BEAVERLODGE RIVER WEIR MONITORING PROGRAM - 2021 REPORT

BEAVERLODGE RIVER
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Prepared for:
MIGHTY PEACE WATERSHED ALLIANCE

Prepared by:
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February 23, 2022

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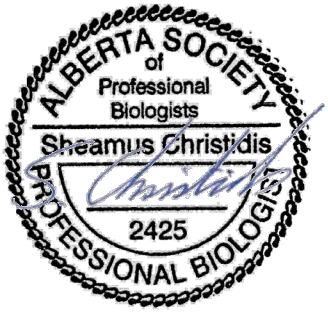

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1 INTRODUCTION

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). Engineered riffle structures were built with riprap at the weir and immediately downstream; the purpose of these structures was to create conditions suitable for fish to migrate/pass the weir situated on the Beaverlodge River. 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. To assess the ongoing performance of the fish passage structures, including structural integrity of the riffles and flow suitability for fish passage through these structures, monitoring plans were submitted to Alberta Environment and Parks (AEP) and Fisheries and Oceans Canada (DFO). A monitoring plan was initially submitted to AEP to meet monitoring conditions under Alberta *Water Act* Approval No. 00372572-00-00 (Matrix 2017a) which focused mainly on structural integrity of the riffles and maintaining water velocities suitable for passage of target fish species, with monitoring occurring over a 3-year period, concluding in 2021. In addition to the parameters detailed in the monitoring plan submitted to AEP, 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). A separate monitoring plan that included fish passage monitoring was submitted and approved by DFO (Matrix 2017b). As per the DFO monitoring plan (Matrix 2017b), fish passage monitoring concluded in 2021. A summary of the monitoring results prepared for DFO is presented in Section 3.4.

This final AEP monitoring report presents the results of the 2021 monitoring activities as per the AEP monitoring plan requirements under Alberta *Water Act* Approval No. 00372572-00-00 (Matrix 2017a).

1.1 Background

Historical activities in the Beaverlodge River watershed, including agriculture and logging, the installation of a weir for water supply, 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. The 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, located directly 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 weir (CharettePellPoscente Environmental Corp. 2012). Several fish ladders have been installed at the Beaverlodge River weir since 1981; however, the ladders have 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 of two rock riffles were installed (Riffle 1 at the weir and Riffle 2 100 m downstream of the weir) in the fall of 2018 (Figure 1-1).

The objective of the Project 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. 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:

1. 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.

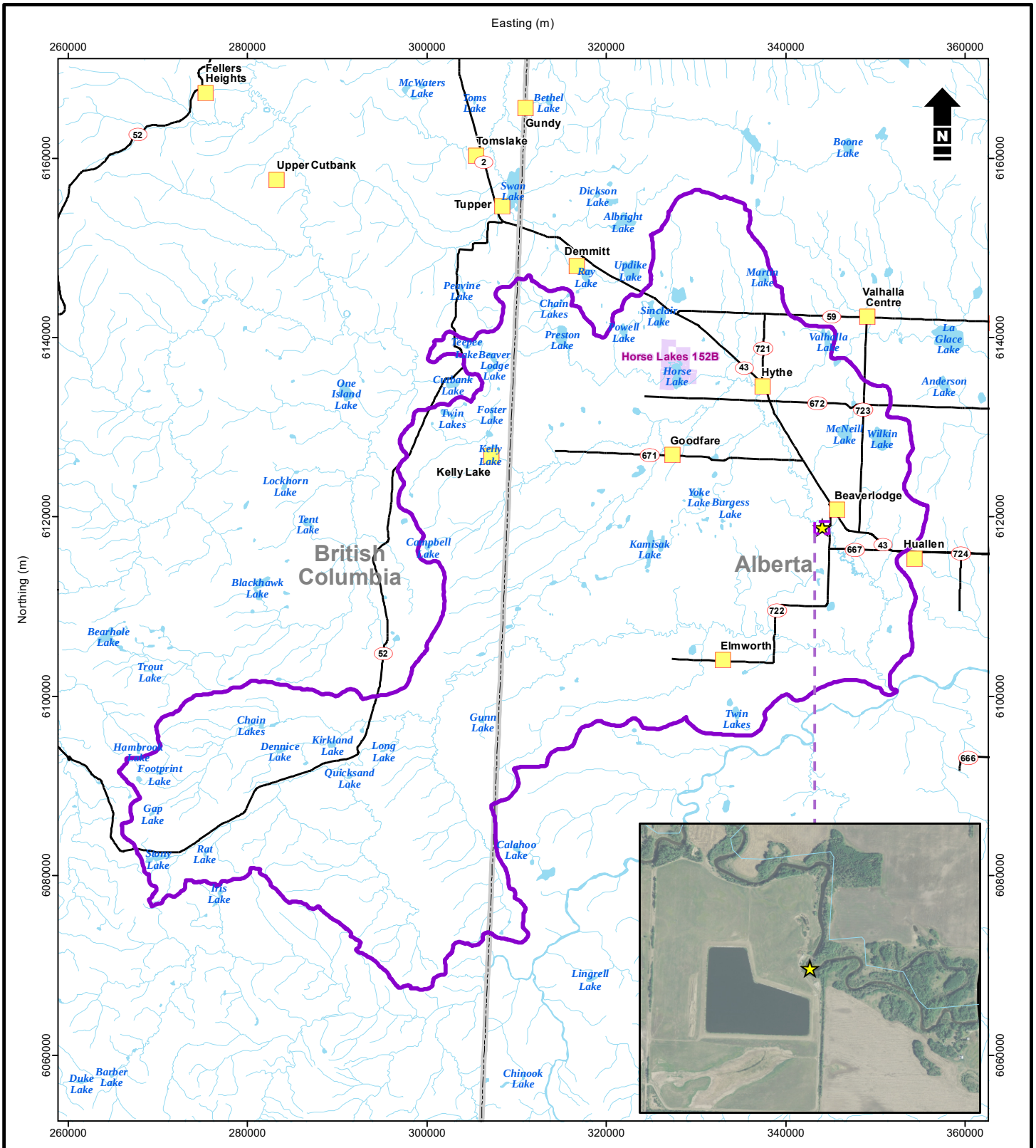
2. Two riprap riffles were constructed to provide fish passage in a more natural way, with no foreign objects and presenting the lowest possible stress to fish while moving through the weir area.

3. 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 surface 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

DRAFT

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 monitoring program is structured to assess fish passage conditions at both riffle structures throughout the open water season (May to October). Fish passage is 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 within the watershed, which relies on overall habitat improvements to the watershed. Monitoring parameters approved by AEP 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 structure.

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

2. Assessment of the passage structure 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 structure, 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 structure was 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 water temperature and dissolved oxygen (DO) above and immediately below the fish passage structures.

    - Rationale: concentrating the flows through the central portion of the fish passage structure 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 structure 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.

Based on recommendations made in the 2019 AEP monitoring report (Matrix 2019) the following monitoring parameter were introduced in 2020 and continued into the 2021 monitoring year.

7. Continuous monitoring of in situ water quality parameters including water temperature, DO concentrations, pH, specific conductivity, and turbidity from June 24 to October 6, 2021.

    - Rationale for inclusion: water quality monitoring was limited to the seasonal site visits in spring, summer, and fall. In order to understand seasonal and diurnal water quality fluctuations at the site, continuous data loggers were installed upstream of Riffle 1, and downstream of Riffle 2.

2 METHODS

The following subsections describe the methods used to assess the parameters identified in Section 1.3. Quality assurance (QA) and quality control (QC) 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 550 m study reach of the Beaverlodge River which extended 200 m upstream of Riffle 1, included a large scour pool between both riffle structures, and extended 250 m downstream of Riffle 2 (Table 2-3; Figure 2-1).

2.2 Timing

Five monitoring events took place in 2021 in order to complete AEP and DFO monitoring requirements (Matrix 2017a, 2017b; Table 2-1). An additional site visits was conducted to perform maintenance on continuous monitoring equipment (Table 2-1).

TABLE 2-1 Summary of Monitoring Events of 2021

Date	Alberta Environment and Parks Monitoring Task	Fisheries and Oceans Canada Monitoring Task
April 29, 2021	Conduct hydrometric field work, including the installation of a pressure transducer and streamflow measurement with corresponding water level survey, site inspection, as well as the installation of a time lapse monitoring camera.	Conduct hydrometric field work, including the installation of a pressure transducer and streamflow measurement with corresponding water level survey, site inspection, as well as the installation of a time lapse monitoring camera.
June 22 to 25, 2021	Complete site inspection, hydrometric tasks including streamflow measurement and corresponding water level surveys, and installation of water quality sondes.	Installation of the Passive Integrated Transponder (PIT) tag antenna and PIT tag reader upstream of Riffle 1. In addition, fish sampling and the deployment of PIT tags within suitably sized fish was conducted.
August 4, 2021	Download data from water quality sonde, pressure transducer, and pictures from time lapse monitoring camera. Conduct hydrometric tasks including streamflow measurement and corresponding water level surveys.	Download data from water quality sonde, pressure transducer, and pictures from time lapse monitoring camera. Conduct hydrometric tasks including streamflow measurement and corresponding water level surveys.
August 27, 2021	Download data and calibrate water quality sondes.	Performed maintenance on PIT tag reader and download water quality sonde data.
October 6 and 7, 2021	Conduct site inspection, topographical real-time kinematic (RTK) survey, engineer inspection of riffle structures, and download data from water quality sonde and pressure transducer. Remove all monitoring equipment from site.	Conduct site inspection, topographical RTK survey, engineer inspection of riffle structures, and download data and removal of water quality sonde, pressure transducer, and PIT tag system.

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, erosion, and bank stability assessments.

2.3.1 Fish Habitat Structure

An assessment of the current fish habitat structure within the study reach was used to describe the overall fish habitat structure. The assessment of the fish habitat structure within the study reach included 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

An engineering assessment was completed during the October 2021 field visit to meet monitoring program parameter #1 as outlined in Section 1.3. The following items were assessed:

1. Ensure that the riffle structures are stable and effective in the context of allowing fish passage. This includes monitoring the following:

    a. 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. The riffle crest elevations (i.e., the keystone riprap) are stable.

    c. 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. The riffles have stability against outflanking (caused by bank erosion) and undermining (caused by toe erosion).

2. Assess erosion and redistribution of sediments at the riffles (i.e., aggradation and degradation).

The engineering assessment is based on:

1. Site reconnaissance on October 5 and 6, 2021, by Kevin Seasons, Water Resources E.I.T., accompanied by Karlen Lowes, P. Biol.

2. Review of site photographs and site notes from before, during, and after construction by Kevin Seasons, E.I.T., and Hydrotechnical Engineers David Kushner, P.Eng., and Katy Curtis, P.Eng. – including photographs, notes, and survey from the 2021 site reconnaissance. Comparison photographs between subsequent monitoring years are provided in Appendix A1 while comprehensive 2021 monitoring photographs are provided in Appendix A2.

3. Comparison of the as-built survey completed on October 24, 2018, to the monitoring survey completed on October 5, 2021 (Appendix D; Figures A-1 and A-2). The surveys were completed using real-time kinematic (RTK) surveying equipment. The 2021 survey consists of four cross-sections surveyed at Riffle 1 downstream of the riffle crest, three cross-sections surveyed at Riffle 2 (two cross-sections were surveyed downstream of the riffle crest, one cross-section was upstream of the

crest), and an approach/departure longitudinal profile surveyed along the thalweg[1] of Riffle 1 and Riffle 2. Survey data was collected on the surface of the riprap, riffles, channel bed, and banks.

2.4 Hydrology

Open season water levels were monitored continuously with a hydrometric station installed upstream of the Water Survey of Canada hydrometric gauge 07GFD001 (which is 1.5 km downstream of the riffles) with the objective to calculate streamflow directly at the riffle structures. Streamflow was used to estimate the percentage of time that sufficient flow is present within the Beaverlodge River to allow fish passage ($Q\text{-}fish_{min}$) at the riffle structures. Monitoring periods and flow measurements completed to date are summarized in Table 2-2.

TABLE 2-2 Flow Measurement Summary

Year	Monitoring Period	Number of 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

The stage-discharge rating curve (2019-002) developed between 2019 and 2020 was updated with two flow measurements and corresponding water level surveys completed in 2021 (Table 2-2). The measurements were taken at relatively low flow in April and June, measuring 1.06 and 0.066 m^3/s, respectively. In 2019, the stage-discharge rating was developed to enable streamflow calculations for the maximum recorded water level and flows greater than 7.047 m^3/s and are graded E for estimate. To derive flows for the range of recorded water levels, it was sometimes necessary to extrapolate the rating curves below half the lowest and above twice the highest measured discharge. Data generated outside these thresholds are associated with a high uncertainty (WSC 2016).

A 5-day data gap between May 20 and 25 was filled using data collected from the Water Survey of Canada gauge 07GD001. Values during this period are also graded E. The stage-discharge rating curve (2019-002) was used to calculate streamflow for 2021 and is included in Appendix B.

All hydrometric data was processed using Aquarius according to the British Columbia Resources Information Standards Committee Hydrometric Standards Version 2 (B.C. ENV 2018).

Hydrometric monitoring instrumentation used in 2021 is identical to instrumentation used in 2020 and is detailed in Matrix (2019).

[1] The thalweg is the lowest point in a channel at a given cross-section.

2.4.1 Riffle Water Velocities for Fish Passage

At each riffle structure, point velocity measurements were recorded upstream, at the mid-section, and downstream at 25%, 50%, and 75% of the riffle structure width in April and June (Table 2-1). The velocity measurements were completed at the surface of the water (April, June) and bottom (June) of the water column. Instream measurements were limited across the riffle structure in April, due to unsafe flow conditions.

2.5 Water Quality

Two In Situ Inc. Aquatroll 600 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). Sondes were deployed within the study reach from June 24 to October 6, 2021.

The same parameters measured continuously were spot checked during each site visit at four of the six in-site monitoring locations (BL1, BL2, BL5, and BL6; Table 2-3; Figure 2-1). Water quality depth profiles were collected within the deepest area of Reach 2, with parameters measured every metre. In situ water quality was collected using a calibrated multimeter (YSI 550 or Pro Plus model). Turbidity values were collected using a turbidity meter (Orbecco Hellige TB 200).

Maintenance of the sonde's probes were completed during each site visit, and each sonde was calibrated to manual spot readings to confirm accuracy.

The average daily DO concentrations and pH levels were compared to the *Environmental Quality Guidelines for Alberta Surface Waters* (AEP 2018) in Section 3.3.

2.6 Site Locations

TABLE 2-3 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
Time Lapse Monitoring Camera Location	
Camera Location	344051E 6118863N

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

NAD - North American Datum
U - Universal Transverse Mercator Zone
UTM - Universal Transverse Mercator coordinate system

- Pass Over Antenna
- Flow Direction
- Monitoring Location
- Monitoring Camera
- Level Logger Location
- Pit Tag Reader Location
- Water Quality Sonde

1:500

metres

6 0 6 12

NAD 1983 UTM Zone 11N

Reference: UAV imagery (Oct. 2021) obtained by Mighty Peace Watershed Alliance and Matrix Solutions Inc. used under license. Vaitus Image Service © (2012). Used under license.

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

Mighty Peace Watershed Alliance
Beaverlodge River

Site Plan

Date:	Project:	Submitter:	Reviewer:
November 2021	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 Structure

The channel habitat units within the study reach did not change from 2019 to 2021. Run habitat with areas of backwater pools were present in both Reaches 1 and 3 (Appendix A2; Photographs 1 to 4 and 37 to 40). The large pool at the downstream end of Riffle 1 (Reach 2; Appendix A2; Photographs 13 to 28) was still present (observed in 2019, 2020, and 2021). Most notably, water levels were lower earlier in the year, and continued to decrease throughout the monitoring year (Section 3.2.3). As a result, the general surface area of the habitat within the study reach decreased. Wetted depths upstream of Riffle 1 and downstream of Riffle 2 were up to 2 m, with Reach 1 (upstream of Riffle 1) being consistently deep throughout and Reach 3 (downstream of Riffle 2) consisting of deep and shallow areas. The wetted depth within the pool downstream of Riffle 1 (Reach 2) at the time of the August 2021 assessment was 2 m. As expected, the current water level within the pool was shallower than the previous monitoring years (Matrix 2019, 2020a). The wetted width upstream and downstream of each riffle structure ranged from 12 to 14 m.

Fine substrates dominated Reach 1 and the shoreline and banks of Reach 2. Gravel and cobble substrates made up the majority of bed substrates in Reach 3, with areas of fines substrate material. With the exception of the steep eroded right bank between Riffle 1 and Riffle 2 (Appendix A2; Photographs 13 to 16 and 25 to 28), the banks remained well vegetated throughout the whole study area; overhanging willows, grasses, and deciduous trees were abundant in all reaches (Appendix A2; Photograph 1 to 4, 17 to 28, and 37 to 40). Additional fish habitat cover within the study reach was provided by areas of undercut banks, and the accumulation of large woody debris. The majority of the fish captured occupied these areas.

When sufficient water levels to crest the riffle structures are present, water flow is directed through the centre of each riffle at various flow conditions; numerous step pools, back water eddies, cascades, and chutes are present within both riffle structures. Wetted depths in the riffle structures ranged from less than 0.10 m up to 0.32 m during the April and June field programs. When flow over the riffles was present, water moved over the riffles, with no subsurface flow observed; smaller material consisting of fines and gravel had settled within the interstices of the larger cobble and boulder material. At different times throughout the 2021 season, woody debris was observed within the riffle structures, providing additional fish habitat cover. During the August 4 and October 6 field visits, streamflow and water levels were observed to be insufficient to pass over Riffle 1 and Riffle 2 (Section 3.2.3, Appendix A2; Photographs 8, 12, 32, 36, 47, and 48).

3.1.2 Hydrotechnical Engineering Assessment

From the 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

Parameter	Performance Criteria	Site Photographs (2021)	Monitoring Results (Stable or More Frequent Monitoring Warranted or Repairs Needed)[a]		
			Year 1 (2019)	Year 2 (2020)	Year 3 – Engineering Survey Completed (2021)
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, 8, 9 and 12 • 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 1:5-year 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 (Appendix A1; Photographs 8 and 12). • Visual inspection indicates no additional scour of the gravels placed between the riprap at the time of construction has occurred since 2020 (Appendix A1; Photographs 5, 8, 9, and 12).
Riffle Crests (i.e., keystone riprap)	• Keystone riprap in original as-built location	• Appendix A1; Photographs 8 and 12 • 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.
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 8 and 12 • 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 (Appendix D; Figure A-2). 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.

Parameter		Performance Criteria	Site Photographs (2021)	Monitoring Results (Stable or More Frequent Monitoring Warranted or Repairs Needed)[a]		
				Year 1 (2019)	Year 2 (2020)	Year 3 – Engineering Survey Completed (2021)
Riffle Stability Against Outflanking	Right Bank Erosion	• Qualitative assessment • Survey comparisons if available	• Appendix A1; Photographs 13 to 16	**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 1:5-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 2020b). • 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 (Appendix A2; Photographs 13 to 16). There has not been a significant flood since the 1:5-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 1:5-year flood in 2020). • No right bank erosion observed at the right bank at Riffle 1. • Riffle 1 and 2 are still functional.
	Left Bank Erosion	• Qualitative assessment • Survey comparisons if available	• Appendix A1; Photograph 12 (erosion obscured by vegetation)	**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 photos because it is obscured by riparian vegetation (Appendix A1; Photograph 12). 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 (Appendix D; Figure A-2). • No left bank erosion observed at the left bank at Riffle 1. • Riffle 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 (Appendix D; Figure A-1). • Riffles 1 and 2 are still functional.

(a) The engineering assessments will continue beyond 2021, as required by Fisheries and Oceans Canada (DFO).

From the above, the riffle structures are currently stable in the context of providing fish passage. However, erosion on the outside (right) bend of Riffle 2 is threatening to outflank the riffle (Appendix A1; Photographs 14 to 16). 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 would expose a large portion of the toe/run out of Riffle 1 which would increase the distance that fish are required to swim to pass the riffle. 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.

3.1.3 Flood Frequency Analysis

A history of maximum annual flows was compiled, and a flood frequency analysis was conducted on the 52-year annual maximum instantaneous flow record from Water Survey of Canada (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 are provided on Figure 1 in Appendix D.

Since construction of the riffles in September 2018, the maximum flow experienced was approximately 63 m^3/s in 2020, which corresponds to a roughly 1:5-year flood. The riffles were designed to be stable for an average channel velocity of 4.08 m/s. For comparison the modelled velocity during the maximum flow experienced at the riffles (the 2020 1:5-year flood) is 3.08 m/s at Riffle 1 and 1.71 m/s at Riffle 2, i.e., about 75% of the design velocity.

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	140
1:100-year	165

3.2 Hydrology

3.2.1 Precipitation

Total precipitation from the Environment Canada Climate Data Archive (CDA) for the Beaverlodge Climate Station (Climate ID: 3070560) for 2019 to 2021, including a comparison to the 1981 to 2010 normal precipitation (30-year mean precipitation) is provided in Table 3-3. The monthly variations in precipitation for 2020 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).

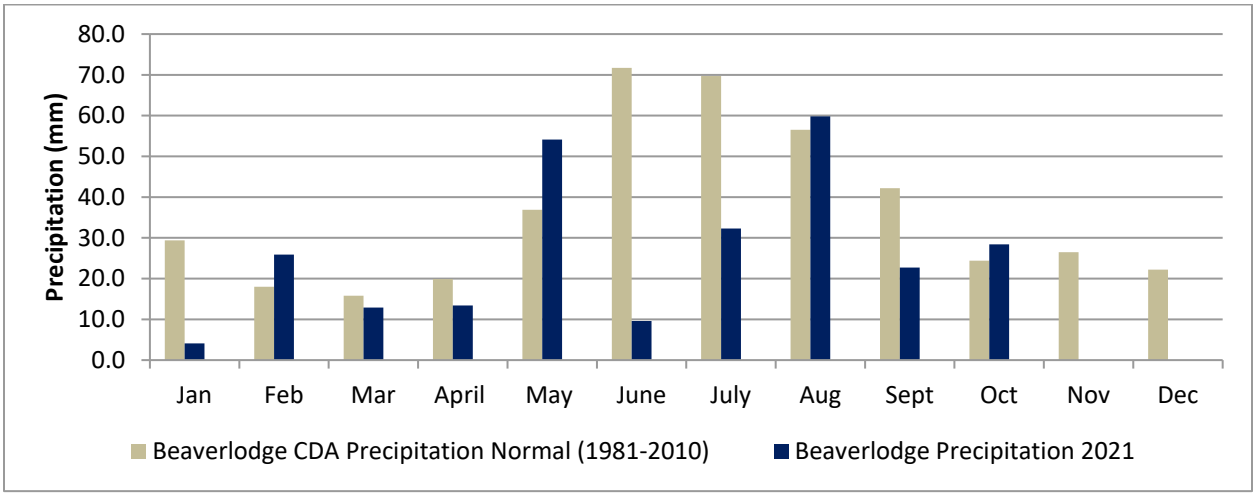

FIGURE 3-1 Beaverlodge Precipitation for 2021 Compared to 30-year Normal Precipitation

Annual precipitation to the end of October was 32% below normal but varied throughout 2021. Winter precipitation was low in January but fluctuated around normal between February and May (between +44% and -33%). Precipitation was less than normal for June and July (-54 to -87%). While August and September were above normal, September was 46% below normal. November and December precipitation records are incomplete at the time of this report.

TABLE 3-3 Beaverlodge Total Precipitation for 2019 to 2021 and Departures From the 1981 to 2010 Normal

Year	Site	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual	EOAR [a]
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
2019	Beaverlodge Precipitation (mm)	28.2	21	0.6	19.5	31	54.2	91.6	51.9	26.9	55.3	57.3	9.1	446.6	446.6
	Departure from Normal	-4%	17%	-96%	-2%	-16%	-24%	31%	-8%	-36%	127%	116%	-59%	3%	3%
2020	Beaverlodge Precipitation (mm)	28.5	10.7	32.3	3	43	60.3	72.3	25.8	14.8	30.3	26.4	8.9	356.3	356.3
	Departure from Normal	-3%	-41%	104%	-85%	17%	-16%	4%	-54%	-65%	24%	0%	-60%	-18%	-18%
2021	Beaverlodge Precipitation (mm)	4.1	25.9	12.9	13.4	54.1	9.6	32.3	59.8	22.7	28.4	-	-	263.2	263.2
	Departure from Normal	-86%	44%	-18%	-33%	47%	-87%	-54%	6%	-46%	16%	-	-	-39%	-32%

(a) End of available record.

3.2.2 Water Survey of Canada Gauge 07GD001

Over the period of available record (1968 to 2019), 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 runoff events. Base flows decrease throughout the open season with minimum flows frequently approaching zero from August to March (Table 3-4). The WSC gauge 07GD001 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 from 1987 to 2021 (45 years of seasonal data). All available data is shown, but the November to February data are subject to higher uncertainty, because there are only seven years of data available for these months. Published monthly summary statistics do not yet include the 2020 and 2021 data.

TABLE 3-4 Minimum Monthly Mean, Maximum Monthly Mean and Mean Monthly Discharge (m^3/s), Beaverlodge River at 07GD001 (1968 to 2019)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min. Monthly Mean	0	0	0	0.251	0.011	0.031	0.006	0	0	0	0	0
Max. Monthly Mean	0.196	0.217	11.50	38.60	39.60	26.100	27.00	15.20	10.20	3.77	0.57	1.22
Mean Monthly	0.062	0.07	1.700	11.1	7.87	3.54	2.49	1.170	0.562	0.515	0.151	0.221

For 2021, streamflow at the Water Survey of Canada gauge recorded a peak flow of 6.8 m^3/s on May 25 during a period of high rainfall. This is significantly less than the 2019 peak flow of 105 m^3/s caused by spring snow melt. Spring snow melt in 2021 resulted in a peak flow of approximately 4.8 m^3/s on April 18. After peak flow in May, flow rates gradually receded until reaching values below 1.0 m^3/s in mid June and continuing to near 0 m^3/s for the remainder of the open season (Appendix A2; Photographs 46 to 49). The hydrograph is included in Appendix B.

3.2.3 Beaverlodge River at the Weir

Snowmelt runoff occurred before the installation of the hydrometric gauge on April 29 and a rainfall-induced maximum instantaneous flow of 7.2 m^3/s occurred on May 25, corresponding to above average precipitation in May (Table 3-3). A minimum instantaneous flow of 0.001 m^3/s was recorded on August 18. Mean monthly flows in 2021 were less than those recorded in 2019 and 2020; this was primarily driven by a smaller snowmelt runoff peak compared to previous years and below average precipitation during the summer months (Table 3-3). During site visits on August 4 and October 7, it was noted that water levels had receded to below the height of the upstream riffle and flow measurements were not completed due to insufficient flow.

Monthly streamflow summary statistics for the Beaverlodge River at the weir for the 2019-2021 open seasons are summarized in Table 3-5. Hydrographs and mean daily streamflow summaries are included in Appendix B.

An elevation survey of the riffle was completed on October 6, 2021. Although some flow is possible between the larger rocks of the riffle, 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. The minimum discharge required to submerge the lowest point in the riffle structure was determined to be approximately 0.040 m^3/s based on the 2019-002 rating curve. Given this discharge, fish passage over the upstream riffle would have been unlikely between June 26 and station decommissioning on October 7.

TABLE 3-5 June to September Minimum, Maximum, and Mean Monthly Discharge (m^3/s) for the Beaverlodge River at the Weir - 2019 to 2021

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

n/c - not collected

3.2.4 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 mean daily discharges of 1.06 m^3/s on April 29 and 0.00142 m^3/s on June 25 (Tables 3-6 and 3-7). 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.

Velocity measurements follow a vertical velocity profile where velocities decrease toward the channel bottom generally decreased. Point velocity measurements at the surface of Riffle 1 ranged from to 1.056 m/s on April 29 to 0.0061 m/s on June 25, while the bottom water column measurements on June 25 ranged from 0.0 to 0.72 m/s. (Table 3-6). On Riffle 2, surface point velocities ranged from 0.0 m/s on June 25 to 1.149 m/s on April 25, while bottom velocities ranged on June 25 ranged from 0.0 to 0.194 m/s (Table 3-7). In general, velocities are greatest on the upstream and mid-stream sections of Riffle 1. Spot flow measurements within Riffle 2 were found to be higher in velocities at the surface within the middle and downstream sections of the riffle structure. Riffle 1 also experiences greater surface velocities compared to the downstream Riffle 2. This is likely attributable to the initial energy dissipation across Riffle 1 and the sharp channel bend upstream of Riffle 2. All surface velocities did not exceed the above listed burst speeds/maximum flow velocity outlined above (Katapodis 1992; Tables 3-6 and 3-7). In addition, the riffle structures provide pools and back water areas that fish can utilize for resting; as such, fish are unlikely to be required to swim at maximum burst over the entire distance of each riffle. As detailed in Section 3.2.3, insufficient flow across Riffle 1 from June 26 to October 7 made fish passage unlikely during this period.

TABLE 3-6 Riffle 1 Point Velocity Summary Data

		29-Apr-21		25-Jun-21		
Transect Location Within the Riffle Structure	Water Column Location	Measurement Location Within Riffle Structure		Measurement Location Within Riffle Structure		
		25%	75%	25%	50%	75%
Upstream	Surface	1.056 m/s	0.818 m/s	0.019 m/s	0.500 m/s	0.007 m/s
	Bottom	-	-	0.033 m/s	0.350 m/s	0.0111 m/s
Middle	Surface	0.808 m/s	0.730 m/s	0.793 m/s	0.083 m/s	0.0061 m/s
	Bottom	-	-	0.720 m/s	0.032 m/s	0.0228 m/s
Downstream	Surface	0.274 m/s	0.8 m/s	0.352 m/s	0.358 m/s	0.1124 m/s
	Bottom	-	-	0.351 m/s	0.0 m/s	0.0010 m/s
Streamflow at time of velocity measurements		1.06 m^3/s		0.00142 m^3/s		

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

TABLE 3-7 Riffle 2 Point Velocity Summary Data

		29-Apr-21		25-Jun-21		
Transect Location Within the Riffle Structure	Water Column Location	Measurement Location Within Riffle Structure		Measurement Location Within Riffle Structure		
		25%	75%	25%	50%	75%
Upstream	Surface	0.887 m/s	0.295 m/s	0.210 m/s	0.0 m/s	-
	Bottom	-	-	0.1 m/s	0.019 m/s	-
Middle	Surface	0.971 m/s	0.795 m/s	0.1431 m/s	0.295 m/s	-
	Bottom	-	-	0 m/s	0.008 m/s	-
Downstream	Surface	1.149 m/s	0.993 m/s	0.1662 m/s	0.305 m/s	-
	Bottom	-	-	0.0472 m/s	0.194 m/s	0.114 m/s
Streamflow at time of velocity measurements		1.06 m^3/s		0.00142 m^3/s		

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

3.3 Water Quality

Sondes continuously monitored in situ water quality parameters from June 24 to October 6, 2021. Raw data for all water quality parameters recorded by the continuous data loggers are provided in Appendix C and summarized in Table 3-8. Spot check water quality data at the established monitoring locations (Table 2-3; Figure 2-1) is summarized in Table 3-9. Water profile measurements conducted within the pool between the riffle structures (Reach 2) is provided in Table 3-10.

3.3.1 Water Temperature

Water temperatures ranged from 4.97°C to 35.50°C within the study reach during the duration of the sonde deployment (Table 3-8). Spot check measurements ranged from 5.7°C to 23.8°C throughout the

study reach (Table 3-9). Mean daily water temperatures peaked on June 30 (28°C) and decreased relatively steadily throughout the remainder of the monitoring period with occasional increases (Figure 3-2). Monthly average water temperatures were highest during the month of June, with water temperatures over 20°C; similar water temperature readings were recorded during the spot check water quality measurements in June (Figure 3-2; Table 3-9). During the months of July and August, the average monthly water temperatures were around 20°C (Table 3-8). Spot measurements were comparable to the daily average temperatures recorded by the sondes throughout August and September (Figure 3-2; Table 3-9).

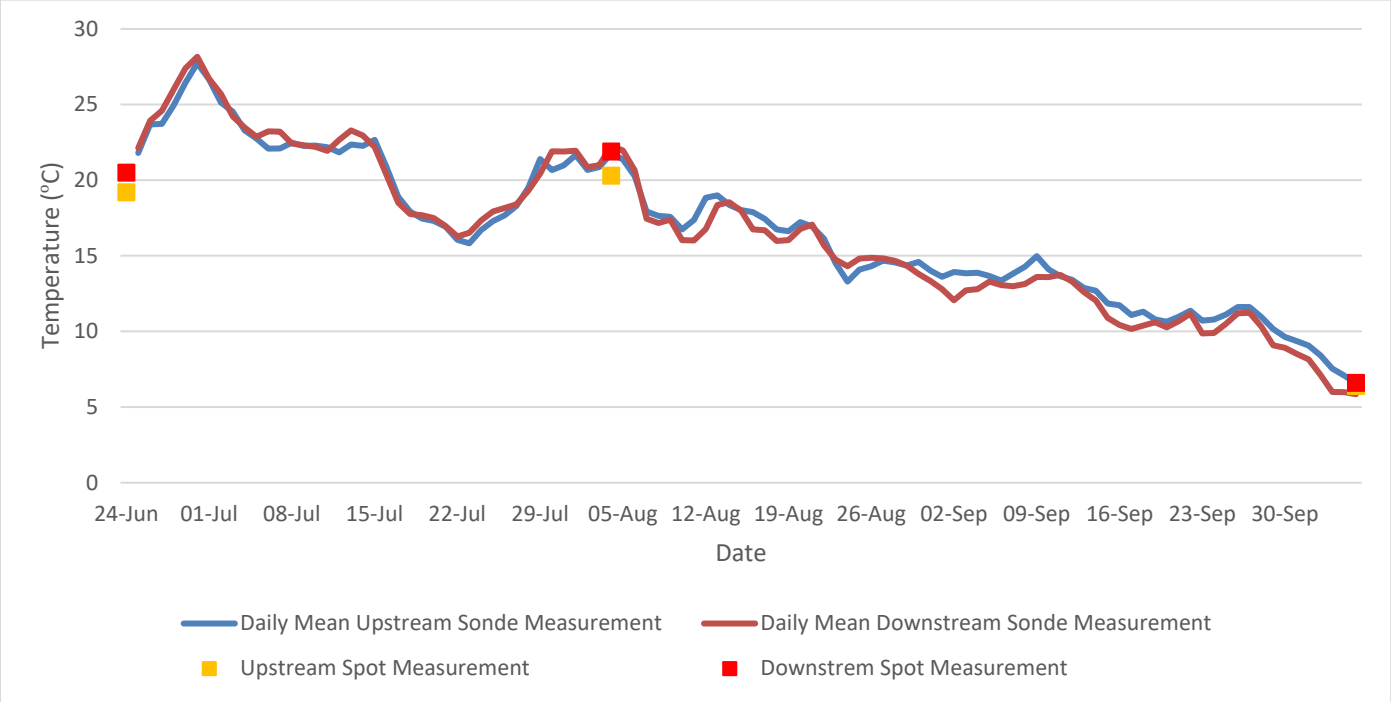

FIGURE 3-2 Daily Mean Water Temperature (July to October)

3.3.2 Dissolved Oxygen

DO concentrations recorded from the sondes during the monitoring period ranged from 0.01 to 12.2 mg/L upstream, and 0.003 to 14.6 mg/L downstream (Table 3-8). Concentrations appeared to be highly variable at each monitoring location and showed no consistent trends with the exception of a slight decrease in concentrations toward fall (Figure 3-3). DO concentrations observed when taking spot measurements of in situ water quality were consistently higher than concentrations measured with the sondes at both the upstream and downstream monitoring locations (Figure 3-3). The average daily DO concentrations recorded by the sondes were frequently below acute and chronic guidelines for the protection of freshwater aquatic life; however, spot measurements were above acute and chronic guidelines (AEP 2018). While low DO concentrations can be attributed to decreasing flow (see Section 3.2) and stagnating

water conditions, the highly variable readings could also be attributed to fouling of the sondes (e.g., algae build up and debris collection) interfering with accurate measurements.

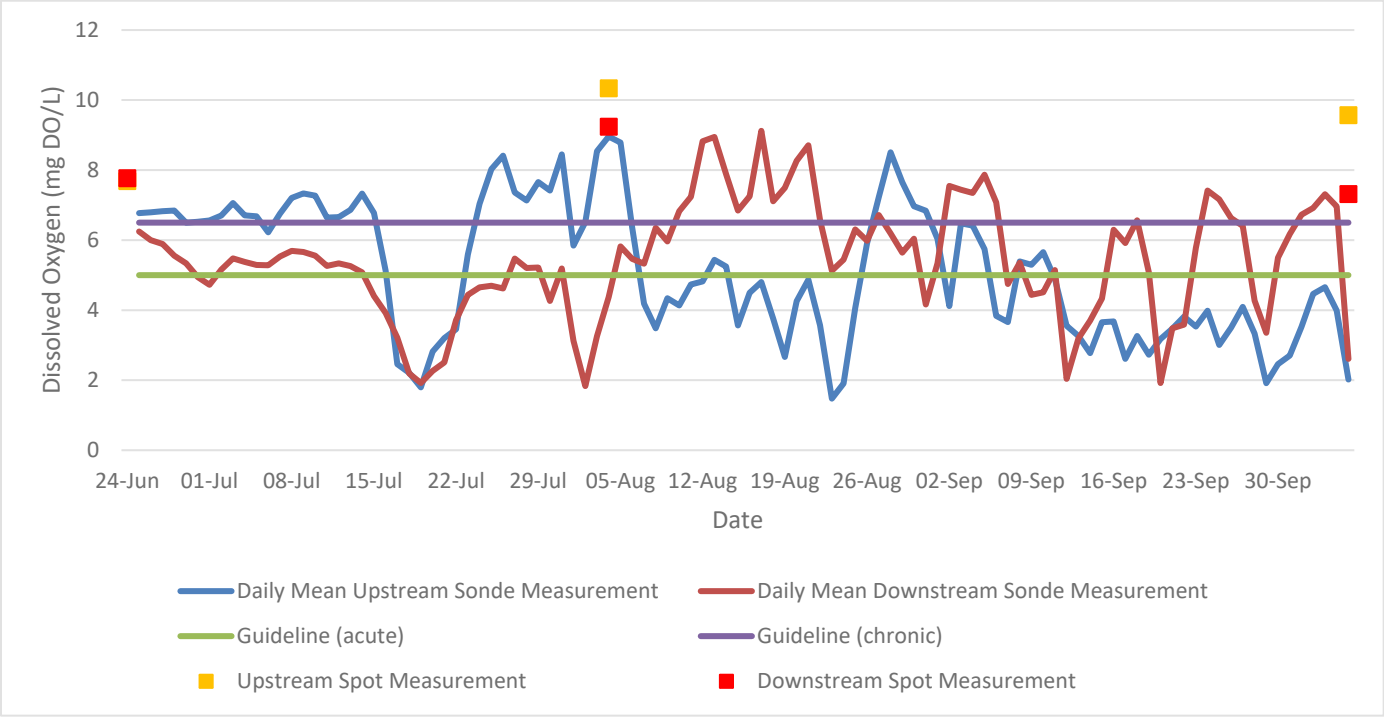

FIGURE 3-3 Daily Mean Dissolved Oxygen Concentration (July to October)

3.3.3 pH

pH levels recorded from the sondes during the monitoring period ranged from 6.73 to 9.55 (Table 3-8); spot check measurements fell within the range of readings recorded by the sondes during the corresponding time periods (Table 3-9). The average daily pH levels recorded within the upstream and downstream portions of the study area were relatively similar throughout the monitoring period. The upstream and downstream daily average pH levels followed a generally parallel trend, with the average daily pH levels being slightly higher at the upstream monitoring location during the beginning and end of August, but generally staying within the 7.5 to 9.5 pH range (Figure 3-4). Some differences between manual spot measurements and sonde readings were observed in August and October (Figure 3-4). Similar to DO, the low pH measurements recorded by the sondes may be attributed to sonde fouling and water stagnation.

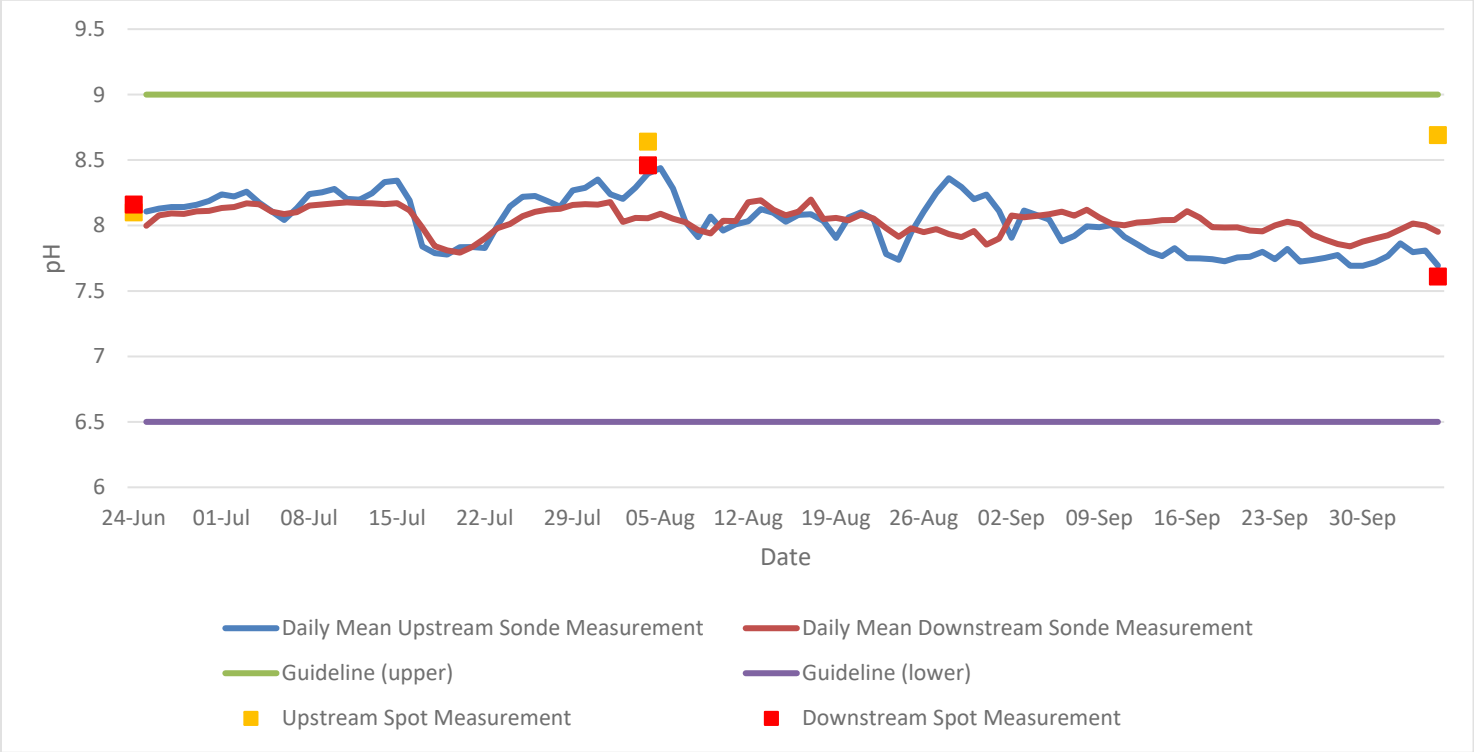

FIGURE 3-4 Daily Mean - pH (July to October)

3.3.4 Conductivity

SC ranged from 483.3 to 923.5 µS/cm at the upstream sonde and 502.8 to 1,504.3 µS/cm at the downstream sonde (Table 3-8). The lowest SC measurements at the upstream and downstream sonde were recorded within the month of June and coincide with spot measurements collected on June 24, 2021 (Figure 3-5; Tables 3-8 and 3-9). SC measurements increased throughout the monitoring period, with the maximum SC measurements at the upstream and downstream sonde locations recorded within the month of September (Table 3-8). Spot measurements were not gathered within the month of September; however, spot measurements collected on October 6, 2021, exceeded 800 µS/cm, with the highest reading occurring at the downstream sonde location which measured 1,117 µS/cm (Figure 3-5; Tables 3-8 and 3-9).

The average daily SC values displayed an upward parallel trend at both of the upstream and downstream sonde locations throughout the monitoring period (Figure 3-5) and coincided with a decreasing water level (Beaverlodge Hydrograph; Appendix B). The SC levels at the downstream sonde location displayed a pronounced upward trend starting on August 31, 2021, increasing until September 3, 2021 (Figure 3-5). Average daily SC values downstream gradually decreased and returned to similar SC values observed upstream by the end of September. Comparable SC readings were observed for the remainder of the monitoring period (Figure 3-5). It is unclear what caused the sudden increase in SC observed at the end of

August. However, the increased SC levels could be related to low flow conditions and debris build up at that time.

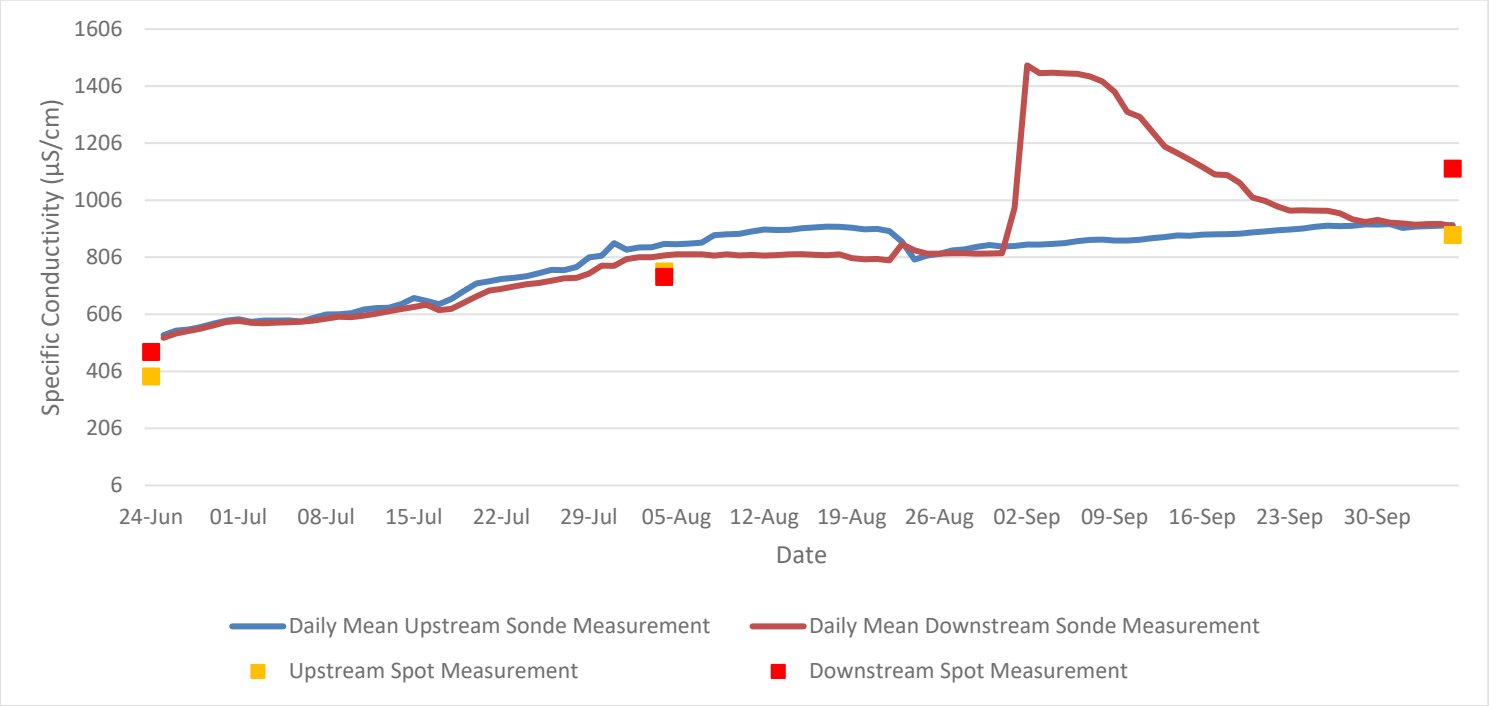

FIGURE 3-5 Daily Mean - Specific Conductivity (July to October)

3.3.5 Turbidity

The daily average NTU readings observed within the study reach ranged from 1.0 to 1,819.9 NTU at the upstream sonde, and 0 to 489.6 NTU at the downstream sonde during the entire monitoring period (Table 3-8). Spot check measurements did not exceed 55 NTU (Figure 3-6; Table 3-9). The average monthly NTU readings were highest during the month of October (283.7 NTU) downstream of Riffle 2 and upstream of Riffle 1 during the month of August (214.7 NTU; Table 3-8). In all other months, the average NTU readings at both sonde locations were below 90 NTU (Table 3-9).

The daily average NTU values occasionally differed between sonde locations throughout the monitoring period (Figure 3-6). An increase in NTU readings was observed upstream of Riffle 1 in early August and continued to increase throughout the month, followed by a decrease in NTU readings for the remainder of the month (Figure 3-6). The rise in NTU readings corresponded with precipitation and runoff events (Beaverlodge Hydrograph; Appendix B). An increase in NTU levels downstream of Riffle 2 occurred in early September, trending upward for the remainder of the monitoring period (Figure 3-6). Spot measurements were comparable to upstream and downstream daily average NTU values throughout the monitoring period, except for increased daily average NTU values observed downstream at the end of the monitoring period (Figure 3-6). This upward trend in NTU readings downstream of Riffle 2 could be due to recent

beaver activity observed directly upstream of Riffle 2 or fouling of the sondes (Appendix A1; Photograph 12).

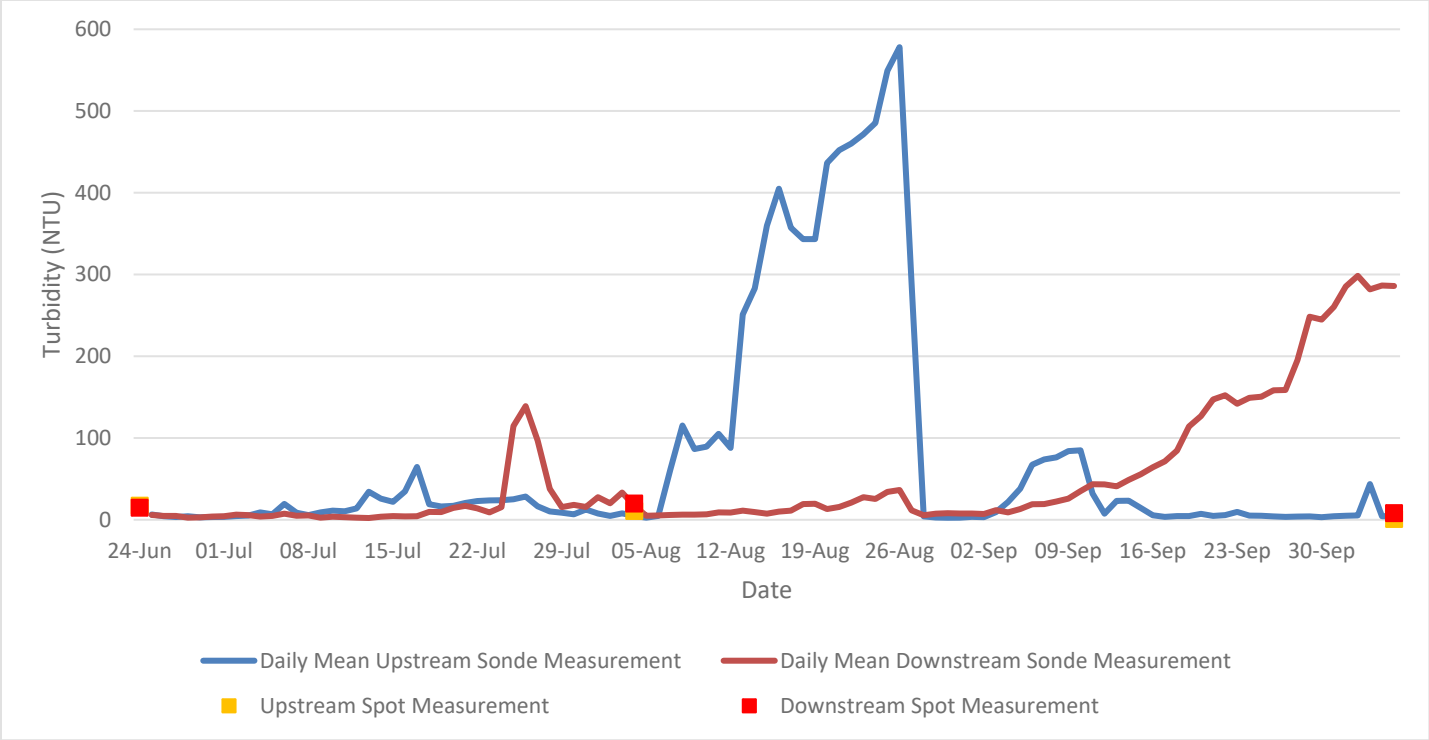

FIGURE 3-6 Daily Mean - Turbidity (July to October)

TABLE 3-8 2021 Sonde Data Summary

Month	Water Quality Parameter	Upstream			Downstream		
		Minimum	Maximum	Mean	Minimum	Maximum	Mean
June	Temperature (°C)	18.5	30.9	23.9	19.8	35.5	25.1
	pH	7.8	8.5	8.1	6.7	9.6	8.1
	EC (µS/cm)	429.7	669.0	541.4	458.7	666.3	553.2
	SC (µS/cm)	483.3	604.3	551.1	502.8	601.4	550.4
	Turbidity (NTU)	1.0	143.1	4.8	0.0	178.1	4.4
	DO (mg/L)	4.8	8.5	6.7	4.3	7.0	5.7
July	Temperature (°C)	15.1	28.2	20.6	15.2	29.0	20.8
	pH	7.7	8.4	8.1	7.7	8.3	8.1
	EC (µS/cm)	524.8	860.3	615.0	505.9	785.7	595.8
	SC (µS/cm)	566.4	884.6	674.3	554.1	793.6	649.3
	Turbidity (NTU)	2.1	1,386.6	17.4	0.7	451.9	19.4
	DO (mg/L)	0.4	10.6	6.2	0.1	8.6	4.6
August	Temperature (°C)	12.7	25.2	17.3	12.9	26.6	17.1
	pH	7.6	8.6	8.1	7.7	8.4	8.0
	EC (µS/cm)	604.8	866.8	741.1	612.3	850.9	690.7
	SC (µS/cm)	788.1	918.5	869.0	759.1	860.4	814.4
	Turbidity (NTU)	1.4	1,819.9	214.7	1.5	223.5	14.6
	DO (mg/L)	0.020	12.2	5.3	0.003	14.6	6.3

Month	Water Quality Parameter	Upstream			Downstream		
		Minimum	Maximum	Mean	Minimum	Maximum	Mean
September	Temperature (°C)	9.2	17.3	12.3	8.3	14.8	11.6
	pH	7.6	8.3	7.8	7.7	8.3	8.0
	EC (µS/cm)	640.9	738.8	668.4	624.5	1,156.7	869.5
	SC (µS/cm)	842.7	923.4	883.8	818.1	1,504.3	1,163.6
	Turbidity (NTU)	1.5	129.1	21.3	4.3	412.2	87.0
	DO (mg/L)	0.010	9.5	4.0	0.6	10.4	5.3
October	Temperature (°C)	6.4	9.7	8.1	5.0	9.1	6.9
	pH	7.6	8.0	7.8	7.9	8.5	8.0
	EC (µS/cm)	593.1	652.9	620.7	563.5	648.5	602.2
	SC (µS/cm)	900.7	923.5	915.7	909.6	931.2	921.5
	Turbidity (NTU)	2.2	293.2	11.7	238.9	489.7	283.7
	DO (mg/L)	1.1	6.5	3.7	0.9	8.6	5.8

DO - dissolved oxygen
EC - electrical conductivity
SC - specific conductivity

TABLE 3-9 Spot Check Water Quality Summary

Date (dd-mmm-yy)	Water Quality Parameter	BL1	BL2	BL5	BL6
29-Apr-21	Temperature (°C)	6.0	5.7	6.0	6.0
	pH	7.5	7.0	8.1	8.0
	EC (µS/cm)	193.0	191.0	183.0	193.0
	SC (µS/cm)	303.0	303.0	287.0	302.0
	Turbidity (NTU)	15.5	14.9	14.4	12.0
	DO (mg/L)	12.3	11.9	13.7	12.7
25-May-21	Temperature (°C)	13.9	13.9	14.0	14.0
	pH	8.2	8.2	8.3	8.3
	EC (µS/cm)	184.0	184.3	184.3	185.0
	SC (µS/cm)	233.6	233.7	233.6	234.0
	Turbidity (NTU)	54.9	50.1	59.2	54.4
	DO (mg/L)	8.9	8.9	9.0	9.1
24-Jun-21	Temperature (°C)	19.2	21.9	19.8	20.5
	pH	8.1	8.2	8.2	8.2
	EC (µS/cm)	345.3	377.4	423.9	432.6
	SC (µS/cm)	388.2	401.7	470.3	473.9
	Turbidity (NTU)	17.3	14.3	13.0	14.8
	DO (mg/L)	7.7	7.6	7.9	7.8
04-Aug-21	Temperature (°C)	20.3	20.7	23.8	21.9
	pH	8.6	8.5	8.5	8.5
	EC (µS/cm)	688.0	687.0	718.0	693.0
	SC (µS/cm)	756.0	747.0	736.0	737.0
	Turbidity (NTU)	10.8	10.8	24.8	19.9
	DO (mg/L)	10.3	7.4	8.6	9.2

Date (dd-mmm-yy)	Water Quality Parameter	BL1	BL2	BL5	BL6
06-Oct-21	Temperature (°C)	6.4	6.6	6.5	6.6
	pH	8.7	8.1	8.1	7.6
	EC (µS/cm)	570.0	533.0	524.0	728.0
	SC (µS/cm)	884.0	820.0	811.0	1,117.0
	Turbidity (NTU)	1.0	6.6	9.0	8.1
	DO (mg/L)	9.6	7.9	6.5	7.3

DO - dissolved oxygen
EC - electrical conductivity
SC - specific conductivity

TABLE 3-10 Water Quality Profile Summary

Date (dd-mmm-yy)	Water Quality Parameter	Depth of Measurement (m)		
		Surface	1.0	2.0
04-Aug-21	pH	8.58	8.1	7.87
	Temperature (°C)	21.2	19.6	18
	SC (µS/cm)	735	710	703
	DO (mg/L)	8.77	3.35	1.45
07-Oct-21	pH	7.76	7.86	7.32
	Temperature (°C)	5.9	5.9	5.9
	SC (µS/cm)	816	820	824
	DO (mg/L)	8.12	7.98	7.29

DO - dissolved oxygen
SC - specific conductivity

3.4 2021 Fisheries and Oceans Canada Monitoring Summary

Additional sampling related to conditions in the DFO monitoring plan was conducted in 2021. A summary of the results is present below, and detailed results are available upon request by AEP. A summary of the 2020 DFO monitoring results was detailed in the 2020 DFO Monitoring Report (Matrix 2020a). DFO required fish movement monitoring after the riffle structures were installed. Monitoring was aimed at confirming habitat use by resident fish populations and determining if fish are staging below and passing the riffle structures. Methods to observe fish presence and movement included eDNA sampling and analysis (targeting Arctic Grayling), boat electrofishing, angling, and monitoring fish movement through the use of Radio-Frequency Identification (RFID) Half-duplex (HDX) single antenna PIT tag system. Arctic Grayling DNA was not detected in any of the eDNA samples collected in the river (samples were analyzed by the Hebling Laboratory, Victoria, British Columbia). Laboratory QA/QC performed using chloroplast DNA amplification was conducted and all samples performed well when tested for chloroplast DNA with the IntegritE-DNA test, meaning that there was ample intact DNA present in the samples, and inhibitory chemicals did not significantly interfere with the qPCR amplifications. Therefore, if Arctic Grayling DNA was present in the samples, it would likely have been identified.

Fish sampling within the Project area throughout the monitoring years has resulted in the capture of nine fish species, including Brook Stickleback (*Culaea inconstans*), Bull Trout, Burbot, Lake Chub (*Couesius*

plumbeus), Longnose Sucker (*Catostomus Catostomus*), Northern Pike, Redside Shiner (*Richardsonius balteatus*), Trout Perch (*Percopsis omiscomaycus*), and White Sucker (*Catostomus commersonii*; Table 3-11).

Total fish captured was highest in 2021 at 124 fish followed by 2020 and 2019. However, fish sampling effort was not even over the three years of sampling (Table 3-11). The increase in effort in 2020 and 2021 was a result of changing monitoring methods (i.e., removing the fish fence installation saved time to focus on fish sampling). Although fishing effort tripled from 2019 to 2020, catch per unit effort (CPUE)were similar with 1.62 fish/100 s in 2019 and 1.48 fish/100 s in 2020 (Table 3-11). CPUE was the highest in 2021 at 2.52 fish/100 s (Table 3-11). White Sucker remained the most abundant species captured in all three years.

TABLE 3-11 Yearly Electrofishing Catch Per Unit Effort Comparison, 2019 to 2021

Sampling Period	2019			2020			2021		
Species	Total Fish Captured	Effort (seconds)	CPUE (Fish /100 seconds)	Total Fish Captured	Effort (seconds)	CPUE (Fish /100 seconds)	Total Fish Captured	Effort (seconds)	CPUE (Fish /100 seconds)
Brook Stickleback	0	0	0	0	0	0	1	4,914	0.02
Bull Trout	0	0	0	0	0	0	1	4,914	0.02
Burbot	0	0	0	0	0	0	1	4,914	0.02
Lake Chub	2	1,948	0.1	1	6,080	0.02	1	4,914	0.02
Longnose Sucker	3	1,948	0.15	0	6,080	0	20	4,914	0.41
Northern Pike	2	1,948	0.1	1	6,080	0.02	5	4,914	0.10
Redside Shiner	3	1,948	0.15	19	6,080	0.31	3	4,914	0.06
Trout Perch	0	0	0	0	0	0	1	4,914	0.02
White Sucker	31	1,948	1.59	69	6,080	1.13	91	4,914	1.85
TOTAL	**41**	**1,948**	**1.62**	**90**	**6,080**	**1.48**	**124**	**4,914**	**2.52**

Note:
2019 CPUE efforts includes June and July fish sampling.

TABLE 3-12 Yearly Angling Catch Per Unit Effort Comparison 2019 (July), 2020, and 2021

Sampling Period	2019			2020			2021		
Species	Number Captured	Effort (hours)	CPUE (Fish Captured /hour)	Number Captured	Effort (hours)	CPUE (Fish Captured /hour)	Number Captured	Effort (hours)	CPUE (Fish Captured /hour)
Northern Pike	2	2.5	0.8	1	3.5	0.29	0	1.5	0

Fifty-nine fish were implanted with PIT tags in 2021 and included: 13 White Sucker, 1 Bull Trout, and 1 Northern Pike were tagged and released in Reach 1; 17 White Sucker, 1 Burbot, and 1 Northern Pike were tagged and released in Reach 2; 23 White Sucker, and 2 Longnose Sucker were tagged and released in Reach 3 (Table 3-13).

TABLE 3-13 Passive Integrated Transponder Tagging Summary

Species	Reach 1	Reach 2	Reach 3	Total
Bull Trout	1	0	0	1
Burbot	0	1	0	1
Longnose Sucker	0	0	2	2
Northern Pike	1	1	0	2
White Sucker	13	17	23	53
Total	**15**	**19**	**25**	**59**

Twelve individual White Sucker were detected over the PIT tag antenna from June 23 to October 1, 2021. All fish detected were tagged in 2021 with 11 individuals released in Reach 1, and 1 released in Reach 2 (Table 3-13). The individual released within Reach 2 had to have passed through Riffle 1. It is unknown if fish that were tagged in Reach 1 moved downstream through the riffle structures. Fish tagged in 2020 were not detected.

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 2020a). Due to the generally low water levels observed throughout 2021, no significant erosion of the south bank was observed. The bank remains unstable with large areas of vegetation and soil slumping into the river. This continued erosion is also posing a risk to the functionality of Riffle 2, as discussed within the 2020 Monitoring Report (Matrix 2020a) and Table 3-1.

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 expose a large portion of the toe/run out of Riffle 1, which would increase the distance that fish are required to swim to pass the riffle. 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

Elevation data was taken during an RTK survey of the weir in October 2021. The minimum flow required for water to flow above the lowest point in the upstream riffle ($Q\text{-}fish_{min}$) was determined to be approximately 0.040 m^3/s. Given this streamflow, water level was insufficient for fish passage from June 26 to October 7, when the hydrometric instrumentation was removed for the season (Appendix A2; Photographs 8, 12, 32, 36, 47, and 48). Although precipitation for October was 24% above the normal, it

is possible that low streamflow may have persisted until freeze up, eliminating fish passage until the 2022 spring freshet.

Water Quality

Overall, readings gathered by the multiparameter sondes were similar to those gathered during manual spot checks, with the exception of DO concentrations. DO concentrations appeared to be highly variable at each monitoring location throughout the monitoring period, with concentrations recorded below acute and chronic guidelines for the protection of freshwater aquatic life (AEP 2018). Manual spot measurements recorded DO concentrations above chronic guidelines for the protection of freshwater aquatic life (AEP 2018) during each site visit. Low DO concentrations and discrepancies between sondes and multimeter spot measurements can be attributed to a variety of things, including decreasing flow (see Section 3.2) and stagnating water conditions observed later in summer, as well as fouling of sondes (e.g., algae build up and debris accumulation).

The accuracy of these readings was questionable given the high algae build up and debris collection on the sondes. 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; however, build up on the sonde's probes occurred rapidly. Prior to cleaning the sonde's probes, DO concentrations recorded from the sondes were observed to be low. Once the algae and debris build up was removed, DO concentrations from the sondes were verified with spot measurements. (Note: sonde data is provided as a daily average, which includes a large variation in readings gathered throughout the day.)

There are a number of reasons why in situ water quality recorded by the sondes and through manual spot measurements showed large variation. DO concentrations can fluctuate between day and night, particularly during periods of hot ambient air temperatures, like those experienced in late June and July 2021. Deteriorating flow experienced throughout 2021 created stagnating water conditions, particularly upstream of Riffle 1 (the weir). These conditions likely contributed to declining water quality conditions observed throughout the open the water system from July, onwards. Water quality measurements recorded by sondes in poor water conditions can be unreliable due to the continued fouling of sondes with little flow to keep probes clean. Without constant maintenance by field crews, the sonde data should therefore be considered in the context of the challenging conditions they were utilized in during 2021. Regardless of the accuracy of sonde data, when taken in the context of the drought and low water and flow conditions experienced in the region in 2021, and more accurate manual spot measurements, water quality was considered to be below optimal for cold water species such as Arctic Grayling and Bull trout during the summer period (July through to September) in the Beaverlodge River.

Fish Habitat Conditions

Overhanging vegetation was present throughout the study reach, primarily provided by willows and smaller shrubs. With the exception of small areas of constructed access at the weir, the riparian zone of

the study reach is relatively healthy, providing a small buffer between the river and agricultural and other industrial activities, as well as providing good habitat cover for resident fish species. Large woody debris continues to accumulate along the bank and within the channel providing additional instream habitat cover. In addition, a beaver dam was established upstream of Riffle 2, observed during the final field visit (October 6 and 7, 2021).

An increased density of aquatic macrophytes was present directly upstream of Riffle 1, and along the shorelines of Reach 1. Substrates within Reach 1 and along the shoreline of Reach 2 are dominated by fines and silt substrate material. Gravel substrates remain abundant in Reach 3; these areas are potentially suitable for Burbot and sucker spawning.

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 downstream of the weir. However, with the decline in flow in the Beaverlodge River by the end of June, water quality conditions would likely continue to follow the same pattern of decline observed in July to October through the late fall and winter; overwintering conditions may be unsuitable to support species such as Arctic Grayling and Bull Trout in winter 2021/22. 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 over winter.

Fish Passage

Fish passage suitability in 2019, 2020, and 2021 was assessed based on habitat structure and measurement of point velocities within each riffle, while actual fish passage was observed using the deployment of PIT tags within suitable sized fish and the installation of the PIT tag system in 2020 and 2021 under the DFO monitoring conditions (Matrix 2017b).

Riffle velocities in 2021 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 May, which resulted in flow rates gradually receding until June 26, 2021, when water levels were insufficient for fish passage. It is likely that water levels remained insufficient for fish passage until freshet of 2022. A single, tagged White Sucker, captured in 2021, was detected at the RFID antenna upstream of the weir; the White Sucker was captured and released in Reach 2, meaning that it swam upstream through Riffle 1. The remainder of the fish detected by the PIT tag reader in 2021 were all captured and released in Reach 1. From when fish were tagged and released (June 24, 2021), only two days suitable for upstream passage occurred before water levels lowered to the point that fish passage was unlikely on June 26, 2021. Based on results in 2020 and 2021, fish are able to pass both riffle structures when flows are above 0.0399 m^3/s.

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 CONCLUSION

2021 was the final year of monitoring per Alberta *Water Act* Approval No. 00372572-00-00. Monitoring will continue in 2022 and 2023 as per the DFO monitoring plan (Matrix 2017b).

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

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

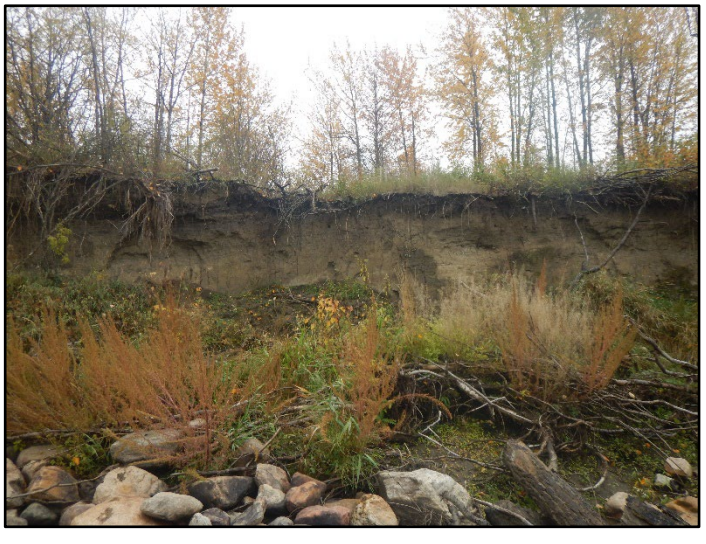
11. Riffle 2, facing left bank during fall monitoring (October 2020).

