction), combined with low flow within the river, resulted in more impounded channel units as the year progressed; beaver dams were present upstream of Riffle 1, and downstream of Riffle 2 (Appendix A2, Photographs 7, 8, 31, and 35). The large pool observed throughout the monitoring years remained unchanged in 2023 (Appendix A2, Photographs 13 to 19, and 20 to 23). Wetted depths and channel widths within the large pool were similar to 2022 conditions, with no additional bank erosion observed.

Flow rates during the 2023 monitoring year within the Beaverlodge River peaked in April and gradually receded until late May; flow rates remained low for the remainder of the monitoring period (Section 3.2.3). Diminishing flow throughout the year deceased the general habitat surface area within the study reach. As water became stagnant within the study reach, algae blooms were observed in August and October (Appendix A2, Photographs 3, 4, 7, 8, 15, 16, 18, 19, 22, and 23). Wetted widths in August upstream of Riffle 1 and downstream of Riffle 2 were 14.0 and 7.0 m, respectively. Beaver dam construction downstream of Riffle 2 increased the wetted width to 10.4 m in October. Within the pool between Riffles 1 and 2, maximum wetted width and depth in August were 34 and 2.0 m, respectively.

Substrate composition has remained consistent throughout the monitoring years. Fines substrate material dominated the bed and bank composition directly upstream of Riffle 1, as well as the shoreline and banks between the riffle structures. Directly downstream of Riffle 2, the substrate comprises cobbles with areas of gravel and fines. The banks within the study reach remain well vegetated; overhanging willows, grasses, and deciduous trees were abundant within the study reach (Appendix A2, Photographs 1 to 4, 17 to 19, and 24 to 35). The right bank adjacent to the pool between Riffle 1 and Riffle 2 has not eroded more since 2022 and remains unstable (Appendix A2, Photographs 13 to 16 and 20 to 23). Undercut banks, instream vegetation, depth of water, colour of water, and the accumulation of large woody debris along the shoreline provide good instream and overhead cover for fish. As observed in the previous monitoring year, woody debris accumulates periodically within the riffle structures throughout the monitoring period, providing additional fish habitat cover (Appendix A2, Photographs 6, 7, 20, and 21).

Habitat availability within the riffle structures has not changed since 2022. When water levels within the Beaverlodge River are sufficient to crest the riffle structures, flow is directed through the centre of each riffle; numerous step pools, back water eddies, cascades, and chutes are present within both riffle structures and change depending on flow stage (Appendix A2, Photographs 9, 10, 28, and 29). Mean and

maximum wetted depths in both riffles recorded in April and June were 0.21 and 0.50 m, respectively. Water levels in August and October were insufficient for water to crest the riffles and subsequently both riffles were dry (Section 3.2.3, Appendix A2, Photographs 7, 8, 11, 12, 30, and 31).

3.1.2 Hydrotechnical Engineering Assessment

From the hydrotechnical engineering assessment (see methods in Section 2.3.2) the following key observations, conclusions, and recommendations are made:

TABLE 3-1 Monitoring Results Since Construction of Riffles in 2018

Parameter	Performance Criteria	Site Photographs	Monitoring Results (Stable or More Frequent Monitoring Warranted or Repairs Needed)				
			Year 1 (2019)	Year 2 (2020)	Year 3 – Engineering Survey Completed (2021)	Year 4 – Engineering Visual Inspection Completed (2022)	Year 5 – Engineering Visual Inspection Completed (2023)
Riprap Positioning and Riffle Gravels	• Qualitative assessment • Survey comparisons to show bulk movement of riprap if available • Gravels present in riprap. Gravels do not need to be present at surface of riffle	• Appendix A1; Photographs 5, 10, 11, and 16 • Appendix A2	**Stable** • No survey completed. No movement of large riprap observed. • Visual inspection indicates surface gravels have been washed away, but gravels in the riprap voids are present and effective at concentrating flow at the riffle surface (vs. flow passing through the riprap voids and not being available on the surface).	**Stable** • No survey completed. No movement of large riprap observed. Some movement of individual pieces of riprap after the 1:20-year[1] flood in July compared to as-built conditions. • Visual inspection indicates surface gravels have been washed away, but gravels in the riprap voids are present.	**Stable** • No additional significant movement of individual pieces of riprap was observed in 2021 compared to 2020. Riprap is observed to be well interlocked and stable so is not a concern at this time. • Visual inspection indicates no additional scour of the gravels placed between the riprap at the time of construction has occurred since 2020.	**Stable** • No survey completed. No movement of large riprap was observed in 2022 compared to 2021. Riprap is observed to be well interlocked and stable so is not a concern at this time (Appendix A1; Photographs 9 and 14). • Visual inspection indicates no additional scour of the gravels placed between the riprap at the time of construction has occurred since 2021 (Appendix A1; Photographs 5, 9, 10, and 14).	**Stable** • No survey completed. No movement of large riprap was observed in 2023 compared to 2022. Riprap is observed to be well interlocked and stable so is not a concern at this time (Appendix A1; Photographs 10 and 16). • Visual inspection indicates no additional scour of the gravels placed between the riprap at the time of construction has occurred since 2022 (Appendix A1; Photographs 9, 10, 15, and 16).
Riffle Crests (i.e., keystone riprap)	• Keystone riprap in original as-built location	• Appendix A1; Photographs 10 and 16 • Appendix A2	**Stable** • No survey completed. Riffle crest and keystone riprap stability confirmed by visual inspection.	**Stable** • No survey completed. Riffle crest and keystone riprap stability confirmed by visual inspection.	**Stable** • Riffle crest and keystone riprap stability confirmed by visual inspection and RTK survey. • Relative elevation difference between riffle crests is 0.80 m, compared to 0.76 m on the as-built surveys. The aquatic assessment concluded this drop is acceptable from a fish passage perspective because it approximately matches the as-built elevation drop between the two riffles and still allows for fish passage.	**Stable** • No survey completed. Riffle crest and keystone riprap stability confirmed by visual inspection (Appendix A1; Photographs 9 and 14).	**Stable** • No survey completed. Riffle crest and keystone riprap stability confirmed by visual inspection (Appendix A1; Photographs 10 and 16).

[1] The 2020 flood was originally reported as a 1:5-year flood (63 m^3/s) because it was based on preliminary data from the Water Survey of Canada (WSC) (Matrix 2021). WSC has since finalized flow data from 2020 and adjusted the maximum flow upwards; the adjusted maximum instantaneous flow in 2020 (105 m^3/s) was just under a 1:20-year flood (110 m^3/s).

Parameter	Performance Criteria	Site Photographs	Monitoring Results (Stable or More Frequent Monitoring Warranted or Repairs Needed)				
			Year 1 (2019)	Year 2 (2020)	Year 3 – Engineering Survey Completed (2021)	Year 4 – Engineering Visual Inspection Completed (2022)	Year 5 – Engineering Visual Inspection Completed (2023)
Riffle Shape	• Flows concentrated at the centre of the riffles • Downstream riffle slopes do not prevent fish passage due to being oversteepened	• Appendix A1; Photographs 10 and 16 • Appendix A2	**Stable** • No survey completed. Visual inspection indicates flows concentrated at centre of riffle and downstream riffle slopes have not changed.	**Stable** • No survey completed. Visual inspection indicates flows concentrated at centre of riffle and downstream riffle slopes have not changed.	**Stable** • RTK survey indicates the shape of the riffles continues to concentrate flow at the centre of the riffle to allow fish passage. The movement of some individual pieces of riprap noted above has resulted in further concentration of flows down the centre of the riffles compared to the as-built conditions. This is a positive effect because during low flow conditions the depth of flow in the thalweg is increased compared to the as-built condition, providing better fish passage. • Downstream riffle slopes are not too steep for fish passage. The thalweg at the centre of each riffle has become more defined since construction (i.e., deepened); this is expected, and the riffles do not present a barrier to fish passage. • Riffles 1 and 2 are still functional.	**Stable** • No survey completed. Visual inspection indicates flows concentrated at centre of riffle and downstream riffle slopes have not changed (Appendix A1; Photographs 9 and 14).	**Stable** • No survey completed. Visual inspection indicates flows concentrated at centre of riffle and downstream riffle slopes have not changed (Appendix A1; Photographs 10 and 16). • Woody debris is being retained at the crests of both riffles. At Riffle 2, the debris is concentrated at the right bank, which encourages flow to remain in the centre of the riffle.

Parameter		Performance Criteria	Site Photographs	Monitoring Results (Stable or More Frequent Monitoring Warranted or Repairs Needed)				
				Year 1 (2019)	Year 2 (2020)	Year 3 – Engineering Survey Completed (2021)	Year 4 – Engineering Visual Inspection Completed (2022)	Year 5 – Engineering Visual Inspection Completed (2023)
Riffle Stability Against Outflanking	Right Bank Erosion	• Qualitative assessment • Survey comparisons if available	• Appendix A1; Photographs 13 to 22	**Stable** • No survey completed. Visual inspection indicates erosion at the right bank that existed before construction in 2018 at Riffle 2 has not worsened. • No erosion observed at the right bank at Riffle 1.	**Monitor** • No survey completed. Visual inspection indicates erosion at the right bank at Riffle 2 has worsened since 2019 (a 1:20-year flood occurred this year; Appendix D, Figure 1), but the riffle is still functional (i.e., flow is concentrated across the riffle crest and is not bypassing the riffle). • Concept level mitigation recommendations for the erosion at Riffle 2 were provided in a 2020 memorandum (Matrix 2020a). • No erosion observed at the right bank at Riffle 1.	**Monitor** • RTK survey completed. • Based on the visual inspection there does not appear to have been worsening of the erosion on the right side of the channel at Riffle 2 since it was noted in 2020. There has not been a significant flood since the 1:20-year event in 2020 (i.e., 2021 was a low flow year). This area is susceptible to erosion and possible outflanking during a flood (e.g., the 1:20-year flood in 2020). • No right bank erosion observed at the right bank at Riffle 1. • Riffles 1 and 2 are still functional.	**Monitor** • No survey completed. Visual inspection indicates vegetation and soil at the right bank at Riffle 2 has eroded slightly since 2021, but the riffle is still functional (i.e., flow is concentrated across the riffle crest and is not bypassing the riffle). • Assessment of the unmanned aerial vehicle imagery from 2021 and 2022 indicates that there has been no/minimal movement/erosion of the top of bank at Riffle 2. Given that the erosion observed in 2020 caused vegetation and soil to fall onto Riffle 2 at the right bank, and that 2021 was a low flow year, it is likely that the vegetation remained in place until 2022. Higher flows in 2022 (maximum daily flow was about 25 m^3/s in 2022 vs. 7.2 m^3/s in 2021) would have displaced the vegetation and soil while causing little movement of the riprap at the riffle. • No erosion observed at the right bank at Riffle 1. • Riffles 1 and 2 are still functional.	**Monitor** • No survey completed. Visual inspection indicates vegetation and soil at the right bank at Riffle 2 has stayed roughly intact since 2022 and the riffle is still functional (i.e., flow is concentrated across the riffle crest and is not bypassing the riffle). • Vegetation that fell onto the lower right bank during the 1:20-year flood in 2020 has continued to mature and provides additional bank stability for lower flows. • Assessment of the unmanned aerial vehicle imagery from 2021, 2022, and 2023 indicates that there has been no/minimal movement or erosion of the top of bank at Riffle 2. Maximum daily flows in 2023 were much lower than in 2022 (about 5 m^3/s in 2023 vs. 25 m^3/s in 2022). • The erosion on the right bank between the riffles has the effect of widening the channel and reducing the flow velocities. • No erosion observed at the right bank at Riffle 1. • Riffles 1 and 2 are still functional.

Parameter		Performance Criteria	Site Photographs	Monitoring Results (Stable or More Frequent Monitoring Warranted or Repairs Needed)				
				Year 1 (2019)	Year 2 (2020)	Year 3 – Engineering Survey Completed (2021)	Year 4 – Engineering Visual Inspection Completed (2022)	Year 5 – Engineering Visual Inspection Completed (2023)
	Left Bank Erosion	• Qualitative assessment • Survey comparisons if available	• Appendix A1; Photograph 16	**Stable** • No survey completed. No erosion observed at the left bank at Riffle 1 or Riffle 2.	**Monitor** • No survey completed. Visual inspection indicates some erosion on the left bank of Riffle 2 which is obscured by riparian vegetation. • No erosion observed at the left bank at Riffle 1.	**Monitor** • RTK survey completed. Survey data confirms some minor erosion is present on the inside (left) bend at Riffle 2. This erosion is not apparent in photographs because it is obscured by riparian vegetation. From the survey data in that location the bank was eroded approximately 1.3 m laterally (away from the water) over 8 m along the river. • No erosion observed at the left bank at Riffle 1. • Riffles 1 and 2 are still functional.	**Monitor** • No survey completed. Visual inspection indicates no worsening of the erosion on the inside (left) bend at Riffle 2 (Appendix A1; Photograph 14). • No erosion observed at the left bank at Riffle 1. • Riffles 1 and 2 are still functional.	**Monitor** • No survey completed. Visual inspection indicates no worsening of the erosion on the inside (left) bend at Riffle 2 (Appendix A1; Photograph 16). • No erosion observed at the left bank at Riffle 1. • Riffles 1 and 2 are still functional.
Riffle Stability Against Undermining		• Toe riprap remains in place	• Photographs not available (toe obscured by water)	**Stable** • No survey completed. Toe riprap not visible but is assumed to be stable because all the riprap on the riffle face is stable.	**Stable** • No survey completed. Toe riprap not visible but is assumed to be stable because all the riprap on the riffle face is stable.	**Stable** • RTK survey completed. Riprap at the toe of each riffle has not moved since installation. • RTK survey indicated some scour of the bed material at the toe of Riffle 1. This toe scour is likely a result of local scour at the transition of riffle riprap to the natural bed material (which consists of deposited sediments). The movement of the sediment deposits at the riffle toe is not considered a concern because the riprap itself has not moved considerably and there is a large amount of riprap upstream of the toe located in what is assumed to be the previous scour hole from the old weir. • Riffles 1 and 2 are still functional.	**Stable** • No survey completed. Toe riprap appears stable. No scour holes observed at the transition to the natural channel.	**Stable** • No survey completed. Toe riprap appears stable. No scour holes observed at the transition to the natural channel.
5-Year Monitoring Summary: The riffles have been functioning as designed since their construction in 2018. A 1:20-year flood flow in 2020 worsened existing erosion along the vertical right bank (which is an outside bend) between Riffle 1 and Riffle 2 and caused soil and vegetation from the top of the bank to slump onto the lower bank. The vegetation has matured since 2020 and provides some bank stability during low flow years (e.g., in 2021 and 2023). There is some risk that further erosion at the right bank could cause Riffle 2 to be outflanked, but the velocities experienced during the 2020 flood are close to the maximum expected during the 1:100-year design flood (per Section 3.1.3). The MPWA should continue monitoring the riffles for effectiveness and engage a hydrotechnical engineer if necessary.								

From the above, the riffle habitat structures are currently stable in the context of providing fish passage. However, erosion on the outside (right) bend of Riffle 2 that occurred in 2020 and to a lesser extent in 2022 could outflank the riffle (Appendix A1; Photographs 15 to 22). Continued erosion of the right bank could result in formation of a new channel thalweg adjacent to Riffle 2, allowing flow to bypass the riffle during low flow periods. If this were to happen, water levels in the large pool located between Riffle 1 and Riffle 2 may lower to an elevation that is closer to pre-construction conditions. Lower water levels could potentially expose the toe/run out of Riffle 1 which would increase the distance that fish are required to swim to pass the riffle up to 20 m. The likelihood of the riffle being bypassed is unknown at this time. If the riffle is bypassed and water levels are reduced, fish may still be able to pass a longer riffle structure at Riffle 1.

While there has been erosion observed at Riffle 2, both riffles are still functioning as designed after 5 years of monitoring. The MPWA should complete ongoing site visits after yearly peak flows to determine if the erosion at the right bank of Riffle 2 worsens or the risk of outflanking increases.

3.1.3 Flood Frequency Analysis

A history of maximum annual flows was compiled, and a flood frequency analysis was conducted on the 54-year annual maximum instantaneous flow record from WSC station 07GD001. The frequency analysis provides context on the floods that have been experienced since construction in relation to a range of flood magnitudes and return periods. The details and results of this analysis are provided on Figure 1 in Appendix D.

The computed flood magnitudes (instantaneous flows) are summarized in Table 3-2. Flood history before and after construction of the riffles is provided on Figure 1 in Appendix D.

Since construction of the riffle structures in September 2018, the maximum instantaneous flow experienced was approximately 105 m^3/s in 2020, which is just below a 1:20-year flood. The riffle structures were designed to be stable for an average channel velocity during the 1:100-year flood of 4.1 m/s. For comparison the modelled velocity during the maximum flow experienced at the riffles (the 1:20-year flood in 2020) is 3.6 m/s at Riffle 1 and 2.3 m/s at Riffle 2, i.e., about 89% of the design velocity. The incremental velocity increase between the 1:20-year flood and the 1:100-year flood is 0.5 m/s. Therefore, the expected erosion during the 1:100-year flood would be on the same order as the 1:20-year event that occurred in 2020.

TABLE 3-2 Instantaneous Flood Magnitude Estimates

Flood Return Period	Instantaneous Flood Magnitude (m^3/s)
1:2-year	30
1:5-year	60
1:10-year	85
1:20-year	110
1:50-year	145
1:100-year	170

3.2 Hydrology

3.2.1 Precipitation

Total precipitation data sourced from the Environment and Climate Change Canada for the Beaverlodge Climate Station (Climate ID: 3070600) for 2023, including a comparison to the 30-year climate normal, and previous 4-year average for precipitation is provided in Table 3-3. The monthly variations in precipitation for 2023 from the 1981 to 2010 normal precipitation are shown as percent differences indicating the dominant wet or dry conditions over the course of the year (Table 3-3; Figure 3-1). December precipitation records for 2023 are incomplete at the time of this report.

Precipitation from January to April was predominantly below average and resulted in less snow accumulation over the region. Monthly rainfall during the summer was variable and with the exception of one heavy rainfall event in August was near normal. Overall precipitation to the end of the available record (end of October) was 17% below the historical average.

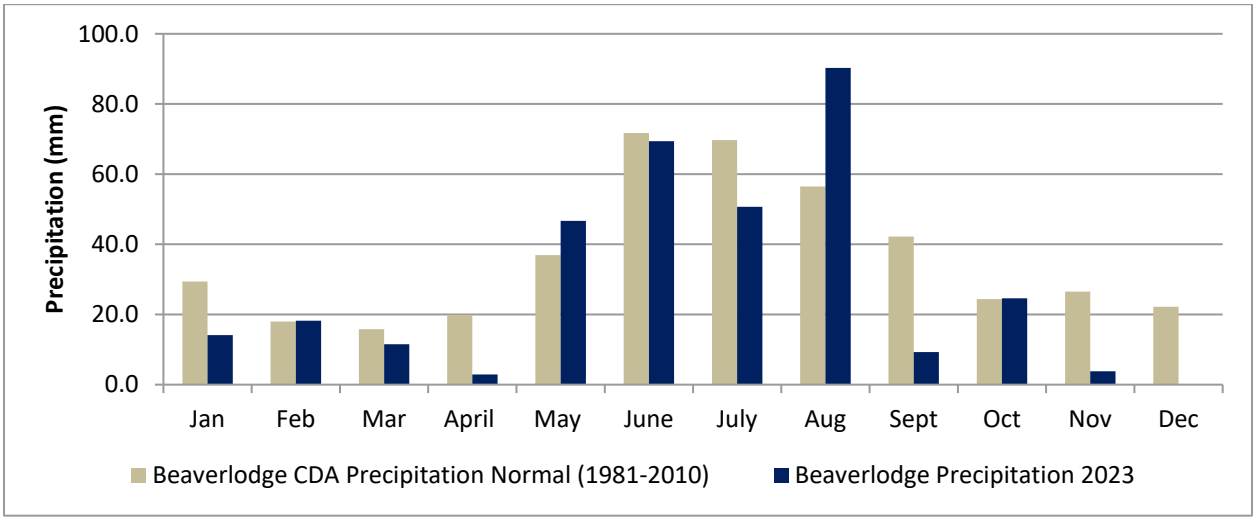

FIGURE 3-1 Beaverlodge Precipitation for 2023 Compared to the 30-year Normal Precipitation

TABLE 3-3 Beaverlodge Total Precipitation for 2019 to 2022 and Departures From the 1981 to 2010 Normal

Year	Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	EOAR[1]
1980 - 2010	Beaverlodge CDA 1981 - 2010 Normal (mm)	29.4	18.0	15.8	19.9	36.9	71.7	69.7	56.5	42.2	24.4	26.5	22.2	433.1	411.0
2019 - 2022 Average	Beaverlodge Precipitation (mm)	24.6	24.0	13.6	14.4	43.1	43.4	56.4	40.9	28.0	29.6	32.4	16.8	367.1	-
	Departure from Normal	-16%	33%	-14%	-28%	17%	-40%	-19%	-28%	-34%	21%	22%	-24%	-15%	-
2023	Beaverlodge Precipitation (mm)	14.1	18.2	11.5	2.9	46.7	69.4	50.7	90.3	9.3	24.6	3.8	-	-	341.5
	Departure from Normal	-52%	1%	-27%	-85%	27%	-3%	-27%	60%	-78%	1%	-86%	-	-	-17%

Note:
1. End of available record. 2023 data (January to November) compared to 1980-2010 normal January to November data.

3.2.2 Water Survey of Canada Gauge 07GD001

The available real time record for 2023 streamflow at the WSC gauge (taken November 2023) showed a peak flow of 5.09 m^3/s on April 17 due to snow melt. A second snowmelt induced peak was observed on May 9 with a maximum recorded flow of 2.500 m^3/s. After peak flow in April, flow rates gradually receded until reaching values below 1.0 m^3/s in late May and continuing to near-zero or zero-flow for the remainder of the open season. One significant rainfall-induced peak was observed on May 25 with a maximum flow of 2.11 m^3/s. The hydrograph showing both the WSC gauge and Beaverlodge River at the Weir gauge during 2023 is included in Appendix B.

Over the period of available record (1968 to 2020), discharge on the Beaverlodge River at the WSC gauge 07GD001 is dominated by snowmelt runoff with maximum annual flows occurring toward the end of April. Streamflow for the remainder of the year is highly dependent on the magnitude and frequency of rainfall and runoff events. Base flows tend to decrease throughout the open season with minimum flows frequently approaching zero from August to March (Table 3-4). The WSC gauge 07GD001 is operated seasonally only and winter discharge is not available. Published monthly summary statistics do not yet include the 2023 data.

TABLE 3-4 Minimum Monthly Mean, Maximum Monthly Mean, and Mean Monthly Discharge (m^3/s), Beaverlodge River at 07GD001 (1968 to 2022)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min. Monthly Mean	0.000	0.000	0.000	0.251	0.011	0.031	0.006	0.000	0.000	0.000	0.000	0.000
Max. Monthly Mean	0.196	0.217	11.500	38.600	39.600	26.100	27.000	15.200	10.200	3.770	0.570	1.220
Mean Monthly	0.062	0.070	1.660	11.400	8.190	3.630	2.790	1.120	0.531	0.487	0.151	0.221

3.2.3 Beaverlodge River at the Weir

A logger failure at the Beaverlodge River at the Weir site occurred during the final data download on September 6. This resulted in the loss of stage data collected between June 7 until the end of the open season. To estimate water levels, preliminary stage data was obtained from the WSC hydrometric gauge 07GFD001 (located 1.5 km downstream of the riffles). The WSC stage data was time-shifted to match corresponding discharge peaks during the period of overlap and corrected to match manual water level measurements taken during the open season at the Beaverlodge River at the Weir logger. The water level trace and site visit confirmed beaver impacts at the WSC gauge which are estimated to have started on September 12. To account for the beaver activity induced backwater and the corresponding effect on streamflow calculations, only data between June 7 and September 8 was used. All stage and discharge data reported for the Beaverlodge River at the Weir station after June 7 is considered to be an estimate.

Low winter precipitation in 2023 resulted in a hydrograph with a lower than usual spring run off with two significant peaks. The installation of the datalogger occurred on April 21, 4 days after the initial snowmelt induced peak recorded at the downstream WSC gauge. Once installed, the station recorded a snow melt-induced maximum instantaneous flow of 3.030 m^3/s on May 10, and a rain-induced maximum of 2.090 m^3/s on May 25. Extremely low water levels were recorded between snow melt-induced peaks on May 21 to 23. Water levels during this time frame were approximately 40 cm lower than the previously recorded low in 2022. This is likely the result of unknown upstream events that temporarily blocked or redirected streamflow. After peak flow in April, flow rates gradually receded until reaching values below 1.0 m^3/s in late May and reaching near-zero to zero-flow from early July for the remainder of the open season.

Monthly streamflow summary statistics for the Beaverlodge River at the Weir for the 2019-2023 open seasons are summarized in Table 3-5. Hydrographs and mean daily streamflow summaries are included in Appendix B.

TABLE 3-5 June to September Minimum, Maximum, and Mean Monthly Discharge (m^3/s) for the Beaverlodge River at the Weir - 2019 to 2023

Year		May	June	July	August	September
2019	Minimum	n/c	0.245	0.732	2.479	1.027
	Mean	n/c	2.045	3.617	5.220	1.945
	Maximum	n/c	6.913	17.358	10.460	3.901
2020	Minimum	n/c	n/c	3.002	0.004	0.002
	Mean	n/c	n/c	20.385	1.016	0.007
	Maximum	n/c	n/c	59.846	3.662	0.024
2021	Minimum	0.530	0.019	0.006	0.001	0.001
	Mean	2.990	1.800	0.015	0.003	0.002
	Maximum	7.200	6.710	0.033	0.019	0.002
2022	Minimum	7.380	0.703	0.004	0.001	0.000
	Mean	14.300	3.210	0.131	0.005	0.002
	Maximum	24.500	7.640	0.763	0.012	0.009
2023	Minimum	0.000	0.000	0.000	0.000	n/c
	Mean	0.801	0.000	0.000	0.000	n/c
	Maximum	3.030	0.779	0.011	0.022	n/c

n/c= not collected

3.3 Water Quality

3.3.1 Water Temperature

Water temperatures ranged from 4.0°C to 25.1°C within the study reach during the duration of the sonde deployment (Table 3-6; Appendix C). Mean daily water temperatures peaked on July 8 (22.6°C) and decreased relatively steadily throughout the remainder of the monitoring period with occasional fluctuation (Figure 3-2). Monthly average water temperatures were highest during the summer months (June, July, and August) with average monthly water temperatures of around 20°C. Similar water

temperatures were recorded during the collection of manual water quality measurements in June and August (Table 3-7). Water temperature on October 6 (final monitoring event) was 8°C at all monitoring locations except for monitoring location BL 6 (4.5°C; confirmed with manual measurements).

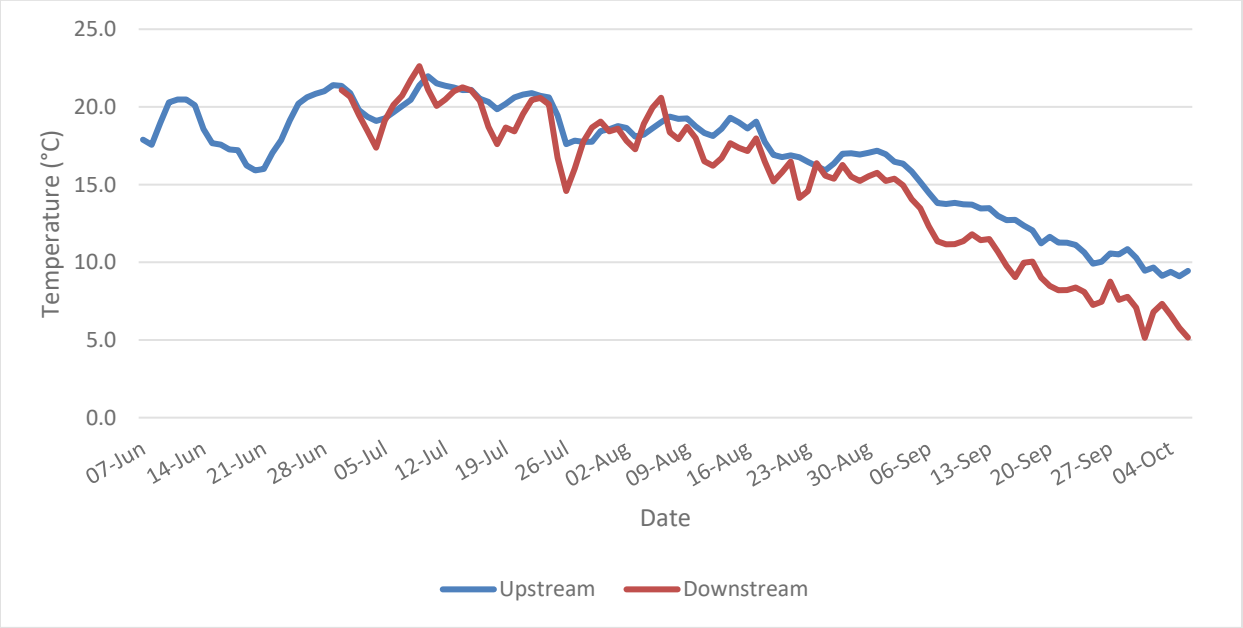

FIGURE 3-2 Daily Mean Water Temperature (June to October)

3.3.2 Dissolved Oxygen

Mean DO concentration at the upstream sonde was 17.3 mg/L, with concentrations ranging from 3.3 to 23.6 mg/L (Table 3-6; Appendix C). Mean DO concentration at the downstream sonde was 15.1 mg/L, with concentrations ranging from 1.8 to 14.4 mg/L (Table 3-6). Daily mean DO concentrations were generally above the chronic guidelines for the protection of freshwater aquatic life (AEP 2018), with occasional dips below the guidelines during the late summer and fall (Figure 3-3). At the downstream sonde, mean daily DO concentrations were at or below the acute guidelines for the protection of aquatic life (AEP 2018) in late August and early September. Mean daily DO concentrations were generally higher at the upstream sonde compared to the downstream sonde throughout the monitoring period (Figure 3-3); however, manual measurements were generally similar during each monitoring visit at both upstream and downstream sonde (Table 3-7).

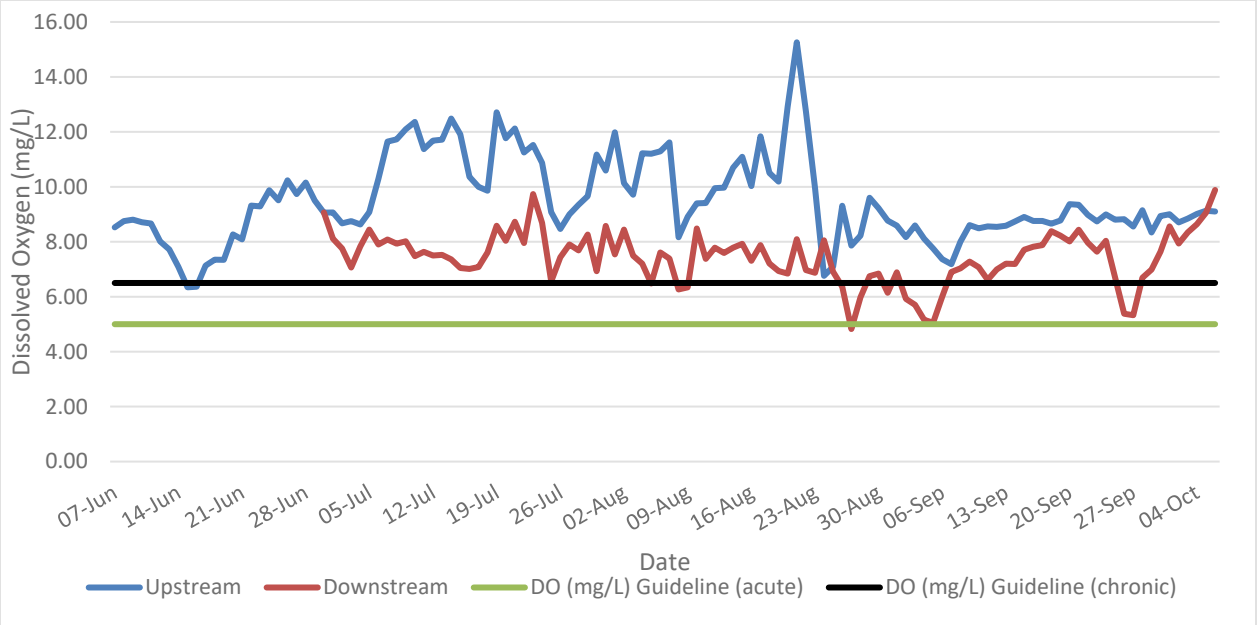

FIGURE 3-3 Daily Mean Dissolved Oxygen Concentration (June to October)

3.3.3 pH

pH levels ranged from 7.2 to 9.8 (Table 3-6; Appendix C); manual check measurements fell within the range of readings recorded by the sondes and did not exceed 8.3 during the corresponding time periods (Table 3-7). pH levels were lower at the downstream sonde from June to late August. From late August to October, pH levels are the downstream sonde trended upward, exceeding pH levels of the upstream sonde by mid-September and remaining higher for the remainder of the monitoring period (Figure 3-4). With the exception of the daily average pH level recorded on August 20, 2023 (9.27), average daily pH levels fell within the lower and upper pH guidelines to support aquatic life (AEP 2018).

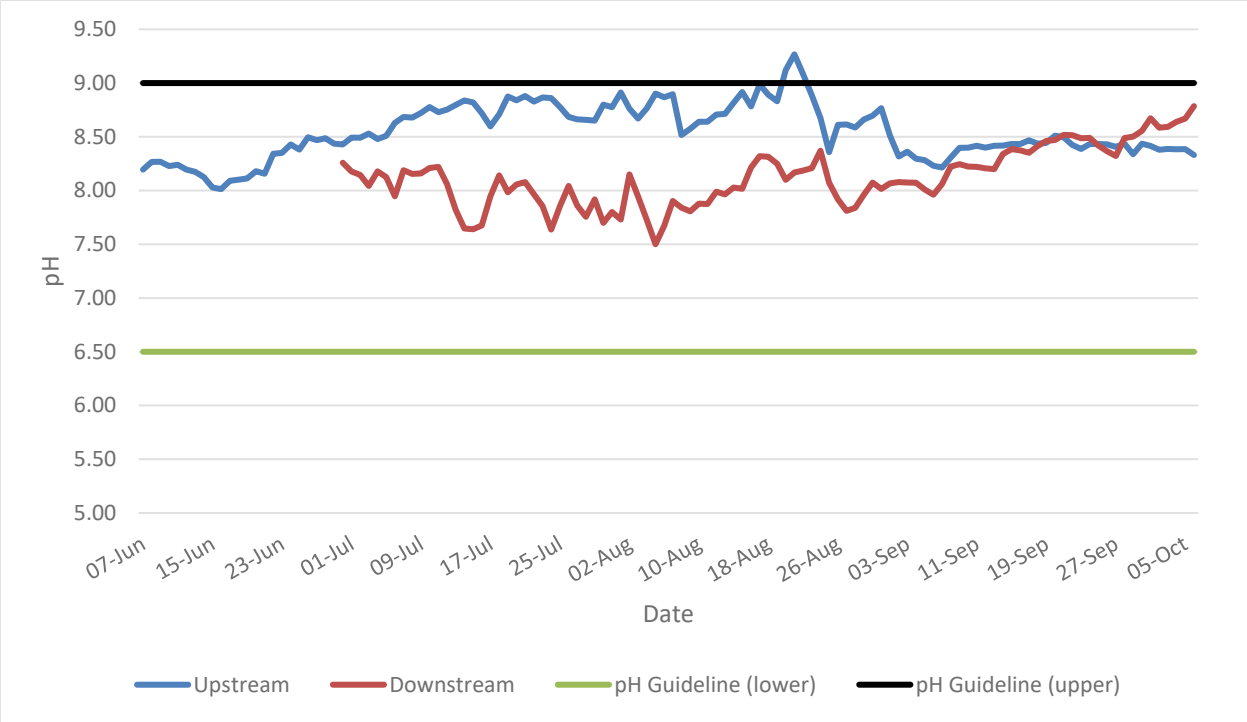

FIGURE 3-4 pH Daily Average (June to October)

3.3.4 Conductivity

SC ranged from 381.9 to 475.3 µS/cm at the upstream sonde and 526.9 to 1,728.5 µS/cm at the downstream sonde (Table 3-6; Appendix C). The lowest SC measurement at the upstream and downstream sonde occurred within the months of June and August, respectively. SC measurements recorded by the sondes were similar to manual measurements (Tables 3-6 and 3-7). SC measurements at the upstream sonde location remained consistent throughout monitoring period (Table 3-6). A large variation of average daily SC measurements was observed at the downstream sonde location as the values trended upward toward the end of the monitoring period (Figure 3-5). The increase in SC readings at the downstream sonde location corresponds with low flow and stagnant water conditions. As flow diminished throughout the monitoring period, influence of groundwater from a seep located directly downstream of Riffle 2 likely increased SC values. SC measurements at the downstream sonde location coincided with manual measurements throughout the monitoring period (Tables 3-6 and 3-7).

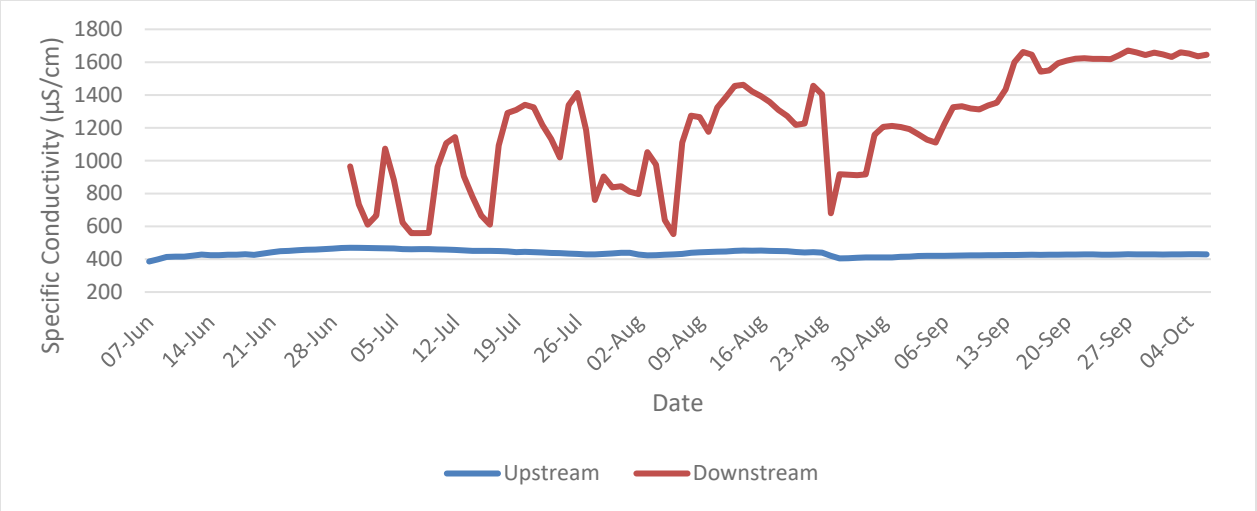

FIGURE 3-5 Specific Conductivity Daily Average (June to October)

3.3.5 Turbidity

Daily average turbidity values ranged from 0.0 to 77.5 NTU at the upstream sonde location (Tables 3-6 and 3-7). As mentioned in Section 2.5, the downstream sonde did not record turbidity for the duration of the monitoring period due to a faulty probe. Manual NTU measurements were the highest during the April 21, 2023, monitoring event, with the exception of the manual NTU measurement at BL6 on August 9 and October 23, 2023 (Table 3-7). The elevated turbidity at BL6 on October 23, 2023, was due to visibly turbid water observed, entering the Beaverlodge River 10 m downstream of Riffle 2.

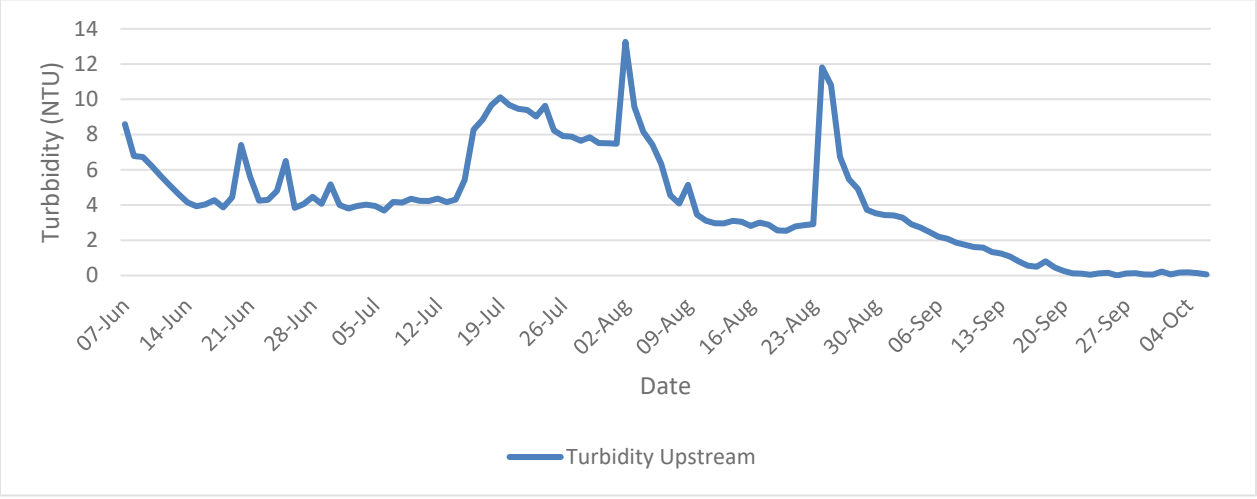

FIGURE 3-6 Turbidity Daily Average (June to October)

TABLE 3-6 2023 Sonde Data Summary

Month	Water Quality Parameter	Upstream			Downstream		
		Minimum	Maximum	Mean	Minimum	Maximum	Mean
June	pH	7.8	8.7	8.3	8.1	8.5	8.3
	Temperature (°C)	14.8	23.4	18.8	19.2	22.2	21.1
	EC (µS/cm)	363.5	496.1	427.4	767.1	1098.2	984.1
	SPC (µS/cm)	381.9	471.9	436.8	749.2	1080.4	964.9
	DO (mg/L)	5.3	13.2	8.5	7.3	10.2	9.1
	Turbidity (NTU)	3.3	65.4	5	-	-	-
July	pH	8.1	9.3	8.7	7.4	8.5	8
	Temperature (°C)	16.6	22.9	20	14.3	25.1	19.4
	EC (µS/cm)	403	484.7	449.7	539.3	1562.1	933.2
	SPC (µS/cm)	422.5	475.3	449.6	544.7	1728.5	950.1
	DO (mg/L)	6.5	20.7	10.6	3	14.4	7.8
	Turbidity (NTU)	3	52.6	6.5	-	-	-
August	pH	7.9	9.8	8.8	7.4	8.7	8
	Temperature (°C)	15.4	20.6	17.9	13	22.7	16.9
	EC (µS/cm)	360.7	452.9	415.8	488.3	1479.6	1066.2
	SPC (µS/cm)	390.1	457.8	433.3	526.9	1548.7	1136.9
	DO (mg/L)	3.3	23 .6	10.2	1.8	13.8	7.2
	Turbidity (NTU)	2.2	77.5	5.1	-	-	-
September	pH	8.1	8.9	8.4	7.8	8.8	8.3
	Temperature (°C)	9.3	17.9	12.8	6.2	16.1	10.4
	EC (µS/cm)	339.9	398.4	366.3	931.3	1387.3	1188.9
	SPC (µS/cm)	411.4	431.5	425.1	1073.8	1679.5	1467.1
	DO (mg/L)	5.8	12.3	8.6	2.7	10	7
	Turbidity (NTU)	0	12.5	1.1	-	-	-
October	pH	7.2	8.6	8.4	8.4	9.1	8.6
	Temperature (°C)	7.9	18.2	9.4	4	11.4	6.2
	EC (µS/cm)	330.3	355.1	341.1	1140.3	1329.7	1211.5
	SPC (µS/cm)	427.2	432.3	429.5	1619.6	1712.6	1645.3
	DO (mg/L)	7.8	11.1	9	5.9	12	8.6
	Turbidity (NTU)	0	11	0.1	-	-	-

Note: - = no data collected due to sonde probe malfunction

TABLE 3-7 Manual Water Quality Summary

Date	Water Quality Parameter	BL1	BL2	BL5	BL6
21-Apr-23	Temperature (°C)	2.3	2.3	4.1	4.1
	pH	7.6	7.4	8.1	7.9
	EC (µS/cm)	142.1	142.8	150.6	150.9
	SPC (µS/cm)	250.9	251.9	250.6	251.0
	Turbidity (NTU)	17.0	16.5	17.1	18.5
	DO (mg/L)	12.7	12.6	12.8	12.8
07-Jun-23	Temperature (°C)	17.6	18.1	17.6	17.7
	pH	8.1	8.1	8.2	8.2
	EC (µS/cm)	349.8	349.7	362.0	363.2
	SPC (µS/cm)	408.0	402.9	403.9	404.3
	Turbidity (NTU)	5.9	4.3	2.0	1.9
	DO (mg/L)	9.2	9.0	9.4	9.4
09-Aug-23	Temperature (°C)	18.8	19.3	19.3	18.4
	pH	8.0	8.3	8.1	7.8
	EC (µS/cm)	414.4	409.5	413.2	1019.0
	SPC (µS/cm)	470.6	459.8	463.9	1167.0
	Turbidity (NTU)	2.6	7.3	5.2	17.3
	DO (mg/L)	8.1	8.8	9.6	8.1
06-Oct-23	Temperature (°C)	8.2	8.3	8.8	4.5
	pH	7.4	7.7	7.2	8.2
	EC (µS/cm)	330.6	393.1	411.1	944.0
	SPC (µS/cm)	486.6	577.0	594.0	1551.0
	Turbidity (NTU)	4.0	0.6	3.1	27.6
	DO (mg/L)	9.1	6.2	6.9	11.6

3.4 Fish Sampling

A total of 1,187 seconds of electrofishing effort was conducted directly upstream and downstream of Riffle 1, upstream of Riffle 2, and within the large pool within both riffle structure. One Northern Pike and three White Sucker were captured with a Catch Per Unit Effort (CPUE) of 0.08 fish/100 sec and 0.25 fish/100 sec, respectively (Table 3-8). One hour of angling effort was conducted on June 12, 2023; two Northern Pike were captured (Tables 3-8 and 3-9). An additional 0.5 hours of angling effort was conducted on August 9, 2023; no fish were captured. No fish had positive PIT tags scans.

TABLE 3-8 Electrofishing Fish Sampling Results

Date	Effort (hour)	Species	Number Captured	CPUE (Fish/100 sec)
June 12, 2023	1,187	Northern Pike	1	0.08
June 12, 2023	1,187	White Sucker	3	0.25

TABLE 3-9 Angling Fish Sampling Results

Date	Effort (hour)	Species	Number Captured	CPUE (Fish/hour)
June 12, 2023	1.0	Northern Pike	2	2
August 9, 2023	0.5	NFC	0	0

Note: NFC= No fish captured

3.5 Fish Passage

3.5.1 Riffle Water Velocities

The fish passage design considered maximum flow velocities that resident fish can negotiate (i.e., fish burst speed or maximum speed for 10 seconds). This would account for short sections between resting locations within the fish passage structure (i.e., <1 m step between pools). Flow velocities to accommodate burst speeds for various sized fish are outlined below (Katapodis 1992); these velocities consider both anguilliform and subcarangiform swimming forms:

- 20 cm long fish – burst speed/maximum flow velocity is 1.20 m/s
- 25 cm long fish – burst speed/maximum flow velocity is 1.50 m/s
- 30 cm long fish – burst speed/maximum flow velocity is 1.85 m/s
- 40 cm long fish – burst speed/maximum flow velocity is 2.45 m/s

Point velocity measurements were completed during receding streamflow conditions with corresponding streamflow measurements of 2.657 m^3/s on April 21, and 0.156 m^3/s on June 7 (Tables 3-9 and 3-10). Velocities at the riffles are expected to decrease during times of high flow conditions (e.g., bankfull flow) due to an increase in cross-sectional area. However, velocity measurements during times of high flow across the riffles were not attempted due to unsafe access conditions (April).

Velocity measurements follow a vertical velocity profile where velocities decrease toward the channel bottom. Point velocity measurements at the surface of Riffle 1 ranged from 0.009 m/s on June 7 to 0.985 m/s on April 21, while the bottom water column measurements ranged from 0.102 m/s on June 7 to 0.967 m/s on April 21 (Table 3-10 and 3-10). On Riffle 2, surface point velocities ranged from 0.030 m/s on June 7 to 1.091 m/s on April 21. Bottom velocities within Riffle 2 ranged from 0.105 m/s on June 7 to 1.058 m/s on April 21 (Table 3-11). In general, spot flow measurements within both Riffle structures were found to be higher in velocities within the upper and middle sections of the riffle structures. Overall, both

riffle structures experienced similar surface velocities. Point velocities did not exceeded the listed burst speeds/maximum flow velocity outlined above (Tables 3-9 and 3-10). Pools and back water areas were present throughout the riffle structures, providing habitat for fish to utilize for resting as they move up the riffles. As detailed in Section 3.2.3, insufficient flow across Riffle 1 from May 21 to 23, and from June 21 until the end of the open season made fish passage unlikely during this period.

TABLE 3-10 Riffle 1 Point Velocity Summary Data

Transect Location Within the Riffle Structure	Water Column Location	21-Apr-23			07-Jun-23		
		Measurement Location Within Riffle Structure (m/s)			Measurement Location Within Riffle Structure (m/s)		
		25%	50%	75%	25%	50%	75%
Upstream	Surface	0.607	0.985	0.872	-	0.560	0.045
	Bottom	0.475	0.967	0.206	-	0.558	-
Middle	Surface	0.903	-	0.537	0.406	0.144	0.615
	Bottom	0.742	-	0.479	0.208	0.178	0.622
Downstream	Surface	0.479	-	0.672	0.009	0.392	0.147
	Bottom	0.342	-	0.206	0.102	0.420	-
Streamflow at time of velocity measurements (m^3/s)		2.657			0.156		

Note:
Measurements were started at the right bank (25%), centre (50%), and left bank (75%).

TABLE 3-11 Riffle 2 Point Velocity Summary Data

Transect Location Within the Riffle Structure	Water Column Location	21-Apr-22			07-Jun-23			09-Aug-23		
		Measurement Location Within Riffle Structure (m/s)			Measurement Location Within Riffle Structure (m/s)			Measurement Location Within Riffle Structure (m/s)		
		25%	50%	75%	25%	50%	75%	25%	75%	50%
Upstream	Surface	1.091	-	-	0.410	0.423	0.030	0.370	0.640	0.730
	Bottom	1.058	-	-	0.603	0.412	-	-	-	-
Middle	Surface	0.558	-	-	0.561	0.450	0.322	-	-	-
	Bottom	0.532	-	-	0.749	0.122	0.338	-	-	-
Downstream	Surface	0.281	-	-	0.282	0.375	0.255	0.320	0.340	0.400
	Bottom	0.128	-	-	0.305	0.341	0.105	-	-	-
Streamflow at time of velocity measurements (m^3/s)		2.657			0.156			-		

Note:
Measurements were started at the right bank (25%), centre (50%), and left bank (75%).

4 DISCUSSION

Channel Conditions/Engineering Assessment

Both riffle structures were observed to be stable with no significant movement of cobble or boulder material that would reduce the functionality of the riffles. In 2020, the right downstream bank (south bank) between Riffles 1 and 2 (Figure 2-1) saw extensive erosion, which was documented in the 2020 monitoring report (Matrix 2020b). Lower flows observed in 2023 compared to 2022 (daily maximum of about 5 m^3/s in 2023 and about 25 m^3/s in 2022) meant that minimal to no changes to the riffle structure and bank erosion occurred. There was no/minimal observed movement of the riprap compared to 2022, so the effectiveness of Riffle 2 has not changed since the 1:20-year flood in 2020. The right bank at Riffle 2 remains unstable with vertical banks. Some of the vegetation that slumped from the top of the bank in 2020 has had time to establish and may be preventing additional erosion of the right bank during lower flows. If a larger flow occurs (e.g., 25 m^3/s or greater – which is when erosion was observed to have worsened in 2022) the erosion on the right bank may increase. If left unmitigated the functionality of Riffle 2 may be impacted.

Continued erosion of the right bank could result in formation of a new channel thalweg adjacent to Riffle 2, allowing flow to bypass the riffle during low flow periods. If a new channel forms between the riffle and right bank location, water levels in the large pool located between Riffle 1 and Riffle 2 may lower to an elevation that is closer to pre-construction conditions. Lower water levels would potentially expose the toe/run out of Riffle 1, which could increase the distance that fish are required to swim to pass the riffle up to 20 m. The likelihood of the riffle being bypassed is unknown at this time. If the riffle is bypassed and water levels are reduced, fish may still be able to pass a longer riffle structure at Riffle 1.

Hydrology

Previous surveys determined that the $Q\text{-}fish_{min}$ flow required to overtop the riffle structures and allow fish passage was 0.040 m^3/s. Based on this level and the instream monitoring results, flow in the Beaverlodge River was below $Q\text{-}fish_{min}$ temporarily between May 20 and 23, and from June 21 until the end of the monitoring period.

Water Quality

The daily average DO concentrations throughout the monitoring year were highly variable and were recorded below chronic and acute thresholds on several occasions throughout the open water period of 2023. Daily average DO concentrations exceeded 10 mg/L during July and August, which could be an indication of a algae build up or debris on the sonde as readings are abnormal. The peak in abnormal average daily DO concentrations were observed August 21, 2023, which coincide with an increase in pH levels. This could further indicate the build of algae or debris on the probe, resulting in an incorrect reading. Excessive algae growth at the surface of the water column was observed during the August 10, 2023, site visit. Variation in naturally occurring DO concentrations is likely attributed to decreasing flows (see Section 3.2) and stagnating water conditions. Additionally, low flow conditions contribute to an

increase in algae build up and debris collection on the sondes. To negate such effects on the sondes, automatic wipers were installed at the beginning of the 2022 monitoring period; however, build up on the sonde's probes can occur rapidly and clearing of algae and debris may not be instantaneous and require further cleaning cycles by the automatic wiper. Efforts were made to ensure the quality of the readings were accurate during each site visit by cleaning sonde's probes of debris and algae build up, comparing sonde readings to spot measurements well in the field, and calibrating the sondes as needed. The sonde readings were comparable to that of spot measurements gathered during manual spot checks.

Daily average SC displayed large variations at the downstream sonde monitoring location when compared to the upstream sonde monitoring location; a trend observed in previous monitoring year. An increase in SC values at the downstream sonde location started in mid-July and continued for the remainder of the monitoring year. The variability and increase in SP readings correspond with receding water levels (see Section 3.2) observed during the summer months. In addition, groundwater seeps were identified directly downstream of Riffle 2 during the July, August, and October field visits. It is likely stagnant water and seeping groundwater downstream of Riffle 2 contributed to an increase in SC downstream of Riffle 2. Overall, spot measurements and sonde data identified suitable water quality parameters within the study reach to support resident fish species throughout the monitoring period.

Fish Habitat Conditions

Fish habitat conditions within the study reach have remained largely consistent throughout the monitoring years. The study reach has not experienced high velocities flows since the 1:20 year flood in 2020, leaving the habitat within the study reach largely unchanged since that event. Scouring of the right downstream bank, between the riffles, occurred in 2020, increasing the surface of the pool, and widened the bank adjacent to Riffle 2, but these changes have not resulted in substantial changes to fish habitat.

Overhead fish habitat cover along the riparian areas is provided by overhanging vegetation from various shrubs and grasses, with sections of uncut banks. Instream habitat features such as instream vegetation, depth of water, colour of water, and the accumulation of large woody debris along the shoreline remain present. As water levels decreased throughout the monitoring year, access to depth of water and overhanging vegetation fish cover decreased for resident fish. Within the riffle structures, fish habitat elements were provided by surface turbulence, boulders material, and the accumulation of woody debris observed periodically throughout the monitoring period, as observed in previous monitoring years.

Fish habitat directly downstream of the riffle structures consists of boulder substrate material, woody debris, and instream vegetation, providing refuge from deeper areas of the study reach, ideal for forage and juvenile sport and sucker fish species; forage fish species were observed downstream of each riffle structure throughout the monitoring period. Northern Pike and White Sucker were captured within deeper portions of the study reach. In addition to the species captured during the June monitoring event, large-bodied fish were observed upstream of Riffle 1; large-bodied fish observations could not be identified to species, but were likely sucker.

Overwintering capacity in the study reach continues to be suitable from a volume perspective, with the deep areas of run upstream of the weir and large pool habitat between Riffles 1 and 2. However, as observed in previous monitoring years, a declining flow rate within the Beaverlodge River occurs throughout the summer months, and a correlating decline in water quality conditions, particularly DO, would likely continue to follow the same pattern through the late fall and winter. Overwintering habitat conditions are likely unsuitable to support species such as Arctic Grayling and Bull Trout. Species such as White Sucker and Northern Pike are known to be tolerant of lower DO concentrations (Ford et al. 1995) and may still be present in these reaches during winter.

Fish Passage

Riffle velocities in 2023 met the flow requirements to accommodate the burst speeds for various sized anguilliform and subcarangiform swimming forms, including Arctic Grayling, Northern Pike, and sucker species. As documented in previous monitoring years, back water eddies and pools within the riffles were present, providing resting areas for fish and reducing the overall distance and gradient fish are required to swim at maximum burst speed. Peak flow occurred in April-May, then flow rates gradually receded until water levels became insufficient for fish passage on June 21 and for the remainder of the monitoring period. It is likely that water levels will remain insufficient for fish passage until freshet of 2024.

Although the water level was too low to provide fish passage through the riffle structures, flow was still observed to be directed toward the centre of the riffles as intended, and water was flowing within the interstices of the boulder and cobble material of the riffles. These flow conditions would still allow some small fish (e.g., fry, forage fish) to drift downstream. The fact that the water level was insufficient for fish passage is not a result of the riffle design, but a result of low flow conditions that are experienced regularly in the Beaverlodge River.

5 RECOMMENDATIONS

This report concludes the monitoring requirements of the DFO Monitoring Plan (Matrix 2017b), and associated project approvals. Matrix recommends that continuous erosional bank monitoring of the study site and riffle structures occur on a yearly basis (preferable after freshet period) and is reviewed by a hydrotechnical engineer to ensure structural integrity as needed.

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APPENDIX A
Site Photographs

APPENDIX A1
Comparison Photographs

1. Aerial View of the original Beaverlodge Weir Structure and Fish Ladder (September 2008).

2. Viewing original Beaverlodge Weir Structure and Fish Ladder, facing Upstream (September 2009).

3. Viewing inside of fish ladder prior to removal of the structure (September 2018).

4. Viewing inside of fish ladder prior to removal of the structure (September 2018).

5. Riffle 1, facing left bank immediately after construction (September 2018).

6. Riffle 1, facing downstream during fall monitoring (October 2019).

7. Riffle 1, facing downstream during fall monitoring (October 2020).

8. Riffle 1, facing left bank during fall monitoring (October 2021).

9. Riffle 1, facing downstream during fall monitoring (October 2022).

10. Riffle 1, facing left bank during fall monitoring (October 2023).

11. Riffle 2, facing upstream immediately after construction (September 2018).

12. Riffle 2, facing downstream during fall monitoring (October 2019).

13. Riffle 2, facing left bank during fall monitoring (October 2020).

14. Riffle 2, facing left bank during fall monitoring (October 2021).

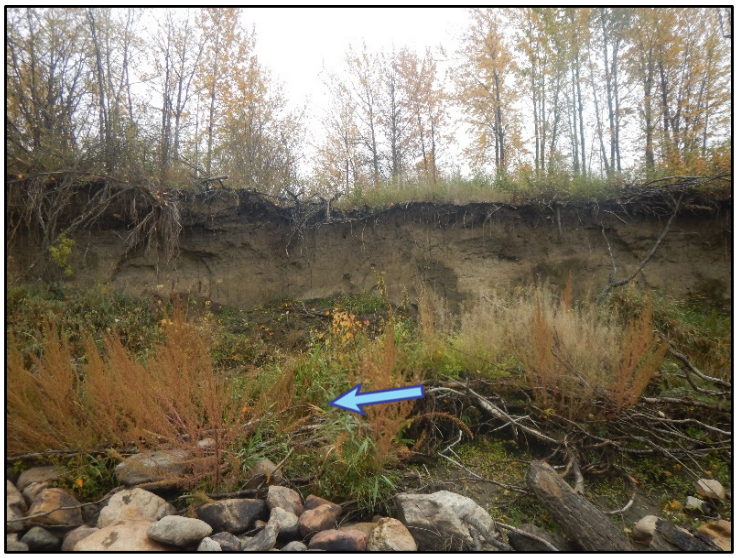
15. Riffle 2, facing left bank during fall monitoring (October 2022).

16. Riffle 2, facing left bank during fall monitoring (October 2023).

17. Riffle 2, facing right bank during construction (September 2018).

18. Eroded right bank at Riffle 2 (June 2019).

19. Eroded right bank at Riffle 2 (October 2020).



20. Eroded right bank at Riffle 2 (October 2021).

21. Eroded right bank at Riffle 2 (October 2022).

22. Eroded right bank at Riffle 2 (October 2023).

APPENDIX A2
5 Year Monitoring Locations

1. BL1; facing upstream from Riffle 1 (April 22, 2023).

2. BL1; facing upstream from Riffle 1 (June 9, 2023).

3. BL1; facing upstream from Riffle 1 (August 10, 2023).

4. BL1; facing upstream from Riffle 1 (October 10, 2023).

5. BL1; facing downstream at Riffle 1 (April 22, 2023).

6. BL1; facing downstream at Riffle 1 (June 9, 2023).

7. BL1; facing downstream at Riffle 1 (August 10, 2023).

8. BL1; facing downstream at Riffle 1 (October 10, 2023).

9. BL2; facing upstream at Riffle 1 (April 22, 2023).

10. BL2; facing upstream at Riffle 1 (June 9, 2023).

11. BL 2; facing upstream at Riffle 1 (August 10, 2023).

12. BL 2; facing upstream at Riffle 1 (October 10, 2023).

13. BL 2; facing downstream from Riffle 1 (April 22, 2023).

14. BL2; facing downstream from Riffle 1 (June 9, 2023).

15. BL2; facing downstream from Riffle 1 (August 10, 2023).

16. BL2; facing downstream from Riffle 1 (October 10, 2023).

17. BL 3; facing left downstream bank at BL 4 (April 22, 2023).

18. BL 3; facing left downstream bank at BL 4 (June 9, 2023).

19. BL 3; facing left downstream bank at BL 4 (August 10, 2023).

20. BL 5; facing upstream from Riffle 2 (April 22, 2023).

21. BL 5; facing upstream from Riffle 2 (June 9, 2023).

22. BL 5; facing upstream from Riffle 2 (August 10, 2023).

23. BL5; facing upstream from Riffle 2 (October 10, 2023).

24. BL 5; facing downstream towards Riffle 2 (April 22, 2023).

25. BL 5; facing downstream towards Riffle 2 (June 9, 2023).

26. BL 5; facing downstream towards Riffle 2 (August 10, 2023).

27. BL 5; facing downstream towards Riffle 2 (October 10, 2023).

28. BL 6; facing upstream from the bottom of Riffle 2 (April 22, 2023).

29. BL 6; facing upstream from the bottom of Riffle 2 (June 9, 2023).

30. BL 6; facing upstream from the bottom of Riffle 2 (August 10, 2023).

31. BL 6; facing upstream from the bottom of Riffle 2 (October 10, 2023).

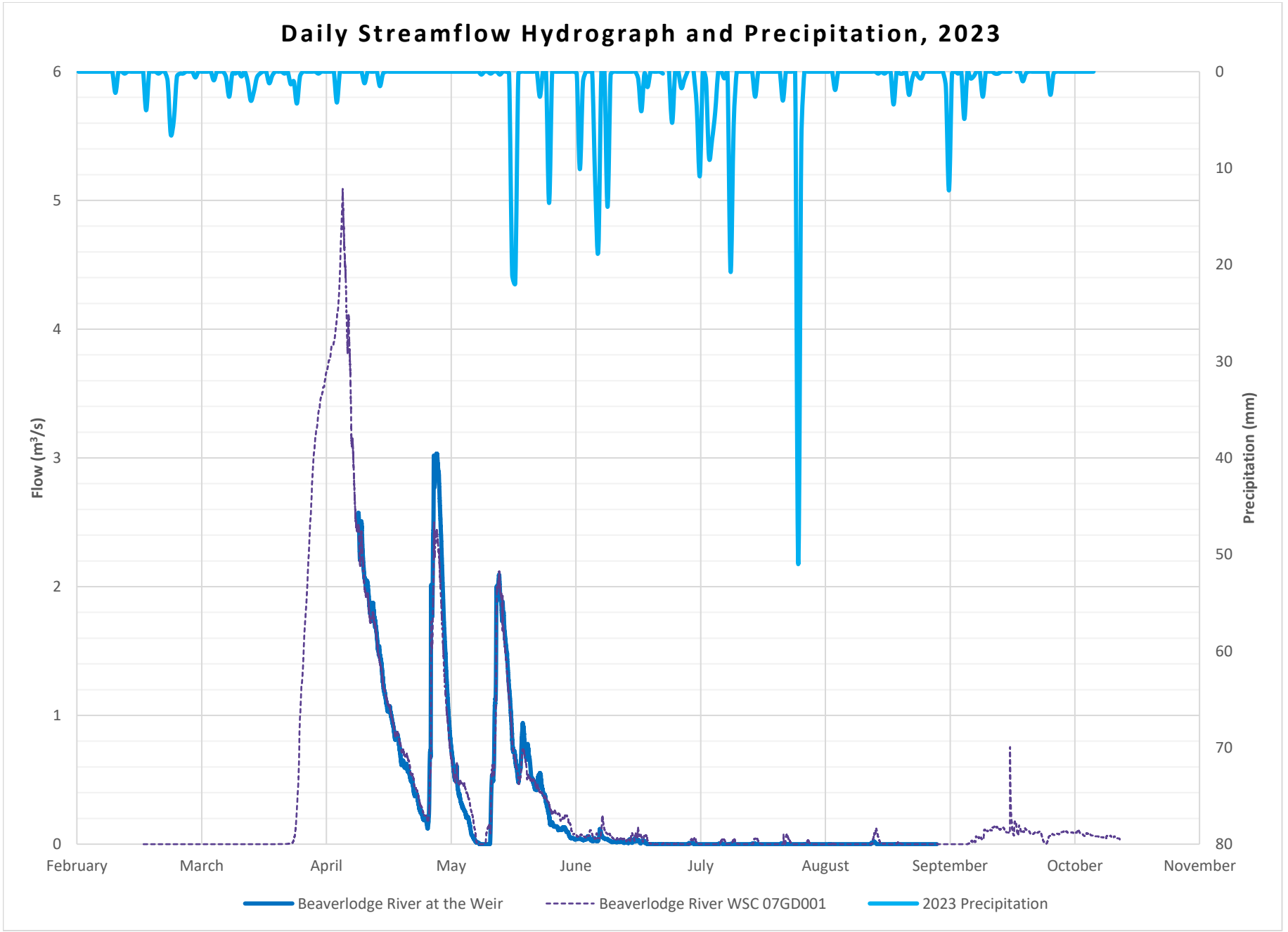
32. BL 6; facing downstream from the bottom of Riffle 2 (April 22, 2023).

33. BL 6; facing downstream from the bottom of Riffle 2 (June 9, 2023).

34. BL 6; facing downstream from the bottom of Riffle 2 (August 10, 2023).

35. BL 6; facing downstream from the bottom of Riffle 2 (October 10, 2023).

APPENDIX B
Hydrology


Daily Streamflow Hydrograph and Precipitation, 2023
Flow (m³/s)
Precipitation (mm)
0
1
2
3
4
5
6
0
10
20
30
40
50
60
70
80
February
March
April
May
June
July
August
September
October
November
Beaverlodge River at the Weir
Beaverlodge River WSC 07GD001
2023 Precipitation

Daily Statistic by Year - Mean

Beaverlodge River at the Weir

Period Selected: 2023-01-01 00:00 - 2023-12-31 23:59

Source Data: Discharge.Discharge@2199-01, Beaverlodge River
UTC Offset: -07:00, Start Time: 2019-05-31 13:30:00, End Time: 2023-09-07 19:00:00

Units: m^3/s
Data Coverage Threshold: 80%

Year: 2023

Max: *** Min: *** Mean: ***

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	***	***	***	***	0.76	0.702	0.000163	0.000713	0.00			
2	***	***	***	***	0.622	0.511	0.000104	0.00341	0.00			
3	***	***	***	***	0.585	0.46	0.000416	0.0000619	0.00			
4	***	***	***	***	0.485	0.50	0.00021	0.00	0.00			
5	***	***	***	***	0.379	0.365	0.00019	0.00	0.00			
6	***	***	***	***	0.275	0.223	0.000277	0.00	0.00			
7	***	***	***	***	0.197	0.151	0.0000999	0.000511	***			
8	***	***	***	***	0.29	0.128	0.00	0.00				
9	***	***	***	***	2.06	0.119	0.0000183	0.00				
10	***	***	***	***	2.95	0.114	0.00669	0.00				
11	***	***	***	***	2.44	0.0641	0.00335	0.00				
12	***	***	***	***	1.57	0.0429	0.00000384	0.00				
13	***	***	***	***	0.962	0.0419	0.00	0.0000336				
14	***	***	***	***	0.611	0.0358	0.00	0.00				
15	***	***	***	***	0.459	0.0441	0.00	0.00				
16	***	***	***	***	0.316	0.0392	0.00	0.00				
17	***	***	***	***	0.234	0.0315	0.00325	0.00				
18	***	***	***	***	0.14	0.0592	0.00142	0.00				
19	***	***	***	***	0.041	0.0563	0.00	0.00				
20	***	***	***	***	0.00925	0.0371	0.0021	0.00				
21	***	***	***	***	0.0000233	0.0209	0.0000581	0.00				
22	***	***	***	2.32	0.00	0.017	0.00	0.000458				
23	***	***	***	2.04	0.23	0.0186	0.00	0.0131				
24	***	***	***	1.84	1.06	0.0156	0.00	0.00252				
25	***	***	***	1.77	1.98	0.0188	0.00313	0.00				
26	***	***	***	1.53	1.77	0.0249	0.00102	0.00				
27	***	***	***	1.30	1.41	0.0341	0.00	0.00				
28	***	***	***	1.09	0.933	0.0177	0.00	0.000162				
29	***		***	1.01	0.643	0.0176	0.00	0.000284				
30	***		***	0.852	0.587	0.00119	0.00	0.00				
31	***		***		0.829		0.00	0.00				
Max	***	***	***	***	3.03	0.779	0.011	0.0216	***			
Min	***	***	***	***	0.00	0.000363	0.00	0.00	***			
Mean	***	***	***	***	0.801	0.13	0.000726	0.000686	***			

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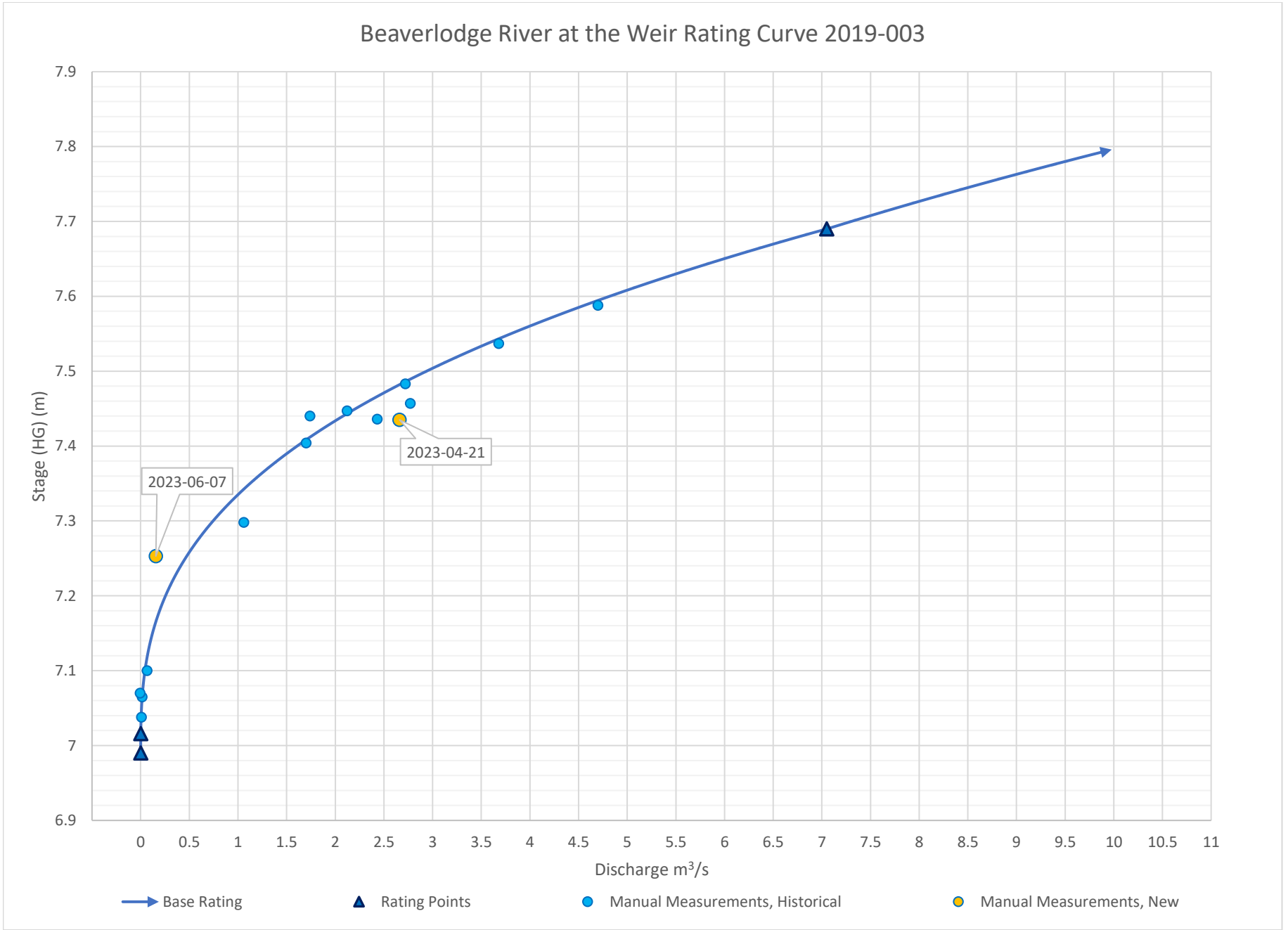
Beaverlodge River at the Weir Rating Curve 2019-003
Stage (HG) (m)
7.9
7.8
7.7
7.6
7.5
7.4
7.3
7.2
7.1
7
6.9
2023-06-07
2023-04-21
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
7
7.5
8
8.5
9
9.5
10
10.5
11
Discharge m3/s
Base Rating
Rating Points
Manual Measurements, Historical
Manual Measurements, New

Daily Statistic by Year - Mean

Beaverlodge River at the Weir

Period Selected: 2018-01-01 00:00 - 2022-12-31 23:59

Source Data: Discharge.Discharge@2199-01, Beaverlodge River
UTC Offset: -07:00, Start Time: 2019-05-31 13:30:00, End Time: 2023-09-07 19:00:00

Units: m^3/s
Data Coverage Threshold: 80%

Year: 2019

Max: 16.9 Min: 0.663 Mean: 3.13

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1						3.07	1.24	5.85	3.18	1.74	***	***
2						2.55	1.83	5.51	2.83	***	***	***
3						2.09	2.38	4.36	2.52	***	***	***
4						1.78	2.43	3.53	2.25	***	***	***
5						1.69	2.15	3.05	1.94	***	***	***
6						1.62	2.07	2.84	1.85	***	***	***
7						3.10	1.81	2.38	1.45	***	***	***
8						6.43	1.73	2.25	1.23	***	***	***
9						5.74	2.54	2.35	1.18	***	***	***
10						5.01	2.50	2.49	1.16	***	***	***
11						4.19	2.39	2.75	1.35	***	***	***
12						3.66	2.22	2.96	1.57	***	***	***
13						3.21	2.30	3.03	1.86	***	***	***
14						2.70	2.18	2.66	2.00	***	***	***
15						2.52	1.84	2.47	1.94	***	***	***
16						2.17	1.47	2.34	1.85	***	***	***
17						2.02	1.24	2.22	1.79	***	***	***
18						1.73	1.25	5.46	1.72	***	***	***
19						1.40	1.15	9.80	1.79	***	***	***
20						1.26	1.18	9.08	1.93	***	***	***
21						1.16	1.48	8.57	1.68	***	***	***
22						1.09	1.38	8.16	1.60	***	***	***
23						0.996	1.76	7.97	1.45	***	***	***
24						0.843	3.59	7.84	1.37	***	***	***
25						0.718	15.3	7.48	1.41	***	***	***
26						0.801	12.4	6.94	1.44	***	***	***
27						0.727	9.69	6.21	1.61	***	***	***
28						0.915	8.52	5.45	1.67	***	***	***
29						1.01	7.72	4.68	1.70	***	***	***
30						1.10	7.08	4.03	1.66	***	***	***
31					3.42		6.40	3.61		***		***
Max					3.58	7.04	16.9	10.0	3.41	1.85	***	***
Min					3.25	0.663	1.03	2.14	1.11	1.73	***	***
Mean					3.42	2.24	3.66	4.78	1.77	1.74	***	***

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Daily Statistic by Year - Mean

Beaverlodge River at the Weir

Period Selected: 2018-01-01 00:00 - 2022-12-31 23:59

Source Data: Discharge.Discharge@2199-01, Beaverlodge River
UTC Offset: -07:00, Start Time: 2019-05-31 13:30:00, End Time: 2023-09-07 19:00:00

Units: m^3/s
Data Coverage Threshold: 80%

Year: 2020

Max: *** Min: *** Mean: ***

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	***	***	***	***	***	***	3.32	3.44	0.00471	***	***	***
2	***	***	***	***	***	***	16.5	3.05	0.00401	***	***	***
3	***	***	***	***	***	***	28.1	2.86	0.00332	***	***	***
4	***	***	***	***	***	***	35.5	2.60	0.00317	***	***	***
5	***	***	***	***	***	***	37.2	2.26	0.00323	***	***	***
6	***	***	***	***	***	***	43.0	2.00	0.00329	***	***	***
7	***	***	***	***	***	***	53.6	1.75	0.00309	***	***	***
8	***	***	***	***	***	***	58.6	1.69	0.00288	***	***	***
9	***	***	***	***	***	***	50.9	1.62	0.00299	***	***	***
10	***	***	***	***	***	***	40.8	1.52	0.00316	***	***	***
11	***	***	***	***	***	***	33.7	1.24	0.00334	***	***	***
12	***	***	***	***	***	***	28.4	1.22	0.00398	***	***	***
13	***	***	***	***	***	***	24.1	1.05	0.00405	***	***	***
14	***	***	***	***	***	***	20.7	0.88	0.00442	***	***	***
15	***	***	***	***	***	***	18.1	0.771	0.0048	***	***	***
16	***	***	***	***	***	***	16.0	0.665	0.00468	***	***	***
17	***	***	***	***	***	***	14.2	0.656	0.00444	***	***	***
18	***	***	***	***	***	***	12.9	0.458	0.00399	***	***	***
19	***	***	***	***	***	***	11.7	0.349	0.0038	***	***	***
20	***	***	***	***	***	***	10.9	0.283	0.00435	***	***	***
21	***	***	***	***	***	***	10.3	0.245	0.00691	***	***	***
22	***	***	***	***	***	***	9.46	0.172	0.00893	***	***	***
23	***	***	***	***	***	***	8.70	0.131	0.00886	***	***	***
24	***	***	***	***	***	***	7.98	0.108	0.0175	***	***	***
25	***	***	***	***	***	4.44	7.27	0.0937	0.019	***	***	***
26	***	***	***	***	***	4.00	6.50	0.118	0.0186	***	***	***
27	***	***	***	***	***	3.47	5.88	0.109	0.0109	***	***	***
28	***	***	***	***	***	3.19	5.35	0.0972	0.0082	***	***	***
29	***	***	***	***	***	2.98	4.68	0.0364	0.00692	***	***	***
30	***		***	***	***	2.98	4.05	0.0153	0.018	***	***	***
31	***		***		***		3.63	0.00687		***		***
Max	***	***	***	***	***	4.58	59.8	3.66	0.024	***	***	***
Min	***	***	***	***	***	2.88	3.00	0.00416	0.00237	***	***	***
Mean	***	***	***	***	***	3.40	20.4	1.02	0.00665	***	***	***

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Daily Statistic by Year - Mean

Beaverlodge River at the Weir

Period Selected: 2018-01-01 00:00 - 2022-12-31 23:59

Source Data: Discharge.Discharge@2199-01, Beaverlodge River
UTC Offset: -07:00, Start Time: 2019-05-31 13:30:00, End Time: 2023-09-07 19:00:00

Units: m^3/s
Data Coverage Threshold: 80%

Year: 2021

Max: *** Min: *** Mean: ***

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	***	***	***	***	1.10	6.63	0.0202	0.00575	0.00225	0.00255	***	***
2	***	***	***	***	1.18	6.40	0.029	0.00583	0.00215	0.00265	***	***
3	***	***	***	***	1.21	6.00	0.0223	0.0054	0.00209	0.00231	***	***
4	***	***	***	***	1.16	5.52	0.0205	0.00475	0.00196	0.00226	***	***
5	***	***	***	***	1.02	4.74	0.0168	0.00493	0.00186	0.0031	***	***
6	***	***	***	***	0.855	3.99	0.0182	0.00472	0.00147	0.00319	***	***
7	***	***	***	***	0.715	3.30	0.0194	0.00355	0.00124	***	***	***
8	***	***	***	***	0.675	3.03	0.0171	0.00319	0.00133	***	***	***
9	***	***	***	***	0.681	2.55	0.017	0.00331	0.00275	***	***	***
10	***	***	***	***	0.581	2.17	0.0172	0.00301	0.00239	***	***	***
11	***	***	***	***	0.56	1.93	0.0166	0.00307	0.00225	***	***	***
12	***	***	***	***	0.653	1.54	0.0159	0.003	0.00219	***	***	***
13	***	***	***	***	0.598	1.19	0.0145	0.00268	0.00209	***	***	***
14	***	***	***	***	0.653	0.944	0.0144	0.00216	0.00232	***	***	***
15	***	***	***	***	0.645	0.775	0.0141	0.00195	0.00232	***	***	***
16	***	***	***	***	0.784	0.615	0.0153	0.00165	0.00222	***	***	***
17	***	***	***	***	0.973	0.556	0.0185	0.00119	0.00245	***	***	***
18	***	***	***	***	1.07	0.482	0.0167	0.000974	0.00293	***	***	***
19	***	***	***	***	2.68	0.354	0.0211	0.000978	0.00271	***	***	***
20	***	***	***	***	4.15	0.31	0.0177	0.00106	0.00242	***	***	***
21	***	***	***	***	5.22	0.237	0.0164	0.00109	0.00228	***	***	***
22	***	***	***	***	5.82	0.155	0.0148	0.0058	0.00207	***	***	***
23	***	***	***	***	6.04	0.165	0.0114	0.0104	0.00188	***	***	***
24	***	***	***	***	6.67	0.157	0.00983	0.00331	0.00197	***	***	***
25	***	***	***	***	7.12	0.0626	0.00927	0.00247	0.00202	***	***	***
26	***	***	***	***	7.07	0.0262	0.0088	0.00218	0.00245	***	***	***
27	***	***	***	***	6.75	0.0253	0.00795	0.00201	0.00286	***	***	***
28	***	***	***	***	6.39	0.0239	0.00762	0.00202	0.0027	***	***	***
29	***		***	***	6.48	0.0235	0.00733	0.00187	0.00247	***	***	***
30	***		***	0.999	6.53	0.0204	0.00694	0.00176	0.00264	***	***	***
31	***		***		6.72		0.00627	0.00212		***		***
Max	***	***	***	***	7.20	6.71	0.033	0.0201	0.00326	***	***	***
Min	***	***	***	***	0.53	0.0192	0.00569	0.000856	0.001	***	***	***
Mean	***	***	***	***	2.99	1.80	0.0151	0.00317	0.00222	***	***	***

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Daily Statistic by Year - Mean

Beaverlodge River at the Weir

Period Selected: 2018-01-01 00:00 - 2022-12-31 23:59

Source Data: Discharge.Discharge@2199-01, Beaverlodge River
UTC Offset: -07:00, Start Time: 2019-05-31 13:30:00, End Time: 2023-09-07 19:00:00

Units: m^3/s
Data Coverage Threshold: 80%

Year: 2022

Max: *** Min: *** Mean: ***

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	***	***	***	***	8.39	7.55	0.647	0.00695	0.00223	0.00781	***	***
2	***	***	***	***	8.51	7.33	0.576	0.0078	0.00151	0.00815	***	***
3	***	***	***	***	8.14	6.97	0.429	0.00984	0.00118	0.00813	***	***
4	***	***	***	***	7.95	6.39	0.288	0.00955	0.00095	0.0081	***	***
5	***	***	***	***	8.05	5.89	0.273	0.00817	0.000761	0.0079	***	***
6	***	***	***	***	9.80	5.25	0.27	0.00679	0.00057	0.00757	***	***
7	***	***	***	***	14.1	4.77	0.205	0.00656	0.000416	0.00771	***	***
8	***	***	***	***	18.9	4.41	0.147	0.00866	0.000243	0.00798	***	***
9	***	***	***	***	22.5	4.00	0.113	0.00868	0.0000617	0.00795	***	***
10	***	***	***	***	24.0	3.58	0.0645	0.00888	0.00	0.00803	***	***
11	***	***	***	***	23.4	3.17	0.0967	0.00821	0.00	***	***	***
12	***	***	***	***	23.0	2.80	0.263	0.00809	0.00	***	***	***
13	***	***	***	***	22.6	2.53	0.222	0.00752	0.00	***	***	***
14	***	***	***	***	22.1	2.18	0.151	0.00709	0.00	***	***	***
15	***	***	***	***	21.8	1.91	0.113	0.00639	0.00	***	***	***
16	***	***	***	***	20.5	1.61	0.0686	0.00628	0.00	***	***	***
17	***	***	***	***	19.2	1.62	0.0449	0.00603	0.00183	***	***	***
18	***	***	***	***	18.1	1.68	0.0131	0.00583	0.0109	***	***	***
19	***	***	***	***	17.0	1.95	0.00913	0.00575	0.00815	***	***	***
20	***	***	***	***	16.1	2.34	0.00781	0.0056	0.00727	***	***	***
21	***	***	***	***	14.8	2.20	0.00709	0.00538	0.00734	***	***	***
22	***	***	***	***	13.5	2.38	0.00685	0.00487	0.00913	***	***	***
23	***	***	***	2.95	12.3	2.51	0.00651	0.00457	0.00892	***	***	***
24	***	***	***	3.55	11.2	2.19	0.00665	0.00437	0.00788	***	***	***
25	***	***	***	3.98	10.1	2.07	0.00614	0.00651	0.00745	***	***	***
26	***	***	***	4.76	9.26	1.97	0.00586	0.0068	0.0073	***	***	***
27	***	***	***	5.23	8.44	1.77	0.00572	0.00579	0.0072	***	***	***
28	***	***	***	6.02	7.86	1.45	0.00568	0.00501	0.00713	***	***	***
29	***		***	7.55	7.80	1.10	0.00565	0.00447	0.00772	***	***	***
30	***		***	8.34	7.64	0.779	0.00675	0.00389	0.00778	***	***	***
31	***		***		7.53		0.00715	0.00302		***		***
Max	***	***	***	***	24.5	7.64	0.763	0.0131	0.0134	***	***	***
Min	***	***	***	***	7.38	0.703	0.00479	0.00241	0.00	***	***	***
Mean	***	***	***	***	14.3	3.21	0.131	0.00656	0.0038	***	***	***

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APPENDIX C
Water Quality Sonde Data

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-07 16:00	0	7.948	-117.974	224.282	17.261	365.233	385.397	0.208	0.251	8.364	17.261	20.7
2023-06-07 16:15	900	7.996	-120.599	233.144	17.374	365.818	385.134	0.207	0.250	8.184	17.374	8.94
2023-06-07 16:30	1800	8.041	-123.038	233.566	17.396	365.226	384.346	0.207	0.250	8.236	17.396	8.749
2023-06-07 16:45	2700	8.119	-127.246	232.65	17.459	365.143	383.765	0.207	0.249	8.277	17.459	8.757
2023-06-07 17:00	3600	8.162	-129.609	221.545	17.546	365.102	383.058	0.206	0.249	8.303	17.546	10.653
2023-06-07 17:15	4500	8.256	-135.391	226.475	19.107	381.591	388.214	0.208	0.252	8.596	19.107	6.585
2023-06-07 17:30	5400	8.323	-139.351	226.113	19.812	395.372	396.8	0.213	0.258	9.017	19.812	6.802
2023-06-07 17:45	6300	8.284	-137.296	226.239	19.872	398.096	399.073	0.214	0.259	9.067	19.872	6.706
2023-06-07 18:00	7200	8.228	-134.275	209.884	19.953	401.26	401.622	0.216	0.261	9.076	19.953	6.6
2023-06-07 18:15	8100	8.244	-135.148	231.02	19.985	401.984	402.102	0.216	0.261	9.097	19.985	6.846
2023-06-07 18:30	9000	8.281	-137.124	230.333	19.836	397.507	398.754	0.214	0.259	9.374	19.836	6.509
2023-06-07 18:45	9900	8.220	-133.047	230.326	18.254	369.205	381.942	0.205	0.248	8.882	18.254	7.025
2023-06-07 19:00	10800	8.230	-133.407	218.193	17.771	365.982	382.255	0.206	0.248	9.036	17.771	7.482
2023-06-07 19:15	11700	8.240	-133.789	231.606	17.514	364.732	382.912	0.206	0.249	8.711	17.514	8.734
2023-06-07 19:30	12600	8.224	-132.84	233.344	17.327	363.935	383.519	0.207	0.249	8.549	17.327	8.952
2023-06-07 19:45	13500	8.235	-133.479	238.964	17.331	364.413	383.991	0.207	0.250	8.555	17.331	9.241
2023-06-07 20:00	14400	8.213	-132.265	222.155	17.383	363.934	383.085	0.206	0.249	8.544	17.383	7.932
2023-06-07 20:15	15300	8.184	-130.787	236.656	17.475	364.391	382.853	0.206	0.249	8.318	17.475	8.468
2023-06-07 20:30	16200	8.182	-130.658	238.826	17.416	364.717	383.65	0.207	0.249	8.443	17.416	9.083
2023-06-07 20:45	17100	8.234	-133.424	238.876	17.347	364.484	383.938	0.207	0.250	8.483	17.347	9.041
2023-06-07 21:00	18000	8.210	-132.105	225.879	17.383	364.034	383.19	0.206	0.249	8.383	17.383	9.857
2023-06-07 21:15	18900	8.187	-130.932	238.723	17.443	363.837	382.52	0.206	0.249	8.222	17.443	8.688
2023-06-07 21:30	19800	8.194	-131.319	241.424	17.464	363.53	382.035	0.206	0.248	8.270	17.464	9.056
2023-06-07 21:45	20700	8.179	-130.527	243.165	17.479	364.172	382.598	0.206	0.249	8.308	17.479	11.003
2023-06-07 22:00	21600	8.206	-131.953	228.166	17.465	365.62	384.22	0.207	0.250	8.455	17.465	7.517
2023-06-07 22:15	22500	8.219	-132.651	240.783	17.449	364.601	383.274	0.206	0.249	8.229	17.449	8.224
2023-06-07 22:30	23400	8.211	-132.225	243.105	17.426	364.619	383.476	0.206	0.249	8.197	17.426	8.041
2023-06-07 22:45	24300	8.205	-131.86	244.338	17.404	364.188	383.186	0.206	0.249	8.262	17.404	7.624
2023-06-07 23:00	25200	8.197	-131.409	233.015	17.38	364.41	383.606	0.207	0.249	8.361	17.38	7.293
2023-06-07 23:15	26100	8.199	-131.552	242.728	17.395	364.56	383.646	0.207	0.249	8.314	17.395	7.713
2023-06-07 23:30	27000	8.195	-131.345	244.457	17.385	364.351	383.502	0.207	0.249	8.332	17.385	7.934
2023-06-07 23:45	27900	8.188	-130.928	244.605	17.381	364.386	383.571	0.207	0.249	8.336	17.381	7.919
2023-06-08 00:00	28800	8.177	-130.346	230.705	17.372	364.73	384.005	0.207	0.250	8.286	17.372	7.241
2023-06-08 00:15	29700	8.218	-132.585	242.867	17.422	364.606	383.487	0.206	0.249	8.305	17.422	7.436
2023-06-08 00:30	30600	8.225	-132.961	243.756	17.438	365.09	383.872	0.207	0.250	8.427	17.438	7.164
2023-06-08 00:45	31500	8.260	-134.861	243.515	17.445	365.495	384.247	0.207	0.250	8.541	17.445	6.91
2023-06-08 01:00	32400	8.252	-134.437	234.853	17.43	365.929	384.818	0.207	0.250	8.684	17.43	6.822
2023-06-08 01:15	33300	8.251	-134.37	242.49	17.454	366.015	384.727	0.207	0.250	8.631	17.454	7.08
2023-06-08 01:30	34200	8.220	-132.678	245.356	17.442	365.997	384.799	0.207	0.250	8.493	17.442	6.949
2023-06-08 01:45	35100	8.234	-133.452	243.613	17.432	365.913	384.787	0.207	0.250	8.464	17.432	6.904
2023-06-08 02:00	36000	8.209	-132.06	234.21	17.358	364.971	384.369	0.207	0.250	8.330	17.358	6.939
2023-06-08 02:15	36900	8.207	-131.943	243.358	17.372	365.208	384.505	0.207	0.250	8.352	17.372	6.816
2023-06-08 02:30	37800	8.215	-132.363	244.555	17.317	365.107	384.826	0.207	0.250	8.319	17.317	6.283
2023-06-08 02:45	38700	8.234	-133.39	245.737	17.344	365.504	385.04	0.207	0.250	8.368	17.344	6.766
2023-06-08 03:00	39600	8.230	-133.169	240.318	17.345	365.849	385.393	0.208	0.251	8.437	17.345	6.967
2023-06-08 03:15	40500	8.234	-133.39	245.682	17.336	365.736	385.345	0.208	0.250	8.411	17.336	7.131
2023-06-08 03:30	41400	8.238	-133.574	245.921	17.294	365.473	385.39	0.208	0.251	8.446	17.294	7.48
2023-06-08 03:45	42300	8.228	-133.045	245.458	17.273	365.278	385.347	0.208	0.250	8.387	17.273	7.366
2023-06-08 04:00	43200	8.203	-131.688	232.407	17.244	364.964	385.24	0.208	0.250	8.355	17.244	7.413
2023-06-08 04:15	44100	8.199	-131.481	245.382	17.229	365.152	385.559	0.208	0.251	8.336	17.229	7.505
2023-06-08 04:30	45000	8.162	-129.454	247.015	17.183	364.527	385.251	0.208	0.250	8.018	17.183	7.614
2023-06-08 04:45	45900	8.153	-128.984	248.21	17.153	364.288	385.232	0.208	0.250	7.878	17.153	8.163
2023-06-08 05:00	46800	8.168	-129.743	240.525	17.157	365.751	386.748	0.208	0.251	7.902	17.157	7.452
2023-06-08 05:15	47700	8.163	-129.488	246.231	17.159	367.447	388.528	0.209	0.253	7.996	17.159	7.568
2023-06-08 05:30	48600	8.177	-130.277	248.384	17.163	368.261	389.36	0.210	0.253	8.005	17.163	7.538
2023-06-08 05:45	49500	8.175	-130.162	248.217	17.16	369.491	390.686	0.211	0.254	8.087	17.16	7.136

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-08 06:00	50400	8.159	-129.294	238.957	17.126	367.528	388.872	0.210	0.253	8.183	17.126	8.282
2023-06-08 06:15	51300	8.170	-129.838	247.03	17.122	368.267	389.692	0.210	0.253	8.103	17.122	7.288
2023-06-08 06:30	52200	8.169	-129.809	247.654	17.089	367.235	388.853	0.210	0.253	8.085	17.089	7.884
2023-06-08 06:45	53100	8.193	-131.071	248.396	17.073	368.082	389.874	0.210	0.253	8.026	17.073	7.463
2023-06-08 07:00	54000	8.191	-130.961	241.741	17.041	368.408	390.476	0.210	0.254	8.102	17.041	7.405
2023-06-08 07:15	54900	8.172	-129.948	247.046	17.028	368.288	390.451	0.210	0.254	8.061	17.028	7.853
2023-06-08 07:30	55800	8.164	-129.509	248.093	17.016	369.112	391.424	0.211	0.254	8.089	17.016	7.615
2023-06-08 07:45	56700	8.188	-130.806	248.644	17.023	371.863	394.279	0.213	0.256	8.048	17.023	7.088
2023-06-08 08:00	57600	8.183	-130.498	235.235	17.02	372.192	394.654	0.213	0.257	8.228	17.02	7.263
2023-06-08 08:15	58500	8.196	-131.197	245.182	17.001	370.899	393.435	0.212	0.256	8.209	17.001	7.681
2023-06-08 08:30	59400	8.195	-131.137	246.202	16.992	370.696	393.289	0.212	0.256	8.066	16.992	7.519
2023-06-08 08:45	60300	8.207	-131.774	246.441	16.996	372.057	394.702	0.213	0.257	8.168	16.996	7.146
2023-06-08 09:00	61200	8.209	-131.905	236.77	16.987	372.437	395.182	0.213	0.257	8.236	16.987	7.011
2023-06-08 09:15	62100	8.204	-131.626	242.69	16.998	374.556	397.336	0.214	0.258	8.206	16.998	6.86
2023-06-08 09:30	63000	8.212	-132.062	243.68	17.002	375.468	398.277	0.215	0.259	8.425	17.002	6.528
2023-06-08 09:45	63900	8.235	-133.302	244.099	17.007	376.288	399.107	0.215	0.259	8.510	17.007	6.706
2023-06-08 10:00	64800	8.237	-133.393	231.194	17.013	377.04	399.85	0.216	0.260	8.562	17.013	6.598
2023-06-08 10:15	65700	8.263	-134.811	240.573	17.025	377.436	400.172	0.216	0.260	8.615	17.025	6.608
2023-06-08 10:30	66600	8.247	-133.984	242.717	17.032	377.116	399.779	0.216	0.260	8.545	17.032	6.861
2023-06-08 10:45	67500	8.237	-133.443	242.531	17.039	377.311	399.93	0.216	0.260	8.493	17.039	7.09
2023-06-08 11:00	68400	8.260	-134.683	233.862	17.054	378.609	401.179	0.216	0.261	8.529	17.054	6.668
2023-06-08 11:15	69300	8.275	-135.493	240.337	17.087	379.665	402.032	0.217	0.261	8.599	17.087	6.516
2023-06-08 11:30	70200	8.288	-136.189	240.79	17.115	380.226	402.399	0.217	0.262	8.706	17.115	6.59
2023-06-08 11:45	71100	8.276	-135.581	240.499	17.135	380.745	402.789	0.217	0.262	8.761	17.135	6.409
2023-06-08 12:00	72000	8.273	-135.407	229.117	17.165	381.702	403.557	0.218	0.262	8.814	17.165	6.37
2023-06-08 12:15	72900	8.309	-137.386	238.535	17.206	382.236	403.785	0.218	0.262	8.860	17.206	6.453
2023-06-08 12:30	73800	8.317	-137.851	238.845	17.249	382.863	404.092	0.218	0.263	8.857	17.249	6.281
2023-06-08 12:45	74700	8.319	-137.968	238.809	17.302	383.732	404.581	0.218	0.263	8.888	17.302	6.276
2023-06-08 13:00	75600	8.318	-137.93	224.518	17.34	384.564	405.151	0.219	0.263	9.025	17.34	6.384
2023-06-08 13:15	76500	8.332	-138.686	236.387	17.383	385.049	405.306	0.219	0.263	9.057	17.383	6.284
2023-06-08 13:30	77400	8.340	-139.182	237.052	17.448	385.819	405.585	0.219	0.264	9.056	17.448	6.498
2023-06-08 13:45	78300	8.339	-139.115	238.249	17.498	386.455	405.849	0.219	0.264	9.142	17.498	6.251
2023-06-08 14:00	79200	8.316	-137.937	227.281	17.53	386.83	405.986	0.219	0.264	9.142	17.53	6.518
2023-06-08 14:15	80100	8.344	-139.461	237.307	17.591	387.51	406.202	0.219	0.264	9.181	17.591	6.512
2023-06-08 14:30	81000	8.340	-139.279	238.11	17.643	388.292	406.6	0.219	0.264	9.147	17.643	6.75
2023-06-08 14:45	81900	8.344	-139.477	238.442	17.666	388.976	407.129	0.219	0.265	9.230	17.666	6.529
2023-06-08 15:00	82800	8.339	-139.201	231.563	17.675	389.322	407.413	0.220	0.265	9.250	17.675	6.66
2023-06-08 15:15	83700	8.337	-139.153	235.922	17.737	389.874	407.489	0.220	0.265	9.230	17.737	6.381
2023-06-08 15:30	84600	8.337	-139.132	236.527	17.767	390.136	407.52	0.220	0.265	9.306	17.767	6.755
2023-06-08 15:45	85500	8.340	-139.365	235.731	17.851	392.068	408.853	0.220	0.266	9.283	17.851	6.416
2023-06-08 16:00	86400	8.326	-138.607	225.994	17.891	392.685	409.171	0.221	0.266	9.260	17.891	6.364
2023-06-08 16:15	87300	8.340	-139.399	234.403	17.911	392.34	408.644	0.220	0.266	9.266	17.911	6.728
2023-06-08 16:30	88200	8.339	-139.318	235.438	17.891	392.2	408.661	0.220	0.266	9.329	17.891	6.652
2023-06-08 16:45	89100	8.338	-139.267	236.301	17.903	391.988	408.346	0.220	0.265	9.314	17.903	6.716
2023-06-08 17:00	90000	8.329	-138.791	229.16	17.915	391.165	407.387	0.220	0.265	9.319	17.915	6.388
2023-06-08 17:15	90900	8.329	-138.791	234.305	17.934	391.261	407.338	0.219	0.265	9.295	17.934	6.374
2023-06-08 17:30	91800	8.329	-138.814	236.472	17.949	391.254	407.203	0.219	0.265	9.273	17.949	6.569
2023-06-08 17:45	92700	8.329	-138.817	236.587	18.01	392.049	407.537	0.220	0.265	9.263	18.01	6.411
2023-06-08 18:00	93600	8.330	-138.845	223.5	17.961	391.454	407.32	0.219	0.265	9.309	17.961	6.058
2023-06-08 18:15	94500	8.331	-138.917	234.324	17.999	391.808	407.377	0.219	0.265	9.305	17.999	6
2023-06-08 18:30	95400	8.337	-139.277	237.228	18.048	392.059	407.242	0.219	0.265	9.296	18.048	5.846
2023-06-08 18:45	96300	8.353	-140.245	234.439	18.258	395.389	409.001	0.220	0.266	9.259	18.258	6.133
2023-06-08 19:00	97200	8.343	-139.756	231.251	18.331	397.116	410.193	0.221	0.267	9.317	18.331	6.512
2023-06-08 19:15	98100	8.341	-139.654	232.922	18.306	396.438	409.692	0.221	0.266	9.317	18.306	6.526
2023-06-08 19:30	99000	8.339	-139.489	234.591	18.277	395.71	409.178	0.220	0.266	9.390	18.277	6.347
2023-06-08 19:45	99900	8.347	-139.933	235.771	18.215	395.601	409.567	0.221	0.266	9.472	18.215	6.494

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-08 20:00	100800	8.326	-138.814	224.032	18.323	397.735	410.893	0.221	0.267	9.307	18.323	6.736
2023-06-08 20:15	101700	8.328	-139.034	231.947	18.516	399.568	411.221	0.221	0.267	9.220	18.516	6.26
2023-06-08 20:30	102600	8.311	-138.011	231.444	18.34	397.583	410.597	0.221	0.267	9.185	18.34	6.219
2023-06-08 20:45	103500	8.311	-138.023	233.871	18.316	397.656	410.873	0.221	0.267	9.208	18.316	6.311
2023-06-08 21:00	104400	8.315	-138.218	227.367	18.336	397.935	410.996	0.221	0.267	9.190	18.336	6.526
2023-06-08 21:15	105300	8.307	-137.806	230.874	18.352	398.122	411.057	0.221	0.267	9.142	18.352	6.356
2023-06-08 21:30	106200	8.334	-139.341	230.92	18.465	399.256	411.313	0.221	0.267	9.173	18.465	6.672
2023-06-08 21:45	107100	8.304	-137.708	232.269	18.48	399.61	411.56	0.222	0.268	9.154	18.48	6.33
2023-06-08 22:00	108000	8.288	-136.79	219.454	18.409	398.784	411.278	0.221	0.267	9.180	18.409	6.35
2023-06-08 22:15	108900	8.300	-137.439	229.32	18.366	397.794	410.609	0.221	0.267	9.148	18.366	6.53
2023-06-08 22:30	109800	8.299	-137.341	231.184	18.302	396.55	409.844	0.221	0.266	9.199	18.302	6.584
2023-06-08 22:45	110700	8.289	-136.771	231.501	18.209	394.784	408.765	0.220	0.266	9.126	18.209	6.727
2023-06-08 23:00	111600	8.291	-136.821	228.006	18.13	394.312	408.921	0.220	0.266	9.061	18.13	6.182
2023-06-08 23:15	112500	8.284	-136.48	231.663	18.152	394.365	408.79	0.220	0.266	9.024	18.152	6.176
2023-06-08 23:30	113400	8.284	-136.466	231.299	18.077	393.336	408.33	0.220	0.265	9.073	18.077	6.038
2023-06-08 23:45	114300	8.275	-135.941	233.199	18.066	393.12	408.194	0.220	0.265	9.072	18.066	6.04
2023-06-09 00:00	115200	8.283	-136.373	225.414	18.076	398.758	413.969	0.223	0.269	9.055	18.076	5.893
2023-06-09 00:15	116100	8.286	-136.569	229.673	18.125	398.781	413.594	0.223	0.269	9.001	18.125	5.954
2023-06-09 00:30	117000	8.296	-137.131	229.63	18.127	398.98	413.784	0.223	0.269	8.936	18.127	5.71
2023-06-09 00:45	117900	8.287	-136.666	230.748	18.162	399.871	414.42	0.223	0.269	8.927	18.162	5.905
2023-06-09 01:00	118800	8.281	-136.337	223.974	18.184	401.25	415.666	0.224	0.270	8.983	18.184	5.849
2023-06-09 01:15	119700	8.293	-137.01	227.267	18.29	402.507	416.095	0.224	0.270	8.869	18.29	5.88
2023-06-09 01:30	120600	8.299	-137.42	228.378	18.391	403.194	415.974	0.224	0.270	8.919	18.391	5.822
2023-06-09 01:45	121500	8.296	-137.286	226.499	18.438	403.328	415.733	0.224	0.270	8.910	18.438	5.877
2023-06-09 02:00	122400	8.282	-136.483	216.524	18.4	403.332	416.046	0.224	0.270	8.953	18.4	6.048
2023-06-09 02:15	123300	8.290	-136.921	225.918	18.413	403.128	415.726	0.224	0.270	8.924	18.413	5.692
2023-06-09 02:30	124200	8.286	-136.697	228.554	18.442	403.379	415.751	0.224	0.270	8.994	18.442	6.021
2023-06-09 02:45	125100	8.296	-137.286	228.759	18.452	403.397	415.69	0.224	0.270	8.912	18.452	6.093
2023-06-09 03:00	126000	8.276	-136.18	221.357	18.407	403.306	415.966	0.224	0.270	8.990	18.407	6.007
2023-06-09 03:15	126900	8.271	-135.903	227.718	18.428	403.348	415.832	0.224	0.270	8.943	18.428	5.865
2023-06-09 03:30	127800	8.265	-135.565	228.008	18.428	403.385	415.875	0.224	0.270	8.925	18.428	6.417
2023-06-09 03:45	128700	8.274	-136.044	227.026	18.398	402.865	415.585	0.224	0.270	8.970	18.398	8.329
2023-06-09 04:00	129600	8.255	-135.012	217.644	18.352	402.85	415.942	0.224	0.270	9.013	18.352	5.966
2023-06-09 04:15	130500	8.278	-136.266	229.019	18.389	402.698	415.478	0.224	0.270	8.933	18.389	6.373
2023-06-09 04:30	131400	8.269	-135.798	223.269	18.404	402.87	415.539	0.224	0.270	7.925	18.404	6.454
2023-06-09 04:45	132300	8.267	-135.679	224.311	18.363	402.708	415.704	0.224	0.270	8.678	18.363	6.318
2023-06-09 05:00	133200	8.273	-135.958	220.851	18.346	402.778	415.916	0.224	0.270	8.909	18.346	6.614
2023-06-09 05:15	134100	8.279	-136.304	229.41	18.332	402.751	416.001	0.224	0.270	8.859	18.332	6.337
2023-06-09 05:30	135000	8.282	-136.44	231.947	18.35	402.925	416.04	0.224	0.270	8.944	18.35	6.137
2023-06-09 05:45	135900	8.274	-136.013	229.637	18.372	403.274	416.219	0.224	0.271	8.799	18.372	6.161
2023-06-09 06:00	136800	8.258	-135.131	219.447	18.318	402.751	416.122	0.224	0.270	8.862	18.318	6.241
2023-06-09 06:15	137700	8.274	-136.02	223.855	18.386	402.765	415.579	0.224	0.270	8.550	18.386	6.414
2023-06-09 06:30	138600	8.261	-135.317	228.872	18.354	402.453	415.513	0.224	0.270	8.758	18.354	6.384
2023-06-09 06:45	139500	8.268	-135.71	230.34	18.363	402.31	415.296	0.224	0.270	8.812	18.363	6.16
2023-06-09 07:00	140400	8.266	-135.567	225.896	18.331	402.366	415.618	0.224	0.270	8.815	18.331	9.034
2023-06-09 07:15	141300	8.254	-134.962	231.363	18.386	402.395	415.194	0.224	0.270	8.770	18.386	10.477
2023-06-09 07:30	142200	8.261	-135.353	232.348	18.348	402.176	415.276	0.224	0.270	8.750	18.348	7.931
2023-06-09 07:45	143100	8.253	-134.933	233.175	18.426	401.571	414.018	0.223	0.269	8.728	18.426	7.325
2023-06-09 08:00	144000	8.242	-134.294	222.265	18.37	401.726	414.634	0.223	0.270	8.667	18.37	7.713
2023-06-09 08:15	144900	8.242	-134.315	229.906	18.431	401.821	414.233	0.223	0.269	8.660	18.431	7.957
2023-06-09 08:30	145800	8.244	-134.447	230.977	18.414	401.885	414.438	0.223	0.269	8.651	18.414	6.754
2023-06-09 08:45	146700	8.273	-136.042	230.502	18.503	401.486	413.306	0.223	0.269	8.639	18.503	6.367
2023-06-09 09:00	147600	8.269	-135.806	218.98	18.487	401.314	413.258	0.223	0.269	8.677	18.487	6.167
2023-06-09 09:15	148500	8.279	-136.421	225.429	18.579	400.427	411.597	0.222	0.268	8.644	18.579	6.2
2023-06-09 09:30	149400	8.282	-136.583	226.89	18.604	400.629	411.602	0.222	0.268	8.646	18.604	6.331
2023-06-09 09:45	150300	8.274	-136.13	226.173	18.618	400.926	411.793	0.222	0.268	8.702	18.618	6.085

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV)	(mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-09 10:00	151200	8.274	-136.17		217.9	18.604	401.664	412.669	0.222	0.268	8.653	18.604	6.165
2023-06-09 10:15	152100	8.270	-135.877		222.544	18.537	401.845	413.394	0.223	0.269	8.703	18.537	6.122
2023-06-09 10:30	153000	8.266	-135.701		227.839	18.583	401.498	412.668	0.222	0.268	8.658	18.583	6.17
2023-06-09 10:45	153900	8.257	-135.25		228.65	18.648	401.792	412.439	0.222	0.268	8.594	18.648	5.758
2023-06-09 11:00	154800	8.263	-135.617		213.222	18.702	401.811	412.026	0.222	0.268	8.555	18.702	5.968
2023-06-09 11:15	155700	8.274	-136.211		223.889	18.778	401.83	411.432	0.221	0.267	8.462	18.778	6.15
2023-06-09 11:30	156600	8.282	-136.683		222.999	18.845	402.235	411.308	0.221	0.267	8.454	18.845	6.003
2023-06-09 11:45	157500	8.282	-136.743		221.962	18.893	402.621	411.317	0.221	0.267	8.420	18.893	6.099
2023-06-09 12:00	158400	8.263	-135.694		211.479	18.915	402.793	411.314	0.221	0.267	8.494	18.915	5.961
2023-06-09 12:15	159300	8.292	-137.289		222.377	18.999	403.119	410.975	0.221	0.267	8.509	18.999	6.327
2023-06-09 12:30	160200	8.298	-137.637		223.824	19.064	403.662	411.008	0.221	0.267	8.523	19.064	6.01
2023-06-09 12:45	161100	8.297	-137.646		223.576	19.094	401.72	408.794	0.220	0.266	8.569	19.094	6.21
2023-06-09 13:00	162000	8.266	-135.896		212.995	18.968	401.173	409.241	0.220	0.266	8.671	18.968	5.833
2023-06-09 13:15	162900	8.256	-135.391		224.349	19.066	401.981	409.281	0.220	0.266	8.585	19.066	6.06
2023-06-09 13:30	163800	8.256	-135.372		226.254	19.077	402.001	409.212	0.220	0.266	8.733	19.077	5.876
2023-06-09 13:45	164700	8.262	-135.729		227.133	19.093	402.252	409.346	0.220	0.266	8.784	19.093	5.939
2023-06-09 14:00	165600	8.259	-135.543		215.07	19.022	401.893	409.541	0.220	0.266	8.807	19.022	5.935
2023-06-09 14:15	166500	8.269	-136.108		226.797	19.097	402.051	409.109	0.220	0.266	8.730	19.097	6.165
2023-06-09 14:30	167400	8.265	-135.865		228.397	19.079	402.006	409.204	0.220	0.266	8.781	19.079	6.302
2023-06-09 14:45	168300	8.251	-135.112		229.873	19.09	402.309	409.422	0.220	0.266	8.774	19.09	5.956
2023-06-09 15:00	169200	8.258	-135.489		202.891	19.094	406.516	413.675	0.223	0.269	8.454	19.094	6.519
2023-06-09 15:15	170100	8.262	-135.787		219.652	19.203	406.878	413.169	0.222	0.269	8.636	19.203	5.928
2023-06-09 15:30	171000	8.271	-136.337		224.828	19.348	408.104	413.252	0.222	0.269	8.732	19.348	6.465
2023-06-09 15:45	171900	8.274	-136.44		222.348	19.239	407.281	413.29	0.222	0.269	8.926	19.239	5.916
2023-06-09 16:00	172800	8.261	-135.679		216.624	19.136	407.128	413.957	0.223	0.269	8.934	19.136	6.134
2023-06-09 16:15	173700	8.268	-136.101		226.833	19.249	407.411	413.34	0.222	0.269	8.815	19.249	6.013
2023-06-09 16:30	174600	8.260	-135.682		227.613	19.241	407.508	413.504	0.222	0.269	8.898	19.241	5.795
2023-06-09 16:45	175500	8.276	-136.542		228.578	19.272	407.645	413.391	0.222	0.269	8.846	19.272	5.889
2023-06-09 17:00	176400	8.261	-135.784		217.115	19.293	408.418	414.006	0.223	0.269	8.859	19.293	6.629
2023-06-09 17:15	177300	8.256	-135.484		227.317	19.329	408.921	414.231	0.223	0.269	8.970	19.329	5.997
2023-06-09 17:30	178200	8.270	-136.321		229.832	19.441	409.465	413.88	0.223	0.269	8.928	19.441	5.989
2023-06-09 17:45	179100	8.300	-138.004		229.854	19.598	410.071	413.241	0.222	0.269	8.815	19.598	5.92
2023-06-09 18:00	180000	8.278	-136.826		222.358	19.569	410.67	414.078	0.223	0.269	8.931	19.569	6.455
2023-06-09 18:15	180900	8.273	-136.566		229.365	19.647	411.587	414.384	0.223	0.269	9.013	19.647	6.163
2023-06-09 18:30	181800	8.295	-137.818		230.24	19.698	411.979	414.373	0.223	0.269	9.056	19.698	6.154
2023-06-09 18:45	182700	8.278	-136.878		230.197	19.69	412.289	414.748	0.223	0.270	9.078	19.69	5.974
2023-06-09 19:00	183600	8.291	-137.661		219.84	19.837	410.694	411.975	0.221	0.268	9.110	19.837	24.861
2023-06-09 19:15	184500	8.297	-137.992		228.607	19.84	410.658	411.915	0.221	0.268	9.003	19.84	6.2
2023-06-09 19:30	185400	8.274	-136.745		231.394	19.913	410.766	411.452	0.221	0.267	8.955	19.913	5.983
2023-06-09 19:45	186300	8.265	-136.275		230.471	19.883	410.646	411.563	0.221	0.268	8.999	19.883	6.05
2023-06-09 20:00	187200	8.149	-129.902		177.654	19.794	413.223	414.857	0.223	0.270	8.341	19.794	25.019
2023-06-09 20:15	188100	8.256	-135.725		216.35	19.813	412.895	414.372	0.223	0.269	8.856	19.813	6.463
2023-06-09 20:30	189000	8.263	-136.12		224.451	19.826	413.475	414.855	0.223	0.270	8.959	19.826	6.351
2023-06-09 20:45	189900	8.272	-136.576		228.421	19.806	412.916	414.454	0.223	0.269	9.043	19.806	6.417
2023-06-09 21:00	190800	8.266	-136.287		219.864	19.777	413.425	415.194	0.223	0.270	9.066	19.777	6.439
2023-06-09 21:15	191700	8.276	-136.805		231.277	19.729	413.457	415.605	0.223	0.270	9.201	19.729	6.236
2023-06-09 21:30	192600	8.253	-135.527		233.931	19.745	413.516	415.538	0.223	0.270	9.207	19.745	6.308
2023-06-09 21:45	193500	8.251	-135.424		234.527	19.768	413.71	415.553	0.223	0.270	9.051	19.768	6.44
2023-06-09 22:00	194400	8.241	-134.909		219.332	19.787	413.701	415.394	0.223	0.270	8.988	19.787	6.252
2023-06-09 22:15	195300	8.247	-135.331		232.81	20.018	414.64	414.5	0.223	0.269	8.881	20.018	6.142
2023-06-09 22:30	196200	8.255	-135.841		229.778	20.164	415.501	414.2	0.222	0.269	8.692	20.164	6.944
2023-06-09 22:45	197100	8.258	-135.992		231.437	20.139	415.632	414.535	0.223	0.269	8.714	20.139	6.998
2023-06-09 23:00	198000	8.247	-135.355		218.653	20.103	415.928	415.113	0.223	0.270	8.813	20.103	6.822
2023-06-09 23:15	198900	8.240	-134.954		232.128	20.009	415.32	415.246	0.223	0.270	8.765	20.009	6.638
2023-06-09 23:30	199800	8.229	-134.339		234.241	19.988	415.23	415.324	0.223	0.270	8.842	19.988	6.396
2023-06-09 23:45	200700	8.245	-135.186		235.059	19.894	414.54	415.382	0.223	0.270	8.843	19.894	6.5

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-10 00:00	201600	8.232	-134.411	221.693	19.778	413.838	415.602	0.223	0.270	8.921	19.778	6.48
2023-06-10 00:15	202500	8.238	-134.745	235.388	19.837	414.05	415.341	0.223	0.270	8.835	19.837	6.22
2023-06-10 00:30	203400	8.243	-135	236.415	19.796	413.769	415.388	0.223	0.270	8.893	19.796	6.02
2023-06-10 00:45	204300	8.232	-134.454	237.443	19.805	413.784	415.329	0.223	0.270	8.839	19.805	6.054
2023-06-10 01:00	205200	8.230	-134.339	223.536	19.847	414.284	415.502	0.223	0.270	8.778	19.847	5.892
2023-06-10 01:15	206100	8.228	-134.282	235.786	19.918	414.875	415.526	0.223	0.270	8.669	19.918	6.146
2023-06-10 01:30	207000	8.202	-132.859	237.769	19.917	414.902	415.565	0.223	0.270	8.693	19.917	6.022
2023-06-10 01:45	207900	8.231	-134.43	237.798	19.888	414.531	415.421	0.223	0.270	8.777	19.888	6.024
2023-06-10 02:00	208800	8.219	-133.758	228.409	19.873	414.594	415.601	0.223	0.270	8.731	19.873	6.311
2023-06-10 02:15	209700	8.223	-134.025	237.34	19.941	414.637	415.105	0.223	0.270	8.782	19.941	6.214
2023-06-10 02:30	210600	8.210	-133.324	238.916	19.999	414.973	414.984	0.223	0.270	8.649	19.999	6.075
2023-06-10 02:45	211500	8.230	-134.442	238.423	20.016	414.905	414.779	0.223	0.270	8.605	20.016	6.038
2023-06-10 03:00	212400	8.213	-133.5	225.865	20.018	415.501	415.358	0.223	0.270	8.702	20.018	5.914
2023-06-10 03:15	213300	8.225	-134.156	236.317	20.086	415.733	415.053	0.223	0.270	8.672	20.086	6.133
2023-06-10 03:30	214200	8.223	-134.037	239.405	20.051	415.376	414.969	0.223	0.270	8.580	20.051	5.938
2023-06-10 03:45	215100	8.205	-133.083	240.32	20.059	415.884	415.413	0.223	0.270	8.655	20.059	6.124
2023-06-10 04:00	216000	8.210	-133.317	231.983	20.012	415.441	415.345	0.223	0.270	8.550	20.012	6.015
2023-06-10 04:15	216900	8.222	-134.01	239.243	20.027	415.325	415.11	0.223	0.270	8.545	20.027	6.059
2023-06-10 04:30	217800	8.214	-133.531	239.679	19.972	414.698	414.92	0.223	0.270	8.507	19.972	5.983
2023-06-10 04:45	218700	8.213	-133.438	240.428	19.95	414.777	415.173	0.223	0.270	8.554	19.95	6.205
2023-06-10 05:00	219600	8.192	-132.332	231.16	19.926	414.969	415.554	0.223	0.270	8.458	19.926	6.164
2023-06-10 05:15	220500	8.189	-132.141	238.463	19.939	415.213	415.694	0.223	0.270	8.393	19.939	6.011
2023-06-10 05:30	221400	8.181	-131.669	238.914	19.834	414.358	415.676	0.223	0.270	8.504	19.834	6.094
2023-06-10 05:45	222300	8.199	-132.608	240.43	19.794	414.012	415.645	0.223	0.270	8.655	19.794	5.725
2023-06-10 06:00	223200	8.193	-132.308	230.331	19.753	413.602	415.56	0.223	0.270	8.543	19.753	6.045
2023-06-10 06:15	224100	8.195	-132.463	241.691	19.88	414.251	415.204	0.223	0.270	8.473	19.88	6.523
2023-06-10 06:30	225000	8.206	-133.057	239.841	19.892	414.483	415.34	0.223	0.270	8.309	19.892	5.89
2023-06-10 06:45	225900	8.193	-132.308	239.197	19.783	413.759	415.479	0.223	0.270	8.409	19.783	5.726
2023-06-10 07:00	226800	8.194	-132.325	232.41	19.761	413.974	415.876	0.224	0.270	8.496	19.761	5.948
2023-06-10 07:15	227700	8.192	-132.248	239.479	19.784	414.032	415.746	0.223	0.270	8.599	19.784	5.793
2023-06-10 07:30	228600	8.208	-133.133	241.088	19.779	414.083	415.837	0.223	0.270	8.596	19.779	7.233
2023-06-10 07:45	229500	8.201	-132.725	241.369	19.797	414.099	415.714	0.223	0.270	8.496	19.797	7.06
2023-06-10 08:00	230400	8.188	-132.017	231.394	19.731	413.765	415.902	0.224	0.270	8.510	19.731	7.461
2023-06-10 08:15	231300	8.200	-132.678	239.791	19.739	413.699	415.773	0.223	0.270	8.555	19.739	8.619
2023-06-10 08:30	232200	8.200	-132.668	241.267	19.732	413.746	415.878	0.224	0.270	8.498	19.732	7.496
2023-06-10 08:45	233100	8.199	-132.604	242.807	19.759	413.834	415.749	0.223	0.270	8.478	19.759	5.843
2023-06-10 09:00	234000	8.193	-132.27	231.923	19.697	413.859	416.271	0.224	0.271	8.565	19.697	6.174
2023-06-10 09:15	234900	8.195	-132.415	239.908	19.742	414.029	416.079	0.224	0.270	8.502	19.742	5.657
2023-06-10 09:30	235800	8.196	-132.432	241.844	19.719	414.032	416.269	0.224	0.271	8.625	19.719	5.736
2023-06-10 09:45	236700	8.205	-132.902	241.493	19.713	414.033	416.318	0.224	0.271	8.599	19.713	5.773
2023-06-10 10:00	237600	8.192	-132.163	228.883	19.625	413.285	416.263	0.224	0.271	8.598	19.625	5.681
2023-06-10 10:15	238500	8.206	-132.904	240.199	19.598	412.504	415.693	0.223	0.270	8.701	19.598	5.75
2023-06-10 10:30	239400	8.218	-133.522	241.644	19.535	412.129	415.818	0.224	0.270	8.612	19.535	5.695
2023-06-10 10:45	240300	8.203	-132.74	242.128	19.545	412.544	416.16	0.224	0.271	8.622	19.545	5.804
2023-06-10 11:00	241200	8.203	-132.749	239.879	19.616	413.292	416.344	0.224	0.271	8.616	19.616	6.235
2023-06-10 11:15	242100	8.210	-133.169	241.849	19.638	413.263	416.143	0.224	0.270	8.730	19.638	6.131
2023-06-10 11:30	243000	8.225	-133.903	241.703	19.531	412.748	416.476	0.224	0.271	8.856	19.531	5.6
2023-06-10 11:45	243900	8.224	-133.886	243.003	19.515	412.783	416.642	0.224	0.271	8.861	19.515	5.638
2023-06-10 12:00	244800	8.224	-133.893	236.003	19.541	412.912	416.566	0.224	0.271	8.858	19.541	6.537
2023-06-10 12:15	245700	8.226	-133.989	241.863	19.547	412.806	416.409	0.224	0.271	8.895	19.547	6.293
2023-06-10 12:30	246600	8.251	-135.365	243.873	19.563	413.283	416.759	0.224	0.271	9.021	19.563	6.496
2023-06-10 12:45	247500	8.239	-134.73	243.575	19.694	414.367	416.803	0.224	0.271	8.841	19.694	6.619
2023-06-10 13:00	248400	8.232	-134.397	236.115	19.758	414.877	416.805	0.224	0.271	8.670	19.758	6.299
2023-06-10 13:15	249300	8.237	-134.678	240.916	19.783	414.79	416.517	0.224	0.271	8.676	19.783	6.195
2023-06-10 13:30	250200	8.237	-134.673	242.306	19.765	414.666	416.539	0.224	0.271	8.782	19.765	6.196
2023-06-10 13:45	251100	8.221	-133.831	243.797	19.807	414.954	416.49	0.224	0.271	8.689	19.807	5.909

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-10 14:00	252000	8.194	-132.394	234.181	19.873	415.338	416.346	0.224	0.271	8.529	19.873	6.245
2023-06-10 14:15	252900	8.226	-134.192	243.787	20.012	416.361	416.267	0.224	0.271	8.544	20.012	7.319
2023-06-10 14:30	253800	8.235	-134.761	243.181	20.187	417.798	416.312	0.224	0.271	8.606	20.187	6.321
2023-06-10 14:45	254700	8.240	-135.15	242.709	20.381	419.571	416.541	0.224	0.271	8.601	20.381	6.484
2023-06-10 15:00	255600	8.252	-135.899	236.589	20.589	421.744	417.049	0.224	0.271	8.717	20.589	6.268
2023-06-10 15:15	256500	8.273	-137.181	240.328	20.905	422.576	415.395	0.223	0.270	8.721	20.905	6.192
2023-06-10 15:30	257400	8.272	-137.119	240.819	20.891	422.132	415.066	0.223	0.270	8.853	20.891	6.523
2023-06-10 15:45	258300	8.273	-137.193	243.246	20.952	423.1	415.541	0.223	0.270	8.858	20.952	6.307
2023-06-10 16:00	259200	8.272	-137.238	232.014	21.17	425.181	415.885	0.223	0.270	8.735	21.17	6.645
2023-06-10 16:15	260100	8.282	-137.713	239.367	21.004	422.165	414.221	0.222	0.269	9.039	21.004	6.312
2023-06-10 16:30	261000	8.270	-136.983	239.946	20.859	420.417	413.633	0.222	0.269	9.086	20.859	6.085
2023-06-10 16:45	261900	8.297	-138.531	239.593	21.072	422.109	413.637	0.222	0.269	9.128	21.072	5.7
2023-06-10 17:00	262800	8.277	-137.458	235.767	21.06	423.284	414.883	0.222	0.270	9.140	21.06	5.74
2023-06-10 17:15	263700	8.273	-137.231	239.224	21.097	423.836	415.135	0.223	0.270	9.031	21.097	6.258
2023-06-10 17:30	264600	8.296	-138.633	239.76	21.319	426.253	415.775	0.223	0.270	8.855	21.319	6.262
2023-06-10 17:45	265500	8.275	-137.367	239.14	21.131	424.125	415.16	0.223	0.270	9.042	21.131	6.503
2023-06-10 18:00	266400	8.246	-135.834	233.642	21.16	424.819	415.612	0.223	0.270	8.882	21.16	6.485
2023-06-10 18:15	267300	8.263	-136.752	241.858	21.22	424.931	415.253	0.223	0.270	8.866	21.22	6.196
2023-06-10 18:30	268200	8.268	-137.048	242.204	21.29	425.686	415.45	0.223	0.270	8.740	21.29	6.063
2023-06-10 18:45	269100	8.264	-136.876	241.458	21.322	426.049	415.554	0.223	0.270	8.734	21.322	6.428
2023-06-10 19:00	270000	8.247	-135.932	235.836	21.341	426.799	416.143	0.223	0.270	8.636	21.341	6.352
2023-06-10 19:15	270900	8.287	-138.259	241.026	21.605	429.655	416.877	0.223	0.271	8.583	21.605	6.33
2023-06-10 19:30	271800	8.270	-137.315	241.656	21.587	429.388	416.759	0.223	0.271	8.616	21.587	6.199
2023-06-10 19:45	272700	8.260	-136.688	243.444	21.428	427.51	416.158	0.223	0.271	8.780	21.428	6.535
2023-06-10 20:00	273600	8.233	-135.155	236.551	21.273	425.874	415.763	0.223	0.270	8.776	21.273	6.043
2023-06-10 20:15	274500	8.251	-136.137	243.987	21.296	425.248	414.974	0.222	0.270	8.798	21.296	6.696
2023-06-10 20:30	275400	8.246	-135.868	245.804	21.233	424.778	415.002	0.222	0.270	8.853	21.233	6.601
2023-06-10 20:45	276300	8.240	-135.5	246.746	21.176	424.259	414.938	0.222	0.270	8.864	21.176	6.289
2023-06-10 21:00	277200	8.236	-135.31	237.624	21.222	425.541	415.832	0.223	0.270	8.767	21.222	5.76
2023-06-10 21:15	278100	8.228	-134.847	244.703	21.235	425.54	415.736	0.223	0.270	8.814	21.235	6.243
2023-06-10 21:30	279000	8.241	-135.589	245.947	21.223	425.732	416.011	0.223	0.270	8.734	21.223	6.264
2023-06-10 21:45	279900	8.223	-134.552	247.289	21.092	424.337	415.67	0.223	0.270	8.801	21.092	6.322
2023-06-10 22:00	280800	8.203	-133.436	236.353	21.069	423.94	415.454	0.223	0.270	8.727	21.069	6.011
2023-06-10 22:15	281700	8.222	-134.454	247.182	21.089	423.361	414.734	0.222	0.270	8.642	21.089	6.092
2023-06-10 22:30	282600	8.203	-133.424	248.002	21.011	422.873	414.861	0.222	0.270	8.674	21.011	6.175
2023-06-10 22:45	283500	8.213	-133.843	248.97	20.823	420.735	414.225	0.222	0.269	8.763	20.823	6.853
2023-06-10 23:00	284400	8.218	-134.032	242.175	20.632	419.223	414.226	0.222	0.269	8.898	20.632	6.338
2023-06-10 23:15	285300	8.219	-134.101	248.737	20.618	419.188	414.295	0.222	0.269	8.897	20.618	5.865
2023-06-10 23:30	286200	8.217	-133.975	251.033	20.553	418.482	414.111	0.222	0.269	8.861	20.553	5.993
2023-06-10 23:45	287100	8.210	-133.553	252.837	20.561	418.846	414.406	0.222	0.269	8.804	20.561	5.437
2023-06-11 00:00	288000	8.199	-132.971	241.641	20.565	418.93	414.46	0.222	0.269	8.766	20.565	5.361
2023-06-11 00:15	288900	8.188	-132.399	250.475	20.652	419.376	414.218	0.222	0.269	8.611	20.652	5.452
2023-06-11 00:30	289800	8.197	-132.897	250.611	20.668	419.545	414.263	0.222	0.269	8.548	20.668	5.96
2023-06-11 00:45	290700	8.185	-132.263	250.622	20.682	419.607	414.213	0.222	0.269	8.451	20.682	6.04
2023-06-11 01:00	291600	8.176	-131.791	243.804	20.678	420.143	414.77	0.223	0.270	8.477	20.678	5.599
2023-06-11 01:15	292500	8.187	-132.334	249.256	20.641	419.639	414.565	0.222	0.269	8.577	20.641	5.709
2023-06-11 01:30	293400	8.187	-132.344	251.061	20.629	419.682	414.699	0.223	0.270	8.580	20.629	5.608
2023-06-11 01:45	294300	8.193	-132.661	251.562	20.605	419.534	414.742	0.223	0.270	8.548	20.605	5.512
2023-06-11 02:00	295200	8.180	-131.931	244.08	20.512	418.728	414.669	0.223	0.270	8.550	20.512	5.936
2023-06-11 02:15	296100	8.199	-132.988	252.945	20.574	419.223	414.678	0.223	0.270	8.526	20.574	5.53
2023-06-11 02:30	297000	8.195	-132.751	253.627	20.596	419.59	414.868	0.223	0.270	8.391	20.596	5.612
2023-06-11 02:45	297900	8.190	-132.484	253.154	20.541	418.87	414.585	0.222	0.269	8.382	20.541	5.553
2023-06-11 03:00	298800	8.204	-133.185	244.834	20.441	418.279	414.787	0.223	0.270	8.498	20.441	5.551
2023-06-11 03:15	299700	8.193	-132.611	251.85	20.467	418.934	415.229	0.223	0.270	8.463	20.467	5.436
2023-06-11 03:30	300600	8.188	-132.334	253.534	20.464	419.335	415.65	0.223	0.270	8.358	20.464	5.401
2023-06-11 03:45	301500	8.190	-132.432	252.587	20.451	419.458	415.879	0.223	0.270	8.138	20.451	5.394

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-11 04:00	302400	8.176	-131.624	245.442	20.365	418.456	415.561	0.223	0.270	8.217	20.365	5.7
2023-06-11 04:15	303300	8.195	-132.644	252.504	20.35	418.323	415.549	0.223	0.270	8.279	20.35	5.523
2023-06-11 04:30	304200	8.194	-132.589	253.345	20.324	418.275	415.706	0.223	0.270	8.301	20.324	6.134
2023-06-11 04:45	305100	8.191	-132.444	254.046	20.287	418.064	415.788	0.223	0.270	8.179	20.287	6.179
2023-06-11 05:00	306000	8.199	-132.813	246.302	20.253	418.073	416.066	0.223	0.270	8.129	20.253	5.841
2023-06-11 05:15	306900	8.191	-132.356	251.617	20.186	417.413	415.933	0.223	0.270	8.171	20.186	5.878
2023-06-11 05:30	307800	8.190	-132.289	253.574	20.135	416.981	415.907	0.223	0.270	8.111	20.135	5.512
2023-06-11 05:45	308700	8.194	-132.504	253.724	20.093	416.471	415.729	0.223	0.270	8.214	20.093	5.183
2023-06-11 06:00	309600	8.192	-132.372	244.867	20.052	416.03	415.616	0.223	0.270	8.257	20.052	5.275
2023-06-11 06:15	310500	8.217	-133.719	252.685	20.049	416.252	415.86	0.223	0.270	8.194	20.049	5.114
2023-06-11 06:30	311400	8.201	-132.852	252.277	19.987	415.74	415.839	0.223	0.270	8.138	19.987	5.463
2023-06-11 06:45	312300	8.196	-132.523	253.038	19.96	415.613	415.933	0.223	0.270	8.043	19.96	5.312
2023-06-11 07:00	313200	8.201	-132.79	244.23	19.92	415.331	415.97	0.223	0.270	7.998	19.92	5.079
2023-06-11 07:15	314100	8.195	-132.444	250.582	19.897	415.208	416.03	0.224	0.270	8.090	19.897	5.447
2023-06-11 07:30	315000	8.196	-132.494	252.072	19.864	414.93	416.014	0.224	0.270	7.949	19.864	5.19
2023-06-11 07:45	315900	8.212	-133.352	253.221	19.856	414.969	416.111	0.224	0.270	8.026	19.856	5.396
2023-06-11 08:00	316800	8.180	-131.614	240.955	19.806	414.378	415.915	0.224	0.270	7.926	19.806	5.374
2023-06-11 08:15	317700	8.192	-132.27	250.525	19.797	414.268	415.876	0.223	0.270	7.959	19.797	5.373
2023-06-11 08:30	318600	8.196	-132.439	250.587	19.785	414.143	415.851	0.223	0.270	8.003	19.785	5.352
2023-06-11 08:45	319500	8.187	-131.969	251.862	19.776	414.127	415.91	0.224	0.270	7.951	19.776	5.093
2023-06-11 09:00	320400	8.200	-132.701	244.54	19.773	414.216	416.018	0.224	0.270	8.005	19.773	5.117
2023-06-11 09:15	321300	8.211	-133.274	249.106	19.753	413.822	415.781	0.223	0.270	8.052	19.753	5.637
2023-06-11 09:30	322200	8.208	-133.116	250.921	19.741	413.821	415.877	0.224	0.270	8.110	19.741	5.957
2023-06-11 09:45	323100	8.166	-130.856	253.374	19.781	414.427	416.166	0.224	0.271	8.175	19.781	4.873
2023-06-11 10:00	324000	8.196	-132.496	243.959	19.804	414.693	416.252	0.224	0.271	7.986	19.804	5.199
2023-06-11 10:15	324900	8.233	-134.499	250.172	19.831	414.959	416.302	0.224	0.271	7.966	19.831	7.425
2023-06-11 10:30	325800	8.226	-134.146	251.624	19.852	415.236	416.416	0.224	0.271	7.970	19.852	5.202
2023-06-11 10:45	326700	8.234	-134.554	251.426	19.867	415.326	416.385	0.224	0.271	7.951	19.867	4.968
2023-06-11 11:00	327600	8.225	-134.07	246.643	19.873	415.519	416.529	0.224	0.271	7.966	19.873	52.989
2023-06-11 11:15	328500	8.225	-134.07	249.585	19.86	415.16	416.274	0.224	0.271	8.073	19.86	5.007
2023-06-11 11:30	329400	8.237	-134.726	250.622	19.871	415.337	416.363	0.224	0.271	8.111	19.871	5.164
2023-06-11 11:45	330300	8.261	-136.12	250.358	20.042	417.094	416.759	0.224	0.271	8.101	20.042	5.379
2023-06-11 12:00	331200	8.251	-135.591	236.363	20.072	417.199	416.628	0.224	0.271	8.165	20.072	5.272
2023-06-11 12:15	332100	8.261	-136.168	248.284	20.111	417.561	416.676	0.224	0.271	8.196	20.111	5.355
2023-06-11 12:30	333000	8.275	-136.907	250.15	20.147	417.674	416.507	0.224	0.271	8.123	20.147	5.195
2023-06-11 12:45	333900	8.306	-138.619	248.231	20.205	417.536	415.907	0.223	0.270	8.416	20.205	4.958
2023-06-11 13:00	334800	8.287	-137.61	240.201	20.26	418.359	416.293	0.224	0.271	8.584	20.26	5.008
2023-06-11 13:15	335700	8.279	-137.229	245.818	20.329	419.241	416.626	0.224	0.271	8.563	20.329	5.083
2023-06-11 13:30	336600	8.284	-137.51	247.201	20.335	419.316	416.653	0.224	0.271	8.673	20.335	5.003
2023-06-11 13:45	337500	8.273	-136.931	248.346	20.377	419.873	416.87	0.224	0.271	8.461	20.377	5.049
2023-06-11 14:00	338400	8.266	-136.538	240.275	20.397	419.974	416.816	0.224	0.271	8.481	20.397	6.066
2023-06-11 14:15	339300	7.964	-120.142	264.73	20.431	420.227	416.793	0.224	0.271	8.437	20.431	5.202
2023-06-11 14:30	340200	8.193	-132.573	254.556	20.421	420.176	416.822	0.224	0.271	8.479	20.421	5.195
2023-06-11 14:45	341100	8.270	-136.826	252.632	20.547	420.594	416.243	0.223	0.271	8.611	20.547	4.997
2023-06-11 15:00	342000	8.316	-139.439	243.758	20.695	420.806	415.296	0.223	0.270	9.225	20.695	4.911
2023-06-11 15:15	342900	8.350	-141.299	244.281	20.797	421.115	414.802	0.222	0.270	9.414	20.797	4.791
2023-06-11 15:30	343800	8.373	-142.539	244.34	20.792	420.532	414.269	0.222	0.269	9.894	20.792	4.725
2023-06-11 15:45	344700	8.355	-141.611	243.181	20.812	420.596	414.169	0.222	0.269	10.156	20.812	4.537
2023-06-11 16:00	345600	8.382	-143.092	229.689	20.854	420.347	413.598	0.222	0.269	10.177	20.854	4.587
2023-06-11 16:15	346500	8.419	-145.149	236.222	20.906	420.324	413.17	0.222	0.269	10.445	20.906	4.545
2023-06-11 16:30	347400	8.416	-144.942	236.108	20.837	420.07	413.463	0.222	0.269	10.611	20.837	4.67
2023-06-11 16:45	348300	8.410	-144.629	240.232	20.927	420.392	413.074	0.221	0.268	10.404	20.927	4.582
2023-06-11 17:00	349200	8.327	-140.123	237.424	20.985	420.771	413.002	0.221	0.268	10.722	20.985	4.562
2023-06-11 17:15	350100	8.363	-142.052	240.306	20.851	420.113	413.397	0.222	0.269	10.660	20.851	4.747
2023-06-11 17:30	351000	8.357	-141.697	243.506	20.827	421.043	414.498	0.222	0.269	10.173	20.827	4.998
2023-06-11 17:45	351900	8.314	-139.368	247.304	20.824	422.908	416.354	0.223	0.271	9.852	20.824	4.964

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-11 18:00	352800	8.274	-137.193	238.68	20.831	422.414	415.813	0.223	0.270	9.418	20.831	4.899
2023-06-11 18:15	353700	8.297	-138.462	248.627	20.882	422.596	415.595	0.223	0.270	9.324	20.882	4.559
2023-06-11 18:30	354600	8.317	-139.587	249.447	20.926	422.631	415.285	0.223	0.270	9.402	20.926	4.568
2023-06-11 18:45	355500	8.348	-141.289	248.262	20.973	422.639	414.927	0.222	0.270	9.635	20.973	4.567
2023-06-11 19:00	356400	8.332	-140.46	239.748	21.01	422.6	414.6	0.222	0.269	9.721	21.01	4.619
2023-06-11 19:15	357300	8.338	-140.829	243.899	21.131	424.494	415.519	0.223	0.270	9.837	21.131	4.741
2023-06-11 19:30	358200	8.327	-140.243	246.116	21.156	425.165	415.98	0.223	0.270	9.602	21.156	4.83
2023-06-11 19:45	359100	8.306	-139.108	246.727	21.186	425.688	416.255	0.223	0.271	9.534	21.186	4.842
2023-06-11 20:00	360000	8.272	-137.215	239.002	21.13	424.536	415.566	0.223	0.270	9.276	21.13	4.922
2023-06-11 20:15	360900	8.299	-138.679	247.087	21.16	424.87	415.66	0.223	0.270	9.347	21.16	4.694
2023-06-11 20:30	361800	8.293	-138.385	246.748	21.143	424.737	415.664	0.223	0.270	9.282	21.143	4.666
2023-06-11 20:45	362700	8.274	-137.348	247.571	21.145	425.071	415.976	0.223	0.270	9.215	21.145	4.592
2023-06-11 21:00	363600	8.256	-136.361	239.011	21.151	425.857	416.695	0.223	0.271	9.063	21.151	4.634
2023-06-11 21:15	364500	8.239	-135.412	246.598	21.147	425.949	416.819	0.223	0.271	8.722	21.147	4.57
2023-06-11 21:30	365400	8.216	-134.13	247.726	21.083	425.37	416.752	0.223	0.271	8.601	21.083	4.768
2023-06-11 21:45	366300	8.243	-135.605	249.721	21.041	424.597	416.322	0.223	0.271	8.860	21.041	4.683
2023-06-11 22:00	367200	8.242	-135.51	241.152	20.971	424.087	416.362	0.223	0.271	8.850	20.971	4.692
2023-06-11 22:15	368100	8.243	-135.551	248.701	20.962	424.131	416.476	0.223	0.271	8.706	20.962	4.822
2023-06-11 22:30	369000	8.232	-134.95	251.13	20.925	424.287	416.923	0.224	0.271	8.432	20.925	4.605
2023-06-11 22:45	369900	8.196	-132.959	251.385	20.896	424.426	417.284	0.224	0.271	8.081	20.896	4.604
2023-06-11 23:00	370800	8.179	-132.02	246.526	20.845	424.586	417.842	0.224	0.272	7.981	20.845	4.76
2023-06-11 23:15	371700	8.171	-131.6	251.683	20.849	424.852	418.071	0.224	0.272	7.908	20.849	4.529
2023-06-11 23:30	372600	8.156	-130.758	253.817	20.842	424.962	418.233	0.224	0.272	7.764	20.842	4.406
2023-06-11 23:45	373500	8.141	-129.96	253.932	20.825	425.046	418.452	0.224	0.272	7.560	20.825	4.507
2023-06-12 00:00	374400	8.133	-129.473	245.382	20.806	424.817	418.375	0.224	0.272	7.648	20.806	4.457
2023-06-12 00:15	375300	8.145	-130.148	252.604	20.814	424.797	418.292	0.224	0.272	7.644	20.814	4.752
2023-06-12 00:30	376200	8.161	-131.037	253.2	20.793	424.635	418.299	0.224	0.272	7.629	20.793	4.932
2023-06-12 00:45	377100	8.154	-130.62	254.261	20.767	424.466	418.337	0.224	0.272	7.477	20.767	4.82
2023-06-12 01:00	378000	8.140	-129.814	247.84	20.729	424.376	418.551	0.225	0.272	7.428	20.729	4.604
2023-06-12 01:15	378900	8.134	-129.523	252.544	20.721	424.102	418.343	0.224	0.272	7.746	20.721	4.631
2023-06-12 01:30	379800	8.159	-130.839	254.268	20.702	423.812	418.207	0.224	0.272	7.781	20.702	4.816
2023-06-12 01:45	380700	8.159	-130.846	255.956	20.692	423.782	418.257	0.224	0.272	7.811	20.692	4.816
2023-06-12 02:00	381600	8.141	-129.862	248.388	20.67	423.829	418.474	0.225	0.272	7.684	20.67	4.849
2023-06-12 02:15	382500	8.173	-131.631	255.439	20.702	423.896	418.287	0.224	0.272	7.559	20.702	4.773
2023-06-12 02:30	383400	8.159	-130.861	255.796	20.687	423.891	418.403	0.225	0.272	7.692	20.687	5.088
2023-06-12 02:45	384300	8.152	-130.444	255.379	20.676	424.634	419.224	0.225	0.272	7.801	20.676	4.958
2023-06-12 03:00	385200	8.171	-131.509	247.342	20.666	424.659	419.326	0.225	0.273	7.694	20.666	5.211
2023-06-12 03:15	386100	8.170	-131.404	252.725	20.626	423.663	418.656	0.225	0.272	7.783	20.626	5.235
2023-06-12 03:30	387000	8.165	-131.147	256.626	20.587	424.067	419.369	0.225	0.273	7.766	20.587	4.839
2023-06-12 03:45	387900	8.176	-131.726	257.124	20.542	424.787	420.435	0.226	0.273	7.690	20.542	5.142
2023-06-12 04:00	388800	8.162	-130.913	246.245	20.469	423.361	419.603	0.225	0.273	7.787	20.469	5.249
2023-06-12 04:15	389700	8.165	-131.075	255.822	20.412	422.326	419.032	0.225	0.272	7.762	20.412	5.127
2023-06-12 04:30	390600	8.174	-131.516	258.173	20.378	422.945	419.912	0.225	0.273	7.760	20.378	5.109
2023-06-12 04:45	391500	8.173	-131.462	259.556	20.327	422.713	420.088	0.226	0.273	7.722	20.327	5.036
2023-06-12 05:00	392400	8.187	-132.208	255.729	20.279	422.964	420.725	0.226	0.273	7.852	20.279	4.896
2023-06-12 05:15	393300	8.177	-131.66	258.886	20.237	422.35	420.448	0.226	0.273	7.798	20.237	5.054
2023-06-12 05:30	394200	8.183	-131.955	259.115	20.174	421.732	420.334	0.226	0.273	7.854	20.174	5.239
2023-06-12 05:45	395100	8.174	-131.445	259.868	20.123	421.253	420.268	0.226	0.273	7.837	20.123	5.503
2023-06-12 06:00	396000	8.182	-131.807	248.973	20.055	420.812	420.369	0.226	0.273	7.947	20.055	5.519
2023-06-12 06:15	396900	8.168	-131.049	258.681	20.038	420.653	420.348	0.226	0.273	7.696	20.038	5.331
2023-06-12 06:30	397800	8.167	-130.978	260.25	19.984	420.146	420.278	0.226	0.273	7.664	19.984	5.298
2023-06-12 06:45	398700	8.177	-131.526	260.503	19.944	419.719	420.171	0.226	0.273	7.701	19.944	6.489
2023-06-12 07:00	399600	8.164	-130.777	256.645	19.895	419.126	419.97	0.226	0.273	7.634	19.895	5.325
2023-06-12 07:15	400500	8.157	-130.405	259.02	19.871	419	420.031	0.226	0.273	7.540	19.871	5.36
2023-06-12 07:30	401400	8.144	-129.64	260.231	19.819	418.648	420.099	0.226	0.273	7.637	19.819	6.436
2023-06-12 07:45	402300	8.158	-130.391	261.63	19.795	418.754	420.4	0.226	0.273	7.660	19.795	5.608

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-12 08:00	403200	8.154	-130.167	254.487	19.748	418.254	420.277	0.226	0.273	7.711	19.748	5.768
2023-06-12 08:15	404100	8.170	-131.006	260.61	19.719	417.742	419.998	0.226	0.273	7.603	19.719	6.528
2023-06-12 08:30	405000	8.164	-130.656	261.707	19.691	417.447	419.928	0.226	0.273	7.691	19.691	5.556
2023-06-12 08:45	405900	8.164	-130.672	262.822	19.675	417.37	419.975	0.226	0.273	7.646	19.675	5.015
2023-06-12 09:00	406800	8.176	-131.328	254.893	19.626	417.097	420.097	0.226	0.273	7.720	19.626	5.398
2023-06-12 09:15	407700	8.164	-130.656	260.064	19.619	416.983	420.038	0.226	0.273	7.572	19.619	4.881
2023-06-12 09:30	408600	8.159	-130.391	261.838	19.593	416.988	420.258	0.226	0.273	7.680	19.593	4.937
2023-06-12 09:45	409500	8.158	-130.332	262.319	19.586	417.012	420.339	0.226	0.273	7.575	19.586	4.756
2023-06-12 10:00	410400	8.168	-130.806	252.687	19.531	416.307	420.069	0.226	0.273	7.678	19.531	4.929
2023-06-12 10:15	411300	8.172	-131.042	262.305	19.54	416.485	420.176	0.226	0.273	7.653	19.54	5.487
2023-06-12 10:30	412200	8.167	-130.801	263.218	19.551	416.764	420.37	0.226	0.273	7.562	19.551	4.52
2023-06-12 10:45	413100	8.144	-129.559	263.414	19.552	416.843	420.438	0.226	0.273	7.438	19.552	6.301
2023-06-12 11:00	414000	8.168	-130.868	253.982	19.58	417.431	420.806	0.226	0.274	7.450	19.58	4.733
2023-06-12 11:15	414900	8.159	-130.367	258.168	19.614	417.827	420.934	0.226	0.274	7.477	19.614	4.64
2023-06-12 11:30	415800	8.163	-130.589	259.384	19.646	418.39	421.241	0.227	0.274	7.551	19.646	4.513
2023-06-12 11:45	416700	8.214	-133.395	258.185	19.709	418.923	421.265	0.227	0.274	7.595	19.709	4.7
2023-06-12 12:00	417600	8.213	-133.369	249.666	19.761	419.426	421.349	0.227	0.274	7.842	19.761	4.698
2023-06-12 12:15	418500	8.234	-134.542	257.594	19.786	419.665	421.39	0.227	0.274	8.001	19.786	5.402
2023-06-12 12:30	419400	8.227	-134.182	259.041	19.827	420.219	421.612	0.227	0.274	7.953	19.827	5.013
2023-06-12 12:45	420300	8.237	-134.721	258.204	19.889	420.747	421.642	0.227	0.274	8.116	19.889	4.9
2023-06-12 13:00	421200	8.250	-135.479	251.576	19.989	421.815	421.901	0.227	0.274	8.143	19.989	4.95
2023-06-12 13:15	422100	8.268	-136.499	253.791	20.032	422.174	421.914	0.227	0.274	8.217	20.032	7.723
2023-06-12 13:30	423000	8.253	-135.672	256.981	20.044	422.737	422.381	0.227	0.275	8.292	20.044	5.128
2023-06-12 13:45	423900	8.259	-136.025	257.694	20.12	423.386	422.416	0.227	0.275	8.206	20.12	4.89
2023-06-12 14:00	424800	8.260	-136.139	244.948	20.193	423.814	422.256	0.227	0.274	8.374	20.193	5.802
2023-06-12 14:15	425700	8.288	-137.661	253.953	20.265	424.491	422.352	0.227	0.275	8.425	20.265	4.615
2023-06-12 14:30	426600	8.284	-137.501	255.207	20.302	424.888	422.453	0.227	0.275	8.593	20.302	4.658
2023-06-12 14:45	427500	8.290	-137.82	255.374	20.345	425.35	422.566	0.227	0.275	8.612	20.345	4.89
2023-06-12 15:00	428400	8.287	-137.684	247.962	20.35	425.514	422.69	0.227	0.275	8.769	20.35	4.756
2023-06-12 15:15	429300	8.284	-137.527	253.302	20.338	425.672	422.939	0.227	0.275	8.720	20.338	4.91
2023-06-12 15:30	430200	8.413	-144.672	242.43	20.656	0.055	0.054	0.000	0.000	8.605	20.656	3.346
2023-06-12 15:45	431100	8.504	-149.57	243.744	20.498	0.055	0.054	0.000	0.000	8.602	20.498	3.411
2023-06-12 16:00	432000	8.577	-153.756	237.829	20.894	0.055	0.054	0.000	0.000	8.534	20.894	3.426
2023-06-12 16:15	432900	8.498	-149.662	235.619	21.313	0.055	0.054	0.000	0.000	8.449	21.313	3.447
2023-06-12 16:30	433800	7.926	-118.558	233.371	21.651	0.055	0.053	0.000	0.000	8.397	21.651	3.606
2023-06-12 16:45	434700	7.843	-114.121	229.296	21.986	0.055	0.053	0.000	0.000	8.346	21.986	3.654
2023-06-12 17:00	435600	7.939	-119.405	200.617	22.025	0.055	0.053	0.000	0.000	8.334	22.025	3.628
2023-06-12 17:15	436500	8.413	-145.335	202.722	22.012	442.737	426.356	0.228	0.277	9.833	22.012	14.611
2023-06-12 17:30	437400	8.240	-135.603	228.707	21.37	437.516	426.356	0.229	0.277	8.524	21.37	9.052
2023-06-12 17:45	438300	8.235	-135.217	241.541	21.195	435.633	425.91	0.228	0.277	8.576	21.195	9.915
2023-06-12 18:00	439200	8.210	-133.848	225.581	21.15	434.972	425.627	0.228	0.277	8.467	21.15	5.854
2023-06-12 18:15	440100	8.213	-134.029	243.961	21.139	434.789	425.532	0.228	0.277	8.432	21.139	5.141
2023-06-12 18:30	441000	8.204	-133.498	245.251	21.134	434.663	425.445	0.228	0.277	8.405	21.134	4.928
2023-06-12 18:45	441900	8.199	-133.257	246.295	21.153	435.146	425.77	0.228	0.277	8.394	21.153	4.957
2023-06-12 19:00	442800	8.202	-133.39	234.544	21.16	435.418	425.977	0.229	0.277	8.363	21.16	4.919
2023-06-12 19:15	443700	8.194	-132.935	247.068	21.071	434.12	425.414	0.228	0.277	8.460	21.071	5.042
2023-06-12 19:30	444600	8.199	-133.193	249.023	21.067	434.211	425.535	0.228	0.277	8.418	21.067	5.168
2023-06-12 19:45	445500	8.192	-132.842	248.896	21.114	434.716	425.658	0.228	0.277	8.379	21.114	5.148
2023-06-12 20:00	446400	8.189	-132.694	231.556	21.097	433.961	425.055	0.228	0.276	8.339	21.097	5.086
2023-06-12 20:15	447300	8.188	-132.618	251.471	21.056	433.048	424.488	0.228	0.276	8.432	21.056	4.823
2023-06-12 20:30	448200	8.186	-132.501	253.72	21.05	433.181	424.667	0.228	0.276	8.381	21.05	4.692
2023-06-12 20:45	449100	8.186	-132.484	254.194	21.011	432.445	424.252	0.228	0.276	8.342	21.011	4.523
2023-06-12 21:00	450000	8.195	-132.961	239.867	21.02	433.11	424.836	0.228	0.276	8.286	21.02	4.551
2023-06-12 21:15	450900	8.199	-133.164	249.702	20.98	432.896	424.939	0.228	0.276	8.212	20.98	4.57
2023-06-12 21:30	451800	8.186	-132.418	252.403	20.909	431.997	424.621	0.228	0.276	8.391	20.909	4.855
2023-06-12 21:45	452700	8.202	-133.278	254.535	20.872	431.688	424.618	0.228	0.276	8.439	20.872	4.408

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-12 22:00	453600	8.195	-132.897	245.346	20.871	431.582	424.523	0.228	0.276	8.297	20.871	4.353
2023-06-12 22:15	454500	8.201	-133.204	255.114	20.865	431.553	424.54	0.228	0.276	8.269	20.865	4.376
2023-06-12 22:30	455400	8.184	-132.27	257.055	20.846	431.487	424.625	0.228	0.276	8.120	20.846	4.296
2023-06-12 22:45	456300	8.179	-132	257.675	20.833	431.381	424.621	0.228	0.276	8.038	20.833	4.315
2023-06-12 23:00	457200	8.178	-131.967	247.206	20.818	431.565	424.926	0.228	0.276	7.995	20.818	4.431
2023-06-12 23:15	458100	8.167	-131.335	253.875	20.837	431.928	425.13	0.228	0.276	7.951	20.837	4.732
2023-06-12 23:30	459000	8.168	-131.385	258.462	20.8	431.773	425.275	0.228	0.276	7.918	20.8	4.605
2023-06-12 23:45	459900	8.178	-131.953	256.101	20.85	432.969	426.054	0.229	0.277	7.849	20.85	5.359
2023-06-13 00:00	460800	8.181	-132.146	245.573	20.916	433.776	426.319	0.229	0.277	7.975	20.916	5.723
2023-06-13 00:15	461700	8.176	-131.8	256.244	20.754	431.685	425.558	0.228	0.277	7.954	20.754	5.298
2023-06-13 00:30	462600	8.161	-131.004	260.641	20.749	431.822	425.73	0.229	0.277	7.815	20.749	4.968
2023-06-13 00:45	463500	8.155	-130.677	261.711	20.74	431.784	425.768	0.229	0.277	7.764	20.74	4.503
2023-06-13 01:00	464400	8.148	-130.305	255.167	20.754	432.309	426.171	0.229	0.277	7.688	20.754	4.444
2023-06-13 01:15	465300	8.153	-130.556	259.136	20.748	432.388	426.299	0.229	0.277	7.702	20.748	4.721
2023-06-13 01:30	466200	8.150	-130.379	261.063	20.742	432.267	426.227	0.229	0.277	8.048	20.742	6.496
2023-06-13 01:45	467100	8.168	-131.378	263.862	20.716	432.127	426.297	0.229	0.277	7.828	20.716	5.723
2023-06-13 02:00	468000	8.151	-130.424	251.931	20.714	431.937	426.127	0.229	0.277	7.771	20.714	5.083
2023-06-13 02:15	468900	8.177	-131.822	261.897	20.716	431.657	425.836	0.229	0.277	7.848	20.716	5.737
2023-06-13 02:30	469800	8.161	-130.944	264.646	20.703	431.53	425.81	0.229	0.277	8.002	20.703	5.43
2023-06-13 02:45	470700	8.162	-130.999	266.511	20.703	431.655	425.936	0.229	0.277	8.021	20.703	5.761
2023-06-13 03:00	471600	8.187	-132.413	258.097	20.731	433.103	427.14	0.229	0.278	7.894	20.731	5.606
2023-06-13 03:15	472500	8.175	-131.767	261.215	20.736	433.846	427.832	0.230	0.278	7.716	20.736	5.605
2023-06-13 03:30	473400	8.153	-130.541	264.177	20.708	433.878	428.092	0.230	0.278	7.792	20.708	5.009
2023-06-13 03:45	474300	8.157	-130.727	264.718	20.685	433.283	427.686	0.230	0.278	8.031	20.685	4.912
2023-06-13 04:00	475200	8.171	-131.509	254.099	20.67	432.361	426.898	0.229	0.277	8.051	20.67	5.408
2023-06-13 04:15	476100	8.182	-132.103	266.175	20.654	432.609	427.275	0.229	0.278	8.108	20.654	5.548
2023-06-13 04:30	477000	8.184	-132.196	267.4	20.629	432.309	427.179	0.229	0.278	8.105	20.629	4.662
2023-06-13 04:45	477900	8.191	-132.561	268.683	20.628	433.58	428.44	0.230	0.278	8.141	20.628	4.754
2023-06-13 05:00	478800	8.197	-132.878	256.995	20.597	433.362	428.476	0.230	0.279	8.043	20.597	4.703
2023-06-13 05:15	479700	8.179	-131.905	265.612	20.567	433.676	429.026	0.230	0.279	7.969	20.567	4.702
2023-06-13 05:30	480600	8.176	-131.741	267.777	20.546	433.901	429.421	0.231	0.279	7.946	20.546	4.719
2023-06-13 05:45	481500	8.183	-132.079	268.029	20.523	433.949	429.659	0.231	0.279	7.971	20.523	4.42
2023-06-13 06:00	482400	8.189	-132.401	256.74	20.475	433.041	429.144	0.231	0.279	7.915	20.475	4.907
2023-06-13 06:15	483300	8.180	-131.884	266.067	20.437	433.245	429.658	0.231	0.279	7.864	20.437	4.678
2023-06-13 06:30	484200	8.173	-131.509	267.085	20.406	433.119	429.785	0.231	0.279	7.762	20.406	4.554
2023-06-13 06:45	485100	8.186	-132.17	267.717	20.384	433.4	430.244	0.231	0.280	7.790	20.384	4.921
2023-06-13 07:00	486000	8.190	-132.372	250.634	20.367	432.981	429.968	0.231	0.279	7.874	20.367	4.526
2023-06-13 07:15	486900	8.192	-132.475	261.506	20.343	432.894	430.077	0.231	0.280	7.781	20.343	4.489
2023-06-13 07:30	487800	8.196	-132.697	262.46	20.303	432.796	430.305	0.231	0.280	7.774	20.303	4.71
2023-06-13 07:45	488700	8.192	-132.453	262.708	20.277	432.671	430.395	0.231	0.280	7.731	20.277	4.477
2023-06-13 08:00	489600	8.178	-131.681	253.658	20.248	432.209	430.174	0.231	0.280	7.754	20.248	4.346
2023-06-13 08:15	490500	8.174	-131.469	262.655	20.23	432.089	430.203	0.231	0.280	7.829	20.23	4.449
2023-06-13 08:30	491400	8.195	-132.58	263.168	20.201	431.865	430.216	0.231	0.280	7.822	20.201	4.471
2023-06-13 08:45	492300	8.183	-131.934	263.855	20.17	431.786	430.39	0.231	0.280	7.854	20.17	5.841
2023-06-13 09:00	493200	8.205	-133.088	258.478	20.145	431.636	430.448	0.231	0.280	7.815	20.145	4.48
2023-06-13 09:15	494100	8.196	-132.594	263.116	20.13	431.643	430.572	0.231	0.280	7.743	20.13	4.434
2023-06-13 09:30	495000	8.185	-132.022	263.583	20.121	431.603	430.611	0.232	0.280	7.689	20.121	4.501
2023-06-13 09:45	495900	8.179	-131.679	264.045	20.112	431.747	430.829	0.232	0.280	7.726	20.112	4.385
2023-06-13 10:00	496800	8.180	-131.71	252.532	20.09	432.92	432.179	0.232	0.281	7.705	20.09	4.484
2023-06-13 10:15	497700	8.173	-131.328	262.987	20.075	430.754	430.135	0.231	0.280	7.672	20.075	4.279
2023-06-13 10:30	498600	8.184	-131.931	263.831	20.064	430.589	430.063	0.231	0.280	7.726	20.064	4.373
2023-06-13 10:45	499500	8.185	-131.991	264.312	20.055	430.413	429.957	0.231	0.279	7.736	20.055	4.54
2023-06-13 11:00	500400	8.195	-132.525	257.966	20.048	430.566	430.175	0.231	0.280	7.744	20.048	4.342
2023-06-13 11:15	501300	8.183	-131.888	263.159	20.038	430.642	430.332	0.231	0.280	7.734	20.038	4.59
2023-06-13 11:30	502200	8.180	-131.71	264.827	20.026	430.475	430.262	0.231	0.280	7.693	20.026	4.237
2023-06-13 11:45	503100	8.170	-131.125	264.553	19.993	429.681	429.741	0.231	0.279	7.613	19.993	4.526

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-13 12:00	504000	8.181	-131.721	253.681	19.979	429.103	429.276	0.231	0.279	7.760	19.979	4.397
2023-06-13 12:15	504900	8.188	-132.124	263.337	19.975	429.046	429.25	0.231	0.279	7.730	19.975	4.538
2023-06-13 12:30	505800	8.183	-131.843	264.701	19.977	429.005	429.191	0.231	0.279	7.757	19.977	4.273
2023-06-13 12:45	506700	8.181	-131.712	265.004	19.978	428.961	429.14	0.231	0.279	7.724	19.978	4.31
2023-06-13 13:00	507600	8.191	-132.294	256.793	19.977	429.237	429.424	0.231	0.279	7.776	19.977	4.431
2023-06-13 13:15	508500	8.190	-132.241	261.292	19.971	429.235	429.473	0.231	0.279	7.702	19.971	5.011
2023-06-13 13:30	509400	8.185	-131.927	263.616	19.965	429.222	429.511	0.231	0.279	7.661	19.965	5.254
2023-06-13 13:45	510300	8.180	-131.662	264.353	19.96	429.009	429.333	0.231	0.279	7.643	19.96	4.464
2023-06-13 14:00	511200	8.183	-131.857	253.231	19.958	428.661	429.007	0.231	0.279	7.745	19.958	4.262
2023-06-13 14:15	512100	8.190	-132.205	262.315	19.95	428.326	428.736	0.231	0.279	7.850	19.95	4.341
2023-06-13 14:30	513000	8.193	-132.394	264.134	19.947	428.191	428.628	0.230	0.279	7.725	19.947	4.34
2023-06-13 14:45	513900	8.183	-131.845	264.83	19.942	428.174	428.649	0.230	0.279	7.711	19.942	4.264
2023-06-13 15:00	514800	8.190	-132.227	256.943	19.945	428.442	428.896	0.231	0.279	7.702	19.945	4.356
2023-06-13 15:15	515700	8.186	-131.969	261.015	19.94	428.529	429.022	0.231	0.279	7.636	19.94	4.285
2023-06-13 15:30	516600	8.174	-131.345	262.675	19.928	428.352	428.938	0.231	0.279	7.627	19.928	4.391
2023-06-13 15:45	517500	8.174	-131.35	263.194	19.92	428.293	428.948	0.231	0.279	7.628	19.92	4.427
2023-06-13 16:00	518400	8.174	-131.323	254.521	19.917	427.849	428.531	0.230	0.279	7.708	19.917	4.288
2023-06-13 16:15	519300	8.177	-131.478	262.493	19.902	427.469	428.273	0.230	0.278	7.703	19.902	4.412
2023-06-13 16:30	520200	8.174	-131.288	264.832	19.89	427.354	428.254	0.230	0.278	7.644	19.89	4.497
2023-06-13 16:45	521100	8.174	-131.311	265.395	19.876	427.18	428.196	0.230	0.278	7.729	19.876	4.221
2023-06-13 17:00	522000	8.173	-131.245	255.961	19.867	427.117	428.204	0.230	0.278	7.641	19.867	4.319
2023-06-13 17:15	522900	8.170	-131.09	261.764	19.856	427.161	428.341	0.230	0.278	7.745	19.856	4.667
2023-06-13 17:30	523800	8.176	-131.426	263.783	19.845	427.288	428.553	0.230	0.279	7.756	19.845	4.478
2023-06-13 17:45	524700	8.184	-131.848	264.024	19.837	427.159	428.497	0.230	0.279	7.708	19.837	4.544
2023-06-13 18:00	525600	8.176	-131.378	250.229	19.821	426.624	428.089	0.230	0.278	7.665	19.821	4.15
2023-06-13 18:15	526500	8.178	-131.497	261.938	19.794	426.237	427.923	0.230	0.278	7.623	19.794	4.494
2023-06-13 18:30	527400	8.169	-130.992	264.41	19.774	426.07	427.921	0.230	0.278	7.620	19.774	4.482
2023-06-13 18:45	528300	8.176	-131.369	265.588	19.755	426.032	428.034	0.230	0.278	7.663	19.755	4.361
2023-06-13 19:00	529200	8.188	-132.031	259.771	19.739	425.978	428.109	0.230	0.278	7.700	19.739	4.273
2023-06-13 19:15	530100	8.190	-132.084	263.466	19.728	425.987	428.213	0.230	0.278	7.610	19.728	4.813
2023-06-13 19:30	531000	8.175	-131.278	264.982	19.711	425.793	428.156	0.230	0.278	7.583	19.711	4.257
2023-06-13 19:45	531900	8.172	-131.121	265.207	19.691	425.535	428.059	0.230	0.278	7.588	19.691	4.228
2023-06-13 20:00	532800	8.165	-130.72	254.802	19.667	424.446	427.161	0.230	0.278	7.617	19.667	4.239
2023-06-13 20:15	533700	8.168	-130.87	263.852	19.65	424.159	427.01	0.230	0.278	7.530	19.65	4.396
2023-06-13 20:30	534600	8.167	-130.813	265.738	19.636	423.953	426.921	0.230	0.277	7.552	19.636	4.315
2023-06-13 20:45	535500	8.161	-130.484	266.504	19.615	423.701	426.843	0.230	0.277	7.528	19.615	4.274
2023-06-13 21:00	536400	8.167	-130.806	261.411	19.603	423.59	426.829	0.230	0.277	7.497	19.603	4.271
2023-06-13 21:15	537300	8.162	-130.515	264.837	19.583	423.574	426.978	0.230	0.278	7.511	19.583	4.14
2023-06-13 21:30	538200	8.154	-130.069	266.446	19.559	423.349	426.946	0.230	0.278	7.418	19.559	4.208
2023-06-13 21:45	539100	8.151	-129.898	267.119	19.53	423.072	426.903	0.230	0.277	7.418	19.53	4.153
2023-06-13 22:00	540000	8.147	-129.683	258.357	19.506	422.598	426.622	0.230	0.277	7.509	19.506	4.593
2023-06-13 22:15	540900	8.157	-130.231	266.501	19.473	422.222	426.513	0.230	0.277	7.342	19.473	4.119
2023-06-13 22:30	541800	8.149	-129.759	267.922	19.451	421.973	426.444	0.229	0.277	7.312	19.451	4.426
2023-06-13 22:45	542700	8.143	-129.435	267.283	19.419	421.34	426.066	0.229	0.277	7.301	19.419	4.446
2023-06-13 23:00	543600	8.157	-130.143	260.379	19.392	420.854	425.802	0.229	0.277	7.312	19.392	4.327
2023-06-13 23:15	544500	8.149	-129.75	264.191	19.364	420.498	425.67	0.229	0.277	7.257	19.364	4.125
2023-06-13 23:30	545400	8.140	-129.225	265.617	19.327	419.833	425.298	0.229	0.276	7.369	19.327	4.341
2023-06-13 23:45	546300	8.145	-129.461	266.222	19.303	419.511	425.174	0.229	0.276	7.218	19.303	4.137
2023-06-14 00:00	547200	8.139	-129.139	258.595	19.259	418.998	425.017	0.229	0.276	7.221	19.259	4.147
2023-06-14 00:15	548100	8.145	-129.459	264.868	19.239	418.884	425.059	0.229	0.276	7.196	19.239	4.215
2023-06-14 00:30	549000	8.138	-129.08	266.041	19.201	418.392	424.879	0.229	0.276	7.197	19.201	4.125
2023-06-14 00:45	549900	8.130	-128.634	267.357	19.174	418.101	424.801	0.229	0.276	7.191	19.174	4.084
2023-06-14 01:00	550800	8.135	-128.863	259.906	19.159	418.139	424.967	0.229	0.276	7.150	19.159	4.246
2023-06-14 01:15	551700	8.134	-128.822	264.138	19.141	417.994	424.965	0.229	0.276	7.143	19.141	4.204
2023-06-14 01:30	552600	8.126	-128.372	265.586	19.119	417.903	425.054	0.229	0.276	7.133	19.119	4.143
2023-06-14 01:45	553500	8.132	-128.706	265.776	19.088	417.682	425.087	0.229	0.276	7.189	19.088	4.139

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-14 02:00	554400	8.125	-128.276	259.225	19.057	417.227	424.881	0.229	0.276	7.057	19.057	4.034
2023-06-14 02:15	555300	8.125	-128.248	266.251	19.015	416.458	424.443	0.229	0.276	7.235	19.015	4.191
2023-06-14 02:30	556200	8.146	-129.397	265.836	18.994	416.348	424.505	0.229	0.276	7.254	18.994	4.242
2023-06-14 02:45	557100	8.130	-128.524	267.166	18.977	416.211	424.502	0.229	0.276	7.199	18.977	4.128
2023-06-14 03:00	558000	8.132	-128.646	256.988	18.963	416.328	424.736	0.229	0.276	7.076	18.963	3.918
2023-06-14 03:15	558900	8.120	-127.99	262.827	18.956	416.34	424.812	0.229	0.276	6.948	18.956	4.174
2023-06-14 03:30	559800	8.103	-127.022	264.198	18.938	416.288	424.909	0.229	0.276	6.761	18.938	4.039
2023-06-14 03:45	560700	8.092	-126.424	265.261	18.917	416.082	424.871	0.229	0.276	6.713	18.917	4.269
2023-06-14 04:00	561600	8.099	-126.803	257.072	18.876	415.366	424.476	0.229	0.276	6.961	18.876	4.266
2023-06-14 04:15	562500	8.113	-127.528	263.24	18.86	415.237	424.477	0.229	0.276	6.926	18.86	4.257
2023-06-14 04:30	563400	8.104	-127.068	264.839	18.838	414.906	424.325	0.229	0.276	6.871	18.838	4.108
2023-06-14 04:45	564300	8.098	-126.698	266.468	18.816	414.661	424.254	0.229	0.276	6.960	18.816	4.218
2023-06-14 05:00	565200	8.109	-127.311	261.542	18.787	414.596	424.427	0.229	0.276	6.893	18.787	4.225
2023-06-14 05:15	566100	8.104	-127.041	264.267	18.764	414.485	424.508	0.229	0.276	6.845	18.764	4.148
2023-06-14 05:30	567000	8.108	-127.203	265.052	18.735	414.253	424.51	0.229	0.276	7.002	18.735	3.892
2023-06-14 05:45	567900	8.109	-127.268	265.304	18.711	414.077	424.525	0.229	0.276	6.887	18.711	4.107
2023-06-14 06:00	568800	8.110	-127.335	257.165	18.678	413.607	424.317	0.229	0.276	6.986	18.678	4.263
2023-06-14 06:15	569700	8.111	-127.347	264.146	18.652	413.239	424.159	0.229	0.276	6.946	18.652	4.036
2023-06-14 06:30	570600	8.105	-127.027	264.856	18.633	413.166	424.246	0.229	0.276	6.864	18.633	4.14
2023-06-14 06:45	571500	8.099	-126.693	265.319	18.604	412.859	424.173	0.229	0.276	6.838	18.604	3.954
2023-06-14 07:00	572400	8.110	-127.285	258.776	18.59	412.874	424.302	0.229	0.276	6.811	18.59	4.481
2023-06-14 07:15	573300	8.118	-127.707	262.644	18.569	412.714	424.307	0.229	0.276	6.885	18.569	3.971
2023-06-14 07:30	574200	8.108	-127.139	263.361	18.555	412.609	424.316	0.229	0.276	6.811	18.555	3.947
2023-06-14 07:45	575100	8.106	-127.056	263.156	18.542	412.493	424.309	0.229	0.276	6.793	18.542	4.294
2023-06-14 08:00	576000	8.094	-126.371	254.268	18.523	412.099	424.065	0.229	0.276	6.773	18.523	4.172
2023-06-14 08:15	576900	8.090	-126.181	261.187	18.514	411.992	424.028	0.229	0.276	6.774	18.514	4.508
2023-06-14 08:30	577800	8.088	-126.028	262.431	18.488	411.602	423.846	0.228	0.275	6.827	18.488	4.198
2023-06-14 08:45	578700	8.108	-127.106	262.336	18.477	411.408	423.731	0.228	0.275	6.909	18.477	4.307
2023-06-14 09:00	579600	8.114	-127.439	256.466	18.467	411.386	423.798	0.228	0.275	6.931	18.467	4.226
2023-06-14 09:15	580500	8.127	-128.119	259.73	18.447	411.19	423.762	0.228	0.275	6.963	18.447	4.528
2023-06-14 09:30	581400	8.127	-128.124	259.57	18.44	411.108	423.735	0.228	0.275	7.006	18.44	4.075
2023-06-14 09:45	582300	8.131	-128.314	260.712	18.422	410.768	423.529	0.228	0.275	7.005	18.422	4.075
2023-06-14 10:00	583200	8.124	-127.964	254.685	18.391	410.231	423.242	0.228	0.275	7.054	18.391	4.377
2023-06-14 10:15	584100	8.125	-127.971	260.071	18.391	410.196	423.204	0.228	0.275	7.046	18.391	3.973
2023-06-14 10:30	585000	8.130	-128.253	260.519	18.383	410.052	423.12	0.228	0.275	7.044	18.383	4.149
2023-06-14 10:45	585900	8.146	-129.132	260.314	18.372	410.732	423.912	0.229	0.276	7.174	18.372	4.01
2023-06-14 11:00	586800	8.156	-129.662	255.138	18.38	410.11	423.205	0.228	0.275	7.235	18.38	4.062
2023-06-14 11:15	587700	8.153	-129.526	257.057	18.373	410.085	423.24	0.228	0.275	7.231	18.373	4.097
2023-06-14 11:30	588600	8.153	-129.514	258.192	18.375	410.057	423.196	0.228	0.275	7.243	18.375	4.23
2023-06-14 11:45	589500	8.154	-129.535	259.296	18.373	410.062	423.211	0.228	0.275	7.278	18.373	4.133
2023-06-14 12:00	590400	8.145	-129.051	253.574	18.36	409.567	422.808	0.228	0.275	7.253	18.36	4.587
2023-06-14 12:15	591300	8.156	-129.645	258.996	18.364	409.802	423.024	0.228	0.275	7.275	18.364	4.057
2023-06-14 12:30	592200	8.161	-129.933	259.899	18.372	409.892	423.049	0.228	0.275	7.327	18.372	4.004
2023-06-14 12:45	593100	8.156	-129.647	260.853	18.367	409.912	423.11	0.228	0.275	7.325	18.367	4.281
2023-06-14 13:00	594000	8.158	-129.735	258.123	18.354	410.06	423.37	0.228	0.275	7.291	18.354	4.153
2023-06-14 13:15	594900	8.152	-129.44	261.363	18.356	410.182	423.481	0.228	0.275	7.261	18.356	4.315
2023-06-14 13:30	595800	8.153	-129.48	261.535	18.366	410.257	423.474	0.228	0.275	7.283	18.366	4.236
2023-06-14 13:45	596700	8.155	-129.621	262.129	18.367	410.34	423.55	0.228	0.275	7.284	18.367	4.124
2023-06-14 14:00	597600	8.136	-128.582	258.562	18.36	410.377	423.646	0.228	0.275	7.228	18.36	4.326
2023-06-14 14:15	598500	8.139	-128.758	262.977	18.353	410.393	423.726	0.228	0.275	7.161	18.353	4.194
2023-06-14 14:30	599400	8.130	-128.248	264.556	18.355	410.531	423.849	0.228	0.276	7.115	18.355	4.051
2023-06-14 14:45	600300	8.126	-128.043	266.272	18.356	410.479	423.784	0.228	0.275	7.144	18.356	4.313
2023-06-14 15:00	601200	8.133	-128.417	260.426	18.353	410.548	423.882	0.229	0.276	7.132	18.353	4.067
2023-06-14 15:15	602100	8.130	-128.267	263.769	18.352	410.689	424.038	0.229	0.276	7.035	18.352	4.004
2023-06-14 15:30	603000	8.122	-127.788	265.919	18.347	410.741	424.135	0.229	0.276	7.017	18.347	4.378
2023-06-14 15:45	603900	8.116	-127.463	267.35	18.346	410.762	424.158	0.229	0.276	7.021	18.346	4.088

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-14 16:00	604800	8.110	-127.158	261.137	18.342	410.526	423.956	0.229	0.276	7.019	18.342	4.43
2023-06-14 16:15	605700	8.119	-127.635	266.947	18.34	410.464	423.903	0.229	0.276	7.100	18.34	4.182
2023-06-14 16:30	606600	8.134	-128.441	265.359	18.349	410.59	423.958	0.229	0.276	7.139	18.349	4.204
2023-06-14 16:45	607500	8.134	-128.467	264.713	18.367	410.812	424.034	0.229	0.276	7.149	18.367	4.169
2023-06-14 17:00	608400	8.151	-129.421	259.387	18.415	411.131	423.964	0.229	0.276	7.243	18.415	4.455
2023-06-14 17:15	609300	8.159	-129.871	262.825	18.456	411.543	424.049	0.229	0.276	7.444	18.456	4.004
2023-06-14 17:30	610200	8.155	-129.671	263.139	18.508	412.164	424.257	0.229	0.276	7.402	18.508	4.051
2023-06-14 17:45	611100	8.153	-129.609	264.136	18.563	412.857	424.51	0.229	0.276	7.335	18.563	3.907
2023-06-14 18:00	612000	8.156	-129.752	257.568	18.636	413.354	424.41	0.229	0.276	7.543	18.636	4.153
2023-06-14 18:15	612900	8.157	-129.848	262.255	18.623	413.691	424.868	0.229	0.276	7.414	18.623	4.365
2023-06-14 18:30	613800	8.137	-128.753	265.555	18.598	413.697	425.081	0.229	0.276	7.298	18.598	4.012
2023-06-14 18:45	614700	8.126	-128.119	267.176	18.565	413.631	425.29	0.229	0.276	7.169	18.565	4.074
2023-06-14 19:00	615600	8.124	-127.997	263.116	18.539	413.664	425.538	0.229	0.277	7.172	18.539	4.349
2023-06-14 19:15	616500	8.111	-127.313	266.027	18.513	413.54	425.629	0.229	0.277	7.133	18.513	3.917
2023-06-14 19:30	617400	8.100	-126.705	267.841	18.489	413.424	425.71	0.229	0.277	7.073	18.489	4.037
2023-06-14 19:45	618300	8.109	-127.146	268.006	18.487	413.451	425.751	0.229	0.277	7.132	18.487	4.169
2023-06-14 20:00	619200	8.111	-127.282	261.8	18.491	413.158	425.419	0.229	0.277	7.220	18.491	4.01
2023-06-14 20:15	620100	8.126	-128.109	265.471	18.492	413.083	425.334	0.229	0.276	7.194	18.492	4.042
2023-06-14 20:30	621000	8.135	-128.574	265.927	18.464	412.792	425.272	0.229	0.276	7.284	18.464	4.705
2023-06-14 20:45	621900	8.138	-128.713	265.908	18.45	412.601	425.185	0.229	0.276	7.289	18.45	4.039
2023-06-14 21:00	622800	8.135	-128.551	260.212	18.435	412.678	425.393	0.229	0.277	7.239	18.435	4.103
2023-06-14 21:15	623700	8.129	-128.231	266	18.431	412.716	425.463	0.229	0.277	7.200	18.431	3.951
2023-06-14 21:30	624600	8.123	-127.923	268.07	18.418	412.669	425.527	0.229	0.277	7.127	18.418	3.942
2023-06-14 21:45	625500	8.123	-127.888	269.16	18.387	412.28	425.384	0.229	0.276	7.124	18.387	3.976
2023-06-14 22:00	626400	8.105	-126.903	263.74	18.356	411.756	425.102	0.229	0.276	7.070	18.356	4.058
2023-06-14 22:15	627300	8.103	-126.786	270.266	18.316	411.227	424.89	0.229	0.276	7.074	18.316	4.02
2023-06-14 22:30	628200	8.099	-126.564	272.109	18.281	410.848	424.793	0.229	0.276	6.991	18.281	3.896
2023-06-14 22:45	629100	8.096	-126.369	272.681	18.249	410.329	424.529	0.229	0.276	6.988	18.249	3.959
2023-06-14 23:00	630000	8.107	-126.944	265.872	18.231	410.66	425.02	0.229	0.276	6.975	18.231	4.309
2023-06-14 23:15	630900	8.100	-126.548	271.486	18.19	410.147	424.838	0.229	0.276	6.771	18.19	3.906
2023-06-14 23:30	631800	8.085	-125.732	274.924	18.163	409.783	424.679	0.229	0.276	6.792	18.163	4.23
2023-06-14 23:45	632700	8.073	-125.062	276.632	18.133	409.442	424.582	0.229	0.276	6.780	18.133	4.045
2023-06-15 00:00	633600	8.070	-124.874	274.824	18.11	409.203	424.525	0.229	0.276	6.691	18.11	3.985
2023-06-15 00:15	634500	8.076	-125.201	276.369	18.065	408.544	424.225	0.229	0.276	6.661	18.065	3.902
2023-06-15 00:30	635400	8.067	-124.726	275.909	18.043	408.37	424.228	0.229	0.276	6.624	18.043	4.134
2023-06-15 00:45	636300	8.068	-124.75	275.783	18.017	408.204	424.276	0.229	0.276	6.544	18.017	4.007
2023-06-15 01:00	637200	8.071	-124.929	269.453	18	408.045	424.25	0.229	0.276	6.517	18	4.399
2023-06-15 01:15	638100	8.059	-124.266	272.729	17.982	408.041	424.396	0.229	0.276	***6.445***	17.982	4.12
2023-06-15 01:30	639000	8.052	-123.854	273.79	17.953	407.692	424.284	0.229	0.276	***6.396***	17.953	3.981
2023-06-15 01:45	639900	8.041	-123.26	274.657	17.922	407.218	424.045	0.229	0.276	***6.229***	17.922	3.881
2023-06-15 02:00	640800	8.047	-123.539	267.805	17.886	406.604	423.71	0.229	0.275	***6.385***	17.886	3.91
2023-06-15 02:15	641700	8.055	-123.959	273.654	17.849	406.114	423.513	0.228	0.275	***6.447***	17.849	4.042
2023-06-15 02:30	642600	8.053	-123.887	274.278	17.832	405.903	423.435	0.228	0.275	***6.494***	17.832	4.024
2023-06-15 02:45	643500	8.054	-123.928	274.374	17.8	405.69	423.486	0.229	0.275	***6.420***	17.8	3.714
2023-06-15 03:00	644400	8.057	-124.037	269.481	17.776	405.685	423.681	0.229	0.275	***6.418***	17.776	3.841
2023-06-15 03:15	645300	8.059	-124.164	271.26	17.75	405.543	423.752	0.229	0.275	***6.461***	17.75	3.926
2023-06-15 03:30	646200	8.047	-123.501	273.408	17.721	405.365	423.813	0.229	0.275	***6.355***	17.721	4.023
2023-06-15 03:45	647100	8.040	-123.119	274.104	17.694	405.11	423.776	0.229	0.275	***6.356***	17.694	3.854
2023-06-15 04:00	648000	8.043	-123.239	268.535	17.66	404.55	423.475	0.229	0.275	***6.356***	17.66	3.784
2023-06-15 04:15	648900	8.053	-123.751	273.816	17.623	404.184	423.405	0.229	0.275	***6.338***	17.623	3.705
2023-06-15 04:30	649800	8.040	-123.055	275.437	17.594	403.961	423.415	0.229	0.275	***6.240***	17.594	4.026
2023-06-15 04:45	650700	8.032	-122.628	275.895	17.565	403.654	423.343	0.229	0.275	***6.274***	17.565	3.777
2023-06-15 05:00	651600	8.036	-122.838	267.219	17.546	403.624	423.472	0.229	0.275	***6.210***	17.546	5.357
2023-06-15 05:15	652500	8.034	-122.688	271.739	17.523	403.454	423.492	0.229	0.275	***6.168***	17.523	3.88
2023-06-15 05:30	653400	8.026	-122.287	274.228	17.5	403.136	423.354	0.229	0.275	***6.051***	17.5	3.84
2023-06-15 05:45	654300	8.014	-121.603	275.785	17.477	402.825	423.223	0.228	0.275	***5.993***	17.477	4.655

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-15 06:00	655200	8.006	-121.176	265.733	17.434	402.23	422.963	0.228	0.275	***5.949***	17.434	5.356
2023-06-15 06:15	656100	8.015	-121.655	272.28	17.404	402.004	422.977	0.228	0.275	***5.931***	17.404	4.908
2023-06-15 06:30	657000	8.015	-121.644	273.241	17.379	401.775	422.947	0.228	0.275	***6.013***	17.379	4.95
2023-06-15 06:45	657900	8.008	-121.224	273.658	17.35	401.466	422.873	0.228	0.275	***5.999***	17.35	4.536
2023-06-15 07:00	658800	8.019	-121.801	266.453	17.334	401.545	423.09	0.228	0.275	***5.967***	17.334	4.567
2023-06-15 07:15	659700	8.010	-121.355	271.415	17.325	401.521	423.143	0.228	0.275	***5.913***	17.325	4.538
2023-06-15 07:30	660600	8.005	-121.078	274.114	17.299	401.34	423.171	0.229	0.275	***5.953***	17.299	4.269
2023-06-15 07:45	661500	8.009	-121.238	275.993	17.28	401.166	423.149	0.229	0.275	***5.974***	17.28	4.21
2023-06-15 08:00	662400	8.018	-121.765	267.035	17.269	400.857	422.92	0.228	0.275	***5.953***	17.269	4.196
2023-06-15 08:15	663300	8.017	-121.694	273.971	17.254	400.654	422.835	0.228	0.275	***5.910***	17.254	3.854
2023-06-15 08:30	664200	8.000	-120.752	278.379	17.239	400.403	422.69	0.228	0.275	***5.853***	17.239	3.665
2023-06-15 08:45	665100	7.992	-120.33	281.19	17.227	400.272	422.656	0.228	0.275	***5.861***	17.227	3.336
2023-06-15 09:00	666000	7.994	-120.435	277.325	17.222	400.592	423.039	0.228	0.275	***5.924***	17.222	4.027
2023-06-15 09:15	666900	8.006	-121.083	276.202	17.222	400.621	423.069	0.228	0.275	***5.958***	17.222	4.14
2023-06-15 09:30	667800	7.999	-120.716	276.851	17.221	400.624	423.078	0.229	0.275	***5.750***	17.221	3.753
2023-06-15 09:45	668700	7.995	-120.468	278.031	17.217	400.56	423.05	0.228	0.275	***5.860***	17.217	4.014
2023-06-15 10:00	669600	7.991	-120.289	270.242	17.219	400.32	422.776	0.228	0.275	***5.833***	17.219	3.949
2023-06-15 10:15	670500	7.992	-120.342	276.229	17.211	400.194	422.708	0.228	0.275	***5.881***	17.211	3.652
2023-06-15 10:30	671400	7.993	-120.387	277.361	17.218	400.372	422.84	0.228	0.275	***5.778***	17.218	3.761
2023-06-15 10:45	672300	7.991	-120.268	277.008	17.226	400.513	422.922	0.228	0.275	***5.815***	17.226	3.692
2023-06-15 11:00	673200	8.000	-120.761	270.757	17.239	400.774	423.089	0.229	0.275	***5.853***	17.239	3.926
2023-06-15 11:15	674100	8.013	-121.491	273.36	17.255	401.046	423.239	0.229	0.275	***5.919***	17.255	4.128
2023-06-15 11:30	675000	8.008	-121.229	275.13	17.279	401.466	423.474	0.229	0.275	***6.023***	17.279	3.788
2023-06-15 11:45	675900	7.986	-120.051	276.016	17.319	401.937	423.627	0.229	0.275	***6.051***	17.319	3.691
2023-06-15 12:00	676800	8.002	-120.897	270.108	17.365	402.513	423.846	0.229	0.275	***6.096***	17.365	3.632
2023-06-15 12:15	677700	8.002	-120.94	274.226	17.401	402.901	423.946	0.229	0.276	***6.117***	17.401	3.732
2023-06-15 12:30	678600	8.003	-121.007	274.936	17.469	403.508	424.005	0.229	0.276	***6.114***	17.469	3.606
2023-06-15 12:45	679500	8.021	-122.018	274.326	17.499	403.851	424.115	0.229	0.276	***6.264***	17.499	3.721
2023-06-15 13:00	680400	8.037	-122.852	266.096	17.49	403.604	423.927	0.229	0.276	***6.418***	17.49	4.077
2023-06-15 13:15	681300	8.043	-123.184	270.285	17.492	403.771	424.084	0.229	0.276	***6.438***	17.492	3.73
2023-06-15 13:30	682200	8.034	-122.724	273.487	17.527	403.993	424.022	0.229	0.276	***6.484***	17.527	3.763
2023-06-15 13:45	683100	8.029	-122.476	274.841	17.561	404.314	424.066	0.229	0.276	6.500	17.561	3.789
2023-06-15 14:00	684000	8.040	-123.06	269.403	17.572	403.92	423.565	0.229	0.275	6.537	17.572	3.844
2023-06-15 14:15	684900	8.055	-123.892	273.775	17.599	404.38	423.816	0.229	0.275	6.829	17.599	4.154
2023-06-15 14:30	685800	8.053	-123.739	275.153	17.595	404.603	424.086	0.229	0.276	6.630	17.595	3.757
2023-06-15 14:45	686700	8.044	-123.277	275.499	17.619	404.601	423.876	0.229	0.276	6.590	17.619	3.953
2023-06-15 15:00	687600	8.059	-124.128	272.626	17.635	405.065	424.229	0.229	0.276	6.631	17.635	3.753
2023-06-15 15:15	688500	8.046	-123.389	275.537	17.632	405.385	424.588	0.229	0.276	6.534	17.632	3.885
2023-06-15 15:30	689400	8.046	-123.417	276.629	17.618	404.955	424.26	0.229	0.276	6.610	17.618	3.964
2023-06-15 15:45	690300	8.047	-123.477	277.297	17.624	405.02	424.277	0.229	0.276	6.617	17.624	3.816
2023-06-15 16:00	691200	8.058	-124.033	270.499	17.641	404.718	423.816	0.229	0.275	6.666	17.641	3.851
2023-06-15 16:15	692100	8.050	-123.627	277.282	17.627	404.488	423.688	0.229	0.275	6.693	17.627	3.707
2023-06-15 16:30	693000	8.035	-122.805	281.891	17.63	404.37	423.541	0.229	0.275	6.728	17.63	4.013
2023-06-15 16:45	693900	8.039	-123.036	283.913	17.647	404.638	423.676	0.229	0.275	6.879	17.647	3.524
2023-06-15 17:00	694800	8.034	-122.795	279.891	17.681	405.018	423.793	0.229	0.275	6.957	17.681	3.816
2023-06-15 17:15	695700	8.029	-122.519	279.576	17.708	405.398	423.959	0.229	0.276	6.732	17.708	3.751
2023-06-15 17:30	696600	8.032	-122.666	279.237	17.741	405.761	424.059	0.229	0.276	6.657	17.741	3.686
2023-06-15 17:45	697501	8.029	-122.559	279.133	17.772	406.201	424.257	0.229	0.276	6.658	17.772	3.57
2023-06-15 18:00	698401	8.024	-122.292	273.906	17.816	406.266	423.953	0.229	0.276	6.662	17.816	3.731
2023-06-15 18:15	699301	8.050	-123.723	276.846	17.85	407.071	424.503	0.229	0.276	6.744	17.85	3.582
2023-06-15 18:30	700201	8.042	-123.293	278.205	17.89	407.504	424.619	0.229	0.276	6.717	17.89	3.595
2023-06-15 18:45	701101	8.038	-123.117	279.686	17.924	408.07	424.917	0.229	0.276	6.664	17.924	3.552
2023-06-15 19:00	702001	8.044	-123.427	272.531	17.956	409.073	425.692	0.230	0.277	6.617	17.956	3.65
2023-06-15 19:15	702901	8.042	-123.336	275.537	17.981	409.788	426.228	0.230	0.277	6.504	17.981	3.939
2023-06-15 19:30	703801	8.043	-123.372	278.711	17.986	410.054	426.456	0.230	0.277	6.734	17.986	4.075
2023-06-15 19:45	704701	8.046	-123.537	280.816	17.992	410.302	426.664	0.230	0.277	6.651	17.992	3.809

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-15 20:00	705601	8.033	-122.862	275.47	18.004	410.322	426.583	0.230	0.277	6.500	18.004	3.777
2023-06-15 20:15	706501	8.031	-122.75	281.338	18.012	410.435	426.637	0.230	0.277	6.574	18.012	3.616
2023-06-15 20:30	707401	8.026	-122.499	282.194	18.027	410.562	426.643	0.230	0.277	6.600	18.027	3.697
2023-06-15 20:45	708301	8.024	-122.387	282.754	18.034	410.474	426.491	0.230	0.277	6.573	18.034	3.555
2023-06-15 21:00	709201	8.027	-122.561	273.961	18.042	410.86	426.82	0.230	0.277	6.575	18.042	3.566
2023-06-15 21:15	710101	8.029	-122.654	277.447	18.05	411.124	427.026	0.230	0.278	***6.343***	18.05	3.587
2023-06-15 21:30	711001	8.027	-122.571	280.32	18.061	411.192	427.003	0.230	0.278	***6.383***	18.061	3.521
2023-06-15 21:45	711901	8.020	-122.159	280.098	18.065	411.273	427.06	0.230	0.278	***6.372***	18.065	3.595
2023-06-15 22:00	712801	8.002	-121.233	274.328	18.064	411.077	426.866	0.230	0.277	***6.337***	18.064	3.605
2023-06-15 22:15	713701	8.004	-121.317	280.687	18.058	410.902	426.731	0.230	0.277	***6.304***	18.058	3.9
2023-06-15 22:30	714601	7.996	-120.857	282.373	18.042	410.714	426.67	0.230	0.277	***6.216***	18.042	3.757
2023-06-15 22:45	715501	7.996	-120.878	284.163	18.04	410.66	426.631	0.230	0.277	***6.329***	18.04	4.139
2023-06-15 23:00	716401	8.011	-121.672	279.352	18.035	410.747	426.762	0.230	0.277	6.589	18.035	4.045
2023-06-15 23:15	717301	8.019	-122.125	282.301	18.019	410.714	426.862	0.230	0.277	6.578	18.019	4.038
2023-06-15 23:30	718201	8.021	-122.192	283.93	18.005	410.705	426.975	0.230	0.278	***6.459***	18.005	4
2023-06-15 23:45	719101	8.023	-122.337	285.93	17.998	410.632	426.956	0.230	0.278	***6.449***	17.998	4.11
2023-06-16 00:00	720001	8.022	-122.244	280.477	17.998	410.523	426.848	0.230	0.277	***6.469***	17.998	4.013
2023-06-16 00:15	720901	8.021	-122.201	285.777	17.998	410.873	427.212	0.230	0.278	6.654	17.998	4.041
2023-06-16 00:30	721801	8.022	-122.247	286.571	17.979	410.599	427.082	0.230	0.278	6.677	17.979	4.009
2023-06-16 00:45	722701	8.020	-122.125	286.917	17.944	410.198	426.962	0.230	0.278	6.552	17.944	4.359
2023-06-16 01:00	723601	8.037	-123.026	279.69	17.919	410.316	427.301	0.231	0.278	6.609	17.919	3.896
2023-06-16 01:15	724501	8.037	-123.031	283.25	17.887	410.086	427.337	0.231	0.278	6.634	17.887	3.928
2023-06-16 01:30	725401	8.034	-122.864	284.259	17.85	409.734	427.277	0.231	0.278	6.662	17.85	4.018
2023-06-16 01:45	726301	8.031	-122.647	285.42	17.814	409.285	427.122	0.231	0.278	6.517	17.814	4.09
2023-06-16 02:00	727201	8.029	-122.519	279.991	17.771	408.67	426.846	0.230	0.277	6.650	17.771	4.343
2023-06-16 02:15	728101	8.033	-122.771	286.245	17.739	408.426	426.86	0.230	0.277	6.525	17.739	3.984
2023-06-16 02:30	729001	8.022	-122.128	288.185	17.71	408.015	426.676	0.230	0.277	***6.373***	17.71	4.034
2023-06-16 02:45	729901	8.016	-121.832	289.16	17.691	407.819	426.635	0.230	0.277	***6.344***	17.691	3.862
2023-06-16 03:00	730801	8.024	-122.216	282.06	17.678	407.916	426.847	0.230	0.277	***6.362***	17.678	3.839
2023-06-16 03:15	731701	8.025	-122.254	284.383	17.659	407.855	426.942	0.230	0.278	***6.399***	17.659	3.835
2023-06-16 03:30	732601	8.018	-121.882	287.565	17.639	407.614	426.86	0.230	0.277	***6.328***	17.639	3.813
2023-06-16 03:45	733501	8.018	-121.87	288.891	17.625	407.497	426.857	0.230	0.277	***6.193***	17.625	3.807
2023-06-16 04:00	734401	8.008	-121.329	283.903	17.604	406.979	426.5	0.230	0.277	***6.199***	17.604	3.765
2023-06-16 04:15	735301	8.009	-121.381	287.296	17.577	406.545	426.27	0.230	0.277	***6.241***	17.577	3.929
2023-06-16 04:30	736201	8.008	-121.3	288.271	17.563	406.435	426.281	0.230	0.277	***6.136***	17.563	3.849
2023-06-16 04:45	737101	8.009	-121.379	288.612	17.55	406.433	426.383	0.230	0.277	***6.103***	17.55	3.86
2023-06-16 05:00	738001	8.011	-121.484	278.966	17.538	406.3	426.35	0.230	0.277	***6.170***	17.538	4.155
2023-06-16 05:15	738901	8.015	-121.696	282.53	17.527	406.335	426.479	0.230	0.277	***6.125***	17.527	4.063
2023-06-16 05:30	739801	8.008	-121.303	285.448	17.515	406.311	426.56	0.230	0.277	***6.084***	17.515	3.775
2023-06-16 05:45	740701	7.997	-120.721	287.923	17.5	406.233	426.601	0.230	0.277	***6.137***	17.5	3.711
2023-06-16 06:00	741601	8.005	-121.138	282.609	17.482	405.851	426.361	0.230	0.277	***6.113***	17.482	4.05
2023-06-16 06:15	742501	8.006	-121.179	287.918	17.468	405.715	426.335	0.230	0.277	***6.180***	17.468	3.612
2023-06-16 06:30	743401	7.988	-120.211	292.005	17.457	405.598	426.301	0.230	0.277	***6.027***	17.457	3.609
2023-06-16 06:45	744301	7.969	-119.169	294.069	17.448	406.145	426.956	0.231	0.278	***6.057***	17.448	3.424
2023-06-16 07:00	745201	7.989	-120.256	291.371	17.442	405.64	426.473	0.230	0.277	***5.998***	17.442	3.724
2023-06-16 07:15	746101	7.998	-120.74	289.656	17.434	405.672	426.575	0.230	0.277	***6.031***	17.434	5.168
2023-06-16 07:30	747001	7.984	-119.953	290.672	17.426	405.71	426.691	0.230	0.277	***6.027***	17.426	3.87
2023-06-16 07:45	747901	7.982	-119.846	290.765	17.414	405.53	426.605	0.230	0.277	***6.239***	17.414	4.122
2023-06-16 08:00	748801	8.002	-120.945	283.941	17.406	405.207	426.326	0.230	0.277	***6.142***	17.406	3.688
2023-06-16 08:15	749701	7.997	-120.64	289.518	17.394	405.046	426.262	0.230	0.277	***6.095***	17.394	3.539
2023-06-16 08:30	750601	7.984	-119.967	293.483	17.391	405.049	426.288	0.230	0.277	***6.150***	17.391	3.432
2023-06-16 08:45	751501	7.974	-119.393	295.982	17.386	405.02	426.301	0.230	0.277	***6.178***	17.386	3.404
2023-06-16 09:00	752401	7.980	-119.722	293.559	17.387	405.273	426.559	0.230	0.277	***6.184***	17.387	4.128
2023-06-16 09:15	753301	8.000	-120.821	291.115	17.388	405.395	426.682	0.230	0.277	***6.237***	17.388	3.879
2023-06-16 09:30	754201	7.998	-120.704	291.65	17.389	405.422	426.7	0.230	0.277	***6.132***	17.389	4.637
2023-06-16 09:45	755101	7.993	-120.444	291.588	17.389	405.481	426.763	0.230	0.277	***6.205***	17.389	3.961

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-16 10:00	756001	7.996	-120.594	285.143	17.39	405.213	426.473	0.230	0.277	***6.236***	17.39	3.999
2023-06-16 10:15	756901	8.003	-120.964	289.42	17.391	405.168	426.417	0.230	0.277	***6.261***	17.391	3.817
2023-06-16 10:30	757801	7.999	-120.78	289.845	17.395	405.29	426.509	0.230	0.277	***6.317***	17.395	4.017
2023-06-16 10:45	758701	8.002	-120.943	289.611	17.4	405.272	426.447	0.230	0.277	***6.336***	17.4	4.088
2023-06-16 11:00	759601	8.009	-121.293	283.846	17.408	405.509	426.631	0.230	0.277	***6.388***	17.408	3.934
2023-06-16 11:15	760501	8.014	-121.591	286.211	17.413	405.632	426.717	0.230	0.277	***6.360***	17.413	3.882
2023-06-16 11:30	761401	8.006	-121.14	288.858	17.418	405.704	426.753	0.230	0.277	***6.338***	17.418	3.882
2023-06-16 11:45	762301	8.005	-121.102	289.778	17.424	405.783	426.783	0.230	0.277	***6.347***	17.424	4.027
2023-06-16 12:00	763201	8.004	-121.069	284.645	17.434	405.712	426.625	0.230	0.277	***6.344***	17.434	3.856
2023-06-16 12:15	764101	8.012	-121.481	287.744	17.445	405.906	426.734	0.230	0.277	***6.476***	17.445	3.569
2023-06-16 12:30	765001	8.022	-122.054	287.272	17.463	406.179	426.861	0.231	0.277	6.500	17.463	3.667
2023-06-16 12:45	765901	8.042	-123.098	285.196	17.485	406.309	426.809	0.230	0.277	6.561	17.485	3.943
2023-06-16 13:00	766801	8.053	-123.718	278.289	17.493	406.443	426.888	0.231	0.277	6.662	17.493	4.214
2023-06-16 13:15	767701	8.038	-122.919	284.416	17.485	406.439	426.952	0.231	0.278	6.581	17.485	3.973
2023-06-16 13:30	768601	8.029	-122.433	287.163	17.478	406.391	426.954	0.231	0.278	***6.496***	17.478	3.977
2023-06-16 13:45	769501	8.023	-122.094	288.524	17.471	406.315	426.939	0.231	0.278	***6.473***	17.471	3.91
2023-06-16 14:00	770401	8.016	-121.727	283.391	17.464	406.085	426.756	0.230	0.277	***6.485***	17.464	4.016
2023-06-16 14:15	771301	8.027	-122.328	287.813	17.452	405.851	426.614	0.230	0.277	***6.435***	17.452	3.8
2023-06-16 14:30	772201	8.023	-122.087	288.715	17.453	405.904	426.664	0.230	0.277	***6.361***	17.453	3.995
2023-06-16 14:45	773101	8.022	-122.02	288.486	17.483	406.241	426.758	0.230	0.277	***6.408***	17.483	3.904
2023-06-16 15:00	774001	8.036	-122.817	283.753	17.504	406.542	426.891	0.231	0.277	6.500	17.504	4.178
2023-06-16 15:15	774901	8.021	-121.977	284.349	17.499	406.336	426.724	0.230	0.277	***6.372***	17.499	4.124
2023-06-16 15:30	775801	8.013	-121.589	284.514	17.505	406.46	426.799	0.230	0.277	***6.311***	17.505	4.165
2023-06-16 15:45	776701	8.026	-122.297	284.037	17.555	407.03	426.97	0.231	0.278	***6.447***	17.555	4.502
2023-06-16 16:00	777601	8.035	-122.769	278.746	17.592	407.219	426.852	0.230	0.277	6.674	17.592	4.035
2023-06-16 16:15	778501	8.054	-123.827	281.533	17.631	407.554	426.869	0.230	0.277	6.801	17.631	3.857
2023-06-16 16:30	779401	8.079	-125.172	281.364	17.668	407.849	426.866	0.230	0.277	7.058	17.668	4.087
2023-06-16 16:45	780301	8.087	-125.67	280.904	17.705	408.201	426.911	0.230	0.277	7.125	17.705	4.485
2023-06-16 17:00	781201	8.095	-126.121	277.28	17.776	408.918	427.058	0.230	0.278	7.155	17.776	4.483
2023-06-16 17:15	782101	8.098	-126.262	279.972	17.774	408.553	426.691	0.230	0.277	7.206	17.774	4.343
2023-06-16 17:30	783001	8.028	-122.416	284.228	17.644	407.939	427.159	0.231	0.278	6.517	17.644	4.276
2023-06-16 17:45	783901	8.022	-122.092	285.236	17.659	408.112	427.215	0.231	0.278	***6.478***	17.659	4.142
2023-06-16 18:00	784801	8.006	-121.291	280.635	17.684	408.253	427.149	0.231	0.278	***6.436***	17.684	4.318
2023-06-16 18:15	785701	8.021	-122.101	284.48	17.721	408.45	427.04	0.231	0.278	***6.496***	17.721	4.509
2023-06-16 18:30	786601	8.029	-122.535	284.287	17.735	408.465	426.935	0.230	0.278	6.615	17.735	4.273
2023-06-16 18:45	787501	8.036	-122.9	283.665	17.771	408.839	427.019	0.230	0.278	6.678	17.771	4.283
2023-06-16 19:00	788401	8.041	-123.219	279.18	17.779	409.118	427.243	0.231	0.278	6.641	17.779	4.584
2023-06-16 19:15	789301	8.037	-122.955	282.099	17.773	409.119	427.293	0.231	0.278	6.654	17.773	4.521
2023-06-16 19:30	790201	8.030	-122.571	284.168	17.754	409.004	427.333	0.231	0.278	6.556	17.754	4.496
2023-06-16 19:45	791101	8.021	-122.075	285.594	17.734	408.891	427.392	0.231	0.278	***6.465***	17.734	4.62
2023-06-16 20:00	792001	7.992	-120.494	282.141	17.667	408.269	427.308	0.231	0.278	***6.247***	17.667	4.329
2023-06-16 20:15	792901	7.988	-120.287	285.439	17.652	408.279	427.447	0.231	0.278	***6.169***	17.652	4.512
2023-06-16 20:30	793801	7.989	-120.351	286.18	17.654	408.327	427.48	0.231	0.278	***6.139***	17.654	4.34
2023-06-16 20:45	794701	7.984	-120.051	287.477	17.642	408.209	427.458	0.231	0.278	***6.089***	17.642	4.453
2023-06-16 21:00	795601	7.980	-119.827	282.07	17.627	408.208	427.589	0.231	0.278	***5.979***	17.627	4.52
2023-06-16 21:15	796501	7.969	-119.233	286.359	17.616	408.164	427.632	0.231	0.278	***5.975***	17.616	4.149
2023-06-16 21:30	797401	7.967	-119.131	288.235	17.604	408.13	427.701	0.231	0.278	***5.941***	17.604	4.355
2023-06-16 21:45	798301	7.962	-118.88	289.668	17.59	408.009	427.694	0.231	0.278	***5.870***	17.59	4.435
2023-06-16 22:00	799201	7.998	-120.792	282.709	17.542	407.327	427.391	0.231	0.278	***6.214***	17.542	4.133
2023-06-16 22:15	800101	7.996	-120.661	288.86	17.511	407.044	427.363	0.231	0.278	***6.309***	17.511	3.8
2023-06-16 22:30	801001	7.992	-120.42	293.583	17.484	406.762	427.301	0.231	0.278	***6.273***	17.484	3.764
2023-06-16 22:45	801901	8.000	-120.854	297.128	17.476	406.613	427.209	0.231	0.278	***6.323***	17.476	3.745
2023-06-16 23:00	802801	7.991	-120.356	295.774	17.469	406.819	427.488	0.231	0.278	***6.240***	17.469	3.886
2023-06-16 23:15	803701	7.996	-120.633	295.5	17.463	406.763	427.478	0.231	0.278	***6.218***	17.463	3.81
2023-06-16 23:30	804601	7.988	-120.187	296.79	17.454	406.757	427.55	0.231	0.278	***6.107***	17.454	3.809
2023-06-16 23:45	805501	7.992	-120.418	297.384	17.45	406.775	427.599	0.231	0.278	***6.089***	17.45	3.835

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-17 00:00	806401	7.987	-120.12	291.464	17.447	406.569	427.413	0.231	0.278	***6.271***	17.447	3.618
2023-06-17 00:15	807301	7.994	-120.521	294.978	17.446	406.515	427.359	0.231	0.278	***6.261***	17.446	3.771
2023-06-17 00:30	808201	7.993	-120.442	295.872	17.443	406.431	427.303	0.231	0.278	***6.352***	17.443	3.66
2023-06-17 00:45	809101	7.985	-120.025	296.473	17.439	406.434	427.339	0.231	0.278	6.538	17.439	3.856
2023-06-17 01:00	810001	8.005	-121.078	289.981	17.422	406.402	427.448	0.231	0.278	6.512	17.422	4.144
2023-06-17 01:15	810901	8.002	-120.919	292.672	17.413	406.286	427.408	0.231	0.278	***6.236***	17.413	3.776
2023-06-17 01:30	811801	8.033	-122.602	294.747	17.399	406.155	427.389	0.231	0.278	6.555	17.399	3.758
2023-06-17 01:45	812701	8.022	-122.023	296.344	17.372	405.941	427.395	0.231	0.278	***6.473***	17.372	3.656
2023-06-17 02:00	813601	8.037	-122.783	291.223	17.341	405.511	427.212	0.231	0.278	6.586	17.341	3.734
2023-06-17 02:15	814501	8.035	-122.695	295.817	17.319	405.055	426.914	0.231	0.277	6.711	17.319	3.657
2023-06-17 02:30	815401	8.033	-122.581	297.057	17.307	405.019	426.981	0.231	0.278	6.617	17.307	3.749
2023-06-17 02:45	816301	8.039	-122.883	297.715	17.294	404.888	426.959	0.231	0.278	6.528	17.294	3.655
2023-06-17 03:00	817201	8.045	-123.198	293.013	17.281	405.019	427.203	0.231	0.278	6.546	17.281	3.598
2023-06-17 03:15	818101	8.044	-123.122	294.62	17.262	404.848	427.186	0.231	0.278	6.647	17.262	3.919
2023-06-17 03:30	819001	8.055	-123.703	296.01	17.246	404.732	427.201	0.231	0.278	***6.463***	17.246	3.666
2023-06-17 03:45	819901	8.047	-123.281	296.504	17.226	404.541	427.176	0.231	0.278	6.687	17.226	3.751
2023-06-17 04:00	820801	8.041	-122.938	291.998	17.196	404.191	427.061	0.231	0.278	6.616	17.196	3.733
2023-06-17 04:15	821701	8.042	-123.012	296.411	17.175	403.906	426.943	0.231	0.278	6.702	17.175	3.739
2023-06-17 04:30	822601	8.038	-122.778	296.673	17.135	403.537	426.9	0.231	0.277	6.576	17.135	5.461
2023-06-17 04:45	823501	8.042	-122.941	295.29	17.089	403.077	426.807	0.231	0.277	6.611	17.089	6.884
2023-06-17 05:00	824401	8.037	-122.674	291.204	17.088	403.474	427.239	0.231	0.278	***6.413***	17.088	9.015
2023-06-17 05:15	825301	8.026	-122.106	293.44	17.074	403.144	427.005	0.231	0.278	***6.220***	17.074	5.67
2023-06-17 05:30	826201	8.027	-122.135	295.178	17.06	403.009	426.984	0.231	0.278	***6.018***	17.06	4.789
2023-06-17 05:45	827101	8.000	-120.654	296.451	17.033	403.08	427.298	0.231	0.278	***5.339***	17.033	4.721
2023-06-17 06:00	828001	8.007	-121.062	290.941	17.01	402.438	426.812	0.231	0.277	***6.334***	17.01	4.724
2023-06-17 06:15	828901	8.047	-123.177	293.862	17.007	402.243	426.634	0.231	0.277	6.612	17.007	5.535
2023-06-17 06:30	829801	8.043	-122.962	293.76	16.99	402.209	426.74	0.231	0.277	6.532	16.99	4.621
2023-06-17 06:45	830701	8.036	-122.561	294.406	16.973	401.987	426.656	0.231	0.277	6.519	16.973	6.145
2023-06-17 07:00	831601	8.026	-122.049	290.686	16.938	401.814	426.775	0.231	0.277	***6.309***	16.938	5.1
2023-06-17 07:15	832501	8.031	-122.294	294.594	16.903	401.343	426.576	0.231	0.277	6.545	16.903	4.645
2023-06-17 07:30	833401	8.036	-122.521	296.268	16.887	401.248	426.611	0.231	0.277	6.631	16.887	4.425
2023-06-17 07:45	834301	8.029	-122.192	296.78	16.879	401.255	426.694	0.231	0.277	***6.398***	16.879	4.515
2023-06-17 08:00	835201	8.029	-122.149	293.128	16.866	401.005	426.537	0.231	0.277	***6.442***	16.866	4.156
2023-06-17 08:15	836101	8.026	-122.015	296.649	16.857	400.917	426.521	0.231	0.277	***6.335***	16.857	4.474
2023-06-17 08:30	837001	8.023	-121.832	298.609	16.845	400.69	426.387	0.230	0.277	6.580	16.845	4.279
2023-06-17 08:45	837901	8.040	-122.712	299.157	16.821	400.497	426.382	0.230	0.277	6.587	16.821	4.19
2023-06-17 09:00	838801	8.045	-122.976	296.811	16.779	400.144	426.374	0.231	0.277	6.676	16.779	5.535
2023-06-17 09:15	839701	8.061	-123.818	295.798	16.756	399.958	426.375	0.231	0.277	6.685	16.756	4.758
2023-06-17 09:30	840601	8.063	-123.92	295.405	16.719	399.593	426.307	0.230	0.277	6.741	16.719	4.531
2023-06-17 09:45	841501	8.066	-124.047	295.502	16.68	399.157	426.183	0.230	0.277	6.736	16.68	4.813
2023-06-17 10:00	842401	8.066	-124.063	291.924	16.637	398.735	426.107	0.230	0.277	6.780	16.637	4.067
2023-06-17 10:15	843301	8.066	-124.035	293.912	16.632	398.619	426.024	0.230	0.277	6.830	16.632	4.026
2023-06-17 10:30	844201	8.077	-124.633	294.162	16.645	398.68	425.974	0.230	0.277	6.902	16.645	4.067
2023-06-17 10:45	845101	8.078	-124.683	295.285	16.645	398.64	425.932	0.230	0.277	6.918	16.645	3.893
2023-06-17 11:00	846001	8.077	-124.667	292.3	16.651	398.741	425.987	0.230	0.277	6.910	16.651	5.073
2023-06-17 11:15	846901	8.082	-124.931	292.772	16.637	398.689	426.059	0.230	0.277	6.895	16.637	4.077
2023-06-17 11:30	847801	8.091	-125.37	292.269	16.623	398.592	426.071	0.230	0.277	6.989	16.623	4.378
2023-06-17 11:45	848701	8.094	-125.582	292.782	16.642	398.728	426.052	0.230	0.277	7.049	16.642	4.009
2023-06-17 12:00	849601	8.089	-125.329	287.89	16.674	398.825	425.881	0.230	0.277	7.080	16.674	4.451
2023-06-17 12:15	850501	8.105	-126.162	288.929	16.701	399.034	425.866	0.230	0.277	7.116	16.701	4.06
2023-06-17 12:30	851401	8.112	-126.579	288.793	16.732	399.376	425.961	0.230	0.277	7.208	16.732	4.292
2023-06-17 12:45	852301	8.110	-126.498	287.217	16.772	399.713	425.977	0.230	0.277	7.189	16.772	3.997
2023-06-17 13:00	853201	8.117	-126.884	284.201	16.827	400.344	426.168	0.230	0.277	7.255	16.827	4.096
2023-06-17 13:15	854101	8.119	-127.02	285.203	16.876	400.85	426.288	0.230	0.277	7.307	16.876	4.131
2023-06-17 13:30	855001	8.122	-127.177	285.742	16.922	401.265	426.329	0.230	0.277	7.363	16.922	4.443
2023-06-17 13:45	855901	8.124	-127.313	286.004	16.983	401.786	426.354	0.230	0.277	7.426	16.983	4.096

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-17 14:00	856801	8.114	-126.805	284.03	17.026	401.919	426.121	0.230	0.277	7.459	17.026	5.117
2023-06-17 14:15	857701	8.128	-127.561	284.693	17.068	402.427	426.304	0.230	0.277	7.504	17.068	4.374
2023-06-17 14:30	858601	8.137	-128.095	284.507	17.13	402.888	426.25	0.230	0.277	7.609	17.13	4.1
2023-06-17 14:45	859501	8.134	-127.95	284.082	17.14	402.929	426.209	0.230	0.277	7.597	17.14	4.025
2023-06-17 15:00	860401	8.154	-129.046	280.07	17.201	403.606	426.404	0.230	0.277	7.681	17.201	4.149
2023-06-17 15:15	861301	8.147	-128.698	283.381	17.242	404.004	426.472	0.230	0.277	7.667	17.242	4.032
2023-06-17 15:30	862201	8.146	-128.624	284.65	17.29	404.529	426.612	0.230	0.277	7.671	17.29	3.955
2023-06-17 15:45	863101	8.146	-128.644	285.751	17.336	405.462	427.198	0.231	0.278	7.613	17.336	4.166
2023-06-17 16:00	864001	8.123	-127.432	287.842	17.339	405.807	427.532	0.231	0.278	7.566	17.339	4.026
2023-06-17 16:15	864901	8.131	-127.857	288.445	17.356	405.919	427.507	0.231	0.278	7.529	17.356	7.87
2023-06-17 16:30	865801	8.132	-127.933	287.923	17.395	406.397	427.673	0.231	0.278	7.696	17.395	3.996
2023-06-17 16:45	866701	8.133	-127.995	287.897	17.424	406.882	427.939	0.231	0.278	7.647	17.424	4.128
2023-06-17 17:00	867601	8.145	-128.667	283.994	17.469	407.365	428.055	0.231	0.278	7.748	17.469	4.021
2023-06-17 17:15	868501	8.136	-128.198	286.895	17.503	407.873	428.296	0.231	0.278	7.788	17.503	3.921
2023-06-17 17:30	869401	8.151	-129.008	286.812	17.556	408.46	428.463	0.231	0.279	7.850	17.556	4.035
2023-06-17 17:45	870301	8.161	-129.581	285.753	17.615	408.967	428.489	0.231	0.279	7.867	17.615	4.087
2023-06-17 18:00	871201	8.165	-129.826	280.875	17.67	409.001	428.05	0.231	0.278	8.102	17.67	4.044
2023-06-17 18:15	872101	8.190	-131.202	282.773	17.69	409.124	428.006	0.231	0.278	8.159	17.69	4.066
2023-06-17 18:30	873001	8.183	-130.818	284.011	17.71	409.33	428.055	0.231	0.278	8.125	17.71	4.003
2023-06-17 18:45	873901	8.188	-131.09	284.347	17.742	409.82	428.291	0.231	0.278	8.127	17.742	4.281
2023-06-17 19:00	874801	8.189	-131.173	277.912	17.767	409.959	428.224	0.231	0.278	8.139	17.767	4.333
2023-06-17 19:15	875701	8.178	-130.599	281.297	17.768	410.116	428.374	0.231	0.278	8.151	17.768	4.516
2023-06-17 19:30	876601	8.184	-130.932	281.934	17.78	410.288	428.455	0.231	0.278	8.143	17.78	4.341
2023-06-17 19:45	877501	8.182	-130.823	282.68	17.779	410.2	428.374	0.231	0.278	8.095	17.779	4.076
2023-06-17 20:00	878401	8.170	-130.15	281.331	17.776	410.101	428.296	0.231	0.278	8.031	17.776	4.138
2023-06-17 20:15	879301	8.182	-130.83	281.314	17.788	410.265	428.364	0.231	0.278	8.058	17.788	3.822
2023-06-17 20:30	880201	8.188	-131.123	281.028	17.818	410.647	428.505	0.231	0.279	8.120	17.818	3.842
2023-06-17 20:45	881101	8.194	-131.466	281.674	17.848	410.917	428.528	0.231	0.279	8.117	17.848	3.839
2023-06-17 21:00	882001	8.189	-131.204	277.764	17.863	411.374	428.881	0.231	0.279	8.063	17.863	3.783
2023-06-17 21:15	882901	8.164	-129.855	283.825	17.866	411.442	428.925	0.231	0.279	7.994	17.866	3.485
2023-06-17 21:30	883801	8.134	-128.281	287.248	17.88	412.077	429.464	0.232	0.279	7.936	17.88	3.5
2023-06-17 21:45	884701	8.117	-127.323	288.979	17.904	412.55	429.756	0.232	0.279	7.858	17.904	3.525
2023-06-17 22:00	885601	8.115	-127.268	289.215	17.93	412.497	429.478	0.232	0.279	7.768	17.93	3.465
2023-06-17 22:15	886501	8.118	-127.425	291.728	17.94	413.208	430.134	0.232	0.280	7.825	17.94	3.526
2023-06-17 22:30	887401	8.127	-127.907	291.533	17.946	413.312	430.187	0.232	0.280	7.682	17.946	3.72
2023-06-17 22:45	888301	8.118	-127.406	290.56	17.948	413.954	430.84	0.233	0.280	7.608	17.948	3.579
2023-06-17 23:00	889201	8.123	-127.687	283.66	17.939	413.818	430.777	0.232	0.280	7.397	17.939	3.771
2023-06-17 23:15	890101	8.107	-126.824	287.356	17.928	413.877	430.934	0.233	0.280	7.191	17.928	3.832
2023-06-17 23:30	891001	8.103	-126.572	287.084	17.915	414.111	431.284	0.233	0.280	7.735	17.915	3.75
2023-06-17 23:45	891901	8.119	-127.48	288.259	17.899	414.126	431.442	0.233	0.280	7.368	17.899	3.614
2023-06-18 00:00	892801	8.112	-127.087	284.323	17.879	413.646	431.112	0.233	0.280	7.618	17.879	3.629
2023-06-18 00:15	893701	8.117	-127.325	288.593	17.85	413.438	431.145	0.233	0.280	7.521	17.85	3.737
2023-06-18 00:30	894601	8.107	-126.801	291.464	17.827	413.159	431.046	0.233	0.280	7.516	17.827	3.9
2023-06-18 00:45	895501	8.104	-126.588	291.859	17.805	412.982	431.057	0.233	0.280	7.616	17.805	4.016
2023-06-18 01:00	896401	8.123	-127.625	286.02	17.792	413.107	431.299	0.233	0.280	7.635	17.792	4.007
2023-06-18 01:15	897301	8.115	-127.184	289.673	17.775	413.14	431.473	0.233	0.280	7.514	17.775	3.84
2023-06-18 01:30	898201	8.113	-127.053	291.957	17.75	412.906	431.443	0.233	0.280	7.574	17.75	3.895
2023-06-18 01:45	899101	8.118	-127.301	293.993	17.73	412.724	431.426	0.233	0.280	7.597	17.73	4.156
2023-06-18 02:00	900001	8.117	-127.275	290.608	17.704	412.153	431.059	0.233	0.280	7.589	17.704	3.814
2023-06-18 02:15	900901	8.113	-127.058	293.874	17.673	411.758	430.911	0.233	0.280	7.480	17.673	3.856
2023-06-18 02:30	901801	8.104	-126.545	294.081	17.658	411.675	430.951	0.233	0.280	7.603	17.658	3.863
2023-06-18 02:45	902701	8.111	-126.896	293.488	17.627	411.319	430.85	0.233	0.280	7.457	17.627	3.973
2023-06-18 03:00	903601	8.123	-127.571	290.157	17.611	411.484	431.153	0.233	0.280	7.484	17.611	3.593
2023-06-18 03:15	904501	8.113	-126.996	295.119	17.59	411.309	431.156	0.233	0.280	7.349	17.59	3.857
2023-06-18 03:30	905401	8.089	-125.713	299	17.564	411.046	431.104	0.233	0.280	7.392	17.564	3.644
2023-06-18 03:45	906301	8.095	-126.004	300.943	17.545	410.846	431.057	0.233	0.280	7.370	17.545	3.784

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-18 04:00	907201	8.095	-125.992	298.094	17.535	410.819	431.115	0.233	0.280	7.355	17.535	4.79
2023-06-18 04:15	908101	8.088	-125.608	299.002	17.492	410.243	430.88	0.233	0.280	7.046	17.492	4
2023-06-18 04:30	909001	8.083	-125.306	299.501	17.477	409.988	430.748	0.233	0.280	7.309	17.477	4.409
2023-06-18 04:45	909901	8.088	-125.589	299.186	17.455	409.829	430.771	0.233	0.280	6.991	17.455	4.465
2023-06-18 05:00	910801	8.101	-126.257	294.189	17.441	409.982	431.047	0.233	0.280	7.299	17.441	4.295
2023-06-18 05:15	911701	8.092	-125.785	295.805	17.422	409.857	431.082	0.233	0.280	7.155	17.422	4.323
2023-06-18 05:30	912601	8.084	-125.37	298.788	17.405	409.721	431.084	0.233	0.280	7.147	17.405	4.409
2023-06-18 05:45	913501	8.087	-125.48	300.428	17.384	409.489	431.025	0.233	0.280	7.105	17.384	4.497
2023-06-18 06:00	914401	8.077	-124.972	297.369	17.356	409.146	430.904	0.233	0.280	7.107	17.356	4.474
2023-06-18 06:15	915301	8.080	-125.098	301.141	17.331	408.757	430.714	0.233	0.280	7.238	17.331	4.592
2023-06-18 06:30	916201	8.085	-125.36	300.714	17.316	408.671	430.757	0.233	0.280	7.211	17.316	4.385
2023-06-18 06:45	917101	8.082	-125.213	300.149	17.3	408.765	430.994	0.233	0.280	7.301	17.3	3.946
2023-06-18 07:00	918001	8.086	-125.432	297.109	17.281	408.686	431.074	0.233	0.280	7.315	17.281	4.015
2023-06-18 07:15	918901	8.091	-125.663	297.86	17.266	408.58	431.092	0.233	0.280	7.220	17.266	4.217
2023-06-18 07:30	919801	8.093	-125.794	299.796	17.246	408.443	431.121	0.233	0.280	7.151	17.246	3.895
2023-06-18 07:45	920701	8.086	-125.394	301.11	17.235	408.423	431.198	0.233	0.280	7.097	17.235	3.958
2023-06-18 08:00	921601	8.078	-124.927	298.676	17.215	408.135	431.065	0.233	0.280	7.110	17.215	4.469
2023-06-18 08:15	922501	8.084	-125.253	300.557	17.21	407.993	430.96	0.233	0.280	7.165	17.21	4.156
2023-06-18 08:30	923401	8.087	-125.437	300.392	17.208	408.083	431.075	0.233	0.280	7.160	17.208	4.074
2023-06-18 08:45	924301	8.090	-125.592	300.721	17.2	408.007	431.057	0.233	0.280	7.171	17.2	4.113
2023-06-18 09:00	925201	8.108	-126.524	294.852	17.184	407.901	431.087	0.233	0.280	7.237	17.184	4.278
2023-06-18 09:15	926101	8.088	-125.489	298.318	17.178	407.935	431.172	0.233	0.280	7.172	17.178	4.033
2023-06-18 09:30	927001	8.107	-126.505	299.157	17.169	407.818	431.126	0.233	0.280	7.376	17.169	4.134
2023-06-18 09:45	927901	8.108	-126.522	298.926	17.164	407.812	431.163	0.233	0.280	7.427	17.164	3.787
2023-06-18 10:00	928801	8.098	-126.004	293.755	17.156	407.545	430.952	0.233	0.280	7.291	17.156	4.059
2023-06-18 10:15	929701	8.110	-126.636	296.957	17.142	407.299	430.818	0.233	0.280	7.415	17.142	3.864
2023-06-18 10:30	930601	8.110	-126.646	297.066	17.142	407.36	430.88	0.233	0.280	7.432	17.142	3.901
2023-06-18 10:45	931501	8.108	-126.541	297.171	17.148	407.435	430.907	0.233	0.280	7.386	17.148	3.774
2023-06-18 11:00	932401	8.117	-127.039	294.31	17.164	407.678	431.023	0.233	0.280	7.451	17.164	3.684
2023-06-18 11:15	933301	8.106	-126.426	298.182	17.174	407.889	431.158	0.233	0.280	7.282	17.174	3.844
2023-06-18 11:30	934201	8.101	-126.195	299.308	17.184	408.073	431.271	0.233	0.280	7.299	17.184	3.584
2023-06-18 11:45	935101	8.090	-125.582	301.267	17.186	408.083	431.261	0.233	0.280	7.360	17.186	3.582
2023-06-18 12:00	936001	8.084	-125.241	297.31	17.194	408.074	431.188	0.233	0.280	7.217	17.194	3.52
2023-06-18 12:15	936901	8.083	-125.208	300.948	17.193	407.99	431.1	0.233	0.280	7.324	17.193	3.745
2023-06-18 12:30	937801	8.086	-125.344	300.147	17.19	407.916	431.05	0.233	0.280	7.430	17.19	3.733
2023-06-18 12:45	938701	8.098	-126.014	299.348	17.179	407.721	430.937	0.233	0.280	7.426	17.179	3.939
2023-06-18 13:00	939601	8.111	-126.7	294.747	17.183	407.935	431.13	0.233	0.280	7.368	17.183	3.888
2023-06-18 13:15	940501	8.099	-126.03	297.894	17.167	407.934	431.268	0.233	0.280	7.476	17.167	3.679
2023-06-18 13:30	941401	8.093	-125.756	299.646	17.16	407.719	431.104	0.233	0.280	7.319	17.16	3.695
2023-06-18 13:45	942301	8.090	-125.544	301.88	17.153	407.586	431.027	0.233	0.280	7.441	17.153	3.763
2023-06-18 14:00	943201	8.113	-126.791	296.699	17.156	407.254	430.645	0.233	0.280	7.389	17.156	4.24
2023-06-18 14:15	944101	8.100	-126.104	301.224	17.148	407.05	430.505	0.233	0.280	7.490	17.148	3.536
2023-06-18 14:30	945001	8.086	-125.329	305.912	17.138	406.882	430.409	0.233	0.280	7.475	17.138	3.488
2023-06-18 14:45	945901	8.082	-125.139	309.138	17.136	406.797	430.338	0.233	0.280	7.450	17.136	3.831
2023-06-18 15:00	946801	8.088	-125.468	305.34	17.135	406.96	430.519	0.233	0.280	7.388	17.135	3.6
2023-06-18 15:15	947701	8.094	-125.778	304.572	17.119	406.964	430.664	0.233	0.280	7.489	17.119	3.844
2023-06-18 15:30	948601	8.103	-126.226	301.84	17.099	406.629	430.48	0.233	0.280	7.532	17.099	3.81
2023-06-18 15:45	949501	8.108	-126.488	303.165	17.095	406.366	430.242	0.233	0.280	7.407	17.095	3.638
2023-06-18 16:00	950401	8.106	-126.421	300.447	17.079	405.745	429.724	0.232	0.279	7.335	17.079	3.738
2023-06-18 16:15	951301	8.134	-127.878	300.478	17.061	405.428	429.538	0.232	0.279	7.526	17.061	3.795
2023-06-18 16:30	952201	8.141	-128.274	298.576	17.047	405.232	429.454	0.232	0.279	7.586	17.047	3.878
2023-06-18 16:45	953101	8.144	-128.443	298.282	17.036	405.119	429.427	0.232	0.279	7.601	17.036	3.843
2023-06-18 17:00	954001	8.152	-128.856	294.131	17.032	405.141	429.49	0.232	0.279	7.606	17.032	3.732
2023-06-18 17:15	954901	8.138	-128.102	296.759	17.035	405.269	429.599	0.232	0.279	7.627	17.035	3.869
2023-06-18 17:30	955801	8.148	-128.646	297.109	17.035	405.325	429.654	0.232	0.279	7.683	17.035	3.743
2023-06-18 17:45	956701	8.150	-128.717	298.094	17.03	405.369	429.747	0.232	0.279	7.677	17.03	3.781

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-18 18:00	957601	8.152	-128.851	295.154	17.015	405.067	429.553	0.232	0.279	7.696	17.015	3.752
2023-06-18 18:15	958501	8.151	-128.77	298.545	17.012	405.039	429.555	0.232	0.279	7.657	17.012	3.543
2023-06-18 18:30	959401	8.135	-127.907	302.514	17.009	404.981	429.522	0.232	0.279	7.679	17.009	3.3
2023-06-18 18:45	960301	8.127	-127.513	307.149	17.002	404.941	429.539	0.232	0.279	7.657	17.002	3.317
2023-06-18 19:00	961201	8.120	-127.096	307.149	16.996	405.145	429.807	0.232	0.279	7.490	16.996	3.556
2023-06-18 19:15	962101	8.119	-127.051	305.84	16.993	405.25	429.942	0.232	0.279	7.498	16.993	3.584
2023-06-18 19:30	963001	8.109	-126.522	306.427	16.98	405.204	430.005	0.232	0.280	7.400	16.98	3.575
2023-06-18 19:45	963901	8.104	-126.264	306.927	16.972	405.078	429.942	0.232	0.279	7.292	16.972	3.532
2023-06-18 20:00	964801	8.101	-126.052	302.953	16.951	404.595	429.615	0.232	0.279	7.360	16.951	3.75
2023-06-18 20:15	965701	8.101	-126.081	305.831	16.928	404.149	429.342	0.232	0.279	7.312	16.928	3.525
2023-06-18 20:30	966601	8.092	-125.592	306.379	16.915	403.884	429.176	0.232	0.279	7.264	16.915	3.45
2023-06-18 20:45	967501	8.086	-125.222	306.639	16.903	403.716	429.098	0.232	0.279	7.214	16.903	3.479
2023-06-18 21:00	968401	8.092	-125.582	302.612	16.895	403.814	429.275	0.232	0.279	7.181	16.895	3.553
2023-06-18 21:15	969301	8.082	-125	305.325	16.884	403.855	429.416	0.232	0.279	7.285	16.884	3.412
2023-06-18 21:30	970201	8.077	-124.769	307.008	16.87	403.685	429.356	0.232	0.279	7.190	16.87	4.663
2023-06-18 21:45	971101	8.083	-125.065	308.189	16.856	403.473	429.252	0.232	0.279	7.060	16.856	3.62
2023-06-18 22:00	972001	8.078	-124.767	306.052	16.837	402.969	428.883	0.232	0.279	7.090	16.837	3.701
2023-06-18 22:15	972901	8.079	-124.807	308.546	16.817	402.652	428.719	0.232	0.279	7.029	16.817	3.636
2023-06-18 22:30	973801	8.065	-124.071	308.692	16.79	402.301	428.574	0.232	0.279	7.143	16.79	4.003
2023-06-18 22:45	974701	8.079	-124.798	308.067	16.783	402.228	428.557	0.232	0.279	7.016	16.783	3.648
2023-06-18 23:00	975601	8.076	-124.636	304.269	16.778	402.357	428.744	0.232	0.279	6.890	16.778	3.495
2023-06-18 23:15	976501	8.059	-123.706	308.069	16.761	402.331	428.863	0.232	0.279	6.933	16.761	3.478
2023-06-18 23:30	977401	8.056	-123.544	309.741	16.749	402.219	428.852	0.232	0.279	6.784	16.749	3.494
2023-06-18 23:45	978301	8.057	-123.599	311.248	16.731	402.005	428.779	0.232	0.279	6.673	16.731	4.092
2023-06-19 00:00	979201	8.040	-122.7	307.857	16.713	401.394	428.283	0.232	0.278	6.674	16.713	3.664
2023-06-19 00:15	980101	8.038	-122.552	310.115	16.693	401.046	428.088	0.231	0.278	6.571	16.693	3.856
2023-06-19 00:30	981001	8.034	-122.366	309.509	16.67	400.442	427.637	0.231	0.278	6.600	16.67	3.709
2023-06-19 00:45	981901	8.041	-122.69	308.825	16.645	400.044	427.43	0.231	0.278	6.681	16.645	3.868
2023-06-19 01:00	982801	8.069	-124.192	303.764	16.6	399.145	426.864	0.231	0.277	7.007	16.6	5.178
2023-06-19 01:15	983701	8.069	-124.176	306.279	16.592	399.323	427.125	0.231	0.278	7.061	16.592	3.608
2023-06-19 01:30	984601	8.063	-123.863	307.483	16.576	398.827	426.732	0.231	0.277	6.767	16.576	3.534
2023-06-19 01:45	985501	8.061	-123.773	308.904	16.552	398.458	426.549	0.231	0.277	6.978	16.552	3.528
2023-06-19 02:00	986401	8.072	-124.314	303.909	16.519	397.249	425.541	0.230	0.277	6.862	16.519	3.83
2023-06-19 02:15	987301	8.059	-123.608	308.596	16.492	396.769	425.261	0.230	0.276	6.891	16.492	3.638
2023-06-19 02:30	988201	8.054	-123.339	311.515	16.467	396.204	424.878	0.230	0.276	6.888	16.467	3.74
2023-06-19 02:45	989101	8.047	-122.933	314.469	16.452	395.792	424.565	0.230	0.276	6.831	16.452	3.332
2023-06-19 03:00	990001	8.056	-123.436	311.386	16.439	395.706	424.584	0.230	0.276	6.786	16.439	3.678
2023-06-19 03:15	990901	8.059	-123.577	311.174	16.428	395.493	424.45	0.230	0.276	6.824	16.428	3.615
2023-06-19 03:30	991801	8.059	-123.591	311.41	16.414	395.376	424.445	0.230	0.276	6.839	16.414	3.643
2023-06-19 03:45	992701	8.061	-123.694	311.472	16.403	395.287	424.45	0.230	0.276	6.883	16.403	3.702
2023-06-19 04:00	993601	8.059	-123.594	307.574	16.389	395.11	424.382	0.230	0.276	6.777	16.389	4.735
2023-06-19 04:15	994501	8.065	-123.882	309.228	16.372	395.016	424.424	0.230	0.276	6.842	16.372	3.775
2023-06-19 04:30	995401	8.072	-124.233	308.835	16.358	394.967	424.497	0.230	0.276	6.944	16.358	3.506
2023-06-19 04:45	996301	8.068	-124.025	309.495	16.34	394.822	424.497	0.230	0.276	6.831	16.34	3.495
2023-06-19 05:00	997201	8.063	-123.732	309.183	16.312	394.808	424.722	0.230	0.276	6.782	16.312	3.83
2023-06-19 05:15	998101	8.062	-123.711	309.459	16.294	394.745	424.815	0.230	0.276	6.826	16.294	3.757
2023-06-19 05:30	999001	8.059	-123.527	310.241	16.278	394.659	424.865	0.230	0.276	6.807	16.278	4.177
2023-06-19 05:45	999901	8.062	-123.689	310.792	16.259	394.638	425.01	0.230	0.276	6.869	16.259	3.916
2023-06-19 06:00	1000801	8.068	-123.959	307.354	16.226	394.3	424.928	0.230	0.276	6.840	16.226	3.823
2023-06-19 06:15	1001701	8.066	-123.878	309.495	16.208	394.214	424.993	0.230	0.276	6.944	16.208	3.636
2023-06-19 06:30	1002601	8.070	-124.061	310.606	16.191	394.061	424.974	0.230	0.276	6.920	16.191	3.802
2023-06-19 06:45	1003501	8.063	-123.718	312.952	16.17	393.891	424.98	0.230	0.276	6.877	16.17	3.484
2023-06-19 07:00	1004401	8.070	-124.056	313.048	16.156	393.941	425.16	0.230	0.276	6.856	16.156	3.968
2023-06-19 07:15	1005301	8.070	-124.054	311.584	16.153	393.938	425.179	0.230	0.276	6.827	16.153	4.165
2023-06-19 07:30	1006201	8.065	-123.794	310.785	16.139	393.89	425.252	0.230	0.276	6.836	16.139	4.132
2023-06-19 07:45	1007101	8.062	-123.591	310.244	16.116	393.713	425.26	0.230	0.276	6.815	16.116	3.867

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-19 08:00	1008001	8.062	-123.584	307.624	16.086	393.396	425.185	0.230	0.276	6.829	16.086	4.024
2023-06-19 08:15	1008901	8.066	-123.801	309.121	16.064	393.227	425.195	0.230	0.276	6.943	16.064	3.916
2023-06-19 08:30	1009801	8.075	-124.257	309.6	16.041	393.018	425.165	0.230	0.276	6.977	16.041	5.332
2023-06-19 08:45	1010701	8.074	-124.192	309.476	16.02	392.836	425.157	0.230	0.276	6.942	16.02	3.754
2023-06-19 09:00	1011601	8.078	-124.419	308.294	15.994	392.744	425.283	0.230	0.276	6.964	15.994	4.377
2023-06-19 09:15	1012501	8.070	-123.98	309.371	15.99	392.698	425.267	0.230	0.276	6.905	15.99	3.822
2023-06-19 09:30	1013401	8.071	-124.061	310.168	15.969	392.519	425.261	0.230	0.276	6.908	15.969	4.097
2023-06-19 09:45	1014301	8.074	-124.185	306.422	15.953	392.416	425.288	0.230	0.276	6.950	15.953	4.246
2023-06-19 10:00	1015201	8.074	-124.197	303.365	15.941	392.257	425.221	0.230	0.276	6.942	15.941	3.688
2023-06-19 10:15	1016101	8.077	-124.359	307.314	15.935	392.217	425.229	0.230	0.276	6.966	15.935	4.307
2023-06-19 10:30	1017001	8.080	-124.495	308.22	15.924	392.146	425.253	0.230	0.276	7.007	15.924	4.004
2023-06-19 10:45	1017901	8.081	-124.531	308.72	15.913	392.13	425.334	0.230	0.276	7.020	15.913	4.15
2023-06-19 11:00	1018801	8.090	-125.039	306.648	15.911	392.244	425.472	0.230	0.277	7.036	15.911	4.523
2023-06-19 11:15	1019701	8.087	-124.857	307.626	15.912	392.364	425.595	0.230	0.277	7.028	15.912	3.877
2023-06-19 11:30	1020601	8.087	-124.879	307.626	15.916	392.463	425.668	0.230	0.277	7.052	15.916	4.13
2023-06-19 11:45	1021501	8.091	-125.103	307.137	15.93	392.618	425.714	0.230	0.277	7.105	15.93	4.167
2023-06-19 12:00	1022401	8.097	-125.444	303.563	15.943	392.675	425.66	0.230	0.277	7.196	15.943	3.704
2023-06-19 12:15	1023301	8.108	-126.023	303.694	15.962	392.916	425.757	0.230	0.277	7.252	15.962	4.017
2023-06-19 12:30	1024201	8.117	-126.514	301.477	15.999	393.341	425.887	0.231	0.277	7.358	15.999	4.008
2023-06-19 12:45	1025101	8.120	-126.703	300.664	16.019	393.655	426.052	0.231	0.277	7.378	16.019	4.002
2023-06-19 13:00	1026001	8.133	-127.411	296.888	16.061	394.233	426.303	0.231	0.277	7.449	16.061	4.318
2023-06-19 13:15	1026901	8.128	-127.146	296.373	16.068	394.352	426.37	0.231	0.277	7.470	16.068	4.681
2023-06-19 13:30	1027801	8.128	-127.108	296.802	16.062	394.342	426.419	0.231	0.277	7.483	16.062	4.559
2023-06-19 13:45	1028701	8.140	-127.778	295.183	16.121	394.877	426.477	0.231	0.277	7.593	16.121	4.386
2023-06-19 14:00	1029601	8.143	-128	291.421	16.149	395.019	426.377	0.231	0.277	7.599	16.149	4.723
2023-06-19 14:15	1030501	8.155	-128.613	290.376	16.184	395.289	426.364	0.231	0.277	7.717	16.184	4.475
2023-06-19 14:30	1031401	8.156	-128.706	290.496	16.206	395.476	426.378	0.231	0.277	7.757	16.206	4.463
2023-06-19 14:45	1032301	8.157	-128.751	291.504	16.231	395.746	426.444	0.231	0.277	7.760	16.231	5.418
2023-06-19 15:00	1033201	8.161	-129.008	289.134	16.27	396.231	426.621	0.231	0.277	7.801	16.27	4.936
2023-06-19 15:15	1034101	8.167	-129.313	289.761	16.301	396.546	426.688	0.231	0.277	7.818	16.301	4.576
2023-06-19 15:30	1035001	8.164	-129.189	290.634	16.304	396.679	426.806	0.231	0.277	7.846	16.304	4.826
2023-06-19 15:45	1035901	8.172	-129.621	289.747	16.333	396.905	426.797	0.231	0.277	7.895	16.333	4.78
2023-06-19 16:00	1036801	8.165	-129.251	288.116	16.357	397.055	426.752	0.231	0.277	7.903	16.357	5.086
2023-06-19 16:15	1037701	8.180	-130.043	288.51	16.38	397.324	426.84	0.231	0.277	7.980	16.38	5.109
2023-06-19 16:30	1038601	8.183	-130.229	286.6	16.389	397.358	426.795	0.231	0.277	8.004	16.389	5.253
2023-06-19 16:45	1039501	8.186	-130.408	287.077	16.393	397.444	426.85	0.231	0.277	8.069	16.393	5.04
2023-06-19 17:00	1040401	8.196	-130.937	281.679	16.394	397.572	426.984	0.231	0.278	8.034	16.394	5.493
2023-06-19 17:15	1041301	8.184	-130.289	284.902	16.372	397.512	427.107	0.231	0.278	8.007	16.372	5.306
2023-06-19 17:30	1042201	8.189	-130.537	285.916	16.352	397.3	427.059	0.231	0.278	8.015	16.352	5.132
2023-06-19 17:45	1043101	8.185	-130.315	286.912	16.331	397.208	427.138	0.231	0.278	8.025	16.331	4.876
2023-06-19 18:00	1044001	8.190	-130.596	284.573	16.317	397.03	427.073	0.231	0.278	8.051	16.317	4.958
2023-06-19 18:15	1044901	8.192	-130.696	286.502	16.315	397.033	427.094	0.231	0.278	8.079	16.315	4.826
2023-06-19 18:30	1045801	8.195	-130.823	287.222	16.313	397.025	427.1	0.231	0.278	8.097	16.313	4.902
2023-06-19 18:45	1046701	8.184	-130.262	290.143	16.305	397.038	427.186	0.231	0.278	8.047	16.305	4.932
2023-06-19 19:00	1047601	8.191	-130.644	289.499	16.309	397.176	427.304	0.231	0.278	7.982	16.309	4.858
2023-06-19 19:15	1048501	8.192	-130.672	291.54	16.305	397.187	427.344	0.231	0.278	8.056	16.305	5.011
2023-06-19 19:30	1049401	8.191	-130.625	293.19	16.294	397.006	427.245	0.231	0.278	8.093	16.294	4.989
2023-06-19 19:45	1050301	8.190	-130.546	294.809	16.274	396.946	427.356	0.231	0.278	8.017	16.274	6.876
2023-06-19 20:00	1051201	8.180	-130.033	293.853	16.26	396.768	427.292	0.231	0.278	7.949	16.26	5.065
2023-06-19 20:15	1052101	8.181	-130.06	294.461	16.229	396.515	427.288	0.231	0.278	7.981	16.229	5.378
2023-06-19 20:30	1053001	8.171	-129.53	297.791	16.222	396.504	427.337	0.231	0.278	7.872	16.222	4.423
2023-06-19 20:45	1053901	8.161	-128.992	300.647	16.216	396.503	427.394	0.231	0.278	7.715	16.216	4.479
2023-06-19 21:00	1054801	8.165	-129.182	298.58	16.221	396.683	427.543	0.231	0.278	7.715	16.221	4.824
2023-06-19 21:15	1055701	8.166	-129.22	301.241	16.215	396.709	427.619	0.231	0.278	7.837	16.215	4.77
2023-06-19 21:30	1056601	8.159	-128.829	303.11	16.195	396.57	427.654	0.231	0.278	7.896	16.195	5.177
2023-06-19 21:45	1057501	8.167	-129.254	303.239	16.176	397.03	428.31	0.232	0.278	7.873	16.176	7.336

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-19 22:00	1058401	8.153	-128.539	299.775	16.164	396.278	427.611	0.231	0.278	7.801	16.164	5.121
2023-06-19 22:15	1059301	8.152	-128.443	302.796	16.132	395.937	427.52	0.231	0.278	7.804	16.132	5.494
2023-06-19 22:30	1060201	8.156	-128.663	301.899	16.104	395.684	427.499	0.231	0.278	7.854	16.104	5.488
2023-06-19 22:45	1061101	8.143	-127.954	302.986	16.087	395.624	427.584	0.231	0.278	7.696	16.087	5.122
2023-06-19 23:00	1062001	8.147	-128.16	300.33	16.072	395.705	427.798	0.232	0.278	7.629	16.072	5.274
2023-06-19 23:15	1062901	8.124	-126.889	306.379	16.041	395.449	427.801	0.232	0.278	7.682	16.041	4.981
2023-06-19 23:30	1063801	8.113	-126.326	310.435	16.01	395.158	427.758	0.232	0.278	7.683	16.01	5.206
2023-06-19 23:45	1064701	8.113	-126.293	312.797	15.98	394.781	427.61	0.231	0.278	7.710	15.98	4.801
2023-06-20 00:00	1065601	8.113	-126.274	313.713	15.962	394.829	427.823	0.232	0.278	7.621	15.962	6.513
2023-06-20 00:15	1066501	8.115	-126.39	312.85	15.934	394.482	427.699	0.232	0.278	7.534	15.934	6
2023-06-20 00:30	1067401	8.115	-126.362	312.103	15.894	394.222	427.765	0.232	0.278	7.519	15.894	6.6
2023-06-20 00:45	1068301	8.111	-126.107	311.276	15.862	393.936	427.743	0.232	0.278	7.486	15.862	6.262
2023-06-20 01:00	1069201	8.114	-126.264	306.012	15.833	393.839	427.897	0.232	0.278	7.504	15.833	6.888
2023-06-20 01:15	1070101	8.108	-125.928	308.165	15.814	393.841	428.066	0.232	0.278	7.466	15.814	6.326
2023-06-20 01:30	1071001	8.098	-125.425	310.342	15.787	393.67	428.12	0.232	0.278	7.378	15.787	6.629
2023-06-20 01:45	1071901	8.091	-125.005	312.79	15.751	393.375	428.123	0.232	0.278	7.366	15.751	6.428
2023-06-20 02:00	1072801	8.112	-126.121	310.587	15.71	392.778	427.831	0.232	0.278	7.449	15.71	6.47
2023-06-20 02:15	1073701	8.097	-125.296	313.651	15.68	392.463	427.761	0.232	0.278	7.226	15.68	6.35
2023-06-20 02:30	1074601	8.083	-124.519	318.109	15.644	392.16	427.749	0.232	0.278	7.090	15.644	6.247
2023-06-20 02:45	1075501	8.072	-123.951	321.218	15.608	391.85	427.735	0.232	0.278	6.998	15.608	6.147
2023-06-20 03:00	1076401	8.081	-124.378	321.197	15.575	391.938	428.123	0.232	0.278	7.136	15.575	8.242
2023-06-20 03:15	1077301	8.091	-124.912	317.609	15.538	391.721	428.217	0.232	0.278	7.406	15.538	8.215
2023-06-20 03:30	1078201	8.088	-124.738	317.203	15.512	391.652	428.374	0.232	0.278	7.234	15.512	7.743
2023-06-20 03:45	1079102	8.079	-124.271	317.725	15.476	391.479	428.507	0.232	0.279	7.077	15.476	8.066
2023-06-20 04:00	1080002	8.077	-124.128	314.681	15.423	390.826	428.27	0.232	0.278	7.259	15.423	8.62
2023-06-20 04:15	1080902	8.089	-124.726	316.316	15.385	390.518	428.271	0.232	0.278	7.097	15.385	8.337
2023-06-20 04:30	1081802	8.079	-124.183	316.862	15.348	390.315	428.382	0.232	0.278	7.219	15.348	9.189
2023-06-20 04:45	1082702	8.072	-123.794	317.334	15.313	390.244	428.615	0.232	0.279	7.106	15.313	9.095
2023-06-20 05:00	1083602	8.102	-125.375	312.716	15.284	390.171	428.799	0.232	0.279	7.273	15.284	8.695
2023-06-20 05:15	1084502	8.081	-124.245	316.588	15.239	389.799	428.794	0.232	0.279	7.037	15.239	8.711
2023-06-20 05:30	1085402	8.062	-123.212	321.278	15.196	389.566	428.921	0.233	0.279	6.918	15.196	8.287
2023-06-20 05:45	1086302	8.067	-123.448	324.282	15.157	389.31	428.994	0.233	0.279	6.940	15.157	8.04
2023-06-20 06:00	1087202	8.072	-123.734	323.884	15.137	389.268	429.126	0.233	0.279	6.924	15.137	8.699
2023-06-20 06:15	1088102	8.073	-123.785	322.611	15.093	388.826	429.034	0.233	0.279	7.067	15.093	9.881
2023-06-20 06:30	1089002	8.068	-123.479	321.485	15.068	388.949	429.397	0.233	0.279	7.008	15.068	9.868
2023-06-20 06:45	1089902	8.070	-123.608	320.887	15.037	388.654	429.357	0.233	0.279	7.015	15.037	9.579
2023-06-20 07:00	1090802	8.087	-124.5	316.147	15.018	388.845	429.734	0.233	0.279	7.114	15.018	9.037
2023-06-20 07:15	1091702	8.082	-124.176	319.726	14.966	388.581	429.917	0.233	0.279	7.376	14.966	8.611
2023-06-20 07:30	1092602	8.066	-123.308	322.904	14.949	388.563	430.049	0.233	0.280	7.186	14.949	8.706
2023-06-20 07:45	1093502	8.054	-122.674	324.418	14.935	388.58	430.199	0.233	0.280	6.992	14.935	8.15
2023-06-20 08:00	1094402	8.054	-122.697	324.234	14.927	388.561	430.253	0.233	0.280	6.852	14.927	9.19
2023-06-20 08:15	1095302	8.068	-123.396	322.913	14.904	388.365	430.245	0.233	0.280	7.031	14.904	8.908
2023-06-20 08:30	1096202	8.057	-122.85	322.794	14.887	388.738	430.811	0.234	0.280	7.123	14.887	11.122
2023-06-20 08:45	1097102	8.061	-123.031	321.593	14.867	388.628	430.875	0.234	0.280	7.212	14.867	11.358
2023-06-20 09:00	1098002	8.081	-124.097	315.937	14.859	389.03	431.385	0.234	0.280	7.178	14.859	9.541
2023-06-20 09:15	1098902	8.059	-122.924	319.397	14.844	389.011	431.509	0.234	0.280	6.941	14.844	9.645
2023-06-20 09:30	1099802	8.040	-121.87	323.412	14.828	388.997	431.638	0.234	0.281	7.127	14.828	9.544
2023-06-20 09:45	1100702	8.039	-121.827	325.736	14.818	389.158	431.906	0.234	0.281	7.151	14.818	8.819
2023-06-20 10:00	1101602	8.043	-122.027	325.379	14.815	389.117	431.885	0.234	0.281	6.962	14.815	9.978
2023-06-20 10:15	1102502	8.054	-122.64	324.384	14.812	389.002	431.786	0.234	0.281	7.035	14.812	8.811
2023-06-20 10:30	1103402	8.060	-122.952	323.667	14.825	389.337	432.036	0.234	0.281	7.242	14.825	8.841
2023-06-20 10:45	1104302	8.066	-123.303	322.644	14.83	389.495	432.174	0.234	0.281	7.302	14.83	8.923
2023-06-20 11:00	1105202	8.093	-124.741	315.654	14.837	389.729	432.37	0.235	0.281	7.219	14.837	8.032
2023-06-20 11:15	1106102	8.094	-124.793	315.706	14.858	389.943	432.411	0.235	0.281	7.177	14.858	7.234
2023-06-20 11:30	1107002	8.117	-126.026	311.448	14.926	390.752	432.684	0.235	0.281	7.275	14.926	7.623
2023-06-20 11:45	1107902	8.102	-125.251	311.031	14.973	391.292	432.851	0.235	0.281	7.273	14.973	6.911

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-20 12:00	1108802	8.103	-125.394	308.916	15.091	392.507	433.114	0.235	0.282	7.313	15.091	8.61
2023-06-20 12:15	1109702	8.127	-126.655	310.609	15.132	392.636	432.888	0.235	0.281	7.619	15.132	7.224
2023-06-20 12:30	1110602	8.137	-127.215	309.796	15.192	393.187	432.949	0.235	0.281	7.737	15.192	7.093
2023-06-20 12:45	1111502	8.145	-127.718	308.937	15.289	394.594	433.609	0.235	0.282	7.856	15.289	7.082
2023-06-20 13:00	1112402	8.178	-129.628	300.669	15.626	399.256	435.656	0.236	0.283	7.950	15.626	7.36
2023-06-20 13:15	1113302	8.189	-130.365	290.269	16.024	405.673	439.014	0.238	0.285	8.049	16.024	6.755
2023-06-20 13:30	1114202	8.143	-128.033	286.588	16.253	408.784	440.29	0.238	0.286	7.978	16.253	6.138
2023-06-20 13:45	1115102	8.163	-129.113	284.964	16.352	410.187	440.907	0.239	0.287	7.951	16.352	6.12
2023-06-20 14:00	1116002	8.152	-128.615	284.044	16.451	411.68	441.615	0.239	0.287	7.908	16.451	6.698
2023-06-20 14:15	1116902	8.151	-128.584	286.23	16.536	413.108	442.375	0.240	0.288	7.947	16.536	6.259
2023-06-20 14:30	1117802	8.187	-130.579	282.931	16.647	413.2	441.476	0.239	0.287	8.326	16.647	5.997
2023-06-20 14:45	1118702	8.248	-133.896	279.13	16.809	415.761	442.75	0.240	0.288	8.861	16.809	6.473
2023-06-20 15:00	1119602	8.203	-131.693	274.839	17.235	421.462	444.964	0.241	0.289	8.379	17.235	6.244
2023-06-20 15:15	1120502	8.173	-130.136	272.4	17.342	423.447	446.09	0.241	0.290	8.183	17.342	6.169
2023-06-20 15:30	1121402	8.155	-129.073	275.32	17.229	421.564	445.127	0.241	0.289	8.841	17.229	6.154
2023-06-20 15:45	1122302	8.210	-131.996	278.327	17.117	420.139	444.617	0.241	0.289	8.676	17.117	5.719
2023-06-20 16:00	1123202	8.279	-135.596	278.143	16.83	412.227	438.796	0.237	0.285	9.473	16.83	5.964
2023-06-20 16:15	1124102	8.326	-138.183	277.311	16.942	414.481	440.191	0.238	0.286	9.826	16.942	5.551
2023-06-20 16:30	1125002	8.281	-135.915	273.587	17.321	420.081	442.739	0.239	0.288	9.518	17.321	5.409
2023-06-20 16:45	1125902	8.331	-138.717	271.115	17.513	422.364	443.432	0.240	0.288	9.743	17.513	5.979
2023-06-20 17:00	1126802	8.261	-135.274	267.965	18.235	432.808	447.91	0.242	0.291	9.447	18.235	6.056
2023-06-20 17:15	1127702	8.194	-131.826	264.472	18.615	438.818	450.744	0.243	0.293	8.488	18.615	5.771
2023-06-20 17:30	1128602	8.446	-144.498	269.674	16.722	406.814	433.987	0.235	0.282	11.367	16.722	7.143
2023-06-20 17:45	1129502	8.427	-143.552	275.909	16.882	410.908	436.931	0.236	0.284	11.475	16.882	14.785
2023-06-20 18:00	1130402	8.486	-147.076	266.191	17.581	418.315	438.576	0.237	0.285	11.359	17.581	5.851
2023-06-20 18:15	1131302	8.405	-142.694	272.54	17.462	414.602	435.728	0.235	0.283	11.493	17.462	5.087
2023-06-20 18:30	1132202	8.452	-145.133	281.743	17.318	412.259	434.518	0.235	0.282	12.073	17.318	5.373
2023-06-20 18:45	1133102	8.481	-146.685	284.404	17.262	411.387	434.085	0.235	0.282	12.016	17.262	5.353
2023-06-20 19:00	1134002	8.498	-147.479	283.267	17.082	410.203	434.416	0.235	0.282	11.962	17.082	5.635
2023-06-20 19:15	1134902	8.490	-146.921	283.884	16.805	407.905	434.412	0.235	0.282	11.529	16.805	6.36
2023-06-20 19:30	1135802	8.481	-146.277	285.327	16.434	405.478	435.112	0.235	0.283	10.855	16.434	6.736
2023-06-20 19:45	1136702	8.316	-137.165	289.551	15.945	403.829	437.728	0.237	0.285	9.205	15.945	9.081
2023-06-20 20:00	1137602	8.254	-133.851	294.871	15.941	403.397	437.296	0.237	0.284	9.121	15.941	8.05
2023-06-20 20:15	1138502	8.344	-138.705	292.262	16.03	403.682	436.805	0.237	0.284	9.207	16.03	6.554
2023-06-20 20:30	1139402	8.263	-134.251	297.882	15.812	402.972	438.011	0.237	0.285	9.391	15.812	7.503
2023-06-20 20:45	1140302	8.304	-136.588	296.807	16.135	404.696	436.956	0.237	0.284	9.432	16.135	5.872
2023-06-20 21:00	1141202	8.484	-146.627	276.515	16.867	409.922	436.01	0.236	0.283	11.255	16.867	6.313
2023-06-20 21:15	1142102	8.516	-148.27	273.072	16.742	409.57	436.746	0.236	0.284	11.255	16.742	5.963
2023-06-20 21:30	1143002	8.454	-145.087	276.181	16.981	414.745	440.126	0.238	0.286	10.882	16.981	5.899
2023-06-20 21:45	1143902	8.339	-138.657	284.416	16.492	410.439	439.919	0.238	0.286	9.668	16.492	7.146
2023-06-20 22:00	1144802	8.155	-128.596	294.449	16.064	406.522	439.569	0.238	0.286	8.160	16.064	7.123
2023-06-20 22:15	1145702	8.172	-129.452	302.598	16.019	406.021	439.437	0.238	0.286	8.342	16.019	6.832
2023-06-20 22:30	1146602	8.195	-130.763	302.068	16.198	407.696	439.618	0.238	0.286	8.725	16.198	6.385
2023-06-20 22:45	1147502	8.238	-133.154	298.695	16.301	407.029	437.969	0.237	0.285	9.005	16.301	6.396
2023-06-20 23:00	1148402	8.235	-133.002	297.963	16.343	408.238	438.891	0.238	0.285	8.596	16.343	6.242
2023-06-20 23:15	1149302	8.200	-131.073	304.393	16.21	406.526	438.249	0.237	0.285	8.490	16.21	5.89
2023-06-20 23:30	1150202	8.187	-130.315	310.103	16.16	405.365	437.452	0.237	0.284	8.693	16.16	5.68
2023-06-20 23:45	1151102	8.219	-131.989	312.332	16.017	404.662	437.977	0.237	0.285	8.838	16.017	5.838
2023-06-21 00:00	1152002	8.160	-128.794	312.263	15.957	404.487	438.332	0.237	0.285	8.223	15.957	6.496
2023-06-21 00:15	1152902	8.147	-128.078	313.918	15.884	404.035	438.505	0.238	0.285	7.925	15.884	6.721
2023-06-21 00:30	1153802	8.128	-127.056	314.275	15.884	403.326	437.742	0.237	0.285	7.823	15.884	6.598
2023-06-21 00:45	1154702	8.128	-127.079	315.15	15.883	404.102	438.592	0.238	0.285	7.798	15.883	6.014
2023-06-21 01:00	1155602	8.141	-127.783	311.639	15.923	404.278	438.422	0.238	0.285	7.775	15.923	6.284
2023-06-21 01:15	1156502	8.123	-126.805	312.952	15.948	404.398	438.32	0.237	0.285	7.709	15.948	6.005
2023-06-21 01:30	1157402	8.111	-126.164	313.532	15.972	404.533	438.249	0.237	0.285	7.657	15.972	5.775
2023-06-21 01:45	1158302	8.110	-126.152	315.286	15.971	404.389	438.101	0.237	0.285	7.545	15.971	5.422

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-21 02:00	1159202	8.092	-125.129	320.431	15.911	404.112	438.35	0.238	0.285	7.426	15.911	6.293
2023-06-21 02:15	1160102	8.089	-124.943	321.604	15.83	403.292	438.193	0.237	0.285	7.527	15.83	7.162
2023-06-21 02:30	1161002	8.079	-124.376	321.23	15.785	403.033	438.321	0.238	0.285	7.313	15.785	7.076
2023-06-21 02:45	1161902	8.059	-123.31	321.678	15.757	401.927	437.374	0.237	0.284	7.323	15.757	7.175
2023-06-21 03:00	1162802	8.084	-124.652	316.536	15.752	402.342	437.867	0.237	0.285	7.401	15.752	7.057
2023-06-21 03:15	1163702	8.074	-124.114	320.722	15.782	402.893	438.196	0.237	0.285	7.569	15.782	6.5
2023-06-21 03:30	1164602	8.059	-123.289	323.354	15.778	403.65	439.056	0.238	0.285	7.363	15.778	5.815
2023-06-21 03:45	1165502	8.044	-122.499	325.007	15.78	403.921	439.334	0.238	0.286	7.237	15.78	5.948
2023-06-21 04:00	1166402	8.044	-122.519	326.268	15.795	403.823	439.088	0.238	0.285	7.114	15.795	6.269
2023-06-21 04:15	1167302	8.048	-122.745	326.752	15.791	403.202	438.454	0.238	0.285	7.095	15.791	6.396
2023-06-21 04:30	1168202	8.040	-122.273	326.602	15.764	403.047	438.527	0.238	0.285	7.068	15.764	6.627
2023-06-21 04:45	1169102	8.044	-122.521	326.99	15.76	403.079	438.595	0.238	0.285	6.941	15.76	6.691
2023-06-21 05:00	1170002	8.058	-123.248	321.745	15.767	403.207	438.669	0.238	0.285	7.120	15.767	6.526
2023-06-21 05:15	1170902	8.042	-122.364	325.791	15.737	402.229	437.883	0.237	0.285	6.900	15.737	5.759
2023-06-21 05:30	1171802	8.036	-122.061	329.003	15.727	401.943	437.661	0.237	0.284	7.174	15.727	6.13
2023-06-21 05:45	1172702	8.042	-122.383	330.703	15.693	401.944	437.973	0.237	0.285	7.446	15.693	6.546
2023-06-21 06:00	1173602	8.058	-123.196	329.563	15.689	401.962	438.031	0.237	0.285	7.387	15.689	7.402
2023-06-21 06:15	1174502	8.067	-123.689	328.147	15.663	402.182	438.507	0.238	0.285	7.554	15.663	7.455
2023-06-21 06:30	1175402	8.087	-124.736	325.004	15.653	403.986	440.56	0.239	0.286	7.713	15.653	6.489
2023-06-21 06:45	1176302	8.113	-126.121	321.895	15.623	403.587	440.406	0.239	0.286	7.705	15.623	6.523
2023-06-21 07:00	1177202	8.145	-127.842	311.467	15.59	403.5	440.614	0.239	0.286	7.714	15.59	9.634
2023-06-21 07:15	1178102	8.126	-126.808	317.637	15.55	403.111	440.551	0.239	0.286	7.591	15.55	6.019
2023-06-21 07:30	1179002	8.113	-126.1	321.49	15.506	402.085	439.838	0.238	0.286	7.661	15.506	6.174
2023-06-21 07:45	1179902	8.101	-125.427	323.765	15.474	401.745	439.764	0.238	0.286	7.559	15.474	6.763
2023-06-21 08:00	1180802	8.094	-125.022	324.768	15.449	401.529	439.751	0.238	0.286	7.461	15.449	8.502
2023-06-21 08:15	1181702	8.100	-125.365	324.034	15.415	401.329	439.847	0.239	0.286	7.610	15.415	7.688
2023-06-21 08:30	1182602	8.096	-125.113	322.026	15.394	401.141	439.833	0.239	0.286	7.525	15.394	7.488
2023-06-21 08:45	1183502	8.102	-125.465	320.276	15.377	401.344	440.211	0.239	0.286	7.638	15.377	7.022
2023-06-21 09:00	1184402	8.134	-127.134	313.658	15.369	401.531	440.493	0.239	0.286	7.595	15.369	6.748
2023-06-21 09:15	1185302	8.109	-125.79	319.046	15.336	401.013	440.225	0.239	0.286	7.585	15.336	6.471
2023-06-21 09:30	1186202	8.091	-124.817	323.14	15.318	401.228	440.63	0.239	0.286	7.516	15.318	7.082
2023-06-21 09:45	1187102	8.084	-124.466	324.685	15.312	401.331	440.803	0.239	0.287	7.492	15.312	6.417
2023-06-21 10:00	1188002	8.092	-124.874	325.467	15.32	401.383	440.788	0.239	0.287	7.582	15.32	8.335
2023-06-21 10:15	1188902	8.113	-126.028	323.652	15.318	401.404	440.821	0.239	0.287	7.498	15.318	6.208
2023-06-21 10:30	1189802	8.108	-125.735	322.415	15.325	401.574	440.947	0.239	0.287	7.405	15.325	5.788
2023-06-21 10:45	1190702	8.097	-125.151	323.436	15.345	401.781	440.989	0.239	0.287	7.340	15.345	5.638
2023-06-21 11:00	1191602	8.109	-125.797	316.571	15.361	402.029	441.113	0.239	0.287	7.318	15.361	5.478
2023-06-21 11:15	1192502	8.096	-125.136	318.987	15.388	402.455	441.328	0.239	0.287	7.560	15.388	5.332
2023-06-21 11:30	1193402	8.084	-124.49	320.343	15.424	402.981	441.574	0.239	0.287	7.767	15.424	4.851
2023-06-21 11:45	1194302	8.081	-124.352	319.552	15.475	403.62	441.803	0.240	0.287	7.877	15.475	4.901
2023-06-21 12:00	1195202	8.079	-124.273	319.339	15.544	404.187	441.783	0.240	0.287	7.850	15.544	5.3
2023-06-21 12:15	1196102	8.076	-124.166	320.62	15.602	405.097	442.249	0.240	0.287	7.382	15.602	5.146
2023-06-21 12:30	1197002	8.112	-126.116	319.258	15.671	405.814	442.389	0.240	0.288	7.374	15.671	5.132
2023-06-21 12:45	1197902	8.108	-125.892	317.399	15.736	406.41	442.442	0.240	0.288	7.711	15.736	5.016
2023-06-21 13:00	1198802	8.155	-128.441	312.43	15.793	407.407	443.004	0.240	0.288	8.102	15.793	5.374
2023-06-21 13:15	1199702	8.172	-129.375	311.825	15.826	407.949	443.288	0.240	0.288	7.826	15.826	4.881
2023-06-21 13:30	1200602	8.175	-129.547	312.363	15.848	408.488	443.672	0.240	0.288	7.944	15.848	4.698
2023-06-21 13:45	1201502	8.174	-129.533	312.623	15.868	408.861	443.891	0.241	0.289	7.968	15.868	4.637
2023-06-21 14:00	1202402	8.172	-129.423	310.153	15.953	409.889	444.222	0.241	0.289	8.187	15.953	4.776
2023-06-21 14:15	1203302	8.171	-129.43	310.039	16.007	410.441	444.332	0.241	0.289	8.227	16.007	4.698
2023-06-21 14:30	1204202	8.183	-130.064	309.967	16.076	411.16	444.47	0.241	0.289	8.258	16.076	5.58
2023-06-21 14:45	1205102	8.199	-130.999	309.817	16.147	412.023	444.751	0.241	0.289	8.419	16.147	4.843
2023-06-21 15:00	1206002	8.213	-131.752	307.025	16.168	412.3	444.858	0.241	0.289	8.329	16.168	6.177
2023-06-21 15:15	1206902	8.200	-131.066	307.583	16.199	412.913	445.238	0.241	0.289	8.386	16.199	4.529
2023-06-21 15:30	1207802	8.213	-131.781	307.504	16.247	413.414	445.333	0.241	0.289	8.345	16.247	4.329
2023-06-21 15:45	1208702	8.172	-129.614	306.982	16.316	413.92	445.253	0.241	0.289	8.522	16.316	4.206

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-21 16:00	1209602	8.215	-131.934	304.841	16.401	414.046	444.611	0.241	0.289	8.509	16.401	4.606
2023-06-21 16:15	1210502	8.224	-132.442	306.672	16.4	413.829	444.386	0.241	0.289	8.791	16.4	4.542
2023-06-21 16:30	1211402	8.224	-132.47	304.512	16.475	414.499	444.422	0.241	0.289	9.131	16.475	4.505
2023-06-21 16:45	1212302	8.243	-133.493	305.847	16.502	414.19	443.845	0.240	0.288	8.999	16.502	4.59
2023-06-21 17:00	1213202	8.277	-135.324	302.734	16.493	414.792	444.574	0.241	0.289	9.292	16.493	4.774
2023-06-21 17:15	1214102	8.267	-134.788	303.492	16.458	414.594	444.677	0.241	0.289	9.056	16.458	4.702
2023-06-21 17:30	1215002	8.282	-135.579	303.992	16.481	414.794	444.683	0.241	0.289	9.206	16.481	4.761
2023-06-21 17:45	1215902	8.260	-134.411	305.077	16.511	415.317	444.966	0.241	0.289	8.899	16.511	4.372
2023-06-21 18:00	1216802	8.248	-133.748	303.618	16.508	415.262	444.939	0.241	0.289	8.800	16.508	4.823
2023-06-21 18:15	1217702	8.237	-133.157	306.622	16.486	415.123	444.989	0.241	0.289	8.668	16.486	4.67
2023-06-21 18:30	1218602	8.230	-132.799	307.13	16.502	415.457	445.201	0.241	0.289	8.640	16.502	4.661
2023-06-21 18:45	1219502	8.218	-132.148	306.749	16.513	415.376	445.011	0.241	0.289	8.700	16.513	4.491
2023-06-21 19:00	1220402	8.265	-134.697	301.952	16.505	415.224	444.924	0.241	0.289	8.946	16.505	4.883
2023-06-21 19:15	1221302	8.258	-134.285	304.875	16.481	414.635	444.508	0.241	0.289	8.963	16.481	4.278
2023-06-21 19:30	1222202	8.267	-134.766	309.912	16.448	414.128	444.272	0.241	0.289	9.194	16.448	4.232
2023-06-21 19:45	1223102	8.259	-134.361	307.574	16.459	414.154	444.194	0.241	0.289	9.171	16.459	4.486
2023-06-21 20:00	1224002	8.284	-135.701	304.114	16.48	414.64	444.528	0.241	0.289	9.145	16.48	4.735
2023-06-21 20:15	1224902	8.236	-133.145	306.946	16.497	414.782	444.527	0.241	0.289	9.170	16.497	4.24
2023-06-21 20:30	1225802	8.227	-132.644	307.509	16.521	415.052	444.599	0.241	0.289	9.095	16.521	4.035
2023-06-21 20:45	1226702	8.226	-132.625	306.92	16.545	414.764	444.07	0.240	0.289	9.430	16.545	3.933
2023-06-21 21:00	1227602	8.311	-137.212	296.864	16.638	415.725	444.253	0.241	0.289	9.718	16.638	4.519
2023-06-21 21:15	1228502	8.300	-136.681	297.305	16.722	417.483	445.365	0.241	0.289	9.435	16.722	5.12
2023-06-21 21:30	1229402	8.263	-134.685	297.043	16.76	417.733	445.291	0.241	0.289	9.411	16.76	4.754
2023-06-21 21:45	1230302	8.250	-133.972	302.314	16.74	417.174	444.878	0.241	0.289	9.071	16.74	4.508
2023-06-21 22:00	1231202	8.266	-134.89	302.903	16.776	418.048	445.478	0.241	0.290	8.771	16.776	6.067
2023-06-21 22:15	1232102	8.258	-134.444	306.634	16.772	418	445.468	0.241	0.290	8.943	16.772	4.867
2023-06-21 22:30	1233002	8.248	-133.896	307.037	16.774	418.212	445.67	0.241	0.290	8.901	16.774	4.23
2023-06-21 22:45	1233902	8.220	-132.434	307.554	16.81	418.68	445.846	0.241	0.290	8.943	16.81	4.341
2023-06-21 23:00	1234802	8.261	-134.666	302.629	16.906	420.629	447.047	0.242	0.291	8.852	16.906	4.436
2023-06-21 23:15	1235702	8.245	-133.789	303.84	16.926	420.856	447.105	0.242	0.291	8.717	16.926	4.036
2023-06-21 23:30	1236602	8.221	-132.513	305.94	16.954	421.371	447.403	0.242	0.291	8.636	16.954	4.033
2023-06-21 23:45	1237502	8.227	-132.842	307.142	16.976	421.682	447.527	0.242	0.291	8.494	16.976	3.956
2023-06-22 00:00	1238402	8.223	-132.637	309.374	16.997	422.26	447.952	0.242	0.291	8.398	16.997	4.919
2023-06-22 00:15	1239302	8.214	-132.186	311.66	16.99	422.052	447.795	0.242	0.291	8.565	16.99	3.914
2023-06-22 00:30	1240202	8.215	-132.232	310.585	17.001	422.167	447.82	0.242	0.291	8.528	17.001	3.991
2023-06-22 00:45	1241102	8.213	-132.122	309.326	17.017	422.467	447.995	0.242	0.291	8.463	17.017	3.873
2023-06-22 01:00	1242002	8.247	-133.965	301.739	17.062	423.111	448.267	0.243	0.291	8.419	17.062	4.545
2023-06-22 01:15	1242902	8.234	-133.259	297.031	17.077	423.299	448.332	0.243	0.291	8.258	17.077	3.765
2023-06-22 01:30	1243802	8.218	-132.437	298.328	17.083	423.929	448.942	0.243	0.292	8.117	17.083	3.863
2023-06-22 01:45	1244702	8.182	-130.482	305.359	17.045	424.19	449.564	0.243	0.292	8.202	17.045	3.797
2023-06-22 02:00	1245602	8.219	-132.461	310.292	17.031	423.937	449.419	0.243	0.292	7.895	17.031	3.986
2023-06-22 02:15	1246502	8.211	-131.989	310.759	16.939	422.422	448.65	0.243	0.292	8.305	16.939	4.454
2023-06-22 02:30	1247402	8.223	-132.647	308.973	16.937	422.513	448.764	0.243	0.292	8.367	16.937	4.104
2023-06-22 02:45	1248302	8.242	-133.653	307.991	16.927	422.536	448.884	0.243	0.292	8.684	16.927	3.969
2023-06-22 03:00	1249202	8.263	-134.759	302.545	16.911	422.684	449.189	0.243	0.292	8.676	16.911	4.046
2023-06-22 03:15	1250102	8.247	-133.91	306.679	16.863	422.226	449.136	0.243	0.292	8.442	16.863	3.919
2023-06-22 03:30	1251002	8.241	-133.531	312.542	16.841	421.845	448.936	0.243	0.292	8.470	16.841	3.762
2023-06-22 03:45	1251902	8.242	-133.574	315.284	16.798	421.629	449.099	0.243	0.292	8.297	16.798	4.106
2023-06-22 04:00	1252802	8.249	-133.979	313.536	16.782	421.353	448.945	0.243	0.292	8.332	16.782	3.769
2023-06-22 04:15	1253702	8.248	-133.877	312.719	16.734	420.765	448.755	0.243	0.292	8.393	16.734	4.049
2023-06-22 04:30	1254602	8.257	-134.327	310.618	16.705	420.599	448.848	0.243	0.292	8.405	16.705	3.724
2023-06-22 04:45	1255502	8.250	-133.967	310.616	16.672	420.277	448.809	0.243	0.292	8.462	16.672	4.985
2023-06-22 05:00	1256402	8.287	-135.934	302.915	16.65	420.11	448.825	0.243	0.292	8.602	16.65	4.94
2023-06-22 05:15	1257302	8.276	-135.336	306.863	16.619	419.74	448.721	0.243	0.292	8.478	16.619	4.56
2023-06-22 05:30	1258202	8.257	-134.299	311.636	16.569	419.382	448.789	0.243	0.292	8.325	16.569	4.255
2023-06-22 05:45	1259102	8.266	-134.737	314.569	16.524	418.879	448.665	0.243	0.292	8.481	16.524	4.209

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-22 06:00	1260002	8.257	-134.246	316.326	16.51	418.912	448.832	0.243	0.292	8.400	16.51	4.225
2023-06-22 06:15	1260902	8.253	-134.053	314.454	16.485	418.58	448.709	0.243	0.292	8.354	16.485	3.916
2023-06-22 06:30	1261802	8.244	-133.517	313.291	16.462	418.101	448.403	0.243	0.291	8.365	16.462	4.116
2023-06-22 06:45	1262702	8.241	-133.39	312.568	16.438	417.91	448.414	0.243	0.291	8.334	16.438	4.112
2023-06-22 07:00	1263602	8.270	-134.897	308.236	16.42	417.958	448.63	0.243	0.292	8.376	16.42	5.143
2023-06-22 07:15	1264502	8.249	-133.75	310.523	16.391	417.443	448.345	0.243	0.291	8.188	16.391	3.927
2023-06-22 07:30	1265402	8.232	-132.828	311.987	16.368	417.182	448.276	0.243	0.291	8.020	16.368	4.043
2023-06-22 07:45	1266302	8.227	-132.558	313.553	16.349	416.845	448.09	0.243	0.291	8.229	16.349	4.028
2023-06-22 08:00	1267202	8.245	-133.545	312.771	16.352	416.993	448.224	0.243	0.291	8.144	16.352	4.303
2023-06-22 08:15	1268102	8.270	-134.859	313.2	16.332	416.564	447.949	0.243	0.291	8.488	16.332	4.01
2023-06-22 08:30	1269002	8.271	-134.902	311.388	16.325	416.44	447.876	0.243	0.291	8.350	16.325	3.809
2023-06-22 08:45	1269902	8.270	-134.859	313.112	16.319	416.269	447.752	0.243	0.291	8.650	16.319	4.949
2023-06-22 09:00	1270802	8.297	-136.297	308.773	16.325	416.71	448.172	0.243	0.291	8.528	16.325	4.453
2023-06-22 09:15	1271702	8.284	-135.603	310.861	16.324	416.618	448.078	0.243	0.291	8.532	16.324	3.877
2023-06-22 09:30	1272602	8.291	-135.994	306.73	16.334	416.72	448.096	0.243	0.291	8.590	16.334	3.82
2023-06-22 09:45	1273502	8.268	-134.795	303.811	16.347	416.827	448.087	0.243	0.291	8.542	16.347	4.34
2023-06-22 10:00	1274402	8.268	-134.766	306.124	16.372	417.285	448.355	0.243	0.291	8.486	16.372	3.834
2023-06-22 10:15	1275302	8.267	-134.714	308.143	16.374	416.72	447.732	0.243	0.291	8.781	16.374	6.389
2023-06-22 10:30	1276202	8.275	-135.148	306.179	16.375	416.724	447.722	0.243	0.291	8.920	16.375	3.802
2023-06-22 10:45	1277102	8.279	-135.393	305.778	16.381	417.059	448.027	0.243	0.291	8.828	16.381	3.837
2023-06-22 11:00	1278002	8.303	-136.654	302.018	16.394	417.525	448.406	0.243	0.291	8.752	16.394	4.348
2023-06-22 11:15	1278902	8.304	-136.75	302.741	16.392	417.295	448.177	0.243	0.291	8.416	16.392	3.875
2023-06-22 11:30	1279802	8.317	-137.463	301.31	16.419	417.519	448.176	0.243	0.291	8.587	16.419	3.784
2023-06-22 11:45	1280702	8.326	-137.944	300.705	16.437	417.698	448.198	0.243	0.291	8.799	16.437	3.75
2023-06-22 12:00	1281602	8.315	-137.355	301.534	16.463	417.834	448.103	0.243	0.291	8.754	16.463	3.952
2023-06-22 12:15	1282502	8.297	-136.371	303.985	16.467	417.862	448.102	0.243	0.291	8.800	16.467	4.115
2023-06-22 12:30	1283402	8.264	-134.599	305.883	16.487	418.837	448.96	0.243	0.292	8.516	16.487	4.267
2023-06-22 12:45	1284302	8.262	-134.528	303.585	16.516	418.665	448.508	0.243	0.292	8.517	16.516	3.992
2023-06-22 13:00	1285202	8.278	-135.427	304.345	16.569	419.19	448.591	0.243	0.292	8.691	16.569	4.565
2023-06-22 13:15	1286102	8.290	-136.068	307.757	16.603	419.557	448.666	0.243	0.292	8.589	16.603	4.006
2023-06-22 13:30	1287002	8.321	-137.804	308.162	16.682	419.925	448.339	0.243	0.291	8.514	16.682	3.861
2023-06-22 13:45	1287902	8.325	-137.999	309.843	16.733	419.934	447.881	0.242	0.291	9.534	16.733	4.146
2023-06-22 14:00	1288802	8.290	-136.137	309.812	16.782	420.259	447.781	0.242	0.291	9.444	16.782	3.899
2023-06-22 14:15	1289702	8.284	-135.827	311.305	16.816	420.626	447.858	0.242	0.291	9.185	16.816	3.849
2023-06-22 14:30	1290602	8.316	-137.613	309.109	16.89	421.182	447.782	0.242	0.291	9.202	16.89	3.791
2023-06-22 14:45	1291502	8.348	-139.387	307.392	16.985	421.901	447.678	0.242	0.291	9.641	16.985	3.807
2023-06-22 15:00	1292402	8.397	-142.062	298.826	17.145	423.601	448.035	0.242	0.291	9.761	17.145	4.666
2023-06-22 15:15	1293302	8.422	-143.44	295.145	17.156	423.2	447.505	0.242	0.291	10.046	17.156	4.01
2023-06-22 15:30	1294202	8.432	-144.019	297.083	17.217	423.381	447.153	0.242	0.291	10.657	17.217	4.154
2023-06-22 15:45	1295102	8.402	-142.388	298.716	17.25	424.444	447.972	0.242	0.291	10.757	17.25	3.784
2023-06-22 16:00	1296002	8.471	-146.196	294.587	17.34	423.743	446.423	0.241	0.290	10.678	17.34	3.957
2023-06-22 16:15	1296902	8.491	-147.3	290.491	17.443	423.667	445.42	0.241	0.290	11.407	17.443	3.857
2023-06-22 16:30	1297802	8.556	-150.685	283.908	17.24	422.226	445.719	0.241	0.290	11.206	17.24	4.224
2023-06-22 16:45	1298702	8.514	-148.416	286.791	17.16	423.728	448.029	0.242	0.291	10.537	17.16	4.231
2023-06-22 17:00	1299602	8.515	-148.48	286.166	17.269	423.38	446.682	0.242	0.290	10.788	17.269	4.79
2023-06-22 17:15	1300502	8.581	-152.113	283.927	17.365	423.826	446.289	0.241	0.290	10.993	17.365	3.88
2023-06-22 17:30	1301402	8.517	-148.647	289.396	17.298	423.51	446.554	0.242	0.290	11.225	17.298	4.345
2023-06-22 17:45	1302302	8.511	-148.27	295.653	17.25	423.294	446.756	0.242	0.290	11.052	17.25	4.326
2023-06-22 18:00	1303202	8.495	-147.409	299.129	17.265	424.099	447.479	0.242	0.291	10.638	17.265	4.394
2023-06-22 18:15	1304102	8.500	-147.71	292.41	17.291	424.319	447.474	0.242	0.291	10.767	17.291	4.002
2023-06-22 18:30	1305002	8.472	-146.248	291.404	17.352	425.123	447.769	0.242	0.291	10.811	17.352	3.799
2023-06-22 18:45	1305902	8.550	-150.475	284.356	17.466	425.416	447.053	0.242	0.291	11.025	17.466	3.861
2023-06-22 19:00	1306802	8.548	-150.516	277.914	17.71	428.378	447.968	0.242	0.291	11.326	17.71	4.376
2023-06-22 19:15	1307702	8.584	-152.376	284.564	17.557	425.395	446.213	0.241	0.290	11.346	17.557	3.897
2023-06-22 19:30	1308602	8.565	-151.365	289.308	17.569	425.543	446.265	0.241	0.290	11.583	17.569	3.863
2023-06-22 19:45	1309502	8.512	-148.53	291.702	17.63	427.558	447.832	0.242	0.291	11.540	17.63	3.685

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-22 20:00	1310402	8.531	-149.593	287.945	17.724	427.908	447.355	0.242	0.291	11.236	17.724	3.675
2023-06-22 20:15	1311302	8.533	-149.736	284.387	17.796	429.037	447.892	0.242	0.291	11.195	17.796	3.74
2023-06-22 20:30	1312202	8.468	-146.863	272.543	19.011	449.04	457.683	0.247	0.297	10.486	19.011	4.073
2023-06-22 20:45	1313102	8.441	-145.779	261.087	19.768	454.382	456.407	0.246	0.297	9.563	19.768	6.118
2023-06-22 21:00	1314002	8.412	-144.193	250.823	19.821	454.066	455.628	0.245	0.296	9.378	19.821	5.292
2023-06-22 21:15	1314902	8.360	-141.206	266.568	19.412	450.849	455.969	0.246	0.296	9.290	19.412	4.853
2023-06-22 21:30	1315802	8.473	-146.654	275.971	18.112	433.443	449.662	0.243	0.292	11.096	18.112	8.776
2023-06-22 21:45	1316702	8.536	-149.91	280.315	17.832	429.522	448.081	0.242	0.291	11.110	17.832	4.403
2023-06-22 22:00	1317602	8.496	-147.851	279.311	17.971	431.292	448.678	0.242	0.292	10.878	17.971	4.12
2023-06-22 22:15	1318502	8.402	-142.918	283.033	18.333	436.536	450.891	0.244	0.293	10.357	18.333	4.286
2023-06-22 22:30	1319402	8.408	-143.08	285.484	17.987	431.7	448.964	0.243	0.292	10.268	17.987	4.707
2023-06-22 22:45	1320302	8.404	-142.775	289.177	17.816	430.902	449.662	0.243	0.292	10.184	17.816	4.176
2023-06-22 23:00	1321202	8.404	-142.756	289.196	17.714	430.547	450.205	0.243	0.293	9.865	17.714	4.878
2023-06-22 23:15	1322102	8.390	-141.897	296.826	17.558	428.842	449.819	0.243	0.292	9.859	17.558	4.909
2023-06-22 23:30	1323002	8.377	-141.115	298.812	17.395	427.448	449.832	0.243	0.292	9.586	17.395	5.043
2023-06-22 23:45	1323902	8.363	-140.374	302.006	17.348	426.861	449.638	0.243	0.292	9.503	17.348	4.217
2023-06-23 00:00	1324802	8.359	-140.166	299.179	17.377	427.069	449.596	0.243	0.292	9.438	17.377	3.973
2023-06-23 00:15	1325702	8.346	-139.499	302.328	17.519	428.701	450.026	0.243	0.293	9.368	17.519	4.677
2023-06-23 00:30	1326602	8.343	-139.434	302.884	17.667	430.337	450.407	0.244	0.293	9.398	17.667	5.458
2023-06-23 00:45	1327502	8.290	-136.559	309.052	17.618	429.765	450.246	0.243	0.293	8.460	17.618	5.834
2023-06-23 01:00	1328402	8.306	-137.396	308.387	17.592	429.886	450.612	0.244	0.293	8.822	17.592	5.608
2023-06-23 01:15	1329302	8.310	-137.582	307.893	17.537	429.432	450.634	0.244	0.293	8.643	17.537	4.515
2023-06-23 01:30	1330202	8.303	-137.193	309.548	17.479	428.281	449.943	0.243	0.292	8.926	17.479	4.639
2023-06-23 01:45	1331102	8.315	-137.856	308.875	17.486	428.562	450.181	0.243	0.293	8.998	17.486	4.479
2023-06-23 02:00	1332002	8.300	-137.043	307.621	17.501	428.465	449.942	0.243	0.292	8.963	17.501	4.216
2023-06-23 02:15	1332902	8.298	-136.95	309.9	17.506	428.227	449.646	0.243	0.292	8.973	17.506	4.568
2023-06-23 02:30	1333802	8.303	-137.186	309.612	17.514	428.504	449.862	0.243	0.292	8.942	17.514	4.189
2023-06-23 02:45	1334702	8.303	-137.219	309.192	17.529	428.826	450.069	0.243	0.293	8.939	17.529	3.811
2023-06-23 03:00	1335602	8.301	-137.129	305.07	17.534	429.144	450.352	0.244	0.293	8.828	17.534	4.51
2023-06-23 03:15	1336502	8.297	-136.912	308.139	17.53	429.268	450.525	0.244	0.293	8.716	17.53	3.804
2023-06-23 03:30	1337402	8.290	-136.509	310.528	17.526	429.331	450.627	0.244	0.293	8.607	17.526	3.728
2023-06-23 03:45	1338302	8.285	-136.247	312.39	17.528	429.4	450.676	0.244	0.293	8.494	17.528	3.754
2023-06-23 04:00	1339202	8.263	-135.057	309.989	17.527	429.417	450.709	0.244	0.293	8.602	17.527	3.947
2023-06-23 04:15	1340102	8.257	-134.74	312.134	17.589	431.659	452.496	0.245	0.294	8.520	17.589	6.491
2023-06-23 04:30	1341002	8.257	-134.749	310.942	17.523	429.761	451.101	0.244	0.293	7.754	17.523	8.476
2023-06-23 04:45	1341902	8.246	-134.101	310.973	17.502	429.716	451.244	0.244	0.293	7.686	17.502	6.526
2023-06-23 05:00	1342802	8.253	-134.478	306.663	17.498	429.325	450.873	0.244	0.293	8.110	17.498	6.236
2023-06-23 05:15	1343702	8.245	-134.063	310.611	17.459	429.307	451.203	0.244	0.293	7.425	17.459	5.42
2023-06-23 05:30	1344602	8.262	-134.959	311.82	17.427	428.825	450.991	0.244	0.293	8.071	17.427	4.714
2023-06-23 05:45	1345502	8.268	-135.264	313.222	17.41	428.616	450.922	0.244	0.293	8.120	17.41	4.233
2023-06-23 06:00	1346402	8.260	-134.854	309.903	17.402	428.305	450.669	0.244	0.293	8.289	17.402	4.059
2023-06-23 06:15	1347302	8.260	-134.83	313.112	17.392	428.424	450.882	0.244	0.293	8.329	17.392	3.974
2023-06-23 06:30	1348202	8.259	-134.752	313.813	17.389	428.37	450.854	0.244	0.293	8.394	17.389	3.763
2023-06-23 06:45	1349102	8.256	-134.621	314.342	17.39	428.447	450.927	0.244	0.293	8.395	17.39	3.655
2023-06-23 07:00	1350002	8.262	-134.94	311.553	17.398	428.574	450.989	0.244	0.293	8.374	17.398	3.938
2023-06-23 07:15	1350902	8.256	-134.616	315.923	17.385	428.402	450.923	0.244	0.293	8.147	17.385	3.604
2023-06-23 07:30	1351802	8.242	-133.851	320.477	17.369	428.144	450.794	0.244	0.293	7.672	17.369	3.69
2023-06-23 07:45	1352702	8.252	-134.358	323.445	17.358	427.888	450.63	0.244	0.293	7.633	17.358	3.783
2023-06-23 08:00	1353602	8.264	-135.047	321.485	17.361	428.392	451.131	0.244	0.293	7.964	17.361	9.541
2023-06-23 08:15	1354502	8.255	-134.549	319.905	17.338	427.961	450.886	0.244	0.293	8.270	17.338	3.848
2023-06-23 08:30	1355402	8.246	-134.044	318.605	17.334	427.737	450.685	0.244	0.293	8.381	17.334	4.044
2023-06-23 08:45	1356302	8.254	-134.461	318.119	17.323	427.629	450.674	0.244	0.293	8.232	17.323	4.12
2023-06-23 09:00	1357202	8.290	-136.43	313.887	17.333	427.973	450.944	0.244	0.293	8.238	17.333	4.326
2023-06-23 09:15	1358102	8.302	-137.036	313.818	17.324	428.131	451.19	0.244	0.293	8.131	17.324	4.485
2023-06-23 09:30	1359002	8.277	-135.725	315.301	17.333	428.342	451.336	0.244	0.293	8.141	17.333	3.708
2023-06-23 09:45	1359902	8.243	-133.905	314.025	17.356	428.794	451.6	0.244	0.294	8.270	17.356	4.118

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-23 10:00	1360802	8.268	-135.245	310.11	17.388	429.375	451.919	0.244	0.294	8.285	17.388	4.016
2023-06-23 10:15	1361702	8.249	-134.144	312.299	17.25	426.58	450.232	0.244	0.293	8.031	17.25	4.902
2023-06-23 10:30	1362602	8.280	-135.837	316.374	17.226	425.986	449.82	0.243	0.292	8.488	17.226	4.06
2023-06-23 10:45	1363502	8.254	-134.411	319.423	17.237	426.137	449.879	0.243	0.292	8.449	17.237	4.048
2023-06-23 11:00	1364402	8.231	-133.216	318.917	17.261	426.984	450.559	0.244	0.293	8.509	17.261	3.921
2023-06-23 11:15	1365302	8.229	-133.14	316.343	17.304	427.988	451.219	0.244	0.293	8.431	17.304	3.514
2023-06-23 11:30	1366202	8.205	-131.874	317.816	17.36	428.663	451.427	0.244	0.293	8.462	17.36	3.845
2023-06-23 11:45	1367102	8.221	-132.766	318.031	17.424	429.29	451.501	0.244	0.293	8.447	17.424	3.673
2023-06-23 12:00	1368002	8.289	-136.445	314.678	17.499	430.023	451.593	0.244	0.294	8.469	17.499	3.812
2023-06-23 12:15	1368902	8.286	-136.278	311.374	17.527	430.413	451.751	0.244	0.294	8.533	17.527	3.824
2023-06-23 12:30	1369802	8.252	-134.492	315.551	17.552	430.408	451.523	0.244	0.293	8.757	17.552	3.961
2023-06-23 12:45	1370702	8.249	-134.306	321.626	17.568	430.75	451.733	0.244	0.294	8.247	17.568	4.061
2023-06-23 13:00	1371602	8.289	-136.461	320.818	17.596	431.268	452.022	0.244	0.294	8.427	17.596	3.472
2023-06-23 13:15	1372502	8.338	-139.165	311.279	17.638	432.11	452.529	0.245	0.294	8.695	17.638	3.727
2023-06-23 13:30	1373402	8.297	-136.967	309.929	17.692	432.736	452.696	0.245	0.294	8.322	17.692	4.358
2023-06-23 13:45	1374302	8.317	-138.099	308.491	17.765	433.498	452.832	0.245	0.294	8.843	17.765	3.825
2023-06-23 14:00	1375202	8.335	-139.074	303.423	17.841	433.833	452.491	0.245	0.294	8.942	17.841	4.19
2023-06-23 14:15	1376102	8.377	-141.346	299.83	17.872	434.271	452.666	0.245	0.294	8.994	17.872	3.836
2023-06-23 14:30	1377002	8.374	-141.218	296.156	17.919	434.828	452.823	0.245	0.294	8.978	17.919	3.786
2023-06-23 14:45	1377902	8.362	-140.624	293.38	17.975	435.838	453.37	0.245	0.295	8.938	17.975	3.747
2023-06-23 15:00	1378802	8.404	-142.884	289.656	17.987	434.091	451.448	0.244	0.293	9.310	17.987	4.742
2023-06-23 15:15	1379702	8.385	-141.873	291.774	18.045	436.307	453.233	0.245	0.295	9.768	18.045	4.058
2023-06-23 15:30	1380602	8.330	-138.969	295.862	18.127	437.23	453.452	0.245	0.295	9.511	18.127	3.755
2023-06-23 15:45	1381502	8.340	-139.532	297.579	18.183	437.58	453.316	0.245	0.295	9.569	18.183	3.736
2023-06-23 16:00	1382402	8.446	-145.23	294.923	18.197	435.925	451.469	0.244	0.293	10.190	18.197	3.9
2023-06-23 16:15	1383302	8.376	-141.518	293.347	18.283	437.602	452.435	0.244	0.294	9.929	18.283	3.617
2023-06-23 16:30	1384202	8.368	-141.113	294.499	18.321	438.039	452.554	0.244	0.294	9.962	18.321	3.533
2023-06-23 16:45	1385102	8.365	-140.934	295.645	18.363	438.981	453.147	0.245	0.295	10.039	18.363	3.478
2023-06-23 17:00	1386002	8.427	-144.341	292.327	18.431	437.8	451.327	0.244	0.293	10.019	18.431	3.758
2023-06-23 17:15	1386902	8.427	-144.36	290.307	18.479	438.108	451.214	0.244	0.293	10.302	18.479	3.65
2023-06-23 17:30	1387802	8.457	-145.931	288.309	18.404	436.936	450.672	0.243	0.293	10.603	18.404	3.685
2023-06-23 17:45	1388702	8.510	-148.826	290.291	18.378	436.364	450.316	0.243	0.293	11.014	18.378	3.704
2023-06-23 18:00	1389602	8.518	-149.207	285.825	18.371	435.73	449.72	0.243	0.292	10.902	18.371	3.909
2023-06-23 18:15	1390502	8.357	-140.514	288.674	18.398	436.239	450.01	0.243	0.293	11.045	18.398	4.483
2023-06-23 18:30	1391402	8.490	-147.727	286.988	18.423	435.544	449.066	0.242	0.292	10.896	18.423	4.011
2023-06-23 18:45	1392302	8.502	-148.404	284.456	18.416	435.938	449.538	0.243	0.292	10.932	18.416	7.887
2023-06-23 19:00	1393202	8.488	-147.622	276.973	18.415	436.421	450.044	0.243	0.293	10.795	18.415	5.011
2023-06-23 19:15	1394102	8.468	-146.577	283.386	18.45	436.907	450.241	0.243	0.293	10.842	18.45	4
2023-06-23 19:30	1395002	8.464	-146.368	285.119	18.481	437.314	450.38	0.243	0.293	10.876	18.481	3.815
2023-06-23 19:45	1395902	8.441	-145.161	289.611	18.569	438.251	450.57	0.243	0.293	10.984	18.569	3.922
2023-06-23 20:00	1396802	8.483	-147.505	280.551	18.655	438.86	450.434	0.243	0.293	10.943	18.655	3.996
2023-06-23 20:15	1397702	8.505	-148.656	276.858	18.593	436.508	448.562	0.242	0.292	11.185	18.593	4.201
2023-06-23 20:30	1398602	8.541	-150.542	279.996	18.544	436.205	448.679	0.242	0.292	11.711	18.544	3.905
2023-06-23 20:45	1399502	8.554	-151.269	282.821	18.571	436.879	449.139	0.242	0.292	11.502	18.571	3.846
2023-06-23 21:00	1400402	8.510	-148.919	277.528	18.635	438.363	450.094	0.243	0.293	11.486	18.635	6.831
2023-06-23 21:15	1401302	8.538	-150.452	280.043	18.665	439.057	450.542	0.243	0.293	11.266	18.665	3.726
2023-06-23 21:30	1402202	8.516	-149.286	283.715	18.676	439.36	450.757	0.243	0.293	10.985	18.676	4.105
2023-06-23 21:45	1403102	8.521	-149.529	284.838	18.672	439.365	450.802	0.243	0.293	10.972	18.672	3.829
2023-06-23 22:00	1404002	8.513	-149.133	281.059	18.672	439.014	450.439	0.243	0.293	10.974	18.672	3.759
2023-06-23 22:15	1404902	8.512	-149.064	285.303	18.677	439.294	450.682	0.243	0.293	10.937	18.677	3.627
2023-06-23 22:30	1405802	8.507	-148.766	286.755	18.67	439.301	450.753	0.243	0.293	10.824	18.67	3.645
2023-06-23 22:45	1406702	8.497	-148.22	287.413	18.668	439.325	450.798	0.243	0.293	10.785	18.668	3.589
2023-06-23 23:00	1407602	8.496	-148.189	282.709	18.685	439.953	451.284	0.244	0.293	10.678	18.685	3.638
2023-06-23 23:15	1408502	8.479	-147.266	286.557	18.69	440.377	451.68	0.244	0.294	10.528	18.69	3.961
2023-06-23 23:30	1409402	8.464	-146.484	291.006	18.69	440.662	451.974	0.244	0.294	10.362	18.69	3.624
2023-06-23 23:45	1410302	8.449	-145.638	291.49	18.687	440.912	452.256	0.244	0.294	10.266	18.687	3.958

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-24 00:00	1411202	8.450	-145.719	287.644	18.679	440.637	452.039	0.244	0.294	10.298	18.679	4.008
2023-06-24 00:15	1412102	8.445	-145.442	291.003	18.648	439.987	451.647	0.244	0.294	10.267	18.648	3.827
2023-06-24 00:30	1413002	8.438	-145.035	293.378	18.63	439.591	451.403	0.244	0.293	10.291	18.63	3.966
2023-06-24 00:45	1413902	8.442	-145.214	294.847	18.607	439.468	451.483	0.244	0.293	10.259	18.607	3.788
2023-06-24 01:00	1414802	8.451	-145.731	290.679	18.611	440.148	452.143	0.244	0.294	10.245	18.611	3.969
2023-06-24 01:15	1415702	8.451	-145.738	294.077	18.607	440.309	452.342	0.244	0.294	10.139	18.607	3.803
2023-06-24 01:30	1416602	8.434	-144.815	296.747	18.614	440.499	452.475	0.244	0.294	10.045	18.614	3.55
2023-06-24 01:45	1417502	8.419	-144.002	299.1	18.622	440.588	452.497	0.244	0.294	9.957	18.622	3.63
2023-06-24 02:00	1418402	8.410	-143.54	295.738	18.621	440.496	452.415	0.244	0.294	9.895	18.621	3.699
2023-06-24 02:15	1419302	8.376	-141.671	298.855	18.601	439.884	451.963	0.244	0.294	9.787	18.601	3.648
2023-06-24 02:30	1420202	8.399	-142.93	298.199	18.652	441.071	452.725	0.244	0.294	9.530	18.652	4.491
2023-06-24 02:45	1421102	8.365	-141.058	299.87	18.609	441.117	453.157	0.245	0.295	9.253	18.609	5.166
2023-06-24 03:00	1422002	8.362	-140.896	296.029	18.594	441.3	453.476	0.245	0.295	9.178	18.594	4.514
2023-06-24 03:15	1422902	8.351	-140.305	298.54	18.594	441.309	453.49	0.245	0.295	9.029	18.594	4.983
2023-06-24 03:30	1423802	8.351	-140.333	299.093	18.636	441.871	453.692	0.245	0.295	9.248	18.636	3.85
2023-06-24 03:45	1424702	8.356	-140.615	296.43	18.676	442.574	454.057	0.245	0.295	9.133	18.676	4.459
2023-06-24 04:00	1425602	8.328	-139.103	294.36	18.678	442.579	454.045	0.245	0.295	8.975	18.678	4.596
2023-06-24 04:15	1426502	8.324	-138.867	299.961	18.681	442.675	454.118	0.245	0.295	8.978	18.681	4.648
2023-06-24 04:30	1427402	8.322	-138.786	300.872	18.672	442.666	454.183	0.245	0.295	8.912	18.672	4.449
2023-06-24 04:45	1428302	8.310	-138.104	301.632	18.645	442.209	453.961	0.245	0.295	8.695	18.645	4.294
2023-06-24 05:00	1429202	8.309	-138.078	299.248	18.649	442.694	454.424	0.245	0.295	8.609	18.649	4.143
2023-06-24 05:15	1430102	8.299	-137.539	301.699	18.631	442.872	454.758	0.246	0.296	8.571	18.631	4.169
2023-06-24 05:30	1431002	8.323	-138.791	305.478	18.59	442.536	454.781	0.246	0.296	8.947	18.59	5.677
2023-06-24 05:45	1431902	8.314	-138.314	303.47	18.608	442.738	454.832	0.246	0.296	8.848	18.608	4.37
2023-06-24 06:00	1432802	8.310	-138.071	300.168	18.59	442.575	454.822	0.246	0.296	8.637	18.59	4.686
2023-06-24 06:15	1433702	8.311	-138.121	303.475	18.567	442.188	454.632	0.245	0.296	8.720	18.567	5.151
2023-06-24 06:30	1434602	8.330	-139.132	304.295	18.544	441.764	454.402	0.245	0.295	9.091	18.544	4.724
2023-06-24 06:45	1435502	8.355	-140.479	305.587	18.525	441.654	454.46	0.245	0.295	9.028	18.525	4.564
2023-06-24 07:00	1436402	8.360	-140.779	301.453	18.51	441.85	454.793	0.246	0.296	9.210	18.51	4.637
2023-06-24 07:15	1437303	8.382	-141.921	303.995	18.486	441.819	454.976	0.246	0.296	9.395	18.486	4.742
2023-06-24 07:30	1438203	8.362	-140.855	305.013	18.457	441.559	454.969	0.246	0.296	9.293	18.457	4.131
2023-06-24 07:45	1439103	8.363	-140.896	306.794	18.433	441.401	455.02	0.246	0.296	9.316	18.433	3.859
2023-06-24 08:00	1440003	8.362	-140.822	303.621	18.391	440.758	454.729	0.246	0.296	9.024	18.391	4.347
2023-06-24 08:15	1440903	8.347	-140.004	306.343	18.357	440.119	454.378	0.245	0.295	9.071	18.357	4.065
2023-06-24 08:30	1441803	8.352	-140.25	306.148	18.336	439.678	454.11	0.245	0.295	9.191	18.336	4.11
2023-06-24 08:45	1442703	8.373	-141.361	305.318	18.322	439.605	454.166	0.245	0.295	9.087	18.322	3.859
2023-06-24 09:00	1443603	8.383	-141.923	299.744	18.307	439.648	454.342	0.245	0.295	9.318	18.307	4.029
2023-06-24 09:15	1444503	8.377	-141.559	301.394	18.305	439.942	454.661	0.246	0.296	9.483	18.305	3.8
2023-06-24 09:30	1445403	8.394	-142.491	302.054	18.291	439.997	454.844	0.246	0.296	9.481	18.291	3.79
2023-06-24 09:45	1446303	8.398	-142.701	301.794	18.285	440.042	454.944	0.246	0.296	9.336	18.285	3.757
2023-06-24 10:00	1447203	8.394	-142.498	298.547	18.288	439.805	454.675	0.246	0.296	9.223	18.288	3.801
2023-06-24 10:15	1448103	8.394	-142.508	300.934	18.28	439.644	454.577	0.246	0.295	9.247	18.28	3.84
2023-06-24 10:30	1449003	8.390	-142.279	301.11	18.28	439.845	454.784	0.246	0.296	9.009	18.28	3.656
2023-06-24 10:45	1449903	8.382	-141.835	300.655	18.28	439.988	454.936	0.246	0.296	8.872	18.28	3.561
2023-06-24 11:00	1450803	8.318	-138.361	287.62	18.299	440.82	455.626	0.246	0.296	8.430	18.299	3.642
2023-06-24 11:15	1451703	8.352	-140.219	291.943	18.324	441.172	455.765	0.246	0.296	8.571	18.324	3.58
2023-06-24 11:30	1452603	8.334	-139.289	297.491	18.379	441.851	455.967	0.246	0.296	8.771	18.379	3.45
2023-06-24 11:45	1453503	8.357	-140.581	298.928	18.436	442.406	456.025	0.246	0.296	8.775	18.436	3.27
2023-06-24 12:00	1454403	8.356	-140.562	294.725	18.507	442.815	455.815	0.246	0.296	8.809	18.507	3.563
2023-06-24 12:15	1455303	8.350	-140.216	297.083	18.548	443.3	455.945	0.246	0.296	8.828	18.548	3.451
2023-06-24 12:30	1456203	8.351	-140.297	296.809	18.601	443.766	455.953	0.246	0.296	8.844	18.601	3.298
2023-06-24 12:45	1457103	8.364	-141.027	294.792	18.638	443.98	455.836	0.246	0.296	9.077	18.638	3.465
2023-06-24 13:00	1458003	8.370	-141.373	289.175	18.7	445.123	456.453	0.246	0.297	9.172	18.7	3.502
2023-06-24 13:15	1458903	8.384	-142.14	291.716	18.744	445.742	456.7	0.247	0.297	8.922	18.744	3.492
2023-06-24 13:30	1459803	8.386	-142.324	292.72	18.793	445.976	456.5	0.246	0.297	8.900	18.793	3.687
2023-06-24 13:45	1460703	8.410	-143.602	292.165	18.853	446.724	456.729	0.247	0.297	9.130	18.853	3.502