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

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

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

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



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

APPENDIX A2
Five-year Monitoring Locations

1. BL1; facing upstream from Riffle 1 (April 29, 2021).

2. BL1; facing upstream from Riffle 1 (May 25, 2021).

3. BL1; facing upstream from Riffle 1 (June 23, 2021).

4. BL1; facing upstream from Riffle 1 (October 6, 2021).

5. BL1; facing downstream at Riffle 1 (April 29, 2021).

6. BL1; facing downstream at Riffle 1 (May 25, 2021).

7. BL1; facing downstream at Riffle 1 (June 23, 2021).

8. BL1; facing downstream at Riffle 1 (October 6, 2021).

9. BL2; facing upstream at Riffle 1 (April 29, 2021).

10. BL2; facing upstream at Riffle 1 (May 25, 2021).

11. BL2; facing upstream at Riffle 1 (June 23, 2021).

12. BL2; facing upstream at Riffle 1 (October 6, 2021).

13. BL 2; facing downstream from Riffle 1 (April 29, 2021).

14. BL2; facing downstream from Riffle 1 (May 25, 2021).

15. BL2; facing downstream from Riffle 1 (June 23, 2021).

16. BL2; facing downstream from Riffle 1 (October 6, 2021).

17. BL3; facing upstream toward Riffle 1 (April 29, 2021).

18. BL3; facing upstream toward Riffle 1 (May 25, 2021).

19. BL3; facing upstream toward Riffle 1 (June 23, 2021).

20. BL3; facing upstream toward Riffle 1 (October 6, 2021).

21. BL3; facing downstream toward Riffle 2 (April 29, 2021).

22. BL3; facing downstream toward Riffle 2 (May 25, 2021).

23. BL3; facing downstream toward Riffle 2 (June 23, 2021).

24. BL3; facing downstream toward Riffle 2 (October 6, 2021).

25. BL5; facing upstream from Riffle 2 (April 29, 2021).

26. BL5; facing upstream from Riffle 2 (May 25, 2021).

27. BL5; facing upstream from Riffle 2 (June 24, 2021).

28. BL5; facing upstream from Riffle 2 (October 6, 2021).

29. BL5; facing downstream from the top of Riffle 2 (April 29, 2021).

30. BL5; facing downstream from the top of Riffle 2 (May 25, 2021).

31. BL5; facing downstream from the top of Riffle 2 (June 24, 2021).

32. BL5; facing downstream from the top of Riffle 2 (October 6, 2021).

33. BL6; facing upstream from the bottom of Riffle 2 (April 29, 2021).

34. BL6; facing upstream from the bottom of Riffle 2 (May 25, 2021).

35. BL6; facing upstream from the bottom of Riffle 2 (June 24, 2021).

36. BL6; facing upstream from the bottom of Riffle 2 (October 6, 2021).

37. BL6; facing downstream from the bottom of Riffle 2 (April 29, 2021).

38. BL6; facing downstream from the bottom of Riffle 2 (May 25, 2021).

39. BL6; facing downstream from the bottom of Riffle 2 (June 24, 2021).

40. BL6; facing downstream from the bottom of Riffle 2 (October 6, 2021).

41. Monitoring camera at Riffle 1, viewing from the left downstream bank (April 29, 2021).

42. Monitoring camera at Riffle 1, viewing from the left downstream bank (May 4, 2021).

43. Monitoring camera at Riffle 1, viewing from the left downstream bank (May 17, 2021).

44. Monitoring camera at Riffle 1, viewing from the left downstream bank (June 1, 2021).

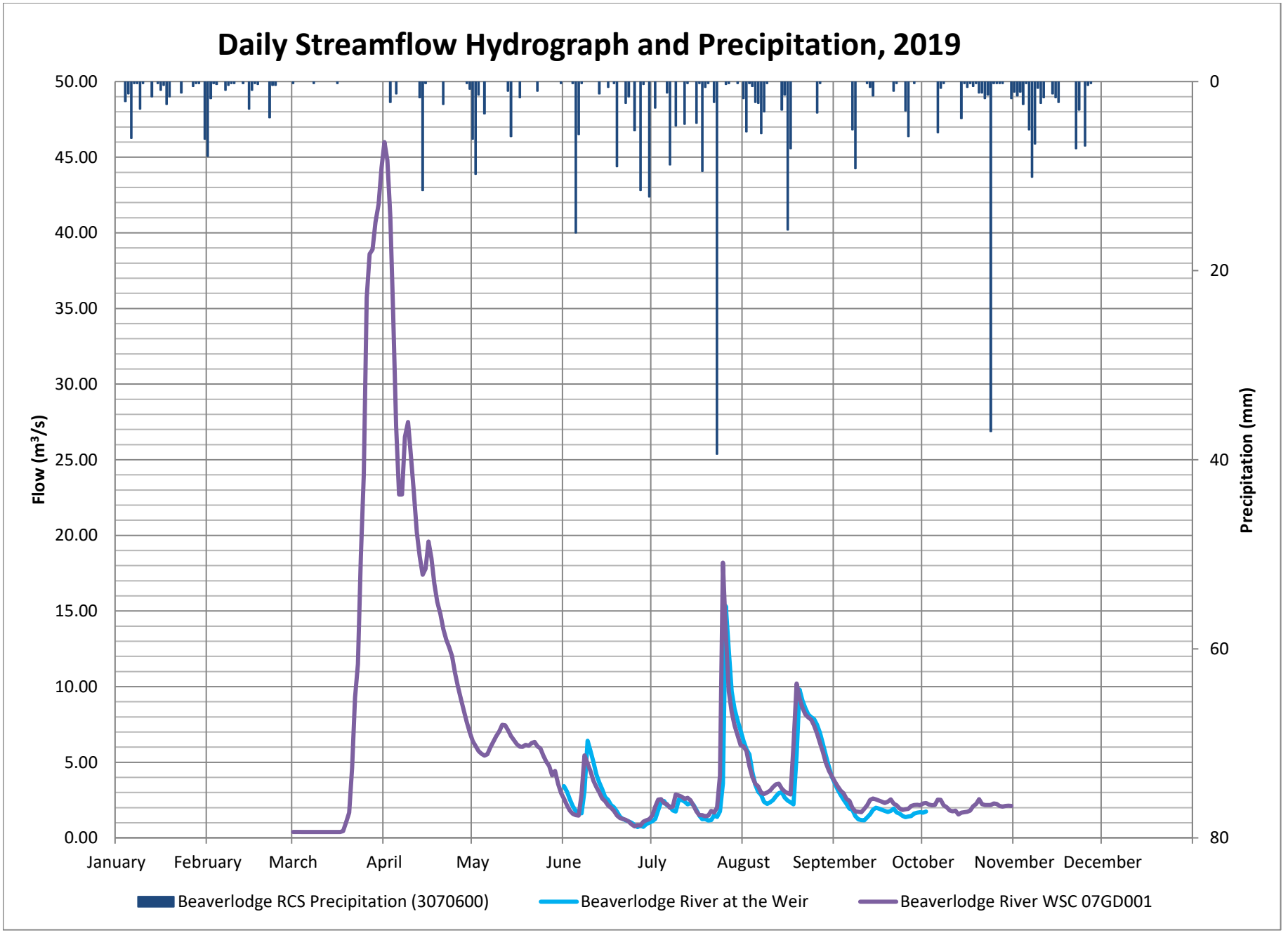
45. Monitoring camera at Riffle 1, viewing from the left downstream bank (June 15, 2021).

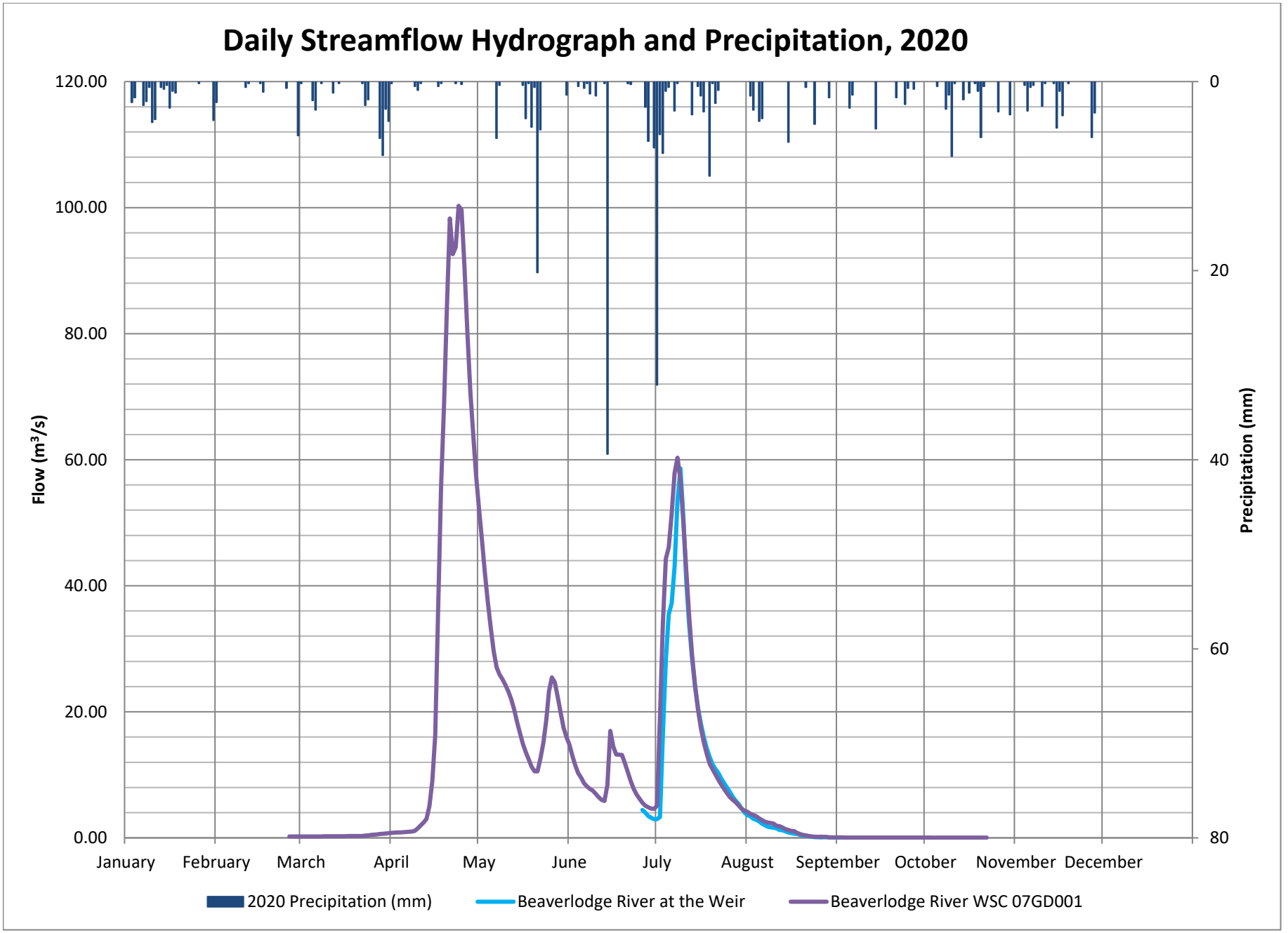
46. Monitoring camera at Riffle 1, viewing from the left downstream bank (June 25, 2021).

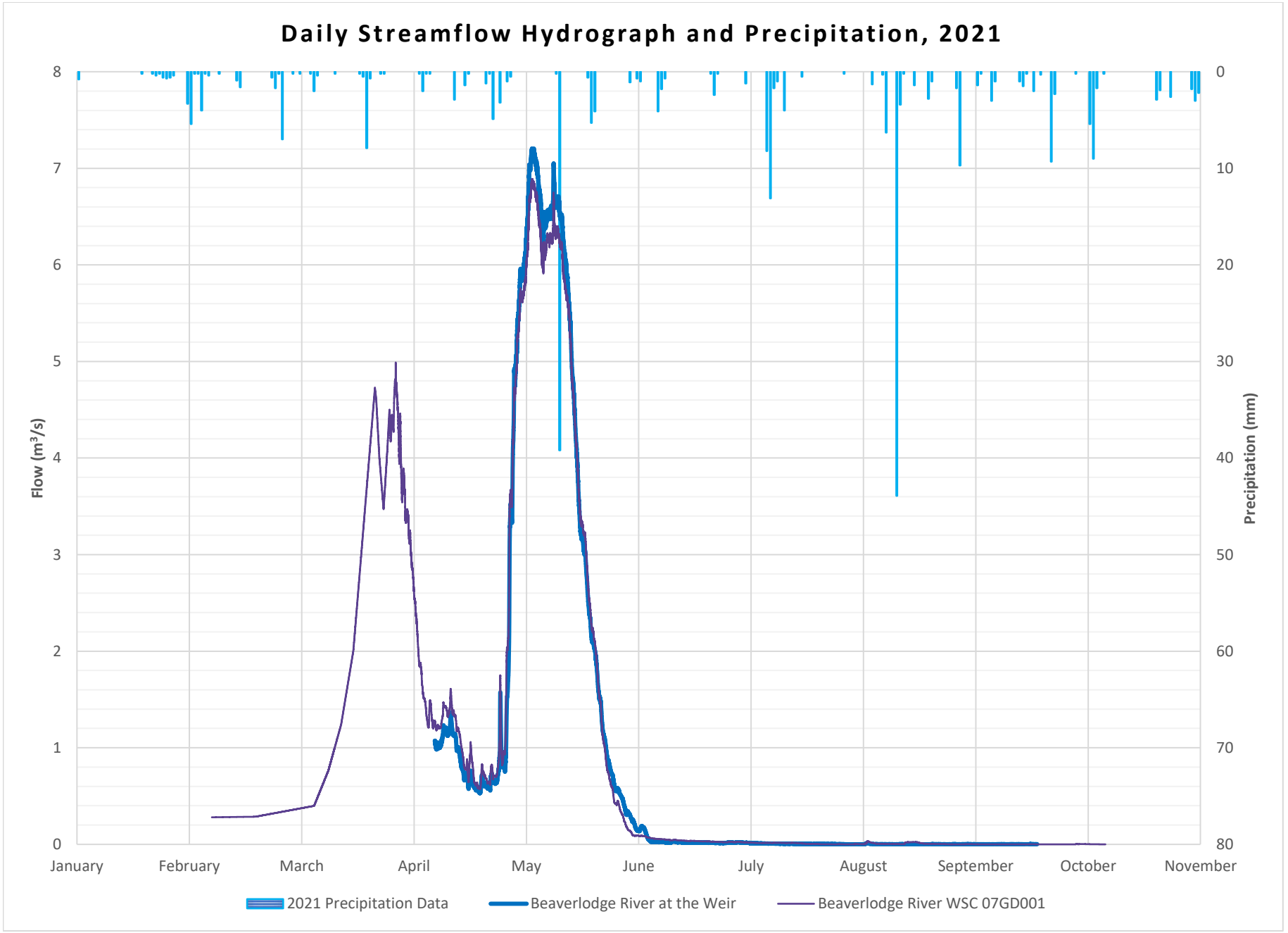
47. Monitoring camera at Riffle 1, viewing from the left downstream bank (August 7, 2021).

48. Monitoring camera at Riffle 1, viewing from the left downstream bank (August 26, 2021).

APPENDIX B
Hydrology


Daily Streamflow Hydrograph and Precipitation, 2019
Flow (m³/s)
Precipitation (mm)
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0
20
40
60
80
January
February
March
April
May
June
July
August
September
October
November
December
Beaverlodge RCS Precipitation (3070600)
Beaverlodge River at the Weir
Beaverlodge River WSC 07GD001


Daily Streamflow Hydrograph and Precipitation, 2020
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Flow (m³/s)
0
20
40
60
80
Precipitation (mm)
January
February
March
April
May
June
July
August
September
October
November
December
2020 Precipitation (mm)
Beaverlodge River at the Weir
Beaverlodge River WSC 07GD001


Daily Streamflow Hydrograph and Precipitation, 2021
Flow (m³/s)
Precipitation (mm)
0
1
2
3
4
5
6
7
8
10
20
30
40
50
60
70
80
January
February
March
April
May
June
July
August
September
October
November
2021 Precipitation Data
Beaverlodge River at the Weir
Beaverlodge River WSC 07GD001

Identifier: Discharge.Discharge@2199-01
Location: Beaverlodge River at the Weir
Units: m^3/s

Mean Daily Streamflow

Year: 2019 **Mean:** 3.126 **Min:** 0.663 **Max:** 16.918 **Total (Dam^3):** 33206

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1						3.068 B	1.245 B	5.850 B	3.179 B	1.744 B		
2						2.550 B	1.835 B	5.512 B	2.834 B			
3						2.095 B	2.379 B	4.356 B	2.524 B			
4						1.785 B	2.435 B	3.527 B	2.250 B			
5						1.688 B	2.153 B	3.054 B	1.939 B			
6						1.620 B	2.065 B	2.839 B	1.853 B			
7						3.101 B	1.809 B	2.382 B	1.450 B			
8						6.427 B	1.735 B	2.247 B	1.229 B			
9						5.738 B	2.539 B	2.354 B	1.183 B			
10						5.008 B	2.500 B	2.495 B	1.164 B			
11						4.195 B	2.390 B	2.748 B	1.351 B			
12						3.658 B	2.224 B	2.955 B	1.567 B			
13						3.209 B	2.301 B	3.026 B	1.857 B			
14						2.698 B	2.180 B	2.655 B	2.000 B			
15						2.516 B	1.839 B	2.472 B	1.941 B			
16						2.173 B	1.468 B	2.343 B	1.854 B			
17						2.019 B	1.243 B	2.224 B	1.790 B			
18						1.728 B	1.255 B	5.463 B	1.715 B			
19						1.403 B	1.151 B	9.801 E	1.793 B			
20						1.258 B	1.179 B	9.083 E	1.932 B			
21						1.159 B	1.483 B	8.570 E	1.683 B			
22						1.087 B	1.380 B	8.158 E	1.602 B			
23						0.996 B	1.762 B	7.973 E	1.454 B			
24						0.843 B	3.593 B	7.844 E	1.372 B			
25						0.718 B	15.318 E	7.478 E	1.412 B			
26						0.801 B	12.436 E	6.943 B	1.438 B			
27						0.727 B	9.694 E	6.207 B	1.613 B			
28						0.915 B	8.521 E	5.451 B	1.673 B			
29						1.011 B	7.721 E	4.679 B	1.698 B			
30						1.103 B	7.076 E	4.033 B	1.663 B			
31					3.421		6.405 B	3.611 B				
Mean					3.421	2.243	3.655	4.785	1.767	1.744		
Min					3.246	0.663	1.029	2.140	1.108	1.734		
Max					3.582	7.041	16.918	9.999	3.406	1.853		
Total					129.3	5814.6	9790.3	12815.8	4580.4	75.3		

Note: Calculated flows are provisional and graded B until the rating is verified further with flow measurements across the full range of high and low flow conditions. Flows greater than 1.5 times of the highest flow measurement are estimated and graded E. For quality grades, see Hydrometric Grading Criteria.

Instantaneous minimum flow over the period of available record: 0.668m3/s on June 25, 2019 at 18:45
Instantaneous maximum flow over the period of available record: 16.918 m3/s on July 25, 2019 at 13:30

Identifier: Discharge.Discharge@2199-01
Location: Beaverlodge River at the Weir
Units: m^3/s

Mean Daily Streamflow

Year: 2020 **Mean:** 6.957 **Min:** 0.002 **Max:** 59.846 **Total (Dam^3):** 58915

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1							3.320 B	3.443 B	0.005 B	0.022 B		
2							16.549 E	3.049 B	0.004 B			
3							28.103 E	2.858 B	0.003 B			
4							35.491 E	2.603 B	0.003 B			
5							37.224 E	2.261 B	0.003 B			
6							42.988 E	1.999 B	0.003 B			
7							53.565 E	1.753 B	0.003 B			
8							58.630 E	1.687 B	0.003 B			
9							50.945 E	1.618 B	0.003 B			
10							40.768 E	1.516 B	0.003 B			
11							33.713 E	1.245 B	0.003 B			
12							28.375 E	1.216 B	0.004 B			
13							24.057 E	1.049 B	0.004 B			
14							20.676 E	0.880 B	0.004 B			
15							18.116 E	0.771 B	0.005 B			
16							15.969 E	0.665 B	0.005 B			
17							14.237 E	0.656 B	0.004 B			
18							12.852 E	0.458 B	0.004 B			
19							11.679 E	0.349 B	0.004 B			
20							10.907 E	0.283 B	0.004 B			
21							10.271 E	0.245 B	0.007 B			
22							9.458 E	0.172 B	0.009 B			
23							8.695 E	0.131 B	0.009 B			
24							7.980 E	0.108 B	0.017 B			
25						4.444 B	7.273 E	0.094 B	0.019 B			
26						4.002 B	6.505 B	0.118 B	0.019 B			
27						3.473 B	5.882 B	0.109 B	0.011 B			
28						3.189 B	5.346 B	0.097 B	0.008 B			
29						2.980 B	4.682 B	0.036 B	0.007 B			
30						2.981 B	4.049 B	0.015 B	0.018 B			
31							3.626 B	0.007 B				
Mean						3.401	20.385	1.016	0.007	0.022		
Min						2.879	3.002	0.004	0.002	0.015		
Max						4.581	59.846	3.662	0.024	0.024		
Total						1576.4	54598.9	2720.9	17.2	1.2		

Note: Calculated flows are provisional and graded B until the rating is verified further with flow measurements across the full range of high and low flow conditions. Flows greater than 1.5 times of the highest flow measurement are estimated and graded E. For quality grades, see Hydrometric Grading Criteria.

Instantaneous minimum flow over the availale period of record: 0.002 m3/s on Sept 8, 2020 at 5:00
Instantaneous maximum flow over the available period of record: 59.846 m3/s on July 8, 2019 at 7:45

Identifier: Discharge@2199-02
Location: Beaverlodge River
Units: m^3/s

Mean Daily Stream Flow

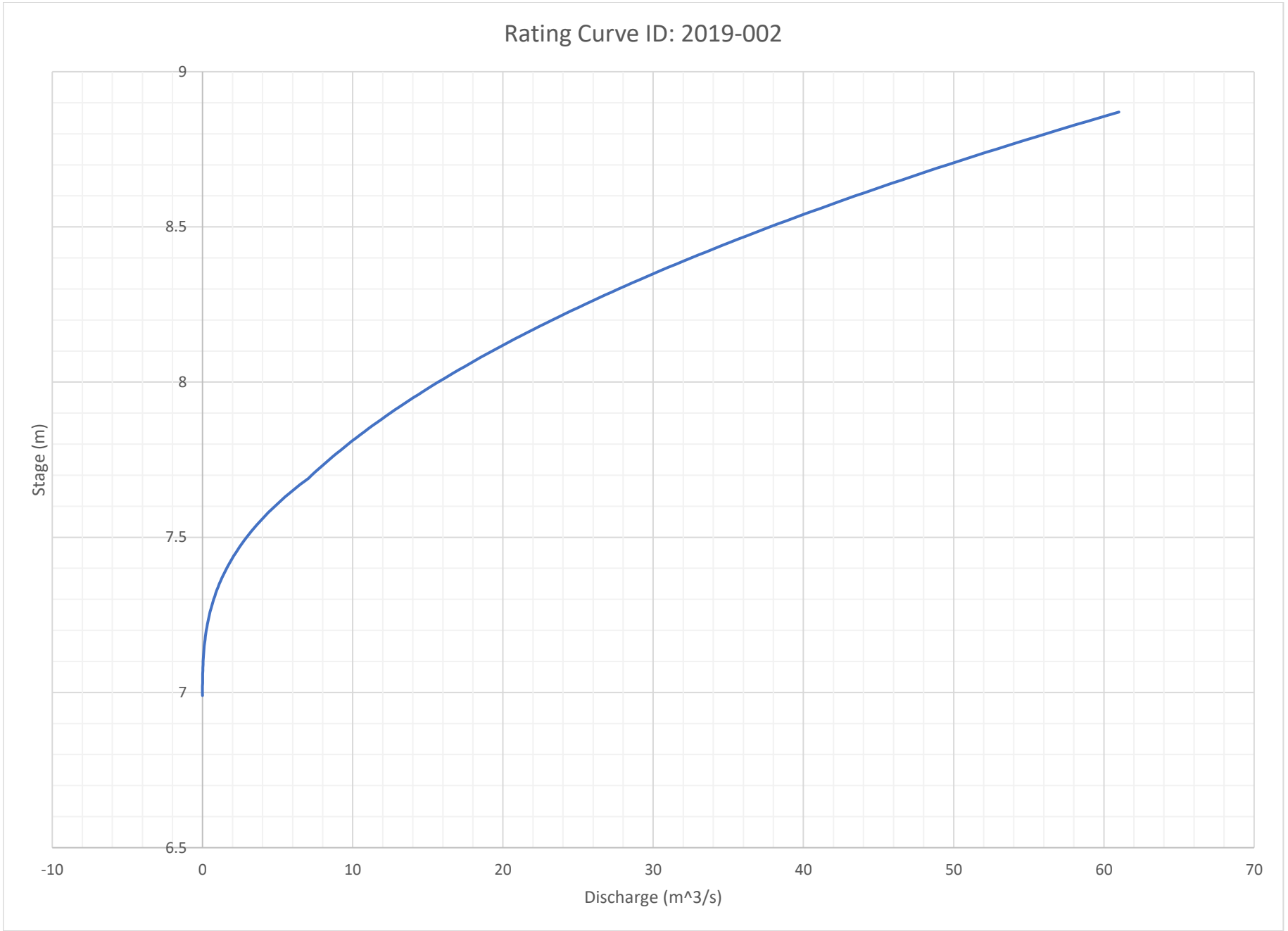
Year: 2021

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1					1.1 B	6.63 B	0.0202 B	0.00567 B	0.00174 B	0.00153 B		
2					1.18 B	6.4 B	0.029 B	0.00581 B	0.00164 B	0.00159 B		
3					1.21 B	6 B	0.0223 B	0.00535 B	0.00157 B	0.00134 B		
4					1.16 B	5.52 B	0.0205 B	0.00467 B	0.00146 B	0.00128 B		
5					1.02 B	4.74 B	0.0168 B	0.00482 B	0.00136 B	0.00188 B		
6					0.855 B	3.99 B	0.0182 B	0.00458 B	0.00106 B	0.00192 B		
7					0.715 B	3.29 B	0.0194 B	0.00341 B	0.000937 B	0.00183 B		
8					0.675 B	3.03 B	0.0171 B	0.00304 B	0.000963 B			
9					0.681 B	2.55 B	0.017 B	0.00314 B	0.00203 B			
10					0.581 B	2.16 B	0.0172 B	0.00283 B	0.00172 B			
11					0.56 B	1.93 B	0.0166 B	0.00286 B	0.00159 B			
12					0.653 B	1.54 B	0.0159 B	0.00277 B	0.00153 B			
13					0.598 B	1.18 B	0.0145 B	0.00245 B	0.00143 B			
14					0.653 B	0.941 B	0.0144 B	0.00194 B	0.0016 B			
15					0.645 B	0.773 B	0.0141 B	0.00173 B	0.00159 B			
16					0.784 B	0.613 B	0.0153 B	0.00144 B	0.00149 B			
17					0.973 B	0.554 B	0.0185 B	0.00103 B	0.00166 B			
18					1.07 B	0.48 B	0.0167 B	0.000907 B	0.00202 B			
19					2.68 B	0.353 B	0.0211 B	0.000908 B	0.00183 B			
20					4.15 E	0.309 B	0.0177 B	0.000946 B	0.00159 B			
21					5.22 E	0.236 B	0.0161 B	0.000955 B	0.00147 B			
22					5.82 E	0.154 B	0.0145 B	0.00518 B	0.0013 B			
23					6.04 E	0.164 B	0.0112 B	0.00945 B	0.00115 B			
24					6.67 E	0.156 B	0.00966 B	0.00282 B	0.0012 B			
25					7.12 E	0.0634 B	0.0091 B	0.00204 B	0.00123 B			
26					7.07 E	0.028 B	0.00865 B	0.00177 B	0.00153 B			
27					6.75 B	0.0266 B	0.0078 B	0.00161 B	0.00182 B			
28					6.39 B	0.0239 B	0.00748 B	0.0016 B	0.00169 B			
29				1.02	6.48 B	0.0235 B	0.00719 B	0.00146 B	0.0015 B			
30				1.01	6.53 B	0.0204 B	0.0068 B	0.00135 B	0.00161 B			
31					6.72 B		0.00641 B	0.00164 B				
Mean				1.02	2.99	1.8	0.0151	0.00291	0.00151	0.00161		
Min				0.983	0.53	0.0192	0.00557	0.00079	0.00086	0.000895		
Max				1.07	7.2	6.71	0.033	0.0186	0.00244	0.00244		

Note: Calculated flows are provisional and graded B until the rating is verified further with flow measurements across the full range of high and low flow conditions. For quality grades, see Hydrometric Grading Criteria.

Instantaneous Minimum Flow: 0.00079 m3/s on August 18, 2021 at 15:00

Instantaneous Maximum Flow: 7.20 m3/s on May 26, 2021 at 00:30


Rating Curve ID: 2019-002
9
8.5
8
7.5
7
6.5
Stage (m)
-10
0
10
20
30
40
50
60
70
Discharge (m^3/s)

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-23 19:00	0	7.816	-79.3	173.267	22.257	485.026	511.844	0.250	0.333	7.017	22.257	6.516
2021-06-23 19:15	900	7.897	-84.047	171.336	22.135	482.807	510.756	0.249	0.332	7.056	22.135	6.483
2021-06-23 19:30	1800	8.006	-90.315	162.171	21.833	475.036	505.624	0.246	0.329	7.156	21.833	7.643
2021-06-23 19:45	2700	8.101	-95.949	164.901	22.073	482.73	511.32	0.249	0.332	7.043	22.073	6.514
2021-06-23 20:00	3600	8.143	-98.405	162.965	22.053	482.515	511.298	0.249	0.332	7.064	22.053	6.752
2021-06-23 20:15	4500	8.153	-99.006	155.581	22.012	483.388	512.642	0.250	0.333	7.044	22.012	6.133
2021-06-23 20:30	5400	8.119	-97.015	158.094	21.973	482.474	512.081	0.250	0.333	7.028	21.973	6.155
2021-06-23 20:45	6300	8.142	-98.288	155.307	21.849	479.88	510.606	0.249	0.332	6.977	21.849	11.037
2021-06-23 21:00	7200	8.101	-95.859	151.788	21.658	477.831	510.415	0.249	0.332	6.992	21.658	6.725
2021-06-23 21:15	8100	8.131	-97.542	155.772	21.417	464.754	498.892	0.243	0.324	7.065	21.417	5.471
2021-06-23 21:30	9000	8.106	-95.985	155.426	21.183	459.558	495.701	0.241	0.322	7.206	21.183	5.661
2021-06-23 21:45	9900	8.163	-99.027	158.704	20.437	444.398	486.821	0.237	0.316	7.519	20.437	6.082
2021-06-23 22:00	10800	8.157	-98.627	157.82	20.132	440.754	485.937	0.237	0.316	7.471	20.132	6.516
2021-06-23 22:15	11700	8.133	-97.172	153.116	19.992	438.732	485.14	0.236	0.315	7.524	19.992	6.636
2021-06-23 22:30	12600	8.112	-95.913	152.224	19.904	437.176	484.312	0.236	0.315	7.323	19.904	6.393
2021-06-23 22:45	13500	8.102	-95.303	152.937	19.779	435.059	483.253	0.235	0.314	7.165	19.779	8.606
2021-06-23 23:00	14400	8.101	-95.22	152.858	19.669	435.04	484.353	0.236	0.315	7.184	19.669	6.548
2021-06-23 23:15	15300	8.089	-94.521	156.578	19.752	435.775	484.323	0.236	0.315	7.117	19.752	6.909
2021-06-23 23:30	16200	8.064	-93.126	156.32	19.94	442.075	489.372	0.238	0.318	6.974	19.94	5.962
2021-06-23 23:45	17100	8.093	-94.836	158.29	20.056	446.289	492.829	0.240	0.320	6.981	20.056	6.357
2021-06-24 00:00	18000	8.090	-94.647	157.765	20.013	446.201	493.177	0.240	0.321	6.943	20.013	6.883
2021-06-24 00:15	18900	8.073	-93.67	158.943	19.952	447.933	495.727	0.241	0.322	6.858	19.952	6.508
2021-06-24 00:30	19800	8.060	-92.912	158.96	19.955	449.25	497.151	0.242	0.323	6.867	19.955	5.928
2021-06-24 00:45	20700	8.071	-93.575	160.338	20.003	450.021	497.509	0.242	0.323	6.844	20.003	6.251
2021-06-24 01:00	21600	8.077	-93.939	162.924	20.144	451.502	497.664	0.242	0.323	6.827	20.144	8.217
2021-06-24 01:15	22500	8.088	-94.593	163.139	20.198	456.286	502.359	0.245	0.327	6.839	20.198	6.196
2021-06-24 01:30	23400	8.132	-97.201	158.502	20.243	463.957	510.323	0.249	0.332	6.807	20.243	6.067
2021-06-24 01:45	24300	8.132	-97.196	157.753	20.198	465.193	512.168	0.250	0.333	6.755	20.198	5.462
2021-06-24 02:00	25200	8.127	-96.858	158.921	20.136	465.504	513.181	0.250	0.334	6.732	20.136	5.505
2021-06-24 02:15	26100	8.118	-96.338	161.02	20.066	463.596	511.833	0.249	0.333	6.687	20.066	5.607
2021-06-24 02:30	27000	8.115	-96.147	162.257	20.028	465.094	513.897	0.251	0.334	6.675	20.028	5.587
2021-06-24 02:45	27900	8.098	-95.141	163.287	19.993	466.032	515.309	0.251	0.335	6.658	19.993	5.216
2021-06-24 03:00	28800	8.103	-95.384	164.927	19.950	466.39	516.176	0.252	0.336	6.656	19.95	5.655
2021-06-24 03:15	29700	8.105	-95.525	165.538	19.903	466.586	516.908	0.252	0.336	6.651	19.903	6.113
2021-06-24 03:30	30600	8.116	-96.107	166.086	19.853	466.762	517.646	0.252	0.336	6.649	19.853	6.077
2021-06-24 03:45	31500	8.117	-96.173	166.825	19.797	466.293	517.743	0.252	0.337	6.636	19.797	6.673
2021-06-24 04:00	32400	8.106	-95.479	167.104	19.74	465.846	517.876	0.252	0.337	6.613	19.74	6.255
2021-06-24 04:15	33300	8.116	-96.09	167.888	19.683	464.923	517.471	0.252	0.336	6.597	19.683	6.136
2021-06-24 04:30	34200	8.119	-96.2	167.788	19.615	464.388	517.624	0.252	0.336	6.587	19.615	6.122
2021-06-24 04:45	35100	8.126	-96.636	169.457	19.565	464.586	518.397	0.253	0.337	6.564	19.565	5.955
2021-06-24 05:00	36000	8.116	-96.033	170.351	19.509	463.476	517.779	0.252	0.337	6.528	19.509	5.255
2021-06-24 05:15	36900	8.109	-95.599	169.994	19.449	462.635	517.501	0.252	0.336	6.511	19.449	6.271
2021-06-24 05:30	37800	8.101	-95.093	171.622	19.395	461.88	517.255	0.252	0.336	***6.481***	19.395	6.457
2021-06-24 05:45	38700	8.104	-95.251	172.499	19.352	461.504	517.305	0.252	0.336	***6.463***	19.352	6.198
2021-06-24 06:00	39600	8.099	-94.972	173.033	19.297	460.514	516.803	0.252	0.336	***6.437***	19.297	7.279
2021-06-24 06:15	40500	8.105	-95.274	173.298	19.245	460.095	516.915	0.252	0.336	***6.418***	19.245	5.559
2021-06-24 06:30	41400	8.094	-94.619	174.361	19.206	459.878	517.103	0.252	0.336	***6.408***	19.206	6.035
2021-06-24 06:45	42300	8.088	-94.273	174.717	19.156	458.722	516.363	0.252	0.336	***6.379***	19.156	5.961
2021-06-24 07:00	43200	8.086	-94.159	175.07	19.113	457.866	515.876	0.251	0.335	***6.362***	19.113	6.187
2021-06-24 07:15	44100	8.084	-93.992	176.688	19.073	457.494	515.896	0.251	0.335	***6.347***	19.073	6.676
2021-06-24 07:30	45000	8.079	-93.703	176.934	19.032	456.63	515.379	0.251	0.335	***6.325***	19.032	6.289
2021-06-24 07:45	45900	8.078	-93.632	178.183	19.001	455.692	514.66	0.251	0.335	***6.286***	19.001	7.394
2021-06-24 08:00	46800	8.078	-93.62	179.13	18.962	455.305	514.663	0.251	0.335	***6.257***	18.962	6.836
2021-06-24 08:15	47700	8.072	-93.269	179.356	18.94	455.574	515.209	0.251	0.335	***6.269***	18.94	6.78
2021-06-24 08:30	48600	8.059	-92.518	179.504	18.926	455.066	514.785	0.251	0.335	***6.220***	18.926	6.56
2021-06-24 08:45	49500	8.060	-92.568	178.601	18.893	454.348	514.345	0.251	0.334	***6.181***	18.893	8.192

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-24 09:00	50400	8.037	-91.205	180.272	18.855	452.494	512.664	0.250	0.333	***6.123***	18.855	7.098
2021-06-24 09:15	51300	8.049	-91.939	180.143	18.851	453.786	514.174	0.251	0.334	***6.134***	18.851	7.125
2021-06-24 09:30	52200	8.047	-91.786	180.756	18.838	453.731	514.256	0.251	0.334	***6.126***	18.838	6.991
2021-06-24 09:45	53100	8.051	-92.044	182.115	18.816	453.931	514.726	0.251	0.335	***6.114***	18.816	7.772
2021-06-24 10:00	54000	8.031	-90.842	183.209	18.8	452.506	513.285	0.250	0.334	***6.079***	18.8	7.208
2021-06-24 10:15	54900	8.024	-90.468	183.057	18.789	451.479	512.243	0.250	0.333	***6.017***	18.789	7.68
2021-06-24 10:30	55800	8.031	-90.833	184.261	18.797	451.559	512.247	0.250	0.333	***6.048***	18.797	7.377
2021-06-24 10:45	56700	7.918	-84.25	186.688	18.607	436.837	497.6	0.242	0.323	***5.516***	18.607	9.103
2021-06-24 11:00	57600	7.890	-82.591	189.279	18.515	429.693	490.443	0.239	0.319	***5.316***	18.515	10.152
2021-06-24 11:15	58500	7.946	-85.888	189.177	18.645	439.67	500.414	0.244	0.325	***5.608***	18.645	8.893
2021-06-24 11:30	59400	7.896	-83.003	189.155	18.618	435.464	495.912	0.241	0.322	***5.410***	18.618	11.891
2021-06-24 11:45	60300	7.890	-82.636	188.848	18.546	432.265	493.043	0.240	0.320	***5.360***	18.546	11.379
2021-06-24 12:00	61200	7.914	-84.035	190.254	18.618	434.014	494.268	0.241	0.321	***5.477***	18.618	12.895
2021-06-24 12:15	62100	7.989	-88.427	188.819	18.874	450.103	509.751	0.248	0.331	***5.892***	18.874	10.48
2021-06-24 12:30	63000	7.923	-84.543	191.239	18.672	438.488	498.769	0.243	0.324	***5.555***	18.672	12.904
2021-06-24 12:45	63900	7.932	-85.092	193.316	18.69	442.14	502.733	0.245	0.327	***5.618***	18.69	12.753
2021-06-24 13:00	64800	7.981	-87.993	191.456	18.935	453.025	512.374	0.250	0.333	***5.932***	18.935	10.091
2021-06-24 13:15	65700	7.955	-86.546	191.497	19.037	452.368	510.507	0.249	0.332	***5.972***	19.037	11.608
2021-06-24 13:30	66600	7.956	-86.553	191.058	18.986	451.354	509.927	0.248	0.331	***5.913***	18.986	11.869
2021-06-24 13:45	67500	7.969	-87.333	192.119	18.968	452.497	511.414	0.249	0.332	***6.027***	18.968	11.238
2021-06-24 14:00	68400	8.007	-89.605	192.14	19.18	458.782	516.161	0.252	0.336	***6.234***	19.18	11.267
2021-06-24 14:15	69300	8.034	-91.257	190.171	19.547	463.991	517.935	0.253	0.337	***6.426***	19.547	9.697
2021-06-24 14:30	70200	8.041	-91.701	192.562	19.663	464.646	517.39	0.252	0.336	***6.445***	19.663	9.852
2021-06-24 14:45	71100	8.051	-92.278	190.982	19.624	463.742	516.808	0.252	0.336	***6.473***	19.624	11.47
2021-06-24 15:00	72000	8.074	-93.679	189.785	19.899	468.816	519.419	0.253	0.338	6.612	19.899	9.654
2021-06-24 15:15	72900	8.077	-93.93	187.556	20.079	470.965	519.828	0.254	0.338	6.666	20.079	9.458
2021-06-24 15:30	73800	8.073	-93.61	186.413	19.829	466.507	517.636	0.252	0.336	6.630	19.829	11.163
2021-06-24 15:45	74700	8.075	-93.737	183.221	19.928	468.398	518.643	0.253	0.337	6.692	19.928	11.008
2021-06-24 16:00	75600	8.091	-94.776	181.626	20.225	472.861	520.311	0.254	0.338	6.796	20.225	10.587
2021-06-24 16:15	76500	8.077	-94.018	193.292	20.4	474.705	520.427	0.254	0.338	6.822	20.4	9.521
2021-06-24 16:30	77400	7.910	-84.074	176.707	19.533	0.055	0.061	0.000	0.000	7.020	19.533	1.139
2021-06-24 16:45	78300	8.098	-95.31	178.868	20.599	476.649	520.397	0.254	0.338	6.893	20.599	11.318
2021-06-24 17:00	79200	8.098	-95.341	181.433	20.66	477.35	520.495	0.254	0.338	6.917	20.66	9.08
2021-06-24 17:15	80100	8.114	-96.362	183.791	20.978	481.288	521.334	0.254	0.339	6.921	20.978	8.624
2021-06-24 17:30	81000	8.111	-96.283	181.566	21.164	483.158	521.362	0.254	0.339	6.950	21.164	7.43
2021-06-24 17:45	81900	8.101	-95.701	183.526	21.216	484.017	521.723	0.255	0.339	6.977	21.216	7.405
2021-06-24 18:00	82800	8.113	-96.452	182.785	21.32	485.157	521.836	0.255	0.339	6.968	21.32	7.939
2021-06-24 18:15	83700	8.109	-96.18	183.934	21.297	484.877	521.781	0.255	0.339	6.969	21.297	8.867
2021-06-24 18:30	84600	8.111	-96.369	184.036	21.438	486.507	522.018	0.255	0.339	6.939	21.438	8.224
2021-06-24 18:45	85500	8.098	-95.553	187.386	21.233	483.999	521.524	0.254	0.339	6.985	21.233	8.684
2021-06-24 19:00	86400	8.109	-96.231	183.14	21.344	485.307	521.741	0.255	0.339	6.986	21.344	7.835
2021-06-24 19:15	87300	8.103	-95.863	183.982	21.344	485.03	521.437	0.254	0.339	7.014	21.344	8.391
2021-06-24 19:30	88200	8.105	-95.978	184.83	21.349	485.092	521.452	0.254	0.339	7.021	21.349	8.456
2021-06-24 19:45	89100	8.102	-95.804	181.128	21.363	485.19	521.41	0.254	0.339	7.012	21.363	8.071
2021-06-24 20:00	90000	8.106	-96.059	181.19	21.415	485.738	521.448	0.254	0.339	6.997	21.415	8.077
2021-06-24 20:15	90900	8.097	-95.503	181.416	21.324	484.525	521.118	0.254	0.339	6.988	21.324	7.684
2021-06-24 20:30	91800	8.083	-94.683	184.351	21.262	483.624	520.806	0.254	0.339	6.955	21.262	8.034
2021-06-24 20:45	92700	8.087	-94.855	185.431	21.237	483.334	520.763	0.254	0.338	6.934	21.237	8.164
2021-06-24 21:00	93600	8.078	-94.318	185.722	21.124	481.801	520.319	0.254	0.338	6.916	21.124	7.404
2021-06-24 21:15	94500	8.066	-93.56	187.229	20.98	480.02	519.938	0.254	0.338	6.870	20.98	8.364
2021-06-24 21:30	95400	8.067	-93.601	186.061	20.912	479.11	519.684	0.253	0.338	6.820	20.912	7.867
2021-06-24 21:45	96300	8.062	-93.307	185.729	20.935	479.362	519.715	0.253	0.338	6.754	20.935	7.285
2021-06-24 22:00	97200	8.059	-93.162	185.834	20.929	479.419	519.844	0.254	0.338	6.646	20.929	7.92
2021-06-24 22:15	98100	8.065	-93.503	186.058	20.924	479.393	519.863	0.254	0.338	6.686	20.924	8.585
2021-06-24 22:30	99000	8.056	-92.967	185.283	20.861	478.578	519.656	0.253	0.338	6.705	20.861	7.896
2021-06-24 22:45	99900	8.053	-92.745	186.049	20.846	478.481	519.717	0.253	0.338	6.697	20.846	7.799

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-24 23:00	100800	8.053	-92.769	184.494	20.882	479.03	519.92	0.254	0.338	6.660	20.882	7.199
2021-06-24 23:15	101700	8.077	-94.171	184.065	20.926	479.797	520.279	0.254	0.338	6.662	20.926	6.071
2021-06-24 23:30	102600	8.074	-94.039	182.98	20.927	480.19	520.695	0.254	0.338	***6.479***	20.927	6.864
2021-06-24 23:45	103500	8.065	-93.489	190.326	20.928	480.232	520.73	0.254	0.338	6.607	20.928	6.803
2021-06-25 00:00	104400	8.060	-93.195	188.464	20.929	480.576	521.09	0.254	0.339	6.651	20.929	6.259
2021-06-25 00:15	105300	8.062	-93.31	188.34	20.931	480.842	521.366	0.254	0.339	6.649	20.931	6.757
2021-06-25 00:30	106200	8.069	-93.708	186.85	20.926	480.843	521.411	0.254	0.339	6.594	20.926	6.439
2021-06-25 00:45	107100	8.088	-94.831	187.212	20.903	480.997	521.835	0.255	0.339	6.562	20.903	6.083
2021-06-25 01:00	108000	8.085	-94.628	188.063	20.871	480.713	521.871	0.255	0.339	6.554	20.871	6.672
2021-06-25 01:15	108900	8.067	-93.596	189.317	20.83	479.8	521.327	0.254	0.339	6.685	20.83	5.5
2021-06-25 01:30	109800	8.071	-93.822	191.175	20.795	479.346	521.208	0.254	0.339	6.599	20.795	5.031
2021-06-25 01:45	110700	8.060	-93.16	190.448	20.745	479.209	521.604	0.254	0.339	6.735	20.745	5.403
2021-06-25 02:00	111600	8.074	-93.975	190.96	20.692	478.558	521.466	0.254	0.339	6.658	20.692	7.464
2021-06-25 02:15	112500	8.088	-94.762	190.986	20.654	478.095	521.376	0.254	0.339	6.672	20.654	6.474
2021-06-25 02:30	113400	8.083	-94.457	192.312	20.624	478.021	521.614	0.254	0.339	6.520	20.624	6.987
2021-06-25 02:45	114300	8.089	-94.776	190.979	20.601	478.017	521.862	0.255	0.339	6.552	20.601	6.428
2021-06-25 03:00	115200	8.089	-94.788	190.009	20.578	477.995	522.086	0.255	0.339	6.630	20.578	6.993
2021-06-25 03:15	116100	8.086	-94.612	190.872	20.555	478.004	522.356	0.255	0.340	6.571	20.555	6.701
2021-06-25 03:30	117000	8.087	-94.666	190.779	20.522	478.105	522.822	0.255	0.340	6.612	20.522	6.535
2021-06-25 03:45	117900	8.089	-94.781	190.388	20.492	477.65	522.652	0.255	0.340	***6.483***	20.492	6.95
2021-06-25 04:00	118800	8.086	-94.562	189.918	20.462	477.593	522.917	0.255	0.340	***6.454***	20.462	6.508
2021-06-25 04:15	119700	8.087	-94.607	190.633	20.414	477.043	522.839	0.255	0.340	6.563	20.414	6.755
2021-06-25 04:30	120600	8.086	-94.535	190.684	20.379	477.384	523.599	0.255	0.340	6.553	20.379	6.768
2021-06-25 04:45	121500	8.071	-93.66	193.497	20.345	476.706	523.232	0.255	0.340	6.512	20.345	6.58
2021-06-25 05:00	122400	8.060	-92.988	193.592	20.302	476.5	523.471	0.255	0.340	6.512	20.302	6.849
2021-06-25 05:15	123300	8.049	-92.332	191.592	20.262	476.04	523.407	0.255	0.340	6.541	20.262	5.841
2021-06-25 05:30	124200	8.032	-91.36	192.631	20.203	475.059	522.971	0.255	0.340	***6.268***	20.203	7.477
2021-06-25 05:45	125100	8.047	-92.216	192.76	20.167	474.676	522.949	0.255	0.340	***6.441***	20.167	4.677
2021-06-25 06:00	126000	8.040	-91.774	194.541	20.12	474.557	523.333	0.255	0.340	***6.462***	20.12	4.979
2021-06-25 06:15	126900	8.025	-90.878	195.054	20.073	473.805	523.026	0.255	0.340	***6.313***	20.073	6.681
2021-06-25 06:30	127800	8.017	-90.404	194.179	20.03	473.296	522.941	0.255	0.340	***6.320***	20.03	6.931
2021-06-25 06:45	128700	8.018	-90.458	194.691	19.984	472.928	523.04	0.255	0.340	***6.418***	19.984	5.487
2021-06-25 07:00	129600	8.029	-91.097	194.827	19.941	472.499	523.034	0.255	0.340	***6.327***	19.941	6.797
2021-06-25 07:15	130500	8.016	-90.32	195.113	19.906	472.056	522.931	0.255	0.340	***6.181***	19.906	5.428
2021-06-25 07:30	131400	8.021	-90.582	193.814	19.866	471.736	523.022	0.255	0.340	***6.235***	19.866	5.333
2021-06-25 07:45	132300	8.020	-90.516	195.485	19.827	471.362	523.038	0.255	0.340	***6.228***	19.827	5.308
2021-06-25 08:00	133200	8.011	-89.979	196.749	19.796	471.146	523.146	0.255	0.340	***6.098***	19.796	5.233
2021-06-25 08:15	134100	8.044	-91.908	198.997	19.764	471.683	524.101	0.256	0.341	***6.159***	19.764	7.383
2021-06-25 08:30	135000	8.057	-92.64	197.81	19.738	470.802	523.409	0.255	0.340	***6.356***	19.738	6.555
2021-06-25 08:45	135900	8.064	-93.04	197.154	19.709	470.603	523.509	0.255	0.340	***6.293***	19.709	7.78
2021-06-25 09:00	136800	8.067	-93.215	195.447	19.678	469.919	523.087	0.255	0.340	***6.347***	19.678	7.138
2021-06-25 09:15	137700	8.053	-92.394	197.343	19.655	469.55	522.937	0.255	0.340	***6.252***	19.655	8.11
2021-06-25 09:30	138600	8.051	-92.289	197.014	19.624	468.864	522.517	0.255	0.340	***6.263***	19.624	8.388
2021-06-25 09:45	139500	8.052	-92.318	195.442	19.606	469.226	523.124	0.255	0.340	***6.324***	19.606	9.994
2021-06-25 10:00	140400	8.068	-93.248	195.163	19.595	469.289	523.316	0.255	0.340	***6.320***	19.595	8.634
2021-06-25 10:15	141300	8.069	-93.324	196.372	19.588	469.37	523.482	0.255	0.340	***6.344***	19.588	8.796
2021-06-25 10:30	142200	8.077	-93.806	196.501	19.642	470.948	524.641	0.256	0.341	***6.429***	19.642	7.965
2021-06-25 10:45	143100	8.093	-94.776	201.87	19.761	473.486	526.131	0.257	0.342	6.562	19.761	8.946
2021-06-25 11:00	144000	8.102	-95.36	199.636	19.958	476.544	527.323	0.257	0.343	6.607	19.958	7.619
2021-06-25 11:15	144900	8.107	-95.732	200.32	20.259	480.947	528.834	0.258	0.344	6.654	20.259	7.838
2021-06-25 11:30	145800	8.451	-115.099	168.978	18.523	0.055	0.063	0.000	0.000	7.222	18.523	1.023
2021-06-25 11:45	146700	8.120	-96.662	159.045	20.792	489.497	532.273	0.260	0.346	6.692	20.792	10.247
2021-06-25 12:00	147600	8.125	-97.044	174.955	21.085	494.23	534.169	0.261	0.347	6.710	21.085	7.997
2021-06-25 12:15	148500	8.129	-97.346	180.78	21.348	497.72	535.041	0.261	0.348	6.726	21.348	7.227
2021-06-25 12:30	149400	8.125	-97.163	184.365	21.481	499.081	535.039	0.261	0.348	6.763	21.481	7.344
2021-06-25 12:45	150300	8.129	-97.396	187.026	21.456	498.65	534.85	0.261	0.348	6.791	21.456	6.517

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-25 13:00	151200	8.130	-97.499	188.333	21.524	499.008	534.489	0.261	0.347	6.814	21.524	6.875
2021-06-25 13:15	152100	8.131	-97.704	187.968	21.982	505.343	536.251	0.262	0.349	6.802	21.982	6.663
2021-06-25 13:30	153000	8.137	-98.109	188.147	22.11	507.07	536.693	0.262	0.349	6.829	22.11	6.417
2021-06-25 13:45	153900	8.139	-98.24	188.54	22.19	508.405	537.241	0.262	0.349	6.838	22.19	6.188
2021-06-25 14:00	154800	8.141	-98.381	188.619	22.356	510.531	537.68	0.263	0.349	6.879	22.356	6.803
2021-06-25 14:15	155700	8.140	-98.436	189.01	22.584	513.766	538.625	0.263	0.350	6.910	22.584	6.732
2021-06-25 14:30	156600	8.147	-98.86	188.662	22.656	514.891	539.022	0.263	0.350	6.926	22.656	7.076
2021-06-25 14:45	157500	8.147	-98.865	189.291	22.714	515.802	539.352	0.263	0.351	6.986	22.714	6.275
2021-06-25 15:00	158400	8.145	-98.855	188.719	23.041	521.121	541.375	0.264	0.352	6.946	23.041	5.958
2021-06-25 15:15	159300	8.147	-99.03	188.001	23.141	522.469	541.708	0.265	0.352	6.946	23.141	7.382
2021-06-25 15:30	160200	8.138	-98.629	187.951	23.476	527.6	543.421	0.265	0.353	6.948	23.476	5.777
2021-06-25 15:45	161100	8.147	-99.18	187.019	23.636	529.239	543.395	0.265	0.353	6.994	23.636	6.624
2021-06-25 16:00	162000	8.145	-99.094	187.656	23.725	530.999	544.255	0.266	0.354	7.034	23.725	6.267
2021-06-25 16:15	162900	8.146	-99.206	186.204	23.806	532.762	545.2	0.266	0.354	7.090	23.806	6.7
2021-06-25 16:30	163800	8.144	-99.189	186.211	24.219	538.067	546.21	0.267	0.355	7.023	24.219	6.043
2021-06-25 16:45	164700	8.145	-99.399	182.091	24.679	544.236	547.591	0.268	0.356	6.957	24.679	6.915
2021-06-25 17:00	165600	8.139	-99.056	183.839	24.652	544.415	548.062	0.268	0.356	6.914	24.652	6.343
2021-06-25 17:15	166500	8.139	-99.063	186.292	24.682	544.721	548.052	0.268	0.356	6.991	24.682	6.259
2021-06-25 17:30	167400	8.133	-98.696	189.198	24.571	543.461	547.95	0.268	0.356	7.025	24.571	6.209
2021-06-25 17:45	168300	8.144	-99.256	189.41	24.448	541.926	547.703	0.268	0.356	7.086	24.448	6.505
2021-06-25 18:00	169200	8.126	-98.262	192.751	24.518	542.334	547.37	0.267	0.356	7.087	24.518	6.423
2021-06-25 18:15	170100	8.145	-99.277	191.621	24.204	537.937	546.242	0.267	0.355	7.153	24.204	6.356
2021-06-25 18:30	171000	8.142	-99.022	192.617	24.04	536.212	546.23	0.267	0.355	7.169	24.04	7.035
2021-06-25 18:45	171900	8.135	-98.667	192.963	24.155	537.504	546.326	0.267	0.355	7.203	24.155	6.076
2021-06-25 19:00	172800	8.142	-99.041	193.27	24.029	534.846	544.957	0.266	0.354	7.259	24.029	5.863
2021-06-25 19:15	173700	8.136	-98.76	190.262	24.29	538.076	545.475	0.266	0.355	7.224	24.29	5.456
2021-06-25 19:30	174600	8.139	-98.999	189.491	24.398	539.522	545.794	0.267	0.355	7.185	24.398	6.318
2021-06-25 19:45	175500	8.140	-99.015	191.125	24.331	539.71	546.693	0.267	0.355	7.202	24.331	6.6
2021-06-25 20:00	176400	8.135	-98.727	191.299	24.364	542.725	549.397	0.268	0.357	6.986	24.364	5.432
2021-06-25 20:15	177300	8.156	-99.878	192.608	24.124	536.976	546.119	0.267	0.355	7.251	24.124	6.572
2021-06-25 20:30	178200	8.144	-99.211	193.049	24.23	539.103	547.146	0.267	0.356	7.125	24.23	5.716
2021-06-25 20:45	179100	8.152	-99.614	193.566	23.997	534.528	544.963	0.266	0.354	7.216	23.997	5.626
2021-06-25 21:00	180000	8.161	-100.071	194.346	23.874	532.881	544.593	0.266	0.354	7.399	23.874	5.337
2021-06-25 21:15	180900	8.148	-99.263	194.493	23.688	530.567	544.204	0.266	0.354	7.238	23.688	5.242
2021-06-25 21:30	181800	8.166	-100.281	194.179	23.469	527.043	542.924	0.265	0.353	7.423	23.469	5.565
2021-06-25 21:45	182700	8.165	-100.157	194.269	23.409	525.303	541.77	0.265	0.352	7.395	23.409	5.655
2021-06-25 22:00	183600	8.148	-99.175	195.45	23.359	523.971	540.928	0.264	0.352	7.270	23.359	5.028
2021-06-25 22:15	184500	8.143	-98.841	196.549	23.36	524.4	541.355	0.264	0.352	7.261	23.36	4.456
2021-06-25 22:30	185400	8.148	-99.144	196.747	23.306	524.414	541.943	0.265	0.352	7.310	23.306	4.88
2021-06-25 22:45	186300	8.136	-98.474	197.09	23.358	526.039	543.067	0.265	0.353	7.216	23.358	5.233
2021-06-25 23:00	187200	8.143	-98.822	197.819	23.295	525.211	542.893	0.265	0.353	7.248	23.295	5.111
2021-06-25 23:15	188100	8.134	-98.35	197.424	23.355	526.804	543.891	0.266	0.354	7.174	23.355	5.954
2021-06-25 23:30	189000	8.128	-97.916	197.81	23.214	525.021	543.559	0.266	0.353	7.128	23.214	5.071
2021-06-25 23:45	189900	8.131	-98.097	197.85	23.193	524.798	543.557	0.266	0.353	7.058	23.193	5.396
2021-06-26 00:00	190800	8.118	-97.332	197.204	23.092	522.811	542.58	0.265	0.353	6.967	23.092	5.27
2021-06-26 00:15	191700	8.124	-97.616	198.017	23.024	522.191	542.669	0.265	0.353	6.983	23.024	5.936
2021-06-26 00:30	192600	8.120	-97.349	199.486	22.878	519.163	541.092	0.264	0.352	6.948	22.878	4.536
2021-06-26 00:45	193500	8.122	-97.406	198.539	22.751	517.301	540.516	0.264	0.351	7.033	22.751	4.095
2021-06-26 01:00	194400	8.123	-97.449	198.773	22.676	516.623	540.618	0.264	0.351	7.064	22.676	4.551
2021-06-26 01:15	195300	8.118	-97.127	197.114	22.596	516.227	541.076	0.264	0.352	6.975	22.596	5.068
2021-06-26 01:30	196200	8.121	-97.296	199.062	22.473	513.856	539.921	0.264	0.351	6.997	22.473	5.586
2021-06-26 01:45	197100	8.129	-97.69	200.988	22.362	512.299	539.481	0.263	0.351	6.967	22.362	3.886
2021-06-26 02:00	198000	8.121	-97.232	200.318	22.338	512.817	540.292	0.264	0.351	6.905	22.338	4.659
2021-06-26 02:15	198900	8.123	-97.308	200.504	22.273	513.175	541.377	0.264	0.352	6.946	22.273	4.441
2021-06-26 02:30	199800	8.118	-97.003	200.716	22.197	513.16	542.187	0.265	0.352	6.915	22.197	4.667
2021-06-26 02:45	200700	8.116	-96.889	202.018	22.121	512.455	542.273	0.265	0.352	6.885	22.121	5.102

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-26 03:00	201600	8.110	-96.464	202.457	22.05	511.671	542.223	0.265	0.352	6.784	22.05	4.648
2021-06-26 03:15	202500	8.110	-96.486	202.564	21.972	510.451	541.784	0.265	0.352	6.747	21.972	4.405
2021-06-26 03:30	203400	8.114	-96.655	204.893	21.867	508.398	540.753	0.264	0.351	6.816	21.867	4.597
2021-06-26 03:45	204300	8.116	-96.776	205.623	21.798	508.264	541.374	0.264	0.352	6.791	21.798	4.561
2021-06-26 04:00	205200	8.114	-96.633	206.898	21.714	508.01	542.033	0.265	0.352	6.760	21.714	4.728
2021-06-26 04:15	206100	8.099	-95.737	206.493	21.646	507.116	541.82	0.265	0.352	6.736	21.646	4.122
2021-06-26 04:30	207000	8.101	-95.809	206.927	21.573	506.341	541.806	0.265	0.352	6.681	21.573	5.036
2021-06-26 04:45	207900	8.104	-95.944	207.449	21.487	504.965	541.28	0.264	0.352	6.655	21.487	4.253
2021-06-26 05:00	208800	8.102	-95.787	208.708	21.411	503.785	540.857	0.264	0.352	6.677	21.411	4.847
2021-06-26 05:15	209700	8.102	-95.792	208.505	21.342	502.783	540.554	0.264	0.351	6.669	21.342	4.976
2021-06-26 05:30	210600	8.105	-95.935	208.651	21.275	502.319	540.793	0.264	0.352	6.677	21.275	4.43
2021-06-26 05:45	211500	8.097	-95.479	208.722	21.204	501.764	540.986	0.264	0.352	6.559	21.204	4.42
2021-06-26 06:00	212400	8.101	-95.682	209.154	21.134	500.715	540.636	0.264	0.351	6.605	21.134	4.44
2021-06-26 06:15	213300	8.097	-95.415	209.864	21.065	500.129	540.777	0.264	0.352	6.622	21.065	3.926
2021-06-26 06:30	214200	8.092	-95.127	212.575	21.011	499.056	540.219	0.264	0.351	6.556	21.011	4.439
2021-06-26 06:45	215100	8.095	-95.263	212.995	20.969	498.702	540.304	0.264	0.351	6.564	20.969	3.894
2021-06-26 07:00	216000	8.096	-95.301	213.038	20.91	498.009	540.212	0.264	0.351	6.543	20.91	4.107
2021-06-26 07:15	216900	8.082	-94.445	212.384	20.87	497.881	540.518	0.264	0.351	***6.480***	20.87	4.037
2021-06-26 07:30	217800	8.084	-94.6	213.131	20.839	497.23	540.162	0.264	0.351	***6.463***	20.839	3.482
2021-06-26 07:45	218700	8.084	-94.571	213.665	20.8	496.729	540.05	0.264	0.351	***6.478***	20.8	3.812
2021-06-26 08:00	219600	8.082	-94.45	214.356	20.766	496.321	539.986	0.264	0.351	***6.477***	20.766	3.397
2021-06-26 08:15	220500	8.083	-94.473	215.315	20.743	495.727	539.605	0.263	0.351	***6.459***	20.743	3.786
2021-06-26 08:30	221400	8.085	-94.585	214.707	20.715	495.858	540.061	0.264	0.351	***6.451***	20.715	3.828
2021-06-26 08:45	222300	8.080	-94.275	215.584	20.69	495.994	540.484	0.264	0.351	***6.428***	20.69	3.938
2021-06-26 09:00	223200	8.081	-94.342	215.336	20.668	495.604	540.312	0.264	0.351	***6.404***	20.668	3.898
2021-06-26 09:15	224100	8.068	-93.563	214.771	20.654	495.36	540.203	0.264	0.351	***6.427***	20.654	3.527
2021-06-26 09:30	225000	8.077	-94.116	213.758	20.641	495.2	540.172	0.264	0.351	***6.494***	20.641	3.573
2021-06-26 09:45	225900	8.084	-94.507	212.532	20.633	495.182	540.245	0.264	0.351	***6.495***	20.633	3.761
2021-06-26 10:00	226800	8.079	-94.244	212.222	20.688	496.899	541.502	0.264	0.352	***6.459***	20.688	4.402
2021-06-26 10:15	227700	8.082	-94.411	212.821	20.729	498.219	542.469	0.265	0.353	***6.406***	20.729	3.827
2021-06-26 10:30	228600	8.091	-94.962	212.933	20.777	498.977	542.753	0.265	0.353	***6.490***	20.777	3.224
2021-06-26 10:45	229500	8.090	-94.912	213.693	20.809	499.576	543.045	0.265	0.353	***6.439***	20.809	4.534
2021-06-26 11:00	230400	8.101	-95.627	210.494	21.047	502.082	543.092	0.265	0.353	6.601	21.047	3.691
2021-06-26 11:15	231300	8.114	-96.653	207.781	21.795	511.211	544.541	0.266	0.354	6.687	21.795	3.505
2021-06-26 11:30	232200	8.121	-97.139	208.224	22.13	515.12	544.999	0.266	0.354	6.744	22.13	3.424
2021-06-26 11:45	233100	8.120	-97.165	207.578	22.385	518.355	545.602	0.267	0.355	6.758	22.385	3.135
2021-06-26 12:00	234000	8.116	-97.02	207.316	22.648	521.615	546.15	0.267	0.355	6.749	22.648	3.255
2021-06-26 12:15	234900	8.113	-96.974	206.391	22.996	526.255	547.197	0.267	0.356	6.804	22.996	3.022
2021-06-26 12:30	235800	8.100	-96.257	207.018	23.081	528.129	548.221	0.268	0.356	6.749	23.081	3.692
2021-06-26 12:45	236700	8.109	-96.96	206.639	23.603	533.897	548.534	0.268	0.357	6.828	23.603	3.422
2021-06-26 13:00	237600	8.114	-97.365	206.376	23.978	538.834	549.562	0.269	0.357	6.835	23.978	3.581
2021-06-26 13:15	238500	8.112	-97.044	208.741	23.332	530.25	547.699	0.268	0.356	7.020	23.332	4.699
2021-06-26 13:30	239400	8.124	-97.759	207.43	23.401	530.748	547.471	0.268	0.356	7.034	23.401	4.26
2021-06-26 13:45	240300	8.127	-97.916	208.255	23.349	530.784	548.069	0.268	0.356	7.057	23.349	3.564
2021-06-26 14:00	241200	8.140	-98.703	208.513	23.343	529.613	546.923	0.267	0.356	7.081	23.343	3.826
2021-06-26 14:15	242100	8.138	-98.665	208.224	23.722	533.986	547.351	0.267	0.356	7.272	23.722	4.034
2021-06-26 14:30	243000	8.126	-98.007	208.231	23.793	534.093	546.7	0.267	0.355	7.201	23.793	3.898
2021-06-26 14:45	243900	8.136	-99.061	204.979	25.134	552.634	551.221	0.269	0.358	7.109	25.134	3.514
2021-06-26 15:00	244800	8.146	-100.038	200.618	26.391	570.162	555.402	0.271	0.361	6.970	26.391	4.053
2021-06-26 15:15	245700	8.141	-99.864	197.645	26.699	575.212	557.134	0.272	0.362	6.916	26.699	3.805
2021-06-26 15:30	246600	8.151	-100.474	198.899	26.774	576.681	557.782	0.273	0.363	6.942	26.774	4.318
2021-06-26 15:45	247500	8.146	-100.119	200.652	26.632	575.156	557.772	0.273	0.363	6.974	26.632	4.385
2021-06-26 16:00	248400	8.149	-100.31	200.213	26.717	576.104	557.815	0.273	0.363	6.999	26.717	4.117
2021-06-26 16:15	249300	8.152	-100.591	200.812	26.861	577.995	558.154	0.273	0.363	6.993	26.861	4.283
2021-06-26 16:30	250200	8.160	-101.07	199.646	27.025	580.139	558.532	0.273	0.363	6.984	27.025	4.54
2021-06-26 16:45	251100	8.160	-101.106	199.422	27.067	581.079	559.011	0.273	0.363	7.000	27.067	4.38

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-26 17:00	252000	8.158	-101.016	197.734	27.214	582.988	559.331	0.273	0.364	6.996	27.214	4.674
2021-06-26 17:15	252900	8.165	-101.397	198.246	27.089	581.226	558.928	0.273	0.363	7.067	27.089	4.447
2021-06-26 17:30	253800	8.166	-101.469	199.434	27.036	581.296	559.535	0.273	0.364	7.036	27.036	4.602
2021-06-26 17:45	254700	8.168	-101.588	200.602	27.144	583.09	560.155	0.274	0.364	7.042	27.144	4.67
2021-06-26 18:00	255600	8.170	-101.786	200.936	27.268	584.63	560.357	0.274	0.364	7.043	27.268	4.184
2021-06-26 18:15	256500	8.176	-102.146	200.621	27.228	584.395	560.539	0.274	0.364	7.037	27.228	4.814
2021-06-26 18:30	257400	8.175	-102.038	200.583	27.145	583.925	560.945	0.274	0.365	6.963	27.145	4.776
2021-06-26 18:45	258300	8.175	-102.034	200.547	27.19	584.368	560.901	0.274	0.365	6.971	27.19	4.629
2021-06-26 19:00	259200	8.178	-102.198	200.916	27.073	582.806	560.613	0.274	0.364	7.009	27.073	4.738
2021-06-26 19:15	260100	8.178	-102.146	202.581	27.043	582.932	561.043	0.274	0.365	7.013	27.043	5.037
2021-06-26 19:30	261000	8.183	-102.439	201.82	26.98	582.052	560.844	0.274	0.365	6.981	26.98	4.24
2021-06-26 19:45	261900	8.185	-102.546	201.536	26.852	580.549	560.717	0.274	0.364	6.974	26.852	4.842
2021-06-26 20:00	262800	8.186	-102.582	201.262	26.794	579.982	560.767	0.274	0.364	6.965	26.794	4.998
2021-06-26 20:15	263700	8.187	-102.596	200.306	26.736	579.534	560.94	0.274	0.365	6.942	26.736	4.663
2021-06-26 20:30	264600	8.182	-102.286	200.692	26.658	578.723	560.959	0.274	0.365	6.937	26.658	4.285
2021-06-26 20:45	265500	8.182	-102.222	203.086	26.561	577.874	561.141	0.274	0.365	6.951	26.561	4.859
2021-06-26 21:00	266400	8.181	-102.153	202.991	26.489	577.141	561.186	0.274	0.365	6.955	26.489	4.436
2021-06-26 21:15	267300	8.175	-101.807	205.096	26.399	576.769	561.757	0.275	0.365	6.871	26.399	4.531
2021-06-26 21:30	268200	8.168	-101.337	208.572	26.313	575.493	561.413	0.274	0.365	6.763	26.313	4.561
2021-06-26 21:45	269100	8.171	-101.473	208.429	26.221	574.411	561.319	0.274	0.365	6.779	26.221	4.756
2021-06-26 22:00	270000	8.164	-101.042	210.83	26.102	572.291	560.497	0.274	0.364	6.728	26.102	4.824
2021-06-26 22:15	270900	8.161	-100.741	211.405	25.872	568.889	559.57	0.274	0.364	6.751	25.872	4.604
2021-06-26 22:30	271800	8.158	-100.601	212.527	25.831	568.854	559.969	0.274	0.364	6.674	25.831	5.076
2021-06-26 22:45	272700	8.173	-101.433	211.781	25.799	569.36	560.805	0.274	0.365	6.586	25.799	4.95
2021-06-26 23:00	273600	8.158	-100.503	212.404	25.65	566.538	559.591	0.274	0.364	6.578	25.65	4.764
2021-06-26 23:15	274500	8.153	-100.172	211.133	25.501	565.162	559.801	0.274	0.364	6.521	25.501	5.337
2021-06-26 23:30	275400	8.154	-100.188	210.575	25.382	562.164	558.088	0.273	0.363	6.659	25.382	4.169
2021-06-26 23:45	276300	8.143	-99.494	212.077	25.281	560.325	557.334	0.272	0.362	***6.397***	25.281	4.312
2021-06-27 00:00	277200	8.142	-99.373	211.488	25.152	558.672	557.052	0.272	0.362	***6.438***	25.152	4.379
2021-06-27 00:15	278100	8.107	-97.268	213.374	24.99	557.107	557.218	0.272	0.362	***6.040***	24.99	5.861
2021-06-27 00:30	279000	8.094	-96.362	215.923	24.614	547.73	551.803	0.270	0.359	***5.977***	24.614	5.301
2021-06-27 00:45	279900	8.101	-96.722	215.315	24.38	542.651	549.156	0.268	0.357	***6.473***	24.38	4.695
2021-06-27 01:00	280800	8.081	-95.518	217.761	24.325	541.339	548.404	0.268	0.356	6.514	24.325	3.674
2021-06-27 01:15	281700	8.081	-95.553	218.867	24.411	544.213	550.41	0.269	0.358	***6.434***	24.411	4.061
2021-06-27 01:30	282600	8.098	-96.583	219.778	24.415	544.723	550.881	0.269	0.358	6.580	24.415	2.955
2021-06-27 01:45	283500	8.095	-96.381	217.658	24.388	547.636	554.114	0.271	0.360	***6.401***	24.388	3.539
2021-06-27 02:00	284400	8.142	-99.096	217.932	24.283	546.117	553.699	0.271	0.360	6.507	24.283	5.008
2021-06-27 02:15	285300	8.144	-99.225	217.901	24.219	545.354	553.614	0.271	0.360	6.684	24.219	4.017
2021-06-27 02:30	286200	8.125	-98.057	219.706	24.077	540.918	550.621	0.269	0.358	6.638	24.077	4.163
2021-06-27 02:45	287100	8.145	-99.213	218.908	23.982	541.929	552.675	0.270	0.359	6.567	23.982	4.103
2021-06-27 03:00	288000	8.126	-98.04	219.399	23.873	540.433	552.318	0.270	0.359	6.698	23.873	4.319
2021-06-27 03:15	288900	8.122	-97.79	219.413	23.775	540.674	553.63	0.271	0.360	***6.286***	23.775	4.407
2021-06-27 03:30	289800	8.137	-98.596	222.303	23.66	538.656	552.802	0.270	0.359	6.578	23.66	4.366
2021-06-27 03:45	290700	8.123	-97.735	222.775	23.587	537.391	552.295	0.270	0.359	6.596	23.587	4.206
2021-06-27 04:00	291600	8.122	-97.687	224.367	23.504	536.464	552.242	0.270	0.359	***6.492***	23.504	3.811
2021-06-27 04:15	292500	8.141	-98.734	223.678	23.41	536.128	552.923	0.270	0.359	6.583	23.41	3.895
2021-06-27 04:30	293400	8.128	-97.95	223.581	23.328	535.126	552.776	0.270	0.359	***6.441***	23.328	5.105
2021-06-27 04:45	294300	8.129	-98.019	225.362	23.253	534.907	553.377	0.270	0.360	***6.283***	23.253	5.619
2021-06-27 05:00	295200	8.116	-97.222	226.089	23.154	533.207	552.697	0.270	0.359	***6.318***	23.154	3.341
2021-06-27 05:15	296100	8.126	-97.761	227.193	23.065	532.495	552.932	0.270	0.359	***6.432***	23.065	3.522
2021-06-27 05:30	297000	8.128	-97.854	228.757	22.969	530.372	551.779	0.270	0.359	6.537	22.969	3.641
2021-06-27 05:45	297900	8.127	-97.787	231.036	22.896	529.795	551.971	0.270	0.359	***6.477***	22.896	3.853
2021-06-27 06:00	298800	8.106	-96.5	233.189	22.822	529.025	551.989	0.270	0.359	***6.161***	22.822	3.613
2021-06-27 06:15	299700	8.122	-97.413	232.254	22.733	528.211	552.12	0.270	0.359	***6.419***	22.733	3.452
2021-06-27 06:30	300600	8.119	-97.206	231.549	22.647	525.972	550.725	0.269	0.358	***6.490***	22.647	3.631
2021-06-27 06:45	301500	8.106	-96.416	233.544	22.585	524.964	550.355	0.269	0.358	***6.356***	22.585	3.43

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-27 07:00	302400	8.105	-96.347	237.158	22.538	525.021	550.925	0.269	0.358	***6.267***	22.538	3.269
2021-06-27 07:15	303300	8.110	-96.653	235.127	22.478	524.358	550.896	0.269	0.358	***6.256***	22.478	3.121
2021-06-27 07:30	304200	8.110	-96.593	234.908	22.425	523.636	550.727	0.269	0.358	***6.235***	22.425	3.739
2021-06-27 07:45	305100	8.115	-96.879	235.285	22.366	524.785	552.58	0.270	0.359	***6.402***	22.366	3.129
2021-06-27 08:00	306000	8.120	-97.163	238.148	22.309	523.053	551.395	0.269	0.358	***6.483***	22.309	3.349
2021-06-27 08:15	306900	8.118	-97.001	237.743	22.259	521.576	550.393	0.269	0.358	6.597	22.259	3.863
2021-06-27 08:30	307800	8.117	-96.936	234.576	22.223	519.849	548.971	0.268	0.357	6.642	22.223	2.762
2021-06-27 08:45	308700	8.105	-96.271	237.001	22.192	518.454	547.833	0.268	0.356	6.520	22.192	3.091
2021-06-27 09:00	309600	8.124	-97.37	240.89	22.153	518.889	548.73	0.268	0.357	6.562	22.153	3.429
2021-06-27 09:15	310500	8.119	-97.072	244.912	22.128	518.243	548.323	0.268	0.356	***6.472***	22.128	3.325
2021-06-27 09:30	311400	8.128	-97.537	248.016	22.094	518.29	548.75	0.268	0.357	6.555	22.094	2.944
2021-06-27 09:45	312300	8.120	-97.063	244.778	22.086	518.057	548.594	0.268	0.357	***6.493***	22.086	3.042
2021-06-27 10:00	313200	8.104	-96.161	247.172	22.091	518.218	548.708	0.268	0.357	***6.427***	22.091	2.757
2021-06-27 10:15	314100	8.097	-95.763	244.654	22.169	520.26	550.005	0.269	0.358	***6.298***	22.169	2.65
2021-06-27 10:30	315000	8.091	-95.46	243.136	22.222	523.101	552.417	0.270	0.359	***6.263***	22.222	2.892
2021-06-27 10:45	315900	8.113	-96.743	242.735	22.257	524.287	553.271	0.270	0.360	***6.350***	22.257	3.137
2021-06-27 11:00	316800	8.090	-95.389	242.165	22.344	524.611	552.65	0.270	0.359	***6.409***	22.344	2.604
2021-06-27 11:15	317700	8.134	-98	238.949	22.44	525.487	552.502	0.270	0.359	6.601	22.44	2.718
2021-06-27 11:30	318600	8.155	-99.289	238.27	22.514	525.874	552.084	0.270	0.359	6.689	22.514	2.576
2021-06-27 11:45	319500	8.127	-97.704	236.839	22.617	527.024	552.157	0.270	0.359	6.690	22.617	2.242
2021-06-27 12:00	320400	8.144	-98.681	238.181	22.721	528.285	552.323	0.270	0.359	6.707	22.721	2.568
2021-06-27 12:15	321300	8.146	-98.891	237.721	22.833	529.866	552.742	0.270	0.359	6.728	22.833	2.804
2021-06-27 12:30	322200	8.149	-99.051	242.482	22.884	530.694	553.048	0.270	0.359	6.742	22.884	2.635
2021-06-27 12:45	323100	8.157	-99.516	245.653	22.922	530.786	552.721	0.270	0.359	6.728	22.922	3.037
2021-06-27 13:00	324000	8.126	-97.747	247.618	23.017	532.09	553.036	0.270	0.359	6.765	23.017	2.604
2021-06-27 13:15	324900	8.159	-99.69	244.287	23.06	532.569	553.061	0.270	0.359	6.805	23.06	3.157
2021-06-27 13:30	325800	8.154	-99.454	247.689	23.124	533.161	552.97	0.270	0.359	6.864	23.124	3.002
2021-06-27 13:45	326700	8.153	-99.382	248.6	23.177	533.773	553.029	0.270	0.359	6.829	23.177	2.814
2021-06-27 14:00	327600	8.162	-99.945	249.48	23.22	534.336	553.137	0.270	0.360	6.975	23.22	2.972
2021-06-27 14:15	328500	8.158	-99.728	250.491	23.254	534.577	553.019	0.270	0.359	6.895	23.254	3.072
2021-06-27 14:30	329400	8.164	-100.062	251.142	23.287	534.324	552.397	0.270	0.359	6.949	23.287	3.402
2021-06-27 14:45	330300	8.169	-100.405	249.103	23.361	535.032	552.325	0.270	0.359	7.036	23.361	3.506
2021-06-27 15:00	331200	8.161	-99.957	251.228	23.419	535.842	552.531	0.270	0.359	7.074	23.419	3.014
2021-06-27 15:15	332100	8.167	-100.312	251.394	23.444	536.213	552.636	0.270	0.359	7.065	23.444	3.003
2021-06-27 15:30	333000	8.155	-99.602	253.462	23.398	535.557	552.459	0.270	0.359	7.156	23.398	3.198
2021-06-27 15:45	333900	8.166	-100.253	257.944	23.523	537.114	552.706	0.270	0.359	6.960	23.523	3.215
2021-06-27 16:00	334800	8.166	-100.293	257.66	23.52	536.987	552.604	0.270	0.359	6.842	23.52	3.826
2021-06-27 16:15	335700	8.158	-99.814	256.809	23.576	537.198	552.216	0.270	0.359	7.063	23.576	2.932
2021-06-27 16:30	336600	8.173	-100.732	253.95	23.633	536.851	551.244	0.269	0.358	7.215	23.633	3.06
2021-06-27 16:45	337500	8.175	-100.803	255.052	23.554	535.236	550.44	0.269	0.358	7.203	23.554	3.172
2021-06-27 17:00	338400	8.181	-101.185	257.434	23.616	534.993	549.523	0.269	0.357	7.312	23.616	2.757
2021-06-27 17:15	339300	8.184	-101.38	257.186	23.622	535.414	549.891	0.269	0.357	7.363	23.622	3.511
2021-06-27 17:30	340200	8.156	-99.709	254.234	23.683	533.574	547.339	0.267	0.356	7.448	23.683	2.833
2021-06-27 17:45	341100	8.196	-102.112	257.055	23.717	530.56	543.885	0.266	0.354	7.897	23.717	2.806
2021-06-27 18:00	342000	8.188	-101.678	258.38	23.841	534.804	546.906	0.267	0.355	7.728	23.841	2.543
2021-06-27 18:15	342900	8.191	-101.876	260.011	23.881	535.305	546.998	0.267	0.356	7.743	23.881	3.049
2021-06-27 18:30	343800	8.193	-102.019	260.528	23.994	536.87	547.389	0.267	0.356	7.679	23.994	2.639
2021-06-27 18:45	344700	8.187	-101.867	252.489	24.494	546.389	551.721	0.270	0.359	7.557	24.494	2.707
2021-06-27 19:00	345600	8.194	-102.382	252.243	24.923	554.535	555.35	0.271	0.361	7.670	24.923	3.006
2021-06-27 19:15	346500	8.205	-103.24	253.552	25.53	562.252	556.612	0.272	0.362	7.637	25.53	2.819
2021-06-27 19:30	347400	8.193	-102.682	250.262	25.913	567.972	558.235	0.273	0.363	7.553	25.913	2.829
2021-06-27 19:45	348300	8.191	-102.608	255.126	25.97	569.096	558.749	0.273	0.363	7.579	25.97	2.659
2021-06-27 20:00	349200	8.172	-101.595	248.433	26.418	575.911	560.721	0.274	0.364	7.448	26.418	2.996
2021-06-27 20:15	350100	8.163	-101.111	252.846	26.458	576.609	560.991	0.274	0.365	7.434	26.458	2.895
2021-06-27 20:30	351000	8.148	-100.231	251.495	26.566	577.447	560.677	0.274	0.364	7.369	26.566	3.048
2021-06-27 20:45	351900	8.157	-100.629	251.719	26.102	571.614	559.827	0.274	0.364	7.224	26.102	3.115

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-27 21:00	352800	8.170	-101.376	257.715	26.144	571.445	559.229	0.273	0.363	7.382	26.144	2.83
2021-06-27 21:15	353700	8.177	-101.726	256.766	25.92	570.029	560.185	0.274	0.364	6.739	25.92	4.208
2021-06-27 21:30	354600	8.172	-101.357	259.155	25.64	565.729	558.891	0.273	0.363	7.358	25.64	3.333
2021-06-27 21:45	355500	8.170	-101.202	265.797	25.55	564.193	558.324	0.273	0.363	7.313	25.55	3.433
2021-06-27 22:00	356400	8.160	-100.536	264.834	25.412	563.28	558.882	0.273	0.363	7.315	25.412	2.871
2021-06-27 22:15	357300	8.170	-101.061	268.382	25.205	560.567	558.377	0.273	0.363	7.319	25.205	3.133
2021-06-27 22:30	358200	8.154	-100.033	266.129	24.929	555.795	556.548	0.272	0.362	7.345	24.929	3.974
2021-06-27 22:45	359100	8.150	-99.795	269.498	24.856	555.079	556.611	0.272	0.362	7.288	24.856	3.756
2021-06-27 23:00	360000	8.145	-99.483	273.181	24.825	554.605	556.469	0.272	0.362	7.158	24.825	3.054
2021-06-27 23:15	360900	8.136	-98.929	273.586	24.836	554.744	556.488	0.272	0.362	7.156	24.836	3.036
2021-06-27 23:30	361800	8.146	-99.514	273.703	24.834	554.863	556.628	0.272	0.362	7.107	24.834	2.991
2021-06-27 23:45	362700	8.139	-99.154	275.456	24.974	556.663	556.945	0.272	0.362	7.081	24.974	2.61
2021-06-28 00:00	363600	8.158	-100.312	275.036	25.001	558.245	558.231	0.273	0.363	7.278	25.001	2.576
2021-06-28 00:15	364500	8.147	-99.692	274.082	25.171	560.175	558.35	0.273	0.363	7.218	25.171	2.769
2021-06-28 00:30	365400	8.122	-98.248	277.12	25.193	560.257	558.199	0.273	0.363	7.110	25.193	3.048
2021-06-28 00:45	366300	8.121	-98.193	275.21	25.287	561.179	558.124	0.273	0.363	7.189	25.287	2.591
2021-06-28 01:00	367200	8.104	-97.21	275.458	25.373	562.311	558.334	0.273	0.363	7.144	25.373	2.519
2021-06-28 01:15	368100	8.134	-98.979	275.115	25.35	561.953	558.223	0.273	0.363	6.979	25.35	2.459
2021-06-28 01:30	369000	8.156	-100.293	274.504	25.328	562.958	559.448	0.273	0.364	6.967	25.328	2.682
2021-06-28 01:45	369900	8.160	-100.498	273.043	25.251	562.997	560.314	0.274	0.364	7.062	25.251	2.719
2021-06-28 02:00	370800	8.156	-100.255	273.994	25.16	562.617	560.901	0.274	0.365	6.978	25.16	2.683
2021-06-28 02:15	371700	8.151	-99.919	273.536	25.071	561.188	560.427	0.274	0.364	6.978	25.071	2.701
2021-06-28 02:30	372600	8.146	-99.587	274.726	24.984	560.564	560.74	0.274	0.364	6.921	24.984	2.983
2021-06-28 02:45	373500	8.150	-99.79	273.918	24.894	559.855	560.995	0.274	0.365	6.946	24.894	2.733
2021-06-28 03:00	374400	8.157	-100.155	274.357	24.802	559.663	561.787	0.275	0.365	6.858	24.802	4.393
2021-06-28 03:15	375300	8.152	-99.831	277.768	24.717	558.432	561.471	0.275	0.365	6.880	24.717	2.785
2021-06-28 03:30	376200	8.149	-99.652	281.664	24.636	557.71	561.612	0.275	0.365	6.765	24.636	2.703
2021-06-28 03:45	377100	8.144	-99.313	281.948	24.515	556.115	561.312	0.274	0.365	***6.415***	24.515	2.819
2021-06-28 04:00	378000	8.133	-98.665	283.705	24.455	555.545	561.388	0.274	0.365	6.674	24.455	2.833
2021-06-28 04:15	378900	8.121	-97.885	283.719	24.402	555.404	561.82	0.275	0.365	6.507	24.402	2.857
2021-06-28 04:30	379800	8.130	-98.41	285.784	24.319	554.472	561.782	0.275	0.365	6.526	24.319	2.848
2021-06-28 04:45	380700	8.119	-97.725	286.564	24.239	553.12	561.273	0.274	0.365	***6.449***	24.239	2.952
2021-06-28 05:00	381600	8.116	-97.537	286.835	24.18	551.849	560.629	0.274	0.364	***6.403***	24.18	2.71
2021-06-28 05:15	382500	8.128	-98.219	287.291	24.084	550.714	560.515	0.274	0.364	6.620	24.084	2.824
2021-06-28 05:30	383400	8.128	-98.195	288.44	24.027	549.085	559.487	0.274	0.364	6.730	24.027	3.085
2021-06-28 05:45	384300	8.122	-97.804	288.347	23.951	548.394	559.608	0.274	0.364	6.667	23.951	2.879
2021-06-28 06:00	385200	8.127	-98.078	286.666	23.889	547.917	559.794	0.274	0.364	6.668	23.889	3.104
2021-06-28 06:15	386100	8.125	-97.98	287.558	23.835	546.844	559.289	0.273	0.364	6.533	23.835	3.009
2021-06-28 06:30	387000	8.115	-97.37	288.783	23.782	546.062	559.071	0.273	0.363	***6.229***	23.782	3.108
2021-06-28 06:45	387900	8.119	-97.563	289.892	23.727	545.453	559.05	0.273	0.363	***6.247***	23.727	2.848
2021-06-28 07:00	388800	8.104	-96.657	290.428	23.679	545.142	559.253	0.273	0.364	***6.217***	23.679	3.356
2021-06-28 07:15	389700	8.100	-96.416	287.029	23.634	543.821	558.391	0.273	0.363	***6.395***	23.634	2.819
2021-06-28 07:30	390600	8.107	-96.843	290.602	23.583	542.907	558.011	0.273	0.363	***6.336***	23.583	2.818
2021-06-28 07:45	391500	8.112	-97.082	291.504	23.54	542.167	557.721	0.273	0.363	***6.362***	23.54	2.659
2021-06-28 08:00	392400	8.112	-97.084	290.261	23.508	541.667	557.553	0.273	0.362	***6.429***	23.508	2.65
2021-06-28 08:15	393300	8.107	-96.757	291.146	23.463	540.537	556.882	0.272	0.362	***6.439***	23.463	3.763
2021-06-28 08:30	394200	8.108	-96.824	292.05	23.441	540.198	556.779	0.272	0.362	6.506	23.441	2.825
2021-06-28 08:45	395100	8.104	-96.567	290.681	23.418	536.28	552.988	0.270	0.359	6.551	23.418	2.597
2021-06-28 09:00	396000	8.059	-93.946	291.287	23.393	539.577	556.662	0.272	0.362	6.506	23.393	2.557
2021-06-28 09:15	396900	8.082	-95.279	295.69	23.37	539.869	557.222	0.272	0.362	***6.351***	23.37	3.974
2021-06-28 09:30	397800	8.093	-95.899	294.436	23.346	538.703	556.281	0.272	0.362	***6.415***	23.346	2.718
2021-06-28 09:45	398700	8.103	-96.493	293.819	23.333	538.229	555.928	0.272	0.361	***6.132***	23.333	143.122
2021-06-28 10:00	399600	8.094	-95.98	295.404	23.366	537.808	555.136	0.271	0.361	***6.298***	23.366	2.512
2021-06-28 10:15	400500	8.101	-96.428	300.285	23.444	540.877	557.447	0.273	0.362	***6.281***	23.444	2.513
2021-06-28 10:30	401400	8.103	-96.552	299.805	23.484	542.61	558.786	0.273	0.363	***6.182***	23.484	2.425
2021-06-28 10:45	402300	8.106	-96.741	300.885	23.534	544.625	560.31	0.274	0.364	***6.166***	23.534	2.43

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-28 11:00	403200	8.115	-97.311	300.389	23.6	539.135	553.952	0.271	0.360	***6.333***	23.6	2.568
2021-06-28 11:15	404100	8.115	-97.337	298.907	23.697	546.79	560.746	0.274	0.364	***6.328***	23.697	2.336
2021-06-28 11:30	405000	8.105	-96.781	298.306	23.848	549.147	561.505	0.275	0.365	***6.467***	23.848	3.126
2021-06-28 11:45	405900	8.098	-96.393	297.5	23.996	551.206	561.985	0.275	0.365	6.506	23.996	2.355
2021-06-28 12:00	406800	8.120	-97.775	297.877	24.136	553.005	562.288	0.275	0.365	***6.383***	24.136	2.342
2021-06-28 12:15	407700	8.121	-97.849	296.317	24.217	554.136	562.552	0.275	0.366	***6.449***	24.217	2.535
2021-06-28 12:30	408600	8.118	-97.668	295.271	24.288	554.847	562.492	0.275	0.366	6.506	24.288	2.196
2021-06-28 12:45	409500	8.118	-97.742	295.621	24.503	558.82	564.174	0.276	0.367	***6.407***	24.503	2.204
2021-06-28 13:00	410400	8.130	-98.479	295.118	24.547	557.776	562.641	0.275	0.366	6.525	24.547	2.496
2021-06-28 13:15	411300	8.116	-97.711	298.721	24.665	559.428	563.031	0.275	0.366	6.606	24.665	2.524
2021-06-28 13:30	412200	8.137	-98.925	291.039	24.687	559.163	562.527	0.275	0.366	***6.282***	24.687	2.988
2021-06-28 13:45	413100	8.145	-99.437	290.266	24.771	560.618	563.08	0.275	0.366	6.817	24.771	2.763
2021-06-28 14:00	414000	8.145	-99.463	291.117	24.795	561.613	563.819	0.276	0.366	6.795	24.795	9.625
2021-06-28 14:15	414900	8.129	-98.557	289.937	24.924	562.958	563.775	0.276	0.366	6.750	24.924	2.343
2021-06-28 14:30	415800	8.148	-99.697	290.512	24.942	562.676	563.301	0.275	0.366	6.783	24.942	2.782
2021-06-28 14:45	416700	8.150	-99.85	291.489	25.053	564.108	563.534	0.276	0.366	6.955	25.053	2.738
2021-06-28 15:00	417600	8.120	-98.083	290.23	25.129	565.895	564.501	0.276	0.367	6.832	25.129	4.617
2021-06-28 15:15	418500	8.136	-99.123	284.134	25.443	568.995	564.216	0.276	0.367	7.008	25.443	2.768
2021-06-28 15:30	419400	8.163	-100.806	283.569	25.55	570.385	564.452	0.276	0.367	7.061	25.55	3.091
2021-06-28 15:45	420300	8.153	-100.167	279.394	25.428	567.605	563.007	0.275	0.366	7.363	25.428	2.556
2021-06-28 16:00	421200	8.160	-100.586	282.475	25.544	569.866	564.008	0.276	0.367	7.198	25.544	2.681
2021-06-28 16:15	422100	8.187	-102.179	279.185	25.55	568.998	563.087	0.275	0.366	7.295	25.55	2.521
2021-06-28 16:30	423000	8.186	-102.127	281.28	25.594	569.87	563.478	0.275	0.366	7.289	25.594	3.252
2021-06-28 16:45	423900	8.132	-98.917	284.756	25.518	569.543	563.959	0.276	0.367	7.287	25.518	3.418
2021-06-28 17:00	424800	8.163	-100.768	284.632	25.578	569.198	562.979	0.275	0.366	7.317	25.578	3.118
2021-06-28 17:15	425700	8.187	-102.234	289.189	25.672	569.774	562.55	0.275	0.366	7.279	25.672	2.961
2021-06-28 17:30	426600	8.186	-102.191	288.841	25.706	569.754	562.17	0.275	0.365	7.406	25.706	3.404
2021-06-28 17:45	427500	8.200	-103.056	287.889	25.794	570.28	561.765	0.275	0.365	7.560	25.794	3.231
2021-06-28 18:00	428400	8.177	-101.697	286.528	25.771	569.869	561.597	0.275	0.365	7.503	25.771	2.765
2021-06-28 18:15	429300	8.192	-102.582	287.551	25.79	569.72	561.25	0.274	0.365	7.582	25.79	2.851
2021-06-28 18:30	430200	8.202	-103.211	284.458	25.976	573.436	562.942	0.275	0.366	7.533	25.976	2.638
2021-06-28 18:45	431100	8.181	-102.017	284.048	26.137	576.419	564.17	0.276	0.367	7.323	26.137	2.476
2021-06-28 19:00	432000	8.181	-102.103	287.484	26.311	579.496	565.342	0.276	0.367	7.173	26.311	2.555
2021-06-28 19:15	432900	8.171	-101.595	285.87	26.542	582.563	565.894	0.277	0.368	7.215	26.542	2.819
2021-06-28 19:30	433800	8.196	-103.097	287.725	26.674	584.644	566.531	0.277	0.368	7.369	26.674	2.711
2021-06-28 19:45	434700	8.183	-102.363	285.259	26.765	585.248	566.159	0.277	0.368	7.087	26.765	2.916
2021-06-28 20:00	435600	8.187	-102.499	280.703	26.435	580.474	564.987	0.276	0.367	7.423	26.435	2.642
2021-06-28 20:15	436500	8.190	-102.68	282.37	26.347	578.778	564.26	0.276	0.367	7.354	26.347	2.739
2021-06-28 20:30	437400	8.188	-102.501	283.359	26.285	577.62	563.78	0.276	0.366	7.347	26.285	2.615
2021-06-28 20:45	438300	8.199	-103.095	278.071	26.15	575.262	562.894	0.275	0.366	7.465	26.15	2.66
2021-06-28 21:00	439200	8.173	-101.557	279.266	26.151	574.91	562.544	0.275	0.366	7.604	26.151	2.609
2021-06-28 21:15	440100	8.152	-100.331	285.581	26.186	575.942	563.181	0.275	0.366	7.466	26.186	2.831
2021-06-28 21:30	441000	8.170	-101.404	284.95	26.246	577.968	564.538	0.276	0.367	7.284	26.246	2.958
2021-06-28 21:45	441900	8.152	-100.369	287.217	26.303	579.823	565.74	0.277	0.368	7.128	26.303	2.948
2021-06-28 22:00	442800	8.157	-100.667	289	26.359	581.137	566.433	0.277	0.368	6.980	26.359	2.722
2021-06-28 22:15	443700	8.165	-101.156	285.076	26.387	581.366	566.366	0.277	0.368	6.990	26.387	3.218
2021-06-28 22:30	444600	8.165	-101.173	283.669	26.385	581.452	566.463	0.277	0.368	7.041	26.385	3.233
2021-06-28 22:45	445500	8.154	-100.567	285.15	26.451	582.238	566.541	0.277	0.368	6.992	26.451	2.941
2021-06-28 23:00	446400	8.161	-100.951	285.979	26.471	582.317	566.406	0.277	0.368	6.968	26.471	3.082
2021-06-28 23:15	447300	8.163	-101.092	286.285	26.435	581.733	566.215	0.277	0.368	6.972	26.435	2.847
2021-06-28 23:30	448200	8.157	-100.718	286.843	26.437	581.657	566.124	0.277	0.368	6.989	26.437	2.692
2021-06-28 23:45	449100	8.127	-99.013	291.671	26.59	583.544	566.343	0.277	0.368	6.920	26.59	2.804
2021-06-29 00:00	450000	8.153	-100.596	291.69	26.693	585.723	567.376	0.277	0.369	6.768	26.693	2.656
2021-06-29 00:15	450900	8.148	-100.334	292.612	26.822	587.846	568.075	0.278	0.369	6.691	26.822	2.8
2021-06-29 00:30	451800	8.139	-99.778	294.934	26.899	589.962	569.309	0.278	0.370	6.580	26.899	2.816
2021-06-29 00:45	452700	8.130	-99.256	296.437	26.946	591.822	570.609	0.279	0.371	***6.327***	26.946	2.92

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-29 01:00	453600	8.124	-98.92	294.186	26.962	592.889	571.478	0.279	0.371	***6.252***	26.962	4.363
2021-06-29 01:15	454500	8.140	-99.845	292.138	26.886	593.414	572.785	0.280	0.372	***5.885***	26.886	2.674
2021-06-29 01:30	455400	8.134	-99.49	291.549	26.832	593.419	573.361	0.280	0.373	***5.879***	26.832	3.3
2021-06-29 01:45	456300	8.161	-101.075	294.474	26.75	593.8	574.597	0.281	0.373	***5.669***	26.75	2.858
2021-06-29 02:00	457200	8.146	-100.152	285.014	26.663	592.871	574.62	0.281	0.374	***5.807***	26.663	2.74
2021-06-29 02:15	458100	8.169	-101.516	282.87	26.594	591.731	574.246	0.281	0.373	***5.817***	26.594	2.783
2021-06-29 02:30	459000	8.168	-101.39	284.234	26.505	592.229	575.684	0.282	0.374	***5.997***	26.505	2.784
2021-06-29 02:45	459900	8.162	-101.016	288.144	26.414	589.538	574.039	0.281	0.373	***5.950***	26.414	3.073
2021-06-29 03:00	460800	8.163	-101.025	287.842	26.327	588.262	573.722	0.281	0.373	***6.220***	26.327	2.767
2021-06-29 03:15	461700	8.168	-101.323	291.103	26.243	587.643	574.013	0.281	0.373	***5.774***	26.243	2.901
2021-06-29 03:30	462600	8.161	-100.837	292.543	26.162	586.291	573.561	0.281	0.373	***5.836***	26.162	2.656
2021-06-29 03:45	463500	8.161	-100.815	292.298	26.079	584.833	573.019	0.280	0.372	***5.976***	26.079	2.964
2021-06-29 04:00	464400	8.164	-100.987	294.031	25.996	584.119	573.219	0.280	0.373	***6.083***	25.996	2.71
2021-06-29 04:15	465300	8.166	-101.078	294.512	25.918	582.78	572.733	0.280	0.372	***6.160***	25.918	2.74
2021-06-29 04:30	466200	8.165	-100.985	295.705	25.834	581.1	571.986	0.280	0.372	***6.328***	25.834	2.734
2021-06-29 04:45	467100	8.158	-100.577	296.398	25.754	580.034	571.795	0.280	0.372	***6.257***	25.754	2.943
2021-06-29 05:00	468000	8.154	-100.312	297.192	25.67	578.326	571.016	0.279	0.371	***6.295***	25.67	2.746
2021-06-29 05:15	468900	8.150	-100.019	297.919	25.597	577.492	570.983	0.279	0.371	***6.174***	25.597	2.854
2021-06-29 05:30	469800	8.163	-100.751	298.046	25.51	577.064	571.501	0.280	0.371	***6.090***	25.51	3.153
2021-06-29 05:45	470700	8.165	-100.837	297.114	25.435	575.846	571.101	0.279	0.371	***6.028***	25.435	4.204
2021-06-29 06:00	471600	8.157	-100.386	297.264	25.363	574.629	570.674	0.279	0.371	***5.959***	25.363	2.979
2021-06-29 06:15	472500	8.157	-100.353	300.921	25.294	573.883	570.677	0.279	0.371	***6.062***	25.294	3.254
2021-06-29 06:30	473400	8.160	-100.472	296.046	25.228	572.579	570.099	0.279	0.371	***6.240***	25.228	3.461
2021-06-29 06:45	474300	8.149	-99.843	294.138	25.165	571.864	570.071	0.279	0.371	***5.886***	25.165	3.192
2021-06-29 07:00	475200	8.147	-99.664	296.584	25.106	570.725	569.577	0.279	0.370	***6.268***	25.106	2.659
2021-06-29 07:15	476100	8.105	-97.203	299.04	25.064	570.013	569.314	0.278	0.370	***5.945***	25.064	2.789
2021-06-29 07:30	477000	8.121	-98.126	300.902	25.016	569.888	569.712	0.279	0.370	***5.947***	25.016	3.009
2021-06-29 07:45	477900	8.134	-98.894	303.014	24.969	568.99	569.325	0.278	0.370	***6.024***	24.969	2.97
2021-06-29 08:00	478800	8.144	-99.442	304.893	24.927	568.054	568.844	0.278	0.370	***6.195***	24.927	2.819
2021-06-29 08:15	479700	8.150	-99.797	306.221	24.889	567.029	568.234	0.278	0.369	***6.142***	24.889	2.74
2021-06-29 08:30	480600	8.150	-99.752	303.792	24.853	566.787	568.38	0.278	0.369	***6.100***	24.853	2.595
2021-06-29 08:45	481500	8.145	-99.447	303.253	24.82	566.38	568.335	0.278	0.369	***6.248***	24.82	2.907
2021-06-29 09:00	482400	8.152	-99.876	303.208	24.794	565.833	568.072	0.278	0.369	***6.185***	24.794	3.068
2021-06-29 09:15	483300	8.155	-100.012	305.098	24.769	555.83	558.298	0.273	0.363	***6.065***	24.769	2.875
2021-06-29 09:30	484200	8.144	-99.361	305.365	24.75	565.677	568.395	0.278	0.369	***6.172***	24.75	2.701
2021-06-29 09:45	485100	8.136	-98.884	306.367	24.742	565.355	568.153	0.278	0.369	***6.247***	24.742	2.778
2021-06-29 10:00	486000	8.146	-99.497	306.467	24.764	565.722	568.287	0.278	0.369	***6.245***	24.764	2.861
2021-06-29 10:15	486900	8.121	-98.057	312.265	24.844	568.309	570.003	0.279	0.371	***5.955***	24.844	2.564
2021-06-29 10:30	487800	8.090	-96.228	316.585	24.897	569.959	571.087	0.279	0.371	***5.910***	24.897	2.653
2021-06-29 10:45	488700	8.136	-98.989	318.254	24.948	571.479	572.052	0.280	0.372	***5.949***	24.948	2.933
2021-06-29 11:00	489600	8.159	-100.36	322.367	25.006	571.356	571.286	0.279	0.371	***6.226***	25.006	3.427
2021-06-29 11:15	490500	8.141	-99.318	322.689	25.097	572.571	571.515	0.280	0.371	***6.361***	25.097	3.139
2021-06-29 11:30	491400	8.139	-99.244	315.4	25.199	574.043	571.874	0.280	0.372	***6.318***	25.199	2.495
2021-06-29 11:45	492300	8.152	-100.031	314.804	25.314	575.524	572.093	0.280	0.372	***6.305***	25.314	2.748
2021-06-29 12:00	493200	8.144	-99.597	313.169	25.43	577.035	572.331	0.280	0.372	***6.281***	25.43	2.548
2021-06-29 12:15	494100	8.136	-99.177	312.58	25.523	578.224	572.51	0.280	0.372	***6.270***	25.523	2.622
2021-06-29 12:30	495000	8.137	-99.273	313.688	25.614	579.295	572.584	0.280	0.372	***6.219***	25.614	2.639
2021-06-29 12:45	495900	8.134	-99.123	311.533	25.739	581.177	573.086	0.280	0.373	***6.416***	25.739	2.722
2021-06-29 13:00	496800	8.143	-99.726	314.385	25.872	583.097	573.543	0.281	0.373	***6.355***	25.872	2.486
2021-06-29 13:15	497700	8.173	-101.509	313.657	25.902	583.047	573.17	0.280	0.373	***6.438***	25.902	3.093
2021-06-29 13:30	498600	8.166	-101.109	310.327	25.986	583.733	572.94	0.280	0.372	6.582	25.986	2.704
2021-06-29 13:45	499500	8.150	-100.191	305.263	26.171	587.313	574.468	0.281	0.373	6.571	26.171	2.537
2021-06-29 14:00	500400	8.175	-101.655	301.439	26.006	585.014	573.99	0.281	0.373	***5.921***	26.006	3.138
2021-06-29 14:15	501300	8.101	-97.346	311.342	26.252	587.799	574.068	0.281	0.373	6.577	26.252	2.962
2021-06-29 14:30	502200	8.123	-98.612	305.659	26.156	587.041	574.357	0.281	0.373	6.682	26.156	3.695
2021-06-29 14:45	503100	8.140	-99.652	302.23	26.282	587.374	573.336	0.280	0.373	6.787	26.282	2.854

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-29 15:00	504000	8.174	-101.724	305.387	26.435	588.708	573.004	0.280	0.372	6.776	26.435	2.764
2021-06-29 15:15	504900	8.198	-103.137	290.76	26.383	586.924	571.815	0.280	0.372	7.067	26.383	3.444
2021-06-29 15:30	505800	8.176	-101.838	290.023	26.488	589.493	573.201	0.280	0.373	7.027	26.488	2.818
2021-06-29 15:45	506700	8.167	-101.347	294.076	26.542	590.967	574.059	0.281	0.373	6.943	26.542	3.246
2021-06-29 16:00	507600	8.178	-101.976	289.036	26.485	590.778	574.488	0.281	0.373	6.554	26.485	3.249
2021-06-29 16:15	508500	8.203	-103.505	294.794	26.609	590.196	572.597	0.280	0.372	7.020	26.609	2.925
2021-06-29 16:30	509400	8.183	-102.372	297.292	26.749	590.167	571.092	0.279	0.371	6.942	26.749	2.75
2021-06-29 16:45	510300	8.203	-103.545	297.562	26.731	593.49	574.495	0.281	0.373	7.119	26.731	3.425
2021-06-29 17:00	511200	8.207	-103.831	291.73	26.815	591.997	572.164	0.280	0.372	7.339	26.815	3.036
2021-06-29 17:15	512100	8.197	-103.29	294.338	26.991	594.929	573.131	0.280	0.373	7.292	26.991	2.839
2021-06-29 17:30	513000	8.228	-105.131	295.299	27.052	595.295	572.844	0.280	0.372	7.386	27.052	2.981
2021-06-29 17:45	513900	8.233	-105.443	289.603	27.062	594.878	572.336	0.280	0.372	7.533	27.062	3.229
2021-06-29 18:00	514800	8.227	-105.186	302.7	27.227	598.317	573.91	0.281	0.373	7.259	27.227	3.132
2021-06-29 18:15	515700	8.212	-104.322	306.398	27.406	601.537	575.105	0.281	0.374	7.350	27.406	2.85
2021-06-29 18:30	516600	8.208	-104.094	302.502	27.454	601.334	574.414	0.281	0.373	7.328	27.454	4.138
2021-06-29 18:45	517500	8.209	-104.218	299.484	27.592	603.5	575.029	0.281	0.374	7.412	27.592	3.43
2021-06-29 19:00	518400	8.227	-105.305	296.782	27.656	604.57	575.386	0.281	0.374	7.469	27.656	3.502
2021-06-29 19:15	519300	8.210	-104.268	284.146	27.579	606.218	577.762	0.283	0.376	7.579	27.579	4.587
2021-06-29 19:30	520200	8.228	-105.367	284.075	27.644	604.194	575.146	0.281	0.374	7.473	27.644	3.273
2021-06-29 19:45	521100	8.191	-103.295	294.219	28.024	611.002	577.638	0.282	0.375	7.261	28.024	3.308
2021-06-29 20:00	522000	8.176	-102.479	292.629	28.306	614.089	577.621	0.282	0.375	7.401	28.306	3.931
2021-06-29 20:15	522900	8.155	-101.233	293.39	28.245	614.132	578.294	0.283	0.376	7.340	28.245	4.047
2021-06-29 20:30	523800	8.182	-102.937	297.707	28.497	619.203	580.439	0.284	0.377	7.338	28.497	3.402
2021-06-29 20:45	524700	8.172	-102.26	302.85	28.355	617.208	580.034	0.284	0.377	6.777	28.355	3.825
2021-06-29 21:00	525600	8.183	-102.918	288.039	28.379	617.211	579.791	0.283	0.377	6.998	28.379	3.454
2021-06-29 21:15	526500	8.148	-100.818	287.52	28.247	615.009	579.094	0.283	0.376	6.922	28.247	3.989
2021-06-29 21:30	527400	8.168	-102.031	292.934	28.297	615.667	579.194	0.283	0.376	6.972	28.297	3.25
2021-06-29 21:45	528300	8.140	-100.334	297.521	28.306	624.167	587.1	0.287	0.382	6.938	28.306	3.519
2021-06-29 22:00	529200	8.130	-99.75	309.988	28.439	620.375	582.141	0.285	0.378	6.774	28.439	3.388
2021-06-29 22:15	530100	8.152	-101.092	314.37	28.509	621.867	582.809	0.285	0.379	6.775	28.509	2.961
2021-06-29 22:30	531000	8.073	-96.421	318.772	28.644	624.207	583.594	0.285	0.379	6.778	28.644	2.832
2021-06-29 22:45	531900	8.121	-99.308	314.18	28.734	625.628	583.981	0.286	0.380	6.678	28.734	3.281
2021-06-29 23:00	532800	8.101	-98.121	297.457	28.765	626.318	584.3	0.286	0.380	***6.454***	28.765	3.264
2021-06-29 23:15	533700	8.135	-100.155	295.702	28.673	625.42	584.419	0.286	0.380	***6.079***	28.673	3.091
2021-06-29 23:30	534600	8.142	-100.539	291.83	28.634	624.132	583.626	0.285	0.379	***6.226***	28.634	3.238
2021-06-29 23:45	535500	8.140	-100.446	292.338	28.583	623.075	583.161	0.285	0.379	***6.334***	28.583	3.315
2021-06-30 00:00	536400	8.124	-99.463	295.936	28.561	623.147	583.465	0.285	0.379	***6.204***	28.561	3.256
2021-06-30 00:15	537300	8.156	-101.361	291.356	28.546	622.746	583.24	0.285	0.379	***6.470***	28.546	3.229
2021-06-30 00:30	538200	8.138	-100.305	289.89	28.507	622.537	583.46	0.285	0.379	***6.336***	28.507	3.806
2021-06-30 00:45	539100	8.076	-96.562	290.123	28.51	625.412	586.122	0.287	0.381	***6.000***	28.51	3.729
2021-06-30 01:00	540000	8.089	-97.299	285.82	28.437	626.602	588.002	0.288	0.382	***5.200***	28.437	3.638
2021-06-30 01:15	540900	8.102	-98.078	289.363	28.339	625.616	588.11	0.288	0.382	***4.874***	28.339	5.225
2021-06-30 01:30	541800	8.137	-100.157	286.018	28.244	623.621	587.238	0.287	0.382	***5.307***	28.244	3.415
2021-06-30 01:45	542700	8.114	-98.741	288.745	28.156	622.173	586.8	0.287	0.381	***4.828***	28.156	9.055
2021-06-30 02:00	543600	8.162	-101.562	285.276	28.075	622.036	587.531	0.287	0.382	***5.254***	28.075	3.25
2021-06-30 02:15	544500	8.124	-99.244	294.009	27.968	624.138	590.658	0.289	0.384	***4.981***	27.968	3.52
2021-06-30 02:30	545400	8.099	-97.73	294.074	27.883	621.732	589.287	0.288	0.383	***5.547***	27.883	3.52
2021-06-30 02:45	546300	8.073	-96.142	293.544	27.807	619.347	587.829	0.288	0.382	***5.754***	27.807	2.945
2021-06-30 03:00	547200	8.124	-99.187	293.576	27.708	618.138	587.734	0.288	0.382	***6.004***	27.708	3.07
2021-06-30 03:15	548100	8.159	-101.228	294.203	27.61	618.131	588.784	0.288	0.383	***5.873***	27.61	3.062
2021-06-30 03:30	549000	8.172	-101.941	297.7	27.487	615.06	587.169	0.287	0.382	***5.767***	27.487	2.982
2021-06-30 03:45	549900	8.136	-99.769	294.419	27.393	612.769	585.991	0.287	0.381	***5.725***	27.393	2.808
2021-06-30 04:00	550800	8.184	-102.611	300.544	27.285	611.901	586.309	0.287	0.381	***5.624***	27.285	2.987
2021-06-30 04:15	551700	8.159	-101.085	309.063	27.186	611.171	586.673	0.287	0.381	***5.876***	27.186	2.845
2021-06-30 04:30	552600	8.179	-102.265	305.771	27.085	608.784	585.472	0.286	0.381	***6.190***	27.085	2.849
2021-06-30 04:45	553500	8.180	-102.296	306.82	26.986	606.582	584.411	0.286	0.380	***5.984***	26.986	3.798

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-30 05:00	554400	8.170	-101.666	311.638	26.893	604.939	583.826	0.286	0.379	***6.038***	26.893	3.348
2021-06-30 05:15	555300	8.181	-102.282	313.374	26.793	603.71	583.724	0.286	0.379	***6.097***	26.793	2.765
2021-06-30 05:30	556200	8.170	-101.576	316.061	26.706	602.666	583.651	0.286	0.379	***5.877***	26.706	2.922
2021-06-30 05:45	557100	8.185	-102.429	317.525	26.59	600.338	582.649	0.285	0.379	***5.991***	26.59	3.025
2021-06-30 06:00	558000	8.176	-101.852	320.605	26.512	599.378	582.556	0.285	0.379	***5.725***	26.512	3.556
2021-06-30 06:15	558900	8.184	-102.351	322.245	26.425	598.146	582.295	0.285	0.378	***5.802***	26.425	2.929
2021-06-30 06:30	559800	8.180	-102.065	322.253	26.351	596.846	581.827	0.285	0.378	***5.841***	26.351	2.988
2021-06-30 06:45	560700	8.187	-102.448	322.343	26.281	596.582	582.335	0.285	0.379	***5.762***	26.281	2.867
2021-06-30 07:00	561600	8.177	-101.848	324.422	26.216	595.431	581.911	0.285	0.378	***5.918***	26.216	3.035
2021-06-30 07:15	562500	8.165	-101.12	319.892	26.153	593.94	581.138	0.284	0.378	***5.876***	26.153	3.576
2021-06-30 07:30	563400	8.170	-101.39	323.237	26.094	593.024	580.887	0.284	0.378	***5.927***	26.094	3.211
2021-06-30 07:45	564300	8.169	-101.314	326.227	26.049	592.78	581.138	0.284	0.378	***5.528***	26.049	3.4
2021-06-30 08:00	565200	8.146	-99.895	329.136	26.012	594.603	583.333	0.285	0.379	***5.626***	26.012	4.713
2021-06-30 08:15	566100	8.144	-99.781	329.138	25.966	591.313	580.6	0.284	0.377	***5.459***	25.966	2.997
2021-06-30 08:30	567000	8.154	-100.362	328.447	25.932	589.756	579.438	0.284	0.377	***5.949***	25.932	2.419
2021-06-30 08:45	567900	8.170	-101.33	329.341	25.913	589.327	579.231	0.283	0.377	***6.076***	25.913	2.935
2021-06-30 09:00	568800	8.163	-100.906	331.529	25.886	589.053	579.252	0.283	0.377	***6.146***	25.886	2.814
2021-06-30 09:15	569700	8.178	-101.781	332.998	25.869	588.103	578.502	0.283	0.376	***6.193***	25.869	2.545
2021-06-30 09:30	570600	8.164	-100.956	334.092	25.859	588.317	578.821	0.283	0.376	***6.353***	25.859	2.78
2021-06-30 09:45	571500	8.181	-101.974	332.44	25.844	587.735	578.413	0.283	0.376	***6.319***	25.844	3.466
2021-06-30 10:00	572400	8.181	-101.96	337.182	25.823	587.094	578.013	0.283	0.376	***6.001***	25.823	4.433
2021-06-30 10:15	573300	8.173	-101.466	335.242	25.83	586.636	577.484	0.283	0.375	***6.226***	25.83	2.258
2021-06-30 10:30	574200	8.171	-101.34	336.636	25.884	589.083	579.3	0.283	0.377	***6.110***	25.884	2.175
2021-06-30 10:45	575100	8.147	-99.945	335.814	25.935	590.957	580.592	0.284	0.377	***6.020***	25.935	2.39
2021-06-30 11:00	576000	8.143	-99.723	338.124	25.978	592.462	581.594	0.285	0.378	***5.875***	25.978	5.168
2021-06-30 11:15	576900	8.172	-101.49	342.418	26.008	594.237	583.009	0.285	0.379	***6.135***	26.008	2.97
2021-06-30 11:30	577800	8.198	-103.011	342.277	26.056	594.673	582.918	0.285	0.379	***6.216***	26.056	2.426
2021-06-30 11:45	578700	8.143	-99.759	343.355	26.1	594.62	582.378	0.285	0.379	***6.361***	26.1	2.312
2021-06-30 12:00	579600	8.180	-101.972	338.877	26.152	595.047	582.233	0.285	0.378	***6.332***	26.152	2.23
2021-06-30 12:15	580500	8.176	-101.764	338.32	26.226	595.679	582.049	0.285	0.378	***6.294***	26.226	2.245
2021-06-30 12:30	581400	8.199	-103.18	338.234	26.316	596.34	581.716	0.285	0.378	***6.440***	26.316	9.567
2021-06-30 12:45	582300	8.183	-102.265	339.237	26.4	596.707	581.162	0.284	0.378	6.688	26.4	2.659
2021-06-30 13:00	583200	8.183	-102.282	341.021	26.457	597.264	581.09	0.284	0.378	6.741	26.457	2.329
2021-06-30 13:15	584100	8.186	-102.494	343.355	26.558	598.674	581.371	0.284	0.378	6.665	26.558	2.683
2021-06-30 13:30	585000	8.205	-103.643	339.528	26.591	598.398	580.746	0.284	0.377	6.786	26.591	2.294
2021-06-30 13:45	585900	8.215	-104.32	322.076	26.867	601.292	580.588	0.284	0.377	7.024	26.867	2.769
2021-06-30 14:00	586800	8.224	-105.033	322.09	27.336	610.266	584.196	0.286	0.380	7.061	27.336	2.779
2021-06-30 14:15	587700	8.213	-104.826	311.173	28.67	631.161	589.813	0.289	0.383	6.651	28.67	2.662
2021-06-30 14:30	588600	8.228	-105.827	305.065	28.929	634.943	590.619	0.289	0.384	6.633	28.929	2.714
2021-06-30 14:45	589500	8.213	-105.011	304.698	29.224	640.432	592.618	0.290	0.385	6.637	29.224	2.817
2021-06-30 15:00	590400	8.208	-104.744	300.492	29.302	642.708	593.906	0.291	0.386	6.659	29.302	2.919
2021-06-30 15:15	591300	8.227	-105.92	294.961	29.341	642.894	593.666	0.290	0.386	6.706	29.341	3.232
2021-06-30 15:30	592200	8.222	-105.643	301.496	29.422	643.627	593.495	0.290	0.386	6.674	29.422	2.813
2021-06-30 15:45	593100	8.228	-106.053	301.844	29.618	646.48	594.08	0.291	0.386	6.687	29.618	2.925
2021-06-30 16:00	594000	8.209	-104.949	307.373	29.708	648.996	595.455	0.291	0.387	6.713	29.708	2.913
2021-06-30 16:15	594900	8.224	-105.853	309.068	29.706	649.166	595.624	0.291	0.387	6.730	29.706	2.903
2021-06-30 16:30	595800	8.232	-106.394	307.261	29.894	650.611	594.996	0.291	0.387	6.807	29.894	2.894
2021-06-30 16:45	596700	8.225	-105.941	311.116	29.88	650.994	595.487	0.291	0.387	6.815	29.88	3.248
2021-06-30 17:00	597600	8.199	-104.465	310.646	30.048	653.022	595.593	0.291	0.387	6.792	30.048	3.416
2021-06-30 17:15	598500	8.192	-103.838	284.93	29.382	635.638	586.55	0.287	0.381	7.477	29.382	3.742
2021-06-30 17:30	599400	8.206	-104.518	283.56	28.953	621.988	578.321	0.283	0.376	8.007	28.953	5.343
2021-06-30 17:45	600300	8.265	-107.908	284.754	28.63	615.967	576.031	0.282	0.374	8.471	28.63	3.712
2021-06-30 18:00	601200	8.255	-107.532	288.123	29.151	628.843	582.645	0.285	0.379	7.889	29.151	3.222
2021-06-30 18:15	602100	8.255	-107.462	287.989	28.975	624.145	580.103	0.284	0.377	8.095	28.975	3.998
2021-06-30 18:30	603000	8.262	-107.892	294.398	29.006	624.959	580.538	0.284	0.377	8.208	29.006	3.548
2021-06-30 18:45	603900	8.273	-108.585	296.162	29.201	627.378	580.782	0.284	0.378	8.206	29.201	4.939

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-06-30 19:00	604800	8.267	-108.204	287.544	28.992	622.377	578.285	0.283	0.376	8.061	28.992	4.335
2021-06-30 19:15	605700	8.262	-108.147	293.37	29.682	636.229	583.999	0.285	0.380	7.904	29.682	4.379
2021-06-30 19:30	606600	8.257	-108.035	297.292	30.304	650.66	590.803	0.289	0.384	7.930	30.304	3.541
2021-06-30 19:45	607500	8.254	-108.092	299.031	30.942	665.61	597.763	0.292	0.389	6.827	30.942	3.254
2021-06-30 20:00	608400	8.246	-107.579	301.024	30.792	667.715	601.204	0.294	0.391	6.618	30.792	3.228
2021-06-30 20:15	609300	8.255	-108.044	292.419	30.601	668.997	604.346	0.296	0.393	***6.319***	30.601	3.207
2021-06-30 20:30	610200	8.255	-107.958	295.91	30.372	663.001	601.302	0.294	0.391	6.685	30.372	3.46
2021-06-30 20:45	611100	8.257	-107.758	290.624	29.568	633.399	582.575	0.285	0.379	6.951	29.568	4.862
2021-06-30 21:00	612000	8.234	-106.385	299.877	29.524	633.139	582.781	0.285	0.379	7.781	29.524	3.844
2021-06-30 21:15	612900	8.230	-106.072	297.76	29.3	629.771	581.976	0.284	0.378	7.461	29.3	4.064
2021-06-30 21:30	613800	8.237	-106.249	294.725	28.616	617.973	578.046	0.283	0.376	7.695	28.616	5.134
2021-06-30 21:45	614700	8.215	-104.768	302.23	28.24	605.533	570.239	0.279	0.371	7.522	28.24	5.022
2021-06-30 22:00	615600	8.174	-102.222	306.274	27.88	597.534	566.382	0.277	0.368	7.791	27.88	4.654
2021-06-30 22:15	616500	8.219	-104.914	312.52	27.811	599.079	568.554	0.278	0.370	7.989	27.811	3.531
2021-06-30 22:30	617400	8.186	-102.89	320.018	27.727	603.693	573.806	0.281	0.373	7.495	27.727	3.607
2021-06-30 22:45	618300	8.199	-103.598	324.417	27.567	599.539	571.516	0.279	0.371	7.662	27.567	4.132
2021-06-30 23:00	619200	8.183	-102.601	326.718	27.379	594.771	568.915	0.278	0.370	7.510	27.379	3.816
2021-06-30 23:15	620100	8.178	-102.253	330.597	27.304	593.868	568.84	0.278	0.370	7.258	27.304	3.91
2021-06-30 23:30	621000	8.191	-103.002	333.127	27.271	593.511	568.835	0.278	0.370	7.240	27.271	3.548
2021-06-30 23:45	621900	8.199	-103.533	338.551	27.354	596.733	571.055	0.279	0.371	7.460	27.354	3.088
2021-07-01 00:00	622800	8.156	-100.97	319.01	27.437	603.307	576.476	0.282	0.375	6.753	27.437	3.412
2021-07-01 00:15	623700	8.188	-102.923	314.437	27.447	603.722	576.765	0.282	0.375	7.087	27.447	3.377
2021-07-01 00:30	624600	8.222	-105.059	324.184	27.716	609.547	579.485	0.283	0.377	7.207	27.716	3.272
2021-07-01 00:45	625500	8.219	-105	317.856	28.176	626.8	590.946	0.289	0.384	***6.429***	28.176	3.367
2021-07-01 01:00	626400	8.260	-107.415	319.93	28.118	627.52	592.247	0.290	0.385	6.506	28.118	3.188
2021-07-01 01:15	627300	8.239	-106.111	325.03	27.946	625.77	592.44	0.290	0.385	***6.369***	27.946	3.17
2021-07-01 01:30	628200	8.251	-106.812	327.939	27.832	624.336	592.302	0.290	0.385	***6.425***	27.832	2.987
2021-07-01 01:45	629100	8.246	-106.442	331.289	27.733	623.655	592.711	0.290	0.385	***6.395***	27.733	4.639
2021-07-01 02:00	630000	8.246	-106.463	333.935	27.649	622.663	592.679	0.290	0.385	***6.355***	27.649	6.906
2021-07-01 02:15	630900	8.241	-106.13	334.5	27.535	621.211	592.52	0.290	0.385	***6.273***	27.535	4.809
2021-07-01 02:30	631800	8.237	-105.832	329.074	27.452	620.398	592.643	0.290	0.385	***6.241***	27.452	4.385
2021-07-01 02:45	632700	8.238	-105.891	332.91	27.369	618.763	591.981	0.290	0.385	***6.284***	27.369	3.127
2021-07-01 03:00	633600	8.237	-105.777	338.315	27.32	617.629	591.426	0.289	0.384	***6.176***	27.32	3.112
2021-07-01 03:15	634500	8.227	-105.171	342.988	27.262	617.497	591.923	0.290	0.385	***6.232***	27.262	3.048
2021-07-01 03:30	635400	8.205	-103.841	342.032	27.214	616.996	591.968	0.290	0.385	***6.129***	27.214	3.011
2021-07-01 03:45	636300	8.217	-104.523	346.593	27.161	617.403	592.927	0.290	0.385	***6.090***	27.161	3.772
2021-07-01 04:00	637200	8.234	-105.531	347.275	27.096	615.669	591.976	0.290	0.385	***5.950***	27.096	3.039
2021-07-01 04:15	638100	8.226	-105.052	348.576	27.046	615.211	592.075	0.290	0.385	***5.707***	27.046	3.402
2021-07-01 04:30	639000	8.223	-104.852	350.248	26.966	614.536	592.297	0.290	0.385	***5.978***	26.966	3.14
2021-07-01 04:45	639900	8.220	-104.647	352.787	26.893	613.471	592.066	0.290	0.385	***5.954***	26.893	3.123
2021-07-01 05:00	640800	8.230	-105.188	352.508	26.835	611.143	590.454	0.289	0.384	***5.992***	26.835	3.097
2021-07-01 05:15	641700	8.225	-104.868	352.97	26.756	608.797	589.036	0.288	0.383	***6.157***	26.756	2.995
2021-07-01 05:30	642600	8.221	-104.62	352.162	26.664	607.087	588.387	0.288	0.382	***6.184***	26.664	3.138
2021-07-01 05:45	643500	8.219	-104.487	352.51	26.592	605.821	587.945	0.288	0.382	***6.227***	26.592	3.571
2021-07-01 06:00	644400	8.210	-103.872	353.581	26.518	605.332	588.271	0.288	0.382	***6.182***	26.518	3.25
2021-07-01 06:15	645300	8.212	-104.017	354.029	26.446	603.882	587.656	0.288	0.382	***6.126***	26.446	3.311
2021-07-01 06:30	646200	8.209	-103.786	354.005	26.368	602.824	587.477	0.288	0.382	***6.103***	26.368	3.237
2021-07-01 06:45	647100	8.212	-103.953	353.485	26.297	601.744	587.2	0.287	0.382	***6.108***	26.297	3.684
2021-07-01 07:00	648000	8.212	-103.936	352.451	26.223	600.69	586.979	0.287	0.382	***6.086***	26.223	3.313
2021-07-01 07:15	648900	8.208	-103.681	351.8	26.164	599.787	586.739	0.287	0.381	***6.119***	26.164	3.376
2021-07-01 07:30	649800	8.210	-103.741	352.541	26.09	599.175	586.953	0.287	0.382	***6.156***	26.09	3.362
2021-07-01 07:45	650700	8.214	-103.974	353.175	26.036	598.066	586.457	0.287	0.381	***6.150***	26.036	3.673
2021-07-01 08:00	651600	8.210	-103.703	354.637	25.98	597.025	586.058	0.287	0.381	***6.173***	25.98	3.596
2021-07-01 08:15	652500	8.215	-104.01	353.967	25.909	595.958	585.784	0.287	0.381	***6.206***	25.909	3.194
2021-07-01 08:30	653400	8.220	-104.253	349.265	25.86	595.023	585.403	0.287	0.381	***6.262***	25.86	3.517
2021-07-01 08:45	654300	8.220	-104.256	345.789	25.811	594.364	585.294	0.287	0.380	***6.270***	25.811	3.347

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-01 09:00	655200	8.226	-104.594	345.35	25.77	593.48	584.883	0.286	0.380	***6.310***	25.77	3.254
2021-07-01 09:15	656100	8.229	-104.737	347.916	25.757	592.856	584.408	0.286	0.380	***6.381***	25.757	3.446
2021-07-01 09:30	657000	8.235	-105.104	348.259	25.732	592.347	584.184	0.286	0.380	***6.470***	25.732	3.337
2021-07-01 09:45	657900	8.235	-105.128	350.224	25.724	591.888	583.812	0.286	0.379	***6.489***	25.724	3.417
2021-07-01 10:00	658800	8.238	-105.302	347.856	25.699	591.325	583.539	0.286	0.379	6.546	25.699	3.393
2021-07-01 10:15	659700	8.247	-105.808	348.016	25.653	590.376	583.099	0.285	0.379	6.590	25.653	3.315
2021-07-01 10:30	660600	8.246	-105.7	348.71	25.62	589.572	582.676	0.285	0.379	6.635	25.62	3.347
2021-07-01 10:45	661500	8.246	-105.71	348.552	25.627	589.355	582.385	0.285	0.379	6.579	25.627	3.93
2021-07-01 11:00	662400	8.247	-105.817	345.439	25.642	589.197	582.059	0.285	0.378	6.731	25.642	3.535
2021-07-01 11:15	663300	8.245	-105.7	345.958	25.715	589.74	581.795	0.285	0.378	6.710	25.715	3.575
2021-07-01 11:30	664200	8.249	-105.975	349.058	25.848	591.241	581.82	0.285	0.378	6.743	25.848	4.497
2021-07-01 11:45	665100	8.251	-106.113	350.059	25.914	591.718	581.564	0.285	0.378	6.811	25.914	3.417
2021-07-01 12:00	666000	8.249	-106.034	350.176	25.954	592.497	581.889	0.285	0.378	6.818	25.954	3.435
2021-07-01 12:15	666900	8.253	-106.28	351.328	26.024	593.606	582.215	0.285	0.378	6.889	26.024	3.588
2021-07-01 12:30	667800	8.258	-106.611	350.369	26.084	595.137	583.069	0.285	0.379	6.928	26.084	3.705
2021-07-01 12:45	668700	8.267	-107.169	349.053	26.129	596.11	583.532	0.286	0.379	6.988	26.129	3.411
2021-07-01 13:00	669600	8.260	-106.757	349.904	26.179	597.685	584.524	0.286	0.380	6.857	26.179	3.541
2021-07-01 13:15	670500	8.256	-106.549	351.34	26.216	598.436	584.851	0.286	0.380	6.896	26.216	3.059
2021-07-01 13:30	671400	8.261	-106.833	351.38	26.318	599.473	584.758	0.286	0.380	6.993	26.318	3.796
2021-07-01 13:45	672300	8.266	-107.222	348.722	26.436	600.816	584.776	0.286	0.380	7.039	26.436	3.291
2021-07-01 14:00	673200	8.267	-107.288	347.387	26.484	601.843	585.26	0.286	0.380	6.990	26.484	4.215
2021-07-01 14:15	674100	8.262	-107.038	347.806	26.577	603.181	585.541	0.287	0.381	7.063	26.577	3.668
2021-07-01 14:30	675000	8.268	-107.403	345.787	26.621	604.155	586.006	0.287	0.381	6.990	26.621	3.654
2021-07-01 14:45	675900	8.270	-107.558	347.263	26.751	605.678	586.08	0.287	0.381	7.146	26.751	2.914
2021-07-01 15:00	676800	8.269	-107.532	345.491	26.942	608.53	586.763	0.287	0.381	7.087	26.942	3.384
2021-07-01 15:15	677700	8.278	-108.161	340.379	27.111	611.065	587.38	0.287	0.382	7.105	27.111	3.395
2021-07-01 15:30	678600	8.246	-106.285	336.651	27.183	614.131	589.551	0.289	0.383	7.042	27.183	3.536
2021-07-01 15:45	679500	8.278	-108.19	332.965	27.275	614.928	589.316	0.288	0.383	7.137	27.275	3.91
2021-07-01 16:00	680400	8.255	-106.852	333.255	27.287	616.15	590.364	0.289	0.384	7.090	27.287	3.6
2021-07-01 16:15	681300	8.261	-107.172	334.753	27.267	616.076	590.507	0.289	0.384	7.091	27.267	3.393
2021-07-01 16:30	682200	8.273	-107.92	336.662	27.232	615.372	590.207	0.289	0.384	7.123	27.232	4.252
2021-07-01 16:45	683100	8.264	-107.374	337.776	27.324	618.224	591.947	0.290	0.385	7.137	27.324	3.582
2021-07-01 17:00	684000	8.270	-107.772	337.793	27.39	619.263	592.23	0.290	0.385	7.151	27.39	4.002
2021-07-01 17:15	684900	8.274	-107.97	333.451	27.336	618.366	591.958	0.290	0.385	7.062	27.336	3.573
2021-07-01 17:30	685800	8.274	-108.001	334.336	27.278	617.733	591.971	0.290	0.385	7.112	27.278	4.144
2021-07-01 17:45	686700	8.264	-107.346	337.242	27.222	617.652	592.501	0.290	0.385	7.026	27.222	4.025
2021-07-01 18:00	687600	8.250	-106.535	340.477	27.167	608.973	584.771	0.286	0.380	6.870	27.167	3.834
2021-07-01 18:15	688500	8.220	-104.694	343.581	27.135	617.488	593.298	0.290	0.386	6.645	27.135	2.898
2021-07-01 18:30	689400	8.231	-105.381	346.829	27.106	617.689	593.802	0.291	0.386	***6.354***	27.106	3.698
2021-07-01 18:45	690300	8.254	-106.692	348.91	27.069	616.763	593.317	0.290	0.386	6.947	27.069	3.401
2021-07-01 19:00	691200	8.254	-106.697	349.656	26.982	615.771	593.308	0.290	0.386	6.912	26.982	5.397
2021-07-01 19:15	692100	8.249	-106.332	350.531	26.897	614.017	592.545	0.290	0.385	6.871	26.897	3.2
2021-07-01 19:30	693000	8.255	-106.659	349.456	26.834	612.999	592.248	0.290	0.385	6.862	26.834	3.402
2021-07-01 19:45	693900	8.256	-106.754	350.558	26.79	612.425	592.182	0.290	0.385	6.837	26.79	3.423
2021-07-01 20:00	694800	8.245	-106.053	350.72	26.725	611.83	592.316	0.290	0.385	6.765	26.725	2.984
2021-07-01 20:15	695700	8.237	-105.538	353.574	26.689	611.224	592.121	0.290	0.385	6.723	26.689	3.284
2021-07-01 20:30	696600	8.249	-106.251	355.374	26.646	610.625	592.018	0.290	0.385	6.718	26.646	3.125
2021-07-01 20:45	697500	8.243	-105.889	355.538	26.59	609.872	591.897	0.290	0.385	6.698	26.59	3.458
2021-07-01 21:00	698400	8.242	-105.808	356.692	26.547	618.312	600.565	0.294	0.390	6.654	26.547	3.289
2021-07-01 21:15	699300	8.243	-105.822	356.778	26.457	616.58	599.887	0.294	0.390	6.576	26.457	3.321
2021-07-01 21:30	700200	8.241	-105.705	357.87	26.403	627.211	610.839	0.299	0.397	6.584	26.403	3.6
2021-07-01 21:45	701100	8.235	-105.293	359.11	26.332	605.662	590.637	0.289	0.384	6.521	26.332	3.083
2021-07-01 22:00	702000	8.239	-105.529	360.159	26.295	605.048	590.439	0.289	0.384	6.517	26.295	2.938
2021-07-01 22:15	702900	8.201	-103.252	360.542	26.252	604.526	590.403	0.289	0.384	6.549	26.252	2.639
2021-07-01 22:30	703800	8.211	-103.867	361.348	26.201	603.738	590.198	0.289	0.384	***6.423***	26.201	3.605
2021-07-01 22:45	704700	8.209	-103.681	362.114	26.145	603.485	590.564	0.289	0.384	***6.080***	26.145	4.116

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-01 23:00	705600	8.195	-102.842	362.047	26.093	602.671	590.352	0.289	0.384	***5.713***	26.093	3.219
2021-07-01 23:15	706500	8.208	-103.619	363.029	26.05	602.26	590.414	0.289	0.384	***6.099***	26.05	3.952
2021-07-01 23:30	707400	8.206	-103.483	365.406	25.991	600.336	589.183	0.288	0.383	***6.027***	25.991	3.342
2021-07-01 23:45	708300	8.224	-104.537	363.78	25.947	598.009	587.379	0.288	0.382	***5.964***	25.947	3.555
2021-07-02 00:00	709200	8.231	-104.94	363.044	25.896	596.378	586.345	0.287	0.381	***5.991***	25.896	3.495
2021-07-02 00:15	710100	8.232	-104.952	363.785	25.844	595.144	585.707	0.287	0.381	***5.992***	25.844	3.583
2021-07-02 00:30	711000	8.231	-104.895	364.431	25.778	593.511	584.825	0.286	0.380	***6.134***	25.778	3.034
2021-07-02 00:45	711900	8.225	-104.52	364.159	25.722	592.88	584.816	0.286	0.380	***5.781***	25.722	3.281
2021-07-02 01:00	712800	8.225	-104.465	364.515	25.67	589.175	581.725	0.285	0.378	***6.178***	25.67	3.473
2021-07-02 01:15	713700	8.205	-103.319	366.086	25.624	590.108	583.159	0.285	0.379	***5.934***	25.624	3.169
2021-07-02 01:30	714600	8.194	-102.63	365.564	25.574	588.978	582.59	0.285	0.379	***5.997***	25.574	4.343
2021-07-02 01:45	715500	8.170	-101.204	366.274	25.522	589.874	584.049	0.286	0.380	***5.741***	25.522	3.965
2021-07-02 02:00	716400	8.193	-102.544	366.648	25.481	588.857	583.495	0.286	0.379	***5.713***	25.481	5.029
2021-07-02 02:15	717300	8.182	-101.85	369.059	25.435	587.518	582.672	0.285	0.379	***6.026***	25.435	3.676
2021-07-02 02:30	718200	8.170	-101.163	365.125	25.382	587.911	583.657	0.286	0.379	***6.144***	25.382	4.146
2021-07-02 02:45	719100	8.170	-101.116	364.062	25.34	588.047	584.256	0.286	0.380	***5.900***	25.34	8.285
2021-07-02 03:00	720000	8.172	-101.216	365.084	25.295	586.909	583.623	0.286	0.379	***5.573***	25.295	4.167
2021-07-02 03:15	720900	8.167	-100.901	366.327	25.255	586.211	583.372	0.286	0.379	***6.035***	25.255	3.951
2021-07-02 03:30	721800	8.190	-102.289	366.355	25.204	585.823	583.55	0.286	0.379	***5.702***	25.204	3.979
2021-07-02 03:45	722700	8.191	-102.313	367.287	25.16	584.341	582.564	0.285	0.379	***5.453***	25.16	3.764
2021-07-02 04:00	723600	8.191	-102.303	369.047	25.124	582.222	580.846	0.284	0.378	***5.309***	25.124	3.68
2021-07-02 04:15	724500	8.172	-101.13	370.98	25.081	581.484	580.591	0.284	0.377	***5.932***	25.081	7.264
2021-07-02 04:30	725400	8.195	-102.468	372.823	25.028	581.371	581.059	0.284	0.378	***5.739***	25.028	3.221
2021-07-02 04:45	726300	8.190	-102.189	372.876	24.984	580.429	580.606	0.284	0.377	***5.489***	24.984	3.576
2021-07-02 05:00	727200	8.163	-100.577	373.777	24.931	578.655	579.415	0.284	0.377	***5.866***	24.931	3.872
2021-07-02 05:15	728100	8.153	-99.974	374.433	24.891	578.012	579.223	0.283	0.376	***5.701***	24.891	3.362
2021-07-02 05:30	729000	8.153	-99.921	374.905	24.849	577.067	578.734	0.283	0.376	***5.605***	24.849	4.578
2021-07-02 05:45	729900	8.132	-98.696	376.929	24.804	576.083	578.249	0.283	0.376	***6.029***	24.804	3.707
2021-07-02 06:00	730800	8.174	-101.137	376.216	24.748	574.512	577.295	0.283	0.375	***5.894***	24.748	4.832
2021-07-02 06:15	731700	8.167	-100.744	377.237	24.701	575.291	578.591	0.283	0.376	***5.844***	24.701	4.42
2021-07-02 06:30	732600	8.169	-100.842	379.58	24.672	574.343	577.962	0.283	0.376	***5.679***	24.672	4.941
2021-07-02 06:45	733500	8.159	-100.224	379.137	24.628	573.035	577.132	0.282	0.375	***5.799***	24.628	5.433
2021-07-02 07:00	734400	8.149	-99.657	380.126	24.592	572.244	576.737	0.282	0.375	***5.665***	24.592	4.224
2021-07-02 07:15	735300	8.160	-100.274	378.15	24.581	571.333	575.937	0.282	0.374	***5.748***	24.581	3.658
2021-07-02 07:30	736200	8.161	-100.303	375.923	24.547	570.252	575.232	0.281	0.374	***5.724***	24.547	2.691
2021-07-02 07:45	737100	8.169	-100.784	375.451	24.511	569.622	574.996	0.281	0.374	***5.362***	24.511	6.926
2021-07-02 08:00	738000	8.145	-99.354	375.72	24.477	568.76	574.496	0.281	0.373	***5.587***	24.477	4.35
2021-07-02 08:15	738900	8.161	-100.26	376.481	24.45	569.393	575.441	0.282	0.374	***5.820***	24.45	4.388
2021-07-02 08:30	739800	8.149	-99.542	376.257	24.419	568.87	575.253	0.282	0.374	***5.868***	24.419	4.38
2021-07-02 08:45	740700	8.152	-99.742	377.136	24.398	569.55	576.18	0.282	0.375	***6.013***	24.398	3.588
2021-07-02 09:00	741600	8.151	-99.697	377.253	24.366	567.965	574.925	0.281	0.374	***5.927***	24.366	4.061
2021-07-02 09:15	742500	8.165	-100.467	377.759	24.348	567.499	574.653	0.281	0.374	***5.809***	24.348	6.232
2021-07-02 09:30	743400	8.169	-100.708	377.864	24.31	566.451	574.02	0.281	0.373	***5.890***	24.31	4.538
2021-07-02 09:45	744300	8.163	-100.336	378.143	24.286	565.864	573.692	0.281	0.373	***5.488***	24.286	4.011
2021-07-02 10:00	745200	8.160	-100.181	378.267	24.26	565.585	573.688	0.281	0.373	***5.784***	24.26	3.921
2021-07-02 10:15	746100	8.157	-99.969	377.966	24.252	565.502	573.704	0.281	0.373	***5.994***	24.252	3.116
2021-07-02 10:30	747000	8.152	-99.711	379.001	24.294	565.973	573.706	0.281	0.373	***6.144***	24.294	2.112
2021-07-02 10:45	747900	8.170	-100.789	379.389	24.35	567.487	574.619	0.281	0.374	***6.272***	24.35	2.248
2021-07-02 11:00	748800	8.190	-101.953	376.869	24.366	568.366	575.329	0.282	0.374	***6.009***	24.366	2.91
2021-07-02 11:15	749700	8.176	-101.185	376.877	24.42	568.97	575.339	0.282	0.374	***6.307***	24.42	2.554
2021-07-02 11:30	750600	8.161	-100.265	377.089	24.465	570.143	576.024	0.282	0.374	6.511	24.465	3.026
2021-07-02 11:45	751500	8.180	-101.414	373.41	24.531	571.868	577.034	0.282	0.375	6.580	24.531	3.974
2021-07-02 12:00	752400	8.208	-103.121	369.228	24.653	573.738	577.569	0.283	0.375	6.735	24.653	4.185
2021-07-02 12:15	753300	8.217	-103.676	367.647	24.729	573.848	576.83	0.282	0.375	6.825	24.729	3.666
2021-07-02 12:30	754200	8.228	-104.365	364.56	24.739	575.7	578.583	0.283	0.376	6.792	24.739	5.309
2021-07-02 12:45	755100	8.208	-103.188	364.224	24.749	575.077	577.845	0.283	0.376	6.917	24.749	4.531