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-24 14:00	1461603	8.407	-143.485	287.246	18.924	447.213	456.595	0.246	0.297	9.259	18.924	3.786
2023-06-24 14:15	1462503	8.379	-141.985	288.521	18.978	447.641	456.551	0.246	0.297	9.378	18.978	3.718
2023-06-24 14:30	1463403	8.433	-144.961	287.754	19.033	447.697	456.119	0.246	0.296	9.480	19.033	3.801
2023-06-24 14:45	1464303	8.391	-142.732	284.635	19.086	448.973	456.947	0.247	0.297	6.865	19.086	4.083
2023-06-24 15:00	1465203	8.436	-145.199	276.2	19.165	449.257	456.534	0.246	0.297	9.375	19.165	4.547
2023-06-24 15:15	1466103	8.466	-146.844	275.156	19.209	449.674	456.573	0.246	0.297	9.666	19.209	4.169
2023-06-24 15:30	1467003	8.467	-146.897	276.298	19.261	449.988	456.433	0.246	0.297	9.852	19.261	3.609
2023-06-24 15:45	1467903	8.475	-147.386	277.456	19.3	450.206	456.304	0.246	0.297	9.964	19.3	4.147
2023-06-24 16:00	1468803	8.490	-148.206	271.949	19.357	449.973	455.567	0.246	0.296	10.148	19.357	3.95
2023-06-24 16:15	1469703	8.510	-149.324	273.389	19.387	449.958	455.29	0.245	0.296	10.534	19.387	3.756
2023-06-24 16:30	1470603	8.530	-150.449	272.35	19.472	450.577	455.17	0.245	0.296	10.640	19.472	3.813
2023-06-24 16:45	1471503	8.482	-147.92	274.505	19.646	451.913	454.989	0.245	0.296	10.992	19.646	3.546
2023-06-24 17:00	1472403	8.597	-154.254	256.509	19.837	452.636	454.051	0.245	0.295	11.236	19.837	3.748
2023-06-24 17:15	1473303	8.570	-152.814	261.115	19.881	453.747	454.779	0.245	0.296	11.248	19.881	3.773
2023-06-24 17:30	1474203	8.540	-151.248	264.668	19.989	455.663	455.755	0.245	0.296	11.426	19.989	3.84
2023-06-24 17:45	1475103	8.550	-151.811	266.942	20.016	455.276	455.139	0.245	0.296	11.463	20.016	3.848
2023-06-24 18:00	1476003	8.619	-155.53	265.462	19.986	452.068	452.19	0.244	0.294	12.319	19.986	4.099
2023-06-24 18:15	1476903	8.633	-156.255	266.759	19.924	449.291	449.948	0.242	0.292	12.551	19.924	3.954
2023-06-24 18:30	1477803	8.645	-156.906	265.626	19.871	449.374	450.487	0.243	0.293	12.457	19.871	4.206
2023-06-24 18:45	1478703	8.685	-159.044	266.222	19.866	450.03	451.186	0.243	0.293	12.624	19.866	4.074
2023-06-24 19:00	1479603	8.695	-159.659	257.363	19.975	450.905	451.124	0.243	0.293	13.064	19.975	4.542
2023-06-24 19:15	1480503	8.665	-157.924	261.382	19.792	449.952	451.75	0.243	0.294	12.641	19.792	6.059
2023-06-24 19:30	1481403	8.659	-157.659	256.345	19.834	450.603	452.035	0.243	0.294	12.339	19.834	7.753
2023-06-24 19:45	1482303	8.662	-157.833	251.717	19.848	450.351	451.666	0.243	0.294	12.464	19.848	9.469
2023-06-24 20:00	1483203	8.561	-153.387	245.227	21.878	477.83	461.285	0.248	0.300	11.027	21.878	4.759
2023-06-24 20:15	1484103	8.516	-151.503	236.594	23.049	492.087	465.011	0.249	0.302	9.875	23.049	4.984
2023-06-24 20:30	1485003	8.476	-149.498	241.114	23.415	496.087	465.709	0.249	0.303	9.683	23.415	4.691
2023-06-24 20:45	1485903	8.472	-147.552	253.15	19.977	450.811	451.006	0.243	0.293	11.076	19.977	7.483
2023-06-24 21:00	1486803	8.438	-145.586	263.695	19.725	453.108	455.501	0.245	0.296	10.971	19.725	5.511
2023-06-24 21:15	1487703	8.454	-146.446	276.245	19.777	453.28	455.219	0.245	0.296	10.610	19.777	4.938
2023-06-24 21:30	1488603	8.462	-147.092	275.22	20.134	456.651	455.484	0.245	0.296	10.788	20.134	25.57
2023-06-24 21:45	1489503	8.441	-145.962	274.109	20.139	456.362	455.152	0.245	0.296	10.726	20.139	22.371
2023-06-24 22:00	1490403	8.437	-145.743	275.263	20.167	455.953	454.502	0.245	0.295	10.518	20.167	4.84
2023-06-24 22:15	1491303	8.516	-150.011	282.017	20.061	453.327	452.802	0.244	0.294	11.017	20.061	5.249
2023-06-24 22:30	1492203	8.463	-147.107	284.149	20.034	454.87	454.57	0.245	0.295	10.755	20.034	5.172
2023-06-24 22:45	1493103	8.441	-145.936	287.303	20.084	455.515	454.784	0.245	0.296	10.668	20.084	4.307
2023-06-24 23:00	1494003	8.452	-146.539	286.905	20.134	455.983	454.821	0.245	0.296	10.580	20.134	10.054
2023-06-24 23:15	1494903	8.432	-145.411	288.934	20.081	455.63	454.928	0.245	0.296	10.534	20.081	5.499
2023-06-24 23:30	1495803	8.441	-145.929	290.195	20.066	455.603	455.027	0.245	0.296	10.541	20.066	4.799
2023-06-24 23:45	1496703	8.432	-145.414	290.2	20.099	456.072	455.211	0.245	0.296	10.392	20.099	7.664
2023-06-25 00:00	1497603	8.413	-144.429	286.91	20.165	456.591	455.157	0.245	0.296	10.296	20.165	4.591
2023-06-25 00:15	1498503	8.417	-144.675	288.5	20.246	457.799	455.661	0.245	0.296	10.229	20.246	4.593
2023-06-25 00:30	1499403	8.404	-143.914	284.502	20.107	455.851	454.918	0.245	0.296	10.032	20.107	4.969
2023-06-25 00:45	1500303	8.391	-143.116	287.608	19.932	454.095	454.684	0.245	0.296	10.243	19.932	5.111
2023-06-25 01:00	1501203	8.415	-144.448	282.582	19.944	455.288	455.773	0.246	0.296	10.006	19.944	13.842
2023-06-25 01:15	1502103	8.398	-143.511	287.544	19.929	455.627	456.244	0.246	0.297	9.833	19.929	4.992
2023-06-25 01:30	1503003	8.402	-143.738	288.648	19.964	456.062	456.375	0.246	0.297	9.718	19.964	4.454
2023-06-25 01:45	1503903	8.387	-142.93	291.294	19.992	456.376	456.448	0.246	0.297	9.656	19.992	4.217
2023-06-25 02:00	1504803	8.373	-142.2	285.331	19.994	456.085	456.137	0.246	0.296	9.494	19.994	4.239
2023-06-25 02:15	1505703	8.354	-141.127	291.213	19.999	456.415	456.427	0.246	0.297	9.471	19.999	4.11
2023-06-25 02:30	1506603	8.343	-140.541	291.747	19.95	455.429	455.868	0.246	0.296	9.603	19.95	5.092
2023-06-25 02:45	1507503	8.379	-142.479	286.113	19.936	455.6	456.154	0.246	0.296	9.465	19.936	4.464
2023-06-25 03:00	1508403	8.373	-142.186	285.596	19.96	456.317	456.662	0.246	0.297	9.476	19.96	4.408
2023-06-25 03:15	1509303	8.364	-141.637	283.794	19.94	456.453	456.978	0.246	0.297	9.332	19.94	4.48
2023-06-25 03:30	1510203	8.366	-141.776	287.399	19.922	456.238	456.923	0.246	0.297	9.239	19.922	4.259
2023-06-25 03:45	1511103	8.350	-140.872	291.578	19.866	455.97	457.14	0.246	0.297	9.167	19.866	4.343

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-25 04:00	1512003	8.340	-140.376	289.864	19.925	456.375	457.027	0.246	0.297	9.165	19.925	4.441
2023-06-25 04:15	1512903	8.325	-139.515	291.878	19.905	456.227	457.058	0.246	0.297	9.075	19.905	4.397
2023-06-25 04:30	1513803	8.326	-139.53	293.466	19.841	455.535	456.926	0.246	0.297	9.080	19.841	4.362
2023-06-25 04:45	1514703	8.324	-139.477	296.33	19.875	456.147	457.24	0.246	0.297	8.986	19.875	4.3
2023-06-25 05:00	1515603	8.318	-139.117	294.186	19.887	456.625	457.615	0.247	0.297	8.836	19.887	5.018
2023-06-25 05:15	1516503	8.300	-138.121	296.246	19.848	456.539	457.867	0.247	0.298	9.055	19.848	5.063
2023-06-25 05:30	1517403	8.303	-138.314	292.885	19.819	456.621	458.201	0.247	0.298	8.860	19.819	27.496
2023-06-25 05:45	1518303	8.292	-137.672	290.059	19.797	456.717	458.496	0.247	0.298	8.617	19.797	5.665
2023-06-25 06:00	1519203	8.259	-135.863	288.576	19.755	455.95	458.091	0.247	0.298	6.836	19.755	5.405
2023-06-25 06:15	1520103	8.295	-137.823	292.551	19.731	455.523	457.877	0.247	0.298	8.462	19.731	4.254
2023-06-25 06:30	1521003	8.306	-138.378	295.641	19.703	455.869	458.466	0.247	0.298	8.561	19.703	4.078
2023-06-25 06:45	1521903	8.309	-138.533	297.274	19.692	455.515	458.209	0.247	0.298	8.517	19.692	4.204
2023-06-25 07:00	1522803	8.313	-138.774	295.762	19.703	455.505	458.106	0.247	0.298	8.420	19.703	56.29
2023-06-25 07:15	1523703	8.307	-138.428	297.429	19.707	455.94	458.508	0.247	0.298	8.501	19.707	60.938
2023-06-25 07:30	1524603	8.301	-138.159	301.06	19.74	456.338	458.616	0.247	0.298	8.564	19.74	30.22
2023-06-25 07:45	1525503	8.263	-136.132	302.335	19.835	457.296	458.744	0.247	0.298	8.371	19.835	51.675
2023-06-25 08:00	1526403	8.323	-139.506	286.829	20.08	459.28	458.583	0.247	0.298	7.545	20.08	4.259
2023-06-25 08:15	1527303	8.340	-140.543	287.592	20.274	461.81	459.407	0.247	0.299	8.730	20.274	3.778
2023-06-25 08:30	1528203	8.390	-143.266	276.682	20.384	463.025	459.649	0.247	0.299	8.135	20.384	3.861
2023-06-25 08:45	1529103	8.385	-143.015	276.214	20.365	462.336	459.136	0.247	0.298	8.490	20.365	4.052
2023-06-25 09:00	1530003	8.399	-143.814	277.085	20.4	463.045	459.533	0.247	0.299	8.884	20.4	4.778
2023-06-25 09:15	1530903	8.388	-143.175	281.665	20.408	462.959	459.384	0.247	0.299	9.115	20.408	3.903
2023-06-25 09:30	1531803	8.422	-145.028	282.578	20.414	463.085	459.452	0.247	0.299	9.077	20.414	4.578
2023-06-25 09:45	1532703	8.405	-144.105	283.009	20.406	463.355	459.786	0.248	0.299	8.458	20.406	4.286
2023-06-25 10:00	1533603	8.371	-142.252	280.451	20.354	462.353	459.251	0.247	0.299	8.142	20.354	4.11
2023-06-25 10:15	1534503	8.355	-141.315	286.659	20.242	460.453	458.333	0.247	0.298	8.219	20.242	4.169
2023-06-25 10:30	1535403	8.322	-139.477	291.919	20.136	459.326	458.135	0.247	0.298	8.263	20.136	4.1
2023-06-25 10:45	1536303	8.298	-138.128	294.704	20.099	458.867	458	0.247	0.298	8.460	20.099	4.304
2023-06-25 11:00	1537203	8.310	-138.838	292.422	20.138	460.168	458.962	0.247	0.298	8.560	20.138	4.351
2023-06-25 11:15	1538103	8.298	-138.154	295.998	20.154	460.774	459.42	0.247	0.299	8.703	20.154	4.19
2023-06-25 11:30	1539003	8.292	-137.818	298.962	20.105	460.403	459.483	0.248	0.299	8.339	20.105	3.933
2023-06-25 11:45	1539903	8.195	-132.554	300.483	20.056	460.069	459.581	0.248	0.299	8.183	20.056	4.285
2023-06-25 12:00	1540803	8.273	-136.75	293.268	20.031	458.852	458.585	0.247	0.298	8.511	20.031	5.093
2023-06-25 12:15	1541703	8.279	-137.076	296.623	20.038	458.971	458.643	0.247	0.298	8.480	20.038	4.353
2023-06-25 12:30	1542603	8.267	-136.445	295.393	20.064	459.703	459.146	0.247	0.298	8.452	20.064	3.991
2023-06-25 12:45	1543503	8.255	-135.851	296.256	20.135	460.36	459.179	0.247	0.298	8.396	20.135	3.824
2023-06-25 13:00	1544403	8.265	-136.468	290.777	20.318	462.522	459.73	0.248	0.299	8.423	20.318	3.627
2023-06-25 13:15	1545303	8.332	-140.159	282.597	20.446	463.832	459.915	0.248	0.299	8.267	20.446	3.689
2023-06-25 13:30	1546203	8.318	-139.41	276.727	20.467	464.173	460.069	0.248	0.299	8.583	20.467	3.729
2023-06-25 13:45	1547103	8.297	-138.235	283.796	20.404	463.156	459.606	0.247	0.299	9.123	20.404	4.059
2023-06-25 14:00	1548003	8.357	-141.418	277.371	20.27	460.343	457.981	0.247	0.298	9.484	20.27	4.408
2023-06-25 14:15	1548903	8.326	-139.709	282.184	20.211	458.828	456.988	0.246	0.297	9.327	20.211	4.011
2023-06-25 14:30	1549803	8.361	-141.58	284.468	20.121	457.657	456.604	0.246	0.297	9.939	20.121	4.258
2023-06-25 14:45	1550703	8.401	-143.723	282.938	20.036	456.277	455.964	0.246	0.296	9.737	20.036	4.205
2023-06-25 15:00	1551603	8.420	-144.732	281.209	20.01	456.701	456.611	0.246	0.297	9.834	20.01	8.081
2023-06-25 15:15	1552503	8.393	-143.297	282.809	20.069	457.62	457.019	0.246	0.297	9.937	20.069	4.399
2023-06-25 15:30	1553403	8.362	-141.551	290.183	19.963	456.037	456.362	0.246	0.297	9.940	19.963	4.098
2023-06-25 15:45	1554303	8.419	-144.641	287.413	19.932	455.929	456.52	0.246	0.297	10.094	19.932	4.053
2023-06-25 16:00	1555203	8.441	-145.853	278.11	19.955	455.248	455.641	0.245	0.296	9.995	19.955	4.175
2023-06-25 16:15	1556103	8.409	-144.131	284.514	19.968	455.356	455.636	0.245	0.296	10.225	19.968	3.742
2023-06-25 16:30	1557003	8.395	-143.416	284.802	20.072	455.198	454.569	0.245	0.295	10.401	20.072	3.655
2023-06-25 16:45	1557903	8.438	-145.714	284.504	20.046	454.422	454.025	0.245	0.295	10.228	20.046	3.82
2023-06-25 17:00	1558803	8.468	-147.383	275.38	20.051	456.16	455.713	0.245	0.296	10.438	20.051	4.186
2023-06-25 17:15	1559703	8.461	-147.026	283.357	20.086	456.711	455.957	0.246	0.296	10.207	20.086	3.904
2023-06-25 17:30	1560603	8.353	-141.141	277.909	20.143	457.447	456.2	0.246	0.297	9.655	20.143	3.928
2023-06-25 17:45	1561503	8.445	-146.148	277.22	20.138	457.293	456.091	0.246	0.296	10.396	20.138	3.959

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-25 18:00	1562403	8.469	-147.474	265.509	20.171	456.79	455.302	0.245	0.296	10.452	20.171	4.188
2023-06-25 18:15	1563303	8.446	-146.267	278.289	20.226	457.559	455.597	0.245	0.296	10.519	20.226	3.687
2023-06-25 18:30	1564203	8.457	-146.906	281.998	20.351	458.762	455.706	0.245	0.296	10.523	20.351	6.236
2023-06-25 18:45	1565103	8.499	-149.229	264.668	20.439	458.498	454.685	0.245	0.296	10.649	20.439	3.455
2023-06-25 19:00	1566003	8.514	-150.127	261.461	20.501	459.555	455.2	0.245	0.296	10.822	20.501	3.582
2023-06-25 19:15	1566903	8.472	-147.829	270.34	20.545	460.576	455.835	0.245	0.296	10.599	20.545	3.825
2023-06-25 19:30	1567803	8.476	-148.032	273.682	20.529	460.017	455.42	0.245	0.296	11.149	20.529	3.937
2023-06-25 19:45	1568703	8.487	-148.68	275.881	20.585	460.697	455.602	0.245	0.296	11.069	20.585	3.486
2023-06-25 20:00	1569603	8.485	-148.611	269.384	20.687	461.563	455.588	0.245	0.296	10.818	20.687	3.477
2023-06-25 20:15	1570503	8.511	-150.046	272.085	20.669	459.648	453.846	0.244	0.295	11.467	20.669	3.673
2023-06-25 20:30	1571403	8.550	-152.144	270.626	20.706	460.887	454.757	0.245	0.296	11.387	20.706	3.8
2023-06-25 20:45	1572303	8.503	-149.651	270.693	20.764	461.654	455.018	0.245	0.296	11.071	20.764	3.705
2023-06-25 21:00	1573203	8.506	-149.827	267.913	20.83	466.665	459.385	0.247	0.299	10.936	20.83	5.415
2023-06-25 21:15	1574103	8.475	-148.182	271.668	20.877	464.451	456.799	0.246	0.297	10.748	20.877	4.618
2023-06-25 21:30	1575003	8.474	-148.156	272.974	20.91	464.96	457.021	0.246	0.297	10.864	20.91	3.773
2023-06-25 21:45	1575903	8.479	-148.392	272.505	20.927	465.383	457.284	0.246	0.297	10.529	20.927	3.707
2023-06-25 22:00	1576803	8.475	-148.191	266.761	20.904	464.324	456.444	0.245	0.297	10.428	20.904	4.027
2023-06-25 22:15	1577703	8.449	-146.699	275.554	20.755	461.06	454.507	0.244	0.295	10.926	20.755	4.172
2023-06-25 22:30	1578603	8.491	-148.966	278.243	20.779	462.638	455.855	0.245	0.296	10.890	20.779	4.025
2023-06-25 22:45	1579503	8.470	-147.858	278.21	20.811	463.715	456.643	0.246	0.297	10.635	20.811	3.887
2023-06-25 23:00	1580403	8.448	-146.687	274.431	20.89	465.034	457.261	0.246	0.297	10.320	20.89	3.541
2023-06-25 23:15	1581303	8.430	-145.748	276.744	20.908	465.757	457.816	0.246	0.298	10.153	20.908	3.838
2023-06-25 23:30	1582203	8.417	-145.035	276.777	20.941	466.466	458.233	0.246	0.298	9.842	20.941	3.717
2023-06-25 23:45	1583103	8.398	-143.993	275.783	20.948	466.769	458.471	0.247	0.298	9.663	20.948	3.65
2023-06-26 00:00	1584003	8.397	-143.938	269.746	20.944	466.331	458.071	0.246	0.298	9.746	20.944	3.788
2023-06-26 00:15	1584903	8.386	-143.349	276.217	20.91	465.555	457.603	0.246	0.297	9.561	20.91	3.893
2023-06-26 00:30	1585803	8.373	-142.641	278.506	20.921	466.352	458.288	0.246	0.298	9.566	20.921	3.987
2023-06-26 00:45	1586703	8.359	-141.866	280.525	20.924	466.449	458.358	0.247	0.298	9.448	20.924	3.8
2023-06-26 01:00	1587603	8.366	-142.229	273.048	20.935	466.837	458.648	0.247	0.298	9.326	20.935	3.89
2023-06-26 01:15	1588503	8.348	-141.237	280.365	20.92	467.208	459.14	0.247	0.298	9.044	20.92	3.834
2023-06-26 01:30	1589403	8.344	-141.032	283.972	20.915	467.287	459.264	0.247	0.299	9.047	20.915	3.78
2023-06-26 01:45	1590303	8.335	-140.538	286.822	20.903	467.258	459.337	0.247	0.299	8.936	20.903	3.784
2023-06-26 02:00	1591203	8.295	-138.369	285.362	20.88	467.606	459.877	0.247	0.299	8.359	20.88	3.886
2023-06-26 02:15	1592103	8.298	-138.485	287.387	20.826	468.833	461.547	0.248	0.300	8.150	20.826	3.671
2023-06-26 02:30	1593003	8.287	-137.851	289.211	20.783	468.515	461.608	0.248	0.300	7.808	20.783	4.491
2023-06-26 02:45	1593903	8.295	-138.304	290.426	20.762	469.008	462.278	0.249	0.300	7.520	20.762	4.035
2023-06-26 03:00	1594803	8.232	-134.807	289.833	20.668	467.69	461.797	0.249	0.300	7.620	20.668	4.144
2023-06-26 03:15	1595703	8.187	-132.377	294.029	20.652	467.704	461.948	0.249	0.300	7.519	20.652	4.348
2023-06-26 03:30	1596603	8.203	-133.255	295.541	20.648	467.351	461.638	0.248	0.300	8.611	20.648	4.006
2023-06-26 03:45	1597503	8.245	-135.508	294.563	20.586	466.176	461.015	0.248	0.300	8.681	20.586	4.947
2023-06-26 04:00	1598403	8.349	-141.156	287.642	20.556	465.182	460.291	0.248	0.299	8.667	20.556	4.302
2023-06-26 04:15	1599303	8.332	-140.178	292.42	20.505	464.852	460.413	0.248	0.299	8.557	20.505	4.238
2023-06-26 04:30	1600203	8.328	-139.956	293.512	20.462	464.046	459.99	0.248	0.299	8.664	20.462	4.061
2023-06-26 04:45	1601103	8.360	-141.668	292.992	20.413	463.36	459.729	0.248	0.299	8.838	20.413	4.269
2023-06-26 05:00	1602003	8.397	-143.645	288.476	20.378	463.369	460.051	0.248	0.299	9.022	20.378	4.082
2023-06-26 05:15	1602903	8.397	-143.661	289.811	20.353	463.166	460.067	0.248	0.299	9.008	20.353	3.867
2023-06-26 05:30	1603803	8.396	-143.571	293.524	20.3	462.797	460.162	0.248	0.299	8.912	20.3	3.731
2023-06-26 05:45	1604703	8.399	-143.735	293.886	20.252	462.096	459.881	0.248	0.299	8.978	20.252	4.024
2023-06-26 06:00	1605603	8.424	-145.035	288.44	20.194	461.203	459.504	0.247	0.299	9.079	20.194	3.751
2023-06-26 06:15	1606503	8.444	-146.089	290.524	20.14	460.11	458.884	0.247	0.298	9.355	20.14	3.803
2023-06-26 06:30	1607403	8.427	-145.185	293.178	20.104	459.877	458.965	0.247	0.298	9.157	20.104	3.827
2023-06-26 06:45	1608303	8.418	-144.634	295.159	20.056	459.482	458.993	0.247	0.298	9.035	20.056	3.941
2023-06-26 07:00	1609203	8.431	-145.371	286.895	20.04	459.633	459.281	0.247	0.299	9.003	20.04	4.011
2023-06-26 07:15	1610103	8.405	-143.926	292.618	20.003	459.577	459.553	0.248	0.299	9.080	20.003	3.843
2023-06-26 07:30	1611003	8.424	-144.918	293.7	19.981	458.807	458.972	0.247	0.298	9.371	19.981	3.784
2023-06-26 07:45	1611903	8.429	-145.209	294.623	19.952	458.694	459.119	0.247	0.298	9.171	19.952	3.805

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-26 08:00	1612803	8.433	-145.407	288.984	19.909	457.952	458.751	0.247	0.298	9.263	19.909	3.814
2023-06-26 08:15	1613703	8.443	-145.912	291.938	19.882	457.312	458.348	0.247	0.298	9.274	19.882	3.726
2023-06-26 08:30	1614603	8.436	-145.547	292.958	19.867	457.369	458.537	0.247	0.298	9.185	19.867	3.706
2023-06-26 08:45	1615503	8.430	-145.221	293.395	19.847	456.777	458.12	0.247	0.298	9.335	19.847	3.756
2023-06-26 09:00	1616403	8.459	-146.759	287.339	19.842	457.168	458.552	0.247	0.298	9.384	19.842	3.641
2023-06-26 09:15	1617303	8.432	-145.314	290.353	19.837	457.412	458.839	0.247	0.298	9.214	19.837	3.959
2023-06-26 09:30	1618203	8.437	-145.569	289.721	19.819	457.057	458.644	0.247	0.298	9.543	19.819	4
2023-06-26 09:45	1619103	8.434	-145.431	290.894	19.813	456.95	458.585	0.247	0.298	9.522	19.813	4.039
2023-06-26 10:00	1620003	8.454	-146.477	285.784	19.808	456.745	458.426	0.247	0.298	9.492	19.808	3.805
2023-06-26 10:15	1620903	8.446	-146.065	288.984	19.81	456.582	458.248	0.247	0.298	9.338	19.81	3.72
2023-06-26 10:30	1621803	8.408	-143.971	291.433	19.824	456.897	458.438	0.247	0.298	9.222	19.824	3.835
2023-06-26 10:45	1622703	8.448	-146.172	291.318	19.834	456.866	458.323	0.247	0.298	9.077	19.834	3.505
2023-06-26 11:00	1623603	8.468	-147.29	273.272	19.838	457.304	458.723	0.247	0.298	9.550	19.838	3.651
2023-06-26 11:15	1624503	8.453	-146.468	281.939	19.835	457.35	458.795	0.247	0.298	9.673	19.835	3.647
2023-06-26 11:30	1625403	8.475	-147.636	285.93	19.852	457.4	458.693	0.247	0.298	9.684	19.852	3.678
2023-06-26 11:45	1626303	8.488	-148.396	287.682	19.879	457.79	458.847	0.247	0.298	9.636	19.879	3.821
2023-06-26 12:00	1627203	8.487	-148.32	282.032	19.925	457.973	458.629	0.247	0.298	9.601	19.925	3.76
2023-06-26 12:15	1628103	8.513	-149.758	282.726	19.966	458.441	458.741	0.247	0.298	9.801	19.966	3.591
2023-06-26 12:30	1629003	8.518	-150.07	282.664	20.02	459.167	458.992	0.247	0.298	9.535	20.02	3.521
2023-06-26 12:45	1629903	8.518	-150.085	280.887	20.084	459.795	459.056	0.247	0.298	9.573	20.084	3.396
2023-06-26 13:00	1630803	8.508	-149.61	276.243	20.163	460.714	459.284	0.247	0.299	9.599	20.163	3.303
2023-06-26 13:15	1631703	8.513	-149.922	277.681	20.227	461.264	459.269	0.247	0.299	9.709	20.227	3.844
2023-06-26 13:30	1632603	8.511	-149.848	277.163	20.343	462.487	459.476	0.247	0.299	9.796	20.343	3.535
2023-06-26 13:45	1633503	8.503	-149.51	276.908	20.476	463.627	459.45	0.247	0.299	9.892	20.476	3.857
2023-06-26 14:00	1634403	8.554	-152.507	267.224	20.915	468.295	460.256	0.248	0.299	10.446	20.915	3.942
2023-06-26 14:15	1635303	8.539	-152.249	246.493	22.078	484.202	465.719	0.250	0.303	9.949	22.078	3.998
2023-06-26 14:30	1636203	8.512	-150.888	246.412	22.209	484.676	465.051	0.250	0.302	9.832	22.209	4.005
2023-06-26 14:45	1637103	8.497	-149.722	252.158	21.625	472.481	458.262	0.246	0.298	9.851	21.625	4.125
2023-06-26 15:00	1638003	8.660	-158.339	252.089	21.04	465.466	456.396	0.245	0.297	12.197	21.04	4.09
2023-06-26 15:15	1638903	8.647	-157.528	262.851	20.839	464.238	456.912	0.246	0.297	11.752	20.839	3.962
2023-06-26 15:30	1639803	8.628	-156.596	264.191	21.085	466.961	457.481	0.246	0.297	11.824	21.085	3.726
2023-06-26 15:45	1640703	8.604	-155.296	270.066	21.009	464.867	456.08	0.245	0.296	12.284	21.009	3.933
2023-06-26 16:00	1641603	8.648	-157.712	262.198	21.048	464.645	455.531	0.245	0.296	12.072	21.048	3.914
2023-06-26 16:15	1642503	8.600	-155.17	266.132	21.208	466.801	456.272	0.245	0.297	11.883	21.208	3.52
2023-06-26 16:30	1643403	8.664	-158.572	270.895	21.018	463.823	454.976	0.245	0.296	12.259	21.018	4.007
2023-06-26 16:45	1644303	8.694	-160.122	273.554	20.935	461.95	453.844	0.244	0.295	12.267	20.935	3.661
2023-06-26 17:00	1645203	8.674	-159.085	271.384	20.997	463.757	455.092	0.245	0.296	12.591	20.997	3.801
2023-06-26 17:15	1646103	8.681	-159.497	267.705	21.013	464.305	455.489	0.245	0.296	12.244	21.013	3.801
2023-06-26 17:30	1647003	8.635	-157.042	267.832	21.115	465.697	455.985	0.245	0.296	12.265	21.115	3.565
2023-06-26 17:45	1647903	8.666	-158.789	266.563	21.24	466.73	455.934	0.245	0.296	12.265	21.24	3.481
2023-06-26 18:00	1648803	8.696	-160.503	247.945	21.413	466.679	454.414	0.244	0.295	12.485	21.413	3.722
2023-06-26 18:15	1649703	8.660	-158.553	254.747	21.445	466.639	454.104	0.244	0.295	12.665	21.445	3.732
2023-06-26 18:30	1650603	8.679	-159.566	254.571	21.396	465.532	453.446	0.244	0.295	12.947	21.396	3.796
2023-06-26 18:45	1651503	8.651	-157.895	264.632	21.135	463.221	453.394	0.244	0.295	13.066	21.135	4.247
2023-06-26 19:00	1652403	8.694	-160.313	258.211	21.241	464.753	453.989	0.244	0.295	13.180	21.241	3.713
2023-06-26 19:15	1653303	8.681	-159.607	262.665	21.252	465.376	454.504	0.244	0.295	13.075	21.252	3.84
2023-06-26 19:30	1654203	8.678	-159.457	264.532	21.265	465.997	455.002	0.245	0.296	12.781	21.265	3.809
2023-06-26 19:45	1655103	8.700	-160.594	265.564	21.178	464.935	454.706	0.244	0.296	12.701	21.178	3.932
2023-06-26 20:00	1656003	8.644	-157.437	266.859	20.967	463.768	455.358	0.245	0.296	11.956	20.967	4.505
2023-06-26 20:15	1656903	8.665	-158.522	269.787	20.859	461.845	454.394	0.244	0.295	12.165	20.859	3.855
2023-06-26 20:30	1657803	8.646	-157.456	271.246	20.807	461.556	454.553	0.244	0.295	12.003	20.807	4.092
2023-06-26 20:45	1658703	8.636	-156.913	271.62	20.779	462.917	456.13	0.245	0.296	11.934	20.779	3.714
2023-06-26 21:00	1659603	8.624	-156.229	267.71	20.796	463.831	456.889	0.246	0.297	11.171	20.796	3.649
2023-06-26 21:15	1660503	8.599	-154.881	273.849	20.813	463.605	456.513	0.246	0.297	11.201	20.813	3.654
2023-06-26 21:30	1661403	8.602	-155.084	273.871	20.835	463.49	456.217	0.245	0.297	11.324	20.835	3.462
2023-06-26 21:45	1662303	8.593	-154.603	275.511	20.864	464.202	456.669	0.246	0.297	11.380	20.864	3.412

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-26 22:00	1663203	8.590	-154.459	270.688	20.895	464.265	456.462	0.245	0.297	11.317	20.895	3.451
2023-06-26 22:15	1664103	8.593	-154.605	271.355	20.919	464.076	456.066	0.245	0.296	11.341	20.919	3.522
2023-06-26 22:30	1665003	8.618	-156	269.679	20.974	464.642	456.16	0.245	0.297	11.313	20.974	3.447
2023-06-26 22:45	1665903	8.591	-154.557	258.583	20.994	464.905	456.242	0.245	0.297	11.355	20.994	3.591
2023-06-26 23:00	1666803	8.610	-155.623	256.883	21.017	465.031	456.174	0.245	0.297	11.260	21.017	3.668
2023-06-26 23:15	1667703	8.605	-155.356	258.85	21.023	465.397	456.475	0.245	0.297	11.200	21.023	3.817
2023-06-26 23:30	1668603	8.585	-154.243	261.001	21.027	465.69	456.73	0.246	0.297	11.123	21.027	3.778
2023-06-26 23:45	1669503	8.577	-153.787	262.574	21.036	465.769	456.727	0.246	0.297	11.035	21.036	3.649
2023-06-27 00:00	1670403	8.575	-153.68	261.513	21.024	465.504	456.576	0.245	0.297	10.980	21.024	3.749
2023-06-27 00:15	1671303	8.562	-152.965	266.368	20.999	465.42	456.702	0.246	0.297	10.974	20.999	3.647
2023-06-27 00:30	1672203	8.559	-152.781	268.23	20.985	465.555	456.958	0.246	0.297	10.939	20.985	3.629
2023-06-27 00:45	1673103	8.553	-152.457	270.545	20.976	465.73	457.21	0.246	0.297	10.902	20.976	3.582
2023-06-27 01:00	1674003	8.561	-152.91	268.072	20.99	466.027	457.377	0.246	0.297	10.799	20.99	3.537
2023-06-27 01:15	1674903	8.552	-152.414	271.324	20.999	466.417	457.682	0.246	0.297	10.687	20.999	3.557
2023-06-27 01:30	1675803	8.546	-152.085	273.475	21.016	466.687	457.807	0.246	0.298	10.571	21.016	3.467
2023-06-27 01:45	1676703	8.529	-151.193	274.562	21.036	466.957	457.894	0.246	0.298	10.455	21.036	3.467
2023-06-27 02:00	1677603	8.527	-151.093	268.28	21.076	466.959	457.552	0.246	0.297	10.485	21.076	5.689
2023-06-27 02:15	1678503	8.524	-150.94	256.895	21.083	467.31	457.837	0.246	0.298	10.617	21.083	3.857
2023-06-27 02:30	1679403	8.527	-151.098	262.329	21.09	468.236	458.685	0.247	0.298	10.351	21.09	3.924
2023-06-27 02:45	1680303	8.520	-150.731	256.838	21.098	469.628	459.982	0.247	0.299	9.959	21.098	3.835
2023-06-27 03:00	1681203	8.513	-150.344	260.843	21.119	469.568	459.743	0.247	0.299	9.992	21.119	3.838
2023-06-27 03:15	1682103	8.405	-144.439	266.947	21.088	469.554	459.996	0.247	0.299	9.772	21.088	4.08
2023-06-27 03:30	1683003	8.427	-145.638	273.065	21.065	469.492	460.13	0.247	0.299	9.818	21.065	3.796
2023-06-27 03:45	1683903	8.445	-146.594	274.605	21.035	469.023	459.932	0.247	0.299	9.985	21.035	3.984
2023-06-27 04:00	1684803	8.448	-146.742	275.764	20.997	468.678	459.918	0.247	0.299	9.923	20.997	4.138
2023-06-27 04:15	1685703	8.435	-146.053	280.036	20.958	469.287	460.856	0.248	0.300	9.671	20.958	4.288
2023-06-27 04:30	1686603	8.440	-146.277	282.611	20.909	469.101	461.1	0.248	0.300	9.515	20.909	4.584
2023-06-27 04:45	1687503	8.415	-144.885	284.995	20.815	468.959	461.773	0.248	0.300	9.099	20.815	7.183
2023-06-27 05:00	1688403	8.433	-145.876	278.987	20.821	469.8	462.542	0.249	0.301	9.012	20.821	5.457
2023-06-27 05:15	1689303	8.403	-144.179	283.679	20.77	469.525	462.719	0.249	0.301	8.890	20.77	5.597
2023-06-27 05:30	1690203	8.390	-143.483	283.093	20.738	469.394	462.867	0.249	0.301	8.996	20.738	4.83
2023-06-27 05:45	1691103	8.422	-145.206	287.58	20.687	468.692	462.625	0.249	0.301	9.192	20.687	4.855
2023-06-27 06:00	1692003	8.473	-147.908	282.649	20.63	467.316	461.762	0.249	0.300	9.306	20.63	6.874
2023-06-27 06:15	1692903	8.443	-146.282	285.002	20.571	467.356	462.316	0.249	0.301	8.916	20.571	5.208
2023-06-27 06:30	1693803	8.426	-145.307	287.909	20.526	466.64	462.001	0.249	0.300	8.971	20.526	5.037
2023-06-27 06:45	1694703	8.422	-145.066	289.964	20.481	466.569	462.32	0.249	0.301	8.743	20.481	4.788
2023-06-27 07:00	1695603	8.436	-145.8	287.327	20.437	466.239	462.376	0.249	0.301	8.877	20.437	4.904
2023-06-27 07:15	1696503	8.426	-145.268	286.664	20.415	465.986	462.32	0.249	0.301	8.953	20.415	4.232
2023-06-27 07:30	1697403	8.435	-145.731	289.816	20.373	465.219	461.925	0.249	0.300	9.151	20.373	4.092
2023-06-27 07:45	1698303	8.436	-145.791	289.63	20.342	464.749	461.736	0.249	0.300	9.264	20.342	4.267
2023-06-27 08:00	1699203	8.445	-146.265	284.168	20.302	464.295	461.634	0.249	0.300	8.975	20.302	3.957
2023-06-27 08:15	1700103	8.425	-145.14	287.322	20.273	463.25	460.848	0.248	0.300	9.098	20.273	3.916
2023-06-27 08:30	1701003	8.435	-145.698	287.83	20.261	463.26	460.963	0.248	0.300	9.124	20.261	4.004
2023-06-27 08:45	1701903	8.433	-145.559	289.516	20.245	463.214	461.056	0.248	0.300	9.037	20.245	3.776
2023-06-27 09:00	1702803	8.463	-147.195	285.072	20.247	463.289	461.116	0.248	0.300	9.294	20.247	4.191
2023-06-27 09:15	1703703	8.438	-145.814	287.763	20.247	463.786	461.606	0.249	0.300	9.026	20.247	3.873
2023-06-27 09:30	1704603	8.430	-145.426	288.173	20.247	463.593	461.417	0.249	0.300	9.408	20.247	3.896
2023-06-27 09:45	1705503	8.445	-146.203	287.78	20.258	463.688	461.418	0.249	0.300	9.343	20.258	3.77
2023-06-27 10:00	1706403	8.453	-146.668	282.919	20.265	463.233	460.898	0.248	0.300	9.249	20.265	3.603
2023-06-27 10:15	1707303	8.441	-145.988	285.811	20.254	462.372	460.139	0.248	0.299	9.029	20.254	4.042
2023-06-27 10:30	1708203	8.425	-145.125	287.096	20.269	462.509	460.146	0.248	0.299	8.979	20.269	3.797
2023-06-27 10:45	1709103	8.396	-143.535	290.722	20.263	462.343	460.036	0.248	0.299	9.312	20.263	3.774
2023-06-27 11:00	1710003	8.471	-147.619	283.906	20.275	463.072	460.651	0.248	0.299	9.531	20.275	3.764
2023-06-27 11:15	1710903	8.467	-147.448	284.678	20.284	463.398	460.894	0.248	0.300	9.408	20.284	3.667
2023-06-27 11:30	1711803	8.460	-147.078	286.197	20.299	463.733	461.1	0.248	0.300	9.359	20.299	3.711
2023-06-27 11:45	1712703	8.464	-147.285	285.355	20.322	464.191	461.356	0.248	0.300	9.255	20.322	3.45

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-27 12:00	1713603	8.462	-147.181	282.265	20.352	464.299	461.195	0.248	0.300	9.183	20.352	3.419
2023-06-27 12:15	1714503	8.461	-147.135	283.832	20.381	464.687	461.327	0.248	0.300	9.048	20.381	3.732
2023-06-27 12:30	1715403	8.457	-146.942	281.703	20.443	465.19	461.284	0.248	0.300	9.080	20.443	3.392
2023-06-27 12:45	1716303	8.461	-147.226	279.19	20.513	465.644	461.126	0.248	0.300	9.251	20.513	3.54
2023-06-27 13:00	1717203	8.485	-148.59	276.925	20.613	466.377	460.981	0.248	0.300	9.357	20.613	7.155
2023-06-27 13:15	1718103	8.449	-146.67	276.527	20.689	467.27	461.199	0.248	0.300	9.423	20.689	3.689
2023-06-27 13:30	1719003	8.481	-148.435	275.394	20.738	467.626	461.125	0.248	0.300	10.171	20.738	3.61
2023-06-27 13:45	1719903	8.495	-149.19	277.247	20.738	467.181	460.687	0.248	0.299	10.458	20.738	3.665
2023-06-27 14:00	1720803	8.543	-151.811	269.338	20.76	466.292	459.617	0.247	0.299	10.419	20.76	3.698
2023-06-27 14:15	1721703	8.539	-151.587	273.787	20.789	466.83	459.904	0.247	0.299	10.355	20.789	3.625
2023-06-27 14:30	1722603	8.537	-151.52	273.425	20.833	467.177	459.863	0.247	0.299	10.302	20.833	3.603
2023-06-27 14:45	1723503	8.530	-151.162	274.021	20.895	467.633	459.776	0.247	0.299	10.338	20.895	3.71
2023-06-27 15:00	1724403	8.551	-152.328	273.089	20.912	468.53	460.505	0.248	0.299	10.470	20.912	3.73
2023-06-27 15:15	1725303	8.533	-151.336	275.892	20.937	469.392	461.139	0.248	0.300	10.135	20.937	3.644
2023-06-27 15:30	1726203	8.522	-150.771	276.76	20.976	470.142	461.539	0.248	0.300	10.116	20.976	3.643
2023-06-27 15:45	1727103	8.523	-150.878	276.66	21.016	470.628	461.671	0.248	0.300	10.049	21.016	3.433
2023-06-27 16:00	1728003	8.526	-151.026	276.269	21.036	470.98	461.84	0.248	0.300	9.872	21.036	3.872
2023-06-27 16:15	1728903	8.535	-151.548	276.338	21.057	471.452	462.118	0.249	0.300	9.874	21.057	4.574
2023-06-27 16:30	1729803	8.544	-152.02	275.223	21.099	471.74	462.042	0.248	0.300	9.910	21.099	3.439
2023-06-27 16:45	1730703	8.531	-151.346	275.59	21.127	471.778	461.834	0.248	0.300	9.880	21.127	3.7
2023-06-27 17:00	1731603	8.539	-151.818	273.139	21.187	472.729	462.252	0.249	0.300	10.075	21.187	3.602
2023-06-27 17:15	1732503	8.528	-151.25	274.55	21.204	473.106	462.475	0.249	0.301	9.940	21.204	3.709
2023-06-27 17:30	1733403	8.519	-150.762	276.038	21.224	473.863	463.037	0.249	0.301	9.794	21.224	3.555
2023-06-27 17:45	1734303	8.226	-134.78	292.045	21.244	474.198	463.194	0.249	0.301	9.651	21.244	3.707
2023-06-27 18:00	1735203	8.412	-144.897	279.187	21.24	473.808	462.845	0.249	0.301	9.582	21.24	3.739
2023-06-27 18:15	1736103	8.424	-145.555	281.815	21.228	472.744	461.907	0.248	0.300	9.574	21.228	3.667
2023-06-27 18:30	1737003	8.433	-146.077	282.046	21.24	472.98	462.035	0.248	0.300	9.552	21.24	3.52
2023-06-27 18:45	1737903	8.445	-146.711	280.48	21.26	473.652	462.521	0.249	0.301	9.634	21.26	3.497
2023-06-27 19:00	1738803	8.458	-147.474	278.334	21.291	474.285	462.87	0.249	0.301	9.651	21.291	3.698
2023-06-27 19:15	1739703	8.464	-147.789	278.122	21.336	474.846	463.029	0.249	0.301	9.695	21.336	3.468
2023-06-27 19:30	1740603	8.495	-149.498	273.849	21.378	474.588	462.419	0.249	0.301	9.791	21.378	3.756
2023-06-27 19:45	1741503	8.508	-150.065	273.465	21.047	468.625	459.434	0.247	0.299	10.424	21.047	4.152
2023-06-27 20:00	1742403	8.475	-148.225	275.38	21.006	469.871	461.013	0.248	0.300	9.774	21.006	4.281
2023-06-27 20:15	1743303	8.456	-147.192	281.133	21.024	471.534	462.485	0.249	0.301	9.882	21.024	3.983
2023-06-27 20:30	1744203	8.424	-145.54	281.154	21.139	473.202	463.128	0.249	0.301	9.797	21.139	4.463
2023-06-27 20:45	1745103	8.447	-146.787	282.194	21.193	472.558	462.029	0.248	0.300	9.823	21.193	4.425
2023-06-27 21:00	1746003	8.476	-148.349	273.215	21.165	472.593	462.309	0.249	0.301	9.793	21.165	4.597
2023-06-27 21:15	1746903	8.445	-146.689	274.667	21.171	473.149	462.799	0.249	0.301	9.851	21.171	4.15
2023-06-27 21:30	1747803	8.352	-141.625	284.945	21.261	474.649	463.482	0.249	0.301	9.945	21.261	3.865
2023-06-27 21:45	1748703	8.403	-144.472	281.197	21.294	474.421	462.982	0.249	0.301	9.938	21.294	4.049
2023-06-27 22:00	1749603	8.428	-145.836	279.476	21.309	474.492	462.914	0.249	0.301	9.867	21.309	4.211
2023-06-27 22:15	1750503	8.432	-145.955	286.04	21.191	473.053	462.53	0.249	0.301	9.989	21.191	3.817
2023-06-27 22:30	1751403	8.466	-147.815	279.636	21.206	473.013	462.367	0.249	0.301	9.880	21.206	3.857
2023-06-27 22:45	1752303	8.448	-146.813	283.274	21.088	471.458	461.862	0.248	0.300	9.818	21.088	4.07
2023-06-27 23:00	1753203	8.451	-147.007	281.841	21.138	472.286	462.24	0.249	0.300	9.971	21.138	4.01
2023-06-27 23:15	1754103	8.476	-148.365	283.944	21.14	472.213	462.154	0.249	0.300	10.198	21.14	4.097
2023-06-27 23:30	1755003	8.466	-147.793	285.625	21.133	472.27	462.271	0.249	0.300	10.013	21.133	3.901
2023-06-27 23:45	1755903	8.465	-147.758	286.214	21.137	473.02	462.962	0.249	0.301	9.900	21.137	3.855
2023-06-28 00:00	1756803	8.464	-147.71	282.265	21.166	472.821	462.518	0.249	0.301	9.867	21.166	4.269
2023-06-28 00:15	1757703	8.455	-147.231	284.545	21.196	473.409	462.839	0.249	0.301	9.891	21.196	3.946
2023-06-28 00:30	1758603	8.468	-147.982	285.637	21.22	473.639	462.851	0.249	0.301	9.860	21.22	3.74
2023-06-28 00:45	1759503	8.457	-147.362	285.148	21.244	474.768	463.747	0.249	0.301	9.816	21.244	3.8
2023-06-28 01:00	1760403	8.472	-148.222	281.517	21.258	475.195	464.047	0.250	0.302	9.791	21.258	3.888
2023-06-28 01:15	1761303	8.463	-147.715	283.825	21.278	475.925	464.589	0.250	0.302	9.528	21.278	4.096
2023-06-28 01:30	1762203	8.454	-147.235	283.57	21.298	476.008	464.496	0.250	0.302	9.811	21.298	3.838
2023-06-28 01:45	1763103	8.459	-147.517	285.05	21.318	476.491	464.787	0.250	0.302	9.599	21.318	3.86

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-28 02:00	1764003	8.472	-148.215	281.159	21.321	477.118	465.376	0.250	0.302	9.615	21.321	3.775
2023-06-28 02:15	1764903	8.467	-147.943	282.761	21.308	477.559	465.917	0.251	0.303	9.569	21.308	3.944
2023-06-28 02:30	1765803	8.476	-148.418	280.577	21.267	477.242	465.967	0.251	0.303	9.583	21.267	3.954
2023-06-28 02:45	1766703	8.390	-143.712	284.64	21.204	476.072	465.37	0.250	0.302	9.725	21.204	16.924
2023-06-28 03:00	1767603	8.425	-145.557	281.698	21.159	476.551	466.233	0.251	0.303	9.359	21.159	3.891
2023-06-28 03:15	1768503	8.421	-145.361	281.548	21.113	476.286	466.368	0.251	0.303	9.359	21.113	3.704
2023-06-28 03:30	1769403	8.431	-145.876	282.22	21.06	475.611	466.17	0.251	0.303	9.775	21.06	4.384
2023-06-28 03:45	1770303	8.453	-147.021	282.623	21.002	474.915	466	0.251	0.303	9.578	21.002	3.793
2023-06-28 04:00	1771203	8.465	-147.631	278.706	20.939	474.167	465.815	0.251	0.303	9.362	20.939	3.845
2023-06-28 04:15	1772103	8.447	-146.616	283.987	20.864	474.446	466.742	0.251	0.303	9.327	20.864	4.354
2023-06-28 04:30	1773003	8.446	-146.561	285.398	20.822	472.705	465.402	0.250	0.303	9.303	20.822	3.949
2023-06-28 04:45	1773903	8.461	-147.347	286.829	20.761	471.851	465.093	0.250	0.302	9.448	20.761	4.036
2023-06-28 05:00	1774803	8.465	-147.557	282.125	20.712	471.481	465.153	0.250	0.302	9.392	20.712	3.974
2023-06-28 05:15	1775703	8.437	-146.017	285.672	20.681	471.431	465.379	0.251	0.302	9.301	20.681	4.01
2023-06-28 05:30	1776603	8.430	-145.588	287.604	20.626	470.784	465.224	0.250	0.302	9.129	20.626	3.73
2023-06-28 05:45	1777503	8.436	-145.903	288.698	20.576	470.2	465.084	0.250	0.302	9.081	20.576	4.074
2023-06-28 06:00	1778403	8.436	-145.879	287.904	20.511	468.934	464.401	0.250	0.302	9.071	20.511	3.987
2023-06-28 06:15	1779303	8.427	-145.361	289.921	20.459	467.616	463.553	0.250	0.301	9.111	20.459	14.315
2023-06-28 06:30	1780203	8.433	-145.638	289.132	20.407	467.165	463.563	0.250	0.301	9.165	20.407	36.858
2023-06-28 06:45	1781103	8.423	-145.073	291.142	20.371	465.668	462.392	0.249	0.301	9.127	20.371	4.206
2023-06-28 07:00	1782003	8.444	-146.205	281.39	20.345	467.069	464.014	0.250	0.302	9.121	20.345	4.81
2023-06-28 07:15	1782903	8.426	-145.247	286.18	20.32	467.194	464.352	0.250	0.302	9.047	20.32	4
2023-06-28 07:30	1783803	8.423	-145.025	288.541	20.29	466.642	464.068	0.250	0.302	9.063	20.29	3.847
2023-06-28 07:45	1784703	8.418	-144.773	290.434	20.268	466.324	463.953	0.250	0.302	9.087	20.268	3.877
2023-06-28 08:00	1785603	8.436	-145.719	283.908	20.242	465.657	463.518	0.250	0.301	9.138	20.242	3.934
2023-06-28 08:15	1786503	8.411	-144.331	290.295	20.206	465.052	463.227	0.250	0.301	9.249	20.206	3.907
2023-06-28 08:30	1787403	8.418	-144.694	291.688	20.178	464.484	462.912	0.249	0.301	9.221	20.178	3.898
2023-06-28 08:45	1788303	8.425	-145.085	290.355	20.16	464.339	462.926	0.249	0.301	9.158	20.16	3.892
2023-06-28 09:00	1789203	8.448	-146.329	286.938	20.161	464.783	463.357	0.250	0.301	9.145	20.161	4.065
2023-06-28 09:15	1790103	8.435	-145.624	288.917	20.158	464.988	463.591	0.250	0.301	9.233	20.158	3.759
2023-06-28 09:30	1791003	8.429	-145.292	289.268	20.155	464.96	463.592	0.250	0.301	9.216	20.155	3.73
2023-06-28 09:45	1791903	8.434	-145.564	290.825	20.155	465.331	463.956	0.250	0.302	9.253	20.155	3.712
2023-06-28 10:00	1792803	8.435	-145.65	287.196	20.163	464.734	463.289	0.250	0.301	8.939	20.163	3.68
2023-06-28 10:15	1793703	8.431	-145.397	289.473	20.169	464.934	463.436	0.250	0.301	9.343	20.169	3.814
2023-06-28 10:30	1794603	8.436	-145.674	288.929	20.173	464.621	463.09	0.249	0.301	9.397	20.173	3.628
2023-06-28 10:45	1795503	8.448	-146.327	286.693	20.178	464.6	463.029	0.249	0.301	9.338	20.178	3.746
2023-06-28 11:00	1796403	8.471	-147.626	282.11	20.2	465.204	463.432	0.250	0.301	9.286	20.2	3.558
2023-06-28 11:15	1797303	8.449	-146.41	282.73	20.229	466.096	464.066	0.250	0.302	9.293	20.229	3.689
2023-06-28 11:30	1798203	8.442	-146.081	282.017	20.277	466.823	464.369	0.250	0.302	9.391	20.277	3.672
2023-06-28 11:45	1799103	8.449	-146.465	281.276	20.336	467.539	464.558	0.250	0.302	9.522	20.336	3.614
2023-06-28 12:00	1800003	8.460	-147.142	277.492	20.41	467.909	464.27	0.250	0.302	9.551	20.41	3.666
2023-06-28 12:15	1800903	8.457	-146.966	276.925	20.451	467.598	463.603	0.250	0.301	9.952	20.451	3.549
2023-06-28 12:30	1801803	8.489	-148.723	274.815	20.498	467.923	463.515	0.250	0.301	9.947	20.498	3.618
2023-06-28 12:45	1802703	8.507	-149.767	274.433	20.543	468.435	463.622	0.250	0.301	9.999	20.543	3.627
2023-06-28 13:00	1803603	8.494	-149.064	272.078	20.59	469.071	463.848	0.250	0.302	10.117	20.59	3.528
2023-06-28 13:15	1804503	8.448	-146.592	274.841	20.653	470.785	464.986	0.250	0.302	10.396	20.653	3.579
2023-06-28 13:30	1805403	8.490	-148.897	274.4	20.732	471.752	465.247	0.250	0.302	9.634	20.732	3.692
2023-06-28 13:45	1806303	8.322	-139.792	285.78	20.803	472.841	465.694	0.251	0.303	9.682	20.803	3.558
2023-06-28 14:00	1807203	8.398	-143.974	279.85	20.885	473.461	465.594	0.251	0.303	9.714	20.885	3.717
2023-06-28 14:15	1808103	8.405	-144.41	280.267	20.944	473.611	465.222	0.250	0.302	10.197	20.944	3.858
2023-06-28 14:30	1809003	8.421	-145.285	278.758	21.009	474.081	465.12	0.250	0.302	10.344	21.009	3.729
2023-06-28 14:45	1809903	8.454	-147.14	276.77	21.082	475.55	465.923	0.251	0.303	10.044	21.082	3.706
2023-06-28 15:00	1810803	8.506	-150.027	269.109	21.177	475.376	464.926	0.250	0.302	10.421	21.177	3.957
2023-06-28 15:15	1811703	8.503	-149.915	269.353	21.292	477.208	465.716	0.250	0.303	10.434	21.292	3.678
2023-06-28 15:30	1812603	8.503	-149.951	268.826	21.353	476.904	464.888	0.250	0.302	11.611	21.353	3.764
2023-06-28 15:45	1813503	8.541	-152.018	269.391	21.412	476.132	463.625	0.249	0.301	11.253	21.412	3.69

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-28 16:00	1814403	8.581	-154.352	266.225	21.634	476.455	462.037	0.248	0.300	11.533	21.634	4.07
2023-06-28 16:15	1815303	8.636	-157.292	258.292	21.536	474.839	461.304	0.248	0.300	12.501	21.536	3.765
2023-06-28 16:30	1816203	8.643	-157.712	261.332	21.551	475.871	462.177	0.248	0.300	11.892	21.551	3.729
2023-06-28 16:45	1817103	8.648	-158.002	261.587	21.593	475.881	461.83	0.248	0.300	12.031	21.593	3.768
2023-06-28 17:00	1818003	8.648	-157.988	259.208	21.652	476.797	462.21	0.248	0.300	11.903	21.652	3.711
2023-06-28 17:15	1818903	8.621	-156.534	260.653	21.692	477.638	462.685	0.249	0.301	11.818	21.692	3.644
2023-06-28 17:30	1819803	8.639	-157.659	253.269	21.869	480.203	463.648	0.249	0.301	11.901	21.869	3.812
2023-06-28 17:45	1820703	8.647	-158.136	251.466	21.956	481.017	463.691	0.249	0.301	12.023	21.956	3.79
2023-06-28 18:00	1821603	8.597	-155.475	252.418	22.104	482.456	463.821	0.249	0.301	11.836	22.104	3.682
2023-06-28 18:15	1822503	8.451	-147.595	251.45	22.319	483.203	462.708	0.248	0.301	11.617	22.319	3.881
2023-06-28 18:30	1823403	8.613	-156.35	248.57	22.16	478.979	460.002	0.247	0.299	12.955	22.16	4.03
2023-06-28 18:45	1824303	8.645	-158.119	254.523	22.175	482.818	463.565	0.249	0.301	12.640	22.175	3.835
2023-06-28 19:00	1825203	8.651	-158.484	250.348	22.263	482.184	462.205	0.248	0.300	12.537	22.263	3.951
2023-06-28 19:15	1826103	8.642	-158.041	253.617	22.275	482.562	462.463	0.248	0.301	12.463	22.275	3.828
2023-06-28 19:30	1827003	8.621	-156.801	259.773	22.139	480.961	462.08	0.248	0.300	12.880	22.139	3.853
2023-06-28 19:45	1827903	8.647	-158.167	259.127	22.078	480.134	461.804	0.248	0.300	12.718	22.078	3.926
2023-06-28 20:00	1828803	8.663	-159.047	255.784	22.063	479.781	461.589	0.248	0.300	12.621	22.063	3.942
2023-06-28 20:15	1829703	8.651	-158.372	261.053	21.993	479.845	462.252	0.248	0.300	12.346	21.993	3.892
2023-06-28 20:30	1830603	8.649	-158.141	264.644	21.786	477.961	462.197	0.248	0.300	12.392	21.786	3.905
2023-06-28 20:45	1831503	8.599	-155.258	267.896	21.536	477.247	463.641	0.249	0.301	11.266	21.536	3.977
2023-06-28 21:00	1832403	8.532	-151.546	267.784	21.444	478.147	465.315	0.250	0.302	10.478	21.444	4.598
2023-06-28 21:15	1833303	8.492	-149.267	276.639	21.232	476.074	465.127	0.250	0.302	10.166	21.232	4.243
2023-06-28 21:30	1834203	8.469	-147.922	283.858	21.061	474.363	464.941	0.250	0.302	10.088	21.061	4.031
2023-06-28 21:45	1835103	8.448	-146.687	286.473	20.861	471.721	464.093	0.250	0.302	9.832	20.861	4.552
2023-06-28 22:00	1836003	8.429	-145.581	285.331	20.709	469.063	462.795	0.249	0.301	9.697	20.709	4.024
2023-06-28 22:15	1836903	8.422	-145.19	288.55	20.719	469.488	463.131	0.249	0.301	9.514	20.719	3.75
2023-06-28 22:30	1837803	8.421	-145.147	288.223	20.756	470.63	463.932	0.250	0.302	9.477	20.756	4.292
2023-06-28 22:45	1838703	8.443	-146.453	287.689	20.99	474.571	465.767	0.251	0.303	9.512	20.99	4.004
2023-06-28 23:00	1839603	8.495	-149.46	278.768	21.225	477.112	466.205	0.251	0.303	9.755	21.225	3.843
2023-06-28 23:15	1840503	8.475	-148.38	276.729	21.261	477.77	466.529	0.251	0.303	9.788	21.261	3.731
2023-06-28 23:30	1841403	8.464	-147.743	275.938	21.281	478.105	466.688	0.251	0.303	9.744	21.281	3.932
2023-06-28 23:45	1842303	8.468	-147.96	278.184	21.262	478.204	466.946	0.251	0.304	9.757	21.262	3.79
2023-06-29 00:00	1843203	8.466	-147.862	276.3	21.235	477.711	466.704	0.251	0.303	9.599	21.235	3.651
2023-06-29 00:15	1844103	8.454	-147.178	280.184	21.197	477.675	466.997	0.251	0.304	9.332	21.197	3.762
2023-06-29 00:30	1845003	8.421	-145.364	281.905	21.169	477.474	467.049	0.251	0.304	9.335	21.169	3.647
2023-06-29 00:45	1845903	8.430	-145.845	283.474	21.161	477.987	467.617	0.252	0.304	9.102	21.161	3.756
2023-06-29 01:00	1846803	8.452	-147.052	280.647	21.14	477.44	467.266	0.251	0.304	9.431	21.14	3.881
2023-06-29 01:15	1847703	8.455	-147.214	280.027	21.153	477.952	467.651	0.252	0.304	9.415	21.153	3.58
2023-06-29 01:30	1848603	8.454	-147.169	282.575	21.212	478.947	468.113	0.252	0.304	9.474	21.212	4.481
2023-06-29 01:45	1849503	8.472	-148.177	280.697	21.247	479.55	468.39	0.252	0.304	9.534	21.247	3.725
2023-06-29 02:00	1850403	8.475	-148.342	273.928	21.271	479.782	468.414	0.252	0.304	9.453	21.271	3.633
2023-06-29 02:15	1851303	8.474	-148.294	270.886	21.278	479.737	468.302	0.252	0.304	9.433	21.278	3.584
2023-06-29 02:30	1852203	8.462	-147.679	274.624	21.279	479.693	468.256	0.252	0.304	9.455	21.279	3.699
2023-06-29 02:45	1853103	8.451	-147.078	277.814	21.27	479.908	468.544	0.252	0.305	9.323	21.27	3.498
2023-06-29 03:00	1854003	8.471	-148.139	277.309	21.261	479.936	468.647	0.252	0.305	9.333	21.261	7.063
2023-06-29 03:15	1854903	8.458	-147.436	278.351	21.249	480.179	468.987	0.252	0.305	9.167	21.249	3.808
2023-06-29 03:30	1855803	8.449	-146.93	282.146	21.236	480.188	469.114	0.252	0.305	9.041	21.236	5.754
2023-06-29 03:45	1856703	8.433	-146.024	284.65	21.211	480.023	469.174	0.252	0.305	8.996	21.211	3.692
2023-06-29 04:00	1857603	8.453	-147.133	281.452	21.194	479.371	468.684	0.252	0.305	9.062	21.194	5.918
2023-06-29 04:15	1858503	8.451	-147.014	283.598	21.16	478.649	468.275	0.252	0.304	9.195	21.16	3.738
2023-06-29 04:30	1859403	8.440	-146.382	283.193	21.128	477.978	467.901	0.252	0.304	9.184	21.128	3.687
2023-06-29 04:45	1860303	8.438	-146.279	282.804	21.096	477.554	467.766	0.252	0.304	9.053	21.096	3.767
2023-06-29 05:00	1861203	8.462	-147.583	279.636	21.085	478.344	468.633	0.252	0.305	9.250	21.085	3.763
2023-06-29 05:15	1862103	8.452	-147.03	282.537	21.061	478.149	468.653	0.252	0.305	9.362	21.061	3.666
2023-06-29 05:30	1863003	8.453	-147.023	284.18	21.041	478.029	468.706	0.252	0.305	9.288	21.041	3.931
2023-06-29 05:45	1863903	8.467	-147.777	285.305	21.019	477.893	468.772	0.252	0.305	9.204	21.019	3.591

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-29 06:00	1864803	8.459	-147.357	284.714	20.995	477.38	468.475	0.252	0.305	9.117	20.995	3.623
2023-06-29 06:15	1865703	8.429	-145.705	287.136	20.966	476.656	468.017	0.252	0.304	9.292	20.966	3.724
2023-06-29 06:30	1866603	8.441	-146.325	286.421	20.947	476.512	468.043	0.252	0.304	8.985	20.947	3.62
2023-06-29 06:45	1867503	8.438	-146.179	285.997	20.935	476.918	468.555	0.252	0.305	8.914	20.935	3.523
2023-06-29 07:00	1868403	8.438	-146.184	284.738	20.933	477.03	468.681	0.252	0.305	8.875	20.933	3.914
2023-06-29 07:15	1869303	8.427	-145.588	285.806	20.923	477.298	469.027	0.252	0.305	8.474	20.923	3.601
2023-06-29 07:30	1870203	8.416	-144.994	287.666	20.911	477.05	468.889	0.252	0.305	8.885	20.911	3.83
2023-06-29 07:45	1871103	8.428	-145.628	285.82	20.901	476.953	468.88	0.252	0.305	9.019	20.901	3.697
2023-06-29 08:00	1872003	8.440	-146.282	282.766	20.89	477.539	469.553	0.253	0.305	8.932	20.89	3.514
2023-06-29 08:15	1872903	8.430	-145.729	284.781	20.879	475.977	468.122	0.252	0.304	9.024	20.879	3.61
2023-06-29 08:30	1873803	8.438	-146.136	285.646	20.874	475.405	467.598	0.252	0.304	9.016	20.874	3.445
2023-06-29 08:45	1874703	8.448	-146.699	285.556	20.874	475.839	468.024	0.252	0.304	8.996	20.874	3.524
2023-06-29 09:00	1875603	8.466	-147.655	279.245	20.878	476.005	468.156	0.252	0.304	9.131	20.878	3.668
2023-06-29 09:15	1876503	8.458	-147.245	280.687	20.879	476.416	468.549	0.252	0.305	9.074	20.879	3.554
2023-06-29 09:30	1877403	8.421	-145.24	283.326	20.88	476.267	468.397	0.252	0.304	9.441	20.88	4.979
2023-06-29 09:45	1878303	8.471	-147.972	281.104	20.882	476.364	468.473	0.252	0.305	9.300	20.882	3.71
2023-06-29 10:00	1879203	8.473	-148.065	277.316	20.855	475.636	467.991	0.252	0.304	9.342	20.855	4.466
2023-06-29 10:15	1880103	8.474	-148.07	278.208	20.831	475.109	467.681	0.252	0.304	9.163	20.831	3.675
2023-06-29 10:30	1881003	8.423	-145.297	282.745	20.796	474.585	467.477	0.252	0.304	8.940	20.796	3.795
2023-06-29 10:45	1881903	8.442	-146.306	281.872	20.801	474.816	467.661	0.252	0.304	9.129	20.801	3.707
2023-06-29 11:00	1882803	8.484	-148.594	271.591	20.803	475.178	468.003	0.252	0.304	9.219	20.803	3.726
2023-06-29 11:15	1883703	8.484	-148.628	274.114	20.798	475.229	468.098	0.252	0.304	9.318	20.798	3.67
2023-06-29 11:30	1884603	8.482	-148.504	274.7	20.806	475.232	468.025	0.252	0.304	9.307	20.806	3.629
2023-06-29 11:45	1885503	8.477	-148.234	274.722	20.812	475.238	467.976	0.252	0.304	9.235	20.812	3.823
2023-06-29 12:00	1886403	8.463	-147.512	270.747	20.855	475.286	467.649	0.252	0.304	9.245	20.855	3.658
2023-06-29 12:15	1887303	8.471	-147.989	270.659	20.91	475.965	467.83	0.252	0.304	9.382	20.91	3.633
2023-06-29 12:30	1888203	8.496	-149.381	268.78	20.99	476.699	467.852	0.252	0.304	9.540	20.99	3.753
2023-06-29 12:45	1889103	8.500	-149.558	266.604	20.974	475.583	466.895	0.251	0.303	9.555	20.974	3.806
2023-06-29 13:00	1890003	8.499	-149.539	264.487	21.03	477.071	467.866	0.252	0.304	9.429	21.03	3.869
2023-06-29 13:15	1890903	8.491	-149.114	267.021	21.036	477.218	467.957	0.252	0.304	9.537	21.036	3.645
2023-06-29 13:30	1891803	8.490	-149.088	267.531	21.118	477.72	467.736	0.252	0.304	9.826	21.118	3.703
2023-06-29 13:45	1892703	8.455	-147.214	272.574	21.168	476.962	466.557	0.251	0.303	9.990	21.168	9.005
2023-06-29 14:00	1893603	8.448	-146.866	271.653	21.198	476.063	465.417	0.250	0.303	10.009	21.198	3.846
2023-06-29 14:15	1894503	8.422	-145.302	276.589	20.977	472.13	463.477	0.249	0.301	9.879	20.977	3.98
2023-06-29 14:30	1895403	8.378	-142.944	283.064	21.013	474.314	465.312	0.250	0.302	9.854	21.013	3.891
2023-06-29 14:45	1896303	8.396	-143.974	281.035	21.106	475.149	465.317	0.250	0.302	9.823	21.106	9.632
2023-06-29 15:00	1897203	8.394	-143.919	279.006	21.219	476.914	466.067	0.251	0.303	9.886	21.219	3.933
2023-06-29 15:15	1898103	8.410	-144.839	278.796	21.287	477.606	466.144	0.251	0.303	10.251	21.287	3.944
2023-06-29 15:30	1899003	8.413	-145.037	280.453	21.421	479.304	466.641	0.251	0.303	10.081	21.421	3.967
2023-06-29 15:45	1899903	8.416	-145.271	280.053	21.492	480.141	466.837	0.251	0.303	10.305	21.492	3.947
2023-06-29 16:00	1900803	8.431	-146.022	277.707	21.355	476.379	464.363	0.250	0.302	10.684	21.355	4.017
2023-06-29 16:15	1901703	8.453	-147.233	277.762	21.434	477.683	464.947	0.250	0.302	10.687	21.434	3.878
2023-06-29 16:30	1902603	8.434	-146.267	276.522	21.584	480.763	466.646	0.251	0.303	10.392	21.584	3.983
2023-06-29 16:45	1903503	8.426	-145.9	275.275	21.708	482.58	467.334	0.251	0.304	10.280	21.708	4.041
2023-06-29 17:00	1904403	8.348	-141.704	277.025	21.872	484.67	467.939	0.251	0.304	10.364	21.872	4.066
2023-06-29 17:15	1905303	8.374	-143.175	274.619	21.919	486.136	468.947	0.252	0.305	10.215	21.919	3.804
2023-06-29 17:30	1906203	8.352	-142.012	276.846	22.003	487.184	469.229	0.252	0.305	10.242	22.003	4.56
2023-06-29 17:45	1907103	8.361	-142.529	277.616	22.085	488.376	469.67	0.252	0.305	10.057	22.085	5.421
2023-06-29 18:00	1908003	8.380	-143.631	270.49	22.208	489.531	469.719	0.252	0.305	10.023	22.208	3.881
2023-06-29 18:15	1908903	8.400	-144.765	261.952	22.288	490.846	470.294	0.253	0.306	9.993	22.288	3.85
2023-06-29 18:30	1909803	8.402	-144.923	260.936	22.374	492.472	471.111	0.253	0.306	9.933	22.374	4.064
2023-06-29 18:45	1910703	8.408	-145.288	262.689	22.422	493.062	471.265	0.253	0.306	9.825	22.422	3.964
2023-06-29 19:00	1911603	8.435	-146.778	261.714	22.447	493.707	471.662	0.253	0.307	9.737	22.447	3.86
2023-06-29 19:15	1912503	8.447	-147.429	260.984	22.454	493.771	471.665	0.253	0.307	9.699	22.454	3.887
2023-06-29 19:30	1913403	8.426	-146.26	262.584	22.457	494.075	471.927	0.253	0.307	9.750	22.457	3.961
2023-06-29 19:45	1914303	8.453	-147.777	259.868	22.45	493.887	471.811	0.253	0.307	9.771	22.45	4.085

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-29 20:00	1915203	8.448	-147.44	262.97	22.405	492.622	470.989	0.253	0.306	9.994	22.405	3.87
2023-06-29 20:15	1916103	8.453	-147.705	263.526	22.377	492.271	470.892	0.253	0.306	9.884	22.377	3.83
2023-06-29 20:30	1917003	8.434	-146.658	267.09	22.351	491.861	470.721	0.253	0.306	9.741	22.351	3.828
2023-06-29 20:45	1917903	8.450	-147.533	266.186	22.312	491.251	470.476	0.253	0.306	9.832	22.312	3.869
2023-06-29 21:00	1918803	8.461	-148.108	260.517	22.276	491.332	470.865	0.253	0.306	10.066	22.276	3.924
2023-06-29 21:15	1919703	8.430	-146.382	270.752	22.255	491.599	471.303	0.253	0.306	9.941	22.255	5.284
2023-06-29 21:30	1920603	8.401	-144.796	276.503	22.209	491.038	471.161	0.253	0.306	9.564	22.209	4.864
2023-06-29 21:45	1921503	8.414	-145.457	274.052	22.153	490.657	471.279	0.253	0.306	9.521	22.153	3.969
2023-06-29 22:00	1922403	8.433	-146.506	271.248	22.09	489.807	471.004	0.253	0.306	9.271	22.09	4.31
2023-06-29 22:15	1923303	8.407	-145.009	272.919	22.038	489.017	470.692	0.253	0.306	9.286	22.038	3.863
2023-06-29 22:30	1924203	8.407	-145.04	273.692	22.008	488.495	470.449	0.253	0.306	9.351	22.008	3.899
2023-06-29 22:45	1925103	8.408	-145.032	277.995	21.972	488.221	470.499	0.253	0.306	9.459	21.972	3.974
2023-06-29 23:00	1926003	8.338	-141.237	267.65	21.956	488.694	471.099	0.253	0.306	9.289	21.956	4.137
2023-06-29 23:15	1926903	8.333	-140.896	279.803	21.917	487.725	470.501	0.253	0.306	9.287	21.917	4.292
2023-06-29 23:30	1927803	8.347	-141.659	280.289	21.882	487.974	471.041	0.253	0.306	9.148	21.882	4.007
2023-06-29 23:45	1928703	8.354	-142.059	282.542	21.852	487.392	470.741	0.253	0.306	9.307	21.852	3.825
2023-06-30 00:00	1929603	8.402	-144.634	277.22	21.808	486.773	470.527	0.253	0.306	9.164	21.808	3.788
2023-06-30 00:15	1930503	8.379	-143.344	278.422	21.768	486.605	470.706	0.253	0.306	9.215	21.768	3.898
2023-06-30 00:30	1931403	8.389	-143.867	280.103	21.723	485.686	470.21	0.253	0.306	9.068	21.723	3.816
2023-06-30 00:45	1932303	8.398	-144.389	282.652	21.696	485.125	469.901	0.253	0.305	9.029	21.696	3.78
2023-06-30 01:00	1933203	8.431	-146.155	278.308	21.702	485.953	470.657	0.253	0.306	8.968	21.702	3.648
2023-06-30 01:15	1934103	8.411	-145.071	279.006	21.699	486.587	471.297	0.253	0.306	8.693	21.699	37.168
2023-06-30 01:30	1935003	8.396	-144.241	281.665	21.685	485.882	470.736	0.253	0.306	9.078	21.685	3.913
2023-06-30 01:45	1935903	8.423	-145.719	280.873	21.66	485.556	470.631	0.253	0.306	8.719	21.66	3.871
2023-06-30 02:00	1936803	8.427	-145.95	279.466	21.639	484.76	470.041	0.253	0.306	8.773	21.639	3.677
2023-06-30 02:15	1937703	8.422	-145.617	281.455	21.615	484.379	469.888	0.253	0.305	8.915	21.615	3.723
2023-06-30 02:30	1938603	8.413	-145.144	283.057	21.595	484.384	470.062	0.253	0.306	8.704	21.595	4.509
2023-06-30 02:45	1939503	8.428	-145.931	280.601	21.582	484.283	470.076	0.253	0.306	8.853	21.582	3.568
2023-06-30 03:00	1940403	8.442	-146.73	279.273	21.572	484.66	470.531	0.253	0.306	8.780	21.572	3.498
2023-06-30 03:15	1941303	8.426	-145.812	281.03	21.555	485.124	471.128	0.253	0.306	8.547	21.555	3.59
2023-06-30 03:30	1942203	8.403	-144.567	284.149	21.523	484.313	470.618	0.253	0.306	8.681	21.523	3.766
2023-06-30 03:45	1943103	8.454	-147.343	279.905	21.485	483.472	470.133	0.253	0.306	8.938	21.485	3.768
2023-06-30 04:00	1944003	8.456	-147.398	278.825	21.45	482.932	469.917	0.253	0.305	8.813	21.45	3.591
2023-06-30 04:15	1944903	8.443	-146.675	278.258	21.39	478.337	465.969	0.251	0.303	8.886	21.39	4.521
2023-06-30 04:30	1945803	8.458	-147.493	278.534	21.364	482.424	470.174	0.253	0.306	8.598	21.364	4.566
2023-06-30 04:45	1946703	8.390	-143.731	281.054	21.328	482.232	470.303	0.253	0.306	8.365	21.328	5.041
2023-06-30 05:00	1947603	8.434	-146.146	277.762	21.307	481.513	469.789	0.253	0.305	8.489	21.307	4.427
2023-06-30 05:15	1948503	8.443	-146.642	279.516	21.296	481.939	470.294	0.253	0.306	8.264	21.296	4.229
2023-06-30 05:30	1949403	8.424	-145.6	281.874	21.273	481.483	470.051	0.253	0.306	8.313	21.273	4.263
2023-06-30 05:45	1950303	8.417	-145.195	284.957	21.227	480.867	469.852	0.253	0.305	8.529	21.227	4.128
2023-06-30 06:00	1951203	8.444	-146.611	282.227	21.176	479.87	469.329	0.252	0.305	8.563	21.176	3.998
2023-06-30 06:15	1952103	8.449	-146.875	285.322	21.139	479.402	469.194	0.252	0.305	8.404	21.139	3.871
2023-06-30 06:30	1953003	8.430	-145.812	285.804	21.095	478.998	469.185	0.252	0.305	8.532	21.095	3.94
2023-06-30 06:45	1953903	8.426	-145.578	285.97	21.069	479.049	469.463	0.253	0.305	8.507	21.069	3.823
2023-06-30 07:00	1954803	8.443	-146.508	283.972	21.043	478.781	469.433	0.253	0.305	8.607	21.043	3.894
2023-06-30 07:15	1955703	8.430	-145.81	284.921	21.024	478.459	469.279	0.253	0.305	8.368	21.024	4.038
2023-06-30 07:30	1956603	8.447	-146.728	285.897	21.011	478.314	469.253	0.253	0.305	8.243	21.011	3.821
2023-06-30 07:45	1957503	8.440	-146.306	285.589	20.997	478.295	469.356	0.253	0.305	8.512	20.997	3.924
2023-06-30 08:00	1958403	8.432	-145.874	284.819	20.941	477.397	468.969	0.252	0.305	8.590	20.941	3.874
2023-06-30 08:15	1959303	8.427	-145.55	283.66	20.898	477.062	469.021	0.252	0.305	8.490	20.898	3.842
2023-06-30 08:30	1960203	8.408	-144.508	284.156	20.868	476.422	468.656	0.252	0.305	8.372	20.868	3.89
2023-06-30 08:45	1961103	8.409	-144.541	283	20.845	476.606	469.032	0.252	0.305	8.244	20.845	3.828
2023-06-30 09:00	1962003	8.455	-147.047	274.069	20.841	476.539	469.003	0.252	0.305	8.457	20.841	3.82
2023-06-30 09:15	1962903	8.442	-146.339	276.932	20.826	476.394	468.992	0.252	0.305	8.445	20.826	3.759
2023-06-30 09:30	1963803	8.443	-146.391	276.961	20.813	476.171	468.888	0.252	0.305	8.518	20.813	3.82
2023-06-30 09:45	1964703	8.437	-146.079	279.187	20.814	476.18	468.891	0.252	0.305	8.641	20.814	3.741

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-06-30 10:00	1965603	8.416	-144.908	279.657	20.785	475.137	468.117	0.252	0.304	8.609	20.785	3.837
2023-06-30 10:15	1966503	8.414	-144.777	282.532	20.762	474.421	467.611	0.252	0.304	8.658	20.762	4.087
2023-06-30 10:30	1967403	8.435	-145.941	283.205	20.74	474.325	467.711	0.252	0.304	8.699	20.74	4.125
2023-06-30 10:45	1968303	8.428	-145.545	284.042	20.717	473.949	467.549	0.252	0.304	8.734	20.717	3.824
2023-06-30 11:00	1969203	8.447	-146.561	279.206	20.683	474.006	467.899	0.252	0.304	8.762	20.683	4.107
2023-06-30 11:15	1970103	8.451	-146.775	280.103	20.694	474.21	468.003	0.252	0.304	8.839	20.694	3.693
2023-06-30 11:30	1971003	8.498	-149.133	256.814	20.314	471.378	468.572	0.252	0.305	9.132	20.314	65.408
2023-06-30 11:45	1971903	8.493	-149.016	254.702	20.564	473.368	468.324	0.252	0.304	8.943	20.564	15.392
2023-06-30 12:00	1972803	8.478	-148.242	252.411	20.74	474.598	467.986	0.252	0.304	8.995	20.74	7.023
2023-06-30 12:15	1973703	8.484	-148.613	262.517	20.766	474.801	467.951	0.252	0.304	9.055	20.766	3.964
2023-06-30 12:30	1974603	8.465	-147.56	268.013	20.766	474.626	467.779	0.252	0.304	9.048	20.766	3.854
2023-06-30 12:45	1975503	8.407	-144.393	274.667	20.731	473.766	467.238	0.252	0.304	8.871	20.731	4.864
2023-06-30 13:00	1976403	8.398	-143.952	266.263	20.796	474.83	467.721	0.252	0.304	8.842	20.796	3.984
2023-06-30 13:15	1977303	8.390	-143.564	273.389	20.886	475.885	467.968	0.252	0.304	8.929	20.886	4.149
2023-06-30 13:30	1978203	8.409	-144.649	272.831	21.019	477.135	468.028	0.252	0.304	9.150	21.019	5.288
2023-06-30 13:45	1979103	8.464	-147.712	270.027	21.142	478.446	468.232	0.252	0.304	9.491	21.142	3.982
2023-06-30 14:00	1980003	8.487	-149.016	259.74	21.213	479.049	468.201	0.252	0.304	9.608	21.213	3.967
2023-06-30 14:15	1980903	8.486	-148.981	264.544	21.267	479.995	468.657	0.252	0.305	9.429	21.267	4.067
2023-06-30 14:30	1981803	8.396	-144.036	268.878	21.292	480.083	468.525	0.252	0.305	9.525	21.292	3.892
2023-06-30 14:45	1982703	8.436	-146.26	267.703	21.276	479.656	468.247	0.252	0.304	9.647	21.276	4.354
2023-06-30 15:00	1983603	8.336	-140.798	263.914	21.266	479.842	468.511	0.252	0.305	9.626	21.266	4.299
2023-06-30 15:15	1984503	8.377	-143.034	269.136	21.295	480.509	468.908	0.252	0.305	9.595	21.295	4.042
2023-06-30 15:30	1985403	8.371	-142.715	271.548	21.292	480.573	469.001	0.252	0.305	9.617	21.292	3.966
2023-06-30 15:45	1986303	8.327	-140.257	277.075	21.208	480.729	469.886	0.253	0.305	9.431	21.208	3.908
2023-06-30 16:00	1987203	8.348	-141.461	270.988	21.363	481.858	469.633	0.253	0.305	9.467	21.363	4.505
2023-06-30 16:15	1988103	8.377	-143.082	271.019	21.401	482.188	469.621	0.253	0.305	9.521	21.401	4.011
2023-06-30 16:30	1989003	8.386	-143.592	270.256	21.481	482.793	469.513	0.252	0.305	9.534	21.481	3.999
2023-06-30 16:45	1989903	8.405	-144.68	268.346	21.543	483.522	469.677	0.253	0.305	9.611	21.543	3.923
2023-06-30 17:00	1990803	8.424	-145.726	259.875	21.606	484.306	469.893	0.253	0.305	9.635	21.606	4.007
2023-06-30 17:15	1991703	8.419	-145.495	262.765	21.643	484.796	470.044	0.253	0.306	9.624	21.643	4.121
2023-06-30 17:30	1992603	8.439	-146.608	261.111	21.688	485.321	470.164	0.253	0.306	9.680	21.688	4.038
2023-06-30 17:45	1993503	8.442	-146.79	261.728	21.744	485.874	470.208	0.253	0.306	9.666	21.744	4.255
2023-06-30 18:00	1994403	8.453	-147.395	257.196	21.784	486.126	470.11	0.253	0.306	9.738	21.784	3.967
2023-06-30 18:15	1995303	8.453	-147.417	263.058	21.782	486.165	470.163	0.253	0.306	9.706	21.782	4.015
2023-06-30 18:30	1996203	8.455	-147.555	263.08	21.797	486.481	470.335	0.253	0.306	9.729	21.797	3.784
2023-06-30 18:45	1997103	8.453	-147.426	264.024	21.806	486.599	470.377	0.253	0.306	9.687	21.806	3.91
2023-06-30 19:00	1998003	8.469	-148.339	259.666	21.818	486.874	470.532	0.253	0.306	9.664	21.818	3.93
2023-06-30 19:15	1998903	8.457	-147.636	262.496	21.817	487.055	470.719	0.253	0.306	9.651	21.817	3.975
2023-06-30 19:30	1999803	8.447	-147.111	267.355	21.81	487.015	470.738	0.253	0.306	9.640	21.81	4.053
2023-06-30 19:45	2000703	8.448	-147.159	266.439	21.81	487.082	470.806	0.253	0.306	9.642	21.81	4.14
2023-06-30 20:00	2001603	8.456	-147.622	262.31	21.811	486.514	470.246	0.253	0.306	9.624	21.811	4.181
2023-06-30 20:15	2002503	8.439	-146.661	268.249	21.796	486.233	470.107	0.253	0.306	9.685	21.796	4.198
2023-06-30 20:30	2003403	8.318	-140.04	271.782	21.825	486.78	470.387	0.253	0.306	9.648	21.825	4.25
2023-06-30 20:45	2004303	8.394	-144.262	264.656	21.871	487.187	470.38	0.253	0.306	9.701	21.871	4.038
2023-06-30 21:00	2005203	8.385	-143.747	263.933	21.905	487.839	470.709	0.253	0.306	9.658	21.905	3.976
2023-06-30 21:15	2006103	8.427	-146.062	266.322	21.911	488.213	471.016	0.253	0.306	9.645	21.911	3.843
2023-06-30 21:30	2007003	8.432	-146.356	270.867	21.905	488.095	470.962	0.253	0.306	9.570	21.905	5.438
2023-06-30 21:45	2007903	8.432	-146.313	273.792	21.878	488.006	471.104	0.253	0.306	9.492	21.878	4.035
2023-06-30 22:00	2008803	8.444	-146.959	270.952	21.84	487.561	471.011	0.253	0.306	9.344	21.84	3.941
2023-06-30 22:15	2009703	8.388	-143.876	272.531	21.79	487.194	471.084	0.253	0.306	9.170	21.79	4.063
2023-06-30 22:30	2010603	8.415	-145.342	274.264	21.754	486.821	471.041	0.253	0.306	9.114	21.754	6.512
2023-06-30 22:45	2011503	8.424	-145.805	271.928	21.74	486.819	471.163	0.253	0.306	9.104	21.74	3.853
2023-06-30 23:00	2012403	8.468	-148.201	265.342	21.719	486.706	471.235	0.253	0.306	9.076	21.719	3.821
2023-06-30 23:15	2013303	8.458	-147.645	270.247	21.684	486.605	471.441	0.253	0.306	9.212	21.684	3.862
2023-06-30 23:30	2014203	8.492	-149.465	271.308	21.629	485.927	471.268	0.253	0.306	9.253	21.629	3.842
2023-06-30 23:45	2015103	8.481	-148.849	270.833	21.592	485.918	471.575	0.254	0.307	9.141	21.592	3.905

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-01 00:00	2016003	8.493	-149.481	267.736	21.545	484.715	470.825	0.253	0.306	9.310	21.545	3.905
2023-07-01 00:15	2016903	8.483	-148.919	270.247	21.527	484.392	470.665	0.253	0.306	9.198	21.527	3.699
2023-07-01 00:30	2017803	8.484	-148.978	272.09	21.504	484.043	470.525	0.253	0.306	9.205	21.504	3.746
2023-07-01 00:45	2018703	8.481	-148.783	273.029	21.486	483.921	470.564	0.253	0.306	9.172	21.486	3.672
2023-07-01 01:00	2019603	8.515	-150.638	270.044	21.455	484.044	470.953	0.253	0.306	9.200	21.455	6.555
2023-07-01 01:15	2020503	8.499	-149.767	273.821	21.418	483.907	471.15	0.253	0.306	9.137	21.418	3.722
2023-07-01 01:30	2021403	8.501	-149.86	275.604	21.374	483.489	471.122	0.253	0.306	9.157	21.374	3.771
2023-07-01 01:45	2022303	8.500	-149.753	277.039	21.336	483.095	471.075	0.253	0.306	9.202	21.336	3.611
2023-07-01 02:00	2023203	8.513	-150.459	274.789	21.317	482.328	470.489	0.253	0.306	9.137	21.317	4.72
2023-07-01 02:15	2024103	8.511	-150.321	275.354	21.273	481.885	470.445	0.253	0.306	9.199	21.273	3.895
2023-07-01 02:30	2025003	8.496	-149.491	276.489	21.245	481.649	470.46	0.253	0.306	9.133	21.245	3.896
2023-07-01 02:45	2025903	8.499	-149.627	276.777	21.215	481.438	470.516	0.253	0.306	9.068	21.215	3.87
2023-07-01 03:00	2026803	8.511	-150.299	272.273	21.192	481.318	470.607	0.253	0.306	9.013	21.192	3.763
2023-07-01 03:15	2027703	8.499	-149.634	275.351	21.158	481.067	470.656	0.253	0.306	9.098	21.158	3.748
2023-07-01 03:30	2028603	8.505	-149.922	275.766	21.131	480.837	470.672	0.253	0.306	9.025	21.131	3.638
2023-07-01 03:45	2029503	8.496	-149.424	277.895	21.092	480.586	470.765	0.253	0.306	8.922	21.092	4.543
2023-07-01 04:00	2030403	8.474	-148.211	272.576	21.064	480.16	470.596	0.253	0.306	8.660	21.064	4.369
2023-07-01 04:15	2031303	8.447	-146.689	276.87	20.994	479.963	471.024	0.254	0.306	8.620	20.994	4.453
2023-07-01 04:30	2032203	8.431	-145.822	280.015	20.989	479.316	470.43	0.253	0.306	8.456	20.989	4.661
2023-07-01 04:45	2033103	8.450	-146.861	279.619	20.959	478.971	470.354	0.253	0.306	8.511	20.959	4.1
2023-07-01 05:00	2034003	8.475	-148.194	275.063	20.937	478.948	470.524	0.253	0.306	8.587	20.937	4.312
2023-07-01 05:15	2034903	8.469	-147.882	278.77	20.912	478.814	470.616	0.253	0.306	8.638	20.912	4.561
2023-07-01 05:30	2035803	8.462	-147.491	280.635	20.889	478.583	470.596	0.253	0.306	8.645	20.889	4.616
2023-07-01 05:45	2036703	8.464	-147.555	281.977	20.864	478.171	470.411	0.253	0.306	8.705	20.864	4.395
2023-07-01 06:00	2037603	8.492	-149.055	278.56	20.848	477.344	469.74	0.253	0.305	8.777	20.848	4.193
2023-07-01 06:15	2038503	8.474	-148.089	280.315	20.808	476.815	469.565	0.253	0.305	8.816	20.808	4.53
2023-07-01 06:30	2039403	8.495	-149.217	279.86	20.744	476.219	469.543	0.253	0.305	8.790	20.744	4.246
2023-07-01 06:45	2040303	8.490	-148.911	279.91	20.727	476.176	469.653	0.253	0.305	8.782	20.727	4.237
2023-07-01 07:00	2041203	8.504	-149.672	273.515	20.68	475.748	469.65	0.253	0.305	8.761	20.68	4.243
2023-07-01 07:15	2042103	8.492	-148.988	275.84	20.645	475.579	469.792	0.253	0.305	8.726	20.645	4.197
2023-07-01 07:30	2043003	8.474	-147.963	278.42	20.618	475.388	469.843	0.253	0.305	8.665	20.618	4.113
2023-07-01 07:45	2043903	8.471	-147.798	279.454	20.594	475.187	469.857	0.253	0.305	8.609	20.594	3.814
2023-07-01 08:00	2044803	8.481	-148.337	276.295	20.586	474.686	469.433	0.253	0.305	8.665	20.586	3.816
2023-07-01 08:15	2045703	8.474	-147.979	280.151	20.572	474.438	469.307	0.253	0.305	8.626	20.572	3.755
2023-07-01 08:30	2046603	8.465	-147.491	282.642	20.567	474.245	469.167	0.253	0.305	8.651	20.567	3.646
2023-07-01 08:45	2047503	8.469	-147.65	282.265	20.553	474.013	469.06	0.253	0.305	8.712	20.553	3.668
2023-07-01 09:00	2048403	8.486	-148.599	278.384	20.544	474.002	469.126	0.253	0.305	8.710	20.544	3.814
2023-07-01 09:15	2049303	8.473	-147.879	279.078	20.516	473.909	469.279	0.253	0.305	8.758	20.516	3.723
2023-07-01 09:30	2050203	8.472	-147.796	280.441	20.48	473.561	469.26	0.253	0.305	8.749	20.48	3.684
2023-07-01 09:45	2051103	8.469	-147.638	280.413	20.455	473.183	469.108	0.253	0.305	8.768	20.455	3.637
2023-07-01 10:00	2052003	8.475	-147.946	277.123	20.417	472.509	468.776	0.253	0.305	8.747	20.417	3.754
2023-07-01 10:15	2052903	8.478	-148.07	279.066	20.375	472.196	468.836	0.253	0.305	8.680	20.375	3.638
2023-07-01 10:30	2053803	8.469	-147.603	273.413	20.392	472.24	468.73	0.253	0.305	8.684	20.392	3.658
2023-07-01 10:45	2054703	8.467	-147.491	269.262	20.423	472.585	468.797	0.253	0.305	8.698	20.423	3.885
2023-07-01 11:00	2055603	8.491	-148.799	268.387	20.439	472.657	468.726	0.252	0.305	8.714	20.439	3.918
2023-07-01 11:15	2056503	8.474	-147.905	271.734	20.456	473.048	468.961	0.253	0.305	8.805	20.456	3.892
2023-07-01 11:30	2057403	8.480	-148.237	274.228	20.472	473.211	468.986	0.253	0.305	8.857	20.472	3.887
2023-07-01 11:45	2058303	8.487	-148.611	275.623	20.488	473.144	468.779	0.252	0.305	8.951	20.488	3.912
2023-07-01 12:00	2059203	8.480	-148.237	275.304	20.491	472.76	468.368	0.252	0.304	8.929	20.491	3.738
2023-07-01 12:15	2060103	8.466	-147.505	278.751	20.489	472.856	468.484	0.252	0.305	8.908	20.489	3.777
2023-07-01 12:30	2061003	8.461	-147.243	279.545	20.502	473.121	468.626	0.252	0.305	8.904	20.502	3.83
2023-07-01 12:45	2061903	8.465	-147.455	278.565	20.525	473.381	468.683	0.252	0.305	8.925	20.525	3.982
2023-07-01 13:00	2062803	8.493	-148.988	273.406	20.565	473.717	468.657	0.252	0.305	8.936	20.565	4.032
2023-07-01 13:15	2063703	8.493	-148.981	274.045	20.591	473.829	468.543	0.252	0.305	9.074	20.591	3.978
2023-07-01 13:30	2064603	8.496	-149.186	273.854	20.618	474.119	468.588	0.252	0.305	9.198	20.618	3.965
2023-07-01 13:45	2065503	8.507	-149.801	273.327	20.639	474.239	468.518	0.252	0.305	9.224	20.639	3.947

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-01 14:00	2066403	8.508	-149.894	269.784	20.683	474.597	468.485	0.252	0.305	9.239	20.683	4.065
2023-07-01 14:15	2067303	8.528	-150.962	268.69	20.733	475.157	468.596	0.252	0.305	9.311	20.733	4.038
2023-07-01 14:30	2068203	8.539	-151.596	265.497	20.795	475.736	468.624	0.252	0.305	9.408	20.795	3.961
2023-07-01 14:45	2069103	8.534	-151.353	264.303	20.851	476.275	468.653	0.252	0.305	9.406	20.851	3.771
2023-07-01 15:00	2070003	8.562	-152.922	260.603	20.912	476.853	468.688	0.252	0.305	9.524	20.912	3.896
2023-07-01 15:15	2070903	8.547	-152.123	260.698	20.982	477.941	469.14	0.252	0.305	9.593	20.982	3.979
2023-07-01 15:30	2071803	8.559	-152.843	264.231	21.032	478.129	468.89	0.252	0.305	9.714	21.032	4.086
2023-07-01 15:45	2072703	8.529	-151.203	268.571	21.032	478.553	469.302	0.253	0.305	9.604	21.032	3.882
2023-07-01 16:00	2073603	8.547	-152.19	262.965	21.081	478.697	469.012	0.252	0.305	9.555	21.081	3.828
2023-07-01 16:15	2074503	8.511	-150.216	266.771	21.093	478.906	469.117	0.252	0.305	9.578	21.093	3.993
2023-07-01 16:30	2075403	8.542	-151.93	263.952	21.105	478.934	469.031	0.252	0.305	9.570	21.105	4.043
2023-07-01 16:45	2076303	8.548	-152.295	261.78	21.155	479.698	469.344	0.253	0.305	9.610	21.155	3.772
2023-07-01 17:00	2077203	8.569	-153.434	259.897	21.181	479.709	469.123	0.252	0.305	9.682	21.181	3.874
2023-07-01 17:15	2078103	8.552	-152.533	261.564	21.199	480.295	469.545	0.253	0.305	9.720	21.199	3.861
2023-07-01 17:30	2079003	8.553	-152.6	260.5	21.262	481.014	469.69	0.253	0.305	9.708	21.262	3.923
2023-07-01 17:45	2079903	8.538	-151.827	261.239	21.287	481.018	469.474	0.253	0.305	9.670	21.287	3.962
2023-07-01 18:00	2080803	8.535	-151.658	260.436	21.323	481.378	469.509	0.253	0.305	9.661	21.323	3.866
2023-07-01 18:15	2081703	8.550	-152.507	259.053	21.348	481.668	469.581	0.253	0.305	9.741	21.348	4.116
2023-07-01 18:30	2082603	8.553	-152.624	259.38	21.286	480.916	469.389	0.252	0.305	9.782	21.286	4.095
2023-07-01 18:45	2083503	8.538	-151.801	260.722	21.289	481.208	469.646	0.253	0.305	9.714	21.289	4.05
2023-07-01 19:00	2084403	8.528	-151.248	257.367	21.224	480.999	470.015	0.253	0.306	9.604	21.224	4.062
2023-07-01 19:15	2085303	8.492	-149.252	266.678	21.186	480.943	470.288	0.253	0.306	9.466	21.186	3.894
2023-07-01 19:30	2086203	8.497	-149.524	268.933	21.192	480.973	470.263	0.253	0.306	9.462	21.192	3.938
2023-07-01 19:45	2087103	8.483	-148.768	272.452	21.152	480.488	470.146	0.253	0.306	9.430	21.152	3.96
2023-07-01 20:00	2088003	8.492	-149.229	269.899	21.11	479.772	469.815	0.253	0.305	9.376	21.11	4.076
2023-07-01 20:15	2088903	8.472	-148.106	272.049	21.07	479.416	469.812	0.253	0.305	9.338	21.07	3.905
2023-07-01 20:30	2089803	8.461	-147.479	274.011	21.026	478.969	469.763	0.253	0.305	9.283	21.026	3.95
2023-07-01 20:45	2090703	8.454	-147.08	274.736	20.992	478.558	469.664	0.253	0.305	9.243	20.992	3.865
2023-07-01 21:00	2091603	8.485	-148.737	272.226	20.939	478.16	469.738	0.253	0.305	9.227	20.939	4.022
2023-07-01 21:15	2092503	8.472	-148.027	274.736	20.892	477.835	469.827	0.253	0.305	9.173	20.892	4.034
2023-07-01 21:30	2093403	8.474	-148.113	276.336	20.837	477.134	469.626	0.253	0.305	9.169	20.837	4.197
2023-07-01 21:45	2094303	8.476	-148.151	276.779	20.784	476.578	469.548	0.253	0.305	9.144	20.784	3.999
2023-07-01 22:00	2095203	8.492	-149.021	273.487	20.73	475.743	469.2	0.253	0.305	9.093	20.73	4.046
2023-07-01 22:15	2096103	8.478	-148.215	275.757	20.675	475.224	469.177	0.253	0.305	9.037	20.675	3.974
2023-07-01 22:30	2097003	8.467	-147.603	276.393	20.62	474.844	469.287	0.253	0.305	8.899	20.62	4.106
2023-07-01 22:45	2097903	8.458	-147.083	279.252	20.559	474.161	469.149	0.253	0.305	8.862	20.559	3.993
2023-07-01 23:00	2098803	8.463	-147.338	276.419	20.509	474.078	469.514	0.253	0.305	8.682	20.509	4.016
2023-07-01 23:15	2099703	8.430	-145.526	280.93	20.446	473.598	469.593	0.253	0.305	8.503	20.446	3.94
2023-07-01 23:30	2100603	8.430	-145.454	282.885	20.369	472.93	469.618	0.253	0.305	8.327	20.369	3.938
2023-07-01 23:45	2101503	8.423	-145.051	283.603	20.305	472.221	469.49	0.253	0.305	8.248	20.305	3.992
2023-07-02 00:00	2102403	8.399	-143.74	284.738	20.25	471.568	469.331	0.253	0.305	8.344	20.25	3.875
2023-07-02 00:15	2103303	8.399	-143.697	286.555	20.197	470.864	469.098	0.253	0.305	8.213	20.197	4.036
2023-07-02 00:30	2104203	8.400	-143.709	286.388	20.138	470.476	469.241	0.253	0.305	8.127	20.138	3.862
2023-07-02 00:45	2105103	8.396	-143.452	287.017	20.088	469.985	469.198	0.253	0.305	8.089	20.088	4.1
2023-07-02 01:00	2106003	8.391	-143.175	286.383	20.051	470.016	469.555	0.253	0.305	7.970	20.051	3.947
2023-07-02 01:15	2106903	8.353	-141.098	288.55	20.011	470.107	470.008	0.253	0.306	7.787	20.011	3.838
2023-07-02 01:30	2107803	8.327	-139.663	291.349	19.965	469.785	470.098	0.253	0.306	7.664	19.965	3.904
2023-07-02 01:45	2108703	8.323	-139.43	292.713	19.926	469.481	470.15	0.254	0.306	7.453	19.926	3.984
2023-07-02 02:00	2109603	8.319	-139.158	291.554	19.854	468.299	469.608	0.253	0.305	7.338	19.854	4.065
2023-07-02 02:15	2110503	8.320	-139.213	293.922	19.803	467.587	469.355	0.253	0.305	7.416	19.803	3.95
2023-07-02 02:30	2111403	8.323	-139.334	294.162	19.769	467.158	469.23	0.253	0.305	7.468	19.769	3.937
2023-07-02 02:45	2112303	8.337	-140.102	293.466	19.744	466.949	469.248	0.253	0.305	7.552	19.744	3.827
2023-07-02 03:00	2113203	8.363	-141.528	290.05	19.72	466.895	469.404	0.253	0.305	7.577	19.72	3.812
2023-07-02 03:15	2114103	8.353	-140.975	291.237	19.702	466.726	469.402	0.253	0.305	7.556	19.702	3.811
2023-07-02 03:30	2115003	8.353	-140.915	291.793	19.683	466.483	469.328	0.253	0.305	7.536	19.683	3.854
2023-07-02 03:45	2115903	8.368	-141.726	292.682	19.671	466.503	469.453	0.253	0.305	7.668	19.671	4.087

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-02 04:00	2116803	8.382	-142.527	287.234	19.669	466.194	469.157	0.253	0.305	7.702	19.669	3.904
2023-07-02 04:15	2117703	8.378	-142.288	289.985	19.652	465.837	468.956	0.253	0.305	7.788	19.652	6.282
2023-07-02 04:30	2118603	8.411	-144.053	283.939	19.59	464.754	468.424	0.253	0.304	7.882	19.59	7.499
2023-07-02 04:45	2119503	8.431	-145.106	282.177	19.543	463.982	468.064	0.253	0.304	8.052	19.543	6.443
2023-07-02 05:00	2120403	8.450	-146.129	280.301	19.525	464.105	468.357	0.253	0.304	8.015	19.525	5.369
2023-07-02 05:15	2121303	8.433	-145.199	283.043	19.508	464.143	468.549	0.253	0.305	7.988	19.508	5.207
2023-07-02 05:30	2122203	8.438	-145.471	282.888	19.503	464.09	468.538	0.253	0.305	8.088	19.503	4.486
2023-07-02 05:45	2123103	8.439	-145.507	284.194	19.5	464.111	468.583	0.253	0.305	7.982	19.5	4.428
2023-07-02 06:00	2124003	8.430	-145.049	282.509	19.492	463.867	468.412	0.253	0.304	7.905	19.492	4.179
2023-07-02 06:15	2124903	8.432	-145.125	287.236	19.473	464.979	469.703	0.253	0.305	7.931	19.473	3.903
2023-07-02 06:30	2125803	8.425	-144.713	288.316	19.445	463.462	468.432	0.253	0.304	7.897	19.445	3.797
2023-07-02 06:45	2126703	8.423	-144.589	288.665	19.421	463.287	468.471	0.253	0.305	7.913	19.421	3.71
2023-07-02 07:00	2127603	8.458	-146.489	286.767	19.402	463.083	468.437	0.253	0.304	8.010	19.402	3.659
2023-07-02 07:15	2128503	8.443	-145.676	288.877	19.378	463.047	468.614	0.253	0.305	8.045	19.378	3.584
2023-07-02 07:30	2129403	8.440	-145.495	288.903	19.366	463.034	468.714	0.253	0.305	7.964	19.366	3.519
2023-07-02 07:45	2130303	8.438	-145.392	290.176	19.347	462.702	468.55	0.253	0.305	8.080	19.347	3.584
2023-07-02 08:00	2131203	8.451	-146.101	286.731	19.325	462.222	468.257	0.253	0.304	8.119	19.325	3.503
2023-07-02 08:15	2132103	8.446	-145.805	289.258	19.302	461.693	467.931	0.253	0.304	8.139	19.302	3.621
2023-07-02 08:30	2133003	8.448	-145.917	288.042	19.292	461.583	467.909	0.253	0.304	8.112	19.292	3.546
2023-07-02 08:45	2133903	8.438	-145.338	288.55	19.271	461.319	467.83	0.253	0.304	8.044	19.271	3.514
2023-07-02 09:00	2134803	8.457	-146.356	283.286	19.26	461.36	467.972	0.253	0.304	8.011	19.26	3.464
2023-07-02 09:15	2135703	8.431	-144.947	284.971	19.257	461.462	468.11	0.253	0.304	8.070	19.257	3.463
2023-07-02 09:30	2136603	8.440	-145.478	284.232	19.256	461.417	468.073	0.253	0.304	8.018	19.256	3.481
2023-07-02 09:45	2137503	8.438	-145.364	284.335	19.25	461.309	468.014	0.253	0.304	7.987	19.25	3.494
2023-07-02 10:00	2138403	8.454	-146.21	283.031	19.238	460.585	467.392	0.252	0.304	8.122	19.238	3.402
2023-07-02 10:15	2139303	8.430	-144.906	286.402	19.236	460.468	467.285	0.252	0.304	8.194	19.236	3.502
2023-07-02 10:30	2140203	8.455	-146.26	284.926	19.243	460.653	467.415	0.252	0.304	8.233	19.243	3.346
2023-07-02 10:45	2141103	8.455	-146.272	284.316	19.257	460.744	467.374	0.252	0.304	8.285	19.257	3.354
2023-07-02 11:00	2142003	8.496	-148.501	280.613	19.288	460.969	467.327	0.252	0.304	8.380	19.288	3.434
2023-07-02 11:15	2142903	8.502	-148.821	279.981	19.32	461.432	467.503	0.252	0.304	8.628	19.32	3.445
2023-07-02 11:30	2143803	8.504	-148.997	280.761	19.357	461.655	467.396	0.252	0.304	8.825	19.357	3.56
2023-07-02 11:45	2144703	8.529	-150.321	281.381	19.374	461.575	467.158	0.252	0.304	8.874	19.374	3.471
2023-07-02 12:00	2145603	8.518	-149.739	279.848	19.388	461.737	467.2	0.252	0.304	8.818	19.388	3.525
2023-07-02 12:15	2146503	8.524	-150.099	281.457	19.41	462.115	467.386	0.252	0.304	8.788	19.41	3.463
2023-07-02 12:30	2147403	8.532	-150.516	280.72	19.443	462.24	467.21	0.252	0.304	8.799	19.443	3.575
2023-07-02 12:45	2148303	8.542	-151.098	277.881	19.462	462.462	467.262	0.252	0.304	8.931	19.462	3.505
2023-07-02 13:00	2149203	8.554	-151.742	273.682	19.496	462.769	467.269	0.252	0.304	8.890	19.496	3.462
2023-07-02 13:15	2150103	8.534	-150.716	274.166	19.538	463.428	467.55	0.252	0.304	8.983	19.538	3.545
2023-07-02 13:30	2151003	8.546	-151.389	274.462	19.61	464.17	467.65	0.252	0.304	9.115	19.61	3.842
2023-07-02 13:45	2151903	8.562	-152.283	271.758	19.67	464.492	467.434	0.252	0.304	9.196	19.67	3.511
2023-07-02 14:00	2152803	8.555	-151.923	269.727	19.715	464.648	467.193	0.252	0.304	9.176	19.715	3.534
2023-07-02 14:15	2153703	8.555	-151.944	273.332	19.735	464.947	467.315	0.252	0.304	9.210	19.735	3.483
2023-07-02 14:30	2154603	8.552	-151.787	273.215	19.779	465.405	467.377	0.252	0.304	9.221	19.779	3.451
2023-07-02 14:45	2155503	8.556	-152.054	272.173	19.817	465.786	467.424	0.252	0.304	9.224	19.817	3.439
2023-07-02 15:00	2156403	8.581	-153.434	269.114	19.883	466.369	467.415	0.252	0.304	9.274	19.883	3.645
2023-07-02 15:15	2157303	8.570	-152.829	269.679	19.935	467.2	467.777	0.252	0.304	9.433	19.935	3.391
2023-07-02 15:30	2158203	8.575	-153.172	270.383	20.01	467.622	467.535	0.252	0.304	9.613	20.01	3.66
2023-07-02 15:45	2159103	8.594	-154.214	267.936	20.05	467.982	467.534	0.252	0.304	9.605	20.05	3.646
2023-07-02 16:00	2160003	8.577	-153.353	265.428	20.117	468.553	467.504	0.252	0.304	9.544	20.117	3.635
2023-07-02 16:15	2160903	8.594	-154.305	264.971	20.162	468.945	467.495	0.252	0.304	9.603	20.162	3.745
2023-07-02 16:30	2161803	8.587	-153.949	264.308	20.215	469.522	467.598	0.252	0.304	9.654	20.215	3.621
2023-07-02 16:45	2162703	8.604	-154.889	261.709	20.264	469.91	467.55	0.252	0.304	9.721	20.264	3.589
2023-07-02 17:00	2163603	8.611	-155.308	260.078	20.312	470.53	467.744	0.252	0.304	9.708	20.312	3.6
2023-07-02 17:15	2164503	8.605	-154.972	262.202	20.343	470.976	467.908	0.252	0.304	9.789	20.343	3.64
2023-07-02 17:30	2165403	8.609	-155.194	261.983	20.368	471.142	467.855	0.252	0.304	9.823	20.368	3.771
2023-07-02 17:45	2166303	8.612	-155.377	262.584	20.37	471.161	467.856	0.252	0.304	9.841	20.37	3.682

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-02 18:00	2167203	8.608	-155.16	261.418	20.383	471.017	467.593	0.252	0.304	9.837	20.383	3.61
2023-07-02 18:15	2168103	8.603	-154.901	265.04	20.385	471.018	467.582	0.252	0.304	9.869	20.385	3.568
2023-07-02 18:30	2169003	8.574	-153.27	268.728	20.354	470.954	467.79	0.252	0.304	9.788	20.354	3.553
2023-07-02 18:45	2169903	8.582	-153.723	270.213	20.346	470.893	467.8	0.252	0.304	9.725	20.346	3.589
2023-07-02 19:00	2170803	8.602	-154.798	266.68	20.35	471.077	467.945	0.252	0.304	9.691	20.35	3.982
2023-07-02 19:15	2171703	8.590	-154.176	266.949	20.348	471.224	468.114	0.252	0.304	9.696	20.348	3.772
2023-07-02 19:30	2172603	8.578	-153.52	269.968	20.333	471.201	468.219	0.252	0.304	9.655	20.333	3.635
2023-07-02 19:45	2173503	8.570	-153.043	272.042	20.291	470.721	468.116	0.252	0.304	9.579	20.291	3.655
2023-07-02 20:00	2174403	8.583	-153.711	270.261	20.27	470.385	467.97	0.252	0.304	9.554	20.27	3.613
2023-07-02 20:15	2175303	8.568	-152.886	272.385	20.254	470.281	468.013	0.252	0.304	9.486	20.254	3.68
2023-07-02 20:30	2176203	8.566	-152.779	271.875	20.232	469.966	467.896	0.252	0.304	9.412	20.232	3.962
2023-07-02 20:45	2177103	8.567	-152.836	273.394	20.193	469.542	467.817	0.252	0.304	9.408	20.193	3.755
2023-07-02 21:00	2178003	8.585	-153.818	268.077	20.175	469.648	468.084	0.252	0.304	9.383	20.175	3.568
2023-07-02 21:15	2178903	8.566	-152.745	271.541	20.144	469.347	468.061	0.252	0.304	9.385	20.144	3.636
2023-07-02 21:30	2179803	8.558	-152.292	272.631	20.117	469.305	468.261	0.252	0.304	9.263	20.117	3.569
2023-07-02 21:45	2180703	8.557	-152.247	273.747	20.101	469.006	468.102	0.252	0.304	9.282	20.101	3.532
2023-07-02 22:00	2181603	8.561	-152.457	271.825	20.079	468.54	467.838	0.252	0.304	9.214	20.079	3.432
2023-07-02 22:15	2182503	8.545	-151.567	273.303	20.065	468.666	468.088	0.252	0.304	9.162	20.065	3.522
2023-07-02 22:30	2183403	8.554	-152.054	272.276	20.073	468.855	468.201	0.252	0.304	9.102	20.073	3.481
2023-07-02 22:45	2184303	8.542	-151.391	275.389	20.07	468.858	468.234	0.252	0.304	9.012	20.07	3.508
2023-07-02 23:00	2185203	8.556	-152.142	269.725	20.057	469.175	468.662	0.253	0.305	8.927	20.057	3.514
2023-07-02 23:15	2186103	8.537	-151.114	271.045	20.025	469.084	468.858	0.253	0.305	8.936	20.025	3.46
2023-07-02 23:30	2187003	8.532	-150.819	271.823	20.005	469.008	468.963	0.253	0.305	8.926	20.005	3.526
2023-07-02 23:45	2187903	8.532	-150.814	272.495	19.973	468.862	469.101	0.253	0.305	8.868	19.973	3.607
2023-07-03 00:00	2188803	8.545	-151.494	271.506	19.948	468.222	468.689	0.253	0.305	8.857	19.948	3.499
2023-07-03 00:15	2189703	8.528	-150.58	273.391	19.911	467.923	468.719	0.253	0.305	8.828	19.911	3.519
2023-07-03 00:30	2190603	8.520	-150.096	273.997	19.875	467.549	468.666	0.253	0.305	8.795	19.875	3.605
2023-07-03 00:45	2191503	8.512	-149.682	274.526	19.855	467.272	468.574	0.253	0.305	8.639	19.855	3.459
2023-07-03 01:00	2192403	8.541	-151.248	272.879	19.824	467.253	468.831	0.253	0.305	8.687	19.824	3.673
2023-07-03 01:15	2193303	8.520	-150.085	275.747	19.803	467.393	469.161	0.253	0.305	8.752	19.803	3.531
2023-07-03 01:30	2194203	8.512	-149.639	279.133	19.763	467.075	469.203	0.253	0.305	8.729	19.763	3.496
2023-07-03 01:45	2195103	8.516	-149.786	279.898	19.725	466.51	468.976	0.253	0.305	8.732	19.725	3.477
2023-07-03 02:00	2196003	8.538	-150.967	279.597	19.687	465.669	468.466	0.253	0.305	8.765	19.687	3.755
2023-07-03 02:15	2196903	8.527	-150.392	281.309	19.646	465.309	468.479	0.253	0.305	8.649	19.646	3.668
2023-07-03 02:30	2197803	8.515	-149.703	281.374	19.612	465.154	468.625	0.253	0.305	8.578	19.612	3.443
2023-07-03 02:45	2198703	8.512	-149.524	282.699	19.584	464.765	468.487	0.253	0.305	8.475	19.584	3.716
2023-07-03 03:00	2199603	8.523	-150.096	278.63	19.567	464.875	468.749	0.253	0.305	8.457	19.567	3.492
2023-07-03 03:15	2200503	8.508	-149.302	278.646	19.553	464.795	468.801	0.253	0.305	8.416	19.553	3.543
2023-07-03 03:30	2201403	8.507	-149.202	279.607	19.522	464.541	468.819	0.253	0.305	8.472	19.522	3.454
2023-07-03 03:45	2202303	8.506	-149.148	280.902	19.503	464.311	468.763	0.253	0.305	8.510	19.503	3.49
2023-07-03 04:00	2203203	8.513	-149.555	280.05	19.494	463.815	468.344	0.253	0.304	8.533	19.494	3.404
2023-07-03 04:15	2204103	8.487	-148.122	282.861	19.451	463.268	468.18	0.253	0.304	8.459	19.451	4.08
2023-07-03 04:30	2205003	8.490	-148.253	278.78	19.435	463.326	468.384	0.253	0.304	8.394	19.435	8.98
2023-07-03 04:45	2205903	8.496	-148.594	274.121	19.419	462.85	468.044	0.253	0.304	8.363	19.419	8.833
2023-07-03 05:00	2206803	8.515	-149.577	270.869	19.402	462.911	468.259	0.253	0.304	8.488	19.402	7.735
2023-07-03 05:15	2207703	8.496	-148.554	275.048	19.37	462.529	468.165	0.253	0.304	8.379	19.37	9.458
2023-07-03 05:30	2208603	8.474	-147.352	274.245	19.325	462.055	468.094	0.253	0.304	8.299	19.325	7.504
2023-07-03 05:45	2209503	8.465	-146.849	276.372	19.301	461.941	468.192	0.253	0.304	8.277	19.301	5.888
2023-07-03 06:00	2210403	8.470	-147.073	274.317	19.267	461.34	467.887	0.253	0.304	8.108	19.267	5.706
2023-07-03 06:15	2211303	8.461	-146.606	279.659	19.243	460.994	467.753	0.252	0.304	8.085	19.243	5.279
2023-07-03 06:30	2212203	8.451	-146.05	281.135	19.231	460.936	467.809	0.253	0.304	8.071	19.231	4.487
2023-07-03 06:45	2213103	8.453	-146.153	282.728	19.214	460.789	467.81	0.253	0.304	8.114	19.214	3.937
2023-07-03 07:00	2214003	8.476	-147.381	280.787	19.191	460.738	467.965	0.253	0.304	8.084	19.191	3.914
2023-07-03 07:15	2214903	8.467	-146.873	283.205	19.172	460.496	467.893	0.253	0.304	8.130	19.172	4.178
2023-07-03 07:30	2215803	8.468	-146.902	284.142	19.15	460.298	467.898	0.253	0.304	8.258	19.15	3.952
2023-07-03 07:45	2216703	8.485	-147.817	283.875	19.132	460.187	467.945	0.253	0.304	8.195	19.132	3.78

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-03 08:00	2217603	8.483	-147.722	276.932	19.123	459.941	467.78	0.253	0.304	8.174	19.123	3.605
2023-07-03 08:15	2218503	8.478	-147.421	282.346	19.101	459.557	467.586	0.252	0.304	8.196	19.101	3.713
2023-07-03 08:30	2219403	8.487	-147.92	283.076	19.08	459.26	467.473	0.252	0.304	8.253	19.08	3.787
2023-07-03 08:45	2220303	8.494	-148.273	281.622	19.082	459.287	467.481	0.252	0.304	8.348	19.082	3.646
2023-07-03 09:00	2221203	8.512	-149.262	278.467	19.086	459.37	467.532	0.252	0.304	8.365	19.086	4.004
2023-07-03 09:15	2222103	8.505	-148.876	279.326	19.083	459.441	467.635	0.252	0.304	8.461	19.083	3.593
2023-07-03 09:30	2223003	8.517	-149.541	279.707	19.079	459.319	467.544	0.252	0.304	8.527	19.079	3.724
2023-07-03 09:45	2223903	8.513	-149.312	281.157	19.058	458.988	467.395	0.252	0.304	8.559	19.058	3.764
2023-07-03 10:00	2224803	8.523	-149.858	277.843	19.04	458.675	467.243	0.252	0.304	8.566	19.04	3.556
2023-07-03 10:15	2225703	8.515	-149.4	279.402	19.031	458.363	467.004	0.252	0.304	8.562	19.031	3.915
2023-07-03 10:30	2226603	8.512	-149.26	279.86	19.019	458.13	466.876	0.252	0.303	8.593	19.019	3.797
2023-07-03 10:45	2227503	8.516	-149.472	279.428	19.009	458.019	466.857	0.252	0.303	8.588	19.009	3.608
2023-07-03 11:00	2228403	8.539	-150.688	273.246	19.003	458.076	466.965	0.252	0.304	8.616	19.003	3.774
2023-07-03 11:15	2229303	8.530	-150.173	273.821	18.994	458.097	467.067	0.252	0.304	8.648	18.994	3.526
2023-07-03 11:30	2230203	8.521	-149.72	273.635	19.002	458.289	467.191	0.252	0.304	8.607	19.002	4.151
2023-07-03 11:45	2231103	8.529	-150.18	273.458	19.015	458.426	467.22	0.252	0.304	8.606	19.015	4.205
2023-07-03 12:00	2232003	8.533	-150.352	269.386	19.015	458.008	466.79	0.252	0.303	8.651	19.015	3.482
2023-07-03 12:15	2232903	8.532	-150.313	274.92	19.007	457.814	466.662	0.252	0.303	8.702	19.007	3.541
2023-07-03 12:30	2233803	8.533	-150.375	273.515	19.003	457.755	466.642	0.252	0.303	8.646	19.003	3.454
2023-07-03 12:45	2234703	8.534	-150.423	275.18	18.999	457.698	466.62	0.252	0.303	8.676	18.999	3.454
2023-07-03 13:00	2235603	8.544	-150.969	270.447	19	457.744	466.656	0.252	0.303	8.671	19	3.496
2023-07-03 13:15	2236503	8.528	-150.101	273.895	18.999	457.88	466.802	0.252	0.303	8.750	18.999	3.535
2023-07-03 13:30	2237403	8.540	-150.719	272.114	18.997	457.694	466.636	0.252	0.303	8.797	18.997	3.48
2023-07-03 13:45	2238303	8.543	-150.878	272.602	18.998	457.721	466.652	0.252	0.303	8.803	18.998	3.401
2023-07-03 14:00	2239203	8.536	-150.554	268.95	19.004	457.483	466.354	0.252	0.303	8.773	19.004	3.283
2023-07-03 14:15	2240103	8.531	-150.249	273.275	19.007	457.411	466.257	0.252	0.303	8.734	19.007	3.465
2023-07-03 14:30	2241003	8.523	-149.813	274.758	19.007	457.427	466.274	0.252	0.303	8.667	19.007	3.35
2023-07-03 14:45	2241903	8.522	-149.77	274.982	19.009	457.266	466.092	0.252	0.303	8.704	19.009	3.327
2023-07-03 15:00	2242803	8.540	-150.75	273.947	19.011	457.5	466.312	0.252	0.303	8.695	19.011	3.326
2023-07-03 15:15	2243703	8.529	-150.135	273.754	19.018	457.658	466.41	0.252	0.303	8.719	19.018	3.439
2023-07-03 15:30	2244603	8.533	-150.373	270.573	19.031	457.782	466.411	0.252	0.303	8.789	19.031	3.463
2023-07-03 15:45	2245503	8.523	-149.844	272.333	19.054	458.173	466.603	0.252	0.303	8.755	19.054	3.228
2023-07-03 16:00	2246403	8.534	-150.468	270.292	19.095	457.863	465.92	0.252	0.303	8.816	19.095	3.298
2023-07-03 16:15	2247303	8.549	-151.305	270.337	19.138	458.303	465.971	0.252	0.303	8.973	19.138	3.193
2023-07-03 16:30	2248203	8.564	-152.149	267.143	19.197	458.822	465.969	0.252	0.303	9.022	19.197	3.33
2023-07-03 16:45	2249103	8.576	-152.845	265.629	19.253	459.4	466.049	0.252	0.303	9.037	19.253	3.289
2023-07-03 17:00	2250003	8.590	-153.606	265.362	19.342	459.886	465.738	0.251	0.303	9.094	19.342	3.418
2023-07-03 17:15	2250903	8.594	-153.894	263.55	19.387	460.516	465.97	0.251	0.303	9.473	19.387	3.627
2023-07-03 17:30	2251803	8.618	-155.189	262.439	19.419	460.751	465.919	0.251	0.303	9.735	19.419	3.435
2023-07-03 17:45	2252703	8.616	-155.127	261.993	19.473	461.186	465.871	0.251	0.303	9.728	19.473	3.67
2023-07-03 18:00	2253603	8.619	-155.318	260.107	19.546	471.134	475.25	0.257	0.309	9.709	19.546	3.417
2023-07-03 18:15	2254503	8.610	-154.865	262.617	19.598	462.285	465.865	0.251	0.303	9.636	19.598	3.431
2023-07-03 18:30	2255403	8.618	-155.311	261.847	19.657	462.617	465.67	0.251	0.303	9.825	19.657	3.462
2023-07-03 18:45	2256303	8.622	-155.58	262.903	19.696	462.948	465.656	0.251	0.303	9.941	19.696	3.608
2023-07-03 19:00	2257203	8.645	-156.858	259.735	19.791	464.024	465.885	0.251	0.303	9.862	19.791	8.463
2023-07-03 19:15	2258103	8.632	-156.155	255.803	19.825	464.717	466.275	0.251	0.303	9.822	19.825	4.034
2023-07-03 19:30	2259003	8.600	-154.433	258.24	19.815	465.289	466.94	0.252	0.304	9.354	19.815	3.642
2023-07-03 19:45	2259903	8.575	-153.034	258.688	19.803	465.403	467.165	0.252	0.304	9.178	19.803	3.64
2023-07-03 20:00	2260803	8.551	-151.734	256.931	19.79	465.291	467.168	0.252	0.304	9.058	19.79	3.527
2023-07-03 20:15	2261703	8.547	-151.529	263.676	19.771	465.027	467.071	0.252	0.304	8.971	19.771	3.471
2023-07-03 20:30	2262603	8.534	-150.809	266.961	19.764	464.818	466.924	0.252	0.304	8.884	19.764	3.411
2023-07-03 20:45	2263503	8.522	-150.168	269.005	19.755	464.719	466.905	0.252	0.303	8.852	19.755	3.306
2023-07-03 21:00	2264403	8.547	-151.536	263.9	19.75	464.85	467.078	0.252	0.304	8.911	19.75	3.906
2023-07-03 21:15	2265303	8.526	-150.349	265.118	19.715	464.557	467.1	0.252	0.304	9.000	19.715	3.504
2023-07-03 21:30	2266203	8.536	-150.876	263.786	19.694	464.36	467.089	0.252	0.304	8.989	19.694	3.41
2023-07-03 21:45	2267103	8.536	-150.864	265.435	19.672	464.156	467.079	0.252	0.304	9.006	19.672	3.442

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-03 22:00	2268003	8.550	-151.618	265.285	19.624	463.083	466.436	0.252	0.303	9.034	19.624	3.473
2023-07-03 22:15	2268903	8.550	-151.596	268.606	19.579	462.623	466.373	0.252	0.303	9.045	19.579	3.451
2023-07-03 22:30	2269803	8.541	-151.086	269.791	19.531	462.203	466.379	0.252	0.303	8.952	19.531	3.489
2023-07-03 22:45	2270703	8.537	-150.84	270.478	19.488	461.775	466.332	0.252	0.303	8.944	19.488	3.315
2023-07-03 23:00	2271603	8.549	-151.448	266.954	19.461	461.76	466.565	0.252	0.303	8.889	19.461	3.46
2023-07-03 23:15	2272503	8.535	-150.669	266.575	19.421	461.669	466.827	0.252	0.303	8.867	19.421	3.442
2023-07-03 23:30	2273403	8.521	-149.889	270.874	19.371	461.119	466.727	0.252	0.303	8.859	19.371	3.378
2023-07-03 23:45	2274303	8.524	-150.063	270.836	19.344	461.008	466.859	0.252	0.303	8.814	19.344	3.449
2023-07-04 00:00	2275203	8.524	-150.03	270.54	19.302	460.151	466.369	0.252	0.303	8.775	19.302	3.429
2023-07-04 00:15	2276103	8.519	-149.72	275.547	19.243	459.499	466.241	0.252	0.303	8.798	19.243	3.453
2023-07-04 00:30	2277003	8.521	-149.803	276.636	19.214	459.492	466.492	0.252	0.303	8.735	19.214	3.274
2023-07-04 00:45	2277903	8.512	-149.326	277.909	19.164	458.944	466.395	0.252	0.303	8.619	19.164	3.482
2023-07-04 01:00	2278803	8.521	-149.794	271.565	19.151	458.998	466.565	0.252	0.303	8.616	19.151	3.393
2023-07-04 01:15	2279703	8.512	-149.281	269.667	19.116	458.898	466.777	0.252	0.303	8.599	19.116	3.554
2023-07-04 01:30	2280603	8.504	-148.823	267.224	19.085	458.742	466.898	0.252	0.303	8.569	19.085	3.409
2023-07-04 01:45	2281503	8.491	-148.127	269.386	19.053	458.43	466.872	0.252	0.303	8.464	19.053	3.522
2023-07-04 02:00	2282403	8.493	-148.201	269.221	19.008	457.651	466.491	0.252	0.303	8.519	19.008	4.132
2023-07-04 02:15	2283303	8.486	-147.817	274.286	18.966	457.282	466.492	0.252	0.303	8.388	18.966	4.243
2023-07-04 02:30	2284203	8.468	-146.806	276.901	18.918	457.11	466.753	0.252	0.303	8.256	18.918	4.773
2023-07-04 02:45	2285103	8.425	-144.453	279.059	18.88	457.324	467.318	0.252	0.304	7.764	18.88	9.786
2023-07-04 03:00	2286003	8.391	-142.579	270.869	18.851	457.18	467.435	0.252	0.304	7.509	18.851	6.778
2023-07-04 03:15	2286903	8.358	-140.784	270.495	18.816	457.23	467.808	0.253	0.304	7.609	18.816	10.947
2023-07-04 03:30	2287803	8.346	-140.111	268.356	18.794	457.031	467.81	0.253	0.304	7.196	18.794	10.439
2023-07-04 03:45	2288703	8.322	-138.795	268.323	18.76	456.806	467.887	0.253	0.304	7.051	18.76	9.13
2023-07-04 04:00	2289603	8.315	-138.412	265.793	18.726	456.224	467.607	0.253	0.304	6.772	18.726	7.676
2023-07-04 04:15	2290503	8.308	-138.006	270.173	18.684	455.533	467.279	0.252	0.304	6.821	18.684	6.189
2023-07-04 04:30	2291403	8.334	-139.396	271.823	18.649	455.072	467.123	0.252	0.304	6.863	18.649	5.099
2023-07-04 04:45	2292303	8.396	-142.746	275.575	18.589	453.688	466.251	0.252	0.303	7.290	18.589	4.451
2023-07-04 05:00	2293203	8.394	-142.624	271.072	18.575	454.04	466.741	0.252	0.303	7.670	18.575	4.548
2023-07-04 05:15	2294103	8.375	-141.556	276.424	18.537	453.766	466.811	0.252	0.303	7.435	18.537	4.565
2023-07-04 05:30	2295003	8.361	-140.786	280.911	18.5	453.584	466.963	0.252	0.304	7.422	18.5	4.249
2023-07-04 05:45	2295903	8.343	-139.842	283.205	18.475	453.368	466.97	0.252	0.304	7.142	18.475	4.333
2023-07-04 06:00	2296803	8.351	-140.235	281.498	18.452	452.995	466.799	0.252	0.303	7.065	18.452	7.789
2023-07-04 06:15	2297703	8.352	-140.302	284.149	18.422	452.848	466.92	0.252	0.303	7.174	18.422	4.001
2023-07-04 06:30	2298603	8.341	-139.656	286.299	18.387	452.169	466.546	0.252	0.303	7.177	18.387	3.823
2023-07-04 06:45	2299503	8.368	-141.108	286.69	18.367	451.786	466.33	0.252	0.303	7.611	18.367	3.619
2023-07-04 07:00	2300403	8.379	-141.728	287.387	18.362	452.017	466.614	0.252	0.303	7.388	18.362	3.515
2023-07-04 07:15	2301303	8.368	-141.122	289.122	18.344	451.96	466.721	0.252	0.303	7.212	18.344	3.409
2023-07-04 07:30	2302203	8.372	-141.323	290.033	18.338	451.776	466.586	0.252	0.303	7.382	18.338	3.349
2023-07-04 07:45	2303103	8.368	-141.129	290.493	18.334	451.866	466.717	0.252	0.303	7.424	18.334	3.25
2023-07-04 08:00	2304003	8.376	-141.53	287.573	18.332	451.507	466.363	0.252	0.303	7.486	18.332	3.254
2023-07-04 08:15	2304903	8.363	-140.836	290.446	18.322	451.347	466.287	0.252	0.303	7.466	18.322	3.206
2023-07-04 08:30	2305803	8.359	-140.605	292.277	18.321	451.166	466.116	0.252	0.303	7.389	18.321	3.152
2023-07-04 08:45	2306703	8.361	-140.7	293.361	18.311	450.997	466.029	0.252	0.303	7.349	18.311	3.277
2023-07-04 09:00	2307603	8.382	-141.85	288.159	18.314	451.469	466.491	0.252	0.303	7.424	18.314	3.138
2023-07-04 09:15	2308503	8.372	-141.301	289.525	18.306	451.493	466.588	0.252	0.303	7.595	18.306	3.133
2023-07-04 09:30	2309403	8.365	-140.941	290.958	18.296	451.471	466.655	0.252	0.303	7.439	18.296	3.149
2023-07-04 09:45	2310303	8.368	-141.07	292.329	18.291	450.98	466.201	0.252	0.303	7.497	18.291	3.227
2023-07-04 10:00	2311203	8.399	-142.782	284.061	18.29	450.756	465.978	0.252	0.303	7.624	18.29	3.148
2023-07-04 10:15	2312103	8.445	-145.261	272.843	18.291	450.803	466.015	0.252	0.303	7.526	18.291	3.061
2023-07-04 10:30	2313003	8.415	-143.607	269.343	18.307	450.827	465.893	0.252	0.303	7.525	18.307	3.009
2023-07-04 10:45	2313903	8.413	-143.511	268.845	18.331	451.011	465.862	0.252	0.303	7.483	18.331	3.09
2023-07-04 11:00	2314803	8.440	-145.006	267.882	18.363	451.255	465.824	0.252	0.303	7.550	18.363	3.04
2023-07-04 11:15	2315703	8.427	-144.317	270.125	18.4	451.959	466.207	0.252	0.303	7.752	18.4	3.24
2023-07-04 11:30	2316603	8.439	-145.016	274.219	18.45	452.457	466.264	0.252	0.303	7.936	18.45	3.172
2023-07-04 11:45	2317503	8.450	-145.638	278.413	18.52	453.184	466.371	0.252	0.303	8.069	18.52	3.601

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-04 12:00	2318403	8.447	-145.485	276.417	18.604	453.684	466.116	0.252	0.303	8.163	18.604	3.443
2023-07-04 12:15	2319303	8.453	-145.845	281.333	18.642	453.84	465.924	0.252	0.303	8.186	18.642	3.552
2023-07-04 12:30	2320203	8.459	-146.198	282.575	18.674	454.073	465.875	0.252	0.303	8.317	18.674	3.446
2023-07-04 12:45	2321103	8.480	-147.328	284.094	18.71	454.062	465.534	0.251	0.303	8.453	18.71	3.558
2023-07-04 13:00	2322003	8.499	-148.368	280.015	18.739	454.545	465.765	0.252	0.303	8.559	18.739	3.518
2023-07-04 13:15	2322903	8.502	-148.551	281.6	18.775	455.056	465.962	0.252	0.303	8.655	18.775	3.842
2023-07-04 13:30	2323803	8.512	-149.124	282.783	18.807	455.199	465.816	0.252	0.303	8.787	18.807	4.253
2023-07-04 13:45	2324703	8.521	-149.605	282.001	18.839	455.477	465.804	0.252	0.303	8.861	18.839	3.843
2023-07-04 14:00	2325603	8.527	-149.984	277.266	18.897	455.748	465.556	0.251	0.303	8.914	18.897	3.881
2023-07-04 14:15	2326503	8.539	-150.63	280.53	18.934	456.002	465.475	0.251	0.303	8.982	18.934	3.799
2023-07-04 14:30	2327403	8.550	-151.255	277.917	18.99	456.585	465.57	0.251	0.303	9.076	18.99	3.546
2023-07-04 14:45	2328303	8.558	-151.737	278.26	19.049	457.229	465.688	0.251	0.303	9.083	19.049	3.652
2023-07-04 15:00	2329203	8.566	-152.18	272.483	19.099	457.487	465.495	0.251	0.303	9.081	19.099	3.773
2023-07-04 15:15	2330103	8.532	-150.383	277.464	19.104	457.551	465.516	0.251	0.303	9.319	19.104	3.954
2023-07-04 15:30	2331003	8.544	-151.01	278.999	19.126	458.151	465.931	0.252	0.303	9.239	19.126	4.046
2023-07-04 15:45	2331903	8.537	-150.628	280.668	19.145	457.884	465.489	0.251	0.303	9.275	19.145	3.813
2023-07-04 16:00	2332803	8.585	-153.286	273.446	19.165	457.272	464.686	0.251	0.302	9.659	19.165	3.637
2023-07-04 16:15	2333703	8.586	-153.32	275.859	19.187	457.887	465.109	0.251	0.302	9.641	19.187	3.772
2023-07-04 16:30	2334603	8.581	-153.062	275.039	19.237	458.64	465.42	0.251	0.303	9.490	19.237	3.886
2023-07-04 16:45	2335503	8.576	-152.843	275.048	19.307	459.748	465.912	0.251	0.303	9.300	19.307	3.692
2023-07-04 17:00	2336403	8.580	-153.143	268.566	19.454	461.126	465.981	0.251	0.303	9.340	19.454	3.429
2023-07-04 17:15	2337303	8.565	-152.38	270.638	19.539	462.331	466.442	0.252	0.303	9.478	19.539	3.537
2023-07-04 17:30	2338203	8.560	-152.135	272.631	19.632	463.202	466.485	0.252	0.303	9.568	19.632	3.849
2023-07-04 17:45	2339103	8.566	-152.485	271.615	19.692	463.857	466.605	0.252	0.303	9.440	19.692	3.812
2023-07-04 18:00	2340003	8.540	-151.117	273.096	19.771	464.583	466.628	0.252	0.303	9.414	19.771	4.075
2023-07-04 18:15	2340903	8.553	-151.854	275.046	19.82	465.298	466.902	0.252	0.303	9.224	19.82	3.558
2023-07-04 18:30	2341803	8.542	-151.303	277.635	19.873	465.5	466.634	0.252	0.303	9.603	19.873	3.774
2023-07-04 18:45	2342703	8.537	-151.072	277.547	19.918	465.904	466.633	0.252	0.303	9.601	19.918	3.647
2023-07-04 19:00	2343603	8.537	-151.107	269.853	19.991	466.867	466.946	0.252	0.304	9.528	19.991	3.576
2023-07-04 19:15	2344503	8.513	-149.834	273.575	20.05	468.09	467.64	0.252	0.304	9.362	20.05	3.517
2023-07-04 19:30	2345403	8.525	-150.475	274.545	20.095	468.463	467.619	0.252	0.304	9.315	20.095	3.368
2023-07-04 19:45	2346303	8.519	-150.194	274.915	20.122	468.783	467.693	0.252	0.304	9.641	20.122	3.34
2023-07-04 20:00	2347203	8.523	-150.414	269.629	20.155	468.327	466.948	0.252	0.304	10.089	20.155	3.396
2023-07-04 20:15	2348103	8.508	-149.627	273.504	20.175	468.344	466.784	0.252	0.303	9.609	20.175	3.515
2023-07-04 20:30	2349003	8.514	-149.925	274.777	20.2	468.674	466.887	0.252	0.303	9.562	20.2	3.389
2023-07-04 20:45	2349903	8.510	-149.701	277.28	20.177	466.064	464.49	0.250	0.302	9.720	20.177	3.618
2023-07-04 21:00	2350803	8.609	-155.115	267.936	20.197	466.441	464.691	0.250	0.302	10.514	20.197	3.467
2023-07-04 21:15	2351703	8.591	-154.13	269.236	20.148	466.197	464.885	0.250	0.302	10.926	20.148	3.576
2023-07-04 21:30	2352603	8.632	-156.317	269.853	20.111	465.628	464.64	0.250	0.302	11.228	20.111	3.594
2023-07-04 21:45	2353503	8.646	-157.068	269.107	20.101	465.388	464.49	0.250	0.302	11.314	20.101	3.487
2023-07-04 22:00	2354403	8.649	-157.239	267.131	20.11	465.015	464.044	0.250	0.302	11.223	20.11	3.512
2023-07-04 22:15	2355303	8.632	-156.293	270.261	20.104	465.023	464.102	0.250	0.302	10.785	20.104	3.46
2023-07-04 22:30	2356203	8.619	-155.592	270.96	20.105	465.377	464.443	0.250	0.302	10.651	20.105	3.428
2023-07-04 22:45	2357103	8.612	-155.232	271.806	20.112	465.589	464.599	0.250	0.302	10.560	20.112	3.42
2023-07-04 23:00	2358003	8.616	-155.466	268.165	20.139	466.102	464.869	0.250	0.302	10.430	20.139	3.336
2023-07-04 23:15	2358903	8.601	-154.648	271.081	20.145	466.478	465.186	0.251	0.302	10.363	20.145	3.337
2023-07-04 23:30	2359803	8.591	-154.128	271.796	20.171	466.86	465.336	0.251	0.302	10.281	20.171	3.379
2023-07-04 23:45	2360703	8.591	-154.102	272.619	20.185	467.102	465.457	0.251	0.303	10.240	20.185	3.325
2023-07-05 00:00	2361603	8.581	-153.57	270.883	20.189	466.749	465.067	0.251	0.302	10.173	20.189	3.361
2023-07-05 00:15	2362503	8.564	-152.626	275.351	20.159	466.502	465.092	0.251	0.302	10.018	20.159	3.477
2023-07-05 00:30	2363403	8.565	-152.667	275.227	20.12	466.831	465.762	0.251	0.303	9.936	20.12	3.696
2023-07-05 00:45	2364303	8.546	-151.603	274.104	20.054	466.76	466.28	0.251	0.303	9.468	20.054	3.564
2023-07-05 01:00	2365203	8.534	-150.962	273.945	20.011	466.376	466.28	0.251	0.303	9.283	20.011	3.857
2023-07-05 01:15	2366103	8.510	-149.586	276.019	19.949	465.757	466.21	0.251	0.303	9.373	19.949	4.065
2023-07-05 01:30	2367003	8.512	-149.653	278.198	19.881	465.11	466.166	0.251	0.303	9.473	19.881	3.761
2023-07-05 01:45	2367903	8.515	-149.834	280.046	19.828	464.678	466.209	0.251	0.303	9.417	19.828	3.807

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-05 02:00	2368803	8.515	-149.779	277.03	19.75	463.79	466.016	0.251	0.303	9.243	19.75	4.062
2023-07-05 02:15	2369703	8.496	-148.718	280.549	19.694	463.286	466.01	0.251	0.303	9.042	19.694	3.924
2023-07-05 02:30	2370603	8.478	-147.688	281.04	19.604	462.727	466.254	0.251	0.303	8.822	19.604	4.078
2023-07-05 02:45	2371503	8.447	-145.993	283.381	19.543	461.981	466.047	0.251	0.303	8.694	19.543	4.201
2023-07-05 03:00	2372403	8.476	-147.543	280.258	19.505	461.806	466.216	0.252	0.303	8.699	19.505	5.187
2023-07-05 03:15	2373303	8.453	-146.27	282.788	19.432	461.172	466.227	0.252	0.303	8.784	19.432	4.945
2023-07-05 03:30	2374203	8.463	-146.732	283.772	19.375	460.634	466.2	0.252	0.303	8.866	19.375	4.818
2023-07-05 03:45	2375103	8.456	-146.356	284.857	19.323	460.142	466.174	0.252	0.303	8.884	19.323	4.624
2023-07-05 04:00	2376003	8.462	-146.654	283.92	19.271	459.395	465.88	0.251	0.303	8.638	19.271	4.093
2023-07-05 04:15	2376903	8.458	-146.418	286.667	19.216	458.606	465.579	0.251	0.303	8.704	19.216	4.159
2023-07-05 04:30	2377803	8.465	-146.756	287.37	19.16	458.039	465.504	0.251	0.303	8.717	19.16	4.253
2023-07-05 04:45	2378703	8.471	-147.047	287.351	19.108	457.482	465.408	0.251	0.303	8.817	19.108	4.445
2023-07-05 05:00	2379603	8.490	-148.063	286.459	19.088	457.654	465.767	0.251	0.303	8.709	19.088	4.552
2023-07-05 05:15	2380503	8.465	-146.72	287.832	19.031	457.354	465.977	0.252	0.303	8.654	19.031	4.067
2023-07-05 05:30	2381403	8.464	-146.644	288.243	19.003	457.199	466.074	0.252	0.303	8.579	19.003	4.232
2023-07-05 05:45	2382303	8.450	-145.831	289.635	18.95	456.548	465.894	0.252	0.303	8.597	18.95	4.448
2023-07-05 06:00	2383203	8.465	-146.632	285.749	18.919	455.926	465.536	0.251	0.303	8.596	18.919	5.034
2023-07-05 06:15	2384103	8.452	-145.924	289.354	18.865	455.858	465.956	0.252	0.303	8.471	18.865	4.411
2023-07-05 06:30	2385003	8.435	-144.947	289.27	18.822	455.016	465.491	0.251	0.303	8.380	18.822	4.962
2023-07-05 06:45	2385903	8.436	-145.028	288.7	18.785	454.741	465.547	0.251	0.303	8.377	18.785	4.939
2023-07-05 07:00	2386803	8.456	-146.086	286.009	18.774	454.872	465.775	0.252	0.303	8.312	18.774	5.046
2023-07-05 07:15	2387703	8.428	-144.577	288.917	18.75	454.92	466.048	0.252	0.303	8.294	18.75	4.605
2023-07-05 07:30	2388603	8.427	-144.475	289.768	18.729	454.76	466.079	0.252	0.303	8.290	18.729	4.596
2023-07-05 07:45	2389503	8.430	-144.627	291.142	18.71	454.7	466.19	0.252	0.303	8.291	18.71	4.858
2023-07-05 08:00	2390403	8.437	-145.035	286.729	18.698	454.006	465.584	0.252	0.303	8.296	18.698	4.277
2023-07-05 08:15	2391303	8.427	-144.453	290.536	18.671	453.544	465.36	0.251	0.302	8.266	18.671	4.868
2023-07-05 08:30	2392203	8.431	-144.691	289.795	18.653	453.15	465.115	0.251	0.302	8.323	18.653	4.558
2023-07-05 08:45	2393103	8.434	-144.83	289.387	18.648	453.289	465.304	0.251	0.302	8.316	18.648	4.72
2023-07-05 09:00	2394003	8.448	-145.602	287.179	18.653	453.671	465.652	0.252	0.303	8.282	18.653	4.276
2023-07-05 09:15	2394903	8.432	-144.722	288.81	18.65	453.994	466.008	0.252	0.303	8.300	18.65	4.062
2023-07-05 09:30	2395803	8.432	-144.715	289.673	18.655	454.224	466.203	0.252	0.303	8.238	18.655	3.631
2023-07-05 09:45	2396703	8.416	-143.855	290.56	18.658	454.516	466.475	0.252	0.303	8.273	18.658	3.634
2023-07-05 10:00	2397603	8.415	-143.831	286.538	18.674	453.914	465.711	0.252	0.303	8.180	18.674	3.548
2023-07-05 10:15	2398503	8.412	-143.626	286.454	18.672	453.971	465.781	0.252	0.303	7.933	18.672	3.454
2023-07-05 10:30	2399403	8.422	-144.217	288.033	18.692	454.138	465.778	0.252	0.303	7.997	18.692	3.455
2023-07-05 10:45	2400303	8.419	-144.029	288.185	18.719	454.508	465.91	0.252	0.303	8.022	18.719	3.348
2023-07-05 11:00	2401203	8.435	-144.923	286.03	18.758	454.808	465.859	0.252	0.303	7.973	18.758	3.609
2023-07-05 11:15	2402103	8.463	-146.441	281.424	18.787	455.278	466.073	0.252	0.303	8.171	18.787	3.58
2023-07-05 11:30	2403003	8.493	-148.113	281.078	18.821	455.473	465.965	0.252	0.303	8.251	18.821	3.623
2023-07-05 11:45	2403903	8.473	-147.054	282.43	18.862	456.021	466.153	0.252	0.303	8.556	18.862	3.802
2023-07-05 12:00	2404803	8.469	-146.849	279.547	18.912	455.868	465.539	0.251	0.303	8.621	18.912	3.544
2023-07-05 12:15	2405703	8.457	-146.236	283.519	18.945	456.082	465.464	0.251	0.303	8.768	18.945	3.503
2023-07-05 12:30	2406603	8.467	-146.778	284.247	18.995	456.528	465.466	0.251	0.303	8.854	18.995	3.462
2023-07-05 12:45	2407503	8.500	-148.594	281.672	19.042	457.004	465.518	0.251	0.303	8.915	19.042	3.547
2023-07-05 13:00	2408403	8.497	-148.478	279.052	19.109	457.725	465.648	0.251	0.303	9.000	19.109	3.53
2023-07-05 13:15	2409303	8.484	-147.774	280.74	19.155	458.877	466.402	0.252	0.303	9.077	19.155	3.483
2023-07-05 13:30	2410203	8.469	-146.987	283.384	19.21	459.458	466.494	0.252	0.303	9.028	19.21	3.462
2023-07-05 13:45	2411103	8.478	-147.517	282.399	19.258	459.834	466.444	0.252	0.303	9.140	19.258	3.454
2023-07-05 14:00	2412003	8.504	-148.94	278.811	19.332	459.243	465.175	0.251	0.302	9.680	19.332	3.432
2023-07-05 14:15	2412903	8.482	-147.777	282.256	19.377	459.758	465.294	0.251	0.302	9.270	19.377	3.66
2023-07-05 14:30	2413803	8.589	-153.594	279.803	19.417	459.001	464.174	0.250	0.302	9.581	19.417	3.601
2023-07-05 14:45	2414703	8.651	-157.02	273.737	19.464	459.578	464.334	0.250	0.302	9.977	19.464	3.764
2023-07-05 15:00	2415603	8.601	-154.34	272.321	19.55	460.834	464.827	0.251	0.302	9.772	19.55	3.795
2023-07-05 15:15	2416503	8.616	-155.151	273.391	19.589	460.93	464.576	0.251	0.302	10.055	19.589	3.918
2023-07-05 15:30	2417403	8.608	-154.8	272.447	19.666	462.296	465.263	0.251	0.302	10.369	19.666	3.57
2023-07-05 15:45	2418303	8.623	-155.635	272.106	19.73	461.605	463.996	0.250	0.302	10.144	19.73	3.96

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-05 16:00	2419203	8.674	-158.415	266.654	19.78	461.09	463.035	0.250	0.301	10.897	19.78	3.678
2023-07-05 16:15	2420103	8.657	-157.509	270.216	19.797	460.855	462.645	0.249	0.301	11.041	19.797	3.758
2023-07-05 16:30	2421003	8.653	-157.325	269.801	19.818	462.745	464.361	0.250	0.302	10.728	19.818	3.811
2023-07-05 16:45	2421903	8.621	-155.587	271.329	19.838	463.021	464.457	0.250	0.302	10.548	19.838	3.701
2023-07-05 17:00	2422803	8.638	-156.395	267.638	19.645	461.367	464.514	0.251	0.302	10.152	19.645	4.128
2023-07-05 17:15	2423703	8.599	-154.154	272.617	19.437	459.948	464.944	0.251	0.302	9.888	19.437	4.699
2023-07-05 17:30	2424603	8.577	-152.922	276.612	19.317	459.086	465.152	0.251	0.302	9.641	19.317	3.91
2023-07-05 17:45	2425503	8.540	-150.862	280.055	19.249	458.488	465.164	0.251	0.302	9.392	19.249	4.037
2023-07-05 18:00	2426403	8.541	-150.895	277.943	19.177	457.635	464.944	0.251	0.302	9.333	19.177	4.044
2023-07-05 18:15	2427303	8.528	-150.13	282.215	19.119	457.163	464.985	0.251	0.302	9.222	19.119	3.934
2023-07-05 18:30	2428203	8.499	-148.58	284.89	19.112	457.271	465.163	0.251	0.302	9.116	19.112	3.788
2023-07-05 18:45	2429103	8.505	-148.909	285.725	19.121	457.429	465.237	0.251	0.302	9.091	19.121	3.662
2023-07-05 19:00	2430003	8.534	-150.487	280.027	19.143	457.836	465.459	0.251	0.303	9.062	19.143	3.728
2023-07-05 19:15	2430903	8.526	-150.089	281.796	19.157	458.219	465.719	0.251	0.303	9.143	19.157	3.629
2023-07-05 19:30	2431803	8.518	-149.648	282.628	19.181	458.562	465.854	0.251	0.303	9.180	19.181	3.546
2023-07-05 19:45	2432703	8.512	-149.324	284.931	19.198	458.626	465.759	0.251	0.303	9.106	19.198	3.598
2023-07-05 20:00	2433603	8.508	-149.121	283.176	19.213	458.426	465.422	0.251	0.303	9.091	19.213	3.518
2023-07-05 20:15	2434503	8.500	-148.709	284.726	19.224	458.478	465.379	0.251	0.302	9.072	19.224	3.38
2023-07-05 20:30	2435403	8.497	-148.537	284.275	19.243	458.804	465.531	0.251	0.303	8.981	19.243	3.38
2023-07-05 20:45	2436303	8.501	-148.749	283.224	19.263	458.775	465.326	0.251	0.302	9.001	19.263	3.287
2023-07-05 21:00	2437203	8.538	-150.805	277.828	19.289	458.944	465.259	0.251	0.302	9.170	19.289	3.483
2023-07-05 21:15	2438103	8.535	-150.616	274.185	19.332	459.419	465.354	0.251	0.302	9.351	19.332	3.876
2023-07-05 21:30	2439003	8.586	-153.472	265.638	19.495	460.394	464.874	0.251	0.302	9.596	19.495	3.909
2023-07-05 21:45	2439903	8.587	-153.601	258.598	19.563	460.706	464.585	0.251	0.302	9.507	19.563	3.728
2023-07-05 22:00	2440803	8.590	-153.749	252.322	19.604	460.54	464.047	0.250	0.302	9.560	19.604	3.717
2023-07-05 22:15	2441703	8.558	-152.025	257.072	19.604	460.459	463.971	0.250	0.302	9.466	19.604	3.763
2023-07-05 22:30	2442603	8.574	-152.893	255.868	19.608	460.21	463.679	0.250	0.301	9.448	19.608	3.739
2023-07-05 22:45	2443503	8.568	-152.552	258.016	19.612	460.086	463.521	0.250	0.301	9.433	19.612	3.752
2023-07-05 23:00	2444403	8.589	-153.742	254.921	19.62	459.346	462.706	0.250	0.301	9.421	19.62	4.159
2023-07-05 23:15	2445303	8.589	-153.718	247.68	19.647	459.379	462.494	0.249	0.301	9.572	19.647	3.682
2023-07-05 23:30	2446203	8.603	-154.507	245.437	19.681	459.552	462.367	0.249	0.301	9.610	19.681	3.737
2023-07-05 23:45	2447103	8.603	-154.533	247.652	19.706	459.83	462.429	0.249	0.301	9.622	19.706	3.821
2023-07-06 00:00	2448003	8.587	-153.685	248.608	19.719	459.803	462.284	0.249	0.300	9.577	19.719	3.664
2023-07-06 00:15	2448903	8.588	-153.716	256.328	19.72	459.924	462.399	0.249	0.301	9.452	19.72	3.668
2023-07-06 00:30	2449803	8.573	-152.888	261.847	19.71	460.091	462.65	0.249	0.301	9.310	19.71	3.675
2023-07-06 00:45	2450703	8.556	-151.949	265.667	19.699	459.994	462.65	0.249	0.301	9.262	19.699	3.733
2023-07-06 01:00	2451603	8.583	-153.41	263.225	19.692	459.792	462.517	0.249	0.301	9.216	19.692	3.677
2023-07-06 01:15	2452503	8.556	-151.961	263.612	19.675	460.031	462.902	0.250	0.301	9.224	19.675	3.568
2023-07-06 01:30	2453403	8.558	-152.049	265.254	19.661	459.867	462.862	0.250	0.301	9.189	19.661	3.574
2023-07-06 01:45	2454303	8.557	-152.016	267.369	19.641	459.635	462.809	0.250	0.301	9.261	19.641	3.414
2023-07-06 02:00	2455203	8.581	-153.263	263.137	19.614	458.402	461.805	0.249	0.300	9.350	19.614	3.575
2023-07-06 02:15	2456103	8.557	-151.961	265.896	19.583	457.766	461.437	0.249	0.300	9.332	19.583	3.599
2023-07-06 02:30	2457003	8.547	-151.42	265.986	19.563	457.652	461.5	0.249	0.300	9.295	19.563	3.492
2023-07-06 02:45	2457903	8.555	-151.844	267.138	19.538	457.53	461.606	0.249	0.300	9.210	19.538	3.499
2023-07-06 03:00	2458803	8.576	-152.969	266.57	19.524	457.68	461.877	0.249	0.300	9.197	19.524	3.409
2023-07-06 03:15	2459703	8.561	-152.152	268.277	19.499	457.774	462.194	0.249	0.300	9.201	19.499	3.379
2023-07-06 03:30	2460603	8.556	-151.849	271.205	19.476	457.505	462.131	0.249	0.300	9.143	19.476	3.431
2023-07-06 03:45	2461503	8.543	-151.165	272.321	19.451	457.296	462.145	0.249	0.300	9.146	19.451	3.337
2023-07-06 04:00	2462403	8.564	-152.285	267.634	19.431	456.634	461.655	0.249	0.300	9.137	19.431	3.393
2023-07-06 04:15	2463303	8.523	-150.032	272.006	19.382	455.958	461.405	0.249	0.300	9.127	19.382	3.379
2023-07-06 04:30	2464203	8.521	-149.863	272.602	19.334	455.811	461.68	0.249	0.300	9.052	19.334	3.553
2023-07-06 04:45	2465103	8.531	-150.394	271.951	19.308	455.448	461.549	0.249	0.300	9.011	19.308	4.381
2023-07-06 05:00	2466003	8.552	-151.56	268.237	19.295	455.568	461.789	0.249	0.300	8.922	19.295	3.594
2023-07-06 05:15	2466903	8.536	-150.661	271.038	19.269	455.643	462.093	0.249	0.300	8.932	19.269	3.698
2023-07-06 05:30	2467804	8.528	-150.235	272.226	19.23	455.229	462.02	0.249	0.300	8.928	19.23	3.637
2023-07-06 05:45	2468704	8.535	-150.568	274.464	19.199	455.027	462.093	0.249	0.300	8.903	19.199	3.811

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-06 06:00	2469604	8.541	-150.9	273.179	19.163	454.352	461.737	0.249	0.300	8.885	19.163	3.764
2023-07-06 06:15	2470504	8.520	-149.713	275.847	19.123	453.928	461.663	0.249	0.300	8.782	19.123	3.626
2023-07-06 06:30	2471404	8.519	-149.648	275.664	19.093	453.877	461.88	0.249	0.300	8.787	19.093	3.709
2023-07-06 06:45	2472304	8.512	-149.245	276.825	19.07	453.742	461.944	0.249	0.300	8.611	19.07	3.905
2023-07-06 07:00	2473204	8.522	-149.777	274.302	19.05	453.759	462.141	0.249	0.300	8.621	19.05	3.605
2023-07-06 07:15	2474104	8.503	-148.778	275.151	19.034	453.891	462.423	0.250	0.301	8.498	19.034	3.911
2023-07-06 07:30	2475004	8.500	-148.571	275.904	19.021	453.903	462.556	0.250	0.301	8.658	19.021	3.588
2023-07-06 07:45	2475904	8.501	-148.652	276.107	19.002	453.674	462.488	0.250	0.301	8.606	19.002	3.595
2023-07-06 08:00	2476804	8.510	-149.093	274.047	18.995	453.144	462.011	0.249	0.300	8.550	18.995	3.616
2023-07-06 08:15	2477704	8.491	-148.091	277.375	18.993	453.302	462.19	0.250	0.300	8.456	18.993	3.834
2023-07-06 08:30	2478604	8.482	-147.572	278.768	18.996	453.164	462.022	0.249	0.300	8.359	18.996	3.555
2023-07-06 08:45	2479504	8.482	-147.612	279.774	19.004	453.153	461.943	0.249	0.300	8.369	19.004	3.435
2023-07-06 09:00	2480404	8.504	-148.826	275.001	19.019	453.633	462.293	0.250	0.300	8.534	19.019	3.398
2023-07-06 09:15	2481304	8.495	-148.325	275.568	19.024	454.02	462.647	0.250	0.301	8.739	19.024	3.395
2023-07-06 09:30	2482204	8.503	-148.73	273.628	19.034	454.252	462.792	0.250	0.301	8.805	19.034	3.424
2023-07-06 09:45	2483104	8.498	-148.509	276.031	19.045	454.356	462.797	0.250	0.301	8.810	19.045	3.45
2023-07-06 10:00	2484004	8.514	-149.379	273.434	19.062	453.691	461.964	0.249	0.300	8.948	19.062	3.475
2023-07-06 10:15	2484904	8.503	-148.764	276.963	19.07	453.912	462.124	0.249	0.300	8.748	19.07	3.321
2023-07-06 10:30	2485804	8.491	-148.158	278.711	19.087	453.547	461.597	0.249	0.300	8.845	19.087	3.37
2023-07-06 10:45	2486704	8.517	-149.55	276.756	19.113	454.012	461.84	0.249	0.300	9.089	19.113	3.446
2023-07-06 11:00	2487604	8.575	-152.69	273.246	19.142	454.258	461.823	0.249	0.300	9.178	19.142	3.536
2023-07-06 11:15	2488504	8.588	-153.41	272.361	19.161	454.378	461.781	0.249	0.300	9.444	19.161	3.639
2023-07-06 11:30	2489404	8.596	-153.887	271.458	19.187	454.775	461.949	0.249	0.300	9.519	19.187	3.543
2023-07-06 11:45	2490304	8.598	-153.987	271.367	19.22	455.169	462.052	0.249	0.300	9.540	19.22	3.703
2023-07-06 12:00	2491204	8.590	-153.596	268.89	19.273	455.598	462.016	0.249	0.300	9.530	19.273	3.438
2023-07-06 12:15	2492104	8.590	-153.596	270.948	19.309	456.187	462.289	0.249	0.300	9.468	19.309	3.756
2023-07-06 12:30	2493004	8.572	-152.655	272.087	19.379	456.915	462.401	0.249	0.301	9.277	19.379	3.343
2023-07-06 12:45	2493904	8.557	-151.882	272.855	19.447	457.799	462.685	0.250	0.301	9.166	19.447	3.288
2023-07-06 13:00	2494804	8.582	-153.277	267.882	19.533	458.437	462.567	0.249	0.301	9.218	19.533	3.428
2023-07-06 13:15	2495704	8.607	-154.676	265.865	19.581	458.995	462.699	0.250	0.301	9.435	19.581	3.485
2023-07-06 13:30	2496604	8.616	-155.17	265.509	19.624	458.472	461.791	0.249	0.300	9.492	19.624	3.565
2023-07-06 13:45	2497504	8.689	-159.154	262.2	19.645	457.568	460.688	0.248	0.299	10.558	19.645	3.66
2023-07-06 14:00	2498404	8.696	-159.54	256.592	19.683	458.283	461.073	0.249	0.300	10.503	19.683	3.701
2023-07-06 14:15	2499304	8.668	-158.041	261.68	19.711	459.115	461.662	0.249	0.300	10.290	19.711	3.775
2023-07-06 14:30	2500204	8.659	-157.597	262.596	19.75	459.671	461.88	0.249	0.300	10.141	19.75	4
2023-07-06 14:45	2501104	8.647	-156.946	263.607	19.792	460.088	461.921	0.249	0.300	10.130	19.792	3.726
2023-07-06 15:00	2502004	8.655	-157.404	262.317	19.83	460.945	462.443	0.249	0.301	10.098	19.83	3.734
2023-07-06 15:15	2502904	8.616	-155.33	266.232	19.852	461.637	462.947	0.250	0.301	9.929	19.852	3.767
2023-07-06 15:30	2503804	8.637	-156.455	266.995	19.873	461.664	462.789	0.249	0.301	10.016	19.873	3.774
2023-07-06 15:45	2504704	8.626	-155.88	268.196	19.883	461.851	462.884	0.249	0.301	9.956	19.883	3.977
2023-07-06 16:00	2505604	8.643	-156.794	266.589	19.9	461.321	462.208	0.249	0.300	10.166	19.9	3.86
2023-07-06 16:15	2506504	8.630	-156.078	268.273	19.909	461.72	462.528	0.249	0.301	10.152	19.909	3.822
2023-07-06 16:30	2507404	8.626	-155.921	267.762	19.931	461.95	462.561	0.249	0.301	10.155	19.931	3.732
2023-07-06 16:45	2508304	8.633	-156.295	267.989	19.97	462.353	462.617	0.249	0.301	10.064	19.97	3.717
2023-07-06 17:00	2509204	8.660	-157.778	265.6	20.001	462.445	462.438	0.249	0.301	10.200	20.001	3.782
2023-07-06 17:15	2510104	8.656	-157.58	266.217	20.018	462.726	462.566	0.249	0.301	10.335	20.018	3.767
2023-07-06 17:30	2511004	8.672	-158.441	266.17	20.03	462.635	462.374	0.249	0.301	10.403	20.03	3.672
2023-07-06 17:45	2511904	8.676	-158.677	265.586	20.035	462.73	462.423	0.249	0.301	10.506	20.035	3.633
2023-07-06 18:00	2512804	8.714	-160.758	261.034	20.044	460.939	460.549	0.248	0.299	11.088	20.044	3.685
2023-07-06 18:15	2513704	8.714	-160.751	262.963	20.06	461.304	460.779	0.248	0.300	11.176	20.06	3.694
2023-07-06 18:30	2514604	8.689	-159.414	263.84	20.111	462.469	461.491	0.249	0.300	10.826	20.111	3.626
2023-07-06 18:45	2515504	8.679	-158.923	264.203	20.19	463.106	461.43	0.249	0.300	10.894	20.19	3.704
2023-07-06 19:00	2516404	8.831	-167.277	245.28	20.329	460.944	458.07	0.247	0.298	13.184	20.329	4.038
2023-07-06 19:15	2517304	8.830	-167.267	241.389	20.418	462.057	458.4	0.247	0.298	14.027	20.418	3.972
2023-07-06 19:30	2518204	8.816	-166.526	244.641	20.428	462.536	458.784	0.247	0.298	13.650	20.428	3.725
2023-07-06 19:45	2519104	8.855	-168.614	247.747	20.437	461.396	457.579	0.246	0.297	14.598	20.437	3.893

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-06 20:00	2520004	8.904	-171.275	245.22	20.382	459.398	456.071	0.245	0.296	14.927	20.382	3.809
2023-07-06 20:15	2520904	8.891	-170.474	248.229	20.282	458.805	456.348	0.246	0.297	14.480	20.282	3.992
2023-07-06 20:30	2521804	8.877	-169.725	249.628	20.276	460.052	457.643	0.246	0.297	14.095	20.276	3.786
2023-07-06 20:45	2522704	8.849	-168.185	252.053	20.26	460.218	457.943	0.247	0.298	13.660	20.26	3.645
2023-07-06 21:00	2523604	8.850	-168.278	249.922	20.275	460.355	457.95	0.247	0.298	13.638	20.275	3.78
2023-07-06 21:15	2524504	8.835	-167.472	251.59	20.282	460.654	458.188	0.247	0.298	13.982	20.282	3.542
2023-07-06 21:30	2525404	8.837	-167.594	251.91	20.318	460.819	458.04	0.247	0.298	13.686	20.318	3.592
2023-07-06 21:45	2526304	8.836	-167.532	250.527	20.353	461.221	458.128	0.247	0.298	13.662	20.353	3.692
2023-07-06 22:00	2527204	8.826	-167.019	245.754	20.369	461.131	457.904	0.247	0.298	13.322	20.369	3.661
2023-07-06 22:15	2528104	8.814	-166.323	251.581	20.315	460.073	457.323	0.246	0.297	13.892	20.315	3.736
2023-07-06 22:30	2529004	8.821	-166.702	253.379	20.277	460.391	457.972	0.247	0.298	13.857	20.277	6.864
2023-07-06 22:45	2529904	8.816	-166.395	254.699	20.238	460.229	458.143	0.247	0.298	13.424	20.238	3.666
2023-07-06 23:00	2530804	8.820	-166.605	253.607	20.238	460.548	458.462	0.247	0.298	13.273	20.238	3.66
2023-07-06 23:15	2531704	8.792	-165.083	256.013	20.198	461.165	459.423	0.247	0.299	12.476	20.198	3.773
2023-07-06 23:30	2532604	8.777	-164.227	259.234	20.166	461.256	459.794	0.248	0.299	12.626	20.166	3.66
2023-07-06 23:45	2533504	8.759	-163.26	260.839	20.159	461.546	460.147	0.248	0.299	12.593	20.159	3.818
2023-07-07 00:00	2534404	8.754	-162.985	258.195	20.168	461.258	459.782	0.248	0.299	12.354	20.168	3.682
2023-07-07 00:15	2535304	8.746	-162.547	261.554	20.157	461.523	460.14	0.248	0.299	12.370	20.157	3.481
2023-07-07 00:30	2536204	8.733	-161.817	262.002	20.156	461.572	460.198	0.248	0.299	12.329	20.156	3.517
2023-07-07 00:45	2537104	8.731	-161.738	262.295	20.161	461.677	460.266	0.248	0.299	12.311	20.161	3.448
2023-07-07 01:00	2538004	8.741	-162.306	259.163	20.176	461.729	460.179	0.248	0.299	12.051	20.176	3.404
2023-07-07 01:15	2538904	8.730	-161.676	260.796	20.177	461.984	460.43	0.248	0.299	12.030	20.177	3.438
2023-07-07 01:30	2539804	8.721	-161.202	262.276	20.166	462.21	460.748	0.248	0.299	11.607	20.166	3.397
2023-07-07 01:45	2540704	8.691	-159.569	264.291	20.149	462.453	461.139	0.248	0.300	11.599	20.149	3.518
2023-07-07 02:00	2541604	8.681	-158.97	262.958	20.129	462.253	461.112	0.248	0.300	11.796	20.129	3.861
2023-07-07 02:15	2542504	8.675	-158.665	265.071	20.089	462.921	462.135	0.249	0.300	10.978	20.089	3.89
2023-07-07 02:30	2543404	8.661	-157.833	265.283	20.034	461.91	461.606	0.249	0.300	10.976	20.034	3.926
2023-07-07 02:45	2544304	8.642	-156.806	266.554	19.978	461.821	462.017	0.249	0.300	10.910	19.978	3.995
2023-07-07 03:00	2545204	8.660	-157.733	263.44	19.947	462.064	462.532	0.249	0.301	10.443	19.947	4.039
2023-07-07 03:15	2546104	8.624	-155.787	266.587	19.902	462.265	463.131	0.250	0.301	10.187	19.902	3.794
2023-07-07 03:30	2547004	8.595	-154.142	269.481	19.838	461.498	462.929	0.250	0.301	10.346	19.838	3.902
2023-07-07 03:45	2547904	8.591	-153.911	270.497	19.801	461.206	462.962	0.250	0.301	10.043	19.801	3.743
2023-07-07 04:00	2548804	8.609	-154.903	269.117	19.755	460.248	462.416	0.249	0.301	10.024	19.755	3.78
2023-07-07 04:15	2549704	8.593	-154.004	270.671	19.696	459.77	462.457	0.249	0.301	10.241	19.696	11.276
2023-07-07 04:30	2550604	8.566	-152.473	270.111	19.65	459.435	462.527	0.249	0.301	9.956	19.65	25.373
2023-07-07 04:45	2551504	8.579	-153.184	270.128	19.585	458.716	462.38	0.249	0.301	9.937	19.585	3.93
2023-07-07 05:00	2552404	8.599	-154.207	265.714	19.54	458.446	462.506	0.249	0.301	9.938	19.54	3.916
2023-07-07 05:15	2553304	8.575	-152.917	269.829	19.499	458.594	463.027	0.250	0.301	10.144	19.499	3.785
2023-07-07 05:30	2554204	8.556	-151.823	273.153	19.453	458.444	463.288	0.250	0.301	9.898	19.453	4.118
2023-07-07 05:45	2555104	8.536	-150.735	274.519	19.42	458.026	463.161	0.250	0.301	9.683	19.42	3.819
2023-07-07 06:00	2556004	8.553	-151.625	271.408	19.375	457.254	462.775	0.250	0.301	9.592	19.375	4.135
2023-07-07 06:15	2556904	8.540	-150.921	274.3	19.345	456.842	462.63	0.250	0.301	9.663	19.345	4.396
2023-07-07 06:30	2557804	8.540	-150.924	274.941	19.301	456.21	462.387	0.249	0.301	9.602	19.301	4.425
2023-07-07 06:45	2558704	8.537	-150.719	275.754	19.279	455.935	462.302	0.249	0.300	9.722	19.279	4.239
2023-07-07 07:00	2559604	8.546	-151.191	273.351	19.27	456.442	462.901	0.250	0.301	9.379	19.27	4.156
2023-07-07 07:15	2560504	8.529	-150.287	275.48	19.237	456.179	462.928	0.250	0.301	9.508	19.237	4.764
2023-07-07 07:30	2561404	8.525	-150.068	276.138	19.221	456.136	463.03	0.250	0.301	9.367	19.221	4.09
2023-07-07 07:45	2562304	8.520	-149.791	276.365	19.21	456.158	463.149	0.250	0.301	9.395	19.21	4.189
2023-07-07 08:00	2563204	8.533	-150.466	273.518	19.202	455.494	462.543	0.250	0.301	9.196	19.202	3.96
2023-07-07 08:15	2564104	8.527	-150.106	276.841	19.184	455.163	462.367	0.250	0.301	9.441	19.184	4.466
2023-07-07 08:30	2565004	8.523	-149.903	277.38	19.176	454.979	462.253	0.249	0.300	9.219	19.176	3.833
2023-07-07 08:45	2565904	8.519	-149.686	277.492	19.174	455.045	462.341	0.250	0.301	9.515	19.174	3.836
2023-07-07 09:00	2566804	8.544	-151.036	276.562	19.175	455.368	462.663	0.250	0.301	9.332	19.175	4.182
2023-07-07 09:15	2567704	8.524	-149.934	278.472	19.165	455.625	463.011	0.250	0.301	9.666	19.165	4.389
2023-07-07 09:30	2568604	8.539	-150.75	275.795	19.166	455.586	462.962	0.250	0.301	9.637	19.166	3.768
2023-07-07 09:45	2569504	8.531	-150.337	274.555	19.171	455.652	462.985	0.250	0.301	9.549	19.171	3.586

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-07 10:00	2570404	8.537	-150.702	271.172	19.187	455.051	462.226	0.249	0.300	9.410	19.187	3.799
2023-07-07 10:15	2571304	8.548	-151.246	264.503	19.179	455.32	462.574	0.250	0.301	9.234	19.179	3.678
2023-07-07 10:30	2572204	8.551	-151.417	262.381	19.195	455.248	462.361	0.250	0.301	9.465	19.195	3.607
2023-07-07 10:45	2573104	8.541	-150.893	264.87	19.216	455.576	462.499	0.250	0.301	9.525	19.216	3.521
2023-07-07 11:00	2574004	8.564	-152.199	261.609	19.254	455.985	462.574	0.250	0.301	9.605	19.254	3.54
2023-07-07 11:15	2574904	8.592	-153.728	261.535	19.278	456.249	462.627	0.250	0.301	9.546	19.278	3.606
2023-07-07 11:30	2575804	8.590	-153.592	263.714	19.313	456.568	462.635	0.250	0.301	9.754	19.313	3.48
2023-07-07 11:45	2576704	8.593	-153.785	263.583	19.356	457.057	462.744	0.250	0.301	10.063	19.356	3.416
2023-07-07 12:00	2577604	8.583	-153.282	263.094	19.437	457.153	462.122	0.249	0.300	10.195	19.437	3.392
2023-07-07 12:15	2578504	8.579	-153.089	265.7	19.492	458.104	462.59	0.250	0.301	9.919	19.492	3.483
2023-07-07 12:30	2579404	8.590	-153.747	264.98	19.58	458.421	462.129	0.249	0.300	10.435	19.58	3.449
2023-07-07 12:45	2580304	8.610	-154.867	261.227	19.649	458.758	461.851	0.249	0.300	10.672	19.649	3.496
2023-07-07 13:00	2581204	8.672	-158.317	256.917	19.735	459.095	461.428	0.249	0.300	10.464	19.735	3.624
2023-07-07 13:15	2582104	8.697	-159.676	253.035	19.775	459.325	461.304	0.249	0.300	10.714	19.775	3.823
2023-07-07 13:30	2583004	8.707	-160.26	252.494	19.818	459.87	461.474	0.249	0.300	10.964	19.818	3.819
2023-07-07 13:45	2583904	8.719	-160.933	251.281	19.854	459.769	461.055	0.248	0.300	11.411	19.854	3.75
2023-07-07 14:00	2584804	8.712	-160.551	249.974	19.893	459.884	460.825	0.248	0.300	11.463	19.893	3.935
2023-07-07 14:15	2585704	8.706	-160.227	252.132	19.925	460.46	461.123	0.249	0.300	11.507	19.925	3.888
2023-07-07 14:30	2586604	8.697	-159.783	255.667	19.96	460.895	461.249	0.249	0.300	11.507	19.96	3.736
2023-07-07 14:45	2587504	8.681	-158.949	256.314	20.009	461.76	461.683	0.249	0.300	11.525	20.009	3.886
2023-07-07 15:00	2588404	8.659	-157.766	252.952	20.065	463.446	462.872	0.249	0.301	10.928	20.065	3.846
2023-07-07 15:15	2589304	8.631	-156.271	256.39	20.081	463.475	462.763	0.249	0.301	10.824	20.081	3.986
2023-07-07 15:30	2590204	8.657	-157.671	253.972	20.128	463.925	462.79	0.249	0.301	11.129	20.128	3.89
2023-07-07 15:45	2591104	8.623	-155.842	257.022	20.168	464.557	463.076	0.249	0.301	11.003	20.168	3.947
2023-07-07 16:00	2592004	8.639	-156.744	253.803	20.222	464.748	462.787	0.249	0.301	10.937	20.222	3.922
2023-07-07 16:15	2592904	8.658	-157.833	256.23	20.31	465.926	463.187	0.249	0.301	11.080	20.31	3.953
2023-07-07 16:30	2593804	8.723	-161.529	248.057	20.57	466.173	461.154	0.248	0.300	12.248	20.57	4.379
2023-07-07 16:45	2594704	8.766	-164.018	234.372	20.857	468.666	461.12	0.248	0.300	13.405	20.857	4.383
2023-07-07 17:00	2595604	8.820	-167.053	234.594	21.007	467.818	458.99	0.247	0.298	12.770	21.007	3.974
2023-07-07 17:15	2596504	8.783	-165.062	240.697	21.095	470.321	460.688	0.248	0.299	13.602	21.095	4.069
2023-07-07 17:30	2597404	8.809	-166.478	241.982	21.069	467.731	458.374	0.246	0.298	14.464	21.069	4.054
2023-07-07 17:45	2598304	8.873	-169.935	239.968	21.007	465.834	457.042	0.246	0.297	14.624	21.007	3.926
2023-07-07 18:00	2599204	8.869	-169.692	238.783	20.953	467.032	458.686	0.247	0.298	14.648	20.953	4.399
2023-07-07 18:15	2600104	8.828	-167.456	244.095	20.957	468.246	459.838	0.247	0.299	14.354	20.957	4.058
2023-07-07 18:30	2601004	8.814	-166.707	248.079	20.973	466.68	458.167	0.246	0.298	14.084	20.973	3.886
2023-07-07 18:45	2601904	8.868	-169.642	244.543	21.004	466.82	458.032	0.246	0.298	14.650	21.004	3.989
2023-07-07 19:00	2602804	8.900	-171.447	239.689	21.091	467.024	457.487	0.246	0.297	14.549	21.091	3.927
2023-07-07 19:15	2603704	8.906	-171.795	240.342	21.116	467.114	457.368	0.246	0.297	14.827	21.116	3.803
2023-07-07 19:30	2604604	8.920	-172.613	238.218	21.162	467.084	456.938	0.246	0.297	15.661	21.162	3.801
2023-07-07 19:45	2605504	8.921	-172.658	239.3	21.177	466.944	456.677	0.245	0.297	15.657	21.177	3.886
2023-07-07 20:00	2606404	8.927	-173.004	234.66	21.196	465.698	455.294	0.245	0.296	15.656	21.196	3.803
2023-07-07 20:15	2607304	8.913	-172.238	238.895	21.185	465.387	455.087	0.245	0.296	15.938	21.185	3.82
2023-07-07 20:30	2608204	8.916	-172.355	242.016	21.099	464.012	454.47	0.244	0.295	16.472	21.099	3.935
2023-07-07 20:45	2609104	8.937	-173.488	238.816	21.097	465.832	456.271	0.245	0.297	16.090	21.097	3.871
2023-07-07 21:00	2610004	8.934	-173.335	238.041	21.145	465.719	455.748	0.245	0.296	15.417	21.145	3.937
2023-07-07 21:15	2610904	8.905	-171.697	240.699	21.004	465.916	457.152	0.246	0.297	15.655	21.004	3.986
2023-07-07 21:30	2611804	8.873	-169.902	244.128	20.979	466.565	457.997	0.246	0.298	14.669	20.979	3.936
2023-07-07 21:45	2612704	8.853	-168.824	247.077	20.924	465.538	457.461	0.246	0.297	15.143	20.924	3.881
2023-07-07 22:00	2613604	8.863	-169.313	245.501	20.867	464.427	456.862	0.246	0.297	14.487	20.867	3.81
2023-07-07 22:15	2614504	8.846	-168.359	248.825	20.775	464.083	457.313	0.246	0.297	14.451	20.775	3.904
2023-07-07 22:30	2615404	8.824	-167.062	251.042	20.667	464.057	458.224	0.247	0.298	14.402	20.667	3.96
2023-07-07 22:45	2616304	8.812	-166.399	252.659	20.602	464.442	459.166	0.247	0.298	13.930	20.602	3.842
2023-07-07 23:00	2617204	8.790	-165.155	248.598	20.584	465.86	460.718	0.248	0.299	13.147	20.584	3.896
2023-07-07 23:15	2618104	8.738	-162.337	254.263	20.547	466.537	461.716	0.249	0.300	12.214	20.547	4.038
2023-07-07 23:30	2619004	8.702	-160.341	257.835	20.519	466.912	462.329	0.249	0.301	12.061	20.519	3.788
2023-07-07 23:45	2619904	8.680	-159.128	259.62	20.511	467.206	462.687	0.249	0.301	11.657	20.511	3.691

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-08 00:00	2620804	8.671	-158.682	258.931	20.524	466.66	462.039	0.249	0.300	11.648	20.524	3.744
2023-07-08 00:15	2621704	8.672	-158.744	260.643	20.53	466.532	461.854	0.249	0.300	12.167	20.53	3.585
2023-07-08 00:30	2622604	8.683	-159.309	260.491	20.536	466.446	461.72	0.249	0.300	12.472	20.536	3.559
2023-07-08 00:45	2623504	8.688	-159.571	260.722	20.543	466.547	461.762	0.249	0.300	12.645	20.543	3.616
2023-07-08 01:00	2624404	8.708	-160.704	254.959	20.565	466.646	461.666	0.249	0.300	11.991	20.565	3.621
2023-07-08 01:15	2625304	8.701	-160.341	256.864	20.571	466.596	461.565	0.248	0.300	11.762	20.571	3.575
2023-07-08 01:30	2626204	8.710	-160.794	256.297	20.589	466.624	461.432	0.248	0.300	12.018	20.589	3.532
2023-07-08 01:45	2627104	8.706	-160.606	255.639	20.592	466.794	461.578	0.248	0.300	11.829	20.592	3.648
2023-07-08 02:00	2628004	8.667	-158.491	253.984	20.589	466.746	461.554	0.248	0.300	11.649	20.589	3.622
2023-07-08 02:15	2628904	8.656	-157.866	259.549	20.564	466.872	461.9	0.249	0.300	12.007	20.564	3.602
2023-07-08 02:30	2629804	8.651	-157.568	261.456	20.555	467.025	462.131	0.249	0.300	11.791	20.555	3.627
2023-07-08 02:45	2630704	8.653	-157.673	262.727	20.549	467.183	462.339	0.249	0.301	11.625	20.549	3.824
2023-07-08 03:00	2631604	8.668	-158.517	259.57	20.523	466.916	462.298	0.249	0.300	11.428	20.523	4.736
2023-07-08 03:15	2632504	8.648	-157.378	261.287	20.485	466.993	462.709	0.249	0.301	11.281	20.485	5.995
2023-07-08 03:30	2633404	8.641	-156.987	258.757	20.428	466.733	462.951	0.249	0.301	11.136	20.428	5.634
2023-07-08 03:45	2634304	8.629	-156.283	258.29	20.373	466.588	463.287	0.250	0.301	10.531	20.373	5.607
2023-07-08 04:00	2635204	8.619	-155.737	255.837	20.31	465.447	462.71	0.249	0.301	10.423	20.31	5.906
2023-07-08 04:15	2636104	8.607	-155.017	257.162	20.241	464.633	462.502	0.249	0.301	10.457	20.241	5.492
2023-07-08 04:30	2637004	8.607	-155.008	257.858	20.17	463.953	462.45	0.249	0.301	10.546	20.17	5.077
2023-07-08 04:45	2637904	8.608	-155.001	258.388	20.12	463.805	462.746	0.249	0.301	10.511	20.12	5.059
2023-07-08 05:00	2638804	8.598	-154.464	258.335	20.089	463.867	463.084	0.250	0.301	9.907	20.089	5.012
2023-07-08 05:15	2639704	8.567	-152.745	261.566	20.03	463.491	463.225	0.250	0.301	10.826	20.03	5.329
2023-07-08 05:30	2640604	8.572	-152.991	263.685	19.985	463.098	463.233	0.250	0.301	9.984	19.985	5.289
2023-07-08 05:45	2641504	8.550	-151.763	265.402	19.94	462.792	463.319	0.250	0.301	10.023	19.94	4.991
2023-07-08 06:00	2642404	8.563	-152.438	261.327	19.882	462.083	463.13	0.250	0.301	10.043	19.882	4.852
2023-07-08 06:15	2643304	8.539	-151.1	265.409	19.827	460.998	462.523	0.249	0.301	10.007	19.827	4.751
2023-07-08 06:30	2644204	8.548	-151.56	265.481	19.786	460.627	462.518	0.249	0.301	10.120	19.786	4.692
2023-07-08 06:45	2645104	8.549	-151.641	268.342	19.757	460.385	462.536	0.249	0.301	10.191	19.757	4.652
2023-07-08 07:00	2646004	8.570	-152.74	261.625	19.742	460.654	462.931	0.250	0.301	9.733	19.742	4.295
2023-07-08 07:15	2646904	8.548	-151.534	260.734	19.697	460.404	463.081	0.250	0.301	10.093	19.697	4.157
2023-07-08 07:30	2647804	8.535	-150.807	264.627	19.677	460.19	463.047	0.250	0.301	9.854	19.677	4.103
2023-07-08 07:45	2648704	8.530	-150.507	267.224	19.647	459.909	463.028	0.250	0.301	10.037	19.647	4.302
2023-07-08 08:00	2649604	8.557	-152.013	265.071	19.625	459.371	462.683	0.250	0.301	10.041	19.625	4.073
2023-07-08 08:15	2650504	8.540	-151.045	268.192	19.589	458.596	462.222	0.249	0.300	9.771	19.589	4.19
2023-07-08 08:30	2651404	8.553	-151.744	268.358	19.577	458.616	462.349	0.249	0.301	9.907	19.577	4.043
2023-07-08 08:45	2652304	8.552	-151.663	268.659	19.567	458.616	462.443	0.249	0.301	9.875	19.567	4.062
2023-07-08 09:00	2653204	8.569	-152.617	266.473	19.563	458.634	462.494	0.249	0.301	9.989	19.563	3.876
2023-07-08 09:15	2654104	8.556	-151.923	265.953	19.554	459.071	463.015	0.250	0.301	9.845	19.554	3.776
2023-07-08 09:30	2655004	8.541	-151.062	265.266	19.545	458.937	462.957	0.250	0.301	9.760	19.545	3.727
2023-07-08 09:45	2655904	8.555	-151.842	265.857	19.545	458.93	462.956	0.250	0.301	9.833	19.545	3.898
2023-07-08 10:00	2656804	8.565	-152.371	262.46	19.547	458.499	462.497	0.249	0.301	9.759	19.547	3.958
2023-07-08 10:15	2657704	8.550	-151.539	264.122	19.54	458.369	462.434	0.249	0.301	9.787	19.54	3.816
2023-07-08 10:30	2658604	8.554	-151.792	265.595	19.554	458.596	462.54	0.249	0.301	9.732	19.554	3.763
2023-07-08 10:45	2659504	8.546	-151.365	265.269	19.576	459.053	462.802	0.250	0.301	9.900	19.576	3.551
2023-07-08 11:00	2660404	8.570	-152.671	261.535	19.613	459.453	462.876	0.250	0.301	9.404	19.613	3.597
2023-07-08 11:15	2661304	8.581	-153.317	258.748	19.637	459.703	462.908	0.250	0.301	10.284	19.637	3.649
2023-07-08 11:30	2662204	8.586	-153.563	259.306	19.674	459.927	462.812	0.250	0.301	10.286	19.674	3.602
2023-07-08 11:45	2663104	8.580	-153.291	259.835	19.72	460.653	463.127	0.250	0.301	10.276	19.72	3.681
2023-07-08 12:00	2664004	8.586	-153.677	256.325	19.8	460.616	462.379	0.249	0.301	10.452	19.8	3.54
2023-07-08 12:15	2664904	8.580	-153.348	259.337	19.855	460.93	462.213	0.249	0.300	10.888	19.855	3.67
2023-07-08 12:30	2665804	8.592	-154.049	259.432	19.937	461.75	462.302	0.249	0.300	10.740	19.937	3.673
2023-07-08 12:45	2666704	8.629	-156.081	257.558	20.007	462.366	462.301	0.249	0.300	10.953	20.007	3.768
2023-07-08 13:00	2667604	8.645	-157.025	256.287	20.094	462.026	461.198	0.248	0.300	10.761	20.094	3.795
2023-07-08 13:15	2668504	8.669	-158.343	255.131	20.139	463.268	462.037	0.249	0.300	11.169	20.139	3.766
2023-07-08 13:30	2669404	8.693	-159.664	255.477	20.189	462.981	461.319	0.248	0.300	11.119	20.189	3.794
2023-07-08 13:45	2670304	8.707	-160.47	254.275	20.244	463.571	461.417	0.249	0.300	11.663	20.244	4.005

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-08 14:00	2671204	8.699	-160.098	250.16	20.316	464.084	461.295	0.248	0.300	11.512	20.316	3.962
2023-07-08 14:15	2672104	8.724	-161.462	252.661	20.361	465.109	461.927	0.249	0.300	11.739	20.361	4.642
2023-07-08 14:30	2673004	8.695	-159.9	252.151	20.442	465.783	461.881	0.249	0.300	11.660	20.442	3.976
2023-07-08 14:45	2673904	8.702	-160.294	253.424	20.464	464.806	460.719	0.248	0.299	12.146	20.464	4.162
2023-07-08 15:00	2674804	8.739	-162.373	246.743	20.535	466.025	461.314	0.248	0.300	11.871	20.535	3.885
2023-07-08 15:15	2675704	8.749	-162.964	251.784	20.581	466.309	461.187	0.248	0.300	12.158	20.581	3.974
2023-07-08 15:30	2676604	8.696	-160.058	253.586	20.631	467.745	462.176	0.249	0.300	12.087	20.631	4.024
2023-07-08 15:45	2677504	8.711	-160.885	255.229	20.649	467.432	461.708	0.249	0.300	12.097	20.649	4
2023-07-08 16:00	2678404	8.720	-161.45	249.95	20.702	467.673	461.484	0.248	0.300	12.044	20.702	3.917
2023-07-08 16:15	2679304	8.729	-161.979	251.295	20.782	468.627	461.727	0.248	0.300	11.970	20.782	4.078
2023-07-08 16:30	2680204	8.739	-162.513	250.644	20.747	466.888	460.317	0.248	0.299	12.528	20.747	4.281
2023-07-08 16:45	2681104	8.745	-162.811	251.159	20.745	467.076	460.524	0.248	0.299	12.233	20.745	4.244
2023-07-08 17:00	2682004	8.721	-161.562	246.035	20.798	469.294	462.246	0.249	0.300	11.465	20.798	4.128
2023-07-08 17:15	2682904	8.701	-160.453	249.876	20.849	470.254	462.755	0.249	0.301	11.534	20.849	4.134
2023-07-08 17:30	2683804	8.734	-162.306	249.759	20.918	470.107	462.007	0.249	0.300	12.168	20.918	4.258
2023-07-08 17:45	2684704	8.759	-163.708	248.677	20.984	470.381	461.704	0.248	0.300	12.346	20.984	4.122
2023-07-08 18:00	2685604	8.721	-161.688	245.594	21.099	471.715	462.017	0.248	0.300	11.938	21.099	4.09
2023-07-08 18:15	2686504	8.720	-161.662	252.763	21.13	471.272	461.315	0.248	0.300	11.911	21.13	4.098
2023-07-08 18:30	2687404	8.752	-163.455	252.411	21.164	469.865	459.65	0.247	0.299	13.319	21.164	4.457
2023-07-08 18:45	2688304	8.787	-165.331	251.378	21.197	469.159	458.669	0.247	0.298	14.094	21.197	4.097
2023-07-08 19:00	2689204	8.813	-166.81	247.647	21.282	470.797	459.542	0.247	0.299	13.325	21.282	4.087
2023-07-08 19:15	2690104	8.779	-164.962	248.381	21.317	471.936	460.355	0.247	0.299	13.616	21.317	4.03
2023-07-08 19:30	2691004	8.790	-165.62	247.893	21.346	471.869	460.043	0.247	0.299	13.486	21.346	3.992
2023-07-08 19:45	2691904	8.778	-164.952	249.464	21.343	470.799	459.021	0.247	0.298	14.689	21.343	4.055
2023-07-08 20:00	2692804	8.850	-168.891	242.55	21.362	468.74	456.858	0.245	0.297	14.938	21.362	4.001
2023-07-08 20:15	2693704	8.845	-168.622	245.432	21.336	466.727	455.112	0.245	0.296	14.942	21.336	4.064
2023-07-08 20:30	2694604	8.877	-170.336	245.237	21.344	468.222	456.505	0.245	0.297	15.147	21.344	4.023
2023-07-08 20:45	2695504	8.856	-169.208	244.636	21.391	469.437	457.29	0.246	0.297	14.486	21.391	3.939
2023-07-08 21:00	2696404	8.863	-169.661	239.214	21.43	470.028	457.535	0.246	0.297	13.949	21.43	4.074
2023-07-08 21:15	2697304	8.845	-168.638	243.286	21.432	470.489	457.963	0.246	0.298	14.202	21.432	4.004
2023-07-08 21:30	2698204	8.839	-168.338	243.921	21.444	470.494	457.862	0.246	0.298	14.029	21.444	3.912
2023-07-08 21:45	2699104	8.834	-168.08	244.433	21.456	470.529	457.795	0.246	0.298	13.886	21.456	3.936
2023-07-08 22:00	2700004	8.825	-167.592	241.715	21.479	470.414	457.487	0.246	0.297	13.702	21.479	3.957
2023-07-08 22:15	2700904	8.828	-167.737	243.406	21.441	468.871	456.308	0.245	0.297	14.211	21.441	3.89
2023-07-08 22:30	2701804	8.836	-168.166	243.384	21.424	468.768	456.356	0.245	0.297	14.442	21.424	3.907
2023-07-08 22:45	2702704	8.848	-168.846	241.253	21.433	469	456.503	0.245	0.297	14.451	21.433	3.987
2023-07-08 23:00	2703604	8.856	-169.268	238.287	21.448	469.491	456.855	0.245	0.297	14.258	21.448	4.455
2023-07-08 23:15	2704504	8.838	-168.242	240.897	21.422	469.499	457.083	0.246	0.297	14.499	21.422	3.921
2023-07-08 23:30	2705404	8.848	-168.777	244.03	21.378	469.151	457.118	0.246	0.297	14.937	21.378	3.954
2023-07-08 23:45	2706304	8.816	-167.027	244.147	21.36	468.975	457.1	0.246	0.297	14.859	21.36	3.882
2023-07-09 00:00	2707204	8.867	-169.78	240.955	21.339	467.889	456.224	0.245	0.297	14.505	21.339	4.103
2023-07-09 00:15	2708104	8.859	-169.337	247.018	21.294	468.197	456.907	0.246	0.297	14.708	21.294	3.965
2023-07-09 00:30	2709004	8.848	-168.738	248.641	21.28	468.679	457.494	0.246	0.297	14.846	21.28	3.9
2023-07-09 00:45	2709904	8.836	-168.078	249.757	21.26	468.816	457.802	0.246	0.298	14.274	21.26	3.852
2023-07-09 01:00	2710804	8.833	-167.909	247.103	21.293	469.053	457.745	0.246	0.298	14.196	21.293	3.903
2023-07-09 01:15	2711704	8.829	-167.699	248.3	21.289	469.42	458.143	0.246	0.298	14.122	21.289	3.849
2023-07-09 01:30	2712604	8.820	-167.198	248.663	21.315	469.688	458.18	0.246	0.298	13.801	21.315	3.873
2023-07-09 01:45	2713504	8.827	-167.646	248.844	21.339	469.896	458.178	0.246	0.298	14.096	21.339	3.915
2023-07-09 02:00	2714404	8.805	-166.531	241.722	21.501	471.556	458.412	0.246	0.298	13.551	21.501	4.496
2023-07-09 02:15	2715304	8.791	-165.772	239.152	21.509	472.384	459.148	0.247	0.298	13.183	21.509	4.961
2023-07-09 02:30	2716204	8.748	-163.372	241.164	21.471	472.993	460.066	0.247	0.299	13.100	21.471	4.592
2023-07-09 02:45	2717104	8.718	-161.731	245.847	21.459	473.717	460.876	0.248	0.300	12.632	21.459	4.185
2023-07-09 03:00	2718004	8.706	-161.09	240.165	21.52	474.646	461.256	0.248	0.300	11.845	21.52	4.225
2023-07-09 03:15	2718904	8.680	-159.705	246.062	21.504	475.217	461.944	0.248	0.300	11.918	21.504	4.098
2023-07-09 03:30	2719804	8.654	-158.272	248.582	21.512	475.911	462.552	0.249	0.301	11.657	21.512	4.462
2023-07-09 03:45	2720704	8.623	-156.546	251.433	21.507	477.021	463.677	0.249	0.301	10.805	21.507	4.335

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-09 04:00	2721604	8.562	-153.198	252.563	21.475	477.194	464.12	0.249	0.302	10.047	21.475	4.416
2023-07-09 04:15	2722504	8.556	-152.879	255.627	21.417	476.474	463.921	0.249	0.302	10.163	21.417	5.325
2023-07-09 04:30	2723404	8.548	-152.402	257.308	21.364	475.558	463.484	0.249	0.301	10.290	21.364	4.727
2023-07-09 04:45	2724304	8.607	-155.606	254.509	21.304	474.308	462.78	0.249	0.301	10.683	21.304	5.568
2023-07-09 05:00	2725204	8.623	-156.431	245.671	21.26	474.534	463.378	0.249	0.301	10.642	21.26	5.127
2023-07-09 05:15	2726104	8.618	-156.124	251.011	21.179	473.423	462.998	0.249	0.301	11.222	21.179	5.278
2023-07-09 05:30	2727004	8.619	-156.155	254.268	21.13	473.191	463.195	0.249	0.301	10.857	21.13	4.959
2023-07-09 05:45	2727904	8.601	-155.137	253.92	21.066	473.524	464.075	0.250	0.302	10.638	21.066	4.855
2023-07-09 06:00	2728804	8.618	-156.028	249.523	21.008	471.478	462.572	0.249	0.301	10.503	21.008	4.972
2023-07-09 06:15	2729704	8.624	-156.331	254.506	20.942	470.719	462.395	0.249	0.301	10.910	20.942	4.908
2023-07-09 06:30	2730604	8.628	-156.536	256.733	20.885	470.159	462.346	0.249	0.301	10.915	20.885	5.046
2023-07-09 06:45	2731504	8.612	-155.642	258.176	20.841	469.975	462.545	0.249	0.301	10.847	20.841	4.801
2023-07-09 07:00	2732404	8.622	-156.131	252.358	20.812	470	462.818	0.249	0.301	10.216	20.812	4.736
2023-07-09 07:15	2733304	8.594	-154.605	257.673	20.779	469.927	463.033	0.249	0.301	10.582	20.779	4.613
2023-07-09 07:30	2734204	8.594	-154.56	259.053	20.735	469.447	462.949	0.249	0.301	10.516	20.735	4.698
2023-07-09 07:45	2735104	8.603	-155.075	261.327	20.704	469.178	462.956	0.249	0.301	10.811	20.704	4.985
2023-07-09 08:00	2736004	8.617	-155.821	258.006	20.68	468.379	462.375	0.249	0.301	10.572	20.68	4.744
2023-07-09 08:15	2736904	8.615	-155.666	262.248	20.642	467.839	462.17	0.249	0.300	10.631	20.642	4.499
2023-07-09 08:30	2737804	8.611	-155.42	260.343	20.623	467.773	462.269	0.249	0.300	10.588	20.623	4.891
2023-07-09 08:45	2738704	8.606	-155.151	261.571	20.601	467.432	462.128	0.249	0.300	10.446	20.601	4.768
2023-07-09 09:00	2739604	8.633	-156.615	257.718	20.597	467.547	462.272	0.249	0.300	10.407	20.597	4.771
2023-07-09 09:15	2740504	8.612	-155.458	259.923	20.582	467.808	462.668	0.249	0.301	10.502	20.582	4.276
2023-07-09 09:30	2741404	8.609	-155.32	261.089	20.571	467.784	462.736	0.249	0.301	10.584	20.571	4.337
2023-07-09 09:45	2742304	8.614	-155.585	261.332	20.564	467.742	462.757	0.249	0.301	10.583	20.564	4.29
2023-07-09 10:00	2743204	8.628	-156.336	258.381	20.563	467.221	462.252	0.249	0.300	10.371	20.563	4.345
2023-07-09 10:15	2744104	8.615	-155.654	261.289	20.552	467.204	462.33	0.249	0.301	10.475	20.552	4.207
2023-07-09 10:30	2745004	8.597	-154.634	260.643	20.549	466.738	461.898	0.249	0.300	10.408	20.549	4.085
2023-07-09 10:45	2745904	8.618	-155.807	258.738	20.563	467.173	462.203	0.249	0.300	10.612	20.563	4.217
2023-07-09 11:00	2746804	8.643	-157.182	255.911	20.589	467.588	462.389	0.249	0.301	10.644	20.589	4.095
2023-07-09 11:15	2747704	8.624	-156.136	257.363	20.616	468.674	463.22	0.249	0.301	10.614	20.616	4.061
2023-07-09 11:30	2748604	8.631	-156.572	256.607	20.66	468.663	462.828	0.249	0.301	10.542	20.66	4.215
2023-07-09 11:45	2749504	8.659	-158.093	253.066	20.711	469.152	462.866	0.249	0.301	10.620	20.711	4.133
2023-07-09 12:00	2750404	8.671	-158.792	245.833	20.779	469.006	462.131	0.249	0.300	10.508	20.779	4.056
2023-07-09 12:15	2751304	8.676	-159.094	249.48	20.813	469.283	462.105	0.249	0.300	10.869	20.813	4.177
2023-07-09 12:30	2752204	8.676	-159.111	248.985	20.856	469.527	461.971	0.249	0.300	10.942	20.856	4.06
2023-07-09 12:45	2753104	8.689	-159.824	250.289	20.892	469.63	461.766	0.248	0.300	11.313	20.892	4.085
2023-07-09 13:00	2754004	8.714	-161.221	243.508	20.943	470.052	461.735	0.248	0.300	10.887	20.943	4.081
2023-07-09 13:15	2754904	8.712	-161.159	243.792	20.996	471.085	462.287	0.249	0.300	11.187	20.996	4.123
2023-07-09 13:30	2755804	8.717	-161.479	244.478	21.077	471.632	462.126	0.249	0.300	11.211	21.077	4.035
2023-07-09 13:45	2756704	8.725	-161.924	246.054	21.126	471.372	461.447	0.248	0.300	11.661	21.126	4.111
2023-07-09 14:00	2757604	8.729	-162.168	236.787	21.177	471.692	461.319	0.248	0.300	11.614	21.177	4.507
2023-07-09 14:15	2758504	8.739	-162.737	242.686	21.22	471.886	461.14	0.248	0.300	11.997	21.22	4.082
2023-07-09 14:30	2759404	8.751	-163.455	242.435	21.283	472.594	461.286	0.248	0.300	12.051	21.283	4.234
2023-07-09 14:45	2760304	8.751	-163.486	242.306	21.353	473.523	461.597	0.248	0.300	12.009	21.353	4.029
2023-07-09 15:00	2761204	8.746	-163.288	238.315	21.474	474.722	461.721	0.248	0.300	11.880	21.474	4.536
2023-07-09 15:15	2762104	8.749	-163.505	240.444	21.551	475.815	462.122	0.248	0.300	12.446	21.551	4.175
2023-07-09 15:30	2763004	8.789	-165.715	240.328	21.606	474.99	460.85	0.248	0.300	12.639	21.606	4.215
2023-07-09 15:45	2763904	8.761	-164.177	242.39	21.639	475.855	461.409	0.248	0.300	12.347	21.639	4.195
2023-07-09 16:00	2764804	8.759	-164.132	238.02	21.727	476.544	461.329	0.248	0.300	11.990	21.727	4.393
2023-07-09 16:15	2765704	8.757	-164.018	244.397	21.757	476.46	460.992	0.248	0.300	12.456	21.757	4.146
2023-07-09 16:30	2766604	8.798	-166.28	239.684	21.815	476.49	460.528	0.247	0.299	12.934	21.815	4.131
2023-07-09 16:45	2767504	8.789	-165.863	238.694	21.886	476.593	460.026	0.247	0.299	13.029	21.886	4.017
2023-07-09 17:00	2768404	8.815	-167.36	237.471	21.989	477.876	460.387	0.247	0.299	12.779	21.989	4.144
2023-07-09 17:15	2769304	8.791	-166.018	242.714	22.004	476.809	459.233	0.247	0.299	13.397	22.004	4.088
2023-07-09 17:30	2770204	8.884	-171.113	240.475	22.024	475.251	457.565	0.246	0.297	14.372	22.024	4.196
2023-07-09 17:45	2771104	8.860	-169.835	240.077	22.04	475.45	457.616	0.246	0.297	14.632	22.04	4.261

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-09 18:00	2772004	8.892	-171.614	233.773	22.068	475.403	457.337	0.245	0.297	14.823	22.068	4.281
2023-07-09 18:15	2772904	8.893	-171.671	235.743	22.099	475.878	457.536	0.246	0.297	14.718	22.099	4.299
2023-07-09 18:30	2773804	8.880	-170.999	239.121	22.144	476.154	457.425	0.245	0.297	14.794	22.144	4.264
2023-07-09 18:45	2774704	8.859	-169.857	239.181	22.141	477.118	458.373	0.246	0.298	13.849	22.141	4.367
2023-07-09 19:00	2775604	8.885	-171.28	235.497	22.141	476.498	457.78	0.246	0.298	14.314	22.141	4.294
2023-07-09 19:15	2776504	8.856	-169.621	238.868	22.066	477.748	459.614	0.247	0.299	13.829	22.066	4.391
2023-07-09 19:30	2777404	8.773	-165.048	244.867	21.984	479.006	461.518	0.248	0.300	12.578	21.984	4.424
2023-07-09 19:45	2778304	8.829	-168.03	244.536	21.897	475.732	459.1	0.246	0.298	14.160	21.897	4.371
2023-07-09 20:00	2779204	8.772	-164.921	242.025	21.872	478	461.495	0.248	0.300	12.511	21.872	4.326
2023-07-09 20:15	2780104	8.742	-163.271	248.982	21.851	478.267	461.933	0.248	0.300	12.434	21.851	4.216
2023-07-09 20:30	2781004	8.740	-163.167	248.908	21.893	478.138	461.451	0.248	0.300	12.576	21.893	4.18
2023-07-09 20:45	2781904	8.770	-164.819	247.547	21.938	477.884	460.823	0.247	0.300	12.688	21.938	4.275
2023-07-09 21:00	2782804	8.803	-166.667	238.888	21.992	477.827	460.316	0.247	0.299	12.954	21.992	4.189
2023-07-09 21:15	2783704	8.792	-166.08	239.524	22.004	478.096	460.47	0.247	0.299	13.278	22.004	4.153
2023-07-09 21:30	2784604	8.768	-164.769	245.382	21.976	478.173	460.786	0.247	0.300	12.538	21.976	4.152
2023-07-09 21:45	2785504	8.762	-164.378	247.869	21.933	477.175	460.186	0.247	0.299	13.281	21.933	4.148
2023-07-09 22:00	2786404	8.785	-165.677	246.095	21.954	477.101	459.939	0.247	0.299	13.625	21.954	4.147
2023-07-09 22:15	2787304	8.767	-164.685	248.92	21.955	477.316	460.135	0.247	0.299	13.036	21.955	4.078
2023-07-09 22:30	2788204	8.766	-164.664	248.508	21.996	477.625	460.083	0.247	0.299	13.116	21.996	4.097
2023-07-09 22:45	2789104	8.810	-167.112	239.438	22.101	478.34	459.887	0.247	0.299	13.268	22.101	4.337
2023-07-09 23:00	2790004	8.826	-168.126	236.627	22.322	480.724	460.313	0.247	0.299	12.988	22.322	4.466
2023-07-09 23:15	2790904	8.790	-166.168	236.441	22.386	482.034	461.025	0.247	0.300	12.359	22.386	4.3
2023-07-09 23:30	2791804	8.773	-165.284	236.627	22.416	482.754	461.457	0.248	0.300	12.204	22.416	4.274
2023-07-09 23:45	2792704	8.763	-164.754	238.532	22.417	482.917	461.604	0.248	0.300	12.164	22.417	4.252
2023-07-10 00:00	2793604	8.740	-163.453	236.866	22.406	482.871	461.656	0.248	0.300	11.903	22.406	4.184
2023-07-10 00:15	2794504	8.754	-164.201	238.489	22.382	482.96	461.943	0.248	0.300	11.459	22.382	4.415
2023-07-10 00:30	2795404	8.729	-162.842	240.542	22.367	482.948	462.061	0.248	0.300	11.529	22.367	4.124
2023-07-10 00:45	2796304	8.742	-163.558	240.108	22.359	482.904	462.08	0.248	0.300	11.457	22.359	4.233
2023-07-10 01:00	2797204	8.730	-162.854	242.287	22.346	483.147	462.43	0.248	0.301	11.274	22.346	4.138
2023-07-10 01:15	2798104	8.712	-161.893	246.085	22.32	483.355	462.849	0.248	0.301	11.179	22.32	4.11
2023-07-10 01:30	2799004	8.705	-161.479	247.79	22.291	482.931	462.685	0.248	0.301	11.309	22.291	4.152
2023-07-10 01:45	2799904	8.706	-161.5	249.812	22.236	482.248	462.495	0.248	0.301	11.029	22.236	4.145
2023-07-10 02:00	2800804	8.718	-162.148	247.13	22.185	480.776	461.517	0.248	0.300	11.223	22.185	4.242
2023-07-10 02:15	2801704	8.716	-161.982	247.053	22.129	480.663	461.882	0.248	0.300	11.271	22.129	4.295
2023-07-10 02:30	2802604	8.696	-160.871	248.088	22.092	480.28	461.828	0.248	0.300	10.930	22.092	4.147
2023-07-10 02:45	2803504	8.701	-161.111	247.709	22.022	479.713	461.874	0.248	0.300	11.115	22.022	4.161
2023-07-10 03:00	2804404	8.709	-161.538	247.838	21.992	479.736	462.15	0.248	0.300	10.881	21.992	4.442
2023-07-10 03:15	2805304	8.688	-160.367	250.15	21.966	479.819	462.45	0.248	0.301	10.691	21.966	4.217
2023-07-10 03:30	2806204	8.684	-160.143	252.84	21.937	479.638	462.526	0.248	0.301	10.585	21.937	4.24
2023-07-10 03:45	2807104	8.678	-159.786	252.365	21.899	479.166	462.392	0.248	0.301	10.528	21.899	4.148
2023-07-10 04:00	2808004	8.687	-160.26	250.391	21.873	478.216	461.698	0.248	0.300	10.852	21.873	4.114
2023-07-10 04:15	2808904	8.682	-159.962	253.243	21.829	477.74	461.614	0.248	0.300	10.509	21.829	4.145
2023-07-10 04:30	2809804	8.682	-159.967	252.692	21.8	477.493	461.622	0.248	0.300	10.509	21.8	4.288
2023-07-10 04:45	2810704	8.680	-159.819	252.735	21.776	477.254	461.6	0.248	0.300	10.606	21.776	4.053
2023-07-10 05:00	2811604	8.683	-159.986	250.2	21.764	477.361	461.801	0.248	0.300	10.435	21.764	4.152
2023-07-10 05:15	2812504	8.677	-159.621	252.32	21.736	477.438	462.113	0.248	0.300	10.666	21.736	4.284
2023-07-10 05:30	2813404	8.681	-159.876	253.917	21.72	477.251	462.067	0.248	0.300	10.821	21.72	4.141
2023-07-10 05:45	2814304	8.675	-159.533	255.281	21.692	476.849	461.918	0.248	0.300	10.659	21.692	4.085
2023-07-10 06:00	2815204	8.682	-159.862	252.835	21.665	475.829	461.164	0.248	0.300	10.663	21.665	4.253
2023-07-10 06:15	2816104	8.680	-159.762	253.61	21.617	475.247	461.011	0.248	0.300	10.880	21.617	4.167
2023-07-10 06:30	2817004	8.684	-159.941	254.28	21.573	475.148	461.287	0.248	0.300	10.831	21.573	4.057
2023-07-10 06:45	2817904	8.677	-159.554	255.303	21.541	474.756	461.178	0.248	0.300	10.748	21.541	4.198
2023-07-10 07:00	2818804	8.701	-160.82	251.819	21.533	474.482	460.987	0.248	0.300	10.713	21.533	4.578
2023-07-10 07:15	2819704	8.685	-159.934	253.915	21.511	474.758	461.438	0.248	0.300	10.693	21.511	4.077
2023-07-10 07:30	2820604	8.686	-160.017	255.553	21.504	475.105	461.84	0.248	0.300	10.619	21.504	4.138
2023-07-10 07:45	2821504	8.682	-159.788	255.231	21.498	475.039	461.827	0.248	0.300	10.429	21.498	4.047

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-10 08:00	2822404	8.680	-159.693	251.934	21.504	477.279	463.955	0.249	0.302	10.559	21.504	3.978
2023-07-10 08:15	2823304	8.668	-159.02	254.997	21.492	473.88	460.751	0.248	0.299	10.531	21.492	4.028
2023-07-10 08:30	2824204	8.665	-158.849	254.647	21.48	473.508	460.495	0.247	0.299	10.467	21.48	4.345
2023-07-10 08:45	2825104	8.688	-160.105	253.653	21.472	473.622	460.667	0.248	0.299	10.889	21.472	4.141
2023-07-10 09:00	2826004	8.703	-160.899	250.544	21.478	474.114	461.101	0.248	0.300	10.649	21.478	4.078
2023-07-10 09:15	2826904	8.693	-160.375	252.666	21.466	474.271	461.356	0.248	0.300	11.052	21.466	4.002
2023-07-10 09:30	2827804	8.697	-160.601	253.658	21.461	474.111	461.238	0.248	0.300	10.892	21.461	4.029
2023-07-10 09:45	2828704	8.699	-160.694	254.056	21.465	474.194	461.287	0.248	0.300	10.939	21.465	4.087
2023-07-10 10:00	2829604	8.704	-160.999	252.322	21.472	473.514	460.562	0.247	0.299	10.769	21.472	4.128
2023-07-10 10:15	2830504	8.700	-160.768	253.107	21.474	473.853	460.876	0.248	0.300	10.756	21.474	4.103
2023-07-10 10:30	2831404	8.691	-160.286	253.002	21.485	473.85	460.776	0.248	0.300	10.690	21.485	4.028
2023-07-10 10:45	2832304	8.693	-160.41	252.976	21.499	474.114	460.919	0.248	0.300	10.731	21.499	4.022
2023-07-10 11:00	2833204	8.692	-160.372	244.343	21.527	474.672	461.22	0.248	0.300	10.530	21.527	3.962
2023-07-10 11:15	2834104	8.683	-159.867	247.695	21.549	475.681	462.01	0.248	0.300	10.766	21.549	3.931
2023-07-10 11:30	2835004	8.689	-160.186	250.632	21.568	475.497	461.672	0.248	0.300	10.739	21.568	4.001
2023-07-10 11:45	2835904	8.694	-160.47	251.021	21.589	475.73	461.719	0.248	0.300	10.886	21.589	4.005
2023-07-10 12:00	2836804	8.698	-160.749	247.146	21.616	474.663	460.454	0.247	0.299	11.048	21.616	4.013
2023-07-10 12:15	2837704	8.680	-159.748	249.936	21.636	475.309	460.904	0.248	0.300	11.917	21.636	3.888
2023-07-10 12:30	2838604	8.691	-160.348	252.094	21.67	475.757	461.05	0.248	0.300	12.271	21.67	3.955
2023-07-10 12:45	2839504	8.676	-159.581	252.644	21.705	476.167	461.15	0.248	0.300	12.466	21.705	3.896
2023-07-10 13:00	2840404	8.725	-162.292	250.422	21.761	475.056	459.599	0.247	0.299	12.375	21.761	4.015
2023-07-10 13:15	2841304	8.732	-162.671	245.661	21.795	476.458	460.668	0.247	0.299	12.588	21.795	4.066
2023-07-10 13:30	2842204	8.757	-164.068	242.743	21.833	476.138	460.036	0.247	0.299	12.478	21.833	4.016
2023-07-10 13:45	2843104	8.750	-163.72	243.127	21.877	476.8	460.294	0.247	0.299	12.471	21.877	4.103
2023-07-10 14:00	2844004	8.774	-165.048	238.349	21.945	475.337	458.308	0.246	0.298	12.556	21.945	4.188
2023-07-10 14:15	2844904	8.775	-165.129	239.188	21.963	475.764	458.573	0.246	0.298	13.332	21.963	4.059
2023-07-10 14:30	2845804	8.796	-166.304	239.15	21.995	476.282	458.796	0.246	0.298	13.600	21.995	4.136
2023-07-10 14:45	2846704	8.813	-167.267	239.028	22.032	476.466	458.662	0.246	0.298	13.610	22.032	4.086
2023-07-10 15:00	2847604	8.820	-167.687	237.936	22.126	476.56	457.965	0.246	0.298	13.447	22.126	4.254
2023-07-10 15:15	2848504	8.869	-170.388	237.192	22.165	477.008	458.064	0.246	0.298	14.354	22.165	4.198
2023-07-10 15:30	2849404	8.929	-173.714	233.962	22.202	475.518	456.329	0.245	0.297	14.421	22.202	4.306
2023-07-10 15:45	2850304	8.911	-172.744	232.083	22.242	475.968	456.422	0.245	0.297	14.591	22.242	4.271
2023-07-10 16:00	2851204	8.913	-172.839	231.423	22.274	474.433	454.687	0.244	0.296	14.322	22.274	4.364
2023-07-10 16:15	2852104	8.959	-175.371	230.157	22.284	474.717	454.875	0.244	0.296	13.734	22.284	4.237
2023-07-10 16:30	2853004	8.970	-176.039	228.767	22.324	474.646	454.474	0.244	0.295	14.982	22.324	4.379
2023-07-10 16:45	2853904	8.923	-173.519	229.074	22.412	475.395	454.462	0.244	0.295	15.171	22.412	4.262
2023-07-10 17:00	2854804	8.990	-177.24	222.296	22.523	476.152	454.26	0.244	0.295	14.847	22.523	4.453
2023-07-10 17:15	2855704	8.961	-175.667	228.206	22.532	476.135	454.167	0.243	0.295	15.420	22.532	4.332
2023-07-10 17:30	2856604	8.972	-176.253	224.22	22.573	475.797	453.513	0.243	0.295	15.798	22.573	4.354
2023-07-10 17:45	2857504	8.976	-176.52	223.407	22.63	475.224	452.496	0.243	0.294	16.086	22.63	4.323
2023-07-10 18:00	2858404	***9.008***	-178.33	219.833	22.675	475.154	452.054	0.242	0.294	16.108	22.675	4.353
2023-07-10 18:15	2859304	8.989	-177.224	225.219	22.646	472.136	449.421	0.241	0.292	16.552	22.646	4.407
2023-07-10 18:30	2860204	***9.035***	-179.758	224.892	22.623	471.914	449.396	0.241	0.292	17.537	22.623	4.334
2023-07-10 18:45	2861104	***9.048***	-180.48	224.883	22.641	472.848	450.139	0.241	0.293	17.051	22.641	4.231
2023-07-10 19:00	2862004	***9.048***	-180.502	220.668	22.656	472.238	449.44	0.241	0.292	16.664	22.656	4.332
2023-07-10 19:15	2862904	***9.033***	-179.687	222.439	22.64	472.577	449.895	0.241	0.292	17.789	22.64	4.43
2023-07-10 19:30	2863804	***9.049***	-180.547	221.609	22.635	471.853	449.244	0.241	0.292	17.786	22.635	4.367
2023-07-10 19:45	2864704	***9.069***	-181.563	220.467	22.568	471.972	449.907	0.241	0.292	17.209	22.568	4.539
2023-07-10 20:00	2865604	8.991	-177.274	221.688	22.485	475.528	453.98	0.243	0.295	16.049	22.485	4.574
2023-07-10 20:15	2866504	8.950	-174.916	229.334	22.292	477.007	457.005	0.245	0.297	14.481	22.292	4.445
2023-07-10 20:30	2867404	8.869	-170.367	230.111	22.153	476.32	457.505	0.245	0.297	13.443	22.153	4.479
2023-07-10 20:45	2868304	8.851	-169.327	234.586	22.065	476.037	457.976	0.246	0.298	13.298	22.065	4.83
2023-07-10 21:00	2869204	8.819	-167.592	235.254	22.009	476.642	459.027	0.246	0.298	12.416	22.009	4.483
2023-07-10 21:15	2870104	8.789	-165.915	242.078	21.962	476.971	459.739	0.247	0.299	12.186	21.962	4.557
2023-07-10 21:30	2871004	8.774	-165.06	245.582	21.93	476.949	459.995	0.247	0.299	12.049	21.93	4.554
2023-07-10 21:45	2871904	8.771	-164.886	245.74	21.932	477.189	460.207	0.247	0.299	12.056	21.932	4.447

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-10 22:00	2872804	8.762	-164.433	244.598	21.95	476.821	459.697	0.247	0.299	12.041	21.95	5.85
2023-07-10 22:15	2873704	8.754	-163.97	246.641	21.962	476.842	459.62	0.247	0.299	11.933	21.962	4.331
2023-07-10 22:30	2874604	8.751	-163.853	245.387	21.984	476.939	459.526	0.247	0.299	12.114	21.984	4.521
2023-07-10 22:45	2875504	8.764	-164.54	240.747	22.003	477.148	459.569	0.247	0.299	12.043	22.003	4.382
2023-07-10 23:00	2876404	8.777	-165.267	237.033	22.018	477.454	459.732	0.247	0.299	12.061	22.018	4.33
2023-07-10 23:15	2877304	8.765	-164.604	241.226	22.018	477.768	460.038	0.247	0.299	11.980	22.018	4.317
2023-07-10 23:30	2878204	8.757	-164.163	243.448	22.014	478.023	460.319	0.247	0.299	11.828	22.014	4.326
2023-07-10 23:45	2879104	8.748	-163.674	245.182	21.998	477.887	460.324	0.247	0.299	11.423	21.998	4.364
2023-07-11 00:00	2880004	8.754	-163.963	243.923	21.975	476.83	459.5	0.247	0.299	11.168	21.975	4.148
2023-07-11 00:15	2880904	8.723	-162.299	244.755	21.939	476.596	459.574	0.247	0.299	11.514	21.939	4.188
2023-07-11 00:30	2881804	8.706	-161.345	246.355	21.911	476.302	459.532	0.247	0.299	11.215	21.911	4.158
2023-07-11 00:45	2882704	8.728	-162.494	246.193	21.878	475.848	459.371	0.247	0.299	11.081	21.878	4.269
2023-07-11 01:00	2883604	8.749	-163.629	245.325	21.853	475.72	459.457	0.247	0.299	10.989	21.853	4.374
2023-07-11 01:15	2884504	8.746	-163.455	245.644	21.817	475.564	459.609	0.247	0.299	11.255	21.817	4.713
2023-07-11 01:30	2885404	8.738	-163.002	246.965	21.783	475.167	459.52	0.247	0.299	10.886	21.783	4.554
2023-07-11 01:45	2886304	8.735	-162.797	246.693	21.748	474.787	459.443	0.247	0.299	11.029	21.748	4.682
2023-07-11 02:00	2887204	8.748	-163.491	246.054	21.714	474.043	459.016	0.247	0.298	10.824	21.714	4.593
2023-07-11 02:15	2888104	8.735	-162.761	247.449	21.668	473.822	459.19	0.247	0.298	11.039	21.668	4.697
2023-07-11 02:30	2889004	8.716	-161.707	249.223	21.628	473.16	458.894	0.246	0.298	11.048	21.628	4.737
2023-07-11 02:45	2889904	8.712	-161.512	249.943	21.601	472.896	458.864	0.246	0.298	10.756	21.601	4.786
2023-07-11 03:00	2890804	8.745	-163.264	247.728	21.581	472.785	458.924	0.247	0.298	10.916	21.581	4.658
2023-07-11 03:15	2891704	8.714	-161.543	248.894	21.537	472.921	459.433	0.247	0.299	10.910	21.537	4.659
2023-07-11 03:30	2892604	8.720	-161.862	250.432	21.498	472.441	459.3	0.247	0.299	10.936	21.498	5.374
2023-07-11 03:45	2893504	8.716	-161.629	251.445	21.471	472.348	459.441	0.247	0.299	10.896	21.471	4.426
2023-07-11 04:00	2894404	8.741	-162.992	249.943	21.43	471.218	458.687	0.246	0.298	10.641	21.43	4.408
2023-07-11 04:15	2895304	8.711	-161.326	251.457	21.4	470.698	458.444	0.246	0.298	10.788	21.4	4.264
2023-07-11 04:30	2896204	8.726	-162.113	251.762	21.358	470.268	458.377	0.246	0.298	10.831	21.358	4.343
2023-07-11 04:45	2897104	8.714	-161.445	252.69	21.311	470.304	458.819	0.247	0.298	10.993	21.311	4.483
2023-07-11 05:00	2898004	8.742	-162.969	242.254	21.284	469.992	458.743	0.247	0.298	10.555	21.284	4.392
2023-07-11 05:15	2898904	8.733	-162.42	243.098	21.25	469.746	458.792	0.247	0.298	10.514	21.25	4.432
2023-07-11 05:30	2899804	8.682	-159.645	246.259	21.22	469.81	459.109	0.247	0.298	10.577	21.22	4.619
2023-07-11 05:45	2900704	8.677	-159.333	248.803	21.191	469.718	459.272	0.247	0.299	10.441	21.191	4.378
2023-07-11 06:00	2901604	8.708	-161.018	245.668	21.162	468.789	458.609	0.247	0.298	10.122	21.162	4.448
2023-07-11 06:15	2902504	8.649	-157.75	250.878	21.105	468.283	458.606	0.247	0.298	10.503	21.105	4.563
2023-07-11 06:30	2903404	8.665	-158.637	252.058	21.067	467.982	458.638	0.247	0.298	10.396	21.067	4.326
2023-07-11 06:45	2904304	8.664	-158.572	252.766	21.023	467.315	458.36	0.246	0.298	10.326	21.023	4.33
2023-07-11 07:00	2905204	8.713	-161.231	248.787	21.007	467.469	458.645	0.247	0.298	10.139	21.007	4.308
2023-07-11 07:15	2906104	8.713	-161.2	251.393	20.978	467.299	458.733	0.247	0.298	10.277	20.978	4.422
2023-07-11 07:30	2907004	8.703	-160.639	250.828	20.96	467.339	458.928	0.247	0.298	10.434	20.96	4.286
2023-07-11 07:45	2907904	8.703	-160.608	251.793	20.944	467.107	458.838	0.247	0.298	10.189	20.944	4.36
2023-07-11 08:00	2908804	8.715	-161.259	250.15	20.936	466.5	458.303	0.246	0.298	9.922	20.936	4.323
2023-07-11 08:15	2909704	8.708	-160.868	253.028	20.922	466.004	457.94	0.246	0.298	10.379	20.922	4.103
2023-07-11 08:30	2910604	8.710	-160.997	254.599	20.913	465.988	457.998	0.246	0.298	10.364	20.913	4.24
2023-07-11 08:45	2911504	8.706	-160.775	253.736	20.914	466.042	458.042	0.246	0.298	10.538	20.914	4.021
2023-07-11 09:00	2912404	8.729	-162.039	249.726	20.933	466.544	458.373	0.247	0.298	10.353	20.933	4.06
2023-07-11 09:15	2913304	8.712	-161.133	250.763	20.944	467.143	458.873	0.247	0.298	10.289	20.944	4.107
2023-07-11 09:30	2914204	8.676	-159.194	250.992	20.959	467.759	459.342	0.247	0.299	10.128	20.959	3.91
2023-07-11 09:45	2915104	8.672	-158.954	251.238	20.979	468.041	459.448	0.247	0.299	10.162	20.979	3.875
2023-07-11 10:00	2916004	8.676	-159.185	248.908	21.011	467.49	458.631	0.247	0.298	9.889	21.011	4.18
2023-07-11 10:15	2916904	8.669	-158.849	250.253	21.026	467.998	459.005	0.247	0.298	10.167	21.026	3.773
2023-07-11 10:30	2917804	8.678	-159.314	249.85	21.057	468.332	459.064	0.247	0.298	10.344	21.057	3.83
2023-07-11 10:45	2918704	8.680	-159.481	249.635	21.095	468.703	459.102	0.247	0.298	10.257	21.095	3.877
2023-07-11 11:00	2919604	8.713	-161.278	247.115	21.142	468.87	458.863	0.247	0.298	10.019	21.142	3.916
2023-07-11 11:15	2920504	8.724	-161.877	246.934	21.166	469.061	458.842	0.247	0.298	10.523	21.166	3.929
2023-07-11 11:30	2921404	8.733	-162.38	244.848	21.191	469.136	458.7	0.247	0.298	10.706	21.191	3.958
2023-07-11 11:45	2922304	8.748	-163.221	244.717	21.22	469.091	458.413	0.246	0.298	10.697	21.22	4.005

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-11 12:00	2923204	8.753	-163.55	241.994	21.252	468.839	457.891	0.246	0.298	10.790	21.252	4.075
2023-07-11 12:15	2924104	8.759	-163.877	243.947	21.264	469.05	457.991	0.246	0.298	11.222	21.264	4.049
2023-07-11 12:30	2925004	8.755	-163.674	244.7	21.281	469.385	458.173	0.246	0.298	11.385	21.281	3.986
2023-07-11 12:45	2925904	8.750	-163.383	246.498	21.29	469.554	458.265	0.246	0.298	11.476	21.29	4.078
2023-07-11 13:00	2926804	8.787	-165.412	243.668	21.303	469.153	457.763	0.246	0.298	11.205	21.303	4.117
2023-07-11 13:15	2927704	8.765	-164.213	245.237	21.309	469.608	458.149	0.246	0.298	11.424	21.309	4.103
2023-07-11 13:30	2928604	8.761	-163.994	247.101	21.309	469.678	458.22	0.246	0.298	11.607	21.309	4.039
2023-07-11 13:45	2929504	8.766	-164.282	247.75	21.311	469.694	458.221	0.246	0.298	11.518	21.311	4.052
2023-07-11 14:00	2930404	8.770	-164.471	246.369	21.314	469.089	457.602	0.246	0.297	11.360	21.314	4.704
2023-07-11 14:15	2931304	8.769	-164.416	246.87	21.314	469.148	457.661	0.246	0.297	11.635	21.314	4.083
2023-07-11 14:30	2932204	8.770	-164.511	248.002	21.34	469.637	457.916	0.246	0.298	11.671	21.34	4.062
2023-07-11 14:45	2933104	8.784	-165.279	248.236	21.368	469.75	457.786	0.246	0.298	11.640	21.368	4.194
2023-07-11 15:00	2934004	8.802	-166.314	245.582	21.415	470.126	457.757	0.246	0.298	11.555	21.415	4.221
2023-07-11 15:15	2934904	8.793	-165.849	247.108	21.443	470.509	457.892	0.246	0.298	11.676	21.443	4.023
2023-07-11 15:30	2935804	8.801	-166.261	246.276	21.473	470.686	457.804	0.246	0.298	12.170	21.473	4.119
2023-07-11 15:45	2936704	8.812	-166.91	246.734	21.504	470.868	457.723	0.246	0.298	12.159	21.504	4.056
2023-07-11 16:00	2937604	8.812	-166.912	244.819	21.537	470.388	456.972	0.245	0.297	12.074	21.537	4.15
2023-07-11 16:15	2938504	8.819	-167.313	246.515	21.555	470.672	457.097	0.246	0.297	12.375	21.555	3.976
2023-07-11 16:30	2939404	8.813	-167.005	246.176	21.579	470.971	457.179	0.246	0.297	12.323	21.579	4.048
2023-07-11 16:45	2940304	8.816	-167.172	246.331	21.602	471.299	457.307	0.246	0.297	12.524	21.602	4.07
2023-07-11 17:00	2941204	8.847	-168.874	240.123	21.635	471.381	457.106	0.246	0.297	12.248	21.635	4.126
2023-07-11 17:15	2942104	8.512	-150.592	259.361	21.659	471.592	457.107	0.245	0.297	12.528	21.659	4.114
2023-07-11 17:30	2943004	8.520	-151.057	258.96	21.683	471.636	456.943	0.245	0.297	12.631	21.683	4.208
2023-07-11 17:45	2943904	8.535	-151.849	258.056	21.712	471.785	456.843	0.245	0.297	12.771	21.712	4.234
2023-07-11 18:00	2944804	8.608	-155.892	250.37	21.763	471.364	456.009	0.245	0.296	13.016	21.763	4.344
2023-07-11 18:15	2945704	8.740	-163.128	245.823	21.794	471.893	456.26	0.245	0.297	13.031	21.794	4.253
2023-07-11 18:30	2946604	8.762	-164.323	244.724	21.839	472.465	456.434	0.245	0.297	13.253	21.839	4.329
2023-07-11 18:45	2947504	8.760	-164.256	245.387	21.88	473.047	456.652	0.245	0.297	12.950	21.88	4.128
2023-07-11 19:00	2948404	8.777	-165.198	243.317	21.917	473.437	456.711	0.245	0.297	12.555	21.917	4.421
2023-07-11 19:15	2949304	8.771	-164.902	245.384	21.936	473.697	456.803	0.245	0.297	12.727	21.936	4.282
2023-07-11 19:30	2950204	8.783	-165.582	245.411	21.956	473.804	456.743	0.245	0.297	12.958	21.956	4.112
2023-07-11 19:45	2951104	8.776	-165.188	244.309	21.974	474.212	456.978	0.245	0.297	12.523	21.974	4.196
2023-07-11 20:00	2952004	8.770	-164.855	243.029	21.999	474.015	456.583	0.245	0.297	13.019	21.999	4.18
2023-07-11 20:15	2952904	8.763	-164.504	245.074	22.007	474.404	456.888	0.245	0.297	12.715	22.007	4.172
2023-07-11 20:30	2953804	8.758	-164.208	247.091	22.02	474.827	457.188	0.245	0.297	12.694	22.02	4.131
2023-07-11 20:45	2954704	8.747	-163.629	248.024	22.027	475.2	457.489	0.246	0.297	12.577	22.027	4.125
2023-07-11 21:00	2955604	8.760	-164.351	247.132	22.042	475.179	457.338	0.245	0.297	12.316	22.042	4.285
2023-07-11 21:15	2956504	8.750	-163.832	247.518	22.048	475.409	457.516	0.246	0.297	12.240	22.048	4.012
2023-07-11 21:30	2957404	8.752	-163.901	248.474	22.057	475.534	457.559	0.246	0.297	12.256	22.057	4.147
2023-07-11 21:45	2958304	8.755	-164.07	248.877	22.065	475.631	457.58	0.246	0.297	12.247	22.065	4.022
2023-07-11 22:00	2959204	8.738	-163.195	246.786	22.082	475.537	457.352	0.245	0.297	12.107	22.082	4.087
2023-07-11 22:15	2960104	8.734	-162.954	249.008	22.088	475.834	457.583	0.246	0.297	12.391	22.088	3.917
2023-07-11 22:30	2961004	8.726	-162.504	251.059	22.097	476.029	457.697	0.246	0.298	12.095	22.097	4.041
2023-07-11 22:45	2961904	8.717	-162.036	250.932	22.105	476.254	457.845	0.246	0.298	12.001	22.105	4.008
2023-07-11 23:00	2962804	8.734	-162.954	249.752	22.112	476.354	457.882	0.246	0.298	11.699	22.112	4.03
2023-07-11 23:15	2963704	8.723	-162.382	250.87	22.111	476.628	458.152	0.246	0.298	12.013	22.111	4.003
2023-07-11 23:30	2964604	8.720	-162.182	251.55	22.113	476.927	458.422	0.246	0.298	11.688	22.113	3.975
2023-07-11 23:45	2965504	8.712	-161.779	251.893	22.101	477.35	458.932	0.246	0.298	11.872	22.101	4.141
2023-07-12 00:00	2966404	8.721	-162.215	249.843	22.066	475.919	457.855	0.246	0.298	11.957	22.066	4.417
2023-07-12 00:15	2967304	8.748	-163.682	246.972	21.997	474.416	456.987	0.245	0.297	12.269	21.997	4.196
2023-07-12 00:30	2968204	8.742	-163.298	246.059	21.945	474.012	457.031	0.245	0.297	12.127	21.945	4.124
2023-07-12 00:45	2969104	8.743	-163.364	246.724	21.891	473.622	457.115	0.245	0.297	12.008	21.891	4.165
2023-07-12 01:00	2970004	8.752	-163.82	245.475	21.851	473.445	457.278	0.246	0.297	11.589	21.851	4.131
2023-07-12 01:15	2970904	8.726	-162.337	247.487	21.797	473.483	457.769	0.246	0.298	11.421	21.797	4.181
2023-07-12 01:30	2971804	8.720	-162.02	248.369	21.749	472.873	457.588	0.246	0.297	11.538	21.749	4.389
2023-07-12 01:45	2972704	8.725	-162.263	251.083	21.72	472.423	457.396	0.246	0.297	11.646	21.72	4.282

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-12 02:00	2973604	8.734	-162.699	249.23	21.67	471.171	456.607	0.245	0.297	11.497	21.67	4.136
2023-07-12 02:15	2974504	8.694	-160.475	251.891	21.601	470.89	456.92	0.245	0.297	11.464	21.601	4.229
2023-07-12 02:30	2975404	8.705	-161.064	246.808	21.556	470.464	456.889	0.245	0.297	11.485	21.556	4.337
2023-07-12 02:45	2976304	8.700	-160.792	250.289	21.509	469.814	456.653	0.245	0.297	11.501	21.509	4.63
2023-07-12 03:00	2977204	8.726	-162.201	238.985	21.481	469.697	456.775	0.245	0.297	10.907	21.481	4.478
2023-07-12 03:15	2978104	8.701	-160.789	243.417	21.431	469.79	457.294	0.246	0.297	11.080	21.431	5.038
2023-07-12 03:30	2979004	8.692	-160.251	245.256	21.386	469.395	457.29	0.246	0.297	11.197	21.386	4.744
2023-07-12 03:45	2979904	8.686	-159.91	248.424	21.332	469.039	457.398	0.246	0.297	10.852	21.332	4.693
2023-07-12 04:00	2980804	8.688	-159.988	248.086	21.286	468.397	457.164	0.246	0.297	10.799	21.286	4.559
2023-07-12 04:15	2981704	8.652	-158.007	251.276	21.237	467.682	456.89	0.246	0.297	10.768	21.237	4.472
2023-07-12 04:30	2982604	8.643	-157.509	252.401	21.182	467.509	457.188	0.246	0.297	10.573	21.182	4.521
2023-07-12 04:45	2983504	8.646	-157.647	248.763	21.123	466.439	456.649	0.245	0.297	10.553	21.123	5.322
2023-07-12 05:00	2984404	8.700	-160.563	244.738	21.103	466.545	456.916	0.246	0.297	10.556	21.103	4.685
2023-07-12 05:15	2985304	8.671	-158.961	248.424	21.063	466.528	457.243	0.246	0.297	10.658	21.063	4.494
2023-07-12 05:30	2986204	8.675	-159.161	257.088	21.007	466.071	457.276	0.246	0.297	10.552	21.007	4.46
2023-07-12 05:45	2987104	8.656	-158.074	254.74	20.956	466.077	457.722	0.246	0.298	10.424	20.956	4.674
2023-07-12 06:00	2988004	8.654	-157.938	251.533	20.907	465.25	457.325	0.246	0.297	10.024	20.907	5.025
2023-07-12 06:15	2988904	8.642	-157.263	254.528	20.844	464.671	457.299	0.246	0.297	10.078	20.844	4.565
2023-07-12 06:30	2989804	8.644	-157.335	257.091	20.792	464.213	457.297	0.246	0.297	9.952	20.792	4.189
2023-07-12 06:45	2990704	8.620	-156.033	257.334	20.755	464.189	457.586	0.246	0.297	9.740	20.755	4.166
2023-07-12 07:00	2991604	8.632	-156.622	255.694	20.729	463.891	457.52	0.246	0.297	9.187	20.729	4.293
2023-07-12 07:15	2992504	8.612	-155.544	257.839	20.71	464.234	458.023	0.246	0.298	9.670	20.71	4.237
2023-07-12 07:30	2993404	8.613	-155.587	259.058	20.681	463.653	457.698	0.246	0.298	10.059	20.681	4.285
2023-07-12 07:45	2994304	8.628	-156.376	259.453	20.664	463.251	457.447	0.246	0.297	10.193	20.664	4.362
2023-07-12 08:00	2995204	8.672	-158.775	256.359	20.641	462.195	456.608	0.246	0.297	10.010	20.641	4.448
2023-07-12 08:15	2996104	8.657	-157.948	257.589	20.622	462.036	456.612	0.246	0.297	10.384	20.622	4.216
2023-07-12 08:30	2997004	8.643	-157.177	258.054	20.619	461.74	456.34	0.246	0.297	10.294	20.619	4.11
2023-07-12 08:45	2997904	8.642	-157.13	258.259	20.622	462.15	456.724	0.246	0.297	10.380	20.622	4.289
2023-07-12 09:00	2998804	8.656	-157.895	252.525	20.635	462.694	457.151	0.246	0.297	10.301	20.635	3.98
2023-07-12 09:15	2999704	8.647	-157.421	251.905	20.64	462.752	457.165	0.246	0.297	10.158	20.64	5.891
2023-07-12 09:30	3000604	8.647	-157.44	250.644	20.649	462.998	457.328	0.246	0.297	10.500	20.649	4.322
2023-07-12 09:45	3001504	8.657	-157.964	248.253	20.661	462.867	457.095	0.246	0.297	10.444	20.661	4.021
2023-07-12 10:00	3002404	8.653	-157.742	243.904	20.683	462.108	456.158	0.245	0.297	10.106	20.683	4.042
2023-07-12 10:15	3003304	8.718	-161.324	237.438	20.694	462.438	456.39	0.246	0.297	10.642	20.694	4.163
2023-07-12 10:30	3004204	8.725	-161.712	239.617	20.715	462.531	456.298	0.245	0.297	10.789	20.715	4.102
2023-07-12 10:45	3005104	8.705	-160.644	243.193	20.744	463.121	456.631	0.246	0.297	10.592	20.744	4.006
2023-07-12 11:00	3006004	8.710	-160.947	242.457	20.79	463.337	456.452	0.246	0.297	10.437	20.79	4.217
2023-07-12 11:15	3006904	8.710	-160.961	244.097	20.816	463.572	456.46	0.246	0.297	10.968	20.816	4.071
2023-07-12 11:30	3007804	8.712	-161.061	244.009	20.85	463.848	456.438	0.245	0.297	10.894	20.85	4.136
2023-07-12 11:45	3008704	8.722	-161.629	244.414	20.891	464.211	456.444	0.245	0.297	11.325	20.891	4.252
2023-07-12 12:00	3009604	8.737	-162.523	241.286	20.971	464.378	455.925	0.245	0.296	11.179	20.971	4.074
2023-07-12 12:15	3010504	8.737	-162.559	244.912	21.029	465.227	456.258	0.245	0.297	11.354	21.029	4.143
2023-07-12 12:30	3011404	8.743	-162.921	245.861	21.09	465.568	456.073	0.245	0.296	11.500	21.09	4.128
2023-07-12 12:45	3012304	8.766	-164.194	245.039	21.127	465.1	455.3	0.245	0.296	11.938	21.127	4.281
2023-07-12 13:00	3013204	8.829	-167.62	238.039	21.163	464.757	454.658	0.244	0.296	12.095	21.163	4.315
2023-07-12 13:15	3014104	8.829	-167.639	236.346	21.199	465.338	454.917	0.244	0.296	12.487	21.199	4.346
2023-07-12 13:30	3015004	8.807	-166.523	238.404	21.3	466.066	454.777	0.244	0.296	12.372	21.3	4.391
2023-07-12 13:45	3015904	8.844	-168.555	227.615	21.389	467.118	455.044	0.244	0.296	12.629	21.389	4.193
2023-07-12 14:00	3016804	8.867	-169.866	229.022	21.441	465.425	452.962	0.243	0.294	12.961	21.441	4.283
2023-07-12 14:15	3017704	8.910	-172.212	231.752	21.48	466.05	453.24	0.243	0.295	13.723	21.48	4.274
2023-07-12 14:30	3018604	8.864	-169.749	233.597	21.523	467.074	453.87	0.244	0.295	13.242	21.523	4.38
2023-07-12 14:45	3019504	8.878	-170.515	231.847	21.572	468.228	454.575	0.244	0.295	13.212	21.572	4.387
2023-07-12 15:00	3020404	8.891	-171.316	230.014	21.688	468.655	454.016	0.244	0.295	13.044	21.688	4.296
2023-07-12 15:15	3021304	8.884	-170.968	231.52	21.752	469.13	453.939	0.244	0.295	13.334	21.752	4.414
2023-07-12 15:30	3022204	8.920	-172.956	229.348	21.812	468.29	452.621	0.243	0.294	14.721	21.812	4.315
2023-07-12 15:45	3023104	8.953	-174.816	229.136	21.88	468.117	451.893	0.243	0.294	14.906	21.88	4.465

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-12 16:00	3024004	8.945	-174.396	228.466	21.905	467.397	450.985	0.242	0.293	14.234	21.905	4.357
2023-07-12 16:15	3024904	8.961	-175.281	228.168	21.879	467.832	451.627	0.242	0.294	14.737	21.879	4.417
2023-07-12 16:30	3025804	8.953	-174.756	227.961	21.798	468.177	452.63	0.243	0.294	14.301	21.798	4.527
2023-07-12 16:45	3026704	8.915	-172.651	230.741	21.752	469.505	454.3	0.244	0.295	13.679	21.752	4.565
2023-07-12 17:00	3027604	8.876	-170.529	228.49	21.741	469.533	454.422	0.244	0.295	13.018	21.741	4.766
2023-07-12 17:15	3028504	8.838	-168.409	233.142	21.706	469.972	455.138	0.244	0.296	12.940	21.706	4.678
2023-07-12 17:30	3029404	8.819	-167.377	236.017	21.678	470.092	455.496	0.245	0.296	12.794	21.678	4.586
2023-07-12 17:45	3030304	8.807	-166.717	237.481	21.657	470.165	455.741	0.245	0.296	12.749	21.657	4.572
2023-07-12 18:00	3031204	8.813	-167.046	237.636	21.659	470.113	455.678	0.245	0.296	12.312	21.659	4.451
2023-07-12 18:15	3032104	8.797	-166.147	241.138	21.651	470.105	455.735	0.245	0.296	12.559	21.651	4.439
2023-07-12 18:30	3033004	8.794	-166.006	242.624	21.657	470.833	456.391	0.245	0.297	12.569	21.657	4.352
2023-07-12 18:45	3033904	8.793	-165.954	243.537	21.662	471.035	456.542	0.245	0.297	12.267	21.662	4.357
2023-07-12 19:00	3034804	8.801	-166.397	242.349	21.671	471.231	456.653	0.245	0.297	12.129	21.671	4.937
2023-07-12 19:15	3035704	8.787	-165.641	244.631	21.677	471.429	456.798	0.245	0.297	12.203	21.677	4.395
2023-07-12 19:30	3036604	8.787	-165.632	244.071	21.684	471.501	456.805	0.245	0.297	12.240	21.684	4.312
2023-07-12 19:45	3037504	8.786	-165.567	242.726	21.709	471.71	456.798	0.245	0.297	12.366	21.709	4.275
2023-07-12 20:00	3038404	8.787	-165.675	241.613	21.746	471.362	456.152	0.245	0.296	12.075	21.746	4.237
2023-07-12 20:15	3039304	8.783	-165.434	242.156	21.762	471.734	456.371	0.245	0.297	12.323	21.762	4.245
2023-07-12 20:30	3040204	8.797	-166.23	238.482	21.788	471.787	456.21	0.245	0.297	12.370	21.788	4.175
2023-07-12 20:45	3041104	8.796	-166.175	238.404	21.81	471.966	456.197	0.245	0.297	12.151	21.81	4.207
2023-07-12 21:00	3042004	8.817	-167.377	235.109	21.838	471.835	455.834	0.245	0.296	12.426	21.838	4.172
2023-07-12 21:15	3042904	8.809	-166.903	238.644	21.852	472.132	456.004	0.245	0.296	12.446	21.852	4.218
2023-07-12 21:30	3043804	8.802	-166.55	242.719	21.856	472.543	456.367	0.245	0.297	12.317	21.856	4.26
2023-07-12 21:45	3044704	8.780	-165.336	245.916	21.841	472.747	456.691	0.245	0.297	11.815	21.841	4.263
2023-07-12 22:00	3045604	8.797	-166.23	242.039	21.812	471.346	455.575	0.245	0.296	12.013	21.812	4.25
2023-07-12 22:15	3046504	8.771	-164.783	243.51	21.78	471.061	455.575	0.245	0.296	12.205	21.78	4.159
2023-07-12 22:30	3047404	8.758	-164.099	244.793	21.738	470.696	455.57	0.245	0.296	12.325	21.738	4.173
2023-07-12 22:45	3048304	8.759	-164.111	244.986	21.682	470.228	455.592	0.245	0.296	11.822	21.682	4.197
2023-07-12 23:00	3049204	8.800	-166.33	243.003	21.645	470.054	455.734	0.245	0.296	11.795	21.645	4.233
2023-07-12 23:15	3050104	8.778	-165.071	244.409	21.587	469.823	456.005	0.245	0.296	11.790	21.587	4.27
2023-07-12 23:30	3051004	8.778	-165.055	245.692	21.539	469.35	455.945	0.245	0.296	11.501	21.539	4.246
2023-07-12 23:45	3051904	8.769	-164.552	244.691	21.502	469.049	455.971	0.245	0.296	11.570	21.502	4.093
2023-07-13 00:00	3052804	8.777	-164.948	245.873	21.457	468.313	455.637	0.245	0.296	11.229	21.457	4.139
2023-07-13 00:15	3053704	8.752	-163.56	234.131	21.396	467.766	455.62	0.245	0.296	11.533	21.396	4.206
2023-07-13 00:30	3054604	8.748	-163.333	238.06	21.346	467.268	455.554	0.245	0.296	11.276	21.346	4.11
2023-07-13 00:45	3055504	8.747	-163.212	241.47	21.303	466.479	455.155	0.245	0.296	11.200	21.303	4.092
2023-07-13 01:00	3056404	8.770	-164.483	243.031	21.274	466.732	455.646	0.245	0.296	11.045	21.274	4.233
2023-07-13 01:15	3057304	8.750	-163.372	246.591	21.232	466.853	456.124	0.245	0.296	11.077	21.232	4.143
2023-07-13 01:30	3058204	8.734	-162.482	248.894	21.188	466.279	455.933	0.245	0.296	11.013	21.188	4.215
2023-07-13 01:45	3059104	8.737	-162.585	249.132	21.162	466.014	455.898	0.245	0.296	10.969	21.162	4.151
2023-07-13 02:00	3060004	8.759	-163.77	247.432	21.136	465.085	455.211	0.245	0.296	10.869	21.136	4.029
2023-07-13 02:15	3060904	8.743	-162.883	247.8	21.08	464.608	455.218	0.245	0.296	10.930	21.08	4.077
2023-07-13 02:30	3061804	8.734	-162.361	248.067	21.036	464.501	455.488	0.245	0.296	10.977	21.036	3.968
2023-07-13 02:45	3062704	8.684	-159.616	249.917	21.011	464.225	455.435	0.245	0.296	10.823	21.011	3.985
2023-07-13 03:00	3063604	8.743	-162.835	245.804	20.983	463.706	455.162	0.245	0.296	10.913	20.983	4.029
2023-07-13 03:15	3064504	8.743	-162.833	247.647	20.943	463.569	455.368	0.245	0.296	10.972	20.943	4.004
2023-07-13 03:30	3065404	8.750	-163.164	250.472	20.904	463.309	455.449	0.245	0.296	10.974	20.904	4.013
2023-07-13 03:45	3066304	8.660	-158.255	248.472	20.881	463.636	455.962	0.245	0.296	10.918	20.881	4.051
2023-07-13 04:00	3067204	8.735	-162.301	247.99	20.831	462.071	454.851	0.245	0.296	10.645	20.831	4.08
2023-07-13 04:15	3068104	8.749	-163.071	248.138	20.78	461.156	454.389	0.244	0.295	11.092	20.78	3.909
2023-07-13 04:30	3069004	8.726	-161.8	249.175	20.755	461.008	454.451	0.244	0.295	11.146	20.755	3.884
2023-07-13 04:45	3069904	8.727	-161.805	250.37	20.725	460.657	454.363	0.244	0.295	10.946	20.725	3.949
2023-07-13 05:00	3070804	8.741	-162.556	248.286	20.708	461.331	455.176	0.245	0.296	11.161	20.708	3.963
2023-07-13 05:15	3071704	8.691	-159.829	250.215	20.671	461.566	455.728	0.245	0.296	11.003	20.671	3.885
2023-07-13 05:30	3072604	8.711	-160.902	252.136	20.634	461.16	455.638	0.245	0.296	11.076	20.634	3.946
2023-07-13 05:45	3073504	8.652	-157.695	254.249	20.603	461.013	455.768	0.245	0.296	10.762	20.603	3.962

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-13 06:00	3074404	8.733	-162.077	253.824	20.573	459.543	454.565	0.245	0.295	10.837	20.573	3.99
2023-07-13 06:15	3075304	8.608	-155.215	254.552	20.539	459.029	454.355	0.244	0.295	11.063	20.539	3.944
2023-07-13 06:30	3076204	8.581	-153.78	255.61	20.529	458.993	454.398	0.245	0.295	10.755	20.529	3.798
2023-07-13 06:45	3077104	8.583	-153.875	255.431	20.522	459.452	454.918	0.245	0.296	10.495	20.522	3.869
2023-07-13 07:00	3078004	8.710	-160.787	248.534	20.517	459.19	454.704	0.245	0.296	10.042	20.517	3.875
2023-07-13 07:15	3078904	8.663	-158.219	249.128	20.5	458.649	454.308	0.244	0.295	10.706	20.5	4.081
2023-07-13 07:30	3079804	8.684	-159.357	246.033	20.487	458.513	454.288	0.244	0.295	10.614	20.487	4.078
2023-07-13 07:45	3080704	8.702	-160.315	245.759	20.476	458.311	454.186	0.244	0.295	10.773	20.476	3.878
2023-07-13 08:00	3081604	8.764	-163.701	243.799	20.471	458.198	454.117	0.244	0.295	10.668	20.471	3.873
2023-07-13 08:15	3082504	8.777	-164.409	243.947	20.468	458.432	454.372	0.245	0.295	10.827	20.468	3.921
2023-07-13 08:30	3083404	8.759	-163.429	244.66	20.474	458.412	454.302	0.244	0.295	10.729	20.474	3.868
2023-07-13 08:45	3084304	8.751	-162.997	241.753	20.482	458.626	454.446	0.245	0.295	10.761	20.482	3.878
2023-07-13 09:00	3085204	8.772	-164.142	236.694	20.498	458.628	454.31	0.244	0.295	10.489	20.498	3.775
2023-07-13 09:15	3086104	8.752	-163.088	239.066	20.507	459.01	454.605	0.245	0.295	10.515	20.507	3.774
2023-07-13 09:30	3087004	8.750	-162.945	240.585	20.521	459.264	454.737	0.245	0.296	10.594	20.521	3.761
2023-07-13 09:45	3087904	8.747	-162.828	242.125	20.538	459.479	454.804	0.245	0.296	10.640	20.538	3.798
2023-07-13 10:00	3088804	8.759	-163.5	240.473	20.577	459.02	454.018	0.244	0.295	10.633	20.577	3.825
2023-07-13 10:15	3089704	8.773	-164.268	229.596	20.6	459.479	454.272	0.244	0.295	11.048	20.6	3.793
2023-07-13 10:30	3090604	8.771	-164.156	229.921	20.64	459.937	454.385	0.244	0.295	11.119	20.64	3.759
2023-07-13 10:45	3091504	8.761	-163.662	236.17	20.68	460.238	454.341	0.244	0.295	11.133	20.68	3.804
2023-07-13 11:00	3092404	8.795	-165.532	237.102	20.721	460.396	454.141	0.244	0.295	11.109	20.721	3.999
2023-07-13 11:15	3093304	8.809	-166.323	237.19	20.744	460.618	454.16	0.244	0.295	11.153	20.744	4.007
2023-07-13 11:30	3094204	8.790	-165.262	240.621	20.769	460.797	454.124	0.244	0.295	11.450	20.769	4.057
2023-07-13 11:45	3095104	8.811	-166.461	240.819	20.799	461.013	454.086	0.244	0.295	11.654	20.799	4.001
2023-07-13 12:00	3096004	8.810	-166.438	237.965	20.866	461.012	453.511	0.244	0.295	11.822	20.866	4.011
2023-07-13 12:15	3096904	8.806	-166.249	240.103	20.955	461.463	453.196	0.244	0.295	12.091	20.955	4.028
2023-07-13 12:30	3097804	8.865	-169.547	228.078	21.108	461.776	452.202	0.243	0.294	12.839	21.108	4.316
2023-07-13 12:45	3098704	8.908	-171.998	225.77	21.301	463.449	452.213	0.243	0.294	13.457	21.301	4.326
2023-07-13 13:00	3099604	8.917	-172.634	217.704	21.533	466.101	452.839	0.243	0.294	13.131	21.533	4.45
2023-07-13 13:15	3100504	8.898	-171.649	216.936	21.646	467.564	453.311	0.243	0.295	12.842	21.646	4.214
2023-07-13 13:30	3101404	8.898	-171.745	219.788	21.76	469.06	453.802	0.244	0.295	12.970	21.76	4.21
2023-07-13 13:45	3102304	8.869	-170.152	226.163	21.734	466.484	451.528	0.242	0.293	12.935	21.734	4.34
2023-07-13 14:00	3103204	8.940	-173.998	223.316	21.648	465.837	451.62	0.242	0.294	13.958	21.648	4.315
2023-07-13 14:15	3104104	8.914	-172.563	227.665	21.641	466.577	452.396	0.243	0.294	13.579	21.641	4.285
2023-07-13 14:30	3105004	8.896	-171.638	229.751	21.738	466.686	451.693	0.242	0.294	13.835	21.738	4.499
2023-07-13 14:45	3105904	8.983	-176.446	216.357	21.863	466.693	450.655	0.242	0.293	14.665	21.863	4.314
2023-07-13 15:00	3106804	8.990	-176.837	217.778	21.859	465.628	449.665	0.241	0.292	14.609	21.859	4.165
2023-07-13 15:15	3107704	8.969	-175.693	221.643	21.865	466.583	450.536	0.242	0.293	14.693	21.865	4.322
2023-07-13 15:30	3108604	8.949	-174.592	225.834	21.856	466.446	450.477	0.242	0.293	14.246	21.856	4.223
2023-07-13 15:45	3109504	8.956	-175.025	225.112	21.903	466.237	449.884	0.241	0.292	14.602	21.903	4.325
2023-07-13 16:00	3110404	8.973	-175.948	214.235	21.977	466.43	449.46	0.241	0.292	14.660	21.977	4.344
2023-07-13 16:15	3111304	8.955	-175.006	214.49	21.985	467.126	450.061	0.241	0.293	14.539	21.985	4.205
2023-07-13 16:30	3112204	8.930	-173.602	218.81	21.992	468.308	451.147	0.242	0.293	13.912	21.992	4.275
2023-07-13 16:45	3113104	8.887	-171.251	220.825	21.98	469.315	452.215	0.243	0.294	12.664	21.98	4.24
2023-07-13 17:00	3114004	8.859	-169.735	217.721	21.964	468.989	452.03	0.243	0.294	12.113	21.964	4.25
2023-07-13 17:15	3114904	8.825	-167.856	221.106	21.932	468.939	452.248	0.243	0.294	11.753	21.932	4.343
2023-07-13 17:30	3115804	8.810	-167.007	219.33	21.901	468.944	452.517	0.243	0.294	11.785	21.901	4.363
2023-07-13 17:45	3116704	8.801	-166.519	222.134	21.874	468.96	452.751	0.243	0.294	11.549	21.874	4.363
2023-07-13 18:00	3117604	8.811	-167.065	221.729	21.858	467.905	451.871	0.243	0.294	11.384	21.858	4.282
2023-07-13 18:15	3118504	8.804	-166.628	223.374	21.846	467.805	451.87	0.243	0.294	11.476	21.846	4.205
2023-07-13 18:30	3119404	8.798	-166.34	225.441	21.848	467.924	451.972	0.243	0.294	11.644	21.848	4.218
2023-07-13 18:45	3120304	8.798	-166.314	227.911	21.857	468.345	452.299	0.243	0.294	11.553	21.857	4.343
2023-07-13 19:00	3121204	8.812	-167.12	224.21	21.869	468.463	452.318	0.243	0.294	11.315	21.869	4.293
2023-07-13 19:15	3122104	8.793	-166.066	226.249	21.873	468.877	452.685	0.243	0.294	11.262	21.873	4.277
2023-07-13 19:30	3123004	8.801	-166.478	226.158	21.878	468.765	452.533	0.243	0.294	11.295	21.878	4.296
2023-07-13 19:45	3123904	8.797	-166.278	227.784	21.882	468.851	452.585	0.243	0.294	11.366	21.882	4.345

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-13 20:00	3124804	8.818	-167.456	225.562	21.885	468.343	452.065	0.243	0.294	11.106	21.885	4.421
2023-07-13 20:15	3125704	8.795	-166.199	222.198	21.875	467.797	451.625	0.242	0.294	11.753	21.875	4.3
2023-07-13 20:30	3126604	8.804	-166.671	225.202	21.865	467.955	451.861	0.243	0.294	11.563	21.865	4.218
2023-07-13 20:45	3127504	8.825	-167.816	225.682	21.827	467.066	451.315	0.242	0.293	11.832	21.827	4.268
2023-07-13 21:00	3128404	8.842	-168.703	229.832	21.795	466.572	451.104	0.242	0.293	11.790	21.795	4.567
2023-07-13 21:15	3129304	8.836	-168.345	230.653	21.763	466.569	451.369	0.242	0.293	12.812	21.763	4.859
2023-07-13 21:30	3130204	8.839	-168.507	232.813	21.738	466.419	451.431	0.242	0.293	12.467	21.738	4.609
2023-07-13 21:45	3131104	8.840	-168.543	230.924	21.703	466.225	451.538	0.242	0.293	12.426	21.703	4.62
2023-07-13 22:00	3132004	8.855	-169.351	229.923	21.648	465.4	451.197	0.242	0.293	12.117	21.648	4.763
2023-07-13 22:15	3132904	8.850	-169.001	228.075	21.602	465.244	451.431	0.242	0.293	12.002	21.602	4.499
2023-07-13 22:30	3133804	8.837	-168.316	228.507	21.557	465.358	451.919	0.243	0.294	11.866	21.557	4.52
2023-07-13 22:45	3134704	8.825	-167.642	231.258	21.521	465.274	452.139	0.243	0.294	11.754	21.521	4.529
2023-07-13 23:00	3135604	8.845	-168.674	230.29	21.477	464.917	452.165	0.243	0.294	11.807	21.477	4.457
2023-07-13 23:15	3136504	8.810	-166.729	235.543	21.439	465.1	452.658	0.243	0.294	11.707	21.439	4.638
2023-07-13 23:30	3137404	8.809	-166.659	237.147	21.389	464.711	452.7	0.243	0.294	11.634	21.389	4.45
2023-07-13 23:45	3138304	8.795	-165.896	239.896	21.354	464.661	452.944	0.243	0.294	11.446	21.354	4.534
2023-07-14 00:00	3139204	8.796	-165.918	239.813	21.308	463.757	452.452	0.243	0.294	11.375	21.308	4.323
2023-07-14 00:15	3140104	8.783	-165.174	240.127	21.232	463.104	452.454	0.243	0.294	11.406	21.232	4.863
2023-07-14 00:30	3141004	8.774	-164.673	242.376	21.2	462.968	452.594	0.243	0.294	11.385	21.2	4.305
2023-07-14 00:45	3141904	8.758	-163.763	244.383	21.161	462.769	452.732	0.243	0.294	11.155	21.161	4.182
2023-07-14 01:00	3142804	8.771	-164.471	242.962	21.142	462.737	452.858	0.243	0.294	10.922	21.142	4.271
2023-07-14 01:15	3143704	8.748	-163.162	245.38	21.095	462.893	453.413	0.244	0.295	10.928	21.095	4.514
2023-07-14 01:30	3144604	8.725	-161.872	248.381	21.054	462.675	453.547	0.244	0.295	10.927	21.054	4.275
2023-07-14 01:45	3145504	8.732	-162.272	248.226	21.013	462.445	453.669	0.244	0.295	10.808	21.013	4.248
2023-07-14 02:00	3146404	8.745	-162.921	247.628	20.981	461.43	452.942	0.243	0.294	10.707	20.981	4.284
2023-07-14 02:15	3147304	8.690	-159.905	248.906	20.929	460.983	452.942	0.244	0.294	10.725	20.929	4.465
2023-07-14 02:30	3148204	8.701	-160.496	248.362	20.896	460.749	452.994	0.244	0.294	10.770	20.896	4.4
2023-07-14 02:45	3149104	8.728	-161.936	247.58	20.862	460.464	453.01	0.244	0.294	10.780	20.862	4.31
2023-07-14 03:00	3150004	8.752	-163.226	246.469	20.843	460.473	453.176	0.244	0.295	10.719	20.843	4.238
2023-07-14 03:15	3150904	8.724	-161.731	249.581	20.808	460.783	453.779	0.244	0.295	10.777	20.808	4.211
2023-07-14 03:30	3151804	8.720	-161.459	250.501	20.77	460.31	453.634	0.244	0.295	10.798	20.77	4.304
2023-07-14 03:45	3152704	8.703	-160.532	253.138	20.731	460.426	454.086	0.244	0.295	10.330	20.731	4.486
2023-07-14 04:00	3153604	8.697	-160.177	251.023	20.701	459.703	453.63	0.244	0.295	10.209	20.701	4.591
2023-07-14 04:15	3154504	8.689	-159.738	251.059	20.674	459.603	453.76	0.244	0.295	10.252	20.674	4.573
2023-07-14 04:30	3155404	8.694	-159.96	248.839	20.653	459.463	453.805	0.244	0.295	10.197	20.653	4.438
2023-07-14 04:45	3156304	8.678	-159.094	246.596	20.61	459.027	453.744	0.244	0.295	10.004	20.61	4.379
2023-07-14 05:00	3157204	8.690	-159.719	246.484	20.592	458.951	453.823	0.244	0.295	9.863	20.592	4.365
2023-07-14 05:15	3158104	8.655	-157.804	249.616	20.553	459.248	454.447	0.245	0.295	9.920	20.553	4.57
2023-07-14 05:30	3159004	8.650	-157.53	250.766	20.518	459.052	454.557	0.245	0.295	9.845	20.518	4.445
2023-07-14 05:45	3159904	8.630	-156.417	253.536	20.491	458.912	454.649	0.245	0.296	9.922	20.491	4.277
2023-07-14 06:00	3160804	8.672	-158.66	251.633	20.47	457.612	453.539	0.244	0.295	9.755	20.47	4.36
2023-07-14 06:15	3161704	8.637	-156.765	253.629	20.44	456.835	453.028	0.244	0.294	10.068	20.44	4.424
2023-07-14 06:30	3162604	8.620	-155.838	254.237	20.427	456.831	453.14	0.244	0.295	9.872	20.427	4.245
2023-07-14 06:45	3163504	8.632	-156.498	254.53	20.411	456.546	452.992	0.244	0.294	10.009	20.411	4.153
2023-07-14 07:00	3164404	8.679	-159.047	252.649	20.406	457.112	453.591	0.244	0.295	10.168	20.406	4.17
2023-07-14 07:15	3165304	8.655	-157.702	253.805	20.398	457.779	454.321	0.245	0.295	9.814	20.398	4.188
2023-07-14 07:30	3166204	8.635	-156.61	255.808	20.39	457.84	454.457	0.245	0.295	9.700	20.39	4.169
2023-07-14 07:45	3167104	8.641	-156.951	256.583	20.387	457.573	454.216	0.244	0.295	9.885	20.387	3.963
2023-07-14 08:00	3168004	8.680	-159.063	252.57	20.39	456.844	453.467	0.244	0.295	9.882	20.39	4.121
2023-07-14 08:15	3168904	8.657	-157.833	252.761	20.385	456.593	453.26	0.244	0.295	9.815	20.385	4.047
2023-07-14 08:30	3169804	8.657	-157.835	251.943	20.391	456.764	453.379	0.244	0.295	9.944	20.391	4.036
2023-07-14 08:45	3170704	8.656	-157.754	250.906	20.392	456.835	453.436	0.244	0.295	9.696	20.392	4.027
2023-07-14 09:00	3171604	8.684	-159.321	249.895	20.405	457.07	453.564	0.244	0.295	9.756	20.405	3.928
2023-07-14 09:15	3172504	8.667	-158.408	248.684	20.406	457.339	453.818	0.244	0.295	9.898	20.406	3.983
2023-07-14 09:30	3173404	8.671	-158.577	248.384	20.414	457.307	453.718	0.244	0.295	9.764	20.414	3.958
2023-07-14 09:45	3174304	8.678	-158.985	248.179	20.43	457.346	453.623	0.244	0.295	10.070	20.43	4.097

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-14 10:00	3175204	8.685	-159.38	244.579	20.45	457.098	453.206	0.244	0.295	9.748	20.45	4.125
2023-07-14 10:15	3176104	8.669	-158.498	247.237	20.46	457.202	453.216	0.244	0.295	10.174	20.46	4.119
2023-07-14 10:30	3177004	8.736	-162.158	245.387	20.481	456.989	452.825	0.244	0.294	10.864	20.481	4.332
2023-07-14 10:45	3177904	8.758	-163.407	239.574	20.508	456.916	452.529	0.243	0.294	10.958	20.508	4.171
2023-07-14 11:00	3178804	8.762	-163.612	237.326	20.549	457.519	452.768	0.244	0.294	10.707	20.549	4.141
2023-07-14 11:15	3179704	8.746	-162.795	238.251	20.581	458.182	453.155	0.244	0.295	10.494	20.581	4.037
2023-07-14 11:30	3180604	8.731	-161.979	242.986	20.621	458.918	453.541	0.244	0.295	10.652	20.621	4.203
2023-07-14 11:45	3181504	8.746	-162.835	241.422	20.659	459.018	453.31	0.244	0.295	11.054	20.659	4.084
2023-07-14 12:00	3182404	8.759	-163.584	238.849	20.725	458.763	452.499	0.243	0.294	11.220	20.725	4.154
2023-07-14 12:15	3183304	8.752	-163.207	239.221	20.775	459.906	453.195	0.244	0.295	10.677	20.775	4.068
2023-07-14 12:30	3184204	8.756	-163.498	237.893	20.85	460.164	452.815	0.243	0.294	10.845	20.85	4.029
2023-07-14 12:45	3185104	8.765	-164.018	240.292	20.906	460.732	452.894	0.244	0.294	10.979	20.906	4.251
2023-07-14 13:00	3186004	8.828	-167.439	237.114	20.952	459.992	451.78	0.243	0.294	11.131	20.952	4.316
2023-07-14 13:15	3186904	8.815	-166.788	236.947	20.998	460.884	452.264	0.243	0.294	12.157	20.998	4.123
2023-07-14 13:30	3187804	8.825	-167.341	236.615	21.081	461.782	452.443	0.243	0.294	11.782	21.081	4.507
2023-07-14 13:45	3188704	8.845	-168.459	236.358	21.133	461.213	451.444	0.243	0.293	11.850	21.133	4.509
2023-07-14 14:00	3189604	8.879	-170.338	233.592	21.155	459.777	449.851	0.242	0.292	12.279	21.155	4.411
2023-07-14 14:15	3190504	8.906	-171.809	233.971	21.161	460.274	450.288	0.242	0.293	12.828	21.161	4.477
2023-07-14 14:30	3191404	8.892	-171.094	232.083	21.192	460.984	450.718	0.242	0.293	12.712	21.192	4.374
2023-07-14 14:45	3192304	8.895	-171.292	230.691	21.271	461.311	450.376	0.242	0.293	13.059	21.271	4.334
2023-07-14 15:00	3193204	8.895	-171.325	227.672	21.368	462.548	450.773	0.242	0.293	12.800	21.368	4.361
2023-07-14 15:15	3194104	8.898	-171.506	230.669	21.383	461.899	450.014	0.242	0.293	12.914	21.383	4.489
2023-07-14 15:30	3195004	8.949	-174.336	226.545	21.391	460.783	448.861	0.241	0.292	14.104	21.391	4.399
2023-07-14 15:45	3195904	8.978	-175.948	225.987	21.474	461.672	449.032	0.241	0.292	14.415	21.474	4.307
2023-07-14 16:00	3196804	8.964	-175.202	226.764	21.539	460.598	447.441	0.240	0.291	14.075	21.539	4.447
2023-07-14 16:15	3197704	***9.004***	-177.372	226.163	21.508	458.841	445.999	0.239	0.290	15.057	21.508	4.403
2023-07-14 16:30	3198604	***9.018***	-178.189	225.915	21.537	458.952	445.86	0.239	0.290	15.498	21.537	4.504
2023-07-14 16:45	3199504	***9.029***	-178.788	224.063	21.581	459.715	446.241	0.240	0.290	15.887	21.581	4.351
2023-07-14 17:00	3200404	***9.059***	-180.552	218.796	21.756	460.898	445.94	0.239	0.290	15.246	21.756	4.446
2023-07-14 17:15	3201304	***9.042***	-179.61	222.11	21.782	461.053	445.877	0.239	0.290	15.356	21.782	4.457
2023-07-14 17:30	3202204	***9.061***	-180.674	220.794	21.765	459.94	444.939	0.239	0.289	16.598	21.765	4.488
2023-07-14 17:45	3203104	***9.088***	-182.111	221.078	21.748	459.033	444.205	0.238	0.289	16.893	21.748	4.442
2023-07-14 18:00	3204004	***9.100***	-182.779	219.256	21.75	458.412	443.583	0.238	0.288	16.836	21.75	4.446
2023-07-14 18:15	3204904	***9.094***	-182.476	221.769	21.741	459.048	444.272	0.238	0.289	16.859	21.741	4.429
2023-07-14 18:30	3205804	***9.084***	-181.887	222.41	21.757	459.305	444.396	0.238	0.289	16.471	21.757	4.392
2023-07-14 18:45	3206704	***9.079***	-181.668	224.559	21.772	459.315	444.275	0.238	0.289	16.561	21.772	4.33
2023-07-14 19:00	3207604	***9.093***	-182.462	222.134	21.832	459.997	444.443	0.238	0.289	16.334	21.832	4.36
2023-07-14 19:15	3208504	***9.077***	-181.551	223.555	21.816	460.167	444.743	0.239	0.289	16.396	21.816	4.354
2023-07-14 19:30	3209404	***9.083***	-181.87	223.119	21.802	459.496	444.205	0.238	0.289	17.363	21.802	4.288
2023-07-14 19:45	3210304	***9.082***	-181.808	224.201	21.786	459.592	444.434	0.238	0.289	16.456	21.786	4.382
2023-07-14 20:00	3211204	***9.083***	-181.868	221.986	21.754	458.741	443.868	0.238	0.289	16.880	21.754	4.399
2023-07-14 20:15	3212104	***9.079***	-181.615	224.745	21.69	458.737	444.392	0.238	0.289	16.649	21.69	4.454
2023-07-14 20:30	3213004	***9.070***	-181.06	225.248	21.638	459.051	445.121	0.239	0.289	16.314	21.638	4.467
2023-07-14 20:45	3213904	***9.055***	-180.218	226.561	21.611	460.005	446.27	0.240	0.290	16.207	21.611	4.405
2023-07-14 21:00	3214804	***9.048***	-179.882	222.048	21.627	459.916	446.051	0.239	0.290	15.494	21.627	4.369
2023-07-14 21:15	3215704	***9.026***	-178.676	226.421	21.614	460.338	446.57	0.240	0.290	15.468	21.614	4.319
2023-07-14 21:30	3216604	***9.010***	-177.798	229.608	21.605	460.949	447.238	0.240	0.291	14.924	21.605	4.273
2023-07-14 21:45	3217504	8.987	-176.535	232.567	21.601	461.371	447.684	0.240	0.291	14.678	21.601	4.239
2023-07-14 22:00	3218404	8.969	-175.56	231.623	21.614	461.261	447.466	0.240	0.291	14.726	21.614	4.869
2023-07-14 22:15	3219304	8.965	-175.343	233.366	21.616	461.086	447.278	0.240	0.291	14.894	21.616	4.295
2023-07-14 22:30	3220204	8.963	-175.2	235.202	21.633	460.918	446.973	0.240	0.291	14.853	21.633	4.173
2023-07-14 22:45	3221104	8.969	-175.562	233.614	21.652	460.849	446.75	0.240	0.290	15.143	21.652	4.203
2023-07-14 23:00	3222004	***9.015***	-178.089	229.615	21.689	460.916	446.509	0.240	0.290	14.675	21.689	4.302
2023-07-14 23:15	3222904	***9.002***	-177.4	229.16	21.715	461.13	446.503	0.240	0.290	15.392	21.715	4.368
2023-07-14 23:30	3223804	***9.010***	-177.882	226.549	21.752	461.083	446.156	0.239	0.290	15.653	21.752	4.404
2023-07-14 23:45	3224704	***9.018***	-178.332	225.136	21.789	461.198	445.962	0.239	0.290	15.624	21.789	4.429

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-15 00:00	3225604	***9.033***	-179.148	222.01	21.832	460.5	444.932	0.239	0.289	15.898	21.832	4.415
2023-07-15 00:15	3226504	***9.025***	-178.773	222.913	21.857	460.51	444.733	0.239	0.289	16.017	21.857	4.801
2023-07-15 00:30	3227404	***9.033***	-179.229	223.567	21.89	460.654	444.601	0.238	0.289	16.396	21.89	4.358
2023-07-15 00:45	3228304	***9.030***	-179.05	225.255	21.882	461.053	445.053	0.239	0.289	15.702	21.882	4.411
2023-07-15 01:00	3229204	***9.035***	-179.31	223.228	21.857	460.924	445.138	0.239	0.289	15.558	21.857	4.361
2023-07-15 01:15	3230104	***9.012***	-178.015	228.371	21.806	461.505	446.119	0.239	0.290	15.614	21.806	4.433
2023-07-15 01:30	3231004	8.996	-177.114	231.504	21.786	461.673	446.441	0.240	0.290	15.253	21.786	4.43
2023-07-15 01:45	3231904	8.975	-175.986	233.673	21.77	461.974	446.869	0.240	0.290	14.731	21.77	4.462
2023-07-15 02:00	3232804	8.961	-175.171	232.765	21.759	461.65	446.644	0.240	0.290	14.531	21.759	4.309
2023-07-15 02:15	3233704	8.951	-174.642	235.504	21.733	462.527	447.708	0.240	0.291	14.375	21.733	4.392
2023-07-15 02:30	3234604	8.933	-173.602	234.181	21.7	463.356	448.78	0.241	0.292	13.847	21.7	4.378
2023-07-15 02:45	3235504	8.917	-172.72	233.478	21.655	464.145	449.922	0.242	0.292	13.349	21.655	4.437
2023-07-15 03:00	3236404	8.898	-171.621	232.856	21.596	464.188	450.457	0.242	0.293	12.665	21.596	4.495
2023-07-15 03:15	3237304	8.869	-170.031	236.72	21.544	464.114	450.817	0.242	0.293	12.681	21.544	4.449
2023-07-15 03:30	3238204	8.855	-169.215	237.4	21.469	463.603	450.954	0.242	0.293	12.399	21.469	4.718
2023-07-15 03:45	3239104	8.836	-168.118	237.719	21.387	462.715	450.776	0.242	0.293	12.154	21.387	4.808
2023-07-15 04:00	3240004	8.826	-167.587	237.793	21.337	462.519	451.004	0.242	0.293	11.813	21.337	4.701
2023-07-15 04:15	3240904	8.790	-165.558	240.804	21.261	462.159	451.288	0.242	0.293	11.684	21.261	5.126
2023-07-15 04:30	3241804	8.781	-165.012	242.681	21.21	461.873	451.441	0.243	0.293	11.540	21.21	4.677
2023-07-15 04:45	3242704	8.773	-164.58	244.39	21.149	461.552	451.639	0.243	0.294	11.316	21.149	4.488
2023-07-15 05:00	3243604	8.798	-165.918	242.173	21.113	461.506	451.902	0.243	0.294	11.204	21.113	4.419
2023-07-15 05:15	3244504	8.769	-164.266	245.091	21.042	461.276	452.272	0.243	0.294	11.141	21.042	4.39
2023-07-15 05:30	3245404	8.752	-163.362	248.024	20.997	461.184	452.562	0.243	0.294	10.795	20.997	4.443
2023-07-15 05:45	3246304	8.735	-162.38	250.434	20.951	461.056	452.834	0.243	0.294	10.865	20.951	4.34
2023-07-15 06:00	3247204	8.743	-162.795	249.447	20.914	460.216	452.319	0.243	0.294	10.525	20.914	4.211
2023-07-15 06:15	3248104	8.718	-161.421	249.423	20.839	459.674	452.423	0.243	0.294	10.779	20.839	4.331
2023-07-15 06:30	3249004	8.718	-161.357	250.32	20.794	459.351	452.485	0.243	0.294	10.598	20.794	4.291
2023-07-15 06:45	3249904	8.728	-161.922	250.162	20.758	459.01	452.456	0.243	0.294	10.588	20.758	4.305
2023-07-15 07:00	3250804	8.739	-162.485	247.115	20.736	458.794	452.438	0.243	0.294	10.380	20.736	4.316
2023-07-15 07:15	3251704	8.721	-161.459	250.682	20.705	459.139	453.04	0.244	0.294	10.678	20.705	4.282
2023-07-15 07:30	3252604	8.716	-161.173	251.474	20.675	458.883	453.04	0.244	0.294	10.638	20.675	4.184
2023-07-15 07:45	3253504	8.708	-160.761	253.772	20.646	458.733	453.14	0.244	0.295	10.631	20.646	4.131
2023-07-15 08:00	3254404	8.732	-162.029	251.893	20.627	457.762	452.343	0.243	0.294	10.455	20.627	4.201
2023-07-15 08:15	3255304	8.712	-160.93	252.358	20.596	457.588	452.436	0.243	0.294	10.538	20.596	4.152
2023-07-15 08:30	3256204	8.698	-160.151	252.537	20.58	457.512	452.5	0.243	0.294	10.465	20.58	15.605
2023-07-15 08:45	3257104	8.694	-159.926	253.007	20.571	457.521	452.582	0.243	0.294	10.363	20.571	4.171
2023-07-15 09:00	3258004	8.720	-161.352	249.137	20.574	457.756	452.793	0.244	0.294	10.020	20.574	4.089
2023-07-15 09:15	3258904	8.706	-160.608	250.503	20.571	458.201	453.26	0.244	0.295	10.180	20.571	3.974
2023-07-15 09:30	3259804	8.701	-160.317	250.787	20.577	458.234	453.241	0.244	0.295	10.183	20.577	4.062
2023-07-15 09:45	3260704	8.702	-160.396	250.661	20.585	458.296	453.232	0.244	0.295	10.340	20.585	4.027
2023-07-15 10:00	3261604	8.708	-160.718	249.087	20.602	457.904	452.697	0.244	0.294	10.509	20.602	4.66
2023-07-15 10:15	3262504	8.698	-160.184	251.338	20.61	457.826	452.556	0.243	0.294	10.447	20.61	4.005
2023-07-15 10:30	3263404	8.680	-159.204	250.646	20.628	457.867	452.441	0.243	0.294	10.589	20.628	4.051
2023-07-15 10:45	3264304	8.718	-161.269	247.165	20.651	457.949	452.325	0.243	0.294	10.702	20.651	4.123
2023-07-15 11:00	3265204	8.780	-164.68	233.781	20.68	458.007	452.131	0.243	0.294	10.472	20.68	3.971
2023-07-15 11:15	3266104	8.756	-163.414	238.225	20.705	458.783	452.686	0.243	0.294	11.260	20.705	4.039
2023-07-15 11:30	3267004	8.763	-163.815	237.712	20.742	459.095	452.677	0.243	0.294	11.284	20.742	4.248
2023-07-15 11:45	3267904	8.770	-164.182	238.897	20.778	459.197	452.472	0.243	0.294	11.003	20.778	4.175
2023-07-15 12:00	3268804	8.772	-164.316	235.047	20.816	458.566	451.532	0.243	0.293	10.789	20.816	4.083
2023-07-15 12:15	3269704	8.792	-165.448	238.022	20.842	458.775	451.517	0.243	0.293	11.334	20.842	4.239
2023-07-15 12:30	3270604	8.797	-165.727	238.435	20.872	458.782	451.265	0.243	0.293	11.701	20.872	4.134
2023-07-15 12:45	3271504	8.809	-166.39	238.744	20.913	459.208	451.34	0.243	0.293	11.680	20.913	4.12
2023-07-15 13:00	3272404	8.843	-168.257	235.159	20.952	459.15	450.947	0.242	0.293	11.435	20.952	4.183
2023-07-15 13:15	3273304	8.837	-167.942	238.826	20.967	459.313	450.981	0.242	0.293	11.801	20.967	4.355
2023-07-15 13:30	3274204	8.856	-168.989	238.303	20.99	459.19	450.671	0.242	0.293	11.991	20.99	4.299
2023-07-15 13:45	3275104	8.870	-169.804	238.477	21.016	459.205	450.466	0.242	0.293	12.150	21.016	4.257

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-15 14:00	3276004	8.875	-170.074	234.589	21.044	458.979	450.008	0.242	0.293	12.295	21.044	4.192
2023-07-15 14:15	3276904	8.876	-170.145	237.602	21.059	459.201	450.094	0.242	0.293	12.354	21.059	4.251
2023-07-15 14:30	3277804	8.875	-170.083	238.141	21.082	459.001	449.704	0.242	0.292	12.981	21.082	4.179
2023-07-15 14:45	3278704	8.893	-171.113	237.946	21.105	459.073	449.586	0.242	0.292	13.016	21.105	4.185
2023-07-15 15:00	3279604	8.912	-172.112	234.727	21.123	459.062	449.422	0.241	0.292	12.397	21.123	4.239
2023-07-15 15:15	3280504	8.893	-171.106	236.551	21.123	459.344	449.698	0.242	0.292	12.886	21.123	4.433
2023-07-15 15:30	3281404	8.893	-171.106	237.586	21.12	459.668	450.037	0.242	0.293	12.846	21.12	4.405
2023-07-15 15:45	3282304	8.889	-170.889	239.383	21.124	459.807	450.142	0.242	0.293	12.708	21.124	4.332
2023-07-15 16:00	3283204	8.879	-170.333	235.85	21.134	459.965	450.216	0.242	0.293	12.204	21.134	4.327
2023-07-15 16:15	3284104	8.867	-169.687	239.011	21.141	460.351	450.53	0.242	0.293	12.383	21.141	5.093
2023-07-15 16:30	3285004	8.860	-169.32	239.295	21.159	460.633	450.658	0.242	0.293	12.082	21.159	6.256
2023-07-15 16:45	3285904	8.842	-168.357	240.258	21.174	461.089	450.98	0.242	0.293	12.169	21.174	6.708
2023-07-15 17:00	3286804	8.855	-169.086	235.28	21.185	461.012	450.812	0.242	0.293	11.800	21.185	7.008
2023-07-15 17:15	3287704	8.838	-168.145	239.002	21.173	460.959	450.858	0.242	0.293	12.153	21.173	7.155
2023-07-15 17:30	3288604	8.843	-168.385	239.388	21.161	460.837	450.842	0.242	0.293	12.242	21.161	7.244
2023-07-15 17:45	3289504	8.838	-168.095	241.114	21.146	460.999	451.129	0.242	0.293	12.153	21.146	7.336
2023-07-15 18:00	3290404	8.839	-168.166	239.81	21.138	460.468	450.676	0.242	0.293	11.971	21.138	7.203
2023-07-15 18:15	3291304	8.835	-167.956	241.82	21.131	460.819	451.076	0.242	0.293	12.072	21.131	7.354
2023-07-15 18:30	3292204	8.819	-167.072	243.332	21.132	461.129	451.374	0.243	0.293	11.871	21.132	7.295
2023-07-15 18:45	3293104	8.811	-166.636	244.571	21.139	461.358	451.537	0.243	0.293	11.863	21.139	7.399
2023-07-15 19:00	3294004	8.824	-167.341	243.324	21.153	461.555	451.609	0.243	0.294	11.707	21.153	7.329
2023-07-15 19:15	3294904	8.813	-166.75	244.457	21.158	462.035	452.037	0.243	0.294	11.740	21.158	7.345
2023-07-15 19:30	3295804	8.806	-166.364	245.535	21.167	462.174	452.101	0.243	0.294	11.559	21.167	7.386
2023-07-15 19:45	3296704	8.797	-165.901	246.579	21.182	462.243	452.038	0.243	0.294	11.822	21.182	7.393
2023-07-15 20:00	3297604	8.796	-165.861	245.225	21.209	462.07	451.644	0.243	0.294	11.397	21.209	7.413
2023-07-15 20:15	3298504	8.792	-165.648	247.523	21.221	462.346	451.811	0.243	0.294	11.477	21.221	7.475
2023-07-15 20:30	3299404	8.791	-165.594	247.306	21.235	462.516	451.859	0.243	0.294	11.588	21.235	7.416
2023-07-15 20:45	3300304	8.781	-165.029	247.168	21.24	462.393	451.697	0.243	0.294	11.597	21.24	7.519
2023-07-15 21:00	3301204	8.819	-167.129	241.148	21.235	462.124	451.47	0.243	0.293	11.283	21.235	7.568
2023-07-15 21:15	3302104	8.801	-166.109	240.761	21.215	462.111	451.626	0.243	0.294	11.405	21.215	7.671
2023-07-15 21:30	3303004	8.808	-166.526	242.047	21.205	462.112	451.718	0.243	0.294	11.604	21.205	7.602
2023-07-15 21:45	3303904	8.805	-166.328	243.143	21.187	462.073	451.828	0.243	0.294	11.613	21.187	7.643
2023-07-15 22:00	3304804	8.803	-166.199	241.245	21.16	461.179	451.185	0.242	0.293	11.407	21.16	7.782
2023-07-15 22:15	3305704	8.810	-166.585	241.431	21.111	460.584	451.013	0.242	0.293	11.468	21.111	7.716
2023-07-15 22:30	3306604	8.797	-165.856	242.073	21.074	460.232	450.977	0.242	0.293	11.338	21.074	7.73
2023-07-15 22:45	3307504	8.810	-166.512	242.068	21.045	459.508	450.516	0.242	0.293	11.667	21.045	7.725
2023-07-15 23:00	3308404	8.816	-166.814	240.277	21.007	459.935	451.257	0.243	0.293	11.240	21.007	7.806
2023-07-15 23:15	3309304	8.784	-165.055	244.056	20.97	460.122	451.748	0.243	0.294	11.290	20.97	7.782
2023-07-15 23:30	3310204	8.774	-164.471	245.744	20.927	459.754	451.753	0.243	0.294	10.814	20.927	7.741
2023-07-15 23:45	3311104	8.753	-163.324	247.187	20.881	459.756	452.151	0.243	0.294	10.822	20.881	7.693
2023-07-16 00:00	3312004	8.742	-162.685	246.588	20.844	459.044	451.762	0.243	0.294	10.371	20.844	7.758
2023-07-16 00:15	3312904	8.712	-161.018	249.135	20.798	458.752	451.862	0.243	0.294	10.600	20.798	7.81
2023-07-16 00:30	3313804	8.689	-159.767	250.73	20.758	458.796	452.245	0.243	0.294	10.255	20.758	7.893
2023-07-16 00:45	3314704	8.682	-159.383	250.656	20.71	458.558	452.419	0.243	0.294	10.119	20.71	7.846
2023-07-16 01:00	3315604	8.705	-160.606	248.999	20.687	458.36	452.427	0.243	0.294	9.874	20.687	7.822
2023-07-16 01:15	3316504	8.674	-158.882	252.17	20.648	458.555	452.945	0.244	0.294	10.027	20.648	7.815
2023-07-16 01:30	3317404	8.655	-157.821	254.204	20.616	458.238	452.905	0.244	0.294	9.657	20.616	7.824
2023-07-16 01:45	3318304	8.654	-157.769	254.809	20.582	457.962	452.929	0.244	0.294	9.619	20.582	7.799
2023-07-16 02:00	3319204	8.687	-159.538	251.183	20.558	457.03	452.211	0.243	0.294	9.708	20.558	8.952
2023-07-16 02:15	3320104	8.723	-161.495	244.948	20.527	456.431	451.881	0.243	0.294	9.862	20.527	8.153
2023-07-16 02:30	3321004	8.721	-161.39	244.838	20.496	456.031	451.751	0.243	0.294	9.863	20.496	8.157
2023-07-16 02:45	3321904	8.708	-160.668	243.379	20.467	455.748	451.722	0.243	0.294	10.248	20.467	7.988
2023-07-16 03:00	3322804	8.741	-162.418	240.876	20.437	455.223	451.456	0.243	0.293	9.834	20.437	7.914
2023-07-16 03:15	3323704	8.724	-161.507	244.579	20.403	455.068	451.591	0.243	0.294	9.812	20.403	7.861
2023-07-16 03:30	3324604	8.669	-158.491	248.758	20.372	455.053	451.845	0.243	0.294	9.277	20.372	7.891
2023-07-16 03:45	3325504	8.671	-158.587	252.804	20.338	455.18	452.26	0.243	0.294	9.220	20.338	7.936

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-16 04:00	3326404	8.628	-156.231	253.66	20.308	455.124	452.46	0.244	0.294	8.583	20.308	7.842
2023-07-16 04:15	3327304	8.635	-156.543	256.275	20.267	454.772	452.466	0.244	0.294	8.751	20.267	8.328
2023-07-16 04:30	3328204	8.707	-160.453	252.246	20.24	454.412	452.342	0.243	0.294	9.155	20.24	8.053
2023-07-16 04:45	3329104	8.740	-162.239	248.203	20.21	453.538	451.723	0.243	0.294	9.511	20.21	8.037
2023-07-16 05:00	3330004	8.709	-160.542	245.501	20.168	453.391	451.943	0.243	0.294	9.107	20.168	7.884
2023-07-16 05:15	3330904	8.648	-157.194	251.698	20.131	453.356	452.221	0.243	0.294	8.829	20.131	8.004
2023-07-16 05:30	3331804	8.624	-155.895	255.741	20.108	453.06	452.123	0.243	0.294	8.480	20.108	7.891
2023-07-16 05:45	3332704	8.622	-155.785	257.525	20.081	453.205	452.507	0.244	0.294	8.421	20.081	7.822
2023-07-16 06:00	3333604	8.550	-151.849	257.551	20.06	453.54	453.025	0.244	0.294	7.847	20.06	7.901
2023-07-16 06:15	3334504	8.574	-153.117	260.135	20.034	453.673	453.381	0.244	0.295	8.071	20.034	7.863
2023-07-16 06:30	3335404	8.578	-153.325	260.66	20.008	453.566	453.493	0.244	0.295	8.136	20.008	7.877
2023-07-16 06:45	3336304	8.607	-154.891	260.255	19.986	453.299	453.418	0.244	0.295	7.932	19.986	7.827
2023-07-16 07:00	3337204	8.557	-152.164	260.66	19.971	452.896	453.143	0.244	0.295	7.847	19.971	7.774
2023-07-16 07:15	3338104	8.576	-153.177	262.222	19.951	451.837	452.258	0.244	0.294	7.616	19.951	7.797
2023-07-16 07:30	3339004	8.615	-155.282	259.623	19.937	451.729	452.275	0.244	0.294	7.885	19.937	7.835
2023-07-16 07:45	3339904	8.596	-154.24	260.209	19.926	451.851	452.487	0.244	0.294	7.806	19.926	7.777
2023-07-16 08:00	3340804	8.523	-150.306	257.811	19.921	452.014	452.698	0.244	0.294	7.775	19.921	7.807
2023-07-16 08:15	3341704	8.528	-150.54	260.464	19.909	452.1	452.889	0.244	0.294	7.843	19.909	7.872
2023-07-16 08:30	3342604	8.590	-153.947	254.189	19.901	451.463	452.315	0.244	0.294	8.423	19.901	8.018
2023-07-16 08:45	3343504	8.654	-157.418	251.393	19.897	451.186	452.077	0.243	0.294	8.913	19.897	7.993
2023-07-16 09:00	3344404	8.681	-158.882	248.274	19.9	450.044	450.904	0.243	0.293	8.785	19.9	7.857
2023-07-16 09:15	3345304	8.679	-158.775	250.172	19.905	450.058	450.876	0.243	0.293	9.168	19.905	7.804
2023-07-16 09:30	3346204	8.712	-160.549	248.412	19.914	449.734	450.474	0.243	0.293	9.386	19.914	7.947
2023-07-16 09:45	3347104	8.706	-160.263	245.423	19.93	449.673	450.271	0.242	0.293	9.213	19.93	7.872
2023-07-16 10:00	3348004	8.697	-159.793	238.363	19.955	450.18	450.567	0.243	0.293	9.349	19.955	7.913
2023-07-16 10:15	3348904	8.714	-160.706	239.691	19.971	450.82	451.071	0.243	0.293	9.258	19.971	7.935
2023-07-16 10:30	3349804	8.755	-162.961	242.821	20.002	450.323	450.302	0.242	0.293	10.119	20.002	8.118
2023-07-16 10:45	3350704	8.803	-165.591	241.951	20.04	449.74	449.396	0.242	0.292	10.984	20.04	8.184
2023-07-16 11:00	3351604	8.813	-166.154	241.36	20.089	450.368	449.601	0.242	0.292	10.849	20.089	8.047
2023-07-16 11:15	3352504	8.793	-165.071	242.368	20.124	451.25	450.185	0.242	0.293	10.847	20.124	8.074
2023-07-16 11:30	3353404	8.779	-164.33	243.22	20.164	452.012	450.599	0.243	0.293	11.049	20.164	8.164
2023-07-16 11:45	3354304	8.755	-163.047	245.089	20.205	452.607	450.844	0.243	0.293	10.859	20.205	8.427
2023-07-16 12:00	3355204	8.749	-162.771	241.558	20.258	452.42	450.203	0.242	0.293	10.697	20.258	8.082
2023-07-16 12:15	3356104	8.748	-162.711	243.873	20.288	452.527	450.048	0.242	0.293	10.967	20.288	8.107
2023-07-16 12:30	3357004	8.743	-162.456	245.294	20.334	452.78	449.914	0.242	0.292	11.223	20.334	8.102
2023-07-16 12:45	3357904	8.740	-162.33	245.084	20.385	453.165	449.853	0.242	0.292	11.529	20.385	8.152
2023-07-16 13:00	3358804	8.787	-164.959	237.18	20.456	454.196	450.275	0.242	0.293	11.421	20.456	8.277
2023-07-16 13:15	3359704	8.769	-163.982	239.653	20.493	455.048	450.804	0.243	0.293	11.498	20.493	8.417
2023-07-16 13:30	3360604	8.784	-164.84	238.497	20.536	455.168	450.559	0.242	0.293	11.449	20.536	8.295
2023-07-16 13:45	3361504	8.797	-165.534	238.947	20.579	455.576	450.593	0.242	0.293	11.317	20.579	8.358
2023-07-16 14:00	3362404	8.809	-166.245	235.492	20.637	454.926	449.457	0.242	0.292	11.554	20.637	8.235
2023-07-16 14:15	3363304	8.811	-166.385	237.891	20.653	455.229	449.618	0.242	0.292	11.514	20.653	8.282
2023-07-16 14:30	3364204	8.810	-166.328	239.746	20.682	455.648	449.79	0.242	0.292	11.737	20.682	8.386
2023-07-16 14:45	3365104	8.813	-166.521	240.483	20.716	456.099	449.949	0.242	0.292	11.312	20.716	8.373
2023-07-16 15:00	3366004	8.832	-167.568	237.989	20.765	456.469	449.896	0.242	0.292	11.256	20.765	8.499
2023-07-16 15:15	3366904	8.824	-167.131	239.922	20.803	456.912	450.01	0.242	0.293	11.594	20.803	8.332
2023-07-16 15:30	3367804	8.810	-166.385	242.616	20.835	457.69	450.507	0.242	0.293	11.564	20.835	8.448
2023-07-16 15:45	3368704	8.797	-165.718	244.245	20.858	458.282	450.891	0.242	0.293	11.534	20.858	8.512
2023-07-16 16:00	3369604	8.764	-163.918	243.05	20.872	458.599	451.09	0.243	0.293	10.871	20.872	8.508
2023-07-16 16:15	3370504	8.758	-163.598	245.539	20.876	458.801	451.25	0.243	0.293	11.352	20.876	8.541
2023-07-16 16:30	3371404	8.498	-149.41	260.467	20.893	458.909	451.216	0.243	0.293	11.231	20.893	8.484
2023-07-16 16:45	3372304	8.631	-156.705	253.264	20.896	459.021	451.302	0.243	0.293	11.135	20.896	8.523
2023-07-16 17:00	3373204	8.706	-160.763	243.551	20.904	458.635	450.847	0.242	0.293	11.080	20.904	8.594
2023-07-16 17:15	3374104	8.704	-160.687	245.198	20.9	458.839	451.085	0.243	0.293	11.434	20.9	8.661
2023-07-16 17:30	3375004	8.721	-161.61	244.66	20.899	458.961	451.209	0.243	0.293	11.312	20.899	8.628
2023-07-16 17:45	3375904	8.710	-160.983	244.929	20.907	459.197	451.373	0.243	0.293	11.243	20.907	8.602

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-16 18:00	3376804	8.729	-162.07	242.314	20.928	458.681	450.689	0.242	0.293	11.547	20.928	8.63
2023-07-16 18:15	3377704	8.746	-162.983	245.38	20.932	458.43	450.414	0.242	0.293	11.700	20.932	8.672
2023-07-16 18:30	3378604	8.755	-163.476	245.706	20.945	458.206	450.081	0.242	0.293	11.954	20.945	8.638
2023-07-16 18:45	3379504	8.759	-163.708	245.635	20.953	458.442	450.245	0.242	0.293	11.702	20.953	8.696
2023-07-16 19:00	3380404	8.782	-164.971	240.487	20.957	458.529	450.298	0.242	0.293	11.625	20.957	8.911
2023-07-16 19:15	3381304	8.770	-164.297	239.488	20.953	458.82	450.616	0.242	0.293	11.477	20.953	8.817
2023-07-16 19:30	3382204	8.771	-164.363	239.615	20.958	458.922	450.672	0.242	0.293	11.636	20.958	8.94
2023-07-16 19:45	3383104	8.766	-164.053	242.118	20.963	458.862	450.573	0.242	0.293	11.495	20.963	8.876
2023-07-16 20:00	3384004	8.754	-163.426	241.198	20.967	458.764	450.444	0.242	0.293	11.080	20.967	8.781
2023-07-16 20:15	3384904	8.738	-162.547	244.028	20.972	458.792	450.427	0.242	0.293	11.477	20.972	8.796
2023-07-16 20:30	3385804	8.739	-162.632	245.218	20.974	458.767	450.387	0.242	0.293	11.649	20.974	8.759
2023-07-16 20:45	3386704	8.748	-163.109	244.936	20.989	458.314	449.815	0.242	0.292	11.615	20.989	8.802
2023-07-16 21:00	3387604	8.854	-168.97	235.74	21.081	457.8	448.539	0.241	0.292	12.134	21.081	8.869
2023-07-16 21:15	3388504	8.844	-168.433	233.411	21.134	458.526	448.807	0.241	0.292	12.749	21.134	8.94
2023-07-16 21:30	3389404	8.841	-168.295	230.142	21.167	458.917	448.909	0.241	0.292	12.602	21.167	8.859
2023-07-16 21:45	3390304	8.821	-167.174	233.387	21.163	459.386	449.402	0.241	0.292	12.138	21.163	8.891
2023-07-16 22:00	3391204	8.811	-166.609	231.954	21.115	458.854	449.283	0.241	0.292	11.416	21.115	8.931
2023-07-16 22:15	3392104	8.827	-167.427	229.816	21.045	458.238	449.27	0.241	0.292	11.529	21.045	8.946
2023-07-16 22:30	3393004	8.815	-166.769	230.698	20.996	457.955	449.409	0.242	0.292	11.367	20.996	8.923
2023-07-16 22:45	3393904	8.791	-165.453	233.294	20.947	457.509	449.379	0.242	0.292	11.607	20.947	8.89
2023-07-16 23:00	3394804	8.781	-164.835	232.97	20.876	457.735	450.205	0.242	0.293	11.110	20.876	8.839
2023-07-16 23:15	3395704	8.757	-163.488	237.498	20.793	456.811	449.991	0.242	0.292	10.675	20.793	8.809
2023-07-16 23:30	3396604	8.762	-163.722	238.566	20.725	455.899	449.673	0.242	0.292	10.797	20.725	8.783
2023-07-16 23:45	3397504	8.793	-165.37	237.19	20.623	454.349	449.005	0.241	0.292	10.877	20.623	8.78
2023-07-17 00:00	3398404	8.655	-157.835	236.437	20.588	454.761	449.712	0.242	0.292	10.690	20.588	8.697
2023-07-17 00:15	3399304	8.553	-152.259	274.488	20.554	454.827	450.062	0.242	0.293	10.529	20.554	8.69
2023-07-17 00:30	3400204	8.511	-149.951	270.073	20.511	454.056	449.665	0.242	0.292	10.339	20.511	8.685
2023-07-17 00:45	3401104	8.532	-151.048	280.174	20.476	453.907	449.821	0.242	0.292	9.949	20.476	8.645
2023-07-17 01:00	3402004	8.530	-150.928	263.318	20.451	454.736	450.851	0.243	0.293	9.835	20.451	8.583
2023-07-17 01:15	3402904	8.531	-150.974	285.613	20.407	455.626	452.108	0.243	0.294	9.743	20.407	8.594
2023-07-17 01:30	3403804	8.467	-147.491	273.034	20.376	455.7	452.446	0.243	0.294	9.475	20.376	8.584
2023-07-17 01:45	3404704	8.450	-146.525	270.34	20.35	455.713	452.683	0.244	0.294	8.713	20.35	8.573
2023-07-17 02:00	3405604	8.405	-144.088	268.695	20.326	453.929	451.119	0.243	0.293	8.646	20.326	8.454
2023-07-17 02:15	3406504	8.364	-141.859	277.528	20.294	453.838	451.301	0.243	0.293	8.530	20.294	8.447
2023-07-17 02:30	3407404	8.115	-128.293	277.173	20.271	453.657	451.321	0.243	0.293	8.463	20.271	8.579
2023-07-17 02:45	3408304	8.388	-143.099	273.933	20.249	453.899	451.752	0.243	0.294	8.287	20.249	8.534
2023-07-17 03:00	3409204	8.407	-144.141	267.197	20.221	453.596	451.694	0.243	0.294	8.000	20.221	8.498
2023-07-17 03:15	3410104	8.267	-136.521	279.905	20.186	454.339	452.733	0.244	0.294	8.024	20.186	8.492
2023-07-17 03:30	3411004	8.262	-136.232	280.048	20.156	454.187	452.839	0.244	0.294	7.778	20.156	8.475
2023-07-17 03:45	3411904	8.334	-140.116	280.806	20.127	453.764	452.662	0.244	0.294	7.978	20.127	8.449
2023-07-17 04:00	3412804	8.340	-140.412	268.563	20.093	452.577	451.774	0.243	0.294	7.872	20.093	8.478
2023-07-17 04:15	3413704	8.247	-135.35	280.682	20.047	452.132	451.725	0.243	0.294	7.893	20.047	8.56
2023-07-17 04:30	3414604	8.071	-125.799	289.878	20.023	451.935	451.732	0.243	0.294	7.557	20.023	8.531
2023-07-17 04:45	3415504	8.230	-134.404	285.148	20.006	452.317	452.268	0.244	0.294	7.388	20.006	8.318
2023-07-17 05:00	3416404	8.311	-138.834	267.369	19.995	452.021	452.064	0.243	0.294	7.306	19.995	8.619
2023-07-17 05:15	3417304	8.328	-139.706	265.633	19.984	451.021	451.155	0.243	0.293	7.625	19.984	8.471
2023-07-17 05:30	3418204	8.382	-142.634	260.274	19.966	451.142	451.435	0.243	0.293	7.983	19.966	8.32
2023-07-17 05:45	3419104	8.259	-135.944	263.089	19.942	450.335	450.831	0.243	0.293	7.852	19.942	8.352
2023-07-17 06:00	3420004	8.418	-144.591	257.489	19.925	450.421	451.066	0.243	0.293	8.146	19.925	8.337
2023-07-17 06:15	3420904	8.392	-143.166	261.149	19.902	450.809	451.652	0.243	0.294	8.184	19.902	8.353
2023-07-17 06:30	3421804	8.427	-145.066	266.446	19.89	450.89	451.836	0.243	0.294	8.041	19.89	8.392
2023-07-17 06:45	3422704	8.453	-146.458	264.522	19.877	450.816	451.875	0.243	0.294	8.007	19.877	8.341
2023-07-17 07:00	3423604	8.462	-146.933	256.373	19.864	449.665	450.839	0.243	0.293	8.040	19.864	8.358
2023-07-17 07:15	3424504	8.462	-146.956	257.138	19.847	449.307	450.623	0.243	0.293	7.899	19.847	8.415
2023-07-17 07:30	3425404	8.472	-147.479	260.507	19.832	449.766	451.215	0.243	0.293	7.595	19.832	8.37
2023-07-17 07:45	3426304	8.337	-140.14	266.024	19.815	449.647	451.245	0.243	0.293	7.586	19.815	8.408