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-02 13:00	756000	8.212	-103.412	362.276	24.782	575.339	577.745	0.283	0.376	6.922	24.782	4.329
2021-07-02 13:15	756900	8.221	-104.003	363.294	24.922	578.123	578.981	0.283	0.376	6.900	24.922	3.71
2021-07-02 13:30	757800	8.218	-103.834	360.662	24.981	578.219	578.43	0.283	0.376	7.032	24.981	5.135
2021-07-02 13:45	758700	8.237	-105.004	356.997	25.043	579.355	578.878	0.283	0.376	7.196	25.043	4.52
2021-07-02 14:00	759600	8.251	-105.805	356.508	25.058	579.099	578.461	0.283	0.376	7.237	25.058	4.645
2021-07-02 14:15	760500	8.257	-106.187	355.726	25.06	578.115	577.45	0.283	0.375	7.369	25.06	5.113
2021-07-02 14:30	761400	8.267	-106.742	356.635	25.063	578.267	577.572	0.283	0.375	7.456	25.063	4.52
2021-07-02 14:45	762300	8.267	-106.835	358.59	25.188	579.285	577.215	0.282	0.375	7.577	25.188	5.225
2021-07-02 15:00	763200	8.273	-107.114	356.864	25.093	578.005	576.982	0.282	0.375	7.565	25.093	5.141
2021-07-02 15:15	764100	8.272	-107.021	358.139	24.996	575.078	575.125	0.281	0.374	7.572	24.996	5.012
2021-07-02 15:30	765000	8.252	-105.896	360.204	25.034	573.072	572.696	0.280	0.372	7.699	25.034	5.901
2021-07-02 15:45	765900	8.279	-107.467	359.701	25.042	572.348	571.892	0.280	0.372	7.824	25.042	6.121
2021-07-02 16:00	766800	8.274	-107.174	360.64	25.111	571.596	570.385	0.279	0.371	8.164	25.111	6.993
2021-07-02 16:15	767700	8.268	-106.921	359.942	25.346	579.385	575.586	0.282	0.374	8.022	25.346	5.265
2021-07-02 16:30	768600	8.282	-107.758	358.924	25.335	576.075	572.417	0.280	0.372	8.132	25.335	6.744
2021-07-02 16:45	769500	8.271	-107.183	359.234	25.507	583.72	578.122	0.283	0.376	8.126	25.507	6.493
2021-07-02 17:00	770400	8.268	-107.045	358.127	25.651	587.074	579.86	0.284	0.377	8.001	25.651	4.987
2021-07-02 17:15	771300	8.284	-108.051	354.744	25.762	583.525	575.157	0.281	0.374	8.005	25.762	6.365
2021-07-02 17:30	772200	8.282	-107.98	354.072	25.898	585.926	576.047	0.282	0.374	8.024	25.898	7.539
2021-07-02 17:45	773100	8.284	-108.109	355.786	25.914	593.198	583.02	0.285	0.379	7.872	25.914	30.715
2021-07-02 18:00	774000	8.290	-108.433	354.043	25.829	589.562	580.369	0.284	0.377	8.084	25.829	5.762
2021-07-02 18:15	774900	8.292	-108.511	355.901	25.801	589.735	580.846	0.284	0.378	7.943	25.801	5.344
2021-07-02 18:30	775800	8.300	-108.991	355.686	25.752	587.603	579.278	0.283	0.377	8.369	25.752	6.95
2021-07-02 18:45	776700	8.305	-109.2	355.929	25.644	583.598	576.503	0.282	0.375	8.424	25.644	4.835
2021-07-02 19:00	777600	8.314	-109.742	356.682	25.594	582.487	575.952	0.282	0.374	8.571	25.594	4.469
2021-07-02 19:15	778500	8.310	-109.503	360.271	25.576	585.848	579.47	0.284	0.377	8.511	25.576	5.102
2021-07-02 19:30	779400	8.306	-109.236	360.79	25.516	585.802	580.08	0.284	0.377	8.439	25.516	5.871
2021-07-02 19:45	780300	8.303	-109.065	361.778	25.498	584.909	579.399	0.284	0.377	8.522	25.498	3.657
2021-07-02 20:00	781200	8.299	-108.864	361.964	25.55	588.452	582.33	0.285	0.379	8.045	25.55	4.508
2021-07-02 20:15	782100	8.302	-108.995	362.896	25.534	588.486	582.542	0.285	0.379	7.756	25.534	5.246
2021-07-02 20:30	783000	8.265	-106.797	362.927	25.486	589.011	583.596	0.286	0.379	7.594	25.486	4.195
2021-07-02 20:45	783900	8.261	-106.583	361.506	25.474	589.096	583.806	0.286	0.379	7.670	25.474	3.531
2021-07-02 21:00	784800	8.246	-105.703	361.854	25.564	590.479	584.19	0.286	0.380	7.421	25.564	2.648
2021-07-02 21:15	785700	8.271	-107.229	361.189	25.685	592.743	585.09	0.286	0.380	7.326	25.685	2.608
2021-07-02 21:30	786600	8.261	-106.626	364.064	25.704	592.684	584.826	0.286	0.380	7.326	25.704	2.86
2021-07-02 21:45	787500	8.290	-108.368	363.528	25.694	594.463	586.69	0.287	0.381	7.003	25.694	2.288
2021-07-02 22:00	788400	8.270	-107.181	362.905	25.676	594.683	587.102	0.287	0.382	6.510	25.676	2.592
2021-07-02 22:15	789300	8.293	-108.538	362.416	25.646	593.095	585.869	0.287	0.381	7.067	25.646	2.922
2021-07-02 22:30	790200	8.284	-107.958	364.939	25.62	593.673	586.728	0.287	0.381	6.766	25.62	2.928
2021-07-02 22:45	791100	8.292	-108.402	364.66	25.57	593.157	586.767	0.287	0.381	6.820	25.57	3.254
2021-07-02 23:00	792000	8.282	-107.803	364.231	25.509	592.905	587.197	0.287	0.382	6.843	25.509	5.18
2021-07-02 23:15	792900	8.261	-106.575	366.198	25.451	591.623	586.565	0.287	0.381	6.878	25.451	3.533
2021-07-02 23:30	793800	8.231	-104.749	369.641	25.4	590.904	586.423	0.287	0.381	7.117	25.4	2.828
2021-07-02 23:45	794700	8.259	-106.39	365.79	25.339	590.899	587.093	0.287	0.382	7.014	25.339	3.215
2021-07-03 00:00	795600	8.231	-104.687	366.751	25.289	590.437	587.199	0.287	0.382	6.974	25.289	4.348
2021-07-03 00:15	796500	8.263	-106.583	364.944	25.239	588.914	586.237	0.287	0.381	6.774	25.239	2.948
2021-07-03 00:30	797400	8.254	-106.037	366.269	25.166	587.19	585.333	0.287	0.380	***6.133***	25.166	9.464
2021-07-03 00:45	798300	8.276	-107.307	368.084	25.113	587.827	586.559	0.287	0.381	6.585	25.113	3.676
2021-07-03 01:00	799200	8.276	-107.281	371.517	25.053	588.149	587.556	0.288	0.382	6.856	25.053	4.037
2021-07-03 01:15	800100	8.273	-107.102	369.166	24.982	586.495	586.701	0.287	0.381	6.874	24.982	3.952
2021-07-03 01:30	801000	8.272	-107.009	368.622	24.92	584.521	585.419	0.287	0.381	6.873	24.92	3.903
2021-07-03 01:45	801900	8.261	-106.318	370.794	24.852	583.622	585.276	0.287	0.380	6.861	24.852	14.175
2021-07-03 02:00	802800	8.245	-105.395	370.754	24.795	582.803	585.097	0.286	0.380	6.954	24.795	4.859
2021-07-03 02:15	803700	8.239	-104.98	370.773	24.747	581.122	583.941	0.286	0.380	6.917	24.747	4.723
2021-07-03 02:30	804600	8.214	-103.509	369.583	24.675	581.705	585.338	0.287	0.380	6.874	24.675	3.667
2021-07-03 02:45	805500	8.248	-105.495	367.202	24.611	579.719	584.057	0.286	0.380	6.844	24.611	4.849

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-03 03:00	806400	8.257	-105.989	368.022	24.549	577.626	582.648	0.285	0.379	6.582	24.549	4.477
2021-07-03 03:15	807300	8.234	-104.625	369.965	24.492	577.23	582.889	0.285	0.379	***6.267***	24.492	5.476
2021-07-03 03:30	808200	8.230	-104.327	373.393	24.426	576.892	583.289	0.286	0.379	6.567	24.426	6.361
2021-07-03 03:45	809100	8.215	-103.445	370.804	24.377	576.386	583.325	0.286	0.379	6.630	24.377	4.548
2021-07-03 04:00	810000	8.263	-106.251	369.219	24.317	583.572	591.281	0.290	0.384	6.563	24.317	7.58
2021-07-03 04:15	810900	8.262	-106.199	371.271	24.231	572.816	581.359	0.285	0.378	6.767	24.231	5.461
2021-07-03 04:30	811800	8.257	-105.846	372.831	24.167	571.822	581.073	0.284	0.378	6.836	24.167	4.255
2021-07-03 04:45	812700	8.234	-104.482	372.897	24.125	571.647	581.365	0.285	0.378	6.839	24.125	4.373
2021-07-03 05:00	813600	8.223	-103.841	373.374	24.063	579.075	589.622	0.289	0.383	6.818	24.063	3.814
2021-07-03 05:15	814500	8.242	-104.895	372.843	23.996	577.708	589	0.288	0.383	6.756	23.996	3.858
2021-07-03 05:30	815400	8.244	-105.011	373.615	23.924	576.945	589.047	0.288	0.383	6.767	23.924	4.344
2021-07-03 05:45	816300	8.225	-103.846	374.731	23.881	575.042	587.603	0.288	0.382	6.823	23.881	3.737
2021-07-03 06:00	817200	8.240	-104.709	378.691	23.806	574.736	588.144	0.288	0.382	***6.467***	23.806	3.859
2021-07-03 06:15	818100	8.233	-104.287	376.927	23.765	559.76	573.284	0.281	0.373	6.760	23.765	5.552
2021-07-03 06:30	819000	8.233	-104.303	376.025	23.705	558.971	573.144	0.280	0.373	6.746	23.705	3.698
2021-07-03 06:45	819900	8.241	-104.716	373.608	23.654	557.509	572.219	0.280	0.372	6.693	23.654	3.12
2021-07-03 07:00	820800	8.207	-102.727	378.741	23.619	556.929	572.022	0.280	0.372	6.530	23.619	3.033
2021-07-03 07:15	821700	8.227	-103.896	377.17	23.573	558.43	574.076	0.281	0.373	***6.194***	23.573	3.896
2021-07-03 07:30	822600	8.164	-100.179	375.887	23.526	557.079	573.219	0.280	0.373	6.607	23.526	3.789
2021-07-03 07:45	823500	8.241	-104.68	374.798	23.469	557.466	574.255	0.281	0.373	6.720	23.469	4.029
2021-07-03 08:00	824400	8.233	-104.175	375.181	23.446	558.274	575.355	0.282	0.374	6.861	23.446	3.95
2021-07-03 08:15	825300	8.249	-105.145	374.249	23.434	558.315	575.525	0.282	0.374	6.844	23.434	4.425
2021-07-03 08:30	826200	8.246	-104.916	375.41	23.393	557.116	574.753	0.281	0.374	6.790	23.393	3.903
2021-07-03 08:45	827100	8.242	-104.687	375.196	23.396	557.614	575.233	0.282	0.374	6.804	23.396	5.595
2021-07-03 09:00	828000	8.243	-104.742	374.933	23.377	557.724	575.57	0.282	0.374	6.798	23.377	4.355
2021-07-03 09:15	828900	8.244	-104.828	376.273	23.381	557.106	574.879	0.281	0.374	6.815	23.381	4.081
2021-07-03 09:30	829800	8.253	-105.352	374.407	23.348	554.085	572.133	0.280	0.372	6.924	23.348	5.061
2021-07-03 09:45	830700	8.255	-105.412	372.957	23.303	555.3	573.907	0.281	0.373	7.031	23.303	5.888
2021-07-03 10:00	831600	8.259	-105.672	374.311	23.27	554.624	573.581	0.281	0.373	7.065	23.27	5.821
2021-07-03 10:15	832500	8.265	-105.999	374.917	23.21	553.79	573.398	0.281	0.373	7.089	23.21	15.244
2021-07-03 10:30	833400	8.254	-105.338	375.565	23.262	553.747	572.759	0.280	0.372	7.023	23.262	3.682
2021-07-03 10:45	834300	8.257	-105.569	374.9	23.289	553.532	572.229	0.280	0.372	7.010	23.289	4.605
2021-07-03 11:00	835200	8.245	-104.837	374.991	23.367	554.903	572.766	0.280	0.372	7.072	23.367	4.675
2021-07-03 11:15	836100	8.259	-105.731	375.375	23.464	556.151	572.959	0.280	0.372	7.102	23.464	3.981
2021-07-03 11:30	837000	8.237	-104.485	375.675	23.563	559.461	575.252	0.282	0.374	7.161	23.563	6.974
2021-07-03 11:45	837900	8.243	-104.811	376.238	23.604	560.097	575.441	0.282	0.374	7.083	23.604	4.425
2021-07-03 12:00	838800	8.257	-105.689	374.583	23.719	561.487	575.571	0.282	0.374	7.297	23.719	4.332
2021-07-03 12:15	839700	8.262	-106.006	374.635	23.794	563.126	576.404	0.282	0.375	7.329	23.794	4.589
2021-07-03 12:30	840600	8.266	-106.301	374.318	23.911	563.91	575.888	0.282	0.374	7.489	23.911	5.804
2021-07-03 12:45	841500	8.262	-106.18	372.235	24.183	568.332	577.342	0.283	0.375	7.493	24.183	5.259
2021-07-03 13:00	842400	8.283	-107.465	368.639	24.415	571.299	577.754	0.283	0.376	7.456	24.415	4.366
2021-07-03 13:15	843300	8.273	-106.962	366.722	24.629	576.214	580.321	0.284	0.377	7.482	24.629	4.389
2021-07-03 13:30	844200	8.264	-106.544	363.859	24.886	582.217	583.492	0.286	0.379	7.425	24.886	4.896
2021-07-03 13:45	845100	8.258	-106.256	360.831	25.081	588.924	588.014	0.288	0.382	7.416	25.081	7.105
2021-07-03 14:00	846000	8.246	-105.569	359.932	25.27	596.231	593.168	0.291	0.386	7.327	25.27	4.77
2021-07-03 14:15	846900	8.254	-106.108	359.169	25.402	597.787	593.234	0.291	0.386	7.406	25.402	5.363
2021-07-03 14:30	847800	8.258	-106.428	355.757	25.534	598.748	592.705	0.290	0.385	7.425	25.534	5.355
2021-07-03 14:45	848700	8.257	-106.356	353.588	25.586	595.672	589.076	0.288	0.383	7.396	25.586	7.851
2021-07-03 15:00	849600	8.264	-106.814	354.029	25.659	595.877	588.471	0.288	0.383	7.527	25.659	5.868
2021-07-03 15:15	850500	8.274	-107.448	354.041	25.771	597.7	589.027	0.288	0.383	7.576	25.771	5.407
2021-07-03 15:30	851400	8.278	-107.727	353.063	25.839	598.522	589.084	0.288	0.383	7.596	25.839	6.589
2021-07-03 15:45	852300	8.272	-107.365	353.664	25.883	598.933	588.999	0.288	0.383	7.564	25.883	7.159
2021-07-03 16:00	853200	8.285	-108.132	353.278	25.867	598.546	588.791	0.288	0.383	7.635	25.867	5.321
2021-07-03 16:15	854100	8.275	-107.505	353.273	25.779	599.133	590.349	0.289	0.384	7.620	25.779	5.349
2021-07-03 16:30	855000	8.290	-108.404	353.295	25.755	598.376	589.872	0.289	0.383	7.626	25.755	6.246
2021-07-03 16:45	855900	8.299	-108.917	352.875	25.721	629.774	621.214	0.305	0.404	7.690	25.721	5.558

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-03 17:00	856800	8.294	-108.552	354.108	25.648	602.072	594.717	0.291	0.387	7.649	25.648	6.305
2021-07-03 17:15	857700	8.300	-108.938	355.078	25.604	602.299	595.429	0.292	0.387	7.641	25.604	4.822
2021-07-03 17:30	858600	8.306	-109.234	354.692	25.551	599.706	593.455	0.291	0.386	7.677	25.551	5.65
2021-07-03 17:45	859500	8.296	-108.628	354.89	25.511	594.263	588.524	0.288	0.383	7.658	25.511	5.486
2021-07-03 18:00	860400	8.304	-109.079	355.769	25.452	593.145	588.063	0.288	0.382	7.657	25.452	5.626
2021-07-03 18:15	861300	8.299	-108.778	356.134	25.396	592.354	587.91	0.288	0.382	7.662	25.396	5.08
2021-07-03 18:30	862200	8.311	-109.444	356.332	25.284	592.344	589.154	0.288	0.383	7.637	25.284	4.982
2021-07-03 18:45	863100	8.306	-109.148	358.013	25.229	591.759	589.183	0.289	0.383	7.590	25.229	5.037
2021-07-03 19:00	864000	8.300	-108.786	359.88	25.167	591.156	589.281	0.289	0.383	7.503	25.167	4.707
2021-07-03 19:15	864900	8.299	-108.664	361.47	25.115	590.509	589.213	0.289	0.383	7.497	25.115	4.791
2021-07-03 19:30	865800	8.296	-108.485	363.039	25.07	590.233	589.44	0.289	0.383	7.440	25.07	5.176
2021-07-03 19:45	866700	8.290	-108.106	364.307	25.061	589.994	589.307	0.289	0.383	7.406	25.061	5.178
2021-07-03 20:00	867600	8.281	-107.555	365.609	25.032	589.805	589.445	0.289	0.383	7.353	25.032	12.454
2021-07-03 20:15	868500	8.281	-107.56	365.89	24.98	589.191	589.418	0.289	0.383	7.342	24.98	5.359
2021-07-03 20:30	869400	8.278	-107.343	366.348	24.929	588.597	589.394	0.289	0.383	7.270	24.929	5.744
2021-07-03 20:45	870300	8.270	-106.854	367.23	24.884	587.784	589.086	0.288	0.383	7.256	24.884	4.394
2021-07-03 21:00	871200	8.272	-107.017	368.351	24.855	587.328	588.962	0.288	0.383	7.236	24.855	4.671
2021-07-03 21:15	872100	8.263	-106.43	368.928	24.79	586.666	589.024	0.288	0.383	7.153	24.79	3.955
2021-07-03 21:30	873000	8.271	-106.914	368.797	24.742	585.835	588.74	0.288	0.383	7.188	24.742	4.476
2021-07-03 21:45	873900	8.270	-106.821	369.087	24.684	582.859	586.401	0.287	0.381	7.201	24.684	5.579
2021-07-03 22:00	874800	8.250	-105.612	372.368	24.637	579.512	583.554	0.286	0.379	6.795	24.637	3.823
2021-07-03 22:15	875700	8.239	-104.928	374.745	24.597	577.416	581.894	0.285	0.378	6.902	24.597	5.241
2021-07-03 22:30	876600	8.238	-104.871	373.815	24.541	583.686	588.847	0.288	0.383	***6.422***	24.541	4.529
2021-07-03 22:45	877500	8.248	-105.438	374.323	24.464	602.172	608.399	0.298	0.395	***6.438***	24.464	4.156
2021-07-03 23:00	878400	8.237	-104.783	374.025	24.415	583.775	590.37	0.289	0.384	6.885	24.415	3.999
2021-07-03 23:15	879300	8.228	-104.206	372.895	24.367	580.322	587.421	0.288	0.382	***6.378***	24.367	3.569
2021-07-03 23:30	880200	8.219	-103.679	374.488	24.314	580.339	588.041	0.288	0.382	6.664	24.314	5.361
2021-07-03 23:45	881100	8.218	-103.614	374.771	24.278	579.781	587.885	0.288	0.382	***6.447***	24.278	4.65
2021-07-04 00:00	882000	8.221	-103.76	375.091	24.21	579.585	588.459	0.288	0.382	6.708	24.21	4.339
2021-07-04 00:15	882900	8.218	-103.529	375.93	24.147	577.676	587.24	0.288	0.382	6.646	24.147	4.444
2021-07-04 00:30	883800	8.217	-103.498	377.496	24.095	587.92	598.259	0.293	0.389	***6.406***	24.095	4.194
2021-07-04 00:45	884700	8.209	-102.99	379.537	24.027	576.063	586.972	0.287	0.382	6.663	24.027	4.602
2021-07-04 01:00	885600	8.216	-103.395	378.059	23.971	573.177	584.666	0.286	0.380	6.681	23.971	5.167
2021-07-04 01:15	886500	8.196	-102.15	380.109	23.928	573.725	585.717	0.287	0.381	***6.487***	23.928	5.158
2021-07-04 01:30	887400	8.192	-101.943	381.852	23.89	573.094	585.505	0.287	0.381	***6.367***	23.89	4.346
2021-07-04 01:45	888300	8.183	-101.399	380.925	23.841	573.347	586.321	0.287	0.381	***6.240***	23.841	5.232
2021-07-04 02:00	889200	8.176	-100.93	378.798	23.789	570.73	584.246	0.286	0.380	6.535	23.789	6.231
2021-07-04 02:15	890100	8.167	-100.393	378.116	23.741	568.79	582.806	0.285	0.379	***6.195***	23.741	4.401
2021-07-04 02:30	891000	8.188	-101.614	380.641	23.69	568.773	583.37	0.286	0.379	***6.460***	23.69	5.105
2021-07-04 02:45	891900	8.197	-102.143	379.983	23.639	567.474	582.625	0.285	0.379	6.548	23.639	4.185
2021-07-04 03:00	892800	8.172	-100.632	381.809	23.589	566.496	582.192	0.285	0.378	6.504	23.589	4.479
2021-07-04 03:15	893700	8.182	-101.24	379.924	23.551	565.329	581.417	0.285	0.378	6.510	23.551	3.413
2021-07-04 03:30	894600	8.191	-101.719	381.526	23.522	565.172	581.593	0.285	0.378	6.553	23.522	4.452
2021-07-04 03:45	895500	8.185	-101.39	383.142	23.469	563.539	580.512	0.284	0.377	6.560	23.469	4.194
2021-07-04 04:00	896400	8.184	-101.302	383.109	23.419	564.078	581.642	0.285	0.378	6.723	23.419	4.688
2021-07-04 04:15	897300	8.171	-100.532	382.215	23.391	560.216	577.975	0.283	0.376	***6.428***	23.391	289.023
2021-07-04 04:30	898200	8.186	-101.383	381.23	23.354	557.278	575.371	0.282	0.374	***6.082***	23.354	4.692
2021-07-04 04:45	899100	8.193	-101.802	381.936	23.324	562.534	581.14	0.285	0.378	***6.216***	23.324	4.548
2021-07-04 05:00	900000	8.184	-101.218	384.082	23.27	562.563	581.792	0.285	0.378	***6.447***	23.27	4.007
2021-07-04 05:15	900900	8.175	-100.729	385.696	23.24	562.245	581.806	0.285	0.378	***6.340***	23.24	3.867
2021-07-04 05:30	901800	8.164	-100.038	385.734	23.198	561.829	581.857	0.285	0.378	***6.410***	23.198	3.982
2021-07-04 05:45	902700	8.157	-99.635	384.294	23.15	561.066	581.619	0.285	0.378	***6.362***	23.15	4.313
2021-07-04 06:00	903600	8.165	-100.05	382.365	23.118	559.597	580.465	0.284	0.377	***6.276***	23.118	4.85
2021-07-04 06:15	904500	8.163	-99.938	384.146	23.072	559.425	580.811	0.284	0.378	***6.376***	23.072	4.022
2021-07-04 06:30	905400	8.169	-100.262	383.674	23.05	557.881	579.466	0.284	0.377	***6.064***	23.05	5.192
2021-07-04 06:45	906300	8.173	-100.541	384.165	23.027	556.299	578.082	0.283	0.376	***6.114***	23.027	3.85

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-04 07:00	907200	8.180	-100.927	385.433	22.995	555.477	577.595	0.283	0.375	***5.801***	22.995	5.21
2021-07-04 07:15	908100	8.162	-99.869	387.408	22.964	556.065	578.569	0.283	0.376	***6.352***	22.964	3.919
2021-07-04 07:30	909000	8.158	-99.583	388.325	22.939	556.364	579.169	0.284	0.376	***6.412***	22.939	6.376
2021-07-04 07:45	909900	8.152	-99.223	385.581	22.894	554.219	577.446	0.283	0.375	***6.405***	22.894	4.024
2021-07-04 08:00	910800	8.143	-98.708	385.865	22.886	553.781	577.088	0.282	0.375	***6.402***	22.886	7.522
2021-07-04 08:15	911700	8.155	-99.387	386.056	22.876	552.512	575.872	0.282	0.374	***6.099***	22.876	6.954
2021-07-04 08:30	912600	8.158	-99.599	386.68	22.857	551.794	575.342	0.282	0.374	***5.429***	22.857	6.934
2021-07-04 08:45	913500	8.174	-100.508	386.84	22.837	552.672	576.485	0.282	0.375	***6.269***	22.837	9.259
2021-07-04 09:00	914400	8.153	-99.285	386.48	22.828	551.84	575.723	0.282	0.374	***6.334***	22.828	7.146
2021-07-04 09:15	915300	8.154	-99.304	385.813	22.829	552.153	576.034	0.282	0.374	***6.053***	22.829	6.851
2021-07-04 09:30	916200	8.105	-96.464	389.541	22.837	552.788	576.614	0.282	0.375	***6.192***	22.837	7.393
2021-07-04 09:45	917100	8.121	-97.384	390.054	22.841	552.959	576.739	0.282	0.375	6.608	22.841	8.599
2021-07-04 10:00	918000	8.149	-99.015	388.051	22.849	552.377	576.039	0.282	0.374	***6.378***	22.849	10.39
2021-07-04 10:15	918900	8.152	-99.22	387.52	22.858	552.102	575.656	0.282	0.374	6.803	22.858	8.531
2021-07-04 10:30	919800	8.173	-100.47	388.051	22.867	552.246	575.702	0.282	0.374	6.749	22.867	8.525
2021-07-04 10:45	920700	8.085	-95.294	388.976	22.88	552.416	575.725	0.282	0.374	***6.307***	22.88	9.411
2021-07-04 11:00	921600	8.103	-96.359	391.17	22.892	552.231	575.398	0.282	0.374	6.528	22.892	2.872
2021-07-04 11:15	922500	8.110	-96.765	389.742	22.965	552.878	575.24	0.282	0.374	6.637	22.965	3.49
2021-07-04 11:30	923400	8.142	-98.667	388.526	23.027	553.579	575.254	0.282	0.374	6.715	23.027	46.981
2021-07-04 11:45	924300	8.195	-101.824	387.744	23.021	553.6	575.353	0.282	0.374	6.842	23.021	3.567
2021-07-04 12:00	925200	8.212	-102.801	386.213	23.024	553.892	575.616	0.282	0.374	7.021	23.024	4.922
2021-07-04 12:15	926100	8.212	-102.766	386.831	22.975	553.693	575.969	0.282	0.374	6.648	22.975	5.513
2021-07-04 12:30	927000	8.188	-101.409	386.854	23.032	554.344	576.001	0.282	0.374	6.706	23.032	3.566
2021-07-04 12:45	927900	8.195	-101.802	387.303	23.036	555.436	577.08	0.282	0.375	6.672	23.036	4.923
2021-07-04 13:00	928800	8.202	-102.239	384.68	23.051	556.002	577.5	0.283	0.375	6.875	23.051	4.347
2021-07-04 13:15	929700	8.180	-100.937	385.183	23.071	555.497	576.749	0.282	0.375	7.050	23.071	4.059
2021-07-04 13:30	930600	8.188	-101.452	388.545	23.112	555.736	576.53	0.282	0.375	7.008	23.112	3.142
2021-07-04 13:45	931500	8.203	-102.334	385.145	23.145	619.203	641.953	0.315	0.417	***6.486***	23.145	24.12
2021-07-04 14:00	932400	8.193	-101.688	384.797	23.098	554.353	575.251	0.282	0.374	6.872	23.098	5.51
2021-07-04 14:15	933300	8.162	-99.845	387.25	22.966	545.044	567.069	0.277	0.369	6.925	22.966	8.843
2021-07-04 14:30	934200	8.009	-90.752	392.727	22.704	551.951	577.261	0.283	0.375	6.752	22.704	9.579
2021-07-04 14:45	935100	8.005	-90.542	385.333	22.761	581.818	607.813	0.298	0.395	6.512	22.761	7.97
2021-07-04 15:00	936000	8.079	-94.869	384.036	22.74	573.117	598.968	0.294	0.389	***6.487***	22.74	11.774
2021-07-04 15:15	936900	8.097	-95.925	381.306	22.73	575.325	601.394	0.295	0.391	***6.481***	22.73	11.187
2021-07-04 15:30	937800	8.085	-95.274	380.837	22.765	575.055	600.699	0.294	0.390	***6.434***	22.765	7.064
2021-07-04 15:45	938700	8.070	-94.454	380.403	22.986	569.855	592.651	0.290	0.385	6.506	22.986	7.015
2021-07-04 16:00	939600	8.076	-94.814	382.301	22.984	570.663	593.514	0.291	0.386	6.687	22.984	8.841
2021-07-04 16:15	940500	8.082	-95.148	383.593	22.996	552.266	574.242	0.281	0.373	6.601	22.996	3.122
2021-07-04 16:30	941400	8.144	-98.853	383.998	23.084	565.904	587.4	0.288	0.382	6.934	23.084	9.3
2021-07-04 16:45	942300	8.107	-96.65	386.261	23.11	566.475	587.686	0.288	0.382	6.813	23.11	4.153
2021-07-04 17:00	943200	8.101	-96.326	385.817	23.147	566.025	586.79	0.287	0.381	7.223	23.147	3.469
2021-07-04 17:15	944100	8.115	-97.16	386.575	23.189	565.966	586.244	0.287	0.381	7.368	23.189	6.877
2021-07-04 17:30	945000	8.114	-97.125	386.394	23.192	573.914	594.441	0.291	0.386	7.181	23.192	5.48
2021-07-04 17:45	945900	8.144	-98.92	388.08	23.338	576.235	595.126	0.292	0.387	7.154	23.338	4.866
2021-07-04 18:00	946800	8.191	-101.764	384.43	23.64	575.83	591.186	0.290	0.384	7.446	23.64	6.151
2021-07-04 18:15	947700	8.217	-103.343	382.549	23.717	573.368	587.767	0.288	0.382	7.709	23.717	4.363
2021-07-04 18:30	948600	8.214	-103.14	381.514	23.724	572.7	587.008	0.287	0.382	7.630	23.724	3.719
2021-07-04 18:45	949500	8.217	-103.331	379.201	23.734	574.067	588.294	0.288	0.382	7.558	23.734	3.787
2021-07-04 19:00	950400	8.184	-101.43	382.351	23.765	574.595	588.48	0.288	0.383	7.450	23.765	2.386
2021-07-04 19:15	951300	8.210	-102.932	383.223	23.775	574.33	588.089	0.288	0.382	7.268	23.775	3.538
2021-07-04 19:30	952200	8.215	-103.245	379.447	23.76	573.796	587.719	0.288	0.382	7.654	23.76	2.993
2021-07-04 19:45	953100	8.198	-102.251	378.858	23.75	573.584	587.619	0.288	0.382	7.593	23.75	2.592
2021-07-04 20:00	954000	8.196	-102.11	377.697	23.734	573.64	587.851	0.288	0.382	7.820	23.734	5.113
2021-07-04 20:15	954900	8.207	-102.756	383.188	23.684	569.131	583.807	0.286	0.379	7.610	23.684	4.8
2021-07-04 20:30	955800	8.255	-105.565	379.234	23.654	573.557	588.697	0.288	0.383	7.468	23.654	5.149
2021-07-04 20:45	956700	8.248	-105.159	382.761	23.633	572.221	587.559	0.288	0.382	7.536	23.633	2.805

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-04 21:00	957600	8.251	-105.331	377.015	23.61	572.526	588.144	0.288	0.382	7.253	23.61	3.202
2021-07-04 21:15	958500	8.258	-105.72	377.973	23.597	573.112	588.891	0.288	0.383	7.380	23.597	3.58
2021-07-04 21:30	959400	8.263	-105.996	380.222	23.574	572.031	588.044	0.288	0.382	7.031	23.574	4.011
2021-07-04 21:45	960300	8.255	-105.5	381.531	23.524	571.677	588.263	0.288	0.382	6.598	23.524	4.228
2021-07-04 22:00	961200	8.259	-105.751	379.351	23.489	570.412	587.367	0.288	0.382	***6.445***	23.489	4.65
2021-07-04 22:15	962100	8.250	-105.178	379.602	23.45	570.285	587.687	0.288	0.382	***6.423***	23.45	9.497
2021-07-04 22:30	963000	8.247	-104.997	384.072	23.4	571.085	589.089	0.289	0.383	***6.478***	23.4	3.089
2021-07-04 22:45	963900	8.242	-104.668	379.251	23.353	570.848	589.384	0.289	0.383	6.784	23.353	4.526
2021-07-04 23:00	964800	8.237	-104.38	381.314	23.3	570.348	589.484	0.289	0.383	7.026	23.3	5.288
2021-07-04 23:15	965700	8.244	-104.74	384.053	23.223	570.165	590.2	0.289	0.384	7.024	23.223	4.65
2021-07-04 23:30	966600	8.203	-102.301	384.418	23.173	569.696	590.297	0.289	0.384	7.002	23.173	8.159
2021-07-04 23:45	967500	8.195	-101.843	385.796	23.101	569.944	591.394	0.290	0.384	7.023	23.101	4.788
2021-07-05 00:00	968400	8.203	-102.296	381.438	23.035	567.078	589.193	0.289	0.383	7.115	23.035	4.075
2021-07-05 00:15	969300	8.155	-99.418	386.33	22.967	568.049	590.996	0.289	0.384	7.206	22.967	4.494
2021-07-05 00:30	970200	8.171	-100.348	381.349	22.891	569.513	593.417	0.291	0.386	7.175	22.891	4.571
2021-07-05 00:45	971100	8.171	-100.343	382.138	22.85	565.938	590.178	0.289	0.384	7.136	22.85	4.263
2021-07-05 01:00	972000	8.148	-98.934	387.055	22.771	565.598	590.753	0.289	0.384	6.890	22.771	5.664
2021-07-05 01:15	972900	8.148	-98.96	387.262	22.719	567.535	593.383	0.291	0.386	6.737	22.719	5.144
2021-07-05 01:30	973800	8.141	-98.536	389.022	22.663	570.973	597.646	0.293	0.388	6.653	22.663	5.433
2021-07-05 01:45	974700	8.138	-98.329	389.947	22.59	570.418	597.937	0.293	0.389	6.586	22.59	16.589
2021-07-05 02:00	975600	8.119	-97.153	387.717	22.516	565.528	593.69	0.291	0.386	6.636	22.516	13.448
2021-07-05 02:15	976500	8.120	-97.22	389.768	22.448	563.112	591.962	0.290	0.385	6.632	22.448	8
2021-07-05 02:30	977400	8.140	-98.343	387.825	22.404	551.917	580.711	0.284	0.377	6.764	22.404	6.149
2021-07-05 02:45	978300	8.127	-97.575	390.383	22.362	550.323	579.527	0.284	0.377	***6.292***	22.362	6.126
2021-07-05 03:00	979200	8.070	-94.209	391.699	22.29	554.472	584.735	0.286	0.380	***6.364***	22.29	6.176
2021-07-05 03:15	980100	8.108	-96.428	391.368	22.239	558.761	589.863	0.289	0.383	***6.346***	22.239	5.864
2021-07-05 03:30	981000	8.111	-96.624	391	22.2	575.876	608.417	0.298	0.395	***6.207***	22.2	7.835
2021-07-05 03:45	981900	8.043	-92.578	392.369	22.133	556.556	588.799	0.288	0.383	***6.401***	22.133	8.209
2021-07-05 04:00	982800	8.074	-94.421	391.539	22.098	553.907	586.415	0.287	0.381	***6.291***	22.098	4.588
2021-07-05 04:15	983700	8.065	-93.846	391.794	22.027	554.942	588.346	0.288	0.382	***6.171***	22.027	6.268
2021-07-05 04:30	984600	8.051	-93.038	392.956	21.968	553.895	587.943	0.288	0.382	***6.290***	21.968	5.922
2021-07-05 04:45	985500	8.073	-94.309	393.263	21.914	552.933	587.563	0.288	0.382	***6.126***	21.914	5.922
2021-07-05 05:00	986400	8.068	-93.939	394.081	21.85	551.779	587.099	0.288	0.382	***6.045***	21.85	7.176
2021-07-05 05:15	987300	8.043	-92.466	396.057	21.802	550.698	586.525	0.287	0.381	***5.781***	21.802	7.009
2021-07-05 05:30	988200	8.052	-92.99	393.645	21.764	549.41	585.603	0.287	0.381	***5.792***	21.764	6.522
2021-07-05 05:45	989100	8.029	-91.641	395.671	21.727	548.358	584.929	0.286	0.380	***5.819***	21.727	5.819
2021-07-05 06:00	990000	8.028	-91.572	395.838	21.676	546.869	583.944	0.286	0.380	***5.926***	21.676	5.201
2021-07-05 06:15	990900	8.026	-91.412	398.987	21.609	547.035	584.917	0.286	0.380	***5.921***	21.609	8.737
2021-07-05 06:30	991800	8.058	-93.296	396.539	21.572	546.094	584.35	0.286	0.380	***5.864***	21.572	6.411
2021-07-05 06:45	992700	8.037	-92.032	395.631	21.53	545.503	584.222	0.286	0.380	***5.872***	21.53	6.098
2021-07-05 07:00	993600	8.038	-92.08	398.427	21.483	545.058	584.307	0.286	0.380	***5.719***	21.483	5.737
2021-07-05 07:15	994500	8.029	-91.531	399.541	21.445	544.413	584.073	0.286	0.380	***5.859***	21.445	6.053
2021-07-05 07:30	995400	8.018	-90.933	400.28	21.417	543.636	583.577	0.286	0.379	***5.591***	21.417	5.908
2021-07-05 07:45	996300	8.027	-91.441	400.606	21.4	542.725	582.796	0.285	0.379	***5.665***	21.4	6.545
2021-07-05 08:00	997200	8.027	-91.412	401.148	21.388	542.166	582.342	0.285	0.379	***5.637***	21.388	5.477
2021-07-05 08:15	998100	8.023	-91.188	400.168	21.385	541.948	582.139	0.285	0.378	***5.564***	21.385	5.408
2021-07-05 08:30	999000	8.036	-91.918	401.98	21.37	541.477	581.815	0.285	0.378	***5.616***	21.37	6.688
2021-07-05 08:45	999900	8.017	-90.823	401.813	21.353	541.247	581.767	0.285	0.378	***5.793***	21.353	5.921
2021-07-05 09:00	1000800	8.037	-91.984	401	21.34	540.85	581.497	0.285	0.378	***5.670***	21.34	13.876
2021-07-05 09:15	1001700	8.038	-92.075	401.322	21.332	540.524	581.245	0.285	0.378	***5.826***	21.332	5.535
2021-07-05 09:30	1002600	8.027	-91.383	402.049	21.306	540.994	582.063	0.285	0.378	***5.700***	21.306	52.845
2021-07-05 09:45	1003500	8.034	-91.815	401.183	21.267	540.375	581.859	0.285	0.378	***5.782***	21.267	7.258
2021-07-05 10:00	1004400	8.048	-92.599	400.449	21.245	539.273	580.941	0.284	0.378	***5.752***	21.245	10.796
2021-07-05 10:15	1005300	8.032	-91.684	400.137	21.232	538.981	580.783	0.284	0.378	***5.835***	21.232	11.083
2021-07-05 10:30	1006200	8.032	-91.67	401.245	21.218	539.241	581.227	0.285	0.378	***5.763***	21.218	7.157
2021-07-05 10:45	1007100	8.042	-92.249	400.788	21.198	538.44	580.603	0.284	0.377	***5.712***	21.198	6.094

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-05 11:00	1008000	8.055	-92.993	400.07	21.21	538.677	580.711	0.284	0.377	***5.922***	21.21	5.666
2021-07-05 11:15	1008900	8.060	-93.324	400.513	21.365	540.451	580.772	0.284	0.378	***5.946***	21.365	6.653
2021-07-05 11:30	1009800	8.067	-93.803	399.765	21.46	541.622	580.903	0.284	0.378	***6.219***	21.46	6.193
2021-07-05 11:45	1010700	8.083	-94.743	398.744	21.484	541.749	580.752	0.284	0.377	***6.246***	21.484	5.693
2021-07-05 12:00	1011600	8.082	-94.657	398.186	21.516	541.548	580.154	0.284	0.377	***6.325***	21.516	5.83
2021-07-05 12:15	1012500	8.079	-94.509	397.867	21.585	541.82	579.63	0.284	0.377	***6.391***	21.585	5.644
2021-07-05 12:30	1013400	8.081	-94.633	398.852	21.64	542.505	579.708	0.284	0.377	***6.447***	21.64	5.577
2021-07-05 12:45	1014300	8.082	-94.783	398.239	21.787	543.895	579.459	0.284	0.377	***6.458***	21.787	5.281
2021-07-05 13:00	1015200	8.074	-94.306	397.5	21.88	544.145	578.629	0.283	0.376	6.501	21.88	5.796
2021-07-05 13:15	1016100	8.087	-95.162	397.69	22.132	547.265	578.982	0.283	0.376	6.508	22.132	4.78
2021-07-05 13:30	1017000	8.105	-96.273	396.894	22.269	548.906	579.113	0.283	0.376	6.799	22.269	4.474
2021-07-05 13:45	1017900	8.118	-97.108	395.547	22.583	553.957	580.767	0.284	0.377	6.901	22.583	4.805
2021-07-05 14:00	1018800	8.134	-98.236	391.957	23.005	559.857	582.04	0.285	0.378	6.831	23.005	6.251
2021-07-05 14:15	1019700	8.133	-98.362	385.646	23.612	567.941	583.408	0.286	0.379	6.785	23.612	4.245
2021-07-05 14:30	1020600	8.123	-97.797	385.863	23.707	568.989	583.402	0.286	0.379	6.868	23.707	5.954
2021-07-05 14:45	1021500	8.169	-100.396	383.137	23.384	563.71	581.667	0.285	0.378	7.164	23.384	5.602
2021-07-05 15:00	1022400	8.166	-100.176	384.165	23.26	563.169	582.534	0.285	0.379	7.138	23.26	5.898
2021-07-05 15:15	1023300	8.158	-99.721	385.622	23.34	563.75	582.211	0.285	0.378	7.300	23.34	4.25
2021-07-05 15:30	1024200	8.085	-95.515	389.026	23.492	565.356	582.126	0.285	0.378	6.972	23.492	3.73
2021-07-05 15:45	1025100	8.169	-100.405	386.218	23.326	562.677	581.259	0.285	0.378	7.178	23.326	4.69
2021-07-05 16:00	1026000	8.161	-100.033	387.105	23.739	568.363	582.39	0.285	0.379	7.456	23.739	4.846
2021-07-05 16:15	1026900	8.172	-100.744	386.683	23.858	568.571	581.254	0.285	0.378	7.431	23.858	5.899
2021-07-05 16:30	1027800	8.173	-100.734	383.538	23.655	564.783	579.679	0.284	0.377	7.640	23.655	6.478
2021-07-05 16:45	1028700	8.160	-99.905	382.878	23.46	563.097	580.167	0.284	0.377	7.662	23.46	6.225
2021-07-05 17:00	1029600	8.171	-100.656	384.763	23.824	567.065	580.091	0.284	0.377	7.762	23.824	5.131
2021-07-05 17:15	1030500	8.188	-102.074	381.778	24.959	583.929	584.388	0.286	0.380	7.853	24.959	4.78
2021-07-05 17:30	1031400	8.219	-104.134	377.268	25.686	601.486	593.705	0.291	0.386	7.583	25.686	7.36
2021-07-05 17:45	1032300	8.226	-104.666	374.65	25.957	608.026	597.115	0.292	0.388	7.439	25.957	4.938
2021-07-05 18:00	1033200	8.224	-104.501	366.265	25.849	609.236	599.511	0.294	0.390	7.368	25.849	5.69
2021-07-05 18:15	1034100	8.233	-105.045	361.232	25.862	610.238	600.357	0.294	0.390	7.423	25.862	5.462
2021-07-05 18:30	1035000	8.223	-104.401	370.43	25.719	610.23	601.96	0.295	0.391	7.035	25.719	6.746
2021-07-05 18:45	1035900	8.209	-103.407	356.005	25.303	598.268	594.825	0.291	0.387	7.471	25.303	6.364
2021-07-05 19:00	1036800	8.206	-103.197	357.388	25.119	591.594	590.258	0.289	0.384	7.981	25.119	5.568
2021-07-05 19:15	1037700	8.204	-102.99	361.372	24.988	587.148	587.287	0.288	0.382	7.985	24.988	6.128
2021-07-05 19:30	1038600	8.142	-99.206	366.222	24.593	581.67	586.227	0.287	0.381	7.462	24.593	8.769
2021-07-05 19:45	1039500	8.169	-100.658	370.723	24.179	572.321	581.436	0.285	0.378	7.904	24.179	4.883
2021-07-05 20:00	1040400	8.163	-100.152	378.293	23.759	565.04	578.761	0.283	0.376	8.004	23.759	5.931
2021-07-05 20:15	1041300	8.165	-100.293	378.338	23.801	565.48	578.738	0.283	0.376	8.028	23.801	13.723
2021-07-05 20:30	1042200	8.149	-99.413	381.945	23.919	568.173	580.149	0.284	0.377	7.953	23.919	7.511
2021-07-05 20:45	1043100	8.118	-97.539	384.904	23.853	566.974	579.672	0.284	0.377	7.746	23.853	5.27
2021-07-05 21:00	1044000	8.131	-98.257	387.341	23.643	564.064	579.076	0.283	0.376	7.135	23.643	6.815
2021-07-05 21:15	1044900	8.135	-98.474	387.212	23.526	562.585	578.887	0.283	0.376	7.558	23.526	4.699
2021-07-05 21:30	1045800	8.114	-97.203	387.255	23.582	563.208	578.888	0.283	0.376	7.502	23.582	3.983
2021-07-05 21:45	1046700	8.140	-98.777	387.35	23.664	563.865	578.626	0.283	0.376	7.731	23.664	4.347
2021-07-05 22:00	1047600	8.069	-94.535	392.672	23.509	563.701	580.223	0.284	0.377	7.244	23.509	6.156
2021-07-05 22:15	1048500	8.112	-97.013	389.503	23.343	560.344	578.662	0.283	0.376	7.009	23.343	6.302
2021-07-05 22:30	1049400	8.133	-98.24	389.782	23.319	560.82	579.427	0.284	0.377	7.102	23.319	6.108
2021-07-05 22:45	1050300	8.125	-97.723	392.793	23.164	562.139	582.564	0.285	0.379	6.817	23.164	5.763
2021-07-05 23:00	1051200	8.111	-96.917	391.003	23.144	558.576	579.099	0.283	0.376	6.958	23.144	4.566
2021-07-05 23:15	1052100	8.127	-97.828	393.282	23.125	559.284	580.058	0.284	0.377	6.813	23.125	5.208
2021-07-05 23:30	1053000	8.083	-95.267	395.24	23.099	559.744	580.839	0.284	0.378	6.590	23.099	4.58
2021-07-05 23:45	1053900	8.126	-97.706	392.746	22.977	562.591	585.203	0.287	0.380	***6.178***	22.977	6.355
2021-07-06 00:00	1054800	8.125	-97.635	397.13	22.833	561.359	585.598	0.287	0.381	***6.473***	22.833	5.661
2021-07-06 00:15	1055700	8.134	-98.15	396.887	22.723	558.499	583.89	0.286	0.380	***6.419***	22.723	5.316
2021-07-06 00:30	1056600	8.069	-94.266	399.715	22.576	556.049	583.046	0.285	0.379	***6.417***	22.576	3.935
2021-07-06 00:45	1057500	8.122	-97.358	398.968	22.476	554.978	583.087	0.285	0.379	***6.414***	22.476	6.415

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-06 01:00	1058400	8.037	-92.304	398.279	22.347	555.564	585.215	0.287	0.380	***6.468***	22.347	5.522
2021-07-06 01:15	1059300	8.161	-99.556	392.455	22.234	536.83	566.773	0.277	0.368	6.528	22.234	4.966
2021-07-06 01:30	1060200	8.147	-98.693	390.526	22.126	535.277	566.365	0.277	0.368	***6.393***	22.126	10.356
2021-07-06 01:45	1061100	8.093	-95.499	394.043	22.021	535.16	567.444	0.278	0.369	***6.236***	22.021	5.927
2021-07-06 02:00	1062000	8.127	-97.42	395.392	21.908	542.145	576.176	0.282	0.375	6.684	21.908	6.022
2021-07-06 02:15	1062900	8.118	-96.858	392.319	21.808	546.313	581.779	0.285	0.378	6.734	21.808	4.952
2021-07-06 02:30	1063800	8.112	-96.481	394.536	21.724	544.857	581.229	0.285	0.378	6.703	21.724	5.34
2021-07-06 02:45	1064700	8.120	-96.92	395.449	21.637	542.619	579.861	0.284	0.377	6.516	21.637	6.361
2021-07-06 03:00	1065600	8.136	-97.83	393.053	21.536	539.892	578.143	0.283	0.376	6.745	21.536	7.38
2021-07-06 03:15	1066500	8.116	-96.669	391.754	21.457	539.348	578.498	0.283	0.376	6.655	21.457	6.275
2021-07-06 03:30	1067400	8.120	-96.862	396.386	21.375	538.361	578.41	0.283	0.376	6.753	21.375	7.507
2021-07-06 03:45	1068300	8.094	-95.339	393.48	21.317	537.006	577.639	0.283	0.375	6.756	21.317	12.474
2021-07-06 04:00	1069200	8.129	-97.325	393.568	21.227	535.537	577.129	0.282	0.375	6.806	21.227	6.321
2021-07-06 04:15	1070100	8.106	-95.999	395.595	21.187	537.113	579.301	0.284	0.377	6.726	21.187	6.65
2021-07-06 04:30	1071000	8.107	-96.014	398.487	21.139	537.251	580.028	0.284	0.377	***6.451***	21.139	7.569
2021-07-06 04:45	1071900	8.083	-94.614	398.878	21.074	536.268	579.741	0.284	0.377	6.539	21.074	8.361
2021-07-06 05:00	1072800	8.042	-92.192	399.235	21.037	535.055	578.871	0.283	0.376	***5.986***	21.037	7.095
2021-07-06 05:15	1073700	8.033	-91.629	401.379	21.002	536.007	580.324	0.284	0.377	***6.069***	21.002	5.692
2021-07-06 05:30	1074600	8.031	-91.55	401.906	20.959	534.923	579.664	0.284	0.377	***6.008***	20.959	11.742
2021-07-06 05:45	1075500	8.001	-89.736	401.446	20.916	532.955	578.047	0.283	0.376	***5.979***	20.916	7.898
2021-07-06 06:00	1076400	8.003	-89.886	402.302	20.862	531.607	577.232	0.282	0.375	***5.774***	20.862	4.013
2021-07-06 06:15	1077300	7.984	-88.761	403.117	20.816	532.338	578.57	0.283	0.376	***5.513***	20.816	3.967
2021-07-06 06:30	1078200	7.987	-88.871	407.134	20.761	531.002	577.776	0.283	0.376	***5.466***	20.761	3.228
2021-07-06 06:45	1079100	7.982	-88.592	403.267	20.732	530.841	577.953	0.283	0.376	***5.630***	20.732	5.123
2021-07-06 07:00	1080000	8.005	-89.948	401.849	20.688	529.345	576.855	0.282	0.375	***5.673***	20.688	5.518
2021-07-06 07:15	1080900	7.987	-88.866	406.154	20.629	529.692	577.937	0.283	0.376	***5.698***	20.629	4.749
2021-07-06 07:30	1081800	7.995	-89.295	406.891	20.599	528.648	577.167	0.282	0.375	***5.766***	20.599	5.31
2021-07-06 07:45	1082700	7.995	-89.316	406.08	20.57	527.466	576.225	0.282	0.375	***5.601***	20.57	4.667
2021-07-06 08:00	1083600	7.993	-89.154	408.024	20.527	527.416	576.684	0.282	0.375	***5.525***	20.527	4.508
2021-07-06 08:15	1084500	7.983	-88.599	404.745	20.496	526.424	575.979	0.282	0.374	***5.616***	20.496	5.709
2021-07-06 08:30	1085400	7.981	-88.477	409.271	20.457	525.931	575.902	0.282	0.374	***5.697***	20.457	5.941
2021-07-06 08:45	1086300	7.970	-87.798	409.135	20.443	525.849	575.986	0.282	0.374	***5.484***	20.443	5.24
2021-07-06 09:00	1087200	7.976	-88.16	411.831	20.433	526.212	576.496	0.282	0.375	***5.014***	20.433	7.476
2021-07-06 09:15	1088100	7.946	-86.422	410.591	20.414	525.279	575.706	0.282	0.374	***5.013***	20.414	5.529
2021-07-06 09:30	1089000	7.936	-85.819	411.771	20.395	525.354	576.017	0.282	0.374	***5.171***	20.395	7.122
2021-07-06 09:45	1089900	7.927	-85.282	412.909	20.364	525.063	576.072	0.282	0.374	***5.409***	20.364	6.522
2021-07-06 10:00	1090800	7.930	-85.452	412.055	20.367	524.774	575.718	0.282	0.374	***5.029***	20.367	3.71
2021-07-06 10:15	1091700	7.898	-83.582	413.657	20.421	525.732	576.115	0.282	0.374	***4.808***	20.421	3.352
2021-07-06 10:30	1092600	7.900	-83.761	415.245	20.463	527.857	577.935	0.283	0.376	***4.780***	20.463	3.167
2021-07-06 10:45	1093500	7.945	-86.353	415.324	20.475	527.961	577.914	0.283	0.376	***4.929***	20.475	4.164
2021-07-06 11:00	1094400	7.952	-86.803	412.68	20.524	528.332	577.723	0.283	0.376	***5.088***	20.524	2.825
2021-07-06 11:15	1095300	7.965	-87.545	411.566	20.547	528.717	577.87	0.283	0.376	***5.214***	20.547	3.721
2021-07-06 11:30	1096200	7.955	-86.966	410.725	20.6	529.449	578.025	0.283	0.376	***5.117***	20.6	3.924
2021-07-06 11:45	1097100	7.978	-88.334	412.32	20.72	530.644	577.889	0.283	0.376	***5.262***	20.72	3.193
2021-07-06 12:00	1098000	7.973	-88.12	412.611	20.846	531.805	577.639	0.283	0.375	***5.378***	20.846	3.756
2021-07-06 12:15	1098900	7.948	-86.677	411.047	20.928	532.618	577.54	0.283	0.375	***5.486***	20.928	4.052
2021-07-06 12:30	1099800	7.974	-88.229	411.55	21.11	534.454	577.352	0.283	0.375	***5.708***	21.11	12.83
2021-07-06 12:45	1100700	7.999	-89.693	412.263	21.135	534.678	577.298	0.283	0.375	***5.624***	21.135	5.273
2021-07-06 13:00	1101600	8.002	-89.92	410.339	21.158	535.349	577.74	0.283	0.376	***5.866***	21.158	3.868
2021-07-06 13:15	1102500	7.985	-88.913	410.227	21.161	536.923	579.412	0.284	0.377	***5.937***	21.161	8.018
2021-07-06 13:30	1103400	7.972	-88.155	411.164	21.184	537.273	579.511	0.284	0.377	***5.676***	21.184	3.847
2021-07-06 13:45	1104300	7.955	-87.128	410.42	21.159	537.144	579.671	0.284	0.377	***5.795***	21.159	11.253
2021-07-06 14:00	1105200	7.995	-89.505	409.809	21.185	542.69	585.343	0.287	0.380	***5.683***	21.185	6.495
2021-07-06 14:15	1106100	7.977	-88.41	410.329	21.151	538.143	580.846	0.284	0.378	***5.924***	21.151	4.957
2021-07-06 14:30	1107000	8.003	-89.984	410.176	21.168	534.711	576.942	0.282	0.375	***5.884***	21.168	4.822
2021-07-06 14:45	1107900	7.997	-89.607	409.101	21.243	535.252	576.631	0.282	0.375	***6.269***	21.243	2.653

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-06 15:00	1108800	7.998	-89.688	409.921	21.206	534.826	576.61	0.282	0.375	***5.974***	21.206	7.267
2021-07-06 15:15	1109700	8.005	-90.11	407.797	21.306	534.995	575.609	0.282	0.374	***6.281***	21.306	4.608
2021-07-06 15:30	1110600	8.045	-92.492	406.665	21.493	536.09	574.572	0.281	0.373	6.528	21.493	5.355
2021-07-06 15:45	1111500	8.045	-92.955	404.509	22.962	557.037	579.598	0.284	0.377	***6.304***	22.962	3.959
2021-07-06 16:00	1112400	8.061	-93.956	403.041	23.169	559.865	580.152	0.284	0.377	***6.435***	23.169	4.45
2021-07-06 16:15	1113300	8.064	-94.371	399.956	23.778	570.076	583.704	0.286	0.379	***6.130***	23.778	7.266
2021-07-06 16:30	1114200	8.125	-97.456	391.26	22.348	547.868	577.097	0.282	0.375	7.170	22.348	10.19
2021-07-06 16:45	1115100	8.055	-93.286	394.932	22.104	544.749	576.643	0.282	0.375	7.500	22.104	7.419
2021-07-06 17:00	1116000	8.072	-94.347	396.065	22.227	549.561	580.291	0.284	0.377	6.539	22.227	1322.945
2021-07-06 17:15	1116900	8.063	-93.954	395.039	22.638	553.596	579.747	0.284	0.377	6.681	22.638	3.43
2021-07-06 17:30	1117800	8.100	-96.133	395.414	22.808	554.935	579.179	0.284	0.376	6.908	22.808	3.708
2021-07-06 17:45	1118700	8.087	-95.522	396.544	23.132	559.892	580.609	0.284	0.377	6.795	23.132	3.479
2021-07-06 18:00	1119600	8.054	-93.818	385.848	23.885	572.637	585.093	0.286	0.380	6.618	23.885	4.588
2021-07-06 18:15	1120500	8.078	-95.153	388.039	23.758	570.583	584.447	0.286	0.380	6.911	23.758	3.594
2021-07-06 18:30	1121400	8.082	-95.36	393.661	23.544	570.617	586.935	0.287	0.382	***6.435***	23.544	5.323
2021-07-06 18:45	1122300	8.123	-97.659	386.633	23.317	564.459	583.208	0.286	0.379	7.573	23.317	5.357
2021-07-06 19:00	1123200	8.076	-94.993	390.521	23.66	568.645	583.583	0.286	0.379	7.362	23.66	3.4
2021-07-06 19:15	1124100	8.044	-93.384	394.496	24.383	579.309	586.214	0.287	0.381	6.746	24.383	9.185
2021-07-06 19:30	1125000	8.059	-94.244	392.789	24.35	579.025	586.302	0.287	0.381	7.073	24.35	5.855
2021-07-06 19:45	1125900	8.077	-95.527	391.525	25.021	595.52	595.28	0.292	0.387	7.291	25.021	3.642
2021-07-06 20:00	1126800	8.094	-96.619	390.705	25.279	604.718	601.513	0.295	0.391	7.126	25.279	2.737
2021-07-06 20:15	1127700	8.119	-97.909	389.286	24.771	597.022	599.65	0.294	0.390	7.288	24.771	4.803
2021-07-06 20:30	1128600	8.115	-97.744	387.627	24.964	597.743	598.152	0.293	0.389	7.287	24.964	3.151
2021-07-06 20:45	1129500	8.084	-95.873	387.31	24.789	595.161	597.568	0.293	0.388	7.130	24.789	4.514
2021-07-06 21:00	1130400	8.118	-97.783	383.588	24.621	590.033	594.34	0.291	0.386	7.347	24.621	4.49
2021-07-06 21:15	1131300	8.096	-96.474	385.467	24.552	586.547	591.613	0.290	0.385	7.290	24.552	5.841
2021-07-06 21:30	1132200	8.098	-96.555	390.145	24.48	583.965	589.823	0.289	0.383	6.830	24.48	4.314
2021-07-06 21:45	1133100	8.100	-96.712	388.688	24.483	585.559	591.399	0.290	0.384	6.621	24.483	16.599
2021-07-06 22:00	1134000	8.104	-96.922	392.064	24.461	584.379	590.459	0.289	0.384	6.722	24.461	8.353
2021-07-06 22:15	1134900	8.044	-93.36	395.194	24.34	580.121	587.522	0.288	0.382	6.649	24.34	5.762
2021-07-06 22:30	1135800	8.092	-96.145	392.14	24.259	580.614	588.949	0.288	0.383	6.548	24.259	5.471
2021-07-06 22:45	1136700	8.071	-94.903	393.022	24.175	581.355	590.66	0.289	0.384	***6.362***	24.175	3.654
2021-07-06 23:00	1137600	8.049	-93.572	392.75	24.085	569.829	579.966	0.284	0.377	6.697	24.085	7.084
2021-07-06 23:15	1138500	8.038	-92.895	390.407	23.975	569.932	581.312	0.285	0.378	6.620	23.975	4.478
2021-07-06 23:30	1139400	8.058	-94.059	391.206	23.946	573.482	585.266	0.287	0.380	***6.430***	23.946	3.726
2021-07-06 23:45	1140300	8.093	-96.104	390.803	23.869	575.243	587.949	0.288	0.382	***6.311***	23.869	11.889
2021-07-07 00:00	1141200	8.098	-96.345	389.155	23.789	581.273	595.035	0.292	0.387	***6.276***	23.789	6.027
2021-07-07 00:15	1142100	8.115	-97.303	383.035	23.695	581.274	596.134	0.292	0.387	***6.305***	23.695	7.792
2021-07-07 00:30	1143000	8.104	-96.631	383.908	23.586	581.163	597.291	0.293	0.388	***6.280***	23.586	6.075
2021-07-07 00:45	1143900	8.088	-95.651	382.646	23.468	578.918	596.365	0.292	0.388	***5.996***	23.468	5.054
2021-07-07 01:00	1144800	8.143	-98.872	384.237	23.332	576.899	595.885	0.292	0.387	***6.400***	23.332	5.75
2021-07-07 01:15	1145700	8.098	-96.192	384.68	23.228	575.33	595.489	0.292	0.387	***6.293***	23.228	5.683
2021-07-07 01:30	1146600	8.114	-97.072	385.233	23.094	572.806	594.451	0.291	0.386	***6.446***	23.094	4.764
2021-07-07 01:45	1147500	8.082	-95.141	385.431	22.991	570.237	592.997	0.291	0.385	***6.260***	22.991	5.543
2021-07-07 02:00	1148400	8.097	-95.997	389.467	22.856	568.716	593.002	0.291	0.385	***6.409***	22.856	7.381
2021-07-07 02:15	1149300	8.105	-96.462	390.063	22.769	568.27	593.559	0.291	0.386	***6.319***	22.769	6.9
2021-07-07 02:30	1150200	8.120	-97.246	394.946	22.646	566.576	593.248	0.291	0.386	6.534	22.646	7.155
2021-07-07 02:45	1151100	8.100	-96.054	393.919	22.525	565.003	593.037	0.291	0.385	6.654	22.525	7.966
2021-07-07 03:00	1152000	8.048	-92.988	395.805	22.441	564.756	593.779	0.291	0.386	6.527	22.441	37.39
2021-07-07 03:15	1152900	8.095	-95.725	390.397	22.333	563.571	593.825	0.291	0.386	6.537	22.333	7.193
2021-07-07 03:30	1153800	8.097	-95.768	384.573	22.222	561.645	593.115	0.291	0.386	6.567	22.222	5.244
2021-07-07 03:45	1154700	8.084	-94.974	387.269	22.131	560.325	592.804	0.290	0.385	6.511	22.131	9.727
2021-07-07 04:00	1155600	8.080	-94.733	379.68	22.065	559.074	592.273	0.290	0.385	***6.382***	22.065	6.571
2021-07-07 04:15	1156500	8.100	-95.863	379.53	21.948	554.549	588.88	0.288	0.383	6.517	21.948	17.834
2021-07-07 04:30	1157400	8.100	-95.818	382.587	21.859	555.361	590.804	0.289	0.384	***6.472***	21.859	8.199
2021-07-07 04:45	1158300	8.093	-95.377	380.224	21.764	554.037	590.531	0.289	0.384	6.556	21.764	6.928

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-07 05:00	1159200	8.077	-94.419	388.981	21.695	554.864	592.253	0.290	0.385	***6.469***	21.695	7.541
2021-07-07 05:15	1160100	8.060	-93.417	390.905	21.588	553.551	592.138	0.290	0.385	6.624	21.588	7.52
2021-07-07 05:30	1161000	8.080	-94.564	389.448	21.522	551.594	590.842	0.289	0.384	6.587	21.522	7.259
2021-07-07 05:45	1161900	8.080	-94.531	392.071	21.453	550.352	590.345	0.289	0.384	***6.457***	21.453	7.646
2021-07-07 06:00	1162800	8.089	-95.038	392.636	21.372	549.944	590.892	0.289	0.384	6.515	21.372	11.466
2021-07-07 06:15	1163700	8.077	-94.311	388.147	21.299	549.216	590.994	0.289	0.384	***6.358***	21.299	7.804
2021-07-07 06:30	1164600	8.080	-94.497	392.71	21.241	548.771	591.223	0.290	0.384	***6.391***	21.241	7.404
2021-07-07 06:45	1165500	8.094	-95.253	391.585	21.175	548.466	591.689	0.290	0.385	***6.197***	21.175	7.17
2021-07-07 07:00	1166400	8.101	-95.644	387.074	21.105	546.48	590.397	0.289	0.384	***6.227***	21.105	6.023
2021-07-07 07:15	1167300	8.064	-93.47	388.609	21.047	545.283	589.818	0.289	0.383	***6.258***	21.047	6.743
2021-07-07 07:30	1168200	8.063	-93.412	388.144	21.014	544.344	589.204	0.289	0.383	***6.247***	21.014	5.871
2021-07-07 07:45	1169100	8.074	-94.032	389.386	20.99	544.069	589.197	0.289	0.383	***6.034***	20.99	7.375
2021-07-07 08:00	1170000	8.073	-93.956	394.493	20.932	543.614	589.406	0.289	0.383	***6.278***	20.932	9.019
2021-07-07 08:15	1170900	8.076	-94.135	389.975	20.911	543.428	589.462	0.289	0.383	***5.897***	20.911	18.179
2021-07-07 08:30	1171800	8.066	-93.522	389.618	20.888	542.858	589.124	0.288	0.383	***6.316***	20.888	5.885
2021-07-07 08:45	1172700	8.068	-93.665	391.299	20.865	542.019	588.501	0.288	0.383	***6.034***	20.865	5.688
2021-07-07 09:00	1173600	8.050	-92.568	396.143	20.823	541.14	588.055	0.288	0.382	***6.177***	20.823	6.709
2021-07-07 09:15	1174500	8.054	-92.831	391.928	20.815	539.638	586.521	0.287	0.381	***5.838***	20.815	6.097
2021-07-07 09:30	1175400	8.059	-93.086	392.777	20.802	540.764	587.899	0.288	0.382	***5.910***	20.802	4.208
2021-07-07 09:45	1176300	8.073	-93.935	393.122	20.782	538.288	585.451	0.287	0.381	***6.019***	20.782	9.049
2021-07-07 10:00	1177200	8.030	-91.403	395.855	20.782	538.587	585.777	0.287	0.381	***5.898***	20.782	2.824
2021-07-07 10:15	1178100	8.035	-91.691	399.262	20.823	539.424	586.196	0.287	0.381	***5.538***	20.823	3.107
2021-07-07 10:30	1179000	8.083	-94.531	398.194	20.858	540.274	586.694	0.287	0.381	***5.585***	20.858	2.693
2021-07-07 10:45	1179900	8.079	-94.318	400.292	20.892	542.085	588.235	0.288	0.382	***5.634***	20.892	4.163
2021-07-07 11:00	1180800	8.118	-96.61	397.538	20.897	542.339	588.451	0.288	0.382	***5.919***	20.897	3.997
2021-07-07 11:15	1181700	8.107	-95.966	399.405	20.941	543.268	588.926	0.288	0.383	***5.564***	20.941	4.13
2021-07-07 11:30	1182600	8.094	-95.243	399.19	21.003	543.112	588.004	0.288	0.382	***6.110***	21.003	3.014
2021-07-07 11:45	1183500	8.099	-95.558	398.933	21.108	543.724	587.383	0.288	0.382	***6.276***	21.108	3.3
2021-07-07 12:00	1184400	8.113	-96.381	398.117	21.197	545.268	587.983	0.288	0.382	6.602	21.197	3.917
2021-07-07 12:15	1185300	8.121	-96.884	397.953	21.263	547.545	589.631	0.289	0.383	6.605	21.263	4.136
2021-07-07 12:30	1186200	8.128	-97.337	400.439	21.396	548.276	588.81	0.288	0.383	6.748	21.396	4.945
2021-07-07 12:45	1187100	8.124	-97.11	399.503	21.405	548.143	588.562	0.288	0.383	6.709	21.405	5.364
2021-07-07 13:00	1188000	8.133	-97.601	397.648	21.418	548.075	588.325	0.288	0.382	6.783	21.418	4.852
2021-07-07 13:15	1188900	8.118	-96.753	397.149	21.457	548.993	588.834	0.288	0.383	6.700	21.457	4.064
2021-07-07 13:30	1189800	8.126	-97.27	397.13	21.496	550.836	590.347	0.289	0.384	6.651	21.496	8.059
2021-07-07 13:45	1190700	8.142	-98.171	395.683	21.492	549.467	588.924	0.288	0.383	6.714	21.492	4.558
2021-07-07 14:00	1191600	8.122	-97.02	396.849	21.494	549.964	589.442	0.289	0.383	6.614	21.494	6.747
2021-07-07 14:15	1192500	8.113	-96.467	396.215	21.458	550.39	590.327	0.289	0.384	6.623	21.458	5.429
2021-07-07 14:30	1193400	8.107	-96.154	396.558	21.526	551.92	591.143	0.290	0.384	6.647	21.526	7.055
2021-07-07 14:45	1194300	8.108	-96.2	396.217	21.49	550.102	589.635	0.289	0.383	6.770	21.49	7.482
2021-07-07 15:00	1195200	8.132	-97.601	393.831	21.562	552.245	591.053	0.289	0.384	6.710	21.562	6.983
2021-07-07 15:15	1196100	8.134	-97.713	393.342	21.478	552.006	591.813	0.290	0.385	6.519	21.478	8.025
2021-07-07 15:30	1197000	8.140	-98.05	393.013	21.45	549.823	589.812	0.289	0.383	6.681	21.45	8.384
2021-07-07 15:45	1197900	8.165	-99.547	393.933	21.509	547.571	586.686	0.287	0.381	6.950	21.509	7.606
2021-07-07 16:00	1198800	8.195	-101.256	392.259	21.5	542.548	581.42	0.285	0.378	7.272	21.5	7.557
2021-07-07 16:15	1199700	8.162	-99.375	394.686	21.577	543.904	581.952	0.285	0.378	7.413	21.577	5.649
2021-07-07 16:30	1200600	8.181	-100.501	393.358	21.607	545.883	583.715	0.286	0.379	7.462	21.607	8.112
2021-07-07 16:45	1201500	8.166	-99.659	395.793	21.786	551.793	587.881	0.288	0.382	7.528	21.786	5.697
2021-07-07 17:00	1202400	8.169	-99.859	394.913	21.702	551.308	588.373	0.288	0.382	7.581	21.702	7.696
2021-07-07 17:15	1203300	8.201	-101.767	396.291	21.872	557.915	593.362	0.291	0.386	7.496	21.872	5.052
2021-07-07 17:30	1204200	8.244	-104.284	395.867	21.906	560.047	595.222	0.292	0.387	7.729	21.906	6.696
2021-07-07 17:45	1205100	8.243	-104.263	394.512	22.026	562.43	596.302	0.292	0.388	7.903	22.026	10.972
2021-07-07 18:00	1206000	8.245	-104.468	395.08	22.162	566.478	598.945	0.294	0.389	7.756	22.162	17.281
2021-07-07 18:15	1206900	8.187	-101.156	393.862	22.57	571.676	599.505	0.294	0.390	7.561	22.57	17.399
2021-07-07 18:30	1207800	8.265	-105.844	390.66	22.799	577.895	603.251	0.296	0.392	8.153	22.799	20.72
2021-07-07 18:45	1208700	8.232	-103.986	390.071	22.984	579.154	602.343	0.295	0.392	7.696	22.984	18.639

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-07 19:00	1209600	8.209	-102.661	389.863	23.126	580.923	602.491	0.295	0.392	7.667	23.126	19.028
2021-07-07 19:15	1210500	8.218	-103.192	390.323	23.144	580.796	602.142	0.295	0.391	7.581	23.144	14.686
2021-07-07 19:30	1211400	8.230	-103.91	389.05	23.153	581.869	603.144	0.296	0.392	7.728	23.153	10.223
2021-07-07 19:45	1212300	8.216	-103.142	390.397	23.247	583.337	603.541	0.296	0.392	7.736	23.247	9.265
2021-07-07 20:00	1213200	8.228	-103.872	389.487	23.312	584.293	603.759	0.296	0.392	7.548	23.312	37.241
2021-07-07 20:15	1214100	8.218	-103.29	390.168	23.341	584.637	603.772	0.296	0.392	7.505	23.341	31.28
2021-07-07 20:30	1215000	8.184	-101.28	387.477	23.404	585.596	604.004	0.296	0.393	7.271	23.404	29.733
2021-07-07 20:45	1215900	8.191	-101.712	387.937	23.463	587.32	605.078	0.297	0.393	7.201	23.463	15.748
2021-07-07 21:00	1216800	8.205	-102.594	388.817	23.578	590.812	607.304	0.298	0.395	7.682	23.578	20.937
2021-07-07 21:15	1217700	8.200	-102.348	388.468	23.671	589.798	605.159	0.297	0.393	7.507	23.671	17.519
2021-07-07 21:30	1218600	8.157	-99.804	389.267	23.684	588.284	603.457	0.296	0.392	7.763	23.684	2.553
2021-07-07 21:45	1219500	8.139	-98.739	390.424	23.698	588.298	603.297	0.296	0.392	7.073	23.698	2.271
2021-07-07 22:00	1220400	8.148	-99.289	392.224	23.701	591.401	606.443	0.297	0.394	6.667	23.701	2.245
2021-07-07 22:15	1221300	8.199	-102.291	388.812	23.684	588.298	603.47	0.296	0.392	7.674	23.684	3.102
2021-07-07 22:30	1222200	8.233	-104.227	386.735	23.641	587.663	603.32	0.296	0.392	7.609	23.641	2.982
2021-07-07 22:45	1223100	8.233	-104.249	386.344	23.574	586.406	602.829	0.295	0.392	7.702	23.574	4.854
2021-07-07 23:00	1224000	8.232	-104.175	386.58	23.531	585.993	602.915	0.296	0.392	7.727	23.531	3.57
2021-07-07 23:15	1224900	8.227	-103.831	385.617	23.476	584.234	601.754	0.295	0.391	7.503	23.476	4.291
2021-07-07 23:30	1225800	8.212	-102.952	385.51	23.393	584.819	603.339	0.296	0.392	7.662	23.393	4.462
2021-07-07 23:45	1226700	8.209	-102.739	383.462	23.339	585.852	605.05	0.297	0.393	7.620	23.339	4.068
2021-07-08 00:00	1227600	8.194	-101.84	384.113	23.289	585.743	605.53	0.297	0.394	7.577	23.289	4.301
2021-07-08 00:15	1228500	8.197	-102.019	385.667	23.228	583.956	604.41	0.296	0.393	7.274	23.228	5.311
2021-07-08 00:30	1229400	8.197	-101.957	389.403	23.154	581.499	602.751	0.295	0.392	7.420	23.154	18.355
2021-07-08 00:45	1230300	8.194	-101.802	386.211	23.102	587.294	609.382	0.299	0.396	7.262	23.102	4.639
2021-07-08 01:00	1231200	8.188	-101.376	384.911	23.042	591.714	614.704	0.301	0.400	7.436	23.042	3.936
2021-07-08 01:15	1232100	8.194	-101.736	384.134	22.983	578.054	601.218	0.295	0.391	7.287	22.983	5.585
2021-07-08 01:30	1233000	8.194	-101.707	381.321	22.928	581.198	605.149	0.297	0.393	6.754	22.928	4.778
2021-07-08 01:45	1233900	8.221	-103.288	381.24	22.868	578.794	603.366	0.296	0.392	6.935	22.868	4.627
2021-07-08 02:00	1234800	8.200	-101.998	381.96	22.799	580.77	606.254	0.297	0.394	7.158	22.799	4.704
2021-07-08 02:15	1235700	8.201	-102.053	381.204	22.721	578.365	604.685	0.296	0.393	6.939	22.721	4.981
2021-07-08 02:30	1236600	8.186	-101.144	381.55	22.636	576.786	604.059	0.296	0.393	7.048	22.636	4.999
2021-07-08 02:45	1237500	8.191	-101.433	382.618	22.607	572.816	600.246	0.294	0.390	6.845	22.607	4.105
2021-07-08 03:00	1238400	8.175	-100.491	381.473	22.537	570.821	599.002	0.294	0.389	6.671	22.537	6.884
2021-07-08 03:15	1239300	8.158	-99.43	383.884	22.466	570.979	600.017	0.294	0.390	7.211	22.466	4.111
2021-07-08 03:30	1240200	8.199	-101.807	383.104	22.412	574.316	604.177	0.296	0.393	7.072	22.412	7.188
2021-07-08 03:45	1241100	8.174	-100.369	384.902	22.358	574.026	604.53	0.296	0.393	6.958	22.358	4.516
2021-07-08 04:00	1242000	8.208	-102.329	388.488	22.309	573.606	604.681	0.296	0.393	6.820	22.309	5.74
2021-07-08 04:15	1242900	8.197	-101.676	386.335	22.222	572.214	604.275	0.296	0.393	6.756	22.222	4.901
2021-07-08 04:30	1243800	8.208	-102.274	389.73	22.161	573.972	606.882	0.298	0.394	6.694	22.161	5.171
2021-07-08 04:45	1244700	8.173	-100.214	383.269	22.105	571.717	605.184	0.297	0.393	6.563	22.105	5.232
2021-07-08 05:00	1245600	8.153	-98.987	379.418	22.022	570.275	604.663	0.296	0.393	6.818	22.022	4.927
2021-07-08 05:15	1246500	8.200	-101.757	372.819	21.952	569.358	604.551	0.296	0.393	6.971	21.952	4.564
2021-07-08 05:30	1247400	8.200	-101.702	378.286	21.89	568.302	604.19	0.296	0.393	6.830	21.89	3.983
2021-07-08 05:45	1248300	8.187	-100.913	378.796	21.826	567.674	604.311	0.296	0.393	6.712	21.826	4.241
2021-07-08 06:00	1249200	8.181	-100.579	378.498	21.771	566.276	603.5	0.296	0.392	6.609	21.771	8.802
2021-07-08 06:15	1250100	8.174	-100.143	381.237	21.705	565.471	603.454	0.296	0.392	6.512	21.705	4.517
2021-07-08 06:30	1251000	8.177	-100.317	381.397	21.671	564.914	603.269	0.296	0.392	6.550	21.671	4.833
2021-07-08 06:45	1251900	8.186	-100.775	384.122	21.623	564.487	603.406	0.296	0.392	6.639	21.623	4.287
2021-07-08 07:00	1252800	8.189	-100.982	385.374	21.594	563.579	602.796	0.295	0.392	***6.485***	21.594	3.872
2021-07-08 07:15	1253700	8.175	-100.155	387.574	21.565	563.409	602.974	0.296	0.392	6.606	21.565	6.167
2021-07-08 07:30	1254600	8.189	-100.937	388.752	21.536	562.577	602.434	0.295	0.392	6.503	21.536	9.096
2021-07-08 07:45	1255500	8.187	-100.834	390.283	21.513	562.233	602.345	0.295	0.392	6.524	21.513	4.44
2021-07-08 08:00	1256400	8.175	-100.141	391.005	21.497	559.946	600.097	0.294	0.390	6.603	21.497	4.325
2021-07-08 08:15	1257300	8.175	-100.11	392.112	21.477	560.25	600.669	0.294	0.390	6.596	21.477	3.186
2021-07-08 08:30	1258200	8.177	-100.2	392.75	21.467	557.515	597.864	0.293	0.389	6.573	21.467	2.476
2021-07-08 08:45	1259100	8.180	-100.393	393.358	21.447	562.179	603.102	0.296	0.392	6.546	21.447	2.496

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-08 09:00	1260000	8.183	-100.536	394.396	21.444	561.068	601.949	0.295	0.391	6.586	21.444	14.761
2021-07-08 09:15	1260900	8.190	-100.977	394.438	21.445	561.42	602.323	0.295	0.392	6.652	21.445	2.503
2021-07-08 09:30	1261800	8.189	-100.925	394.832	21.448	563.48	604.486	0.296	0.393	***6.497***	21.448	2.261
2021-07-08 09:45	1262700	8.167	-99.635	396.107	21.446	563.537	604.571	0.296	0.393	***6.418***	21.446	4.992
2021-07-08 10:00	1263600	8.184	-100.603	393.768	21.438	562.569	603.631	0.296	0.392	***6.411***	21.438	5.014
2021-07-08 10:15	1264500	8.181	-100.455	394.806	21.46	564.051	604.951	0.297	0.393	***6.271***	21.46	4.647
2021-07-08 10:30	1265400	8.200	-101.597	394.582	21.487	563.403	603.93	0.296	0.393	***6.336***	21.487	3.173
2021-07-08 10:45	1266300	8.217	-102.558	393.449	21.505	563.392	603.687	0.296	0.392	6.896	21.505	3.446
2021-07-08 11:00	1267200	8.218	-102.642	393.27	21.529	563.312	603.313	0.296	0.392	6.983	21.529	3.687
2021-07-08 11:15	1268100	8.223	-102.909	392.913	21.524	563.514	603.591	0.296	0.392	6.987	21.524	7.092
2021-07-08 11:30	1269000	8.215	-102.458	393.11	21.531	563.784	603.789	0.296	0.392	6.980	21.531	4.844
2021-07-08 11:45	1269900	8.213	-102.341	393.437	21.558	564.188	603.883	0.296	0.393	6.794	21.558	3.863
2021-07-08 12:00	1270800	8.220	-102.789	394.646	21.577	561.366	600.637	0.294	0.390	6.833	21.577	4.285
2021-07-08 12:15	1271700	8.123	-97.091	386.912	21.604	564.038	603.156	0.296	0.392	6.755	21.604	7.278
2021-07-08 12:30	1272600	8.231	-103.426	379.225	21.646	564.483	603.124	0.296	0.392	7.000	21.646	4.611
2021-07-08 12:45	1273500	8.246	-104.313	377.799	21.661	565.116	603.613	0.296	0.392	7.349	21.661	4.606
2021-07-08 13:00	1274400	8.241	-104.024	378.958	21.688	565.493	603.687	0.296	0.392	7.330	21.688	4.735
2021-07-08 13:15	1275300	8.248	-104.434	378.388	21.717	565.524	603.359	0.296	0.392	7.412	21.717	4.793
2021-07-08 13:30	1276200	8.239	-103.951	379.311	21.754	565.778	603.174	0.296	0.392	7.339	21.754	5.2
2021-07-08 13:45	1277100	8.241	-104.07	380.822	21.794	566.042	602.968	0.296	0.392	7.404	21.794	5.862
2021-07-08 14:00	1278000	8.257	-105.007	381.922	21.805	564.969	601.692	0.295	0.391	7.513	21.805	34.644
2021-07-08 14:15	1278900	8.257	-105	382.422	21.827	565.003	601.458	0.295	0.391	7.683	21.827	9.664
2021-07-08 14:30	1279800	8.261	-105.288	382.92	21.905	566.678	602.287	0.295	0.391	7.781	21.905	4.694
2021-07-08 14:45	1280700	8.262	-105.367	382.906	21.912	565.833	601.298	0.295	0.391	7.718	21.912	5.312
2021-07-08 15:00	1281600	8.272	-105.948	382.568	21.981	566.969	601.662	0.295	0.391	7.917	21.981	4.71
2021-07-08 15:15	1282500	8.286	-106.845	381.859	22.168	571.863	604.568	0.296	0.393	7.967	22.168	4.655
2021-07-08 15:30	1283400	8.288	-106.95	381.552	22.214	572.224	604.38	0.296	0.393	8.012	22.214	4.557
2021-07-08 15:45	1284300	8.285	-106.857	382.053	22.29	574.154	605.494	0.297	0.394	8.031	22.29	3.842
2021-07-08 16:00	1285200	8.297	-107.572	381.581	22.342	574.82	605.569	0.297	0.394	8.078	22.342	5.931
2021-07-08 16:15	1286100	8.290	-107.198	381.812	22.427	576.135	605.911	0.297	0.394	8.116	22.427	4.061
2021-07-08 16:30	1287000	8.279	-106.611	383.538	22.582	577.974	605.956	0.297	0.394	7.977	22.582	4.227
2021-07-08 16:45	1287900	8.294	-107.527	383.297	22.756	580.22	606.197	0.297	0.394	8.154	22.756	4.382
2021-07-08 17:00	1288800	8.282	-106.895	383.633	22.905	582.743	607.032	0.298	0.395	7.739	22.905	3.478
2021-07-08 17:15	1289700	8.311	-108.716	383.202	23.233	587.224	607.734	0.298	0.395	7.568	23.233	3.208
2021-07-08 17:30	1290600	8.324	-109.491	382.27	23.338	588.765	608.073	0.298	0.395	7.754	23.338	3.835
2021-07-08 17:45	1291500	8.329	-109.932	381.855	23.635	593.783	609.681	0.299	0.396	7.765	23.635	3.151
2021-07-08 18:00	1292400	8.340	-110.636	380.4	23.926	599.939	612.507	0.300	0.398	7.703	23.926	3.352
2021-07-08 18:15	1293300	8.336	-110.419	380.014	23.935	599.342	611.781	0.300	0.398	7.893	23.935	2.979
2021-07-08 18:30	1294200	8.351	-111.263	379.008	23.853	597.976	611.366	0.300	0.397	7.662	23.853	3.615
2021-07-08 18:45	1295100	8.330	-110.028	378.352	23.808	596.157	610.04	0.299	0.397	7.856	23.808	3.538
2021-07-08 19:00	1296000	8.338	-110.524	379.656	23.839	595.831	609.348	0.299	0.396	7.743	23.839	5.229
2021-07-08 19:15	1296900	8.334	-110.261	380.636	23.795	593.484	607.462	0.298	0.395	7.618	23.795	3.372
2021-07-08 19:30	1297800	8.299	-108.216	380.567	23.79	594.356	608.42	0.298	0.395	7.966	23.79	4.977
2021-07-08 19:45	1298700	8.283	-107.236	382.038	23.805	594.558	608.442	0.298	0.395	7.540	23.805	2.545
2021-07-08 20:00	1299600	8.316	-109.169	381.633	23.79	593.277	607.317	0.298	0.395	7.553	23.79	3.057
2021-07-08 20:15	1300500	8.342	-110.705	381.585	23.728	594.996	609.814	0.299	0.396	7.349	23.728	3.372
2021-07-08 20:30	1301400	8.330	-110.009	381.142	23.674	593.346	608.765	0.298	0.396	7.581	23.674	4.075
2021-07-08 20:45	1302300	8.303	-108.39	381.523	23.658	594.161	609.794	0.299	0.396	7.667	23.658	3.788
2021-07-08 21:00	1303200	8.321	-109.432	383.23	23.644	593.303	609.084	0.299	0.396	7.440	23.644	2.596
2021-07-08 21:15	1304100	8.276	-106.79	384.279	23.647	594.737	610.52	0.299	0.397	7.425	23.647	6.903
2021-07-08 21:30	1305000	8.283	-107.198	384.325	23.641	595.899	611.781	0.300	0.398	7.276	23.641	8.892
2021-07-08 21:45	1305900	8.290	-107.629	384.294	23.625	596.814	612.907	0.301	0.398	7.108	23.625	25.143
2021-07-08 22:00	1306800	8.283	-107.2	381.318	23.585	596.634	613.212	0.301	0.399	7.124	23.585	8.777
2021-07-08 22:15	1307700	8.310	-108.769	376.188	23.505	595.81	613.325	0.301	0.399	7.864	23.505	9.959
2021-07-08 22:30	1308600	8.331	-109.947	371.977	23.413	594.332	612.906	0.301	0.398	7.675	23.413	2.914
2021-07-08 22:45	1309500	8.331	-109.911	370.828	23.334	592.369	611.837	0.300	0.398	7.530	23.334	16.791

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-08 23:00	1310400	8.298	-107.918	369.643	23.243	591.464	612.001	0.300	0.398	7.673	23.243	3.321
2021-07-08 23:15	1311300	8.343	-110.55	368.615	23.12	587.623	609.512	0.299	0.396	7.794	23.12	5.357
2021-07-08 23:30	1312200	8.322	-109.262	369.526	23.043	586.356	609.123	0.299	0.396	7.622	23.043	7.366
2021-07-08 23:45	1313100	8.305	-108.244	369.34	22.951	585.516	609.366	0.299	0.396	7.418	22.951	4.523
2021-07-09 00:00	1314000	8.318	-108.988	369.693	22.881	585.338	610.033	0.299	0.397	7.101	22.881	3.899
2021-07-09 00:15	1314900	8.331	-109.694	370.573	22.772	581.116	606.949	0.298	0.395	7.279	22.772	3.455
2021-07-09 00:30	1315800	8.285	-106.966	368.761	22.67	581.137	608.206	0.298	0.395	7.388	22.67	41.549
2021-07-09 00:45	1316700	8.314	-108.662	364.205	22.619	582.784	610.544	0.299	0.397	7.684	22.619	2.305
2021-07-09 01:00	1317600	8.277	-106.461	368.985	22.527	584.488	613.466	0.301	0.399	7.165	22.527	4.707
2021-07-09 01:15	1318500	8.269	-105.934	368.432	22.433	583.371	613.451	0.301	0.399	7.634	22.433	4.016
2021-07-09 01:30	1319400	8.231	-103.686	371.994	22.36	583.205	614.174	0.301	0.399	7.579	22.36	3.831
2021-07-09 01:45	1320300	8.267	-105.803	373.062	22.293	581.626	613.342	0.301	0.399	7.262	22.293	3.126
2021-07-09 02:00	1321200	8.235	-103.865	373.436	22.212	581.155	613.842	0.301	0.399	7.400	22.212	4.027
2021-07-09 02:15	1322100	8.272	-106.022	373.362	22.151	579.655	613.017	0.301	0.398	7.285	22.151	4.008
2021-07-09 02:30	1323000	8.275	-106.168	374.879	22.084	577.466	611.527	0.300	0.397	7.124	22.084	4.016
2021-07-09 02:45	1323900	8.272	-105.941	373.176	22.013	577.139	612.052	0.300	0.398	6.949	22.013	16.717
2021-07-09 03:00	1324800	8.239	-104.032	372.664	21.941	574.598	610.254	0.299	0.397	7.318	21.941	3.86
2021-07-09 03:15	1325700	8.211	-102.329	374.564	21.872	576.399	613.026	0.301	0.398	7.348	21.872	3.386
2021-07-09 03:30	1326600	8.237	-103.829	363.244	21.804	572.019	609.203	0.299	0.396	7.417	21.804	4.007
2021-07-09 03:45	1327500	8.265	-105.484	360.671	21.754	570.28	607.97	0.298	0.395	7.118	21.754	3.713
2021-07-09 04:00	1328400	8.218	-102.701	364.078	21.696	570.386	608.806	0.298	0.396	7.278	21.696	85.172
2021-07-09 04:15	1329300	8.274	-105.925	364.96	21.583	567.195	606.791	0.297	0.394	7.384	21.583	6.011
2021-07-09 04:30	1330200	8.275	-105.984	370.215	21.563	566.712	606.527	0.297	0.394	7.397	21.563	5.305
2021-07-09 04:45	1331100	8.259	-105.016	374.051	21.507	565.461	605.882	0.297	0.394	7.357	21.507	4.628
2021-07-09 05:00	1332000	8.251	-104.53	375.26	21.451	565.017	606.105	0.297	0.394	7.344	21.451	5.07
2021-07-09 05:15	1332900	8.205	-101.824	376.404	21.397	563.844	605.516	0.297	0.394	7.231	21.397	4.564
2021-07-09 05:30	1333800	8.225	-102.994	374.755	21.35	562.645	604.804	0.296	0.393	7.054	21.35	5.132
2021-07-09 05:45	1334700	8.237	-103.66	373.892	21.285	561.091	603.941	0.296	0.393	7.061	21.285	4.738
2021-07-09 06:00	1335600	8.239	-103.75	377.07	21.237	560.733	604.152	0.296	0.393	6.934	21.237	4.124
2021-07-09 06:15	1336500	8.224	-102.866	380.229	21.198	560.387	604.266	0.296	0.393	6.830	21.198	6.659
2021-07-09 06:30	1337400	8.221	-102.67	382.382	21.148	551.466	595.26	0.292	0.387	6.846	21.148	4.856
2021-07-09 06:45	1338300	8.219	-102.549	383.838	21.089	549.113	593.447	0.291	0.386	6.629	21.089	6.005
2021-07-09 07:00	1339200	8.212	-102.11	384.396	21.052	548.472	593.198	0.291	0.386	6.710	21.052	4.017
2021-07-09 07:15	1340100	8.215	-102.26	386.449	21.003	547.427	592.678	0.290	0.385	6.539	21.003	4.273
2021-07-09 07:30	1341000	8.208	-101.843	386.74	20.973	547.037	592.614	0.290	0.385	***6.411***	20.973	4.521
2021-07-09 07:45	1341900	8.203	-101.588	389.06	20.95	548.099	594.05	0.291	0.386	6.622	20.95	4.925
2021-07-09 08:00	1342800	8.187	-100.605	390.869	20.924	546.439	592.569	0.290	0.385	6.600	20.924	4.099
2021-07-09 08:15	1343700	8.205	-101.638	391.732	20.894	545.136	591.523	0.290	0.384	***6.466***	20.894	4.04
2021-07-09 08:30	1344600	8.186	-100.536	392.426	20.877	544.54	591.094	0.289	0.384	***6.418***	20.877	3.213
2021-07-09 08:45	1345500	8.196	-101.104	392.476	20.859	544.51	591.271	0.290	0.384	***6.455***	20.859	8.577
2021-07-09 09:00	1346400	8.179	-100.131	394.35	20.846	544.918	591.873	0.290	0.385	***6.429***	20.846	10.218
2021-07-09 09:15	1347300	8.184	-100.403	396.124	20.825	544.263	591.428	0.290	0.384	6.534	20.825	13.107
2021-07-09 09:30	1348200	8.193	-100.904	396.379	20.82	544.074	591.276	0.290	0.384	***6.496***	20.82	10.915
2021-07-09 09:45	1349100	8.173	-99.766	396.489	20.829	544.961	592.132	0.290	0.385	***6.093***	20.829	11.948
2021-07-09 10:00	1350000	8.106	-95.89	398.768	20.831	545.119	592.28	0.290	0.385	***6.063***	20.831	11.038
2021-07-09 10:15	1350900	8.182	-100.296	396.751	20.855	545.878	592.815	0.290	0.385	***6.163***	20.855	7.837
2021-07-09 10:30	1351800	8.170	-99.626	397.309	20.908	555.961	603.097	0.296	0.392	***6.059***	20.908	6.147
2021-07-09 10:45	1352700	8.150	-98.464	397.71	20.941	554.005	600.561	0.294	0.390	***6.048***	20.941	5.221
2021-07-09 11:00	1353600	8.148	-98.355	397.402	20.968	554.679	600.957	0.294	0.391	***5.961***	20.968	2.802
2021-07-09 11:15	1354500	8.138	-97.759	397.488	21.01	552.511	598.088	0.293	0.389	***6.046***	21.01	2.939
2021-07-09 11:30	1355400	8.212	-102.136	395.054	21.079	552.272	596.976	0.292	0.388	6.541	21.079	4.212
2021-07-09 11:45	1356300	8.228	-103.087	393.008	21.132	551.648	595.657	0.292	0.387	6.720	21.132	6.373
2021-07-09 12:00	1357200	8.242	-103.893	391.921	21.18	552.608	596.102	0.292	0.387	6.984	21.18	3.609
2021-07-09 12:15	1358100	8.255	-104.728	390.571	21.248	552.485	595.131	0.292	0.387	7.038	21.248	3.616
2021-07-09 12:30	1359000	8.246	-104.184	389.997	21.281	553.381	595.691	0.292	0.387	7.102	21.281	3.517
2021-07-09 12:45	1359900	8.242	-103.953	389.408	21.352	554.44	595.96	0.292	0.387	7.129	21.352	3.389

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-09 13:00	1360800	8.232	-103.416	389.823	21.404	556.456	597.489	0.293	0.388	7.164	21.404	3.924
2021-07-09 13:15	1361700	8.230	-103.335	390.044	21.438	557.417	598.113	0.293	0.389	7.094	21.438	11.021
2021-07-09 13:30	1362600	8.243	-104.077	387.539	21.498	557.723	597.7	0.293	0.389	7.262	21.498	6.173
2021-07-09 13:45	1363500	8.254	-104.787	384.737	21.583	567.14	606.742	0.297	0.394	7.339	21.583	10.338
2021-07-09 14:00	1364400	8.254	-104.778	384.682	21.653	568.818	607.666	0.298	0.395	7.376	21.653	17.096
2021-07-09 14:15	1365300	8.264	-105.436	384.303	21.753	569.438	607.087	0.298	0.395	7.573	21.753	22.273
2021-07-09 14:30	1366200	8.270	-105.758	382.754	21.745	569.789	607.565	0.298	0.395	7.794	21.745	16.469
2021-07-09 14:45	1367100	8.266	-105.569	382.718	21.834	571.616	608.404	0.298	0.395	7.751	21.834	5.474
2021-07-09 15:00	1368000	8.269	-105.753	381.955	21.861	572.573	609.087	0.299	0.396	7.819	21.861	5.08
2021-07-09 15:15	1368900	8.278	-106.225	379.776	21.816	572.357	609.417	0.299	0.396	7.946	21.816	7.622
2021-07-09 15:30	1369800	8.291	-107.064	379.485	21.93	573.783	609.523	0.299	0.396	7.951	21.93	4.601
2021-07-09 15:45	1370700	8.290	-106.993	377.473	21.949	563.463	598.326	0.293	0.389	8.039	21.949	5.924
2021-07-09 16:00	1371600	8.286	-106.852	376.657	22.187	568.279	600.549	0.294	0.390	7.999	22.187	4.542
2021-07-09 16:15	1372500	8.290	-107.181	378.1	22.438	571.917	601.341	0.295	0.391	8.153	22.438	23.299
2021-07-09 16:30	1373400	8.295	-107.598	378.581	22.787	583.245	608.985	0.299	0.396	8.201	22.787	4.62
2021-07-09 16:45	1374300	8.312	-108.709	377.802	23.095	586.753	608.904	0.299	0.396	8.393	23.095	9.27
2021-07-09 17:00	1375200	8.303	-108.342	378.555	23.565	592.472	609.169	0.299	0.396	8.302	23.565	4.962
2021-07-09 17:15	1376100	8.293	-107.923	379.13	23.939	597.201	609.548	0.299	0.396	8.137	23.939	19.667
2021-07-09 17:30	1377000	8.297	-108.273	378.739	24.25	600.441	609.164	0.299	0.396	8.109	24.25	26.375
2021-07-09 17:45	1377900	8.307	-108.817	378.934	24.233	597.092	605.974	0.297	0.394	7.938	24.233	24.812
2021-07-09 18:00	1378800	8.307	-108.871	378.126	24.391	598.485	605.533	0.297	0.394	8.243	24.391	9.153
2021-07-09 18:15	1379700	8.309	-109.017	377.07	24.383	598.549	605.691	0.297	0.394	8.345	24.383	6.921
2021-07-09 18:30	1380600	8.316	-109.334	374.643	24.229	597.312	606.241	0.297	0.394	8.467	24.229	10.559
2021-07-09 18:45	1381500	8.315	-109.16	371.925	23.91	591.92	604.511	0.296	0.393	8.538	23.91	8.919
2021-07-09 19:00	1382400	8.313	-109.029	371.703	23.853	590.876	604.105	0.296	0.393	8.603	23.853	11.081
2021-07-09 19:15	1383300	8.317	-109.227	372.745	23.768	589.899	604.114	0.296	0.393	8.468	23.768	6.458
2021-07-09 19:30	1384200	8.306	-108.55	373.317	23.699	588.989	604.001	0.296	0.393	8.409	23.699	7.45
2021-07-09 19:45	1385100	8.288	-107.512	374.514	23.679	587.957	603.171	0.296	0.392	8.488	23.679	7.053
2021-07-09 20:00	1386000	8.298	-108.094	373.794	23.646	588.323	603.945	0.296	0.393	8.367	23.646	31.317
2021-07-09 20:15	1386900	8.280	-107.033	358.48	23.644	606.718	622.844	0.306	0.405	8.252	23.644	4.562
2021-07-09 20:30	1387800	8.273	-106.649	362.331	23.72	609.706	624.99	0.307	0.406	8.168	23.72	17.544
2021-07-09 20:45	1388700	8.281	-107.172	365.258	23.879	612.489	625.888	0.307	0.407	8.305	23.879	24.432
2021-07-09 21:00	1389600	8.300	-108.309	367.681	23.93	613.435	626.229	0.307	0.407	8.259	23.93	8.806
2021-07-09 21:15	1390500	8.283	-107.329	371.46	23.937	612.857	625.563	0.307	0.407	8.101	23.937	6.787
2021-07-09 21:30	1391400	8.279	-107.09	372.885	23.962	613.389	625.792	0.307	0.407	7.882	23.962	6.332
2021-07-09 21:45	1392300	8.271	-106.626	374.469	23.947	613.125	625.705	0.307	0.407	7.829	23.947	6.432
2021-07-09 22:00	1393200	8.258	-105.82	376.636	23.973	614.375	626.663	0.308	0.407	7.281	23.973	5.555
2021-07-09 22:15	1394100	8.271	-106.628	377.427	23.985	615.126	627.284	0.308	0.408	7.026	23.985	6.137
2021-07-09 22:30	1395000	8.287	-107.546	378.76	23.991	615.057	627.141	0.308	0.408	6.809	23.991	17.068
2021-07-09 22:45	1395900	8.270	-106.537	376.912	23.976	612.811	625.042	0.307	0.406	7.015	23.976	6.051
2021-07-09 23:00	1396800	8.274	-106.773	376.724	23.932	612.522	625.272	0.307	0.406	7.338	23.932	6.61
2021-07-09 23:15	1397700	8.295	-108.004	371.128	23.883	598.978	612.039	0.300	0.398	7.384	23.883	7.354
2021-07-09 23:30	1398600	8.277	-106.905	369.729	23.854	598.542	611.934	0.300	0.398	7.096	23.854	3.64
2021-07-09 23:45	1399500	8.288	-107.527	367.893	23.808	600.616	614.615	0.301	0.399	6.806	23.808	4.253
2021-07-10 00:00	1400400	8.301	-108.309	367.151	23.739	598.885	613.662	0.301	0.399	6.946	23.739	10.874
2021-07-10 00:15	1401300	8.288	-107.491	363.253	23.663	599.497	615.205	0.302	0.400	6.926	23.663	3.642
2021-07-10 00:30	1402200	8.293	-107.787	360.156	23.568	597.173	613.969	0.301	0.399	6.559	23.568	3.65
2021-07-10 00:45	1403100	8.278	-106.852	358.945	23.485	595.013	612.742	0.300	0.398	***6.478***	23.485	6.407
2021-07-10 01:00	1404000	8.280	-106.964	361.904	23.431	594.782	613.154	0.301	0.399	6.969	23.431	7.748
2021-07-10 01:15	1404900	8.303	-108.252	359.398	23.323	591.596	611.175	0.300	0.397	7.003	23.323	4.445
2021-07-10 01:30	1405800	8.286	-107.234	355.021	23.245	589.224	609.66	0.299	0.396	6.805	23.245	4.031
2021-07-10 01:45	1406700	8.294	-107.701	354.682	23.19	589.742	610.858	0.300	0.397	6.672	23.19	4.67
2021-07-10 02:00	1407600	8.281	-106.905	346.302	23.103	588.905	611.046	0.300	0.397	6.917	23.103	5.309
2021-07-10 02:15	1408500	8.285	-107.079	347.42	23.033	589.413	612.428	0.300	0.398	6.725	23.033	4.586
2021-07-10 02:30	1409400	8.276	-106.568	346.805	22.967	587.876	611.623	0.300	0.398	***6.483***	22.967	4.584
2021-07-10 02:45	1410300	8.280	-106.781	353.204	22.9	587.167	611.697	0.300	0.398	***6.388***	22.9	3.696

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-10 03:00	1411200	8.254	-105.217	351.959	22.836	585.218	610.45	0.299	0.397	6.595	22.836	4.365
2021-07-10 03:15	1412100	8.272	-106.225	352.119	22.774	585.156	611.133	0.300	0.397	6.684	22.774	8.048
2021-07-10 03:30	1413000	8.259	-105.436	353.557	22.7	583.776	610.596	0.299	0.397	***6.212***	22.7	7.888
2021-07-10 03:45	1413900	8.274	-106.297	356.954	22.626	583.808	611.536	0.300	0.397	***6.439***	22.626	11.711
2021-07-10 04:00	1414800	8.246	-104.663	351.618	22.561	582.21	610.663	0.299	0.397	6.514	22.561	7.746
2021-07-10 04:15	1415700	8.271	-106.063	351.621	22.506	582.855	612.009	0.300	0.398	6.816	22.506	4.944
2021-07-10 04:30	1416600	8.258	-105.312	352.503	22.449	587.693	617.792	0.303	0.402	6.954	22.449	5.155
2021-07-10 04:45	1417500	8.242	-104.313	353.016	22.378	589.089	620.15	0.304	0.403	6.944	22.378	6.503
2021-07-10 05:00	1418400	8.220	-103.014	358.278	22.319	588.374	620.128	0.304	0.403	6.905	22.319	5.769
2021-07-10 05:15	1419300	8.246	-104.556	359.939	22.276	589.024	621.35	0.305	0.404	6.743	22.276	5.624
2021-07-10 05:30	1420200	8.233	-103.75	359.098	22.204	588.623	621.835	0.305	0.404	***6.482***	22.204	6.373
2021-07-10 05:45	1421100	8.249	-104.637	354.036	22.136	587.961	621.981	0.305	0.404	6.696	22.136	5.92
2021-07-10 06:00	1422000	8.272	-105.982	350.739	22.067	584.812	619.518	0.304	0.403	6.780	22.067	5.473
2021-07-10 06:15	1422900	8.253	-104.873	344.414	22.019	584.32	619.596	0.304	0.403	6.637	22.019	5.527
2021-07-10 06:30	1423800	8.197	-101.581	344.876	21.977	583.79	619.561	0.304	0.403	6.635	21.977	5.781
2021-07-10 06:45	1424700	8.254	-104.904	346.621	21.909	578.789	615.099	0.302	0.400	6.871	21.909	8.252
2021-07-10 07:00	1425600	8.276	-106.12	345.992	21.864	577.6	614.404	0.301	0.399	6.903	21.864	46.138
2021-07-10 07:15	1426500	8.280	-106.366	351.173	21.79	576.434	614.08	0.301	0.399	7.115	21.79	6.585
2021-07-10 07:30	1427400	8.278	-106.232	356.573	21.734	567.27	605.015	0.297	0.393	7.153	21.734	6.137
2021-07-10 07:45	1428300	8.269	-105.7	360.86	21.692	565.051	603.163	0.296	0.392	7.075	21.692	7.106
2021-07-10 08:00	1429200	8.248	-104.415	365.051	21.657	563.801	602.256	0.295	0.391	6.942	21.657	5.825
2021-07-10 08:15	1430100	8.228	-103.25	367.614	21.614	562.515	601.41	0.295	0.391	6.837	21.614	6.175
2021-07-10 08:30	1431000	8.233	-103.552	369.996	21.577	562.43	601.776	0.295	0.391	6.719	21.577	5.187
2021-07-10 08:45	1431900	8.244	-104.167	371.352	21.516	561.596	601.637	0.295	0.391	6.739	21.516	5.887
2021-07-10 09:00	1432800	8.234	-103.555	373.892	21.489	561.315	601.657	0.295	0.391	6.685	21.489	12.814
2021-07-10 09:15	1433700	8.216	-102.465	378.922	21.454	561.565	602.366	0.295	0.392	***6.384***	21.454	4.833
2021-07-10 09:30	1434600	8.194	-101.218	378.975	21.426	561.037	602.143	0.295	0.391	***6.357***	21.426	5.607
2021-07-10 09:45	1435500	8.204	-101.779	382.32	21.386	560.477	602.034	0.295	0.391	6.508	21.386	4.127
2021-07-10 10:00	1436400	8.187	-100.782	381.84	21.365	560.391	602.205	0.295	0.391	***6.302***	21.365	3.686
2021-07-10 10:15	1437300	8.172	-99.876	382.518	21.342	559.633	601.673	0.295	0.391	***6.007***	21.342	86.272
2021-07-10 10:30	1438200	8.191	-100.968	384.647	21.319	558.956	601.229	0.295	0.391	***5.633***	21.319	3.931
2021-07-10 10:45	1439100	8.202	-101.652	383.8	21.318	558.117	600.34	0.294	0.390	***6.118***	21.318	2.691
2021-07-10 11:00	1440000	8.199	-101.473	385.433	21.329	556.905	598.899	0.293	0.389	***6.329***	21.329	2.857
2021-07-10 11:15	1440900	8.193	-101.089	385.665	21.349	557.784	599.603	0.294	0.390	6.668	21.349	2.801
2021-07-10 11:30	1441800	8.183	-100.532	388.011	21.387	558.233	599.615	0.294	0.390	6.706	21.387	3.984
2021-07-10 11:45	1442700	8.194	-101.168	386.072	21.415	558.739	599.804	0.294	0.390	6.806	21.415	3.376
2021-07-10 12:00	1443600	8.203	-101.745	387.198	21.452	560.433	601.172	0.295	0.391	6.763	21.452	7.104
2021-07-10 12:15	1444500	8.218	-102.592	386.904	21.469	560.444	600.97	0.295	0.391	6.873	21.469	6.977
2021-07-10 12:30	1445400	8.229	-103.276	387.243	21.48	561.051	601.49	0.295	0.391	6.965	21.48	4.493
2021-07-10 12:45	1446300	8.223	-102.93	384.556	21.5	559.751	599.855	0.294	0.390	7.172	21.5	3.827
2021-07-10 13:00	1447200	8.246	-104.258	382.417	21.523	563.237	603.299	0.296	0.392	7.363	21.523	5.527
2021-07-10 13:15	1448100	8.247	-104.313	380.887	21.524	561.364	601.283	0.295	0.391	7.250	21.524	4.959
2021-07-10 13:30	1449000	8.261	-105.178	379.871	21.558	561.938	601.483	0.295	0.391	7.473	21.558	5.62
2021-07-10 13:45	1449900	8.260	-105.14	378.288	21.59	562.45	601.635	0.295	0.391	7.562	21.59	50.505
2021-07-10 14:00	1450800	8.280	-106.297	377.494	21.648	563.878	602.447	0.295	0.392	7.636	21.648	17.641
2021-07-10 14:15	1451700	8.282	-106.449	377.99	21.72	565.802	603.618	0.296	0.392	7.692	21.72	46.212
2021-07-10 14:30	1452600	8.292	-107.083	377.282	21.887	569.066	605.041	0.297	0.393	7.815	21.887	47.478
2021-07-10 14:45	1453500	8.314	-108.409	377.253	21.976	570.484	605.457	0.297	0.394	7.865	21.976	8.28
2021-07-10 15:00	1454400	8.315	-108.516	375.89	22.143	571.418	604.395	0.296	0.393	8.017	22.143	12.441
2021-07-10 15:15	1455300	8.312	-108.483	373.408	22.462	582.031	611.68	0.300	0.398	7.929	22.462	179.768
2021-07-10 15:30	1456200	8.338	-110.078	371.419	22.704	583.77	610.55	0.299	0.397	8.068	22.704	7.895
2021-07-10 15:45	1457100	8.343	-110.497	369.984	22.938	587.12	611.187	0.300	0.397	8.059	22.938	11.226
2021-07-10 16:00	1458000	8.354	-111.208	366.188	23.234	591.339	611.983	0.300	0.398	8.105	23.234	59.685
2021-07-10 16:15	1458900	8.355	-111.365	369.488	23.415	595.591	614.187	0.301	0.399	8.062	23.415	5.802
2021-07-10 16:30	1459800	8.354	-111.313	368.832	23.427	596.652	615.135	0.302	0.400	7.692	23.427	7.978
2021-07-10 16:45	1460700	8.335	-110.199	367.774	23.512	599.814	617.354	0.303	0.401	7.707	23.512	6.404

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-10 17:00	1461600	8.344	-110.753	366.41	23.538	600.36	617.612	0.303	0.401	7.771	23.538	4.283
2021-07-10 17:15	1462500	8.344	-110.765	367.688	23.5	599.1	616.773	0.303	0.401	7.839	23.5	3.977
2021-07-10 17:30	1463400	8.332	-109.994	367.645	23.449	596.634	614.842	0.302	0.400	7.765	23.449	6.514
2021-07-10 17:45	1464300	8.359	-111.556	365.688	23.316	590.449	610.067	0.299	0.397	8.176	23.316	4.807
2021-07-10 18:00	1465200	8.345	-110.681	367.798	23.127	586.853	608.631	0.298	0.396	8.190	23.127	51.252
2021-07-10 18:15	1466100	8.350	-110.843	367.779	22.907	582.91	607.177	0.298	0.395	8.426	22.907	4.928
2021-07-10 18:30	1467000	8.340	-110.123	369.991	22.44	575.843	605.445	0.297	0.394	8.478	22.44	5.639
2021-07-10 18:45	1467900	8.344	-110.295	370.048	22.288	574.603	605.995	0.297	0.394	8.467	22.288	6.291
2021-07-10 19:00	1468800	8.310	-108.192	372.378	22.046	568.154	602.121	0.295	0.391	8.180	22.046	6.015
2021-07-10 19:15	1469700	8.352	-110.602	372.249	21.952	565.166	600.104	0.294	0.390	8.639	21.952	5.929
2021-07-10 19:30	1470600	8.364	-111.368	372.115	22.047	568.968	602.977	0.296	0.392	8.827	22.047	5.033
2021-07-10 19:45	1471500	8.368	-111.625	372.878	22.134	575.136	608.448	0.298	0.395	8.765	22.134	4.41
2021-07-10 20:00	1472400	8.362	-111.325	375.334	22.181	578.709	611.641	0.300	0.398	8.644	22.181	6.25
2021-07-10 20:15	1473300	8.341	-110.106	378.669	22.201	579.456	612.188	0.300	0.398	8.405	22.201	8.148
2021-07-10 20:30	1474200	8.328	-109.308	380.741	22.23	580.075	612.474	0.300	0.398	8.323	22.23	6.936
2021-07-10 20:45	1475100	8.297	-107.477	382.177	22.186	580.242	613.206	0.301	0.399	7.861	22.186	7.044
2021-07-10 21:00	1476000	8.302	-107.811	383.123	22.18	581.482	614.584	0.301	0.399	8.131	22.18	4.744
2021-07-10 21:15	1476900	8.294	-107.341	384.217	22.245	583.803	616.229	0.302	0.401	8.080	22.245	3.591
2021-07-10 21:30	1477800	8.318	-108.776	382.956	22.292	586.375	618.352	0.303	0.402	8.080	22.292	5.25
2021-07-10 21:45	1478700	8.278	-106.392	384.444	22.273	587.326	619.6	0.304	0.403	7.854	22.273	4.914
2021-07-10 22:00	1479600	8.324	-109.091	385.405	22.261	586.796	619.188	0.304	0.402	8.030	22.261	4.197
2021-07-10 22:15	1480500	8.316	-108.657	384.58	22.243	586.956	619.587	0.304	0.403	7.941	22.243	4.352
2021-07-10 22:30	1481400	8.306	-108.044	385.631	22.241	587.767	620.465	0.304	0.403	7.834	22.241	3.41
2021-07-10 22:45	1482300	8.300	-107.703	385.4	22.27	589.4	621.826	0.305	0.404	7.353	22.27	3.45
2021-07-10 23:00	1483200	8.292	-107.245	385.944	22.282	582.292	614.18	0.301	0.399	7.418	22.282	3.419
2021-07-10 23:15	1484100	8.301	-107.753	387.467	22.273	584.773	616.91	0.303	0.401	7.404	22.273	3.211
2021-07-10 23:30	1485000	8.314	-108.5	387.622	22.249	584.835	617.263	0.303	0.401	7.538	22.249	3.338
2021-07-10 23:45	1485900	8.327	-109.284	386.399	22.229	591.895	624.975	0.307	0.406	7.579	22.229	3.316
2021-07-11 00:00	1486800	8.302	-107.811	387.605	22.177	588.751	622.302	0.305	0.404	7.392	22.177	3.209
2021-07-11 00:15	1487700	8.296	-107.427	383.552	22.131	586.451	620.446	0.304	0.403	7.161	22.131	2.906
2021-07-11 00:30	1488600	8.318	-108.678	380.613	22.08	585.235	619.803	0.304	0.403	6.953	22.08	2.715
2021-07-11 00:45	1489500	8.284	-106.668	380.157	22.034	585.273	620.416	0.304	0.403	7.136	22.034	3.107
2021-07-11 01:00	1490400	8.285	-106.723	381.132	21.983	582.707	618.344	0.303	0.402	7.178	21.983	3.071
2021-07-11 01:15	1491300	8.267	-105.658	376.381	21.934	581.904	618.099	0.303	0.402	6.661	21.934	3.653
2021-07-11 01:30	1492200	8.262	-105.324	374.883	21.874	581.495	618.421	0.303	0.402	7.024	21.874	3.36
2021-07-11 01:45	1493100	8.322	-108.855	369.037	21.839	579.229	616.441	0.302	0.401	7.325	21.839	3.731
2021-07-11 02:00	1494000	8.322	-108.795	369.176	21.793	576.628	614.253	0.301	0.399	7.291	21.793	4.365
2021-07-11 02:15	1494900	8.290	-106.936	370.182	21.758	576.349	614.397	0.301	0.399	7.141	21.758	3.778
2021-07-11 02:30	1495800	8.292	-107.04	368.444	21.69	573.334	612.028	0.300	0.398	7.036	21.69	4.743
2021-07-11 02:45	1496700	8.314	-108.268	369.55	21.656	572.52	611.582	0.300	0.398	7.258	21.656	4.725
2021-07-11 03:00	1497600	8.309	-108.016	370.587	21.638	572.749	612.046	0.300	0.398	7.177	21.638	5.28
2021-07-11 03:15	1498500	8.306	-107.827	369.664	21.579	569.433	609.239	0.299	0.396	7.177	21.579	5.34
2021-07-11 03:30	1499400	8.297	-107.253	371.31	21.523	568.588	609.04	0.299	0.396	7.117	21.523	4.997
2021-07-11 03:45	1500300	8.288	-106.692	370.961	21.444	567.26	608.597	0.298	0.396	7.055	21.444	5.078
2021-07-11 04:00	1501200	8.261	-105.116	372.511	21.383	563.649	605.483	0.297	0.394	6.864	21.383	6.19
2021-07-11 04:15	1502100	8.222	-102.813	373.946	21.314	556.577	598.729	0.293	0.389	6.532	21.314	6.979
2021-07-11 04:30	1503000	8.214	-102.324	376.4	21.253	565.912	609.537	0.299	0.396	***6.456***	21.253	9.322
2021-07-11 04:45	1503900	8.147	-98.398	380.436	21.194	563.366	607.524	0.298	0.395	***6.155***	21.194	7.352
2021-07-11 05:00	1504800	8.143	-98.112	382.503	21.139	564.677	609.638	0.299	0.396	***5.968***	21.139	5.966
2021-07-11 05:15	1505700	8.131	-97.401	382.372	21.082	564.413	610.068	0.299	0.397	***6.016***	21.082	5.987
2021-07-11 05:30	1506600	8.128	-97.227	381.111	21.03	564.35	610.653	0.299	0.397	***5.876***	21.03	6.387
2021-07-11 05:45	1507500	8.096	-95.334	382.379	20.981	563.454	610.298	0.299	0.397	***5.412***	20.981	5.756
2021-07-11 06:00	1508400	8.032	-91.558	380.231	20.947	563.497	610.779	0.299	0.397	***5.444***	20.947	6.094
2021-07-11 06:15	1509300	8.048	-92.475	377.141	20.907	562.15	609.825	0.299	0.396	***5.148***	20.907	6.011
2021-07-11 06:30	1510200	8.078	-94.237	372.533	20.868	561.896	610.041	0.299	0.397	***5.358***	20.868	11.361
2021-07-11 06:45	1511100	8.063	-93.353	368.141	20.821	561.081	609.748	0.299	0.396	***5.336***	20.821	9.67

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-11 07:00	1512000	8.053	-92.738	364.557	20.779	560.299	609.436	0.299	0.396	***5.226***	20.779	9.407
2021-07-11 07:15	1512900	8.070	-93.756	359.555	20.742	559.047	608.543	0.298	0.396	***5.314***	20.742	10.926
2021-07-11 07:30	1513800	8.089	-94.819	355.111	20.723	561.611	611.568	0.300	0.398	***5.396***	20.723	10.099
2021-07-11 07:45	1514700	8.095	-95.172	351.797	20.7	558.984	609.004	0.299	0.396	***5.404***	20.7	9.51
2021-07-11 08:00	1515600	8.066	-93.498	351.835	20.653	557.372	607.846	0.298	0.395	***5.270***	20.653	13.277
2021-07-11 08:15	1516500	8.099	-95.375	348.002	20.63	560.047	611.044	0.300	0.397	***5.451***	20.63	10.679
2021-07-11 08:30	1517400	8.108	-95.899	346.574	20.594	557.754	609	0.299	0.396	***5.481***	20.594	6.477
2021-07-11 08:45	1518300	8.101	-95.444	346.814	20.535	556.444	608.316	0.298	0.395	***5.588***	20.535	7.303
2021-07-11 09:00	1519200	8.104	-95.642	346.438	20.508	558.536	610.958	0.300	0.397	***5.536***	20.508	8.929
2021-07-11 09:15	1520100	8.106	-95.766	343.758	20.477	555.774	608.323	0.298	0.395	***5.606***	20.477	6.751
2021-07-11 09:30	1521000	8.119	-96.512	339.261	20.442	554.893	607.801	0.298	0.395	***5.658***	20.442	7.733
2021-07-11 09:45	1521900	8.115	-96.235	338.1	20.399	554.211	607.605	0.298	0.395	***5.604***	20.399	7.569
2021-07-11 10:00	1522800	8.103	-95.527	333.604	20.357	553.329	607.172	0.298	0.395	***5.468***	20.357	7.688
2021-07-11 10:15	1523700	8.096	-95.136	325.984	20.31	553.046	607.467	0.298	0.395	***5.438***	20.31	7.616
2021-07-11 10:30	1524600	8.091	-94.845	323.797	20.321	554.001	608.373	0.298	0.395	***5.511***	20.321	6.347
2021-07-11 10:45	1525500	8.104	-95.594	319.656	20.302	553.904	608.501	0.298	0.396	***5.683***	20.302	9.809
2021-07-11 11:00	1526400	8.122	-96.65	315.477	20.413	555.691	609.055	0.299	0.396	***5.869***	20.413	6.324
2021-07-11 11:15	1527300	8.138	-97.659	316.22	20.549	557.463	609.256	0.299	0.396	***6.035***	20.549	6.426
2021-07-11 11:30	1528200	8.156	-98.724	315.438	20.641	558.686	609.419	0.299	0.396	***6.156***	20.641	5.814
2021-07-11 11:45	1529100	8.173	-99.766	311.083	20.864	561.802	609.99	0.299	0.396	***6.367***	20.864	9.235
2021-07-11 12:00	1530000	8.182	-100.386	306.991	21.085	568.391	614.332	0.301	0.399	***6.464***	21.085	7.056
2021-07-11 12:15	1530900	8.178	-100.255	304.795	21.332	572.283	615.398	0.302	0.400	***6.455***	21.332	6.724
2021-07-11 12:30	1531800	8.178	-100.307	305.375	21.576	576.189	616.506	0.302	0.401	6.581	21.576	7.273
2021-07-11 12:45	1532700	8.181	-100.536	306.669	21.693	584.506	623.917	0.306	0.406	6.586	21.693	8.851
2021-07-11 13:00	1533600	8.181	-100.591	306.398	21.846	589.92	627.732	0.308	0.408	6.647	21.846	8.299
2021-07-11 13:15	1534500	8.182	-100.672	303.987	22.023	593.298	629.066	0.309	0.409	6.869	22.023	7.977
2021-07-11 13:30	1535400	8.195	-101.521	303.415	22.154	596.985	631.308	0.310	0.410	6.948	22.154	7.701
2021-07-11 13:45	1536300	8.203	-101.943	300.389	22.02	590.18	625.8	0.307	0.407	7.081	22.02	6.838
2021-07-11 14:00	1537200	8.193	-101.299	298.008	21.913	584.9	621.542	0.305	0.404	7.103	21.913	7.447
2021-07-11 14:15	1538100	8.204	-102.019	296.942	22.03	587.147	622.462	0.305	0.405	7.214	22.03	7.937
2021-07-11 14:30	1539000	8.202	-101.85	298.165	21.934	582.562	618.801	0.304	0.402	7.192	21.934	6.75
2021-07-11 14:45	1539900	8.200	-101.709	297.719	21.967	584.377	620.315	0.304	0.403	7.259	21.967	7.142
2021-07-11 15:00	1540800	8.215	-102.615	296.839	22.01	585.589	621.058	0.305	0.404	7.262	22.01	36.318
2021-07-11 15:15	1541700	8.215	-102.599	296.572	21.924	581.976	618.307	0.303	0.402	7.314	21.924	39.146
2021-07-11 15:30	1542600	8.235	-103.984	295.228	22.496	600.503	630.666	0.310	0.410	7.467	22.496	40.846
2021-07-11 15:45	1543500	8.237	-104.136	297.08	22.679	605.126	633.198	0.311	0.412	7.404	22.679	39.888
2021-07-11 16:00	1544400	8.245	-104.656	296.148	22.829	606.508	632.742	0.311	0.411	7.494	22.829	38.962
2021-07-11 16:15	1545300	8.247	-104.89	297.233	23.121	610.406	633.131	0.311	0.412	7.572	23.121	8.115
2021-07-11 16:30	1546200	8.277	-106.833	287.152	23.536	617.041	634.795	0.312	0.413	7.721	23.536	7.921
2021-07-11 16:45	1547100	8.265	-106.254	284.134	24.033	625.782	637.554	0.313	0.414	7.533	24.033	93.534
2021-07-11 17:00	1548000	8.267	-106.454	281.202	24.24	629.23	638.495	0.314	0.415	7.487	24.24	6.74
2021-07-11 17:15	1548900	8.260	-106.051	280.946	24.238	628.438	637.724	0.313	0.415	7.244	24.238	6.59
2021-07-11 17:30	1549800	8.264	-106.318	281.128	24.258	628.273	637.307	0.313	0.414	7.487	24.258	7.37
2021-07-11 17:45	1550700	8.265	-106.328	280.436	24.151	625.835	636.147	0.312	0.413	7.469	24.151	8.851
2021-07-11 18:00	1551600	8.260	-106.025	280.677	24.126	624.341	634.938	0.312	0.413	7.641	24.126	14.491
2021-07-11 18:15	1552500	8.266	-106.413	279.723	24.172	624.269	634.305	0.311	0.412	7.574	24.172	12.445
2021-07-11 18:30	1553400	8.258	-105.929	280.138	24.262	626.642	635.603	0.312	0.413	7.508	24.262	17.949
2021-07-11 18:45	1554300	8.250	-105.448	280	24.183	625.618	635.538	0.312	0.413	7.385	24.183	8.484
2021-07-11 19:00	1555200	8.253	-105.631	282.794	24.189	625.521	635.36	0.312	0.413	7.441	24.189	10.306
2021-07-11 19:15	1556100	8.258	-105.929	283.548	24.256	627.202	636.244	0.312	0.414	7.403	24.256	16.929
2021-07-11 19:30	1557000	8.268	-106.54	280.951	24.292	628.784	637.402	0.313	0.414	7.347	24.292	16.551
2021-07-11 19:45	1557900	8.277	-107.045	277.592	24.267	628.753	637.686	0.313	0.414	7.280	24.267	8.258
2021-07-11 20:00	1558800	8.263	-106.218	283.424	24.221	628.254	637.738	0.313	0.415	7.217	24.221	7.811
2021-07-11 20:15	1559700	8.232	-104.418	285.579	24.191	630.551	640.449	0.315	0.416	7.236	24.191	7.992
2021-07-11 20:30	1560600	8.261	-106.08	292.302	24.136	630.888	641.47	0.315	0.417	7.137	24.136	7.983
2021-07-11 20:45	1561500	8.258	-105.884	293.838	24.103	631.46	642.464	0.316	0.418	7.006	24.103	8.219

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-11 21:00	1562400	8.250	-105.405	291.461	24.06	630.932	642.463	0.316	0.418	7.053	24.06	8.059
2021-07-11 21:15	1563300	8.246	-105.188	292.133	24.029	632.25	644.199	0.316	0.419	6.967	24.029	8.18
2021-07-11 21:30	1564200	8.255	-105.679	290.645	23.978	632.078	644.659	0.317	0.419	7.057	23.978	9.546
2021-07-11 21:45	1565100	8.244	-104.983	290.497	23.909	631.432	644.873	0.317	0.419	7.088	23.909	8.482
2021-07-11 22:00	1566000	8.237	-104.527	291.346	23.825	630.825	645.312	0.317	0.419	6.923	23.825	13.884
2021-07-11 22:15	1566900	8.221	-103.59	293.12	23.722	629.315	645.061	0.317	0.419	6.760	23.722	8.9
2021-07-11 22:30	1567800	8.237	-104.513	295.14	23.642	627.869	644.587	0.317	0.419	6.791	23.642	9.318
2021-07-11 22:45	1568700	8.222	-103.59	293.95	23.565	633.889	651.755	0.320	0.424	6.710	23.565	8.443
2021-07-11 23:00	1569600	8.212	-102.971	295.404	23.458	632.057	651.234	0.320	0.423	***6.433***	23.458	8.347
2021-07-11 23:15	1570500	8.218	-103.285	299.364	23.385	631.705	651.817	0.320	0.424	***6.352***	23.385	15.659
2021-07-11 23:30	1571400	8.216	-103.114	299.3	23.296	633.568	654.884	0.322	0.426	***6.493***	23.296	13.694
2021-07-11 23:45	1572300	8.226	-103.71	300.964	23.205	631.423	653.837	0.321	0.425	***6.436***	23.205	12.673
2021-07-12 00:00	1573200	8.232	-103.986	299.774	23.098	629.261	652.984	0.321	0.424	6.506	23.098	12.799
2021-07-12 00:15	1574100	8.222	-103.369	302.845	22.998	628.021	652.99	0.321	0.424	6.619	22.998	17.047
2021-07-12 00:30	1575000	8.225	-103.545	304.936	22.872	625.74	652.247	0.321	0.424	6.654	22.872	13.335
2021-07-12 00:45	1575900	8.228	-103.672	304.998	22.784	623.015	650.544	0.320	0.423	6.541	22.784	12.511
2021-07-12 01:00	1576800	8.221	-103.192	307.206	22.66	621.88	650.969	0.320	0.423	6.764	22.66	13.672
2021-07-12 01:15	1577700	8.217	-102.925	309.571	22.554	621.226	651.673	0.320	0.424	6.751	22.554	13.569
2021-07-12 01:30	1578600	8.201	-101.988	311.707	22.465	619.464	650.982	0.320	0.423	6.751	22.465	16.457
2021-07-12 01:45	1579500	8.216	-102.804	313.257	22.377	615.295	647.75	0.318	0.421	6.726	22.377	8.91
2021-07-12 02:00	1580400	8.193	-101.414	317.112	22.275	614.822	648.585	0.319	0.422	6.585	22.275	9.781
2021-07-12 02:15	1581300	8.216	-102.737	317.053	22.181	605.968	640.451	0.315	0.416	6.633	22.181	9.171
2021-07-12 02:30	1582200	8.187	-100.987	318.996	22.077	598.575	633.969	0.311	0.412	6.641	22.077	9.206
2021-07-12 02:45	1583100	8.202	-101.864	320.405	21.99	598.432	634.935	0.312	0.413	***6.342***	21.99	10.029
2021-07-12 03:00	1584000	8.181	-100.586	321.161	21.897	596.719	634.312	0.311	0.412	6.556	21.897	8.715
2021-07-12 03:15	1584900	8.185	-100.799	321.835	21.811	595.436	634.05	0.311	0.412	***6.479***	21.811	9.628
2021-07-12 03:30	1585800	8.198	-101.531	322.295	21.718	593.601	633.299	0.311	0.412	6.522	21.718	11.123
2021-07-12 03:45	1586700	8.187	-100.863	321.478	21.641	591.64	632.198	0.310	0.411	***6.455***	21.641	11.881
2021-07-12 04:00	1587600	8.184	-100.625	321.237	21.528	588.866	630.687	0.310	0.410	***6.481***	21.528	10.642
2021-07-12 04:15	1588500	8.168	-99.699	323.387	21.468	588.757	631.346	0.310	0.410	***6.348***	21.468	10.497
2021-07-12 04:30	1589400	8.182	-100.455	325.447	21.355	584.417	628.151	0.308	0.408	***6.408***	21.355	11.169
2021-07-12 04:45	1590300	8.182	-100.439	325.292	21.297	584.783	629.29	0.309	0.409	***6.454***	21.297	10.906
2021-07-12 05:00	1591200	8.181	-100.384	326.163	21.229	584.242	629.592	0.309	0.409	***6.423***	21.229	11.395
2021-07-12 05:15	1592100	8.167	-99.554	327.216	21.172	583.354	629.373	0.309	0.409	***6.239***	21.172	10.998
2021-07-12 05:30	1593000	8.171	-99.721	327.15	21.073	581.612	628.773	0.309	0.409	***6.195***	21.073	12.144
2021-07-12 05:45	1593900	8.179	-100.16	327.173	21.011	579.432	627.225	0.308	0.408	***6.255***	21.011	11.311
2021-07-12 06:00	1594800	8.163	-99.249	328.284	20.941	577.386	625.91	0.307	0.407	***6.191***	20.941	12.317
2021-07-12 06:15	1595700	8.167	-99.444	328.468	20.885	576.236	625.384	0.307	0.406	***6.177***	20.885	11.367
2021-07-12 06:30	1596600	8.149	-98.383	328.413	20.83	575.753	625.577	0.307	0.407	***5.973***	20.83	11.622
2021-07-12 06:45	1597500	8.156	-98.774	326.968	20.766	574.492	625.036	0.307	0.406	***5.947***	20.766	15.964
2021-07-12 07:00	1598400	8.165	-99.232	326.077	20.687	575.921	627.623	0.308	0.408	***6.106***	20.687	12.026
2021-07-12 07:15	1599300	8.153	-98.517	327.636	20.63	573	625.184	0.307	0.406	***6.108***	20.63	12.899
2021-07-12 07:30	1600200	8.124	-96.853	330.926	20.608	573.192	625.682	0.307	0.407	***5.841***	20.608	11.536
2021-07-12 07:45	1601100	8.144	-97.978	329.283	20.554	572.228	625.332	0.307	0.406	***5.888***	20.554	13.866
2021-07-12 08:00	1602000	8.155	-98.634	328.27	20.512	570.746	624.26	0.306	0.406	***6.051***	20.512	11.692
2021-07-12 08:15	1602900	8.140	-97.749	330.473	20.509	570.825	624.387	0.306	0.406	***6.017***	20.509	11.645
2021-07-12 08:30	1603800	8.103	-95.599	333.329	20.517	572.097	625.666	0.307	0.407	***5.415***	20.517	11.506
2021-07-12 08:45	1604700	8.111	-96.03	333.546	20.508	571.45	625.087	0.307	0.406	***5.351***	20.508	12.42
2021-07-12 09:00	1605600	8.108	-95.87	332.34	20.493	571.913	625.778	0.307	0.407	***5.687***	20.493	17.793
2021-07-12 09:15	1606500	8.126	-96.879	329.815	20.468	564.601	618.105	0.303	0.402	***5.786***	20.468	14.305
2021-07-12 09:30	1607400	8.116	-96.319	330.111	20.461	566.334	620.098	0.304	0.403	***5.623***	20.461	16.343
2021-07-12 09:45	1608300	8.142	-97.811	325.915	20.42	564.787	618.932	0.304	0.402	***5.891***	20.42	32.871
2021-07-12 10:00	1609200	8.108	-95.825	323.025	20.439	565.155	619.081	0.304	0.402	***5.711***	20.439	24.922
2021-07-12 10:15	1610100	8.112	-96.087	323.845	20.478	565.338	618.777	0.303	0.402	***5.898***	20.478	12.049
2021-07-12 10:30	1611000	8.125	-96.869	321.909	20.54	566.685	619.447	0.304	0.403	***5.826***	20.54	11.381
2021-07-12 10:45	1611900	8.140	-97.749	322.982	20.587	567.73	619.982	0.304	0.403	***6.066***	20.587	11.298

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-12 11:00	1612800	8.137	-97.628	322.534	20.635	568.333	620.022	0.304	0.403	***6.097***	20.635	10.304
2021-07-12 11:15	1613700	8.155	-98.691	318.891	20.675	568.916	620.142	0.304	0.403	***6.064***	20.675	10.066
2021-07-12 11:30	1614600	8.144	-98.057	319.737	20.691	569.235	620.284	0.304	0.403	***6.102***	20.691	10.509
2021-07-12 11:45	1615500	8.156	-98.739	321.07	20.729	569.191	619.743	0.304	0.403	***6.254***	20.729	10.761
2021-07-12 12:00	1616400	8.154	-98.674	321.361	20.797	570.754	620.568	0.304	0.403	***6.020***	20.797	9.39
2021-07-12 12:15	1617300	8.162	-99.134	321.013	20.878	572.541	621.469	0.305	0.404	***6.286***	20.878	11.337
2021-07-12 12:30	1618200	8.143	-98.066	322.255	20.975	572.044	619.689	0.304	0.403	***6.042***	20.975	9.988
2021-07-12 12:45	1619100	8.150	-98.522	321.633	21.083	572.488	618.779	0.304	0.402	***6.290***	21.083	9.822
2021-07-12 13:00	1620000	8.167	-99.511	319.189	21.084	571.834	618.066	0.303	0.402	***6.365***	21.084	11.119
2021-07-12 13:15	1620900	8.174	-99.924	316.406	21.179	572.689	617.781	0.303	0.402	***6.476***	21.179	45.482
2021-07-12 13:30	1621800	8.172	-99.823	316.101	21.154	572.098	617.45	0.303	0.401	***6.225***	21.154	13.252
2021-07-12 13:45	1622700	8.178	-100.162	313.395	21.209	573.067	617.8	0.303	0.402	***6.430***	21.209	15.099
2021-07-12 14:00	1623600	8.183	-100.491	312.98	21.248	575.016	619.403	0.304	0.403	6.529	21.248	10.373
2021-07-12 14:15	1624500	8.191	-100.97	312.964	21.289	576.311	620.27	0.304	0.403	***6.444***	21.289	24.471
2021-07-12 14:30	1625400	8.195	-101.209	313.712	21.329	576.443	619.905	0.304	0.403	6.527	21.329	11.323
2021-07-12 14:45	1626300	8.219	-102.587	311.085	21.27	575.724	619.881	0.304	0.403	6.562	21.27	17.08
2021-07-12 15:00	1627200	8.202	-101.662	311.037	21.347	576.323	619.546	0.304	0.403	6.819	21.347	20.531
2021-07-12 15:15	1628100	8.228	-103.164	309.063	21.413	577.173	619.627	0.304	0.403	7.004	21.413	12.076
2021-07-12 15:30	1629000	8.232	-103.433	308.496	21.412	576.85	619.287	0.304	0.403	7.008	21.412	12.983
2021-07-12 15:45	1629900	8.226	-103.066	310.837	21.439	577.884	620.061	0.304	0.403	6.813	21.439	15.472
2021-07-12 16:00	1630800	8.222	-102.859	312.926	21.502	579.08	620.539	0.304	0.403	7.081	21.502	11.36
2021-07-12 16:15	1631700	8.225	-103.183	313.147	21.842	592.502	630.531	0.310	0.410	7.215	21.842	14.85
2021-07-12 16:30	1632600	8.248	-104.532	312.325	21.876	592.556	630.158	0.309	0.410	7.491	21.876	10.611
2021-07-12 16:45	1633500	8.260	-105.622	312.594	23.075	608.246	631.467	0.310	0.410	7.731	23.075	11.96
2021-07-12 17:00	1634400	8.252	-104.742	310.739	21.913	591.535	628.593	0.309	0.409	7.554	21.913	13.159
2021-07-12 17:15	1635300	8.254	-104.988	308.248	22.165	594.989	629.049	0.309	0.409	7.464	22.165	16.096
2021-07-12 17:30	1636200	8.260	-105.61	304.478	23.007	604.459	628.383	0.308	0.408	8.233	23.007	14.549
2021-07-12 17:45	1637100	8.238	-104.256	306.531	22.825	602.975	629.107	0.309	0.409	7.750	22.825	13.722
2021-07-12 18:00	1638000	8.270	-106.134	303.987	22.823	603.129	629.291	0.309	0.409	8.063	22.823	13.801
2021-07-12 18:15	1638900	8.261	-105.7	304.583	23.017	606.028	629.889	0.309	0.409	7.843	23.017	13.783
2021-07-12 18:30	1639800	8.271	-106.485	300.497	23.662	611.176	627.205	0.308	0.408	8.050	23.662	14.131
2021-07-12 18:45	1640700	8.266	-105.989	300.583	22.999	605.748	629.824	0.309	0.409	7.944	22.999	14.791
2021-07-12 19:00	1641600	8.261	-105.619	300.835	22.853	602.279	628.037	0.308	0.408	7.880	22.853	12.74
2021-07-12 19:15	1642500	8.245	-104.675	301.138	22.756	601.638	628.582	0.309	0.409	7.757	22.756	13.176
2021-07-12 19:30	1643400	8.280	-106.707	299.453	22.73	601.432	628.693	0.309	0.409	8.210	22.73	12.826
2021-07-12 19:45	1644300	8.291	-107.362	300.509	22.712	601.804	629.3	0.309	0.409	8.031	22.712	12.907
2021-07-12 20:00	1645200	8.262	-105.6	304.13	22.68	599.824	627.631	0.308	0.408	7.923	22.68	13.927
2021-07-12 20:15	1646100	8.272	-106.287	303.129	22.83	596.972	622.785	0.306	0.405	7.876	22.83	13.796
2021-07-12 20:30	1647000	8.269	-106.142	303.155	22.958	598.97	623.274	0.306	0.405	7.797	22.958	14.571
2021-07-12 20:45	1647900	8.270	-106.251	303.491	23.057	600.399	623.541	0.306	0.405	7.725	23.057	17.736
2021-07-12 21:00	1648800	8.272	-106.421	303.227	23.336	605.399	625.272	0.307	0.406	7.619	23.336	13.933
2021-07-12 21:15	1649700	8.266	-106.211	303.572	23.671	610.553	626.461	0.307	0.407	7.487	23.671	17.737
2021-07-12 21:30	1650600	8.256	-105.608	304.674	23.652	610.056	626.182	0.307	0.407	7.354	23.652	17
2021-07-12 21:45	1651500	8.251	-105.309	306.452	23.699	610.837	626.402	0.307	0.407	7.544	23.699	18.529
2021-07-12 22:00	1652400	8.240	-104.713	308.603	23.748	612.414	627.413	0.308	0.408	7.138	23.748	16.704
2021-07-12 22:15	1653300	8.196	-102.1	312.825	23.697	613.686	629.35	0.309	0.409	***6.404***	23.697	15.985
2021-07-12 22:30	1654200	8.221	-103.579	309.69	23.684	613.381	629.198	0.309	0.409	***6.216***	23.684	15.607
2021-07-12 22:45	1655100	8.222	-103.571	310.622	23.588	612.978	629.963	0.309	0.409	***6.354***	23.588	16.117
2021-07-12 23:00	1656000	8.206	-102.596	312.215	23.481	612.066	630.349	0.309	0.410	***6.143***	23.481	16.786
2021-07-12 23:15	1656900	8.200	-102.191	311.674	23.348	610.333	630.219	0.309	0.410	***6.323***	23.348	16.55
2021-07-12 23:30	1657800	8.202	-102.327	312.022	23.287	610.101	630.741	0.310	0.410	***6.299***	23.287	16.516
2021-07-12 23:45	1658700	8.223	-103.505	312.47	23.204	609.116	630.754	0.310	0.410	***6.229***	23.204	16.752
2021-07-13 00:00	1659600	8.222	-103.419	313.538	23.12	608.036	630.687	0.310	0.410	***6.335***	23.12	19.052
2021-07-13 00:15	1660500	8.213	-102.859	314.225	23.042	607.469	631.073	0.310	0.410	***6.234***	23.042	16.389
2021-07-13 00:30	1661400	8.231	-103.905	314.799	22.96	605.241	629.783	0.309	0.409	***6.364***	22.96	17.163
2021-07-13 00:45	1662300	8.245	-104.678	316.23	22.874	603.917	629.482	0.309	0.409	6.606	22.874	19.516