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-17 08:00	3427204	8.367	-141.747	262.813	19.805	450.09	451.776	0.243	0.294	7.409	19.805	8.401
2023-07-17 08:15	3428104	8.348	-140.719	268.647	19.782	450.206	452.088	0.244	0.294	7.517	19.782	8.447
2023-07-17 08:30	3429004	8.324	-139.384	267.765	19.77	450.116	452.103	0.244	0.294	7.706	19.77	8.42
2023-07-17 08:45	3429904	8.359	-141.311	265.397	19.766	449.682	451.7	0.243	0.294	7.888	19.766	8.398
2023-07-17 09:00	3430804	8.337	-140.135	262.269	19.77	449.493	451.476	0.243	0.293	8.024	19.77	8.445
2023-07-17 09:15	3431704	8.387	-142.846	263.023	19.768	448.9	450.902	0.243	0.293	7.811	19.768	8.372
2023-07-17 09:30	3432604	8.412	-144.198	262.324	19.771	448.696	450.668	0.243	0.293	7.883	19.771	8.435
2023-07-17 09:45	3433504	8.444	-145.936	261.666	19.775	448.342	450.278	0.243	0.293	7.887	19.775	8.427
2023-07-17 10:00	3434404	8.458	-146.67	255.079	19.783	449.009	450.878	0.243	0.293	8.124	19.783	8.459
2023-07-17 10:15	3435304	8.419	-144.565	256.263	19.784	448.529	450.39	0.243	0.293	8.748	19.784	8.56
2023-07-17 10:30	3436204	8.498	-148.885	249.79	19.784	448.353	450.21	0.243	0.293	9.290	19.784	8.525
2023-07-17 10:45	3437104	8.505	-149.276	254.573	19.798	448.278	450.01	0.242	0.293	9.273	19.798	8.562
2023-07-17 11:00	3438004	8.549	-151.665	245.098	19.832	448.069	449.509	0.242	0.292	9.320	19.832	8.56
2023-07-17 11:15	3438904	8.600	-154.462	247.931	19.864	449.447	450.618	0.243	0.293	9.455	19.864	8.68
2023-07-17 11:30	3439804	8.633	-156.26	249.061	19.905	450.035	450.851	0.243	0.293	9.819	19.905	8.652
2023-07-17 11:45	3440704	8.621	-155.652	252.427	19.953	449.941	450.349	0.243	0.293	10.039	19.953	8.645
2023-07-17 12:00	3441604	8.659	-157.75	246.317	20.004	448.916	448.881	0.242	0.292	10.197	20.004	8.65
2023-07-17 12:15	3442504	8.653	-157.423	251.862	20.031	449.348	449.085	0.242	0.292	10.295	20.031	8.768
2023-07-17 12:30	3443404	8.652	-157.385	249.666	20.067	449.529	448.953	0.242	0.292	10.618	20.067	8.825
2023-07-17 12:45	3444304	8.656	-157.597	250.551	20.107	449.947	449.031	0.242	0.292	10.514	20.107	8.669
2023-07-17 13:00	3445204	8.700	-160.034	248.636	20.152	450.505	449.197	0.242	0.292	10.455	20.152	8.891
2023-07-17 13:15	3446104	8.704	-160.294	252.272	20.186	451.267	449.67	0.242	0.292	10.907	20.186	8.885
2023-07-17 13:30	3447004	8.680	-159.004	261.211	20.218	450.505	448.641	0.241	0.292	10.845	20.218	8.897
2023-07-17 13:45	3447904	8.747	-162.644	251.612	20.26	450.281	448.054	0.241	0.291	11.273	20.26	8.952
2023-07-17 14:00	3448804	8.774	-164.17	241.927	20.309	450.346	447.705	0.241	0.291	11.544	20.309	8.941
2023-07-17 14:15	3449704	8.798	-165.451	240.819	20.337	451.015	448.129	0.241	0.291	11.539	20.337	9.024
2023-07-17 14:30	3450604	8.744	-162.528	246.278	20.347	450.262	447.297	0.241	0.291	11.194	20.347	9.003
2023-07-17 14:45	3451504	8.802	-165.684	241.539	20.339	449.896	447.003	0.240	0.291	11.479	20.339	9.034
2023-07-17 15:00	3452404	8.825	-166.962	239.755	20.361	450.03	446.947	0.240	0.291	11.466	20.361	9.205
2023-07-17 15:15	3453304	8.731	-161.827	247.471	20.365	450.288	447.172	0.241	0.291	11.923	20.365	9.175
2023-07-17 15:30	3454204	8.797	-165.458	243.682	20.4	450.796	447.375	0.241	0.291	11.599	20.4	9.095
2023-07-17 15:45	3455104	8.818	-166.612	242.702	20.457	451.132	447.229	0.241	0.291	11.806	20.457	11.15
2023-07-17 16:00	3456004	8.819	-166.731	239.41	20.528	451.452	446.941	0.240	0.291	11.642	20.528	9.107
2023-07-17 16:15	3456904	8.828	-167.224	240.378	20.574	451.868	446.971	0.240	0.291	11.856	20.574	9.127
2023-07-17 16:30	3457804	8.835	-167.63	240.883	20.635	452.298	446.878	0.240	0.290	11.809	20.635	9.123
2023-07-17 16:45	3458704	8.866	-169.373	239.183	20.693	453.034	447.112	0.240	0.291	12.004	20.693	9.146
2023-07-17 17:00	3459604	8.860	-169.07	233.719	20.755	453.128	446.688	0.240	0.290	12.089	20.755	9.209
2023-07-17 17:15	3460504	8.847	-168.39	237.323	20.781	453.815	447.141	0.240	0.291	12.275	20.781	9.235
2023-07-17 17:30	3461404	8.860	-169.134	237.407	20.827	454.24	447.176	0.240	0.291	12.308	20.827	9.246
2023-07-17 17:45	3462304	8.855	-168.865	237.986	20.875	454.691	447.217	0.240	0.291	12.002	20.875	9.275
2023-07-17 18:00	3463204	8.853	-168.819	232.536	20.913	454.326	446.536	0.240	0.290	12.244	20.913	9.226
2023-07-17 18:15	3464104	8.835	-167.823	235.631	20.937	455.102	447.1	0.240	0.291	12.072	20.937	9.244
2023-07-17 18:30	3465004	8.837	-167.968	236.01	20.974	455.645	447.326	0.240	0.291	11.897	20.974	9.173
2023-07-17 18:45	3465904	8.820	-167.06	238.663	20.994	455.981	447.486	0.240	0.291	11.787	20.994	9.27
2023-07-17 19:00	3466804	8.836	-167.913	234.293	21.004	455.962	447.383	0.240	0.291	11.652	21.004	9.386
2023-07-17 19:15	3467704	8.814	-166.698	237.095	20.989	456.236	447.781	0.241	0.291	11.793	20.989	9.332
2023-07-17 19:30	3468604	8.806	-166.24	238.077	20.962	455.631	447.412	0.240	0.291	11.932	20.962	9.396
2023-07-17 19:45	3469504	8.810	-166.476	240.785	20.941	455.761	447.716	0.241	0.291	12.014	20.941	9.4
2023-07-17 20:00	3470404	8.817	-166.85	236.11	20.918	454.965	447.127	0.240	0.291	11.583	20.918	9.341
2023-07-17 20:15	3471304	8.797	-165.756	240.502	20.908	454.98	447.223	0.240	0.291	11.871	20.908	9.318
2023-07-17 20:30	3472204	8.782	-164.926	242.533	20.898	454.961	447.292	0.240	0.291	11.799	20.898	9.259
2023-07-17 20:45	3473104	8.778	-164.669	242.848	20.886	454.762	447.19	0.240	0.291	11.853	20.886	9.386
2023-07-17 21:00	3474004	8.827	-167.353	238.723	20.881	454.433	446.915	0.240	0.290	11.567	20.881	9.438
2023-07-17 21:15	3474904	8.802	-165.961	240.881	20.862	455.135	447.759	0.241	0.291	11.700	20.862	9.281
2023-07-17 21:30	3475804	8.791	-165.348	241.718	20.838	454.746	447.584	0.241	0.291	11.726	20.838	9.283
2023-07-17 21:45	3476704	8.783	-164.917	244.004	20.801	454.152	447.305	0.240	0.291	11.935	20.801	9.345

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-17 22:00	3477604	8.793	-165.396	239.574	20.701	452.131	446.156	0.240	0.290	11.858	20.701	9.441
2023-07-17 22:15	3478504	8.833	-167.551	238.837	20.657	451.661	446.065	0.240	0.290	11.929	20.657	9.28
2023-07-17 22:30	3479404	8.811	-166.33	244.199	20.641	451.894	446.433	0.240	0.290	11.821	20.641	9.275
2023-07-17 22:45	3480304	8.783	-164.797	246.603	20.604	451.805	446.652	0.240	0.290	11.235	20.604	9.208
2023-07-17 23:00	3481204	8.769	-164.039	237.617	20.565	452.015	447.192	0.240	0.291	10.903	20.565	9.149
2023-07-17 23:15	3482104	8.706	-160.575	241.162	20.525	452.386	447.892	0.241	0.291	11.128	20.525	9.226
2023-07-17 23:30	3483004	8.705	-160.475	244.273	20.48	451.815	447.713	0.241	0.291	10.975	20.48	9.165
2023-07-17 23:45	3483904	8.743	-162.525	245.883	20.455	452.325	448.429	0.241	0.291	10.723	20.455	9.167
2023-07-18 00:00	3484804	8.731	-161.886	240.812	20.427	451.335	447.682	0.241	0.291	10.604	20.427	9.075
2023-07-18 00:15	3485704	8.642	-157.003	245.737	20.404	451.317	447.859	0.241	0.291	10.484	20.404	9.106
2023-07-18 00:30	3486604	8.635	-156.639	244.624	20.375	450.863	447.655	0.241	0.291	10.198	20.375	9.173
2023-07-18 00:45	3487504	8.672	-158.601	243.873	20.339	451.164	448.26	0.241	0.291	10.004	20.339	9.325
2023-07-18 01:00	3488404	8.703	-160.296	238.969	20.308	451.245	448.609	0.241	0.292	9.729	20.308	9.059
2023-07-18 01:15	3489304	8.687	-159.411	242.163	20.286	451.603	449.149	0.242	0.292	9.409	20.286	9.054
2023-07-18 01:30	3490204	8.698	-159.986	244.91	20.266	451.546	449.266	0.242	0.292	9.494	20.266	9.079
2023-07-18 01:45	3491104	8.690	-159.547	245.771	20.244	451.486	449.388	0.242	0.292	9.497	20.244	9.074
2023-07-18 02:00	3492004	8.659	-157.855	244.061	20.23	451.115	449.138	0.242	0.292	8.999	20.23	8.968
2023-07-18 02:15	3492904	8.644	-157.008	248.1	20.208	450.737	448.95	0.242	0.292	9.134	20.208	9.017
2023-07-18 02:30	3493804	8.614	-155.406	251.333	20.2	451.23	449.512	0.242	0.292	9.199	20.2	9.063
2023-07-18 02:45	3494704	8.569	-152.915	248.586	20.177	451.481	449.964	0.242	0.292	8.860	20.177	8.93
2023-07-18 03:00	3495604	8.601	-154.643	247.468	20.151	451.38	450.085	0.242	0.293	8.539	20.151	8.85
2023-07-18 03:15	3496504	8.601	-154.65	250.987	20.111	451.186	450.231	0.242	0.293	8.682	20.111	8.914
2023-07-18 03:30	3497404	8.595	-154.283	252.403	20.071	451.033	450.425	0.243	0.293	8.682	20.071	8.896
2023-07-18 03:45	3498304	8.577	-153.284	254.409	20.029	451.044	450.798	0.243	0.293	8.309	20.029	8.907
2023-07-18 04:00	3499204	8.585	-153.692	252.964	19.979	449.762	449.939	0.242	0.292	8.011	19.979	8.979
2023-07-18 04:15	3500104	8.594	-154.166	255.355	19.921	449.123	449.802	0.242	0.292	8.440	19.921	8.988
2023-07-18 04:30	3501004	8.564	-152.514	254.599	19.908	448.219	449.006	0.242	0.292	8.552	19.908	9.357
2023-07-18 04:45	3501904	8.656	-157.495	252.203	19.902	447.407	448.245	0.241	0.291	9.610	19.902	10.98
2023-07-18 05:00	3502804	8.726	-161.331	244.493	19.906	447.114	447.919	0.241	0.291	9.307	19.906	13.279
2023-07-18 05:15	3503704	8.708	-160.31	243.563	19.899	447.012	447.876	0.241	0.291	9.828	19.899	10.695
2023-07-18 05:30	3504604	8.719	-160.935	243.038	19.883	446.958	447.96	0.241	0.291	9.663	19.883	9.595
2023-07-18 05:45	3505504	8.642	-156.715	244.266	19.849	447.151	448.447	0.242	0.291	9.137	19.849	9.642
2023-07-18 06:00	3506404	8.595	-154.14	243.501	19.808	447.233	448.882	0.242	0.292	8.274	19.808	11.378
2023-07-18 06:15	3507304	8.555	-151.961	247.182	19.767	447.77	449.77	0.242	0.292	7.856	19.767	9.655
2023-07-18 06:30	3508204	8.503	-149.1	252.27	19.735	447.478	449.758	0.242	0.292	7.759	19.735	9.785
2023-07-18 06:45	3509104	8.558	-152.09	251.905	19.705	447.379	449.918	0.242	0.292	7.796	19.705	9.434
2023-07-18 07:00	3510004	8.583	-153.434	248.787	19.687	447.222	449.911	0.242	0.292	7.681	19.687	9.598
2023-07-18 07:15	3510904	8.554	-151.849	251.257	19.67	447.017	449.85	0.242	0.292	7.895	19.67	9.43
2023-07-18 07:30	3511804	8.551	-151.703	251.409	19.665	446.954	449.832	0.242	0.292	7.953	19.665	9.344
2023-07-18 07:45	3512704	8.563	-152.321	252.823	19.664	446.658	449.547	0.242	0.292	8.507	19.664	9.337
2023-07-18 08:00	3513604	8.621	-155.454	248.036	19.655	445.498	448.453	0.242	0.291	8.579	19.655	9.937
2023-07-18 08:15	3514504	8.633	-156.131	249.392	19.647	444.925	447.944	0.241	0.291	9.045	19.647	10.248
2023-07-18 08:30	3515404	8.650	-157.063	249.643	19.645	444.849	447.889	0.241	0.291	9.210	19.645	10.087
2023-07-18 08:45	3516304	8.653	-157.235	249.333	19.641	444.704	447.777	0.241	0.291	9.379	19.641	10.079
2023-07-18 09:00	3517204	8.701	-159.795	242.807	19.642	444.661	447.719	0.241	0.291	9.096	19.642	9.707
2023-07-18 09:15	3518104	8.697	-159.614	247.978	19.638	444.824	447.92	0.241	0.291	9.539	19.638	9.599
2023-07-18 09:30	3519004	8.707	-160.148	245.547	19.642	444.632	447.691	0.241	0.291	9.802	19.642	9.453
2023-07-18 09:45	3519904	8.732	-161.512	243.053	19.652	444.339	447.313	0.241	0.291	10.178	19.652	9.419
2023-07-18 10:00	3520804	8.756	-162.84	237.478	19.666	443.862	446.712	0.241	0.290	10.043	19.666	9.52
2023-07-18 10:15	3521704	8.752	-162.625	241.865	19.674	444.22	447.001	0.241	0.291	9.998	19.674	9.513
2023-07-18 10:30	3522604	8.764	-163.276	242.793	19.702	443.627	446.17	0.240	0.290	10.627	19.702	9.551
2023-07-18 10:45	3523504	8.783	-164.292	240.819	19.723	443.759	446.121	0.240	0.290	10.701	19.723	9.381
2023-07-18 11:00	3524404	8.802	-165.362	237.693	19.739	444.523	446.749	0.241	0.290	10.707	19.739	9.55
2023-07-18 11:15	3525304	8.788	-164.592	240.394	19.752	444.648	446.768	0.241	0.290	10.630	19.752	9.816
2023-07-18 11:30	3526204	8.792	-164.8	240.158	19.762	444.604	446.632	0.241	0.290	10.631	19.762	9.849
2023-07-18 11:45	3527104	8.797	-165.102	240.816	19.772	444.72	446.665	0.241	0.290	10.367	19.772	9.813

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-18 12:00	3528004	8.781	-164.22	238.857	19.777	444.988	446.89	0.241	0.290	10.119	19.777	9.676
2023-07-18 12:15	3528904	8.743	-162.182	246.946	19.774	446.205	448.137	0.241	0.291	10.523	19.774	9.865
2023-07-18 12:30	3529804	8.750	-162.549	246.467	19.776	445.321	447.238	0.241	0.291	10.536	19.776	9.686
2023-07-18 12:45	3530704	8.770	-163.665	242.969	19.786	445.092	446.918	0.241	0.290	10.375	19.786	9.629
2023-07-18 13:00	3531604	8.713	-160.577	243.057	19.8	445.102	446.809	0.241	0.290	10.205	19.8	9.715
2023-07-18 13:15	3532504	8.724	-161.176	245.623	19.798	445.546	447.274	0.241	0.291	10.463	19.798	9.817
2023-07-18 13:30	3533404	8.719	-160.875	247.218	19.783	445.698	447.555	0.241	0.291	10.084	19.783	9.745
2023-07-18 13:45	3534304	8.739	-161.946	245.573	19.775	445.51	447.433	0.241	0.291	10.290	19.775	9.672
2023-07-18 14:00	3535204	8.761	-163.126	238.11	19.762	445.072	447.104	0.241	0.291	9.933	19.762	10.72
2023-07-18 14:15	3536104	8.713	-160.532	238.587	19.753	444.831	446.936	0.241	0.291	10.341	19.753	9.908
2023-07-18 14:30	3537004	8.741	-162.048	239.898	19.752	444.916	447.034	0.241	0.291	10.138	19.752	9.748
2023-07-18 14:45	3537904	8.732	-161.574	241.62	19.748	444.757	446.909	0.241	0.290	10.335	19.748	9.76
2023-07-18 15:00	3538804	8.768	-163.515	233.483	19.751	445.031	447.156	0.241	0.291	10.558	19.751	9.706
2023-07-18 15:15	3539704	8.748	-162.408	237.464	19.732	444.806	447.098	0.241	0.291	9.948	19.732	9.792
2023-07-18 15:30	3540604	8.756	-162.847	239.746	19.728	445.16	447.488	0.241	0.291	10.566	19.728	9.837
2023-07-18 15:45	3541504	8.729	-161.381	241.172	19.732	444.833	447.121	0.241	0.291	10.546	19.732	9.946
2023-07-18 16:00	3542404	8.792	-164.84	232.932	19.761	444.643	446.678	0.241	0.290	10.828	19.761	9.787
2023-07-18 16:15	3543304	8.767	-163.496	238.78	19.773	444.767	446.701	0.241	0.290	10.851	19.773	9.864
2023-07-18 16:30	3544204	8.749	-162.508	241.756	19.786	444.912	446.734	0.241	0.290	10.853	19.786	9.869
2023-07-18 16:45	3545104	8.787	-164.59	241.284	19.799	444.934	446.648	0.241	0.290	10.541	19.799	9.866
2023-07-18 17:00	3546004	8.828	-166.833	227.539	19.824	445.377	446.876	0.241	0.290	10.927	19.824	9.718
2023-07-18 17:15	3546904	8.810	-165.861	234.501	19.838	445.452	446.837	0.241	0.290	11.029	19.838	9.846
2023-07-18 17:30	3547804	8.821	-166.469	234.813	19.851	445.626	446.897	0.241	0.290	11.097	19.851	9.961
2023-07-18 17:45	3548704	8.825	-166.659	235.955	19.87	445.839	446.953	0.241	0.291	10.969	19.87	9.874
2023-07-18 18:00	3549604	8.803	-165.496	233.902	19.879	445.541	446.571	0.240	0.290	11.109	19.879	9.732
2023-07-18 18:15	3550504	8.776	-164.042	240.335	19.874	445.675	446.749	0.241	0.290	10.833	19.874	9.724
2023-07-18 18:30	3551404	8.755	-162.871	241.846	19.864	445.493	446.655	0.241	0.290	10.813	19.864	9.716
2023-07-18 18:45	3552304	8.760	-163.136	242.604	19.857	445.414	446.636	0.240	0.290	10.882	19.857	9.761
2023-07-18 19:00	3553204	8.807	-165.718	232.741	19.859	445.442	446.647	0.240	0.290	10.952	19.859	9.566
2023-07-18 19:15	3554104	8.793	-164.936	236.358	19.859	445.94	447.142	0.241	0.291	11.028	19.859	9.836
2023-07-18 19:30	3555004	8.792	-164.89	235.984	19.858	446.119	447.332	0.241	0.291	10.880	19.858	9.847
2023-07-18 19:45	3555904	8.779	-164.161	237.126	19.851	446.127	447.4	0.241	0.291	10.629	19.851	9.867
2023-07-18 20:00	3556804	8.790	-164.75	232.672	19.834	445.316	446.733	0.241	0.290	10.672	19.834	9.694
2023-07-18 20:15	3557704	8.774	-163.882	238.21	19.821	445.489	447.014	0.241	0.291	10.799	19.821	9.807
2023-07-18 20:30	3558604	8.749	-162.518	242.554	19.812	445.545	447.15	0.241	0.291	10.440	19.812	9.834
2023-07-18 20:45	3559504	8.746	-162.356	242.824	19.801	445.445	447.145	0.241	0.291	10.413	19.801	9.923
2023-07-18 21:00	3560404	8.791	-164.769	239.429	19.789	445.255	447.06	0.241	0.291	10.400	19.789	9.826
2023-07-18 21:15	3561304	8.777	-164.02	241.415	19.778	445.817	447.719	0.241	0.291	10.316	19.778	9.829
2023-07-18 21:30	3562204	8.776	-163.932	240.974	19.761	445.533	447.579	0.241	0.291	9.995	19.761	9.8
2023-07-18 21:45	3563104	8.771	-163.674	239.755	19.727	445.099	447.433	0.241	0.291	10.197	19.727	9.575
2023-07-18 22:00	3564004	8.773	-163.739	237.006	19.7	444.151	446.71	0.241	0.290	10.024	19.7	9.703
2023-07-18 22:15	3564904	8.744	-162.179	242.118	19.681	444.086	446.806	0.241	0.290	10.292	19.681	9.571
2023-07-18 22:30	3565804	8.738	-161.85	243.713	19.666	444.03	446.883	0.241	0.290	9.938	19.666	9.426
2023-07-18 22:45	3566704	8.754	-162.683	244.722	19.649	444.034	447.033	0.241	0.291	10.056	19.649	9.545
2023-07-18 23:00	3567604	8.757	-162.83	239.536	19.636	444.217	447.329	0.241	0.291	9.917	19.636	9.389
2023-07-18 23:15	3568504	8.706	-160.084	242.397	19.624	444.61	447.824	0.241	0.291	9.942	19.624	9.443
2023-07-18 23:30	3569404	8.698	-159.636	243.773	19.614	444.222	447.522	0.241	0.291	9.679	19.614	9.415
2023-07-18 23:45	3570304	8.705	-160.005	246.51	19.603	444.585	447.979	0.241	0.291	9.578	19.603	9.421
2023-07-19 00:00	3571204	8.689	-159.128	244.593	19.594	444.145	447.612	0.241	0.291	9.332	19.594	9.365
2023-07-19 00:15	3572104	8.708	-160.186	248.715	19.581	444.209	447.793	0.241	0.291	9.307	19.581	9.393
2023-07-19 00:30	3573004	8.681	-158.699	250.437	19.57	444.085	447.766	0.241	0.291	9.120	19.57	9.478
2023-07-19 00:45	3573904	8.664	-157.738	250.086	19.554	443.167	446.978	0.241	0.291	9.147	19.554	10.386
2023-07-19 01:00	3574804	8.683	-158.768	243.515	19.536	442.834	446.795	0.241	0.290	9.219	19.536	10.068
2023-07-19 01:15	3575704	8.737	-161.715	241.012	19.524	442.463	446.523	0.241	0.290	9.844	19.524	12.582
2023-07-19 01:30	3576604	8.729	-161.283	242.495	19.515	442.459	446.6	0.241	0.290	9.944	19.515	11.133
2023-07-19 01:45	3577504	8.694	-159.333	243.053	19.495	442.479	446.793	0.241	0.290	9.888	19.495	10.541

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-19 02:00	3578404	8.689	-159.051	241.005	19.472	441.907	446.41	0.241	0.290	9.941	19.472	10.26
2023-07-19 02:15	3579304	8.647	-156.794	246.751	19.427	441.7	446.59	0.241	0.290	9.541	19.427	10.572
2023-07-19 02:30	3580204	8.667	-157.826	248.267	19.394	441.581	446.751	0.241	0.290	9.267	19.394	10.497
2023-07-19 02:45	3581104	8.659	-157.363	249.395	19.363	441.523	446.965	0.241	0.291	9.168	19.363	10.811
2023-07-19 03:00	3582004	8.659	-157.363	244.388	19.338	441.562	447.214	0.241	0.291	8.749	19.338	10.452
2023-07-19 03:15	3582904	8.649	-156.791	247.463	19.313	442.249	448.133	0.242	0.291	8.719	19.313	10.431
2023-07-19 03:30	3583804	8.612	-154.796	247.733	19.285	441.757	447.875	0.241	0.291	8.598	19.285	9.851
2023-07-19 03:45	3584704	8.642	-156.419	245.074	19.276	441.165	447.355	0.241	0.291	8.766	19.276	11.002
2023-07-19 04:00	3585604	8.657	-157.225	241.296	19.261	440.119	446.417	0.241	0.290	9.354	19.261	10.202
2023-07-19 04:15	3586504	8.705	-159.817	245.067	19.246	439.922	446.347	0.241	0.290	9.451	19.246	10.246
2023-07-19 04:30	3587404	8.680	-158.448	246.262	19.225	439.613	446.218	0.241	0.290	9.315	19.225	10.549
2023-07-19 04:45	3588304	8.700	-159.497	246.009	19.157	438.653	445.832	0.240	0.290	9.488	19.157	10.306
2023-07-19 05:00	3589204	8.684	-158.577	241.358	19.105	438.681	446.31	0.241	0.290	9.315	19.105	10.253
2023-07-19 05:15	3590104	8.670	-157.797	245.682	19.059	438.45	446.477	0.241	0.290	9.199	19.059	10.38
2023-07-19 05:30	3591004	8.695	-159.161	246.5	18.998	437.598	446.139	0.241	0.290	9.422	18.998	10.64
2023-07-19 05:45	3591904	8.686	-158.632	247.504	18.93	437.022	446.138	0.241	0.290	9.565	18.93	12.077
2023-07-19 06:00	3592804	8.694	-159.011	241.262	18.887	436.321	445.794	0.240	0.290	9.499	18.887	10.997
2023-07-19 06:15	3593704	8.624	-155.239	244.161	18.851	435.869	445.652	0.240	0.290	9.306	18.851	10.65
2023-07-19 06:30	3594604	8.658	-157.039	248.291	18.822	435.379	445.397	0.240	0.290	9.432	18.822	10.383
2023-07-19 06:45	3595504	8.682	-158.3	248.749	18.797	435.154	445.387	0.240	0.290	9.464	18.797	9.791
2023-07-19 07:00	3596404	8.716	-160.167	243.787	18.777	435.187	445.592	0.240	0.290	9.555	18.777	9.639
2023-07-19 07:15	3597304	8.703	-159.445	246.686	18.764	435.326	445.848	0.241	0.290	9.477	18.764	11.173
2023-07-19 07:30	3598204	8.704	-159.497	249.478	18.747	435.151	445.819	0.241	0.290	9.646	18.747	11.129
2023-07-19 07:45	3599104	8.720	-160.327	249.972	18.74	435.031	445.761	0.240	0.290	9.672	18.74	9.349
2023-07-19 08:00	3600004	8.717	-160.198	246.25	18.728	434.375	445.187	0.240	0.289	9.488	18.728	9.435
2023-07-19 08:15	3600904	8.703	-159.445	249.573	18.718	434.155	445.053	0.240	0.289	9.682	18.718	9.398
2023-07-19 08:30	3601804	8.695	-158.963	248.782	18.711	434.036	444.993	0.240	0.289	9.791	18.711	9.524
2023-07-19 08:45	3602704	8.693	-158.877	248.467	18.707	433.946	444.934	0.240	0.289	9.900	18.707	9.453
2023-07-19 09:00	3603604	8.693	-158.877	244.743	18.713	434.414	445.362	0.240	0.289	9.692	18.713	9.178
2023-07-19 09:15	3604504	8.705	-159.528	246.798	18.717	435.035	445.964	0.241	0.290	9.880	18.717	9.2
2023-07-19 09:30	3605404	8.712	-159.919	246.188	18.724	435.075	445.943	0.241	0.290	9.712	18.724	9.311
2023-07-19 09:45	3606304	8.718	-160.21	246.379	18.731	435.513	446.334	0.241	0.290	9.938	18.731	9.626
2023-07-19 10:00	3607204	8.717	-160.172	240.895	18.74	434.651	445.365	0.240	0.289	9.875	18.74	9.192
2023-07-19 10:15	3608104	8.684	-158.384	247.125	18.753	434.81	445.416	0.240	0.290	9.652	18.753	9.132
2023-07-19 10:30	3609004	8.699	-159.259	243.553	18.776	434.862	445.271	0.240	0.289	9.736	18.776	9.4
2023-07-19 10:45	3609904	8.738	-161.364	237.192	18.808	434.902	445.037	0.240	0.289	9.939	18.808	9.466
2023-07-19 11:00	3610804	8.773	-163.302	230.118	18.869	435.549	445.163	0.240	0.289	10.137	18.869	9.519
2023-07-19 11:15	3611704	8.761	-162.666	229.863	18.955	436.731	445.626	0.240	0.290	10.235	18.955	9.409
2023-07-19 11:30	3612604	8.723	-160.704	225.956	19.124	438.663	446.124	0.241	0.290	10.381	19.124	9.374
2023-07-19 11:45	3613504	8.761	-162.845	220.286	19.26	439.95	446.256	0.241	0.290	10.201	19.26	9.387
2023-07-19 12:00	3614404	8.781	-164.011	221.276	19.379	440.21	445.494	0.240	0.290	10.818	19.379	9.36
2023-07-19 12:15	3615304	8.774	-163.653	226.175	19.453	440.894	445.553	0.240	0.290	10.870	19.453	9.329
2023-07-19 12:30	3616204	8.762	-163.095	226.893	19.587	441.515	445.024	0.240	0.289	11.505	19.587	9.347
2023-07-19 12:45	3617104	8.806	-165.579	227.033	19.709	442.546	445.017	0.240	0.289	11.607	19.709	9.435
2023-07-19 13:00	3618004	8.862	-168.679	218.779	19.824	443.544	445.039	0.240	0.289	11.414	19.824	9.461
2023-07-19 13:15	3618904	8.839	-167.47	225.577	19.973	445.273	445.503	0.240	0.290	12.236	19.973	9.339
2023-07-19 13:30	3619804	8.897	-170.743	222.763	20.12	446.799	445.775	0.240	0.290	11.898	20.12	9.519
2023-07-19 13:45	3620704	8.863	-168.982	220.525	20.247	447.012	444.916	0.239	0.289	13.502	20.247	9.498
2023-07-19 14:00	3621604	8.927	-172.584	211.825	20.502	448.655	444.397	0.239	0.289	12.412	20.502	9.597
2023-07-19 14:15	3622504	8.935	-173.14	213.622	20.701	449.854	443.909	0.239	0.289	14.059	20.701	9.635
2023-07-19 14:30	3623404	8.978	-175.574	210.58	20.825	449.576	442.604	0.238	0.288	14.015	20.825	9.63
2023-07-19 14:45	3624304	8.965	-175.021	209.662	21.089	453.99	444.743	0.239	0.289	14.503	21.089	9.914
2023-07-19 15:00	3625204	8.937	-173.879	196.799	21.722	461.782	447.075	0.240	0.291	12.791	21.722	10.196
2023-07-19 15:15	3626104	***9.168***	-186.253	203.721	21.366	450.316	438.865	0.236	0.285	15.511	21.366	13.684
2023-07-19 15:30	3627004	***9.100***	-182.552	211.651	21.396	450.728	439.022	0.236	0.285	15.990	21.396	11.783
2023-07-19 15:45	3627904	***9.084***	-181.696	212.437	21.392	452.667	440.946	0.237	0.287	15.978	21.392	14.966

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-19 16:00	3628804	***9.062***	-180.614	209.254	21.573	454.663	441.401	0.237	0.287	15.505	21.573	9.851
2023-07-19 16:15	3629704	***9.035***	-179.205	206.904	21.707	456.501	442.09	0.237	0.287	15.733	21.707	9.929
2023-07-19 16:30	3630604	***9.130***	-184.295	208.501	21.584	450.771	437.537	0.235	0.284	14.958	21.584	9.932
2023-07-19 16:45	3631504	***9.181***	-187.023	208.961	21.463	449.343	437.129	0.235	0.284	16.630	21.463	9.885
2023-07-19 17:00	3632404	***9.159***	-185.909	209.908	21.554	450.645	437.654	0.235	0.284	17.533	21.554	9.852
2023-07-19 17:15	3633304	***9.139***	-184.789	214.152	21.551	451.455	438.467	0.235	0.285	17.456	21.551	9.864
2023-07-19 17:30	3634204	***9.140***	-184.91	214.507	21.625	451.922	438.315	0.235	0.285	17.524	21.625	9.825
2023-07-19 17:45	3635104	8.917	-172.479	228.066	21.289	449.209	438.415	0.235	0.285	16.687	21.289	11.127
2023-07-19 18:00	3636004	***9.053***	-179.882	218.364	21.205	448.251	438.163	0.235	0.285	16.168	21.205	9.747
2023-07-19 18:15	3636904	***9.065***	-180.602	218.827	21.306	449.895	438.947	0.236	0.285	16.771	21.306	9.748
2023-07-19 18:30	3637804	***9.053***	-179.994	218.782	21.43	450.256	438.285	0.235	0.285	17.187	21.43	9.806
2023-07-19 18:45	3638704	***9.150***	-185.397	203.099	21.602	450.471	437.096	0.234	0.284	18.449	21.602	9.996
2023-07-19 19:00	3639604	***9.263***	-191.982	191.845	22.154	452.203	434.333	0.233	0.282	19.740	22.154	10.566
2023-07-19 19:15	3640504	***9.257***	-191.863	195.653	22.551	457.267	436.02	0.233	0.283	20.718	22.551	10.633
2023-07-19 19:30	3641404	***9.240***	-190.837	196.761	22.329	455.663	436.256	0.234	0.284	19.099	22.329	10.414
2023-07-19 19:45	3642304	***9.218***	-189.342	207.433	21.924	451.91	435.895	0.234	0.283	19.205	21.924	10.22
2023-07-19 20:00	3643204	***9.205***	-188.856	203.239	22.301	453.982	434.872	0.233	0.283	19.281	22.301	10.21
2023-07-19 20:15	3644104	***9.216***	-189.695	187.206	22.633	458.862	436.891	0.234	0.284	20.043	22.633	10.499
2023-07-19 20:30	3645004	***9.153***	-186.384	185.429	22.906	465.108	440.653	0.236	0.286	16.400	22.906	10.531
2023-07-19 20:45	3645904	***9.052***	-180.809	202.884	22.813	462.207	438.643	0.235	0.285	16.170	22.813	10.41
2023-07-19 21:00	3646804	***9.179***	-187.657	198.297	22.665	457.615	435.453	0.233	0.283	17.200	22.665	10.318
2023-07-19 21:15	3647704	***9.222***	-189.824	205.962	22.318	454.686	435.408	0.233	0.283	18.837	22.318	10.172
2023-07-19 21:30	3648604	***9.209***	-188.961	210.294	22.077	454.188	436.861	0.234	0.284	18.189	22.077	10.165
2023-07-19 21:45	3649504	***9.194***	-188.041	213.861	21.93	453.348	437.233	0.234	0.284	17.967	21.93	10.091
2023-07-19 22:00	3650404	***9.177***	-186.996	214.33	21.762	451.411	436.717	0.234	0.284	17.731	21.762	10.036
2023-07-19 22:15	3651304	***9.146***	-185.091	219.304	21.464	449.117	436.902	0.234	0.284	17.553	21.464	9.915
2023-07-19 22:30	3652204	***9.137***	-184.524	220.427	21.321	448.434	437.395	0.235	0.284	17.562	21.321	9.834
2023-07-19 22:45	3653104	***9.124***	-183.73	224.516	21.193	448.367	438.381	0.235	0.285	16.981	21.193	9.693
2023-07-19 23:00	3654004	***9.048***	-179.558	232.55	21.103	449.106	439.84	0.236	0.286	15.450	21.103	9.721
2023-07-19 23:15	3654904	***9.032***	-178.599	230.796	20.998	449.932	441.513	0.237	0.287	15.266	20.998	9.664
2023-07-19 23:30	3655804	8.955	-174.417	237.81	20.977	450.676	442.42	0.238	0.288	14.838	20.977	9.712
2023-07-19 23:45	3656704	8.990	-176.275	232.298	20.934	450.552	442.658	0.238	0.288	14.577	20.934	9.602
2023-07-20 00:00	3657604	8.966	-174.968	229.739	20.952	450.236	442.192	0.238	0.287	13.944	20.952	9.553
2023-07-20 00:15	3658504	8.948	-173.914	232.872	20.851	450.756	443.546	0.238	0.288	13.828	20.851	9.691
2023-07-20 00:30	3659404	8.936	-173.318	233.921	20.864	450.875	443.554	0.238	0.288	13.817	20.864	9.578
2023-07-20 00:45	3660304	8.932	-173.063	233.633	20.874	450.909	443.504	0.238	0.288	14.050	20.874	9.53
2023-07-20 01:00	3661204	8.980	-175.707	226.094	20.911	450.851	443.142	0.238	0.288	13.405	20.911	9.472
2023-07-20 01:15	3662104	8.975	-175.419	228.373	20.903	450.656	443.018	0.238	0.288	13.615	20.903	9.433
2023-07-20 01:30	3663004	8.977	-175.526	228.845	20.906	450.635	442.968	0.238	0.288	13.467	20.906	9.503
2023-07-20 01:45	3663904	8.972	-175.281	229.067	20.911	450.827	443.114	0.238	0.288	13.360	20.911	9.472
2023-07-20 02:00	3664804	8.952	-174.189	227.989	20.924	450.807	442.993	0.238	0.288	12.919	20.924	9.418
2023-07-20 02:15	3665704	8.943	-173.726	232.407	20.911	451.204	443.484	0.238	0.288	13.988	20.911	9.41
2023-07-20 02:30	3666604	8.938	-173.416	233.459	20.919	451.451	443.665	0.238	0.288	13.424	20.919	9.388
2023-07-20 02:45	3667504	8.929	-172.954	235.306	20.921	451.704	443.896	0.239	0.289	13.547	20.921	9.493
2023-07-20 03:00	3668404	8.863	-169.322	236.336	20.92	451.987	444.183	0.239	0.289	12.752	20.92	9.345
2023-07-20 03:15	3669304	8.811	-166.471	236.222	20.838	453.202	446.062	0.240	0.290	11.470	20.838	10.259
2023-07-20 03:30	3670204	8.813	-166.571	233.716	20.815	453.331	446.385	0.240	0.290	11.220	20.815	10.235
2023-07-20 03:45	3671104	8.811	-166.457	234.105	20.78	453.142	446.489	0.240	0.290	10.981	20.78	9.804
2023-07-20 04:00	3672004	8.808	-166.245	229.251	20.705	451.806	445.801	0.240	0.290	10.673	20.705	9.637
2023-07-20 04:15	3672904	8.815	-166.557	232.658	20.626	451.001	445.677	0.240	0.290	10.834	20.626	9.722
2023-07-20 04:30	3673804	8.805	-165.956	233.17	20.562	450.754	445.971	0.240	0.290	10.753	20.562	9.916
2023-07-20 04:45	3674704	8.777	-164.437	233.874	20.482	449.819	445.712	0.240	0.290	10.401	20.482	10.427
2023-07-20 05:00	3675604	8.801	-165.699	229.713	20.42	449.603	446.021	0.240	0.290	9.922	20.42	9.792
2023-07-20 05:15	3676504	8.762	-163.51	233.273	20.375	449.446	446.253	0.240	0.290	10.168	20.375	9.754
2023-07-20 05:30	3677404	8.738	-162.177	237.095	20.31	449.903	447.252	0.241	0.291	9.583	20.31	9.745
2023-07-20 05:45	3678304	8.700	-160.084	240.051	20.248	449.276	447.162	0.241	0.291	9.327	20.248	9.617

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-20 06:00	3679204	8.731	-161.715	238.368	20.177	447.699	446.189	0.240	0.290	9.297	20.177	9.58
2023-07-20 06:15	3680104	8.748	-162.635	241.379	20.109	447.237	446.307	0.240	0.290	9.611	20.109	9.613
2023-07-20 06:30	3681004	8.749	-162.675	242.705	20.056	446.605	446.129	0.240	0.290	9.739	20.056	9.605
2023-07-20 06:45	3681904	8.750	-162.659	242.066	20.015	446.5	446.375	0.240	0.290	9.809	20.015	9.389
2023-07-20 07:00	3682804	8.750	-162.668	238.432	19.982	446.137	446.292	0.240	0.290	9.559	19.982	9.363
2023-07-20 07:15	3683704	8.711	-160.534	242.874	19.935	446.121	446.671	0.240	0.290	9.597	19.935	9.474
2023-07-20 07:30	3684604	8.701	-159.974	245.434	19.901	445.813	446.659	0.240	0.290	9.294	19.901	9.506
2023-07-20 07:45	3685504	8.692	-159.435	247.299	19.873	445.732	446.814	0.241	0.290	9.261	19.873	9.385
2023-07-20 08:00	3686404	8.713	-160.57	243.72	19.838	444.844	446.228	0.240	0.290	9.416	19.838	9.356
2023-07-20 08:15	3687304	8.703	-160.003	244.927	19.814	444.682	446.264	0.240	0.290	9.498	19.814	9.469
2023-07-20 08:30	3688204	8.686	-159.085	244.292	19.792	444.449	446.226	0.240	0.290	9.370	19.792	9.593
2023-07-20 08:45	3689104	8.686	-159.049	243.484	19.776	444.283	446.191	0.240	0.290	9.563	19.776	9.731
2023-07-20 09:00	3690004	8.712	-160.456	240.95	19.766	444.158	446.155	0.240	0.290	9.339	19.766	9.533
2023-07-20 09:15	3690904	8.693	-159.452	243.429	19.757	444.521	446.591	0.241	0.290	9.626	19.757	9.447
2023-07-20 09:30	3691804	8.692	-159.385	243.46	19.749	444.517	446.66	0.241	0.290	9.767	19.749	9.418
2023-07-20 09:45	3692704	8.699	-159.771	243.47	19.743	444.245	446.437	0.240	0.290	10.175	19.743	9.366
2023-07-20 10:00	3693604	8.706	-160.122	240.13	19.747	443.961	446.115	0.240	0.290	9.877	19.747	9.296
2023-07-20 10:15	3694504	8.694	-159.5	244.695	19.745	443.707	445.876	0.240	0.290	9.832	19.745	9.265
2023-07-20 10:30	3695404	8.645	-156.813	247.227	19.748	444.061	446.206	0.240	0.290	9.961	19.748	9.302
2023-07-20 10:45	3696304	8.691	-159.335	245.001	19.762	443.896	445.926	0.240	0.290	9.976	19.762	9.256
2023-07-20 11:00	3697204	8.734	-161.695	238.911	19.792	444.077	445.848	0.240	0.290	9.743	19.792	9.283
2023-07-20 11:15	3698104	8.743	-162.215	238.196	19.822	444.734	446.25	0.240	0.290	10.277	19.822	9.238
2023-07-20 11:30	3699004	8.752	-162.725	236.959	19.87	445.07	446.182	0.240	0.290	10.251	19.87	9.501
2023-07-20 11:45	3699904	8.771	-163.779	236.277	19.918	445.398	446.097	0.240	0.290	10.486	19.918	9.784
2023-07-20 12:00	3700804	8.796	-165.145	231.883	19.979	444.817	444.995	0.240	0.289	10.586	19.979	9.528
2023-07-20 12:15	3701704	8.774	-163.977	233.163	20.024	445.311	445.107	0.240	0.289	11.041	20.024	9.532
2023-07-20 12:30	3702604	8.793	-165.043	233.995	20.091	445.883	445.109	0.240	0.289	11.244	20.091	9.634
2023-07-20 12:45	3703504	8.805	-165.734	234.155	20.157	446.201	444.867	0.239	0.289	11.447	20.157	9.529
2023-07-20 13:00	3704404	8.830	-167.124	228.028	20.217	446.555	444.708	0.239	0.289	11.406	20.217	9.581
2023-07-20 13:15	3705304	8.851	-168.302	230.495	20.269	447.756	445.464	0.240	0.290	11.591	20.269	9.736
2023-07-20 13:30	3706204	8.871	-169.456	229.63	20.329	447.956	445.157	0.239	0.289	11.890	20.329	9.692
2023-07-20 13:45	3707104	8.892	-170.617	230.257	20.393	448.287	444.946	0.239	0.289	12.057	20.393	9.691
2023-07-20 14:00	3708004	8.883	-170.174	227.696	20.452	448.245	444.411	0.239	0.289	11.657	20.452	9.739
2023-07-20 14:15	3708904	8.887	-170.393	230.328	20.486	448.202	444.082	0.239	0.289	12.178	20.486	9.598
2023-07-20 14:30	3709804	8.894	-170.784	231.208	20.527	447.995	443.532	0.238	0.288	12.697	20.527	9.7
2023-07-20 14:45	3710704	8.914	-171.905	231.289	20.57	448.229	443.406	0.238	0.288	12.891	20.57	9.602
2023-07-20 15:00	3711604	8.931	-172.892	226.94	20.612	448.79	443.605	0.238	0.288	12.316	20.612	9.598
2023-07-20 15:15	3712504	8.914	-171.986	229.255	20.654	449.983	444.434	0.239	0.289	12.568	20.654	9.664
2023-07-20 15:30	3713404	8.885	-170.4	231.973	20.707	450.903	444.895	0.239	0.289	12.597	20.707	9.55
2023-07-20 15:45	3714304	8.902	-171.373	231.623	20.77	451.374	444.834	0.239	0.289	12.802	20.77	9.845
2023-07-20 16:00	3715204	8.862	-169.244	226.564	20.799	451.953	445.157	0.239	0.289	12.310	20.799	9.753
2023-07-20 16:15	3716104	8.864	-169.358	230.71	20.824	451.866	444.865	0.239	0.289	12.148	20.824	9.738
2023-07-20 16:30	3717004	8.873	-169.873	232.002	20.859	451.728	444.432	0.239	0.289	12.540	20.859	9.763
2023-07-20 16:45	3717904	8.885	-170.522	232.35	20.888	452.379	444.833	0.239	0.289	13.047	20.888	9.786
2023-07-20 17:00	3718804	8.895	-171.106	230.283	20.913	452.26	444.507	0.239	0.289	12.272	20.913	9.704
2023-07-20 17:15	3719704	8.904	-171.578	231.995	20.932	452.742	444.821	0.239	0.289	12.889	20.932	9.683
2023-07-20 17:30	3720604	8.930	-173.044	231.79	20.963	452.609	444.438	0.239	0.289	12.979	20.963	9.709
2023-07-20 17:45	3721504	8.909	-171.869	231.728	20.989	452.643	444.249	0.239	0.289	12.798	20.989	9.931
2023-07-20 18:00	3722404	8.891	-170.937	230.312	21	452.847	444.362	0.239	0.289	12.135	21	9.815
2023-07-20 18:15	3723304	8.882	-170.429	233.041	21.007	453.289	444.737	0.239	0.289	12.436	21.007	9.738
2023-07-20 18:30	3724204	8.873	-169.928	234.944	21.026	453.229	444.519	0.239	0.289	12.523	21.026	9.774
2023-07-20 18:45	3725104	8.883	-170.476	234.832	21.036	452.976	444.189	0.239	0.289	12.749	21.036	9.846
2023-07-20 19:00	3726004	8.920	-172.553	231.747	21.047	452.856	443.977	0.239	0.289	12.793	21.047	9.823
2023-07-20 19:15	3726904	8.918	-172.439	231.196	21.057	453.496	444.524	0.239	0.289	13.044	21.057	9.732
2023-07-20 19:30	3727804	8.888	-170.815	233.912	21.072	454.079	444.967	0.239	0.289	12.203	21.072	9.79
2023-07-20 19:45	3728704	8.678	-159.33	245.196	21.086	454.498	445.264	0.239	0.289	12.274	21.086	9.749

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-20 20:00	3729604	8.809	-166.533	235.934	21.107	454.271	444.869	0.239	0.289	12.395	21.107	10.337
2023-07-20 20:15	3730504	8.817	-166.941	238.129	21.12	454.348	444.837	0.239	0.289	12.401	21.12	9.712
2023-07-20 20:30	3731404	8.810	-166.602	239.324	21.167	455.172	445.249	0.239	0.289	12.363	21.167	9.729
2023-07-20 20:45	3732304	8.798	-165.994	238.709	21.223	455.769	445.369	0.239	0.289	12.240	21.223	9.778
2023-07-20 21:00	3733204	8.917	-172.486	221.304	21.284	454.771	443.887	0.238	0.289	12.726	21.284	9.813
2023-07-20 21:15	3734104	8.930	-173.252	223.469	21.331	453.487	442.242	0.237	0.287	14.237	21.331	9.781
2023-07-20 21:30	3735004	8.997	-176.952	221.109	21.398	453.244	441.458	0.237	0.287	14.942	21.398	9.9
2023-07-20 21:45	3735904	***9.024***	-178.435	220.653	21.463	453.703	441.371	0.237	0.287	14.995	21.463	9.882
2023-07-20 22:00	3736804	***9.020***	-178.285	218.51	21.519	454.597	441.777	0.237	0.287	14.329	21.519	9.887
2023-07-20 22:15	3737704	***9.002***	-177.269	222.918	21.534	454.945	441.999	0.237	0.287	14.346	21.534	9.902
2023-07-20 22:30	3738604	8.977	-175.955	225.209	21.548	455.77	442.677	0.238	0.288	13.988	21.548	9.852
2023-07-20 22:45	3739504	8.947	-174.298	228.807	21.555	456.501	443.334	0.238	0.288	13.492	21.555	9.967
2023-07-20 23:00	3740404	8.926	-173.12	223.583	21.545	456.772	443.682	0.238	0.288	13.118	21.545	10.071
2023-07-20 23:15	3741304	8.891	-171.199	226.807	21.516	457.655	444.773	0.239	0.289	12.754	21.516	10.289
2023-07-20 23:30	3742204	8.873	-170.236	228.838	21.474	457.951	445.411	0.239	0.290	12.442	21.474	10.441
2023-07-20 23:45	3743104	8.857	-169.311	228.962	21.418	457.525	445.461	0.239	0.290	12.078	21.418	10.433
2023-07-21 00:00	3744004	8.864	-169.666	226.483	21.352	456.31	444.82	0.239	0.289	11.974	21.352	10.275
2023-07-21 00:15	3744904	8.865	-169.659	230.087	21.289	451.87	441.009	0.237	0.287	12.120	21.289	9.762
2023-07-21 00:30	3745804	8.879	-170.417	230.08	21.221	454.755	444.389	0.239	0.289	11.972	21.221	9.732
2023-07-21 00:45	3746704	8.891	-171.015	231.454	21.166	454.238	444.345	0.239	0.289	11.988	21.166	9.564
2023-07-21 01:00	3747604	8.903	-171.63	228.342	21.111	453.747	444.323	0.239	0.289	12.046	21.111	9.954
2023-07-21 01:15	3748504	8.877	-170.186	232.522	21.06	453.508	444.507	0.239	0.289	11.935	21.06	9.613
2023-07-21 01:30	3749404	8.877	-170.131	234.67	21.001	452.996	444.497	0.239	0.289	12.103	21.001	9.507
2023-07-21 01:45	3750304	8.849	-168.567	237.204	20.936	452.761	444.807	0.239	0.289	11.801	20.936	9.527
2023-07-21 02:00	3751204	8.860	-169.16	233.03	20.872	451.702	444.303	0.239	0.289	11.437	20.872	9.611
2023-07-21 02:15	3752104	8.828	-167.377	237.366	20.811	451.251	444.37	0.239	0.289	11.634	20.811	11.15
2023-07-21 02:30	3753004	8.821	-166.984	238.196	20.756	450.93	444.516	0.239	0.289	11.473	20.756	9.373
2023-07-21 02:45	3753904	8.803	-165.966	238.065	20.699	450.589	444.652	0.239	0.289	10.813	20.699	9.363
2023-07-21 03:00	3754804	8.818	-166.769	235.662	20.659	450.739	445.14	0.239	0.289	10.613	20.659	9.347
2023-07-21 03:15	3755704	8.777	-164.483	239.612	20.609	450.786	445.603	0.240	0.290	11.033	20.609	9.329
2023-07-21 03:30	3756604	8.751	-163.059	240.096	20.55	450.439	445.755	0.240	0.290	10.651	20.55	9.348
2023-07-21 03:45	3757504	8.724	-161.526	242.228	20.499	450.901	446.643	0.240	0.290	9.859	20.499	9.303
2023-07-21 04:00	3758404	8.688	-159.526	240.28	20.439	450.168	446.425	0.240	0.290	8.769	20.439	9.227
2023-07-21 04:15	3759304	8.672	-158.658	240.449	20.383	449.643	446.375	0.240	0.290	9.540	20.383	9.267
2023-07-21 04:30	3760204	8.666	-158.284	241.317	20.329	449.836	447.028	0.241	0.291	8.762	20.329	9.205
2023-07-21 04:45	3761104	8.620	-155.771	242.016	20.277	448.88	446.521	0.240	0.290	8.700	20.277	9.305
2023-07-21 05:00	3762004	8.698	-159.953	236.835	20.203	447.632	445.903	0.240	0.290	9.319	20.203	9.261
2023-07-21 05:15	3762904	8.715	-160.837	238.873	20.141	447.245	446.043	0.240	0.290	9.562	20.141	9.139
2023-07-21 05:30	3763804	8.696	-159.781	239.593	20.09	446.863	446.099	0.240	0.290	9.398	20.09	9.207
2023-07-21 05:45	3764704	8.665	-158.1	240.328	20.04	446.756	446.416	0.240	0.290	9.413	20.04	9.322
2023-07-21 06:00	3765604	8.682	-158.961	236.804	19.995	445.815	445.859	0.240	0.290	9.331	19.995	9.577
2023-07-21 06:15	3766504	8.632	-156.248	239.445	19.966	445.134	445.424	0.240	0.290	9.132	19.966	9.505
2023-07-21 06:30	3767404	8.660	-157.733	239.834	19.937	445.119	445.654	0.240	0.290	9.233	19.937	9.48
2023-07-21 06:45	3768304	8.644	-156.875	240.94	19.911	444.994	445.749	0.240	0.290	9.123	19.911	9.303
2023-07-21 07:00	3769204	8.672	-158.358	237.762	19.886	445.108	446.077	0.240	0.290	8.911	19.886	9.218
2023-07-21 07:15	3770104	8.639	-156.555	241.105	19.861	445.238	446.426	0.240	0.290	9.082	19.861	9.089
2023-07-21 07:30	3771005	8.639	-156.548	243.448	19.835	445.136	446.545	0.240	0.290	9.243	19.835	9.125
2023-07-21 07:45	3771905	8.645	-156.896	243.487	19.82	444.805	446.341	0.240	0.290	9.295	19.82	9.086
2023-07-21 08:00	3772805	8.675	-158.517	241.439	19.81	444.261	445.88	0.240	0.290	8.970	19.81	9.067
2023-07-21 08:15	3773705	8.725	-161.211	243.82	19.8	444.03	445.731	0.240	0.290	9.187	19.8	9.198
2023-07-21 08:30	3774605	8.788	-164.604	243.808	19.795	443.607	445.349	0.240	0.289	9.434	19.795	9.089
2023-07-21 08:45	3775505	8.778	-164.104	242.161	19.797	443.451	445.174	0.240	0.289	9.835	19.797	9.099
2023-07-21 09:00	3776405	8.759	-163.054	237.872	19.81	443.362	444.979	0.240	0.289	9.539	19.81	9.006
2023-07-21 09:15	3777305	8.802	-165.41	239.946	19.819	442.677	444.217	0.239	0.289	10.040	19.819	9.123
2023-07-21 09:30	3778205	8.838	-167.372	236.928	19.829	442.375	443.822	0.239	0.288	10.368	19.829	9.102
2023-07-21 09:45	3779105	8.855	-168.288	235.45	19.841	442.319	443.663	0.239	0.288	10.672	19.841	8.983

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-21 10:00	3780005	8.834	-167.162	233.9	19.857	442.887	444.102	0.239	0.289	10.555	19.857	9.082
2023-07-21 10:15	3780905	8.868	-169.001	234.148	19.869	442.764	443.875	0.239	0.289	10.913	19.869	9.355
2023-07-21 10:30	3781805	8.815	-166.13	235.476	19.887	443.253	444.214	0.239	0.289	11.059	19.887	9.209
2023-07-21 10:45	3782705	8.842	-167.639	231.659	19.92	443.377	444.055	0.239	0.289	10.972	19.92	9.076
2023-07-21 11:00	3783605	8.855	-168.35	224.787	19.976	443.579	443.779	0.239	0.288	11.102	19.976	9.135
2023-07-21 11:15	3784505	8.828	-166.898	229.406	20.019	444.301	444.14	0.239	0.289	10.879	20.019	9.1
2023-07-21 11:30	3785405	8.830	-167.081	230.741	20.066	444.84	444.277	0.239	0.289	11.245	20.066	9.145
2023-07-21 11:45	3786305	8.825	-166.836	231.432	20.12	445.315	444.293	0.239	0.289	11.061	20.12	9.053
2023-07-21 12:00	3787205	8.841	-167.72	230.016	20.22	446.002	444.137	0.239	0.289	10.776	20.22	9.143
2023-07-21 12:15	3788105	8.846	-168.061	228.512	20.294	446.687	444.195	0.239	0.289	11.301	20.294	9.219
2023-07-21 12:30	3789005	8.868	-169.325	226.857	20.392	447.181	443.862	0.239	0.289	11.713	20.392	9.237
2023-07-21 12:45	3789905	8.884	-170.221	224.358	20.47	447.827	443.842	0.239	0.288	11.752	20.47	9.189
2023-07-21 13:00	3790805	8.919	-172.172	219.969	20.554	447.861	443.171	0.238	0.288	11.580	20.554	9.375
2023-07-21 13:15	3791705	8.918	-172.155	224.649	20.61	448.806	443.641	0.239	0.288	12.793	20.61	9.299
2023-07-21 13:30	3792605	8.990	-176.108	224.327	20.67	447.995	442.335	0.238	0.288	13.924	20.67	9.358
2023-07-21 13:45	3793505	8.956	-174.313	225.705	20.741	448.599	442.337	0.238	0.288	14.581	20.741	9.3
2023-07-21 14:00	3794405	***9.009***	-177.224	219.49	20.826	447.75	440.797	0.237	0.287	14.096	20.826	9.335
2023-07-21 14:15	3795305	***9.008***	-177.238	222.403	20.861	447.835	440.588	0.237	0.286	14.380	20.861	9.413
2023-07-21 14:30	3796205	***9.056***	-179.844	222.68	20.916	447.899	440.193	0.236	0.286	14.994	20.916	9.426
2023-07-21 14:45	3797105	***9.072***	-180.786	222.241	20.957	448.027	439.988	0.236	0.286	14.927	20.957	9.387
2023-07-21 15:00	3798005	***9.059***	-180.087	219.268	21.003	448.533	440.104	0.236	0.286	14.413	21.003	9.46
2023-07-21 15:15	3798905	***9.025***	-178.263	220.849	21.027	449.584	440.933	0.237	0.287	14.298	21.027	9.489
2023-07-21 15:30	3799805	8.998	-176.771	223.85	21.037	449.735	441.003	0.237	0.287	14.339	21.037	9.578
2023-07-21 15:45	3800705	8.956	-174.468	226.087	21.045	451.03	442.203	0.238	0.287	13.646	21.045	9.505
2023-07-21 16:00	3801605	8.954	-174.391	221.9	21.086	451.692	442.514	0.238	0.288	13.097	21.086	9.498
2023-07-21 16:15	3802505	8.981	-175.898	224.449	21.107	451.593	442.244	0.238	0.287	13.690	21.107	9.436
2023-07-21 16:30	3803405	***9.015***	-177.758	224.025	21.134	450.959	441.397	0.237	0.287	13.997	21.134	9.529
2023-07-21 16:45	3804305	***9.015***	-177.763	223.731	21.168	451.629	441.775	0.237	0.287	14.066	21.168	9.506
2023-07-21 17:00	3805205	9.000	-176.976	222.918	21.217	452.428	442.151	0.237	0.287	13.565	21.217	9.501
2023-07-21 17:15	3806105	8.976	-175.703	225.41	21.244	452.88	442.372	0.238	0.288	13.910	21.244	9.522
2023-07-21 17:30	3807005	8.977	-175.798	225.422	21.296	453.813	442.855	0.238	0.288	13.562	21.296	9.51
2023-07-21 17:45	3807905	8.967	-175.288	226.859	21.384	454.546	442.841	0.238	0.288	13.542	21.384	9.521
2023-07-21 18:00	3808805	***9.012***	-177.863	223.774	21.549	454.092	441.039	0.237	0.287	13.796	21.549	9.616
2023-07-21 18:15	3809705	***9.041***	-179.503	210.022	21.646	453.496	439.672	0.236	0.286	15.215	21.646	9.687
2023-07-21 18:30	3810605	***9.127***	-184.264	209.667	21.8	453.704	438.624	0.235	0.285	16.093	21.8	9.767
2023-07-21 18:45	3811505	***9.154***	-185.843	205.85	21.908	454.136	438.168	0.235	0.285	16.868	21.908	9.699
2023-07-21 19:00	3812405	***9.146***	-185.425	207.917	21.935	453.857	437.678	0.235	0.284	16.294	21.935	9.73
2023-07-21 19:15	3813305	***9.133***	-184.734	212.588	21.962	454.893	438.459	0.235	0.285	16.722	21.962	9.754
2023-07-21 19:30	3814205	8.945	-174.487	221.7	22.068	455.394	438.093	0.235	0.285	16.807	22.068	9.822
2023-07-21 19:45	3815105	***9.073***	-181.568	207.135	22.177	456.315	438.099	0.235	0.285	16.894	22.177	9.841
2023-07-21 20:00	3816005	***9.075***	-181.754	203.771	22.301	457.214	437.963	0.235	0.285	16.757	22.301	9.949
2023-07-21 20:15	3816905	***9.162***	-186.431	213.079	22.153	454.225	436.287	0.234	0.284	16.483	22.153	9.923
2023-07-21 20:30	3817805	***9.171***	-186.765	215.937	21.921	450.798	434.842	0.233	0.283	17.700	21.921	9.922
2023-07-21 20:45	3818705	***9.084***	-181.656	220.877	21.358	451.613	440.198	0.236	0.286	15.760	21.358	10.115
2023-07-21 21:00	3819605	8.951	-174.148	225.715	20.935	450.808	442.902	0.238	0.288	13.404	20.935	9.487
2023-07-21 21:15	3820505	8.918	-172.374	231.718	21.002	451.721	443.235	0.238	0.288	12.861	21.002	9.355
2023-07-21 21:30	3821405	8.962	-174.942	226.685	21.232	452.317	441.921	0.237	0.287	13.572	21.232	9.509
2023-07-21 21:45	3822305	9.000	-177.145	219.006	21.455	452.505	440.272	0.236	0.286	14.293	21.455	9.635
2023-07-21 22:00	3823205	8.981	-176.227	212.368	21.651	454.121	440.234	0.236	0.286	13.218	21.651	9.652
2023-07-21 22:15	3824105	8.962	-175.23	209.97	21.744	455.776	441.086	0.237	0.287	12.515	21.744	9.683
2023-07-21 22:30	3825005	8.934	-173.759	209.855	21.827	456.988	441.575	0.237	0.287	12.242	21.827	9.701
2023-07-21 22:45	3825905	8.915	-172.77	210.535	21.881	457.652	441.782	0.237	0.287	12.029	21.881	9.705
2023-07-21 23:00	3826805	8.907	-172.31	211.56	21.914	458.346	442.183	0.237	0.287	11.545	21.914	9.738
2023-07-21 23:15	3827705	8.883	-170.999	216.395	21.908	458.834	442.699	0.237	0.288	11.793	21.908	9.737
2023-07-21 23:30	3828605	8.824	-167.563	225.038	21.566	455.578	442.348	0.237	0.288	10.255	21.566	9.757
2023-07-21 23:45	3829505	8.886	-170.565	230.796	20.875	451.54	444.119	0.239	0.289	11.686	20.875	9.542

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-22 00:00	3830405	8.877	-170.021	233.821	20.745	450.227	443.912	0.239	0.289	11.279	20.745	9.426
2023-07-22 00:15	3831305	8.855	-168.791	239.355	20.756	450.5	444.091	0.239	0.289	11.598	20.756	9.381
2023-07-22 00:30	3832205	8.837	-167.813	241.334	20.761	450.672	444.212	0.239	0.289	11.675	20.761	9.334
2023-07-22 00:45	3833105	8.832	-167.57	242.271	20.767	450.818	444.312	0.239	0.289	11.745	20.767	9.256
2023-07-22 01:00	3834005	8.843	-168.176	240.854	20.78	451.024	444.4	0.239	0.289	11.340	20.78	9.384
2023-07-22 01:15	3834905	8.759	-163.622	245.582	20.793	451.336	444.605	0.239	0.289	11.495	20.793	9.33
2023-07-22 01:30	3835805	8.808	-166.304	241.15	20.802	451.337	444.526	0.239	0.289	11.733	20.802	9.266
2023-07-22 01:45	3836705	8.805	-166.109	237.946	20.809	451.616	444.746	0.239	0.289	11.253	20.809	9.348
2023-07-22 02:00	3837605	8.791	-165.36	234.331	20.812	450.952	444.069	0.239	0.289	10.878	20.812	9.305
2023-07-22 02:15	3838505	8.792	-165.393	237.195	20.808	450.598	443.748	0.238	0.288	10.898	20.808	9.247
2023-07-22 02:30	3839405	8.795	-165.553	237.281	20.792	450.636	443.918	0.239	0.289	10.760	20.792	9.308
2023-07-22 02:45	3840305	8.791	-165.343	237.39	20.771	449.434	442.915	0.238	0.288	10.509	20.771	9.223
2023-07-22 03:00	3841205	8.787	-165.088	234.594	20.748	448.555	442.24	0.238	0.287	10.092	20.748	9.251
2023-07-22 03:15	3842105	8.784	-164.919	236.947	20.717	448.909	442.841	0.238	0.288	10.102	20.717	9.284
2023-07-22 03:30	3843005	8.758	-163.472	239.836	20.694	448.695	442.822	0.238	0.288	10.236	20.694	9.276
2023-07-22 03:45	3843905	8.735	-162.199	242.051	20.653	448.775	443.245	0.238	0.288	9.090	20.653	9.173
2023-07-22 04:00	3844805	8.624	-156.174	242.545	20.611	448.108	442.94	0.238	0.288	8.294	20.611	9.233
2023-07-22 04:15	3845705	8.660	-158.086	245.229	20.566	448.037	443.245	0.238	0.288	8.191	20.566	9.25
2023-07-22 04:30	3846605	8.607	-155.184	247.852	20.524	449.936	445.481	0.240	0.290	7.872	20.524	9.172
2023-07-22 04:45	3847505	8.555	-152.345	250.72	20.481	448.845	444.761	0.239	0.289	7.200	20.481	9.297
2023-07-22 05:00	3848405	8.566	-152.912	238.339	20.443	447.428	443.674	0.239	0.288	7.294	20.443	9.18
2023-07-22 05:15	3849305	8.568	-153.01	240.549	20.395	448.135	444.779	0.239	0.289	7.638	20.395	9.224
2023-07-22 05:30	3850205	8.580	-153.625	241.818	20.341	446.12	443.233	0.238	0.288	8.290	20.341	9.245
2023-07-22 05:45	3851105	8.629	-156.274	241.56	20.3	445.665	443.123	0.238	0.288	7.937	20.3	9.154
2023-07-22 06:00	3852005	8.619	-155.709	240.058	20.257	444.788	442.612	0.238	0.288	7.717	20.257	9.74
2023-07-22 06:15	3852905	8.578	-153.41	244.614	20.216	444.295	442.466	0.238	0.288	7.882	20.216	9.131
2023-07-22 06:30	3853805	8.559	-152.373	246.278	20.182	444.025	442.49	0.238	0.288	8.072	20.182	9.115
2023-07-22 06:45	3854705	8.557	-152.245	247.595	20.154	443.475	442.174	0.238	0.287	8.070	20.154	9.073
2023-07-22 07:00	3855605	8.600	-154.6	247.118	20.139	443.682	442.504	0.238	0.288	7.839	20.139	8.936
2023-07-22 07:15	3856505	8.588	-153.952	248.269	20.117	443.914	442.926	0.238	0.288	8.397	20.117	9.003
2023-07-22 07:30	3857405	8.591	-154.078	250.277	20.092	443.635	442.858	0.238	0.288	8.000	20.092	8.974
2023-07-22 07:45	3858305	8.582	-153.575	252.284	20.075	443.63	442.997	0.238	0.288	7.936	20.075	9.016
2023-07-22 08:00	3859205	8.571	-152.979	250.94	20.064	443.214	442.675	0.238	0.288	7.973	20.064	9.105
2023-07-22 08:15	3860105	8.568	-152.795	251.757	20.049	442.452	442.041	0.238	0.287	8.386	20.049	8.992
2023-07-22 08:30	3861005	8.572	-152.996	250.928	20.041	442.564	442.219	0.238	0.287	8.347	20.041	9.015
2023-07-22 08:45	3861905	8.584	-153.68	251.183	20.037	442.718	442.409	0.238	0.288	8.223	20.037	9.057
2023-07-22 09:00	3862805	8.599	-154.483	247.423	20.042	443.08	442.724	0.238	0.288	7.868	20.042	9.082
2023-07-22 09:15	3863705	8.803	-165.57	245.945	20.039	440.707	440.377	0.237	0.286	8.993	20.039	9.073
2023-07-22 09:30	3864605	8.870	-169.234	233.633	20.028	440.313	440.077	0.237	0.286	10.346	20.028	9.17
2023-07-22 09:45	3865505	8.876	-169.518	232.221	20.02	440.307	440.138	0.237	0.286	10.522	20.02	9.173
2023-07-22 10:00	3866405	8.853	-168.266	229.048	20.024	440.438	440.239	0.237	0.286	10.271	20.024	9.236
2023-07-22 10:15	3867305	8.881	-169.806	227.849	20.022	440.395	440.212	0.237	0.286	10.752	20.022	13.582
2023-07-22 10:30	3868205	8.875	-169.47	227.691	20.031	440.537	440.276	0.237	0.286	10.943	20.031	9.059
2023-07-22 10:45	3869105	8.866	-168.998	226.943	20.051	440.704	440.275	0.237	0.286	10.918	20.051	9.103
2023-07-22 11:00	3870005	8.851	-168.226	223.91	20.089	441.345	440.593	0.237	0.286	10.568	20.089	9.132
2023-07-22 11:15	3870905	8.830	-167.081	226.058	20.122	441.934	440.905	0.237	0.287	10.660	20.122	9.204
2023-07-22 11:30	3871805	8.832	-167.26	220.15	20.18	442.443	440.926	0.237	0.287	10.879	20.18	9.168
2023-07-22 11:45	3872705	8.840	-167.687	220.06	20.246	443.075	441.005	0.237	0.287	10.763	20.246	9.223
2023-07-22 12:00	3873605	8.841	-167.832	221.714	20.331	443.413	440.627	0.237	0.286	10.956	20.331	9.318
2023-07-22 12:15	3874505	8.843	-167.964	226.108	20.378	443.953	440.771	0.237	0.287	10.990	20.378	9.225
2023-07-22 12:30	3875405	8.826	-167.043	228.848	20.438	444.328	440.644	0.237	0.286	11.169	20.438	9.226
2023-07-22 12:45	3876305	8.835	-167.587	229.198	20.502	445.232	441.004	0.237	0.287	11.365	20.502	9.277
2023-07-22 13:00	3877205	8.872	-169.649	227.758	20.602	445.999	440.932	0.237	0.287	10.802	20.602	9.287
2023-07-22 13:15	3878105	8.854	-168.743	221.605	20.68	446.894	441.167	0.237	0.287	10.878	20.68	9.361
2023-07-22 13:30	3879005	8.864	-169.292	220.918	20.775	448.02	441.486	0.237	0.287	11.241	20.775	9.341
2023-07-22 13:45	3879905	8.869	-169.671	224.115	20.873	448.811	441.45	0.237	0.287	11.589	20.873	9.43

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-22 14:00	3880805	8.881	-170.352	224.749	21	449.489	441.063	0.237	0.287	11.548	21	9.387
2023-07-22 14:15	3881705	8.942	-173.714	224.995	21.058	449.617	440.712	0.237	0.286	12.067	21.058	9.519
2023-07-22 14:30	3882605	8.946	-174	225.105	21.111	449.587	440.247	0.236	0.286	12.336	21.111	9.501
2023-07-22 14:45	3883505	8.935	-173.428	225.763	21.194	450.014	439.982	0.236	0.286	12.937	21.194	9.551
2023-07-22 15:00	3884405	8.992	-176.597	221.65	21.297	450.428	439.542	0.236	0.286	12.838	21.297	9.697
2023-07-22 15:15	3885305	8.962	-175.011	223.486	21.364	451.64	440.172	0.236	0.286	13.622	21.364	9.577
2023-07-22 15:30	3886205	***9.062***	-180.509	221.047	21.428	449.949	438.001	0.235	0.285	14.476	21.428	9.644
2023-07-22 15:45	3887105	***9.055***	-180.13	218.448	21.461	450.667	438.433	0.235	0.285	14.130	21.461	9.594
2023-07-22 16:00	3888005	8.980	-176.096	218.596	21.543	451.871	438.939	0.236	0.285	13.122	21.543	9.678
2023-07-22 16:15	3888905	8.999	-177.15	220.856	21.574	452.381	439.181	0.236	0.285	13.892	21.574	9.62
2023-07-22 16:30	3889805	***9.007***	-177.631	221.836	21.622	452.433	438.837	0.235	0.285	13.502	21.622	9.726
2023-07-22 16:45	3890705	8.991	-176.744	225.009	21.633	452.642	438.955	0.235	0.285	14.417	21.633	9.631
2023-07-22 17:00	3891605	***9.015***	-178.07	217.163	21.653	452.484	438.632	0.235	0.285	13.918	21.653	9.608
2023-07-22 17:15	3892505	8.827	-167.806	227.904	21.679	453.145	439.062	0.236	0.285	14.414	21.679	9.601
2023-07-22 17:30	3893405	8.924	-173.123	224.654	21.726	453.255	438.789	0.235	0.285	14.441	21.726	9.686
2023-07-22 17:45	3894305	8.980	-176.198	223.226	21.754	452.699	438.024	0.235	0.285	14.726	21.754	9.632
2023-07-22 18:00	3895205	8.945	-174.332	221.366	21.775	453.385	438.522	0.235	0.285	13.980	21.775	9.775
2023-07-22 18:15	3896105	8.955	-174.854	226.485	21.772	452.836	438.012	0.235	0.285	13.813	21.772	9.647
2023-07-22 18:30	3897005	8.965	-175.385	226.847	21.769	452.598	437.803	0.235	0.285	14.388	21.769	9.638
2023-07-22 18:45	3897905	8.978	-176.11	226.752	21.756	452.158	437.486	0.235	0.284	14.102	21.756	9.733
2023-07-22 19:00	3898805	***9.009***	-177.832	223.567	21.752	452.95	438.288	0.235	0.285	13.738	21.752	9.639
2023-07-22 19:15	3899705	8.991	-176.833	225.677	21.736	452.639	438.111	0.235	0.285	14.297	21.736	9.665
2023-07-22 19:30	3900605	8.996	-177.09	227.248	21.718	452.134	437.769	0.235	0.285	14.412	21.718	9.581
2023-07-22 19:45	3901505	8.990	-176.74	226.974	21.717	452.275	437.911	0.235	0.285	14.186	21.717	9.591
2023-07-22 20:00	3902405	8.957	-174.966	226.485	21.713	452.96	438.61	0.235	0.285	13.459	21.713	9.539
2023-07-22 20:15	3903305	8.957	-174.942	229.396	21.708	453.496	439.169	0.236	0.285	13.407	21.708	9.455
2023-07-22 20:30	3904205	8.942	-174.141	229.894	21.708	453.278	438.96	0.235	0.285	13.561	21.708	9.473
2023-07-22 20:45	3905105	8.941	-174.084	231.199	21.713	453.137	438.783	0.235	0.285	13.376	21.713	9.364
2023-07-22 21:00	3906005	8.962	-175.245	229.065	21.727	453.079	438.609	0.235	0.285	13.107	21.727	9.393
2023-07-22 21:15	3906905	8.925	-173.197	232.004	21.705	453.962	439.646	0.236	0.286	13.071	21.705	9.493
2023-07-22 21:30	3907805	8.923	-172.977	230.8	21.579	453.324	440.052	0.236	0.286	12.588	21.579	9.512
2023-07-22 21:45	3908705	8.903	-171.909	231.849	21.537	453.51	440.575	0.236	0.286	12.548	21.537	9.477
2023-07-22 22:00	3909605	8.896	-171.511	230.154	21.523	453.217	440.406	0.236	0.286	12.323	21.523	9.454
2023-07-22 22:15	3910505	8.884	-170.841	231.871	21.535	453.505	440.591	0.236	0.286	12.485	21.535	9.357
2023-07-22 22:30	3911405	8.878	-170.527	233.7	21.561	453.769	440.63	0.236	0.286	12.413	21.561	9.433
2023-07-22 22:45	3912305	8.890	-171.22	231.628	21.582	453.862	440.549	0.236	0.286	12.546	21.582	9.341
2023-07-22 23:00	3913205	8.899	-171.704	226.859	21.579	454.011	440.719	0.236	0.286	12.111	21.579	9.408
2023-07-22 23:15	3914105	8.924	-172.942	230.672	21.356	451.371	439.973	0.236	0.286	12.265	21.356	9.224
2023-07-22 23:30	3915005	8.903	-171.75	233.232	21.327	451.659	440.496	0.236	0.286	12.296	21.327	9.292
2023-07-22 23:45	3915905	8.884	-170.72	234.653	21.311	451.913	440.873	0.237	0.287	12.162	21.311	9.215
2023-07-23 00:00	3916805	8.873	-170.114	232.562	21.301	451.694	440.743	0.237	0.286	11.841	21.301	9.14
2023-07-23 00:15	3917705	8.860	-169.396	237.889	21.247	450.358	439.882	0.236	0.286	12.059	21.247	9.209
2023-07-23 00:30	3918605	8.876	-170.221	237.922	21.204	449.273	439.175	0.236	0.285	12.131	21.204	9.249
2023-07-23 00:45	3919505	8.890	-170.956	233.056	21.145	448.554	438.951	0.236	0.285	11.784	21.145	9.219
2023-07-23 01:00	3920405	8.892	-171.001	230.016	21.071	447.884	438.905	0.236	0.285	11.413	21.071	9.278
2023-07-23 01:15	3921305	8.865	-169.53	233.27	21.012	447.743	439.253	0.236	0.286	11.436	21.012	9.16
2023-07-23 01:30	3922205	8.846	-168.474	236.284	20.973	447.376	439.213	0.236	0.285	11.420	20.973	9.115
2023-07-23 01:45	3923105	8.830	-167.542	239.135	20.927	447.455	439.671	0.236	0.286	10.981	20.927	9.088
2023-07-23 02:00	3924005	8.804	-166.13	238.129	20.885	446.573	439.153	0.236	0.285	10.433	20.885	8.992
2023-07-23 02:15	3924905	8.776	-164.528	241.143	20.836	446.477	439.461	0.236	0.286	10.605	20.836	9.061
2023-07-23 02:30	3925805	8.773	-164.349	242.931	20.786	446.878	440.272	0.237	0.286	9.987	20.786	9.115
2023-07-23 02:45	3926705	8.712	-160.997	246.271	20.733	447.358	441.18	0.237	0.287	9.245	20.733	9.049
2023-07-23 03:00	3927605	8.662	-158.241	244.383	20.684	447.149	441.38	0.237	0.287	8.337	20.684	8.927
2023-07-23 03:15	3928505	8.599	-154.774	247.256	20.627	447.342	442.047	0.238	0.287	8.407	20.627	8.964
2023-07-23 03:30	3929405	8.562	-152.736	247.27	20.569	446.898	442.096	0.238	0.287	8.958	20.569	8.839
2023-07-23 03:45	3930305	8.583	-153.873	246.464	20.516	446.313	441.96	0.238	0.287	8.904	20.516	8.855

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-23 04:00	3931205	8.649	-157.43	243.222	20.467	445.174	441.24	0.237	0.287	8.792	20.467	8.855
2023-07-23 04:15	3932105	8.565	-152.814	247.318	20.423	445.024	441.456	0.237	0.287	8.460	20.423	8.771
2023-07-23 04:30	3933005	8.562	-152.631	250.606	20.377	444.804	441.626	0.237	0.287	8.062	20.377	8.868
2023-07-23 04:45	3933905	8.589	-154.076	249.86	20.329	443.791	441.017	0.237	0.287	8.370	20.329	9.019
2023-07-23 05:00	3934805	8.796	-165.348	239.45	20.287	441.975	439.565	0.236	0.286	9.652	20.287	9.063
2023-07-23 05:15	3935705	8.810	-166.054	240.206	20.249	441.449	439.358	0.236	0.286	9.822	20.249	9.137
2023-07-23 05:30	3936605	8.770	-163.841	242.905	20.187	441.664	440.09	0.237	0.286	9.195	20.187	9.084
2023-07-23 05:45	3937505	8.709	-160.496	246.202	20.129	441.51	440.426	0.237	0.286	9.197	20.129	8.914
2023-07-23 06:00	3938405	8.695	-159.736	244.374	20.093	440.9	440.121	0.237	0.286	9.018	20.093	8.856
2023-07-23 06:15	3939305	8.686	-159.254	246.96	20.07	440.515	439.926	0.237	0.286	8.952	20.07	8.918
2023-07-23 06:30	3940205	8.809	-165.923	245.971	20.046	440.119	439.736	0.237	0.286	9.287	20.046	9.045
2023-07-23 06:45	3941105	8.803	-165.534	245.895	20.006	440.104	440.051	0.237	0.286	9.513	20.006	8.97
2023-07-23 07:00	3942005	8.700	-159.941	242.428	19.962	439.454	439.771	0.237	0.286	8.780	19.962	9.59
2023-07-23 07:15	3942905	8.673	-158.47	245.053	19.92	439.486	440.156	0.237	0.286	9.044	19.92	9.319
2023-07-23 07:30	3943805	8.699	-159.862	244.838	19.884	438.773	439.745	0.237	0.286	9.802	19.884	9.216
2023-07-23 07:45	3944705	8.720	-160.949	245.482	19.859	438.34	439.527	0.237	0.286	9.868	19.859	9.102
2023-07-23 08:00	3945605	8.763	-163.271	243.377	19.832	437.061	438.468	0.236	0.285	9.766	19.832	9.835
2023-07-23 08:15	3946505	8.723	-161.097	245.785	19.806	436.586	438.208	0.236	0.285	10.002	19.806	9.092
2023-07-23 08:30	3947405	8.832	-167.015	245.606	19.796	436.609	438.319	0.236	0.285	10.112	19.796	8.887
2023-07-23 08:45	3948305	8.880	-169.597	240.671	19.783	436.357	438.169	0.236	0.285	10.138	19.783	8.921
2023-07-23 09:00	3949205	8.886	-169.959	234.92	19.779	435.759	437.607	0.236	0.284	10.093	19.779	8.906
2023-07-23 09:15	3950105	8.897	-170.531	234.949	19.782	435.639	437.456	0.235	0.284	10.577	19.782	8.747
2023-07-23 09:30	3951005	8.818	-166.256	236.694	19.798	436.009	437.698	0.236	0.285	10.744	19.798	8.798
2023-07-23 09:45	3951905	8.841	-167.515	234.949	19.818	436.23	437.749	0.236	0.285	10.669	19.818	8.901
2023-07-23 10:00	3952805	8.878	-169.556	228.993	19.844	436.162	437.469	0.235	0.284	10.860	19.844	8.877
2023-07-23 10:15	3953705	8.894	-170.426	230.889	19.858	436.374	437.564	0.235	0.284	11.219	19.858	8.879
2023-07-23 10:30	3954605	8.907	-171.115	230.486	19.883	436.614	437.594	0.235	0.284	11.081	19.883	8.908
2023-07-23 10:45	3955505	8.920	-171.869	228.748	19.912	436.636	437.375	0.235	0.284	11.105	19.912	8.952
2023-07-23 11:00	3956405	8.925	-172.145	225.455	19.952	436.949	437.351	0.235	0.284	11.131	19.952	8.791
2023-07-23 11:15	3957305	8.911	-171.418	225.009	19.999	437.57	437.576	0.235	0.284	11.371	19.999	8.822
2023-07-23 11:30	3958205	8.909	-171.361	223.681	20.071	438.519	437.927	0.236	0.285	11.588	20.071	8.74
2023-07-23 11:45	3959105	8.899	-170.879	225.376	20.146	439.349	438.132	0.236	0.285	11.581	20.146	9.059
2023-07-23 12:00	3960005	8.895	-170.667	222.153	20.237	439.991	438.007	0.236	0.285	11.175	20.237	8.865
2023-07-23 12:15	3960905	8.884	-170.1	224.065	20.291	440.681	438.242	0.236	0.285	11.258	20.291	8.892
2023-07-23 12:30	3961805	8.898	-170.956	222.804	20.405	441.473	438.087	0.236	0.285	11.492	20.405	9.051
2023-07-23 12:45	3962705	8.924	-172.415	220.477	20.503	442.054	437.85	0.235	0.285	11.792	20.503	9.003
2023-07-23 13:00	3963605	8.930	-172.818	220.572	20.593	442.892	437.929	0.235	0.285	11.381	20.593	9.019
2023-07-23 13:15	3964505	8.905	-171.447	223.095	20.643	443.752	438.369	0.236	0.285	11.822	20.643	8.982
2023-07-23 13:30	3965405	8.903	-171.392	224.032	20.704	444.468	438.57	0.236	0.285	11.632	20.704	8.998
2023-07-23 13:45	3966305	8.914	-172.009	223.915	20.757	444.785	438.447	0.236	0.285	11.752	20.757	9.008
2023-07-23 14:00	3967205	8.899	-171.27	220.315	20.809	445.173	438.398	0.236	0.285	11.404	20.809	8.983
2023-07-23 14:15	3968105	8.897	-171.177	221.199	20.836	445.527	438.525	0.236	0.285	11.480	20.836	8.967
2023-07-23 14:30	3969005	8.948	-173.957	223.314	20.88	445.038	437.685	0.235	0.284	12.212	20.88	9.021
2023-07-23 14:45	3969905	8.935	-173.254	222.577	20.913	445.721	438.079	0.235	0.285	12.143	20.913	9.008
2023-07-23 15:00	3970805	8.937	-173.404	220.458	20.957	445.891	437.884	0.235	0.285	11.880	20.957	12.228
2023-07-23 15:15	3971705	8.993	-176.463	221.523	20.991	445.852	437.568	0.235	0.284	13.223	20.991	9.087
2023-07-23 15:30	3972605	***9.001***	-176.935	220.658	21.032	445.399	436.792	0.235	0.284	12.938	21.032	8.956
2023-07-23 15:45	3973505	***9.036***	-178.888	219.993	21.066	444.515	435.647	0.234	0.283	13.760	21.066	9.025
2023-07-23 16:00	3974405	***9.037***	-178.938	214.261	21.102	443.451	434.311	0.233	0.282	14.688	21.102	8.989
2023-07-23 16:15	3975305	***9.049***	-179.598	216.55	21.143	443.527	434.055	0.233	0.282	15.440	21.143	9.04
2023-07-23 16:30	3976205	***9.135***	-184.364	216.448	21.209	443.417	433.406	0.233	0.282	15.264	21.209	8.989
2023-07-23 16:45	3977105	***9.093***	-182.097	217.73	21.218	444.546	434.441	0.233	0.282	15.581	21.218	9.064
2023-07-23 17:00	3978005	***9.089***	-181.854	211.689	21.254	444.33	433.933	0.233	0.282	14.525	21.254	9.015
2023-07-23 17:15	3978905	***9.064***	-180.502	216.378	21.27	445.007	434.468	0.233	0.282	14.523	21.27	9.086
2023-07-23 17:30	3979805	***9.074***	-181.05	216.264	21.289	445.565	434.862	0.233	0.283	14.762	21.289	8.995
2023-07-23 17:45	3980705	***9.038***	-179.098	220.191	21.31	446.283	435.389	0.234	0.283	14.229	21.31	9.002

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-23 18:00	3981605	8.991	-176.544	220.584	21.315	446.967	436.012	0.234	0.283	13.374	21.315	8.951
2023-07-23 18:15	3982505	8.997	-176.873	223.81	21.315	447.911	436.939	0.234	0.284	14.055	21.315	8.993
2023-07-23 18:30	3983405	8.975	-175.684	224.735	21.328	448.893	437.789	0.235	0.285	13.061	21.328	8.989
2023-07-23 18:45	3984305	8.962	-175.004	226.99	21.35	448.729	437.447	0.235	0.284	12.854	21.35	8.908
2023-07-23 19:00	3985205	8.979	-175.953	225.136	21.378	448.529	437.026	0.235	0.284	12.913	21.378	9.304
2023-07-23 19:15	3986105	8.973	-175.617	227.51	21.38	448.54	437.017	0.235	0.284	13.519	21.38	8.904
2023-07-23 19:30	3987005	8.964	-175.111	228.457	21.378	448.147	436.652	0.234	0.284	14.179	21.378	8.975
2023-07-23 19:45	3987905	8.944	-174.022	228.917	21.371	447.9	436.473	0.234	0.284	14.080	21.371	8.97
2023-07-23 20:00	3988805	8.966	-175.235	226.208	21.368	447.542	436.143	0.234	0.283	13.386	21.368	8.886
2023-07-23 20:15	3989705	8.962	-174.987	229.987	21.362	447.883	436.528	0.234	0.284	13.451	21.362	8.88
2023-07-23 20:30	3990605	8.959	-174.859	231.497	21.359	447.696	436.372	0.234	0.284	13.288	21.359	8.851
2023-07-23 20:45	3991505	8.953	-174.501	231.48	21.35	448.035	436.775	0.234	0.284	13.245	21.35	8.901
2023-07-23 21:00	3992405	8.960	-174.913	230.266	21.348	448.112	436.867	0.234	0.284	12.766	21.348	8.924
2023-07-23 21:15	3993305	8.800	-166.123	237.376	21.33	448.85	437.734	0.235	0.285	12.620	21.33	8.884
2023-07-23 21:30	3994205	8.860	-169.375	234.005	21.302	448.77	437.879	0.235	0.285	12.261	21.302	8.871
2023-07-23 21:45	3995105	8.885	-170.779	233.235	21.303	448.769	437.87	0.235	0.285	12.598	21.303	8.839
2023-07-23 22:00	3996005	8.887	-170.889	231.508	21.306	448.032	437.132	0.235	0.284	12.324	21.306	8.863
2023-07-23 22:15	3996905	8.882	-170.593	234.942	21.304	448.534	437.633	0.235	0.284	12.559	21.304	8.855
2023-07-23 22:30	3997805	8.883	-170.674	236.773	21.304	448.621	437.722	0.235	0.285	12.373	21.304	8.84
2023-07-23 22:45	3998705	8.883	-170.662	237.817	21.301	448.776	437.898	0.235	0.285	12.327	21.301	8.751
2023-07-23 23:00	3999605	8.895	-171.311	235.974	21.303	448.729	437.831	0.235	0.285	11.978	21.303	8.792
2023-07-23 23:15	4000505	8.885	-170.741	237.629	21.298	449.129	438.267	0.235	0.285	12.066	21.298	8.821
2023-07-23 23:30	4001405	8.873	-170.074	238.346	21.283	449.274	438.525	0.235	0.285	12.492	21.283	8.951
2023-07-23 23:45	4002305	8.877	-170.314	236.696	21.249	448.566	438.111	0.235	0.285	12.572	21.249	9.249
2023-07-24 00:00	4003205	8.902	-171.642	232.522	21.201	447.038	437.01	0.235	0.284	12.313	21.201	8.956
2023-07-24 00:15	4004105	8.907	-171.857	232.376	21.156	446.312	436.671	0.234	0.284	12.360	21.156	8.914
2023-07-24 00:30	4005005	8.912	-172.105	231.53	21.106	445.927	436.699	0.234	0.284	12.042	21.106	8.884
2023-07-24 00:45	4005905	8.888	-170.77	233.394	21.072	445.809	436.864	0.235	0.284	12.052	21.072	8.881
2023-07-24 01:00	4006805	8.918	-172.4	232.679	21.042	445.53	436.833	0.235	0.284	11.827	21.042	8.978
2023-07-24 01:15	4007705	8.897	-171.23	234.591	21.005	445.79	437.394	0.235	0.284	12.393	21.005	8.827
2023-07-24 01:30	4008605	8.899	-171.359	235.929	20.97	445.438	437.338	0.235	0.284	12.049	20.97	8.76
2023-07-24 01:45	4009505	8.865	-169.485	237.807	20.931	445.385	437.606	0.235	0.284	11.788	20.931	10.352
2023-07-24 02:00	4010405	8.856	-168.958	236.63	20.886	444.983	437.582	0.235	0.284	10.775	20.886	8.7
2023-07-24 02:15	4011305	8.841	-168.121	238.778	20.847	444.646	437.567	0.235	0.284	10.647	20.847	8.675
2023-07-24 02:30	4012205	8.800	-165.82	241.324	20.803	445.015	438.29	0.235	0.285	10.401	20.803	8.795
2023-07-24 02:45	4013105	8.739	-162.475	243.487	20.765	445.494	439.081	0.236	0.285	9.636	20.765	8.67
2023-07-24 03:00	4014005	8.748	-162.947	241.422	20.731	445.093	438.962	0.236	0.285	9.294	20.731	8.75
2023-07-24 03:15	4014905	8.709	-160.813	244.273	20.691	445.461	439.656	0.236	0.286	9.128	20.691	8.661
2023-07-24 03:30	4015805	8.708	-160.747	244.114	20.648	445.117	439.673	0.236	0.286	9.269	20.648	9.271
2023-07-24 03:45	4016705	8.698	-160.189	244.981	20.608	444.974	439.863	0.236	0.286	9.432	20.608	8.592
2023-07-24 04:00	4017605	8.699	-160.208	243.305	20.569	444.191	439.412	0.236	0.286	9.035	20.569	10.241
2023-07-24 04:15	4018505	8.680	-159.183	245.029	20.541	443.728	439.19	0.236	0.285	9.325	20.541	13.57
2023-07-24 04:30	4019405	8.733	-162.048	245.539	20.516	443.525	439.194	0.236	0.285	9.531	20.516	12.25
2023-07-24 04:45	4020305	8.786	-164.909	244.776	20.486	443.666	439.59	0.236	0.286	9.247	20.486	13.586
2023-07-24 05:00	4021205	8.725	-161.574	242.788	20.448	443.272	439.514	0.236	0.286	8.643	20.448	17.326
2023-07-24 05:15	4022105	8.684	-159.29	242.864	20.411	443.186	439.735	0.236	0.286	9.009	20.411	15.204
2023-07-24 05:30	4023005	8.724	-161.445	242.066	20.379	442.831	439.651	0.236	0.286	9.224	20.379	28.491
2023-07-24 05:45	4023905	8.736	-162.129	243.007	20.357	442.804	439.807	0.236	0.286	8.960	20.357	9.142
2023-07-24 06:00	4024805	8.671	-158.579	242.49	20.335	443.816	440.994	0.237	0.287	7.982	20.335	8.935
2023-07-24 06:15	4025705	8.751	-162.909	244.097	20.312	443.594	440.97	0.237	0.287	8.142	20.312	10.188
2023-07-24 06:30	4026605	8.766	-163.71	242.542	20.293	442.938	440.476	0.237	0.286	8.456	20.293	9.311
2023-07-24 06:45	4027505	8.768	-163.794	242.042	20.273	442.932	440.635	0.237	0.286	8.098	20.273	9.124
2023-07-24 07:00	4028405	8.739	-162.234	241.701	20.249	441.734	439.645	0.236	0.286	8.634	20.249	9.951
2023-07-24 07:15	4029305	8.746	-162.563	243.21	20.236	441.356	439.377	0.236	0.286	8.572	20.236	9.746
2023-07-24 07:30	4030205	8.751	-162.845	243.985	20.22	440.777	438.93	0.236	0.285	8.899	20.22	9.186
2023-07-24 07:45	4031105	8.752	-162.914	244.781	20.204	440.665	438.958	0.236	0.285	8.859	20.204	9.565

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-24 08:00	4032005	8.734	-161.932	241.372	20.194	440.963	439.339	0.236	0.286	8.947	20.194	22
2023-07-24 08:15	4032905	8.810	-166.056	243.761	20.181	440.974	439.459	0.236	0.286	8.974	20.181	22.804
2023-07-24 08:30	4033805	8.816	-166.333	242.59	20.169	440.696	439.277	0.236	0.286	9.073	20.169	12.375
2023-07-24 08:45	4034705	8.814	-166.24	243.773	20.159	440.546	439.214	0.236	0.285	9.323	20.159	9.999
2023-07-24 09:00	4035605	8.804	-165.708	240.416	20.146	439.733	438.508	0.236	0.285	9.223	20.146	9.912
2023-07-24 09:15	4036505	8.810	-166.006	242.855	20.128	439.296	438.229	0.236	0.285	9.202	20.128	8.515
2023-07-24 09:30	4037405	8.821	-166.564	244.5	20.102	439.012	438.157	0.236	0.285	9.571	20.102	8.508
2023-07-24 09:45	4038305	8.840	-167.615	244.641	20.083	438.414	437.719	0.235	0.285	9.811	20.083	8.478
2023-07-24 10:00	4039205	8.834	-167.294	240.304	20.072	438.264	437.665	0.235	0.284	9.934	20.072	8.394
2023-07-24 10:15	4040105	8.881	-169.811	240.034	20.066	438.353	437.797	0.236	0.285	10.194	20.066	8.5
2023-07-24 10:30	4041005	8.885	-170.069	239.345	20.069	438.057	437.477	0.235	0.284	10.472	20.069	8.518
2023-07-24 10:45	4041905	8.886	-170.097	236.456	20.079	437.869	437.209	0.235	0.284	10.737	20.079	8.459
2023-07-24 11:00	4042805	8.910	-171.454	228.929	20.107	437.738	436.846	0.235	0.284	10.847	20.107	8.503
2023-07-24 11:15	4043705	8.911	-171.49	228.826	20.129	437.739	436.664	0.235	0.284	10.937	20.129	8.498
2023-07-24 11:30	4044605	8.915	-171.731	227.012	20.162	437.929	436.58	0.235	0.284	11.071	20.162	8.532
2023-07-24 11:45	4045505	8.921	-172.076	225.405	20.204	438.136	436.433	0.235	0.284	11.325	20.204	8.543
2023-07-24 12:00	4046405	8.920	-172.071	221.981	20.258	438.341	436.191	0.235	0.284	11.358	20.258	8.559
2023-07-24 12:15	4047305	8.928	-172.541	222.625	20.289	438.761	436.354	0.235	0.284	11.444	20.289	8.674
2023-07-24 12:30	4048205	8.935	-172.894	222.234	20.325	439.089	436.383	0.235	0.284	11.637	20.325	8.565
2023-07-24 12:45	4049105	8.927	-172.484	220.61	20.361	439.453	436.44	0.235	0.284	11.507	20.361	8.624
2023-07-24 13:00	4050005	8.955	-174.041	215.911	20.424	439.859	436.327	0.235	0.284	11.419	20.424	8.594
2023-07-24 13:15	4050905	8.949	-173.793	215.98	20.47	440.273	436.358	0.235	0.284	11.898	20.47	8.638
2023-07-24 13:30	4051805	8.940	-173.337	214.276	20.535	440.8	436.344	0.235	0.284	11.944	20.535	8.716
2023-07-24 13:45	4052705	8.963	-174.625	210.447	20.606	441.307	436.254	0.234	0.284	12.100	20.606	8.691
2023-07-24 14:00	4053605	8.965	-174.761	209.288	20.705	441.745	435.878	0.234	0.283	11.933	20.705	8.727
2023-07-24 14:15	4054505	8.969	-175.045	208.387	20.757	442.544	436.235	0.234	0.284	12.216	20.757	8.704
2023-07-24 14:30	4055405	8.949	-173.965	209.681	20.805	443.081	436.37	0.234	0.284	12.092	20.805	8.787
2023-07-24 14:45	4056305	8.930	-172.966	216.622	20.836	443.663	436.69	0.235	0.284	11.936	20.836	8.714
2023-07-24 15:00	4057205	8.942	-173.607	217.828	20.838	443.373	436.386	0.234	0.284	11.659	20.838	8.642
2023-07-24 15:15	4058105	8.709	-160.899	233.409	20.842	443.486	436.464	0.234	0.284	12.206	20.842	8.678
2023-07-24 15:30	4059005	8.881	-170.298	223.924	20.872	443.602	436.337	0.234	0.284	12.361	20.872	8.649
2023-07-24 15:45	4059905	8.928	-172.894	222.184	20.929	443.786	436.048	0.234	0.283	12.507	20.929	8.699
2023-07-24 16:00	4060805	8.940	-173.593	217.616	21.005	443.921	435.563	0.234	0.283	12.075	21.005	8.752
2023-07-24 16:15	4061705	8.947	-173.981	216.963	21.035	444.342	435.73	0.234	0.283	12.540	21.035	8.755
2023-07-24 16:30	4062605	8.937	-173.483	219.292	21.055	444.71	435.925	0.234	0.283	12.202	21.055	8.703
2023-07-24 16:45	4063505	8.927	-172.937	222.432	21.054	444.407	435.64	0.234	0.283	12.595	21.054	8.697
2023-07-24 17:00	4064405	8.960	-174.682	212.697	21.046	443.935	435.24	0.234	0.283	12.534	21.046	8.813
2023-07-24 17:15	4065305	8.935	-173.333	219.347	21.02	444.113	435.622	0.234	0.283	12.352	21.02	8.679
2023-07-24 17:30	4066205	8.915	-172.205	220.832	21.003	444.098	435.748	0.234	0.283	12.107	21.003	8.716
2023-07-24 17:45	4067105	8.903	-171.545	222.019	20.996	444.061	435.775	0.234	0.283	12.042	20.996	8.767
2023-07-24 18:00	4068005	8.914	-172.155	220.193	20.989	443.761	435.536	0.234	0.283	11.645	20.989	8.792
2023-07-24 18:15	4068905	8.899	-171.325	223.276	20.978	443.588	435.454	0.234	0.283	11.781	20.978	8.705
2023-07-24 18:30	4069805	8.889	-170.805	224.914	20.964	443.461	435.447	0.234	0.283	11.938	20.964	8.706
2023-07-24 18:45	4070705	8.888	-170.727	225.434	20.946	443.314	435.444	0.234	0.283	11.677	20.946	8.724
2023-07-24 19:00	4071605	8.915	-172.215	222.348	20.938	443.093	435.297	0.234	0.283	11.389	20.938	8.709
2023-07-24 19:15	4072505	8.888	-170.705	224.768	20.928	443.428	435.702	0.234	0.283	11.661	20.928	8.741
2023-07-24 19:30	4073405	8.885	-170.536	225.925	20.918	443.256	435.62	0.234	0.283	11.869	20.918	8.816
2023-07-24 19:45	4074305	8.888	-170.698	226.509	20.905	442.953	435.424	0.234	0.283	11.974	20.905	8.593
2023-07-24 20:00	4075205	8.899	-171.278	223.684	20.884	441.791	434.452	0.233	0.282	11.605	20.884	8.702
2023-07-24 20:15	4076105	8.905	-171.604	225.395	20.854	441.524	434.441	0.233	0.282	12.016	20.854	8.704
2023-07-24 20:30	4077005	8.916	-172.179	224.616	20.82	440.998	434.193	0.233	0.282	11.809	20.82	8.624
2023-07-24 20:45	4077905	8.926	-172.708	224.239	20.789	440.555	434.017	0.233	0.282	11.912	20.789	8.767
2023-07-24 21:00	4078805	8.948	-173.874	223.133	20.766	440.234	433.886	0.233	0.282	11.727	20.766	8.59
2023-07-24 21:15	4079705	8.932	-173.018	223.965	20.751	440.553	434.325	0.233	0.282	11.814	20.751	8.629
2023-07-24 21:30	4080605	8.927	-172.694	226.125	20.726	440.421	434.399	0.233	0.282	11.676	20.726	8.606
2023-07-24 21:45	4081505	8.914	-171.983	227.424	20.693	440.232	434.477	0.233	0.282	11.632	20.693	8.656

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-24 22:00	4082405	8.919	-172.25	226.49	20.669	439.347	433.806	0.233	0.282	11.362	20.669	8.615
2023-07-24 22:15	4083305	8.923	-172.474	227.229	20.633	438.922	433.683	0.233	0.282	11.792	20.633	8.551
2023-07-24 22:30	4084205	8.910	-171.745	227.536	20.607	438.917	433.884	0.233	0.282	11.873	20.607	8.508
2023-07-24 22:45	4085105	8.891	-170.677	228.709	20.578	438.919	434.127	0.233	0.282	11.588	20.578	8.518
2023-07-24 23:00	4086005	8.923	-172.4	225.817	20.548	438.696	434.151	0.233	0.282	11.219	20.548	8.526
2023-07-24 23:15	4086905	8.886	-170.355	228.049	20.509	438.831	434.606	0.234	0.282	11.237	20.509	8.505
2023-07-24 23:30	4087805	8.887	-170.393	229.098	20.475	438.611	434.666	0.234	0.283	11.263	20.475	8.495
2023-07-24 23:45	4088705	8.883	-170.181	230.14	20.444	438.362	434.672	0.234	0.283	11.075	20.444	8.547
2023-07-25 00:00	4089605	8.882	-170.062	229.253	20.412	438.057	434.639	0.234	0.283	10.733	20.412	8.461
2023-07-25 00:15	4090505	8.818	-166.562	234.3	20.376	439.016	435.887	0.234	0.283	10.298	20.376	8.485
2023-07-25 00:30	4091405	8.817	-166.531	236.541	20.343	439.198	436.336	0.235	0.284	9.547	20.343	8.416
2023-07-25 00:45	4092305	8.825	-166.919	238.539	20.309	439.47	436.891	0.235	0.284	9.011	20.309	8.459
2023-07-25 01:00	4093205	8.757	-163.183	235.483	20.28	439.788	437.448	0.235	0.284	8.388	20.28	8.476
2023-07-25 01:15	4094105	8.746	-162.59	237.14	20.243	438.994	436.962	0.235	0.284	8.395	20.243	8.411
2023-07-25 01:30	4095005	8.750	-162.807	237.068	20.209	438.62	436.872	0.235	0.284	8.438	20.209	8.389
2023-07-25 01:45	4095905	8.763	-163.462	238.477	20.176	438.121	436.656	0.235	0.284	8.350	20.176	8.408
2023-07-25 02:00	4096805	8.730	-161.643	234.608	20.152	438.031	436.763	0.235	0.284	8.337	20.152	8.496
2023-07-25 02:15	4097705	8.780	-164.373	237.974	20.128	438.056	436.984	0.235	0.284	8.833	20.128	8.483
2023-07-25 02:30	4098605	8.776	-164.17	237.776	20.107	437.76	436.864	0.235	0.284	8.682	20.107	8.403
2023-07-25 02:45	4099505	8.768	-163.705	236.665	20.091	437.548	436.79	0.235	0.284	8.863	20.091	8.34
2023-07-25 03:00	4100405	8.772	-163.887	234.901	20.077	436.977	436.334	0.235	0.284	8.913	20.077	8.362
2023-07-25 03:15	4101305	8.779	-164.27	236.401	20.06	436.532	436.03	0.235	0.283	8.795	20.06	8.295
2023-07-25 03:30	4102205	8.778	-164.199	238.494	20.044	436.482	436.119	0.235	0.283	8.989	20.044	8.345
2023-07-25 03:45	4103105	8.793	-165.043	239.267	20.028	436.273	436.036	0.235	0.283	8.981	20.028	8.347
2023-07-25 04:00	4104005	8.757	-163.071	234.353	20.012	436.485	436.384	0.235	0.284	8.709	20.012	8.318
2023-07-25 04:15	4104905	8.803	-165.532	235.125	19.992	436.618	436.681	0.235	0.284	9.006	19.992	8.4
2023-07-25 04:30	4105805	8.774	-163.937	237.855	19.968	437.497	437.766	0.236	0.285	8.517	19.968	8.399
2023-07-25 04:45	4106705	8.765	-163.476	239.767	19.941	438.297	438.794	0.236	0.285	7.922	19.941	8.414
2023-07-25 05:00	4107605	8.689	-159.328	241.794	19.902	437.464	438.285	0.236	0.285	7.378	19.902	8.408
2023-07-25 05:15	4108505	8.613	-155.132	249.936	19.868	436.105	437.211	0.235	0.284	7.174	19.868	8.345
2023-07-25 05:30	4109405	8.721	-160.978	243.537	19.829	435.281	436.704	0.235	0.284	7.635	19.829	8.332
2023-07-25 05:45	4110305	8.703	-159.981	243.737	19.796	435.121	436.824	0.235	0.284	7.733	19.796	8.336
2023-07-25 06:00	4111205	8.668	-158.088	241.956	19.771	435.051	436.966	0.235	0.284	8.228	19.771	8.303
2023-07-25 06:15	4112105	8.705	-160.086	243.088	19.745	435.062	437.192	0.235	0.284	8.236	19.745	8.278
2023-07-25 06:30	4113005	8.707	-160.162	243.94	19.731	434.909	437.151	0.235	0.284	8.072	19.731	8.252
2023-07-25 06:45	4113905	8.715	-160.599	241.029	19.711	434.335	436.747	0.235	0.284	8.419	19.711	8.306
2023-07-25 07:00	4114805	8.756	-162.842	235.666	19.692	433.537	436.098	0.235	0.283	8.434	19.692	8.291
2023-07-25 07:15	4115705	8.757	-162.885	232.968	19.68	432.785	435.444	0.234	0.283	8.943	19.68	8.225
2023-07-25 07:30	4116605	8.819	-166.225	232.259	19.679	432.628	435.301	0.234	0.283	9.283	19.679	8.334
2023-07-25 07:45	4117505	8.824	-166.528	232.941	19.681	432.598	435.246	0.234	0.283	9.509	19.681	8.266
2023-07-25 08:00	4118405	8.808	-165.672	233.497	19.696	432.917	435.442	0.234	0.283	9.376	19.696	8.32
2023-07-25 08:15	4119305	8.845	-167.675	236.448	19.702	433.129	435.609	0.234	0.283	9.791	19.702	8.273
2023-07-25 08:30	4120205	8.833	-166.996	238.034	19.709	433.298	435.723	0.235	0.283	9.658	19.709	8.327
2023-07-25 08:45	4121105	8.812	-165.892	239.55	19.705	433.435	435.891	0.235	0.283	9.236	19.705	8.384
2023-07-25 09:00	4122005	8.791	-164.723	240.337	19.696	433.564	436.098	0.235	0.283	8.989	19.696	8.314
2023-07-25 09:15	4122905	8.735	-161.693	243.77	19.67	433.262	436.009	0.235	0.283	8.909	19.67	8.278
2023-07-25 09:30	4123805	8.716	-160.651	245.79	19.648	433.323	436.253	0.235	0.284	8.926	19.648	8.263
2023-07-25 09:45	4124705	8.779	-164.063	247.814	19.619	432.749	435.92	0.235	0.283	8.568	19.619	8.279
2023-07-25 10:00	4125605	8.688	-159.063	244.581	19.582	433.096	436.581	0.235	0.284	8.589	19.582	8.217
2023-07-25 10:15	4126505	8.783	-164.189	243.217	19.543	433.436	437.255	0.235	0.284	8.255	19.543	8.24
2023-07-25 10:30	4127405	8.739	-161.829	246.4	19.526	432.997	436.956	0.235	0.284	8.100	19.526	8.201
2023-07-25 10:45	4128305	8.654	-157.185	248	19.518	432.736	436.755	0.235	0.284	8.034	19.518	8.242
2023-07-25 11:00	4129205	8.677	-158.429	243.131	19.525	432.729	436.688	0.235	0.284	8.102	19.525	8.248
2023-07-25 11:15	4130105	8.669	-158	242.693	19.524	432.545	436.515	0.235	0.284	8.379	19.524	8.154
2023-07-25 11:30	4131005	8.689	-159.087	240.542	19.525	432.138	436.091	0.235	0.283	8.505	19.525	8.273
2023-07-25 11:45	4131905	8.638	-156.326	240.177	19.525	432.159	436.12	0.235	0.283	8.411	19.525	8.197

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-25 12:00	4132805	8.518	-149.81	245.065	19.529	432.215	436.14	0.235	0.283	8.391	19.529	8.193
2023-07-25 12:15	4133705	8.673	-158.255	238.618	19.521	432.049	436.039	0.235	0.283	8.541	19.521	8.253
2023-07-25 12:30	4134605	8.723	-160.923	233.943	19.523	431.713	435.686	0.235	0.283	8.803	19.523	8.216
2023-07-25 12:45	4135505	8.728	-161.24	232.77	19.523	431.458	435.428	0.234	0.283	9.088	19.523	8.196
2023-07-25 13:00	4136405	8.758	-162.868	230.679	19.529	431.026	434.941	0.234	0.283	9.225	19.529	8.287
2023-07-25 13:15	4137305	8.769	-163.465	233.459	19.526	430.74	434.676	0.234	0.283	9.068	19.526	8.324
2023-07-25 13:30	4138205	8.790	-164.573	234.756	19.518	430.382	434.383	0.234	0.282	9.142	19.518	8.309
2023-07-25 13:45	4139105	8.751	-162.423	237.309	19.496	430.212	434.397	0.234	0.282	9.263	19.496	8.301
2023-07-25 14:00	4140005	8.790	-164.528	234.534	19.468	428.97	433.373	0.233	0.282	10.021	19.468	8.235
2023-07-25 14:15	4140905	8.837	-167.1	235.182	19.429	427.794	432.512	0.233	0.281	10.225	19.429	8.241
2023-07-25 14:30	4141805	8.879	-169.33	234.961	19.398	427.546	432.521	0.233	0.281	10.298	19.398	8.221
2023-07-25 14:45	4142705	8.820	-166.092	237.426	19.358	427.381	432.689	0.233	0.281	9.826	19.358	8.23
2023-07-25 15:00	4143605	8.843	-167.32	232.913	19.319	426.728	432.348	0.233	0.281	9.821	19.319	8.235
2023-07-25 15:15	4144505	8.819	-166.008	234.389	19.29	426.79	432.657	0.233	0.281	10.094	19.29	8.172
2023-07-25 15:30	4145405	8.823	-166.216	235.452	19.257	426.376	432.514	0.233	0.281	10.134	19.257	8.286
2023-07-25 15:45	4146305	8.838	-166.988	235.628	19.224	425.856	432.259	0.233	0.281	10.226	19.224	8.164
2023-07-25 16:00	4147205	8.825	-166.302	233.916	19.196	424.618	431.241	0.232	0.280	10.235	19.196	8.159
2023-07-25 16:15	4148105	8.809	-165.381	236.329	19.153	424.225	431.199	0.232	0.280	10.282	19.153	8.142
2023-07-25 16:30	4149005	8.839	-167.024	238.454	19.107	423.661	431.016	0.232	0.280	9.943	19.107	8.148
2023-07-25 16:45	4149905	8.845	-167.308	238.227	19.077	423.136	430.727	0.232	0.280	10.227	19.077	8.249
2023-07-25 17:00	4150805	8.867	-168.467	229.274	19.052	422.41	430.198	0.232	0.280	10.253	19.052	8.125
2023-07-25 17:15	4151705	8.846	-167.353	230.679	19.02	422.233	430.289	0.232	0.280	10.035	19.02	8.095
2023-07-25 17:30	4152605	8.833	-166.628	232.193	18.994	422.035	430.304	0.232	0.280	10.068	18.994	8.131
2023-07-25 17:45	4153505	8.841	-167.053	231.47	18.973	421.441	429.876	0.232	0.279	10.017	18.973	8.124
2023-07-25 18:00	4154405	8.844	-167.165	229.875	18.959	421.058	429.598	0.231	0.279	10.157	18.959	8.123
2023-07-25 18:15	4155305	8.844	-167.174	231.868	18.944	420.885	429.545	0.231	0.279	10.115	18.944	8.196
2023-07-25 18:30	4156205	8.850	-167.477	232.016	18.93	420.856	429.635	0.231	0.279	10.088	18.93	8.123
2023-07-25 18:45	4157105	8.863	-168.211	232.214	18.918	420.742	429.62	0.231	0.279	10.021	18.918	8.137
2023-07-25 19:00	4158005	8.857	-167.885	230.815	18.909	420.655	429.603	0.231	0.279	10.054	18.909	8.099
2023-07-25 19:15	4158905	8.847	-167.308	233.688	18.893	420.855	429.942	0.232	0.279	9.709	18.893	8.087
2023-07-25 19:30	4159805	8.855	-167.72	236.594	18.878	420.919	430.138	0.232	0.280	9.517	18.878	8.111
2023-07-25 19:45	4160705	8.847	-167.315	238.218	18.859	420.891	430.271	0.232	0.280	9.594	18.859	8.032
2023-07-25 20:00	4161605	8.811	-165.324	236.756	18.836	420.719	430.286	0.232	0.280	9.650	18.836	8.073
2023-07-25 20:15	4162505	8.846	-167.189	238.339	18.814	420.524	430.267	0.232	0.280	9.497	18.814	8.062
2023-07-25 20:30	4163405	8.838	-166.748	239.526	18.792	420.594	430.525	0.232	0.280	9.339	18.792	8.056
2023-07-25 20:45	4164305	8.827	-166.178	238.556	18.769	420.661	430.789	0.232	0.280	9.284	18.769	8.115
2023-07-25 21:00	4165205	8.804	-164.881	236.351	18.75	420.832	431.124	0.232	0.280	9.260	18.75	8.065
2023-07-25 21:15	4166105	8.805	-164.933	238.43	18.72	420.948	431.501	0.233	0.280	9.238	18.72	8.093
2023-07-25 21:30	4167005	8.797	-164.483	239.956	18.686	420.796	431.626	0.233	0.281	8.811	18.686	8.106
2023-07-25 21:45	4167905	8.795	-164.34	240.528	18.646	420.63	431.799	0.233	0.281	8.607	18.646	8.006
2023-07-25 22:00	4168805	8.759	-162.413	237.843	18.608	420.436	431.92	0.233	0.281	8.847	18.608	7.956
2023-07-25 22:15	4169705	8.785	-163.784	237.123	18.569	420.196	432.002	0.233	0.281	8.582	18.569	8.013
2023-07-25 22:30	4170605	8.773	-163.1	239.736	18.53	419.854	431.985	0.233	0.281	8.942	18.53	7.892
2023-07-25 22:45	4171505	8.754	-162.075	240.602	18.499	419.726	432.115	0.233	0.281	8.502	18.499	7.923
2023-07-25 23:00	4172405	8.725	-160.453	240.814	18.468	419.7	432.348	0.233	0.281	8.689	18.468	7.917
2023-07-25 23:15	4173305	8.733	-160.871	241.007	18.428	419.191	432.169	0.233	0.281	8.441	18.428	7.971
2023-07-25 23:30	4174205	8.733	-160.83	243.026	18.382	418.916	432.274	0.233	0.281	8.424	18.382	7.967
2023-07-25 23:45	4175105	8.727	-160.494	245.206	18.334	418.559	432.313	0.233	0.281	8.469	18.334	7.98
2023-07-26 00:00	4176005	8.722	-160.229	244.619	18.285	418.067	432.226	0.233	0.281	8.385	18.285	7.954
2023-07-26 00:15	4176905	8.718	-159.967	246.295	18.239	417.762	432.303	0.233	0.281	8.694	18.239	7.939
2023-07-26 00:30	4177805	8.713	-159.655	248.603	18.203	417.449	432.285	0.233	0.281	8.667	18.203	7.829
2023-07-26 00:45	4178705	8.712	-159.609	248.639	18.171	417.23	432.333	0.233	0.281	8.745	18.171	7.883
2023-07-26 01:00	4179605	8.704	-159.18	248.591	18.141	417.16	432.522	0.233	0.281	8.517	18.141	7.91
2023-07-26 01:15	4180505	8.703	-159.104	248.82	18.111	416.945	432.553	0.233	0.281	8.354	18.111	7.847
2023-07-26 01:30	4181405	8.701	-158.949	250.096	18.08	416.721	432.585	0.233	0.281	8.377	18.08	7.807
2023-07-26 01:45	4182305	8.697	-158.727	249.831	18.049	416.505	432.626	0.233	0.281	8.376	18.049	7.736

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-26 02:00	4183205	8.688	-158.207	248.427	18.028	416.356	432.65	0.233	0.281	8.262	18.028	8.071
2023-07-26 02:15	4184105	8.679	-157.757	251.061	18.001	416.23	432.752	0.234	0.281	8.381	18.001	14.809
2023-07-26 02:30	4185005	8.672	-157.313	253.345	17.964	416.066	432.898	0.234	0.281	8.129	17.964	8.977
2023-07-26 02:45	4185905	8.673	-157.375	254.239	17.946	415.939	432.924	0.234	0.281	8.184	17.946	8.21
2023-07-26 03:00	4186805	8.661	-156.72	254.022	17.922	415.813	432.997	0.234	0.281	8.091	17.922	8.243
2023-07-26 03:15	4187705	8.653	-156.262	254.218	17.894	415.576	432.991	0.234	0.281	8.085	17.894	8.352
2023-07-26 03:30	4188605	8.647	-155.907	255.911	17.852	415.321	433.09	0.234	0.282	7.695	17.852	8.233
2023-07-26 03:45	4189505	8.650	-156.088	255.946	17.82	414.903	432.928	0.234	0.281	7.798	17.82	8.311
2023-07-26 04:00	4190405	8.640	-155.52	253.767	17.787	414.478	432.769	0.234	0.281	7.884	17.787	7.843
2023-07-26 04:15	4191305	8.656	-156.345	255.949	17.751	414.107	432.692	0.234	0.281	7.871	17.751	7.823
2023-07-26 04:30	4192205	8.650	-156.026	256.252	17.726	413.864	432.655	0.234	0.281	7.951	17.726	7.838
2023-07-26 04:45	4193105	8.640	-155.492	256.387	17.706	413.836	432.802	0.234	0.281	7.678	17.706	7.871
2023-07-26 05:00	4194005	8.633	-155.101	255.11	17.683	413.82	432.977	0.234	0.281	7.805	17.683	7.764
2023-07-26 05:15	4194905	8.628	-154.798	254.995	17.67	413.674	432.941	0.234	0.281	7.568	17.67	7.76
2023-07-26 05:30	4195805	8.622	-154.476	254.473	17.655	413.545	432.935	0.234	0.281	7.661	17.655	7.81
2023-07-26 05:45	4196705	8.624	-154.593	253.953	17.635	413.326	432.884	0.234	0.281	7.525	17.635	7.74
2023-07-26 06:00	4197605	8.615	-154.088	252.082	17.617	413.177	432.884	0.234	0.281	7.547	17.617	7.706
2023-07-26 06:15	4198505	8.600	-153.234	255.527	17.59	412.957	432.886	0.234	0.281	7.620	17.59	7.721
2023-07-26 06:30	4199405	8.603	-153.403	258.428	17.563	412.8	432.956	0.234	0.281	7.461	17.563	7.751
2023-07-26 06:45	4200305	8.596	-152.984	259.799	17.538	412.601	432.963	0.234	0.281	7.601	17.538	7.763
2023-07-26 07:00	4201205	8.605	-153.487	257.909	17.518	412.403	432.931	0.234	0.281	7.246	17.518	7.872
2023-07-26 07:15	4202105	8.606	-153.542	259.184	17.492	412.159	432.896	0.234	0.281	7.369	17.492	7.965
2023-07-26 07:30	4203005	8.616	-154.061	258.977	17.461	411.814	432.807	0.234	0.281	7.512	17.461	7.902
2023-07-26 07:45	4203905	8.619	-154.2	258.946	17.44	411.535	432.693	0.234	0.281	7.654	17.44	7.823
2023-07-26 08:00	4204805	8.632	-154.872	256.757	17.426	411.194	432.458	0.234	0.281	7.567	17.426	8.13
2023-07-26 08:15	4205705	8.618	-154.102	257.949	17.408	411.065	432.474	0.234	0.281	7.802	17.408	8.141
2023-07-26 08:30	4206605	8.615	-153.978	259.771	17.402	411.051	432.509	0.234	0.281	7.818	17.402	8.079
2023-07-26 08:45	4207505	8.629	-154.731	260.221	17.393	410.957	432.495	0.234	0.281	7.800	17.393	8.034
2023-07-26 09:00	4208405	8.633	-154.901	258.021	17.386	410.899	432.492	0.234	0.281	7.821	17.386	7.956
2023-07-26 09:15	4209305	8.611	-153.718	258.23	17.376	410.903	432.583	0.234	0.281	7.995	17.376	7.793
2023-07-26 09:30	4210205	8.616	-153.995	257.868	17.373	410.935	432.64	0.234	0.281	7.826	17.373	7.909
2023-07-26 09:45	4211105	8.612	-153.775	258.545	17.376	410.935	432.621	0.234	0.281	7.783	17.376	7.76
2023-07-26 10:00	4212005	8.635	-155.013	257.155	17.376	410.748	432.419	0.234	0.281	7.870	17.376	7.795
2023-07-26 10:15	4212905	8.620	-154.214	257.973	17.376	410.827	432.502	0.234	0.281	7.934	17.376	7.82
2023-07-26 10:30	4213805	8.622	-154.309	258.381	17.377	410.953	432.626	0.234	0.281	7.971	17.377	7.792
2023-07-26 10:45	4214705	8.641	-155.334	258.211	17.382	411.02	432.654	0.234	0.281	8.029	17.382	7.823
2023-07-26 11:00	4215605	8.667	-156.767	255.722	17.393	410.802	432.331	0.234	0.281	7.830	17.393	7.778
2023-07-26 11:15	4216505	8.657	-156.217	256.156	17.398	410.903	432.392	0.234	0.281	8.323	17.398	7.856
2023-07-26 11:30	4217405	8.663	-156.529	255.341	17.399	410.852	432.333	0.234	0.281	8.469	17.399	7.769
2023-07-26 11:45	4218305	8.680	-157.466	254.769	17.398	410.772	432.251	0.234	0.281	8.434	17.398	7.711
2023-07-26 12:00	4219205	8.700	-158.548	251.989	17.405	410.391	431.789	0.233	0.281	8.582	17.405	7.815
2023-07-26 12:15	4220105	8.723	-159.795	250.41	17.416	410.388	431.698	0.233	0.281	8.879	17.416	7.739
2023-07-26 12:30	4221005	8.726	-159.936	249.058	17.435	410.515	431.666	0.233	0.281	9.028	17.435	7.724
2023-07-26 12:45	4221905	8.732	-160.291	248.744	17.461	410.621	431.547	0.233	0.281	9.065	17.461	7.771
2023-07-26 13:00	4222805	8.764	-162.051	245.43	17.493	410.762	431.421	0.233	0.280	9.314	17.493	7.804
2023-07-26 13:15	4223705	8.765	-162.084	246.035	17.507	411.015	431.569	0.233	0.281	9.254	17.507	7.811
2023-07-26 13:30	4224605	8.770	-162.377	245.93	17.517	410.992	431.451	0.233	0.280	9.228	17.517	7.774
2023-07-26 13:45	4225505	8.773	-162.566	245.759	17.526	410.965	431.348	0.233	0.280	9.369	17.526	7.808
2023-07-26 14:00	4226405	8.780	-162.947	244.092	17.538	411.042	431.328	0.233	0.280	9.394	17.538	8.077
2023-07-26 14:15	4227305	8.761	-161.889	246.267	17.539	411.064	431.335	0.233	0.280	9.490	17.539	8.081
2023-07-26 14:30	4228205	8.754	-161.51	248.784	17.547	411.19	431.404	0.233	0.280	9.334	17.547	8.078
2023-07-26 14:45	4229105	8.753	-161.457	250.522	17.552	411.396	431.575	0.233	0.281	9.347	17.552	8.066
2023-07-26 15:00	4230005	8.758	-161.772	249.275	17.563	411.697	431.792	0.233	0.281	9.096	17.563	7.694
2023-07-26 15:15	4230905	8.750	-161.326	249.6	17.566	411.914	432	0.233	0.281	9.219	17.566	7.594
2023-07-26 15:30	4231805	8.743	-160.959	250.003	17.57	411.905	431.953	0.233	0.281	9.019	17.57	7.624
2023-07-26 15:45	4232705	8.738	-160.699	250.198	17.567	411.956	432.033	0.233	0.281	9.038	17.567	7.707

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-26 16:00	4233605	8.743	-160.949	247.812	17.567	411.83	431.902	0.233	0.281	9.201	17.567	7.717
2023-07-26 16:15	4234505	8.752	-161.417	245.165	17.565	411.777	431.862	0.233	0.281	9.280	17.565	7.627
2023-07-26 16:30	4235405	8.744	-160.995	245.029	17.566	411.857	431.933	0.233	0.281	9.141	17.566	7.698
2023-07-26 16:45	4236305	8.726	-160.036	246.686	17.566	412.128	432.222	0.233	0.281	9.049	17.566	7.738
2023-07-26 17:00	4237205	8.731	-160.289	247.671	17.559	412.031	432.184	0.233	0.281	8.852	17.559	7.782
2023-07-26 17:15	4238105	8.718	-159.564	248.019	17.549	412.235	432.477	0.234	0.281	8.813	17.549	7.749
2023-07-26 17:30	4239005	8.714	-159.349	248.198	17.546	412.122	432.391	0.234	0.281	8.575	17.546	7.684
2023-07-26 17:45	4239905	8.717	-159.533	246.875	17.551	412.233	432.459	0.234	0.281	8.828	17.551	7.729
2023-07-26 18:00	4240805	8.712	-159.259	243.437	17.56	412.172	432.323	0.234	0.281	9.040	17.56	7.834
2023-07-26 18:15	4241705	8.711	-159.197	243.119	17.567	412.344	432.436	0.234	0.281	9.016	17.567	7.755
2023-07-26 18:30	4242605	8.689	-158.024	247.032	17.555	412.017	432.199	0.233	0.281	8.812	17.555	7.758
2023-07-26 18:45	4243505	8.687	-157.936	246.057	17.543	411.897	432.18	0.233	0.281	9.028	17.543	7.787
2023-07-26 19:00	4244405	8.729	-160.198	239.772	17.538	411.78	432.097	0.233	0.281	9.191	17.538	7.737
2023-07-26 19:15	4245305	8.744	-160.973	240.735	17.542	411.921	432.213	0.233	0.281	9.159	17.542	7.72
2023-07-26 19:30	4246205	8.742	-160.88	240.804	17.541	411.88	432.18	0.233	0.281	8.931	17.541	7.716
2023-07-26 19:45	4247105	8.736	-160.537	241.67	17.537	411.93	432.263	0.233	0.281	9.065	17.537	7.847
2023-07-26 20:00	4248005	8.743	-160.937	240.874	17.537	411.705	432.033	0.233	0.281	9.044	17.537	7.735
2023-07-26 20:15	4248905	8.728	-160.108	242.719	17.539	411.641	431.948	0.233	0.281	9.262	17.539	7.755
2023-07-26 20:30	4249805	8.711	-159.206	244.672	17.541	411.818	432.116	0.233	0.281	9.246	17.541	7.766
2023-07-26 20:45	4250705	8.709	-159.075	248.334	17.536	411.808	432.146	0.233	0.281	9.095	17.536	7.755
2023-07-26 21:00	4251605	8.730	-160.21	246.395	17.526	411.708	432.131	0.233	0.281	9.121	17.526	7.758
2023-07-26 21:15	4252505	8.724	-159.895	244.903	17.515	411.997	432.523	0.234	0.281	9.013	17.515	7.75
2023-07-26 21:30	4253405	8.722	-159.76	246.007	17.509	411.885	432.464	0.234	0.281	9.031	17.509	7.706
2023-07-26 21:45	4254305	8.720	-159.645	245.933	17.504	411.853	432.471	0.234	0.281	8.900	17.504	7.732
2023-07-26 22:00	4255205	8.695	-158.315	246.247	17.499	411.922	432.587	0.234	0.281	8.794	17.499	7.649
2023-07-26 22:15	4256105	8.677	-157.363	248.038	17.49	411.886	432.629	0.234	0.281	8.687	17.49	7.658
2023-07-26 22:30	4257005	8.682	-157.602	249.616	17.477	411.946	432.803	0.234	0.281	8.724	17.477	7.644
2023-07-26 22:45	4257905	8.663	-156.584	250.577	17.462	411.811	432.79	0.234	0.281	8.506	17.462	7.708
2023-07-26 23:00	4258805	8.665	-156.667	249.9	17.444	410.994	432.091	0.233	0.281	8.249	17.444	7.688
2023-07-26 23:15	4259705	8.641	-155.389	250.158	17.422	410.966	432.246	0.234	0.281	8.239	17.422	7.807
2023-07-26 23:30	4260605	8.634	-154.998	250.921	17.404	410.582	431.999	0.233	0.281	8.148	17.404	7.678
2023-07-26 23:45	4261505	8.615	-153.949	252.558	17.39	410.241	431.764	0.233	0.281	8.023	17.39	7.733
2023-07-27 00:00	4262405	8.596	-152.898	251.326	17.379	409.171	430.735	0.233	0.280	7.879	17.379	7.67
2023-07-27 00:15	4263305	8.596	-152.905	253.419	17.359	408.54	430.244	0.232	0.280	7.927	17.359	7.81
2023-07-27 00:30	4264205	8.598	-153	251.865	17.34	408.062	429.905	0.232	0.279	7.854	17.34	7.714
2023-07-27 00:45	4265105	8.588	-152.478	251.357	17.329	407.813	429.739	0.232	0.279	7.937	17.329	7.748
2023-07-27 01:00	4266005	8.576	-151.811	249.733	17.319	408.459	430.503	0.233	0.280	7.679	17.319	7.764
2023-07-27 01:15	4266905	8.545	-150.158	252.904	17.307	408.207	430.346	0.233	0.280	7.489	17.307	7.716
2023-07-27 01:30	4267805	8.538	-149.779	255.374	17.295	408.258	430.503	0.233	0.280	7.306	17.295	7.683
2023-07-27 01:45	4268705	8.527	-149.152	256.519	17.284	408.059	430.386	0.233	0.280	7.422	17.284	7.717
2023-07-27 02:00	4269605	8.518	-148.652	256.094	17.274	407.632	430.018	0.232	0.280	7.246	17.274	7.709
2023-07-27 02:15	4270505	8.524	-148.983	257.673	17.265	407.183	429.628	0.232	0.279	7.365	17.265	7.709
2023-07-27 02:30	4271405	8.525	-149.014	256.769	17.255	406.914	429.43	0.232	0.279	7.327	17.255	7.665
2023-07-27 02:45	4272305	8.520	-148.752	256.867	17.248	406.961	429.538	0.232	0.279	7.323	17.248	7.65
2023-07-27 03:00	4273205	8.526	-149.064	256.952	17.241	407.096	429.744	0.232	0.279	7.237	17.241	7.61
2023-07-27 03:15	4274105	8.502	-147.81	258.97	17.234	407.265	429.984	0.232	0.279	7.181	17.234	7.639
2023-07-27 03:30	4275005	8.491	-147.214	260.638	17.231	407.177	429.917	0.232	0.279	7.264	17.231	7.672
2023-07-27 03:45	4275905	8.491	-147.183	260.646	17.227	407.048	429.812	0.232	0.279	6.944	17.227	7.608
2023-07-27 04:00	4276805	8.485	-146.878	260.412	17.223	406.881	429.674	0.232	0.279	7.086	17.223	7.609
2023-07-27 04:15	4277705	8.471	-146.127	262.226	17.216	406.948	429.799	0.232	0.279	7.277	17.216	7.658
2023-07-27 04:30	4278605	8.473	-146.22	263.693	17.21	406.956	429.863	0.232	0.279	7.139	17.21	7.684
2023-07-27 04:45	4279505	8.483	-146.77	263.237	17.198	406.975	429.984	0.232	0.279	7.072	17.198	7.681
2023-07-27 05:00	4280405	8.502	-147.738	260.739	17.191	406.971	430.044	0.232	0.280	7.179	17.191	7.623
2023-07-27 05:15	4281305	8.500	-147.657	260.202	17.173	406.928	430.151	0.232	0.280	7.512	17.173	7.655
2023-07-27 05:30	4282205	8.495	-147.371	261.814	17.154	406.938	430.332	0.233	0.280	7.376	17.154	7.652
2023-07-27 05:45	4283105	8.485	-146.832	263.831	17.136	406.833	430.378	0.233	0.280	7.397	17.136	7.634

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-27 06:00	4284005	8.445	-144.649	265.011	17.117	407.149	430.871	0.233	0.280	6.852	17.117	7.596
2023-07-27 06:15	4284905	8.423	-143.445	268.037	17.097	407.047	430.94	0.233	0.280	6.751	17.097	7.575
2023-07-27 06:30	4285805	8.412	-142.856	268.494	17.085	406.911	430.904	0.233	0.280	6.695	17.085	7.69
2023-07-27 06:45	4286705	8.415	-143.034	268.904	17.074	406.833	430.914	0.233	0.280	6.739	17.074	7.606
2023-07-27 07:00	4287605	8.439	-144.329	266.685	17.068	406.775	430.909	0.233	0.280	6.828	17.068	7.565
2023-07-27 07:15	4288505	8.427	-143.683	267.271	17.062	406.853	431.042	0.233	0.280	***6.491***	17.062	7.633
2023-07-27 07:30	4289405	8.427	-143.647	268.749	17.056	406.886	431.124	0.233	0.280	6.649	17.056	7.561
2023-07-27 07:45	4290305	8.424	-143.476	268.769	17.059	406.912	431.129	0.233	0.280	6.591	17.059	7.53
2023-07-27 08:00	4291205	8.445	-144.62	266.613	17.072	406.673	430.762	0.233	0.280	6.799	17.072	7.592
2023-07-27 08:15	4292105	8.432	-143.94	268.981	17.078	406.777	430.818	0.233	0.280	6.792	17.078	7.661
2023-07-27 08:30	4293005	8.431	-143.876	269.815	17.09	406.946	430.893	0.233	0.280	6.806	17.09	7.588
2023-07-27 08:45	4293905	8.458	-145.33	268.68	17.107	407.17	430.986	0.233	0.280	6.646	17.107	7.617
2023-07-27 09:00	4294805	8.487	-146.911	267.398	17.128	407.133	430.758	0.233	0.280	6.588	17.128	7.656
2023-07-27 09:15	4295705	8.486	-146.892	265.376	17.145	407.334	430.828	0.233	0.280	7.169	17.145	7.656
2023-07-27 09:30	4296605	8.501	-147.674	261.957	17.156	407.344	430.739	0.233	0.280	7.423	17.156	7.629
2023-07-27 09:45	4297505	8.511	-148.261	259.961	17.166	407.429	430.743	0.233	0.280	7.453	17.166	7.663
2023-07-27 10:00	4298405	8.522	-148.828	258.364	17.184	407.426	430.588	0.233	0.280	7.657	17.184	7.613
2023-07-27 10:15	4299305	8.523	-148.897	258.316	17.191	407.446	430.542	0.233	0.280	7.706	17.191	7.645
2023-07-27 10:30	4300205	8.506	-148.008	259.89	17.207	407.653	430.629	0.233	0.280	7.787	17.207	7.655
2023-07-27 10:45	4301105	8.510	-148.201	259.804	17.231	407.887	430.668	0.233	0.280	7.695	17.231	7.61
2023-07-27 11:00	4302005	8.555	-150.633	256.235	17.265	408.122	430.613	0.233	0.280	7.659	17.265	7.731
2023-07-27 11:15	4302905	8.566	-151.246	252.043	17.294	408.38	430.64	0.233	0.280	7.923	17.294	7.759
2023-07-27 11:30	4303805	8.585	-152.299	248.198	17.325	408.535	430.531	0.233	0.280	8.249	17.325	7.795
2023-07-27 11:45	4304705	8.609	-153.608	246.112	17.356	408.693	430.433	0.233	0.280	8.338	17.356	8.186
2023-07-27 12:00	4305605	8.616	-154.011	244.974	17.376	408.785	430.352	0.232	0.280	8.199	17.376	7.88
2023-07-27 12:15	4306505	8.591	-152.676	247.804	17.39	409.034	430.496	0.233	0.280	8.364	17.39	7.919
2023-07-27 12:30	4307405	8.598	-153.072	248.858	17.415	409.358	430.624	0.233	0.280	8.095	17.415	7.905
2023-07-27 12:45	4308305	8.598	-153.081	247.761	17.447	409.699	430.701	0.233	0.280	8.019	17.447	7.861
2023-07-27 13:00	4309205	8.614	-153.93	246.786	17.49	410.043	430.691	0.233	0.280	7.849	17.49	7.802
2023-07-27 13:15	4310105	8.601	-153.277	244.595	17.533	410.66	430.969	0.233	0.280	8.373	17.533	7.904
2023-07-27 13:30	4311005	8.616	-154.13	243.801	17.599	411.178	430.945	0.233	0.280	8.520	17.599	7.874
2023-07-27 13:45	4311905	8.619	-154.295	241.343	17.68	411.886	430.986	0.233	0.280	8.609	17.68	7.86
2023-07-27 14:00	4312805	8.659	-156.548	238.206	17.775	412.117	430.407	0.232	0.280	8.972	17.775	8.043
2023-07-27 14:15	4313705	8.657	-156.469	236.396	17.843	412.571	430.301	0.232	0.280	9.354	17.843	7.965
2023-07-27 14:30	4314605	8.641	-155.663	233.831	17.95	413.222	430.061	0.232	0.280	9.412	17.95	7.993
2023-07-27 14:45	4315505	8.693	-158.529	228.721	18.048	413.756	429.778	0.232	0.279	10.146	18.048	8.017
2023-07-27 15:00	4316405	8.743	-161.242	225.071	18.14	414.65	429.926	0.232	0.279	9.685	18.14	8.087
2023-07-27 15:15	4317305	8.720	-160.046	226.745	18.186	415.327	430.238	0.232	0.280	9.472	18.186	8.047
2023-07-27 15:30	4318205	8.722	-160.172	224.885	18.266	416.097	430.352	0.232	0.280	9.428	18.266	8.079
2023-07-27 15:45	4319105	8.721	-160.193	224.411	18.389	417.247	430.494	0.232	0.280	9.589	18.389	8.113
2023-07-27 16:00	4320005	8.731	-160.878	223.855	18.585	418.349	429.967	0.232	0.279	9.612	18.585	8.243
2023-07-27 16:15	4320905	8.755	-162.196	222.704	18.677	419.318	430.185	0.232	0.280	9.899	18.677	8.173
2023-07-27 16:30	4321805	8.796	-164.447	223.347	18.735	418.536	428.898	0.231	0.279	10.227	18.735	8.192
2023-07-27 16:45	4322705	8.855	-167.677	223.779	18.781	417.647	427.603	0.230	0.278	11.669	18.781	8.223
2023-07-27 17:00	4323605	8.916	-171.089	217.709	18.946	419.392	428.008	0.231	0.278	11.852	18.946	8.275
2023-07-27 17:15	4324505	8.925	-171.63	214.204	19.101	421.095	428.454	0.231	0.278	12.968	19.101	8.335
2023-07-27 17:30	4325405	8.955	-173.388	210.067	19.28	422.339	428.225	0.231	0.278	11.999	19.28	8.31
2023-07-27 17:45	4326305	8.932	-172.141	212.03	19.316	422.891	428.491	0.231	0.279	11.661	19.316	8.433
2023-07-27 18:00	4327205	8.881	-169.444	211.276	19.352	423.32	428.628	0.231	0.279	11.267	19.352	8.411
2023-07-27 18:15	4328105	8.838	-167.067	211.601	19.362	423.778	429.009	0.231	0.279	11.021	19.362	8.389
2023-07-27 18:30	4329005	***9.158***	-184.333	209.562	19.146	415.594	422.487	0.227	0.275	12.045	19.146	8.35
2023-07-27 18:45	4329905	***9.239***	-188.634	212.468	19.028	415.708	423.572	0.228	0.275	14.712	19.028	8.273
2023-07-27 19:00	4330805	***9.170***	-184.86	211.593	19.007	415.197	423.227	0.228	0.275	14.763	19.007	8.375
2023-07-27 19:15	4331705	***9.110***	-181.592	216.97	18.952	415.984	424.479	0.229	0.276	13.716	18.952	8.235
2023-07-27 19:30	4332605	***9.080***	-179.951	218.646	18.938	416.599	425.223	0.229	0.276	13.601	18.938	8.203
2023-07-27 19:45	4333505	***9.047***	-178.142	221.023	18.925	416.959	425.702	0.229	0.277	13.052	18.925	8.271

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-27 20:00	4334405	***9.036***	-177.593	224.103	18.937	416.856	425.494	0.229	0.277	13.561	18.937	8.243
2023-07-27 20:15	4335305	***9.021***	-176.773	226.754	18.938	417.054	425.689	0.229	0.277	13.710	18.938	8.14
2023-07-27 20:30	4336205	8.958	-173.335	230.338	18.887	417.139	426.203	0.230	0.277	12.512	18.887	8.158
2023-07-27 20:45	4337105	8.984	-174.675	227.088	18.782	417.226	427.161	0.230	0.278	11.916	18.782	8.095
2023-07-27 21:00	4338005	8.903	-170.219	227.951	18.715	417.453	427.957	0.231	0.278	11.718	18.715	8.038
2023-07-27 21:15	4338905	8.859	-167.837	231.334	18.659	417.463	428.437	0.231	0.278	10.761	18.659	7.991
2023-07-27 21:30	4339805	8.853	-167.477	231.532	18.6	416.907	428.362	0.231	0.278	10.862	18.6	7.993
2023-07-27 21:45	4340705	8.851	-167.32	234.277	18.544	416.537	428.453	0.231	0.278	10.861	18.544	7.95
2023-07-27 22:00	4341605	8.834	-166.383	236.47	18.464	416.169	428.749	0.231	0.279	10.514	18.464	7.921
2023-07-27 22:15	4342505	8.805	-164.778	237.126	18.419	416.325	429.29	0.231	0.279	10.441	18.419	7.914
2023-07-27 22:30	4343405	8.771	-162.911	238.747	18.41	416.317	429.358	0.232	0.279	10.327	18.41	7.855
2023-07-27 22:45	4344305	8.765	-162.59	241.67	18.411	416.403	429.437	0.232	0.279	10.328	18.411	7.962
2023-07-27 23:00	4345205	8.780	-163.441	228.836	18.426	416.687	429.598	0.232	0.279	10.225	18.426	7.856
2023-07-27 23:15	4346105	8.775	-163.152	235.767	18.429	417.047	429.947	0.232	0.279	9.993	18.429	7.979
2023-07-27 23:30	4347005	8.751	-161.846	238.461	18.439	417.141	429.96	0.232	0.279	10.073	18.439	8.114
2023-07-27 23:45	4347905	8.772	-163.023	240.73	18.443	416.914	429.691	0.232	0.279	10.137	18.443	7.963
2023-07-28 00:00	4348805	8.734	-160.947	242.588	18.441	417.072	429.874	0.232	0.279	9.645	18.441	7.958
2023-07-28 00:15	4349705	8.702	-159.192	244.345	18.406	417.479	430.59	0.232	0.280	9.142	18.406	7.919
2023-07-28 00:30	4350605	8.674	-157.681	241.362	18.361	416.746	430.217	0.232	0.280	9.056	18.361	7.958
2023-07-28 00:45	4351505	8.679	-157.907	242.259	18.303	416.213	430.159	0.232	0.280	8.882	18.303	7.896
2023-07-28 01:00	4352405	8.675	-157.647	235.452	18.259	415.92	430.225	0.232	0.280	9.164	18.259	7.979
2023-07-28 01:15	4353305	8.647	-156.124	237.915	18.202	415.567	430.347	0.232	0.280	8.929	18.202	7.89
2023-07-28 01:30	4354205	8.642	-155.799	238.578	18.136	414.855	430.173	0.232	0.280	8.753	18.136	7.824
2023-07-28 01:45	4355105	8.648	-156.121	240.802	18.078	414.253	430.04	0.232	0.280	8.962	18.078	7.805
2023-07-28 02:00	4356005	8.658	-156.6	240.597	18.01	413.158	429.485	0.232	0.279	8.852	18.01	7.778
2023-07-28 02:15	4356905	8.619	-154.483	245.756	17.945	413.038	429.915	0.232	0.279	8.839	17.945	7.777
2023-07-28 02:30	4357805	8.600	-153.389	252.845	17.882	412.579	429.971	0.232	0.279	9.032	17.882	7.743
2023-07-28 02:45	4358705	8.600	-153.351	255.155	17.832	412.308	430.121	0.232	0.280	8.758	17.832	7.753
2023-07-28 03:00	4359605	8.602	-153.453	255.548	17.79	411.753	429.898	0.232	0.279	8.560	17.79	7.846
2023-07-28 03:15	4360505	8.569	-151.668	253.002	17.736	411.755	430.361	0.232	0.280	8.304	17.736	7.742
2023-07-28 03:30	4361405	8.572	-151.794	252.012	17.649	410.97	430.294	0.232	0.280	8.232	17.649	7.673
2023-07-28 03:45	4362305	8.558	-150.988	253.6	17.588	410.461	430.286	0.232	0.280	8.041	17.588	7.711
2023-07-28 04:00	4363205	8.549	-150.461	255.703	17.518	409.552	429.932	0.232	0.279	8.032	17.518	7.705
2023-07-28 04:15	4364105	8.525	-149.124	259.423	17.462	409.433	430.295	0.232	0.280	7.945	17.462	7.665
2023-07-28 04:30	4365005	8.501	-147.824	264.925	17.41	409.244	430.543	0.233	0.280	8.015	17.41	7.582
2023-07-28 04:45	4365905	8.491	-147.285	267.371	17.369	408.887	430.525	0.233	0.280	7.953	17.369	7.639
2023-07-28 05:00	4366805	8.499	-147.667	268.346	17.325	408.201	430.182	0.232	0.280	7.785	17.325	7.565
2023-07-28 05:15	4367705	8.481	-146.694	269.171	17.28	408.378	430.756	0.233	0.280	7.588	17.28	7.643
2023-07-28 05:30	4368605	8.460	-145.533	269.434	17.231	408.067	430.85	0.233	0.280	7.394	17.231	7.559
2023-07-28 05:45	4369505	8.442	-144.553	270.945	17.192	407.827	430.94	0.233	0.280	7.149	17.192	7.518
2023-07-28 06:00	4370405	8.400	-142.248	272.602	17.143	407.4	430.917	0.233	0.280	6.526	17.143	7.461
2023-07-28 06:15	4371305	8.379	-141.122	273.391	17.097	407.037	430.928	0.233	0.280	6.687	17.097	7.544
2023-07-28 06:30	4372205	8.369	-140.562	273.599	17.064	406.707	430.871	0.233	0.280	6.751	17.064	7.447
2023-07-28 06:45	4373105	8.367	-140.395	273.48	17.029	406.478	430.932	0.233	0.280	6.581	17.029	7.52
2023-07-28 07:00	4374005	8.385	-141.373	271.489	16.998	405.893	430.585	0.233	0.280	6.623	16.998	7.581
2023-07-28 07:15	4374905	8.386	-141.404	271.007	16.97	405.738	430.662	0.233	0.280	6.702	16.97	7.591
2023-07-28 07:30	4375805	8.405	-142.422	271.377	16.951	405.501	430.572	0.233	0.280	6.898	16.951	7.536
2023-07-28 07:45	4376705	8.419	-143.18	271.68	16.952	405.462	430.525	0.233	0.280	6.941	16.952	7.499
2023-07-28 08:00	4377605	8.419	-143.178	270.864	16.963	405.528	430.502	0.233	0.280	7.011	16.963	7.42
2023-07-28 08:15	4378505	8.399	-142.133	272.829	16.974	405.565	430.445	0.233	0.280	6.886	16.974	7.364
2023-07-28 08:30	4379405	8.403	-142.345	271.467	16.992	405.676	430.403	0.233	0.280	7.130	16.992	7.357
2023-07-28 08:45	4380305	8.415	-143.013	272.137	17.011	405.792	430.358	0.233	0.280	7.340	17.011	7.407
2023-07-28 09:00	4381205	8.459	-145.392	269.641	17.035	406.013	430.389	0.233	0.280	7.302	17.035	7.455
2023-07-28 09:15	4382105	8.468	-145.876	268.106	17.056	406.23	430.438	0.233	0.280	7.440	17.056	7.494
2023-07-28 09:30	4383005	8.478	-146.396	268.346	17.079	406.446	430.459	0.233	0.280	7.461	17.079	7.486
2023-07-28 09:45	4383905	8.495	-147.362	268.091	17.1	406.641	430.481	0.233	0.280	7.702	17.1	7.503

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-28 10:00	4384805	8.507	-147.996	264.637	17.118	406.568	430.254	0.233	0.280	7.681	17.118	7.467
2023-07-28 10:15	4385705	8.487	-146.906	268.606	17.103	407.087	430.929	0.233	0.280	7.686	17.103	7.462
2023-07-28 10:30	4386605	8.434	-144.072	273.046	17.086	407.376	431.385	0.233	0.280	7.702	17.086	7.49
2023-07-28 10:45	4387505	8.487	-146.883	270.123	17.09	406.672	430.601	0.233	0.280	7.975	17.09	7.499
2023-07-28 11:00	4388405	8.509	-148.118	271.718	17.106	406.356	430.133	0.232	0.280	7.708	17.106	7.486
2023-07-28 11:15	4389305	8.517	-148.549	267.669	17.129	406.998	430.608	0.233	0.280	8.207	17.129	7.548
2023-07-28 11:30	4390205	8.498	-147.564	264.777	17.181	407.359	430.542	0.233	0.280	8.296	17.181	7.548
2023-07-28 11:45	4391105	8.563	-151.06	260.891	17.235	407.675	430.405	0.233	0.280	8.384	17.235	7.596
2023-07-28 12:00	4392005	8.587	-152.39	257.513	17.32	407.693	429.69	0.232	0.279	8.426	17.32	7.566
2023-07-28 12:15	4392905	8.560	-150.99	254.907	17.367	408.132	429.743	0.232	0.279	8.736	17.367	7.536
2023-07-28 12:30	4393805	8.554	-150.702	253.534	17.437	408.652	429.686	0.232	0.279	8.878	17.437	7.519
2023-07-28 12:45	4394705	8.558	-150.921	251.233	17.495	409.124	429.681	0.232	0.279	9.006	17.495	7.637
2023-07-28 13:00	4395605	8.648	-155.816	242.991	17.57	409.741	429.685	0.232	0.279	9.140	17.57	7.648
2023-07-28 13:15	4396505	8.652	-156.083	241.672	17.622	410.704	430.242	0.232	0.280	8.889	17.622	7.629
2023-07-28 13:30	4397405	8.655	-156.274	241.77	17.701	411.36	430.25	0.232	0.280	9.097	17.701	7.608
2023-07-28 13:45	4398305	8.657	-156.41	242.628	17.746	411.796	430.319	0.232	0.280	9.058	17.746	7.662
2023-07-28 14:00	4399205	8.657	-156.441	241.019	17.789	411.408	429.548	0.232	0.279	9.163	17.789	7.696
2023-07-28 14:15	4400105	8.670	-157.118	247.161	17.788	411.519	429.676	0.232	0.279	9.264	17.788	7.744
2023-07-28 14:30	4401005	8.658	-156.472	251.195	17.802	411.615	429.654	0.232	0.279	9.797	17.802	7.709
2023-07-28 14:45	4401905	8.638	-155.416	252.327	17.813	412.236	430.205	0.232	0.280	9.864	17.813	7.707
2023-07-28 15:00	4402805	8.722	-159.972	252.189	17.856	411.305	428.864	0.231	0.279	9.928	17.856	7.697
2023-07-28 15:15	4403705	8.753	-161.664	240.597	17.886	411.736	429.056	0.232	0.279	10.209	17.886	7.847
2023-07-28 15:30	4404605	8.762	-162.141	237.545	17.921	412.026	429.06	0.232	0.279	10.308	17.921	7.793
2023-07-28 15:45	4405505	8.762	-162.215	239.057	17.96	412.602	429.333	0.232	0.279	10.098	17.96	7.801
2023-07-28 16:00	4406405	8.756	-161.896	238.408	17.999	412.191	428.568	0.231	0.279	10.320	17.999	7.789
2023-07-28 16:15	4407305	8.764	-162.315	238.775	18.033	412.578	428.682	0.231	0.279	10.409	18.033	7.713
2023-07-28 16:30	4408205	8.772	-162.768	241.405	18.042	413	429.046	0.231	0.279	10.424	18.042	7.72
2023-07-28 16:45	4409105	8.761	-162.17	240.566	18.069	412.959	428.771	0.231	0.279	10.462	18.069	7.715
2023-07-28 17:00	4410005	8.815	-165.124	239.507	18.109	412.963	428.439	0.231	0.278	10.605	18.109	7.677
2023-07-28 17:15	4410905	8.837	-166.342	237.941	18.129	412.985	428.287	0.231	0.278	11.110	18.129	7.678
2023-07-28 17:30	4411805	8.856	-167.398	237.369	18.167	413.081	428.066	0.231	0.278	11.199	18.167	7.717
2023-07-28 17:45	4412705	8.887	-169.048	237.648	18.195	412.918	427.658	0.231	0.278	11.732	18.195	7.683
2023-07-28 18:00	4413605	8.888	-169.148	234.288	18.228	412.775	427.235	0.230	0.278	11.940	18.228	7.688
2023-07-28 18:15	4414505	8.889	-169.194	236.253	18.205	412.738	427.387	0.231	0.278	11.607	18.205	7.612
2023-07-28 18:30	4415405	8.885	-168.946	236.758	18.179	412.552	427.415	0.231	0.278	11.292	18.179	7.632
2023-07-28 18:45	4416305	8.901	-169.814	236.022	18.156	412.641	427.707	0.231	0.278	11.193	18.156	7.637
2023-07-28 19:00	4417205	8.866	-167.906	236.062	18.138	412.859	428.08	0.231	0.278	10.981	18.138	7.954
2023-07-28 19:15	4418105	8.847	-166.879	239.51	18.146	413.063	428.226	0.231	0.278	11.321	18.146	7.7
2023-07-28 19:30	4419005	8.833	-166.135	243.692	18.165	413.262	428.275	0.231	0.278	11.457	18.165	7.693
2023-07-28 19:45	4419905	8.829	-165.942	246.019	18.172	413.413	428.366	0.231	0.278	11.517	18.172	7.763
2023-07-28 20:00	4420805	8.861	-167.711	244.896	18.247	413.383	427.701	0.231	0.278	11.400	18.247	7.633
2023-07-28 20:15	4421705	8.840	-166.6	239.832	18.319	413.377	427.087	0.230	0.278	11.885	18.319	7.638
2023-07-28 20:30	4422605	8.843	-166.836	234.181	18.414	413.357	426.272	0.230	0.277	13.626	18.414	7.622
2023-07-28 20:45	4423505	***9.004***	-175.571	234.238	18.453	413.663	426.261	0.230	0.277	13.017	18.453	7.636
2023-07-28 21:00	4424405	***9.022***	-176.477	230.879	18.385	413.254	426.403	0.230	0.277	12.304	18.385	7.654
2023-07-28 21:15	4425305	8.977	-174.012	233.232	18.328	413.378	427.017	0.230	0.278	12.162	18.328	7.595
2023-07-28 21:30	4426205	8.928	-171.335	235.483	18.265	413.193	427.357	0.230	0.278	12.020	18.265	7.565
2023-07-28 21:45	4427105	8.817	-165.331	244.335	18.257	413.175	427.403	0.230	0.278	11.832	18.257	7.575
2023-07-28 22:00	4428005	8.903	-169.973	239.972	18.275	413.143	427.216	0.230	0.278	12.172	18.275	7.581
2023-07-28 22:15	4428905	8.892	-169.37	243.346	18.281	413.25	427.276	0.230	0.278	11.837	18.281	7.585
2023-07-28 22:30	4429805	8.891	-169.368	242.101	18.292	413.288	427.226	0.230	0.278	11.978	18.292	7.467
2023-07-28 22:45	4430705	8.886	-169.067	243.93	18.303	413.384	427.234	0.230	0.278	11.627	18.303	7.6
2023-07-28 23:00	4431605	8.911	-170.419	243.684	18.325	414.026	427.713	0.231	0.278	11.666	18.325	7.54
2023-07-28 23:15	4432505	8.915	-170.665	243.456	18.332	414.094	427.724	0.231	0.278	11.720	18.332	7.504
2023-07-28 23:30	4433405	8.901	-169.923	246.836	18.328	414.32	427.988	0.231	0.278	11.376	18.328	7.546
2023-07-28 23:45	4434305	8.850	-167.15	248.439	18.304	415.08	428.977	0.231	0.279	10.301	18.304	7.555

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-29 00:00	4435205	8.779	-163.26	248.212	18.251	415.008	429.352	0.232	0.279	10.181	18.251	7.507
2023-07-29 00:15	4436105	8.770	-162.745	248.751	18.186	414.625	429.507	0.232	0.279	10.265	18.186	7.534
2023-07-29 00:30	4437005	8.764	-162.406	248.119	18.134	414.158	429.466	0.232	0.279	10.160	18.134	7.503
2023-07-29 00:45	4437905	8.751	-161.681	248.019	18.072	414.037	429.865	0.232	0.279	9.852	18.072	7.544
2023-07-29 01:00	4438805	8.695	-158.634	246.052	18.025	413.736	429.956	0.232	0.279	9.789	18.025	7.479
2023-07-29 01:15	4439705	8.690	-158.3	246.057	17.979	413.698	430.31	0.232	0.280	9.432	17.979	7.48
2023-07-29 01:30	4440605	8.668	-157.101	249.44	17.917	413.334	430.458	0.232	0.280	9.390	17.917	7.45
2023-07-29 01:45	4441505	8.668	-157.08	247.413	17.872	412.829	430.322	0.232	0.280	9.509	17.872	7.458
2023-07-29 02:00	4442405	8.628	-154.874	250.484	17.817	412.273	430.214	0.232	0.280	9.541	17.817	7.526
2023-07-29 02:15	4443305	8.631	-154.998	251.04	17.753	411.844	430.315	0.232	0.280	9.021	17.753	7.379
2023-07-29 02:30	4444205	8.610	-153.852	252.446	17.693	411.427	430.388	0.232	0.280	8.778	17.693	7.45
2023-07-29 02:45	4445105	8.602	-153.382	252.988	17.633	410.962	430.425	0.232	0.280	8.713	17.633	7.336
2023-07-29 03:00	4446005	8.610	-153.761	253.121	17.572	410.663	430.635	0.233	0.280	8.616	17.572	7.374
2023-07-29 03:15	4446905	8.616	-154.052	255.155	17.506	409.998	430.508	0.233	0.280	8.490	17.506	7.309
2023-07-29 03:30	4447805	8.586	-152.431	256.383	17.458	409.734	430.644	0.233	0.280	8.249	17.458	7.315
2023-07-29 03:45	4448705	8.568	-151.415	259.151	17.422	409.432	430.639	0.233	0.280	8.447	17.422	7.354
2023-07-29 04:00	4449605	8.554	-150.676	260.011	17.373	408.955	430.561	0.233	0.280	8.183	17.373	7.365
2023-07-29 04:15	4450505	8.537	-149.703	264.801	17.315	408.716	430.806	0.233	0.280	8.249	17.315	7.246
2023-07-29 04:30	4451405	8.504	-147.932	267.488	17.271	408.552	431.018	0.233	0.280	8.217	17.271	7.242
2023-07-29 04:45	4452305	8.464	-145.736	272.171	17.207	407.954	430.939	0.233	0.280	8.086	17.207	7.286
2023-07-29 05:00	4453205	8.494	-147.305	273.108	17.149	406.932	430.371	0.233	0.280	7.936	17.149	7.161
2023-07-29 05:15	4454105	8.468	-145.903	272.071	17.102	406.862	430.702	0.233	0.280	7.759	17.102	7.137
2023-07-29 05:30	4455005	8.466	-145.762	273.015	17.053	406.502	430.75	0.233	0.280	7.588	17.053	7.124
2023-07-29 05:45	4455905	8.452	-144.963	274.317	17.003	406.144	430.8	0.233	0.280	7.723	17.003	7.167
2023-07-29 06:00	4456805	8.449	-144.818	273.446	16.957	405.597	430.626	0.233	0.280	7.497	16.957	7.138
2023-07-29 06:15	4457705	8.430	-143.747	276.531	16.921	405.186	430.503	0.233	0.280	7.384	16.921	7.164
2023-07-29 06:30	4458605	8.404	-142.331	277.621	16.877	404.933	430.62	0.233	0.280	7.230	16.877	7.137
2023-07-29 06:45	4459505	8.388	-141.454	279.059	16.84	404.786	430.786	0.233	0.280	7.220	16.84	7.102
2023-07-29 07:00	4460405	8.398	-141.997	277.783	16.808	404.629	430.899	0.233	0.280	6.880	16.808	7.178
2023-07-29 07:15	4461305	8.381	-141.06	278.813	16.781	404.63	431.137	0.233	0.280	7.096	16.781	7.168
2023-07-29 07:30	4462205	8.378	-140.879	280.692	16.755	404.417	431.142	0.233	0.280	6.872	16.755	7.084
2023-07-29 07:45	4463106	8.372	-140.533	281.464	16.725	404.215	431.185	0.233	0.280	6.971	16.725	7.11
2023-07-29 08:00	4464006	8.376	-140.746	279.972	16.7	403.593	430.742	0.233	0.280	6.999	16.7	52.587
2023-07-29 08:15	4464906	8.366	-140.2	281.266	16.678	403.408	430.736	0.233	0.280	7.032	16.678	7.147
2023-07-29 08:30	4465806	8.387	-141.33	280.275	16.661	403.31	430.781	0.233	0.280	7.206	16.661	7.1
2023-07-29 08:45	4466706	8.324	-137.908	282.716	16.646	403.164	430.759	0.233	0.280	7.084	16.646	7.062
2023-07-29 09:00	4467606	8.411	-142.584	277.774	16.641	403.311	430.961	0.233	0.280	7.228	16.641	7.304
2023-07-29 09:15	4468506	8.401	-142.04	281.185	16.635	403.426	431.138	0.233	0.280	7.085	16.635	7.118
2023-07-29 09:30	4469406	8.373	-140.564	284.48	16.635	403.32	431.023	0.233	0.280	7.024	16.635	7.14
2023-07-29 09:45	4470306	8.414	-142.736	283.057	16.637	403.257	430.941	0.233	0.280	7.060	16.637	7.27
2023-07-29 10:00	4471206	8.426	-143.402	282.857	16.641	402.992	430.616	0.233	0.280	6.838	16.641	7.073
2023-07-29 10:15	4472106	8.409	-142.467	281.548	16.645	403.129	430.727	0.233	0.280	7.359	16.645	6.956
2023-07-29 10:30	4473006	8.396	-141.797	281.548	16.657	403.296	430.806	0.233	0.280	7.488	16.657	7.042
2023-07-29 10:45	4473906	8.436	-143.952	279.953	16.672	403.396	430.781	0.233	0.280	7.514	16.672	6.939
2023-07-29 11:00	4474806	8.458	-145.137	277.02	16.7	403.572	430.719	0.233	0.280	7.225	16.7	7.051
2023-07-29 11:15	4475706	8.466	-145.602	276.565	16.733	404.318	431.231	0.233	0.280	7.678	16.733	7.058
2023-07-29 11:30	4476606	8.469	-145.771	273.961	16.795	404.937	431.341	0.233	0.280	7.896	16.795	7.121
2023-07-29 11:45	4477506	8.471	-145.95	266.766	16.888	405.708	431.349	0.233	0.280	8.045	16.888	7.116
2023-07-29 12:00	4478406	8.527	-149.016	262.017	17.005	406.337	430.996	0.233	0.280	8.032	17.005	7.107
2023-07-29 12:15	4479306	8.490	-147.04	262.369	17.079	406.982	431.03	0.233	0.280	8.244	17.079	7.163
2023-07-29 12:30	4480206	8.514	-148.404	259.933	17.172	407.46	430.73	0.233	0.280	8.771	17.172	7.117
2023-07-29 12:45	4481106	8.518	-148.685	258.29	17.258	408.262	430.822	0.233	0.280	9.111	17.258	7.202
2023-07-29 13:00	4482006	8.556	-150.788	256.807	17.382	410.06	431.641	0.233	0.281	8.758	17.382	7.161
2023-07-29 13:15	4482906	8.519	-148.847	256.569	17.484	411.719	432.499	0.234	0.281	8.842	17.484	7.278
2023-07-29 13:30	4483806	8.583	-152.309	253.789	17.578	413.772	433.844	0.234	0.282	8.553	17.578	7.275
2023-07-29 13:45	4484706	8.594	-152.965	251.261	17.641	415.096	434.685	0.235	0.283	8.660	17.641	7.332

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-29 14:00	4485606	8.602	-153.43	250.894	17.705	416.832	435.938	0.235	0.283	8.835	17.705	7.317
2023-07-29 14:15	4486506	8.588	-152.674	252.442	17.746	417.623	436.412	0.236	0.284	8.780	17.746	7.302
2023-07-29 14:30	4487406	8.588	-152.693	252.93	17.8	418.119	436.459	0.236	0.284	9.201	17.8	7.341
2023-07-29 14:45	4488306	8.625	-154.717	251.722	17.853	418.102	435.983	0.235	0.283	9.485	17.853	7.381
2023-07-29 15:00	4489206	8.707	-159.19	246.805	17.948	418.539	435.608	0.235	0.283	9.680	17.948	7.448
2023-07-29 15:15	4490106	8.703	-159.018	246.066	18.002	418.831	435.447	0.235	0.283	10.007	18.002	7.371
2023-07-29 15:30	4491006	8.758	-162.036	244.354	18.046	418.914	435.157	0.235	0.283	10.332	18.046	7.361
2023-07-29 15:45	4491906	8.744	-161.295	241.78	18.11	420.067	435.8	0.235	0.283	10.085	18.11	7.488
2023-07-29 16:00	4492806	8.755	-161.953	241.691	18.207	420.657	435.571	0.235	0.283	10.112	18.207	7.495
2023-07-29 16:15	4493706	8.672	-157.499	248.837	18.246	421.221	435.825	0.235	0.283	10.323	18.246	7.556
2023-07-29 16:30	4494606	8.719	-160.05	248.026	18.313	422.166	436.226	0.235	0.284	10.615	18.313	7.567
2023-07-29 16:45	4495506	8.714	-159.841	248.028	18.382	422.973	436.46	0.235	0.284	11.123	18.382	7.601
2023-07-29 17:00	4496406	8.784	-163.665	246.681	18.472	423.527	436.258	0.235	0.284	11.119	18.472	7.485
2023-07-29 17:15	4497306	8.802	-164.664	242.845	18.516	423.982	436.348	0.235	0.284	11.056	18.516	7.622
2023-07-29 17:30	4498206	8.822	-165.746	243.527	18.503	424.765	437.271	0.236	0.284	10.552	18.503	7.638
2023-07-29 17:45	4499106	8.688	-158.477	247.738	18.485	425.382	438.061	0.236	0.285	9.491	18.485	7.557
2023-07-29 18:00	4500006	8.710	-159.69	245.914	18.506	423.034	435.461	0.235	0.283	10.297	18.506	7.677
2023-07-29 18:15	4500906	8.747	-161.679	245.976	18.527	422.641	434.873	0.235	0.283	11.101	18.527	7.612
2023-07-29 18:30	4501806	8.788	-163.951	244.946	18.571	422.177	434.024	0.234	0.282	11.464	18.571	7.557
2023-07-29 18:45	4502706	8.827	-166.047	244.357	18.606	421.413	432.939	0.233	0.281	11.707	18.606	7.541
2023-07-29 19:00	4503606	8.931	-171.721	239.252	18.648	421.523	432.7	0.233	0.281	12.523	18.648	7.59
2023-07-29 19:15	4504506	8.941	-172.248	237.869	18.667	421.788	432.807	0.233	0.281	12.594	18.667	7.562
2023-07-29 19:30	4505406	8.866	-168.247	241.756	18.686	421.937	432.796	0.233	0.281	12.635	18.686	8.052
2023-07-29 19:45	4506306	8.919	-171.101	238.27	18.701	422.262	433.007	0.233	0.281	12.365	18.701	7.536
2023-07-29 20:00	4507206	8.884	-169.239	237.507	18.716	422.234	432.848	0.233	0.281	12.747	18.716	7.527
2023-07-29 20:15	4508106	8.912	-170.701	241.369	18.702	422.53	433.272	0.234	0.282	12.686	18.702	7.575
2023-07-29 20:30	4509006	8.899	-170.043	244.095	18.706	422.362	433.069	0.233	0.281	12.257	18.706	7.517
2023-07-29 20:45	4509906	8.894	-169.766	244.316	18.731	422.514	433.009	0.233	0.281	12.527	18.731	7.572
2023-07-29 21:00	4510806	8.920	-171.204	242.695	18.771	422.854	433.022	0.233	0.281	12.516	18.771	7.543
2023-07-29 21:15	4511706	8.915	-170.958	242.862	18.787	423.332	433.369	0.234	0.282	12.361	18.787	7.555
2023-07-29 21:30	4512606	8.924	-171.421	243.296	18.836	423.792	433.432	0.234	0.282	12.540	18.836	7.681
2023-07-29 21:45	4513506	8.967	-173.819	235.011	18.887	423.682	432.887	0.233	0.281	13.026	18.887	7.58
2023-07-29 22:00	4514406	***9.016***	-176.501	226.561	18.938	422.048	430.785	0.232	0.280	13.443	18.938	7.712
2023-07-29 22:15	4515306	8.984	-174.747	228.557	18.955	421.358	429.936	0.232	0.279	14.446	18.955	7.656
2023-07-29 22:30	4516206	***9.007***	-176.027	228.254	18.992	421.369	429.638	0.231	0.279	15.005	18.992	7.697
2023-07-29 22:45	4517106	***9.039***	-177.813	223.431	19.026	421.52	429.51	0.231	0.279	15.006	19.026	7.662
2023-07-29 23:00	4518006	***9.131***	-182.815	222.494	19.071	421.993	429.616	0.231	0.279	14.727	19.071	7.703
2023-07-29 23:15	4518906	***9.123***	-182.371	221.671	19.084	422.478	430	0.232	0.280	14.714	19.084	7.63
2023-07-29 23:30	4519806	***9.097***	-180.993	226.404	19.087	422.701	430.205	0.232	0.280	14.448	19.087	7.693
2023-07-29 23:45	4520706	***9.105***	-181.425	228.81	19.087	422.79	430.294	0.232	0.280	14.440	19.087	7.695
2023-07-30 00:00	4521606	***9.084***	-180.287	225.867	19.109	422.995	430.318	0.232	0.280	14.389	19.109	7.7
2023-07-30 00:15	4522506	***9.076***	-179.803	231.482	19.071	423.902	431.557	0.232	0.281	14.284	19.071	7.648
2023-07-30 00:30	4523406	***9.035***	-177.577	233.592	19.041	423.92	431.826	0.233	0.281	13.603	19.041	7.669
2023-07-30 00:45	4524306	***9.034***	-177.519	233.227	18.996	424.462	432.757	0.233	0.281	13.536	18.996	7.718
2023-07-30 01:00	4525206	8.939	-172.338	233.485	18.97	425.216	433.748	0.234	0.282	12.294	18.97	7.654
2023-07-30 01:15	4526106	8.786	-164.056	237.741	18.932	425.557	434.42	0.234	0.282	12.124	18.932	7.72
2023-07-30 01:30	4527006	8.859	-167.959	236.799	18.872	425.535	434.906	0.234	0.283	10.961	18.872	7.712
2023-07-30 01:45	4527906	8.856	-167.773	232.078	18.819	425.487	435.306	0.235	0.283	11.550	18.819	7.661
2023-07-30 02:00	4528806	8.855	-167.649	230.383	18.764	424.571	434.839	0.234	0.283	11.122	18.764	7.679
2023-07-30 02:15	4529706	8.870	-168.462	231.623	18.7	424.292	435.092	0.235	0.283	11.307	18.7	7.64
2023-07-30 02:30	4530606	8.863	-168.066	228.316	18.66	424.021	435.158	0.235	0.283	11.250	18.66	7.52
2023-07-30 02:45	4531506	8.851	-167.351	231.709	18.623	423.881	435.333	0.235	0.283	11.222	18.623	7.593
2023-07-30 03:00	4532406	8.847	-167.143	227.913	18.571	423.647	435.539	0.235	0.283	10.957	18.571	7.495
2023-07-30 03:15	4533306	8.824	-165.875	230.731	18.522	423.85	436.165	0.235	0.284	10.697	18.522	7.485
2023-07-30 03:30	4534206	8.801	-164.614	232.212	18.491	423.805	436.38	0.235	0.284	10.666	18.491	7.52
2023-07-30 03:45	4535106	8.789	-163.929	234.584	18.458	424.113	436.982	0.236	0.284	10.460	18.458	7.465

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-30 04:00	4536006	8.776	-163.2	235.404	18.417	422.877	436.062	0.235	0.283	10.630	18.417	7.742
2023-07-30 04:15	4536906	8.771	-162.926	240.382	18.376	422.853	436.388	0.235	0.284	10.692	18.376	7.569
2023-07-30 04:30	4537806	8.760	-162.268	242.159	18.335	422.536	436.416	0.235	0.284	10.414	18.335	7.595
2023-07-30 04:45	4538706	8.745	-161.483	243.663	18.299	422.235	436.416	0.235	0.284	10.329	18.299	7.506
2023-07-30 05:00	4539606	8.754	-161.915	239.824	18.264	422.243	436.721	0.236	0.284	10.293	18.264	7.434
2023-07-30 05:15	4540506	8.725	-160.365	242.154	18.23	422.147	436.92	0.236	0.284	9.907	18.23	7.433
2023-07-30 05:30	4541406	8.650	-156.286	250.055	18.177	422.131	437.358	0.236	0.284	9.683	18.177	7.42
2023-07-30 05:45	4542306	8.549	-150.793	257.344	18.126	422.167	437.838	0.236	0.285	9.359	18.126	7.452
2023-07-30 06:00	4543206	8.559	-151.293	255.429	18.067	420.769	436.898	0.236	0.284	9.076	18.067	7.468
2023-07-30 06:15	4544106	8.564	-151.548	258.335	18.026	420.703	437.183	0.236	0.284	8.824	18.026	7.338
2023-07-30 06:30	4545006	8.541	-150.304	259.878	17.994	420.76	437.527	0.236	0.284	8.573	17.994	7.361
2023-07-30 06:45	4545906	8.508	-148.458	262.393	17.963	420.648	437.68	0.236	0.284	8.088	17.963	7.371
2023-07-30 07:00	4546806	8.511	-148.618	261.177	17.935	420.849	438.133	0.237	0.285	7.926	17.935	7.335
2023-07-30 07:15	4547706	8.442	-144.873	265.183	17.916	420.754	438.197	0.237	0.285	7.646	17.916	7.362
2023-07-30 07:30	4548606	8.480	-146.933	262.346	17.894	420.716	438.352	0.237	0.285	7.588	17.894	7.343
2023-07-30 07:45	4549506	8.480	-146.93	264.823	17.869	420.486	438.325	0.237	0.285	8.047	17.869	7.347
2023-07-30 08:00	4550406	8.510	-148.52	262.834	17.846	419.45	437.448	0.236	0.284	8.490	17.846	7.353
2023-07-30 08:15	4551306	8.544	-150.356	263.337	17.814	419.329	437.598	0.236	0.284	8.419	17.814	7.323
2023-07-30 08:30	4552206	8.533	-149.741	263.929	17.799	419.105	437.497	0.236	0.284	8.593	17.799	7.276
2023-07-30 08:45	4553106	8.552	-150.774	264.579	17.78	418.907	437.456	0.236	0.284	8.763	17.78	7.283
2023-07-30 09:00	4554006	8.626	-154.729	263.683	17.77	418.528	437.144	0.236	0.284	8.816	17.77	7.312
2023-07-30 09:15	4554906	8.572	-151.827	262.932	17.751	418.789	437.587	0.236	0.284	9.281	17.751	7.231
2023-07-30 09:30	4555806	8.561	-151.246	262.849	17.739	418.555	437.448	0.236	0.284	9.308	17.739	7.279
2023-07-30 09:45	4556706	8.580	-152.242	263.008	17.725	418.303	437.31	0.236	0.284	9.316	17.725	7.305
2023-07-30 10:00	4557606	8.606	-153.639	259.988	17.719	417.744	436.77	0.236	0.284	9.389	17.719	7.25
2023-07-30 10:15	4558506	8.585	-152.507	261.606	17.71	417.49	436.589	0.236	0.284	8.920	17.71	7.254
2023-07-30 10:30	4559406	8.596	-153.124	261.885	17.715	417.735	436.797	0.236	0.284	8.834	17.715	7.307
2023-07-30 10:45	4560306	8.602	-153.453	262.477	17.729	417.726	436.664	0.236	0.284	8.551	17.729	7.239
2023-07-30 11:00	4561206	8.702	-158.863	254.187	17.762	417.574	436.22	0.236	0.284	8.735	17.762	7.436
2023-07-30 11:15	4562106	8.695	-158.477	253.185	17.786	418.046	436.506	0.236	0.284	9.089	17.786	7.397
2023-07-30 11:30	4563006	8.602	-153.501	253.681	17.827	418.325	436.441	0.236	0.284	9.154	17.827	7.437
2023-07-30 11:45	4563906	8.576	-152.111	258.543	17.884	419.095	436.749	0.236	0.284	9.040	17.884	7.499
2023-07-30 12:00	4564806	8.594	-153.139	260.393	17.957	420.26	437.323	0.236	0.284	8.698	17.957	8.236
2023-07-30 12:15	4565706	8.618	-154.395	253.221	17.963	420.175	437.184	0.236	0.284	9.392	17.963	7.291
2023-07-30 12:30	4566606	8.657	-156.529	252.43	17.988	420.429	437.234	0.236	0.284	9.384	17.988	7.281
2023-07-30 12:45	4567506	8.667	-157.077	251.314	18.009	421.006	437.647	0.236	0.284	9.315	18.009	7.35
2023-07-30 13:00	4568406	8.707	-159.259	248.222	18.044	421.243	437.591	0.236	0.284	9.387	18.044	7.293
2023-07-30 13:15	4569306	8.695	-158.629	247.285	18.071	421.68	437.811	0.236	0.285	9.236	18.071	7.357
2023-07-30 13:30	4570206	8.712	-159.576	244.745	18.117	422.045	437.788	0.236	0.285	9.794	18.117	7.467
2023-07-30 13:45	4571106	8.715	-159.788	246.112	18.194	423.194	438.312	0.237	0.285	10.301	18.194	7.408
2023-07-30 14:00	4572006	8.785	-163.61	242.001	18.297	421.83	436.012	0.235	0.283	10.762	18.297	7.425
2023-07-30 14:15	4572906	8.758	-162.203	241.183	18.343	422.081	435.874	0.235	0.283	10.930	18.343	7.391
2023-07-30 14:30	4573806	8.847	-167.06	236.379	18.416	422.331	435.51	0.235	0.283	11.169	18.416	7.429
2023-07-30 14:45	4574706	8.881	-168.9	234.684	18.49	422.786	435.342	0.235	0.283	11.603	18.49	7.532
2023-07-30 15:00	4575606	8.919	-171.051	229.449	18.603	423.671	435.282	0.235	0.283	12.325	18.603	7.488
2023-07-30 15:15	4576506	8.879	-168.951	232.715	18.703	425.554	436.362	0.235	0.284	12.280	18.703	7.549
2023-07-30 15:30	4577406	8.933	-171.838	233.976	18.708	423.673	434.388	0.234	0.282	13.336	18.708	7.541
2023-07-30 15:45	4578306	***9.042***	-177.829	228.352	18.78	423.943	434.056	0.234	0.282	13.880	18.78	7.63
2023-07-30 16:00	4579206	***9.088***	-180.364	226.506	18.883	422.898	432.114	0.233	0.281	14.685	18.883	7.635
2023-07-30 16:15	4580106	***9.088***	-180.404	228.888	18.922	423.279	432.179	0.233	0.281	14.464	18.922	7.589
2023-07-30 16:30	4581006	***9.114***	-181.832	229.532	18.957	424.821	433.457	0.234	0.282	14.173	18.957	7.629
2023-07-30 16:45	4581906	***9.116***	-181.959	228.495	19.021	424.848	432.944	0.233	0.281	14.126	19.021	7.663
2023-07-30 17:00	4582806	***9.094***	-180.843	229.196	19.147	425.833	432.89	0.233	0.281	14.676	19.147	7.668
2023-07-30 17:15	4583706	***9.098***	-181.069	228.962	19.179	426.926	433.726	0.234	0.282	14.217	19.179	7.661
2023-07-30 17:30	4584606	***9.078***	-180.018	231.69	19.17	426.544	433.413	0.233	0.282	14.652	19.17	7.699
2023-07-30 17:45	4585506	***9.152***	-183.988	227.927	19.129	424.25	431.428	0.232	0.280	15.836	19.129	7.734

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-30 18:00	4586406	***9.189***	-186.017	225.102	19.153	423.028	429.983	0.232	0.279	16.335	19.153	7.711
2023-07-30 18:15	4587306	***9.204***	-186.799	225.333	19.156	423.384	430.323	0.232	0.280	16.402	19.156	7.65
2023-07-30 18:30	4588206	***9.199***	-186.577	224.661	19.177	423.676	430.444	0.232	0.280	16.202	19.177	7.659
2023-07-30 18:45	4589106	***9.194***	-186.255	224.432	19.174	423.665	430.456	0.232	0.280	16.616	19.174	7.674
2023-07-30 19:00	4590006	***9.203***	-186.749	225.121	19.177	423.813	430.583	0.232	0.280	16.161	19.177	7.682
2023-07-30 19:15	4590906	***9.185***	-185.754	226.676	19.152	423.883	430.862	0.232	0.280	16.057	19.152	7.687
2023-07-30 19:30	4591806	***9.117***	-182.085	228.876	19.106	425.189	432.577	0.233	0.281	15.140	19.106	7.625
2023-07-30 19:45	4592706	8.986	-174.816	234.689	18.895	424.66	433.812	0.234	0.282	13.855	18.895	7.672
2023-07-30 20:00	4593606	8.956	-173.116	235.368	18.696	424.142	434.972	0.235	0.283	12.839	18.696	7.695
2023-07-30 20:15	4594506	8.875	-168.641	238.535	18.608	424.276	435.864	0.235	0.283	12.441	18.608	7.544
2023-07-30 20:30	4595406	8.811	-165.181	242.554	18.619	425.593	437.126	0.236	0.284	11.745	18.619	7.549
2023-07-30 20:45	4596306	8.797	-164.44	247.299	18.621	426.669	438.21	0.236	0.285	11.468	18.621	7.529
2023-07-30 21:00	4597206	8.840	-166.786	248.296	18.653	425.403	436.633	0.235	0.284	11.048	18.653	7.561
2023-07-30 21:15	4598106	8.833	-166.435	243.155	18.69	425.672	436.6	0.235	0.284	11.317	18.69	7.601
2023-07-30 21:30	4599006	8.848	-167.239	239.205	18.703	425.436	436.24	0.235	0.284	11.448	18.703	7.559
2023-07-30 21:45	4599906	8.753	-162.106	244.631	18.703	425.363	436.165	0.235	0.284	11.221	18.703	7.532
2023-07-30 22:00	4600806	8.822	-165.832	239.803	18.701	425.066	435.882	0.235	0.283	11.406	18.701	7.607
2023-07-30 22:15	4601706	8.678	-158.05	253.367	18.688	425.35	436.283	0.235	0.284	11.157	18.688	7.65
2023-07-30 22:30	4602606	8.757	-162.22	247.118	18.548	424.54	436.647	0.236	0.284	10.365	18.548	7.556
2023-07-30 22:45	4603506	8.730	-160.787	248.391	18.514	424.41	436.811	0.236	0.284	9.959	18.514	7.558
2023-07-30 23:00	4604406	8.732	-160.856	247.795	18.498	424.52	437.056	0.236	0.284	9.974	18.498	7.523
2023-07-30 23:15	4605306	8.718	-160.108	249.776	18.489	424.774	437.395	0.236	0.284	9.964	18.489	7.549
2023-07-30 23:30	4606206	8.703	-159.28	252.284	18.469	424.436	437.224	0.236	0.284	10.621	18.469	7.46
2023-07-30 23:45	4607106	8.723	-160.336	251.943	18.442	424.361	437.376	0.236	0.284	10.222	18.442	7.477
2023-07-31 00:00	4608006	8.725	-160.41	249.643	18.406	423.804	437.114	0.236	0.284	10.162	18.406	7.464
2023-07-31 00:15	4608906	8.719	-160.084	252.182	18.362	423.184	436.853	0.236	0.284	10.035	18.362	7.425
2023-07-31 00:30	4609806	8.724	-160.358	251.881	18.337	423.154	437.036	0.236	0.284	9.849	18.337	7.462
2023-07-31 00:45	4610706	8.632	-155.375	256.638	18.318	423.427	437.483	0.236	0.284	9.833	18.318	7.482
2023-07-31 01:00	4611606	8.698	-158.896	252.194	18.305	423.583	437.752	0.236	0.285	9.516	18.305	7.452
2023-07-31 01:15	4612506	8.681	-158.024	253.505	18.293	423.595	437.872	0.236	0.285	9.461	18.293	7.433
2023-07-31 01:30	4613406	8.681	-158.014	255.233	18.279	423.548	437.944	0.236	0.285	9.455	18.279	7.475
2023-07-31 01:45	4614306	8.678	-157.826	257.22	18.265	423.526	438.045	0.236	0.285	9.380	18.265	7.48
2023-07-31 02:00	4615206	8.663	-157.006	257.844	18.241	423.812	438.544	0.237	0.285	9.032	18.241	7.455
2023-07-31 02:15	4616106	8.661	-156.865	262.076	18.216	424.27	439.236	0.237	0.286	8.624	18.216	7.414
2023-07-31 02:30	4617006	8.654	-156.491	264.296	18.19	424.031	439.215	0.237	0.285	8.415	18.19	7.398
2023-07-31 02:45	4617906	8.613	-154.235	264.761	18.162	423.682	439.098	0.237	0.285	8.649	18.162	7.391
2023-07-31 03:00	4618806	8.535	-150.027	269.493	18.126	423.057	438.76	0.237	0.285	8.658	18.126	7.423
2023-07-31 03:15	4619706	8.607	-153.88	264.184	18.093	422.924	438.91	0.237	0.285	8.626	18.093	7.315
2023-07-31 03:30	4620606	8.626	-154.912	264.317	18.066	422.717	438.929	0.237	0.285	8.596	18.066	7.369
2023-07-31 03:45	4621506	8.627	-154.932	266.105	18.039	422.659	439.105	0.237	0.285	8.505	18.039	7.374
2023-07-31 04:00	4622406	8.598	-153.344	264.253	18.01	422.723	439.428	0.237	0.286	8.348	18.01	7.414
2023-07-31 04:15	4623306	8.623	-154.705	265.745	17.98	422.715	439.68	0.237	0.286	8.305	17.98	7.393
2023-07-31 04:30	4624206	8.597	-153.258	268.599	17.947	422.663	439.914	0.238	0.286	8.316	17.947	7.375
2023-07-31 04:45	4625106	8.598	-153.298	270.526	17.908	422.532	440.115	0.238	0.286	8.347	17.908	7.372
2023-07-31 05:00	4626006	8.589	-152.807	271.343	17.872	421.799	439.669	0.237	0.286	7.901	17.872	7.289
2023-07-31 05:15	4626906	8.517	-148.911	273.399	17.845	421.659	439.764	0.238	0.286	8.348	17.845	7.327
2023-07-31 05:30	4627806	8.571	-151.787	270.676	17.804	421.324	439.767	0.238	0.286	8.104	17.804	7.312
2023-07-31 05:45	4628706	8.582	-152.361	270.547	17.771	421.2	439.93	0.238	0.286	8.055	17.771	7.293
2023-07-31 06:00	4629606	8.579	-152.171	268.678	17.737	420.568	439.57	0.237	0.286	8.417	17.737	7.274
2023-07-31 06:15	4630506	8.565	-151.405	270.454	17.699	420.365	439.691	0.238	0.286	8.301	17.699	7.289
2023-07-31 06:30	4631406	8.585	-152.454	270.485	17.659	420.239	439.905	0.238	0.286	8.232	17.659	7.291
2023-07-31 06:45	4632306	8.577	-152.025	271.25	17.621	419.907	439.895	0.238	0.286	8.156	17.621	7.259
2023-07-31 07:00	4633206	8.586	-152.49	269.643	17.589	419.384	439.631	0.238	0.286	8.187	17.589	7.506
2023-07-31 07:15	4634106	8.564	-151.277	270.774	17.554	419.161	439.702	0.238	0.286	7.914	17.554	7.871
2023-07-31 07:30	4635006	8.561	-151.107	271.83	17.528	419.058	439.823	0.238	0.286	8.111	17.528	7.259
2023-07-31 07:45	4635906	8.490	-147.247	274.545	17.497	419.262	440.31	0.238	0.286	7.572	17.497	7.226

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-31 08:00	4636806	8.432	-144.148	276.982	17.458	418.127	439.462	0.238	0.286	7.344	17.458	7.293
2023-07-31 08:15	4637706	8.523	-149.035	273.773	17.431	417.789	439.348	0.237	0.286	7.983	17.431	7.22
2023-07-31 08:30	4638606	8.540	-149.93	271.472	17.416	417.638	439.323	0.237	0.286	8.603	17.416	7.209
2023-07-31 08:45	4639506	8.543	-150.099	271.25	17.407	417.588	439.348	0.237	0.286	8.997	17.407	7.203
2023-07-31 09:00	4640406	8.590	-152.638	272.402	17.407	417.305	439.048	0.237	0.285	8.739	17.407	7.125
2023-07-31 09:15	4641306	8.571	-151.577	269.896	17.415	417.563	439.251	0.237	0.286	9.024	17.415	7.149
2023-07-31 09:30	4642206	8.585	-152.371	268.223	17.426	417.645	439.243	0.237	0.286	8.895	17.426	7.154
2023-07-31 09:45	4643106	8.633	-154.958	266.368	17.445	417.595	439.015	0.237	0.285	9.006	17.445	7.198
2023-07-31 10:00	4644006	8.663	-156.615	264.711	17.491	417.233	438.236	0.237	0.285	9.136	17.491	7.26
2023-07-31 10:15	4644906	8.652	-156.035	265.054	17.515	417.606	438.417	0.237	0.285	9.397	17.515	7.28
2023-07-31 10:30	4645806	8.679	-157.509	262.388	17.559	418.102	438.55	0.237	0.285	9.448	17.559	7.247
2023-07-31 10:45	4646706	8.693	-158.298	260.257	17.609	418.48	438.504	0.237	0.285	9.777	17.609	7.274
2023-07-31 11:00	4647606	8.707	-159.094	259.332	17.695	419.251	438.555	0.237	0.285	9.922	17.695	7.304
2023-07-31 11:15	4648506	8.723	-159.962	258.395	17.744	420.047	438.961	0.237	0.285	10.139	17.744	7.303
2023-07-31 11:30	4649406	8.736	-160.694	258.679	17.804	420.537	438.951	0.237	0.285	10.010	17.804	7.276
2023-07-31 11:45	4650306	8.728	-160.329	255.274	17.888	421.174	438.879	0.237	0.285	10.191	17.888	7.334
2023-07-31 12:00	4651206	8.791	-163.82	248.501	18.048	421.393	437.715	0.236	0.285	10.843	18.048	7.339
2023-07-31 12:15	4652106	8.771	-162.778	245.737	18.098	422.045	437.958	0.236	0.285	10.768	18.098	7.608
2023-07-31 12:30	4653006	8.832	-166.109	244.505	18.165	422.712	438.062	0.236	0.285	10.980	18.165	7.379
2023-07-31 12:45	4653906	8.822	-165.577	246.278	18.18	422.88	438.111	0.236	0.285	11.108	18.18	7.355
2023-07-31 13:00	4654806	8.876	-168.526	243.317	18.279	422.835	437.211	0.236	0.284	11.106	18.279	7.426
2023-07-31 13:15	4655706	8.947	-172.451	239.41	18.423	422.758	435.887	0.235	0.283	12.639	18.423	7.709
2023-07-31 13:30	4656606	***9.170***	-184.681	229.47	18.685	424.879	435.822	0.235	0.283	13.718	18.685	7.791
2023-07-31 13:45	4657506	***9.077***	-179.837	226.049	18.974	429.098	437.679	0.236	0.284	13.065	18.974	7.656
2023-07-31 14:00	4658406	***9.026***	-177.274	225.083	19.298	432.294	438.173	0.236	0.285	12.357	19.298	7.846
2023-07-31 14:15	4659306	***9.011***	-176.516	224.551	19.424	434.536	439.366	0.237	0.286	12.610	19.424	8.076
2023-07-31 14:30	4660206	8.992	-175.598	225.634	19.625	437.081	440.234	0.237	0.286	12.684	19.625	7.937
2023-07-31 14:45	4661106	8.972	-174.594	222.789	19.796	439.848	441.571	0.238	0.287	12.173	19.796	7.821
2023-07-31 15:00	4662006	8.927	-172.274	213.339	19.935	441.871	442.424	0.238	0.288	12.029	19.935	7.797
2023-07-31 15:15	4662906	8.871	-169.225	215.952	19.947	443.116	443.561	0.239	0.288	11.779	19.947	7.817
2023-07-31 15:30	4663806	8.762	-163.271	219.356	19.929	444.825	445.43	0.240	0.290	10.934	19.929	7.788
2023-07-31 15:45	4664706	8.755	-162.916	219.29	19.923	445.126	445.786	0.240	0.290	10.813	19.923	7.809
2023-07-31 16:00	4665606	8.810	-165.865	217.752	19.846	441.705	443.012	0.238	0.288	10.962	19.846	7.82
2023-07-31 16:15	4666506	8.915	-171.392	215.241	19.615	437.542	440.781	0.237	0.287	12.461	19.615	7.714
2023-07-31 16:30	4667406	8.864	-168.669	216.226	19.64	438.26	441.298	0.238	0.287	11.888	19.64	7.704
2023-07-31 16:45	4668306	8.857	-168.276	218.441	19.674	438.541	441.293	0.238	0.287	11.772	19.674	7.766
2023-07-31 17:00	4669206	8.941	-172.911	215.694	19.72	437.464	439.812	0.237	0.286	11.832	19.72	7.697
2023-07-31 17:15	4670106	8.942	-172.911	215.699	19.673	436.574	439.322	0.237	0.286	12.830	19.673	7.732
2023-07-31 17:30	4671006	8.912	-171.211	220.808	19.526	436.765	440.753	0.237	0.286	12.324	19.526	7.681
2023-07-31 17:45	4671906	8.887	-169.826	222.248	19.471	435.287	439.728	0.237	0.286	12.320	19.471	7.636
2023-07-31 18:00	4672806	***9.037***	-177.767	224.137	19.192	428.318	435.029	0.234	0.283	13.640	19.192	7.616
2023-07-31 18:15	4673706	***9.019***	-176.68	225.1	18.954	426.828	435.528	0.235	0.283	14.068	18.954	7.509
2023-07-31 18:30	4674606	8.924	-171.459	230.576	18.882	427.247	436.565	0.235	0.284	13.157	18.882	7.509
2023-07-31 18:45	4675506	8.879	-169.034	232.908	18.895	428.119	437.349	0.236	0.284	12.634	18.895	7.469
2023-07-31 19:00	4676406	8.917	-171.142	230.188	18.93	429.06	438.01	0.236	0.285	12.505	18.93	7.488
2023-07-31 19:15	4677306	8.874	-168.817	232.288	18.983	429.82	438.335	0.236	0.285	12.413	18.983	7.509
2023-07-31 19:30	4678206	8.911	-170.906	229.749	19.094	430.376	437.955	0.236	0.285	12.897	19.094	7.523
2023-07-31 19:45	4679106	8.980	-174.744	227.086	19.239	430.106	436.446	0.235	0.284	14.103	19.239	7.656
2023-07-31 20:00	4680006	***9.079***	-180.209	223.86	19.46	432.204	436.711	0.235	0.284	14.547	19.46	7.805
2023-07-31 20:15	4680906	***9.077***	-180.159	220.999	19.515	434.032	438.093	0.236	0.285	13.712	19.515	7.677
2023-07-31 20:30	4681806	***9.036***	-177.975	218.975	19.555	435.037	438.765	0.236	0.285	13.663	19.555	7.786
2023-07-31 20:45	4682706	***9.013***	-176.685	220.839	19.566	435.708	439.352	0.237	0.286	12.799	19.566	7.794
2023-07-31 21:00	4683606	8.925	-171.914	223.991	19.565	436.734	440.393	0.237	0.286	12.276	19.565	7.691
2023-07-31 21:15	4684506	8.955	-173.569	222.909	19.554	437.128	440.888	0.237	0.287	12.340	19.554	7.671
2023-07-31 21:30	4685406	8.886	-169.818	229.637	19.53	437.231	441.19	0.238	0.287	12.245	19.53	7.677
2023-07-31 21:45	4686306	8.927	-171.995	229.384	19.504	437.174	441.359	0.238	0.287	12.244	19.504	7.639

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-07-31 22:00	4687206	8.938	-172.584	229.296	19.473	435.744	440.172	0.237	0.286	12.439	19.473	7.651
2023-07-31 22:15	4688106	8.966	-174.062	229.236	19.441	435.519	440.221	0.237	0.286	12.434	19.441	7.716
2023-07-31 22:30	4689006	8.936	-172.458	228.748	19.409	435.061	440.026	0.237	0.286	12.118	19.409	7.633
2023-07-31 22:45	4689906	8.938	-172.536	230.316	19.377	434.508	439.739	0.237	0.286	12.421	19.377	7.705
2023-07-31 23:00	4690806	8.981	-174.816	228.39	19.347	434.789	440.28	0.237	0.286	12.043	19.347	7.658
2023-07-31 23:15	4691706	8.959	-173.645	228.423	19.308	434.632	440.457	0.237	0.286	12.061	19.308	7.602
2023-07-31 23:30	4692606	8.942	-172.687	231.835	19.26	434.241	440.468	0.237	0.286	12.130	19.26	7.642
2023-07-31 23:45	4693506	8.951	-173.156	232.774	19.213	434.194	440.82	0.238	0.287	12.072	19.213	7.634
2023-08-01 00:00	4694406	8.946	-172.806	232.128	19.153	433.034	440.155	0.237	0.286	11.970	19.153	7.557
2023-08-01 00:15	4695306	8.953	-173.175	233.719	19.091	432.198	439.834	0.237	0.286	11.956	19.091	7.582
2023-08-01 00:30	4696206	8.946	-172.739	234.944	19.038	431.953	440.038	0.237	0.286	11.847	19.038	7.555
2023-08-01 00:45	4697106	8.929	-171.824	236.592	18.987	431.73	440.246	0.237	0.286	11.593	18.987	7.49
2023-08-01 01:00	4698006	8.946	-172.706	232.257	18.942	431.584	440.488	0.237	0.286	11.570	18.942	7.499
2023-08-01 01:15	4698906	8.916	-171.065	237.161	18.893	431.681	441.004	0.238	0.287	11.349	18.893	7.517
2023-08-01 01:30	4699806	8.897	-169.966	239.255	18.84	431.283	441.054	0.238	0.287	11.077	18.84	7.385
2023-08-01 01:45	4700706	8.878	-168.943	242.223	18.787	431.341	441.575	0.238	0.287	10.783	18.787	7.471
2023-08-01 02:00	4701606	8.873	-168.624	243.885	18.718	430.022	440.813	0.238	0.287	10.440	18.718	7.464
2023-08-01 02:15	4702506	8.827	-166.082	248.417	18.655	429.556	440.885	0.238	0.287	10.393	18.655	7.431
2023-08-01 02:30	4703406	8.829	-166.197	248.365	18.619	429.394	441.026	0.238	0.287	10.523	18.619	7.54
2023-08-01 02:45	4704306	8.840	-166.736	247.001	18.59	429.527	441.419	0.238	0.287	10.625	18.59	7.447
2023-08-01 03:00	4705206	8.814	-165.35	235.817	18.542	429.617	441.92	0.238	0.287	10.154	18.542	7.381
2023-08-01 03:15	4706106	8.758	-162.294	233.854	18.498	429.952	442.653	0.239	0.288	9.609	18.498	7.41
2023-08-01 03:30	4707006	8.723	-160.325	236.947	18.434	429.507	442.75	0.239	0.288	9.385	18.434	7.329
2023-08-01 03:45	4707906	8.728	-160.568	240.869	18.384	429.411	443.09	0.239	0.288	9.284	18.384	7.318
2023-08-01 04:00	4708806	8.695	-158.751	240.633	18.324	428.647	442.823	0.239	0.288	9.182	18.324	7.304
2023-08-01 04:15	4709706	8.591	-153.11	247.683	18.279	429.321	443.912	0.240	0.289	8.748	18.279	7.354
2023-08-01 04:30	4710606	8.580	-152.502	254.564	18.229	429.035	444.058	0.240	0.289	8.597	18.229	7.336
2023-08-01 04:45	4711506	8.568	-151.844	258.373	18.18	428.385	443.809	0.240	0.288	8.411	18.18	7.299
2023-08-01 05:00	4712406	8.614	-154.283	259.549	18.132	427.285	443.094	0.239	0.288	8.255	18.132	7.303
2023-08-01 05:15	4713306	8.599	-153.441	257.444	18.1	427.195	443.286	0.239	0.288	7.906	18.1	7.281
2023-08-01 05:30	4714206	8.585	-152.659	258.023	18.056	426.698	443.154	0.239	0.288	8.062	18.056	7.24
2023-08-01 05:45	4715106	8.600	-153.449	260.219	18.004	425.452	442.314	0.239	0.288	7.947	18.004	7.293
2023-08-01 06:00	4716006	8.597	-153.286	258.047	17.951	425.383	442.71	0.239	0.288	8.052	17.951	7.234
2023-08-01 06:15	4716906	8.591	-152.917	260.381	17.909	425.172	442.856	0.239	0.288	8.066	17.909	7.251
2023-08-01 06:30	4717806	8.585	-152.588	260.534	17.87	424.878	442.892	0.239	0.288	8.051	17.87	7.166
2023-08-01 06:45	4718706	8.554	-150.898	262.381	17.836	424.325	442.621	0.239	0.288	7.897	17.836	7.164
2023-08-01 07:00	4719606	8.582	-152.366	260.119	17.802	424.008	442.588	0.239	0.288	7.948	17.802	7.157
2023-08-01 07:15	4720506	8.551	-150.702	261.764	17.763	423.377	442.275	0.239	0.287	7.795	17.763	7.097
2023-08-01 07:30	4721406	8.609	-153.806	262.563	17.727	422.94	442.131	0.239	0.287	8.024	17.727	7.204
2023-08-01 07:45	4722306	8.595	-153.031	263.194	17.702	423.078	442.498	0.239	0.288	8.011	17.702	7.189
2023-08-01 08:00	4723206	8.548	-150.48	259.082	17.679	422.46	442.053	0.239	0.287	7.922	17.679	7.109
2023-08-01 08:15	4724106	8.543	-150.197	262.689	17.658	422.083	441.846	0.239	0.287	8.068	17.658	7.107
2023-08-01 08:30	4725006	8.536	-149.801	266.322	17.633	421.848	441.825	0.239	0.287	8.004	17.633	7.054
2023-08-01 08:45	4725906	8.479	-146.749	267.231	17.609	421.831	442.018	0.239	0.287	8.002	17.609	7.069
2023-08-01 09:00	4726806	8.634	-155.063	263.633	17.583	420.769	441.13	0.238	0.287	8.328	17.583	7.128
2023-08-01 09:15	4727706	8.656	-156.274	260.853	17.567	421.138	441.661	0.239	0.287	8.814	17.567	7.069
2023-08-01 09:30	4728606	8.666	-156.784	260.541	17.55	420.861	441.523	0.239	0.287	8.878	17.55	7.027
2023-08-01 09:45	4729506	8.678	-157.416	258.342	17.533	420.59	441.385	0.239	0.287	9.090	17.533	7.012
2023-08-01 10:00	4730406	8.711	-159.175	254.678	17.527	419.914	440.734	0.238	0.286	9.365	17.527	7.081
2023-08-01 10:15	4731306	8.723	-159.85	254.84	17.511	419.791	440.747	0.238	0.286	9.533	17.511	7.106
2023-08-01 10:30	4732206	8.736	-160.511	253.734	17.509	419.668	440.636	0.238	0.286	9.659	17.509	6.962
2023-08-01 10:45	4733106	8.743	-160.89	253.538	17.512	419.632	440.572	0.238	0.286	9.660	17.512	7.042
2023-08-01 11:00	4734006	8.781	-162.959	248.994	17.541	419.764	440.446	0.238	0.286	9.688	17.541	7.053
2023-08-01 11:15	4734906	8.786	-163.262	247.859	17.566	419.993	440.473	0.238	0.286	9.742	17.566	7.077
2023-08-01 11:30	4735806	8.792	-163.6	248.46	17.612	420.439	440.528	0.238	0.286	10.027	17.612	7.079
2023-08-01 11:45	4736706	8.807	-164.456	247.816	17.684	420.977	440.463	0.238	0.286	10.264	17.684	7.117

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-01 12:00	4737606	8.841	-166.376	246.245	17.818	421.262	439.586	0.237	0.286	10.528	17.818	7.188
2023-08-01 12:15	4738506	8.838	-166.252	247.745	17.845	421.654	439.754	0.238	0.286	10.650	17.845	7.219
2023-08-01 12:30	4739406	8.823	-165.472	251.09	17.92	424.155	441.7	0.239	0.287	10.932	17.92	7.334
2023-08-01 12:45	4740306	8.835	-166.14	249.74	17.989	422.845	439.737	0.237	0.286	10.876	17.989	7.349
2023-08-01 13:00	4741206	8.898	-169.644	247.027	18.122	423.453	439.209	0.237	0.285	11.102	18.122	7.549
2023-08-01 13:15	4742106	8.883	-168.848	240.103	18.207	424.429	439.478	0.237	0.286	11.538	18.207	8.198
2023-08-01 13:30	4743006	8.927	-171.335	237.762	18.334	425.017	438.99	0.237	0.285	11.942	18.334	8.753
2023-08-01 13:45	4743906	***9.002***	-175.436	235.528	18.483	425.921	438.628	0.237	0.285	12.587	18.483	7.399
2023-08-01 14:00	4744806	***9.075***	-179.591	234.009	18.786	427.605	437.752	0.236	0.285	13.135	18.786	7.537
2023-08-01 14:15	4745706	***9.108***	-181.501	228.547	18.955	429.193	437.933	0.236	0.285	13.069	18.955	7.641
2023-08-01 14:30	4746606	***9.172***	-185.082	227.784	19.123	430.773	438.114	0.236	0.285	14.000	19.123	7.609
2023-08-01 14:45	4747506	***9.147***	-183.811	232.627	19.308	432.427	438.217	0.236	0.285	14.208	19.308	7.738
2023-08-01 15:00	4748406	***9.150***	-184.162	229.832	19.595	434.606	437.995	0.236	0.285	13.713	19.595	7.689
2023-08-01 15:15	4749306	***9.111***	-182.004	232.069	19.551	435.713	439.486	0.237	0.286	13.840	19.551	7.782
2023-08-01 15:30	4750206	***9.140***	-183.828	220.532	19.957	438.616	438.978	0.236	0.285	15.500	19.957	7.845
2023-08-01 15:45	4751106	***9.126***	-183.122	220.298	19.975	438.672	438.883	0.236	0.285	14.868	19.975	7.844
2023-08-01 16:00	4752006	***9.203***	-187.297	221.18	20.019	435.735	435.581	0.234	0.283	14.696	20.019	7.84
2023-08-01 16:15	4752906	***9.168***	-185.347	225.76	19.923	434.932	435.57	0.234	0.283	15.872	19.923	7.819
2023-08-01 16:30	4753806	***9.161***	-185.049	223.693	20.07	437.442	436.861	0.235	0.284	15.703	20.07	7.886
2023-08-01 16:45	4754706	***9.157***	-184.944	225.128	20.202	438.111	436.426	0.235	0.284	15.791	20.202	7.903
2023-08-01 17:00	4755606	***9.273***	-191.135	219.051	20.084	435.097	434.401	0.234	0.282	16.259	20.084	7.816
2023-08-01 17:15	4756506	***9.288***	-191.982	214.533	20.065	434.561	434.022	0.233	0.282	17.105	20.065	7.815
2023-08-01 17:30	4757406	***9.283***	-191.677	213.856	20.024	434.13	433.927	0.233	0.282	17.736	20.024	7.843
2023-08-01 17:45	4758306	***9.313***	-193.269	211.77	19.996	432.188	432.219	0.232	0.281	17.505	19.996	7.811
2023-08-01 18:00	4759206	***9.330***	-194.185	211.834	19.955	430.938	431.313	0.232	0.280	18.276	19.955	7.83
2023-08-01 18:15	4760106	***9.297***	-192.316	212.211	19.901	431.602	432.417	0.233	0.281	18.378	19.901	7.73
2023-08-01 18:30	4761006	***9.290***	-191.934	210.888	19.854	431.185	432.392	0.233	0.281	17.955	19.854	7.767
2023-08-01 18:45	4761906	***9.262***	-190.396	211.355	19.823	431.543	433.011	0.233	0.281	17.694	19.823	7.666
2023-08-01 19:00	4762806	***9.246***	-189.526	209.431	19.807	433.235	434.839	0.234	0.283	17.338	19.807	7.742
2023-08-01 19:15	4763706	***9.173***	-185.537	214.726	19.807	433.198	434.802	0.234	0.283	16.626	19.807	7.693
2023-08-01 19:30	4764606	***9.225***	-188.379	208.141	19.853	433.173	434.392	0.234	0.282	16.677	19.853	7.745
2023-08-01 19:45	4765506	***9.231***	-188.699	211.684	19.812	432.374	433.93	0.233	0.282	16.943	19.812	7.724
2023-08-01 20:00	4766406	***9.251***	-189.714	212.9	19.715	431.711	434.074	0.234	0.282	16.396	19.715	7.671
2023-08-01 20:15	4767306	***9.238***	-188.975	216.691	19.646	431.774	434.715	0.234	0.283	16.644	19.646	7.663
2023-08-01 20:30	4768206	***9.214***	-187.662	219.018	19.639	432.415	435.414	0.234	0.283	16.469	19.639	7.613
2023-08-01 20:45	4769106	***9.207***	-187.297	219.089	19.656	432.32	435.181	0.234	0.283	16.542	19.656	7.651
2023-08-01 21:00	4770006	***9.241***	-189.183	217.947	19.697	432.291	434.806	0.234	0.283	16.448	19.697	7.672
2023-08-01 21:15	4770906	***9.230***	-188.601	220.272	19.718	432.431	434.771	0.234	0.283	16.593	19.718	7.652
2023-08-01 21:30	4771806	***9.232***	-188.634	224.652	19.614	433.953	437.179	0.235	0.284	15.295	19.614	7.652
2023-08-01 21:45	4772706	8.948	-173.037	228.271	19.348	435.554	441.048	0.238	0.287	13.574	19.348	7.558
2023-08-01 22:00	4773606	8.924	-171.757	231.418	19.34	435.455	441.013	0.238	0.287	12.350	19.34	7.568
2023-08-01 22:15	4774506	8.940	-172.639	230.183	19.422	435.31	440.172	0.237	0.286	12.610	19.422	7.648
2023-08-01 22:30	4775406	8.989	-175.378	228.125	19.514	432.634	436.686	0.235	0.284	13.198	19.514	7.549
2023-08-01 22:45	4776306	***9.053***	-178.881	224.566	19.563	430.828	434.458	0.234	0.282	12.786	19.563	7.546
2023-08-01 23:00	4777206	***9.051***	-178.807	219.659	19.615	428.341	431.518	0.232	0.280	12.948	19.615	7.62
2023-08-01 23:15	4778106	***9.033***	-177.81	213.93	19.629	427.772	430.825	0.232	0.280	12.363	19.629	7.652
2023-08-01 23:30	4779006	8.986	-175.276	215.699	19.642	426.351	429.286	0.231	0.279	12.471	19.642	7.658
2023-08-01 23:45	4779906	8.978	-174.859	216.948	19.645	425.279	428.182	0.230	0.278	12.193	19.645	7.696
2023-08-02 00:00	4780806	8.976	-174.756	215.251	19.649	423.594	426.457	0.229	0.277	11.866	19.649	7.646
2023-08-02 00:15	4781706	8.983	-175.133	221.035	19.625	423.869	426.928	0.230	0.278	11.487	19.625	7.713
2023-08-02 00:30	4782606	8.948	-173.171	218.717	19.588	423.915	427.281	0.230	0.278	10.937	19.588	7.719
2023-08-02 00:45	4783506	8.918	-171.556	212.185	19.537	423.54	427.319	0.230	0.278	11.120	19.537	7.69
2023-08-02 01:00	4784406	8.924	-171.8	204.245	19.478	422.573	426.83	0.230	0.277	10.595	19.478	7.625
2023-08-02 01:15	4785306	8.899	-170.431	207.209	19.422	422.745	427.46	0.230	0.278	10.765	19.422	7.608
2023-08-02 01:30	4786206	8.890	-169.909	210.473	19.364	422.14	427.327	0.230	0.278	10.802	19.364	7.589
2023-08-02 01:45	4787106	8.890	-169.857	209.812	19.307	421.399	427.052	0.230	0.278	10.782	19.307	7.572

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-02 02:00	4788006	8.896	-170.174	208.391	19.251	421.352	427.469	0.230	0.278	10.397	19.251	7.543
2023-08-02 02:15	4788906	8.887	-169.656	211.446	19.219	421.512	427.896	0.230	0.278	10.666	19.219	7.636
2023-08-02 02:30	4789806	8.856	-167.971	210.907	19.176	421.804	428.546	0.231	0.279	10.722	19.176	7.529
2023-08-02 02:45	4790706	8.823	-166.125	212.454	19.135	422.064	429.151	0.231	0.279	10.646	19.135	7.576
2023-08-02 03:00	4791606	8.884	-169.411	206.608	19.088	421.933	429.416	0.231	0.279	10.729	19.088	9.422
2023-08-02 03:15	4792506	8.875	-168.927	211.841	19.063	422.158	429.854	0.232	0.279	10.683	19.063	7.473
2023-08-02 03:30	4793406	8.870	-168.622	214.617	19.026	421.841	429.84	0.232	0.279	10.826	19.026	7.486
2023-08-02 03:45	4794306	8.868	-168.498	217.172	18.988	421.678	429.99	0.232	0.279	10.555	18.988	7.487
2023-08-02 04:00	4795206	8.879	-169.089	216.595	18.947	421.593	430.248	0.232	0.280	10.571	18.947	7.447
2023-08-02 04:15	4796106	8.861	-168.076	219.542	18.925	421.828	430.67	0.232	0.280	10.857	18.925	7.557
2023-08-02 04:30	4797006	8.853	-167.656	222.494	18.898	421.756	430.822	0.232	0.280	10.756	18.898	7.693
2023-08-02 04:45	4797906	8.843	-167.091	225.381	18.865	422.447	431.807	0.233	0.281	10.381	18.865	7.728
2023-08-02 05:00	4798806	8.854	-167.682	225.484	18.84	422.738	432.318	0.233	0.281	10.244	18.84	7.678
2023-08-02 05:15	4799706	8.851	-167.468	225.553	18.814	422.968	432.774	0.233	0.281	10.555	18.814	7.646
2023-08-02 05:30	4800606	8.832	-166.428	228.683	18.77	422.834	433.011	0.233	0.281	10.479	18.77	7.429
2023-08-02 05:45	4801506	8.786	-163.937	232.033	18.727	422.366	432.889	0.233	0.281	10.231	18.727	7.486
2023-08-02 06:00	4802406	8.817	-165.553	232.41	18.688	421.161	431.984	0.233	0.281	10.239	18.688	7.623
2023-08-02 06:15	4803306	8.808	-165.057	233.213	18.641	420.912	432.126	0.233	0.281	10.299	18.641	7.616
2023-08-02 06:30	4804206	8.805	-164.897	234.77	18.612	420.812	432.269	0.233	0.281	10.311	18.612	7.686
2023-08-02 06:45	4805106	8.801	-164.673	236.389	18.585	420.63	432.317	0.233	0.281	10.091	18.585	7.498
2023-08-02 07:00	4806006	8.695	-158.877	243.842	18.562	420.453	432.325	0.233	0.281	9.802	18.562	7.745
2023-08-02 07:15	4806906	8.791	-164.073	243.656	18.534	420.563	432.681	0.233	0.281	10.250	18.534	7.579
2023-08-02 07:30	4807806	8.793	-164.201	246.791	18.523	420.657	432.872	0.233	0.281	10.280	18.523	7.589
2023-08-02 07:45	4808706	8.774	-163.169	244.614	18.511	420.75	433.062	0.234	0.281	10.455	18.511	7.589
2023-08-02 08:00	4809606	8.790	-163.989	243.484	18.511	420.309	432.612	0.233	0.281	10.314	18.511	7.472
2023-08-02 08:15	4810506	8.804	-164.764	240.347	18.492	420.612	433.087	0.234	0.282	10.321	18.492	7.396
2023-08-02 08:30	4811406	8.805	-164.814	237.467	18.474	420.668	433.298	0.234	0.282	10.275	18.474	7.473
2023-08-02 08:45	4812306	8.806	-164.84	236.167	18.462	420.66	433.388	0.234	0.282	10.386	18.462	7.497
2023-08-02 09:00	4813206	8.839	-166.636	233.266	18.452	420.614	433.433	0.234	0.282	10.366	18.452	7.44
2023-08-02 09:15	4814106	8.817	-165.443	233.218	18.441	420.959	433.876	0.234	0.282	10.095	18.441	7.477
2023-08-02 09:30	4815006	8.822	-165.687	232.143	18.431	421.124	434.135	0.234	0.282	10.367	18.431	7.461
2023-08-02 09:45	4815906	8.822	-165.684	231.32	18.427	421.146	434.194	0.234	0.282	10.266	18.427	7.446
2023-08-02 10:00	4816806	8.822	-165.699	226.914	18.42	421.002	434.099	0.234	0.282	10.171	18.42	7.433
2023-08-02 10:15	4817706	8.813	-165.212	229.608	18.42	421.363	434.475	0.234	0.282	10.240	18.42	7.416
2023-08-02 10:30	4818606	8.816	-165.37	231.048	18.431	421.618	434.644	0.234	0.283	10.496	18.431	7.413
2023-08-02 10:45	4819506	8.821	-165.625	230.371	18.445	421.737	434.65	0.234	0.283	10.298	18.445	7.429
2023-08-02 11:00	4820406	8.842	-166.798	231.42	18.47	422.226	434.935	0.235	0.283	10.508	18.47	7.368
2023-08-02 11:15	4821306	8.845	-166.965	229.868	18.481	422.536	435.163	0.235	0.283	10.641	18.481	7.376
2023-08-02 11:30	4822206	8.852	-167.353	229.36	18.496	422.751	435.252	0.235	0.283	10.496	18.496	7.348
2023-08-02 11:45	4823106	8.854	-167.46	227.446	18.529	423.271	435.51	0.235	0.283	10.677	18.529	7.277
2023-08-02 12:00	4824006	8.817	-165.496	231.396	18.571	423.141	435.013	0.235	0.283	10.634	18.571	7.39
2023-08-02 12:15	4824906	8.805	-164.855	231.973	18.576	422.824	434.643	0.234	0.283	11.113	18.576	7.328
2023-08-02 12:30	4825806	8.787	-163.915	233.738	18.589	423.297	435.02	0.235	0.283	10.975	18.589	7.427
2023-08-02 12:45	4826706	8.786	-163.846	234.83	18.613	423.628	435.158	0.235	0.283	10.927	18.613	7.35
2023-08-02 13:00	4827606	8.840	-166.788	233.349	18.65	423.98	435.198	0.235	0.283	10.609	18.65	7.332
2023-08-02 13:15	4828506	8.837	-166.628	233.251	18.667	424.647	435.739	0.235	0.283	10.799	18.667	7.347
2023-08-02 13:30	4829406	8.851	-167.425	231.699	18.683	424.924	435.885	0.235	0.283	10.971	18.683	7.347
2023-08-02 13:45	4830306	8.857	-167.732	231.721	18.686	425.004	435.944	0.235	0.283	11.148	18.686	7.406
2023-08-02 14:00	4831206	8.841	-166.867	232.968	18.683	423.879	434.819	0.234	0.283	10.962	18.683	7.336
2023-08-02 14:15	4832106	8.825	-165.997	236.146	18.674	423.956	434.972	0.235	0.283	11.064	18.674	7.387
2023-08-02 14:30	4833006	8.847	-167.208	235.738	18.668	423.927	434.993	0.235	0.283	11.160	18.668	7.348
2023-08-02 14:45	4833906	8.852	-167.446	236.143	18.662	423.631	434.743	0.234	0.283	10.938	18.662	7.49
2023-08-02 15:00	4834806	8.882	-169.063	234.346	18.663	423.019	434.105	0.234	0.282	10.757	18.663	7.943
2023-08-02 15:15	4835706	8.868	-168.3	234.813	18.657	423.087	434.226	0.234	0.282	10.882	18.657	8.616
2023-08-02 15:30	4836606	8.825	-165.975	236.987	18.649	422.771	433.965	0.234	0.282	10.466	18.649	9.451
2023-08-02 15:45	4837506	8.781	-163.617	241.446	18.644	422.452	433.686	0.234	0.282	10.077	18.644	11.714

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-02 16:00	4838406	8.629	-155.361	246.646	18.628	421.864	433.216	0.234	0.282	9.420	18.628	12.112
2023-08-02 16:15	4839306	8.655	-156.758	246.374	18.567	419.917	431.736	0.233	0.281	9.159	18.567	17.212
2023-08-02 16:30	4840206	8.576	-152.378	251.319	18.432	413.046	425.794	0.230	0.277	8.624	18.432	40.619
2023-08-02 16:45	4841106	8.525	-149.567	255.429	18.285	402.65	416.284	0.224	0.271	8.204	18.285	73.553
2023-08-02 17:00	4842006	8.499	-148.141	256.592	18.209	394.805	408.792	0.220	0.266	8.011	18.209	77.45
2023-08-02 17:15	4842906	8.473	-146.701	262.276	18.191	395.284	409.434	0.221	0.266	8.390	18.191	75.586
2023-08-02 17:30	4843806	8.473	-146.708	263.883	18.212	401.47	415.667	0.224	0.270	8.399	18.212	39.351
2023-08-02 17:45	4844706	8.475	-146.854	260.979	18.24	399.357	413.25	0.223	0.269	8.202	18.24	46.61
2023-08-02 18:00	4845606	8.506	-148.528	260.932	18.283	402.196	415.836	0.224	0.270	8.648	18.283	43.467
2023-08-02 18:15	4846506	8.476	-146.942	259.272	18.306	403.661	417.16	0.225	0.271	8.881	18.306	33.204
2023-08-02 18:30	4847406	8.533	-150.018	252.675	18.328	404.812	418.165	0.225	0.272	8.844	18.328	29.107
2023-08-02 18:45	4848306	8.536	-150.192	254.111	18.33	405.829	419.2	0.226	0.272	8.794	18.33	25.771
2023-08-02 19:00	4849206	8.602	-153.759	249.693	18.328	405.544	418.921	0.226	0.272	9.272	18.328	19.582
2023-08-02 19:15	4850106	8.566	-151.794	251.223	18.324	405.847	419.268	0.226	0.273	9.223	18.324	18.64
2023-08-02 19:30	4851006	8.604	-153.84	250.518	18.322	406.061	419.509	0.226	0.273	9.180	18.322	16.879
2023-08-02 19:45	4851906	8.602	-153.766	250.146	18.318	405.768	419.234	0.226	0.273	9.349	18.318	19.892
2023-08-02 20:00	4852806	8.546	-150.726	251.834	18.322	405.507	418.938	0.226	0.272	9.194	18.322	18.754
2023-08-02 20:15	4853706	8.553	-151.1	252.113	18.334	406.407	419.761	0.226	0.273	9.236	18.334	15.181
2023-08-02 20:30	4854606	8.559	-151.451	250.384	18.356	406.941	420.134	0.226	0.273	9.135	18.356	15.602
2023-08-02 20:45	4855506	8.603	-153.809	249.159	18.379	408.14	421.182	0.227	0.274	9.121	18.379	14.338
2023-08-02 21:00	4856406	8.642	-155.923	246.174	18.4	409.552	422.461	0.228	0.275	9.431	18.4	12.842
2023-08-02 21:15	4857306	8.680	-157.99	241.229	18.41	410.852	423.719	0.228	0.275	9.403	18.41	11.72
2023-08-02 21:30	4858206	8.714	-159.86	232.281	18.414	412.017	424.884	0.229	0.276	9.577	18.414	11.395
2023-08-02 21:45	4859106	8.727	-160.558	232.853	18.412	412.612	425.519	0.229	0.277	9.940	18.412	11.093
2023-08-02 22:00	4860006	8.705	-159.338	230.445	18.404	412.522	425.496	0.229	0.277	9.879	18.404	10.589
2023-08-02 22:15	4860906	8.692	-158.632	233.962	18.388	412.41	425.508	0.229	0.277	9.972	18.388	10.695
2023-08-02 22:30	4861806	8.698	-158.949	234.658	18.375	412.402	425.609	0.229	0.277	9.946	18.375	10.428
2023-08-02 22:45	4862706	8.675	-157.685	237.905	18.359	412.259	425.599	0.229	0.277	10.479	18.359	10.208
2023-08-02 23:00	4863606	8.693	-158.665	237.126	18.343	412.022	425.489	0.229	0.277	9.654	18.343	10.17
2023-08-02 23:15	4864506	8.686	-158.291	238.618	18.322	412.281	425.934	0.230	0.277	9.526	18.322	10.408
2023-08-02 23:30	4865406	8.687	-158.322	240.68	18.3	412.017	425.842	0.230	0.277	9.432	18.3	10.396
2023-08-02 23:45	4866306	8.694	-158.677	241.133	18.276	411.776	425.794	0.230	0.277	9.577	18.276	10.358
2023-08-03 00:00	4867206	8.684	-158.141	242.304	18.25	410.587	424.787	0.229	0.276	9.672	18.25	13.817
2023-08-03 00:15	4868106	8.687	-158.279	241.114	18.227	410.638	425.027	0.229	0.276	9.513	18.227	10.392
2023-08-03 00:30	4869006	8.690	-158.441	239.531	18.215	410.429	424.918	0.229	0.276	9.689	18.215	10.463
2023-08-03 00:45	4869906	8.691	-158.474	242.006	18.196	410.327	424.971	0.229	0.276	9.485	18.196	10.163
2023-08-03 01:00	4870806	8.730	-160.611	237.898	18.186	410.183	424.903	0.229	0.276	9.490	18.186	10.412
2023-08-03 01:15	4871706	8.689	-158.353	243.684	18.165	410.322	425.229	0.229	0.276	9.612	18.165	10.822
2023-08-03 01:30	4872606	8.643	-155.861	248.72	18.15	410.267	425.296	0.229	0.276	9.781	18.15	10.331
2023-08-03 01:45	4873506	8.599	-153.463	252.442	18.139	410.166	425.284	0.229	0.276	9.567	18.139	10.574
2023-08-03 02:00	4874406	8.638	-155.582	256.032	18.118	409.282	424.546	0.229	0.276	9.409	18.118	10.915
2023-08-03 02:15	4875306	8.654	-156.455	251.567	18.092	409.103	424.578	0.229	0.276	9.294	18.092	13.023
2023-08-03 02:30	4876206	8.646	-155.973	249.8	18.065	408.83	424.52	0.229	0.276	9.029	18.065	11.398
2023-08-03 02:45	4877106	8.653	-156.372	245.861	18.037	408.545	424.455	0.229	0.276	9.015	18.037	11.042
2023-08-03 03:00	4878006	8.671	-157.313	245.856	18.029	408.227	424.198	0.229	0.276	9.293	18.029	10.778
2023-08-03 03:15	4878906	8.645	-155.928	245.539	18.013	408.488	424.603	0.229	0.276	9.059	18.013	10.782
2023-08-03 03:30	4879806	8.649	-156.126	246.217	18	408.414	424.634	0.229	0.276	9.001	18	10.484
2023-08-03 03:45	4880706	8.647	-155.981	248.226	17.981	408.389	424.768	0.229	0.276	9.145	17.981	10.543
2023-08-03 04:00	4881606	8.646	-155.907	247.349	17.957	407.765	424.325	0.229	0.276	9.174	17.957	10.139
2023-08-03 04:15	4882506	8.647	-155.952	245.806	17.928	407.741	424.539	0.229	0.276	9.135	17.928	10.643
2023-08-03 04:30	4883406	8.476	-146.713	252.144	17.905	408.262	425.282	0.229	0.276	8.548	17.905	11.31
2023-08-03 04:45	4884306	8.519	-149.033	256.824	17.876	409.324	426.628	0.230	0.277	7.469	17.876	11.092
2023-08-03 05:00	4885206	8.535	-149.894	253.488	17.85	407.559	425.015	0.229	0.276	7.963	17.85	10.602
2023-08-03 05:15	4886106	8.487	-147.283	257.2	17.824	408.602	426.322	0.230	0.277	7.398	17.824	10.785
2023-08-03 05:30	4887006	8.458	-145.719	260.274	17.791	408.37	426.356	0.230	0.277	7.223	17.791	10.025
2023-08-03 05:45	4887906	8.326	-138.533	270.337	17.757	409.926	428.272	0.231	0.278	***5.434***	17.757	10.406

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-03 06:00	4888806	8.274	-135.717	269.555	17.725	408.895	427.474	0.231	0.278	***6.213***	17.725	9.207
2023-08-03 06:15	4889706	8.197	-131.528	274.6	17.659	408.787	427.922	0.231	0.278	***6.253***	17.659	9.2
2023-08-03 06:30	4890606	8.204	-131.941	277.902	17.626	408.78	428.193	0.231	0.278	7.104	17.626	9.559
2023-08-03 06:45	4891506	8.192	-131.247	282.442	17.598	408.994	428.664	0.231	0.279	6.545	17.598	8.752
2023-08-03 07:00	4892406	8.168	-129.971	286.257	17.572	408.195	428.049	0.231	0.278	***5.675***	17.572	9.483
2023-08-03 07:15	4893306	8.164	-129.714	284.645	17.544	409.011	429.144	0.232	0.279	***6.069***	17.544	9.471
2023-08-03 07:30	4894206	8.154	-129.147	288.46	17.505	408.782	429.234	0.232	0.279	***4.452***	17.505	8.694
2023-08-03 07:45	4895106	8.117	-127.165	287.83	17.451	407.66	428.524	0.231	0.279	***4.568***	17.451	8.927
2023-08-03 08:00	4896006	8.182	-130.639	285.267	17.39	405.479	426.757	0.230	0.277	***5.271***	17.39	9.174
2023-08-03 08:15	4896906	8.225	-132.928	286.481	17.327	404.509	426.269	0.230	0.277	***5.848***	17.327	8.459
2023-08-03 08:30	4897806	8.214	-132.277	289.799	17.28	404.241	426.397	0.230	0.277	***6.086***	17.28	8.633
2023-08-03 08:45	4898706	8.251	-134.28	290.736	17.23	403.329	425.862	0.230	0.277	***6.183***	17.23	8.631
2023-08-03 09:00	4899606	8.277	-135.674	289.916	17.201	403.029	425.792	0.230	0.277	***6.350***	17.201	8.788
2023-08-03 09:15	4900506	8.237	-133.486	288.703	17.172	402.952	425.957	0.230	0.277	***6.275***	17.172	8.997
2023-08-03 09:30	4901406	8.246	-133.941	287.184	17.143	402.695	425.935	0.230	0.277	***6.498***	17.143	8.95
2023-08-03 09:45	4902306	8.256	-134.501	287.334	17.114	402.495	425.973	0.230	0.277	6.606	17.114	8.6
2023-08-03 10:00	4903206	8.279	-135.691	285.052	17.084	401.706	425.401	0.230	0.277	6.644	17.084	8.948
2023-08-03 10:15	4904106	8.334	-138.664	288.841	17.054	401.33	425.257	0.230	0.276	6.939	17.054	8.606
2023-08-03 10:30	4905006	8.360	-140.059	290.717	17.035	401.073	425.15	0.230	0.276	7.182	17.035	8.618
2023-08-03 10:45	4905906	8.321	-137.939	290.09	17.026	400.955	425.101	0.230	0.276	7.239	17.026	8.322
2023-08-03 11:00	4906806	8.328	-138.352	287.542	17.045	401.101	425.092	0.230	0.276	7.230	17.045	8.885
2023-08-03 11:15	4907706	8.322	-138.001	286.764	17.051	401.686	425.66	0.230	0.277	7.430	17.051	8.851
2023-08-03 11:30	4908606	8.267	-135.057	288.102	17.089	401.789	425.446	0.230	0.277	7.599	17.089	8.926
2023-08-03 11:45	4909506	8.315	-137.689	283.941	17.131	401.56	424.837	0.230	0.276	8.177	17.131	9.339
2023-08-03 12:00	4910406	8.454	-145.195	276.863	17.193	400.335	423.014	0.228	0.275	8.722	17.193	9.119
2023-08-03 12:15	4911306	8.469	-146.005	274.503	17.218	400.159	422.611	0.228	0.275	9.189	17.218	9.138
2023-08-03 12:30	4912206	8.515	-148.528	272.795	17.273	400.157	422.146	0.228	0.274	9.662	17.273	9.435
2023-08-03 12:45	4913106	8.578	-151.935	267.989	17.337	400.628	422.097	0.228	0.274	9.605	17.337	9.437
2023-08-03 13:00	4914006	8.695	-158.26	258.199	17.426	400.7	421.416	0.227	0.274	9.877	17.426	9.608
2023-08-03 13:15	4914906	8.640	-155.318	255.398	17.457	401.029	421.502	0.228	0.274	10.022	17.457	9.962
2023-08-03 13:30	4915806	8.701	-158.658	249.318	17.533	401.768	421.639	0.228	0.274	10.505	17.533	10.089
2023-08-03 13:45	4916706	8.700	-158.656	246.088	17.636	402.376	421.399	0.227	0.274	10.851	17.636	10.037
2023-08-03 14:00	4917606	8.897	-169.406	237.617	17.81	402.079	419.629	0.226	0.273	11.317	17.81	9.91
2023-08-03 14:15	4918506	8.947	-172.148	233.106	17.899	402.732	419.571	0.226	0.273	12.094	17.899	9.999
2023-08-03 14:30	4919406	***9.006***	-175.416	232.681	18.04	403.691	419.389	0.226	0.273	12.638	18.04	9.824
2023-08-03 14:45	4920306	***9.024***	-176.477	232.35	18.219	405.046	419.311	0.226	0.273	12.742	18.219	10.032
2023-08-03 15:00	4921206	***9.066***	-178.921	229.789	18.498	407.751	419.794	0.226	0.273	12.755	18.498	10.609
2023-08-03 15:15	4922106	***9.023***	-176.635	226.304	18.592	409.131	420.442	0.227	0.273	13.001	18.592	10.346
2023-08-03 15:30	4923006	***9.017***	-176.437	227.119	18.768	411.244	421.152	0.227	0.274	12.927	18.768	10.163
2023-08-03 15:45	4923906	***9.015***	-176.43	224.199	18.946	413.999	422.501	0.227	0.275	11.968	18.946	9.871
2023-08-03 16:00	4924806	***9.025***	-177.035	219.499	19.054	413.471	421.078	0.227	0.274	12.538	19.054	10.064
2023-08-03 16:15	4925706	***9.040***	-177.832	223.049	19.009	413.563	421.538	0.227	0.274	12.717	19.009	9.886
2023-08-03 16:30	4926606	***9.017***	-176.609	223.932	19.065	414.115	421.646	0.227	0.274	12.934	19.065	9.691
2023-08-03 16:45	4927506	***9.025***	-177.064	227.174	19.094	414.546	421.842	0.227	0.274	12.824	19.094	9.827
2023-08-03 17:00	4928406	***9.089***	-180.6	221.419	19.213	415.438	421.78	0.227	0.274	13.235	19.213	9.553
2023-08-03 17:15	4929306	***9.086***	-180.485	221.683	19.227	415.807	422.035	0.227	0.274	13.624	19.227	9.497
2023-08-03 17:30	4930206	***9.067***	-179.443	225.963	19.219	415.762	422.059	0.227	0.274	13.119	19.219	9.726
2023-08-03 17:45	4931106	***9.035***	-177.679	226.216	19.197	415.687	422.16	0.227	0.274	12.527	19.197	9.525
2023-08-03 18:00	4932006	***9.013***	-176.475	225.727	19.184	415.462	422.038	0.227	0.274	12.611	19.184	9.288
2023-08-03 18:15	4932906	8.958	-173.461	229.358	19.135	415.159	422.133	0.227	0.274	12.648	19.135	9.238
2023-08-03 18:30	4933806	***9.009***	-176.215	225.658	19.076	413.684	421.118	0.227	0.274	12.920	19.076	9.074
2023-08-03 18:45	4934706	***9.043***	-178.022	225.088	19.052	412.697	420.304	0.226	0.273	13.253	19.052	8.905
2023-08-03 19:00	4935606	***9.128***	-182.581	219.893	18.947	410.815	419.248	0.226	0.273	13.705	18.947	8.916
2023-08-03 19:15	4936506	***9.136***	-182.927	217.888	18.855	409.901	419.064	0.226	0.272	13.645	18.855	8.893
2023-08-03 19:30	4937406	***9.136***	-182.886	217.346	18.77	409.028	418.872	0.226	0.272	14.090	18.77	8.733
2023-08-03 19:45	4938306	***9.102***	-180.979	219.733	18.697	408.952	419.388	0.226	0.273	13.614	18.697	8.853

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-03 20:00	4939206	***9.025***	-176.809	219.735	18.663	409.488	420.217	0.226	0.273	12.852	18.663	8.713
2023-08-03 20:15	4940106	8.989	-174.854	220.029	18.634	409.915	420.9	0.227	0.274	12.287	18.634	8.702
2023-08-03 20:30	4941006	8.949	-172.682	221.64	18.645	410.26	421.157	0.227	0.274	12.043	18.645	8.605
2023-08-03 20:45	4941906	8.927	-171.48	226.9	18.636	410.566	421.546	0.227	0.274	11.597	18.636	8.573
2023-08-03 21:00	4942806	8.903	-170.219	225.414	18.634	410.705	421.709	0.227	0.274	11.046	18.634	8.588
2023-08-03 21:15	4943706	8.885	-169.201	228.736	18.618	410.933	422.07	0.227	0.274	10.564	18.618	8.609
2023-08-03 21:30	4944606	8.864	-168.099	230.159	18.617	411.118	422.271	0.228	0.274	10.912	18.617	8.54
2023-08-03 21:45	4945506	8.865	-168.149	231.101	18.621	411.208	422.336	0.228	0.275	11.009	18.621	8.513
2023-08-03 22:00	4946406	8.851	-167.372	229.186	18.634	411.242	422.257	0.227	0.274	10.820	18.634	8.512
2023-08-03 22:15	4947306	8.803	-164.802	235.001	18.629	411.402	422.465	0.228	0.275	10.837	18.629	8.468
2023-08-03 22:30	4948206	8.824	-165.944	233.32	18.636	411.417	422.423	0.228	0.275	10.943	18.636	8.881
2023-08-03 22:45	4949106	8.828	-166.161	233.79	18.645	411.627	422.566	0.228	0.275	10.815	18.645	8.484
2023-08-03 23:00	4950006	8.840	-166.824	233.835	18.661	411.882	422.693	0.228	0.275	11.075	18.661	8.298
2023-08-03 23:15	4950906	8.831	-166.285	238.415	18.66	412.463	423.301	0.228	0.275	10.662	18.66	8.401
2023-08-03 23:30	4951806	8.813	-165.358	236.861	18.662	412.391	423.21	0.228	0.275	9.962	18.662	8.342
2023-08-03 23:45	4952706	8.800	-164.659	230.25	18.669	413.276	424.056	0.228	0.276	10.017	18.669	8.212
2023-08-04 00:00	4953606	8.584	-152.957	235.123	18.66	413.876	424.749	0.229	0.276	9.690	18.66	8.214
2023-08-04 00:15	4954506	8.692	-158.787	235.187	18.637	414.767	425.852	0.229	0.277	7.991	18.637	8.177
2023-08-04 00:30	4955406	8.395	-142.691	234.601	18.607	415.258	426.61	0.230	0.277	9.661	18.607	8.109
2023-08-04 00:45	4956306	8.433	-144.732	236.558	18.568	415.318	426.999	0.230	0.278	9.807	18.568	8.104
2023-08-04 01:00	4957206	8.694	-158.849	225.054	18.529	415.142	427.143	0.230	0.278	9.811	18.529	8.173
2023-08-04 01:15	4958106	8.451	-145.655	228.993	18.484	416.043	428.449	0.231	0.278	7.024	18.484	7.995
2023-08-04 01:30	4959006	8.555	-151.236	235.616	18.431	415.425	428.256	0.231	0.278	***4.932***	18.431	8.126
2023-08-04 01:45	4959906	8.684	-158.181	236.227	18.38	414.4	427.629	0.231	0.278	9.509	18.38	8.14
2023-08-04 02:00	4960806	8.723	-160.305	233.707	18.327	413.097	426.737	0.230	0.277	9.710	18.327	8.026
2023-08-04 02:15	4961706	8.672	-157.509	235.5	18.254	412.117	426.337	0.230	0.277	9.424	18.254	8.025
2023-08-04 02:30	4962606	8.697	-158.827	233.204	18.217	412.438	426.982	0.230	0.278	9.560	18.217	8.062
2023-08-04 02:45	4963506	8.696	-158.727	212.719	18.164	411.997	426.97	0.230	0.278	9.431	18.164	7.943
2023-08-04 03:00	4964406	8.731	-160.62	218.283	18.133	411.759	426.984	0.230	0.278	9.484	18.133	8.077
2023-08-04 03:15	4965306	8.703	-159.094	232.324	18.089	411.542	427.13	0.230	0.278	9.381	18.089	7.944
2023-08-04 03:30	4966206	8.682	-157.895	238.95	18.041	411.084	427.061	0.230	0.278	9.255	18.041	7.999
2023-08-04 03:45	4967106	8.689	-158.253	241.66	18.004	410.696	426.971	0.230	0.278	9.338	18.004	7.996
2023-08-04 04:00	4968006	8.704	-159.042	239.975	17.946	409.415	426.131	0.230	0.277	9.327	17.946	7.931
2023-08-04 04:15	4968906	8.707	-159.199	238.888	17.905	409.56	426.632	0.230	0.277	9.344	17.905	7.945
2023-08-04 04:30	4969806	8.591	-152.917	248.057	17.863	409.818	427.26	0.231	0.278	9.289	17.863	7.735
2023-08-04 04:45	4970706	8.493	-147.576	255.4	17.817	410.016	427.855	0.231	0.278	8.947	17.817	7.726
2023-08-04 05:00	4971606	8.494	-147.66	259.513	17.788	410.379	428.48	0.231	0.279	8.241	17.788	7.863
2023-08-04 05:15	4972506	8.486	-147.202	262.725	17.754	410.901	429.322	0.232	0.279	7.270	17.754	7.784
2023-08-04 05:30	4973406	8.393	-142.148	268.199	17.706	411.202	430.042	0.232	0.280	6.974	17.706	7.704
2023-08-04 05:45	4974306	8.339	-139.234	268.44	17.666	411.779	430.994	0.233	0.280	***6.262***	17.666	7.711
2023-08-04 06:00	4975206	8.266	-135.238	271.863	17.618	411.065	430.658	0.233	0.280	***5.522***	17.618	7.505
2023-08-04 06:15	4976106	8.112	-126.92	276.4	17.574	414.697	434.85	0.235	0.283	***5.548***	17.574	7.463
2023-08-04 06:30	4977006	7.950	-118.165	286.679	17.518	414.93	435.582	0.235	0.283	***5.157***	17.518	7.206
2023-08-04 06:45	4977906	8.044	-123.203	285.022	17.459	414.031	435.153	0.235	0.283	***4.639***	17.459	29.836
2023-08-04 07:00	4978806	8.088	-125.589	286.066	17.414	410.285	431.603	0.233	0.281	***4.145***	17.414	7.309
2023-08-04 07:15	4979706	8.112	-126.834	286.042	17.364	411.549	433.364	0.234	0.282	***4.395***	17.364	7.226
2023-08-04 07:30	4980606	8.115	-127.006	279.977	17.311	410.156	432.359	0.234	0.281	***4.585***	17.311	7.223
2023-08-04 07:45	4981506	8.120	-127.244	283.381	17.257	409.371	432.008	0.233	0.281	***4.914***	17.257	7.298
2023-08-04 08:00	4982406	8.148	-128.686	282.473	17.207	406.615	429.527	0.232	0.279	***5.396***	17.207	7.271
2023-08-04 08:15	4983306	8.149	-128.765	284.361	17.149	406.245	429.644	0.232	0.279	***5.884***	17.149	7.362
2023-08-04 08:30	4984206	8.143	-128.381	287.871	17.109	406.157	429.895	0.232	0.279	***5.779***	17.109	7.326
2023-08-04 08:45	4985106	8.131	-127.738	290.548	17.073	406.071	430.112	0.232	0.280	***5.689***	17.073	7.262
2023-08-04 09:00	4986006	8.119	-127.089	290.636	17.057	405.527	429.677	0.232	0.279	***5.473***	17.057	7.233
2023-08-04 09:15	4986906	8.112	-126.703	290.701	17.037	406.358	430.734	0.233	0.280	***5.574***	17.037	7.119
2023-08-04 09:30	4987806	8.107	-126.414	290.729	17.014	406.062	430.619	0.233	0.280	***5.364***	17.014	7.163
2023-08-04 09:45	4988706	8.101	-126.076	293.318	16.994	405.952	430.682	0.233	0.280	***5.343***	16.994	7.334

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-04 10:00	4989606	8.123	-127.292	292.227	16.999	405.046	429.678	0.232	0.279	***5.482***	16.999	7.231
2023-08-04 10:15	4990506	8.099	-125.985	294.313	16.959	404.164	429.087	0.232	0.279	***5.632***	16.959	7.242
2023-08-04 10:30	4991406	8.072	-124.485	294.198	16.947	404.245	429.273	0.232	0.279	***5.901***	16.947	7.24
2023-08-04 10:45	4992306	8.082	-125.031	295.796	16.943	404.937	430.049	0.232	0.280	***5.767***	16.943	7.192
2023-08-04 11:00	4993206	8.168	-129.69	294.754	16.958	404.114	429.039	0.232	0.279	***5.482***	16.958	7.91
2023-08-04 11:15	4994106	8.159	-129.185	292.446	16.942	403.961	429.023	0.232	0.279	***5.924***	16.942	7.51
2023-08-04 11:30	4995006	8.235	-133.269	289.68	16.945	402.557	427.504	0.231	0.278	6.513	16.945	7.599
2023-08-04 11:45	4995906	8.315	-137.599	284.332	16.964	400.704	425.367	0.230	0.276	7.351	16.964	7.782
2023-08-04 12:00	4996807	8.493	-147.197	275.785	17.038	400.375	424.385	0.229	0.276	8.432	17.038	7.659
2023-08-04 12:15	4997707	8.585	-152.154	273.148	17.064	400.483	424.274	0.229	0.276	8.970	17.064	7.644
2023-08-04 12:30	4998607	8.602	-153.117	271.248	17.122	400.334	423.624	0.229	0.275	9.731	17.122	7.781
2023-08-04 12:45	4999507	8.653	-155.854	268.337	17.153	400.417	423.446	0.229	0.275	9.678	17.153	7.902
2023-08-04 13:00	5000407	8.808	-164.27	259.947	17.219	399.722	422.142	0.228	0.274	10.082	17.219	7.964
2023-08-04 13:15	5001307	8.814	-164.602	256.728	17.264	399.763	421.806	0.228	0.274	10.650	17.264	7.936
2023-08-04 13:30	5002207	8.886	-168.545	254.986	17.373	400.979	422.162	0.228	0.274	11.306	17.373	7.945
2023-08-04 13:45	5003107	8.902	-169.48	252.549	17.524	402.137	422.095	0.228	0.274	11.699	17.524	8.15
2023-08-04 14:00	5004007	8.976	-173.609	244.941	17.738	403.301	421.51	0.227	0.274	12.274	17.738	8.063
2023-08-04 14:15	5004907	8.931	-171.208	245.799	17.815	403.996	421.588	0.227	0.274	12.385	17.815	8.076
2023-08-04 14:30	5005807	8.936	-171.566	240.449	17.922	404.73	421.454	0.227	0.274	12.780	17.922	8.044
2023-08-04 14:45	5006707	8.933	-171.468	237.357	18.018	405.999	421.975	0.228	0.274	12.414	18.018	8.117
2023-08-04 15:00	5007607	***9.099***	-180.528	228.414	18.209	406.465	420.866	0.227	0.274	13.197	18.209	8.104
2023-08-04 15:15	5008507	***9.113***	-181.289	228.719	18.238	406.885	421.053	0.227	0.274	13.223	18.238	8.066
2023-08-04 15:30	5009407	***9.138***	-182.683	227.956	18.281	407.239	421.064	0.227	0.274	13.339	18.281	8.202
2023-08-04 15:45	5010307	***9.108***	-181.17	226.79	18.415	408.101	420.844	0.227	0.274	14.289	18.415	8.175
2023-08-04 16:00	5011207	***9.196***	-186.05	224.065	18.647	408.873	419.716	0.226	0.273	15.014	18.647	8.272
2023-08-04 16:15	5012107	***9.164***	-184.41	223.054	18.756	408.665	418.613	0.225	0.272	16.241	18.756	8.2
2023-08-04 16:30	5013007	***9.287***	-191.29	220.148	19.114	410.299	417.366	0.225	0.271	19.018	19.114	8.355
2023-08-04 16:45	5013907	***9.510***	-203.543	209.855	19.393	411.87	416.697	0.224	0.271	19.822	19.393	8.544
2023-08-04 17:00	5014807	***9.511***	-203.762	209.684	19.583	412.885	416.203	0.224	0.271	19.114	19.583	8.399
2023-08-04 17:15	5015707	***9.396***	-197.616	210.678	19.78	416.527	418.283	0.225	0.272	20.637	19.78	8.625
2023-08-04 17:30	5016607	***9.439***	-200.105	214.662	19.96	416.847	417.163	0.224	0.271	20.063	19.96	8.543
2023-08-04 17:45	5017507	***9.503***	-203.674	210.981	20.121	417.672	416.705	0.224	0.271	21.058	20.121	8.625
2023-08-04 18:00	5018407	***9.431***	-199.821	211.05	20.228	418.675	416.861	0.224	0.271	19.035	20.228	8.497
2023-08-04 18:15	5019307	***9.390***	-197.604	211.622	20.2	419.454	417.855	0.224	0.272	19.836	20.2	8.513
2023-08-04 18:30	5020207	***9.493***	-203.028	208.301	19.99	415.631	415.707	0.223	0.270	18.018	19.99	8.545
2023-08-04 18:45	5021107	***9.475***	-202.143	206.956	20.084	417.273	416.608	0.224	0.271	20.502	20.084	8.472
2023-08-04 19:00	5022007	***9.494***	-203.533	205.64	20.575	421.966	417.384	0.224	0.271	19.850	20.575	8.596
2023-08-04 19:15	5022907	***9.466***	-201.905	206.57	20.432	420.597	417.155	0.224	0.271	18.894	20.432	8.629
2023-08-04 19:30	5023807	***9.584***	-208.035	205.952	20.076	414.948	414.348	0.223	0.269	20.392	20.076	8.521
2023-08-04 19:45	5024707	***9.591***	-208.225	202.352	19.81	412.521	414.027	0.222	0.269	20.899	19.81	8.452
2023-08-04 20:00	5025607	***9.534***	-204.954	199.451	19.519	411.067	414.881	0.223	0.270	20.613	19.519	8.314
2023-08-04 20:15	5026507	***9.372***	-196.047	200.206	19.328	410.875	416.219	0.224	0.271	19.627	19.328	8.21
2023-08-04 20:30	5027407	***9.358***	-195.196	203.256	19.217	411.629	417.881	0.225	0.272	18.198	19.217	8.165
2023-08-04 20:45	5028307	***9.317***	-192.893	207.316	19.125	411.82	418.819	0.225	0.272	16.765	19.125	8.196
2023-08-04 21:00	5029207	***9.247***	-189.054	208.244	19.049	412.556	420.189	0.226	0.273	16.119	19.049	8.126
2023-08-04 21:15	5030107	***9.221***	-187.597	214.264	18.975	412.262	420.494	0.226	0.273	15.370	18.975	8.067
2023-08-04 21:30	5031007	***9.185***	-185.599	216.917	18.881	412.578	421.588	0.227	0.274	14.507	18.881	8.214
2023-08-04 21:45	5031907	***9.129***	-182.524	219.943	18.812	412.566	422.149	0.227	0.274	14.177	18.812	8.015
2023-08-04 22:00	5032807	***9.091***	-180.43	219.986	18.756	412.129	422.16	0.227	0.274	13.948	18.756	7.914
2023-08-04 22:15	5033707	***9.082***	-179.911	220.82	18.704	412.222	422.684	0.228	0.275	13.481	18.704	7.955
2023-08-04 22:30	5034607	***9.086***	-180.14	223.021	18.692	412.354	422.92	0.228	0.275	13.468	18.692	7.97
2023-08-04 22:45	5035507	***9.081***	-179.849	224.952	18.69	412.035	422.613	0.228	0.275	13.636	18.69	7.896
2023-08-04 23:00	5036407	***9.102***	-181	224.485	18.709	412.117	422.536	0.228	0.275	13.172	18.709	7.911
2023-08-04 23:15	5037307	***9.095***	-180.652	225.448	18.707	412.243	422.68	0.228	0.275	13.468	18.707	7.879
2023-08-04 23:30	5038207	***9.098***	-180.798	226.173	18.72	412.426	422.76	0.228	0.275	13.443	18.72	7.825
2023-08-04 23:45	5039107	***9.103***	-181.079	225.798	18.731	412.57	422.822	0.228	0.275	13.123	18.731	7.816

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-05 00:00	5040007	***9.085***	-180.099	224.859	18.765	412.61	422.58	0.228	0.275	13.581	18.765	7.831
2023-08-05 00:15	5040907	***9.045***	-177.972	229.651	18.755	412.815	422.868	0.228	0.275	13.532	18.755	7.833
2023-08-05 00:30	5041807	***9.069***	-179.269	231.501	18.762	413.008	423.012	0.228	0.275	13.261	18.762	7.868
2023-08-05 00:45	5042707	***9.060***	-178.759	232.412	18.765	413.652	423.647	0.228	0.275	12.926	18.765	7.772
2023-08-05 01:00	5043607	***9.073***	-179.489	231.647	18.781	413.557	423.417	0.228	0.275	12.429	18.781	7.8
2023-08-05 01:15	5044507	***9.068***	-179.188	233.199	18.774	413.767	423.691	0.228	0.275	12.610	18.774	7.748
2023-08-05 01:30	5045407	***9.062***	-178.881	233.63	18.77	413.909	423.87	0.228	0.276	12.569	18.77	7.747
2023-08-05 01:45	5046307	***9.047***	-178.084	234.408	18.765	414.14	424.148	0.228	0.276	12.388	18.765	7.689
2023-08-05 02:00	5047207	***9.013***	-176.237	234.637	18.769	414.239	424.21	0.229	0.276	12.128	18.769	7.643
2023-08-05 02:15	5048107	***9.017***	-176.432	236.677	18.751	414.437	424.565	0.229	0.276	12.412	18.751	7.681
2023-08-05 02:30	5049007	***9.007***	-175.912	238.306	18.754	414.651	424.759	0.229	0.276	12.471	18.754	7.712
2023-08-05 02:45	5049907	8.997	-175.352	239.901	18.754	415.051	425.172	0.229	0.276	12.373	18.754	7.683
2023-08-05 03:00	5050807	8.997	-175.364	238.828	18.749	414.67	424.821	0.229	0.276	11.943	18.749	7.719
2023-08-05 03:15	5051707	8.984	-174.654	239.474	18.729	414.74	425.059	0.229	0.276	11.569	18.729	7.722
2023-08-05 03:30	5052607	8.966	-173.638	238.253	18.706	414.736	425.246	0.229	0.276	11.491	18.706	7.801
2023-08-05 03:45	5053507	8.945	-172.489	239.219	18.685	414.847	425.537	0.229	0.277	11.560	18.685	7.664
2023-08-05 04:00	5054407	8.883	-169.12	239.872	18.67	414.098	424.895	0.229	0.276	11.499	18.67	7.681
2023-08-05 04:15	5055307	8.899	-169.997	239.746	18.644	414.314	425.326	0.229	0.276	11.431	18.644	7.659
2023-08-05 04:30	5056207	8.886	-169.249	241.899	18.626	414.731	425.909	0.230	0.277	11.061	18.626	7.803
2023-08-05 04:45	5057107	8.842	-166.91	244.04	18.62	415.417	426.665	0.230	0.277	10.705	18.62	7.858
2023-08-05 05:00	5058007	8.822	-165.813	240.22	18.613	416.935	428.279	0.231	0.278	10.123	18.613	8.789
2023-08-05 05:15	5058907	8.793	-164.211	240.485	18.57	417.667	429.398	0.231	0.279	9.549	18.57	8.455
2023-08-05 05:30	5059807	8.771	-162.954	240.783	18.494	417.418	429.783	0.232	0.279	9.567	18.494	8.057
2023-08-05 05:45	5060707	8.773	-163.021	241.167	18.417	416.6	429.592	0.232	0.279	9.617	18.417	8.041
2023-08-05 06:00	5061607	8.780	-163.4	241.124	18.345	415.907	429.486	0.232	0.279	9.951	18.345	7.974
2023-08-05 06:15	5062507	8.764	-162.499	239.984	18.296	415.789	429.774	0.232	0.279	9.825	18.296	7.871
2023-08-05 06:30	5063407	8.746	-161.512	240.418	18.251	415.244	429.597	0.232	0.279	9.709	18.251	7.841
2023-08-05 06:45	5064307	8.735	-160.847	242.416	18.209	415.084	429.785	0.232	0.279	9.619	18.209	7.832
2023-08-05 07:00	5065207	8.750	-161.679	241.198	18.168	414.367	429.388	0.232	0.279	9.555	18.168	7.596
2023-08-05 07:15	5066107	8.706	-159.24	245.086	18.128	414.178	429.535	0.232	0.279	9.407	18.128	7.527
2023-08-05 07:30	5067007	8.682	-157.943	248.005	18.097	414.05	429.671	0.232	0.279	8.979	18.097	7.577
2023-08-05 07:45	5067907	8.681	-157.893	248.868	18.068	413.781	429.635	0.232	0.279	9.139	18.068	7.518
2023-08-05 08:00	5068807	8.691	-158.381	247.411	18.045	413.047	429.067	0.232	0.279	9.296	18.045	7.421
2023-08-05 08:15	5069707	8.674	-157.495	248.064	18.024	413.192	429.399	0.232	0.279	9.210	18.024	7.624
2023-08-05 08:30	5070607	8.674	-157.459	247.936	18.003	412.925	429.303	0.232	0.279	9.255	18.003	7.599
2023-08-05 08:45	5071507	8.666	-157.042	248.987	17.991	412.866	429.338	0.232	0.279	9.357	17.991	7.559
2023-08-05 09:00	5072407	8.690	-158.293	240.943	17.99	412.39	428.854	0.231	0.279	8.598	17.99	7.47
2023-08-05 09:15	5073307	8.676	-157.573	243.038	17.987	412.641	429.138	0.232	0.279	9.134	17.987	7.552
2023-08-05 09:30	5074207	8.681	-157.831	243.563	17.979	412.526	429.085	0.232	0.279	9.360	17.979	7.583
2023-08-05 09:45	5075107	8.688	-158.203	243.77	17.97	412.345	428.978	0.231	0.279	8.877	17.97	7.5
2023-08-05 10:00	5076007	8.686	-158.086	241.551	17.962	411.867	428.548	0.231	0.279	8.876	17.962	7.431
2023-08-05 10:15	5076907	8.685	-158.014	243.568	17.95	411.927	428.713	0.231	0.279	9.035	17.95	7.562
2023-08-05 10:30	5077807	8.630	-155.053	246.822	17.945	412.309	429.154	0.232	0.279	9.529	17.945	7.428
2023-08-05 10:45	5078707	8.674	-157.444	244.991	17.933	411.922	428.856	0.231	0.279	9.689	17.933	7.421
2023-08-05 11:00	5079607	8.719	-159.845	243.067	17.93	411.315	428.243	0.231	0.278	9.661	17.93	10.541
2023-08-05 11:15	5080507	8.719	-159.872	242.943	17.932	411.591	428.52	0.231	0.279	9.900	17.932	7.416
2023-08-05 11:30	5081407	8.725	-160.16	243.489	17.939	411.638	428.508	0.231	0.279	10.034	17.939	7.368
2023-08-05 11:45	5082307	8.742	-161.116	241.396	17.963	411.908	428.584	0.231	0.279	10.134	17.963	7.481
2023-08-05 12:00	5083207	8.774	-162.873	239.517	18.011	411.804	428.066	0.231	0.278	10.214	18.011	7.309
2023-08-05 12:15	5084107	8.762	-162.239	236.193	18.041	412.383	428.412	0.231	0.278	10.218	18.041	7.453
2023-08-05 12:30	5085007	8.759	-162.089	234.47	18.08	412.849	428.567	0.231	0.279	10.142	18.08	7.328
2023-08-05 12:45	5085907	8.752	-161.705	235.192	18.105	413.625	429.16	0.232	0.279	10.191	18.105	7.434
2023-08-05 13:00	5086807	8.764	-162.411	236.582	18.137	413.82	429.089	0.231	0.279	10.048	18.137	7.237
2023-08-05 13:15	5087707	8.743	-161.278	237.765	18.155	414.17	429.295	0.232	0.279	9.869	18.155	7.21
2023-08-05 13:30	5088607	8.729	-160.556	240.614	18.195	414.454	429.251	0.232	0.279	9.951	18.195	7.16
2023-08-05 13:45	5089507	8.775	-163.021	240.735	18.241	414.98	429.411	0.232	0.279	9.499	18.241	7.161

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-05 14:00	5090407	8.746	-161.55	242.39	18.331	415.626	429.311	0.232	0.279	9.380	18.331	7.239
2023-08-05 14:15	5091307	8.741	-161.259	242.542	18.35	416.293	429.842	0.232	0.279	9.912	18.35	7.23
2023-08-05 14:30	5092207	8.747	-161.655	242.485	18.423	416.508	429.442	0.232	0.279	10.152	18.423	7.16
2023-08-05 14:45	5093107	8.854	-167.453	238.907	18.484	416.135	428.542	0.231	0.279	10.963	18.484	7.103
2023-08-05 15:00	5094007	8.980	-174.298	230.7	18.573	415.818	427.466	0.230	0.278	11.717	18.573	7.068
2023-08-05 15:15	5094907	8.990	-174.899	227.601	18.613	416.637	427.975	0.231	0.278	12.020	18.613	7.083
2023-08-05 15:30	5095807	9.000	-175.462	226.02	18.677	417.171	427.984	0.231	0.278	12.242	18.677	7.085
2023-08-05 15:45	5096707	***9.007***	-175.898	223.843	18.74	417.16	427.444	0.230	0.278	12.684	18.74	7.111
2023-08-05 16:00	5097607	***9.073***	-179.508	218.107	18.832	416.644	426.15	0.230	0.277	13.105	18.832	7.21
2023-08-05 16:15	5098507	***9.099***	-180.936	213.429	18.852	417.115	426.468	0.230	0.277	13.759	18.852	7.151
2023-08-05 16:30	5099407	***9.098***	-180.917	216.021	18.904	417.16	426.076	0.229	0.277	13.555	18.904	7.537
2023-08-05 16:45	5100307	***9.111***	-181.615	214.884	18.938	417.671	426.321	0.230	0.277	13.613	18.938	7.072
2023-08-05 17:00	5101207	***9.118***	-182.068	207.464	18.991	418.486	426.714	0.230	0.277	12.883	18.991	7.02
2023-08-05 17:15	5102107	***9.113***	-181.775	210.38	19.023	418.739	426.705	0.230	0.277	13.009	19.023	7.066
2023-08-05 17:30	5103007	***9.151***	-183.897	208.885	19.061	418.694	426.34	0.230	0.277	12.823	19.061	7.023
2023-08-05 17:45	5103907	***9.133***	-182.934	210.346	19.09	418.994	426.405	0.230	0.277	12.468	19.09	7.134
2023-08-05 18:00	5104807	***9.105***	-181.41	212.07	19.124	419.077	426.211	0.229	0.277	12.057	19.124	7.001
2023-08-05 18:15	5105707	***9.099***	-181.129	210.95	19.137	419.034	426.055	0.229	0.277	12.837	19.137	7.01
2023-08-05 18:30	5106607	***9.059***	-178.959	215.031	19.164	419.186	425.989	0.229	0.277	13.581	19.164	7.063
2023-08-05 18:45	5107507	***9.081***	-180.166	215.735	19.187	419.469	426.088	0.229	0.277	13.324	19.187	7.073
2023-08-05 19:00	5108407	***9.129***	-182.796	212.02	19.221	419.788	426.127	0.229	0.277	13.048	19.221	7.069
2023-08-05 19:15	5109307	***9.151***	-183.976	212.025	19.227	419.795	426.083	0.229	0.277	13.303	19.227	7.067
2023-08-05 19:30	5110207	***9.146***	-183.725	213.722	19.231	420.348	426.615	0.230	0.277	12.231	19.231	7.032
2023-08-05 19:45	5111107	***9.092***	-180.786	218.336	19.227	421.082	427.394	0.230	0.278	11.351	19.227	6.981
2023-08-05 20:00	5112007	***9.034***	-177.646	220.165	19.219	420.596	426.961	0.230	0.278	11.301	19.219	7.023
2023-08-05 20:15	5112907	***9.047***	-178.313	217.387	19.202	420.816	427.327	0.230	0.278	11.793	19.202	7.088
2023-08-05 20:30	5113807	***9.032***	-177.491	221.771	19.192	420.892	427.487	0.230	0.278	11.366	19.192	7.028
2023-08-05 20:45	5114707	***9.012***	-176.437	222.258	19.185	420.596	427.248	0.230	0.278	11.840	19.185	6.981
2023-08-05 21:00	5115607	***9.016***	-176.654	222.253	19.187	421.301	427.943	0.230	0.278	11.911	19.187	6.925
2023-08-05 21:15	5116507	***9.005***	-176.058	224.146	19.179	421.161	427.87	0.230	0.278	11.938	19.179	7.017
2023-08-05 21:30	5117407	***9.014***	-176.539	223.142	19.172	421.243	428.01	0.230	0.278	11.895	19.172	6.993
2023-08-05 21:45	5118307	***9.002***	-175.867	226.13	19.172	421.349	428.123	0.231	0.278	12.088	19.172	7.022
2023-08-05 22:00	5119207	8.997	-175.586	225.369	19.19	421.105	427.719	0.230	0.278	12.089	19.19	7.016
2023-08-05 22:15	5120107	8.974	-174.355	226.28	19.18	420.865	427.564	0.230	0.278	12.193	19.18	7
2023-08-05 22:30	5121007	8.781	-163.929	238.396	19.191	421.297	427.911	0.230	0.278	12.162	19.191	6.965
2023-08-05 22:45	5121907	8.910	-170.889	232.658	19.205	421.592	428.094	0.230	0.278	12.160	19.205	6.978
2023-08-05 23:00	5122807	8.976	-174.503	231.945	19.245	422.263	428.445	0.231	0.278	12.016	19.245	6.908
2023-08-05 23:15	5123707	8.992	-175.395	231.399	19.243	422.644	428.848	0.231	0.279	11.673	19.243	6.922
2023-08-05 23:30	5124607	8.990	-175.247	232.877	19.256	422.726	428.823	0.231	0.279	11.923	19.256	6.908
2023-08-05 23:45	5125507	8.984	-174.942	235.07	19.257	422.778	428.861	0.231	0.279	11.958	19.257	6.955
2023-08-06 00:00	5126407	8.958	-173.566	235.843	19.281	422.658	428.539	0.231	0.279	11.429	19.281	7.029
2023-08-06 00:15	5127307	8.946	-172.892	239.329	19.257	422.446	428.525	0.231	0.279	11.779	19.257	6.926
2023-08-06 00:30	5128207	8.932	-172.136	241.243	19.26	422.487	428.546	0.231	0.279	11.507	19.26	6.921
2023-08-06 00:45	5129107	8.929	-171.978	244.207	19.263	422.926	428.965	0.231	0.279	11.211	19.263	6.912
2023-08-06 01:00	5130007	8.924	-171.731	243.093	19.275	423.494	429.444	0.231	0.279	11.193	19.275	6.852
2023-08-06 01:15	5130907	8.924	-171.711	244.812	19.264	423.563	429.605	0.231	0.279	10.803	19.264	6.883
2023-08-06 01:30	5131807	8.912	-171.015	247.199	19.252	423.688	429.833	0.231	0.279	10.866	19.252	6.87
2023-08-06 01:45	5132707	8.898	-170.281	248.956	19.244	423.755	429.967	0.232	0.279	10.573	19.244	6.854
2023-08-06 02:00	5133607	8.901	-170.419	247.378	19.245	423.335	429.527	0.231	0.279	10.776	19.245	6.882
2023-08-06 02:15	5134507	8.901	-170.422	247.974	19.226	423.612	429.964	0.232	0.279	10.848	19.226	6.856
2023-08-06 02:30	5135407	8.849	-167.608	253.424	19.216	423.001	429.435	0.231	0.279	11.111	19.216	7.001
2023-08-06 02:45	5136307	8.867	-168.581	251.762	19.201	423.183	429.746	0.231	0.279	11.076	19.201	7.014
2023-08-06 03:00	5137207	8.862	-168.276	248.892	19.196	423.747	430.355	0.232	0.280	10.761	19.196	6.792
2023-08-06 03:15	5138107	8.840	-167.089	242.113	19.176	424.354	431.141	0.232	0.280	10.401	19.176	6.823
2023-08-06 03:30	5139007	8.797	-164.714	243.034	19.135	424.556	431.689	0.233	0.281	10.114	19.135	6.708
2023-08-06 03:45	5139907	8.771	-163.307	242.19	19.084	424.053	431.604	0.232	0.281	9.890	19.084	6.744

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-06 04:00	5140807	8.776	-163.529	239.813	19.017	422.97	431.067	0.232	0.280	10.227	19.017	6.87
2023-08-06 04:15	5141707	8.780	-163.71	237.898	18.971	422.564	431.037	0.232	0.280	10.147	18.971	6.995
2023-08-06 04:30	5142607	8.766	-162.911	238.849	18.914	422.01	430.947	0.232	0.280	9.846	18.914	6.981
2023-08-06 04:45	5143507	8.755	-162.337	239.512	18.864	421.638	430.992	0.232	0.280	9.606	18.864	6.871
2023-08-06 05:00	5144407	8.684	-158.455	242.986	18.818	421.282	431.009	0.232	0.280	9.895	18.818	6.871
2023-08-06 05:15	5145307	8.727	-160.761	243.808	18.79	421.161	431.125	0.232	0.280	9.957	18.79	6.851
2023-08-06 05:30	5146207	8.743	-161.612	245.394	18.744	420.866	431.21	0.232	0.280	9.889	18.744	6.725
2023-08-06 05:45	5147107	8.736	-161.202	246.128	18.705	420.45	431.11	0.232	0.280	9.803	18.705	6.789
2023-08-06 06:00	5148007	8.744	-161.605	244.259	18.662	419.609	430.618	0.232	0.280	9.889	18.662	6.822
2023-08-06 06:15	5148907	8.726	-160.62	246.348	18.632	419.431	430.684	0.232	0.280	9.782	18.632	6.761
2023-08-06 06:30	5149807	8.717	-160.129	246.634	18.598	419.249	430.784	0.232	0.280	9.470	18.598	6.697
2023-08-06 06:45	5150707	8.711	-159.779	248.117	18.562	418.888	430.719	0.232	0.280	9.471	18.562	6.676
2023-08-06 07:00	5151607	8.724	-160.444	248.174	18.537	418.69	430.73	0.232	0.280	9.472	18.537	6.875
2023-08-06 07:15	5152507	8.706	-159.476	243.987	18.51	418.667	430.934	0.232	0.280	9.375	18.51	8.633
2023-08-06 07:30	5153407	8.674	-157.733	250.904	18.477	418.396	430.936	0.232	0.280	9.211	18.477	7.85
2023-08-06 07:45	5154307	8.633	-155.48	254.552	18.452	418.28	431.025	0.232	0.280	9.223	18.452	7.474
2023-08-06 08:00	5155207	8.656	-156.713	248.791	18.431	417.709	430.615	0.232	0.280	9.174	18.431	7.436
2023-08-06 08:15	5156107	8.668	-157.352	249.304	18.417	417.674	430.698	0.232	0.280	9.083	18.417	7.454
2023-08-06 08:30	5157007	8.665	-157.206	249.113	18.405	417.733	430.857	0.232	0.280	9.167	18.405	7.306
2023-08-06 08:45	5157907	8.656	-156.724	249.786	18.396	417.65	430.847	0.232	0.280	9.096	18.396	7.32
2023-08-06 09:00	5158807	8.675	-157.709	245.809	18.389	417.631	430.89	0.232	0.280	8.942	18.389	7.438
2023-08-06 09:15	5159707	8.683	-158.122	245.637	18.364	417.492	430.959	0.232	0.280	9.130	18.364	7.266
2023-08-06 09:30	5160607	8.651	-156.391	251.052	18.347	417.542	431.152	0.233	0.280	9.182	18.347	6.984
2023-08-06 09:45	5161507	8.606	-153.956	255.439	18.327	417.471	431.251	0.233	0.280	9.145	18.327	6.842
2023-08-06 10:00	5162407	8.622	-154.8	257.458	18.325	416.91	430.685	0.232	0.280	8.912	18.325	7.359
2023-08-06 10:15	5163307	8.645	-156.076	251.836	18.311	416.72	430.609	0.232	0.280	9.074	18.311	7.358
2023-08-06 10:30	5164207	8.637	-155.64	251.664	18.308	416.618	430.535	0.232	0.280	8.970	18.308	7.221
2023-08-06 10:45	5165107	8.647	-156.188	249.361	18.311	416.743	430.639	0.232	0.280	9.093	18.311	7.159
2023-08-06 11:00	5166007	8.665	-157.156	248.868	18.315	416.924	430.788	0.232	0.280	9.345	18.315	7.03
2023-08-06 11:15	5166907	8.663	-157.051	249.242	18.317	417.124	430.978	0.232	0.280	9.085	18.317	7.071
2023-08-06 11:30	5167807	8.636	-155.597	251.431	18.326	417.134	430.914	0.232	0.280	9.583	18.326	6.994
2023-08-06 11:45	5168707	8.679	-157.89	248.834	18.343	417.28	430.917	0.232	0.280	9.703	18.343	6.953
2023-08-06 12:00	5169607	8.688	-158.422	246.701	18.386	417.207	430.474	0.232	0.280	9.599	18.386	7.076
2023-08-06 12:15	5170507	8.664	-157.149	249.271	18.39	417.547	430.793	0.232	0.280	9.581	18.39	6.76
2023-08-06 12:30	5171407	8.638	-155.728	251.273	18.396	417.819	431.028	0.232	0.280	9.453	18.396	6.727
2023-08-06 12:45	5172307	8.572	-152.142	252.768	18.4	418.06	431.238	0.233	0.280	9.301	18.4	6.614
2023-08-06 13:00	5173207	8.578	-152.483	255.157	18.439	418.628	431.497	0.233	0.280	8.898	18.439	6.491
2023-08-06 13:15	5174107	8.616	-154.552	253.844	18.444	419.58	432.433	0.233	0.281	8.621	18.444	6.446
2023-08-06 13:30	5175007	8.555	-151.289	256.218	18.483	419.293	431.806	0.233	0.281	8.444	18.483	6.354
2023-08-06 13:45	5175907	8.653	-156.629	253.259	18.524	419.162	431.324	0.233	0.280	9.375	18.524	6.296
2023-08-06 14:00	5176807	8.769	-162.938	249.206	18.595	416.698	428.192	0.231	0.278	9.863	18.595	6.316
2023-08-06 14:15	5177707	8.821	-165.699	245.222	18.577	417.814	429.484	0.232	0.279	10.645	18.577	6.297
2023-08-06 14:30	5178607	8.766	-162.787	245.442	18.627	417.656	428.902	0.231	0.279	11.339	18.627	6.167
2023-08-06 14:45	5179507	8.662	-157.211	243.634	18.707	417.936	428.518	0.231	0.279	11.704	18.707	6.109
2023-08-06 15:00	5180407	8.904	-170.345	231.132	18.834	417.884	427.4	0.230	0.278	11.148	18.834	6.107
2023-08-06 15:15	5181307	***9.031***	-177.238	222.944	18.839	419.065	428.569	0.231	0.279	11.856	18.839	6.08
2023-08-06 15:30	5182207	8.968	-173.862	226.893	18.89	418.656	427.727	0.230	0.278	11.724	18.89	6.088
2023-08-06 15:45	5183107	***9.027***	-177.09	223.331	18.965	419.108	427.562	0.230	0.278	12.204	18.965	6.097
2023-08-06 16:00	5184007	***9.061***	-179.057	220.446	19.114	417.94	425.131	0.229	0.276	13.388	19.114	6.075
2023-08-06 16:15	5184907	8.934	-172.162	225.355	19.118	419.798	426.987	0.230	0.278	13.405	19.118	5.948
2023-08-06 16:30	5185807	***9.012***	-176.425	216.5	19.197	420.733	427.285	0.230	0.278	13.637	19.197	5.922
2023-08-06 16:45	5186707	***9.035***	-177.705	210.864	19.283	421.693	427.544	0.230	0.278	13.889	19.283	5.804
2023-08-06 17:00	5187607	***9.159***	-184.505	204.081	19.401	422.136	427.024	0.230	0.278	13.962	19.401	5.558
2023-08-06 17:15	5188507	***9.161***	-184.634	196.759	19.417	422.208	426.962	0.230	0.278	15.119	19.417	5.393
2023-08-06 17:30	5189407	***9.173***	-185.318	193.741	19.457	422.743	427.173	0.230	0.278	14.538	19.457	5.32
2023-08-06 17:45	5190307	***9.171***	-185.256	192.329	19.511	423.259	427.251	0.230	0.278	14.282	19.511	5.342

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-06 18:00	5191207	***9.184***	-186.002	187.821	19.581	423.555	426.969	0.230	0.278	14.747	19.581	5.312
2023-08-06 18:15	5192107	***9.187***	-186.179	186.183	19.588	424.239	427.602	0.230	0.278	14.655	19.588	5.241
2023-08-06 18:30	5193007	***9.153***	-184.317	192.036	19.606	424.742	427.961	0.230	0.278	14.457	19.606	5.224
2023-08-06 18:45	5193907	***9.138***	-183.516	194.196	19.618	424.881	428	0.230	0.278	14.321	19.618	5.105
2023-08-06 19:00	5194807	***9.157***	-184.581	191.759	19.648	425.064	427.94	0.230	0.278	14.237	19.648	5.182
2023-08-06 19:15	5195707	***9.133***	-183.26	192.67	19.674	425.673	428.341	0.230	0.278	13.470	19.674	5.206
2023-08-06 19:30	5196607	***9.119***	-182.526	199.398	19.671	426.043	428.74	0.231	0.279	13.395	19.671	5.07
2023-08-06 19:45	5197507	8.994	-175.755	209.996	19.678	426.384	429.024	0.231	0.279	13.141	19.678	5.166
2023-08-06 20:00	5198407	***9.046***	-178.599	207.8	19.709	426.054	428.433	0.230	0.278	13.825	19.709	5.049
2023-08-06 20:15	5199307	***9.055***	-179.069	206.737	19.702	425.973	428.413	0.230	0.278	13.480	19.702	5.122
2023-08-06 20:30	5200207	***9.077***	-180.295	209.622	19.707	426.12	428.517	0.231	0.279	13.865	19.707	5.045
2023-08-06 20:45	5201107	***9.093***	-181.115	214.216	19.701	426.241	428.693	0.231	0.279	14.141	19.701	5.044
2023-08-06 21:00	5202007	***9.125***	-182.855	213.658	19.718	426.075	428.386	0.230	0.278	13.740	19.718	5.008
2023-08-06 21:15	5202907	***9.124***	-182.829	212.02	19.697	426.057	428.537	0.231	0.279	13.839	19.697	5.044
2023-08-06 21:30	5203807	***9.107***	-181.906	214.421	19.698	426.085	428.556	0.231	0.279	13.702	19.698	5.092
2023-08-06 21:45	5204707	***9.112***	-182.183	215.749	19.701	426.105	428.552	0.231	0.279	13.726	19.701	4.968
2023-08-06 22:00	5205607	***9.086***	-180.771	218.3	19.734	426.139	428.315	0.230	0.278	13.503	19.734	5.018
2023-08-06 22:15	5206507	***9.081***	-180.492	220.87	19.699	426.097	428.563	0.231	0.279	13.466	19.699	4.957
2023-08-06 22:30	5207407	***9.064***	-179.546	222.847	19.713	426.277	428.626	0.231	0.279	13.850	19.713	4.969
2023-08-06 22:45	5208307	***9.038***	-178.158	223.147	19.731	426.5	428.7	0.231	0.279	13.862	19.731	4.928
2023-08-06 23:00	5209207	***9.038***	-178.201	226.697	19.793	426.876	428.572	0.231	0.279	13.393	19.793	5.008
2023-08-06 23:15	5210107	***9.084***	-180.674	226.337	19.787	427.21	428.953	0.231	0.279	13.788	19.787	4.965
2023-08-06 23:30	5211007	***9.094***	-181.253	228.59	19.792	427.213	428.914	0.231	0.279	13.508	19.792	5.022
2023-08-06 23:45	5211907	***9.093***	-181.22	230.407	19.803	427.188	428.804	0.231	0.279	13.558	19.803	5.089
2023-08-07 00:00	5212807	***9.077***	-180.349	230.755	19.835	426.786	428.139	0.230	0.278	13.176	19.835	5.022
2023-08-07 00:15	5213707	***9.077***	-180.316	233.13	19.792	426.856	428.557	0.231	0.279	13.631	19.792	4.981
2023-08-07 00:30	5214607	***9.071***	-179.989	233.871	19.789	426.985	428.709	0.231	0.279	13.684	19.789	4.989
2023-08-07 00:45	5215507	***9.060***	-179.374	234.529	19.788	427.129	428.867	0.231	0.279	13.681	19.788	4.973
2023-08-07 01:00	5216407	***9.075***	-180.216	232.798	19.818	427.256	428.744	0.231	0.279	12.931	19.818	5.01
2023-08-07 01:15	5217307	***9.087***	-180.891	232.438	19.796	427.139	428.81	0.231	0.279	12.949	19.796	4.875
2023-08-07 01:30	5218207	***9.074***	-180.163	232.085	19.798	427.16	428.816	0.231	0.279	13.012	19.798	4.897
2023-08-07 01:45	5219107	***9.095***	-181.308	231.444	19.794	427.142	428.828	0.231	0.279	13.146	19.794	4.885
2023-08-07 02:00	5220007	***9.063***	-179.586	228.385	19.813	426.737	428.265	0.230	0.278	13.155	19.813	5.027
2023-08-07 02:15	5220907	***9.088***	-180.924	229.615	19.776	427.508	429.349	0.231	0.279	13.027	19.776	4.861
2023-08-07 02:30	5221807	***9.069***	-179.846	229.78	19.758	427.549	429.533	0.231	0.279	14.006	19.758	4.98
2023-08-07 02:45	5222707	***9.060***	-179.362	231.683	19.737	427.951	430.111	0.231	0.280	13.516	19.737	4.926
2023-08-07 03:00	5223607	***9.034***	-177.956	232.205	19.721	428.296	430.589	0.232	0.280	12.198	19.721	4.859
2023-08-07 03:15	5224507	***9.013***	-176.797	232.86	19.696	428.741	431.244	0.232	0.280	11.609	19.696	4.935
2023-08-07 03:30	5225407	8.951	-173.423	236.186	19.664	429.649	432.423	0.233	0.281	11.471	19.664	4.85
2023-08-07 03:45	5226307	8.852	-168.014	240.673	19.629	430.306	433.373	0.233	0.282	11.063	19.629	4.794
2023-08-07 04:00	5227207	8.838	-167.193	240.587	19.575	430.52	434.041	0.234	0.282	11.168	19.575	4.832
2023-08-07 04:15	5228107	8.839	-167.246	238.847	19.523	430.348	434.302	0.234	0.282	10.846	19.523	4.986
2023-08-07 04:30	5229007	8.825	-166.428	239.462	19.472	430.115	434.498	0.234	0.282	10.597	19.472	4.739
2023-08-07 04:45	5229907	8.808	-165.484	239.591	19.411	429.621	434.509	0.234	0.282	10.812	19.411	4.677
2023-08-07 05:00	5230807	8.822	-166.216	239.281	19.367	429.367	434.619	0.234	0.283	10.241	19.367	4.724
2023-08-07 05:15	5231707	8.792	-164.561	239.827	19.328	429.239	434.824	0.234	0.283	10.143	19.328	4.736
2023-08-07 05:30	5232607	8.783	-164.056	242.972	19.275	429.044	435.068	0.234	0.283	10.247	19.275	4.738
2023-08-07 05:45	5233507	8.765	-163.081	243.718	19.224	428.666	435.112	0.234	0.283	10.208	19.224	4.705
2023-08-07 06:00	5234407	8.762	-162.868	243.062	19.172	427.806	434.678	0.234	0.283	10.186	19.172	4.728
2023-08-07 06:15	5235307	8.750	-162.203	244.774	19.122	427.288	434.58	0.234	0.282	9.954	19.122	4.716
2023-08-07 06:30	5236207	8.748	-162.041	245.623	19.073	426.919	434.61	0.234	0.282	10.165	19.073	4.609
2023-08-07 06:45	5237107	8.741	-161.638	247.668	19.03	426.562	434.615	0.234	0.282	9.909	19.03	4.768
2023-08-07 07:00	5238007	8.757	-162.489	246.567	18.994	426.111	434.463	0.234	0.282	9.872	18.994	4.708
2023-08-07 07:15	5238907	8.683	-158.484	252.539	18.96	426.139	434.777	0.234	0.283	9.934	18.96	4.594
2023-08-07 07:30	5239807	8.710	-159.893	251.891	18.922	425.891	434.847	0.234	0.283	9.862	18.922	4.622
2023-08-07 07:45	5240707	8.700	-159.338	253.472	18.888	425.669	434.909	0.234	0.283	9.459	18.888	4.529

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-07 08:00	5241607	8.641	-156.124	254.652	18.852	424.85	434.371	0.234	0.282	9.815	18.852	4.608
2023-08-07 08:15	5242507	8.686	-158.536	251.397	18.816	424.804	434.635	0.234	0.283	9.718	18.816	4.577
2023-08-07 08:30	5243407	8.685	-158.482	250.322	18.788	424.537	434.601	0.234	0.282	9.764	18.788	4.496
2023-08-07 08:45	5244307	8.688	-158.608	250.477	18.766	424.436	434.684	0.234	0.283	9.578	18.766	4.525
2023-08-07 09:00	5245207	8.705	-159.554	248.367	18.759	424.109	434.403	0.234	0.282	9.504	18.759	4.464
2023-08-07 09:15	5246107	8.689	-158.694	248.265	18.751	424.384	434.759	0.234	0.283	9.472	18.751	4.768
2023-08-07 09:30	5247007	8.699	-159.245	246.002	18.752	424.404	434.767	0.234	0.283	9.605	18.752	4.434
2023-08-07 09:45	5247907	8.698	-159.163	244.741	18.759	424.473	434.782	0.234	0.283	9.713	18.759	4.455
2023-08-07 10:00	5248807	8.693	-158.889	242.69	18.772	423.773	433.949	0.234	0.282	9.765	18.772	4.505
2023-08-07 10:15	5249707	8.702	-159.383	244.004	18.773	424.136	434.312	0.234	0.282	9.894	18.773	4.453
2023-08-07 10:30	5250607	8.694	-158.947	247.354	18.779	424.179	434.31	0.234	0.282	9.796	18.779	4.492
2023-08-07 10:45	5251507	8.691	-158.813	249.194	18.782	424.215	434.318	0.234	0.282	9.579	18.782	4.446
2023-08-07 11:00	5252407	8.718	-160.286	244.664	18.792	424.52	434.544	0.234	0.282	9.947	18.792	4.479
2023-08-07 11:15	5253307	8.695	-159.039	242.948	18.794	424.673	434.687	0.234	0.283	9.884	18.794	4.49
2023-08-07 11:30	5254207	8.708	-159.712	241.808	18.795	424.867	434.879	0.234	0.283	9.835	18.795	4.452
2023-08-07 11:45	5255107	8.704	-159.502	241.253	18.796	425.172	435.181	0.235	0.283	9.773	18.796	4.47
2023-08-07 12:00	5256007	8.683	-158.393	239.908	18.82	424.703	434.495	0.234	0.282	9.756	18.82	4.428
2023-08-07 12:15	5256907	8.639	-156.002	242.559	18.812	425.016	434.88	0.234	0.283	9.514	18.812	4.493
2023-08-07 12:30	5257807	8.548	-151.088	249.252	18.82	425.416	435.228	0.235	0.283	9.012	18.82	4.45
2023-08-07 12:45	5258707	8.522	-149.705	252.089	18.83	425.424	435.147	0.235	0.283	9.132	18.83	4.368
2023-08-07 13:00	5259607	8.625	-155.311	248.541	18.884	425.336	434.603	0.234	0.282	9.143	18.884	4.464
2023-08-07 13:15	5260507	8.676	-158.055	245.175	18.902	426.343	435.475	0.235	0.283	9.222	18.902	4.432
2023-08-07 13:30	5261407	8.654	-156.908	243.715	18.947	426.494	435.248	0.235	0.283	9.729	18.947	4.502
2023-08-07 13:45	5262307	8.763	-162.795	242.399	18.991	426.591	434.974	0.234	0.283	10.146	18.991	4.468
2023-08-07 14:00	5263207	8.823	-166.123	241.362	19.06	424.374	432.129	0.233	0.281	10.438	19.06	4.519
2023-08-07 14:15	5264107	8.800	-164.855	241.613	19.043	424.597	432.505	0.233	0.281	10.880	19.043	4.498
2023-08-07 14:30	5265007	8.763	-162.885	240.268	19.084	424.399	431.959	0.233	0.281	11.502	19.084	4.467
2023-08-07 14:45	5265907	8.720	-160.589	238.089	19.133	423.954	431.09	0.232	0.280	12.080	19.133	4.509
2023-08-07 15:00	5266807	8.869	-168.691	232.445	19.237	424.051	430.319	0.232	0.280	11.900	19.237	4.546
2023-08-07 15:15	5267707	***9.063***	-179.214	226.821	19.257	425.403	431.525	0.232	0.280	12.138	19.257	4.492
2023-08-07 15:30	5268607	***9.050***	-178.547	222.325	19.303	425.467	431.205	0.232	0.280	12.280	19.303	4.522
2023-08-07 15:45	5269507	***9.107***	-181.67	223.531	19.354	425.398	430.714	0.232	0.280	12.361	19.354	4.457
2023-08-07 16:00	5270407	***9.083***	-180.433	220.474	19.452	423.422	427.902	0.230	0.278	13.909	19.452	4.511
2023-08-07 16:15	5271307	***9.108***	-181.761	214.047	19.436	423.814	428.428	0.231	0.278	14.448	19.436	4.451
2023-08-07 16:30	5272207	***9.151***	-184.143	212.99	19.497	423.82	427.934	0.230	0.278	15.040	19.497	4.438
2023-08-07 16:45	5273107	***9.183***	-185.914	213.62	19.556	424.361	427.989	0.230	0.278	15.031	19.556	4.471
2023-08-07 17:00	5274007	***9.198***	-186.815	211.157	19.681	425.901	428.513	0.231	0.279	14.338	19.681	4.416
2023-08-07 17:15	5274907	***9.196***	-186.691	203.802	19.679	426.208	428.839	0.231	0.279	14.994	19.679	4.4
2023-08-07 17:30	5275807	***9.188***	-186.298	199.169	19.703	426.901	429.34	0.231	0.279	14.428	19.703	4.385
2023-08-07 17:45	5276707	***9.179***	-185.826	193.104	19.715	427.18	429.519	0.231	0.279	14.238	19.715	4.417
2023-08-07 18:00	5277607	***9.072***	-180.03	199.894	19.768	428.172	430.075	0.231	0.280	14.339	19.768	4.448
2023-08-07 18:15	5278507	***9.118***	-182.495	198.6	19.726	428.246	430.495	0.232	0.280	14.443	19.726	4.392
2023-08-07 18:30	5279407	***9.129***	-183.11	198.137	19.732	428.222	430.423	0.232	0.280	14.534	19.732	4.373
2023-08-07 18:45	5280307	***9.141***	-183.747	199.444	19.742	428.282	430.402	0.232	0.280	14.546	19.742	4.361
2023-08-07 19:00	5281207	***9.170***	-185.37	197.198	19.788	428.379	430.118	0.231	0.280	13.949	19.788	4.425
2023-08-07 19:15	5282107	***9.168***	-185.277	198.428	19.78	428.358	430.165	0.231	0.280	14.382	19.78	4.317
2023-08-07 19:30	5283007	***9.161***	-184.934	193.276	19.851	428.922	430.144	0.231	0.280	14.608	19.851	4.341
2023-08-07 19:45	5283907	***9.159***	-184.836	194.556	19.883	429.877	430.836	0.232	0.280	14.249	19.883	4.359
2023-08-07 20:00	5284807	***9.029***	-177.729	203.919	19.856	431.537	432.73	0.233	0.281	11.936	19.856	4.342
2023-08-07 20:15	5285707	8.987	-175.452	211.021	19.794	431.459	433.16	0.233	0.282	12.019	19.794	4.447
2023-08-07 20:30	5286607	8.973	-174.615	215.089	19.734	430.724	432.926	0.233	0.281	11.832	19.734	4.382
2023-08-07 20:45	5287507	8.930	-172.281	220.219	19.71	430.659	433.057	0.233	0.281	12.140	19.71	4.38
2023-08-07 21:00	5288407	8.946	-173.151	219.709	19.719	430.939	433.264	0.233	0.282	11.946	19.719	4.27
2023-08-07 21:15	5289307	8.965	-174.203	217.039	19.715	431.1	433.462	0.233	0.282	12.229	19.715	4.349
2023-08-07 21:30	5290207	8.965	-174.181	219.797	19.718	431.439	433.776	0.233	0.282	11.799	19.718	4.287
2023-08-07 21:45	5291107	8.959	-173.886	221.047	19.721	431.674	433.984	0.234	0.282	11.921	19.721	4.323

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-07 22:00	5292007	8.937	-172.706	225.035	19.742	431.861	434.001	0.234	0.282	11.939	19.742	4.301
2023-08-07 22:15	5292907	8.930	-172.305	229.1	19.716	431.683	434.035	0.234	0.282	11.775	19.716	4.259
2023-08-07 22:30	5293807	8.919	-171.692	233.897	19.724	431.8	434.087	0.234	0.282	11.572	19.724	4.29
2023-08-07 22:45	5294707	8.917	-171.578	237.381	19.733	431.982	434.197	0.234	0.282	11.843	19.733	4.301
2023-08-07 23:00	5295607	8.927	-172.174	236.47	19.777	432.252	434.101	0.234	0.282	11.688	19.777	4.266
2023-08-07 23:15	5296507	8.919	-171.726	240.297	19.765	432.528	434.475	0.234	0.282	11.517	19.765	4.283
2023-08-07 23:30	5297407	8.896	-170.488	243.324	19.773	432.837	434.722	0.234	0.283	11.521	19.773	4.295
2023-08-07 23:45	5298307	8.884	-169.806	245.916	19.776	433.088	434.947	0.234	0.283	11.290	19.776	4.325
2023-08-08 00:00	5299207	8.860	-168.562	246.701	19.801	433.184	434.834	0.234	0.283	10.876	19.801	4.426
2023-08-08 00:15	5300107	8.850	-167.985	249.652	19.767	433.364	435.301	0.234	0.283	11.073	19.767	4.328
2023-08-08 00:30	5301007	8.830	-166.862	251.223	19.766	433.539	435.487	0.234	0.283	10.979	19.766	4.29
2023-08-08 00:45	5301907	8.813	-165.987	252.406	19.761	433.765	435.751	0.235	0.283	10.901	19.761	4.249
2023-08-08 01:00	5302807	8.804	-165.513	250.959	19.786	434.236	436.018	0.235	0.283	10.351	19.786	4.188
2023-08-08 01:15	5303707	8.798	-165.176	250.713	19.766	434.411	436.361	0.235	0.284	10.230	19.766	4.261
2023-08-08 01:30	5304607	8.791	-164.769	251.352	19.756	434.508	436.544	0.235	0.284	10.433	19.756	4.207
2023-08-08 01:45	5305507	8.784	-164.366	253.154	19.753	435.085	437.151	0.235	0.284	10.072	19.753	4.138
2023-08-08 02:00	5306407	8.722	-161.035	254.463	19.749	436.687	438.787	0.236	0.285	9.273	19.749	4.204
2023-08-08 02:15	5307307	8.696	-159.593	254.153	19.704	437.123	439.612	0.237	0.286	9.379	19.704	4.329
2023-08-08 02:30	5308207	8.655	-157.352	254.013	19.675	437.232	439.961	0.237	0.286	9.610	19.675	4.269
2023-08-08 02:45	5309107	8.538	-150.988	260.712	19.644	437.224	440.22	0.237	0.286	9.494	19.644	4.244
2023-08-08 03:00	5310007	8.678	-158.558	249.278	19.612	436.119	439.373	0.237	0.286	9.331	19.612	5.928
2023-08-08 03:15	5310907	8.629	-155.859	247.385	19.533	435.618	439.535	0.237	0.286	8.955	19.533	5.738
2023-08-08 03:30	5311807	8.615	-155.089	248.818	19.516	435.555	439.619	0.237	0.286	8.474	19.516	5.169
2023-08-08 03:45	5312707	8.611	-154.855	247.437	19.495	435.78	440.021	0.237	0.286	8.807	19.495	4.688
2023-08-08 04:00	5313607	8.602	-154.359	243.115	19.473	435.634	440.066	0.237	0.286	8.720	19.473	4.51
2023-08-08 04:15	5314507	8.609	-154.696	240.926	19.434	435.394	440.15	0.237	0.286	8.828	19.434	4.393
2023-08-08 04:30	5315407	8.599	-154.152	241.949	19.403	435.346	440.368	0.237	0.286	9.122	19.403	4.43
2023-08-08 04:45	5316307	8.594	-153.866	243.758	19.372	435.162	440.449	0.237	0.286	9.100	19.372	4.447
2023-08-08 05:00	5317207	8.625	-155.547	243.022	19.347	435.349	440.843	0.237	0.287	8.552	19.347	4.192
2023-08-08 05:15	5318107	8.581	-153.148	244.264	19.317	435.19	440.938	0.238	0.287	9.214	19.317	4.23
2023-08-08 05:30	5319007	8.606	-154.457	245.911	19.284	434.717	440.743	0.237	0.286	9.214	19.284	4.165
2023-08-08 05:45	5319907	8.632	-155.852	246.526	19.253	434.307	440.596	0.237	0.286	8.962	19.253	4.182
2023-08-08 06:00	5320807	8.578	-152.895	247.306	19.225	433.806	440.326	0.237	0.286	8.584	19.225	4.389
2023-08-08 06:15	5321707	8.556	-151.708	250.992	19.182	433.547	440.426	0.237	0.286	8.504	19.182	4.395
2023-08-08 06:30	5322607	8.505	-148.945	252.647	19.153	433.027	440.148	0.237	0.286	8.408	19.153	4.29
2023-08-08 06:45	5323507	8.476	-147.319	256.118	19.126	432.989	440.343	0.237	0.286	8.038	19.126	4.242
2023-08-08 07:00	5324407	8.453	-146.072	254.828	19.118	432.915	440.335	0.237	0.286	7.500	19.118	4.262
2023-08-08 07:15	5325307	8.354	-140.727	257.224	19.091	433.286	440.937	0.238	0.287	7.477	19.091	4.291
2023-08-08 07:30	5326207	8.319	-138.786	260.29	19.07	433.242	441.08	0.238	0.287	6.665	19.07	4.292
2023-08-08 07:45	5327107	8.253	-135.231	264.94	19.053	433.449	441.434	0.238	0.287	***6.315***	19.053	4.215
2023-08-08 08:00	5328007	8.217	-133.24	268.42	19.048	433.395	441.418	0.238	0.287	***5.575***	19.048	4.391
2023-08-08 08:15	5328907	8.180	-131.233	273.892	19.017	434.524	442.838	0.239	0.288	***5.257***	19.017	4.313
2023-08-08 08:30	5329807	8.154	-129.821	276.434	18.999	434.95	443.423	0.239	0.288	***4.626***	18.999	4.274
2023-08-08 08:45	5330707	7.964	-119.531	287.644	18.985	435.014	443.619	0.239	0.288	***4.509***	18.985	4.223
2023-08-08 09:00	5331607	8.118	-127.9	280.089	18.981	433.726	442.336	0.238	0.288	***4.560***	18.981	4.145
2023-08-08 09:15	5332507	8.133	-128.701	279.807	18.966	433.826	442.569	0.239	0.288	***5.307***	18.966	4.026
2023-08-08 09:30	5333407	8.167	-130.522	278.873	18.955	433.632	442.466	0.239	0.288	***5.179***	18.955	4.082
2023-08-08 09:45	5334307	8.179	-131.176	278.594	18.947	433.433	442.331	0.238	0.288	***5.393***	18.947	3.969
2023-08-08 10:00	5335207	8.153	-129.778	277.795	18.943	433.373	442.303	0.238	0.287	***5.100***	18.943	4.067
2023-08-08 10:15	5336107	8.155	-129.855	278.548	18.927	433.479	442.546	0.239	0.288	***5.269***	18.927	4.028
2023-08-08 10:30	5337007	8.173	-130.846	277.802	18.923	432.613	441.699	0.238	0.287	***5.370***	18.923	3.946
2023-08-08 10:45	5337907	8.160	-130.1	276.562	18.921	431.679	440.767	0.238	0.286	***5.754***	18.921	4.448
2023-08-08 11:00	5338807	8.175	-130.916	273.964	18.938	432.14	441.091	0.238	0.287	***5.254***	18.938	4.042
2023-08-08 11:15	5339707	8.191	-131.836	268.087	18.945	432.675	441.576	0.238	0.287	***5.407***	18.945	4.037
2023-08-08 11:30	5340607	8.141	-129.113	270.366	18.939	432.814	441.765	0.238	0.287	***5.290***	18.939	3.964
2023-08-08 11:45	5341507	8.195	-132.015	266.613	18.943	432.934	441.857	0.238	0.287	***5.581***	18.943	3.959

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-08 12:00	5342407	8.201	-132.37	264.394	18.949	432.352	441.208	0.238	0.287	***5.545***	18.949	4.039
2023-08-08 12:15	5343307	8.217	-133.238	261.087	18.932	431.87	440.859	0.238	0.287	***5.866***	18.932	4.059
2023-08-08 12:30	5344207	8.146	-129.378	266.427	18.934	432.271	441.253	0.238	0.287	***5.716***	18.934	3.925
2023-08-08 12:45	5345107	8.188	-131.65	265.509	18.939	432.626	441.576	0.238	0.287	***5.433***	18.939	3.922
2023-08-08 13:00	5346007	8.267	-135.949	264.057	18.969	432.166	440.851	0.238	0.287	***5.754***	18.969	5.109
2023-08-08 13:15	5346907	8.330	-139.349	263.828	18.968	432.403	441.097	0.238	0.287	6.552	18.968	3.838
2023-08-08 13:30	5347807	8.356	-140.75	262.517	18.975	431.798	440.42	0.237	0.286	6.693	18.975	3.903
2023-08-08 13:45	5348707	8.416	-144.043	262.598	18.988	431.404	439.903	0.237	0.286	7.034	18.988	3.854
2023-08-08 14:00	5349607	8.373	-141.728	259.151	19.022	430.946	439.152	0.237	0.285	7.403	19.022	3.845
2023-08-08 14:15	5350507	8.378	-141.964	260.908	19.01	430.894	439.196	0.237	0.285	7.679	19.01	3.851
2023-08-08 14:30	5351407	8.541	-150.795	255.989	19.037	431.463	439.551	0.237	0.286	7.631	19.037	4.361
2023-08-08 14:45	5352307	8.474	-147.176	260.944	19.049	431.781	439.771	0.237	0.286	7.405	19.049	4.135
2023-08-08 15:00	5353207	8.479	-147.476	256.268	19.079	431.83	439.561	0.237	0.286	7.226	19.079	3.923
2023-08-08 15:15	5354107	8.476	-147.305	253.298	19.079	433.179	440.938	0.238	0.287	8.053	19.079	3.933
2023-08-08 15:30	5355007	8.352	-140.591	261.351	19.085	432.99	440.694	0.238	0.286	8.370	19.085	3.898
2023-08-08 15:45	5355907	8.518	-149.591	252.377	19.094	432.683	440.299	0.237	0.286	8.146	19.094	3.93
2023-08-08 16:00	5356807	8.475	-147.285	252.573	19.128	431.209	438.514	0.236	0.285	8.279	19.128	3.96
2023-08-08 16:15	5357707	8.453	-146.053	257.236	19.099	431.05	438.594	0.236	0.285	8.096	19.099	4.007
2023-08-08 16:30	5358607	8.447	-145.75	258.695	19.107	431.467	438.953	0.237	0.285	7.927	19.107	3.99
2023-08-08 16:45	5359507	8.476	-147.319	258.159	19.117	431.428	438.829	0.236	0.285	7.851	19.117	3.922
2023-08-08 17:00	5360407	8.562	-152.016	252.139	19.157	431.715	438.775	0.236	0.285	7.770	19.157	3.812
2023-08-08 17:15	5361307	8.571	-152.488	251.645	19.156	432.8	439.895	0.237	0.286	8.518	19.156	3.776
2023-08-08 17:30	5362207	8.580	-152.981	252.62	19.163	432.251	439.271	0.237	0.286	8.821	19.163	3.811
2023-08-08 17:45	5363107	8.614	-154.839	251.641	19.174	432.481	439.412	0.237	0.286	9.408	19.174	3.71
2023-08-08 18:00	5364007	8.597	-153.966	250.134	19.21	431.017	437.616	0.236	0.284	9.549	19.21	3.876
2023-08-08 18:15	5364907	8.591	-153.601	252.134	19.188	430.981	437.766	0.236	0.285	9.389	19.188	3.844
2023-08-08 18:30	5365807	8.590	-153.577	252.458	19.198	430.917	437.62	0.236	0.284	9.451	19.198	3.804
2023-08-08 18:45	5366707	8.581	-153.069	252.613	19.211	430.838	437.434	0.236	0.284	9.210	19.211	3.815
2023-08-08 19:00	5367607	8.587	-153.425	253.913	19.256	430.972	437.185	0.236	0.284	8.659	19.256	3.723
2023-08-08 19:15	5368507	8.728	-161.078	248.667	19.25	432.105	438.385	0.236	0.285	9.570	19.25	3.699
2023-08-08 19:30	5369407	8.731	-161.223	247.103	19.259	431.489	437.687	0.236	0.284	9.739	19.259	3.672
2023-08-08 19:45	5370307	8.779	-163.858	242.852	19.268	431.228	437.342	0.236	0.284	10.019	19.268	3.656
2023-08-08 20:00	5371207	8.802	-165.091	242.929	19.295	430.486	436.366	0.235	0.284	10.525	19.295	3.755
2023-08-08 20:15	5372107	8.763	-162.981	244.767	19.268	430.386	436.486	0.235	0.284	10.455	19.268	3.732
2023-08-08 20:30	5373007	8.748	-162.165	245.382	19.273	430.455	436.518	0.235	0.284	10.037	19.273	3.72
2023-08-08 20:45	5373907	8.746	-162.032	246.171	19.277	430.564	436.592	0.235	0.284	9.919	19.277	3.689
2023-08-08 21:00	5374807	8.783	-164.053	245.301	19.302	430.791	436.613	0.235	0.284	9.445	19.302	3.61
2023-08-08 21:15	5375707	8.808	-165.401	245.361	19.295	430.846	436.724	0.235	0.284	10.119	19.295	3.732
2023-08-08 21:30	5376607	8.803	-165.143	245.57	19.296	430.58	436.446	0.235	0.284	9.859	19.296	3.64
2023-08-08 21:45	5377507	8.783	-164.063	247.127	19.299	430.599	436.446	0.235	0.284	10.100	19.299	3.628
2023-08-08 22:00	5378407	8.583	-153.215	255.348	19.324	430.561	436.194	0.235	0.284	9.422	19.324	3.687
2023-08-08 22:15	5379307	8.751	-162.311	247.602	19.293	430.754	436.653	0.235	0.284	9.874	19.293	3.623
2023-08-08 22:30	5380207	8.747	-162.144	247.854	19.297	430.804	436.67	0.235	0.284	10.062	19.297	3.651
2023-08-08 22:45	5381107	8.754	-162.497	248.207	19.297	430.886	436.754	0.235	0.284	9.805	19.297	3.652
2023-08-08 23:00	5382007	8.762	-162.94	248.629	19.316	431.164	436.869	0.235	0.284	9.648	19.316	3.67
2023-08-08 23:15	5382907	8.748	-162.16	250.472	19.308	431.24	437.019	0.235	0.284	9.120	19.308	3.693
2023-08-08 23:30	5383807	8.741	-161.8	252.077	19.305	431.344	437.144	0.235	0.284	8.844	19.305	3.647
2023-08-08 23:45	5384707	8.706	-159.876	252.747	19.303	431.643	437.464	0.236	0.284	8.715	19.303	3.655
2023-08-09 00:00	5385607	8.631	-155.857	252.651	19.313	431.982	437.724	0.236	0.285	8.412	19.313	3.738
2023-08-09 00:15	5386507	8.634	-155.971	254.912	19.291	432.372	438.304	0.236	0.285	8.937	19.291	3.687
2023-08-09 00:30	5387407	8.591	-153.661	255.527	19.292	432.662	438.593	0.236	0.285	8.672	19.292	3.707
2023-08-09 00:45	5388307	8.600	-154.157	256.547	19.292	433.565	439.512	0.237	0.286	8.494	19.292	3.667
2023-08-09 01:00	5389207	8.595	-153.861	254.144	19.298	433.415	439.308	0.237	0.286	8.226	19.298	3.694
2023-08-09 01:15	5390107	8.597	-153.98	256.19	19.287	433.42	439.405	0.237	0.286	8.028	19.287	3.644
2023-08-09 01:30	5391007	8.572	-152.638	256.235	19.282	433.698	439.733	0.237	0.286	8.015	19.282	3.669
2023-08-09 01:45	5391907	8.493	-148.33	260.846	19.275	434.161	440.256	0.237	0.286	8.102	19.275	3.619

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-09 02:00	5392807	8.460	-146.554	260.14	19.268	434.079	440.23	0.237	0.286	7.697	19.268	3.698
2023-08-09 02:15	5393707	8.451	-146.022	261.497	19.245	434.44	440.8	0.238	0.287	7.835	19.245	3.682
2023-08-09 02:30	5394607	8.411	-143.843	263.488	19.233	434.297	440.752	0.237	0.286	7.803	19.233	3.61
2023-08-09 02:45	5395507	8.356	-140.839	263.278	19.173	434.851	441.828	0.238	0.287	6.546	19.173	4.944
2023-08-09 03:00	5396407	8.443	-145.59	247.552	19.173	433.914	440.879	0.238	0.287	7.287	19.173	5.228
2023-08-09 03:15	5397307	8.496	-148.463	248.536	19.168	433.996	441.003	0.238	0.287	7.493	19.168	4.743
2023-08-09 03:30	5398207	8.452	-146.058	250.475	19.159	434.008	441.09	0.238	0.287	7.286	19.159	4.972
2023-08-09 03:45	5399107	8.435	-145.125	254.301	19.149	433.961	441.129	0.238	0.287	7.369	19.149	4.277
2023-08-09 04:00	5400007	8.424	-144.541	254.957	19.142	433.459	440.68	0.237	0.286	8.281	19.142	4.368
2023-08-09 04:15	5400907	8.428	-144.753	258.316	19.123	433.024	440.399	0.237	0.286	7.747	19.123	4.233
2023-08-09 04:30	5401807	8.407	-143.576	261.838	19.111	432.521	439.995	0.237	0.286	8.155	19.111	4.201
2023-08-09 04:45	5402707	8.439	-145.33	262.038	19.095	432.378	439.979	0.237	0.286	8.078	19.095	4.111
2023-08-09 05:00	5403607	8.529	-150.192	261.542	19.088	432.41	440.072	0.237	0.286	7.912	19.088	3.814
2023-08-09 05:15	5404507	8.491	-148.139	262.806	19.072	432.99	440.8	0.238	0.287	8.502	19.072	3.764
2023-08-09 05:30	5405407	8.515	-149.407	264.625	19.058	432.686	440.611	0.237	0.286	8.869	19.058	3.724
2023-08-09 05:45	5406307	8.505	-148.845	267.085	19.041	432.516	440.584	0.237	0.286	8.880	19.041	3.643
2023-08-09 06:00	5407207	8.533	-150.385	265.345	19.023	431.765	439.978	0.237	0.286	8.693	19.023	3.72
2023-08-09 06:15	5408107	8.570	-152.354	264.155	19.001	431.782	440.182	0.237	0.286	8.489	19.001	3738.099
2023-08-09 06:30	5409007	8.517	-149.503	269.064	18.991	432.642	441.142	0.238	0.287	8.200	18.991	2499.116
2023-08-09 06:45	5409907	8.305	-137.99	278.575	18.977	433.663	442.308	0.238	0.287	8.312	18.977	2287.019
2023-08-09 07:00	5410807	8.360	-141.001	282.194	18.966	432.493	441.202	0.238	0.287	7.910	18.966	3.968
2023-08-09 07:15	5411707	8.408	-143.564	276.119	18.956	434.035	442.864	0.239	0.288	7.530	18.956	3.552
2023-08-09 07:30	5412607	8.372	-141.613	278.813	18.941	434.02	442.983	0.239	0.288	6.672	18.941	3.538
2023-08-09 07:45	5413507	8.312	-138.354	282.842	18.923	434.83	443.961	0.239	0.289	***6.028***	18.923	3.696
2023-08-09 08:00	5414407	8.231	-133.972	284.569	18.894	432.838	442.179	0.238	0.287	***6.117***	18.894	4.418
2023-08-09 08:15	5415307	8.241	-134.501	281.824	18.873	431.584	441.075	0.238	0.287	7.186	18.873	3.585
2023-08-09 08:30	5416207	8.293	-137.277	279.059	18.871	433.442	442.993	0.239	0.288	7.268	18.871	3.508
2023-08-09 08:45	5417107	8.181	-131.23	282.532	18.868	434.183	443.779	0.239	0.288	***6.297***	18.868	3.564
2023-08-09 09:00	5418007	8.151	-129.616	284.197	18.87	435.131	444.726	0.240	0.289	***5.615***	18.87	3.607
2023-08-09 09:15	5418907	8.131	-128.51	287.248	18.866	435.123	444.758	0.240	0.289	***4.827***	18.866	3.508
2023-08-09 09:30	5419807	8.132	-128.574	287.286	18.861	434.947	444.622	0.240	0.289	***5.090***	18.861	3.583
2023-08-09 09:45	5420707	8.122	-128.055	289.89	18.855	434.655	444.372	0.240	0.289	***5.208***	18.855	3.605
2023-08-09 10:00	5421607	8.144	-129.216	285.52	18.853	433.032	442.732	0.239	0.288	***5.581***	18.853	3.577
2023-08-09 10:15	5422507	8.148	-129.416	287.377	18.851	433.463	443.193	0.239	0.288	***5.461***	18.851	3.579
2023-08-09 10:30	5423407	8.142	-129.147	286.819	18.858	432.951	442.603	0.239	0.288	***5.755***	18.858	3.579
2023-08-09 10:45	5424307	8.156	-129.898	288.629	18.872	433.967	443.523	0.239	0.288	***5.612***	18.872	3.575
2023-08-09 11:00	5425207	7.947	-118.573	190.245	18.826	0.055	0.056	0.000	0.000	9.525	18.826	3.308
2023-08-09 11:15	5426107	8.382	-141.616	191.297	17.85	0.055	0.057	0.000	0.000	9.611	17.85	2.456
2023-08-09 11:30	5427007	8.772	-163.305	172.528	18.97	430.018	438.651	0.236	0.285	9.390	18.97	69.676
2023-08-09 11:45	5427907	8.767	-163.04	193.631	18.981	430.346	438.885	0.237	0.285	9.672	18.981	20.175
2023-08-09 12:00	5428807	8.747	-161.965	201.992	19.01	430.59	438.887	0.237	0.285	9.729	19.01	11.172
2023-08-09 12:15	5429707	8.734	-161.288	205.981	19.043	430.957	438.984	0.237	0.285	9.834	19.043	11.286
2023-08-09 12:30	5430607	8.666	-157.583	202.6	19.055	430.98	438.901	0.237	0.285	9.779	19.055	11.128
2023-08-09 12:45	5431507	8.724	-160.749	209.085	19.09	431.176	438.807	0.236	0.285	9.615	19.09	8.765
2023-08-09 13:00	5432407	8.722	-160.642	216.181	19.118	431.488	438.882	0.237	0.285	9.405	19.118	7.862
2023-08-09 13:15	5433307	8.720	-160.577	219.204	19.15	431.843	438.97	0.237	0.285	9.629	19.15	7.636
2023-08-09 13:30	5434207	8.702	-159.621	205.878	19.185	432.386	439.22	0.237	0.285	9.430	19.185	7.281
2023-08-09 13:45	5435107	8.684	-158.644	222.477	19.214	432.737	439.334	0.237	0.286	9.305	19.214	5.997
2023-08-09 14:00	5436007	8.675	-158.207	227.362	19.232	432.945	439.394	0.237	0.286	9.564	19.232	5.393
2023-08-09 14:15	5436907	8.692	-159.099	230.462	19.25	433.109	439.403	0.237	0.286	9.543	19.25	5.27
2023-08-09 14:30	5437807	8.689	-158.973	222.453	19.245	432.824	439.156	0.237	0.285	9.560	19.245	4.696
2023-08-09 14:45	5438707	8.689	-158.978	231.573	19.268	432.644	438.781	0.236	0.285	9.954	19.268	4.628
2023-08-09 15:00	5439607	8.693	-159.209	233.793	19.285	432.946	438.941	0.236	0.285	10.407	19.285	4.44
2023-08-09 15:15	5440507	8.706	-159.898	234.546	19.312	433.602	439.379	0.237	0.286	10.576	19.312	4.713
2023-08-09 15:30	5441407	8.723	-160.866	222.613	19.357	434.808	440.216	0.237	0.286	10.009	19.357	4.106
2023-08-09 15:45	5442307	8.716	-160.463	232.937	19.371	435.23	440.519	0.237	0.286	9.961	19.371	3.894

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-09 16:00	5443207	8.628	-155.718	239.181	19.365	435.75	441.102	0.238	0.287	10.287	19.365	3.798
2023-08-09 16:15	5444107	8.693	-159.209	236.112	19.366	436.288	441.635	0.238	0.287	10.278	19.366	3.817
2023-08-09 16:30	5445007	8.708	-160.046	230.753	19.356	436.918	442.357	0.238	0.288	10.218	19.356	3.814
2023-08-09 16:45	5445907	8.717	-160.513	235.087	19.367	437.318	442.668	0.239	0.288	10.070	19.367	3.78
2023-08-09 17:00	5446807	8.723	-160.871	237.872	19.403	437.484	442.526	0.238	0.288	10.001	19.403	3.752
2023-08-09 17:15	5447707	8.726	-161.076	238.532	19.453	438.36	442.99	0.239	0.288	10.118	19.453	3.863
2023-08-09 17:30	5448607	8.723	-160.942	233.638	19.525	438.646	442.658	0.238	0.288	10.021	19.525	4.027
2023-08-09 17:45	5449507	8.728	-161.271	237.476	19.62	440.184	443.401	0.239	0.288	9.858	19.62	3.801
2023-08-09 18:00	5450407	8.752	-162.599	235.886	19.691	441.014	443.628	0.239	0.288	9.901	19.691	3.67
2023-08-09 18:15	5451307	8.744	-162.22	237.443	19.747	441.234	443.375	0.239	0.288	9.902	19.747	3.798
2023-08-09 18:30	5452207	8.734	-161.698	231.127	19.764	441.132	443.13	0.239	0.288	10.082	19.764	3.705
2023-08-09 18:45	5453107	8.740	-162.02	235.585	19.791	442.123	443.894	0.239	0.289	10.710	19.791	3.626
2023-08-09 19:00	5454007	8.739	-161.951	237.521	19.804	442.523	444.183	0.239	0.289	10.662	19.804	3.566
2023-08-09 19:15	5454907	8.743	-162.196	235.645	19.821	442.698	444.221	0.239	0.289	10.158	19.821	3.677
2023-08-09 19:30	5455807	8.767	-163.529	230.428	19.841	442.614	443.966	0.239	0.289	10.552	19.841	3.626
2023-08-09 19:45	5456707	8.765	-163.422	231.883	19.845	442.954	444.272	0.239	0.289	10.816	19.845	3.563
2023-08-09 20:00	5457607	8.641	-156.643	241.334	19.828	442.688	444.147	0.239	0.289	10.982	19.828	3.534
2023-08-09 20:15	5458507	8.786	-164.537	234.224	19.804	442.212	443.87	0.239	0.289	11.525	19.804	3.542
2023-08-09 20:30	5459407	8.826	-166.688	227.114	19.772	441.819	443.754	0.239	0.288	10.876	19.772	3.576
2023-08-09 20:45	5460307	8.827	-166.745	231.439	19.761	441.83	443.853	0.239	0.289	10.989	19.761	3.495
2023-08-09 21:00	5461207	8.814	-165.989	232.803	19.751	441.969	444.083	0.239	0.289	10.603	19.751	3.491
2023-08-09 21:15	5462107	8.790	-164.714	235.857	19.745	442.162	444.325	0.239	0.289	10.451	19.745	3.526
2023-08-09 21:30	5463007	8.763	-163.229	226.809	19.742	442.155	444.349	0.239	0.289	10.155	19.742	3.536
2023-08-09 21:45	5463907	8.753	-162.704	235.101	19.741	442.111	444.31	0.239	0.289	10.317	19.741	3.509
2023-08-09 22:00	5464807	8.742	-162.067	237.734	19.732	442.257	444.531	0.239	0.289	10.181	19.732	3.5
2023-08-09 22:15	5465707	8.763	-163.214	236.301	19.708	441.336	443.812	0.239	0.288	10.901	19.708	3.503
2023-08-09 22:30	5466607	8.850	-167.911	227.52	19.666	439.174	441.989	0.238	0.287	10.881	19.666	3.493
2023-08-09 22:45	5467507	8.899	-170.546	228.109	19.641	438.2	441.228	0.238	0.287	11.353	19.641	3.473
2023-08-09 23:00	5468407	8.903	-170.746	230.006	19.603	437.799	441.143	0.238	0.287	11.232	19.603	3.467
2023-08-09 23:15	5469307	8.889	-169.961	231.93	19.559	437.51	441.226	0.238	0.287	10.977	19.559	3.545
2023-08-09 23:30	5470207	8.852	-167.923	224.458	19.51	437.552	441.682	0.238	0.287	10.845	19.51	3.507
2023-08-09 23:45	5471107	8.843	-167.444	231.895	19.479	437.442	441.835	0.238	0.287	10.627	19.479	3.518
2023-08-10 00:00	5472007	8.836	-166.991	233.027	19.421	436.729	441.616	0.238	0.287	10.792	19.421	3.481
2023-08-10 00:15	5472907	8.821	-166.187	235.182	19.347	436.39	441.904	0.238	0.287	10.684	19.347	3.497
2023-08-10 00:30	5473807	8.828	-166.507	225.319	19.255	435.126	441.412	0.238	0.287	10.678	19.255	3.63
2023-08-10 00:45	5474707	8.828	-166.481	228.733	19.196	434.255	441.026	0.238	0.287	10.484	19.196	3.456
2023-08-10 01:00	5475607	8.817	-165.851	231.835	19.138	433.803	441.068	0.238	0.287	10.883	19.138	3.482
2023-08-10 01:15	5476507	8.821	-166.001	232.145	19.08	433.444	441.196	0.238	0.287	10.588	19.08	3.426
2023-08-10 01:30	5477407	8.779	-163.693	231.482	19.022	433.506	441.761	0.238	0.287	10.522	19.022	3.404
2023-08-10 01:45	5478307	8.786	-164.051	225.627	19.004	433.568	441.98	0.238	0.287	10.395	19.004	3.436
2023-08-10 02:00	5479207	8.777	-163.555	217.633	18.967	433.598	442.324	0.238	0.288	10.112	18.967	3.407
2023-08-10 02:15	5480107	8.763	-162.802	219.638	18.943	433.38	442.305	0.238	0.287	10.139	18.943	3.417
2023-08-10 02:30	5481007	8.738	-161.428	215.737	18.892	433.22	442.583	0.239	0.288	9.754	18.892	3.405
2023-08-10 02:45	5481907	8.720	-160.449	229.332	18.88	433.271	442.744	0.239	0.288	9.761	18.88	3.376
2023-08-10 03:00	5482807	8.700	-159.326	236.088	18.856	433.294	442.97	0.239	0.288	9.551	18.856	3.413
2023-08-10 03:15	5483707	8.679	-158.165	237.154	18.831	433.322	443.218	0.239	0.288	9.382	18.831	3.344
2023-08-10 03:30	5484607	8.634	-155.716	227.634	18.786	433.646	443.941	0.239	0.289	9.151	18.786	3.387
2023-08-10 03:45	5485507	8.609	-154.383	231.091	18.766	433.632	444.097	0.240	0.289	9.013	18.766	3.414
2023-08-10 04:00	5486407	8.592	-153.399	230.531	18.728	433.455	444.245	0.240	0.289	8.969	18.728	3.407
2023-08-10 04:15	5487307	8.576	-152.514	227.629	18.69	433.253	444.37	0.240	0.289	8.723	18.69	3.369
2023-08-10 04:30	5488207	8.552	-151.186	230.297	18.624	432.483	444.159	0.240	0.289	8.521	18.624	3.535
2023-08-10 04:45	5489107	8.541	-150.578	235.473	18.602	432.181	444.036	0.240	0.289	8.617	18.602	3.413
2023-08-10 05:00	5490007	8.529	-149.93	245.907	18.57	431.949	444.075	0.240	0.289	8.499	18.57	3.435
2023-08-10 05:15	5490907	8.510	-148.895	249.433	18.533	431.643	444.084	0.240	0.289	8.235	18.533	3.473
2023-08-10 05:30	5491807	8.500	-148.292	250	18.493	431.605	444.394	0.240	0.289	8.280	18.493	3.49
2023-08-10 05:45	5492707	8.484	-147.452	252.806	18.467	431.275	444.281	0.240	0.289	8.259	18.467	3.469

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-10 06:00	5493607	8.465	-146.418	252.115	18.436	430.951	444.224	0.240	0.289	8.030	18.436	3.441
2023-08-10 06:15	5494507	8.461	-146.184	251.645	18.407	430.837	444.359	0.240	0.289	7.872	18.407	3.481
2023-08-10 06:30	5495407	8.438	-144.92	249.964	18.372	430.445	444.263	0.240	0.289	7.880	18.372	3.417
2023-08-10 06:45	5496307	8.364	-140.886	258.493	18.348	430.302	444.322	0.240	0.289	7.839	18.348	3.503
2023-08-10 07:00	5497207	8.365	-140.934	263.402	18.318	430.178	444.452	0.240	0.289	7.625	18.318	3.351
2023-08-10 07:15	5498107	8.347	-139.952	265.776	18.286	429.969	444.525	0.240	0.289	7.514	18.286	3.423
2023-08-10 07:30	5499007	8.344	-139.778	260.505	18.262	429.876	444.635	0.240	0.289	7.262	18.262	3.487
2023-08-10 07:45	5499907	8.341	-139.58	259.48	18.251	429.802	444.659	0.240	0.289	7.209	18.251	3.388
2023-08-10 08:00	5500807	8.352	-140.169	259.237	18.238	429.645	444.61	0.240	0.289	7.214	18.238	3.355
2023-08-10 08:15	5501707	8.344	-139.751	259.446	18.228	429.549	444.599	0.240	0.289	7.224	18.228	3.316
2023-08-10 08:30	5502607	8.330	-138.981	257.024	18.207	429.324	444.552	0.240	0.289	7.431	18.207	3.391
2023-08-10 08:45	5503507	8.332	-139.089	259.532	18.199	429.209	444.497	0.240	0.289	7.244	18.199	3.343
2023-08-10 09:00	5504407	8.324	-138.681	260.498	18.193	429.117	444.457	0.240	0.289	7.266	18.193	3.23
2023-08-10 09:15	5505307	8.328	-138.845	260.629	18.191	429.049	444.408	0.240	0.289	7.081	18.191	3.264
2023-08-10 09:30	5506207	8.352	-140.183	252.768	18.2	429.384	444.67	0.240	0.289	7.302	18.2	3.28
2023-08-10 09:45	5507107	8.379	-141.635	257.734	18.202	429.202	444.466	0.240	0.289	7.582	18.202	3.345
2023-08-10 10:00	5508007	8.459	-145.948	255.72	18.189	428.69	444.046	0.240	0.289	7.695	18.189	3.28
2023-08-10 10:15	5508907	8.505	-148.425	253.903	18.18	428.362	443.79	0.240	0.288	8.296	18.18	3.365
2023-08-10 10:30	5509807	8.511	-148.764	250.713	18.17	428.004	443.505	0.239	0.288	8.480	18.17	3.392
2023-08-10 10:45	5510707	8.474	-146.756	255.751	18.177	428.1	443.54	0.239	0.288	8.334	18.177	3.278
2023-08-10 11:00	5511607	8.501	-148.225	255.572	18.174	428.034	443.505	0.239	0.288	8.462	18.174	3.298
2023-08-10 11:15	5512507	8.506	-148.504	253.867	18.174	427.999	443.463	0.239	0.288	8.379	18.174	3.264
2023-08-10 11:30	5513407	8.536	-150.092	245.558	18.203	428.44	443.67	0.240	0.288	8.341	18.203	3.318
2023-08-10 11:45	5514307	8.527	-149.684	245.99	18.277	429.171	443.772	0.240	0.288	8.594	18.277	3.381
2023-08-10 12:00	5515207	8.563	-151.615	243.985	18.322	429.338	443.556	0.239	0.288	8.785	18.322	3.303
2023-08-10 12:15	5516107	8.583	-152.731	243.599	18.355	429.611	443.548	0.239	0.288	8.909	18.355	3.33
2023-08-10 12:30	5517007	8.600	-153.651	238.582	18.369	429.449	443.26	0.239	0.288	8.923	18.369	3.348
2023-08-10 12:45	5517907	8.619	-154.703	240.547	18.4	429.714	443.261	0.239	0.288	9.106	18.4	3.295
2023-08-10 13:00	5518807	8.675	-157.745	237.281	18.426	429.744	443.061	0.239	0.288	9.336	18.426	3.258
2023-08-10 13:15	5519707	8.593	-153.306	240.869	18.446	429.948	443.1	0.239	0.288	9.555	18.446	3.276
2023-08-10 13:30	5520607	8.685	-158.308	227.527	18.466	430.27	443.26	0.239	0.288	9.675	18.466	3.48
2023-08-10 13:45	5521507	8.709	-159.647	231.711	18.495	430.529	443.267	0.239	0.288	9.702	18.495	3.392
2023-08-10 14:00	5522407	8.743	-161.483	229.594	18.559	430.973	443.166	0.239	0.288	9.821	18.559	3.359
2023-08-10 14:15	5523307	8.761	-162.477	232.655	18.614	431.325	443.056	0.239	0.288	10.059	18.614	3.364
2023-08-10 14:30	5524207	8.779	-163.503	225.577	18.66	431.57	442.905	0.239	0.288	10.035	18.66	3.346
2023-08-10 14:45	5525107	8.764	-162.709	225.62	18.712	432.342	443.243	0.239	0.288	10.403	18.712	3.36
2023-08-10 15:00	5526007	8.756	-162.311	226.256	18.755	432.921	443.465	0.239	0.288	10.133	18.755	3.267
2023-08-10 15:15	5526907	8.756	-162.349	225.226	18.822	433.713	443.692	0.239	0.288	10.086	18.822	3.364
2023-08-10 15:30	5527807	8.757	-162.418	218.288	18.868	434.437	444.034	0.239	0.289	10.059	18.868	3.382
2023-08-10 15:45	5528707	8.720	-160.482	225.009	18.936	435.269	444.295	0.240	0.289	10.014	18.936	3.434
2023-08-10 16:00	5529607	8.720	-160.487	223.927	18.994	435.77	444.306	0.240	0.289	9.827	18.994	3.39
2023-08-10 16:15	5530507	8.737	-161.421	223.715	19.015	435.929	444.284	0.240	0.289	10.098	19.015	3.453
2023-08-10 16:30	5531407	8.734	-161.285	220.064	19.023	435.899	444.189	0.239	0.289	10.298	19.023	3.479
2023-08-10 16:45	5532307	8.738	-161.476	221.059	19.041	435.951	444.083	0.239	0.289	10.072	19.041	3.419
2023-08-10 17:00	5533207	8.740	-161.602	221.979	19.061	436.197	444.166	0.239	0.289	10.066	19.061	3.407
2023-08-10 17:15	5534107	8.701	-159.514	225.958	19.085	436.57	444.339	0.240	0.289	10.291	19.085	3.411
2023-08-10 17:30	5535007	8.744	-161.872	216.257	19.127	437.013	444.426	0.240	0.289	10.371	19.127	3.466
2023-08-10 17:45	5535907	8.748	-162.103	222.806	19.19	437.675	444.548	0.240	0.289	10.257	19.19	3.473
2023-08-10 18:00	5536807	8.760	-162.768	222.472	19.227	438.057	444.619	0.240	0.289	10.224	19.227	3.537
2023-08-10 18:15	5537707	8.763	-162.985	224.749	19.269	438.465	444.675	0.240	0.289	10.395	19.269	3.482
2023-08-10 18:30	5538607	8.780	-163.91	221.369	19.29	438.506	444.535	0.240	0.289	11.017	19.29	3.556
2023-08-10 18:45	5539507	8.777	-163.741	220.958	19.317	438.722	444.524	0.240	0.289	10.507	19.317	3.557
2023-08-10 19:00	5540407	8.784	-164.175	218.291	19.349	439.023	444.549	0.240	0.289	10.373	19.349	3.502
2023-08-10 19:15	5541307	8.782	-164.053	224.01	19.333	438.561	444.222	0.239	0.289	10.687	19.333	3.491
2023-08-10 19:30	5542207	8.808	-165.453	219.971	19.299	438.535	444.485	0.240	0.289	10.608	19.299	3.482
2023-08-10 19:45	5543107	8.785	-164.196	223.867	19.283	438.503	444.593	0.240	0.289	10.659	19.283	3.513

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-10 20:00	5544007	8.768	-163.231	226.197	19.266	438.538	444.77	0.240	0.289	10.455	19.266	3.43
2023-08-10 20:15	5544907	8.722	-160.758	228.652	19.25	438.535	444.905	0.240	0.289	10.451	19.25	3.435
2023-08-10 20:30	5545807	8.717	-160.453	227.973	19.23	438.317	444.862	0.240	0.289	10.090	19.23	3.509
2023-08-10 20:45	5546707	8.717	-160.46	232.362	19.202	438.079	444.861	0.240	0.289	10.220	19.202	3.47
2023-08-10 21:00	5547607	8.728	-160.992	231.187	19.165	437.508	444.599	0.240	0.289	10.112	19.165	3.474
2023-08-10 21:15	5548507	8.746	-161.996	226.464	19.13	436.602	443.98	0.239	0.289	10.161	19.13	3.457
2023-08-10 21:30	5549407	8.785	-164.068	213.863	19.092	435.813	443.506	0.239	0.288	10.529	19.092	3.451
2023-08-10 21:45	5550307	8.776	-163.56	214.254	19.064	435.745	443.679	0.239	0.288	10.792	19.064	3.462
2023-08-10 22:00	5551207	8.777	-163.61	207.466	19.015	435.087	443.431	0.239	0.288	10.765	19.015	3.42
2023-08-10 22:15	5552107	8.779	-163.67	198.981	18.971	434.696	443.414	0.239	0.288	10.669	18.971	3.396
2023-08-10 22:30	5553007	8.773	-163.312	198.673	18.923	434.466	443.591	0.239	0.288	10.291	18.923	3.377
2023-08-10 22:45	5553907	8.768	-163.016	211.553	18.895	434.232	443.598	0.239	0.288	10.382	18.895	3.402
2023-08-10 23:00	5554807	8.767	-162.954	220.062	18.86	433.723	443.378	0.239	0.288	10.508	18.86	7.869
2023-08-10 23:15	5555707	8.761	-162.597	221.481	18.83	433.806	443.718	0.239	0.288	10.287	18.83	3.33
2023-08-10 23:30	5556607	8.674	-157.888	230.099	18.806	434.122	444.255	0.240	0.289	10.263	18.806	3.341
2023-08-10 23:45	5557507	8.696	-159.07	237.269	18.79	433.977	444.246	0.240	0.289	9.951	18.79	3.452
2023-08-11 00:00	5558407	8.700	-159.285	238.16	18.768	433.68	444.127	0.240	0.289	9.978	18.768	3.259
2023-08-11 00:15	5559307	8.708	-159.714	238.933	18.74	433.391	444.076	0.240	0.289	10.037	18.74	3.289
2023-08-11 00:30	5560207	8.695	-158.985	237.769	18.692	432.894	443.986	0.240	0.289	9.932	18.692	3.306
2023-08-11 00:45	5561107	8.702	-159.345	244.688	18.666	432.593	443.903	0.239	0.289	9.540	18.666	3.321
2023-08-11 01:00	5562007	8.700	-159.216	246.836	18.637	432.501	444.058	0.240	0.289	9.663	18.637	3.236
2023-08-11 01:15	5562907	8.713	-159.912	246.178	18.61	432.246	444.037	0.240	0.289	9.690	18.61	3.31
2023-08-11 01:30	5563807	8.712	-159.831	242.595	18.583	432.278	444.299	0.240	0.289	9.625	18.583	3.253
2023-08-11 01:45	5564707	8.695	-158.875	245.702	18.557	432.368	444.623	0.240	0.289	9.588	18.557	3.325
2023-08-11 02:00	5565607	8.662	-157.101	245.544	18.509	432.687	445.375	0.240	0.289	9.368	18.509	3.31
2023-08-11 02:15	5566507	8.630	-155.358	245.103	18.478	432.655	445.612	0.241	0.290	9.074	18.478	3.304
2023-08-11 02:30	5567407	8.605	-153.949	242.931	18.404	432.228	445.82	0.241	0.290	8.993	18.404	3.28
2023-08-11 02:45	5568307	8.592	-153.236	245.828	18.37	431.621	445.488	0.240	0.290	8.846	18.37	3.324
2023-08-11 03:00	5569207	8.538	-150.292	249.378	18.338	431.625	445.772	0.241	0.290	8.737	18.338	3.259
2023-08-11 03:15	5570107	8.535	-150.106	247.847	18.268	431.172	445.921	0.241	0.290	8.560	18.268	3.195
2023-08-11 03:30	5571007	8.551	-150.94	241.002	18.2	430.831	446.173	0.241	0.290	8.421	18.2	3.235
2023-08-11 03:45	5571907	8.535	-150.044	245.311	18.161	430.566	446.237	0.241	0.290	8.466	18.161	3.134
2023-08-11 04:00	5572807	8.524	-149.424	247.716	18.108	430.118	446.241	0.241	0.290	8.358	18.108	3.117
2023-08-11 04:15	5573707	8.495	-147.805	247.53	18.054	429.723	446.311	0.241	0.290	8.219	18.054	3.165
2023-08-11 04:30	5574607	8.480	-146.959	246.293	17.981	429.126	446.334	0.241	0.290	7.950	17.981	3.235
2023-08-11 04:45	5575507	8.471	-146.47	249.163	17.941	428.735	446.289	0.241	0.290	7.934	17.941	3.15
2023-08-11 05:00	5576407	8.450	-145.314	249.571	17.897	428.487	446.422	0.241	0.290	7.936	17.897	3.069
2023-08-11 05:15	5577307	8.447	-145.111	250.181	17.864	428.313	446.533	0.241	0.290	7.875	17.864	3.251
2023-08-11 05:30	5578207	8.439	-144.706	244.025	17.83	428.239	446.758	0.241	0.290	7.831	17.83	2.987
2023-08-11 05:45	5579107	8.418	-143.559	249.585	17.807	428.187	446.903	0.242	0.290	7.680	17.807	3.066
2023-08-11 06:00	5580007	8.389	-141.95	250.308	17.772	428.01	447.034	0.242	0.291	7.727	17.772	3.07
2023-08-11 06:15	5580907	8.394	-142.238	249.373	17.747	428.016	447.261	0.242	0.291	7.655	17.747	3.114
2023-08-11 06:30	5581807	8.329	-138.71	248.534	17.713	427.326	446.842	0.242	0.290	7.589	17.713	2.957
2023-08-11 06:45	5582707	8.366	-140.66	250.897	17.692	427.235	446.936	0.242	0.291	7.414	17.692	3.018
2023-08-11 07:00	5583607	8.361	-140.417	256.28	17.673	427.146	447.013	0.242	0.291	7.486	17.673	2.97
2023-08-11 07:15	5584507	8.352	-139.928	262.386	17.653	427.053	447.094	0.242	0.291	7.404	17.653	2.97
2023-08-11 07:30	5585407	8.362	-140.448	262.906	17.641	427.096	447.25	0.242	0.291	7.220	17.641	3.013
2023-08-11 07:45	5586307	8.355	-140.052	259.389	17.635	427.101	447.311	0.242	0.291	7.387	17.635	3.05
2023-08-11 08:00	5587207	8.361	-140.386	259.868	17.635	427.071	447.279	0.242	0.291	7.389	17.635	2.973
2023-08-11 08:15	5588107	8.368	-140.777	258.309	17.638	427.071	447.251	0.242	0.291	7.504	17.638	2.94
2023-08-11 08:30	5589007	8.379	-141.38	254.237	17.64	426.885	447.036	0.242	0.291	7.616	17.64	2.94
2023-08-11 08:45	5589907	8.376	-141.199	258.24	17.645	426.944	447.052	0.242	0.291	7.756	17.645	3.017
2023-08-11 09:00	5590807	8.377	-141.282	257.887	17.653	426.889	446.927	0.242	0.291	7.694	17.653	2.91
2023-08-11 09:15	5591707	8.394	-142.198	259.701	17.664	426.859	446.79	0.242	0.290	7.894	17.664	2.939
2023-08-11 09:30	5592607	8.444	-144.889	254.626	17.679	426.896	446.7	0.241	0.290	8.061	17.679	2.924
2023-08-11 09:45	5593507	8.443	-144.815	252.845	17.7	427.156	446.78	0.241	0.290	8.091	17.7	2.969

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-11 10:00	5594407	8.465	-146.029	250.894	17.733	427.437	446.784	0.241	0.290	8.164	17.733	3.121
2023-08-11 10:15	5595307	8.456	-145.595	250.165	17.765	427.585	446.655	0.241	0.290	8.361	17.765	2.901
2023-08-11 10:30	5596207	8.519	-148.993	245.759	17.789	427.431	446.277	0.241	0.290	8.577	17.789	2.952
2023-08-11 10:45	5597107	8.556	-150.988	246.901	17.81	427.469	446.133	0.241	0.290	8.684	17.81	2.939
2023-08-11 11:00	5598007	8.566	-151.536	247.537	17.833	427.564	446.027	0.241	0.290	8.933	17.833	2.936
2023-08-11 11:15	5598907	8.589	-152.788	248.551	17.861	427.789	446.008	0.241	0.290	8.950	17.861	2.95
2023-08-11 11:30	5599807	8.620	-154.51	241.906	17.926	428.397	446.067	0.241	0.290	9.020	17.926	3.002
2023-08-11 11:45	5600707	8.623	-154.691	245.752	18.015	429.249	446.168	0.241	0.290	9.169	18.015	2.991
2023-08-11 12:00	5601607	8.649	-156.159	244.929	18.074	429.589	445.994	0.241	0.290	9.262	18.074	2.981
2023-08-11 12:15	5602507	8.666	-157.096	244.662	18.141	429.985	445.813	0.241	0.290	9.538	18.141	2.901
2023-08-11 12:30	5603407	8.696	-158.751	241.427	18.185	430.103	445.547	0.241	0.290	9.540	18.185	2.992
2023-08-11 12:45	5604307	8.714	-159.724	242.457	18.237	430.37	445.369	0.240	0.289	9.896	18.237	2.972
2023-08-11 13:00	5605207	8.714	-159.786	243.322	18.276	430.632	445.293	0.240	0.289	9.941	18.276	3.041
2023-08-11 13:15	5606107	8.743	-161.34	240.008	18.296	430.915	445.412	0.240	0.290	10.206	18.296	3.03
2023-08-11 13:30	5607007	8.787	-163.727	235.931	18.312	431.104	445.466	0.241	0.290	10.480	18.312	2.971
2023-08-11 13:45	5607907	8.784	-163.584	238.158	18.324	431.193	445.45	0.240	0.290	10.257	18.324	3.037
2023-08-11 14:00	5608807	8.772	-162.926	239.927	18.325	431.034	445.282	0.240	0.289	10.353	18.325	3.07
2023-08-11 14:15	5609707	8.785	-163.648	236.997	18.34	431.19	445.312	0.240	0.289	10.450	18.34	3.026
2023-08-11 14:30	5610607	8.809	-164.95	237.574	18.365	431.167	445.066	0.240	0.289	10.390	18.365	3.069
2023-08-11 14:45	5611507	8.859	-167.665	235.368	18.402	431.564	445.147	0.240	0.289	10.607	18.402	3.069
2023-08-11 15:00	5612407	8.811	-165.076	233.893	18.429	432.148	445.519	0.240	0.290	10.407	18.429	3.05
2023-08-11 15:15	5613307	8.810	-165.069	233.001	18.474	432.627	445.619	0.241	0.290	10.250	18.474	3.076
2023-08-11 15:30	5614207	8.777	-163.333	228.802	18.566	433.597	445.808	0.241	0.290	10.119	18.566	3.101
2023-08-11 15:45	5615107	8.792	-164.17	230.135	18.65	434.45	445.947	0.241	0.290	10.360	18.65	3.091
2023-08-11 16:00	5616007	8.775	-163.305	230.488	18.709	435.154	446.159	0.241	0.290	10.421	18.709	3.073
2023-08-11 16:15	5616907	8.770	-163.043	230.619	18.752	435.623	446.263	0.241	0.290	10.457	18.752	3.098
2023-08-11 16:30	5617807	8.775	-163.331	223.474	18.774	435.571	446.013	0.241	0.290	10.141	18.774	3.147
2023-08-11 16:45	5618707	8.723	-160.558	229.854	18.805	435.681	445.859	0.241	0.290	10.621	18.805	3.259
2023-08-11 17:00	5619607	8.777	-163.493	227.026	18.845	436.128	445.964	0.241	0.290	10.886	18.845	3.225
2023-08-11 17:15	5620507	8.788	-164.099	226.366	18.885	436.456	445.955	0.241	0.290	10.600	18.885	3.183
2023-08-11 17:30	5621407	8.803	-164.959	217.418	18.929	437.157	446.289	0.241	0.290	10.600	18.929	3.141
2023-08-11 17:45	5622307	8.798	-164.707	225.357	18.95	437.406	446.355	0.241	0.290	10.697	18.95	3.18
2023-08-11 18:00	5623207	8.796	-164.607	226.75	18.971	437.698	446.477	0.241	0.290	10.621	18.971	3.182
2023-08-11 18:15	5624107	8.787	-164.096	228.69	18.978	437.927	446.643	0.241	0.290	10.807	18.978	3.236
2023-08-11 18:30	5625007	8.779	-163.665	225.059	18.989	437.997	446.62	0.241	0.290	10.562	18.989	3.25
2023-08-11 18:45	5625907	8.789	-164.213	227.427	19.003	438.059	446.566	0.241	0.290	10.564	19.003	3.189
2023-08-11 19:00	5626807	8.791	-164.366	227.646	19.011	438.096	446.535	0.241	0.290	10.422	19.011	3.192
2023-08-11 19:15	5627707	8.785	-163.999	231.292	19.007	438.032	446.504	0.241	0.290	10.546	19.007	3.238
2023-08-11 19:30	5628607	8.818	-165.82	226.738	18.997	437.773	446.328	0.241	0.290	10.488	18.997	3.249
2023-08-11 19:45	5629507	8.816	-165.684	230.467	18.987	437.57	446.202	0.241	0.290	10.586	18.987	3.253
2023-08-11 20:00	5630407	8.823	-166.044	232.202	18.96	437.074	445.927	0.240	0.290	10.963	18.96	3.192
2023-08-11 20:15	5631307	8.848	-167.379	232.743	18.925	436.483	445.634	0.240	0.290	11.170	18.925	3.284
2023-08-11 20:30	5632207	8.861	-168.076	229.787	18.87	436.017	445.637	0.240	0.290	11.400	18.87	3.209
2023-08-11 20:45	5633107	8.847	-167.26	233.714	18.822	435.743	445.771	0.240	0.290	11.035	18.822	3.215
2023-08-11 21:00	5634007	8.788	-164.027	237.118	18.777	435.319	445.727	0.240	0.290	10.919	18.777	3.251
2023-08-11 21:15	5634907	8.815	-165.508	231.046	18.731	435.234	446.042	0.241	0.290	10.663	18.731	3.177
2023-08-11 21:30	5635807	8.788	-164.013	216.245	18.661	435.029	446.443	0.241	0.290	10.536	18.661	3.196
2023-08-11 21:45	5636707	8.763	-162.609	206.899	18.616	434.779	446.586	0.241	0.290	10.386	18.616	3.202
2023-08-11 22:00	5637607	8.762	-162.53	205.917	18.569	434.425	446.632	0.241	0.290	10.606	18.569	3.126
2023-08-11 22:15	5638507	8.760	-162.408	208.339	18.53	434.13	446.671	0.241	0.290	10.637	18.53	3.146
2023-08-11 22:30	5639407	8.755	-162.079	215.673	18.47	433.272	446.313	0.241	0.290	10.320	18.47	3.073
2023-08-11 22:45	5640307	8.740	-161.29	232.6	18.45	432.976	446.187	0.241	0.290	10.154	18.45	3.136
2023-08-11 23:00	5641207	8.726	-160.491	240.487	18.413	432.676	446.202	0.241	0.290	9.967	18.413	3.078
2023-08-11 23:15	5642107	8.690	-158.558	246.178	18.382	432.736	446.534	0.241	0.290	9.864	18.382	3.137
2023-08-11 23:30	5643008	8.673	-157.58	229.542	18.347	428.42	442.391	0.239	0.288	9.955	18.347	3.162
2023-08-11 23:45	5643908	8.677	-157.797	238.303	18.314	432.437	446.826	0.241	0.290	9.755	18.314	3.07

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-12 00:00	5644808	8.689	-158.429	241.272	18.284	432.028	446.671	0.241	0.290	9.950	18.284	3.023
2023-08-12 00:15	5645708	8.710	-159.543	240.592	18.258	431.701	446.557	0.241	0.290	9.848	18.258	3.083
2023-08-12 00:30	5646608	8.706	-159.326	238.852	18.223	431.165	446.315	0.241	0.290	9.827	18.223	3.085
2023-08-12 00:45	5647508	8.689	-158.381	244.891	18.201	431.09	446.432	0.241	0.290	9.646	18.201	3.013
2023-08-12 01:00	5648408	8.683	-158.057	247.308	18.174	431.088	446.665	0.241	0.290	9.483	18.174	3.074
2023-08-12 01:15	5649308	8.665	-157.053	248.195	18.152	431.034	446.808	0.241	0.290	9.240	18.152	3.027
2023-08-12 01:30	5650208	8.647	-156.085	245.194	18.121	430.989	447.034	0.241	0.291	9.279	18.121	3.162
2023-08-12 01:45	5651108	8.633	-155.299	248.975	18.103	431.059	447.268	0.242	0.291	9.259	18.103	3.111
2023-08-12 02:00	5652008	8.629	-155.058	251.073	18.076	430.752	447.181	0.242	0.291	9.238	18.076	2.993
2023-08-12 02:15	5652908	8.629	-155.077	250.975	18.048	430.458	447.128	0.242	0.291	9.126	18.048	3.014
2023-08-12 02:30	5653808	8.625	-154.831	249.974	17.99	429.581	446.727	0.241	0.290	9.032	17.99	3.094
2023-08-12 02:45	5654708	8.610	-153.975	253.309	17.96	429.207	446.606	0.241	0.290	8.849	17.96	3.022
2023-08-12 03:00	5655608	8.604	-153.642	251.536	17.918	428.898	446.661	0.241	0.290	8.854	17.918	3.062
2023-08-12 03:15	5656508	8.588	-152.779	251.886	17.879	428.642	446.737	0.241	0.290	8.842	17.879	2.989
2023-08-12 03:30	5657408	8.564	-151.453	245.046	17.842	428.6	447.027	0.242	0.291	8.608	17.842	2.965
2023-08-12 03:45	5658308	8.557	-151.038	248.687	17.823	428.54	447.131	0.242	0.291	8.740	17.823	2.962
2023-08-12 04:00	5659208	8.558	-151.062	249.225	17.786	428.245	447.149	0.242	0.291	8.606	17.786	2.999
2023-08-12 04:15	5660108	8.555	-150.926	251.397	17.755	428.011	447.185	0.242	0.291	8.677	17.755	2.924
2023-08-12 04:30	5661008	8.539	-150.044	251.927	17.705	427.557	447.158	0.242	0.291	8.441	17.705	2.991
2023-08-12 04:45	5661908	8.543	-150.199	253.469	17.667	427.119	447.036	0.242	0.291	8.583	17.667	2.915
2023-08-12 05:00	5662808	8.513	-148.556	252.568	17.615	426.635	446.997	0.242	0.291	8.349	17.615	2.981
2023-08-12 05:15	5663708	8.510	-148.416	254.351	17.573	426.292	447.012	0.242	0.291	8.129	17.573	2.891
2023-08-12 05:30	5664608	8.504	-148.017	248.987	17.525	426.105	447.247	0.242	0.291	8.308	17.525	2.902
2023-08-12 05:45	5665508	8.492	-147.405	254.542	17.505	425.85	447.16	0.242	0.291	8.114	17.505	2.914
2023-08-12 06:00	5666408	8.484	-146.942	257.622	17.465	425.561	447.215	0.242	0.291	8.319	17.465	2.846
2023-08-12 06:15	5667308	8.482	-146.821	258.247	17.425	425.268	447.267	0.242	0.291	8.200	17.425	2.872
2023-08-12 06:30	5668208	8.468	-146.003	257.096	17.359	424.566	447.119	0.242	0.291	7.898	17.359	2.878
2023-08-12 06:45	5669108	8.445	-144.746	261.463	17.309	424.212	447.197	0.242	0.291	8.001	17.309	2.815
2023-08-12 07:00	5670008	8.436	-144.272	262.83	17.266	423.829	447.181	0.242	0.291	7.804	17.266	2.861
2023-08-12 07:15	5670908	8.429	-143.867	264.241	17.214	423.361	447.154	0.242	0.291	7.938	17.214	2.8
2023-08-12 07:30	5671808	8.414	-142.996	265.965	17.168	423.119	447.316	0.242	0.291	7.885	17.168	2.878
2023-08-12 07:45	5672708	8.374	-140.848	270.859	17.15	423.084	447.443	0.242	0.291	7.681	17.15	2.801
2023-08-12 08:00	5673608	8.385	-141.459	271.029	17.125	422.934	447.503	0.242	0.291	7.711	17.125	2.813
2023-08-12 08:15	5674508	8.389	-141.616	267.824	17.106	422.746	447.481	0.242	0.291	7.722	17.106	2.776
2023-08-12 08:30	5675408	8.391	-141.735	263.428	17.075	422.3	447.287	0.242	0.291	7.763	17.075	2.783
2023-08-12 08:45	5676308	8.399	-142.171	265.223	17.068	422.225	447.273	0.242	0.291	7.736	17.068	2.778
2023-08-12 09:00	5677208	8.404	-142.426	269.643	17.05	422.039	447.239	0.242	0.291	7.920	17.05	2.702
2023-08-12 09:15	5678108	8.404	-142.403	271.742	17.035	421.862	447.182	0.242	0.291	8.057	17.035	2.727
2023-08-12 09:30	5679008	8.414	-142.944	268.568	17.027	421.968	447.375	0.242	0.291	7.898	17.027	2.773
2023-08-12 09:45	5679908	8.429	-143.781	267.407	17.041	422.104	447.391	0.242	0.291	7.957	17.041	2.788
2023-08-12 10:00	5680808	8.462	-145.519	265.431	17.043	422.039	447.303	0.242	0.291	8.060	17.043	2.732
2023-08-12 10:15	5681708	8.478	-146.384	264.141	17.046	421.919	447.147	0.242	0.291	8.190	17.046	2.704
2023-08-12 10:30	5682608	8.492	-147.147	259.637	17.044	421.632	446.861	0.242	0.290	8.143	17.044	2.737
2023-08-12 10:45	5683508	8.510	-148.144	260.326	17.056	421.597	446.716	0.242	0.290	8.412	17.056	2.708
2023-08-12 11:00	5684408	8.533	-149.372	259.532	17.072	421.709	446.688	0.242	0.290	8.344	17.072	2.778
2023-08-12 11:15	5685308	8.531	-149.257	259.203	17.102	421.908	446.632	0.242	0.290	8.416	17.102	2.758
2023-08-12 11:30	5686208	8.608	-153.461	250.78	17.143	422.052	446.409	0.242	0.290	8.570	17.143	2.753
2023-08-12 11:45	5687108	8.600	-153.034	253.898	17.231	422.876	446.486	0.242	0.290	9.009	17.231	2.736
2023-08-12 12:00	5688008	8.630	-154.717	251.7	17.313	423.342	446.248	0.241	0.290	8.750	17.313	2.734
2023-08-12 12:15	5688908	8.697	-158.377	250.437	17.354	423.66	446.208	0.241	0.290	9.609	17.354	2.849
2023-08-12 12:30	5689808	8.722	-159.705	246.059	17.386	423.574	445.835	0.241	0.290	9.573	17.386	2.789
2023-08-12 12:45	5690708	8.754	-161.476	245.091	17.417	423.706	445.698	0.241	0.290	9.876	17.417	2.823
2023-08-12 13:00	5691608	8.765	-162.077	244.321	17.499	424.437	445.726	0.241	0.290	9.899	17.499	2.748
2023-08-12 13:15	5692508	8.801	-164.146	240.95	17.732	426.231	445.527	0.241	0.290	10.035	17.732	2.789
2023-08-12 13:30	5693408	8.902	-169.785	231.835	18.042	428.83	445.487	0.241	0.290	10.620	18.042	2.868
2023-08-12 13:45	5694308	8.929	-171.416	229.646	18.342	431.599	445.713	0.241	0.290	11.083	18.342	2.911

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-12 14:00	5695208	8.973	-173.948	227.067	18.565	433.334	445.548	0.240	0.290	11.735	18.565	2.95
2023-08-12 14:15	5696108	8.997	-175.347	223.369	18.78	435.434	445.82	0.241	0.290	11.953	18.78	2.955
2023-08-12 14:30	5697008	8.980	-174.475	219.731	18.873	436.222	445.818	0.240	0.290	12.050	18.873	3.103
2023-08-12 14:45	5697908	8.977	-174.396	218.786	18.937	437.105	446.168	0.241	0.290	12.414	18.937	3.015
2023-08-12 15:00	5698808	8.945	-172.644	222.58	18.937	436.924	445.981	0.241	0.290	12.277	18.937	3.067
2023-08-12 15:15	5699708	8.916	-171.044	222.677	18.913	437.054	446.317	0.241	0.290	12.025	18.913	3.033
2023-08-12 15:30	5700608	8.929	-171.754	214.986	18.931	437.382	446.502	0.241	0.290	12.152	18.931	3.037
2023-08-12 15:45	5701508	8.912	-170.81	222.48	18.897	437.045	446.451	0.241	0.290	12.051	18.897	3.006
2023-08-12 16:00	5702408	8.935	-172.102	222.346	18.917	437	446.228	0.241	0.290	12.061	18.917	3.015
2023-08-12 16:15	5703308	8.956	-173.264	221.268	18.967	437.429	446.236	0.241	0.290	12.042	18.967	3.02
2023-08-12 16:30	5704208	8.933	-172.019	211.896	18.996	438.008	446.573	0.241	0.290	12.222	18.996	3.076
2023-08-12 16:45	5705108	8.958	-173.428	214.869	19.039	438.565	446.762	0.241	0.290	11.902	19.039	3.083
2023-08-12 17:00	5706008	8.929	-171.84	216.085	19.049	438.793	446.912	0.241	0.290	11.734	19.049	3.07
2023-08-12 17:15	5706908	8.916	-171.142	219.95	19.036	438.611	446.839	0.241	0.290	11.682	19.036	3.403
2023-08-12 17:30	5707808	8.895	-169.971	216.591	19.033	438.923	447.178	0.241	0.291	11.980	19.033	3.063
2023-08-12 17:45	5708708	8.890	-169.749	222.353	19.063	439.06	447.059	0.241	0.291	11.418	19.063	3.124
2023-08-12 18:00	5709608	8.909	-170.798	223.836	19.087	439.276	447.076	0.241	0.291	11.641	19.087	3.089
2023-08-12 18:15	5710508	8.905	-170.569	229.229	19.068	439.071	447.031	0.241	0.291	11.786	19.068	3.132
2023-08-12 18:30	5711408	8.888	-169.628	228.531	19.028	438.824	447.127	0.241	0.291	11.803	19.028	3.093
2023-08-12 18:45	5712308	8.897	-170.097	232.879	19.02	438.636	447.007	0.241	0.291	11.814	19.02	3.16
2023-08-12 19:00	5713208	8.901	-170.269	228.159	18.989	438.507	447.145	0.241	0.291	11.616	18.989	3.13
2023-08-12 19:15	5714108	8.872	-168.679	235.297	18.941	438.024	447.063	0.241	0.291	11.690	18.941	3.082
2023-08-12 19:30	5715008	8.824	-166.07	233.835	18.911	438.087	447.39	0.241	0.291	11.392	18.911	3.083
2023-08-12 19:45	5715908	8.845	-167.205	234.954	18.911	438.118	447.426	0.241	0.291	11.182	18.911	3.055
2023-08-12 20:00	5716808	8.831	-166.478	236.93	18.911	438.195	447.504	0.241	0.291	11.034	18.911	3.138
2023-08-12 20:15	5717708	8.831	-166.471	237.345	18.914	438.227	447.508	0.241	0.291	11.084	18.914	3.118
2023-08-12 20:30	5718608	8.825	-166.118	236.394	18.914	438.412	447.702	0.241	0.291	11.233	18.914	3.114
2023-08-12 20:45	5719508	8.919	-171.247	234.524	18.92	438.592	447.833	0.242	0.291	10.716	18.92	3.077
2023-08-12 21:00	5720408	8.922	-171.38	234.701	18.925	438.562	447.758	0.242	0.291	11.317	18.925	3.092
2023-08-12 21:15	5721308	8.925	-171.537	235.678	18.931	438.238	447.372	0.241	0.291	11.214	18.931	3.109
2023-08-12 21:30	5722208	8.889	-169.59	234.741	18.938	438.029	447.102	0.241	0.291	11.219	18.938	3.108
2023-08-12 21:45	5723108	8.874	-168.772	236.587	18.935	438.141	447.238	0.241	0.291	11.194	18.935	3.06
2023-08-12 22:00	5724008	8.880	-169.12	237.295	18.924	437.857	447.046	0.241	0.291	11.875	18.924	3.049
2023-08-12 22:15	5724908	8.902	-170.283	235.299	18.909	437.487	446.796	0.241	0.290	11.795	18.909	3.055
2023-08-12 22:30	5725808	8.891	-169.699	231.647	18.881	437.107	446.654	0.241	0.290	11.556	18.881	3.071
2023-08-12 22:45	5726708	8.874	-168.743	236.201	18.866	437.035	446.71	0.241	0.290	11.520	18.866	3.079
2023-08-12 23:00	5727608	8.913	-170.86	235.821	18.85	436.847	446.656	0.241	0.290	11.578	18.85	3.023
2023-08-12 23:15	5728508	8.913	-170.841	235.929	18.839	436.659	446.56	0.241	0.290	11.741	18.839	3.077
2023-08-12 23:30	5729408	8.918	-171.103	233.146	18.828	436.914	446.921	0.241	0.290	11.651	18.828	3.035
2023-08-12 23:45	5730308	8.903	-170.305	236.906	18.82	437.08	447.157	0.241	0.291	11.582	18.82	3.023
2023-08-13 00:00	5731208	8.835	-166.6	239.872	18.809	437.354	447.537	0.241	0.291	10.811	18.809	3.151
2023-08-13 00:15	5732108	8.857	-167.782	239.15	18.796	437.252	447.547	0.241	0.291	10.989	18.796	3.081
2023-08-13 00:30	5733008	8.842	-166.991	236.67	18.77	437.218	447.734	0.242	0.291	11.222	18.77	3.138
2023-08-13 00:45	5733908	8.830	-166.33	241.272	18.756	437.864	448.519	0.242	0.292	10.776	18.756	3.066
2023-08-13 01:00	5734808	8.809	-165.16	242.943	18.737	438.043	448.872	0.242	0.292	10.651	18.737	3.012
2023-08-13 01:15	5735708	8.794	-164.325	244.905	18.713	437.979	449.013	0.242	0.292	10.568	18.713	3.068
2023-08-13 01:30	5736608	8.789	-164.061	236.961	18.686	438.033	449.31	0.242	0.292	10.737	18.686	3.017
2023-08-13 01:45	5737508	8.725	-160.565	245.229	18.671	438.008	449.413	0.243	0.292	10.276	18.671	3.026
2023-08-13 02:00	5738408	8.760	-162.456	244.095	18.644	437.917	449.558	0.243	0.292	10.552	18.644	3.049
2023-08-13 02:15	5739308	8.760	-162.466	244.922	18.617	437.824	449.701	0.243	0.292	10.214	18.617	2.967
2023-08-13 02:30	5740208	8.746	-161.674	243.012	18.571	437.443	449.717	0.243	0.292	9.889	18.571	3.018
2023-08-13 02:45	5741108	8.738	-161.214	246.667	18.547	437.311	449.794	0.243	0.292	10.042	18.547	3.019
2023-08-13 03:00	5742008	8.722	-160.356	247.645	18.516	437.198	449.955	0.243	0.292	9.731	18.516	3.067
2023-08-13 03:15	5742908	8.716	-159.984	247.831	18.483	437.129	450.173	0.243	0.293	9.749	18.483	3.006
2023-08-13 03:30	5743808	8.699	-159.039	243.634	18.441	437.149	450.563	0.243	0.293	9.845	18.441	3.077
2023-08-13 03:45	5744708	8.684	-158.219	247.249	18.428	437.243	450.774	0.243	0.293	9.458	18.428	2.963

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-13 04:00	5745608	8.667	-157.294	249.912	18.392	437.062	450.914	0.243	0.293	9.523	18.392	2.939
2023-08-13 04:15	5746508	8.662	-156.987	249.078	18.351	436.803	451.006	0.244	0.293	9.315	18.351	2.906
2023-08-13 04:30	5747408	8.638	-155.702	247.575	18.305	436.38	450.981	0.244	0.293	9.373	18.305	2.952
2023-08-13 04:45	5748308	8.629	-155.177	253.212	18.28	436.12	450.933	0.244	0.293	9.085	18.28	3.002
2023-08-13 05:00	5749208	8.612	-154.231	254.273	18.238	435.826	451.001	0.244	0.293	9.050	18.238	2.954
2023-08-13 05:15	5750108	8.598	-153.472	254.816	18.186	435.415	451.045	0.244	0.293	8.843	18.186	2.929
2023-08-13 05:30	5751008	8.592	-153.086	247.983	18.125	435.235	451.402	0.244	0.293	8.776	18.125	2.91
2023-08-13 05:45	5751908	8.544	-150.514	252.701	18.099	435.089	451.486	0.244	0.293	8.583	18.099	2.965
2023-08-13 06:00	5752808	8.551	-150.847	254.308	18.049	434.668	451.489	0.244	0.293	8.625	18.049	2.893
2023-08-13 06:15	5753708	8.557	-151.141	255.892	18.004	434.266	451.478	0.244	0.293	8.660	18.004	2.941
2023-08-13 06:30	5754608	8.538	-150.08	253.429	17.932	433.427	451.249	0.244	0.293	8.480	17.932	2.901
2023-08-13 06:45	5755508	8.524	-149.295	257.074	17.884	432.848	451.076	0.244	0.293	8.297	17.884	2.92
2023-08-13 07:00	5756408	8.524	-149.291	257.634	17.831	432.298	450.98	0.244	0.293	8.359	17.831	2.822
2023-08-13 07:15	5757308	8.531	-149.615	255.677	17.795	432.09	451.09	0.244	0.293	8.403	17.795	2.835
2023-08-13 07:30	5758208	8.534	-149.755	246.126	17.764	432.186	451.471	0.244	0.293	8.206	17.764	2.77
2023-08-13 07:45	5759108	8.521	-149.062	252.637	17.751	432.103	451.497	0.244	0.293	8.206	17.751	2.709
2023-08-13 08:00	5760008	8.526	-149.345	252.651	17.721	431.807	451.46	0.244	0.293	8.280	17.721	2.765
2023-08-13 08:15	5760908	8.526	-149.307	254.945	17.699	431.449	451.283	0.244	0.293	8.275	17.699	2.762
2023-08-13 08:30	5761808	8.537	-149.884	251.08	17.668	430.918	451.004	0.244	0.293	8.270	17.668	2.765
2023-08-13 08:45	5762708	8.517	-148.833	255.272	17.664	430.957	451.081	0.244	0.293	8.308	17.664	2.696
2023-08-13 09:00	5763608	8.507	-148.289	257.286	17.655	431.047	451.256	0.244	0.293	8.277	17.655	2.717
2023-08-13 09:15	5764508	8.511	-148.47	260.107	17.649	431.075	451.34	0.244	0.293	8.229	17.649	2.693
2023-08-13 09:30	5765408	8.392	-142.05	264.625	17.637	431.229	451.61	0.244	0.294	8.105	17.637	2.753
2023-08-13 09:45	5766308	8.462	-145.848	261.137	17.645	431.047	451.349	0.244	0.293	8.145	17.645	2.765
2023-08-13 10:00	5767208	8.480	-146.787	260.367	17.642	431.443	451.791	0.244	0.294	8.133	17.642	2.751
2023-08-13 10:15	5768108	8.487	-147.209	258.629	17.645	431.479	451.804	0.244	0.294	8.045	17.645	2.686
2023-08-13 10:30	5769008	8.489	-147.309	255.205	17.638	431.306	451.682	0.244	0.294	8.020	17.638	2.78
2023-08-13 10:45	5769908	8.474	-146.501	257.246	17.665	431.552	451.695	0.244	0.294	8.176	17.665	2.734
2023-08-13 11:00	5770808	8.470	-146.277	258.078	17.682	431.806	451.81	0.244	0.294	8.101	17.682	2.67
2023-08-13 11:15	5771708	8.462	-145.891	257.687	17.72	432.299	451.981	0.244	0.294	7.907	17.72	2.692
2023-08-13 11:30	5772608	8.487	-147.269	251.593	17.762	432.615	451.938	0.244	0.294	7.935	17.762	2.832
2023-08-13 11:45	5773508	8.510	-148.542	254.399	17.876	433.484	451.81	0.244	0.294	8.177	17.876	2.796
2023-08-13 12:00	5774408	8.535	-149.958	253.424	17.979	434.296	451.731	0.244	0.294	8.322	17.979	2.832
2023-08-13 12:15	5775308	8.578	-152.307	251.269	18.051	434.658	451.467	0.244	0.293	8.713	18.051	2.748
2023-08-13 12:30	5776208	8.627	-154.974	248.219	18.065	434.155	450.821	0.244	0.293	9.008	18.065	2.796
2023-08-13 12:45	5777108	8.658	-156.646	246.66	18.102	434.283	450.622	0.243	0.293	9.143	18.102	2.815
2023-08-13 13:00	5778008	8.688	-158.296	246.767	18.147	434.596	450.541	0.243	0.293	9.414	18.147	2.841
2023-08-13 13:15	5778908	8.692	-158.525	245.597	18.217	435.033	450.375	0.243	0.293	9.533	18.217	2.796
2023-08-13 13:30	5779808	8.654	-156.548	244.126	18.322	436.197	450.636	0.243	0.293	10.046	18.322	2.844
2023-08-13 13:45	5780708	8.713	-159.791	241.844	18.431	437.254	450.766	0.243	0.293	9.901	18.431	2.848
2023-08-13 14:00	5781608	8.735	-161.023	240.79	18.536	438.262	450.87	0.243	0.293	9.963	18.536	2.892
2023-08-13 14:15	5782508	8.743	-161.536	240.239	18.644	439.203	450.881	0.243	0.293	10.199	18.644	2.859
2023-08-13 14:30	5783408	8.790	-164.13	234.646	18.713	439.42	450.496	0.243	0.293	10.185	18.713	2.9
2023-08-13 14:45	5784308	8.817	-165.61	231.067	18.781	439.642	450.12	0.243	0.293	10.555	18.781	2.917
2023-08-13 15:00	5785208	8.826	-166.14	230.927	18.836	440.19	450.198	0.243	0.293	10.811	18.836	3.017
2023-08-13 15:15	5786108	8.831	-166.466	230.066	18.909	440.866	450.249	0.243	0.293	10.664	18.909	2.951
2023-08-13 15:30	5787008	8.855	-167.785	223.388	19	441.98	450.589	0.243	0.293	10.841	19	3.044
2023-08-13 15:45	5787908	8.849	-167.534	225.62	19.059	442.378	450.472	0.243	0.293	11.147	19.059	2.954
2023-08-13 16:00	5788808	8.881	-169.26	225.138	19.098	442.688	450.445	0.243	0.293	11.424	19.098	2.983
2023-08-13 16:15	5789708	8.885	-169.525	224.203	19.138	443.101	450.519	0.243	0.293	11.363	19.138	2.982
2023-08-13 16:30	5790608	8.890	-169.764	221.593	19.13	442.738	450.216	0.243	0.293	11.406	19.13	3.049
2023-08-13 16:45	5791508	8.902	-170.422	224.07	19.156	442.852	450.11	0.243	0.293	11.723	19.156	3.059
2023-08-13 17:00	5792408	8.913	-171.065	225.372	19.208	443.329	450.135	0.243	0.293	11.695	19.208	3.1
2023-08-13 17:15	5793308	8.918	-171.387	224.511	19.279	443.994	450.19	0.243	0.293	11.306	19.279	3.042
2023-08-13 17:30	5794208	8.895	-170.176	223.459	19.356	444.87	450.406	0.243	0.293	11.781	19.356	3.115
2023-08-13 17:45	5795108	8.917	-171.385	225.271	19.41	445.3	450.375	0.243	0.293	11.743	19.41	3.139

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-13 18:00	5796008	8.927	-171.952	224.618	19.453	445.908	450.619	0.243	0.293	11.839	19.453	3.1
2023-08-13 18:15	5796908	8.929	-172.095	225.715	19.482	446.156	450.613	0.243	0.293	11.696	19.482	3.059
2023-08-13 18:30	5797808	8.923	-171.793	223.653	19.48	446.146	450.619	0.243	0.293	12.056	19.48	3.119
2023-08-13 18:45	5798708	8.923	-171.795	226.521	19.491	446.243	450.623	0.243	0.293	11.891	19.491	3.056
2023-08-13 19:00	5799608	8.919	-171.542	228.07	19.495	446.407	450.756	0.243	0.293	11.825	19.495	3.105
2023-08-13 19:15	5800508	8.847	-167.644	233.587	19.49	446.417	450.809	0.243	0.293	11.863	19.49	3.122
2023-08-13 19:30	5801408	8.892	-170.076	228.893	19.465	446.317	450.927	0.243	0.293	12.027	19.465	3.157
2023-08-13 19:45	5802308	8.889	-169.916	233.711	19.447	446.343	451.108	0.243	0.293	11.903	19.447	3.195
2023-08-13 20:00	5803208	8.888	-169.852	235.817	19.424	446.295	451.258	0.243	0.293	11.651	19.424	3.154
2023-08-13 20:15	5804108	8.881	-169.439	236.78	19.399	446.287	451.471	0.243	0.293	11.592	19.399	3.121
2023-08-13 20:30	5805008	8.862	-168.414	234.887	19.36	446.145	451.664	0.243	0.294	11.240	19.36	3.104
2023-08-13 20:45	5805908	8.867	-168.645	236.792	19.348	446.135	451.765	0.244	0.294	11.380	19.348	3.119
2023-08-13 21:00	5806808	8.852	-167.861	238.609	19.335	446.123	451.859	0.244	0.294	11.416	19.335	3.147
2023-08-13 21:15	5807708	8.835	-166.934	240.812	19.323	446.224	452.069	0.244	0.294	11.198	19.323	3.094
2023-08-13 21:30	5808608	8.823	-166.24	231.673	19.311	446.294	452.248	0.244	0.294	10.817	19.311	3.063
2023-08-13 21:45	5809508	8.817	-165.923	237.114	19.306	446.463	452.463	0.244	0.294	10.665	19.306	3.096
2023-08-13 22:00	5810408	8.817	-165.915	239.965	19.296	446.261	452.342	0.244	0.294	10.593	19.296	3.102
2023-08-13 22:15	5811308	8.820	-166.075	241.346	19.288	446.149	452.296	0.244	0.294	10.659	19.288	3.096
2023-08-13 22:30	5812208	8.652	-156.937	248.565	19.276	446.006	452.261	0.244	0.294	10.623	19.276	3.133
2023-08-13 22:45	5813108	8.779	-163.82	244.188	19.27	446.108	452.413	0.244	0.294	10.833	19.27	3.169
2023-08-13 23:00	5814008	8.783	-164.049	244.04	19.265	446.11	452.466	0.244	0.294	10.768	19.265	3.133
2023-08-13 23:15	5814908	8.790	-164.425	243.851	19.257	446.123	452.542	0.244	0.294	10.831	19.257	3.023
2023-08-13 23:30	5815808	8.796	-164.754	234.291	19.252	445.983	452.448	0.244	0.294	10.739	19.252	3.086
2023-08-13 23:45	5816708	8.800	-164.983	237.982	19.248	446.092	452.591	0.244	0.294	10.479	19.248	3.11
2023-08-14 00:00	5817608	8.798	-164.864	240.831	19.241	446.045	452.605	0.244	0.294	10.334	19.241	3.083
2023-08-14 00:15	5818508	8.787	-164.247	242.43	19.237	446.113	452.712	0.244	0.294	10.423	19.237	3.118
2023-08-14 00:30	5819408	8.751	-162.325	244.266	19.229	445.957	452.62	0.244	0.294	10.373	19.229	3.076
2023-08-14 00:45	5820308	8.749	-162.196	247.642	19.226	446.147	452.841	0.244	0.294	10.236	19.226	3.056
2023-08-14 01:00	5821208	8.739	-161.664	250.572	19.221	446.194	452.936	0.244	0.294	10.156	19.221	3.089
2023-08-14 01:15	5822108	8.734	-161.383	251.421	19.216	446.27	453.051	0.244	0.294	10.049	19.216	3.001
2023-08-14 01:30	5823008	8.697	-159.349	253.91	19.208	446.441	453.297	0.244	0.295	9.997	19.208	3.088
2023-08-14 01:45	5823908	8.707	-159.91	254.368	19.205	446.749	453.636	0.245	0.295	9.892	19.205	3.109
2023-08-14 02:00	5824808	8.719	-160.563	254.676	19.197	446.535	453.487	0.245	0.295	10.223	19.197	3.088
2023-08-14 02:15	5825708	8.724	-160.804	253.047	19.191	446.509	453.52	0.245	0.295	10.277	19.191	3.119
2023-08-14 02:30	5826608	8.719	-160.527	250.334	19.178	446.094	453.208	0.244	0.295	10.319	19.178	3.115
2023-08-14 02:45	5827508	8.717	-160.403	253.565	19.172	445.961	453.129	0.244	0.295	10.071	19.172	3.083
2023-08-14 03:00	5828408	8.713	-160.196	253.765	19.161	445.807	453.069	0.244	0.294	9.885	19.161	3.04
2023-08-14 03:15	5829308	8.714	-160.272	254.568	19.147	445.299	452.675	0.244	0.294	9.790	19.147	3.121
2023-08-14 03:30	5830208	8.726	-160.892	243.756	19.127	445.453	453.008	0.244	0.294	9.776	19.127	3.098
2023-08-14 03:45	5831108	8.644	-156.438	249.829	19.119	445.609	453.233	0.244	0.295	9.585	19.119	3.08
2023-08-14 04:00	5832008	8.691	-159.001	249.268	19.102	445.309	453.077	0.244	0.295	9.879	19.102	3.007
2023-08-14 04:15	5832908	8.708	-159.917	249.619	19.087	445.24	453.14	0.244	0.295	9.811	19.087	3.093
2023-08-14 04:30	5833808	8.690	-158.877	250.429	19.064	444.946	453.042	0.244	0.294	9.743	19.064	3.071
2023-08-14 04:45	5834708	8.696	-159.206	253.474	19.04	444.959	453.272	0.245	0.295	9.532	19.04	3.056
2023-08-14 05:00	5835608	8.661	-157.292	255.582	19.01	444.68	453.251	0.245	0.295	9.417	19.01	3.012
2023-08-14 05:15	5836508	8.594	-153.658	247.44	18.972	444.483	453.382	0.245	0.295	9.072	18.972	3.255
2023-08-14 05:30	5837408	8.622	-155.129	244.931	18.92	444.149	453.508	0.245	0.295	8.989	18.92	3.11
2023-08-14 05:45	5838308	8.623	-155.187	245.909	18.891	444.097	453.707	0.245	0.295	8.950	18.891	3.004
2023-08-14 06:00	5839208	8.606	-154.223	249.018	18.836	443.655	453.742	0.245	0.295	8.959	18.836	2.978
2023-08-14 06:15	5840108	8.593	-153.492	252.31	18.78	443.183	453.753	0.245	0.295	8.815	18.78	2.964
2023-08-14 06:30	5841008	8.568	-152.092	250.324	18.697	442.301	453.588	0.245	0.295	8.610	18.697	3.006
2023-08-14 06:45	5841908	8.552	-151.21	255.422	18.658	441.912	453.54	0.245	0.295	8.555	18.658	2.972
2023-08-14 07:00	5842808	8.539	-150.499	256.306	18.616	441.567	453.552	0.245	0.295	8.199	18.616	2.943
2023-08-14 07:15	5843708	8.465	-146.453	261.239	18.58	441.282	453.583	0.245	0.295	8.411	18.58	2.899
2023-08-14 07:30	5844608	8.505	-148.621	256.395	18.559	441.4	453.894	0.245	0.295	8.312	18.559	2.92
2023-08-14 07:45	5845508	8.507	-148.749	257.253	18.554	441.428	453.967	0.245	0.295	8.174	18.554	2.952

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-14 08:00	5846408	8.511	-148.916	256.967	18.54	441.351	454.012	0.245	0.295	8.208	18.54	2.915
2023-08-14 08:15	5847308	8.514	-149.093	256.914	18.528	441.277	454.04	0.245	0.295	8.217	18.528	2.9
2023-08-14 08:30	5848208	8.514	-149.102	255.276	18.504	440.764	453.727	0.245	0.295	8.107	18.504	2.973
2023-08-14 08:45	5849108	8.512	-148.981	256.726	18.506	440.639	453.582	0.245	0.295	8.345	18.506	2.933
2023-08-14 09:00	5850008	8.526	-149.758	257.434	18.515	440.781	453.651	0.245	0.295	8.202	18.515	2.879
2023-08-14 09:15	5850908	8.547	-150.871	256.259	18.529	440.902	453.643	0.245	0.295	8.370	18.529	2.904
2023-08-14 09:30	5851808	8.558	-151.472	253.15	18.554	441.338	453.869	0.245	0.295	8.357	18.554	2.941
2023-08-14 09:45	5852708	8.555	-151.31	256.454	18.58	441.424	453.73	0.245	0.295	8.636	18.58	2.854
2023-08-14 10:00	5853608	8.618	-154.753	253.631	18.611	441.353	453.384	0.245	0.295	8.734	18.611	8.003
2023-08-14 10:15	5854508	8.615	-154.607	253.267	18.654	441.785	453.444	0.245	0.295	9.052	18.654	2.913
2023-08-14 10:30	5855408	8.663	-157.263	246.097	18.695	441.469	452.752	0.244	0.294	9.082	18.695	2.899
2023-08-14 10:45	5856308	8.733	-161.073	243.618	18.753	441.609	452.382	0.244	0.294	9.691	18.753	2.948
2023-08-14 11:00	5857208	8.798	-164.59	243.146	18.804	441.753	452.079	0.244	0.294	10.267	18.804	2.933
2023-08-14 11:15	5858108	8.835	-166.626	243.51	18.849	442.035	451.968	0.244	0.294	10.486	18.849	2.964
2023-08-14 11:30	5859008	8.867	-168.419	240.902	18.889	442.235	451.824	0.244	0.294	10.431	18.889	2.983
2023-08-14 11:45	5859908	8.868	-168.483	235.824	18.923	442.577	451.872	0.244	0.294	10.698	18.923	2.97
2023-08-14 12:00	5860808	8.879	-169.094	234.338	18.945	442.887	451.992	0.244	0.294	10.761	18.945	2.902
2023-08-14 12:15	5861708	8.870	-168.593	235.743	18.97	443.015	451.904	0.244	0.294	10.803	18.97	2.995
2023-08-14 12:30	5862608	8.903	-170.381	231.57	18.988	442.652	451.376	0.243	0.293	10.900	18.988	2.976
2023-08-14 12:45	5863508	8.930	-171.85	231.43	18.997	442.697	451.347	0.243	0.293	11.330	18.997	2.926
2023-08-14 13:00	5864408	8.856	-167.882	236.713	19.026	442.983	451.378	0.243	0.293	11.300	19.026	2.979
2023-08-14 13:15	5865308	8.874	-168.922	231.785	19.112	443.645	451.302	0.243	0.293	11.173	19.112	2.946
2023-08-14 13:30	5866208	8.936	-172.343	222.825	19.252	445.253	451.706	0.244	0.294	11.226	19.252	2.938
2023-08-14 13:45	5867108	8.936	-172.434	223.123	19.386	446.678	451.982	0.244	0.294	11.610	19.386	2.952
2023-08-14 14:00	5868008	8.931	-172.191	220.379	19.494	447.743	452.109	0.244	0.294	11.158	19.494	2.983
2023-08-14 14:15	5868908	8.888	-169.923	221.4	19.613	448.992	452.331	0.244	0.294	11.502	19.613	3.061
2023-08-14 14:30	5869808	8.915	-171.444	216.636	19.642	449.044	452.138	0.244	0.294	11.625	19.642	3.055
2023-08-14 14:45	5870708	8.934	-172.462	215.193	19.684	449.062	451.788	0.243	0.294	11.563	19.684	3.084
2023-08-14 15:00	5871608	8.888	-170.064	219.309	19.77	449.858	451.841	0.243	0.294	11.651	19.77	3.141
2023-08-14 15:15	5872508	8.938	-172.806	216.827	19.827	450.474	451.967	0.243	0.294	11.708	19.827	3.072
2023-08-14 15:30	5873408	8.941	-172.982	204.639	19.873	451.407	452.503	0.244	0.294	11.618	19.873	3.091
2023-08-14 15:45	5874308	8.939	-172.913	212.895	19.905	451.673	452.494	0.244	0.294	11.975	19.905	3.12
2023-08-14 16:00	5875208	8.941	-172.994	216.362	19.939	452.072	452.602	0.244	0.294	11.886	19.939	3.105
2023-08-14 16:15	5876108	8.942	-173.111	217.029	20.002	452.6	452.584	0.244	0.294	11.682	20.002	3.108
2023-08-14 16:30	5877008	8.950	-173.559	215.341	20.014	452.304	452.18	0.243	0.294	11.824	20.014	3.026
2023-08-14 16:45	5877908	8.937	-172.865	216.557	20.026	452.081	451.853	0.243	0.294	12.232	20.026	3.134
2023-08-14 17:00	5878808	8.969	-174.611	214.898	20.045	452.141	451.749	0.243	0.294	12.591	20.045	3.127
2023-08-14 17:15	5879708	8.981	-175.24	218.903	20.042	451.61	451.252	0.243	0.293	12.596	20.042	3.132
2023-08-14 17:30	5880608	***9.010***	-176.799	214.225	19.988	451.482	451.586	0.243	0.294	12.600	19.988	3.133
2023-08-14 17:45	5881508	***9.002***	-176.334	215.086	19.977	451.244	451.444	0.243	0.293	12.490	19.977	3.184
2023-08-14 18:00	5882408	8.993	-175.869	218.534	19.944	451.102	451.584	0.243	0.294	12.559	19.944	3.152
2023-08-14 18:15	5883308	8.984	-175.343	222.105	19.917	450.963	451.681	0.243	0.294	12.675	19.917	3.143
2023-08-14 18:30	5884208	8.965	-174.303	219.673	19.893	451.169	452.093	0.244	0.294	12.120	19.893	3.117
2023-08-14 18:45	5885108	8.976	-174.887	219.335	19.915	451.117	451.848	0.243	0.294	12.215	19.915	3.128
2023-08-14 19:00	5886008	8.992	-175.772	217.721	19.935	451.375	451.935	0.243	0.294	12.253	19.935	3.104
2023-08-14 19:15	5886908	8.986	-175.5	216.44	19.961	451.561	451.898	0.243	0.294	12.186	19.961	3.121
2023-08-14 19:30	5887808	8.918	-171.816	213.558	19.989	452.148	452.242	0.244	0.294	11.762	19.989	3.15
2023-08-14 19:45	5888708	8.945	-173.29	218.243	20.009	452.533	452.456	0.244	0.294	12.239	20.009	3.119
2023-08-14 20:00	5889608	8.937	-172.825	221.042	20.021	452.802	452.623	0.244	0.294	11.860	20.021	3.101
2023-08-14 20:15	5890508	8.939	-172.944	222.098	20.019	452.935	452.775	0.244	0.294	11.972	20.019	3.169
2023-08-14 20:30	5891408	8.971	-174.699	218.703	19.983	451.522	451.667	0.243	0.294	11.789	19.983	3.142
2023-08-14 20:45	5892308	***9.005***	-176.525	220.153	19.941	449.295	449.803	0.242	0.292	12.530	19.941	3.199
2023-08-14 21:00	5893208	***9.042***	-178.471	216.29	19.889	448.913	449.869	0.242	0.292	13.038	19.889	3.093
2023-08-14 21:15	5894108	***9.046***	-178.671	212.7	19.836	448.334	449.738	0.242	0.292	12.553	19.836	3.228
2023-08-14 21:30	5895008	***9.071***	-180.023	211.67	19.805	448.163	449.839	0.242	0.292	12.723	19.805	3.116
2023-08-14 21:45	5895908	***9.082***	-180.564	207.669	19.785	448.098	449.947	0.242	0.292	12.571	19.785	3.136

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-14 22:00	5896808	***9.086***	-180.809	203.435	19.753	447.763	449.883	0.242	0.292	12.307	19.753	3.139
2023-08-14 22:15	5897708	***9.094***	-181.217	203.156	19.723	447.721	450.103	0.242	0.293	12.765	19.723	3.075
2023-08-14 22:30	5898608	***9.090***	-180.964	204.226	19.666	446.834	449.705	0.242	0.292	12.607	19.666	3.134
2023-08-14 22:45	5899508	***9.093***	-181.067	212.158	19.636	446.423	449.545	0.242	0.292	12.697	19.636	3.047
2023-08-14 23:00	5900408	***9.091***	-180.948	214.156	19.601	446.045	449.475	0.242	0.292	12.494	19.601	3.111
2023-08-14 23:15	5901308	***9.088***	-180.798	213.417	19.56	445.056	448.832	0.242	0.292	12.722	19.56	3.073
2023-08-14 23:30	5902208	***9.095***	-181.136	202.347	19.509	445.276	449.488	0.242	0.292	12.258	19.509	3.047
2023-08-14 23:45	5903108	***9.027***	-177.412	208.406	19.473	444.897	449.418	0.242	0.292	12.362	19.473	3.038
2023-08-15 00:00	5904008	***9.058***	-179.036	208.711	19.419	444.626	449.616	0.242	0.292	12.052	19.419	3.058
2023-08-15 00:15	5904908	***9.045***	-178.332	210.68	19.371	445.089	450.5	0.243	0.293	11.968	19.371	3.015
2023-08-15 00:30	5905808	8.995	-175.591	214.187	19.29	445.012	451.134	0.243	0.293	11.710	19.29	3.048
2023-08-15 00:45	5906708	8.937	-172.396	221.347	19.255	444.931	451.354	0.243	0.293	11.525	19.255	3.022
2023-08-15 01:00	5907608	8.944	-172.734	225.183	19.216	444.884	451.646	0.244	0.294	11.314	19.216	3.05
2023-08-15 01:15	5908508	8.929	-171.938	228.421	19.179	444.621	451.7	0.244	0.294	11.067	19.179	3.03
2023-08-15 01:30	5909408	8.927	-171.769	227.405	19.146	444.569	451.942	0.244	0.294	10.965	19.146	2.972
2023-08-15 01:45	5910308	8.925	-171.652	231.301	19.123	444.523	452.096	0.244	0.294	11.115	19.123	2.974
2023-08-15 02:00	5911208	8.919	-171.301	221.023	19.087	444.14	452.021	0.244	0.294	11.010	19.087	2.958
2023-08-15 02:15	5912108	8.916	-171.156	220.246	19.056	443.859	452.006	0.244	0.294	10.863	19.056	2.949
2023-08-15 02:30	5913008	8.895	-169.959	218.195	19.003	443.411	452.021	0.244	0.294	10.590	19.003	2.917
2023-08-15 02:45	5913908	8.881	-169.184	221.214	18.978	442.935	451.752	0.244	0.294	10.691	18.978	2.99
2023-08-15 03:00	5914808	8.885	-169.375	223.87	18.944	442.703	451.815	0.244	0.294	10.467	18.944	2.916
2023-08-15 03:15	5915708	8.874	-168.781	220.312	18.913	442.617	452.004	0.244	0.294	10.224	18.913	2.909
2023-08-15 03:30	5916608	8.853	-167.623	209.707	18.883	442.716	452.366	0.244	0.294	10.339	18.883	2.871
2023-08-15 03:45	5917508	8.844	-167.127	204.374	18.866	442.713	452.51	0.244	0.294	10.132	18.866	2.891
2023-08-15 04:00	5918408	8.831	-166.423	209.574	18.841	442.603	452.623	0.244	0.294	9.926	18.841	2.943
2023-08-15 04:15	5919308	8.819	-165.768	210.308	18.815	442.442	452.684	0.244	0.294	9.729	18.815	2.832
2023-08-15 04:30	5920208	8.813	-165.417	212.638	18.777	441.928	452.494	0.244	0.294	9.570	18.777	2.909
2023-08-15 04:45	5921108	8.820	-165.784	220.56	18.759	441.467	452.181	0.244	0.294	9.711	18.759	2.87
2023-08-15 05:00	5922008	8.790	-164.139	228.709	18.739	441.211	452.099	0.244	0.294	9.815	18.739	2.9
2023-08-15 05:15	5922908	8.811	-165.26	228.478	18.717	441.016	452.091	0.244	0.294	9.985	18.717	2.917
2023-08-15 05:30	5923808	8.828	-166.149	226.976	18.697	440.969	452.227	0.244	0.294	10.159	18.697	2.867
2023-08-15 05:45	5924708	8.813	-165.381	228.454	18.693	441.089	452.386	0.244	0.294	9.887	18.693	2.802
2023-08-15 06:00	5925608	8.810	-165.2	230.285	18.674	440.944	452.402	0.244	0.294	9.743	18.674	2.862
2023-08-15 06:15	5926508	8.799	-164.597	230.462	18.657	440.835	452.444	0.244	0.294	9.875	18.657	2.869
2023-08-15 06:30	5927408	8.789	-164.03	229.217	18.625	440.303	452.179	0.244	0.294	9.714	18.625	2.899
2023-08-15 06:45	5928308	8.776	-163.288	233.618	18.617	440.221	452.163	0.244	0.294	9.755	18.617	2.852
2023-08-15 07:00	5929208	8.754	-162.129	238.272	18.605	440.169	452.219	0.244	0.294	9.606	18.605	2.83
2023-08-15 07:15	5930108	8.738	-161.216	241.341	18.59	440.067	452.251	0.244	0.294	9.810	18.59	2.849
2023-08-15 07:30	5931008	8.735	-161.076	240.43	18.576	440.282	452.596	0.244	0.294	9.671	18.576	2.812
2023-08-15 07:45	5931908	8.730	-160.773	242.237	18.572	440.442	452.795	0.244	0.294	9.469	18.572	2.879
2023-08-15 08:00	5932808	8.729	-160.742	245.215	18.559	440.328	452.793	0.244	0.294	9.404	18.559	2.858
2023-08-15 08:15	5933708	8.674	-157.766	249.366	18.553	440.478	453	0.245	0.294	9.400	18.553	2.851
2023-08-15 08:30	5934608	8.666	-157.318	245.187	18.537	440.687	453.357	0.245	0.295	9.588	18.537	2.796
2023-08-15 08:45	5935508	8.610	-154.302	250.971	18.531	441.389	454.132	0.245	0.295	8.827	18.531	2.807
2023-08-15 09:00	5936408	8.595	-153.472	253.517	18.524	441.903	454.726	0.246	0.296	8.619	18.524	2.869
2023-08-15 09:15	5937308	8.521	-149.457	257.494	18.521	441.808	454.654	0.246	0.296	8.760	18.521	2.831
2023-08-15 09:30	5938208	8.533	-150.125	249.237	18.517	442.482	455.383	0.246	0.296	8.212	18.517	2.746
2023-08-15 09:45	5939108	8.396	-142.729	256.547	18.524	442.63	455.47	0.246	0.296	8.586	18.524	2.831
2023-08-15 10:00	5940008	8.434	-144.749	256.821	18.529	442.527	455.316	0.246	0.296	8.725	18.529	2.753
2023-08-15 10:15	5940908	8.438	-144.963	258.664	18.536	442.565	455.294	0.246	0.296	8.096	18.536	2.797
2023-08-15 10:30	5941808	8.486	-147.576	253.498	18.532	441.895	454.641	0.246	0.296	8.081	18.532	2.795
2023-08-15 10:45	5942708	8.653	-156.593	253.417	18.546	441.978	454.6	0.245	0.295	8.032	18.546	2.772
2023-08-15 11:00	5943608	8.752	-161.984	249.302	18.566	441.676	454.112	0.245	0.295	8.244	18.566	2.866
2023-08-15 11:15	5944508	8.664	-157.232	251.91	18.592	441.25	453.448	0.245	0.295	8.680	18.592	2.774
2023-08-15 11:30	5945408	8.789	-164.013	239.956	18.637	440.069	451.828	0.244	0.294	9.165	18.637	2.818
2023-08-15 11:45	5946308	8.802	-164.75	237.905	18.718	440.213	451.262	0.244	0.293	9.684	18.718	2.844

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-15 12:00	5947208	8.870	-168.498	230.841	18.783	440.297	450.779	0.243	0.293	10.551	18.783	2.763
2023-08-15 12:15	5948108	8.955	-173.161	228.636	18.853	440.893	450.764	0.243	0.293	11.113	18.853	2.85
2023-08-15 12:30	5949008	***9.007***	-175.96	224.137	18.891	440.176	449.703	0.243	0.292	11.747	18.891	2.886
2023-08-15 12:45	5949908	***9.004***	-175.827	224.654	18.932	440.237	449.404	0.242	0.292	12.003	18.932	2.853
2023-08-15 13:00	5950808	***9.024***	-176.935	224.425	18.967	440.748	449.617	0.243	0.292	12.278	18.967	2.85
2023-08-15 13:15	5951708	***9.012***	-176.313	222.282	19.025	441.441	449.814	0.243	0.292	12.332	19.025	2.846
2023-08-15 13:30	5952608	***9.066***	-179.303	217.981	19.103	442.252	449.961	0.243	0.292	11.830	19.103	2.887
2023-08-15 13:45	5953508	***9.051***	-178.533	220.66	19.141	442.401	449.781	0.243	0.292	12.188	19.141	2.813
2023-08-15 14:00	5954408	***9.079***	-180.013	220.181	19.16	442.428	449.641	0.242	0.292	12.782	19.16	2.875
2023-08-15 14:15	5955308	***9.092***	-180.774	216.15	19.183	443.112	450.138	0.243	0.293	12.721	19.183	2.896
2023-08-15 14:30	5956208	***9.076***	-179.904	216.15	19.187	442.924	449.908	0.243	0.292	12.866	19.187	2.927
2023-08-15 14:45	5957108	***9.065***	-179.334	218.217	19.207	442.83	449.644	0.242	0.292	12.580	19.207	2.882
2023-08-15 15:00	5958008	***9.082***	-180.221	218.35	19.22	442.869	449.564	0.242	0.292	12.894	19.22	2.932
2023-08-15 15:15	5958908	***9.075***	-179.877	217.797	19.231	443.026	449.629	0.242	0.292	12.940	19.231	2.928
2023-08-15 15:30	5959808	***9.108***	-181.644	204.207	19.256	443.729	450.129	0.243	0.293	12.584	19.256	2.869
2023-08-15 15:45	5960708	***9.085***	-180.459	215.673	19.288	444.122	450.246	0.243	0.293	12.676	19.288	2.932
2023-08-15 16:00	5961608	***9.084***	-180.457	218.016	19.355	444.778	450.323	0.243	0.293	12.867	19.355	2.949
2023-08-15 16:15	5962508	***9.086***	-180.55	216.123	19.375	444.965	450.342	0.243	0.293	12.729	19.375	2.929
2023-08-15 16:30	5963408	***9.008***	-176.315	218.229	19.349	444.736	450.336	0.243	0.293	12.514	19.349	2.974
2023-08-15 16:45	5964308	***9.085***	-180.48	220.458	19.344	443.921	449.555	0.242	0.292	12.967	19.344	2.951
2023-08-15 17:00	5965208	***9.145***	-183.737	217.237	19.334	443.332	449.048	0.242	0.292	13.689	19.334	3.036
2023-08-15 17:15	5966108	***9.114***	-182.059	214.45	19.331	443.742	449.485	0.242	0.292	14.008	19.331	3.048
2023-08-15 17:30	5967008	***9.119***	-182.304	212.387	19.343	444.554	450.202	0.243	0.293	12.769	19.343	3.076
2023-08-15 17:45	5967908	***9.091***	-180.812	213.081	19.364	444.407	449.876	0.243	0.292	12.925	19.364	15.592
2023-08-15 18:00	5968808	***9.114***	-182.052	214.624	19.369	444.564	449.986	0.243	0.292	12.731	19.369	2.955
2023-08-15 18:15	5969708	***9.112***	-181.961	214.137	19.364	444.495	449.96	0.243	0.292	12.495	19.364	3.37
2023-08-15 18:30	5970608	***9.085***	-180.492	211.884	19.347	444.531	450.149	0.243	0.293	12.103	19.347	3.078
2023-08-15 18:45	5971508	***9.100***	-181.31	210.535	19.344	444.651	450.295	0.243	0.293	12.478	19.344	3.05
2023-08-15 19:00	5972408	***9.100***	-181.315	213.465	19.344	444.69	450.329	0.243	0.293	12.426	19.344	2.995
2023-08-15 19:15	5973308	***9.115***	-182.137	214.998	19.354	444.754	450.311	0.243	0.293	12.503	19.354	2.979
2023-08-15 19:30	5974208	***9.055***	-178.878	216.598	19.365	444.781	450.239	0.243	0.293	12.490	19.365	3.029
2023-08-15 19:45	5975108	***9.102***	-181.434	215.227	19.375	444.763	450.136	0.243	0.293	12.735	19.375	3.136
2023-08-15 20:00	5976008	***9.108***	-181.766	217.704	19.372	444.702	450.101	0.243	0.293	12.792	19.372	2.935
2023-08-15 20:15	5976908	***9.112***	-181.971	214.872	19.368	444.604	450.034	0.243	0.293	12.652	19.368	2.924
2023-08-15 20:30	5977808	***9.122***	-182.488	210.494	19.35	444.156	449.741	0.242	0.292	12.801	19.35	3.015
2023-08-15 20:45	5978708	***9.117***	-182.209	212.421	19.336	444.3	450.008	0.243	0.293	12.893	19.336	2.944
2023-08-15 21:00	5979608	***9.099***	-181.21	217.315	19.317	444.353	450.225	0.243	0.293	12.552	19.317	3.002
2023-08-15 21:15	5980508	***9.084***	-180.385	221.953	19.305	444.45	450.426	0.243	0.293	12.337	19.305	2.952
2023-08-15 21:30	5981408	***9.063***	-179.269	212.976	19.284	444.461	450.623	0.243	0.293	12.286	19.284	2.961
2023-08-15 21:45	5982308	***9.058***	-178.971	216.758	19.269	444.755	451.054	0.243	0.293	12.409	19.269	2.967
2023-08-15 22:00	5983208	***9.038***	-177.865	221.822	19.244	444.833	451.348	0.243	0.293	11.708	19.244	2.955
2023-08-15 22:15	5984108	***9.018***	-176.742	226.27	19.219	444.98	451.719	0.244	0.294	11.626	19.219	2.924
2023-08-15 22:30	5985008	8.880	-169.263	233.723	19.183	444.552	451.596	0.244	0.294	11.162	19.183	2.971
2023-08-15 22:45	5985908	8.972	-174.248	231.387	19.158	444.359	451.62	0.244	0.294	11.264	19.158	2.94
2023-08-15 23:00	5986808	8.970	-174.122	232.038	19.125	444.246	451.794	0.244	0.294	11.353	19.125	2.966
2023-08-15 23:15	5987708	8.972	-174.198	231.978	19.084	443.085	450.977	0.243	0.293	11.331	19.084	2.936
2023-08-15 23:30	5988608	***9.022***	-176.888	226.685	19.03	442.416	450.764	0.243	0.293	11.330	19.03	2.886
2023-08-15 23:45	5989508	9.000	-175.648	224.866	18.995	442.319	450.979	0.243	0.293	11.391	18.995	2.924
2023-08-16 00:00	5990408	***9.008***	-176.065	225.169	18.949	441.933	450.984	0.243	0.293	11.593	18.949	2.867
2023-08-16 00:15	5991308	8.985	-174.797	223.531	18.912	441.907	451.284	0.243	0.293	11.200	18.912	2.986
2023-08-16 00:30	5992208	8.946	-172.665	214.657	18.87	441.821	451.567	0.244	0.294	10.954	18.87	2.909
2023-08-16 00:45	5993108	8.942	-172.405	221.485	18.838	441.436	451.458	0.244	0.293	10.545	18.838	2.869
2023-08-16 01:00	5994008	8.911	-170.741	226.928	18.796	442.102	452.511	0.244	0.294	10.341	18.796	2.874
2023-08-16 01:15	5994908	8.949	-172.749	221.757	18.753	442.607	453.41	0.245	0.295	9.245	18.753	2.805
2023-08-16 01:30	5995808	8.840	-166.838	221.819	18.703	441.466	452.677	0.244	0.294	8.998	18.703	2.848
2023-08-16 01:45	5996708	8.826	-166.037	223.693	18.673	441.81	453.295	0.245	0.295	9.070	18.673	2.806

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-16 02:00	5997608	8.786	-163.889	225.245	18.633	441.432	453.269	0.245	0.295	9.168	18.633	2.801
2023-08-16 02:15	5998508	8.781	-163.586	228.144	18.599	441.442	453.579	0.245	0.295	8.976	18.599	2.775
2023-08-16 02:30	5999408	8.699	-159.092	231.88	18.553	440.503	453.024	0.245	0.294	9.166	18.553	2.808
2023-08-16 02:45	6000308	8.743	-161.481	231.823	18.519	439.733	452.533	0.244	0.294	9.376	18.519	2.76
2023-08-16 03:00	6001208	8.768	-162.807	233.933	18.488	440.064	453.152	0.245	0.295	8.111	18.488	2.825
2023-08-16 03:15	6002108	8.771	-162.935	232.87	18.455	439.517	452.883	0.245	0.294	9.205	18.455	2.836
2023-08-16 03:30	6003008	8.740	-161.264	229.534	18.424	439.553	453.19	0.245	0.295	9.257	18.424	2.775
2023-08-16 03:45	6003908	8.712	-159.717	230.607	18.41	439.757	453.533	0.245	0.295	8.482	18.41	2.759
2023-08-16 04:00	6004808	8.673	-157.628	234.174	18.376	440.412	454.513	0.246	0.295	7.774	18.376	2.782
2023-08-16 04:15	6005708	8.633	-155.451	235.688	18.346	440.304	454.667	0.246	0.296	7.868	18.346	2.874
2023-08-16 04:30	6006608	8.564	-151.687	238.618	18.308	439.977	454.668	0.246	0.296	8.098	18.308	2.737
2023-08-16 04:45	6007508	8.518	-149.181	239.569	18.283	439.715	454.628	0.246	0.296	7.738	18.283	2.732
2023-08-16 05:00	6008408	8.402	-142.894	239.774	18.257	440.58	455.751	0.246	0.296	6.953	18.257	2.781
2023-08-16 05:15	6009308	8.393	-142.384	240.137	18.228	441.157	456.608	0.247	0.297	***6.333***	18.228	2.853
2023-08-16 05:30	6010208	8.328	-138.881	237.729	18.197	442.024	457.784	0.247	0.298	***6.322***	18.197	2.844
2023-08-16 05:45	6011108	8.280	-136.251	242.607	18.161	441.332	457.401	0.247	0.297	6.827	18.161	2.857
2023-08-16 06:00	6012008	8.262	-135.291	246.448	18.115	440.288	456.729	0.247	0.297	6.827	18.115	2.722
2023-08-16 06:15	6012908	8.267	-135.505	249.006	18.074	439.457	456.236	0.247	0.297	6.915	18.074	2.722
2023-08-16 06:30	6013808	8.290	-136.743	248.31	18.018	438.653	455.912	0.246	0.296	6.546	18.018	2.647
2023-08-16 06:45	6014708	8.339	-139.384	241.744	17.988	438.541	456.067	0.247	0.296	***6.298***	17.988	2.644
2023-08-16 07:00	6015608	8.336	-139.205	241.09	17.953	438.035	455.855	0.246	0.296	***6.245***	17.953	2.747
2023-08-16 07:15	6016508	8.376	-141.349	237.607	17.914	436.761	454.881	0.246	0.296	6.924	17.914	2.693
2023-08-16 07:30	6017408	8.460	-145.829	228.984	17.869	435.762	454.253	0.246	0.295	7.484	17.869	2.598
2023-08-16 07:45	6018308	8.473	-146.527	234.207	17.849	435.458	454.113	0.246	0.295	8.068	17.849	2.735
2023-08-16 08:00	6019208	8.475	-146.608	240.413	17.814	434.962	453.91	0.245	0.295	8.475	17.814	2.636
2023-08-16 08:15	6020108	8.477	-146.708	240.85	17.778	434.443	453.699	0.245	0.295	7.786	17.778	2.577
2023-08-16 08:30	6021008	8.530	-149.55	240.707	17.729	433.168	452.813	0.245	0.294	8.205	17.729	2.593
2023-08-16 08:45	6021908	8.523	-149.159	247.487	17.713	432.994	452.773	0.245	0.294	8.556	17.713	2.606
2023-08-16 09:00	6022808	8.499	-147.87	252.196	17.69	432.812	452.787	0.245	0.294	7.758	17.69	2.572
2023-08-16 09:15	6023708	8.479	-146.78	250.959	17.668	432.863	453.044	0.245	0.294	7.435	17.668	2.601
2023-08-16 09:30	6024608	8.502	-147.974	246.577	17.634	432.533	453.003	0.245	0.294	8.282	17.634	2.579
2023-08-16 09:45	6025508	8.542	-150.135	245.74	17.637	432.692	453.145	0.245	0.295	8.280	17.637	2.578
2023-08-16 10:00	6026408	8.518	-148.838	248.634	17.621	432.588	453.176	0.245	0.295	8.039	17.621	2.599
2023-08-16 10:15	6027308	8.493	-147.486	251.55	17.606	432.617	453.349	0.245	0.295	7.921	17.606	2.603
2023-08-16 10:30	6028208	8.501	-147.882	246.634	17.575	431.89	452.865	0.245	0.294	7.770	17.575	2.56
2023-08-16 10:45	6029108	8.517	-148.759	250.296	17.554	431.194	452.325	0.245	0.294	8.047	17.554	2.63
2023-08-16 11:00	6030008	8.554	-150.743	249.657	17.528	430.61	451.953	0.244	0.294	8.120	17.528	2.544
2023-08-16 11:15	6030908	8.598	-153.127	247.981	17.512	430.55	452.032	0.244	0.294	8.320	17.512	2.582
2023-08-16 11:30	6031808	8.608	-153.63	245.108	17.507	430.673	452.209	0.245	0.294	8.285	17.507	2.654
2023-08-16 11:45	6032708	8.646	-155.704	239.963	17.517	430.617	452.058	0.245	0.294	8.629	17.517	2.582
2023-08-16 12:00	6033608	8.657	-156.329	238.07	17.558	431.007	452.094	0.245	0.294	8.610	17.558	2.569
2023-08-16 12:15	6034508	8.715	-159.466	238.086	17.609	431.059	451.683	0.244	0.294	8.881	17.609	2.588
2023-08-16 12:30	6035408	8.796	-163.817	235.237	17.638	429.709	450.011	0.243	0.293	9.138	17.638	2.548
2023-08-16 12:45	6036308	8.809	-164.545	233.79	17.676	430.162	450.139	0.243	0.293	9.849	17.676	2.622
2023-08-16 13:00	6037208	8.828	-165.62	232.081	17.714	430.332	449.976	0.243	0.292	10.229	17.714	2.571
2023-08-16 13:15	6038108	8.839	-166.252	230.934	17.796	431.264	450.22	0.243	0.293	10.019	17.796	2.696
2023-08-16 13:30	6039008	8.844	-166.616	230.791	17.981	432.952	450.314	0.243	0.293	10.255	17.981	2.586
2023-08-16 13:45	6039908	8.881	-168.762	227.551	18.188	434.717	450.3	0.243	0.293	10.630	18.188	2.577
2023-08-16 14:00	6040808	8.922	-171.075	226.549	18.351	435.567	449.735	0.243	0.292	10.726	18.351	2.65
2023-08-16 14:15	6041708	***9.004***	-175.586	221.435	18.527	436.59	449.225	0.242	0.292	11.555	18.527	2.72
2023-08-16 14:30	6042608	***9.057***	-178.54	216.505	18.627	436.31	448.059	0.242	0.291	12.070	18.627	2.687
2023-08-16 14:45	6043508	***9.065***	-179.048	213.896	18.761	437.696	448.304	0.242	0.291	12.426	18.761	2.685
2023-08-16 15:00	6044408	***9.100***	-181.024	210.978	18.887	438.694	448.225	0.242	0.291	12.660	18.887	2.751
2023-08-16 15:15	6045308	***9.115***	-181.911	212.135	18.997	439.798	448.391	0.242	0.291	12.956	18.997	2.757
2023-08-16 15:30	6046208	***9.141***	-183.368	201.833	19.114	441.102	448.694	0.242	0.292	13.122	19.114	2.833
2023-08-16 15:45	6047108	***9.153***	-184.114	207.667	19.262	442.237	448.565	0.242	0.292	13.108	19.262	2.816

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-16 16:00	6048008	***9.156***	-184.326	205.926	19.36	443.147	448.628	0.242	0.292	13.746	19.36	2.894
2023-08-16 16:15	6048908	***9.159***	-184.569	206.782	19.439	444.147	448.954	0.242	0.292	13.791	19.439	2.93
2023-08-16 16:30	6049808	***9.151***	-184.124	205.125	19.427	444.038	448.95	0.242	0.292	13.645	19.427	2.869
2023-08-16 16:45	6050708	***9.188***	-186.15	206.532	19.499	444.218	448.51	0.242	0.292	13.944	19.499	2.86
2023-08-16 17:00	6051608	***9.185***	-186.036	205.595	19.555	444.737	448.55	0.242	0.292	14.253	19.555	2.954
2023-08-16 17:15	6052508	***9.194***	-186.51	204.932	19.573	444.97	448.633	0.242	0.292	14.837	19.573	2.951
2023-08-16 17:30	6053408	***9.157***	-184.56	200.912	19.62	446.68	449.947	0.242	0.292	14.242	19.62	3.002
2023-08-16 17:45	6054308	***9.159***	-184.705	203.089	19.672	446.772	449.59	0.242	0.292	14.244	19.672	2.929
2023-08-16 18:00	6055208	***9.150***	-184.245	163.7	19.707	447.381	449.903	0.242	0.292	13.807	19.707	2.924
2023-08-16 18:15	6056108	***9.132***	-183.282	189.53	19.717	447.784	450.217	0.243	0.293	13.872	19.717	3.02
2023-08-16 18:30	6057008	***9.114***	-182.285	199.618	19.697	447.825	450.43	0.243	0.293	13.378	19.697	3.034
2023-08-16 18:45	6057908	***9.102***	-181.603	207.24	19.68	447.779	450.532	0.243	0.293	13.539	19.68	3.073
2023-08-16 19:00	6058808	***9.091***	-180.953	211.663	19.624	448.066	451.306	0.243	0.293	13.317	19.624	3.124
2023-08-16 19:15	6059708	***9.045***	-178.435	216.717	19.575	448.093	451.756	0.243	0.294	12.370	19.575	3.132
2023-08-16 19:30	6060608	***9.009***	-176.475	205.485	19.54	448.281	452.251	0.244	0.294	12.381	19.54	3.04
2023-08-16 19:45	6061508	8.989	-175.371	216.552	19.523	448.272	452.393	0.244	0.294	11.854	19.523	3.163
2023-08-16 20:00	6062408	8.975	-174.599	219.9	19.502	448.266	452.567	0.244	0.294	12.072	19.502	3.027
2023-08-16 20:15	6063308	8.966	-174.086	222.778	19.488	448.216	452.641	0.244	0.294	12.155	19.488	3.024
2023-08-16 20:30	6064208	8.947	-173.08	223.221	19.463	448.034	452.676	0.244	0.294	11.511	19.463	3.377
2023-08-16 20:45	6065108	8.929	-172.086	229.143	19.449	448.057	452.823	0.244	0.294	11.205	19.449	3.047
2023-08-16 21:00	6066008	8.919	-171.509	232.45	19.427	448.287	453.243	0.244	0.295	11.237	19.427	3.009
2023-08-16 21:15	6066908	8.902	-170.6	234.884	19.406	448.253	453.393	0.244	0.295	10.758	19.406	3.083
2023-08-16 21:30	6067808	8.887	-169.752	226.976	19.386	448.22	453.542	0.245	0.295	10.693	19.386	2.98
2023-08-16 21:45	6068708	8.875	-169.084	230.064	19.378	448.323	453.709	0.245	0.295	10.746	19.378	3.036
2023-08-16 22:00	6069608	8.865	-168.56	231.773	19.366	448.47	453.965	0.245	0.295	10.927	19.366	3.037
2023-08-16 22:15	6070508	8.782	-164.073	236.737	19.354	448.585	454.19	0.245	0.295	10.279	19.354	2.972
2023-08-16 22:30	6071408	8.811	-165.61	230.638	19.341	448.494	454.208	0.245	0.295	10.158	19.341	3.031
2023-08-16 22:45	6072308	8.804	-165.248	235.24	19.335	448.665	454.439	0.245	0.295	10.291	19.335	2.99
2023-08-16 23:00	6073208	8.795	-164.764	236.811	19.325	448.859	454.723	0.245	0.296	10.095	19.325	2.989
2023-08-16 23:15	6074108	8.781	-163.996	238.666	19.314	448.747	454.706	0.245	0.296	10.130	19.314	2.992
2023-08-16 23:30	6075008	8.800	-164.986	231.933	19.298	448.293	454.385	0.245	0.295	9.868	19.298	2.969
2023-08-16 23:45	6075908	8.781	-163.975	234.784	19.291	448.414	454.574	0.245	0.295	10.270	19.291	2.998
2023-08-17 00:00	6076808	8.808	-165.42	235.497	19.277	447.782	454.055	0.245	0.295	10.422	19.277	2.947
2023-08-17 00:15	6077708	8.832	-166.695	236.239	19.268	448.075	454.433	0.245	0.295	10.339	19.268	2.99
2023-08-17 00:30	6078608	8.786	-164.213	237.636	19.247	447.658	454.187	0.245	0.295	9.811	19.247	3.027
2023-08-17 00:45	6079508	8.819	-166.001	235.743	19.229	447.385	454.072	0.245	0.295	9.936	19.229	2.964
2023-08-17 01:00	6080408	8.814	-165.725	235.967	19.207	447.084	453.963	0.245	0.295	9.358	19.207	2.943
2023-08-17 01:15	6081308	8.807	-165.319	238.01	19.182	447.097	454.193	0.245	0.295	9.616	19.182	2.91
2023-08-17 01:30	6082208	8.822	-166.097	234.322	19.148	446.313	453.699	0.245	0.295	9.289	19.148	2.954
2023-08-17 01:45	6083108	8.819	-165.915	232.224	19.138	446.408	453.884	0.245	0.295	9.295	19.138	2.896
2023-08-17 02:00	6084008	8.756	-162.511	231.055	19.117	446.071	453.722	0.245	0.295	9.193	19.117	2.866
2023-08-17 02:15	6084908	8.781	-163.865	229.844	19.096	445.978	453.812	0.245	0.295	9.177	19.096	2.922
2023-08-17 02:30	6085808	8.760	-162.706	227.374	19.069	445.712	453.778	0.245	0.295	8.961	19.069	2.987
2023-08-17 02:45	6086708	8.766	-163.009	227.012	19.054	446.134	454.34	0.245	0.295	9.111	19.054	2.988
2023-08-17 03:00	6087608	8.754	-162.37	225.286	19.039	446.169	454.514	0.245	0.295	8.837	19.039	2.926
2023-08-17 03:15	6088508	8.749	-162.051	225.24	19.02	445.775	454.28	0.245	0.295	8.868	19.02	2.897
2023-08-17 03:30	6089408	8.686	-158.644	216.037	18.998	445.231	453.917	0.245	0.295	9.399	18.998	2.911
2023-08-17 03:45	6090308	8.739	-161.521	225.77	18.982	445.115	453.941	0.245	0.295	9.483	18.982	2.894
2023-08-17 04:00	6091208	8.745	-161.827	229.57	18.965	445.151	454.128	0.245	0.295	9.292	18.965	2.868
2023-08-17 04:15	6092108	8.744	-161.765	229.391	18.952	445.037	454.127	0.245	0.295	9.362	18.952	2.916
2023-08-17 04:30	6093008	8.738	-161.45	228.459	18.934	444.745	453.988	0.245	0.295	9.007	18.934	2.906
2023-08-17 04:45	6093908	8.729	-160.959	231.611	18.924	444.745	454.082	0.245	0.295	8.942	18.924	2.914
2023-08-17 05:00	6094808	8.715	-160.198	234.765	18.91	444.816	454.278	0.245	0.295	8.925	18.91	2.896
2023-08-17 05:15	6095708	8.704	-159.585	234.191	18.887	444.454	454.105	0.245	0.295	8.813	18.887	2.831
2023-08-17 05:30	6096608	8.719	-160.344	218.813	18.861	444.455	454.335	0.245	0.295	8.868	18.861	2.821
2023-08-17 05:45	6097508	8.714	-160.081	222.482	18.843	444.498	454.541	0.245	0.295	8.711	18.843	2.884

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-17 06:00	6098408	8.703	-159.492	217.005	18.814	444.104	454.398	0.245	0.295	8.732	18.814	2.873
2023-08-17 06:15	6099308	8.704	-159.526	219.614	18.784	443.869	454.424	0.245	0.295	8.793	18.784	2.873
2023-08-17 06:30	6100208	8.699	-159.19	219.554	18.733	443.132	454.123	0.245	0.295	8.659	18.733	2.85
2023-08-17 06:45	6101108	8.668	-157.509	228.235	18.711	442.764	453.938	0.245	0.295	8.780	18.711	2.887
2023-08-17 07:00	6102008	8.673	-157.747	233.952	18.673	442.48	453.989	0.245	0.295	8.878	18.673	2.804
2023-08-17 07:15	6102908	8.652	-156.596	241.291	18.648	442.197	453.915	0.245	0.295	9.102	18.648	2.843
2023-08-17 07:30	6103808	8.693	-158.82	235.838	18.627	442.367	454.277	0.245	0.295	9.208	18.627	2.782
2023-08-17 07:45	6104708	8.647	-156.35	243.682	18.626	442.408	454.328	0.245	0.295	8.843	18.626	2.826
2023-08-17 08:00	6105608	8.683	-158.293	243.084	18.61	442.181	454.239	0.245	0.295	9.324	18.61	2.778
2023-08-17 08:15	6106508	8.698	-159.09	241.727	18.596	441.916	454.095	0.245	0.295	9.475	18.596	2.812
2023-08-17 08:30	6107408	8.754	-162.084	233.08	18.564	441.152	453.589	0.245	0.295	9.407	18.564	2.797
2023-08-17 08:45	6108308	8.777	-163.329	234.207	18.56	440.976	453.452	0.245	0.295	9.461	18.56	2.818
2023-08-17 09:00	6109208	8.756	-162.17	238.077	18.551	440.75	453.294	0.245	0.295	9.883	18.551	2.928
2023-08-17 09:15	6110108	8.779	-163.445	232.51	18.541	440.542	453.168	0.245	0.295	9.910	18.541	2.778
2023-08-17 09:30	6111008	8.822	-165.753	228.69	18.536	440.799	453.479	0.245	0.295	10.001	18.536	2.809
2023-08-17 09:45	6111908	8.812	-165.203	234.014	18.539	440.522	453.168	0.245	0.295	9.965	18.539	2.899
2023-08-17 10:00	6112808	8.788	-163.901	236.322	18.535	440.396	453.071	0.245	0.294	10.179	18.535	2.82
2023-08-17 10:15	6113708	8.806	-164.886	231.566	18.529	440.188	452.909	0.245	0.294	9.980	18.529	2.838
2023-08-17 10:30	6114608	8.841	-166.779	227.043	18.526	439.983	452.729	0.244	0.294	10.036	18.526	2.85
2023-08-17 10:45	6115508	8.832	-166.302	230.607	18.544	439.959	452.546	0.244	0.294	10.294	18.544	2.834
2023-08-17 11:00	6116408	8.877	-168.729	234.892	18.565	439.338	451.717	0.244	0.294	10.403	18.565	2.782
2023-08-17 11:15	6117308	8.922	-171.194	237.853	18.595	439.531	451.656	0.244	0.294	10.580	18.595	2.856
2023-08-17 11:30	6118208	8.936	-171.974	235.128	18.623	439.575	451.448	0.244	0.293	10.678	18.623	2.949
2023-08-17 11:45	6119108	8.980	-174.408	235.898	18.686	439.499	450.811	0.243	0.293	10.978	18.686	2.866
2023-08-17 12:00	6120008	***9.023***	-176.713	234.997	18.725	439.648	450.624	0.243	0.293	11.203	18.725	2.887
2023-08-17 12:15	6120908	***9.048***	-178.089	233.776	18.75	439.012	449.746	0.243	0.292	11.650	18.75	2.813
2023-08-17 12:30	6121808	***9.112***	-181.546	228.888	18.749	439.448	450.202	0.243	0.293	12.424	18.749	2.743
2023-08-17 12:45	6122708	***9.142***	-183.191	230.772	18.774	438.79	449.312	0.242	0.292	12.553	18.774	2.839
2023-08-17 13:00	6123608	***9.151***	-183.697	232.493	18.792	438.434	448.791	0.242	0.292	12.754	18.792	2.859
2023-08-17 13:15	6124508	***9.169***	-184.674	233.082	18.804	438.455	448.704	0.242	0.292	13.412	18.804	2.832
2023-08-17 13:30	6125408	***9.175***	-185.034	230.86	18.809	438.586	448.8	0.242	0.292	13.452	18.809	2.922
2023-08-17 13:45	6126308	***9.138***	-183.027	232.252	18.835	439.37	449.368	0.242	0.292	13.300	18.835	2.912
2023-08-17 14:00	6127208	***9.134***	-182.805	230.672	18.848	439.65	449.546	0.243	0.292	13.055	18.848	2.921
2023-08-17 14:15	6128108	***9.120***	-182.052	228.073	18.858	440.011	449.824	0.243	0.292	12.996	18.858	2.995
2023-08-17 14:30	6129008	***9.114***	-181.758	223.03	18.865	439.909	449.654	0.243	0.292	13.183	18.865	2.915
2023-08-17 14:45	6129908	***9.124***	-182.338	225.362	18.901	439.976	449.412	0.242	0.292	13.367	18.901	3.004
2023-08-17 15:00	6130808	***9.139***	-183.136	223.138	18.934	440.148	449.3	0.242	0.292	13.532	18.934	3.02
2023-08-17 15:15	6131708	***9.136***	-182.989	226.831	18.978	439.846	448.605	0.242	0.292	13.779	18.978	3.109
2023-08-17 15:30	6132608	***9.286***	-191.205	217.091	19.062	439.934	447.959	0.242	0.291	14.802	19.062	3.056
2023-08-17 15:45	6133508	***9.280***	-190.94	217.015	19.178	441.227	448.265	0.242	0.291	15.146	19.178	3.035
2023-08-17 16:00	6134408	***9.260***	-189.931	216.579	19.253	441.409	447.8	0.241	0.291	15.350	19.253	3.04
2023-08-17 16:15	6135308	***9.339***	-194.211	214.831	19.288	440.987	447.064	0.241	0.291	16.223	19.288	3.087
2023-08-17 16:30	6136208	***9.264***	-190.16	216.412	19.316	441.119	446.959	0.241	0.291	15.908	19.316	3.143
2023-08-17 16:45	6137108	***9.325***	-193.512	212.781	19.368	441.459	446.849	0.241	0.290	16.139	19.368	3.136
2023-08-17 17:00	6138008	***9.331***	-193.901	211.46	19.434	442.313	447.142	0.241	0.291	16.178	19.434	3.176
2023-08-17 17:15	6138908	***9.297***	-192.044	204.31	19.451	442.996	447.691	0.241	0.291	15.897	19.451	3.194
2023-08-17 17:30	6139808	***9.317***	-193.155	197.944	19.492	442.712	447.052	0.241	0.291	15.495	19.492	3.191
2023-08-17 17:45	6140708	***9.310***	-192.831	203.499	19.571	443.233	446.895	0.241	0.290	15.674	19.571	3.154
2023-08-17 18:00	6141608	***9.233***	-188.675	208.542	19.606	443.975	447.337	0.241	0.291	15.986	19.606	3.159
2023-08-17 18:15	6142508	***9.264***	-190.403	205.213	19.661	445.252	448.154	0.241	0.291	15.776	19.661	3.224
2023-08-17 18:30	6143408	***9.223***	-188.158	203.339	19.655	445.665	448.624	0.242	0.292	14.940	19.655	3.244
2023-08-17 18:45	6144308	***9.191***	-186.45	206.179	19.698	446.126	448.711	0.242	0.292	15.036	19.698	3.157
2023-08-17 19:00	6145208	***9.193***	-186.582	206.029	19.722	447.199	449.584	0.242	0.292	14.274	19.722	3.181
2023-08-17 19:15	6146108	***9.167***	-185.182	205.073	19.741	448.027	450.251	0.243	0.293	13.967	19.741	3.245
2023-08-17 19:30	6147008	***9.136***	-183.477	204.15	19.754	448.932	451.055	0.243	0.293	13.617	19.754	3.251
2023-08-17 19:45	6147908	***9.124***	-182.841	211.705	19.762	449.32	451.373	0.243	0.293	13.033	19.762	3.295

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-17 20:00	6148808	***9.117***	-182.469	214.888	19.76	449.542	451.61	0.243	0.294	13.243	19.76	3.268
2023-08-17 20:15	6149708	***9.098***	-181.422	217.358	19.751	449.621	451.773	0.243	0.294	13.025	19.751	3.302
2023-08-17 20:30	6150608	***9.206***	-187.285	211.252	19.698	446.925	449.517	0.242	0.292	13.543	19.698	3.326
2023-08-17 20:45	6151508	***9.228***	-188.441	206.396	19.649	445.636	448.648	0.242	0.292	14.603	19.649	3.37
2023-08-17 21:00	6152408	***9.221***	-188.015	203.244	19.574	444.881	448.534	0.242	0.292	14.995	19.574	3.294
2023-08-17 21:15	6153308	***9.242***	-189.085	202.781	19.501	444.249	448.524	0.242	0.292	14.818	19.501	3.311
2023-08-17 21:30	6154208	***9.259***	-189.998	195.975	19.456	444.132	448.797	0.242	0.292	14.310	19.456	3.276
2023-08-17 21:45	6155108	***9.255***	-189.734	203.745	19.429	443.929	448.826	0.242	0.292	14.207	19.429	3.279
2023-08-17 22:00	6156008	***9.260***	-189.974	204.55	19.392	443.489	448.697	0.242	0.292	14.707	19.392	3.212
2023-08-17 22:15	6156908	***9.256***	-189.781	204.951	19.364	442.744	448.188	0.242	0.291	14.552	19.364	3.255
2023-08-17 22:30	6157808	***9.265***	-190.203	204.004	19.304	441.904	447.853	0.241	0.291	14.168	19.304	3.279
2023-08-17 22:45	6158708	***9.262***	-190.029	208.07	19.271	441.381	447.617	0.241	0.291	14.387	19.271	3.282
2023-08-17 23:00	6159608	***9.262***	-189.993	208.446	19.22	440.839	447.506	0.241	0.291	14.251	19.22	3.19
2023-08-17 23:15	6160508	***9.214***	-187.364	212.964	19.183	440.496	447.482	0.241	0.291	14.160	19.183	3.458
2023-08-17 23:30	6161408	***9.249***	-189.264	201.63	19.138	440.3	447.666	0.241	0.291	14.396	19.138	3.181
2023-08-17 23:45	6162308	***9.252***	-189.388	208.554	19.114	440.186	447.764	0.241	0.291	14.338	19.114	3.302
2023-08-18 00:00	6163208	***9.262***	-189.896	209.581	19.03	439.073	447.357	0.241	0.291	14.355	19.03	3.249
2023-08-18 00:15	6164108	***9.267***	-190.098	209.7	18.934	437.907	447.011	0.241	0.291	14.133	18.934	3.214
2023-08-18 00:30	6165008	***9.260***	-189.645	210.78	18.838	436.868	446.785	0.241	0.290	13.754	18.838	3.123
2023-08-18 00:45	6165908	***9.248***	-188.942	213.97	18.747	436.193	446.891	0.241	0.290	14.084	18.747	3.115
2023-08-18 01:00	6166808	***9.206***	-186.596	216.181	18.664	436.076	447.496	0.241	0.291	13.718	18.664	3.138
2023-08-18 01:15	6167708	***9.201***	-186.272	218.596	18.606	436.067	447.999	0.242	0.291	13.493	18.606	3.134
2023-08-18 01:30	6168608	***9.180***	-185.161	216.879	18.577	436.324	448.511	0.242	0.292	13.064	18.577	3.145
2023-08-18 01:45	6169508	***9.165***	-184.321	221.504	18.559	436.213	448.56	0.242	0.292	13.201	18.559	3.025
2023-08-18 02:00	6170408	***9.136***	-182.731	224.926	18.523	436.235	448.894	0.242	0.292	13.002	18.523	3.098
2023-08-18 02:15	6171308	***9.129***	-182.343	225.462	18.503	436.272	449.112	0.242	0.292	12.874	18.503	3.064
2023-08-18 02:30	6172208	***9.107***	-181.105	224.27	18.455	436.444	449.717	0.243	0.292	12.402	18.455	3.096
2023-08-18 02:45	6173108	***9.084***	-179.839	228.44	18.431	436.382	449.867	0.243	0.292	12.096	18.431	3.063
2023-08-18 03:00	6174008	***9.077***	-179.455	229.403	18.41	436.577	450.254	0.243	0.293	11.953	18.41	3.061
2023-08-18 03:15	6174908	***9.012***	-175.941	230.8	18.377	436.555	450.523	0.243	0.293	11.636	18.377	3.026
2023-08-18 03:30	6175808	***9.019***	-176.268	224.146	18.344	436.829	451.095	0.244	0.293	11.445	18.344	3.069
2023-08-18 03:45	6176708	8.993	-174.878	228.686	18.297	436.807	451.493	0.244	0.293	11.300	18.297	3.024
2023-08-18 04:00	6177608	8.978	-174	230.91	18.253	436.623	451.693	0.244	0.294	11.106	18.253	3.053
2023-08-18 04:15	6178508	8.962	-173.142	232.503	18.229	436.783	452.071	0.244	0.294	11.027	18.229	3.063
2023-08-18 04:30	6179408	8.920	-170.846	229.816	18.192	436.554	452.169	0.244	0.294	10.340	18.192	2.997
2023-08-18 04:45	6180308	8.869	-168.097	233.027	18.152	436.422	452.391	0.244	0.294	10.470	18.152	2.965
2023-08-18 05:00	6181208	8.856	-167.36	238.408	18.109	436.295	452.646	0.245	0.294	9.974	18.109	2.977
2023-08-18 05:15	6182108	8.807	-164.685	242.807	18.074	436.067	452.718	0.245	0.294	9.909	18.074	2.894
2023-08-18 05:30	6183008	8.791	-163.798	242.604	18.036	436.634	453.648	0.245	0.295	9.441	18.036	4.227
2023-08-18 05:45	6183908	8.727	-160.322	244.452	18.016	436.417	453.609	0.245	0.295	9.511	18.016	2.99
2023-08-18 06:00	6184808	8.788	-163.593	242.597	17.97	435.918	453.502	0.245	0.295	9.630	17.97	2.969
2023-08-18 06:15	6185708	8.765	-162.301	243.072	17.919	435.496	453.521	0.245	0.295	9.397	17.919	2.909
2023-08-18 06:30	6186608	8.747	-161.34	240.812	17.877	435.151	453.545	0.245	0.295	8.987	17.877	2.91
2023-08-18 06:45	6187508	8.683	-157.84	243.446	17.839	435.166	453.9	0.245	0.295	8.343	17.839	2.907
2023-08-18 07:00	6188408	8.630	-154.958	242.156	17.804	435.086	454.131	0.246	0.295	8.312	17.804	2.905
2023-08-18 07:15	6189308	8.593	-152.972	244.056	17.766	434.818	454.197	0.246	0.295	8.086	17.766	2.911
2023-08-18 07:30	6190208	8.582	-152.345	245.299	17.736	435.082	454.749	0.246	0.296	7.540	17.736	2.863
2023-08-18 07:45	6191108	8.587	-152.624	245.878	17.714	434.818	454.668	0.246	0.296	8.047	17.714	2.879
2023-08-18 08:00	6192008	8.570	-151.691	247.032	17.675	434.561	454.755	0.246	0.296	7.827	17.675	2.931
2023-08-18 08:15	6192908	8.543	-150.173	247.623	17.631	434.269	454.852	0.246	0.296	7.630	17.631	2.911
2023-08-18 08:30	6193808	8.521	-148.966	247.149	17.576	433.46	454.503	0.246	0.295	7.632	17.576	2.847
2023-08-18 08:45	6194708	8.516	-148.706	250.987	17.56	433.363	454.546	0.246	0.295	7.590	17.56	2.841
2023-08-18 09:00	6195608	8.501	-147.903	253.743	17.531	433.202	454.643	0.246	0.296	7.301	17.531	2.873
2023-08-18 09:15	6196508	8.465	-145.948	255.915	17.498	432.903	454.63	0.246	0.296	7.020	17.498	2.853
2023-08-18 09:30	6197408	8.443	-144.711	254.807	17.451	432.801	454.946	0.246	0.296	6.802	17.451	2.891
2023-08-18 09:45	6198308	8.442	-144.627	258.748	17.413	432.201	454.67	0.246	0.296	6.924	17.413	2.853

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-18 10:00	6199208	8.421	-143.511	262.212	17.392	432.073	454.726	0.246	0.296	6.831	17.392	2.852
2023-08-18 10:15	6200108	8.402	-142.477	263.802	17.373	431.951	454.772	0.246	0.296	6.634	17.373	2.845
2023-08-18 10:30	6201008	8.401	-142.424	264.451	17.351	431.374	454.363	0.246	0.295	6.549	17.351	2.801
2023-08-18 10:45	6201908	8.369	-140.688	266.942	17.323	431.001	454.228	0.246	0.295	6.800	17.323	2.766
2023-08-18 11:00	6202808	8.386	-141.58	266.086	17.293	430.571	454.045	0.246	0.295	6.767	17.293	2.822
2023-08-18 11:15	6203708	8.390	-141.788	265.91	17.264	430.189	453.912	0.246	0.295	6.658	17.264	2.722
2023-08-18 11:30	6204608	8.395	-142.024	262.148	17.238	429.869	453.813	0.246	0.295	6.612	17.238	2.745
2023-08-18 11:45	6205508	8.386	-141.511	260.259	17.213	429.164	453.296	0.245	0.295	7.157	17.213	2.746
2023-08-18 12:00	6206408	8.441	-144.453	259.849	17.172	428.183	452.632	0.245	0.294	7.098	17.172	2.793
2023-08-18 12:15	6207308	8.492	-147.207	256.678	17.15	427.654	452.27	0.245	0.294	7.340	17.15	2.794
2023-08-18 12:30	6208208	8.525	-148.995	253.333	17.137	427.207	451.916	0.245	0.294	7.390	17.137	2.693
2023-08-18 12:45	6209108	8.594	-152.714	251.34	17.14	426.788	451.45	0.244	0.293	7.624	17.14	2.751
2023-08-18 13:00	6210008	8.602	-153.141	251.333	17.15	426.761	451.329	0.244	0.293	8.017	17.15	2.717
2023-08-18 13:15	6210908	8.632	-154.738	250.921	17.168	426.694	451.094	0.244	0.293	8.293	17.168	2.774
2023-08-18 13:30	6211808	8.664	-156.498	248.033	17.178	426.717	451.029	0.244	0.293	8.182	17.178	2.791
2023-08-18 13:45	6212708	8.675	-157.077	247.38	17.198	426.884	451.023	0.244	0.293	8.409	17.198	2.793
2023-08-18 14:00	6213608	8.711	-159.03	246.674	17.214	426.788	450.78	0.244	0.293	8.559	17.214	2.684
2023-08-18 14:15	6214508	8.711	-159.044	246.383	17.239	426.619	450.374	0.244	0.293	8.763	17.239	2.765
2023-08-18 14:30	6215408	8.799	-163.772	241.377	17.248	426.454	450.118	0.244	0.293	9.118	17.248	2.762
2023-08-18 14:45	6216309	8.796	-163.62	244.304	17.273	426.376	449.807	0.243	0.292	9.192	17.273	2.706
2023-08-18 15:00	6217209	8.871	-167.67	241.98	17.287	425.908	449.187	0.243	0.292	9.622	17.287	2.791
2023-08-18 15:15	6218109	8.884	-168.383	242.213	17.302	425.726	448.855	0.243	0.292	9.869	17.302	2.731
2023-08-18 15:30	6219009	8.838	-165.911	242.018	17.298	426.399	449.598	0.243	0.292	9.647	17.298	2.785
2023-08-18 15:45	6219909	8.875	-167.947	241.4	17.325	426.602	449.575	0.243	0.292	9.825	17.325	2.752
2023-08-18 16:00	6220809	8.860	-167.139	241.732	17.354	426.686	449.395	0.243	0.292	9.496	17.354	2.704
2023-08-18 16:15	6221709	8.866	-167.494	242.345	17.406	426.6	448.838	0.243	0.292	10.033	17.406	2.82
2023-08-18 16:30	6222609	8.981	-173.676	234.489	17.431	426.09	448.077	0.242	0.291	10.660	17.431	2.741
2023-08-18 16:45	6223509	***9.051***	-177.503	232.488	17.469	425.653	447.271	0.242	0.291	11.480	17.469	2.746
2023-08-18 17:00	6224409	***9.029***	-176.315	233.883	17.522	426.012	447.18	0.242	0.291	11.402	17.522	2.727
2023-08-18 17:15	6225309	***9.124***	-181.456	232.851	17.55	425.925	446.833	0.242	0.290	11.891	17.55	2.811
2023-08-18 17:30	6226209	***9.157***	-183.26	231.69	17.566	425.652	446.407	0.241	0.290	11.715	17.566	3.7
2023-08-18 17:45	6227109	***9.133***	-182.014	230.326	17.629	426.041	446.251	0.241	0.290	12.583	17.629	2.792
2023-08-18 18:00	6228009	***9.130***	-181.868	229.031	17.678	426.519	446.313	0.241	0.290	12.671	17.678	2.811
2023-08-18 18:15	6228909	***9.175***	-184.321	227.334	17.699	426.191	445.786	0.241	0.290	13.050	17.699	2.768
2023-08-18 18:30	6229809	***9.205***	-185.914	223.512	17.694	425.658	445.27	0.241	0.289	13.560	17.694	2.765
2023-08-18 18:45	6230709	***9.234***	-187.528	224.411	17.728	425.936	445.254	0.241	0.289	13.748	17.728	2.763
2023-08-18 19:00	6231609	***9.244***	-188.065	222.816	17.748	425.841	444.983	0.240	0.289	14.062	17.748	2.789
2023-08-18 19:15	6232509	***9.250***	-188.42	223.047	17.761	425.939	444.97	0.240	0.289	14.214	17.761	2.741
2023-08-18 19:30	6233409	***9.263***	-189.111	220.305	17.771	426.083	445.03	0.240	0.289	14.067	17.771	3.03
2023-08-18 19:45	6234309	***9.253***	-188.587	222.332	17.798	426.237	444.952	0.240	0.289	14.163	17.798	2.759
2023-08-18 20:00	6235209	***9.253***	-188.599	222.992	17.81	426.465	445.082	0.240	0.289	14.029	17.81	2.747
2023-08-18 20:15	6236109	***9.249***	-188.367	222.577	17.814	426.632	445.225	0.241	0.289	13.934	17.814	2.778
2023-08-18 20:30	6237009	***9.249***	-188.384	220.579	17.805	426.579	445.249	0.241	0.289	13.735	17.805	2.782
2023-08-18 20:45	6237909	***9.249***	-188.379	224.191	17.813	426.688	445.285	0.241	0.289	14.520	17.813	2.729
2023-08-18 21:00	6238809	***9.204***	-185.936	228.852	17.814	426.764	445.36	0.241	0.289	14.417	17.814	2.791
2023-08-18 21:15	6239709	***9.229***	-187.297	228.512	17.807	426.723	445.374	0.241	0.289	14.474	17.807	2.72
2023-08-18 21:30	6240609	***9.241***	-187.931	226.561	17.784	427.02	445.893	0.241	0.290	13.979	17.784	2.732
2023-08-18 21:45	6241509	***9.215***	-186.534	227.72	17.775	427.054	446.004	0.241	0.290	13.954	17.775	2.82
2023-08-18 22:00	6242409	***9.206***	-185.988	229.22	17.74	426.765	446.018	0.241	0.290	13.762	17.74	2.768
2023-08-18 22:15	6243309	***9.216***	-186.546	228.748	17.697	426.458	446.083	0.241	0.290	13.393	17.697	2.699
2023-08-18 22:30	6244209	***9.207***	-186.012	226.783	17.628	425.737	445.943	0.241	0.290	13.339	17.628	2.776
2023-08-18 22:45	6245109	***9.206***	-185.916	228.452	17.588	426.544	447.14	0.242	0.291	11.528	17.588	2.726
2023-08-18 23:00	6246009	***9.191***	-185.082	229.024	17.534	427.682	448.819	0.243	0.292	9.897	17.534	2.968
2023-08-18 23:15	6246909	***9.104***	-180.364	231.938	17.482	427.75	449.36	0.243	0.292	9.616	17.482	2.71
2023-08-18 23:30	6247809	8.904	-169.537	229.534	17.428	427.266	449.343	0.243	0.292	9.343	17.428	2.76
2023-08-18 23:45	6248709	8.837	-165.911	237.228	17.386	427.634	450.102	0.243	0.293	9.173	17.386	2.725

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-19 00:00	6249609	8.747	-161.033	242.5	17.338	427.655	450.566	0.244	0.293	8.550	17.338	2.676
2023-08-19 00:15	6250509	8.676	-157.173	246.278	17.295	428.022	451.34	0.244	0.293	7.693	17.295	2.766
2023-08-19 00:30	6251409	8.504	-147.896	251.142	17.249	431.344	455.261	0.246	0.296	***6.193***	17.249	2.67
2023-08-19 00:45	6252309	8.399	-142.224	249.855	17.218	430.141	454.281	0.246	0.295	6.656	17.218	2.693
2023-08-19 01:00	6253209	8.366	-140.452	248.245	17.183	427.899	452.235	0.245	0.294	8.485	17.183	2.686
2023-08-19 01:15	6254109	8.485	-146.849	244.531	17.153	428.031	452.645	0.245	0.294	8.542	17.153	2.787
2023-08-19 01:30	6255009	8.597	-152.831	235.569	17.117	427.23	452.123	0.245	0.294	8.297	17.117	2.752
2023-08-19 01:45	6255909	8.641	-155.215	238.344	17.083	426.149	451.294	0.244	0.293	8.771	17.083	2.653
2023-08-19 02:00	6256809	8.647	-155.463	239	17.042	425.76	451.251	0.244	0.293	8.791	17.042	2.703
2023-08-19 02:15	6257709	8.644	-155.318	242.712	17.001	425.965	451.851	0.245	0.294	8.963	17.001	2.648
2023-08-19 02:30	6258609	8.651	-155.675	247.721	16.947	424.589	450.878	0.244	0.293	8.675	16.947	2.616
2023-08-19 02:45	6259509	8.640	-155.032	249.685	16.913	424.138	450.711	0.244	0.293	8.327	16.913	2.728
2023-08-19 03:00	6260409	8.673	-156.791	249.75	16.87	423.535	450.462	0.244	0.293	8.427	16.87	2.642
2023-08-19 03:15	6261309	8.683	-157.313	250.985	16.826	423.299	450.613	0.244	0.293	8.452	16.826	2.648
2023-08-19 03:30	6262209	8.643	-155.11	248.267	16.78	423.312	451.056	0.244	0.293	8.171	16.78	2.637
2023-08-19 03:45	6263109	8.625	-154.123	255.646	16.737	422.972	451.09	0.244	0.293	7.755	16.737	2.595
2023-08-19 04:00	6264009	8.598	-152.674	259.184	16.695	422.431	450.895	0.244	0.293	8.058	16.695	2.548
2023-08-19 04:15	6264909	8.606	-153.1	260.34	16.66	422.042	450.796	0.244	0.293	8.315	16.66	2.565
2023-08-19 04:30	6265809	8.628	-154.25	262.462	16.622	422.187	451.306	0.244	0.293	8.156	16.622	2.649
2023-08-19 04:45	6266709	8.581	-151.687	265.536	16.594	421.589	450.924	0.244	0.293	7.881	16.594	2.605
2023-08-19 05:00	6267609	8.575	-151.348	267.565	16.566	421.16	450.721	0.244	0.293	7.957	16.566	2.503
2023-08-19 05:15	6268509	8.572	-151.212	268.788	16.533	420.107	449.898	0.244	0.292	8.928	16.533	2.545
2023-08-19 05:30	6269409	8.647	-155.17	257.713	16.495	420.254	450.411	0.244	0.293	9.113	16.495	2.579
2023-08-19 05:45	6270309	8.656	-155.637	259.356	16.462	419.252	449.636	0.244	0.292	9.363	16.462	2.614
2023-08-19 06:00	6271209	8.715	-158.832	261.122	16.425	418.721	449.407	0.243	0.292	9.487	16.425	2.503
2023-08-19 06:15	6272109	8.730	-159.588	265.419	16.386	418.627	449.668	0.244	0.292	9.065	16.386	2.526
2023-08-19 06:30	6273009	8.695	-157.681	265.097	16.33	418.569	450.119	0.244	0.293	8.452	16.33	2.543
2023-08-19 06:45	6273909	8.618	-153.542	267.5	16.3	417.941	449.722	0.244	0.292	8.486	16.3	2.498
2023-08-19 07:00	6274809	8.602	-152.662	266.105	16.254	417.718	449.904	0.244	0.292	8.029	16.254	2.505
2023-08-19 07:15	6275709	8.589	-151.92	266.222	16.212	417.503	450.068	0.244	0.293	8.034	16.212	2.46
2023-08-19 07:30	6276609	8.578	-151.339	263.664	16.168	417.444	450.409	0.244	0.293	7.526	16.168	2.536
2023-08-19 07:45	6277509	8.553	-149.961	268.299	16.134	417.284	450.552	0.244	0.293	7.372	16.134	2.436
2023-08-19 08:00	6278409	8.534	-148.942	274.541	16.102	417.065	450.616	0.244	0.293	7.405	16.102	2.471
2023-08-19 08:15	6279309	8.500	-147.099	279.781	16.07	416.863	450.696	0.244	0.293	7.690	16.07	2.435
2023-08-19 08:30	6280209	8.496	-146.83	282.027	16.027	416.594	450.803	0.244	0.293	7.547	16.027	2.505
2023-08-19 08:45	6281109	8.485	-146.244	280.728	16.011	416.11	450.429	0.244	0.293	7.555	16.011	2.457
2023-08-19 09:00	6282009	8.472	-145.566	279.447	15.99	415.942	450.446	0.244	0.293	7.563	15.99	2.42
2023-08-19 09:15	6282909	8.459	-144.837	278.737	15.968	415.444	450.107	0.244	0.293	7.707	15.968	2.414
2023-08-19 09:30	6283809	8.478	-145.85	275.008	15.957	416.026	450.842	0.244	0.293	7.794	15.957	2.414
2023-08-19 09:45	6284709	8.449	-144.317	277.738	15.951	416.004	450.868	0.244	0.293	7.814	15.951	2.448
2023-08-19 10:00	6285609	8.448	-144.224	278.756	15.944	415.992	450.921	0.245	0.293	7.835	15.944	2.396
2023-08-19 10:15	6286509	8.430	-143.263	279.161	15.943	415.825	450.757	0.244	0.293	7.798	15.943	2.364
2023-08-19 10:30	6287409	8.431	-143.316	280.22	15.925	415.311	450.361	0.244	0.293	7.310	15.925	2.368
2023-08-19 10:45	6288309	8.446	-144.141	281.19	15.941	415.28	450.181	0.244	0.293	7.357	15.941	2.387
2023-08-19 11:00	6289209	8.449	-144.3	279.874	15.939	415.099	450.003	0.244	0.293	7.394	15.939	2.405
2023-08-19 11:15	6290109	8.408	-142.064	280.84	15.941	415.209	450.108	0.244	0.293	7.384	15.941	2.441
2023-08-19 11:30	6291009	8.432	-143.371	278.012	15.943	416.17	451.129	0.245	0.293	7.307	15.943	2.401
2023-08-19 11:45	6291909	8.416	-142.536	280.153	15.956	416.371	451.222	0.245	0.293	7.206	15.956	2.415
2023-08-19 12:00	6292809	8.419	-142.713	281.207	15.968	416.52	451.272	0.245	0.293	7.173	15.968	2.367
2023-08-19 12:15	6293709	8.420	-142.732	280.349	15.979	416.556	451.214	0.245	0.293	7.494	15.979	2.418
2023-08-19 12:30	6294609	8.414	-142.412	277.604	15.983	416.534	451.145	0.245	0.293	6.846	15.983	2.364
2023-08-19 12:45	6295509	8.413	-142.41	280.046	15.999	416.237	450.675	0.244	0.293	7.393	15.999	2.403
2023-08-19 13:00	6296409	8.470	-145.473	278.553	16.018	415.348	449.536	0.244	0.292	8.950	16.018	2.4
2023-08-19 13:15	6297309	8.720	-158.861	268.749	16.054	415.007	448.835	0.243	0.292	10.856	16.054	2.373
2023-08-19 13:30	6298209	8.747	-160.384	259.997	16.129	415.985	449.193	0.243	0.292	9.043	16.129	2.442
2023-08-19 13:45	6299109	8.912	-169.258	258.025	16.239	415.578	447.743	0.243	0.291	9.354	16.239	2.394

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-19 14:00	6300009	8.993	-173.688	247.926	16.34	416.03	447.302	0.242	0.291	10.423	16.34	2.429
2023-08-19 14:15	6300909	***9.029***	-175.669	242.173	16.452	416.48	446.751	0.242	0.290	10.823	16.452	2.357
2023-08-19 14:30	6301809	***9.068***	-177.801	233.552	16.508	416.634	446.404	0.242	0.290	11.417	16.508	2.398
2023-08-19 14:45	6302709	***9.184***	-184.104	224.63	16.641	416.371	444.913	0.241	0.289	11.799	16.641	2.388
2023-08-19 15:00	6303609	***9.284***	-189.562	220.434	16.762	415.867	443.28	0.240	0.288	12.049	16.762	2.467
2023-08-19 15:15	6304509	***9.326***	-191.903	218.248	16.879	416.147	442.524	0.239	0.288	13.320	16.879	2.429
2023-08-19 15:30	6305409	***9.307***	-190.93	217.621	16.946	417.101	442.936	0.240	0.288	14.109	16.946	2.5
2023-08-19 15:45	6306309	***9.395***	-195.816	213.21	17.135	417.098	441.243	0.239	0.287	14.484	17.135	2.442
2023-08-19 16:00	6307209	***9.415***	-196.939	215.053	17.234	416.695	439.939	0.238	0.286	15.758	17.234	2.497
2023-08-19 16:15	6308109	***9.478***	-200.419	215.058	17.335	417.598	439.991	0.238	0.286	16.715	17.335	2.489
2023-08-19 16:30	6309009	***9.445***	-198.619	213.732	17.335	418.683	441.139	0.238	0.287	16.584	17.335	2.572
2023-08-19 16:45	6309909	***9.516***	-202.508	213.474	17.425	419.842	441.555	0.239	0.287	16.675	17.425	2.561
2023-08-19 17:00	6310809	***9.524***	-202.978	211.832	17.504	423.59	444.792	0.240	0.289	15.264	17.504	2.513
2023-08-19 17:15	6311709	***9.547***	-204.272	213.26	17.586	424.241	444.749	0.240	0.289	13.414	17.586	2.576
2023-08-19 17:30	6312609	***9.420***	-197.504	211.57	17.665	421.838	441.53	0.239	0.287	12.781	17.665	2.619
2023-08-19 17:45	6313509	***9.525***	-203.24	214.4	17.772	420.478	439.168	0.237	0.285	12.907	17.772	2.571
2023-08-19 18:00	6314409	***9.506***	-202.239	216.908	17.823	421.576	439.869	0.238	0.286	13.335	17.823	2.73
2023-08-19 18:15	6315309	***9.470***	-200.355	217.33	17.869	423.094	441.049	0.238	0.287	14.388	17.869	2.707
2023-08-19 18:30	6316209	***9.309***	-191.655	214.335	17.832	426.357	444.776	0.240	0.289	14.667	17.832	2.637
2023-08-19 18:45	6317109	***9.355***	-194.178	218.391	17.904	427.362	445.187	0.241	0.289	14.847	17.904	2.635
2023-08-19 19:00	6318009	***9.253***	-188.656	223.614	17.93	428.728	446.381	0.241	0.290	14.385	17.93	2.704
2023-08-19 19:15	6318909	***9.133***	-182.18	228.578	17.944	429.603	447.165	0.242	0.291	14.429	17.944	2.665
2023-08-19 19:30	6319809	***9.158***	-183.532	231.206	17.93	429.804	447.493	0.242	0.291	13.941	17.93	2.681
2023-08-19 19:45	6320709	***9.144***	-182.843	228.247	17.976	429.239	446.497	0.241	0.290	13.528	17.976	2.681
2023-08-19 20:00	6321609	***9.158***	-183.551	228.724	17.976	429.56	446.836	0.241	0.290	13.543	17.976	2.624
2023-08-19 20:15	6322509	***9.181***	-184.805	227.446	17.969	429.868	447.218	0.242	0.291	13.450	17.969	2.75
2023-08-19 20:30	6323409	***9.119***	-181.425	225.157	17.942	430.694	448.312	0.242	0.291	12.890	17.942	2.688
2023-08-19 20:45	6324309	***9.102***	-180.562	228.156	17.954	431.149	448.679	0.242	0.292	12.830	17.954	2.665
2023-08-19 21:00	6325209	***9.051***	-177.77	232.119	17.949	431.355	448.942	0.243	0.292	12.839	17.949	2.717
2023-08-19 21:15	6326109	***9.017***	-175.97	237.631	17.946	431.464	449.082	0.243	0.292	12.958	17.946	2.786
2023-08-19 21:30	6327009	***9.039***	-177.14	237.791	17.925	431.901	449.726	0.243	0.292	12.480	17.925	2.748
2023-08-19 21:45	6327909	***9.014***	-175.774	237.903	17.952	432.666	450.281	0.243	0.293	11.839	17.952	2.764
2023-08-19 22:00	6328809	8.976	-173.733	239.646	17.947	432.436	450.083	0.243	0.293	11.575	17.947	2.734
2023-08-19 22:15	6329709	***9.007***	-175.407	239.529	17.941	432.338	450.033	0.243	0.293	11.699	17.941	2.728
2023-08-19 22:30	6330609	***9.005***	-175.266	236.022	17.904	432.098	450.114	0.243	0.293	11.363	17.904	2.71
2023-08-19 22:45	6331509	8.997	-174.863	238.086	17.91	432.372	450.352	0.243	0.293	11.494	17.91	2.664
2023-08-19 23:00	6332409	8.999	-174.949	240.22	17.899	432.31	450.384	0.243	0.293	11.474	17.899	2.675
2023-08-19 23:15	6333309	8.996	-174.801	241.374	17.888	432.247	450.415	0.243	0.293	11.269	17.888	2.695
2023-08-19 23:30	6334209	8.975	-173.638	241.784	17.857	432.33	450.779	0.244	0.293	10.774	17.857	2.678
2023-08-19 23:45	6335109	8.964	-173.042	243.389	17.854	432.533	451.02	0.244	0.293	11.026	17.854	2.632
2023-08-20 00:00	6336009	8.971	-173.402	243.21	17.813	431.78	450.604	0.244	0.293	11.368	17.813	2.711
2023-08-20 00:15	6336909	***9.005***	-175.211	240.192	17.771	430.436	449.58	0.243	0.292	11.744	17.771	2.64
2023-08-20 00:30	6337809	***9.028***	-176.413	236.565	17.695	429.277	449.048	0.243	0.292	11.459	17.695	2.692
2023-08-20 00:45	6338709	8.999	-174.816	239.276	17.668	430.182	450.237	0.243	0.293	12.257	17.668	2.693
2023-08-20 01:00	6339609	***9.029***	-176.401	238.244	17.61	430.101	450.672	0.244	0.293	12.414	17.61	2.619
2023-08-20 01:15	6340509	***9.048***	-177.369	238.07	17.55	428.978	450.033	0.243	0.293	12.390	17.55	2.645
2023-08-20 01:30	6341409	***9.070***	-178.504	234.906	17.437	425.976	447.903	0.242	0.291	12.334	17.437	2.589
2023-08-20 01:45	6342309	***9.026***	-176.12	234.994	17.428	425.499	447.483	0.242	0.291	11.760	17.428	2.638
2023-08-20 02:00	6343209	***9.033***	-176.454	233.325	17.365	424.497	446.995	0.242	0.291	11.493	17.365	2.626
2023-08-20 02:15	6344109	***9.029***	-176.227	234.732	17.301	423.778	446.811	0.242	0.290	11.221	17.301	2.567
2023-08-20 02:30	6345009	***9.041***	-176.783	233.342	17.196	422.436	446.34	0.241	0.290	11.628	17.196	2.622
2023-08-20 02:45	6345909	***9.016***	-175.409	235.12	17.156	421.351	445.552	0.241	0.290	12.681	17.156	2.568
2023-08-20 03:00	6346809	***9.094***	-179.574	236.193	17.087	419.012	443.696	0.240	0.288	13.002	17.087	2.587
2023-08-20 03:15	6347709	***9.137***	-181.823	238.232	17.021	417.862	443.071	0.240	0.288	12.851	17.021	2.535
2023-08-20 03:30	6348609	***9.098***	-179.698	236.854	16.947	418.725	444.658	0.241	0.289	11.794	16.947	2.513
2023-08-20 03:45	6349509	***9.071***	-178.215	239.126	16.916	419.226	445.465	0.241	0.290	11.675	16.916	2.522

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-20 04:00	6350409	***9.014***	-175.104	241.589	16.858	420.177	447.002	0.242	0.291	11.211	16.858	2.499
2023-08-20 04:15	6351309	8.995	-174.069	239.97	16.803	419.952	447.268	0.242	0.291	11.382	16.803	2.56
2023-08-20 04:30	6352209	8.964	-172.377	238.468	16.733	419.193	447.095	0.242	0.291	10.551	16.733	2.518
2023-08-20 04:45	6353109	8.946	-171.402	240.478	16.705	418.762	446.885	0.242	0.290	10.848	16.705	2.49
2023-08-20 05:00	6354009	8.936	-170.834	239.438	16.663	417.774	446.215	0.242	0.290	10.702	16.663	2.52
2023-08-20 05:15	6354909	8.909	-169.353	238.203	16.624	418.206	447.033	0.242	0.291	10.434	16.624	2.471
2023-08-20 05:30	6355809	8.867	-167.038	233.332	16.574	418.964	448.295	0.243	0.291	9.789	16.574	2.447
2023-08-20 05:45	6356709	8.838	-165.465	234.315	16.547	419.167	448.761	0.243	0.292	9.543	16.547	2.477
2023-08-20 06:00	6357609	8.787	-162.725	237.827	16.498	419.252	449.301	0.243	0.292	9.903	16.498	2.432
2023-08-20 06:15	6358509	8.747	-160.544	239.434	16.446	419.048	449.564	0.244	0.292	9.580	16.446	2.48
2023-08-20 06:30	6359409	8.724	-159.252	238.005	16.367	417.792	448.948	0.243	0.292	9.214	16.367	2.503
2023-08-20 06:45	6360309	8.708	-158.365	237.357	16.314	416.551	448.097	0.243	0.291	9.518	16.314	2.466
2023-08-20 07:00	6361209	8.734	-159.729	237.641	16.246	416.014	448.148	0.243	0.291	9.485	16.246	2.443
2023-08-20 07:15	6362109	8.732	-159.562	237.703	16.179	415.231	447.924	0.243	0.291	9.213	16.179	2.454
2023-08-20 07:30	6363009	8.735	-159.709	231.427	16.109	414.981	448.295	0.243	0.291	9.072	16.109	2.493
2023-08-20 07:45	6363909	8.729	-159.385	234.036	16.086	414.835	448.353	0.243	0.291	9.227	16.086	2.563
2023-08-20 08:00	6364809	8.737	-159.779	233.936	16.04	414.222	448.116	0.243	0.291	9.360	16.04	2.369
2023-08-20 08:15	6365709	8.732	-159.466	238.446	15.999	413.797	448.033	0.243	0.291	9.277	15.999	2.417
2023-08-20 08:30	6366609	8.721	-158.873	237.383	15.94	413.591	448.363	0.243	0.291	8.926	15.94	2.386
2023-08-20 08:45	6367509	8.695	-157.459	242.457	15.917	413.592	448.577	0.243	0.292	8.278	15.917	2.403
2023-08-20 09:00	6368409	8.656	-155.327	245.11	15.886	413.205	448.439	0.243	0.291	8.639	15.886	2.324
2023-08-20 09:15	6369309	8.660	-155.566	245.845	15.858	412.919	448.392	0.243	0.291	8.792	15.858	2.315
2023-08-20 09:30	6370209	8.660	-155.532	244.557	15.822	412.804	448.602	0.243	0.292	8.111	15.822	2.293
2023-08-20 09:45	6371109	8.646	-154.767	246.705	15.823	412.964	448.769	0.243	0.292	8.080	15.823	2.359
2023-08-20 10:00	6372009	8.638	-154.357	249.297	15.802	412.76	448.743	0.243	0.292	8.047	15.802	2.531
2023-08-20 10:15	6372909	8.614	-153.019	252.11	15.779	412.5	448.668	0.243	0.292	8.227	15.779	2.458
2023-08-20 10:30	6373809	8.640	-154.433	251.068	15.745	411.755	448.181	0.243	0.291	8.320	15.745	2.32
2023-08-20 10:45	6374709	8.633	-154.021	253.898	15.737	411.475	447.953	0.243	0.291	9.085	15.737	2.311
2023-08-20 11:00	6375609	8.653	-155.129	255.458	15.722	411.489	448.099	0.243	0.291	8.946	15.722	2.381
2023-08-20 11:15	6376509	8.628	-153.744	257.382	15.715	411.474	448.156	0.243	0.291	8.778	15.715	2.31
2023-08-20 11:30	6377409	8.595	-151.966	253.45	15.708	411.644	448.4	0.243	0.291	8.089	15.708	2.322
2023-08-20 11:45	6378309	8.568	-150.552	257.625	15.699	411.005	447.786	0.243	0.291	8.764	15.699	2.34
2023-08-20 12:00	6379209	8.599	-152.187	256.664	15.7	411.236	448.031	0.243	0.291	8.584	15.7	2.323
2023-08-20 12:15	6380109	8.610	-152.793	257.506	15.702	411.68	448.498	0.243	0.292	7.954	15.702	2.443
2023-08-20 12:30	6381009	8.591	-151.77	257.963	15.704	412.081	448.917	0.243	0.292	8.138	15.704	2.335
2023-08-20 12:45	6381909	8.539	-148.997	259.01	15.71	412.48	449.296	0.244	0.292	7.724	15.71	2.347
2023-08-20 13:00	6382809	8.505	-147.19	261.423	15.72	412.413	449.13	0.244	0.292	7.684	15.72	2.304
2023-08-20 13:15	6383709	8.563	-150.306	262.157	15.742	412.232	448.727	0.243	0.292	8.161	15.742	2.354
2023-08-20 13:30	6384609	8.820	-164.077	250.675	15.808	411.481	447.291	0.243	0.291	8.721	15.808	2.386
2023-08-20 13:45	6385509	8.893	-168.033	245.315	15.86	411.938	447.304	0.243	0.291	9.501	15.86	2.352
2023-08-20 14:00	6386409	***9.151***	-181.909	236.251	15.944	409.903	444.328	0.241	0.289	9.753	15.944	2.249
2023-08-20 14:15	6387309	***9.248***	-187.163	223.402	16.033	409.232	442.78	0.240	0.288	11.368	16.033	2.358
2023-08-20 14:30	6388209	***9.242***	-186.892	220.677	16.119	410.518	443.38	0.240	0.288	12.253	16.119	2.382
2023-08-20 14:45	6389109	***9.304***	-190.318	212.845	16.216	410.535	442.522	0.240	0.288	13.145	16.216	2.356
2023-08-20 15:00	6390009	***9.342***	-192.389	207.686	16.314	410.975	442.095	0.239	0.287	14.049	16.314	2.335
2023-08-20 15:15	6390909	***9.371***	-194.046	201.01	16.417	411.453	441.681	0.239	0.287	14.584	16.417	2.402
2023-08-20 15:30	6391809	***9.371***	-194.132	192.115	16.555	412.073	441.093	0.239	0.287	15.210	16.555	2.525
2023-08-20 15:45	6392709	***9.399***	-195.687	188.224	16.62	412.13	440.571	0.238	0.286	15.195	16.62	2.535
2023-08-20 16:00	6393609	***9.405***	-196.047	181.829	16.712	412.445	440.086	0.238	0.286	15.203	16.712	2.459
2023-08-20 16:15	6394509	***9.448***	-198.426	175.475	16.797	412.628	439.512	0.238	0.286	15.579	16.797	2.485
2023-08-20 16:30	6395409	***9.433***	-197.635	171.994	16.846	413.423	439.921	0.238	0.286	16.125	16.846	2.643
2023-08-20 16:45	6396309	***9.562***	-204.673	164.751	16.953	413.356	438.901	0.237	0.285	16.769	16.953	2.526
2023-08-20 17:00	6397209	***9.607***	-207.14	165.014	17.034	413.173	437.985	0.237	0.285	18.538	17.034	2.587
2023-08-20 17:15	6398109	***9.632***	-208.528	165.478	17.105	413.04	437.214	0.236	0.284	19.474	17.105	2.622
2023-08-20 17:30	6399009	***9.632***	-208.633	162.462	17.224	412.91	436.025	0.236	0.283	19.648	17.224	2.829
2023-08-20 17:45	6399909	***9.672***	-210.807	164.003	17.267	412.67	435.396	0.235	0.283	20.577	17.267	2.658

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-20 18:00	6400809	***9.712***	-213.015	165.805	17.332	411.93	434.051	0.235	0.282	19.920	17.332	2.653
2023-08-20 18:15	6401709	***9.740***	-214.558	169.727	17.387	411.627	433.247	0.234	0.282	20.215	17.387	2.694
2023-08-20 18:30	6402609	***9.679***	-211.267	176.074	17.398	413.169	434.777	0.235	0.283	19.396	17.398	2.652
2023-08-20 18:45	6403509	***9.765***	-215.974	174.376	17.457	413.78	434.904	0.235	0.283	20.767	17.457	2.696
2023-08-20 19:00	6404409	***9.763***	-215.9	176.586	17.493	413.639	434.444	0.235	0.282	21.031	17.493	2.695
2023-08-20 19:15	6405309	***9.761***	-215.809	178.961	17.515	415.414	436.112	0.236	0.283	19.388	17.515	2.69
2023-08-20 19:30	6406209	***9.701***	-212.533	175.995	17.528	412.919	433.383	0.234	0.282	19.223	17.528	2.769
2023-08-20 19:45	6407109	***9.718***	-213.523	182.578	17.615	412.782	432.482	0.234	0.281	17.460	17.615	2.677
2023-08-20 20:00	6408009	***9.697***	-212.412	186.362	17.635	413.134	432.68	0.234	0.281	17.892	17.635	2.7
2023-08-20 20:15	6408909	***9.685***	-211.782	189.389	17.641	413.262	432.762	0.234	0.281	16.552	17.641	2.728
2023-08-20 20:30	6409809	***9.611***	-207.753	190.253	17.612	415.339	435.19	0.235	0.283	16.792	17.612	2.8
2023-08-20 20:45	6410709	***9.688***	-211.945	188.531	17.627	417.97	437.812	0.237	0.285	18.035	17.627	2.711
2023-08-20 21:00	6411609	***9.685***	-211.756	189.699	17.645	417.765	437.445	0.236	0.284	19.194	17.645	2.691
2023-08-20 21:15	6412509	***9.674***	-211.225	191.683	17.661	418.256	437.818	0.237	0.285	18.062	17.661	2.797
2023-08-20 21:30	6413409	***9.590***	-206.659	187.742	17.68	417.359	436.713	0.236	0.284	18.371	17.68	2.733
2023-08-20 21:45	6414309	***9.601***	-207.317	191.611	17.738	416.908	435.73	0.235	0.283	17.547	17.738	2.737
2023-08-20 22:00	6415209	***9.582***	-206.296	193.54	17.746	417.817	436.615	0.236	0.284	18.082	17.746	2.797
2023-08-20 22:15	6416109	***9.550***	-204.597	194.229	17.758	418.175	436.883	0.236	0.284	18.258	17.758	2.848
2023-08-20 22:30	6417009	***9.490***	-201.313	192.899	17.707	419.792	439.02	0.237	0.285	17.613	17.707	2.719
2023-08-20 22:45	6417909	***9.509***	-202.334	192.887	17.736	419.984	438.962	0.237	0.285	17.902	17.736	2.838
2023-08-20 23:00	6418809	***9.491***	-201.387	195.357	17.744	420.2	439.121	0.237	0.285	17.078	17.744	2.802
2023-08-20 23:15	6419709	***9.476***	-200.555	197.317	17.746	420.484	439.398	0.237	0.286	16.287	17.746	2.767
2023-08-20 23:30	6420609	***9.440***	-198.629	198.712	17.71	421.222	440.484	0.238	0.286	15.244	17.71	2.911
2023-08-20 23:45	6421509	***9.454***	-199.428	196.144	17.767	421.508	440.286	0.238	0.286	16.470	17.767	2.868
2023-08-21 00:00	6422409	***9.401***	-196.559	196.47	17.76	421.8	440.653	0.238	0.286	16.446	17.76	2.847
2023-08-21 00:15	6423309	***9.397***	-196.311	195.064	17.759	422.764	441.672	0.239	0.287	16.150	17.759	2.881
2023-08-21 00:30	6424209	***9.326***	-192.447	194.647	17.705	423.738	443.161	0.239	0.288	15.702	17.705	2.865
2023-08-21 00:45	6425109	***9.340***	-193.207	198.459	17.717	423.655	442.968	0.239	0.288	15.796	17.717	2.89
2023-08-21 01:00	6426009	***9.335***	-192.945	201.022	17.697	423.667	443.156	0.239	0.288	15.698	17.697	2.807
2023-08-21 01:15	6426909	***9.321***	-192.192	204.672	17.671	423.613	443.336	0.240	0.288	15.824	17.671	2.861
2023-08-21 01:30	6427809	***9.307***	-191.348	205.425	17.604	423.049	443.341	0.240	0.288	15.136	17.604	2.903
2023-08-21 01:45	6428709	***9.219***	-186.641	214.154	17.606	423.567	443.864	0.240	0.289	15.116	17.606	2.845
2023-08-21 02:00	6429609	***9.233***	-187.354	214.836	17.565	423.717	444.381	0.240	0.289	14.239	17.565	2.841
2023-08-21 02:15	6430509	***9.211***	-186.174	218.527	17.526	423.825	444.846	0.240	0.289	13.211	17.526	2.865
2023-08-21 02:30	6431409	***9.188***	-184.841	221.519	17.442	423.047	444.776	0.240	0.289	13.272	17.442	2.885
2023-08-21 02:45	6432309	***9.123***	-181.329	227.157	17.421	422.546	444.436	0.240	0.289	13.221	17.421	2.87
2023-08-21 03:00	6433209	***9.169***	-183.775	226.008	17.37	422.355	444.692	0.240	0.289	13.045	17.37	2.857
2023-08-21 03:15	6434109	***9.162***	-183.387	227.961	17.323	422.152	444.896	0.241	0.289	12.734	17.323	2.765
2023-08-21 03:30	6435009	***9.152***	-182.781	225.131	17.252	421.785	445.145	0.241	0.289	12.721	17.252	2.841
2023-08-21 03:45	6435909	***9.140***	-182.164	227.386	17.236	421.897	445.412	0.241	0.290	12.719	17.236	2.823
2023-08-21 04:00	6436809	***9.123***	-181.174	228.712	17.179	421.451	445.449	0.241	0.290	12.576	17.179	2.764
2023-08-21 04:15	6437709	***9.106***	-180.235	229.644	17.119	421.173	445.696	0.241	0.290	12.569	17.119	2.827
2023-08-21 04:30	6438609	***9.094***	-179.524	228.507	17.027	420.552	445.873	0.241	0.290	11.747	17.027	2.828
2023-08-21 04:45	6439509	***9.042***	-176.737	232.438	16.997	420.4	445.979	0.241	0.290	11.355	16.997	2.859
2023-08-21 05:00	6440409	***9.047***	-176.933	235.514	16.939	419.96	446.036	0.241	0.290	11.680	16.939	2.943
2023-08-21 05:15	6441309	***9.016***	-175.23	238.969	16.886	419.499	446.03	0.241	0.290	11.210	16.886	2.792
2023-08-21 05:30	6442209	8.986	-173.593	239.794	16.803	419.098	446.356	0.242	0.290	10.715	16.803	2.805
2023-08-21 05:45	6443109	8.912	-169.604	242.984	16.777	418.756	446.224	0.242	0.290	10.644	16.777	2.906
2023-08-21 06:00	6444009	8.917	-169.84	242.387	16.717	419.177	447.223	0.242	0.291	10.396	16.717	2.779
2023-08-21 06:15	6444909	8.862	-166.833	243.122	16.663	420.171	448.777	0.243	0.292	9.159	16.663	2.749
2023-08-21 06:30	6445809	8.817	-164.382	242.042	16.594	418.987	448.138	0.243	0.291	9.210	16.594	2.758
2023-08-21 06:45	6446709	8.787	-162.752	242.013	16.551	418.832	448.367	0.243	0.291	8.800	16.551	2.714
2023-08-21 07:00	6447609	8.766	-161.612	241.021	16.501	418.636	448.613	0.243	0.292	8.566	16.501	2.748
2023-08-21 07:15	6448509	8.757	-161.104	241.98	16.453	418.315	448.715	0.243	0.292	9.026	16.453	2.734
2023-08-21 07:30	6449409	8.739	-160.098	239.429	16.405	417.957	448.769	0.243	0.292	8.692	16.405	2.724
2023-08-21 07:45	6450309	8.689	-157.399	242.867	16.373	418.058	449.176	0.243	0.292	8.431	16.373	2.741

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-21 08:00	6451209	8.659	-155.756	245.62	16.329	417.452	448.929	0.243	0.292	8.532	16.329	2.737
2023-08-21 08:15	6452109	8.678	-156.763	247.499	16.284	416.505	448.325	0.243	0.291	8.803	16.284	2.644
2023-08-21 08:30	6453009	8.712	-158.551	244.304	16.218	415.438	447.788	0.243	0.291	8.789	16.218	2.728
2023-08-21 08:45	6453909	8.719	-158.882	244.128	16.191	415.129	447.703	0.243	0.291	9.366	16.191	2.66
2023-08-21 09:00	6454809	8.722	-159.016	245.115	16.15	414.466	447.359	0.242	0.291	9.300	16.15	2.664
2023-08-21 09:15	6455709	8.749	-160.477	243.193	16.118	413.903	447.051	0.242	0.291	9.866	16.118	2.653
2023-08-21 09:30	6456609	8.785	-162.389	234.677	16.084	413.501	446.929	0.242	0.291	9.836	16.084	2.717
2023-08-21 09:45	6457509	8.779	-162.029	240.537	16.055	413.624	447.326	0.242	0.291	10.264	16.055	2.689
2023-08-21 10:00	6458409	8.767	-161.39	245.117	16.032	413.634	447.55	0.243	0.291	10.671	16.032	2.654
2023-08-21 10:15	6459309	8.773	-161.717	248.47	16.012	413.471	447.565	0.243	0.291	10.568	16.012	2.647
2023-08-21 10:30	6460209	8.802	-163.264	248.622	15.995	412.043	446.17	0.242	0.290	10.572	15.995	2.621
2023-08-21 10:45	6461109	8.816	-164.003	246.588	15.989	412.035	446.222	0.242	0.290	10.516	15.989	2.599
2023-08-21 11:00	6462009	8.837	-165.105	244.045	15.975	411.838	446.134	0.242	0.290	10.243	15.975	2.555
2023-08-21 11:15	6462909	8.835	-164.983	243.262	15.97	411.62	445.946	0.242	0.290	10.661	15.97	2.597
2023-08-21 11:30	6463809	8.897	-168.304	238.73	15.966	411.287	445.618	0.242	0.290	10.456	15.966	2.675
2023-08-21 11:45	6464709	8.883	-167.575	242.457	15.962	411.133	445.495	0.241	0.290	10.401	15.962	2.689
2023-08-21 12:00	6465609	8.860	-166.316	245.141	15.963	411.055	445.399	0.241	0.290	10.671	15.963	2.703
2023-08-21 12:15	6466509	8.882	-167.525	246.596	15.975	411.081	445.315	0.241	0.289	10.620	15.975	2.66
2023-08-21 12:30	6467409	8.938	-170.519	249.066	15.988	410.5	444.567	0.241	0.289	10.288	15.988	2.577
2023-08-21 12:45	6468309	***9.108***	-179.644	242.335	16.004	410.377	444.287	0.241	0.289	11.159	16.004	2.66
2023-08-21 13:00	6469209	***9.163***	-182.633	238.516	16.022	409.563	443.24	0.240	0.288	12.480	16.022	2.654
2023-08-21 13:15	6470109	***9.213***	-185.285	234.188	16.048	408.946	442.333	0.240	0.288	12.708	16.048	2.665
2023-08-21 13:30	6471009	***9.255***	-187.621	226.349	16.104	408.184	440.998	0.239	0.287	13.296	16.104	2.631
2023-08-21 13:45	6471909	***9.310***	-190.585	222.675	16.184	408.295	440.394	0.239	0.286	13.714	16.184	2.589
2023-08-21 14:00	6472809	***9.358***	-193.217	216.543	16.264	408.249	439.622	0.238	0.286	15.121	16.264	2.601
2023-08-21 14:15	6473709	***9.394***	-195.236	211.24	16.347	408.015	438.615	0.237	0.285	15.565	16.347	2.636
2023-08-21 14:30	6474609	***9.428***	-197.046	205.49	16.394	408.112	438.3	0.237	0.285	16.448	16.394	2.687
2023-08-21 14:45	6475509	***9.442***	-197.859	205.664	16.477	408.146	437.594	0.237	0.284	16.203	16.477	2.705
2023-08-21 15:00	6476409	***9.478***	-199.871	205.557	16.55	408.382	437.195	0.237	0.284	16.773	16.55	2.694
2023-08-21 15:15	6477309	***9.494***	-200.775	199.51	16.616	408.539	436.767	0.236	0.284	16.354	16.616	2.729
2023-08-21 15:30	6478209	***9.446***	-198.24	197.236	16.658	409.503	437.429	0.237	0.284	16.931	16.658	2.722
2023-08-21 15:45	6479109	***9.546***	-203.662	192.029	16.784	409.366	436.154	0.236	0.284	18.845	16.784	2.688
2023-08-21 16:00	6480009	***9.575***	-205.29	187.852	16.835	409.294	435.627	0.236	0.283	19.863	16.835	2.735
2023-08-21 16:15	6480909	***9.617***	-207.579	179.788	16.882	409.263	435.179	0.235	0.283	19.426	16.882	2.799
2023-08-21 16:30	6481809	***9.603***	-206.831	176.255	16.9	409.633	435.416	0.235	0.283	19.243	16.9	2.745
2023-08-21 16:45	6482709	***9.665***	-210.211	174.56	16.944	409.841	435.245	0.235	0.283	19.779	16.944	2.78
2023-08-21 17:00	6483609	***9.692***	-211.694	175.099	17.002	409.486	434.363	0.235	0.282	20.539	17.002	2.808
2023-08-21 17:15	6484509	***9.717***	-213.063	174.786	17.046	409.369	433.847	0.235	0.282	21.215	17.046	2.761
2023-08-21 17:30	6485409	***9.685***	-211.365	175.683	17.1	408.563	432.521	0.234	0.281	21.087	17.1	2.82
2023-08-21 17:45	6486309	***9.772***	-216.131	176.868	17.209	407.719	430.679	0.233	0.280	22.078	17.209	2.789
2023-08-21 18:00	6487209	***9.802***	-217.795	179.66	17.243	407.555	430.209	0.232	0.280	23.061	17.243	2.801
2023-08-21 18:15	6488109	***9.797***	-217.564	180.027	17.289	407.532	429.787	0.232	0.279	23.610	17.289	2.859
2023-08-21 18:30	6489009	***9.782***	-216.706	176.748	17.267	408.638	431.142	0.233	0.280	23.114	17.267	2.826
2023-08-21 18:45	6489909	***9.737***	-214.298	179.838	17.287	409.201	431.565	0.233	0.281	23.314	17.287	2.802
2023-08-21 19:00	6490809	***9.805***	-217.962	174.252	17.294	409.634	431.96	0.233	0.281	22.843	17.294	2.807
2023-08-21 19:15	6491709	***9.813***	-218.456	172.188	17.31	409.572	431.751	0.233	0.281	23.104	17.31	2.827
2023-08-21 19:30	6492609	***9.765***	-215.847	170.271	17.336	408.716	430.63	0.233	0.280	22.621	17.336	2.911
2023-08-21 19:45	6493509	***9.824***	-219.097	173.876	17.411	408.406	429.652	0.232	0.279	23.389	17.411	2.819
2023-08-21 20:00	6494409	***9.801***	-217.874	177.64	17.423	408.405	429.552	0.232	0.279	22.544	17.423	2.835
2023-08-21 20:15	6495309	***9.772***	-216.305	179.54	17.432	408.488	429.553	0.232	0.279	22.390	17.432	2.843
2023-08-21 20:30	6496209	***9.732***	-214.112	180.69	17.399	409.87	431.294	0.233	0.280	21.635	17.399	2.897
2023-08-21 20:45	6497109	***9.801***	-217.896	182.182	17.436	409.183	430.253	0.232	0.280	21.330	17.436	2.863
2023-08-21 21:00	6498009	***9.825***	-219.154	182.85	17.447	408.61	429.555	0.232	0.279	20.573	17.447	2.932
2023-08-21 21:15	6498909	***9.814***	-218.594	184.08	17.46	408.402	429.229	0.232	0.279	20.256	17.46	2.94
2023-08-21 21:30	6499809	***9.704***	-212.634	187.132	17.446	410.599	431.659	0.233	0.281	20.706	17.446	2.962
2023-08-21 21:45	6500709	***9.711***	-213.113	191.025	17.534	411.297	431.629	0.233	0.281	20.506	17.534	2.933

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-21 22:00	6501609	***9.694***	-212.204	191.786	17.55	411.641	431.85	0.233	0.281	21.405	17.55	2.895
2023-08-21 22:15	6502509	***9.613***	-207.825	195.286	17.573	413.715	433.826	0.234	0.282	21.536	17.573	2.936
2023-08-21 22:30	6503409	***9.564***	-205.2	195.245	17.529	414.885	435.439	0.235	0.283	20.784	17.529	2.964
2023-08-21 22:45	6504309	***9.537***	-203.731	197.381	17.574	415.195	435.365	0.235	0.283	20.721	17.574	2.921
2023-08-21 23:00	6505209	***9.522***	-202.947	198.919	17.582	415.591	435.716	0.235	0.283	20.862	17.582	2.958
2023-08-21 23:15	6506109	***9.513***	-202.475	202.932	17.585	415.839	435.951	0.236	0.283	20.602	17.585	2.989
2023-08-21 23:30	6507009	***9.516***	-202.599	200.6	17.56	416.84	437.212	0.236	0.284	19.908	17.56	2.969
2023-08-21 23:45	6507909	***9.473***	-200.322	203.84	17.623	417.16	437	0.236	0.284	19.010	17.623	2.941
2023-08-22 00:00	6508809	***9.470***	-200.179	205.394	17.631	417.334	437.115	0.236	0.284	18.227	17.631	2.951
2023-08-22 00:15	6509709	***9.462***	-199.761	207.49	17.63	417.839	437.648	0.236	0.284	17.818	17.63	2.894
2023-08-22 00:30	6510609	***9.381***	-195.346	208.272	17.575	418.875	439.217	0.237	0.285	17.073	17.575	2.946
2023-08-22 00:45	6511509	***9.429***	-197.947	210.23	17.601	419.208	439.341	0.237	0.286	16.792	17.601	2.935
2023-08-22 01:00	6512409	***9.397***	-196.238	211.779	17.6	419.511	439.666	0.238	0.286	17.046	17.6	3.608
2023-08-22 01:15	6513309	***9.346***	-193.467	213.141	17.588	420.087	440.373	0.238	0.286	16.458	17.588	2.866
2023-08-22 01:30	6514209	***9.328***	-192.485	209.4	17.561	421.148	441.725	0.239	0.287	15.602	17.561	2.923
2023-08-22 01:45	6515109	***9.299***	-190.935	212.659	17.556	421.16	441.783	0.239	0.287	14.947	17.556	2.964
2023-08-22 02:00	6516009	***9.276***	-189.643	215.184	17.52	421.47	442.427	0.239	0.288	14.854	17.52	2.96
2023-08-22 02:15	6516909	***9.244***	-187.876	217.225	17.481	421.561	442.871	0.239	0.288	14.195	17.481	2.901
2023-08-22 02:30	6517809	***9.233***	-187.273	212.721	17.406	420.375	442.288	0.239	0.287	14.956	17.406	2.943
2023-08-22 02:45	6518709	***9.230***	-187.058	215.949	17.374	419.884	442.052	0.239	0.287	14.546	17.374	2.891
2023-08-22 03:00	6519609	***9.217***	-186.317	218.312	17.323	419.382	441.978	0.239	0.287	13.984	17.323	2.854
2023-08-22 03:15	6520509	***9.206***	-185.742	220.51	17.276	418.763	441.749	0.239	0.287	13.695	17.276	2.869
2023-08-22 03:30	6521409	***9.203***	-185.485	217.053	17.204	418.943	442.578	0.239	0.288	13.286	17.204	2.914
2023-08-22 03:45	6522309	***9.203***	-185.513	219.259	17.193	418.611	442.327	0.239	0.288	13.112	17.193	2.9
2023-08-22 04:00	6523209	***9.180***	-184.216	222.494	17.147	418.748	442.884	0.240	0.288	12.934	17.147	2.876
2023-08-22 04:15	6524109	***9.155***	-182.867	223.636	17.095	418.309	442.881	0.240	0.288	12.919	17.095	2.876
2023-08-22 04:30	6525009	***9.129***	-181.415	223.71	17.001	417.993	443.388	0.240	0.288	11.347	17.001	2.865
2023-08-22 04:45	6525909	***9.059***	-177.603	230.486	16.986	417.867	443.389	0.240	0.288	12.157	16.986	2.834
2023-08-22 05:00	6526809	***9.085***	-179.007	230.591	16.935	417.743	443.716	0.240	0.288	11.725	16.935	2.911
2023-08-22 05:15	6527709	***9.069***	-178.103	225.143	16.886	417.767	444.182	0.240	0.289	11.078	16.886	2.823
2023-08-22 05:30	6528609	***9.015***	-175.152	225.224	16.805	417.785	444.938	0.241	0.289	10.577	16.805	2.807
2023-08-22 05:45	6529509	8.973	-172.894	230.855	16.795	417.861	445.108	0.241	0.289	10.743	16.795	2.931
2023-08-22 06:00	6530409	8.947	-171.463	233.382	16.747	418.042	445.739	0.241	0.290	9.646	16.747	2.783
2023-08-22 06:15	6531309	8.881	-167.868	236.513	16.702	418.795	446.952	0.242	0.291	7.515	16.702	2.844
2023-08-22 06:30	6532209	8.725	-159.445	243.742	16.632	418.579	447.355	0.242	0.291	8.243	16.632	2.833
2023-08-22 06:45	6533109	8.687	-157.39	246.135	16.617	418.203	447.096	0.242	0.291	7.909	16.617	2.803
2023-08-22 07:00	6534009	8.642	-154.972	251.173	16.572	417.722	446.991	0.242	0.291	7.945	16.572	2.777
2023-08-22 07:15	6534909	8.607	-153.067	254.728	16.531	417.544	447.172	0.242	0.291	7.867	16.531	2.772
2023-08-22 07:30	6535809	8.670	-156.426	252.051	16.471	417.442	447.615	0.242	0.291	8.213	16.471	2.808
2023-08-22 07:45	6536709	8.649	-155.296	248.11	16.459	418.761	449.136	0.243	0.292	9.183	16.459	2.755
2023-08-22 08:00	6537609	8.653	-155.466	249.13	16.431	418.134	448.726	0.243	0.292	9.474	16.431	2.708
2023-08-22 08:15	6538509	8.680	-156.908	247.182	16.404	417.702	448.502	0.243	0.292	9.536	16.404	2.741
2023-08-22 08:30	6539409	8.750	-160.632	243.708	16.366	415.803	446.819	0.242	0.290	9.620	16.366	2.71
2023-08-22 08:45	6540309	8.706	-158.281	244.843	16.353	415.619	446.737	0.242	0.290	10.520	16.353	2.748
2023-08-22 09:00	6541209	8.756	-160.968	243.313	16.333	415.258	446.537	0.242	0.290	10.371	16.333	2.772
2023-08-22 09:15	6542109	8.803	-163.474	243.835	16.321	415.058	446.427	0.242	0.290	10.494	16.321	2.671
2023-08-22 09:30	6543009	8.772	-161.803	244.107	16.301	415.161	446.719	0.242	0.290	9.227	16.301	2.734
2023-08-22 09:45	6543909	8.712	-158.584	239.996	16.306	415.674	447.231	0.242	0.291	9.440	16.306	2.733
2023-08-22 10:00	6544809	8.719	-158.975	239.925	16.296	415.852	447.514	0.242	0.291	9.427	16.296	2.694
2023-08-22 10:15	6545709	8.713	-158.634	241.873	16.293	415.858	447.55	0.242	0.291	9.343	16.293	2.69
2023-08-22 10:30	6546609	8.720	-159.02	241.548	16.272	415.057	446.875	0.242	0.290	9.399	16.272	2.699
2023-08-22 10:45	6547509	8.719	-158.951	244.316	16.278	415.336	447.12	0.242	0.291	10.007	16.278	2.731
2023-08-22 11:00	6548409	8.672	-156.41	250.723	16.278	415.241	447.023	0.242	0.291	10.435	16.278	2.707
2023-08-22 11:15	6549309	8.725	-159.261	251.517	16.28	414.454	446.153	0.242	0.290	11.192	16.28	2.723
2023-08-22 11:30	6550209	8.733	-159.698	251.259	16.276	414.729	446.49	0.242	0.290	11.981	16.276	2.761
2023-08-22 11:45	6551109	8.792	-162.864	246.031	16.298	415.132	446.719	0.242	0.290	11.866	16.298	2.702

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-22 12:00	6552009	8.782	-162.327	246.836	16.304	415.099	446.627	0.242	0.290	11.944	16.304	2.679
2023-08-22 12:15	6552909	8.792	-162.88	246.793	16.309	414.803	446.267	0.242	0.290	12.101	16.309	2.661
2023-08-22 12:30	6553809	8.873	-167.212	244.469	16.301	414.612	446.133	0.242	0.290	11.739	16.301	2.714
2023-08-22 12:45	6554709	8.869	-167.027	245.582	16.313	414.317	445.709	0.241	0.290	10.721	16.313	2.74
2023-08-22 13:00	6555609	8.861	-166.566	249.056	16.321	414.465	445.793	0.241	0.290	11.134	16.321	2.758
2023-08-22 13:15	6556509	8.947	-171.223	249.55	16.329	414.089	445.309	0.241	0.289	11.507	16.329	2.706
2023-08-22 13:30	6557409	8.936	-170.648	248.574	16.335	413.372	444.488	0.241	0.289	10.433	16.335	2.732
2023-08-22 13:45	6558309	***9.093***	-179.086	247.13	16.366	411.403	442.085	0.239	0.287	11.189	16.366	2.677
2023-08-22 14:00	6559209	***9.067***	-177.672	242.125	16.388	410.949	441.401	0.239	0.287	11.983	16.388	2.669
2023-08-22 14:15	6560109	***9.125***	-180.812	239.836	16.414	411.307	441.554	0.239	0.287	13.367	16.414	2.762
2023-08-22 14:30	6561010	***9.129***	-181.007	234.412	16.414	411.703	441.978	0.239	0.287	12.837	16.414	2.678
2023-08-22 14:45	6561910	***9.191***	-184.402	233.85	16.452	411.956	441.904	0.239	0.287	***0.000***	16.452	2.729
2023-08-22 15:00	6562810	***9.204***	-185.099	233.418	16.474	411.715	441.443	0.239	0.287	12.814	16.474	2.801
2023-08-22 15:15	6563710	***9.196***	-184.66	235.042	16.495	411.847	441.398	0.239	0.287	13.510	16.495	2.674
2023-08-22 15:30	6564610	***9.214***	-185.666	230.211	16.516	411.675	441.021	0.239	0.287	13.561	16.516	2.764
2023-08-22 15:45	6565510	***9.233***	-186.687	230.076	16.558	411.633	440.602	0.239	0.286	13.894	16.558	2.735
2023-08-22 16:00	6566410	***9.222***	-186.112	231.38	16.575	411.896	440.731	0.239	0.286	14.286	16.575	2.72
2023-08-22 16:15	6567310	***9.241***	-187.147	230.436	16.591	411.786	440.468	0.238	0.286	14.420	16.591	2.729
2023-08-22 16:30	6568210	***9.262***	-188.286	228.254	16.581	411.662	440.422	0.238	0.286	14.683	16.581	2.763
2023-08-22 16:45	6569110	***9.269***	-188.656	227.753	16.6	411.781	440.376	0.238	0.286	14.706	16.6	2.678
2023-08-22 17:00	6570010	***9.291***	-189.846	227.186	16.613	411.722	440.199	0.238	0.286	15.279	16.613	2.746
2023-08-22 17:15	6570910	***9.323***	-191.567	226.809	16.628	411.937	440.293	0.238	0.286	15.194	16.628	2.783
2023-08-22 17:30	6571810	***9.293***	-189.974	225.066	16.628	411.638	439.974	0.238	0.286	14.778	16.628	2.972
2023-08-22 17:45	6572710	***9.277***	-189.149	227.422	16.674	412.102	440.06	0.238	0.286	15.650	16.674	2.852
2023-08-22 18:00	6573610	***9.287***	-189.693	227.973	16.69	412.047	439.856	0.238	0.286	15.258	16.69	2.701
2023-08-22 18:15	6574510	***9.302***	-190.52	226.542	16.705	412.181	439.861	0.238	0.286	15.112	16.705	2.761
2023-08-22 18:30	6575410	***9.314***	-191.128	224.456	16.685	411.582	439.399	0.238	0.286	15.462	16.685	2.863
2023-08-22 18:45	6576310	***9.320***	-191.51	225.314	16.713	412.166	439.779	0.238	0.286	15.320	16.713	2.729
2023-08-22 19:00	6577210	***9.350***	-193.112	226.897	16.727	412.344	439.844	0.238	0.286	15.404	16.727	2.782
2023-08-22 19:15	6578110	***9.357***	-193.503	228.752	16.735	412.483	439.914	0.238	0.286	15.365	16.735	2.801
2023-08-22 19:30	6579010	***9.267***	-188.661	230.414	16.736	412.419	439.837	0.238	0.286	14.980	16.736	2.891
2023-08-22 19:45	6579910	***9.327***	-191.929	226.723	16.778	412.843	439.92	0.238	0.286	15.427	16.778	5.181
2023-08-22 20:00	6580810	***9.321***	-191.617	227.269	16.791	413.082	440.051	0.238	0.286	15.218	16.791	2.949
2023-08-22 20:15	6581710	***9.322***	-191.653	226.723	16.806	413.442	440.305	0.238	0.286	15.376	16.806	2.806
2023-08-22 20:30	6582610	***9.313***	-191.193	225.555	16.813	414.329	441.183	0.239	0.287	14.399	16.813	2.957
2023-08-22 20:45	6583510	***9.300***	-190.504	224.261	16.849	414.437	440.979	0.239	0.287	13.779	16.849	2.86
2023-08-22 21:00	6584410	***9.292***	-190.072	223.109	16.86	414.715	441.178	0.239	0.287	13.735	16.86	2.934
2023-08-22 21:15	6585310	***9.183***	-184.197	223.214	16.869	415.507	441.937	0.239	0.287	13.258	16.869	3.291
2023-08-22 21:30	6586210	***9.227***	-186.577	217.9	16.861	415.457	441.959	0.239	0.287	13.598	16.861	3.154
2023-08-22 21:45	6587110	***9.240***	-187.342	217.809	16.925	416.35	442.333	0.239	0.288	14.026	16.925	2.972
2023-08-22 22:00	6588010	***9.207***	-185.585	213.863	16.951	416.612	442.377	0.239	0.288	14.144	16.951	3.226
2023-08-22 22:15	6588910	***9.230***	-186.839	209.352	16.971	417.493	443.133	0.240	0.288	13.971	16.971	2.966
2023-08-22 22:30	6589810	***9.221***	-186.31	205.754	16.957	416.739	442.458	0.239	0.288	13.620	16.957	2.97
2023-08-22 22:45	6590710	***9.220***	-186.293	205.175	16.986	417.518	443.024	0.240	0.288	13.697	16.986	2.878
2023-08-22 23:00	6591610	***9.221***	-186.334	203.244	16.995	417.832	443.277	0.240	0.288	12.903	16.995	2.957
2023-08-22 23:15	6592510	***9.218***	-186.212	201.892	17.002	418.022	443.411	0.240	0.288	12.427	17.002	2.873
2023-08-22 23:30	6593410	***9.170***	-183.587	201.42	16.988	418.583	444.131	0.240	0.289	11.808	16.988	2.951
2023-08-22 23:45	6594310	***9.154***	-182.776	208.132	17.029	419.255	444.479	0.240	0.289	12.200	17.029	2.91
2023-08-23 00:00	6595210	***9.147***	-182.366	208.308	17.03	419.339	444.556	0.241	0.289	12.435	17.03	2.892
2023-08-23 00:15	6596110	***9.142***	-182.104	209.603	17.03	419.332	444.547	0.241	0.289	12.246	17.03	2.91
2023-08-23 00:30	6597010	***9.119***	-180.84	210.237	17.001	419.637	445.132	0.241	0.289	11.349	17.001	2.947
2023-08-23 00:45	6597910	***9.128***	-181.37	209.75	17.018	420.004	445.374	0.241	0.289	11.410	17.018	2.942
2023-08-23 01:00	6598810	***9.077***	-178.623	213.992	17.011	420.076	445.509	0.241	0.290	10.337	17.011	3.015
2023-08-23 01:15	6599710	***9.092***	-179.417	215.248	17.008	420.159	445.623	0.241	0.290	10.563	17.008	2.984
2023-08-23 01:30	6600610	***9.039***	-176.563	212.64	16.992	420.409	446.032	0.241	0.290	11.548	16.992	4.136
2023-08-23 01:45	6601510	***9.052***	-177.276	208.267	17.003	420.382	445.907	0.241	0.290	12.291	17.003	2.993

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-23 02:00	6602410	***9.074***	-178.423	205.919	16.989	419.857	445.479	0.241	0.290	12.513	16.989	2.95
2023-08-23 02:15	6603310	***9.098***	-179.698	204.004	16.97	419.549	445.325	0.241	0.289	12.281	16.97	2.923
2023-08-23 02:30	6604210	***9.094***	-179.474	201.813	16.924	419.175	445.337	0.241	0.289	11.602	16.924	3.013
2023-08-23 02:45	6605110	***9.083***	-178.862	204.019	16.91	419.032	445.31	0.241	0.289	11.506	16.91	2.94
2023-08-23 03:00	6606010	***9.068***	-178.027	205.571	16.887	418.837	445.312	0.241	0.289	11.661	16.887	2.927
2023-08-23 03:15	6606910	***9.059***	-177.562	207.783	16.864	418.784	445.463	0.241	0.290	11.564	16.864	2.972
2023-08-23 03:30	6607810	***9.037***	-176.325	206.041	16.835	419.064	446.027	0.241	0.290	11.539	16.835	3.147
2023-08-23 03:45	6608710	***9.039***	-176.43	207.059	16.829	419.06	446.081	0.241	0.290	10.939	16.829	2.892
2023-08-23 04:00	6609610	***9.031***	-176.001	209.564	16.802	418.653	445.889	0.241	0.290	11.198	16.802	2.945
2023-08-23 04:15	6610510	***9.032***	-176.046	211.338	16.775	418.362	445.824	0.241	0.290	11.128	16.775	2.84
2023-08-23 04:30	6611410	***9.021***	-175.428	213.551	16.722	417.843	445.749	0.241	0.290	10.831	16.722	2.861
2023-08-23 04:45	6612310	***9.011***	-174.868	216.555	16.703	418.102	446.2	0.242	0.290	10.787	16.703	2.869
2023-08-23 05:00	6613210	8.993	-173.91	218.05	16.676	417.62	445.934	0.241	0.290	10.740	16.676	2.847
2023-08-23 05:15	6614110	8.988	-173.631	219.549	16.66	418.06	446.544	0.242	0.290	10.868	16.66	2.916
2023-08-23 05:30	6615010	8.980	-173.173	214.686	16.638	417.852	446.528	0.242	0.290	10.326	16.638	3.1
2023-08-23 05:45	6615910	8.954	-171.776	218.679	16.616	418.182	447.075	0.242	0.291	10.307	16.616	2.931
2023-08-23 06:00	6616810	8.941	-171.046	222.351	16.597	418.441	447.533	0.242	0.291	9.950	16.597	2.981
2023-08-23 06:15	6617710	8.929	-170.388	225.565	16.579	418.509	447.77	0.242	0.291	9.558	16.579	2.971
2023-08-23 06:30	6618610	8.888	-168.202	229.558	16.559	417.51	446.884	0.242	0.290	9.174	16.559	2.888
2023-08-23 06:45	6619510	8.888	-168.183	226.258	16.543	417.507	447.019	0.242	0.291	9.747	16.543	2.854
2023-08-23 07:00	6620410	8.905	-169.07	224.246	16.529	417.226	446.851	0.242	0.290	9.898	16.529	2.9
2023-08-23 07:15	6621310	8.910	-169.327	223.44	16.517	417.049	446.774	0.242	0.290	9.866	16.517	2.861
2023-08-23 07:30	6622210	8.938	-170.844	217.165	16.503	416.682	446.505	0.242	0.290	9.832	16.503	2.876
2023-08-23 07:45	6623110	8.937	-170.758	221.287	16.487	416.707	446.678	0.242	0.290	9.978	16.487	2.861
2023-08-23 08:00	6624010	8.916	-169.637	223.445	16.462	416.228	446.391	0.242	0.290	9.949	16.462	2.909
2023-08-23 08:15	6624910	8.924	-170.016	224.277	16.444	415.901	446.21	0.242	0.290	9.981	16.444	2.903
2023-08-23 08:30	6625810	8.913	-169.415	223.948	16.414	415.494	446.048	0.242	0.290	9.920	16.414	2.896
2023-08-23 08:45	6626710	8.895	-168.462	224.048	16.41	415.697	446.3	0.242	0.290	10.038	16.41	2.804
2023-08-23 09:00	6627610	8.876	-167.429	224.873	16.389	415.804	446.609	0.242	0.290	***0.000***	16.389	2.784
2023-08-23 09:15	6628510	8.836	-165.296	225.481	16.375	415.653	446.571	0.242	0.290	9.358	16.375	2.816
2023-08-23 09:30	6629410	8.853	-166.175	222.091	16.364	415.839	446.876	0.242	0.290	9.493	16.364	2.946
2023-08-23 09:45	6630310	8.832	-165.04	225.631	16.366	415.912	446.932	0.242	0.291	9.509	16.366	2.834
2023-08-23 10:00	6631210	8.824	-164.64	230.047	16.361	416.017	447.09	0.242	0.291	9.196	16.361	2.819
2023-08-23 10:15	6632110	8.785	-162.508	234.226	16.361	416.241	447.338	0.242	0.291	9.166	16.361	2.809
2023-08-23 10:30	6633010	8.731	-159.65	239.019	16.351	416.136	447.31	0.242	0.291	***5.321***	16.351	2.807
2023-08-23 10:45	6633910	8.708	-158.391	235.755	16.344	416.346	447.599	0.242	0.291	8.647	16.344	2.814
2023-08-23 11:00	6634810	8.698	-157.828	236.754	16.331	416.641	448.036	0.243	0.291	8.457	16.331	2.854
2023-08-23 11:15	6635710	8.622	-153.763	241.791	16.309	414.605	446.048	0.242	0.290	7.965	16.309	2.822
2023-08-23 11:30	6636610	8.705	-158.169	235.509	16.278	412.145	443.689	0.240	0.288	8.213	16.278	2.853
2023-08-23 11:45	6637510	8.733	-159.693	230.736	16.258	410.82	442.443	0.240	0.288	9.088	16.258	2.831
2023-08-23 12:00	6638410	8.733	-159.698	229.48	16.245	409.69	441.341	0.239	0.287	8.840	16.245	2.793
2023-08-23 12:15	6639310	8.729	-159.435	230.171	16.236	409.566	441.295	0.239	0.287	8.936	16.236	2.831
2023-08-23 12:30	6640210	8.762	-161.219	231.621	16.223	407.819	439.524	0.238	0.286	8.991	16.223	2.862
2023-08-23 12:45	6641110	8.758	-161.004	234.56	16.216	406.053	437.689	0.237	0.284	9.739	16.216	2.841
2023-08-23 13:00	6642010	8.763	-161.29	234.994	16.211	406.751	438.487	0.237	0.285	9.672	16.211	2.826
2023-08-23 13:15	6642910	8.769	-161.562	236.561	16.208	406.126	437.833	0.237	0.285	9.775	16.208	2.823
2023-08-23 13:30	6643810	8.798	-163.167	233.494	16.205	405.758	437.467	0.237	0.284	9.807	16.205	2.871
2023-08-23 13:45	6644710	8.783	-162.334	236.005	16.204	404.358	435.969	0.236	0.283	9.485	16.204	2.9
2023-08-23 14:00	6645610	8.767	-161.474	239.927	16.2	402.983	434.52	0.235	0.282	9.313	16.2	2.804
2023-08-23 14:15	6646510	8.782	-162.268	242.674	16.199	401.164	432.569	0.234	0.281	9.298	16.199	2.786
2023-08-23 14:30	6647410	8.799	-163.214	244.073	16.202	404.52	436.161	0.236	0.284	9.050	16.202	2.804
2023-08-23 14:45	6648310	8.841	-165.462	242.643	16.204	402.515	433.984	0.235	0.282	9.213	16.204	2.811
2023-08-23 15:00	6649210	8.844	-165.629	240.885	16.209	400.173	431.409	0.234	0.280	9.568	16.209	2.769
2023-08-23 15:15	6650110	8.852	-166.07	240.745	16.213	399.073	430.194	0.233	0.280	10.524	16.213	2.782
2023-08-23 15:30	6651010	8.875	-167.267	236.127	16.22	398.825	429.858	0.233	0.279	10.399	16.22	2.902
2023-08-23 15:45	6651910	8.871	-167.046	235.893	16.223	398.566	429.558	0.232	0.279	10.198	16.223	2.815

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-23 16:00	6652810	8.882	-167.646	238.487	16.226	398.029	428.945	0.232	0.279	10.564	16.226	2.852
2023-08-23 16:15	6653710	8.886	-167.885	239.896	16.234	397.362	428.16	0.232	0.278	9.388	16.234	2.842
2023-08-23 16:30	6654610	8.926	-170.047	238.351	16.242	396.504	427.164	0.231	0.278	9.885	16.242	2.805
2023-08-23 16:45	6655510	8.932	-170.374	232.822	16.25	397.023	427.649	0.231	0.278	10.559	16.25	2.808
2023-08-23 17:00	6656410	8.897	-168.509	230.784	16.261	397.556	428.131	0.232	0.278	10.059	16.261	2.903
2023-08-23 17:15	6657310	8.877	-167.427	223.538	16.257	396.529	427.06	0.231	0.278	9.972	16.257	3.604
2023-08-23 17:30	6658210	8.898	-168.538	214.974	16.246	394.546	425.022	0.230	0.276	9.666	16.246	2.93
2023-08-23 17:45	6659110	8.894	-168.302	205.614	16.232	393.172	423.665	0.229	0.275	9.694	16.232	2.88
2023-08-23 18:00	6660010	8.753	-160.735	207.416	16.228	394.374	424.991	0.230	0.276	9.239	16.228	2.914
2023-08-23 18:15	6660910	8.768	-161.55	208.923	16.228	395.672	426.389	0.231	0.277	8.893	16.228	2.935
2023-08-23 18:30	6661810	8.626	-153.959	217.363	16.261	399.497	430.22	0.233	0.280	8.397	16.261	2.829
2023-08-23 18:45	6662710	8.737	-159.941	218.51	16.3	400.99	431.483	0.234	0.280	8.683	16.3	2.856
2023-08-23 19:00	6663610	8.663	-155.964	227.97	16.323	402.402	432.798	0.234	0.281	9.183	16.323	2.895
2023-08-23 19:15	6664510	8.773	-161.884	225.5	16.361	404.02	434.203	0.235	0.282	9.374	16.361	2.861
2023-08-23 19:30	6665410	8.868	-167.007	218.503	16.389	405.224	435.243	0.236	0.283	9.510	16.389	2.927
2023-08-23 19:45	6666310	8.864	-166.786	219.416	16.4	405.793	435.758	0.236	0.283	10.040	16.4	2.938
2023-08-23 20:00	6667210	8.875	-167.387	216.841	16.4	406.03	436.013	0.236	0.283	10.180	16.4	2.944
2023-08-23 20:15	6668110	8.866	-166.886	223.123	16.396	406.174	436.197	0.236	0.284	10.070	16.396	2.908
2023-08-23 20:30	6669010	8.861	-166.633	225.636	16.393	406.239	436.301	0.236	0.284	9.744	16.393	2.902
2023-08-23 20:45	6669910	8.842	-165.584	226.692	16.386	406.262	436.387	0.236	0.284	9.996	16.386	2.928
2023-08-23 21:00	6670810	8.845	-165.737	227.656	16.378	406.143	436.327	0.236	0.284	9.860	16.378	2.915
2023-08-23 21:15	6671710	8.845	-165.751	229.477	16.37	406.018	436.268	0.236	0.284	9.841	16.37	2.89
2023-08-23 21:30	6672610	8.875	-167.36	228.452	16.357	405.966	436.323	0.236	0.284	9.661	16.357	2.912
2023-08-23 21:45	6673510	8.832	-165.033	226.301	16.351	406.01	436.427	0.236	0.284	9.700	16.351	2.875
2023-08-23 22:00	6674410	8.859	-166.478	225.782	16.343	405.753	436.224	0.236	0.284	9.730	16.343	2.923
2023-08-23 22:15	6675310	8.866	-166.862	226.664	16.335	405.79	436.337	0.236	0.284	9.765	16.335	3.029
2023-08-23 22:30	6676210	8.787	-162.609	227.343	16.329	406.349	436.987	0.237	0.284	9.337	16.329	3.036
2023-08-23 22:45	6677110	8.817	-164.199	231.137	16.316	405.566	436.267	0.236	0.284	9.434	16.316	2.891
2023-08-23 23:00	6678010	8.820	-164.394	233.251	16.309	405.435	436.184	0.236	0.284	9.206	16.309	2.925
2023-08-23 23:15	6678910	8.828	-164.781	234.067	16.298	404.87	435.677	0.236	0.283	9.484	16.298	2.839
2023-08-23 23:30	6679810	8.831	-164.957	227.977	16.286	404.597	435.488	0.236	0.283	9.349	16.286	2.932
2023-08-23 23:45	6680710	8.823	-164.502	233.785	16.28	404.429	435.364	0.236	0.283	9.614	16.28	2.878
2023-08-24 00:00	6681610	8.791	-162.816	237.266	16.278	404.383	435.334	0.236	0.283	9.727	16.278	2.884
2023-08-24 00:15	6682510	8.821	-164.433	239.622	16.277	404.409	435.37	0.236	0.283	9.764	16.277	2.864
2023-08-24 00:30	6683410	8.836	-165.222	240.07	16.274	404.202	435.174	0.236	0.283	9.655	16.274	2.823
2023-08-24 00:45	6684310	8.849	-165.918	235.666	16.266	404.115	435.146	0.236	0.283	9.524	16.266	2.85
2023-08-24 01:00	6685210	8.827	-164.704	236.048	16.258	404.028	435.127	0.236	0.283	9.379	16.258	2.865
2023-08-24 01:15	6686110	8.778	-162.117	238.277	16.253	403.923	435.062	0.236	0.283	9.424	16.253	2.895
2023-08-24 01:31	6687116	8.849	-165.923	237.192	16.245	403.599	434.783	0.235	0.283	9.524	16.245	2.815
2023-08-24 01:46	6688016	8.841	-165.472	238.537	16.261	403.84	434.896	0.235	0.283	9.875	16.261	2.866
2023-08-24 02:01	6688916	8.847	-165.815	239.805	16.254	403.822	434.94	0.235	0.283	9.637	16.254	2.936
2023-08-24 02:16	6689816	8.827	-164.711	239.131	16.251	403.869	435.021	0.236	0.283	9.730	16.251	2.899
2023-08-24 02:31	6690716	8.792	-162.828	240.976	16.247	403.727	434.899	0.235	0.283	9.432	16.247	2.886
2023-08-24 02:46	6691616	8.812	-163.915	241.229	16.241	403.786	435.017	0.236	0.283	9.575	16.241	2.899
2023-08-24 03:01	6692516	8.790	-162.735	244.035	16.232	403.72	435.024	0.236	0.283	9.675	16.232	2.911
2023-08-24 03:16	6693416	8.815	-164.058	243.675	16.23	403.762	435.088	0.236	0.283	9.380	16.23	2.809
2023-08-24 03:31	6694316	8.842	-165.541	239.56	16.225	403.837	435.213	0.236	0.283	9.389	16.225	2.89
2023-08-24 03:46	6695216	8.801	-163.298	237.788	16.22	403.98	435.416	0.236	0.283	9.299	16.22	2.902
2023-08-24 04:01	6696116	8.802	-163.352	238.926	16.217	404.052	435.523	0.236	0.283	9.509	16.217	2.899
2023-08-24 04:16	6697016	8.805	-163.512	240.03	16.214	404.105	435.602	0.236	0.283	9.387	16.214	2.94
2023-08-24 04:31	6697916	8.822	-164.423	241.155	16.207	403.709	435.241	0.236	0.283	9.314	16.207	2.937
2023-08-24 04:46	6698816	8.806	-163.589	244.29	16.202	403.87	435.457	0.236	0.283	9.695	16.202	2.883
2023-08-24 05:01	6699716	8.795	-162.978	243.754	16.199	403.933	435.553	0.236	0.283	9.741	16.199	2.879
2023-08-24 05:16	6700616	8.808	-163.691	244.97	16.196	403.975	435.63	0.236	0.283	9.639	16.196	2.869
2023-08-24 05:31	6701516	8.826	-164.649	237.304	16.188	404.149	435.882	0.236	0.283	9.364	16.188	2.926
2023-08-24 05:46	6702416	8.773	-161.803	238.656	16.186	404.342	436.109	0.236	0.283	***5.891***	16.186	2.897

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-24 06:01	6703316	8.770	-161.653	242.099	16.182	404.451	436.267	0.236	0.284	9.184	16.182	2.918
2023-08-24 06:16	6704216	8.719	-158.892	245.384	16.18	404.622	436.464	0.236	0.284	9.243	16.18	2.902
2023-08-24 06:31	6705116	8.777	-162.01	242.831	16.176	404.319	436.178	0.236	0.284	9.043	16.176	2.983
2023-08-24 06:46	6706016	8.774	-161.831	246	16.17	404.337	436.248	0.236	0.284	9.539	16.17	2.862
2023-08-24 07:01	6706916	8.774	-161.846	246.815	16.168	404.447	436.385	0.236	0.284	9.471	16.168	2.85
2023-08-24 07:17	6707875	8.817	-164.132	242.128	16.165	404.561	436.532	0.236	0.284	9.358	16.165	2.856
2023-08-24 07:32	6708775	8.768	-161.495	244.579	16.17	404.668	436.603	0.236	0.284	9.260	16.17	2.842
2023-08-24 07:47	6709675	8.774	-161.848	245.895	16.162	404.643	436.653	0.236	0.284	9.457	16.162	2.842
2023-08-24 08:02	6710575	8.706	-158.188	249.144	16.155	404.593	436.662	0.236	0.284	9.311	16.155	2.854
2023-08-24 08:17	6711475	8.780	-162.165	243.558	16.151	404.503	436.601	0.236	0.284	***5.212***	16.151	2.983
2023-08-24 08:32	6712375	8.770	-161.591	246.391	16.156	404.557	436.617	0.236	0.284	***5.407***	16.156	2.935
2023-08-24 08:47	6713275	8.770	-161.626	251.109	16.156	404.632	436.696	0.236	0.284	***5.280***	16.156	2.868
2023-08-24 09:02	6714175	8.768	-161.517	252.98	16.156	404.693	436.762	0.237	0.284	***5.257***	16.156	2.925
2023-08-24 09:17	6715075	8.788	-162.57	252.961	16.157	404.623	436.679	0.236	0.284	***5.375***	16.157	2.906
2023-08-24 09:32	6715975	8.787	-162.504	251.919	16.158	404.571	436.608	0.236	0.284	***5.497***	16.158	3.154
2023-08-24 09:47	6716875	8.791	-162.754	251.111	16.161	404.593	436.61	0.236	0.284	***5.434***	16.161	2.973
2023-08-24 10:02	6717775	8.794	-162.888	251.781	16.168	404.482	436.428	0.236	0.284	***5.556***	16.168	2.955
2023-08-24 10:17	6718675	8.816	-164.111	248.763	16.176	404.363	436.225	0.236	0.284	***5.493***	16.176	2.905
2023-08-24 10:32	6719575	8.794	-162.935	251.049	16.186	404.5	436.286	0.236	0.284	***5.476***	16.186	2.954
2023-08-24 10:47	6720475	8.718	-158.863	255.202	16.194	404.598	436.319	0.236	0.284	***5.432***	16.194	2.875
2023-08-24 11:02	6721375	8.712	-158.517	258.757	16.2	404.556	436.219	0.236	0.284	***5.441***	16.2	2.923
2023-08-24 11:17	6722275	8.757	-160.93	256.762	16.205	404.138	435.719	0.236	0.283	***5.512***	16.205	2.972
2023-08-24 11:32	6723175	8.809	-163.71	248.849	16.204	402.632	434.102	0.235	0.282	***5.587***	16.204	3.22
2023-08-24 11:47	6724075	8.852	-166.016	245.256	16.2	401.194	432.593	0.234	0.281	***5.619***	16.2	3.555
2023-08-24 12:02	6724975	8.832	-164.948	244.49	16.201	400.308	431.626	0.234	0.281	***5.734***	16.201	4.247
2023-08-24 12:17	6725875	8.867	-166.857	242.371	16.206	400.357	431.634	0.234	0.281	***5.751***	16.206	3.887
2023-08-24 12:32	6726775	8.823	-164.49	245.473	16.217	400.353	431.531	0.234	0.280	***5.693***	16.217	3.934
2023-08-24 12:47	6727675	8.833	-165.026	247.955	16.226	399.975	431.046	0.233	0.280	***5.682***	16.226	3.818
2023-08-24 13:02	6728575	8.830	-164.876	248.913	16.25	400.46	431.353	0.233	0.280	***5.785***	16.25	4.143
2023-08-24 13:17	6729475	8.862	-166.628	245.959	16.275	400.657	431.342	0.233	0.280	***5.735***	16.275	3.969
2023-08-24 13:32	6730375	8.858	-166.445	244.974	16.316	400.431	430.743	0.233	0.280	***5.822***	16.316	4.309
2023-08-24 13:47	6731275	8.863	-166.695	242.738	16.337	398.745	428.738	0.232	0.279	***5.796***	16.337	5.789
2023-08-24 14:02	6732175	8.865	-166.824	241.229	16.333	394.912	424.654	0.230	0.276	***5.866***	16.333	8.928
2023-08-24 14:17	6733075	8.863	-166.688	237.314	16.314	391.243	420.875	0.228	0.274	***5.805***	16.314	11.562
2023-08-24 14:32	6733975	8.883	-167.756	236.174	16.308	389.906	419.489	0.227	0.273	***5.825***	16.308	13.444
2023-08-24 14:47	6734875	8.855	-166.29	236.949	16.324	389.755	419.188	0.227	0.272	9.837	16.324	12.793
2023-08-24 15:02	6735775	8.847	-165.854	237.943	16.334	388.712	417.979	0.226	0.272	***6.119***	16.334	14.236
2023-08-24 15:17	6736675	8.853	-166.175	233.232	16.342	384.988	413.908	0.224	0.269	***6.178***	16.342	14.603
2023-08-24 15:32	6737575	8.872	-167.193	234.737	16.306	382.323	411.343	0.222	0.267	***6.191***	16.306	13.667
2023-08-24 15:47	6738475	8.804	-163.507	241.605	16.284	378.703	407.635	0.220	0.265	***5.980***	16.284	13.067
2023-08-24 16:02	6739375	8.782	-162.32	245.272	16.267	376.113	404.988	0.219	0.263	***6.182***	16.267	11.576
2023-08-24 16:17	6740275	8.749	-160.537	245.945	16.263	381.104	410.4	0.222	0.267	***6.061***	16.263	21.176
2023-08-24 16:32	6741175	8.827	-164.738	244.183	16.239	372.991	401.857	0.217	0.261	***5.853***	16.239	28.746
2023-08-24 16:47	6742075	8.769	-161.598	244.855	16.219	370.793	399.651	0.216	0.260	***5.747***	16.219	27.756
2023-08-24 17:02	6742975	8.709	-158.367	246.886	16.202	369.996	398.936	0.215	0.259	***5.469***	16.202	28.87
2023-08-24 17:17	6743875	8.680	-156.786	238.599	16.202	369.195	398.07	0.215	0.259	***5.409***	16.202	25.072
2023-08-24 17:32	6744775	8.639	-154.6	244.109	16.188	369.469	398.483	0.215	0.259	***5.326***	16.188	30.988
2023-08-24 17:47	6745675	8.582	-151.556	249.342	16.167	366.822	395.802	0.214	0.257	***5.389***	16.167	29.874
2023-08-24 18:02	6746575	8.550	-149.803	252.227	16.147	365.735	394.788	0.213	0.257	***5.365***	16.147	31.827
2023-08-24 18:17	6747475	8.502	-147.212	252.821	16.109	363.627	392.822	0.212	0.255	***5.444***	16.109	27.424
2023-08-24 18:32	6748375	8.485	-146.308	257.603	16.093	362.549	391.785	0.212	0.255	***4.983***	16.093	22.809
2023-08-24 18:47	6749275	8.432	-143.44	263.747	16.077	361.928	391.247	0.211	0.254	***5.061***	16.077	23.523
2023-08-24 19:02	6750175	8.397	-141.58	269.615	16.062	361.055	390.419	0.211	0.254	***5.017***	16.062	23.924
2023-08-24 19:17	6751075	8.370	-140.121	268.537	16.056	361.218	390.644	0.211	0.254	***5.030***	16.056	30.708
2023-08-24 19:32	6751975	8.302	-136.435	268.401	16.056	361.391	390.832	0.211	0.254	***4.943***	16.056	33.314
2023-08-24 19:47	6752875	8.293	-135.977	268.13	16.055	360.992	390.411	0.211	0.254	***4.813***	16.055	33.55

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-24 20:02	6753775	8.277	-135.117	270.063	16.054	360.725	390.131	0.211	0.254	***4.680***	16.054	34.553
2023-08-24 20:17	6754675	8.259	-134.13	267.429	16.052	361.452	390.934	0.211	0.254	***4.585***	16.052	32.522
2023-08-24 20:32	6755575	8.250	-133.696	273.804	16.06	363.465	393.045	0.212	0.255	***4.656***	16.06	30.191
2023-08-24 20:47	6756475	8.257	-134.029	274.777	16.06	365.058	394.767	0.213	0.257	***4.732***	16.06	29.931
2023-08-24 21:02	6757375	8.284	-135.52	273.937	16.064	366.034	395.791	0.214	0.257	***4.796***	16.064	27.854
2023-08-24 21:17	6758275	8.315	-137.174	266.055	16.07	362.768	392.212	0.212	0.255	***4.921***	16.07	25.318
2023-08-24 21:32	6759175	8.290	-135.837	271.997	16.071	363.346	392.828	0.212	0.255	***4.861***	16.071	26.054
2023-08-24 21:47	6760075	8.277	-135.126	277.659	16.071	363.425	392.914	0.212	0.255	***4.920***	16.071	23.77
2023-08-24 22:02	6760975	8.249	-133.612	282.699	16.076	363.529	392.985	0.212	0.255	***4.706***	16.076	24.478
2023-08-24 22:17	6761875	8.241	-133.212	282.878	16.078	364.07	393.551	0.213	0.256	***4.704***	16.078	26.395
2023-08-24 22:32	6762775	8.242	-133.269	281.882	16.085	364.882	394.374	0.213	0.256	***4.602***	16.085	25.043
2023-08-24 22:47	6763675	8.215	-131.819	281.798	16.091	364.518	393.927	0.213	0.256	***4.523***	16.091	26.991
2023-08-24 23:02	6764575	8.201	-131.042	282.299	16.094	364.516	393.9	0.213	0.256	***4.462***	16.094	25.67
2023-08-24 23:17	6765475	8.201	-131.042	270.993	16.101	363.188	392.41	0.212	0.255	***4.524***	16.101	23.389
2023-08-24 23:32	6766375	8.177	-129.788	278.627	16.113	363.341	392.48	0.212	0.255	***4.369***	16.113	22.493
2023-08-24 23:47	6767275	8.155	-128.634	284.695	16.13	363.829	392.868	0.212	0.255	***4.295***	16.13	21.628
2023-08-25 00:02	6768175	8.140	-127.8	287.105	16.138	364.258	393.27	0.212	0.256	***4.182***	16.138	21.703
2023-08-25 00:17	6769075	8.145	-128.083	287.432	16.14	365.916	395.037	0.213	0.257	***4.379***	16.14	24.401
2023-08-25 00:32	6769975	8.164	-129.125	286.166	16.144	366.055	395.16	0.213	0.257	***4.549***	16.144	21.837
2023-08-25 00:47	6770875	8.153	-128.534	285.918	16.141	367.059	396.267	0.214	0.258	6.879	16.141	21.57
2023-08-25 01:02	6771775	8.142	-127.926	285.939	16.14	369.756	399.184	0.216	0.259	***6.218***	16.14	19.859
2023-08-25 01:17	6772675	8.136	-127.614	278.858	16.136	370.201	399.703	0.216	0.260	***5.500***	16.136	16.648
2023-08-25 01:32	6773575	8.141	-127.873	278.203	16.132	372.177	401.863	0.217	0.261	***5.312***	16.132	15.798
2023-08-25 01:47	6774475	8.102	-125.742	263.855	16.124	372.647	402.442	0.217	0.262	***5.013***	16.124	16.02
2023-08-25 02:02	6775375	8.105	-125.942	259.396	16.113	374.181	404.186	0.218	0.263	***3.819***	16.113	14.91
2023-08-25 02:17	6776275	8.119	-126.684	252.527	16.083	377.691	408.231	0.221	0.265	***5.259***	16.083	12.465
2023-08-25 02:32	6777175	8.110	-126.15	254.661	16.079	377.732	408.312	0.221	0.265	***5.117***	16.079	11.18
2023-08-25 02:47	6778075	8.082	-124.674	260.836	16.058	378.629	409.461	0.221	0.266	***4.442***	16.058	9.734
2023-08-25 03:02	6778975	8.026	-121.675	267.436	16.039	379.346	410.391	0.222	0.267	***5.397***	16.039	10.655
2023-08-25 03:17	6779875	8.036	-122.159	260.994	16.005	380.358	411.782	0.223	0.268	***5.152***	16.005	10.7
2023-08-25 03:32	6780775	8.037	-122.244	262.403	16.006	380.481	411.901	0.223	0.268	***5.703***	16.006	11.254
2023-08-25 03:47	6781675	8.048	-122.795	265.621	15.987	380.39	411.97	0.223	0.268	***5.606***	15.987	10.725
2023-08-25 04:02	6782575	8.061	-123.494	266.172	15.964	380.311	412.079	0.223	0.268	***6.122***	15.964	11.743
2023-08-25 04:17	6783475	8.104	-125.766	258.929	15.925	380.173	412.258	0.223	0.268	***5.891***	15.925	10.767
2023-08-25 04:32	6784375	8.093	-125.213	262.403	15.916	380.205	412.369	0.223	0.268	***5.881***	15.916	10.06
2023-08-25 04:47	6785275	8.086	-124.791	267.464	15.895	376.376	408.4	0.221	0.265	***5.980***	15.895	10.115
2023-08-25 05:02	6786175	8.072	-124.056	272.44	15.864	379.838	412.414	0.223	0.268	***5.937***	15.864	9.882
2023-08-25 05:17	6787075	8.097	-125.391	270.631	15.827	379.541	412.409	0.223	0.268	***5.886***	15.827	10.223
2023-08-25 05:32	6787975	8.086	-124.781	268.885	15.826	379.48	412.355	0.223	0.268	***6.045***	15.826	10.654
2023-08-25 05:47	6788875	8.087	-124.817	268.847	15.806	378.801	411.79	0.223	0.268	***4.090***	15.806	10.685
2023-08-25 06:02	6789775	8.089	-124.927	268.687	15.784	378.508	411.656	0.223	0.268	***6.234***	15.784	10.812
2023-08-25 06:17	6790675	8.068	-123.768	266.241	15.757	378.279	411.641	0.223	0.268	***5.776***	15.757	10.972
2023-08-25 06:32	6791575	7.972	-118.623	268.27	15.742	377.659	411.091	0.222	0.267	***5.914***	15.742	10.317
2023-08-25 06:47	6792475	8.035	-122.023	268.034	15.725	377.621	411.196	0.222	0.267	***5.389***	15.725	10.824
2023-08-25 07:02	6793375	8.034	-121.951	266.997	15.706	377.257	410.963	0.222	0.267	***5.160***	15.706	10.736
2023-08-25 07:17	6794275	8.014	-120.881	253.028	15.684	376.859	410.719	0.222	0.267	***5.520***	15.684	10.464
2023-08-25 07:32	6795175	8.035	-121.987	255.765	15.662	376.569	410.586	0.222	0.267	***5.709***	15.662	9.979
2023-08-25 07:47	6796075	8.011	-120.666	266.241	15.641	376.363	410.541	0.222	0.267	***5.699***	15.641	9.112
2023-08-25 08:02	6796975	8.012	-120.711	273.577	15.618	376.112	410.469	0.222	0.267	***5.602***	15.618	9.382
2023-08-25 08:17	6797875	8.005	-120.316	275.573	15.582	375.739	410.37	0.222	0.267	***5.181***	15.582	10.292
2023-08-25 08:32	6798775	8.022	-121.222	261.931	15.574	376.712	411.502	0.223	0.267	***5.318***	15.574	10.11
2023-08-25 08:47	6799675	8.011	-120.668	261.325	15.555	375.993	410.88	0.222	0.267	***5.437***	15.555	9.876
2023-08-25 09:02	6800575	8.012	-120.695	261.718	15.537	375.736	410.751	0.222	0.267	***5.043***	15.537	9.647
2023-08-25 09:17	6801475	8.013	-120.738	255.303	15.52	375.153	410.256	0.222	0.267	***5.011***	15.52	9.855
2023-08-25 09:32	6802375	8.005	-120.301	255.837	15.508	374.918	410.106	0.222	0.267	***4.952***	15.508	8.906
2023-08-25 09:47	6803275	7.991	-119.562	263.991	15.492	374.858	410.174	0.222	0.267	***5.040***	15.492	8.859

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-25 10:02	6804175	7.951	-117.421	272.838	15.479	375.026	410.468	0.222	0.267	***4.556***	15.479	8.362
2023-08-25 10:17	6805075	7.961	-117.955	273.964	15.459	374.671	410.256	0.222	0.267	***4.536***	15.459	8.77
2023-08-25 10:32	6805975	7.956	-117.676	269.589	15.456	374.921	410.551	0.222	0.267	***4.518***	15.456	8.336
2023-08-25 10:47	6806875	7.955	-117.617	269.295	15.447	374.19	409.826	0.222	0.266	***4.923***	15.447	8.242
2023-08-25 11:02	6807775	7.949	-117.304	268.363	15.437	373.904	409.603	0.222	0.266	***4.646***	15.437	8.188
2023-08-25 11:17	6808675	7.951	-117.412	260.421	15.436	374.185	409.915	0.222	0.266	***4.560***	15.436	8.012
2023-08-25 11:32	6809575	7.938	-116.668	267.7	15.426	373.864	409.655	0.222	0.266	***4.492***	15.426	7.94
2023-08-25 11:47	6810475	7.911	-115.259	275.466	15.419	373.365	409.166	0.221	0.266	***4.748***	15.419	8.013
2023-08-25 12:02	6811375	7.927	-116.069	280.344	15.414	373.069	408.883	0.221	0.266	***5.019***	15.414	7.623
2023-08-25 12:17	6812275	7.899	-114.591	283.062	15.4	372.276	408.133	0.221	0.265	***4.886***	15.4	8.517
2023-08-25 12:32	6813175	7.927	-116.081	283.934	15.403	371.612	407.379	0.220	0.265	***5.034***	15.403	8.884
2023-08-25 12:47	6814075	7.933	-116.401	283.941	15.406	371.671	407.422	0.220	0.265	***4.892***	15.406	9.518
2023-08-25 13:02	6814975	7.931	-116.298	285.675	15.408	372.027	407.79	0.221	0.265	***4.550***	15.408	8.799
2023-08-25 13:17	6815875	7.923	-115.883	279.507	15.418	372.611	408.349	0.221	0.265	***4.149***	15.418	8.572
2023-08-25 13:32	6816775	7.905	-114.908	284.693	15.425	372.374	408.029	0.221	0.265	***3.807***	15.425	8.412
2023-08-25 13:47	6817675	7.904	-114.858	290.438	15.446	372.783	408.296	0.221	0.265	***3.313***	15.446	8.32
2023-08-25 14:02	6818575	7.915	-115.478	295.004	15.485	372.874	408.064	0.221	0.265	***3.424***	15.485	8.292
2023-08-25 14:17	6819475	7.910	-115.244	297.46	15.535	374.433	409.343	0.221	0.266	***3.779***	15.535	8.271
2023-08-25 14:32	6820375	8.095	-125.175	298.161	15.607	373.129	407.303	0.220	0.265	***4.182***	15.607	9.968
2023-08-25 14:47	6821275	8.764	-160.999	287.298	15.679	371.919	405.375	0.219	0.263	***3.351***	15.679	12.011
2023-08-25 15:02	6822175	8.999	-173.657	247.602	15.76	370.294	402.928	0.218	0.262	7.378	15.76	12.373
2023-08-25 15:17	6823075	8.894	-168.109	238.806	15.879	366.641	397.967	0.215	0.259	9.286	15.879	11.221
2023-08-25 15:32	6823975	8.864	-166.533	241.229	15.917	366.842	397.869	0.215	0.259	10.284	15.917	11.059
2023-08-25 15:47	6824875	8.998	-173.738	239.069	15.975	366.393	396.909	0.214	0.258	10.528	15.975	11.316
2023-08-25 16:02	6825775	***9.042***	-176.11	236.873	16.032	366.866	396.952	0.214	0.258	11.026	16.032	11.419
2023-08-25 16:17	6826675	***9.101***	-179.327	237.595	16.081	367.365	397.085	0.214	0.258	11.074	16.081	11.505
2023-08-25 16:32	6827575	***9.149***	-181.947	229.06	16.124	368.684	398.163	0.215	0.259	11.678	16.124	10.706
2023-08-25 16:47	6828475	***9.094***	-178.988	228.683	16.165	369.357	398.553	0.215	0.259	11.339	16.165	11.144
2023-08-25 17:02	6829375	***9.025***	-175.328	232.712	16.195	369.714	398.691	0.215	0.259	11.176	16.195	10.724
2023-08-25 17:17	6830275	8.977	-172.784	231.609	16.25	370.189	398.749	0.215	0.259	11.031	16.25	10.195
2023-08-25 17:32	6831175	***9.003***	-174.177	233.878	16.233	370.254	398.956	0.215	0.259	10.661	16.233	10.015
2023-08-25 17:47	6832075	8.994	-173.7	236.475	16.246	370.443	399.057	0.216	0.259	10.759	16.246	9.696
2023-08-25 18:02	6832975	8.986	-173.242	236.851	16.255	370.68	399.237	0.216	0.260	10.782	16.255	9.587
2023-08-25 18:17	6833875	8.880	-167.592	241.498	16.262	370.956	399.476	0.216	0.260	10.623	16.262	10.301
2023-08-25 18:32	6834775	8.935	-170.498	241.1	16.255	370.825	399.391	0.216	0.260	10.979	16.255	10.118
2023-08-25 18:47	6835675	8.929	-170.178	241.808	16.259	370.847	399.385	0.216	0.260	11.107	16.259	10.435
2023-08-25 19:02	6836575	8.908	-169.086	242.061	16.255	370.942	399.522	0.216	0.260	11.253	16.255	10.473
2023-08-25 19:17	6837475	8.915	-169.473	237.116	16.266	371.304	399.823	0.216	0.260	10.769	16.266	10.012
2023-08-25 19:32	6838375	8.821	-164.39	238.64	16.249	371.355	400.017	0.216	0.260	10.767	16.249	10.778
2023-08-25 19:47	6839275	8.854	-166.173	242.5	16.236	371.363	400.126	0.216	0.260	10.544	16.236	10.29
2023-08-25 20:02	6840175	8.801	-163.317	249.345	16.228	371.488	400.328	0.216	0.260	10.408	16.228	10.128
2023-08-25 20:17	6841075	8.800	-163.267	251.006	16.217	371.806	400.762	0.216	0.260	10.211	16.217	14.173
2023-08-25 20:32	6841975	8.837	-165.262	246.801	16.215	371.359	400.301	0.216	0.260	10.244	16.215	9.948
2023-08-25 20:47	6842875	8.825	-164.585	246.491	16.214	371.448	400.4	0.216	0.260	10.315	16.214	9.802
2023-08-25 21:02	6843775	8.814	-164.006	247.652	16.219	371.587	400.515	0.216	0.260	10.232	16.219	9.483
2023-08-25 21:17	6844675	8.817	-164.175	242.895	16.234	371.88	400.705	0.216	0.260	10.096	16.234	10.626
2023-08-25 21:32	6845575	8.788	-162.63	244.652	16.243	372.13	400.899	0.217	0.261	10.485	16.243	8.496
2023-08-25 21:47	6846475	8.804	-163.488	251.221	16.261	372.845	401.523	0.217	0.261	10.631	16.261	8.289
2023-08-25 22:02	6847375	8.790	-162.776	255.274	16.283	373.281	401.811	0.217	0.261	10.930	16.283	8.001
2023-08-25 22:17	6848275	8.791	-162.833	255.026	16.303	374.198	402.628	0.217	0.262	10.585	16.303	17.714
2023-08-25 22:32	6849175	8.777	-162.082	255.915	16.321	373.449	401.671	0.217	0.261	10.175	16.321	8.632
2023-08-25 22:47	6850075	8.787	-162.632	255.374	16.342	373.774	401.848	0.217	0.261	10.229	16.342	8.654
2023-08-25 23:02	6850975	8.754	-160.871	256.054	16.358	373.704	401.644	0.217	0.261	10.313	16.358	8.484
2023-08-25 23:17	6851875	8.824	-164.649	245.396	16.384	374.62	402.417	0.217	0.262	10.182	16.384	8.428
2023-08-25 23:32	6852775	8.726	-159.361	252.032	16.401	374.853	402.525	0.217	0.262	10.098	16.401	8.321
2023-08-25 23:47	6853675	8.711	-158.606	257.68	16.429	375.48	402.961	0.218	0.262	9.910	16.429	8.121

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-26 00:02	6854575	8.631	-154.335	261.43	16.464	376.355	403.615	0.218	0.262	9.853	16.464	8.08
2023-08-26 00:17	6855475	8.599	-152.636	265.273	16.479	376.628	403.785	0.218	0.262	9.931	16.479	8.141
2023-08-26 00:32	6856375	8.619	-153.704	265.452	16.505	376.618	403.553	0.218	0.262	9.467	16.505	8.077
2023-08-26 00:47	6857275	8.753	-160.911	260.71	16.507	375.96	402.836	0.218	0.262	10.038	16.507	8.179
2023-08-26 01:02	6858175	8.591	-152.187	265.338	16.539	376.229	402.864	0.218	0.262	10.134	16.539	7.87
2023-08-26 01:17	6859075	8.643	-155.032	249.838	16.568	378.015	404.532	0.218	0.263	9.541	16.568	7.904
2023-08-26 01:32	6859975	8.556	-150.332	260.543	16.565	378.026	404.569	0.218	0.263	9.179	16.565	7.703
2023-08-26 01:47	6860875	8.516	-148.184	266.844	16.564	378.184	404.748	0.219	0.263	9.140	16.564	7.427
2023-08-26 02:02	6861775	8.518	-148.32	271.768	16.556	378.219	404.852	0.219	0.263	9.271	16.556	7.088
2023-08-26 02:17	6862675	8.598	-152.588	271.87	16.532	377.008	403.755	0.218	0.262	9.398	16.532	7.722
2023-08-26 02:32	6863575	8.578	-151.498	268.156	16.527	377.985	404.842	0.219	0.263	9.151	16.527	7.605
2023-08-26 02:47	6864475	8.609	-153.174	266.184	16.514	378.257	405.24	0.219	0.263	9.237	16.514	8.052
2023-08-26 03:02	6865375	8.611	-153.246	265.803	16.495	378.392	405.544	0.219	0.264	8.779	16.495	7.7
2023-08-26 03:17	6866275	8.567	-150.886	253.164	16.479	377.986	405.235	0.219	0.263	8.551	16.479	7.601
2023-08-26 03:32	6867175	8.541	-149.488	258.476	16.469	377.975	405.313	0.219	0.263	8.857	16.469	7.619
2023-08-26 03:47	6868075	8.520	-148.373	262.024	16.442	378.161	405.737	0.219	0.264	8.644	16.442	7.398
2023-08-26 04:02	6868975	8.506	-147.562	264.091	16.416	378.552	406.373	0.220	0.264	8.439	16.416	7.874
2023-08-26 04:17	6869875	8.453	-144.715	260.696	16.366	378.913	407.174	0.220	0.265	8.140	16.366	7.93
2023-08-26 04:32	6870775	8.440	-144.017	266.718	16.335	379.187	407.725	0.220	0.265	7.915	16.335	7.869
2023-08-26 04:47	6871675	8.321	-137.575	273.899	16.28	379.544	408.572	0.221	0.266	7.393	16.28	7.709
2023-08-26 05:02	6872575	8.291	-135.963	274.638	16.24	380.256	409.68	0.221	0.266	6.673	16.24	7.103
2023-08-26 05:17	6873475	8.245	-133.445	266.942	16.203	380.075	409.797	0.222	0.266	6.647	16.203	7.096
2023-08-26 05:32	6874375	8.228	-132.558	272.454	16.171	379.914	409.889	0.222	0.266	6.765	16.171	7.001
2023-08-26 05:47	6875275	8.231	-132.704	277.111	16.124	379.466	409.802	0.222	0.266	***6.440***	16.124	7.001
2023-08-26 06:02	6876175	8.214	-131.769	282.315	16.094	379.455	410.048	0.222	0.267	6.557	16.094	7.481
2023-08-26 06:17	6877075	8.190	-130.429	283.319	16.05	378.965	409.888	0.222	0.266	6.928	16.05	8.026
2023-08-26 06:32	6877975	8.202	-131.092	280.225	16.035	378.399	409.408	0.221	0.266	7.033	16.035	7.62
2023-08-26 06:47	6878875	8.217	-131.876	279.419	16.008	377.686	408.862	0.221	0.266	7.290	16.008	7.775
2023-08-26 07:02	6879775	8.213	-131.648	277.833	15.979	377.446	408.844	0.221	0.266	7.185	15.979	7.887
2023-08-26 07:17	6880675	8.249	-133.555	269.934	15.949	377.576	409.241	0.221	0.266	6.842	15.949	7.764
2023-08-26 07:32	6881575	8.222	-132.12	280.935	15.932	377.4	409.192	0.221	0.266	6.671	15.932	6.997
2023-08-26 07:47	6882475	8.204	-131.118	285.191	15.905	377.267	409.28	0.221	0.266	6.607	15.905	6.99
2023-08-26 08:02	6883375	8.192	-130.465	286.769	15.881	377.259	409.472	0.221	0.266	6.567	15.881	6.718
2023-08-26 08:17	6884275	8.166	-129.056	285.119	15.84	377.646	410.245	0.222	0.267	***6.154***	15.84	7.289
2023-08-26 08:32	6885175	8.163	-128.927	278.93	15.823	377.247	409.954	0.222	0.266	***6.298***	15.823	6.987
2023-08-26 08:47	6886075	8.158	-128.603	276.984	15.802	377.202	410.085	0.222	0.267	***6.146***	15.802	6.979
2023-08-26 09:02	6886975	8.150	-128.183	277.542	15.778	376.959	410.026	0.222	0.267	***6.231***	15.778	6.772
2023-08-26 09:17	6887875	8.171	-129.306	272.702	15.758	376.616	409.824	0.222	0.266	***6.392***	15.758	7.14
2023-08-26 09:32	6888775	8.164	-128.939	277.759	15.746	376.46	409.752	0.222	0.266	6.695	15.746	6.529
2023-08-26 09:47	6889675	8.149	-128.112	285.465	15.727	376.322	409.762	0.222	0.266	6.666	15.727	6.075
2023-08-26 10:02	6890575	8.132	-127.182	291.192	15.71	376.133	409.707	0.222	0.266	7.228	15.71	6.448
2023-08-26 10:17	6891475	8.142	-127.728	292.427	15.676	374.802	408.543	0.221	0.266	7.142	15.676	6.478
2023-08-26 10:32	6892375	8.179	-129.676	296.008	15.687	374.64	408.276	0.221	0.265	7.143	15.687	6.563
2023-08-26 10:47	6893275	8.187	-130.119	296.604	15.681	374.486	408.158	0.221	0.265	7.046	15.681	6.334
2023-08-26 11:02	6894175	8.190	-130.296	296.408	15.674	374.505	408.237	0.221	0.265	7.197	15.674	6.521
2023-08-26 11:17	6895075	8.232	-132.532	284.261	15.666	374.932	408.766	0.221	0.266	6.980	15.666	6.277
2023-08-26 11:32	6895975	8.209	-131.311	290.76	15.666	374.841	408.673	0.221	0.266	6.976	15.666	5.984
2023-08-26 11:47	6896875	8.220	-131.891	294.708	15.664	374.793	408.638	0.221	0.266	7.133	15.664	5.82
2023-08-26 12:02	6897775	8.223	-132.031	295.099	15.671	374.967	408.761	0.221	0.266	7.086	15.671	5.835
2023-08-26 12:17	6898675	8.322	-137.367	290.481	15.656	373.857	407.684	0.221	0.265	7.368	15.656	6.06
2023-08-26 12:32	6899575	8.259	-133.972	291.29	15.672	374.018	407.722	0.221	0.265	7.728	15.672	5.883
2023-08-26 12:47	6900475	8.296	-135.965	290.465	15.674	373.978	407.663	0.221	0.265	7.546	15.674	5.84
2023-08-26 13:02	6901375	8.298	-136.058	288.972	15.68	374.06	407.703	0.221	0.265	7.481	15.68	5.799
2023-08-26 13:17	6902275	8.349	-138.817	278.3	15.711	373.734	407.082	0.220	0.265	7.541	15.711	5.814
2023-08-26 13:32	6903175	8.324	-137.47	280.854	15.75	374.004	407.049	0.220	0.265	7.519	15.75	5.821
2023-08-26 13:47	6904075	8.346	-138.698	281.946	15.801	374.155	406.776	0.220	0.264	7.692	15.801	5.793

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-26 14:02	6904975	8.373	-140.159	282.864	15.858	374.182	406.328	0.220	0.264	7.732	15.858	5.916
2023-08-26 14:17	6905875	8.460	-144.854	280.556	15.912	373.936	405.605	0.219	0.264	8.063	15.912	6.301
2023-08-26 14:32	6906775	8.541	-149.248	277.471	15.998	374.27	405.244	0.219	0.263	9.118	15.998	6.338
2023-08-26 14:47	6907675	8.601	-152.497	271.715	16.106	374.653	404.761	0.219	0.263	9.611	16.106	6.317
2023-08-26 15:02	6908575	8.672	-156.35	265.023	16.195	375.241	404.652	0.219	0.263	9.975	16.195	6.457
2023-08-26 15:17	6909475	8.758	-161.054	255.689	16.267	375.904	404.767	0.219	0.263	9.706	16.267	6.898
2023-08-26 15:32	6910375	8.755	-160.88	253.479	16.315	376.188	404.673	0.219	0.263	10.079	16.315	6.324
2023-08-26 15:47	6911275	8.730	-159.569	254.535	16.354	376.285	404.454	0.218	0.263	10.045	16.354	6.336
2023-08-26 16:02	6912175	8.768	-161.633	252.639	16.391	376.348	404.208	0.218	0.263	9.926	16.391	6.488
2023-08-26 16:17	6913075	8.810	-163.913	247.03	16.456	376.426	403.757	0.218	0.262	10.675	16.456	6.346
2023-08-26 16:32	6913975	8.835	-165.296	246.214	16.542	377.026	403.688	0.218	0.262	11.135	16.542	6.244
2023-08-26 16:47	6914875	8.953	-171.711	243.916	16.628	377.532	403.521	0.218	0.262	11.212	16.628	6.468
2023-08-26 17:02	6915775	***9.027***	-175.712	237.726	16.692	377.503	402.964	0.218	0.262	11.902	16.692	6.312
2023-08-26 17:17	6916675	***9.123***	-180.931	225.465	16.784	377.728	402.448	0.217	0.262	12.290	16.784	6.418
2023-08-26 17:32	6917575	***9.110***	-180.249	229.718	16.811	377.854	402.36	0.217	0.262	12.586	16.811	6.282
2023-08-26 17:47	6918475	***9.152***	-182.5	234.236	16.819	378.021	402.472	0.217	0.262	12.135	16.819	6.159
2023-08-26 18:02	6919375	***9.144***	-182.106	235.9	16.84	378.087	402.376	0.217	0.262	11.908	16.84	6.146
2023-08-26 18:17	6920275	***9.106***	-180.104	237.085	16.883	378.163	402.103	0.217	0.261	12.073	16.883	6.22
2023-08-26 18:32	6921175	***9.198***	-185.084	228.764	16.948	378.573	402.007	0.217	0.261	13.123	16.948	6.208
2023-08-26 18:47	6922075	***9.262***	-188.539	226.011	16.999	378.924	401.967	0.217	0.261	13.334	16.999	6.21
2023-08-26 19:02	6922975	***9.287***	-189.874	225.653	17.003	379.714	402.772	0.217	0.262	12.561	17.003	5.965
2023-08-26 19:17	6923875	***9.161***	-183.094	222.52	16.996	378.967	402.037	0.217	0.261	12.077	16.996	6.197
2023-08-26 19:32	6924775	***9.169***	-183.556	226.652	16.97	379.408	402.712	0.217	0.262	13.026	16.97	6.533
2023-08-26 19:47	6925675	***9.166***	-183.351	231.404	16.955	379.336	402.759	0.217	0.262	13.075	16.955	6.234
2023-08-26 20:02	6926575	***9.081***	-178.809	239.085	16.946	379.333	402.832	0.217	0.262	13.069	16.946	6.151
2023-08-26 20:17	6927475	***9.046***	-176.911	238.215	16.921	378.709	402.373	0.217	0.262	12.531	16.921	6.264
2023-08-26 20:32	6928375	***9.168***	-183.47	233.874	16.919	379.477	403.202	0.218	0.262	12.702	16.919	6.209
2023-08-26 20:47	6929275	***9.136***	-181.715	230.767	16.919	378.967	402.665	0.217	0.262	12.989	16.919	6.197
2023-08-26 21:02	6930175	***9.142***	-182.035	228.64	16.928	379.116	402.749	0.217	0.262	13.143	16.928	6.114
2023-08-26 21:17	6931075	***9.112***	-180.476	222.229	16.957	379.082	402.472	0.217	0.262	12.585	16.957	7.323
2023-08-26 21:32	6931975	***9.158***	-182.919	225.591	16.966	379.415	402.752	0.217	0.262	12.515	16.966	6.477
2023-08-26 21:47	6932875	***9.116***	-180.69	229.57	16.98	379.427	402.651	0.217	0.262	12.524	16.98	6.411
2023-08-26 22:02	6933775	***9.142***	-182.102	229.732	17.013	379.93	402.918	0.217	0.262	12.677	17.013	6.055
2023-08-26 22:17	6934675	***9.098***	-179.765	230.614	17.051	381.023	403.764	0.218	0.262	12.112	17.051	6.375
2023-08-26 22:32	6935575	***9.102***	-180.013	231.973	17.085	381.254	403.73	0.218	0.262	12.453	17.085	6.079
2023-08-26 22:47	6936475	***9.077***	-178.671	234.083	17.1	381.582	403.961	0.218	0.263	12.366	17.1	5.97
2023-08-26 23:02	6937375	***9.068***	-178.185	236.024	17.086	381.716	404.214	0.218	0.263	11.802	17.086	6.033
2023-08-26 23:17	6938275	***9.060***	-177.734	222.339	17.095	382.051	404.494	0.218	0.263	11.667	17.095	6.066
2023-08-26 23:32	6939175	***9.041***	-176.728	231.413	17.135	382.441	404.583	0.218	0.263	12.076	17.135	5.855
2023-08-26 23:47	6940075	8.988	-173.945	236.739	17.194	383.759	405.491	0.219	0.264	8.524	17.194	5.85
2023-08-27 00:02	6940975	8.810	-164.404	246.684	17.262	385.494	406.764	0.219	0.264	8.022	17.262	5.608
2023-08-27 00:17	6941875	8.783	-162.933	253.262	17.287	385.171	406.22	0.219	0.264	8.769	17.287	5.983
2023-08-27 00:32	6942775	8.789	-163.295	251.695	17.312	385.144	405.986	0.219	0.264	9.079	17.312	6.059
2023-08-27 00:47	6943675	8.729	-160.072	254.206	17.335	385.891	406.586	0.219	0.264	9.052	17.335	5.909
2023-08-27 01:02	6944575	8.741	-160.739	254.721	17.354	386.385	406.95	0.220	0.265	7.563	17.354	6.026
2023-08-27 01:17	6945475	8.776	-162.625	241.226	17.391	387.7	408.033	0.220	0.265	8.333	17.391	5.862
2023-08-27 01:32	6946375	8.755	-161.519	245.475	17.423	387.856	407.937	0.220	0.265	8.669	17.423	6.101
2023-08-27 01:47	6947275	8.742	-160.818	247.237	17.421	388.167	408.275	0.220	0.265	8.794	17.421	5.983
2023-08-27 02:02	6948175	8.748	-161.107	246.71	17.416	387.762	407.894	0.220	0.265	9.049	17.416	5.906
2023-08-27 02:17	6949075	8.773	-162.432	245.771	17.37	386.996	407.468	0.220	0.265	8.672	17.37	5.615
2023-08-27 02:32	6949975	8.762	-161.872	251.967	17.391	387.402	407.718	0.220	0.265	8.778	17.391	5.565
2023-08-27 02:47	6950875	8.721	-159.647	256.55	17.384	387.709	408.098	0.220	0.265	8.353	17.384	5.567
2023-08-27 03:02	6951775	8.697	-158.353	259.027	17.374	388.244	408.747	0.220	0.266	8.524	17.374	5.45
2023-08-27 03:17	6952675	8.532	-149.469	261.037	17.337	388.875	409.714	0.221	0.266	8.230	17.337	5.996
2023-08-27 03:32	6953575	8.566	-151.279	257.692	17.346	388.676	409.43	0.221	0.266	7.991	17.346	5.886
2023-08-27 03:47	6954475	8.576	-151.796	256.38	17.315	388.527	409.527	0.221	0.266	8.121	17.315	5.848

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-27 04:02	6955375	8.590	-152.535	255.944	17.252	387.534	409.001	0.221	0.266	8.249	17.252	5.923
2023-08-27 04:17	6956275	8.582	-152.073	250.046	17.152	387.202	409.477	0.221	0.266	7.148	17.152	6.824
2023-08-27 04:32	6957175	8.552	-150.409	246.538	17.131	387.898	410.39	0.221	0.267	6.785	17.131	6.1
2023-08-27 04:47	6958075	8.494	-147.314	249.619	17.104	387.874	410.587	0.222	0.267	***6.360***	17.104	6.047
2023-08-27 05:02	6958975	8.443	-144.51	254.304	17.079	387.576	410.481	0.222	0.267	***5.971***	17.079	6.879
2023-08-27 05:17	6959875	8.457	-145.257	246.309	17.049	387.265	410.401	0.222	0.267	***5.994***	17.049	10.086
2023-08-27 05:32	6960775	8.438	-144.262	248.77	17.04	386.866	410.047	0.221	0.267	***6.417***	17.04	7.65
2023-08-27 05:47	6961675	8.442	-144.436	251.426	17.005	386.655	410.113	0.221	0.267	***6.432***	17.005	7.75
2023-08-27 06:02	6962575	8.439	-144.246	252.294	16.968	386.25	409.991	0.221	0.266	***6.476***	16.968	7.295
2023-08-27 06:17	6963475	8.429	-143.69	249.969	16.848	385.566	410.263	0.222	0.267	***6.262***	16.848	7.13
2023-08-27 06:32	6964375	8.394	-141.785	254.592	16.836	385.648	410.455	0.222	0.267	***6.168***	16.836	6.672
2023-08-27 06:47	6965275	8.349	-139.315	261.48	16.793	385.611	410.773	0.222	0.267	***6.164***	16.793	6.549
2023-08-27 07:02	6966175	8.304	-136.919	264.365	16.757	385.612	411.073	0.222	0.267	***6.330***	16.757	6.479
2023-08-27 07:17	6967075	8.250	-133.975	259.57	16.697	386.259	412.269	0.223	0.268	***5.527***	16.697	6.565
2023-08-27 07:32	6967975	8.181	-130.27	260.059	16.692	385.905	411.931	0.223	0.268	***5.916***	16.692	6.248
2023-08-27 07:47	6968875	8.195	-130.994	263.34	16.657	385.709	412.018	0.223	0.268	***5.880***	16.657	6.316
2023-08-27 08:02	6969775	8.191	-130.744	266.418	16.621	385.406	411.999	0.223	0.268	***6.217***	16.621	6.188
2023-08-27 08:17	6970675	8.181	-130.196	267.257	16.558	384.704	411.777	0.222	0.268	***5.819***	16.558	6.493
2023-08-27 08:32	6971575	8.174	-129.819	271.386	16.535	384.26	411.49	0.222	0.267	***5.741***	16.535	6.081
2023-08-27 08:47	6972475	8.175	-129.862	273.725	16.503	383.993	411.473	0.222	0.267	***5.789***	16.503	5.826
2023-08-27 09:02	6973375	8.164	-129.24	275.122	16.478	383.723	411.397	0.222	0.267	***5.680***	16.478	5.83
2023-08-27 09:17	6974275	8.172	-129.645	270.585	16.448	383.836	411.774	0.223	0.268	***5.738***	16.448	5.727
2023-08-27 09:32	6975175	8.165	-129.256	274.898	16.43	383.733	411.81	0.223	0.268	***5.934***	16.43	5.477
2023-08-27 09:47	6976075	8.061	-123.663	281.722	16.405	383.799	412.096	0.223	0.268	***5.800***	16.405	5.595
2023-08-27 10:02	6976975	8.102	-125.895	280.935	16.387	383.677	412.116	0.223	0.268	***5.775***	16.387	5.432
2023-08-27 10:17	6977875	8.120	-126.839	279.948	16.36	383.369	412.011	0.223	0.268	***5.789***	16.36	5.6
2023-08-27 10:32	6978775	8.173	-129.697	280.551	16.359	382.903	411.52	0.222	0.267	***5.854***	16.359	5.164
2023-08-27 10:47	6979675	8.165	-129.254	282.199	16.356	382.728	411.362	0.222	0.267	***5.948***	16.356	5.253
2023-08-27 11:02	6980575	8.183	-130.224	283.102	16.358	382.471	411.067	0.222	0.267	***6.273***	16.358	5.313
2023-08-27 11:17	6981475	8.236	-133.052	278.172	16.369	383.025	411.566	0.222	0.268	***6.296***	16.369	5.556
2023-08-27 11:32	6982375	8.193	-130.761	281.402	16.38	383.098	411.557	0.222	0.268	***6.215***	16.38	5.134
2023-08-27 11:47	6983275	8.160	-128.987	287.742	16.393	383.238	411.598	0.222	0.268	***6.148***	16.393	5.057
2023-08-27 12:02	6984175	8.136	-127.707	292.651	16.412	383.456	411.669	0.222	0.268	***6.344***	16.412	4.925
2023-08-27 12:17	6985075	8.134	-127.633	292.801	16.424	384.05	412.203	0.223	0.268	***6.102***	16.424	5.01
2023-08-27 12:32	6985975	8.127	-127.273	292.007	16.461	384.358	412.226	0.223	0.268	***5.860***	16.461	6.567
2023-08-27 12:47	6986875	8.125	-127.141	292.455	16.486	384.613	412.286	0.223	0.268	***5.674***	16.486	5.231
2023-08-27 13:02	6987775	8.127	-127.277	293.29	16.51	384.984	412.482	0.223	0.268	***5.686***	16.51	5.04
2023-08-27 13:17	6988675	8.186	-130.475	281.283	16.553	384.139	411.214	0.222	0.267	***5.687***	16.553	5.137
2023-08-27 13:32	6989575	8.440	-144.131	280.687	16.575	384.432	411.337	0.222	0.267	***5.868***	16.575	4.965
2023-08-27 13:47	6990475	8.484	-146.492	280.656	16.61	383.497	410.045	0.221	0.267	***5.864***	16.61	4.767
2023-08-27 14:02	6991375	8.630	-154.366	274.386	16.644	382.913	409.138	0.221	0.266	***6.032***	16.644	4.841
2023-08-27 14:17	6992275	8.528	-148.919	273.971	16.673	383.809	409.858	0.221	0.266	6.540	16.673	4.87
2023-08-27 14:32	6993175	8.692	-157.721	266.127	16.697	383.719	409.561	0.221	0.266	7.023	16.697	4.885
2023-08-27 14:47	6994075	8.730	-159.781	266.277	16.72	383.177	408.783	0.221	0.266	7.872	16.72	4.775
2023-08-27 15:02	6994975	8.741	-160.37	262.844	16.737	382.934	408.384	0.221	0.265	8.331	16.737	4.862
2023-08-27 15:17	6995875	8.755	-161.145	252.558	16.772	382.332	407.456	0.220	0.265	7.524	16.772	4.801
2023-08-27 15:32	6996775	8.833	-165.329	249.502	16.777	382.815	407.925	0.220	0.265	7.855	16.777	4.882
2023-08-27 15:47	6997675	8.795	-163.302	255.291	16.794	383.06	408.048	0.220	0.265	8.137	16.794	4.937
2023-08-27 16:02	6998575	8.861	-166.845	261.914	16.807	383.3	408.193	0.220	0.265	8.340	16.807	4.754
2023-08-27 16:17	6999475	8.818	-164.58	258.943	16.813	382.217	406.989	0.220	0.265	8.228	16.813	5.079
2023-08-27 16:32	7000375	8.890	-168.469	249.087	16.848	382.913	407.446	0.220	0.265	8.403	16.848	4.72
2023-08-27 16:47	7001275	8.813	-164.335	252.487	16.865	383.053	407.451	0.220	0.265	8.854	16.865	4.682
2023-08-27 17:02	7002175	8.822	-164.814	251.85	16.893	383.329	407.509	0.220	0.265	8.699	16.893	4.689
2023-08-27 17:17	7003075	8.788	-163.043	242.662	16.937	384.146	408.019	0.220	0.265	8.901	16.937	4.686
2023-08-27 17:32	7003975	8.752	-161.095	247.511	16.971	384.903	408.536	0.221	0.266	9.043	16.971	4.823
2023-08-27 17:47	7004875	8.636	-154.898	255.403	16.999	385.438	408.871	0.221	0.266	8.784	16.999	4.819

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-27 18:02	7005775	8.657	-156.023	245.561	17.033	385.67	408.84	0.221	0.266	8.841	17.033	4.667
2023-08-27 18:17	7006675	8.714	-159.09	239.054	17.043	385.736	408.826	0.221	0.266	8.904	17.043	4.488
2023-08-27 18:32	7007575	8.718	-159.342	246.72	17.088	385.816	408.535	0.220	0.266	8.675	17.088	4.515
2023-08-27 18:47	7008475	8.916	-170.002	244.333	17.125	384.909	407.277	0.220	0.265	8.731	17.125	4.482
2023-08-27 19:02	7009375	***9.040***	-176.709	239.467	17.154	384.192	406.279	0.219	0.264	8.999	17.154	4.379
2023-08-27 19:17	7010275	8.974	-173.187	234.782	17.179	384.308	406.196	0.219	0.264	9.285	17.179	4.543
2023-08-27 19:32	7011175	***9.169***	-183.713	232.183	17.232	383.461	404.864	0.218	0.263	10.306	17.232	4.747
2023-08-27 19:47	7012075	***9.190***	-184.844	230.684	17.26	383.632	404.817	0.218	0.263	11.282	17.26	4.762
2023-08-27 20:02	7012975	***9.182***	-184.448	230.874	17.284	383.632	404.618	0.218	0.263	11.326	17.284	4.81
2023-08-27 20:17	7013875	***9.186***	-184.631	225.283	17.297	384.657	405.596	0.219	0.264	11.507	17.297	4.702
2023-08-27 20:32	7014775	***9.210***	-185.969	229.532	17.333	384.272	404.895	0.218	0.263	11.542	17.333	4.693
2023-08-27 20:47	7015675	***9.220***	-186.522	231.573	17.368	384.081	404.412	0.218	0.263	11.249	17.368	4.605
2023-08-27 21:02	7016575	***9.218***	-186.441	232.205	17.403	383.973	404.01	0.218	0.263	11.600	17.403	4.589
2023-08-27 21:17	7017475	***9.186***	-184.731	224.025	17.434	384.839	404.669	0.218	0.263	11.826	17.434	5.02
2023-08-27 21:32	7018375	***9.207***	-185.924	227.222	17.506	386.167	405.484	0.219	0.264	11.384	17.506	4.807
2023-08-27 21:47	7019275	***9.169***	-183.88	230.095	17.547	387.442	406.484	0.219	0.264	11.109	17.547	4.872
2023-08-27 22:02	7020175	***9.117***	-181.096	234.205	17.588	388.628	407.397	0.220	0.265	10.732	17.588	4.874
2023-08-27 22:17	7021075	***9.002***	-174.906	232.705	17.578	389.545	408.441	0.220	0.265	10.570	17.578	4.796
2023-08-27 22:32	7021975	***9.002***	-174.932	238.139	17.615	390.257	408.884	0.220	0.266	10.123	17.615	4.713
2023-08-27 22:47	7022875	8.979	-173.717	239.963	17.639	391.011	409.479	0.221	0.266	9.907	17.639	4.591
2023-08-27 23:02	7023775	8.934	-171.313	244.242	17.659	391.378	409.695	0.221	0.266	9.928	17.659	4.718
2023-08-27 23:17	7024676	8.900	-169.485	239.619	17.655	391.831	410.208	0.221	0.267	9.436	17.655	4.787
2023-08-27 23:32	7025576	8.868	-167.782	244.176	17.696	392.435	410.5	0.221	0.267	9.538	17.696	4.685
2023-08-27 23:47	7026476	8.825	-165.415	245.215	17.69	392.534	410.653	0.221	0.267	9.210	17.69	4.778
2023-08-28 00:02	7027376	8.838	-166.13	226.85	17.714	392.71	410.641	0.221	0.267	9.188	17.714	4.798
2023-08-28 00:17	7028276	8.768	-162.38	223.204	17.7	393.123	411.187	0.222	0.267	8.969	17.7	4.775
2023-08-28 00:32	7029176	8.749	-161.331	233.115	17.708	393.437	411.448	0.222	0.267	8.516	17.708	4.818
2023-08-28 00:47	7030076	8.737	-160.67	242.495	17.701	393.378	411.444	0.222	0.267	8.568	17.701	4.85
2023-08-28 01:02	7030976	8.715	-159.5	249.621	17.689	393.371	411.533	0.222	0.267	8.482	17.689	4.664
2023-08-28 01:17	7031876	8.664	-156.734	249.929	17.658	393.832	412.273	0.222	0.268	7.977	17.658	4.838
2023-08-28 01:32	7032776	8.605	-153.573	239.889	17.669	393.865	412.219	0.222	0.268	7.992	17.669	4.82
2023-08-28 01:47	7033676	8.589	-152.702	241.315	17.642	393.916	412.495	0.222	0.268	7.822	17.642	4.754
2023-08-28 02:02	7034576	8.555	-150.85	242.314	17.611	393.703	412.529	0.222	0.268	7.967	17.611	4.755
2023-08-28 02:17	7035476	8.538	-149.865	239.155	17.538	393.216	412.615	0.223	0.268	7.880	17.538	4.437
2023-08-28 02:32	7036376	8.536	-149.76	244.838	17.533	393.195	412.638	0.223	0.268	7.890	17.533	4.711
2023-08-28 02:47	7037276	8.507	-148.16	252.654	17.492	392.902	412.668	0.223	0.268	7.734	17.492	4.603
2023-08-28 03:02	7038176	8.471	-146.208	258.426	17.458	392.606	412.639	0.223	0.268	7.626	17.458	4.88
2023-08-28 03:17	7039076	8.453	-145.195	251.855	17.342	391.973	412.94	0.223	0.268	7.173	17.342	5.842
2023-08-28 03:32	7039976	8.386	-141.559	246.917	17.329	391.903	412.971	0.223	0.268	7.636	17.329	5.28
2023-08-28 03:47	7040876	8.443	-144.649	243.878	17.285	391.44	412.852	0.223	0.268	7.693	17.285	5.192
2023-08-28 04:02	7041776	8.449	-144.942	245.933	17.242	391.116	412.869	0.223	0.268	7.625	17.242	5.059
2023-08-28 04:17	7042676	8.440	-144.398	245.444	17.155	390.281	412.709	0.223	0.268	7.257	17.155	5.035
2023-08-28 04:32	7043576	8.344	-139.182	243.692	17.039	390.811	414.239	0.224	0.269	6.972	17.039	8.271
2023-08-28 04:47	7044476	8.331	-138.469	215.947	16.98	390.051	413.931	0.224	0.269	7.157	16.98	7.973
2023-08-28 05:02	7045376	8.303	-136.933	226.599	16.948	388.92	412.993	0.223	0.268	7.633	16.948	7.612
2023-08-28 05:17	7046276	8.357	-139.806	232.391	16.873	388.045	412.693	0.223	0.268	7.006	16.873	9.65
2023-08-28 05:32	7047176	8.366	-140.257	241.126	16.862	387.972	412.707	0.223	0.268	7.120	16.862	7.846
2023-08-28 05:47	7048076	8.351	-139.47	244.624	16.815	387.713	412.829	0.223	0.268	7.175	16.815	7.69
2023-08-28 06:02	7048976	8.342	-138.927	247.418	16.764	387.34	412.855	0.223	0.268	7.327	16.764	7.948
2023-08-28 06:17	7049876	8.345	-139.067	245.463	16.692	386.145	412.185	0.223	0.268	7.992	16.692	7.5
2023-08-28 06:32	7050776	8.336	-138.564	250.928	16.656	385.592	411.902	0.223	0.268	6.903	16.656	7.237
2023-08-28 06:47	7051676	8.329	-138.195	252.883	16.605	385.115	411.82	0.222	0.268	6.943	16.605	6.795
2023-08-28 07:02	7052576	8.309	-137.048	254.683	16.55	384.728	411.866	0.223	0.268	6.991	16.55	6.272
2023-08-28 07:17	7053476	8.320	-137.653	250.026	16.494	384.768	412.382	0.223	0.268	6.710	16.494	7.193
2023-08-28 07:32	7054376	8.288	-135.92	255.863	16.461	384.538	412.414	0.223	0.268	6.990	16.461	6.025
2023-08-28 07:47	7055276	8.293	-136.123	257.768	16.409	384.121	412.405	0.223	0.268	6.909	16.409	5.959

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-28 08:02	7056176	8.266	-134.659	260.567	16.366	384.282	412.947	0.223	0.268	6.865	16.366	5.46
2023-08-28 08:17	7057076	8.228	-132.592	257.057	16.298	383.796	412.999	0.223	0.268	6.716	16.298	5.34
2023-08-28 08:32	7057976	8.178	-129.917	263.108	16.292	383.858	413.119	0.223	0.269	7.033	16.292	4.899
2023-08-28 08:47	7058876	8.162	-129.054	267.417	16.264	383.784	413.277	0.223	0.269	6.655	16.264	5.048
2023-08-28 09:02	7059776	8.170	-129.452	270.44	16.244	384.004	413.678	0.224	0.269	7.121	16.244	4.97
2023-08-28 09:17	7060676	8.206	-131.359	262.939	16.21	383.079	412.975	0.223	0.268	7.094	16.21	5.272
2023-08-28 09:32	7061576	8.231	-132.73	263.581	16.223	382.8	412.56	0.223	0.268	7.028	16.223	4.878
2023-08-28 09:47	7062476	8.244	-133.414	264.851	16.22	382.701	412.483	0.223	0.268	7.964	16.22	4.789
2023-08-28 10:02	7063376	8.296	-136.213	265.743	16.217	382.392	412.173	0.223	0.268	8.220	16.217	4.93
2023-08-28 10:17	7064276	8.335	-138.314	261.778	16.209	381.598	411.385	0.222	0.267	8.193	16.209	5.649
2023-08-28 10:32	7065176	8.367	-140.018	266.637	16.222	381.412	411.074	0.222	0.267	8.280	16.222	9.249
2023-08-28 10:47	7066076	8.325	-137.758	267.584	16.237	381.639	411.189	0.222	0.267	7.295	16.237	4.609
2023-08-28 11:02	7066976	8.363	-139.816	269.906	16.262	381.677	411.025	0.222	0.267	7.578	16.262	4.625
2023-08-28 11:17	7067876	8.423	-143.051	258.979	16.293	381.943	411.05	0.222	0.267	7.626	16.293	4.553
2023-08-28 11:32	7068776	8.439	-143.924	261.821	16.319	381.698	410.561	0.222	0.267	8.022	16.319	4.52
2023-08-28 11:47	7069676	8.477	-145.979	266.577	16.351	381.918	410.534	0.222	0.267	7.908	16.351	4.374
2023-08-28 12:02	7070576	8.370	-140.29	270.259	16.398	382.881	411.166	0.222	0.267	7.654	16.398	4.253
2023-08-28 12:17	7071476	8.409	-142.386	272.683	16.446	383.41	411.335	0.222	0.267	6.928	16.446	4.629
2023-08-28 12:32	7072376	8.494	-146.978	266.432	16.492	383.22	410.743	0.222	0.267	7.179	16.492	4.137
2023-08-28 12:47	7073276	8.526	-148.742	262.577	16.543	383.493	410.606	0.222	0.267	7.522	16.543	4.044
2023-08-28 13:02	7074176	8.511	-147.946	260.817	16.584	383.669	410.446	0.222	0.267	7.692	16.584	4.019
2023-08-28 13:17	7075076	8.526	-148.764	253.65	16.652	384.333	410.59	0.222	0.267	7.790	16.652	4.343
2023-08-28 13:32	7075976	8.484	-146.563	257.527	16.702	384.882	410.755	0.222	0.267	7.781	16.702	4.137
2023-08-28 13:47	7076876	8.498	-147.324	263.533	16.753	385.247	410.719	0.222	0.267	7.598	16.753	4.147
2023-08-28 14:02	7077776	8.556	-150.483	262.298	16.812	385.585	410.584	0.222	0.267	7.676	16.812	3.954
2023-08-28 14:17	7078676	8.543	-149.796	261.633	16.867	385.759	410.311	0.222	0.267	7.727	16.867	4.119
2023-08-28 14:32	7079576	8.600	-152.903	259.482	16.898	386.396	410.732	0.222	0.267	7.896	16.898	4.121
2023-08-28 14:47	7080476	8.648	-155.504	263.004	16.933	386.517	410.57	0.222	0.267	7.836	16.933	4.047
2023-08-28 15:02	7081376	8.681	-157.294	259.628	16.961	386.606	410.433	0.222	0.267	8.220	16.961	4.122
2023-08-28 15:17	7082276	8.674	-156.903	250.37	16.987	386.207	409.791	0.221	0.266	8.168	16.987	4.042
2023-08-28 15:32	7083176	8.662	-156.305	249.769	17.025	386.484	409.765	0.221	0.266	9.549	17.025	4.096
2023-08-28 15:47	7084076	8.680	-157.254	251.831	17.067	386.786	409.743	0.221	0.266	8.642	17.067	4.103
2023-08-28 16:02	7084976	8.706	-158.715	250.801	17.095	387.01	409.746	0.221	0.266	9.504	17.095	4.069
2023-08-28 16:17	7085876	8.704	-158.596	245.022	17.1	386.925	409.617	0.221	0.266	8.266	17.1	4.057
2023-08-28 16:32	7086776	8.705	-158.656	245.692	17.124	387.172	409.674	0.221	0.266	9.756	17.124	3.996
2023-08-28 16:47	7087676	8.687	-157.695	246.205	17.141	387.436	409.812	0.221	0.266	9.084	17.141	4.024
2023-08-28 17:02	7088576	8.719	-159.419	249.147	17.16	387.673	409.904	0.221	0.266	9.704	17.16	3.958
2023-08-28 17:17	7089476	8.715	-159.245	246.66	17.171	387.801	409.956	0.221	0.266	8.108	17.171	3.95
2023-08-28 17:32	7090376	8.742	-160.723	247.68	17.236	388.286	409.929	0.221	0.266	8.332	17.236	4.099
2023-08-28 17:47	7091276	8.738	-160.508	246.567	17.271	388.682	410.055	0.221	0.267	8.597	17.271	4.041
2023-08-28 18:02	7092176	8.682	-157.502	248.741	17.316	389.17	410.197	0.221	0.267	8.813	17.316	4.122
2023-08-28 18:17	7093076	8.773	-162.435	240.58	17.335	388.619	409.463	0.221	0.266	8.857	17.335	3.965
2023-08-28 18:32	7093976	8.794	-163.591	242.981	17.37	388.918	409.484	0.221	0.266	9.254	17.37	3.969
2023-08-28 18:47	7094876	8.791	-163.434	247.866	17.385	389.084	409.543	0.221	0.266	9.362	17.385	3.957
2023-08-28 19:02	7095776	8.810	-164.433	250.119	17.387	389.18	409.623	0.221	0.266	9.470	17.387	3.901
2023-08-28 19:17	7096676	8.763	-161.92	248.791	17.348	389.362	410.138	0.221	0.267	9.096	17.348	4.705
2023-08-28 19:32	7097576	8.733	-160.284	247.38	17.369	389.28	409.878	0.221	0.266	8.897	17.369	4.042
2023-08-28 19:47	7098476	8.749	-161.138	247.13	17.36	389.324	409.999	0.221	0.266	9.053	17.36	4.11
2023-08-28 20:02	7099376	8.755	-161.493	244.533	17.356	389.335	410.045	0.221	0.267	9.081	17.356	4.178
2023-08-28 20:17	7100276	8.753	-161.357	240.611	17.342	388.94	409.742	0.221	0.266	9.146	17.342	4.157
2023-08-28 20:32	7101176	8.787	-163.193	243.479	17.351	389.118	409.859	0.221	0.266	9.185	17.351	4.01
2023-08-28 20:47	7102076	8.782	-162.95	245.585	17.367	389.315	409.929	0.221	0.266	9.205	17.367	4.097
2023-08-28 21:02	7102976	8.887	-168.595	237.128	17.391	389.27	409.682	0.221	0.266	9.518	17.391	4.142
2023-08-28 21:17	7103876	8.922	-170.507	233.697	17.443	388.333	408.27	0.220	0.265	9.542	17.443	4.226
2023-08-28 21:32	7104776	***9.082***	-179.167	230.846	17.472	388.417	408.126	0.220	0.265	10.141	17.472	4.112
2023-08-28 21:47	7105676	***9.145***	-182.598	228.276	17.499	388.205	407.683	0.220	0.265	9.985	17.499	4.117

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-28 22:02	7106576	***9.149***	-182.786	227.31	17.517	388.245	407.571	0.220	0.265	10.043	17.517	3.936
2023-08-28 22:17	7107476	***9.085***	-179.343	225.629	17.528	389.114	408.393	0.220	0.265	10.113	17.528	3.954
2023-08-28 22:32	7108376	***9.168***	-183.823	227.66	17.551	389.444	408.554	0.220	0.266	10.490	17.551	3.917
2023-08-28 22:47	7109276	***9.127***	-181.62	229.184	17.558	389.976	409.059	0.221	0.266	10.230	17.558	3.951
2023-08-28 23:02	7110176	***9.099***	-180.123	229.42	17.559	390.329	409.415	0.221	0.266	9.957	17.559	3.953
2023-08-28 23:17	7111076	***9.035***	-176.671	229.422	17.56	389.242	408.273	0.220	0.265	9.565	17.56	3.94
2023-08-28 23:32	7111976	***9.031***	-176.47	232.98	17.581	389.417	408.281	0.220	0.265	9.855	17.581	3.966
2023-08-28 23:47	7112876	***9.030***	-176.427	233.287	17.588	389.462	408.273	0.220	0.265	9.823	17.588	3.996
2023-08-29 00:02	7113776	8.999	-174.77	235.64	17.592	389.861	408.657	0.220	0.266	9.651	17.592	3.977
2023-08-29 00:17	7114676	8.966	-172.963	233.115	17.572	390.502	409.492	0.221	0.266	9.527	17.572	3.887
2023-08-29 00:32	7115576	8.973	-173.347	236.112	17.585	390.744	409.639	0.221	0.266	9.821	17.585	3.863
2023-08-29 00:47	7116476	8.995	-174.537	239.04	17.59	390.681	409.53	0.221	0.266	10.139	17.59	3.94
2023-08-29 01:02	7117376	***9.004***	-175.021	241.484	17.594	390.714	409.536	0.221	0.266	10.168	17.594	3.895
2023-08-29 01:17	7118276	8.959	-172.57	242.156	17.569	390.8	409.833	0.221	0.266	10.545	17.569	3.755
2023-08-29 01:32	7119176	8.919	-170.422	235.929	17.57	390.756	409.778	0.221	0.266	9.643	17.57	3.84
2023-08-29 01:47	7120076	8.879	-168.245	231.764	17.544	391.354	410.613	0.221	0.267	9.219	17.544	3.999
2023-08-29 02:02	7120976	8.815	-164.785	234.648	17.511	391.912	411.472	0.222	0.267	8.822	17.511	3.981
2023-08-29 02:17	7121876	8.703	-158.713	236.32	17.439	392.015	412.177	0.222	0.268	9.053	17.439	3.913
2023-08-29 02:32	7122776	8.670	-156.951	242.12	17.421	392.028	412.336	0.222	0.268	8.747	17.421	3.865
2023-08-29 02:47	7123676	8.622	-154.333	249.776	17.377	391.753	412.417	0.223	0.268	9.862	17.377	3.831
2023-08-29 03:02	7124576	8.605	-153.391	256.111	17.318	391.392	412.523	0.223	0.268	9.163	17.318	3.812
2023-08-29 03:17	7125476	8.612	-153.735	253.865	17.238	390.486	412.236	0.222	0.268	9.063	17.238	4.061
2023-08-29 03:32	7126376	8.596	-152.845	253.195	17.219	390.432	412.337	0.223	0.268	9.307	17.219	3.927
2023-08-29 03:47	7127276	8.571	-151.439	254.716	17.163	390.126	412.478	0.223	0.268	9.306	17.163	3.959
2023-08-29 04:02	7128176	8.542	-149.872	255.615	17.107	389.525	412.305	0.223	0.268	9.517	17.107	3.972
2023-08-29 04:17	7129076	8.570	-151.339	249.736	17.023	388.461	411.881	0.222	0.268	9.318	17.023	4.052
2023-08-29 04:32	7129976	8.556	-150.547	250.78	16.99	387.905	411.569	0.222	0.268	9.313	16.99	3.847
2023-08-29 04:47	7130876	8.564	-150.988	252.136	16.938	387.365	411.427	0.222	0.267	9.416	16.938	3.827
2023-08-29 05:02	7131776	8.559	-150.664	254.053	16.875	386.85	411.405	0.222	0.267	9.143	16.875	3.807
2023-08-29 05:17	7132676	8.551	-150.17	237.443	16.793	387.032	412.288	0.223	0.268	8.938	16.793	3.934
2023-08-29 05:32	7133576	8.498	-147.331	242.08	16.77	386.538	411.954	0.222	0.268	9.196	16.77	3.849
2023-08-29 05:47	7134476	8.428	-143.518	252.296	16.706	386.521	412.472	0.223	0.268	8.730	16.706	3.7
2023-08-29 06:02	7135376	8.438	-144.036	262.565	16.642	385.939	412.391	0.223	0.268	8.689	16.642	3.693
2023-08-29 06:17	7136276	8.454	-144.832	265.304	16.514	384.725	412.171	0.223	0.268	8.690	16.514	3.784
2023-08-29 06:32	7137176	8.450	-144.587	263.34	16.489	383.995	411.596	0.222	0.268	8.845	16.489	3.72
2023-08-29 06:47	7138076	8.411	-142.529	264.177	16.46	384.188	412.051	0.223	0.268	8.561	16.46	3.663
2023-08-29 07:02	7138976	8.349	-139.148	262.665	16.406	383.949	412.246	0.223	0.268	8.445	16.406	3.656
2023-08-29 07:17	7139876	8.389	-141.239	255.546	16.334	384.019	412.932	0.223	0.268	7.854	16.334	3.802
2023-08-29 07:32	7140776	8.355	-139.427	263.793	16.308	384.365	413.523	0.224	0.269	8.007	16.308	3.735
2023-08-29 07:47	7141676	8.282	-135.493	272.762	16.262	384.642	414.212	0.224	0.269	7.791	16.262	3.568
2023-08-29 08:02	7142576	8.280	-135.345	275.449	16.213	384.676	414.67	0.224	0.270	7.873	16.213	3.584
2023-08-29 08:17	7143476	8.250	-133.715	277.225	16.148	383.34	413.786	0.224	0.269	8.132	16.148	5.16
2023-08-29 08:32	7144376	8.258	-134.118	272.34	16.124	381.927	412.463	0.223	0.268	7.732	16.124	3.563
2023-08-29 08:47	7145276	8.266	-134.53	271.064	16.091	381.279	412.046	0.223	0.268	7.829	16.091	3.562
2023-08-29 09:02	7146176	8.285	-135.541	269.801	16.068	381.051	411.996	0.223	0.268	7.916	16.068	3.496
2023-08-29 09:17	7147076	8.324	-137.62	266.074	16.05	381.775	412.931	0.223	0.268	7.870	16.05	3.765
2023-08-29 09:32	7147976	8.258	-134.087	265.245	16.051	381.878	413.034	0.223	0.268	7.999	16.051	3.657
2023-08-29 09:47	7148876	8.208	-131.431	271.281	16.045	381.938	413.145	0.223	0.269	8.213	16.045	3.455
2023-08-29 10:02	7149776	8.183	-130.095	276.772	16.041	381.789	413.018	0.223	0.268	8.521	16.041	3.313
2023-08-29 10:17	7150676	8.220	-132.06	279.977	16.036	381.659	412.926	0.223	0.268	8.500	16.036	3.566
2023-08-29 10:32	7151576	8.247	-133.531	275.513	16.047	380.862	411.969	0.223	0.268	7.889	16.047	3.594
2023-08-29 10:47	7152476	8.283	-135.465	276.45	16.059	380.593	411.577	0.223	0.268	8.014	16.059	3.864
2023-08-29 11:02	7153376	8.292	-135.915	276.098	16.069	380.393	411.272	0.222	0.267	8.437	16.069	3.571
2023-08-29 11:17	7154276	8.371	-140.195	267.493	16.093	381.448	412.204	0.223	0.268	8.555	16.093	3.536
2023-08-29 11:32	7155176	8.302	-136.497	271.298	16.114	381.75	412.358	0.223	0.268	7.987	16.114	3.56
2023-08-29 11:47	7156076	8.293	-136.027	278.205	16.144	382.061	412.439	0.223	0.268	7.612	16.144	3.529

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-29 12:02	7156976	8.371	-140.247	278.007	16.185	382.113	412.146	0.223	0.268	7.727	16.185	3.414
2023-08-29 12:17	7157876	8.395	-141.54	276.078	16.225	382.387	412.103	0.223	0.268	7.546	16.225	3.562
2023-08-29 12:32	7158776	8.481	-146.163	269.92	16.277	381.857	411.087	0.222	0.267	7.815	16.277	3.536
2023-08-29 12:47	7159676	8.531	-148.88	266.279	16.334	381.813	410.561	0.222	0.267	8.583	16.334	3.554
2023-08-29 13:02	7160576	8.544	-149.586	262.021	16.387	381.814	410.119	0.222	0.267	8.736	16.387	3.522
2023-08-29 13:17	7161476	8.588	-152.001	259.63	16.472	381.949	409.543	0.221	0.266	8.690	16.472	3.532
2023-08-29 13:32	7162376	8.769	-161.781	247.823	16.598	382.257	408.821	0.221	0.266	9.276	16.598	3.628
2023-08-29 13:47	7163276	8.792	-163.112	241.546	16.706	382.869	408.573	0.221	0.266	9.834	16.706	3.675
2023-08-29 14:02	7164176	8.878	-167.782	232.114	16.805	383.289	408.203	0.220	0.265	10.361	16.805	3.67
2023-08-29 14:17	7165076	8.944	-171.394	223.703	16.899	383.773	407.938	0.220	0.265	10.487	16.899	3.751
2023-08-29 14:32	7165976	8.918	-170.035	228.092	17.022	384.827	408.037	0.220	0.265	11.338	17.022	3.633
2023-08-29 14:47	7166876	8.892	-168.664	234.451	17.052	385.298	408.29	0.220	0.265	11.306	17.052	3.523
2023-08-29 15:02	7167776	8.867	-167.332	241.718	17.075	385.679	408.498	0.220	0.266	11.159	17.075	3.515
2023-08-29 15:17	7168676	8.885	-168.302	241.241	17.072	385.891	408.752	0.221	0.266	11.318	17.072	3.671
2023-08-29 15:32	7169576	8.859	-166.972	239.834	17.165	386.969	409.12	0.221	0.266	11.261	17.165	3.65
2023-08-29 15:47	7170476	8.861	-167.122	236.365	17.208	387.536	409.365	0.221	0.266	10.800	17.208	3.675
2023-08-29 16:02	7171376	8.830	-165.467	239.054	17.245	387.928	409.472	0.221	0.266	11.386	17.245	3.701
2023-08-29 16:17	7172276	8.848	-166.404	237.812	17.247	387.447	408.953	0.221	0.266	10.722	17.247	3.84
2023-08-29 16:32	7173176	8.862	-167.162	235.492	17.263	387.599	408.978	0.221	0.266	10.796	17.263	3.743
2023-08-29 16:47	7174076	8.859	-167.055	236.236	17.29	387.794	408.961	0.221	0.266	10.904	17.29	3.813
2023-08-29 17:02	7174976	8.894	-168.934	233.258	17.31	387.975	408.988	0.221	0.266	11.088	17.31	3.735
2023-08-29 17:17	7175876	8.917	-170.188	229.263	17.329	388.276	409.15	0.221	0.266	10.956	17.329	3.752
2023-08-29 17:32	7176776	8.903	-169.449	229.127	17.329	388.32	409.2	0.221	0.266	10.945	17.329	3.749
2023-08-29 17:47	7177676	8.874	-167.89	235.34	17.328	388.549	409.444	0.221	0.266	10.741	17.328	3.793
2023-08-29 18:02	7178576	8.851	-166.643	240.261	17.328	388.775	409.681	0.221	0.266	10.558	17.328	3.798
2023-08-29 18:17	7179476	8.827	-165.331	243.179	17.311	388.309	409.332	0.221	0.266	10.430	17.311	3.658
2023-08-29 18:32	7180376	8.900	-169.275	227.88	17.339	388.535	409.337	0.221	0.266	10.991	17.339	3.701
2023-08-29 18:47	7181276	8.905	-169.551	230.874	17.358	388.659	409.315	0.221	0.266	11.062	17.358	3.647
2023-08-29 19:02	7182176	8.904	-169.492	232.248	17.368	388.706	409.279	0.221	0.266	11.279	17.368	3.724
2023-08-29 19:17	7183076	8.896	-169.067	231.091	17.375	388.728	409.243	0.221	0.266	10.814	17.375	3.753
2023-08-29 19:32	7183976	8.894	-168.958	228.459	17.366	388.937	409.537	0.221	0.266	10.917	17.366	3.758
2023-08-29 19:47	7184876	8.857	-166.96	233.509	17.357	389.094	409.779	0.221	0.266	10.896	17.357	3.716
2023-08-29 20:02	7185776	8.838	-165.946	240.475	17.351	389.188	409.93	0.221	0.266	10.769	17.351	3.781
2023-08-29 20:17	7186676	8.816	-164.754	243.785	17.345	388.698	409.465	0.221	0.266	10.496	17.345	3.663
2023-08-29 20:32	7187576	8.890	-168.724	235.461	17.347	388.949	409.709	0.221	0.266	10.653	17.347	3.678
2023-08-29 20:47	7188476	8.876	-167.999	237.912	17.347	388.948	409.705	0.221	0.266	10.707	17.347	3.738
2023-08-29 21:02	7189376	8.881	-168.269	240.03	17.348	388.937	409.685	0.221	0.266	10.497	17.348	3.728
2023-08-29 21:17	7190276	8.864	-167.334	236.754	17.352	389.011	409.738	0.221	0.266	10.544	17.352	3.779
2023-08-29 21:32	7191176	8.827	-165.334	241.126	17.358	389.047	409.723	0.221	0.266	10.654	17.358	3.763
2023-08-29 21:47	7192076	8.839	-165.977	242.836	17.361	389.133	409.792	0.221	0.266	10.934	17.361	3.642
2023-08-29 22:02	7192976	8.832	-165.639	243.744	17.362	389.224	409.871	0.221	0.266	10.768	17.362	3.634
2023-08-29 22:17	7193876	8.828	-165.405	241.231	17.352	389.369	410.112	0.221	0.267	10.596	17.352	3.751
2023-08-29 22:32	7194776	8.812	-164.53	245.332	17.362	389.528	410.195	0.221	0.267	10.672	17.362	3.568
2023-08-29 22:47	7195676	8.807	-164.28	249.104	17.366	389.645	410.284	0.221	0.267	10.740	17.366	3.557
2023-08-29 23:02	7196576	8.806	-164.211	252.606	17.368	389.764	410.396	0.221	0.267	10.336	17.368	3.616
2023-08-29 23:17	7197476	8.805	-164.196	250.37	17.358	389.519	410.217	0.221	0.267	10.470	17.358	3.601
2023-08-29 23:32	7198376	8.801	-163.989	251.545	17.376	389.549	410.1	0.221	0.267	10.228	17.376	3.624
2023-08-29 23:47	7199276	8.793	-163.55	252.055	17.383	390.128	410.65	0.222	0.267	10.221	17.383	3.721
2023-08-30 00:02	7200176	8.481	-146.718	251.779	17.385	390.307	410.827	0.222	0.267	9.862	17.385	3.589
2023-08-30 00:17	7201076	8.750	-161.202	249.111	17.373	390.361	410.98	0.222	0.267	9.877	17.373	3.716
2023-08-30 00:32	7201976	8.797	-163.758	251.345	17.382	390.669	411.23	0.222	0.267	10.256	17.382	3.688
2023-08-30 00:47	7202876	8.820	-164.998	252.616	17.383	390.995	411.566	0.222	0.268	9.932	17.383	3.644
2023-08-30 01:02	7203776	8.808	-164.363	254.525	17.384	391.262	411.836	0.222	0.268	9.661	17.384	3.675
2023-08-30 01:17	7204676	8.772	-162.423	246.929	17.387	390.77	411.3	0.222	0.267	9.755	17.387	3.709
2023-08-30 01:32	7205576	8.818	-164.917	249.654	17.397	390.916	411.37	0.222	0.267	10.040	17.397	3.747
2023-08-30 01:47	7206476	8.830	-165.546	251.717	17.416	390.966	411.26	0.222	0.267	9.943	17.416	3.68

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-30 02:02	7207376	8.849	-166.593	248.071	17.426	391.036	411.252	0.222	0.267	9.975	17.426	3.614
2023-08-30 02:17	7208276	8.775	-162.599	249.407	17.426	392.207	412.485	0.223	0.268	9.174	17.426	3.673
2023-08-30 02:32	7209176	8.799	-163.896	257.57	17.425	392.474	412.771	0.223	0.268	9.140	17.425	3.637
2023-08-30 02:47	7210076	8.780	-162.857	258.576	17.422	392.287	412.603	0.223	0.268	9.299	17.422	3.653
2023-08-30 03:02	7210976	8.769	-162.277	260.293	17.418	392.813	413.189	0.223	0.269	9.392	17.418	3.574
2023-08-30 03:17	7211876	8.702	-158.66	251.796	17.403	391.813	412.259	0.222	0.268	9.116	17.403	3.728
2023-08-30 03:32	7212776	8.710	-159.087	259.22	17.393	392.008	412.552	0.223	0.268	9.154	17.393	3.702
2023-08-30 03:47	7213676	8.648	-155.694	267.092	17.368	392.039	412.794	0.223	0.268	9.034	17.368	3.585
2023-08-30 04:02	7214576	8.618	-154.08	270.819	17.337	391.864	412.867	0.223	0.268	9.087	17.337	3.457
2023-08-30 04:17	7215476	8.604	-153.315	263.602	17.258	390.189	411.75	0.222	0.268	9.395	17.258	3.51
2023-08-30 04:32	7216376	8.642	-155.325	252.043	17.231	389.715	411.48	0.222	0.267	9.787	17.231	3.55
2023-08-30 04:47	7217276	8.652	-155.854	252.501	17.194	389.298	411.342	0.222	0.267	9.875	17.194	3.747
2023-08-30 05:02	7218176	8.662	-156.376	253.822	17.15	389.106	411.503	0.222	0.267	9.782	17.15	3.752
2023-08-30 05:17	7219076	8.639	-155.079	247.969	17.084	389.176	412.131	0.222	0.268	9.358	17.084	3.773
2023-08-30 05:32	7219976	8.600	-152.967	247.905	17.055	389.189	412.382	0.223	0.268	9.446	17.055	3.746
2023-08-30 05:47	7220876	8.574	-151.556	248.429	17.001	388.884	412.514	0.223	0.268	9.426	17.001	3.695
2023-08-30 06:02	7221776	8.565	-151.05	249.738	16.944	388.224	412.289	0.223	0.268	9.468	16.944	3.748
2023-08-30 06:17	7222676	8.593	-152.459	247.38	16.855	387.214	411.964	0.222	0.268	9.210	16.855	3.499
2023-08-30 06:32	7223576	8.546	-149.925	252.494	16.834	387.161	412.082	0.223	0.268	9.248	16.834	3.555
2023-08-30 06:47	7224476	8.520	-148.54	260.145	16.78	386.712	412.051	0.223	0.268	9.707	16.78	3.519
2023-08-30 07:02	7225376	8.494	-147.104	262.508	16.732	386.271	411.984	0.223	0.268	9.517	16.732	3.506
2023-08-30 07:17	7226276	8.537	-149.388	260.312	16.664	385.364	411.587	0.222	0.268	9.281	16.664	3.574
2023-08-30 07:32	7227176	8.566	-150.928	257.21	16.649	385.36	411.713	0.222	0.268	9.300	16.649	3.567
2023-08-30 07:47	7228076	8.566	-150.926	255.241	16.605	385.06	411.759	0.222	0.268	9.225	16.605	3.543
2023-08-30 08:02	7228976	8.560	-150.583	253.371	16.558	384.64	411.71	0.222	0.268	9.255	16.558	3.506
2023-08-30 08:17	7229876	8.561	-150.561	250.909	16.487	383.933	411.544	0.222	0.268	8.862	16.487	3.698
2023-08-30 08:32	7230776	8.545	-149.693	253.841	16.464	383.263	411.021	0.222	0.267	9.357	16.464	3.521
2023-08-30 08:47	7231676	8.545	-149.672	255.67	16.433	383.218	411.232	0.222	0.267	8.990	16.433	3.383
2023-08-30 09:02	7232576	8.552	-150.061	255.732	16.417	383.206	411.359	0.222	0.267	9.133	16.417	3.386
2023-08-30 09:17	7233476	8.591	-152.13	251.235	16.407	383.577	411.841	0.223	0.268	8.992	16.407	3.933
2023-08-30 09:32	7234376	8.557	-150.33	249.979	16.42	383.747	411.916	0.223	0.268	9.165	16.42	3.402
2023-08-30 09:47	7235276	8.517	-148.206	255.799	16.427	383.92	412.042	0.223	0.268	9.135	16.427	3.354
2023-08-30 10:02	7236176	8.493	-146.89	251.76	16.444	384.158	412.152	0.223	0.268	9.228	16.444	3.245
2023-08-30 10:17	7237076	8.508	-147.719	255.818	16.464	384.252	412.086	0.223	0.268	8.928	16.464	3.331
2023-08-30 10:32	7237976	8.545	-149.703	261.556	16.489	384.38	412.012	0.223	0.268	8.841	16.489	3.376
2023-08-30 10:47	7238876	8.568	-150.94	261.287	16.519	384.586	411.978	0.223	0.268	8.658	16.519	3.322
2023-08-30 11:02	7239776	8.582	-151.734	261.807	16.547	384.844	412.021	0.223	0.268	8.816	16.547	3.249
2023-08-30 11:17	7240676	8.564	-150.781	255.865	16.593	385.299	412.118	0.223	0.268	8.608	16.593	3.361
2023-08-30 11:32	7241576	8.537	-149.341	260.715	16.626	385.549	412.109	0.223	0.268	8.616	16.626	3.38
2023-08-30 11:47	7242476	8.527	-148.816	263.199	16.662	385.732	411.999	0.223	0.268	8.675	16.662	3.211
2023-08-30 12:02	7243376	8.528	-148.914	264.432	16.702	386.048	412.005	0.223	0.268	8.742	16.702	3.299
2023-08-30 12:17	7244276	8.577	-151.56	261.158	16.729	385.617	411.314	0.222	0.267	8.776	16.729	3.397
2023-08-30 12:32	7245176	8.630	-154.431	253.174	16.763	385.416	410.812	0.222	0.267	9.457	16.763	3.423
2023-08-30 12:47	7246076	8.647	-155.354	250.27	16.801	385.6	410.692	0.222	0.267	9.650	16.801	3.442
2023-08-30 13:02	7246976	8.649	-155.463	248.417	16.835	385.733	410.547	0.222	0.267	9.630	16.835	3.374
2023-08-30 13:17	7247876	8.704	-158.446	240.59	16.883	386.357	410.813	0.222	0.267	9.488	16.883	3.557
2023-08-30 13:32	7248776	8.690	-157.712	242.507	16.917	386.786	410.99	0.222	0.267	9.707	16.917	3.547
2023-08-30 13:47	7249676	8.708	-158.718	240.318	16.938	386.946	410.985	0.222	0.267	10.170	16.938	3.526
2023-08-30 14:02	7250576	8.698	-158.198	242.373	16.955	387.152	411.054	0.222	0.267	10.083	16.955	3.484
2023-08-30 14:17	7251476	8.701	-158.348	241.236	16.966	386.583	410.363	0.222	0.267	9.889	16.966	3.563
2023-08-30 14:32	7252376	8.727	-159.781	241.565	17.009	386.99	410.439	0.222	0.267	9.955	17.009	3.407
2023-08-30 14:47	7253276	8.708	-158.78	238.175	17.056	387.281	410.358	0.222	0.267	10.189	17.056	3.465
2023-08-30 15:02	7254176	8.732	-160.084	238.365	17.082	387.405	410.276	0.221	0.267	10.142	17.082	3.402
2023-08-30 15:17	7255076	8.780	-162.68	235.223	17.122	388.018	410.585	0.222	0.267	10.019	17.122	3.503
2023-08-30 15:32	7255976	8.745	-160.84	237.149	17.163	388.415	410.672	0.222	0.267	10.256	17.163	3.499
2023-08-30 15:47	7256876	8.840	-165.973	228.361	17.204	388.22	410.118	0.221	0.267	10.464	17.204	3.524

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-30 16:02	7257776	8.902	-169.33	227.927	17.218	388.131	409.91	0.221	0.266	11.503	17.218	3.511
2023-08-30 16:17	7258676	8.884	-168.343	227.808	17.196	387.818	409.765	0.221	0.266	11.153	17.196	3.494
2023-08-30 16:32	7259576	8.891	-168.688	225.138	17.196	387.853	409.802	0.221	0.266	9.151	17.196	3.432
2023-08-30 16:47	7260476	8.848	-166.359	231.806	17.181	387.559	409.613	0.221	0.266	10.797	17.181	3.492
2023-08-30 17:02	7261376	8.847	-166.333	229.325	17.181	387.643	409.706	0.221	0.266	10.737	17.181	3.458
2023-08-30 17:17	7262276	8.870	-167.542	228.037	17.172	387.831	409.977	0.221	0.266	10.804	17.172	3.668
2023-08-30 17:32	7263176	8.867	-167.427	231.382	17.199	387.926	409.856	0.221	0.266	8.423	17.199	3.531
2023-08-30 17:47	7264076	8.887	-168.5	230.75	17.197	387.955	409.899	0.221	0.266	8.610	17.197	3.553
2023-08-30 18:02	7264976	8.854	-166.714	236.043	17.196	388.094	410.053	0.221	0.267	10.819	17.196	3.567
2023-08-30 18:17	7265876	8.800	-163.77	239.877	17.17	387.985	410.158	0.221	0.267	10.533	17.17	3.464
2023-08-30 18:32	7266776	8.777	-162.508	240.549	17.131	387.71	410.185	0.221	0.267	7.969	17.131	3.482
2023-08-30 18:47	7267676	8.757	-161.417	239.808	17.095	387.323	410.079	0.221	0.267	8.126	17.095	3.495
2023-08-30 19:02	7268576	8.745	-160.77	239.925	17.057	387.166	410.224	0.221	0.267	7.993	17.057	3.426
2023-08-30 19:17	7269476	8.735	-160.253	238.241	17.05	387.386	410.52	0.222	0.267	7.816	17.05	3.54
2023-08-30 19:32	7270376	8.732	-160.069	243.944	17.052	387.505	410.63	0.222	0.267	7.739	17.052	3.496
2023-08-30 19:47	7271276	8.710	-158.911	250.265	17.054	387.678	410.79	0.222	0.267	7.507	17.054	3.531
2023-08-30 20:02	7272176	8.705	-158.615	255.148	17.095	388.047	410.843	0.222	0.267	7.198	17.095	3.508
2023-08-30 20:17	7273076	8.671	-156.844	260.398	17.155	388.561	410.887	0.222	0.267	7.703	17.155	3.537
2023-08-30 20:32	7273976	8.658	-156.174	263.628	17.184	388.763	410.859	0.222	0.267	7.873	17.184	3.457
2023-08-30 20:47	7274876	8.699	-158.415	262.412	17.229	388.828	410.559	0.222	0.267	8.078	17.229	3.443
2023-08-30 21:02	7275776	8.764	-161.915	258.753	17.267	388.93	410.348	0.221	0.267	8.277	17.267	3.408
2023-08-30 21:17	7276676	8.839	-165.956	247.978	17.295	389.113	410.309	0.221	0.267	7.697	17.295	3.596
2023-08-30 21:32	7277576	8.835	-165.787	249.154	17.321	389.132	410.117	0.221	0.267	8.175	17.321	3.527
2023-08-30 21:47	7278476	8.865	-167.377	257.177	17.359	388.676	409.322	0.221	0.266	8.697	17.359	3.469
2023-08-30 22:02	7279376	8.915	-170.14	264.079	17.421	389.884	410.083	0.221	0.267	8.659	17.421	3.483
2023-08-30 22:17	7280276	8.817	-164.852	257.58	17.455	390.566	410.525	0.221	0.267	8.571	17.455	3.521
2023-08-30 22:32	7281176	8.812	-164.621	254.792	17.479	391.105	410.893	0.222	0.267	8.601	17.479	3.62
2023-08-30 22:47	7282076	8.807	-164.349	252.101	17.487	391.017	410.734	0.222	0.267	8.497	17.487	3.593
2023-08-30 23:02	7282976	8.804	-164.182	250.336	17.485	391.245	410.984	0.222	0.267	8.431	17.485	3.435
2023-08-30 23:17	7283876	8.797	-163.834	251.09	17.486	391.572	411.319	0.222	0.267	8.155	17.486	3.573
2023-08-30 23:32	7284776	8.788	-163.305	255.67	17.489	391.757	411.489	0.222	0.267	8.431	17.489	3.58
2023-08-30 23:47	7285676	8.755	-161.552	261.518	17.479	391.844	411.664	0.222	0.268	8.377	17.479	3.534
2023-08-31 00:02	7286576	8.706	-158.913	268.332	17.463	391.955	411.915	0.222	0.268	8.117	17.463	3.464
2023-08-31 00:17	7287476	8.673	-157.096	271.57	17.407	391.026	411.404	0.222	0.267	8.117	17.407	3.495
2023-08-31 00:32	7288376	8.695	-158.243	266.008	17.405	391.141	411.54	0.222	0.268	8.271	17.405	3.536
2023-08-31 00:47	7289276	8.681	-157.49	266.07	17.391	390.956	411.459	0.222	0.267	8.281	17.391	3.538
2023-08-31 01:02	7290176	8.679	-157.411	266.098	17.374	390.936	411.581	0.222	0.268	8.426	17.374	3.462
2023-08-31 01:17	7291076	8.709	-159.016	253.474	17.344	390.644	411.52	0.222	0.267	8.319	17.344	3.493
2023-08-31 01:32	7291976	8.693	-158.145	259.742	17.334	390.731	411.691	0.222	0.268	8.724	17.334	3.505
2023-08-31 01:47	7292876	8.642	-155.377	268.168	17.308	390.711	411.89	0.222	0.268	8.461	17.308	3.437
2023-08-31 02:02	7293776	8.610	-153.596	272.071	17.276	390.496	411.926	0.222	0.268	8.611	17.276	3.471
2023-08-31 02:17	7294676	8.605	-153.322	269.105	17.207	389.998	411.971	0.222	0.268	8.328	17.207	3.443
2023-08-31 02:32	7295576	8.618	-153.98	263.535	17.187	389.533	411.653	0.222	0.268	7.897	17.187	3.409
2023-08-31 02:47	7296476	8.605	-153.282	263.862	17.145	389.055	411.494	0.222	0.267	8.110	17.145	3.429
2023-08-31 03:02	7297376	8.600	-153.008	263.623	17.098	388.965	411.789	0.222	0.268	7.245	17.098	3.369
2023-08-31 03:17	7298276	8.630	-154.581	260.424	17.041	388.835	412.123	0.222	0.268	7.380	17.041	3.494
2023-08-31 03:32	7299176	8.596	-152.75	263.442	17.016	388.687	412.18	0.223	0.268	7.604	17.016	3.454
2023-08-31 03:47	7300076	8.563	-150.936	268.795	16.967	388.299	412.174	0.223	0.268	7.603	16.967	3.476
2023-08-31 04:02	7300976	8.541	-149.698	271.401	16.917	388.003	412.277	0.223	0.268	7.641	16.917	3.449
2023-08-31 04:17	7301876	8.545	-149.889	271.003	16.849	386.937	411.716	0.222	0.268	7.605	16.849	3.431
2023-08-31 04:32	7302776	8.575	-151.525	269.367	16.831	386.792	411.714	0.222	0.268	7.756	16.831	3.368
2023-08-31 04:47	7303676	8.562	-150.795	269.727	16.794	386.486	411.698	0.222	0.268	7.577	16.794	3.379
2023-08-31 05:02	7304576	8.553	-150.304	269.064	16.752	386.354	411.905	0.222	0.268	7.487	16.752	3.327
2023-08-31 05:17	7305476	8.539	-149.51	264.861	16.692	386.56	412.633	0.223	0.268	7.046	16.692	3.543
2023-08-31 05:32	7306376	8.517	-148.292	270.118	16.667	386.512	412.788	0.223	0.268	7.178	16.667	3.344
2023-08-31 05:47	7307276	8.472	-145.838	276.138	16.628	386.336	412.932	0.223	0.268	7.049	16.628	3.398

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-31 06:02	7308176	8.450	-144.665	279.898	16.585	386.032	412.965	0.223	0.268	6.907	16.585	3.367
2023-08-31 06:17	7309076	8.426	-143.347	283.398	16.512	385.499	413.012	0.223	0.268	6.740	16.512	8.009
2023-08-31 06:32	7309976	8.427	-143.361	280.492	16.478	384.691	412.432	0.223	0.268	6.826	16.478	3.4
2023-08-31 06:47	7310876	8.431	-143.576	278.982	16.443	384.632	412.669	0.223	0.268	6.777	16.443	3.284
2023-08-31 07:02	7311776	8.411	-142.465	280.005	16.405	384.279	412.609	0.223	0.268	6.824	16.405	3.29
2023-08-31 07:17	7312676	8.419	-142.896	271.608	16.361	384.677	413.41	0.223	0.269	6.579	16.361	3.315
2023-08-31 07:32	7313576	8.393	-141.47	277.094	16.342	384.428	413.307	0.223	0.269	6.554	16.342	3.346
2023-08-31 07:47	7314476	8.364	-139.914	282.263	16.317	383.41	412.424	0.223	0.268	***6.126***	16.317	3.241
2023-08-31 08:02	7315376	8.345	-138.862	285.789	16.291	382.005	411.128	0.222	0.267	***5.454***	16.291	3.269
2023-08-31 08:17	7316276	8.337	-138.44	288.681	16.251	383.694	413.292	0.223	0.269	***5.475***	16.251	3.51
2023-08-31 08:32	7317176	8.343	-138.752	285.498	16.245	383.28	412.894	0.223	0.268	6.512	16.245	3.133
2023-08-31 08:47	7318076	8.356	-139.463	284.924	16.235	383.057	412.74	0.223	0.268	6.539	16.235	3.195
2023-08-31 09:02	7318976	8.369	-140.128	283.715	16.227	382.902	412.639	0.223	0.268	6.678	16.227	3.169
2023-08-31 09:17	7319876	8.395	-141.542	278.641	16.228	383.174	412.92	0.223	0.268	6.574	16.228	3.424
2023-08-31 09:32	7320776	8.364	-139.894	283.622	16.229	383.223	412.964	0.223	0.268	6.782	16.229	3.239
2023-08-31 09:47	7321676	8.353	-139.306	288.934	16.234	383.192	412.887	0.223	0.268	7.113	16.234	3.221
2023-08-31 10:02	7322576	8.411	-142.417	291.492	16.234	383.058	412.75	0.223	0.268	7.091	16.234	3.223
2023-08-31 10:17	7323476	8.508	-147.595	280.933	16.237	382.215	411.814	0.223	0.268	7.077	16.237	3.18
2023-08-31 10:32	7324376	8.544	-149.555	278.029	16.256	381.812	411.219	0.222	0.267	7.583	16.256	3.22
2023-08-31 10:47	7325276	8.610	-153.089	270.983	16.281	381.821	411.015	0.222	0.267	7.787	16.281	3.264
2023-08-31 11:02	7326176	8.644	-154.955	266.518	16.316	381.747	410.642	0.222	0.267	7.948	16.316	3.272
2023-08-31 11:17	7327076	8.665	-156.069	259.423	16.359	382.109	410.669	0.222	0.267	7.754	16.359	3.304
2023-08-31 11:32	7327976	8.661	-155.902	260.739	16.394	382.415	410.703	0.222	0.267	7.802	16.394	3.326
2023-08-31 11:47	7328876	8.662	-155.978	262.374	16.424	382.619	410.667	0.222	0.267	7.880	16.424	3.287
2023-08-31 12:02	7329776	8.663	-156.012	262.763	16.462	382.967	410.723	0.222	0.267	8.197	16.462	3.353
2023-08-31 12:17	7330676	8.667	-156.291	260.011	16.485	383.035	410.603	0.222	0.267	8.026	16.485	3.384
2023-08-31 12:32	7331576	8.664	-156.136	261.502	16.525	383.414	410.674	0.222	0.267	8.230	16.525	3.298
2023-08-31 12:47	7332476	8.698	-157.99	256.662	16.571	383.78	410.678	0.222	0.267	8.371	16.571	3.234
2023-08-31 13:02	7333376	8.712	-158.78	251.414	16.687	384.643	410.625	0.222	0.267	8.540	16.687	3.333
2023-08-31 13:17	7334276	8.741	-160.449	248.141	16.848	386.022	410.749	0.222	0.267	8.567	16.848	3.44
2023-08-31 13:32	7335176	8.751	-161.047	246.076	16.988	386.946	410.564	0.222	0.267	8.873	16.988	3.393
2023-08-31 13:47	7336076	8.809	-164.239	252.504	17.131	387.996	410.486	0.222	0.267	8.853	17.131	3.392
2023-08-31 14:02	7336976	8.837	-165.873	245.969	17.324	389.681	410.673	0.222	0.267	9.352	17.324	3.387
2023-08-31 14:17	7337876	8.832	-165.639	247.089	17.385	389.916	410.412	0.221	0.267	9.196	17.385	3.399
2023-08-31 14:32	7338776	8.873	-167.856	238.768	17.439	390.165	410.232	0.221	0.267	9.621	17.439	3.365
2023-08-31 14:47	7339676	8.890	-168.798	236.756	17.461	390.212	410.098	0.221	0.267	9.755	17.461	3.332
2023-08-31 15:02	7340576	8.981	-173.793	233.852	17.552	390.52	409.673	0.221	0.266	9.900	17.552	3.333
2023-08-31 15:17	7341476	***9.023***	-176.063	220.391	17.632	391.618	410.165	0.221	0.267	10.068	17.632	3.586
2023-08-31 15:32	7342376	8.995	-174.565	218.631	17.657	391.837	410.193	0.221	0.267	10.369	17.657	3.371
2023-08-31 15:47	7343276	8.960	-172.672	221.5	17.652	392.04	410.446	0.221	0.267	10.615	17.652	3.347
2023-08-31 16:02	7344176	8.973	-173.347	216.891	17.606	391.528	410.293	0.221	0.267	10.353	17.606	3.405
2023-08-31 16:17	7345076	***9.034***	-176.692	213.734	17.656	391.303	409.639	0.221	0.266	10.073	17.656	3.391
2023-08-31 16:32	7345976	***9.087***	-179.586	212.244	17.725	391.815	409.615	0.221	0.266	10.432	17.725	3.319
2023-08-31 16:47	7346876	***9.136***	-182.312	207.5	17.833	392.444	409.386	0.221	0.266	10.776	17.833	3.317
2023-08-31 17:02	7347776	***9.108***	-180.812	206.176	17.855	392.565	409.336	0.221	0.266	11.408	17.855	3.382
2023-08-31 17:17	7348676	***9.186***	-185.041	194.544	17.931	393.258	409.438	0.221	0.266	11.205	17.931	3.525
2023-08-31 17:32	7349576	***9.227***	-187.378	190.427	18.117	394.167	408.874	0.220	0.266	11.400	18.117	3.472
2023-08-31 17:47	7350476	***9.223***	-187.225	194.651	18.185	394.656	408.828	0.220	0.266	11.840	18.185	3.475
2023-08-31 18:02	7351376	***9.200***	-185.893	194.043	18.094	394.39	409.293	0.221	0.266	11.643	18.094	3.422
2023-08-31 18:17	7352276	***9.159***	-183.635	194.611	17.97	393.125	408.986	0.220	0.266	11.260	17.97	3.388
2023-08-31 18:32	7353176	***9.198***	-185.733	195.886	17.994	393.237	408.901	0.220	0.266	11.367	17.994	3.393
2023-08-31 18:47	7354076	***9.192***	-185.442	197.341	18.023	393.425	408.865	0.220	0.266	11.690	18.023	3.393
2023-08-31 19:02	7354976	***9.184***	-185.027	198.366	18.033	393.799	409.174	0.220	0.266	11.437	18.033	3.352
2023-08-31 19:17	7355876	***9.185***	-185.065	199.703	18.055	394.23	409.443	0.221	0.266	11.161	18.055	3.505
2023-08-31 19:32	7356776	***9.176***	-184.6	201.515	18.058	394.045	409.226	0.220	0.266	11.290	18.058	3.483
2023-08-31 19:47	7357676	***9.149***	-183.146	206.432	18.032	394.633	410.048	0.221	0.267	11.036	18.032	3.462