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-13 01:00	1663200	8.251	-105.035	317.97	22.819	604.032	630.287	0.309	0.410	6.601	22.819	18.245
2021-07-13 01:15	1664100	8.260	-105.536	318.54	22.734	602.505	629.76	0.309	0.409	6.701	22.734	18.885
2021-07-13 01:30	1665000	8.260	-105.474	320.841	22.649	601.283	629.557	0.309	0.409	6.772	22.649	16.272
2021-07-13 01:45	1665900	8.259	-105.429	322.548	22.568	600.028	629.262	0.309	0.409	6.782	22.568	16.568
2021-07-13 02:00	1666800	8.256	-105.207	323.554	22.49	598.993	629.156	0.309	0.409	6.765	22.49	20.001
2021-07-13 02:15	1667700	8.243	-104.432	326.835	22.409	601.942	633.285	0.311	0.412	6.542	22.409	1386.591
2021-07-13 02:30	1668600	8.254	-105.052	329.694	22.335	597.976	630.046	0.309	0.410	6.595	22.335	18.43
2021-07-13 02:45	1669500	8.221	-103.049	324.579	22.247	595.694	628.752	0.309	0.409	***6.452***	22.247	25.463
2021-07-13 03:00	1670400	8.180	-100.646	329.245	22.183	595.274	629.124	0.309	0.409	***6.368***	22.183	18.871
2021-07-13 03:15	1671300	8.205	-102.098	335.783	22.094	591.284	626.036	0.307	0.407	***6.233***	22.094	16.876
2021-07-13 03:30	1672200	8.194	-101.407	335.342	21.994	588.442	624.28	0.306	0.406	***6.276***	21.994	18.185
2021-07-13 03:45	1673100	8.205	-101.988	331.422	21.924	592.313	629.289	0.309	0.409	***6.389***	21.924	21.819
2021-07-13 04:00	1674000	8.233	-103.605	333.153	21.867	592.524	630.239	0.309	0.410	6.584	21.867	26.353
2021-07-13 04:15	1674900	8.230	-103.431	337.983	21.791	592.589	631.287	0.310	0.410	***6.261***	21.791	29.303
2021-07-13 04:30	1675800	8.224	-103.047	341.836	21.7	591.48	631.269	0.310	0.410	***6.286***	21.7	22.874
2021-07-13 04:45	1676700	8.211	-102.248	342.313	21.636	580.735	620.614	0.304	0.403	***6.406***	21.636	30.906
2021-07-13 05:00	1677600	8.193	-101.18	343.836	21.566	587.684	628.935	0.309	0.409	***6.080***	21.566	12.771
2021-07-13 05:15	1678500	8.180	-100.379	344.456	21.495	585.26	627.246	0.308	0.408	***6.154***	21.495	12.837
2021-07-13 05:30	1679400	8.203	-101.752	344.416	21.427	583.718	626.473	0.307	0.407	6.580	21.427	14.296
2021-07-13 05:45	1680300	8.194	-101.168	345.541	21.35	582.741	626.412	0.307	0.407	***6.445***	21.35	13.964
2021-07-13 06:00	1681200	8.209	-102.024	345.322	21.294	581.913	626.244	0.307	0.407	***6.491***	21.294	16.507
2021-07-13 06:15	1682100	8.210	-102.057	345.675	21.213	580.838	626.122	0.307	0.407	***6.416***	21.213	15.111
2021-07-13 06:30	1683000	8.205	-101.743	346.297	21.165	579.534	625.335	0.307	0.406	***6.100***	21.165	15.547
2021-07-13 06:45	1683900	8.213	-102.184	344.28	21.124	579.074	625.377	0.307	0.406	***6.386***	21.124	15.365
2021-07-13 07:00	1684800	8.201	-101.507	346.23	21.063	577.9	624.89	0.307	0.406	***6.141***	21.063	15.922
2021-07-13 07:15	1685700	8.213	-102.205	345.77	21.058	577.57	624.599	0.306	0.406	***6.458***	21.058	15.76
2021-07-13 07:30	1686600	8.179	-100.186	348.958	21.047	578.401	625.642	0.307	0.407	***5.913***	21.047	15.584
2021-07-13 07:45	1687500	8.178	-100.095	349.232	21.012	578.21	625.886	0.307	0.407	***6.033***	21.012	16.337
2021-07-13 08:00	1688400	8.184	-100.448	347.704	20.983	577.475	625.463	0.307	0.407	***5.947***	20.983	16.113
2021-07-13 08:15	1689300	8.180	-100.212	347.286	20.95	577.121	625.513	0.307	0.407	***5.973***	20.95	16.014
2021-07-13 08:30	1690200	8.200	-101.38	344.568	20.92	575.877	624.55	0.306	0.406	***6.103***	20.92	18.67
2021-07-13 08:45	1691100	8.186	-100.572	344.979	20.903	576.406	625.338	0.307	0.406	***5.788***	20.903	19.041
2021-07-13 09:00	1692000	8.185	-100.51	342.518	20.887	575.793	624.886	0.307	0.406	***5.827***	20.887	19.846
2021-07-13 09:15	1692900	8.204	-101.621	341.715	20.887	574.705	623.699	0.306	0.405	***6.017***	20.887	17.004
2021-07-13 09:30	1693800	8.208	-101.814	341.81	20.91	573.814	622.434	0.305	0.405	***6.110***	20.91	17.698
2021-07-13 09:45	1694700	8.213	-102.129	340.804	20.928	574.977	623.462	0.306	0.405	***5.918***	20.928	19.044
2021-07-13 10:00	1695600	8.241	-103.757	339.519	20.939	575.29	623.66	0.306	0.405	***5.960***	20.939	19.865
2021-07-13 10:15	1696500	8.171	-99.678	341.841	20.959	579.817	628.313	0.308	0.408	***5.597***	20.959	14.027
2021-07-13 10:30	1697400	8.137	-97.74	341.355	20.997	580.955	629.05	0.309	0.409	***5.295***	20.997	14.497
2021-07-13 10:45	1698300	8.196	-101.182	341.44	21.074	581.687	628.847	0.309	0.409	***6.137***	21.074	14.936
2021-07-13 11:00	1699200	8.187	-100.691	342.961	21.115	582.844	629.554	0.309	0.409	***5.821***	21.115	20.22
2021-07-13 11:15	1700100	8.169	-99.618	344.819	21.124	582.935	629.544	0.309	0.409	***5.533***	21.124	19.9
2021-07-13 11:30	1701000	8.162	-99.242	334.138	21.159	583.519	629.722	0.309	0.409	***5.683***	21.159	18.928
2021-07-13 11:45	1701900	8.174	-99.978	328.687	21.257	584.787	629.818	0.309	0.409	***5.700***	21.257	18.615
2021-07-13 12:00	1702800	8.250	-104.551	331.246	21.632	588.654	629.131	0.309	0.409	***6.154***	21.632	19.279
2021-07-13 12:15	1703700	8.290	-107.062	329.944	22.128	597.052	631.708	0.310	0.411	6.798	22.128	20.362
2021-07-13 12:30	1704600	8.188	-100.915	332.838	21.679	588.779	628.655	0.309	0.409	***6.222***	21.679	21.803
2021-07-13 12:45	1705500	8.228	-103.338	334.326	21.873	590.94	628.475	0.308	0.409	6.707	21.873	21.155
2021-07-13 13:00	1706400	8.281	-106.659	333.856	22.463	600.789	631.381	0.310	0.410	7.131	22.463	20.573
2021-07-13 13:15	1707300	8.240	-104.11	337.409	22.127	595.16	629.718	0.309	0.409	***6.422***	22.127	21.853
2021-07-13 13:30	1708200	8.242	-104.153	334.581	21.923	593.222	630.267	0.309	0.410	6.919	21.923	21.134
2021-07-13 13:45	1709100	8.254	-105.042	335.206	22.405	597.441	628.596	0.309	0.409	6.970	22.405	21.043
2021-07-13 14:00	1710000	8.256	-105.307	332.957	22.78	603.906	630.645	0.310	0.410	7.032	22.78	22.299
2021-07-13 14:15	1710900	8.255	-105.181	329.746	22.539	598.72	628.25	0.308	0.408	7.428	22.539	19.669
2021-07-13 14:30	1711800	8.280	-106.807	326.847	23.104	606.128	628.902	0.309	0.409	7.653	23.104	20.358
2021-07-13 14:45	1712700	8.292	-107.47	327.281	22.912	603.379	628.446	0.308	0.408	8.002	22.912	21.98

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-13 15:00	1713600	8.270	-106.037	327.483	22.61	598.763	627.404	0.308	0.408	7.576	22.61	22.751
2021-07-13 15:15	1714500	8.263	-105.703	327.386	22.773	600.8	627.493	0.308	0.408	7.663	22.773	20.999
2021-07-13 15:30	1715400	8.274	-106.406	328.096	22.95	602.642	627.206	0.308	0.408	7.847	22.95	20.13
2021-07-13 15:45	1716300	8.280	-106.738	330.881	22.907	602.785	627.889	0.308	0.408	7.704	22.907	20.634
2021-07-13 16:00	1717200	8.277	-106.468	330.118	22.631	598.272	626.626	0.308	0.407	7.772	22.631	20.567
2021-07-13 16:15	1718100	8.256	-105.238	329.87	22.582	597.107	626.024	0.307	0.407	7.651	22.582	20.983
2021-07-13 16:30	1719000	8.251	-104.921	330.375	22.577	596.488	625.434	0.307	0.407	7.549	22.577	19.758
2021-07-13 16:45	1719900	8.248	-104.737	329.276	22.48	595.011	625.094	0.307	0.406	7.535	22.48	20.61
2021-07-13 17:00	1720800	8.244	-104.63	328.85	22.836	599.466	625.312	0.307	0.406	7.326	22.836	21.133
2021-07-13 17:15	1721700	8.265	-105.848	332.528	22.771	598.495	625.11	0.307	0.406	6.889	22.771	21.491
2021-07-13 17:30	1722600	8.284	-106.909	329.071	22.608	596.607	625.167	0.307	0.406	7.838	22.608	27.172
2021-07-13 17:45	1723500	8.236	-104.091	331.463	22.731	599.021	626.157	0.307	0.407	7.443	22.731	24.103
2021-07-13 18:00	1724400	8.233	-103.965	333.472	22.828	600.681	626.682	0.308	0.407	7.225	22.828	23.217
2021-07-13 18:15	1725300	8.257	-105.457	334.75	23.006	601.927	625.754	0.307	0.407	7.553	23.006	22.879
2021-07-13 18:30	1726200	8.245	-104.806	338.68	23.185	605.436	627.179	0.308	0.408	7.266	23.185	23.581
2021-07-13 18:45	1727100	8.286	-107.172	338.379	23.152	604.027	626.131	0.307	0.407	7.869	23.152	23.943
2021-07-13 19:00	1728000	8.263	-105.87	340.916	23.247	605.97	626.958	0.308	0.408	7.799	23.247	24.295
2021-07-13 19:15	1728900	8.252	-105.283	340.358	23.328	607.969	628.027	0.308	0.408	8.047	23.328	24.588
2021-07-13 19:30	1729800	8.303	-108.275	340.768	23.419	608.243	627.187	0.308	0.408	8.273	23.419	24.036
2021-07-13 19:45	1730700	8.321	-109.382	342.52	23.486	608.348	626.464	0.307	0.407	8.279	23.486	22.567
2021-07-13 20:00	1731600	8.328	-109.751	343.176	23.43	606.898	625.656	0.307	0.407	8.715	23.43	23.969
2021-07-13 20:15	1732500	8.313	-108.879	344.959	23.423	606.562	625.401	0.307	0.407	8.437	23.423	23.422
2021-07-13 20:30	1733400	8.316	-109.043	347.654	23.435	606.732	625.427	0.307	0.407	8.218	23.435	23.264
2021-07-13 20:45	1734300	8.302	-108.292	349.449	23.57	610.319	627.462	0.308	0.408	7.805	23.57	22.608
2021-07-13 21:00	1735200	8.307	-108.638	350.012	23.778	614.867	629.557	0.309	0.409	7.993	23.778	22.969
2021-07-13 21:15	1736100	8.301	-108.397	350.879	24.019	623.169	635.067	0.312	0.413	7.626	24.019	22.077
2021-07-13 21:30	1737000	8.313	-109.189	348.657	24.195	628.56	638.372	0.313	0.415	8.056	24.195	22.063
2021-07-13 21:45	1737900	8.315	-109.291	348.593	24.259	630.635	639.682	0.314	0.416	7.778	24.259	21.68
2021-07-13 22:00	1738800	8.304	-108.693	349.122	24.273	631.448	640.343	0.314	0.416	7.375	24.273	20.949
2021-07-13 22:15	1739700	8.287	-107.646	348.967	24.217	631.55	641.141	0.315	0.417	7.230	24.217	23.096
2021-07-13 22:30	1740600	8.317	-109.427	348.769	24.175	631.377	641.482	0.315	0.417	7.019	24.175	20.957
2021-07-13 22:45	1741500	8.335	-110.431	348.047	24.156	632.274	642.632	0.316	0.418	7.144	24.156	20.633
2021-07-13 23:00	1742400	8.373	-112.691	347.48	24.083	633.374	644.67	0.317	0.419	7.755	24.083	20.543
2021-07-13 23:15	1743300	8.378	-112.953	346.876	23.99	633.553	646.012	0.317	0.420	7.762	23.99	20.22
2021-07-13 23:30	1744200	8.373	-112.603	348.414	23.893	632.307	645.96	0.317	0.420	7.764	23.893	19.402
2021-07-13 23:45	1745100	8.388	-113.451	350.467	23.812	631.746	646.408	0.318	0.420	7.697	23.812	20.511
2021-07-14 00:00	1746000	8.385	-113.244	352.37	23.721	630.944	646.746	0.318	0.420	7.756	23.721	22.19
2021-07-14 00:15	1746900	8.378	-112.803	353.438	23.599	628.794	646.084	0.317	0.420	7.674	23.599	24.316
2021-07-14 00:30	1747800	8.376	-112.612	355.183	23.516	627.225	645.518	0.317	0.420	7.842	23.516	23.905
2021-07-14 00:45	1748700	8.374	-112.457	355.66	23.424	625.935	645.359	0.317	0.419	7.881	23.424	23.236
2021-07-14 01:00	1749600	8.369	-112.135	356.868	23.335	624.745	645.27	0.317	0.419	7.456	23.335	23.333
2021-07-14 01:15	1750500	8.363	-111.761	358.063	23.247	623.456	645.054	0.317	0.419	7.302	23.247	23.919
2021-07-14 01:30	1751400	8.354	-111.179	358.695	23.158	624.894	647.682	0.318	0.421	7.544	23.158	25.093
2021-07-14 01:45	1752300	8.351	-110.977	359.66	23.088	618.569	642.014	0.315	0.417	7.171	23.088	22.779
2021-07-14 02:00	1753200	8.363	-111.651	359.763	22.98	617.094	641.858	0.315	0.417	7.071	22.98	23.495
2021-07-14 02:15	1754100	8.345	-110.586	360.235	22.903	616.904	642.643	0.316	0.418	7.173	22.903	26.736
2021-07-14 02:30	1755000	8.360	-111.406	360.869	22.83	618.605	645.355	0.317	0.419	7.315	22.83	24.967
2021-07-14 02:45	1755900	8.338	-110.095	361.999	22.745	615.237	642.933	0.316	0.418	7.199	22.745	24.955
2021-07-14 03:00	1756800	8.342	-110.314	362.44	22.674	613.933	642.48	0.316	0.418	7.349	22.674	24.686
2021-07-14 03:15	1757700	8.335	-109.863	363.413	22.603	607.289	636.43	0.313	0.414	7.309	22.603	25.504
2021-07-14 03:30	1758600	8.336	-109.894	363.83	22.532	606.423	636.428	0.313	0.414	7.146	22.532	26.409
2021-07-14 03:45	1759500	8.337	-109.928	364.689	22.467	605.396	636.175	0.312	0.414	6.966	22.467	26.581
2021-07-14 04:00	1760400	8.327	-109.344	364.71	22.394	603.569	635.18	0.312	0.413	7.140	22.394	25.978
2021-07-14 04:15	1761300	8.320	-108.926	365.54	22.345	603.2	635.426	0.312	0.413	7.190	22.345	26.313
2021-07-14 04:30	1762200	8.333	-109.611	366.71	22.27	602.6	635.746	0.312	0.413	6.939	22.27	28.233
2021-07-14 04:45	1763100	8.328	-109.296	366.751	22.187	605.565	639.945	0.314	0.416	6.920	22.187	27.993

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-14 05:00	1764000	8.322	-108.943	368.904	22.143	604.186	639.064	0.314	0.415	6.787	22.143	27.307
2021-07-14 05:15	1764900	8.317	-108.635	368.732	22.069	603.074	638.842	0.314	0.415	6.722	22.069	36.714
2021-07-14 05:30	1765800	8.325	-109.074	371.407	22.005	602.042	638.574	0.314	0.415	6.884	22.005	40.121
2021-07-14 05:45	1766700	8.309	-108.106	371.324	21.925	600.89	638.386	0.313	0.415	6.663	21.925	42.07
2021-07-14 06:00	1767600	8.307	-107.942	371.734	21.869	599.819	637.973	0.313	0.415	6.814	21.869	41.732
2021-07-14 06:15	1768500	8.313	-108.302	372.354	21.811	598.779	637.62	0.313	0.414	6.862	21.811	40.775
2021-07-14 06:30	1769400	8.311	-108.187	374.731	21.76	597.959	637.402	0.313	0.414	6.662	21.76	40.129
2021-07-14 06:45	1770300	8.294	-107.145	376.507	21.696	597.803	638.073	0.313	0.415	6.717	21.696	40.356
2021-07-14 07:00	1771200	8.292	-107.005	375.217	21.664	596.487	637.086	0.313	0.414	6.507	21.664	45.674
2021-07-14 07:15	1772100	8.302	-107.598	373.882	21.605	594.53	635.753	0.312	0.413	6.773	21.605	40.835
2021-07-14 07:30	1773000	8.294	-107.076	374.869	21.555	594.214	636.072	0.312	0.413	6.633	21.555	41.124
2021-07-14 07:45	1773900	8.293	-106.997	375.897	21.524	593.839	636.074	0.312	0.413	6.521	21.524	39.825
2021-07-14 08:00	1774800	8.288	-106.692	376.526	21.488	593.678	636.367	0.312	0.414	***6.476***	21.488	39.553
2021-07-14 08:15	1775700	8.283	-106.39	377.232	21.464	593.48	636.468	0.313	0.414	***6.452***	21.464	38.789
2021-07-14 08:30	1776600	8.250	-104.477	376.188	21.451	594.06	637.261	0.313	0.414	***6.318***	21.451	40.867
2021-07-14 08:45	1777500	8.255	-104.742	375.932	21.435	593.375	636.736	0.313	0.414	***6.379***	21.435	39.075
2021-07-14 09:00	1778400	8.259	-104.976	376.128	21.407	592.669	636.335	0.312	0.414	***6.232***	21.407	39.576
2021-07-14 09:15	1779300	8.268	-105.493	375.375	21.401	592.974	636.749	0.313	0.414	6.624	21.401	22.716
2021-07-14 09:30	1780200	8.270	-105.646	376.095	21.403	593.534	637.315	0.313	0.414	***6.428***	21.403	19.571
2021-07-14 09:45	1781100	8.264	-105.295	377.108	21.401	593.697	637.527	0.313	0.414	***6.275***	21.401	20.812
2021-07-14 10:00	1782000	8.246	-104.213	378.171	21.388	593.705	637.701	0.313	0.415	***6.193***	21.388	21.071
2021-07-14 10:15	1782900	8.264	-105.276	375.92	21.395	593.499	637.383	0.313	0.414	***6.418***	21.395	20.235
2021-07-14 10:30	1783800	8.253	-104.625	376.109	21.427	594.343	637.879	0.313	0.415	***6.342***	21.427	21.874
2021-07-14 10:45	1784700	8.277	-106.08	376.314	21.5	596.068	638.766	0.314	0.415	6.703	21.5	20.955
2021-07-14 11:00	1785600	8.311	-108.092	374.428	21.531	596.381	638.695	0.314	0.415	6.815	21.531	20.323
2021-07-14 11:15	1786500	8.326	-108.988	373.348	21.586	597.127	638.774	0.314	0.415	7.078	21.586	18.795
2021-07-14 11:30	1787400	8.315	-108.345	373.193	21.593	597.166	638.735	0.314	0.415	7.104	21.593	17.928
2021-07-14 11:45	1788300	8.336	-109.58	371.634	21.618	598.25	639.56	0.314	0.416	7.251	21.618	18.109
2021-07-14 12:00	1789200	8.335	-109.527	371.014	21.627	598.448	639.659	0.314	0.416	7.336	21.627	19.172
2021-07-14 12:15	1790100	8.336	-109.556	371.202	21.646	598.716	639.7	0.314	0.416	7.306	21.646	20.392
2021-07-14 12:30	1791000	8.335	-109.508	371.56	21.665	598.457	639.166	0.314	0.415	7.353	21.665	21.348
2021-07-14 12:45	1791900	8.337	-109.67	371.45	21.687	598.034	638.439	0.314	0.415	7.426	21.687	18.582
2021-07-14 13:00	1792800	8.335	-109.534	369.593	21.727	601.164	641.247	0.315	0.417	7.466	21.727	19.693
2021-07-14 13:15	1793700	8.339	-109.768	368.253	21.75	600.677	640.425	0.315	0.416	7.523	21.75	20.171
2021-07-14 13:30	1794600	8.326	-109.017	368.985	21.733	598.838	638.697	0.314	0.415	7.373	21.733	20.777
2021-07-14 13:45	1795500	8.335	-109.582	367.755	21.758	598.971	638.514	0.314	0.415	7.407	21.758	20.298
2021-07-14 14:00	1796400	8.332	-109.41	366.57	21.804	598.788	637.721	0.313	0.415	7.554	21.804	20.886
2021-07-14 14:15	1797300	8.334	-109.527	365.249	21.847	599.794	638.233	0.313	0.415	7.563	21.847	21.546
2021-07-14 14:30	1798200	8.332	-109.413	363.392	21.874	599.29	637.345	0.313	0.414	7.594	21.874	20.554
2021-07-14 14:45	1799100	8.311	-108.218	361.537	21.884	598.19	636.05	0.312	0.413	7.459	21.884	22.463
2021-07-14 15:00	1800000	8.335	-109.606	357.288	21.925	598.025	635.335	0.312	0.413	7.717	21.925	21.297
2021-07-14 15:15	1800900	8.325	-109.055	355.698	22.033	598.908	634.891	0.312	0.413	7.683	22.033	19.836
2021-07-14 15:30	1801800	8.332	-109.51	353.676	22.114	601.252	636.327	0.312	0.414	7.723	22.114	21.682
2021-07-14 15:45	1802700	8.333	-109.601	350.102	22.204	602.69	636.686	0.313	0.414	7.876	22.204	23.801
2021-07-14 16:00	1803600	8.319	-108.821	345.224	22.274	603.71	636.865	0.313	0.414	7.733	22.274	21.413
2021-07-14 16:15	1804500	8.333	-109.653	339.04	22.359	608.226	640.534	0.315	0.416	7.982	22.359	23.186
2021-07-14 16:30	1805400	8.317	-108.726	332.45	22.302	606.654	639.618	0.314	0.416	7.924	22.302	23.798
2021-07-14 16:45	1806300	8.325	-109.234	327.991	22.412	609.365	641.05	0.315	0.417	7.969	22.412	22.004
2021-07-14 17:00	1807200	8.332	-109.615	324.153	22.361	606.136	638.311	0.313	0.415	8.051	22.361	23.776
2021-07-14 17:15	1808100	8.331	-109.565	317.894	22.338	606.618	639.11	0.314	0.415	8.141	22.338	24.326
2021-07-14 17:30	1809000	8.327	-109.305	310.892	22.313	609.426	642.388	0.316	0.418	8.053	22.313	24.348
2021-07-14 17:45	1809900	8.330	-109.456	303.649	22.324	609.55	642.385	0.316	0.418	8.104	22.324	23.535
2021-07-14 18:00	1810800	8.327	-109.289	297.846	22.337	612.546	645.373	0.317	0.419	8.041	22.337	23.616
2021-07-14 18:15	1811700	8.330	-109.52	288.931	22.456	612.524	643.801	0.316	0.418	8.312	22.456	23.051
2021-07-14 18:30	1812600	8.333	-109.751	284.852	22.606	618.163	647.782	0.318	0.421	8.177	22.606	22.59
2021-07-14 18:45	1813500	8.338	-110.145	283.908	22.806	622.781	650.018	0.319	0.423	8.117	22.806	22.992

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-14 19:00	1814400	8.355	-111.129	283.192	22.81	622.276	649.435	0.319	0.422	8.144	22.81	24.919
2021-07-14 19:15	1815300	8.358	-111.327	285.636	22.869	622.312	648.713	0.319	0.422	8.291	22.869	24.322
2021-07-14 19:30	1816200	8.367	-111.845	287.82	22.878	622.958	649.276	0.319	0.422	8.145	22.878	23.965
2021-07-14 19:45	1817100	8.365	-111.73	291.024	22.864	623.326	649.836	0.319	0.422	8.171	22.864	24.771
2021-07-14 20:00	1818000	8.373	-112.188	292.813	22.852	623.716	650.399	0.320	0.423	8.108	22.852	25.234
2021-07-14 20:15	1818900	8.369	-111.966	294.489	22.831	624.212	651.185	0.320	0.423	8.140	22.831	23.803
2021-07-14 20:30	1819800	8.372	-112.102	295.469	22.766	622.405	650.145	0.319	0.423	7.999	22.766	25.227
2021-07-14 20:45	1820700	8.364	-111.62	297.176	22.731	623.229	651.461	0.320	0.423	7.893	22.731	24.58
2021-07-14 21:00	1821600	8.362	-111.525	298.153	22.749	622.287	650.243	0.320	0.423	7.752	22.749	24.573
2021-07-14 21:15	1822500	8.350	-110.774	299.782	22.719	622.293	650.643	0.320	0.423	7.540	22.719	25.244
2021-07-14 21:30	1823400	8.353	-110.979	301.346	22.695	622.139	650.793	0.320	0.423	7.471	22.695	24.494
2021-07-14 21:45	1824300	8.351	-110.848	305.172	22.75	622.071	650.007	0.319	0.423	7.610	22.75	23.577
2021-07-14 22:00	1825200	8.371	-112.05	308.31	22.793	621.841	649.202	0.319	0.422	7.397	22.793	22.887
2021-07-14 22:15	1826100	8.379	-112.529	311.867	22.722	621.059	649.304	0.319	0.422	7.428	22.722	23.886
2021-07-14 22:30	1827000	8.390	-113.187	315.674	22.742	620.518	648.491	0.319	0.422	7.505	22.742	23.794
2021-07-14 22:45	1827900	8.385	-112.877	320.123	22.741	620.659	648.648	0.319	0.422	7.404	22.741	22.321
2021-07-14 23:00	1828800	8.372	-112.112	324.455	22.732	621.264	649.392	0.319	0.422	7.369	22.732	22.397
2021-07-14 23:15	1829700	8.337	-110.018	332.977	22.682	621.317	650.096	0.319	0.423	7.144	22.682	28.062
2021-07-14 23:30	1830600	8.398	-113.649	329.717	22.766	626.491	654.408	0.322	0.425	7.729	22.766	23.607
2021-07-14 23:45	1831500	8.405	-114.083	332.09	22.793	630.064	657.791	0.323	0.428	7.627	22.793	22.816
2021-07-15 00:00	1832400	8.411	-114.453	334.669	22.838	632.913	660.172	0.325	0.429	7.851	22.838	21.795
2021-07-15 00:15	1833300	8.409	-114.317	337.263	22.884	635.568	662.332	0.326	0.431	7.550	22.884	21.799
2021-07-15 00:30	1834200	8.423	-115.137	339.528	22.88	636.314	663.17	0.326	0.431	7.651	22.88	21.644
2021-07-15 00:45	1835100	8.423	-115.159	341.75	22.833	637.199	664.707	0.327	0.432	7.755	22.833	23.814
2021-07-15 01:00	1836000	8.436	-115.886	344.02	22.778	636.388	664.594	0.327	0.432	7.475	22.778	22.371
2021-07-15 01:15	1836900	8.429	-115.464	345.746	22.729	636.255	665.109	0.327	0.432	7.679	22.729	22.554
2021-07-15 01:30	1837800	8.391	-113.17	348.235	22.669	635.89	665.519	0.327	0.433	7.376	22.669	22.111
2021-07-15 01:45	1838700	8.408	-114.148	348.04	22.633	635.409	665.492	0.327	0.433	7.506	22.633	21.472
2021-07-15 02:00	1839600	8.403	-113.852	350.126	22.56	634.627	665.649	0.327	0.433	7.317	22.56	21.454
2021-07-15 02:15	1840500	8.402	-113.785	350.562	22.526	634.476	665.939	0.328	0.433	7.130	22.526	21.618
2021-07-15 02:30	1841400	8.402	-113.769	351.385	22.461	633.554	665.848	0.327	0.433	7.377	22.461	21.475
2021-07-15 02:45	1842300	8.387	-112.865	352.46	22.423	633.303	666.09	0.328	0.433	6.992	22.423	20.765
2021-07-15 03:00	1843200	8.410	-114.181	351.85	22.348	632.232	665.969	0.328	0.433	7.256	22.348	21.949
2021-07-15 03:15	1844100	8.407	-114.005	353.459	22.291	631.984	666.473	0.328	0.433	7.049	22.291	21.289
2021-07-15 03:30	1845000	8.392	-113.087	353.731	22.251	630.894	665.851	0.327	0.433	7.218	22.251	21.628
2021-07-15 03:45	1845900	8.395	-113.227	354.422	22.185	629.654	665.427	0.327	0.433	7.169	22.185	21.739
2021-07-15 04:00	1846800	8.399	-113.432	354.1	22.128	628.661	665.154	0.327	0.432	7.005	22.128	25.316
2021-07-15 04:15	1847700	8.402	-113.604	355.388	22.078	627.87	664.986	0.327	0.432	6.828	22.078	21.829
2021-07-15 04:30	1848600	8.403	-113.637	356.38	22.036	627.578	665.234	0.327	0.432	6.737	22.036	21.773
2021-07-15 04:45	1849500	8.388	-112.729	357.09	21.989	627.107	665.373	0.327	0.432	6.859	21.989	20.931
2021-07-15 05:00	1850400	8.378	-112.128	357.181	21.961	626.728	665.347	0.327	0.432	6.796	21.961	25.183
2021-07-15 05:15	1851300	8.383	-112.391	356.806	21.883	625.108	664.675	0.327	0.432	6.869	21.883	21.341
2021-07-15 05:30	1852200	8.366	-111.401	358.566	21.819	624.365	664.756	0.327	0.432	6.701	21.819	19.369
2021-07-15 05:45	1853100	8.365	-111.31	357.918	21.774	623.486	664.42	0.327	0.432	6.791	21.774	21.051
2021-07-15 06:00	1854000	8.357	-110.815	358.614	21.739	623.129	664.517	0.327	0.432	***6.482***	21.739	20.953
2021-07-15 06:15	1854900	8.364	-111.256	359.346	21.679	621.657	663.764	0.326	0.431	***6.417***	21.679	21.196
2021-07-15 06:30	1855800	8.357	-110.838	358.051	21.655	621.108	663.496	0.326	0.431	***6.401***	21.655	20.773
2021-07-15 06:45	1856700	8.344	-110.013	357.829	21.623	620.68	663.473	0.326	0.431	***6.177***	21.623	20.513
2021-07-15 07:00	1857600	8.348	-110.235	355.154	21.59	619.036	662.157	0.326	0.430	6.615	21.59	21.633
2021-07-15 07:15	1858500	8.380	-112.119	352.62	21.569	617.993	661.327	0.325	0.430	6.715	21.569	20.973
2021-07-15 07:30	1859400	8.369	-111.461	350.348	21.537	617.308	661.035	0.325	0.430	6.693	21.537	20.687
2021-07-15 07:45	1860300	8.370	-111.535	348.042	21.511	616.271	660.271	0.325	0.429	6.683	21.511	20.471
2021-07-15 08:00	1861200	8.363	-111.082	345.67	21.494	616.213	660.442	0.325	0.429	6.595	21.494	22.27
2021-07-15 08:15	1862100	8.351	-110.39	343.758	21.48	615.897	660.296	0.325	0.429	6.540	21.48	21.055
2021-07-15 08:30	1863000	8.350	-110.312	339.81	21.474	615.663	660.125	0.325	0.429	***6.497***	21.474	20.062
2021-07-15 08:45	1863900	8.331	-109.236	335.225	21.478	614.119	658.414	0.324	0.428	***6.466***	21.478	20.357

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-15 09:00	1864800	8.202	-101.664	325.886	21.441	608.169	652.527	0.321	0.424	***5.365***	21.441	20.491
2021-07-15 09:15	1865700	8.205	-101.857	303.107	21.444	608.677	653.035	0.321	0.424	***5.544***	21.444	18.233
2021-07-15 09:30	1866600	8.139	-97.98	289.1	21.42	607.349	651.92	0.320	0.424	***5.059***	21.42	18.179
2021-07-15 09:45	1867500	8.087	-94.922	280.341	21.396	606.108	650.921	0.320	0.423	***4.636***	21.396	21.059
2021-07-15 10:00	1868400	8.037	-92.025	276.996	21.37	605.083	650.162	0.319	0.423	***4.331***	21.37	20.276
2021-07-15 10:15	1869300	8.058	-93.219	274.783	21.372	605.684	650.776	0.320	0.423	***4.281***	21.372	22.526
2021-07-15 10:30	1870200	8.123	-97.022	267.194	21.384	607.919	653.024	0.321	0.424	***4.970***	21.384	20.41
2021-07-15 10:45	1871100	8.132	-97.58	265.022	21.382	608.102	653.238	0.321	0.425	***5.061***	21.382	21.241
2021-07-15 11:00	1872000	8.120	-96.834	264.023	21.371	607.706	652.961	0.321	0.424	***4.978***	21.371	20.904
2021-07-15 11:15	1872900	8.120	-96.848	263.296	21.371	608.648	653.977	0.321	0.425	***4.997***	21.371	21.965
2021-07-15 11:30	1873800	8.127	-97.26	263.339	21.394	609.672	654.766	0.322	0.426	***5.059***	21.394	21.022
2021-07-15 11:45	1874700	8.128	-97.327	264.062	21.417	609.837	654.638	0.322	0.426	***5.079***	21.417	21.807
2021-07-15 12:00	1875600	8.205	-101.829	259.017	21.443	611.076	655.619	0.322	0.426	***5.773***	21.443	21.324
2021-07-15 12:15	1876500	8.189	-100.942	262.08	21.445	610.771	655.259	0.322	0.426	***5.455***	21.445	23.31
2021-07-15 12:30	1877400	8.211	-102.208	260.192	21.485	611.473	655.473	0.322	0.426	***5.749***	21.485	22.731
2021-07-15 12:45	1878300	8.239	-103.848	258.511	21.523	611.674	655.185	0.322	0.426	***6.076***	21.523	22.299
2021-07-15 13:00	1879200	8.246	-104.322	258.685	21.623	613.49	655.785	0.322	0.426	***6.086***	21.623	22.844
2021-07-15 13:15	1880100	8.256	-104.949	260.23	21.75	614.906	655.605	0.322	0.426	***6.185***	21.75	22.622
2021-07-15 13:30	1881000	8.256	-104.988	260.225	21.885	616.594	655.594	0.322	0.426	***6.190***	21.885	21.878
2021-07-15 13:45	1881900	8.264	-105.457	261.129	21.881	616.238	655.274	0.322	0.426	***6.288***	21.881	20.874
2021-07-15 14:00	1882800	8.272	-106.013	259.541	22.087	619.142	655.619	0.322	0.426	***6.428***	22.087	21.617
2021-07-15 14:15	1883700	8.294	-107.331	257.717	22.252	621.055	655.456	0.322	0.426	6.610	22.252	22.855
2021-07-15 14:30	1884600	8.301	-107.899	257.305	22.611	627.15	657.132	0.323	0.427	6.661	22.611	20.852
2021-07-15 14:45	1885500	8.321	-109.079	257.338	22.732	628.362	656.816	0.323	0.427	6.928	22.732	21.666
2021-07-15 15:00	1886400	8.342	-110.414	255.19	22.892	632.508	659.043	0.324	0.428	7.205	22.892	21.296
2021-07-15 15:15	1887300	8.341	-110.357	257.188	22.949	631.97	657.739	0.323	0.428	7.320	22.949	22.07
2021-07-15 15:30	1888200	8.339	-110.285	256.878	23.131	635.336	658.856	0.324	0.428	7.418	23.131	20.731
2021-07-15 15:45	1889100	8.371	-112.281	258.468	23.418	643.447	663.495	0.326	0.431	7.520	23.418	19.857
2021-07-15 16:00	1890000	8.375	-112.686	262.173	23.829	649.121	663.968	0.327	0.432	7.402	23.829	20.195
2021-07-15 16:15	1890900	8.378	-112.936	263.351	23.996	651.125	663.858	0.326	0.432	7.406	23.996	20.007
2021-07-15 16:30	1891800	8.374	-112.736	264.36	24.039	651.484	663.666	0.326	0.431	7.390	24.039	20.568
2021-07-15 16:45	1892700	8.384	-113.306	265.473	24.111	655.144	666.463	0.328	0.433	7.313	24.111	21.383
2021-07-15 17:00	1893600	8.398	-114.167	267.819	24.179	657.949	668.426	0.329	0.434	7.593	24.179	19.993
2021-07-15 17:15	1894500	8.405	-114.601	269.431	24.245	658.64	668.282	0.329	0.434	7.530	24.245	22.051
2021-07-15 17:30	1895400	8.406	-114.722	271.972	24.371	660.657	668.686	0.329	0.435	7.745	24.371	21.924
2021-07-15 17:45	1896300	8.409	-114.925	274.121	24.42	662.293	669.711	0.329	0.435	7.556	24.42	20.788
2021-07-15 18:00	1897200	8.420	-115.573	276.982	24.419	662.396	669.828	0.329	0.435	7.647	24.419	22.517
2021-07-15 18:15	1898100	8.414	-115.225	278.979	24.442	663.239	670.383	0.330	0.436	7.592	24.442	22.412
2021-07-15 18:30	1899000	8.416	-115.311	282.556	24.425	663.51	670.872	0.330	0.436	7.500	24.425	22.67
2021-07-15 18:45	1899900	8.413	-115.182	284.373	24.409	663.378	670.957	0.330	0.436	7.470	24.409	22.358
2021-07-15 19:00	1900800	8.425	-115.871	283.841	24.376	662.771	670.767	0.330	0.436	7.428	24.376	22.653
2021-07-15 19:15	1901700	8.420	-115.514	287.744	24.326	662.481	671.122	0.330	0.436	7.238	24.326	23.236
2021-07-15 19:30	1902600	8.430	-116.076	287.293	24.27	661.294	670.641	0.330	0.436	7.560	24.27	23.028
2021-07-15 19:45	1903500	8.432	-116.2	289.618	24.197	659.935	670.215	0.330	0.436	7.582	24.197	23.713
2021-07-15 20:00	1904400	8.433	-116.22	292.071	24.145	659.552	670.501	0.330	0.436	7.788	24.145	22.825
2021-07-15 20:15	1905300	8.438	-116.487	293.552	24.111	659.21	670.6	0.330	0.436	7.849	24.111	21.615
2021-07-15 20:30	1906200	8.438	-116.506	296.048	24.063	658.587	670.587	0.330	0.436	7.780	24.063	21.822
2021-07-15 20:45	1907100	8.430	-115.976	298.578	24.015	658.17	670.795	0.330	0.436	7.924	24.015	21.908
2021-07-15 21:00	1908000	8.435	-116.265	301.338	23.97	657.454	670.645	0.330	0.436	7.620	23.97	22.637
2021-07-15 21:15	1908900	8.428	-115.843	303.279	23.923	657.533	671.343	0.330	0.436	7.470	23.923	22.728
2021-07-15 21:30	1909800	8.425	-115.678	305.959	23.875	656.351	670.764	0.330	0.436	7.499	23.875	23.027
2021-07-15 21:45	1910700	8.427	-115.757	307.995	23.81	655.229	670.473	0.330	0.436	7.346	23.81	23.78
2021-07-15 22:00	1911600	8.421	-115.383	309.139	23.754	654.524	670.481	0.330	0.436	7.290	23.754	22.955
2021-07-15 22:15	1912500	8.414	-114.906	311.307	23.686	653.599	670.431	0.330	0.436	7.296	23.686	24.053
2021-07-15 22:30	1913400	8.412	-114.763	312.201	23.598	652.521	670.475	0.330	0.436	7.153	23.598	24.089
2021-07-15 22:45	1914300	8.407	-114.443	314.056	23.526	651.718	670.592	0.330	0.436	7.168	23.526	25.217

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-15 23:00	1915200	8.383	-112.996	315.45	23.42	651.133	671.396	0.330	0.436	6.709	23.42	25.081
2021-07-15 23:15	1916100	8.363	-111.818	317.255	23.33	649.406	670.798	0.330	0.436	***6.460***	23.33	24.64
2021-07-15 23:30	1917000	8.364	-111.828	316.309	23.24	648.368	670.923	0.330	0.436	***6.275***	23.24	24.463
2021-07-15 23:45	1917900	8.376	-112.503	315.477	23.15	646.275	669.951	0.330	0.435	6.535	23.15	25.829
2021-07-16 00:00	1918800	8.390	-113.28	315.908	23.081	644.496	669.013	0.329	0.435	6.847	23.081	26.179
2021-07-16 00:15	1919700	8.386	-113.032	316.275	23.009	643.164	668.586	0.329	0.435	6.678	23.009	26.002
2021-07-16 00:30	1920600	8.388	-113.122	315.615	22.925	640.888	667.336	0.328	0.434	6.958	22.925	26.642
2021-07-16 00:45	1921500	8.386	-112.984	315.815	22.834	636.962	664.452	0.327	0.432	6.750	22.834	28.919
2021-07-16 01:00	1922400	8.383	-112.755	316.776	22.751	635.717	664.246	0.327	0.432	6.744	22.751	26.225
2021-07-16 01:15	1923300	8.379	-112.45	317.553	22.643	634.666	664.591	0.327	0.432	6.726	22.643	26.309
2021-07-16 01:30	1924200	8.369	-111.88	318.617	22.565	633.048	663.931	0.326	0.432	6.603	22.565	26.418
2021-07-16 01:45	1925100	8.351	-110.779	320.107	22.481	631.271	663.179	0.326	0.431	***6.378***	22.481	26.549
2021-07-16 02:00	1926000	8.347	-110.526	320.271	22.404	629.789	662.652	0.326	0.431	***6.433***	22.404	27.731
2021-07-16 02:15	1926900	8.326	-109.234	320.388	22.323	628.259	662.115	0.326	0.430	***6.423***	22.323	27.341
2021-07-16 02:30	1927800	8.329	-109.372	319.16	22.252	626.345	661.047	0.325	0.430	***6.387***	22.252	27.601
2021-07-16 02:45	1928700	8.315	-108.538	317.289	22.194	625.065	660.464	0.325	0.429	***6.347***	22.194	27.978
2021-07-16 03:00	1929600	8.317	-108.616	315.801	22.117	623.514	659.846	0.324	0.429	***6.221***	22.117	27.254
2021-07-16 03:15	1930500	8.314	-108.411	314.239	22.041	621.617	658.849	0.324	0.428	***6.209***	22.041	28.155
2021-07-16 03:30	1931400	8.307	-108.018	312.244	21.962	619.997	658.191	0.324	0.428	***6.147***	21.962	29.469
2021-07-16 03:45	1932300	8.286	-106.764	309.29	21.91	618.824	657.641	0.323	0.427	***6.026***	21.91	30.019
2021-07-16 04:00	1933200	8.283	-106.564	303.732	21.828	617.323	657.135	0.323	0.427	***6.002***	21.828	29.713
2021-07-16 04:15	1934100	8.286	-106.673	300.118	21.747	616.044	656.858	0.323	0.427	***5.996***	21.747	29.634
2021-07-16 04:30	1935000	8.282	-106.416	297.776	21.708	615.118	656.385	0.323	0.427	***6.022***	21.708	29.792
2021-07-16 04:45	1935900	8.277	-106.12	295.805	21.658	614.067	655.933	0.322	0.426	***6.053***	21.658	31.959
2021-07-16 05:00	1936800	8.272	-105.846	292.867	21.602	613.08	655.636	0.322	0.426	***6.022***	21.602	29.53
2021-07-16 05:15	1937700	8.271	-105.715	289.711	21.529	612.791	656.303	0.323	0.427	***5.933***	21.529	30.974
2021-07-16 05:30	1938600	8.256	-104.818	287.732	21.492	612.041	655.994	0.322	0.426	***5.869***	21.492	31.343
2021-07-16 05:45	1939500	8.253	-104.68	284.84	21.467	611.628	655.891	0.322	0.426	***5.723***	21.467	32.475
2021-07-16 06:00	1940400	8.243	-104.058	283.149	21.427	611.126	655.884	0.322	0.426	***5.506***	21.427	31.242
2021-07-16 06:15	1941300	8.239	-103.838	282.408	21.377	610.663	656.056	0.322	0.426	***5.501***	21.377	31.761
2021-07-16 06:30	1942200	8.236	-103.617	281.013	21.352	610.552	656.276	0.323	0.427	***5.461***	21.352	30.429
2021-07-16 06:45	1943100	8.237	-103.688	281.03	21.309	609.736	655.986	0.322	0.426	***5.494***	21.309	32.463
2021-07-16 07:00	1944000	8.235	-103.567	279.852	21.268	609.479	656.262	0.323	0.427	***5.624***	21.268	31.187
2021-07-16 07:15	1944900	8.239	-103.734	278.25	21.205	608.47	656.021	0.322	0.426	***5.561***	21.205	31.389
2021-07-16 07:30	1945800	8.235	-103.474	277.761	21.158	607.763	655.892	0.322	0.426	***5.536***	21.158	31.994
2021-07-16 07:45	1946700	8.248	-104.246	276.116	21.088	606.928	655.936	0.322	0.426	***5.695***	21.088	33.77
2021-07-16 08:00	1947600	8.249	-104.282	275.766	21.077	606.38	655.49	0.322	0.426	***5.688***	21.077	33.977
2021-07-16 08:15	1948500	8.252	-104.468	274.962	21.057	605.597	654.925	0.322	0.426	***5.751***	21.057	33.714
2021-07-16 08:30	1949400	8.259	-104.837	274.597	21.02	604.44	654.165	0.321	0.425	***5.757***	21.02	32.413
2021-07-16 08:45	1950300	8.254	-104.57	274.879	20.988	604.18	654.32	0.322	0.425	***5.644***	20.988	33.044
2021-07-16 09:00	1951200	8.250	-104.287	274.695	20.941	603.763	654.498	0.322	0.425	***5.721***	20.941	33.716
2021-07-16 09:15	1952100	8.230	-103.13	277.015	20.922	604.676	655.757	0.322	0.426	***5.416***	20.922	34.285
2021-07-16 09:30	1953000	8.219	-102.451	278.157	20.905	603.609	654.821	0.322	0.426	***5.181***	20.905	33.946
2021-07-16 09:45	1953900	8.213	-102.131	278.987	20.908	603.078	654.203	0.321	0.425	***5.305***	20.908	56.885
2021-07-16 10:00	1954800	8.211	-101.976	280.946	20.876	603.078	654.641	0.322	0.426	***4.979***	20.876	59.918
2021-07-16 10:15	1955700	8.203	-101.528	282.46	20.851	603.012	654.906	0.322	0.426	***5.020***	20.851	32.088
2021-07-16 10:30	1956600	8.210	-101.922	282.155	20.817	601.962	654.231	0.321	0.425	***4.994***	20.817	31.573
2021-07-16 10:45	1957500	8.210	-101.936	281.49	20.797	601.268	653.756	0.321	0.425	***5.139***	20.797	31.505
2021-07-16 11:00	1958400	8.206	-101.652	280.622	20.782	600.782	653.419	0.321	0.425	***5.177***	20.782	32.086
2021-07-16 11:15	1959300	8.212	-101.991	279.726	20.755	599.371	652.262	0.320	0.424	***5.120***	20.755	31.535
2021-07-16 11:30	1960200	8.200	-101.287	280.97	20.724	598.651	651.889	0.320	0.424	***5.238***	20.724	32.674
2021-07-16 11:45	1961100	8.192	-100.834	281.783	20.701	597.871	651.355	0.320	0.423	***4.944***	20.701	32.65
2021-07-16 12:00	1962000	8.184	-100.36	281.922	20.672	597.329	651.157	0.320	0.423	***4.912***	20.672	32.914
2021-07-16 12:15	1962900	8.185	-100.429	280.861	20.651	596.957	651.035	0.320	0.423	***4.673***	20.651	30.904
2021-07-16 12:30	1963800	8.186	-100.422	280.741	20.599	595.124	649.738	0.319	0.422	***4.849***	20.599	33.37
2021-07-16 12:45	1964700	8.197	-101.058	275.196	20.553	593.466	648.554	0.319	0.422	***5.097***	20.553	31.616

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-16 13:00	1965600	8.188	-100.51	273.546	20.502	593.708	649.503	0.319	0.422	***5.160***	20.502	32.091
2021-07-16 13:15	1966500	8.176	-99.838	272.151	20.495	592.508	648.286	0.318	0.421	***5.201***	20.495	33.541
2021-07-16 13:30	1967400	8.172	-99.571	273.906	20.471	592.859	649.002	0.319	0.422	***5.025***	20.471	33.668
2021-07-16 13:45	1968300	8.160	-98.886	275.024	20.469	593.066	649.252	0.319	0.422	***4.854***	20.469	33.87
2021-07-16 14:00	1969200	8.167	-99.287	275.236	20.422	591.979	648.698	0.319	0.422	***4.794***	20.422	34.02
2021-07-16 14:15	1970100	8.168	-99.32	272.07	20.407	591.24	648.091	0.318	0.421	***5.032***	20.407	33.903
2021-07-16 14:30	1971000	8.164	-99.065	271.474	20.384	591.532	648.734	0.319	0.422	***4.801***	20.384	35.175
2021-07-16 14:45	1971900	8.162	-98.987	270.38	20.376	593.359	650.843	0.320	0.423	***4.988***	20.376	34.534
2021-07-16 15:00	1972800	8.159	-98.774	270.013	20.38	593.593	651.044	0.320	0.423	***4.958***	20.38	34.798
2021-07-16 15:15	1973700	8.155	-98.574	271.2	20.357	593.66	651.425	0.320	0.423	***4.738***	20.357	35.703
2021-07-16 15:30	1974600	8.156	-98.584	272.444	20.332	593.741	651.856	0.320	0.424	***4.747***	20.332	35.739
2021-07-16 15:45	1975500	8.141	-97.742	271.093	20.304	593.345	651.807	0.320	0.424	***4.757***	20.304	36.646
2021-07-16 16:00	1976400	8.137	-97.518	269.865	20.299	593.603	652.167	0.320	0.424	***4.671***	20.299	34.87
2021-07-16 16:15	1977300	8.137	-97.475	268.606	20.274	593.613	652.518	0.321	0.424	***4.623***	20.274	36.565
2021-07-16 16:30	1978200	8.133	-97.232	267.914	20.244	593.395	652.679	0.321	0.424	***4.660***	20.244	36.164
2021-07-16 16:45	1979100	8.133	-97.258	267.929	20.236	592.839	652.185	0.320	0.424	***4.747***	20.236	38.205
2021-07-16 17:00	1980000	8.132	-97.17	269.729	20.23	591.114	650.371	0.319	0.423	***4.588***	20.23	37.57
2021-07-16 17:15	1980900	8.130	-97.039	269.2	20.227	590.784	650.041	0.319	0.423	***4.697***	20.227	37.266
2021-07-16 17:30	1981800	8.131	-97.141	269.154	20.21	589.368	648.722	0.319	0.422	***4.690***	20.21	46.144
2021-07-16 17:45	1982700	8.126	-96.827	269.126	20.188	589.131	648.753	0.319	0.422	***4.599***	20.188	39.504
2021-07-16 18:00	1983600	8.123	-96.638	269.111	20.174	588.068	647.773	0.318	0.421	***4.605***	20.174	38.975
2021-07-16 18:15	1984500	8.123	-96.638	268.012	20.151	589.839	650.04	0.319	0.423	***4.674***	20.151	38.211
2021-07-16 18:30	1985400	8.123	-96.617	268.048	20.135	588.044	648.281	0.318	0.421	***4.654***	20.135	38.812
2021-07-16 18:45	1986300	8.125	-96.712	267.643	20.122	587.721	648.106	0.318	0.421	***4.572***	20.122	39.972
2021-07-16 19:00	1987200	8.120	-96.438	269.226	20.072	586.828	647.805	0.318	0.421	***4.517***	20.072	39.1
2021-07-16 19:15	1988100	8.111	-95.89	268.906	20.069	587.229	648.28	0.318	0.421	***4.451***	20.069	38.401
2021-07-16 19:30	1989000	8.108	-95.706	269.576	20.052	586.443	647.651	0.318	0.421	***4.451***	20.052	38.374
2021-07-16 19:45	1989900	8.105	-95.57	269.443	20.036	586.169	647.571	0.318	0.421	***4.422***	20.036	38.126
2021-07-16 20:00	1990800	8.097	-95.098	269.839	20.022	586.584	648.22	0.318	0.421	***4.315***	20.022	37.846
2021-07-16 20:15	1991700	8.097	-95.098	269.073	20.018	586.121	647.764	0.318	0.421	***4.332***	20.018	37.876
2021-07-16 20:30	1992600	8.093	-94.852	270.892	19.98	586.306	648.484	0.318	0.422	***4.320***	19.98	38.961
2021-07-16 20:45	1993500	8.083	-94.216	270.83	19.956	585.614	648.05	0.318	0.421	***4.207***	19.956	38.078
2021-07-16 21:00	1994400	8.071	-93.517	271.46	19.928	585.101	647.868	0.318	0.421	***4.082***	19.928	36.914
2021-07-16 21:15	1995300	8.052	-92.418	272.69	19.91	584.292	647.209	0.318	0.421	***3.896***	19.91	37.114
2021-07-16 21:30	1996200	8.037	-91.517	273.632	19.888	583.775	646.941	0.318	0.421	***3.778***	19.888	38.123
2021-07-16 21:45	1997100	8.019	-90.475	273.143	19.872	583.45	646.795	0.318	0.420	***3.694***	19.872	39.661
2021-07-16 22:00	1998000	8.011	-90.008	274.287	19.837	582.719	646.466	0.317	0.420	***3.591***	19.837	41.6
2021-07-16 22:15	1998900	8.004	-89.605	274.297	19.795	582.144	646.401	0.317	0.420	***3.518***	19.795	43.218
2021-07-16 22:30	1999800	7.991	-88.809	275.489	19.788	580.866	645.087	0.317	0.419	***3.393***	19.788	43.437
2021-07-16 22:45	2000700	7.985	-88.456	276.378	19.757	581.111	645.774	0.317	0.420	***3.387***	19.757	43.42
2021-07-16 23:00	2001600	7.985	-88.46	276.653	19.723	580.298	645.342	0.317	0.419	***3.223***	19.723	42.741
2021-07-16 23:15	2002500	7.960	-86.98	278.648	19.692	578.685	643.975	0.316	0.419	***2.963***	19.692	43.366
2021-07-16 23:30	2003400	7.973	-87.733	285.956	19.625	576.93	642.94	0.316	0.418	***3.043***	19.625	44.043
2021-07-16 23:45	2004300	7.967	-87.357	281.18	19.584	574.8	641.125	0.315	0.417	***3.185***	19.584	43.109
2021-07-17 00:00	2005200	7.941	-85.843	283.495	19.586	574.614	640.887	0.315	0.417	***2.854***	19.586	42.415
2021-07-17 00:15	2006100	7.949	-86.298	283.803	19.506	572.082	639.153	0.314	0.415	***3.073***	19.506	41.65
2021-07-17 00:30	2007000	7.928	-85.073	285.45	19.505	571.73	638.765	0.314	0.415	***2.852***	19.505	39.312
2021-07-17 00:45	2007900	7.915	-84.341	290.807	19.472	570.699	638.071	0.313	0.415	***2.636***	19.472	42.171
2021-07-17 01:00	2008800	7.923	-84.803	290.221	19.446	567.953	635.349	0.312	0.413	***2.762***	19.446	57.441
2021-07-17 01:15	2009700	7.918	-84.469	294.257	19.427	568.971	636.751	0.312	0.414	***2.739***	19.427	12.917
2021-07-17 01:30	2010600	7.943	-85.914	289.11	19.338	568.106	636.987	0.313	0.414	***3.242***	19.338	15.831
2021-07-17 01:45	2011500	7.956	-86.679	287.164	19.322	565.045	633.781	0.311	0.412	***3.042***	19.322	16.812
2021-07-17 02:00	2012400	7.938	-85.604	289.248	19.31	565.078	633.984	0.311	0.412	***2.989***	19.31	32.852
2021-07-17 02:15	2013300	7.937	-85.54	289.024	19.29	562.62	631.494	0.310	0.410	***3.128***	19.29	18.479
2021-07-17 02:30	2014200	7.933	-85.318	288.688	19.257	563.316	632.722	0.310	0.411	***3.073***	19.257	19.152
2021-07-17 02:45	2015100	7.931	-85.17	289.549	19.231	565.416	635.439	0.312	0.413	***2.747***	19.231	23.38

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-17 03:00	2016000	7.897	-83.237	290.493	19.218	565.321	635.498	0.312	0.413	***2.771***	19.218	26.189
2021-07-17 03:15	2016900	7.892	-82.934	291.618	19.212	565.734	636.05	0.312	0.413	***2.285***	19.212	19.156
2021-07-17 03:30	2017800	7.869	-81.587	294.622	19.205	565.83	636.247	0.312	0.414	***2.130***	19.205	18.98
2021-07-17 03:45	2018700	7.871	-81.711	294.214	19.176	565.436	636.205	0.312	0.414	***2.060***	19.176	20.133
2021-07-17 04:00	2019600	7.847	-80.273	294.861	19.161	565.042	635.966	0.312	0.413	***2.027***	19.161	19.5
2021-07-17 04:15	2020500	7.825	-78.986	297.047	19.139	564.038	635.137	0.312	0.413	***2.059***	19.139	19.241
2021-07-17 04:30	2021400	7.823	-78.886	294.977	19.121	563.926	635.255	0.312	0.413	***1.899***	19.121	21.059
2021-07-17 04:45	2022300	7.825	-78.974	293.187	19.103	563.203	634.693	0.311	0.413	***2.040***	19.103	19.441
2021-07-17 05:00	2023200	7.820	-78.714	295.683	19.084	562.828	634.523	0.311	0.412	***1.943***	19.084	20.521
2021-07-17 05:15	2024100	7.794	-77.207	298.907	19.078	562.993	634.798	0.311	0.413	***1.580***	19.078	11.667
2021-07-17 05:30	2025000	7.793	-77.109	298.916	19.059	562.498	634.498	0.311	0.412	***1.424***	19.059	12.869
2021-07-17 05:45	2025900	7.790	-76.969	296.472	18.995	560.662	633.296	0.311	0.412	***1.664***	18.995	12.224
2021-07-17 06:00	2026800	7.794	-77.152	296.537	18.979	559.373	632.06	0.310	0.411	***1.696***	18.979	12.569
2021-07-17 06:15	2027700	7.789	-76.849	298.103	18.964	558.721	631.527	0.310	0.410	***1.539***	18.964	12.277
2021-07-17 06:30	2028600	7.784	-76.554	296.563	18.93	558.797	632.084	0.310	0.411	***1.584***	18.93	67.058
2021-07-17 06:45	2029500	7.778	-76.21	297.331	18.916	558.663	632.119	0.310	0.411	***1.246***	18.916	50.712
2021-07-17 07:00	2030400	7.776	-76.098	297.681	18.908	558.076	631.562	0.310	0.411	***1.239***	18.908	51.439
2021-07-17 07:15	2031300	7.757	-74.999	302.559	18.905	558.049	631.568	0.310	0.411	***1.157***	18.905	52.857
2021-07-17 07:30	2032200	7.750	-74.608	305.604	18.879	558.477	632.411	0.310	0.411	***1.057***	18.879	58.231
2021-07-17 07:45	2033100	7.744	-74.258	304.817	18.851	558.077	632.346	0.310	0.411	***1.377***	18.851	54.578
2021-07-17 08:00	2034000	7.760	-75.145	306.114	18.829	557.414	631.89	0.310	0.411	***1.223***	18.829	78.804
2021-07-17 08:15	2034900	7.765	-75.467	302.614	18.813	557.004	631.642	0.310	0.411	***1.489***	18.813	55.127
2021-07-17 08:30	2035800	7.748	-74.47	302.533	18.812	557.338	632.035	0.310	0.411	***1.460***	18.812	52.148
2021-07-17 08:45	2036700	7.742	-74.122	303.174	18.807	557.793	632.622	0.310	0.411	***1.224***	18.807	54.535
2021-07-17 09:00	2037600	7.760	-75.169	301.408	18.773	557.212	632.424	0.310	0.411	***1.557***	18.773	58.854
2021-07-17 09:15	2038500	7.761	-75.185	300.781	18.773	556.999	632.183	0.310	0.411	***1.295***	18.773	66.827
2021-07-17 09:30	2039400	7.753	-74.747	299.669	18.774	557.087	632.281	0.310	0.411	***1.336***	18.774	63.942
2021-07-17 09:45	2040300	7.741	-74.036	300.783	18.788	557.669	632.739	0.310	0.411	***1.702***	18.788	56.896
2021-07-17 10:00	2041200	7.770	-75.717	299.021	18.824	558.232	632.889	0.310	0.411	***1.943***	18.824	59.883
2021-07-17 10:15	2042100	7.768	-75.645	298.144	18.835	557.57	631.985	0.310	0.411	***1.810***	18.835	50.04
2021-07-17 10:30	2043000	7.772	-75.855	297.939	18.826	557.758	632.33	0.310	0.411	***1.675***	18.826	51.607
2021-07-17 10:45	2043900	7.772	-75.862	298.663	18.818	558.526	633.305	0.311	0.412	***1.698***	18.818	52.17
2021-07-17 11:00	2044800	7.776	-76.094	298.458	18.826	558.94	633.67	0.311	0.412	***2.172***	18.826	51.958
2021-07-17 11:15	2045700	7.770	-75.765	301.298	18.825	558.608	633.308	0.311	0.412	***1.714***	18.825	53.23
2021-07-17 11:30	2046600	7.788	-76.773	301.818	18.829	559.542	634.311	0.311	0.412	***2.050***	18.829	52.963
2021-07-17 11:45	2047500	7.778	-76.196	299.896	18.825	561.186	636.223	0.312	0.414	***1.897***	18.825	57.262
2021-07-17 12:00	2048400	7.775	-76.001	301.002	18.811	561.407	636.671	0.312	0.414	***1.664***	18.811	59.538
2021-07-17 12:15	2049300	7.799	-77.412	299.042	18.807	561.229	636.524	0.312	0.414	***1.986***	18.807	66.757
2021-07-17 12:30	2050200	7.810	-78.046	296.155	18.811	561.93	637.264	0.313	0.414	***2.039***	18.811	77.29
2021-07-17 12:45	2051100	7.811	-78.12	296.866	18.809	562.668	638.122	0.313	0.415	***2.174***	18.809	74.574
2021-07-17 13:00	2052000	7.810	-78.051	296.034	18.79	562.601	638.312	0.313	0.415	***1.959***	18.79	72.69
2021-07-17 13:15	2052900	7.807	-77.896	295.309	18.768	562.449	638.44	0.313	0.415	***2.055***	18.768	77.926
2021-07-17 13:30	2053800	7.794	-77.114	295.488	18.75	562.2	638.414	0.313	0.415	***2.090***	18.75	70.243
2021-07-17 13:45	2054700	7.798	-77.36	297.219	18.731	562.36	638.852	0.313	0.415	***1.993***	18.731	77.011
2021-07-17 14:00	2055600	7.795	-77.147	295.972	18.714	561.55	638.169	0.313	0.415	***1.994***	18.714	77.691
2021-07-17 14:15	2056500	7.783	-76.489	295.376	18.719	561.934	638.534	0.313	0.415	***2.202***	18.719	78.822
2021-07-17 14:30	2057400	7.781	-76.363	296.978	18.729	562.613	639.169	0.314	0.415	***2.133***	18.729	72.609
2021-07-17 14:45	2058300	7.772	-75.822	295.318	18.729	561.885	638.349	0.313	0.415	***2.185***	18.729	77.86
2021-07-17 15:00	2059200	7.757	-74.973	296.572	18.731	561.887	638.312	0.313	0.415	***2.052***	18.731	100.613
2021-07-17 15:15	2060100	7.759	-75.054	296.46	18.727	566.442	643.546	0.316	0.418	***1.902***	18.727	94.731
2021-07-17 15:30	2061000	7.757	-74.937	297.211	18.714	567.823	645.295	0.317	0.419	***1.947***	18.714	75.58
2021-07-17 15:45	2061900	7.782	-76.396	294.627	18.694	566.916	644.546	0.316	0.419	***2.104***	18.694	76.772
2021-07-17 16:00	2062800	7.801	-77.527	293.764	18.69	567.147	644.865	0.317	0.419	***2.392***	18.69	78.005
2021-07-17 16:15	2063700	7.814	-78.266	291.482	18.709	567.572	645.08	0.317	0.419	***2.769***	18.709	78.052
2021-07-17 16:30	2064600	7.828	-79.081	289.959	18.725	567.678	644.985	0.317	0.419	***2.869***	18.725	68.78
2021-07-17 16:45	2065500	7.858	-80.829	287.036	18.734	568.157	645.392	0.317	0.420	***3.012***	18.734	124.738

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-17 17:00	2066400	7.872	-81.608	285.767	18.753	568.499	645.52	0.317	0.420	***3.199***	18.753	87.124
2021-07-17 17:15	2067300	7.875	-81.804	283.939	18.751	567.017	643.866	0.316	0.419	***3.393***	18.751	101.168
2021-07-17 17:30	2068200	7.885	-82.364	282.904	18.76	567.214	643.97	0.316	0.419	***3.255***	18.76	101.653
2021-07-17 17:45	2069100	7.897	-83.113	282.668	18.791	568.313	644.781	0.316	0.419	***3.372***	18.791	98.201
2021-07-17 18:00	2070000	7.905	-83.578	282.589	18.828	570.048	646.231	0.317	0.420	***3.588***	18.828	103.927
2021-07-17 18:15	2070900	7.915	-84.133	282.196	18.87	572.08	647.95	0.318	0.421	***3.649***	18.87	112.794
2021-07-17 18:30	2071800	7.901	-83.339	287.832	18.882	573.153	648.987	0.319	0.422	***3.692***	18.882	106.581
2021-07-17 18:45	2072700	7.905	-83.606	285.71	18.888	573.695	649.526	0.319	0.422	***3.660***	18.888	87.117
2021-07-17 19:00	2073600	7.911	-83.897	284.377	18.878	573.95	649.951	0.319	0.422	***3.865***	18.878	90.216
2021-07-17 19:15	2074500	7.913	-84.059	282.625	18.872	573.755	649.815	0.319	0.422	***3.706***	18.872	100.203
2021-07-17 19:30	2075400	7.916	-84.198	280.439	18.855	575.518	652.044	0.320	0.424	***3.669***	18.855	102.641
2021-07-17 19:45	2076300	7.895	-83.008	283.414	18.85	576.096	652.77	0.321	0.424	***3.667***	18.85	101.472
2021-07-17 20:00	2077200	7.895	-82.984	281.781	18.848	575.59	652.233	0.320	0.424	***3.726***	18.848	86.635
2021-07-17 20:15	2078100	7.896	-83.051	284.272	18.825	575.917	652.925	0.321	0.424	***3.683***	18.825	85.549
2021-07-17 20:30	2079000	7.891	-82.738	285.848	18.803	576.353	653.731	0.321	0.425	***3.552***	18.803	110.746
2021-07-17 20:45	2079900	7.888	-82.56	285.996	18.768	576.464	654.356	0.321	0.425	***3.459***	18.768	106.091
2021-07-17 21:00	2080800	7.888	-82.521	284.501	18.724	577.309	655.936	0.322	0.426	***3.638***	18.724	111.178
2021-07-17 21:15	2081700	7.901	-83.282	281.783	18.686	578.309	657.612	0.323	0.427	***3.374***	18.686	94.678
2021-07-17 21:30	2082600	7.911	-83.88	290.269	18.663	579.681	659.504	0.324	0.429	***3.528***	18.663	137.12
2021-07-17 21:45	2083500	7.900	-83.201	290.376	18.641	578.878	658.911	0.324	0.428	***3.284***	18.641	134.381
2021-07-17 22:00	2084400	7.892	-82.743	288.385	18.642	579.557	659.666	0.324	0.429	***3.136***	18.642	126.937
2021-07-17 22:15	2085300	7.884	-82.302	289.773	18.615	579.263	659.711	0.324	0.429	***3.219***	18.615	140.082
2021-07-17 22:30	2086200	7.905	-83.485	288.697	18.587	578.747	659.528	0.324	0.429	***3.335***	18.587	117.845
2021-07-17 22:45	2087100	7.914	-84.014	281.964	18.546	578.672	660.029	0.324	0.429	***3.462***	18.546	73.835
2021-07-17 23:00	2088000	7.907	-83.587	281.578	18.53	578.331	659.875	0.324	0.429	***2.974***	18.53	75.772
2021-07-17 23:15	2088900	7.897	-82.989	282.739	18.512	578.495	660.322	0.324	0.429	***2.976***	18.512	53.461
2021-07-17 23:30	2089800	7.893	-82.767	284.072	18.484	578.435	660.662	0.324	0.429	***3.099***	18.484	55.073
2021-07-17 23:45	2090700	7.905	-83.442	282.832	18.447	577.845	660.51	0.324	0.429	***2.939***	18.447	58.311
2021-07-18 00:00	2091600	7.896	-82.901	286.418	18.424	578.031	661.057	0.325	0.430	***2.934***	18.424	115.313
2021-07-18 00:15	2092500	7.897	-82.991	285.522	18.413	578.786	662.09	0.325	0.430	***2.906***	18.413	99.26
2021-07-18 00:30	2093400	7.872	-81.52	287.865	18.396	577.837	661.251	0.325	0.430	***2.816***	18.396	93.581
2021-07-18 00:45	2094300	7.861	-80.903	287.002	18.381	577.805	661.427	0.325	0.430	***2.732***	18.381	94.131
2021-07-18 01:00	2095200	7.853	-80.402	288.55	18.356	578.72	662.835	0.326	0.431	***3.033***	18.356	98.165
2021-07-18 01:15	2096100	7.840	-79.691	290.347	18.343	578.237	662.469	0.325	0.431	***2.524***	18.343	35.666
2021-07-18 01:30	2097000	7.850	-80.235	289.267	18.329	577.86	662.245	0.325	0.430	***2.443***	18.329	48.969
2021-07-18 01:45	2097900	7.840	-79.653	295.435	18.304	577.603	662.308	0.325	0.431	***2.216***	18.304	52.35
2021-07-18 02:00	2098800	7.831	-79.103	297.846	18.285	576.632	661.465	0.325	0.430	***2.592***	18.285	102.511
2021-07-18 02:15	2099700	7.818	-78.399	299.076	18.271	576.336	661.338	0.325	0.430	***2.544***	18.271	59.031
2021-07-18 02:30	2100600	7.807	-77.708	301.441	18.256	575.414	660.489	0.324	0.429	***2.281***	18.256	54.661
2021-07-18 02:45	2101500	7.821	-78.545	301.608	18.229	571.683	656.594	0.322	0.427	***2.355***	18.229	9.418
2021-07-18 03:00	2102400	7.808	-77.76	301.353	18.216	572.786	658.06	0.323	0.428	***2.275***	18.216	8.515
2021-07-18 03:15	2103300	7.824	-78.704	302.421	18.19	573.676	659.452	0.324	0.429	***2.419***	18.19	9.127
2021-07-18 03:30	2104200	7.820	-78.442	302.48	18.167	573.774	659.891	0.324	0.429	***2.414***	18.167	8.502
2021-07-18 03:45	2105100	7.799	-77.25	300.935	18.161	573.908	660.139	0.324	0.429	***2.124***	18.161	8.484
2021-07-18 04:00	2106000	7.792	-76.852	303.375	18.14	573.997	660.542	0.324	0.429	***2.282***	18.14	12.728
2021-07-18 04:15	2106900	7.802	-77.434	302.354	18.127	573.936	660.669	0.324	0.429	***2.379***	18.127	10.853
2021-07-18 04:30	2107800	7.800	-77.314	302.433	18.113	573.962	660.897	0.325	0.430	***2.328***	18.113	12.01
2021-07-18 04:45	2108700	7.799	-77.238	302.182	18.072	573.498	660.953	0.325	0.430	***2.478***	18.072	12.676
2021-07-18 05:00	2109600	7.800	-77.248	304.447	18.063	573.688	661.306	0.325	0.430	***2.373***	18.063	13.552
2021-07-18 05:15	2110500	7.791	-76.768	305.096	18.058	573.885	661.616	0.325	0.430	***2.379***	18.058	10.293
2021-07-18 05:30	2111400	7.782	-76.244	305.852	18.049	584.945	674.488	0.331	0.438	***1.872***	18.049	11.397
2021-07-18 05:45	2112300	7.782	-76.203	308.176	18.037	573.599	661.581	0.325	0.430	***1.815***	18.037	11.488
2021-07-18 06:00	2113200	7.783	-76.258	308.109	18.03	574.582	662.824	0.326	0.431	***1.748***	18.03	11.15
2021-07-18 06:15	2114100	7.770	-75.502	308.348	18.011	575.169	663.775	0.326	0.431	***1.600***	18.011	11.15
2021-07-18 06:30	2115000	7.759	-74.899	303.248	18.002	574.867	663.553	0.326	0.431	***1.651***	18.002	10.079
2021-07-18 06:45	2115900	7.760	-74.94	307.523	17.995	574.368	663.091	0.326	0.431	***1.283***	17.995	9.41

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-18 07:00	2116800	7.753	-74.553	306.996	17.992	573.936	662.633	0.325	0.431	***1.290***	17.992	9.792
2021-07-18 07:15	2117700	7.751	-74.425	307.995	17.98	572.995	661.715	0.325	0.430	***1.367***	17.98	10.337
2021-07-18 07:30	2118600	7.753	-74.553	307.239	17.965	571.972	660.755	0.324	0.429	***1.415***	17.965	9.766
2021-07-18 07:45	2119500	7.745	-74.06	306.82	17.929	571.638	660.902	0.325	0.430	***1.541***	17.929	11.703
2021-07-18 08:00	2120400	7.735	-73.483	310.005	17.904	570.934	660.441	0.324	0.429	***1.480***	17.904	11.158
2021-07-18 08:15	2121300	7.754	-74.601	308.241	17.89	570.465	660.105	0.324	0.429	***1.815***	17.89	11.49
2021-07-18 08:30	2122200	7.750	-74.315	308.114	17.883	570.319	660.039	0.324	0.429	***2.218***	17.883	11.305
2021-07-18 08:45	2123100	7.742	-73.869	311.929	17.888	570.264	659.905	0.324	0.429	***1.937***	17.888	11.86
2021-07-18 09:00	2124000	7.752	-74.449	311.44	17.885	570.06	659.709	0.324	0.429	***1.519***	17.885	11.566
2021-07-18 09:15	2124900	7.738	-73.645	310.246	17.882	570.047	659.735	0.324	0.429	***1.883***	17.882	10.847
2021-07-18 09:30	2125800	7.751	-74.422	308.5	17.877	569.995	659.757	0.324	0.429	***1.685***	17.877	11.572
2021-07-18 09:45	2126700	7.753	-74.52	309.554	17.867	569.869	659.76	0.324	0.429	***1.607***	17.867	12.639
2021-07-18 10:00	2127600	7.753	-74.508	310.68	17.861	569.833	659.805	0.324	0.429	***1.819***	17.861	12.128
2021-07-18 10:15	2128500	7.740	-73.752	312.589	17.853	569.649	659.696	0.324	0.429	***1.598***	17.853	12.253
2021-07-18 10:30	2129400	7.759	-74.868	312.122	17.821	569.699	660.223	0.324	0.429	***2.073***	17.821	12.59
2021-07-18 10:45	2130300	7.750	-74.31	311.433	17.819	569.562	660.099	0.324	0.429	***1.845***	17.819	12.355
2021-07-18 11:00	2131200	7.750	-74.315	310.806	17.814	569.595	660.212	0.324	0.429	***2.342***	17.814	12.457
2021-07-18 11:15	2132100	7.763	-75.057	309.213	17.795	569.062	659.868	0.324	0.429	***2.023***	17.795	13.367
2021-07-18 11:30	2133000	7.772	-75.607	306.686	17.802	569.128	659.847	0.324	0.429	***1.760***	17.802	11.997
2021-07-18 11:45	2133900	7.754	-74.561	308.014	17.807	569.239	659.894	0.324	0.429	***1.569***	17.807	11.735
2021-07-18 12:00	2134800	7.750	-74.317	306.383	17.808	569.558	660.256	0.324	0.429	***1.497***	17.808	13.292
2021-07-18 12:15	2135700	7.741	-73.829	308.205	17.808	569.581	660.283	0.324	0.429	***2.148***	17.808	12.984
2021-07-18 12:30	2136600	7.750	-74.296	304.691	17.815	569.454	660.038	0.324	0.429	***2.335***	17.815	11.23
2021-07-18 12:45	2137500	7.753	-74.492	306.288	17.825	569.234	659.638	0.324	0.429	***2.364***	17.825	10.842
2021-07-18 13:00	2138400	7.767	-75.288	305.647	17.818	569.363	659.883	0.324	0.429	***2.323***	17.818	11.546
2021-07-18 13:15	2139300	7.758	-74.801	306.815	17.816	569.03	659.532	0.324	0.429	***2.532***	17.816	11.881
2021-07-18 13:30	2140200	7.780	-76.032	303.363	17.813	569.153	659.714	0.324	0.429	***2.617***	17.813	10.989
2021-07-18 13:45	2141100	7.790	-76.616	301.996	17.798	568.959	659.704	0.324	0.429	***2.903***	17.798	11.366
2021-07-18 14:00	2142000	7.773	-75.648	301.357	17.805	568.549	659.126	0.324	0.428	***2.755***	17.805	10.893
2021-07-18 14:15	2142900	7.773	-75.674	302.945	17.808	568.636	659.182	0.324	0.428	***2.901***	17.808	11.417
2021-07-18 14:30	2143800	7.776	-75.829	303.119	17.813	568.782	659.277	0.324	0.429	***2.408***	17.813	11.579
2021-07-18 14:45	2144700	7.781	-76.122	301.26	17.811	568.201	658.633	0.323	0.428	***2.256***	17.811	11.961
2021-07-18 15:00	2145600	7.799	-77.152	300.976	17.812	567.177	657.434	0.323	0.427	***2.870***	17.812	10.631
2021-07-18 15:15	2146500	7.774	-75.724	298.508	17.817	566.536	656.617	0.322	0.427	***2.645***	17.817	10.342
2021-07-18 15:30	2147400	7.771	-75.51	299.66	17.823	566.229	656.18	0.322	0.427	***2.380***	17.823	10.163
2021-07-18 15:45	2148300	7.769	-75.414	301.675	17.829	562.93	652.267	0.320	0.424	***1.866***	17.829	10.129
2021-07-18 16:00	2149200	7.781	-76.103	299.004	17.83	563.463	652.867	0.320	0.424	***2.008***	17.83	10.669
2021-07-18 16:15	2150100	7.789	-76.59	298.694	17.838	564.506	653.959	0.321	0.425	***2.084***	17.838	10.245
2021-07-18 16:30	2151000	7.801	-77.271	298.663	17.855	564.702	653.95	0.321	0.425	***2.225***	17.855	10.389
2021-07-18 16:45	2151900	7.796	-76.983	299.123	17.862	564.159	653.223	0.321	0.425	***2.060***	17.862	9.885
2021-07-18 17:00	2152800	7.791	-76.69	300.392	17.864	564.065	653.078	0.321	0.425	***2.135***	17.864	11.063
2021-07-18 17:15	2153700	7.784	-76.332	301.608	17.88	564.545	653.406	0.321	0.425	***1.966***	17.88	11.126
2021-07-18 17:30	2154600	7.794	-76.871	302.318	17.883	564.636	653.465	0.321	0.425	***2.188***	17.883	11.43
2021-07-18 17:45	2155500	7.801	-77.264	299.35	17.893	564.598	653.283	0.321	0.425	***2.369***	17.893	10.343
2021-07-18 18:00	2156400	7.804	-77.434	297.91	17.894	564.945	653.665	0.321	0.425	***2.309***	17.894	10.45
2021-07-18 18:15	2157300	7.816	-78.161	297.321	17.898	565.442	654.18	0.321	0.425	***2.381***	17.898	11.425
2021-07-18 18:30	2158200	7.825	-78.692	297.662	17.888	566.774	655.864	0.322	0.426	***2.544***	17.888	11.005
2021-07-18 18:45	2159100	7.820	-78.361	299.617	17.882	567.271	656.528	0.322	0.427	***2.343***	17.882	12.649
2021-07-18 19:00	2160000	7.819	-78.316	299.698	17.877	567.285	656.614	0.322	0.427	***2.256***	17.877	10.885
2021-07-18 19:15	2160900	7.823	-78.552	297.14	17.859	566.485	655.945	0.322	0.426	***2.481***	17.859	11.357
2021-07-18 19:30	2161800	7.814	-78.006	297.407	17.85	566.432	656.022	0.322	0.426	***2.291***	17.85	11.425
2021-07-18 19:45	2162700	7.815	-78.099	298.935	17.839	566.408	656.16	0.322	0.427	***2.167***	17.839	11.735
2021-07-18 20:00	2163600	7.808	-77.674	298.785	17.829	566.904	656.879	0.322	0.427	***2.195***	17.829	11.662
2021-07-18 20:15	2164500	7.794	-76.878	298.88	17.804	572.438	663.653	0.326	0.431	***2.359***	17.804	12.362
2021-07-18 20:30	2165400	7.795	-76.94	302.728	17.783	571.541	662.917	0.326	0.431	***2.303***	17.783	12.622
2021-07-18 20:45	2166300	7.798	-77.074	303.503	17.765	571.708	663.379	0.326	0.431	***2.527***	17.765	12.715

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-18 21:00	2167200	7.813	-77.939	300.764	17.739	571.949	664.046	0.326	0.432	***2.759***	17.739	13.738
2021-07-18 21:15	2168100	7.813	-77.915	301.093	17.726	571.304	663.481	0.326	0.431	***2.665***	17.726	12.805
2021-07-18 21:30	2169000	7.810	-77.784	302.128	17.705	571.287	663.768	0.326	0.431	***2.787***	17.705	13.558
2021-07-18 21:45	2169900	7.819	-78.247	300.237	17.686	571.202	663.961	0.326	0.432	***2.831***	17.686	13.039
2021-07-18 22:00	2170800	7.803	-77.372	301.307	17.672	571.349	664.332	0.326	0.432	***2.545***	17.672	13.096
2021-07-18 22:15	2171700	7.799	-77.083	302.116	17.648	571.592	664.964	0.327	0.432	***2.636***	17.648	13.698
2021-07-18 22:30	2172600	7.785	-76.292	303.074	17.638	572.08	665.685	0.327	0.433	***2.188***	17.638	12.713
2021-07-18 22:45	2173500	7.781	-76.039	305.12	17.62	572.137	666.015	0.327	0.433	***2.205***	17.62	12.654
2021-07-18 23:00	2174400	7.771	-75.455	305.961	17.573	571.591	666.084	0.327	0.433	***2.451***	17.573	12.868
2021-07-18 23:15	2175300	7.744	-73.929	308.233	17.529	568.767	663.432	0.326	0.431	***1.977***	17.529	13.498
2021-07-18 23:30	2176200	7.755	-74.546	310.503	17.526	568.3	662.938	0.325	0.431	***1.928***	17.526	13.259
2021-07-18 23:45	2177100	7.757	-74.632	306.398	17.508	570.277	665.514	0.327	0.433	***1.840***	17.508	13.299
2021-07-19 00:00	2178000	7.754	-74.475	306.982	17.496	572.262	668.008	0.328	0.434	***1.820***	17.496	13.102
2021-07-19 00:15	2178900	7.734	-73.304	308.15	17.486	574.771	671.09	0.330	0.436	***1.679***	17.486	13.41
2021-07-19 00:30	2179800	7.753	-74.425	307.261	17.473	578.59	675.74	0.332	0.439	***2.289***	17.473	14.833
2021-07-19 00:45	2180700	7.755	-74.527	307.449	17.462	581.42	679.214	0.334	0.441	***1.760***	17.462	14.858
2021-07-19 01:00	2181600	7.797	-76.926	304.5	17.433	585.102	683.958	0.336	0.445	***2.549***	17.433	15.781
2021-07-19 01:15	2182500	7.814	-77.934	304.29	17.427	586.8	686.036	0.337	0.446	***2.615***	17.427	16.921
2021-07-19 01:30	2183400	7.802	-77.24	304.147	17.43	587.227	686.481	0.337	0.446	***2.242***	17.43	15.189
2021-07-19 01:45	2184300	7.784	-76.165	306.581	17.431	587.764	687.097	0.338	0.447	***1.926***	17.431	14.26
2021-07-19 02:00	2185200	7.797	-76.919	308.52	17.436	588.545	687.94	0.338	0.447	***1.709***	17.436	14.715
2021-07-19 02:15	2186100	7.808	-77.579	307.802	17.432	588.868	688.364	0.338	0.447	***1.825***	17.432	14.768
2021-07-19 02:30	2187000	7.805	-77.381	308.875	17.425	589.563	689.293	0.339	0.448	***2.111***	17.425	15.357
2021-07-19 02:45	2187900	7.796	-76.876	308.927	17.412	590.107	690.13	0.339	0.449	***1.955***	17.412	14.826
2021-07-19 03:00	2188800	7.798	-76.969	308.534	17.397	589.749	689.942	0.339	0.448	***1.844***	17.397	14.742
2021-07-19 03:15	2189700	7.800	-77.081	310.091	17.388	589.796	690.132	0.339	0.449	***1.756***	17.388	14.778
2021-07-19 03:30	2190600	7.788	-76.411	308.639	17.38	589.195	689.556	0.339	0.448	***1.836***	17.38	15.667
2021-07-19 03:45	2191500	7.783	-76.108	310.661	17.367	588.641	689.109	0.339	0.448	***1.938***	17.367	16.047
2021-07-19 04:00	2192400	7.778	-75.836	310.127	17.365	587.513	687.82	0.338	0.447	***1.527***	17.365	15.625
2021-07-19 04:15	2193300	7.777	-75.779	311.595	17.352	587.622	688.139	0.338	0.447	***1.488***	17.352	15.431
2021-07-19 04:30	2194200	7.766	-75.099	310.034	17.337	588.211	689.069	0.339	0.448	***1.687***	17.337	14.964
2021-07-19 04:45	2195100	7.770	-75.376	312.489	17.322	588.32	689.421	0.339	0.448	***1.513***	17.322	16.068
2021-07-19 05:00	2196000	7.765	-75.037	311.929	17.317	589.337	690.693	0.340	0.449	***1.500***	17.317	15.589
2021-07-19 05:15	2196900	7.742	-73.752	313.088	17.298	586.526	687.692	0.338	0.447	***1.604***	17.298	15.319
2021-07-19 05:30	2197800	7.734	-73.245	315.152	17.281	586.031	687.373	0.338	0.447	***1.401***	17.281	15.765
2021-07-19 05:45	2198700	7.741	-73.686	314.368	17.271	579.039	679.327	0.334	0.442	***1.476***	17.271	16.099
2021-07-19 06:00	2199600	7.754	-74.399	311.509	17.27	578.073	678.209	0.333	0.441	***1.332***	17.27	16.079
2021-07-19 06:15	2200500	7.765	-75.049	311.848	17.271	579.108	679.404	0.334	0.442	***1.336***	17.271	17.352
2021-07-19 06:30	2201400	7.766	-75.111	313.843	17.256	581.152	682.025	0.335	0.443	***1.565***	17.256	18.126
2021-07-19 06:45	2202300	7.769	-75.288	314.32	17.246	581.163	682.193	0.335	0.443	***1.359***	17.246	18.495
2021-07-19 07:00	2203200	7.768	-75.216	311.931	17.246	581.229	682.282	0.335	0.443	***1.304***	17.246	17.69
2021-07-19 07:15	2204100	7.763	-74.944	312.103	17.245	581.702	682.851	0.336	0.444	***1.379***	17.245	16.682
2021-07-19 07:30	2205000	7.757	-74.589	312.968	17.25	581.968	683.078	0.336	0.444	***1.140***	17.25	17.042
2021-07-19 07:45	2205900	7.763	-74.913	313.286	17.247	581.637	682.746	0.335	0.444	***1.085***	17.247	16.879
2021-07-19 08:00	2206800	7.771	-75.395	310.956	17.242	581.691	682.884	0.336	0.444	***1.203***	17.242	17.925
2021-07-19 08:15	2207700	7.765	-75.016	311.798	17.242	581.774	682.98	0.336	0.444	***1.039***	17.242	16.093
2021-07-19 08:30	2208600	7.762	-74.894	310.11	17.241	581.781	683.007	0.336	0.444	***1.275***	17.241	16.613
2021-07-19 08:45	2209500	7.767	-75.152	310.096	17.242	582.689	684.045	0.336	0.445	***1.289***	17.242	16.079
2021-07-19 09:00	2210400	7.762	-74.892	310.031	17.245	582.264	683.505	0.336	0.444	***1.143***	17.245	15.774
2021-07-19 09:15	2211300	7.765	-75.04	312.67	17.246	582.534	683.811	0.336	0.444	***1.061***	17.246	16.179
2021-07-19 09:30	2212200	7.744	-73.838	312.604	17.246	583.438	684.862	0.337	0.445	***1.042***	17.246	16.65
2021-07-19 09:45	2213100	7.759	-74.68	311.383	17.248	583.195	684.545	0.336	0.445	***1.091***	17.248	15.983
2021-07-19 10:00	2214000	7.763	-74.937	309.731	17.255	583.253	684.509	0.336	0.445	***1.472***	17.255	17.513
2021-07-19 10:15	2214900	7.762	-74.847	309.831	17.266	583.567	684.716	0.336	0.445	***1.353***	17.266	17.928
2021-07-19 10:30	2215800	7.756	-74.522	310.992	17.271	583.942	685.072	0.337	0.445	***1.290***	17.271	15.985
2021-07-19 10:45	2216700	7.775	-75.648	308.677	17.271	582.06	682.861	0.336	0.444	***1.571***	17.271	17.831

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-19 11:00	2217600	7.774	-75.562	307.525	17.274	581.901	682.628	0.335	0.444	***1.746***	17.274	17.923
2021-07-19 11:15	2218501	7.776	-75.698	310.022	17.28	584.31	685.371	0.337	0.445	***1.751***	17.28	18.015
2021-07-19 11:30	2219401	7.783	-76.082	308.043	17.282	584.074	685.058	0.337	0.445	***1.673***	17.282	16.46
2021-07-19 11:45	2220301	7.790	-76.497	307.766	17.279	583.625	684.583	0.336	0.445	***1.888***	17.279	17.152
2021-07-19 12:00	2221201	7.795	-76.773	307.845	17.281	582.877	683.666	0.336	0.444	***1.905***	17.281	16.604
2021-07-19 12:15	2222101	7.801	-77.136	306.338	17.288	584.704	685.702	0.337	0.446	***1.781***	17.288	16.638
2021-07-19 12:30	2223001	7.792	-76.606	306.357	17.292	584.158	685.001	0.337	0.445	***1.889***	17.292	16.928
2021-07-19 12:45	2223901	7.791	-76.547	305.856	17.297	584.584	685.425	0.337	0.446	***1.696***	17.297	15.998
2021-07-19 13:00	2224801	7.785	-76.222	305.556	17.305	584.772	685.528	0.337	0.446	***1.535***	17.305	16.513
2021-07-19 13:15	2225701	7.779	-75.889	306.441	17.315	584.482	685.04	0.337	0.445	***1.458***	17.315	18.556
2021-07-19 13:30	2226601	7.771	-75.402	306.841	17.335	584.293	684.512	0.336	0.445	***1.606***	17.335	16.658
2021-07-19 13:45	2227501	7.770	-75.371	307.747	17.343	585.154	685.385	0.337	0.446	***1.588***	17.343	16.608
2021-07-19 14:00	2228401	7.785	-76.201	305.661	17.353	585.645	685.808	0.337	0.446	***1.535***	17.353	16.339
2021-07-19 14:15	2229301	7.779	-75.881	308.939	17.352	585.078	685.163	0.337	0.445	***1.868***	17.352	16.273
2021-07-19 14:30	2230201	7.769	-75.319	308.908	17.322	584.539	684.989	0.337	0.445	***1.858***	17.322	17.318
2021-07-19 14:45	2231101	7.764	-75.011	309.769	17.32	584.132	684.554	0.336	0.445	***1.669***	17.32	17.511
2021-07-19 15:00	2232001	7.747	-74.027	310.324	17.333	584.345	684.599	0.336	0.445	***1.437***	17.333	17.239
2021-07-19 15:15	2232901	7.741	-73.674	311.228	17.347	584.722	684.826	0.337	0.445	***1.273***	17.347	17.137
2021-07-19 15:30	2233801	7.732	-73.149	312.406	17.353	584.512	684.481	0.336	0.445	***1.315***	17.353	16.943
2021-07-19 15:45	2234701	7.734	-73.268	314.122	17.4	585.32	684.714	0.337	0.445	***1.480***	17.4	15.937
2021-07-19 16:00	2235601	7.717	-72.339	316.173	17.443	585.708	684.503	0.336	0.445	***1.233***	17.443	15.824
2021-07-19 16:15	2236501	7.731	-73.168	317.012	17.508	583.615	681.078	0.335	0.443	***1.604***	17.508	15.679
2021-07-19 16:30	2237401	7.808	-77.653	307.695	17.679	588.847	684.567	0.336	0.445	***2.956***	17.679	15.49
2021-07-19 16:45	2238301	7.866	-81.038	301.617	17.821	590.47	684.299	0.336	0.445	***3.530***	17.821	15.67
2021-07-19 17:00	2239201	7.878	-81.737	297.605	17.952	593.211	685.484	0.337	0.446	***3.566***	17.952	15.574
2021-07-19 17:15	2240101	7.887	-82.314	294.92	18.056	594.769	685.72	0.337	0.446	***3.742***	18.056	18.888
2021-07-19 17:30	2241001	7.884	-82.159	292.932	18.094	595.384	685.85	0.337	0.446	***3.720***	18.094	15.927
2021-07-19 17:45	2241901	7.914	-83.873	291.432	18.086	595.003	685.53	0.337	0.446	***3.852***	18.086	16.179
2021-07-19 18:00	2242801	7.911	-83.694	292.102	18.098	595.591	686.03	0.337	0.446	***3.732***	18.098	17.197
2021-07-19 18:15	2243701	7.853	-80.326	296.766	18.035	596.54	688.077	0.338	0.447	***3.029***	18.035	16.513
2021-07-19 18:30	2244601	7.823	-78.566	300.523	17.956	597.214	690.056	0.339	0.449	***2.660***	17.956	16.483
2021-07-19 18:45	2245501	7.803	-77.374	303.165	17.798	601.724	697.693	0.343	0.454	***2.523***	17.798	17.761
2021-07-19 19:00	2246401	7.790	-76.654	306.054	17.804	598.91	694.347	0.341	0.451	***2.250***	17.804	16.517
2021-07-19 19:15	2247301	7.788	-76.516	306.886	17.769	598.579	694.503	0.342	0.451	***2.302***	17.769	16.308
2021-07-19 19:30	2248201	7.789	-76.542	307.032	17.738	595.997	691.98	0.340	0.450	***2.317***	17.738	17.808
2021-07-19 19:45	2249101	7.779	-75.953	307.401	17.653	593.717	690.633	0.340	0.449	***2.215***	17.653	18.523
2021-07-19 20:00	2250001	7.769	-75.4	310.127	17.7	591.857	687.748	0.338	0.447	***2.112***	17.7	15.612
2021-07-19 20:15	2250901	7.773	-75.617	311.4	17.731	593.709	689.42	0.339	0.448	***1.990***	17.731	15.738
2021-07-19 20:30	2251801	7.771	-75.5	308.97	17.644	597.352	695.002	0.342	0.452	***2.058***	17.644	17.643
2021-07-19 20:45	2252701	7.768	-75.336	310.973	17.673	595.613	692.535	0.341	0.450	***2.157***	17.673	16.346
2021-07-19 21:00	2253601	7.777	-75.867	311.097	17.657	592.909	689.63	0.339	0.448	***2.100***	17.657	15.912
2021-07-19 21:15	2254501	7.763	-75.006	310.281	17.636	598.274	696.197	0.342	0.453	***1.904***	17.636	16.194
2021-07-19 21:30	2255401	7.764	-75.078	309.862	17.595	601.899	701.051	0.345	0.456	***1.773***	17.595	16.505
2021-07-19 21:45	2256301	7.763	-74.992	311.557	17.586	602.74	702.176	0.345	0.456	***1.656***	17.586	15.807
2021-07-19 22:00	2257201	7.759	-74.804	312.077	17.553	604.414	704.638	0.347	0.458	***1.612***	17.553	16.705
2021-07-19 22:15	2258101	7.750	-74.258	313.774	17.548	604.811	705.185	0.347	0.458	***1.442***	17.548	16.359
2021-07-19 22:30	2259001	7.738	-73.576	315.307	17.535	604.09	704.538	0.347	0.458	***1.472***	17.535	16.031
2021-07-19 22:45	2259901	7.724	-72.773	317.172	17.55	605.662	706.143	0.347	0.459	***0.850***	17.55	15.923
2021-07-19 23:00	2260801	7.733	-73.268	317.784	17.529	605.589	706.39	0.348	0.459	***0.932***	17.529	15.884
2021-07-19 23:15	2261701	7.718	-72.384	318.631	17.541	605.89	706.551	0.348	0.459	***0.904***	17.541	15.978
2021-07-19 23:30	2262601	7.739	-73.633	318.078	17.504	605.178	706.309	0.348	0.459	***0.705***	17.504	16.152
2021-07-19 23:45	2263501	7.752	-74.351	316.035	17.49	603.488	704.547	0.347	0.458	***1.163***	17.49	16.024
2021-07-20 00:00	2264401	7.796	-76.878	313.061	17.453	597.976	698.694	0.344	0.454	***1.624***	17.453	16.428
2021-07-20 00:15	2265301	7.816	-77.999	310.148	17.406	596.313	697.484	0.343	0.453	***2.319***	17.406	17.355
2021-07-20 00:30	2266201	7.783	-76.132	312.027	17.352	598.16	700.492	0.345	0.455	***2.242***	17.352	15.863
2021-07-20 00:45	2267101	7.797	-76.907	312.299	17.296	593.313	695.677	0.342	0.452	***1.957***	17.296	15.997

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-20 01:00	2268001	7.783	-76.094	312.508	17.269	600.208	704.19	0.346	0.458	***1.817***	17.269	16.09
2021-07-20 01:15	2268901	7.763	-74.947	313.088	17.218	600.246	705.047	0.347	0.458	***1.827***	17.218	15.326
2021-07-20 01:30	2269801	7.756	-74.503	313.202	17.169	598.692	703.982	0.346	0.458	***1.743***	17.169	15.445
2021-07-20 01:45	2270701	7.757	-74.534	313.116	17.106	597.372	703.436	0.346	0.457	***1.717***	17.106	15.051
2021-07-20 02:00	2271601	7.757	-74.518	313.295	17.074	598.638	705.432	0.347	0.459	***1.687***	17.074	15.399
2021-07-20 02:15	2272501	7.767	-75.111	312.933	17.024	597.64	705.054	0.347	0.458	***2.108***	17.024	16.429
2021-07-20 02:30	2273401	7.798	-76.873	310.231	16.985	599.625	708.018	0.348	0.460	***2.349***	16.985	16.576
2021-07-20 02:45	2274301	7.798	-76.871	309.185	16.913	598.849	708.24	0.348	0.460	***2.444***	16.913	16.832
2021-07-20 03:00	2275201	7.798	-76.821	308.548	16.878	601.535	711.982	0.350	0.463	***2.375***	16.878	17.078
2021-07-20 03:15	2276101	7.796	-76.718	310.36	16.863	597.578	707.54	0.348	0.460	***2.203***	16.863	17.222
2021-07-20 03:30	2277001	7.796	-76.716	311.104	16.838	597.588	707.958	0.348	0.460	***2.227***	16.838	16.47
2021-07-20 03:45	2277901	7.785	-76.087	311.309	16.825	599.373	710.279	0.349	0.462	***2.126***	16.825	16.897
2021-07-20 04:00	2278801	7.775	-75.5	312.73	16.805	599.367	710.59	0.350	0.462	***2.049***	16.805	16.343
2021-07-20 04:15	2279701	7.764	-74.863	313.131	16.785	598.987	710.456	0.349	0.462	***1.864***	16.785	17.464
2021-07-20 04:30	2280601	7.770	-75.209	312.997	16.753	598.367	710.237	0.349	0.462	***1.786***	16.753	18.77
2021-07-20 04:45	2281501	7.765	-74.918	314.68	16.742	599.846	712.183	0.350	0.463	***1.690***	16.742	17.697
2021-07-20 05:00	2282401	7.751	-74.117	315.083	16.726	600.194	712.853	0.351	0.463	***1.519***	16.726	16.297
2021-07-20 05:15	2283301	7.747	-73.898	316.249	16.715	600.413	713.293	0.351	0.464	***1.521***	16.715	16.91
2021-07-20 05:30	2284201	7.740	-73.445	317.358	16.715	600.627	713.542	0.351	0.464	***1.375***	16.715	16.739
2021-07-20 05:45	2285101	7.733	-73.092	317.546	16.721	600.811	713.659	0.351	0.464	***1.187***	16.721	17.74
2021-07-20 06:00	2286001	7.726	-72.682	317.768	16.72	600.855	713.723	0.351	0.464	***1.006***	16.72	16.642
2021-07-20 06:15	2286901	7.720	-72.293	318.896	16.723	600.931	713.774	0.351	0.464	***0.777***	16.723	16.61
2021-07-20 06:30	2287801	7.708	-71.602	319.225	16.718	601.043	713.992	0.351	0.464	***1.007***	16.718	16.795
2021-07-20 06:45	2288701	7.709	-71.709	318.717	16.716	600.983	713.947	0.351	0.464	***0.906***	16.716	17.187
2021-07-20 07:00	2289601	7.714	-71.964	318.147	16.713	600.753	713.72	0.351	0.464	***1.013***	16.713	16.912
2021-07-20 07:15	2290501	7.725	-72.591	316.817	16.697	600.181	713.306	0.351	0.464	***1.097***	16.697	18.001
2021-07-20 07:30	2291401	7.720	-72.341	316.197	16.7	600.336	713.443	0.351	0.464	***1.103***	16.7	19.065
2021-07-20 07:45	2292301	7.711	-71.79	316.735	16.703	600.392	713.456	0.351	0.464	***0.997***	16.703	17.79
2021-07-20 08:00	2293201	7.704	-71.394	317.517	16.701	600.577	713.704	0.351	0.464	***1.012***	16.701	18.389
2021-07-20 08:15	2294101	7.704	-71.38	317.291	16.697	600.756	713.989	0.351	0.464	***1.005***	16.697	17.042
2021-07-20 08:30	2295001	7.694	-70.822	319.279	16.698	600.97	714.215	0.351	0.464	***0.671***	16.698	17.443
2021-07-20 08:45	2295901	7.696	-70.92	320.77	16.698	600.718	713.932	0.351	0.464	***0.683***	16.698	17.642
2021-07-20 09:00	2296801	7.691	-70.641	320.841	16.697	600.231	713.367	0.351	0.464	***0.677***	16.697	18.491
2021-07-20 09:15	2297701	7.692	-70.679	318.328	16.689	600.023	713.246	0.351	0.464	***0.680***	16.689	19.603
2021-07-20 09:30	2298601	7.695	-70.896	319.01	16.688	599.586	712.741	0.351	0.463	***0.707***	16.688	19.518
2021-07-20 09:45	2299501	7.690	-70.574	319.251	16.687	599.637	712.812	0.351	0.463	***0.716***	16.687	19.067
2021-07-20 10:00	2300401	7.678	-69.869	319.947	16.689	599.755	712.921	0.351	0.463	***0.513***	16.689	18.933
2021-07-20 10:15	2301301	7.675	-69.699	320.66	16.69	599.692	712.832	0.351	0.463	***0.731***	16.69	21.086
2021-07-20 10:30	2302201	7.680	-69.993	319.625	16.687	599.572	712.743	0.351	0.463	***1.011***	16.687	19.579
2021-07-20 10:45	2303101	7.676	-69.776	319.167	16.686	599.572	712.75	0.351	0.463	***0.941***	16.686	20.014
2021-07-20 11:00	2304001	7.680	-70	319.444	16.684	599.417	712.607	0.351	0.463	***1.104***	16.684	21.699
2021-07-20 11:15	2304901	7.676	-69.768	319.897	16.685	599.424	712.588	0.351	0.463	***0.843***	16.685	18.144
2021-07-20 11:30	2305801	7.672	-69.566	320.235	16.693	599.453	712.504	0.350	0.463	***0.620***	16.693	18.047
2021-07-20 11:45	2306701	7.674	-69.68	320.333	16.703	599.511	712.414	0.350	0.463	***0.396***	16.703	18.961
2021-07-20 12:00	2307601	7.682	-70.131	318.667	16.717	599.655	712.355	0.350	0.463	***0.478***	16.717	18
2021-07-20 12:15	2308501	7.677	-69.864	318.509	16.728	599.916	712.484	0.350	0.463	***0.553***	16.728	17.565
2021-07-20 12:30	2309401	7.672	-69.571	318.888	16.733	599.846	712.328	0.350	0.463	***0.486***	16.733	16.847
2021-07-20 12:45	2310301	7.683	-70.188	318.378	16.749	599.951	712.19	0.350	0.463	***0.773***	16.749	17.758
2021-07-20 13:00	2311201	7.690	-70.589	317.117	16.769	600.152	712.098	0.350	0.463	***1.104***	16.769	17.393
2021-07-20 13:15	2312101	7.686	-70.364	317.801	16.791	600.576	712.249	0.350	0.463	***0.989***	16.791	15.743
2021-07-20 13:30	2313001	7.684	-70.245	319.055	16.827	601.302	712.527	0.351	0.463	***0.874***	16.827	17.803
2021-07-20 13:45	2313901	7.684	-70.252	319.525	16.854	601.782	712.669	0.351	0.463	***0.768***	16.854	14.371
2021-07-20 14:00	2314801	7.697	-71.061	318.428	16.893	602.543	712.943	0.351	0.463	***1.291***	16.893	14.649
2021-07-20 14:15	2315701	7.700	-71.23	317.37	16.942	603.212	712.941	0.351	0.463	***0.889***	16.942	14.077
2021-07-20 14:30	2316601	7.716	-72.176	317.036	17.03	605.603	714.339	0.351	0.464	***1.767***	17.03	13.988
2021-07-20 14:45	2317501	7.716	-72.193	315.686	17.108	608.226	716.179	0.352	0.466	***1.931***	17.108	14.174

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-20 15:00	2318401	7.794	-76.73	312.117	17.234	613.27	720.073	0.354	0.468	***2.582***	17.234	14.799
2021-07-20 15:15	2319301	7.847	-79.799	304.621	17.396	616.866	721.674	0.355	0.469	***3.371***	17.396	15.578
2021-07-20 15:30	2320201	7.886	-82.078	299.772	17.466	617.974	721.846	0.355	0.469	***3.788***	17.466	15.459
2021-07-20 15:45	2321101	7.913	-83.69	297.86	17.56	619.446	722.056	0.356	0.469	***3.813***	17.56	15.502
2021-07-20 16:00	2322001	7.937	-85.104	292.805	17.787	622.165	721.577	0.355	0.469	***4.359***	17.787	15.739
2021-07-20 16:15	2322901	7.975	-87.321	287.539	17.862	625.605	724.36	0.357	0.471	***4.791***	17.862	15.72
2021-07-20 16:30	2323801	7.965	-86.756	288.721	17.803	624.62	724.164	0.357	0.471	***4.751***	17.803	17.207
2021-07-20 16:45	2324701	7.972	-87.109	286.242	17.793	624.058	723.678	0.356	0.470	***4.574***	17.793	16.584
2021-07-20 17:00	2325601	7.971	-87.051	287.236	17.785	623.913	723.633	0.356	0.470	***4.718***	17.785	17.085
2021-07-20 17:15	2326501	7.988	-88.089	287.119	17.864	624.778	723.379	0.356	0.470	***4.922***	17.864	17.218
2021-07-20 17:30	2327401	8.003	-88.992	284.356	17.977	626.197	723.214	0.356	0.470	***5.235***	17.977	18.069
2021-07-20 17:45	2328301	8.026	-90.322	280.827	18.092	627.732	723.141	0.356	0.470	***5.452***	18.092	18.541
2021-07-20 18:00	2329201	8.037	-91.004	278.827	18.255	628.681	721.644	0.355	0.469	***5.672***	18.255	18.227
2021-07-20 18:15	2330101	8.057	-92.239	276.228	18.367	629.618	720.961	0.355	0.469	***5.764***	18.367	16.663
2021-07-20 18:30	2331001	8.071	-93.04	274.283	18.368	628.309	719.447	0.354	0.468	***6.075***	18.368	16.853
2021-07-20 18:45	2331901	8.068	-92.883	274.271	18.354	628.707	720.11	0.355	0.468	***5.952***	18.354	18.581
2021-07-20 19:00	2332801	8.067	-92.769	274.848	18.317	628.075	719.977	0.355	0.468	***5.995***	18.317	17.265
2021-07-20 19:15	2333701	8.073	-93.126	273.555	18.32	627.968	719.813	0.355	0.468	***5.882***	18.32	17.024
2021-07-20 19:30	2334601	8.078	-93.458	274.581	18.355	628.376	719.724	0.355	0.468	***5.934***	18.355	15.825
2021-07-20 19:45	2335501	8.096	-94.466	271.984	18.37	628.343	719.443	0.354	0.468	***6.126***	18.37	16.397
2021-07-20 20:00	2336401	8.090	-94.159	271.414	18.363	628.378	719.593	0.354	0.468	***6.155***	18.363	16.311
2021-07-20 20:15	2337301	8.083	-93.708	272.394	18.376	628.871	719.965	0.355	0.468	***6.186***	18.376	16.394
2021-07-20 20:30	2338201	8.056	-92.177	273.93	18.372	628.979	720.141	0.355	0.468	***5.908***	18.372	14.885
2021-07-20 20:45	2339101	8.054	-92.027	275.108	18.365	628.891	720.158	0.355	0.468	***5.861***	18.365	15.407
2021-07-20 21:00	2340001	8.064	-92.609	273.608	18.347	628.422	719.9	0.355	0.468	***5.827***	18.347	16.269
2021-07-20 21:15	2340901	8.041	-91.288	275.277	18.31	628.188	720.223	0.355	0.468	***5.816***	18.31	14.787
2021-07-20 21:30	2341801	8.059	-92.294	273.15	18.282	627.374	719.72	0.355	0.468	***5.886***	18.282	18.646
2021-07-20 21:45	2342701	8.063	-92.537	274.147	18.242	626.799	719.703	0.354	0.468	***5.899***	18.242	15.887
2021-07-20 22:00	2343601	8.044	-91.436	279.561	18.177	625.899	719.681	0.354	0.468	***5.883***	18.177	16.468
2021-07-20 22:15	2344501	8.051	-91.82	279.139	18.124	625.439	719.992	0.355	0.468	***6.161***	18.124	16.288
2021-07-20 22:30	2345401	8.053	-91.91	272.728	18.077	624.302	719.438	0.354	0.468	***6.049***	18.077	16.311
2021-07-20 22:45	2346301	8.017	-89.786	273.491	18.021	624.681	720.757	0.355	0.468	***5.494***	18.021	16.43
2021-07-20 23:00	2347201	7.996	-88.556	277.318	17.971	623.676	720.385	0.355	0.468	***5.581***	17.971	16.454
2021-07-20 23:15	2348101	8.010	-89.347	277.649	17.92	622.98	720.39	0.355	0.468	***5.391***	17.92	19.919
2021-07-20 23:30	2349001	8.027	-90.322	279.118	17.887	622.332	720.179	0.355	0.468	***5.349***	17.887	15.993
2021-07-20 23:45	2349901	7.990	-88.17	279.919	17.813	619.462	718.028	0.354	0.467	***5.452***	17.813	16.689
2021-07-21 00:00	2350801	7.977	-87.404	279.44	17.757	618.073	717.311	0.353	0.466	***5.320***	17.757	17.901
2021-07-21 00:15	2351701	7.965	-86.687	281.764	17.716	620.141	720.362	0.355	0.468	***5.236***	17.716	16.546
2021-07-21 00:30	2352601	7.981	-87.614	284.272	17.666	618.776	719.58	0.354	0.468	***5.087***	17.666	16.49
2021-07-21 00:45	2353501	7.972	-87.054	285.796	17.61	619.394	721.183	0.355	0.469	***5.419***	17.61	16.055
2021-07-21 01:00	2354401	7.957	-86.181	285.987	17.564	619.126	721.621	0.355	0.469	***5.070***	17.564	16.677
2021-07-21 01:15	2355301	7.968	-86.832	285.033	17.515	618.056	721.162	0.355	0.469	***5.034***	17.515	17.424
2021-07-21 01:30	2356201	7.963	-86.52	288.144	17.463	616.959	720.704	0.355	0.468	***4.909***	17.463	18.114
2021-07-21 01:45	2357101	7.968	-86.806	288.917	17.414	616.273	720.696	0.355	0.468	***4.665***	17.414	17.356
2021-07-21 02:00	2358001	7.951	-85.809	292.219	17.353	615.797	721.117	0.355	0.469	***4.510***	17.353	16.988
2021-07-21 02:15	2358901	7.925	-84.298	293.471	17.313	614.8	720.602	0.355	0.468	***4.509***	17.313	16.911
2021-07-21 02:30	2359801	7.924	-84.183	293.277	17.245	613.274	719.901	0.354	0.468	***4.620***	17.245	17.196
2021-07-21 02:45	2360701	7.899	-82.729	295.564	17.207	612.876	720.056	0.354	0.468	***4.406***	17.207	17.357
2021-07-21 03:00	2361601	7.893	-82.397	297.123	17.148	612.022	719.998	0.354	0.468	***4.242***	17.148	16.953
2021-07-21 03:15	2362501	7.881	-81.706	296.766	17.082	610.953	719.812	0.354	0.468	***4.094***	17.082	17.993
2021-07-21 03:30	2363401	7.894	-82.436	299.083	17.073	610.893	719.881	0.354	0.468	***3.745***	17.073	17.646
2021-07-21 03:45	2364301	7.883	-81.801	301.763	17.044	610.514	719.917	0.354	0.468	***3.425***	17.044	17.209
2021-07-21 04:00	2365201	7.865	-80.743	303.861	16.999	609.79	719.79	0.354	0.468	***3.321***	16.999	17.68
2021-07-21 04:15	2366101	7.872	-81.096	305.279	16.946	608.777	719.446	0.354	0.468	***3.400***	16.946	17.252
2021-07-21 04:30	2367001	7.881	-81.646	304.097	16.921	607.823	718.73	0.354	0.467	***3.311***	16.921	17.249
2021-07-21 04:45	2367901	7.862	-80.509	304.3	16.903	607.307	718.417	0.354	0.467	***3.152***	16.903	17.012

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-21 05:00	2368801	7.855	-80.111	304.924	16.887	607.226	718.578	0.354	0.467	***2.987***	16.887	16.526
2021-07-21 05:15	2369701	7.841	-79.305	306.302	16.85	606.893	718.775	0.354	0.467	***3.070***	16.85	17.545
2021-07-21 05:30	2370601	7.825	-78.363	309.523	16.807	605.775	718.155	0.353	0.467	***2.810***	16.807	17.44
2021-07-21 05:45	2371501	7.831	-78.707	309.108	16.792	605.571	718.154	0.353	0.467	***2.700***	16.792	16.473
2021-07-21 06:00	2372401	7.837	-79.074	308.21	16.77	605.128	717.99	0.353	0.467	***2.550***	16.77	17.17
2021-07-21 06:15	2373301	7.828	-78.549	309.159	16.747	604.694	717.852	0.353	0.467	***2.727***	16.747	16.296
2021-07-21 06:30	2374201	7.826	-78.423	308.648	16.732	604.513	717.886	0.353	0.467	***2.531***	16.732	17.134
2021-07-21 06:45	2375101	7.797	-76.735	309.101	16.722	609.455	723.914	0.356	0.471	***2.404***	16.722	17.805
2021-07-21 07:00	2376001	7.792	-76.475	311.369	16.694	608.637	723.398	0.356	0.470	***2.037***	16.694	16.62
2021-07-21 07:15	2376901	7.791	-76.404	311.624	16.679	608.118	723.034	0.356	0.470	***2.099***	16.679	16.646
2021-07-21 07:30	2377801	7.786	-76.091	310.832	16.678	607.608	722.435	0.356	0.470	***2.146***	16.678	16.689
2021-07-21 07:45	2378701	7.778	-75.648	310.267	16.68	607.708	722.519	0.356	0.470	***2.141***	16.68	16.521
2021-07-21 08:00	2379601	7.763	-74.792	311.199	16.675	607.725	722.63	0.356	0.470	***2.015***	16.675	16.839
2021-07-21 08:15	2380501	7.747	-73.864	312.329	16.664	607.476	722.505	0.356	0.470	***1.938***	16.664	17.298
2021-07-21 08:30	2381401	7.743	-73.6	313.364	16.663	607.442	722.494	0.356	0.470	***1.688***	16.663	16.929
2021-07-21 08:45	2382301	7.741	-73.5	315.012	16.646	607.545	722.885	0.356	0.470	***2.046***	16.646	17.661
2021-07-21 09:00	2383201	7.767	-74.973	312.763	16.634	607.388	722.893	0.356	0.470	***1.984***	16.634	17.847
2021-07-21 09:15	2384101	7.751	-74.077	314.177	16.637	607.484	722.963	0.356	0.470	***1.723***	16.637	17.678
2021-07-21 09:30	2385001	7.757	-74.432	313.636	16.618	607.441	723.225	0.356	0.470	***2.152***	16.618	17.363
2021-07-21 09:45	2385901	7.771	-75.209	312.351	16.602	607.273	723.293	0.356	0.470	***2.322***	16.602	18.019
2021-07-21 10:00	2386801	7.766	-74.944	311.872	16.598	607.235	723.304	0.356	0.470	***2.245***	16.598	18.867
2021-07-21 10:15	2387701	7.770	-75.19	311.795	16.596	610.582	727.33	0.358	0.473	***2.350***	16.596	19.467
2021-07-21 10:30	2388601	7.741	-73.488	315.071	16.604	610.966	727.648	0.358	0.473	***1.836***	16.604	17.896
2021-07-21 10:45	2389501	7.727	-72.696	316.333	16.605	609.795	726.25	0.357	0.472	***1.526***	16.605	16.063
2021-07-21 11:00	2390401	7.742	-73.535	317.131	16.597	609.703	726.266	0.357	0.472	***1.780***	16.597	16.313
2021-07-21 11:15	2391301	7.762	-74.68	317.696	16.599	609.999	726.578	0.358	0.472	***1.865***	16.599	16.986
2021-07-21 11:30	2392201	7.759	-74.551	313.369	16.6	604.156	719.607	0.354	0.468	***2.330***	16.6	17.589
2021-07-21 11:45	2393101	7.763	-74.775	311.545	16.601	603.535	718.856	0.354	0.467	***2.396***	16.601	17.824
2021-07-21 12:00	2394001	7.768	-75.035	311.08	16.598	603.689	719.09	0.354	0.467	***2.075***	16.598	17.499
2021-07-21 12:15	2394901	7.779	-75.688	310.615	16.589	603.182	718.63	0.354	0.467	***1.969***	16.589	17.187
2021-07-21 12:30	2395801	7.781	-75.81	310.773	16.587	603.049	718.501	0.353	0.467	***2.393***	16.587	18.228
2021-07-21 12:45	2396701	7.780	-75.731	310.15	16.593	602.904	718.237	0.353	0.467	***2.611***	16.593	18.462
2021-07-21 13:00	2397601	7.792	-76.427	309.476	16.606	603.029	718.162	0.353	0.467	***2.763***	16.606	17.453
2021-07-21 13:15	2398501	7.807	-77.305	309.876	16.647	603.574	718.155	0.353	0.467	***2.790***	16.647	18.355
2021-07-21 13:30	2399401	7.824	-78.285	307.482	16.735	605.235	718.689	0.354	0.467	***3.230***	16.735	18.89
2021-07-21 13:45	2400301	7.846	-79.591	303.448	16.878	607.638	719.217	0.354	0.467	***3.555***	16.878	18.725
2021-07-21 14:00	2401201	7.852	-79.994	302.492	16.977	609.572	719.888	0.354	0.468	***3.477***	16.977	19.327
2021-07-21 14:15	2402101	7.863	-80.647	299.782	17.095	612.043	720.879	0.355	0.469	***3.679***	17.095	18.828
2021-07-21 14:30	2403001	7.872	-81.196	299.853	17.192	614.604	722.33	0.356	0.470	***3.767***	17.192	21.197
2021-07-21 14:45	2403901	7.876	-81.487	298.632	17.335	617.07	722.907	0.356	0.470	***4.073***	17.335	20.145
2021-07-21 15:00	2404801	7.858	-80.416	300.947	17.365	620.728	726.695	0.358	0.472	***3.793***	17.365	19.924
2021-07-21 15:15	2405701	7.872	-81.213	299.841	17.353	618.939	724.799	0.357	0.471	***3.673***	17.353	20.392
2021-07-21 15:30	2406601	7.877	-81.53	296.966	17.306	619.064	725.711	0.357	0.472	***3.948***	17.306	20.896
2021-07-21 15:45	2407501	7.875	-81.387	297.393	17.296	619.49	726.367	0.358	0.472	***3.888***	17.296	22.031
2021-07-21 16:00	2408401	7.896	-82.626	296.358	17.296	619.013	725.808	0.357	0.472	***3.938***	17.296	22.264
2021-07-21 16:15	2409301	7.903	-82.991	296.282	17.303	620.28	727.187	0.358	0.473	***4.063***	17.303	22.403
2021-07-21 16:30	2410201	7.885	-82.002	298.074	17.321	620.634	727.309	0.358	0.473	***3.840***	17.321	22.469
2021-07-21 16:45	2411101	7.914	-83.659	295.709	17.265	619.32	726.673	0.358	0.472	***4.498***	17.265	23.406
2021-07-21 17:00	2412001	7.879	-81.53	298.141	16.957	612.608	723.806	0.356	0.470	***3.733***	16.957	23.681
2021-07-21 17:15	2412901	7.835	-78.936	301.484	16.774	605.625	718.524	0.354	0.467	***3.044***	16.774	25.523
2021-07-21 17:30	2413801	7.812	-77.648	303.384	16.762	605.057	718.043	0.353	0.467	***2.709***	16.762	28.017
2021-07-21 17:45	2414701	7.785	-76.058	306.836	16.778	605.72	718.559	0.354	0.467	***2.417***	16.778	27.237
2021-07-21 18:00	2415601	7.766	-74.973	310.639	16.833	609.428	722.061	0.355	0.469	***2.337***	16.833	26.726
2021-07-21 18:15	2416501	7.764	-74.885	311.774	16.9	608.691	720.1	0.354	0.468	***2.846***	16.9	26.391
2021-07-21 18:30	2417401	7.770	-75.245	312.713	16.948	609.957	720.818	0.355	0.469	***3.214***	16.948	26.314
2021-07-21 18:45	2418301	7.779	-75.765	311.376	16.981	612.77	723.596	0.356	0.470	***3.080***	16.981	26.137

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-21 19:00	2419201	7.790	-76.396	313.677	17.009	614.044	724.638	0.357	0.471	***3.093***	17.009	26.42
2021-07-21 19:15	2420101	7.803	-77.176	314.175	17.029	614.626	725.008	0.357	0.471	***3.317***	17.029	25.682
2021-07-21 19:30	2421001	7.839	-79.253	311.848	17.025	614.64	725.09	0.357	0.471	***3.829***	17.025	26.571
2021-07-21 19:45	2421901	7.845	-79.61	309.035	17.024	615.178	725.737	0.357	0.472	***4.022***	17.024	26.544
2021-07-21 20:00	2422801	7.860	-80.459	306.331	17.018	614.163	724.638	0.357	0.471	***4.083***	17.018	27.029
2021-07-21 20:15	2423701	7.888	-82.083	300.084	16.986	613.508	724.392	0.357	0.471	***3.792***	16.986	27.96
2021-07-21 20:30	2424601	7.866	-80.771	298.642	16.948	610.739	721.741	0.355	0.469	***3.952***	16.948	29.485
2021-07-21 20:45	2425501	7.866	-80.795	297.259	16.923	610.674	722.06	0.355	0.469	***3.666***	16.923	27.895
2021-07-21 21:00	2426401	7.860	-80.388	298.842	16.883	610.087	722.021	0.355	0.469	***3.736***	16.883	28.583
2021-07-21 21:15	2427301	7.863	-80.581	299.855	16.849	609.583	721.978	0.355	0.469	***3.779***	16.849	28.072
2021-07-21 21:30	2428201	7.851	-79.901	300.378	16.822	608.982	721.711	0.355	0.469	***3.576***	16.822	27.672
2021-07-21 21:45	2429101	7.829	-78.595	301.779	16.8	608.478	721.475	0.355	0.469	***3.085***	16.8	27.805
2021-07-21 22:00	2430001	7.831	-78.723	302.802	16.77	608.065	721.477	0.355	0.469	***3.162***	16.77	27.352
2021-07-21 22:15	2430901	7.817	-77.908	304.388	16.745	607.417	721.115	0.355	0.469	***3.316***	16.745	27.373
2021-07-21 22:30	2431801	7.807	-77.343	306.264	16.72	607.124	721.171	0.355	0.469	***3.144***	16.72	27.673
2021-07-21 22:45	2432701	7.799	-76.84	307.914	16.666	607.317	722.288	0.355	0.469	***2.674***	16.666	27.065
2021-07-21 23:00	2433601	7.798	-76.785	310.308	16.604	606.015	721.761	0.355	0.469	***2.652***	16.604	28.174
2021-07-21 23:15	2434501	7.788	-76.21	310.928	16.562	605.021	721.263	0.355	0.469	***2.662***	16.562	26.549
2021-07-21 23:30	2435401	7.774	-75.397	312.544	16.549	604.984	721.437	0.355	0.469	***2.428***	16.549	26.575
2021-07-21 23:45	2436301	7.789	-76.222	312.251	16.514	605.596	722.747	0.356	0.470	***2.191***	16.514	26.273
2021-07-22 00:00	2437201	7.777	-75.521	313.135	16.505	606.606	724.091	0.356	0.471	***2.274***	16.505	27.417
2021-07-22 00:15	2438101	7.777	-75.548	315.181	16.466	607.42	725.704	0.357	0.472	***2.515***	16.466	26.584
2021-07-22 00:30	2439001	7.767	-74.937	315.372	16.44	607.666	726.435	0.357	0.472	***2.606***	16.44	25.649
2021-07-22 00:45	2439901	7.773	-75.288	315.894	16.418	607.495	726.589	0.358	0.472	***2.610***	16.418	27.827
2021-07-22 01:00	2440801	7.771	-75.166	316.964	16.399	607.395	726.799	0.358	0.472	***2.687***	16.399	28.285
2021-07-22 01:15	2441701	7.766	-74.868	317.358	16.367	607.552	727.517	0.358	0.473	***2.570***	16.367	28.674
2021-07-22 01:30	2442601	7.756	-74.301	318.059	16.347	607.449	727.717	0.358	0.473	***2.594***	16.347	27.897
2021-07-22 01:45	2443501	7.747	-73.769	319.053	16.323	607.089	727.692	0.358	0.473	***2.789***	16.323	27.935
2021-07-22 02:00	2444401	7.743	-73.519	319.153	16.287	606.917	728.081	0.358	0.473	***2.632***	16.287	23.382
2021-07-22 02:15	2445301	7.741	-73.426	318.96	16.251	606.228	727.849	0.358	0.473	***2.736***	16.251	21.686
2021-07-22 02:30	2446201	7.747	-73.738	319.761	16.202	605.279	727.541	0.358	0.473	***2.859***	16.202	21.671
2021-07-22 02:45	2447101	7.761	-74.532	318.817	16.176	604.786	727.37	0.358	0.473	***2.718***	16.176	21.016
2021-07-22 03:00	2448001	7.761	-74.525	318.397	16.134	604.236	727.423	0.358	0.473	***2.409***	16.134	21.468
2021-07-22 03:15	2448901	7.748	-73.771	318.342	16.083	603.526	727.414	0.358	0.473	***2.508***	16.083	21.463
2021-07-22 03:30	2449801	7.749	-73.831	318.731	16.06	603.17	727.372	0.358	0.473	***2.593***	16.06	22.176
2021-07-22 03:45	2450701	7.744	-73.547	318.464	16.03	602.108	726.6	0.357	0.472	***2.681***	16.03	21.782
2021-07-22 04:00	2451601	7.741	-73.342	318.683	15.999	602.158	727.173	0.358	0.473	***2.585***	15.999	22.057
2021-07-22 04:15	2452501	7.744	-73.504	319.179	15.968	601.642	727.062	0.358	0.473	***2.767***	15.968	20.802
2021-07-22 04:30	2453401	7.743	-73.438	319.265	15.961	601.445	726.941	0.358	0.473	***2.558***	15.961	22.182
2021-07-22 04:45	2454301	7.744	-73.521	318.476	15.951	601.262	726.895	0.358	0.472	***2.362***	15.951	20.863
2021-07-22 05:00	2455201	7.745	-73.535	320.157	15.916	600.652	726.738	0.357	0.472	***2.672***	15.916	20.931
2021-07-22 05:15	2456101	7.739	-73.204	320.214	15.885	600.428	726.997	0.358	0.473	***2.552***	15.885	22.731
2021-07-22 05:30	2457001	7.741	-73.304	320.092	15.852	600.612	727.769	0.358	0.473	***2.691***	15.852	21.549
2021-07-22 05:45	2457901	7.744	-73.454	319.651	15.853	600.363	727.45	0.358	0.473	***2.263***	15.853	21.366
2021-07-22 06:00	2458801	7.741	-73.28	319.63	15.84	600.026	727.264	0.358	0.473	***2.253***	15.84	22.408
2021-07-22 06:15	2459701	7.738	-73.135	320.173	15.797	599.796	727.71	0.358	0.473	***2.437***	15.797	20.837
2021-07-22 06:30	2460601	7.741	-73.307	319.337	15.79	599.716	727.731	0.358	0.473	***2.130***	15.79	20.955
2021-07-22 06:45	2461501	7.731	-72.699	319.325	15.792	599.55	727.496	0.358	0.473	***2.065***	15.792	20.096
2021-07-22 07:00	2462401	7.735	-72.927	319.401	15.796	599.829	727.77	0.358	0.473	***1.903***	15.796	20.433
2021-07-22 07:15	2463301	7.733	-72.834	320.209	15.806	599.725	727.474	0.358	0.473	***1.735***	15.806	19.854
2021-07-22 07:30	2464201	7.750	-73.829	320.047	15.817	599.471	726.98	0.358	0.473	***2.111***	15.817	19.319
2021-07-22 07:45	2465101	7.751	-73.867	320.052	15.816	599.017	726.451	0.357	0.472	***2.238***	15.816	19.744
2021-07-22 08:00	2466001	7.756	-74.17	319.558	15.819	599.228	726.648	0.357	0.472	***2.289***	15.819	19
2021-07-22 08:15	2466901	7.768	-74.873	319.003	15.831	598.819	725.946	0.357	0.472	***2.262***	15.831	18.579
2021-07-22 08:30	2467801	7.780	-75.557	316.023	15.854	599.272	726.122	0.357	0.472	***2.668***	15.854	18.744
2021-07-22 08:45	2468701	7.779	-75.51	315.241	15.855	599.53	726.409	0.357	0.472	***2.673***	15.855	19.334

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-22 09:00	2469601	7.779	-75.51	314.392	15.847	599.607	726.647	0.357	0.472	***2.575***	15.847	19.55
2021-07-22 09:15	2470501	7.776	-75.305	314.12	15.839	599.851	727.073	0.358	0.473	***2.538***	15.839	19.27
2021-07-22 09:30	2471401	7.785	-75.808	314.409	15.82	599.474	726.937	0.358	0.473	***2.679***	15.82	20.641
2021-07-22 09:45	2472301	7.786	-75.874	313.538	15.817	599.381	726.873	0.358	0.472	***2.653***	15.817	20.022
2021-07-22 10:00	2473201	7.786	-75.884	313.567	15.816	599.625	727.176	0.358	0.473	***2.681***	15.816	19.382
2021-07-22 10:15	2474101	7.781	-75.579	313.603	15.807	599.652	727.374	0.358	0.473	***2.614***	15.807	18.693
2021-07-22 10:30	2475001	7.779	-75.469	313.681	15.782	598.57	726.479	0.357	0.472	***2.553***	15.782	19.192
2021-07-22 10:45	2475901	7.777	-75.369	314.375	15.781	598.518	726.427	0.357	0.472	***2.560***	15.781	20.001
2021-07-22 11:00	2476801	7.775	-75.24	314.361	15.782	598.907	726.885	0.358	0.472	***2.588***	15.782	20.426
2021-07-22 11:15	2477701	7.769	-74.918	315.317	15.786	599.706	727.785	0.358	0.473	***2.477***	15.786	21.114
2021-07-22 11:30	2478601	7.782	-75.648	313.638	15.787	599.889	727.999	0.358	0.473	***2.720***	15.787	20.587
2021-07-22 11:45	2479501	7.789	-76.065	312.84	15.788	599.753	727.808	0.358	0.473	***2.843***	15.788	20.209
2021-07-22 12:00	2480401	7.798	-76.535	312.015	15.785	598.656	726.537	0.357	0.472	***2.959***	15.785	21.559
2021-07-22 12:15	2481301	7.799	-76.63	311.304	15.785	599.1	727.069	0.358	0.473	***2.958***	15.785	21.295
2021-07-22 12:30	2482201	7.799	-76.611	311.226	15.803	600.424	728.375	0.358	0.473	***2.935***	15.803	21.098
2021-07-22 12:45	2483101	7.800	-76.697	310.127	15.825	598.745	725.963	0.357	0.472	***3.066***	15.825	22.463
2021-07-22 13:00	2484001	7.797	-76.518	309.826	15.823	599.081	726.409	0.357	0.472	***3.106***	15.823	22.657
2021-07-22 13:15	2484901	7.806	-77.004	309.046	15.849	599.744	726.768	0.357	0.472	***3.174***	15.849	22.443
2021-07-22 13:30	2485801	7.812	-77.393	308.04	15.883	600.344	726.934	0.358	0.473	***3.309***	15.883	22.749
2021-07-22 13:45	2486701	7.822	-77.987	306.455	15.887	603.22	730.335	0.359	0.475	***3.450***	15.887	22.817
2021-07-22 14:00	2487601	7.828	-78.323	306.562	15.929	603.588	730.074	0.359	0.475	***3.548***	15.929	22.407
2021-07-22 14:15	2488501	7.834	-78.647	304.931	15.985	604.593	730.354	0.359	0.475	***3.647***	15.985	22.655
2021-07-22 14:30	2489401	7.844	-79.279	303.751	16.038	605.477	730.518	0.359	0.475	***3.812***	16.038	22.944
2021-07-22 14:45	2490301	7.847	-79.448	302.8	16.061	605.746	730.456	0.359	0.475	***3.827***	16.061	23.168
2021-07-22 15:00	2491201	7.856	-79.978	301.858	16.08	606.006	730.457	0.359	0.475	***3.953***	16.08	22.805
2021-07-22 15:15	2492101	7.864	-80.419	301.245	16.09	606.342	730.694	0.360	0.475	***4.073***	16.09	23.577
2021-07-22 15:30	2493001	7.869	-80.729	300.18	16.209	607.948	730.628	0.360	0.475	***4.190***	16.209	23.28
2021-07-22 15:45	2493901	7.884	-81.592	298.339	16.24	608.712	731.019	0.360	0.475	***4.369***	16.24	24.585
2021-07-22 16:00	2494801	7.887	-81.758	297.834	16.218	608.83	731.531	0.360	0.475	***4.358***	16.218	23.944
2021-07-22 16:15	2495701	7.885	-81.687	297.657	16.251	609.57	731.873	0.360	0.476	***4.314***	16.251	23.639
2021-07-22 16:30	2496601	7.899	-82.476	296.296	16.258	610.355	732.689	0.361	0.476	***4.492***	16.258	23.56
2021-07-22 16:45	2497501	7.909	-83.06	295.495	16.258	610.779	733.206	0.361	0.477	***4.574***	16.258	23.755
2021-07-22 17:00	2498401	7.911	-83.182	295.452	16.255	611.022	733.539	0.361	0.477	***4.599***	16.255	22.417
2021-07-22 17:15	2499301	7.919	-83.64	294.904	16.31	611.954	733.745	0.361	0.477	***4.722***	16.31	23.846
2021-07-22 17:30	2500201	7.922	-83.828	294.493	16.272	611.806	734.196	0.361	0.477	***4.763***	16.272	24.144
2021-07-22 17:45	2501101	7.927	-84.107	294.203	16.3	612.295	734.315	0.361	0.477	***4.810***	16.3	23.702
2021-07-22 18:00	2502001	7.933	-84.422	293.425	16.295	612.111	734.188	0.361	0.477	***4.862***	16.295	23.66
2021-07-22 18:15	2502901	7.935	-84.569	293.082	16.292	612.057	734.157	0.361	0.477	***4.881***	16.292	24.618
2021-07-22 18:30	2503801	7.935	-84.543	293.411	16.266	612.058	734.601	0.362	0.477	***4.891***	16.266	24.834
2021-07-22 18:45	2504701	7.938	-84.705	293.006	16.256	612.254	735.007	0.362	0.478	***4.849***	16.256	24.977
2021-07-22 19:00	2505601	7.945	-85.115	292.484	16.278	612.57	735.015	0.362	0.478	***4.902***	16.278	25.43
2021-07-22 19:15	2506501	7.947	-85.251	291.876	16.262	612.194	734.841	0.362	0.478	***5.008***	16.262	24.634
2021-07-22 19:30	2507401	7.947	-85.261	291.63	16.26	612.012	734.646	0.362	0.478	***5.063***	16.26	24.17
2021-07-22 19:45	2508301	7.951	-85.483	291.105	16.257	611.93	734.595	0.362	0.477	***5.085***	16.257	25.49
2021-07-22 20:00	2509201	7.948	-85.28	290.962	16.25	611.841	734.615	0.362	0.477	***5.075***	16.25	26.17
2021-07-22 20:15	2510101	7.945	-85.142	291.07	16.232	611.713	734.769	0.362	0.478	***5.011***	16.232	26.389
2021-07-22 20:30	2511001	7.944	-85.042	291.222	16.224	611.566	734.725	0.362	0.478	***5.047***	16.224	26.401
2021-07-22 20:45	2511901	7.944	-85.032	291.222	16.201	611.17	734.634	0.362	0.478	***5.024***	16.201	26.052
2021-07-22 21:00	2512801	7.936	-84.589	291.768	16.19	611.056	734.68	0.362	0.478	***4.934***	16.19	26.672
2021-07-22 21:15	2513701	7.948	-85.275	291.272	16.165	610.679	734.651	0.362	0.478	***5.059***	16.165	25.44
2021-07-22 21:30	2514601	7.950	-85.373	291.306	16.138	610.347	734.701	0.362	0.478	***5.023***	16.138	25.305
2021-07-22 21:45	2515501	7.946	-85.154	291.461	16.118	610.189	734.856	0.362	0.478	***4.945***	16.118	25.336
2021-07-22 22:00	2516401	7.944	-85.008	292.019	16.091	609.754	734.779	0.362	0.478	***4.920***	16.091	25.877
2021-07-22 22:15	2517301	7.945	-85.094	292.128	16.062	609.192	734.602	0.362	0.477	***4.961***	16.062	26.054
2021-07-22 22:30	2518201	7.940	-84.777	292.433	16.028	608.77	734.66	0.362	0.478	***4.807***	16.028	26.479
2021-07-22 22:45	2519101	7.938	-84.629	293.015	16.009	608.563	734.732	0.362	0.478	***4.829***	16.009	25.777