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-08-31 20:02	7358576	***9.120***	-181.532	214.855	18	394.497	410.164	0.221	0.267	10.736	18	3.435
2023-08-31 20:17	7359476	***9.070***	-178.804	221.068	17.943	394.381	410.511	0.221	0.267	10.707	17.943	3.353
2023-08-31 20:32	7360376	***9.102***	-180.55	216.266	17.954	394.491	410.535	0.221	0.267	10.401	17.954	3.339
2023-08-31 20:47	7361276	***9.091***	-179.913	216.715	17.943	394.476	410.605	0.221	0.267	10.363	17.943	3.419
2023-08-31 21:02	7362176	***9.085***	-179.608	217.303	17.925	394.344	410.615	0.221	0.267	10.150	17.925	3.425
2023-08-31 21:17	7363076	***9.031***	-176.668	216.13	17.912	394.327	410.704	0.221	0.267	10.332	17.912	3.615
2023-08-31 21:32	7363976	***9.052***	-177.791	219.766	17.899	394.452	410.944	0.222	0.267	10.306	17.899	3.513
2023-08-31 21:47	7364876	***9.033***	-176.792	224.618	17.883	394.597	411.228	0.222	0.267	9.866	17.883	3.435
2023-08-31 22:02	7365776	***9.019***	-176.029	227.062	17.863	394.789	411.586	0.222	0.268	9.861	17.863	3.437
2023-08-31 22:17	7366676	8.981	-173.941	232.617	17.829	394.168	411.221	0.222	0.267	9.740	17.829	3.33
2023-08-31 22:32	7367576	***9.026***	-176.342	229.937	17.842	394.609	411.573	0.222	0.268	10.307	17.842	3.403
2023-08-31 22:47	7368476	***9.039***	-177.054	229.639	17.852	394.793	411.685	0.222	0.268	10.186	17.852	3.377
2023-08-31 23:02	7369376	***9.017***	-175.862	235.326	17.852	395.246	412.154	0.222	0.268	10.083	17.852	3.401
2023-08-31 23:17	7370276	8.972	-173.45	232.722	17.862	395.03	411.845	0.222	0.268	9.953	17.862	3.335
2023-08-31 23:32	7371176	8.936	-171.511	234.97	17.879	395.01	411.688	0.222	0.268	9.723	17.879	3.331
2023-08-31 23:47	7372076	8.940	-171.733	238.506	17.882	395.305	411.973	0.222	0.268	9.735	17.882	3.333
2023-09-01 00:02	7372976	8.916	-170.467	239.476	17.879	395.61	412.316	0.222	0.268	9.614	17.879	3.41
2023-09-01 00:17	7373876	8.906	-169.902	237.738	17.866	396.721	413.582	0.223	0.269	9.683	17.866	3.526
2023-09-01 00:32	7374776	8.897	-169.439	240.874	17.896	396.482	413.086	0.223	0.269	9.632	17.896	3.386
2023-09-01 00:47	7375676	8.900	-169.59	243.167	17.912	396.408	412.872	0.223	0.268	9.744	17.912	3.3
2023-09-01 01:02	7376576	8.887	-168.934	241.331	17.935	396.601	412.883	0.223	0.268	9.497	17.935	3.35
2023-09-01 01:17	7377476	8.799	-164.163	238.404	17.938	397.536	413.834	0.223	0.269	8.993	17.938	3.251
2023-09-01 01:32	7378376	8.816	-165.119	240.542	17.945	398.434	414.712	0.224	0.270	9.265	17.945	3.337
2023-09-01 01:47	7379276	8.785	-163.434	241.935	17.92	397.754	414.207	0.223	0.269	10.487	17.92	3.31
2023-09-01 02:02	7380176	8.762	-162.165	241.269	17.89	397.632	414.334	0.223	0.269	9.206	17.89	3.371
2023-09-01 02:17	7381076	8.747	-161.302	241.26	17.81	397.55	414.904	0.224	0.270	9.796	17.81	3.325
2023-09-01 02:32	7381976	8.720	-159.814	245.423	17.788	397.599	415.136	0.224	0.270	9.949	17.788	3.328
2023-09-01 02:47	7382876	8.677	-157.466	253.185	17.731	397.484	415.492	0.224	0.270	9.845	17.731	3.248
2023-09-01 03:02	7383776	8.635	-155.203	257.439	17.671	397.202	415.691	0.224	0.270	9.730	17.671	3.318
2023-09-01 03:17	7384676	8.618	-154.192	258.757	17.574	396.383	415.644	0.224	0.270	9.569	17.574	3.286
2023-09-01 03:32	7385576	8.602	-153.32	255.62	17.548	396.2	415.667	0.224	0.270	9.324	17.548	3.454
2023-09-01 03:47	7386476	8.588	-152.535	256.371	17.48	395.684	415.689	0.224	0.270	8.711	17.48	3.268
2023-09-01 04:02	7387376	8.581	-152.156	256.318	17.415	395.143	415.666	0.224	0.270	8.843	17.415	3.367
2023-09-01 04:17	7388276	8.573	-151.656	256.738	17.314	393.847	415.142	0.224	0.270	8.720	17.314	3.414
2023-09-01 04:32	7389176	8.583	-152.149	257.773	17.266	392.823	414.464	0.224	0.269	8.760	17.266	3.323
2023-09-01 04:47	7390076	8.583	-152.125	259.003	17.196	391.932	414.112	0.224	0.269	8.924	17.196	3.23
2023-09-01 05:02	7390976	8.591	-152.55	259.418	17.134	391.314	413.978	0.223	0.269	8.866	17.134	3.284
2023-09-01 05:17	7391877	8.622	-154.128	252.105	17.044	391.183	414.587	0.224	0.269	8.716	17.044	3.294
2023-09-01 05:32	7392777	8.599	-152.922	256.936	17.021	391.065	414.658	0.224	0.270	9.058	17.021	3.324
2023-09-01 05:47	7393677	8.563	-150.917	261.79	16.956	390.514	414.62	0.224	0.270	9.030	16.956	3.298
2023-09-01 06:02	7394577	8.553	-150.34	265.097	16.892	389.89	414.494	0.224	0.269	8.832	16.892	3.221
2023-09-01 06:17	7395477	8.581	-151.803	264.1	16.777	388.534	414.022	0.224	0.269	8.825	16.777	3.336
2023-09-01 06:32	7396377	8.596	-152.612	262.887	16.752	387.792	413.444	0.223	0.269	8.811	16.752	3.179
2023-09-01 06:47	7397277	8.581	-151.727	261.134	16.688	387.372	413.531	0.223	0.269	8.772	16.688	3.095
2023-09-01 07:02	7398177	8.559	-150.559	262.303	16.636	387.001	413.577	0.223	0.269	8.459	16.636	3.101
2023-09-01 07:17	7399077	8.586	-151.966	253.276	16.578	387.114	414.188	0.224	0.269	7.776	16.578	3.11
2023-09-01 07:32	7399977	8.565	-150.836	257.148	16.563	387.132	414.334	0.224	0.269	8.181	16.563	3.091
2023-09-01 07:47	7400877	8.554	-150.232	256.445	16.522	386.801	414.325	0.224	0.269	8.300	16.522	3.015
2023-09-01 08:02	7401777	8.553	-150.158	258.664	16.485	386.491	414.304	0.224	0.269	8.296	16.485	3.056
2023-09-01 08:17	7402677	8.547	-149.751	258.223	16.398	385.661	414.15	0.224	0.269	8.102	16.398	3.071
2023-09-01 08:32	7403577	8.521	-148.38	261.258	16.405	385.818	414.267	0.224	0.269	8.197	16.405	2.995
2023-09-01 08:47	7404477	8.495	-146.983	264.68	16.38	385.796	414.455	0.224	0.269	8.209	16.38	3.005
2023-09-01 09:02	7405377	8.481	-146.227	267.398	16.361	385.869	414.694	0.224	0.270	8.167	16.361	3.002
2023-09-01 09:17	7406277	8.486	-146.465	268.215	16.322	385.515	414.647	0.224	0.270	8.147	16.322	3.052
2023-09-01 09:32	7407177	8.494	-146.914	265.059	16.343	385.781	414.748	0.224	0.270	8.074	16.343	2.944
2023-09-01 09:47	7408077	8.500	-147.24	265.173	16.342	385.691	414.664	0.224	0.270	8.235	16.342	2.915

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-01 10:02	7408977	8.504	-147.412	265.931	16.339	385.606	414.597	0.224	0.269	8.102	16.339	2.994
2023-09-01 10:17	7409877	8.484	-146.329	265.667	16.318	385.191	414.329	0.224	0.269	8.041	16.318	2.959
2023-09-01 10:32	7410777	8.512	-147.867	265.454	16.324	385.136	414.215	0.224	0.269	8.407	16.324	2.947
2023-09-01 10:47	7411677	8.503	-147.386	263.182	16.326	385.115	414.183	0.224	0.269	8.338	16.326	2.884
2023-09-01 11:02	7412577	8.509	-147.684	267.252	16.327	384.996	414.045	0.224	0.269	8.421	16.327	2.953
2023-09-01 11:17	7413477	8.538	-149.24	265.419	16.334	385.114	414.11	0.224	0.269	8.320	16.334	3.065
2023-09-01 11:32	7414377	8.526	-148.635	267.815	16.334	385.207	414.209	0.224	0.269	8.112	16.334	3.111
2023-09-01 11:47	7415277	8.496	-147.007	272.748	16.341	385.359	414.319	0.224	0.269	8.250	16.341	3
2023-09-01 12:02	7416177	8.486	-146.501	275.034	16.346	385.515	414.436	0.224	0.269	7.801	16.346	3.002
2023-09-01 12:17	7417077	8.483	-146.313	276.589	16.343	384.848	413.745	0.224	0.269	8.027	16.343	3.009
2023-09-01 12:32	7417977	8.396	-141.654	270.015	16.358	384.778	413.549	0.224	0.269	8.170	16.358	3.025
2023-09-01 12:47	7418877	8.486	-146.518	266.148	16.383	384.65	413.199	0.223	0.269	8.526	16.383	3.048
2023-09-01 13:02	7419777	8.535	-149.136	264.117	16.414	384.552	412.827	0.223	0.268	8.805	16.414	3.022
2023-09-01 13:17	7420677	8.547	-149.791	257.315	16.478	385.078	412.85	0.223	0.268	8.563	16.478	3.275
2023-09-01 13:32	7421577	8.508	-147.762	261.246	16.537	385.377	412.67	0.223	0.268	8.444	16.537	3.211
2023-09-01 13:47	7422477	8.478	-146.146	264.122	16.584	385.807	412.733	0.223	0.268	8.232	16.584	3.337
2023-09-01 14:02	7423377	8.447	-144.498	268.735	16.613	385.913	412.607	0.223	0.268	8.236	16.613	3.547
2023-09-01 14:17	7424277	8.414	-142.744	273.01	16.628	385.438	411.969	0.223	0.268	7.869	16.628	3.496
2023-09-01 14:32	7425177	8.395	-141.747	273.57	16.667	385.705	411.931	0.223	0.268	8.204	16.667	3.86
2023-09-01 14:47	7426077	8.406	-142.374	273.258	16.72	386.105	411.907	0.222	0.268	8.151	16.72	3.405
2023-09-01 15:02	7426977	8.459	-145.261	272.717	16.798	386.269	411.431	0.222	0.267	8.721	16.798	3.408
2023-09-01 15:17	7427877	8.514	-148.251	266.237	16.896	387.984	412.431	0.223	0.268	8.516	16.896	3.455
2023-09-01 15:32	7428777	8.502	-147.629	264.315	16.91	388.115	412.462	0.223	0.268	9.027	16.91	3.493
2023-09-01 15:47	7429677	8.493	-147.111	264.32	16.888	387.909	412.423	0.223	0.268	8.591	16.888	3.47
2023-09-01 16:02	7430577	8.508	-147.963	267.801	16.924	388.354	412.599	0.223	0.268	8.742	16.924	3.552
2023-09-01 16:17	7431477	8.523	-148.771	266.215	16.998	389.114	412.783	0.223	0.268	8.888	16.998	3.638
2023-09-01 16:32	7432377	8.518	-148.544	264.68	17.05	389.879	413.161	0.223	0.269	9.130	17.05	3.572
2023-09-01 16:47	7433277	8.497	-147.464	265.958	17.086	390.435	413.45	0.223	0.269	9.038	17.086	3.652
2023-09-01 17:02	7434177	8.493	-147.259	263.571	17.1	390.799	413.715	0.223	0.269	9.112	17.1	3.782
2023-09-01 17:17	7435077	8.490	-147.076	259.446	17.085	391.064	414.124	0.224	0.269	8.531	17.085	3.787
2023-09-01 17:32	7435977	8.467	-145.855	264.289	17.121	391.524	414.306	0.224	0.269	8.999	17.121	3.859
2023-09-01 17:47	7436877	8.463	-145.662	266.673	17.156	392.065	414.586	0.224	0.269	9.024	17.156	3.805
2023-09-01 18:02	7437777	8.452	-145.051	263.96	17.154	392.293	414.843	0.224	0.270	8.786	17.154	3.878
2023-09-01 18:17	7438677	8.434	-144.055	264.296	17.122	392.262	415.077	0.224	0.270	8.534	17.122	3.982
2023-09-01 18:32	7439577	8.434	-144.093	266.206	17.147	392.648	415.274	0.224	0.270	8.573	17.147	3.9
2023-09-01 18:47	7440477	8.424	-143.54	267.212	17.181	392.855	415.207	0.224	0.270	8.690	17.181	3.923
2023-09-01 19:02	7441377	8.437	-144.277	267.681	17.182	392.912	415.262	0.224	0.270	8.831	17.182	3.904
2023-09-01 19:17	7442277	8.434	-144.069	263.275	17.144	392.989	415.66	0.224	0.270	8.540	17.144	3.986
2023-09-01 19:32	7443177	8.401	-142.319	266.487	17.123	392.932	415.78	0.224	0.270	8.622	17.123	3.965
2023-09-01 19:47	7444077	8.383	-141.296	270.995	17.114	392.964	415.892	0.225	0.270	8.702	17.114	3.9
2023-09-01 20:02	7444977	8.384	-141.375	275.816	17.109	392.972	415.938	0.225	0.270	8.551	17.109	3.822
2023-09-01 20:17	7445877	8.369	-140.579	276.603	17.099	392.929	415.976	0.225	0.270	8.291	17.099	4.008
2023-09-01 20:32	7446777	8.361	-140.121	278.796	17.078	392.855	416.073	0.225	0.270	8.430	17.078	3.737
2023-09-01 20:47	7447677	8.326	-138.221	283.264	17.045	392.595	416.075	0.225	0.270	8.338	17.045	3.825
2023-09-01 21:02	7448577	8.326	-138.197	283.653	17.011	392.342	416.096	0.225	0.270	8.271	17.011	3.884
2023-09-01 21:17	7449477	8.327	-138.245	279.695	16.985	392.405	416.385	0.225	0.271	7.810	16.985	3.851
2023-09-01 21:32	7450377	8.298	-136.688	285.198	16.966	392.387	416.522	0.225	0.271	8.021	16.966	3.713
2023-09-01 21:47	7451277	8.282	-135.808	285.93	16.944	392.289	416.604	0.225	0.271	7.991	16.944	3.78
2023-09-01 22:02	7452177	8.269	-135.069	288.197	16.919	392.206	416.726	0.225	0.271	7.763	16.919	3.742
2023-09-01 22:17	7453077	8.250	-134.084	286.802	16.898	391.877	416.559	0.225	0.271	7.744	16.898	3.831
2023-09-01 22:32	7453977	8.245	-133.793	287.632	16.876	391.546	416.394	0.225	0.271	7.662	16.876	3.726
2023-09-01 22:47	7454877	8.249	-133.96	288.662	16.851	391.221	416.258	0.225	0.271	7.578	16.851	3.713
2023-09-01 23:02	7455777	8.237	-133.333	290.71	16.821	390.924	416.192	0.225	0.271	7.783	16.821	3.881
2023-09-01 23:17	7456677	8.256	-134.32	289.056	16.787	390.889	416.446	0.225	0.271	7.617	16.787	3.865
2023-09-01 23:32	7457577	8.233	-133.066	290.834	16.774	390.826	416.485	0.225	0.271	7.273	16.774	3.689
2023-09-01 23:47	7458477	8.205	-131.586	294.849	16.743	390.588	416.501	0.225	0.271	7.586	16.743	3.655

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-02 00:02	7459377	8.193	-130.894	300.733	16.714	390.382	416.526	0.225	0.271	7.615	16.714	3.639
2023-09-02 00:17	7460277	8.206	-131.583	303.756	16.657	389.822	416.413	0.225	0.271	7.361	16.657	3.58
2023-09-02 00:32	7461177	8.200	-131.228	305.566	16.635	389.506	416.262	0.225	0.271	7.358	16.635	3.586
2023-09-02 00:47	7462077	8.191	-130.737	304.801	16.61	389.23	416.181	0.225	0.271	7.493	16.61	3.544
2023-09-02 01:02	7462977	8.196	-131.013	303.933	16.59	389.21	416.325	0.225	0.271	7.364	16.59	3.532
2023-09-02 01:17	7463877	8.197	-131.09	300.109	16.575	389.591	416.859	0.225	0.271	7.163	16.575	3.391
2023-09-02 01:32	7464777	8.171	-129.65	303.365	16.572	389.715	417.018	0.225	0.271	7.121	16.572	3.494
2023-09-02 01:47	7465677	8.164	-129.268	305.061	16.555	389.697	417.144	0.225	0.271	7.089	16.555	3.525
2023-09-02 02:02	7466577	8.148	-128.429	306.191	16.532	389.495	417.12	0.225	0.271	7.061	16.532	3.46
2023-09-02 02:17	7467477	8.144	-128.16	304.937	16.496	389.152	417.063	0.225	0.271	6.845	16.496	3.509
2023-09-02 02:32	7468377	8.115	-126.603	308.603	16.482	389.02	417.039	0.225	0.271	6.949	16.482	3.461
2023-09-02 02:47	7469277	8.094	-125.465	313.114	16.466	388.928	417.078	0.225	0.271	7.003	16.466	3.35
2023-09-02 03:02	7470177	8.074	-124.404	313.765	16.45	388.788	417.067	0.225	0.271	7.323	16.45	3.365
2023-09-02 03:17	7471077	8.080	-124.702	309.44	16.416	388.972	417.557	0.226	0.271	7.032	16.416	5.15
2023-09-02 03:32	7471977	8.090	-125.232	306.639	16.408	388.757	417.39	0.226	0.271	6.563	16.408	3.397
2023-09-02 03:47	7472877	8.093	-125.382	308.053	16.387	388.362	417.151	0.226	0.271	6.941	16.387	3.339
2023-09-02 04:02	7473777	8.101	-125.835	311.104	16.368	388.099	417.026	0.225	0.271	6.850	16.368	3.342
2023-09-02 04:17	7474677	8.125	-127.068	310.826	16.327	387.491	416.728	0.225	0.271	6.795	16.327	3.343
2023-09-02 04:32	7475577	8.113	-126.448	313.937	16.317	387.368	416.675	0.225	0.271	6.805	16.317	3.304
2023-09-02 04:47	7476477	8.103	-125.875	319.576	16.283	387.083	416.667	0.225	0.271	7.217	16.283	3.345
2023-09-02 05:02	7477377	8.097	-125.535	324.122	16.254	386.787	416.598	0.225	0.271	7.253	16.254	3.435
2023-09-02 05:17	7478277	8.114	-126.436	321.981	16.207	386.392	416.569	0.225	0.271	7.138	16.207	5.289
2023-09-02 05:32	7479177	8.125	-127.018	318.324	16.208	386.456	416.634	0.225	0.271	7.047	16.208	3.256
2023-09-02 05:47	7480077	8.137	-127.668	316.042	16.186	386.23	416.578	0.225	0.271	6.994	16.186	3.304
2023-09-02 06:02	7480977	8.140	-127.831	315.034	16.148	385.929	416.576	0.225	0.271	7.106	16.148	3.209
2023-09-02 06:17	7481877	8.159	-128.808	309.448	16.103	385.248	416.227	0.225	0.271	6.879	16.103	3.249
2023-09-02 06:32	7482777	8.142	-127.9	312.58	16.09	384.988	416.058	0.225	0.270	6.992	16.09	3.192
2023-09-02 06:47	7483677	8.139	-127.745	314.9	16.068	384.745	415.984	0.225	0.270	6.909	16.068	3.236
2023-09-02 07:02	7484577	8.139	-127.692	314.24	16.049	384.505	415.889	0.225	0.270	7.174	16.049	3.21
2023-09-02 07:17	7485477	8.164	-129.035	309.55	16.022	384.693	416.328	0.225	0.271	6.969	16.022	3.204
2023-09-02 07:32	7486377	8.152	-128.417	309.531	16.016	384.739	416.431	0.225	0.271	7.106	16.016	3.148
2023-09-02 07:47	7487277	8.159	-128.765	310.94	16.005	384.829	416.621	0.225	0.271	7.210	16.005	3.206
2023-09-02 08:02	7488177	8.153	-128.434	310.556	15.985	384.771	416.724	0.225	0.271	7.077	15.985	3.155
2023-09-02 08:17	7489077	8.158	-128.696	306.567	15.93	383.777	416.127	0.225	0.270	6.912	15.93	3.173
2023-09-02 08:32	7489977	8.157	-128.61	305.332	15.91	383.436	415.929	0.225	0.270	7.459	15.91	3.204
2023-09-02 08:47	7490877	8.193	-130.525	306.355	15.873	383.055	415.833	0.225	0.270	7.538	15.873	3.221
2023-09-02 09:02	7491777	8.222	-132.062	307.035	15.835	382.429	415.48	0.225	0.270	7.415	15.835	3.156
2023-09-02 09:17	7492677	8.253	-133.717	305.065	15.803	382.166	415.475	0.225	0.270	7.449	15.803	3.146
2023-09-02 09:32	7493577	8.252	-133.631	303.551	15.793	382.042	415.424	0.225	0.270	7.639	15.793	3.16
2023-09-02 09:47	7494477	8.261	-134.141	303.27	15.775	381.882	415.403	0.225	0.270	7.723	15.775	3.23
2023-09-02 10:02	7495377	8.285	-135.41	303.039	15.777	381.991	415.504	0.225	0.270	7.801	15.777	3.142
2023-09-02 10:17	7496277	8.304	-136.459	300.423	15.792	381.889	415.264	0.225	0.270	7.736	15.792	3.125
2023-09-02 10:32	7497177	8.314	-137.012	301.089	15.818	382.01	415.17	0.225	0.270	8.132	15.818	3.094
2023-09-02 10:47	7498077	8.346	-138.721	299.088	15.857	382.205	415.051	0.225	0.270	8.269	15.857	3.096
2023-09-02 11:02	7498977	8.359	-139.446	297.221	15.895	382.348	414.875	0.224	0.270	8.446	15.895	3.152
2023-09-02 11:17	7499877	8.398	-141.535	289.776	15.929	382.575	414.831	0.224	0.270	8.399	15.929	3.226
2023-09-02 11:32	7500777	8.401	-141.745	289.301	15.962	382.722	414.707	0.224	0.270	8.591	15.962	3.193
2023-09-02 11:47	7501677	8.421	-142.822	287.482	16.012	383.087	414.673	0.224	0.270	8.804	16.012	3.214
2023-09-02 12:02	7502577	8.421	-142.841	287.253	16.038	383.348	414.733	0.224	0.270	8.647	16.038	3.204
2023-09-02 12:17	7503477	8.437	-143.688	284.082	16.062	383.455	414.645	0.224	0.270	8.598	16.062	3.205
2023-09-02 12:32	7504377	8.459	-144.901	277.967	16.099	383.769	414.663	0.224	0.270	8.685	16.099	3.247
2023-09-02 12:47	7505277	8.456	-144.756	280.513	16.168	384.394	414.752	0.224	0.270	8.697	16.168	3.124
2023-09-02 13:02	7506177	8.451	-144.536	280.742	16.244	385.06	414.817	0.224	0.270	8.665	16.244	3.184
2023-09-02 13:17	7507077	8.467	-145.442	276.386	16.368	386.264	415.054	0.224	0.270	8.700	16.368	3.204
2023-09-02 13:32	7507977	8.464	-145.4	274.457	16.579	388.185	415.318	0.224	0.270	8.987	16.579	3.236
2023-09-02 13:47	7508877	8.537	-149.453	268.852	16.808	390.13	415.461	0.224	0.270	9.386	16.808	3.23

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-02 14:02	7509777	8.540	-149.724	265.617	17.046	392.761	416.248	0.225	0.271	9.329	17.046	3.168
2023-09-02 14:17	7510677	8.496	-147.462	265.192	17.236	394.63	416.628	0.225	0.271	9.175	17.236	3.295
2023-09-02 14:32	7511577	8.487	-147.026	261.578	17.345	394.856	415.947	0.224	0.270	9.829	17.345	3.29
2023-09-02 14:47	7512477	8.582	-152.142	256.478	17.317	394.487	415.795	0.224	0.270	9.863	17.317	3.276
2023-09-02 15:02	7513377	8.513	-148.354	269.117	17.187	393.243	415.572	0.224	0.270	10.140	17.187	3.237
2023-09-02 15:17	7514277	8.587	-152.302	253.307	17.136	393.129	415.879	0.225	0.270	9.930	17.136	3.257
2023-09-02 15:32	7515177	8.563	-150.967	256.38	17.078	392.686	415.901	0.225	0.270	9.898	17.078	3.208
2023-09-02 15:47	7516077	8.583	-152.016	257.036	16.985	391.901	415.852	0.225	0.270	9.704	16.985	3.313
2023-09-02 16:02	7516977	8.502	-147.622	265.161	16.904	391.326	415.919	0.225	0.270	9.430	16.904	3.234
2023-09-02 16:17	7517877	8.486	-146.697	265.319	16.784	389.906	415.426	0.224	0.270	9.160	16.784	3.253
2023-09-02 16:32	7518777	8.489	-146.806	265.123	16.721	389.264	415.269	0.224	0.270	9.223	16.721	3.199
2023-09-02 16:47	7519677	8.482	-146.439	271.084	16.71	389.183	415.277	0.224	0.270	9.229	16.71	3.259
2023-09-02 17:02	7520577	8.488	-146.77	274.584	16.7	389.066	415.236	0.224	0.270	9.280	16.7	3.238
2023-09-02 17:17	7521477	8.491	-146.906	270.662	16.694	389.182	415.415	0.224	0.270	9.103	16.694	3.395
2023-09-02 17:32	7522377	8.482	-146.451	272.922	16.716	389.421	415.486	0.224	0.270	9.127	16.716	3.248
2023-09-02 17:47	7523277	8.477	-146.225	277.652	16.765	389.931	415.609	0.225	0.270	9.168	16.765	3.29
2023-09-02 18:02	7524177	8.474	-146.05	279.838	16.824	390.541	415.764	0.225	0.270	9.143	16.824	3.257
2023-09-02 18:17	7525077	8.468	-145.764	281.357	16.867	390.866	415.745	0.225	0.270	9.001	16.867	3.217
2023-09-02 18:32	7525977	8.469	-145.836	280.043	16.886	390.977	415.7	0.225	0.270	9.041	16.886	3.203
2023-09-02 18:47	7526877	8.452	-144.925	279.969	16.91	391.354	415.898	0.225	0.270	8.974	16.91	3.182
2023-09-02 19:02	7527777	8.447	-144.658	279.993	16.926	391.52	415.939	0.225	0.270	9.403	16.926	3.225
2023-09-02 19:17	7528677	8.456	-145.152	275.146	16.936	391.935	416.296	0.225	0.271	8.937	16.936	3.285
2023-09-02 19:32	7529577	8.443	-144.434	279.5	16.924	391.844	416.299	0.225	0.271	8.928	16.924	3.333
2023-09-02 19:47	7530477	8.420	-143.237	285.577	16.912	391.927	416.488	0.225	0.271	8.780	16.912	3.256
2023-09-02 20:02	7531377	8.443	-144.448	289.995	16.894	391.943	416.662	0.225	0.271	8.905	16.894	3.264
2023-09-02 20:17	7532277	8.464	-145.533	287.813	16.859	391.253	416.221	0.225	0.271	8.907	16.859	3.174
2023-09-02 20:32	7533177	8.456	-145.137	286.319	16.845	391.011	416.082	0.225	0.270	9.148	16.845	3.117
2023-09-02 20:47	7534077	8.450	-144.784	285.336	16.82	390.801	416.073	0.225	0.270	9.084	16.82	3.396
2023-09-02 21:02	7534977	8.443	-144.403	285.906	16.79	390.502	416.009	0.225	0.270	9.232	16.79	3.123
2023-09-02 21:17	7535877	8.451	-144.782	281.147	16.77	390.703	416.389	0.225	0.271	8.785	16.77	3.222
2023-09-02 21:32	7536777	8.418	-143.011	283.825	16.762	390.731	416.493	0.225	0.271	8.958	16.762	3.108
2023-09-02 21:47	7537677	8.399	-141.99	285.899	16.745	390.629	416.529	0.225	0.271	8.671	16.745	3.134
2023-09-02 22:02	7538577	8.375	-140.712	290.066	16.723	390.525	416.601	0.225	0.271	8.662	16.723	3.03
2023-09-02 22:17	7539477	8.365	-140.138	290.372	16.673	390.062	416.53	0.225	0.271	8.273	16.673	3.051
2023-09-02 22:32	7540377	8.348	-139.191	298.769	16.643	389.499	416.183	0.225	0.271	8.060	16.643	3.062
2023-09-02 22:47	7541277	8.336	-138.559	297.095	16.58	388.948	416.129	0.225	0.270	8.582	16.58	3.016
2023-09-02 23:02	7542177	8.305	-136.85	300.39	16.542	388.753	416.249	0.225	0.271	8.449	16.542	3.037
2023-09-02 23:17	7543077	8.266	-134.733	295.762	16.482	389.521	417.582	0.226	0.271	8.249	16.482	3.066
2023-09-02 23:32	7543977	8.206	-131.514	256.271	16.458	389.694	417.973	0.226	0.272	8.269	16.458	2.907
2023-09-02 23:47	7544877	8.161	-129.075	259.508	16.428	389.488	418.002	0.226	0.272	7.809	16.428	3.05
2023-09-03 00:02	7545777	8.150	-128.438	274.018	16.397	389.26	418.026	0.226	0.272	7.637	16.397	3.116
2023-09-03 00:17	7546677	8.157	-128.837	286.755	16.372	390.019	419.06	0.227	0.272	7.263	16.372	3.007
2023-09-03 00:32	7547577	8.158	-128.87	272.626	16.36	389.29	418.379	0.226	0.272	7.548	16.36	3.011
2023-09-03 00:47	7548477	8.149	-128.372	255.779	16.353	389.172	418.311	0.226	0.272	7.804	16.353	2.924
2023-09-03 01:02	7549377	8.150	-128.455	266.401	16.341	389.459	418.725	0.226	0.272	7.931	16.341	2.92
2023-09-03 01:17	7550277	8.187	-130.415	270.313	16.331	389.744	419.112	0.227	0.272	7.772	16.331	2.892
2023-09-03 01:32	7551177	8.175	-129.781	282.807	16.324	389.781	419.215	0.227	0.272	8.477	16.324	2.892
2023-09-03 01:47	7552077	8.195	-130.818	287.084	16.312	389.643	419.167	0.227	0.272	8.097	16.312	2.905
2023-09-03 02:02	7552977	8.184	-130.26	285.789	16.299	389.805	419.458	0.227	0.273	7.914	16.299	2.906
2023-09-03 02:17	7553877	8.182	-130.117	281.111	16.28	389.512	419.304	0.227	0.273	7.765	16.28	3.113
2023-09-03 02:32	7554777	8.149	-128.365	274.531	16.271	389.042	418.873	0.227	0.272	7.712	16.271	2.856
2023-09-03 02:47	7555677	8.131	-127.356	258.152	16.26	388.88	418.799	0.226	0.272	7.959	16.26	2.843
2023-09-03 03:02	7556577	8.127	-127.175	263.337	16.246	388.782	418.813	0.227	0.272	8.217	16.246	2.886
2023-09-03 03:17	7557477	8.170	-129.447	270.378	16.23	389.784	420.033	0.227	0.273	7.980	16.23	3.013
2023-09-03 03:32	7558377	8.181	-130.069	281.135	16.223	389.594	419.884	0.227	0.273	8.191	16.223	2.994
2023-09-03 03:47	7559277	8.189	-130.494	291.247	16.208	389.196	419.586	0.227	0.273	8.058	16.208	2.943

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-03 04:02	7560177	8.201	-131.109	295.567	16.191	389.008	419.531	0.227	0.273	8.055	16.191	2.942
2023-09-03 04:17	7561077	8.202	-131.118	292.534	16.158	388.368	419.127	0.227	0.272	7.810	16.158	2.908
2023-09-03 04:32	7561977	8.189	-130.465	279.955	16.146	388.316	419.17	0.227	0.272	7.837	16.146	2.914
2023-09-03 04:47	7562877	8.196	-130.811	272.681	16.098	387.998	419.247	0.227	0.273	7.620	16.098	2.899
2023-09-03 05:02	7563777	8.224	-132.291	286.106	16.084	387.726	419.073	0.227	0.272	7.886	16.084	2.906
2023-09-03 05:17	7564677	8.223	-132.253	297.724	16.062	387.78	419.319	0.227	0.273	7.775	16.062	2.895
2023-09-03 05:32	7565577	8.223	-132.236	301.267	16.067	387.888	419.392	0.227	0.273	7.621	16.067	2.893
2023-09-03 05:47	7566477	8.217	-131.879	304.162	16.052	388.166	419.82	0.227	0.273	7.654	16.052	2.88
2023-09-03 06:02	7567377	8.186	-130.248	274.913	16.04	388.143	419.905	0.227	0.273	7.691	16.04	3.377
2023-09-03 06:17	7568277	8.191	-130.503	281.586	16.005	387.306	419.301	0.227	0.273	7.573	16.005	2.894
2023-09-03 06:32	7569177	8.167	-129.182	289.587	16.004	387.092	419.079	0.227	0.272	7.648	16.004	2.884
2023-09-03 06:47	7570077	8.167	-129.194	292.536	15.992	387.063	419.154	0.227	0.272	7.668	15.992	2.865
2023-09-03 07:02	7570977	8.172	-129.459	297.867	15.978	387.094	419.307	0.227	0.273	7.607	15.978	2.857
2023-09-03 07:17	7571877	8.184	-130.11	293.874	15.968	387.546	419.878	0.227	0.273	7.392	15.968	2.956
2023-09-03 07:32	7572777	8.173	-129.526	301.472	15.959	387.201	419.583	0.227	0.273	7.570	15.959	2.889
2023-09-03 07:47	7573677	8.175	-129.597	311.357	15.948	386.996	419.458	0.227	0.273	7.677	15.948	2.923
2023-09-03 08:02	7574577	8.208	-131.359	316.779	15.943	386.812	419.304	0.227	0.273	7.836	15.943	2.839
2023-09-03 08:17	7575477	8.207	-131.335	318.834	15.929	386.996	419.621	0.227	0.273	7.654	15.929	2.909
2023-09-03 08:32	7576377	8.149	-128.205	303.42	15.921	386.642	419.308	0.227	0.273	7.364	15.921	2.812
2023-09-03 08:47	7577277	8.136	-127.492	296.945	15.897	386.273	419.116	0.227	0.272	7.092	15.897	2.71
2023-09-03 09:02	7578177	8.137	-127.53	287.37	15.885	386.194	419.135	0.227	0.272	7.296	15.885	2.796
2023-09-03 09:17	7579077	8.183	-130	291.874	15.869	386.534	419.646	0.227	0.273	7.068	15.869	2.773
2023-09-03 09:32	7579977	8.175	-129.559	298.611	15.87	386.596	419.704	0.227	0.273	7.329	15.87	2.762
2023-09-03 09:47	7580877	8.191	-130.424	305.309	15.856	386.398	419.609	0.227	0.273	7.535	15.856	2.797
2023-09-03 10:02	7581777	8.215	-131.695	309.111	15.845	386.248	419.545	0.227	0.273	7.650	15.845	2.82
2023-09-03 10:17	7582677	8.237	-132.854	308.007	15.81	385.604	419.145	0.227	0.272	7.377	15.81	2.748
2023-09-03 10:32	7583577	8.225	-132.222	311.92	15.81	385.44	418.972	0.227	0.272	7.620	15.81	2.874
2023-09-03 10:47	7584477	8.267	-134.442	310.406	15.806	385.225	418.77	0.227	0.272	7.743	15.806	2.819
2023-09-03 11:02	7585377	8.269	-134.559	307.557	15.806	385.251	418.797	0.227	0.272	7.974	15.806	2.721
2023-09-03 11:17	7586277	8.313	-136.931	302.841	15.826	385.755	419.178	0.227	0.272	7.908	15.826	2.785
2023-09-03 11:32	7587177	8.369	-139.949	300.833	15.83	385.544	418.911	0.227	0.272	8.073	15.83	2.855
2023-09-03 11:47	7588077	8.428	-143.118	298.917	15.853	385.413	418.563	0.227	0.272	8.606	15.853	2.835
2023-09-03 12:02	7588977	8.438	-143.695	298.113	15.898	385.547	418.324	0.226	0.272	8.672	15.898	2.813
2023-09-03 12:17	7589877	8.439	-143.754	298.795	15.933	385.597	418.076	0.226	0.272	8.682	15.933	2.825
2023-09-03 12:32	7590777	8.443	-143.998	298.742	15.97	385.888	418.069	0.226	0.272	8.995	15.97	2.778
2023-09-03 12:47	7591677	8.473	-145.581	296.311	16	386.178	418.122	0.226	0.272	9.235	16	2.746
2023-09-03 13:02	7592577	8.474	-145.693	293.576	16.034	386.407	418.081	0.226	0.272	9.271	16.034	2.763
2023-09-03 13:17	7593477	8.511	-147.705	286.755	16.124	387.333	418.303	0.226	0.272	9.211	16.124	3.001
2023-09-03 13:32	7594377	8.562	-150.507	282.137	16.216	388.131	418.366	0.226	0.272	9.366	16.216	2.953
2023-09-03 13:47	7595277	8.588	-151.961	278.725	16.355	389.604	418.756	0.226	0.272	9.644	16.355	2.935
2023-09-03 14:02	7596177	8.587	-152.001	276.398	16.499	391.288	419.333	0.227	0.273	9.642	16.499	3.098
2023-09-03 14:17	7597077	8.570	-151.134	274.967	16.634	392.711	419.69	0.227	0.273	9.624	16.634	3.027
2023-09-03 14:32	7597977	8.547	-149.91	281.159	16.702	393.596	420.059	0.227	0.273	9.575	16.702	3.009
2023-09-03 14:47	7598877	8.549	-150.058	279.683	16.786	394.513	420.314	0.227	0.273	9.809	16.786	3.039
2023-09-03 15:02	7599777	8.564	-150.907	276.798	16.85	395.067	420.362	0.227	0.273	9.910	16.85	3.031
2023-09-03 15:17	7600677	8.576	-151.584	275.289	16.892	395.47	420.423	0.227	0.273	9.589	16.892	2.985
2023-09-03 15:32	7601577	8.570	-151.289	280.754	16.942	395.833	420.389	0.227	0.273	9.889	16.942	3
2023-09-03 15:47	7602477	8.607	-153.317	278.732	16.983	396.174	420.403	0.227	0.273	10.102	16.983	3.014
2023-09-03 16:02	7603377	8.598	-152.853	278.217	17.013	396.625	420.623	0.227	0.273	10.026	17.013	2.976
2023-09-03 16:17	7604277	8.632	-154.712	272.521	17.048	396.856	420.571	0.227	0.273	10.044	17.048	2.972
2023-09-03 16:32	7605177	8.637	-154.963	267.424	17.084	397.204	420.629	0.227	0.273	10.129	17.084	2.913
2023-09-03 16:47	7606077	8.615	-153.773	268.206	17.076	397.372	420.876	0.227	0.274	10.007	17.076	2.92
2023-09-03 17:02	7606977	8.578	-151.772	272.242	17.07	397.476	421.037	0.227	0.274	9.845	17.07	3.217
2023-09-03 17:17	7607877	8.563	-150.981	274.958	17.068	397.679	421.27	0.228	0.274	9.597	17.068	3.05
2023-09-03 17:32	7608777	8.539	-149.691	276.655	17.082	398.01	421.505	0.228	0.274	9.815	17.082	2.863
2023-09-03 17:47	7609677	8.515	-148.432	280.349	17.082	398.16	421.66	0.228	0.274	9.528	17.082	2.983

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV)	(mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-03 18:02	7610577	8.488	-146.98		283.159	17.082	398.218	421.721	0.228	0.274	9.243	17.082	2.929
2023-09-03 18:17	7611477	8.473	-146.134		281.851	17.064	397.896	421.538	0.228	0.274	9.137	17.064	2.967
2023-09-03 18:32	7612377	8.467	-145.805		283.786	17.069	397.754	421.345	0.228	0.274	9.259	17.069	2.935
2023-09-03 18:47	7613277	8.454	-145.128		286.91	17.07	397.854	421.438	0.228	0.274	9.234	17.07	3.014
2023-09-03 19:02	7614177	8.447	-144.734		288.898	17.069	397.894	421.488	0.228	0.274	9.259	17.069	2.994
2023-09-03 19:17	7615077	8.437	-144.193		289.127	17.066	397.965	421.592	0.228	0.274	8.892	17.066	2.946
2023-09-03 19:32	7615977	8.432	-143.919		292.834	17.062	398.081	421.746	0.228	0.274	8.979	17.062	2.879
2023-09-03 19:47	7616877	8.418	-143.158		294.892	17.049	397.974	421.749	0.228	0.274	8.837	17.049	2.856
2023-09-03 20:02	7617777	8.405	-142.465		299.794	17.026	397.823	421.78	0.228	0.274	8.764	17.026	2.842
2023-09-03 20:17	7618677	8.413	-142.872		298.428	16.984	397.114	421.391	0.228	0.274	8.611	16.984	2.891
2023-09-03 20:32	7619577	8.477	-146.267		293.54	16.894	396.058	421.039	0.227	0.274	9.162	16.894	2.863
2023-09-03 20:47	7620477	8.580	-151.772		275.315	16.784	394.869	420.715	0.227	0.273	9.706	16.784	2.796
2023-09-03 21:02	7621377	8.624	-154.016		269.312	16.641	393.539	420.518	0.227	0.273	9.986	16.641	2.83
2023-09-03 21:17	7622277	8.629	-154.24		267.474	16.52	392.488	420.437	0.227	0.273	9.769	16.52	2.9
2023-09-03 21:32	7623177	8.599	-152.538		275.673	16.39	391.411	420.396	0.227	0.273	9.928	16.39	2.842
2023-09-03 21:47	7624077	8.588	-151.88		279.774	16.256	390.182	420.231	0.227	0.273	10.019	16.256	2.871
2023-09-03 22:02	7624977	8.586	-151.765		279.206	16.165	389.437	420.215	0.227	0.273	9.813	16.165	2.874
2023-09-03 22:17	7625877	8.558	-150.18		278.506	16.085	388.701	420.116	0.227	0.273	9.337	16.085	2.916
2023-09-03 22:32	7626777	8.541	-149.257		282.437	16.063	388.442	420.024	0.227	0.273	9.531	16.063	2.826
2023-09-03 22:47	7627677	8.531	-148.716		286.113	16.047	388.377	420.091	0.227	0.273	9.541	16.047	2.833
2023-09-03 23:02	7628577	8.506	-147.412		288.014	16.044	388.486	420.237	0.227	0.273	9.225	16.044	2.812
2023-09-03 23:17	7629477	8.503	-147.204		283.915	16.033	388.794	420.671	0.228	0.273	9.133	16.033	2.948
2023-09-03 23:32	7630377	8.476	-145.791		288.531	16.014	388.626	420.65	0.228	0.273	8.915	16.014	2.839
2023-09-03 23:47	7631277	8.455	-144.629		297.019	15.985	388.386	420.642	0.228	0.273	8.919	15.985	2.821
2023-09-04 00:02	7632177	8.424	-142.934		304.438	15.959	388.272	420.751	0.228	0.273	8.767	15.959	2.799
2023-09-04 00:17	7633077	8.388	-140.994		309.672	15.918	388.172	420.993	0.228	0.274	8.626	15.918	2.721
2023-09-04 00:32	7633977	8.376	-140.374		307.602	15.904	387.639	420.535	0.228	0.273	8.694	15.904	2.764
2023-09-04 00:47	7634877	8.359	-139.437		307.578	15.881	387.549	420.645	0.228	0.273	8.488	15.881	2.853
2023-09-04 01:02	7635777	8.355	-139.21		308.758	15.867	387.599	420.822	0.228	0.274	8.487	15.867	2.71
2023-09-04 01:17	7636677	8.368	-139.916		303.442	15.853	387.768	421.126	0.228	0.274	8.367	15.853	2.798
2023-09-04 01:32	7637577	8.345	-138.638		306.925	15.833	387.516	421.026	0.228	0.274	8.303	15.833	2.741
2023-09-04 01:47	7638477	8.312	-136.859		313.462	15.812	386.043	419.604	0.227	0.273	8.312	15.812	2.916
2023-09-04 02:02	7639377	8.290	-135.684		316.822	15.793	386.163	419.906	0.227	0.273	8.323	15.793	2.768
2023-09-04 02:17	7640277	8.290	-135.708		316.81	15.769	386.455	420.431	0.228	0.273	8.403	15.769	2.769
2023-09-04 02:32	7641177	8.276	-134.926		313.904	15.757	385.938	419.973	0.227	0.273	8.091	15.757	2.667
2023-09-04 02:47	7642077	8.269	-134.54		315.084	15.737	385.639	419.82	0.227	0.273	8.165	15.737	2.74
2023-09-04 03:02	7642977	8.257	-133.874		314.428	15.716	385.409	419.754	0.227	0.273	8.035	15.716	2.75
2023-09-04 03:17	7643877	8.276	-134.904		309.576	15.696	386.073	420.651	0.228	0.273	7.894	15.696	2.929
2023-09-04 03:32	7644777	8.256	-133.808		313.551	15.688	385.865	420.496	0.228	0.273	7.839	15.688	2.929
2023-09-04 03:47	7645677	8.237	-132.773		320.155	15.671	385.414	420.151	0.227	0.273	8.153	15.671	2.872
2023-09-04 04:02	7646577	8.243	-133.123		324.129	15.652	384.643	419.48	0.227	0.273	8.033	15.652	2.834
2023-09-04 04:17	7647477	8.242	-133.018		325.917	15.623	385.077	420.206	0.228	0.273	7.887	15.623	2.75
2023-09-04 04:32	7648377	8.219	-131.822		324.709	15.621	384.889	420.02	0.227	0.273	7.830	15.621	2.69
2023-09-04 04:47	7649277	8.214	-131.516		323.97	15.606	384.926	420.188	0.228	0.273	7.655	15.606	2.69
2023-09-04 05:02	7650177	8.205	-131.061		325.51	15.593	384.843	420.214	0.228	0.273	7.562	15.593	2.647
2023-09-04 05:17	7651077	8.212	-131.395		320.152	15.57	385.022	420.607	0.228	0.273	7.227	15.57	2.624
2023-09-04 05:32	7651977	8.200	-130.775		322.577	15.564	384.944	420.58	0.228	0.273	7.224	15.564	2.617
2023-09-04 05:47	7652877	8.197	-130.582		324.253	15.543	384.854	420.661	0.228	0.273	7.419	15.543	2.587
2023-09-04 06:02	7653777	8.188	-130.124		324.761	15.517	384.575	420.585	0.228	0.273	7.399	15.517	2.635
2023-09-04 06:17	7654677	8.183	-129.812		322.947	15.474	383.661	419.963	0.227	0.273	7.110	15.474	2.617
2023-09-04 06:32	7655577	8.169	-129.037		324.611	15.452	383.516	419.998	0.227	0.273	7.481	15.452	2.641
2023-09-04 06:47	7656477	8.164	-128.801		324.806	15.431	383.434	420.091	0.228	0.273	7.193	15.431	2.568
2023-09-04 07:02	7657377	8.159	-128.491		326.301	15.407	383.322	420.187	0.228	0.273	7.236	15.407	2.565
2023-09-04 07:17	7658277	8.171	-129.132		324.88	15.377	383.385	420.515	0.228	0.273	7.028	15.377	2.798
2023-09-04 07:32	7659177	8.149	-127.962		328.843	15.358	383.212	420.491	0.228	0.273	6.770	15.358	2.807
2023-09-04 07:47	7660077	8.116	-126.193		336.088	15.33	382.977	420.479	0.228	0.273	6.729	15.33	2.786

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-04 08:02	7660977	8.102	-125.411	340.873	15.301	382.738	420.473	0.228	0.273	7.095	15.301	2.79
2023-09-04 08:17	7661877	8.109	-125.792	342.049	15.266	382.365	420.372	0.228	0.273	7.105	15.266	2.639
2023-09-04 08:32	7662777	8.122	-126.472	338.859	15.247	381.979	420.118	0.228	0.273	6.968	15.247	2.592
2023-09-04 08:47	7663677	8.120	-126.312	336.746	15.224	381.825	420.153	0.228	0.273	6.987	15.224	2.523
2023-09-04 09:02	7664577	8.117	-126.143	335.974	15.208	381.622	420.067	0.228	0.273	6.887	15.208	2.502
2023-09-04 09:17	7665477	8.147	-127.778	331.997	15.182	381.899	420.606	0.228	0.273	7.018	15.182	2.714
2023-09-04 09:32	7666377	8.132	-126.982	332.448	15.185	381.791	420.455	0.228	0.273	6.797	15.185	2.692
2023-09-04 09:47	7667277	8.121	-126.386	336.062	15.178	381.633	420.351	0.228	0.273	6.899	15.178	2.685
2023-09-04 10:02	7668177	8.122	-126.431	339.553	15.171	381.484	420.242	0.228	0.273	7.152	15.171	2.71
2023-09-04 10:17	7669077	8.130	-126.827	340.213	15.165	381.652	420.483	0.228	0.273	7.341	15.165	2.426
2023-09-04 10:32	7669977	8.109	-125.728	342.659	15.166	381.621	420.436	0.228	0.273	6.794	15.166	2.473
2023-09-04 10:47	7670877	8.102	-125.322	341.307	15.163	381.573	420.417	0.228	0.273	6.531	15.163	2.48
2023-09-04 11:02	7671777	8.099	-125.17	340.504	15.16	381.639	420.514	0.228	0.273	6.535	15.16	2.503
2023-09-04 11:17	7672677	8.100	-125.237	334.939	15.164	382.006	420.886	0.228	0.274	***6.190***	15.164	2.502
2023-09-04 11:32	7673577	8.102	-125.372	332.653	15.168	382.053	420.894	0.228	0.274	***6.388***	15.168	2.513
2023-09-04 11:47	7674477	8.099	-125.191	333.845	15.167	381.99	420.842	0.228	0.274	7.025	15.167	2.518
2023-09-04 12:02	7675377	8.135	-127.13	330.259	15.171	381.95	420.76	0.228	0.273	7.184	15.171	2.509
2023-09-04 12:17	7676277	8.145	-127.637	325.937	15.16	381.553	420.42	0.228	0.273	6.901	15.16	2.473
2023-09-04 12:32	7677177	8.156	-128.238	325.751	15.171	381.021	419.736	0.227	0.273	7.066	15.171	2.561
2023-09-04 12:47	7678077	8.191	-130.126	322.444	15.196	381.235	419.752	0.227	0.273	7.388	15.196	2.44
2023-09-04 13:02	7678977	8.174	-129.256	321.004	15.251	381.978	420.081	0.228	0.273	7.681	15.251	2.467
2023-09-04 13:17	7679877	8.254	-133.588	316.819	15.393	382.806	419.738	0.227	0.273	7.256	15.393	2.73
2023-09-04 13:32	7680777	8.309	-136.59	315.267	15.509	383.741	419.749	0.227	0.273	8.312	15.509	2.676
2023-09-04 13:47	7681677	8.342	-138.428	314.938	15.687	384.976	419.536	0.227	0.273	8.327	15.687	2.682
2023-09-04 14:02	7682577	8.287	-135.555	317.644	15.848	386.687	419.995	0.227	0.273	7.914	15.848	2.622
2023-09-04 14:17	7683477	8.323	-137.529	317.818	15.976	387.462	419.723	0.227	0.273	7.974	15.976	2.642
2023-09-04 14:32	7684377	8.415	-142.539	306.615	16.133	388.63	419.622	0.227	0.273	8.387	16.133	2.673
2023-09-04 14:47	7685277	8.407	-142.169	301.928	16.252	389.921	419.988	0.227	0.273	8.621	16.252	2.649
2023-09-04 15:02	7686177	8.421	-142.989	301.434	16.35	390.814	420.101	0.227	0.273	8.652	16.35	2.648
2023-09-04 15:17	7687077	8.428	-143.445	300.602	16.463	392.16	420.573	0.227	0.273	8.399	16.463	2.909
2023-09-04 15:32	7687977	8.430	-143.535	302.185	16.455	392.345	420.841	0.228	0.274	8.674	16.455	2.907
2023-09-04 15:47	7688877	8.416	-142.796	303.449	16.483	392.489	420.752	0.227	0.273	8.933	16.483	2.796
2023-09-04 16:02	7689777	8.402	-142.031	310.451	16.482	392.472	420.748	0.227	0.273	8.907	16.482	2.998
2023-09-04 16:17	7690677	8.390	-141.392	309.369	16.481	392.248	420.509	0.227	0.273	8.628	16.481	2.928
2023-09-04 16:32	7691577	8.411	-142.517	308.506	16.501	392.385	420.49	0.227	0.273	8.707	16.501	2.876
2023-09-04 16:47	7692477	8.357	-139.608	313.367	16.475	392.096	420.401	0.227	0.273	8.708	16.475	2.794
2023-09-04 17:02	7693377	8.385	-141.106	309.076	16.485	392.259	420.487	0.227	0.273	8.665	16.485	2.899
2023-09-04 17:17	7694277	8.407	-142.324	305.623	16.496	392.781	420.956	0.228	0.274	8.636	16.496	3.078
2023-09-04 17:32	7695177	8.383	-140.989	307.578	16.464	392.421	420.847	0.228	0.274	8.850	16.464	2.926
2023-09-04 17:47	7696077	8.355	-139.501	315.994	16.465	392.607	421.035	0.228	0.274	9.809	16.465	2.892
2023-09-04 18:02	7696977	8.366	-140.088	315.1	16.483	392.794	421.083	0.228	0.274	9.276	16.483	2.869
2023-09-04 18:17	7697877	8.389	-141.354	314.821	16.482	392.148	420.394	0.227	0.273	9.185	16.482	2.771
2023-09-04 18:32	7698777	8.409	-142.391	308.494	16.5	392.117	420.205	0.227	0.273	9.365	16.5	2.849
2023-09-04 18:47	7699677	8.449	-144.601	308.134	16.519	392.162	420.092	0.227	0.273	9.724	16.519	2.779
2023-09-04 19:02	7700577	8.467	-145.574	306.179	16.541	392.244	419.993	0.227	0.273	10.535	16.541	2.735
2023-09-04 19:17	7701477	8.557	-150.387	297.376	16.574	393.021	420.539	0.227	0.273	10.406	16.574	3.03
2023-09-04 19:32	7702377	8.503	-147.526	297.543	16.588	393.113	420.521	0.227	0.273	9.976	16.588	2.925
2023-09-04 19:47	7703277	8.476	-146.079	303.78	16.594	393.295	420.657	0.227	0.273	9.618	16.594	2.888
2023-09-04 20:02	7704177	8.500	-147.364	308.668	16.598	393.372	420.711	0.227	0.273	9.734	16.598	2.774
2023-09-04 20:17	7705078	8.481	-146.348	310.718	16.586	393.346	420.781	0.227	0.274	9.524	16.586	2.747
2023-09-04 20:32	7705978	8.456	-144.978	313.594	16.573	393.251	420.798	0.227	0.274	9.153	16.573	2.775
2023-09-04 20:47	7706878	8.394	-141.652	325.197	16.543	393.464	421.282	0.228	0.274	8.303	16.543	2.718
2023-09-04 21:02	7707778	8.341	-138.745	324.191	16.504	393.002	421.124	0.228	0.274	8.010	16.504	2.603
2023-09-04 21:17	7708678	8.451	-144.653	315.797	16.457	392.176	420.639	0.227	0.273	9.004	16.457	2.941
2023-09-04 21:32	7709578	8.415	-142.703	314.366	16.407	391.976	420.856	0.228	0.274	7.781	16.407	2.836
2023-09-04 21:47	7710478	8.402	-141.985	320.279	16.345	391.425	420.802	0.228	0.274	8.537	16.345	2.839

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-04 22:02	7711378	8.392	-141.411	322.594	16.281	391.085	420.987	0.228	0.274	8.665	16.281	3.044
2023-09-04 22:17	7712278	8.444	-144.169	320.505	16.199	389.911	420.435	0.227	0.273	8.698	16.199	2.859
2023-09-04 22:32	7713178	8.435	-143.65	319.776	16.144	389.269	420.216	0.227	0.273	8.595	16.144	2.613
2023-09-04 22:47	7714078	8.438	-143.74	314.275	16.072	388.543	420.056	0.227	0.273	8.807	16.072	2.652
2023-09-04 23:02	7714978	8.434	-143.511	310.654	16.007	387.953	419.981	0.227	0.273	9.287	16.007	2.613
2023-09-04 23:17	7715878	8.491	-146.515	305.552	15.932	387.536	420.18	0.227	0.273	8.995	15.932	2.59
2023-09-04 23:32	7716778	8.475	-145.645	307.245	15.889	387.307	420.312	0.227	0.273	9.273	15.889	2.609
2023-09-04 23:47	7717678	8.461	-144.851	307.612	15.822	386.715	420.255	0.227	0.273	8.991	15.822	2.541
2023-09-05 00:02	7718578	8.473	-145.464	306.038	15.756	386.115	420.178	0.227	0.273	9.149	15.756	2.543
2023-09-05 00:17	7719478	8.482	-145.895	302.958	15.675	385.14	419.819	0.227	0.273	8.896	15.675	2.571
2023-09-05 00:32	7720378	8.462	-144.808	307.245	15.638	384.562	419.512	0.227	0.273	9.259	15.638	2.564
2023-09-05 00:47	7721278	8.462	-144.784	306.081	15.588	384.112	419.46	0.227	0.273	9.089	15.588	2.525
2023-09-05 01:02	7722178	8.453	-144.277	306.038	15.544	383.825	419.529	0.227	0.273	8.963	15.544	2.585
2023-09-05 01:17	7723078	8.457	-144.503	304.274	15.493	383.737	419.881	0.227	0.273	8.820	15.493	2.481
2023-09-05 01:32	7723978	8.436	-143.356	304.395	15.467	383.669	420.034	0.227	0.273	9.059	15.467	2.465
2023-09-05 01:47	7724878	8.436	-143.356	307.581	15.42	383.265	420.002	0.227	0.273	8.952	15.42	2.468
2023-09-05 02:02	7725778	8.434	-143.187	308.034	15.38	382.929	419.991	0.227	0.273	8.797	15.38	2.54
2023-09-05 02:17	7726678	8.427	-142.779	306.005	15.317	382.452	420.025	0.228	0.273	8.474	15.317	2.504
2023-09-05 02:32	7727578	8.413	-142.026	308.179	15.3	382.181	419.877	0.227	0.273	8.496	15.3	2.4
2023-09-05 02:47	7728478	8.405	-141.582	311.412	15.263	382.012	420.011	0.228	0.273	8.383	15.263	2.407
2023-09-05 03:02	7729378	8.370	-139.685	311.972	15.233	381.809	420.054	0.228	0.273	8.001	15.233	2.556
2023-09-05 03:17	7730278	8.364	-139.368	307.097	15.198	381.819	420.376	0.228	0.273	8.115	15.198	2.42
2023-09-05 03:32	7731178	8.358	-139.055	310.237	15.188	381.748	420.382	0.228	0.273	8.173	15.188	2.484
2023-09-05 03:47	7732078	8.319	-136.929	321.032	15.15	381.468	420.416	0.228	0.273	8.238	15.15	2.36
2023-09-05 04:02	7732978	8.309	-136.364	322.427	15.098	380.985	420.339	0.228	0.273	8.077	15.098	2.534
2023-09-05 04:17	7733878	8.321	-136.991	316.684	15.073	380.393	419.906	0.228	0.273	7.809	15.073	2.563
2023-09-05 04:32	7734778	8.324	-137.172	313.603	15.07	380.519	420.076	0.228	0.273	7.310	15.07	2.409
2023-09-05 04:47	7735678	8.270	-134.275	313.894	15.057	380.43	420.088	0.228	0.273	8.010	15.057	2.465
2023-09-05 05:02	7736578	8.258	-133.641	315.205	15.037	380.293	420.12	0.228	0.273	7.851	15.037	2.354
2023-09-05 05:17	7737478	8.286	-135.09	314.159	15.007	380.316	420.409	0.228	0.273	7.688	15.007	2.498
2023-09-05 05:32	7738378	8.262	-133.836	319.275	14.988	380.173	420.424	0.228	0.273	7.517	14.988	2.506
2023-09-05 05:47	7739278	8.230	-132.079	325.731	14.954	379.909	420.426	0.228	0.273	7.364	14.954	2.583
2023-09-05 06:02	7740178	8.195	-130.234	331.38	14.921	379.658	420.445	0.228	0.273	7.424	14.921	2.616
2023-09-05 06:17	7741078	8.177	-129.247	334.176	14.882	379.327	420.422	0.228	0.273	7.397	14.882	2.43
2023-09-05 06:32	7741978	8.183	-129.54	328.814	14.862	378.959	420.192	0.228	0.273	7.295	14.862	2.482
2023-09-05 06:47	7742878	8.174	-129.068	322.148	14.837	378.618	420.037	0.228	0.273	7.310	14.837	2.482
2023-09-05 07:02	7743778	8.170	-128.813	322.158	14.809	378.48	420.132	0.228	0.273	7.170	14.809	2.472
2023-09-05 07:17	7744678	8.191	-129.945	319.85	14.78	378.531	420.454	0.228	0.273	7.228	14.78	2.492
2023-09-05 07:32	7745578	8.176	-129.128	324.852	14.773	378.491	420.467	0.228	0.273	7.388	14.773	2.565
2023-09-05 07:47	7746478	8.156	-128.071	331.346	14.754	378.283	420.406	0.228	0.273	7.626	14.754	2.496
2023-09-05 08:02	7747378	8.139	-127.153	334.059	14.737	378.058	420.31	0.228	0.273	7.369	14.737	2.392
2023-09-05 08:17	7748278	8.139	-127.139	335.488	14.713	377.98	420.435	0.228	0.273	7.367	14.713	2.4
2023-09-05 08:32	7749178	8.146	-127.518	333.823	14.714	377.548	419.951	0.228	0.273	6.893	14.714	2.392
2023-09-05 08:47	7750078	8.135	-126.908	335.492	14.695	377.553	420.121	0.228	0.273	7.327	14.695	2.357
2023-09-05 09:02	7750978	8.137	-127.015	336.124	14.686	377.455	420.093	0.228	0.273	7.164	14.686	2.365
2023-09-05 09:17	7751878	8.167	-128.584	333.735	14.674	377.781	420.56	0.228	0.273	6.931	14.674	2.344
2023-09-05 09:32	7752778	8.147	-127.547	333.668	14.681	378.043	420.793	0.228	0.274	6.769	14.681	2.311
2023-09-05 09:47	7753678	8.153	-127.864	335.387	14.672	378.001	420.824	0.228	0.274	7.300	14.672	2.328
2023-09-05 10:02	7754578	8.156	-128.014	333.926	14.68	378.158	420.927	0.228	0.274	7.080	14.68	2.396
2023-09-05 10:17	7755478	8.146	-127.492	332.925	14.664	377.593	420.445	0.228	0.273	7.208	14.664	2.396
2023-09-05 10:32	7756378	8.130	-126.607	334.446	14.682	377.389	420.057	0.228	0.273	6.995	14.682	2.387
2023-09-05 10:47	7757278	8.126	-126.424	334.503	14.696	377.418	419.958	0.228	0.273	7.440	14.696	2.39
2023-09-05 11:02	7758178	8.134	-126.877	332.238	14.716	377.428	419.794	0.228	0.273	7.939	14.716	2.433
2023-09-05 11:17	7759078	8.208	-130.839	320.839	14.75	378.352	420.518	0.228	0.273	8.058	14.75	2.458
2023-09-05 11:32	7759978	8.170	-128.815	324.706	14.771	378.285	420.257	0.228	0.273	8.262	14.771	2.391
2023-09-05 11:47	7760878	8.151	-127.833	331.122	14.809	378.552	420.213	0.228	0.273	8.474	14.809	2.406

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-05 12:02	7761778	8.176	-129.147	336.46	14.857	379.285	420.598	0.228	0.273	8.563	14.857	2.361
2023-09-05 12:17	7762678	8.187	-129.786	340.857	14.908	379.606	420.5	0.228	0.273	7.172	14.908	2.36
2023-09-05 12:32	7763578	8.324	-137.115	332.681	14.962	379.907	420.353	0.228	0.273	7.208	14.962	2.342
2023-09-05 12:47	7764478	8.323	-137.107	328.445	15.014	380.271	420.301	0.228	0.273	7.463	15.014	2.373
2023-09-05 13:02	7765378	8.335	-137.78	331.349	15.067	380.538	420.122	0.228	0.273	7.417	15.067	2.429
2023-09-05 13:17	7766278	8.321	-137.022	326.375	15.14	381.026	420.01	0.228	0.273	7.704	15.14	2.435
2023-09-05 13:32	7767178	8.318	-136.919	325.653	15.185	381.357	419.982	0.228	0.273	7.860	15.185	2.413
2023-09-05 13:47	7768078	8.343	-138.285	320.129	15.232	381.692	419.937	0.227	0.273	7.835	15.232	2.472
2023-09-05 14:02	7768978	8.310	-136.518	322.093	15.27	382.194	420.149	0.228	0.273	7.620	15.27	2.399
2023-09-05 14:17	7769878	8.357	-139.029	317.322	15.319	382.462	420.018	0.228	0.273	7.984	15.319	2.441
2023-09-05 14:32	7770778	8.323	-137.255	317.048	15.381	383.02	420.079	0.228	0.273	7.577	15.381	2.413
2023-09-05 14:47	7771678	8.364	-139.492	320.66	15.438	383.51	420.113	0.228	0.273	7.652	15.438	2.571
2023-09-05 15:02	7772578	8.393	-141.06	322.382	15.465	383.523	419.894	0.227	0.273	7.966	15.465	2.527
2023-09-05 15:17	7773478	8.386	-140.669	319.595	15.468	383.595	419.947	0.227	0.273	8.106	15.468	2.671
2023-09-05 15:32	7774378	8.377	-140.166	321.511	15.443	383.342	419.892	0.227	0.273	8.492	15.443	2.62
2023-09-05 15:47	7775278	8.355	-138.988	324.742	15.441	383.362	419.926	0.227	0.273	8.145	15.441	2.632
2023-09-05 16:02	7776178	8.356	-139.041	326.983	15.448	383.489	420.003	0.227	0.273	7.824	15.448	2.469
2023-09-05 16:17	7777078	8.344	-138.431	327.129	15.457	383.62	420.073	0.227	0.273	7.767	15.457	2.515
2023-09-05 16:32	7777978	8.339	-138.14	327.553	15.449	383.427	419.933	0.227	0.273	7.861	15.449	2.515
2023-09-05 16:47	7778878	8.348	-138.617	324.804	15.446	383.445	419.975	0.227	0.273	7.820	15.446	2.524
2023-09-05 17:02	7779778	8.339	-138.159	325.36	15.437	383.488	420.098	0.228	0.273	8.284	15.437	2.489
2023-09-05 17:17	7780678	8.361	-139.349	321.23	15.442	383.579	420.16	0.228	0.273	8.006	15.442	2.636
2023-09-05 17:32	7781578	8.362	-139.396	324.58	15.438	383.595	420.214	0.228	0.273	7.952	15.438	2.536
2023-09-05 17:47	7782478	8.342	-138.288	329.21	15.431	383.735	420.428	0.228	0.273	7.918	15.431	2.64
2023-09-05 18:02	7783378	8.318	-136.998	331.797	15.426	383.784	420.519	0.228	0.273	7.815	15.426	2.697
2023-09-05 18:17	7784278	8.292	-135.622	332.762	15.42	383.661	420.439	0.228	0.273	7.612	15.42	2.551
2023-09-05 18:32	7785178	8.300	-136.077	334.541	15.421	383.672	420.44	0.228	0.273	7.881	15.421	2.598
2023-09-05 18:47	7786078	8.291	-135.579	332.901	15.42	383.691	420.477	0.228	0.273	7.552	15.42	2.528
2023-09-05 19:02	7786978	8.289	-135.469	333.809	15.42	383.738	420.522	0.228	0.273	7.535	15.42	2.583
2023-09-05 19:17	7787878	8.299	-135.987	332.04	15.424	383.774	420.529	0.228	0.273	7.806	15.424	2.575
2023-09-05 19:32	7788778	8.297	-135.872	333.168	15.431	383.864	420.57	0.228	0.273	7.455	15.431	2.618
2023-09-05 19:47	7789678	8.283	-135.138	336.169	15.429	383.942	420.668	0.228	0.273	7.717	15.429	2.535
2023-09-05 20:02	7790578	8.264	-134.141	340.082	15.426	384.055	420.822	0.228	0.274	7.835	15.426	2.476
2023-09-05 20:17	7791478	8.241	-132.911	342.371	15.417	383.546	420.337	0.228	0.273	7.831	15.417	2.393
2023-09-05 20:32	7792378	8.253	-133.512	341.36	15.406	383.856	420.779	0.228	0.274	7.857	15.406	2.464
2023-09-05 20:47	7793278	8.245	-133.097	341.815	15.393	383.722	420.741	0.228	0.273	7.493	15.393	2.45
2023-09-05 21:02	7794178	8.243	-132.959	340.275	15.38	383.624	420.753	0.228	0.273	7.186	15.38	2.408
2023-09-05 21:17	7795078	8.272	-134.513	334.729	15.356	383.647	420.989	0.228	0.274	7.146	15.356	2.668
2023-09-05 21:32	7795978	8.227	-132.105	339.743	15.335	383.746	421.281	0.228	0.274	6.804	15.335	2.479
2023-09-05 21:47	7796878	8.184	-129.812	346.014	15.304	383.819	421.634	0.228	0.274	6.990	15.304	2.375
2023-09-05 22:02	7797778	8.187	-129.921	347.292	15.27	383.644	421.745	0.228	0.274	6.766	15.27	2.637
2023-09-05 22:17	7798678	8.167	-128.863	347.447	15.225	383.012	421.446	0.228	0.274	***6.287***	15.225	2.383
2023-09-05 22:32	7799578	8.230	-132.177	346.29	15.189	382.151	420.821	0.228	0.274	7.082	15.189	2.394
2023-09-05 22:47	7800478	8.255	-133.512	343.909	15.146	381.627	420.621	0.228	0.273	6.875	15.146	2.342
2023-09-05 23:02	7801378	8.279	-134.799	341.467	15.098	380.725	420.055	0.228	0.273	7.734	15.098	2.266
2023-09-05 23:17	7802278	8.314	-136.626	331.387	15.063	380.778	420.424	0.228	0.273	7.713	15.063	2.34
2023-09-05 23:32	7803178	8.293	-135.5	331.012	15.039	380.646	420.49	0.228	0.273	7.731	15.039	2.347
2023-09-05 23:47	7804078	8.298	-135.756	330.796	15.005	380.429	420.554	0.228	0.273	7.920	15.005	2.244
2023-09-06 00:02	7804978	8.287	-135.169	332.975	14.975	380.244	420.616	0.228	0.273	7.961	14.975	2.254
2023-09-06 00:17	7805878	8.281	-134.795	328.724	14.928	379.556	420.272	0.228	0.273	7.493	14.928	2.301
2023-09-06 00:32	7806778	8.268	-134.075	329.205	14.902	379.358	420.284	0.228	0.273	7.673	14.902	2.296
2023-09-06 00:47	7807678	8.263	-133.824	330.786	14.876	379.145	420.279	0.228	0.273	7.587	14.876	2.258
2023-09-06 01:02	7808578	8.257	-133.479	329.532	14.845	378.955	420.339	0.228	0.273	7.731	14.845	2.221
2023-09-06 01:17	7809478	8.251	-133.126	327.832	14.816	378.988	420.636	0.228	0.273	7.091	14.816	2.398
2023-09-06 01:32	7810378	8.227	-131.874	331.864	14.793	378.819	420.657	0.228	0.273	7.117	14.793	2.28
2023-09-06 01:47	7811278	8.174	-129.027	341.305	14.771	378.606	420.611	0.228	0.273	7.418	14.771	2.309

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-06 02:02	7812178	8.143	-127.356	345.625	14.745	378.369	420.584	0.228	0.273	6.973	14.745	2.245
2023-09-06 02:17	7813078	8.164	-128.458	345.384	14.714	378.144	420.612	0.228	0.273	7.192	14.714	2.226
2023-09-06 02:32	7813978	8.194	-130.074	342.762	14.697	377.838	420.421	0.228	0.273	6.991	14.697	2.192
2023-09-06 02:47	7814878	8.193	-129.976	341.272	14.676	377.718	420.472	0.228	0.273	6.974	14.676	2.082
2023-09-06 03:02	7815778	8.194	-130.048	339.915	14.656	377.617	420.544	0.228	0.273	6.828	14.656	2.168
2023-09-06 03:17	7816678	8.208	-130.763	333.304	14.633	377.731	420.871	0.228	0.274	6.665	14.633	2.342
2023-09-06 03:32	7817578	8.179	-129.244	337.376	14.617	377.654	420.935	0.228	0.274	6.575	14.617	2.377
2023-09-06 03:47	7818478	8.149	-127.583	344.18	14.593	377.382	420.848	0.228	0.274	6.620	14.593	2.456
2023-09-06 04:02	7819378	8.127	-126.405	348.376	14.565	377.096	420.776	0.228	0.274	6.623	14.565	2.334
2023-09-06 04:17	7820278	8.137	-126.939	346.939	14.521	376.661	420.681	0.228	0.273	6.730	14.521	2.166
2023-09-06 04:32	7821178	8.149	-127.544	344.452	14.512	376.523	420.615	0.228	0.273	6.689	14.512	2.141
2023-09-06 04:47	7822078	8.144	-127.258	344.199	14.467	375.682	420.072	0.228	0.273	6.872	14.467	2.146
2023-09-06 05:02	7822978	8.149	-127.525	341.236	14.436	375.665	420.339	0.228	0.273	6.935	14.436	2.167
2023-09-06 05:17	7823878	8.159	-128.05	337.807	14.414	375.89	420.786	0.228	0.274	6.519	14.414	2.155
2023-09-06 05:32	7824778	8.137	-126.894	338.675	14.399	375.842	420.87	0.228	0.274	***6.477***	14.399	2.27
2023-09-06 05:47	7825678	8.135	-126.779	337.71	14.355	375.351	420.713	0.228	0.273	6.849	14.355	2.111
2023-09-06 06:02	7826578	8.145	-127.258	335.182	14.3	374.834	420.629	0.228	0.273	6.613	14.3	2.141
2023-09-06 06:17	7827478	8.145	-127.237	332.734	14.242	374.159	420.389	0.228	0.273	6.843	14.242	2.222
2023-09-06 06:32	7828378	8.129	-126.376	335.981	14.228	373.776	420.09	0.228	0.273	6.778	14.228	2.18
2023-09-06 06:47	7829278	8.123	-126.059	337.521	14.189	373.469	420.096	0.228	0.273	6.564	14.189	2.088
2023-09-06 07:02	7830178	8.118	-125.771	339.312	14.151	373.142	420.069	0.228	0.273	***6.302***	14.151	2.084
2023-09-06 07:17	7831078	8.138	-126.808	332.941	14.088	372.901	420.373	0.228	0.273	6.675	14.088	2.187
2023-09-06 07:32	7831978	8.122	-125.914	335.933	14.066	372.691	420.336	0.228	0.273	6.514	14.066	2.349
2023-09-06 07:47	7832878	8.097	-124.6	342.781	14.021	372.372	420.38	0.228	0.273	6.802	14.021	2.203
2023-09-06 08:02	7833778	8.087	-124.044	346.908	13.985	372.002	420.288	0.228	0.273	6.622	13.985	2.194
2023-09-06 08:17	7834678	8.100	-124.717	347.685	13.932	371.191	419.856	0.228	0.273	6.829	13.932	2.072
2023-09-06 08:32	7835578	8.109	-125.177	344.755	13.917	370.7	419.434	0.228	0.273	6.833	13.917	2.137
2023-09-06 08:47	7836478	8.109	-125.177	344.669	13.885	370.293	419.259	0.228	0.273	6.946	13.885	2.023
2023-09-06 09:02	7837378	8.119	-125.666	342.898	13.861	370.183	419.35	0.228	0.273	6.898	13.861	2.005
2023-09-06 09:17	7838278	8.150	-127.318	338.296	13.841	370.504	419.902	0.228	0.273	7.062	13.841	2.047
2023-09-06 09:32	7839178	8.150	-127.325	336.52	13.849	370.573	419.909	0.228	0.273	6.994	13.849	2.053
2023-09-06 09:47	7840078	8.157	-127.692	336.2	13.839	370.46	419.869	0.228	0.273	7.048	13.839	2.105
2023-09-06 10:02	7840978	8.177	-128.779	336.506	13.84	370.471	419.868	0.228	0.273	6.971	13.84	2.061
2023-09-06 10:17	7841878	8.173	-128.574	332.965	13.836	370.203	419.602	0.228	0.273	7.356	13.836	2.139
2023-09-06 10:32	7842778	8.162	-127.964	335.469	13.849	370.149	419.424	0.228	0.273	7.549	13.849	2.085
2023-09-06 10:47	7843678	8.159	-127.84	333.685	13.871	370.44	419.557	0.228	0.273	6.971	13.871	2.106
2023-09-06 11:02	7844578	8.178	-128.82	330.979	13.902	370.85	419.735	0.228	0.273	7.258	13.902	2.036
2023-09-06 11:17	7845478	8.197	-129.89	324.859	13.957	371.411	419.878	0.228	0.273	7.394	13.957	2.145
2023-09-06 11:32	7846378	8.216	-130.904	329.754	14	371.416	419.488	0.228	0.273	7.467	14	2.103
2023-09-06 11:47	7847278	8.242	-132.325	333.754	14.052	371.756	419.402	0.228	0.273	7.888	14.052	2.041
2023-09-06 12:02	7848178	8.233	-131.843	336.763	14.102	372.109	419.349	0.228	0.273	8.080	14.102	2.104
2023-09-06 12:17	7849078	8.231	-131.812	336.463	14.164	372.824	419.591	0.228	0.273	7.654	14.164	2.074
2023-09-06 12:32	7849978	8.307	-135.875	329.613	14.226	373.271	419.538	0.228	0.273	7.448	14.226	2.157
2023-09-06 12:47	7850878	8.280	-134.447	328.48	14.28	373.569	419.391	0.228	0.273	7.787	14.28	2.068
2023-09-06 13:02	7851778	8.289	-134.938	326.418	14.331	374.248	419.695	0.228	0.273	7.719	14.331	2.119
2023-09-06 13:17	7852678	8.344	-137.918	319.959	14.395	374.803	419.74	0.228	0.273	7.763	14.395	2.346
2023-09-06 13:32	7853578	8.328	-137.095	320.52	14.44	375.134	419.708	0.228	0.273	7.987	14.44	2.162
2023-09-06 13:47	7854478	8.313	-136.29	323.693	14.479	375.531	419.802	0.228	0.273	7.771	14.479	2.149
2023-09-06 14:02	7855378	8.329	-137.174	327.322	14.523	375.941	419.866	0.228	0.273	7.577	14.523	2.163
2023-09-06 14:17	7856278	8.271	-134.13	325.855	14.578	376.293	419.761	0.228	0.273	7.673	14.578	2.161
2023-09-06 14:32	7857178	8.325	-136.986	326.251	14.611	376.525	419.73	0.228	0.273	7.752	14.611	2.14
2023-09-06 14:47	7858078	8.316	-136.552	327.257	14.627	376.612	419.686	0.228	0.273	7.679	14.627	2.171
2023-09-06 15:02	7858978	8.325	-137.022	328.533	14.629	376.71	419.775	0.228	0.273	7.987	14.629	2.377
2023-09-06 15:17	7859878	8.337	-137.653	326.332	14.651	377.084	419.991	0.228	0.273	8.025	14.651	2.245
2023-09-06 15:32	7860778	8.298	-135.591	326.044	14.678	377.324	420.021	0.228	0.273	8.093	14.678	2.25
2023-09-06 15:47	7861678	8.307	-136.085	329.401	14.701	377.564	420.084	0.228	0.273	8.007	14.701	2.265

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-06 16:02	7862578	8.294	-135.417	333.204	14.723	377.83	420.184	0.228	0.273	7.934	14.723	2.232
2023-09-06 16:17	7863478	8.302	-135.834	335.728	14.746	377.684	419.812	0.228	0.273	7.462	14.746	2.239
2023-09-06 16:32	7864378	8.320	-136.814	334.217	14.773	377.96	419.876	0.228	0.273	7.729	14.773	2.222
2023-09-06 16:47	7865278	8.331	-137.432	333.84	14.791	378.138	419.913	0.228	0.273	7.926	14.791	2.175
2023-09-06 17:02	7866178	8.333	-137.522	334.214	14.81	378.248	419.87	0.228	0.273	8.024	14.81	2.276
2023-09-06 17:17	7867078	8.343	-138.09	332.343	14.825	378.709	420.245	0.228	0.273	7.894	14.825	2.241
2023-09-06 17:32	7867978	8.337	-137.744	332.224	14.838	378.918	420.36	0.228	0.273	8.430	14.838	2.276
2023-09-06 17:47	7868878	8.340	-137.908	333.187	14.846	379.139	420.539	0.228	0.273	7.873	14.846	2.282
2023-09-06 18:02	7869778	8.340	-137.911	331.227	14.856	379.248	420.565	0.228	0.273	8.186	14.856	2.272
2023-09-06 18:17	7870678	8.336	-137.696	326.764	14.861	379.044	420.299	0.228	0.273	7.943	14.861	2.26
2023-09-06 18:32	7871578	8.333	-137.525	328.421	14.856	379.053	420.35	0.228	0.273	8.090	14.856	2.379
2023-09-06 18:47	7872478	8.325	-137.103	328.64	14.841	379.051	420.486	0.228	0.273	8.149	14.841	2.293
2023-09-06 19:02	7873378	8.318	-136.731	329.32	14.815	378.911	420.557	0.228	0.273	7.740	14.815	2.298
2023-09-06 19:17	7874278	8.319	-136.774	329.591	14.811	379.13	420.842	0.228	0.274	7.899	14.811	2.357
2023-09-06 19:32	7875178	8.302	-135.849	329.284	14.796	379.065	420.899	0.228	0.274	8.119	14.796	2.36
2023-09-06 19:47	7876078	8.298	-135.636	331.423	14.784	379.006	420.941	0.228	0.274	7.721	14.784	2.227
2023-09-06 20:02	7876978	8.291	-135.262	332.202	14.765	378.865	420.955	0.228	0.274	8.027	14.765	2.328
2023-09-06 20:17	7877878	8.291	-135.231	330.331	14.745	378.74	420.992	0.228	0.274	7.648	14.745	2.279
2023-09-06 20:32	7878778	8.291	-135.238	333.773	14.744	378.669	420.922	0.228	0.274	7.849	14.744	2.281
2023-09-06 20:47	7879678	8.277	-134.525	335.254	14.731	378.505	420.864	0.228	0.274	7.529	14.731	2.294
2023-09-06 21:02	7880578	8.270	-134.091	334.667	14.71	378.402	420.929	0.228	0.274	7.490	14.71	2.918
2023-09-06 21:17	7881478	8.283	-134.778	335.716	14.674	378.223	421.054	0.228	0.274	7.439	14.674	2.18
2023-09-06 21:32	7882378	8.279	-134.594	334.57	14.654	378.007	420.99	0.228	0.274	7.767	14.654	2.188
2023-09-06 21:47	7883278	8.279	-134.568	336.377	14.626	377.862	421.084	0.228	0.274	7.653	14.626	2.115
2023-09-06 22:02	7884178	8.270	-134.07	337.905	14.588	377.588	421.122	0.228	0.274	7.703	14.588	2.092
2023-09-06 22:17	7885078	8.263	-133.662	335.488	14.54	377.094	421	0.228	0.274	7.678	14.54	2.133
2023-09-06 22:32	7885978	8.244	-132.656	338.928	14.523	377.032	421.084	0.228	0.274	7.236	14.523	2.038
2023-09-06 22:47	7886878	8.222	-131.447	340.9	14.495	376.631	420.881	0.228	0.274	7.061	14.495	2.092
2023-09-06 23:02	7887778	8.210	-130.792	342.168	14.465	376.591	421.113	0.228	0.274	6.956	14.465	2.084
2023-09-06 23:17	7888678	8.225	-131.605	339.917	14.428	376.608	421.458	0.229	0.274	6.979	14.428	2.159
2023-09-06 23:32	7889578	8.210	-130.773	341.4	14.404	376.343	421.378	0.229	0.274	6.942	14.404	2.097
2023-09-06 23:47	7890478	8.179	-129.089	347.64	14.364	376.069	421.437	0.229	0.274	7.101	14.364	2.156
2023-09-07 00:02	7891378	8.165	-128.355	351.543	14.329	375.757	421.403	0.229	0.274	6.764	14.329	2.145
2023-09-07 00:17	7892278	8.171	-128.665	352.935	14.283	375.052	421.026	0.228	0.274	6.837	14.283	2.107
2023-09-07 00:32	7893178	8.192	-129.74	352.375	14.253	374.594	420.783	0.228	0.274	7.130	14.253	2.057
2023-09-07 00:47	7894078	8.202	-130.267	351.004	14.214	374.264	420.763	0.228	0.273	7.323	14.214	2.091
2023-09-07 01:02	7894978	8.195	-129.895	349.855	14.168	373.856	420.721	0.228	0.273	7.270	14.168	2.138
2023-09-07 01:17	7895878	8.210	-130.622	346.183	14.122	373.829	421.104	0.229	0.274	7.023	14.122	2.052
2023-09-07 01:32	7896778	8.192	-129.695	347.001	14.092	373.736	421.272	0.229	0.274	6.654	14.092	2.009
2023-09-07 01:47	7897678	8.199	-130.053	346.24	14.05	373.435	421.312	0.229	0.274	6.844	14.05	2.02
2023-09-07 02:02	7898578	8.188	-129.452	345.723	14.011	373.164	421.368	0.229	0.274	6.887	14.011	2.037
2023-09-07 02:17	7899478	8.180	-128.968	342.015	13.953	372.501	421.143	0.229	0.274	***6.438***	13.953	1.997
2023-09-07 02:32	7900378	8.172	-128.558	342.6	13.928	372.146	420.969	0.229	0.274	6.551	13.928	2.03
2023-09-07 02:47	7901278	8.165	-128.171	343.67	13.902	372.051	421.097	0.229	0.274	***6.474***	13.902	1.986
2023-09-07 03:02	7902178	8.163	-128.016	341.984	13.875	371.82	421.08	0.229	0.274	6.591	13.875	1.985
2023-09-07 03:17	7903078	8.165	-128.121	340.139	13.852	371.901	421.383	0.229	0.274	6.539	13.852	1.991
2023-09-07 03:32	7903978	8.146	-127.099	341.922	13.836	371.829	421.443	0.229	0.274	6.622	13.836	1.947
2023-09-07 03:47	7904878	8.144	-126.984	341.57	13.811	371.582	421.392	0.229	0.274	***6.460***	13.811	1.992
2023-09-07 04:02	7905778	8.141	-126.82	341.703	13.791	371.439	421.412	0.229	0.274	***6.353***	13.791	1.968
2023-09-07 04:17	7906678	8.132	-126.348	340.656	13.755	370.936	421.173	0.229	0.274	***6.410***	13.755	1.933
2023-09-07 04:32	7907578	8.123	-125.866	344.691	13.73	370.029	420.375	0.228	0.273	***6.391***	13.73	1.986
2023-09-07 04:47	7908478	8.113	-125.315	347.206	13.702	370.343	420.98	0.229	0.274	***6.472***	13.702	1.993
2023-09-07 05:02	7909378	8.119	-125.616	345.992	13.67	370.063	420.957	0.229	0.274	***6.270***	13.67	1.935
2023-09-07 05:17	7910278	8.144	-126.915	342.752	13.63	369.903	421.143	0.229	0.274	6.545	13.63	2.058
2023-09-07 05:32	7911178	8.132	-126.259	344.433	13.603	369.67	421.126	0.229	0.274	***6.304***	13.603	2.141
2023-09-07 05:47	7912078	8.101	-124.578	351.471	13.561	369.271	421.058	0.229	0.274	***6.346***	13.561	2.022

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-07 06:02	7912978	8.095	-124.278	356.762	13.508	368.766	420.962	0.229	0.274	***6.429***	13.508	2.077
2023-09-07 06:17	7913878	8.094	-124.168	359.89	13.464	368.221	420.745	0.229	0.273	6.708	13.464	2.133
2023-09-07 06:32	7914778	8.103	-124.657	352.844	13.449	368.027	420.666	0.229	0.273	***6.465***	13.449	2
2023-09-07 06:47	7915678	8.082	-123.534	354.294	13.413	367.583	420.489	0.228	0.273	6.522	13.413	1.896
2023-09-07 07:02	7916578	8.116	-125.332	353.86	13.379	367.189	420.35	0.228	0.273	***6.488***	13.379	1.929
2023-09-07 07:17	7917478	8.115	-125.268	346.2	13.343	367.316	420.821	0.229	0.274	***6.145***	13.343	2.074
2023-09-07 07:32	7918378	8.096	-124.214	347.676	13.327	367.361	421.018	0.229	0.274	***5.938***	13.327	1.998
2023-09-07 07:47	7919278	8.089	-123.844	349.054	13.301	367.198	421.078	0.229	0.274	***5.785***	13.301	2.259
2023-09-07 08:02	7920178	8.074	-123.026	349.113	13.272	366.96	421.067	0.229	0.274	***6.030***	13.272	2.207
2023-09-07 08:17	7921078	8.082	-123.444	344.674	13.218	366.281	420.786	0.229	0.274	***5.983***	13.218	2.016
2023-09-07 08:32	7921978	8.081	-123.398	347.513	13.194	365.746	420.395	0.228	0.273	***6.260***	13.194	2.04
2023-09-07 08:47	7922878	8.085	-123.56	346.903	13.165	365.455	420.33	0.228	0.273	***5.928***	13.165	2.048
2023-09-07 09:02	7923778	8.087	-123.689	347.11	13.139	365.345	420.437	0.228	0.273	***6.355***	13.139	2.01
2023-09-07 09:17	7924678	8.105	-124.609	342.178	13.125	365.552	420.806	0.229	0.274	***6.100***	13.125	1.965
2023-09-07 09:32	7925578	8.086	-123.594	341.565	13.117	365.564	420.897	0.229	0.274	***6.037***	13.117	1.945
2023-09-07 09:47	7926478	8.091	-123.887	341.853	13.099	365.365	420.832	0.229	0.274	***6.386***	13.099	1.902
2023-09-07 10:02	7927378	8.101	-124.412	340.921	13.079	365.026	420.626	0.229	0.273	***6.487***	13.079	1.888
2023-09-07 10:17	7928278	8.111	-124.934	333.666	13.052	364.543	420.319	0.228	0.273	6.602	13.052	1.883
2023-09-07 10:32	7929178	8.112	-124.948	334.007	13.047	364.387	420.185	0.228	0.273	***6.413***	13.047	1.919
2023-09-07 10:47	7930079	8.129	-125.854	330.869	13.041	364.198	420.031	0.228	0.273	6.562	13.041	1.854
2023-09-07 11:02	7930979	8.144	-126.677	324.923	13.041	364.33	420.174	0.228	0.273	6.564	13.041	1.847
2023-09-07 11:17	7931879	8.177	-128.422	319.251	13.045	364.331	420.147	0.228	0.273	7.108	13.045	1.959
2023-09-07 11:32	7932779	8.213	-130.348	318.913	13.06	364.418	420.104	0.228	0.273	6.784	13.06	1.879
2023-09-07 11:47	7933679	8.226	-131.006	320.701	13.08	364.606	420.134	0.228	0.273	7.188	13.08	2.024
2023-09-07 12:02	7934579	8.226	-131.04	322.808	13.123	365.016	420.209	0.228	0.273	6.828	13.123	1.953
2023-09-07 12:17	7935479	8.228	-131.19	322.963	13.176	365.352	420.112	0.228	0.273	7.068	13.176	1.98
2023-09-07 12:32	7936379	8.223	-130.956	324.74	13.239	365.803	420.043	0.228	0.273	7.286	13.239	1.883
2023-09-07 12:47	7937279	8.240	-131.855	325.193	13.312	366.408	420.068	0.228	0.273	7.326	13.312	1.993
2023-09-07 13:02	7938179	8.248	-132.351	323.524	13.394	367.076	420.082	0.228	0.273	7.657	13.394	1.887
2023-09-07 13:17	7939079	8.263	-133.214	318.86	13.514	368.267	420.339	0.228	0.273	7.591	13.514	1.942
2023-09-07 13:32	7939979	8.276	-133.944	317.346	13.666	369.587	420.454	0.228	0.273	7.885	13.666	1.957
2023-09-07 13:47	7940879	8.291	-134.807	319.044	13.768	370.521	420.584	0.228	0.273	7.813	13.768	2.006
2023-09-07 14:02	7941779	8.283	-134.418	320.582	13.842	371.188	420.668	0.228	0.273	8.098	13.842	2.1
2023-09-07 14:17	7942679	8.294	-135.007	319.602	13.905	371.591	420.55	0.228	0.273	7.851	13.905	2.139
2023-09-07 14:32	7943579	8.278	-134.208	322.06	13.951	372.007	420.602	0.228	0.273	7.729	13.951	2.15
2023-09-07 14:47	7944479	8.286	-134.666	322.332	14.023	372.599	420.616	0.228	0.273	7.902	14.023	2.107
2023-09-07 15:02	7945379	8.290	-134.897	321.938	14.11	373.423	420.762	0.228	0.273	7.658	14.11	2.144
2023-09-07 15:17	7946279	8.303	-135.632	318.085	14.211	374.611	421.182	0.229	0.274	7.907	14.211	2.318
2023-09-07 15:32	7947179	8.285	-134.687	317.184	14.268	375.203	421.331	0.229	0.274	7.753	14.268	2.262
2023-09-07 15:47	7948079	8.300	-135.524	318.472	14.34	375.909	421.476	0.229	0.274	8.085	14.34	2.237
2023-09-07 16:02	7948979	8.312	-136.235	315.816	14.396	376.432	421.558	0.229	0.274	8.341	14.396	2.252
2023-09-07 16:17	7949879	8.338	-137.62	312.423	14.417	376.193	421.1	0.228	0.274	7.964	14.417	2.335
2023-09-07 16:32	7950779	8.345	-137.985	313.997	14.414	375.993	420.899	0.228	0.274	8.278	14.414	2.286
2023-09-07 16:47	7951679	8.336	-137.522	316.908	14.42	376.207	421.083	0.228	0.274	7.893	14.42	2.232
2023-09-07 17:02	7952579	8.340	-137.703	318.939	14.416	376.376	421.315	0.229	0.274	8.096	14.416	2.353
2023-09-07 17:17	7953479	8.343	-137.846	315.918	14.416	376.851	421.838	0.229	0.274	8.223	14.416	2.466
2023-09-07 17:32	7954379	8.321	-136.695	320.784	14.422	376.82	421.751	0.229	0.274	8.096	14.422	2.472
2023-09-07 17:47	7955279	8.304	-135.765	327.546	14.397	376.777	421.929	0.229	0.274	7.685	14.397	2.409
2023-09-07 18:02	7956179	8.277	-134.342	331.222	14.362	376.64	422.097	0.229	0.274	8.041	14.362	2.35
2023-09-07 18:17	7957079	8.266	-133.705	331.647	14.315	376.356	422.198	0.229	0.274	8.076	14.315	2.421
2023-09-07 18:32	7957979	8.286	-134.785	331.99	14.277	375.865	421.994	0.229	0.274	8.004	14.277	2.221
2023-09-07 18:47	7958879	8.299	-135.438	330.581	14.261	375.785	422.047	0.229	0.274	7.843	14.261	2.301
2023-09-07 19:02	7959779	8.305	-135.767	330.049	14.254	375.701	422.014	0.229	0.274	7.675	14.254	2.251
2023-09-07 19:17	7960679	8.346	-137.982	321.061	14.268	376.049	422.276	0.229	0.274	7.949	14.268	2.241
2023-09-07 19:32	7961579	8.342	-137.77	325.255	14.279	376.169	422.314	0.229	0.275	8.038	14.279	2.322
2023-09-07 19:47	7962479	8.335	-137.37	326.959	14.286	376.287	422.385	0.229	0.275	8.145	14.286	2.335

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-07 20:02	7963379	8.329	-137.079	327.51	14.286	376.331	422.43	0.229	0.275	8.439	14.286	2.198
2023-09-07 20:17	7964279	8.345	-137.925	327.67	14.265	375.967	422.217	0.229	0.274	8.303	14.265	2.236
2023-09-07 20:32	7965179	8.366	-139.008	328.094	14.255	375.753	422.067	0.229	0.274	8.171	14.255	2.201
2023-09-07 20:47	7966079	8.365	-138.934	325.073	14.233	375.505	421.987	0.229	0.274	8.419	14.233	2.101
2023-09-07 21:02	7966979	8.372	-139.353	325.281	14.229	375.631	422.166	0.229	0.274	8.250	14.229	2.145
2023-09-07 21:17	7967879	8.350	-138.175	323.974	14.221	375.77	422.394	0.229	0.275	8.159	14.221	2.195
2023-09-07 21:32	7968779	8.310	-136.018	327.467	14.204	375.764	422.542	0.229	0.275	7.911	14.204	2.158
2023-09-07 21:47	7969679	8.286	-134.714	331.754	14.183	375.646	422.6	0.229	0.275	8.114	14.183	2.056
2023-09-07 22:02	7970579	8.268	-133.772	334.186	14.151	375.505	422.734	0.229	0.275	7.938	14.151	2.061
2023-09-07 22:17	7971479	8.267	-133.65	330.004	14.101	374.802	422.397	0.229	0.275	7.746	14.101	2.102
2023-09-07 22:32	7972379	8.259	-133.228	333.118	14.069	374.529	422.375	0.229	0.275	7.686	14.069	2.033
2023-09-07 22:47	7973279	8.250	-132.732	332.677	14.027	374.135	422.311	0.229	0.275	7.573	14.027	1.955
2023-09-07 23:02	7974179	8.249	-132.67	332.855	13.981	373.736	422.278	0.229	0.274	7.489	13.981	2
2023-09-07 23:17	7975079	8.224	-131.335	340.895	13.942	373.664	422.554	0.229	0.275	7.155	13.942	1.946
2023-09-07 23:32	7975979	8.212	-130.668	334.846	13.92	373.567	422.647	0.229	0.275	7.399	13.92	1.982
2023-09-07 23:47	7976879	8.218	-130.973	334.295	13.883	373.28	422.662	0.229	0.275	7.374	13.883	1.876
2023-09-08 00:02	7977779	8.231	-131.655	334.577	13.844	372.926	422.613	0.229	0.275	7.463	13.844	1.911
2023-09-08 00:17	7978679	8.235	-131.824	329.758	13.795	372.57	422.659	0.230	0.275	7.443	13.795	1.98
2023-09-08 00:32	7979579	8.232	-131.64	332.224	13.762	371.96	422.269	0.229	0.274	7.239	13.762	1.951
2023-09-08 00:47	7980479	8.217	-130.851	332.264	13.726	371.696	422.304	0.229	0.274	7.387	13.726	1.939
2023-09-08 01:02	7981379	8.223	-131.121	331.682	13.688	371.406	422.319	0.229	0.275	7.445	13.688	1.861
2023-09-08 01:17	7982279	8.222	-131.052	326.089	13.644	371.433	422.751	0.230	0.275	7.124	13.644	1.873
2023-09-08 01:32	7983179	8.202	-129.983	326.125	13.626	371.363	422.842	0.230	0.275	7.379	13.626	1.935
2023-09-08 01:47	7984079	8.197	-129.724	325.538	13.587	371.06	422.857	0.230	0.275	7.230	13.587	1.959
2023-09-08 02:02	7984979	8.189	-129.285	327.2	13.548	370.757	422.872	0.230	0.275	7.052	13.548	1.943
2023-09-08 02:17	7985879	8.190	-129.282	323.908	13.483	370.121	422.74	0.230	0.275	7.008	13.483	1.891
2023-09-08 02:32	7986779	8.182	-128.839	327.15	13.453	369.559	422.374	0.229	0.275	6.758	13.453	1.897
2023-09-08 02:47	7987679	8.177	-128.574	328.447	13.417	369.363	422.485	0.230	0.275	6.549	13.417	1.872
2023-09-08 03:02	7988579	8.174	-128.379	328.535	13.377	369.025	422.466	0.230	0.275	6.789	13.377	1.873
2023-09-08 03:17	7989479	8.181	-128.741	323.767	13.338	368.926	422.712	0.230	0.275	6.851	13.338	1.95
2023-09-08 03:32	7990379	8.162	-127.742	325.848	13.32	368.918	422.874	0.230	0.275	6.525	13.32	1.91
2023-09-08 03:47	7991279	8.156	-127.409	326.506	13.286	368.563	422.781	0.230	0.275	6.571	13.286	1.833
2023-09-08 04:02	7992179	8.155	-127.351	328.731	13.252	368.184	422.662	0.230	0.275	6.638	13.252	1.833
2023-09-08 04:17	7993079	8.166	-127.9	328.087	13.191	367.524	422.471	0.230	0.275	6.879	13.191	1.95
2023-09-08 04:32	7993979	8.155	-127.323	330.753	13.177	367.151	422.166	0.229	0.274	6.784	13.177	1.804
2023-09-08 04:47	7994879	8.153	-127.184	333.032	13.149	366.917	422.158	0.229	0.274	6.678	13.149	1.788
2023-09-08 05:02	7995779	8.151	-127.058	334.553	13.121	366.634	422.094	0.229	0.274	***6.498***	13.121	1.839
2023-09-08 05:17	7996679	8.169	-128.009	328.364	13.087	366.445	422.187	0.229	0.274	6.545	13.087	1.907
2023-09-08 05:32	7997579	8.151	-127.048	330.419	13.073	366.426	422.297	0.230	0.274	6.849	13.073	1.946
2023-09-08 05:47	7998479	8.151	-127.046	333.392	13.048	366.214	422.287	0.230	0.274	6.952	13.048	1.793
2023-09-08 06:02	7999379	8.147	-126.827	334.205	13.015	365.927	422.263	0.230	0.274	6.623	13.015	1.811
2023-09-08 06:17	8000279	8.159	-127.394	330.314	12.967	365.247	421.926	0.229	0.274	6.819	12.967	1.799
2023-09-08 06:32	8001179	8.159	-127.385	334.25	12.945	364.906	421.732	0.229	0.274	6.613	12.945	1.828
2023-09-08 06:47	8002079	8.160	-127.454	336.804	12.922	364.577	421.571	0.229	0.274	6.683	12.922	1.782
2023-09-08 07:02	8002979	8.157	-127.28	337.426	12.898	364.549	421.761	0.229	0.274	6.559	12.898	1.827
2023-09-08 07:17	8003879	8.156	-127.232	333.611	12.869	364.49	421.965	0.229	0.274	6.532	12.869	1.99
2023-09-08 07:32	8004779	8.138	-126.24	333.392	12.854	364.506	422.125	0.230	0.274	***6.465***	12.854	1.822
2023-09-08 07:47	8005679	8.141	-126.412	333.487	12.825	364.228	422.066	0.230	0.274	6.592	12.825	1.755
2023-09-08 08:02	8006579	8.145	-126.617	333.847	12.804	363.981	421.976	0.229	0.274	6.565	12.804	1.885
2023-09-08 08:17	8007479	8.136	-126.121	331.33	12.764	363.611	421.928	0.229	0.274	***6.448***	12.764	1.79
2023-09-08 08:32	8008379	8.136	-126.128	335.273	12.753	363.187	421.537	0.229	0.274	***6.466***	12.753	1.76
2023-09-08 08:47	8009279	8.143	-126.467	336.665	12.733	363.097	421.615	0.229	0.274	***6.477***	12.733	1.766
2023-09-08 09:02	8010179	8.141	-126.367	337.764	12.723	363.002	421.598	0.229	0.274	***6.409***	12.723	1.724
2023-09-08 09:17	8011079	8.156	-127.146	335.335	12.709	363.129	421.875	0.229	0.274	6.564	12.709	1.749
2023-09-08 09:32	8011979	8.138	-126.195	336.677	12.709	363.232	421.995	0.230	0.274	6.584	12.709	1.752
2023-09-08 09:47	8012879	8.146	-126.626	337.843	12.694	363.029	421.906	0.229	0.274	7.086	12.694	1.753

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-08 10:02	8013779	8.163	-127.511	336.985	12.684	363.047	422.019	0.230	0.274	6.888	12.684	1.681
2023-09-08 10:17	8014679	8.150	-126.812	334.448	12.649	362.367	421.554	0.229	0.274	6.666	12.649	1.716
2023-09-08 10:32	8015579	8.147	-126.665	335.91	12.656	362.501	421.642	0.229	0.274	***6.462***	12.656	1.674
2023-09-08 10:47	8016479	8.145	-126.517	337.338	12.654	362.328	421.461	0.229	0.274	6.545	12.654	1.694
2023-09-08 11:02	8017379	8.147	-126.629	337.695	12.657	362.392	421.508	0.229	0.274	6.690	12.657	1.734
2023-09-08 11:17	8018279	8.188	-128.844	327.794	12.664	362.546	421.619	0.229	0.274	7.121	12.664	1.766
2023-09-08 11:32	8019179	8.210	-129.962	328.235	12.668	362.489	421.515	0.229	0.274	7.628	12.668	1.781
2023-09-08 11:47	8020079	8.183	-128.543	332.543	12.683	362.47	421.358	0.229	0.274	7.949	12.683	1.821
2023-09-08 12:02	8020979	8.181	-128.472	334.539	12.712	362.553	421.177	0.229	0.274	8.136	12.712	1.812
2023-09-08 12:17	8021879	8.244	-131.85	337.078	12.765	363.133	421.358	0.229	0.274	8.069	12.765	1.71
2023-09-08 12:32	8022779	8.226	-130.908	332.903	12.858	363.863	421.336	0.229	0.274	7.753	12.858	1.763
2023-09-08 12:47	8023679	8.216	-130.42	331.859	12.971	364.67	421.22	0.229	0.274	7.282	12.971	1.84
2023-09-08 13:02	8024579	8.261	-132.883	327.791	13.113	365.958	421.388	0.229	0.274	7.488	13.113	1.931
2023-09-08 13:17	8025479	8.298	-134.957	321.621	13.308	367.779	421.675	0.229	0.274	7.905	13.308	1.863
2023-09-08 13:32	8026379	8.288	-134.542	320.725	13.537	370.075	422.195	0.229	0.274	7.947	13.537	1.93
2023-09-08 13:47	8027279	8.307	-135.632	319.406	13.707	371.656	422.427	0.229	0.275	8.124	13.707	1.909
2023-09-08 14:02	8028179	8.323	-136.535	313.665	13.823	372.607	422.445	0.229	0.275	7.893	13.823	1.895
2023-09-08 14:17	8029079	8.325	-136.683	311.805	13.909	372.907	422.002	0.229	0.274	7.818	13.909	1.91
2023-09-08 14:32	8029979	8.321	-136.483	312.864	14.009	373.641	421.92	0.229	0.274	8.051	14.009	1.907
2023-09-08 14:47	8030879	8.310	-135.975	314.688	14.108	374.597	422.095	0.229	0.274	8.016	14.108	1.938
2023-09-08 15:02	8031779	8.334	-137.277	314.647	14.189	375.456	422.334	0.229	0.275	7.835	14.189	2.019
2023-09-08 15:17	8032679	8.373	-139.403	312.771	14.327	377.004	422.814	0.229	0.275	8.095	14.327	2.075
2023-09-08 15:32	8033579	8.350	-138.218	314.845	14.399	377.591	422.82	0.229	0.275	8.330	14.399	2.223
2023-09-08 15:47	8034479	8.311	-136.182	320.396	14.472	378.269	422.922	0.229	0.275	8.176	14.472	2.092
2023-09-08 16:02	8035379	8.309	-136.104	323.383	14.492	378.544	423.048	0.229	0.275	8.275	14.492	2.062
2023-09-08 16:17	8036279	8.338	-137.637	325.562	14.464	377.834	422.504	0.229	0.275	8.423	14.464	1.892
2023-09-08 16:32	8037179	8.337	-137.582	319.843	14.522	378.256	422.459	0.229	0.275	8.520	14.522	1.859
2023-09-08 16:47	8038079	8.339	-137.715	320.038	14.553	378.443	422.39	0.229	0.275	8.911	14.553	1.877
2023-09-08 17:02	8038979	8.352	-138.438	318.951	14.601	378.844	422.405	0.229	0.275	9.063	14.601	1.911
2023-09-08 17:17	8039879	8.421	-142.162	311.066	14.654	379.683	422.86	0.229	0.275	8.853	14.654	1.951
2023-09-08 17:32	8040779	8.486	-145.645	304.865	14.727	380.492	423.102	0.229	0.275	9.280	14.727	1.927
2023-09-08 17:47	8041679	8.497	-146.284	301.062	14.777	380.91	423.124	0.229	0.275	9.241	14.777	1.957
2023-09-08 18:02	8042579	8.471	-144.911	299.849	14.825	381.423	423.259	0.229	0.275	9.784	14.825	1.88
2023-09-08 18:17	8043479	8.466	-144.649	299.83	14.804	381.257	423.263	0.230	0.275	9.130	14.804	1.871
2023-09-08 18:32	8044379	8.427	-142.529	304.715	14.824	381.07	422.873	0.229	0.275	9.010	14.824	1.877
2023-09-08 18:47	8045279	8.451	-143.828	305.504	14.835	380.471	422.116	0.229	0.274	10.660	14.835	1.985
2023-09-08 19:02	8046179	8.613	-152.519	298.287	14.869	380.785	422.154	0.229	0.274	10.219	14.869	1.858
2023-09-08 19:17	8047079	8.650	-154.498	292.024	14.9	381.521	422.695	0.229	0.275	10.129	14.9	1.889
2023-09-08 19:32	8047979	8.566	-150.027	294.794	14.933	382.059	422.998	0.229	0.275	10.179	14.933	1.857
2023-09-08 19:47	8048879	8.549	-149.097	300.109	14.927	382.061	423.048	0.229	0.275	9.806	14.927	1.797
2023-09-08 20:02	8049779	8.550	-149.143	303.389	14.908	382.039	423.202	0.229	0.275	9.261	14.908	1.837
2023-09-08 20:17	8050679	8.510	-146.99	300.59	14.849	381.628	423.271	0.229	0.275	9.233	14.849	1.909
2023-09-08 20:32	8051579	8.505	-146.704	304.765	14.842	381.733	423.45	0.230	0.275	9.526	14.842	1.959
2023-09-08 20:47	8052479	8.479	-145.323	309.927	14.823	381.646	423.523	0.230	0.275	9.348	14.823	1.851
2023-09-08 21:02	8053379	8.465	-144.589	314.256	14.809	381.587	423.589	0.230	0.275	9.701	14.809	1.946
2023-09-08 21:17	8054279	8.528	-147.927	311.66	14.773	380.777	423.008	0.229	0.275	10.308	14.773	1.944
2023-09-08 21:32	8055179	8.545	-148.854	304.522	14.797	381.296	423.366	0.230	0.275	9.808	14.797	1.913
2023-09-08 21:47	8056079	8.558	-149.531	304.96	14.799	381.237	423.287	0.230	0.275	10.280	14.799	1.884
2023-09-08 22:02	8056979	8.625	-153.139	302.672	14.803	381.283	423.299	0.230	0.275	12.208	14.803	1.911
2023-09-08 22:17	8057879	8.790	-161.912	292.753	14.815	380.511	422.339	0.229	0.275	12.284	14.815	1.837
2023-09-08 22:32	8058779	8.532	-148.151	295.541	14.848	380.64	422.188	0.229	0.274	10.860	14.848	1.877
2023-09-08 22:47	8059679	8.645	-154.219	293.216	14.87	381.402	422.832	0.229	0.275	10.642	14.87	1.886
2023-09-08 23:02	8060579	8.655	-154.75	293.769	14.876	381.489	422.874	0.229	0.275	10.322	14.876	1.867
2023-09-08 23:17	8061479	8.673	-155.716	287.892	14.869	381.831	423.32	0.230	0.275	10.492	14.869	1.964
2023-09-08 23:32	8062379	8.652	-154.567	289.189	14.858	381.845	423.431	0.230	0.275	9.864	14.858	1.956
2023-09-08 23:47	8063279	8.633	-153.539	293.826	14.835	381.808	423.593	0.230	0.275	9.940	14.835	1.879

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-09 00:02	8064179	8.601	-151.856	301.034	14.805	381.673	423.712	0.230	0.275	9.706	14.805	1.929
2023-09-09 00:17	8065079	8.552	-149.207	303.64	14.757	381.211	423.631	0.230	0.275	9.382	14.757	1.976
2023-09-09 00:32	8065979	8.567	-149.994	304.493	14.723	381.046	423.757	0.230	0.275	9.104	14.723	1.929
2023-09-09 00:47	8066879	8.518	-147.34	307.998	14.672	380.636	423.762	0.230	0.275	9.141	14.672	1.834
2023-09-09 01:02	8067779	8.510	-146.859	308.596	14.61	380.168	423.801	0.230	0.275	8.998	14.61	1.873
2023-09-09 01:17	8068679	8.494	-145.998	303.802	14.529	379.845	424.166	0.230	0.276	8.689	14.529	1.98
2023-09-09 01:32	8069579	8.455	-143.859	306.153	14.484	379.69	424.404	0.230	0.276	8.573	14.484	1.848
2023-09-09 01:47	8070479	8.432	-142.601	311.991	14.412	379.199	424.508	0.230	0.276	8.604	14.412	1.938
2023-09-09 02:02	8071379	8.417	-141.783	316.262	14.338	378.492	424.384	0.230	0.276	8.352	14.338	1.91
2023-09-09 02:17	8072279	8.409	-141.306	317.69	14.234	377.519	424.238	0.230	0.276	8.309	14.234	1.839
2023-09-09 02:32	8073179	8.378	-139.613	316.252	14.18	376.661	423.763	0.230	0.275	8.436	14.18	1.864
2023-09-09 02:47	8074079	8.379	-139.654	314.14	14.104	375.791	423.48	0.230	0.275	8.481	14.104	1.763
2023-09-09 03:02	8074979	8.377	-139.492	315.01	14.042	375.505	423.72	0.230	0.275	8.277	14.042	1.789
2023-09-09 03:17	8075879	8.381	-139.689	305.957	13.966	375.987	424.963	0.231	0.276	8.051	13.966	1.827
2023-09-09 03:32	8076779	8.351	-138.078	305.762	13.914	375.136	424.478	0.230	0.276	7.628	13.914	1.858
2023-09-09 03:47	8077679	8.343	-137.582	312.721	13.852	374.564	424.4	0.230	0.276	8.205	13.852	1.782
2023-09-09 04:02	8078579	8.323	-136.526	318.717	13.789	373.833	424.145	0.230	0.276	8.402	13.789	1.72
2023-09-09 04:17	8079479	8.330	-136.845	320.2	13.686	372.79	423.911	0.230	0.276	8.387	13.686	1.684
2023-09-09 04:32	8080379	8.322	-136.378	319.39	13.662	372.325	423.606	0.230	0.275	8.080	13.662	1.708
2023-09-09 04:47	8081279	8.314	-135.915	319.111	13.602	371.827	423.588	0.230	0.275	7.867	13.602	1.873
2023-09-09 05:02	8082179	8.302	-135.267	319.638	13.551	371.308	423.473	0.230	0.275	7.896	13.551	1.685
2023-09-09 05:17	8083079	8.312	-135.791	313.458	13.487	371.313	424.065	0.230	0.276	7.780	13.487	1.685
2023-09-09 05:32	8083979	8.287	-134.454	313.577	13.46	371.176	424.162	0.230	0.276	7.663	13.46	1.626
2023-09-09 05:47	8084879	8.286	-134.349	313.939	13.402	370.622	424.061	0.230	0.276	7.709	13.402	1.67
2023-09-09 06:02	8085779	8.287	-134.411	311.417	13.357	370.269	424.076	0.230	0.276	7.829	13.357	1.629
2023-09-09 06:17	8086679	8.282	-134.089	311.624	13.285	369.335	423.669	0.230	0.275	7.700	13.285	1.637
2023-09-09 06:32	8087579	8.266	-133.235	315.53	13.263	368.856	423.329	0.230	0.275	7.803	13.263	1.616
2023-09-09 06:47	8088479	8.253	-132.527	316.972	13.223	368.525	423.317	0.230	0.275	7.656	13.223	1.614
2023-09-09 07:02	8089379	8.249	-132.272	318.164	13.178	368.089	423.235	0.230	0.275	7.479	13.178	1.587
2023-09-09 07:17	8090279	8.250	-132.322	314.514	13.128	368.094	423.706	0.230	0.275	7.387	13.128	1.726
2023-09-09 07:32	8091179	8.226	-131.018	316.796	13.102	367.864	423.69	0.230	0.275	7.274	13.102	1.633
2023-09-09 07:47	8092079	8.224	-130.928	317.294	13.054	367.471	423.679	0.230	0.275	7.504	13.054	1.54
2023-09-09 08:02	8092979	8.220	-130.649	318.479	13.012	367.008	423.535	0.230	0.275	7.350	13.012	1.778
2023-09-09 08:17	8093879	8.218	-130.517	316.55	12.939	366.197	423.279	0.230	0.275	7.294	12.939	1.514
2023-09-09 08:32	8094779	8.210	-130.119	318.3	12.906	365.599	422.899	0.230	0.275	7.256	12.906	1.579
2023-09-09 08:47	8095679	8.207	-129.926	320.195	12.87	365.284	422.873	0.230	0.275	7.271	12.87	1.489
2023-09-09 09:02	8096579	8.203	-129.714	321.84	12.829	364.712	422.597	0.230	0.275	7.171	12.829	1.57
2023-09-09 09:17	8097479	8.220	-130.551	317.506	12.793	364.901	423.153	0.230	0.275	7.361	12.793	1.598
2023-09-09 09:32	8098379	8.199	-129.468	317.451	12.788	364.891	423.183	0.230	0.275	7.316	12.788	1.495
2023-09-09 09:47	8099279	8.210	-130.026	318.524	12.761	364.694	423.207	0.230	0.275	7.011	12.761	3.606
2023-09-09 10:02	8100179	8.205	-129.762	320.455	12.739	364.472	423.156	0.230	0.275	7.063	12.739	1.519
2023-09-09 10:17	8101079	8.209	-129.952	319.394	12.695	363.611	422.567	0.230	0.275	7.292	12.695	1.589
2023-09-09 10:32	8101979	8.206	-129.766	320.973	12.693	363.21	422.125	0.230	0.274	7.381	12.693	1.58
2023-09-09 10:47	8102879	8.208	-129.886	321.931	12.68	362.907	421.893	0.229	0.274	7.261	12.68	1.522
2023-09-09 11:02	8103779	8.218	-130.401	321.197	12.676	362.919	421.946	0.229	0.274	7.706	12.676	1.502
2023-09-09 11:17	8104679	8.237	-131.426	316.774	12.669	363.433	422.608	0.230	0.275	7.694	12.669	1.587
2023-09-09 11:32	8105579	8.222	-130.615	313.749	12.682	363.647	422.734	0.230	0.275	7.626	12.682	1.525
2023-09-09 11:47	8106479	8.235	-131.319	315.484	12.684	363.669	422.743	0.230	0.275	7.464	12.684	1.496
2023-09-09 12:02	8107379	8.227	-130.897	317.342	12.696	363.766	422.738	0.230	0.275	7.513	12.696	1.512
2023-09-09 12:17	8108279	8.254	-132.337	317.461	12.722	363.641	422.354	0.230	0.275	8.174	12.722	1.503
2023-09-09 12:32	8109179	8.232	-131.195	319.43	12.786	364.306	422.527	0.230	0.275	8.422	12.786	1.572
2023-09-09 12:47	8110079	8.232	-131.199	320.183	12.828	364.545	422.411	0.230	0.275	7.413	12.828	1.693
2023-09-09 13:03	8110980	8.273	-133.424	321.187	12.911	365.162	422.347	0.230	0.275	7.534	12.911	1.6
2023-09-09 13:18	8111880	8.310	-135.453	316.316	13.038	366.066	422.206	0.230	0.274	7.796	13.038	1.689
2023-09-09 13:33	8112780	8.305	-135.26	316.059	13.198	367.579	422.464	0.230	0.275	8.215	13.198	1.627
2023-09-09 13:48	8113680	8.342	-137.32	315.472	13.395	368.91	422.169	0.229	0.274	8.113	13.395	1.689

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-09 14:03	8114580	8.369	-138.879	312.857	13.587	370.711	422.459	0.229	0.275	8.230	13.587	1.619
2023-09-09 14:18	8115480	8.395	-140.338	307.745	13.733	371.499	422.014	0.229	0.274	8.637	13.733	1.612
2023-09-09 14:33	8116380	8.431	-142.276	305.087	13.874	373.108	422.552	0.229	0.275	8.671	13.874	1.702
2023-09-09 14:48	8117280	8.411	-141.282	299.257	13.998	374.113	422.551	0.229	0.275	8.711	13.998	1.712
2023-09-09 15:03	8118180	8.423	-142.002	297.336	14.091	374.857	422.546	0.229	0.275	8.822	14.091	1.754
2023-09-09 15:18	8119080	8.410	-141.351	297.918	14.192	376.361	423.317	0.230	0.275	8.770	14.192	1.799
2023-09-09 15:33	8119980	8.384	-139.983	300.762	14.242	376.703	423.25	0.230	0.275	8.352	14.242	1.77
2023-09-09 15:48	8120880	8.361	-138.741	306.66	14.274	377.05	423.349	0.230	0.275	8.721	14.274	1.769
2023-09-09 16:03	8121780	8.361	-138.781	310.797	14.288	377.277	423.477	0.230	0.275	8.422	14.288	1.797
2023-09-09 16:18	8122680	8.366	-139.029	311.66	14.258	376.72	423.121	0.230	0.275	8.543	14.258	1.734
2023-09-09 16:33	8123580	8.390	-140.321	311.264	14.278	376.636	422.848	0.229	0.275	8.441	14.278	1.74
2023-09-09 16:48	8124480	8.398	-140.731	312.432	14.304	376.649	422.626	0.229	0.275	8.941	14.304	1.778
2023-09-09 17:03	8125380	8.405	-141.144	308.029	14.341	377.079	422.779	0.229	0.275	9.048	14.341	1.732
2023-09-09 17:18	8126280	8.462	-144.198	306.458	14.379	377.912	423.367	0.230	0.275	9.266	14.379	1.821
2023-09-09 17:33	8127180	8.443	-143.232	302.86	14.431	378.651	423.726	0.230	0.275	9.024	14.431	1.714
2023-09-09 17:48	8128080	8.460	-144.138	302.128	14.435	378.473	423.488	0.230	0.275	8.853	14.435	1.762
2023-09-09 18:03	8128980	8.485	-145.473	297.775	14.466	378.711	423.469	0.230	0.275	9.323	14.466	1.717
2023-09-09 18:18	8129880	8.599	-151.551	290.424	14.47	378.27	422.945	0.229	0.275	9.478	14.47	1.768
2023-09-09 18:33	8130780	8.533	-148.067	292.849	14.508	378.79	423.177	0.230	0.275	9.630	14.508	1.726
2023-09-09 18:48	8131680	8.490	-145.781	294.661	14.519	379.009	423.324	0.230	0.275	9.135	14.519	1.732
2023-09-09 19:03	8132580	8.481	-145.28	295.204	14.524	379.146	423.433	0.230	0.275	9.475	14.524	1.705
2023-09-09 19:18	8133480	8.513	-146.98	298.371	14.495	379.105	423.655	0.230	0.275	9.312	14.495	1.823
2023-09-09 19:33	8134380	8.493	-145.924	302.185	14.506	379.324	423.792	0.230	0.275	9.348	14.506	1.73
2023-09-09 19:48	8135280	8.477	-145.049	304.021	14.479	379.094	423.783	0.230	0.275	9.188	14.479	1.711
2023-09-09 20:03	8136180	8.464	-144.317	304.643	14.448	378.835	423.776	0.230	0.275	9.807	14.448	1.741
2023-09-09 20:18	8137080	8.558	-149.355	300.302	14.408	377.791	422.964	0.229	0.275	10.184	14.408	1.708
2023-09-09 20:33	8137980	8.589	-151.005	297.5	14.421	377.028	421.994	0.229	0.274	11.632	14.421	1.806
2023-09-09 20:48	8138880	8.690	-156.405	291.28	14.436	376.821	421.626	0.229	0.274	11.703	14.436	1.832
2023-09-09 21:03	8139780	8.794	-161.951	285.482	14.461	377.033	421.644	0.229	0.274	12.081	14.461	1.664
2023-09-09 21:18	8140680	8.794	-161.979	278.725	14.495	378.415	422.881	0.229	0.275	12.102	14.495	1.843
2023-09-09 21:33	8141580	8.705	-157.213	282.647	14.51	378.51	422.851	0.229	0.275	11.390	14.51	1.865
2023-09-09 21:48	8142480	8.635	-153.513	287.043	14.526	378.891	423.135	0.230	0.275	10.446	14.526	1.879
2023-09-09 22:03	8143380	8.646	-154.102	293.111	14.533	379.121	423.323	0.230	0.275	10.779	14.533	1.829
2023-09-09 22:18	8144280	8.648	-154.223	296.303	14.537	379.578	423.797	0.230	0.275	10.447	14.537	1.731
2023-09-09 22:33	8145180	8.654	-154.538	299.081	14.558	379.214	423.199	0.230	0.275	10.429	14.558	1.742
2023-09-09 22:48	8146080	8.660	-154.862	299.913	14.575	379.662	423.552	0.230	0.275	9.812	14.575	1.764
2023-09-09 23:03	8146980	8.650	-154.324	299.973	14.583	380.233	424.115	0.230	0.276	9.401	14.583	1.715
2023-09-09 23:18	8147880	8.655	-154.614	298.571	14.589	380.285	424.121	0.230	0.276	9.650	14.589	1.849
2023-09-09 23:33	8148780	8.625	-152.981	301.37	14.586	380.756	424.666	0.230	0.276	9.820	14.586	1.84
2023-09-09 23:48	8149680	8.610	-152.214	305.263	14.574	380.635	424.647	0.230	0.276	9.252	14.574	1.845
2023-09-10 00:03	8150580	8.585	-150.862	309.679	14.552	380.594	424.794	0.230	0.276	9.434	14.552	1.716
2023-09-10 00:18	8151480	8.564	-149.722	311.979	14.514	379.574	423.998	0.230	0.276	9.536	14.514	1.699
2023-09-10 00:33	8152380	8.602	-151.708	305.015	14.491	379.385	424.001	0.230	0.276	9.450	14.491	1.989
2023-09-10 00:48	8153280	8.605	-151.882	304.67	14.446	378.511	423.431	0.230	0.275	9.467	14.446	1.708
2023-09-10 01:03	8154180	8.610	-152.123	303.151	14.412	378.527	423.754	0.230	0.275	9.450	14.412	1.804
2023-09-10 01:18	8155080	8.581	-150.518	300.75	14.366	378.597	424.247	0.230	0.276	8.518	14.366	1.887
2023-09-10 01:33	8155980	8.557	-149.224	303.892	14.331	378.512	424.477	0.230	0.276	9.231	14.331	1.806
2023-09-10 01:48	8156880	8.508	-146.58	309.948	14.28	378.416	424.834	0.231	0.276	8.926	14.28	1.821
2023-09-10 02:03	8157780	8.473	-144.708	315.761	14.224	378.279	425.184	0.231	0.276	8.921	14.224	1.721
2023-09-10 02:18	8158680	8.444	-143.12	317.344	14.133	377.113	424.702	0.231	0.276	8.603	14.133	1.698
2023-09-10 02:33	8159580	8.402	-140.843	311.879	14.09	376.787	424.736	0.231	0.276	8.567	14.09	1.641
2023-09-10 02:48	8160480	8.376	-139.446	310.687	14.029	376.347	424.791	0.231	0.276	8.186	14.029	1.66
2023-09-10 03:03	8161380	8.381	-139.682	304.593	13.974	375.833	424.715	0.231	0.276	7.761	13.974	1.687
2023-09-10 03:18	8162280	8.409	-141.156	299.734	13.914	375.391	424.766	0.231	0.276	8.114	13.914	1.645
2023-09-10 03:33	8163180	8.391	-140.154	301.482	13.868	375.107	424.87	0.231	0.276	8.131	13.868	1.61
2023-09-10 03:48	8164080	8.391	-140.138	303.468	13.811	374.519	424.724	0.231	0.276	8.064	13.811	1.681

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-10 04:03	8164980	8.394	-140.266	302.927	13.755	373.908	424.552	0.231	0.276	7.967	13.755	1.654
2023-09-10 04:18	8165880	8.403	-140.696	302.092	13.665	372.818	424.134	0.230	0.276	8.153	13.665	1.633
2023-09-10 04:33	8166780	8.399	-140.469	305.311	13.631	372.247	423.804	0.230	0.275	7.990	13.631	1.645
2023-09-10 04:48	8167680	8.402	-140.6	304.462	13.577	371.672	423.642	0.230	0.275	8.063	13.577	1.654
2023-09-10 05:03	8168580	8.395	-140.202	306.329	13.527	371.504	423.917	0.230	0.276	8.063	13.527	1.636
2023-09-10 05:18	8169480	8.405	-140.717	303.671	13.469	371.032	423.908	0.230	0.276	8.185	13.469	1.594
2023-09-10 05:33	8170380	8.379	-139.327	307.123	13.438	370.837	423.973	0.230	0.276	7.723	13.438	1.556
2023-09-10 05:48	8171280	8.365	-138.543	308.32	13.388	370.473	424.025	0.230	0.276	7.405	13.388	1.657
2023-09-10 06:03	8172180	8.346	-137.527	310.404	13.336	370.004	423.972	0.230	0.276	7.095	13.336	1.55
2023-09-10 06:18	8173080	8.342	-137.279	310.275	13.251	369.15	423.782	0.230	0.275	7.646	13.251	1.653
2023-09-10 06:33	8173980	8.330	-136.6	310.89	13.217	368.628	423.496	0.230	0.275	7.636	13.217	1.598
2023-09-10 06:48	8174880	8.321	-136.087	312.037	13.173	368.348	423.58	0.230	0.275	7.522	13.173	1.545
2023-09-10 07:03	8175780	8.305	-135.221	313.906	13.129	367.943	423.521	0.230	0.275	7.548	13.129	1.591
2023-09-10 07:18	8176680	8.299	-134.895	313.107	13.078	367.869	423.92	0.230	0.276	7.215	13.078	1.532
2023-09-10 07:33	8177580	8.278	-133.76	312.444	13.052	367.775	424.05	0.231	0.276	7.242	13.052	1.579
2023-09-10 07:48	8178480	8.271	-133.395	312.406	13.008	367.382	424.006	0.231	0.276	7.213	13.008	1.5
2023-09-10 08:03	8179380	8.262	-132.864	311.736	12.971	367.106	424.035	0.231	0.276	7.285	12.971	1.519
2023-09-10 08:18	8180280	8.255	-132.494	310.809	12.912	366.324	423.686	0.230	0.275	7.242	12.912	1.574
2023-09-10 08:33	8181180	8.247	-132.043	312.168	12.885	365.924	423.469	0.230	0.275	7.220	12.885	1.497
2023-09-10 08:48	8182080	8.238	-131.545	313.806	12.85	365.591	423.412	0.230	0.275	7.074	12.85	1.476
2023-09-10 09:03	8182980	8.235	-131.369	314.295	12.817	365.247	423.324	0.230	0.275	7.123	12.817	1.482
2023-09-10 09:18	8183880	8.241	-131.7	314.039	12.782	365.416	423.846	0.231	0.275	7.107	12.782	1.498
2023-09-10 09:33	8184780	8.222	-130.682	314.862	12.778	365.435	423.909	0.231	0.276	7.052	12.778	1.487
2023-09-10 09:48	8185680	8.220	-130.565	317.325	12.757	365.271	423.916	0.231	0.276	6.791	12.757	1.469
2023-09-10 10:03	8186580	8.222	-130.675	318.922	12.739	365.067	423.848	0.231	0.276	6.776	12.739	1.486
2023-09-10 10:18	8187480	8.222	-130.661	318.419	12.698	364.463	423.528	0.230	0.275	7.373	12.698	1.472
2023-09-10 10:33	8188380	8.214	-130.198	319.876	12.696	364.006	423.02	0.230	0.275	7.416	12.696	1.571
2023-09-10 10:48	8189280	8.207	-129.824	320.708	12.691	363.946	422.998	0.230	0.275	7.341	12.691	1.493
2023-09-10 11:03	8190180	8.212	-130.124	321.452	12.683	364.041	423.185	0.230	0.275	7.397	12.683	1.455
2023-09-10 11:18	8191080	8.227	-130.918	317.418	12.682	364.44	423.655	0.230	0.275	7.122	12.682	1.427
2023-09-10 11:33	8191980	8.220	-130.513	318.526	12.692	364.589	423.736	0.230	0.275	6.897	12.692	1.459
2023-09-10 11:48	8192880	8.223	-130.684	319.68	12.699	364.629	423.719	0.230	0.275	7.021	12.699	1.426
2023-09-10 12:03	8193780	8.212	-130.122	320.169	12.712	364.714	423.689	0.230	0.275	7.409	12.712	1.431
2023-09-10 12:18	8194680	8.229	-131.044	319.256	12.724	364.401	423.215	0.230	0.275	8.485	12.724	1.488
2023-09-10 12:33	8195580	8.220	-130.568	319.79	12.751	364.119	422.631	0.230	0.275	8.097	12.751	1.499
2023-09-10 12:48	8196480	8.247	-132.031	319.583	12.798	364.95	423.159	0.230	0.275	8.612	12.798	1.429
2023-09-10 13:03	8197380	8.234	-131.34	320.1	12.851	365.577	423.393	0.230	0.275	7.906	12.851	1.526
2023-09-10 13:18	8198280	8.298	-134.773	316.679	12.959	366.055	422.929	0.230	0.275	7.932	12.959	1.491
2023-09-10 13:33	8199180	8.305	-135.248	315.391	13.123	367.567	423.145	0.230	0.275	8.295	13.123	1.482
2023-09-10 13:48	8200080	8.299	-135	314.914	13.31	369.4	423.515	0.230	0.275	8.290	13.31	1.493
2023-09-10 14:03	8200980	8.313	-135.822	315.279	13.496	371.063	423.698	0.230	0.275	8.197	13.496	1.55
2023-09-10 14:18	8201880	8.340	-137.353	313.379	13.618	371.729	423.332	0.230	0.275	8.152	13.618	1.542
2023-09-10 14:33	8202780	8.381	-139.587	313.52	13.77	372.773	423.121	0.230	0.275	7.831	13.77	1.531
2023-09-10 14:48	8203680	8.386	-139.947	311.779	13.913	373.902	423.094	0.230	0.275	8.228	13.913	1.549
2023-09-10 15:03	8204580	8.371	-139.163	315.47	14.035	374.903	423.113	0.230	0.275	8.581	14.035	1.61
2023-09-10 15:18	8205480	8.393	-140.393	310.89	14.171	376.56	423.74	0.230	0.275	8.565	14.171	1.643
2023-09-10 15:33	8206380	8.390	-140.278	313.148	14.233	377.047	423.72	0.230	0.275	8.576	14.233	1.69
2023-09-10 15:48	8207280	8.392	-140.448	316.636	14.301	377.762	423.907	0.230	0.276	8.845	14.301	1.634
2023-09-10 16:03	8208180	8.382	-139.928	317.003	14.351	378.35	424.112	0.230	0.276	8.596	14.351	1.708
2023-09-10 16:18	8209080	8.401	-140.963	315.577	14.36	378.05	423.696	0.230	0.275	8.545	14.36	1.67
2023-09-10 16:33	8209980	8.416	-141.728	310.59	14.393	378.376	423.761	0.230	0.275	8.728	14.393	1.675
2023-09-10 16:48	8210880	8.401	-140.932	313.331	14.389	378.24	423.639	0.230	0.275	8.800	14.389	1.742
2023-09-10 17:03	8211780	8.400	-140.92	313.267	14.381	378.27	423.75	0.230	0.275	9.365	14.381	1.669
2023-09-10 17:18	8212680	8.478	-145.08	308.398	14.398	378.729	424.112	0.230	0.276	9.111	14.398	1.782
2023-09-10 17:33	8213580	8.450	-143.58	305.528	14.403	378.751	424.089	0.230	0.276	9.102	14.403	1.746
2023-09-10 17:48	8214480	8.421	-142.05	312.144	14.401	378.856	424.227	0.230	0.276	9.116	14.401	1.721

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-10 18:03	8215380	8.420	-141.981	317.291	14.393	378.94	424.387	0.230	0.276	8.740	14.393	1.723
2023-09-10 18:18	8216280	8.472	-144.713	317.27	14.342	377.841	423.619	0.230	0.275	8.828	14.342	1.687
2023-09-10 18:33	8217180	8.488	-145.59	309.674	14.35	377.529	423.196	0.230	0.275	9.334	14.35	1.678
2023-09-10 18:48	8218080	8.497	-146.022	308.232	14.338	377.502	423.272	0.230	0.275	9.332	14.338	1.681
2023-09-10 19:03	8218980	8.509	-146.666	306.963	14.332	377.307	423.111	0.230	0.275	9.693	14.332	1.711
2023-09-10 19:18	8219880	8.552	-148.973	301.658	14.345	378.036	423.814	0.230	0.275	9.701	14.345	1.713
2023-09-10 19:33	8220780	8.574	-150.146	300.879	14.353	378.129	423.841	0.230	0.275	9.412	14.353	1.612
2023-09-10 19:48	8221680	8.537	-148.18	304.217	14.339	378.079	423.916	0.230	0.276	9.503	14.339	1.641
2023-09-10 20:03	8222580	8.530	-147.777	307.249	14.318	377.869	423.869	0.230	0.276	9.329	14.318	1.608
2023-09-10 20:18	8223480	8.517	-147.08	306.193	14.277	377.334	423.646	0.230	0.275	9.139	14.277	1.672
2023-09-10 20:33	8224380	8.515	-146.942	307.957	14.258	377.13	423.588	0.230	0.275	9.421	14.258	1.672
2023-09-10 20:48	8225280	8.505	-146.441	309.207	14.235	376.941	423.579	0.230	0.275	9.378	14.235	1.627
2023-09-10 21:03	8226180	8.503	-146.325	310.399	14.218	376.699	423.468	0.230	0.275	9.818	14.218	1.584
2023-09-10 21:18	8227080	8.582	-150.495	300.397	14.218	376.927	423.725	0.230	0.275	9.634	14.218	1.711
2023-09-10 21:33	8227980	8.580	-150.416	301.627	14.221	376.922	423.689	0.230	0.275	10.281	14.221	1.721
2023-09-10 21:48	8228880	8.551	-148.876	306.069	14.234	376.922	423.566	0.230	0.275	10.565	14.234	1.701
2023-09-10 22:03	8229780	8.551	-148.89	310.401	14.243	377.046	423.629	0.230	0.275	11.037	14.243	1.645
2023-09-10 22:18	8230680	8.552	-148.945	312.494	14.252	377.849	424.443	0.230	0.276	10.605	14.252	1.622
2023-09-10 22:33	8231580	8.537	-148.151	311.031	14.266	377.445	423.866	0.230	0.276	9.835	14.266	1.643
2023-09-10 22:48	8232480	8.547	-148.683	311.045	14.274	377.251	423.577	0.230	0.275	10.463	14.274	1.645
2023-09-10 23:03	8233380	8.546	-148.649	309.419	14.289	377.293	423.491	0.230	0.275	10.931	14.289	1.614
2023-09-10 23:18	8234280	8.589	-150.933	306.179	14.314	378.484	424.599	0.230	0.276	10.079	14.314	1.643
2023-09-10 23:33	8235180	8.555	-149.114	309.328	14.323	378.608	424.651	0.230	0.276	9.303	14.323	1.658
2023-09-10 23:48	8236080	8.502	-146.306	313.024	14.338	378.852	424.79	0.231	0.276	9.808	14.338	1.614
2023-09-11 00:03	8236980	8.491	-145.719	317.063	14.349	379.061	424.922	0.231	0.276	9.714	14.349	1.707
2023-09-11 00:18	8237880	8.505	-146.503	316.421	14.359	379.737	425.588	0.231	0.277	9.237	14.359	1.625
2023-09-11 00:33	8238780	8.519	-147.247	317.325	14.361	379.428	425.232	0.231	0.276	9.348	14.361	1.612
2023-09-11 00:48	8239680	8.519	-147.233	315.894	14.356	379.604	425.472	0.231	0.277	9.610	14.356	1.684
2023-09-11 01:03	8240580	8.510	-146.763	315.551	14.343	379.698	425.697	0.231	0.277	9.082	14.343	1.603
2023-09-11 01:18	8241480	8.547	-148.685	309.135	14.32	379.134	425.275	0.231	0.276	9.037	14.32	1.712
2023-09-11 01:33	8242380	8.528	-147.7	311.386	14.303	379.297	425.606	0.231	0.277	9.042	14.303	1.669
2023-09-11 01:48	8243280	8.496	-145.965	315.532	14.27	379.167	425.762	0.231	0.277	8.802	14.27	1.602
2023-09-11 02:03	8244180	8.453	-143.664	320.577	14.228	379.122	426.1	0.231	0.277	8.407	14.228	1.719
2023-09-11 02:18	8245080	8.410	-141.306	325.36	14.171	378.412	425.823	0.231	0.277	8.146	14.171	1.686
2023-09-11 02:33	8245980	8.453	-143.592	322.506	14.128	377.287	424.945	0.231	0.276	8.297	14.128	1.61
2023-09-11 02:48	8246880	8.487	-145.359	316.734	14.078	377.292	425.407	0.231	0.277	8.439	14.078	1.591
2023-09-11 03:03	8247780	8.410	-141.234	307.693	14.034	377.433	425.973	0.231	0.277	7.905	14.034	1.572
2023-09-11 03:18	8248680	8.369	-139.048	297.052	13.983	376.985	425.935	0.231	0.277	7.423	13.983	1.576
2023-09-11 03:33	8249580	8.323	-136.609	299.432	13.949	376.767	425.999	0.231	0.277	7.193	13.949	1.536
2023-09-11 03:48	8250480	8.331	-136.991	302.059	13.903	376.249	425.839	0.231	0.277	7.615	13.903	1.525
2023-09-11 04:03	8251380	8.333	-137.093	305.328	13.852	375.629	425.605	0.231	0.277	7.636	13.852	1.584
2023-09-11 04:18	8252280	8.364	-138.669	306.024	13.779	374.452	424.941	0.231	0.276	7.664	13.779	1.545
2023-09-11 04:33	8253180	8.371	-139.034	307.743	13.725	373.9	424.816	0.231	0.276	7.870	13.725	1.554
2023-09-11 04:48	8254080	8.380	-139.475	309.8	13.659	372.928	424.315	0.230	0.276	7.879	13.659	1.545
2023-09-11 05:03	8254980	8.387	-139.835	311.589	13.595	372.267	424.153	0.230	0.276	8.014	13.595	1.5
2023-09-11 05:18	8255880	8.414	-141.213	303.83	13.528	371.914	424.369	0.231	0.276	7.889	13.528	1.474
2023-09-11 05:33	8256780	8.389	-139.849	305.452	13.49	371.616	424.384	0.231	0.276	7.922	13.49	1.538
2023-09-11 05:48	8257680	8.385	-139.623	308.947	13.434	371.172	424.395	0.231	0.276	7.854	13.434	1.54
2023-09-11 06:03	8258580	8.382	-139.47	310.587	13.385	370.765	424.383	0.231	0.276	7.881	13.385	1.484
2023-09-11 06:18	8259480	8.394	-140.04	308.99	13.322	369.985	424.071	0.230	0.276	8.031	13.322	1.41
2023-09-11 06:33	8260380	8.380	-139.282	310.771	13.286	369.577	423.942	0.230	0.276	8.044	13.286	1.557
2023-09-11 06:48	8261280	8.371	-138.788	311.312	13.243	369.097	423.789	0.230	0.275	8.115	13.243	1.466
2023-09-11 07:03	8262180	8.366	-138.519	312.189	13.202	368.835	423.873	0.230	0.276	7.819	13.202	1.434
2023-09-11 07:18	8263080	8.370	-138.702	310.897	13.169	368.88	424.226	0.231	0.276	8.017	13.169	1.503
2023-09-11 07:33	8263980	8.348	-137.539	309.993	13.152	368.779	424.271	0.231	0.276	7.854	13.152	1.394
2023-09-11 07:48	8264880	8.337	-136.924	313.722	13.123	368.574	424.304	0.231	0.276	7.921	13.123	1.39

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-11 08:03	8265780	8.328	-136.454	315.735	13.103	368.456	424.359	0.231	0.276	7.792	13.103	1.429
2023-09-11 08:18	8266680	8.314	-135.698	313.524	13.073	368.167	424.304	0.231	0.276	7.558	13.073	1.479
2023-09-11 08:33	8267580	8.300	-134.923	312.101	13.066	367.92	424.085	0.231	0.276	7.622	13.066	1.5
2023-09-11 08:48	8268480	8.285	-134.144	313.086	13.059	367.865	424.085	0.231	0.276	7.542	13.059	1.458
2023-09-11 09:03	8269380	8.281	-133.91	314.507	13.053	367.911	424.197	0.231	0.276	7.666	13.053	1.408
2023-09-11 09:18	8270280	8.300	-134.907	313.205	13.039	367.673	424.051	0.231	0.276	7.566	13.039	1.402
2023-09-11 09:33	8271180	8.289	-134.335	311.233	13.068	368.396	424.618	0.231	0.276	7.844	13.068	1.349
2023-09-11 09:48	8272080	8.283	-134.032	312.962	13.076	368.458	424.615	0.231	0.276	7.358	13.076	1.384
2023-09-11 10:03	8272980	8.272	-133.455	315.634	13.087	368.398	424.441	0.231	0.276	8.028	13.087	1.537
2023-09-11 10:18	8273880	8.290	-134.449	314.821	13.098	368.317	424.242	0.231	0.276	8.116	13.098	1.423
2023-09-11 10:33	8274780	8.278	-133.779	315.561	13.115	368.095	423.834	0.230	0.275	7.820	13.115	1.462
2023-09-11 10:48	8275680	8.276	-133.691	315.868	13.139	368.321	423.871	0.230	0.276	8.449	13.139	1.426
2023-09-11 11:03	8276580	8.274	-133.593	316.176	13.163	368.725	424.107	0.231	0.276	7.927	13.163	1.64
2023-09-11 11:18	8277480	8.288	-134.392	316.803	13.194	369.371	424.561	0.231	0.276	7.881	13.194	1.486
2023-09-11 11:33	8278380	8.274	-133.66	318.062	13.23	369.753	424.661	0.231	0.276	7.862	13.23	1.42
2023-09-11 11:48	8279280	8.274	-133.669	318.844	13.259	369.913	424.582	0.231	0.276	7.593	13.259	1.474
2023-09-11 12:03	8280180	8.318	-135.996	317.625	13.309	369.671	423.841	0.230	0.275	8.266	13.309	1.839
2023-09-11 12:18	8281080	8.397	-140.204	310.041	13.344	369.649	423.487	0.230	0.275	8.839	13.344	1.676
2023-09-11 12:33	8281980	8.406	-140.724	306.999	13.382	369.941	423.466	0.230	0.275	8.673	13.382	1.813
2023-09-11 12:48	8282880	8.424	-141.714	303.773	13.433	370.343	423.456	0.230	0.275	8.840	13.433	1.627
2023-09-11 13:03	8283780	8.431	-142.105	302.369	13.479	370.816	423.568	0.230	0.275	8.759	13.479	1.599
2023-09-11 13:18	8284680	8.445	-142.87	297.82	13.534	371.421	423.751	0.230	0.275	8.663	13.534	1.667
2023-09-11 13:33	8285580	8.441	-142.672	296.084	13.568	371.709	423.768	0.230	0.275	8.806	13.568	1.727
2023-09-11 13:48	8286480	8.410	-141.053	299.241	13.605	372.143	423.922	0.230	0.276	8.949	13.605	1.656
2023-09-11 14:03	8287380	8.367	-138.755	303.182	13.636	372.602	424.164	0.230	0.276	8.857	13.636	1.684
2023-09-11 14:18	8288280	8.350	-137.885	309.443	13.659	372.809	424.179	0.230	0.276	8.636	13.659	2.331
2023-09-11 14:33	8289180	8.388	-139.952	308.921	13.737	372.993	423.67	0.230	0.275	8.455	13.737	1.69
2023-09-11 14:48	8290080	8.503	-146.117	302.624	13.836	373.647	423.505	0.230	0.275	9.402	13.836	1.631
2023-09-11 15:03	8290980	8.586	-150.533	291.259	13.884	373.809	423.252	0.230	0.275	9.782	13.884	1.638
2023-09-11 15:18	8291880	8.574	-149.913	286.581	13.929	374.675	423.818	0.230	0.275	9.533	13.929	1.582
2023-09-11 15:33	8292780	8.522	-147.188	289.184	13.931	374.75	423.882	0.230	0.276	9.695	13.931	1.607
2023-09-11 15:48	8293680	8.554	-148.904	286.671	13.959	374.995	423.909	0.230	0.276	9.545	13.959	1.563
2023-09-11 16:03	8294580	8.543	-148.318	285.985	13.946	375.003	424.032	0.230	0.276	9.562	13.946	1.626
2023-09-11 16:18	8295480	8.511	-146.554	289.461	13.911	374.435	423.71	0.230	0.275	9.251	13.911	1.543
2023-09-11 16:33	8296380	8.506	-146.289	292.896	13.913	374.265	423.505	0.230	0.275	9.215	13.913	1.621
2023-09-11 16:48	8297280	8.517	-146.894	292.551	13.905	374.189	423.488	0.230	0.275	9.254	13.905	1.566
2023-09-11 17:03	8298180	8.504	-146.21	294.368	13.922	374.188	423.33	0.230	0.275	9.366	13.922	1.668
2023-09-11 17:18	8299081	8.524	-147.271	293.55	13.943	374.766	423.792	0.230	0.275	9.150	13.943	1.621
2023-09-11 17:33	8299981	8.497	-145.836	295.951	13.936	374.793	423.89	0.230	0.276	9.068	13.936	1.597
2023-09-11 17:48	8300881	8.472	-144.508	300.476	13.922	374.853	424.083	0.230	0.276	9.141	13.922	1.644
2023-09-11 18:03	8301781	8.471	-144.47	302.159	13.926	374.959	424.165	0.230	0.276	9.146	13.926	1.725
2023-09-11 18:18	8302681	8.470	-144.417	304.138	13.927	374.77	423.947	0.230	0.276	8.955	13.927	1.489
2023-09-11 18:33	8303581	8.502	-146.105	305.282	13.947	374.872	423.874	0.230	0.276	9.132	13.947	1.512
2023-09-11 18:48	8304481	8.490	-145.481	306.689	13.95	374.835	423.806	0.230	0.275	9.043	13.95	1.535
2023-09-11 19:03	8305381	8.488	-145.392	308.582	13.957	374.987	423.92	0.230	0.276	9.203	13.957	1.56
2023-09-11 19:18	8306281	8.490	-145.457	307.588	13.959	375.135	424.065	0.230	0.276	8.942	13.959	1.579
2023-09-11 19:33	8307181	8.472	-144.534	310.671	13.952	375.105	424.099	0.230	0.276	9.017	13.952	1.593
2023-09-11 19:48	8308081	8.453	-143.49	314.595	13.942	375.191	424.286	0.230	0.276	8.623	13.942	1.587
2023-09-11 20:03	8308981	8.440	-142.798	318.522	13.924	375.078	424.323	0.230	0.276	8.980	13.924	1.54
2023-09-11 20:18	8309881	8.430	-142.255	318.453	13.916	374.989	424.296	0.230	0.276	8.971	13.916	1.522
2023-09-11 20:33	8310781	8.449	-143.254	318.395	13.925	375.009	424.229	0.230	0.276	8.789	13.925	1.5
2023-09-11 20:48	8311681	8.452	-143.421	316.312	13.936	374.931	424.047	0.230	0.276	8.981	13.936	1.515
2023-09-11 21:03	8312581	8.464	-144.088	315.448	13.959	375.047	423.964	0.230	0.276	9.728	13.959	1.611
2023-09-11 21:18	8313481	8.511	-146.599	310.432	13.968	375.259	424.119	0.230	0.276	9.538	13.968	1.639
2023-09-11 21:33	8314381	8.494	-145.69	311.577	13.968	375.355	424.236	0.230	0.276	9.568	13.968	1.653
2023-09-11 21:48	8315281	8.474	-144.649	314.264	13.967	375.449	424.343	0.230	0.276	9.361	13.967	1.596

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-11 22:03	8316181	8.456	-143.657	314.948	13.968	375.517	424.415	0.230	0.276	9.273	13.968	1.5
2023-09-11 22:18	8317081	8.442	-142.927	317.873	13.961	375.598	424.566	0.231	0.276	9.123	13.961	1.519
2023-09-11 22:33	8317981	8.437	-142.679	319.781	13.955	375.705	424.743	0.231	0.276	8.922	13.955	3.119
2023-09-11 22:48	8318881	8.416	-141.53	319.936	13.945	375.643	424.769	0.231	0.276	8.677	13.945	1.429
2023-09-11 23:03	8319781	8.414	-141.423	321.335	13.931	375.49	424.727	0.231	0.276	8.691	13.931	1.51
2023-09-11 23:18	8320681	8.424	-141.962	319.225	13.911	375.382	424.787	0.231	0.276	8.439	13.911	1.501
2023-09-11 23:33	8321581	8.399	-140.581	320.15	13.897	375.371	424.896	0.231	0.276	8.339	13.897	1.498
2023-09-11 23:48	8322481	8.403	-140.82	321.757	13.873	375.216	424.946	0.231	0.276	8.262	13.873	1.493
2023-09-12 00:03	8323381	8.405	-140.879	321.771	13.844	375.072	425.048	0.231	0.276	8.152	13.844	1.507
2023-09-12 00:18	8324281	8.380	-139.554	319.366	13.785	374.644	425.107	0.231	0.276	8.019	13.785	1.433
2023-09-12 00:33	8325181	8.361	-138.526	321.514	13.764	374.592	425.245	0.231	0.276	8.380	13.764	1.469
2023-09-12 00:48	8326081	8.317	-136.139	322.766	13.727	374.561	425.547	0.231	0.277	8.116	13.727	1.513
2023-09-12 01:03	8326981	8.297	-135.102	321.907	13.686	374.152	425.462	0.231	0.277	7.443	13.686	1.471
2023-09-12 01:18	8327881	8.309	-135.684	318.557	13.647	374.098	425.759	0.231	0.277	7.305	13.647	1.432
2023-09-12 01:33	8328781	8.283	-134.313	318.855	13.623	373.98	425.848	0.231	0.277	7.016	13.623	1.499
2023-09-12 01:48	8329681	8.274	-133.793	318.593	13.584	373.695	425.883	0.231	0.277	7.069	13.584	1.432
2023-09-12 02:03	8330581	8.265	-133.319	317.437	13.546	373.309	425.798	0.231	0.277	7.312	13.546	1.439
2023-09-12 02:18	8331481	8.264	-133.231	315.446	13.483	372.582	425.558	0.231	0.277	7.268	13.483	1.5
2023-09-12 02:33	8332381	8.264	-133.202	310.864	13.456	371.959	425.096	0.231	0.276	7.389	13.456	1.413
2023-09-12 02:48	8333281	8.270	-133.493	313.565	13.418	371.544	424.968	0.231	0.276	7.234	13.418	1.43
2023-09-12 03:03	8334181	8.269	-133.469	315.127	13.38	371.163	424.887	0.231	0.276	7.305	13.38	1.384
2023-09-12 03:18	8335081	8.293	-134.695	315.72	13.344	371.108	425.158	0.231	0.276	7.281	13.344	1.453
2023-09-12 03:33	8335981	8.266	-133.257	316.202	13.316	370.944	425.232	0.231	0.276	7.327	13.316	1.355
2023-09-12 03:48	8336881	8.270	-133.443	316.731	13.281	370.585	425.146	0.231	0.276	7.242	13.281	1.397
2023-09-12 04:03	8337781	8.273	-133.617	316.23	13.244	370.224	425.08	0.231	0.276	7.329	13.244	1.385
2023-09-12 04:18	8338681	8.282	-134.06	314.507	13.187	369.44	424.702	0.231	0.276	7.414	13.187	1.379
2023-09-12 04:33	8339581	8.275	-133.641	315.766	13.161	369.038	424.484	0.231	0.276	7.468	13.161	1.326
2023-09-12 04:48	8340481	8.274	-133.581	316.662	13.127	368.757	424.481	0.231	0.276	7.566	13.127	1.366
2023-09-12 05:03	8341381	8.274	-133.586	317.644	13.093	368.41	424.399	0.231	0.276	7.384	13.093	1.384
2023-09-12 05:18	8342281	8.291	-134.487	316.772	13.058	368.349	424.651	0.231	0.276	7.453	13.058	1.335
2023-09-12 05:33	8343181	8.268	-133.214	318.934	13.036	368.269	424.771	0.231	0.276	7.527	13.036	1.29
2023-09-12 05:48	8344081	8.268	-133.197	318.824	13.001	367.962	424.738	0.231	0.276	7.393	13.001	1.39
2023-09-12 06:03	8344981	8.261	-132.84	319.976	12.971	367.675	424.69	0.231	0.276	7.455	12.971	1.295
2023-09-12 06:18	8345881	8.265	-133.045	318.495	12.924	367.029	424.388	0.231	0.276	7.449	12.924	1.355
2023-09-12 06:33	8346781	8.260	-132.725	320.238	12.894	366.569	424.132	0.231	0.276	7.379	12.894	1.326
2023-09-12 06:48	8347681	8.259	-132.694	322.181	12.863	366.279	424.091	0.231	0.276	7.567	12.863	1.305
2023-09-12 07:03	8348581	8.262	-132.821	322.878	12.834	365.856	423.867	0.231	0.276	7.864	12.834	1.266
2023-09-12 07:18	8349481	8.300	-134.842	320.572	12.811	366.066	424.328	0.231	0.276	7.627	12.811	1.346
2023-09-12 07:33	8350381	8.270	-133.221	320.803	12.802	366.033	424.375	0.231	0.276	7.619	12.802	1.315
2023-09-12 07:48	8351281	8.273	-133.381	320.374	12.783	365.846	424.342	0.231	0.276	7.778	12.783	1.29
2023-09-12 08:03	8352181	8.278	-133.657	321.128	12.764	365.623	424.254	0.231	0.276	7.766	12.764	1.205
2023-09-12 08:18	8353081	8.294	-134.473	319.063	12.734	365.103	423.939	0.231	0.276	7.894	12.734	1.286
2023-09-12 08:33	8353981	8.281	-133.779	320.334	12.729	364.824	423.661	0.230	0.275	7.878	12.729	1.287
2023-09-12 08:48	8354881	8.278	-133.607	321.576	12.724	364.674	423.535	0.230	0.275	7.710	12.724	1.228
2023-09-12 09:03	8355781	8.279	-133.655	322.587	12.72	364.714	423.613	0.230	0.275	7.817	12.72	1.311
2023-09-12 09:18	8356681	8.300	-134.807	321.938	12.726	365.16	424.076	0.231	0.276	7.818	12.726	1.365
2023-09-12 09:33	8357581	8.284	-133.948	321.354	12.741	365.513	424.344	0.231	0.276	7.998	12.741	1.255
2023-09-12 09:48	8358481	8.296	-134.59	322.844	12.751	365.45	424.179	0.231	0.276	7.949	12.751	1.285
2023-09-12 10:03	8359381	8.308	-135.2	323.798	12.765	365.543	424.153	0.231	0.276	8.215	12.765	1.271
2023-09-12 10:18	8360281	8.325	-136.135	320.782	12.782	365.479	423.923	0.231	0.276	8.536	12.782	1.273
2023-09-12 10:33	8361181	8.298	-134.709	320.715	12.804	365.353	423.566	0.230	0.275	8.426	12.804	1.252
2023-09-12 10:48	8362081	8.311	-135.436	319.797	12.839	365.622	423.551	0.230	0.275	8.547	12.839	1.222
2023-09-12 11:03	8362981	8.333	-136.626	318.581	12.876	365.974	423.617	0.230	0.275	8.499	12.876	1.266
2023-09-12 11:18	8363881	8.342	-137.122	315.351	12.914	366.71	424.106	0.231	0.276	8.632	12.914	1.315
2023-09-12 11:33	8364781	8.291	-134.418	317.949	12.948	366.761	423.854	0.230	0.276	9.030	12.948	1.264
2023-09-12 11:48	8365681	8.264	-133.009	322.224	13.002	367.085	423.721	0.230	0.275	9.173	13.002	1.231

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-12 12:03	8366581	8.258	-132.728	326.549	13.065	367.917	424.096	0.231	0.276	9.411	13.065	1.207
2023-09-12 12:18	8367481	8.275	-133.66	330.564	13.123	368.829	424.605	0.231	0.276	8.223	13.123	1.306
2023-09-12 12:33	8368381	8.351	-137.725	327.832	13.193	369.218	424.397	0.231	0.276	7.682	13.193	1.162
2023-09-12 12:48	8369281	8.375	-138.998	325.393	13.257	369.754	424.417	0.231	0.276	7.957	13.257	1.183
2023-09-12 13:03	8370181	8.393	-140.028	324.179	13.329	370.398	424.488	0.231	0.276	7.827	13.329	1.22
2023-09-12 13:18	8371081	8.372	-138.915	320.946	13.423	371.437	424.803	0.231	0.276	8.046	13.423	1.125
2023-09-12 13:33	8371981	8.314	-135.899	322.427	13.507	372.339	425.05	0.231	0.276	7.904	13.507	1.209
2023-09-12 13:48	8372881	8.327	-136.597	323.81	13.581	372.915	425.021	0.231	0.276	7.856	13.581	1.331
2023-09-12 14:03	8373781	8.347	-137.696	322.935	13.645	373.057	424.592	0.231	0.276	8.267	13.645	1.203
2023-09-12 14:18	8374681	8.357	-138.268	321.49	13.653	373.337	424.837	0.231	0.276	8.215	13.653	1.203
2023-09-12 14:33	8375581	8.417	-141.451	320.999	13.667	372.964	424.283	0.230	0.276	8.203	13.667	1.259
2023-09-12 14:48	8376481	8.416	-141.411	318.002	13.701	372.99	423.999	0.230	0.276	8.936	13.701	1.308
2023-09-12 15:03	8377381	8.438	-142.589	316.118	13.722	373.189	424.037	0.230	0.276	8.598	13.722	1.3
2023-09-12 15:18	8378281	8.483	-144.982	312.866	13.727	373.56	424.411	0.231	0.276	8.727	13.727	1.339
2023-09-12 15:33	8379181	8.484	-145.032	313.191	13.743	373.555	424.257	0.230	0.276	8.640	13.743	1.342
2023-09-12 15:48	8380081	8.452	-143.378	315.913	13.756	373.817	424.432	0.231	0.276	8.726	13.756	1.399
2023-09-12 16:03	8380981	8.477	-144.72	315.115	13.782	374.014	424.419	0.231	0.276	8.848	13.782	1.385
2023-09-12 16:18	8381881	8.548	-148.468	308.873	13.804	373.739	423.909	0.230	0.276	9.300	13.804	1.297
2023-09-12 16:33	8382781	8.496	-145.721	307.953	13.848	374.108	423.917	0.230	0.276	9.202	13.848	1.308
2023-09-12 16:48	8383681	8.498	-145.85	308.196	13.874	374.295	423.895	0.230	0.276	9.382	13.874	1.308
2023-09-12 17:03	8384581	8.509	-146.463	307.86	13.917	374.736	423.995	0.230	0.276	9.089	13.917	1.278
2023-09-12 17:18	8385481	8.532	-147.705	304.171	13.941	375.407	424.534	0.231	0.276	9.328	13.941	1.364
2023-09-12 17:33	8386381	8.516	-146.885	304	13.953	375.347	424.362	0.230	0.276	9.409	13.953	1.495
2023-09-12 17:48	8387281	8.536	-147.922	299.746	13.979	375.721	424.541	0.231	0.276	9.566	13.979	1.393
2023-09-12 18:03	8388181	8.568	-149.66	298.807	13.996	375.819	424.497	0.230	0.276	9.903	13.996	1.315
2023-09-12 18:18	8389081	8.598	-151.267	296.056	14.017	375.885	424.379	0.230	0.276	10.553	14.017	1.347
2023-09-12 18:33	8389981	8.599	-151.312	298.65	14.055	375.604	423.72	0.230	0.275	10.144	14.055	1.316
2023-09-12 18:48	8390881	8.652	-154.161	297.04	14.098	375.729	423.47	0.230	0.275	10.428	14.098	1.223
2023-09-12 19:03	8391781	8.819	-163.062	290.047	14.123	375.664	423.166	0.230	0.275	11.101	14.123	1.274
2023-09-12 19:18	8392681	8.740	-158.901	285.062	14.126	376.437	424.006	0.230	0.276	10.745	14.126	1.414
2023-09-12 19:33	8393581	8.696	-156.529	291.63	14.127	376.557	424.134	0.230	0.276	10.514	14.127	1.361
2023-09-12 19:48	8394481	8.646	-153.852	297.3	14.075	376.408	424.441	0.230	0.276	9.715	14.075	1.424
2023-09-12 20:03	8395381	8.600	-151.403	301.246	14.037	376.036	424.371	0.230	0.276	9.771	14.037	1.398
2023-09-12 20:18	8396281	8.543	-148.323	305.225	13.979	375.821	424.656	0.231	0.276	9.616	13.979	1.327
2023-09-12 20:33	8397181	8.533	-147.791	306.56	13.951	375.605	424.668	0.231	0.276	8.963	13.951	1.273
2023-09-12 20:48	8398081	8.513	-146.682	307.507	13.915	375.146	424.484	0.230	0.276	9.180	13.915	1.322
2023-09-12 21:03	8398981	8.517	-146.885	307.919	13.876	374.918	424.576	0.231	0.276	8.946	13.876	1.353
2023-09-12 21:18	8399881	8.490	-145.431	304.112	13.868	375.073	424.825	0.231	0.276	8.848	13.868	1.388
2023-09-12 21:33	8400781	8.468	-144.265	306.622	13.905	375.599	425.089	0.231	0.276	10.071	13.905	1.405
2023-09-12 21:48	8401681	8.486	-145.254	304.56	13.945	375.516	424.622	0.231	0.276	10.607	13.945	1.326
2023-09-12 22:03	8402581	8.532	-147.712	299.577	13.957	375.635	424.644	0.231	0.276	11.261	13.957	1.355
2023-09-12 22:18	8403481	8.620	-152.373	297.713	13.957	375.49	424.48	0.230	0.276	11.167	13.957	1.377
2023-09-12 22:33	8404381	8.571	-149.817	301.148	13.959	375.997	425.037	0.231	0.276	10.649	13.959	1.323
2023-09-12 22:48	8405281	8.592	-150.919	301.007	13.967	375.904	424.856	0.231	0.276	9.902	13.967	1.306
2023-09-12 23:03	8406181	8.597	-151.172	301.594	13.974	375.724	424.595	0.231	0.276	9.709	13.974	1.261
2023-09-12 23:18	8407081	8.631	-153.012	298.754	13.971	375.939	424.865	0.231	0.276	9.789	13.971	1.302
2023-09-12 23:33	8407981	8.592	-150.917	297.991	13.973	376.304	425.257	0.231	0.276	9.596	13.973	1.268
2023-09-12 23:48	8408881	8.572	-149.832	300.984	13.962	376.451	425.529	0.231	0.277	9.503	13.962	1.239
2023-09-13 00:03	8409781	8.550	-148.659	304.581	13.937	376.237	425.511	0.231	0.277	9.236	13.937	1.262
2023-09-13 00:18	8410681	8.513	-146.692	305.053	13.89	375.934	425.601	0.231	0.277	8.882	13.89	1.268
2023-09-13 00:33	8411581	8.514	-146.72	306.52	13.867	375.791	425.657	0.231	0.277	8.715	13.867	1.331
2023-09-13 00:48	8412481	8.487	-145.264	308.758	13.838	375.447	425.526	0.231	0.277	8.452	13.838	1.267
2023-09-13 01:03	8413381	8.473	-144.482	310.027	13.81	374.977	425.251	0.231	0.276	8.693	13.81	1.271
2023-09-13 01:18	8414281	8.453	-143.404	308.618	13.788	374.902	425.375	0.231	0.276	8.362	13.788	1.298
2023-09-13 01:33	8415181	8.448	-143.135	312.351	13.776	374.833	425.403	0.231	0.277	8.602	13.776	1.305
2023-09-13 01:48	8416081	8.438	-142.603	315.401	13.754	374.761	425.521	0.231	0.277	8.381	13.754	1.302

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-13 02:03	8416981	8.429	-142.105	317.706	13.733	374.679	425.627	0.231	0.277	8.404	13.733	1.27
2023-09-13 02:18	8417881	8.407	-140.944	319.225	13.698	374.053	425.239	0.231	0.276	8.216	13.698	1.296
2023-09-13 02:33	8418781	8.400	-140.56	319.797	13.686	373.916	425.197	0.231	0.276	8.216	13.686	1.292
2023-09-13 02:48	8419681	8.387	-139.842	320.389	13.662	373.648	425.108	0.231	0.276	8.362	13.662	1.267
2023-09-13 03:03	8420581	8.385	-139.723	320.396	13.637	373.363	425.021	0.231	0.276	7.997	13.637	1.238
2023-09-13 03:18	8421481	8.377	-139.272	316.121	13.617	373.486	425.346	0.231	0.276	8.053	13.617	1.316
2023-09-13 03:33	8422381	8.361	-138.428	320.42	13.601	373.426	425.42	0.231	0.277	7.961	13.601	1.265
2023-09-13 03:48	8423281	8.341	-137.343	320.932	13.581	373.313	425.478	0.231	0.277	7.836	13.581	1.25
2023-09-13 04:03	8424181	8.328	-136.647	320.36	13.562	373.194	425.517	0.231	0.277	7.860	13.562	1.209
2023-09-13 04:18	8425081	8.323	-136.399	317.008	13.528	372.874	425.473	0.231	0.277	7.829	13.528	1.231
2023-09-13 04:33	8425981	8.322	-136.333	319.127	13.513	372.767	425.486	0.231	0.277	7.753	13.513	1.242
2023-09-13 04:48	8426881	8.313	-135.851	321.681	13.49	372.667	425.584	0.231	0.277	7.810	13.49	1.203
2023-09-13 05:03	8427781	8.312	-135.798	322.885	13.474	372.464	425.501	0.231	0.277	7.493	13.474	1.137
2023-09-13 05:18	8428681	8.322	-136.275	319.373	13.454	372.447	425.663	0.231	0.277	7.563	13.454	1.156
2023-09-13 05:33	8429581	8.302	-135.221	323.524	13.438	372.354	425.714	0.231	0.277	7.679	13.438	1.169
2023-09-13 05:48	8430481	8.300	-135.119	324.799	13.418	372.194	425.712	0.231	0.277	7.495	13.418	1.14
2023-09-13 06:03	8431381	8.297	-134.916	324.79	13.398	372.025	425.702	0.231	0.277	7.574	13.398	1.18
2023-09-13 06:18	8432281	8.289	-134.518	321.483	13.368	371.681	425.595	0.231	0.277	7.511	13.368	1.219
2023-09-13 06:33	8433181	8.282	-134.13	323.841	13.348	371.377	425.425	0.231	0.277	7.404	13.348	1.288
2023-09-13 06:48	8434081	8.274	-133.7	323.152	13.33	371.347	425.564	0.231	0.277	7.292	13.33	1.18
2023-09-13 07:03	8434981	8.276	-133.77	323.235	13.275	370.694	425.322	0.231	0.276	7.158	13.275	1.217
2023-09-13 07:18	8435881	8.281	-133.984	321.659	13.225	370.462	425.522	0.231	0.277	7.440	13.225	1.204
2023-09-13 07:33	8436781	8.260	-132.911	321.428	13.219	370.498	425.621	0.231	0.277	7.441	13.219	1.14
2023-09-13 07:48	8437681	8.256	-132.647	321.268	13.204	370.435	425.689	0.231	0.277	7.455	13.204	1.135
2023-09-13 08:03	8438581	8.249	-132.265	320.408	13.181	370.276	425.726	0.231	0.277	7.256	13.181	1.132
2023-09-13 08:18	8439481	8.237	-131.621	318.536	13.11	369.529	425.53	0.231	0.277	7.199	13.11	1.148
2023-09-13 08:33	8440381	8.227	-131.087	315.556	13.089	369.205	425.355	0.231	0.276	7.376	13.089	1.107
2023-09-13 08:48	8441281	8.227	-131.044	315.727	13.047	368.671	425.133	0.231	0.276	7.008	13.047	1.169
2023-09-13 09:03	8442181	8.237	-131.593	314.063	13.033	368.668	425.262	0.231	0.276	7.282	13.033	1.089
2023-09-13 09:18	8443081	8.251	-132.31	310.215	13.015	368.737	425.501	0.231	0.277	7.422	13.015	1.157
2023-09-13 09:33	8443981	8.249	-132.198	308.17	13.012	368.71	425.506	0.231	0.277	7.395	13.012	1.116
2023-09-13 09:48	8444881	8.260	-132.797	306.586	13.009	368.581	425.38	0.231	0.276	7.543	13.009	1.117
2023-09-13 10:03	8445781	8.271	-133.348	305.979	12.998	368.455	425.336	0.231	0.276	7.528	12.998	1.105
2023-09-13 10:18	8446681	8.291	-134.439	304.226	12.993	368.221	425.115	0.231	0.276	7.936	12.993	1.019
2023-09-13 10:33	8447581	8.289	-134.358	305.645	13.028	368.409	425.002	0.231	0.276	7.906	13.028	1.189
2023-09-13 10:48	8448481	8.326	-136.311	298.416	13.056	368.42	424.759	0.231	0.276	8.249	13.056	1.222
2023-09-13 11:03	8449381	8.352	-137.682	299.319	13.067	368.347	424.57	0.231	0.276	8.300	13.067	1.244
2023-09-13 11:18	8450281	8.375	-138.946	297.622	13.066	368.36	424.593	0.231	0.276	8.365	13.066	1.194
2023-09-13 11:33	8451181	8.376	-138.955	300.004	13.068	368.303	424.513	0.231	0.276	8.477	13.068	1.276
2023-09-13 11:48	8452081	8.386	-139.489	301.17	13.069	368.236	424.423	0.231	0.276	8.507	13.069	1.217
2023-09-13 12:03	8452981	8.392	-139.809	303.506	13.078	368.317	424.432	0.231	0.276	8.325	13.078	1.246
2023-09-13 12:18	8453881	8.412	-140.879	300.166	13.072	368.159	424.302	0.231	0.276	8.644	13.072	1.276
2023-09-13 12:33	8454781	8.412	-140.91	302.273	13.075	368.16	424.276	0.231	0.276	8.694	13.075	1.226
2023-09-13 12:48	8455681	8.417	-141.151	302.138	13.078	368.214	424.313	0.231	0.276	8.868	13.078	1.282
2023-09-13 13:03	8456581	8.415	-141.046	301.937	13.084	368.249	424.3	0.231	0.276	8.629	13.084	1.181
2023-09-13 13:18	8457481	8.434	-142.071	298.874	13.114	368.658	424.492	0.231	0.276	8.796	13.114	1.299
2023-09-13 13:33	8458381	8.428	-141.771	300.431	13.172	369.292	424.679	0.231	0.276	8.645	13.172	1.231
2023-09-13 13:48	8459281	8.429	-141.847	302.312	13.219	369.703	424.71	0.231	0.276	8.642	13.219	1.389
2023-09-13 14:03	8460181	8.445	-142.725	302.386	13.258	369.951	424.636	0.231	0.276	9.137	13.258	1.257
2023-09-13 14:18	8461081	8.466	-143.831	300.705	13.273	369.89	424.423	0.231	0.276	9.045	13.273	1.375
2023-09-13 14:33	8461981	8.481	-144.656	298.502	13.319	370.313	424.481	0.231	0.276	9.019	13.319	1.316
2023-09-13 14:48	8462881	8.500	-145.698	296.873	13.38	370.804	424.48	0.231	0.276	9.247	13.38	1.287
2023-09-13 15:03	8463781	8.529	-147.302	295.862	13.489	371.729	424.521	0.231	0.276	9.564	13.489	1.349
2023-09-13 15:18	8464681	8.557	-148.854	291.156	13.568	372.564	424.747	0.231	0.276	9.906	13.568	1.305
2023-09-13 15:33	8465581	8.544	-148.172	290.732	13.601	373.007	424.944	0.231	0.276	10.033	13.601	1.846
2023-09-13 15:48	8466481	8.527	-147.297	291.549	13.614	373.154	424.99	0.231	0.276	9.622	13.614	1.237

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-13 16:03	8467381	8.524	-147.152	293.621	13.654	373.546	425.065	0.231	0.276	9.394	13.654	1.357
2023-09-13 16:18	8468281	8.527	-147.295	289.969	13.667	373.611	425.019	0.231	0.276	9.655	13.667	1.345
2023-09-13 16:33	8469181	8.522	-147.049	290.128	13.689	373.705	424.929	0.231	0.276	9.745	13.689	1.286
2023-09-13 16:48	8470081	8.544	-148.251	291.475	13.731	374.115	425.002	0.231	0.276	9.643	13.731	1.287
2023-09-13 17:03	8470981	8.563	-149.257	288.946	13.785	374.625	425.087	0.231	0.276	9.932	13.785	1.298
2023-09-13 17:18	8471881	8.593	-150.909	284.523	13.819	375.001	425.201	0.231	0.276	9.950	13.819	1.405
2023-09-13 17:33	8472781	8.588	-150.635	282.032	13.843	375.223	425.226	0.231	0.276	9.713	13.843	1.376
2023-09-13 17:48	8473681	8.594	-150.957	281.567	13.86	375.381	425.256	0.231	0.276	9.780	13.86	1.405
2023-09-13 18:03	8474581	8.578	-150.101	285.219	13.883	375.634	425.328	0.231	0.276	9.825	13.883	1.362
2023-09-13 18:18	8475481	8.562	-149.271	288.364	13.88	375.564	425.274	0.231	0.276	9.706	13.88	1.311
2023-09-13 18:33	8476381	8.565	-149.429	289.218	13.881	375.521	425.217	0.231	0.276	9.633	13.881	1.307
2023-09-13 18:48	8477281	8.557	-148.99	289.134	13.885	375.601	425.275	0.231	0.276	9.782	13.885	1.413
2023-09-13 19:03	8478181	8.556	-148.926	287.956	13.88	375.547	425.256	0.231	0.276	9.877	13.88	1.251
2023-09-13 19:18	8479082	8.561	-149.219	284.638	13.896	375.889	425.5	0.231	0.277	9.657	13.896	1.426
2023-09-13 19:33	8479982	8.539	-148.06	286.338	13.895	375.9	425.514	0.231	0.277	9.836	13.895	1.312
2023-09-13 19:48	8480882	8.517	-146.88	290.76	13.889	375.916	425.587	0.231	0.277	9.848	13.889	1.296
2023-09-13 20:03	8481782	8.514	-146.685	295.519	13.868	375.833	425.686	0.231	0.277	9.732	13.868	1.309
2023-09-13 20:18	8482682	8.506	-146.241	298.261	13.832	375.227	425.336	0.231	0.276	9.662	13.832	1.256
2023-09-13 20:33	8483582	8.509	-146.418	298.33	13.824	375.132	425.305	0.231	0.276	9.320	13.824	1.241
2023-09-13 20:48	8484482	8.491	-145.433	297.61	13.799	374.938	425.311	0.231	0.276	9.385	13.799	1.167
2023-09-13 21:03	8485382	8.488	-145.254	299.05	13.767	374.725	425.369	0.231	0.276	9.307	13.767	1.25
2023-09-13 21:18	8486282	8.492	-145.493	296.399	13.742	374.776	425.657	0.231	0.277	9.073	13.742	1.144
2023-09-13 21:33	8487182	8.475	-144.563	297.939	13.728	374.736	425.737	0.231	0.277	9.344	13.728	1.175
2023-09-13 21:48	8488082	8.470	-144.262	300.385	13.701	374.496	425.714	0.231	0.277	8.967	13.701	1.122
2023-09-13 22:03	8488982	8.465	-143.983	300.733	13.673	374.321	425.776	0.231	0.277	9.043	13.673	1.186
2023-09-13 22:18	8489882	8.445	-142.91	301.089	13.624	373.932	425.782	0.231	0.277	8.736	13.624	1.163
2023-09-13 22:33	8490782	8.438	-142.55	304.124	13.59	373.758	425.903	0.231	0.277	8.587	13.59	1.183
2023-09-13 22:48	8491682	8.414	-141.246	306.467	13.551	373.39	425.84	0.231	0.277	8.185	13.551	1.293
2023-09-13 23:03	8492582	8.406	-140.781	306.591	13.476	371.904	424.842	0.231	0.276	8.638	13.476	1.327
2023-09-13 23:18	8493482	8.437	-142.367	304.281	13.415	371.936	425.448	0.231	0.277	8.680	13.415	1.199
2023-09-13 23:33	8494382	8.437	-142.381	303.561	13.372	371.635	425.504	0.231	0.277	8.939	13.372	1.209
2023-09-13 23:48	8495282	8.449	-142.963	300.8	13.326	371.238	425.476	0.231	0.277	8.868	13.326	1.134
2023-09-14 00:03	8496182	8.447	-142.832	299.761	13.275	370.804	425.456	0.231	0.277	8.978	13.275	1.164
2023-09-14 00:18	8497082	8.451	-143.006	294.031	13.181	369.915	425.312	0.231	0.276	8.889	13.181	1.175
2023-09-14 00:33	8497982	8.437	-142.279	297.219	13.164	369.437	424.913	0.231	0.276	8.820	13.164	1.135
2023-09-14 00:48	8498882	8.428	-141.785	297.474	13.139	369.407	425.117	0.231	0.276	8.802	13.139	1.201
2023-09-14 01:03	8499782	8.432	-141.973	298.893	13.119	369.325	425.207	0.231	0.276	8.766	13.119	1.173
2023-09-14 01:18	8500682	8.428	-141.773	296.041	13.094	369.388	425.519	0.231	0.277	8.671	13.094	1.278
2023-09-14 01:33	8501582	8.430	-141.861	298.979	13.084	369.22	425.417	0.231	0.277	8.972	13.084	1.236
2023-09-14 01:48	8502482	8.412	-140.862	302.653	13.063	369.127	425.505	0.231	0.277	8.791	13.063	1.161
2023-09-14 02:03	8503382	8.400	-140.259	306.625	13.037	368.889	425.472	0.231	0.277	8.687	13.037	1.172
2023-09-14 02:18	8504282	8.388	-139.549	310.077	12.983	368.449	425.475	0.231	0.277	8.513	12.983	1.156
2023-09-14 02:33	8505182	8.409	-140.703	307.082	12.983	368.307	425.306	0.231	0.276	8.385	12.983	1.023
2023-09-14 02:48	8506082	8.389	-139.596	307.726	12.947	367.941	425.22	0.231	0.276	8.435	12.947	1.058
2023-09-14 03:03	8506982	8.384	-139.344	308.441	12.918	367.648	425.155	0.231	0.276	8.524	12.918	1.3
2023-09-14 03:18	8507882	8.394	-139.837	307.316	12.871	367.56	425.496	0.231	0.277	8.379	12.871	1.21
2023-09-14 03:33	8508782	8.382	-139.184	307.287	12.881	367.62	425.474	0.231	0.277	8.337	12.881	1.14
2023-09-14 03:48	8509682	8.387	-139.47	308.286	12.858	367.433	425.469	0.231	0.277	8.704	12.858	1.087
2023-09-14 04:03	8510582	8.379	-139.015	310.065	12.84	367.373	425.569	0.231	0.277	8.219	12.84	1.162
2023-09-14 04:18	8511482	8.366	-138.295	308.127	12.798	366.911	425.43	0.231	0.277	8.182	12.798	1.116
2023-09-14 04:33	8512382	8.363	-138.159	310.611	12.785	366.588	425.183	0.231	0.276	8.329	12.785	1.068
2023-09-14 04:48	8513282	8.361	-138.016	311.522	12.76	366.522	425.342	0.231	0.276	8.268	12.76	1.166
2023-09-14 05:03	8514182	8.355	-137.727	311.236	12.737	366.35	425.353	0.231	0.276	8.263	12.737	1.095
2023-09-14 05:18	8515082	8.373	-138.648	307.914	12.69	366.2	425.623	0.232	0.277	8.250	12.69	1.051
2023-09-14 05:33	8515982	8.346	-137.191	308.336	12.685	366.111	425.572	0.232	0.277	8.302	12.685	1.068
2023-09-14 05:48	8516882	8.354	-137.591	307.166	12.653	365.829	425.546	0.232	0.277	8.321	12.653	1.072

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-14 06:03	8517782	8.347	-137.212	307.907	12.621	365.62	425.603	0.232	0.277	8.326	12.621	1.097
2023-09-14 06:18	8518682	8.340	-136.84	304.536	12.57	365.111	425.492	0.232	0.277	8.371	12.57	1.081
2023-09-14 06:33	8519582	8.331	-136.323	308.89	12.547	364.448	424.937	0.231	0.276	8.220	12.547	1.016
2023-09-14 06:48	8520482	8.325	-136.013	311.851	12.504	363.747	424.532	0.231	0.276	8.264	12.504	1.057
2023-09-14 07:03	8521382	8.335	-136.499	313.813	12.468	363.713	424.828	0.231	0.276	8.395	12.468	1.045
2023-09-14 07:18	8522282	8.350	-137.3	312.185	12.434	363.861	425.323	0.231	0.276	8.151	12.434	1.025
2023-09-14 07:33	8523182	8.333	-136.399	313.126	12.426	363.84	425.372	0.231	0.276	8.226	12.426	1.116
2023-09-14 07:48	8524082	8.329	-136.182	313.613	12.395	363.631	425.431	0.232	0.277	8.243	12.395	1.075
2023-09-14 08:03	8524982	8.327	-136.068	315.723	12.371	363.382	425.367	0.232	0.276	8.081	12.371	1.048
2023-09-14 08:18	8525882	8.327	-136.001	314.159	12.298	362.495	425.023	0.231	0.276	8.231	12.298	1.028
2023-09-14 08:33	8526782	8.321	-135.708	316.381	12.289	362.255	424.82	0.231	0.276	8.092	12.289	1.073
2023-09-14 08:48	8527682	8.315	-135.372	317.849	12.264	361.98	424.734	0.231	0.276	7.925	12.264	1.014
2023-09-14 09:03	8528582	8.314	-135.293	317.256	12.244	361.763	424.672	0.231	0.276	7.982	12.244	0.998
2023-09-14 09:18	8529482	8.346	-136.969	312.22	12.219	361.831	424.994	0.231	0.276	8.432	12.219	0.991
2023-09-14 09:33	8530382	8.341	-136.712	310.017	12.225	361.969	425.098	0.231	0.276	8.035	12.225	1.006
2023-09-14 09:48	8531282	8.342	-136.762	311.574	12.21	361.817	425.058	0.231	0.276	8.270	12.21	0.922
2023-09-14 10:03	8532182	8.348	-137.084	312.711	12.201	361.703	425.014	0.231	0.276	8.315	12.201	0.974
2023-09-14 10:18	8533082	8.357	-137.529	309.972	12.183	361.256	424.663	0.231	0.276	8.762	12.183	0.952
2023-09-14 10:33	8533982	8.353	-137.355	312.69	12.185	361.132	424.492	0.231	0.276	8.491	12.185	1.026
2023-09-14 10:48	8534882	8.353	-137.346	312.349	12.191	361.145	424.457	0.231	0.276	8.705	12.191	0.978
2023-09-14 11:03	8535782	8.357	-137.537	310.718	12.201	361.217	424.444	0.231	0.276	8.486	12.201	0.985
2023-09-14 11:18	8536682	8.371	-138.292	307.473	12.216	361.646	424.802	0.231	0.276	8.405	12.216	0.927
2023-09-14 11:33	8537582	8.365	-138.006	307.297	12.232	361.902	424.949	0.231	0.276	8.023	12.232	0.986
2023-09-14 11:48	8538482	8.364	-137.935	307.252	12.243	362.094	425.076	0.231	0.276	8.083	12.243	0.916
2023-09-14 12:03	8539382	8.359	-137.689	307.631	12.251	362.184	425.1	0.231	0.276	8.429	12.251	0.888
2023-09-14 12:18	8540282	8.378	-138.705	304.569	12.268	362.061	424.799	0.231	0.276	8.529	12.268	0.93
2023-09-14 12:33	8541182	8.376	-138.6	304.994	12.284	362.23	424.843	0.231	0.276	8.342	12.284	0.928
2023-09-14 12:48	8542082	8.391	-139.434	305.89	12.323	362.543	424.833	0.231	0.276	8.297	12.323	0.932
2023-09-14 13:03	8542982	8.410	-140.471	304.732	12.39	363.169	424.936	0.231	0.276	8.180	12.39	0.926
2023-09-14 13:18	8543882	8.391	-139.47	301.797	12.486	364.057	425.062	0.231	0.276	8.498	12.486	0.976
2023-09-14 13:33	8544782	8.373	-138.607	303.196	12.609	365.516	425.593	0.232	0.277	8.414	12.609	0.968
2023-09-14 13:48	8545682	8.365	-138.259	304.028	12.755	366.77	425.679	0.232	0.277	8.624	12.755	0.962
2023-09-14 14:03	8546582	8.404	-140.369	304.25	12.896	368.126	425.919	0.232	0.277	8.340	12.896	0.967
2023-09-14 14:18	8547482	8.417	-141.094	300.042	12.971	368.462	425.599	0.231	0.277	8.522	12.971	0.966
2023-09-14 14:33	8548382	8.402	-140.386	301.458	13.084	369.067	425.239	0.231	0.276	8.673	13.084	0.993
2023-09-14 14:48	8549282	8.430	-141.926	301.277	13.191	370.026	425.34	0.231	0.276	8.425	13.191	1.009
2023-09-14 15:03	8550182	8.429	-141.897	302.037	13.271	370.742	425.416	0.231	0.277	8.656	13.271	1.069
2023-09-14 15:18	8551082	8.448	-142.946	301.589	13.37	371.949	425.882	0.231	0.277	8.808	13.37	1.045
2023-09-14 15:33	8551982	8.441	-142.593	302.438	13.425	372.355	425.83	0.231	0.277	9.099	13.425	1.082
2023-09-14 15:48	8552882	8.452	-143.213	304.696	13.492	373.032	425.987	0.231	0.277	9.077	13.492	1.09
2023-09-14 16:03	8553782	8.460	-143.669	307.628	13.56	373.632	426.035	0.231	0.277	8.605	13.56	1.087
2023-09-14 16:18	8554682	8.433	-142.279	308.148	13.579	373.801	426.051	0.231	0.277	8.647	13.579	1.001
2023-09-14 16:33	8555582	8.448	-143.089	308.172	13.628	374.03	425.858	0.231	0.277	8.634	13.628	1.02
2023-09-14 16:48	8556482	8.448	-143.068	308.143	13.658	374.27	425.856	0.231	0.277	8.721	13.658	1.067
2023-09-14 17:03	8557382	8.460	-143.726	306.784	13.658	374.324	425.918	0.231	0.277	9.019	13.658	1.085
2023-09-14 17:18	8558282	8.482	-144.894	304.014	13.661	374.756	426.377	0.232	0.277	9.172	13.661	1.009
2023-09-14 17:33	8559182	8.472	-144.408	303.773	13.699	375.238	426.576	0.232	0.277	9.065	13.699	1.085
2023-09-14 17:48	8560082	8.474	-144.496	306.002	13.694	375.324	426.725	0.232	0.277	8.902	13.694	1.066
2023-09-14 18:03	8560982	8.473	-144.427	306.672	13.684	375.404	426.905	0.232	0.277	8.894	13.684	1.097
2023-09-14 18:18	8561882	8.465	-144.014	305.669	13.647	375.108	426.912	0.232	0.277	8.842	13.647	1.255
2023-09-14 18:33	8562782	8.460	-143.738	308.503	13.645	375.111	426.931	0.232	0.278	8.869	13.645	1.115
2023-09-14 18:48	8563682	8.439	-142.62	309.557	13.632	375.004	426.935	0.232	0.278	8.899	13.632	1.23
2023-09-14 19:03	8564582	8.438	-142.531	310.206	13.618	374.916	426.958	0.232	0.278	9.222	13.618	1.228
2023-09-14 19:18	8565482	8.465	-143.96	307.643	13.606	374.957	427.117	0.232	0.278	9.235	13.606	1.193
2023-09-14 19:33	8566382	8.444	-142.86	309.922	13.607	375.007	427.165	0.232	0.278	9.626	13.607	1.156
2023-09-14 19:48	8567282	8.431	-142.188	313.715	13.607	375.145	427.327	0.232	0.278	9.569	13.607	1.174

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-14 20:03	8568182	8.440	-142.643	314.721	13.647	375.046	426.844	0.232	0.277	10.364	13.647	1.274
2023-09-14 20:18	8569082	8.583	-150.292	309.741	13.665	375.175	426.823	0.232	0.277	10.440	13.665	1.187
2023-09-14 20:33	8569982	8.604	-151.382	303.458	13.678	374.922	426.413	0.232	0.277	10.806	13.678	1.116
2023-09-14 20:48	8570882	8.635	-153.031	298.516	13.681	374.873	426.325	0.232	0.277	10.790	13.681	1.07
2023-09-14 21:03	8571782	8.634	-152.979	295.147	13.686	375.262	426.725	0.232	0.277	10.005	13.686	1.171
2023-09-14 21:18	8572682	8.602	-151.279	295.121	13.69	375.367	426.806	0.232	0.277	10.000	13.69	1.143
2023-09-14 21:33	8573582	8.660	-154.362	297.007	13.686	375.435	426.916	0.232	0.277	9.744	13.686	1.126
2023-09-14 21:48	8574482	8.586	-150.459	301.005	13.676	375.48	427.066	0.232	0.278	9.578	13.676	1.096
2023-09-14 22:03	8575382	8.554	-148.737	304.322	13.659	375.463	427.207	0.232	0.278	9.480	13.659	1.206
2023-09-14 22:18	8576282	8.524	-147.119	308.36	13.634	375.136	427.059	0.232	0.278	9.203	13.634	1.127
2023-09-14 22:33	8577182	8.496	-145.607	309.545	13.618	374.962	427.014	0.232	0.278	8.774	13.618	1.043
2023-09-14 22:48	8578082	8.484	-144.987	308.065	13.582	374.76	427.12	0.232	0.278	9.530	13.582	1.122
2023-09-14 23:03	8578982	8.478	-144.627	306.889	13.546	374.5	427.153	0.232	0.278	9.138	13.546	1.047
2023-09-14 23:18	8579882	8.485	-145.011	303.928	13.507	374.227	427.211	0.232	0.278	9.114	13.507	0.992
2023-09-14 23:33	8580782	8.454	-143.299	304.24	13.472	374.016	427.289	0.232	0.278	8.982	13.472	1.04
2023-09-14 23:48	8581682	8.456	-143.397	301.747	13.419	373.559	427.268	0.232	0.278	8.968	13.419	1.066
2023-09-15 00:03	8582582	8.456	-143.361	304.405	13.367	373.139	427.273	0.232	0.278	8.750	13.367	1.079
2023-09-15 00:18	8583482	8.453	-143.161	298.9	13.28	372.143	426.941	0.232	0.278	8.696	13.28	1.052
2023-09-15 00:33	8584382	8.439	-142.403	303.539	13.237	371.553	426.67	0.232	0.277	8.687	13.237	1.098
2023-09-15 00:48	8585282	8.432	-141.985	305.893	13.179	370.784	426.324	0.232	0.277	8.758	13.179	1.027
2023-09-15 01:03	8586182	8.432	-141.997	305.962	13.133	370.492	426.423	0.232	0.277	8.959	13.133	0.998
2023-09-15 01:18	8587082	8.445	-142.646	305.607	13.083	370.466	426.856	0.232	0.277	8.533	13.083	1.054
2023-09-15 01:33	8587982	8.436	-142.152	305.132	13.044	370.198	426.917	0.232	0.277	8.946	13.044	0.983
2023-09-15 01:48	8588882	8.426	-141.563	304.198	12.983	369.681	426.898	0.232	0.277	8.842	12.983	1.037
2023-09-15 02:03	8589782	8.427	-141.637	301.828	12.951	369.442	426.924	0.232	0.278	8.480	12.951	0.97
2023-09-15 02:18	8590682	8.428	-141.661	300.593	12.886	368.516	426.46	0.232	0.277	8.746	12.886	1.06
2023-09-15 02:33	8591582	8.416	-141.001	303.094	12.837	367.912	426.223	0.232	0.277	8.662	12.837	1.005
2023-09-15 02:48	8592482	8.410	-140.634	303.177	12.791	367.412	426.082	0.232	0.277	8.572	12.791	1.004
2023-09-15 03:03	8593382	8.403	-140.274	304	12.748	367.141	426.173	0.232	0.277	8.334	12.748	0.994
2023-09-15 03:18	8594282	8.407	-140.419	303.401	12.7	367.133	426.618	0.232	0.277	8.709	12.7	0.941
2023-09-15 03:33	8595182	8.397	-139.894	302.247	12.687	367.069	426.667	0.232	0.277	8.618	12.687	0.846
2023-09-15 03:48	8596082	8.393	-139.685	303.096	12.646	366.654	426.575	0.232	0.277	8.584	12.646	1.002
2023-09-15 04:03	8596982	8.396	-139.821	303.983	12.603	366.244	426.5	0.232	0.277	8.720	12.603	0.982
2023-09-15 04:18	8597882	8.403	-140.138	303.029	12.53	365.306	426.103	0.232	0.277	8.627	12.53	1.035
2023-09-15 04:33	8598782	8.396	-139.761	304.81	12.505	364.917	425.885	0.232	0.277	8.447	12.505	0.944
2023-09-15 04:48	8599682	8.386	-139.217	306.107	12.462	364.463	425.758	0.232	0.277	8.309	12.462	0.947
2023-09-15 05:03	8600582	8.377	-138.717	306.868	12.42	363.861	425.457	0.232	0.277	8.510	12.42	0.974
2023-09-15 05:18	8601482	8.397	-139.78	303.814	12.378	364.013	426.035	0.232	0.277	8.611	12.378	0.957
2023-09-15 05:33	8602382	8.390	-139.358	303.902	12.358	363.98	426.19	0.232	0.277	8.809	12.358	0.909
2023-09-15 05:48	8603282	8.389	-139.279	304.741	12.319	363.656	426.179	0.232	0.277	7.872	12.319	0.911
2023-09-15 06:03	8604182	8.376	-138.576	305.301	12.286	363.38	426.167	0.232	0.277	8.491	12.286	0.871
2023-09-15 06:18	8605082	8.376	-138.552	303.911	12.217	362.366	425.644	0.232	0.277	8.522	12.217	0.951
2023-09-15 06:33	8605982	8.369	-138.173	305.957	12.197	362.071	425.485	0.232	0.277	8.491	12.197	0.942
2023-09-15 06:48	8606882	8.362	-137.811	307.23	12.164	361.889	425.585	0.232	0.277	8.409	12.164	0.928
2023-09-15 07:03	8607782	8.356	-137.448	307.409	12.128	361.488	425.457	0.232	0.277	8.426	12.128	0.863
2023-09-15 07:18	8608682	8.374	-138.414	305.547	12.085	361.514	425.899	0.232	0.277	8.520	12.085	0.903
2023-09-15 07:33	8609582	8.358	-137.522	305.683	12.075	361.418	425.881	0.232	0.277	8.135	12.075	0.865
2023-09-15 07:48	8610482	8.364	-137.866	308.167	12.035	360.975	425.742	0.232	0.277	8.206	12.035	0.844
2023-09-15 08:03	8611382	8.373	-138.326	307.65	12.004	360.741	425.762	0.232	0.277	8.183	12.004	0.81
2023-09-15 08:18	8612282	8.369	-138.078	305.635	11.942	359.91	425.381	0.232	0.276	8.405	11.942	0.851
2023-09-15 08:33	8613182	8.364	-137.787	308.449	11.93	359.45	424.951	0.231	0.276	8.302	11.93	0.869
2023-09-15 08:48	8614082	8.364	-137.753	309.402	11.9	359.078	424.797	0.231	0.276	8.511	11.9	0.881
2023-09-15 09:03	8614982	8.367	-137.925	310.594	11.869	358.786	424.752	0.231	0.276	8.663	11.869	0.867
2023-09-15 09:18	8615882	8.387	-138.946	308.303	11.839	359.015	425.309	0.232	0.276	8.458	11.839	0.814
2023-09-15 09:33	8616782	8.375	-138.316	307.335	11.837	359.11	425.438	0.232	0.277	8.287	11.837	0.79
2023-09-15 09:48	8617682	8.377	-138.447	307.318	11.815	358.894	425.4	0.232	0.277	8.362	11.815	0.867

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-15 10:03	8618582	8.381	-138.65	307.185	11.8	358.763	425.384	0.232	0.276	8.441	11.8	0.739
2023-09-15 10:18	8619482	8.382	-138.659	304.913	11.774	358.202	424.971	0.231	0.276	8.533	11.774	0.896
2023-09-15 10:33	8620382	8.376	-138.347	307.597	11.771	357.946	424.698	0.231	0.276	8.322	11.771	0.801
2023-09-15 10:48	8621282	8.376	-138.35	308.472	11.768	358	424.788	0.231	0.276	8.386	11.768	0.777
2023-09-15 11:03	8622182	8.372	-138.111	308.327	11.769	357.983	424.757	0.231	0.276	8.480	11.769	0.823
2023-09-15 11:18	8623082	8.401	-139.654	305.549	11.772	358.352	425.173	0.232	0.276	8.784	11.772	0.825
2023-09-15 11:33	8623982	8.395	-139.377	304.56	11.78	358.521	425.293	0.232	0.276	8.749	11.78	0.556
2023-09-15 11:48	8624882	8.394	-139.31	302.612	11.788	358.651	425.367	0.232	0.276	8.613	11.788	0.511
2023-09-15 12:03	8625782	8.379	-138.547	304.76	11.805	358.896	425.493	0.232	0.277	8.281	11.805	0.479
2023-09-15 12:18	8626682	8.373	-138.204	305.075	11.809	358.746	425.281	0.232	0.276	8.741	11.809	0.516
2023-09-15 12:33	8627582	8.366	-137.873	307.225	11.828	358.772	425.126	0.232	0.276	8.783	11.828	0.53
2023-09-15 12:48	8628482	8.366	-137.877	305.187	11.886	359.363	425.269	0.232	0.276	8.902	11.886	0.763
2023-09-15 13:03	8629382	8.374	-138.316	303.499	11.941	359.839	425.305	0.232	0.276	8.777	11.941	0.53
2023-09-15 13:18	8630282	8.409	-140.235	301.069	12.056	361.008	425.585	0.232	0.277	8.769	12.056	0.608
2023-09-15 13:33	8631182	8.410	-140.4	298.497	12.244	362.977	426.097	0.232	0.277	8.497	12.244	0.549
2023-09-15 13:48	8632082	8.411	-140.519	299.792	12.436	364.491	426.042	0.232	0.277	8.864	12.436	0.519
2023-09-15 14:03	8632982	8.438	-142.028	301.778	12.634	366.386	426.373	0.232	0.277	8.877	12.634	0.568
2023-09-15 14:18	8633882	8.449	-142.703	299.668	12.768	367.255	426.112	0.232	0.277	9.141	12.768	0.564
2023-09-15 14:33	8634782	8.486	-144.713	300.209	12.913	368.118	425.746	0.232	0.277	9.204	12.913	0.631
2023-09-15 14:48	8635682	8.475	-144.205	299.875	13.047	369.353	425.914	0.232	0.277	9.071	13.047	0.764
2023-09-15 15:03	8636582	8.501	-145.671	298.979	13.179	370.54	426.043	0.232	0.277	9.142	13.179	0.757
2023-09-15 15:18	8637482	8.513	-146.36	297.698	13.334	372.125	426.413	0.232	0.277	9.513	13.334	0.793
2023-09-15 15:33	8638382	8.535	-147.572	298.702	13.414	372.629	426.251	0.232	0.277	9.859	13.414	0.964
2023-09-15 15:48	8639282	8.542	-148.044	299.865	13.516	373.653	426.465	0.232	0.277	9.956	13.516	0.799
2023-09-15 16:03	8640182	8.519	-146.835	300.302	13.556	374.164	426.684	0.232	0.277	9.800	13.556	0.738
2023-09-15 16:18	8641082	8.493	-145.442	302.185	13.552	374.16	426.711	0.232	0.277	9.614	13.552	0.699
2023-09-15 16:33	8641982	8.484	-144.992	303.59	13.586	374.332	426.588	0.232	0.277	9.575	13.586	0.732
2023-09-15 16:48	8642882	8.474	-144.417	303.377	13.551	373.942	426.469	0.232	0.277	9.613	13.551	0.662
2023-09-15 17:03	8643782	8.465	-143.945	303.144	13.507	373.455	426.326	0.232	0.277	9.486	13.507	0.661
2023-09-15 17:18	8644683	8.503	-145.898	301.143	13.418	373.364	427.054	0.232	0.278	9.660	13.418	0.764
2023-09-15 17:33	8645583	8.497	-145.555	298.821	13.419	373.512	427.211	0.232	0.278	9.283	13.419	0.695
2023-09-15 17:48	8646483	8.492	-145.273	298.425	13.36	372.981	427.154	0.232	0.278	9.554	13.36	0.677
2023-09-15 18:03	8647383	8.496	-145.462	300.531	13.314	372.478	427.009	0.232	0.278	9.486	13.314	0.708
2023-09-15 18:18	8648283	8.502	-145.733	297.753	13.227	371.402	426.585	0.232	0.277	9.698	13.227	0.656
2023-09-15 18:33	8649183	8.497	-145.493	299.024	13.211	370.953	426.225	0.232	0.277	9.435	13.211	0.82
2023-09-15 18:48	8650083	8.483	-144.725	299.899	13.179	370.894	426.454	0.232	0.277	9.174	13.179	0.766
2023-09-15 19:03	8650983	8.489	-145.025	301.806	13.181	370.876	426.416	0.232	0.277	9.294	13.181	0.723
2023-09-15 19:18	8651883	8.507	-145.981	297.748	13.193	371.339	426.834	0.232	0.277	9.633	13.193	0.68
2023-09-15 19:33	8652783	8.492	-145.195	298.065	13.203	371.428	426.839	0.232	0.277	9.647	13.203	0.639
2023-09-15 19:48	8653683	8.496	-145.445	299.436	13.212	371.531	426.875	0.232	0.277	9.171	13.212	0.659
2023-09-15 20:03	8654583	8.516	-146.475	298.807	13.233	371.633	426.798	0.232	0.277	9.691	13.233	0.674
2023-09-15 20:18	8655483	8.512	-146.294	297.529	13.244	371.655	426.718	0.232	0.277	9.776	13.244	0.694
2023-09-15 20:33	8656383	8.523	-146.887	300.667	13.265	371.957	426.866	0.232	0.277	9.603	13.265	0.662
2023-09-15 20:48	8657283	8.529	-147.214	301.046	13.286	372.12	426.857	0.232	0.277	9.457	13.286	0.74
2023-09-15 21:03	8658183	8.509	-146.136	302.667	13.309	372.363	426.923	0.232	0.277	9.294	13.309	0.739
2023-09-15 21:18	8659083	8.512	-146.334	298.94	13.308	372.699	427.316	0.232	0.278	9.747	13.308	0.75
2023-09-15 21:33	8659983	8.499	-145.614	299.458	13.312	372.829	427.433	0.232	0.278	8.985	13.312	0.735
2023-09-15 21:48	8660883	8.494	-145.385	301.284	13.311	372.776	427.377	0.232	0.278	9.376	13.311	0.704
2023-09-15 22:03	8661783	8.476	-144.408	303.449	13.294	372.596	427.329	0.232	0.278	9.467	13.294	0.714
2023-09-15 22:18	8662683	8.469	-144.012	301.565	13.265	372.199	427.146	0.232	0.278	9.369	13.265	0.672
2023-09-15 22:33	8663583	8.468	-143.96	303.377	13.251	372.029	427.08	0.232	0.278	9.023	13.251	0.693
2023-09-15 22:48	8664483	8.459	-143.454	305.323	13.211	371.599	426.967	0.232	0.278	9.191	13.211	0.688
2023-09-15 23:03	8665383	8.450	-142.977	305.824	13.179	371.165	426.767	0.232	0.277	9.167	13.179	0.671
2023-09-15 23:18	8666283	8.456	-143.247	305.747	13.143	371.382	427.347	0.232	0.278	8.429	13.143	0.625
2023-09-15 23:33	8667183	8.439	-142.35	304.944	13.135	371.461	427.519	0.232	0.278	9.001	13.135	0.683
2023-09-15 23:48	8668083	8.427	-141.711	306.61	13.108	371.226	427.505	0.232	0.278	8.962	13.108	0.683

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-16 00:03	8668983	8.420	-141.32	307.838	13.076	370.998	427.541	0.232	0.278	8.552	13.076	0.692
2023-09-16 00:18	8669883	8.406	-140.555	305.673	13.011	370.287	427.331	0.232	0.278	8.752	13.011	0.677
2023-09-16 00:33	8670783	8.398	-140.078	308.294	12.983	369.339	426.501	0.232	0.277	9.029	12.983	0.621
2023-09-16 00:48	8671683	8.396	-139.964	309.588	12.937	369.229	426.81	0.232	0.277	8.006	12.937	0.615
2023-09-16 01:03	8672583	8.395	-139.916	310.256	12.898	369.038	426.951	0.232	0.278	8.379	12.898	0.589
2023-09-16 01:18	8673483	8.404	-140.383	307.631	12.862	369.106	427.369	0.232	0.278	9.011	12.862	0.632
2023-09-16 01:33	8674383	8.393	-139.794	306.524	12.847	368.975	427.358	0.232	0.278	8.537	12.847	0.605
2023-09-16 01:48	8675283	8.398	-140.009	305.924	12.815	368.71	427.354	0.232	0.278	8.799	12.815	0.586
2023-09-16 02:03	8676183	8.393	-139.737	307.211	12.784	368.406	427.299	0.232	0.278	8.604	12.784	0.543
2023-09-16 02:18	8677083	8.395	-139.844	306.861	12.728	367.679	426.989	0.232	0.278	8.857	12.728	0.676
2023-09-16 02:33	8677983	8.386	-139.351	309.376	12.709	367.392	426.834	0.232	0.277	8.735	12.709	0.68
2023-09-16 02:48	8678883	8.387	-139.353	311.271	12.683	367.099	426.737	0.232	0.277	8.548	12.683	0.621
2023-09-16 03:03	8679783	8.386	-139.313	312.237	12.651	366.727	426.61	0.232	0.277	8.558	12.651	0.58
2023-09-16 03:18	8680683	8.410	-140.574	310.675	12.612	366.722	426.971	0.232	0.278	8.700	12.612	0.6
2023-09-16 03:33	8681583	8.384	-139.189	310.625	12.597	366.601	426.979	0.232	0.278	8.263	12.597	0.562
2023-09-16 03:48	8682483	8.378	-138.834	311.612	12.573	366.446	427.024	0.232	0.278	8.239	12.573	0.65
2023-09-16 04:03	8683383	8.369	-138.352	313.787	12.541	366.141	426.969	0.232	0.278	8.415	12.541	0.616
2023-09-16 04:18	8684283	8.377	-138.736	311.939	12.474	365.233	426.551	0.232	0.277	8.331	12.474	0.628
2023-09-16 04:33	8685183	8.383	-139.036	313.503	12.455	364.906	426.344	0.232	0.277	8.357	12.455	0.626
2023-09-16 04:48	8686083	8.381	-138.936	313.307	12.418	364.594	426.33	0.232	0.277	8.476	12.418	0.617
2023-09-16 05:03	8686983	8.382	-138.946	313.448	12.398	364.391	426.284	0.232	0.277	8.493	12.398	0.572
2023-09-16 05:18	8687883	8.404	-140.095	311.016	12.357	364.39	426.68	0.232	0.277	8.816	12.357	0.523
2023-09-16 05:33	8688783	8.395	-139.62	311.798	12.354	364.304	426.601	0.232	0.277	8.516	12.354	0.592
2023-09-16 05:48	8689683	8.383	-138.965	312.881	12.324	364.106	426.654	0.232	0.277	9.013	12.324	0.505
2023-09-16 06:03	8690583	8.383	-138.984	314.202	12.294	363.77	426.555	0.232	0.277	8.580	12.294	0.578
2023-09-16 06:18	8691483	8.387	-139.132	312.793	12.23	362.989	426.244	0.232	0.277	8.884	12.23	0.831
2023-09-16 06:33	8692383	8.395	-139.556	314.333	12.226	362.874	426.152	0.232	0.277	8.528	12.226	0.495
2023-09-16 06:48	8693283	8.380	-138.783	316.068	12.196	362.484	425.977	0.232	0.277	8.853	12.196	0.597
2023-09-16 07:03	8694183	8.380	-138.752	317.222	12.163	362.202	425.963	0.232	0.277	8.688	12.163	0.639
2023-09-16 07:18	8695083	8.391	-139.313	316.44	12.129	362.295	426.395	0.232	0.277	8.706	12.129	0.504
2023-09-16 07:33	8695983	8.380	-138.733	315.475	12.123	362.251	426.404	0.232	0.277	8.166	12.123	0.536
2023-09-16 07:48	8696883	8.372	-138.283	314.891	12.096	362.043	426.415	0.232	0.277	8.387	12.096	0.664
2023-09-16 08:03	8697783	8.367	-138.018	314.469	12.068	361.794	426.397	0.232	0.277	8.098	12.068	0.547
2023-09-16 08:18	8698683	8.370	-138.164	313.012	12.018	361.076	426.022	0.232	0.277	8.380	12.018	0.568
2023-09-16 08:33	8699583	8.369	-138.113	315.193	12.005	360.771	425.796	0.232	0.277	8.381	12.005	0.495
2023-09-16 08:48	8700483	8.370	-138.123	315.627	11.978	360.398	425.615	0.232	0.277	8.373	11.978	0.578
2023-09-16 09:03	8701383	8.375	-138.359	315.77	11.953	360.204	425.624	0.232	0.277	8.398	11.953	0.487
2023-09-16 09:18	8702283	8.403	-139.863	313.045	11.937	360.5	426.122	0.232	0.277	8.543	11.937	0.554
2023-09-16 09:33	8703183	8.387	-138.991	313.472	11.94	360.619	426.239	0.232	0.277	8.448	11.94	0.538
2023-09-16 09:48	8704083	8.380	-138.659	314.054	11.936	360.592	426.241	0.232	0.277	8.469	11.936	0.531
2023-09-16 10:03	8704983	8.379	-138.583	315.019	11.939	360.675	426.312	0.232	0.277	8.340	11.939	0.513
2023-09-16 10:18	8705883	8.380	-138.643	311.989	11.924	360.333	426.051	0.232	0.277	8.951	11.924	0.474
2023-09-16 10:33	8706783	8.382	-138.75	311.24	11.938	360.276	425.852	0.232	0.277	8.792	11.938	0.487
2023-09-16 10:48	8707683	8.382	-138.748	310.322	11.953	360.388	425.836	0.232	0.277	8.821	11.953	0.558
2023-09-16 11:03	8708583	8.387	-139.046	310.008	11.978	360.647	425.899	0.232	0.277	9.243	11.978	0.48
2023-09-16 11:18	8709483	8.410	-140.29	308.537	12.026	361.393	426.321	0.232	0.277	9.389	12.026	0.508
2023-09-16 11:33	8710383	8.385	-138.969	309.648	12.087	362.089	426.555	0.232	0.277	8.867	12.087	0.526
2023-09-16 11:48	8711283	8.379	-138.712	311.145	12.143	362.685	426.721	0.232	0.277	9.130	12.143	0.508
2023-09-16 12:03	8712183	8.374	-138.447	311.543	12.204	363.192	426.738	0.232	0.277	8.813	12.204	0.451
2023-09-16 12:18	8713083	8.382	-138.884	311.157	12.24	363.34	426.559	0.232	0.277	8.596	12.24	0.406
2023-09-16 12:33	8713983	8.385	-139.101	313.269	12.294	363.64	426.397	0.232	0.277	8.499	12.294	0.478
2023-09-16 12:48	8714883	8.483	-144.284	311.701	12.356	364.297	426.577	0.232	0.277	8.400	12.356	0.44
2023-09-16 13:03	8715783	8.501	-145.268	310.258	12.421	364.805	426.554	0.232	0.277	8.557	12.421	0.479
2023-09-16 13:18	8716683	8.477	-144.05	307.621	12.511	365.618	426.65	0.232	0.277	8.497	12.511	0.559
2023-09-16 13:33	8717583	8.446	-142.443	307.476	12.613	366.714	426.955	0.232	0.278	8.511	12.613	0.445
2023-09-16 13:48	8718483	8.414	-140.839	310.139	12.702	367.682	427.231	0.232	0.278	8.385	12.702	0.429

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-16 14:03	8719383	8.442	-142.326	312.39	12.789	368.293	427.119	0.232	0.278	8.473	12.789	0.47
2023-09-16 14:18	8720283	8.427	-141.568	310.566	12.819	368.456	427.022	0.232	0.278	8.587	12.819	0.52
2023-09-16 14:33	8721183	8.490	-144.918	307.728	12.887	368.852	426.845	0.232	0.277	8.646	12.887	0.507
2023-09-16 14:48	8722083	8.480	-144.444	308.932	12.946	369.343	426.856	0.232	0.277	8.681	12.946	0.485
2023-09-16 15:03	8722983	8.492	-145.085	306.815	13.004	369.896	426.942	0.232	0.278	8.819	13.004	0.476
2023-09-16 15:18	8723883	8.492	-145.156	304.496	13.069	370.882	427.468	0.232	0.278	8.779	13.069	0.526
2023-09-16 15:33	8724783	8.464	-143.714	304.465	13.156	371.696	427.591	0.232	0.278	8.727	13.156	0.589
2023-09-16 15:48	8725683	8.455	-143.244	305.039	13.202	372.137	427.67	0.233	0.278	8.761	13.202	0.544
2023-09-16 16:03	8726583	8.462	-143.642	306.017	13.248	372.523	427.681	0.233	0.278	8.779	13.248	0.567
2023-09-16 16:18	8727483	8.448	-142.915	304.367	13.257	372.487	427.551	0.232	0.278	8.846	13.257	0.496
2023-09-16 16:33	8728383	8.484	-144.825	305.161	13.292	372.526	427.268	0.232	0.278	8.863	13.292	0.579
2023-09-16 16:48	8729283	8.485	-144.908	305.919	13.324	372.712	427.185	0.232	0.278	8.945	13.324	0.553
2023-09-16 17:03	8730183	8.492	-145.288	306.036	13.351	372.943	427.194	0.232	0.278	9.136	13.351	0.604
2023-09-16 17:18	8731083	8.529	-147.278	302.901	13.37	373.47	427.619	0.232	0.278	9.169	13.37	0.61
2023-09-16 17:33	8731983	8.509	-146.205	302.107	13.384	373.556	427.593	0.232	0.278	9.073	13.384	0.638
2023-09-16 17:48	8732883	8.489	-145.156	304.255	13.394	373.653	427.607	0.232	0.278	9.055	13.394	0.588
2023-09-16 18:03	8733783	8.480	-144.665	305.444	13.395	373.738	427.691	0.232	0.278	9.140	13.395	0.61
2023-09-16 18:18	8734683	8.486	-144.949	305.819	13.376	373.398	427.482	0.232	0.278	9.119	13.376	0.519
2023-09-16 18:33	8735583	8.537	-147.691	304.856	13.381	373.525	427.582	0.232	0.278	9.032	13.381	0.589
2023-09-16 18:48	8736483	8.510	-146.255	306.164	13.37	373.5	427.653	0.232	0.278	9.045	13.37	0.524
2023-09-16 19:03	8737383	8.510	-146.258	305.919	13.363	373.453	427.667	0.232	0.278	9.344	13.363	0.656
2023-09-16 19:18	8738283	8.525	-147.035	305.835	13.364	373.446	427.654	0.232	0.278	8.968	13.364	0.66
2023-09-16 19:33	8739183	8.522	-146.899	305.304	13.357	373.442	427.713	0.232	0.278	8.949	13.357	0.656
2023-09-16 19:48	8740083	8.492	-145.295	307.051	13.349	373.443	427.788	0.233	0.278	8.852	13.349	0.55
2023-09-16 20:03	8740983	8.481	-144.713	308.441	13.342	373.386	427.79	0.233	0.278	9.427	13.342	0.581
2023-09-16 20:18	8741883	8.484	-144.832	309.784	13.314	373.221	427.862	0.233	0.278	9.369	13.314	0.495
2023-09-16 20:33	8742783	8.507	-146.065	310.077	13.318	373.379	428.004	0.233	0.278	9.313	13.318	0.518
2023-09-16 20:48	8743683	8.497	-145.545	310.356	13.31	373.254	427.94	0.233	0.278	9.126	13.31	0.482
2023-09-16 21:03	8744583	8.485	-144.868	310.351	13.301	373.149	427.903	0.233	0.278	9.928	13.301	0.545
2023-09-16 21:18	8745483	8.498	-145.547	309.149	13.298	372.996	427.754	0.233	0.278	8.895	13.298	0.66
2023-09-16 21:33	8746383	8.487	-144.966	310.649	13.289	372.948	427.778	0.233	0.278	9.046	13.289	0.62
2023-09-16 21:48	8747283	8.467	-143.902	312.344	13.282	372.937	427.832	0.233	0.278	8.487	13.282	0.571
2023-09-16 22:03	8748183	8.456	-143.332	314.728	13.275	372.901	427.858	0.233	0.278	8.554	13.275	0.628
2023-09-16 22:18	8749083	8.468	-143.936	314.526	13.26	372.475	427.508	0.232	0.278	8.858	13.26	0.51
2023-09-16 22:33	8749983	8.490	-145.135	314.323	13.262	372.58	427.612	0.232	0.278	9.152	13.262	0.431
2023-09-16 22:48	8750883	8.491	-145.18	311.836	13.258	372.525	427.589	0.232	0.278	9.263	13.258	0.485
2023-09-16 23:03	8751783	8.492	-145.202	313.026	13.249	372.501	427.644	0.232	0.278	9.582	13.249	0.684
2023-09-16 23:18	8752683	8.515	-146.463	309.08	13.237	372.503	427.761	0.233	0.278	8.817	13.237	0.468
2023-09-16 23:33	8753583	8.491	-145.185	309.262	13.226	372.23	427.548	0.232	0.278	9.125	13.226	0.476
2023-09-16 23:48	8754483	8.477	-144.401	309.967	13.202	372.084	427.605	0.232	0.278	8.419	13.202	0.49
2023-09-17 00:03	8755383	8.463	-143.657	309.059	13.178	371.93	427.657	0.233	0.278	8.457	13.178	0.431
2023-09-17 00:18	8756283	8.476	-144.31	306.427	13.119	371.819	428.08	0.233	0.278	9.009	13.119	0.503
2023-09-17 00:33	8757183	8.475	-144.258	306.799	13.091	370.978	427.38	0.232	0.278	8.983	13.091	0.526
2023-09-17 00:48	8758083	8.483	-144.656	311.519	13.059	371.637	428.435	0.233	0.278	8.675	13.059	0.611
2023-09-17 01:03	8758983	8.449	-142.846	308.737	13.021	371.588	428.742	0.233	0.279	8.204	13.021	0.499
2023-09-17 01:18	8759883	8.460	-143.416	302.912	12.978	370.967	428.425	0.233	0.278	8.041	12.978	0.479
2023-09-17 01:33	8760783	8.437	-142.164	303.058	12.95	370.504	428.158	0.233	0.278	8.449	12.95	0.474
2023-09-17 01:48	8761683	8.436	-142.064	301.882	12.904	370.018	428.031	0.233	0.278	8.532	12.904	0.587
2023-09-17 02:03	8762583	8.456	-143.104	302.424	12.854	369.416	427.806	0.233	0.278	8.867	12.854	0.573
2023-09-17 02:18	8763483	8.491	-144.947	297.424	12.755	368.167	427.297	0.232	0.278	9.109	12.755	0.538
2023-09-17 02:33	8764383	8.494	-145.054	299.994	12.724	367.633	426.971	0.232	0.278	9.238	12.724	0.495
2023-09-17 02:48	8765283	8.486	-144.618	301.916	12.682	367.271	426.945	0.232	0.278	8.965	12.682	0.562
2023-09-17 03:03	8766183	8.482	-144.386	301.78	12.628	366.582	426.653	0.232	0.277	8.644	12.628	0.557
2023-09-17 03:18	8767083	8.518	-146.246	298.187	12.581	366.548	427.067	0.232	0.278	8.994	12.581	0.583
2023-09-17 03:33	8767983	8.509	-145.757	298.032	12.551	366.382	427.155	0.232	0.278	8.902	12.551	0.583
2023-09-17 03:48	8768883	8.477	-144.041	300.09	12.515	365.998	427.051	0.232	0.278	8.879	12.515	0.483

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-17 04:03	8769783	8.464	-143.363	301.491	12.476	365.612	426.971	0.232	0.278	9.035	12.476	0.647
2023-09-17 04:18	8770683	8.477	-144.002	301.718	12.402	364.804	426.733	0.232	0.277	9.106	12.402	0.506
2023-09-17 04:33	8771583	8.494	-144.873	302.521	12.39	364.526	426.521	0.232	0.277	8.733	12.39	0.538
2023-09-17 04:48	8772483	8.480	-144.134	304.348	12.336	363.916	426.319	0.232	0.277	8.691	12.336	0.477
2023-09-17 05:03	8773383	8.482	-144.186	303.687	12.288	363.487	426.278	0.232	0.277	8.702	12.288	0.478
2023-09-17 05:18	8774283	8.484	-144.279	301.954	12.235	363.498	426.798	0.232	0.277	9.152	12.235	0.46
2023-09-17 05:33	8775183	8.473	-143.692	301.124	12.214	363.3	426.768	0.232	0.277	8.745	12.214	0.439
2023-09-17 05:48	8776083	8.473	-143.7	299.277	12.183	363.081	426.804	0.232	0.277	8.507	12.183	0.453
2023-09-17 06:03	8776983	8.471	-143.569	299.467	12.16	362.879	426.783	0.232	0.277	8.885	12.16	0.496
2023-09-17 06:18	8777883	8.476	-143.785	299.474	12.112	362.242	426.501	0.232	0.277	9.030	12.112	0.438
2023-09-17 06:33	8778783	8.468	-143.347	303.153	12.093	361.785	426.146	0.232	0.277	8.414	12.093	0.367
2023-09-17 06:48	8779683	8.460	-142.953	304.352	12.056	361.487	426.15	0.232	0.277	8.723	12.056	0.481
2023-09-17 07:03	8780583	8.458	-142.813	305.242	12.019	361.222	426.186	0.232	0.277	8.387	12.019	0.404
2023-09-17 07:18	8781483	8.460	-142.889	302.819	11.984	361.325	426.649	0.232	0.277	8.773	11.984	0.354
2023-09-17 07:33	8782383	8.435	-141.547	303.003	11.966	361.211	426.682	0.232	0.277	8.365	11.966	0.458
2023-09-17 07:48	8783283	8.432	-141.38	303.179	11.937	360.888	426.579	0.232	0.277	8.253	11.937	0.402
2023-09-17 08:03	8784183	8.424	-140.924	304.906	11.901	360.623	426.613	0.232	0.277	8.226	11.901	0.376
2023-09-17 08:18	8785083	8.425	-140.96	303.778	11.836	359.736	426.195	0.232	0.277	8.635	11.836	0.414
2023-09-17 08:33	8785983	8.415	-140.431	307.671	11.788	359.112	425.915	0.232	0.277	8.132	11.788	0.437
2023-09-17 08:48	8786883	8.422	-140.8	305.375	11.771	358.915	425.844	0.232	0.277	8.564	11.771	0.433
2023-09-17 09:03	8787783	8.425	-140.901	307.984	11.748	358.656	425.761	0.232	0.277	8.653	11.748	0.355
2023-09-17 09:18	8788683	8.440	-141.723	302.841	11.726	358.905	426.271	0.232	0.277	8.448	11.726	0.428
2023-09-17 09:33	8789583	8.425	-140.898	302.543	11.73	359.054	426.408	0.232	0.277	8.294	11.73	0.428
2023-09-17 09:48	8790483	8.420	-140.626	304.281	11.717	358.907	426.355	0.232	0.277	8.343	11.717	0.312
2023-09-17 10:03	8791383	8.409	-140.047	305.84	11.711	358.905	426.418	0.232	0.277	8.383	11.711	0.385
2023-09-17 10:18	8792283	8.416	-140.426	306.007	11.683	358.516	426.228	0.232	0.277	8.593	11.683	0.372
2023-09-17 10:33	8793183	8.420	-140.646	307.721	11.704	358.279	425.741	0.232	0.277	8.587	11.704	0.414
2023-09-17 10:48	8794083	8.426	-140.972	307.635	11.717	358.446	425.807	0.232	0.277	9.044	11.717	0.371
2023-09-17 11:03	8794983	8.428	-141.065	306.505	11.741	358.651	425.828	0.232	0.277	9.080	11.741	0.338
2023-09-17 11:18	8795884	8.446	-142.069	303.57	11.772	359.335	426.336	0.232	0.277	8.779	11.772	0.399
2023-09-17 11:33	8796784	8.431	-141.287	303.957	11.813	359.898	426.603	0.232	0.277	8.806	11.813	0.348
2023-09-17 11:48	8797684	8.429	-141.18	304.867	11.856	360.254	426.614	0.232	0.277	8.854	11.856	0.344
2023-09-17 12:03	8798584	8.422	-140.86	306.317	11.901	360.638	426.634	0.232	0.277	8.659	11.901	0.263
2023-09-17 12:18	8799484	8.423	-140.934	306.987	11.932	360.806	426.534	0.232	0.277	8.661	11.932	0.273
2023-09-17 12:33	8800384	8.434	-141.523	309.095	11.976	361.116	426.479	0.232	0.277	8.601	11.976	0.341
2023-09-17 12:48	8801284	8.442	-141.981	308.198	12.036	360.463	425.136	0.231	0.276	8.381	12.036	0.363
2023-09-17 13:03	8802184	8.437	-141.74	306.248	12.089	361.952	426.373	0.232	0.277	8.522	12.089	0.313
2023-09-17 13:18	8803084	8.463	-143.127	303.187	12.174	362.824	426.587	0.232	0.277	8.555	12.174	0.253
2023-09-17 13:33	8803984	8.495	-144.889	301.67	12.259	363.67	426.771	0.232	0.277	8.668	12.259	0.385
2023-09-17 13:48	8804884	8.457	-142.915	302.109	12.313	364.241	426.922	0.232	0.277	8.567	12.313	0.366
2023-09-17 14:03	8805784	8.465	-143.33	304.46	12.363	364.743	427.03	0.232	0.278	8.655	12.363	0.369
2023-09-17 14:18	8806684	8.461	-143.158	302.765	12.391	364.811	426.84	0.232	0.277	8.592	12.391	0.458
2023-09-17 14:33	8807584	8.487	-144.544	301.213	12.441	365.114	426.725	0.232	0.277	8.846	12.441	0.436
2023-09-17 14:48	8808484	8.498	-145.178	301.215	12.479	365.225	426.49	0.232	0.277	8.180	12.479	0.481
2023-09-17 15:03	8809384	8.508	-145.705	299.71	12.509	365.397	426.403	0.232	0.277	8.907	12.509	0.498
2023-09-17 15:18	8810284	8.524	-146.57	298.192	12.542	365.927	426.71	0.232	0.277	8.929	12.542	0.497
2023-09-17 15:33	8811184	8.494	-145.011	298.907	12.571	366.289	426.859	0.232	0.277	9.270	12.571	0.57
2023-09-17 15:48	8812084	8.515	-146.101	299.749	12.555	366.165	426.861	0.232	0.277	9.039	12.555	0.551
2023-09-17 16:03	8812984	8.524	-146.573	300.161	12.543	366.013	426.805	0.232	0.277	9.087	12.543	0.533
2023-09-17 16:18	8813884	8.525	-146.62	299.362	12.514	365.655	426.662	0.232	0.277	9.300	12.514	0.706
2023-09-17 16:33	8814784	8.511	-145.881	301.41	12.51	365.724	426.777	0.232	0.277	8.965	12.51	0.724
2023-09-17 16:48	8815684	8.497	-145.102	302.269	12.498	364.73	425.729	0.232	0.277	9.014	12.498	0.675
2023-09-17 17:03	8816584	8.499	-145.218	303.058	12.512	365.702	426.734	0.232	0.277	9.052	12.512	0.662
2023-09-17 17:18	8817484	8.515	-146.065	302.872	12.537	366.067	426.925	0.232	0.278	9.154	12.537	0.499
2023-09-17 17:33	8818384	8.499	-145.235	304.138	12.576	366.216	426.725	0.232	0.277	8.937	12.576	0.441
2023-09-17 17:48	8819284	8.499	-145.28	305.301	12.595	366.54	426.919	0.232	0.277	9.124	12.595	0.443

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-17 18:03	8820184	8.497	-145.173	306.055	12.625	366.874	427.023	0.232	0.278	8.897	12.625	0.587
2023-09-17 18:18	8821084	8.513	-146.055	303.482	12.641	367.015	427.04	0.232	0.278	9.023	12.641	0.757
2023-09-17 18:33	8821984	8.507	-145.705	302.984	12.644	366.866	426.84	0.232	0.277	8.991	12.644	0.608
2023-09-17 18:48	8822884	8.510	-145.888	303.53	12.645	366.887	426.851	0.232	0.277	8.997	12.645	0.526
2023-09-17 19:03	8823784	8.489	-144.753	305.509	12.637	366.912	426.958	0.232	0.278	8.796	12.637	0.584
2023-09-17 19:18	8824684	8.494	-145.032	303.699	12.622	366.959	427.15	0.232	0.278	8.869	12.622	0.734
2023-09-17 19:33	8825584	8.484	-144.486	306.544	12.61	366.957	427.261	0.232	0.278	8.840	12.61	0.724
2023-09-17 19:48	8826484	8.463	-143.361	309.839	12.596	366.931	427.372	0.233	0.278	8.672	12.596	0.659
2023-09-17 20:03	8827384	8.450	-142.674	313.083	12.582	366.917	427.484	0.233	0.278	8.865	12.582	0.611
2023-09-17 20:18	8828284	8.434	-141.778	315.317	12.558	366.675	427.429	0.233	0.278	8.810	12.558	0.627
2023-09-17 20:33	8829184	8.477	-144.095	315.21	12.558	366.623	427.369	0.233	0.278	8.581	12.558	0.682
2023-09-17 20:48	8830084	8.458	-143.085	315.174	12.551	366.588	427.394	0.233	0.278	8.639	12.551	0.627
2023-09-17 21:03	8830984	8.445	-142.372	313.737	12.537	366.528	427.459	0.233	0.278	8.691	12.537	0.626
2023-09-17 21:18	8831884	8.494	-144.949	311.331	12.525	366.339	427.355	0.233	0.278	8.953	12.525	0.589
2023-09-17 21:33	8832784	8.470	-143.716	310.072	12.52	366.299	427.359	0.233	0.278	8.802	12.52	0.633
2023-09-17 21:48	8833684	8.463	-143.306	310.52	12.507	366.203	427.369	0.233	0.278	8.971	12.507	0.574
2023-09-17 22:03	8834584	8.468	-143.559	311.047	12.499	366.102	427.324	0.233	0.278	8.728	12.499	0.571
2023-09-17 22:18	8835484	8.467	-143.535	309.951	12.475	365.753	427.148	0.232	0.278	9.075	12.475	0.626
2023-09-17 22:33	8836384	8.472	-143.75	311.798	12.468	365.768	427.234	0.233	0.278	8.806	12.468	0.627
2023-09-17 22:48	8837284	8.465	-143.366	312.959	12.449	365.52	427.119	0.232	0.278	8.764	12.449	0.612
2023-09-17 23:03	8838184	8.461	-143.161	313.529	12.428	365.312	427.079	0.232	0.278	8.873	12.428	0.588
2023-09-17 23:18	8839084	8.482	-144.26	310.098	12.4	365.108	427.106	0.232	0.278	8.974	12.4	0.623
2023-09-17 23:33	8839984	8.477	-144.002	307.562	12.393	365.158	427.235	0.233	0.278	8.780	12.393	0.633
2023-09-17 23:48	8840884	8.475	-143.862	307.578	12.366	365.007	427.316	0.233	0.278	8.601	12.366	0.629
2023-09-18 00:03	8841784	8.474	-143.797	305.995	12.344	364.802	427.282	0.233	0.278	8.677	12.344	0.643
2023-09-18 00:18	8842684	8.486	-144.441	305.595	12.319	364.601	427.288	0.233	0.278	8.921	12.319	0.678
2023-09-18 00:33	8843584	8.470	-143.564	305.788	12.307	364.55	427.345	0.233	0.278	8.800	12.307	0.743
2023-09-18 00:48	8844484	8.466	-143.366	305.938	12.306	364.587	427.398	0.233	0.278	8.805	12.306	0.693
2023-09-18 01:03	8845384	8.457	-142.899	306.389	12.305	364.636	427.459	0.233	0.278	8.794	12.305	0.617
2023-09-18 01:18	8846284	8.456	-142.829	303.356	12.295	364.742	427.686	0.233	0.278	8.957	12.295	0.571
2023-09-18 01:33	8847184	8.441	-142.019	303.289	12.294	364.808	427.772	0.233	0.278	8.632	12.294	0.636
2023-09-18 01:48	8848084	8.434	-141.654	304.522	12.295	364.933	427.905	0.233	0.278	8.636	12.295	0.718
2023-09-18 02:03	8848984	8.424	-141.122	305.399	12.296	364.961	427.933	0.233	0.278	8.570	12.296	1.452
2023-09-18 02:18	8849884	8.419	-140.893	305.618	12.292	364.928	427.928	0.233	0.278	8.602	12.292	0.536
2023-09-18 02:33	8850784	8.416	-140.696	307.769	12.293	364.903	427.89	0.233	0.278	8.475	12.293	0.562
2023-09-18 02:48	8851684	8.399	-139.823	309.014	12.296	364.919	427.88	0.233	0.278	8.315	12.296	0.582
2023-09-18 03:03	8852584	8.388	-139.222	310.392	12.3	364.941	427.863	0.233	0.278	8.280	12.3	0.745
2023-09-18 03:18	8853484	8.393	-139.518	309.948	12.303	365.182	428.122	0.233	0.278	8.591	12.303	0.513
2023-09-18 03:33	8854384	8.375	-138.559	310.601	12.304	365.175	428.107	0.233	0.278	8.267	12.304	0.499
2023-09-18 03:48	8855284	8.371	-138.316	312.788	12.302	365.269	428.23	0.233	0.278	8.072	12.302	0.544
2023-09-18 04:03	8856184	8.369	-138.209	312.874	12.292	365.046	428.065	0.233	0.278	8.063	12.292	0.547
2023-09-18 04:18	8857084	8.380	-138.772	294.162	12.197	363.593	427.277	0.233	0.278	8.388	12.197	5.536
2023-09-18 04:33	8857984	8.410	-140.321	257.527	12.183	363.399	427.176	0.233	0.278	8.357	12.183	1.494
2023-09-18 04:48	8858884	8.413	-140.5	262.152	12.176	363.423	427.272	0.233	0.278	8.479	12.176	1.096
2023-09-18 05:03	8859784	8.400	-139.792	264.27	12.173	363.427	427.307	0.233	0.278	8.359	12.173	1.227
2023-09-18 05:18	8860684	8.393	-139.465	267.541	12.173	363.782	427.726	0.233	0.278	8.517	12.173	1.885
2023-09-18 05:33	8861584	8.378	-138.633	273.506	12.175	363.833	427.764	0.233	0.278	7.979	12.175	1.401
2023-09-18 05:48	8862484	8.358	-137.591	278.889	12.173	363.836	427.793	0.233	0.278	8.160	12.173	1.864
2023-09-18 06:03	8863384	8.345	-136.907	283.67	12.153	363.76	427.889	0.233	0.278	8.018	12.153	1.331
2023-09-18 06:18	8864284	8.351	-137.174	285.329	12.1	363.115	427.642	0.233	0.278	8.089	12.1	0.989
2023-09-18 06:33	8865184	8.351	-137.196	287.561	12.083	362.771	427.404	0.233	0.278	7.938	12.083	0.863
2023-09-18 06:48	8866084	8.334	-136.282	289.02	12.042	362.41	427.37	0.233	0.278	7.930	12.042	0.919
2023-09-18 07:03	8866984	8.326	-135.791	288.815	12.003	362.139	427.423	0.233	0.278	7.883	12.003	0.784
2023-09-18 07:18	8867884	8.341	-136.566	286.953	11.949	361.876	427.639	0.233	0.278	7.952	11.949	0.874
2023-09-18 07:33	8868784	8.329	-135.934	287.084	11.921	361.652	427.64	0.233	0.278	7.829	11.921	0.704
2023-09-18 07:48	8869684	8.319	-135.386	287.205	11.885	361.357	427.641	0.233	0.278	7.833	11.885	0.671

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-18 08:03	8870584	8.320	-135.424	286.621	11.862	361.107	427.566	0.233	0.278	7.829	11.862	0.639
2023-09-18 08:18	8871484	8.322	-135.536	287.554	11.837	360.939	427.61	0.233	0.278	8.097	11.837	0.612
2023-09-18 08:33	8872384	8.313	-135.05	286.767	11.831	360.86	427.572	0.233	0.278	7.855	11.831	0.62
2023-09-18 08:48	8873284	8.304	-134.578	289.203	11.822	360.771	427.553	0.233	0.278	7.770	11.822	0.591
2023-09-18 09:03	8874184	8.304	-134.549	291.392	11.815	360.711	427.548	0.233	0.278	7.746	11.815	0.573
2023-09-18 09:18	8875084	8.315	-135.124	293.4	11.792	360.625	427.675	0.233	0.278	8.028	11.792	0.509
2023-09-18 09:33	8875984	8.309	-134.804	293.08	11.789	360.517	427.572	0.233	0.278	7.715	11.789	0.532
2023-09-18 09:48	8876884	8.308	-134.728	292.849	11.761	360.276	427.555	0.233	0.278	7.815	11.761	0.634
2023-09-18 10:03	8877784	8.324	-135.572	289.408	11.722	359.864	427.45	0.233	0.278	7.883	11.722	0.597
2023-09-18 10:18	8878684	8.329	-135.798	288.953	11.682	359.451	427.342	0.233	0.278	8.070	11.682	0.671
2023-09-18 10:33	8879584	8.321	-135.41	289.242	11.658	359.137	427.207	0.233	0.278	7.968	11.658	0.59
2023-09-18 10:48	8880484	8.328	-135.739	289.296	11.669	359.376	427.384	0.233	0.278	8.039	11.669	0.607
2023-09-18 11:03	8881384	8.331	-135.93	292.274	11.682	359.498	427.404	0.233	0.278	7.992	11.682	0.546
2023-09-18 11:18	8882284	8.346	-136.733	291.542	11.695	359.739	427.557	0.233	0.278	8.173	11.695	0.606
2023-09-18 11:33	8883184	8.332	-135.982	292.961	11.731	360.111	427.658	0.233	0.278	8.067	11.731	0.566
2023-09-18 11:48	8884084	8.337	-136.282	295.424	11.761	360.29	427.572	0.233	0.278	7.959	11.761	0.662
2023-09-18 12:03	8884984	8.346	-136.752	297.867	11.783	360.285	427.36	0.233	0.278	8.103	11.783	0.595
2023-09-18 12:18	8885884	8.367	-137.901	298.974	11.779	359.979	427.032	0.233	0.278	8.312	11.779	0.666
2023-09-18 12:33	8886784	8.383	-138.721	299.005	11.766	359.794	426.935	0.233	0.278	8.510	11.766	0.623
2023-09-18 12:48	8887684	8.391	-139.141	300.159	11.763	359.768	426.939	0.233	0.278	8.565	11.763	0.702
2023-09-18 13:03	8888584	8.403	-139.744	300.018	11.761	359.678	426.847	0.233	0.277	8.349	11.761	0.699
2023-09-18 13:18	8889484	8.427	-141.058	299.126	11.787	360.017	426.995	0.233	0.278	8.700	11.787	0.729
2023-09-18 13:33	8890384	8.443	-141.897	297.784	11.833	360.275	426.866	0.233	0.277	8.600	11.833	0.738
2023-09-18 13:48	8891284	8.472	-143.468	298.118	11.875	360.615	426.86	0.232	0.277	8.744	11.875	0.72
2023-09-18 14:03	8892184	8.482	-143.986	296.025	11.889	360.735	426.863	0.232	0.277	8.821	11.889	0.65
2023-09-18 14:18	8893084	8.492	-144.529	295.648	11.924	360.912	426.735	0.232	0.277	8.933	11.924	0.707
2023-09-18 14:33	8893984	8.488	-144.355	295.34	11.941	361.131	426.831	0.232	0.277	8.963	11.941	0.773
2023-09-18 14:48	8894884	8.499	-144.97	293.805	11.972	361.389	426.842	0.232	0.277	9.020	11.972	0.787
2023-09-18 15:03	8895784	8.502	-145.109	293.867	12.008	361.789	426.968	0.233	0.278	9.057	12.008	0.821
2023-09-18 15:18	8896684	8.527	-146.477	291.907	12.072	362.347	427.005	0.233	0.278	9.236	12.072	0.831
2023-09-18 15:33	8897584	8.527	-146.515	291.237	12.11	362.717	427.082	0.233	0.278	9.036	12.11	0.684
2023-09-18 15:48	8898484	8.533	-146.832	290.703	12.139	362.986	427.113	0.233	0.278	9.178	12.139	0.806
2023-09-18 16:03	8899384	8.542	-147.316	290.226	12.153	363.09	427.099	0.233	0.278	9.301	12.153	0.791
2023-09-18 16:18	8900284	8.553	-147.924	289.449	12.179	363.231	427.017	0.232	0.278	9.379	12.179	0.796
2023-09-18 16:33	8901184	8.554	-147.96	287.117	12.197	363.425	427.075	0.233	0.278	9.522	12.197	0.818
2023-09-18 16:48	8902084	8.555	-148.058	287.322	12.223	363.603	427.035	0.232	0.278	9.605	12.223	0.748
2023-09-18 17:03	8902984	8.560	-148.337	286.683	12.237	363.751	427.075	0.232	0.278	9.299	12.237	0.766
2023-09-18 17:18	8903884	8.578	-149.25	285.589	12.254	364.005	427.211	0.233	0.278	9.652	12.254	0.865
2023-09-18 17:33	8904784	8.570	-148.878	286.473	12.264	364.173	427.315	0.233	0.278	9.466	12.264	0.759
2023-09-18 17:48	8905684	8.577	-149.21	285.863	12.269	364.22	427.315	0.233	0.278	9.536	12.269	0.818
2023-09-18 18:03	8906584	8.576	-149.186	286.016	12.277	364.269	427.298	0.233	0.278	9.580	12.277	0.732
2023-09-18 18:18	8907484	8.571	-148.888	285.162	12.274	364.235	427.292	0.233	0.278	9.808	12.274	0.771
2023-09-18 18:33	8908384	8.562	-148.447	285.501	12.27	364.25	427.344	0.233	0.278	9.531	12.27	0.728
2023-09-18 18:48	8909284	8.551	-147.87	286.9	12.261	364.189	427.356	0.233	0.278	9.404	12.261	0.777
2023-09-18 19:03	8910184	8.549	-147.724	286.659	12.245	364.073	427.379	0.233	0.278	9.265	12.245	0.715
2023-09-18 19:18	8911084	8.553	-147.936	285.61	12.229	364.08	427.538	0.233	0.278	9.381	12.229	0.725
2023-09-18 19:33	8911984	8.542	-147.326	286.569	12.218	363.967	427.511	0.233	0.278	9.558	12.218	0.65
2023-09-18 19:48	8912884	8.536	-147.021	287.618	12.208	363.913	427.546	0.233	0.278	9.240	12.208	0.645
2023-09-18 20:03	8913784	8.533	-146.852	288.698	12.188	363.754	427.55	0.233	0.278	9.168	12.188	0.684
2023-09-18 20:18	8914684	8.523	-146.327	288.295	12.163	363.612	427.618	0.233	0.278	9.310	12.163	0.776
2023-09-18 20:33	8915584	8.513	-145.788	289.485	12.153	363.37	427.436	0.233	0.278	9.153	12.153	0.73
2023-09-18 20:48	8916484	8.512	-145.695	290.765	12.136	363.146	427.334	0.233	0.278	9.171	12.136	0.777
2023-09-18 21:03	8917384	8.513	-145.786	289.923	12.117	362.994	427.34	0.233	0.278	9.088	12.117	0.727
2023-09-18 21:18	8918284	8.515	-145.855	289.957	12.09	363.063	427.681	0.233	0.278	9.224	12.09	0.657
2023-09-18 21:33	8919184	8.502	-145.159	291.845	12.087	363.088	427.734	0.233	0.278	9.016	12.087	0.731
2023-09-18 21:48	8920084	8.489	-144.458	293.771	12.075	363.089	427.847	0.233	0.278	9.131	12.075	0.759

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-18 22:03	8920984	8.474	-143.683	296.292	12.055	363.024	427.964	0.233	0.278	8.899	12.055	0.68
2023-09-18 22:18	8921884	8.470	-143.433	296.802	12.02	362.526	427.719	0.233	0.278	9.099	12.02	0.784
2023-09-18 22:33	8922784	8.458	-142.763	299.138	11.983	361.879	427.311	0.233	0.278	8.920	11.983	0.69
2023-09-18 22:48	8923684	8.466	-143.18	297.972	11.937	361.518	427.331	0.233	0.278	8.882	11.937	0.679
2023-09-18 23:03	8924584	8.473	-143.53	297.624	11.896	360.92	427.011	0.233	0.278	8.883	11.896	0.67
2023-09-18 23:18	8925484	8.488	-144.277	296.177	11.821	360.635	427.404	0.233	0.278	9.384	11.821	0.709
2023-09-18 23:33	8926384	8.477	-143.702	296.048	11.804	360.51	427.417	0.233	0.278	9.239	11.804	0.623
2023-09-18 23:48	8927284	8.480	-143.845	296.752	11.764	360.096	427.32	0.233	0.278	8.725	11.764	0.656
2023-09-19 00:03	8928184	8.469	-143.235	297.901	11.713	359.73	427.375	0.233	0.278	8.776	11.713	0.566
2023-09-19 00:18	8929084	8.461	-142.794	296.683	11.658	359.173	427.249	0.233	0.278	8.982	11.658	1.074
2023-09-19 00:33	8929984	8.451	-142.267	295.641	11.64	358.902	427.098	0.233	0.278	8.659	11.64	0.501
2023-09-19 00:48	8930884	8.445	-141.897	294.654	11.607	358.638	427.102	0.233	0.278	8.831	11.607	0.551
2023-09-19 01:03	8931784	8.443	-141.778	296.485	11.588	358.511	427.135	0.233	0.278	8.971	11.588	0.531
2023-09-19 01:18	8932684	8.451	-142.21	297.198	11.571	358.58	427.391	0.233	0.278	8.892	11.571	1.664
2023-09-19 01:33	8933584	8.435	-141.38	298.554	11.571	358.721	427.554	0.233	0.278	8.804	11.571	0.539
2023-09-19 01:48	8934484	8.427	-140.915	300.359	11.564	358.636	427.523	0.233	0.278	8.550	11.564	0.467
2023-09-19 02:03	8935384	8.411	-140.104	303.392	11.549	358.612	427.643	0.233	0.278	8.636	11.549	0.514
2023-09-19 02:18	8936284	8.392	-139.091	303.084	11.512	358.389	427.737	0.233	0.278	8.616	11.512	0.508
2023-09-19 02:33	8937184	8.383	-138.612	303.625	11.509	358.264	427.616	0.233	0.278	8.127	11.509	0.526
2023-09-19 02:48	8938084	8.376	-138.237	305.79	11.497	358.202	427.652	0.233	0.278	8.317	11.497	0.415
2023-09-19 03:03	8938984	8.369	-137.837	307.669	11.491	358.217	427.733	0.233	0.278	8.463	11.491	0.457
2023-09-19 03:18	8939885	8.364	-137.579	307.986	11.473	358.271	427.973	0.233	0.278	8.240	11.473	0.441
2023-09-19 03:33	8940785	8.333	-135.951	309.49	11.463	358.227	428.023	0.233	0.278	8.151	11.463	0.385
2023-09-19 03:48	8941685	8.331	-135.834	310.213	11.43	357.904	427.953	0.233	0.278	8.129	11.43	0.385
2023-09-19 04:03	8942585	8.326	-135.512	311.338	11.388	357.572	427.97	0.233	0.278	8.150	11.388	0.425
2023-09-19 04:18	8943485	8.331	-135.772	311.164	11.31	356.649	427.628	0.233	0.278	8.303	11.31	0.43
2023-09-19 04:33	8944385	8.320	-135.179	312.521	11.281	356.083	427.23	0.233	0.278	7.914	11.281	0.441
2023-09-19 04:48	8945285	8.331	-135.705	310.516	11.216	355.437	427.097	0.233	0.278	7.942	11.216	0.452
2023-09-19 05:03	8946185	8.338	-136.061	311	11.155	354.842	426.976	0.233	0.278	8.154	11.155	0.523
2023-09-19 05:18	8947085	8.366	-137.501	310.742	11.093	354.606	427.303	0.233	0.278	8.385	11.093	0.647
2023-09-19 05:33	8947985	8.345	-136.354	312.447	11.082	354.594	427.389	0.233	0.278	8.076	11.082	0.445
2023-09-19 05:48	8948885	8.342	-136.192	313.572	11.044	354.347	427.47	0.233	0.278	8.266	11.044	0.556
2023-09-19 06:03	8949785	8.335	-135.815	315.575	11.001	353.935	427.392	0.233	0.278	8.195	11.001	0.443
2023-09-19 06:18	8950685	8.352	-136.666	314.917	10.929	352.818	426.758	0.233	0.277	8.280	10.929	0.452
2023-09-19 06:33	8951585	8.355	-136.836	313.663	10.903	352.413	426.521	0.233	0.277	8.258	10.903	0.538
2023-09-19 06:48	8952485	8.366	-137.386	314.223	10.863	351.93	426.331	0.232	0.277	8.067	10.863	0.651
2023-09-19 07:03	8953385	8.378	-138.016	312.905	10.827	351.537	426.212	0.232	0.277	8.313	10.827	0.384
2023-09-19 07:18	8954285	8.386	-138.378	310.122	10.788	351.731	426.827	0.233	0.277	8.496	10.788	0.95
2023-09-19 07:33	8955185	8.355	-136.774	311.133	10.772	351.647	426.889	0.233	0.277	8.459	10.772	0.338
2023-09-19 07:48	8956085	8.337	-135.77	312.897	10.74	351.482	427.003	0.233	0.278	8.068	10.74	0.39
2023-09-19 08:03	8956985	8.330	-135.422	314.097	10.701	351.163	426.999	0.233	0.278	7.833	10.701	0.329
2023-09-19 08:18	8957885	8.331	-135.431	311.357	10.634	350.441	426.784	0.233	0.277	8.125	10.634	0.419
2023-09-19 08:33	8958785	8.331	-135.41	313.513	10.626	350.25	426.632	0.233	0.277	7.848	10.626	0.317
2023-09-19 08:48	8959685	8.334	-135.591	315.713	10.613	350.122	426.611	0.233	0.277	7.950	10.613	0.407
2023-09-19 09:03	8960585	8.334	-135.589	316.374	10.599	350.05	426.661	0.233	0.277	8.110	10.599	0.351
2023-09-19 09:18	8961485	8.349	-136.337	316.216	10.59	349.913	426.585	0.233	0.277	8.304	10.59	0.433
2023-09-19 09:33	8962385	8.351	-136.456	316.462	10.6	350.118	426.734	0.233	0.277	8.418	10.6	0.344
2023-09-19 09:48	8963285	8.364	-137.157	317.435	10.602	350.21	426.824	0.233	0.277	8.346	10.602	0.395
2023-09-19 10:03	8964185	8.367	-137.296	318.083	10.625	350.113	426.481	0.233	0.277	8.175	10.625	0.367
2023-09-19 10:18	8965085	8.403	-139.227	315.391	10.651	350.121	426.234	0.232	0.277	8.461	10.651	0.37
2023-09-19 10:33	8965985	8.466	-142.548	312.199	10.697	350.487	426.218	0.232	0.277	8.585	10.697	0.43
2023-09-19 10:48	8966885	8.476	-143.132	309.078	10.738	350.795	426.186	0.232	0.277	9.049	10.738	0.457
2023-09-19 11:03	8967785	8.492	-143.957	306	10.778	351.155	426.233	0.232	0.277	8.938	10.778	0.466
2023-09-19 11:18	8968685	8.509	-144.885	302.865	10.834	351.691	426.334	0.233	0.277	9.284	10.834	0.509
2023-09-19 11:33	8969585	8.506	-144.758	300.352	10.877	352.139	426.449	0.233	0.277	9.198	10.877	0.443
2023-09-19 11:48	8970485	8.508	-144.875	299.575	10.927	352.536	426.432	0.233	0.277	9.371	10.927	0.457

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-19 12:03	8971385	8.523	-145.698	298.094	10.976	352.969	426.474	0.233	0.277	9.383	10.976	0.403
2023-09-19 12:18	8972285	8.534	-146.308	295.574	11.018	353.091	426.214	0.232	0.277	9.448	11.018	0.436
2023-09-19 12:33	8973185	8.567	-148.084	294.961	11.071	353.588	426.286	0.232	0.277	9.321	11.071	0.395
2023-09-19 12:48	8974085	8.546	-146.98	295.405	11.134	354.108	426.297	0.232	0.277	9.291	11.134	0.536
2023-09-19 13:03	8974985	8.536	-146.515	295.755	11.184	354.599	426.395	0.232	0.277	9.492	11.184	0.513
2023-09-19 13:18	8975885	8.539	-146.668	296.547	11.23	355.19	426.66	0.233	0.277	9.687	11.23	0.509
2023-09-19 13:33	8976785	8.521	-145.75	297.648	11.276	355.729	426.852	0.233	0.277	9.149	11.276	0.406
2023-09-19 13:48	8977685	8.528	-146.124	298.669	11.304	355.981	426.879	0.233	0.277	9.165	11.304	0.484
2023-09-19 14:03	8978585	8.529	-146.184	299.811	11.315	356.147	426.975	0.233	0.278	9.158	11.315	0.43
2023-09-19 14:18	8979485	8.507	-145.028	300.981	11.321	356.061	426.816	0.233	0.277	9.369	11.321	0.496
2023-09-19 14:33	8980385	8.490	-144.141	301.782	11.348	356.283	426.814	0.233	0.277	9.039	11.348	0.412
2023-09-19 14:48	8981285	8.503	-144.866	302.679	11.368	356.52	426.909	0.233	0.277	9.032	11.368	0.431
2023-09-19 15:03	8982185	8.508	-145.128	303.523	11.393	356.779	426.972	0.233	0.278	8.863	11.393	0.403
2023-09-19 15:18	8983085	8.495	-144.436	303.091	11.425	357.307	427.286	0.233	0.278	9.174	11.425	0.501
2023-09-19 15:33	8983985	8.482	-143.757	304.36	11.43	357.431	427.385	0.233	0.278	8.858	11.43	0.392
2023-09-19 15:48	8984885	8.487	-144.05	304.896	11.425	357.199	427.161	0.233	0.278	9.002	11.425	0.463
2023-09-19 16:03	8985785	8.516	-145.59	304.25	11.423	357.087	427.043	0.233	0.278	9.376	11.423	0.437
2023-09-19 16:18	8986685	8.524	-145.972	302.901	11.415	357.027	427.051	0.233	0.278	9.508	11.415	0.458
2023-09-19 16:33	8987585	8.513	-145.395	303.27	11.435	357.078	426.916	0.233	0.277	9.131	11.435	0.582
2023-09-19 16:48	8988485	8.516	-145.578	303.032	11.447	357.16	426.896	0.233	0.277	9.295	11.447	0.454
2023-09-19 17:03	8989385	8.530	-146.315	302.281	11.458	357.214	426.858	0.233	0.277	9.256	11.458	0.485
2023-09-19 17:18	8990285	8.535	-146.604	301.642	11.463	357.476	427.12	0.233	0.278	9.487	11.463	0.566
2023-09-19 17:33	8991185	8.524	-146.024	302.145	11.469	357.636	427.259	0.233	0.278	9.173	11.469	0.482
2023-09-19 17:48	8992085	8.517	-145.617	302.734	11.461	357.55	427.229	0.233	0.278	8.994	11.461	0.445
2023-09-19 18:03	8992985	8.509	-145.216	302.715	11.45	357.403	427.161	0.233	0.278	9.309	11.45	0.425
2023-09-19 18:18	8993885	8.545	-147.092	300.13	11.428	356.98	426.868	0.233	0.277	9.529	11.428	0.526
2023-09-19 18:33	8994785	8.563	-148.048	298.437	11.436	357.073	426.906	0.233	0.277	9.304	11.436	0.444
2023-09-19 18:48	8995685	8.550	-147.39	298.979	11.447	357.363	427.146	0.233	0.278	9.337	11.447	0.491
2023-09-19 19:03	8996585	8.533	-146.472	299.036	11.454	357.48	427.209	0.233	0.278	9.231	11.454	0.427
2023-09-19 19:18	8997485	8.532	-146.418	299.074	11.46	357.678	427.395	0.233	0.278	9.347	11.46	0.447
2023-09-19 19:33	8998385	8.513	-145.44	300.497	11.465	357.848	427.55	0.233	0.278	9.155	11.465	0.358
2023-09-19 19:48	8999285	8.499	-144.675	302.138	11.46	357.768	427.495	0.233	0.278	9.249	11.46	0.35
2023-09-19 20:03	9000185	8.491	-144.248	302.87	11.455	357.79	427.577	0.233	0.278	9.188	11.455	0.376
2023-09-19 20:18	9001085	8.475	-143.409	302.829	11.438	357.612	427.525	0.233	0.278	8.998	11.438	0.459
2023-09-19 20:33	9001985	8.455	-142.35	304.519	11.433	357.731	427.722	0.233	0.278	8.521	11.433	0.371
2023-09-19 20:48	9002885	8.448	-141.947	305.857	11.411	357.433	427.573	0.233	0.278	8.754	11.411	0.403
2023-09-19 21:03	9003785	8.450	-142.05	306.31	11.39	356.907	427.157	0.233	0.278	9.011	11.39	0.353
2023-09-19 21:18	9004685	8.490	-144.184	305.928	11.362	356.793	427.291	0.233	0.278	9.254	11.362	0.377
2023-09-19 21:33	9005585	8.485	-143.919	306.72	11.353	356.738	427.312	0.233	0.278	8.902	11.353	0.325
2023-09-19 21:48	9006485	8.472	-143.187	308.108	11.325	356.576	427.392	0.233	0.278	9.047	11.325	0.309
2023-09-19 22:03	9007385	8.484	-143.826	307.466	11.312	356.373	427.276	0.233	0.278	8.919	11.312	0.245
2023-09-19 22:18	9008285	8.473	-143.232	307.712	11.29	356.365	427.479	0.233	0.278	9.055	11.29	0.38
2023-09-19 22:33	9009185	8.454	-142.21	308.804	11.288	356.356	427.491	0.233	0.278	8.836	11.288	0.266
2023-09-19 22:48	9010085	8.436	-141.258	310.95	11.27	356.271	427.567	0.233	0.278	8.621	11.27	0.317
2023-09-19 23:03	9010985	8.429	-140.905	312.95	11.252	356.143	427.591	0.233	0.278	8.631	11.252	0.337
2023-09-19 23:18	9011885	8.421	-140.46	311.693	11.23	356.596	428.351	0.234	0.278	8.856	11.23	0.287
2023-09-19 23:33	9012785	8.416	-140.164	311.739	11.219	356.972	428.909	0.234	0.279	8.537	11.219	0.318
2023-09-19 23:48	9013685	8.410	-139.842	313.322	11.199	356.417	428.44	0.234	0.278	8.575	11.199	0.305
2023-09-20 00:03	9014585	8.416	-140.181	313.749	11.186	356.161	428.258	0.233	0.278	8.664	11.186	0.26
2023-09-20 00:18	9015485	8.423	-140.553	312.728	11.156	355.43	427.673	0.233	0.278	8.949	11.156	0.348
2023-09-20 00:33	9016385	8.420	-140.352	313.262	11.149	355.303	427.589	0.233	0.278	8.577	11.149	0.195
2023-09-20 00:48	9017285	8.411	-139.906	313.985	11.13	355.113	427.546	0.233	0.278	8.556	11.13	0.325
2023-09-20 01:03	9018185	8.417	-140.181	314.619	11.112	355.05	427.644	0.233	0.278	8.596	11.112	0.27
2023-09-20 01:18	9019085	8.417	-140.181	314.557	11.086	355.012	427.857	0.233	0.278	8.682	11.086	0.295
2023-09-20 01:33	9019985	8.390	-138.75	316.354	11.075	355.003	427.955	0.233	0.278	8.464	11.075	0.302
2023-09-20 01:48	9020885	8.391	-138.767	317.756	11.052	354.741	427.87	0.233	0.278	8.338	11.052	0.38

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-20 02:03	9021785	8.396	-139.029	316.276	11.028	354.496	427.811	0.233	0.278	8.729	11.028	0.323
2023-09-20 02:18	9022685	8.404	-139.458	314.988	10.993	354.031	427.595	0.233	0.278	8.212	10.993	0.338
2023-09-20 02:33	9023585	8.392	-138.783	316.498	10.984	353.936	427.569	0.233	0.278	8.488	10.984	0.423
2023-09-20 02:48	9024485	8.382	-138.29	317.198	10.966	353.901	427.7	0.233	0.278	8.402	10.966	0.278
2023-09-20 03:03	9025385	8.368	-137.546	317.775	10.949	353.834	427.789	0.233	0.278	8.439	10.949	0.262
2023-09-20 03:18	9026285	8.377	-137.999	315.549	10.935	354.212	428.383	0.234	0.278	7.926	10.935	0.274
2023-09-20 03:33	9027185	8.373	-137.782	314.855	10.924	354.139	428.4	0.234	0.278	7.883	10.924	0.33
2023-09-20 03:48	9028085	8.370	-137.594	315.198	10.907	354.048	428.457	0.234	0.278	8.219	10.907	0.231
2023-09-20 04:03	9028985	8.368	-137.52	315.921	10.894	354.085	428.63	0.234	0.279	8.240	10.894	0.228
2023-09-20 04:18	9029885	8.360	-137.081	314.936	10.871	353.577	428.251	0.234	0.278	7.972	10.871	0.263
2023-09-20 04:33	9030785	8.349	-136.509	315.875	10.868	353.46	428.141	0.234	0.278	8.108	10.868	0.274
2023-09-20 04:48	9031685	8.334	-135.684	317.256	10.858	353.478	428.262	0.234	0.278	8.187	10.858	0.266
2023-09-20 05:03	9032585	8.328	-135.367	317.082	10.847	353.454	428.338	0.234	0.278	8.075	10.847	0.193
2023-09-20 05:18	9033485	8.326	-135.274	315.923	10.845	354.002	429.021	0.234	0.279	8.240	10.845	0.115
2023-09-20 05:33	9034385	8.324	-135.179	316.2	10.841	353.901	428.934	0.234	0.279	7.923	10.841	0.175
2023-09-20 05:48	9035285	8.331	-135.551	316.602	10.835	353.577	428.601	0.234	0.279	8.254	10.835	0.205
2023-09-20 06:03	9036185	8.328	-135.367	317.401	10.827	353.455	428.533	0.234	0.279	8.150	10.827	0.222
2023-09-20 06:18	9037085	8.333	-135.641	317.024	10.814	353.338	428.522	0.234	0.279	8.358	10.814	0.173
2023-09-20 06:33	9037985	8.324	-135.124	318.588	10.809	353.336	428.575	0.234	0.279	7.826	10.809	0.242
2023-09-20 06:48	9038885	8.314	-134.63	320.093	10.801	353.192	428.475	0.234	0.279	7.935	10.801	0.084
2023-09-20 07:03	9039785	8.310	-134.406	320.288	10.79	353.402	428.845	0.234	0.279	7.655	10.79	0.129
2023-09-20 07:18	9040685	8.298	-133.755	320.007	10.774	353.522	429.14	0.234	0.279	7.225	10.774	0.249
2023-09-20 07:33	9041585	8.276	-132.62	320.563	10.767	353.372	429.032	0.234	0.279	7.947	10.767	0.19
2023-09-20 07:48	9042485	8.283	-132.959	320.842	10.747	352.954	428.723	0.234	0.279	8.136	10.747	0.223
2023-09-20 08:03	9043385	8.292	-133.433	320.946	10.726	352.643	428.556	0.234	0.279	8.159	10.726	0.231
2023-09-20 08:18	9044285	8.321	-134.916	318.836	10.676	351.471	427.626	0.233	0.278	8.416	10.676	0.177
2023-09-20 08:33	9045185	8.324	-135.098	318.844	10.659	351.434	427.755	0.233	0.278	8.018	10.659	0.189
2023-09-20 08:48	9046085	8.323	-134.981	318.97	10.623	350.814	427.355	0.233	0.278	8.140	10.623	0.176
2023-09-20 09:03	9046985	8.330	-135.353	319.511	10.596	350.507	427.248	0.233	0.278	8.082	10.596	0.238
2023-09-20 09:18	9047885	8.351	-136.445	317.623	10.573	350.621	427.613	0.233	0.278	8.362	10.573	0.175
2023-09-20 09:33	9048785	8.334	-135.534	317.98	10.575	350.746	427.751	0.233	0.278	8.276	10.575	0.163
2023-09-20 09:48	9049685	8.330	-135.369	319.001	10.574	350.652	427.644	0.233	0.278	7.980	10.574	0.13
2023-09-20 10:03	9050585	8.342	-135.977	318.419	10.582	350.749	427.679	0.233	0.278	8.282	10.582	0.19
2023-09-20 10:18	9051485	8.347	-136.23	318.865	10.586	350.624	427.495	0.233	0.278	8.113	10.586	0.173
2023-09-20 10:33	9052385	8.337	-135.72	320.329	10.612	350.762	427.396	0.233	0.278	8.190	10.612	0.125
2023-09-20 10:48	9053285	8.343	-136.042	321.571	10.64	351.247	427.711	0.233	0.278	8.257	10.64	0.113
2023-09-20 11:03	9054185	8.358	-136.845	322.36	10.677	351.347	427.466	0.233	0.278	8.223	10.677	0.137
2023-09-20 11:18	9055085	8.451	-141.795	315.451	10.742	351.501	427.007	0.233	0.278	8.676	10.742	0.214
2023-09-20 11:33	9055985	8.457	-142.152	311.605	10.772	351.726	426.985	0.233	0.278	8.865	10.772	0.275
2023-09-20 11:48	9056885	8.484	-143.54	306.372	10.801	351.879	426.888	0.233	0.277	9.192	10.801	0.35
2023-09-20 12:03	9057785	8.521	-145.54	300.214	10.876	352.577	426.984	0.233	0.278	9.192	10.876	0.219
2023-09-20 12:18	9058685	8.518	-145.395	297.322	10.927	352.872	426.841	0.233	0.277	9.499	10.927	0.326
2023-09-20 12:33	9059585	8.520	-145.576	294.437	10.988	353.451	426.944	0.233	0.278	9.400	10.988	0.33
2023-09-20 12:48	9060485	8.533	-146.289	292.906	11.054	354.002	426.953	0.233	0.278	9.652	11.054	0.277
2023-09-20 13:03	9061385	8.547	-147.078	291.888	11.175	355.12	427.116	0.233	0.278	9.471	11.175	0.272
2023-09-20 13:18	9062286	8.565	-148.077	289.082	11.326	356.751	427.593	0.233	0.278	9.839	11.326	0.287
2023-09-20 13:33	9063186	8.536	-146.651	286.853	11.47	358.337	428.085	0.233	0.278	9.614	11.47	0.29
2023-09-20 13:48	9064086	8.518	-145.788	284.867	11.64	360.051	428.463	0.233	0.279	9.660	11.64	0.383
2023-09-20 14:03	9064986	8.522	-146.053	281.705	11.785	361.31	428.551	0.233	0.279	9.719	11.785	0.287
2023-09-20 14:18	9065886	8.562	-148.213	278.622	11.892	362.099	428.451	0.233	0.278	10.109	11.892	0.308
2023-09-20 14:33	9066786	8.563	-148.361	275.163	12.05	363.323	428.368	0.233	0.278	10.156	12.05	0.313
2023-09-20 14:48	9067686	8.653	-153.186	273.678	12.181	364.05	427.964	0.233	0.278	10.148	12.181	0.279
2023-09-20 15:03	9068586	8.616	-151.334	272.44	12.338	365.411	428.056	0.233	0.278	10.315	12.338	0.41
2023-09-20 15:18	9069486	8.617	-151.463	270.645	12.498	367.641	429.129	0.234	0.279	10.314	12.498	0.408
2023-09-20 15:33	9070386	8.667	-154.216	267.3	12.662	369.132	429.306	0.234	0.279	10.400	12.662	0.322
2023-09-20 15:48	9071286	8.651	-153.41	265.955	12.796	370.715	429.864	0.234	0.279	10.415	12.796	0.464

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-20 16:03	9072186	8.624	-152.078	263.716	12.907	371.474	429.69	0.234	0.279	10.562	12.907	0.362
2023-09-20 16:18	9073086	8.653	-153.627	263.161	12.955	371.95	429.778	0.234	0.279	10.737	12.955	0.464
2023-09-20 16:33	9073986	8.651	-153.582	264.513	13.038	372.386	429.497	0.234	0.279	10.453	13.038	0.424
2023-09-20 16:48	9074886	8.699	-156.157	264.668	13.125	373.027	429.413	0.234	0.279	10.341	13.125	0.408
2023-09-20 17:03	9075786	8.748	-158.815	260.207	13.204	373.579	429.301	0.233	0.279	11.107	13.204	0.405
2023-09-20 17:18	9076686	8.790	-161.08	260.205	13.259	373.954	429.221	0.233	0.279	11.643	13.259	0.338
2023-09-20 17:33	9077586	8.758	-159.388	261.018	13.272	373.826	428.943	0.233	0.279	11.474	13.272	0.337
2023-09-20 17:48	9078486	8.759	-159.354	264.546	13.151	372.767	428.87	0.233	0.279	11.552	13.151	0.311
2023-09-20 18:03	9079386	8.748	-158.694	264.065	13.042	371.945	428.957	0.233	0.279	11.385	13.042	0.334
2023-09-20 18:18	9080286	8.736	-157.988	264.281	12.931	371.069	428.987	0.233	0.279	11.189	12.931	0.309
2023-09-20 18:33	9081186	8.717	-156.982	265.264	12.933	370.461	428.266	0.233	0.278	11.012	12.933	0.363
2023-09-20 18:48	9082086	8.724	-157.349	264.453	12.892	370.177	428.331	0.233	0.278	11.149	12.892	0.316
2023-09-20 19:03	9082986	8.714	-156.794	265.795	12.858	369.9	428.333	0.233	0.278	11.141	12.858	0.284
2023-09-20 19:18	9083886	8.717	-156.968	266.465	12.824	370.005	428.774	0.233	0.279	10.154	12.824	0.297
2023-09-20 19:33	9084786	8.701	-156.114	268.151	12.832	370.287	429.02	0.233	0.279	10.797	12.832	0.205
2023-09-20 19:48	9085686	8.699	-155.988	269.229	12.813	370.126	429.02	0.233	0.279	10.743	12.813	0.251
2023-09-20 20:03	9086586	8.705	-156.295	271.608	12.804	370.127	429.101	0.233	0.279	10.994	12.804	0.162
2023-09-20 20:18	9087486	8.684	-155.187	271.866	12.779	369.794	428.954	0.233	0.279	10.198	12.779	0.204
2023-09-20 20:33	9088386	8.680	-154.979	271.68	12.777	369.771	428.953	0.233	0.279	10.625	12.777	0.223
2023-09-20 20:48	9089286	8.679	-154.891	273.737	12.769	369.802	429.058	0.233	0.279	10.724	12.769	0.184
2023-09-20 21:03	9090186	8.686	-155.284	274.035	12.752	369.48	428.852	0.233	0.279	10.687	12.752	0.278
2023-09-20 21:18	9091086	8.748	-158.508	269.16	12.726	369.278	428.859	0.233	0.279	11.259	12.726	0.165
2023-09-20 21:33	9091986	8.718	-156.956	269.794	12.708	369.167	428.899	0.233	0.279	10.693	12.708	0.139
2023-09-20 21:48	9092886	8.721	-157.089	270.292	12.668	368.79	428.843	0.233	0.279	10.839	12.668	0.193
2023-09-20 22:03	9093786	8.712	-156.574	272.147	12.616	368.315	428.789	0.233	0.279	10.888	12.616	0.136
2023-09-20 22:18	9094686	8.730	-157.485	269.567	12.529	367.358	428.501	0.233	0.279	10.085	12.529	0.229
2023-09-20 22:33	9095586	8.722	-156.999	266.88	12.487	366.83	428.293	0.233	0.278	10.679	12.487	0.336
2023-09-20 22:48	9096486	8.709	-156.279	266.916	12.429	366.573	428.538	0.233	0.279	10.354	12.429	0.289
2023-09-20 23:03	9097386	8.699	-155.752	265.693	12.385	366.284	428.629	0.233	0.279	10.249	12.385	0.305
2023-09-20 23:18	9098286	8.683	-154.855	268.759	12.322	366.121	429.038	0.234	0.279	10.635	12.322	0.286
2023-09-20 23:33	9099186	8.667	-153.983	270.056	12.296	365.911	429.039	0.234	0.279	10.359	12.296	0.322
2023-09-20 23:48	9100086	8.651	-153.124	274.369	12.22	365.334	429.095	0.234	0.279	10.298	12.22	0.273
2023-09-21 00:03	9100986	8.647	-152.848	273.332	12.158	364.854	429.128	0.234	0.279	10.298	12.158	0.28
2023-09-21 00:18	9101886	8.655	-153.265	273.296	12.076	363.935	428.843	0.234	0.279	10.478	12.076	0.271
2023-09-21 00:33	9102786	8.643	-152.605	274.116	12.042	363.5	428.659	0.233	0.279	10.091	12.042	0.243
2023-09-21 00:48	9103686	8.649	-152.907	276.591	11.986	362.863	428.443	0.233	0.278	10.091	11.986	0.172
2023-09-21 01:03	9104586	8.639	-152.318	278.696	11.933	362.476	428.495	0.233	0.279	10.094	11.933	0.241
2023-09-21 01:18	9105486	8.645	-152.597	278.188	11.871	362.377	428.984	0.234	0.279	9.933	11.871	0.229
2023-09-21 01:33	9106386	8.607	-150.611	282.053	11.852	362.337	429.116	0.234	0.279	10.194	11.852	0.269
2023-09-21 01:48	9107286	8.609	-150.676	281.672	11.808	361.947	429.08	0.234	0.279	9.794	11.808	0.126
2023-09-21 02:03	9108186	8.598	-150.065	283.994	11.763	361.623	429.134	0.234	0.279	9.877	11.763	0.125
2023-09-21 02:18	9109086	8.599	-150.094	283.579	11.682	360.765	428.908	0.234	0.279	9.791	11.682	0.153
2023-09-21 02:33	9109986	8.589	-149.531	284.867	11.654	360.416	428.76	0.234	0.279	9.544	11.654	0.156
2023-09-21 02:48	9110886	8.575	-148.752	285.978	11.609	360.098	428.828	0.234	0.279	9.478	11.609	0.088
2023-09-21 03:03	9111786	8.563	-148.108	289.242	11.556	359.537	428.676	0.234	0.279	9.583	11.556	0.048
2023-09-21 03:18	9112686	8.573	-148.618	288.004	11.478	358.908	428.687	0.234	0.279	9.683	11.478	0.142
2023-09-21 03:33	9113586	8.556	-147.676	288.984	11.447	358.712	428.754	0.234	0.279	9.385	11.447	0.024
2023-09-21 03:48	9114486	8.557	-147.693	290.605	11.387	358.085	428.59	0.234	0.279	9.488	11.387	0.135
2023-09-21 04:03	9115386	8.551	-147.388	290.829	11.337	357.632	428.536	0.234	0.279	9.426	11.337	0.081
2023-09-21 04:18	9116286	8.541	-146.806	290.078	11.263	356.863	428.347	0.234	0.278	9.310	11.263	0.086
2023-09-21 04:33	9117186	8.529	-146.172	291.652	11.229	356.56	428.315	0.234	0.278	9.212	11.229	0.083
2023-09-21 04:48	9118086	8.527	-146	292.722	11.174	356.131	428.342	0.234	0.278	9.087	11.174	0.095
2023-09-21 05:03	9118986	8.521	-145.698	291.497	11.128	355.525	428.064	0.233	0.278	9.131	11.128	0.06
2023-09-21 05:18	9119886	8.530	-146.117	292.396	11.046	354.979	428.212	0.233	0.278	9.505	11.046	0.195
2023-09-21 05:33	9120786	8.501	-144.598	293.342	11.026	354.854	428.259	0.234	0.278	9.117	11.026	0.083
2023-09-21 05:48	9121686	8.491	-144.029	295.076	10.971	354.398	428.257	0.234	0.278	8.851	10.971	0.113

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-21 06:03	9122586	8.490	-143.945	296.222	10.91	353.839	428.179	0.234	0.278	9.211	10.91	0.199
2023-09-21 06:18	9123486	8.488	-143.769	295.159	10.834	352.995	427.905	0.233	0.278	9.652	10.834	0.174
2023-09-21 06:33	9124386	8.481	-143.394	294.656	10.812	352.775	427.858	0.233	0.278	9.063	10.812	0.255
2023-09-21 06:48	9125286	8.472	-142.925	296.551	10.769	352.379	427.801	0.233	0.278	9.418	10.769	0.126
2023-09-21 07:03	9126186	8.464	-142.488	297.865	10.728	352.064	427.826	0.233	0.278	9.079	10.728	0.194
2023-09-21 07:18	9127086	8.465	-142.508	298.926	10.696	352.338	428.48	0.234	0.279	9.404	10.696	0.157
2023-09-21 07:33	9127986	8.445	-141.439	295.026	10.684	352.582	428.902	0.234	0.279	8.672	10.684	0.062
2023-09-21 07:48	9128886	8.428	-140.562	294.42	10.661	352.371	428.873	0.234	0.279	8.907	10.661	0.091
2023-09-21 08:03	9129786	8.419	-140.052	295.932	10.641	352.204	428.869	0.234	0.279	8.564	10.641	0.069
2023-09-21 08:18	9130686	8.406	-139.344	298.049	10.604	351.616	428.522	0.234	0.279	8.693	10.604	0.104
2023-09-21 08:33	9131586	8.406	-139.344	300.132	10.585	351.496	428.559	0.234	0.279	8.451	10.585	0.041
2023-09-21 08:48	9132486	8.410	-139.556	303.008	10.56	351.173	428.418	0.234	0.278	8.752	10.56	0.062
2023-09-21 09:03	9133386	8.409	-139.487	304.112	10.542	350.984	428.371	0.234	0.278	8.702	10.542	0.096
2023-09-21 09:18	9134286	8.401	-139.086	305.266	10.536	351.099	428.563	0.234	0.279	8.658	10.536	0.109
2023-09-21 09:33	9135186	8.394	-138.681	307.798	10.545	351.295	428.72	0.234	0.279	8.654	10.545	0.112
2023-09-21 09:48	9136086	8.382	-138.047	309.86	10.546	351.339	428.765	0.234	0.279	8.380	10.546	0.066
2023-09-21 10:03	9136986	8.383	-138.135	311.524	10.559	351.48	428.805	0.234	0.279	8.339	10.559	0.007
2023-09-21 10:18	9137886	8.379	-137.939	311.367	10.562	351.48	428.769	0.234	0.279	8.336	10.562	0.062
2023-09-21 10:33	9138786	8.393	-138.652	311.784	10.577	351.742	428.948	0.234	0.279	8.082	10.577	0
2023-09-21 10:48	9139686	8.392	-138.593	312.423	10.593	351.94	429.022	0.234	0.279	8.035	10.593	0.01
2023-09-21 11:03	9140586	8.384	-138.185	313.875	10.609	352.308	429.311	0.234	0.279	8.259	10.609	0
2023-09-21 11:18	9141486	8.398	-138.943	303.234	10.626	352.146	428.947	0.234	0.279	8.928	10.626	0.001
2023-09-21 11:33	9142386	8.387	-138.39	295.088	10.65	352.096	428.649	0.234	0.279	8.356	10.65	0
2023-09-21 11:48	9143286	8.391	-138.602	293.49	10.672	352.122	428.458	0.234	0.278	8.527	10.672	0.048
2023-09-21 12:03	9144186	8.399	-139.058	293.209	10.697	352.295	428.423	0.234	0.278	8.561	10.697	0.056
2023-09-21 12:18	9145086	8.405	-139.37	294.158	10.705	352.492	428.582	0.234	0.279	8.934	10.705	0
2023-09-21 12:33	9145986	8.424	-140.347	294.561	10.729	352.553	428.416	0.234	0.278	8.575	10.729	0
2023-09-21 12:48	9146886	8.427	-140.533	295.986	10.753	352.623	428.263	0.234	0.278	8.506	10.753	0.012
2023-09-21 13:03	9147786	8.439	-141.165	296.969	10.776	352.621	428.027	0.233	0.278	8.929	10.776	0.104
2023-09-21 13:18	9148686	8.454	-142.021	295.912	10.838	353.187	428.098	0.233	0.278	9.018	10.838	0.062
2023-09-21 13:33	9149586	8.450	-141.84	294.461	10.958	354.274	428.232	0.234	0.278	8.990	10.958	0.014
2023-09-21 13:48	9150486	8.436	-141.17	295.71	11.074	355.597	428.679	0.234	0.279	9.166	11.074	0.021
2023-09-21 14:03	9151386	8.443	-141.599	297.238	11.147	356.125	428.601	0.234	0.279	9.137	11.147	0
2023-09-21 14:18	9152286	8.463	-142.639	297.777	11.151	355.808	428.173	0.233	0.278	9.425	11.151	0.016
2023-09-21 14:33	9153186	8.428	-140.805	299.706	11.225	356.1	427.798	0.233	0.278	9.070	11.225	0.059
2023-09-21 14:48	9154086	8.455	-142.286	300.65	11.278	356.48	427.738	0.233	0.278	9.336	11.278	0.156
2023-09-21 15:03	9154986	8.497	-144.505	299.992	11.325	356.758	427.61	0.233	0.278	9.395	11.325	0.147
2023-09-21 15:18	9155886	8.540	-146.835	298.413	11.384	357.539	427.968	0.233	0.278	9.900	11.384	0.153
2023-09-21 15:33	9156786	8.522	-145.879	297.357	11.46	358.504	428.376	0.233	0.278	9.382	11.46	0.078
2023-09-21 15:48	9157686	8.539	-146.818	296.568	11.503	358.921	428.455	0.233	0.278	10.043	11.503	0.09
2023-09-21 16:03	9158586	8.523	-146.015	297.538	11.539	359.214	428.456	0.233	0.278	9.901	11.539	0.161
2023-09-21 16:18	9159486	8.534	-146.592	296.962	11.538	358.873	428.059	0.233	0.278	10.117	11.538	0.152
2023-09-21 16:33	9160386	8.519	-145.793	298.001	11.584	359.257	428.062	0.233	0.278	9.629	11.584	0.082
2023-09-21 16:48	9161286	8.480	-143.743	299.017	11.612	359.522	428.111	0.233	0.278	9.701	11.612	0.099
2023-09-21 17:03	9162186	8.470	-143.259	297.276	11.638	359.732	428.107	0.233	0.278	9.980	11.638	0.096
2023-09-21 17:18	9163086	8.554	-147.698	295.55	11.674	360.373	428.516	0.233	0.279	10.250	11.674	0.156
2023-09-21 17:33	9163986	8.527	-146.306	294.754	11.698	360.914	428.931	0.234	0.279	9.855	11.698	0.182
2023-09-21 17:48	9164886	8.544	-147.19	294.83	11.7	360.745	428.706	0.234	0.279	9.962	11.7	0.153
2023-09-21 18:03	9165786	8.563	-148.203	294.081	11.698	360.735	428.711	0.234	0.279	10.085	11.698	0.228
2023-09-21 18:18	9166686	8.567	-148.361	294.372	11.65	360.065	428.382	0.233	0.278	10.307	11.65	0.256
2023-09-21 18:33	9167586	8.548	-147.355	295.684	11.649	359.834	428.118	0.233	0.278	9.943	11.649	0.209
2023-09-21 18:48	9168486	8.535	-146.689	297.438	11.644	359.842	428.177	0.233	0.278	10.066	11.644	0.21
2023-09-21 19:03	9169386	8.541	-147.028	295.054	11.651	359.941	428.225	0.233	0.278	10.114	11.651	0.277
2023-09-21 19:18	9170286	8.580	-149.083	293.745	11.655	360.294	428.605	0.234	0.279	10.191	11.655	0.122
2023-09-21 19:33	9171186	8.562	-148.103	294.787	11.659	360.473	428.779	0.234	0.279	10.077	11.659	0.197
2023-09-21 19:48	9172086	8.541	-147.004	296.609	11.655	360.645	429.032	0.234	0.279	9.926	11.655	0.098

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-21 20:03	9172986	8.523	-146.055	298.955	11.652	360.768	429.203	0.234	0.279	9.809	11.652	0.111
2023-09-21 20:18	9173886	8.507	-145.218	297.779	11.643	360.502	428.975	0.234	0.279	9.780	11.643	0.227
2023-09-21 20:33	9174786	8.500	-144.837	298.461	11.647	360.561	429.009	0.234	0.279	9.657	11.647	0.261
2023-09-21 20:48	9175686	8.501	-144.894	296.857	11.646	360.636	429.102	0.234	0.279	9.553	11.646	0.181
2023-09-21 21:03	9176586	8.492	-144.436	296.876	11.646	360.617	429.086	0.234	0.279	9.580	11.646	0.218
2023-09-21 21:18	9177486	8.497	-144.68	297.207	11.643	361.103	429.693	0.234	0.279	9.855	11.643	0.124
2023-09-21 21:33	9178386	8.470	-143.275	298.626	11.642	361.031	429.614	0.234	0.279	9.406	11.642	0.247
2023-09-21 21:48	9179286	8.472	-143.368	299.782	11.636	360.936	429.558	0.234	0.279	9.472	11.636	0.155
2023-09-21 22:03	9180186	8.473	-143.402	300.793	11.625	360.846	429.561	0.234	0.279	8.946	11.625	0.13
2023-09-21 22:18	9181086	8.467	-143.063	300.266	11.599	360.486	429.385	0.234	0.279	9.255	11.599	0.298
2023-09-21 22:33	9181986	8.481	-143.816	298.297	11.589	360.38	429.36	0.234	0.279	9.271	11.589	0.296
2023-09-21 22:48	9182886	8.484	-143.936	299.005	11.568	360.072	429.196	0.234	0.279	8.993	11.568	0.178
2023-09-21 23:03	9183786	8.487	-144.103	299.548	11.547	359.906	429.202	0.234	0.279	9.260	11.547	0.238
2023-09-21 23:18	9184686	8.483	-143.855	299.989	11.509	359.784	429.43	0.234	0.279	9.185	11.509	0.254
2023-09-21 23:33	9185586	8.458	-142.543	300.609	11.496	359.79	429.565	0.234	0.279	9.092	11.496	0.167
2023-09-21 23:48	9186486	8.452	-142.193	301.882	11.465	359.51	429.53	0.234	0.279	9.166	11.465	0.111
2023-09-22 00:03	9187386	8.454	-142.295	301.947	11.436	359.23	429.486	0.234	0.279	9.081	11.436	0.222
2023-09-22 00:18	9188286	8.462	-142.722	301.916	11.385	358.506	429.115	0.234	0.279	9.492	11.385	0.205
2023-09-22 00:33	9189186	8.454	-142.281	301.701	11.369	358.369	429.104	0.234	0.279	9.007	11.369	0.278
2023-09-22 00:48	9190086	8.450	-142.057	302.486	11.334	358.036	429.055	0.234	0.279	9.157	11.334	0.172
2023-09-22 01:03	9190986	8.455	-142.31	301.708	11.3	357.9	429.22	0.234	0.279	8.974	11.3	0.3
2023-09-22 01:18	9191886	8.452	-142.083	301.973	11.262	357.728	429.391	0.234	0.279	8.982	11.262	0.095
2023-09-22 01:33	9192786	8.426	-140.741	303.907	11.245	357.693	429.521	0.234	0.279	8.787	11.245	0.134
2023-09-22 01:48	9193686	8.422	-140.502	304.496	11.213	357.529	429.635	0.234	0.279	8.671	11.213	0.071
2023-09-22 02:03	9194586	8.416	-140.171	306.124	11.183	357.224	429.562	0.234	0.279	8.677	11.183	0.105
2023-09-22 02:18	9195486	8.413	-140.018	305.719	11.14	357.037	429.76	0.234	0.279	8.968	11.14	0.128
2023-09-22 02:33	9196386	8.413	-139.995	306.472	11.124	357.026	429.911	0.234	0.279	8.441	11.124	0.062
2023-09-22 02:48	9197286	8.404	-139.475	305.964	11.098	356.839	429.945	0.234	0.279	8.518	11.098	0.119
2023-09-22 03:03	9198186	8.400	-139.287	306.417	11.073	356.527	429.813	0.234	0.279	8.498	11.073	0.114
2023-09-22 03:18	9199087	8.398	-139.17	306.992	11.039	356.754	430.421	0.235	0.280	8.422	11.039	0.078
2023-09-22 03:33	9199987	8.359	-137.1	309.133	11.028	356.596	430.345	0.235	0.280	8.321	11.028	0.085
2023-09-22 03:48	9200887	8.356	-136.898	310.435	11.001	356.334	430.296	0.235	0.280	8.367	11.001	0.069
2023-09-22 04:03	9201787	8.360	-137.095	311.889	10.977	355.933	430.045	0.235	0.280	8.310	10.977	0.105
2023-09-22 04:18	9202687	8.349	-136.533	311.727	10.937	355.689	430.148	0.235	0.280	8.606	10.937	0.14
2023-09-22 04:33	9203587	8.346	-136.356	313.486	10.92	355.47	430.057	0.235	0.280	8.300	10.92	0.089
2023-09-22 04:48	9204487	8.351	-136.592	313.973	10.893	355.368	430.196	0.235	0.280	8.197	10.893	0.144
2023-09-22 05:03	9205387	8.354	-136.728	313.951	10.866	354.867	429.86	0.234	0.279	8.350	10.866	0.133
2023-09-22 05:18	9206287	8.363	-137.229	313.815	10.828	354.97	430.361	0.235	0.280	8.239	10.828	0.229
2023-09-22 05:33	9207187	8.330	-135.436	315.031	10.815	354.755	430.233	0.235	0.280	8.404	10.815	0.11
2023-09-22 05:48	9208087	8.330	-135.438	316.185	10.784	354.52	430.251	0.235	0.280	8.382	10.784	0.029
2023-09-22 06:03	9208987	8.334	-135.629	317.208	10.749	354.136	430.134	0.235	0.280	8.520	10.749	0.066
2023-09-22 06:18	9209887	8.332	-135.493	316.729	10.691	353.413	429.842	0.235	0.279	8.458	10.691	0.078
2023-09-22 06:33	9210787	8.328	-135.307	317.742	10.677	353.015	429.499	0.234	0.279	8.553	10.677	0.15
2023-09-22 06:48	9211687	8.337	-135.753	317.573	10.643	353.169	430.022	0.235	0.280	8.295	10.643	0.103
2023-09-22 07:03	9212587	8.332	-135.479	318.572	10.613	352.903	430	0.235	0.279	7.925	10.613	0.067
2023-09-22 07:18	9213487	8.335	-135.629	315.921	10.584	352.642	429.973	0.235	0.279	8.463	10.584	0.083
2023-09-22 07:33	9214387	8.301	-133.808	317.706	10.571	352.454	429.87	0.235	0.279	8.160	10.571	0.081
2023-09-22 07:48	9215287	8.316	-134.573	319.053	10.547	352.051	429.619	0.234	0.279	8.260	10.547	0.082
2023-09-22 08:03	9216187	8.315	-134.554	319.707	10.522	351.854	429.63	0.234	0.279	8.465	10.522	0.026
2023-09-22 08:18	9217087	8.321	-134.811	319.068	10.485	351.585	429.672	0.234	0.279	8.587	10.485	0.011
2023-09-22 08:33	9217987	8.301	-133.75	323.781	10.468	351.421	429.639	0.234	0.279	7.850	10.468	0.091
2023-09-22 08:48	9218887	8.313	-134.373	321.173	10.445	351.25	429.665	0.234	0.279	7.821	10.445	0.082
2023-09-22 09:03	9219787	8.316	-134.547	321.106	10.421	350.889	429.459	0.234	0.279	7.802	10.421	0.058
2023-09-22 09:18	9220687	8.335	-135.524	317.895	10.396	350.552	429.297	0.234	0.279	8.564	10.396	0.114
2023-09-22 09:33	9221587	8.316	-134.504	318.059	10.387	350.508	429.337	0.234	0.279	8.541	10.387	0.119
2023-09-22 09:48	9222487	8.324	-134.947	317.845	10.371	350.351	429.306	0.234	0.279	8.647	10.371	0

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-22 10:03	9223387	8.327	-135.088	318.798	10.352	350.291	429.421	0.234	0.279	8.638	10.352	0
2023-09-22 10:18	9224287	8.324	-134.9	318.293	10.341	350.114	429.316	0.234	0.279	8.535	10.341	0.062
2023-09-22 10:33	9225187	8.327	-135.095	318.863	10.345	350.071	429.221	0.234	0.279	8.131	10.345	0.01
2023-09-22 10:48	9226087	8.334	-135.46	319.826	10.352	350.103	429.198	0.234	0.279	8.370	10.352	0.072
2023-09-22 11:03	9226987	8.343	-135.903	319.473	10.363	350.097	429.079	0.234	0.279	8.319	10.363	0
2023-09-22 11:18	9227887	8.366	-137.155	318.56	10.374	350.145	429.027	0.234	0.279	8.363	10.374	0
2023-09-22 11:33	9228787	8.355	-136.554	318.226	10.395	350.246	428.936	0.234	0.279	8.440	10.395	0.02
2023-09-22 11:48	9229687	8.361	-136.907	318.276	10.412	350.456	429.02	0.234	0.279	8.576	10.412	0
2023-09-22 12:03	9230587	8.360	-136.857	318.317	10.436	350.641	429.012	0.234	0.279	8.550	10.436	0.006
2023-09-22 12:18	9231487	8.369	-137.336	316.75	10.453	350.593	428.777	0.234	0.279	8.757	10.453	0
2023-09-22 12:33	9232387	8.365	-137.167	317.28	10.478	350.906	428.911	0.234	0.279	8.363	10.478	0
2023-09-22 12:48	9233287	8.364	-137.103	318.419	10.511	351.132	428.856	0.234	0.279	8.481	10.511	0
2023-09-22 13:03	9234187	8.362	-137.038	318.929	10.551	351.46	428.857	0.234	0.279	8.529	10.551	0
2023-09-22 13:18	9235087	8.379	-137.944	316.836	10.632	352.355	429.137	0.234	0.279	8.587	10.632	0
2023-09-22 13:33	9235987	8.352	-136.59	314.302	10.784	353.788	429.365	0.234	0.279	8.423	10.784	0
2023-09-22 13:48	9236887	8.329	-135.489	313.527	10.945	355.275	429.568	0.234	0.279	8.520	10.945	0
2023-09-22 14:03	9237787	8.330	-135.565	312.99	11.084	356.28	429.404	0.234	0.279	8.288	11.084	0
2023-09-22 14:18	9238687	8.357	-137.055	311.999	11.129	356.664	429.424	0.234	0.279	8.664	11.129	0
2023-09-22 14:33	9239587	8.336	-136.027	312.833	11.293	357.805	429.175	0.234	0.279	8.450	11.293	0
2023-09-22 14:48	9240487	8.328	-135.67	312.072	11.435	359.204	429.458	0.234	0.279	8.567	11.435	0
2023-09-22 15:03	9241387	8.344	-136.583	311.517	11.568	360.428	429.615	0.234	0.279	8.401	11.568	0.065
2023-09-22 15:18	9242287	8.454	-142.455	306.093	11.717	361.797	429.792	0.234	0.279	8.932	11.717	0
2023-09-22 15:33	9243187	8.412	-140.324	304.827	11.887	363.464	430.116	0.234	0.280	9.047	11.887	0.071
2023-09-22 15:48	9244087	8.409	-140.188	305.261	11.984	364.265	430.121	0.234	0.280	9.242	11.984	0.1
2023-09-22 16:03	9244987	8.408	-140.19	305.669	12.068	365.048	430.23	0.234	0.280	9.420	12.068	0.012
2023-09-22 16:18	9245887	8.441	-141.947	304.376	12.054	364.523	429.74	0.234	0.279	9.720	12.054	0.097
2023-09-22 16:33	9246787	8.444	-142.1	303.947	12.122	364.569	429.146	0.234	0.279	9.476	12.122	0.059
2023-09-22 16:48	9247687	8.485	-144.296	296.995	12.154	364.733	429.027	0.234	0.279	9.695	12.154	0.158
2023-09-22 17:03	9248587	8.506	-145.414	295.748	12.178	364.861	428.944	0.234	0.279	10.181	12.178	0.304
2023-09-22 17:18	9249487	8.553	-147.91	293.776	12.193	365.588	429.654	0.234	0.279	10.348	12.193	0.331
2023-09-22 17:33	9250387	8.529	-146.654	292.448	12.245	366.399	430.102	0.234	0.280	9.900	12.245	0.092
2023-09-22 17:48	9251287	8.543	-147.393	290.705	12.234	366.271	430.058	0.234	0.280	10.198	12.234	0.115
2023-09-22 18:03	9252187	8.562	-148.387	288.872	12.226	366.009	429.835	0.234	0.279	10.005	12.226	0.084
2023-09-22 18:18	9253087	8.645	-152.774	284.375	12.169	364.52	428.631	0.233	0.279	10.512	12.169	0.232
2023-09-22 18:33	9253987	8.643	-152.655	272.714	12.178	364.428	428.435	0.233	0.278	10.682	12.178	0.32
2023-09-22 18:48	9254887	8.654	-153.232	275.203	12.186	364.58	428.539	0.233	0.279	10.632	12.186	0.239
2023-09-22 19:03	9255787	8.632	-152.113	277.65	12.173	364.711	428.814	0.233	0.279	10.469	12.173	0.177
2023-09-22 19:18	9256687	8.632	-152.073	279.39	12.145	365.042	429.477	0.234	0.279	10.534	12.145	0.202
2023-09-22 19:33	9257587	8.603	-150.54	280.723	12.154	365.304	429.698	0.234	0.279	9.810	12.154	0.194
2023-09-22 19:48	9258487	8.608	-150.783	282.089	12.135	365.076	429.614	0.234	0.279	10.022	12.135	0.085
2023-09-22 20:03	9259387	8.587	-149.682	283.715	12.116	364.953	429.653	0.234	0.279	9.924	12.116	0.333
2023-09-22 20:18	9260287	8.581	-149.3	283.484	12.046	364.178	429.413	0.234	0.279	10.034	12.046	0.275
2023-09-22 20:33	9261187	8.567	-148.582	284.917	12.047	364.012	429.213	0.234	0.279	10.065	12.047	0.277
2023-09-22 20:48	9262087	8.568	-148.628	286.521	12.025	363.859	429.247	0.234	0.279	9.878	12.025	0.237
2023-09-22 21:03	9262987	8.563	-148.33	287.754	11.994	363.699	429.357	0.234	0.279	9.804	11.994	0.284
2023-09-22 21:18	9263887	8.556	-147.948	288.014	11.967	363.785	429.72	0.234	0.279	9.930	11.967	0.13
2023-09-22 21:33	9264787	8.526	-146.356	289.566	11.966	363.918	429.885	0.234	0.279	10.189	11.966	0.096
2023-09-22 21:48	9265687	8.519	-145.984	291.342	11.95	363.817	429.917	0.234	0.279	9.524	11.95	0.161
2023-09-22 22:03	9266587	8.522	-146.17	291.301	11.945	363.814	429.969	0.234	0.279	9.447	11.945	0.183
2023-09-22 22:18	9267487	8.513	-145.686	291.292	11.917	363.42	429.766	0.234	0.279	9.709	11.917	0.215
2023-09-22 22:33	9268387	8.505	-145.257	290.877	11.921	363.543	429.874	0.234	0.279	9.300	11.921	0.13
2023-09-22 22:48	9269287	8.506	-145.292	291.275	11.912	363.38	429.771	0.234	0.279	9.426	11.912	0.142
2023-09-22 23:03	9270187	8.521	-146.096	289.12	11.906	363.369	429.815	0.234	0.279	9.588	11.906	0.325
2023-09-22 23:18	9271087	8.537	-146.928	290.319	11.905	363.416	429.884	0.234	0.279	9.602	11.905	0.096
2023-09-22 23:33	9271987	8.515	-145.752	292.858	11.915	363.672	430.085	0.234	0.280	9.453	11.915	0.142
2023-09-22 23:48	9272887	8.490	-144.463	295.505	11.916	363.716	430.132	0.234	0.280	9.302	11.916	0.165

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-23 00:03	9273787	8.479	-143.869	297.159	11.912	363.8	430.272	0.234	0.280	9.326	11.912	0.062
2023-09-23 00:18	9274687	8.502	-145.071	295.729	11.898	363.58	430.145	0.234	0.280	9.663	11.898	0.132
2023-09-23 00:33	9275587	8.494	-144.653	292.217	11.897	363.637	430.225	0.234	0.280	9.343	11.897	0.148
2023-09-23 00:48	9276487	8.512	-145.605	289.323	11.881	363.42	430.124	0.234	0.280	9.280	11.881	0.158
2023-09-23 01:03	9277387	8.508	-145.38	288.984	11.866	363.131	429.926	0.234	0.279	9.554	11.866	0.209
2023-09-23 01:18	9278287	8.512	-145.578	287.792	11.841	363.173	430.221	0.234	0.280	9.526	11.841	0.132
2023-09-23 01:33	9279187	8.479	-143.812	290.424	11.821	363.08	430.298	0.234	0.280	9.651	11.821	0.16
2023-09-23 01:48	9280087	8.484	-144.041	291.156	11.787	362.76	430.255	0.234	0.280	9.246	11.787	0.083
2023-09-23 02:03	9280987	8.495	-144.62	290.529	11.747	362.384	430.193	0.234	0.280	9.407	11.747	0.113
2023-09-23 02:18	9281887	8.503	-144.992	289.256	11.681	361.645	429.961	0.234	0.279	9.689	11.681	0.175
2023-09-23 02:33	9282787	8.496	-144.651	287.966	11.66	361.27	429.719	0.234	0.279	9.466	11.66	0.16
2023-09-23 02:48	9283687	8.493	-144.441	288.87	11.614	360.821	429.632	0.234	0.279	9.289	11.614	0.211
2023-09-23 03:03	9284587	8.482	-143.862	288.908	11.571	360.447	429.61	0.234	0.279	9.280	11.571	0.163
2023-09-23 03:18	9285487	8.491	-144.272	289.065	11.512	360.327	430.05	0.234	0.280	9.395	11.512	0.131
2023-09-23 03:33	9286387	8.457	-142.486	292.25	11.489	360.163	430.079	0.234	0.280	8.959	11.489	0.354
2023-09-23 03:48	9287287	8.456	-142.431	293.001	11.44	359.768	430.088	0.234	0.280	9.008	11.44	0
2023-09-23 04:03	9288187	8.427	-140.862	296.506	11.394	359.401	430.093	0.234	0.280	9.016	11.394	0.075
2023-09-23 04:18	9289087	8.439	-141.435	296.177	11.287	358.125	429.618	0.234	0.279	9.234	11.287	0.116
2023-09-23 04:33	9289987	8.447	-141.835	295.86	11.266	357.707	429.325	0.234	0.279	9.067	11.266	0.149
2023-09-23 04:48	9290887	8.443	-141.594	296.849	11.214	357.222	429.252	0.234	0.279	9.036	11.214	0.036
2023-09-23 05:03	9291787	8.442	-141.54	296.537	11.166	356.7	429.101	0.234	0.279	9.017	11.166	0.086
2023-09-23 05:18	9292687	8.456	-142.233	296.845	11.104	356.537	429.522	0.234	0.279	9.074	11.104	0.149
2023-09-23 05:33	9293587	8.431	-140.929	299.412	11.084	356.382	429.53	0.234	0.279	9.119	11.084	0.152
2023-09-23 05:48	9294487	8.416	-140.114	301.093	11.032	355.962	429.536	0.234	0.279	8.757	11.032	0.145
2023-09-23 06:03	9295387	8.409	-139.699	301.835	10.987	355.56	429.494	0.234	0.279	8.804	10.987	0.03
2023-09-23 06:18	9296287	8.409	-139.682	301.625	10.909	354.774	429.319	0.234	0.279	8.972	10.909	0.019
2023-09-23 06:33	9297187	8.410	-139.687	302.438	10.876	354.38	429.173	0.234	0.279	8.784	10.876	0.034
2023-09-23 06:48	9298087	8.402	-139.253	302.908	10.834	354.112	429.267	0.234	0.279	8.818	10.834	0.108
2023-09-23 07:03	9298987	8.404	-139.327	302.989	10.789	353.715	429.225	0.234	0.279	8.540	10.789	0
2023-09-23 07:18	9299887	8.419	-140.109	302.738	10.743	353.55	429.487	0.234	0.279	8.818	10.743	0.04
2023-09-23 07:33	9300787	8.372	-137.632	304.839	10.719	353.337	429.468	0.234	0.279	8.719	10.719	0
2023-09-23 07:48	9301687	8.375	-137.763	306.482	10.684	353.038	429.452	0.234	0.279	8.585	10.684	0
2023-09-23 08:03	9302587	8.368	-137.393	308.773	10.646	352.697	429.42	0.234	0.279	8.691	10.646	0
2023-09-23 08:18	9303487	8.371	-137.529	307.082	10.588	352.181	429.372	0.234	0.279	8.748	10.588	0
2023-09-23 08:33	9304387	8.372	-137.579	307.967	10.581	352.296	429.574	0.234	0.279	8.694	10.581	0
2023-09-23 08:48	9305287	8.364	-137.124	309.598	10.563	352.14	429.566	0.234	0.279	8.431	10.563	0.033
2023-09-23 09:03	9306187	8.351	-136.435	311.434	10.549	352.046	429.599	0.234	0.279	8.337	10.549	0
2023-09-23 09:18	9307087	8.355	-136.642	311.932	10.547	352.261	429.878	0.235	0.279	8.343	10.547	0.012
2023-09-23 09:33	9307987	8.315	-134.571	313.777	10.552	352.3	429.875	0.235	0.279	8.154	10.552	0
2023-09-23 09:48	9308887	8.317	-134.63	315.294	10.558	352.458	430.002	0.235	0.280	8.683	10.558	0
2023-09-23 10:03	9309787	8.315	-134.559	317.413	10.569	352.743	430.248	0.235	0.280	8.217	10.569	0
2023-09-23 10:18	9310687	8.315	-134.542	317.771	10.578	352.747	430.156	0.235	0.280	8.251	10.578	0
2023-09-23 10:33	9311587	8.306	-134.091	318.963	10.603	352.844	430.026	0.235	0.280	7.762	10.603	0
2023-09-23 10:48	9312487	8.299	-133.748	319.878	10.625	353.183	430.214	0.235	0.280	7.666	10.625	0
2023-09-23 11:03	9313387	8.307	-134.151	320.889	10.653	353.374	430.168	0.235	0.280	7.873	10.653	0
2023-09-23 11:18	9314287	8.320	-134.881	321.061	10.685	353.624	430.154	0.235	0.280	7.848	10.685	0
2023-09-23 11:33	9315187	8.310	-134.382	321.416	10.734	354.073	430.215	0.235	0.280	7.937	10.734	0
2023-09-23 11:48	9316087	8.317	-134.747	321.557	10.758	354.315	430.266	0.235	0.280	8.026	10.758	0
2023-09-23 12:03	9316987	8.312	-134.497	322.253	10.788	354.451	430.131	0.235	0.280	8.084	10.788	0
2023-09-23 12:18	9317887	8.326	-135.255	320.548	10.804	354.43	429.945	0.235	0.279	8.414	10.804	0
2023-09-23 12:33	9318787	8.352	-136.623	320.627	10.824	354.588	429.941	0.235	0.279	7.950	10.824	0
2023-09-23 12:48	9319687	8.361	-137.129	320.827	10.849	354.807	429.955	0.235	0.279	8.051	10.849	0
2023-09-23 13:03	9320587	8.383	-138.292	321.228	10.871	354.985	429.954	0.235	0.279	8.227	10.871	0
2023-09-23 13:18	9321487	8.385	-138.376	320.391	10.897	355.092	429.826	0.234	0.279	8.412	10.897	0
2023-09-23 13:33	9322387	8.367	-137.479	319.928	10.935	355.207	429.583	0.234	0.279	8.393	10.935	0
2023-09-23 13:48	9323287	8.390	-138.688	317.766	10.968	355.379	429.468	0.234	0.279	8.666	10.968	0

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-23 14:03	9324187	8.398	-139.132	318.135	11.002	355.675	429.483	0.234	0.279	8.800	11.002	0
2023-09-23 14:18	9325087	8.392	-138.841	316.92	11.014	355.937	429.688	0.234	0.279	9.090	11.014	0
2023-09-23 14:33	9325987	8.390	-138.731	317.229	11.037	356.163	429.728	0.234	0.279	8.491	11.037	0
2023-09-23 14:48	9326887	8.379	-138.161	318.259	11.054	356.37	429.808	0.234	0.279	8.332	11.054	0
2023-09-23 15:03	9327787	8.385	-138.469	318.66	11.076	356.502	429.756	0.234	0.279	8.500	11.076	0
2023-09-23 15:18	9328688	8.411	-139.852	318.798	11.096	356.582	429.654	0.234	0.279	8.729	11.096	0
2023-09-23 15:33	9329588	8.388	-138.655	318.686	11.107	356.696	429.679	0.234	0.279	8.607	11.107	0
2023-09-23 15:48	9330488	8.382	-138.33	319.559	11.117	356.742	429.634	0.234	0.279	8.774	11.117	0
2023-09-23 16:03	9331388	8.379	-138.173	319.642	11.119	356.874	429.778	0.234	0.279	8.253	11.119	0
2023-09-23 16:18	9332288	8.374	-137.949	319.282	11.116	356.881	429.818	0.234	0.279	8.734	11.116	0
2023-09-23 16:33	9333188	8.368	-137.591	320.055	11.117	356.844	429.757	0.234	0.279	8.497	11.117	0
2023-09-23 16:48	9334088	8.363	-137.353	319.444	11.12	356.88	429.776	0.234	0.279	8.573	11.12	0.027
2023-09-23 17:03	9334988	8.363	-137.329	320.782	11.126	356.955	429.806	0.234	0.279	8.575	11.126	0
2023-09-23 17:18	9335888	8.374	-137.935	321.397	11.139	357.261	430.047	0.234	0.280	8.588	11.139	0
2023-09-23 17:33	9336788	8.352	-136.795	322.878	11.156	357.517	430.182	0.235	0.280	8.387	11.156	0
2023-09-23 17:48	9337688	8.339	-136.125	324.644	11.161	357.678	430.333	0.235	0.280	8.211	11.161	0
2023-09-23 18:03	9338588	8.343	-136.316	325.259	11.18	357.803	430.289	0.235	0.280	8.357	11.18	0
2023-09-23 18:18	9339488	8.329	-135.56	325.603	11.182	357.858	430.333	0.235	0.280	8.421	11.182	0
2023-09-23 18:33	9340388	8.339	-136.137	325.391	11.201	357.95	430.262	0.235	0.280	8.110	11.201	0
2023-09-23 18:48	9341288	8.334	-135.87	326.115	11.225	358.172	430.287	0.235	0.280	8.039	11.225	0
2023-09-23 19:03	9342188	8.340	-136.206	326.559	11.249	358.382	430.308	0.235	0.280	8.074	11.249	0
2023-09-23 19:18	9343088	8.337	-136.042	324.833	11.269	358.712	430.503	0.235	0.280	8.508	11.269	0
2023-09-23 19:33	9343988	8.324	-135.355	325.526	11.283	358.789	430.46	0.235	0.280	8.157	11.283	0
2023-09-23 19:48	9344888	8.321	-135.195	326.866	11.289	358.756	430.362	0.235	0.280	8.070	11.289	0
2023-09-23 20:03	9345788	8.317	-134.995	327.906	11.292	358.852	430.442	0.235	0.280	8.186	11.292	0
2023-09-23 20:18	9346688	8.335	-135.953	326.673	11.284	358.234	429.782	0.234	0.279	9.071	11.284	0
2023-09-23 20:33	9347588	8.325	-135.391	323.817	11.273	357.187	428.635	0.234	0.279	9.333	11.273	0
2023-09-23 20:48	9348488	8.337	-136.042	320.601	11.26	357.254	428.844	0.234	0.279	9.328	11.26	0
2023-09-23 21:03	9349388	8.333	-135.829	319.607	11.249	356.825	428.435	0.234	0.278	9.640	11.249	0
2023-09-23 21:18	9350288	8.348	-136.635	315.768	11.238	357.335	429.157	0.234	0.279	9.781	11.238	0
2023-09-23 21:33	9351188	8.323	-135.276	317.501	11.23	357.233	429.115	0.234	0.279	9.538	11.23	0
2023-09-23 21:48	9352088	8.317	-134.971	318.131	11.213	356.997	429.001	0.234	0.279	9.171	11.213	0
2023-09-23 22:03	9352988	8.313	-134.747	319.816	11.196	356.905	429.055	0.234	0.279	9.355	11.196	0
2023-09-23 22:18	9353888	8.335	-135.87	318.996	11.172	356.264	428.517	0.234	0.279	9.055	11.172	0
2023-09-23 22:33	9354788	8.321	-135.131	318.641	11.154	354.715	426.836	0.233	0.277	8.472	11.154	0
2023-09-23 22:48	9355688	8.383	-138.402	307.43	11.099	352.765	425.026	0.232	0.276	8.858	11.099	0.074
2023-09-23 23:03	9356588	8.449	-141.847	300.295	11.08	354.151	426.876	0.233	0.277	9.199	11.08	0.194
2023-09-23 23:18	9357488	8.448	-141.823	300.826	11.059	355.185	428.328	0.234	0.278	9.043	11.059	0.133
2023-09-23 23:33	9358388	8.429	-140.796	304.624	11.053	355.416	428.672	0.234	0.279	9.101	11.053	0.266
2023-09-23 23:48	9359288	8.420	-140.314	308.248	11.05	355.646	428.978	0.234	0.279	8.993	11.05	0.301
2023-09-24 00:03	9360188	8.423	-140.452	310.616	11.038	355.459	428.869	0.234	0.279	9.084	11.038	0.307
2023-09-24 00:18	9361088	8.427	-140.643	310.995	10.998	354.737	428.396	0.234	0.278	9.238	10.998	0.313
2023-09-24 00:33	9361988	8.428	-140.684	310.554	10.981	354.178	427.892	0.233	0.278	9.223	10.981	0.257
2023-09-24 00:48	9362888	8.427	-140.638	310.241	10.953	353.728	427.62	0.233	0.278	8.899	10.953	0.264
2023-09-24 01:03	9363788	8.426	-140.56	308.646	10.944	353.737	427.722	0.233	0.278	9.132	10.944	0.194
2023-09-24 01:18	9364688	8.431	-140.851	309.788	10.932	353.869	427.998	0.233	0.278	9.093	10.932	0.515
2023-09-24 01:33	9365588	8.418	-140.154	311.517	10.924	353.831	428.028	0.233	0.278	8.649	10.924	0.072
2023-09-24 01:48	9366488	8.407	-139.57	313.248	10.908	353.722	428.06	0.233	0.278	8.821	10.908	0.006
2023-09-24 02:03	9367388	8.401	-139.26	315.031	10.886	353.571	428.091	0.233	0.278	8.917	10.886	0.158
2023-09-24 02:18	9368288	8.404	-139.365	314.862	10.842	352.885	427.695	0.233	0.278	8.898	10.842	0.087
2023-09-24 02:33	9369188	8.397	-138.986	315.05	10.829	352.717	427.617	0.233	0.278	8.629	10.829	0.139
2023-09-24 02:48	9370088	8.397	-138.991	314.931	10.803	352.39	427.484	0.233	0.278	8.798	10.803	0.105
2023-09-24 03:03	9370988	8.393	-138.767	313.97	10.774	352.235	427.579	0.233	0.278	8.506	10.774	0.076
2023-09-24 03:18	9371888	8.406	-139.449	312.669	10.749	352.182	427.765	0.233	0.278	8.652	10.749	0.088
2023-09-24 03:33	9372788	8.379	-138.023	314.392	10.733	352.152	427.887	0.233	0.278	8.612	10.733	0
2023-09-24 03:48	9373688	8.376	-137.854	315.148	10.702	351.913	427.906	0.233	0.278	8.528	10.702	0.052

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-24 04:03	9374588	8.377	-137.846	315.937	10.667	351.542	427.806	0.233	0.278	8.652	10.667	0.102
2023-09-24 04:18	9375488	8.382	-138.116	315.42	10.608	350.856	427.552	0.233	0.278	8.621	10.608	0.176
2023-09-24 04:33	9376388	8.379	-137.913	315.649	10.585	350.515	427.365	0.233	0.278	8.336	10.585	0.101
2023-09-24 04:48	9377288	8.373	-137.582	316.552	10.554	350.233	427.329	0.233	0.278	8.460	10.554	0.044
2023-09-24 05:03	9378188	8.374	-137.615	316.14	10.521	349.891	427.243	0.233	0.278	8.432	10.521	0.164
2023-09-24 05:18	9379088	8.388	-138.361	315.761	10.492	349.823	427.445	0.233	0.278	8.897	10.492	0.076
2023-09-24 05:33	9379988	8.356	-136.681	317.392	10.477	349.815	427.59	0.233	0.278	8.422	10.477	0.032
2023-09-24 05:48	9380888	8.351	-136.406	318.598	10.455	349.682	427.643	0.233	0.278	8.552	10.455	0.046
2023-09-24 06:03	9381788	8.347	-136.17	320.04	10.438	349.65	427.774	0.233	0.278	8.579	10.438	0.043
2023-09-24 06:18	9382688	8.333	-135.446	321.125	10.417	349.412	427.698	0.233	0.278	8.277	10.417	0.038
2023-09-24 06:33	9383588	8.324	-134.952	322.751	10.409	349.491	427.87	0.233	0.278	7.972	10.409	0.063
2023-09-24 06:48	9384488	8.318	-134.652	324.322	10.392	349.469	428.013	0.234	0.278	7.992	10.392	0
2023-09-24 07:03	9385388	8.313	-134.363	325.469	10.369	349.299	428.036	0.234	0.278	8.032	10.369	0.12
2023-09-24 07:18	9386288	8.329	-135.176	324.599	10.343	349.11	428.068	0.234	0.278	8.109	10.343	0.034
2023-09-24 07:33	9387188	8.300	-133.665	324.957	10.329	349.138	428.243	0.234	0.278	8.165	10.329	0.001
2023-09-24 07:48	9388088	8.300	-133.629	326.056	10.304	348.93	428.234	0.234	0.278	8.211	10.304	0
2023-09-24 08:03	9388988	8.296	-133.407	326.595	10.279	348.736	428.251	0.234	0.278	8.210	10.279	0
2023-09-24 08:18	9389888	8.298	-133.483	326.966	10.23	348.142	428.009	0.234	0.278	8.051	10.23	0.035
2023-09-24 08:33	9390788	8.316	-134.451	326.628	10.21	347.78	427.772	0.233	0.278	7.326	10.21	0
2023-09-24 08:48	9391688	8.314	-134.323	327.036	10.175	347.28	427.508	0.233	0.278	7.953	10.175	0.09
2023-09-24 09:03	9392588	8.324	-134.845	326.039	10.145	346.836	427.263	0.233	0.278	8.044	10.145	0.028
2023-09-24 09:18	9393488	8.342	-135.739	323.357	10.111	346.612	427.322	0.233	0.278	8.168	10.111	0
2023-09-24 09:33	9394388	8.315	-134.344	324.616	10.103	346.682	427.497	0.233	0.278	8.330	10.103	0
2023-09-24 09:48	9395288	8.319	-134.523	323.497	10.081	346.504	427.498	0.233	0.278	8.163	10.081	0
2023-09-24 10:03	9396188	8.315	-134.344	324.101	10.069	346.386	427.466	0.233	0.278	8.236	10.069	0
2023-09-24 10:18	9397088	8.308	-133.946	324.406	10.04	346.223	427.559	0.233	0.278	8.133	10.04	0
2023-09-24 10:33	9397988	8.315	-134.28	321.74	10.036	345.999	427.325	0.233	0.278	7.448	10.036	0
2023-09-24 10:48	9398888	8.320	-134.554	319.308	10.031	345.791	427.114	0.233	0.278	7.511	10.031	0.066
2023-09-24 11:03	9399788	8.332	-135.198	316.357	10.03	345.785	427.121	0.233	0.278	7.716	10.03	0.035
2023-09-24 11:18	9400688	8.349	-136.111	314.893	10.041	345.827	427.06	0.233	0.278	8.386	10.041	0.257
2023-09-24 11:33	9401588	8.350	-136.137	314.464	10.049	345.806	426.954	0.233	0.278	7.564	10.049	0
2023-09-24 11:48	9402488	8.367	-137.055	309.448	10.054	345.815	426.92	0.233	0.277	8.604	10.054	0
2023-09-24 12:03	9403388	8.380	-137.742	303.117	10.072	346.012	426.975	0.233	0.278	7.938	10.072	0.146
2023-09-24 12:18	9404288	8.391	-138.307	294.658	10.091	346.087	426.88	0.233	0.277	8.574	10.091	0.048
2023-09-24 12:33	9405188	8.385	-138.052	293.049	10.141	346.523	426.911	0.233	0.277	8.578	10.141	0.069
2023-09-24 12:48	9406088	8.396	-138.65	294.12	10.21	347.136	426.976	0.233	0.278	8.046	10.21	0.141
2023-09-24 13:03	9406988	8.403	-139.034	296.344	10.291	347.89	427.092	0.233	0.278	9.001	10.291	0.154
2023-09-24 13:18	9407888	8.435	-140.762	298.273	10.363	348.594	427.229	0.233	0.278	8.865	10.363	0.099
2023-09-24 13:33	9408788	8.444	-141.277	299.422	10.46	349.487	427.357	0.233	0.278	8.793	10.46	0.255
2023-09-24 13:48	9409688	8.455	-141.914	298.425	10.512	349.907	427.35	0.233	0.278	9.254	10.512	0.142
2023-09-24 14:03	9410588	8.460	-142.145	299.324	10.535	350.115	427.377	0.233	0.278	9.275	10.535	0.19
2023-09-24 14:18	9411488	8.470	-142.708	299.539	10.561	350.191	427.213	0.233	0.278	9.446	10.561	0.378
2023-09-24 14:33	9412388	8.474	-142.956	299.331	10.589	350.508	427.319	0.233	0.278	9.454	10.589	0.304
2023-09-24 14:48	9413288	8.482	-143.385	299.014	10.621	350.874	427.445	0.233	0.278	9.478	10.621	0.272
2023-09-24 15:03	9414188	8.490	-143.807	298.161	10.685	351.413	427.465	0.233	0.278	9.610	10.685	0.201
2023-09-24 15:18	9415088	8.506	-144.722	296.735	10.757	352.205	427.715	0.233	0.278	9.526	10.757	0.142
2023-09-24 15:33	9415988	8.491	-143.94	295.347	10.808	352.743	427.866	0.233	0.278	9.396	10.808	0.22
2023-09-24 15:48	9416888	8.494	-144.131	295.283	10.853	353.059	427.799	0.233	0.278	9.418	10.853	0.193
2023-09-24 16:03	9417788	8.503	-144.579	294.539	10.87	353.184	427.783	0.233	0.278	9.550	10.87	0.211
2023-09-24 16:18	9418688	8.514	-145.195	292.222	10.899	353.365	427.712	0.233	0.278	9.670	10.899	0.232
2023-09-24 16:33	9419588	8.512	-145.09	291.559	10.92	353.345	427.485	0.233	0.278	9.465	10.92	0.168
2023-09-24 16:48	9420488	8.534	-146.284	290.26	10.948	353.689	427.624	0.233	0.278	9.833	10.948	0.147
2023-09-24 17:03	9421388	8.531	-146.11	287.41	10.988	354.061	427.678	0.233	0.278	9.791	10.988	0.219
2023-09-24 17:18	9422288	8.546	-146.937	287.236	11.024	354.626	428.004	0.233	0.278	10.054	11.024	0.282
2023-09-24 17:33	9423188	8.532	-146.229	286.197	11.069	355.049	428.074	0.233	0.278	9.906	11.069	0.209
2023-09-24 17:48	9424088	8.534	-146.334	288.219	11.1	355.321	428.093	0.233	0.278	9.851	11.1	0.177

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-24 18:03	9424988	8.544	-146.859	288.879	11.112	355.383	428.049	0.233	0.278	9.604	11.112	0.186
2023-09-24 18:18	9425888	8.546	-146.995	287.651	11.127	355.501	428.038	0.233	0.278	10.222	11.127	0.184
2023-09-24 18:33	9426788	8.539	-146.651	287.728	11.138	355.58	428.033	0.233	0.278	9.772	11.138	0.253
2023-09-24 18:48	9427688	8.538	-146.608	287.053	11.15	355.623	427.962	0.233	0.278	9.752	11.15	0.209
2023-09-24 19:03	9428588	8.537	-146.556	287.163	11.15	355.616	427.956	0.233	0.278	10.047	11.15	0.212
2023-09-24 19:18	9429488	8.568	-148.17	284.521	11.13	355.583	428.11	0.233	0.278	10.020	11.13	0.272
2023-09-24 19:33	9430388	8.549	-147.176	285.322	11.137	355.753	428.243	0.233	0.278	10.140	11.137	0.193
2023-09-24 19:48	9431288	8.539	-146.632	288.09	11.129	355.701	428.267	0.234	0.278	9.771	11.129	0.166
2023-09-24 20:03	9432188	8.529	-146.089	291.273	11.118	355.658	428.323	0.234	0.278	9.978	11.118	0.111
2023-09-24 20:18	9433088	8.518	-145.504	293.135	11.082	355.215	428.141	0.233	0.278	9.647	11.082	0.112
2023-09-24 20:33	9433988	8.530	-146.096	287.892	11.064	354.778	427.789	0.233	0.278	9.862	11.064	0.096
2023-09-24 20:48	9434888	8.527	-145.965	290.658	11.028	354.364	427.649	0.233	0.278	9.727	11.028	0.104
2023-09-24 21:03	9435788	8.540	-146.63	288.219	10.979	353.906	427.577	0.233	0.278	10.080	10.979	0.171
2023-09-24 21:18	9436688	8.563	-147.767	286.6	10.932	353.781	427.888	0.233	0.278	10.270	10.932	0.098
2023-09-24 21:33	9437588	8.545	-146.835	286.984	10.909	353.701	428.027	0.233	0.278	10.001	10.909	0.12
2023-09-24 21:48	9438488	8.547	-146.933	289.067	10.869	353.287	427.918	0.233	0.278	10.105	10.869	0.116
2023-09-24 22:03	9439388	8.545	-146.813	291.02	10.838	353.041	427.929	0.233	0.278	10.112	10.838	0.018
2023-09-24 22:18	9440288	8.540	-146.468	291.721	10.758	352.293	427.808	0.233	0.278	9.680	10.758	0.119
2023-09-24 22:33	9441188	8.524	-145.64	293.752	10.723	351.753	427.504	0.233	0.278	9.863	10.723	0.183
2023-09-24 22:48	9442088	8.519	-145.35	293.194	10.667	351.259	427.461	0.233	0.278	9.685	10.667	0.174
2023-09-24 23:03	9442988	8.521	-145.392	291.731	10.609	350.807	427.484	0.233	0.278	9.857	10.609	0.122
2023-09-24 23:18	9443889	8.543	-146.53	292.382	10.547	350.511	427.745	0.233	0.278	10.050	10.547	0.049
2023-09-24 23:33	9444789	8.525	-145.574	292.758	10.529	350.402	427.785	0.233	0.278	9.739	10.529	0.146
2023-09-24 23:48	9445689	8.520	-145.29	294.77	10.481	349.944	427.704	0.233	0.278	9.371	10.481	0.086
2023-09-25 00:03	9446589	8.507	-144.601	296.947	10.433	349.619	427.786	0.233	0.278	8.714	10.433	0.001
2023-09-25 00:18	9447489	8.504	-144.41	297.41	10.361	348.803	427.512	0.233	0.278	9.735	10.361	0.166
2023-09-25 00:33	9448389	8.491	-143.673	297.891	10.332	348.446	427.358	0.233	0.278	9.160	10.332	0
2023-09-25 00:48	9449289	8.484	-143.33	296.709	10.295	348.136	427.347	0.233	0.278	8.653	10.295	0.135
2023-09-25 01:03	9450189	8.477	-142.932	298.158	10.253	347.749	427.302	0.233	0.278	8.539	10.253	0.095
2023-09-25 01:18	9451089	8.473	-142.667	298.485	10.204	347.627	427.641	0.233	0.278	9.226	10.204	0
2023-09-25 01:33	9451989	8.451	-141.535	300.338	10.174	347.434	427.707	0.233	0.278	8.574	10.174	0.013
2023-09-25 01:48	9452889	8.449	-141.382	301.451	10.129	347.044	427.68	0.233	0.278	9.282	10.129	0.042
2023-09-25 02:03	9453789	8.441	-140.917	302.872	10.082	346.63	427.635	0.233	0.278	8.500	10.082	0.079
2023-09-25 02:18	9454689	8.434	-140.557	302.257	10.02	345.913	427.38	0.233	0.278	9.179	10.02	0.095
2023-09-25 02:33	9455589	8.430	-140.297	303.125	9.998	345.637	427.26	0.233	0.278	8.471	9.998	0.083
2023-09-25 02:48	9456489	8.428	-140.176	304.2	9.959	345.225	427.142	0.233	0.278	8.395	9.959	0
2023-09-25 03:03	9457389	8.424	-139.976	305.03	9.916	344.817	427.071	0.233	0.278	8.364	9.916	0.064
2023-09-25 03:18	9458289	8.433	-140.395	304.789	9.867	344.762	427.498	0.233	0.278	8.952	9.867	0.013
2023-09-25 03:33	9459189	8.404	-138.86	305.936	9.846	344.67	427.595	0.233	0.278	8.342	9.846	0
2023-09-25 03:48	9460089	8.394	-138.34	307.633	9.806	344.365	427.622	0.234	0.278	8.355	9.806	0.147
2023-09-25 04:03	9460989	8.394	-138.302	308.82	9.778	344.176	427.68	0.234	0.278	8.137	9.778	0.007
2023-09-25 04:18	9461889	8.394	-138.283	308.201	9.724	343.692	427.624	0.234	0.278	8.976	9.724	0.09
2023-09-25 04:33	9462789	8.383	-137.739	309.512	9.712	343.343	427.311	0.233	0.278	8.009	9.712	0.131
2023-09-25 04:48	9463689	8.394	-138.295	309.867	9.683	343.02	427.2	0.233	0.278	8.861	9.683	0.126
2023-09-25 05:03	9464589	8.391	-138.116	308.494	9.659	342.938	427.342	0.233	0.278	8.147	9.659	0.092
2023-09-25 05:18	9465489	8.399	-138.509	309.574	9.628	343.034	427.777	0.234	0.278	8.801	9.628	0
2023-09-25 05:33	9466389	8.368	-136.909	312.02	9.621	343.175	428.023	0.234	0.278	8.313	9.621	0.065
2023-09-25 05:48	9467289	8.359	-136.418	314.247	9.596	343.046	428.12	0.234	0.278	8.553	9.596	0.901
2023-09-25 06:03	9468189	8.349	-135.875	316.064	9.571	342.944	428.253	0.234	0.278	8.485	9.571	0
2023-09-25 06:18	9469089	8.350	-135.901	315.835	9.534	342.634	428.24	0.234	0.278	8.532	9.534	0.015
2023-09-25 06:33	9469989	8.345	-135.655	317.275	9.527	342.179	427.743	0.234	0.278	8.368	9.527	0.096
2023-09-25 06:48	9470889	8.343	-135.505	318.219	9.504	341.711	427.397	0.233	0.278	8.775	9.504	0.021
2023-09-25 07:03	9471789	8.347	-135.736	319.573	9.48	341.432	427.284	0.233	0.278	8.835	9.48	0.005
2023-09-25 07:18	9472689	8.361	-136.454	319.218	9.449	341.853	428.136	0.234	0.278	8.591	9.449	0
2023-09-25 07:33	9473589	8.320	-134.292	321.337	9.437	342.152	428.631	0.234	0.279	8.735	9.437	0
2023-09-25 07:48	9474489	8.334	-134.995	321.8	9.408	341.751	428.426	0.234	0.278	8.272	9.408	0

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-25 08:03	9475389	8.330	-134.799	322.413	9.382	341.594	428.495	0.234	0.279	8.816	9.382	0
2023-09-25 08:18	9476289	8.330	-134.776	320.055	9.336	341.038	428.27	0.234	0.278	8.605	9.336	0
2023-09-25 08:33	9477189	8.326	-134.544	321.101	9.319	340.381	427.619	0.234	0.278	8.660	9.319	0
2023-09-25 08:48	9478089	8.346	-135.565	321.783	9.301	340.106	427.458	0.234	0.278	8.969	9.301	0
2023-09-25 09:03	9478989	8.346	-135.593	321.781	9.289	339.922	427.349	0.233	0.278	8.871	9.289	0
2023-09-25 09:18	9479889	8.344	-135.46	321.378	9.284	340.425	428.029	0.234	0.278	8.500	9.284	0
2023-09-25 09:33	9480789	8.326	-134.542	322.785	9.296	340.573	428.097	0.234	0.278	9.002	9.296	0
2023-09-25 09:48	9481689	8.331	-134.814	323.97	9.295	340.436	427.931	0.234	0.278	8.914	9.295	0
2023-09-25 10:03	9482589	8.330	-134.723	324.513	9.303	340.605	428.059	0.234	0.278	8.724	9.303	0
2023-09-25 10:18	9483489	8.343	-135.417	324.394	9.295	340.448	427.951	0.234	0.278	8.628	9.295	0
2023-09-25 10:33	9484389	8.339	-135.198	324.656	9.312	340.131	427.379	0.233	0.278	8.592	9.312	0
2023-09-25 10:48	9485289	8.356	-136.137	323.8	9.335	340.338	427.4	0.233	0.278	8.869	9.335	0
2023-09-25 11:03	9486189	8.376	-137.157	323.526	9.363	340.517	427.338	0.233	0.278	8.591	9.363	0
2023-09-25 11:18	9487089	8.397	-138.271	322.727	9.389	340.861	427.5	0.234	0.278	8.357	9.389	0.016
2023-09-25 11:33	9487989	8.379	-137.386	322.766	9.428	341.165	427.481	0.234	0.278	8.524	9.428	0
2023-09-25 11:48	9488889	8.381	-137.486	323.135	9.471	341.696	427.705	0.234	0.278	8.603	9.471	0
2023-09-25 12:03	9489789	8.375	-137.198	323.204	9.526	342.202	427.78	0.234	0.278	8.588	9.526	0
2023-09-25 12:18	9490689	8.396	-138.319	321.237	9.565	342.199	427.381	0.233	0.278	8.500	9.565	0
2023-09-25 12:33	9491589	8.442	-140.743	318.434	9.619	342.398	427.08	0.233	0.278	8.724	9.619	0
2023-09-25 12:48	9492489	8.468	-142.14	314.6	9.658	342.648	426.988	0.233	0.278	8.950	9.658	0
2023-09-25 13:03	9493389	8.506	-144.16	310.911	9.713	342.932	426.791	0.233	0.277	9.257	9.713	0
2023-09-25 13:18	9494289	8.563	-147.214	306.036	9.784	343.514	426.79	0.233	0.277	9.478	9.784	0
2023-09-25 13:33	9495189	8.533	-145.648	304.405	9.86	344.209	426.882	0.233	0.277	9.139	9.86	0
2023-09-25 13:48	9496089	8.574	-147.822	299.491	9.93	344.94	427.084	0.233	0.278	9.667	9.93	12.458
2023-09-25 14:03	9496989	8.546	-146.43	297.927	9.989	345.575	427.279	0.233	0.278	8.978	9.989	0
2023-09-25 14:18	9497889	8.506	-144.339	296.828	10.019	345.855	427.32	0.233	0.278	9.556	10.019	0
2023-09-25 14:33	9498789	8.536	-145.915	296.649	10.069	346.217	427.257	0.233	0.278	8.727	10.069	0
2023-09-25 14:48	9499689	8.540	-146.172	297.565	10.109	346.524	427.237	0.233	0.278	9.436	10.109	0
2023-09-25 15:03	9500589	8.537	-145.993	297.691	10.146	346.872	427.295	0.233	0.278	8.897	10.146	0
2023-09-25 15:18	9501489	8.525	-145.397	297.989	10.179	347.237	427.411	0.233	0.278	9.620	10.179	0
2023-09-25 15:33	9502389	8.515	-144.916	298.604	10.219	347.465	427.294	0.233	0.278	9.041	10.219	0
2023-09-25 15:48	9503289	8.525	-145.45	299.51	10.24	347.665	427.328	0.233	0.278	9.047	10.24	0
2023-09-25 16:03	9504189	8.517	-145.02	299.126	10.259	347.847	427.363	0.233	0.278	9.105	10.259	0
2023-09-25 16:18	9505089	8.518	-145.085	299.119	10.257	347.878	427.412	0.233	0.278	9.818	10.257	0
2023-09-25 16:33	9505989	8.549	-146.713	299.021	10.277	348.011	427.381	0.233	0.278	8.964	10.277	0
2023-09-25 16:48	9506889	8.524	-145.423	300.552	10.289	348.093	427.36	0.233	0.278	8.945	10.289	0
2023-09-25 17:03	9507789	8.514	-144.877	302.736	10.29	348.092	427.35	0.233	0.278	8.832	10.29	0
2023-09-25 17:18	9508689	8.511	-144.73	304.398	10.302	348.363	427.564	0.233	0.278	9.639	10.302	0
2023-09-25 17:33	9509589	8.492	-143.707	305.106	10.304	348.478	427.684	0.233	0.278	8.662	10.304	0
2023-09-25 17:48	9510489	8.467	-142.431	306.756	10.301	348.487	427.719	0.233	0.278	8.772	10.301	0
2023-09-25 18:03	9511389	8.476	-142.918	308.258	10.309	348.516	427.681	0.233	0.278	8.886	10.309	0
2023-09-25 18:18	9512289	8.481	-143.147	306.813	10.3	348.47	427.709	0.233	0.278	9.373	10.3	0
2023-09-25 18:33	9513189	8.481	-143.161	307.354	10.315	348.586	427.708	0.233	0.278	8.622	10.315	0
2023-09-25 18:48	9514089	8.474	-142.779	307.984	10.315	348.636	427.768	0.233	0.278	8.757	10.315	0
2023-09-25 19:03	9514989	8.468	-142.479	310.456	10.32	348.675	427.763	0.233	0.278	8.757	10.32	0
2023-09-25 19:18	9515889	8.465	-142.324	311.171	10.324	348.829	427.91	0.234	0.278	9.478	10.324	0
2023-09-25 19:33	9516789	8.446	-141.335	312.27	10.32	348.897	428.033	0.234	0.278	8.675	10.32	0
2023-09-25 19:48	9517689	8.441	-141.037	313.865	10.313	348.885	428.089	0.234	0.278	8.690	10.313	0
2023-09-25 20:03	9518589	8.437	-140.867	314.497	10.305	348.821	428.093	0.234	0.278	8.511	10.305	0
2023-09-25 20:18	9519489	8.431	-140.522	314.24	10.294	348.712	428.066	0.234	0.278	9.321	10.294	0
2023-09-25 20:33	9520389	8.434	-140.703	314.557	10.293	348.734	428.112	0.234	0.278	8.357	10.293	0
2023-09-25 20:48	9521289	8.427	-140.324	314.662	10.29	348.752	428.162	0.234	0.278	8.478	10.29	0
2023-09-25 21:03	9522189	8.425	-140.2	317.198	10.286	348.739	428.188	0.234	0.278	8.244	10.286	0
2023-09-25 21:18	9523089	8.439	-140.924	317.804	10.28	348.693	428.188	0.234	0.278	9.055	10.28	0
2023-09-25 21:33	9523989	8.413	-139.58	319.618	10.275	348.752	428.308	0.234	0.278	8.370	10.275	0
2023-09-25 21:48	9524889	8.412	-139.489	320.784	10.266	348.47	428.05	0.234	0.278	8.547	10.266	0

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-25 22:03	9525789	8.427	-140.293	318.083	10.257	348.128	427.728	0.233	0.278	8.678	10.257	0
2023-09-25 22:18	9526689	8.463	-142.169	315.189	10.242	347.963	427.674	0.233	0.278	9.446	10.242	0
2023-09-25 22:33	9527589	8.474	-142.772	313.315	10.233	347.86	427.64	0.233	0.278	8.481	10.233	0
2023-09-25 22:48	9528489	8.479	-142.992	314.08	10.219	347.537	427.38	0.233	0.278	9.424	10.219	0
2023-09-25 23:03	9529389	8.464	-142.195	313.982	10.207	347.498	427.455	0.233	0.278	8.660	10.207	0
2023-09-25 23:18	9530289	8.458	-141.902	315.749	10.189	347.654	427.82	0.234	0.278	8.992	10.189	0
2023-09-25 23:33	9531189	8.442	-141.027	317.792	10.184	347.621	427.83	0.234	0.278	8.528	10.184	0
2023-09-25 23:48	9532089	8.447	-141.313	319.192	10.17	347.592	427.939	0.234	0.278	8.490	10.17	0
2023-09-26 00:03	9532989	8.441	-140.955	320.021	10.156	347.467	427.923	0.234	0.278	9.014	10.156	0
2023-09-26 00:18	9533889	8.445	-141.156	319.552	10.13	347.002	427.613	0.233	0.278	9.233	10.13	0
2023-09-26 00:33	9534789	8.437	-140.772	319.094	10.121	346.954	427.65	0.233	0.278	8.441	10.121	0
2023-09-26 00:48	9535689	8.449	-141.361	318.493	10.104	346.876	427.723	0.233	0.278	8.315	10.104	0
2023-09-26 01:03	9536589	8.436	-140.669	317.466	10.096	346.722	427.616	0.233	0.278	8.446	10.096	0
2023-09-26 01:18	9537489	8.439	-140.82	317.039	10.082	346.845	427.905	0.234	0.278	9.158	10.082	0
2023-09-26 01:33	9538389	8.428	-140.24	316.781	10.075	346.84	427.966	0.234	0.278	8.478	10.075	0
2023-09-26 01:48	9539289	8.433	-140.495	317.756	10.058	346.698	427.964	0.234	0.278	8.445	10.058	0
2023-09-26 02:03	9540189	8.439	-140.815	317.94	10.047	346.499	427.826	0.234	0.278	8.548	10.047	0
2023-09-26 02:18	9541089	8.454	-141.606	316.731	10.026	346.037	427.476	0.233	0.278	9.011	10.026	0
2023-09-26 02:33	9541989	8.449	-141.318	316.717	10.014	345.946	427.477	0.233	0.278	8.900	10.014	0
2023-09-26 02:48	9542889	8.443	-141.022	317.299	10	345.882	427.539	0.233	0.278	8.245	10	0
2023-09-26 03:03	9543789	8.423	-139.921	316.188	9.977	345.745	427.605	0.233	0.278	8.836	9.977	0
2023-09-26 03:18	9544689	8.436	-140.591	313.415	9.95	345.519	427.602	0.233	0.278	8.914	9.95	0.026
2023-09-26 03:33	9545589	8.421	-139.842	314.855	9.934	345.526	427.765	0.234	0.278	8.218	9.934	0
2023-09-26 03:48	9546489	8.420	-139.763	315.968	9.912	345.296	427.708	0.234	0.278	8.972	9.912	0
2023-09-26 04:03	9547389	8.422	-139.873	316.264	9.89	345.053	427.626	0.233	0.278	9.043	9.89	0
2023-09-26 04:18	9548289	8.428	-140.138	316.908	9.848	344.567	427.451	0.233	0.278	8.824	9.848	0
2023-09-26 04:33	9549189	8.418	-139.585	317.542	9.821	344.183	427.252	0.233	0.278	8.831	9.821	0
2023-09-26 04:48	9550089	8.411	-139.229	318.703	9.785	343.934	427.305	0.233	0.278	8.800	9.785	0
2023-09-26 05:03	9550989	8.412	-139.241	315.642	9.757	343.66	427.245	0.233	0.278	8.733	9.757	0
2023-09-26 05:18	9551890	8.418	-139.539	315.963	9.728	343.649	427.524	0.233	0.278	8.804	9.728	0
2023-09-26 05:33	9552790	8.400	-138.597	316.579	9.719	343.591	427.546	0.233	0.278	8.762	9.719	0
2023-09-26 05:48	9553690	8.396	-138.378	317.964	9.701	343.407	427.5	0.233	0.278	8.848	9.701	0
2023-09-26 06:03	9554590	8.396	-138.361	319.313	9.684	343.256	427.488	0.233	0.278	8.862	9.684	0
2023-09-26 06:18	9555490	8.403	-138.743	320.024	9.655	342.831	427.252	0.233	0.278	8.655	9.655	0
2023-09-26 06:33	9556390	8.399	-138.509	321.151	9.647	342.779	427.269	0.233	0.278	8.747	9.647	0
2023-09-26 06:48	9557290	8.391	-138.075	322.069	9.631	342.735	427.373	0.233	0.278	8.764	9.631	0
2023-09-26 07:03	9558190	8.385	-137.77	324.239	9.614	342.935	427.798	0.234	0.278	8.677	9.614	0
2023-09-26 07:18	9559090	8.384	-137.694	323.531	9.601	342.897	427.881	0.234	0.278	8.455	9.601	0
2023-09-26 07:33	9559990	8.361	-136.49	323.705	9.594	342.88	427.93	0.234	0.278	8.581	9.594	0
2023-09-26 07:48	9560890	8.357	-136.299	323.848	9.585	342.777	427.896	0.234	0.278	8.491	9.585	0
2023-09-26 08:03	9561790	8.354	-136.111	319.79	9.573	342.675	427.895	0.234	0.278	8.588	9.573	0
2023-09-26 08:18	9562690	8.368	-136.838	312.852	9.547	342.254	427.627	0.234	0.278	8.657	9.547	0.084
2023-09-26 08:33	9563590	8.360	-136.404	305.027	9.541	342.132	427.542	0.234	0.278	8.674	9.541	0
2023-09-26 08:48	9564490	8.354	-136.13	301.916	9.532	342.149	427.657	0.234	0.278	8.364	9.532	0
2023-09-26 09:03	9565390	8.346	-135.67	300.102	9.527	342.073	427.612	0.234	0.278	8.424	9.527	0
2023-09-26 09:18	9566290	8.351	-135.927	297.35	9.52	342.135	427.756	0.234	0.278	8.311	9.52	0
2023-09-26 09:33	9567190	8.337	-135.221	297.479	9.524	342.284	427.906	0.234	0.278	8.553	9.524	0
2023-09-26 09:48	9568090	8.345	-135.648	298.025	9.526	342.276	427.873	0.234	0.278	8.408	9.526	0
2023-09-26 10:03	9568990	8.342	-135.458	298.812	9.528	342.293	427.878	0.234	0.278	8.538	9.528	0
2023-09-26 10:18	9569890	8.349	-135.853	299.482	9.519	342.059	427.672	0.234	0.278	8.275	9.519	0
2023-09-26 10:33	9570790	8.343	-135.517	300.748	9.523	342.03	427.598	0.234	0.278	8.410	9.523	0
2023-09-26 10:48	9571690	8.338	-135.255	302.788	9.524	342.093	427.662	0.234	0.278	8.536	9.524	0
2023-09-26 11:03	9572590	8.340	-135.388	304.708	9.511	341.911	427.565	0.234	0.278	8.536	9.511	0
2023-09-26 11:18	9573490	8.362	-136.497	305.065	9.507	341.825	427.5	0.234	0.278	8.468	9.507	0.033
2023-09-26 11:33	9574390	8.359	-136.371	305.835	9.507	341.964	427.681	0.234	0.278	8.848	9.507	0
2023-09-26 11:48	9575290	8.364	-136.607	306.842	9.516	342.048	427.691	0.234	0.278	8.797	9.516	0

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-26 12:03	9576190	8.370	-136.969	307.914	9.525	342.151	427.731	0.234	0.278	8.808	9.525	0
2023-09-26 12:18	9577090	8.375	-137.215	307.917	9.521	341.889	427.443	0.233	0.278	8.734	9.521	0
2023-09-26 12:33	9577990	8.379	-137.424	307.888	9.549	342.151	427.48	0.233	0.278	8.719	9.549	0
2023-09-26 12:48	9578890	8.374	-137.16	308.818	9.587	342.487	427.513	0.233	0.278	8.734	9.587	0
2023-09-26 13:03	9579790	8.367	-136.848	310.325	9.63	342.817	427.484	0.233	0.278	8.667	9.63	0
2023-09-26 13:18	9580690	8.378	-137.477	310.823	9.712	343.643	427.685	0.234	0.278	8.656	9.712	0
2023-09-26 13:33	9581590	8.388	-138.042	310.516	9.832	344.497	427.522	0.233	0.278	8.048	9.832	0
2023-09-26 13:48	9582490	8.442	-140.915	309.014	9.954	345.311	427.304	0.233	0.278	8.981	9.954	0
2023-09-26 14:03	9583390	8.448	-141.282	309.142	10.061	346.814	428.078	0.234	0.278	8.868	10.061	0
2023-09-26 14:18	9584290	8.417	-139.658	307.843	10.06	346.67	427.907	0.234	0.278	8.851	10.06	0
2023-09-26 14:33	9585190	8.412	-139.413	305.857	10.111	346.783	427.54	0.233	0.278	8.346	10.111	0
2023-09-26 14:48	9586090	8.414	-139.565	307.655	10.136	347.021	427.578	0.233	0.278	8.504	10.136	0.018
2023-09-26 15:03	9586990	8.428	-140.281	308.429	10.154	347.121	427.52	0.233	0.278	8.541	10.154	0.011
2023-09-26 15:18	9587890	8.436	-140.715	308.146	10.183	347.703	427.941	0.234	0.278	9.376	10.183	0
2023-09-26 15:33	9588790	8.429	-140.402	308.515	10.225	348.096	428.009	0.234	0.278	8.580	10.225	0
2023-09-26 15:48	9589690	8.457	-141.861	308.937	10.241	348.197	427.974	0.234	0.278	8.589	10.241	0
2023-09-26 16:03	9590590	8.457	-141.883	309.839	10.252	348.226	427.896	0.234	0.278	8.675	10.252	0
2023-09-26 16:18	9591490	8.499	-144.05	308.739	10.238	347.844	427.569	0.233	0.278	9.406	10.238	0
2023-09-26 16:33	9592390	8.496	-143.917	307.967	10.24	347.783	427.469	0.233	0.278	8.802	10.24	0
2023-09-26 16:48	9593290	8.511	-144.687	309.03	10.249	347.828	427.431	0.233	0.278	9.082	10.249	0
2023-09-26 17:03	9594190	8.523	-145.33	309.35	10.251	347.952	427.567	0.233	0.278	9.197	10.251	0.069
2023-09-26 17:18	9595090	8.507	-144.484	308.048	10.27	348.448	427.99	0.234	0.278	9.445	10.27	0.071
2023-09-26 17:33	9595990	8.480	-143.116	308.127	10.304	348.887	428.185	0.234	0.278	8.848	10.304	0
2023-09-26 17:48	9596890	8.462	-142.193	308.909	10.33	349.144	428.236	0.234	0.278	8.628	10.33	0
2023-09-26 18:03	9597790	8.466	-142.379	308.794	10.357	349.297	428.153	0.234	0.278	8.649	10.357	0
2023-09-26 18:18	9598690	8.510	-144.694	307.695	10.385	349.412	428.014	0.234	0.278	9.685	10.385	0
2023-09-26 18:33	9599590	8.550	-146.818	305.492	10.425	349.682	427.951	0.234	0.278	8.807	10.425	0
2023-09-26 18:48	9600490	8.506	-144.567	306.825	10.462	350.033	428.004	0.234	0.278	9.055	10.462	0
2023-09-26 19:03	9601390	8.485	-143.461	308.42	10.492	350.363	428.11	0.234	0.278	8.973	10.492	0
2023-09-26 19:18	9602290	8.522	-145.409	307.013	10.518	350.68	428.233	0.234	0.278	9.649	10.518	0
2023-09-26 19:33	9603190	8.497	-144.143	308.248	10.546	350.995	428.341	0.234	0.278	8.943	10.546	0
2023-09-26 19:48	9604090	8.505	-144.556	308.844	10.565	351.087	428.266	0.234	0.278	9.639	10.565	0.003
2023-09-26 20:03	9604990	8.513	-144.963	308.255	10.581	351.204	428.243	0.234	0.278	9.187	10.581	0
2023-09-26 20:18	9605890	8.523	-145.507	306.777	10.593	351.244	428.179	0.234	0.278	9.919	10.593	0
2023-09-26 20:33	9606790	8.508	-144.718	305.142	10.606	351.358	428.183	0.234	0.278	9.105	10.606	0
2023-09-26 20:48	9607690	8.500	-144.339	306.067	10.618	351.535	428.283	0.234	0.278	9.038	10.618	0
2023-09-26 21:03	9608590	8.499	-144.258	306.52	10.621	351.619	428.358	0.234	0.278	8.874	10.621	0
2023-09-26 21:18	9609490	8.501	-144.358	306.78	10.625	351.764	428.494	0.234	0.279	9.700	10.625	0
2023-09-26 21:33	9610390	8.486	-143.573	308.148	10.623	351.79	428.545	0.234	0.279	9.555	10.623	0
2023-09-26 21:48	9611290	8.484	-143.461	309.817	10.625	351.768	428.495	0.234	0.279	9.002	10.625	0
2023-09-26 22:03	9612190	8.478	-143.156	311.867	10.633	351.811	428.465	0.234	0.279	9.521	10.633	0
2023-09-26 22:18	9613090	8.476	-143.08	312.59	10.631	351.739	428.399	0.234	0.278	9.628	10.631	0
2023-09-26 22:33	9613990	8.485	-143.554	313.875	10.64	351.749	428.321	0.234	0.278	8.751	10.64	0
2023-09-26 22:48	9614890	8.484	-143.507	315.565	10.643	351.906	428.484	0.234	0.279	8.728	10.643	0
2023-09-26 23:03	9615790	8.476	-143.049	316.509	10.652	351.88	428.361	0.234	0.278	8.723	10.652	0
2023-09-26 23:18	9616690	8.474	-142.97	315.913	10.656	352.224	428.744	0.234	0.279	9.445	10.656	0
2023-09-26 23:33	9617590	8.462	-142.343	314.554	10.655	352.353	428.911	0.234	0.279	9.325	10.655	0
2023-09-26 23:48	9618490	8.457	-142.086	311.822	10.651	352.574	429.219	0.234	0.279	8.706	10.651	0
2023-09-27 00:03	9619390	8.449	-141.661	309.889	10.647	352.756	429.477	0.234	0.279	8.694	10.647	0
2023-09-27 00:18	9620290	8.449	-141.642	306.904	10.639	352.821	429.633	0.234	0.279	9.397	10.639	0
2023-09-27 00:33	9621190	8.444	-141.397	306.074	10.637	352.903	429.76	0.234	0.279	8.242	10.637	0
2023-09-27 00:48	9622090	8.432	-140.722	307.111	10.632	353.027	429.963	0.235	0.279	8.331	10.632	0
2023-09-27 01:03	9622990	8.424	-140.34	307.452	10.626	353.181	430.204	0.235	0.280	8.269	10.626	0
2023-09-27 01:18	9623890	8.408	-139.499	308.706	10.623	353.233	430.302	0.235	0.280	9.006	10.623	0
2023-09-27 01:33	9624790	8.382	-138.109	310.17	10.623	353.283	430.358	0.235	0.280	8.081	10.623	0
2023-09-27 01:48	9625690	8.391	-138.564	310.263	10.619	353.425	430.578	0.235	0.280	8.945	10.619	0

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-27 02:03	9626590	8.384	-138.223	311.748	10.615	353.501	430.709	0.235	0.280	8.372	10.615	0
2023-09-27 02:18	9627490	8.377	-137.844	312.468	10.607	353.559	430.857	0.235	0.280	8.951	10.607	0
2023-09-27 02:33	9628390	8.361	-136.967	313.393	10.6	353.472	430.825	0.235	0.280	7.940	10.6	0
2023-09-27 02:48	9629290	8.353	-136.54	314.287	10.592	353.679	431.153	0.235	0.280	8.516	10.592	0
2023-09-27 03:03	9630190	8.346	-136.197	315.592	10.581	353.777	431.381	0.235	0.280	7.935	10.581	0
2023-09-27 03:18	9631090	8.342	-135.97	315.522	10.568	353.653	431.364	0.235	0.280	8.738	10.568	0
2023-09-27 03:33	9631990	8.316	-134.625	315.723	10.562	353.741	431.536	0.235	0.280	7.898	10.562	0
2023-09-27 03:48	9632890	8.321	-134.881	315.751	10.55	353.47	431.318	0.235	0.280	8.496	10.55	0
2023-09-27 04:03	9633790	8.324	-135	315.797	10.542	353.353	431.254	0.235	0.280	7.849	10.542	0
2023-09-27 04:18	9634690	8.331	-135.367	315.527	10.517	352.685	430.691	0.235	0.280	8.573	10.517	0
2023-09-27 04:33	9635590	8.321	-134.821	315.215	10.51	352.542	430.587	0.235	0.280	7.687	10.51	0
2023-09-27 04:48	9636490	8.322	-134.873	316.226	10.497	352.284	430.406	0.235	0.280	7.710	10.497	0
2023-09-27 05:03	9637390	8.338	-135.746	312.423	10.476	351.802	430.024	0.235	0.280	7.784	10.476	0
2023-09-27 05:18	9638290	8.356	-136.671	310.365	10.472	352.058	430.381	0.235	0.280	8.525	10.472	0
2023-09-27 05:33	9639190	8.329	-135.257	311.846	10.465	352.171	430.589	0.235	0.280	7.741	10.465	0
2023-09-27 05:48	9640090	8.326	-135.062	312.955	10.45	352.045	430.583	0.235	0.280	7.908	10.45	0
2023-09-27 06:03	9640990	8.322	-134.866	314.43	10.433	351.76	430.407	0.235	0.280	7.908	10.433	0
2023-09-27 06:18	9641890	8.333	-135.448	314.09	10.409	351.183	429.946	0.235	0.279	8.468	10.409	0
2023-09-27 06:33	9642790	8.326	-135.076	313.939	10.399	351.043	429.87	0.235	0.279	7.665	10.399	0
2023-09-27 06:48	9643690	8.329	-135.198	314.197	10.386	350.811	429.722	0.235	0.279	7.757	10.386	0
2023-09-27 07:03	9644590	8.326	-135.05	313.954	10.37	350.72	429.77	0.235	0.279	7.747	10.37	0.097
2023-09-27 07:18	9645490	8.332	-135.355	313.493	10.363	350.953	430.127	0.235	0.280	8.418	10.363	0
2023-09-27 07:33	9646390	8.322	-134.799	312.275	10.355	351.005	430.267	0.235	0.280	7.587	10.355	0
2023-09-27 07:48	9647290	8.262	-131.66	313.002	10.349	351.951	431.493	0.236	0.280	7.670	10.349	0
2023-09-27 08:03	9648190	8.306	-133.972	313.656	10.34	351.309	430.795	0.235	0.280	7.425	10.34	0
2023-09-27 08:18	9649090	8.302	-133.77	314.717	10.32	350.635	430.172	0.235	0.280	8.019	10.32	0
2023-09-27 08:33	9649990	8.299	-133.591	315.942	10.321	350.529	430.028	0.235	0.280	7.443	10.321	0
2023-09-27 08:48	9650890	8.296	-133.419	317.413	10.315	350.488	430.04	0.235	0.280	7.505	10.315	0
2023-09-27 09:03	9651790	8.296	-133.46	318.298	10.311	350.408	429.982	0.235	0.279	7.491	10.311	0
2023-09-27 09:18	9652690	8.302	-133.743	318.307	10.307	350.686	430.361	0.235	0.280	8.124	10.307	0
2023-09-27 09:33	9653590	8.291	-133.152	319.084	10.314	350.702	430.31	0.235	0.280	7.531	10.314	0
2023-09-27 09:48	9654490	8.291	-133.188	320.431	10.319	350.738	430.307	0.235	0.280	7.466	10.319	0
2023-09-27 10:03	9655390	8.293	-133.276	321.473	10.324	350.754	430.27	0.235	0.280	7.587	10.324	0
2023-09-27 10:18	9656290	8.301	-133.712	321.547	10.325	350.56	430.028	0.235	0.280	8.140	10.325	0
2023-09-27 10:33	9657190	8.303	-133.841	321.659	10.341	350.787	430.14	0.235	0.280	7.361	10.341	0
2023-09-27 10:48	9658090	8.312	-134.306	323.123	10.36	350.931	430.125	0.235	0.280	7.933	10.36	0
2023-09-27 11:03	9658990	8.318	-134.652	323.984	10.386	351.182	430.174	0.235	0.280	7.420	10.386	0
2023-09-27 11:18	9659891	8.317	-134.604	323.631	10.425	351.544	430.223	0.235	0.280	8.169	10.425	0
2023-09-27 11:33	9660791	8.301	-133.774	323.018	10.47	351.995	430.32	0.235	0.280	7.498	10.47	0
2023-09-27 11:48	9661691	8.298	-133.617	323.443	10.504	352.134	430.157	0.235	0.280	7.632	10.504	0
2023-09-27 12:03	9662591	8.322	-134.912	322.243	10.524	352.088	429.891	0.235	0.279	7.946	10.524	0
2023-09-27 12:18	9663491	8.366	-137.219	318.603	10.492	351.275	429.226	0.234	0.279	8.739	10.492	0
2023-09-27 12:33	9664391	8.391	-138.483	317.229	10.468	350.742	428.816	0.234	0.279	8.174	10.468	0.064
2023-09-27 12:48	9665291	8.409	-139.437	317.628	10.444	350.292	428.504	0.234	0.279	8.404	10.444	0.144
2023-09-27 13:03	9666191	8.419	-139.956	318.259	10.427	350.07	428.405	0.234	0.278	8.692	10.427	0.145
2023-09-27 13:18	9667091	8.441	-141.127	319.049	10.41	350.184	428.708	0.234	0.279	9.458	10.41	0.101
2023-09-27 13:33	9667991	8.437	-140.92	319.809	10.437	350.32	428.611	0.234	0.279	8.632	10.437	0.095
2023-09-27 13:48	9668891	8.459	-142.09	319.163	10.445	350.42	428.652	0.234	0.279	8.620	10.445	0.143
2023-09-27 14:03	9669791	8.457	-141.976	319.692	10.461	350.531	428.625	0.234	0.279	8.621	10.461	0.147
2023-09-27 14:18	9670691	8.487	-143.549	318.069	10.454	350.304	428.418	0.234	0.278	9.743	10.454	0.24
2023-09-27 14:33	9671591	8.484	-143.402	317.74	10.496	350.523	428.26	0.234	0.278	8.846	10.496	0.358
2023-09-27 14:48	9672491	8.485	-143.485	316.958	10.52	350.635	428.167	0.234	0.278	9.038	10.52	0.373
2023-09-27 15:03	9673391	8.496	-144.076	315.968	10.538	350.893	428.299	0.234	0.278	8.969	10.538	0.408
2023-09-27 15:18	9674291	8.528	-145.762	314.841	10.575	351.407	428.558	0.234	0.279	9.902	10.575	0.272
2023-09-27 15:33	9675191	8.515	-145.116	313.231	10.608	351.689	428.569	0.234	0.279	9.099	10.608	0.304
2023-09-27 15:48	9676091	8.543	-146.546	311.488	10.605	351.783	428.71	0.234	0.279	9.099	10.605	0.299

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-27 16:03	9676991	8.519	-145.29	312.163	10.618	351.967	428.809	0.234	0.279	9.004	10.618	0.283
2023-09-27 16:18	9677891	8.521	-145.4	310.854	10.625	352.022	428.804	0.234	0.279	9.906	10.625	0.422
2023-09-27 16:33	9678791	8.514	-145.075	310.79	10.666	352.451	428.914	0.234	0.279	9.029	10.666	0.366
2023-09-27 16:48	9679691	8.506	-144.658	310.444	10.699	352.817	429.031	0.234	0.279	9.048	10.699	0.33
2023-09-27 17:03	9680591	8.522	-145.547	308.406	10.729	352.963	428.908	0.234	0.279	9.066	10.729	0.225
2023-09-27 17:18	9681491	8.527	-145.81	308.503	10.744	353.376	429.265	0.234	0.279	10.014	10.744	0.485
2023-09-27 17:33	9682391	8.505	-144.665	308.525	10.773	353.766	429.45	0.234	0.279	9.058	10.773	0.29
2023-09-27 17:48	9683291	8.496	-144.212	307.066	10.802	354.068	429.53	0.234	0.279	9.055	10.802	0.426
2023-09-27 18:03	9684191	8.494	-144.107	305.084	10.84	354.652	429.853	0.234	0.279	9.045	10.84	0.371
2023-09-27 18:18	9685091	8.493	-144.064	303.945	10.858	354.616	429.638	0.234	0.279	9.711	10.858	0.301
2023-09-27 18:33	9685991	8.484	-143.573	301.363	10.868	354.702	429.64	0.234	0.279	8.904	10.868	0.307
2023-09-27 18:48	9686891	8.490	-143.917	302.471	10.883	354.815	429.623	0.234	0.279	8.945	10.883	0.367
2023-09-27 19:03	9687791	8.495	-144.162	300.976	10.887	354.855	429.639	0.234	0.279	8.913	10.887	0.37
2023-09-27 19:18	9688691	8.503	-144.62	299.293	10.894	355.046	429.793	0.234	0.279	9.762	10.894	0.254
2023-09-27 19:33	9689591	8.473	-143.011	300.397	10.902	355.236	429.945	0.235	0.279	9.534	10.902	0.329
2023-09-27 19:48	9690491	8.461	-142.41	303.303	10.897	355.251	430.016	0.235	0.280	9.594	10.897	0.212
2023-09-27 20:03	9691391	8.452	-141.9	305.63	10.893	355.19	429.982	0.235	0.279	9.406	10.893	0.3
2023-09-27 20:18	9692291	8.464	-142.55	305.227	10.881	354.959	429.825	0.234	0.279	9.703	10.881	0.246
2023-09-27 20:33	9693191	8.468	-142.756	301.477	10.875	354.918	429.836	0.234	0.279	9.502	10.875	0.237
2023-09-27 20:48	9694091	8.483	-143.53	302.572	10.862	354.765	429.771	0.234	0.279	8.796	10.862	0.203
2023-09-27 21:03	9694991	8.482	-143.487	301.947	10.847	354.647	429.784	0.234	0.279	8.819	10.847	0.175
2023-09-27 21:18	9695891	8.498	-144.305	300.388	10.828	354.541	429.842	0.234	0.279	9.513	10.828	0.486
2023-09-27 21:33	9696791	8.476	-143.144	300.74	10.812	354.463	429.903	0.235	0.279	8.795	10.812	0.189
2023-09-27 21:48	9697691	8.473	-142.965	301.325	10.784	354.228	429.902	0.235	0.279	8.899	10.784	0.207
2023-09-27 22:03	9698591	8.469	-142.76	300.581	10.747	353.938	429.916	0.235	0.279	8.716	10.747	0.115
2023-09-27 22:18	9699491	8.483	-143.425	300.731	10.677	353.181	429.697	0.234	0.279	9.511	10.677	0.114
2023-09-27 22:33	9700391	8.474	-142.977	300.547	10.653	352.687	429.33	0.234	0.279	8.930	10.653	0.142
2023-09-27 22:48	9701291	8.481	-143.292	301.635	10.611	352.343	429.34	0.234	0.279	9.007	10.611	0.13
2023-09-27 23:03	9702191	8.477	-143.068	298.943	10.579	352.122	429.383	0.234	0.279	8.843	10.579	0.118
2023-09-27 23:18	9703091	8.485	-143.483	297.693	10.533	352.076	429.786	0.235	0.279	9.478	10.533	0.114
2023-09-27 23:33	9703991	8.453	-141.788	299.844	10.515	352.067	429.961	0.235	0.279	8.796	10.515	0.126
2023-09-27 23:48	9704891	8.450	-141.592	302.118	10.481	351.653	429.795	0.235	0.279	8.563	10.481	0.107
2023-09-28 00:03	9705791	8.447	-141.423	303.714	10.447	351.541	429.999	0.235	0.279	8.745	10.447	0.058
2023-09-28 00:18	9706691	8.446	-141.385	304.138	10.404	351.055	429.842	0.235	0.279	9.493	10.404	0.134
2023-09-28 00:33	9707591	8.439	-140.958	305.609	10.377	350.577	429.526	0.234	0.279	9.417	10.377	0.079
2023-09-28 00:48	9708491	8.433	-140.636	306.021	10.337	350.286	429.571	0.234	0.279	8.449	10.337	0.033
2023-09-28 01:03	9709391	8.426	-140.247	306.66	10.314	350.243	429.752	0.235	0.279	9.003	10.314	0.123
2023-09-28 01:18	9710291	8.430	-140.486	305.645	10.292	350.351	430.105	0.235	0.280	9.127	10.292	0.106
2023-09-28 01:33	9711191	8.397	-138.731	307.64	10.286	350.535	430.385	0.235	0.280	8.453	10.286	0.084
2023-09-28 01:48	9712091	8.392	-138.457	308.663	10.283	350.516	430.399	0.235	0.280	8.419	10.283	2.435
2023-09-28 02:03	9712991	8.387	-138.192	310.926	10.276	350.593	430.555	0.235	0.280	8.451	10.276	0.092
2023-09-28 02:18	9713891	8.382	-137.947	312.404	10.271	350.719	430.764	0.235	0.280	8.933	10.271	0.091
2023-09-28 02:33	9714791	8.369	-137.227	313.737	10.271	350.67	430.702	0.235	0.280	8.202	10.271	0.088
2023-09-28 02:48	9715691	8.362	-136.886	315.589	10.274	350.814	430.856	0.235	0.280	8.512	10.274	0.052
2023-09-28 03:03	9716591	8.359	-136.702	316.607	10.269	350.743	430.815	0.235	0.280	7.883	10.269	0
2023-09-28 03:18	9717491	8.365	-137.057	316.931	10.268	350.613	430.663	0.235	0.280	8.922	10.268	0.035
2023-09-28 03:33	9718391	8.348	-136.132	317.675	10.27	350.822	430.9	0.235	0.280	7.918	10.27	0.048
2023-09-28 03:48	9719291	8.342	-135.849	319.356	10.273	350.984	431.075	0.235	0.280	7.958	10.273	0.034
2023-09-28 04:03	9720191	8.344	-135.951	319.552	10.266	350.957	431.106	0.235	0.280	7.983	10.266	0.024
2023-09-28 04:18	9721091	8.351	-136.302	319.442	10.254	350.762	430.986	0.235	0.280	8.887	10.254	0.096
2023-09-28 04:33	9721991	8.334	-135.393	319.909	10.243	350.269	430.49	0.235	0.280	7.847	10.243	0.196
2023-09-28 04:48	9722891	8.336	-135.472	319.289	10.225	350.208	430.603	0.235	0.280	8.035	10.225	0.141
2023-09-28 05:03	9723791	8.336	-135.484	320.577	10.21	350.328	430.898	0.235	0.280	8.555	10.21	0.084
2023-09-28 05:18	9724691	8.342	-135.801	320.799	10.196	350.156	430.835	0.235	0.280	8.691	10.196	0.114
2023-09-28 05:33	9725591	8.334	-135.393	320.536	10.194	350.413	431.17	0.235	0.280	7.875	10.194	0.059
2023-09-28 05:48	9726491	8.326	-134.935	322.072	10.186	350.286	431.095	0.235	0.280	8.503	10.186	0.151

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-28 06:03	9727391	8.341	-135.715	321.597	10.15	349.537	430.535	0.235	0.280	8.011	10.15	0.48
2023-09-28 06:18	9728291	8.342	-135.751	321.483	10.077	348.814	430.38	0.235	0.280	8.483	10.077	0.14
2023-09-28 06:33	9729191	8.338	-135.51	321.335	10.026	347.872	429.735	0.235	0.279	8.422	10.026	0.14
2023-09-28 06:48	9730091	8.334	-135.264	320.648	9.963	347.214	429.567	0.235	0.279	8.474	9.963	0.123
2023-09-28 07:03	9730991	8.332	-135.109	320.956	9.902	346.622	429.449	0.235	0.279	8.522	9.902	0.062
2023-09-28 07:18	9731891	8.349	-136.011	320.167	9.841	346.412	429.806	0.235	0.279	8.466	9.841	0.049
2023-09-28 07:33	9732791	8.328	-134.859	320.567	9.816	346.35	429.989	0.235	0.279	8.447	9.816	0.237
2023-09-28 07:48	9733691	8.326	-134.773	321.445	9.78	345.995	429.917	0.235	0.279	8.538	9.78	0.106
2023-09-28 08:03	9734591	8.328	-134.847	322.065	9.753	345.725	429.854	0.235	0.279	8.652	9.753	0.139
2023-09-28 08:18	9735491	8.334	-135.164	323.023	9.707	345.306	429.803	0.235	0.279	8.372	9.707	0.025
2023-09-28 08:33	9736391	8.320	-134.377	322.925	9.69	345.047	429.651	0.235	0.279	8.441	9.69	0.08
2023-09-28 08:48	9737291	8.317	-134.246	323.939	9.668	344.753	429.515	0.235	0.279	8.522	9.668	0.043
2023-09-28 09:03	9738191	8.321	-134.432	323.805	9.642	344.348	429.276	0.234	0.279	8.635	9.642	0.105
2023-09-28 09:18	9739091	8.349	-135.901	322.916	9.619	344.445	429.635	0.235	0.279	8.482	9.619	0
2023-09-28 09:33	9739991	8.325	-134.63	322.978	9.611	344.713	430.051	0.235	0.280	8.558	9.611	0.141
2023-09-28 09:48	9740891	8.341	-135.467	324.239	9.611	344.569	429.871	0.235	0.279	8.980	9.611	0.055
2023-09-28 10:03	9741791	8.349	-135.858	324.439	9.61	344.597	429.911	0.235	0.279	8.830	9.61	0.052
2023-09-28 10:18	9742691	8.364	-136.652	324.377	9.6	343.97	429.235	0.234	0.279	8.761	9.6	0.089
2023-09-28 10:33	9743591	8.357	-136.292	323.745	9.607	343.852	429.013	0.234	0.279	8.713	9.607	0.103
2023-09-28 10:48	9744491	8.368	-136.9	323.068	9.609	343.864	429.009	0.234	0.279	8.910	9.609	0.142
2023-09-28 11:03	9745391	8.373	-137.134	322.577	9.617	344.04	429.148	0.234	0.279	8.743	9.617	0.188
2023-09-28 11:18	9746291	8.388	-137.961	322.065	9.634	344.366	429.376	0.235	0.279	8.552	9.634	0.096
2023-09-28 11:33	9747191	8.381	-137.563	322.055	9.665	344.699	429.472	0.235	0.279	8.741	9.665	0.084
2023-09-28 11:48	9748091	8.384	-137.782	322.038	9.695	344.947	429.478	0.235	0.279	8.850	9.695	0
2023-09-28 12:03	9748991	8.381	-137.622	323.123	9.732	345.271	429.506	0.235	0.279	8.700	9.732	0
2023-09-28 12:18	9749891	8.392	-138.183	322.208	9.738	345.039	429.157	0.234	0.279	8.768	9.738	0.038
2023-09-28 12:33	9750791	8.428	-140.088	319.33	9.783	345.395	429.141	0.234	0.279	8.995	9.783	0.056
2023-09-28 12:48	9751691	8.473	-142.522	313.963	9.858	345.801	428.881	0.234	0.279	9.080	9.858	0.144
2023-09-28 13:03	9752591	8.480	-142.934	309.483	9.972	346.748	428.893	0.234	0.279	9.224	9.972	0.016
2023-09-28 13:18	9753491	8.567	-147.593	304.937	10.141	348.319	429.124	0.234	0.279	9.453	10.141	0
2023-09-28 13:33	9754391	8.483	-143.254	302.681	10.319	350.322	429.798	0.235	0.279	9.088	10.319	0.1
2023-09-28 13:48	9755291	8.487	-143.585	299.806	10.498	351.862	429.877	0.235	0.279	8.861	10.498	0.14
2023-09-28 14:03	9756191	8.480	-143.27	296.23	10.686	353.746	430.292	0.235	0.280	8.873	10.686	0.218
2023-09-28 14:18	9757091	8.463	-142.465	293.655	10.788	354.404	430.073	0.235	0.280	9.450	10.788	0.319
2023-09-28 14:33	9757991	8.437	-141.113	288.45	10.882	355.157	430.052	0.235	0.280	8.681	10.882	0.234
2023-09-28 14:48	9758891	8.429	-140.741	285.901	10.944	355.884	430.318	0.235	0.280	8.661	10.944	0.317
2023-09-28 15:03	9759791	8.421	-140.345	285.935	10.991	356.409	430.488	0.235	0.280	8.683	10.991	0.278
2023-09-28 15:18	9760691	8.430	-140.86	286.471	11.037	357	430.736	0.235	0.280	9.186	11.037	0.099
2023-09-28 15:33	9761591	8.425	-140.593	288.579	11.083	357.17	430.486	0.235	0.280	8.886	11.083	0.167
2023-09-28 15:48	9762491	8.468	-142.899	290.112	11.157	358.012	430.772	0.235	0.280	9.266	11.157	0.157
2023-09-28 16:03	9763391	8.466	-142.827	290.052	11.239	358.637	430.709	0.235	0.280	9.345	11.239	0.184
2023-09-28 16:18	9764291	8.510	-145.18	288.154	11.256	358.442	430.313	0.235	0.280	9.772	11.256	0.153
2023-09-28 16:33	9765191	8.506	-144.942	284.483	11.282	358.269	429.848	0.234	0.279	9.776	11.282	0.253
2023-09-28 16:48	9766091	8.509	-145.142	285.925	11.297	358.427	429.887	0.234	0.279	9.927	11.297	0.216
2023-09-28 17:03	9766991	8.524	-145.936	284.826	11.327	358.601	429.803	0.234	0.279	10.129	11.327	0.179
2023-09-28 17:18	9767891	8.624	-151.229	281.147	11.312	358.273	429.554	0.234	0.279	10.442	11.312	0.099
2023-09-28 17:33	9768791	8.606	-150.273	281.769	11.313	358.515	429.833	0.234	0.279	10.841	11.313	0.17
2023-09-28 17:48	9769691	8.667	-153.441	277.7	11.291	357.992	429.426	0.234	0.279	10.933	11.291	0.097
2023-09-28 18:03	9770591	8.667	-153.415	277.497	11.227	357.768	429.786	0.234	0.279	10.355	11.227	0.068
2023-09-28 18:18	9771491	8.596	-149.686	282.458	11.212	357.953	430.158	0.235	0.280	10.652	11.212	0.147
2023-09-28 18:33	9772391	8.590	-149.367	282.89	11.234	357.99	429.98	0.234	0.279	10.581	11.234	0.106
2023-09-28 18:48	9773291	8.577	-148.702	283.465	11.249	357.924	429.753	0.234	0.279	9.772	11.249	0.062
2023-09-28 19:03	9774191	8.578	-148.73	285.043	11.258	357.937	429.683	0.234	0.279	10.741	11.258	0.114
2023-09-28 19:18	9775092	8.628	-151.391	284.635	11.26	357.959	429.694	0.234	0.279	10.914	11.26	0.088
2023-09-28 19:33	9775992	8.627	-151.331	283.527	11.287	358.192	429.701	0.234	0.279	10.910	11.287	0.039
2023-09-28 19:48	9776892	8.617	-150.852	283.188	11.309	358.284	429.599	0.234	0.279	10.871	11.309	0.113

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-28 20:03	9777792	8.607	-150.342	285.846	11.33	358.463	429.606	0.234	0.279	10.950	11.33	0.084
2023-09-28 20:18	9778692	8.578	-148.823	286.5	11.346	358.405	429.376	0.234	0.279	10.183	11.346	0.101
2023-09-28 20:33	9779592	8.555	-147.598	278.687	11.342	357.717	428.596	0.234	0.279	10.301	11.342	0.129
2023-09-28 20:48	9780492	8.519	-145.662	273.93	11.333	357.644	428.59	0.234	0.279	9.582	11.333	0.218
2023-09-28 21:03	9781392	8.503	-144.808	271.923	11.332	357.656	428.62	0.234	0.279	9.543	11.332	0.144
2023-09-28 21:18	9782292	8.508	-145.094	272.063	11.325	357.812	428.87	0.234	0.279	9.800	11.325	0.131
2023-09-28 21:33	9783192	8.486	-143.933	275.84	11.321	357.936	429.063	0.234	0.279	9.625	11.321	0.063
2023-09-28 21:48	9784092	8.481	-143.661	278.613	11.307	357.721	428.942	0.234	0.279	9.654	11.307	0.057
2023-09-28 22:03	9784992	8.480	-143.602	281.574	11.291	357.493	428.829	0.234	0.279	9.682	11.291	0.042
2023-09-28 22:18	9785892	8.499	-144.603	280.408	11.258	356.664	428.157	0.233	0.278	10.142	11.258	0.096
2023-09-28 22:33	9786792	8.498	-144.515	280.518	11.251	356.464	427.984	0.233	0.278	9.909	11.251	0.133
2023-09-28 22:48	9787692	8.506	-144.928	279.767	11.234	356.133	427.75	0.233	0.278	9.887	11.234	0.011
2023-09-28 23:03	9788592	8.511	-145.187	280.58	11.217	355.942	427.687	0.233	0.278	9.870	11.217	0.111
2023-09-28 23:18	9789492	8.524	-145.876	279.838	11.198	355.992	427.937	0.233	0.278	9.900	11.198	0
2023-09-28 23:33	9790392	8.498	-144.515	280.592	11.191	356.101	428.135	0.233	0.278	9.492	11.191	0.163
2023-09-28 23:48	9791292	8.239	-130.854	281.14	11.179	356.085	428.239	0.233	0.278	9.604	11.179	0.055
2023-09-29 00:03	9792192	8.184	-127.945	279.488	11.159	355.754	428.035	0.233	0.278	8.778	11.159	0.073
2023-09-29 00:18	9793092	8.376	-138.035	282.833	11.129	356.104	428.748	0.234	0.279	9.496	11.129	0.035
2023-09-29 00:33	9793992	8.413	-140.009	277.53	11.124	349.299	420.602	0.229	0.273	8.421	11.124	0.044
2023-09-29 00:48	9794892	8.437	-141.222	275.444	11.099	355.498	428.315	0.234	0.278	8.702	11.099	0.061
2023-09-29 01:03	9795792	8.416	-140.123	263.907	11.076	355.447	428.479	0.234	0.279	8.234	11.076	0.115
2023-09-29 01:18	9796692	8.424	-140.517	260.798	11.058	355.429	428.64	0.234	0.279	9.141	11.058	1.03
2023-09-29 01:33	9797592	8.395	-138.991	267.317	11.054	355.617	428.905	0.234	0.279	8.655	11.054	0.158
2023-09-29 01:48	9798492	8.400	-139.265	272.958	11.036	355.344	428.747	0.234	0.279	8.446	11.036	0.087
2023-09-29 02:03	9799392	8.400	-139.239	276.355	11.013	355.086	428.667	0.234	0.279	9.095	11.013	0.066
2023-09-29 02:18	9800292	8.402	-139.363	277.685	10.988	354.744	428.505	0.234	0.279	9.295	10.988	0.07
2023-09-29 02:33	9801192	8.396	-139.031	278.632	10.973	354.596	428.467	0.234	0.279	8.331	10.973	0.1
2023-09-29 02:48	9802092	8.390	-138.662	280.921	10.95	354.426	428.49	0.234	0.279	8.380	10.95	0.111
2023-09-29 03:03	9802992	8.381	-138.23	282.861	10.933	354.376	428.599	0.234	0.279	8.260	10.933	0.068
2023-09-29 03:18	9803892	8.389	-138.626	285.222	10.904	354.202	428.673	0.234	0.279	8.979	10.904	0.047
2023-09-29 03:33	9804792	8.382	-138.235	283.851	10.887	354.076	428.69	0.234	0.279	8.415	10.887	0
2023-09-29 03:48	9805692	8.382	-138.197	286.111	10.861	353.829	428.654	0.234	0.279	8.411	10.861	0.043
2023-09-29 04:03	9806592	8.382	-138.24	287.499	10.849	353.682	428.597	0.234	0.279	8.296	10.849	0
2023-09-29 04:18	9807492	8.382	-138.214	287.315	10.816	353.273	428.427	0.234	0.278	9.031	10.816	0
2023-09-29 04:33	9808392	8.375	-137.804	287.575	10.805	353.127	428.358	0.234	0.278	8.110	10.805	0
2023-09-29 04:48	9809292	8.365	-137.308	289.306	10.78	352.878	428.304	0.234	0.278	8.257	10.78	0.042
2023-09-29 05:03	9810192	8.362	-137.126	289.084	10.764	352.658	428.192	0.234	0.278	8.752	10.764	0.077
2023-09-29 05:18	9811092	8.368	-137.422	288.789	10.744	352.759	428.52	0.234	0.279	8.902	10.744	0
2023-09-29 05:33	9811992	8.349	-136.425	287.587	10.733	352.79	428.667	0.234	0.279	8.404	10.733	0.012
2023-09-29 05:48	9812892	8.345	-136.18	288.676	10.718	352.723	428.734	0.234	0.279	8.207	10.718	0
2023-09-29 06:03	9813792	8.341	-135.987	287.909	10.706	352.91	429.081	0.234	0.279	8.158	10.706	0.024
2023-09-29 06:18	9814692	8.334	-135.593	285.897	10.681	352.628	428.989	0.234	0.279	8.764	10.681	0
2023-09-29 06:33	9815592	8.284	-132.992	281.097	10.671	352.403	428.812	0.234	0.279	7.999	10.671	0
2023-09-29 06:48	9816492	8.300	-133.81	279.564	10.65	352.257	428.844	0.234	0.279	7.868	10.65	0
2023-09-29 07:03	9817392	8.295	-133.524	277.347	10.628	352.002	428.749	0.234	0.279	7.873	10.628	0
2023-09-29 07:18	9818292	8.312	-134.42	276.262	10.614	352.129	429.044	0.234	0.279	8.333	10.614	0
2023-09-29 07:33	9819192	8.294	-133.467	276.212	10.607	352.203	429.204	0.234	0.279	7.817	10.607	0.659
2023-09-29 07:48	9820092	8.298	-133.655	276.992	10.593	352.19	429.332	0.234	0.279	7.854	10.593	0.07
2023-09-29 08:03	9820992	8.293	-133.383	278.632	10.583	352.101	429.321	0.234	0.279	7.753	10.583	0
2023-09-29 08:18	9821892	8.289	-133.197	270.795	10.562	351.947	429.347	0.234	0.279	8.327	10.562	0
2023-09-29 08:33	9822792	8.281	-132.756	264.923	10.55	351.616	429.054	0.234	0.279	7.604	10.55	0
2023-09-29 08:48	9823692	8.281	-132.732	266.17	10.535	351.425	428.974	0.234	0.279	7.722	10.535	0
2023-09-29 09:03	9824592	8.283	-132.864	269.889	10.527	351.399	429.026	0.234	0.279	7.771	10.527	0.039
2023-09-29 09:18	9825492	8.294	-133.414	274.541	10.519	351.511	429.237	0.234	0.279	8.436	10.519	0
2023-09-29 09:33	9826392	8.283	-132.852	278.637	10.512	351.402	429.175	0.234	0.279	7.677	10.512	0
2023-09-29 09:48	9827292	8.283	-132.828	282.389	10.499	351.386	429.285	0.234	0.279	7.374	10.499	0.085

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-29 10:03	9828192	8.278	-132.549	282.127	10.486	351.192	429.184	0.234	0.279	7.608	10.486	0.34
2023-09-29 10:18	9829092	8.288	-133.064	284.275	10.473	350.756	428.781	0.234	0.279	8.269	10.473	0.362
2023-09-29 10:33	9829992	8.280	-132.651	286.447	10.469	350.51	428.52	0.234	0.279	8.153	10.469	0.288
2023-09-29 10:48	9830892	8.276	-132.453	289.458	10.459	350.401	428.482	0.234	0.279	7.745	10.459	0.291
2023-09-29 11:03	9831792	8.280	-132.668	291.585	10.456	350.285	428.374	0.234	0.278	7.603	10.456	0.358
2023-09-29 11:18	9832692	8.293	-133.348	292.064	10.451	350.476	428.658	0.234	0.279	8.399	10.451	0.238
2023-09-29 11:33	9833592	8.282	-132.785	293.016	10.457	350.575	428.719	0.234	0.279	7.657	10.457	0.25
2023-09-29 11:48	9834492	8.292	-133.305	295.135	10.463	350.679	428.79	0.234	0.279	7.735	10.463	0.1
2023-09-29 12:03	9835392	8.292	-133.288	296.833	10.468	350.695	428.753	0.234	0.279	7.692	10.468	0.157
2023-09-29 12:18	9836292	8.290	-133.216	297.183	10.469	350.623	428.661	0.234	0.279	8.144	10.469	0.11
2023-09-29 12:33	9837192	8.289	-133.126	297.817	10.485	350.763	428.672	0.234	0.279	7.610	10.485	0.096
2023-09-29 12:48	9838092	8.274	-132.349	299.794	10.509	350.951	428.653	0.234	0.279	7.672	10.509	0.078
2023-09-29 13:03	9838992	8.273	-132.349	299.973	10.545	351.333	428.768	0.234	0.279	7.512	10.545	0.024
2023-09-29 13:18	9839892	8.287	-133.119	299.846	10.595	351.887	428.943	0.234	0.279	8.100	10.595	0
2023-09-29 13:33	9840792	8.272	-132.334	301.267	10.653	352.546	429.166	0.234	0.279	7.563	10.653	0
2023-09-29 13:48	9841692	8.272	-132.368	302.712	10.7	353.03	429.285	0.234	0.279	7.738	10.7	0
2023-09-29 14:03	9842592	8.270	-132.27	304.279	10.742	353.286	429.176	0.234	0.279	7.672	10.742	0.05
2023-09-29 14:18	9843492	8.269	-132.225	305.244	10.759	353.382	429.127	0.234	0.279	8.111	10.759	0.097
2023-09-29 14:33	9844392	8.287	-133.183	306.081	10.793	353.591	429.044	0.234	0.279	7.566	10.793	0
2023-09-29 14:48	9845292	8.275	-132.577	308	10.819	353.575	428.764	0.234	0.279	7.812	10.819	0
2023-09-29 15:03	9846192	8.304	-134.101	308.842	10.852	353.783	428.69	0.234	0.279	7.978	10.852	0
2023-09-29 15:18	9847092	8.323	-135.105	308.494	10.88	354.39	429.139	0.234	0.279	8.904	10.88	0.036
2023-09-29 15:33	9847992	8.291	-133.445	308.968	10.924	354.776	429.176	0.234	0.279	8.066	10.924	0.081
2023-09-29 15:48	9848892	8.288	-133.326	310.714	10.939	354.939	429.226	0.234	0.279	8.331	10.939	0
2023-09-29 16:03	9849792	8.300	-133.963	310.06	10.947	355.058	429.283	0.234	0.279	8.225	10.947	0
2023-09-29 16:18	9850692	8.319	-134.931	309.459	10.944	354.925	429.156	0.234	0.279	8.880	10.944	0
2023-09-29 16:33	9851592	8.290	-133.443	310.961	10.982	355.173	429.076	0.234	0.279	7.866	10.982	0
2023-09-29 16:48	9852492	8.270	-132.396	313.446	11.024	355.664	429.259	0.234	0.279	8.177	11.024	0
2023-09-29 17:03	9853392	8.310	-134.537	314.156	11.054	355.944	429.298	0.234	0.279	7.605	11.054	0
2023-09-29 17:18	9854292	8.321	-135.098	312.854	11.085	356.3	429.419	0.234	0.279	8.487	11.085	0
2023-09-29 17:33	9855192	8.293	-133.655	314.552	11.112	356.722	429.666	0.234	0.279	8.079	11.112	0
2023-09-29 17:48	9856092	8.276	-132.749	316.328	11.137	357.024	429.783	0.234	0.279	8.215	11.137	0
2023-09-29 18:03	9856992	8.265	-132.182	318.493	11.15	357.075	429.711	0.234	0.279	7.695	11.15	0
2023-09-29 18:18	9857892	8.269	-132.389	318.176	11.145	356.974	429.644	0.234	0.279	8.674	11.145	0
2023-09-29 18:33	9858792	8.274	-132.682	319.087	11.157	357.018	429.573	0.234	0.279	7.704	11.157	0
2023-09-29 18:48	9859692	8.291	-133.569	319.714	11.163	356.989	429.48	0.234	0.279	8.216	11.163	0
2023-09-29 19:03	9860592	8.276	-132.794	321.173	11.166	356.879	429.32	0.234	0.279	8.453	11.166	0
2023-09-29 19:18	9861492	8.347	-136.511	319.089	11.162	357.046	429.561	0.234	0.279	8.562	11.162	0
2023-09-29 19:33	9862392	8.329	-135.565	319.02	11.162	357.155	429.687	0.234	0.279	8.613	11.162	0
2023-09-29 19:48	9863292	8.335	-135.87	318.886	11.156	357.053	429.628	0.234	0.279	8.384	11.156	0
2023-09-29 20:03	9864192	8.353	-136.838	318.348	11.147	356.974	429.623	0.234	0.279	8.827	11.147	0
2023-09-29 20:18	9865092	8.353	-136.836	315.196	11.125	356.74	429.557	0.234	0.279	9.101	11.125	0
2023-09-29 20:33	9865992	8.366	-137.527	312.275	11.117	356.567	429.427	0.234	0.279	8.923	11.117	0
2023-09-29 20:48	9866892	8.402	-139.387	309.304	11.103	356.399	429.365	0.234	0.279	8.936	11.103	0
2023-09-29 21:03	9867792	8.430	-140.882	307.03	11.091	356.201	429.243	0.234	0.279	8.611	11.091	0
2023-09-29 21:18	9868692	8.464	-142.634	300.416	11.078	356.244	429.426	0.234	0.279	9.297	11.078	0.017
2023-09-29 21:33	9869592	8.414	-140.035	301.985	11.073	356.38	429.638	0.234	0.279	8.703	11.073	0
2023-09-29 21:48	9870492	8.439	-141.327	299.386	11.058	356.119	429.467	0.234	0.279	9.193	11.058	0
2023-09-29 22:03	9871392	8.451	-141.935	295.831	11.038	355.965	429.48	0.234	0.279	9.369	11.038	0
2023-09-29 22:18	9872292	8.466	-142.715	296.346	11.012	355.576	429.272	0.234	0.279	9.653	11.012	0
2023-09-29 22:33	9873192	8.480	-143.435	293.612	10.998	355.412	429.208	0.234	0.279	8.922	10.998	0
2023-09-29 22:48	9874092	8.474	-143.104	295.326	10.979	355.228	429.18	0.234	0.279	8.920	10.979	0
2023-09-29 23:03	9874992	8.487	-143.788	294.139	10.957	355.045	429.174	0.234	0.279	8.926	10.957	0.047
2023-09-29 23:18	9875892	8.502	-144.587	294.737	10.934	355.022	429.372	0.234	0.279	9.481	10.934	0
2023-09-29 23:33	9876792	8.483	-143.59	296.363	10.928	355.055	429.477	0.234	0.279	8.852	10.928	0
2023-09-29 23:48	9877692	8.469	-142.846	296.087	10.912	354.967	429.527	0.234	0.279	8.760	10.912	0.18

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-30 00:03	9878592	8.470	-142.87	295.996	10.896	354.771	429.441	0.234	0.279	8.699	10.896	0
2023-09-30 00:18	9879492	8.481	-143.445	296.647	10.87	354.434	429.291	0.234	0.279	9.535	10.87	0.005
2023-09-30 00:33	9880392	8.489	-143.843	294.708	10.858	354.315	429.267	0.234	0.279	8.795	10.858	0
2023-09-30 00:48	9881292	8.483	-143.511	297.002	10.842	354.108	429.181	0.234	0.279	8.729	10.842	0.022
2023-09-30 01:03	9882192	8.473	-143.02	296.826	10.82	354.012	429.278	0.234	0.279	8.821	10.82	0.007
2023-09-30 01:18	9883092	8.492	-143.971	295.843	10.797	353.908	429.389	0.234	0.279	9.357	10.797	0
2023-09-30 01:33	9883992	8.468	-142.691	293.736	10.789	353.864	429.407	0.234	0.279	8.694	10.789	0
2023-09-30 01:48	9884892	8.466	-142.598	293.831	10.766	353.62	429.341	0.234	0.279	8.914	10.766	0.118
2023-09-30 02:03	9885792	8.458	-142.179	295.96	10.744	353.502	429.418	0.234	0.279	8.799	10.744	0
2023-09-30 02:18	9886692	8.461	-142.305	296.659	10.718	353.111	429.2	0.234	0.279	9.363	10.718	0
2023-09-30 02:33	9887592	8.453	-141.876	296.48	10.703	352.969	429.176	0.234	0.279	8.692	10.703	0
2023-09-30 02:48	9888492	8.453	-141.881	296.921	10.677	352.742	429.165	0.234	0.279	8.683	10.677	0.021
2023-09-30 03:03	9889392	8.454	-141.931	297.19	10.649	352.467	429.11	0.234	0.279	8.796	10.649	0.01
2023-09-30 03:18	9890292	8.461	-142.26	298.623	10.61	352.311	429.304	0.234	0.279	9.103	10.61	0
2023-09-30 03:33	9891192	8.439	-141.103	298.955	10.584	352.179	429.409	0.234	0.279	8.634	10.584	0
2023-09-30 03:48	9892092	8.438	-140.986	299.861	10.54	351.756	429.327	0.234	0.279	8.664	10.54	0
2023-09-30 04:03	9892992	8.442	-141.194	300.535	10.496	351.336	429.255	0.234	0.279	8.571	10.496	0
2023-09-30 04:18	9893892	8.449	-141.525	302.273	10.447	350.723	429	0.234	0.279	9.518	10.447	0
2023-09-30 04:33	9894792	8.432	-140.619	304.014	10.42	350.392	428.869	0.234	0.279	8.450	10.42	0
2023-09-30 04:48	9895692	8.423	-140.15	304.965	10.377	349.959	428.769	0.234	0.279	8.893	10.377	0
2023-09-30 05:03	9896592	8.414	-139.656	304.92	10.334	349.657	428.825	0.234	0.279	8.514	10.334	0
2023-09-30 05:18	9897493	8.417	-139.809	304.336	10.288	349.526	429.129	0.234	0.279	9.010	10.288	0
2023-09-30 05:33	9898393	8.400	-138.855	305.17	10.257	349.278	429.131	0.234	0.279	8.815	10.257	0
2023-09-30 05:48	9899293	8.399	-138.817	305.502	10.213	348.881	429.09	0.234	0.279	8.323	10.213	0
2023-09-30 06:03	9900193	8.389	-138.247	307.752	10.158	348.538	429.222	0.234	0.279	8.581	10.158	0
2023-09-30 06:18	9901093	8.384	-137.925	308.503	10.088	347.748	428.96	0.234	0.279	8.716	10.088	0.02
2023-09-30 06:33	9901993	8.369	-137.143	309.3	10.046	347.22	428.735	0.234	0.279	8.711	10.046	0
2023-09-30 06:48	9902893	8.333	-135.229	314.144	9.98	346.551	428.571	0.234	0.279	8.438	9.98	0.08
2023-09-30 07:03	9903793	8.331	-135.1	313.117	9.919	345.992	428.499	0.234	0.279	8.674	9.919	0.056
2023-09-30 07:18	9904693	8.370	-137.105	311.991	9.863	345.754	428.768	0.234	0.279	8.509	9.863	0
2023-09-30 07:33	9905593	8.345	-135.753	314.614	9.83	345.597	428.915	0.234	0.279	8.744	9.83	0
2023-09-30 07:48	9906493	8.348	-135.939	315.601	9.796	345.32	428.909	0.234	0.279	8.559	9.796	0.035
2023-09-30 08:03	9907393	8.344	-135.691	317.122	9.772	345.187	428.992	0.234	0.279	8.506	9.772	0
2023-09-30 08:18	9908293	8.352	-136.085	316.948	9.748	344.798	428.758	0.234	0.279	8.567	9.748	0.115
2023-09-30 08:33	9909193	8.351	-136.075	317.487	9.744	344.798	428.794	0.234	0.279	8.329	9.744	0.089
2023-09-30 08:48	9910093	8.350	-136.008	317.697	9.738	344.786	428.845	0.234	0.279	8.543	9.738	0.013
2023-09-30 09:03	9910993	8.348	-135.896	318.567	9.735	344.747	428.827	0.234	0.279	8.499	9.735	0.106
2023-09-30 09:18	9911893	8.364	-136.726	317.165	9.739	344.916	428.997	0.234	0.279	8.552	9.739	0.059
2023-09-30 09:33	9912793	8.356	-136.304	317.866	9.749	345.024	429.019	0.234	0.279	8.597	9.749	0.043
2023-09-30 09:48	9913693	8.367	-136.912	317.709	9.758	344.997	428.895	0.234	0.279	8.636	9.758	0.098
2023-09-30 10:03	9914593	8.373	-137.243	317.654	9.775	345.121	428.881	0.234	0.279	8.741	9.775	0.1
2023-09-30 10:18	9915493	8.385	-137.868	315.72	9.788	345.177	428.816	0.234	0.279	8.579	9.788	0.29
2023-09-30 10:33	9916393	8.397	-138.526	314.65	9.819	345.413	428.792	0.234	0.279	8.727	9.819	0.139
2023-09-30 10:48	9917293	8.386	-137.925	315.565	9.864	345.787	428.804	0.234	0.279	8.535	9.864	0.089
2023-09-30 11:03	9918193	8.378	-137.529	316.736	9.905	346.244	428.956	0.234	0.279	8.690	9.905	0.122
2023-09-30 11:18	9919093	8.400	-138.729	316.745	9.95	346.779	429.158	0.234	0.279	8.540	9.95	0
2023-09-30 11:33	9919993	8.370	-137.157	316.917	9.999	347.133	429.103	0.234	0.279	8.536	9.999	0.044
2023-09-30 11:48	9920893	8.367	-137.05	317.926	10.037	347.529	429.2	0.234	0.279	8.625	10.037	0.199
2023-09-30 12:03	9921793	8.366	-136.971	318.09	10.071	347.892	429.312	0.234	0.279	8.572	10.071	0.136
2023-09-30 12:18	9922693	8.367	-137.033	317.291	10.081	348.002	429.346	0.234	0.279	8.749	10.081	0.059
2023-09-30 12:33	9923593	8.410	-139.32	316.824	10.124	348.281	429.249	0.234	0.279	8.474	10.124	0.054
2023-09-30 12:48	9924493	8.384	-137.973	317.649	10.161	348.594	429.267	0.234	0.279	8.490	10.161	0.054
2023-09-30 13:03	9925393	8.377	-137.644	318.727	10.196	348.934	429.332	0.234	0.279	8.458	10.196	0.047
2023-09-30 13:18	9926293	8.401	-138.917	318.608	10.232	349.288	429.398	0.234	0.279	8.664	10.232	0.073
2023-09-30 13:33	9927193	8.372	-137.393	318.705	10.273	349.603	429.371	0.234	0.279	8.649	10.273	0.099
2023-09-30 13:48	9928093	8.366	-137.086	319.199	10.298	349.872	429.452	0.234	0.279	8.325	10.298	0.103

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-09-30 14:03	9928993	8.379	-137.806	319.397	10.319	350.02	429.423	0.234	0.279	8.324	10.319	0.037
2023-09-30 14:18	9929893	8.370	-137.353	320.002	10.326	350.095	429.448	0.234	0.279	8.908	10.326	0.022
2023-09-30 14:33	9930793	8.408	-139.344	318.104	10.343	350.039	429.21	0.234	0.279	8.555	10.343	0.023
2023-09-30 14:48	9931693	8.416	-139.754	319.258	10.354	350.01	429.063	0.234	0.279	8.412	10.354	0.109
2023-09-30 15:03	9932593	8.406	-139.246	316.195	10.37	350.006	428.891	0.234	0.279	9.068	10.37	0.064
2023-09-30 15:18	9933493	8.451	-141.618	314.321	10.385	350.268	429.061	0.234	0.279	9.371	10.385	0.039
2023-09-30 15:33	9934393	8.434	-140.736	315.68	10.408	350.575	429.208	0.234	0.279	9.180	10.408	0.013
2023-09-30 15:48	9935293	8.421	-140.085	317.721	10.423	350.721	429.237	0.234	0.279	9.402	10.423	0
2023-09-30 16:03	9936193	8.427	-140.378	318.057	10.45	351.044	429.36	0.234	0.279	9.110	10.45	0
2023-09-30 16:18	9937093	8.420	-140.009	317.74	10.463	351.014	429.197	0.234	0.279	9.146	10.463	0
2023-09-30 16:33	9937993	8.419	-139.973	318.538	10.503	351.269	429.109	0.234	0.279	8.504	10.503	0
2023-09-30 16:48	9938893	8.474	-142.901	317.485	10.54	351.391	428.887	0.234	0.279	8.640	10.54	0
2023-09-30 17:03	9939793	8.490	-143.774	316.822	10.563	351.52	428.812	0.234	0.279	8.905	10.563	0
2023-09-30 17:18	9940693	8.514	-145.035	313.994	10.578	351.985	429.224	0.234	0.279	9.708	10.578	0.157
2023-09-30 17:33	9941593	8.479	-143.197	314.638	10.608	352.379	429.406	0.234	0.279	9.062	10.608	0.981
2023-09-30 17:48	9942493	8.483	-143.418	314.8	10.628	352.693	429.596	0.234	0.279	9.024	10.628	0
2023-09-30 18:03	9943393	8.480	-143.294	315.854	10.635	352.771	429.616	0.234	0.279	8.881	10.635	0
2023-09-30 18:18	9944293	8.458	-142.083	315.904	10.623	352.53	429.44	0.234	0.279	9.494	10.623	0.036
2023-09-30 18:33	9945193	8.470	-142.744	313.315	10.618	352.445	429.396	0.234	0.279	8.757	10.618	0.049
2023-09-30 18:48	9946093	8.478	-143.147	314.123	10.601	352.597	429.749	0.234	0.279	9.059	10.601	0.051
2023-09-30 19:03	9946993	8.492	-143.881	314.368	10.58	351.913	429.126	0.234	0.279	9.538	10.58	0
2023-09-30 19:18	9947893	8.512	-144.928	314.097	10.561	351.898	429.294	0.234	0.279	9.806	10.561	0.04
2023-09-30 19:33	9948793	8.485	-143.485	314.869	10.55	351.865	429.363	0.234	0.279	8.882	10.55	0
2023-09-30 19:48	9949693	8.491	-143.795	312.485	10.524	351.668	429.378	0.234	0.279	8.943	10.524	0.114
2023-09-30 20:03	9950593	8.500	-144.258	311.164	10.498	351.473	429.405	0.234	0.279	9.633	10.498	0.088
2023-09-30 20:18	9951493	8.492	-143.809	311.119	10.444	350.92	429.272	0.234	0.279	9.682	10.444	0.054
2023-09-30 20:33	9952393	8.503	-144.353	310.418	10.401	350.168	428.785	0.234	0.279	9.575	10.401	0
2023-09-30 20:48	9953293	8.516	-145.006	307.299	10.353	349.705	428.696	0.234	0.279	9.646	10.353	0.26
2023-09-30 21:03	9954193	8.528	-145.617	306.007	10.299	349.173	428.589	0.234	0.279	9.657	10.299	0.092
2023-09-30 21:18	9955093	8.548	-146.673	306.06	10.257	349.061	428.874	0.234	0.279	9.864	10.257	0.021
2023-09-30 21:33	9955993	8.529	-145.626	305.731	10.229	348.93	428.988	0.234	0.279	9.696	10.229	0.108
2023-09-30 21:48	9956893	8.529	-145.631	305.475	10.199	348.624	428.922	0.234	0.279	9.707	10.199	0.072
2023-09-30 22:03	9957793	8.541	-146.229	306.71	10.168	348.316	428.852	0.234	0.279	9.769	10.168	0.116
2023-09-30 22:18	9958693	8.547	-146.532	305.855	10.123	347.753	428.61	0.234	0.279	9.679	10.123	0.065
2023-09-30 22:33	9959593	8.521	-145.109	305.661	10.057	347.016	428.367	0.234	0.278	9.699	10.057	0.07
2023-09-30 22:48	9960493	8.533	-145.71	304.522	9.996	346.506	428.355	0.234	0.278	9.750	9.996	0.013
2023-09-30 23:03	9961393	8.528	-145.454	305.645	9.954	346.129	428.31	0.234	0.278	9.555	9.954	0.039
2023-09-30 23:18	9962293	8.537	-145.905	305.831	9.909	346.137	428.784	0.234	0.279	9.555	9.909	0.101
2023-09-30 23:33	9963193	8.509	-144.393	307.395	9.882	345.888	428.746	0.234	0.279	9.336	9.882	0.012
2023-09-30 23:48	9964093	8.497	-143.762	308.894	9.842	345.585	428.78	0.234	0.279	9.399	9.842	0.11
2023-10-01 00:03	9964993	8.484	-143.051	310.497	9.788	345.13	428.761	0.234	0.279	9.341	9.788	0.092
2023-10-01 00:18	9965893	8.484	-143.011	310.761	9.722	344.381	428.498	0.234	0.279	9.247	9.722	0.122
2023-10-01 00:33	9966793	8.470	-142.231	311.701	9.668	343.736	428.25	0.234	0.278	9.191	9.668	0.05
2023-10-01 00:48	9967693	8.463	-141.871	312.578	9.614	343.264	428.209	0.234	0.278	9.289	9.614	0.103
2023-10-01 01:03	9968593	8.458	-141.587	314.042	9.576	342.995	428.259	0.234	0.278	9.155	9.576	0.136
2023-10-01 01:18	9969493	8.464	-141.871	313.997	9.522	342.691	428.432	0.234	0.278	9.208	9.522	0.082
2023-10-01 01:33	9970393	8.444	-140.796	314.845	9.5	342.567	428.509	0.234	0.279	9.228	9.5	0.137
2023-10-01 01:48	9971293	8.438	-140.474	315.799	9.474	342.376	428.527	0.234	0.279	9.263	9.474	0.079
2023-10-01 02:03	9972193	8.426	-139.828	317.241	9.444	342.12	428.52	0.234	0.279	9.112	9.444	0.149
2023-10-01 02:18	9973093	8.432	-140.135	317.115	9.393	341.528	428.295	0.234	0.278	8.899	9.393	0.18
2023-10-01 02:33	9973993	8.412	-139.055	317.511	9.363	341.145	428.126	0.234	0.278	9.135	9.363	0.127
2023-10-01 02:48	9974893	8.414	-139.143	317.785	9.335	340.902	428.108	0.234	0.278	9.079	9.335	0.115
2023-10-01 03:03	9975793	8.410	-138.936	319.142	9.306	340.694	428.142	0.234	0.278	9.066	9.306	0.121
2023-10-01 03:18	9976693	8.427	-139.806	318.147	9.287	340.754	428.413	0.234	0.278	8.911	9.287	0.243
2023-10-01 03:33	9977593	8.414	-139.103	316.991	9.277	340.583	428.301	0.234	0.278	8.927	9.277	0.382
2023-10-01 03:48	9978493	8.424	-139.637	317.105	9.279	340.632	428.347	0.234	0.278	8.980	9.279	0.181

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-01 04:03	9979393	8.419	-139.406	318.81	9.274	340.571	428.319	0.234	0.278	9.057	9.274	0.263
2023-10-01 04:18	9980293	8.416	-139.234	318.341	9.258	340.328	428.182	0.234	0.278	8.891	9.258	0.222
2023-10-01 04:33	9981193	8.399	-138.326	320.653	9.236	340.155	428.184	0.234	0.278	8.976	9.236	0.271
2023-10-01 04:48	9982093	8.395	-138.104	321.316	9.216	339.926	428.107	0.234	0.278	8.802	9.216	0.199
2023-10-01 05:03	9982993	8.390	-137.846	322.301	9.198	339.813	428.145	0.234	0.278	8.959	9.198	0.152
2023-10-01 05:18	9983893	8.403	-138.488	323.044	9.174	339.698	428.249	0.234	0.278	8.923	9.174	0.283
2023-10-01 05:33	9984793	8.391	-137.868	321.941	9.157	339.57	428.266	0.234	0.278	8.886	9.157	0.195
2023-10-01 05:48	9985693	8.387	-137.663	322.434	9.131	339.352	428.254	0.234	0.278	8.897	9.131	0.095
2023-10-01 06:03	9986593	8.384	-137.498	322.329	9.105	339.125	428.236	0.234	0.278	8.782	9.105	0.187
2023-10-01 06:18	9987493	8.392	-137.87	322.818	9.064	338.63	428.041	0.234	0.278	8.674	9.064	0.169
2023-10-01 06:33	9988393	8.379	-137.188	322.975	9.037	338.395	428.018	0.234	0.278	8.866	9.037	0.273
2023-10-01 06:48	9989293	8.375	-136.936	323.724	9.007	338.154	428.027	0.234	0.278	8.680	9.007	0.252
2023-10-01 07:03	9990193	8.356	-135.93	324.504	8.975	337.832	427.948	0.234	0.278	8.663	8.975	0.305
2023-10-01 07:18	9991093	8.370	-136.642	324.277	8.947	337.877	428.293	0.234	0.278	8.423	8.947	0.188
2023-10-01 07:33	9991993	8.354	-135.822	324.752	8.933	337.795	428.332	0.234	0.278	8.509	8.933	0.294
2023-10-01 07:48	9992893	8.347	-135.443	325.937	8.91	337.53	428.242	0.234	0.278	8.456	8.91	0.256
2023-10-01 08:03	9993793	8.353	-135.739	325.734	8.873	337.27	428.293	0.234	0.278	8.616	8.873	0.194
2023-10-01 08:18	9994693	8.369	-136.54	324.232	8.853	336.973	428.124	0.234	0.278	8.631	8.853	0.224
2023-10-01 08:33	9995593	8.359	-136.056	325.519	8.851	336.965	428.131	0.234	0.278	8.569	8.851	0.111
2023-10-01 08:48	9996493	8.359	-136.056	325.507	8.84	336.924	428.193	0.234	0.278	8.563	8.84	0.151
2023-10-01 09:03	9997393	8.357	-135.946	326.714	8.856	336.943	428.058	0.234	0.278	8.626	8.856	0.201
2023-10-01 09:18	9998294	8.368	-136.516	326.564	8.857	336.991	428.109	0.234	0.278	8.584	8.857	0.378
2023-10-01 09:33	9999194	8.360	-136.089	324.909	8.843	336.962	428.214	0.234	0.278	8.528	8.843	0.237
2023-10-01 09:48	10000094	8.370	-136.592	323.25	8.841	336.813	428.046	0.234	0.278	8.781	8.841	0.285
2023-10-01 10:03	10000994	8.378	-137.036	321.91	8.822	336.566	427.929	0.234	0.278	8.673	8.822	0.353
2023-10-01 10:18	10001894	8.394	-137.83	317.172	8.817	336.379	427.742	0.234	0.278	8.855	8.817	0.347
2023-10-01 10:33	10002794	8.392	-137.763	316.991	8.824	336.437	427.74	0.234	0.278	8.749	8.824	0.248
2023-10-01 10:48	10003694	8.391	-137.689	318.374	8.838	336.573	427.776	0.234	0.278	8.736	8.838	0.125
2023-10-01 11:03	10004594	8.394	-137.885	319.535	8.845	336.722	427.883	0.234	0.278	8.790	8.845	0.108
2023-10-01 11:18	10005494	8.391	-137.708	317.358	8.863	336.978	428.026	0.234	0.278	8.659	8.863	0.274
2023-10-01 11:33	10006394	8.387	-137.496	315.63	8.877	337.11	428.052	0.234	0.278	8.775	8.877	0.186
2023-10-01 11:48	10007294	8.392	-137.799	315.325	8.883	337.263	428.186	0.234	0.278	8.715	8.883	0.163
2023-10-01 12:03	10008194	8.388	-137.579	314.194	8.911	337.467	428.153	0.234	0.278	8.813	8.911	0.118
2023-10-01 12:18	10009094	8.391	-137.768	313.234	8.924	337.469	428.018	0.234	0.278	8.711	8.924	0.043
2023-10-01 12:33	10009994	8.394	-137.93	313.66	8.966	337.728	427.905	0.234	0.278	8.792	8.966	0.08
2023-10-01 12:48	10010894	8.381	-137.241	315.782	9.005	338.07	427.936	0.234	0.278	8.715	9.005	0.079
2023-10-01 13:03	10011794	8.379	-137.196	317.408	9.056	338.525	427.987	0.234	0.278	8.653	9.056	0.058
2023-10-01 13:18	10012694	8.397	-138.175	316.881	9.132	339.348	428.241	0.234	0.278	8.735	9.132	0
2023-10-01 13:33	10013594	8.381	-137.382	318.357	9.22	339.977	428.129	0.234	0.278	8.695	9.22	0.046
2023-10-01 13:48	10014494	8.388	-137.792	318.472	9.293	340.641	428.213	0.234	0.278	9.046	9.293	0
2023-10-01 14:03	10015394	8.401	-138.466	316.569	9.364	340.962	427.886	0.234	0.278	9.139	9.364	0.022
2023-10-01 14:18	10016294	8.424	-139.728	314.366	9.415	341.339	427.834	0.234	0.278	9.405	9.415	0.059
2023-10-01 14:33	10017194	8.494	-143.442	309.211	9.495	341.913	427.738	0.234	0.278	9.132	9.495	0.101
2023-10-01 14:48	10018094	8.501	-143.831	308.997	9.557	342.44	427.765	0.234	0.278	9.418	9.557	0.055
2023-10-01 15:03	10018994	8.574	-147.669	304.753	9.636	343.026	427.691	0.234	0.278	9.730	9.636	0.107
2023-10-01 15:18	10019894	8.573	-147.691	301.398	9.761	343.67	427.217	0.233	0.278	9.955	9.761	0
2023-10-01 15:33	10020794	8.521	-145.023	302.076	9.894	345.591	428.256	0.234	0.278	9.997	9.894	0
2023-10-01 15:48	10021694	8.478	-142.856	304.448	9.975	346.275	428.279	0.234	0.278	9.828	9.975	0
2023-10-01 16:03	10022594	8.459	-141.878	308.036	10.037	347.102	428.678	0.234	0.279	9.750	10.037	0
2023-10-01 16:18	10023494	8.464	-142.155	309.97	10.061	347.237	428.605	0.234	0.279	9.811	10.061	0
2023-10-01 16:33	10024394	8.469	-142.4	305.514	10.076	347.244	428.453	0.234	0.278	9.666	10.076	0
2023-10-01 16:48	10025294	8.483	-143.144	303.454	10.055	347.106	428.499	0.234	0.279	9.584	10.055	0.006
2023-10-01 17:03	10026194	8.484	-143.158	302.614	10.025	346.908	428.558	0.234	0.279	9.638	10.025	0.033
2023-10-01 17:18	10027094	8.482	-143.049	302.188	9.997	347.144	429.128	0.234	0.279	9.620	9.997	0.045
2023-10-01 17:33	10027994	8.462	-142.007	303.711	9.992	347.158	429.204	0.234	0.279	9.419	9.992	0
2023-10-01 17:48	10028894	8.447	-141.203	306.515	9.973	347.066	429.279	0.234	0.279	9.391	9.973	0.057

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-01 18:03	10029794	8.429	-140.235	308.978	9.951	346.987	429.401	0.234	0.279	9.221	9.951	0.034
2023-10-01 18:18	10030694	8.416	-139.554	311.114	9.93	346.79	429.377	0.234	0.279	9.174	9.93	0.049
2023-10-01 18:33	10031594	8.408	-139.117	312.075	9.928	346.742	429.339	0.234	0.279	8.981	9.928	0.024
2023-10-01 18:48	10032494	8.404	-138.912	314.016	9.922	346.738	429.391	0.234	0.279	8.987	9.922	0.114
2023-10-01 19:03	10033394	8.399	-138.65	315.675	9.917	346.722	429.422	0.234	0.279	9.002	9.917	0.116
2023-10-01 19:18	10034294	8.405	-138.979	316.114	9.914	346.779	429.526	0.235	0.279	9.047	9.914	0.091
2023-10-01 19:33	10035194	8.392	-138.307	317.737	9.915	346.824	429.571	0.235	0.279	8.814	9.915	10.955
2023-10-01 19:48	10036094	8.385	-137.932	319.874	9.916	346.816	429.548	0.235	0.279	8.930	9.916	0.053
2023-10-01 20:03	10036994	8.390	-138.164	320.942	9.919	346.781	429.477	0.235	0.279	9.007	9.919	0.029
2023-10-01 20:18	10037894	8.390	-138.206	320.648	9.926	346.835	429.472	0.235	0.279	8.942	9.926	0.062
2023-10-01 20:33	10038794	8.353	-136.242	321.423	9.941	347.089	429.633	0.235	0.279	8.891	9.941	0
2023-10-01 20:48	10039694	8.367	-137.002	321.945	9.955	347.263	429.702	0.235	0.279	8.806	9.955	0
2023-10-01 21:03	10040594	8.417	-139.627	322.131	9.972	347.401	429.707	0.235	0.279	8.790	9.972	0
2023-10-01 21:18	10041494	8.444	-141.06	319.878	9.985	347.436	429.617	0.235	0.279	8.716	9.985	0
2023-10-01 21:33	10042394	8.420	-139.804	319.025	9.99	347.444	429.58	0.235	0.279	8.924	9.99	0
2023-10-01 21:48	10043294	8.418	-139.675	319.583	9.992	347.407	429.511	0.235	0.279	9.002	9.992	0
2023-10-01 22:03	10044194	8.428	-140.207	319.082	9.991	347.432	429.552	0.235	0.279	9.056	9.991	0
2023-10-01 22:18	10045094	8.421	-139.84	318.722	9.99	347.39	429.506	0.235	0.279	9.194	9.99	0
2023-10-01 22:33	10045994	8.423	-139.954	319.268	9.988	347.422	429.569	0.235	0.279	8.993	9.988	0
2023-10-01 22:48	10046894	8.412	-139.387	318.391	9.982	347.417	429.618	0.235	0.279	8.832	9.982	0
2023-10-01 23:03	10047794	8.412	-139.356	318.407	9.977	347.281	429.505	0.235	0.279	8.878	9.977	0
2023-10-01 23:18	10048694	8.427	-140.154	318.615	9.97	347.371	429.689	0.235	0.279	9.224	9.97	0
2023-10-01 23:33	10049594	8.416	-139.556	319.039	9.967	347.569	429.958	0.235	0.279	9.051	9.967	0
2023-10-01 23:48	10050494	8.410	-139.246	319.189	9.961	347.561	430.008	0.235	0.280	8.862	9.961	0
2023-10-02 00:03	10051394	8.400	-138.731	319.666	9.95	347.391	429.911	0.235	0.279	9.265	9.95	0
2023-10-02 00:18	10052294	8.428	-140.176	315.87	9.941	346.972	429.491	0.235	0.279	9.032	9.941	0
2023-10-02 00:33	10053194	8.414	-139.449	316.157	9.937	346.997	429.557	0.235	0.279	8.953	9.937	0
2023-10-02 00:48	10054094	8.405	-138.974	316.714	9.931	346.95	429.562	0.235	0.279	8.788	9.931	0.001
2023-10-02 01:03	10054994	8.404	-138.912	317.058	9.925	346.862	429.517	0.235	0.279	8.874	9.925	0
2023-10-02 01:18	10055894	8.417	-139.613	318.507	9.916	346.832	429.564	0.235	0.279	8.849	9.916	0
2023-10-02 01:33	10056794	8.405	-138.974	317.642	9.913	346.871	429.65	0.235	0.279	8.950	9.913	0
2023-10-02 01:48	10057694	8.407	-139.055	316.006	9.909	346.734	429.522	0.235	0.279	8.876	9.909	0
2023-10-02 02:03	10058594	8.404	-138.898	316.197	9.901	346.616	429.456	0.235	0.279	8.824	9.901	0
2023-10-02 02:18	10059494	8.403	-138.834	315.437	9.887	346.299	429.206	0.234	0.279	8.947	9.887	0
2023-10-02 02:33	10060394	8.394	-138.369	314.197	9.88	346.351	429.335	0.234	0.279	8.765	9.88	0
2023-10-02 02:48	10061294	8.387	-137.985	307.54	9.868	346.243	429.331	0.234	0.279	8.692	9.868	0
2023-10-02 03:03	10062194	8.380	-137.644	304.727	9.861	346.204	429.354	0.234	0.279	8.624	9.861	0
2023-10-02 03:18	10063094	8.391	-138.226	305.697	9.854	346.282	429.513	0.235	0.279	8.591	9.854	0
2023-10-02 03:33	10063994	8.368	-137.01	309.908	9.851	346.376	429.669	0.235	0.279	8.556	9.851	0
2023-10-02 03:48	10064894	8.360	-136.573	313.381	9.844	346.459	429.842	0.235	0.279	8.452	9.844	0
2023-10-02 04:03	10065794	8.347	-135.86	316.619	9.828	346.476	430.02	0.235	0.280	8.322	9.828	0
2023-10-02 04:18	10066694	8.350	-136.008	318.193	9.8	346.199	429.966	0.235	0.279	8.336	9.8	0.194
2023-10-02 04:33	10067594	8.340	-135.52	320.048	9.795	346.256	430.082	0.235	0.280	8.388	9.795	0
2023-10-02 04:48	10068494	8.335	-135.231	321.821	9.775	345.911	429.857	0.235	0.279	8.241	9.775	0
2023-10-02 05:03	10069394	8.334	-135.155	322.961	9.748	345.524	429.656	0.235	0.279	8.360	9.748	0
2023-10-02 05:18	10070294	8.352	-136.096	321.323	9.717	345.211	429.584	0.235	0.279	8.472	9.717	0
2023-10-02 05:33	10071194	8.335	-135.2	321.049	9.703	345.159	429.662	0.235	0.279	8.385	9.703	0
2023-10-02 05:48	10072094	8.328	-134.823	320.036	9.681	344.993	429.681	0.235	0.279	8.208	9.681	0
2023-10-02 06:03	10072994	8.329	-134.878	320.176	9.652	344.636	429.534	0.235	0.279	8.395	9.652	0
2023-10-02 06:18	10073894	8.332	-135.016	319.833	9.608	343.99	429.177	0.234	0.279	8.284	9.608	0
2023-10-02 06:33	10074794	8.324	-134.542	319.962	9.582	343.572	428.921	0.234	0.279	8.180	9.582	0
2023-10-02 06:48	10075694	8.321	-134.394	321.287	9.548	343.138	428.727	0.234	0.279	8.417	9.548	0
2023-10-02 07:03	10076594	8.322	-134.437	321.633	9.515	342.923	428.79	0.234	0.279	8.334	9.515	0
2023-10-02 07:18	10077494	8.323	-134.435	321.805	9.472	342.795	429.073	0.234	0.279	8.307	9.472	0.045
2023-10-02 07:33	10078394	8.311	-133.843	323.121	9.456	342.748	429.185	0.234	0.279	8.110	9.456	0.007
2023-10-02 07:48	10079294	8.301	-133.259	323.371	9.414	342.378	429.152	0.234	0.279	8.032	9.414	0

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-02 08:03	10080194	8.303	-133.348	323.457	9.37	341.92	429.029	0.234	0.279	8.065	9.37	0
2023-10-02 08:18	10081094	8.307	-133.524	323.676	9.281	340.902	428.661	0.234	0.279	8.145	9.281	0.014
2023-10-02 08:33	10081994	8.298	-133.066	324.203	9.254	340.53	428.471	0.234	0.279	8.040	9.254	0
2023-10-02 08:48	10082894	8.284	-132.303	323.691	9.203	340.071	428.421	0.234	0.278	8.096	9.203	0
2023-10-02 09:03	10083794	8.284	-132.272	323.798	9.16	339.59	428.263	0.234	0.278	8.123	9.16	0
2023-10-02 09:18	10084694	8.305	-133.319	323.574	9.12	339.612	428.695	0.234	0.279	8.163	9.12	0
2023-10-02 09:33	10085594	8.301	-133.107	324.191	9.112	339.558	428.71	0.234	0.279	8.348	9.112	0
2023-10-02 09:48	10086494	8.301	-133.109	325.672	9.095	339.416	428.715	0.234	0.279	8.157	9.095	0
2023-10-02 10:03	10087394	8.302	-133.169	327.062	9.088	339.345	428.696	0.234	0.279	8.122	9.088	0
2023-10-02 10:18	10088294	8.311	-133.61	326.32	9.071	339.055	428.501	0.234	0.279	8.120	9.071	0
2023-10-02 10:33	10089194	8.307	-133.46	326.308	9.086	339.155	428.473	0.234	0.279	8.179	9.086	0
2023-10-02 10:48	10090094	8.312	-133.703	327.405	9.111	339.355	428.463	0.234	0.279	8.221	9.111	0
2023-10-02 11:03	10090994	8.338	-135.059	327.915	9.148	339.634	428.442	0.234	0.278	8.365	9.148	0
2023-10-02 11:18	10091894	8.360	-136.275	326.68	9.194	340.091	428.539	0.234	0.279	8.298	9.194	0
2023-10-02 11:33	10092794	8.335	-134.971	326.266	9.254	340.728	428.718	0.234	0.279	8.524	9.254	0
2023-10-02 11:48	10093694	8.331	-134.783	326.564	9.3	341.296	428.964	0.234	0.279	8.553	9.3	0
2023-10-02 12:03	10094594	8.329	-134.685	327.388	9.335	341.452	428.795	0.234	0.279	8.409	9.335	0
2023-10-02 12:18	10095494	8.329	-134.711	328.099	9.364	341.623	428.713	0.234	0.279	8.334	9.364	0
2023-10-02 12:33	10096394	8.355	-136.108	328.411	9.414	341.934	428.591	0.234	0.279	8.566	9.414	0.006
2023-10-02 12:48	10097294	8.418	-139.41	320.708	9.465	342.13	428.319	0.234	0.278	8.741	9.465	0.049
2023-10-02 13:03	10098194	8.456	-141.442	309.681	9.529	342.693	428.36	0.234	0.278	8.994	9.529	0.041
2023-10-02 13:18	10099094	8.475	-142.505	304.167	9.619	343.455	428.395	0.234	0.278	9.258	9.619	0
2023-10-02 13:33	10099994	8.457	-141.582	301.129	9.676	344.042	428.544	0.234	0.279	9.351	9.676	0
2023-10-02 13:48	10100894	8.442	-140.812	299.265	9.682	344.105	428.559	0.234	0.279	9.195	9.682	0.057
2023-10-02 14:03	10101794	8.439	-140.672	298.34	9.699	344.224	428.54	0.234	0.279	9.097	9.699	0.008
2023-10-02 14:18	10102694	8.436	-140.51	299.293	9.695	344.217	428.568	0.234	0.279	9.157	9.695	0.046
2023-10-02 14:33	10103594	8.435	-140.426	298.621	9.714	344.263	428.436	0.234	0.278	9.053	9.714	0.053
2023-10-02 14:48	10104494	8.437	-140.555	297.96	9.732	344.452	428.484	0.234	0.279	9.159	9.732	0.086
2023-10-02 15:03	10105394	8.435	-140.443	299.799	9.738	344.502	428.486	0.234	0.279	9.055	9.738	0.18
2023-10-02 15:18	10106295	8.437	-140.576	300.686	9.749	344.843	428.796	0.234	0.279	9.298	9.749	0.175
2023-10-02 15:33	10107195	8.440	-140.722	301.313	9.791	345.234	428.857	0.234	0.279	9.090	9.791	0.035
2023-10-02 15:48	10108095	8.449	-141.261	302.452	9.828	345.575	428.909	0.234	0.279	9.022	9.828	0.075
2023-10-02 16:03	10108995	8.440	-140.762	304.2	9.848	345.742	428.907	0.234	0.279	9.125	9.848	0.008
2023-10-02 16:18	10109895	8.443	-140.927	305.9	9.801	345.292	428.827	0.234	0.279	9.345	9.801	0.146
2023-10-02 16:33	10110795	8.450	-141.27	306.062	9.774	344.815	428.51	0.234	0.279	9.226	9.774	0.156
2023-10-02 16:48	10111695	8.450	-141.242	306.66	9.758	344.772	428.623	0.234	0.279	9.247	9.758	0.122
2023-10-02 17:03	10112595	8.452	-141.356	307.519	9.765	344.872	428.672	0.234	0.279	9.424	9.765	0.128
2023-10-02 17:18	10113495	8.471	-142.365	308.234	9.784	345.171	428.85	0.234	0.279	9.294	9.784	0.413
2023-10-02 17:33	10114395	8.469	-142.276	308.277	9.805	345.452	428.981	0.234	0.279	9.407	9.805	0.062
2023-10-02 17:48	10115295	8.469	-142.262	308.549	9.832	345.775	429.111	0.234	0.279	9.469	9.832	0.101
2023-10-02 18:03	10116195	8.468	-142.221	308.573	9.855	345.993	429.153	0.234	0.279	9.463	9.855	0.282
2023-10-02 18:18	10117095	8.462	-141.928	308.122	9.868	346.022	429.049	0.234	0.279	9.314	9.868	0.11
2023-10-02 18:33	10117995	8.463	-141.99	307.402	9.877	346.061	429.014	0.234	0.279	9.331	9.877	0.152
2023-10-02 18:48	10118895	8.452	-141.411	308.468	9.875	346.094	429.067	0.234	0.279	9.217	9.875	0.097
2023-10-02 19:03	10119795	8.434	-140.488	310.363	9.874	346.158	429.165	0.234	0.279	9.243	9.874	0.184
2023-10-02 19:18	10120695	8.437	-140.648	310.351	9.872	346.275	429.323	0.234	0.279	9.222	9.872	0.31
2023-10-02 19:33	10121595	8.417	-139.592	313.346	9.876	346.347	429.379	0.234	0.279	9.018	9.876	0.598
2023-10-02 19:48	10122495	8.400	-138.71	316.538	9.873	345.94	428.903	0.234	0.279	8.892	9.873	0.118
2023-10-02 20:03	10123395	8.385	-137.889	319.461	9.87	346.239	429.298	0.234	0.279	8.741	9.87	0.088
2023-10-02 20:18	10124295	8.362	-136.7	320.82	9.868	345.655	428.602	0.234	0.279	8.710	9.868	0.182
2023-10-02 20:33	10125195	8.358	-136.459	320.992	9.863	346.617	429.84	0.235	0.279	8.510	9.863	0.024
2023-10-02 20:48	10126095	8.354	-136.28	324.28	9.855	344.963	427.87	0.234	0.278	8.532	9.855	0.277
2023-10-02 21:03	10126995	8.349	-136.003	325.059	9.844	346.251	429.584	0.235	0.279	8.465	9.844	0.123
2023-10-02 21:18	10127895	8.368	-136.976	323.884	9.83	344.884	428.028	0.234	0.278	8.433	9.83	0.153
2023-10-02 21:33	10128795	8.347	-135.889	325.467	9.818	345.995	429.523	0.235	0.279	8.406	9.818	0.134
2023-10-02 21:48	10129695	8.369	-137.012	324.816	9.806	345.924	429.562	0.235	0.279	8.752	9.806	0.139

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-02 22:03	10130595	8.361	-136.58	326.32	9.793	345.846	429.6	0.235	0.279	8.794	9.793	0.216
2023-10-02 22:18	10131495	8.371	-137.115	326.06	9.776	345.549	429.397	0.235	0.279	8.838	9.776	0.173
2023-10-02 22:33	10132395	8.367	-136.902	325.906	9.77	345.422	429.305	0.234	0.279	8.687	9.77	0.099
2023-10-02 22:48	10133295	8.371	-137.105	327.641	9.749	345.157	429.189	0.234	0.279	8.767	9.749	0.063
2023-10-02 23:03	10134195	8.367	-136.871	326.177	9.717	344.939	429.245	0.234	0.279	8.737	9.717	0.188
2023-10-02 23:18	10135095	8.373	-137.193	326.258	9.678	344.914	429.608	0.235	0.279	8.772	9.678	0.089
2023-10-02 23:33	10135995	8.355	-136.24	325.991	9.663	344.777	429.599	0.235	0.279	8.759	9.663	0.013
2023-10-02 23:48	10136895	8.350	-135.934	327.267	9.632	344.528	429.599	0.235	0.279	8.620	9.632	0.019
2023-10-03 00:03	10137795	8.346	-135.732	327.725	9.596	344.214	429.581	0.235	0.279	8.596	9.596	0
2023-10-03 00:18	10138695	8.349	-135.868	327.872	9.549	343.733	429.462	0.235	0.279	8.620	9.549	0.087
2023-10-03 00:33	10139595	8.340	-135.365	328.802	9.523	343.477	429.401	0.235	0.279	8.529	9.523	0.079
2023-10-03 00:48	10140495	8.331	-134.878	329.83	9.484	343.2	429.462	0.235	0.279	8.502	9.484	0.1
2023-10-03 01:03	10141395	8.325	-134.544	330.912	9.452	342.902	429.419	0.235	0.279	8.307	9.452	0.085
2023-10-03 01:18	10142295	8.330	-134.776	330.071	9.41	342.886	429.829	0.235	0.279	8.374	9.41	0
2023-10-03 01:33	10143195	8.317	-134.101	331.492	9.398	342.855	429.907	0.235	0.279	8.230	9.398	0.025
2023-10-03 01:48	10144095	8.307	-133.588	332.903	9.364	342.566	429.897	0.235	0.279	8.203	9.364	0.05
2023-10-03 02:03	10144995	8.301	-133.231	333.606	9.33	342.31	429.924	0.235	0.279	8.243	9.33	0.007
2023-10-03 02:18	10145895	8.312	-133.81	332.917	9.274	341.48	429.461	0.235	0.279	8.240	9.274	0.053
2023-10-03 02:33	10146795	8.325	-134.449	332.197	9.239	340.947	429.149	0.235	0.279	8.238	9.239	0.129
2023-10-03 02:48	10147695	8.308	-133.512	332.913	9.188	340.497	429.116	0.234	0.279	8.333	9.188	0.088
2023-10-03 03:03	10148595	8.307	-133.474	333.399	9.153	340.142	429.022	0.234	0.279	8.237	9.153	0.106
2023-10-03 03:18	10149495	8.319	-134.07	331.809	9.114	340.084	429.357	0.235	0.279	8.148	9.114	0.059
2023-10-03 03:33	10150395	8.306	-133.386	331.58	9.088	339.936	429.442	0.235	0.279	8.294	9.088	0.035
2023-10-03 03:48	10151295	8.301	-133.102	332.04	9.043	339.512	429.367	0.235	0.279	8.310	9.043	0.028
2023-10-03 04:03	10152195	8.305	-133.266	331.167	9.002	339.05	429.216	0.235	0.279	8.143	9.002	0.103
2023-10-03 04:18	10153095	8.319	-134.015	330.91	8.946	338.471	429.061	0.235	0.279	8.137	8.946	0.131
2023-10-03 04:33	10153995	8.313	-133.662	332.875	8.931	338.242	428.923	0.234	0.279	8.290	8.931	0.123
2023-10-03 04:48	10154895	8.307	-133.352	333.506	8.908	338.017	428.876	0.234	0.279	8.168	8.908	0.127
2023-10-03 05:03	10155795	8.315	-133.758	333.945	8.884	337.832	428.894	0.234	0.279	8.228	8.884	0.137
2023-10-03 05:18	10156695	8.329	-134.463	333.94	8.86	337.782	429.084	0.235	0.279	8.252	8.86	0.028
2023-10-03 05:33	10157595	8.323	-134.132	334.179	8.843	337.669	429.111	0.235	0.279	8.270	8.843	0.042
2023-10-03 05:48	10158495	8.328	-134.425	333.959	8.825	337.428	428.993	0.235	0.279	8.445	8.825	0.156
2023-10-03 06:03	10159395	8.328	-134.404	333.192	8.8	337.189	428.949	0.234	0.279	8.484	8.8	0.111
2023-10-03 06:18	10160295	8.347	-135.348	332.469	8.758	336.594	428.635	0.234	0.279	8.377	8.758	0.16
2023-10-03 06:33	10161195	8.337	-134.857	332.557	8.742	336.371	428.508	0.234	0.279	8.514	8.742	0.15
2023-10-03 06:48	10162095	8.325	-134.215	333.366	8.716	336.146	428.496	0.234	0.279	8.434	8.716	0.278
2023-10-03 07:03	10162995	8.327	-134.294	332.193	8.693	335.894	428.416	0.234	0.278	8.319	8.693	0.296
2023-10-03 07:18	10163895	8.341	-135.012	329.589	8.673	335.917	428.658	0.234	0.279	8.355	8.673	0.198
2023-10-03 07:33	10164795	8.331	-134.482	328.638	8.667	335.961	428.771	0.234	0.279	8.434	8.667	0.168
2023-10-03 07:48	10165695	8.329	-134.392	328.702	8.656	335.899	428.809	0.234	0.279	8.493	8.656	0.154
2023-10-03 08:03	10166595	8.334	-134.623	328.492	8.641	335.87	428.928	0.235	0.279	8.402	8.641	0.164
2023-10-03 08:18	10167495	8.333	-134.587	328.621	8.613	335.323	428.519	0.234	0.279	8.419	8.613	0.143
2023-10-03 08:33	10168395	8.320	-133.898	329.234	8.603	335.251	428.537	0.234	0.279	8.394	8.603	0.177
2023-10-03 08:48	10169295	8.318	-133.758	329.036	8.584	335.095	428.538	0.234	0.279	8.232	8.584	0.126
2023-10-03 09:03	10170195	8.317	-133.727	329.782	8.573	334.877	428.374	0.234	0.278	8.341	8.573	0.15
2023-10-03 09:18	10171095	8.323	-134.029	327.865	8.578	335.278	428.827	0.234	0.279	8.415	8.578	0.129
2023-10-03 09:33	10171995	8.312	-133.464	326.697	8.581	335.337	428.88	0.235	0.279	8.269	8.581	0.171
2023-10-03 09:48	10172895	8.314	-133.569	327.76	8.579	335.21	428.737	0.234	0.279	8.291	8.579	0.124
2023-10-03 10:03	10173795	8.318	-133.77	328.244	8.564	335.069	428.717	0.234	0.279	8.386	8.564	0.112
2023-10-03 10:18	10174695	8.331	-134.416	327.265	8.545	334.664	428.392	0.234	0.278	8.361	8.545	0.217
2023-10-03 10:33	10175595	8.327	-134.208	327.925	8.551	334.629	428.288	0.234	0.278	8.398	8.551	0.199
2023-10-03 10:48	10176495	8.323	-134.001	327.644	8.552	334.517	428.136	0.234	0.278	8.419	8.552	0.143
2023-10-03 11:03	10177395	8.325	-134.146	327.493	8.562	334.623	428.159	0.234	0.278	8.569	8.562	0.136
2023-10-03 11:18	10178295	8.341	-134.971	327.598	8.58	335.051	428.525	0.234	0.279	8.453	8.58	0.234
2023-10-03 11:33	10179195	8.329	-134.358	326.99	8.612	335.424	428.659	0.234	0.279	8.534	8.612	0.093
2023-10-03 11:48	10180095	8.333	-134.561	327.522	8.642	335.658	428.645	0.234	0.279	8.403	8.642	0

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-03 12:03	10180995	8.387	-137.422	322.494	8.683	335.719	428.301	0.234	0.278	8.348	8.683	0.181
2023-10-03 12:18	10181895	8.421	-139.217	316.29	8.742	336.068	428.131	0.234	0.278	9.204	8.742	0.095
2023-10-03 12:33	10182795	8.441	-140.328	311.996	8.81	336.65	428.159	0.234	0.278	9.176	8.81	0.152
2023-10-03 12:48	10183695	8.433	-139.921	311.212	8.884	337.284	428.198	0.234	0.278	9.285	8.884	0.173
2023-10-03 13:03	10184595	8.441	-140.35	311.696	8.943	337.828	428.274	0.234	0.278	9.170	8.943	0.14
2023-10-03 13:18	10185495	8.447	-140.722	311.76	9.016	338.587	428.479	0.234	0.279	9.119	9.016	0.065
2023-10-03 13:33	10186395	8.442	-140.469	311.789	9.073	339.183	428.647	0.234	0.279	9.066	9.073	0.19
2023-10-03 13:48	10187295	8.449	-140.867	311.369	9.119	339.498	428.562	0.234	0.279	9.227	9.119	0.199
2023-10-03 14:03	10188195	8.457	-141.306	310.079	9.161	339.885	428.623	0.234	0.279	9.257	9.161	0.195
2023-10-03 14:18	10189095	8.460	-141.485	309.388	9.219	340.299	428.548	0.234	0.279	9.228	9.219	0.223
2023-10-03 14:33	10189995	8.465	-141.759	308.83	9.247	340.589	428.623	0.234	0.279	9.549	9.247	0.335
2023-10-03 14:48	10190895	8.464	-141.74	309.335	9.278	340.897	428.685	0.234	0.279	9.310	9.278	0.211
2023-10-03 15:03	10191795	8.468	-141.964	307.619	9.323	341.287	428.715	0.234	0.279	9.468	9.323	0.168
2023-10-03 15:18	10192695	8.482	-142.753	307.433	9.365	341.713	428.814	0.234	0.279	9.396	9.365	0.227
2023-10-03 15:33	10193595	8.473	-142.279	305.34	9.397	342.088	428.956	0.234	0.279	9.431	9.397	0.242
2023-10-03 15:48	10194495	8.478	-142.529	304.937	9.425	342.314	428.951	0.234	0.279	9.549	9.425	0.222
2023-10-03 16:03	10195395	8.479	-142.629	304.412	9.44	342.461	428.988	0.234	0.279	9.459	9.44	0.268
2023-10-03 16:18	10196295	8.483	-142.848	303.785	9.443	342.408	428.887	0.234	0.279	9.440	9.443	0.208
2023-10-03 16:33	10197195	8.489	-143.168	302.223	9.459	342.589	428.954	0.234	0.279	9.526	9.459	0.268
2023-10-03 16:48	10198095	8.495	-143.454	301.851	9.485	342.829	428.987	0.234	0.279	9.618	9.485	0.254
2023-10-03 17:03	10198995	8.495	-143.502	300.85	9.506	343.041	429.04	0.234	0.279	9.777	9.506	0.308
2023-10-03 17:18	10199896	8.502	-143.828	299.517	9.508	343.171	429.176	0.234	0.279	9.649	9.508	0.427
2023-10-03 17:33	10200796	8.488	-143.108	299.539	9.51	343.195	429.186	0.234	0.279	9.680	9.51	0.281
2023-10-03 17:48	10201696	8.476	-142.515	301.217	9.51	343.214	429.215	0.234	0.279	9.511	9.51	0.171
2023-10-03 18:03	10202596	8.474	-142.365	300.523	9.501	343.257	429.359	0.235	0.279	9.580	9.501	0.263
2023-10-03 18:18	10203496	8.465	-141.883	300.457	9.496	343.11	429.227	0.234	0.279	9.466	9.496	0.36
2023-10-03 18:33	10204396	8.460	-141.661	302.302	9.498	343.189	429.3	0.235	0.279	9.508	9.498	0.315
2023-10-03 18:48	10205296	8.463	-141.795	300.945	9.497	343.152	429.261	0.235	0.279	9.539	9.497	0.215
2023-10-03 19:03	10206196	8.450	-141.129	303.284	9.496	343.174	429.301	0.235	0.279	9.466	9.496	0.196
2023-10-03 19:18	10207096	8.454	-141.32	304.772	9.498	343.326	429.468	0.235	0.279	9.381	9.498	0.121
2023-10-03 19:33	10207996	8.442	-140.7	307.395	9.498	343.287	429.43	0.235	0.279	9.488	9.498	0.17
2023-10-03 19:48	10208896	8.439	-140.522	309.571	9.49	343.265	429.475	0.235	0.279	9.411	9.49	0.12
2023-10-03 20:03	10209796	8.444	-140.786	308.403	9.481	343.228	429.519	0.235	0.279	9.442	9.481	0.183
2023-10-03 20:18	10210696	8.434	-140.252	307.898	9.475	343.17	429.512	0.235	0.279	9.139	9.475	0.297
2023-10-03 20:33	10211596	8.424	-139.747	308.694	9.479	343.176	429.482	0.235	0.279	9.254	9.479	0.141
2023-10-03 20:48	10212496	8.419	-139.484	310.57	9.473	343.162	429.521	0.235	0.279	9.196	9.473	0.267
2023-10-03 21:03	10213396	8.417	-139.377	311.665	9.468	343.052	429.44	0.235	0.279	9.206	9.468	0.204
2023-10-03 21:18	10214296	8.433	-140.197	310.06	9.459	343.168	429.675	0.235	0.279	9.202	9.459	0.2
2023-10-03 21:33	10215196	8.424	-139.718	310.303	9.454	343.148	429.697	0.235	0.279	9.175	9.454	0.191
2023-10-03 21:48	10216096	8.423	-139.668	310.632	9.446	343.054	429.666	0.235	0.279	9.196	9.446	0.172
2023-10-03 22:03	10216996	8.420	-139.501	310.127	9.436	342.937	429.621	0.235	0.279	9.061	9.436	0.227
2023-10-03 22:18	10217896	8.424	-139.701	308.325	9.42	342.687	429.472	0.235	0.279	9.063	9.42	0.277
2023-10-03 22:33	10218796	8.429	-139.997	308.768	9.411	342.539	429.38	0.235	0.279	9.118	9.411	0.327
2023-10-03 22:48	10219696	8.430	-140.023	308.625	9.396	342.432	429.397	0.235	0.279	9.370	9.396	0.341
2023-10-03 23:03	10220596	8.429	-139.968	309.109	9.386	342.347	429.395	0.235	0.279	9.353	9.386	0.276
2023-10-03 23:18	10221496	8.435	-140.288	309.846	9.373	342.331	429.512	0.235	0.279	9.341	9.373	0.203
2023-10-03 23:33	10222396	8.427	-139.854	309.428	9.367	342.223	429.433	0.235	0.279	9.210	9.367	0.285
2023-10-03 23:48	10223296	8.422	-139.57	310.716	9.359	342.183	429.473	0.235	0.279	9.232	9.359	0.182
2023-10-04 00:03	10224196	8.415	-139.208	311.641	9.351	342.161	429.528	0.235	0.279	9.188	9.351	0.144
2023-10-04 00:18	10225096	8.413	-139.129	311.391	9.337	341.993	429.463	0.235	0.279	9.153	9.337	0.299
2023-10-04 00:33	10225996	8.415	-139.205	311.076	9.331	341.833	429.321	0.235	0.279	9.125	9.331	0.283
2023-10-04 00:48	10226896	8.418	-139.322	311.5	9.297	341.431	429.164	0.234	0.279	9.080	9.297	0.295
2023-10-04 01:03	10227796	8.391	-137.887	313.117	9.251	341.29	429.466	0.235	0.279	9.067	9.251	0.1
2023-10-04 01:18	10228696	8.378	-137.179	313.687	9.198	341.041	429.696	0.235	0.279	8.932	9.198	0.118
2023-10-04 01:33	10229596	8.353	-135.911	314.85	9.178	340.971	429.811	0.235	0.279	8.826	9.178	0.04
2023-10-04 01:48	10230496	8.335	-134.909	316.619	9.12	340.371	429.659	0.235	0.279	8.698	9.12	0.067

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-04 02:03	10231396	8.341	-135.181	317.654	9.072	340.047	429.745	0.235	0.279	8.737	9.072	0.136
2023-10-04 02:18	10232296	8.344	-135.35	317.907	9.05	339.775	429.631	0.235	0.279	8.682	9.05	0.102
2023-10-04 02:33	10233196	8.358	-136.108	317.99	9.065	339.821	429.531	0.235	0.279	8.771	9.065	0.089
2023-10-04 02:48	10234096	8.363	-136.378	317.83	9.064	339.687	429.37	0.235	0.279	8.827	9.064	0.119
2023-10-04 03:03	10234996	8.363	-136.321	319.258	9.003	338.893	428.997	0.234	0.279	8.985	9.003	0.13
2023-10-04 03:18	10235896	8.365	-136.39	319.492	8.931	338.652	429.445	0.235	0.279	8.753	8.931	0
2023-10-04 03:33	10236796	8.354	-135.813	320.381	8.906	338.477	429.484	0.235	0.279	8.744	8.906	0.169
2023-10-04 03:48	10237696	8.348	-135.474	321.285	8.904	338.522	429.562	0.235	0.279	8.733	8.904	0.092
2023-10-04 04:03	10238596	8.337	-134.897	322.589	8.902	338.593	429.669	0.235	0.279	8.470	8.902	0.121
2023-10-04 04:18	10239496	8.325	-134.261	323.438	8.891	338.526	429.702	0.235	0.279	8.465	8.891	0.118
2023-10-04 04:33	10240396	8.312	-133.598	323.3	8.891	338.446	429.603	0.235	0.279	8.453	8.891	0.099
2023-10-04 04:48	10241296	8.310	-133.491	323.352	8.861	338.176	429.566	0.235	0.279	8.409	8.861	0.074
2023-10-04 05:03	10242196	8.307	-133.307	324.191	8.849	338.046	429.528	0.235	0.279	8.460	8.849	0.1
2023-10-04 05:18	10243096	8.318	-133.86	324.091	8.821	337.948	429.692	0.235	0.279	8.454	8.821	0.123
2023-10-04 05:33	10243996	8.308	-133.34	324.659	8.808	337.854	429.713	0.235	0.279	8.539	8.808	0.085
2023-10-04 05:48	10244896	8.304	-133.133	326.101	8.803	337.882	429.802	0.235	0.279	8.154	8.803	0.036
2023-10-04 06:03	10245796	8.298	-132.842	326.828	8.799	337.8	429.74	0.235	0.279	8.306	8.799	0
2023-10-04 06:18	10246696	8.299	-132.883	326.547	8.774	337.503	429.621	0.235	0.279	8.293	8.774	0.061
2023-10-04 06:33	10247596	8.298	-132.83	327.305	8.766	337.428	429.612	0.235	0.279	8.356	8.766	0
2023-10-04 06:48	10248496	8.300	-132.89	327.276	8.746	337.168	429.482	0.235	0.279	8.565	8.746	0.032
2023-10-04 07:03	10249396	8.301	-132.937	327.591	8.733	337.037	429.456	0.235	0.279	8.446	8.733	0.019
2023-10-04 07:18	10250296	8.302	-133.011	327.689	8.705	337.107	429.835	0.235	0.279	8.265	8.705	0
2023-10-04 07:33	10251196	8.277	-131.698	329.534	8.693	337.074	429.923	0.235	0.279	8.237	8.693	0
2023-10-04 07:48	10252096	8.258	-130.672	331.613	8.666	337.024	430.139	0.235	0.280	8.120	8.666	0
2023-10-04 08:03	10252996	8.250	-130.222	332.672	8.646	336.891	430.179	0.235	0.280	7.910	8.646	0
2023-10-04 08:18	10253896	8.250	-130.219	333.168	8.628	336.776	430.227	0.235	0.280	7.926	8.628	0
2023-10-04 08:33	10254796	8.240	-129.69	334.667	8.62	336.625	430.118	0.235	0.280	7.893	8.62	0
2023-10-04 08:48	10255696	8.234	-129.423	336.703	8.621	336.474	429.908	0.235	0.279	7.952	8.621	0
2023-10-04 09:03	10256596	8.236	-129.509	338.544	8.618	336.439	429.892	0.235	0.279	7.795	8.618	0
2023-10-04 09:18	10257496	8.262	-130.839	337.633	8.612	336.5	430.039	0.235	0.280	7.880	8.612	0
2023-10-04 09:33	10258396	8.249	-130.15	338.206	8.606	336.33	429.886	0.235	0.279	8.312	8.606	0
2023-10-04 09:48	10259296	8.285	-132.067	337.28	8.587	335.802	429.407	0.235	0.279	8.084	8.587	0
2023-10-04 10:03	10260196	8.335	-134.656	332.312	8.57	335.364	429.026	0.235	0.279	8.351	8.57	0.012
2023-10-04 10:18	10261096	8.361	-136.006	328.712	8.563	335.23	428.928	0.235	0.279	8.648	8.563	0.046
2023-10-04 10:33	10261996	8.383	-137.157	325.174	8.562	335.111	428.789	0.234	0.279	8.781	8.562	0
2023-10-04 10:48	10262896	8.383	-137.169	322.229	8.553	334.978	428.713	0.234	0.279	8.795	8.553	0
2023-10-04 11:03	10263796	8.392	-137.613	319.483	8.515	334.716	428.773	0.234	0.279	8.917	8.515	0.098
2023-10-04 11:18	10264696	8.411	-138.578	316.185	8.523	334.952	428.99	0.235	0.279	9.017	8.523	0
2023-10-04 11:33	10265596	8.405	-138.292	315.615	8.551	335.174	428.981	0.235	0.279	9.073	8.551	0.197
2023-10-04 11:48	10266496	8.413	-138.712	315.592	8.556	335.184	428.946	0.235	0.279	8.959	8.556	0.057
2023-10-04 12:03	10267396	8.417	-138.922	314.786	8.571	335.288	428.922	0.235	0.279	9.084	8.571	0.028
2023-10-04 12:18	10268296	8.426	-139.415	312.266	8.626	335.583	428.716	0.234	0.279	9.311	8.626	0.087
2023-10-04 12:33	10269196	8.426	-139.437	311.388	8.675	336.056	428.814	0.234	0.279	9.434	8.675	0.039
2023-10-04 12:48	10270096	8.426	-139.489	310.907	8.716	336.417	428.842	0.234	0.279	9.146	8.716	0.253
2023-10-04 13:03	10270996	8.433	-139.892	309.462	8.77	336.856	428.837	0.234	0.279	9.142	8.77	0.069
2023-10-04 13:18	10271896	8.455	-141.089	307.454	8.864	337.715	428.947	0.234	0.279	9.492	8.864	0.534
2023-10-04 13:33	10272796	8.460	-141.377	304.641	8.959	338.693	429.202	0.235	0.279	9.531	8.959	0.169
2023-10-04 13:48	10273696	8.476	-142.248	300.976	9.067	339.702	429.367	0.235	0.279	9.612	9.067	0.082
2023-10-04 14:03	10274596	8.495	-143.318	298.096	9.194	340.897	429.558	0.235	0.279	9.623	9.194	0.027
2023-10-04 14:18	10275496	8.496	-143.504	296.072	9.437	343.029	429.733	0.235	0.279	9.660	9.437	0.059
2023-10-04 14:33	10276396	8.493	-143.473	288.824	9.65	343.833	428.556	0.234	0.279	9.715	9.65	0.261
2023-10-04 14:48	10277296	8.473	-142.531	285.107	9.879	347.697	431.021	0.235	0.280	9.734	9.879	0.381
2023-10-04 15:03	10278196	8.455	-141.654	280.93	10.078	349.67	431.436	0.236	0.280	9.653	10.078	0.595
2023-10-04 15:18	10279096	8.459	-141.973	276.572	10.261	351.499	431.821	0.236	0.281	9.571	10.261	0.461
2023-10-04 15:33	10279996	8.431	-140.553	275.418	10.306	352.045	432.044	0.236	0.281	9.410	10.306	0.565
2023-10-04 15:48	10280896	8.434	-140.76	274.445	10.414	353.092	432.229	0.236	0.281	9.434	10.414	0.52

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-04 16:03	10281796	8.449	-141.549	272.731	10.472	353.6	432.261	0.236	0.281	9.540	10.472	0.425
2023-10-04 16:18	10282696	8.447	-141.456	269.663	10.522	353.808	432.017	0.236	0.281	9.789	10.522	0.507
2023-10-04 16:33	10283596	8.465	-142.426	269.949	10.551	354.118	432.103	0.236	0.281	9.438	10.551	0.292
2023-10-04 16:48	10284496	8.486	-143.576	270.368	10.577	354.147	431.879	0.236	0.281	9.834	10.577	0.313
2023-10-04 17:03	10285396	8.492	-143.919	270.33	10.625	354.668	432.028	0.236	0.281	9.517	10.625	0.312
2023-10-04 17:18	10286296	8.541	-146.48	263.111	10.672	355.12	432.105	0.236	0.281	10.157	10.672	0.186
2023-10-04 17:33	10287196	8.547	-146.79	262.663	10.652	354.563	431.625	0.236	0.281	9.577	10.652	0.306
2023-10-04 17:48	10288096	8.488	-143.652	267.14	10.538	353.752	431.785	0.236	0.281	9.948	10.538	0.348
2023-10-04 18:03	10288996	8.448	-141.516	272.168	10.453	353.115	431.867	0.236	0.281	9.467	10.453	0.441
2023-10-04 18:18	10289896	8.423	-140.145	275.571	10.346	352.135	431.75	0.236	0.281	9.712	10.346	0.47
2023-10-04 18:33	10290796	8.405	-139.158	277.964	10.337	351.763	431.382	0.235	0.280	9.453	10.337	0.383
2023-10-04 18:48	10291696	8.399	-138.843	281.605	10.312	351.703	431.562	0.236	0.281	9.270	10.312	0.389
2023-10-04 19:03	10292596	8.388	-138.271	286.349	10.301	351.722	431.695	0.236	0.281	9.279	10.301	0.307
2023-10-04 19:18	10293496	8.413	-139.594	287.704	10.284	351.676	431.807	0.236	0.281	9.707	10.284	0.311
2023-10-04 19:33	10294396	8.403	-139.062	289.826	10.283	351.678	431.822	0.236	0.281	9.449	10.283	0.286
2023-10-04 19:48	10295296	8.403	-139.034	292.52	10.268	351.496	431.751	0.236	0.281	9.554	10.268	0.192
2023-10-04 20:03	10296196	8.415	-139.639	294.613	10.247	351.297	431.72	0.236	0.281	9.476	10.247	0.238
2023-10-04 20:18	10297096	8.422	-139.992	295.157	10.202	350.712	431.46	0.236	0.280	9.546	10.202	0.271
2023-10-04 20:33	10297996	8.422	-139.968	292.272	10.167	350.298	431.299	0.235	0.280	9.387	10.167	0.335
2023-10-04 20:48	10298896	8.419	-139.823	292.41	10.144	350.197	431.405	0.236	0.280	9.556	10.144	0.348
2023-10-04 21:03	10299796	8.414	-139.549	293.237	10.128	350.027	431.368	0.236	0.280	9.441	10.128	0.211
2023-10-04 21:18	10300697	8.420	-139.842	292.658	10.093	349.949	431.62	0.236	0.281	9.674	10.093	0.344
2023-10-04 21:33	10301597	8.407	-139.174	295.445	10.075	349.857	431.69	0.236	0.281	9.518	10.075	0.264
2023-10-04 21:48	10302497	8.403	-138.912	297.584	10.053	349.692	431.713	0.236	0.281	9.101	10.053	0.211
2023-10-04 22:03	10303397	8.396	-138.566	299.315	10.027	349.486	431.723	0.236	0.281	9.251	10.027	0.26
2023-10-04 22:18	10304297	8.392	-138.323	300.128	9.988	349.001	431.523	0.236	0.280	9.157	9.988	0.218
2023-10-04 22:33	10305197	8.404	-138.934	300.585	9.964	348.686	431.38	0.236	0.280	9.285	9.964	0.256
2023-10-04 22:48	10306097	8.397	-138.562	301.592	9.932	348.452	431.411	0.236	0.280	9.275	9.932	0.186
2023-10-04 23:03	10306997	8.392	-138.261	302.808	9.874	347.887	431.3	0.236	0.280	9.083	9.874	0.23
2023-10-04 23:18	10307897	8.408	-139.112	301.115	9.833	347.781	431.587	0.236	0.281	9.287	9.833	0.234
2023-10-04 23:33	10308797	8.385	-137.892	304.097	9.825	347.727	431.607	0.236	0.281	9.310	9.825	0.15
2023-10-04 23:48	10309697	8.382	-137.701	305.783	9.791	347.463	431.628	0.236	0.281	9.273	9.791	0.159
2023-10-05 00:03	10310597	8.378	-137.451	307.528	9.753	347.264	431.764	0.236	0.281	9.090	9.753	0.265
2023-10-05 00:18	10311497	8.361	-136.547	308.489	9.692	346.812	431.834	0.236	0.281	8.921	9.692	0.167
2023-10-05 00:33	10312397	8.351	-136.03	308.727	9.657	346.297	431.554	0.236	0.281	8.975	9.657	0.294
2023-10-05 00:48	10313297	8.346	-135.722	308.317	9.594	345.686	431.44	0.236	0.280	8.903	9.594	0.448
2023-10-05 01:03	10314197	8.348	-135.822	307.891	9.562	345.465	431.484	0.236	0.280	8.754	9.562	0.328
2023-10-05 01:18	10315097	8.362	-136.516	308.215	9.527	345.354	431.713	0.236	0.281	8.877	9.527	0.177
2023-10-05 01:33	10315997	8.344	-135.548	309.092	9.506	345.238	431.782	0.236	0.281	8.921	9.506	0.162
2023-10-05 01:48	10316897	8.343	-135.486	309.755	9.464	344.831	431.707	0.236	0.281	8.936	9.464	0.2
2023-10-05 02:03	10317797	8.341	-135.391	311.212	9.424	344.393	431.569	0.236	0.281	8.817	9.424	0.239
2023-10-05 02:18	10318697	8.334	-134.983	310.337	9.357	343.814	431.538	0.236	0.280	8.721	9.357	0.371
2023-10-05 02:33	10319597	8.325	-134.509	310.339	9.326	343.345	431.272	0.236	0.280	8.734	9.326	0.364
2023-10-05 02:48	10320497	8.318	-134.099	311.009	9.278	342.999	431.334	0.236	0.280	8.828	9.278	0.31
2023-10-05 03:03	10321397	8.319	-134.118	311.531	9.239	342.575	431.199	0.236	0.280	8.744	9.239	0.22
2023-10-05 03:18	10322297	8.323	-134.325	312.03	9.187	342.38	431.494	0.236	0.280	8.658	9.187	0.167
2023-10-05 03:33	10323197	8.321	-134.22	312.216	9.171	342.257	431.503	0.236	0.280	8.818	9.171	0.254
2023-10-05 03:48	10324097	8.321	-134.206	313.372	9.144	342.026	431.493	0.236	0.280	8.652	9.144	0.212
2023-10-05 04:03	10324997	8.332	-134.749	314.545	9.121	341.806	431.462	0.236	0.280	8.752	9.121	0.269
2023-10-05 04:18	10325897	8.329	-134.599	314.988	9.077	341.316	431.302	0.236	0.280	8.582	9.077	0.229
2023-10-05 04:33	10326797	8.318	-134.022	316.841	9.064	340.94	430.955	0.236	0.280	8.658	9.064	0.241
2023-10-05 04:48	10327697	8.315	-133.834	318.534	9.035	340.69	430.939	0.236	0.280	8.816	9.035	0.241
2023-10-05 05:03	10328597	8.327	-134.447	319.528	9.007	340.317	430.759	0.235	0.280	8.792	9.007	0.233
2023-10-05 05:18	10329497	8.334	-134.795	319.936	8.993	340.561	431.216	0.236	0.280	8.623	8.993	0.101
2023-10-05 05:33	10330397	8.322	-134.177	319.709	8.991	340.59	431.275	0.236	0.280	8.708	8.991	0.181
2023-10-05 05:48	10331297	8.326	-134.366	321.368	8.973	340.382	431.203	0.236	0.280	8.643	8.973	0.153

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-05 06:03	10332197	8.324	-134.244	322.198	8.948	340.186	431.211	0.236	0.280	8.786	8.948	0.131
2023-10-05 06:18	10333097	8.331	-134.58	321.888	8.905	339.595	430.909	0.236	0.280	8.593	8.905	0.191
2023-10-05 06:33	10333997	8.324	-134.215	322.346	8.886	339.291	430.724	0.235	0.280	8.788	8.886	0.229
2023-10-05 06:48	10334897	8.326	-134.299	322.589	8.853	339.152	430.888	0.236	0.280	8.764	8.853	0.281
2023-10-05 07:03	10335797	8.323	-134.151	324.015	8.831	338.879	430.772	0.236	0.280	8.624	8.831	0.244
2023-10-05 07:18	10336697	8.331	-134.532	324.351	8.807	338.804	430.933	0.236	0.280	8.379	8.807	0.157
2023-10-05 07:33	10337597	8.321	-134.02	325.112	8.799	338.777	430.982	0.236	0.280	8.666	8.799	0.167
2023-10-05 07:48	10338497	8.325	-134.251	325.124	8.778	338.541	430.896	0.236	0.280	8.700	8.778	0.17
2023-10-05 08:03	10339397	8.324	-134.172	325.679	8.759	338.385	430.9	0.236	0.280	8.736	8.759	0.157
2023-10-05 08:18	10340297	8.329	-134.432	325.729	8.731	337.886	430.558	0.235	0.280	8.705	8.731	0.212
2023-10-05 08:33	10341197	8.325	-134.196	326.583	8.718	337.704	430.459	0.235	0.280	8.721	8.718	0.18
2023-10-05 08:48	10342097	8.322	-134.027	327.412	8.698	337.477	430.381	0.235	0.280	8.572	8.698	0.177
2023-10-05 09:03	10342997	8.316	-133.7	328.769	8.664	337.047	430.193	0.235	0.280	8.519	8.664	0.091
2023-10-05 09:18	10343897	8.331	-134.485	327.684	8.629	336.983	430.473	0.235	0.280	8.515	8.629	0.151
2023-10-05 09:33	10344797	8.325	-134.156	326.797	8.616	336.877	430.48	0.235	0.280	8.524	8.616	0.24
2023-10-05 09:48	10345697	8.335	-134.671	327.317	8.589	336.632	430.448	0.235	0.280	8.716	8.589	0.181
2023-10-05 10:03	10346597	8.337	-134.79	327.365	8.594	336.681	430.459	0.235	0.280	8.634	8.594	0.217
2023-10-05 10:18	10347497	8.339	-134.85	327.839	8.581	336.25	430.04	0.235	0.280	8.761	8.581	0.324
2023-10-05 10:33	10348397	8.342	-135.031	327.558	8.588	336.264	429.984	0.235	0.279	8.845	8.588	0.332
2023-10-05 10:48	10349297	8.343	-135.069	327.865	8.588	336.255	429.973	0.235	0.279	8.790	8.588	0.267
2023-10-05 11:03	10350197	8.344	-135.131	328.027	8.599	336.33	429.96	0.235	0.279	8.797	8.599	0.106
2023-10-05 11:18	10351097	8.354	-135.665	328.035	8.615	336.767	430.346	0.235	0.280	8.778	8.615	0.075
2023-10-05 11:33	10351997	8.345	-135.198	328.669	8.643	337.044	430.411	0.235	0.280	8.644	8.643	0.119
2023-10-05 11:48	10352897	8.341	-135.019	328.907	8.656	337.115	430.362	0.235	0.280	8.725	8.656	0.132
2023-10-05 12:03	10353797	8.342	-135.074	327.749	8.669	337.291	430.448	0.235	0.280	8.748	8.669	0.108
2023-10-05 12:18	10354697	8.349	-135.446	328.166	8.668	337.058	430.163	0.235	0.280	8.878	8.668	0.08
2023-10-05 12:33	10355597	8.330	-134.473	328.631	8.699	337.219	430.039	0.235	0.280	8.885	8.699	0.069
2023-10-05 12:48	10356497	8.305	-133.142	330.884	8.735	337.519	430.053	0.235	0.280	8.813	8.735	0.022
2023-10-05 13:03	10357397	8.291	-132.446	332.929	8.796	337.972	429.986	0.235	0.279	8.832	8.796	0.005
2023-10-05 13:18	10358297	8.326	-134.318	331.26	8.901	339.191	430.44	0.235	0.280	8.687	8.901	0
2023-10-05 13:33	10359197	8.322	-134.18	331.122	9.023	340.396	430.699	0.235	0.280	8.661	9.023	0
2023-10-05 13:48	10360097	8.327	-134.49	330.292	9.094	341.122	430.877	0.236	0.280	8.746	9.094	0.009
2023-10-05 14:03	10360997	8.350	-135.698	328.488	9.139	341.462	430.834	0.235	0.280	8.832	9.139	0
2023-10-05 14:18	10361897	8.393	-137.982	324.69	9.149	341.189	430.394	0.235	0.280	9.107	9.149	0.057
2023-10-05 14:33	10362797	8.347	-135.596	324.864	9.208	341.291	429.905	0.235	0.279	9.333	9.208	0
2023-10-05 14:48	10363697	8.358	-136.163	324.091	9.249	341.651	429.933	0.235	0.279	9.622	9.249	0
2023-10-05 15:03	10364597	8.362	-136.38	324.046	9.275	341.845	429.914	0.235	0.279	9.462	9.275	0.025
2023-10-05 15:18	10365497	8.429	-139.902	321.39	9.282	342.343	430.468	0.235	0.280	9.657	9.282	0.046
2023-10-05 15:33	10366397	8.416	-139.236	320.439	9.317	342.688	430.539	0.235	0.280	9.464	9.317	0.015
2023-10-05 15:48	10367297	8.428	-139.904	319.981	9.327	342.753	430.519	0.235	0.280	9.508	9.327	0.03
2023-10-05 16:03	10368197	8.447	-140.905	317.647	9.343	343.039	430.705	0.235	0.280	9.396	9.343	0.007
2023-10-05 16:18	10369097	8.444	-140.743	317.604	9.339	342.805	430.459	0.235	0.280	9.542	9.339	0.048
2023-10-05 16:33	10369997	8.421	-139.554	317.191	9.37	342.937	430.3	0.235	0.280	9.258	9.37	0.078
2023-10-05 16:48	10370897	8.424	-139.694	319.552	9.399	343.243	430.39	0.235	0.280	9.554	9.399	0
2023-10-05 17:03	10371797	8.435	-140.305	321.001	9.426	343.525	430.464	0.235	0.280	9.412	9.426	0.014
2023-10-05 17:18	10372697	8.449	-141.048	319.933	9.455	343.821	430.537	0.235	0.280	9.415	9.455	0.005
2023-10-05 17:33	10373597	8.447	-140.972	319.759	9.488	344.145	430.599	0.235	0.280	9.547	9.488	0.034
2023-10-05 17:48	10374497	8.453	-141.263	317.346	9.495	344.144	430.527	0.235	0.280	9.494	9.495	0
2023-10-05 18:03	10375397	8.490	-143.211	313.927	9.496	344.192	430.578	0.235	0.280	9.847	9.496	0.009
2023-10-05 18:18	10376297	8.483	-142.865	314.304	9.482	343.961	430.432	0.235	0.280	9.742	9.482	0.063
2023-10-05 18:33	10377197	8.484	-142.918	312.118	9.475	343.69	430.162	0.235	0.280	9.842	9.475	0.001
2023-10-05 18:48	10378097	8.473	-142.317	311.679	9.464	343.64	430.216	0.235	0.280	10.015	9.464	0.032
2023-10-05 19:03	10378997	8.497	-143.566	311.56	9.454	343.528	430.182	0.235	0.280	9.935	9.454	0
2023-10-05 19:18	10379897	8.515	-144.503	310.964	9.43	343.541	430.44	0.235	0.280	9.992	9.43	0
2023-10-05 19:33	10380797	8.499	-143.671	310.449	9.422	343.433	430.393	0.235	0.280	9.917	9.422	0
2023-10-05 19:48	10381697	8.494	-143.361	312.07	9.402	343.216	430.318	0.235	0.280	10.032	9.402	0.039

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-05 20:03	10382597	8.497	-143.518	312.957	9.376	342.993	430.308	0.235	0.280	9.983	9.376	0
2023-10-05 20:18	10383497	8.502	-143.785	311.791	9.327	342.563	430.28	0.235	0.280	9.960	9.327	0.073
2023-10-05 20:33	10384397	8.510	-144.15	312.478	9.309	342.189	429.99	0.235	0.279	9.921	9.309	0.083
2023-10-05 20:48	10385297	8.518	-144.591	311.941	9.275	341.94	430.034	0.235	0.280	10.019	9.275	0.214
2023-10-05 21:03	10386197	8.512	-144.219	312.485	9.246	341.695	430.023	0.235	0.280	9.987	9.246	0.042
2023-10-05 21:18	10387097	8.521	-144.663	310.463	9.189	341.318	430.141	0.235	0.280	9.715	9.189	0.056
2023-10-05 21:33	10387997	8.507	-143.94	310.842	9.169	341.177	430.164	0.235	0.280	9.928	9.169	0.045
2023-10-05 21:48	10388897	8.496	-143.335	312.933	9.133	340.888	430.176	0.235	0.280	9.708	9.133	0.03
2023-10-05 22:03	10389797	8.493	-143.149	313.205	9.098	340.611	430.188	0.235	0.280	9.932	9.098	1.018
2023-10-05 22:18	10390697	8.491	-143.046	314.774	9.038	340.085	430.146	0.235	0.280	9.650	9.038	0.062
2023-10-05 22:33	10391597	8.482	-142.579	314.028	9.013	339.713	429.932	0.235	0.279	9.750	9.013	0.082
2023-10-05 22:48	10392497	8.482	-142.512	314.24	8.977	339.446	429.972	0.235	0.279	9.941	8.977	0.047
2023-10-05 23:03	10393397	8.478	-142.336	315.534	8.942	339.069	429.855	0.235	0.279	9.952	8.942	0.043
2023-10-05 23:18	10394298	8.487	-142.753	315.794	8.891	338.949	430.237	0.235	0.280	9.725	8.891	0.028
2023-10-05 23:33	10395198	8.453	-140.936	317.551	8.855	338.771	430.39	0.235	0.280	9.474	8.855	0.008
2023-10-05 23:48	10396098	8.448	-140.7	318.026	8.812	338.35	430.3	0.235	0.280	9.632	8.812	0
2023-10-06 00:03	10396998	8.446	-140.533	318.331	8.76	337.822	430.174	0.235	0.280	9.424	8.76	0.103
2023-10-06 00:18	10397898	8.470	-141.721	317.964	8.624	336.403	429.789	0.235	0.279	9.425	8.624	0.034
2023-10-06 00:33	10398798	8.461	-141.244	316.364	8.6	335.91	429.41	0.235	0.279	9.361	8.6	0.125
2023-10-06 00:48	10399698	8.460	-141.158	317.969	8.549	335.467	429.383	0.235	0.279	9.630	8.549	0.01
2023-10-06 01:03	10400598	8.461	-141.215	318.541	8.491	335.001	429.392	0.235	0.279	9.382	8.491	0.096
2023-10-06 01:18	10401498	8.467	-141.463	317.475	8.434	334.801	429.739	0.235	0.279	9.324	8.434	0.003
2023-10-06 01:33	10402398	8.451	-140.646	315.57	8.41	334.603	429.729	0.235	0.279	9.397	8.41	0.059
2023-10-06 01:48	10403298	8.446	-140.331	316.529	8.365	334.31	429.826	0.235	0.279	9.262	8.365	0.028
2023-10-06 02:03	10404198	8.440	-140.018	316.257	8.333	334.11	429.914	0.235	0.279	9.217	8.333	0.109
2023-10-06 02:18	10405098	8.435	-139.751	316.536	8.286	333.602	429.756	0.235	0.279	9.299	8.286	0.129
2023-10-06 02:33	10405998	8.429	-139.394	318.629	8.281	333.361	429.494	0.235	0.279	9.162	8.281	0.074
2023-10-06 02:48	10406898	8.423	-139.079	319.914	8.244	332.945	429.348	0.235	0.279	9.327	8.244	0.139
2023-10-06 03:03	10407798	8.417	-138.745	320.412	8.197	332.395	429.137	0.235	0.279	9.249	8.197	0.139
2023-10-06 03:18	10408698	8.439	-139.902	319.263	8.161	332.352	429.466	0.235	0.279	9.134	8.161	0.057
2023-10-06 03:33	10409598	8.426	-139.203	318.915	8.155	332.415	429.611	0.235	0.279	9.466	8.155	0.108
2023-10-06 03:48	10410498	8.424	-139.098	319.337	8.14	332.399	429.743	0.235	0.279	9.354	8.14	0.048
2023-10-06 04:03	10411398	8.422	-138.962	320.307	8.145	332.395	429.693	0.235	0.279	9.204	8.145	0.105
2023-10-06 04:18	10412298	8.419	-138.798	320.212	8.127	332.167	429.59	0.235	0.279	9.085	8.127	0.116
2023-10-06 04:33	10413198	8.410	-138.34	321.488	8.114	332.115	429.656	0.235	0.279	9.092	8.114	0.11
2023-10-06 04:48	10414098	8.404	-138.021	323.312	8.091	331.857	429.563	0.235	0.279	9.277	8.091	0.105
2023-10-06 05:03	10414998	8.404	-138.016	324.215	8.073	331.657	429.501	0.235	0.279	9.115	8.073	0.128
2023-10-06 05:18	10415898	8.421	-138.867	323.943	8.05	331.512	429.551	0.235	0.279	9.145	8.05	0.154
2023-10-06 05:33	10416798	8.404	-138.006	325.002	8.046	331.632	429.757	0.235	0.279	9.088	8.046	0.079
2023-10-06 05:48	10417698	8.407	-138.175	326.118	8.034	331.457	429.652	0.235	0.279	9.440	8.034	0.17
2023-10-06 06:03	10418598	8.415	-138.54	326.235	8.029	331.394	429.629	0.235	0.279	9.165	8.029	0.101
2023-10-06 06:18	10419498	8.414	-138.478	326.463	8.002	331.062	429.487	0.235	0.279	9.408	8.002	0.179
2023-10-06 06:33	10420398	8.404	-137.942	327.88	7.98	330.917	429.528	0.235	0.279	9.060	7.98	0.112
2023-10-06 06:48	10421298	8.394	-137.424	329.022	7.945	330.414	429.247	0.235	0.279	8.847	7.945	0.152
2023-10-06 07:03	10422198	8.390	-137.21	329.406	7.918	330.313	429.401	0.235	0.279	9.015	7.918	0.141
2023-10-06 07:18	10423098	8.397	-137.563	329.384	7.892	330.279	429.638	0.235	0.279	8.941	7.892	0.015
2023-10-06 07:33	10423998	8.380	-136.685	329.968	7.887	330.593	430.102	0.235	0.280	8.892	7.887	0.05
2023-10-06 07:48	10424898	8.383	-136.809	330.123	7.883	330.838	430.466	0.236	0.280	8.848	7.883	0.054
2023-10-06 08:03	10425798	8.378	-136.552	331.148	7.876	330.539	430.146	0.235	0.280	8.723	7.876	0.014
2023-10-06 08:18	10426698	8.378	-136.557	331.296	7.875	330.287	429.83	0.235	0.279	8.704	7.875	0.026
2023-10-06 08:33	10427598	8.310	-133.021	332.388	7.89	330.352	429.75	0.235	0.279	8.790	7.89	0.027
2023-10-06 08:48	10428498	8.345	-134.866	334.484	7.893	330.383	429.761	0.235	0.279	8.644	7.893	0.055
2023-10-06 09:03	10429398	8.352	-135.229	335.328	7.901	330.377	429.672	0.235	0.279	8.768	7.901	0.018
2023-10-06 09:18	10430298	8.371	-136.201	335.65	7.906	330.526	429.809	0.235	0.279	8.882	7.906	0.069
2023-10-06 09:33	10431198	8.369	-136.104	335.55	7.92	330.645	429.818	0.235	0.279	8.695	7.92	0.061
2023-10-06 09:48	10432098	8.379	-136.628	336.911	7.926	330.66	429.776	0.235	0.279	8.712	7.926	0.014

TABLE C1

Upstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	Sensor: pH/ORP SN#: 723090 Oxidation Reduction Potential (ORP)	Sensor: Cond SN#: 737314 Temperature (C)	Sensor: Cond SN#: 737314 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 737314 Salinity (PSU)	Sensor: Cond SN#: 737314 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2023-10-06 10:03	10432998	8.380	-136.671	337.199	7.928	330.617	429.695	0.235	0.279	8.829	7.928	0
2023-10-06 10:18	10433898	8.381	-136.712	336.744	7.913	330.342	429.498	0.235	0.279	8.811	7.913	0.065
2023-10-06 10:33	10434798	8.365	-135.93	337.979	7.921	330.385	429.463	0.235	0.279	8.771	7.921	0
2023-10-06 10:48	10435698	8.368	-136.077	337.249	7.931	330.419	429.405	0.235	0.279	8.715	7.931	0.071
2023-10-06 11:03	10436598	8.368	-136.058	337.269	7.957	330.611	429.374	0.235	0.279	8.911	7.957	0.022
2023-10-06 11:18	10437498	8.377	-136.58	336.353	7.991	331.139	429.704	0.235	0.279	8.834	7.991	0
2023-10-06 11:33	10438398	8.384	-136.964	334.677	8.038	331.366	429.496	0.235	0.279	8.810	8.038	0.014
2023-10-06 11:48	10439298	8.452	-140.536	327.717	8.095	331.712	429.334	0.235	0.279	9.122	8.095	0.043
2023-10-06 12:03	10440198	8.471	-141.575	323.812	8.174	332.38	429.367	0.235	0.279	9.422	8.174	0.09
2023-10-06 12:18	10441098	8.471	-141.599	322.136	8.245	332.829	429.193	0.235	0.279	9.390	8.245	0.157
2023-10-06 12:33	10441998	8.473	-141.699	321.871	8.268	333.106	429.305	0.235	0.279	9.623	8.268	0.091
2023-10-06 12:48	10442898	8.470	-141.578	322.816	8.306	333.403	429.291	0.235	0.279	9.532	8.306	0.206
2023-10-06 13:03	10443798	8.462	-141.184	323.965	8.34	333.809	429.45	0.235	0.279	9.459	8.34	0.148
2023-10-06 13:18	10444698	8.416	-139.503	295.653	9.88	0.055	0.068	0.000	0.000	11.117	9.88	0
2023-10-06 13:33	10445598	7.169	-74.935	257.837	13.146	0.055	0.063	0.000	0.000	8.470	13.146	0
2023-10-06 13:48	10446498	7.528	-94.85	170.483	15.811	0	0	0.000	0.000	8.735	15.811	0
2023-10-06 14:03	10447398	7.409	-88.449	170.805	15.614	0	0	0.000	0.000	8.912	15.614	0
2023-10-06 14:18	10448298	7.618	-99.74	158.822	15.967	0	0	0.000	0.000	8.548	15.967	0
2023-10-06 14:33	10449198	7.606	-99.199	239.72	16.225	0	0	0.000	0.000	9.060	16.225	0
2023-10-06 14:48	10450098	8.295	-136.309	247.678	16.583	0	0	0.000	0.000	9.001	16.583	0
2023-10-06 15:03	10450998	8.259	-134.661	229.909	17.155	0	0	0.000	0.000	8.963	17.155	0
2023-10-06 15:18	10451898	8.614	-153.954	204.615	17.503	0	0	0.000	0.000	8.862	17.503	0
2023-10-06 15:33	10452798	8.194	-131.557	201.351	17.997	0	0	0.000	0.000	8.843	17.997	0
2023-10-06 15:48	10453698	8.189	-131.366	181.028	18.247	0	0	0.000	0.000	8.943	18.247	0
AEP Freshwater Aquatic Life*		**6.5-9.0^{pH}**	**NS**	**NS**	**narrative**	**NS**	**NS**	**NS**	**NS**	**6.5^{DO}**	**NS**	**narrative**

Notes:

NS - not specified

^{DO} - minimum long-term exposure guideline; see applicable guidelines for further details

^{pH} - not to be altered by more than 0.5 units from background

narrative - see applicable guidelines for further details

NS - not specified

* - *Environmental Quality Guidelines for Alberta Surface Waters* (AEP 2018)

Italics - values do not meet applicable guidelines

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-09 15:16	0	8.324	-158.279	20.183	0.595	0.592	0.000	1681933.63	0.998	0.000	8.272
2023-08-09 15:31	901	7.980	-140.235	19.889	745.638	747.224	0.409	1341.13	0.999	0.486	9.228
2023-08-09 15:46	1801	7.978	-140.035	19.735	983.75	988.747	0.548	1016.52	0.999	0.643	8.520
2023-08-09 16:01	2700	8.516	-167.68	19.105	0.466	0.474	0.000	2146108.75	0.998	0.000	8.909
2023-08-09 16:16	3601	8.041	-142.756	18.611	1239.906	1273.708	0.715	806.51	0.999	0.828	9.894
2023-08-09 16:31	4501	8.032	-142.331	18.627	1241.682	1275.128	0.716	805.36	0.999	0.829	9.856
2023-08-09 16:46	5401	8.011	-141.256	18.673	1238.534	1270.738	0.713	807.41	0.999	0.826	9.751
2023-08-09 17:01	6301	8.000	-140.805	18.939	1183.92	1208.414	0.676	844.65	0.999	0.785	9.699
2023-08-09 17:16	7201	7.973	-139.527	19.192	1201.446	1220.27	0.683	832.33	0.999	0.793	10.167
2023-08-09 17:31	8101	7.951	-138.474	19.419	1211.132	1224.714	0.685	825.67	0.999	0.796	10.318
2023-08-09 17:46	9001	7.932	-137.599	19.67	1213.894	1221.591	0.683	823.80	0.999	0.794	10.361
2023-08-09 18:01	9901	7.941	-138.197	19.948	1193.66	1194.843	0.667	837.76	0.999	0.777	10.219
2023-08-09 18:16	10801	7.931	-137.753	20.053	1222.32	1221.083	0.683	818.12	0.999	0.794	10.245
2023-08-09 18:31	11701	7.911	-136.757	20.143	1239.905	1236.535	0.691	806.51	0.999	0.804	10.313
2023-08-09 18:46	12601	7.864	-134.289	20.107	1269.21	1266.622	0.709	787.89	0.999	0.823	9.804
2023-08-09 19:01	13501	7.986	-140.615	20.104	1242.393	1239.923	0.694	804.90	0.999	0.806	8.917
2023-08-09 19:16	14401	7.987	-140.631	20.014	1266.387	1266.05	0.709	789.65	0.999	0.823	11.388
2023-08-09 19:31	15301	8.009	-141.802	20.031	1267.547	1266.807	0.709	788.93	0.999	0.823	11.354
2023-08-09 19:46	16201	7.993	-140.967	20.009	1267.746	1267.521	0.710	788.80	0.999	0.824	11.298
2023-08-09 20:01	17101	7.988	-140.669	20.007	1266.535	1266.364	0.709	789.56	0.999	0.823	10.964
2023-08-09 20:16	18001	8.001	-141.349	19.974	1269.024	1269.657	0.711	788.01	0.999	0.825	11.005
2023-08-09 20:31	18901	8.032	-142.953	19.981	1270.81	1271.279	0.712	786.90	0.999	0.826	10.879
2023-08-09 20:46	19801	8.038	-143.275	19.993	1271.695	1271.866	0.712	786.35	0.999	0.827	10.809
2023-08-09 21:01	20701	8.018	-142.267	20.005	1251.755	1251.631	0.700	798.88	0.999	0.814	10.734
2023-08-09 21:16	21601	7.969	-139.668	19.952	1269.737	1270.902	0.712	787.57	0.999	0.826	10.737
2023-08-09 21:31	22501	7.942	-138.216	19.898	1269.976	1272.464	0.713	787.42	0.999	0.827	10.420
2023-08-09 21:46	23401	7.942	-138.202	19.857	1269.846	1273.324	0.713	787.50	0.999	0.828	10.215
2023-08-09 22:01	24301	7.955	-138.886	19.805	1252.582	1257.265	0.704	798.35	0.999	0.817	9.734
2023-08-09 22:16	25201	7.933	-137.699	19.747	1261.844	1267.979	0.710	792.49	0.999	0.824	9.827
2023-08-09 22:31	26101	7.927	-137.353	19.705	1263.675	1270.836	0.712	791.34	0.999	0.826	9.672
2023-08-09 22:46	27001	7.912	-136.535	19.619	1262.83	1272.084	0.713	791.87	0.999	0.827	9.653
2023-08-09 23:01	27901	7.933	-137.556	19.505	1208.319	1219.858	0.682	827.60	0.999	0.793	9.521
2023-08-09 23:16	28801	7.923	-137.045	19.431	1243.897	1257.553	0.705	803.93	0.999	0.817	9.746
2023-08-09 23:31	29701	7.895	-135.548	19.38	1241.107	1255.988	0.704	805.73	0.999	0.816	9.762
2023-08-09 23:46	30601	7.901	-135.822	19.313	1243.198	1259.722	0.706	804.38	0.999	0.819	9.644
2023-08-10 00:01	31501	7.832	-132.172	19.153	1192.33	1211.947	0.678	838.69	0.999	0.788	8.069
2023-08-10 00:16	32401	7.717	-126.081	18.953	1206.999	1231.639	0.690	828.50	0.999	0.801	8.118
2023-08-10 00:31	33301	7.744	-127.375	18.713	1198.552	1228.768	0.689	834.34	0.999	0.799	8.019
2023-08-10 00:46	34201	7.747	-127.516	18.592	1190.422	1223.327	0.686	840.04	0.999	0.795	8.401
2023-08-10 01:01	35101	7.777	-129.032	18.533	1162.566	1196.08	0.670	860.17	0.999	0.777	8.487
2023-08-10 01:16	36001	7.860	-133.324	18.524	1196.03	1230.729	0.690	836.10	0.999	0.800	8.761
2023-08-10 01:31	36901	7.881	-134.413	18.514	1210.953	1246.334	0.699	825.80	0.999	0.810	9.031
2023-08-10 01:46	37801	7.923	-136.616	18.539	1220.903	1255.957	0.705	819.07	0.999	0.816	9.225
2023-08-10 02:01	38701	7.938	-137.374	18.536	1220.935	1256.064	0.705	819.04	0.999	0.816	9.455
2023-08-10 02:16	39601	7.914	-136.142	18.517	1220.8	1256.397	0.705	819.14	0.999	0.817	9.381
2023-08-10 02:31	40501	7.905	-135.634	18.492	1222.851	1259.107	0.707	817.76	0.999	0.818	9.152
2023-08-10 02:46	41401	7.904	-135.577	18.477	1223.784	1260.461	0.707	817.14	0.999	0.819	8.894
2023-08-10 03:01	42301	7.910	-135.901	18.457	1218.024	1255.008	0.704	821.00	0.999	0.816	8.940
2023-08-10 03:16	43201	7.903	-135.503	18.417	1219.48	1257.499	0.706	820.02	0.999	0.817	8.975
2023-08-10 03:31	44101	7.893	-134.976	18.338	1217.632	1257.547	0.706	821.27	0.999	0.817	8.696
2023-08-10 03:46	45001	7.887	-134.625	18.275	1215.179	1256.586	0.705	822.92	0.999	0.817	8.618
2023-08-10 04:01	45901	7.894	-134.952	18.221	1203.851	1246.198	0.699	830.67	0.999	0.810	8.433
2023-08-10 04:16	46801	7.873	-133.822	18.174	1209.41	1253.121	0.703	826.85	0.999	0.815	8.354
2023-08-10 04:31	47701	7.863	-133.317	18.102	1208.517	1253.967	0.704	827.46	0.999	0.815	8.267
2023-08-10 04:46	48601	7.872	-133.746	18.025	1206.419	1253.7	0.704	828.90	0.999	0.815	7.951
2023-08-10 05:01	49501	7.862	-133.183	17.948	1176.663	1224.654	0.687	849.86	0.999	0.796	7.620

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-10 05:16	50401	7.816	-130.782	17.916	1194.016	1243.52	0.698	837.51	0.999	0.808	7.636
2023-08-10 05:31	51301	7.827	-131.316	17.822	1200.498	1252.614	0.704	832.99	0.999	0.814	7.635
2023-08-10 05:46	52201	7.847	-132.298	17.755	1199.14	1252.855	0.704	833.93	0.999	0.814	7.451
2023-08-10 06:01	53101	7.827	-131.245	17.727	1174.962	1228.291	0.689	851.09	0.999	0.798	7.241
2023-08-10 06:16	54001	7.797	-129.728	17.716	1179.137	1232.934	0.692	848.08	0.999	0.801	7.275
2023-08-10 06:31	54901	7.792	-129.459	17.696	1183.551	1238.043	0.695	844.92	0.999	0.805	7.259
2023-08-10 06:46	55801	7.795	-129.559	17.665	1186.191	1241.557	0.697	843.04	0.999	0.807	7.218
2023-08-10 07:01	56701	7.803	-129.96	17.626	1163.718	1218.979	0.684	859.32	0.999	0.792	7.138
2023-08-10 07:16	57601	7.764	-127.933	17.607	1172.687	1228.862	0.690	852.74	0.999	0.799	6.960
2023-08-10 07:31	58501	7.765	-127.993	17.581	1174.354	1231.25	0.691	851.53	0.999	0.800	6.875
2023-08-10 07:46	59401	7.763	-127.883	17.517	1177.749	1236.373	0.694	849.08	0.999	0.804	6.765
2023-08-10 08:01	60301	7.765	-127.916	17.44	1150.309	1209.456	0.679	869.33	0.999	0.786	6.511
2023-08-10 08:16	61201	7.743	-126.796	17.415	1159.253	1219.458	0.685	862.62	0.999	0.793	***6.443***
2023-08-10 08:31	62101	7.745	-126.867	17.414	1164.655	1225.167	0.688	858.62	0.999	0.796	***6.334***
2023-08-10 08:46	63001	7.740	-126.6	17.414	1164.721	1225.246	0.688	858.57	0.999	0.796	***6.298***
2023-08-10 09:01	63901	7.741	-126.674	17.419	1154.213	1214.067	0.681	866.39	0.999	0.789	***6.327***
2023-08-10 09:16	64801	7.730	-126.116	17.421	1159.632	1219.713	0.685	862.34	0.999	0.793	***6.329***
2023-08-10 09:31	65701	7.722	-125.687	17.404	1161.667	1222.276	0.686	860.83	0.999	0.794	***6.295***
2023-08-10 09:46	66601	7.722	-125.651	17.373	1163.207	1224.646	0.688	859.69	0.999	0.796	***6.143***
2023-08-10 10:01	67501	7.739	-126.543	17.314	1143.107	1204.932	0.676	874.81	0.999	0.783	***6.137***
2023-08-10 10:16	68401	7.728	-125.945	17.266	1151.304	1214.728	0.682	868.58	0.999	0.790	***6.276***
2023-08-10 10:31	69301	7.726	-125.802	17.236	1153.367	1217.653	0.684	867.03	0.999	0.791	***6.343***
2023-08-10 10:46	70201	7.721	-125.549	17.219	1152.349	1216.998	0.683	867.79	0.999	0.791	6.614
2023-08-10 11:01	71101	7.755	-127.342	17.229	1120.754	1183.394	0.664	892.26	0.999	0.769	6.983
2023-08-10 11:16	72001	7.754	-127.292	17.245	1130.7	1193.505	0.670	884.41	0.999	0.776	7.237
2023-08-10 11:31	72901	7.770	-128.131	17.26	1128.466	1190.784	0.668	886.16	0.999	0.774	7.527
2023-08-10 11:46	73801	7.777	-128.455	17.273	1125.115	1186.939	0.666	888.80	0.999	0.772	7.703
2023-08-10 12:01	74701	7.809	-130.126	17.278	1102.928	1163.419	0.652	906.68	0.999	0.756	7.661
2023-08-10 12:16	75601	7.819	-130.668	17.287	1110.505	1171.184	0.656	900.49	0.999	0.761	7.885
2023-08-10 12:31	76501	7.807	-130.041	17.307	1111.046	1171.295	0.656	900.05	0.999	0.761	8.011
2023-08-10 12:46	77401	7.802	-129.802	17.326	1111.278	1171.1	0.656	899.87	0.999	0.761	8.029
2023-08-10 13:01	78301	7.832	-131.338	17.361	1083.007	1140.497	0.638	923.36	0.999	0.741	8.140
2023-08-10 13:16	79201	7.841	-131.834	17.377	1097.959	1155.868	0.647	910.78	0.999	0.751	8.037
2023-08-10 13:31	80101	7.825	-131.009	17.39	1100.439	1158.183	0.649	908.73	0.999	0.753	8.177
2023-08-10 13:46	81001	7.820	-130.761	17.402	1099.634	1157.047	0.648	909.39	0.999	0.752	8.442
2023-08-10 14:01	81901	7.878	-133.755	17.43	1081.239	1137.06	0.636	924.87	0.999	0.739	8.457
2023-08-10 14:16	82801	7.867	-133.185	17.458	1088.117	1143.649	0.640	919.02	0.999	0.743	8.561
2023-08-10 14:31	83701	7.884	-134.115	17.499	1087.792	1142.357	0.639	919.29	0.999	0.743	8.687
2023-08-10 14:46	84601	7.894	-134.623	17.55	1084.873	1138.133	0.637	921.77	0.999	0.740	8.911
2023-08-10 15:01	85501	7.902	-135.093	17.615	1068.192	1119.182	0.626	936.16	0.999	0.727	9.049
2023-08-10 15:16	86401	7.932	-136.671	17.666	1076.558	1126.784	0.630	928.89	0.999	0.732	9.162
2023-08-10 15:31	87301	7.952	-137.739	17.73	1077.129	1125.937	0.630	928.39	0.999	0.732	9.309
2023-08-10 15:46	88201	7.951	-137.701	17.801	1076.177	1123.354	0.628	929.22	0.999	0.730	9.437
2023-08-10 16:01	89101	7.993	-139.959	17.904	1074.589	1119.395	0.626	930.59	0.999	0.728	9.427
2023-08-10 16:16	90001	7.979	-139.272	17.986	1079.206	1122.388	0.627	926.61	0.999	0.730	9.667
2023-08-10 16:31	90901	7.972	-138.95	18.069	1081.995	1123.439	0.628	924.22	0.999	0.730	9.858
2023-08-10 16:46	91801	7.971	-138.91	18.142	1082.587	1122.417	0.627	923.71	0.999	0.730	9.897
2023-08-10 17:01	92701	7.992	-140.059	18.215	1073.968	1111.868	0.621	931.13	0.999	0.723	9.923
2023-08-10 17:16	93601	7.986	-139.732	18.259	1080.816	1117.997	0.624	925.23	0.999	0.727	9.874
2023-08-10 17:31	94501	7.993	-140.116	18.323	1080.934	1116.708	0.624	925.13	0.999	0.726	10.026
2023-08-10 17:46	95401	8.002	-140.629	18.388	1080.454	1114.779	0.622	925.54	0.999	0.725	10.225
2023-08-10 18:01	96301	8.040	-142.639	18.441	1077.879	1110.968	0.620	927.75	0.999	0.722	10.108
2023-08-10 18:16	97201	8.012	-141.211	18.473	1079.784	1112.229	0.621	926.11	0.999	0.723	10.191
2023-08-10 18:31	98101	8.005	-140.836	18.5	1080.508	1112.368	0.621	925.49	0.999	0.723	10.358
2023-08-10 18:46	99001	8.006	-140.934	18.527	1080.561	1111.838	0.621	925.45	0.999	0.723	10.383
2023-08-10 19:01	99901	7.996	-140.419	18.545	1072.118	1102.77	0.615	932.73	0.999	0.717	10.414

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-10 19:16	100801	8.014	-141.332	18.561	1078.978	1109.474	0.619	926.80	0.999	0.721	10.311
2023-08-10 19:31	101701	8.006	-140.941	18.577	1080.341	1110.517	0.620	925.63	0.999	0.722	10.404
2023-08-10 19:46	102601	7.999	-140.56	18.589	1081.949	1111.916	0.620	924.26	0.999	0.723	10.415
2023-08-10 20:01	103501	8.034	-142.386	18.591	1070.785	1100.388	0.614	933.89	0.999	0.715	10.184
2023-08-10 20:16	104401	7.994	-140.326	18.586	1079.093	1109.055	0.619	926.70	0.999	0.721	9.921
2023-08-10 20:31	105301	7.975	-139.315	18.573	1080.981	1111.27	0.620	925.09	0.999	0.722	10.031
2023-08-10 20:46	106201	7.959	-138.488	18.552	1083.877	1114.7	0.622	922.61	0.999	0.725	9.861
2023-08-10 21:01	107101	7.988	-139.973	18.498	1056.3	1087.507	0.606	946.70	0.999	0.707	9.725
2023-08-10 21:16	108001	8.015	-141.37	18.479	1071.474	1103.535	0.616	933.29	0.999	0.717	9.744
2023-08-10 21:31	108901	8.006	-140.87	18.467	1074.379	1106.783	0.618	930.77	0.999	0.719	9.626
2023-08-10 21:46	109801	8.003	-140.693	18.425	1076.428	1109.806	0.619	929.00	0.999	0.721	9.335
2023-08-10 22:01	110701	8.042	-142.72	18.4	1059.649	1093.053	0.610	943.71	0.999	0.710	9.245
2023-08-10 22:16	111601	7.979	-139.453	18.383	1066.688	1100.68	0.614	937.48	0.999	0.715	9.379
2023-08-10 22:31	112501	7.968	-138.848	18.342	1070.171	1105.179	0.617	934.43	0.999	0.718	9.264
2023-08-10 22:46	113401	7.952	-138.001	18.313	1069.817	1105.432	0.617	934.74	0.999	0.719	9.263
2023-08-10 23:01	114301	7.972	-139.055	18.295	1052.955	1088.396	0.607	949.71	0.999	0.707	9.341
2023-08-10 23:16	115201	7.966	-138.736	18.283	1064.001	1100.069	0.614	939.85	0.999	0.715	9.041
2023-08-10 23:31	116101	7.945	-137.599	18.27	1066.289	1102.719	0.615	937.83	0.999	0.717	8.817
2023-08-10 23:46	117001	7.942	-137.455	18.227	1069.091	1106.566	0.618	935.37	0.999	0.719	8.571
2023-08-11 00:01	117901	7.948	-137.718	18.181	1052.715	1090.595	0.608	949.92	0.999	0.709	8.509
2023-08-11 00:16	118801	7.881	-134.275	18.156	1058.619	1097.261	0.612	944.63	0.999	0.713	8.356
2023-08-11 00:31	119701	7.873	-133.827	18.143	1060.043	1099.033	0.613	943.36	0.999	0.714	8.373
2023-08-11 00:46	120601	7.875	-133.922	18.107	1063.275	1103.169	0.616	940.49	0.999	0.717	8.184
2023-08-11 01:01	121501	7.861	-133.171	18.019	1047.442	1088.633	0.608	954.71	0.999	0.708	7.914
2023-08-11 01:16	122401	7.838	-131.934	17.973	1054.777	1097.254	0.613	948.07	0.999	0.713	7.844
2023-08-11 01:31	123301	7.845	-132.277	17.956	1054.121	1096.955	0.612	948.66	0.999	0.713	7.833
2023-08-11 01:46	124201	7.850	-132.537	17.944	1054.631	1097.732	0.613	948.20	0.999	0.714	7.895
2023-08-11 02:01	125101	7.846	-132.346	17.919	1048.112	1091.485	0.609	954.10	0.999	0.709	7.572
2023-08-11 02:16	126001	7.789	-129.38	17.873	1048.533	1092.939	0.610	953.71	0.999	0.710	7.261
2023-08-11 02:31	126901	7.786	-129.182	17.802	1050.671	1096.703	0.612	951.77	0.999	0.713	7.133
2023-08-11 02:46	127801	7.782	-128.911	17.625	1051.953	1101.949	0.616	950.61	0.999	0.716	6.973
2023-08-11 03:01	128701	7.805	-129.843	17.044	1004.41	1064.515	0.594	995.61	0.999	0.692	***6.428***
2023-08-11 03:16	129601	7.884	-133.581	16.397	1048.097	1125.549	0.631	954.11	0.999	0.732	***5.978***
2023-08-11 03:31	130501	7.912	-134.852	15.976	1099.562	1191.117	0.669	909.45	0.999	0.774	***6.300***
2023-08-11 03:46	131401	7.909	-134.676	15.916	1114.544	1208.847	0.680	897.23	0.999	0.786	***6.379***
2023-08-11 04:01	132301	7.911	-134.799	15.955	1098.211	1190.158	0.669	910.57	0.999	0.774	***6.325***
2023-08-11 04:16	133201	7.875	-132.949	15.978	1112.114	1204.661	0.677	899.19	0.999	0.783	***6.375***
2023-08-11 04:31	134101	7.916	-135.016	15.922	1137.381	1233.466	0.694	879.21	0.999	0.802	6.628
2023-08-11 04:46	135001	7.964	-137.439	15.854	1154.543	1253.825	0.706	866.14	1	0.815	7.091
2023-08-11 05:01	135901	7.967	-137.57	15.799	1172.585	1274.888	0.719	852.82	1	0.829	7.070
2023-08-11 05:16	136801	7.940	-136.201	15.781	1184.813	1288.647	0.727	844.02	1	0.838	7.013
2023-08-11 05:31	137701	7.931	-135.732	15.759	1197.838	1303.41	0.736	834.84	1	0.847	6.927
2023-08-11 05:46	138601	7.926	-135.438	15.741	1202.281	1308.749	0.739	831.75	1	0.851	6.877
2023-08-11 06:01	139501	7.930	-135.663	15.719	1207.239	1314.747	0.743	828.34	1	0.855	6.805
2023-08-11 06:16	140401	7.913	-134.788	15.697	1210.03	1318.38	0.745	826.43	1	0.857	6.696
2023-08-11 06:31	141301	7.906	-134.389	15.664	1218.67	1328.714	0.751	820.57	1	0.864	6.647
2023-08-11 06:46	142201	7.907	-134.416	15.625	1222.349	1333.799	0.754	818.10	1	0.867	6.607
2023-08-11 07:01	143101	7.923	-135.226	15.593	1226.429	1339.142	0.757	815.38	1	0.870	6.723
2023-08-11 07:16	144001	7.903	-134.206	15.578	1233.875	1347.708	0.762	810.46	1	0.876	6.868
2023-08-11 07:31	144901	7.902	-134.132	15.593	1245.899	1360.423	0.770	802.63	1	0.884	6.926
2023-08-11 07:46	145801	7.897	-133.91	15.61	1252.754	1367.404	0.774	798.24	1	0.889	6.920
2023-08-11 08:01	146701	7.901	-134.096	15.622	1259.249	1374.149	0.778	794.12	1	0.893	6.884
2023-08-11 08:16	147601	7.875	-132.766	15.624	1259.026	1373.847	0.778	794.26	1	0.893	6.825
2023-08-11 08:31	148501	7.860	-132.02	15.623	1263.424	1378.69	0.780	791.50	1	0.896	6.775
2023-08-11 08:46	149401	7.846	-131.276	15.631	1263.478	1378.505	0.780	791.47	1	0.896	6.759
2023-08-11 09:01	150301	7.846	-131.314	15.648	1263.948	1378.537	0.780	791.17	1	0.896	6.735

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-11 09:16	151201	7.817	-129.795	15.647	1265.298	1380.034	0.781	790.33	1	0.897	6.694
2023-08-11 09:31	152101	7.805	-129.18	15.649	1267.258	1382.105	0.782	789.11	1	0.898	6.635
2023-08-11 09:46	153001	7.790	-128.431	15.692	1267.139	1380.764	0.782	789.18	1	0.897	6.553
2023-08-11 10:01	153901	7.792	-128.574	15.724	1266.483	1379.111	0.781	789.59	1	0.896	6.742
2023-08-11 10:16	154801	7.774	-127.618	15.714	1270.055	1383.302	0.783	787.37	1	0.899	6.762
2023-08-11 10:31	155701	7.767	-127.27	15.738	1274.938	1387.933	0.786	784.35	1	0.902	6.793
2023-08-11 10:46	156601	7.762	-127.063	15.777	1278.804	1391.006	0.788	781.98	1	0.904	6.804
2023-08-11 11:01	157501	7.774	-127.695	15.828	1280.304	1391.158	0.788	781.06	1	0.904	6.863
2023-08-11 11:16	158401	7.762	-127.084	15.894	1283.253	1392.457	0.788	779.27	1	0.905	6.904
2023-08-11 11:31	159301	7.763	-127.151	15.951	1283.775	1391.377	0.788	778.95	1	0.904	7.020
2023-08-11 11:46	160201	7.762	-127.13	16.014	1284.641	1390.516	0.787	778.43	1	0.904	6.942
2023-08-11 12:01	161101	7.778	-127.976	16.022	1286.311	1392.095	0.788	777.42	1	0.905	7.066
2023-08-11 12:16	162001	7.770	-127.594	16.058	1287.111	1391.91	0.788	776.93	1	0.905	7.116
2023-08-11 12:31	162901	7.778	-127.995	16.082	1289.088	1393.365	0.789	775.74	1	0.906	7.171
2023-08-11 12:46	163801	7.782	-128.183	16.088	1289.632	1393.782	0.789	775.42	1	0.906	7.198
2023-08-11 13:01	164701	7.799	-129.101	16.094	1288.822	1392.716	0.788	775.90	1	0.905	7.264
2023-08-11 13:16	165601	7.791	-128.667	16.096	1286.85	1390.551	0.787	777.09	1	0.904	7.258
2023-08-11 13:31	166501	7.793	-128.779	16.101	1286.103	1389.597	0.786	777.54	1	0.903	7.311
2023-08-11 13:46	167401	7.803	-129.287	16.101	1283.73	1387.021	0.785	778.98	1	0.902	7.303
2023-08-11 14:01	168301	7.819	-130.11	16.11	1282.418	1385.337	0.784	779.78	1	0.900	7.355
2023-08-11 14:16	169201	7.814	-129.855	16.14	1283.261	1385.39	0.784	779.27	1	0.901	7.446
2023-08-11 14:31	170101	7.819	-130.162	16.236	1287.996	1387.766	0.785	776.40	1	0.902	7.490
2023-08-11 14:46	171001	7.825	-130.498	16.3	1288.376	1386.345	0.784	776.17	1	0.901	7.581
2023-08-11 15:01	171901	7.844	-131.5	16.334	1290.495	1387.654	0.785	774.90	0.999	0.902	7.616
2023-08-11 15:16	172801	7.833	-130.949	16.403	1293.555	1388.994	0.786	773.06	0.999	0.903	7.768
2023-08-11 15:31	173701	7.807	-129.721	16.546	1299.045	1390.8	0.787	769.80	0.999	0.904	7.907
2023-08-11 15:46	174601	7.810	-129.936	16.702	1306.124	1393.921	0.788	765.62	0.999	0.906	8.052
2023-08-11 16:01	175501	7.863	-132.735	16.897	1312.273	1394.953	0.789	762.04	0.999	0.907	8.083
2023-08-11 16:16	176401	7.868	-133.042	17.02	1315.527	1394.913	0.788	760.15	0.999	0.907	8.144
2023-08-11 16:31	177301	7.858	-132.573	17.139	1318.695	1394.911	0.788	758.33	0.999	0.907	8.209
2023-08-11 16:46	178201	7.858	-132.649	17.224	1320.431	1394.376	0.788	757.33	0.999	0.906	8.229
2023-08-11 17:01	179101	7.868	-133.169	17.303	1319.374	1391.043	0.786	757.94	0.999	0.904	8.211
2023-08-11 17:16	180001	7.870	-133.328	17.343	1320.787	1391.4	0.786	757.13	0.999	0.904	8.194
2023-08-11 17:31	180901	7.899	-134.79	17.347	1320.178	1390.659	0.785	757.47	0.999	0.904	8.058
2023-08-11 17:46	181801	7.879	-133.772	17.286	1317.326	1389.348	0.785	759.11	0.999	0.903	7.975
2023-08-11 18:01	182701	7.921	-135.911	17.242	1312.154	1385.111	0.782	762.11	0.999	0.900	7.928
2023-08-11 18:16	183601	7.911	-135.381	17.206	1311.871	1385.824	0.783	762.27	0.999	0.901	8.187
2023-08-11 18:31	184501	7.913	-135.45	17.13	1309.113	1385.027	0.782	763.88	0.999	0.900	8.144
2023-08-11 18:46	185401	7.922	-135.868	17.081	1305.642	1382.747	0.781	765.91	0.999	0.899	8.146
2023-08-11 19:01	186301	7.940	-136.797	17.039	1300.971	1378.961	0.779	768.66	0.999	0.896	8.100
2023-08-11 19:16	187201	7.936	-136.554	17.017	1300.852	1379.442	0.779	768.73	0.999	0.897	8.071
2023-08-11 19:31	188101	7.938	-136.642	16.983	1299.169	1378.619	0.779	769.72	0.999	0.896	8.082
2023-08-11 19:46	189001	7.937	-136.585	16.953	1297.169	1377.332	0.778	770.91	0.999	0.895	8.064
2023-08-11 20:01	189901	7.964	-137.973	16.925	1296.86	1377.794	0.778	771.09	0.999	0.896	8.071
2023-08-11 20:16	190801	7.948	-137.124	16.913	1297.725	1379.044	0.779	770.58	0.999	0.896	7.976
2023-08-11 20:31	191701	7.947	-137.072	16.872	1295.91	1378.247	0.779	771.66	0.999	0.896	7.970
2023-08-11 20:46	192601	7.946	-137.029	16.848	1295.728	1378.725	0.779	771.77	0.999	0.896	8.017
2023-08-11 21:01	193501	7.973	-138.378	16.827	1294.541	1378.068	0.779	772.47	0.999	0.896	7.958
2023-08-11 21:16	194401	7.960	-137.694	16.788	1291.928	1376.371	0.778	774.04	0.999	0.895	7.878
2023-08-11 21:31	195301	7.955	-137.396	16.733	1287.884	1373.589	0.776	776.47	0.999	0.893	7.904
2023-08-11 21:46	196201	7.964	-137.858	16.678	1288.208	1375.491	0.777	776.27	0.999	0.894	7.827
2023-08-11 22:01	197101	7.984	-138.845	16.622	1284.328	1372.91	0.776	778.62	0.999	0.892	7.724
2023-08-11 22:16	198001	7.973	-138.252	16.57	1279.755	1369.485	0.774	781.40	0.999	0.890	7.604
2023-08-11 22:31	198901	7.962	-137.656	16.502	1275.14	1366.442	0.772	784.23	0.999	0.888	7.534
2023-08-11 22:46	199801	7.956	-137.327	16.433	1270.571	1363.459	0.771	787.05	0.999	0.886	7.444
2023-08-11 23:01	200701	7.974	-138.226	16.377	1267.198	1361.4	0.769	789.14	0.999	0.885	7.402

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-11 23:16	201601	7.960	-137.482	16.344	1265.427	1360.429	0.769	790.25	0.999	0.884	7.279
2023-08-11 23:31	202501	7.965	-137.715	16.323	1282.387	1379.262	0.780	779.80	0.999	0.897	7.271
2023-08-11 23:46	203401	7.965	-137.727	16.308	1284.786	1382.245	0.782	778.34	0.999	0.898	7.279
2023-08-12 00:01	204301	7.988	-138.879	16.259	1289.786	1389.042	0.786	775.32	1	0.903	7.293
2023-08-12 00:16	205201	7.978	-138.328	16.219	1289.956	1390.36	0.787	775.22	1	0.904	7.343
2023-08-12 00:31	206101	7.972	-138.006	16.168	1288.881	1390.677	0.787	775.87	1	0.904	7.335
2023-08-12 00:46	207001	7.969	-137.839	16.13	1286.935	1389.644	0.786	777.04	1	0.903	7.216
2023-08-12 01:01	207901	7.981	-138.438	16.117	1285.112	1388.064	0.785	778.14	1	0.902	7.176
2023-08-12 01:16	208801	7.964	-137.596	16.1	1284.799	1388.2	0.786	778.33	1	0.902	7.100
2023-08-12 01:31	209701	7.957	-137.217	16.076	1283.631	1387.624	0.785	779.04	1	0.902	7.012
2023-08-12 01:46	210601	7.956	-137.126	15.991	1277.071	1382.964	0.783	783.04	1	0.899	6.787
2023-08-12 02:01	211501	7.973	-137.963	15.898	1268.862	1376.728	0.779	788.11	1	0.895	6.666
2023-08-12 02:16	212401	7.975	-138.013	15.868	1269.419	1378.176	0.780	787.76	1	0.896	6.854
2023-08-12 02:31	213301	7.965	-137.506	15.835	1268.335	1377.964	0.780	788.44	1	0.896	6.782
2023-08-12 02:46	214201	7.958	-137.098	15.784	1265.58	1376.412	0.779	790.15	1	0.895	6.742
2023-08-12 03:01	215101	7.978	-138.111	15.726	1263.322	1375.62	0.779	791.56	1	0.894	6.773
2023-08-12 03:16	216001	7.963	-137.334	15.69	1264.615	1378.066	0.780	790.76	1	0.896	6.784
2023-08-12 03:31	216901	7.962	-137.265	15.659	1264.405	1378.726	0.780	790.89	1	0.896	6.796
2023-08-12 03:46	217801	7.953	-136.776	15.636	1263.468	1378.357	0.780	791.47	1	0.896	6.774
2023-08-12 04:01	218701	7.962	-137.253	15.587	1259.171	1375.08	0.778	794.17	1	0.894	6.623
2023-08-12 04:16	219601	7.950	-136.583	15.524	1256.44	1373.893	0.778	795.90	1	0.893	6.521
2023-08-12 04:31	220501	7.942	-136.147	15.459	1253.839	1372.914	0.777	797.55	1	0.892	***6.359***
2023-08-12 04:46	221401	7.936	-135.827	15.423	1252.562	1372.552	0.777	798.36	1	0.892	***6.462***
2023-08-12 05:01	222301	7.949	-136.466	15.392	1247.673	1368.084	0.774	801.49	1	0.889	***6.347***
2023-08-12 05:16	223201	7.946	-136.294	15.332	1246.644	1368.687	0.775	802.15	1	0.890	***6.363***
2023-08-12 05:31	224101	7.939	-135.93	15.291	1245.773	1368.892	0.775	802.71	1	0.890	***6.251***
2023-08-12 05:46	225001	7.946	-136.266	15.248	1248.252	1372.858	0.777	801.12	1	0.892	***6.345***
2023-08-12 06:01	225901	7.954	-136.64	15.229	1248.265	1373.425	0.778	801.11	1	0.893	***6.329***
2023-08-12 06:16	226801	7.931	-135.462	15.217	1249.674	1375.328	0.779	800.21	1	0.894	***6.252***
2023-08-12 06:31	227701	7.926	-135.2	15.202	1252.146	1378.466	0.781	798.63	1	0.896	***6.137***
2023-08-12 06:46	228601	7.919	-134.847	15.199	1254.33	1380.959	0.782	797.24	1	0.898	***6.094***
2023-08-12 07:01	229501	7.922	-134.993	15.205	1248.532	1374.415	0.778	800.94	1	0.893	***6.010***
2023-08-12 07:16	230401	7.911	-134.432	15.194	1252.667	1379.286	0.781	798.30	1	0.897	***5.880***
2023-08-12 07:31	231301	7.903	-133.989	15.185	1258.669	1386.158	0.785	794.49	1	0.901	***5.750***
2023-08-12 07:46	232201	7.917	-134.721	15.183	1264.047	1392.117	0.789	791.11	1	0.905	***5.530***
2023-08-12 08:01	233101	7.933	-135.515	15.162	1263.685	1392.348	0.789	791.34	1	0.905	***5.744***
2023-08-12 08:16	234001	7.927	-135.217	15.135	1266.834	1396.617	0.792	789.37	1	0.908	***5.774***
2023-08-12 08:31	234901	7.933	-135.534	15.112	1267.081	1397.562	0.792	789.22	1	0.908	***5.873***
2023-08-12 08:46	235801	7.935	-135.591	15.088	1267.207	1398.399	0.793	789.14	1	0.909	***5.882***
2023-08-12 09:01	236701	7.933	-135.517	15.076	1260.634	1391.498	0.789	793.25	1	0.904	***5.856***
2023-08-12 09:16	237601	7.917	-134.673	15.053	1264.054	1395.96	0.791	791.11	1	0.907	***5.746***
2023-08-12 09:31	238501	7.915	-134.58	15.032	1263.526	1395.987	0.791	791.44	1	0.907	***5.705***
2023-08-12 09:46	239401	7.910	-134.287	15.025	1263.318	1395.975	0.791	791.57	1	0.907	***5.659***
2023-08-12 10:01	240301	7.915	-134.571	15.039	1259.499	1391.325	0.789	793.97	1	0.904	***5.663***
2023-08-12 10:16	241201	7.909	-134.261	15.043	1259.207	1390.891	0.788	794.15	1	0.904	***5.684***
2023-08-12 10:31	242101	7.892	-133.371	15.041	1261.579	1393.583	0.790	792.66	1	0.906	***5.606***
2023-08-12 10:46	243001	7.879	-132.72	15.042	1262.871	1394.958	0.791	791.85	1	0.907	***5.543***
2023-08-12 11:01	243901	7.899	-133.75	15.081	1251.247	1380.984	0.782	799.20	1	0.898	***6.324***
2023-08-12 11:16	244801	7.915	-134.59	15.123	1255.696	1384.685	0.785	796.37	1	0.900	6.661
2023-08-12 11:31	245701	7.913	-134.552	15.197	1254.659	1381.392	0.783	797.03	1	0.898	7.078
2023-08-12 11:46	246601	7.930	-135.419	15.276	1254.689	1379.126	0.781	797.01	1	0.896	7.288
2023-08-12 12:01	247501	7.965	-137.262	15.363	1258.121	1380.368	0.782	794.84	1	0.897	7.235
2023-08-12 12:16	248401	7.948	-136.447	15.431	1259.433	1379.849	0.781	794.01	1	0.897	7.599
2023-08-12 12:31	249301	7.945	-136.34	15.514	1260.928	1379.099	0.781	793.07	1	0.896	7.809
2023-08-12 12:46	250201	7.958	-137.041	15.609	1262.838	1378.444	0.780	791.87	1	0.896	7.879
2023-08-12 13:01	251101	7.973	-137.856	15.716	1267.251	1380.178	0.781	789.11	1	0.897	7.895

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-12 13:16	252001	7.973	-137.913	15.797	1268.67	1379.392	0.781	788.23	1	0.897	8.175
2023-08-12 13:31	252901	7.965	-137.52	15.898	1271.405	1379.474	0.781	786.53	1	0.897	8.369
2023-08-12 13:46	253801	7.973	-137.98	16.001	1273.981	1379.326	0.780	784.94	1	0.897	8.426
2023-08-12 14:01	254701	7.980	-138.397	16.105	1283.245	1386.373	0.784	779.28	1	0.901	8.434
2023-08-12 14:16	255601	8.008	-139.883	16.177	1286.114	1387.43	0.785	777.54	1	0.902	8.574
2023-08-12 14:31	256501	7.972	-138.059	16.25	1288.469	1387.88	0.785	776.12	1	0.902	8.786
2023-08-12 14:46	257401	7.994	-139.267	16.371	1289.825	1385.89	0.784	775.30	0.999	0.901	8.832
2023-08-12 15:01	258301	8.014	-140.369	16.589	1293.672	1383.829	0.782	772.99	0.999	0.899	9.019
2023-08-12 15:16	259201	7.995	-139.475	16.713	1296.179	1383.019	0.782	771.50	0.999	0.899	9.030
2023-08-12 15:31	260101	8.008	-140.238	16.881	1322.519	1406.292	0.795	756.13	0.999	0.914	8.850
2023-08-12 15:46	261001	8.095	-144.699	16.898	1332.604	1416.538	0.801	750.41	0.999	0.921	9.082
2023-08-12 16:01	261901	8.071	-143.511	16.953	1324.509	1406.366	0.795	755.00	0.999	0.914	9.147
2023-08-12 16:16	262801	8.062	-143.075	17.051	1328.241	1407.521	0.796	752.88	0.999	0.915	9.367
2023-08-12 16:31	263701	8.049	-142.424	17.099	1329.645	1407.649	0.796	752.08	0.999	0.915	9.542
2023-08-12 16:46	264601	8.041	-142.019	17.125	1329.194	1406.416	0.795	752.34	0.999	0.914	9.736
2023-08-12 17:01	265501	8.060	-143.073	17.248	1319.656	1392.87	0.787	757.77	0.999	0.905	9.722
2023-08-12 17:16	266401	8.054	-142.832	17.35	1323.871	1394.447	0.788	755.36	0.999	0.906	9.950
2023-08-12 17:31	267301	8.086	-144.496	17.44	1349.341	1418.724	0.802	741.10	0.999	0.922	9.514
2023-08-12 17:46	268201	8.047	-142.539	17.48	1346.4	1414.48	0.799	742.72	0.999	0.919	9.810
2023-08-12 18:01	269101	8.083	-144.41	17.543	1338.411	1404.32	0.793	747.16	0.999	0.913	9.929
2023-08-12 18:16	270001	8.123	-146.425	17.477	1353.979	1422.526	0.804	738.56	0.999	0.925	9.738
2023-08-12 18:31	270901	8.108	-145.655	17.474	1352.977	1421.559	0.804	739.11	0.999	0.924	9.524
2023-08-12 18:46	271801	8.075	-144.005	17.531	1348.992	1415.77	0.800	741.29	0.999	0.920	9.899
2023-08-12 19:01	272701	8.097	-145.111	17.511	1335.885	1402.553	0.792	748.57	0.999	0.912	9.654
2023-08-12 19:16	273601	8.103	-145.407	17.459	1339.753	1408.094	0.796	746.41	0.999	0.915	9.827
2023-08-12 19:31	274501	8.077	-144.064	17.491	1339.135	1406.544	0.795	746.75	0.999	0.914	9.802
2023-08-12 19:46	275401	8.061	-143.27	17.554	1335.206	1400.639	0.791	748.95	0.999	0.910	10.498
2023-08-12 20:01	276301	8.098	-145.237	17.639	1305.32	1366.974	0.771	766.10	0.999	0.889	10.539
2023-08-12 20:16	277201	8.079	-144.286	17.696	1319.811	1380.552	0.779	757.68	0.999	0.897	10.492
2023-08-12 20:31	278101	8.065	-143.602	17.742	1322.662	1382.288	0.780	756.05	0.999	0.898	10.665
2023-08-12 20:46	279001	8.056	-143.113	17.776	1325.092	1383.873	0.781	754.67	0.999	0.900	10.712
2023-08-12 21:01	279901	8.056	-143.154	17.801	1298.132	1355.051	0.764	770.34	0.999	0.881	10.659
2023-08-12 21:16	280801	8.073	-144.017	17.8	1316.204	1373.936	0.775	759.76	0.999	0.893	10.398
2023-08-12 21:31	281701	8.040	-142.317	17.759	1329.138	1388.585	0.784	752.37	0.999	0.903	9.951
2023-08-12 21:46	282601	8.004	-140.383	17.653	1331.841	1394.343	0.787	750.84	0.999	0.906	10.171
2023-08-12 22:01	283501	8.052	-142.837	17.604	1315.611	1378.7	0.778	760.10	0.999	0.896	9.926
2023-08-12 22:16	284401	8.063	-143.299	17.356	1302.565	1371.851	0.774	767.72	0.999	0.892	8.843
2023-08-12 22:31	285301	8.047	-142.448	17.304	1303.691	1374.47	0.776	767.05	0.999	0.893	8.658
2023-08-12 22:46	286201	8.045	-142.314	17.246	1304.11	1376.519	0.777	766.81	0.999	0.895	8.435
2023-08-12 23:01	287101	8.035	-141.759	17.17	1304.68	1379.223	0.779	766.47	0.999	0.896	7.847
2023-08-12 23:16	288001	8.048	-142.381	17.051	1317.928	1396.604	0.789	758.77	0.999	0.908	7.920
2023-08-12 23:31	288901	8.044	-142.105	16.964	1314.819	1395.742	0.789	760.56	0.999	0.907	7.797
2023-08-12 23:46	289801	8.056	-142.674	16.855	1310.972	1394.747	0.789	762.79	0.999	0.907	8.117
2023-08-13 00:01	290701	8.054	-142.527	16.714	1308.214	1395.827	0.789	764.40	0.999	0.907	8.116
2023-08-13 00:16	291601	8.029	-141.18	16.619	1312.592	1403.221	0.794	761.85	0.999	0.912	7.888
2023-08-13 00:31	292501	8.015	-140.393	16.508	1316.167	1410.218	0.798	759.78	0.999	0.917	7.771
2023-08-13 00:46	293401	8.003	-139.716	16.419	1319.176	1416.027	0.802	758.05	0.999	0.920	7.644
2023-08-13 01:01	294301	8.002	-139.644	16.336	1319.302	1418.571	0.803	757.98	1	0.922	7.542
2023-08-13 01:16	295201	7.983	-138.607	16.258	1321.471	1423.181	0.806	756.73	1	0.925	7.531
2023-08-13 01:31	296101	7.973	-138.078	16.157	1321.459	1426.132	0.808	756.74	1	0.927	7.477
2023-08-13 01:46	297001	7.966	-137.661	16.089	1317.513	1423.885	0.807	759.01	1	0.926	7.377
2023-08-13 02:01	297901	7.979	-138.323	16.04	1319.1	1427.024	0.809	758.09	1	0.928	7.352
2023-08-13 02:16	298801	7.967	-137.672	16.008	1318.885	1427.748	0.809	758.22	1	0.928	7.322
2023-08-13 02:31	299701	7.970	-137.789	15.936	1320.088	1431.181	0.811	757.53	1	0.930	7.394
2023-08-13 02:46	300601	7.968	-137.675	15.866	1318.131	1431.143	0.811	758.65	1	0.930	7.403
2023-08-13 03:01	301501	7.986	-138.566	15.813	1316.328	1430.733	0.811	759.69	1	0.930	7.460

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-13 03:16	302401	7.978	-138.152	15.788	1321.363	1436.965	0.815	756.79	1	0.934	7.488
2023-08-13 03:31	303301	7.968	-137.637	15.75	1319.603	1436.199	0.814	757.80	1	0.934	7.458
2023-08-13 03:46	304201	7.977	-138.056	15.724	1323.526	1441.239	0.817	755.56	1	0.937	7.383
2023-08-13 04:01	305102	7.988	-138.619	15.679	1328.021	1447.498	0.821	753.00	1	0.941	7.374
2023-08-13 04:16	306002	7.970	-137.651	15.636	1329.081	1449.927	0.823	752.40	1	0.942	7.398
2023-08-13 04:31	306902	7.963	-137.262	15.585	1328.791	1451.154	0.823	752.56	1	0.943	7.488
2023-08-13 04:46	307802	7.953	-136.75	15.547	1326.052	1449.314	0.822	754.12	1	0.942	7.437
2023-08-13 05:01	308702	7.961	-137.115	15.506	1323.173	1447.426	0.821	755.76	1	0.941	7.354
2023-08-13 05:16	309602	7.942	-136.166	15.478	1324.356	1449.564	0.823	755.08	1	0.942	7.190
2023-08-13 05:31	310502	7.931	-135.555	15.434	1323.956	1450.456	0.823	755.31	1	0.943	7.148
2023-08-13 05:46	311402	7.932	-135.61	15.389	1322.215	1449.895	0.823	756.31	1	0.942	7.099
2023-08-13 06:01	312302	7.942	-136.089	15.349	1320	1448.684	0.822	757.58	1	0.942	7.142
2023-08-13 06:16	313202	7.927	-135.298	15.313	1320.688	1450.545	0.823	757.18	1	0.943	7.161
2023-08-13 06:31	314102	7.925	-135.157	15.267	1319.773	1450.945	0.824	757.71	1	0.943	7.090
2023-08-13 06:46	315002	7.919	-134.85	15.23	1319.494	1451.768	0.824	757.87	1	0.944	7.105
2023-08-13 07:01	315902	7.930	-135.41	15.199	1318.749	1451.898	0.824	758.30	1	0.944	7.024
2023-08-13 07:16	316802	7.902	-133.97	15.172	1318.086	1451.968	0.824	758.68	1	0.944	7.040
2023-08-13 07:31	317702	7.894	-133.531	15.15	1316.227	1450.593	0.824	759.75	1	0.943	6.921
2023-08-13 07:46	318602	7.885	-133.083	15.127	1316.139	1451.212	0.824	759.80	1	0.943	6.934
2023-08-13 08:01	319502	7.893	-133.469	15.111	1315.197	1450.655	0.824	760.34	1	0.943	6.888
2023-08-13 08:16	320402	7.871	-132.337	15.102	1317.181	1453.111	0.825	759.20	1	0.945	6.799
2023-08-13 08:31	321302	7.861	-131.812	15.106	1315.462	1451.113	0.824	760.19	1	0.943	6.550
2023-08-13 08:46	322202	7.857	-131.624	15.123	1314.061	1449.045	0.823	761.00	1	0.942	6.844
2023-08-13 09:01	323102	7.875	-132.57	15.137	1318.224	1453.193	0.825	758.60	1	0.945	6.825
2023-08-13 09:16	324002	7.860	-131.786	15.151	1319.426	1454.092	0.826	757.91	1	0.945	6.922
2023-08-13 09:31	324902	7.861	-131.862	15.168	1320.892	1455.196	0.826	757.06	1	0.946	6.896
2023-08-13 09:46	325802	7.859	-131.738	15.187	1321.839	1455.662	0.827	756.52	1	0.946	6.948
2023-08-13 10:01	326702	7.876	-132.649	15.222	1324.174	1457.151	0.827	755.19	1	0.947	7.010
2023-08-13 10:16	327602	7.863	-131.965	15.248	1324.934	1457.202	0.827	754.76	1	0.947	6.946
2023-08-13 10:31	328502	7.866	-132.163	15.313	1327.618	1458.141	0.828	753.23	1	0.948	7.047
2023-08-13 10:46	329402	7.867	-132.279	15.395	1330.86	1459.196	0.828	751.39	1	0.948	7.086
2023-08-13 11:01	330302	7.883	-133.14	15.496	1334.057	1459.623	0.829	749.59	1	0.949	7.232
2023-08-13 11:16	331202	7.876	-132.816	15.57	1335.68	1459.158	0.828	748.68	1	0.948	7.317
2023-08-13 11:31	332102	7.882	-133.15	15.651	1338.783	1460.073	0.829	746.95	1	0.949	7.320
2023-08-13 11:46	333002	7.891	-133.634	15.745	1341.985	1460.69	0.829	745.17	1	0.949	7.420
2023-08-13 12:01	333902	7.909	-134.606	15.842	1346.409	1462.552	0.830	742.72	1	0.951	7.411
2023-08-13 12:16	334802	7.902	-134.299	15.93	1347.911	1461.534	0.829	741.89	1	0.950	7.551
2023-08-13 12:31	335702	7.906	-134.563	16.004	1350.629	1462.223	0.830	740.40	1	0.950	7.574
2023-08-13 12:46	336602	7.906	-134.594	16.088	1353.089	1462.346	0.830	739.05	1	0.951	7.631
2023-08-13 13:01	337502	7.933	-136.056	16.219	1357.523	1463.176	0.830	736.64	1	0.951	7.786
2023-08-13 13:16	338402	7.923	-135.534	16.291	1360.441	1464.158	0.830	735.06	1	0.952	7.868
2023-08-13 13:31	339302	7.929	-135.913	16.407	1364.218	1464.732	0.831	733.02	1	0.952	7.918
2023-08-13 13:46	340202	7.939	-136.483	16.554	1371.306	1467.931	0.832	729.23	0.999	0.954	7.984
2023-08-13 14:01	341102	7.962	-137.794	16.773	1378.219	1468.754	0.832	725.57	0.999	0.955	8.070
2023-08-13 14:16	342002	7.958	-137.684	16.979	1384.445	1469.209	0.832	722.31	0.999	0.955	8.147
2023-08-13 14:31	342902	7.967	-138.276	17.218	1391.646	1469.742	0.832	718.57	0.999	0.955	8.240
2023-08-13 14:46	343802	7.967	-138.378	17.418	1397.372	1469.858	0.832	715.63	0.999	0.955	8.271
2023-08-13 15:01	344702	7.985	-139.396	17.623	1405.017	1471.843	0.833	711.74	0.999	0.957	8.277
2023-08-13 15:16	345602	7.972	-138.767	17.727	1407.937	1471.827	0.833	710.26	0.999	0.957	8.314
2023-08-13 15:31	346502	7.959	-138.116	17.834	1409.762	1470.602	0.832	709.34	0.999	0.956	8.308
2023-08-13 15:46	347402	7.961	-138.288	17.972	1414.716	1471.72	0.833	706.86	0.999	0.957	8.402
2023-08-13 16:01	348302	7.975	-139.081	18.114	1420.996	1474.083	0.834	703.73	0.999	0.958	8.343
2023-08-13 16:16	349202	7.974	-139.103	18.191	1421.807	1472.696	0.833	703.33	0.999	0.957	8.442
2023-08-13 16:31	350102	7.963	-138.521	18.223	1423.244	1473.245	0.833	702.62	0.999	0.958	8.436
2023-08-13 16:46	351002	7.985	-139.685	18.262	1423.837	1472.719	0.833	702.33	0.999	0.957	8.445
2023-08-13 17:01	351902	7.999	-140.424	18.287	1424.276	1472.457	0.833	702.11	0.999	0.957	8.225

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-13 17:16	352802	8.000	-140.483	18.29	1426.168	1474.312	0.834	701.18	0.999	0.958	8.401
2023-08-13 17:31	353702	8.002	-140.584	18.299	1428.083	1476.05	0.835	700.24	0.999	0.959	8.234
2023-08-13 17:46	354602	8.000	-140.5	18.338	1428.116	1474.94	0.834	700.22	0.999	0.959	8.415
2023-08-13 18:01	355502	8.035	-142.384	18.424	1431.109	1475.527	0.834	698.76	0.999	0.959	8.480
2023-08-13 18:16	356402	8.023	-141.79	18.482	1431.351	1474.08	0.833	698.64	0.999	0.958	8.460
2023-08-13 18:31	357302	8.008	-140.986	18.515	1431.669	1473.473	0.833	698.49	0.999	0.958	8.383
2023-08-13 18:46	358202	8.032	-142.245	18.471	1428.438	1471.416	0.832	700.07	0.999	0.956	8.264
2023-08-13 19:01	359102	8.049	-143.096	18.419	1425.094	1469.477	0.831	701.71	0.999	0.955	8.161
2023-08-13 19:16	360002	8.027	-141.921	18.398	1424.73	1469.694	0.831	701.89	0.999	0.955	8.193
2023-08-13 19:31	360902	8.020	-141.568	18.397	1424.167	1469.145	0.831	702.17	0.999	0.955	8.124
2023-08-13 19:46	361802	8.040	-142.615	18.432	1424.011	1467.97	0.830	702.24	0.999	0.954	7.994
2023-08-13 20:01	362702	8.056	-143.485	18.462	1425.082	1468.199	0.830	701.71	0.999	0.954	7.944
2023-08-13 20:16	363602	8.049	-143.085	18.459	1424.362	1467.567	0.830	702.07	0.999	0.954	7.926
2023-08-13 20:31	364502	8.056	-143.445	18.439	1424.718	1468.514	0.830	701.89	0.999	0.955	7.938
2023-08-13 20:46	365402	8.046	-142.915	18.428	1423.849	1467.93	0.830	702.32	0.999	0.954	7.933
2023-08-13 21:01	366302	8.045	-142.879	18.425	1424.347	1468.519	0.830	702.08	0.999	0.955	7.787
2023-08-13 21:16	367202	8.050	-143.151	18.425	1427.022	1471.269	0.832	700.76	0.999	0.956	7.534
2023-08-13 21:31	368102	8.045	-142.901	18.422	1428.383	1472.771	0.833	700.09	0.999	0.957	7.308
2023-08-13 21:46	369002	8.032	-142.2	18.411	1429.112	1473.853	0.833	699.74	0.999	0.958	7.251
2023-08-13 22:01	369902	8.058	-143.54	18.389	1427.487	1472.802	0.833	700.53	0.999	0.957	7.375
2023-08-13 22:16	370802	8.027	-141.914	18.313	1418.369	1465.6	0.829	705.04	0.999	0.953	7.380
2023-08-13 22:31	371702	8.022	-141.592	18.208	1406.853	1456.721	0.823	710.81	0.999	0.947	7.417
2023-08-13 22:46	372602	8.023	-141.566	18.106	1401.218	1453.816	0.822	713.67	0.999	0.945	7.375
2023-08-13 23:01	373502	8.047	-142.77	17.999	1395.793	1451.256	0.821	716.44	0.999	0.943	7.395
2023-08-13 23:16	374402	8.035	-142.131	17.927	1397.336	1454.938	0.823	715.65	0.999	0.946	7.356
2023-08-13 23:31	375302	8.028	-141.754	17.881	1396.789	1455.692	0.823	715.93	0.999	0.946	7.351
2023-08-13 23:46	376202	8.014	-140.998	17.839	1393.179	1453.16	0.822	717.78	0.999	0.945	7.290
2023-08-14 00:01	377102	8.028	-141.709	17.796	1389.801	1450.869	0.821	719.53	0.999	0.943	7.210
2023-08-14 00:16	378002	8.008	-140.643	17.747	1387.46	1449.864	0.820	720.74	0.999	0.942	7.170
2023-08-14 00:31	378902	8.006	-140.514	17.7	1384.277	1447.869	0.819	722.40	0.999	0.941	7.188
2023-08-14 00:46	379802	8.005	-140.438	17.664	1382.518	1447.081	0.818	723.32	0.999	0.941	7.081
2023-08-14 01:01	380702	8.024	-141.406	17.628	1386.795	1452.614	0.822	721.09	0.999	0.944	7.095
2023-08-14 01:16	381602	8.013	-140.822	17.609	1389.933	1456.449	0.824	719.46	0.999	0.947	7.116
2023-08-14 01:31	382502	8.001	-140.221	17.588	1387.826	1454.858	0.823	720.55	0.999	0.946	7.085
2023-08-14 01:46	383402	7.998	-140.061	17.578	1387.159	1454.454	0.823	720.90	0.999	0.945	6.999
2023-08-14 02:01	384302	8.007	-140.491	17.528	1384.519	1453.129	0.822	722.27	0.999	0.945	6.973
2023-08-14 02:16	385202	7.999	-140.059	17.484	1382.489	1452.276	0.822	723.33	0.999	0.944	6.905
2023-08-14 02:31	386102	7.985	-139.303	17.437	1380.159	1451.206	0.821	724.55	0.999	0.943	6.869
2023-08-14 02:46	387002	7.984	-139.234	17.396	1378.693	1450.865	0.821	725.33	0.999	0.943	6.782
2023-08-14 03:01	387902	8.002	-140.145	17.354	1375.99	1449.233	0.820	726.75	0.999	0.942	6.781
2023-08-14 03:16	388802	7.989	-139.458	17.327	1374.836	1448.791	0.820	727.36	0.999	0.942	6.561
2023-08-14 03:31	389702	7.975	-138.731	17.305	1375.69	1450.354	0.821	726.91	0.999	0.943	***6.380***
2023-08-14 03:46	390602	7.963	-138.066	17.255	1372.429	1448.354	0.820	728.64	0.999	0.941	***6.345***
2023-08-14 04:01	391502	7.982	-139.043	17.209	1371.337	1448.555	0.820	729.22	0.999	0.942	***6.273***
2023-08-14 04:16	392402	7.979	-138.826	17.082	1368.301	1449.067	0.820	730.83	0.999	0.942	6.541
2023-08-14 04:31	393302	8.001	-139.928	17.023	1369.1	1451.642	0.822	730.41	0.999	0.944	6.715
2023-08-14 04:46	394202	8.000	-139.868	16.977	1369.976	1453.92	0.823	729.94	0.999	0.945	6.762
2023-08-14 05:01	395102	8.007	-140.197	16.934	1366.132	1451.12	0.822	731.99	0.999	0.943	6.681
2023-08-14 05:16	396002	7.976	-138.583	16.893	1364.965	1451.082	0.822	732.62	0.999	0.943	***6.339***
2023-08-14 05:31	396902	7.969	-138.19	16.868	1364.509	1451.325	0.822	732.87	0.999	0.943	***6.179***
2023-08-14 05:46	397802	7.966	-138.044	16.862	1364.338	1451.319	0.822	732.96	0.999	0.943	***5.980***
2023-08-14 06:01	398702	7.965	-137.968	16.858	1365.185	1452.346	0.823	732.50	0.999	0.944	***5.820***
2023-08-14 06:16	399602	7.939	-136.623	16.834	1364.314	1452.128	0.823	732.97	0.999	0.944	***5.618***
2023-08-14 06:31	400502	7.917	-135.505	16.812	1363.488	1451.891	0.822	733.41	0.999	0.944	***5.481***
2023-08-14 06:46	401402	7.911	-135.169	16.798	1363.004	1451.8	0.822	733.67	0.999	0.944	***5.388***
2023-08-14 07:01	402302	7.918	-135.527	16.804	1362.805	1451.406	0.822	733.78	0.999	0.943	***5.310***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-14 07:16	403202	7.911	-135.181	16.791	1361.625	1450.537	0.822	734.42	0.999	0.943	***5.242***
2023-08-14 07:31	404102	7.906	-134.928	16.777	1361.136	1450.427	0.822	734.68	0.999	0.943	***5.073***
2023-08-14 07:46	405002	7.902	-134.685	16.779	1361.293	1450.545	0.822	734.60	0.999	0.943	***5.073***
2023-08-14 08:01	405902	7.909	-135.05	16.793	1361.78	1450.651	0.822	734.33	0.999	0.943	***4.944***
2023-08-14 08:16	406802	7.896	-134.406	16.798	1361.675	1450.37	0.822	734.39	0.999	0.943	***4.907***
2023-08-14 08:31	407702	7.887	-133.92	16.81	1362.062	1450.448	0.822	734.18	0.999	0.943	***4.904***
2023-08-14 08:46	408602	7.872	-133.176	16.819	1362.546	1450.684	0.822	733.92	0.999	0.943	***4.847***
2023-08-14 09:01	409502	7.883	-133.746	16.834	1363.246	1450.989	0.822	733.54	0.999	0.943	***4.734***
2023-08-14 09:16	410402	7.871	-133.133	16.8	1362.241	1450.926	0.822	734.09	0.999	0.943	***4.723***
2023-08-14 09:31	411302	7.846	-131.807	16.779	1362.349	1451.654	0.822	734.03	0.999	0.944	***4.813***
2023-08-14 09:46	412202	8.027	-141.137	16.733	1375.977	1467.56	0.832	726.76	0.999	0.954	7.148
2023-08-14 10:01	413102	8.061	-142.841	16.683	1376.565	1469.68	0.833	726.45	0.999	0.955	7.554
2023-08-14 10:16	414002	8.039	-141.709	16.672	1376.038	1469.44	0.833	726.72	0.999	0.955	7.385
2023-08-14 10:31	414902	8.034	-141.42	16.643	1376.189	1470.487	0.834	726.65	0.999	0.956	7.420
2023-08-14 10:46	415802	8.022	-140.81	16.651	1375.337	1469.317	0.833	727.10	0.999	0.955	7.340
2023-08-14 11:01	416702	8.032	-141.37	16.694	1374.406	1467.036	0.832	727.59	0.999	0.954	7.470
2023-08-14 11:16	417602	8.020	-140.755	16.73	1375.04	1466.645	0.831	727.25	0.999	0.953	7.397
2023-08-14 11:31	418502	8.004	-139.985	16.783	1376.383	1466.499	0.831	726.54	0.999	0.953	7.431
2023-08-14 11:46	419402	8.002	-139.878	16.828	1377.8	1466.656	0.831	725.80	0.999	0.953	7.645
2023-08-14 12:01	420302	8.033	-141.521	16.885	1379.861	1467.153	0.831	724.71	0.999	0.954	7.773
2023-08-14 12:16	421202	8.025	-141.125	16.932	1380.874	1466.814	0.831	724.18	0.999	0.953	7.926
2023-08-14 12:31	422102	8.013	-140.548	17.018	1383.069	1466.615	0.831	723.03	0.999	0.953	8.048
2023-08-14 12:46	423002	8.010	-140.419	17.12	1386.174	1466.85	0.831	721.41	0.999	0.953	8.183
2023-08-14 13:01	423902	8.030	-141.525	17.249	1391.158	1468.304	0.832	718.83	0.999	0.954	8.158
2023-08-14 13:16	424802	8.030	-141.571	17.344	1393.553	1468.022	0.831	717.59	0.999	0.954	8.338
2023-08-14 13:31	425702	8.015	-140.848	17.441	1397.062	1468.864	0.832	715.79	0.999	0.955	8.523
2023-08-14 13:46	426602	8.025	-141.437	17.554	1400.89	1469.554	0.832	713.83	0.999	0.955	8.706
2023-08-14 14:01	427502	8.072	-143.943	17.705	1402.958	1467.285	0.830	712.78	0.999	0.954	8.742
2023-08-14 14:16	428402	8.067	-143.745	17.834	1405.113	1465.745	0.829	711.69	0.999	0.953	8.837
2023-08-14 14:31	429302	8.053	-143.077	17.951	1407.636	1464.977	0.829	710.41	0.999	0.952	9.036
2023-08-14 14:46	430202	8.028	-141.814	18.017	1410.56	1466.083	0.829	708.94	0.999	0.953	9.037
2023-08-14 15:01	431102	8.066	-143.833	18.15	1415.537	1467.387	0.830	706.45	0.999	0.954	9.012
2023-08-14 15:16	432002	8.072	-144.167	18.213	1423.472	1473.781	0.834	702.51	0.999	0.958	8.946
2023-08-14 15:31	432902	8.111	-146.189	18.241	1427.643	1477.272	0.836	700.46	0.999	0.960	8.972
2023-08-14 15:46	433802	8.067	-143.957	18.292	1426.74	1474.851	0.834	700.90	0.999	0.959	9.066
2023-08-14 16:01	434702	8.104	-145.929	18.367	1424.561	1470.418	0.831	701.97	0.999	0.956	9.502
2023-08-14 16:16	435602	8.100	-145.752	18.453	1427.608	1471.066	0.832	700.47	0.999	0.956	9.618
2023-08-14 16:31	436502	8.089	-145.23	18.538	1432.45	1473.588	0.833	698.11	0.999	0.958	9.615
2023-08-14 16:46	437402	8.109	-146.275	18.603	1436.914	1476.297	0.835	695.94	0.999	0.960	9.654
2023-08-14 17:01	438302	8.131	-147.491	18.68	1435.787	1472.934	0.832	696.48	0.999	0.957	9.931
2023-08-14 17:16	439202	8.138	-147.841	18.73	1440.537	1476.351	0.834	694.19	0.999	0.960	9.840
2023-08-14 17:31	440102	8.151	-148.54	18.719	1448.768	1485.093	0.840	690.24	0.999	0.965	9.760
2023-08-14 17:46	441002	8.165	-149.226	18.691	1451.375	1488.588	0.842	689.00	0.999	0.968	9.606
2023-08-14 18:01	441902	8.180	-150.008	18.669	1449.829	1487.638	0.841	689.74	0.999	0.967	9.550
2023-08-14 18:16	442802	8.164	-149.19	18.673	1449.736	1487.431	0.841	689.78	0.999	0.967	9.545
2023-08-14 18:31	443702	8.133	-147.595	18.714	1450.362	1486.893	0.841	689.48	0.999	0.966	9.505
2023-08-14 18:46	444602	8.114	-146.616	18.768	1450.2	1485.142	0.840	689.56	0.999	0.965	9.831
2023-08-14 19:01	445502	8.131	-147.576	18.836	1439.966	1472.711	0.832	694.46	0.999	0.957	10.047
2023-08-14 19:16	446402	8.128	-147.412	18.876	1445.601	1477.316	0.835	691.75	0.999	0.960	10.081
2023-08-14 19:31	447302	8.119	-146.959	18.916	1446.946	1477.525	0.835	691.11	0.999	0.960	10.374
2023-08-14 19:46	448202	8.113	-146.673	18.926	1451.65	1482.062	0.838	688.87	0.999	0.963	10.287
2023-08-14 20:01	449102	8.164	-149.262	18.84	1426.124	1458.425	0.824	701.20	0.999	0.948	9.713
2023-08-14 20:16	450002	8.127	-147.29	18.773	1437.281	1471.769	0.832	695.76	0.999	0.957	9.544
2023-08-14 20:31	450902	8.101	-145.946	18.691	1437.513	1474.363	0.833	695.65	0.999	0.958	9.456
2023-08-14 20:46	451802	8.080	-144.818	18.629	1428.966	1467.404	0.829	699.81	0.999	0.954	10.046
2023-08-14 21:01	452702	8.119	-146.832	18.634	1414.768	1452.671	0.821	706.83	0.999	0.944	10.230

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-14 21:16	453602	8.129	-147.321	18.631	1424.996	1463.266	0.827	701.76	0.999	0.951	10.016
2023-08-14 21:31	454502	8.102	-145.931	18.612	1430.273	1469.235	0.830	699.17	0.999	0.955	9.647
2023-08-14 21:46	455402	8.102	-145.917	18.562	1433.116	1473.584	0.833	697.78	0.999	0.958	9.420
2023-08-14 22:01	456302	8.115	-146.551	18.488	1401.09	1442.762	0.815	713.73	0.999	0.938	9.355
2023-08-14 22:16	457202	8.089	-145.147	18.436	1416.277	1459.896	0.825	706.08	0.999	0.949	9.050
2023-08-14 22:31	458102	8.081	-144.742	18.36	1418.562	1464.423	0.828	704.94	0.999	0.952	8.796
2023-08-14 22:46	459002	8.051	-143.137	18.293	1417.423	1465.192	0.828	705.51	0.999	0.952	8.931
2023-08-14 23:01	459902	8.029	-141.957	18.225	1392.048	1440.895	0.814	718.37	0.999	0.937	8.627
2023-08-14 23:16	460802	8.009	-140.908	18.166	1397.839	1448.595	0.819	715.39	0.999	0.942	8.288
2023-08-14 23:31	461702	7.997	-140.247	18.101	1393.829	1446.278	0.817	717.45	0.999	0.940	8.290
2023-08-14 23:46	462602	7.987	-139.716	18.04	1396.481	1450.786	0.820	716.09	0.999	0.943	8.331
2023-08-15 00:01	463502	8.009	-140.765	17.942	1373.166	1429.354	0.808	728.24	0.999	0.929	8.321
2023-08-15 00:16	464402	7.974	-138.924	17.856	1378.02	1436.872	0.812	725.68	0.999	0.934	8.216
2023-08-15 00:31	465302	7.966	-138.497	17.836	1380.411	1439.932	0.814	724.42	0.999	0.936	8.119
2023-08-15 00:46	466202	7.962	-138.278	17.802	1386.901	1447.688	0.819	721.03	0.999	0.941	7.784
2023-08-15 01:01	467102	7.998	-140.073	17.673	1352.134	1415.031	0.799	739.57	0.999	0.920	7.772
2023-08-15 01:16	468002	7.973	-138.741	17.603	1359.096	1424.299	0.805	735.78	0.999	0.926	7.803
2023-08-15 01:31	468902	7.966	-138.352	17.545	1371.142	1438.612	0.814	729.32	0.999	0.935	7.580
2023-08-15 01:46	469802	7.982	-139.163	17.462	1369.526	1439.293	0.814	730.18	0.999	0.936	7.266
2023-08-15 02:01	470702	8.008	-140.448	17.398	1339.906	1409.969	0.797	746.32	0.999	0.916	7.263
2023-08-15 02:16	471602	7.972	-138.595	17.352	1350.59	1422.539	0.804	740.42	0.999	0.925	7.248
2023-08-15 02:31	472502	7.968	-138.352	17.3	1354.455	1428.117	0.808	738.30	0.999	0.928	7.267
2023-08-15 02:46	473402	7.966	-138.223	17.224	1358.837	1434.923	0.812	735.92	0.999	0.933	6.983
2023-08-15 03:01	474302	7.968	-138.247	17.125	1310.237	1386.376	0.783	763.22	0.999	0.901	6.958
2023-08-15 03:16	475202	7.946	-137.124	17.064	1333.717	1412.939	0.799	749.78	0.999	0.918	6.871
2023-08-15 03:31	476102	7.945	-137.057	17.019	1335.831	1416.488	0.801	748.60	0.999	0.921	6.652
2023-08-15 03:46	477002	7.948	-137.181	16.97	1336.479	1418.59	0.802	748.23	0.999	0.922	6.512
2023-08-15 04:01	477902	7.960	-137.768	16.92	1312.338	1394.358	0.788	762.00	0.999	0.906	***6.432***
2023-08-15 04:16	478802	7.923	-135.856	16.883	1322.225	1405.935	0.795	756.30	0.999	0.914	***6.258***
2023-08-15 04:31	479702	7.932	-136.29	16.862	1324.803	1409.274	0.797	754.83	0.999	0.916	***6.168***
2023-08-15 04:46	480602	7.927	-136.02	16.839	1327.425	1412.706	0.799	753.34	0.999	0.918	***6.114***
2023-08-15 05:01	481502	7.917	-135.512	16.835	1305.939	1389.958	0.786	765.73	0.999	0.903	***6.144***
2023-08-15 05:16	482402	7.905	-134.9	16.826	1319.712	1404.867	0.795	757.74	0.999	0.913	***6.074***
2023-08-15 05:31	483302	7.896	-134.408	16.821	1324.403	1410.019	0.798	755.06	0.999	0.917	***5.864***
2023-08-15 05:46	484202	7.886	-133.917	16.813	1326.102	1412.065	0.799	754.09	0.999	0.918	***5.765***
2023-08-15 06:01	485102	7.911	-135.207	16.814	1313.817	1398.961	0.791	761.14	0.999	0.909	***5.556***
2023-08-15 06:16	486002	7.904	-134.816	16.809	1322.906	1408.758	0.797	755.91	0.999	0.916	***5.543***
2023-08-15 06:31	486902	7.890	-134.101	16.802	1326.108	1412.39	0.799	754.09	0.999	0.918	***5.578***
2023-08-15 06:46	487802	7.885	-133.843	16.792	1327.971	1414.66	0.800	753.03	0.999	0.920	***5.659***
2023-08-15 07:01	488702	7.882	-133.669	16.79	1319.992	1406.213	0.795	757.58	0.999	0.914	***5.713***
2023-08-15 07:16	489602	7.942	-136.766	16.772	1324.507	1411.528	0.799	755.00	0.999	0.917	***6.251***
2023-08-15 07:31	490502	7.924	-135.82	16.755	1326.442	1414.097	0.800	753.90	0.999	0.919	***6.317***
2023-08-15 07:46	491402	7.903	-134.733	16.736	1327.566	1415.846	0.801	753.26	0.999	0.920	***6.197***
2023-08-15 08:01	492302	7.920	-135.584	16.726	1323.323	1411.584	0.799	755.67	0.999	0.918	***5.944***
2023-08-15 08:16	493202	7.931	-136.161	16.715	1323.469	1412.08	0.799	755.59	0.999	0.918	***6.089***
2023-08-15 08:31	494102	7.914	-135.274	16.711	1324.499	1413.284	0.800	755.00	0.999	0.919	6.596
2023-08-15 08:46	495002	7.902	-134.685	16.714	1324.984	1413.719	0.800	754.73	0.999	0.919	6.978
2023-08-15 09:01	495902	7.914	-135.298	16.732	1320.612	1408.534	0.797	757.23	0.999	0.916	7.163
2023-08-15 09:16	496802	7.945	-136.907	16.742	1322.597	1410.347	0.798	756.09	0.999	0.917	6.887
2023-08-15 09:31	497702	7.935	-136.38	16.767	1324.982	1412.193	0.799	754.73	0.999	0.918	6.811
2023-08-15 09:46	498602	7.975	-138.452	16.798	1327.893	1414.404	0.800	753.07	0.999	0.919	6.715
2023-08-15 10:01	499502	8.006	-140.1	16.837	1328.782	1414.226	0.800	752.57	0.999	0.919	6.650
2023-08-15 10:16	500402	8.040	-141.84	16.871	1329.797	1414.32	0.800	751.99	0.999	0.919	7.477
2023-08-15 10:31	501302	8.023	-141.032	16.916	1331.941	1415.308	0.801	750.78	0.999	0.920	7.483
2023-08-15 10:46	502202	8.011	-140.393	16.961	1335.359	1417.633	0.802	748.86	0.999	0.921	7.700
2023-08-15 11:01	503102	8.057	-142.789	16.998	1339.015	1420.458	0.804	746.82	0.999	0.923	7.536

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-15 11:16	504002	8.056	-142.791	17.031	1340.648	1421.233	0.804	745.91	0.999	0.924	7.878
2023-08-15 11:31	504902	8.053	-142.636	17.078	1343.694	1423.112	0.805	744.22	0.999	0.925	8.142
2023-08-15 11:46	505802	8.066	-143.337	17.118	1346.548	1424.978	0.806	742.64	0.999	0.926	8.113
2023-08-15 12:01	506702	8.069	-143.468	17.128	1349.193	1427.487	0.808	741.18	0.999	0.928	8.284
2023-08-15 12:16	507602	8.051	-142.55	17.132	1349.279	1427.473	0.808	741.14	0.999	0.928	8.232
2023-08-15 12:31	508502	8.029	-141.413	17.115	1348.119	1426.747	0.807	741.77	0.999	0.927	8.385
2023-08-15 12:46	509402	8.033	-141.637	17.135	1349.22	1427.313	0.807	741.17	0.999	0.928	8.297
2023-08-15 13:01	510302	8.043	-142.171	17.179	1351.01	1427.95	0.808	740.19	0.999	0.928	8.319
2023-08-15 13:16	511202	8.043	-142.174	17.229	1352.019	1427.577	0.807	739.64	0.999	0.928	8.449
2023-08-15 13:31	512102	8.041	-142.109	17.307	1354.774	1428.245	0.808	738.13	0.999	0.928	8.773
2023-08-15 13:46	513002	8.059	-143.099	17.362	1356.902	1428.91	0.808	736.97	0.999	0.929	8.911
2023-08-15 14:01	513902	8.092	-144.784	17.398	1360.607	1431.752	0.810	734.97	0.999	0.931	8.848
2023-08-15 14:16	514802	8.086	-144.527	17.415	1360.814	1431.486	0.810	734.85	0.999	0.930	8.783
2023-08-15 14:31	515702	8.077	-144.033	17.429	1361.064	1431.359	0.809	734.72	0.999	0.930	8.783
2023-08-15 14:46	516602	8.069	-143.642	17.484	1362.532	1431.327	0.809	733.93	0.999	0.930	8.940
2023-08-15 15:01	517502	8.085	-144.525	17.543	1364.396	1431.581	0.809	732.93	0.999	0.931	9.107
2023-08-15 15:16	518402	8.092	-144.873	17.554	1365.528	1432.448	0.810	732.32	0.999	0.931	9.001
2023-08-15 15:31	519302	8.077	-144.091	17.561	1366.075	1432.816	0.810	732.02	0.999	0.931	9.046
2023-08-15 15:46	520202	8.061	-143.316	17.607	1366.221	1431.664	0.809	731.95	0.999	0.931	9.206
2023-08-15 16:01	521102	8.116	-146.194	17.706	1366.331	1428.952	0.808	731.89	0.999	0.929	9.329
2023-08-15 16:16	522002	8.109	-145.857	17.768	1367.051	1427.931	0.807	731.50	0.999	0.928	9.620
2023-08-15 16:31	522902	8.114	-146.112	17.776	1371.313	1432.156	0.810	729.23	0.999	0.931	9.640
2023-08-15 16:46	523802	8.088	-144.765	17.707	1368.174	1430.849	0.809	730.90	0.999	0.930	9.490
2023-08-15 17:01	524702	8.110	-145.867	17.696	1364.579	1427.397	0.807	732.83	0.999	0.928	9.516
2023-08-15 17:16	525602	8.102	-145.476	17.719	1367.9	1430.212	0.808	731.05	0.999	0.930	9.528
2023-08-15 17:31	526502	8.096	-145.168	17.747	1365.359	1426.749	0.806	732.41	0.999	0.927	9.447
2023-08-15 17:46	527402	8.107	-145.798	17.792	1365.349	1425.472	0.806	732.41	0.999	0.927	9.625
2023-08-15 18:01	528302	8.137	-147.347	17.837	1367.619	1426.546	0.806	731.20	0.999	0.927	9.610
2023-08-15 18:16	529202	8.123	-146.63	17.861	1368.275	1426.562	0.806	730.85	0.999	0.927	9.584
2023-08-15 18:31	530102	8.108	-145.898	17.89	1368.682	1426.149	0.806	730.63	0.999	0.927	9.754
2023-08-15 18:46	531002	8.109	-145.972	17.926	1368.733	1425.187	0.805	730.60	0.999	0.926	9.877
2023-08-15 19:01	531902	8.128	-146.961	17.958	1364.876	1420.266	0.802	732.67	0.999	0.923	9.911
2023-08-15 19:16	532802	8.136	-147.352	17.977	1366.151	1421.065	0.803	731.98	0.999	0.924	9.741
2023-08-15 19:31	533702	8.125	-146.828	17.994	1366.886	1421.346	0.803	731.59	0.999	0.924	9.731
2023-08-15 19:46	534602	8.125	-146.828	18.015	1367.796	1421.696	0.803	731.10	0.999	0.924	9.682
2023-08-15 20:01	535502	8.150	-148.122	18.032	1366.714	1420.099	0.802	731.68	0.999	0.923	9.555
2023-08-15 20:16	536402	8.142	-147.738	18.043	1367.408	1420.493	0.802	731.31	0.999	0.923	9.627
2023-08-15 20:31	537302	8.109	-146.036	18.053	1367.625	1420.449	0.802	731.20	0.999	0.923	9.773
2023-08-15 20:46	538202	8.085	-144.77	18.06	1367.611	1420.243	0.802	731.20	0.999	0.923	9.771
2023-08-15 21:01	539102	8.097	-145.421	18.063	1363.446	1415.823	0.799	733.44	0.999	0.920	9.801
2023-08-15 21:16	540002	8.125	-146.854	18.056	1366.552	1419.238	0.802	731.77	0.999	0.923	9.535
2023-08-15 21:31	540902	8.097	-145.361	18.018	1369.192	1423.063	0.804	730.36	0.999	0.925	8.921
2023-08-15 21:46	541802	8.064	-143.652	17.967	1368.564	1423.839	0.804	730.69	0.999	0.925	8.864
2023-08-15 22:01	542702	8.094	-145.175	17.908	1354.666	1411.045	0.797	738.19	0.999	0.917	8.286
2023-08-15 22:16	543602	8.062	-143.473	17.854	1359.075	1417.162	0.801	735.79	0.999	0.921	8.270
2023-08-15 22:31	544502	8.054	-143.039	17.812	1357.742	1416.948	0.800	736.52	0.999	0.921	8.325
2023-08-15 22:46	545402	8.029	-141.716	17.761	1354.397	1414.892	0.799	738.34	0.999	0.920	8.024
2023-08-15 23:01	546302	8.019	-141.194	17.704	1342.651	1404.24	0.793	744.80	0.999	0.913	7.856
2023-08-15 23:16	547202	7.968	-138.552	17.665	1479.647	1548.708	0.879	675.84	0.999	1.007	7.800
2023-08-15 23:31	548102	7.914	-135.722	17.628	1354.617	1418.907	0.802	738.22	0.999	0.922	7.215
2023-08-15 23:46	549002	7.881	-133.986	17.572	1353.18	1418.985	0.802	739.00	0.999	0.922	7.353
2023-08-16 00:01	549902	7.924	-136.175	17.508	1339.994	1406.96	0.795	746.27	0.999	0.915	7.152
2023-08-16 00:16	550802	7.961	-138.063	17.431	1339.249	1408.354	0.796	746.69	0.999	0.915	7.266
2023-08-16 00:31	551702	7.906	-135.19	17.381	1342.739	1413.431	0.799	744.75	0.999	0.919	7.135
2023-08-16 00:46	552602	7.861	-132.859	17.335	1345.849	1418.033	0.802	743.03	0.999	0.922	6.661
2023-08-16 01:01	553502	7.858	-132.668	17.289	1329.762	1402.379	0.792	752.02	0.999	0.912	***6.336***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-16 01:16	554402	7.896	-134.628	17.248	1340.5	1414.865	0.800	745.99	0.999	0.920	6.534
2023-08-16 01:31	555302	7.880	-133.767	17.19	1341.701	1417.799	0.802	745.32	0.999	0.922	***6.135***
2023-08-16 01:46	556202	7.865	-132.942	17.137	1341.075	1418.665	0.802	745.67	0.999	0.922	***5.965***
2023-08-16 02:01	557102	7.906	-135.012	17.033	1320.685	1400.036	0.791	757.18	0.999	0.910	***5.908***
2023-08-16 02:16	558002	7.904	-134.897	16.957	1324.567	1406.304	0.795	754.96	0.999	0.914	***6.217***
2023-08-16 02:31	558902	7.878	-133.493	16.896	1324.894	1408.392	0.797	754.78	0.999	0.915	6.548
2023-08-16 02:46	559802	7.867	-132.957	16.865	1323.957	1408.295	0.797	755.31	0.999	0.915	***6.359***
2023-08-16 03:01	560702	7.866	-132.844	16.831	1304.187	1388.222	0.785	766.76	0.999	0.902	***6.193***
2023-08-16 03:16	561602	7.880	-133.598	16.796	1315.077	1400.786	0.792	760.41	0.999	0.911	***6.191***
2023-08-16 03:31	562502	7.885	-133.796	16.756	1317.07	1404.078	0.794	759.26	0.999	0.913	***5.925***
2023-08-16 03:46	563402	8.015	-140.519	16.71	1318.138	1406.535	0.796	758.65	0.999	0.914	***5.885***
2023-08-16 04:01	564302	8.184	-149.15	16.642	1297.392	1386.317	0.784	770.78	0.999	0.901	***5.737***
2023-08-16 04:16	565202	8.098	-144.722	16.593	1302.956	1393.653	0.788	767.49	0.999	0.906	***6.167***
2023-08-16 04:31	566102	8.065	-142.965	16.534	1306.411	1399.04	0.791	765.46	0.999	0.909	***6.046***
2023-08-16 04:46	567002	8.052	-142.276	16.443	1308.104	1403.442	0.794	764.47	0.999	0.912	***5.589***
2023-08-16 05:01	567902	8.178	-148.706	16.32	1264.809	1360.443	0.769	790.63	0.999	0.884	***5.664***
2023-08-16 05:16	568802	8.063	-142.751	16.252	1288.398	1387.75	0.785	776.16	1	0.902	***5.289***
2023-08-16 05:31	569702	8.053	-142.188	16.162	1289.11	1391.094	0.787	775.73	1	0.904	***5.077***
2023-08-16 05:46	570602	8.065	-142.772	16.084	1288.534	1392.708	0.788	776.08	1	0.905	***5.237***
2023-08-16 06:01	571502	8.197	-149.536	16.001	1266.538	1371.283	0.776	789.55	1	0.891	***5.178***
2023-08-16 06:16	572402	8.065	-142.686	15.933	1270.432	1377.436	0.779	787.13	1	0.895	***5.151***
2023-08-16 06:31	573302	8.056	-142.219	15.873	1272.852	1381.779	0.782	785.64	1	0.898	***5.080***
2023-08-16 06:46	574202	8.061	-142.405	15.818	1275.714	1386.456	0.785	783.88	1	0.901	***5.095***
2023-08-16 07:01	575102	8.177	-148.349	15.752	1242.708	1352.452	0.765	804.69	1	0.879	***4.981***
2023-08-16 07:16	576002	8.036	-141.089	15.697	1259.742	1372.561	0.777	793.81	1	0.892	***4.728***
2023-08-16 07:31	576902	8.049	-141.723	15.643	1261.445	1375.961	0.779	792.74	1	0.894	***4.462***
2023-08-16 07:46	577802	8.051	-141.79	15.593	1261.01	1376.899	0.779	793.02	1	0.895	***4.413***
2023-08-16 08:01	578702	8.178	-148.308	15.543	1242.713	1358.359	0.769	804.69	1	0.883	***4.339***
2023-08-16 08:16	579602	8.017	-140.004	15.504	1247.628	1364.842	0.772	801.52	1	0.887	***4.238***
2023-08-16 08:31	580502	8.030	-140.662	15.476	1251.178	1369.527	0.775	799.25	1	0.890	***4.174***
2023-08-16 08:46	581402	8.040	-141.156	15.452	1251.788	1370.866	0.776	798.86	1	0.891	***4.071***
2023-08-16 09:01	582302	8.180	-148.351	15.441	1230.647	1348.036	0.763	812.58	1	0.876	***4.082***
2023-08-16 09:16	583202	8.036	-140.941	15.451	1244.855	1363.319	0.772	803.31	1	0.886	***4.183***
2023-08-16 09:31	584102	8.025	-140.409	15.47	1249.668	1368.027	0.774	800.21	1	0.889	***4.130***
2023-08-16 09:46	585002	8.013	-139.794	15.499	1254.555	1372.539	0.777	797.10	1	0.892	***4.020***
2023-08-16 10:01	585902	8.204	-149.612	15.528	1247.516	1364.034	0.772	801.59	1	0.887	***3.904***
2023-08-16 10:16	586802	8.095	-144.06	15.553	1254.258	1370.68	0.776	797.28	1	0.891	***4.405***
2023-08-16 10:31	587702	8.078	-143.189	15.58	1257.539	1373.49	0.777	795.20	1	0.893	***4.666***
2023-08-16 10:46	588602	8.134	-146.077	15.636	1258.344	1372.76	0.777	794.70	1	0.892	***5.162***
2023-08-16 11:01	589502	8.309	-155.115	15.752	1260.892	1372.218	0.776	793.09	1	0.892	***6.486***
2023-08-16 11:16	590402	8.203	-149.746	15.861	1263.983	1372.495	0.777	791.15	1	0.892	6.698
2023-08-16 11:31	591302	8.195	-149.403	15.994	1269.723	1374.925	0.778	787.57	1	0.894	6.755
2023-08-16 11:46	592202	8.259	-152.764	16.092	1276.587	1379.547	0.780	783.34	1	0.897	6.746
2023-08-16 12:01	593102	8.480	-164.165	16.161	1283.73	1385.309	0.784	778.98	1	0.900	7.060
2023-08-16 12:16	594002	8.320	-155.973	16.228	1286.51	1386.405	0.784	777.30	1	0.901	7.737
2023-08-16 12:31	594902	8.332	-156.627	16.312	1290.38	1388.159	0.785	774.97	0.999	0.902	7.861
2023-08-16 12:46	595802	8.350	-157.602	16.388	1294.477	1390.387	0.786	772.51	0.999	0.904	7.834
2023-08-16 13:01	596702	8.533	-167.062	16.492	1302.956	1396.521	0.790	767.49	0.999	0.908	7.895
2023-08-16 13:16	597602	8.362	-158.298	16.586	1304.551	1395.546	0.789	766.55	0.999	0.907	8.157
2023-08-16 13:31	598502	8.362	-158.346	16.68	1309.659	1398.319	0.791	763.56	0.999	0.909	8.227
2023-08-16 13:46	599402	8.362	-158.396	16.732	1313.104	1400.525	0.792	761.55	0.999	0.910	8.032
2023-08-16 14:01	600302	8.529	-167.027	16.782	1319.048	1405.429	0.795	758.12	0.999	0.914	7.876
2023-08-16 14:16	601202	8.368	-158.784	16.842	1316.879	1401.403	0.792	759.37	0.999	0.911	8.385
2023-08-16 14:31	602102	8.377	-159.347	17.08	1325.143	1403.409	0.793	754.64	0.999	0.912	8.613
2023-08-16 14:46	603002	8.360	-158.539	17.218	1327.055	1401.52	0.792	753.55	0.999	0.911	8.760
2023-08-16 15:01	603902	8.522	-167.005	17.359	1327.722	1398.247	0.790	753.17	0.999	0.909	8.972

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-16 15:16	604802	8.381	-159.731	17.404	1336.245	1405.97	0.794	748.37	0.999	0.914	8.999
2023-08-16 15:31	605702	8.377	-159.581	17.45	1339.432	1408.011	0.796	746.59	0.999	0.915	9.181
2023-08-16 15:46	606602	8.364	-158.949	17.528	1341.715	1408.209	0.796	745.32	0.999	0.915	9.231
2023-08-16 16:01	607502	8.536	-167.913	17.682	1340.348	1402.434	0.792	746.08	0.999	0.912	9.245
2023-08-16 16:16	608402	8.376	-159.712	17.787	1342.173	1401.407	0.791	745.06	0.999	0.911	9.457
2023-08-16 16:31	609302	8.352	-158.513	17.91	1345.948	1401.92	0.791	742.97	0.999	0.911	9.574
2023-08-16 16:46	610202	8.355	-158.749	18.062	1350.214	1402.104	0.791	740.62	0.999	0.911	9.551
2023-08-16 17:01	611102	8.526	-167.747	18.312	1358.001	1403.239	0.792	736.38	0.999	0.912	9.706
2023-08-16 17:16	612002	8.388	-160.708	18.452	1359.787	1401.205	0.790	735.41	0.999	0.911	9.849
2023-08-16 17:31	612902	8.372	-159.898	18.541	1362.96	1402.02	0.791	733.70	0.999	0.911	9.881
2023-08-16 17:46	613802	8.362	-159.419	18.644	1365.692	1401.997	0.791	732.23	0.999	0.911	10.162
2023-08-16 18:01	614702	8.547	-169.122	18.766	1369.491	1402.542	0.791	730.20	0.999	0.912	10.157
2023-08-16 18:16	615602	8.387	-160.82	18.821	1370.224	1401.8	0.790	729.81	0.999	0.911	10.229
2023-08-16 18:31	616502	8.383	-160.62	18.831	1370.766	1402.084	0.790	729.52	0.999	0.911	10.146
2023-08-16 18:46	617402	8.375	-160.222	18.87	1371.795	1402.068	0.790	728.97	0.999	0.911	10.299
2023-08-16 19:01	618302	8.540	-168.817	18.887	1371.035	1400.828	0.790	729.38	0.999	0.911	10.223
2023-08-16 19:16	619202	8.418	-162.466	18.881	1371.358	1401.307	0.790	729.20	0.999	0.911	10.124
2023-08-16 19:31	620102	8.393	-161.18	18.912	1372.276	1401.408	0.790	728.72	0.999	0.911	10.310
2023-08-16 19:46	621002	8.361	-159.562	18.941	1372.875	1401.23	0.790	728.40	0.999	0.911	10.292
2023-08-16 20:01	621902	8.536	-168.664	18.964	1371.562	1399.264	0.789	729.10	0.999	0.910	10.055
2023-08-16 20:16	622802	8.393	-161.231	18.981	1372.19	1399.427	0.789	728.76	0.999	0.910	10.050
2023-08-16 20:31	623702	8.369	-159.993	18.996	1373.352	1400.195	0.789	728.15	0.999	0.910	10.066
2023-08-16 20:46	624602	8.344	-158.713	19.001	1374.372	1401.096	0.790	727.61	0.999	0.911	9.883
2023-08-16 21:01	625502	8.481	-165.815	18.989	1371.081	1398.077	0.788	729.35	0.999	0.909	9.614
2023-08-16 21:16	626402	8.351	-159.035	18.96	1371.796	1399.587	0.789	728.97	0.999	0.910	9.516
2023-08-16 21:31	627302	8.294	-156.045	18.925	1372.158	1400.933	0.790	728.78	0.999	0.911	9.603
2023-08-16 21:46	628202	8.289	-155.776	18.887	1372.241	1402.045	0.790	728.74	0.999	0.911	9.477
2023-08-16 22:01	629102	8.472	-165.291	18.853	1369.058	1399.722	0.789	730.43	0.999	0.910	8.586
2023-08-16 22:16	630002	8.319	-157.32	18.812	1368.313	1400.069	0.789	730.83	0.999	0.910	8.196
2023-08-16 22:31	630902	8.281	-155.318	18.76	1367.257	1400.412	0.789	731.39	0.999	0.910	8.590
2023-08-16 22:46	631802	8.294	-155.959	18.69	1364.917	1399.941	0.789	732.65	0.999	0.910	8.225
2023-08-16 23:01	632702	8.426	-162.756	18.616	1349.699	1386.348	0.781	740.91	0.999	0.901	8.509
2023-08-16 23:16	633602	8.310	-156.715	18.561	1355.753	1394.068	0.786	737.60	0.999	0.906	8.414
2023-08-16 23:31	634502	8.322	-157.309	18.513	1355.152	1394.776	0.786	737.93	0.999	0.907	8.247
2023-08-16 23:46	635402	8.294	-155.84	18.476	1353.943	1394.538	0.786	738.58	0.999	0.906	8.117
2023-08-17 00:01	636302	8.451	-163.968	18.447	1346.501	1387.674	0.782	742.67	0.999	0.902	7.928
2023-08-17 00:16	637202	8.285	-155.325	18.418	1349.101	1391.136	0.784	741.23	0.999	0.904	7.896
2023-08-17 00:31	638102	8.281	-155.127	18.398	1349.707	1392.32	0.785	740.90	0.999	0.905	7.819
2023-08-17 00:46	639002	8.270	-154.538	18.377	1349.092	1392.246	0.785	741.24	0.999	0.905	7.863
2023-08-17 01:01	639902	8.416	-162.103	18.361	1335.608	1378.767	0.777	748.72	0.999	0.896	7.890
2023-08-17 01:16	640802	8.280	-155.053	18.346	1343.236	1387.049	0.782	744.47	0.999	0.902	7.926
2023-08-17 01:31	641702	8.263	-154.126	18.33	1344.099	1388.39	0.783	743.99	0.999	0.902	7.827
2023-08-17 01:46	642602	8.263	-154.133	18.304	1344.842	1389.872	0.784	743.58	0.999	0.903	7.553
2023-08-17 02:01	643502	8.425	-162.52	18.266	1335.839	1381.594	0.779	748.59	0.999	0.898	7.242
2023-08-17 02:16	644402	8.249	-153.36	18.24	1338.809	1385.373	0.781	746.93	0.999	0.900	7.278
2023-08-17 02:31	645302	8.225	-152.102	18.224	1339.304	1386.335	0.782	746.66	0.999	0.901	7.316
2023-08-17 02:46	646202	8.214	-151.513	18.205	1339.463	1387.008	0.782	746.57	0.999	0.902	7.279
2023-08-17 03:01	647102	8.374	-159.8	18.19	1328.756	1376.336	0.776	752.58	0.999	0.895	7.316
2023-08-17 03:16	648002	8.270	-154.407	18.177	1333.382	1381.492	0.779	749.97	0.999	0.898	7.470
2023-08-17 03:31	648902	8.241	-152.924	18.165	1334.515	1382.976	0.780	749.34	0.999	0.899	7.146
2023-08-17 03:46	649802	8.229	-152.287	18.133	1335.266	1384.638	0.781	748.92	0.999	0.900	6.690
2023-08-17 04:01	650702	8.418	-162.044	18.068	1316.718	1367.175	0.771	759.46	0.999	0.889	6.594
2023-08-17 04:16	651602	8.264	-154.006	17.997	1320.07	1372.58	0.774	757.54	0.999	0.892	7.154
2023-08-17 04:31	652502	8.256	-153.577	17.911	1318.36	1373.162	0.774	758.52	0.999	0.893	7.445
2023-08-17 04:46	653402	8.245	-152.917	17.823	1320.02	1377.292	0.777	757.56	0.999	0.895	7.551
2023-08-17 05:01	654302	8.352	-158.417	17.744	1286.89	1344.843	0.758	777.07	0.999	0.874	7.124

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-17 05:16	655202	8.195	-150.294	17.691	1302.13	1362.214	0.768	767.97	0.999	0.885	6.819
2023-08-17 05:31	656102	8.168	-148.854	17.636	1305.737	1367.471	0.771	765.85	0.999	0.889	***6.045***
2023-08-17 05:46	657002	8.139	-147.345	17.569	1305.011	1368.561	0.772	766.28	0.999	0.890	***6.317***
2023-08-17 06:01	657902	8.321	-156.729	17.51	1278.469	1342.297	0.757	782.19	0.999	0.872	***6.043***
2023-08-17 06:16	658802	8.144	-147.557	17.474	1290.035	1355.437	0.765	775.17	0.999	0.881	***5.962***
2023-08-17 06:31	659702	8.137	-147.183	17.448	1293.52	1359.808	0.767	773.08	0.999	0.884	***5.973***
2023-08-17 06:46	660602	8.139	-147.257	17.41	1295.67	1363.098	0.769	771.80	0.999	0.886	***6.020***
2023-08-17 07:01	661502	8.301	-155.551	17.323	1249.763	1317.105	0.742	800.15	0.999	0.856	***6.025***
2023-08-17 07:16	662402	8.153	-147.882	17.276	1278.881	1349.067	0.761	781.93	0.999	0.877	***5.823***
2023-08-17 07:31	663302	8.219	-151.303	17.277	1279.556	1349.745	0.761	781.52	0.999	0.877	***5.927***
2023-08-17 07:46	664202	8.220	-151.346	17.261	1278.131	1348.677	0.761	782.39	0.999	0.877	***6.211***
2023-08-17 08:01	665102	8.373	-159.24	17.184	1256.978	1328.421	0.749	795.56	0.999	0.863	***6.363***
2023-08-17 08:16	666002	8.179	-149.174	17.137	1261.067	1334.028	0.752	792.98	0.999	0.867	***6.278***
2023-08-17 08:31	666902	8.168	-148.592	17.096	1262.624	1336.778	0.754	792.00	0.999	0.869	6.513
2023-08-17 08:46	667802	8.151	-147.676	17.072	1264.338	1339.229	0.755	790.93	0.999	0.870	***6.464***
2023-08-17 09:01	668702	8.310	-155.892	17.045	1233.753	1307.539	0.737	810.54	0.999	0.850	***6.354***
2023-08-17 09:16	669602	8.148	-147.536	17.028	1251.671	1326.99	0.748	798.93	0.999	0.863	***6.372***
2023-08-17 09:31	670502	8.136	-146.897	17.005	1255.146	1331.291	0.751	796.72	0.999	0.865	***6.299***
2023-08-17 09:46	671402	8.132	-146.687	16.988	1251.635	1328.03	0.749	798.96	0.999	0.863	***6.283***
2023-08-17 10:01	672302	8.311	-155.876	16.972	1228.274	1303.679	0.735	814.15	0.999	0.847	***6.178***
2023-08-17 10:16	673202	8.145	-147.355	16.982	1237.777	1313.493	0.740	807.90	0.999	0.854	6.584
2023-08-17 10:31	674102	8.156	-147.92	17.053	1244.174	1318.375	0.743	803.75	0.999	0.857	***6.146***
2023-08-17 10:46	675002	8.222	-151.41	17.144	1254.185	1326.547	0.748	797.33	0.999	0.862	6.625
2023-08-17 11:01	675902	8.306	-155.814	17.279	1275.248	1345.151	0.759	784.16	0.999	0.874	6.791
2023-08-17 11:16	676802	8.258	-153.387	17.378	1284.051	1351.741	0.762	778.79	0.999	0.879	7.153
2023-08-17 11:31	677702	8.292	-155.17	17.459	1293.536	1359.51	0.767	773.08	0.999	0.884	7.197
2023-08-17 11:46	678602	8.304	-155.83	17.523	1297.99	1362.445	0.769	770.42	0.999	0.886	7.497
2023-08-17 12:01	679502	8.463	-164.087	17.586	1304.164	1367.205	0.771	766.78	0.999	0.889	7.590
2023-08-17 12:16	680402	8.314	-156.431	17.633	1307.547	1369.45	0.773	764.79	0.999	0.890	7.691
2023-08-17 12:31	681302	8.311	-156.269	17.676	1310.718	1371.606	0.774	762.94	0.999	0.892	7.730
2023-08-17 12:46	682202	8.312	-156.333	17.713	1313.095	1373.071	0.775	761.56	0.999	0.892	7.720
2023-08-17 13:01	683102	8.467	-164.413	17.752	1315.735	1374.772	0.776	760.03	0.999	0.894	7.607
2023-08-17 13:16	684002	8.323	-156.949	17.778	1315.945	1374.258	0.775	759.91	0.999	0.893	7.703
2023-08-17 13:31	684902	8.314	-156.479	17.804	1317.094	1374.743	0.776	759.25	0.999	0.894	7.740
2023-08-17 13:46	685802	8.313	-156.481	17.824	1318.373	1375.553	0.776	758.51	0.999	0.894	7.817
2023-08-17 14:01	686702	8.479	-165.055	17.826	1319.665	1376.835	0.777	757.77	0.999	0.895	7.726
2023-08-17 14:16	687602	8.323	-157.003	17.826	1319.669	1376.828	0.777	757.77	0.999	0.895	8.122
2023-08-17 14:31	688502	8.297	-155.618	17.835	1320.145	1377.099	0.777	757.49	0.999	0.895	8.210
2023-08-17 14:46	689402	8.291	-155.361	17.863	1319.88	1376.035	0.776	757.65	0.999	0.894	8.589
2023-08-17 15:01	690302	8.468	-164.554	17.922	1320.284	1374.842	0.775	757.41	0.999	0.894	8.745
2023-08-17 15:16	691202	8.349	-158.412	17.955	1321.106	1374.814	0.775	756.94	0.999	0.894	8.894
2023-08-17 15:31	692102	8.342	-158.038	17.99	1323.225	1376.043	0.776	755.73	0.999	0.894	8.816
2023-08-17 15:46	693002	8.329	-157.39	18.059	1325.802	1376.837	0.776	754.26	0.999	0.895	8.952
2023-08-17 16:01	693902	8.503	-166.466	18.167	1329.749	1377.998	0.777	752.02	0.999	0.896	9.241
2023-08-17 16:16	694802	8.371	-159.693	18.262	1331.138	1376.836	0.776	751.24	0.999	0.895	9.470
2023-08-17 16:31	695702	8.357	-159.044	18.341	1332.744	1376.344	0.776	750.33	0.999	0.895	9.525
2023-08-17 16:46	696602	8.356	-159.006	18.416	1335.059	1376.71	0.776	749.03	0.999	0.895	9.221
2023-08-17 17:01	697502	8.519	-167.525	18.515	1336.505	1375.516	0.775	748.22	0.999	0.894	9.721
2023-08-17 17:16	698402	8.374	-160.012	18.582	1337.688	1374.935	0.775	747.56	0.999	0.894	9.741
2023-08-17 17:31	699302	8.372	-159.986	18.669	1339.864	1374.826	0.774	746.34	0.999	0.894	9.947
2023-08-17 17:46	700202	8.371	-159.957	18.77	1341.911	1374.183	0.774	745.21	0.999	0.893	10.121
2023-08-17 18:01	701102	8.561	-169.885	18.881	1343.967	1373.319	0.773	744.07	0.999	0.893	10.146
2023-08-17 18:16	702002	8.405	-161.836	18.936	1344.707	1372.589	0.773	743.66	0.999	0.892	10.195
2023-08-17 18:31	702902	8.389	-161.047	18.98	1345.567	1372.302	0.773	743.18	0.999	0.892	10.352
2023-08-17 18:46	703802	8.369	-160.007	18.996	1345.948	1372.257	0.773	742.97	0.999	0.892	10.268
2023-08-17 19:01	704702	8.525	-168.083	18.986	1331.961	1358.268	0.764	750.77	0.999	0.883	10.253

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-17 19:16	705602	8.377	-160.422	18.969	1337.751	1364.613	0.768	747.52	0.999	0.887	9.944
2023-08-17 19:31	706502	8.387	-160.899	18.947	1338.445	1365.909	0.769	747.14	0.999	0.888	9.641
2023-08-17 19:46	707402	8.372	-160.093	18.922	1337.447	1365.567	0.769	747.69	0.999	0.888	9.489
2023-08-17 20:01	708302	8.574	-170.586	18.884	1323.277	1352.091	0.761	755.70	0.999	0.879	9.351
2023-08-17 20:16	709202	8.422	-162.654	18.855	1324.423	1354.046	0.762	755.05	0.999	0.880	9.873
2023-08-17 20:31	710102	8.433	-163.219	18.786	1322.425	1353.813	0.762	756.19	0.999	0.880	9.712
2023-08-17 20:46	711002	8.415	-162.225	18.686	1315.66	1349.521	0.760	760.08	0.999	0.877	9.753
2023-08-17 21:01	711902	8.556	-169.48	18.567	1283.89	1320.009	0.742	778.88	0.999	0.858	9.647
2023-08-17 21:16	712802	8.397	-161.152	18.47	1286.365	1325.08	0.745	777.38	0.999	0.861	9.502
2023-08-17 21:31	713702	8.334	-157.871	18.388	1290.047	1331.017	0.749	775.17	0.999	0.865	8.746
2023-08-17 21:46	714602	8.363	-159.318	18.29	1284.302	1327.668	0.747	778.63	0.999	0.863	8.383
2023-08-17 22:01	715502	8.543	-168.588	18.176	1260.452	1305.954	0.735	793.37	0.999	0.849	9.055
2023-08-17 22:16	716402	8.351	-158.594	18.103	1267.522	1315.171	0.740	788.94	0.999	0.855	8.657
2023-08-17 22:31	717302	8.341	-158.038	18.065	1270.166	1318.921	0.742	787.30	0.999	0.857	8.468
2023-08-17 22:46	718202	8.302	-156.007	17.998	1272.909	1323.514	0.745	785.60	0.999	0.860	8.278
2023-08-17 23:01	719102	8.420	-162.036	17.924	1250.464	1302.087	0.733	799.70	0.999	0.846	7.949
2023-08-17 23:16	720002	8.278	-154.662	17.85	1262.648	1316.717	0.741	791.99	0.999	0.856	7.629
2023-08-17 23:31	720902	8.341	-157.876	17.81	1265.748	1320.994	0.744	790.05	0.999	0.859	8.014
2023-08-17 23:46	721802	8.323	-156.975	17.775	1271.054	1327.467	0.748	786.75	0.999	0.863	7.972
2023-08-18 00:01	722703	8.520	-167.15	17.785	1272.584	1328.789	0.748	785.80	0.999	0.864	7.783
2023-08-18 00:16	723603	8.331	-157.352	17.731	1274.371	1332.105	0.750	784.70	0.999	0.866	7.952
2023-08-18 00:31	724503	8.302	-155.783	17.611	1272.257	1333.089	0.751	786.01	0.999	0.867	7.865
2023-08-18 00:46	725403	8.243	-152.7	17.546	1265.249	1327.468	0.748	790.36	0.999	0.863	7.779
2023-08-18 01:01	726303	8.421	-161.903	17.523	1260.145	1322.721	0.745	793.56	0.999	0.860	8.150
2023-08-18 01:16	727203	8.295	-155.373	17.518	1264.946	1327.905	0.748	790.55	0.999	0.863	7.918
2023-08-18 01:31	728103	8.243	-152.676	17.509	1270.483	1333.963	0.752	787.10	0.999	0.867	8.083
2023-08-18 01:46	729003	8.249	-152.953	17.5	1271.887	1335.675	0.753	786.23	0.999	0.868	7.891
2023-08-18 02:01	729903	8.442	-162.959	17.492	1272.356	1336.385	0.753	785.94	0.999	0.869	8.073
2023-08-18 02:16	730803	8.330	-157.135	17.433	1268.807	1334.221	0.752	788.14	0.999	0.867	7.638
2023-08-18 02:31	731703	8.174	-149.045	17.405	1273.449	1339.871	0.755	785.27	0.999	0.871	7.851
2023-08-18 02:46	732603	8.210	-150.912	17.362	1272.538	1340.061	0.756	785.83	0.999	0.871	8.164
2023-08-18 03:01	733503	8.464	-163.96	17.306	1268.454	1337.258	0.754	788.36	0.999	0.869	8.070
2023-08-18 03:16	734403	8.333	-157.187	17.234	1265.974	1336.579	0.754	789.91	0.999	0.869	8.115
2023-08-18 03:31	735303	8.332	-157.08	17.192	1264.708	1336.389	0.754	790.70	0.999	0.869	8.188
2023-08-18 03:46	736203	8.365	-158.801	17.166	1264.666	1337.029	0.754	790.72	0.999	0.869	8.260
2023-08-18 04:01	737103	8.505	-165.985	17.14	1262.669	1335.638	0.753	791.97	0.999	0.868	7.712
2023-08-18 04:16	738003	8.297	-155.227	17.1	1261.606	1335.582	0.753	792.64	0.999	0.868	7.644
2023-08-18 04:31	738903	8.315	-156.14	17.069	1260.2	1334.923	0.753	793.53	0.999	0.868	7.568
2023-08-18 04:46	739803	8.351	-157.979	17.007	1259.231	1335.572	0.753	794.14	0.999	0.868	7.162
2023-08-18 05:01	740703	8.436	-162.363	16.956	1253.344	1330.725	0.751	797.87	0.999	0.865	7.002
2023-08-18 05:16	741603	8.305	-155.58	16.918	1252.372	1330.704	0.751	798.49	0.999	0.865	7.083
2023-08-18 05:31	742503	8.288	-154.688	16.886	1251.563	1330.722	0.751	799.00	0.999	0.865	7.295
2023-08-18 05:46	743403	8.281	-154.269	16.859	1251.342	1331.203	0.751	799.14	0.999	0.865	7.364
2023-08-18 06:01	744303	8.422	-161.514	16.804	1244.031	1324.902	0.747	803.84	0.999	0.861	6.835
2023-08-18 06:16	745203	8.271	-153.708	16.711	1244.586	1328.007	0.749	803.48	0.999	0.863	6.691
2023-08-18 06:31	746103	8.263	-153.205	16.61	1239.992	1325.844	0.748	806.46	0.999	0.862	6.871
2023-08-18 06:46	747003	8.261	-153.062	16.521	1235.418	1323.349	0.747	809.44	0.999	0.860	6.821
2023-08-18 07:01	747903	8.419	-161.178	16.44	1226.109	1315.548	0.742	815.59	0.999	0.855	6.848
2023-08-18 07:16	748803	8.256	-152.757	16.357	1228.972	1320.871	0.745	813.69	0.999	0.859	6.685
2023-08-18 07:31	749703	8.247	-152.206	16.271	1229.737	1324.038	0.747	813.18	0.999	0.861	6.713
2023-08-18 07:46	750603	8.235	-151.579	16.185	1229.839	1326.488	0.749	813.12	0.999	0.862	***6.489***
2023-08-18 08:01	751503	8.399	-159.941	16.09	1199.819	1296.656	0.731	833.46	0.999	0.843	***6.156***
2023-08-18 08:16	752403	8.215	-150.423	16.002	1211.373	1311.534	0.740	825.51	1	0.852	***5.821***
2023-08-18 08:31	753303	8.221	-150.712	15.923	1213.147	1315.589	0.743	824.30	1	0.855	***5.813***
2023-08-18 08:46	754203	8.221	-150.678	15.846	1211.189	1315.556	0.743	825.64	1	0.855	***5.782***
2023-08-18 09:01	755103	8.368	-158.193	15.765	1167.535	1270.284	0.716	856.51	1	0.826	***5.647***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-18 09:16	756003	8.189	-148.931	15.704	1193.791	1300.493	0.734	837.67	1	0.845	***5.419***
2023-08-18 09:31	756903	8.191	-149.016	15.636	1194.994	1303.66	0.736	836.82	1	0.847	***5.322***
2023-08-18 09:46	757803	8.187	-148.776	15.571	1192.763	1302.986	0.736	838.39	1	0.847	***5.186***
2023-08-18 10:01	758703	8.336	-156.417	15.502	1147.493	1255.353	0.708	871.47	1	0.816	***5.076***
2023-08-18 10:16	759603	8.130	-145.81	15.443	1169.977	1281.506	0.723	854.72	1	0.833	***4.715***
2023-08-18 10:31	760503	8.138	-146.16	15.398	1173.708	1286.829	0.726	852.00	1	0.836	***4.276***
2023-08-18 10:46	761403	8.140	-146.234	15.359	1174.08	1288.284	0.727	851.73	1	0.837	***3.875***
2023-08-18 11:01	762303	8.282	-153.537	15.333	1124.267	1234.28	0.695	889.47	1	0.802	***3.711***
2023-08-18 11:16	763203	8.102	-144.279	15.318	1151.914	1265.033	0.714	868.12	1	0.822	***3.661***
2023-08-18 11:31	764103	8.097	-144.024	15.317	1149.677	1262.625	0.712	869.81	1	0.821	***3.602***
2023-08-18 11:46	765003	8.081	-143.225	15.349	1148.445	1260.425	0.711	870.74	1	0.819	***3.804***
2023-08-18 12:01	765903	8.262	-152.576	15.427	1109.942	1216.175	0.685	900.95	1	0.791	***4.506***
2023-08-18 12:16	766803	8.109	-144.73	15.509	1130.636	1236.719	0.697	884.46	1	0.804	***5.662***
2023-08-18 12:31	767703	8.101	-144.365	15.598	1136.353	1240.664	0.699	880.01	1	0.806	***5.896***
2023-08-18 12:46	768603	8.170	-148.005	15.779	1159.952	1261.668	0.711	862.11	1	0.820	***5.868***
2023-08-18 13:01	769503	8.331	-156.341	15.911	1154.9	1252.734	0.706	865.88	1	0.814	***6.238***
2023-08-18 13:16	770403	8.196	-149.484	16.003	1170.689	1267.445	0.714	854.20	0.999	0.824	6.637
2023-08-18 13:31	771303	8.179	-148.659	16.152	1190.233	1284.643	0.724	840.17	0.999	0.835	6.764
2023-08-18 13:46	772203	8.263	-153.034	16.263	1205.465	1298.128	0.732	829.56	0.999	0.844	6.971
2023-08-18 14:01	773103	8.441	-162.237	16.336	1207.779	1298.65	0.732	827.97	0.999	0.844	6.908
2023-08-18 14:16	774003	8.254	-152.655	16.384	1208.556	1298.219	0.732	827.43	0.999	0.844	7.396
2023-08-18 14:31	774903	8.239	-151.87	16.421	1209.244	1297.98	0.732	826.96	0.999	0.844	7.406
2023-08-18 14:46	775803	8.222	-151.041	16.455	1210.203	1298.1	0.732	826.31	0.999	0.844	7.416
2023-08-18 15:01	776703	8.402	-160.315	16.513	1219.42	1306.443	0.737	820.06	0.999	0.849	7.487
2023-08-18 15:16	777603	8.288	-154.505	16.566	1236.284	1323.054	0.746	808.88	0.999	0.860	7.778
2023-08-18 15:31	778503	8.324	-156.36	16.592	1237.664	1323.847	0.747	807.97	0.999	0.861	7.813
2023-08-18 15:46	779403	8.313	-155.802	16.624	1238.216	1323.568	0.747	807.61	0.999	0.860	7.658
2023-08-18 16:01	780303	8.476	-164.258	16.669	1235.661	1319.624	0.744	809.28	0.999	0.858	7.792
2023-08-18 16:16	781203	8.302	-155.294	16.721	1238.342	1321.07	0.745	807.53	0.999	0.859	8.124
2023-08-18 16:31	782103	8.312	-155.828	16.788	1241.214	1322.339	0.746	805.66	0.999	0.860	8.055
2023-08-18 16:46	783003	8.333	-156.977	16.856	1246.019	1325.628	0.748	802.56	0.999	0.862	8.159
2023-08-18 17:01	783903	8.514	-166.354	16.929	1251.143	1329.116	0.750	799.27	0.999	0.864	8.454
2023-08-18 17:16	784803	8.368	-158.856	16.956	1251.88	1329.153	0.750	798.80	0.999	0.864	8.290
2023-08-18 17:31	785703	8.364	-158.617	16.979	1253.313	1330.05	0.750	797.89	0.999	0.865	8.142
2023-08-18 17:46	786603	8.379	-159.407	17.004	1256.15	1332.396	0.751	796.08	0.999	0.866	8.188
2023-08-18 18:01	787503	8.541	-167.799	17.049	1258.187	1333.346	0.752	794.79	0.999	0.867	8.237
2023-08-18 18:16	788403	8.388	-159.943	17.063	1258.951	1333.779	0.752	794.31	0.999	0.867	8.500
2023-08-18 18:31	789303	8.393	-160.189	17.041	1257.949	1333.308	0.752	794.95	0.999	0.867	8.579
2023-08-18 18:46	790203	8.392	-160.1	17.029	1258.723	1334.439	0.753	794.46	0.999	0.867	8.807
2023-08-18 19:01	791103	8.524	-166.922	16.999	1254.282	1330.56	0.750	797.27	0.999	0.865	8.569
2023-08-18 19:16	792003	8.357	-158.274	16.937	1252.158	1329.969	0.750	798.62	0.999	0.864	8.692
2023-08-18 19:31	792903	8.374	-159.101	16.85	1245.088	1324.806	0.747	803.16	0.999	0.861	8.444
2023-08-18 19:46	793803	8.364	-158.505	16.761	1235.262	1316.721	0.743	809.55	0.999	0.856	8.814
2023-08-18 20:01	794703	8.555	-168.295	16.673	1218.597	1301.289	0.734	820.62	0.999	0.846	8.767
2023-08-18 20:16	795603	8.366	-158.527	16.594	1216.904	1301.59	0.734	821.76	0.999	0.846	8.936
2023-08-18 20:31	796503	8.398	-160.16	16.539	1221.484	1307.94	0.738	818.68	0.999	0.850	8.899
2023-08-18 20:46	797403	8.392	-159.819	16.472	1218.812	1306.879	0.737	820.47	0.999	0.849	9.205
2023-08-18 21:01	798303	8.546	-167.67	16.326	1202.646	1293.399	0.729	831.50	0.999	0.841	8.796
2023-08-18 21:16	799203	8.385	-159.292	16.225	1196.891	1289.909	0.727	835.50	0.999	0.838	8.904
2023-08-18 21:31	800103	8.363	-158.103	16.127	1189.011	1283.984	0.724	841.04	0.999	0.835	8.574
2023-08-18 21:46	801003	8.341	-156.956	16.025	1187.455	1285.026	0.725	842.14	1	0.835	8.325
2023-08-18 22:01	801903	8.453	-162.616	15.905	1175.733	1275.493	0.719	850.53	1	0.829	7.873
2023-08-18 22:16	802803	8.271	-153.222	15.818	1191.283	1294.709	0.731	839.43	1	0.842	7.572
2023-08-18 22:31	803703	8.276	-153.43	15.756	1196.253	1301.785	0.735	835.94	1	0.846	7.695
2023-08-18 22:46	804603	8.287	-153.98	15.689	1196.314	1303.654	0.736	835.90	1	0.847	7.687
2023-08-18 23:01	805503	8.441	-161.839	15.61	1187.502	1296.176	0.732	842.10	1	0.843	7.621

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-18 23:16	806403	8.296	-154.371	15.586	1191.92	1301.652	0.735	838.98	1	0.846	7.432
2023-08-18 23:31	807303	8.277	-153.363	15.55	1194.171	1305.094	0.737	837.40	1	0.848	7.606
2023-08-18 23:46	808203	8.289	-153.99	15.519	1190.711	1302.155	0.735	839.83	1	0.846	7.311
2023-08-19 00:01	809103	8.471	-163.305	15.503	1193.748	1305.905	0.738	837.70	1	0.849	7.089
2023-08-19 00:16	810003	8.284	-153.718	15.457	1194.18	1307.645	0.739	837.39	1	0.850	6.984
2023-08-19 00:31	810903	8.323	-155.656	15.406	1192.09	1306.76	0.738	838.86	1	0.849	7.065
2023-08-19 00:46	811803	8.319	-155.413	15.321	1189.567	1306.315	0.738	840.64	1	0.849	6.925
2023-08-19 01:01	812703	8.428	-160.947	15.2	1179.443	1298.484	0.733	847.86	1	0.844	7.044
2023-08-19 01:16	813603	8.314	-155.027	15.089	1175.797	1297.506	0.733	850.49	1	0.843	7.130
2023-08-19 01:31	814503	8.305	-154.552	14.992	1174.626	1298.853	0.734	851.34	1	0.844	6.640
2023-08-19 01:46	815403	8.307	-154.595	14.908	1170.677	1296.804	0.733	854.21	1	0.843	6.586
2023-08-19 02:01	816303	8.460	-162.332	14.782	1158.684	1286.939	0.727	863.05	1	0.837	***5.601***
2023-08-19 02:16	817203	8.287	-153.477	14.715	1161.774	1292.213	0.730	860.75	1	0.840	***6.110***
2023-08-19 02:31	818103	8.272	-152.643	14.614	1155.789	1288.33	0.728	865.21	1	0.837	***6.488***
2023-08-19 02:46	819003	8.253	-151.606	14.542	1145.706	1279.042	0.723	872.82	1	0.831	***6.432***
2023-08-19 03:01	819903	8.408	-159.531	14.478	1126.482	1259.298	0.711	887.72	1	0.819	***6.278***
2023-08-19 03:16	820803	8.244	-151.083	14.434	1130.501	1264.985	0.714	884.56	1	0.822	***6.175***
2023-08-19 03:31	821703	8.239	-150.821	14.371	1127.994	1263.868	0.714	886.53	1	0.822	***6.221***
2023-08-19 03:46	822603	8.243	-150.99	14.3	1127.351	1265.078	0.715	887.04	1	0.822	***6.185***
2023-08-19 04:01	823503	8.397	-158.799	14.211	1113.364	1251.768	0.707	898.18	1	0.814	***6.012***
2023-08-19 04:16	824403	8.223	-149.882	14.112	1113.01	1254.053	0.708	898.47	1	0.815	***5.961***
2023-08-19 04:31	825303	8.192	-148.242	14.022	1105.055	1247.499	0.705	904.93	1	0.811	***5.958***
2023-08-19 04:46	826203	8.157	-146.377	13.927	1090.231	1233.293	0.696	917.24	1	0.802	***5.693***
2023-08-19 05:01	827103	8.320	-154.703	13.852	1078.531	1222.022	0.690	927.19	1	0.794	***5.468***
2023-08-19 05:16	828003	8.152	-146.077	13.769	1075.709	1221.028	0.689	929.62	1	0.794	***5.296***
2023-08-19 05:31	828903	8.149	-145.884	13.685	1072.878	1220.038	0.689	932.07	1	0.793	***5.283***
2023-08-19 05:46	829803	8.142	-145.454	13.612	1073.194	1222.334	0.690	931.80	1	0.795	***5.289***
2023-08-19 06:01	830703	8.304	-153.687	13.53	1061.103	1210.717	0.683	942.42	1	0.787	***5.120***
2023-08-19 06:16	831603	8.134	-144.961	13.389	1060.75	1214.039	0.685	942.73	1	0.789	***4.785***
2023-08-19 06:31	832503	8.125	-144.408	13.266	1057.433	1213.507	0.685	945.69	1	0.789	***4.532***
2023-08-19 06:46	833403	8.107	-143.471	13.223	1053.131	1209.725	0.683	949.55	1	0.786	***4.207***
2023-08-19 07:01	834303	8.256	-151.069	13.196	1008.086	1158.67	0.653	991.98	1	0.753	***4.061***
2023-08-19 07:16	835203	8.072	-141.692	13.186	1037.511	1192.749	0.673	963.85	1	0.775	***4.014***
2023-08-19 07:31	836103	8.067	-141.442	13.167	1042.683	1199.201	0.677	959.06	1	0.779	***3.856***
2023-08-19 07:46	837003	8.063	-141.199	13.141	1046.82	1204.633	0.680	955.27	1	0.783	***3.763***
2023-08-19 08:01	837903	8.225	-149.441	13.069	1018.852	1174.3	0.662	981.50	1	0.763	***3.696***
2023-08-19 08:16	838803	8.041	-140.016	13.021	1043.345	1203.814	0.680	958.46	1	0.782	***3.549***
2023-08-19 08:31	839703	7.995	-137.713	13.026	1064.847	1228.479	0.694	939.10	1	0.799	***3.491***
2023-08-19 08:46	840603	8.044	-140.207	13.076	1074.33	1238.054	0.700	930.81	1	0.805	***3.603***
2023-08-19 09:01	841503	8.257	-151.069	13.117	1046.102	1204.444	0.680	955.93	1	0.783	***3.406***
2023-08-19 09:16	842403	8.127	-144.482	13.175	1078.84	1240.565	0.701	926.92	1	0.806	***4.275***
2023-08-19 09:31	843303	8.114	-143.895	13.297	1091.294	1251.515	0.708	916.34	1	0.813	***4.308***
2023-08-19 09:46	844203	8.180	-147.297	13.398	1102.194	1261.232	0.713	907.28	1	0.820	***4.878***
2023-08-19 10:01	845103	8.305	-153.668	13.411	1049.327	1200.406	0.677	952.99	1	0.780	***4.657***
2023-08-19 10:16	846003	8.111	-143.805	13.41	1071.401	1225.683	0.692	933.36	1	0.797	***4.695***
2023-08-19 10:31	846903	8.107	-143.647	13.49	1076.419	1229.276	0.694	929.01	1	0.799	***4.817***
2023-08-19 10:46	847803	8.129	-144.823	13.623	1080.666	1230.542	0.695	925.36	1	0.800	***4.828***
2023-08-19 11:01	848703	8.297	-153.451	13.726	1060.948	1205.381	0.680	942.55	1	0.783	***5.035***
2023-08-19 11:16	849603	8.128	-144.83	13.768	1074.334	1219.488	0.688	930.81	1	0.793	***5.239***
2023-08-19 11:31	850503	8.097	-143.242	13.792	1070.834	1214.899	0.686	933.85	1	0.790	***4.682***
2023-08-19 11:46	851403	8.080	-142.431	13.875	1070.245	1212.03	0.684	934.37	1	0.788	***4.685***
2023-08-19 12:01	852303	8.260	-151.691	14.028	1060.996	1197.602	0.675	942.51	1	0.778	***4.844***
2023-08-19 12:16	853203	8.090	-143.087	14.18	1076.662	1211.304	0.683	928.80	1	0.787	***5.769***
2023-08-19 12:31	854103	8.082	-142.76	14.303	1078.469	1210.141	0.682	927.24	1	0.787	***5.955***
2023-08-19 12:46	855003	8.080	-142.722	14.445	1082.161	1210.597	0.682	924.08	1	0.787	***6.117***
2023-08-19 13:01	855903	8.221	-150.032	14.618	1080.637	1204.442	0.679	925.38	1	0.783	***6.103***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-19 13:16	856803	8.098	-143.838	14.854	1156.748	1282.842	0.725	864.49	1	0.834	***5.607***
2023-08-19 13:31	857703	8.188	-148.556	15.009	1172.013	1295.524	0.732	853.23	1	0.842	6.606
2023-08-19 13:46	858603	8.260	-152.261	15.104	1178.201	1299.732	0.734	848.75	1	0.845	7.322
2023-08-19 14:01	859503	8.426	-160.861	15.27	1181.986	1299.375	0.734	846.03	1	0.845	7.422
2023-08-19 14:16	860403	8.251	-151.944	15.37	1185.012	1299.986	0.734	843.87	1	0.845	7.615
2023-08-19 14:31	861303	8.245	-151.675	15.444	1190.249	1303.688	0.736	840.16	1	0.847	7.576
2023-08-19 14:46	862203	8.296	-154.328	15.499	1196.108	1308.61	0.739	836.05	1	0.851	7.734
2023-08-19 15:01	863103	8.459	-162.785	15.635	1200.809	1310.029	0.740	832.77	1	0.852	7.805
2023-08-19 15:16	864003	8.317	-155.511	15.714	1202.285	1309.475	0.739	831.75	1	0.851	8.036
2023-08-19 15:31	864903	8.325	-155.978	15.802	1206.993	1312.198	0.741	828.51	1	0.853	8.119
2023-08-19 15:46	865803	8.327	-156.114	15.881	1211.695	1315.168	0.743	825.29	1	0.855	8.161
2023-08-19 16:01	866703	8.501	-165.169	15.996	1217.748	1318.583	0.744	821.19	1	0.857	8.329
2023-08-19 16:16	867603	8.315	-155.659	16.111	1220.349	1318.262	0.744	819.44	1	0.857	8.989
2023-08-19 16:31	868503	8.308	-155.38	16.273	1224.823	1318.697	0.744	816.45	0.999	0.857	8.882
2023-08-19 16:46	869403	8.290	-154.581	16.55	1231.878	1318.769	0.744	811.77	0.999	0.857	9.012
2023-08-19 17:01	870303	8.466	-163.71	16.677	1238.635	1322.568	0.746	807.34	0.999	0.860	8.902
2023-08-19 17:16	871203	8.330	-156.739	16.713	1237.754	1320.666	0.745	807.92	0.999	0.858	9.012
2023-08-19 17:31	872103	8.317	-156.116	16.771	1240.156	1321.667	0.745	806.35	0.999	0.859	9.037
2023-08-19 17:46	873003	8.312	-155.919	16.908	1244.386	1322.488	0.746	803.61	0.999	0.860	9.122
2023-08-19 18:01	873903	8.470	-164.33	17.331	1259.961	1327.655	0.748	793.68	0.999	0.863	9.785
2023-08-19 18:16	874803	8.302	-155.723	17.48	1259.71	1323.404	0.746	793.83	0.999	0.860	9.772
2023-08-19 18:31	875703	8.319	-156.586	17.511	1261.987	1324.971	0.747	792.40	0.999	0.861	9.366
2023-08-19 18:46	876603	8.351	-158.224	17.471	1260.958	1324.97	0.747	793.05	0.999	0.861	9.730
2023-08-19 19:01	877503	8.504	-166.214	17.572	1265.453	1326.998	0.748	790.23	0.999	0.863	9.447
2023-08-19 19:16	878403	8.316	-156.488	17.6	1265.11	1325.892	0.747	790.45	0.999	0.862	9.739
2023-08-19 19:31	879303	8.283	-154.827	17.715	1268.391	1326.283	0.747	788.40	0.999	0.862	9.766
2023-08-19 19:46	880203	8.262	-153.856	17.888	1272.859	1326.358	0.747	785.63	0.999	0.862	10.061
2023-08-19 20:01	881103	8.433	-162.754	17.999	1274.041	1324.667	0.746	784.90	0.999	0.861	10.278
2023-08-19 20:16	882003	8.259	-153.749	18.014	1274.67	1324.933	0.746	784.52	0.999	0.861	9.922
2023-08-19 20:31	882903	8.225	-151.987	17.995	1275.464	1326.249	0.747	784.03	0.999	0.862	9.563
2023-08-19 20:46	883803	8.201	-150.685	17.888	1272.98	1326.492	0.747	785.56	0.999	0.862	10.186
2023-08-19 21:01	884703	8.364	-159.066	17.732	1237.096	1293.104	0.727	808.34	0.999	0.841	9.738
2023-08-19 21:16	885603	8.249	-153.058	17.611	1260.758	1321.027	0.744	793.17	0.999	0.859	9.760
2023-08-19 21:31	886503	8.196	-150.228	17.507	1260.674	1323.707	0.746	793.23	0.999	0.860	9.870
2023-08-19 21:46	887403	8.213	-151.074	17.373	1257.035	1323.445	0.746	795.52	0.999	0.860	9.436
2023-08-19 22:01	888303	8.375	-159.354	17.213	1220.561	1289.197	0.726	819.30	0.999	0.838	9.145
2023-08-19 22:16	889203	8.234	-151.966	17.088	1237.727	1310.633	0.739	807.93	0.999	0.852	9.165
2023-08-19 22:31	890103	8.231	-151.77	16.95	1237.271	1313.813	0.741	808.23	0.999	0.854	9.760
2023-08-19 22:46	891003	8.222	-151.224	16.798	1233.593	1313.951	0.741	810.64	0.999	0.854	9.774
2023-08-19 23:01	891903	8.374	-158.982	16.645	1186.666	1267.917	0.714	842.70	0.999	0.824	9.478
2023-08-19 23:16	892803	8.222	-151.06	16.531	1208.185	1293.925	0.729	827.69	0.999	0.841	8.838
2023-08-19 23:31	893703	8.205	-150.156	16.415	1207.524	1296.277	0.731	828.14	0.999	0.843	8.566
2023-08-19 23:46	894603	8.204	-150.046	16.294	1204.358	1296.104	0.731	830.32	0.999	0.842	8.248
2023-08-20 00:01	895503	8.351	-157.526	16.162	1168.842	1261.29	0.711	855.55	0.999	0.820	8.349
2023-08-20 00:16	896403	8.170	-148.146	16.034	1179.381	1276.029	0.719	847.90	0.999	0.829	7.854
2023-08-20 00:31	897303	8.185	-148.866	15.919	1180.491	1280.288	0.722	847.11	1	0.832	7.926
2023-08-20 00:46	898203	8.185	-148.792	15.796	1178.879	1281.792	0.723	848.26	1	0.833	7.762
2023-08-20 01:01	899103	8.337	-156.538	15.634	1122.689	1224.821	0.690	890.72	1	0.796	7.575
2023-08-20 01:16	900003	8.155	-147.116	15.529	1157.876	1265.993	0.714	863.65	1	0.823	7.224
2023-08-20 01:31	900903	8.157	-147.152	15.424	1157.031	1267.85	0.715	864.28	1	0.824	6.983
2023-08-20 01:46	901803	8.157	-147.116	15.32	1155.135	1268.536	0.716	865.70	1	0.825	6.902
2023-08-20 02:01	902703	8.322	-155.501	15.212	1128.896	1242.536	0.700	885.82	1	0.808	6.774
2023-08-20 02:16	903603	8.132	-145.705	15.105	1136.277	1253.461	0.707	880.07	1	0.815	***6.395***
2023-08-20 02:31	904503	8.150	-146.589	15.002	1136.897	1256.871	0.709	879.59	1	0.817	***6.273***
2023-08-20 02:46	905403	8.157	-146.914	14.899	1135.523	1258.103	0.710	880.65	1	0.818	***6.176***
2023-08-20 03:01	906303	8.305	-154.402	14.779	1090.647	1211.46	0.683	916.89	1	0.787	***6.041***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-20 03:16	907203	8.109	-144.298	14.671	1121.07	1248.109	0.704	892.01	1	0.811	***5.724***
2023-08-20 03:31	908103	8.120	-144.837	14.57	1123.375	1253.363	0.707	890.17	1	0.815	***5.563***
2023-08-20 03:46	909003	8.126	-145.092	14.463	1123.099	1255.923	0.709	890.39	1	0.816	***5.446***
2023-08-20 04:01	909903	8.278	-152.819	14.36	1084.047	1214.931	0.685	922.47	1	0.790	***5.289***
2023-08-20 04:16	910803	8.079	-142.593	14.259	1101.51	1237.17	0.698	907.84	1	0.804	***4.764***
2023-08-20 04:31	911703	8.101	-143.7	14.229	1103.314	1239.984	0.700	906.36	1	0.806	***4.741***
2023-08-20 04:46	912603	8.066	-141.909	14.216	1105.943	1243.301	0.702	904.21	1	0.808	***4.641***
2023-08-20 05:01	913503	8.239	-150.704	14.171	1070.245	1204.339	0.679	934.37	1	0.783	***4.626***
2023-08-20 05:16	914403	8.111	-144.138	14.134	1096.357	1234.701	0.697	912.11	1	0.803	***4.683***
2023-08-20 05:31	915303	8.176	-147.45	14.12	1100.175	1239.368	0.700	908.95	1	0.806	***5.187***
2023-08-20 05:46	916203	8.195	-148.454	14.115	1109.008	1249.452	0.706	901.71	1	0.812	***5.446***
2023-08-20 06:01	917103	8.333	-155.461	14.053	1097.001	1237.575	0.699	911.58	1	0.804	***5.470***
2023-08-20 06:16	918003	8.170	-147.109	13.98	1100.449	1243.41	0.702	908.72	1	0.808	***5.557***
2023-08-20 06:31	918903	8.171	-147.078	13.866	1099.128	1244.985	0.703	909.81	1	0.809	***5.514***
2023-08-20 06:46	919803	8.152	-146.065	13.775	1097.917	1246.058	0.704	910.82	1	0.810	***5.335***
2023-08-20 07:01	920703	8.324	-154.798	13.692	1062.66	1208.242	0.682	941.04	1	0.785	***5.145***
2023-08-20 07:16	921603	8.135	-145.147	13.638	1093.51	1244.764	0.703	914.49	1	0.809	***4.966***
2023-08-20 07:31	922503	8.144	-145.559	13.573	1096.647	1250.101	0.707	911.87	1	0.813	***5.006***
2023-08-20 07:46	923403	8.174	-147.059	13.554	1100.27	1254.75	0.709	908.87	1	0.816	***4.983***
2023-08-20 08:01	924303	8.329	-154.955	13.49	1059.268	1209.686	0.683	944.05	1	0.786	***4.766***
2023-08-20 08:16	925203	8.144	-145.464	13.442	1094.572	1251.298	0.707	913.60	1	0.813	***4.755***
2023-08-20 08:31	926103	8.163	-146.425	13.366	1096.883	1256.034	0.710	911.67	1	0.816	***4.352***
2023-08-20 08:46	927003	8.173	-146.916	13.315	1097.419	1258.061	0.711	911.23	1	0.818	***4.104***
2023-08-20 09:01	927903	8.372	-157.018	13.287	1051.112	1205.708	0.681	951.37	1	0.784	***4.582***
2023-08-20 09:16	928803	8.194	-147.963	13.321	1095.762	1255.987	0.710	912.61	1	0.816	***4.969***
2023-08-20 09:31	929703	8.190	-147.753	13.33	1097.491	1257.726	0.711	911.17	1	0.818	***4.926***
2023-08-20 09:46	930603	8.208	-148.68	13.337	1100.346	1260.808	0.713	908.81	1	0.820	***4.890***
2023-08-20 10:01	931503	8.364	-156.653	13.354	1069.663	1225.181	0.692	934.87	1	0.796	***5.179***
2023-08-20 10:16	932403	8.221	-149.367	13.394	1103.478	1262.817	0.714	906.23	1	0.821	***5.297***
2023-08-20 10:31	933303	8.216	-149.138	13.443	1106.024	1264.375	0.715	904.14	1	0.822	***5.499***
2023-08-20 10:46	934203	8.203	-148.544	13.495	1106.47	1263.446	0.714	903.78	1	0.821	***5.383***
2023-08-20 11:01	935103	8.316	-154.281	13.441	1011.187	1156.007	0.651	988.94	1	0.751	***3.600***
2023-08-20 11:16	936003	8.090	-142.748	13.51	1080.437	1233.331	0.697	925.55	1	0.802	***3.114***
2023-08-20 11:31	936903	8.125	-144.563	13.527	1073.742	1225.214	0.692	931.32	1	0.796	***3.189***
2023-08-20 11:46	937803	8.086	-142.61	13.651	1066.443	1213.601	0.685	937.70	1	0.789	***3.393***
2023-08-20 12:01	938703	8.207	-148.883	13.784	994.82	1128.851	0.635	1005.21	1	0.734	***4.110***
2023-08-20 12:16	939603	8.029	-139.84	13.849	1026.172	1162.791	0.655	974.50	1	0.756	***3.736***
2023-08-20 12:31	940503	7.998	-138.292	13.951	1024.051	1157.81	0.652	976.51	1	0.753	***3.226***
2023-08-20 12:46	941403	7.906	-133.617	13.989	993.685	1122.556	0.631	1006.36	1	0.730	***2.456***
2023-08-20 13:01	942303	8.092	-143.22	14.222	893.173	1003.971	0.562	1119.60	1	0.653	***2.811***
2023-08-20 13:16	943203	7.942	-135.665	14.421	995.681	1114.431	0.626	1004.34	1	0.724	***3.708***
2023-08-20 13:31	944103	7.927	-134.993	14.611	1005.642	1121.036	0.630	994.39	1	0.729	***4.493***
2023-08-20 13:46	945003	7.919	-134.637	14.814	1007.44	1118.201	0.628	992.62	1	0.727	***4.396***
2023-08-20 14:01	945903	8.079	-142.961	15.025	967.206	1068.766	0.599	1033.91	1	0.695	***4.337***
2023-08-20 14:16	946803	7.899	-133.924	15.448	997.788	1092.807	0.612	1002.22	1	0.710	***5.615***
2023-08-20 14:31	947703	7.886	-133.514	16.02	1015.118	1098.625	0.615	985.11	0.999	0.714	***6.364***
2023-08-20 14:46	948603	7.825	-130.482	16.283	1065.824	1147.284	0.643	938.24	0.999	0.746	***5.427***
2023-08-20 15:01	949503	8.111	-145.247	16.274	1048.827	1129.196	0.633	953.45	0.999	0.734	***5.282***
2023-08-20 15:16	950403	7.943	-136.707	16.567	1045.144	1118.472	0.626	956.81	0.999	0.727	7.072
2023-08-20 15:31	951303	7.922	-136.309	17.954	1126.877	1172.694	0.657	887.41	0.999	0.762	7.887
2023-08-20 15:46	952203	8.020	-141.571	18.434	1168.57	1204.595	0.675	855.75	0.999	0.783	7.465
2023-08-20 16:01	953103	8.200	-151.06	18.693	1162.206	1191.962	0.667	860.43	0.999	0.775	8.285
2023-08-20 16:16	954003	7.989	-140.212	18.964	1180.419	1204.245	0.674	847.16	0.999	0.783	8.081
2023-08-20 16:31	954903	7.940	-137.618	18.793	1192.124	1220.262	0.684	838.84	0.999	0.793	8.487
2023-08-20 16:46	955803	7.966	-138.879	18.607	1172.746	1204.8	0.675	852.70	0.999	0.783	9.333
2023-08-20 17:01	956703	8.118	-146.704	18.501	1124.978	1158.133	0.648	888.91	0.999	0.753	9.011

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-20 17:16	957603	7.948	-137.863	18.455	1163.48	1198.847	0.671	859.49	0.999	0.779	8.988
2023-08-20 17:31	958503	8.033	-142.264	18.448	1189.663	1226.004	0.687	840.57	0.999	0.797	8.993
2023-08-20 17:46	959403	7.974	-139.308	18.608	1187.913	1220.358	0.684	841.81	0.999	0.793	8.846
2023-08-20 18:01	960303	8.121	-147.092	18.957	1133.221	1156.262	0.646	882.44	0.999	0.752	8.658
2023-08-20 18:16	961203	7.944	-137.98	19.089	1194.031	1215.174	0.680	837.50	0.999	0.790	8.376
2023-08-20 18:31	962103	7.913	-136.333	19.104	1203.898	1224.863	0.686	830.64	0.999	0.796	8.331
2023-08-20 18:46	963003	7.934	-137.408	18.998	1224.899	1248.8	0.700	816.39	0.999	0.812	8.696
2023-08-20 19:01	963903	8.092	-145.6	19.037	1145.844	1167.307	0.652	872.72	0.999	0.759	9.053
2023-08-20 19:16	964803	7.944	-137.968	19.104	1193.072	1213.851	0.679	838.17	0.999	0.789	8.981
2023-08-20 19:31	965703	7.914	-136.406	19.13	1203.686	1224.017	0.685	830.78	0.999	0.796	9.422
2023-08-20 19:46	966603	7.821	-131.512	18.972	1217.432	1241.811	0.696	821.40	0.999	0.807	9.311
2023-08-20 20:01	967503	8.082	-144.973	18.745	1133.772	1161.609	0.649	882.01	0.999	0.755	9.064
2023-08-20 20:16	968403	7.901	-135.465	18.582	1180.748	1213.62	0.680	846.92	0.999	0.789	8.831
2023-08-20 20:31	969303	7.885	-134.635	18.506	1182.157	1216.872	0.682	845.91	0.999	0.791	9.573
2023-08-20 20:46	970203	7.866	-133.588	18.425	1184.93	1221.687	0.685	843.93	0.999	0.794	9.859
2023-08-20 21:01	971103	8.051	-143.106	18.289	1116.412	1154.124	0.645	895.73	0.999	0.750	9.746
2023-08-20 21:16	972003	7.912	-135.891	18.204	1177.513	1219.349	0.684	849.25	0.999	0.793	9.790
2023-08-20 21:31	972903	7.830	-131.586	18.11	1206.767	1251.958	0.703	828.66	0.999	0.814	9.464
2023-08-20 21:46	973803	7.990	-139.875	18.094	1232.499	1279.069	0.719	811.36	0.999	0.831	12.050
2023-08-20 22:01	974703	8.262	-153.942	18.044	1227.653	1275.302	0.717	814.56	0.999	0.829	13.762
2023-08-20 22:16	975603	8.105	-145.741	17.9	1238.255	1289.985	0.725	807.59	0.999	0.838	13.338
2023-08-20 22:31	976503	8.103	-145.545	17.695	1232.472	1289.224	0.725	811.38	0.999	0.838	12.874
2023-08-20 22:46	977403	8.103	-145.442	17.494	1227.914	1289.63	0.726	814.39	0.999	0.838	12.176
2023-08-20 23:01	978303	8.276	-154.24	17.291	1178.832	1243.152	0.699	848.30	0.999	0.808	11.800
2023-08-20 23:16	979203	8.143	-147.316	17.157	1191.113	1259.51	0.708	839.55	0.999	0.819	11.371
2023-08-20 23:31	980103	8.119	-145.988	17.005	1192.933	1265.317	0.712	838.27	0.999	0.822	10.913
2023-08-20 23:46	981003	8.087	-144.265	16.852	1192.255	1268.53	0.714	838.75	0.999	0.825	10.662
2023-08-21 00:01	981903	8.240	-152.071	16.683	1137.973	1214.951	0.683	878.76	0.999	0.790	10.579
2023-08-21 00:16	982803	8.046	-141.947	16.415	1153.488	1238.274	0.697	866.94	0.999	0.805	9.764
2023-08-21 00:31	983703	8.068	-142.932	16.142	1141.6	1232.418	0.694	875.96	0.999	0.801	9.436
2023-08-21 00:46	984603	8.055	-142.2	15.936	1125.946	1220.703	0.687	888.14	0.999	0.793	8.640
2023-08-21 01:01	985503	8.191	-149.09	15.793	1079.298	1173.597	0.659	926.53	0.999	0.763	8.358
2023-08-21 01:16	986403	8.010	-139.742	15.647	1094.127	1193.349	0.671	913.97	1	0.776	7.796
2023-08-21 01:31	987303	7.996	-138.936	15.516	1096.209	1198.888	0.674	912.24	1	0.779	7.559
2023-08-21 01:46	988203	7.985	-138.321	15.383	1096.217	1202.245	0.677	912.23	1	0.781	7.195
2023-08-21 02:01	989103	8.132	-145.795	15.258	1024.302	1126.322	0.632	976.27	1	0.732	6.721
2023-08-21 02:16	990003	7.905	-134.094	15.136	1060.226	1168.821	0.657	943.20	1	0.760	***5.898***
2023-08-21 02:31	990903	7.905	-134.07	15.043	1063.962	1175.221	0.661	939.88	1	0.764	***5.542***
2023-08-21 02:46	991803	7.915	-134.535	14.951	1063.777	1177.316	0.662	940.05	1	0.765	***5.339***
2023-08-21 03:01	992703	8.091	-143.473	14.83	1000.709	1110.358	0.623	999.29	1	0.722	***5.134***
2023-08-21 03:16	993603	7.919	-134.625	14.726	1035.902	1151.946	0.648	965.34	1	0.749	***4.982***
2023-08-21 03:31	994503	7.915	-134.373	14.637	1039.223	1157.815	0.651	962.26	1	0.753	***4.747***
2023-08-21 03:46	995403	7.911	-134.139	14.592	1041.584	1161.565	0.653	960.08	1	0.755	***4.693***
2023-08-21 04:01	996304	8.098	-143.731	14.595	1006.894	1122.796	0.631	993.15	1	0.730	***4.672***
2023-08-21 04:16	997204	7.983	-137.832	14.621	1049.014	1169.132	0.658	953.28	1	0.760	***5.060***
2023-08-21 04:31	998104	8.031	-140.355	14.679	1063.179	1183.466	0.666	940.58	1	0.769	***5.439***
2023-08-21 04:46	999004	8.047	-141.127	14.684	1072.739	1193.977	0.672	932.19	1	0.776	***5.658***
2023-08-21 05:01	999904	8.258	-151.904	14.613	1067.348	1189.766	0.670	936.90	1	0.773	***5.601***
2023-08-21 05:16	1000804	8.106	-144.107	14.518	1070.934	1196.192	0.674	933.76	1	0.778	***6.161***
2023-08-21 05:31	1001704	8.094	-143.478	14.489	1075.968	1202.56	0.678	929.40	1	0.782	***5.990***
2023-08-21 05:46	1002604	8.120	-144.775	14.504	1083.001	1210.013	0.682	923.36	1	0.787	***5.767***
2023-08-21 06:01	1003504	8.302	-154.116	14.533	1077.214	1202.822	0.678	928.32	1	0.782	***5.555***
2023-08-21 06:16	1004404	8.144	-146.055	14.51	1085.111	1212.232	0.683	921.57	1	0.788	***6.248***
2023-08-21 06:31	1005304	8.147	-146.163	14.482	1090.306	1218.75	0.687	917.17	1	0.792	***6.261***
2023-08-21 06:46	1006204	8.177	-147.696	14.469	1095.756	1225.198	0.691	912.61	1	0.796	***6.210***
2023-08-21 07:01	1007104	8.325	-155.225	14.419	1093.172	1223.612	0.690	914.77	1	0.795	***6.394***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-21 07:16	1008004	8.155	-146.518	14.354	1090.501	1222.31	0.689	917.01	1	0.795	6.566
2023-08-21 07:31	1008904	8.162	-146.856	14.307	1090.026	1223.011	0.690	917.41	1	0.795	6.631
2023-08-21 07:46	1009804	8.163	-146.871	14.263	1089.712	1223.812	0.690	917.67	1	0.795	6.673
2023-08-21 08:01	1010704	8.331	-155.466	14.264	1093.715	1228.279	0.693	914.32	1	0.798	6.572
2023-08-21 08:16	1011604	8.171	-147.269	14.246	1093.988	1229.059	0.693	914.09	1	0.799	6.525
2023-08-21 08:31	1012504	8.152	-146.317	14.225	1094.243	1229.901	0.694	913.87	1	0.799	***6.496***
2023-08-21 08:46	1013404	8.151	-146.239	14.242	1096.179	1231.639	0.695	912.26	1	0.801	***6.430***
2023-08-21 09:01	1014304	8.349	-156.403	14.292	1101.821	1236.651	0.698	907.59	1	0.804	***6.346***
2023-08-21 09:16	1015204	8.359	-156.915	14.324	1105.904	1240.377	0.700	904.24	1	0.806	***6.448***
2023-08-21 09:31	1016104	8.176	-147.593	14.357	1112.836	1247.27	0.704	898.61	1	0.811	6.589
2023-08-21 09:46	1017004	8.169	-147.276	14.399	1118.334	1252.3	0.707	894.19	1	0.814	6.741
2023-08-21 10:01	1017904	8.150	-146.306	14.435	1120.269	1253.516	0.708	892.64	1	0.815	6.684
2023-08-21 10:16	1018804	8.326	-155.361	14.499	1126.432	1258.689	0.711	887.76	1	0.818	6.917
2023-08-21 10:31	1019704	8.217	-149.758	14.522	1125.222	1256.703	0.710	888.71	1	0.817	7.090
2023-08-21 10:46	1020604	8.357	-156.989	14.575	1130.997	1261.723	0.712	884.18	1	0.820	7.110
2023-08-21 11:01	1021504	8.159	-146.854	14.647	1131.983	1260.891	0.712	883.41	1	0.820	7.278
2023-08-21 11:16	1022404	8.152	-146.585	14.774	1132.719	1258.317	0.710	882.83	1	0.818	7.041
2023-08-21 11:31	1023304	8.138	-145.946	14.951	1138.951	1260.522	0.711	878.00	1	0.819	7.588
2023-08-21 11:46	1024204	8.365	-157.654	15.062	1132.595	1250.545	0.705	882.93	1	0.813	7.508
2023-08-21 12:01	1025104	8.204	-149.355	15.024	1134.207	1253.337	0.707	881.67	1	0.815	7.343
2023-08-21 12:16	1026004	8.175	-147.917	15.051	1117.387	1234.024	0.696	894.95	1	0.802	6.853
2023-08-21 12:31	1026904	8.047	-141.506	15.454	1047.064	1146.616	0.644	955.05	1	0.745	***5.849***
2023-08-21 12:46	1027804	8.324	-156.312	16.45	1124.14	1205.912	0.678	889.57	0.999	0.784	6.781
2023-08-21 13:01	1028704	8.133	-146.508	16.55	1151.824	1233.078	0.694	868.19	0.999	0.802	7.743
2023-08-21 13:16	1029604	8.146	-147.316	16.841	1146.261	1219.858	0.685	872.40	0.999	0.793	8.126
2023-08-21 13:31	1030504	8.144	-147.448	17.301	1155.659	1218.461	0.684	865.31	0.999	0.792	8.497
2023-08-21 13:46	1031404	8.285	-154.912	17.652	1168.227	1223.074	0.686	856.00	0.999	0.795	8.947
2023-08-21 14:01	1032304	8.158	-148.399	17.747	1172.792	1225.538	0.688	852.67	0.999	0.797	8.932
2023-08-21 14:16	1033204	8.178	-149.651	18.195	1186.784	1229.166	0.689	842.61	0.999	0.799	9.574
2023-08-21 14:31	1034104	8.170	-149.319	18.377	1192.833	1230.987	0.690	838.34	0.999	0.800	9.775
2023-08-21 14:46	1035004	8.338	-158.226	18.697	1199.265	1229.866	0.689	833.84	0.999	0.799	9.804
2023-08-21 15:01	1035904	8.164	-149.319	18.895	1202.685	1228.62	0.688	831.47	0.999	0.799	9.787
2023-08-21 15:16	1036804	8.120	-147.099	19.085	1211.604	1233.164	0.691	825.35	0.999	0.802	9.922
2023-08-21 15:31	1037704	8.106	-146.315	18.933	1209.126	1234.28	0.692	827.04	0.999	0.802	9.362
2023-08-21 15:46	1038604	8.264	-154.531	18.969	1192.867	1216.828	0.681	838.32	0.999	0.791	9.700
2023-08-21 16:01	1039504	8.081	-144.994	18.893	1190.178	1215.887	0.681	840.21	0.999	0.790	9.441
2023-08-21 16:16	1040404	8.076	-144.744	18.977	1190.061	1213.773	0.680	840.29	0.999	0.789	9.730
2023-08-21 16:31	1041304	8.040	-143.094	19.4	1201.692	1215.623	0.680	832.16	0.999	0.790	10.078
2023-08-21 16:46	1042204	8.292	-156.276	19.531	1205.324	1216.218	0.680	829.65	0.999	0.791	9.848
2023-08-21 17:01	1043104	8.080	-145.366	19.737	1217.247	1223.393	0.684	821.53	0.999	0.795	10.002
2023-08-21 17:16	1044004	8.154	-149.047	19.443	1211.797	1224.828	0.685	825.22	0.999	0.796	9.100
2023-08-21 17:31	1044904	8.144	-148.404	19.235	1199.209	1216.984	0.681	833.88	0.999	0.791	9.755
2023-08-21 17:46	1045804	8.298	-156.353	19.056	1180.071	1201.738	0.672	847.41	0.999	0.781	10.531
2023-08-21 18:01	1046704	8.121	-147.08	18.966	1191.984	1216.006	0.681	838.94	0.999	0.790	10.723
2023-08-21 18:16	1047604	8.162	-149.152	18.84	1208.375	1235.743	0.693	827.56	0.999	0.803	10.820
2023-08-21 18:31	1048504	8.109	-146.492	18.956	1204.983	1229.489	0.689	829.89	0.999	0.799	10.693
2023-08-21 18:46	1049404	8.320	-157.58	19.239	1207.928	1225.746	0.686	827.86	0.999	0.797	10.873
2023-08-21 19:01	1050304	8.144	-148.439	19.216	1218.439	1236.967	0.693	820.72	0.999	0.804	10.595
2023-08-21 19:16	1051204	8.175	-149.899	18.961	1228.355	1253.224	0.703	814.10	0.999	0.815	9.685
2023-08-21 19:31	1052104	8.330	-157.909	18.847	1256.186	1284.473	0.721	796.06	0.999	0.835	10.971
2023-08-21 19:46	1053004	8.524	-167.942	18.779	1249.078	1278.908	0.718	800.59	0.999	0.831	10.705
2023-08-21 20:01	1053904	8.344	-158.534	18.656	1249.895	1282.826	0.720	800.07	0.999	0.834	10.839
2023-08-21 20:16	1054804	8.335	-158.033	18.585	1247.011	1281.638	0.720	801.92	0.999	0.833	10.580
2023-08-21 20:31	1055704	8.276	-154.915	18.487	1241.261	1278.188	0.718	805.63	0.999	0.831	10.376
2023-08-21 20:46	1056604	8.410	-161.803	18.435	1234.551	1272.586	0.715	810.01	0.999	0.827	10.676
2023-08-21 21:01	1057504	8.229	-152.369	18.364	1232.463	1272.214	0.714	811.38	0.999	0.827	10.503

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-21 21:16	1058404	8.167	-149.14	18.25	1227.725	1270.189	0.713	814.52	0.999	0.826	10.143
2023-08-21 21:31	1059304	8.177	-149.562	18.111	1223.745	1269.546	0.713	817.16	0.999	0.825	9.690
2023-08-21 21:46	1060204	8.328	-157.32	17.956	1211.88	1261.115	0.708	825.16	0.999	0.820	9.572
2023-08-21 22:01	1061104	8.195	-150.368	17.845	1221.76	1274.212	0.716	818.49	0.999	0.828	10.181
2023-08-21 22:16	1062004	8.198	-150.454	17.752	1232.255	1287.549	0.724	811.52	0.999	0.837	10.335
2023-08-21 22:31	1062904	8.216	-151.355	17.649	1231.995	1289.907	0.726	811.69	0.999	0.838	9.880
2023-08-21 22:46	1063804	8.328	-157.034	17.484	1217.444	1278.9	0.719	821.39	0.999	0.831	9.735
2023-08-21 23:01	1064704	8.110	-145.719	17.38	1218.728	1282.929	0.722	820.53	0.999	0.834	9.518
2023-08-21 23:16	1065604	8.110	-145.638	17.237	1217.802	1285.641	0.724	821.15	0.999	0.836	9.354
2023-08-21 23:31	1066504	8.122	-146.179	17.08	1209.421	1280.854	0.721	826.84	0.999	0.833	9.181
2023-08-21 23:46	1067404	8.304	-155.53	16.914	1193.269	1268.009	0.714	838.03	0.999	0.824	9.079
2023-08-22 00:01	1068304	8.150	-147.469	16.744	1194.117	1273.31	0.717	837.44	0.999	0.828	8.613
2023-08-22 00:16	1069204	8.128	-146.279	16.629	1189.414	1271.264	0.716	840.75	0.999	0.826	8.313
2023-08-22 00:31	1070104	8.134	-146.489	16.432	1182.07	1268.529	0.714	845.97	0.999	0.825	8.267
2023-08-22 00:46	1071004	8.286	-154.228	16.274	1158.725	1247.509	0.702	863.02	0.999	0.811	7.736
2023-08-22 01:01	1071904	8.103	-144.742	16.1	1158.111	1251.319	0.705	863.48	0.999	0.813	7.542
2023-08-22 01:16	1072804	8.103	-144.68	15.98	1155.332	1251.41	0.705	865.55	0.999	0.813	7.408
2023-08-22 01:31	1073704	8.098	-144.351	15.865	1151.494	1250.223	0.704	868.44	1	0.813	7.230
2023-08-22 01:46	1074604	8.266	-152.938	15.778	1120.13	1218.386	0.686	892.75	1	0.792	7.034
2023-08-22 02:01	1075504	8.077	-143.18	15.66	1134.35	1236.871	0.697	881.56	1	0.804	6.748
2023-08-22 02:16	1076404	8.073	-142.901	15.578	1134.728	1239.407	0.698	881.27	1	0.806	6.505
2023-08-22 02:31	1077304	8.056	-142.012	15.456	1136.631	1244.667	0.701	879.79	1	0.809	***6.320***
2023-08-22 02:46	1078204	8.222	-150.23	14.903	1156.923	1281.706	0.724	864.36	1	0.833	***5.750***
2023-08-22 03:01	1079104	8.162	-146.899	14.394	1135.943	1272.151	0.719	880.33	1	0.827	***5.802***
2023-08-22 03:16	1080004	8.210	-149.245	14.215	1240.784	1394.909	0.792	805.94	1	0.907	***6.353***
2023-08-22 03:31	1080904	8.230	-150.173	14.064	1243.763	1402.825	0.796	804.01	1	0.912	***6.409***
2023-08-22 03:46	1081804	8.423	-160.053	14.029	1250.48	1411.449	0.802	799.69	1	0.917	***6.426***
2023-08-22 04:01	1082704	8.249	-151.16	14.023	1266.214	1429.397	0.812	789.76	1	0.929	6.550
2023-08-22 04:16	1083604	8.284	-152.931	13.97	1273.62	1439.394	0.818	785.16	1	0.936	6.931
2023-08-22 04:31	1084504	8.263	-151.849	13.982	1274.342	1439.84	0.819	784.72	1	0.936	6.867
2023-08-22 04:46	1085404	8.399	-158.823	14.086	1258.247	1418.48	0.806	794.76	1	0.922	***6.476***
2023-08-22 05:01	1086304	8.211	-149.25	14.156	1271.685	1431.477	0.813	786.36	1	0.930	6.773
2023-08-22 05:16	1087204	8.272	-152.338	14.058	1267.712	1430.005	0.813	788.82	1	0.930	7.314
2023-08-22 05:31	1088104	8.251	-151.186	13.886	1264.894	1432.134	0.814	790.58	1	0.931	6.881
2023-08-22 05:46	1089004	8.412	-159.335	13.764	1265.15	1436.222	0.817	790.42	1	0.934	6.617
2023-08-22 06:01	1089904	8.241	-150.547	13.681	1271.474	1446.006	0.823	786.49	1	0.940	6.571
2023-08-22 06:16	1090804	8.249	-150.931	13.583	1272.617	1450.399	0.825	785.78	1	0.943	***6.497***
2023-08-22 06:31	1091704	8.243	-150.571	13.503	1277.733	1458.763	0.830	782.64	1	0.948	6.527
2023-08-22 06:46	1092604	8.431	-160.139	13.453	1284.324	1467.894	0.836	778.62	1	0.954	6.531
2023-08-22 07:01	1093504	8.257	-151.274	13.443	1288.147	1472.584	0.839	776.31	1	0.957	6.528
2023-08-22 07:16	1094404	8.247	-150.764	13.442	1290.247	1474.987	0.840	775.05	1	0.959	***6.421***
2023-08-22 07:31	1095304	8.262	-151.479	13.441	1302.715	1489.28	0.849	767.63	1	0.968	6.873
2023-08-22 07:46	1096204	8.450	-161.085	13.448	1304.309	1490.88	0.850	766.69	1	0.969	6.868
2023-08-22 08:01	1097104	8.265	-151.684	13.456	1305.453	1491.926	0.850	766.02	1	0.970	6.815
2023-08-22 08:16	1098004	8.259	-151.346	13.476	1306.814	1492.837	0.851	765.22	1	0.970	6.792
2023-08-22 08:31	1098904	8.246	-150.712	13.519	1309.115	1494.046	0.851	763.88	1	0.971	6.940
2023-08-22 08:46	1099804	8.413	-159.233	13.538	1311.463	1496.129	0.853	762.51	1	0.972	6.728
2023-08-22 09:01	1100704	8.219	-149.362	13.554	1312.545	1496.836	0.853	761.88	1	0.973	6.824
2023-08-22 09:16	1101604	8.210	-148.9	13.567	1314.272	1498.362	0.854	760.88	1	0.974	6.954
2023-08-22 09:31	1102504	8.191	-147.927	13.575	1315.121	1499.099	0.854	760.39	1	0.974	7.010
2023-08-22 09:46	1103404	8.371	-157.146	13.583	1316.186	1500.049	0.855	759.77	1	0.975	7.012
2023-08-22 10:01	1104304	8.191	-147.946	13.587	1315.591	1499.214	0.854	760.12	1	0.974	6.887
2023-08-22 10:16	1105204	8.155	-146.151	13.594	1315.916	1499.371	0.854	759.93	1	0.975	6.747
2023-08-22 10:31	1106104	8.131	-144.918	13.602	1315.556	1498.71	0.854	760.14	1	0.974	6.529
2023-08-22 10:46	1107004	8.309	-153.973	13.61	1315.672	1498.581	0.854	760.07	1	0.974	6.685
2023-08-22 11:01	1107904	8.122	-144.482	13.63	1317.271	1499.755	0.855	759.15	1	0.975	6.699

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-22 11:16	1108804	8.114	-144.067	13.651	1318.287	1500.22	0.855	758.56	1	0.975	6.609
2023-08-22 11:31	1109704	8.087	-142.677	13.652	1319.277	1501.315	0.856	757.99	1	0.976	***6.236***
2023-08-22 11:46	1110604	8.257	-151.348	13.626	1319.1	1501.951	0.856	758.09	1	0.976	6.821
2023-08-22 12:01	1111504	8.078	-142.231	13.618	1318.416	1501.448	0.856	758.49	1	0.976	6.839
2023-08-22 12:16	1112404	8.066	-141.602	13.602	1318.125	1501.624	0.856	758.65	1	0.976	6.749
2023-08-22 12:31	1113304	8.058	-141.172	13.61	1317.187	1500.308	0.855	759.19	1	0.975	6.741
2023-08-22 12:46	1114204	8.231	-150.011	13.622	1318.031	1500.859	0.855	758.71	1	0.976	6.791
2023-08-22 13:01	1115104	8.056	-141.075	13.632	1319.138	1501.792	0.856	758.07	1	0.976	6.810
2023-08-22 13:16	1116004	8.051	-140.848	13.642	1319.336	1501.696	0.856	757.96	1	0.976	6.770
2023-08-22 13:31	1116904	8.047	-140.657	13.662	1320.201	1502.045	0.856	757.46	1	0.976	6.790
2023-08-22 13:46	1117804	8.223	-149.636	13.702	1321.322	1502.006	0.856	756.82	1	0.976	6.898
2023-08-22 14:01	1118704	8.054	-141.053	13.752	1320.564	1499.511	0.854	757.25	1	0.975	6.965
2023-08-22 14:16	1119604	8.062	-141.485	13.826	1319.568	1495.974	0.852	757.82	1	0.972	7.059
2023-08-22 14:31	1120504	8.062	-141.537	13.912	1326.127	1500.606	0.855	754.08	1	0.975	7.004
2023-08-22 14:46	1121404	8.251	-151.181	13.942	1330.812	1504.958	0.857	751.42	1	0.978	7.080
2023-08-22 15:01	1122304	8.078	-142.374	13.949	1329.978	1503.761	0.857	751.89	1	0.977	7.223
2023-08-22 15:16	1123204	8.080	-142.481	13.963	1330.921	1504.374	0.857	751.36	1	0.978	7.213
2023-08-22 15:31	1124104	8.084	-142.689	13.981	1330.82	1503.694	0.857	751.42	1	0.977	7.273
2023-08-22 15:46	1125004	8.259	-151.66	14.038	1332.958	1504.242	0.857	750.21	1	0.978	7.239
2023-08-22 16:01	1125904	8.095	-143.309	14.048	1332.487	1503.404	0.856	750.48	1	0.977	7.279
2023-08-22 16:16	1126804	8.091	-143.094	14.058	1332.792	1503.418	0.856	750.31	1	0.977	7.306
2023-08-22 16:31	1127704	8.096	-143.347	14.07	1333.483	1503.82	0.857	749.92	1	0.977	7.354
2023-08-22 16:46	1128604	8.274	-152.435	14.085	1334.155	1504.085	0.857	749.54	1	0.978	7.298
2023-08-22 17:01	1129504	8.099	-143.54	14.096	1334.36	1503.964	0.857	749.42	1	0.978	7.351
2023-08-22 17:16	1130404	8.104	-143.807	14.11	1335.537	1504.832	0.857	748.76	1	0.978	7.357
2023-08-22 17:31	1131304	8.106	-143.878	14.113	1336.178	1505.45	0.858	748.40	1	0.979	7.364
2023-08-22 17:46	1132204	8.291	-153.353	14.125	1336.769	1505.73	0.858	748.07	1	0.979	7.453
2023-08-22 18:01	1133104	8.119	-144.534	14.126	1336.76	1505.688	0.858	748.08	1	0.979	7.428
2023-08-22 18:16	1134004	8.118	-144.534	14.142	1336.939	1505.365	0.857	747.98	1	0.978	7.390
2023-08-22 18:31	1134904	8.109	-144.043	14.144	1336.504	1504.828	0.857	748.22	1	0.978	7.367
2023-08-22 18:46	1135804	8.297	-153.646	14.138	1336.654	1505.182	0.857	748.14	1	0.978	7.380
2023-08-22 19:01	1136704	8.125	-144.88	14.139	1336.566	1505.055	0.857	748.19	1	0.978	7.499
2023-08-22 19:16	1137604	8.100	-143.583	14.144	1336.8	1505.143	0.857	748.06	1	0.978	7.409
2023-08-22 19:31	1138504	8.094	-143.309	14.154	1337.153	1505.24	0.857	747.86	1	0.978	7.431
2023-08-22 19:46	1139404	8.287	-153.155	14.156	1336.713	1504.668	0.857	748.10	1	0.978	7.420
2023-08-22 20:01	1140304	8.100	-143.578	14.156	1336.461	1504.383	0.857	748.25	1	0.978	7.365
2023-08-22 20:16	1141204	8.104	-143.814	14.152	1335.8	1503.771	0.856	748.62	1	0.977	7.359
2023-08-22 20:31	1142104	8.117	-144.477	14.142	1335.255	1503.491	0.856	748.92	1	0.977	7.313
2023-08-22 20:46	1143004	8.300	-153.828	14.155	1330.183	1497.346	0.853	751.78	1	0.973	7.218
2023-08-22 21:01	1143904	8.107	-143.971	14.154	1333.615	1501.242	0.855	749.84	1	0.976	6.896
2023-08-22 21:16	1144804	8.108	-144.012	14.166	1331.661	1498.67	0.853	750.94	1	0.974	6.633
2023-08-22 21:31	1145704	8.100	-143.597	14.163	1332.625	1499.831	0.854	750.40	1	0.975	6.550
2023-08-22 21:46	1146604	8.271	-152.364	14.159	1326.219	1492.746	0.850	754.02	1	0.970	6.538
2023-08-22 22:01	1147504	8.113	-144.279	14.153	1330.715	1498.019	0.853	751.48	1	0.974	6.666
2023-08-22 22:16	1148404	8.117	-144.472	14.164	1328.929	1495.655	0.852	752.49	1	0.972	***6.460***
2023-08-22 22:31	1149304	8.095	-143.344	14.152	1330.826	1498.167	0.853	751.41	1	0.974	6.708
2023-08-22 22:46	1150204	8.329	-155.282	14.151	1330.406	1497.717	0.853	751.65	1	0.974	7.269
2023-08-22 23:01	1151104	8.162	-146.794	14.154	1330.464	1497.683	0.853	751.62	1	0.973	7.279
2023-08-22 23:16	1152004	8.167	-147.052	14.161	1329.804	1496.722	0.852	751.99	1	0.973	7.261
2023-08-22 23:31	1152904	8.160	-146.68	14.174	1328.822	1495.212	0.851	752.55	1	0.972	7.170
2023-08-22 23:46	1153804	8.326	-155.163	14.19	1324.271	1489.56	0.848	755.13	1	0.968	6.624
2023-08-23 00:01	1154704	8.143	-145.824	14.201	1324.835	1489.839	0.848	754.81	1	0.968	***6.344***
2023-08-23 00:16	1155604	8.140	-145.659	14.209	1325.418	1490.266	0.848	754.48	1	0.969	***6.425***
2023-08-23 00:31	1156504	8.132	-145.266	14.216	1323.899	1488.323	0.847	755.35	1	0.967	***6.252***
2023-08-23 00:46	1157404	8.297	-153.692	14.218	1321.511	1485.559	0.846	756.71	1	0.966	***6.413***
2023-08-23 01:01	1158304	8.123	-144.813	14.22	1323.704	1487.961	0.847	755.46	1	0.967	6.570

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-23 01:16	1159204	8.076	-142.426	14.223	1323.306	1487.422	0.847	755.68	1	0.967	6.507
2023-08-23 01:31	1160104	8.087	-142.989	14.223	1319.189	1482.805	0.844	758.04	1	0.964	***6.361***
2023-08-23 01:46	1161004	8.257	-151.634	14.217	1314.402	1477.619	0.841	760.80	1	0.960	***6.405***
2023-08-23 02:01	1161904	8.066	-141.916	14.212	1315.171	1478.625	0.841	760.36	1	0.961	6.534
2023-08-23 02:16	1162804	8.042	-140.674	14.202	1317.192	1481.235	0.843	759.19	1	0.963	6.521
2023-08-23 02:31	1163704	8.052	-141.146	14.194	1314.876	1478.868	0.842	760.53	1	0.961	6.564
2023-08-23 02:46	1164604	8.262	-151.899	14.19	1311.733	1475.465	0.840	762.35	1	0.959	***6.455***
2023-08-23 03:01	1165504	8.090	-143.116	14.195	1313.058	1476.795	0.840	761.58	1	0.960	6.630
2023-08-23 03:16	1166404	8.103	-143.783	14.194	1312.224	1475.897	0.840	762.07	1	0.959	6.773
2023-08-23 03:31	1167304	8.119	-144.594	14.197	1313.172	1476.877	0.840	761.52	1	0.960	6.780
2023-08-23 03:46	1168204	8.304	-154.061	14.194	1312.901	1476.663	0.840	761.67	1	0.960	6.814
2023-08-23 04:01	1169104	8.100	-143.616	14.197	1314.335	1478.167	0.841	760.84	1	0.961	6.655
2023-08-23 04:16	1170004	8.133	-145.288	14.2	1315.14	1478.974	0.842	760.38	1	0.961	6.649
2023-08-23 04:31	1170904	8.138	-145.547	14.207	1316.224	1479.964	0.842	759.75	1	0.962	6.646
2023-08-23 04:46	1171804	8.332	-155.468	14.216	1317.484	1481.093	0.843	759.02	1	0.963	6.617
2023-08-23 05:01	1172704	8.146	-145.981	14.23	1318.094	1481.362	0.843	758.67	1	0.963	6.622
2023-08-23 05:16	1173604	8.100	-143.623	14.241	1318.577	1481.549	0.843	758.39	1	0.963	6.666
2023-08-23 05:31	1174504	8.094	-143.344	14.25	1318.333	1480.994	0.843	758.53	1	0.963	6.622
2023-08-23 05:46	1175404	8.260	-151.842	14.257	1318.449	1480.889	0.843	758.47	1	0.963	6.688
2023-08-23 06:01	1176304	8.081	-142.67	14.261	1318.983	1481.364	0.843	758.16	1	0.963	6.748
2023-08-23 06:16	1177204	8.078	-142.522	14.265	1319.59	1481.907	0.843	757.81	1	0.963	6.698
2023-08-23 06:31	1178104	8.094	-143.363	14.268	1319.828	1482.08	0.843	757.68	1	0.963	6.642
2023-08-23 06:46	1179004	8.301	-153.961	14.274	1319.897	1481.99	0.843	757.64	1	0.963	***6.438***
2023-08-23 07:01	1179904	8.145	-145.979	14.28	1320.085	1481.988	0.843	757.53	1	0.963	***6.108***
2023-08-23 07:16	1180804	8.106	-143.952	14.288	1320.395	1482.074	0.843	757.35	1	0.963	***6.113***
2023-08-23 07:31	1181704	8.097	-143.504	14.297	1320.566	1482.007	0.843	757.25	1	0.963	***6.152***
2023-08-23 07:46	1182604	8.270	-152.354	14.305	1319.985	1481.078	0.843	757.58	1	0.963	***6.281***
2023-08-23 08:01	1183504	8.159	-146.72	14.316	1320.061	1480.837	0.843	757.54	1	0.963	***6.184***
2023-08-23 08:16	1184404	8.135	-145.493	14.328	1320.335	1480.748	0.843	757.38	1	0.962	***6.243***
2023-08-23 08:31	1185304	8.121	-144.775	14.341	1320.319	1480.332	0.842	757.39	1	0.962	***6.249***
2023-08-23 08:46	1186204	8.324	-155.134	14.359	1319.22	1478.522	0.841	758.02	1	0.961	***6.278***
2023-08-23 09:01	1187104	8.148	-146.186	14.373	1319.149	1478.01	0.841	758.06	1	0.961	***6.126***
2023-08-23 09:16	1188004	8.134	-145.478	14.391	1319	1477.27	0.840	758.15	1	0.960	***6.234***
2023-08-23 09:31	1188904	8.141	-145.824	14.409	1313.594	1470.646	0.836	761.27	1	0.956	***6.287***
2023-08-23 09:46	1189804	8.316	-154.774	14.424	1312.783	1469.257	0.836	761.74	1	0.955	***6.247***
2023-08-23 10:01	1190704	8.144	-145.979	14.438	1312.925	1468.968	0.835	761.66	1	0.955	***6.172***
2023-08-23 10:16	1191604	8.140	-145.788	14.458	1310.697	1465.866	0.834	762.95	1	0.953	***6.331***
2023-08-23 10:31	1192504	8.160	-146.818	14.47	1299.953	1453.458	0.826	769.26	1	0.945	6.554
2023-08-23 10:46	1193404	8.351	-156.62	14.499	1285.548	1436.488	0.816	777.88	1	0.934	6.563
2023-08-23 11:01	1194304	8.173	-147.519	14.517	1271.934	1420.727	0.807	786.20	1	0.923	6.512
2023-08-23 11:16	1195204	8.167	-147.228	14.53	1245.461	1390.775	0.789	802.92	1	0.904	6.846
2023-08-23 11:31	1196104	8.180	-147.92	14.555	1236.907	1380.47	0.783	808.47	1	0.897	6.966
2023-08-23 11:46	1197004	8.352	-156.722	14.583	1230.333	1372.323	0.778	812.79	1	0.892	6.887
2023-08-23 12:01	1197904	8.154	-146.596	14.607	1240.943	1383.441	0.784	805.84	1	0.899	6.861
2023-08-23 12:16	1198804	8.147	-146.26	14.636	1243.11	1385.01	0.785	804.43	1	0.900	6.803
2023-08-23 12:31	1199704	8.150	-146.425	14.667	1251.313	1393.234	0.790	799.16	1	0.906	6.896
2023-08-23 12:46	1200604	8.351	-156.739	14.701	1258.272	1399.966	0.794	794.74	1	0.910	6.880
2023-08-23 13:01	1201504	8.162	-147.052	14.724	1258.768	1399.826	0.794	794.43	1	0.910	6.850
2023-08-23 13:16	1202404	8.184	-148.201	14.757	1265.16	1405.946	0.798	790.41	1	0.914	6.794
2023-08-23 13:31	1203304	8.175	-147.774	14.78	1266.979	1407.279	0.798	789.28	1	0.915	6.822
2023-08-23 13:46	1204204	8.361	-157.278	14.799	1265.202	1404.754	0.797	790.39	1	0.913	6.973
2023-08-23 14:01	1205104	8.197	-148.883	14.814	1260.525	1399.113	0.793	793.32	1	0.909	7.077
2023-08-23 14:16	1206004	8.189	-148.485	14.839	1261.864	1399.846	0.794	792.48	1	0.910	7.160
2023-08-23 14:31	1206904	8.190	-148.59	14.861	1261.185	1398.437	0.793	792.91	1	0.909	7.175
2023-08-23 14:46	1207804	8.351	-156.803	14.882	1258.641	1395.017	0.791	794.51	1	0.907	7.171
2023-08-23 15:01	1208704	8.199	-149.062	14.897	1257.879	1393.735	0.790	794.99	1	0.906	7.132

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-23 15:16	1209604	8.204	-149.293	14.906	1256.643	1392.082	0.789	795.77	1	0.905	7.132
2023-08-23 15:31	1210504	8.206	-149.426	14.911	1250.737	1385.388	0.785	799.53	1	0.901	7.164
2023-08-23 15:46	1211404	8.376	-158.15	14.922	1245.04	1378.777	0.781	803.19	1	0.896	7.146
2023-08-23 16:01	1212304	8.215	-149.906	14.936	1240.519	1373.347	0.778	806.11	1	0.893	7.324
2023-08-23 16:16	1213204	8.226	-150.435	14.95	1243.165	1375.884	0.780	804.40	1	0.894	7.395
2023-08-23 16:31	1214104	8.228	-150.568	14.969	1241.812	1373.836	0.778	805.28	1	0.893	7.402
2023-08-23 16:46	1215004	8.409	-159.826	14.981	1235.523	1366.513	0.774	809.37	1	0.888	7.438
2023-08-23 17:01	1215904	8.248	-151.589	14.981	1228.176	1358.396	0.769	814.22	1	0.883	7.485
2023-08-23 17:16	1216804	8.248	-151.579	14.964	1213.696	1342.865	0.760	823.93	1	0.873	7.479
2023-08-23 17:31	1217704	8.241	-151.241	14.955	1217.26	1347.073	0.762	821.52	1	0.876	7.512
2023-08-23 17:46	1218604	8.408	-159.805	14.959	1217.33	1347.031	0.762	821.47	1	0.876	7.462
2023-08-23 18:01	1219504	8.241	-151.241	14.956	1213.942	1343.366	0.760	823.76	1	0.873	7.393
2023-08-23 18:16	1220404	8.224	-150.335	14.952	1210.578	1339.763	0.758	826.05	1	0.871	7.403
2023-08-23 18:31	1221304	8.206	-149.434	14.94	1219.308	1349.767	0.764	820.14	1	0.877	7.393
2023-08-23 18:46	1222204	8.388	-158.737	14.929	1221.508	1352.494	0.766	818.66	1	0.879	7.213
2023-08-23 19:01	1223104	8.215	-149.865	14.922	1219.135	1350.074	0.764	820.25	1	0.878	7.124
2023-08-23 19:16	1224004	8.217	-149.972	14.92	1218.686	1349.645	0.764	820.56	1	0.877	7.304
2023-08-23 19:31	1224904	8.224	-150.337	14.911	1216.748	1347.757	0.763	821.86	1	0.876	7.364
2023-08-23 19:46	1225804	8.395	-159.075	14.899	1216.419	1347.731	0.763	822.09	1	0.876	7.330
2023-08-23 20:01	1226704	8.229	-150.58	14.884	1218.193	1350.134	0.764	820.89	1	0.878	7.267
2023-08-23 20:16	1227604	8.229	-150.552	14.871	1212.84	1344.557	0.761	824.51	1	0.874	7.288
2023-08-23 20:31	1228504	8.222	-150.197	14.858	1206.431	1337.815	0.757	828.89	1	0.870	7.276
2023-08-23 20:46	1229404	8.398	-159.197	14.846	1199.411	1330.388	0.753	833.74	1	0.865	7.263
2023-08-23 21:01	1230304	8.213	-149.746	14.838	1187.502	1317.384	0.745	842.10	1	0.856	7.211
2023-08-23 21:16	1231204	8.218	-149.956	14.823	1179.024	1308.393	0.740	848.16	1	0.850	7.233
2023-08-23 21:31	1232104	8.217	-149.932	14.814	1178.846	1308.46	0.740	848.29	1	0.850	7.437
2023-08-23 21:46	1233004	8.385	-158.51	14.816	1157.506	1284.699	0.726	863.93	1	0.835	7.222
2023-08-23 22:01	1233904	8.182	-148.125	14.821	1159.581	1286.881	0.727	862.38	1	0.836	7.373
2023-08-23 22:16	1234804	8.207	-149.395	14.827	1134.636	1259.022	0.711	881.34	1	0.818	7.537
2023-08-23 22:31	1235704	8.223	-150.232	14.838	1110.264	1231.696	0.694	900.69	1	0.801	7.580
2023-08-23 22:46	1236604	8.403	-159.466	14.872	1087.233	1205.293	0.679	919.77	1	0.783	7.633
2023-08-23 23:01	1237504	8.215	-149.846	14.884	1090.192	1208.255	0.681	917.27	1	0.785	7.369
2023-08-23 23:16	1238404	8.221	-150.177	14.929	1061.57	1175.42	0.661	942.00	1	0.764	7.545
2023-08-23 23:31	1239304	8.220	-150.166	14.985	1044.082	1154.694	0.649	957.78	1	0.751	7.454
2023-08-23 23:46	1240204	8.396	-159.24	15.062	987.71	1090.576	0.611	1012.44	1	0.709	7.626
2023-08-24 00:01	1241105	8.228	-150.633	15.097	985.271	1087.078	0.609	1014.95	1	0.707	7.532
2023-08-24 00:16	1242005	8.223	-150.392	15.155	969.642	1068.514	0.598	1031.31	1	0.695	7.649
2023-08-24 00:31	1242905	8.211	-149.851	15.235	943.68	1038.161	0.581	1059.68	1	0.675	7.270
2023-08-24 00:46	1243805	8.412	-160.232	15.393	806.342	884.146	0.491	1240.17	0.999	0.575	7.503
2023-08-24 01:01	1244705	8.223	-150.607	15.562	833.048	910.198	0.506	1200.41	0.999	0.592	7.680
2023-08-24 01:16	1245605	8.248	-152.016	15.772	778.878	847.31	0.470	1283.90	0.999	0.551	8.226
2023-08-24 01:31	1246505	8.286	-154.08	15.972	717.553	777.353	0.429	1393.63	0.999	0.505	8.388
2023-08-24 01:46	1247405	8.378	-158.901	16.169	569.891	614.878	0.337	1754.72	0.999	0.400	8.120
2023-08-24 02:01	1248305	8.308	-155.351	16.25	619.148	666.923	0.366	1615.12	0.999	0.433	7.891
2023-08-24 02:16	1249205	8.311	-155.525	16.323	601.231	646.648	0.355	1663.26	0.999	0.420	8.282
2023-08-24 02:31	1250105	8.324	-156.233	16.368	579.391	622.579	0.341	1725.95	0.999	0.405	8.258
2023-08-24 02:46	1251005	8.550	-167.921	16.396	519.595	558.01	0.304	1924.58	0.999	0.363	8.218
2023-08-24 03:01	1251905	8.389	-159.636	16.409	535.116	574.526	0.314	1868.76	0.999	0.373	8.391
2023-08-24 03:16	1252805	8.392	-159.795	16.416	540.62	580.342	0.317	1849.73	0.999	0.377	8.353
2023-08-24 03:31	1253705	8.352	-157.702	16.412	540.36	580.118	0.317	1850.62	0.999	0.377	8.431
2023-08-24 03:46	1254605	8.512	-165.939	16.398	522.344	560.937	0.306	1914.45	0.999	0.365	8.420
2023-08-24 04:01	1255505	8.376	-158.949	16.384	525.184	564.152	0.308	1904.10	0.999	0.367	8.250
2023-08-24 04:16	1256405	8.371	-158.632	16.354	526.321	565.715	0.309	1899.98	0.999	0.368	8.201
2023-08-24 04:31	1257305	8.373	-158.741	16.321	524.376	564.01	0.308	1907.03	0.999	0.367	8.152
2023-08-24 04:46	1258205	8.598	-170.293	16.287	496.296	534.176	0.291	2014.93	0.999	0.347	8.073
2023-08-24 05:01	1259105	8.385	-159.326	16.263	514.138	553.655	0.302	1945.00	0.999	0.360	8.075

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-24 05:16	1260005	8.388	-159.488	16.241	510.096	549.55	0.300	1960.42	0.999	0.357	8.062
2023-08-24 05:31	1260905	8.406	-160.406	16.221	513.251	553.178	0.302	1948.36	0.999	0.360	8.035
2023-08-24 05:46	1261805	8.552	-167.878	16.2	495.926	534.742	0.291	2016.43	0.999	0.348	8.008
2023-08-24 06:01	1262705	8.414	-160.77	16.184	501.829	541.284	0.295	1992.71	0.999	0.352	8.025
2023-08-24 06:16	1263605	8.449	-162.559	16.169	502.829	542.53	0.296	1988.75	0.999	0.353	8.047
2023-08-24 06:31	1264505	8.435	-161.834	16.153	502.467	542.317	0.296	1990.18	0.999	0.353	7.988
2023-08-24 06:46	1265405	8.624	-171.545	16.141	491.248	530.342	0.289	2035.63	0.999	0.345	7.862
2023-08-24 07:01	1266305	8.402	-160.143	16.127	496.98	536.678	0.292	2012.15	0.999	0.349	7.909
2023-08-24 07:16	1267205	8.413	-160.699	16.111	495.844	535.632	0.292	2016.76	0.999	0.348	7.924
2023-08-24 07:31	1268105	8.241	-151.813	16.098	497.473	537.532	0.293	2010.16	0.999	0.349	7.930
2023-08-24 07:46	1269005	8.544	-167.42	16.082	488.873	528.421	0.288	2045.52	0.999	0.343	7.916
2023-08-24 08:01	1269905	8.468	-163.498	16.069	491.89	531.821	0.290	2032.97	0.999	0.346	7.859
2023-08-24 08:16	1270805	8.485	-164.359	16.062	491.787	531.788	0.290	2033.40	0.999	0.346	7.952
2023-08-24 08:31	1271705	8.471	-163.648	16.055	493.39	533.592	0.291	2026.80	0.999	0.347	7.980
2023-08-24 08:46	1272605	8.647	-172.67	16.05	490.878	530.938	0.289	2037.17	0.999	0.345	7.940
2023-08-24 09:01	1273505	8.444	-162.239	16.046	491.943	532.13	0.290	2032.76	0.999	0.346	7.445
2023-08-24 09:16	1274405	8.448	-162.456	16.044	491.45	531.624	0.290	2034.79	0.999	0.346	7.483
2023-08-24 09:31	1275305	8.451	-162.582	16.044	492.005	532.225	0.290	2032.50	0.999	0.346	7.637
2023-08-24 09:46	1276205	8.592	-169.847	16.049	488.27	528.125	0.288	2048.05	0.999	0.343	7.781
2023-08-24 10:01	1277105	8.423	-161.145	16.057	491.402	531.424	0.290	2034.99	0.999	0.345	7.699
2023-08-24 10:16	1278005	8.461	-163.105	16.069	492.316	532.28	0.290	2031.21	0.999	0.346	7.712
2023-08-24 10:31	1278905	8.488	-164.54	16.086	491.963	531.714	0.290	2032.67	0.999	0.346	7.744
2023-08-24 10:46	1279805	8.697	-175.285	16.103	491.56	531.09	0.289	2034.34	0.999	0.345	7.643
2023-08-24 11:01	1280705	8.459	-163.035	16.121	491.396	530.719	0.289	2035.02	0.999	0.345	7.807
2023-08-24 11:16	1281605	8.497	-165.009	16.143	490.874	529.911	0.289	2037.18	0.999	0.344	7.910
2023-08-24 11:31	1282505	8.503	-165.35	16.17	491.274	530.048	0.289	2035.53	0.999	0.345	7.860
2023-08-24 11:46	1283405	8.639	-172.367	16.201	496.249	535.071	0.292	2015.12	0.999	0.348	7.813
2023-08-24 12:01	1284305	8.501	-165.257	16.224	490.808	528.962	0.288	2037.46	0.999	0.344	7.642
2023-08-24 12:16	1285205	8.511	-165.794	16.254	491.563	529.44	0.288	2034.33	0.999	0.344	7.885
2023-08-24 12:31	1286105	8.506	-165.572	16.291	491.857	529.358	0.288	2033.11	0.999	0.344	8.026
2023-08-24 12:46	1287005	8.705	-175.841	16.331	491.348	528.377	0.288	2035.22	0.999	0.343	7.953
2023-08-24 13:01	1287905	8.491	-164.821	16.37	495.424	532.331	0.290	2018.47	0.999	0.346	8.004
2023-08-24 13:16	1288805	8.367	-158.458	16.415	500.932	537.751	0.293	1996.28	0.999	0.350	8.081
2023-08-24 13:31	1289705	8.372	-158.768	16.473	504.756	541.217	0.295	1981.16	0.999	0.352	7.913
2023-08-24 13:46	1290605	8.332	-156.744	16.525	511.078	547.415	0.298	1956.65	0.999	0.356	8.134
2023-08-24 14:01	1291505	8.079	-143.721	16.525	592.327	634.436	0.347	1688.26	0.999	0.412	8.119
2023-08-24 14:16	1292405	8.130	-146.372	16.589	618.795	661.915	0.363	1616.04	0.999	0.430	8.032
2023-08-24 14:31	1293305	8.140	-146.911	16.602	653.491	698.846	0.384	1530.24	0.999	0.454	7.837
2023-08-24 14:46	1294205	8.506	-165.761	16.587	618.492	661.625	0.363	1616.84	0.999	0.430	8.068
2023-08-24 15:01	1295105	8.264	-153.251	16.593	687.798	735.67	0.405	1453.91	0.999	0.478	8.186
2023-08-24 15:16	1296005	8.254	-152.807	16.658	689.044	736.022	0.405	1451.29	0.999	0.478	8.167
2023-08-24 15:31	1296905	8.290	-154.679	16.705	699.13	746.092	0.411	1430.35	0.999	0.485	8.205
2023-08-24 15:46	1297805	8.498	-165.432	16.722	698.504	745.155	0.410	1431.63	0.999	0.484	8.414
2023-08-24 16:01	1298705	8.281	-154.245	16.746	714.522	761.872	0.420	1399.54	0.999	0.495	8.425
2023-08-24 16:16	1299605	8.331	-156.858	16.791	709.966	756.324	0.417	1408.52	0.999	0.492	8.462
2023-08-24 16:31	1300505	8.255	-152.924	16.86	717.326	763.091	0.421	1394.07	0.999	0.496	8.288
2023-08-24 16:46	1301405	8.454	-163.229	16.89	722.563	768.201	0.423	1383.96	0.999	0.499	8.336
2023-08-24 17:01	1302305	8.282	-154.395	16.922	728.503	774	0.427	1372.68	0.999	0.503	8.441
2023-08-24 17:16	1303205	8.222	-151.281	16.957	730.545	775.62	0.428	1368.84	0.999	0.504	8.441
2023-08-24 17:31	1304105	8.116	-145.867	16.994	739.58	784.628	0.433	1352.12	0.999	0.510	8.150
2023-08-24 17:46	1305005	8.458	-163.527	17.03	738.315	782.721	0.432	1354.44	0.999	0.509	8.340
2023-08-24 18:01	1305905	8.288	-154.758	17.06	743.457	787.687	0.434	1345.07	0.999	0.512	8.473
2023-08-24 18:16	1306805	8.245	-152.528	17.081	744.986	788.975	0.435	1342.31	0.999	0.513	8.209
2023-08-24 18:31	1307705	8.175	-148.933	17.087	752.77	797.117	0.440	1328.43	0.999	0.518	8.344
2023-08-24 18:46	1308605	8.413	-161.207	17.089	753.97	798.361	0.441	1326.31	0.999	0.519	8.423
2023-08-24 19:01	1309505	8.248	-152.698	17.094	760.554	805.247	0.445	1314.83	0.999	0.523	8.415

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-24 19:16	1310405	8.277	-154.188	17.091	764.908	809.91	0.447	1307.35	0.999	0.526	8.480
2023-08-24 19:31	1311305	8.198	-150.113	17.078	768.823	814.266	0.450	1300.69	0.999	0.529	8.548
2023-08-24 19:46	1312205	8.457	-163.488	17.025	777.525	824.364	0.456	1286.13	0.999	0.536	8.492
2023-08-24 20:01	1313105	8.277	-154.161	16.992	784.664	832.488	0.460	1274.43	0.999	0.541	8.365
2023-08-24 20:16	1314005	8.278	-154.152	16.937	788.264	837.254	0.463	1268.61	0.999	0.544	8.388
2023-08-24 20:31	1314905	8.282	-154.335	16.874	793.719	844.123	0.467	1259.89	0.999	0.549	8.195
2023-08-24 20:46	1315805	8.448	-162.873	16.803	791.264	842.73	0.466	1263.80	0.999	0.548	8.234
2023-08-24 21:01	1316705	8.241	-152.183	16.754	793.386	845.824	0.468	1260.42	0.999	0.550	8.101
2023-08-24 21:16	1317605	8.246	-152.376	16.701	793.726	847.104	0.469	1259.88	0.999	0.551	8.113
2023-08-24 21:31	1318505	8.254	-152.779	16.655	791.773	845.818	0.468	1262.99	0.999	0.550	8.087
2023-08-24 21:46	1319405	8.379	-159.19	16.605	789.116	843.832	0.467	1267.24	0.999	0.548	8.037
2023-08-24 22:01	1320305	8.223	-151.134	16.558	784.63	839.836	0.465	1274.49	0.999	0.546	7.852
2023-08-24 22:16	1321205	8.232	-151.567	16.478	785.529	842.179	0.466	1273.03	0.999	0.547	8.036
2023-08-24 22:31	1322105	8.160	-147.824	16.404	783.393	841.165	0.466	1276.50	0.999	0.547	7.871
2023-08-24 22:46	1323005	8.381	-159.171	16.314	781.695	840.889	0.466	1279.27	0.999	0.547	7.984
2023-08-24 23:01	1323905	8.218	-150.723	16.227	784.349	845.262	0.468	1274.94	0.999	0.549	7.982
2023-08-24 23:16	1324805	8.235	-151.517	16.123	787.966	850.988	0.472	1269.09	0.999	0.553	7.937
2023-08-24 23:31	1325705	8.238	-151.637	16.012	791.598	856.871	0.475	1263.27	0.999	0.557	7.931
2023-08-24 23:46	1326605	8.374	-158.565	15.944	790.484	856.857	0.475	1265.05	0.999	0.557	7.904
2023-08-25 00:01	1327505	8.229	-151.091	15.908	791.012	858.085	0.476	1264.20	0.999	0.558	7.855
2023-08-25 00:16	1328405	8.144	-146.728	15.843	788.255	856.247	0.475	1268.63	0.999	0.557	7.754
2023-08-25 00:31	1329305	8.175	-148.282	15.765	791.044	860.658	0.477	1264.15	0.999	0.559	7.882
2023-08-25 00:46	1330205	8.388	-159.173	15.688	794.206	865.495	0.480	1259.12	0.999	0.563	7.785
2023-08-25 01:01	1331105	8.182	-148.535	15.647	792.796	864.681	0.480	1261.36	0.999	0.562	7.721
2023-08-25 01:16	1332005	8.180	-148.408	15.581	793.194	866.306	0.481	1260.73	0.999	0.563	7.822
2023-08-25 01:31	1332905	8.163	-147.502	15.508	794.078	868.608	0.482	1259.32	0.999	0.565	7.845
2023-08-25 01:46	1333805	8.312	-155.129	15.44	793.062	868.721	0.482	1260.94	0.999	0.565	7.708
2023-08-25 02:01	1334705	8.182	-148.416	15.381	797.145	874.276	0.485	1254.48	0.999	0.568	7.722
2023-08-25 02:16	1335605	8.159	-147.226	15.318	797.67	876.009	0.487	1253.65	0.999	0.569	7.663
2023-08-25 02:31	1336505	8.147	-146.575	15.259	800.895	880.632	0.489	1248.60	0.999	0.572	7.604
2023-08-25 02:46	1337405	8.328	-155.823	15.234	799.106	879.142	0.488	1251.40	0.999	0.571	7.564
2023-08-25 03:01	1338305	8.107	-144.513	15.224	808.166	889.283	0.494	1237.37	0.999	0.578	7.377
2023-08-25 03:16	1339205	8.020	-140.011	15.164	803.554	885.336	0.492	1244.47	0.999	0.575	7.276
2023-08-25 03:31	1340105	8.024	-140.15	15.09	808.788	892.493	0.496	1236.42	0.999	0.580	7.379
2023-08-25 03:46	1341005	8.267	-152.619	15.051	809.132	893.595	0.497	1235.89	0.999	0.581	7.163
2023-08-25 04:01	1341905	8.098	-143.931	15.013	813.414	899.058	0.500	1229.39	0.999	0.584	7.094
2023-08-25 04:16	1342805	8.068	-142.355	14.952	807.331	893.472	0.497	1238.65	0.999	0.581	7.145
2023-08-25 04:31	1343705	8.094	-143.673	14.915	814.209	901.797	0.502	1228.19	1	0.586	7.030
2023-08-25 04:46	1344605	8.264	-152.392	14.886	816.961	905.394	0.504	1224.05	1	0.589	6.964
2023-08-25 05:01	1345505	8.112	-144.587	14.871	820.178	909.26	0.506	1219.25	1	0.591	6.904
2023-08-25 05:16	1346405	8.067	-142.252	14.827	818.517	908.257	0.506	1221.72	1	0.590	6.799
2023-08-25 05:31	1347305	8.042	-140.948	14.792	818.147	908.518	0.506	1222.27	1	0.591	6.586
2023-08-25 05:46	1348205	8.210	-149.51	14.753	816.069	906.954	0.505	1225.39	1	0.590	6.604
2023-08-25 06:01	1349105	8.102	-143.971	14.72	818.972	910.823	0.507	1221.04	1	0.592	6.763
2023-08-25 06:16	1350005	8.039	-140.741	14.699	824.597	917.493	0.511	1212.71	1	0.596	6.706
2023-08-25 06:31	1350905	8.047	-141.129	14.689	836.797	931.271	0.519	1195.03	1	0.605	6.644
2023-08-25 06:46	1351805	8.222	-150.13	14.684	830.284	924.12	0.515	1204.41	1	0.601	***6.435***
2023-08-25 07:01	1352705	8.080	-142.829	14.664	831.957	926.371	0.516	1201.99	1	0.602	***6.270***
2023-08-25 07:16	1353605	8.050	-141.277	14.651	833.003	927.783	0.517	1200.48	1	0.603	***6.201***
2023-08-25 07:31	1354505	8.049	-141.206	14.627	835.226	930.734	0.519	1197.28	1	0.605	***6.082***
2023-08-25 07:46	1355405	8.193	-148.592	14.61	833.214	928.844	0.518	1200.17	1	0.604	***5.910***
2023-08-25 08:01	1356305	8.059	-141.716	14.563	835.143	931.919	0.519	1197.40	1	0.606	***6.000***
2023-08-25 08:16	1357205	8.054	-141.447	14.517	835.091	932.783	0.520	1197.47	1	0.606	***6.195***
2023-08-25 08:31	1358105	8.006	-138.972	14.493	835.238	933.428	0.520	1197.26	1	0.607	***6.251***
2023-08-25 08:46	1359005	8.176	-147.662	14.476	832.467	930.652	0.519	1201.25	1	0.605	***6.257***
2023-08-25 09:01	1359905	8.044	-140.893	14.462	832.387	930.846	0.519	1201.36	1	0.605	***6.087***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-25 09:16	1360805	8.024	-139.842	14.452	831.837	930.441	0.519	1202.16	1	0.605	***5.875***
2023-08-25 09:31	1361705	8.022	-139.768	14.448	831.62	930.267	0.519	1202.47	1	0.605	***5.771***
2023-08-25 09:46	1362605	8.181	-147.882	14.464	831.942	930.315	0.519	1202.01	1	0.605	***6.006***
2023-08-25 10:01	1363505	8.046	-140.967	14.453	831.465	929.995	0.518	1202.70	1	0.604	***5.850***
2023-08-25 10:16	1364405	8.013	-139.296	14.466	831.71	930.011	0.518	1202.34	1	0.605	***5.903***
2023-08-25 10:31	1365305	8.009	-139.093	14.479	832.144	930.242	0.519	1201.72	1	0.605	***5.906***
2023-08-25 10:46	1366205	8.177	-147.738	14.513	833.3	930.851	0.519	1200.05	1	0.605	***5.751***
2023-08-25 11:01	1367105	8.050	-141.234	14.538	833.585	930.675	0.519	1199.64	1	0.605	***5.506***
2023-08-25 11:16	1368005	8.022	-139.837	14.568	834.358	930.947	0.519	1198.53	1	0.605	***5.421***
2023-08-25 11:31	1368905	8.012	-139.334	14.611	835.288	931.125	0.519	1197.19	1	0.605	***5.535***
2023-08-25 11:46	1369805	8.165	-147.214	14.701	837.163	931.436	0.519	1194.51	1	0.605	***5.632***
2023-08-25 12:01	1370705	8.018	-139.697	14.745	837.726	931.191	0.519	1193.71	1	0.605	***5.367***
2023-08-25 12:16	1371605	7.988	-138.171	14.804	839.031	931.47	0.519	1191.85	1	0.605	***5.149***
2023-08-25 12:31	1372505	7.964	-136.967	14.863	840.492	931.925	0.519	1189.78	1	0.606	***5.010***
2023-08-25 12:46	1373405	8.146	-146.322	14.927	842.464	932.855	0.520	1186.99	1	0.606	***5.012***
2023-08-25 13:01	1374305	8.000	-138.912	14.993	843.452	932.635	0.520	1185.60	1	0.606	***4.957***
2023-08-25 13:16	1375205	8.005	-139.179	15.096	843.84	931.049	0.519	1185.06	0.999	0.605	***5.848***
2023-08-25 13:31	1376105	8.018	-139.923	15.169	843.003	928.688	0.517	1186.24	0.999	0.604	6.959
2023-08-25 13:46	1377005	8.187	-148.594	15.24	835.246	918.771	0.511	1197.25	0.999	0.597	7.073
2023-08-25 14:01	1377905	8.068	-142.505	15.297	838.147	920.866	0.512	1193.11	0.999	0.599	7.349
2023-08-25 14:16	1378805	8.105	-144.484	15.389	836.88	917.708	0.511	1194.91	0.999	0.597	7.601
2023-08-25 14:31	1379705	8.020	-140.154	15.526	843.546	922.37	0.513	1185.47	0.999	0.600	7.372
2023-08-25 14:46	1380605	8.181	-148.511	15.668	847.174	923.591	0.514	1180.40	0.999	0.600	7.291
2023-08-25 15:01	1381505	8.090	-143.898	15.793	847.825	921.9	0.513	1179.49	0.999	0.599	7.599
2023-08-25 15:16	1382405	8.057	-142.269	15.964	850.081	921.077	0.512	1176.36	0.999	0.599	7.514
2023-08-25 15:31	1383305	7.996	-139.229	16.141	859.335	927.706	0.516	1163.69	0.999	0.603	7.817
2023-08-25 15:46	1384205	8.197	-149.679	16.319	872.18	938.131	0.522	1146.55	0.999	0.610	7.914
2023-08-25 16:01	1385105	8.078	-143.626	16.421	875.556	939.807	0.523	1142.13	0.999	0.611	7.644
2023-08-25 16:16	1386005	8.043	-141.814	16.501	880.96	944.06	0.525	1135.13	0.999	0.614	7.649
2023-08-25 16:31	1386905	8.027	-141.068	16.582	886.814	948.744	0.528	1127.63	0.999	0.617	7.587
2023-08-25 16:46	1387805	8.195	-149.736	16.669	887.119	947.404	0.527	1127.24	0.999	0.616	7.660
2023-08-25 17:01	1388705	8.059	-142.76	16.74	889.622	948.691	0.527	1124.07	0.999	0.617	7.671
2023-08-25 17:16	1389605	8.019	-140.765	16.829	892.173	949.684	0.528	1120.86	0.999	0.617	7.440
2023-08-25 17:31	1390505	7.953	-137.415	16.916	894	949.95	0.528	1118.57	0.999	0.617	7.713
2023-08-25 17:46	1391405	8.181	-149.236	17.014	888.808	942.574	0.524	1125.10	0.999	0.613	7.924
2023-08-25 18:01	1392305	8.030	-141.428	17.059	891.161	944.19	0.525	1122.13	0.999	0.614	7.746
2023-08-25 18:16	1393205	7.969	-138.299	17.065	889.528	942.346	0.523	1124.19	0.999	0.613	7.796
2023-08-25 18:31	1394105	7.924	-135.968	17.055	888.068	941.005	0.523	1126.04	0.999	0.612	7.694
2023-08-25 18:46	1395005	8.132	-146.687	17.044	880.348	933.029	0.518	1135.91	0.999	0.606	7.568
2023-08-25 19:01	1395905	7.978	-138.743	17.003	883.897	937.556	0.521	1131.35	0.999	0.609	7.521
2023-08-25 19:16	1396805	7.969	-138.28	17.001	877.642	930.963	0.517	1139.42	0.999	0.605	7.439
2023-08-25 19:31	1397705	7.954	-137.458	16.988	876.691	930.204	0.517	1140.65	0.999	0.605	7.406
2023-08-25 19:46	1398605	8.116	-145.817	16.946	866.73	920.414	0.511	1153.76	0.999	0.598	7.378
2023-08-25 20:01	1399505	7.943	-136.886	16.907	871.461	926.18	0.514	1147.50	0.999	0.602	7.364
2023-08-25 20:16	1400405	7.923	-135.856	16.882	868.655	923.659	0.513	1151.21	0.999	0.600	7.313
2023-08-25 20:31	1401305	7.928	-136.094	16.854	862.45	917.584	0.509	1159.49	0.999	0.596	7.269
2023-08-25 20:46	1402205	8.102	-145.042	16.812	855.904	911.4	0.506	1168.36	0.999	0.592	7.234
2023-08-25 21:01	1403105	7.937	-136.478	16.741	856.107	912.933	0.507	1168.08	0.999	0.593	7.224
2023-08-25 21:16	1404005	7.944	-136.833	16.667	853.605	911.632	0.506	1171.50	0.999	0.593	7.317
2023-08-25 21:31	1404905	7.966	-137.906	16.543	854.686	915.104	0.508	1170.02	0.999	0.595	7.306
2023-08-25 21:46	1405805	8.143	-146.971	16.429	855.968	918.628	0.510	1168.27	0.999	0.597	7.181
2023-08-25 22:01	1406705	7.970	-138.004	16.374	857.012	920.779	0.512	1166.85	0.999	0.599	7.215
2023-08-25 22:16	1407605	7.948	-136.855	16.329	854.995	919.468	0.511	1169.60	0.999	0.598	7.154
2023-08-25 22:31	1408505	7.919	-135.341	16.307	851.27	915.865	0.509	1174.72	0.999	0.595	7.191
2023-08-25 22:46	1409405	8.074	-143.297	16.273	841.643	906.156	0.503	1188.15	0.999	0.589	7.068
2023-08-25 23:01	1410305	7.917	-135.219	16.259	850.667	916.119	0.509	1175.55	0.999	0.595	6.627

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-25 23:16	1411205	7.893	-133.975	16.201	852.144	918.806	0.511	1173.51	0.999	0.597	***6.227***
2023-08-25 23:31	1412105	7.897	-134.137	16.105	844.995	912.907	0.507	1183.44	0.999	0.593	6.762
2023-08-25 23:46	1413005	8.049	-141.935	16.048	844.116	913.033	0.507	1184.67	0.999	0.593	***6.446***
2023-08-26 00:01	1413905	7.926	-135.546	15.958	845.585	916.333	0.509	1182.61	0.999	0.596	6.917
2023-08-26 00:16	1414805	7.928	-135.624	15.86	846.178	918.842	0.511	1181.78	0.999	0.597	6.794
2023-08-26 00:31	1415705	7.929	-135.622	15.801	846.286	920.074	0.512	1181.63	0.999	0.598	6.851
2023-08-26 00:46	1416605	8.102	-144.498	15.747	844.479	919.141	0.511	1184.16	0.999	0.597	6.726
2023-08-26 01:01	1417505	7.920	-135.124	15.711	842.117	917.262	0.510	1187.48	0.999	0.596	6.520
2023-08-26 01:16	1418405	7.934	-135.789	15.611	834.506	910.866	0.506	1198.31	0.999	0.592	***5.937***
2023-08-26 01:31	1419305	7.942	-136.163	15.5	827.021	904.781	0.503	1209.16	0.999	0.588	***5.549***
2023-08-26 01:46	1420205	8.062	-142.262	15.368	826.725	906.958	0.504	1209.59	0.999	0.590	6.728
2023-08-26 02:01	1421105	7.899	-133.865	15.3	826.629	908.159	0.505	1209.73	0.999	0.590	6.639
2023-08-26 02:16	1422005	7.887	-133.204	15.225	825.571	908.427	0.505	1211.28	0.999	0.590	6.795
2023-08-26 02:31	1422905	7.863	-131.927	15.161	823.408	907.26	0.505	1214.47	0.999	0.590	6.844
2023-08-26 02:46	1423805	8.048	-141.385	15.101	822	906.854	0.505	1216.55	0.999	0.589	6.729
2023-08-26 03:01	1424705	7.891	-133.343	15.067	820.986	906.378	0.504	1218.05	0.999	0.589	6.780
2023-08-26 03:16	1425605	7.865	-131.991	15.032	819.556	905.469	0.504	1220.17	0.999	0.589	6.723
2023-08-26 03:31	1426505	7.857	-131.576	15.016	819.138	905.326	0.504	1220.80	0.999	0.588	***6.401***
2023-08-26 03:46	1427405	8.071	-142.536	14.993	818.285	904.816	0.503	1222.07	0.999	0.588	***6.381***
2023-08-26 04:01	1428305	7.917	-134.611	14.971	818.099	905.04	0.504	1222.35	0.999	0.588	***6.417***
2023-08-26 04:16	1429205	7.875	-132.482	14.945	816.965	904.274	0.503	1224.04	0.999	0.588	6.516
2023-08-26 04:31	1430105	7.879	-132.673	14.915	814.37	901.978	0.502	1227.94	1	0.586	***6.281***
2023-08-26 04:46	1431005	8.066	-142.243	14.897	812.079	899.783	0.501	1231.41	1	0.585	***6.407***
2023-08-26 05:01	1431905	7.939	-135.713	14.889	812.244	900.11	0.501	1231.16	1	0.585	***6.211***
2023-08-26 05:16	1432805	7.918	-134.652	14.877	812.279	900.383	0.501	1231.10	1	0.585	***6.055***
2023-08-26 05:31	1433705	7.923	-134.897	14.844	811.528	900.168	0.501	1232.24	1	0.585	***5.976***
2023-08-26 05:46	1434605	8.069	-142.3	14.78	801.473	890.238	0.495	1247.70	1	0.579	***5.941***
2023-08-26 06:01	1435505	7.929	-135.143	14.72	804.409	894.623	0.498	1243.15	1	0.582	***5.960***
2023-08-26 06:16	1436405	7.910	-134.127	14.674	803.789	894.823	0.498	1244.11	1	0.582	***5.829***
2023-08-26 06:31	1437305	7.880	-132.585	14.64	804.203	895.918	0.499	1243.47	1	0.582	***5.646***
2023-08-26 06:46	1438205	8.041	-140.774	14.588	794.086	885.64	0.493	1259.31	1	0.576	***5.234***
2023-08-26 07:01	1439105	7.923	-134.742	14.549	795.765	888.245	0.494	1256.65	1	0.577	***5.256***
2023-08-26 07:16	1440005	7.878	-132.391	14.503	796.763	890.236	0.495	1255.08	1	0.579	***5.144***
2023-08-26 07:31	1440905	7.834	-130.16	14.462	798.543	893.009	0.497	1252.28	1	0.580	***5.011***
2023-08-26 07:46	1441805	8.019	-139.589	14.423	786.468	880.223	0.490	1271.51	1	0.572	***4.960***
2023-08-26 08:01	1442705	7.925	-134.766	14.385	789.61	884.458	0.492	1266.45	1	0.575	***5.763***
2023-08-26 08:16	1443605	7.901	-133.524	14.361	789.726	885.049	0.492	1266.26	1	0.575	***6.174***
2023-08-26 08:31	1444505	7.877	-132.282	14.345	789.442	885.029	0.492	1266.72	1	0.575	***6.333***
2023-08-26 08:46	1445405	8.079	-142.615	14.342	788.088	883.574	0.492	1268.89	1	0.574	***6.343***
2023-08-26 09:01	1446305	7.972	-137.167	14.34	789.266	884.927	0.492	1267.00	1	0.575	***5.988***
2023-08-26 09:16	1447205	7.927	-134.833	14.342	790.43	886.191	0.493	1265.13	1	0.576	***5.935***
2023-08-26 09:31	1448105	7.885	-132.723	14.344	791.849	887.743	0.494	1262.87	1	0.577	***6.077***
2023-08-26 09:46	1449005	8.052	-141.261	14.358	791.441	887.034	0.494	1263.52	1	0.577	***6.020***
2023-08-26 10:01	1449905	7.966	-136.833	14.362	793.045	888.758	0.495	1260.96	1	0.578	***5.707***
2023-08-26 10:16	1450805	7.941	-135.593	14.373	794.263	889.91	0.495	1259.03	1	0.578	***5.569***
2023-08-26 10:31	1451705	7.890	-132.992	14.386	794.984	890.469	0.496	1257.89	1	0.579	***5.436***
2023-08-26 10:46	1452605	8.083	-142.841	14.412	794.428	889.344	0.495	1258.77	1	0.578	***5.195***
2023-08-26 11:01	1453505	7.927	-134.902	14.436	795.085	889.629	0.495	1257.73	1	0.578	***5.030***
2023-08-26 11:16	1454405	7.911	-134.068	14.462	796.799	891.058	0.496	1255.02	1	0.579	***5.165***
2023-08-26 11:31	1455305	7.893	-133.162	14.49	798.123	892.006	0.496	1252.94	1	0.580	***5.211***
2023-08-26 11:46	1456205	8.064	-141.962	14.525	795.027	887.867	0.494	1257.82	1	0.577	***5.304***
2023-08-26 12:01	1457105	7.904	-133.75	14.552	797.593	890.221	0.495	1253.77	1	0.579	***5.202***
2023-08-26 12:16	1458005	7.870	-132.034	14.587	798.894	891.024	0.496	1251.73	1	0.579	***5.104***
2023-08-26 12:31	1458905	7.856	-131.354	14.619	800.231	891.893	0.496	1249.64	1	0.580	***4.878***
2023-08-26 12:46	1459805	8.033	-140.443	14.654	798.142	888.915	0.494	1252.91	1	0.578	***4.729***
2023-08-26 13:01	1460705	7.908	-134.017	14.696	799.559	889.685	0.495	1250.69	1	0.578	***5.018***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-26 13:16	1461605	7.862	-131.714	14.743	801.171	890.586	0.495	1248.17	1	0.579	***5.254***
2023-08-26 13:31	1462505	7.848	-131.021	14.795	803.781	892.503	0.496	1244.12	1	0.580	***5.134***
2023-08-26 13:46	1463405	8.015	-139.582	14.853	803.599	891.218	0.496	1244.40	1	0.579	***5.062***
2023-08-26 14:01	1464305	7.883	-132.866	14.916	816.406	904.202	0.503	1224.88	1	0.588	***4.905***
2023-08-26 14:16	1465205	7.851	-131.233	14.986	819.167	905.924	0.504	1220.75	0.999	0.589	***5.546***
2023-08-26 14:31	1466105	7.803	-128.813	15.077	820.822	906.009	0.504	1218.29	0.999	0.589	***5.844***
2023-08-26 14:46	1467005	8.022	-140.126	15.192	826.488	910.057	0.506	1209.94	0.999	0.592	***6.271***
2023-08-26 15:01	1467905	7.898	-133.791	15.294	827.114	908.805	0.505	1209.02	0.999	0.591	6.613
2023-08-26 15:16	1468805	7.845	-131.137	15.407	831.519	911.476	0.507	1202.62	0.999	0.592	6.930
2023-08-26 15:31	1469705	7.865	-132.22	15.508	834.778	913.116	0.508	1197.92	0.999	0.594	7.221
2023-08-26 15:46	1470605	8.076	-143.092	15.595	842.784	920.199	0.512	1186.54	0.999	0.598	7.277
2023-08-26 16:01	1471505	7.896	-133.848	15.638	846.553	923.49	0.514	1181.26	0.999	0.600	7.074
2023-08-26 16:16	1472405	7.868	-132.458	15.684	847.225	923.346	0.514	1180.32	0.999	0.600	7.114
2023-08-26 16:31	1473305	7.878	-133.009	15.739	848.099	923.236	0.514	1179.11	0.999	0.600	7.116
2023-08-26 16:46	1474205	8.075	-143.149	15.82	846.18	919.592	0.511	1181.78	0.999	0.598	6.872
2023-08-26 17:01	1475105	7.926	-135.522	15.896	848.044	920.165	0.512	1179.18	0.999	0.598	7.160
2023-08-26 17:16	1476005	7.843	-131.271	15.973	849.142	919.897	0.511	1177.66	0.999	0.598	7.231
2023-08-26 17:31	1476905	7.850	-131.679	16.05	850.425	919.827	0.511	1175.88	0.999	0.598	7.208
2023-08-26 17:46	1477805	8.011	-140.026	16.184	846.455	913.006	0.507	1181.40	0.999	0.593	7.362
2023-08-26 18:01	1478705	7.887	-133.717	16.273	849.618	914.728	0.508	1177.00	0.999	0.595	7.321
2023-08-26 18:16	1479605	7.810	-129.745	16.34	851.989	916.017	0.509	1173.72	0.999	0.595	7.201
2023-08-26 18:31	1480505	7.777	-128.086	16.416	856.314	919.231	0.511	1167.80	0.999	0.598	7.068
2023-08-26 18:46	1481405	8.037	-141.532	16.473	872.73	935.768	0.520	1145.83	0.999	0.608	***6.291***
2023-08-26 19:01	1482305	7.903	-134.59	16.42	915.922	983.147	0.548	1091.80	0.999	0.639	7.839
2023-08-26 19:16	1483205	7.882	-133.46	16.333	920.309	989.613	0.551	1086.59	0.999	0.643	7.980
2023-08-26 19:31	1484105	7.866	-132.647	16.295	916.663	986.474	0.550	1090.91	0.999	0.641	8.020
2023-08-26 19:46	1485005	8.034	-141.263	16.298	902.028	970.67	0.541	1108.61	0.999	0.631	7.919
2023-08-26 20:01	1485905	7.870	-132.849	16.308	909.463	978.464	0.545	1099.55	0.999	0.636	7.504
2023-08-26 20:16	1486805	7.837	-131.164	16.339	910.49	978.944	0.545	1098.31	0.999	0.636	7.273
2023-08-26 20:31	1487705	7.815	-130.041	16.385	910.49	978.013	0.545	1098.31	0.999	0.636	7.356
2023-08-26 20:46	1488605	8.005	-139.84	16.446	892.692	957.708	0.533	1120.21	0.999	0.623	7.368
2023-08-26 21:01	1489505	7.841	-131.433	16.477	901.024	966.023	0.538	1109.85	0.999	0.628	7.270
2023-08-26 21:16	1490405	7.806	-129.621	16.507	902.915	967.466	0.538	1107.52	0.999	0.629	7.518
2023-08-26 21:31	1491305	7.790	-128.844	16.555	904.6	968.31	0.539	1105.46	0.999	0.629	7.896
2023-08-26 21:46	1492205	8.007	-140.047	16.675	867.009	925.802	0.514	1153.39	0.999	0.602	8.328
2023-08-26 22:01	1493105	7.872	-133.142	16.767	884.014	942.201	0.524	1131.20	0.999	0.612	7.913
2023-08-26 22:16	1494005	7.896	-134.442	16.893	887.666	943.658	0.524	1126.55	0.999	0.613	7.825
2023-08-26 22:31	1494905	7.817	-130.401	16.952	895.652	951.021	0.529	1116.51	0.999	0.618	7.763
2023-08-26 22:46	1495805	7.927	-136.082	16.954	880.452	934.843	0.519	1135.78	0.999	0.608	***6.271***
2023-08-26 23:01	1496705	7.752	-127.001	16.862	899.268	956.603	0.532	1112.02	0.999	0.622	***5.754***
2023-08-26 23:16	1497605	7.735	-126.095	16.837	900.427	958.324	0.533	1110.58	0.999	0.623	***5.856***
2023-08-26 23:31	1498505	7.762	-127.492	16.817	900.574	958.861	0.533	1110.40	0.999	0.623	***5.994***
2023-08-26 23:46	1499405	7.933	-136.349	16.882	870.544	925.666	0.514	1148.71	0.999	0.602	***6.142***
2023-08-27 00:01	1500305	7.799	-129.421	16.882	892.974	949.518	0.528	1119.85	0.999	0.617	***6.163***
2023-08-27 00:16	1501205	7.772	-128.031	16.901	896.772	953.201	0.530	1115.11	0.999	0.620	***6.117***
2023-08-27 00:31	1502105	7.726	-125.661	16.913	898.38	954.678	0.531	1113.11	0.999	0.621	***5.902***
2023-08-27 00:46	1503005	7.918	-135.608	16.92	881.822	936.937	0.520	1134.02	0.999	0.609	***5.547***
2023-08-27 01:01	1503905	7.775	-128.212	16.909	890.585	946.461	0.526	1122.86	0.999	0.615	***5.175***
2023-08-27 01:16	1504805	7.728	-125.778	16.89	895.319	951.853	0.529	1116.92	0.999	0.619	***4.713***
2023-08-27 01:31	1505705	7.703	-124.459	16.868	897.378	954.473	0.531	1114.36	0.999	0.620	***4.468***
2023-08-27 01:46	1506605	7.862	-132.687	16.849	876.506	932.643	0.518	1140.89	0.999	0.606	***4.368***
2023-08-27 02:01	1507505	7.749	-126.808	16.809	888.914	946.598	0.526	1124.97	0.999	0.615	***4.248***
2023-08-27 02:16	1508405	7.727	-125.67	16.773	890.001	948.451	0.527	1123.60	0.999	0.616	***3.953***
2023-08-27 02:31	1509305	7.705	-124.526	16.733	891.96	951.325	0.529	1121.13	0.999	0.618	***3.874***
2023-08-27 02:46	1510205	7.891	-134.084	16.659	872.684	932.16	0.518	1145.89	0.999	0.606	***3.536***
2023-08-27 03:01	1511105	7.746	-126.555	16.587	876.901	938.042	0.521	1140.38	0.999	0.610	***3.652***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-27 03:16	1512005	7.729	-125.666	16.514	878.004	940.633	0.523	1138.95	0.999	0.611	***3.506***
2023-08-27 03:31	1512905	7.724	-125.389	16.44	878.027	942.094	0.524	1138.92	0.999	0.612	***3.423***
2023-08-27 03:46	1513805	7.873	-133.021	16.362	848.663	912.031	0.507	1178.32	0.999	0.593	***3.458***
2023-08-27 04:01	1514705	7.744	-126.317	16.296	866.726	932.703	0.519	1153.77	0.999	0.606	***3.845***
2023-08-27 04:16	1515605	7.719	-125.022	16.216	866.735	934.253	0.520	1153.76	0.999	0.607	***3.593***
2023-08-27 04:31	1516505	7.709	-124.469	16.158	865.542	934.092	0.519	1155.35	0.999	0.607	***3.512***
2023-08-27 04:46	1517405	7.892	-133.879	16.132	851.175	919.078	0.511	1174.85	0.999	0.597	***3.558***
2023-08-27 05:01	1518305	7.745	-126.326	16.104	858.293	927.292	0.516	1165.10	0.999	0.603	***3.657***
2023-08-27 05:16	1519205	7.743	-126.173	16.082	861.455	931.143	0.518	1160.83	0.999	0.605	***3.414***
2023-08-27 05:31	1520105	7.721	-125.036	16.041	862.706	933.273	0.519	1159.14	0.999	0.607	***3.217***
2023-08-27 05:46	1521005	7.858	-132.06	16.018	844.884	914.437	0.508	1183.60	0.999	0.594	***3.043***
2023-08-27 06:01	1521905	7.718	-124.881	15.97	857.045	928.507	0.516	1166.80	0.999	0.604	***2.901***
2023-08-27 06:16	1522805	7.707	-124.278	15.918	857.93	930.472	0.518	1165.60	0.999	0.605	***2.366***
2023-08-27 06:31	1523705	7.694	-123.589	15.863	857.948	931.559	0.518	1165.57	0.999	0.606	***2.228***
2023-08-27 06:46	1524605	7.876	-132.942	15.842	846.1	919.102	0.511	1181.89	0.999	0.597	***2.250***
2023-08-27 07:01	1525505	7.724	-125.11	15.816	849.163	922.912	0.513	1177.63	0.999	0.600	***2.795***
2023-08-27 07:16	1526406	7.719	-124.846	15.798	851.806	926.139	0.515	1173.98	0.999	0.602	***2.608***
2023-08-27 07:31	1527306	7.700	-123.844	15.771	853.719	928.747	0.517	1171.35	0.999	0.604	***2.244***
2023-08-27 07:46	1528206	7.872	-132.692	15.748	834.755	908.533	0.505	1197.96	0.999	0.591	***2.281***
2023-08-27 08:01	1529106	7.725	-125.132	15.715	846.802	922.278	0.513	1180.91	0.999	0.599	***2.704***
2023-08-27 08:16	1530006	7.722	-124.955	15.699	848.736	924.706	0.514	1178.22	0.999	0.601	***2.754***
2023-08-27 08:31	1530906	7.713	-124.488	15.684	849.86	926.211	0.515	1176.66	0.999	0.602	***2.923***
2023-08-27 08:46	1531806	7.889	-133.512	15.672	831.478	906.402	0.504	1202.68	0.999	0.589	***2.913***
2023-08-27 09:01	1532706	7.751	-126.417	15.664	839.319	915.101	0.509	1191.44	0.999	0.595	***3.234***
2023-08-27 09:16	1533606	7.742	-125.952	15.661	841.865	917.942	0.511	1187.84	0.999	0.597	***3.375***
2023-08-27 09:31	1534506	7.727	-125.17	15.651	844.353	920.837	0.512	1184.34	0.999	0.599	***3.276***
2023-08-27 09:46	1535406	7.876	-132.854	15.651	824.306	898.986	0.500	1213.14	0.999	0.584	***3.136***
2023-08-27 10:01	1536306	7.752	-126.474	15.638	838.542	914.752	0.509	1192.55	0.999	0.595	***3.241***
2023-08-27 10:16	1537206	7.740	-125.861	15.638	840.935	917.363	0.510	1189.15	0.999	0.596	***3.184***
2023-08-27 10:31	1538106	7.730	-125.318	15.635	842.025	918.615	0.511	1187.61	0.999	0.597	***3.229***
2023-08-27 10:46	1539006	7.911	-134.625	15.644	826.635	901.652	0.501	1209.72	0.999	0.586	***3.258***
2023-08-27 11:01	1539906	7.763	-127.034	15.649	832.52	907.973	0.505	1201.17	0.999	0.590	***3.474***
2023-08-27 11:16	1540806	7.757	-126.724	15.667	834.62	909.926	0.506	1198.15	0.999	0.591	***4.027***
2023-08-27 11:31	1541706	7.750	-126.376	15.692	835.265	910.146	0.506	1197.23	0.999	0.592	***4.655***
2023-08-27 11:46	1542606	7.932	-135.739	15.727	820.703	893.646	0.496	1218.47	0.999	0.581	***5.204***
2023-08-27 12:01	1543506	7.794	-128.665	15.737	829.536	903.067	0.502	1205.49	0.999	0.587	***4.988***
2023-08-27 12:16	1544406	7.787	-128.312	15.753	831.863	905.294	0.503	1202.12	0.999	0.588	***5.098***
2023-08-27 12:31	1545306	7.776	-127.761	15.775	833.508	906.67	0.504	1199.75	0.999	0.589	***5.641***
2023-08-27 12:46	1546206	7.972	-137.825	15.8	820.953	892.562	0.496	1218.10	0.999	0.580	***5.473***
2023-08-27 13:01	1547106	7.833	-130.703	15.816	826.912	898.725	0.499	1209.32	0.999	0.584	***4.985***
2023-08-27 13:16	1548006	7.799	-128.973	15.83	831.256	903.194	0.502	1203.00	0.999	0.587	***4.737***
2023-08-27 13:31	1548906	7.747	-126.276	15.831	837.444	909.892	0.506	1194.11	0.999	0.591	***3.572***
2023-08-27 13:46	1549806	7.915	-134.938	15.851	829.81	901.227	0.501	1205.10	0.999	0.586	***4.152***
2023-08-27 14:01	1550706	7.873	-132.79	15.863	837.499	909.349	0.505	1194.03	0.999	0.591	***5.413***
2023-08-27 14:16	1551606	7.903	-134.354	15.895	839.697	911.137	0.506	1190.91	0.999	0.592	***5.509***
2023-08-27 14:31	1552506	7.858	-132.029	15.946	840.892	911.473	0.507	1189.21	0.999	0.592	***5.758***
2023-08-27 14:46	1553406	8.050	-141.957	16.012	833.346	902.056	0.501	1199.98	0.999	0.586	***6.431***
2023-08-27 15:01	1554306	7.911	-134.819	16.09	835.963	903.434	0.502	1196.23	0.999	0.587	7.069
2023-08-27 15:16	1555206	7.903	-134.466	16.206	837.108	902.508	0.501	1194.59	0.999	0.587	7.818
2023-08-27 15:31	1556106	7.925	-135.701	16.37	838.489	900.949	0.500	1192.62	0.999	0.586	7.843
2023-08-27 15:46	1557006	8.111	-145.371	16.573	836.741	895.343	0.497	1195.11	0.999	0.582	7.638
2023-08-27 16:01	1557906	7.876	-133.281	16.632	850.688	909.181	0.505	1175.52	0.999	0.591	7.243
2023-08-27 16:16	1558806	7.802	-129.509	16.69	859.745	917.766	0.510	1163.14	0.999	0.597	7.044
2023-08-27 16:31	1559706	7.826	-130.765	16.749	861.034	918.036	0.510	1161.40	0.999	0.597	7.148
2023-08-27 16:46	1560606	8.026	-141.098	16.796	852.477	908.044	0.504	1173.05	0.999	0.590	6.999
2023-08-27 17:01	1561506	7.894	-134.292	16.798	854.339	909.997	0.505	1170.50	0.999	0.591	6.730

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-27 17:16	1562406	7.855	-132.27	16.807	855.898	911.489	0.506	1168.36	0.999	0.592	6.994
2023-08-27 17:31	1563306	7.819	-130.424	16.828	858.097	913.443	0.507	1165.37	0.999	0.594	6.907
2023-08-27 17:46	1564206	7.954	-137.429	16.856	843.331	897.213	0.498	1185.77	0.999	0.583	6.873
2023-08-27 18:01	1565106	7.866	-132.895	16.862	850.86	905.114	0.502	1175.28	0.999	0.588	6.572
2023-08-27 18:16	1566006	7.860	-132.58	16.884	851.655	905.558	0.502	1174.18	0.999	0.589	6.930
2023-08-27 18:31	1566906	7.855	-132.332	16.903	854.05	907.75	0.504	1170.89	0.999	0.590	6.888
2023-08-27 18:46	1567806	7.974	-138.481	16.908	838.907	891.559	0.494	1192.03	0.999	0.580	***6.435***
2023-08-27 19:01	1568706	7.846	-131.876	16.899	843.282	896.368	0.497	1185.84	0.999	0.583	***5.945***
2023-08-27 19:16	1569606	7.861	-132.649	16.888	845.529	898.959	0.499	1182.69	0.999	0.584	***5.607***
2023-08-27 19:31	1570506	7.840	-131.533	16.871	847.774	901.656	0.500	1179.56	0.999	0.586	***5.522***
2023-08-27 19:46	1571406	7.961	-137.751	16.846	830.033	883.234	0.490	1204.77	0.999	0.574	***5.532***
2023-08-27 20:01	1572306	7.789	-128.903	16.818	840.656	895.057	0.496	1189.55	0.999	0.582	***5.298***
2023-08-27 20:16	1573206	7.780	-128.415	16.786	842.185	897.268	0.498	1187.39	0.999	0.583	***4.978***
2023-08-27 20:31	1574106	7.752	-126.965	16.745	843.278	899.186	0.499	1185.85	0.999	0.584	***5.287***
2023-08-27 20:46	1575006	7.929	-136.056	16.688	820.988	876.422	0.486	1218.04	0.999	0.570	***5.055***
2023-08-27 21:01	1575906	7.768	-127.716	16.647	826.111	882.643	0.489	1210.49	0.999	0.574	***5.155***
2023-08-27 21:16	1576806	7.747	-126.646	16.583	828.754	886.627	0.492	1206.63	0.999	0.576	***4.769***
2023-08-27 21:31	1577706	7.708	-124.581	16.496	817.193	875.805	0.486	1223.70	0.999	0.569	***4.313***
2023-08-27 21:46	1578606	7.911	-134.983	16.398	814.311	874.481	0.485	1228.03	0.999	0.568	***6.375***
2023-08-27 22:01	1579506	7.764	-127.399	16.365	817.456	878.437	0.487	1223.31	0.999	0.571	***6.023***
2023-08-27 22:16	1580406	7.764	-127.368	16.32	813.993	875.539	0.486	1228.51	0.999	0.569	***6.049***
2023-08-27 22:31	1581306	7.678	-122.919	16.255	810.228	872.648	0.484	1234.22	0.999	0.567	***6.130***
2023-08-27 22:46	1582206	7.861	-132.318	16.18	808.419	872.042	0.484	1236.98	0.999	0.567	***6.342***
2023-08-27 23:01	1583106	7.745	-126.317	16.141	807.403	871.642	0.483	1238.54	0.999	0.567	***6.331***
2023-08-27 23:16	1584006	7.722	-125.136	16.086	805.579	870.66	0.483	1241.34	0.999	0.566	***6.374***
2023-08-27 23:31	1584906	7.691	-123.477	16.023	802.983	868.992	0.482	1245.36	0.999	0.565	6.538
2023-08-27 23:46	1585806	7.900	-134.211	15.974	802.017	868.827	0.482	1246.86	0.999	0.565	***6.397***
2023-08-28 00:01	1586706	7.766	-127.325	15.94	801.234	868.589	0.482	1248.07	0.999	0.565	***6.252***
2023-08-28 00:16	1587606	7.732	-125.542	15.893	800.462	868.594	0.482	1249.28	0.999	0.565	***6.466***
2023-08-28 00:31	1588506	7.762	-127.077	15.847	800.25	869.189	0.482	1249.61	0.999	0.565	***6.401***
2023-08-28 00:46	1589406	7.934	-135.877	15.794	799.595	869.445	0.482	1250.63	0.999	0.565	***6.407***
2023-08-28 01:01	1590306	7.736	-125.697	15.751	797.663	868.12	0.482	1253.66	0.999	0.564	***6.293***
2023-08-28 01:16	1591206	7.707	-124.204	15.696	797.99	869.457	0.482	1253.15	0.999	0.565	***6.291***
2023-08-28 01:31	1592106	7.696	-123.599	15.658	798.1	870.273	0.483	1252.98	0.999	0.566	***6.482***
2023-08-28 01:46	1593006	7.886	-133.321	15.63	798.727	871.459	0.484	1251.99	0.999	0.566	***6.374***
2023-08-28 02:01	1593906	7.726	-125.127	15.575	793.793	867.083	0.481	1259.77	0.999	0.564	***5.950***
2023-08-28 02:16	1594806	7.730	-125.263	15.496	789.67	864.004	0.479	1266.35	0.999	0.562	***5.862***
2023-08-28 02:31	1595706	7.769	-127.254	15.453	791.89	867.201	0.481	1262.80	0.999	0.564	***6.222***
2023-08-28 02:46	1596606	7.956	-136.809	15.402	792.46	868.763	0.482	1261.89	0.999	0.565	***6.383***
2023-08-28 03:01	1597506	7.819	-129.8	15.369	793.4	870.386	0.483	1260.40	0.999	0.566	***6.309***
2023-08-28 03:16	1598406	7.800	-128.796	15.32	792.658	870.458	0.483	1261.58	0.999	0.566	***6.464***
2023-08-28 03:31	1599306	7.789	-128.181	15.277	791.145	869.597	0.483	1263.99	0.999	0.565	***6.294***
2023-08-28 03:46	1600206	7.964	-137.16	15.223	785.132	863.958	0.480	1273.67	0.999	0.562	***6.467***
2023-08-28 04:01	1601106	7.830	-130.248	15.172	786.577	866.471	0.481	1271.33	0.999	0.563	***6.114***
2023-08-28 04:16	1602006	7.797	-128.546	15.115	783.502	864.128	0.480	1276.32	0.999	0.562	***6.236***
2023-08-28 04:31	1602906	7.816	-129.48	15.062	782.943	864.48	0.480	1277.23	0.999	0.562	***6.216***
2023-08-28 04:46	1603806	7.985	-138.147	15.013	780.842	863.049	0.479	1280.67	0.999	0.561	***6.412***
2023-08-28 05:01	1604706	7.820	-129.645	14.968	783.165	866.448	0.481	1276.87	0.999	0.563	***6.287***
2023-08-28 05:16	1605606	7.833	-130.293	14.922	786.148	870.593	0.484	1272.03	0.999	0.566	***6.257***
2023-08-28 05:31	1606506	7.828	-130.041	14.891	787.827	873.024	0.485	1269.31	0.999	0.567	***6.463***
2023-08-28 05:46	1607406	7.999	-138.798	14.856	786.892	872.631	0.485	1270.82	0.999	0.567	***6.475***
2023-08-28 06:01	1608306	7.841	-130.684	14.823	790.216	876.934	0.487	1265.48	1	0.570	***6.029***
2023-08-28 06:16	1609206	7.868	-132.034	14.786	790.917	878.403	0.488	1264.35	1	0.571	***6.343***
2023-08-28 06:31	1610106	7.855	-131.335	14.737	791.877	880.371	0.489	1262.82	1	0.572	***6.272***
2023-08-28 06:46	1611006	8.010	-139.26	14.699	791.142	880.272	0.489	1264.00	1	0.572	***6.372***
2023-08-28 07:01	1611906	7.827	-129.89	14.665	792.249	882.146	0.491	1262.23	1	0.573	***6.074***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-28 07:16	1612806	7.826	-129.802	14.637	792.936	883.427	0.491	1261.14	1	0.574	***6.274***
2023-08-28 07:31	1613706	7.819	-129.466	14.604	792.654	883.739	0.492	1261.58	1	0.574	***6.234***
2023-08-28 07:46	1614606	7.993	-138.316	14.576	791.985	883.508	0.491	1262.65	1	0.574	***5.887***
2023-08-28 08:01	1615506	7.845	-130.723	14.536	793.49	885.951	0.493	1260.26	1	0.576	***6.037***
2023-08-28 08:16	1616406	7.837	-130.301	14.504	794.986	888.217	0.494	1257.88	1	0.577	***5.966***
2023-08-28 08:31	1617306	7.832	-130.053	14.478	796.757	890.703	0.496	1255.09	1	0.579	***5.831***
2023-08-28 08:46	1618206	8.001	-138.683	14.463	796.813	891.056	0.496	1255.00	1	0.579	***5.883***
2023-08-28 09:01	1619106	7.862	-131.576	14.453	796.542	890.935	0.496	1255.43	1	0.579	***5.896***
2023-08-28 09:16	1620006	7.827	-129.802	14.442	796.476	891.074	0.496	1255.53	1	0.579	***5.669***
2023-08-28 09:31	1620906	7.798	-128.314	14.442	796.813	891.444	0.496	1255.00	1	0.579	***5.770***
2023-08-28 09:46	1621806	7.981	-137.658	14.457	795.958	890.211	0.495	1256.35	1	0.579	***5.669***
2023-08-28 10:01	1622706	7.838	-130.327	14.462	796.689	890.922	0.496	1255.20	1	0.579	***5.367***
2023-08-28 10:16	1623606	7.810	-128.911	14.473	797.095	891.175	0.496	1254.56	1	0.579	***5.138***
2023-08-28 10:31	1624506	7.779	-127.358	14.486	797.437	891.3	0.496	1254.02	1	0.579	***5.013***
2023-08-28 10:46	1625406	7.963	-136.75	14.51	797.796	891.243	0.496	1253.45	1	0.579	***4.872***
2023-08-28 11:01	1626306	7.814	-129.168	14.546	798.347	891.188	0.496	1252.59	1	0.579	***4.823***
2023-08-28 11:16	1627206	7.788	-127.845	14.575	798.93	891.279	0.496	1251.67	1	0.579	***4.831***
2023-08-28 11:31	1628106	7.780	-127.447	14.604	799.327	891.174	0.496	1251.05	1	0.579	***4.594***
2023-08-28 11:46	1629006	7.944	-135.851	14.655	798.097	888.831	0.494	1252.98	1	0.578	***4.594***
2023-08-28 12:01	1629906	7.785	-127.73	14.705	799.885	889.887	0.495	1250.18	1	0.578	***4.472***
2023-08-28 12:16	1630806	7.765	-126.772	14.763	800.806	889.817	0.495	1248.74	1	0.578	***4.293***
2023-08-28 12:31	1631706	7.730	-124.998	14.816	801.86	889.976	0.495	1247.10	1	0.578	***4.187***
2023-08-28 12:46	1632606	7.914	-134.423	14.876	802.734	889.825	0.495	1245.74	1	0.578	***4.101***
2023-08-28 13:01	1633506	7.763	-126.703	14.933	803.4	889.477	0.495	1244.71	0.999	0.578	***4.146***
2023-08-28 13:16	1634406	7.737	-125.391	14.987	806.847	892.279	0.496	1239.39	0.999	0.580	***4.236***
2023-08-28 13:31	1635306	7.730	-125.072	15.042	806.51	890.873	0.495	1239.91	0.999	0.579	***4.224***
2023-08-28 13:46	1636206	7.901	-133.889	15.106	805.035	888.047	0.494	1242.18	0.999	0.577	***4.280***
2023-08-28 14:01	1637106	7.766	-126.977	15.168	807.519	889.622	0.494	1238.36	0.999	0.578	***4.930***
2023-08-28 14:16	1638006	7.745	-125.935	15.241	808.928	889.804	0.495	1236.20	0.999	0.578	***5.392***
2023-08-28 14:31	1638906	7.730	-125.213	15.313	809.967	889.612	0.494	1234.62	0.999	0.578	***5.455***
2023-08-28 14:46	1639806	7.913	-134.592	15.37	810.382	889.003	0.494	1233.99	0.999	0.578	***5.337***
2023-08-28 15:01	1640706	7.786	-128.117	15.412	811.301	889.227	0.494	1232.59	0.999	0.578	***5.434***
2023-08-28 15:16	1641606	7.768	-127.192	15.464	812.675	889.754	0.494	1230.51	0.999	0.578	***5.643***
2023-08-28 15:31	1642506	7.756	-126.636	15.538	814.376	890.247	0.495	1227.93	0.999	0.579	***6.234***
2023-08-28 15:46	1643406	7.923	-135.229	15.639	817.97	892.295	0.496	1222.54	0.999	0.580	***6.055***
2023-08-28 16:01	1644306	7.809	-129.397	15.671	817.729	891.442	0.495	1222.90	0.999	0.579	***6.126***
2023-08-28 16:16	1645206	7.762	-127.053	15.778	820.158	892.09	0.495	1219.28	0.999	0.580	***6.495***
2023-08-28 16:31	1646106	7.737	-125.835	15.93	824.019	893.47	0.496	1213.56	0.999	0.581	***6.391***
2023-08-28 16:46	1647006	7.964	-137.584	16.156	835.765	901.989	0.501	1196.51	0.999	0.586	***6.130***
2023-08-28 17:01	1647906	7.822	-130.363	16.292	837.644	901.489	0.500	1193.83	0.999	0.586	***6.439***
2023-08-28 17:16	1648806	7.807	-129.619	16.406	849.248	911.851	0.506	1177.51	0.999	0.593	6.502
2023-08-28 17:31	1649706	7.799	-129.244	16.496	852.838	914.017	0.508	1172.56	0.999	0.594	***6.156***
2023-08-28 17:46	1650606	7.960	-137.618	16.584	865.15	925.543	0.514	1155.87	0.999	0.602	***5.909***
2023-08-28 18:01	1651506	7.812	-130.017	16.658	884.301	944.589	0.525	1130.84	0.999	0.614	***6.215***
2023-08-28 18:16	1652406	7.806	-129.738	16.7	890.292	950.188	0.528	1123.23	0.999	0.618	6.502
2023-08-28 18:31	1653306	7.805	-129.683	16.739	900.9	960.745	0.534	1110.00	0.999	0.624	***6.498***
2023-08-28 18:46	1654206	7.974	-138.431	16.775	913.498	973.451	0.542	1094.69	0.999	0.633	6.538
2023-08-28 19:01	1655106	7.816	-130.293	16.797	920.286	980.258	0.546	1086.62	0.999	0.637	6.546
2023-08-28 19:16	1656006	7.811	-130.003	16.809	927.273	987.447	0.550	1078.43	0.999	0.642	6.686
2023-08-28 19:31	1656906	7.796	-129.271	16.822	931.953	992.177	0.553	1073.02	0.999	0.645	6.716
2023-08-28 19:46	1657806	7.976	-138.526	16.828	940.808	1001.482	0.558	1062.92	0.999	0.651	6.756
2023-08-28 20:01	1658706	7.816	-130.31	16.827	945.495	1006.501	0.561	1057.65	0.999	0.654	6.550
2023-08-28 20:16	1659606	7.807	-129.809	16.816	952.835	1014.536	0.566	1049.50	0.999	0.659	6.673
2023-08-28 20:31	1660506	7.808	-129.862	16.796	960.211	1022.795	0.570	1041.44	0.999	0.665	6.689
2023-08-28 20:46	1661406	7.973	-138.364	16.76	963.087	1026.623	0.573	1038.33	0.999	0.667	6.731
2023-08-28 21:01	1662306	7.806	-129.719	16.714	962.971	1027.46	0.573	1038.45	0.999	0.668	6.681

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-28 21:16	1663206	7.824	-130.637	16.656	964.244	1030.027	0.575	1037.08	0.999	0.670	6.757
2023-08-28 21:31	1664106	7.806	-129.702	16.624	966.806	1033.439	0.577	1034.33	0.999	0.672	6.723
2023-08-28 21:46	1665006	7.994	-139.372	16.578	970.747	1038.638	0.580	1030.14	0.999	0.675	6.864
2023-08-28 22:01	1665906	7.847	-131.736	16.526	974.971	1044.26	0.583	1025.67	0.999	0.679	6.651
2023-08-28 22:16	1666806	7.857	-132.222	16.458	977.474	1048.411	0.586	1023.05	0.999	0.681	6.576
2023-08-28 22:31	1667706	7.851	-131.888	16.38	978.856	1051.558	0.587	1021.60	0.999	0.684	6.694
2023-08-28 22:46	1668606	8.009	-139.997	16.307	977.277	1051.437	0.587	1023.25	0.999	0.683	6.671
2023-08-28 23:01	1669506	7.823	-130.36	16.228	975.723	1051.484	0.588	1024.88	0.999	0.683	6.571
2023-08-28 23:16	1670406	7.834	-130.889	16.155	973.232	1050.379	0.587	1027.50	0.999	0.683	6.635
2023-08-28 23:31	1671306	7.846	-131.485	16.088	974.699	1053.415	0.589	1025.96	0.999	0.685	***6.466***
2023-08-28 23:46	1672206	8.011	-139.966	16.009	977.25	1057.891	0.591	1023.28	0.999	0.688	***6.457***
2023-08-29 00:01	1673106	7.817	-129.948	15.954	978.471	1060.412	0.593	1022.00	0.999	0.689	***6.373***
2023-08-29 00:16	1674006	7.842	-131.197	15.88	979.924	1063.615	0.595	1020.49	0.999	0.691	***6.440***
2023-08-29 00:31	1674906	7.833	-130.711	15.804	985.221	1071.053	0.599	1015.00	0.999	0.696	***6.358***
2023-08-29 00:46	1675806	8.022	-140.381	15.731	984.517	1071.913	0.600	1015.73	0.999	0.697	***6.356***
2023-08-29 01:01	1676706	7.831	-130.515	15.671	984.777	1073.537	0.601	1015.46	0.999	0.698	***6.323***
2023-08-29 01:16	1677606	7.854	-131.712	15.613	985.602	1075.75	0.602	1014.61	0.999	0.699	***6.230***
2023-08-29 01:31	1678506	7.848	-131.361	15.546	987.157	1078.946	0.604	1013.01	0.999	0.701	***6.272***
2023-08-29 01:46	1679406	8.020	-140.19	15.507	985.311	1077.804	0.604	1014.91	0.999	0.701	***6.344***
2023-08-29 02:01	1680306	7.856	-131.712	15.453	986.114	1079.905	0.605	1014.08	0.999	0.702	***6.176***
2023-08-29 02:16	1681206	7.843	-131.044	15.401	984.538	1079.347	0.605	1015.71	1	0.702	***6.164***
2023-08-29 02:31	1682106	7.853	-131.531	15.343	985.734	1081.972	0.606	1014.47	1	0.703	***5.953***
2023-08-29 02:46	1683006	7.995	-138.795	15.284	989.163	1087.08	0.609	1010.96	1	0.707	***6.249***
2023-08-29 03:01	1683906	7.850	-131.35	15.255	990.044	1088.724	0.610	1010.06	1	0.708	***6.023***
2023-08-29 03:16	1684806	7.848	-131.226	15.208	991.91	1091.84	0.612	1008.16	1	0.710	***6.167***
2023-08-29 03:31	1685706	7.847	-131.133	15.155	995.318	1096.819	0.615	1004.70	1	0.713	***6.201***
2023-08-29 03:46	1686606	8.021	-140.035	15.101	999.554	1102.737	0.619	1000.45	1	0.717	***6.187***
2023-08-29 04:01	1687506	7.854	-131.438	15.053	1004.228	1109.019	0.622	995.79	1	0.721	***6.061***
2023-08-29 04:16	1688406	7.844	-130.908	15	1007.265	1113.613	0.625	992.79	1	0.724	***6.117***
2023-08-29 04:31	1689306	7.849	-131.128	14.953	1011.724	1119.663	0.629	988.41	1	0.728	***6.146***
2023-08-29 04:46	1690206	8.039	-140.87	14.895	1016.391	1126.214	0.632	983.87	1	0.732	***6.223***
2023-08-29 05:01	1691106	7.862	-131.745	14.865	1017.524	1128.185	0.634	982.78	1	0.733	***5.946***
2023-08-29 05:16	1692006	7.879	-132.589	14.818	1021.027	1133.197	0.637	979.41	1	0.737	***6.206***
2023-08-29 05:31	1692906	7.884	-132.854	14.783	1024.74	1138.146	0.640	975.86	1	0.740	***6.199***
2023-08-29 05:46	1693806	8.059	-141.79	14.746	1027.293	1141.887	0.642	973.43	1	0.742	***6.084***
2023-08-29 06:01	1694706	7.898	-133.531	14.703	1027.93	1143.623	0.643	972.83	1	0.743	***5.743***
2023-08-29 06:16	1695606	7.846	-130.854	14.664	1029.673	1146.531	0.645	971.18	1	0.745	***5.863***
2023-08-29 06:31	1696506	7.879	-132.539	14.617	1030.995	1149.136	0.646	969.94	1	0.747	***5.986***
2023-08-29 06:46	1697406	8.064	-141.985	14.575	1033.972	1153.502	0.649	967.14	1	0.750	***5.947***
2023-08-29 07:01	1698306	7.907	-133.924	14.546	1034.618	1154.932	0.650	966.54	1	0.751	***6.047***
2023-08-29 07:16	1699206	7.903	-133.715	14.502	1035.384	1156.869	0.651	965.83	1	0.752	***6.110***
2023-08-29 07:31	1700106	7.911	-134.101	14.472	1037.386	1159.849	0.653	963.96	1	0.754	***6.186***
2023-08-29 07:46	1701006	8.073	-142.374	14.448	1038.541	1161.739	0.654	962.89	1	0.755	***6.075***
2023-08-29 08:01	1701906	7.903	-133.686	14.436	1039.901	1163.55	0.655	961.63	1	0.756	***6.028***
2023-08-29 08:16	1702806	7.885	-132.761	14.43	1040.606	1164.486	0.655	960.98	1	0.757	***6.007***
2023-08-29 08:31	1703706	7.910	-134.01	14.423	1041.948	1166.169	0.656	959.74	1	0.758	***5.812***
2023-08-29 08:46	1704606	8.087	-143.096	14.427	1043.881	1168.234	0.658	957.96	1	0.759	***5.387***
2023-08-29 09:01	1705506	7.926	-134.859	14.433	1044.13	1168.359	0.658	957.74	1	0.759	***5.962***
2023-08-29 09:16	1706406	7.914	-134.208	14.445	1044.388	1168.352	0.658	957.50	1	0.759	***5.978***
2023-08-29 09:31	1707306	7.918	-134.444	14.464	1046.957	1170.758	0.659	955.15	1	0.761	***6.057***
2023-08-29 09:46	1708206	8.094	-143.464	14.487	1048.32	1171.705	0.660	953.91	1	0.762	***6.229***
2023-08-29 10:01	1709106	7.919	-134.528	14.506	1050.083	1173.18	0.660	952.31	1	0.763	***5.934***
2023-08-29 10:16	1710006	7.903	-133.724	14.53	1051.013	1173.635	0.661	951.46	1	0.763	***5.865***
2023-08-29 10:31	1710906	7.887	-132.918	14.557	1051.798	1173.826	0.661	950.75	1	0.763	***6.011***
2023-08-29 10:46	1711806	8.067	-142.155	14.593	1053.291	1174.585	0.661	949.41	1	0.763	***5.980***
2023-08-29 11:01	1712706	7.924	-134.804	14.631	1054.137	1174.592	0.661	948.64	1	0.763	***6.054***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-29 11:16	1713606	7.915	-134.368	14.667	1055.235	1174.912	0.661	947.66	1	0.764	***5.931***
2023-08-29 11:31	1714506	7.900	-133.66	14.717	1056.577	1175.155	0.661	946.45	1	0.764	***5.840***
2023-08-29 11:46	1715406	8.071	-142.41	14.774	1059.514	1177.001	0.662	943.83	1	0.765	***6.043***
2023-08-29 12:01	1716306	7.910	-134.22	14.82	1060.065	1176.456	0.662	943.34	1	0.765	***6.047***
2023-08-29 12:16	1717206	7.899	-133.672	14.882	1062.225	1177.318	0.662	941.42	1	0.765	***6.392***
2023-08-29 12:31	1718106	7.892	-133.359	14.94	1063.995	1177.819	0.663	939.85	1	0.766	6.712
2023-08-29 12:46	1719006	8.096	-143.838	15.015	1069.527	1182.066	0.665	934.99	1	0.768	6.874
2023-08-29 13:01	1719906	7.936	-135.66	15.081	1070.674	1181.706	0.665	933.99	1	0.768	7.182
2023-08-29 13:16	1720806	7.932	-135.493	15.134	1072.348	1182.214	0.665	932.53	1	0.768	7.181
2023-08-29 13:31	1721706	7.919	-134.821	15.2	1074.063	1182.465	0.665	931.04	1	0.769	7.198
2023-08-29 13:46	1722606	8.094	-143.843	15.275	1076.354	1183.126	0.665	929.06	1	0.769	7.021
2023-08-29 14:01	1723506	7.937	-135.832	15.326	1076.818	1182.377	0.665	928.66	1	0.769	7.255
2023-08-29 14:16	1724406	7.903	-134.115	15.384	1078.447	1182.726	0.665	927.26	1	0.769	7.137
2023-08-29 14:31	1725306	7.895	-133.708	15.456	1080.457	1183.154	0.665	925.53	1	0.769	7.172
2023-08-29 14:46	1726206	8.091	-143.793	15.506	1083.169	1184.87	0.666	923.22	1	0.770	7.131
2023-08-29 15:01	1727106	7.951	-136.659	15.542	1083.483	1184.324	0.666	922.95	1	0.770	7.251
2023-08-29 15:16	1728006	7.940	-136.075	15.566	1084.657	1185.015	0.666	921.95	1	0.770	7.100
2023-08-29 15:31	1728906	7.926	-135.407	15.595	1086.621	1186.442	0.667	920.28	1	0.771	6.975
2023-08-29 15:46	1729806	8.095	-144.083	15.627	1087.294	1186.396	0.667	919.71	1	0.771	7.058
2023-08-29 16:01	1730706	7.953	-136.805	15.637	1087.568	1186.448	0.667	919.48	1	0.771	7.187
2023-08-29 16:16	1731606	7.926	-135.415	15.628	1088.128	1187.273	0.668	919.01	1	0.772	6.953
2023-08-29 16:31	1732506	7.955	-136.905	15.627	1088.398	1187.591	0.668	918.78	1	0.772	6.736
2023-08-29 16:46	1733406	8.153	-147.059	15.635	1089.291	1188.36	0.668	918.03	1	0.772	7.450
2023-08-29 17:01	1734306	7.987	-138.54	15.642	1089.242	1188.132	0.668	918.07	1	0.772	7.892
2023-08-29 17:16	1735206	7.974	-137.894	15.646	1089.396	1188.2	0.668	917.94	1	0.772	7.941
2023-08-29 17:31	1736106	7.966	-137.441	15.652	1089.598	1188.287	0.668	917.77	1	0.772	7.861
2023-08-29 17:46	1737006	8.129	-145.867	15.666	1089.452	1187.778	0.668	917.89	1	0.772	8.171
2023-08-29 18:01	1737906	8.024	-140.429	15.666	1089.031	1187.312	0.668	918.25	1	0.772	8.056
2023-08-29 18:16	1738806	8.010	-139.732	15.677	1089.314	1187.351	0.668	918.01	1	0.772	8.158
2023-08-29 18:31	1739706	7.999	-139.158	15.685	1089.712	1187.597	0.668	917.67	1	0.772	8.104
2023-08-29 18:46	1740606	8.154	-147.133	15.694	1090.583	1188.305	0.668	916.94	1	0.772	7.901
2023-08-29 19:01	1741506	8.015	-140.009	15.7	1090.563	1188.133	0.668	916.96	1	0.772	7.788
2023-08-29 19:16	1742406	7.984	-138.428	15.707	1091.005	1188.458	0.668	916.59	1	0.772	7.693
2023-08-29 19:31	1743306	7.958	-137.069	15.712	1091.567	1188.949	0.668	916.11	1	0.773	7.572
2023-08-29 19:46	1744206	8.102	-144.501	15.725	1088.688	1185.496	0.666	918.54	1	0.771	7.364
2023-08-29 20:01	1745106	7.988	-138.633	15.727	1093.378	1190.541	0.669	914.60	1	0.774	7.200
2023-08-29 20:16	1746006	7.968	-137.582	15.722	1091.535	1188.65	0.668	916.14	1	0.773	7.313
2023-08-29 20:31	1746906	7.944	-136.38	15.718	1091.6	1188.819	0.668	916.09	1	0.773	7.489
2023-08-29 20:46	1747806	8.144	-146.642	15.706	1091.181	1188.661	0.668	916.44	1	0.773	7.967
2023-08-29 21:01	1748706	8.012	-139.825	15.693	1089.921	1187.629	0.668	917.50	1	0.772	8.016
2023-08-29 21:16	1749606	8.002	-139.341	15.702	1088.886	1186.26	0.667	918.37	1	0.771	8.083
2023-08-29 21:31	1750506	7.983	-138.378	15.684	1090.911	1188.921	0.668	916.67	1	0.773	7.981
2023-08-29 21:46	1751406	8.159	-147.4	15.686	1090.286	1188.179	0.668	917.19	1	0.772	7.635
2023-08-29 22:01	1752306	8.027	-140.617	15.683	1089.948	1187.896	0.668	917.48	1	0.772	8.009
2023-08-29 22:16	1753206	8.015	-139.98	15.692	1090.518	1188.286	0.668	917.00	1	0.772	8.041
2023-08-29 22:31	1754106	7.997	-139.089	15.699	1091.043	1188.684	0.668	916.56	1	0.773	7.857
2023-08-29 22:46	1755006	8.138	-146.317	15.714	1091.785	1189.133	0.669	915.93	1	0.773	7.635
2023-08-29 23:01	1755906	8.001	-139.301	15.73	1091.785	1188.732	0.668	915.93	1	0.773	7.397
2023-08-29 23:16	1756806	7.973	-137.842	15.704	1091.844	1189.434	0.669	915.88	1	0.773	6.968
2023-08-29 23:31	1757706	7.993	-138.886	15.706	1091.667	1189.2	0.669	916.03	1	0.773	6.894
2023-08-29 23:46	1758606	8.133	-146.108	15.759	1093.878	1190.294	0.669	914.18	1	0.774	7.240
2023-08-30 00:01	1759506	7.959	-137.188	15.779	1093.533	1189.423	0.669	914.47	0.999	0.773	7.243
2023-08-30 00:16	1760406	7.938	-136.092	15.798	1094.322	1189.804	0.669	913.81	0.999	0.773	7.167
2023-08-30 00:31	1761306	7.932	-135.803	15.846	1095.894	1190.333	0.669	912.50	0.999	0.774	7.099
2023-08-30 00:46	1762206	8.077	-143.261	15.891	1098.167	1191.702	0.670	910.61	0.999	0.775	6.739
2023-08-30 01:01	1763106	7.927	-135.591	15.908	1098.308	1191.436	0.670	910.49	0.999	0.774	***6.430***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-30 01:16	1764006	7.897	-134.041	15.941	1099.525	1191.94	0.670	909.48	0.999	0.775	6.542
2023-08-30 01:31	1764906	7.890	-133.717	15.967	1100.793	1192.669	0.670	908.44	0.999	0.775	***6.330***
2023-08-30 01:46	1765806	8.105	-144.753	15.987	1104.981	1196.71	0.673	904.99	0.999	0.778	***5.841***
2023-08-30 02:01	1766706	8.009	-139.816	15.983	1111.899	1204.297	0.677	899.36	0.999	0.783	6.559
2023-08-30 02:16	1767606	8.006	-139.658	15.952	1111.767	1204.933	0.678	899.47	0.999	0.783	7.199
2023-08-30 02:31	1768506	8.031	-140.941	15.919	1113.588	1207.715	0.679	898.00	0.999	0.785	6.868
2023-08-30 02:46	1769406	8.257	-152.555	15.873	1112.85	1208.068	0.680	898.59	0.999	0.785	6.923
2023-08-30 03:01	1770306	8.100	-144.446	15.828	1113.974	1210.422	0.681	897.69	0.999	0.787	6.854
2023-08-30 03:16	1771206	8.108	-144.839	15.763	1114.022	1212.118	0.682	897.65	1	0.788	6.919
2023-08-30 03:31	1772106	8.106	-144.691	15.699	1113.245	1212.89	0.683	898.28	1	0.788	6.918
2023-08-30 03:46	1773006	8.274	-153.284	15.637	1110.418	1211.364	0.682	900.56	1	0.787	6.745
2023-08-30 04:01	1773906	8.110	-144.823	15.585	1110.606	1212.892	0.683	900.41	1	0.788	6.712
2023-08-30 04:16	1774806	8.082	-143.363	15.521	1109.95	1213.8	0.683	900.94	1	0.789	6.679
2023-08-30 04:31	1775706	8.077	-143.099	15.472	1110.793	1215.954	0.685	900.26	1	0.790	6.529
2023-08-30 04:46	1776606	8.231	-150.976	15.421	1104.869	1210.752	0.682	905.08	1	0.787	***6.457***
2023-08-30 05:01	1777506	8.092	-143.795	15.384	1104.738	1211.554	0.682	905.19	1	0.788	6.509
2023-08-30 05:16	1778406	8.064	-142.338	15.33	1103.77	1211.855	0.682	905.99	1	0.788	***6.176***
2023-08-30 05:31	1779306	8.072	-142.739	15.285	1098.586	1207.315	0.680	910.26	1	0.785	***5.615***
2023-08-30 05:46	1780206	8.217	-150.151	15.247	1098.529	1208.206	0.680	910.31	1	0.785	***6.303***
2023-08-30 06:01	1781106	8.097	-143.983	15.182	1095.424	1206.456	0.679	912.89	1	0.784	6.538
2023-08-30 06:16	1782006	8.062	-142.143	15.135	1093.471	1205.492	0.679	914.52	1	0.784	***6.228***
2023-08-30 06:31	1782906	8.033	-140.629	15.108	1092.709	1205.34	0.679	915.16	1	0.783	***6.313***
2023-08-30 06:46	1783806	8.225	-150.49	15.069	1092.249	1205.813	0.679	915.54	1	0.784	***5.958***
2023-08-30 07:01	1784706	8.071	-142.572	15.051	1091.6	1205.544	0.679	916.09	1	0.784	***6.241***
2023-08-30 07:16	1785606	8.029	-140.383	15.016	1090.689	1205.44	0.679	916.85	1	0.784	***6.130***
2023-08-30 07:31	1786506	8.038	-140.848	14.957	1087.76	1203.713	0.678	919.32	1	0.782	***5.853***
2023-08-30 07:46	1787406	8.219	-150.063	14.909	1086.267	1203.259	0.678	920.58	1	0.782	***5.801***
2023-08-30 08:01	1788306	8.076	-142.717	14.866	1084.921	1202.864	0.677	921.73	1	0.782	***6.172***
2023-08-30 08:16	1789206	8.074	-142.636	14.848	1085.112	1203.543	0.678	921.56	1	0.782	***6.028***
2023-08-30 08:31	1790106	8.073	-142.56	14.828	1085.574	1204.578	0.679	921.17	1	0.783	***5.976***
2023-08-30 08:46	1791006	8.244	-151.305	14.826	1085.791	1204.871	0.679	920.99	1	0.783	***5.896***
2023-08-30 09:01	1791906	8.058	-141.79	14.818	1085.373	1204.593	0.679	921.34	1	0.783	***6.132***
2023-08-30 09:16	1792806	8.038	-140.746	14.821	1085.534	1204.704	0.679	921.21	1	0.783	***5.941***
2023-08-30 09:31	1793706	8.026	-140.154	14.822	1085.822	1204.999	0.679	920.96	1	0.783	***5.712***
2023-08-30 09:46	1794606	8.180	-148.044	14.84	1086.236	1205.001	0.679	920.61	1	0.783	***5.680***
2023-08-30 10:01	1795506	8.036	-140.65	14.846	1086.608	1205.246	0.679	920.30	1	0.783	***5.643***
2023-08-30 10:16	1796406	7.992	-138.407	14.869	1087.139	1205.256	0.679	919.85	1	0.783	***5.700***
2023-08-30 10:31	1797306	7.980	-137.82	14.893	1088.03	1205.628	0.679	919.09	1	0.784	***5.691***
2023-08-30 10:46	1798206	8.158	-146.956	14.919	1088.914	1205.959	0.679	918.35	1	0.784	***5.556***
2023-08-30 11:01	1799106	8.002	-138.953	14.941	1089.078	1205.568	0.679	918.21	1	0.784	***5.489***
2023-08-30 11:16	1800007	7.972	-137.453	14.966	1090.046	1206.013	0.679	917.39	1	0.784	***5.479***
2023-08-30 11:31	1800907	7.956	-136.619	14.998	1091.175	1206.429	0.679	916.44	1	0.784	***5.505***
2023-08-30 11:46	1801807	8.116	-144.887	15.051	1091.61	1205.56	0.679	916.08	1	0.784	***5.582***
2023-08-30 12:01	1802707	7.972	-137.51	15.089	1093.132	1206.269	0.679	914.80	1	0.784	***5.347***
2023-08-30 12:16	1803607	7.956	-136.685	15.128	1094.189	1206.453	0.679	913.92	1	0.784	***5.412***
2023-08-30 12:31	1804507	7.939	-135.844	15.164	1095.571	1207.063	0.680	912.77	1	0.785	***5.391***
2023-08-30 12:46	1805407	8.114	-144.863	15.199	1096.481	1207.188	0.680	912.01	1	0.785	***5.112***
2023-08-30 13:01	1806307	7.978	-137.858	15.228	1096.912	1206.918	0.679	911.65	1	0.784	***4.891***
2023-08-30 13:16	1807207	7.954	-136.673	15.258	1098.099	1207.461	0.680	910.67	1	0.785	***4.958***
2023-08-30 13:31	1808107	7.955	-136.721	15.298	1099.303	1207.769	0.680	909.67	1	0.785	***5.168***
2023-08-30 13:46	1809007	8.142	-146.36	15.344	1100.073	1207.444	0.680	909.03	1	0.785	***5.363***
2023-08-30 14:01	1809907	7.987	-138.407	15.377	1101.046	1207.674	0.680	908.23	1	0.785	***6.132***
2023-08-30 14:16	1810807	7.974	-137.773	15.419	1102.143	1207.832	0.680	907.32	1	0.785	6.684
2023-08-30 14:31	1811707	7.939	-135.968	15.463	1104.434	1209.227	0.681	905.44	1	0.786	***6.496***
2023-08-30 14:46	1812607	8.159	-147.293	15.507	1107.736	1211.712	0.682	902.74	1	0.788	***5.914***
2023-08-30 15:01	1813507	8.054	-141.931	15.546	1109.174	1212.306	0.682	901.57	1	0.788	6.567

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-30 15:16	1814407	8.013	-139.823	15.586	1110.905	1213.19	0.683	900.17	1	0.789	6.867
2023-08-30 15:31	1815307	8.001	-139.265	15.619	1112.575	1214.167	0.683	898.82	1	0.789	7.469
2023-08-30 15:46	1816207	8.205	-149.772	15.659	1113.558	1214.228	0.683	898.02	1	0.789	7.541
2023-08-30 16:01	1817107	8.095	-144.11	15.674	1113.923	1214.255	0.683	897.73	1	0.789	7.721
2023-08-30 16:16	1818007	8.042	-141.363	15.671	1113.923	1214.329	0.683	897.73	1	0.789	7.550
2023-08-30 16:31	1818907	8.021	-140.307	15.658	1113.022	1213.668	0.683	898.45	1	0.789	7.705
2023-08-30 16:46	1819807	8.237	-151.408	15.655	1111.54	1212.138	0.682	899.65	1	0.788	8.365
2023-08-30 17:01	1820707	8.067	-142.665	15.661	1112.171	1212.669	0.682	899.14	1	0.788	8.117
2023-08-30 17:16	1821607	8.021	-140.309	15.677	1113.13	1213.325	0.683	898.37	1	0.789	8.325
2023-08-30 17:31	1822507	8.037	-141.122	15.703	1114.203	1213.826	0.683	897.50	1	0.789	8.440
2023-08-30 17:46	1823407	8.240	-151.591	15.732	1109.122	1207.554	0.679	901.61	1	0.785	8.540
2023-08-30 18:01	1824307	8.097	-144.26	15.741	1112.52	1211.028	0.681	898.86	1	0.787	8.356
2023-08-30 18:16	1825207	8.069	-142.815	15.758	1113.481	1211.655	0.682	898.08	1	0.788	8.318
2023-08-30 18:31	1826107	8.030	-140.767	15.684	1112.852	1212.825	0.683	898.59	1	0.788	7.589
2023-08-30 18:46	1827007	8.258	-152.478	15.647	1100.036	1199.798	0.675	909.06	1	0.780	8.595
2023-08-30 19:01	1827907	8.084	-143.549	15.663	1104.725	1204.512	0.678	905.20	1	0.783	8.159
2023-08-30 19:16	1828807	8.067	-142.672	15.673	1107.602	1207.377	0.679	902.85	1	0.785	8.160
2023-08-30 19:31	1829707	8.109	-144.868	15.716	1107.95	1206.697	0.679	902.57	1	0.784	8.701
2023-08-30 19:46	1830607	8.298	-154.631	15.82	1099.12	1194.492	0.672	909.82	0.999	0.776	9.119
2023-08-30 20:01	1831507	8.156	-147.376	15.932	1101.831	1194.661	0.672	907.58	0.999	0.777	9.688
2023-08-30 20:16	1832407	8.173	-148.323	16.05	1104.367	1194.486	0.671	905.50	0.999	0.776	9.960
2023-08-30 20:31	1833307	8.173	-148.342	16.139	1107.365	1195.525	0.672	903.04	0.999	0.777	9.846
2023-08-30 20:46	1834207	8.320	-155.962	16.208	1106.966	1193.392	0.671	903.37	0.999	0.776	9.685
2023-08-30 21:01	1835107	8.167	-148.067	16.221	1109.404	1195.704	0.672	901.39	0.999	0.777	9.080
2023-08-30 21:16	1836007	8.048	-141.923	16.177	1118.446	1206.539	0.678	894.10	0.999	0.784	7.962
2023-08-30 21:31	1836907	8.057	-142.355	16.109	1121.037	1211.051	0.681	892.03	0.999	0.787	7.437
2023-08-30 21:46	1837807	8.212	-150.347	16.145	1116.88	1205.646	0.678	895.35	0.999	0.784	7.845
2023-08-30 22:01	1838707	8.040	-141.521	16.167	1119.935	1208.414	0.679	892.91	0.999	0.785	7.853
2023-08-30 22:16	1839607	8.018	-140.376	16.182	1120.626	1208.78	0.680	892.36	0.999	0.786	7.785
2023-08-30 22:31	1840507	7.992	-139.07	16.198	1121.18	1208.983	0.680	891.92	0.999	0.786	7.714
2023-08-30 22:46	1841407	8.182	-148.823	16.205	1120.288	1207.826	0.679	892.63	0.999	0.785	7.545
2023-08-30 23:01	1842307	8.005	-139.723	16.208	1121.622	1209.211	0.680	891.57	0.999	0.786	7.031
2023-08-30 23:16	1843207	7.975	-138.192	16.202	1122.771	1210.591	0.681	890.65	0.999	0.787	6.878
2023-08-30 23:31	1844107	7.995	-139.208	16.193	1129.377	1217.941	0.685	885.44	0.999	0.792	***5.605***
2023-08-30 23:46	1845007	8.261	-152.912	16.178	1129.003	1217.9	0.685	885.74	0.999	0.792	6.923
2023-08-31 00:01	1845907	8.130	-146.167	16.154	1132.635	1222.436	0.688	882.90	0.999	0.795	7.010
2023-08-31 00:16	1846807	8.102	-144.718	16.134	1134.029	1224.443	0.689	881.81	0.999	0.796	6.582
2023-08-31 00:31	1847707	8.056	-142.319	16.111	1134.553	1225.578	0.690	881.40	0.999	0.797	6.632
2023-08-31 00:46	1848607	8.238	-151.684	16.107	1134.808	1225.976	0.690	881.21	0.999	0.797	6.571
2023-08-31 01:01	1849507	8.083	-143.681	16.092	1134.628	1226.16	0.690	881.35	0.999	0.797	***6.309***
2023-08-31 01:16	1850407	8.040	-141.461	16.071	1134.118	1226.142	0.690	881.74	0.999	0.797	***6.441***
2023-08-31 01:31	1851307	8.014	-140.116	16.057	1133.521	1225.828	0.690	882.21	0.999	0.797	***6.430***
2023-08-31 01:46	1852207	8.177	-148.504	16.053	1132.378	1224.701	0.689	883.10	0.999	0.796	***6.318***
2023-08-31 02:01	1853107	8.037	-141.304	16.044	1132.025	1224.554	0.689	883.37	0.999	0.796	***5.951***
2023-08-31 02:16	1854007	8.013	-140.045	16.038	1132.201	1224.902	0.689	883.24	0.999	0.796	***5.744***
2023-08-31 02:31	1854907	7.999	-139.351	16.013	1131.755	1225.05	0.689	883.58	0.999	0.796	***5.426***
2023-08-31 02:46	1855807	8.147	-146.937	15.973	1129.339	1223.43	0.688	885.47	0.999	0.795	***5.255***
2023-08-31 03:01	1856707	7.993	-138.962	15.926	1128.359	1223.57	0.689	886.24	0.999	0.795	***5.179***
2023-08-31 03:16	1857607	7.957	-137.134	15.876	1126.682	1223.008	0.688	887.56	0.999	0.795	***5.405***
2023-08-31 03:31	1858507	7.943	-136.359	15.834	1124.517	1221.728	0.688	889.27	1	0.794	***5.728***
2023-08-31 03:46	1859407	8.111	-144.978	15.797	1118.424	1216.046	0.684	894.12	1	0.790	***5.875***
2023-08-31 04:01	1860307	8.017	-140.138	15.745	1119.056	1218.054	0.686	893.61	1	0.792	***5.676***
2023-08-31 04:16	1861207	7.965	-137.429	15.695	1118.965	1219.204	0.686	893.68	1	0.792	***5.661***
2023-08-31 04:31	1862107	7.944	-136.352	15.644	1117.484	1218.889	0.686	894.87	1	0.792	***5.839***
2023-08-31 04:46	1863007	8.129	-145.831	15.604	1112.702	1214.697	0.684	898.71	1	0.790	***5.997***
2023-08-31 05:01	1863907	7.988	-138.543	15.562	1113.088	1216.182	0.685	898.40	1	0.791	***5.584***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-31 05:16	1864807	7.967	-137.429	15.515	1112.297	1216.513	0.685	899.04	1	0.791	***5.416***
2023-08-31 05:31	1865707	7.955	-136.819	15.466	1111.017	1216.363	0.685	900.08	1	0.791	***5.732***
2023-08-31 05:46	1866607	8.130	-145.781	15.421	1104.963	1210.873	0.682	905.01	1	0.787	***5.751***
2023-08-31 06:01	1867507	8.020	-140.128	15.376	1104.665	1211.684	0.682	905.25	1	0.788	***6.019***
2023-08-31 06:16	1868407	7.996	-138.881	15.349	1104.112	1211.761	0.682	905.71	1	0.788	***5.995***
2023-08-31 06:31	1869307	7.971	-137.556	15.317	1104.692	1213.207	0.683	905.23	1	0.789	***5.819***
2023-08-31 06:46	1870207	8.138	-146.122	15.295	1102.119	1210.952	0.682	907.34	1	0.787	***5.574***
2023-08-31 07:01	1871107	8.007	-139.358	15.258	1102.596	1212.416	0.683	906.95	1	0.788	***5.055***
2023-08-31 07:16	1872007	7.984	-138.178	15.236	1102.884	1213.291	0.683	906.71	1	0.789	***5.211***
2023-08-31 07:31	1872907	7.972	-137.572	15.214	1104.616	1215.747	0.685	905.29	1	0.790	***5.200***
2023-08-31 07:46	1873807	8.103	-144.267	15.228	1101.557	1212.033	0.683	907.81	1	0.788	***5.211***
2023-08-31 08:01	1874707	7.984	-138.147	15.19	1102.609	1214.166	0.684	906.94	1	0.789	***4.905***
2023-08-31 08:16	1875607	7.945	-136.182	15.168	1103.663	1215.888	0.685	906.07	1	0.790	***4.711***
2023-08-31 08:31	1876507	7.930	-135.4	15.147	1103.86	1216.639	0.685	905.91	1	0.791	***4.665***
2023-08-31 08:46	1877407	8.095	-143.828	15.149	1099.875	1212.196	0.683	909.19	1	0.788	***4.782***
2023-08-31 09:01	1878307	7.965	-137.191	15.138	1101.364	1214.115	0.684	907.97	1	0.789	***4.446***
2023-08-31 09:16	1879207	7.932	-135.493	15.137	1102.243	1215.118	0.684	907.24	1	0.790	***4.317***
2023-08-31 09:31	1880107	7.917	-134.704	15.135	1103.045	1216.045	0.685	906.58	1	0.790	***4.162***
2023-08-31 09:46	1881007	8.054	-141.716	15.15	1100.251	1212.569	0.683	908.88	1	0.788	***3.944***
2023-08-31 10:01	1881907	7.934	-135.553	15.129	1093.489	1205.668	0.679	914.50	1	0.784	***3.844***
2023-08-31 10:16	1882807	7.918	-134.752	15.114	1103.256	1216.802	0.685	906.41	1	0.791	***3.575***
2023-08-31 10:31	1883707	7.885	-133.023	15.083	1103.948	1218.376	0.686	905.84	1	0.792	***3.119***
2023-08-31 10:46	1884607	8.067	-142.345	15.062	1099.366	1213.855	0.684	909.62	1	0.789	***3.499***
2023-08-31 11:01	1885507	7.962	-136.95	15.032	1098.74	1213.939	0.684	910.13	1	0.789	***4.143***
2023-08-31 11:16	1886407	7.932	-135.407	15.023	1099.283	1214.758	0.684	909.68	1	0.790	***4.590***
2023-08-31 11:31	1887307	7.924	-135.031	15.031	1100.379	1215.764	0.685	908.78	1	0.790	***4.870***
2023-08-31 11:46	1888207	8.073	-142.67	15.062	1095.962	1210.092	0.682	912.44	1	0.787	***4.878***
2023-08-31 12:01	1889107	7.946	-136.18	15.073	1099.372	1213.581	0.684	909.61	1	0.789	***4.915***
2023-08-31 12:16	1890007	7.961	-136.948	15.099	1100.242	1213.876	0.684	908.89	1	0.789	***5.443***
2023-08-31 12:31	1890907	7.964	-137.1	15.125	1101.062	1214.112	0.684	908.21	1	0.789	***5.630***
2023-08-31 12:46	1891807	8.130	-145.652	15.161	1094.675	1206.149	0.679	913.51	1	0.784	***5.644***
2023-08-31 13:01	1892707	7.985	-138.242	15.191	1095.754	1206.581	0.679	912.61	1	0.784	***5.383***
2023-08-31 13:16	1893607	7.981	-138.049	15.22	1095.955	1206.063	0.679	912.45	1	0.784	***5.912***
2023-08-31 13:31	1894507	7.976	-137.78	15.248	1097.795	1207.379	0.680	910.92	1	0.785	***6.299***
2023-08-31 13:46	1895407	8.087	-143.483	15.28	1086.298	1193.941	0.672	920.56	1	0.776	***6.217***
2023-08-31 14:01	1896307	7.909	-134.392	15.292	1095.086	1203.281	0.677	913.17	1	0.782	***5.727***
2023-08-31 14:16	1897207	7.895	-133.679	15.322	1095.982	1203.509	0.677	912.42	1	0.782	***5.958***
2023-08-31 14:31	1898107	7.902	-134.058	15.366	1097.139	1203.667	0.677	911.46	1	0.782	***6.235***
2023-08-31 14:46	1899007	8.061	-142.257	15.426	1091.34	1195.805	0.673	916.30	1	0.777	6.736
2023-08-31 15:01	1899907	7.959	-137	15.469	1093.88	1197.523	0.674	914.18	1	0.778	***6.409***
2023-08-31 15:16	1900807	7.957	-136.917	15.51	1095.046	1197.765	0.674	913.20	1	0.779	7.194
2023-08-31 15:31	1901707	7.971	-137.696	15.565	1095.874	1197.289	0.673	912.51	1	0.778	7.424
2023-08-31 15:46	1902607	8.093	-144.01	15.653	1091.043	1189.833	0.669	916.56	1	0.773	7.710
2023-08-31 16:01	1903507	7.986	-138.538	15.721	1093.018	1190.312	0.669	914.90	1	0.774	7.426
2023-08-31 16:16	1904407	8.007	-139.63	15.792	1094.839	1190.537	0.669	913.38	0.999	0.774	7.460
2023-08-31 16:31	1905307	8.004	-139.518	15.861	1097.152	1191.337	0.670	911.45	0.999	0.774	7.611
2023-08-31 16:46	1906207	8.119	-145.481	15.936	1099.788	1192.347	0.670	909.27	0.999	0.775	7.477
2023-08-31 17:01	1907107	8.021	-140.462	16.007	1104.805	1196.027	0.672	905.14	0.999	0.777	7.362
2023-08-31 17:16	1908007	8.008	-139.835	16.075	1108.999	1198.887	0.674	901.71	0.999	0.779	7.416
2023-08-31 17:31	1908907	8.020	-140.483	16.166	1112.55	1200.458	0.675	898.84	0.999	0.780	7.723
2023-08-31 17:46	1909807	8.156	-147.536	16.264	1115.693	1201.429	0.675	896.30	0.999	0.781	8.107
2023-08-31 18:01	1910707	8.036	-141.377	16.322	1118.401	1202.909	0.676	894.13	0.999	0.782	8.146
2023-08-31 18:16	1911607	7.991	-139.103	16.388	1122.737	1205.927	0.678	890.68	0.999	0.784	7.957
2023-08-31 18:31	1912507	7.984	-138.772	16.442	1126.332	1208.454	0.679	887.84	0.999	0.785	7.066
2023-08-31 18:46	1913407	8.147	-147.197	16.488	1129.819	1211.061	0.681	885.10	0.999	0.787	6.877
2023-08-31 19:01	1914307	8.066	-143.015	16.513	1131.035	1211.736	0.681	884.15	0.999	0.788	7.591

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-08-31 19:16	1915207	8.006	-139.959	16.536	1133.14	1213.431	0.682	882.50	0.999	0.789	7.529
2023-08-31 19:31	1916107	7.973	-138.247	16.56	1134.661	1214.454	0.683	881.32	0.999	0.789	7.098
2023-08-31 19:46	1917007	8.111	-145.38	16.583	1135.438	1214.718	0.683	880.72	0.999	0.790	7.017
2023-08-31 20:01	1917907	8.034	-141.413	16.595	1136.117	1215.136	0.683	880.19	0.999	0.790	7.357
2023-08-31 20:16	1918807	7.994	-139.344	16.609	1136.396	1215.093	0.683	879.98	0.999	0.790	7.261
2023-08-31 20:31	1919707	7.954	-137.324	16.615	1136.721	1215.29	0.683	879.72	0.999	0.790	7.245
2023-08-31 20:46	1920607	8.063	-142.92	16.62	1137.66	1216.18	0.684	879.00	0.999	0.791	6.950
2023-08-31 21:01	1921507	7.981	-138.679	16.621	1137.64	1216.126	0.683	879.01	0.999	0.790	6.864
2023-08-31 21:16	1922407	7.905	-134.778	16.594	1135.822	1214.847	0.683	880.42	0.999	0.790	6.672
2023-08-31 21:31	1923307	7.918	-135.415	16.551	1133.046	1212.955	0.682	882.58	0.999	0.788	7.237
2023-08-31 21:46	1924207	8.098	-144.66	16.522	1127.196	1207.392	0.678	887.16	0.999	0.785	7.383
2023-08-31 22:01	1925107	7.994	-139.291	16.501	1128.61	1209.431	0.680	886.05	0.999	0.786	7.329
2023-08-31 22:16	1926007	7.981	-138.645	16.487	1129.08	1210.279	0.680	885.68	0.999	0.787	7.355
2023-08-31 22:31	1926907	8.002	-139.713	16.442	1125.273	1207.329	0.679	888.67	0.999	0.785	7.298
2023-08-31 22:46	1927807	8.122	-145.817	16.372	1119.734	1203.096	0.676	893.07	0.999	0.782	7.663
2023-08-31 23:01	1928707	8.020	-140.557	16.287	1118.501	1203.889	0.677	894.05	0.999	0.783	7.537
2023-08-31 23:16	1929607	8.003	-139.685	16.263	1118.516	1204.494	0.677	894.04	0.999	0.783	7.490
2023-08-31 23:31	1930507	7.999	-139.425	16.245	1118.38	1204.786	0.677	894.15	0.999	0.783	7.477
2023-08-31 23:46	1931407	8.141	-146.735	16.219	1114.942	1201.734	0.675	896.91	0.999	0.781	7.100
2023-09-01 00:01	1932307	8.002	-139.539	16.145	1113.701	1202.232	0.676	897.91	0.999	0.781	7.355
2023-09-01 00:16	1933207	8.052	-142.097	16.09	1111.598	1201.305	0.675	899.61	0.999	0.781	7.550
2023-09-01 00:31	1934107	8.047	-141.809	16.036	1111.063	1202.081	0.676	900.04	0.999	0.781	7.138
2023-09-01 00:46	1935007	8.168	-147.989	15.957	1112.708	1205.833	0.678	898.71	0.999	0.784	7.468
2023-09-01 01:01	1935907	8.033	-141.053	15.903	1110.655	1204.941	0.678	900.37	0.999	0.783	7.290
2023-09-01 01:16	1936807	8.006	-139.642	15.862	1109.004	1204.173	0.677	901.71	0.999	0.783	7.078
2023-09-01 01:31	1937707	7.972	-137.868	15.817	1107.815	1204.008	0.677	902.68	0.999	0.783	7.121
2023-09-01 01:46	1938607	8.181	-148.597	15.786	1107.458	1204.405	0.677	902.97	1	0.783	6.936
2023-09-01 02:01	1939507	8.025	-140.553	15.741	1105.854	1203.778	0.677	904.28	1	0.782	6.974
2023-09-01 02:16	1940407	7.985	-138.44	15.678	1101.799	1200.948	0.676	907.61	1	0.781	6.825
2023-09-01 02:31	1941307	7.998	-139.11	15.626	1101.183	1201.557	0.676	908.11	1	0.781	6.833
2023-09-01 02:46	1942207	8.165	-147.641	15.578	1101.392	1202.988	0.677	907.94	1	0.782	6.545
2023-09-01 03:01	1943107	8.026	-140.51	15.531	1100.083	1202.738	0.677	909.02	1	0.782	6.597
2023-09-01 03:16	1944007	8.019	-140.107	15.483	1097.216	1200.826	0.676	911.40	1	0.781	***6.184***
2023-09-01 03:31	1944907	7.998	-139.012	15.431	1095.537	1200.29	0.675	912.79	1	0.780	***6.405***
2023-09-01 03:46	1945807	8.161	-147.362	15.38	1094.98	1200.952	0.676	913.26	1	0.781	6.527
2023-09-01 04:01	1946707	8.044	-141.301	15.319	1093.734	1201.124	0.676	914.30	1	0.781	6.698
2023-09-01 04:16	1947607	8.040	-141.053	15.265	1094.299	1203.108	0.677	913.83	1	0.782	6.701
2023-09-01 04:31	1948507	8.023	-140.152	15.207	1094.002	1204.245	0.678	914.08	1	0.783	6.662
2023-09-01 04:46	1949407	8.172	-147.781	15.147	1094.867	1206.723	0.679	913.35	1	0.784	6.601
2023-09-01 05:01	1950307	8.037	-140.827	15.089	1094.73	1208.04	0.680	913.47	1	0.785	***6.412***
2023-09-01 05:16	1951207	8.042	-141.077	15.033	1093.686	1208.309	0.681	914.34	1	0.785	***6.310***
2023-09-01 05:31	1952107	8.045	-141.187	14.966	1093.375	1209.682	0.681	914.60	1	0.786	***6.470***
2023-09-01 05:46	1953007	8.195	-148.861	14.899	1092.701	1210.65	0.682	915.16	1	0.787	***6.409***
2023-09-01 06:01	1953907	8.055	-141.637	14.834	1092.929	1212.571	0.683	914.97	1	0.788	***6.396***
2023-09-01 06:16	1954807	8.034	-140.541	14.772	1091.754	1212.872	0.683	915.96	1	0.788	***6.420***
2023-09-01 06:31	1955707	8.026	-140.107	14.713	1092.014	1214.681	0.685	915.74	1	0.790	***6.466***
2023-09-01 06:46	1956607	8.160	-146.914	14.638	1090.4	1214.803	0.685	917.09	1	0.790	***6.452***
2023-09-01 07:01	1957507	8.038	-140.641	14.57	1087.966	1213.863	0.684	919.15	1	0.789	6.517
2023-09-01 07:16	1958407	8.026	-139.987	14.522	1087.769	1214.875	0.685	919.31	1	0.790	***6.365***
2023-09-01 07:31	1959307	7.988	-138.032	14.485	1087.624	1215.681	0.685	919.44	1	0.790	***6.254***
2023-09-01 07:46	1960207	8.095	-143.509	14.457	1086.507	1215.149	0.685	920.38	1	0.790	***6.300***
2023-09-01 08:01	1961107	7.974	-137.291	14.404	1082.552	1212.109	0.683	923.74	1	0.788	***6.261***
2023-09-01 08:16	1962007	7.972	-137.162	14.36	1081.983	1212.61	0.684	924.23	1	0.788	***6.406***
2023-09-01 08:31	1962907	7.981	-137.613	14.333	1082.333	1213.693	0.684	923.93	1	0.789	***6.136***
2023-09-01 08:46	1963807	8.132	-145.34	14.314	1081.92	1213.725	0.684	924.28	1	0.789	***5.827***
2023-09-01 09:01	1964707	8.020	-139.589	14.301	1081.269	1213.347	0.684	924.84	1	0.789	***6.192***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-01 09:16	1965607	8.022	-139.689	14.296	1081.592	1213.845	0.684	924.56	1	0.789	***5.844***
2023-09-01 09:31	1966507	8.016	-139.375	14.296	1081.567	1213.803	0.684	924.59	1	0.789	***5.554***
2023-09-01 09:46	1967407	8.148	-146.139	14.307	1081.759	1213.748	0.684	924.42	1	0.789	***5.511***
2023-09-01 10:01	1968307	8.020	-139.611	14.308	1081.673	1213.615	0.684	924.49	1	0.789	***5.781***
2023-09-01 10:16	1969207	7.993	-138.197	14.315	1081.909	1213.688	0.684	924.29	1	0.789	***5.759***
2023-09-01 10:31	1970107	7.979	-137.486	14.328	1082.437	1213.952	0.685	923.84	1	0.789	***5.573***
2023-09-01 10:46	1971007	8.118	-144.596	14.346	1083.558	1214.748	0.685	922.89	1	0.790	***5.395***
2023-09-01 11:01	1971907	7.994	-138.278	14.359	1083.747	1214.617	0.685	922.72	1	0.790	***5.365***
2023-09-01 11:16	1972807	7.970	-137.064	14.385	1084.475	1214.759	0.685	922.11	1	0.790	***5.531***
2023-09-01 11:31	1973707	7.963	-136.728	14.414	1085.332	1214.955	0.685	921.38	1	0.790	***5.654***
2023-09-01 11:46	1974607	8.078	-142.634	14.462	1086.262	1214.744	0.685	920.59	1	0.790	***5.793***
2023-09-01 12:01	1975507	7.946	-135.872	14.491	1086.533	1214.316	0.685	920.36	1	0.789	***5.639***
2023-09-01 12:16	1976407	7.908	-133.977	14.526	1087.391	1214.345	0.685	919.63	1	0.789	***5.478***
2023-09-01 12:31	1977307	7.914	-134.282	14.569	1088.329	1214.283	0.684	918.84	1	0.789	***5.751***
2023-09-01 12:46	1978207	8.052	-141.394	14.614	1089.351	1214.265	0.684	917.98	1	0.789	***5.860***
2023-09-01 13:01	1979107	7.972	-137.284	14.638	1089.38	1213.679	0.684	917.95	1	0.789	***6.266***
2023-09-01 13:16	1980007	7.956	-136.483	14.654	1090.613	1214.629	0.685	916.92	1	0.790	6.708
2023-09-01 13:31	1980907	7.962	-136.771	14.673	1091.398	1215.022	0.685	916.26	1	0.790	6.826
2023-09-01 13:46	1981807	8.112	-144.472	14.703	1091.817	1214.725	0.685	915.91	1	0.790	6.739
2023-09-01 14:01	1982707	8.003	-138.927	14.732	1092.651	1214.888	0.685	915.21	1	0.790	6.547
2023-09-01 14:16	1983607	8.005	-139.046	14.788	1093.38	1214.263	0.684	914.60	1	0.789	7.161
2023-09-01 14:31	1984507	8.014	-139.544	14.874	1094.518	1213.301	0.684	913.64	1	0.789	7.208
2023-09-01 14:46	1985407	8.193	-148.811	14.994	1092.317	1207.798	0.680	915.49	1	0.785	7.451
2023-09-01 15:01	1986307	8.073	-142.686	15.083	1093.342	1206.667	0.679	914.63	1	0.784	7.608
2023-09-01 15:16	1987207	8.066	-142.365	15.168	1095.43	1206.802	0.679	912.88	1	0.784	7.831
2023-09-01 15:31	1988107	8.067	-142.434	15.226	1096.522	1206.536	0.679	911.97	1	0.784	8.038
2023-09-01 15:46	1989007	8.191	-148.83	15.276	1091.894	1200.178	0.675	915.84	1	0.780	7.883
2023-09-01 16:01	1989907	8.077	-142.987	15.311	1095.057	1202.771	0.677	913.19	1	0.782	7.823
2023-09-01 16:16	1990807	8.067	-142.522	15.341	1095.52	1202.523	0.677	912.81	1	0.782	7.997
2023-09-01 16:31	1991707	8.049	-141.59	15.356	1095.216	1201.824	0.676	913.06	1	0.781	7.928
2023-09-01 16:46	1992607	8.211	-149.908	15.393	1090.953	1196.204	0.673	916.63	1	0.778	7.810
2023-09-01 17:01	1993507	8.095	-143.981	15.455	1091.55	1195.308	0.672	916.13	1	0.777	8.067
2023-09-01 17:16	1994407	8.106	-144.596	15.513	1092.993	1195.454	0.672	914.92	1	0.777	8.303
2023-09-01 17:31	1995307	8.096	-144.086	15.544	1092.961	1194.625	0.672	914.95	1	0.777	8.373
2023-09-01 17:46	1996207	8.241	-151.577	15.613	1090.747	1190.511	0.669	916.80	1	0.774	8.251
2023-09-01 18:01	1997107	8.117	-145.266	15.696	1092.162	1189.987	0.669	915.62	1	0.773	8.183
2023-09-01 18:16	1998007	8.124	-145.648	15.817	1094.458	1189.484	0.669	913.69	0.999	0.773	8.580
2023-09-01 18:31	1998907	8.132	-146.096	15.891	1096.702	1190.114	0.669	911.82	0.999	0.774	8.761
2023-09-01 18:46	1999807	8.287	-154.095	15.943	1097.376	1189.556	0.669	911.27	0.999	0.773	8.648
2023-09-01 19:01	2000707	8.137	-146.43	15.969	1098.675	1190.318	0.669	910.19	0.999	0.774	8.474
2023-09-01 19:16	2001607	8.020	-140.357	15.863	1099.654	1193.99	0.671	909.38	0.999	0.776	6.816
2023-09-01 19:31	2002507	8.058	-142.307	15.859	1097.173	1191.404	0.670	911.43	0.999	0.774	7.772
2023-09-01 19:46	2003407	8.229	-151.081	15.892	1095.892	1189.199	0.668	912.50	0.999	0.773	7.948
2023-09-01 20:01	2004307	8.100	-144.508	15.924	1096.749	1189.336	0.668	911.79	0.999	0.773	7.959
2023-09-01 20:16	2005207	8.106	-144.827	15.972	1095.505	1186.807	0.667	912.82	0.999	0.771	7.955
2023-09-01 20:31	2006107	8.097	-144.391	16.021	1097.336	1187.583	0.667	911.30	0.999	0.772	7.920
2023-09-01 20:46	2007007	8.283	-153.978	16.068	1104.513	1194.187	0.671	905.38	0.999	0.776	7.767
2023-09-01 21:01	2007907	8.136	-146.406	16.096	1112.058	1201.671	0.676	899.23	0.999	0.781	7.819
2023-09-01 21:16	2008807	8.157	-147.474	16.068	1115.893	1206.506	0.678	896.14	0.999	0.784	7.662
2023-09-01 21:31	2009707	8.085	-143.762	15.984	1110.378	1202.63	0.676	900.59	0.999	0.782	7.881
2023-09-01 21:46	2010607	8.211	-150.218	15.951	1106.927	1199.696	0.675	903.40	0.999	0.780	7.805
2023-09-01 22:01	2011507	8.064	-142.653	15.948	1108.127	1201.082	0.675	902.42	0.999	0.781	7.363
2023-09-01 22:16	2012407	8.084	-143.654	15.943	1109.128	1202.287	0.676	901.61	0.999	0.781	7.046
2023-09-01 22:31	2013307	8.011	-139.914	15.942	1110.997	1204.339	0.677	900.09	0.999	0.783	6.695
2023-09-01 22:46	2014207	8.188	-148.995	15.938	1110.664	1204.08	0.677	900.36	0.999	0.783	6.714
2023-09-01 23:01	2015107	8.064	-142.643	15.928	1110.502	1204.16	0.677	900.49	0.999	0.783	6.547

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-01 23:16	2016007	8.014	-140.033	15.91	1110.512	1204.61	0.677	900.49	0.999	0.783	***6.403***
2023-09-01 23:31	2016907	7.980	-138.316	15.899	1111.355	1205.815	0.678	899.80	0.999	0.784	***6.335***
2023-09-01 23:46	2017807	8.136	-146.337	15.894	1111.599	1206.189	0.678	899.61	0.999	0.784	***5.707***
2023-09-02 00:01	2018707	8.017	-140.2	15.881	1113.025	1208.073	0.680	898.45	0.999	0.785	***5.811***
2023-09-02 00:16	2019607	8.005	-139.585	15.869	1112.964	1208.296	0.680	898.50	0.999	0.785	***5.662***
2023-09-02 00:31	2020507	7.991	-138.86	15.858	1113.566	1209.24	0.680	898.02	0.999	0.786	***5.475***
2023-09-02 00:46	2021407	8.126	-145.791	15.845	1111.016	1206.795	0.679	900.08	0.999	0.784	***5.423***
2023-09-02 01:01	2022307	7.990	-138.762	15.833	1111.048	1207.124	0.679	900.05	0.999	0.785	***5.357***
2023-09-02 01:16	2023207	7.963	-137.403	15.823	1111.325	1207.664	0.679	899.83	0.999	0.785	***5.285***
2023-09-02 01:31	2024107	7.933	-135.839	15.816	1112.398	1209.019	0.680	898.96	1	0.786	***4.919***
2023-09-02 01:46	2025007	8.077	-143.263	15.808	1110.424	1207.08	0.679	900.56	1	0.785	***4.231***
2023-09-02 02:01	2025907	7.966	-137.513	15.794	1114.993	1212.379	0.682	896.87	1	0.788	***4.638***
2023-09-02 02:16	2026807	8.005	-139.534	15.783	1119.472	1217.537	0.685	893.28	1	0.791	***5.463***
2023-09-02 02:31	2027707	8.012	-139.863	15.76	1119.632	1218.29	0.686	893.15	1	0.792	***5.781***
2023-09-02 02:46	2028607	8.199	-149.488	15.736	1116.389	1215.371	0.684	895.75	1	0.790	***5.908***
2023-09-02 03:01	2029507	8.051	-141.835	15.708	1117.359	1217.148	0.685	894.97	1	0.791	***5.673***
2023-09-02 03:16	2030407	8.124	-145.595	15.669	1116.027	1216.661	0.685	896.04	1	0.791	***6.252***
2023-09-02 03:31	2031307	8.092	-143.943	15.62	1116.256	1218.166	0.686	895.85	1	0.792	***6.272***
2023-09-02 03:46	2032207	8.249	-151.973	15.604	1114.542	1216.712	0.685	897.23	1	0.791	***6.043***
2023-09-02 04:01	2033107	8.077	-143.149	15.582	1115.211	1217.98	0.686	896.69	1	0.792	***5.930***
2023-09-02 04:16	2034007	8.053	-141.895	15.563	1115.057	1218.293	0.686	896.82	1	0.792	***5.787***
2023-09-02 04:31	2034907	8.035	-140.972	15.543	1114.425	1218.133	0.686	897.32	1	0.792	***5.691***
2023-09-02 04:46	2035807	8.176	-148.172	15.516	1112.83	1217.063	0.685	898.61	1	0.791	***5.288***
2023-09-02 05:01	2036707	8.035	-140.944	15.479	1111.047	1216.051	0.685	900.05	1	0.790	***5.284***
2023-09-02 05:16	2037607	8.022	-140.224	15.448	1110.843	1216.628	0.685	900.22	1	0.791	***5.491***
2023-09-02 05:31	2038507	8.006	-139.408	15.421	1110.005	1216.383	0.685	900.90	1	0.791	***5.340***
2023-09-02 05:46	2039407	8.137	-146.143	15.399	1107.245	1213.935	0.683	903.14	1	0.789	***5.235***
2023-09-02 06:01	2040307	8.005	-139.32	15.367	1107.131	1214.62	0.684	903.24	1	0.790	***4.917***
2023-09-02 06:16	2041207	7.993	-138.717	15.335	1106.833	1215.104	0.684	903.48	1	0.790	***4.850***
2023-09-02 06:31	2042107	7.977	-137.839	15.291	1106.094	1215.421	0.684	904.08	1	0.790	***4.763***
2023-09-02 06:46	2043007	8.150	-146.72	15.255	1103.984	1214.006	0.684	905.81	1	0.789	***4.972***
2023-09-02 07:01	2043907	8.009	-139.465	15.224	1103.475	1214.229	0.684	906.23	1	0.789	***4.382***
2023-09-02 07:16	2044807	7.949	-136.397	15.197	1104.02	1215.519	0.685	905.78	1	0.790	***4.319***
2023-09-02 07:31	2045707	7.945	-136.158	15.149	1103.013	1215.64	0.685	906.61	1	0.790	***4.222***
2023-09-02 07:46	2046607	8.082	-143.175	15.122	1099.624	1212.612	0.683	909.40	1	0.788	***4.058***
2023-09-02 08:01	2047507	7.949	-136.316	15.087	1099.597	1213.467	0.683	909.42	1	0.789	***3.734***
2023-09-02 08:16	2048407	7.930	-135.36	15.058	1099.207	1213.768	0.684	909.75	1	0.789	***3.483***
2023-09-02 08:31	2049307	7.920	-134.83	15.036	1099.196	1214.34	0.684	909.76	1	0.789	***3.369***
2023-09-02 08:46	2050207	8.081	-143.037	15.014	1094.443	1209.644	0.681	913.71	1	0.786	***3.518***
2023-09-02 09:01	2051107	7.952	-136.416	14.984	1094.408	1210.371	0.682	913.74	1	0.787	***3.744***
2023-09-02 09:16	2052007	7.939	-135.765	14.955	1094.722	1211.457	0.682	913.47	1	0.787	***3.710***
2023-09-02 09:31	2052907	7.930	-135.295	14.92	1094.61	1212.225	0.683	913.57	1	0.788	***3.401***
2023-09-02 09:46	2053807	8.092	-143.547	14.888	1081.087	1198.054	0.675	925.00	1	0.779	***3.393***
2023-09-02 10:01	2054707	7.960	-136.766	14.861	1087.502	1205.873	0.679	919.54	1	0.784	***3.564***
2023-09-02 10:16	2055607	7.953	-136.399	14.846	1087.812	1206.598	0.680	919.28	1	0.784	***3.676***
2023-09-02 10:31	2056507	7.954	-136.485	14.84	1087.827	1206.758	0.680	919.26	1	0.784	***4.030***
2023-09-02 10:46	2057407	8.131	-145.54	14.842	1080.316	1198.375	0.675	925.66	1	0.779	***4.137***
2023-09-02 11:01	2058307	7.982	-137.897	14.835	1080.148	1198.379	0.675	925.80	1	0.779	***4.286***
2023-09-02 11:16	2059207	7.953	-136.416	14.836	1081.077	1199.369	0.675	925.00	1	0.780	***4.654***
2023-09-02 11:31	2060107	7.947	-136.099	14.843	1081.285	1199.433	0.675	924.83	1	0.780	***4.982***
2023-09-02 11:46	2061007	8.120	-144.999	14.857	1062.961	1178.739	0.663	940.77	1	0.766	***5.275***
2023-09-02 12:01	2061907	7.999	-138.76	14.866	1072.396	1188.978	0.669	932.49	1	0.773	***5.113***
2023-09-02 12:16	2062807	7.982	-137.899	14.873	1073.568	1190.12	0.670	931.47	1	0.774	***5.090***
2023-09-02 12:31	2063707	7.972	-137.393	14.878	1072.02	1188.274	0.669	932.82	1	0.772	***5.237***
2023-09-02 12:46	2064607	8.182	-148.158	14.894	1060.357	1174.934	0.661	943.08	1	0.764	***5.380***
2023-09-02 13:01	2065507	8.023	-140.038	14.906	1064.217	1178.922	0.663	939.66	1	0.766	***5.340***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-02 13:16	2066407	8.013	-139.534	14.925	1064.572	1178.833	0.663	939.35	1	0.766	***5.924***
2023-09-02 13:31	2067307	8.026	-140.228	14.947	1065.307	1179.112	0.663	938.70	1	0.766	***6.133***
2023-09-02 13:46	2068207	8.182	-148.23	14.97	1053.419	1165.37	0.655	949.29	1	0.757	***6.234***
2023-09-02 14:01	2069107	8.036	-140.76	14.986	1059.347	1171.53	0.659	943.98	1	0.761	***5.990***
2023-09-02 14:16	2070007	8.053	-141.609	15.01	1060.101	1171.785	0.659	943.31	1	0.762	***6.362***
2023-09-02 14:31	2070907	8.060	-141.997	15.047	1060.254	1171.043	0.659	943.17	1	0.761	6.630
2023-09-02 14:46	2071807	8.266	-152.578	15.093	1058.18	1167.606	0.657	945.02	1	0.759	6.695
2023-09-02 15:01	2072707	8.111	-144.639	15.119	1061.487	1170.617	0.658	942.07	1	0.761	6.595
2023-09-02 15:16	2073607	8.117	-144.944	15.142	1062.629	1171.315	0.659	941.06	1	0.761	6.982
2023-09-02 15:31	2074508	8.116	-144.925	15.165	1064.067	1172.322	0.659	939.79	1	0.762	7.183
2023-09-02 15:46	2075408	8.264	-152.519	15.187	1065.734	1173.625	0.660	938.32	1	0.763	7.146
2023-09-02 16:01	2076308	8.146	-146.508	15.201	1067.202	1174.891	0.661	937.03	1	0.764	7.029
2023-09-02 16:16	2077208	8.151	-146.73	15.225	1068.338	1175.559	0.661	936.03	1	0.764	7.149
2023-09-02 16:31	2078108	8.154	-146.942	15.251	1069.518	1176.2	0.661	935.00	1	0.765	7.480
2023-09-02 16:46	2079008	8.329	-155.942	15.297	1069.166	1174.681	0.660	935.31	1	0.764	7.479
2023-09-02 17:01	2079908	8.159	-147.197	15.339	1069.998	1174.567	0.660	934.58	1	0.763	7.582
2023-09-02 17:16	2080808	8.152	-146.887	15.379	1070.6	1174.246	0.660	934.06	1	0.763	7.837
2023-09-02 17:31	2081708	8.140	-146.279	15.416	1071.335	1174.14	0.660	933.42	1	0.763	7.844
2023-09-02 17:46	2082608	8.310	-155.06	15.477	1070.506	1171.722	0.659	934.14	1	0.762	7.901
2023-09-02 18:01	2083508	8.154	-147.047	15.522	1071.518	1171.73	0.659	933.26	1	0.762	7.871
2023-09-02 18:16	2084408	8.145	-146.632	15.578	1072.349	1171.276	0.658	932.53	1	0.761	8.045
2023-09-02 18:31	2085308	8.146	-146.697	15.646	1074.101	1171.539	0.658	931.01	1	0.762	8.114
2023-09-02 18:46	2086208	8.328	-156.071	15.708	1072.164	1167.91	0.656	932.69	0.999	0.759	8.064
2023-09-02 19:01	2087108	8.173	-148.129	15.752	1072.855	1167.598	0.656	932.09	0.999	0.759	8.059
2023-09-02 19:16	2088008	8.150	-147.011	15.801	1073.476	1167.087	0.656	931.55	0.999	0.759	8.116
2023-09-02 19:31	2088908	8.146	-146.794	15.833	1074.922	1167.875	0.656	930.30	0.999	0.759	8.315
2023-09-02 19:46	2089808	8.270	-153.22	15.868	1069.766	1161.432	0.652	934.78	0.999	0.755	8.252
2023-09-02 20:01	2090708	8.124	-145.698	15.876	1072.613	1164.317	0.654	932.30	0.999	0.757	8.043
2023-09-02 20:16	2091608	7.999	-139.263	15.86	1084.199	1177.298	0.661	922.34	0.999	0.765	***6.145***
2023-09-02 20:31	2092508	8.124	-145.65	15.821	1086.51	1180.759	0.664	920.38	0.999	0.767	7.247
2023-09-02 20:46	2093408	8.306	-155.025	15.799	1082.738	1177.188	0.661	923.59	0.999	0.765	7.814
2023-09-02 21:01	2094308	8.125	-145.705	15.778	1082.985	1177.985	0.662	923.37	0.999	0.766	7.572
2023-09-02 21:16	2095208	8.090	-143.881	15.773	1082.947	1178.062	0.662	923.41	0.999	0.766	7.719
2023-09-02 21:31	2096108	8.063	-142.522	15.764	1083.887	1179.295	0.663	922.61	0.999	0.767	7.630
2023-09-02 21:46	2097008	8.184	-148.74	15.752	1080.41	1175.804	0.661	925.58	0.999	0.764	7.045
2023-09-02 22:01	2097908	8.078	-143.278	15.729	1081.105	1177.127	0.661	924.98	0.999	0.765	6.958
2023-09-02 22:16	2098808	8.060	-142.303	15.707	1081.302	1177.879	0.662	924.81	1	0.766	7.010
2023-09-02 22:31	2099708	8.067	-142.655	15.648	1079.537	1177.406	0.662	926.32	1	0.765	6.635
2023-09-02 22:46	2100608	8.254	-152.242	15.598	1068.366	1166.436	0.655	936.01	1	0.758	6.772
2023-09-02 23:01	2101508	8.094	-144.017	15.571	1069.771	1168.625	0.657	934.78	1	0.760	6.780
2023-09-02 23:16	2102408	8.063	-142.372	15.543	1070.731	1170.351	0.658	933.94	1	0.761	6.899
2023-09-02 23:31	2103308	8.055	-141.945	15.505	1072.739	1173.48	0.660	932.19	1	0.763	6.886
2023-09-02 23:46	2104208	8.193	-149.016	15.478	1063.172	1163.676	0.654	940.58	1	0.756	6.680
2023-09-03 00:01	2105108	8.071	-142.741	15.455	1070.046	1171.765	0.659	934.54	1	0.762	***6.122***
2023-09-03 00:16	2106008	8.049	-141.647	15.433	1070.771	1173.108	0.659	933.91	1	0.763	***6.024***
2023-09-03 00:31	2106908	8.046	-141.463	15.417	1071.014	1173.75	0.660	933.70	1	0.763	***6.007***
2023-09-03 00:46	2107808	8.195	-149.078	15.399	1068.095	1170.99	0.658	936.25	1	0.761	***5.805***
2023-09-03 01:01	2108708	8.026	-140.417	15.379	1068.748	1172.198	0.659	935.68	1	0.762	***5.141***
2023-09-03 01:16	2109608	7.989	-138.495	15.359	1070.049	1174.121	0.660	934.54	1	0.763	***5.077***
2023-09-03 01:31	2110508	7.969	-137.46	15.344	1069.96	1174.398	0.660	934.61	1	0.763	***5.181***
2023-09-03 01:46	2111408	8.107	-144.532	15.328	1065.749	1170.179	0.658	938.31	1	0.761	***5.114***
2023-09-03 02:01	2112308	7.997	-138.898	15.302	1067.128	1172.321	0.659	937.10	1	0.762	***4.770***
2023-09-03 02:16	2113208	7.990	-138.509	15.277	1067.105	1172.916	0.659	937.12	1	0.762	***4.822***
2023-09-03 02:31	2114108	7.984	-138.199	15.266	1067.505	1173.635	0.660	936.76	1	0.763	***4.756***
2023-09-03 02:46	2115008	8.138	-146.098	15.254	1064.706	1170.852	0.658	939.23	1	0.761	***4.380***
2023-09-03 03:01	2115908	7.989	-138.435	15.233	1064.685	1171.341	0.659	939.25	1	0.761	***4.230***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-03 03:16	2116808	7.975	-137.73	15.204	1065.772	1173.246	0.660	938.29	1	0.763	***4.005***
2023-09-03 03:31	2117708	7.959	-136.883	15.176	1065.982	1174.162	0.660	938.10	1	0.763	***3.927***
2023-09-03 03:46	2118608	8.105	-144.331	15.153	1057.635	1165.538	0.655	945.51	1	0.758	***3.924***
2023-09-03 04:01	2119508	7.977	-137.794	15.136	1058.879	1167.336	0.656	944.40	1	0.759	***4.131***
2023-09-03 04:16	2120408	7.980	-137.911	15.121	1061.141	1170.19	0.658	942.38	1	0.761	***4.049***
2023-09-03 04:31	2121308	7.960	-136.907	15.104	1043.076	1150.675	0.647	958.70	1	0.748	***3.878***
2023-09-03 04:46	2122208	8.105	-144.317	15.075	1052.589	1161.882	0.653	950.04	1	0.755	***3.738***
2023-09-03 05:01	2123108	7.975	-137.651	15.022	1052.709	1163.312	0.654	949.93	1	0.756	***4.464***
2023-09-03 05:16	2124008	7.964	-137.062	15.019	1054.264	1165.115	0.655	948.53	1	0.757	***4.895***
2023-09-03 05:31	2124908	7.955	-136.576	15.016	1056.053	1167.162	0.656	946.92	1	0.759	***4.845***
2023-09-03 05:46	2125808	8.100	-144.024	15.011	1048.287	1158.706	0.651	953.94	1	0.753	***4.556***
2023-09-03 06:01	2126708	7.972	-137.455	14.994	1052.756	1164.066	0.655	949.89	1	0.757	***4.440***
2023-09-03 06:16	2127608	7.969	-137.277	14.975	1053.191	1165.003	0.655	949.50	1	0.757	***4.421***
2023-09-03 06:31	2128508	7.956	-136.64	14.942	1053.795	1166.49	0.656	948.95	1	0.758	***4.812***
2023-09-03 06:46	2129408	8.150	-146.53	14.894	1043.286	1156.03	0.650	958.51	1	0.751	***5.172***
2023-09-03 07:01	2130308	8.017	-139.694	14.87	1044.251	1157.678	0.651	957.62	1	0.752	***5.142***
2023-09-03 07:16	2131208	7.994	-138.505	14.851	1045.795	1159.872	0.652	956.21	1	0.754	***5.017***
2023-09-03 07:31	2132108	7.979	-137.737	14.829	1047.591	1162.387	0.654	954.57	1	0.756	***4.765***
2023-09-03 07:46	2133008	8.113	-144.567	14.806	1038.186	1152.517	0.648	963.22	1	0.749	***4.549***
2023-09-03 08:01	2133908	7.985	-138.025	14.771	1044.128	1159.985	0.652	957.74	1	0.754	***4.446***
2023-09-03 08:16	2134808	7.981	-137.796	14.724	1044.329	1161.372	0.653	957.55	1	0.755	***3.920***
2023-09-03 08:31	2135708	7.966	-136.979	14.681	1044.155	1162.221	0.654	957.71	1	0.755	***3.936***
2023-09-03 08:46	2136608	8.136	-145.698	14.651	1035.647	1153.505	0.649	965.58	1	0.750	***3.530***
2023-09-03 09:01	2137508	7.975	-137.415	14.628	1037.476	1156.11	0.650	963.88	1	0.751	***3.901***
2023-09-03 09:16	2138408	7.961	-136.726	14.62	1038.7	1157.666	0.651	962.74	1	0.752	***4.103***
2023-09-03 09:31	2139308	7.958	-136.554	14.618	1039.48	1158.572	0.652	962.02	1	0.753	***4.414***
2023-09-03 09:46	2140208	8.118	-144.734	14.618	1026.299	1143.89	0.643	974.38	1	0.744	***4.638***
2023-09-03 10:01	2141108	7.981	-137.722	14.619	1034.206	1152.682	0.648	966.93	1	0.749	***4.488***
2023-09-03 10:16	2142008	7.983	-137.837	14.624	1035.014	1153.463	0.649	966.17	1	0.750	***4.286***
2023-09-03 10:31	2142908	7.972	-137.281	14.634	1036.992	1155.402	0.650	964.33	1	0.751	***4.028***
2023-09-03 10:46	2143808	8.224	-150.206	14.65	1030.258	1147.506	0.645	970.63	1	0.746	***3.215***
2023-09-03 11:01	2144708	8.024	-139.978	14.654	1030.841	1148.079	0.645	970.08	1	0.746	***4.769***
2023-09-03 11:16	2145608	7.974	-137.382	14.649	1032.876	1150.452	0.647	968.17	1	0.748	***5.316***
2023-09-03 11:31	2146508	7.994	-138.416	14.632	1033.763	1151.862	0.648	967.34	1	0.749	***4.740***
2023-09-03 11:46	2147408	8.132	-145.488	14.607	1024.567	1142.214	0.642	976.02	1	0.742	***4.866***
2023-09-03 12:01	2148308	8.017	-139.57	14.588	1028.969	1147.584	0.645	971.85	1	0.746	***5.216***
2023-09-03 12:16	2149208	8.004	-138.915	14.573	1028.35	1147.269	0.645	972.43	1	0.746	***4.589***
2023-09-03 12:31	2150108	7.998	-138.607	14.568	1029.521	1148.705	0.646	971.33	1	0.747	***4.613***
2023-09-03 12:46	2151008	8.158	-146.778	14.562	1024.934	1143.729	0.643	975.67	1	0.743	***4.533***
2023-09-03 13:01	2151908	8.020	-139.725	14.561	1025.487	1144.378	0.643	975.15	1	0.744	***5.287***
2023-09-03 13:16	2152808	7.991	-138.211	14.573	1027.825	1146.693	0.645	972.93	1	0.745	***5.623***
2023-09-03 13:31	2153708	7.962	-136.762	14.583	1028.722	1147.45	0.645	972.08	1	0.746	***5.760***
2023-09-03 13:46	2154608	8.110	-144.341	14.594	1019.378	1136.753	0.639	980.99	1	0.739	***5.781***
2023-09-03 14:01	2155508	8.023	-139.868	14.604	1023.981	1141.649	0.642	976.58	1	0.742	***6.037***
2023-09-03 14:16	2156408	8.021	-139.79	14.624	1025.231	1142.542	0.642	975.39	1	0.743	***6.404***
2023-09-03 14:31	2157308	8.046	-141.106	14.653	1025.916	1142.601	0.642	974.74	1	0.743	6.684
2023-09-03 14:46	2158208	8.254	-151.768	14.698	1021.206	1136.267	0.639	979.23	1	0.739	6.780
2023-09-03 15:01	2159108	8.107	-144.246	14.736	1022.483	1136.786	0.639	978.01	1	0.739	6.932
2023-09-03 15:16	2160008	8.096	-143.709	14.762	1024.012	1137.841	0.639	976.55	1	0.740	7.055
2023-09-03 15:31	2160908	8.038	-140.731	14.775	1026.518	1140.321	0.641	974.17	1	0.741	6.517
2023-09-03 15:46	2161808	8.177	-147.853	14.796	1024.131	1137.165	0.639	976.44	1	0.739	6.620
2023-09-03 16:01	2162708	8.091	-143.452	14.816	1026.445	1139.239	0.640	974.24	1	0.741	6.977
2023-09-03 16:16	2163608	8.089	-143.404	14.854	1027.552	1139.556	0.640	973.19	1	0.741	7.083
2023-09-03 16:31	2164508	8.107	-144.312	14.912	1028.115	1138.793	0.640	972.65	1	0.740	7.078
2023-09-03 16:46	2165408	8.299	-154.235	14.999	1027.142	1135.615	0.638	973.58	1	0.738	6.992
2023-09-03 17:01	2166308	8.140	-146.117	15.068	1028.882	1135.885	0.638	971.93	1	0.738	7.300

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-03 17:16	2167208	8.223	-150.392	15.112	1068.545	1178.57	0.663	935.85	1	0.766	7.237
2023-09-03 17:31	2168108	8.203	-149.348	15.103	1070.609	1181.07	0.664	934.05	1	0.768	8.135
2023-09-03 17:46	2169008	8.338	-156.257	15.106	1063.844	1173.543	0.660	939.99	1	0.763	8.352
2023-09-03 18:01	2169908	8.198	-149.112	15.117	1067.695	1177.521	0.662	936.60	1	0.765	8.244
2023-09-03 18:16	2170808	8.164	-147.395	15.13	1068.262	1177.832	0.662	936.10	1	0.766	8.290
2023-09-03 18:31	2171708	8.151	-146.704	15.143	1068.503	1177.767	0.662	935.89	1	0.766	8.107
2023-09-03 18:46	2172608	8.314	-155.065	15.154	1068.574	1177.565	0.662	935.83	1	0.765	7.637
2023-09-03 19:01	2173508	8.167	-147.521	15.163	1068.266	1177.011	0.662	936.10	1	0.765	7.576
2023-09-03 19:16	2174408	8.121	-145.185	15.164	1068.982	1177.77	0.662	935.47	1	0.766	7.421
2023-09-03 19:31	2175308	8.104	-144.31	15.162	1070.314	1179.298	0.663	934.31	1	0.767	7.397
2023-09-03 19:46	2176208	8.244	-151.479	15.161	1068.407	1177.208	0.662	935.97	1	0.765	7.549
2023-09-03 20:01	2177108	8.145	-146.425	15.153	1068.96	1178.016	0.663	935.49	1	0.766	7.270
2023-09-03 20:16	2178008	8.118	-145.018	15.15	1069.111	1178.257	0.663	935.36	1	0.766	7.149
2023-09-03 20:31	2178908	8.078	-142.949	15.15	1069.273	1178.437	0.663	935.21	1	0.766	6.983
2023-09-03 20:46	2179808	8.235	-151.031	15.147	1068.67	1177.857	0.662	935.74	1	0.766	6.933
2023-09-03 21:01	2180708	8.104	-144.312	15.136	1068.612	1178.06	0.663	935.79	1	0.766	6.839
2023-09-03 21:16	2181608	8.090	-143.604	15.136	1068.698	1178.15	0.663	935.72	1	0.766	6.948
2023-09-03 21:31	2182508	8.084	-143.254	15.14	1068.287	1177.59	0.662	936.08	1	0.765	7.295
2023-09-03 21:46	2183408	8.247	-151.625	15.152	1061.109	1169.381	0.658	942.41	1	0.760	7.530
2023-09-03 22:01	2184308	8.114	-144.837	15.148	1063.967	1172.64	0.659	939.88	1	0.762	7.240
2023-09-03 22:16	2185208	8.084	-143.297	15.146	1064.227	1172.966	0.660	939.65	1	0.762	7.109
2023-09-03 22:31	2186108	8.064	-142.257	15.142	1064.648	1173.526	0.660	939.28	1	0.763	6.953
2023-09-03 22:46	2187008	8.220	-150.218	15.109	1059.866	1169.07	0.657	943.52	1	0.760	***6.438***
2023-09-03 23:01	2187908	8.079	-142.956	15.057	1057.737	1168.003	0.657	945.42	1	0.759	6.637
2023-09-03 23:16	2188808	8.076	-142.798	15.022	1057.105	1168.177	0.657	945.98	1	0.759	6.903
2023-09-03 23:31	2189708	8.069	-142.41	14.98	1057.409	1169.559	0.658	945.71	1	0.760	6.669
2023-09-03 23:46	2190608	8.205	-149.369	14.939	1044.497	1156.27	0.650	957.40	1	0.752	***6.129***
2023-09-04 00:01	2191508	8.073	-142.615	14.908	1051.865	1165.184	0.655	950.69	1	0.757	***6.181***
2023-09-04 00:16	2192408	8.066	-142.248	14.887	1052.631	1166.559	0.656	950.00	1	0.758	***5.854***
2023-09-04 00:31	2193308	8.075	-142.658	14.861	1053.081	1167.692	0.657	949.60	1	0.759	***5.655***
2023-09-04 00:46	2194208	8.233	-150.738	14.822	1048.309	1163.355	0.654	953.92	1	0.756	***5.366***
2023-09-04 01:01	2195108	8.069	-142.305	14.785	1047.987	1163.932	0.655	954.21	1	0.757	***5.387***
2023-09-04 01:16	2196008	8.067	-142.226	14.766	1048.918	1165.434	0.656	953.36	1	0.758	***5.302***
2023-09-04 01:31	2196908	8.052	-141.418	14.734	1048.411	1165.659	0.656	953.83	1	0.758	***5.216***
2023-09-04 01:46	2197808	8.179	-147.936	14.694	1041.183	1158.596	0.652	960.45	1	0.753	***5.309***
2023-09-04 02:01	2198708	8.033	-140.417	14.653	1043.687	1162.394	0.654	958.14	1	0.756	***5.112***
2023-09-04 02:16	2199608	8.037	-140.586	14.622	1043.467	1162.917	0.654	958.34	1	0.756	***5.059***
2023-09-04 02:31	2200508	8.037	-140.567	14.583	1043.209	1163.597	0.655	958.58	1	0.756	***4.993***
2023-09-04 02:46	2201408	8.192	-148.494	14.538	1039.685	1160.775	0.653	961.83	1	0.755	***4.816***
2023-09-04 03:01	2202308	8.026	-139.966	14.486	1038.599	1160.857	0.653	962.84	1	0.755	***4.372***
2023-09-04 03:16	2203208	8.019	-139.627	14.447	1038.735	1161.97	0.654	962.71	1	0.755	***4.349***
2023-09-04 03:31	2204108	8.051	-141.237	14.401	1038.033	1162.333	0.654	963.36	1	0.756	***4.249***
2023-09-04 03:46	2205008	8.202	-148.933	14.368	1024.796	1148.33	0.646	975.80	1	0.746	***4.708***
2023-09-04 04:01	2205908	8.041	-140.66	14.33	1031.581	1156.864	0.651	969.39	1	0.752	***4.856***
2023-09-04 04:16	2206808	8.048	-140.991	14.291	1031.328	1157.546	0.651	969.62	1	0.752	***4.612***
2023-09-04 04:31	2207708	8.046	-140.877	14.255	1031.024	1158.099	0.652	969.91	1	0.753	***4.720***
2023-09-04 04:46	2208608	8.222	-149.863	14.235	1019.808	1145.999	0.645	980.58	1	0.745	***4.839***
2023-09-04 05:01	2209508	8.064	-141.776	14.209	1021.597	1148.646	0.646	978.86	1	0.747	***4.804***
2023-09-04 05:16	2210408	8.056	-141.368	14.176	1022.179	1150.106	0.647	978.30	1	0.748	***4.819***
2023-09-04 05:31	2211308	8.047	-140.867	14.141	1021.75	1150.492	0.647	978.71	1	0.748	***4.797***
2023-09-04 05:46	2212208	8.200	-148.697	14.107	1006.979	1134.689	0.638	993.07	1	0.738	***4.722***
2023-09-04 06:01	2213108	8.043	-140.657	14.063	1013.325	1142.934	0.643	986.85	1	0.743	***4.753***
2023-09-04 06:16	2214008	8.037	-140.309	14.024	1013.394	1143.966	0.644	986.78	1	0.744	***4.537***
2023-09-04 06:31	2214908	8.030	-139.928	13.987	1013.526	1145.026	0.644	986.65	1	0.744	***4.390***
2023-09-04 06:46	2215808	8.197	-148.458	13.938	1003.992	1135.463	0.639	996.02	1	0.738	***4.121***
2023-09-04 07:01	2216708	8.032	-139.997	13.885	1002.504	1135.072	0.639	997.50	1	0.738	***4.316***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-04 07:16	2217608	8.030	-139.859	13.849	1003.336	1136.91	0.640	996.68	1	0.739	***4.237***
2023-09-04 07:31	2218508	8.034	-140.052	13.812	1003.003	1137.432	0.640	997.01	1	0.739	***4.020***
2023-09-04 07:46	2219408	8.176	-147.271	13.782	989.823	1123.214	0.632	1010.28	1	0.730	***4.040***
2023-09-04 08:01	2220308	8.021	-139.334	13.734	995.424	1130.742	0.636	1004.60	1	0.735	***4.218***
2023-09-04 08:16	2221208	8.016	-139.058	13.681	995.155	1131.75	0.637	1004.87	1	0.736	***3.977***
2023-09-04 08:31	2222108	8.021	-139.329	13.625	995.025	1132.972	0.638	1005.00	1	0.736	***3.891***
2023-09-04 08:46	2223008	8.183	-147.548	13.585	983.421	1120.739	0.630	1016.86	1	0.728	***3.806***
2023-09-04 09:01	2223908	8.027	-139.585	13.54	985.162	1123.823	0.632	1015.06	1	0.730	***3.931***
2023-09-04 09:16	2224808	8.027	-139.565	13.51	985.162	1124.555	0.633	1015.06	1	0.731	***3.952***
2023-09-04 09:31	2225708	8.038	-140.1	13.485	984.764	1124.729	0.633	1015.47	1	0.731	***4.066***
2023-09-04 09:46	2226608	8.190	-147.829	13.477	968.714	1106.585	0.622	1032.30	1	0.719	***4.212***
2023-09-04 10:01	2227508	8.023	-139.341	13.454	975.372	1114.737	0.627	1025.25	1	0.725	***4.184***
2023-09-04 10:16	2228408	8.015	-138.898	13.448	976.969	1116.723	0.628	1023.57	1	0.726	***4.205***
2023-09-04 10:31	2229308	8.002	-138.271	13.441	977.481	1117.463	0.629	1023.04	1	0.726	***4.224***
2023-09-04 10:46	2230208	8.164	-146.523	13.435	959.789	1097.382	0.617	1041.90	1	0.713	***4.148***
2023-09-04 11:01	2231108	8.002	-138.235	13.437	965.592	1103.984	0.621	1035.63	1	0.718	***3.914***
2023-09-04 11:16	2232008	7.989	-137.56	13.441	967.891	1106.503	0.622	1033.17	1	0.719	***3.908***
2023-09-04 11:31	2232908	7.978	-137.031	13.452	969.231	1107.769	0.623	1031.75	1	0.720	***3.943***
2023-09-04 11:46	2233808	8.138	-145.204	13.47	949.929	1085.293	0.610	1052.71	1	0.705	***4.035***
2023-09-04 12:01	2234708	7.983	-137.308	13.479	961.185	1097.946	0.617	1040.38	1	0.714	***3.941***
2023-09-04 12:16	2235608	7.975	-136.883	13.488	962.712	1099.452	0.618	1038.73	1	0.715	***3.935***
2023-09-04 12:31	2236508	7.964	-136.337	13.501	964.588	1101.301	0.619	1036.71	1	0.716	***4.024***
2023-09-04 12:46	2237408	8.128	-144.718	13.52	952.099	1086.586	0.610	1050.31	1	0.706	***4.176***
2023-09-04 13:01	2238308	7.980	-137.169	13.549	956.398	1090.799	0.613	1045.59	1	0.709	***4.542***
2023-09-04 13:16	2239208	7.980	-137.203	13.579	959.372	1093.469	0.614	1042.35	1	0.711	***5.021***
2023-09-04 13:31	2240108	7.970	-136.714	13.616	961.53	1095.052	0.615	1040.01	1	0.712	***4.972***
2023-09-04 13:46	2241008	8.119	-144.331	13.658	951.305	1082.415	0.608	1051.19	1	0.704	***5.198***
2023-09-04 14:01	2241908	8.001	-138.302	13.69	958.55	1089.898	0.612	1043.24	1	0.708	***5.182***
2023-09-04 14:16	2242808	7.973	-136.909	13.724	961.535	1092.501	0.614	1040.00	1	0.710	***4.911***
2023-09-04 14:31	2243708	7.882	-132.282	13.758	966.837	1097.707	0.617	1034.30	1	0.714	***4.402***
2023-09-04 14:46	2244608	8.114	-144.141	13.818	965.344	1094.588	0.615	1035.90	1	0.711	***3.710***
2023-09-04 15:01	2245508	8.010	-138.893	13.879	972.582	1101.353	0.619	1028.19	1	0.716	***5.133***
2023-09-04 15:16	2246408	8.039	-140.378	13.925	977.226	1105.49	0.621	1023.31	1	0.719	***5.105***
2023-09-04 15:31	2247308	8.073	-142.128	13.955	980.783	1108.811	0.623	1019.59	1	0.721	***6.076***
2023-09-04 15:46	2248208	8.218	-149.531	14.002	982.352	1109.453	0.623	1017.97	1	0.721	***6.032***
2023-09-04 16:01	2249108	8.099	-143.483	14.026	983.367	1110.024	0.624	1016.91	1	0.722	***6.136***
2023-09-04 16:16	2250008	8.101	-143.609	14.033	985.298	1112.038	0.625	1014.92	1	0.723	***5.851***
2023-09-04 16:31	2250908	8.097	-143.392	14.045	986.436	1113.033	0.625	1013.75	1	0.723	***6.183***
2023-09-04 16:46	2251808	8.246	-151.007	14.054	986.998	1113.444	0.626	1013.17	1	0.724	***6.277***
2023-09-04 17:01	2252708	8.102	-143.678	14.072	988.259	1114.449	0.626	1011.88	1	0.724	***6.184***
2023-09-04 17:16	2253608	8.080	-142.546	14.095	989.4	1115.175	0.627	1010.71	1	0.725	***6.219***
2023-09-04 17:31	2254508	8.061	-141.578	14.115	990.382	1115.799	0.627	1009.71	1	0.725	***6.130***
2023-09-04 17:46	2255408	8.184	-147.891	14.151	989.484	1113.92	0.626	1010.63	1	0.724	***6.061***
2023-09-04 18:01	2256308	8.038	-140.457	14.168	996.506	1121.419	0.630	1003.51	1	0.729	***6.026***
2023-09-04 18:16	2257208	8.166	-147.004	14.182	1003.539	1128.989	0.635	996.47	1	0.734	***6.034***
2023-09-04 18:31	2258108	8.120	-144.632	14.198	1004.951	1130.189	0.635	995.07	1	0.735	***6.361***
2023-09-04 18:46	2259008	8.215	-149.527	14.218	1002.976	1127.502	0.634	997.03	1	0.733	6.514
2023-09-04 19:01	2259908	8.075	-142.367	14.232	1003.228	1127.431	0.634	996.78	1	0.733	6.679
2023-09-04 19:16	2260808	8.051	-141.151	14.24	1005.591	1129.901	0.635	994.44	1	0.734	6.509
2023-09-04 19:31	2261708	8.017	-139.389	14.25	1006.777	1130.988	0.636	993.27	1	0.735	***6.281***
2023-09-04 19:46	2262608	8.164	-146.935	14.267	1003.569	1126.974	0.633	996.44	1	0.733	***6.348***
2023-09-04 20:01	2263508	8.039	-140.543	14.27	1005.894	1129.518	0.635	994.14	1	0.734	***6.331***
2023-09-04 20:16	2264408	8.067	-141.966	14.271	1007.072	1130.807	0.636	992.98	1	0.735	***6.140***
2023-09-04 20:31	2265308	8.097	-143.516	14.273	1007.798	1131.587	0.636	992.26	1	0.736	***6.114***
2023-09-04 20:46	2266208	8.218	-149.682	14.279	1007.767	1131.402	0.636	992.29	1	0.735	***6.096***
2023-09-04 21:01	2267108	8.101	-143.707	14.281	1007.569	1131.135	0.636	992.49	1	0.735	6.636

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-04 21:16	2268008	8.062	-141.718	14.284	1008.196	1131.76	0.636	991.87	1	0.736	6.575
2023-09-04 21:31	2268908	8.039	-140.531	14.285	1008.396	1131.967	0.636	991.67	1	0.736	***6.473***
2023-09-04 21:46	2269808	8.170	-147.259	14.287	1007.571	1130.99	0.636	992.49	1	0.735	***6.214***
2023-09-04 22:01	2270708	8.047	-140.977	14.278	1008.513	1132.257	0.637	991.56	1	0.736	***6.151***
2023-09-04 22:16	2271608	7.998	-138.443	14.269	1008.714	1132.703	0.637	991.36	1	0.736	***6.186***
2023-09-04 22:31	2272508	8.001	-138.595	14.264	1008.583	1132.672	0.637	991.49	1	0.736	***6.017***
2023-09-04 22:46	2273408	8.162	-146.825	14.252	1007.34	1131.58	0.636	992.71	1	0.736	***6.001***
2023-09-04 23:01	2274308	8.058	-141.478	14.237	1007.029	1131.576	0.636	993.02	1	0.736	***6.231***
2023-09-04 23:16	2275208	8.028	-139.947	14.224	1006.677	1131.511	0.636	993.37	1	0.735	***6.121***
2023-09-04 23:31	2276108	7.998	-138.421	14.211	1006.214	1131.292	0.636	993.83	1	0.735	***6.290***
2023-09-04 23:46	2277008	8.147	-146.01	14.197	1002.099	1127.012	0.634	997.91	1	0.733	***6.402***
2023-09-05 00:01	2277908	8.051	-141.096	14.181	1002.282	1127.596	0.634	997.72	1	0.733	***6.248***
2023-09-05 00:16	2278808	7.996	-138.292	14.16	1001.888	1127.663	0.634	998.12	1	0.733	***6.397***
2023-09-05 00:31	2279708	7.973	-137.112	14.135	1001.356	1127.687	0.634	998.65	1	0.733	***6.374***
2023-09-05 00:46	2280608	8.120	-144.603	14.069	992.336	1119.119	0.629	1007.72	1	0.727	***6.096***
2023-09-05 01:01	2281508	8.026	-139.754	13.997	992.488	1121.024	0.630	1007.57	1	0.729	***5.977***
2023-09-05 01:16	2282408	8.033	-140.092	13.99	992.12	1120.785	0.630	1007.94	1	0.729	***6.307***
2023-09-05 01:31	2283308	8.001	-138.476	13.984	995.208	1124.402	0.632	1004.82	1	0.731	***6.248***
2023-09-05 01:46	2284208	8.110	-144.045	13.972	991.416	1120.408	0.630	1008.66	1	0.728	***5.794***
2023-09-05 02:01	2285108	8.002	-138.483	13.926	993.939	1124.389	0.632	1006.10	1	0.731	***5.367***
2023-09-05 02:16	2286008	7.988	-137.72	13.868	993.556	1125.352	0.633	1006.49	1	0.731	***5.264***
2023-09-05 02:31	2286908	7.977	-137.143	13.817	993.388	1126.419	0.634	1006.66	1	0.732	***5.067***
2023-09-05 02:46	2287808	8.124	-144.637	13.759	989.167	1123.029	0.632	1010.95	1	0.730	***4.766***
2023-09-05 03:01	2288708	7.996	-138.063	13.711	988.297	1123.22	0.632	1011.84	1	0.730	***4.619***
2023-09-05 03:16	2289608	7.981	-137.274	13.686	988.833	1124.427	0.632	1011.29	1	0.731	***4.670***
2023-09-05 03:31	2290508	7.984	-137.458	13.669	989.028	1125.078	0.633	1011.09	1	0.731	***4.632***
2023-09-05 03:46	2291408	8.107	-143.707	13.656	984.469	1120.213	0.630	1015.78	1	0.728	***4.549***
2023-09-05 04:01	2292308	7.987	-137.591	13.633	985.941	1122.445	0.631	1014.26	1	0.730	***4.690***
2023-09-05 04:16	2293208	7.985	-137.46	13.607	985.992	1123.143	0.632	1014.21	1	0.730	***4.517***
2023-09-05 04:31	2294108	7.987	-137.525	13.574	985.772	1123.68	0.632	1014.43	1	0.730	***4.328***
2023-09-05 04:46	2295008	8.123	-144.496	13.549	980.625	1118.429	0.629	1019.76	1	0.727	***4.176***
2023-09-05 05:01	2295908	7.990	-137.668	13.498	980.324	1119.322	0.630	1020.07	1	0.728	***4.243***
2023-09-05 05:16	2296808	7.983	-137.267	13.458	980.235	1120.205	0.630	1020.16	1	0.728	***4.156***
2023-09-05 05:31	2297708	7.977	-136.957	13.418	980.31	1121.264	0.631	1020.09	1	0.729	***4.339***
2023-09-05 05:46	2298609	8.108	-143.647	13.387	966.224	1105.91	0.622	1034.96	1	0.719	***4.382***
2023-09-05 06:01	2299509	7.989	-137.551	13.352	973.258	1114.826	0.627	1027.48	1	0.725	***4.470***
2023-09-05 06:16	2300409	7.982	-137.165	13.327	973.199	1115.356	0.627	1027.54	1	0.725	***4.257***
2023-09-05 06:31	2301309	7.978	-136.948	13.31	973.222	1115.807	0.628	1027.52	1	0.725	***4.263***
2023-09-05 06:46	2302209	8.111	-143.692	13.265	964.53	1106.931	0.623	1036.78	1	0.720	***4.083***
2023-09-05 07:01	2303109	7.968	-136.425	13.222	964.364	1107.783	0.623	1036.95	1	0.720	***3.983***
2023-09-05 07:16	2304009	7.961	-136.044	13.192	964.998	1109.234	0.624	1036.27	1	0.721	***3.979***
2023-09-05 07:31	2304909	7.953	-135.596	13.164	965.027	1109.939	0.624	1036.24	1	0.721	***3.857***
2023-09-05 07:46	2305809	8.076	-141.857	13.143	952.744	1096.335	0.616	1049.60	1	0.713	***3.928***
2023-09-05 08:01	2306709	7.956	-135.758	13.105	958.063	1103.374	0.621	1043.77	1	0.717	***4.049***
2023-09-05 08:16	2307609	7.957	-135.772	13.073	958.238	1104.345	0.621	1043.58	1	0.718	***3.820***
2023-09-05 08:31	2308509	7.939	-134.876	13.047	958.579	1105.377	0.622	1043.21	1	0.718	***3.914***
2023-09-05 08:46	2309409	8.088	-142.419	13.025	950.035	1096.046	0.616	1052.59	1	0.712	***3.997***
2023-09-05 09:01	2310309	7.957	-135.753	12.991	949.937	1096.775	0.617	1052.70	1	0.713	***3.827***
2023-09-05 09:16	2311209	7.956	-135.665	12.963	951.079	1098.765	0.618	1051.44	1	0.714	***3.766***
2023-09-05 09:31	2312109	7.954	-135.546	12.942	951.406	1099.642	0.619	1051.08	1	0.715	***3.773***
2023-09-05 09:46	2313009	8.073	-141.625	12.93	938.375	1084.88	0.610	1065.67	1	0.705	***3.919***
2023-09-05 10:01	2313909	7.950	-135.324	12.913	944.262	1092.081	0.614	1059.03	1	0.710	***3.911***
2023-09-05 10:16	2314809	7.941	-134.871	12.916	944.996	1092.858	0.615	1058.21	1	0.710	***4.015***
2023-09-05 10:31	2315709	7.928	-134.218	12.924	946.286	1094.173	0.615	1056.76	1	0.711	***4.036***
2023-09-05 10:46	2316609	8.068	-141.37	12.938	932.65	1078.072	0.606	1072.21	1	0.701	***4.001***
2023-09-05 11:01	2317509	7.937	-134.714	12.958	936.538	1082.072	0.608	1067.76	1	0.703	***3.802***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-05 11:16	2318409	7.920	-133.843	12.983	938.695	1083.967	0.609	1065.31	1	0.705	***3.978***
2023-09-05 11:31	2319309	7.893	-132.487	13.007	940.239	1085.176	0.610	1063.56	1	0.705	***4.153***
2023-09-05 11:46	2320209	8.035	-139.747	13.052	931.297	1073.809	0.603	1073.77	1	0.698	***4.776***
2023-09-05 12:01	2321109	7.948	-135.331	13.08	936.43	1079.045	0.606	1067.89	1	0.701	***4.953***
2023-09-05 12:16	2322009	7.944	-135.126	13.111	938.664	1080.884	0.607	1065.34	1	0.703	***5.165***
2023-09-05 12:31	2322909	7.916	-133.741	13.133	940.805	1082.825	0.609	1062.92	1	0.704	***4.865***
2023-09-05 12:46	2323809	8.053	-140.698	13.147	935.117	1075.952	0.604	1069.39	1	0.699	***4.678***
2023-09-05 13:01	2324709	7.949	-135.403	13.157	937.547	1078.51	0.606	1066.61	1	0.701	***4.402***
2023-09-05 13:16	2325609	7.910	-133.419	13.168	938.982	1079.907	0.607	1064.98	1	0.702	***4.161***
2023-09-05 13:31	2326509	7.871	-131.474	13.177	941.391	1082.464	0.608	1062.26	1	0.704	***3.892***
2023-09-05 13:46	2327409	8.041	-140.114	13.193	938.148	1078.348	0.606	1065.93	1	0.701	***3.999***
2023-09-05 14:01	2328309	7.995	-137.794	13.21	940.191	1080.303	0.607	1063.61	1	0.702	***4.859***
2023-09-05 14:16	2329209	7.976	-136.8	13.235	941.002	1080.642	0.607	1062.70	1	0.702	***5.028***
2023-09-05 14:31	2330109	7.993	-137.715	13.273	942.31	1081.227	0.607	1061.22	1	0.703	***4.936***
2023-09-05 14:46	2331009	8.120	-144.188	13.333	945.227	1083.153	0.609	1057.95	1	0.704	***5.187***
2023-09-05 15:01	2331909	7.992	-137.732	13.382	946.259	1083.173	0.609	1056.79	1	0.704	***5.429***
2023-09-05 15:16	2332809	7.976	-136.938	13.429	948.028	1084.079	0.609	1054.82	1	0.705	***5.392***
2023-09-05 15:31	2333709	7.947	-135.458	13.461	951.224	1086.985	0.611	1051.28	1	0.707	***5.460***
2023-09-05 15:46	2334609	8.143	-145.469	13.492	957.065	1092.917	0.614	1044.86	1	0.710	***4.973***
2023-09-05 16:01	2335509	8.045	-140.467	13.495	961.753	1098.189	0.617	1039.77	1	0.714	***5.953***
2023-09-05 16:16	2336409	7.992	-137.787	13.512	962.387	1098.525	0.617	1039.08	1	0.714	***6.072***
2023-09-05 16:31	2337309	7.968	-136.554	13.527	963.306	1099.209	0.618	1038.09	1	0.714	***5.986***
2023-09-05 16:46	2338209	8.104	-143.521	13.542	961.22	1096.459	0.616	1040.34	1	0.713	***5.826***
2023-09-05 17:01	2339109	7.989	-137.663	13.551	961.815	1096.932	0.616	1039.70	1	0.713	***5.686***
2023-09-05 17:16	2340009	7.939	-135.081	13.563	962.796	1097.772	0.617	1038.64	1	0.714	***5.651***
2023-09-05 17:31	2340909	7.926	-134.442	13.578	963.411	1098.093	0.617	1037.98	1	0.714	***5.660***
2023-09-05 17:46	2341809	8.041	-140.307	13.6	961.59	1095.492	0.616	1039.95	1	0.712	***5.597***
2023-09-05 18:01	2342709	7.954	-135.908	13.613	971.839	1106.864	0.622	1028.98	1	0.719	***5.135***
2023-09-05 18:16	2343609	8.064	-141.513	13.626	978.195	1113.8	0.626	1022.29	1	0.724	***5.692***
2023-09-05 18:31	2344509	8.010	-138.752	13.643	968.61	1102.466	0.620	1032.41	1	0.717	***6.178***
2023-09-05 18:46	2345409	8.138	-145.271	13.656	975.671	1110.185	0.624	1024.94	1	0.722	***6.147***
2023-09-05 19:01	2346309	8.023	-139.41	13.668	976.823	1111.204	0.625	1023.73	1	0.722	***6.174***
2023-09-05 19:16	2347209	7.990	-137.751	13.684	978.074	1112.26	0.625	1022.42	1	0.723	***6.034***
2023-09-05 19:31	2348109	7.950	-135.72	13.71	978.526	1112.144	0.625	1021.95	1	0.723	***5.768***
2023-09-05 19:46	2349009	8.053	-140.979	13.737	969.489	1101.226	0.619	1031.47	1	0.716	***5.565***
2023-09-05 20:01	2349909	8.070	-141.861	13.731	995.059	1130.403	0.636	1004.97	1	0.735	***5.719***
2023-09-05 20:16	2350809	8.092	-142.951	13.712	1002.624	1139.484	0.641	997.38	1	0.741	***6.239***
2023-09-05 20:31	2351709	8.084	-142.548	13.71	1002.574	1139.474	0.641	997.43	1	0.741	6.619
2023-09-05 20:46	2352609	8.200	-148.48	13.712	998.877	1135.211	0.639	1001.12	1	0.738	6.808
2023-09-05 21:01	2353509	8.062	-141.466	13.717	999.296	1135.577	0.639	1000.70	1	0.738	6.754
2023-09-05 21:16	2354409	8.032	-139.933	13.726	999.876	1136.009	0.639	1000.12	1	0.738	6.735
2023-09-05 21:31	2355309	8.014	-139.015	13.732	1000.25	1136.291	0.639	999.75	1	0.739	6.631
2023-09-05 21:46	2356209	8.132	-145.004	13.738	996.768	1132.183	0.637	1003.24	1	0.736	***6.491***
2023-09-05 22:01	2357109	8.014	-139.024	13.739	999.146	1134.853	0.639	1000.85	1	0.738	***6.222***
2023-09-05 22:16	2358009	7.995	-138.018	13.735	1001.074	1137.147	0.640	998.93	1	0.739	***6.023***
2023-09-05 22:31	2358909	7.996	-138.094	13.728	1006.113	1143.053	0.643	993.92	1	0.743	***5.661***
2023-09-05 22:46	2359809	8.122	-144.486	13.72	1002.968	1139.676	0.641	997.04	1	0.741	***5.361***
2023-09-05 23:01	2360709	7.995	-137.997	13.696	1014.261	1153.112	0.649	985.94	1	0.750	***5.449***
2023-09-05 23:16	2361609	8.002	-138.34	13.666	1026.386	1167.635	0.658	974.29	1	0.759	***4.173***
2023-09-05 23:31	2362509	7.963	-136.318	13.616	1043.375	1188.258	0.670	958.43	1	0.772	***5.054***
2023-09-05 23:46	2363409	8.098	-143.163	13.521	1043.939	1191.368	0.672	957.91	1	0.774	***5.184***
2023-09-06 00:01	2364309	7.964	-136.256	13.29	1039.739	1192.575	0.673	961.78	1	0.775	***5.523***
2023-09-06 00:16	2365209	7.970	-136.442	13.112	1031.346	1187.596	0.670	969.61	1	0.772	***5.586***
2023-09-06 00:31	2366109	7.997	-137.768	12.958	1024.393	1183.599	0.668	976.19	1	0.769	***5.399***
2023-09-06 00:46	2367009	8.201	-148.101	12.865	1017.939	1178.552	0.665	982.38	1	0.766	***5.689***
2023-09-06 01:01	2367909	8.048	-140.316	12.837	1016.352	1177.442	0.664	983.91	1	0.765	***6.131***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-06 01:16	2368809	8.022	-138.969	12.821	1016.13	1177.599	0.664	984.13	1	0.765	***5.682***
2023-09-06 01:31	2369709	8.003	-138.001	12.784	1015.342	1177.65	0.665	984.89	1	0.765	***5.628***
2023-09-06 01:46	2370609	8.137	-144.756	12.728	1005.618	1167.816	0.659	994.41	1	0.759	***5.564***
2023-09-06 02:01	2371509	8.050	-140.309	12.669	1006.351	1170.205	0.660	993.69	1	0.761	***6.014***
2023-09-06 02:16	2372409	8.009	-138.23	12.639	1006.479	1171.123	0.661	993.56	1	0.761	***5.867***
2023-09-06 02:31	2373309	7.986	-137.057	12.617	1006.041	1171.205	0.661	994.00	1	0.761	***5.868***
2023-09-06 02:46	2374209	8.142	-144.98	12.61	1001.837	1166.474	0.658	998.17	1	0.758	***5.906***
2023-09-06 03:01	2375109	8.030	-139.267	12.6	1002.409	1167.417	0.659	997.60	1	0.759	***5.680***
2023-09-06 03:16	2376009	7.980	-136.735	12.572	1006.203	1172.567	0.662	993.84	1	0.762	***5.366***
2023-09-06 03:31	2376909	7.985	-136.955	12.535	1005.166	1172.306	0.662	994.86	1	0.762	***5.009***
2023-09-06 03:46	2377809	8.186	-147.169	12.506	993.4	1159.348	0.654	1006.64	1	0.754	***4.988***
2023-09-06 04:01	2378709	8.048	-140.126	12.491	994.428	1160.943	0.655	1005.60	1	0.755	***5.865***
2023-09-06 04:16	2379609	8.044	-139.933	12.474	995.703	1162.868	0.656	1004.32	1	0.756	***6.118***
2023-09-06 04:31	2380509	8.038	-139.587	12.462	996.978	1164.652	0.657	1003.03	1	0.757	***6.130***
2023-09-06 04:46	2381409	8.174	-146.511	12.448	999.672	1168.185	0.659	1000.33	1	0.759	***5.959***
2023-09-06 05:01	2382309	8.042	-139.806	12.431	1004.87	1174.694	0.663	995.15	1	0.764	***5.835***
2023-09-06 05:16	2383209	8.035	-139.42	12.408	1007.877	1178.82	0.666	992.18	1	0.766	***6.164***
2023-09-06 05:31	2384109	8.039	-139.596	12.375	1012.712	1185.33	0.669	987.45	1	0.770	***6.184***
2023-09-06 05:46	2385009	8.172	-146.372	12.347	1014.481	1188.151	0.671	985.73	1	0.772	***6.163***
2023-09-06 06:01	2385909	8.035	-139.394	12.296	1015.273	1190.455	0.672	984.96	1	0.774	***6.061***
2023-09-06 06:16	2386809	8.045	-139.878	12.251	1016.972	1193.638	0.674	983.31	1	0.776	***6.110***
2023-09-06 06:31	2387709	8.046	-139.914	12.22	1018.891	1196.733	0.676	981.46	1	0.778	***6.308***
2023-09-06 06:46	2388609	8.180	-146.661	12.188	1018.937	1197.628	0.677	981.42	1	0.778	***6.278***
2023-09-06 07:01	2389509	8.037	-139.425	12.164	1018.396	1197.642	0.677	981.94	1	0.778	***5.917***
2023-09-06 07:16	2390409	8.032	-139.151	12.119	1016.144	1196.209	0.676	984.11	1	0.778	***5.938***
2023-09-06 07:31	2391309	8.029	-138.943	12.068	1012.124	1192.832	0.674	988.02	1	0.775	***6.001***
2023-09-06 07:46	2392209	8.166	-145.9	12.019	1010.195	1191.872	0.674	989.91	1	0.775	***6.227***
2023-09-06 08:01	2393109	8.021	-138.493	11.979	1009.043	1191.601	0.673	991.04	1	0.775	***5.994***
2023-09-06 08:16	2394009	8.012	-138.001	11.917	1009.17	1193.416	0.675	990.91	1	0.776	***6.001***
2023-09-06 08:31	2394909	8.018	-138.333	11.884	1010.779	1196.213	0.676	989.34	1	0.778	***6.188***
2023-09-06 08:46	2395809	8.123	-143.621	11.851	1011.494	1197.947	0.677	988.64	1	0.779	***6.013***
2023-09-06 09:01	2396709	7.998	-137.255	11.831	1014.29	1201.814	0.680	985.91	1	0.781	***5.888***
2023-09-06 09:16	2397609	7.979	-136.294	11.817	1015.085	1203.118	0.680	985.14	1	0.782	***6.122***
2023-09-06 09:31	2398509	7.961	-135.393	11.807	1017.808	1206.626	0.682	982.50	1	0.784	***6.021***
2023-09-06 09:46	2399409	8.054	-140.104	11.8	1018.274	1207.364	0.683	982.05	1	0.785	***6.031***
2023-09-06 10:01	2400309	7.930	-133.808	11.793	1018.948	1208.372	0.683	981.40	1	0.785	***5.885***
2023-09-06 10:16	2401209	7.910	-132.79	11.792	1020.921	1210.742	0.685	979.51	1	0.787	***5.975***
2023-09-06 10:31	2402109	7.911	-132.83	11.794	1023.815	1214.11	0.687	976.74	1	0.789	***5.922***
2023-09-06 10:46	2403009	8.022	-138.493	11.802	1026.736	1217.364	0.689	973.96	1	0.791	***5.985***
2023-09-06 11:01	2403909	7.916	-133.1	11.815	1026.839	1217.108	0.689	973.86	1	0.791	***5.908***
2023-09-06 11:16	2404809	7.890	-131.817	11.832	1028.504	1218.633	0.689	972.29	1	0.792	***5.797***
2023-09-06 11:31	2405709	7.896	-132.117	11.852	1030.689	1220.668	0.691	970.23	1	0.793	***5.560***
2023-09-06 11:46	2406609	7.998	-137.3	11.874	1032.939	1222.715	0.692	968.11	1	0.795	***5.416***
2023-09-06 12:01	2407509	7.908	-132.713	11.895	1034.117	1223.514	0.692	967.01	1	0.795	***5.602***
2023-09-06 12:16	2408409	7.889	-131.774	11.914	1035.535	1224.663	0.693	965.69	1	0.796	***5.566***
2023-09-06 12:31	2409309	7.885	-131.607	11.943	1038.2	1227.038	0.694	963.21	1	0.798	***5.465***
2023-09-06 12:46	2410209	7.972	-136.025	11.973	1041.143	1229.681	0.696	960.48	1	0.799	***5.459***
2023-09-06 13:01	2411109	7.885	-131.619	11.997	1042.346	1230.416	0.696	959.38	1	0.800	***5.502***
2023-09-06 13:16	2412009	7.853	-130	12.03	1047.031	1235.027	0.699	955.08	1	0.803	***5.382***
2023-09-06 13:31	2412909	7.853	-130.024	12.055	1051.366	1239.44	0.702	951.14	1	0.806	***5.714***
2023-09-06 13:46	2413809	7.966	-135.775	12.077	1057.059	1245.535	0.705	946.02	1	0.810	***6.011***
2023-09-06 14:01	2414709	7.865	-130.637	12.091	1059.365	1247.869	0.707	943.96	1	0.811	***6.055***
2023-09-06 14:16	2415609	7.859	-130.341	12.109	1061.517	1249.906	0.708	942.05	1	0.812	***6.002***
2023-09-06 14:31	2416509	7.870	-130.937	12.126	1062.465	1250.528	0.708	941.21	1	0.813	***6.050***
2023-09-06 14:46	2417409	7.965	-135.734	12.147	1063.69	1251.386	0.709	940.12	1	0.813	***5.977***
2023-09-06 15:01	2418309	7.886	-131.731	12.169	1064.345	1251.53	0.709	939.55	1	0.813	***6.026***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-06 15:16	2419209	7.876	-131.233	12.191	1065.354	1252.109	0.709	938.66	1	0.814	***5.947***
2023-09-06 15:31	2420109	7.869	-130.906	12.219	1066.42	1252.561	0.709	937.72	1	0.814	***5.879***
2023-09-06 15:46	2421009	7.968	-135.932	12.264	1070.173	1255.711	0.711	934.43	1	0.816	***5.765***
2023-09-06 16:01	2421909	7.889	-131.941	12.3	1070.808	1255.455	0.711	933.87	1	0.816	***6.039***
2023-09-06 16:16	2422809	7.879	-131.474	12.334	1072.581	1256.558	0.711	932.33	1	0.817	***5.908***
2023-09-06 16:31	2423709	7.862	-130.606	12.369	1074.59	1257.942	0.712	930.59	1	0.818	***5.874***
2023-09-06 16:46	2424609	7.980	-136.628	12.396	1076.725	1259.673	0.713	928.74	1	0.819	***5.945***
2023-09-06 17:01	2425509	7.899	-132.506	12.425	1077.411	1259.671	0.713	928.15	1	0.819	***6.361***
2023-09-06 17:16	2426409	7.888	-132	12.452	1078.26	1259.901	0.713	927.42	1	0.819	***6.478***
2023-09-06 17:31	2427309	7.879	-131.526	12.478	1079.046	1260.092	0.713	926.75	1	0.819	***6.343***
2023-09-06 17:46	2428209	7.977	-136.542	12.516	1080.72	1260.982	0.714	925.31	1	0.820	***6.239***
2023-09-06 18:01	2429109	7.877	-131.457	12.545	1080.897	1260.367	0.714	925.16	1	0.819	***6.434***
2023-09-06 18:16	2430009	7.869	-131.09	12.57	1081.924	1260.853	0.714	924.28	1	0.820	6.607
2023-09-06 18:31	2430909	7.864	-130.806	12.589	1082.478	1260.961	0.714	923.81	1	0.820	***6.206***
2023-09-06 18:46	2431809	7.952	-135.3	12.609	1084.63	1262.917	0.715	921.97	1	0.821	***5.879***
2023-09-06 19:01	2432709	7.892	-132.246	12.617	1084.68	1262.741	0.715	921.93	1	0.821	***6.099***
2023-09-06 19:16	2433609	7.878	-131.564	12.624	1084.92	1262.816	0.715	921.73	1	0.821	***6.042***
2023-09-06 19:31	2434509	7.856	-130.46	12.633	1085.275	1263.001	0.715	921.43	1	0.821	***6.028***
2023-09-06 19:46	2435409	7.961	-135.753	12.641	1086.368	1264.05	0.716	920.50	1	0.822	***5.828***
2023-09-06 20:01	2436309	7.886	-131.974	12.644	1086.299	1263.875	0.716	920.56	1	0.822	***5.935***
2023-09-06 20:16	2437209	7.857	-130.482	12.644	1087.44	1265.191	0.716	919.59	1	0.822	***5.876***
2023-09-06 20:31	2438109	7.839	-129.578	12.634	1088.746	1267.007	0.717	918.49	1	0.824	***6.172***
2023-09-06 20:46	2439009	7.890	-132.163	12.593	1093.506	1273.7	0.721	914.49	1	0.828	***6.448***
2023-09-06 21:01	2439909	7.831	-129.12	12.563	1094.437	1275.639	0.723	913.71	1	0.829	6.609
2023-09-06 21:16	2440809	7.832	-129.161	12.534	1094.374	1276.384	0.723	913.76	1	0.830	***6.473***
2023-09-06 21:31	2441709	7.836	-129.371	12.504	1094.402	1277.281	0.724	913.74	1	0.830	***6.471***
2023-09-06 21:46	2442609	7.923	-133.791	12.475	1093.987	1277.617	0.724	914.09	1	0.830	6.551
2023-09-06 22:01	2443509	7.848	-129.945	12.444	1094.092	1278.628	0.724	914.00	1	0.831	6.562
2023-09-06 22:16	2444409	7.839	-129.471	12.402	1094.45	1280.229	0.725	913.70	1	0.832	6.667
2023-09-06 22:31	2445309	7.846	-129.786	12.373	1093.202	1279.615	0.725	914.74	1	0.832	6.537
2023-09-06 22:46	2446209	7.938	-134.487	12.33	1092.26	1279.743	0.725	915.53	1	0.832	6.537
2023-09-06 23:01	2447109	7.894	-132.21	12.297	1093.246	1281.835	0.726	914.71	1	0.833	6.684
2023-09-06 23:16	2448009	7.879	-131.452	12.256	1093.74	1283.605	0.728	914.29	1	0.834	6.661
2023-09-06 23:31	2448909	7.873	-131.123	12.21	1093.03	1284.092	0.728	914.89	1	0.835	6.758
2023-09-06 23:46	2449809	7.957	-135.376	12.174	1092.598	1284.625	0.728	915.25	1	0.835	6.674
2023-09-07 00:01	2450709	7.889	-131.879	12.137	1091.338	1284.191	0.728	916.31	1	0.835	6.632
2023-09-07 00:16	2451609	7.886	-131.705	12.084	1091.771	1286.256	0.729	915.94	1	0.836	***6.436***
2023-09-07 00:31	2452509	7.896	-132.189	12.034	1090.386	1286.055	0.729	917.11	1	0.836	6.576
2023-09-07 00:46	2453409	7.990	-136.952	11.979	1089.939	1287.116	0.730	917.48	1	0.837	6.626
2023-09-07 01:01	2454309	7.936	-134.165	11.93	1089.565	1288.114	0.730	917.80	1	0.837	6.652
2023-09-07 01:16	2455209	7.933	-134.015	11.901	1088.708	1287.952	0.730	918.52	1	0.837	6.615
2023-09-07 01:31	2456109	7.922	-133.419	11.86	1087.447	1287.632	0.730	919.59	1	0.837	6.583
2023-09-07 01:46	2457010	8.004	-137.591	11.822	1085.943	1286.966	0.730	920.86	1	0.837	6.612
2023-09-07 02:01	2457910	7.928	-133.703	11.781	1084.992	1287.026	0.730	921.67	1	0.837	6.611
2023-09-07 02:16	2458810	7.920	-133.276	11.734	1085.08	1288.521	0.731	921.59	1	0.838	6.628
2023-09-07 02:31	2459710	7.912	-132.825	11.688	1085.689	1290.583	0.732	921.07	1	0.839	6.556
2023-09-07 02:46	2460610	8.006	-137.575	11.632	1086.331	1292.994	0.734	920.53	1	0.840	6.600
2023-09-07 03:01	2461510	7.940	-134.237	11.586	1086.86	1294.967	0.735	920.08	1	0.842	***6.488***
2023-09-07 03:16	2462410	7.916	-132.942	11.517	1086.902	1297.052	0.736	920.05	1	0.843	6.567
2023-09-07 03:31	2463310	7.934	-133.831	11.463	1087.02	1298.787	0.737	919.95	1	0.844	6.627
2023-09-07 03:46	2464210	8.033	-138.831	11.415	1086.748	1299.907	0.738	920.18	1	0.845	6.564
2023-09-07 04:01	2465110	7.938	-134.027	11.376	1086.651	1300.938	0.739	920.26	1	0.846	***6.485***
2023-09-07 04:16	2466010	7.930	-133.593	11.324	1086.691	1302.54	0.740	920.23	1	0.847	6.582
2023-09-07 04:31	2466910	7.940	-134.084	11.274	1086.459	1303.763	0.740	920.42	1	0.847	6.508
2023-09-07 04:46	2467810	8.044	-139.303	11.222	1086.35	1305.16	0.741	920.51	1	0.848	6.519
2023-09-07 05:01	2468710	7.957	-134.864	11.173	1086.427	1306.751	0.742	920.45	1	0.849	6.546

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-07 05:16	2469610	7.974	-135.736	11.13	1086.507	1308.132	0.743	920.38	1	0.850	6.602
2023-09-07 05:31	2470510	7.965	-135.221	11.079	1086.594	1309.771	0.744	920.31	1	0.851	6.516
2023-09-07 05:46	2471410	8.069	-140.493	11.039	1086.154	1310.452	0.744	920.68	1	0.852	6.636
2023-09-07 06:01	2472310	7.949	-134.387	10.994	1085.679	1311.241	0.745	921.08	1	0.852	6.515
2023-09-07 06:16	2473210	7.998	-136.828	10.939	1086.003	1313.279	0.746	920.81	1	0.854	6.655
2023-09-07 06:31	2474110	7.985	-136.163	10.906	1085.789	1314.044	0.747	920.99	1	0.854	6.656
2023-09-07 06:46	2475010	8.089	-141.38	10.858	1086.96	1316.914	0.748	920.00	1	0.856	6.562
2023-09-07 07:01	2475910	8.007	-137.241	10.829	1087.115	1317.984	0.749	919.87	1	0.857	6.605
2023-09-07 07:16	2476810	8.007	-137.227	10.8	1086.874	1318.564	0.749	920.07	1	0.857	6.626
2023-09-07 07:31	2477710	8.000	-136.828	10.757	1088.144	1321.423	0.751	919.00	1	0.859	6.794
2023-09-07 07:46	2478610	8.110	-142.407	10.732	1088.216	1322.289	0.752	918.94	1	0.859	6.870
2023-09-07 08:01	2479510	8.019	-137.775	10.702	1088.74	1323.835	0.753	918.49	1	0.860	6.628
2023-09-07 08:16	2480410	8.019	-137.765	10.673	1089.094	1325.169	0.754	918.20	1	0.861	6.638
2023-09-07 08:31	2481310	8.005	-137.05	10.645	1089.062	1325.985	0.754	918.22	1	0.862	6.816
2023-09-07 08:46	2482210	8.129	-143.294	10.622	1089.103	1326.758	0.754	918.19	1	0.862	6.878
2023-09-07 09:01	2483110	8.029	-138.266	10.601	1090.042	1328.546	0.756	917.40	1	0.864	6.737
2023-09-07 09:16	2484010	8.032	-138.361	10.582	1090.96	1330.24	0.757	916.62	1	0.865	6.887
2023-09-07 09:31	2484910	8.034	-138.483	10.571	1091.278	1330.97	0.757	916.36	1	0.865	6.903
2023-09-07 09:46	2485810	8.147	-144.184	10.569	1092.18	1332.148	0.758	915.60	1	0.866	6.909
2023-09-07 10:01	2486710	8.053	-139.42	10.568	1092.08	1332.065	0.758	915.68	1	0.866	6.742
2023-09-07 10:16	2487610	8.040	-138.798	10.57	1093.08	1333.214	0.758	914.85	1	0.867	6.738
2023-09-07 10:31	2488510	8.064	-139.971	10.577	1093.639	1333.68	0.759	914.38	1	0.867	6.803
2023-09-07 10:46	2489410	8.165	-145.118	10.585	1093.548	1333.31	0.758	914.45	1	0.867	6.724
2023-09-07 11:01	2490310	8.053	-139.444	10.592	1093.6	1333.147	0.758	914.41	1	0.867	6.524
2023-09-07 11:16	2491210	8.043	-138.927	10.603	1093.48	1332.665	0.758	914.51	1	0.866	***6.417***
2023-09-07 11:31	2492110	8.037	-138.652	10.619	1093.428	1332.116	0.758	914.56	1	0.866	***6.258***
2023-09-07 11:46	2493010	8.151	-144.42	10.645	1093.914	1331.908	0.758	914.15	1	0.866	***6.242***
2023-09-07 12:01	2493910	8.050	-139.337	10.67	1094.561	1331.906	0.758	913.61	1	0.866	***6.419***
2023-09-07 12:16	2494810	8.060	-139.842	10.704	1096.031	1332.652	0.758	912.38	1	0.866	6.744
2023-09-07 12:31	2495710	8.058	-139.778	10.736	1097.295	1333.185	0.758	911.33	1	0.867	6.844
2023-09-07 12:46	2496610	8.178	-145.829	10.766	1098.609	1333.877	0.759	910.24	1	0.867	6.811
2023-09-07 13:01	2497510	8.070	-140.393	10.796	1099.127	1333.563	0.758	909.81	1	0.867	***6.413***
2023-09-07 13:16	2498410	8.051	-139.439	10.829	1100.682	1334.419	0.759	908.53	1	0.867	***6.384***
2023-09-07 13:31	2499310	8.049	-139.391	10.869	1102.236	1335.076	0.759	907.25	1	0.868	***6.453***
2023-09-07 13:46	2500210	8.179	-145.996	10.912	1103.474	1335.235	0.759	906.23	1	0.868	6.764
2023-09-07 14:01	2501110	8.078	-140.886	10.953	1105.198	1336.057	0.760	904.82	1	0.868	6.646
2023-09-07 14:16	2502010	8.069	-140.433	10.992	1106.679	1336.658	0.760	903.61	1	0.869	6.613
2023-09-07 14:31	2502910	8.062	-140.121	11.03	1108.621	1337.839	0.761	902.02	1	0.870	6.717
2023-09-07 14:46	2503810	8.193	-146.737	11.066	1110.386	1338.853	0.761	900.59	1	0.870	6.684
2023-09-07 15:01	2504710	8.089	-141.513	11.103	1111.242	1338.726	0.761	899.89	1	0.870	6.958
2023-09-07 15:16	2505610	8.075	-140.827	11.152	1113.012	1339.371	0.762	898.46	1	0.871	7.201
2023-09-07 15:31	2506510	8.069	-140.543	11.215	1115.021	1339.826	0.762	896.84	1	0.871	7.102
2023-09-07 15:46	2507410	8.202	-147.309	11.285	1117.969	1341.216	0.763	894.48	1	0.872	7.078
2023-09-07 16:01	2508310	8.107	-142.562	11.333	1118.691	1340.609	0.762	893.90	1	0.871	7.216
2023-09-07 16:16	2509210	8.103	-142.362	11.385	1120.297	1340.94	0.762	892.62	1	0.872	7.355
2023-09-07 16:31	2510110	8.102	-142.322	11.431	1121.769	1341.29	0.762	891.45	1	0.872	7.555
2023-09-07 16:46	2511010	8.244	-149.567	11.479	1124.376	1342.934	0.763	889.38	1	0.873	7.422
2023-09-07 17:01	2511910	8.121	-143.354	11.53	1125.142	1342.288	0.763	888.78	1	0.872	7.645
2023-09-07 17:16	2512810	8.108	-142.729	11.579	1126.768	1342.749	0.763	887.49	1	0.873	7.857
2023-09-07 17:31	2513710	8.102	-142.415	11.618	1128.029	1343.057	0.763	886.50	1	0.873	7.659
2023-09-07 17:46	2514610	8.228	-148.852	11.654	1129.135	1343.277	0.763	885.63	1	0.873	7.573
2023-09-07 18:01	2515510	8.119	-143.344	11.667	1129.174	1342.897	0.763	885.60	1	0.873	7.684
2023-09-07 18:16	2516410	8.106	-142.686	11.697	1130.085	1343.08	0.763	884.89	1	0.873	7.681
2023-09-07 18:31	2517310	8.093	-142.026	11.733	1131.119	1343.219	0.763	884.08	1	0.873	7.665
2023-09-07 18:46	2518210	8.233	-149.164	11.772	1132.868	1344.112	0.764	882.72	1	0.874	7.476
2023-09-07 19:01	2519110	8.130	-143.955	11.81	1133.402	1343.583	0.764	882.30	1	0.873	7.668

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-07 19:16	2520010	8.133	-144.117	11.839	1134.325	1343.797	0.764	881.58	1	0.873	7.640
2023-09-07 19:31	2520910	8.106	-142.758	11.86	1134.891	1343.805	0.764	881.14	1	0.873	7.551
2023-09-07 19:46	2521810	8.217	-148.38	11.881	1134.953	1343.242	0.763	881.09	1	0.873	7.793
2023-09-07 20:01	2522710	8.118	-143.38	11.901	1135.377	1343.159	0.763	880.77	1	0.873	7.570
2023-09-07 20:16	2523610	8.101	-142.527	11.923	1136.012	1343.237	0.763	880.27	1	0.873	7.465
2023-09-07 20:31	2524510	8.088	-141.864	11.943	1136.637	1343.36	0.763	879.79	1	0.873	7.399
2023-09-07 20:46	2525410	8.225	-148.861	11.968	1137.451	1343.566	0.763	879.16	1	0.873	7.208
2023-09-07 21:01	2526310	8.126	-143.824	11.989	1137.665	1343.201	0.763	878.99	1	0.873	7.317
2023-09-07 21:16	2527210	8.117	-143.366	12.007	1138.322	1343.425	0.763	878.49	1	0.873	7.450
2023-09-07 21:31	2528110	8.100	-142.519	12.027	1138.967	1343.575	0.763	877.99	1	0.873	7.400
2023-09-07 21:46	2529010	8.209	-148.089	12.057	1139.942	1343.801	0.763	877.24	1	0.873	7.210
2023-09-07 22:01	2529910	8.108	-142.961	12.092	1140.458	1343.377	0.763	876.84	1	0.873	7.311
2023-09-07 22:16	2530810	8.099	-142.553	12.128	1141.564	1343.576	0.763	875.99	1	0.873	7.300
2023-09-07 22:31	2531710	8.093	-142.221	12.153	1142.407	1343.801	0.763	875.35	1	0.873	7.194
2023-09-07 22:46	2532610	8.220	-148.726	12.182	1143.981	1344.8	0.764	874.14	1	0.874	7.139
2023-09-07 23:01	2533510	8.113	-143.304	12.21	1144.275	1344.28	0.764	873.92	1	0.874	7.033
2023-09-07 23:16	2534410	8.094	-142.305	12.221	1144.731	1344.506	0.764	873.57	1	0.874	7.016
2023-09-07 23:31	2535310	8.062	-140.705	12.225	1144.92	1344.604	0.764	873.42	1	0.874	6.777
2023-09-07 23:46	2536210	8.180	-146.716	12.216	1144.123	1343.944	0.763	874.03	1	0.874	6.500
2023-09-08 00:01	2537110	8.090	-142.14	12.205	1144.175	1344.334	0.764	873.99	1	0.874	***6.411***
2023-09-08 00:16	2538010	8.068	-140.972	12.19	1143.799	1344.329	0.764	874.28	1	0.874	***6.419***
2023-09-08 00:31	2538910	8.058	-140.488	12.167	1143.333	1344.48	0.764	874.64	1	0.874	***6.128***
2023-09-08 00:46	2539810	8.203	-147.808	12.124	1139.175	1340.883	0.762	877.83	1	0.872	***5.917***
2023-09-08 01:01	2540710	8.107	-142.913	12.076	1136.87	1339.62	0.761	879.61	1	0.871	6.618
2023-09-08 01:16	2541610	8.145	-144.82	12.015	1132.991	1336.878	0.759	882.62	1	0.869	7.221
2023-09-08 01:31	2542510	8.141	-144.551	11.946	1128.658	1333.856	0.758	886.01	1	0.867	7.487
2023-09-08 01:46	2543410	8.293	-152.278	11.896	1127.242	1333.686	0.758	887.12	1	0.867	7.684
2023-09-08 02:01	2544310	8.174	-146.208	11.844	1125.695	1333.425	0.757	888.34	1	0.867	7.532
2023-09-08 02:16	2545210	8.122	-143.545	11.779	1122.005	1331.003	0.756	891.26	1	0.865	7.548
2023-09-08 02:31	2546110	8.118	-143.263	11.7	1119.167	1330.002	0.756	893.52	1	0.865	7.562
2023-09-08 02:46	2547010	8.316	-153.26	11.606	1117.398	1330.755	0.756	894.94	1	0.865	7.637
2023-09-08 03:01	2547910	8.186	-146.663	11.53	1116.197	1331.63	0.757	895.90	1	0.866	7.618
2023-09-08 03:16	2548810	8.176	-146.103	11.454	1114.166	1331.498	0.757	897.53	1	0.865	7.652
2023-09-08 03:31	2549710	8.175	-146.017	11.39	1112.56	1331.526	0.757	898.83	1	0.865	7.657
2023-09-08 03:46	2550610	8.336	-154.157	11.337	1111.099	1331.385	0.757	900.01	1	0.865	7.696
2023-09-08 04:01	2551510	8.188	-146.635	11.277	1108.949	1330.655	0.756	901.76	1	0.865	7.593
2023-09-08 04:16	2552410	8.160	-145.192	11.218	1107.009	1330.132	0.756	903.34	1	0.865	7.617
2023-09-08 04:31	2553310	8.192	-146.766	11.163	1105.282	1329.709	0.756	904.75	1	0.864	7.578
2023-09-08 04:46	2554210	8.357	-155.096	11.114	1104.253	1329.974	0.756	905.59	1	0.864	6.562
2023-09-08 05:01	2555110	8.229	-148.568	11.073	1103.395	1330.206	0.756	906.29	1	0.865	7.421
2023-09-08 05:16	2556010	8.209	-147.562	11.032	1102.256	1330.086	0.756	907.23	1	0.865	7.580
2023-09-08 05:31	2556910	8.203	-147.209	10.994	1100.703	1329.378	0.756	908.51	1	0.864	7.531
2023-09-08 05:46	2557810	8.351	-154.703	10.962	1099.419	1328.817	0.755	909.57	1	0.864	7.435
2023-09-08 06:01	2558710	8.220	-148.039	10.93	1098.337	1328.48	0.755	910.47	1	0.864	7.286
2023-09-08 06:16	2559610	8.182	-146.115	10.877	1096.185	1327.496	0.755	912.25	1	0.863	7.183
2023-09-08 06:31	2560510	8.195	-146.713	10.814	1091.522	1323.769	0.753	916.15	1	0.860	7.431
2023-09-08 06:46	2561410	8.353	-154.674	10.749	1089.632	1323.469	0.752	917.74	1	0.860	7.419
2023-09-08 07:01	2562310	8.225	-148.201	10.701	1088.516	1323.599	0.753	918.68	1	0.860	7.347
2023-09-08 07:16	2563210	8.219	-147.839	10.66	1087.286	1323.356	0.752	919.72	1	0.860	7.375
2023-09-08 07:31	2564110	8.206	-147.183	10.629	1086.757	1323.679	0.753	920.17	1	0.860	7.159
2023-09-08 07:46	2565010	8.381	-155.988	10.598	1086.288	1324.046	0.753	920.57	1	0.861	7.064
2023-09-08 08:01	2565910	8.229	-148.339	10.567	1086.814	1325.666	0.754	920.12	1	0.862	7.161
2023-09-08 08:16	2566810	8.239	-148.828	10.539	1088.146	1328.158	0.755	918.99	1	0.863	7.150
2023-09-08 08:31	2567710	8.252	-149.462	10.518	1094.103	1336.082	0.760	913.99	1	0.868	7.153
2023-09-08 08:46	2568610	8.398	-156.791	10.496	1088.63	1330.071	0.757	918.59	1	0.865	7.246
2023-09-08 09:01	2569510	8.246	-149.126	10.474	1087.67	1329.576	0.756	919.40	1	0.864	7.203

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-08 09:16	2570410	8.237	-148.637	10.45	1086.507	1328.917	0.756	920.38	1	0.864	7.019
2023-09-08 09:31	2571310	8.229	-148.256	10.432	1085.389	1328.086	0.755	921.33	1	0.863	7.207
2023-09-08 09:46	2572210	8.386	-156.145	10.424	1084.663	1327.445	0.755	921.95	1	0.863	7.337
2023-09-08 10:01	2573110	8.253	-149.462	10.408	1084.192	1327.379	0.755	922.35	1	0.863	7.179
2023-09-08 10:16	2574010	8.218	-147.698	10.401	1083.5	1326.759	0.755	922.94	1	0.862	7.088
2023-09-08 10:31	2574910	8.201	-146.794	10.399	1083.355	1326.638	0.755	923.06	1	0.862	7.097
2023-09-08 10:46	2575810	8.359	-154.798	10.405	1084.147	1327.423	0.755	922.38	1	0.863	6.912
2023-09-08 11:01	2576710	8.239	-148.716	10.406	1084.182	1327.432	0.755	922.35	1	0.863	6.794
2023-09-08 11:16	2577610	8.222	-147.905	10.417	1084.582	1327.583	0.755	922.01	1	0.863	6.710
2023-09-08 11:31	2578510	8.192	-146.36	10.434	1085.246	1327.847	0.755	921.45	1	0.863	6.597
2023-09-08 11:46	2579410	8.312	-152.452	10.459	1085.936	1327.924	0.755	920.87	1	0.863	***6.451***
2023-09-08 12:01	2580310	8.203	-146.954	10.473	1086.28	1327.916	0.755	920.57	1	0.863	***6.291***
2023-09-08 12:16	2581210	8.187	-146.167	10.498	1087.143	1328.189	0.755	919.84	1	0.863	***6.187***
2023-09-08 12:31	2582110	8.162	-144.93	10.534	1088.37	1328.592	0.756	918.81	1	0.864	***6.062***
2023-09-08 12:46	2583010	8.308	-152.326	10.573	1089.627	1328.918	0.756	917.75	1	0.864	***5.882***
2023-09-08 13:01	2583910	8.178	-145.757	10.612	1090.446	1328.701	0.756	917.06	1	0.864	***5.710***
2023-09-08 13:16	2584810	8.159	-144.827	10.649	1091.585	1328.937	0.756	916.10	1	0.864	***5.662***
2023-09-08 13:31	2585710	8.144	-144.098	10.686	1092.868	1329.35	0.756	915.02	1	0.864	***5.781***
2023-09-08 13:46	2586611	8.289	-151.432	10.722	1092.794	1328.161	0.755	915.09	1	0.863	***5.775***
2023-09-08 14:01	2587511	8.172	-145.528	10.753	1094.005	1328.677	0.756	914.07	1	0.864	***5.861***
2023-09-08 14:16	2588411	8.166	-145.249	10.792	1095.354	1329.121	0.756	912.95	1	0.864	***6.043***
2023-09-08 14:31	2589311	8.164	-145.199	10.844	1096.746	1329.205	0.756	911.79	1	0.864	***5.947***
2023-09-08 14:46	2590211	8.316	-152.869	10.907	1098.187	1328.996	0.756	910.59	1	0.864	***5.951***
2023-09-08 15:01	2591111	8.191	-146.604	10.974	1100.561	1329.818	0.756	908.63	1	0.864	***6.413***
2023-09-08 15:16	2592011	8.169	-145.54	11.034	1102.518	1330.338	0.756	907.01	1	0.865	7.098
2023-09-08 15:31	2592911	8.151	-144.66	11.085	1104.461	1331.107	0.757	905.42	1	0.865	7.940
2023-09-08 15:46	2593811	8.314	-152.898	11.143	1106.544	1331.854	0.757	903.72	1	0.866	7.641
2023-09-08 16:01	2594711	8.220	-148.165	11.191	1107.587	1331.65	0.757	902.86	1	0.866	7.586
2023-09-08 16:16	2595611	8.184	-146.401	11.24	1109.233	1332.11	0.757	901.52	1	0.866	7.568
2023-09-08 16:31	2596511	8.162	-145.285	11.28	1110.664	1332.626	0.757	900.36	1	0.866	7.898
2023-09-08 16:46	2597411	8.336	-154.119	11.318	1112.657	1333.843	0.758	898.75	1	0.867	8.107
2023-09-08 17:01	2598311	8.216	-148.089	11.352	1113.265	1333.524	0.758	898.26	1	0.867	7.494
2023-09-08 17:16	2599211	8.195	-147.026	11.376	1114.155	1333.856	0.758	897.54	1	0.867	7.497
2023-09-08 17:31	2600111	8.194	-147.007	11.404	1115.055	1334.084	0.758	896.82	1	0.867	7.616
2023-09-08 17:46	2601011	8.348	-154.805	11.415	1115.731	1334.556	0.758	896.27	1	0.867	7.274
2023-09-08 18:01	2601911	8.252	-149.951	11.417	1115.514	1334.235	0.758	896.45	1	0.867	7.506
2023-09-08 18:16	2602811	8.244	-149.536	11.447	1116.374	1334.369	0.758	895.76	1	0.867	7.644
2023-09-08 18:31	2603711	8.225	-148.602	11.474	1117.248	1334.566	0.758	895.06	1	0.867	7.692
2023-09-08 18:46	2604611	8.375	-156.176	11.492	1118.346	1335.344	0.759	894.18	1	0.868	7.635
2023-09-08 19:01	2605511	8.226	-148.652	11.515	1118.686	1335.053	0.759	893.91	1	0.868	7.422
2023-09-08 19:16	2606411	8.198	-147.254	11.541	1119.515	1335.254	0.759	893.24	1	0.868	7.362
2023-09-08 19:31	2607311	8.161	-145.39	11.552	1119.975	1335.47	0.759	892.88	1	0.868	7.264
2023-09-08 19:46	2608211	8.318	-153.353	11.544	1119.377	1334.996	0.759	893.35	1	0.868	7.021
2023-09-08 20:01	2609111	8.202	-147.433	11.527	1118.731	1334.742	0.758	893.87	1	0.868	6.918
2023-09-08 20:16	2610011	8.179	-146.265	11.526	1118.594	1334.61	0.758	893.98	1	0.867	7.332
2023-09-08 20:31	2610911	8.183	-146.494	11.543	1119.063	1334.643	0.758	893.61	1	0.868	7.482
2023-09-08 20:46	2611811	8.350	-154.96	11.558	1120.233	1335.585	0.759	892.67	1	0.868	7.437
2023-09-08 21:01	2612711	8.215	-148.134	11.571	1120.437	1335.436	0.759	892.51	1	0.868	7.239
2023-09-08 21:16	2613611	8.193	-147.004	11.582	1120.471	1335.137	0.759	892.48	1	0.868	7.118
2023-09-08 21:31	2614511	8.179	-146.32	11.589	1120.857	1335.383	0.759	892.17	1	0.868	6.952
2023-09-08 21:46	2615411	8.320	-153.465	11.597	1121.304	1335.681	0.759	891.82	1	0.868	6.850
2023-09-08 22:01	2616311	8.176	-146.194	11.596	1121.347	1335.749	0.759	891.79	1	0.868	6.666
2023-09-08 22:16	2617211	8.156	-145.137	11.592	1121.316	1335.852	0.759	891.81	1	0.868	6.578
2023-09-08 22:31	2618111	8.137	-144.179	11.587	1121.342	1336.034	0.759	891.79	1	0.868	***6.455***
2023-09-08 22:46	2619011	8.311	-152.981	11.581	1121.448	1336.329	0.759	891.70	1	0.869	***6.116***
2023-09-08 23:01	2619911	8.204	-147.576	11.579	1121.068	1335.944	0.759	892.01	1	0.868	6.669

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-08 23:16	2620811	8.196	-147.176	11.583	1121.191	1335.974	0.759	891.91	1	0.868	***6.442***
2023-09-08 23:31	2621711	8.184	-146.599	11.592	1121.516	1336.068	0.759	891.65	1	0.868	6.663
2023-09-08 23:46	2622611	8.301	-152.504	11.611	1122.046	1336.123	0.759	891.23	1	0.868	6.592
2023-09-09 00:01	2623511	8.161	-145.416	11.624	1122.421	1336.171	0.759	890.93	1	0.869	***6.375***
2023-09-09 00:16	2624411	8.141	-144.393	11.63	1122.695	1336.339	0.759	890.71	1	0.869	***6.193***
2023-09-09 00:31	2625311	8.113	-142.977	11.626	1122.863	1336.656	0.760	890.58	1	0.869	***6.011***
2023-09-09 00:46	2626211	8.259	-150.371	11.634	1123.342	1336.989	0.760	890.20	1	0.869	***5.738***
2023-09-09 01:01	2627111	8.131	-143.898	11.65	1123.579	1336.762	0.760	890.01	1	0.869	***5.487***
2023-09-09 01:16	2628011	8.113	-143.034	11.664	1124.07	1336.92	0.760	889.62	1	0.869	***5.467***
2023-09-09 01:31	2628911	8.094	-142.074	11.672	1124.513	1337.22	0.760	889.27	1	0.869	***5.405***
2023-09-09 01:46	2629811	8.339	-154.481	11.662	1124.477	1337.467	0.760	889.30	1	0.869	***5.756***
2023-09-09 02:01	2630711	8.169	-145.85	11.642	1124.375	1337.975	0.760	889.38	1	0.870	***6.259***
2023-09-09 02:16	2631611	8.166	-145.667	11.62	1123.623	1337.74	0.760	889.98	1	0.870	6.888
2023-09-09 02:31	2632511	8.193	-147.021	11.575	1121.192	1336.201	0.759	891.91	1	0.869	6.856
2023-09-09 02:46	2633411	8.374	-156.181	11.52	1117.682	1333.705	0.758	894.71	1	0.867	6.686
2023-09-09 03:01	2634311	8.235	-149.114	11.469	1114.957	1331.994	0.757	896.90	1	0.866	6.864
2023-09-09 03:16	2635211	8.210	-147.817	11.418	1112.335	1330.417	0.756	899.01	1	0.865	6.923
2023-09-09 03:31	2636111	8.221	-148.344	11.362	1110.762	1330.245	0.756	900.28	1	0.865	6.827
2023-09-09 03:46	2637011	8.382	-156.45	11.297	1106.409	1327.001	0.754	903.83	1	0.863	6.613
2023-09-09 04:01	2637911	8.247	-149.56	11.229	1105.787	1328.322	0.755	904.33	1	0.863	6.877
2023-09-09 04:16	2638811	8.245	-149.441	11.163	1103.506	1327.577	0.755	906.20	1	0.863	6.815
2023-09-09 04:31	2639711	8.241	-149.2	11.108	1101.934	1327.366	0.754	907.50	1	0.863	6.676
2023-09-09 04:46	2640611	8.390	-156.696	11.037	1096.083	1322.475	0.752	912.34	1	0.860	***6.323***
2023-09-09 05:01	2641511	8.241	-149.145	10.969	1093.199	1321.062	0.751	914.75	1	0.859	***6.425***
2023-09-09 05:16	2642411	8.206	-147.326	10.91	1091.075	1320.319	0.750	916.53	1	0.858	***6.491***
2023-09-09 05:31	2643311	8.205	-147.274	10.864	1090.782	1321.349	0.751	916.77	1	0.859	***6.441***
2023-09-09 05:46	2644211	8.374	-155.792	10.833	1088.286	1319.279	0.750	918.88	1	0.858	***6.368***
2023-09-09 06:01	2645111	8.199	-146.914	10.769	1087.831	1320.675	0.751	919.26	1	0.858	6.550
2023-09-09 06:16	2646011	8.181	-145.972	10.731	1087.474	1321.405	0.751	919.56	1	0.859	6.796
2023-09-09 06:31	2646911	8.208	-147.326	10.699	1086.732	1321.498	0.751	920.19	1	0.859	6.784
2023-09-09 06:46	2647811	8.375	-155.725	10.666	1086.624	1322.38	0.752	920.28	1	0.860	6.667
2023-09-09 07:01	2648711	8.226	-148.211	10.622	1086.483	1323.547	0.753	920.40	1	0.860	6.536
2023-09-09 07:16	2649611	8.233	-148.525	10.575	1085.919	1324.321	0.753	920.88	1	0.861	6.532
2023-09-09 07:31	2650511	8.221	-147.917	10.545	1085.017	1324.158	0.753	921.65	1	0.861	6.739
2023-09-09 07:46	2651411	8.363	-155.082	10.533	1083.044	1322.118	0.752	923.32	1	0.859	6.725
2023-09-09 08:01	2652311	8.228	-148.237	10.502	1082.457	1322.348	0.752	923.82	1	0.860	6.570
2023-09-09 08:16	2653211	8.205	-147.057	10.488	1082.023	1322.253	0.752	924.19	1	0.859	6.561
2023-09-09 08:31	2654111	8.182	-145.912	10.465	1081.525	1322.353	0.752	924.62	1	0.860	***6.468***
2023-09-09 08:46	2655011	8.342	-153.971	10.45	1081.034	1322.227	0.752	925.04	1	0.859	***6.437***
2023-09-09 09:01	2655911	8.205	-147.054	10.427	1080.23	1321.935	0.752	925.73	1	0.859	***6.180***
2023-09-09 09:16	2656811	8.174	-145.447	10.406	1080.162	1322.505	0.752	925.79	1	0.860	***5.973***
2023-09-09 09:31	2657711	8.156	-144.517	10.377	1079.852	1323.036	0.752	926.05	1	0.860	***5.795***
2023-09-09 09:46	2658611	8.307	-152.173	10.37	1078.831	1321.972	0.752	926.93	1	0.859	***5.743***
2023-09-09 10:01	2659511	8.184	-145.955	10.354	1078.313	1321.857	0.752	927.38	1	0.859	***5.475***
2023-09-09 10:16	2660411	8.159	-144.665	10.347	1078.313	1322.053	0.752	927.38	1	0.859	***5.390***
2023-09-09 10:31	2661311	8.140	-143.695	10.344	1078.68	1322.619	0.752	927.06	1	0.860	***5.366***
2023-09-09 10:46	2662211	8.290	-151.284	10.354	1079.272	1323.032	0.752	926.55	1	0.860	***5.336***
2023-09-09 11:01	2663111	8.155	-144.451	10.341	1078.712	1322.751	0.752	927.03	1	0.860	***4.866***
2023-09-09 11:16	2664011	8.133	-143.337	10.329	1079.036	1323.518	0.753	926.75	1	0.860	***4.834***
2023-09-09 11:31	2664911	8.115	-142.443	10.334	1079.521	1323.963	0.753	926.34	1	0.861	***4.774***
2023-09-09 11:46	2665811	8.268	-150.194	10.358	1077.706	1320.967	0.751	927.90	1	0.859	***4.944***
2023-09-09 12:01	2666711	8.141	-143.776	10.366	1078.602	1321.833	0.752	927.13	1	0.859	***5.045***
2023-09-09 12:16	2667611	8.132	-143.349	10.394	1079.411	1321.942	0.752	926.43	1	0.859	***4.920***
2023-09-09 12:31	2668511	8.135	-143.518	10.413	1080.039	1322.143	0.752	925.89	1	0.859	***4.838***
2023-09-09 12:46	2669411	8.313	-152.49	10.441	1077.526	1318.197	0.750	928.05	1	0.857	***5.115***
2023-09-09 13:01	2670311	8.174	-145.473	10.466	1077.29	1317.14	0.749	928.26	1	0.856	***5.636***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-09 13:16	2671211	8.163	-144.949	10.492	1077.918	1317.123	0.749	927.71	1	0.856	***6.323***
2023-09-09 13:31	2672111	8.147	-144.15	10.523	1077.858	1316.07	0.748	927.77	1	0.855	6.860
2023-09-09 13:46	2673011	8.301	-151.927	10.567	1068.018	1302.744	0.740	936.31	1	0.847	7.076
2023-09-09 14:01	2673911	8.191	-146.399	10.612	1071.055	1305.053	0.742	933.66	1	0.848	7.081
2023-09-09 14:16	2674811	8.199	-146.878	10.703	1069.442	1300.349	0.739	935.07	1	0.845	7.422
2023-09-09 14:31	2675711	8.184	-146.189	10.874	1070.993	1297.089	0.737	933.71	1	0.843	7.660
2023-09-09 14:46	2676611	8.323	-153.325	11.095	1068.205	1287.118	0.731	936.15	1	0.837	7.545
2023-09-09 15:01	2677511	8.162	-145.292	11.253	1074.532	1290.07	0.732	930.64	1	0.839	7.941
2023-09-09 15:16	2678411	8.161	-145.309	11.413	1077.824	1289.291	0.732	927.80	1	0.838	7.874
2023-09-09 15:31	2679311	8.149	-144.804	11.621	1084.769	1291.459	0.733	921.86	1	0.839	8.191
2023-09-09 15:46	2680211	8.280	-151.513	11.772	1091.956	1295.566	0.735	915.79	1	0.842	8.533
2023-09-09 16:01	2681111	8.169	-145.957	11.866	1095.217	1296.656	0.736	913.06	1	0.843	8.020
2023-09-09 16:16	2682011	8.146	-144.844	11.962	1099.586	1299.033	0.737	909.43	1	0.844	8.149
2023-09-09 16:31	2682911	8.167	-145.948	12.065	1103.339	1300.423	0.738	906.34	1	0.845	8.275
2023-09-09 16:46	2683811	8.371	-156.207	11.883	1103.477	1305.952	0.741	906.23	1	0.849	7.987
2023-09-09 17:01	2684711	8.281	-151.51	11.674	1101.121	1309.337	0.743	908.17	1	0.851	9.184
2023-09-09 17:16	2685611	8.273	-151.174	11.783	1104.408	1310.003	0.744	905.46	1	0.852	9.133
2023-09-09 17:31	2686511	8.263	-150.719	11.883	1106.721	1309.791	0.743	903.57	1	0.851	8.959
2023-09-09 17:46	2687411	8.457	-160.489	11.77	1103.449	1309.244	0.743	906.25	1	0.851	9.151
2023-09-09 18:01	2688311	8.298	-152.476	11.799	1104.198	1309.272	0.743	905.63	1	0.851	9.458
2023-09-09 18:16	2689211	8.289	-151.975	11.733	1103.411	1310.305	0.744	906.28	1	0.852	9.521
2023-09-09 18:31	2690111	8.312	-153.122	11.708	1103.862	1311.596	0.745	905.91	1	0.853	9.777
2023-09-09 18:46	2691011	8.439	-159.571	11.765	1105.166	1311.439	0.744	904.84	1	0.852	9.773
2023-09-09 19:01	2691911	8.288	-151.942	11.754	1104.087	1310.474	0.744	905.73	1	0.852	9.655
2023-09-09 19:16	2692811	8.288	-151.887	11.681	1102.927	1311.29	0.744	906.68	1	0.852	9.937
2023-09-09 19:31	2693711	8.323	-153.623	11.595	1102.387	1313.19	0.746	907.12	1	0.854	9.672
2023-09-09 19:46	2694611	8.477	-161.395	11.566	1100.425	1311.743	0.745	908.74	1	0.853	9.690
2023-09-09 20:01	2695511	8.330	-153.964	11.559	1100.19	1311.651	0.745	908.93	1	0.853	9.994
2023-09-09 20:16	2696411	8.283	-151.56	11.571	1100.571	1311.742	0.745	908.62	1	0.853	10.005
2023-09-09 20:31	2697311	8.260	-150.406	11.585	1101.043	1311.9	0.745	908.23	1	0.853	9.903
2023-09-09 20:46	2698211	8.414	-158.248	11.605	1102.091	1312.539	0.745	907.37	1	0.853	9.719
2023-09-09 21:01	2699111	8.279	-151.401	11.612	1101.655	1311.825	0.745	907.73	1	0.853	9.452
2023-09-09 21:16	2700011	8.246	-149.722	11.609	1102.165	1312.51	0.745	907.31	1	0.853	9.199
2023-09-09 21:31	2700911	8.249	-149.86	11.596	1102.292	1313.063	0.746	907.20	1	0.853	9.083
2023-09-09 21:46	2701811	8.421	-158.584	11.59	1101.992	1312.88	0.745	907.45	1	0.853	9.279
2023-09-09 22:01	2702711	8.293	-152.111	11.576	1101.532	1312.764	0.745	907.83	1	0.853	9.232
2023-09-09 22:16	2703611	8.270	-150.9	11.572	1101.555	1312.907	0.745	907.81	1	0.853	9.207
2023-09-09 22:31	2704511	8.276	-151.248	11.575	1101.829	1313.122	0.746	907.58	1	0.854	9.194
2023-09-09 22:46	2705411	8.421	-158.567	11.584	1102.794	1314.028	0.746	906.79	1	0.854	9.087
2023-09-09 23:01	2706311	8.277	-151.296	11.584	1102.489	1313.645	0.746	907.04	1	0.854	8.828
2023-09-09 23:16	2707211	8.250	-149.934	11.599	1103.041	1313.858	0.746	906.59	1	0.854	8.705
2023-09-09 23:31	2708111	8.225	-148.644	11.604	1103.436	1314.177	0.746	906.26	1	0.854	8.507
2023-09-09 23:46	2709011	8.354	-155.175	11.61	1103.332	1313.879	0.746	906.35	1	0.854	8.081
2023-09-10 00:01	2709911	8.241	-149.469	11.621	1103.776	1314.082	0.746	905.98	1	0.854	8.131
2023-09-10 00:16	2710811	8.200	-147.402	11.658	1105.674	1315.222	0.747	904.43	1	0.855	7.921
2023-09-10 00:31	2711711	8.207	-147.789	11.642	1106.705	1316.941	0.748	903.58	1	0.856	7.966
2023-09-10 00:46	2712611	8.392	-157.137	11.648	1107.418	1317.609	0.748	903.00	1	0.856	8.181
2023-09-10 01:01	2713511	8.245	-149.689	11.677	1107.774	1317.174	0.748	902.71	1	0.856	8.152
2023-09-10 01:16	2714411	8.226	-148.78	11.708	1108.778	1317.43	0.748	901.89	1	0.856	8.052
2023-09-10 01:31	2715311	8.201	-147.493	11.719	1109.309	1317.724	0.748	901.46	1	0.857	7.934
2023-09-10 01:46	2716211	8.354	-155.246	11.725	1110.524	1318.98	0.749	900.48	1	0.857	7.705
2023-09-10 02:01	2717111	8.241	-149.503	11.713	1111.192	1320.159	0.750	899.93	1	0.858	7.665
2023-09-10 02:16	2718011	8.226	-148.752	11.708	1112.331	1321.646	0.751	899.01	1	0.859	7.664
2023-09-10 02:31	2718911	8.225	-148.723	11.704	1113.077	1322.664	0.751	898.41	1	0.860	7.693
2023-09-10 02:46	2719811	8.368	-155.966	11.716	1113.047	1322.26	0.751	898.44	1	0.859	7.609
2023-09-10 03:01	2720711	8.226	-148.788	11.723	1112.859	1321.835	0.751	898.59	1	0.859	7.400

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-10 03:16	2721611	8.215	-148.206	11.723	1113.038	1322.042	0.751	898.44	1	0.859	7.258
2023-09-10 03:31	2722511	8.204	-147.645	11.721	1114.327	1323.636	0.752	897.40	1	0.860	6.921
2023-09-10 03:46	2723411	8.354	-155.244	11.71	1112.691	1322.028	0.751	898.72	1	0.859	6.769
2023-09-10 04:01	2724312	8.200	-147.452	11.688	1112.838	1322.861	0.751	898.60	1	0.860	6.749
2023-09-10 04:16	2725212	8.188	-146.785	11.653	1111.896	1322.774	0.751	899.37	1	0.860	6.601
2023-09-10 04:31	2726112	8.173	-146.029	11.611	1110.587	1322.487	0.751	900.43	1	0.860	***6.330***
2023-09-10 04:46	2727012	8.339	-154.402	11.569	1108.232	1320.937	0.750	902.34	1	0.859	***6.303***
2023-09-10 05:01	2727912	8.195	-147.095	11.53	1108.316	1322.208	0.751	902.27	1	0.859	***6.350***
2023-09-10 05:16	2728812	8.181	-146.382	11.481	1108.097	1323.446	0.752	902.45	1	0.860	***6.069***
2023-09-10 05:31	2729712	8.170	-145.788	11.434	1107.396	1324.031	0.752	903.02	1	0.861	***6.030***
2023-09-10 05:46	2730612	8.306	-152.64	11.376	1098.963	1315.685	0.747	909.95	1	0.855	***6.026***
2023-09-10 06:01	2731512	8.186	-146.511	11.31	1100.862	1319.957	0.750	908.38	1	0.858	***6.178***
2023-09-10 06:16	2732412	8.179	-146.134	11.26	1099.377	1319.676	0.750	909.61	1	0.858	***6.222***
2023-09-10 06:31	2733312	8.173	-145.826	11.202	1097.653	1319.37	0.750	911.04	1	0.858	***6.107***
2023-09-10 06:46	2734212	8.315	-152.953	11.15	1092.857	1315.164	0.747	915.03	1	0.855	***6.035***
2023-09-10 07:01	2735112	8.183	-146.282	11.081	1089.806	1313.574	0.746	917.60	1	0.854	***5.817***
2023-09-10 07:16	2736012	8.178	-145.96	11.03	1088.71	1313.797	0.746	918.52	1	0.854	***5.996***
2023-09-10 07:31	2736912	8.156	-144.868	11.001	1088.27	1314.151	0.747	918.89	1	0.854	***6.247***
2023-09-10 07:46	2737812	8.304	-152.326	10.977	1084.666	1310.534	0.745	921.94	1	0.852	***6.214***
2023-09-10 08:01	2738712	8.174	-145.752	10.93	1085.095	1312.459	0.746	921.58	1	0.853	***6.071***
2023-09-10 08:16	2739612	8.165	-145.235	10.885	1084.001	1312.512	0.746	922.51	1	0.853	***5.941***
2023-09-10 08:31	2740512	8.144	-144.153	10.843	1082.87	1312.406	0.746	923.47	1	0.853	***6.017***
2023-09-10 08:46	2741412	8.284	-151.219	10.811	1080.628	1310.672	0.745	925.39	1	0.852	***5.925***
2023-09-10 09:01	2742312	8.173	-145.602	10.789	1079.925	1310.481	0.745	925.99	1	0.852	***5.929***
2023-09-10 09:16	2743212	8.149	-144.374	10.779	1082.385	1313.766	0.747	923.89	1	0.854	***5.806***
2023-09-10 09:31	2744112	8.128	-143.347	10.767	1083.381	1315.353	0.748	923.04	1	0.855	***5.731***
2023-09-10 09:46	2745012	8.263	-150.13	10.764	1081.239	1312.835	0.746	924.87	1	0.853	***5.647***
2023-09-10 10:01	2745912	8.141	-143.991	10.748	1082.261	1314.553	0.747	923.99	1	0.854	***5.452***
2023-09-10 10:16	2746812	8.131	-143.437	10.739	1082.287	1314.856	0.747	923.97	1	0.855	***5.355***
2023-09-10 10:31	2747712	8.120	-142.882	10.736	1082.872	1315.667	0.748	923.47	1	0.855	***5.294***
2023-09-10 10:46	2748612	8.265	-150.201	10.735	1082.675	1315.464	0.748	923.64	1	0.855	***5.134***
2023-09-10 11:01	2749512	8.123	-143.056	10.73	1082.253	1315.112	0.747	924.00	1	0.855	***4.809***
2023-09-10 11:16	2750412	8.090	-141.363	10.735	1083.009	1315.858	0.748	923.35	1	0.855	***4.851***
2023-09-10 11:31	2751312	8.085	-141.129	10.744	1083.424	1316.109	0.748	923.00	1	0.855	***4.879***
2023-09-10 11:46	2752212	8.242	-149.09	10.762	1080.738	1312.287	0.746	925.29	1	0.853	***4.998***
2023-09-10 12:01	2753112	8.113	-142.57	10.77	1082.153	1313.768	0.747	924.08	1	0.854	***4.946***
2023-09-10 12:16	2754012	8.104	-142.1	10.791	1082.959	1314.104	0.747	923.40	1	0.854	***4.934***
2023-09-10 12:31	2754912	8.103	-142.088	10.81	1083.811	1314.551	0.747	922.67	1	0.854	***4.975***
2023-09-10 12:46	2755812	8.267	-150.397	10.828	1080.509	1310.012	0.744	925.49	1	0.852	***5.001***
2023-09-10 13:01	2756712	8.129	-143.421	10.848	1080.854	1309.806	0.744	925.19	1	0.851	***4.920***
2023-09-10 13:16	2757612	8.128	-143.356	10.865	1081.687	1310.293	0.745	924.48	1	0.852	***5.231***
2023-09-10 13:31	2758512	8.129	-143.454	10.888	1082.576	1310.677	0.745	923.72	1	0.852	***5.503***
2023-09-10 13:46	2759412	8.272	-150.697	10.919	1075.865	1301.625	0.739	929.49	1	0.846	***5.576***
2023-09-10 14:01	2760312	8.133	-143.669	10.939	1079.441	1305.36	0.742	926.41	1	0.848	***5.380***
2023-09-10 14:16	2761212	8.138	-143.931	10.976	1080.401	1305.404	0.742	925.58	1	0.849	***5.474***
2023-09-10 14:31	2762112	8.140	-144.05	11.033	1081.463	1304.962	0.741	924.67	1	0.848	***6.239***
2023-09-10 14:46	2763012	8.315	-152.931	11.112	1077.517	1297.837	0.737	928.06	1	0.844	6.655
2023-09-10 15:01	2763912	8.182	-146.284	11.178	1079.847	1298.662	0.737	926.06	1	0.844	6.705
2023-09-10 15:16	2764812	8.173	-145.819	11.246	1082.076	1299.321	0.738	924.15	1	0.845	7.208
2023-09-10 15:31	2765712	8.193	-146.914	11.32	1084.552	1300.092	0.738	922.04	1	0.845	7.597
2023-09-10 15:46	2766612	8.345	-154.643	11.415	1085.929	1298.93	0.737	920.87	1	0.844	7.982
2023-09-10 16:01	2767512	8.186	-146.623	11.472	1087.682	1299.319	0.738	919.39	1	0.845	7.520
2023-09-10 16:16	2768412	8.180	-146.344	11.516	1089.042	1299.635	0.738	918.24	1	0.845	7.887
2023-09-10 16:31	2769312	8.194	-147.054	11.565	1090.473	1299.882	0.738	917.03	1	0.845	7.852
2023-09-10 16:46	2770212	8.334	-154.164	11.615	1092.87	1301.278	0.739	915.02	1	0.846	7.647
2023-09-10 17:01	2771112	8.190	-146.894	11.635	1094.066	1302.095	0.739	914.02	1	0.846	7.250

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-10 17:16	2772012	8.143	-144.527	11.653	1096.494	1304.469	0.740	912.00	1	0.848	7.343
2023-09-10 17:31	2772912	8.131	-143.907	11.665	1098.393	1306.377	0.742	910.42	1	0.849	8.464
2023-09-10 17:46	2773812	8.350	-155.06	11.699	1098.126	1305.025	0.741	910.64	1	0.848	8.824
2023-09-10 18:01	2774712	8.256	-150.29	11.715	1099.221	1305.877	0.741	909.74	1	0.849	8.916
2023-09-10 18:16	2775612	8.217	-148.332	11.726	1099.96	1306.407	0.742	909.12	1	0.849	9.020
2023-09-10 18:31	2776512	8.188	-146.847	11.739	1100.495	1306.657	0.742	908.68	1	0.849	9.180
2023-09-10 18:46	2777412	8.375	-156.329	11.751	1101.155	1307.096	0.742	908.14	1	0.850	9.597
2023-09-10 19:01	2778312	8.250	-149.999	11.744	1101.078	1307.204	0.742	908.20	1	0.850	9.200
2023-09-10 19:16	2779212	8.219	-148.408	11.735	1101.606	1308.098	0.743	907.77	1	0.850	9.183
2023-09-10 19:31	2780112	8.225	-148.723	11.731	1101.655	1308.284	0.743	907.73	1	0.850	9.493
2023-09-10 19:46	2781012	8.395	-157.347	11.737	1101.211	1307.588	0.742	908.09	1	0.850	9.719
2023-09-10 20:01	2781912	8.276	-151.293	11.733	1101.053	1307.515	0.742	908.22	1	0.850	9.304
2023-09-10 20:16	2782812	8.263	-150.638	11.736	1101.214	1307.597	0.742	908.09	1	0.850	9.416
2023-09-10 20:31	2783712	8.243	-149.653	11.735	1101.308	1307.761	0.742	908.01	1	0.850	9.298
2023-09-10 20:46	2784612	8.396	-157.404	11.734	1101.655	1308.195	0.743	907.73	1	0.850	9.208
2023-09-10 21:01	2785512	8.259	-150.428	11.731	1101.433	1308.017	0.742	907.91	1	0.850	8.810
2023-09-10 21:16	2786412	8.236	-149.267	11.729	1101.448	1308.108	0.743	907.90	1	0.850	8.704
2023-09-10 21:31	2787312	8.238	-149.372	11.726	1101.54	1308.302	0.743	907.82	1	0.850	8.508
2023-09-10 21:46	2788212	8.400	-157.611	11.722	1101.264	1308.078	0.743	908.05	1	0.850	8.424
2023-09-10 22:01	2789112	8.265	-150.754	11.709	1101.053	1308.209	0.743	908.22	1	0.850	8.305
2023-09-10 22:16	2790012	8.274	-151.172	11.704	1101.043	1308.359	0.743	908.23	1	0.850	8.427
2023-09-10 22:31	2790912	8.267	-150.855	11.705	1101.097	1308.399	0.743	908.19	1	0.850	8.525
2023-09-10 22:46	2791812	8.397	-157.447	11.714	1102.016	1309.21	0.743	907.43	1	0.851	8.518
2023-09-10 23:01	2792712	8.245	-149.72	11.723	1102.149	1309.116	0.743	907.32	1	0.851	8.219
2023-09-10 23:16	2793612	8.219	-148.432	11.728	1102.349	1309.2	0.743	907.15	1	0.851	8.123
2023-09-10 23:31	2794512	8.209	-147.939	11.734	1102.746	1309.479	0.743	906.83	1	0.851	8.058
2023-09-10 23:46	2795412	8.347	-154.936	11.75	1102.672	1308.93	0.743	906.89	1	0.851	7.926
2023-09-11 00:01	2796312	8.210	-147.996	11.755	1103.128	1309.315	0.743	906.51	1	0.851	7.790
2023-09-11 00:16	2797212	8.201	-147.545	11.761	1103.444	1309.504	0.743	906.25	1	0.851	7.616
2023-09-11 00:31	2798112	8.193	-147.145	11.776	1104	1309.721	0.743	905.80	1	0.851	7.433
2023-09-11 00:46	2799012	8.358	-155.482	11.802	1104.734	1309.827	0.743	905.20	1	0.851	7.347
2023-09-11 01:01	2799912	8.205	-147.755	11.827	1104.917	1309.299	0.743	905.05	1	0.851	7.295
2023-09-11 01:16	2800812	8.188	-146.928	11.853	1105.92	1309.71	0.743	904.23	1	0.851	7.234
2023-09-11 01:31	2801712	8.191	-147.099	11.884	1106.978	1310.046	0.744	903.36	1	0.852	7.072
2023-09-11 01:46	2802612	8.324	-153.866	11.921	1107.499	1309.571	0.743	902.94	1	0.851	7.058
2023-09-11 02:01	2803512	8.168	-145.965	11.939	1108.143	1309.797	0.743	902.41	1	0.851	6.787
2023-09-11 02:16	2804412	8.219	-148.556	11.961	1113.07	1314.981	0.746	898.42	1	0.855	***6.464***
2023-09-11 02:31	2805312	8.240	-149.586	11.969	1117.025	1319.398	0.749	895.24	1	0.858	6.709
2023-09-11 02:46	2806212	8.395	-157.459	11.979	1122.369	1325.432	0.753	890.97	1	0.862	8.015
2023-09-11 03:01	2807112	8.220	-148.58	11.973	1130.431	1335.125	0.758	884.62	1	0.868	7.730
2023-09-11 03:16	2808012	8.234	-149.295	11.966	1132.212	1337.435	0.760	883.23	1	0.869	7.558
2023-09-11 03:31	2808912	8.244	-149.794	11.961	1133.325	1338.893	0.761	882.36	1	0.870	7.375
2023-09-11 03:46	2809812	8.388	-157.089	11.95	1133.069	1338.939	0.761	882.56	1	0.870	7.150
2023-09-11 04:01	2810712	8.233	-149.226	11.908	1134.206	1341.552	0.762	881.67	1	0.872	7.040
2023-09-11 04:16	2811612	8.196	-147.326	11.827	1132.868	1342.432	0.763	882.72	1	0.873	7.233
2023-09-11 04:31	2812512	8.215	-148.222	11.769	1130.788	1341.732	0.762	884.34	1	0.872	7.419
2023-09-11 04:46	2813412	8.392	-157.201	11.712	1129.873	1342.378	0.763	885.06	1	0.873	7.428
2023-09-11 05:01	2814312	8.247	-149.827	11.677	1128.841	1342.209	0.763	885.86	1	0.872	7.252
2023-09-11 05:16	2815212	8.232	-149.043	11.638	1127.757	1342.116	0.763	886.72	1	0.872	7.263
2023-09-11 05:31	2816112	8.233	-149.057	11.589	1126.387	1341.974	0.763	887.79	1	0.872	7.281
2023-09-11 05:46	2817012	8.382	-156.579	11.544	1124.437	1341.041	0.762	889.33	1	0.872	7.210
2023-09-11 06:01	2817912	8.241	-149.403	11.479	1122.207	1340.35	0.762	891.10	1	0.871	7.093
2023-09-11 06:16	2818812	8.234	-149.009	11.423	1120.047	1339.467	0.761	892.82	1	0.871	7.129
2023-09-11 06:31	2819712	8.226	-148.571	11.369	1117.778	1338.409	0.761	894.63	1	0.870	7.190
2023-09-11 06:46	2820612	8.394	-157.039	11.323	1116.75	1338.601	0.761	895.46	1	0.870	7.134
2023-09-11 07:01	2821512	8.250	-149.746	11.302	1115.766	1338.047	0.761	896.25	1	0.870	7.076

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-11 07:16	2822412	8.239	-149.181	11.282	1115.49	1338.343	0.761	896.47	1	0.870	6.873
2023-09-11 07:31	2823312	8.224	-148.454	11.282	1115.427	1338.259	0.761	896.52	1	0.870	6.782
2023-09-11 07:46	2824212	8.365	-155.568	11.291	1115.41	1337.985	0.761	896.53	1	0.870	6.670
2023-09-11 08:01	2825112	8.219	-148.199	11.275	1114.983	1337.941	0.761	896.88	1	0.870	6.584
2023-09-11 08:16	2826012	8.209	-147.688	11.27	1114.956	1338.062	0.761	896.90	1	0.870	***6.477***
2023-09-11 08:31	2826912	8.195	-146.978	11.271	1114.973	1338.061	0.761	896.88	1	0.870	***6.294***
2023-09-11 08:46	2827812	8.336	-154.102	11.281	1116.161	1339.168	0.761	895.93	1	0.870	***6.068***
2023-09-11 09:01	2828712	8.194	-146.93	11.278	1115.694	1338.7	0.761	896.30	1	0.870	***5.913***
2023-09-11 09:16	2829612	8.183	-146.337	11.276	1114.941	1337.865	0.761	896.91	1	0.870	***5.783***
2023-09-11 09:31	2830512	8.165	-145.457	11.281	1115.782	1338.715	0.761	896.23	1	0.870	***5.602***
2023-09-11 09:46	2831412	8.302	-152.376	11.299	1117.083	1339.739	0.762	895.19	1	0.871	***5.348***
2023-09-11 10:01	2832312	8.158	-145.104	11.287	1116.116	1338.926	0.761	895.96	1	0.870	***5.388***
2023-09-11 10:16	2833212	8.144	-144.415	11.284	1116.284	1339.236	0.761	895.83	1	0.871	***5.298***
2023-09-11 10:31	2834112	8.134	-143.886	11.281	1116.448	1339.53	0.762	895.70	1	0.871	***5.140***
2023-09-11 10:46	2835012	8.280	-151.298	11.291	1117.387	1340.348	0.762	894.95	1	0.871	***4.953***
2023-09-11 11:01	2835912	8.137	-144.062	11.294	1116.982	1339.765	0.762	895.27	1	0.871	***4.684***
2023-09-11 11:16	2836812	8.127	-143.528	11.299	1117.109	1339.762	0.762	895.17	1	0.871	***4.635***
2023-09-11 11:31	2837712	8.114	-142.879	11.306	1117.615	1340.145	0.762	894.76	1	0.871	***4.582***
2023-09-11 11:46	2838612	8.259	-150.216	11.334	1118.254	1340.049	0.762	894.25	1	0.871	***4.458***
2023-09-11 12:01	2839512	8.122	-143.294	11.34	1117.9	1339.457	0.761	894.54	1	0.871	***4.552***
2023-09-11 12:16	2840412	8.107	-142.543	11.355	1118.36	1339.535	0.761	894.17	1	0.871	***4.530***
2023-09-11 12:31	2841312	8.085	-141.475	11.372	1119.158	1339.972	0.762	893.53	1	0.871	***4.543***
2023-09-11 12:46	2842212	8.251	-149.853	11.398	1120.338	1340.583	0.762	892.59	1	0.871	***4.727***
2023-09-11 13:01	2843112	8.110	-142.736	11.426	1120.869	1340.363	0.762	892.17	1	0.871	***5.157***
2023-09-11 13:16	2844012	8.100	-142.236	11.46	1121.789	1340.419	0.762	891.43	1	0.871	***5.216***
2023-09-11 13:31	2844912	8.099	-142.229	11.502	1123.058	1340.651	0.762	890.43	1	0.871	***5.219***
2023-09-11 13:46	2845812	8.259	-150.34	11.555	1124.598	1340.893	0.762	889.21	1	0.872	***5.034***
2023-09-11 14:01	2846712	8.124	-143.533	11.589	1125.323	1340.698	0.762	888.63	1	0.871	***5.087***
2023-09-11 14:16	2847612	8.127	-143.704	11.637	1126.724	1340.919	0.762	887.53	1	0.872	***5.071***
2023-09-11 14:31	2848512	8.119	-143.318	11.7	1128.254	1340.827	0.762	886.33	1	0.872	***5.344***
2023-09-11 14:46	2849412	8.285	-151.811	11.792	1130.464	1340.637	0.762	884.59	1	0.871	***5.786***
2023-09-11 15:01	2850312	8.153	-145.147	11.852	1131.255	1339.748	0.761	883.97	1	0.871	***5.435***
2023-09-11 15:16	2851212	8.141	-144.536	11.883	1132.398	1340.182	0.761	883.08	1	0.871	***5.467***
2023-09-11 15:31	2852112	8.122	-143.607	11.917	1133.313	1340.215	0.761	882.37	1	0.871	***5.958***
2023-09-11 15:46	2853012	8.257	-150.461	11.934	1133.853	1340.339	0.761	881.95	1	0.871	***6.030***
2023-09-11 16:01	2853913	8.187	-146.871	11.92	1132.693	1339.411	0.761	882.85	1	0.871	6.625
2023-09-11 16:16	2854813	8.169	-145.96	11.914	1132.405	1339.226	0.761	883.08	1	0.870	6.922
2023-09-11 16:31	2855713	8.155	-145.29	11.924	1132.538	1339.09	0.761	882.97	1	0.870	7.125
2023-09-11 16:46	2856613	8.321	-153.72	11.941	1133.106	1339.247	0.761	882.53	1	0.871	7.125
2023-09-11 17:01	2857513	8.184	-146.742	11.95	1133.149	1339.031	0.761	882.50	1	0.870	6.695
2023-09-11 17:16	2858413	8.147	-144.911	11.964	1135.103	1340.926	0.762	880.98	1	0.872	6.738
2023-09-11 17:31	2859313	8.129	-143.981	11.988	1136.084	1341.358	0.762	880.22	1	0.872	6.714
2023-09-11 17:46	2860213	8.300	-152.674	12.029	1134.098	1337.777	0.760	881.76	1	0.870	7.097
2023-09-11 18:01	2861113	8.196	-147.409	12.071	1136.06	1338.83	0.760	880.24	1	0.870	7.462
2023-09-11 18:16	2862013	8.182	-146.751	12.114	1137.067	1338.704	0.760	879.46	1	0.870	7.717
2023-09-11 18:31	2862913	8.175	-146.434	12.158	1138.168	1338.667	0.760	878.61	1	0.870	7.701
2023-09-11 18:46	2863813	8.358	-155.721	12.206	1135.765	1334.412	0.758	880.46	1	0.867	7.359
2023-09-11 19:01	2864713	8.216	-148.53	12.245	1137.207	1334.926	0.758	879.35	1	0.868	7.158
2023-09-11 19:16	2865613	8.199	-147.696	12.275	1138.427	1335.484	0.758	878.41	1	0.868	7.172
2023-09-11 19:31	2866513	8.190	-147.252	12.297	1139.252	1335.775	0.758	877.77	1	0.868	7.112
2023-09-11 19:46	2867413	8.328	-154.235	12.317	1139.008	1334.888	0.758	877.96	1	0.868	7.044
2023-09-11 20:01	2868313	8.177	-146.601	12.339	1140.551	1336.05	0.759	876.77	1	0.868	7.198
2023-09-11 20:16	2869213	8.156	-145.555	12.361	1141.511	1336.514	0.759	876.03	1	0.869	7.356
2023-09-11 20:31	2870113	8.145	-144.997	12.386	1143.16	1337.699	0.759	874.77	1	0.870	7.422
2023-09-11 20:46	2871013	8.319	-153.842	12.41	1144.086	1338.049	0.760	874.06	1	0.870	7.406
2023-09-11 21:01	2871913	8.174	-146.511	12.442	1145.288	1338.526	0.760	873.14	1	0.870	7.276

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-11 21:16	2872813	8.182	-146.918	12.472	1147.203	1339.866	0.761	871.69	1	0.871	7.296
2023-09-11 21:31	2873713	8.174	-146.537	12.505	1149.076	1341.064	0.761	870.26	1	0.872	7.357
2023-09-11 21:46	2874613	8.333	-154.626	12.534	1149.159	1340.27	0.761	870.20	1	0.871	7.336
2023-09-11 22:01	2875513	8.201	-147.96	12.561	1151.104	1341.742	0.762	868.73	1	0.872	7.169
2023-09-11 22:16	2876413	8.198	-147.815	12.574	1152.33	1342.787	0.762	867.81	1	0.873	7.096
2023-09-11 22:31	2877313	8.167	-146.21	12.561	1160.59	1352.798	0.768	861.63	1	0.879	7.287
2023-09-11 22:46	2878213	8.378	-156.908	12.486	1159.019	1353.235	0.769	862.80	1	0.880	8.023
2023-09-11 23:01	2879113	8.249	-150.285	12.418	1155.106	1350.725	0.767	865.72	1	0.878	7.970
2023-09-11 23:16	2880013	8.246	-150.13	12.35	1153.672	1351.092	0.767	866.80	1	0.878	8.092
2023-09-11 23:31	2880913	8.260	-150.774	12.274	1150.867	1350.084	0.767	868.91	1	0.878	7.985
2023-09-11 23:46	2881813	8.411	-158.439	12.214	1149.238	1350.009	0.767	870.14	1	0.878	8.053
2023-09-12 00:01	2882713	8.261	-150.783	12.143	1147.021	1349.544	0.767	871.82	1	0.877	7.831
2023-09-12 00:16	2883613	8.245	-149.901	12.085	1146.187	1350.321	0.767	872.46	1	0.878	7.428
2023-09-12 00:31	2884513	8.243	-149.798	12.032	1144.696	1350.183	0.767	873.60	1	0.878	7.676
2023-09-12 00:46	2885413	8.404	-157.917	11.981	1143.219	1349.994	0.767	874.72	1	0.877	7.875
2023-09-12 01:01	2886313	8.265	-150.847	11.941	1141.729	1349.434	0.767	875.87	1	0.877	7.777
2023-09-12 01:16	2887213	8.258	-150.464	11.895	1140.213	1349.062	0.767	877.03	1	0.877	7.822
2023-09-12 01:31	2888113	8.263	-150.735	11.853	1138.878	1348.765	0.767	878.06	1	0.877	7.900
2023-09-12 01:46	2889013	8.407	-157.979	11.826	1137.87	1348.375	0.766	878.84	1	0.876	7.875
2023-09-12 02:01	2889913	8.244	-149.717	11.782	1136.289	1347.838	0.766	880.06	1	0.876	7.753
2023-09-12 02:16	2890813	8.241	-149.56	11.742	1134.556	1347.016	0.766	881.40	1	0.876	7.994
2023-09-12 02:31	2891713	8.230	-148.94	11.691	1132.928	1346.642	0.765	882.67	1	0.875	7.749
2023-09-12 02:46	2892613	8.405	-157.773	11.645	1131.608	1346.49	0.765	883.70	1	0.875	7.966
2023-09-12 03:01	2893513	8.248	-149.808	11.593	1128.882	1344.82	0.764	885.83	1	0.874	7.793
2023-09-12 03:16	2894413	8.257	-150.235	11.569	1127.232	1343.598	0.764	887.13	1	0.873	7.829
2023-09-12 03:31	2895313	8.228	-148.797	11.541	1126.033	1343.035	0.763	888.07	1	0.873	7.749
2023-09-12 03:46	2896213	8.380	-156.436	11.515	1125.149	1342.771	0.763	888.77	1	0.873	7.753
2023-09-12 04:01	2897113	8.205	-147.555	11.48	1122.991	1341.269	0.762	890.48	1	0.872	7.625
2023-09-12 04:16	2898013	8.204	-147.526	11.443	1122.38	1341.653	0.763	890.96	1	0.872	7.610
2023-09-12 04:31	2898913	8.219	-148.239	11.404	1122.435	1342.926	0.763	890.92	1	0.873	7.649
2023-09-12 04:46	2899813	8.373	-156.004	11.301	1122.446	1346.095	0.765	890.91	1	0.875	7.746
2023-09-12 05:01	2900713	8.227	-148.585	11.243	1122.337	1347.759	0.766	891.00	1	0.876	7.556
2023-09-12 05:16	2901613	8.213	-147.827	11.2	1120.899	1347.365	0.766	892.14	1	0.876	7.417
2023-09-12 05:31	2902513	8.209	-147.631	11.174	1119.897	1346.956	0.766	892.94	1	0.876	7.420
2023-09-12 05:46	2903413	8.363	-155.396	11.151	1118.031	1345.442	0.765	894.43	1	0.875	7.304
2023-09-12 06:01	2904313	8.217	-148.003	11.128	1117.91	1346.005	0.766	894.53	1	0.875	7.131
2023-09-12 06:16	2905213	8.195	-146.897	11.111	1117.377	1345.874	0.765	894.95	1	0.875	7.074
2023-09-12 06:31	2906113	8.173	-145.757	11.089	1116.217	1345.178	0.765	895.88	1	0.874	6.869
2023-09-12 06:46	2907013	8.329	-153.63	11.061	1115.791	1345.52	0.765	896.23	1	0.875	6.965
2023-09-12 07:01	2907913	8.194	-146.794	11.034	1115.125	1345.552	0.765	896.76	1	0.875	7.064
2023-09-12 07:16	2908813	8.184	-146.284	10.998	1114.664	1346.098	0.766	897.13	1	0.875	7.360
2023-09-12 07:31	2909713	8.201	-147.085	10.958	1114.82	1347.53	0.767	897.01	1	0.876	7.279
2023-09-12 07:46	2910613	8.351	-154.667	10.936	1114.285	1347.583	0.767	897.44	1	0.876	7.209
2023-09-12 08:01	2911513	8.189	-146.501	10.91	1114.841	1349.077	0.768	896.99	1	0.877	7.141
2023-09-12 08:16	2912413	8.166	-145.323	10.888	1114.183	1348.946	0.767	897.52	1	0.877	7.323
2023-09-12 08:31	2913313	8.176	-145.798	10.876	1113.826	1348.883	0.767	897.81	1	0.877	7.308
2023-09-12 08:46	2914213	8.325	-153.32	10.868	1114.149	1349.537	0.768	897.55	1	0.877	7.310
2023-09-12 09:01	2915113	8.201	-147.076	10.87	1114.106	1349.438	0.768	897.58	1	0.877	7.098
2023-09-12 09:16	2916013	8.193	-146.649	10.873	1114.356	1349.626	0.768	897.38	1	0.877	6.809
2023-09-12 09:31	2916913	8.190	-146.532	10.878	1114.736	1349.935	0.768	897.07	1	0.877	6.768
2023-09-12 09:46	2917813	8.330	-153.606	10.885	1114.756	1349.755	0.768	897.06	1	0.877	6.753
2023-09-12 10:01	2918713	8.190	-146.499	10.89	1114.324	1349.05	0.768	897.41	1	0.877	6.716
2023-09-12 10:16	2919613	8.187	-146.36	10.898	1115.069	1349.703	0.768	896.81	1	0.877	6.620
2023-09-12 10:31	2920513	8.185	-146.258	10.907	1115.295	1349.703	0.768	896.62	1	0.877	***6.412***
2023-09-12 10:46	2921413	8.309	-152.538	10.918	1116.475	1350.781	0.769	895.68	1	0.878	***6.290***
2023-09-12 11:01	2922313	8.175	-145.798	10.93	1116.496	1350.436	0.768	895.66	1	0.878	***6.319***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-12 11:16	2923213	8.158	-144.918	10.943	1116.946	1350.578	0.768	895.30	1	0.878	***6.182***
2023-09-12 11:31	2924113	8.145	-144.3	10.959	1117.578	1350.838	0.769	894.79	1	0.878	***6.037***
2023-09-12 11:46	2925013	8.277	-150.943	10.986	1118.211	1350.77	0.768	894.29	1	0.878	***5.938***
2023-09-12 12:01	2925913	8.150	-144.544	11.016	1118.692	1350.416	0.768	893.90	1	0.878	***5.948***
2023-09-12 12:16	2926813	8.146	-144.396	11.049	1119.862	1350.797	0.768	892.97	1	0.878	***5.887***
2023-09-12 12:31	2927713	8.143	-144.241	11.086	1121.01	1351.027	0.769	892.05	1	0.878	***5.823***
2023-09-12 12:46	2928613	8.276	-151.005	11.125	1122.575	1351.707	0.769	890.81	1	0.879	***5.785***
2023-09-12 13:01	2929513	8.135	-143.867	11.169	1123.55	1351.5	0.769	890.04	1	0.878	***5.952***
2023-09-12 13:16	2930413	8.130	-143.669	11.221	1129.49	1357.036	0.772	885.36	1	0.882	***5.983***
2023-09-12 13:31	2931313	8.129	-143.611	11.266	1130.912	1357.34	0.772	884.24	1	0.882	***5.956***
2023-09-12 13:46	2932213	8.270	-150.778	11.319	1127.889	1352.074	0.769	886.61	1	0.879	***6.010***
2023-09-12 14:01	2933113	8.137	-144.091	11.363	1128.676	1351.667	0.769	885.99	1	0.879	***5.850***
2023-09-12 14:16	2934013	8.123	-143.399	11.396	1129.822	1351.992	0.769	885.10	1	0.879	***5.784***
2023-09-12 14:31	2934913	8.079	-141.151	11.403	1131.034	1353.227	0.770	884.15	1	0.880	***5.533***
2023-09-12 14:46	2935813	8.270	-150.831	11.368	1130.577	1353.771	0.770	884.50	1	0.880	7.172
2023-09-12 15:01	2936713	8.166	-145.562	11.348	1129.738	1353.389	0.770	885.16	1	0.880	7.187
2023-09-12 15:16	2937613	8.164	-145.421	11.338	1129.448	1353.349	0.770	885.39	1	0.880	7.403
2023-09-12 15:31	2938513	8.170	-145.75	11.342	1129.797	1353.642	0.770	885.12	1	0.880	7.353
2023-09-12 15:46	2939413	8.301	-152.38	11.357	1130.401	1353.89	0.770	884.64	1	0.880	7.325
2023-09-12 16:01	2940313	8.175	-145.986	11.368	1130.457	1353.64	0.770	884.60	1	0.880	7.345
2023-09-12 16:16	2941213	8.159	-145.19	11.376	1130.722	1353.708	0.770	884.39	1	0.880	7.439
2023-09-12 16:31	2942113	8.146	-144.556	11.401	1131.473	1353.825	0.770	883.80	1	0.880	7.425
2023-09-12 16:46	2943013	8.286	-151.641	11.435	1133.054	1354.673	0.770	882.57	1	0.881	7.309
2023-09-12 17:01	2943913	8.157	-145.13	11.465	1133.636	1354.423	0.770	882.12	1	0.880	6.973
2023-09-12 17:16	2944813	8.131	-143.838	11.49	1134.565	1354.781	0.770	881.40	1	0.881	6.866
2023-09-12 17:31	2945713	8.117	-143.137	11.523	1136.123	1355.622	0.771	880.19	1	0.881	6.720
2023-09-12 17:46	2946613	8.262	-150.492	11.556	1137.403	1356.106	0.771	879.20	1	0.881	6.514
2023-09-12 18:01	2947513	8.139	-144.3	11.579	1139.114	1357.432	0.772	877.88	1	0.882	6.685
2023-09-12 18:16	2948413	8.112	-142.93	11.614	1140.638	1358.186	0.772	876.70	1	0.883	6.690
2023-09-12 18:31	2949313	8.100	-142.353	11.651	1142.213	1358.927	0.773	875.49	1	0.883	6.664
2023-09-12 18:46	2950213	8.259	-150.414	11.693	1143.379	1359.004	0.773	874.60	1	0.883	6.642
2023-09-12 19:01	2951113	8.134	-144.129	11.738	1144.968	1359.501	0.773	873.39	1	0.884	6.783
2023-09-12 19:16	2952013	8.123	-143.566	11.764	1147.069	1361.182	0.774	871.79	1	0.885	6.807
2023-09-12 19:31	2952913	8.127	-143.793	11.76	1147.624	1361.965	0.774	871.37	1	0.885	7.187
2023-09-12 19:46	2953813	8.285	-151.753	11.734	1144.922	1359.567	0.773	873.42	1	0.884	7.144
2023-09-12 20:01	2954713	8.150	-144.889	11.662	1142.172	1358.524	0.773	875.53	1	0.883	7.530
2023-09-12 20:16	2955613	8.159	-145.347	11.668	1142.202	1358.372	0.772	875.50	1	0.883	7.665
2023-09-12 20:31	2956513	8.160	-145.395	11.701	1143.217	1358.566	0.773	874.73	1	0.883	7.695
2023-09-12 20:46	2957413	8.291	-152.09	11.738	1145.336	1359.932	0.773	873.11	1	0.884	7.344
2023-09-12 21:01	2958313	8.146	-144.751	11.776	1146.695	1360.368	0.774	872.07	1	0.884	6.969
2023-09-12 21:16	2959213	8.113	-143.075	11.804	1147.678	1360.69	0.774	871.32	1	0.884	6.862
2023-09-12 21:31	2960113	8.108	-142.822	11.825	1149.271	1361.92	0.774	870.12	1	0.885	6.702
2023-09-12 21:46	2961013	8.253	-150.192	11.85	1151.098	1363.308	0.775	868.74	1	0.886	***6.430***
2023-09-12 22:01	2961913	8.127	-143.814	11.87	1151.553	1363.233	0.775	868.39	1	0.886	***6.374***
2023-09-12 22:16	2962813	8.104	-142.696	11.89	1153.258	1364.636	0.776	867.11	1	0.887	***6.245***
2023-09-12 22:31	2963713	8.088	-141.892	11.907	1158.726	1370.574	0.779	863.02	1	0.891	***5.914***
2023-09-12 22:46	2964613	8.266	-150.895	11.916	1160.222	1372.071	0.780	861.90	1	0.892	6.560
2023-09-12 23:01	2965513	8.139	-144.479	11.92	1161.585	1373.556	0.781	860.89	1	0.893	6.682
2023-09-12 23:16	2966413	8.115	-143.244	11.921	1164.61	1377.11	0.783	858.66	1	0.895	6.983
2023-09-12 23:31	2967313	8.110	-142.982	11.918	1164.939	1377.578	0.784	858.41	1	0.895	7.186
2023-09-12 23:46	2968213	8.256	-150.392	11.914	1164.187	1376.837	0.783	858.97	1	0.895	7.121
2023-09-13 00:01	2969113	8.140	-144.486	11.905	1164.049	1376.931	0.783	859.07	1	0.895	7.019
2023-09-13 00:16	2970013	8.128	-143.905	11.892	1163.097	1376.218	0.783	859.77	1	0.895	6.939
2023-09-13 00:31	2970913	8.116	-143.27	11.883	1163.142	1376.569	0.783	859.74	1	0.895	6.678
2023-09-13 00:46	2971813	8.258	-150.483	11.873	1164.232	1378.167	0.784	858.94	1	0.896	6.939
2023-09-13 01:01	2972713	8.144	-144.687	11.859	1164.229	1378.577	0.784	858.94	1	0.896	6.890

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-13 01:16	2973613	8.137	-144.31	11.828	1163.598	1378.814	0.784	859.40	1	0.896	6.866
2023-09-13 01:31	2974513	8.127	-143.788	11.797	1162.686	1378.691	0.784	860.08	1	0.896	7.002
2023-09-13 01:46	2975413	8.249	-149.937	11.77	1162.633	1379.465	0.785	860.12	1	0.897	7.038
2023-09-13 02:01	2976313	8.112	-143.008	11.75	1162.26	1379.67	0.785	860.39	1	0.897	7.028
2023-09-13 02:16	2977213	8.125	-143.659	11.724	1161.875	1380.017	0.785	860.68	1	0.897	6.744
2023-09-13 02:31	2978113	8.147	-144.77	11.703	1161.633	1380.377	0.785	860.86	1	0.897	7.028
2023-09-13 02:46	2979013	8.267	-150.838	11.681	1161.149	1380.508	0.786	861.22	1	0.897	7.159
2023-09-13 03:01	2979913	8.125	-143.609	11.655	1160.838	1380.935	0.786	861.45	1	0.898	6.922
2023-09-13 03:16	2980813	8.116	-143.158	11.616	1160.063	1381.261	0.786	862.02	1	0.898	7.060
2023-09-13 03:31	2981713	8.117	-143.187	11.59	1158.948	1380.728	0.786	862.85	1	0.897	7.086
2023-09-13 03:46	2982613	8.258	-150.304	11.564	1158.052	1380.491	0.786	863.52	1	0.897	6.941
2023-09-13 04:01	2983513	8.116	-143.127	11.541	1157.883	1380.995	0.786	863.65	1	0.898	6.866
2023-09-13 04:16	2984413	8.106	-142.57	11.524	1157.992	1381.663	0.786	863.56	1	0.898	7.012
2023-09-13 04:31	2985313	8.110	-142.789	11.506	1158.47	1382.815	0.787	863.21	1	0.899	6.948
2023-09-13 04:46	2986213	8.264	-150.597	11.489	1158.836	1383.795	0.788	862.94	1	0.899	7.042
2023-09-13 05:01	2987113	8.122	-143.387	11.481	1158.497	1383.622	0.788	863.19	1	0.899	6.855
2023-09-13 05:16	2988013	8.101	-142.298	11.463	1158.042	1383.668	0.788	863.53	1	0.899	***6.461***
2023-09-13 05:31	2988913	8.106	-142.55	11.441	1158.213	1384.543	0.788	863.40	1	0.900	6.699
2023-09-13 05:46	2989813	8.245	-149.603	11.428	1158.013	1384.719	0.788	863.55	1	0.900	6.814
2023-09-13 06:01	2990714	8.112	-142.818	11.416	1157.802	1384.853	0.788	863.71	1	0.900	***6.214***
2023-09-13 06:16	2991614	8.101	-142.272	11.393	1157.378	1385.063	0.789	864.02	1	0.900	***6.241***
2023-09-13 06:31	2992514	8.092	-141.807	11.367	1156.98	1385.423	0.789	864.32	1	0.901	6.631
2023-09-13 06:46	2993414	8.254	-150.015	11.347	1157.033	1386.114	0.789	864.28	1	0.901	6.844
2023-09-13 07:01	2994314	8.119	-143.149	11.331	1156.505	1386.001	0.789	864.67	1	0.901	6.617
2023-09-13 07:16	2995214	8.105	-142.415	11.288	1154.547	1384.997	0.789	866.14	1	0.900	***6.455***
2023-09-13 07:31	2996114	8.103	-142.281	11.251	1153.585	1385.034	0.789	866.86	1	0.900	***6.063***
2023-09-13 07:46	2997014	8.241	-149.274	11.216	1151.746	1383.95	0.788	868.25	1	0.900	***6.348***
2023-09-13 08:01	2997914	8.100	-142.117	11.178	1151.784	1385.196	0.789	868.22	1	0.900	6.545
2023-09-13 08:16	2998814	8.080	-141.108	11.158	1151.846	1385.895	0.789	868.17	1	0.901	6.652
2023-09-13 08:31	2999714	8.094	-141.795	11.135	1151.28	1385.962	0.789	868.60	1	0.901	6.723
2023-09-13 08:46	3000614	8.252	-149.741	11.109	1151.958	1387.606	0.790	868.09	1	0.902	6.809
2023-09-13 09:01	3001514	8.122	-143.161	11.084	1151.512	1387.873	0.790	868.42	1	0.902	***6.428***
2023-09-13 09:16	3002414	8.106	-142.365	11.064	1151.191	1388.107	0.791	868.67	1	0.902	6.664
2023-09-13 09:31	3003314	8.103	-142.205	11.037	1151.081	1388.838	0.791	868.75	1	0.903	6.869
2023-09-13 09:46	3004214	8.249	-149.543	11.013	1151.025	1389.552	0.792	868.79	1	0.903	***6.442***
2023-09-13 10:01	3005114	8.112	-142.653	10.995	1150.422	1389.394	0.791	869.25	1	0.903	6.806
2023-09-13 10:16	3006014	8.103	-142.186	10.973	1150.325	1389.978	0.792	869.32	1	0.903	7.016
2023-09-13 10:31	3006914	8.120	-142.989	10.95	1150.39	1390.781	0.792	869.27	1	0.904	7.086
2023-09-13 10:46	3007814	8.273	-150.754	10.934	1151.139	1392.218	0.793	868.71	1	0.905	7.054
2023-09-13 11:01	3008714	8.139	-143.931	10.918	1151.647	1393.337	0.794	868.32	1	0.906	7.056
2023-09-13 11:16	3009614	8.139	-143.952	10.908	1152.195	1394.336	0.794	867.91	1	0.906	7.130
2023-09-13 11:31	3010514	8.131	-143.533	10.908	1152.573	1394.801	0.795	867.62	1	0.907	7.157
2023-09-13 11:46	3011414	8.279	-151.005	10.913	1153.972	1396.322	0.796	866.57	1	0.908	7.229
2023-09-13 12:01	3012314	8.146	-144.327	10.925	1154.349	1396.401	0.796	866.29	1	0.908	7.110
2023-09-13 12:16	3013214	8.140	-144.014	10.943	1155.774	1397.538	0.796	865.22	1	0.908	7.061
2023-09-13 12:31	3014114	8.141	-144.098	10.97	1157.726	1399.018	0.797	863.76	1	0.909	7.070
2023-09-13 12:46	3015014	8.287	-151.455	11.001	1162.215	1403.424	0.800	860.43	1	0.912	7.088
2023-09-13 13:01	3015914	8.156	-144.87	11.021	1163.377	1404.2	0.800	859.57	1	0.913	7.262
2023-09-13 13:16	3016814	8.157	-144.911	11.044	1165.853	1406.423	0.802	857.74	1	0.914	7.411
2023-09-13 13:31	3017714	8.152	-144.67	11.075	1168.719	1408.901	0.803	855.64	1	0.916	7.410
2023-09-13 13:46	3018614	8.301	-152.259	11.107	1173.248	1413.304	0.806	852.34	1	0.919	7.350
2023-09-13 14:01	3019514	8.156	-144.937	11.141	1176.434	1416.032	0.807	850.03	1	0.920	7.280
2023-09-13 14:16	3020414	8.156	-144.928	11.189	1181.886	1421.034	0.810	846.11	1	0.924	7.553
2023-09-13 14:31	3021314	8.168	-145.574	11.242	1182.642	1420.205	0.810	845.57	1	0.923	7.499
2023-09-13 14:46	3022214	8.311	-152.867	11.335	1195.349	1432.429	0.817	836.58	1	0.931	7.788
2023-09-13 15:01	3023114	8.172	-145.881	11.405	1199.603	1435.213	0.818	833.61	1	0.933	7.662

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-13 15:16	3024014	8.181	-146.36	11.47	1207.508	1442.522	0.823	828.15	1	0.938	7.410
2023-09-13 15:31	3024914	8.199	-147.285	11.525	1218.556	1453.902	0.829	820.64	1	0.945	7.549
2023-09-13 15:46	3025814	8.341	-154.517	11.581	1228.44	1463.821	0.835	814.04	1	0.951	7.734
2023-09-13 16:01	3026714	8.207	-147.758	11.612	1229.263	1463.779	0.835	813.50	1	0.951	7.737
2023-09-13 16:16	3027614	8.186	-146.704	11.642	1231.178	1465.059	0.836	812.23	1	0.952	7.667
2023-09-13 16:31	3028514	8.195	-147.15	11.674	1235.7	1469.356	0.839	809.26	1	0.955	7.411
2023-09-13 16:46	3029414	8.347	-154.912	11.734	1244.205	1477.461	0.843	803.73	1	0.960	7.697
2023-09-13 17:01	3030314	8.215	-148.268	11.782	1248.425	1480.872	0.845	801.01	1	0.963	7.782
2023-09-13 17:16	3031214	8.225	-148.792	11.824	1255.888	1488.312	0.850	796.25	1	0.967	7.889
2023-09-13 17:31	3032114	8.210	-148.027	11.844	1259.161	1491.523	0.852	794.18	1	0.969	7.947
2023-09-13 17:46	3033014	8.363	-155.785	11.86	1263.397	1495.98	0.854	791.52	1	0.972	7.933
2023-09-13 18:01	3033914	8.221	-148.58	11.873	1266.071	1498.712	0.856	789.85	1	0.974	7.875
2023-09-13 18:16	3034814	8.231	-149.083	11.88	1270.857	1504.145	0.859	786.87	1	0.978	7.675
2023-09-13 18:31	3035714	8.212	-148.165	11.884	1274.227	1507.985	0.861	784.79	1	0.980	7.752
2023-09-13 18:46	3036614	8.366	-155.952	11.891	1275.273	1509.002	0.862	784.15	1	0.981	7.638
2023-09-13 19:01	3037514	8.231	-149.14	11.9	1277.208	1510.969	0.863	782.96	1	0.982	7.713
2023-09-13 19:16	3038414	8.234	-149.262	11.906	1279.599	1513.589	0.865	781.50	1	0.984	7.653
2023-09-13 19:31	3039314	8.239	-149.536	11.912	1280.599	1514.564	0.865	780.88	1	0.984	7.727
2023-09-13 19:46	3040214	8.375	-156.434	11.922	1283.915	1518.157	0.867	778.87	1	0.987	7.510
2023-09-13 20:01	3041114	8.229	-149.021	11.928	1285.64	1519.974	0.869	777.82	1	0.988	7.602
2023-09-13 20:16	3042014	8.244	-149.808	11.93	1288.166	1522.896	0.870	776.30	1	0.990	7.608
2023-09-13 20:31	3042914	8.238	-149.465	11.927	1289.251	1524.299	0.871	775.64	1	0.991	7.729
2023-09-13 20:46	3043814	8.395	-157.437	11.907	1288.683	1524.293	0.871	775.99	1	0.991	7.717
2023-09-13 21:01	3044714	8.243	-149.727	11.886	1288.701	1525.033	0.872	775.98	1	0.991	7.462
2023-09-13 21:16	3045614	8.235	-149.279	11.869	1289.296	1526.352	0.872	775.62	1	0.992	7.806
2023-09-13 21:31	3046514	8.231	-149.076	11.846	1291.483	1529.72	0.874	774.30	1	0.994	7.818
2023-09-13 21:46	3047414	8.401	-157.709	11.817	1292.992	1532.501	0.876	773.40	1	0.996	7.789
2023-09-13 22:01	3048314	8.264	-150.747	11.789	1293.253	1533.791	0.877	773.24	1	0.997	7.616
2023-09-13 22:16	3049214	8.248	-149.925	11.764	1296.409	1538.416	0.880	771.36	1	1.000	7.611
2023-09-13 22:31	3050114	8.248	-149.891	11.73	1296.997	1540.316	0.881	771.01	1	1.001	7.670
2023-09-13 22:46	3051014	8.417	-158.453	11.685	1297.348	1542.273	0.882	770.80	1	1.002	7.784
2023-09-13 23:01	3051914	8.275	-151.2	11.64	1299.608	1546.549	0.885	769.46	1	1.005	7.603
2023-09-13 23:16	3052814	8.271	-151.012	11.606	1300.215	1548.483	0.886	769.10	1	1.007	7.475
2023-09-13 23:31	3053714	8.259	-150.356	11.565	1298.101	1547.389	0.885	770.36	1	1.006	7.467
2023-09-13 23:46	3054614	8.414	-158.191	11.514	1296.84	1547.695	0.886	771.11	1	1.006	7.605
2023-09-14 00:01	3055514	8.261	-150.402	11.468	1296.156	1548.511	0.886	771.51	1	1.007	7.560
2023-09-14 00:16	3056414	8.271	-150.883	11.433	1296.511	1550.177	0.887	771.30	1	1.008	7.524
2023-09-14 00:31	3057314	8.273	-150.986	11.415	1296.808	1551.167	0.888	771.12	1	1.008	7.510
2023-09-14 00:46	3058214	8.425	-158.691	11.392	1297.701	1553.029	0.889	770.59	1	1.009	7.411
2023-09-14 01:01	3059114	8.282	-151.412	11.362	1297.914	1554.361	0.890	770.47	1	1.010	7.345
2023-09-14 01:16	3060014	8.269	-150.719	11.332	1297.642	1555.111	0.890	770.63	1	1.011	7.418
2023-09-14 01:31	3060914	8.231	-148.778	11.3	1298.549	1557.323	0.892	770.09	1	1.012	7.482
2023-09-14 01:46	3061814	8.408	-157.714	11.263	1297.564	1557.467	0.892	770.68	1	1.012	7.438
2023-09-14 02:01	3062714	8.267	-150.58	11.224	1296.388	1557.442	0.892	771.37	1	1.012	7.426
2023-09-14 02:16	3063614	8.265	-150.459	11.189	1296.255	1558.555	0.892	771.45	1	1.013	7.417
2023-09-14 02:31	3064514	8.271	-150.764	11.145	1296.856	1560.849	0.894	771.10	1	1.015	7.448
2023-09-14 02:46	3065414	8.432	-158.844	11.094	1296.697	1562.475	0.895	771.19	1	1.016	7.557
2023-09-14 03:01	3066314	8.290	-151.672	11.068	1296.414	1563.093	0.895	771.36	1	1.016	7.453
2023-09-14 03:16	3067214	8.289	-151.613	11.028	1295.746	1563.719	0.896	771.76	1	1.016	7.490
2023-09-14 03:31	3068114	8.282	-151.191	10.981	1295.323	1564.904	0.896	772.01	1	1.017	7.286
2023-09-14 03:46	3069014	8.435	-158.913	10.946	1295.421	1566.271	0.897	771.95	1	1.018	7.314
2023-09-14 04:01	3069914	8.282	-151.2	10.912	1294.946	1566.926	0.898	772.23	1	1.019	7.292
2023-09-14 04:16	3070814	8.283	-151.196	10.862	1294.426	1568.118	0.898	772.54	1	1.019	7.193
2023-09-14 04:31	3071714	8.297	-151.896	10.824	1295.305	1570.571	0.900	772.02	1	1.021	7.353
2023-09-14 04:46	3072614	8.444	-159.287	10.786	1298.197	1575.474	0.903	770.30	1	1.024	7.437
2023-09-14 05:01	3073514	8.292	-151.587	10.745	1298.283	1577.064	0.904	770.25	1	1.025	7.344

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-14 05:16	3074414	8.302	-152.082	10.698	1296.479	1576.599	0.904	771.32	1	1.025	7.437
2023-09-14 05:31	3075314	8.298	-151.837	10.658	1295.509	1576.859	0.904	771.90	1	1.025	7.308
2023-09-14 05:46	3076214	8.451	-159.543	10.611	1295.856	1579.009	0.905	771.69	1	1.026	7.131
2023-09-14 06:01	3077114	8.295	-151.665	10.552	1295.584	1580.856	0.906	771.85	1	1.028	7.177
2023-09-14 06:16	3078014	8.300	-151.858	10.498	1295.437	1582.669	0.907	771.94	1	1.029	7.265
2023-09-14 06:31	3078914	8.299	-151.794	10.446	1294.047	1582.896	0.908	772.77	1	1.029	7.262
2023-09-14 06:46	3079814	8.459	-159.81	10.373	1293.073	1584.405	0.909	773.35	1	1.030	7.297
2023-09-14 07:01	3080714	8.306	-152.044	10.316	1292.44	1585.759	0.910	773.73	1	1.031	7.298
2023-09-14 07:16	3081614	8.309	-152.206	10.26	1290.381	1585.303	0.909	774.97	1	1.030	7.282
2023-09-14 07:31	3082514	8.299	-151.67	10.21	1290.223	1586.978	0.910	775.06	1	1.032	7.310
2023-09-14 07:46	3083414	8.462	-159.857	10.16	1288.922	1587.231	0.911	775.84	1	1.032	7.460
2023-09-14 08:01	3084314	8.304	-151.839	10.114	1288.884	1588.907	0.912	775.87	1	1.033	7.353
2023-09-14 08:16	3085214	8.309	-152.082	10.072	1287.368	1588.621	0.911	776.78	1	1.033	7.417
2023-09-14 08:31	3086114	8.306	-151.925	10.042	1286.191	1588.286	0.911	777.49	1	1.032	7.478
2023-09-14 08:46	3087014	8.464	-159.872	10.013	1286.25	1589.437	0.912	777.45	1	1.033	7.382
2023-09-14 09:01	3087914	8.322	-152.7	9.991	1285.963	1589.926	0.912	777.63	1	1.033	7.323
2023-09-14 09:16	3088814	8.321	-152.626	9.969	1285.927	1590.703	0.913	777.65	1	1.034	7.361
2023-09-14 09:31	3089714	8.320	-152.588	9.953	1285.764	1591.088	0.913	777.75	1	1.034	7.324
2023-09-14 09:46	3090614	8.469	-160.065	9.943	1285.278	1590.87	0.913	778.04	1	1.034	7.386
2023-09-14 10:01	3091514	8.322	-152.686	9.933	1284.901	1590.761	0.913	778.27	1	1.034	7.185
2023-09-14 10:16	3092414	8.319	-152.528	9.923	1285.46	1591.835	0.913	777.93	1	1.035	7.156
2023-09-14 10:31	3093314	8.316	-152.352	9.915	1286.27	1593.138	0.914	777.44	1	1.036	7.297
2023-09-14 10:46	3094214	8.475	-160.387	9.913	1286.524	1593.542	0.915	777.29	1	1.036	7.206
2023-09-14 11:01	3095114	8.328	-152.948	9.917	1286.627	1593.498	0.914	777.23	1	1.036	7.123
2023-09-14 11:16	3096014	8.318	-152.44	9.923	1287.19	1593.972	0.915	776.89	1	1.036	6.925
2023-09-14 11:31	3096914	8.315	-152.311	9.932	1287.776	1594.39	0.915	776.53	1	1.036	6.955
2023-09-14 11:46	3097814	8.465	-159.857	9.941	1288.617	1595.083	0.915	776.03	1	1.037	6.918
2023-09-14 12:01	3098714	8.324	-152.802	9.948	1288.989	1595.257	0.916	775.80	1	1.037	6.865
2023-09-14 12:16	3099614	8.310	-152.071	9.959	1290.207	1596.347	0.916	775.07	1	1.038	6.889
2023-09-14 12:31	3100514	8.310	-152.099	9.971	1291.255	1597.223	0.917	774.44	1	1.038	7.018
2023-09-14 12:46	3101414	8.464	-159.848	9.984	1292.705	1598.52	0.917	773.57	1	1.039	7.014
2023-09-14 13:01	3102314	8.314	-152.323	9.996	1293.142	1598.592	0.917	773.31	1	1.039	6.883
2023-09-14 13:16	3103214	8.309	-152.049	10.012	1293.934	1598.968	0.918	772.84	1	1.039	6.848
2023-09-14 13:31	3104114	8.307	-151.97	10.027	1294.418	1598.997	0.918	772.55	1	1.039	6.828
2023-09-14 13:46	3105014	8.456	-159.49	10.049	1293.958	1597.611	0.917	772.82	1	1.038	6.640
2023-09-14 14:01	3105914	8.299	-151.582	10.075	1294.651	1597.471	0.917	772.41	1	1.038	***6.416***
2023-09-14 14:16	3106814	8.287	-151.021	10.114	1296.155	1597.872	0.917	771.51	1	1.039	***6.316***
2023-09-14 14:31	3107714	8.283	-150.814	10.164	1298.159	1598.467	0.917	770.32	1	1.039	***6.190***
2023-09-14 14:46	3108614	8.441	-158.808	10.23	1301.923	1600.626	0.919	768.10	1	1.040	***6.082***
2023-09-14 15:01	3109514	8.293	-151.42	10.293	1305.003	1602.023	0.919	766.28	1	1.041	***6.364***
2023-09-14 15:16	3110414	8.284	-150.967	10.352	1309.155	1604.888	0.921	763.85	1	1.043	***6.359***
2023-09-14 15:31	3111314	8.290	-151.322	10.405	1316.113	1611.432	0.925	759.81	1	1.047	***6.424***
2023-09-14 15:46	3112214	8.461	-159.984	10.466	1317.751	1611.144	0.925	758.87	1	1.047	***6.428***
2023-09-14 16:01	3113114	8.310	-152.397	10.519	1319.455	1611.23	0.925	757.89	1	1.047	6.691
2023-09-14 16:16	3114014	8.295	-151.658	10.572	1322.712	1613.22	0.926	756.02	1	1.049	6.720
2023-09-14 16:31	3114914	8.300	-151.906	10.602	1325.493	1615.484	0.927	754.44	1	1.050	6.719
2023-09-14 16:46	3115814	8.459	-159.972	10.633	1327.79	1617.092	0.928	753.13	1	1.051	6.815
2023-09-14 17:01	3116714	8.325	-153.227	10.651	1328.258	1616.996	0.928	752.87	1	1.051	7.230
2023-09-14 17:16	3117614	8.312	-152.555	10.675	1329.133	1617.162	0.928	752.37	1	1.051	7.265
2023-09-14 17:31	3118514	8.285	-151.203	10.705	1330.139	1617.259	0.928	751.80	1	1.051	7.083
2023-09-14 17:46	3119414	8.454	-159.795	10.75	1332.074	1617.912	0.928	750.71	1	1.052	6.916
2023-09-14 18:01	3120314	8.303	-152.171	10.773	1333.019	1618.196	0.929	750.18	1	1.052	7.000
2023-09-14 18:16	3121215	8.284	-151.236	10.803	1333.983	1618.263	0.929	749.64	1	1.052	6.802
2023-09-14 18:31	3122115	8.275	-150.762	10.842	1335.377	1618.48	0.929	748.85	1	1.052	6.704
2023-09-14 18:46	3123015	8.429	-158.582	10.901	1338.199	1619.673	0.929	747.27	1	1.053	6.701
2023-09-14 19:01	3123915	8.293	-151.768	10.974	1340.027	1619.174	0.929	746.25	1	1.052	6.992

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-14 19:16	3124815	8.279	-151.11	11.049	1343.312	1620.349	0.930	744.43	1	1.053	7.163
2023-09-14 19:31	3125715	8.278	-151.076	11.132	1347.993	1622.879	0.931	741.84	1	1.055	6.773
2023-09-14 19:46	3126615	8.419	-158.286	11.213	1352.725	1625.553	0.933	739.25	1	1.057	6.875
2023-09-14 20:01	3127515	8.295	-152.009	11.278	1362.668	1635.049	0.938	733.86	1	1.063	7.437
2023-09-14 20:16	3128415	8.301	-152.342	11.323	1367.83	1639.56	0.941	731.09	1	1.066	7.612
2023-09-14 20:31	3129315	8.300	-152.33	11.357	1371.338	1642.496	0.943	729.22	1	1.068	7.468
2023-09-14 20:46	3130215	8.455	-160.189	11.378	1373.499	1644.284	0.944	728.07	1	1.069	7.458
2023-09-14 21:01	3131115	8.306	-152.667	11.403	1376.244	1646.613	0.945	726.62	1	1.070	7.487
2023-09-14 21:16	3132015	8.296	-152.18	11.431	1383.905	1654.717	0.950	722.59	1	1.076	7.495
2023-09-14 21:31	3132915	8.324	-153.592	11.447	1387.265	1658.157	0.952	720.84	1	1.078	7.565
2023-09-14 21:46	3133815	8.466	-160.766	11.44	1386.039	1656.95	0.951	721.48	1	1.077	7.692
2023-09-14 22:01	3134715	8.323	-153.494	11.411	1384.293	1655.938	0.951	722.39	1	1.076	7.690
2023-09-14 22:16	3135615	8.328	-153.737	11.382	1384.602	1657.418	0.952	722.23	1	1.077	7.542
2023-09-14 22:31	3136515	8.337	-154.192	11.357	1385.684	1659.652	0.953	721.67	1	1.079	7.776
2023-09-14 22:46	3137415	8.501	-162.449	11.317	1383.38	1658.422	0.952	722.87	1	1.078	7.775
2023-09-14 23:01	3138315	8.353	-154.951	11.266	1381.039	1657.555	0.952	724.09	1	1.077	7.738
2023-09-14 23:16	3139215	8.342	-154.366	11.212	1378.786	1656.906	0.951	725.28	1	1.077	7.864
2023-09-14 23:31	3140115	8.353	-154.922	11.158	1376.414	1656.084	0.951	726.53	1	1.076	7.901
2023-09-14 23:46	3141015	8.515	-163.043	11.094	1372.369	1653.664	0.950	728.67	1	1.075	7.914
2023-09-15 00:01	3141915	8.351	-154.724	11.021	1370.587	1654.283	0.950	729.61	1	1.075	7.836
2023-09-15 00:16	3142815	8.356	-154.922	10.957	1369.656	1655.6	0.951	730.11	1	1.076	7.852
2023-09-15 00:31	3143715	8.350	-154.619	10.898	1367.869	1655.73	0.951	731.06	1	1.076	7.889
2023-09-15 00:46	3144615	8.506	-162.468	10.842	1367.212	1657.064	0.952	731.42	1	1.077	7.844
2023-09-15 01:01	3145515	8.351	-154.622	10.807	1366.2	1657.185	0.952	731.96	1	1.077	7.746
2023-09-15 01:16	3146415	8.348	-154.424	10.764	1365.122	1657.525	0.952	732.54	1	1.077	7.741
2023-09-15 01:31	3147315	8.344	-154.231	10.723	1363.699	1657.358	0.952	733.30	1	1.077	7.754
2023-09-15 01:46	3148215	8.502	-162.168	10.681	1361.738	1656.591	0.952	734.36	1	1.077	7.911
2023-09-15 02:01	3149115	8.346	-154.264	10.63	1360.589	1657.182	0.952	734.98	1	1.077	7.797
2023-09-15 02:16	3150015	8.347	-154.276	10.585	1359.21	1657.216	0.952	735.72	1	1.077	7.820
2023-09-15 02:31	3150915	8.354	-154.631	10.539	1356.872	1656.153	0.952	736.99	1	1.076	7.767
2023-09-15 02:46	3151815	8.517	-162.809	10.479	1355.419	1656.703	0.952	737.78	1	1.077	7.898
2023-09-15 03:01	3152715	8.358	-154.75	10.431	1354.746	1657.73	0.953	738.15	1	1.078	7.757
2023-09-15 03:16	3153615	8.354	-154.505	10.377	1353.28	1658.029	0.953	738.95	1	1.078	7.857
2023-09-15 03:31	3154515	8.359	-154.762	10.326	1351.525	1657.865	0.953	739.91	1	1.078	7.912
2023-09-15 03:46	3155415	8.517	-162.69	10.278	1348.985	1656.616	0.952	741.30	1	1.077	7.489
2023-09-15 04:01	3156315	8.361	-154.798	10.238	1347.731	1656.596	0.952	741.99	1	1.077	7.658
2023-09-15 04:16	3157215	8.361	-154.774	10.185	1345.102	1655.423	0.952	743.44	1	1.076	7.670
2023-09-15 04:31	3158115	8.362	-154.772	10.121	1342.621	1654.881	0.951	744.81	1	1.076	7.830
2023-09-15 04:46	3159015	8.521	-162.752	10.062	1341.23	1655.464	0.952	745.58	1	1.076	7.824
2023-09-15 05:01	3159915	8.370	-155.144	9.996	1339.868	1656.375	0.952	746.34	1	1.077	7.718
2023-09-15 05:16	3160815	8.364	-154.781	9.94	1338.342	1656.672	0.952	747.19	1	1.077	7.675
2023-09-15 05:31	3161715	8.361	-154.619	9.879	1337.027	1657.417	0.953	747.93	1	1.077	7.736
2023-09-15 05:46	3162615	8.516	-162.358	9.826	1334.455	1656.312	0.952	749.37	1	1.077	7.703
2023-09-15 06:01	3163515	8.362	-154.598	9.772	1332.939	1656.567	0.953	750.22	1	1.077	7.709
2023-09-15 06:16	3164415	8.354	-154.178	9.712	1330.693	1656.106	0.952	751.49	1	1.076	7.748
2023-09-15 06:31	3165315	8.356	-154.212	9.644	1328.078	1655.527	0.952	752.97	1	1.076	7.567
2023-09-15 06:46	3166215	8.518	-162.337	9.571	1326.904	1656.945	0.953	753.63	1	1.077	7.712
2023-09-15 07:01	3167115	8.365	-154.631	9.515	1325.724	1657.699	0.953	754.31	1	1.078	7.580
2023-09-15 07:16	3168015	8.366	-154.631	9.449	1324.347	1658.589	0.954	755.09	1	1.078	7.740
2023-09-15 07:31	3168915	8.367	-154.617	9.387	1322.941	1659.312	0.955	755.89	1.001	1.079	7.767
2023-09-15 07:46	3169815	8.529	-162.73	9.331	1320.076	1657.906	0.954	757.53	1.001	1.078	7.785
2023-09-15 08:01	3170715	8.364	-154.443	9.3	1319.438	1658.352	0.954	757.90	1.001	1.078	7.633
2023-09-15 08:16	3171615	8.358	-154.111	9.249	1318.18	1658.814	0.954	758.62	1.001	1.078	7.522
2023-09-15 08:31	3172515	8.356	-153.987	9.19	1316.952	1659.607	0.955	759.33	1.001	1.079	7.640
2023-09-15 08:46	3173415	8.517	-162.015	9.127	1315.575	1660.416	0.955	760.12	1.001	1.079	7.629
2023-09-15 09:01	3174315	8.369	-154.562	9.083	1313.736	1659.844	0.955	761.19	1.001	1.079	7.624

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-15 09:16	3175215	8.362	-154.212	9.041	1312.394	1659.83	0.955	761.97	1.001	1.079	7.618
2023-09-15 09:31	3176115	8.367	-154.436	9	1310.737	1659.378	0.955	762.93	1.001	1.079	7.562
2023-09-15 09:46	3177015	8.524	-162.272	8.974	1309.342	1658.661	0.954	763.74	1.001	1.078	7.607
2023-09-15 10:01	3177915	8.364	-154.271	8.961	1308.841	1658.541	0.954	764.04	1.001	1.078	7.582
2023-09-15 10:16	3178815	8.364	-154.254	8.938	1308.293	1658.774	0.955	764.36	1.001	1.078	7.532
2023-09-15 10:31	3179715	8.364	-154.252	8.929	1308.012	1658.78	0.955	764.52	1.001	1.078	7.612
2023-09-15 10:46	3180615	8.514	-161.753	8.924	1308.433	1659.516	0.955	764.27	1.001	1.079	7.690
2023-09-15 11:01	3181515	8.365	-154.283	8.913	1308.242	1659.719	0.955	764.38	1.001	1.079	7.531
2023-09-15 11:16	3182415	8.360	-153.997	8.904	1308.624	1660.566	0.956	764.16	1.001	1.079	7.580
2023-09-15 11:31	3183315	8.354	-153.706	8.903	1309.011	1661.072	0.956	763.94	1.001	1.080	7.575
2023-09-15 11:46	3184215	8.513	-161.724	8.91	1309.213	1661.073	0.956	763.82	1.001	1.080	7.460
2023-09-15 12:01	3185115	8.358	-153.935	8.915	1309.268	1660.942	0.956	763.79	1.001	1.080	7.408
2023-09-15 12:16	3186015	8.351	-153.601	8.921	1309.962	1661.571	0.956	763.38	1.001	1.080	7.585
2023-09-15 12:31	3186915	8.344	-153.241	8.932	1310.395	1661.683	0.956	763.13	1.001	1.080	7.646
2023-09-15 12:46	3187815	8.506	-161.383	8.944	1310.89	1661.835	0.956	762.84	1.001	1.080	7.520
2023-09-15 13:01	3188715	8.352	-153.661	8.962	1311.276	1661.571	0.956	762.62	1.001	1.080	7.270
2023-09-15 13:16	3189615	8.348	-153.475	8.985	1312.109	1661.692	0.956	762.13	1.001	1.080	7.177
2023-09-15 13:31	3190515	8.352	-153.677	9.011	1313.046	1661.848	0.956	761.59	1.001	1.080	7.139
2023-09-15 13:46	3191415	8.491	-160.663	9.041	1313.359	1661.037	0.956	761.41	1.001	1.080	7.010
2023-09-15 14:01	3192315	8.345	-153.358	9.079	1314.478	1660.95	0.956	760.76	1.001	1.080	6.934
2023-09-15 14:16	3193215	8.344	-153.351	9.125	1316.182	1661.241	0.956	759.77	1.001	1.080	6.956
2023-09-15 14:31	3194115	8.340	-153.198	9.195	1318.668	1661.587	0.956	758.34	1.001	1.080	6.867
2023-09-15 14:46	3195015	8.497	-161.118	9.279	1322.356	1662.877	0.957	756.23	1.001	1.081	6.833
2023-09-15 15:01	3195915	8.344	-153.451	9.372	1324.997	1662.458	0.956	754.72	1.001	1.081	6.976
2023-09-15 15:16	3196815	8.332	-152.905	9.464	1328.407	1663.085	0.957	752.78	1.001	1.081	7.047
2023-09-15 15:31	3197715	8.324	-152.559	9.556	1331.729	1663.589	0.957	750.90	1	1.081	6.953
2023-09-15 15:46	3198615	8.485	-160.701	9.659	1336.468	1665.418	0.958	748.24	1	1.083	7.002
2023-09-15 16:01	3199515	8.333	-153.117	9.739	1338.357	1664.585	0.957	747.19	1	1.082	7.053
2023-09-15 16:16	3200415	8.328	-152.912	9.824	1341.649	1665.325	0.958	745.35	1	1.082	7.051
2023-09-15 16:31	3201315	8.324	-152.764	9.909	1344.987	1666.118	0.958	743.50	1	1.083	7.068
2023-09-15 16:46	3202215	8.473	-160.301	9.988	1349.192	1668.185	0.959	741.18	1	1.084	7.044
2023-09-15 17:01	3203115	8.324	-152.829	10.047	1350.69	1667.713	0.959	740.36	1	1.084	7.526
2023-09-15 17:16	3204015	8.305	-151.854	10.011	1349.934	1668.209	0.959	740.78	1	1.084	7.558
2023-09-15 17:31	3204915	8.319	-152.562	9.973	1349.224	1668.821	0.960	741.17	1	1.085	8.403
2023-09-15 17:46	3205815	8.491	-161.209	10.002	1350.115	1668.784	0.960	740.68	1	1.085	8.597
2023-09-15 18:01	3206715	8.337	-153.456	10.035	1350.679	1668.196	0.959	740.37	1	1.084	8.367
2023-09-15 18:16	3207615	8.327	-153.012	10.07	1351.929	1668.371	0.959	739.68	1	1.084	8.238
2023-09-15 18:31	3208515	8.317	-152.495	10.107	1353.277	1668.556	0.960	738.95	1	1.085	8.125
2023-09-15 18:46	3209415	8.469	-160.201	10.152	1355.472	1669.498	0.960	737.75	1	1.085	7.905
2023-09-15 19:01	3210315	8.321	-152.769	10.192	1356.362	1669.027	0.960	737.27	1	1.085	7.930
2023-09-15 19:16	3211215	8.304	-151.939	10.223	1357.631	1669.383	0.960	736.58	1	1.085	7.995
2023-09-15 19:31	3212115	8.295	-151.472	10.246	1358.612	1669.669	0.960	736.05	1	1.085	7.824
2023-09-15 19:46	3213015	8.449	-159.254	10.263	1360.279	1671.068	0.961	735.14	1	1.086	7.349
2023-09-15 20:01	3213915	8.310	-152.237	10.266	1360.965	1671.784	0.961	734.77	1	1.087	7.259
2023-09-15 20:16	3214815	8.320	-152.75	10.247	1360.351	1671.79	0.961	735.11	1	1.087	7.838
2023-09-15 20:31	3215715	8.338	-153.613	10.209	1358.901	1671.468	0.961	735.89	1	1.086	8.402
2023-09-15 20:46	3216615	8.501	-161.827	10.172	1358.391	1672.295	0.962	736.17	1	1.087	8.450
2023-09-15 21:01	3217515	8.349	-154.14	10.157	1357.872	1672.263	0.962	736.45	1	1.087	8.334
2023-09-15 21:16	3218415	8.342	-153.773	10.141	1357.396	1672.298	0.962	736.71	1	1.087	8.134
2023-09-15 21:31	3219315	8.343	-153.828	10.107	1355.646	1671.501	0.961	737.66	1	1.086	8.192
2023-09-15 21:46	3220215	8.506	-161.984	10.049	1352.76	1670.217	0.961	739.23	1	1.086	8.405
2023-09-15 22:01	3221115	8.349	-154.066	9.968	1348.875	1668.612	0.960	741.36	1	1.085	8.436
2023-09-15 22:16	3222015	8.344	-153.749	9.902	1346.165	1667.837	0.959	742.85	1	1.084	8.422
2023-09-15 22:31	3222915	8.342	-153.642	9.847	1344.232	1667.639	0.959	743.92	1	1.084	8.414
2023-09-15 22:46	3223815	8.507	-161.893	9.778	1341.686	1667.206	0.959	745.33	1	1.084	8.329
2023-09-15 23:01	3224715	8.356	-154.257	9.711	1339.533	1667.17	0.959	746.53	1	1.084	8.407

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-15 23:16	3225615	8.353	-154.095	9.643	1337.394	1667.203	0.959	747.72	1	1.084	8.451
2023-09-15 23:31	3226515	8.351	-153.935	9.612	1336.227	1666.971	0.959	748.38	1	1.084	8.387
2023-09-15 23:46	3227415	8.516	-162.237	9.557	1332.739	1664.789	0.958	750.33	1	1.082	8.324
2023-09-16 00:01	3228315	8.357	-154.19	9.509	1331.236	1664.817	0.958	751.18	1	1.082	8.329
2023-09-16 00:16	3229216	8.351	-153.883	9.468	1330.01	1664.91	0.958	751.87	1.001	1.082	8.350
2023-09-16 00:31	3230116	8.347	-153.67	9.419	1328.163	1664.572	0.958	752.92	1.001	1.082	8.330
2023-09-16 00:46	3231016	8.511	-161.858	9.356	1326.094	1664.489	0.958	754.10	1.001	1.082	8.214
2023-09-16 01:01	3231916	8.356	-154.061	9.319	1324.848	1664.385	0.958	754.80	1.001	1.082	8.201
2023-09-16 01:16	3232816	8.354	-153.897	9.268	1322.463	1663.445	0.957	756.17	1.001	1.081	8.201
2023-09-16 01:31	3233716	8.341	-153.222	9.224	1320.176	1662.303	0.956	757.48	1.001	1.080	8.219
2023-09-16 01:46	3234616	8.508	-161.591	9.197	1318.699	1661.527	0.956	758.32	1.001	1.080	7.769
2023-09-16 02:01	3235516	8.348	-153.577	9.173	1317.999	1661.61	0.956	758.73	1.001	1.080	8.135
2023-09-16 02:16	3236416	8.346	-153.449	9.144	1316.859	1661.321	0.956	759.38	1.001	1.080	8.120
2023-09-16 02:31	3237316	8.341	-153.203	9.116	1315.592	1660.838	0.956	760.11	1.001	1.080	8.130
2023-09-16 02:46	3238216	8.505	-161.426	9.092	1314.895	1660.958	0.956	760.52	1.001	1.080	8.217
2023-09-16 03:01	3239116	8.348	-153.518	9.076	1314.232	1660.729	0.956	760.90	1.001	1.079	8.145
2023-09-16 03:16	3240016	8.344	-153.31	9.054	1313.207	1660.334	0.955	761.50	1.001	1.079	7.917
2023-09-16 03:31	3240916	8.347	-153.42	9.032	1312.057	1659.774	0.955	762.16	1.001	1.079	8.002
2023-09-16 03:46	3241816	8.499	-161.064	9.017	1310.923	1658.921	0.955	762.82	1.001	1.078	8.017
2023-09-16 04:01	3242716	8.349	-153.532	9.007	1310.646	1658.979	0.955	762.98	1.001	1.078	7.946
2023-09-16 04:16	3243616	8.340	-153.055	8.984	1309.59	1658.542	0.954	763.60	1.001	1.078	8.011
2023-09-16 04:31	3244516	8.339	-153.019	8.961	1308.251	1657.802	0.954	764.38	1.001	1.078	8.071
2023-09-16 04:46	3245416	8.501	-161.142	8.948	1307.753	1657.694	0.954	764.67	1.001	1.078	8.042
2023-09-16 05:01	3246316	8.351	-153.584	8.934	1306.631	1656.798	0.953	765.33	1.001	1.077	7.944
2023-09-16 05:16	3247216	8.342	-153.112	8.924	1305.593	1655.921	0.953	765.94	1.001	1.076	7.850
2023-09-16 05:31	3248116	8.336	-152.788	8.896	1303.53	1654.425	0.952	767.15	1.001	1.075	7.743
2023-09-16 05:46	3249016	8.497	-160.906	8.881	1302.019	1653.081	0.951	768.04	1.001	1.075	7.875
2023-09-16 06:01	3249916	8.346	-153.303	8.858	1301.871	1653.814	0.952	768.13	1.001	1.075	7.583
2023-09-16 06:16	3250816	8.347	-153.334	8.845	1301.876	1654.337	0.952	768.12	1.001	1.075	7.477
2023-09-16 06:31	3251716	8.339	-152.912	8.835	1302.72	1655.837	0.953	767.63	1.001	1.076	7.155
2023-09-16 06:46	3252616	8.499	-160.933	8.808	1300.125	1653.624	0.952	769.16	1.001	1.075	7.043
2023-09-16 07:01	3253516	8.342	-153.048	8.791	1300.837	1655.2	0.953	768.74	1.001	1.076	7.162
2023-09-16 07:16	3254416	8.330	-152.442	8.773	1302.105	1657.544	0.954	767.99	1.001	1.077	7.032
2023-09-16 07:31	3255316	8.330	-152.428	8.747	1301.784	1658.175	0.954	768.18	1.001	1.078	6.930
2023-09-16 07:46	3256216	8.487	-160.294	8.715	1296.748	1653.057	0.951	771.16	1.001	1.074	6.820
2023-09-16 08:01	3257116	8.327	-152.223	8.683	1297.875	1655.761	0.953	770.49	1.001	1.076	6.877
2023-09-16 08:16	3258016	8.337	-152.733	8.652	1297.54	1656.602	0.953	770.69	1.001	1.077	6.721
2023-09-16 08:31	3258916	8.330	-152.361	8.624	1297.079	1657.164	0.954	770.96	1.001	1.077	6.715
2023-09-16 08:46	3259816	8.502	-160.966	8.591	1293.247	1653.594	0.952	773.25	1.001	1.075	6.691
2023-09-16 09:01	3260716	8.348	-153.229	8.564	1293.05	1654.433	0.952	773.37	1.001	1.075	6.683
2023-09-16 09:16	3261616	8.344	-153.017	8.54	1293.723	1656.248	0.953	772.96	1.001	1.077	6.736
2023-09-16 09:31	3262516	8.346	-153.108	8.524	1293.622	1656.762	0.954	773.02	1.001	1.077	6.769
2023-09-16 09:46	3263416	8.501	-160.887	8.51	1289.845	1652.516	0.951	775.29	1.001	1.074	6.721
2023-09-16 10:01	3264316	8.337	-152.643	8.504	1291.25	1654.563	0.952	774.44	1.001	1.075	6.767
2023-09-16 10:16	3265216	8.331	-152.33	8.493	1291.426	1655.205	0.953	774.34	1.001	1.076	6.639
2023-09-16 10:31	3266116	8.334	-152.473	8.488	1291.525	1655.55	0.953	774.28	1.001	1.076	6.568
2023-09-16 10:46	3267016	8.483	-159.969	8.485	1290.758	1654.68	0.952	774.74	1.001	1.076	***6.479***
2023-09-16 11:01	3267916	8.332	-152.385	8.49	1290.539	1654.204	0.952	774.87	1.001	1.075	***6.421***
2023-09-16 11:16	3268816	8.325	-152.032	8.5	1291.45	1654.977	0.953	774.32	1.001	1.076	***6.373***
2023-09-16 11:31	3269716	8.320	-151.823	8.509	1292.03	1655.332	0.953	773.98	1.001	1.076	***6.380***
2023-09-16 11:46	3270616	8.475	-159.593	8.524	1289.923	1652.051	0.951	775.24	1.001	1.074	***6.360***
2023-09-16 12:01	3271516	8.322	-151.899	8.536	1291.282	1653.279	0.952	774.42	1.001	1.075	***6.451***
2023-09-16 12:16	3272416	8.323	-151.997	8.551	1292.339	1654.031	0.952	773.79	1.001	1.075	***6.326***
2023-09-16 12:31	3273316	8.324	-152.051	8.566	1293.023	1654.311	0.952	773.38	1.001	1.075	***6.369***
2023-09-16 12:46	3274216	8.480	-159.841	8.582	1291.911	1652.255	0.951	774.05	1.001	1.074	***6.407***
2023-09-16 13:01	3275116	8.327	-152.199	8.598	1292.192	1651.966	0.951	773.88	1.001	1.074	***6.404***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-16 13:16	3276016	8.325	-152.106	8.617	1293.243	1652.546	0.951	773.25	1.001	1.074	6.546
2023-09-16 13:31	3276916	8.322	-151.951	8.638	1293.901	1652.509	0.951	772.86	1.001	1.074	6.721
2023-09-16 13:46	3277816	8.487	-160.244	8.663	1290.13	1646.71	0.947	775.12	1.001	1.070	7.001
2023-09-16 14:01	3278716	8.321	-151.963	8.685	1292.104	1648.351	0.948	773.93	1.001	1.071	7.078
2023-09-16 14:16	3279616	8.331	-152.476	8.712	1293.038	1648.437	0.948	773.37	1.001	1.071	7.256
2023-09-16 14:31	3280516	8.326	-152.247	8.746	1294.318	1648.726	0.949	772.61	1.001	1.072	7.525
2023-09-16 14:46	3281416	8.503	-161.102	8.783	1290.119	1641.87	0.944	775.12	1.001	1.067	7.754
2023-09-16 15:01	3282316	8.340	-152.972	8.825	1291.988	1642.577	0.945	774.00	1.001	1.068	7.796
2023-09-16 15:16	3283216	8.334	-152.707	8.867	1294.042	1643.53	0.945	772.77	1.001	1.068	8.232
2023-09-16 15:31	3284116	8.339	-152.977	8.921	1295.781	1643.596	0.945	771.74	1.001	1.068	8.577
2023-09-16 15:46	3285016	8.496	-160.897	8.974	1288.311	1632.023	0.938	776.21	1.001	1.061	8.844
2023-09-16 16:01	3285916	8.337	-152.946	9.02	1292.337	1635.301	0.940	773.79	1.001	1.063	8.581
2023-09-16 16:16	3286816	8.344	-153.306	9.071	1294.146	1635.562	0.940	772.71	1.001	1.063	8.829
2023-09-16 16:31	3287716	8.345	-153.406	9.127	1295.876	1635.519	0.940	771.68	1.001	1.063	8.980
2023-09-16 16:46	3288616	8.513	-161.874	9.191	1290.228	1625.9	0.935	775.06	1.001	1.057	9.021
2023-09-16 17:01	3289516	8.353	-153.885	9.256	1293.817	1627.881	0.936	772.91	1.001	1.058	8.922
2023-09-16 17:16	3290416	8.347	-153.577	9.317	1296.63	1629.032	0.936	771.23	1	1.059	9.252
2023-09-16 17:31	3291316	8.351	-153.849	9.382	1299.269	1629.786	0.937	769.66	1	1.059	9.354
2023-09-16 17:46	3292216	8.508	-161.753	9.457	1294.272	1620.623	0.931	772.64	1	1.053	9.444
2023-09-16 18:01	3293116	8.346	-153.67	9.508	1297.963	1623.242	0.933	770.44	1	1.055	9.153
2023-09-16 18:16	3294016	8.354	-154.073	9.559	1300.582	1624.543	0.933	768.89	1	1.056	9.291
2023-09-16 18:31	3294916	8.346	-153.687	9.6	1302.406	1625.256	0.934	767.81	1	1.056	9.333
2023-09-16 18:46	3295816	8.506	-161.777	9.635	1296.677	1616.756	0.929	771.20	1	1.051	9.292
2023-09-16 19:01	3296716	8.344	-153.599	9.642	1298.765	1619.083	0.930	769.96	1	1.052	8.938
2023-09-16 19:16	3297616	8.305	-151.637	9.615	1301.726	1623.812	0.933	768.21	1	1.055	8.599
2023-09-16 19:31	3298516	8.292	-150.955	9.562	1301.013	1624.982	0.934	768.63	1	1.056	8.031
2023-09-16 19:46	3299416	8.454	-159.087	9.53	1297.282	1621.546	0.932	770.84	1	1.054	8.001
2023-09-16 20:01	3300316	8.314	-152.006	9.476	1296.848	1623.09	0.933	771.10	1	1.055	8.739
2023-09-16 20:16	3301216	8.293	-150.943	9.444	1296.472	1623.885	0.933	771.32	1	1.056	8.724
2023-09-16 20:31	3302116	8.307	-151.665	9.424	1296.263	1624.384	0.933	771.45	1	1.056	8.773
2023-09-16 20:46	3303016	8.496	-161.147	9.416	1295.458	1623.683	0.933	771.93	1	1.055	8.775
2023-09-16 21:01	3303916	8.347	-153.646	9.411	1295.572	1624.016	0.933	771.86	1	1.056	8.715
2023-09-16 21:16	3304816	8.324	-152.485	9.41	1295.763	1624.31	0.933	771.75	1	1.056	8.609
2023-09-16 21:31	3305716	8.319	-152.225	9.413	1296.496	1625.104	0.934	771.31	1	1.056	8.447
2023-09-16 21:46	3306616	8.469	-159.774	9.426	1296.128	1624.129	0.933	771.53	1	1.056	8.269
2023-09-16 22:01	3307516	8.315	-152.068	9.442	1297.047	1624.689	0.934	770.98	1	1.056	8.349
2023-09-16 22:16	3308416	8.309	-151.746	9.469	1298.342	1625.247	0.934	770.21	1	1.056	8.235
2023-09-16 22:31	3309316	8.301	-151.362	9.507	1299.719	1625.502	0.934	769.40	1	1.057	8.309
2023-09-16 22:46	3310216	8.475	-160.17	9.567	1298.436	1621.557	0.932	770.16	1	1.054	8.429
2023-09-16 23:01	3311116	8.313	-152.025	9.623	1299.977	1621.316	0.931	769.24	1	1.054	8.403
2023-09-16 23:16	3312016	8.310	-151.937	9.66	1302.001	1622.4	0.932	768.05	1	1.055	8.364
2023-09-16 23:31	3312916	8.298	-151.336	9.69	1303.479	1623.097	0.932	767.18	1	1.055	8.278
2023-09-16 23:46	3313816	8.452	-159.101	9.742	1299.414	1616.028	0.928	769.58	1	1.050	8.277
2023-09-17 00:01	3314716	8.302	-151.575	9.777	1303.373	1619.622	0.930	767.24	1	1.053	8.138
2023-09-17 00:16	3315616	8.309	-151.939	9.825	1305.266	1620.115	0.931	766.13	1	1.053	8.092
2023-09-17 00:31	3316516	8.308	-151.942	9.857	1307.006	1621.055	0.931	765.11	1	1.054	7.973
2023-09-17 00:46	3317416	8.472	-160.186	9.894	1298.903	1609.591	0.924	769.88	1	1.046	7.997
2023-09-17 01:01	3318316	8.308	-151.954	9.925	1301.547	1611.671	0.925	768.32	1	1.048	7.914
2023-09-17 01:16	3319216	8.303	-151.732	9.937	1303.126	1613.179	0.926	767.39	1	1.049	8.042
2023-09-17 01:31	3320116	8.298	-151.467	9.939	1302.792	1612.705	0.926	767.58	1	1.048	8.084
2023-09-17 01:46	3321016	8.454	-159.333	9.936	1282.927	1588.237	0.911	779.47	1	1.032	8.058
2023-09-17 02:01	3321916	8.301	-151.613	9.922	1292.42	1600.504	0.919	773.74	1	1.040	7.805
2023-09-17 02:16	3322816	8.302	-151.675	9.909	1293.761	1602.654	0.920	772.94	1	1.042	7.759
2023-09-17 02:31	3323716	8.295	-151.284	9.896	1294.249	1603.755	0.921	772.65	1	1.042	7.864
2023-09-17 02:46	3324616	8.474	-160.277	9.887	1274.024	1579.023	0.906	784.92	1	1.026	7.917
2023-09-17 03:01	3325516	8.302	-151.618	9.879	1279.182	1585.723	0.910	781.75	1	1.031	7.682

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-17 03:16	3326416	8.298	-151.451	9.871	1280.323	1587.435	0.911	781.05	1	1.032	7.844
2023-09-17 03:31	3327316	8.289	-150.986	9.86	1281.079	1588.779	0.912	780.59	1	1.033	7.939
2023-09-17 03:46	3328216	8.439	-158.532	9.849	1261.341	1564.731	0.897	792.81	1	1.017	7.932
2023-09-17 04:01	3329116	8.305	-151.782	9.835	1268.395	1573.979	0.903	788.40	1	1.023	7.662
2023-09-17 04:16	3330017	8.304	-151.684	9.824	1269.257	1575.454	0.904	787.86	1	1.024	7.679
2023-09-17 04:31	3330917	8.297	-151.324	9.809	1269.216	1575.98	0.904	787.89	1	1.024	7.652
2023-09-17 04:46	3331817	8.482	-160.646	9.797	1252.492	1555.657	0.892	798.41	1	1.011	7.563
2023-09-17 05:01	3332717	8.309	-151.925	9.78	1256.856	1561.715	0.896	795.64	1	1.015	7.524
2023-09-17 05:16	3333617	8.302	-151.572	9.767	1257.374	1562.827	0.896	795.31	1	1.016	7.728
2023-09-17 05:31	3334517	8.297	-151.291	9.752	1257.609	1563.686	0.897	795.16	1	1.016	7.735
2023-09-17 05:46	3335417	8.455	-159.256	9.739	1244.558	1547.918	0.887	803.50	1	1.006	7.725
2023-09-17 06:01	3336317	8.308	-151.861	9.73	1247.842	1552.356	0.890	801.38	1	1.009	7.086
2023-09-17 06:16	3337217	8.306	-151.734	9.721	1248.636	1553.684	0.891	800.87	1	1.010	7.397
2023-09-17 06:31	3338117	8.299	-151.379	9.71	1248.858	1554.34	0.891	800.73	1	1.010	7.535
2023-09-17 06:46	3339017	8.486	-160.794	9.704	1237.336	1540.23	0.883	808.19	1	1.001	7.468
2023-09-17 07:01	3339917	8.309	-151.889	9.695	1240.51	1544.493	0.885	806.12	1	1.004	7.381
2023-09-17 07:16	3340817	8.302	-151.527	9.686	1240.877	1545.305	0.886	805.88	1	1.004	7.466
2023-09-17 07:31	3341717	8.293	-151.069	9.674	1241.106	1546.04	0.886	805.73	1	1.005	7.465
2023-09-17 07:46	3342617	8.455	-159.225	9.662	1232.043	1535.171	0.880	811.66	1	0.998	7.431
2023-09-17 08:01	3343517	8.301	-151.463	9.648	1235.33	1539.792	0.882	809.50	1	1.001	7.346
2023-09-17 08:16	3344417	8.295	-151.174	9.633	1235.624	1540.685	0.883	809.31	1	1.001	7.270
2023-09-17 08:31	3345317	8.287	-150.747	9.618	1235.828	1541.505	0.884	809.17	1	1.002	7.181
2023-09-17 08:46	3346217	8.466	-159.745	9.604	1227.791	1531.988	0.878	814.47	1	0.996	7.055
2023-09-17 09:01	3347117	8.293	-151.045	9.589	1231.242	1536.852	0.881	812.19	1	0.999	6.953
2023-09-17 09:16	3348017	8.292	-150.957	9.573	1231.943	1538.29	0.882	811.73	1	1.000	7.049
2023-09-17 09:31	3348917	8.281	-150.428	9.557	1231.615	1538.468	0.882	811.94	1	1.000	7.051
2023-09-17 09:46	3349817	8.451	-158.935	9.55	1225.496	1531.098	0.877	816.00	1	0.995	6.990
2023-09-17 10:01	3350717	8.291	-150.919	9.538	1227.181	1533.622	0.879	814.88	1	0.997	6.920
2023-09-17 10:16	3351617	8.293	-151.007	9.53	1227.674	1534.55	0.879	814.55	1	0.997	7.036
2023-09-17 10:31	3352517	8.292	-150.94	9.522	1227.91	1535.127	0.880	814.39	1	0.998	7.212
2023-09-17 10:46	3353417	8.481	-160.441	9.518	1220.154	1525.572	0.874	819.57	1	0.992	7.220
2023-09-17 11:01	3354317	8.307	-151.701	9.514	1223.002	1529.289	0.876	817.66	1	0.994	7.047
2023-09-17 11:16	3355217	8.297	-151.184	9.516	1223.5	1529.848	0.877	817.33	1	0.994	7.259
2023-09-17 11:31	3356117	8.300	-151.324	9.522	1224.149	1530.423	0.877	816.89	1	0.995	7.394
2023-09-17 11:46	3357017	8.468	-159.817	9.531	1217.397	1521.66	0.872	821.43	1	0.989	7.560
2023-09-17 12:01	3357917	8.307	-151.718	9.545	1219.412	1523.681	0.873	820.07	1	0.990	7.462
2023-09-17 12:16	3358817	8.307	-151.713	9.563	1220.608	1524.524	0.873	819.26	1	0.991	7.751
2023-09-17 12:31	3359717	8.308	-151.761	9.585	1221.219	1524.46	0.873	818.85	1	0.991	7.887
2023-09-17 12:46	3360617	8.506	-161.765	9.618	1215.609	1516.289	0.868	822.63	1	0.986	7.943
2023-09-17 13:01	3361517	8.328	-152.817	9.651	1219.384	1519.811	0.870	820.09	1	0.988	7.967
2023-09-17 13:16	3362417	8.337	-153.308	9.68	1220.563	1520.213	0.871	819.29	1	0.988	8.287
2023-09-17 13:31	3363317	8.338	-153.346	9.718	1221.785	1520.371	0.871	818.47	1	0.988	8.377
2023-09-17 13:46	3364217	8.519	-162.508	9.758	1219.123	1515.614	0.868	820.26	1	0.985	8.466
2023-09-17 14:01	3365117	8.334	-153.177	9.789	1220.982	1516.82	0.869	819.01	1	0.986	8.110
2023-09-17 14:16	3366017	8.343	-153.666	9.824	1222.438	1517.364	0.869	818.04	1	0.986	8.249
2023-09-17 14:31	3366917	8.352	-154.133	9.861	1224.255	1518.278	0.869	816.82	1	0.987	8.384
2023-09-17 14:46	3367817	8.534	-163.331	9.903	1221.941	1513.904	0.867	818.37	1	0.984	8.376
2023-09-17 15:01	3368717	8.342	-153.692	9.93	1224.482	1516.084	0.868	816.67	1	0.985	8.284
2023-09-17 15:16	3369617	8.333	-153.236	9.955	1225.815	1516.82	0.868	815.78	1	0.986	8.422
2023-09-17 15:31	3370517	8.330	-153.103	9.984	1227.459	1517.827	0.869	814.69	1	0.987	8.421
2023-09-17 15:46	3371417	8.500	-161.684	10.014	1225.876	1514.78	0.867	815.74	1	0.985	8.392
2023-09-17 16:01	3372317	8.325	-152.903	10.042	1227.536	1515.833	0.868	814.64	1	0.985	8.264
2023-09-17 16:16	3373217	8.329	-153.12	10.077	1229.098	1516.536	0.868	813.61	1	0.986	7.682
2023-09-17 16:31	3374117	8.337	-153.503	10.12	1230.824	1517.129	0.868	812.46	1	0.986	7.846
2023-09-17 16:46	3375017	8.523	-162.933	10.168	1229.013	1513.158	0.866	813.66	1	0.984	7.865
2023-09-17 17:01	3375917	8.341	-153.79	10.209	1231.759	1515.089	0.867	811.85	1	0.985	8.333

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-17 17:16	3376817	8.330	-153.22	10.241	1233.691	1516.336	0.868	810.58	1	0.986	8.493
2023-09-17 17:31	3377717	8.330	-153.253	10.268	1234.622	1516.503	0.868	809.97	1	0.986	8.449
2023-09-17 17:46	3378617	8.482	-160.921	10.309	1234.156	1514.5	0.867	810.27	1	0.984	8.474
2023-09-17 18:01	3379517	8.326	-153.086	10.328	1235.991	1516.077	0.868	809.07	1	0.985	8.625
2023-09-17 18:16	3380417	8.314	-152.516	10.369	1237.626	1516.598	0.868	808.00	1	0.986	8.493
2023-09-17 18:31	3381317	8.300	-151.782	10.375	1238.485	1517.443	0.868	807.44	1	0.986	8.525
2023-09-17 18:46	3382217	8.490	-161.386	10.389	1238.091	1516.465	0.868	807.70	1	0.986	8.593
2023-09-17 19:01	3383117	8.313	-152.495	10.411	1239.686	1517.655	0.869	806.66	1	0.986	8.196
2023-09-17 19:16	3384017	8.298	-151.73	10.44	1241.266	1518.536	0.869	805.63	1	0.987	8.260
2023-09-17 19:31	3384917	8.321	-152.912	10.466	1242.552	1519.201	0.869	804.80	1	0.987	8.193
2023-09-17 19:46	3385817	8.508	-162.342	10.502	1241.911	1517.127	0.868	805.21	1	0.986	8.193
2023-09-17 20:01	3386717	8.329	-153.341	10.532	1243.522	1518.051	0.869	804.17	1	0.987	8.352
2023-09-17 20:16	3387617	8.325	-153.158	10.553	1245.313	1519.469	0.870	803.01	1	0.988	8.213
2023-09-17 20:31	3388517	8.263	-150.046	10.573	1249.01	1523.292	0.872	800.63	1	0.990	7.547
2023-09-17 20:46	3389417	8.466	-160.272	10.59	1251.242	1525.401	0.873	799.21	1	0.992	7.787
2023-09-17 21:01	3390317	8.326	-153.232	10.602	1252.439	1526.451	0.874	798.44	1	0.992	7.932
2023-09-17 21:16	3391217	8.295	-151.684	10.608	1254.439	1528.674	0.875	797.17	1	0.994	8.192
2023-09-17 21:31	3392117	8.270	-150.387	10.606	1255.465	1529.98	0.876	796.52	1	0.994	8.350
2023-09-17 21:46	3393017	8.470	-160.487	10.601	1255.572	1530.287	0.876	796.45	1	0.995	8.303
2023-09-17 22:01	3393917	8.319	-152.886	10.591	1255.303	1530.312	0.876	796.62	1	0.995	8.301
2023-09-17 22:16	3394817	8.295	-151.634	10.571	1255.538	1531.313	0.877	796.47	1	0.995	8.286
2023-09-17 22:31	3395717	8.286	-151.21	10.553	1255.324	1531.698	0.877	796.61	1	0.996	8.262
2023-09-17 22:46	3396617	8.476	-160.747	10.528	1255.749	1533.109	0.878	796.34	1	0.997	8.271
2023-09-17 23:01	3397517	8.340	-153.894	10.515	1255.233	1532.938	0.878	796.67	1	0.996	8.312
2023-09-17 23:16	3398417	8.303	-152.011	10.494	1254.473	1532.787	0.878	797.15	1	0.996	8.098
2023-09-17 23:31	3399317	8.296	-151.632	10.481	1254.259	1532.967	0.878	797.28	1	0.996	8.266
2023-09-17 23:46	3400217	8.473	-160.589	10.473	1253.411	1532.241	0.877	797.82	1	0.996	8.246
2023-09-18 00:01	3401117	8.324	-153.043	10.467	1253.548	1532.614	0.877	797.74	1	0.996	8.043
2023-09-18 00:16	3402017	8.296	-151.656	10.46	1253.107	1532.329	0.877	798.02	1	0.996	8.019
2023-09-18 00:31	3402917	8.288	-151.215	10.447	1252.814	1532.427	0.877	798.20	1	0.996	8.123
2023-09-18 00:46	3403817	8.488	-161.326	10.431	1254.441	1534.98	0.879	797.17	1	0.998	8.055
2023-09-18 01:01	3404717	8.333	-153.506	10.418	1254.541	1535.575	0.879	797.11	1	0.998	7.998
2023-09-18 01:16	3405617	8.316	-152.636	10.411	1254.948	1536.343	0.880	796.85	1	0.999	7.907
2023-09-18 01:31	3406517	8.304	-152.03	10.404	1255.365	1537.079	0.880	796.58	1	0.999	7.871
2023-09-18 01:46	3407417	8.478	-160.801	10.394	1254.747	1536.697	0.880	796.97	1	0.999	7.883
2023-09-18 02:01	3408317	8.329	-153.277	10.389	1254.721	1536.843	0.880	796.99	1	0.999	7.849
2023-09-18 02:16	3409217	8.309	-152.273	10.383	1254.521	1536.793	0.880	797.12	1	0.999	7.942
2023-09-18 02:31	3410117	8.320	-152.826	10.377	1254.524	1537.029	0.880	797.12	1	0.999	7.967
2023-09-18 02:46	3411017	8.495	-161.624	10.371	1254.637	1537.386	0.880	797.04	1	0.999	7.726
2023-09-18 03:01	3411917	8.338	-153.701	10.361	1254.227	1537.247	0.880	797.30	1	0.999	7.637
2023-09-18 03:16	3412817	8.323	-152.924	10.336	1253.949	1537.783	0.881	797.48	1	1.000	7.763
2023-09-18 03:31	3413717	8.321	-152.798	10.301	1252.97	1537.868	0.881	798.10	1	1.000	7.710
2023-09-18 03:46	3414617	8.491	-161.393	10.279	1252.617	1538.208	0.881	798.33	1	1.000	7.776
2023-09-18 04:01	3415517	8.334	-153.434	10.269	1252.535	1538.488	0.881	798.38	1	1.000	7.752
2023-09-18 04:16	3416417	8.318	-152.619	10.252	1252.168	1538.657	0.881	798.62	1	1.000	7.540
2023-09-18 04:31	3417317	8.329	-153.172	10.228	1251.389	1538.538	0.881	799.11	1	1.000	7.647
2023-09-18 04:46	3418217	8.510	-162.292	10.209	1251.453	1539.308	0.882	799.07	1	1.001	7.923
2023-09-18 05:01	3419117	8.345	-153.975	10.188	1251.158	1539.705	0.882	799.26	1	1.001	7.791
2023-09-18 05:16	3420017	8.324	-152.886	10.164	1250.746	1540.071	0.882	799.52	1	1.001	7.861
2023-09-18 05:31	3420917	8.329	-153.124	10.146	1250.733	1540.723	0.883	799.53	1	1.001	7.982
2023-09-18 05:46	3421817	8.504	-161.953	10.128	1250.291	1540.805	0.883	799.81	1	1.002	7.884
2023-09-18 06:01	3422717	8.334	-153.356	10.111	1250.161	1541.283	0.883	799.90	1	1.002	7.789
2023-09-18 06:16	3423617	8.330	-153.174	10.084	1249.503	1541.442	0.883	800.32	1	1.002	7.777
2023-09-18 06:31	3424517	8.319	-152.595	10.058	1248.86	1541.581	0.883	800.73	1	1.002	7.883
2023-09-18 06:46	3425417	8.504	-161.867	10.025	1248.346	1542.18	0.884	801.06	1	1.002	7.779
2023-09-18 07:01	3426317	8.347	-153.944	10.005	1247.707	1542.102	0.884	801.47	1	1.002	7.790

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-18 07:16	3427217	8.331	-153.131	9.976	1246.867	1542.103	0.884	802.01	1	1.002	7.806
2023-09-18 07:31	3428117	8.328	-152.998	9.954	1246.473	1542.444	0.884	802.26	1	1.003	7.756
2023-09-18 07:46	3429017	8.510	-162.134	9.917	1245.331	1542.363	0.884	803.00	1	1.003	7.818
2023-09-18 08:01	3429917	8.334	-153.232	9.89	1243.607	1541.215	0.883	804.11	1	1.002	7.779
2023-09-18 08:16	3430817	8.334	-153.248	9.862	1243.786	1542.474	0.884	804.00	1	1.003	7.725
2023-09-18 08:31	3431717	8.332	-153.129	9.834	1243.232	1542.793	0.884	804.36	1	1.003	7.648
2023-09-18 08:46	3432617	8.504	-161.786	9.809	1243.294	1543.792	0.885	804.32	1	1.003	7.845
2023-09-18 09:01	3433517	8.347	-153.868	9.785	1242.688	1543.927	0.885	804.71	1	1.004	7.804
2023-09-18 09:16	3434417	8.350	-153.971	9.763	1242.049	1543.945	0.885	805.12	1	1.004	7.825
2023-09-18 09:31	3435317	8.348	-153.89	9.73	1241.117	1543.962	0.885	805.73	1	1.004	7.799
2023-09-18 09:46	3436217	8.525	-162.773	9.702	1240.973	1544.841	0.885	805.82	1	1.004	7.978
2023-09-18 10:01	3437117	8.352	-154.035	9.678	1240.661	1545.32	0.886	806.02	1	1.004	7.967
2023-09-18 10:16	3438018	8.349	-153.859	9.643	1239.453	1545.1	0.886	806.81	1	1.004	8.071
2023-09-18 10:31	3438918	8.340	-153.42	9.613	1237.558	1543.854	0.885	808.04	1	1.004	8.178
2023-09-18 10:46	3439818	8.524	-162.656	9.582	1237.069	1544.391	0.885	808.36	1	1.004	8.233
2023-09-18 11:01	3440718	8.372	-154.972	9.566	1236.924	1544.769	0.886	808.46	1	1.004	8.199
2023-09-18 11:16	3441618	8.373	-155.013	9.554	1237.072	1545.402	0.886	808.36	1	1.005	8.233
2023-09-18 11:31	3442518	8.366	-154.681	9.548	1236.895	1545.4	0.886	808.48	1	1.005	8.295
2023-09-18 11:46	3443418	8.538	-163.324	9.55	1237.322	1545.878	0.886	808.20	1	1.005	8.373
2023-09-18 12:01	3444318	8.375	-155.151	9.556	1237.575	1545.978	0.886	808.03	1	1.005	8.297
2023-09-18 12:16	3445218	8.369	-154.85	9.565	1238.559	1546.874	0.887	807.39	1	1.005	8.422
2023-09-18 12:31	3446118	8.358	-154.309	9.577	1239.11	1547.115	0.887	807.03	1	1.006	8.558
2023-09-18 12:46	3447018	8.544	-163.627	9.593	1240.376	1548.104	0.887	806.21	1	1.006	8.585
2023-09-18 13:01	3447918	8.389	-155.883	9.611	1240.866	1548.047	0.887	805.89	1	1.006	8.550
2023-09-18 13:16	3448818	8.375	-155.165	9.632	1241.917	1548.598	0.888	805.21	1	1.007	8.662
2023-09-18 13:31	3449718	8.376	-155.222	9.654	1243.284	1549.491	0.888	804.32	1	1.007	8.667
2023-09-18 13:46	3450618	8.537	-163.364	9.679	1244.114	1549.599	0.888	803.79	1	1.007	8.700
2023-09-18 14:01	3451518	8.386	-155.747	9.707	1244.624	1549.206	0.888	803.46	1	1.007	8.620
2023-09-18 14:16	3452418	8.367	-154.848	9.766	1246.602	1549.477	0.888	802.18	1	1.007	8.699
2023-09-18 14:31	3453318	8.364	-154.75	9.844	1249.206	1549.844	0.888	800.51	1	1.007	8.661
2023-09-18 14:46	3454218	8.550	-164.142	9.925	1254.629	1553.593	0.891	797.05	1	1.010	8.727
2023-09-18 15:01	3455118	8.392	-156.214	9.969	1256.024	1553.692	0.891	796.16	1	1.010	8.841
2023-09-18 15:16	3456018	8.381	-155.661	10.005	1257.769	1554.544	0.891	795.06	1	1.010	9.057
2023-09-18 15:31	3456918	8.389	-156.119	10.057	1259.936	1555.3	0.891	793.69	1	1.011	9.041
2023-09-18 15:46	3457818	8.567	-165.112	10.136	1263.474	1556.791	0.892	791.47	1	1.012	9.103
2023-09-18 16:01	3458718	8.404	-156.92	10.182	1264.622	1556.514	0.892	790.75	1	1.012	8.984
2023-09-18 16:16	3459618	8.399	-156.717	10.234	1266.598	1557.044	0.892	789.52	1	1.012	8.900
2023-09-18 16:31	3460518	8.402	-156.906	10.275	1268.339	1557.659	0.893	788.43	1	1.012	8.799
2023-09-18 16:46	3461418	8.594	-166.593	10.315	1271.139	1559.645	0.894	786.70	1	1.014	8.691
2023-09-18 17:01	3462318	8.422	-157.938	10.338	1271.515	1559.271	0.894	786.46	1	1.014	9.015
2023-09-18 17:16	3463218	8.404	-157.03	10.366	1272.766	1559.79	0.894	785.69	1	1.014	9.222
2023-09-18 17:31	3464118	8.408	-157.254	10.382	1273.92	1560.602	0.894	784.98	1	1.014	9.231
2023-09-18 17:46	3465018	8.596	-166.74	10.407	1274.706	1560.654	0.894	784.50	1	1.014	9.276
2023-09-18 18:01	3465918	8.422	-157.955	10.409	1274.998	1560.931	0.895	784.32	1	1.015	9.143
2023-09-18 18:16	3466818	8.405	-157.099	10.411	1275.062	1560.968	0.895	784.28	1	1.015	9.196
2023-09-18 18:31	3467718	8.396	-156.674	10.406	1275.404	1561.558	0.895	784.07	1	1.015	9.140
2023-09-18 18:46	3468618	8.585	-166.209	10.401	1276.098	1562.595	0.896	783.64	1	1.016	9.220
2023-09-18 19:01	3469518	8.434	-158.587	10.383	1276.101	1563.234	0.896	783.64	1	1.016	9.068
2023-09-18 19:16	3470418	8.425	-158.11	10.349	1275.436	1563.668	0.896	784.05	1	1.016	9.201
2023-09-18 19:31	3471318	8.439	-158.758	10.311	1274.484	1563.888	0.896	784.63	1	1.017	9.237
2023-09-18 19:46	3472218	8.619	-167.835	10.272	1273.392	1563.972	0.896	785.30	1	1.017	9.161
2023-09-18 20:01	3473118	8.448	-159.163	10.24	1272.812	1564.453	0.897	785.66	1	1.017	9.124
2023-09-18 20:16	3474018	8.436	-158.584	10.21	1272.131	1564.731	0.897	786.08	1	1.017	9.111
2023-09-18 20:31	3474918	8.416	-157.564	10.182	1271.625	1565.106	0.897	786.40	1	1.017	9.069
2023-09-18 20:46	3475818	8.608	-167.217	10.152	1271.245	1565.756	0.898	786.63	1	1.018	8.980
2023-09-18 21:01	3476718	8.449	-159.19	10.12	1270.426	1565.911	0.898	787.14	1	1.018	8.854

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-18 21:16	3477618	8.429	-158.131	10.088	1269.737	1566.244	0.898	787.56	1	1.018	8.871
2023-09-18 21:31	3478518	8.423	-157.816	10.046	1268.86	1566.715	0.898	788.11	1	1.018	8.878
2023-09-18 21:46	3479418	8.616	-167.496	10.005	1267.135	1566.113	0.898	789.18	1	1.018	8.785
2023-09-18 22:01	3480318	8.438	-158.508	9.973	1266.502	1566.532	0.898	789.58	1	1.018	8.732
2023-09-18 22:16	3481218	8.427	-157.957	9.933	1265.477	1566.711	0.898	790.22	1	1.018	8.630
2023-09-18 22:31	3482118	8.423	-157.731	9.909	1265.204	1567.274	0.899	790.39	1	1.019	8.623
2023-09-18 22:46	3483018	8.598	-166.554	9.877	1265.067	1568.285	0.899	790.47	1	1.019	8.668
2023-09-18 23:01	3483918	8.448	-158.982	9.841	1264.379	1568.794	0.900	790.90	1	1.020	8.632
2023-09-18 23:16	3484818	8.427	-157.9	9.805	1263.258	1568.735	0.900	791.60	1	1.020	8.615
2023-09-18 23:31	3485718	8.429	-157.981	9.776	1262.393	1568.742	0.900	792.15	1	1.020	8.701
2023-09-18 23:46	3486618	8.615	-167.336	9.746	1261.53	1568.768	0.900	792.69	1	1.020	8.717
2023-09-19 00:01	3487518	8.436	-158.274	9.716	1261.242	1569.545	0.900	792.87	1	1.020	8.653
2023-09-19 00:16	3488418	8.431	-158.038	9.684	1261.1	1570.547	0.901	792.96	1	1.021	8.573
2023-09-19 00:31	3489318	8.430	-157.933	9.656	1260.681	1571.062	0.901	793.22	1	1.021	8.486
2023-09-19 00:46	3490218	8.604	-166.7	9.615	1259.825	1571.53	0.902	793.76	1	1.021	8.431
2023-09-19 01:01	3491118	8.435	-158.191	9.588	1260.005	1572.769	0.902	793.65	1	1.022	8.485
2023-09-19 01:16	3492018	8.411	-156.92	9.562	1259.847	1573.579	0.903	793.75	1	1.023	8.416
2023-09-19 01:31	3492918	8.408	-156.765	9.528	1259.057	1573.841	0.903	794.25	1	1.023	8.398
2023-09-19 01:46	3493818	8.603	-166.588	9.506	1257.845	1573.178	0.903	795.01	1	1.023	8.444
2023-09-19 02:01	3494718	8.420	-157.356	9.481	1257.318	1573.429	0.903	795.34	1	1.023	8.324
2023-09-19 02:16	3495618	8.410	-156.825	9.457	1256.943	1573.88	0.903	795.58	1	1.023	8.244
2023-09-19 02:31	3496518	8.407	-156.696	9.43	1256.31	1574.096	0.903	795.98	1	1.023	8.367
2023-09-19 02:46	3497418	8.586	-165.634	9.39	1256.919	1576.368	0.905	795.60	1	1.025	8.460
2023-09-19 03:01	3498318	8.430	-157.778	9.363	1255.851	1576.039	0.904	796.27	1	1.024	8.428
2023-09-19 03:16	3499218	8.411	-156.796	9.333	1255.344	1576.553	0.905	796.60	1	1.025	8.343
2023-09-19 03:31	3500118	8.403	-156.417	9.294	1254.613	1577.096	0.905	797.06	1	1.025	8.208
2023-09-19 03:46	3501018	8.586	-165.603	9.276	1254.167	1577.234	0.905	797.34	1	1.025	8.251
2023-09-19 04:01	3501918	8.414	-156.929	9.238	1253.782	1578.176	0.906	797.59	1	1.026	8.289
2023-09-19 04:16	3502818	8.398	-156.1	9.193	1252.92	1578.821	0.906	798.14	1	1.026	8.273
2023-09-19 04:31	3503718	8.407	-156.507	9.155	1252.148	1579.287	0.907	798.63	1	1.027	8.319
2023-09-19 04:46	3504618	8.591	-165.725	9.113	1251.636	1580.241	0.907	798.95	1	1.027	8.289
2023-09-19 05:01	3505518	8.426	-157.461	9.097	1251.931	1581.233	0.908	798.77	1	1.028	8.309
2023-09-19 05:16	3506418	8.403	-156.281	9.075	1252.019	1582.157	0.908	798.71	1	1.028	8.304
2023-09-19 05:31	3507318	8.410	-156.61	9.052	1252.042	1583.074	0.909	798.70	1	1.029	8.256
2023-09-19 05:46	3508218	8.583	-165.262	9.014	1249.679	1581.554	0.908	800.21	1	1.028	8.220
2023-09-19 06:01	3509118	8.416	-156.891	8.973	1248.457	1581.571	0.908	800.99	1.001	1.028	8.175
2023-09-19 06:16	3510018	8.402	-156.14	8.937	1247.765	1582.064	0.908	801.43	1.001	1.028	8.217
2023-09-19 06:31	3510918	8.401	-156.078	8.908	1247.724	1583.107	0.909	801.46	1.001	1.029	8.278
2023-09-19 06:46	3511818	8.582	-165.129	8.858	1245.744	1582.544	0.909	802.73	1.001	1.029	8.203
2023-09-19 07:01	3512718	8.425	-157.228	8.839	1246.049	1583.643	0.909	802.54	1.001	1.029	8.156
2023-09-19 07:16	3513618	8.407	-156.345	8.814	1246.851	1585.608	0.911	802.02	1.001	1.031	8.168
2023-09-19 07:31	3514518	8.396	-155.761	8.768	1244.74	1584.728	0.910	803.38	1.001	1.030	8.086
2023-09-19 07:46	3515418	8.585	-165.188	8.725	1242.578	1583.594	0.909	804.78	1.001	1.029	8.068
2023-09-19 08:01	3516318	8.419	-156.851	8.698	1242.987	1585.16	0.910	804.51	1.001	1.030	8.065
2023-09-19 08:16	3517218	8.406	-156.195	8.678	1243.242	1586.292	0.911	804.35	1.001	1.031	7.990
2023-09-19 08:31	3518118	8.395	-155.635	8.645	1241.576	1585.428	0.911	805.43	1.001	1.031	8.095
2023-09-19 08:46	3519018	8.589	-165.362	8.628	1242.547	1587.338	0.912	804.80	1.001	1.032	8.048
2023-09-19 09:01	3519918	8.421	-156.937	8.621	1242.169	1587.111	0.912	805.04	1.001	1.032	8.112
2023-09-19 09:16	3520818	8.403	-156.016	8.614	1242.407	1587.681	0.912	804.89	1.001	1.032	8.070
2023-09-19 09:31	3521718	8.396	-155.685	8.606	1243.701	1589.649	0.913	804.05	1.001	1.033	8.126
2023-09-19 09:46	3522618	8.583	-165.012	8.608	1243.909	1589.82	0.913	803.92	1.001	1.033	8.192
2023-09-19 10:01	3523518	8.425	-157.12	8.614	1244.352	1590.156	0.913	803.63	1.001	1.034	8.085
2023-09-19 10:16	3524418	8.411	-156.431	8.622	1245.153	1590.869	0.914	803.11	1.001	1.034	8.022
2023-09-19 10:31	3525318	8.404	-156.081	8.637	1245.862	1591.208	0.914	802.66	1.001	1.034	7.926
2023-09-19 10:46	3526218	8.572	-164.516	8.655	1247.728	1592.899	0.915	801.46	1.001	1.035	8.017
2023-09-19 11:01	3527118	8.417	-156.739	8.664	1247.89	1592.736	0.915	801.35	1.001	1.035	8.151

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-19 11:16	3528018	8.409	-156.341	8.678	1248.381	1592.815	0.915	801.04	1.001	1.035	8.110
2023-09-19 11:31	3528918	8.408	-156.326	8.692	1248.909	1592.953	0.915	800.70	1.001	1.035	8.069
2023-09-19 11:46	3529818	8.576	-164.723	8.715	1249.958	1593.408	0.915	800.03	1.001	1.036	8.041
2023-09-19 12:01	3530718	8.403	-156.085	8.729	1249.902	1592.776	0.915	800.06	1.001	1.035	8.115
2023-09-19 12:16	3531618	8.397	-155.771	8.745	1250.534	1592.97	0.915	799.66	1.001	1.035	7.813
2023-09-19 12:31	3532518	8.396	-155.74	8.765	1251.277	1593.145	0.915	799.18	1.001	1.036	7.517
2023-09-19 12:46	3533418	8.563	-164.137	8.791	1252.735	1594.001	0.916	798.25	1.001	1.036	7.360
2023-09-19 13:01	3534318	8.403	-156.114	8.814	1253.346	1593.9	0.916	797.87	1.001	1.036	7.771
2023-09-19 13:16	3535218	8.394	-155.702	8.839	1254.169	1593.954	0.916	797.34	1.001	1.036	7.713
2023-09-19 13:31	3536118	8.392	-155.58	8.864	1255.051	1594.102	0.916	796.78	1.001	1.036	7.368
2023-09-19 13:46	3537018	8.566	-164.356	8.894	1257.791	1596.442	0.917	795.05	1.001	1.038	7.207
2023-09-19 14:01	3537918	8.407	-156.391	8.912	1257.53	1595.403	0.916	795.21	1.001	1.037	7.714
2023-09-19 14:16	3538818	8.390	-155.549	8.933	1258.57	1595.918	0.917	794.55	1.001	1.037	7.127
2023-09-19 14:31	3539719	8.392	-155.647	8.954	1260.156	1597.122	0.917	793.55	1.001	1.038	6.849
2023-09-19 14:46	3540619	8.560	-164.089	8.974	1261.464	1597.987	0.918	792.73	1.001	1.039	6.791
2023-09-19 15:01	3541519	8.396	-155.895	8.995	1262.354	1598.319	0.918	792.17	1.001	1.039	7.507
2023-09-19 15:16	3542419	8.401	-156.128	9.015	1263.597	1599.118	0.919	791.39	1.001	1.039	7.373
2023-09-19 15:31	3543319	8.397	-155.935	9.037	1264.872	1599.863	0.919	790.59	1.001	1.040	7.257
2023-09-19 15:46	3544219	8.564	-164.361	9.066	1268.097	1602.843	0.921	788.58	1.001	1.042	7.360
2023-09-19 16:01	3545119	8.411	-156.658	9.085	1268.142	1602.138	0.920	788.56	1.001	1.041	8.065
2023-09-19 16:16	3546019	8.407	-156.496	9.104	1270.045	1603.804	0.921	787.37	1.001	1.042	8.243
2023-09-19 16:31	3546919	8.407	-156.496	9.119	1271.517	1605.09	0.922	786.46	1.001	1.043	8.370
2023-09-19 16:46	3547819	8.577	-165.029	9.136	1273.284	1606.657	0.923	785.37	1.001	1.044	8.442
2023-09-19 17:01	3548719	8.431	-157.697	9.15	1273.637	1606.59	0.923	785.15	1	1.044	8.521
2023-09-19 17:16	3549619	8.425	-157.444	9.16	1274.67	1607.509	0.924	784.52	1	1.045	8.413
2023-09-19 17:31	3550519	8.424	-157.397	9.167	1275.853	1608.695	0.924	783.79	1	1.046	8.403
2023-09-19 17:46	3551419	8.593	-165.894	9.173	1277.076	1610.023	0.925	783.04	1	1.047	8.531
2023-09-19 18:01	3552319	8.436	-157.964	9.171	1277.159	1610.198	0.925	782.99	1	1.047	8.613
2023-09-19 18:16	3553219	8.421	-157.244	9.162	1277.737	1611.273	0.926	782.63	1.001	1.047	8.679
2023-09-19 18:31	3554119	8.432	-157.778	9.155	1277.752	1611.587	0.926	782.62	1.001	1.048	8.831
2023-09-19 18:46	3555019	8.613	-166.862	9.142	1277.929	1612.32	0.926	782.52	1.001	1.048	8.789
2023-09-19 19:01	3555919	8.459	-159.116	9.134	1277.825	1612.464	0.927	782.58	1.001	1.048	8.778
2023-09-19 19:16	3556819	8.439	-158.086	9.127	1277.696	1612.604	0.927	782.66	1.001	1.048	8.778
2023-09-19 19:31	3557719	8.436	-157.926	9.109	1277.422	1612.961	0.927	782.83	1.001	1.048	8.772
2023-09-19 19:46	3558619	8.615	-166.931	9.094	1276.786	1612.709	0.927	783.22	1.001	1.048	8.821
2023-09-19 20:01	3559519	8.448	-158.527	9.084	1276.539	1612.811	0.927	783.37	1.001	1.048	8.761
2023-09-19 20:16	3560419	8.424	-157.311	9.061	1275.841	1612.808	0.927	783.80	1.001	1.048	8.686
2023-09-19 20:31	3561319	8.431	-157.645	9.041	1275.318	1612.922	0.927	784.12	1.001	1.048	8.794
2023-09-19 20:46	3562219	8.623	-167.27	9.016	1274.925	1613.407	0.927	784.36	1.001	1.049	8.853
2023-09-19 21:01	3563119	8.460	-159.075	9.009	1274.157	1612.724	0.927	784.83	1.001	1.048	8.694
2023-09-19 21:16	3564019	8.450	-158.594	8.998	1273.623	1612.478	0.927	785.16	1.001	1.048	8.555
2023-09-19 21:31	3564919	8.447	-158.439	8.956	1272.3	1612.425	0.927	785.98	1.001	1.048	8.588
2023-09-19 21:46	3565819	8.617	-166.962	8.941	1272.327	1613.031	0.927	785.96	1.001	1.048	8.570
2023-09-19 22:01	3566719	8.454	-158.737	8.926	1271.741	1612.88	0.927	786.32	1.001	1.048	8.573
2023-09-19 22:16	3567619	8.439	-157.964	8.896	1270.698	1612.727	0.927	786.97	1.001	1.048	8.487
2023-09-19 22:31	3568519	8.447	-158.396	8.88	1270.085	1612.581	0.927	787.35	1.001	1.048	8.558
2023-09-19 22:46	3569419	8.621	-167.098	8.849	1269.512	1613.08	0.927	787.70	1.001	1.049	8.555
2023-09-19 23:01	3570319	8.451	-158.558	8.82	1268.428	1612.814	0.927	788.38	1.001	1.048	8.604
2023-09-19 23:16	3571219	8.441	-158.045	8.791	1267.486	1612.762	0.927	788.96	1.001	1.048	8.524
2023-09-19 23:31	3572119	8.439	-157.907	8.759	1266.596	1612.893	0.927	789.52	1.001	1.048	8.562
2023-09-19 23:46	3573019	8.606	-166.252	8.728	1265.348	1612.522	0.927	790.30	1.001	1.048	8.609
2023-09-20 00:01	3573919	8.455	-158.672	8.703	1264.637	1612.604	0.927	790.74	1.001	1.048	8.552
2023-09-20 00:16	3574819	8.450	-158.415	8.674	1263.784	1612.65	0.927	791.28	1.001	1.048	8.494
2023-09-20 00:31	3575719	8.443	-158.041	8.653	1263.108	1612.61	0.927	791.70	1.001	1.048	8.422
2023-09-20 00:46	3576619	8.618	-166.829	8.631	1262.609	1612.844	0.927	792.01	1.001	1.048	8.464
2023-09-20 01:01	3577519	8.454	-158.594	8.614	1261.999	1612.723	0.927	792.39	1.001	1.048	8.459

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-20 01:16	3578419	8.448	-158.241	8.591	1261.186	1612.586	0.927	792.90	1.001	1.048	8.438
2023-09-20 01:31	3579319	8.431	-157.392	8.566	1260.387	1612.552	0.927	793.41	1.001	1.048	8.459
2023-09-20 01:46	3580219	8.614	-166.571	8.543	1259.255	1612.007	0.927	794.12	1.001	1.048	8.472
2023-09-20 02:01	3581119	8.450	-158.334	8.523	1258.689	1612.068	0.927	794.48	1.001	1.048	8.434
2023-09-20 02:16	3582019	8.445	-158.057	8.507	1258.048	1611.9	0.927	794.88	1.001	1.048	8.299
2023-09-20 02:31	3582919	8.442	-157.893	8.486	1257.319	1611.782	0.927	795.34	1.001	1.048	8.307
2023-09-20 02:46	3583819	8.617	-166.64	8.466	1256.895	1612.007	0.927	795.61	1.001	1.048	8.354
2023-09-20 03:01	3584719	8.448	-158.16	8.448	1256.262	1611.918	0.927	796.01	1.001	1.048	8.391
2023-09-20 03:16	3585619	8.448	-158.191	8.43	1255.653	1611.848	0.927	796.40	1.001	1.048	8.339
2023-09-20 03:31	3586519	8.445	-158.012	8.412	1255.013	1611.727	0.927	796.81	1.001	1.048	8.377
2023-09-20 03:46	3587419	8.612	-166.347	8.4	1254.055	1610.996	0.926	797.41	1.001	1.047	8.391
2023-09-20 04:01	3588319	8.447	-158.119	8.384	1253.531	1610.932	0.926	797.75	1.001	1.047	8.259
2023-09-20 04:16	3589219	8.443	-157.864	8.368	1252.667	1610.471	0.926	798.30	1.001	1.047	8.219
2023-09-20 04:31	3590119	8.440	-157.738	8.353	1251.958	1610.167	0.926	798.75	1.001	1.047	8.215
2023-09-20 04:46	3591019	8.618	-166.628	8.341	1251.648	1610.232	0.926	798.95	1.001	1.047	8.322
2023-09-20 05:01	3591919	8.450	-158.195	8.333	1251.448	1610.28	0.926	799.08	1.001	1.047	8.239
2023-09-20 05:16	3592819	8.442	-157.833	8.324	1251.114	1610.192	0.926	799.29	1.001	1.047	8.092
2023-09-20 05:31	3593719	8.444	-157.905	8.317	1250.762	1610.023	0.926	799.51	1.001	1.047	8.140
2023-09-20 05:46	3594619	8.605	-165.987	8.309	1250.068	1609.474	0.925	799.96	1.001	1.046	8.079
2023-09-20 06:01	3595519	8.445	-157.924	8.302	1250.022	1609.672	0.925	799.99	1.001	1.046	8.023
2023-09-20 06:16	3596419	8.424	-156.889	8.294	1249.744	1609.646	0.925	800.16	1.001	1.046	8.001
2023-09-20 06:31	3597319	8.412	-156.279	8.276	1248.028	1608.151	0.925	801.26	1.001	1.045	7.904
2023-09-20 06:46	3598219	8.598	-165.608	8.265	1247.617	1608.035	0.924	801.53	1.001	1.045	8.074
2023-09-20 07:01	3599119	8.443	-157.826	8.257	1247.167	1607.773	0.924	801.82	1.001	1.045	8.128
2023-09-20 07:16	3600019	8.438	-157.566	8.243	1246.363	1607.284	0.924	802.33	1.001	1.045	8.216
2023-09-20 07:31	3600919	8.430	-157.156	8.228	1245.634	1606.93	0.924	802.80	1.001	1.045	8.284
2023-09-20 07:46	3601819	8.606	-165.93	8.205	1244.334	1606.175	0.923	803.64	1.001	1.044	8.235
2023-09-20 08:01	3602719	8.441	-157.657	8.18	1243.614	1606.253	0.923	804.11	1.001	1.044	8.159
2023-09-20 08:16	3603619	8.436	-157.402	8.159	1242.86	1606.081	0.923	804.60	1.001	1.044	8.307
2023-09-20 08:31	3604519	8.438	-157.526	8.141	1242.078	1605.801	0.923	805.10	1.001	1.044	8.189
2023-09-20 08:46	3605419	8.609	-166.032	8.122	1241.904	1606.344	0.924	805.22	1.001	1.044	8.230
2023-09-20 09:01	3606319	8.449	-158.055	8.11	1241.418	1606.198	0.923	805.53	1.001	1.044	8.202
2023-09-20 09:16	3607219	8.434	-157.278	8.095	1240.747	1605.914	0.923	805.97	1.001	1.044	8.020
2023-09-20 09:31	3608119	8.443	-157.716	8.086	1240.226	1605.599	0.923	806.31	1.001	1.044	8.171
2023-09-20 09:46	3609019	8.610	-166.066	8.08	1239.628	1605.062	0.923	806.69	1.001	1.043	8.175
2023-09-20 10:01	3609919	8.449	-158.038	8.077	1239.569	1605.097	0.923	806.73	1.001	1.043	8.072
2023-09-20 10:16	3610819	8.431	-157.13	8.076	1239.557	1605.102	0.923	806.74	1.001	1.043	8.004
2023-09-20 10:31	3611719	8.393	-155.244	8.078	1239.663	1605.183	0.923	806.67	1.001	1.043	7.962
2023-09-20 10:46	3612619	8.567	-163.939	8.082	1240.841	1606.528	0.924	805.91	1.001	1.044	7.802
2023-09-20 11:01	3613519	8.407	-155.909	8.088	1241.118	1606.68	0.924	805.73	1.001	1.044	7.594
2023-09-20 11:16	3614419	8.395	-155.33	8.095	1241.686	1607.136	0.924	805.36	1.001	1.045	7.469
2023-09-20 11:31	3615319	8.383	-154.719	8.109	1242.538	1607.678	0.924	804.80	1.001	1.045	7.095
2023-09-20 11:46	3616219	8.557	-163.46	8.121	1242.206	1606.746	0.924	805.02	1.001	1.044	6.988
2023-09-20 12:01	3617119	8.397	-155.461	8.132	1242.865	1607.169	0.924	804.59	1.001	1.045	7.443
2023-09-20 12:16	3618019	8.384	-154.817	8.143	1243.509	1607.559	0.924	804.18	1.001	1.045	7.301
2023-09-20 12:31	3618919	8.384	-154.793	8.16	1244.457	1608.12	0.925	803.56	1.001	1.045	7.182
2023-09-20 12:46	3619819	8.576	-164.425	8.178	1244.903	1607.986	0.924	803.28	1.001	1.045	7.036
2023-09-20 13:01	3620719	8.419	-156.581	8.195	1245.121	1607.593	0.924	803.14	1.001	1.045	7.175
2023-09-20 13:16	3621619	8.406	-155.938	8.215	1246.272	1608.276	0.925	802.39	1.001	1.045	7.114
2023-09-20 13:31	3622519	8.406	-155.971	8.236	1247.205	1608.672	0.925	801.79	1.001	1.046	7.088
2023-09-20 13:46	3623419	8.578	-164.578	8.263	1247.371	1607.784	0.924	801.69	1.001	1.045	7.027
2023-09-20 14:01	3624319	8.415	-156.419	8.285	1247.885	1607.591	0.924	801.36	1.001	1.045	7.561
2023-09-20 14:16	3625219	8.403	-155.849	8.307	1248.742	1607.811	0.924	800.81	1.001	1.045	7.561
2023-09-20 14:31	3626119	8.397	-155.54	8.333	1249.664	1608.004	0.924	800.22	1.001	1.045	7.582
2023-09-20 14:46	3627019	8.578	-164.633	8.365	1250.659	1607.991	0.924	799.58	1.001	1.045	7.785
2023-09-20 15:01	3627919	8.419	-156.677	8.398	1251.689	1608.036	0.924	798.92	1.001	1.045	7.695

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-20 15:16	3628819	8.410	-156.262	8.432	1252.765	1608.081	0.924	798.24	1.001	1.045	7.731
2023-09-20 15:31	3629719	8.407	-156.143	8.463	1254.026	1608.468	0.925	797.43	1.001	1.046	7.754
2023-09-20 15:46	3630619	8.577	-164.683	8.5	1254.975	1608.223	0.924	796.83	1.001	1.045	7.788
2023-09-20 16:01	3631519	8.423	-156.991	8.526	1255.721	1608.135	0.924	796.36	1.001	1.045	8.002
2023-09-20 16:16	3632419	8.415	-156.567	8.547	1256.522	1608.333	0.924	795.85	1.001	1.045	7.824
2023-09-20 16:31	3633320	8.416	-156.667	8.566	1257.442	1608.79	0.925	795.27	1.001	1.046	7.735
2023-09-20 16:46	3634220	8.594	-165.555	8.587	1258.442	1609.245	0.925	794.63	1.001	1.046	7.839
2023-09-20 17:01	3635120	8.422	-156.98	8.619	1259.21	1608.969	0.925	794.15	1.001	1.046	7.947
2023-09-20 17:16	3636020	8.420	-156.865	8.644	1260.238	1609.278	0.925	793.50	1.001	1.046	7.895
2023-09-20 17:31	3636920	8.410	-156.412	8.664	1260.859	1609.319	0.925	793.11	1.001	1.046	7.758
2023-09-20 17:46	3637820	8.580	-164.907	8.681	1261.318	1609.231	0.925	792.82	1.001	1.046	7.733
2023-09-20 18:01	3638720	8.416	-156.732	8.706	1262.064	1609.204	0.925	792.35	1.001	1.046	7.990
2023-09-20 18:16	3639620	8.404	-156.126	8.731	1262.913	1609.278	0.925	791.82	1.001	1.046	7.920
2023-09-20 18:31	3640520	8.390	-155.454	8.758	1263.477	1608.945	0.925	791.47	1.001	1.046	7.878
2023-09-20 18:46	3641420	8.592	-165.586	8.794	1265.243	1609.806	0.925	790.36	1.001	1.046	7.793
2023-09-20 19:01	3642320	8.422	-157.08	8.818	1265.7	1609.437	0.925	790.08	1.001	1.046	7.819
2023-09-20 19:16	3643220	8.420	-156.987	8.842	1266.836	1609.946	0.925	789.37	1.001	1.046	7.860
2023-09-20 19:31	3644120	8.410	-156.529	8.871	1267.974	1610.244	0.925	788.66	1.001	1.047	8.028
2023-09-20 19:46	3645020	8.593	-165.725	8.907	1268.791	1609.885	0.925	788.15	1.001	1.046	8.071
2023-09-20 20:01	3645920	8.424	-157.228	8.932	1269.633	1609.974	0.925	787.63	1.001	1.046	8.064
2023-09-20 20:16	3646820	8.411	-156.591	8.957	1270.43	1610.023	0.925	787.14	1.001	1.047	7.832
2023-09-20 20:31	3647720	8.403	-156.226	8.983	1271.67	1610.567	0.925	786.37	1.001	1.047	7.574
2023-09-20 20:46	3648620	8.577	-164.948	9.007	1272.436	1610.615	0.925	785.89	1.001	1.047	7.423
2023-09-20 21:01	3649520	8.419	-157.039	9.026	1273.15	1610.783	0.926	785.45	1.001	1.047	7.604
2023-09-20 21:16	3650420	8.395	-155.83	9.034	1274.594	1612.288	0.926	784.56	1.001	1.048	7.411
2023-09-20 21:31	3651320	8.416	-156.925	9.042	1275.988	1613.757	0.927	783.71	1.001	1.049	7.769
2023-09-20 21:46	3652220	8.617	-166.991	9.039	1276.613	1614.663	0.928	783.32	1.001	1.050	8.386
2023-09-20 22:01	3653120	8.463	-159.268	9.022	1276.494	1615.168	0.928	783.40	1.001	1.050	8.507
2023-09-20 22:16	3654020	8.441	-158.138	8.999	1276.402	1615.959	0.929	783.45	1.001	1.050	8.724
2023-09-20 22:31	3654920	8.445	-158.324	8.969	1275.664	1616.182	0.929	783.91	1.001	1.051	8.875
2023-09-20 22:46	3655820	8.652	-168.676	8.934	1275.094	1616.809	0.929	784.26	1.001	1.051	8.952
2023-09-20 23:01	3656720	8.469	-159.502	8.899	1273.837	1616.609	0.929	785.03	1.001	1.051	8.904
2023-09-20 23:16	3657620	8.451	-158.558	8.856	1272.519	1616.618	0.929	785.84	1.001	1.051	8.938
2023-09-20 23:31	3658520	8.460	-159.001	8.806	1271.072	1616.759	0.929	786.74	1.001	1.051	8.947
2023-09-20 23:46	3659420	8.657	-168.827	8.772	1269.852	1616.509	0.929	787.49	1.001	1.051	8.917
2023-09-21 00:01	3660320	8.488	-160.327	8.743	1268.9	1616.452	0.929	788.08	1.001	1.051	8.892
2023-09-21 00:16	3661220	8.462	-159.042	8.706	1267.725	1616.422	0.929	788.81	1.001	1.051	8.802
2023-09-21 00:31	3662120	8.449	-158.329	8.663	1266.233	1616.2	0.929	789.74	1.001	1.051	8.925
2023-09-21 00:46	3663020	8.654	-168.586	8.614	1265.001	1616.574	0.929	790.51	1.001	1.051	8.922
2023-09-21 01:01	3663920	8.498	-160.756	8.592	1264.169	1616.37	0.929	791.03	1.001	1.051	8.855
2023-09-21 01:16	3664820	8.481	-159.903	8.555	1263.12	1616.49	0.929	791.69	1.001	1.051	8.814
2023-09-21 01:31	3665720	8.472	-159.44	8.523	1262.173	1616.525	0.929	792.28	1.001	1.051	8.688
2023-09-21 01:46	3666620	8.659	-168.748	8.484	1260.505	1615.929	0.929	793.33	1.001	1.050	8.670
2023-09-21 02:01	3667520	8.480	-159.779	8.45	1259.446	1615.941	0.929	794.00	1.001	1.050	8.697
2023-09-21 02:16	3668420	8.471	-159.326	8.409	1258.528	1616.391	0.929	794.58	1.001	1.051	8.718
2023-09-21 02:31	3669320	8.476	-159.54	8.373	1257.293	1616.231	0.929	795.36	1.001	1.051	8.813
2023-09-21 02:46	3670220	8.660	-168.736	8.335	1256.711	1616.993	0.930	795.73	1.001	1.051	8.791
2023-09-21 03:01	3671120	8.470	-159.194	8.296	1255.847	1617.396	0.930	796.28	1.001	1.051	8.717
2023-09-21 03:16	3672020	8.461	-158.703	8.259	1254.949	1617.711	0.930	796.85	1.001	1.052	8.727
2023-09-21 03:31	3672920	8.453	-158.322	8.223	1253.907	1617.831	0.930	797.51	1.001	1.052	8.729
2023-09-21 03:46	3673820	8.649	-168.08	8.188	1252.141	1616.926	0.930	798.63	1.001	1.051	8.716
2023-09-21 04:01	3674720	8.482	-159.729	8.158	1251.354	1617.122	0.930	799.13	1.001	1.051	8.645
2023-09-21 04:16	3675620	8.468	-159.023	8.131	1250.44	1617.017	0.930	799.72	1.001	1.051	8.546
2023-09-21 04:31	3676520	8.469	-159.023	8.101	1249.513	1617.02	0.930	800.31	1.001	1.051	8.578
2023-09-21 04:46	3677420	8.647	-167.933	8.07	1248.987	1617.566	0.930	800.65	1.001	1.051	8.658
2023-09-21 05:01	3678320	8.483	-159.726	8.042	1248.179	1617.646	0.930	801.17	1.001	1.051	8.623

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-21 05:16	3679220	8.462	-158.641	8.009	1247.158	1617.647	0.930	801.82	1.001	1.051	8.589
2023-09-21 05:31	3680120	8.470	-159.018	7.98	1246.195	1617.575	0.930	802.44	1.001	1.051	8.619
2023-09-21 05:46	3681020	8.655	-168.25	7.946	1245.038	1617.403	0.930	803.19	1.001	1.051	8.448
2023-09-21 06:01	3681920	8.486	-159.776	7.928	1244.69	1617.669	0.930	803.41	1.001	1.051	8.532
2023-09-21 06:16	3682820	8.475	-159.204	7.902	1243.887	1617.697	0.930	803.93	1.001	1.052	8.494
2023-09-21 06:31	3683720	8.459	-158.386	7.873	1243.046	1617.755	0.931	804.48	1.001	1.052	8.556
2023-09-21 06:46	3684620	8.653	-168.104	7.85	1242.363	1617.806	0.931	804.92	1.001	1.052	8.576
2023-09-21 07:01	3685520	8.482	-159.533	7.834	1242.035	1618.012	0.931	805.13	1.001	1.052	8.581
2023-09-21 07:16	3686420	8.460	-158.415	7.801	1240.811	1617.75	0.931	805.92	1.001	1.052	8.464
2023-09-21 07:31	3687320	8.463	-158.541	7.78	1240.109	1617.688	0.931	806.38	1.001	1.051	8.494
2023-09-21 07:46	3688220	8.663	-168.514	7.763	1239.254	1617.244	0.930	806.94	1.001	1.051	8.404
2023-09-21 08:01	3689120	8.490	-159.876	7.741	1238.845	1617.619	0.931	807.20	1.001	1.051	8.373
2023-09-21 08:16	3690020	8.489	-159.8	7.716	1238.642	1618.326	0.931	807.34	1.001	1.052	8.199
2023-09-21 08:31	3690920	8.480	-159.345	7.701	1238.329	1618.53	0.931	807.54	1.001	1.052	8.392
2023-09-21 08:46	3691820	8.668	-168.767	7.687	1238.4	1619.187	0.931	807.49	1.001	1.052	8.452
2023-09-21 09:01	3692720	8.495	-160.098	7.679	1238.338	1619.426	0.932	807.53	1.001	1.053	8.475
2023-09-21 09:16	3693620	8.483	-159.495	7.67	1238.079	1619.449	0.932	807.70	1.001	1.053	8.373
2023-09-21 09:31	3694520	8.480	-159.357	7.66	1237.867	1619.589	0.932	807.84	1.001	1.053	8.332
2023-09-21 09:46	3695420	8.670	-168.841	7.66	1237.816	1619.514	0.932	807.88	1.001	1.053	8.478
2023-09-21 10:01	3696320	8.494	-160.053	7.664	1237.716	1619.249	0.932	807.94	1.001	1.053	8.394
2023-09-21 10:16	3697220	8.482	-159.452	7.669	1237.221	1618.391	0.931	808.26	1.001	1.052	8.308
2023-09-21 10:31	3698120	8.483	-159.507	7.676	1237.711	1618.734	0.931	807.94	1.001	1.052	8.244
2023-09-21 10:46	3699020	8.670	-168.834	7.684	1239.355	1620.571	0.932	806.87	1.001	1.053	8.256
2023-09-21 11:01	3699920	8.487	-159.721	7.696	1239.614	1620.431	0.932	806.70	1.001	1.053	8.137
2023-09-21 11:16	3700820	8.481	-159.397	7.705	1239.998	1620.545	0.932	806.45	1.001	1.053	8.041
2023-09-21 11:31	3701720	8.472	-158.978	7.715	1240.407	1620.673	0.932	806.19	1.001	1.053	7.830
2023-09-21 11:46	3702620	8.639	-167.329	7.724	1240.303	1620.203	0.932	806.26	1.001	1.053	7.579
2023-09-21 12:01	3703520	8.465	-158.634	7.734	1240.429	1619.962	0.932	806.17	1.001	1.053	7.795
2023-09-21 12:16	3704420	8.465	-158.641	7.746	1240.832	1620.002	0.932	805.91	1.001	1.053	7.663
2023-09-21 12:31	3705320	8.465	-158.639	7.761	1241.413	1620.13	0.932	805.53	1.001	1.053	7.457
2023-09-21 12:46	3706220	8.652	-167.985	7.78	1242.32	1620.574	0.932	804.95	1.001	1.053	7.324
2023-09-21 13:01	3707120	8.469	-158.873	7.799	1242.814	1620.459	0.932	804.63	1.001	1.053	7.723
2023-09-21 13:16	3708020	8.467	-158.758	7.822	1243.71	1620.675	0.932	804.05	1.001	1.053	7.772
2023-09-21 13:31	3708920	8.457	-158.281	7.852	1244.92	1621.065	0.933	803.27	1.001	1.054	7.674
2023-09-21 13:46	3709820	8.632	-167.05	7.89	1246.258	1621.27	0.933	802.40	1.001	1.054	7.671
2023-09-21 14:01	3710720	8.463	-158.608	7.915	1246.573	1620.642	0.932	802.20	1.001	1.053	8.196
2023-09-21 14:16	3711620	8.463	-158.634	7.938	1247.407	1620.807	0.932	801.66	1.001	1.054	7.960
2023-09-21 14:31	3712520	8.466	-158.784	7.956	1248.086	1620.992	0.932	801.23	1.001	1.054	7.817
2023-09-21 14:46	3713420	8.653	-168.142	7.973	1249.17	1621.693	0.933	800.53	1.001	1.054	7.780
2023-09-21 15:01	3714320	8.479	-159.485	7.982	1249.284	1621.495	0.933	800.46	1.001	1.054	8.081
2023-09-21 15:16	3715220	8.461	-158.565	7.993	1249.636	1621.488	0.933	800.23	1.001	1.054	8.103
2023-09-21 15:31	3716120	8.460	-158.515	8.006	1250.078	1621.542	0.933	799.95	1.001	1.054	8.133
2023-09-21 15:46	3717020	8.652	-168.142	8.026	1250.901	1621.817	0.933	799.42	1.001	1.054	8.396
2023-09-21 16:01	3717920	8.485	-159.805	8.039	1251.067	1621.503	0.933	799.32	1.001	1.054	8.416
2023-09-21 16:16	3718820	8.481	-159.621	8.055	1251.697	1621.696	0.933	798.92	1.001	1.054	8.274
2023-09-21 16:31	3719721	8.471	-159.121	8.072	1252.503	1622.036	0.933	798.40	1.001	1.054	8.100
2023-09-21 16:46	3720621	8.655	-168.345	8.097	1253.579	1622.435	0.933	797.72	1.001	1.055	7.903
2023-09-21 17:01	3721521	8.473	-159.268	8.116	1253.963	1622.158	0.933	797.47	1.001	1.054	8.203
2023-09-21 17:16	3722421	8.461	-158.641	8.139	1254.952	1622.542	0.933	796.84	1.001	1.055	8.166
2023-09-21 17:31	3723321	8.464	-158.801	8.163	1255.979	1622.896	0.933	796.19	1.001	1.055	8.095
2023-09-21 17:46	3724221	8.655	-168.376	8.192	1256.409	1622.275	0.933	795.92	1.001	1.054	7.988
2023-09-21 18:01	3725121	8.473	-159.297	8.209	1256.728	1622.027	0.933	795.72	1.001	1.054	8.462
2023-09-21 18:16	3726021	8.457	-158.503	8.222	1257.362	1622.333	0.933	795.32	1.001	1.055	8.203
2023-09-21 18:31	3726921	8.456	-158.453	8.248	1258.387	1622.617	0.933	794.67	1.001	1.055	7.966
2023-09-21 18:46	3727821	8.650	-168.223	8.296	1260.574	1623.504	0.934	793.29	1.001	1.055	8.163
2023-09-21 19:01	3728721	8.466	-159.018	8.334	1261.152	1622.735	0.933	792.93	1.001	1.055	8.274

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-21 19:16	3729621	8.458	-158.639	8.368	1262.34	1622.903	0.933	792.18	1.001	1.055	8.357
2023-09-21 19:31	3730521	8.459	-158.72	8.446	1264.842	1623.011	0.933	790.61	1.001	1.055	8.913
2023-09-21 19:46	3731421	8.647	-168.223	8.6	1269.787	1623.23	0.933	787.53	1.001	1.055	9.238
2023-09-21 20:01	3732321	8.483	-160.091	8.711	1272.406	1622.169	0.933	785.91	1.001	1.054	9.368
2023-09-21 20:16	3733221	8.485	-160.251	8.801	1275.937	1623.129	0.933	783.74	1.001	1.055	9.270
2023-09-21 20:31	3734121	8.481	-160.081	8.885	1279.257	1624.04	0.934	781.70	1.001	1.056	9.239
2023-09-21 20:46	3735021	8.668	-169.499	8.957	1282.621	1625.467	0.934	779.65	1.001	1.057	9.103
2023-09-21 21:01	3735921	8.482	-160.179	9.001	1283.717	1625.111	0.934	778.99	1.001	1.056	8.949
2023-09-21 21:16	3736821	8.467	-159.466	9.02	1285.207	1626.262	0.935	778.09	1.001	1.057	8.872
2023-09-21 21:31	3737721	8.473	-159.779	9.026	1287.052	1628.379	0.936	776.97	1.001	1.058	8.854
2023-09-21 21:46	3738621	8.630	-167.634	9.028	1287.451	1628.775	0.936	776.73	1.001	1.059	8.708
2023-09-21 22:01	3739521	8.473	-159.781	9.031	1287.567	1628.801	0.936	776.66	1.001	1.059	8.780
2023-09-21 22:16	3740421	8.453	-158.768	9.033	1287.777	1628.997	0.937	776.53	1.001	1.059	8.890
2023-09-21 22:31	3741321	8.452	-158.708	9.03	1288.181	1629.645	0.937	776.29	1.001	1.059	8.601
2023-09-21 22:46	3742221	8.656	-168.946	9.014	1288.126	1630.202	0.937	776.32	1.001	1.060	8.663
2023-09-21 23:01	3743121	8.475	-159.845	8.997	1287.576	1630.159	0.937	776.65	1.001	1.060	8.827
2023-09-21 23:16	3744021	8.463	-159.214	8.98	1287.063	1630.173	0.937	776.96	1.001	1.060	8.807
2023-09-21 23:31	3744921	8.481	-160.146	8.957	1286.153	1629.953	0.937	777.51	1.001	1.059	8.855
2023-09-21 23:46	3745821	8.671	-169.652	8.926	1284.658	1629.279	0.937	778.42	1.001	1.059	8.775
2023-09-22 00:01	3746721	8.493	-160.687	8.9	1283.917	1629.353	0.937	778.87	1.001	1.059	8.810
2023-09-22 00:16	3747621	8.471	-159.593	8.864	1282.585	1629.087	0.937	779.68	1.001	1.059	8.735
2023-09-22 00:31	3748521	8.486	-160.282	8.827	1281.501	1629.172	0.937	780.34	1.001	1.059	8.864
2023-09-22 00:46	3749421	8.675	-169.74	8.786	1280.523	1629.547	0.937	780.93	1.001	1.059	8.866
2023-09-22 01:01	3750321	8.497	-160.797	8.763	1279.796	1629.538	0.937	781.38	1.001	1.059	8.835
2023-09-22 01:16	3751221	8.482	-160.06	8.727	1278.427	1629.232	0.937	782.21	1.001	1.059	8.727
2023-09-22 01:31	3752121	8.475	-159.662	8.692	1277.172	1628.996	0.937	782.98	1.001	1.059	8.762
2023-09-22 01:46	3753021	8.669	-169.404	8.661	1275.435	1628.007	0.936	784.05	1.001	1.058	8.752
2023-09-22 02:01	3753921	8.486	-160.198	8.61	1273.742	1627.881	0.936	785.09	1.001	1.058	8.750
2023-09-22 02:16	3754821	8.472	-159.464	8.574	1272.375	1627.573	0.936	785.93	1.001	1.058	8.664
2023-09-22 02:31	3755721	8.483	-159.996	8.533	1270.784	1627.156	0.936	786.92	1.001	1.058	8.720
2023-09-22 02:46	3756621	8.674	-169.549	8.506	1269.943	1627.146	0.936	787.44	1.001	1.058	8.749
2023-09-22 03:01	3757521	8.502	-160.904	8.478	1268.793	1626.823	0.936	788.15	1.001	1.057	8.696
2023-09-22 03:16	3758421	8.505	-161.021	8.44	1267.619	1626.809	0.936	788.88	1.001	1.057	8.589
2023-09-22 03:31	3759321	8.492	-160.382	8.409	1266.534	1626.651	0.936	789.56	1.001	1.057	8.503
2023-09-22 03:46	3760221	8.674	-169.47	8.385	1265.256	1625.969	0.935	790.35	1.001	1.057	8.458
2023-09-22 04:01	3761121	8.499	-160.692	8.351	1264.23	1625.991	0.935	791.00	1.001	1.057	8.494
2023-09-22 04:16	3762021	8.480	-159.698	8.322	1263.22	1625.884	0.935	791.63	1.001	1.057	8.378
2023-09-22 04:31	3762921	8.476	-159.473	8.295	1262.294	1625.754	0.935	792.21	1.001	1.057	8.348
2023-09-22 04:46	3763821	8.671	-169.253	8.274	1261.229	1625.23	0.935	792.88	1.001	1.056	8.374
2023-09-22 05:01	3764721	8.493	-160.332	8.247	1260.25	1625.026	0.935	793.49	1.001	1.056	8.479
2023-09-22 05:16	3765621	8.498	-160.53	8.205	1258.759	1624.791	0.935	794.43	1.001	1.056	8.298
2023-09-22 05:31	3766521	8.494	-160.315	8.171	1257.628	1624.709	0.935	795.15	1.001	1.056	8.122
2023-09-22 05:46	3767421	8.678	-169.523	8.145	1256.105	1623.787	0.934	796.11	1.001	1.055	8.269
2023-09-22 06:01	3768321	8.492	-160.217	8.117	1255.393	1623.969	0.934	796.56	1.001	1.056	8.417
2023-09-22 06:16	3769221	8.494	-160.305	8.091	1254.43	1623.773	0.934	797.18	1.001	1.055	8.265
2023-09-22 06:31	3770121	8.489	-160.012	8.071	1253.677	1623.609	0.934	797.65	1.001	1.055	8.254
2023-09-22 06:46	3771021	8.678	-169.444	8.047	1253.01	1623.688	0.934	798.08	1.001	1.055	8.339
2023-09-22 07:01	3771921	8.498	-160.468	8.025	1252.175	1623.489	0.934	798.61	1.001	1.055	8.392
2023-09-22 07:16	3772821	8.493	-160.191	8.004	1251.355	1623.278	0.934	799.13	1.001	1.055	8.273
2023-09-22 07:31	3773721	8.483	-159.655	7.974	1250.157	1622.928	0.934	799.90	1.001	1.055	8.226
2023-09-22 07:46	3774621	8.667	-168.836	7.953	1248.714	1621.906	0.933	800.82	1.001	1.054	8.325
2023-09-22 08:01	3775521	8.488	-159.895	7.923	1247.872	1622.035	0.933	801.36	1.001	1.054	8.354
2023-09-22 08:16	3776421	8.477	-159.33	7.898	1247.009	1621.903	0.933	801.92	1.001	1.054	8.258
2023-09-22 08:31	3777321	8.474	-159.178	7.872	1246.099	1621.773	0.933	802.51	1.001	1.054	8.298
2023-09-22 08:46	3778221	8.678	-169.342	7.847	1245.43	1621.912	0.933	802.94	1.001	1.054	8.371
2023-09-22 09:01	3779121	8.498	-160.346	7.829	1244.703	1621.71	0.933	803.41	1.001	1.054	8.369

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-22 09:16	3780021	8.479	-159.373	7.812	1243.727	1621.087	0.933	804.04	1.001	1.054	8.260
2023-09-22 09:31	3780921	8.484	-159.631	7.802	1243.072	1620.643	0.932	804.46	1.001	1.053	8.217
2023-09-22 09:46	3781821	8.677	-169.234	7.79	1241.821	1619.519	0.932	805.27	1.001	1.053	8.155
2023-09-22 10:01	3782721	8.484	-159.624	7.784	1242.14	1620.182	0.932	805.06	1.001	1.053	8.173
2023-09-22 10:16	3783621	8.485	-159.645	7.78	1242.08	1620.245	0.932	805.10	1.001	1.053	8.191
2023-09-22 10:31	3784521	8.488	-159.817	7.779	1242.104	1620.338	0.932	805.09	1.001	1.053	8.053
2023-09-22 10:46	3785421	8.672	-169.003	7.776	1242.658	1621.166	0.933	804.73	1.001	1.054	7.827
2023-09-22 11:01	3786321	8.480	-159.404	7.776	1242.927	1621.505	0.933	804.55	1.001	1.054	7.855
2023-09-22 11:16	3787221	8.467	-158.763	7.783	1243.581	1622.099	0.933	804.13	1.001	1.054	7.897
2023-09-22 11:31	3788121	8.471	-158.968	7.79	1243.96	1622.295	0.933	803.89	1.001	1.054	7.923
2023-09-22 11:46	3789021	8.655	-168.152	7.799	1243.668	1621.561	0.933	804.07	1.001	1.054	7.886
2023-09-22 12:01	3789921	8.473	-159.085	7.809	1244.159	1621.783	0.933	803.76	1.001	1.054	7.702
2023-09-22 12:16	3790821	8.468	-158.827	7.822	1244.661	1621.927	0.933	803.43	1.001	1.054	7.593
2023-09-22 12:31	3791721	8.463	-158.565	7.833	1245.26	1622.254	0.933	803.05	1.001	1.054	7.346
2023-09-22 12:46	3792621	8.650	-167.93	7.846	1245.987	1622.66	0.933	802.58	1.001	1.055	7.163
2023-09-22 13:01	3793521	8.465	-158.679	7.86	1246.4	1622.661	0.933	802.31	1.001	1.055	7.355
2023-09-22 13:16	3794421	8.463	-158.601	7.873	1246.977	1622.861	0.934	801.94	1.001	1.055	7.258
2023-09-22 13:31	3795321	8.467	-158.792	7.889	1247.712	1623.177	0.934	801.47	1.001	1.055	7.134
2023-09-22 13:46	3796221	8.640	-167.465	7.905	1247.7	1622.516	0.933	801.47	1.001	1.055	6.986
2023-09-22 14:01	3797121	8.457	-158.319	7.923	1248.395	1622.704	0.933	801.03	1.001	1.055	7.269
2023-09-22 14:16	3798021	8.455	-158.241	7.943	1249.092	1622.807	0.934	800.58	1.001	1.055	7.168
2023-09-22 14:31	3798921	8.457	-158.36	7.963	1249.807	1622.923	0.934	800.12	1.001	1.055	7.156
2023-09-22 14:46	3799821	8.646	-167.844	7.982	1250.091	1622.526	0.933	799.94	1.001	1.055	7.101
2023-09-22 15:01	3800721	8.462	-158.608	7.996	1250.215	1622.12	0.933	799.86	1.001	1.054	7.184
2023-09-22 15:16	3801621	8.464	-158.739	8.014	1250.899	1622.277	0.933	799.43	1.001	1.054	7.152
2023-09-22 15:31	3802521	8.466	-158.842	8.03	1251.603	1622.577	0.933	798.98	1.001	1.055	7.053
2023-09-22 15:46	3803421	8.644	-167.761	8.044	1251.151	1621.413	0.933	799.26	1.001	1.054	6.879
2023-09-22 16:01	3804321	8.466	-158.856	8.055	1251.585	1621.527	0.933	798.99	1.001	1.054	7.134
2023-09-22 16:16	3805221	8.473	-159.209	8.065	1252.124	1621.822	0.933	798.64	1.001	1.054	7.384
2023-09-22 16:31	3806122	8.483	-159.729	8.077	1252.437	1621.763	0.933	798.44	1.001	1.054	7.553
2023-09-22 16:46	3807022	8.662	-168.672	8.095	1253.247	1622.071	0.933	797.93	1.001	1.054	7.740
2023-09-22 17:01	3807922	8.468	-159.016	8.119	1253.85	1621.899	0.933	797.54	1.001	1.054	7.942
2023-09-22 17:16	3808822	8.458	-158.513	8.149	1255.242	1622.498	0.933	796.66	1.001	1.055	8.060
2023-09-22 17:31	3809722	8.455	-158.389	8.183	1256.514	1622.771	0.933	795.85	1.001	1.055	7.822
2023-09-22 17:46	3810622	8.637	-167.53	8.213	1256.883	1622.058	0.933	795.62	1.001	1.054	7.748
2023-09-22 18:01	3811522	8.458	-158.541	8.226	1257.363	1622.151	0.933	795.32	1.001	1.054	7.763
2023-09-22 18:16	3812422	8.439	-157.63	8.24	1258.034	1622.452	0.933	794.89	1.001	1.055	7.615
2023-09-22 18:31	3813322	8.426	-156.968	8.249	1258.563	1622.776	0.933	794.56	1.001	1.055	7.345
2023-09-22 18:46	3814222	8.620	-166.669	8.254	1258.859	1622.98	0.933	794.37	1.001	1.055	7.412
2023-09-22 19:01	3815122	8.449	-158.095	8.25	1258.208	1622.277	0.933	794.78	1.001	1.054	7.608
2023-09-22 19:16	3816022	8.447	-158.024	8.244	1258.089	1622.361	0.933	794.86	1.001	1.055	7.815
2023-09-22 19:31	3816922	8.460	-158.648	8.242	1258.14	1622.516	0.933	794.82	1.001	1.055	8.055
2023-09-22 19:46	3817822	8.653	-168.312	8.249	1258.098	1622.179	0.933	794.85	1.001	1.054	8.024
2023-09-22 20:01	3818722	8.472	-159.295	8.255	1258.172	1622.052	0.933	794.80	1.001	1.054	7.934
2023-09-22 20:16	3819622	8.460	-158.675	8.269	1258.759	1622.255	0.933	794.43	1.001	1.054	7.790
2023-09-22 20:31	3820522	8.446	-158.01	8.287	1259.434	1622.412	0.933	794.01	1.001	1.055	7.688
2023-09-22 20:46	3821422	8.630	-167.232	8.307	1260.986	1623.58	0.934	793.03	1.001	1.055	7.532
2023-09-22 21:01	3822322	8.446	-158.036	8.341	1261.648	1623.083	0.933	792.61	1.001	1.055	7.513
2023-09-22 21:16	3823222	8.441	-157.788	8.383	1263.065	1623.245	0.934	791.73	1.001	1.055	7.499
2023-09-22 21:31	3824122	8.432	-157.392	8.446	1265.367	1623.703	0.934	790.28	1.001	1.055	7.530
2023-09-22 21:46	3825022	8.620	-166.862	8.575	1267.966	1621.874	0.933	788.66	1.001	1.054	8.021
2023-09-22 22:01	3825922	8.436	-157.671	8.636	1269.904	1621.937	0.933	787.46	1.001	1.054	8.094
2023-09-22 22:16	3826822	8.429	-157.337	8.672	1271.516	1622.6	0.933	786.46	1.001	1.055	7.854
2023-09-22 22:31	3827722	8.426	-157.247	8.719	1273.188	1622.85	0.933	785.43	1.001	1.055	7.644
2023-09-22 22:46	3828622	8.618	-166.9	8.763	1274.343	1622.607	0.933	784.72	1.001	1.055	7.440
2023-09-22 23:01	3829522	8.440	-157.967	8.778	1274.78	1622.551	0.933	784.45	1.001	1.055	7.359

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-22 23:16	3830422	8.403	-156.112	8.768	1274.291	1622.348	0.933	784.75	1.001	1.055	7.681
2023-09-22 23:31	3831322	8.414	-156.639	8.773	1274.148	1621.969	0.932	784.84	1.001	1.054	7.883
2023-09-22 23:46	3832222	8.606	-166.292	8.773	1274.094	1621.891	0.932	784.87	1.001	1.054	8.087
2023-09-23 00:01	3833122	8.443	-158.088	8.772	1273.974	1621.78	0.932	784.95	1.001	1.054	8.024
2023-09-23 00:16	3834022	8.430	-157.475	8.777	1274.215	1621.887	0.932	784.80	1.001	1.054	7.938
2023-09-23 00:31	3834922	8.426	-157.249	8.787	1274.785	1622.22	0.933	784.45	1.001	1.054	7.811
2023-09-23 00:46	3835822	8.627	-167.37	8.792	1275.018	1622.294	0.933	784.30	1.001	1.054	7.664
2023-09-23 01:01	3836722	8.444	-158.176	8.8	1274.991	1621.961	0.932	784.32	1.001	1.054	7.510
2023-09-23 01:16	3837622	8.441	-158.038	8.8	1274.476	1621.314	0.932	784.64	1.001	1.054	7.756
2023-09-23 01:31	3838522	8.427	-157.309	8.795	1274.261	1621.244	0.932	784.77	1.001	1.054	8.148
2023-09-23 01:46	3839422	8.627	-167.344	8.791	1273.724	1620.701	0.932	785.10	1.001	1.053	8.104
2023-09-23 02:01	3840322	8.448	-158.377	8.77	1272.996	1620.621	0.932	785.55	1.001	1.053	8.144
2023-09-23 02:16	3841222	8.449	-158.417	8.739	1271.99	1620.56	0.932	786.17	1.001	1.053	8.491
2023-09-23 02:31	3842122	8.462	-159.023	8.706	1270.936	1620.499	0.932	786.82	1.001	1.053	8.508
2023-09-23 02:46	3843022	8.668	-169.358	8.68	1270.156	1620.531	0.932	787.31	1.001	1.053	8.561
2023-09-23 03:01	3843922	8.486	-160.217	8.663	1269.658	1620.591	0.932	787.61	1.001	1.053	8.495
2023-09-23 03:16	3844822	8.472	-159.478	8.623	1268.133	1620.214	0.932	788.56	1.001	1.053	8.390
2023-09-23 03:31	3845722	8.468	-159.259	8.583	1266.898	1620.221	0.932	789.33	1.001	1.053	8.414
2023-09-23 03:46	3846622	8.648	-168.257	8.536	1264.787	1619.358	0.931	790.65	1.001	1.053	8.279
2023-09-23 04:01	3847522	8.482	-159.934	8.508	1264.204	1619.736	0.931	791.01	1.001	1.053	8.390
2023-09-23 04:16	3848422	8.449	-158.272	8.48	1263.221	1619.598	0.931	791.63	1.001	1.053	8.443
2023-09-23 04:31	3849322	8.445	-158.019	8.439	1261.477	1618.988	0.931	792.72	1.001	1.052	8.378
2023-09-23 04:46	3850222	8.655	-168.538	8.393	1260.159	1619.115	0.931	793.55	1.001	1.052	8.418
2023-09-23 05:01	3851122	8.485	-159.988	8.365	1259.477	1619.349	0.931	793.98	1.001	1.053	8.406
2023-09-23 05:16	3852022	8.463	-158.882	8.321	1258.167	1619.401	0.931	794.81	1.001	1.053	8.345
2023-09-23 05:31	3852922	8.462	-158.808	8.283	1257.007	1619.432	0.931	795.54	1.001	1.053	8.373
2023-09-23 05:46	3853822	8.651	-168.216	8.244	1255.012	1618.404	0.931	796.81	1.001	1.052	8.391
2023-09-23 06:01	3854722	8.487	-160.015	8.214	1254.407	1618.83	0.931	797.19	1.001	1.052	8.379
2023-09-23 06:16	3855622	8.479	-159.595	8.182	1253.007	1618.289	0.931	798.08	1.001	1.052	8.219
2023-09-23 06:31	3856522	8.454	-158.324	8.152	1251.838	1617.991	0.931	798.83	1.001	1.052	8.286
2023-09-23 06:46	3857422	8.657	-168.438	8.118	1251.084	1618.358	0.931	799.31	1.001	1.052	8.199
2023-09-23 07:01	3858322	8.480	-159.6	8.082	1250.077	1618.515	0.931	799.95	1.001	1.052	8.251
2023-09-23 07:16	3859222	8.481	-159.633	8.058	1249.484	1618.688	0.931	800.33	1.001	1.052	8.167
2023-09-23 07:31	3860122	8.478	-159.45	8.026	1247.654	1617.61	0.930	801.50	1.001	1.051	7.976
2023-09-23 07:46	3861022	8.673	-169.196	7.994	1246.945	1617.982	0.931	801.96	1.001	1.052	8.005
2023-09-23 08:01	3861922	8.484	-159.714	7.976	1246.715	1618.409	0.931	802.11	1.001	1.052	8.167
2023-09-23 08:16	3862822	8.483	-159.655	7.953	1245.99	1618.371	0.931	802.58	1.001	1.052	8.019
2023-09-23 08:31	3863722	8.462	-158.596	7.939	1245.563	1618.386	0.931	802.85	1.001	1.052	8.102
2023-09-23 08:46	3864622	8.662	-168.593	7.933	1245.89	1619.059	0.931	802.64	1.001	1.052	8.252
2023-09-23 09:01	3865522	8.479	-159.431	7.932	1245.783	1618.957	0.931	802.71	1.001	1.052	8.189
2023-09-23 09:16	3866422	8.457	-158.315	7.93	1245.542	1618.719	0.931	802.86	1.001	1.052	8.056
2023-09-23 09:31	3867322	8.456	-158.308	7.931	1245.504	1618.628	0.931	802.89	1.001	1.052	8.110
2023-09-23 09:46	3868222	8.655	-168.238	7.934	1245.501	1618.482	0.931	802.89	1.001	1.052	7.850
2023-09-23 10:01	3869122	8.465	-158.756	7.938	1245.623	1618.49	0.931	802.81	1.001	1.052	7.838
2023-09-23 10:16	3870022	8.451	-158.029	7.944	1245.931	1618.667	0.931	802.61	1.001	1.052	7.680
2023-09-23 10:31	3870922	8.455	-158.238	7.95	1246.309	1618.889	0.931	802.37	1.001	1.052	7.509
2023-09-23 10:46	3871822	8.632	-167.093	7.958	1247.013	1619.51	0.932	801.92	1.001	1.053	7.344
2023-09-23 11:01	3872722	8.454	-158.217	7.969	1247.264	1619.389	0.931	801.76	1.001	1.053	7.507
2023-09-23 11:16	3873622	8.444	-157.709	7.982	1247.703	1619.449	0.931	801.47	1.001	1.053	7.407
2023-09-23 11:31	3874522	8.445	-157.771	7.998	1248.372	1619.658	0.932	801.04	1.001	1.053	7.249
2023-09-23 11:46	3875422	8.619	-166.512	8.019	1248.832	1619.411	0.931	800.75	1.001	1.053	7.186
2023-09-23 12:01	3876322	8.435	-157.301	8.04	1249.434	1619.343	0.931	800.36	1.001	1.053	7.311
2023-09-23 12:16	3877222	8.425	-156.803	8.059	1250.035	1619.352	0.931	799.98	1.001	1.053	7.221
2023-09-23 12:31	3878122	8.414	-156.288	8.08	1250.806	1619.52	0.931	799.48	1.001	1.053	7.129
2023-09-23 12:46	3879022	8.616	-166.383	8.094	1251.7	1620.138	0.932	798.91	1.001	1.053	7.156
2023-09-23 13:01	3879922	8.439	-157.552	8.108	1252.18	1620.178	0.932	798.61	1.001	1.053	7.341

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-23 13:16	3880822	8.418	-156.472	8.123	1252.722	1620.283	0.932	798.26	1.001	1.053	7.263
2023-09-23 13:31	3881722	8.415	-156.35	8.137	1253.223	1620.383	0.932	797.94	1.001	1.053	7.163
2023-09-23 13:46	3882622	8.598	-165.515	8.155	1253.3	1619.744	0.932	797.89	1.001	1.053	7.238
2023-09-23 14:01	3883522	8.439	-157.576	8.178	1253.822	1619.497	0.931	797.56	1.001	1.053	7.333
2023-09-23 14:16	3884422	8.429	-157.065	8.197	1254.488	1619.623	0.931	797.14	1.001	1.053	7.291
2023-09-23 14:31	3885322	8.425	-156.92	8.218	1255.389	1619.935	0.932	796.57	1.001	1.053	7.246
2023-09-23 14:46	3886222	8.610	-166.168	8.242	1256.358	1620.206	0.932	795.95	1.001	1.053	7.116
2023-09-23 15:01	3887122	8.428	-157.089	8.271	1257.101	1620.042	0.932	795.48	1.001	1.053	7.383
2023-09-23 15:16	3888022	8.427	-157.037	8.291	1257.87	1620.212	0.932	795.00	1.001	1.053	7.319
2023-09-23 15:31	3888922	8.424	-156.884	8.311	1258.696	1620.478	0.932	794.47	1.001	1.053	7.176
2023-09-23 15:46	3889822	8.606	-166.008	8.333	1258.795	1619.742	0.931	794.41	1.001	1.053	7.122
2023-09-23 16:01	3890722	8.430	-157.23	8.353	1259.173	1619.417	0.931	794.17	1.001	1.053	7.417
2023-09-23 16:16	3891622	8.417	-156.569	8.367	1259.662	1619.509	0.931	793.86	1.001	1.053	7.295
2023-09-23 16:31	3892522	8.423	-156.891	8.384	1260.341	1619.683	0.931	793.44	1.001	1.053	7.237
2023-09-23 16:46	3893422	8.614	-166.473	8.401	1261.479	1620.463	0.932	792.72	1.001	1.053	7.138
2023-09-23 17:01	3894322	8.425	-157.039	8.423	1261.901	1620.146	0.932	792.46	1.001	1.053	7.265
2023-09-23 17:16	3895222	8.419	-156.739	8.463	1263.036	1620.019	0.932	791.74	1.001	1.053	7.316
2023-09-23 17:31	3896122	8.426	-157.108	8.491	1264.241	1620.453	0.932	790.99	1.001	1.053	7.259
2023-09-23 17:46	3897022	8.607	-166.159	8.498	1264.175	1620.082	0.932	791.03	1.001	1.053	7.119
2023-09-23 18:01	3897922	8.429	-157.239	8.51	1264.652	1620.22	0.932	790.73	1.001	1.053	7.252
2023-09-23 18:16	3898822	8.419	-156.763	8.535	1265.617	1620.45	0.932	790.13	1.001	1.053	7.201
2023-09-23 18:31	3899723	8.416	-156.643	8.554	1266.409	1620.736	0.932	789.63	1.001	1.053	7.059
2023-09-23 18:46	3900623	8.603	-166.018	8.568	1267.224	1621.211	0.932	789.13	1.001	1.054	6.904
2023-09-23 19:01	3901523	8.413	-156.503	8.583	1267.492	1620.988	0.932	788.96	1.001	1.054	7.029
2023-09-23 19:16	3902423	8.413	-156.505	8.595	1268.229	1621.454	0.932	788.50	1.001	1.054	6.908
2023-09-23 19:31	3903323	8.396	-155.675	8.609	1268.556	1621.281	0.932	788.30	1.001	1.054	6.942
2023-09-23 19:46	3904223	8.573	-164.564	8.627	1268.983	1621.149	0.932	788.03	1.001	1.054	7.006
2023-09-23 20:01	3905123	8.407	-156.212	8.645	1269.551	1621.166	0.932	787.68	1.001	1.054	7.188
2023-09-23 20:16	3906023	8.406	-156.188	8.659	1270.128	1621.319	0.932	787.32	1.001	1.054	7.149
2023-09-23 20:31	3906923	8.405	-156.157	8.667	1270.634	1621.641	0.932	787.01	1.001	1.054	7.038
2023-09-23 20:46	3907823	8.590	-165.441	8.678	1270.858	1621.523	0.932	786.87	1.001	1.054	6.862
2023-09-23 21:01	3908723	8.404	-156.102	8.691	1270.88	1621.024	0.932	786.86	1.001	1.054	6.975
2023-09-23 21:16	3909623	8.414	-156.617	8.688	1270.896	1621.147	0.932	786.85	1.001	1.054	6.825
2023-09-23 21:31	3910523	8.428	-157.287	8.681	1270.029	1620.333	0.932	787.38	1.001	1.053	6.681
2023-09-23 21:46	3911423	8.582	-165.04	8.674	1267.618	1617.521	0.930	788.88	1.001	1.051	6.677
2023-09-23 22:01	3912323	8.416	-156.689	8.669	1268.578	1618.968	0.931	788.28	1.001	1.052	7.125
2023-09-23 22:16	3913223	8.402	-156.016	8.664	1268.472	1619.015	0.931	788.35	1.001	1.052	7.063
2023-09-23 22:31	3914123	8.426	-157.185	8.651	1267.148	1617.853	0.930	789.17	1.001	1.052	6.810
2023-09-23 22:46	3915023	8.596	-165.706	8.637	1265.627	1616.466	0.929	790.12	1.001	1.051	7.510
2023-09-23 23:01	3915923	8.432	-157.466	8.598	1264.336	1616.328	0.929	790.93	1.001	1.051	8.105
2023-09-23 23:16	3916823	8.426	-157.123	8.542	1262.89	1616.697	0.929	791.84	1.001	1.051	8.079
2023-09-23 23:31	3917723	8.423	-156.987	8.523	1262.222	1616.584	0.929	792.25	1.001	1.051	8.001
2023-09-23 23:46	3918623	8.600	-165.813	8.522	1262.007	1616.378	0.929	792.39	1.001	1.051	7.875
2023-09-24 00:01	3919523	8.430	-157.344	8.526	1261.946	1616.127	0.929	792.43	1.001	1.050	7.753
2023-09-24 00:16	3920423	8.414	-156.519	8.531	1262.42	1616.54	0.929	792.13	1.001	1.051	7.487
2023-09-24 00:31	3921323	8.407	-156.155	8.537	1262.88	1616.873	0.930	791.84	1.001	1.051	7.038
2023-09-24 00:46	3922223	8.581	-164.895	8.541	1262.978	1616.837	0.930	791.78	1.001	1.051	6.776
2023-09-24 01:01	3923123	8.431	-157.394	8.538	1262.358	1616.166	0.929	792.17	1.001	1.051	7.249
2023-09-24 01:16	3924023	8.439	-157.769	8.517	1261.453	1615.861	0.929	792.74	1.001	1.050	7.602
2023-09-24 01:31	3924923	8.437	-157.64	8.485	1260.77	1616.221	0.929	793.17	1.001	1.051	7.860
2023-09-24 01:46	3925823	8.614	-166.488	8.459	1259.887	1616.152	0.929	793.72	1.001	1.050	8.001
2023-09-24 02:01	3926723	8.449	-158.219	8.433	1259.447	1616.584	0.929	794.00	1.001	1.051	8.030
2023-09-24 02:16	3927623	8.449	-158.181	8.405	1258.731	1616.812	0.930	794.45	1.001	1.051	8.067
2023-09-24 02:31	3928523	8.443	-157.862	8.365	1257.718	1617.076	0.930	795.09	1.001	1.051	8.053
2023-09-24 02:46	3929423	8.622	-166.838	8.321	1256.896	1617.773	0.930	795.61	1.001	1.052	8.135
2023-09-24 03:01	3930323	8.453	-158.362	8.302	1256.422	1617.895	0.930	795.91	1.001	1.052	8.107

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-24 03:16	3931223	8.454	-158.391	8.268	1255.36	1617.892	0.930	796.58	1.001	1.052	8.035
2023-09-24 03:31	3932123	8.437	-157.523	8.226	1254.25	1618.138	0.931	797.29	1.001	1.052	8.018
2023-09-24 03:46	3933023	8.617	-166.473	8.195	1253.092	1617.879	0.930	798.03	1.001	1.052	8.037
2023-09-24 04:01	3933923	8.428	-157.037	8.17	1252.535	1618.182	0.931	798.38	1.001	1.052	8.000
2023-09-24 04:16	3934823	8.436	-157.394	8.14	1251.823	1618.445	0.931	798.84	1.001	1.052	8.028
2023-09-24 04:31	3935723	8.438	-157.502	8.114	1251.228	1618.696	0.931	799.22	1.001	1.052	8.047
2023-09-24 04:46	3936623	8.624	-166.771	8.095	1251.102	1619.308	0.931	799.30	1.001	1.053	8.022
2023-09-24 05:01	3937523	8.453	-158.231	8.084	1250.684	1619.227	0.931	799.56	1.001	1.052	7.974
2023-09-24 05:16	3938423	8.428	-156.946	8.065	1249.999	1619.07	0.931	800.00	1.001	1.052	7.948
2023-09-24 05:31	3939323	8.438	-157.442	8.046	1249.376	1619.026	0.931	800.40	1.001	1.052	7.992
2023-09-24 05:46	3940223	8.632	-167.16	8.017	1248.274	1618.773	0.931	801.11	1.001	1.052	8.002
2023-09-24 06:01	3941123	8.457	-158.37	7.993	1247.769	1619.084	0.931	801.43	1.001	1.052	7.937
2023-09-24 06:16	3942023	8.445	-157.788	7.975	1247.24	1619.124	0.931	801.77	1.001	1.052	7.770
2023-09-24 06:31	3942923	8.458	-158.396	7.947	1246.434	1619.191	0.931	802.29	1.001	1.052	7.855
2023-09-24 06:46	3943823	8.638	-167.367	7.911	1245.54	1619.463	0.932	802.87	1.001	1.053	7.862
2023-09-24 07:01	3944723	8.453	-158.114	7.893	1245.042	1619.568	0.932	803.19	1.001	1.053	7.967
2023-09-24 07:16	3945623	8.446	-157.776	7.866	1244.492	1619.92	0.932	803.54	1.001	1.053	7.876
2023-09-24 07:31	3946523	8.432	-157.042	7.842	1243.849	1620.055	0.932	803.96	1.001	1.053	7.892
2023-09-24 07:46	3947423	8.632	-166.991	7.803	1242.071	1619.326	0.932	805.11	1.001	1.053	7.928
2023-09-24 08:01	3948323	8.458	-158.31	7.777	1241.468	1619.588	0.932	805.50	1.001	1.053	7.933
2023-09-24 08:16	3949223	8.440	-157.363	7.739	1240.55	1619.914	0.932	806.09	1.001	1.053	7.837
2023-09-24 08:31	3950123	8.435	-157.125	7.715	1239.698	1619.765	0.932	806.65	1.001	1.053	7.905
2023-09-24 08:46	3951023	8.631	-166.922	7.695	1239.417	1620.196	0.932	806.83	1.001	1.053	7.878
2023-09-24 09:01	3951923	8.443	-157.502	7.678	1238.985	1620.347	0.932	807.11	1.001	1.053	7.922
2023-09-24 09:16	3952823	8.450	-157.845	7.661	1238.414	1620.263	0.932	807.48	1.001	1.053	7.851
2023-09-24 09:31	3953723	8.462	-158.432	7.613	1236.742	1620.023	0.932	808.58	1.001	1.053	7.762
2023-09-24 09:46	3954623	8.638	-167.158	7.583	1235.042	1619.004	0.931	809.69	1.001	1.052	7.925
2023-09-24 10:01	3955523	8.461	-158.339	7.569	1234.816	1619.281	0.932	809.84	1.001	1.053	7.948
2023-09-24 10:16	3956423	8.457	-158.11	7.551	1233.981	1618.914	0.931	810.39	1.001	1.052	7.754
2023-09-24 10:31	3957323	8.450	-157.75	7.536	1233.195	1618.481	0.931	810.90	1.001	1.052	7.837
2023-09-24 10:46	3958223	8.632	-166.824	7.524	1233.176	1618.94	0.931	810.92	1.001	1.052	7.949
2023-09-24 11:01	3959123	8.463	-158.408	7.518	1232.975	1618.929	0.931	811.05	1.001	1.052	7.903
2023-09-24 11:16	3960023	8.445	-157.511	7.518	1232.981	1618.967	0.931	811.04	1.001	1.052	7.832
2023-09-24 11:31	3960923	8.441	-157.313	7.52	1233.042	1618.938	0.931	811.00	1.001	1.052	7.857
2023-09-24 11:46	3961823	8.622	-166.373	7.529	1233.177	1618.767	0.931	810.91	1.001	1.052	8.010
2023-09-24 12:01	3962723	8.460	-158.25	7.534	1233.244	1618.649	0.931	810.87	1.001	1.052	8.000
2023-09-24 12:16	3963623	8.443	-157.404	7.545	1233.622	1618.708	0.931	810.62	1.001	1.052	7.995
2023-09-24 12:31	3964523	8.432	-156.877	7.556	1234.07	1618.816	0.931	810.33	1.001	1.052	8.001
2023-09-24 12:46	3965423	8.610	-165.768	7.586	1235.709	1619.767	0.932	809.25	1.001	1.053	8.043
2023-09-24 13:01	3966323	8.451	-157.838	7.606	1236.106	1619.458	0.932	808.99	1.001	1.053	8.069
2023-09-24 13:16	3967223	8.443	-157.475	7.632	1237.085	1619.708	0.932	808.35	1.001	1.053	8.019
2023-09-24 13:31	3968123	8.425	-156.615	7.666	1238.474	1620.133	0.932	807.45	1.001	1.053	8.134
2023-09-24 13:46	3969023	8.597	-165.191	7.701	1239.295	1619.823	0.932	806.91	1.001	1.053	8.213
2023-09-24 14:01	3969923	8.439	-157.337	7.729	1239.96	1619.556	0.932	806.48	1.001	1.053	8.113
2023-09-24 14:16	3970823	8.426	-156.686	7.772	1241.389	1619.68	0.932	805.55	1.001	1.053	8.148
2023-09-24 14:31	3971723	8.419	-156.372	7.799	1242.558	1620.097	0.932	804.79	1.001	1.053	8.191
2023-09-24 14:46	3972623	8.612	-166.047	7.821	1243.66	1620.639	0.932	804.08	1.001	1.053	8.214
2023-09-24 15:01	3973523	8.449	-157.881	7.842	1243.963	1620.184	0.932	803.88	1.001	1.053	8.244
2023-09-24 15:16	3974423	8.434	-157.17	7.874	1244.946	1620.179	0.932	803.25	1.001	1.053	8.381
2023-09-24 15:31	3975323	8.428	-156.901	7.907	1246.133	1620.398	0.932	802.48	1.001	1.053	8.376
2023-09-24 15:46	3976223	8.613	-166.166	7.948	1247.683	1620.777	0.932	801.49	1.001	1.054	8.405
2023-09-24 16:01	3977123	8.446	-157.79	7.969	1247.885	1620.182	0.932	801.36	1.001	1.053	8.214
2023-09-24 16:16	3978023	8.438	-157.406	7.996	1248.821	1620.33	0.932	800.76	1.001	1.053	8.135
2023-09-24 16:31	3978923	8.434	-157.235	8.017	1249.737	1620.655	0.932	800.17	1.001	1.053	8.167
2023-09-24 16:46	3979823	8.624	-166.771	8.042	1250.864	1621.119	0.932	799.45	1.001	1.054	8.202
2023-09-24 17:01	3980723	8.450	-158.074	8.061	1251.261	1620.869	0.932	799.19	1.001	1.054	8.170

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-24 17:16	3981623	8.448	-157.99	8.085	1252.384	1621.368	0.933	798.48	1.001	1.054	8.171
2023-09-24 17:31	3982523	8.432	-157.194	8.114	1253.336	1621.446	0.933	797.87	1.001	1.054	8.131
2023-09-24 17:46	3983423	8.611	-166.166	8.166	1254.625	1621.032	0.932	797.05	1.001	1.054	8.199
2023-09-24 18:01	3984323	8.453	-158.31	8.206	1255.539	1620.62	0.932	796.47	1.001	1.053	8.272
2023-09-24 18:16	3985223	8.442	-157.785	8.254	1257.419	1621.099	0.932	795.28	1.001	1.054	8.244
2023-09-24 18:31	3986123	8.439	-157.633	8.295	1258.951	1621.434	0.932	794.31	1.001	1.054	8.155
2023-09-24 18:46	3987024	8.631	-167.265	8.338	1260.372	1621.56	0.933	793.42	1.001	1.054	8.091
2023-09-24 19:01	3987924	8.459	-158.706	8.373	1261.278	1621.321	0.932	792.85	1.001	1.054	8.244
2023-09-24 19:16	3988824	8.443	-157.907	8.418	1262.868	1621.571	0.932	791.85	1.001	1.054	8.187
2023-09-24 19:31	3989724	8.427	-157.115	8.463	1264.458	1621.831	0.933	790.85	1.001	1.054	7.984
2023-09-24 19:46	3990624	8.609	-166.285	8.521	1266.08	1621.621	0.932	789.84	1.001	1.054	7.923
2023-09-24 20:01	3991524	8.458	-158.732	8.571	1267.337	1621.249	0.932	789.06	1.001	1.054	8.302
2023-09-24 20:16	3992424	8.439	-157.821	8.608	1268.651	1621.475	0.932	788.24	1.001	1.054	8.154
2023-09-24 20:31	3993324	8.434	-157.557	8.631	1269.526	1621.666	0.932	787.70	1.001	1.054	7.985
2023-09-24 20:46	3994224	8.611	-166.488	8.649	1270.738	1622.485	0.933	786.94	1.001	1.055	7.795
2023-09-24 21:01	3995124	8.457	-158.77	8.658	1270.863	1622.324	0.933	786.87	1.001	1.055	7.982
2023-09-24 21:16	3996024	8.439	-157.84	8.655	1271.015	1622.621	0.933	786.77	1.001	1.055	7.967
2023-09-24 21:31	3996924	8.437	-157.759	8.645	1270.652	1622.564	0.933	787.00	1.001	1.055	8.386
2023-09-24 21:46	3997824	8.636	-167.687	8.62	1268.314	1620.571	0.932	788.45	1.001	1.053	8.739
2023-09-24 22:01	3998724	8.474	-159.59	8.602	1267.646	1620.397	0.932	788.86	1.001	1.053	8.496
2023-09-24 22:16	3999624	8.469	-159.302	8.57	1266.056	1619.661	0.931	789.85	1.001	1.053	8.364
2023-09-24 22:31	4000524	8.461	-158.87	8.536	1264.769	1619.336	0.931	790.66	1.001	1.053	8.431
2023-09-24 22:46	4001424	8.660	-168.834	8.514	1265.514	1621.164	0.932	790.19	1.001	1.054	8.520
2023-09-24 23:01	4002324	8.485	-160.031	8.476	1264.157	1620.924	0.932	791.04	1.001	1.054	8.546
2023-09-24 23:16	4003224	8.499	-160.749	8.435	1262.988	1621.077	0.932	791.77	1.001	1.054	8.443
2023-09-24 23:31	4004124	8.502	-160.837	8.386	1261.42	1620.986	0.932	792.76	1.001	1.054	8.493
2023-09-24 23:46	4005024	8.685	-169.992	8.327	1258.193	1619.207	0.931	794.79	1.001	1.052	8.530
2023-09-25 00:01	4005924	8.510	-161.176	8.281	1257.38	1619.976	0.932	795.30	1.001	1.053	8.533
2023-09-25 00:16	4006824	8.503	-160.837	8.244	1256.341	1620.135	0.932	795.96	1.001	1.053	8.474
2023-09-25 00:31	4007724	8.505	-160.887	8.204	1254.93	1619.917	0.932	796.86	1.001	1.053	8.625
2023-09-25 00:46	4008624	8.690	-170.131	8.158	1253.771	1620.244	0.932	797.59	1.001	1.053	8.546
2023-09-25 01:01	4009524	8.516	-161.39	8.142	1253.222	1620.182	0.932	797.94	1.001	1.053	8.570
2023-09-25 01:16	4010424	8.513	-161.209	8.074	1250.566	1619.448	0.931	799.64	1.001	1.053	8.475
2023-09-25 01:31	4011324	8.511	-161.099	8.037	1249.198	1619.172	0.931	800.51	1.001	1.052	8.503
2023-09-25 01:46	4012224	8.697	-170.393	7.989	1246.491	1617.598	0.930	802.25	1.001	1.051	8.501
2023-09-25 02:01	4013124	8.512	-161.083	7.937	1245.26	1618.078	0.931	803.05	1.001	1.052	8.536
2023-09-25 02:16	4014024	8.519	-161.443	7.894	1243.883	1618	0.931	803.93	1.001	1.052	8.418
2023-09-25 02:31	4014924	8.513	-161.083	7.855	1242.851	1618.216	0.931	804.60	1.001	1.052	8.400
2023-09-25 02:46	4015824	8.699	-170.367	7.809	1241.184	1617.908	0.931	805.68	1.001	1.052	8.527
2023-09-25 03:01	4016724	8.519	-161.338	7.778	1240.497	1618.278	0.931	806.13	1.001	1.052	8.548
2023-09-25 03:16	4017624	8.517	-161.223	7.734	1239.053	1618.164	0.931	807.07	1.001	1.052	8.544
2023-09-25 03:31	4018524	8.524	-161.567	7.683	1236.739	1617.193	0.930	808.58	1.001	1.051	8.476
2023-09-25 03:46	4019424	8.699	-170.24	7.633	1234.542	1616.318	0.930	810.02	1.001	1.051	8.426
2023-09-25 04:01	4020324	8.525	-161.555	7.597	1233.86	1616.884	0.930	810.47	1.001	1.051	8.484
2023-09-25 04:16	4021224	8.519	-161.24	7.56	1231.859	1615.759	0.929	811.78	1.001	1.050	8.401
2023-09-25 04:31	4022124	8.515	-160.99	7.504	1230.377	1616.099	0.930	812.76	1.001	1.050	8.214
2023-09-25 04:46	4023024	8.708	-170.586	7.463	1229.714	1616.903	0.930	813.20	1.001	1.051	8.463
2023-09-25 05:01	4023924	8.525	-161.436	7.443	1229.588	1617.53	0.931	813.28	1.001	1.051	8.521
2023-09-25 05:16	4024824	8.520	-161.19	7.412	1228.65	1617.571	0.931	813.90	1.001	1.051	8.443
2023-09-25 05:31	4025724	8.518	-161.045	7.37	1227.44	1617.673	0.931	814.70	1.001	1.051	8.437
2023-09-25 05:46	4026624	8.699	-170.076	7.337	1226.06	1617.183	0.930	815.62	1.001	1.051	8.363
2023-09-25 06:01	4027524	8.515	-160.904	7.315	1225.943	1617.951	0.931	815.70	1.001	1.052	8.453
2023-09-25 06:16	4028424	8.513	-160.761	7.285	1224.887	1617.793	0.931	816.40	1.001	1.052	8.467
2023-09-25 06:31	4029324	8.507	-160.472	7.251	1223.504	1617.316	0.931	817.33	1.001	1.051	8.465
2023-09-25 06:46	4030224	8.703	-170.202	7.215	1222.091	1616.921	0.930	818.27	1.001	1.051	8.495
2023-09-25 07:01	4031124	8.528	-161.486	7.189	1220.961	1616.495	0.930	819.03	1.001	1.051	8.454

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-25 07:16	4032024	8.520	-161.061	7.163	1220.531	1616.99	0.930	819.32	1.001	1.051	8.300
2023-09-25 07:31	4032924	8.492	-159.657	7.133	1219.983	1617.486	0.931	819.68	1.001	1.051	8.318
2023-09-25 07:46	4033824	8.684	-169.206	7.105	1218.49	1616.682	0.930	820.69	1.001	1.051	8.277
2023-09-25 08:01	4034724	8.517	-160.856	7.081	1217.985	1616.995	0.930	821.03	1.001	1.051	8.379
2023-09-25 08:16	4035624	8.515	-160.749	7.063	1217.422	1616.956	0.930	821.41	1.001	1.051	8.441
2023-09-25 08:31	4036524	8.520	-160.983	7.047	1216.853	1616.859	0.930	821.79	1.001	1.051	8.448
2023-09-25 08:46	4037424	8.710	-170.422	6.981	1213.75	1615.46	0.930	823.89	1.001	1.050	8.291
2023-09-25 09:01	4038324	8.535	-161.667	6.951	1213.406	1616.224	0.930	824.13	1.001	1.051	8.305
2023-09-25 09:16	4039224	8.526	-161.226	6.93	1213.04	1616.586	0.930	824.38	1.001	1.051	8.285
2023-09-25 09:31	4040124	8.408	-155.334	6.935	1215.777	1620.05	0.932	822.52	1.001	1.053	7.518
2023-09-25 09:46	4041024	8.539	-161.86	6.941	1212.047	1614.839	0.929	825.05	1.001	1.050	***6.012***
2023-09-25 10:01	4041924	8.298	-149.86	6.905	1203.389	1604.764	0.923	830.99	1.001	1.043	***5.909***
2023-09-25 10:16	4042824	8.291	-149.426	6.818	1194.123	1595.953	0.918	837.43	1.001	1.037	***6.438***
2023-09-25 10:31	4043724	8.299	-149.846	6.781	1193.632	1596.789	0.918	837.78	1.001	1.038	***5.760***
2023-09-25 10:46	4044624	8.498	-159.693	6.676	1188.468	1594.147	0.917	841.42	1.001	1.036	***6.496***
2023-09-25 11:01	4045524	8.292	-149.417	6.63	1185.48	1592.025	0.916	843.54	1.001	1.035	***6.204***
2023-09-25 11:16	4046424	8.292	-149.379	6.603	1182.331	1588.89	0.914	845.79	1.001	1.033	***6.247***
2023-09-25 11:31	4047324	8.299	-149.717	6.598	1183.561	1590.755	0.915	844.91	1.001	1.034	***5.673***
2023-09-25 11:46	4048224	8.496	-159.528	6.628	1184.785	1591.19	0.915	844.04	1.001	1.034	***6.138***
2023-09-25 12:01	4049124	8.308	-150.204	6.686	1187.563	1592.535	0.916	842.06	1.001	1.035	***6.499***
2023-09-25 12:16	4050024	8.306	-150.175	6.739	1190.419	1594.208	0.917	840.04	1.001	1.036	6.866
2023-09-25 12:31	4050924	8.298	-149.772	6.815	1194.079	1595.998	0.918	837.47	1.001	1.037	6.742
2023-09-25 12:46	4051824	8.476	-158.689	6.844	1194.9	1595.912	0.918	836.89	1.001	1.037	***6.038***
2023-09-25 13:01	4052724	8.290	-149.403	6.865	1195.558	1595.94	0.918	836.43	1.001	1.037	***5.823***
2023-09-25 13:16	4053624	8.285	-149.178	6.903	1196.74	1595.96	0.918	835.60	1.001	1.037	***5.714***
2023-09-25 13:31	4054524	8.282	-149.047	6.948	1199.002	1597.18	0.919	834.03	1.001	1.038	***5.430***
2023-09-25 13:46	4055424	8.467	-158.317	7.005	1202.051	1598.891	0.920	831.91	1.001	1.039	***5.596***
2023-09-25 14:01	4056324	8.287	-149.374	7.057	1203.133	1598.245	0.919	831.16	1.001	1.039	***5.495***
2023-09-25 14:16	4057224	8.279	-148.993	7.1	1206.799	1601.37	0.921	828.64	1.001	1.041	***4.966***
2023-09-25 14:31	4058124	8.275	-148.84	7.163	1209.897	1602.898	0.922	826.52	1.001	1.042	***4.909***
2023-09-25 14:46	4059024	8.483	-159.256	7.217	1214.084	1606.249	0.924	823.67	1.001	1.044	***4.698***
2023-09-25 15:01	4059924	8.312	-150.714	7.229	1213.755	1605.347	0.923	823.89	1.001	1.043	6.941
2023-09-25 15:16	4060824	8.303	-150.249	7.23	1214.229	1605.929	0.924	823.57	1.001	1.044	***6.106***
2023-09-25 15:31	4061724	8.291	-149.684	7.222	1215.736	1608.226	0.925	822.55	1.001	1.045	***6.088***
2023-09-25 15:46	4062624	8.466	-158.391	7.213	1217.97	1611.567	0.927	821.04	1.001	1.048	***5.829***
2023-09-25 16:01	4063524	8.296	-149.884	7.207	1221.156	1616.026	0.930	818.90	1.001	1.050	6.533
2023-09-25 16:16	4064424	8.286	-149.379	7.205	1218.588	1612.716	0.928	820.62	1.001	1.048	***6.237***
2023-09-25 16:31	4065324	8.274	-148.823	7.203	1220.496	1615.324	0.929	819.34	1.001	1.050	***5.243***
2023-09-25 16:46	4066225	8.449	-157.54	7.208	1224.994	1621.08	0.933	816.33	1.001	1.054	***5.343***
2023-09-25 17:01	4067125	8.274	-148.823	7.205	1224.538	1620.593	0.933	816.63	1.001	1.053	***6.108***
2023-09-25 17:16	4068025	8.270	-148.611	7.198	1224.696	1621.081	0.933	816.53	1.001	1.054	***5.524***
2023-09-25 17:31	4068925	8.262	-148.201	7.182	1226.266	1623.826	0.935	815.48	1.001	1.055	***5.433***
2023-09-25 17:46	4069825	8.437	-156.906	7.179	1236.211	1637.111	0.943	808.92	1.001	1.064	***5.129***
2023-09-25 18:01	4070725	8.250	-147.574	7.172	1235.495	1636.434	0.942	809.39	1.001	1.064	***5.821***
2023-09-25 18:16	4071625	8.242	-147.188	7.173	1237.334	1638.825	0.944	808.19	1.001	1.065	***5.398***
2023-09-25 18:31	4072525	8.240	-147.099	7.179	1238.246	1639.801	0.944	807.59	1.001	1.066	***5.314***
2023-09-25 18:46	4073425	8.421	-156.107	7.183	1240.429	1642.541	0.946	806.17	1.001	1.068	***4.668***
2023-09-25 19:01	4074325	8.236	-146.906	7.183	1239.98	1641.953	0.945	806.47	1.001	1.067	***5.870***
2023-09-25 19:16	4075225	8.229	-146.546	7.181	1240.061	1642.136	0.946	806.41	1.001	1.067	***5.108***
2023-09-25 19:31	4076125	8.222	-146.213	7.177	1240.068	1642.291	0.946	806.41	1.001	1.067	***4.303***
2023-09-25 19:46	4077025	8.401	-155.12	7.167	1239.569	1642.034	0.946	806.73	1.001	1.067	***4.290***
2023-09-25 20:01	4077925	8.244	-147.29	7.152	1238.344	1641.036	0.945	807.53	1.001	1.067	***4.935***
2023-09-25 20:16	4078825	8.263	-148.239	7.134	1237.71	1640.95	0.945	807.94	1.001	1.067	***5.287***
2023-09-25 20:31	4079725	8.273	-148.69	7.128	1237.537	1640.978	0.945	808.06	1.001	1.067	***5.676***
2023-09-25 20:46	4080625	8.464	-158.248	7.129	1237.858	1641.355	0.945	807.85	1.001	1.067	***5.369***
2023-09-25 21:01	4081525	8.283	-149.224	7.135	1237.816	1641.079	0.945	807.88	1.001	1.067	***5.935***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-25 21:16	4082425	8.262	-148.189	7.144	1238.185	1641.182	0.945	807.63	1.001	1.067	***5.562***
2023-09-25 21:31	4083325	8.270	-148.59	7.154	1238.569	1641.285	0.945	807.38	1.001	1.067	***5.253***
2023-09-25 21:46	4084225	8.453	-157.709	7.162	1237.329	1639.311	0.944	808.19	1.001	1.066	***4.885***
2023-09-25 22:01	4085125	8.272	-148.697	7.168	1237.387	1639.109	0.944	808.16	1.001	1.065	***5.454***
2023-09-25 22:16	4086025	8.259	-148.027	7.174	1237.956	1639.622	0.944	807.78	1.001	1.066	***5.180***
2023-09-25 22:31	4086925	8.248	-147.488	7.18	1237.848	1639.228	0.944	807.85	1.001	1.065	***4.200***
2023-09-25 22:46	4087825	8.444	-157.275	7.188	1235.235	1635.443	0.942	809.56	1.001	1.063	***3.683***
2023-09-25 23:01	4088725	8.266	-148.396	7.192	1235.304	1635.378	0.942	809.52	1.001	1.063	***5.195***
2023-09-25 23:16	4089625	8.254	-147.791	7.195	1234.614	1634.32	0.941	809.97	1.001	1.062	***4.765***
2023-09-25 23:31	4090525	8.254	-147.812	7.19	1233.365	1632.891	0.940	810.79	1.001	1.061	***4.567***
2023-09-25 23:46	4091425	8.461	-158.103	7.179	1230.281	1629.245	0.938	812.82	1.001	1.059	***4.704***
2023-09-26 00:01	4092325	8.283	-149.238	7.171	1229.135	1628.053	0.937	813.58	1.001	1.058	***5.544***
2023-09-26 00:16	4093225	8.301	-150.118	7.149	1228.544	1628.208	0.937	813.97	1.001	1.058	***4.802***
2023-09-26 00:31	4094125	8.308	-150.466	7.134	1228.973	1629.38	0.938	813.69	1.001	1.059	***5.337***
2023-09-26 00:46	4095025	8.481	-159.09	7.121	1228.469	1629.259	0.938	814.02	1.001	1.059	***4.983***
2023-09-26 01:01	4095925	8.298	-149.968	7.114	1228.075	1629.01	0.938	814.28	1.001	1.059	***6.221***
2023-09-26 01:16	4096825	8.294	-149.77	7.102	1228.12	1629.551	0.938	814.25	1.001	1.059	***5.620***
2023-09-26 01:31	4097725	8.290	-149.531	7.089	1227.996	1629.938	0.938	814.34	1.001	1.059	***4.847***
2023-09-26 01:46	4098625	8.481	-159.08	7.078	1227.274	1629.433	0.938	814.81	1.001	1.059	***4.859***
2023-09-26 02:01	4099525	8.303	-150.185	7.075	1226.98	1629.151	0.938	815.01	1.001	1.059	***5.887***
2023-09-26 02:16	4100425	8.278	-148.909	7.072	1227.344	1629.778	0.938	814.77	1.001	1.059	***5.399***
2023-09-26 02:31	4101325	8.281	-149.095	7.063	1227.349	1630.172	0.938	814.76	1.001	1.060	***4.724***
2023-09-26 02:46	4102225	8.468	-158.398	7.049	1226.97	1630.228	0.938	815.02	1.001	1.060	***4.589***
2023-09-26 03:01	4103125	8.306	-150.304	7.034	1226.692	1630.49	0.939	815.20	1.001	1.060	***5.685***
2023-09-26 03:16	4104025	8.297	-149.839	7.01	1225.978	1630.533	0.939	815.68	1.001	1.060	***5.305***
2023-09-26 03:31	4104925	8.297	-149.808	6.973	1225.097	1630.892	0.939	816.26	1.001	1.060	***5.235***
2023-09-26 03:46	4105825	8.541	-161.951	6.914	1223.506	1631.228	0.939	817.32	1.001	1.060	***4.982***
2023-09-26 04:01	4106725	8.373	-153.58	6.885	1222.46	1631.021	0.939	818.02	1.001	1.060	6.711
2023-09-26 04:16	4107625	8.389	-154.347	6.866	1221.757	1630.894	0.939	818.49	1.001	1.060	***5.983***
2023-09-26 04:31	4108525	8.396	-154.686	6.855	1221.848	1631.468	0.939	818.43	1.001	1.060	***5.750***
2023-09-26 04:46	4109425	8.583	-163.984	6.848	1221.81	1631.688	0.939	818.46	1.001	1.061	***5.522***
2023-09-26 05:01	4110325	8.387	-154.243	6.85	1221.554	1631.276	0.939	818.63	1.001	1.060	6.769
2023-09-26 05:16	4111225	8.367	-153.248	6.857	1222.122	1631.746	0.939	818.25	1.001	1.061	***6.088***
2023-09-26 05:31	4112125	8.353	-152.54	6.861	1222.665	1632.305	0.940	817.89	1.001	1.061	***5.759***
2023-09-26 05:46	4113025	8.513	-160.52	6.863	1222.568	1632.104	0.940	817.95	1.001	1.061	***5.578***
2023-09-26 06:01	4113925	8.358	-152.791	6.862	1222.356	1631.852	0.940	818.09	1.001	1.061	***5.931***
2023-09-26 06:16	4114825	8.346	-152.19	6.854	1222.259	1632.034	0.940	818.16	1.001	1.061	***5.623***
2023-09-26 06:31	4115725	8.347	-152.225	6.829	1220.748	1631.087	0.939	819.17	1.001	1.060	***5.365***
2023-09-26 06:46	4116625	8.541	-161.91	6.8	1219.475	1630.563	0.939	820.03	1.001	1.060	***4.925***
2023-09-26 07:01	4117525	8.388	-154.288	6.794	1219.419	1630.766	0.939	820.06	1.001	1.060	6.507
2023-09-26 07:16	4118425	8.356	-152.686	6.784	1219.504	1631.263	0.939	820.01	1.001	1.060	***5.913***
2023-09-26 07:31	4119325	8.376	-153.668	6.771	1219.376	1631.65	0.939	820.09	1.001	1.061	***5.459***
2023-09-26 07:46	4120225	8.561	-162.868	6.758	1218.969	1631.643	0.939	820.37	1.001	1.061	***5.548***
2023-09-26 08:01	4121125	8.388	-154.228	6.751	1218.486	1631.312	0.939	820.69	1.001	1.060	6.768
2023-09-26 08:16	4122025	8.381	-153.909	6.746	1218.649	1631.701	0.939	820.58	1.001	1.061	***5.845***
2023-09-26 08:31	4122925	8.392	-154.436	6.743	1218.934	1632.218	0.940	820.39	1.001	1.061	***5.929***
2023-09-26 08:46	4123825	8.559	-162.745	6.744	1219.744	1633.28	0.940	819.84	1.001	1.062	***5.472***
2023-09-26 09:01	4124725	8.395	-154.598	6.743	1219.123	1632.47	0.940	820.26	1.001	1.061	***6.345***
2023-09-26 09:16	4125625	8.451	-157.371	6.741	1219.419	1632.975	0.940	820.06	1.001	1.061	7.556
2023-09-26 09:31	4126525	8.445	-157.099	6.747	1219.625	1632.979	0.940	819.92	1.001	1.061	7.046
2023-09-26 09:46	4127425	8.588	-164.18	6.757	1221.212	1634.703	0.941	818.86	1.001	1.063	***6.109***
2023-09-26 10:01	4128325	8.410	-155.342	6.764	1221.293	1634.53	0.941	818.80	1.001	1.062	***5.652***
2023-09-26 10:16	4129225	8.399	-154.808	6.766	1221.716	1634.991	0.941	818.52	1.001	1.063	***5.592***
2023-09-26 10:31	4130125	8.378	-153.766	6.766	1222.157	1635.583	0.942	818.23	1.001	1.063	***5.311***
2023-09-26 10:46	4131025	8.557	-162.675	6.764	1223.106	1636.917	0.943	817.59	1.001	1.064	***5.219***
2023-09-26 11:01	4131925	8.393	-154.517	6.759	1222.768	1636.683	0.942	817.82	1.001	1.064	***5.644***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-26 11:16	4132825	8.369	-153.301	6.755	1223.207	1637.436	0.943	817.52	1.001	1.064	***5.240***
2023-09-26 11:31	4133725	8.356	-152.647	6.751	1223.288	1637.712	0.943	817.47	1.001	1.065	***4.837***
2023-09-26 11:46	4134625	8.521	-160.887	6.756	1224.418	1639.046	0.944	816.71	1.001	1.065	***4.427***
2023-09-26 12:01	4135525	8.363	-153.022	6.765	1215.371	1626.55	0.936	822.79	1.001	1.057	***5.223***
2023-09-26 12:16	4136425	8.346	-152.159	6.776	1216.149	1627.128	0.937	822.27	1.001	1.058	***4.692***
2023-09-26 12:31	4137325	8.334	-151.572	6.79	1217.153	1627.891	0.937	821.59	1.001	1.058	***4.429***
2023-09-26 12:46	4138225	8.525	-161.097	6.819	1227.966	1641.151	0.945	814.36	1.001	1.067	***4.223***
2023-09-26 13:01	4139125	8.370	-153.389	6.849	1237.761	1652.97	0.952	807.91	1.001	1.074	***6.195***
2023-09-26 13:16	4140025	8.346	-152.228	6.879	1239.056	1653.427	0.953	807.07	1.001	1.075	***4.952***
2023-09-26 13:31	4140925	8.327	-151.298	6.905	1240.933	1654.827	0.953	805.85	1.001	1.076	***4.542***
2023-09-26 13:46	4141825	8.488	-159.326	6.943	1234.096	1644.136	0.947	810.31	1.001	1.069	***5.603***
2023-09-26 14:01	4142725	8.370	-153.463	6.996	1235.39	1643.634	0.947	809.46	1.001	1.068	***5.692***
2023-09-26 14:16	4143625	8.344	-152.192	7.055	1238.162	1644.852	0.947	807.65	1.001	1.069	***5.432***
2023-09-26 14:31	4144525	8.327	-151.393	7.121	1240.893	1645.712	0.948	805.87	1.001	1.070	***5.724***
2023-09-26 14:46	4145426	8.507	-160.394	7.183	1243.549	1646.656	0.948	804.15	1.001	1.070	***5.590***
2023-09-26 15:01	4146326	8.358	-153.029	7.255	1245.506	1646.255	0.948	802.89	1.001	1.070	***6.096***
2023-09-26 15:16	4147226	8.336	-151.98	7.319	1248.172	1647.128	0.949	801.17	1.001	1.071	***5.920***
2023-09-26 15:31	4148126	8.319	-151.153	7.377	1250.73	1648.073	0.949	799.53	1.001	1.071	***5.884***
2023-09-26 15:46	4149026	8.476	-159.006	7.464	1253.972	1648.743	0.949	797.47	1.001	1.072	***5.511***
2023-09-26 16:01	4149926	8.335	-152.011	7.546	1256.119	1648.158	0.949	796.10	1.001	1.071	***5.849***
2023-09-26 16:16	4150826	8.313	-150.993	7.658	1260.027	1648.67	0.949	793.63	1.001	1.072	***5.464***
2023-09-26 16:31	4151726	8.281	-149.477	7.793	1265.152	1649.811	0.950	790.42	1.001	1.072	***5.123***
2023-09-26 16:46	4152626	8.460	-158.465	7.92	1271.416	1652.745	0.952	786.53	1.001	1.074	***4.749***
2023-09-26 17:01	4153526	8.308	-150.969	8.033	1274.404	1652.015	0.951	784.68	1.001	1.074	***5.816***
2023-09-26 17:16	4154426	8.293	-150.244	8.098	1277.331	1653.136	0.952	782.88	1.001	1.075	***5.394***
2023-09-26 17:31	4155326	8.279	-149.572	8.182	1280.49	1653.789	0.952	780.95	1.001	1.075	***4.907***
2023-09-26 17:46	4156226	8.437	-157.526	8.25	1282.39	1653.462	0.952	779.79	1.001	1.075	***4.651***
2023-09-26 18:01	4157126	8.269	-149.117	8.274	1283.46	1653.871	0.952	779.14	1.001	1.075	***5.033***
2023-09-26 18:16	4158026	8.251	-148.263	8.331	1285.641	1654.356	0.952	777.82	1.001	1.075	***4.604***
2023-09-26 18:31	4158926	8.247	-148.079	8.377	1287.572	1654.975	0.953	776.66	1.001	1.076	***4.107***
2023-09-26 18:46	4159826	8.401	-155.785	8.412	1289.964	1656.638	0.954	775.22	1.001	1.077	***3.998***
2023-09-26 19:01	4160726	8.245	-148.041	8.464	1291.088	1655.976	0.953	774.54	1.001	1.076	***4.495***
2023-09-26 19:16	4161626	8.230	-147.269	8.484	1292.336	1656.738	0.954	773.79	1.001	1.077	***4.122***
2023-09-26 19:31	4162526	8.208	-146.21	8.523	1293.991	1657.278	0.954	772.80	1.001	1.077	***3.557***
2023-09-26 19:46	4163426	8.388	-155.208	8.512	1292.376	1655.658	0.953	773.77	1.001	1.076	***3.218***
2023-09-26 20:01	4164326	8.245	-148.015	8.484	1291.795	1656.07	0.953	774.12	1.001	1.076	***4.548***
2023-09-26 20:16	4165226	8.226	-147.111	8.504	1292.755	1656.475	0.953	773.54	1.001	1.077	***4.625***
2023-09-26 20:31	4166126	8.220	-146.818	8.555	1294.507	1656.653	0.954	772.50	1.001	1.077	***4.653***
2023-09-26 20:46	4167026	8.395	-155.599	8.62	1296.677	1656.799	0.954	771.20	1.001	1.077	***4.441***
2023-09-26 21:01	4167926	8.238	-147.779	8.655	1298.161	1657.292	0.954	770.32	1.001	1.077	***4.258***
2023-09-26 21:16	4168826	8.216	-146.685	8.696	1300.054	1658.02	0.954	769.20	1.001	1.078	***4.013***
2023-09-26 21:31	4169726	8.268	-149.353	8.785	1304.657	1660.302	0.956	766.49	1.001	1.079	***4.329***
2023-09-26 21:46	4170626	8.436	-157.8	8.832	1307.095	1661.505	0.956	765.06	1.001	1.080	***5.512***
2023-09-26 22:01	4171526	8.246	-148.28	8.858	1307.976	1661.563	0.956	764.54	1.001	1.080	***5.859***
2023-09-26 22:16	4172426	8.280	-150.02	8.918	1313.109	1665.693	0.959	761.55	1.001	1.083	***6.185***
2023-09-26 22:31	4173326	8.269	-149.462	8.963	1315.343	1666.678	0.959	760.26	1.001	1.083	***6.141***
2023-09-26 22:46	4174226	8.433	-157.721	8.995	1316.901	1667.388	0.960	759.36	1.001	1.084	***6.026***
2023-09-26 23:01	4175126	8.326	-152.409	9.101	1323.981	1672.04	0.962	755.30	1.001	1.087	***5.895***
2023-09-26 23:16	4176026	8.326	-152.471	9.224	1329.944	1674.604	0.964	751.91	1.001	1.088	6.526
2023-09-26 23:31	4176926	8.324	-152.404	9.265	1331.592	1675.038	0.964	750.98	1.001	1.089	***6.201***
2023-09-26 23:46	4177826	8.463	-159.38	9.281	1332.899	1676.027	0.965	750.24	1.001	1.089	***5.818***
2023-09-27 00:01	4178726	8.271	-149.736	9.281	1332.151	1675.111	0.964	750.67	1.001	1.089	***5.892***
2023-09-27 00:16	4179626	8.242	-148.27	9.25	1331.344	1675.341	0.964	751.12	1.001	1.089	***5.766***
2023-09-27 00:31	4180526	8.268	-149.615	9.255	1332.75	1676.889	0.965	750.33	1.001	1.090	***5.688***
2023-09-27 00:46	4181426	8.478	-160.141	9.289	1335.323	1678.756	0.966	748.88	1.001	1.091	6.781
2023-09-27 01:01	4182326	8.294	-150.938	9.291	1334.622	1677.799	0.966	749.28	1.001	1.091	***6.411***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-27 01:16	4183226	8.295	-150.988	9.289	1335.098	1678.464	0.966	749.01	1.001	1.091	***6.005***
2023-09-27 01:31	4184126	8.318	-152.13	9.289	1335.632	1679.152	0.967	748.71	1.001	1.091	***5.794***
2023-09-27 01:46	4185026	8.454	-158.937	9.278	1335.097	1678.934	0.966	749.01	1.001	1.091	***5.980***
2023-09-27 02:01	4185926	8.292	-150.793	9.265	1334.168	1678.277	0.966	749.53	1.001	1.091	***6.123***
2023-09-27 02:16	4186826	8.268	-149.586	9.248	1333.923	1678.64	0.966	749.67	1.001	1.091	***5.471***
2023-09-27 02:31	4187726	8.248	-148.597	9.239	1333.778	1678.835	0.966	749.75	1.001	1.091	***5.090***
2023-09-27 02:46	4188626	8.485	-160.446	9.21	1332.914	1678.913	0.966	750.24	1.001	1.091	***5.826***
2023-09-27 03:01	4189526	8.326	-152.495	9.194	1332.301	1678.777	0.966	750.58	1.001	1.091	***6.380***
2023-09-27 03:16	4190426	8.311	-151.701	9.181	1332.143	1679.104	0.967	750.67	1.001	1.091	***5.930***
2023-09-27 03:31	4191326	8.329	-152.59	9.175	1332.222	1679.483	0.967	750.63	1.001	1.092	***6.048***
2023-09-27 03:46	4192226	8.499	-161.128	9.164	1331.266	1678.72	0.966	751.16	1.001	1.091	***5.949***
2023-09-27 04:01	4193126	8.323	-152.321	9.151	1330.589	1678.377	0.966	751.55	1.001	1.091	6.528
2023-09-27 04:16	4194026	8.305	-151.386	9.139	1330.237	1678.403	0.966	751.75	1.001	1.091	***6.001***
2023-09-27 04:31	4194926	8.311	-151.701	9.129	1328.918	1677.173	0.966	752.49	1.001	1.090	***5.553***
2023-09-27 04:46	4195826	8.499	-161.128	9.121	1329.574	1678.297	0.966	752.12	1.001	1.091	***6.345***
2023-09-27 05:01	4196726	8.331	-152.655	9.102	1328.994	1678.354	0.966	752.45	1.001	1.091	***6.335***
2023-09-27 05:16	4197626	8.302	-151.21	9.079	1328.25	1678.331	0.966	752.87	1.001	1.091	***5.689***
2023-09-27 05:31	4198526	8.331	-152.628	9.03	1325.329	1676.624	0.965	754.53	1.001	1.090	***5.210***
2023-09-27 05:46	4199426	8.502	-161.219	8.991	1323.363	1675.72	0.965	755.65	1.001	1.089	***5.974***
2023-09-27 06:01	4200326	8.341	-153.127	8.977	1322.737	1675.488	0.965	756.01	1.001	1.089	***6.419***
2023-09-27 06:16	4201226	8.332	-152.647	8.969	1322.893	1676.036	0.965	755.92	1.001	1.089	***5.979***
2023-09-27 06:31	4202126	8.318	-151.918	8.947	1321.849	1675.584	0.965	756.52	1.001	1.089	***5.315***
2023-09-27 06:46	4203026	8.525	-162.303	8.874	1317.631	1673.192	0.963	758.94	1.001	1.088	***5.907***
2023-09-27 07:01	4203926	8.369	-154.438	8.854	1317.266	1673.563	0.964	759.15	1.001	1.088	6.862
2023-09-27 07:16	4204826	8.338	-152.879	8.829	1316.678	1673.83	0.964	759.49	1.001	1.088	***6.116***
2023-09-27 07:31	4205726	8.344	-153.16	8.81	1316.306	1674.105	0.964	759.70	1.001	1.088	***6.163***
2023-09-27 07:46	4206626	8.536	-162.804	8.803	1316.019	1674.052	0.964	759.87	1.001	1.088	***6.480***
2023-09-27 08:01	4207526	8.340	-152.967	8.799	1315.576	1673.644	0.964	760.12	1.001	1.088	6.775
2023-09-27 08:16	4208426	8.337	-152.826	8.79	1315.662	1674.124	0.964	760.07	1.001	1.088	***6.232***
2023-09-27 08:31	4209326	8.327	-152.28	8.753	1314.458	1674.076	0.964	760.77	1.001	1.088	***6.259***
2023-09-27 08:46	4210226	8.505	-161.207	8.717	1311.482	1671.769	0.963	762.50	1.001	1.087	***5.981***
2023-09-27 09:01	4211126	8.364	-154.097	8.699	1311.215	1672.149	0.963	762.65	1.001	1.087	6.795
2023-09-27 09:16	4212026	8.335	-152.626	8.682	1311.003	1672.571	0.963	762.78	1.001	1.087	6.641
2023-09-27 09:31	4212926	8.416	-156.636	8.533	1305.832	1672.046	0.963	765.80	1.001	1.087	7.431
2023-09-27 09:46	4213826	8.532	-162.415	8.486	1304.668	1672.465	0.963	766.48	1.001	1.087	7.079
2023-09-27 10:01	4214726	8.375	-154.514	8.395	1301.475	1672.095	0.963	768.36	1.001	1.087	6.945
2023-09-27 10:16	4215626	8.347	-153.048	8.299	1298.334	1672.031	0.963	770.22	1.001	1.087	7.336
2023-09-27 10:31	4216526	8.314	-151.362	8.243	1296.958	1672.525	0.963	771.04	1.001	1.087	***6.222***
2023-09-27 10:46	4217426	8.494	-160.377	8.217	1295.394	1671.585	0.963	771.97	1.001	1.087	***5.466***
2023-09-27 11:01	4218326	8.347	-153.008	8.211	1297.766	1674.921	0.965	770.56	1.001	1.089	***6.211***
2023-09-27 11:16	4219226	8.320	-151.613	8.205	1295.545	1672.297	0.963	771.88	1.001	1.087	***5.286***
2023-09-27 11:31	4220126	8.297	-150.478	8.199	1296.003	1673.132	0.964	771.60	1.001	1.088	***4.578***
2023-09-27 11:46	4221026	8.434	-157.344	8.2	1295.663	1672.66	0.963	771.81	1.001	1.087	***3.859***
2023-09-27 12:01	4221926	8.293	-150.29	8.204	1294.958	1671.587	0.963	772.23	1.001	1.087	***5.173***
2023-09-27 12:16	4222826	8.267	-148.993	8.207	1295.349	1671.959	0.963	771.99	1.001	1.087	***4.734***
2023-09-27 12:31	4223726	8.244	-147.839	8.215	1295.998	1672.458	0.963	771.61	1.001	1.087	***4.383***
2023-09-27 12:46	4224626	8.417	-156.479	8.224	1294.635	1670.338	0.962	772.42	1.001	1.086	***3.905***
2023-09-27 13:01	4225526	8.283	-149.798	8.241	1295.543	1670.79	0.962	771.88	1.001	1.086	***5.263***
2023-09-27 13:16	4226426	8.253	-148.33	8.26	1296.501	1671.251	0.963	771.31	1.001	1.086	***4.972***
2023-09-27 13:31	4227326	8.204	-145.874	8.285	1297.733	1671.8	0.963	770.57	1.001	1.087	***4.250***
2023-09-27 13:46	4228226	8.373	-154.328	8.313	1296.624	1669.217	0.961	771.23	1.001	1.085	***3.716***
2023-09-27 14:01	4229126	8.276	-149.496	8.348	1296.914	1668.173	0.961	771.06	1.001	1.084	***5.333***
2023-09-27 14:16	4230026	8.241	-147.758	8.374	1298.194	1668.767	0.961	770.30	1.001	1.085	***4.982***
2023-09-27 14:31	4230926	8.213	-146.399	8.395	1298.961	1668.882	0.961	769.85	1.001	1.085	***4.182***
2023-09-27 14:46	4231827	8.452	-158.377	8.407	1295.131	1663.468	0.958	772.12	1.001	1.081	***5.167***
2023-09-27 15:01	4232727	8.320	-151.763	8.406	1295.335	1663.785	0.958	772.00	1.001	1.081	6.809

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-27 15:16	4233627	8.291	-150.292	8.398	1295.211	1663.936	0.958	772.08	1.001	1.082	***5.658***
2023-09-27 15:31	4234527	8.269	-149.19	8.389	1294.995	1664.019	0.958	772.20	1.001	1.082	***6.065***
2023-09-27 15:46	4235427	8.417	-156.591	8.386	1293.754	1662.542	0.957	772.95	1.001	1.081	***5.649***
2023-09-27 16:01	4236327	8.313	-151.372	8.39	1293.77	1662.432	0.957	772.94	1.001	1.081	***6.316***
2023-09-27 16:16	4237227	8.292	-150.332	8.404	1294.59	1662.881	0.957	772.45	1.001	1.081	***5.301***
2023-09-27 16:31	4238127	8.222	-146.835	8.417	1295.696	1663.802	0.958	771.79	1.001	1.081	***4.381***
2023-09-27 16:46	4239027	8.378	-154.65	8.435	1295.859	1663.269	0.958	771.69	1.001	1.081	***4.668***
2023-09-27 17:01	4239927	8.278	-149.648	8.456	1296.181	1662.805	0.957	771.50	1.001	1.081	***5.469***
2023-09-27 17:16	4240827	8.222	-146.866	8.484	1297.484	1663.363	0.958	770.72	1.001	1.081	***5.114***
2023-09-27 17:31	4241727	8.188	-145.171	8.518	1299.225	1664.196	0.958	769.69	1.001	1.082	***4.502***
2023-09-27 17:46	4242627	8.370	-154.347	8.55	1299.799	1663.64	0.958	769.35	1.001	1.081	***4.060***
2023-09-27 18:01	4243527	8.253	-148.509	8.584	1300.701	1663.396	0.958	768.82	1.001	1.081	***4.794***
2023-09-27 18:16	4244427	8.231	-147.383	8.605	1301.741	1663.872	0.958	768.20	1.001	1.082	***4.592***
2023-09-27 18:31	4245327	8.200	-145.848	8.624	1303.065	1664.791	0.958	767.42	1.001	1.082	***4.417***
2023-09-27 18:46	4246227	8.381	-154.946	8.648	1303.682	1664.608	0.958	767.06	1.001	1.082	***4.601***
2023-09-27 19:01	4247127	8.238	-147.8	8.673	1304.433	1664.541	0.958	766.62	1.001	1.082	***5.272***
2023-09-27 19:16	4248027	8.219	-146.813	8.692	1305.356	1664.941	0.958	766.08	1.001	1.082	***4.867***
2023-09-27 19:31	4248927	8.191	-145.457	8.704	1305.57	1664.744	0.958	765.95	1.001	1.082	***4.323***
2023-09-27 19:46	4249827	8.340	-152.919	8.721	1306.445	1665.18	0.959	765.44	1.001	1.082	***4.120***
2023-09-27 20:01	4250727	8.228	-147.288	8.737	1307.021	1665.244	0.959	765.10	1.001	1.082	***4.091***
2023-09-27 20:16	4251627	8.207	-146.265	8.754	1307.829	1665.59	0.959	764.63	1.001	1.083	***3.781***
2023-09-27 20:31	4252527	8.197	-145.767	8.772	1308.718	1666.01	0.959	764.11	1.001	1.083	***3.403***
2023-09-27 20:46	4253427	8.354	-153.649	8.787	1309.665	1666.592	0.959	763.55	1.001	1.083	***3.353***
2023-09-27 21:01	4254327	8.214	-146.663	8.812	1310.11	1666.141	0.959	763.30	1.001	1.083	***3.809***
2023-09-27 21:16	4255227	8.191	-145.516	8.834	1311.03	1666.439	0.959	762.76	1.001	1.083	***3.454***
2023-09-27 21:31	4256127	8.167	-144.343	8.866	1311.406	1665.624	0.959	762.54	1.001	1.083	***3.052***
2023-09-27 21:46	4257027	8.326	-152.297	8.882	1312.936	1666.913	0.960	761.65	1.001	1.083	***2.882***
2023-09-27 22:01	4257927	8.179	-144.947	8.912	1313.619	1666.554	0.959	761.26	1.001	1.083	***3.263***
2023-09-27 22:16	4258827	8.159	-143.969	8.93	1314.41	1666.849	0.959	760.80	1.001	1.083	***3.010***
2023-09-27 22:31	4259727	8.133	-142.641	8.946	1315.324	1667.357	0.960	760.27	1.001	1.084	***2.732***
2023-09-27 22:46	4260627	8.352	-153.677	8.966	1314.703	1665.765	0.959	760.63	1.001	1.083	***3.595***
2023-09-27 23:01	4261527	8.239	-148.015	9.038	1317.644	1666.598	0.959	758.93	1.001	1.083	***4.091***
2023-09-27 23:16	4262427	8.417	-157.068	9.214	1322.971	1666.25	0.959	755.88	1.001	1.083	***5.840***
2023-09-27 23:31	4263327	8.404	-156.441	9.325	1326.505	1666.249	0.959	753.86	1.001	1.083	6.604
2023-09-27 23:46	4264227	8.538	-163.231	9.393	1329.349	1667.094	0.959	752.25	1.001	1.084	***6.280***
2023-09-28 00:01	4265127	8.415	-157.07	9.381	1327.979	1665.859	0.958	753.02	1.001	1.083	6.685
2023-09-28 00:16	4266027	8.443	-158.41	9.316	1326.893	1667.084	0.959	753.64	1.001	1.084	7.348
2023-09-28 00:31	4266927	8.453	-158.877	9.265	1325.569	1667.477	0.960	754.39	1.001	1.084	7.740
2023-09-28 00:46	4267827	8.619	-167.165	9.196	1322.98	1666.98	0.959	755.87	1.001	1.084	7.008
2023-09-28 01:01	4268727	8.463	-159.34	9.159	1321.9	1667.091	0.959	756.49	1.001	1.084	7.508
2023-09-28 01:16	4269627	8.416	-156.953	9.089	1319.478	1666.86	0.959	757.88	1.001	1.083	7.345
2023-09-28 01:31	4270527	8.419	-157.073	9.038	1318.471	1667.642	0.960	758.45	1.001	1.084	7.015
2023-09-28 01:46	4271427	8.602	-166.211	8.991	1317.825	1668.721	0.961	758.83	1.001	1.085	6.997
2023-09-28 02:01	4272327	8.446	-158.365	8.953	1316.723	1668.828	0.961	759.46	1.001	1.085	7.355
2023-09-28 02:16	4273227	8.433	-157.7	8.911	1315.449	1668.935	0.961	760.20	1.001	1.085	6.883
2023-09-28 02:31	4274127	8.429	-157.437	8.854	1313.947	1669.344	0.961	761.07	1.001	1.085	7.251
2023-09-28 02:46	4275027	8.638	-167.828	8.687	1309.443	1670.365	0.962	763.68	1.001	1.086	7.313
2023-09-28 03:01	4275927	8.476	-159.655	8.599	1306.336	1669.985	0.962	765.50	1.001	1.085	7.805
2023-09-28 03:16	4276827	8.492	-160.391	8.465	1301.948	1669.864	0.962	768.08	1.001	1.085	6.986
2023-09-28 03:31	4277727	8.486	-160.06	8.413	1300.815	1670.508	0.962	768.75	1.001	1.086	6.944
2023-09-28 03:46	4278627	8.639	-167.727	8.377	1299.831	1670.713	0.962	769.33	1.001	1.086	7.505
2023-09-28 04:01	4279527	8.494	-160.427	8.366	1299.266	1670.45	0.962	769.67	1.001	1.086	7.860
2023-09-28 04:16	4280427	8.468	-159.066	8.23	1293.634	1668.771	0.961	773.02	1.001	1.085	7.122
2023-09-28 04:31	4281327	8.502	-160.673	8.082	1288.517	1668.261	0.961	776.09	1.001	1.084	7.754
2023-09-28 04:46	4282227	8.673	-169.177	8.034	1287.679	1669.154	0.961	776.59	1.001	1.085	7.789
2023-09-28 05:01	4283127	8.508	-160.947	8.022	1287.488	1669.421	0.962	776.71	1.001	1.085	8.074

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-28 05:16	4284027	8.511	-161.104	8.013	1287.477	1669.781	0.962	776.71	1.001	1.085	7.185
2023-09-28 05:31	4284927	8.439	-157.504	8.006	1285.12	1667.008	0.960	778.14	1.001	1.084	6.938
2023-09-28 05:46	4285827	8.627	-166.824	7.91	1281.096	1665.731	0.959	780.58	1.001	1.083	6.633
2023-09-28 06:01	4286727	8.502	-160.561	7.844	1280.446	1667.639	0.961	780.98	1.001	1.084	7.619
2023-09-28 06:16	4287627	8.487	-159.748	7.729	1275.853	1666.427	0.960	783.79	1.001	1.083	7.508
2023-09-28 06:31	4288527	8.513	-160.904	7.546	1267.87	1663.581	0.958	788.72	1.001	1.081	7.922
2023-09-28 06:46	4289427	8.698	-170.083	7.448	1264.824	1663.679	0.958	790.62	1.001	1.081	8.560
2023-09-28 07:01	4290327	8.413	-155.842	7.426	1264.27	1663.879	0.959	790.97	1.001	1.082	7.955
2023-09-28 07:16	4291227	8.365	-153.463	7.407	1263.98	1664.286	0.959	791.15	1.001	1.082	6.844
2023-09-28 07:31	4292127	8.405	-155.451	7.377	1263.167	1664.478	0.959	791.66	1.001	1.082	***6.454***
2023-09-28 07:46	4293027	8.607	-165.458	7.308	1259.544	1662.578	0.958	793.94	1.001	1.081	***5.818***
2023-09-28 08:01	4293927	8.458	-158.019	7.258	1258.499	1663.282	0.958	794.60	1.001	1.081	7.323
2023-09-28 08:16	4294827	8.434	-156.82	7.232	1257.899	1663.593	0.958	794.98	1.001	1.081	7.510
2023-09-28 08:31	4295727	8.437	-156.927	7.219	1257.679	1663.845	0.959	795.12	1.001	1.081	7.534
2023-09-28 08:46	4296627	8.625	-166.33	7.2	1257.109	1663.88	0.959	795.48	1.001	1.082	7.361
2023-09-28 09:01	4297527	8.464	-158.25	7.169	1255.976	1663.722	0.959	796.19	1.001	1.081	7.486
2023-09-28 09:16	4298427	8.435	-156.784	7.089	1253.398	1663.642	0.959	797.83	1.001	1.081	7.073
2023-09-28 09:31	4299327	8.420	-155.985	6.985	1250.099	1663.667	0.959	799.94	1.001	1.081	6.521
2023-09-28 09:46	4300227	8.572	-163.491	6.866	1242.636	1658.733	0.956	804.74	1.001	1.078	***6.178***
2023-09-28 10:01	4301127	8.490	-159.34	6.798	1240.889	1659.299	0.956	805.87	1.001	1.079	7.362
2023-09-28 10:16	4302027	8.437	-156.693	6.74	1239.327	1659.655	0.956	806.89	1.001	1.079	7.167
2023-09-28 10:31	4302927	8.414	-155.482	6.668	1236.929	1659.491	0.956	808.45	1.001	1.079	6.825
2023-09-28 10:46	4303827	8.641	-166.736	6.616	1231.846	1654.91	0.954	811.79	1.001	1.076	6.825
2023-09-28 11:01	4304727	8.513	-160.363	6.59	1232.016	1656.242	0.954	811.68	1.001	1.077	7.772
2023-09-28 11:16	4305627	8.479	-158.668	6.564	1231.809	1657.062	0.955	811.81	1.001	1.077	6.875
2023-09-28 11:31	4306527	8.452	-157.332	6.546	1231.613	1657.563	0.955	811.94	1.001	1.077	***6.128***
2023-09-28 11:46	4307427	8.589	-164.096	6.532	1231.89	1658.512	0.956	811.76	1.001	1.078	***5.975***
2023-09-28 12:01	4308327	8.437	-156.558	6.516	1230.88	1657.865	0.955	812.43	1.001	1.078	***6.132***
2023-09-28 12:16	4309227	8.428	-156.078	6.495	1229.227	1656.513	0.955	813.52	1.001	1.077	***5.671***
2023-09-28 12:31	4310127	8.409	-155.108	6.476	1229.991	1658.351	0.956	813.01	1.001	1.078	***5.601***
2023-09-28 12:46	4311027	8.566	-162.926	6.462	1230.08	1659.058	0.956	812.96	1.001	1.078	***5.429***
2023-09-28 13:01	4311927	8.432	-156.281	6.447	1229.664	1659.145	0.956	813.23	1.001	1.078	***5.726***
2023-09-28 13:16	4312827	8.413	-155.289	6.442	1229.611	1659.302	0.956	813.27	1.001	1.079	***5.195***
2023-09-28 13:31	4313727	8.382	-153.785	6.446	1228.873	1658.12	0.956	813.75	1.001	1.078	***4.949***
2023-09-28 13:46	4314627	8.647	-166.95	6.453	1228.818	1657.774	0.955	813.79	1.001	1.078	***5.292***
2023-09-28 14:01	4315527	8.416	-155.48	6.466	1228.832	1657.206	0.955	813.78	1.001	1.077	***5.227***
2023-09-28 14:16	4316427	8.399	-154.662	6.481	1229.643	1657.683	0.955	813.24	1.001	1.077	***4.982***
2023-09-28 14:31	4317327	8.389	-154.13	6.499	1230.632	1658.222	0.956	812.59	1.001	1.078	***4.481***
2023-09-28 14:46	4318228	8.560	-162.668	6.512	1230.881	1658.008	0.955	812.43	1.001	1.078	***4.220***
2023-09-28 15:01	4319128	8.402	-154.796	6.538	1231.454	1657.688	0.955	812.05	1.001	1.077	***5.296***
2023-09-28 15:16	4320028	8.386	-154.033	6.556	1232.304	1658.045	0.955	811.49	1.001	1.078	***4.959***
2023-09-28 15:31	4320928	8.368	-153.143	6.577	1233.105	1658.231	0.956	810.96	1.001	1.078	***4.541***
2023-09-28 15:46	4321828	8.537	-161.588	6.597	1232.947	1657.197	0.955	811.07	1.001	1.077	***4.280***
2023-09-28 16:01	4322728	8.557	-162.764	6.982	1240.091	1650.474	0.951	806.39	1.001	1.073	6.636
2023-09-28 16:16	4323628	8.585	-164.335	7.24	1243.499	1644.232	0.947	804.18	1.001	1.069	8.842
2023-09-28 16:31	4324528	8.565	-163.374	7.337	1247.586	1645.613	0.948	801.55	1.001	1.070	8.165
2023-09-28 16:46	4325428	8.685	-169.408	7.393	1250.044	1646.533	0.948	799.97	1.001	1.070	8.125
2023-09-28 17:01	4326328	8.514	-160.911	7.443	1251.374	1646.178	0.948	799.12	1.001	1.070	7.971
2023-09-28 17:16	4327228	8.480	-159.221	7.487	1253.719	1647.471	0.949	797.63	1.001	1.071	7.175
2023-09-28 17:31	4328128	8.450	-157.75	7.512	1254.932	1648.008	0.949	796.86	1.001	1.071	7.221
2023-09-28 17:46	4329028	8.595	-165.009	7.524	1255.745	1648.605	0.949	796.34	1.001	1.072	7.351
2023-09-28 18:01	4329928	8.468	-158.66	7.53	1255.572	1648.117	0.949	796.45	1.001	1.071	7.430
2023-09-28 18:16	4330828	8.451	-157.802	7.537	1256.165	1648.595	0.949	796.07	1.001	1.072	6.850
2023-09-28 18:31	4331728	8.434	-156.97	7.537	1256.436	1648.953	0.950	795.90	1.001	1.072	6.501
2023-09-28 18:46	4332628	8.615	-166.004	7.536	1255.842	1648.22	0.949	796.28	1.001	1.071	6.823
2023-09-28 19:01	4333528	8.484	-159.442	7.529	1254.763	1647.096	0.948	796.96	1.001	1.071	7.400

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-28 19:16	4334428	8.464	-158.446	7.533	1256.073	1648.655	0.949	796.13	1.001	1.072	7.126
2023-09-28 19:31	4335328	8.435	-157.001	7.526	1256.192	1649.086	0.950	796.06	1.001	1.072	6.922
2023-09-28 19:46	4336228	8.573	-163.889	7.537	1257.225	1650.007	0.950	795.40	1.001	1.073	6.677
2023-09-28 20:01	4337128	8.420	-156.291	7.537	1257.05	1649.774	0.950	795.51	1.001	1.072	***6.360***
2023-09-28 20:16	4338028	8.411	-155.861	7.569	1258.247	1650.024	0.950	794.76	1.001	1.073	***6.029***
2023-09-28 20:31	4338928	8.404	-155.494	7.596	1259.494	1650.519	0.950	793.97	1.001	1.073	***5.644***
2023-09-28 20:46	4339828	8.563	-163.481	7.641	1261.358	1651.133	0.951	792.80	1.001	1.073	***5.441***
2023-09-28 21:01	4340728	8.396	-155.177	7.689	1262.724	1650.922	0.951	791.94	1.001	1.073	***5.920***
2023-09-28 21:16	4341628	8.370	-153.909	7.754	1265.277	1651.582	0.951	790.34	1.001	1.074	***5.573***
2023-09-28 21:31	4342528	8.352	-153.024	7.823	1267.95	1652.222	0.951	788.68	1.001	1.074	***5.254***
2023-09-28 21:46	4343428	8.507	-160.83	7.912	1269.875	1651.067	0.951	787.48	1.001	1.073	***4.963***
2023-09-28 22:01	4344328	8.387	-154.903	8.014	1273.119	1651.108	0.951	785.47	1.001	1.073	***5.680***
2023-09-28 22:16	4345228	8.421	-156.655	8.12	1278.715	1654.047	0.952	782.04	1.001	1.075	***5.082***
2023-09-28 22:31	4346128	8.446	-157.933	8.198	1281.97	1655.045	0.953	780.05	1.001	1.076	***5.787***
2023-09-28 22:46	4347028	8.627	-167.015	8.258	1285.734	1657.454	0.954	777.77	1.001	1.077	***6.333***
2023-09-28 23:01	4347928	8.488	-160.108	8.328	1287.568	1656.976	0.954	776.66	1.001	1.077	7.006
2023-09-28 23:16	4348828	8.506	-161.054	8.382	1289.536	1657.286	0.954	775.47	1.001	1.077	7.183
2023-09-28 23:31	4349728	8.511	-161.331	8.407	1290.356	1657.35	0.954	774.98	1.001	1.077	7.239
2023-09-28 23:46	4350628	8.650	-168.266	8.424	1290.346	1656.646	0.954	774.99	1.001	1.077	7.659
2023-09-29 00:01	4351528	8.501	-160.835	8.427	1290.015	1656.079	0.953	775.19	1.001	1.076	7.732
2023-09-29 00:16	4352428	8.473	-159.426	8.41	1289.509	1656.111	0.953	775.49	1.001	1.076	7.586
2023-09-29 00:31	4353328	8.497	-160.592	8.367	1285.237	1652.37	0.951	778.07	1.001	1.074	7.663
2023-09-29 00:46	4354228	8.723	-171.888	8.326	1282.915	1651.036	0.950	779.48	1.001	1.073	8.787
2023-09-29 01:01	4355128	8.552	-163.293	8.31	1282.673	1651.385	0.951	779.62	1.001	1.073	8.722
2023-09-29 01:16	4356028	8.542	-162.799	8.277	1281.587	1651.339	0.951	780.28	1.001	1.073	8.349
2023-09-29 01:31	4356928	8.556	-163.445	8.24	1280.105	1650.944	0.950	781.19	1.001	1.073	7.917
2023-09-29 01:46	4357828	8.700	-170.653	8.197	1276.858	1648.496	0.949	783.17	1.001	1.072	7.953
2023-09-29 02:01	4358728	8.547	-162.983	8.174	1275.952	1648.274	0.949	783.73	1.001	1.071	8.540
2023-09-29 02:16	4359628	8.550	-163.088	8.14	1274.885	1648.257	0.949	784.38	1.001	1.071	8.440
2023-09-29 02:31	4360528	8.556	-163.4	8.12	1274.224	1648.235	0.949	784.79	1.001	1.071	8.561
2023-09-29 02:46	4361428	8.730	-172.069	8.092	1273.302	1648.177	0.949	785.36	1.001	1.071	8.453
2023-09-29 03:01	4362328	8.557	-163.4	8.067	1272.529	1648.173	0.949	785.84	1.001	1.071	8.357
2023-09-29 03:16	4363228	8.530	-162.06	8.034	1271.573	1648.306	0.949	786.43	1.001	1.071	8.194
2023-09-29 03:31	4364128	8.518	-161.424	8.011	1270.964	1648.42	0.949	786.81	1.001	1.071	8.250
2023-09-29 03:46	4365028	8.707	-170.898	8	1270.167	1647.84	0.949	787.30	1.001	1.071	7.980
2023-09-29 04:01	4365928	8.535	-162.272	7.988	1269.715	1647.773	0.949	787.58	1.001	1.071	8.093
2023-09-29 04:16	4366828	8.513	-161.138	7.965	1269.157	1647.969	0.949	787.93	1.001	1.071	7.899
2023-09-29 04:31	4367728	8.494	-160.203	7.939	1268.461	1648.153	0.949	788.36	1.001	1.071	7.989
2023-09-29 04:46	4368628	8.678	-169.356	7.896	1266.907	1647.893	0.949	789.32	1.001	1.071	7.642
2023-09-29 05:01	4369528	8.541	-162.518	7.853	1265.731	1648.116	0.949	790.06	1.001	1.071	8.140
2023-09-29 05:16	4370428	8.526	-161.734	7.798	1263.928	1647.991	0.949	791.18	1.001	1.071	7.821
2023-09-29 05:31	4371328	8.514	-161.092	7.753	1262.559	1648.06	0.949	792.04	1.001	1.071	7.764
2023-09-29 05:46	4372228	8.703	-170.5	7.718	1260.677	1647.056	0.948	793.22	1.001	1.071	7.425
2023-09-29 06:01	4373128	8.544	-162.535	7.689	1260.017	1647.363	0.948	793.64	1.001	1.071	8.188
2023-09-29 06:16	4374028	8.529	-161.767	7.659	1259.276	1647.638	0.949	794.11	1.001	1.071	7.944
2023-09-29 06:31	4374928	8.512	-160.916	7.626	1258.262	1647.685	0.949	794.75	1.001	1.071	7.879
2023-09-29 06:46	4375828	8.715	-171.034	7.6	1258.141	1648.601	0.949	794.82	1.001	1.072	7.760
2023-09-29 07:01	4376728	8.546	-162.573	7.589	1257.81	1648.611	0.949	795.03	1.001	1.072	8.583
2023-09-29 07:16	4377628	8.524	-161.49	7.579	1257.766	1648.964	0.949	795.06	1.001	1.072	7.817
2023-09-29 07:31	4378528	8.499	-160.217	7.557	1257.225	1649.182	0.950	795.40	1.001	1.072	7.613
2023-09-29 07:46	4379428	8.666	-168.536	7.532	1255.608	1648.085	0.949	796.43	1.001	1.071	7.653
2023-09-29 08:01	4380328	8.542	-162.332	7.52	1255.204	1648.032	0.949	796.68	1.001	1.071	8.289
2023-09-29 08:16	4381228	8.512	-160.854	7.51	1255.049	1648.241	0.949	796.78	1.001	1.071	8.035
2023-09-29 08:31	4382128	8.494	-159.955	7.494	1254.456	1648.134	0.949	797.16	1.001	1.071	7.853
2023-09-29 08:46	4383028	8.682	-169.313	7.482	1253.883	1647.9	0.949	797.52	1.001	1.071	7.551
2023-09-29 09:01	4383928	8.525	-161.467	7.475	1253.514	1647.696	0.949	797.76	1.001	1.071	8.237

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-29 09:16	4384828	8.511	-160.782	7.479	1253.927	1648.082	0.949	797.50	1.001	1.071	7.702
2023-09-29 09:31	4385728	8.479	-159.19	7.472	1254.002	1648.438	0.949	797.45	1.001	1.071	7.190
2023-09-29 09:46	4386628	8.636	-167.024	7.458	1252.77	1647.427	0.949	798.23	1.001	1.071	7.457
2023-09-29 10:01	4387528	8.493	-159.881	7.45	1252.419	1647.285	0.949	798.46	1.001	1.071	7.647
2023-09-29 10:16	4388428	8.468	-158.603	7.448	1252.65	1647.671	0.949	798.31	1.001	1.071	7.279
2023-09-29 10:31	4389328	8.443	-157.38	7.446	1252.924	1648.113	0.949	798.13	1.001	1.071	6.663
2023-09-29 10:46	4390228	8.617	-166.035	7.446	1253.061	1648.306	0.949	798.05	1.001	1.071	***6.430***
2023-09-29 11:01	4391128	8.482	-159.335	7.441	1253.074	1648.495	0.949	798.04	1.001	1.072	6.710
2023-09-29 11:16	4392028	8.463	-158.389	7.442	1253.14	1648.561	0.949	798.00	1.001	1.072	***6.403***
2023-09-29 11:31	4392928	8.441	-157.268	7.439	1253.174	1648.735	0.949	797.97	1.001	1.072	***6.154***
2023-09-29 11:46	4393828	8.605	-165.429	7.44	1251.548	1646.531	0.948	799.01	1.001	1.070	***6.310***
2023-09-29 12:01	4394728	8.452	-157.828	7.442	1251.094	1645.849	0.948	799.30	1.001	1.070	***6.418***
2023-09-29 12:16	4395628	8.450	-157.702	7.443	1251.302	1646.085	0.948	799.17	1.001	1.070	***6.297***
2023-09-29 12:31	4396528	8.432	-156.803	7.446	1251.435	1646.158	0.948	799.08	1.001	1.070	***6.242***
2023-09-29 12:46	4397428	8.601	-165.277	7.45	1248.942	1642.712	0.946	800.68	1.001	1.068	6.544
2023-09-29 13:01	4398328	8.455	-157.981	7.455	1249.685	1643.482	0.946	800.20	1.001	1.068	6.716
2023-09-29 13:16	4399228	8.444	-157.43	7.463	1250.198	1643.831	0.946	799.87	1.001	1.068	***6.373***
2023-09-29 13:31	4400128	8.428	-156.634	7.474	1250.688	1643.996	0.947	799.56	1.001	1.069	***6.104***
2023-09-29 13:46	4401028	8.582	-164.306	7.488	1248.336	1640.337	0.944	801.07	1.001	1.066	***5.959***
2023-09-29 14:01	4401928	8.442	-157.332	7.507	1248.995	1640.433	0.944	800.64	1.001	1.066	***6.433***
2023-09-29 14:16	4402828	8.422	-156.372	7.53	1250.052	1640.869	0.945	799.97	1.001	1.067	***6.397***
2023-09-29 14:31	4403728	8.383	-154.414	7.551	1250.943	1641.156	0.945	799.40	1.001	1.067	***6.047***
2023-09-29 14:46	4404629	8.578	-164.177	7.574	1248.45	1636.964	0.942	800.99	1.001	1.064	***6.465***
2023-09-29 15:01	4405529	8.490	-159.829	7.605	1249.986	1637.704	0.943	800.01	1.001	1.065	7.364
2023-09-29 15:16	4406429	8.424	-156.524	7.638	1251.513	1638.343	0.943	799.03	1.001	1.065	6.983
2023-09-29 15:31	4407329	8.388	-154.722	7.67	1252.853	1638.807	0.943	798.18	1.001	1.065	***6.423***
2023-09-29 15:46	4408229	8.567	-163.727	7.697	1251.311	1635.661	0.941	799.16	1.001	1.063	6.617
2023-09-29 16:01	4409129	8.444	-157.566	7.735	1252.551	1635.74	0.941	798.37	1.001	1.063	6.790
2023-09-29 16:16	4410029	8.418	-156.31	7.756	1253.418	1636.023	0.942	797.82	1.001	1.063	***6.416***
2023-09-29 16:31	4410929	8.394	-155.129	7.778	1254.356	1636.352	0.942	797.22	1.001	1.064	***6.377***
2023-09-29 16:46	4411829	8.575	-164.185	7.794	1253.802	1634.969	0.941	797.57	1.001	1.063	***6.354***
2023-09-29 17:01	4412729	8.438	-157.328	7.812	1254.913	1635.672	0.941	796.87	1.001	1.063	6.917
2023-09-29 17:16	4413629	8.420	-156.46	7.846	1256.265	1636.043	0.942	796.01	1.001	1.063	6.623
2023-09-29 17:31	4414529	8.385	-154.707	7.858	1256.914	1636.426	0.942	795.60	1.001	1.064	***5.671***
2023-09-29 17:46	4415429	8.562	-163.569	7.863	1256.387	1635.523	0.941	795.93	1.001	1.063	***5.603***
2023-09-29 18:01	4416329	8.445	-157.702	7.859	1256.157	1635.384	0.941	796.08	1.001	1.063	***6.332***
2023-09-29 18:16	4417229	8.422	-156.548	7.863	1256.421	1635.569	0.941	795.91	1.001	1.063	***6.185***
2023-09-29 18:31	4418129	8.423	-156.603	7.858	1256.304	1635.63	0.941	795.99	1.001	1.063	***6.225***
2023-09-29 18:46	4419029	8.612	-166.035	7.854	1256.415	1635.935	0.941	795.92	1.001	1.063	***6.454***
2023-09-29 19:01	4419929	8.462	-158.541	7.85	1256.254	1635.866	0.941	796.02	1.001	1.063	7.109
2023-09-29 19:16	4420829	8.435	-157.199	7.842	1256.19	1636.146	0.942	796.06	1.001	1.063	6.785
2023-09-29 19:31	4421729	8.340	-152.45	7.845	1256.474	1636.384	0.942	795.88	1.001	1.064	6.581
2023-09-29 19:46	4422629	8.540	-162.463	7.849	1257.432	1637.47	0.942	795.27	1.001	1.064	***6.043***
2023-09-29 20:01	4423529	8.413	-156.105	7.846	1255.883	1635.569	0.941	796.25	1.001	1.063	***6.205***
2023-09-29 20:16	4424429	8.383	-154.591	7.844	1256.688	1636.69	0.942	795.74	1.001	1.064	***6.085***
2023-09-29 20:31	4425329	8.347	-152.795	7.85	1264.632	1646.815	0.948	790.74	1.001	1.070	***5.824***
2023-09-29 20:46	4426229	8.555	-163.205	7.849	1257.769	1637.896	0.943	795.06	1.001	1.065	***5.746***
2023-09-29 21:01	4427129	8.432	-157.037	7.844	1257.412	1637.636	0.943	795.28	1.001	1.064	***6.176***
2023-09-29 21:16	4428029	8.415	-156.212	7.844	1257.292	1637.465	0.942	795.36	1.001	1.064	***5.811***
2023-09-29 21:31	4428929	8.396	-155.227	7.846	1257.605	1637.798	0.943	795.16	1.001	1.065	***5.683***
2023-09-29 21:46	4429829	8.538	-162.349	7.888	1258.996	1637.89	0.943	794.28	1.001	1.065	***5.503***
2023-09-29 22:01	4430729	8.381	-154.538	7.901	1259.104	1637.515	0.942	794.22	1.001	1.064	***5.702***
2023-09-29 22:16	4431629	8.351	-153.034	7.921	1260.067	1637.941	0.943	793.61	1.001	1.065	***5.750***
2023-09-29 22:31	4432529	8.329	-151.932	7.944	1261.211	1638.491	0.943	792.89	1.001	1.065	***5.569***
2023-09-29 22:46	4433429	8.528	-161.912	7.965	1262.296	1639.083	0.943	792.21	1.001	1.065	***5.388***
2023-09-29 23:01	4434329	8.375	-154.293	8	1263.636	1639.365	0.943	791.37	1.001	1.066	***5.857***

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-29 23:16	4435229	8.359	-153.487	8.027	1264.677	1639.655	0.944	790.72	1.001	1.066	***5.506***
2023-09-29 23:31	4436129	8.331	-152.133	8.059	1266.031	1640.107	0.944	789.87	1.001	1.066	***5.239***
2023-09-29 23:46	4437029	8.508	-160.971	8.101	1266.671	1639.229	0.943	789.47	1.001	1.065	***5.028***
2023-09-30 00:01	4437929	8.353	-153.229	8.136	1269.594	1641.56	0.945	787.65	1.001	1.067	***4.975***
2023-09-30 00:16	4438829	8.336	-152.407	8.17	1268.124	1638.292	0.943	788.57	1.001	1.065	***4.717***
2023-09-30 00:31	4439729	8.351	-153.205	8.209	1269.827	1638.917	0.943	787.51	1.001	1.065	***4.414***
2023-09-30 00:46	4440629	8.554	-163.364	8.232	1271.23	1639.795	0.944	786.64	1.001	1.066	***4.316***
2023-09-30 01:01	4441529	8.385	-154.924	8.247	1271.612	1639.697	0.944	786.40	1.001	1.066	***5.222***
2023-09-30 01:16	4442429	8.360	-153.68	8.266	1272.426	1639.959	0.944	785.90	1.001	1.066	***5.100***
2023-09-30 01:31	4443329	8.342	-152.802	8.28	1273.177	1640.361	0.944	785.44	1.001	1.066	***5.213***
2023-09-30 01:46	4444229	8.563	-163.844	8.304	1279.102	1647.022	0.948	781.80	1.001	1.071	***5.177***
2023-09-30 02:01	4445129	8.462	-158.823	8.321	1278.094	1645.056	0.947	782.42	1.001	1.069	7.035
2023-09-30 02:16	4446029	8.416	-156.488	8.313	1278.141	1645.455	0.947	782.39	1.001	1.070	6.964
2023-09-30 02:31	4446929	8.435	-157.44	8.293	1278.727	1647.004	0.948	782.03	1.001	1.071	6.749
2023-09-30 02:46	4447829	8.680	-169.687	8.263	1282.93	1653.638	0.952	779.47	1.001	1.075	6.799
2023-09-30 03:01	4448729	8.528	-162.06	8.237	1281.043	1652.261	0.951	780.61	1.001	1.074	8.287
2023-09-30 03:16	4449629	8.446	-157.914	8.192	1280.33	1653.163	0.952	781.05	1.001	1.075	7.575
2023-09-30 03:31	4450529	8.443	-157.738	8.133	1278.124	1652.741	0.951	782.40	1.001	1.074	7.632
2023-09-30 03:46	4451429	8.643	-167.727	8.045	1277.277	1655.227	0.953	782.92	1.001	1.076	7.565
2023-09-30 04:01	4452329	8.522	-161.602	7.994	1275.962	1655.616	0.953	783.72	1.001	1.076	8.313
2023-09-30 04:16	4453229	8.485	-159.767	7.935	1273.899	1655.353	0.953	784.99	1.001	1.076	7.978
2023-09-30 04:31	4454129	8.486	-159.743	7.844	1270.548	1654.74	0.953	787.06	1.001	1.076	7.811
2023-09-30 04:46	4455029	8.726	-171.676	7.74	1270.517	1658.988	0.955	787.08	1.001	1.078	7.917
2023-09-30 05:01	4455929	8.555	-163.128	7.7	1269.052	1658.734	0.955	787.99	1.001	1.078	8.804
2023-09-30 05:16	4456829	8.525	-161.562	7.644	1267.046	1658.456	0.955	789.24	1.001	1.078	8.352
2023-09-30 05:31	4457729	8.499	-160.253	7.581	1264.974	1658.324	0.955	790.53	1.001	1.078	8.175
2023-09-30 05:46	4458629	8.725	-171.437	7.442	1259.518	1656.95	0.954	793.95	1.001	1.077	8.192
2023-09-30 06:01	4459529	8.558	-163.066	7.401	1258.819	1657.745	0.955	794.40	1.001	1.078	8.856
2023-09-30 06:16	4460429	8.551	-162.687	7.327	1256.13	1657.297	0.955	796.10	1.001	1.077	8.262
2023-09-30 06:31	4461329	8.583	-164.237	7.236	1253.786	1658.009	0.955	797.58	1.001	1.078	8.114
2023-09-30 06:46	4462229	8.759	-172.961	7.139	1251.604	1659.168	0.956	798.98	1.001	1.078	8.024
2023-09-30 07:01	4463129	8.577	-163.865	7.086	1249.938	1659.188	0.956	800.04	1.001	1.078	8.930
2023-09-30 07:16	4464029	8.552	-162.539	7.012	1247.333	1658.849	0.956	801.71	1.001	1.078	8.296
2023-09-30 07:31	4464929	8.575	-163.646	6.9	1243.572	1658.58	0.956	804.14	1.001	1.078	8.091
2023-09-30 07:46	4465829	8.748	-172.205	6.789	1239.637	1657.998	0.955	806.69	1.001	1.078	8.214
2023-09-30 08:01	4466729	8.594	-164.478	6.735	1238.658	1658.978	0.956	807.33	1.001	1.078	9.111
2023-09-30 08:16	4467629	8.574	-163.436	6.681	1233.95	1654.966	0.954	810.41	1.001	1.076	8.725
2023-09-30 08:31	4468529	8.560	-162.725	6.627	1229.464	1651.21	0.951	813.36	1.001	1.073	8.523
2023-09-30 08:46	4469429	8.779	-173.604	6.57	1233.979	1659.724	0.956	810.39	1.001	1.079	8.123
2023-09-30 09:01	4470329	8.601	-164.726	6.536	1233.141	1660.029	0.957	810.94	1.001	1.079	9.156
2023-09-30 09:16	4471229	8.587	-163.994	6.496	1231.771	1659.914	0.957	811.84	1.001	1.079	8.780
2023-09-30 09:31	4472129	8.566	-162.933	6.437	1229.745	1659.685	0.956	813.18	1.001	1.079	8.737
2023-09-30 09:46	4473029	8.841	-176.549	6.388	1228.306	1659.865	0.957	814.13	1.001	1.079	8.626
2023-09-30 10:01	4473929	8.597	-164.425	6.377	1228.097	1660.017	0.957	814.27	1.001	1.079	8.949
2023-09-30 10:16	4474829	8.587	-163.92	6.362	1227.736	1660.174	0.957	814.51	1.001	1.079	8.713
2023-09-30 10:31	4475729	8.574	-163.264	6.337	1226.959	1660.195	0.957	815.02	1.001	1.079	8.396
2023-09-30 10:46	4476629	8.772	-173.097	6.305	1226.133	1660.452	0.957	815.57	1.001	1.079	8.444
2023-09-30 11:01	4477529	8.592	-164.108	6.287	1225.433	1660.315	0.957	816.04	1.001	1.079	8.849
2023-09-30 11:16	4478429	8.572	-163.143	6.278	1225.576	1660.894	0.957	815.94	1.001	1.080	8.695
2023-09-30 11:31	4479329	8.559	-162.451	6.266	1225.105	1660.773	0.957	816.26	1.001	1.080	8.467
2023-09-30 11:46	4480229	8.716	-170.259	6.243	1224.484	1660.886	0.957	816.67	1.001	1.080	8.313
2023-09-30 12:01	4481129	8.593	-164.151	6.235	1224.014	1660.587	0.957	816.98	1.001	1.079	8.800
2023-09-30 12:16	4482029	8.565	-162.754	6.238	1224.073	1660.538	0.957	816.95	1.001	1.079	8.352
2023-09-30 12:31	4482929	8.564	-162.694	6.249	1224.688	1660.937	0.957	816.53	1.001	1.080	7.959
2023-09-30 12:46	4483829	8.764	-172.668	6.259	1225.087	1661.047	0.957	816.27	1.001	1.080	7.705
2023-09-30 13:01	4484730	8.570	-163.035	6.274	1225.237	1660.576	0.957	816.17	1.001	1.079	8.481

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-09-30 13:16	4485630	8.554	-162.241	6.288	1225.881	1660.878	0.957	815.74	1.001	1.080	8.361
2023-09-30 13:31	4486530	8.530	-161.059	6.302	1226.536	1661.156	0.957	815.30	1.001	1.080	8.110
2023-09-30 13:46	4487430	8.685	-168.746	6.321	1227.834	1662.096	0.958	814.44	1.001	1.080	7.760
2023-09-30 14:01	4488330	8.530	-161.095	6.344	1228.642	1662.196	0.958	813.91	1.001	1.080	7.657
2023-09-30 14:16	4489230	8.520	-160.604	6.365	1229.192	1662.038	0.958	813.54	1.001	1.080	7.563
2023-09-30 14:31	4490130	8.494	-159.321	6.398	1230.454	1662.336	0.958	812.71	1.001	1.081	7.260
2023-09-30 14:46	4491030	8.683	-168.726	6.435	1231.715	1662.461	0.958	811.88	1.001	1.081	7.027
2023-09-30 15:01	4491930	8.517	-160.494	6.485	1233.052	1662.092	0.958	811.00	1.001	1.080	7.657
2023-09-30 15:16	4492830	8.490	-159.192	6.531	1234.806	1662.511	0.958	809.84	1.001	1.081	7.643
2023-09-30 15:31	4493730	8.477	-158.577	6.571	1236.318	1662.816	0.958	808.85	1.001	1.081	7.530
2023-09-30 15:46	4494630	8.662	-167.82	6.62	1237.14	1661.848	0.958	808.32	1.001	1.080	7.405
2023-09-30 16:01	4495530	8.529	-161.214	6.677	1238.879	1661.741	0.958	807.18	1.001	1.080	7.933
2023-09-30 16:16	4496430	8.494	-159.509	6.74	1241.158	1662.108	0.958	805.70	1.001	1.080	7.934
2023-09-30 16:31	4497330	8.463	-158.002	6.803	1243.518	1662.593	0.958	804.17	1.001	1.081	7.781
2023-09-30 16:46	4498230	8.674	-168.526	6.852	1244.897	1662.356	0.958	803.28	1.001	1.081	7.510
2023-09-30 17:01	4499130	8.517	-160.763	6.899	1243.667	1658.708	0.956	804.07	1.001	1.078	8.469
2023-09-30 17:16	4500030	8.507	-160.289	6.937	1247.427	1662.147	0.958	801.65	1.001	1.080	8.387
2023-09-30 17:31	4500930	8.476	-158.744	6.985	1249.205	1662.469	0.958	800.51	1.001	1.081	8.229
2023-09-30 17:46	4501830	8.636	-166.738	7.024	1250.079	1661.982	0.958	799.95	1.001	1.080	7.550
2023-09-30 18:01	4502730	8.522	-161.076	7.022	1250.006	1661.983	0.958	800.00	1.001	1.080	7.676
2023-09-30 18:16	4503630	8.496	-159.745	6.994	1249.296	1662.214	0.958	800.45	1.001	1.080	7.371
2023-09-30 18:31	4504530	8.522	-161.014	6.94	1247.52	1662.12	0.958	801.59	1.001	1.080	7.178
2023-09-30 18:46	4505430	8.716	-170.646	6.897	1245.835	1661.723	0.958	802.67	1.001	1.080	7.211
2023-09-30 19:01	4506330	8.543	-162.008	6.879	1245.19	1661.611	0.957	803.09	1.001	1.080	8.213
2023-09-30 19:16	4507230	8.522	-160.954	6.866	1244.934	1661.813	0.958	803.26	1.001	1.080	8.048
2023-09-30 19:31	4508130	8.502	-159.967	6.86	1244.727	1661.812	0.958	803.39	1.001	1.080	7.690
2023-09-30 19:46	4509030	8.686	-169.165	6.862	1244.37	1661.241	0.957	803.62	1.001	1.080	7.445
2023-09-30 20:01	4509930	8.540	-161.86	6.865	1243.993	1660.617	0.957	803.86	1.001	1.079	8.031
2023-09-30 20:16	4510830	8.514	-160.57	6.875	1244.425	1660.777	0.957	803.58	1.001	1.080	7.852
2023-09-30 20:31	4511730	8.493	-159.521	6.884	1245.318	1661.573	0.957	803.01	1.001	1.080	7.663
2023-09-30 20:46	4512630	8.667	-168.211	6.914	1247.509	1663.215	0.958	801.60	1.001	1.081	7.445
2023-09-30 21:01	4513530	8.505	-160.162	6.937	1247.747	1662.575	0.958	801.44	1.001	1.081	7.488
2023-09-30 21:16	4514430	8.486	-159.237	6.963	1248.805	1662.886	0.958	800.77	1.001	1.081	7.405
2023-09-30 21:31	4515330	8.461	-157.993	6.998	1250.1	1663.117	0.958	799.94	1.001	1.081	7.206
2023-09-30 21:46	4516230	8.636	-166.74	7.048	1252.02	1663.542	0.959	798.71	1.001	1.081	7.089
2023-09-30 22:01	4517130	8.485	-159.247	7.1	1253.251	1663.009	0.958	797.93	1.001	1.081	6.750
2023-09-30 22:16	4518030	8.457	-157.888	7.152	1255.24	1663.427	0.958	796.66	1.001	1.081	6.635
2023-09-30 22:31	4518930	8.444	-157.292	7.199	1257.064	1663.862	0.959	795.50	1.001	1.082	6.503
2023-09-30 22:46	4519830	8.651	-167.627	7.282	1258.976	1662.933	0.958	794.30	1.001	1.081	***5.862***
2023-09-30 23:01	4520730	8.493	-159.788	7.343	1260.592	1662.516	0.958	793.28	1.001	1.081	8.151
2023-09-30 23:16	4521630	8.458	-158.05	7.372	1261.937	1663.064	0.958	792.43	1.001	1.081	7.222
2023-09-30 23:31	4522530	8.485	-159.407	7.352	1259.682	1660.92	0.957	793.85	1.001	1.080	6.660
2023-09-30 23:46	4523430	8.656	-167.918	7.317	1257.186	1659.094	0.956	795.43	1.001	1.078	6.931
2023-10-01 00:01	4524330	8.528	-161.483	7.267	1255.852	1659.404	0.956	796.27	1.001	1.079	8.044
2023-10-01 00:16	4525230	8.515	-160.837	7.187	1253.101	1659.132	0.956	798.02	1.001	1.078	7.562
2023-10-01 00:31	4526130	8.517	-160.832	7.024	1247.346	1658.358	0.955	801.70	1.001	1.078	7.724
2023-10-01 00:46	4527030	8.790	-174.327	6.839	1238.967	1654.999	0.953	807.12	1.001	1.076	7.635
2023-10-01 01:01	4527930	8.600	-164.778	6.743	1236.748	1656.085	0.954	808.57	1.001	1.076	9.108
2023-10-01 01:16	4528830	8.591	-164.294	6.627	1231.982	1654.601	0.953	811.70	1.001	1.075	8.609
2023-10-01 01:31	4529730	8.625	-165.865	6.495	1227.72	1654.493	0.953	814.52	1.001	1.075	8.453
2023-10-01 01:46	4530630	8.823	-175.636	6.34	1222.155	1653.578	0.953	818.23	1.001	1.075	8.215
2023-10-01 02:01	4531530	8.649	-166.931	6.256	1221.15	1655.803	0.954	818.90	1.001	1.076	9.492
2023-10-01 02:16	4532430	8.643	-166.562	6.142	1217.162	1655.313	0.954	821.58	1.001	1.076	8.998
2023-10-01 02:31	4533330	8.643	-166.5	6.059	1214.279	1654.956	0.954	823.53	1.001	1.076	8.831
2023-10-01 02:46	4534230	8.857	-177.064	5.918	1210.436	1655.801	0.954	826.15	1.001	1.076	8.678
2023-10-01 03:01	4535130	8.675	-167.99	5.87	1209.661	1656.803	0.955	826.68	1.001	1.077	9.803

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-01 03:16	4536030	8.667	-167.549	5.818	1207.797	1656.502	0.955	827.95	1.001	1.077	9.585
2023-10-01 03:31	4536930	8.704	-169.349	5.764	1206.212	1656.683	0.955	829.04	1.001	1.077	9.326
2023-10-01 03:46	4537830	8.851	-176.599	5.681	1202.874	1655.713	0.954	831.34	1.001	1.076	9.089
2023-10-01 04:01	4538730	8.687	-168.478	5.656	1202.912	1656.844	0.955	831.32	1.001	1.077	9.880
2023-10-01 04:16	4539630	8.668	-167.508	5.619	1201.682	1656.769	0.955	832.17	1.001	1.077	9.543
2023-10-01 04:31	4540530	8.692	-168.66	5.567	1199.941	1656.626	0.955	833.37	1.001	1.077	9.324
2023-10-01 04:46	4541430	8.875	-177.727	5.531	1198.717	1656.509	0.955	834.23	1.001	1.077	8.890
2023-10-01 05:01	4542330	8.695	-168.777	5.516	1198.344	1656.647	0.955	834.49	1.001	1.077	9.934
2023-10-01 05:16	4543230	8.679	-167.983	5.508	1198.06	1656.615	0.955	834.68	1.001	1.077	9.348
2023-10-01 05:31	4544130	8.663	-167.155	5.492	1197.656	1656.753	0.955	834.96	1.001	1.077	9.179
2023-10-01 05:46	4545030	8.836	-175.734	5.456	1194.911	1654.53	0.954	836.88	1.001	1.075	9.039
2023-10-01 06:01	4545930	8.675	-167.727	5.422	1194.055	1654.822	0.954	837.48	1.001	1.076	9.659
2023-10-01 06:16	4546830	8.666	-167.236	5.37	1192.37	1654.754	0.954	838.67	1.001	1.076	9.268
2023-10-01 06:31	4547730	8.656	-166.736	5.317	1190.59	1654.624	0.954	839.92	1.001	1.076	9.021
2023-10-01 06:46	4548630	8.861	-176.818	5.256	1187.15	1652.51	0.952	842.35	1.001	1.074	9.174
2023-10-01 07:01	4549530	8.684	-168.056	5.219	1186.101	1652.68	0.953	843.10	1.001	1.074	9.605
2023-10-01 07:16	4550430	8.665	-167.072	5.15	1183.878	1652.623	0.953	844.68	1.001	1.074	9.254
2023-10-01 07:31	4551330	8.657	-166.624	5.064	1180.92	1652.292	0.952	846.80	1.001	1.074	8.974
2023-10-01 07:46	4552230	8.836	-175.438	4.982	1175.247	1647.961	0.950	850.89	1.001	1.071	8.892
2023-10-01 08:01	4553130	8.687	-167.995	4.915	1173.38	1648.273	0.950	852.24	1.001	1.071	9.465
2023-10-01 08:16	4554030	8.666	-166.979	4.877	1172.293	1648.465	0.950	853.03	1.001	1.072	9.088
2023-10-01 08:31	4554930	8.653	-166.283	4.82	1170.63	1648.653	0.950	854.24	1.001	1.072	8.846
2023-10-01 08:46	4555830	8.850	-175.979	4.731	1165.926	1645.933	0.949	857.69	1.001	1.070	8.825
2023-10-01 09:01	4556730	8.682	-167.625	4.69	1165.087	1646.566	0.949	858.31	1.001	1.070	9.576
2023-10-01 09:16	4557631	8.648	-165.899	4.625	1163.072	1646.635	0.949	859.79	1.001	1.070	9.350
2023-10-01 09:31	4558531	8.611	-164.068	4.563	1161.21	1646.738	0.949	861.17	1.001	1.070	8.639
2023-10-01 09:46	4559431	8.803	-173.488	4.527	1158.947	1645.159	0.948	862.85	1.001	1.069	8.406
2023-10-01 10:01	4560331	8.657	-166.311	4.519	1158.512	1644.879	0.948	863.18	1.001	1.069	8.750
2023-10-01 10:16	4561231	8.603	-163.622	4.468	1157.142	1645.198	0.948	864.20	1.001	1.069	8.636
2023-10-01 10:31	4562131	8.558	-161.374	4.434	1156.989	1646.522	0.949	864.31	1.001	1.070	8.429
2023-10-01 10:46	4563031	8.803	-173.459	4.412	1156.381	1646.617	0.949	864.77	1.001	1.070	8.126
2023-10-01 11:01	4563931	8.665	-166.612	4.407	1155.264	1645.281	0.948	865.60	1.001	1.069	8.855
2023-10-01 11:16	4564831	8.634	-165.074	4.411	1155.479	1645.399	0.948	865.44	1.001	1.070	8.508
2023-10-01 11:31	4565731	8.608	-163.834	4.417	1155.742	1645.503	0.948	865.25	1.001	1.070	8.000
2023-10-01 11:46	4566631	8.787	-172.668	4.43	1156.305	1645.717	0.948	864.82	1.001	1.070	7.834
2023-10-01 12:01	4567531	8.641	-165.451	4.441	1156.161	1645.019	0.948	864.93	1.001	1.069	8.355
2023-10-01 12:16	4568431	8.623	-164.561	4.454	1156.766	1645.326	0.948	864.48	1.001	1.069	7.918
2023-10-01 12:31	4569331	8.622	-164.523	4.464	1157.21	1645.507	0.948	864.15	1.001	1.070	7.736
2023-10-01 12:46	4570231	8.841	-175.333	4.472	1155.422	1642.577	0.946	865.49	1.001	1.068	7.904
2023-10-01 13:01	4571131	8.675	-167.179	4.479	1156.284	1643.491	0.947	864.84	1.001	1.068	8.806
2023-10-01 13:16	4572031	8.653	-166.075	4.49	1156.714	1643.628	0.947	864.52	1.001	1.068	8.692
2023-10-01 13:31	4572931	8.609	-163.918	4.503	1157.206	1643.732	0.947	864.15	1.001	1.068	8.245
2023-10-01 13:46	4573831	8.809	-173.819	4.52	1157.124	1642.856	0.947	864.21	1.001	1.068	8.267
2023-10-01 14:01	4574731	8.660	-166.471	4.553	1157.842	1642.431	0.946	863.68	1.001	1.068	8.446
2023-10-01 14:16	4575631	8.625	-164.742	4.584	1160.187	1644.35	0.948	861.93	1.001	1.069	8.300
2023-10-01 14:31	4576531	8.614	-164.254	4.618	1161.914	1645.316	0.948	860.65	1.001	1.069	7.950
2023-10-01 14:46	4577431	8.782	-172.541	4.65	1159.703	1640.741	0.945	862.29	1.001	1.066	7.695
2023-10-01 15:01	4578331	8.637	-165.393	4.697	1161.734	1641.513	0.946	860.78	1.001	1.067	8.744
2023-10-01 15:16	4579231	8.601	-163.643	4.742	1163.469	1641.981	0.946	859.50	1.001	1.067	8.458
2023-10-01 15:31	4580131	8.568	-162.079	4.784	1165.151	1642.5	0.946	858.26	1.001	1.068	8.001
2023-10-01 15:46	4581031	8.766	-171.888	4.829	1165.419	1640.906	0.945	858.06	1.001	1.067	7.347
2023-10-01 16:01	4581931	8.627	-165.029	4.866	1166.213	1640.387	0.945	857.48	1.001	1.066	8.205
2023-10-01 16:16	4582831	8.609	-164.115	4.879	1164.477	1637.382	0.943	858.76	1.001	1.064	8.099
2023-10-01 16:31	4583731	8.577	-162.578	4.876	1166.962	1641	0.946	856.93	1.001	1.067	8.311
2023-10-01 16:46	4584631	8.812	-174.146	4.864	1165.706	1639.756	0.945	857.85	1.001	1.066	8.910
2023-10-01 17:01	4585531	8.648	-166.049	4.862	1165.89	1640.096	0.945	857.71	1.001	1.066	9.366

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-01 17:16	4586431	8.638	-165.539	4.862	1166.035	1640.298	0.945	857.61	1.001	1.066	8.997
2023-10-01 17:31	4587331	8.601	-163.739	4.868	1166.369	1640.49	0.945	857.36	1.001	1.066	8.523
2023-10-01 17:46	4588231	8.775	-172.327	4.874	1166.484	1640.403	0.945	857.28	1.001	1.066	8.427
2023-10-01 18:01	4589131	8.653	-166.333	4.88	1166.947	1640.789	0.945	856.94	1.001	1.067	9.178
2023-10-01 18:16	4590031	8.621	-164.757	4.887	1167.294	1640.977	0.946	856.68	1.001	1.067	8.692
2023-10-01 18:31	4590931	8.583	-162.876	4.895	1167.866	1641.413	0.946	856.26	1.001	1.067	8.448
2023-10-01 18:46	4591831	8.799	-173.552	4.904	1167.468	1640.468	0.945	856.56	1.001	1.066	8.298
2023-10-01 19:01	4592731	8.646	-165.982	4.909	1167.623	1640.473	0.945	856.44	1.001	1.066	9.084
2023-10-01 19:16	4593631	8.628	-165.098	4.915	1168.158	1640.962	0.945	856.05	1.001	1.067	8.747
2023-10-01 19:31	4594531	8.598	-163.6	4.93	1168.77	1641.151	0.946	855.60	1.001	1.067	8.368
2023-10-01 19:46	4595431	8.757	-171.487	4.94	1169.576	1641.844	0.946	855.01	1.001	1.067	8.162
2023-10-01 20:01	4596331	8.650	-166.209	4.948	1169.982	1642.068	0.946	854.71	1.001	1.067	8.807
2023-10-01 20:16	4597231	8.611	-164.306	4.955	1170.263	1642.156	0.946	854.51	1.001	1.067	8.356
2023-10-01 20:31	4598131	8.557	-161.619	4.953	1170.416	1642.47	0.946	854.40	1.001	1.068	8.052
2023-10-01 20:46	4599031	8.853	-176.237	4.946	1169.535	1641.539	0.946	855.04	1.001	1.067	7.775
2023-10-01 21:01	4599931	8.642	-165.784	4.942	1169.008	1640.951	0.945	855.43	1.001	1.067	8.613
2023-10-01 21:16	4600831	8.624	-164.931	4.942	1169.052	1641.01	0.946	855.39	1.001	1.067	8.387
2023-10-01 21:31	4601731	8.593	-163.376	4.945	1169.315	1641.253	0.946	855.20	1.001	1.067	7.891
2023-10-01 21:46	4602631	8.770	-172.162	4.948	1169.269	1641.048	0.946	855.24	1.001	1.067	7.595
2023-10-01 22:01	4603531	8.613	-164.402	4.956	1169.476	1641.023	0.946	855.08	1.001	1.067	8.209
2023-10-01 22:16	4604431	8.584	-162.928	4.966	1169.957	1641.234	0.946	854.73	1.001	1.067	7.992
2023-10-01 22:31	4605331	8.555	-161.521	4.982	1170.592	1641.404	0.946	854.27	1.001	1.067	7.574
2023-10-01 22:46	4606231	8.758	-171.592	5.008	1172.05	1642.346	0.946	853.21	1.001	1.068	7.325
2023-10-01 23:01	4607131	8.593	-163.445	5.052	1173.038	1641.79	0.946	852.49	1.001	1.067	7.975
2023-10-01 23:16	4608031	8.577	-162.666	5.098	1174.769	1642.182	0.946	851.23	1.001	1.067	7.890
2023-10-01 23:31	4608931	8.519	-159.833	5.173	1177.232	1642.32	0.946	849.45	1.001	1.068	7.408
2023-10-01 23:46	4609831	8.716	-169.642	5.245	1178.253	1640.624	0.945	848.71	1.001	1.066	***5.940***
2023-10-02 00:01	4610731	8.564	-162.151	5.325	1181.155	1641.159	0.946	846.63	1.001	1.067	7.431
2023-10-02 00:16	4611631	8.482	-158.212	5.495	1185.657	1639.997	0.945	843.41	1.001	1.066	7.435
2023-10-02 00:31	4612531	8.458	-157.123	5.688	1192.557	1641.188	0.946	838.54	1.001	1.067	7.238
2023-10-02 00:46	4613431	8.728	-170.631	5.863	1198.272	1641.499	0.946	834.54	1.001	1.067	6.847
2023-10-02 01:01	4614331	8.585	-163.608	6.032	1203.53	1641.447	0.946	830.89	1.001	1.067	8.138
2023-10-02 01:16	4615231	8.567	-162.787	6.151	1207.179	1641.325	0.945	828.38	1.001	1.067	7.872
2023-10-02 01:31	4616132	8.543	-161.703	6.323	1211.533	1639.922	0.945	825.40	1.001	1.066	7.998
2023-10-02 01:46	4617032	8.745	-171.862	6.477	1215.54	1638.818	0.944	822.68	1.001	1.065	7.988
2023-10-02 02:01	4617932	8.585	-163.956	6.631	1220.351	1638.8	0.944	819.44	1.001	1.065	8.167
2023-10-02 02:16	4618832	8.623	-165.987	6.84	1226.732	1638.625	0.944	815.17	1.001	1.065	8.012
2023-10-02 02:31	4619732	8.644	-167.134	6.979	1231.123	1638.665	0.944	812.27	1.001	1.065	8.433
2023-10-02 02:46	4620632	8.812	-175.569	7.068	1235.332	1640.533	0.945	809.50	1.001	1.066	8.476
2023-10-02 03:01	4621532	8.625	-166.261	7.14	1237.445	1640.377	0.945	808.12	1.001	1.066	8.786
2023-10-02 03:16	4622432	8.641	-167.12	7.247	1241.388	1641.137	0.945	805.55	1.001	1.067	8.408
2023-10-02 03:31	4623332	8.645	-167.379	7.324	1244.494	1642.065	0.945	803.54	1.001	1.067	8.181
2023-10-02 03:46	4624232	8.810	-175.652	7.386	1248.54	1644.832	0.947	800.94	1.001	1.069	8.530
2023-10-02 04:01	4625132	8.630	-166.678	7.424	1249.064	1643.951	0.947	800.60	1.001	1.069	9.117
2023-10-02 04:16	4626032	8.651	-167.747	7.442	1249.885	1644.283	0.947	800.07	1.001	1.069	8.951
2023-10-02 04:31	4626932	8.666	-168.512	7.442	1249.715	1644.051	0.947	800.18	1.001	1.069	8.760
2023-10-02 04:46	4627832	8.822	-176.256	7.426	1249.223	1644.084	0.947	800.50	1.001	1.069	8.480
2023-10-02 05:01	4628732	8.631	-166.731	7.405	1248.411	1643.886	0.947	801.02	1.001	1.069	9.136
2023-10-02 05:16	4629632	8.629	-166.626	7.381	1247.806	1644.064	0.947	801.41	1.001	1.069	8.493
2023-10-02 05:31	4630532	8.624	-166.326	7.358	1247.123	1644.107	0.947	801.85	1.001	1.069	8.101
2023-10-02 05:46	4631432	8.785	-174.37	7.334	1243.409	1640.199	0.944	804.24	1.001	1.066	8.139
2023-10-02 06:01	4632332	8.614	-165.806	7.312	1243.145	1640.764	0.945	804.41	1.001	1.066	8.800
2023-10-02 06:16	4633232	8.536	-161.912	7.293	1243.036	1641.421	0.945	804.48	1.001	1.067	8.196
2023-10-02 06:31	4634132	8.495	-159.872	7.268	1243.124	1642.585	0.946	804.43	1.001	1.068	7.994
2023-10-02 06:46	4635032	8.729	-171.504	7.212	1239.577	1640.187	0.944	806.73	1.001	1.066	8.216
2023-10-02 07:01	4635932	8.598	-164.948	7.156	1238.159	1640.627	0.945	807.65	1.001	1.066	8.420

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-02 07:16	4636832	8.523	-161.2	7.131	1237.86	1641.267	0.945	807.85	1.001	1.067	8.001
2023-10-02 07:31	4637732	8.553	-162.642	7.116	1237.169	1640.984	0.945	808.30	1.001	1.067	7.518
2023-10-02 07:46	4638632	8.723	-171.113	7.087	1234.397	1638.524	0.943	810.11	1.001	1.065	7.690
2023-10-02 08:01	4639532	8.569	-163.431	7.04	1233.928	1639.865	0.944	810.42	1.001	1.066	7.926
2023-10-02 08:16	4640432	8.500	-159.95	6.994	1233.406	1641.087	0.945	810.76	1.001	1.067	7.556
2023-10-02 08:31	4641332	8.478	-158.811	6.924	1232.413	1642.681	0.946	811.42	1.001	1.068	7.251
2023-10-02 08:46	4642232	8.723	-170.963	6.789	1221.542	1633.797	0.941	818.64	1.001	1.062	7.033
2023-10-02 09:01	4643132	8.572	-163.35	6.697	1219.181	1634.468	0.941	820.22	1.001	1.062	7.777
2023-10-02 09:16	4644032	8.516	-160.57	6.654	1218.097	1634.822	0.941	820.95	1.001	1.063	7.347
2023-10-02 09:31	4644932	8.501	-159.786	6.616	1217.354	1635.413	0.942	821.45	1.001	1.063	7.209
2023-10-02 09:46	4645832	8.679	-168.614	6.585	1215.191	1633.837	0.941	822.92	1.001	1.062	7.104
2023-10-02 10:01	4646732	8.536	-161.493	6.56	1214.616	1634.086	0.941	823.31	1.001	1.062	7.515
2023-10-02 10:16	4647632	8.488	-159.113	6.539	1214.09	1634.28	0.941	823.66	1.001	1.062	7.029
2023-10-02 10:31	4648532	8.475	-158.463	6.519	1213.87	1634.809	0.941	823.81	1.001	1.063	6.744
2023-10-02 10:46	4649432	8.711	-170.155	6.512	1210.812	1630.983	0.939	825.89	1.001	1.060	6.522
2023-10-02 11:01	4650332	8.567	-163.023	6.505	1211.174	1631.784	0.940	825.65	1.001	1.061	7.469
2023-10-02 11:16	4651232	8.556	-162.449	6.499	1211.189	1632.042	0.940	825.64	1.001	1.061	7.205
2023-10-02 11:31	4652132	8.524	-160.875	6.493	1211.02	1632.071	0.940	825.75	1.001	1.061	6.950
2023-10-02 11:46	4653032	8.687	-168.96	6.49	1208.572	1628.882	0.938	827.42	1.001	1.059	7.039
2023-10-02 12:01	4653932	8.544	-161.855	6.482	1207.719	1628.088	0.937	828.01	1.001	1.058	7.480
2023-10-02 12:16	4654832	8.526	-160.947	6.476	1207.72	1628.322	0.938	828.01	1.001	1.058	7.170
2023-10-02 12:31	4655732	8.488	-159.037	6.473	1207.616	1628.326	0.938	828.08	1.001	1.058	7.190
2023-10-02 12:46	4656632	8.723	-170.734	6.472	1204.345	1623.941	0.935	830.33	1.001	1.056	8.011
2023-10-02 13:01	4657532	8.573	-163.274	6.473	1208.439	1629.408	0.938	827.51	1.001	1.059	8.803
2023-10-02 13:16	4658432	8.529	-161.102	6.478	1204.694	1624.156	0.935	830.09	1.001	1.056	8.838
2023-10-02 13:31	4659332	8.472	-158.267	6.491	1205.396	1624.584	0.935	829.60	1.001	1.056	8.690
2023-10-02 13:46	4660232	8.685	-168.855	6.502	1203.992	1622.199	0.934	830.57	1.001	1.054	8.276
2023-10-02 14:01	4661132	8.560	-162.683	6.516	1204.378	1622.168	0.934	830.30	1.001	1.054	8.686
2023-10-02 14:16	4662032	8.514	-160.401	6.529	1205.192	1622.693	0.934	829.74	1.001	1.055	8.414
2023-10-02 14:31	4662932	8.464	-157.907	6.538	1205.715	1623.019	0.934	829.38	1.001	1.055	8.702
2023-10-02 14:46	4663832	8.705	-169.897	6.549	1205.28	1622.005	0.934	829.68	1.001	1.054	8.313
2023-10-02 15:01	4664732	8.569	-163.14	6.559	1205.791	1622.284	0.934	829.33	1.001	1.054	8.806
2023-10-02 15:16	4665632	8.540	-161.703	6.563	1206.164	1622.616	0.934	829.08	1.001	1.055	8.447
2023-10-02 15:31	4666532	8.511	-160.27	6.562	1205.366	1621.549	0.933	829.62	1.001	1.054	8.424
2023-10-02 15:46	4667432	8.812	-175.216	6.56	1206.195	1622.772	0.934	829.05	1.001	1.055	8.140
2023-10-02 16:01	4668332	8.593	-164.311	6.56	1205.767	1622.208	0.934	829.35	1.001	1.054	9.089
2023-10-02 16:16	4669232	8.572	-163.276	6.564	1206.373	1622.843	0.934	828.93	1.001	1.055	8.741
2023-10-02 16:31	4670132	8.512	-160.298	6.568	1206.856	1623.33	0.934	828.60	1.001	1.055	8.156
2023-10-02 16:46	4671032	8.712	-170.283	6.577	1207.418	1623.701	0.935	828.21	1.001	1.055	8.389
2023-10-02 17:01	4671932	8.583	-163.839	6.586	1207.716	1623.73	0.935	828.01	1.001	1.055	8.495
2023-10-02 17:16	4672832	8.555	-162.492	6.603	1208.59	1624.207	0.935	827.41	1.001	1.056	7.938
2023-10-02 17:31	4673732	8.507	-160.077	6.634	1209.781	1624.497	0.935	826.60	1.001	1.056	7.561
2023-10-02 17:46	4674632	8.696	-169.53	6.686	1211.064	1624.057	0.935	825.72	1.001	1.056	7.471
2023-10-02 18:01	4675532	8.540	-161.815	6.722	1211.857	1623.62	0.935	825.18	1.001	1.055	8.490
2023-10-02 18:16	4676432	8.515	-160.549	6.759	1213.483	1624.269	0.935	824.07	1.001	1.056	8.711
2023-10-02 18:31	4677332	8.482	-158.951	6.796	1211.146	1619.625	0.932	825.66	1.001	1.053	8.341
2023-10-02 18:46	4678232	8.709	-170.274	6.832	1216.241	1624.91	0.935	822.21	1.001	1.056	7.783
2023-10-02 19:01	4679132	8.567	-163.2	6.865	1217.025	1624.597	0.935	821.68	1.001	1.056	8.502
2023-10-02 19:16	4680032	8.530	-161.397	6.891	1218.176	1625.054	0.935	820.90	1.001	1.056	8.063
2023-10-02 19:31	4680932	8.498	-159.817	6.912	1219.337	1625.736	0.936	820.12	1.001	1.057	7.785
2023-10-02 19:46	4681832	8.678	-168.796	6.94	1219.915	1625.357	0.936	819.73	1.001	1.056	7.950
2023-10-02 20:01	4682732	8.536	-161.738	6.97	1220.572	1624.976	0.935	819.29	1.001	1.056	7.850
2023-10-02 20:16	4683632	8.494	-159.65	7.008	1221.926	1625.225	0.935	818.38	1.001	1.056	7.858
2023-10-02 20:31	4684532	8.455	-157.726	7.047	1223.468	1625.671	0.936	817.35	1.001	1.057	7.483
2023-10-02 20:46	4685432	8.667	-168.324	7.069	1224.281	1625.847	0.936	816.81	1.001	1.057	7.501
2023-10-02 21:01	4686332	8.519	-160.935	7.093	1225.283	1626.176	0.936	816.14	1.001	1.057	7.942

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-02 21:16	4687232	8.489	-159.488	7.12	1226.375	1626.492	0.936	815.41	1.001	1.057	7.989
2023-10-02 21:31	4688132	8.464	-158.272	7.153	1227.706	1626.925	0.936	814.53	1.001	1.058	7.623
2023-10-02 21:46	4689033	8.640	-167.034	7.191	1227.609	1625.237	0.935	814.59	1.001	1.056	7.308
2023-10-02 22:01	4689933	8.503	-160.205	7.203	1228.018	1625.283	0.935	814.32	1.001	1.056	8.211
2023-10-02 22:16	4690833	8.469	-158.536	7.222	1228.873	1625.619	0.936	813.75	1.001	1.057	7.750
2023-10-02 22:31	4691733	8.462	-158.186	7.225	1229.375	1626.174	0.936	813.42	1.001	1.057	7.208
2023-10-02 22:46	4692633	8.666	-168.359	7.223	1228.852	1625.569	0.936	813.77	1.001	1.057	6.888
2023-10-02 23:01	4693533	8.513	-160.725	7.212	1228.528	1625.559	0.936	813.98	1.001	1.057	7.654
2023-10-02 23:16	4694433	8.472	-158.668	7.212	1228.737	1625.849	0.936	813.84	1.001	1.057	7.303
2023-10-02 23:31	4695333	8.415	-155.838	7.215	1228.986	1626.039	0.936	813.68	1.001	1.057	7.136
2023-10-02 23:46	4696233	8.630	-166.557	7.225	1228.568	1625.103	0.935	813.96	1.001	1.056	6.816
2023-10-03 00:01	4697133	8.490	-159.616	7.235	1229.331	1625.687	0.936	813.45	1.001	1.057	7.232
2023-10-03 00:16	4698033	8.485	-159.342	7.266	1230.952	1626.548	0.936	812.38	1.001	1.057	7.051
2023-10-03 00:31	4698933	8.478	-159.049	7.292	1232.013	1626.914	0.936	811.68	1.001	1.057	6.704
2023-10-03 00:46	4699833	8.671	-168.657	7.316	1228.775	1621.631	0.933	813.82	1.001	1.054	6.547
2023-10-03 01:01	4700733	8.507	-160.489	7.341	1232.705	1625.792	0.936	811.22	1.001	1.057	7.403
2023-10-03 01:16	4701633	8.471	-158.708	7.363	1233.893	1626.45	0.936	810.44	1.001	1.057	7.276
2023-10-03 01:31	4702533	8.444	-157.368	7.398	1235.53	1627.183	0.936	809.37	1.001	1.058	6.910
2023-10-03 01:46	4703433	8.648	-167.584	7.424	1235.583	1626.211	0.936	809.34	1.001	1.057	6.591
2023-10-03 02:01	4704333	8.515	-160.973	7.435	1236.062	1626.386	0.936	809.02	1.001	1.057	7.682
2023-10-03 02:16	4705233	8.459	-158.145	7.442	1236.564	1626.771	0.936	808.69	1.001	1.057	7.489
2023-10-03 02:31	4706133	8.449	-157.688	7.448	1237.091	1627.203	0.936	808.35	1.001	1.058	7.150
2023-10-03 02:46	4707033	8.664	-168.414	7.452	1238.197	1628.477	0.937	807.63	1.001	1.059	6.933
2023-10-03 03:01	4707933	8.522	-161.312	7.456	1238.292	1628.436	0.937	807.56	1.001	1.058	7.627
2023-10-03 03:16	4708833	8.494	-159.941	7.47	1238.837	1628.584	0.937	807.21	1.001	1.059	7.213
2023-10-03 03:31	4709733	8.482	-159.352	7.478	1240.39	1630.331	0.938	806.20	1.001	1.060	6.995
2023-10-03 03:46	4710633	8.685	-169.482	7.486	1247.698	1639.607	0.944	801.48	1.001	1.066	6.990
2023-10-03 04:01	4711533	8.520	-161.257	7.503	1246.08	1636.748	0.942	802.52	1.001	1.064	7.564
2023-10-03 04:16	4712433	8.547	-162.582	7.517	1248.013	1638.748	0.943	801.27	1.001	1.065	7.373
2023-10-03 04:31	4713333	8.584	-164.464	7.519	1252.437	1644.442	0.947	798.44	1.001	1.069	7.418
2023-10-03 04:46	4714233	8.777	-174.065	7.504	1260.839	1656.115	0.954	793.12	1.001	1.076	8.096
2023-10-03 05:01	4715133	8.605	-165.493	7.485	1258.692	1654.067	0.953	794.48	1.001	1.075	8.661
2023-10-03 05:16	4716033	8.582	-164.287	7.453	1257.217	1653.453	0.952	795.41	1.001	1.075	8.304
2023-10-03 05:31	4716933	8.576	-163.96	7.402	1255.503	1653.345	0.952	796.49	1.001	1.075	7.864
2023-10-03 05:46	4717833	8.743	-172.257	7.343	1254.872	1654.957	0.953	796.89	1.001	1.076	7.995
2023-10-03 06:01	4718733	8.600	-165.098	7.288	1253.641	1655.607	0.954	797.68	1.001	1.076	8.589
2023-10-03 06:16	4719633	8.573	-163.751	7.233	1251.685	1655.337	0.954	798.92	1.001	1.076	8.380
2023-10-03 06:31	4720533	8.573	-163.715	7.167	1249.083	1654.658	0.953	800.59	1.001	1.076	8.244
2023-10-03 06:46	4721433	8.779	-173.948	7.107	1249.868	1658.224	0.955	800.09	1.001	1.078	8.281
2023-10-03 07:01	4722333	8.609	-165.415	7.066	1248.307	1657.849	0.955	801.09	1.001	1.078	8.800
2023-10-03 07:16	4723233	8.594	-164.652	7.022	1246.696	1657.578	0.955	802.12	1.001	1.077	8.624
2023-10-03 07:31	4724133	8.588	-164.309	6.983	1245.361	1657.456	0.955	802.98	1.001	1.077	8.411
2023-10-03 07:46	4725033	8.753	-172.551	6.938	1243.96	1657.483	0.955	803.88	1.001	1.077	8.151
2023-10-03 08:01	4725933	8.608	-165.267	6.901	1242.863	1657.556	0.955	804.59	1.001	1.077	8.567
2023-10-03 08:16	4726833	8.595	-164.597	6.871	1241.783	1657.386	0.955	805.29	1.001	1.077	8.256
2023-10-03 08:31	4727733	8.587	-164.182	6.842	1240.738	1657.217	0.955	805.97	1.001	1.077	8.213
2023-10-03 08:46	4728633	8.765	-173.051	6.808	1240.288	1658.046	0.955	806.26	1.001	1.078	8.014
2023-10-03 09:01	4729533	8.606	-165.129	6.783	1237.897	1655.946	0.954	807.82	1.001	1.076	8.505
2023-10-03 09:16	4730433	8.593	-164.454	6.757	1238.485	1657.816	0.955	807.44	1.001	1.078	8.314
2023-10-03 09:31	4731333	8.579	-163.739	6.737	1237.646	1657.553	0.955	807.99	1.001	1.077	7.818
2023-10-03 09:46	4732233	8.750	-172.229	6.711	1236.576	1657.222	0.955	808.68	1.001	1.077	7.699
2023-10-03 10:01	4733133	8.597	-164.602	6.687	1235.839	1657.245	0.955	809.17	1.001	1.077	8.341
2023-10-03 10:16	4734033	8.583	-163.898	6.669	1235.345	1657.326	0.955	809.49	1.001	1.077	8.184
2023-10-03 10:31	4734933	8.572	-163.329	6.658	1234.975	1657.295	0.955	809.73	1.001	1.077	8.004
2023-10-03 10:46	4735833	8.741	-171.773	6.652	1235.502	1658.276	0.956	809.39	1.001	1.078	7.959
2023-10-03 11:01	4736733	8.579	-163.693	6.647	1235.08	1657.931	0.955	809.66	1.001	1.078	8.201

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-03 11:16	4737633	8.568	-163.162	6.65	1235.213	1657.95	0.955	809.58	1.001	1.078	8.112
2023-10-03 11:31	4738533	8.546	-162.046	6.653	1235.406	1658.093	0.955	809.45	1.001	1.078	7.908
2023-10-03 11:46	4739433	8.729	-171.177	6.657	1235.36	1657.88	0.955	809.48	1.001	1.078	7.677
2023-10-03 12:01	4740333	8.562	-162.852	6.649	1234.904	1657.595	0.955	809.78	1.001	1.077	8.107
2023-10-03 12:16	4741233	8.556	-162.532	6.633	1233.743	1656.722	0.955	810.54	1.001	1.077	8.539
2023-10-03 12:31	4742133	8.540	-161.719	6.608	1231.971	1655.414	0.954	811.71	1.001	1.076	8.756
2023-10-03 12:46	4743033	8.743	-171.8	6.595	1231.193	1654.906	0.954	812.22	1.001	1.076	9.000
2023-10-03 13:01	4743933	8.580	-163.722	6.601	1232.13	1655.902	0.954	811.60	1.001	1.076	9.299
2023-10-03 13:16	4744833	8.563	-162.859	6.619	1232.82	1656.065	0.954	811.15	1.001	1.076	9.327
2023-10-03 13:31	4745733	8.553	-162.389	6.644	1234.047	1656.658	0.955	810.34	1.001	1.077	9.333
2023-10-03 13:46	4746633	8.742	-171.835	6.683	1233.492	1654.278	0.953	810.71	1.001	1.075	9.372
2023-10-03 14:01	4747533	8.580	-163.786	6.716	1235.208	1655.146	0.954	809.58	1.001	1.076	9.199
2023-10-03 14:16	4748433	8.562	-162.89	6.766	1237.346	1655.892	0.954	808.18	1.001	1.076	9.216
2023-10-03 14:31	4749333	8.554	-162.549	6.848	1240.461	1656.598	0.954	806.15	1.001	1.077	9.110
2023-10-03 14:46	4750233	8.736	-171.659	6.917	1244.229	1658.71	0.956	803.71	1.001	1.078	9.153
2023-10-03 15:01	4751133	8.570	-163.438	6.956	1244.965	1658.039	0.955	803.24	1.001	1.078	9.311
2023-10-03 15:16	4752033	8.554	-162.628	7	1246.169	1657.799	0.955	802.46	1.001	1.078	9.289
2023-10-03 15:31	4752933	8.542	-162.055	7.041	1247.724	1658.142	0.955	801.46	1.001	1.078	9.238
2023-10-03 15:46	4753833	8.723	-171.127	7.102	1248.483	1656.578	0.954	800.97	1.001	1.077	9.397
2023-10-03 16:01	4754733	8.573	-163.658	7.136	1249.168	1656.087	0.954	800.53	1.001	1.076	9.015
2023-10-03 16:16	4755633	8.558	-162.928	7.172	1250.188	1655.922	0.954	799.88	1.001	1.076	9.166
2023-10-03 16:31	4756533	8.535	-161.836	7.203	1251.522	1656.387	0.954	799.03	1.001	1.077	9.110
2023-10-03 16:46	4757433	8.722	-171.204	7.285	1256.795	1659.923	0.956	795.68	1.001	1.079	9.043
2023-10-03 17:01	4758333	8.569	-163.569	7.328	1257.678	1659.296	0.956	795.12	1.001	1.079	9.389
2023-10-03 17:16	4759233	8.570	-163.686	7.388	1259.781	1659.552	0.956	793.79	1.001	1.079	9.367
2023-10-03 17:31	4760133	8.557	-163.033	7.443	1261.881	1660.004	0.956	792.47	1.001	1.079	9.290
2023-10-03 17:46	4761033	8.717	-171.12	7.534	1267.103	1663.071	0.958	789.20	1.001	1.081	9.178
2023-10-03 18:01	4761933	8.552	-162.902	7.596	1268.411	1662.231	0.957	788.39	1.001	1.080	9.176
2023-10-03 18:16	4762833	8.535	-162.129	7.719	1273.97	1664.389	0.959	784.95	1.001	1.082	9.212
2023-10-03 18:31	4763733	8.507	-160.778	7.785	1276.883	1665.437	0.959	783.16	1.001	1.083	8.901
2023-10-03 18:46	4764633	8.675	-169.172	7.807	1278.795	1667.016	0.960	781.99	1.001	1.084	7.480
2023-10-03 19:01	4765533	8.543	-162.563	7.809	1278.267	1666.247	0.960	782.31	1.001	1.083	8.437
2023-10-03 19:16	4766433	8.515	-161.159	7.82	1278.688	1666.33	0.960	782.05	1.001	1.083	8.075
2023-10-03 19:31	4767333	8.510	-160.933	7.827	1279.248	1666.781	0.960	781.71	1.001	1.083	7.604
2023-10-03 19:46	4768233	8.665	-168.655	7.831	1282.859	1671.308	0.963	779.51	1.001	1.086	7.946
2023-10-03 20:01	4769133	8.517	-161.321	7.89	1288.511	1676.208	0.966	776.09	1.001	1.090	8.205
2023-10-03 20:16	4770033	8.512	-161.123	7.965	1304.698	1694.122	0.977	766.46	1.001	1.101	8.160
2023-10-03 20:31	4770934	8.542	-162.644	8.056	1315.931	1704.844	0.983	759.92	1.001	1.108	8.018
2023-10-03 20:46	4771834	8.727	-171.986	8.139	1323.664	1711.374	0.987	755.48	1.001	1.112	8.495
2023-10-03 21:01	4772734	8.567	-164.008	8.183	1323.482	1709.279	0.986	755.58	1.001	1.111	9.015
2023-10-03 21:16	4773634	8.552	-163.248	8.231	1327.027	1711.815	0.987	753.56	1.001	1.113	9.148
2023-10-03 21:31	4774534	8.534	-162.37	8.259	1328.124	1712.042	0.987	752.94	1.001	1.113	8.805
2023-10-03 21:46	4775434	8.693	-170.376	8.296	1329.749	1712.586	0.987	752.02	1.001	1.113	8.528
2023-10-03 22:01	4776334	8.552	-163.286	8.294	1328.798	1711.454	0.987	752.56	1.001	1.112	9.047
2023-10-03 22:16	4777234	8.532	-162.306	8.32	1327.963	1709.275	0.985	753.03	1.001	1.111	8.970
2023-10-03 22:31	4778134	8.517	-161.583	8.33	1325.476	1705.665	0.983	754.45	1.001	1.109	9.023
2023-10-03 22:46	4779034	8.723	-171.864	8.323	1322.985	1702.766	0.982	755.87	1.001	1.107	8.671
2023-10-03 23:01	4779934	8.575	-164.435	8.304	1322.915	1703.448	0.982	755.91	1.001	1.107	9.160
2023-10-03 23:16	4780834	8.568	-164.075	8.26	1318.578	1699.728	0.980	758.39	1.001	1.105	9.117
2023-10-03 23:31	4781734	8.569	-164.132	8.228	1316.573	1698.461	0.979	759.55	1.001	1.104	9.143
2023-10-03 23:46	4782634	8.753	-173.299	8.18	1309.779	1691.698	0.975	763.49	1.001	1.100	9.184
2023-10-04 00:01	4783534	8.592	-165.198	8.14	1308.934	1692.277	0.975	763.98	1.001	1.100	8.963
2023-10-04 00:16	4784434	8.591	-165.122	8.077	1305.694	1690.724	0.974	765.88	1.001	1.099	8.996
2023-10-04 00:31	4785334	8.581	-164.585	8.006	1301.003	1687.595	0.973	768.64	1.001	1.097	9.301
2023-10-04 00:46	4786234	8.778	-174.379	7.928	1292.694	1680.087	0.968	773.58	1.001	1.092	8.943
2023-10-04 01:01	4787134	8.625	-166.726	7.886	1293.019	1682.271	0.969	773.38	1.001	1.093	8.957

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-04 01:16	4788034	8.610	-165.942	7.854	1291.616	1681.753	0.969	774.22	1.001	1.093	9.063
2023-10-04 01:31	4788934	8.588	-164.809	7.818	1290.626	1681.988	0.969	774.82	1.001	1.093	9.223
2023-10-04 01:46	4789834	8.765	-173.607	7.75	1284.381	1676.677	0.966	778.59	1.001	1.090	9.151
2023-10-04 02:01	4790734	8.609	-165.803	7.693	1282.567	1676.706	0.966	779.69	1.001	1.090	9.216
2023-10-04 02:16	4791634	8.588	-164.711	7.623	1280.044	1676.331	0.966	781.22	1.001	1.090	9.012
2023-10-04 02:31	4792534	8.590	-164.773	7.538	1276.379	1675.109	0.965	783.47	1.001	1.089	9.138
2023-10-04 02:46	4793434	8.789	-174.649	7.452	1268.133	1667.858	0.961	788.56	1.001	1.084	9.380
2023-10-04 03:01	4794334	8.633	-166.79	7.375	1267.835	1670.683	0.963	788.75	1.001	1.086	9.218
2023-10-04 03:16	4795234	8.616	-165.901	7.31	1265.808	1670.763	0.963	790.01	1.001	1.086	9.034
2023-10-04 03:31	4796134	8.602	-165.191	7.252	1263.646	1670.375	0.963	791.36	1.001	1.086	8.534
2023-10-04 03:46	4797034	8.784	-174.227	7.17	1257.143	1665.227	0.960	795.45	1.001	1.082	9.014
2023-10-04 04:01	4797934	8.634	-166.7	7.104	1255.915	1666.373	0.960	796.23	1.001	1.083	9.190
2023-10-04 04:16	4798834	8.633	-166.607	7.018	1252.485	1665.458	0.960	798.41	1.001	1.083	9.500
2023-10-04 04:31	4799734	8.612	-165.482	6.924	1248.59	1664.246	0.959	800.90	1.001	1.082	9.066
2023-10-04 04:46	4800634	8.832	-176.42	6.836	1244.173	1662.07	0.958	803.75	1.001	1.080	9.256
2023-10-04 05:01	4801534	8.669	-168.235	6.785	1243.249	1663.017	0.958	804.34	1.001	1.081	9.591
2023-10-04 05:16	4802434	8.668	-168.176	6.726	1240.596	1661.962	0.958	806.06	1.001	1.080	9.293
2023-10-04 05:31	4803334	8.659	-167.665	6.669	1237.564	1660.303	0.957	808.04	1.001	1.079	9.387
2023-10-04 05:46	4804234	8.836	-176.473	6.611	1231.601	1654.789	0.953	811.95	1.001	1.076	9.547
2023-10-04 06:01	4805134	8.678	-168.557	6.575	1231.402	1656.056	0.954	812.08	1.001	1.076	9.649
2023-10-04 06:16	4806034	8.673	-168.309	6.53	1229.201	1654.993	0.954	813.54	1.001	1.076	9.383
2023-10-04 06:31	4806934	8.669	-168.071	6.49	1225.981	1652.343	0.952	815.67	1.001	1.074	9.163
2023-10-04 06:46	4807834	8.847	-176.907	6.46	1222.593	1649.074	0.950	817.93	1.001	1.072	9.215
2023-10-04 07:01	4808734	8.680	-168.602	6.443	1223.026	1650.368	0.951	817.64	1.001	1.073	9.644
2023-10-04 07:16	4809634	8.665	-167.861	6.43	1222.866	1650.691	0.951	817.75	1.001	1.073	9.386
2023-10-04 07:31	4810534	8.654	-167.272	6.423	1222.545	1650.589	0.951	817.97	1.001	1.073	8.950
2023-10-04 07:46	4811434	8.821	-175.607	6.415	1220.488	1648.124	0.950	819.34	1.001	1.071	8.882
2023-10-04 08:01	4812334	8.649	-167.046	6.415	1220.734	1648.458	0.950	819.18	1.001	1.071	9.278
2023-10-04 08:16	4813234	8.631	-166.147	6.418	1220.759	1648.378	0.950	819.16	1.001	1.071	8.654
2023-10-04 08:31	4814134	8.615	-165.362	6.425	1220.492	1647.707	0.949	819.34	1.001	1.071	8.445
2023-10-04 08:46	4815034	8.796	-174.341	6.428	1221.94	1649.528	0.950	818.37	1.001	1.072	8.322
2023-10-04 09:01	4815934	8.632	-166.18	6.438	1222.008	1649.227	0.950	818.33	1.001	1.072	8.812
2023-10-04 09:16	4816834	8.614	-165.296	6.444	1222.464	1649.568	0.950	818.02	1.001	1.072	8.383
2023-10-04 09:31	4817734	8.586	-163.903	6.443	1222.649	1649.853	0.951	817.90	1.001	1.072	7.860
2023-10-04 09:46	4818634	8.781	-173.588	6.432	1222.078	1649.543	0.950	818.28	1.001	1.072	8.159
2023-10-04 10:01	4819534	8.613	-165.26	6.416	1221.347	1649.237	0.950	818.77	1.001	1.072	8.485
2023-10-04 10:16	4820434	8.576	-163.391	6.381	1220.288	1649.315	0.950	819.48	1.001	1.072	8.504
2023-10-04 10:31	4821334	8.531	-161.102	6.324	1218.799	1649.74	0.951	820.48	1.001	1.072	8.146
2023-10-04 10:46	4822234	8.753	-172.083	6.237	1212.643	1645.082	0.948	824.65	1.001	1.069	8.063
2023-10-04 11:01	4823134	8.624	-165.66	6.162	1211.466	1646.702	0.949	825.45	1.001	1.070	9.290
2023-10-04 11:16	4824034	8.571	-162.952	6.103	1209.927	1647.135	0.949	826.50	1.001	1.071	9.554
2023-10-04 11:31	4824934	8.547	-161.75	6.045	1208.597	1647.816	0.949	827.41	1.001	1.071	9.335
2023-10-04 11:46	4825834	8.764	-172.493	6.026	1203.688	1641.918	0.946	830.78	1.001	1.067	9.611
2023-10-04 12:01	4826734	8.629	-165.818	6.007	1204.194	1643.441	0.947	830.43	1.001	1.068	9.601
2023-10-04 12:16	4827634	8.587	-163.715	5.996	1203.86	1643.455	0.947	830.66	1.001	1.068	9.515
2023-10-04 12:31	4828534	8.553	-162.044	6.002	1204.604	1644.207	0.947	830.15	1.001	1.069	9.417
2023-10-04 12:46	4829434	8.773	-172.93	6.017	1202.282	1640.395	0.945	831.75	1.001	1.066	9.145
2023-10-04 13:01	4830334	8.632	-165.935	6.028	1203.499	1641.582	0.946	830.91	1.001	1.067	9.649
2023-10-04 13:16	4831234	8.594	-164.061	6.048	1204.96	1642.722	0.946	829.90	1.001	1.068	9.175
2023-10-04 13:31	4832134	8.547	-161.767	6.078	1213.998	1653.727	0.953	823.73	1.001	1.075	8.897
2023-10-04 13:46	4833034	8.850	-176.859	6.124	1204.983	1639.488	0.944	829.89	1.001	1.066	8.522
2023-10-04 14:01	4833934	8.628	-165.811	6.145	1205.839	1639.781	0.945	829.30	1.001	1.066	9.452
2023-10-04 14:16	4834834	8.596	-164.244	6.162	1207.473	1641.256	0.945	828.18	1.001	1.067	8.569
2023-10-04 14:31	4835734	8.559	-162.404	6.178	1208.276	1641.697	0.946	827.63	1.001	1.067	7.938
2023-10-04 14:46	4836634	8.767	-172.777	6.192	1206.872	1639.172	0.944	828.59	1.001	1.065	7.604
2023-10-04 15:01	4837534	8.623	-165.594	6.195	1207.487	1639.891	0.945	828.17	1.001	1.066	8.874

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-04 15:16	4838434	8.599	-164.416	6.197	1211.093	1644.695	0.948	825.70	1.001	1.069	8.899
2023-10-04 15:31	4839334	8.541	-161.555	6.2	1208.405	1640.906	0.945	827.54	1.001	1.067	9.154
2023-10-04 15:46	4840234	8.745	-171.673	6.205	1207.247	1639.12	0.944	828.33	1.001	1.065	8.769
2023-10-04 16:01	4841134	8.596	-164.256	6.214	1207.597	1639.24	0.944	828.09	1.001	1.066	8.843
2023-10-04 16:16	4842034	8.565	-162.721	6.221	1207.937	1639.388	0.944	827.86	1.001	1.066	8.635
2023-10-04 16:31	4842934	8.520	-160.537	6.23	1208.778	1640.158	0.945	827.28	1.001	1.066	8.452
2023-10-04 16:46	4843835	8.756	-172.245	6.236	1208.733	1639.815	0.945	827.31	1.001	1.066	8.844
2023-10-04 17:01	4844735	8.617	-165.353	6.243	1209.244	1640.212	0.945	826.96	1.001	1.066	8.932
2023-10-04 17:16	4845635	8.589	-163.953	6.252	1209.725	1640.485	0.945	826.63	1.001	1.066	8.818
2023-10-04 17:31	4846535	8.539	-161.474	6.261	1210.351	1640.976	0.945	826.21	1.001	1.067	9.119
2023-10-04 17:46	4847435	8.859	-177.414	6.281	1210.586	1640.444	0.945	826.05	1.001	1.066	9.114
2023-10-04 18:01	4848335	8.617	-165.365	6.294	1210.917	1640.341	0.945	825.82	1.001	1.066	9.483
2023-10-04 18:16	4849235	8.582	-163.665	6.313	1211.809	1640.715	0.945	825.21	1.001	1.066	8.950
2023-10-04 18:31	4850135	8.566	-162.842	6.329	1212.623	1641.155	0.945	824.66	1.001	1.067	8.545
2023-10-04 18:46	4851035	8.761	-172.553	6.347	1213.315	1641.316	0.945	824.19	1.001	1.067	7.754
2023-10-04 19:01	4851935	8.607	-164.933	6.364	1214.262	1641.896	0.946	823.55	1.001	1.067	8.389
2023-10-04 19:16	4852835	8.563	-162.745	6.378	1214.888	1642.149	0.946	823.12	1.001	1.067	7.980
2023-10-04 19:31	4853735	8.534	-161.321	6.394	1215.813	1642.714	0.946	822.50	1.001	1.068	7.957
2023-10-04 19:46	4854635	8.736	-171.363	6.408	1215.966	1642.333	0.946	822.39	1.001	1.068	7.953
2023-10-04 20:01	4855535	8.575	-163.376	6.421	1216.319	1642.247	0.946	822.15	1.001	1.067	7.883
2023-10-04 20:16	4856435	8.545	-161.862	6.43	1216.906	1642.678	0.946	821.76	1.001	1.068	7.486
2023-10-04 20:31	4857335	8.513	-160.275	6.44	1217.738	1643.368	0.947	821.20	1.001	1.068	7.284
2023-10-04 20:46	4858235	8.731	-171.12	6.454	1218.52	1643.81	0.947	820.67	1.001	1.068	6.850
2023-10-04 21:01	4859135	8.577	-163.507	6.47	1219.229	1644.101	0.947	820.19	1.001	1.069	7.811
2023-10-04 21:16	4860035	8.547	-162.01	6.485	1219.633	1644.013	0.947	819.92	1.001	1.069	7.509
2023-10-04 21:31	4860935	8.521	-160.711	6.511	1220.985	1644.731	0.947	819.01	1.001	1.069	7.133
2023-10-04 21:46	4861835	8.704	-169.852	6.531	1221.22	1644.212	0.947	818.85	1.001	1.069	7.336
2023-10-04 22:01	4862735	8.560	-162.675	6.545	1221.731	1644.279	0.947	818.51	1.001	1.069	7.384
2023-10-04 22:16	4863635	8.538	-161.579	6.562	1222.975	1645.272	0.948	817.68	1.001	1.069	7.052
2023-10-04 22:31	4864535	8.509	-160.174	6.572	1222.556	1644.283	0.947	817.96	1.001	1.069	6.809
2023-10-04 22:46	4865435	8.706	-169.995	6.585	1223.485	1644.989	0.948	817.34	1.001	1.069	6.732
2023-10-04 23:01	4866335	8.565	-162.971	6.596	1223.843	1644.994	0.948	817.10	1.001	1.069	7.743
2023-10-04 23:16	4867235	8.547	-162.077	6.606	1224.41	1645.345	0.948	816.72	1.001	1.069	7.356
2023-10-04 23:31	4868135	8.500	-159.745	6.629	1225.579	1645.926	0.948	815.94	1.001	1.070	6.631
2023-10-04 23:46	4869035	8.663	-167.868	6.647	1229.539	1650.482	0.951	813.31	1.001	1.073	***6.378***
2023-10-05 00:01	4869935	8.544	-161.946	6.668	1225.397	1644.019	0.947	816.06	1.001	1.069	7.056
2023-10-05 00:16	4870835	8.510	-160.277	6.696	1226.423	1644.242	0.947	815.38	1.001	1.069	6.976
2023-10-05 00:31	4871735	8.474	-158.525	6.735	1227.997	1644.695	0.947	814.33	1.001	1.069	6.779
2023-10-05 00:46	4872635	8.700	-169.787	6.769	1229.717	1645.554	0.948	813.20	1.001	1.070	***6.337***
2023-10-05 01:01	4873535	8.549	-162.306	6.805	1230.962	1645.714	0.948	812.37	1.001	1.070	7.217
2023-10-05 01:16	4874435	8.511	-160.413	6.842	1232.297	1645.947	0.948	811.49	1.001	1.070	7.051
2023-10-05 01:31	4875335	8.476	-158.679	6.883	1233.942	1646.438	0.948	810.41	1.001	1.070	6.743
2023-10-05 01:46	4876235	8.666	-168.176	6.916	1234.577	1645.882	0.948	809.99	1.001	1.070	***6.449***
2023-10-05 02:01	4877135	8.533	-161.574	6.937	1235.232	1645.905	0.948	809.57	1.001	1.070	7.174
2023-10-05 02:16	4878035	8.522	-160.999	6.921	1235.029	1646.305	0.948	809.70	1.001	1.070	7.181
2023-10-05 02:31	4878935	8.552	-162.492	6.871	1233.417	1646.254	0.948	810.76	1.001	1.070	6.975
2023-10-05 02:46	4879835	8.785	-174.055	6.796	1232.839	1648.593	0.950	811.14	1.001	1.072	6.844
2023-10-05 03:01	4880735	8.625	-166.028	6.745	1231.585	1649.068	0.950	811.96	1.001	1.072	8.438
2023-10-05 03:16	4881635	8.603	-164.888	6.697	1230.056	1649.051	0.950	812.97	1.001	1.072	8.301
2023-10-05 03:31	4882535	8.590	-164.213	6.626	1227.84	1649.09	0.950	814.44	1.001	1.072	8.204
2023-10-05 03:46	4883435	8.792	-174.215	6.551	1225.888	1649.653	0.950	815.74	1.001	1.072	8.049
2023-10-05 04:01	4884335	8.643	-166.805	6.505	1224.776	1650.081	0.951	816.48	1.001	1.073	9.214
2023-10-05 04:16	4885235	8.650	-167.098	6.44	1222.609	1649.939	0.951	817.92	1.001	1.072	8.960
2023-10-05 04:31	4886135	8.617	-165.398	6.376	1220.788	1650.216	0.951	819.14	1.001	1.073	8.666
2023-10-05 04:46	4887035	8.942	-181.515	6.286	1218.465	1650.913	0.951	820.71	1.001	1.073	8.765
2023-10-05 05:01	4887935	8.701	-169.518	6.241	1217.379	1651.347	0.952	821.44	1.001	1.073	9.888

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-05 05:16	4888835	8.681	-168.467	6.167	1214.826	1651.055	0.951	823.16	1.001	1.073	9.793
2023-10-05 05:31	4889735	8.654	-167.11	6.093	1212.357	1650.85	0.951	824.84	1.001	1.073	9.586
2023-10-05 05:46	4890635	8.942	-181.341	6.003	1207.755	1648.464	0.950	827.98	1.001	1.072	9.344
2023-10-05 06:01	4891535	8.695	-169.058	5.97	1207.028	1648.905	0.950	828.48	1.001	1.072	9.718
2023-10-05 06:16	4892435	8.684	-168.462	5.929	1205.589	1648.685	0.950	829.47	1.001	1.072	9.647
2023-10-05 06:31	4893335	8.670	-167.763	5.88	1204.117	1648.78	0.950	830.48	1.001	1.072	9.548
2023-10-05 06:46	4894235	8.867	-177.467	5.808	1199.469	1645.511	0.948	833.70	1.001	1.070	9.437
2023-10-05 07:01	4895135	8.701	-169.213	5.737	1198.074	1646.67	0.949	834.67	1.001	1.070	9.880
2023-10-05 07:16	4896035	8.690	-168.638	5.657	1195.412	1646.462	0.949	836.53	1.001	1.070	10.049
2023-10-05 07:31	4896935	8.673	-167.754	5.588	1193.075	1646.232	0.949	838.17	1.001	1.070	9.898
2023-10-05 07:46	4897835	8.951	-181.441	5.504	1184.916	1638.585	0.944	843.94	1.001	1.065	9.796
2023-10-05 08:01	4898735	8.705	-169.244	5.46	1184.221	1639.56	0.945	844.44	1.001	1.066	9.941
2023-10-05 08:16	4899635	8.693	-168.6	5.414	1182.479	1639.138	0.944	845.68	1.001	1.065	9.909
2023-10-05 08:31	4900535	8.675	-167.694	5.38	1181.583	1639.354	0.944	846.32	1.001	1.066	9.708
2023-10-05 08:46	4901435	8.862	-176.952	5.324	1177.499	1636.131	0.943	849.26	1.001	1.063	9.615
2023-10-05 09:01	4902335	8.700	-168.879	5.285	1176.754	1636.79	0.943	849.80	1.001	1.064	9.793
2023-10-05 09:16	4903235	8.690	-168.35	5.25	1175.879	1637.088	0.943	850.43	1.001	1.064	9.771
2023-10-05 09:31	4904135	8.663	-167.017	5.199	1174.228	1637.014	0.943	851.62	1.001	1.064	9.641
2023-10-05 09:46	4905035	8.923	-179.846	5.163	1169.368	1631.802	0.940	855.16	1.001	1.061	9.110
2023-10-05 10:01	4905935	8.672	-167.422	5.149	1169.775	1632.966	0.941	854.87	1.001	1.061	9.434
2023-10-05 10:16	4906835	8.635	-165.548	5.11	1168.855	1633.404	0.941	855.54	1.001	1.062	9.305
2023-10-05 10:31	4907735	8.597	-163.66	5.051	1167.884	1634.616	0.942	856.25	1.001	1.063	9.016
2023-10-05 10:46	4908635	8.923	-179.741	4.997	1163.781	1631.227	0.940	859.27	1.001	1.060	8.729
2023-10-05 11:01	4909535	8.672	-167.332	4.975	1163.166	1631.333	0.940	859.72	1.001	1.060	9.285
2023-10-05 11:16	4910435	8.643	-165.858	4.974	1163.617	1632.002	0.940	859.39	1.001	1.061	9.046
2023-10-05 11:31	4911335	8.594	-163.441	4.971	1164.279	1633.055	0.941	858.90	1.001	1.061	8.887
2023-10-05 11:46	4912235	8.762	-171.783	4.972	1163.064	1631.292	0.940	859.80	1.001	1.060	9.075
2023-10-05 12:01	4913135	8.634	-165.422	4.962	1164.109	1633.194	0.941	859.03	1.001	1.062	9.565
2023-10-05 12:16	4914035	8.608	-164.111	4.95	1164.207	1633.865	0.941	858.95	1.001	1.062	9.346
2023-10-05 12:31	4914935	8.579	-162.694	4.954	1164.75	1634.472	0.942	858.55	1.001	1.062	9.090
2023-10-05 12:46	4915836	8.847	-175.948	4.952	1160.549	1628.652	0.938	861.66	1.001	1.059	9.187
2023-10-05 13:01	4916736	8.645	-165.982	4.953	1161.286	1629.645	0.939	861.11	1.001	1.059	9.236
2023-10-05 13:16	4917636	8.603	-163.901	4.958	1162.22	1630.735	0.939	860.42	1.001	1.060	9.669
2023-10-05 13:31	4918536	8.578	-162.668	4.971	1162.972	1631.235	0.940	859.87	1.001	1.060	9.769
2023-10-05 13:46	4919436	8.778	-172.551	4.985	1161.563	1628.644	0.938	860.91	1.001	1.059	9.590
2023-10-05 14:01	4920336	8.626	-165.029	5.001	1162.176	1628.801	0.938	860.46	1.001	1.059	9.430
2023-10-05 14:16	4921236	8.599	-163.748	5.019	1162.991	1629.134	0.938	859.85	1.001	1.059	9.798
2023-10-05 14:31	4922136	8.594	-163.507	5.041	1164.329	1630.051	0.939	858.86	1.001	1.060	9.940
2023-10-05 14:46	4923036	8.829	-175.135	5.074	1161.338	1624.455	0.936	861.08	1.001	1.056	9.538
2023-10-05 15:01	4923936	8.650	-166.311	5.115	1163.839	1626.169	0.937	859.23	1.001	1.057	9.753
2023-10-05 15:16	4924836	8.616	-164.628	5.163	1166.021	1627.112	0.937	857.62	1.001	1.058	9.957
2023-10-05 15:31	4925736	8.587	-163.245	5.215	1168.283	1628.021	0.938	855.96	1.001	1.058	9.988
2023-10-05 15:46	4926636	8.797	-173.693	5.262	1167.255	1624.578	0.936	856.71	1.001	1.056	9.492
2023-10-05 16:01	4927536	8.631	-165.458	5.303	1169.06	1625.284	0.936	855.39	1.001	1.056	9.550
2023-10-05 16:16	4928436	8.624	-165.155	5.331	1170.455	1626.048	0.936	854.37	1.001	1.057	9.384
2023-10-05 16:31	4929336	8.608	-164.354	5.357	1172.043	1627.139	0.937	853.21	1.001	1.058	9.119
2023-10-05 16:46	4930236	8.817	-174.747	5.376	1170.985	1624.813	0.936	853.98	1.001	1.056	8.804
2023-10-05 17:01	4931136	8.651	-166.514	5.395	1172.366	1625.928	0.936	852.98	1.001	1.057	9.474
2023-10-05 17:16	4932036	8.628	-165.434	5.454	1174.555	1626.412	0.937	851.39	1.001	1.057	9.768
2023-10-05 17:31	4932936	8.588	-163.486	5.543	1177.582	1626.764	0.937	849.20	1.001	1.057	9.679
2023-10-05 17:46	4933836	8.784	-173.244	5.637	1178.466	1623.974	0.935	848.56	1.001	1.056	9.938
2023-10-05 18:01	4934736	8.628	-165.558	5.684	1179.915	1623.974	0.935	847.52	1.001	1.056	9.986
2023-10-05 18:16	4935636	8.613	-164.838	5.703	1181.369	1625.156	0.936	846.48	1.001	1.056	9.770
2023-10-05 18:31	4936536	8.584	-163.367	5.713	1181.904	1625.445	0.936	846.09	1.001	1.057	9.368
2023-10-05 18:46	4937436	8.812	-174.727	5.731	1182.228	1625.13	0.936	845.86	1.001	1.056	9.448
2023-10-05 19:01	4938336	8.647	-166.55	5.745	1183.008	1625.628	0.936	845.30	1.001	1.057	9.839

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-05 19:16	4939236	8.615	-164.957	5.758	1183.654	1625.952	0.936	844.84	1.001	1.057	9.609
2023-10-05 19:31	4940136	8.572	-162.814	5.776	1184.541	1626.416	0.937	844.21	1.001	1.057	9.264
2023-10-05 19:46	4941036	8.764	-172.396	5.802	1184.717	1625.514	0.936	844.08	1.001	1.057	8.890
2023-10-05 20:01	4941936	8.617	-165.114	5.823	1185.288	1625.42	0.936	843.68	1.001	1.057	9.278
2023-10-05 20:16	4942836	8.586	-163.558	5.839	1186.337	1626.157	0.936	842.93	1.001	1.057	8.997
2023-10-05 20:31	4943736	8.567	-162.616	5.854	1187.226	1626.769	0.937	842.30	1.001	1.057	8.585
2023-10-05 20:46	4944636	8.867	-177.548	5.884	1188.793	1627.636	0.937	841.19	1.001	1.058	8.437
2023-10-05 21:01	4945536	8.628	-165.691	5.935	1189.48	1626.381	0.937	840.70	1.001	1.057	9.208
2023-10-05 21:16	4946436	8.600	-164.328	5.97	1190.874	1626.821	0.937	839.72	1.001	1.057	9.221
2023-10-05 21:31	4947336	8.567	-162.716	5.995	1192.067	1627.392	0.937	838.88	1.001	1.058	9.074
2023-10-05 21:46	4948236	8.843	-176.446	6.037	1193.387	1627.4	0.937	837.95	1.001	1.058	8.516
2023-10-05 22:01	4949136	8.618	-165.272	6.08	1193.941	1626.351	0.936	837.56	1.001	1.057	9.376
2023-10-05 22:16	4950036	8.594	-164.127	6.146	1196.602	1627.189	0.937	835.70	1.001	1.058	8.629
2023-10-05 22:31	4950936	8.594	-164.168	6.19	1198.742	1628.234	0.938	834.21	1.001	1.058	9.278
2023-10-05 22:46	4951836	8.815	-175.173	6.236	1202.103	1630.853	0.939	831.88	1.001	1.060	9.371
2023-10-05 23:01	4952736	8.655	-167.27	6.31	1204.225	1630.582	0.939	830.41	1.001	1.060	9.568
2023-10-05 23:16	4953636	8.633	-166.202	6.383	1207.558	1632.027	0.940	828.12	1.001	1.061	9.783
2023-10-05 23:31	4954536	8.628	-166.023	6.439	1211.187	1634.546	0.941	825.64	1.001	1.062	9.571
2023-10-05 23:46	4955436	8.820	-175.586	6.459	1215.052	1638.949	0.944	823.01	1.001	1.065	9.389
2023-10-06 00:01	4956336	8.692	-169.21	6.445	1214.2	1638.356	0.944	823.59	1.001	1.065	10.093
2023-10-06 00:16	4957236	8.662	-167.661	6.395	1214.096	1640.35	0.945	823.66	1.001	1.066	9.587
2023-10-06 00:31	4958136	8.653	-167.181	6.321	1213.048	1642.083	0.946	824.37	1.001	1.067	9.616
2023-10-06 00:46	4959036	8.962	-182.5	6.238	1211.57	1643.595	0.947	825.38	1.001	1.068	10.037
2023-10-06 01:01	4959936	8.722	-170.534	6.177	1210.117	1644.234	0.947	826.37	1.001	1.069	10.219
2023-10-06 01:16	4960836	8.700	-169.38	6.081	1206.937	1644.011	0.947	828.54	1.001	1.069	10.052
2023-10-06 01:31	4961736	8.683	-168.438	5.974	1203.586	1644.011	0.947	830.85	1.001	1.069	9.830
2023-10-06 01:46	4962636	8.873	-177.815	5.861	1200.345	1644.418	0.947	833.09	1.001	1.069	9.586
2023-10-06 02:01	4963536	8.732	-170.789	5.801	1199.35	1645.641	0.948	833.79	1.001	1.070	10.145
2023-10-06 02:16	4964436	8.703	-169.282	5.725	1197.081	1645.8	0.948	835.37	1.001	1.070	9.853
2023-10-06 02:31	4965336	8.692	-168.71	5.614	1193.689	1645.968	0.948	837.74	1.001	1.070	9.497
2023-10-06 02:46	4966236	***9.006***	-184.174	5.477	1189.577	1646.215	0.949	840.64	1.001	1.070	9.754
2023-10-06 03:01	4967136	8.754	-171.649	5.436	1189.056	1647.268	0.949	841.00	1.001	1.071	10.387
2023-10-06 03:16	4968036	8.710	-169.439	5.379	1187.101	1647.08	0.949	842.39	1.001	1.071	10.056
2023-10-06 03:31	4968936	8.692	-168.476	5.3	1184.525	1646.944	0.949	844.22	1.001	1.071	9.854
2023-10-06 03:46	4969836	8.899	-178.685	5.195	1180.959	1646.566	0.949	846.77	1.001	1.070	9.762
2023-10-06 04:01	4970736	8.739	-170.751	5.148	1180.372	1647.832	0.950	847.19	1.001	1.071	10.155
2023-10-06 04:16	4971636	8.725	-170.021	5.092	1178.159	1647.196	0.949	848.78	1.001	1.071	10.139
2023-10-06 04:31	4972536	8.714	-169.439	5.032	1176.3	1647.209	0.949	850.12	1.001	1.071	9.954
2023-10-06 04:46	4973436	***9.009***	-183.978	4.983	1174.99	1647.551	0.949	851.07	1.001	1.071	9.639
2023-10-06 05:01	4974336	8.752	-171.227	4.946	1173.976	1647.759	0.950	851.81	1.001	1.071	10.314
2023-10-06 05:16	4975236	8.734	-170.329	4.873	1171.494	1647.52	0.949	853.61	1.001	1.071	10.143
2023-10-06 05:31	4976136	8.709	-169.02	4.814	1169.085	1646.703	0.949	855.37	1.001	1.070	9.795
2023-10-06 05:46	4977036	8.907	-178.766	4.732	1165.76	1645.653	0.948	857.81	1.001	1.070	9.843
2023-10-06 06:01	4977936	8.743	-170.648	4.683	1162.271	1642.91	0.947	860.39	1.001	1.068	10.111
2023-10-06 06:16	4978836	8.731	-170.004	4.616	1163.111	1647.076	0.949	859.76	1.001	1.071	10.003
2023-10-06 06:31	4979736	8.706	-168.707	4.536	1159.809	1645.946	0.949	862.21	1.001	1.070	9.777
2023-10-06 06:46	4980636	8.924	-179.427	4.457	1157.359	1646.023	0.949	864.04	1.001	1.070	9.629
2023-10-06 07:01	4981536	8.760	-171.294	4.412	1156.204	1646.372	0.949	864.90	1.001	1.070	10.109
2023-10-06 07:16	4982437	8.742	-170.369	4.341	1153.815	1646.174	0.949	866.69	1.001	1.070	9.969
2023-10-06 07:31	4983337	8.715	-169.01	4.267	1151.302	1645.908	0.948	868.58	1.001	1.070	9.639
2023-10-06 07:46	4984237	8.917	-178.907	4.163	1146.654	1643.926	0.947	872.10	1.001	1.069	9.646
2023-10-06 08:01	4985137	8.769	-171.561	4.108	1145.521	1644.774	0.948	872.97	1.001	1.069	10.149
2023-10-06 08:16	4986037	8.729	-169.566	4.088	1140.346	1638.231	0.944	876.93	1.001	1.065	9.981
2023-10-06 08:31	4986937	8.714	-168.862	4.07	1144.436	1644.915	0.948	873.79	1.001	1.069	9.852
2023-10-06 08:46	4987837	8.916	-178.783	4.044	1143.493	1644.74	0.948	874.51	1.001	1.069	9.495
2023-10-06 09:01	4988737	8.755	-170.817	4.032	1143.118	1644.746	0.948	874.80	1.001	1.069	10.020

TABLE C2

Downstream Water Quality Sonde Data

Mighty Peace Watershed Alliance

Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723080 pH (pH)	Sensor: pH/ORP SN#: 723080 pH(mV) (mV)	Sensor: Internal SN#: 740848 Temperature (C)	Sensor: Cond SN#: 1043240 Actual Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Specific Conductivity (µS/cm)	Sensor: Cond SN#: 1043240 Salinity (PSU)	Sensor: Cond SN#: 1043240 Resistivity (ohm-cm)	Sensor: Cond SN#: 1043240 Water Density (g/cm3)	Sensor: Cond SN#: 1043240 Total Dissolved Solids (ppt)	Sensor: RDO SN#: 728799 Dissolved Oxygen (concentration) (mg/L)
2023-10-06 09:16	4989637	8.735	-169.842	4.038	1143.468	1644.969	0.948	874.53	1.001	1.069	9.917
2023-10-06 09:31	4990537	8.697	-167.978	4.037	1143.562	1645.151	0.948	874.46	1.001	1.069	9.285
2023-10-06 09:46	4991437	8.868	-176.389	4.021	1143.514	1645.82	0.948	874.50	1.001	1.070	8.926
2023-10-06 10:01	4992337	8.729	-169.53	4.005	1142.999	1645.795	0.948	874.89	1.001	1.070	9.663
2023-10-06 10:16	4993237	8.688	-167.515	4.008	1143.114	1645.817	0.948	874.80	1.001	1.070	9.265
2023-10-06 10:31	4994137	8.678	-167.046	4.011	1143.126	1645.708	0.948	874.79	1.001	1.070	9.039
2023-10-06 10:46	4995037	8.919	-178.897	4.012	1142.527	1644.822	0.948	875.25	1.001	1.069	8.924
2023-10-06 11:01	4995937	8.733	-169.737	4.011	1142.437	1644.734	0.948	875.32	1.001	1.069	9.487
2023-10-06 11:16	4996837	8.713	-168.748	4.004	1142.598	1645.261	0.948	875.20	1.001	1.069	9.299
2023-10-06 11:31	4997737	8.683	-167.289	4.008	1142.234	1644.572	0.948	875.48	1.001	1.069	9.322
2023-10-06 11:46	4998637	8.885	-177.25	4.028	1141.453	1642.533	0.946	876.08	1.001	1.068	10.410
2023-10-06 12:01	4999537	8.909	-179.117	5.087	2.468	3.45	0.001	405247.88	1	0.002	11.955
2023-10-06 12:16	5000437	***9.109***	-191.138	8.223	5.275	6.806	0.002	189561.61	1	0.004	11.110
2023-10-06 12:31	5001337	8.919	-183.058	10.415	4.724	5.783	0.002	211672.22	1	0.004	10.500
2023-10-06 12:46	5002237	***9.015***	-188.51	11.395	2.745	3.285	0.001	364311.72	1	0.002	10.218
AEP Freshwater Aquatic Life*		**6.5-9.0^{pH}**	**NS**	**narrative**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**6.5^{DO}**

Notes:

NS - not specified

^{DO} - minimum long-term exposure guideline; see applicable guidelines for further details

^{pH} - not to be altered by more than 0.5 units from background

narrative - see applicable guidelines for further details

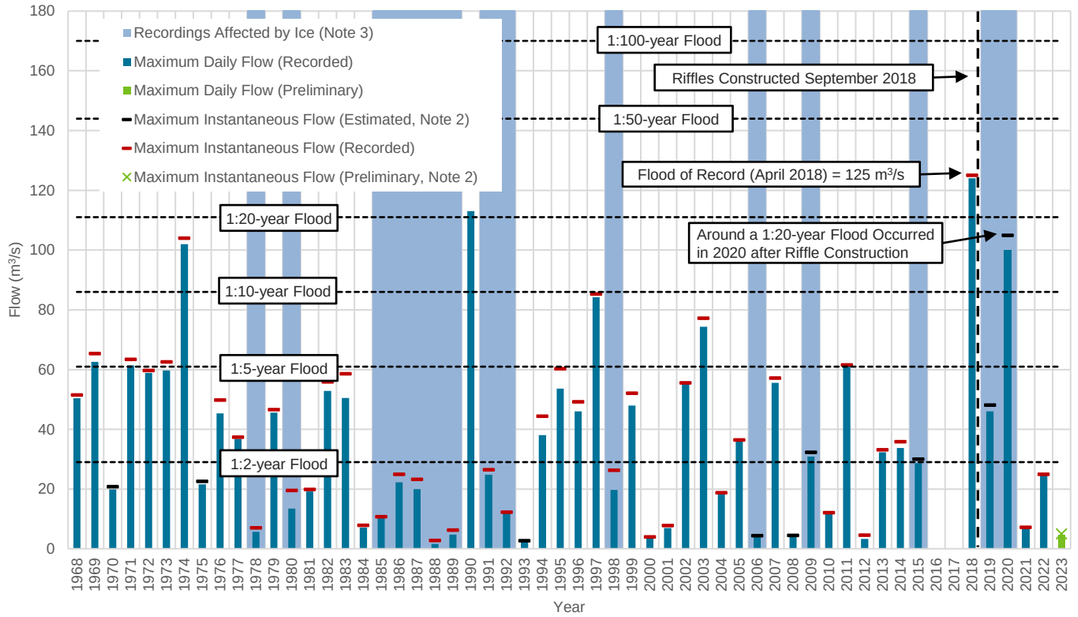
NS - not specified

* - *Environmental Quality Guidelines for Alberta Surface Waters* (AEP 2018)

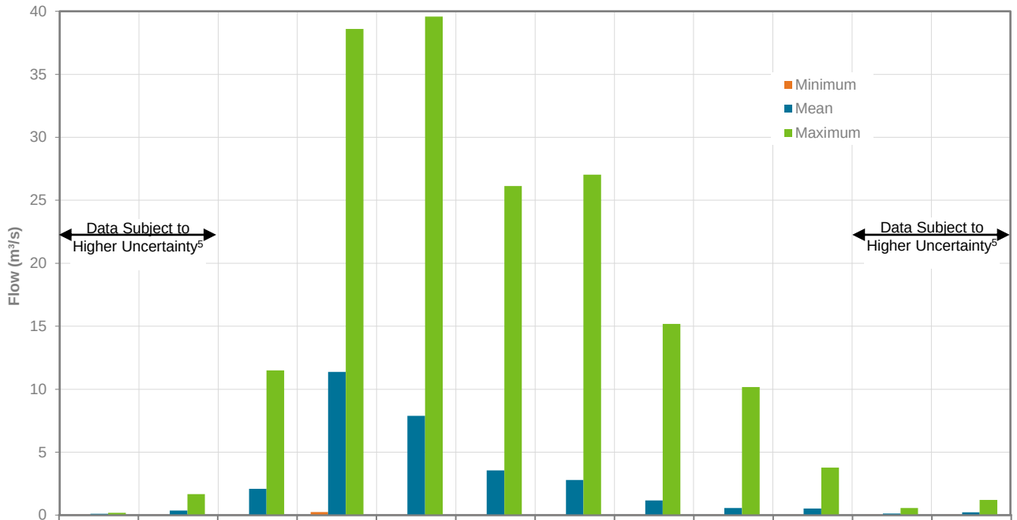
Italics - values do not meet applicable guidelines

APPENDIX D
Hydrologic Analysis Figures

Annual Maximum Daily Average and Instantaneous Flow History[1]



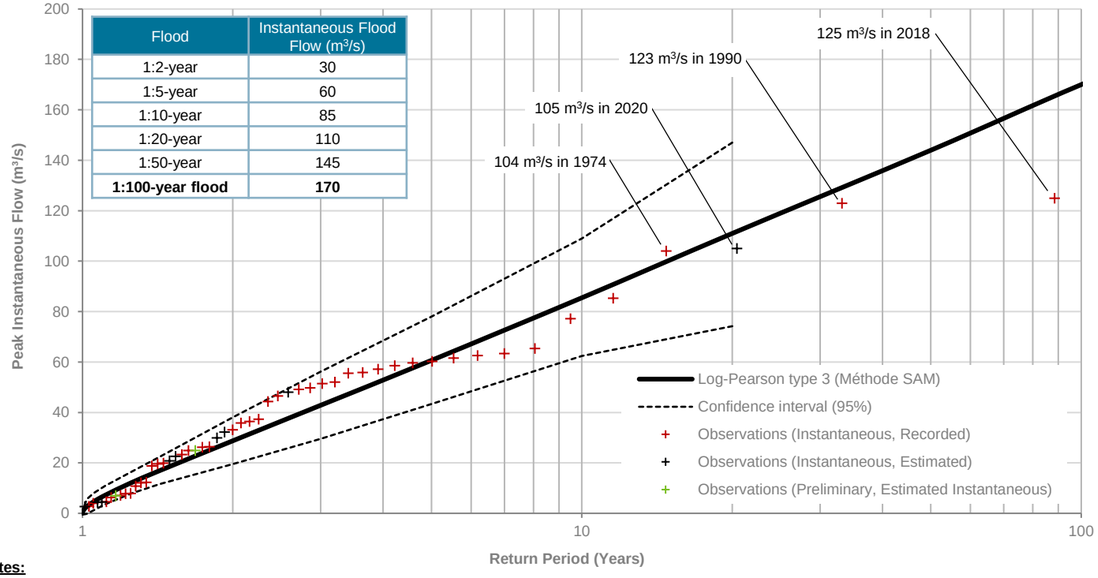
Monthly Flows[5]



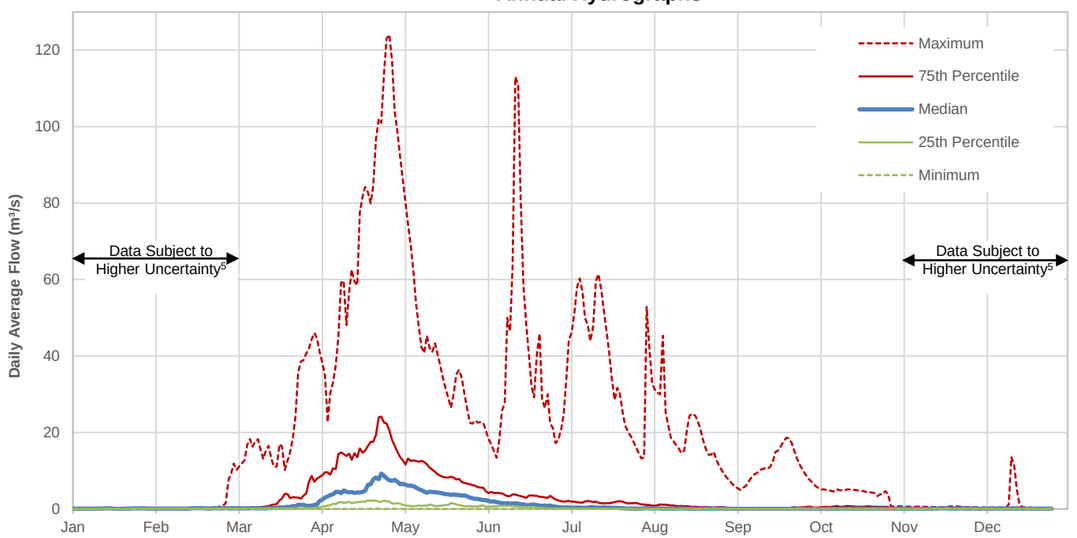
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min. Monthly[7] Flow	0.001	0.001	0.001	0.3	0.01	0.03	0.01	0.002	0.001	0.001	0.001	0.001
Mean Monthly[7] Flow	0.1	0.4	2.1	11.4	7.9	3.6	2.8	1.2	0.6	0.5	0.1	0.2
Max. Monthly[7] Flow	0.2	1.7	11.5	38.6	39.6	26.1	27.0	15.2	10.2	3.8	0.6	1.2

Flood Frequency Analysis

Flood	Instantaneous Flood Flow (m³/s)
1:2-year	30
1:5-year	60
1:10-year	85
1:20-year	110
1:50-year	145
1:100-year flood	**170**



Annual Hydrographs



Notes:

1. Flow records are taken from Water Survey of Canada (WSC) hydrometric station Beaverlodge River near Beaverlodge (07GD001) which is located approximately 1,500 m downstream of the project site and has a gross drainage area of 1,610 km², and an effective drainage area of 1,510 km². The drainage area at site is 1,562 km². There are 54 years of daily flow data from 1968 to 2022 (53 years of published data and one year of preliminary data).
2. The annual maximum flow record consists of 54 years of daily flow data (53 years of published data and one year of preliminary data), and 54 years of instantaneous flow data (43 years of recorded data, nine years [17%], of estimated data, and one years [2%] of preliminary estimated data). When not available, maximum instantaneous flow is estimated from daily average flow by applying the best fitted ratio of maximum instantaneous to daily average flow (1.046).
3. The WSC corrects flow data that is affected by river ice and indicates which datapoints have been corrected. Years are highlighted as ice affected in the above plot when the reported maximum instantaneous flow is ice affected, or when the maximum instantaneous flow is estimated from an ice affected maximum daily flow. The maximum instantaneous flows for 15 years [28%] of the flow history are ice affected.
4. Flows from 2023 are preliminary and have not been finalized by WSC.
5. The WSC station was operated continuously from 1979 to 1986 (seven years of continuous flow data) and seasonally (from about the beginning of March to the end of October) from 1968 to 1978 and 1987 to 2023 (47 years of seasonal data). All available data is shown, but the November to February data are subject to higher uncertainty because there is only seven years of data for these months.
6. Flooding typically occurs from April through July.
7. Monthly flow is the average of the daily flows within a month for a given year, averaged over all years.
8. Figure(s) must be used in conjunction with the attached report and is subject to the limitations and conditions stated in the report.

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

Mighty Peace Watershed Alliance

Redwillow Watershed Restoration Project

Hydrologic Analysis

Date:	Project:	Submitter:	Reviewer:
December 2023	2199-522	K. Seasons	

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Figure 1

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