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-22 23:00	2520001	7.936	-84.517	293.313	15.997	608.279	734.602	0.362	0.477	***4.795***	15.997	25.726
2021-07-22 23:15	2520901	7.929	-84.133	293.897	15.987	608.19	734.668	0.362	0.478	***4.715***	15.987	25.076
2021-07-22 23:30	2521801	7.929	-84.093	294.186	15.965	607.751	734.495	0.361	0.477	***4.708***	15.965	26.652
2021-07-22 23:45	2522701	7.927	-84.014	294.436	15.948	607.644	734.664	0.362	0.478	***4.678***	15.948	26.927
2021-07-23 00:00	2523601	7.926	-83.933	294.405	15.925	607.208	734.533	0.361	0.477	***4.701***	15.925	26.536
2021-07-23 00:15	2524501	7.918	-83.487	295.237	15.893	606.86	734.652	0.362	0.478	***4.622***	15.893	27.177
2021-07-23 00:30	2525401	7.908	-82.91	296.591	15.875	606.715	734.78	0.362	0.478	***4.551***	15.875	27.224
2021-07-23 00:45	2526301	7.905	-82.691	296.658	15.844	606.201	734.677	0.362	0.478	***4.562***	15.844	26.483
2021-07-23 01:00	2527201	7.900	-82.44	296.713	15.821	605.934	734.755	0.362	0.478	***4.435***	15.821	26.012
2021-07-23 01:15	2528101	7.891	-81.882	297.631	15.791	605.541	734.782	0.362	0.478	***4.473***	15.791	25.917
2021-07-23 01:30	2529001	7.882	-81.37	300.051	15.762	605.205	734.864	0.362	0.478	***4.332***	15.762	27.492
2021-07-23 01:45	2529901	7.877	-81.067	301.374	15.732	604.65	734.708	0.361	0.478	***4.237***	15.732	26.471
2021-07-23 02:00	2530801	7.869	-80.605	303.222	15.699	604.522	735.106	0.362	0.478	***4.052***	15.699	25.658
2021-07-23 02:15	2531701	7.880	-81.253	302.645	15.666	603.486	734.416	0.361	0.477	***4.161***	15.666	25.935
2021-07-23 02:30	2532601	7.889	-81.704	301.181	15.627	602.602	734.012	0.361	0.477	***4.336***	15.627	24.694
2021-07-23 02:45	2533501	7.887	-81.582	301.036	15.609	602.495	734.192	0.361	0.477	***4.339***	15.609	25.28
2021-07-23 03:00	2534401	7.887	-81.575	301.653	15.579	602.125	734.25	0.361	0.477	***4.319***	15.579	25.205
2021-07-23 03:15	2535301	7.891	-81.825	302.075	15.514	601.089	734.094	0.361	0.477	***4.354***	15.514	24.313
2021-07-23 03:30	2536201	7.877	-80.984	301.76	15.497	601.09	734.387	0.361	0.477	***4.338***	15.497	24.319
2021-07-23 03:45	2537101	7.871	-80.678	303.432	15.478	600.985	734.579	0.361	0.477	***3.872***	15.478	24.435
2021-07-23 04:00	2538001	7.879	-81.084	303.475	15.463	600.61	734.381	0.361	0.477	***4.204***	15.463	25.058
2021-07-23 04:15	2538901	7.883	-81.31	303.386	15.457	600.479	734.322	0.361	0.477	***4.102***	15.457	24.205
2021-07-23 04:30	2539801	7.889	-81.668	302.912	15.45	600.382	734.32	0.361	0.477	***4.125***	15.45	24.024
2021-07-23 04:45	2540701	7.890	-81.732	303.644	15.422	599.878	734.192	0.361	0.477	***4.149***	15.422	24.243
2021-07-23 05:00	2541601	7.899	-82.231	303.858	15.392	599.422	734.153	0.361	0.477	***4.256***	15.392	24.225
2021-07-23 05:15	2542501	7.898	-82.166	304.095	15.379	599.172	734.06	0.361	0.477	***4.253***	15.379	24.432
2021-07-23 05:30	2543401	7.896	-82.035	304.521	15.377	599.221	734.162	0.361	0.477	***4.183***	15.377	24.332
2021-07-23 05:45	2544301	7.898	-82.147	304.936	15.329	595.611	730.566	0.359	0.475	***4.264***	15.329	21.364
2021-07-23 06:00	2545201	7.897	-82.083	305.487	15.29	598.081	734.259	0.361	0.477	***4.214***	15.29	35.549
2021-07-23 06:15	2546101	7.891	-81.735	305.945	15.278	598.001	734.357	0.361	0.477	***4.214***	15.278	43.323
2021-07-23 06:30	2547001	7.892	-81.825	306.219	15.281	598.032	734.36	0.361	0.477	***4.176***	15.281	21.67
2021-07-23 06:45	2547901	7.890	-81.68	306.05	15.28	598.076	734.42	0.361	0.477	***4.110***	15.28	21.193
2021-07-23 07:00	2548801	7.892	-81.828	306.169	15.269	597.734	734.191	0.361	0.477	***4.209***	15.269	21.092
2021-07-23 07:15	2549701	7.895	-81.964	305.778	15.234	597.295	734.249	0.361	0.477	***4.244***	15.234	20.923
2021-07-23 07:30	2550601	7.899	-82.176	305.334	15.229	596.876	733.829	0.361	0.477	***4.214***	15.229	21.574
2021-07-23 07:45	2551501	7.898	-82.121	304.919	15.226	596.715	733.675	0.361	0.477	***4.247***	15.226	21.856
2021-07-23 08:00	2552401	7.904	-82.45	303.949	15.225	596.635	733.602	0.361	0.477	***4.413***	15.225	21.87
2021-07-23 08:15	2553301	7.913	-82.982	302.39	15.214	596.465	733.586	0.361	0.477	***4.484***	15.214	25.106
2021-07-23 08:30	2554201	7.915	-83.096	301.913	15.222	596.537	733.535	0.361	0.477	***4.432***	15.222	25.179
2021-07-23 08:45	2555101	7.918	-83.277	301.694	15.214	596.505	733.626	0.361	0.477	***4.455***	15.214	25.375
2021-07-23 09:00	2556001	7.917	-83.23	301.648	15.185	596.149	733.691	0.361	0.477	***4.480***	15.185	24.975
2021-07-23 09:15	2556901	7.917	-83.218	301.262	15.197	596.47	733.875	0.361	0.477	***4.545***	15.197	25.01
2021-07-23 09:30	2557801	7.914	-83.058	301.52	15.197	596.297	733.667	0.361	0.477	***4.461***	15.197	25.995
2021-07-23 09:45	2558701	7.921	-83.442	301.503	15.179	595.73	733.28	0.361	0.477	***4.585***	15.179	27.133
2021-07-23 10:00	2559601	7.921	-83.447	300.816	15.174	597.91	736.056	0.362	0.478	***4.570***	15.174	27.864
2021-07-23 10:15	2560501	7.922	-83.506	300.864	15.168	595.399	733.068	0.360	0.476	***4.600***	15.168	25.776
2021-07-23 10:30	2561401	7.929	-83.857	300.151	15.153	595.156	733.029	0.360	0.476	***4.652***	15.153	20.448
2021-07-23 10:45	2562301	7.931	-83.992	299.629	15.147	595.041	732.985	0.360	0.476	***4.705***	15.147	20.484
2021-07-23 11:00	2563201	7.937	-84.343	299.233	15.151	595.47	733.435	0.361	0.477	***4.814***	15.151	20.742
2021-07-23 11:15	2564101	7.943	-84.705	298.718	15.181	595.75	733.272	0.361	0.477	***4.956***	15.181	20.768
2021-07-23 11:30	2565001	7.950	-85.118	297.664	15.225	596.416	733.339	0.361	0.477	***4.986***	15.225	20.47
2021-07-23 11:45	2565901	7.955	-85.385	297.533	15.285	597.404	733.52	0.361	0.477	***5.101***	15.285	20.72
2021-07-23 12:00	2566801	7.964	-85.924	296.565	15.337	598.152	733.534	0.361	0.477	***5.163***	15.337	20.696
2021-07-23 12:15	2567701	7.968	-86.191	295.418	15.404	599.228	733.708	0.361	0.477	***5.261***	15.404	21.558
2021-07-23 12:30	2568601	7.982	-87.025	294.296	15.494	600.447	733.657	0.361	0.477	***5.522***	15.494	21.096
2021-07-23 12:45	2569501	7.994	-87.724	292.793	15.515	600.514	733.383	0.361	0.477	***5.608***	15.515	21.663

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-23 13:00	2570401	7.999	-88.024	291.942	15.58	601.517	733.494	0.361	0.477	***5.711***	15.58	21.383
2021-07-23 13:15	2571302	8.011	-88.789	289.484	15.785	604.489	733.609	0.361	0.477	***5.878***	15.785	21.749
2021-07-23 13:30	2572202	8.023	-89.521	287.603	15.916	606.07	733.298	0.361	0.477	***6.114***	15.916	20.368
2021-07-23 13:45	2573102	8.039	-90.48	285.321	16.065	607.947	733.05	0.361	0.476	***6.374***	16.065	20.634
2021-07-23 14:00	2574002	8.053	-91.333	283.76	16.25	610.897	733.483	0.361	0.477	6.543	16.25	21.256
2021-07-23 14:15	2574902	8.076	-92.685	280.915	16.357	612.736	733.881	0.361	0.477	6.820	16.357	20.814
2021-07-23 14:30	2575802	8.081	-92.998	279.628	16.442	613.806	733.743	0.361	0.477	6.882	16.442	21.526
2021-07-23 14:45	2576702	8.086	-93.331	278.176	16.654	617.031	734.038	0.361	0.477	6.964	16.654	20.85
2021-07-23 15:00	2577602	8.103	-94.364	277.079	16.739	618.465	734.336	0.362	0.477	7.220	16.739	21.662
2021-07-23 15:15	2578502	8.124	-95.494	276.123	16.587	615.319	733.119	0.361	0.477	7.375	16.587	22.169
2021-07-23 15:30	2579402	8.111	-94.659	276.235	16.305	611.181	732.905	0.361	0.476	6.947	16.305	21.776
2021-07-23 15:45	2580302	8.069	-92.158	279.559	15.969	606.306	732.687	0.361	0.476	***6.260***	15.969	21.558
2021-07-23 16:00	2581202	8.064	-91.98	279.945	16.296	610.92	732.734	0.361	0.476	6.765	16.296	21.673
2021-07-23 16:15	2582102	8.076	-92.621	280.205	16.133	608.198	732.197	0.360	0.476	6.682	16.133	22.387
2021-07-23 16:30	2583002	8.076	-92.642	279.602	16.207	609.213	732.179	0.360	0.476	6.787	16.207	21.835
2021-07-23 16:45	2583902	8.090	-93.381	279.275	16.079	607.366	732.114	0.360	0.476	6.940	16.079	21.856
2021-07-23 17:00	2584802	8.093	-93.555	278.772	16.002	606.101	731.88	0.360	0.476	6.901	16.002	22.324
2021-07-23 17:15	2585702	8.094	-93.586	278.946	16.028	606.548	731.979	0.360	0.476	6.970	16.028	22.472
2021-07-23 17:30	2586602	8.103	-94.082	278.739	15.986	606.273	732.356	0.360	0.476	6.976	15.986	22.179
2021-07-23 17:45	2587502	8.095	-93.679	279.108	15.993	606.044	731.971	0.360	0.476	6.837	15.993	22.37
2021-07-23 18:00	2588402	8.093	-93.52	280.076	16.005	606.331	732.109	0.360	0.476	6.847	16.005	22.651
2021-07-23 18:15	2589302	8.106	-94.33	278.562	16.118	608.742	733.109	0.361	0.477	7.082	16.118	22.665
2021-07-23 18:30	2590202	8.116	-94.883	277.506	16.138	609.136	733.248	0.361	0.477	7.140	16.138	22.486
2021-07-23 18:45	2591102	8.122	-95.282	276.562	16.177	609.671	733.231	0.361	0.477	7.226	16.177	22.966
2021-07-23 19:00	2592002	8.124	-95.375	276.955	16.178	609.604	733.131	0.361	0.477	7.179	16.178	23.621
2021-07-23 19:15	2592902	8.124	-95.394	277.199	16.173	609.641	733.269	0.361	0.477	7.066	16.173	24.063
2021-07-23 19:30	2593802	8.128	-95.639	276.984	16.196	610.04	733.358	0.361	0.477	7.174	16.196	24.483
2021-07-23 19:45	2594702	8.126	-95.515	277.444	16.18	609.869	733.429	0.361	0.477	7.111	16.18	24.951
2021-07-23 20:00	2595602	8.134	-95.99	276.228	16.235	610.756	733.561	0.361	0.477	7.217	16.235	24.959
2021-07-23 20:15	2596502	8.131	-95.761	275.861	16.191	610.31	733.769	0.361	0.477	7.111	16.191	24.668
2021-07-23 20:30	2597402	8.127	-95.563	275.658	16.194	610.682	734.164	0.361	0.477	7.048	16.194	25.47
2021-07-23 20:45	2598302	8.121	-95.212	276.736	16.202	610.792	734.158	0.361	0.477	6.903	16.202	24.657
2021-07-23 21:00	2599202	8.123	-95.327	276.531	16.229	611.165	734.163	0.361	0.477	7.018	16.229	24.115
2021-07-23 21:15	2600102	8.127	-95.62	274.659	16.329	612.717	734.333	0.361	0.477	7.218	16.329	23.954
2021-07-23 21:30	2601002	8.116	-94.962	275.949	16.304	612.822	734.88	0.362	0.478	6.823	16.304	24.181
2021-07-23 21:45	2601902	8.109	-94.6	275.248	16.503	616.131	735.502	0.362	0.478	7.081	16.503	24.487
2021-07-23 22:00	2602802	8.132	-95.975	272.137	16.604	617.359	735.276	0.362	0.478	7.128	16.604	26.05
2021-07-23 22:15	2603702	8.153	-97.194	269.152	16.669	618.106	735.079	0.362	0.478	7.240	16.669	23.585
2021-07-23 22:30	2604602	8.169	-98.178	267.419	16.778	619.963	735.46	0.362	0.478	7.394	16.778	23.624
2021-07-23 22:45	2605502	8.180	-98.817	266.598	16.781	620.412	735.945	0.362	0.478	7.304	16.781	23.832
2021-07-23 23:00	2606402	8.177	-98.631	265.604	16.813	621.304	736.466	0.363	0.479	7.266	16.813	24.219
2021-07-23 23:15	2607302	8.175	-98.505	265.511	16.819	621.687	736.813	0.363	0.479	7.097	16.819	23.428
2021-07-23 23:30	2608202	8.170	-98.207	267.485	16.818	622.08	737.296	0.363	0.479	6.871	16.818	23.259
2021-07-23 23:45	2609102	8.158	-97.568	268.758	16.805	622.088	737.534	0.363	0.479	6.829	16.805	23.131
2021-07-24 00:00	2610002	8.150	-97.084	271.121	16.78	622.406	738.332	0.364	0.480	6.522	16.78	22.273
2021-07-24 00:15	2610902	8.141	-96.571	272.509	16.765	622.11	738.223	0.364	0.480	***6.418***	16.765	22.391
2021-07-24 00:30	2611802	8.116	-95.084	273.491	16.749	622.444	738.88	0.364	0.480	***6.294***	16.749	22.53
2021-07-24 00:45	2612702	8.089	-93.517	279.835	16.714	623.195	740.369	0.365	0.481	***6.052***	16.714	21.718
2021-07-24 01:00	2613602	8.069	-92.385	283.362	16.686	622.226	739.68	0.364	0.481	***6.361***	16.686	22.652
2021-07-24 01:15	2614502	8.042	-90.833	283.178	16.644	621.703	739.762	0.364	0.481	***6.015***	16.644	23.074
2021-07-24 01:30	2615402	8.036	-90.444	283.86	16.601	621.183	739.877	0.364	0.481	***6.167***	16.601	22.943
2021-07-24 01:45	2616302	8.053	-91.419	282.892	16.566	620.549	739.716	0.364	0.481	***6.316***	16.566	20.883
2021-07-24 02:00	2617202	8.053	-91.4	284.468	16.536	620.279	739.886	0.364	0.481	***6.239***	16.536	21.049
2021-07-24 02:15	2618102	8.061	-91.844	286.621	16.491	619.252	739.421	0.364	0.481	6.539	16.491	20.777
2021-07-24 02:30	2619002	8.093	-93.713	285.131	16.488	618.838	738.982	0.364	0.480	***6.190***	16.488	20.516
2021-07-24 02:45	2619902	8.115	-94.936	283.006	16.471	618.954	739.407	0.364	0.481	***5.874***	16.471	21.481

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-24 03:00	2620802	8.103	-94.242	284.361	16.449	618.932	739.746	0.364	0.481	***6.122***	16.449	20.31
2021-07-24 03:15	2621702	8.093	-93.67	283.414	16.431	618.93	740.055	0.364	0.481	***6.002***	16.431	20.696
2021-07-24 03:30	2622602	8.059	-91.734	289.322	16.378	618.632	740.595	0.365	0.481	***5.596***	16.378	20.962
2021-07-24 03:45	2623502	8.120	-95.184	287.765	16.315	616.115	738.646	0.364	0.480	6.718	16.315	21.855
2021-07-24 04:00	2624402	8.148	-96.784	282.415	16.346	616.208	738.238	0.363	0.480	7.094	16.346	20.457
2021-07-24 04:15	2625302	8.153	-97.075	279.793	16.361	616.701	738.565	0.364	0.480	7.164	16.361	20.318
2021-07-24 04:30	2626202	8.152	-97.008	278.939	16.315	616.297	738.855	0.364	0.480	6.926	16.315	20.826
2021-07-24 04:45	2627102	8.126	-95.532	280.293	16.239	615.915	739.695	0.364	0.481	***6.225***	16.239	21.204
2021-07-24 05:00	2628002	8.068	-92.182	285.863	16.196	615.518	739.937	0.364	0.481	***5.286***	16.196	21.62
2021-07-24 05:15	2628902	8.035	-90.263	289.842	16.17	615.176	739.983	0.364	0.481	***4.989***	16.17	21.599
2021-07-24 05:30	2629802	8.039	-90.489	290.717	16.139	614.317	739.471	0.364	0.481	***5.147***	16.139	22.218
2021-07-24 05:45	2630702	8.048	-90.969	288.726	16.098	613.491	739.177	0.364	0.480	***5.802***	16.098	22.207
2021-07-24 06:00	2631602	8.045	-90.814	288.173	16.073	613.102	739.128	0.364	0.480	***5.744***	16.073	22.162
2021-07-24 06:15	2632502	8.045	-90.818	288.135	16.043	612.755	739.223	0.364	0.480	***5.594***	16.043	22.003
2021-07-24 06:30	2633402	8.044	-90.709	287.129	16.025	612.54	739.267	0.364	0.481	***5.446***	16.025	22.363
2021-07-24 06:45	2634302	8.040	-90.48	287.851	16.002	613.078	740.304	0.364	0.481	***5.561***	16.002	24.075
2021-07-24 07:00	2635202	8.034	-90.168	288.738	15.981	611.815	739.136	0.364	0.480	***5.339***	15.981	22.463
2021-07-24 07:15	2636102	8.033	-90.101	288.693	15.951	611.251	738.975	0.364	0.480	***5.781***	15.951	22.921
2021-07-24 07:30	2637002	8.018	-89.185	289.334	15.926	611.26	739.412	0.364	0.481	***5.381***	15.926	22.505
2021-07-24 07:45	2637902	8.006	-88.489	290.388	15.891	610.643	739.257	0.364	0.481	***5.258***	15.891	22.943
2021-07-24 08:00	2638802	7.998	-88.048	291.241	15.867	610.682	739.718	0.364	0.481	***5.030***	15.867	22.482
2021-07-24 08:15	2639702	7.987	-87.44	292.476	15.853	610.42	739.638	0.364	0.481	***4.775***	15.853	22.419
2021-07-24 08:30	2640602	7.975	-86.725	296.022	15.838	610.166	739.585	0.364	0.481	***4.960***	15.838	21.971
2021-07-24 08:45	2641502	7.960	-85.835	297.49	15.816	610.21	740.012	0.364	0.481	***5.012***	15.816	22.493
2021-07-24 09:00	2642402	7.964	-86.06	297.326	15.791	609.32	739.365	0.364	0.481	***5.283***	15.791	22.403
2021-07-24 09:15	2643302	8.037	-90.275	292.793	15.779	608.222	738.239	0.363	0.480	***5.965***	15.779	22.096
2021-07-24 09:30	2644202	8.064	-91.815	289.956	15.78	607.849	737.778	0.363	0.480	***6.245***	15.78	22.345
2021-07-24 09:45	2645102	8.078	-92.633	287.923	15.779	607.952	737.92	0.363	0.480	***6.298***	15.779	23.257
2021-07-24 10:00	2646002	8.087	-93.126	285.763	15.792	609.248	739.259	0.364	0.481	***6.335***	15.792	22.029
2021-07-24 10:15	2646902	8.098	-93.784	284.895	15.804	608.189	737.78	0.363	0.480	***6.465***	15.804	22.438
2021-07-24 10:30	2647802	8.110	-94.457	283.552	15.812	608.004	737.417	0.363	0.479	6.575	15.812	23.327
2021-07-24 10:45	2648702	8.111	-94.523	282.067	15.814	608.385	737.843	0.363	0.480	6.583	15.814	23.323
2021-07-24 11:00	2649602	8.120	-95.053	280.777	15.827	607.386	736.404	0.362	0.479	6.714	15.827	22.345
2021-07-24 11:15	2650502	8.130	-95.637	279.351	15.844	610.024	739.313	0.364	0.481	6.817	15.844	23.156
2021-07-24 11:30	2651402	8.134	-95.861	278.455	15.878	610.641	739.476	0.364	0.481	6.859	15.878	22.344
2021-07-24 11:45	2652302	8.139	-96.171	277.418	15.927	612.538	740.944	0.365	0.482	6.896	15.927	23.576
2021-07-24 12:00	2653202	8.143	-96.424	276.932	16	614.157	741.649	0.365	0.482	7.005	16	22.603
2021-07-24 12:15	2654102	8.148	-96.717	275.758	16.044	613.132	739.664	0.364	0.481	6.996	16.044	23.543
2021-07-24 12:30	2655002	8.153	-97.051	274.979	16.135	613.746	738.853	0.364	0.480	7.306	16.135	23.662
2021-07-24 12:45	2655902	8.165	-97.742	273.191	16.233	614.927	738.611	0.364	0.480	7.394	16.233	22.969
2021-07-24 13:00	2656802	8.170	-98.05	272.242	16.277	615.641	738.726	0.364	0.480	7.433	16.277	23.245
2021-07-24 13:15	2657702	8.165	-97.785	271.786	16.334	616.037	738.221	0.363	0.480	7.420	16.334	22.969
2021-07-24 13:30	2658602	8.172	-98.245	270.17	16.488	618.221	738.249	0.364	0.480	7.593	16.488	24.502
2021-07-24 13:45	2659502	8.185	-98.989	269.14	16.544	618.766	737.96	0.363	0.480	7.714	16.544	23.194
2021-07-24 14:00	2660402	8.191	-99.347	267.447	16.608	618.191	736.185	0.363	0.479	7.790	16.608	22.865
2021-07-24 14:15	2661302	8.202	-99.945	267.333	16.522	615.155	734.02	0.361	0.477	7.844	16.522	23.225
2021-07-24 14:30	2662202	8.209	-100.36	266.92	16.51	617.822	737.401	0.363	0.479	7.935	16.51	23.622
2021-07-24 14:45	2663102	8.210	-100.448	265.826	16.572	612.544	730.063	0.359	0.475	8.036	16.572	23.538
2021-07-24 15:00	2664002	8.212	-100.632	264.031	16.699	615.84	731.88	0.360	0.476	8.033	16.699	23.488
2021-07-24 15:15	2664902	8.218	-101.004	263.635	16.844	618.066	732.108	0.360	0.476	8.322	16.844	24.096
2021-07-24 15:30	2665802	8.234	-101.988	262.865	16.947	618.427	730.831	0.360	0.475	8.521	16.947	24.391
2021-07-24 15:45	2666702	8.234	-102.079	261.391	17.348	629.498	737.246	0.363	0.479	8.413	17.348	23.658
2021-07-24 16:00	2667602	8.235	-102.22	260.347	17.543	634.452	739.826	0.365	0.481	8.400	17.543	23.901
2021-07-24 16:15	2668502	8.232	-102.129	260.228	17.711	636.643	739.616	0.365	0.481	8.204	17.711	23.952
2021-07-24 16:30	2669402	8.234	-102.32	259.129	17.932	641.765	741.921	0.366	0.482	8.278	17.932	24.919
2021-07-24 16:45	2670302	8.231	-102.27	259.348	18.373	646.803	740.531	0.365	0.481	8.253	18.373	23.758

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-24 17:00	2671202	8.238	-102.808	256.873	18.773	652.715	740.831	0.365	0.482	8.510	18.773	24.036
2021-07-24 17:15	2672102	8.252	-103.619	255.257	18.738	653.203	741.95	0.366	0.482	8.598	18.738	24.298
2021-07-24 17:30	2673002	8.266	-104.427	254.272	18.749	647.38	735.152	0.362	0.478	8.679	18.749	23.714
2021-07-24 17:45	2673902	8.284	-105.398	252.506	18.567	645.972	736.462	0.363	0.479	8.969	18.567	24.522
2021-07-24 18:00	2674802	8.289	-105.603	252.784	18.191	642.273	738.282	0.364	0.480	9.089	18.191	24.534
2021-07-24 18:15	2675702	8.292	-105.669	252.155	17.984	639.034	737.922	0.364	0.480	9.171	17.984	25.032
2021-07-24 18:30	2676602	8.294	-105.774	252.224	17.893	637.542	737.679	0.364	0.479	9.255	17.893	25.152
2021-07-24 18:45	2677502	8.308	-106.459	250.72	17.669	633.833	737.03	0.363	0.479	9.201	17.669	25.492
2021-07-24 19:00	2678402	8.290	-105.386	251.573	17.531	632.318	737.541	0.363	0.479	9.062	17.531	26.579
2021-07-24 19:15	2679302	8.292	-105.405	252.398	17.304	629.089	737.492	0.363	0.479	9.003	17.304	26.355
2021-07-24 19:30	2680202	8.281	-104.759	253.199	17.129	626.801	737.7	0.363	0.480	8.770	17.129	26.836
2021-07-24 19:45	2681102	8.260	-103.505	257.665	17	625.57	738.396	0.364	0.480	8.528	17	27.374
2021-07-24 20:00	2682002	8.260	-103.45	255.851	16.859	624.437	739.411	0.364	0.481	8.598	16.859	27.614
2021-07-24 20:15	2682902	8.255	-103.142	255.281	16.8	623.683	739.498	0.364	0.481	8.519	16.8	27.506
2021-07-24 20:30	2683802	8.254	-103.071	255.827	16.798	623.812	739.682	0.364	0.481	8.372	16.798	27.87
2021-07-24 20:45	2684702	8.256	-103.173	255.491	16.811	624.118	739.842	0.364	0.481	8.506	16.811	28.369
2021-07-24 21:00	2685602	8.248	-102.727	255.629	16.791	624.046	740.084	0.365	0.481	8.091	16.791	29.81
2021-07-24 21:15	2686502	8.248	-102.725	255.371	16.892	626.412	741.2	0.365	0.482	8.383	16.892	29.492
2021-07-24 21:30	2687402	8.245	-102.589	254.818	16.89	626.861	741.756	0.365	0.482	8.344	16.89	29.667
2021-07-24 21:45	2688302	8.200	-100.002	258.669	16.903	628.113	743.015	0.366	0.483	7.758	16.903	29.063
2021-07-24 22:00	2689202	8.167	-98.126	262.064	16.958	629.803	744.096	0.367	0.484	7.348	16.958	28.71
2021-07-24 22:15	2690102	8.148	-97.213	266.586	17.491	637.651	744.409	0.367	0.484	7.032	17.491	28.936
2021-07-24 22:30	2691002	8.168	-98.374	267.814	17.637	640.233	745.006	0.367	0.484	6.556	17.637	28.273
2021-07-24 22:45	2691902	8.175	-98.796	269.55	17.69	640.893	744.893	0.367	0.484	6.545	17.69	28.367
2021-07-24 23:00	2692802	8.173	-98.696	270.866	17.723	641.53	745.086	0.367	0.484	7.020	17.723	28.062
2021-07-24 23:15	2693702	8.161	-98.035	274.137	17.744	642.147	745.456	0.368	0.485	7.477	17.744	27.782
2021-07-24 23:30	2694602	8.162	-98.081	275.961	17.751	642.797	746.092	0.368	0.485	7.170	17.751	27.471
2021-07-24 23:45	2695502	8.151	-97.475	275.122	17.753	643.508	746.899	0.368	0.485	6.967	17.753	27.898
2021-07-25 00:00	2696402	8.136	-96.571	273.317	17.735	643.879	747.618	0.369	0.486	6.625	17.735	28.163
2021-07-25 00:15	2697302	8.117	-95.472	272.692	17.709	644.667	748.96	0.369	0.487	6.978	17.709	28.326
2021-07-25 00:30	2698202	8.192	-99.814	267.34	17.726	643.099	746.855	0.368	0.485	8.363	17.726	24.461
2021-07-25 00:45	2699102	8.198	-100.164	267.585	17.699	643.227	747.457	0.369	0.486	8.309	17.699	28.881
2021-07-25 01:00	2700002	8.194	-99.878	271.338	17.658	643.288	748.207	0.369	0.486	8.003	17.658	25.674
2021-07-25 01:15	2700902	8.174	-98.71	274.664	17.615	643.718	749.428	0.370	0.487	7.668	17.615	24.544
2021-07-25 01:30	2701802	8.187	-99.475	271.512	17.591	643.086	749.085	0.369	0.487	7.525	17.591	22.839
2021-07-25 01:45	2702702	8.188	-99.499	270.992	17.57	642.712	749.002	0.369	0.487	7.415	17.57	22.725
2021-07-25 02:00	2703602	8.176	-98.851	273.031	17.544	643.067	749.86	0.370	0.487	7.404	17.544	23.624
2021-07-25 02:15	2704502	8.181	-99.12	272.788	17.487	642.713	750.4	0.370	0.488	8.018	17.487	22.965
2021-07-25 02:30	2705402	8.194	-99.847	271.288	17.441	640.869	749.012	0.369	0.487	8.186	17.441	23.294
2021-07-25 02:45	2706302	8.182	-99.106	271.882	17.401	640.176	748.869	0.369	0.487	7.598	17.401	22.99
2021-07-25 03:00	2707202	8.193	-99.761	268.048	17.376	639.294	748.258	0.369	0.486	7.672	17.376	23.092
2021-07-25 03:15	2708102	8.190	-99.568	267.883	17.339	639.259	748.84	0.369	0.487	7.765	17.339	23.199
2021-07-25 03:30	2709002	8.166	-98.155	267.69	17.303	639.377	749.58	0.370	0.487	7.804	17.303	23.38
2021-07-25 03:45	2709902	8.157	-97.656	271.713	17.257	639.31	750.268	0.370	0.488	7.540	17.257	22.546
2021-07-25 04:00	2710802	8.155	-97.506	271.927	17.229	639.239	750.657	0.370	0.488	7.100	17.229	23.245
2021-07-25 04:15	2711702	8.145	-96.951	269.922	17.2	638.425	750.191	0.370	0.488	7.423	17.2	23.531
2021-07-25 04:30	2712602	8.145	-96.884	267.373	17.149	638.112	750.672	0.370	0.488	7.550	17.149	23.214
2021-07-25 04:45	2713502	8.154	-97.399	267.152	17.11	637.505	750.62	0.370	0.488	7.435	17.11	23.358
2021-07-25 05:00	2714402	8.145	-96.896	266.291	17.078	638.209	751.997	0.371	0.489	7.353	17.078	22.543
2021-07-25 05:15	2715302	8.113	-95.038	264.968	17.032	637.57	752.011	0.371	0.489	7.515	17.032	23.389
2021-07-25 05:30	2716202	8.118	-95.313	266.651	16.975	636.022	751.16	0.370	0.488	7.355	16.975	23.33
2021-07-25 05:45	2717102	8.125	-95.694	265.692	16.953	634.789	750.066	0.370	0.488	7.234	16.953	23.817
2021-07-25 06:00	2718002	8.126	-95.747	265.106	16.922	634.206	749.913	0.370	0.487	7.024	16.922	24.028
2021-07-25 06:15	2718902	8.130	-95.952	267.738	16.872	633.887	750.383	0.370	0.488	6.958	16.872	24.43
2021-07-25 06:30	2719802	8.137	-96.314	264.889	16.811	632.704	750.007	0.370	0.488	7.176	16.811	24.212
2021-07-25 06:45	2720702	8.142	-96.588	262.641	16.793	632.293	749.831	0.370	0.487	7.024	16.793	23.992

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-25 07:00	2721602	8.139	-96.459	263.432	16.759	632.053	750.13	0.370	0.488	6.809	16.759	24.101
2021-07-25 07:15	2722502	8.140	-96.457	263.339	16.721	631.31	749.885	0.370	0.487	7.113	16.721	24.297
2021-07-25 07:30	2723402	8.140	-96.45	262.319	16.699	630.919	749.794	0.369	0.487	7.181	16.699	23.98
2021-07-25 07:45	2724302	8.122	-95.42	263.473	16.689	630.445	749.404	0.369	0.487	6.613	16.689	24.664
2021-07-25 08:00	2725202	8.110	-94.724	263.761	16.655	628.93	748.183	0.369	0.486	6.641	16.655	24.079
2021-07-25 08:15	2726102	8.105	-94.419	264.548	16.65	628.923	748.26	0.369	0.486	6.660	16.65	25.079
2021-07-25 08:30	2727002	8.092	-93.675	266.832	16.61	628.557	748.496	0.369	0.487	6.625	16.61	25.196
2021-07-25 08:45	2727902	8.092	-93.66	266.422	16.613	628.193	748.017	0.369	0.486	6.833	16.613	25.544
2021-07-25 09:00	2728802	8.075	-92.721	266.722	16.62	629.023	748.885	0.369	0.487	***6.364***	16.62	25.207
2021-07-25 09:15	2729702	8.056	-91.596	268.728	16.632	629.645	749.419	0.369	0.487	6.611	16.632	24.9
2021-07-25 09:30	2730602	8.048	-91.143	266.136	16.639	630.066	749.814	0.369	0.487	7.296	16.639	25.055
2021-07-25 09:45	2731502	8.069	-92.378	264.364	16.644	631.304	751.202	0.370	0.488	6.867	16.644	24.964
2021-07-25 10:00	2732402	8.084	-93.241	265.163	16.638	631.567	751.603	0.370	0.489	6.818	16.638	24.448
2021-07-25 10:15	2733302	8.093	-93.734	266.308	16.65	631.957	751.869	0.371	0.489	***6.307***	16.65	26.119
2021-07-25 10:30	2734202	8.073	-92.58	270.296	16.672	632.69	752.364	0.371	0.489	***5.309***	16.672	22.348
2021-07-25 10:45	2735102	8.046	-91.062	274.197	16.725	633.54	752.47	0.371	0.489	***5.826***	16.725	22.362
2021-07-25 11:00	2736002	8.083	-93.205	273.298	16.782	633.208	751.098	0.370	0.488	7.295	16.782	22.854
2021-07-25 11:15	2736902	8.156	-97.413	270.432	16.817	632.593	749.783	0.370	0.487	7.696	16.817	22.575
2021-07-25 11:30	2737802	8.201	-100.031	266.749	16.834	632.519	749.395	0.369	0.487	8.024	16.834	23.528
2021-07-25 11:45	2738702	8.218	-101.03	264.646	16.89	633.324	749.409	0.369	0.487	7.951	16.89	23.245
2021-07-25 12:00	2739602	8.238	-102.167	262.681	16.95	633.873	749.047	0.369	0.487	8.257	16.95	23.007
2021-07-25 12:15	2740502	8.252	-103.023	262.61	17.067	635.702	749.22	0.369	0.487	8.450	17.067	23.836
2021-07-25 12:30	2741402	8.261	-103.595	261.375	17.185	637.127	748.921	0.369	0.487	8.590	17.185	23.539
2021-07-25 12:45	2742302	8.260	-103.595	260.614	17.276	637.966	748.367	0.369	0.486	8.686	17.276	23.787
2021-07-25 13:00	2743202	8.260	-103.557	259.329	17.214	636.97	748.235	0.369	0.486	8.369	17.214	23.309
2021-07-25 13:15	2744102	8.235	-102.177	260.369	17.36	638.886	748.036	0.369	0.486	8.654	17.36	23.53
2021-07-25 13:30	2745002	8.218	-101.273	262.593	17.604	643.993	749.931	0.370	0.487	8.136	17.604	24.86
2021-07-25 13:45	2745902	8.219	-101.368	262.176	17.778	646.555	750.018	0.370	0.488	8.768	17.778	23.764
2021-07-25 14:00	2746802	8.220	-101.457	261.663	17.888	649.093	751.133	0.370	0.488	8.787	17.888	24.532
2021-07-25 14:15	2747702	8.233	-102.234	260.636	17.827	647.939	750.8	0.370	0.488	8.764	17.827	24.222
2021-07-25 14:30	2748602	8.286	-105.243	256.146	17.763	645.203	748.689	0.369	0.487	9.318	17.763	24.635
2021-07-25 14:45	2749502	8.305	-106.28	254.341	17.608	642.632	748.277	0.369	0.486	9.277	17.608	24.221
2021-07-25 15:00	2750402	8.320	-107.119	252.124	17.548	642.122	748.69	0.369	0.487	9.517	17.548	24.769
2021-07-25 15:15	2751302	8.328	-107.577	251.619	17.514	641.346	748.355	0.369	0.486	9.376	17.514	24.9
2021-07-25 15:30	2752202	8.330	-107.694	251.237	17.517	641.846	748.88	0.369	0.487	9.247	17.517	24.544
2021-07-25 15:45	2753102	8.336	-108.013	249.931	17.472	645.845	754.306	0.372	0.490	9.414	17.472	25.113
2021-07-25 16:00	2754002	8.351	-108.888	248.548	17.439	644.813	753.656	0.372	0.490	9.560	17.439	25.561
2021-07-25 16:15	2754902	8.357	-109.258	249.397	17.46	642.623	750.747	0.370	0.488	9.675	17.46	25.019
2021-07-25 16:30	2755802	8.357	-109.184	249.621	17.396	641.478	750.472	0.370	0.488	9.356	17.396	26.501
2021-07-25 16:45	2756702	8.355	-109.107	248.25	17.363	641.124	750.608	0.370	0.488	9.412	17.363	25.572
2021-07-25 17:00	2757602	8.352	-108.862	247.947	17.278	639.615	750.266	0.370	0.488	9.085	17.278	26.097
2021-07-25 17:15	2758502	8.344	-108.407	248.226	17.244	639.119	750.26	0.370	0.488	9.127	17.244	26.68
2021-07-25 17:30	2759402	8.348	-108.621	247.968	17.234	638.939	750.222	0.370	0.488	9.225	17.234	26.955
2021-07-25 17:45	2760302	8.344	-108.428	249.008	17.241	638.817	749.953	0.370	0.487	9.201	17.241	26.98
2021-07-25 18:00	2761202	8.350	-108.778	248.417	17.258	636.788	747.286	0.368	0.486	9.414	17.258	27.73
2021-07-25 18:15	2762102	8.354	-108.984	247.103	17.27	636.922	747.25	0.368	0.486	9.439	17.27	27.537
2021-07-25 18:30	2763002	8.354	-109.022	248.057	17.39	638.763	747.393	0.368	0.486	9.590	17.39	27.301
2021-07-25 18:45	2763902	8.364	-109.601	247.027	17.346	638.075	747.331	0.368	0.486	9.690	17.346	27.818
2021-07-25 19:00	2764802	8.372	-110.087	246.826	17.409	638.501	746.767	0.368	0.485	9.814	17.409	27.302
2021-07-25 19:15	2765702	8.371	-110.009	246.807	17.412	638.669	746.915	0.368	0.485	9.748	17.412	28.51
2021-07-25 19:30	2766602	8.369	-109.918	246.369	17.464	639.96	747.563	0.369	0.486	9.660	17.464	28.262
2021-07-25 19:45	2767502	8.371	-110.059	246.166	17.476	640.585	748.093	0.369	0.486	9.846	17.476	27.724
2021-07-25 20:00	2768402	8.371	-110.042	245.312	17.481	641.595	749.188	0.369	0.487	9.584	17.481	27.416
2021-07-25 20:15	2769302	8.358	-109.332	245.784	17.527	642.976	750.025	0.370	0.488	9.429	17.527	27.701
2021-07-25 20:30	2770202	8.346	-108.626	245.36	17.523	643.728	750.973	0.370	0.488	9.264	17.523	27.643
2021-07-25 20:45	2771102	8.330	-107.696	247.501	17.532	643.947	751.087	0.370	0.488	9.136	17.532	27.937

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-25 21:00	2772002	8.324	-107.365	248.228	17.537	644.031	751.098	0.370	0.488	8.834	17.537	27.202
2021-07-25 21:15	2772902	8.313	-106.745	246.288	17.53	644.292	751.508	0.371	0.488	8.960	17.53	27.441
2021-07-25 21:30	2773802	8.301	-106.053	248.219	17.659	646.803	752.291	0.371	0.489	7.933	17.659	27.081
2021-07-25 21:45	2774702	8.275	-104.663	250.245	17.845	650.361	753.315	0.372	0.490	7.570	17.845	27.5
2021-07-25 22:00	2775602	8.265	-104.101	250.462	17.919	652.391	754.426	0.372	0.490	7.631	17.919	26.753
2021-07-25 22:15	2776502	8.255	-103.517	251.149	17.967	653.202	754.566	0.372	0.490	7.654	17.967	26.495
2021-07-25 22:30	2777402	8.246	-103.045	251.163	17.988	654.061	755.199	0.373	0.491	7.810	17.988	26.419
2021-07-25 22:45	2778302	8.239	-102.594	252.856	17.994	655.19	756.416	0.373	0.492	7.708	17.994	26.907
2021-07-25 23:00	2779202	8.228	-102.012	254.265	17.999	655.893	757.135	0.374	0.492	7.208	17.999	26.658
2021-07-25 23:15	2780102	8.214	-101.149	256.013	18.001	656.535	757.848	0.374	0.493	7.294	18.001	27.196
2021-07-25 23:30	2781002	8.198	-100.253	256.59	18.003	657.294	758.692	0.374	0.493	7.020	18.003	27.001
2021-07-25 23:45	2781902	8.192	-99.907	254.372	18.012	658.754	760.22	0.375	0.494	7.581	18.012	27.058
2021-07-26 00:00	2782802	8.179	-99.146	252.336	17.997	658.87	760.599	0.375	0.494	7.814	17.997	27.16
2021-07-26 00:15	2783702	8.195	-100.057	262.378	17.956	660.526	763.206	0.377	0.496	8.148	17.956	27.421
2021-07-26 00:30	2784602	8.191	-99.821	257.183	17.909	659.592	762.914	0.376	0.496	8.343	17.909	26.872
2021-07-26 00:45	2785502	8.159	-97.959	254.723	17.86	658.258	762.201	0.376	0.495	8.572	17.86	27.278
2021-07-26 01:00	2786402	8.168	-98.484	253.073	17.821	660.124	765.031	0.378	0.497	8.776	17.821	26.784
2021-07-26 01:15	2787302	8.182	-99.27	253.824	17.769	659.692	765.4	0.378	0.498	8.677	17.769	26.968
2021-07-26 01:30	2788202	8.191	-99.761	250.15	17.732	657.317	763.274	0.377	0.496	8.869	17.732	27.579
2021-07-26 01:45	2789102	8.196	-100.019	256.144	17.714	656.59	762.727	0.376	0.496	8.662	17.714	27.5
2021-07-26 02:00	2790002	8.204	-100.513	252.577	17.684	656.723	763.396	0.377	0.496	8.550	17.684	27.63
2021-07-26 02:15	2790902	8.254	-103.374	248.452	17.636	654.679	761.835	0.376	0.495	8.779	17.636	28.011
2021-07-26 02:30	2791802	8.246	-102.904	255.192	17.576	654.237	762.329	0.376	0.496	8.854	17.576	27.738
2021-07-26 02:45	2792702	8.232	-102.048	252.77	17.543	653.98	762.593	0.376	0.496	8.791	17.543	27.39
2021-07-26 03:00	2793602	8.220	-101.34	252.25	17.514	652.911	761.834	0.376	0.495	8.279	17.514	27.936
2021-07-26 03:15	2794502	8.225	-101.64	250.193	17.485	653.1	762.554	0.376	0.496	8.230	17.485	27.018
2021-07-26 03:30	2795402	8.229	-101.821	255.674	17.434	652.937	763.23	0.377	0.496	8.497	17.434	28.028
2021-07-26 03:45	2796302	8.239	-102.42	252.856	17.388	653.529	764.705	0.377	0.497	8.077	17.388	27.988
2021-07-26 04:00	2797202	8.228	-101.752	251.883	17.358	652.283	763.771	0.377	0.496	8.238	17.358	27.915
2021-07-26 04:15	2798102	8.189	-99.502	250.796	17.322	652.289	764.387	0.377	0.497	8.173	17.322	27.323
2021-07-26 04:30	2799002	8.191	-99.614	252.925	17.278	646.56	758.414	0.374	0.493	8.512	17.278	27.584
2021-07-26 04:45	2799902	8.196	-99.852	258.805	17.243	646.447	758.889	0.374	0.493	8.141	17.243	27.608
2021-07-26 05:00	2800802	8.190	-99.542	259.148	17.201	649.65	763.354	0.377	0.496	7.978	17.201	28.175
2021-07-26 05:15	2801702	8.152	-97.284	256.065	17.135	648.428	763.063	0.376	0.496	8.362	17.135	28.427
2021-07-26 05:30	2802602	8.151	-97.213	257.181	17.107	649.86	765.228	0.377	0.497	8.188	17.107	28.11
2021-07-26 05:45	2803502	8.141	-96.643	258.011	17.081	648.806	764.424	0.377	0.497	7.637	17.081	28.449
2021-07-26 06:00	2804402	8.153	-97.346	257.024	17.065	645.575	760.899	0.375	0.495	7.321	17.065	29.545
2021-07-26 06:15	2805302	8.099	-94.237	256.206	17.012	645.285	761.462	0.376	0.495	8.210	17.012	29.175
2021-07-26 06:30	2806202	8.133	-96.185	256.077	16.986	645.285	761.908	0.376	0.495	7.723	16.986	30.806
2021-07-26 06:45	2807102	8.142	-96.655	257.324	16.949	644.995	762.206	0.376	0.495	7.851	16.949	28.985
2021-07-26 07:00	2808002	8.152	-97.218	257.312	16.924	644.12	761.598	0.376	0.495	7.683	16.924	29.396
2021-07-26 07:15	2808902	8.201	-100.064	257.078	16.876	642.357	760.341	0.375	0.494	7.944	16.876	30.353
2021-07-26 07:30	2809802	8.218	-101.011	256.473	16.864	642.527	760.738	0.375	0.494	8.008	16.864	29.48
2021-07-26 07:45	2810702	8.207	-100.35	256.466	16.851	643.249	761.823	0.376	0.495	7.493	16.851	29.767
2021-07-26 08:00	2811602	8.153	-97.249	257.443	16.8	643.333	762.799	0.376	0.496	7.838	16.8	29.883
2021-07-26 08:15	2812502	8.145	-96.815	255.412	16.797	643.505	763.057	0.376	0.496	7.391	16.797	28.948
2021-07-26 08:30	2813402	8.147	-96.891	257.26	16.789	643.511	763.21	0.376	0.496	7.158	16.789	28.811
2021-07-26 08:45	2814302	8.127	-95.751	256.501	16.756	643.227	763.43	0.376	0.496	7.835	16.756	29.947
2021-07-26 09:00	2815202	8.159	-97.601	255.097	16.75	642.682	762.892	0.376	0.496	7.794	16.75	29.183
2021-07-26 09:15	2816102	8.180	-98.798	253.597	16.745	643.649	764.128	0.377	0.497	7.408	16.745	28.585
2021-07-26 09:30	2817002	8.179	-98.758	256.017	16.752	643.037	763.287	0.376	0.496	7.039	16.752	29.545
2021-07-26 09:45	2817902	8.194	-99.607	256.73	16.747	643.622	764.068	0.377	0.497	7.314	16.747	29.209
2021-07-26 10:00	2818802	8.195	-99.649	255.76	16.748	643.863	764.326	0.377	0.497	7.433	16.748	28.178
2021-07-26 10:15	2819702	8.202	-100.062	256.296	16.767	644.317	764.535	0.377	0.497	7.182	16.767	28.572
2021-07-26 10:30	2820602	8.171	-98.286	259.312	16.79	644.075	763.864	0.377	0.497	6.654	16.79	28.192
2021-07-26 10:45	2821502	8.150	-97.063	262.779	16.818	645.013	764.478	0.377	0.497	***6.390***	16.818	28.33

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-26 11:00	2822402	8.128	-95.847	263.721	16.852	646.512	765.666	0.378	0.498	***6.174***	16.852	28.052
2021-07-26 11:15	2823302	8.119	-95.315	268.615	16.899	647.341	765.835	0.378	0.498	***5.976***	16.899	27.666
2021-07-26 11:30	2824202	8.116	-95.181	269.808	16.961	647.914	765.446	0.378	0.498	***6.300***	16.961	27.284
2021-07-26 11:45	2825102	8.142	-96.691	266.589	17.035	646.705	762.748	0.376	0.496	8.072	17.035	28.353
2021-07-26 12:00	2826002	8.208	-100.496	264.474	17.107	646.741	761.551	0.376	0.495	8.505	17.107	28.896
2021-07-26 12:15	2826902	8.252	-103.059	261.89	17.139	646.853	761.13	0.375	0.495	8.762	17.139	28.198
2021-07-26 12:30	2827802	8.280	-104.685	258.597	17.162	646.578	760.409	0.375	0.494	8.673	17.162	27.755
2021-07-26 12:45	2828702	8.294	-105.507	256.771	17.196	647.052	760.385	0.375	0.494	8.756	17.196	28.073
2021-07-26 13:00	2829602	8.291	-105.343	256.871	17.281	647.768	759.779	0.375	0.494	8.484	17.281	27.377
2021-07-26 13:15	2830502	8.294	-105.574	256.52	17.323	647.967	759.308	0.375	0.494	9.007	17.323	27.815
2021-07-26 13:30	2831402	8.303	-106.12	255.412	17.382	649.233	759.785	0.375	0.494	9.210	17.382	27.405
2021-07-26 13:45	2832302	8.326	-107.474	255.111	17.469	650.708	760.038	0.375	0.494	9.337	17.469	27.76
2021-07-26 14:00	2833202	8.333	-107.894	253.192	17.501	651.255	760.125	0.375	0.494	9.422	17.501	27.046
2021-07-26 14:15	2834102	8.328	-107.608	252.558	17.572	651.34	759.033	0.374	0.493	9.584	17.572	27.838
2021-07-26 14:30	2835002	8.314	-106.823	252.706	17.71	653.683	759.426	0.375	0.494	9.437	17.71	27.573
2021-07-26 14:45	2835902	8.286	-105.224	254.883	17.62	654.23	761.578	0.376	0.495	8.969	17.62	28.124
2021-07-26 15:00	2836802	8.278	-104.725	253.45	17.603	652.588	759.953	0.375	0.494	8.943	17.603	27.275
2021-07-26 15:15	2837702	8.334	-107.956	252.646	17.611	651.225	758.231	0.374	0.493	9.710	17.611	27.571
2021-07-26 15:30	2838602	8.350	-108.836	251.251	17.51	650.094	758.624	0.374	0.493	9.014	17.51	28.276
2021-07-26 15:45	2839502	8.356	-109.198	250.336	17.444	648.557	757.941	0.374	0.493	9.158	17.444	28.883
2021-07-26 16:00	2840402	8.340	-108.259	251.049	17.422	650.02	760.032	0.375	0.494	8.841	17.422	28.717
2021-07-26 16:15	2841302	8.304	-106.192	252.207	17.447	651.019	760.77	0.375	0.495	8.382	17.447	28.574
2021-07-26 16:30	2842202	8.286	-105.155	254.191	17.536	652.961	761.528	0.376	0.495	7.954	17.536	28.306
2021-07-26 16:45	2843102	8.254	-103.44	256.985	17.818	656.828	761.263	0.376	0.495	7.539	17.818	28.307
2021-07-26 17:00	2844002	8.240	-102.692	255.3	18.048	660.329	761.441	0.376	0.495	8.436	18.048	28.577
2021-07-26 17:15	2844902	8.242	-102.932	256.151	18.311	664.78	762.147	0.376	0.495	8.195	18.311	27.772
2021-07-26 17:30	2845802	8.250	-103.49	255.946	18.599	669.253	762.476	0.376	0.496	8.064	18.599	27.728
2021-07-26 17:45	2846702	8.241	-103.016	255.612	18.745	672.358	763.591	0.377	0.496	8.280	18.745	27.307
2021-07-26 18:00	2847602	8.238	-102.878	257.477	18.891	673.274	762.218	0.376	0.495	8.808	18.891	27.308
2021-07-26 18:15	2848502	8.223	-102.022	257.558	18.937	674.267	762.58	0.377	0.496	9.818	18.937	27.537
2021-07-26 18:30	2849402	8.196	-100.441	259.382	18.881	673.798	762.966	0.377	0.496	8.455	18.881	28.321
2021-07-26 18:45	2850302	8.227	-102.179	260.261	18.745	670.299	761.243	0.376	0.495	9.525	18.745	27.877
2021-07-26 19:00	2851202	8.244	-103.185	258.704	18.702	667.165	758.398	0.374	0.493	10.580	18.702	28.592
2021-07-26 19:15	2852102	8.266	-104.434	260.292	18.649	666.438	758.435	0.374	0.493	10.532	18.649	30.495
2021-07-26 19:30	2853002	8.265	-104.351	259.677	18.709	669.624	761.072	0.376	0.495	9.637	18.709	29.615
2021-07-26 19:45	2853902	8.254	-103.748	261.978	18.735	669.912	760.974	0.376	0.495	9.991	18.735	29.6
2021-07-26 20:00	2854802	8.236	-102.701	261.98	18.702	670.5	762.179	0.376	0.495	9.598	18.702	29.148
2021-07-26 20:15	2855702	8.233	-102.499	261.315	18.608	668.186	761.104	0.376	0.495	10.325	18.608	29.984
2021-07-26 20:30	2856602	8.225	-101.991	262.123	18.555	666.433	759.979	0.375	0.494	9.810	18.555	29.196
2021-07-26 20:45	2857502	8.241	-102.918	258.833	18.474	664.589	759.232	0.375	0.494	9.346	18.474	29.597
2021-07-26 21:00	2858402	8.260	-104.017	259.546	18.515	666.02	760.178	0.375	0.494	8.763	18.515	28.499
2021-07-26 21:15	2859302	8.253	-103.629	262.269	18.55	667.35	761.116	0.376	0.495	8.403	18.55	29.312
2021-07-26 21:30	2860202	8.228	-102.179	265.003	18.63	668.74	761.368	0.376	0.495	7.854	18.63	28.733
2021-07-26 21:45	2861102	8.212	-101.349	266.131	18.782	672.515	763.143	0.377	0.496	7.407	18.782	28.278
2021-07-26 22:00	2862002	8.197	-100.52	266.71	18.886	674.606	763.798	0.377	0.496	8.437	18.886	28.921
2021-07-26 22:15	2862902	8.188	-100	267.764	18.945	675.163	763.45	0.377	0.496	8.025	18.945	27.896
2021-07-26 22:30	2863802	8.202	-100.813	270.737	18.97	675.942	763.924	0.377	0.497	8.341	18.97	28.685
2021-07-26 22:45	2864702	8.321	-107.696	263.611	18.887	671.636	760.42	0.375	0.494	9.376	18.887	29.7
2021-07-26 23:00	2865602	8.351	-109.327	260.648	18.653	668.049	760.209	0.375	0.494	9.423	18.653	31.176
2021-07-26 23:15	2866502	8.351	-109.289	261.179	18.459	664.838	759.762	0.375	0.494	9.233	18.459	29.779
2021-07-26 23:30	2867402	8.352	-109.293	262.133	18.401	663.743	759.46	0.375	0.494	8.891	18.401	33.422
2021-07-26 23:45	2868302	8.344	-108.821	261.42	18.414	664.227	759.797	0.375	0.494	8.913	18.414	31.225
2021-07-27 00:00	2869202	8.348	-109.091	261.039	18.409	664.401	760.095	0.375	0.494	9.086	18.409	30.094
2021-07-27 00:15	2870102	8.310	-106.862	259.579	18.367	664.057	760.392	0.375	0.494	9.005	18.367	29.403
2021-07-27 00:30	2871002	8.252	-103.509	262.431	18.315	664.031	761.219	0.376	0.495	8.664	18.315	29.13
2021-07-27 00:45	2871902	8.219	-101.545	262.955	18.285	664.01	761.699	0.376	0.495	8.990	18.285	30.642

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-27 01:00	2872802	8.263	-104.094	262.448	18.23	663.055	761.531	0.376	0.495	8.713	18.23	30.848
2021-07-27 01:15	2873702	8.302	-106.349	259.32	18.165	661.94	761.337	0.376	0.495	8.772	18.165	31.521
2021-07-27 01:30	2874602	8.294	-105.841	265.838	18.089	660.509	760.948	0.376	0.495	8.892	18.089	30.972
2021-07-27 01:45	2875502	8.249	-103.192	274.535	18.011	661.438	763.342	0.377	0.496	8.240	18.011	28.523
2021-07-27 02:00	2876402	8.200	-100.317	279.235	17.935	659.689	762.592	0.376	0.496	7.979	17.935	28.942
2021-07-27 02:15	2877302	8.231	-102.122	272.933	17.888	658.982	762.57	0.376	0.496	8.195	17.888	28.908
2021-07-27 02:30	2878202	8.224	-101.707	274.366	17.819	657.68	762.228	0.376	0.495	8.168	17.819	36.674
2021-07-27 02:45	2879102	8.224	-101.681	276.691	17.779	658.211	763.512	0.377	0.496	7.892	17.779	27.62
2021-07-27 03:00	2880002	8.208	-100.734	276.731	17.736	656.067	761.762	0.376	0.495	8.753	17.736	26.849
2021-07-27 03:15	2880902	8.229	-101.955	271.136	17.694	655.757	762.097	0.376	0.495	8.389	17.694	29.399
2021-07-27 03:30	2881802	8.203	-100.422	275.26	17.629	655.331	762.711	0.376	0.496	7.701	17.629	18.392
2021-07-27 03:45	2882702	8.193	-99.828	271.627	17.573	653.76	761.823	0.376	0.495	8.421	17.573	19.172
2021-07-27 04:00	2883602	8.207	-100.613	270.78	17.537	652.485	760.958	0.375	0.495	8.892	17.537	16.613
2021-07-27 04:15	2884502	8.218	-101.254	267.431	17.498	651.81	760.821	0.375	0.495	8.431	17.498	14.644
2021-07-27 04:30	2885402	8.226	-101.671	270.318	17.452	650.961	760.622	0.375	0.494	7.593	17.452	14.149
2021-07-27 04:45	2886302	8.244	-102.723	267.085	17.404	650.783	761.231	0.376	0.495	7.549	17.404	14.563
2021-07-27 05:00	2887202	8.268	-104.051	267.228	17.38	650.987	761.878	0.376	0.495	7.504	17.38	11.703
2021-07-27 05:15	2888102	8.236	-102.217	269.066	17.338	650.216	761.687	0.376	0.495	7.177	17.338	12.984
2021-07-27 05:30	2889002	8.236	-102.179	271.794	17.285	650.012	762.343	0.376	0.496	7.093	17.285	13.279
2021-07-27 05:45	2889902	8.229	-101.759	270.468	17.24	649.314	762.291	0.376	0.495	7.615	17.24	12.665
2021-07-27 06:00	2890802	8.217	-101.073	270.959	17.191	647.999	761.584	0.376	0.495	7.375	17.191	12.776
2021-07-27 06:15	2891702	8.205	-100.389	270.058	17.151	646.836	760.915	0.375	0.495	7.875	17.151	13.553
2021-07-27 06:30	2892602	8.227	-101.631	269.076	17.112	647.413	762.251	0.376	0.495	7.596	17.112	12.19
2021-07-27 06:45	2893502	8.234	-101.988	270.561	17.076	647.295	762.738	0.376	0.496	7.223	17.076	12.9
2021-07-27 07:00	2894402	8.225	-101.483	271.856	17.039	647.065	763.104	0.376	0.496	6.937	17.039	13.272
2021-07-27 07:15	2895302	8.244	-102.57	272.163	16.996	645.613	762.125	0.376	0.495	7.426	16.996	13.094
2021-07-27 07:30	2896202	8.270	-104.039	268.22	16.971	644.377	761.1	0.375	0.495	7.767	16.971	12.519
2021-07-27 07:45	2897102	8.299	-105.729	266.908	16.951	643.389	760.268	0.375	0.494	7.465	16.951	11.817
2021-07-27 08:00	2898002	8.324	-107.141	265.216	16.917	642.721	760.066	0.375	0.494	8.067	16.917	12.222
2021-07-27 08:15	2898902	8.332	-107.574	263.716	16.877	641.663	759.501	0.374	0.494	8.099	16.877	13.082
2021-07-27 08:30	2899802	8.275	-104.294	267.795	16.821	637.957	756.066	0.373	0.491	***6.322***	16.821	13.582
2021-07-27 08:45	2900702	8.189	-99.32	274.349	16.746	634.305	753.019	0.371	0.489	***5.512***	16.746	13.214
2021-07-27 09:00	2901602	8.112	-94.883	280.272	16.696	631.236	750.219	0.370	0.488	***4.946***	16.696	13.677
2021-07-27 09:15	2902502	8.038	-90.556	286.347	16.625	628.309	747.949	0.369	0.486	***4.325***	16.625	13.653
2021-07-27 09:30	2903402	7.942	-85.051	293.752	16.577	628.779	749.325	0.369	0.487	***3.616***	16.577	27.432
2021-07-27 09:45	2904302	7.881	-81.542	298.315	16.543	628.481	749.559	0.369	0.487	***3.342***	16.543	40.353
2021-07-27 10:00	2905202	7.852	-79.834	300.564	16.527	629.423	750.946	0.370	0.488	***3.378***	16.527	13.093
2021-07-27 10:15	2906102	7.833	-78.781	301.744	16.499	629.414	751.416	0.370	0.488	***3.144***	16.499	16.215
2021-07-27 10:30	2907002	7.821	-78.063	302.438	16.491	628.663	750.654	0.370	0.488	***3.155***	16.491	16.117
2021-07-27 10:45	2907902	7.840	-79.176	300.552	16.496	629.517	751.596	0.370	0.489	***3.696***	16.496	15.558
2021-07-27 11:00	2908802	7.884	-81.675	296.117	16.52	631.317	753.324	0.371	0.490	***4.540***	16.52	18.644
2021-07-27 11:15	2909702	7.915	-83.463	293.215	16.523	631.867	753.934	0.372	0.490	***4.404***	16.523	20.121
2021-07-27 11:30	2910602	7.924	-84.014	292.538	16.559	632.807	754.435	0.372	0.490	***4.778***	16.559	17.67
2021-07-27 11:45	2911502	7.977	-87.082	287.608	16.62	634.383	755.269	0.372	0.491	***5.345***	16.62	12.927
2021-07-27 12:00	2912402	8.018	-89.447	283.309	16.683	636.072	756.2	0.373	0.492	***5.950***	16.683	12.667
2021-07-27 12:15	2913302	8.047	-91.102	279.909	16.726	637.606	757.275	0.373	0.492	***6.214***	16.726	13.206
2021-07-27 12:30	2914202	8.108	-94.631	273.62	16.777	639.176	758.277	0.374	0.493	6.805	16.777	13.656
2021-07-27 12:45	2915102	8.144	-96.724	269.386	16.837	640.268	758.536	0.374	0.493	7.171	16.837	13.332
2021-07-27 13:00	2916002	8.167	-98.097	267.769	16.887	640.918	758.446	0.374	0.493	7.212	16.887	13.696
2021-07-27 13:15	2916902	8.173	-98.467	267.34	17.008	642.705	758.481	0.374	0.493	7.388	17.008	12.844
2021-07-27 13:30	2917802	8.170	-98.393	266.973	17.204	645.2	758.073	0.374	0.493	7.291	17.204	12.663
2021-07-27 13:45	2918702	8.184	-99.232	265.514	17.3	646.557	758.049	0.374	0.493	7.535	17.3	13.96
2021-07-27 14:00	2919602	8.190	-99.592	263.606	17.38	647.617	757.921	0.374	0.493	7.593	17.38	13.415
2021-07-27 14:15	2920502	8.201	-100.265	262.469	17.602	650.741	757.827	0.374	0.493	7.688	17.602	13.288
2021-07-27 14:30	2921402	8.213	-101.013	260.886	17.723	652.592	757.936	0.374	0.493	8.090	17.723	12.597
2021-07-27 14:45	2922302	8.227	-101.876	259.753	17.869	655.722	759.113	0.375	0.493	8.120	17.869	12.57

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-27 15:00	2923202	8.232	-102.246	258.628	18.051	657.887	758.573	0.374	0.493	8.178	18.051	12.138
2021-07-27 15:15	2924102	8.225	-101.955	258.616	18.335	662.814	759.494	0.375	0.494	8.034	18.335	12.522
2021-07-27 15:30	2925002	8.215	-101.476	257.865	18.684	668.894	760.662	0.375	0.494	7.867	18.684	12.452
2021-07-27 15:45	2925902	8.227	-102.217	256.296	18.764	669.231	759.725	0.375	0.494	8.187	18.764	12.421
2021-07-27 16:00	2926802	8.221	-101.936	256.656	18.972	672.216	759.682	0.375	0.494	8.133	18.972	12.432
2021-07-27 16:15	2927702	8.215	-101.709	255.846	19.364	679.283	761.234	0.376	0.495	7.860	19.364	11.946
2021-07-27 16:30	2928602	8.210	-101.497	255.169	19.567	682.428	761.436	0.376	0.495	7.786	19.567	11.78
2021-07-27 16:45	2929502	8.247	-103.59	252.62	19.497	680.826	760.786	0.376	0.495	8.174	19.497	12.464
2021-07-27 17:00	2930402	8.227	-102.541	251.797	19.822	685.911	761.191	0.376	0.495	8.087	19.822	12.21
2021-07-27 17:15	2931302	8.231	-102.882	250.314	20.068	689.692	761.415	0.376	0.495	8.162	20.068	12.543
2021-07-27 17:30	2932202	8.245	-103.662	250.429	20.008	688.636	761.215	0.376	0.495	8.253	20.008	13.056
2021-07-27 17:45	2933102	8.261	-104.58	248.014	19.973	687.542	760.568	0.376	0.494	8.676	19.973	12.244
2021-07-27 18:00	2934002	8.256	-104.358	247.353	20.043	688.227	760.2	0.375	0.494	8.786	20.043	11.891
2021-07-27 18:15	2934902	8.238	-103.388	246.96	20.29	692.523	760.977	0.376	0.495	8.603	20.29	11.81
2021-07-27 18:30	2935802	8.254	-104.303	246.018	20.323	694.056	762.139	0.376	0.495	8.603	20.323	12.34
2021-07-27 18:45	2936702	8.252	-104.227	245.579	20.463	696.314	762.382	0.377	0.496	8.586	20.463	11.849
2021-07-27 19:00	2937602	8.254	-104.403	244.759	20.583	698.803	763.188	0.377	0.496	8.662	20.583	11.754
2021-07-27 19:15	2938502	8.260	-104.785	243.51	20.644	700.18	763.724	0.377	0.496	8.633	20.644	12.375
2021-07-27 19:30	2939402	8.266	-105.131	243.942	20.723	702.692	765.196	0.378	0.497	8.575	20.723	28.312
2021-07-27 19:45	2940302	8.280	-105.958	242.585	20.623	700.197	764.073	0.378	0.497	8.848	20.623	24.677
2021-07-27 20:00	2941202	8.296	-106.821	241.445	20.571	699.624	764.271	0.378	0.497	8.824	20.571	23.846
2021-07-27 20:15	2942102	8.297	-106.938	241.848	20.593	698.837	763.069	0.377	0.496	8.430	20.593	12.55
2021-07-27 20:30	2943002	8.286	-106.258	243.86	20.604	700.268	764.448	0.378	0.497	8.233	20.604	12.532
2021-07-27 20:45	2943902	8.288	-106.366	243.622	20.577	700.583	765.235	0.378	0.497	8.278	20.577	12.069
2021-07-27 21:00	2944802	8.283	-106.08	241.386	20.563	700.304	765.145	0.378	0.497	7.635	20.563	12.263
2021-07-27 21:15	2945702	8.281	-105.932	241.479	20.525	700.688	766.173	0.379	0.498	7.599	20.525	11.803
2021-07-27 21:30	2946602	8.253	-104.342	243.391	20.494	700.218	766.154	0.379	0.498	7.387	20.494	11.613
2021-07-27 21:45	2947502	8.206	-101.59	247.668	20.464	701.817	768.387	0.380	0.499	6.778	20.464	11.888
2021-07-27 22:00	2948402	8.172	-99.564	248.424	20.415	702.521	769.947	0.381	0.500	***6.335***	20.415	11.27
2021-07-27 22:15	2949302	8.138	-97.594	249.99	20.362	702.006	770.237	0.381	0.501	6.511	20.362	11.436
2021-07-27 22:30	2950202	8.144	-97.895	252.334	20.329	702.408	771.216	0.381	0.501	6.777	20.329	11.54
2021-07-27 22:45	2951102	8.148	-98.143	250.386	20.271	701.694	771.37	0.381	0.501	6.794	20.271	11.668
2021-07-27 23:00	2952002	8.150	-98.236	253.328	20.207	701.144	771.795	0.381	0.502	7.140	20.207	11.587
2021-07-27 23:15	2952902	8.142	-97.744	251.232	20.147	700.395	771.946	0.381	0.502	7.545	20.147	11.623
2021-07-27 23:30	2953802	8.137	-97.446	253.557	20.082	699.701	772.248	0.382	0.502	7.039	20.082	11.565
2021-07-27 23:45	2954702	8.136	-97.351	253.409	20.014	699.125	772.718	0.382	0.502	7.564	20.014	11.501
2021-07-28 00:00	2955602	8.138	-97.413	254.456	19.962	698.469	772.841	0.382	0.502	6.864	19.962	11.042
2021-07-28 00:15	2956502	8.162	-98.82	257.071	19.869	697.252	773.015	0.382	0.502	6.500	19.869	10.69
2021-07-28 00:30	2957402	8.148	-97.957	261.716	19.788	695.809	772.742	0.382	0.502	7.013	19.788	10.627
2021-07-28 00:45	2958302	8.142	-97.568	261.761	19.722	694.352	772.195	0.382	0.502	6.778	19.722	10.688
2021-07-28 01:00	2959202	8.142	-97.566	265.826	19.63	692.699	771.874	0.381	0.502	6.741	19.63	10.21
2021-07-28 01:15	2960102	8.134	-97.065	264.965	19.565	691.827	771.962	0.381	0.502	7.172	19.565	10.173
2021-07-28 01:30	2961002	8.138	-97.272	262.035	19.492	691.014	772.257	0.382	0.502	7.212	19.492	10.396
2021-07-28 01:45	2961902	8.140	-97.389	260.838	19.431	690.231	772.395	0.382	0.502	***6.368***	19.431	10.099
2021-07-28 02:00	2962802	8.133	-96.939	266.405	19.351	689.091	772.439	0.382	0.502	6.544	19.351	10.324
2021-07-28 02:15	2963702	8.131	-96.824	265.483	19.261	687.759	772.423	0.382	0.502	***6.232***	19.261	10.174
2021-07-28 02:30	2964602	8.127	-96.567	265.99	19.211	687.147	772.573	0.382	0.502	***6.294***	19.211	10.069
2021-07-28 02:45	2965502	8.129	-96.619	267.18	19.107	686.973	774.106	0.382	0.503	***5.939***	19.107	10.027
2021-07-28 03:00	2966402	8.115	-95.789	267.471	19.028	685.45	773.704	0.382	0.503	***6.360***	19.028	10.177
2021-07-28 03:15	2967302	8.112	-95.589	266.93	18.951	684.285	773.674	0.382	0.503	***6.072***	18.951	9.982
2021-07-28 03:30	2968202	8.105	-95.181	267.926	18.88	682.238	772.54	0.382	0.502	***6.261***	18.88	9.825
2021-07-28 03:45	2969102	8.097	-94.664	266.66	18.814	681.725	773.064	0.382	0.502	***5.887***	18.814	9.818
2021-07-28 04:00	2970002	8.116	-95.768	266.854	18.753	681.408	773.724	0.382	0.503	***5.795***	18.753	9.681
2021-07-28 04:15	2970902	8.102	-94.931	268.723	18.678	680.454	773.908	0.382	0.503	***6.258***	18.678	9.617
2021-07-28 04:30	2971802	8.106	-95.124	266.563	18.62	679.535	773.831	0.382	0.503	6.740	18.62	9.829
2021-07-28 04:45	2972702	8.115	-95.613	271.169	18.55	678.302	773.604	0.382	0.503	***5.810***	18.55	9.756

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-28 05:00	2973602	8.089	-94.111	268.048	18.477	677.016	773.376	0.382	0.503	***5.723***	18.477	9.972
2021-07-28 05:15	2974502	8.089	-94.073	266.691	18.421	675.866	772.999	0.382	0.502	***6.016***	18.421	9.685
2021-07-28 05:30	2975402	8.086	-93.925	271.383	18.357	674.453	772.466	0.381	0.502	***5.761***	18.357	10.003
2021-07-28 05:45	2976302	8.082	-93.632	269.932	18.303	673.41	772.187	0.381	0.502	6.700	18.303	10.069
2021-07-28 06:00	2977202	8.091	-94.163	266.892	18.252	671.734	771.115	0.381	0.501	***6.115***	18.252	9.946
2021-07-28 06:15	2978102	8.091	-94.123	270.759	18.191	671.211	771.552	0.381	0.502	***5.936***	18.191	9.844
2021-07-28 06:30	2979002	8.079	-93.429	273.517	18.135	670.306	771.465	0.381	0.501	***5.926***	18.135	9.644
2021-07-28 06:45	2979902	8.083	-93.634	271.004	18.09	668.907	770.608	0.380	0.501	***6.282***	18.09	56.155
2021-07-28 07:00	2980802	8.102	-94.743	268.32	18.058	668.589	770.783	0.381	0.501	***6.107***	18.058	16.782
2021-07-28 07:15	2981702	8.100	-94.574	269.192	18.027	668.103	770.763	0.381	0.501	***6.081***	18.027	26.834
2021-07-28 07:30	2982602	8.085	-93.72	269.55	17.976	667.555	770.995	0.381	0.501	***5.972***	17.976	14.249
2021-07-28 07:45	2983502	8.079	-93.369	267.249	17.947	666.878	770.697	0.380	0.501	***6.280***	17.947	9.719
2021-07-28 08:00	2984402	8.083	-93.577	266.076	17.931	666.508	770.543	0.380	0.501	6.548	17.931	9.897
2021-07-28 08:15	2985302	8.090	-93.958	265.926	17.917	666.146	770.372	0.380	0.501	6.619	17.917	9.521
2021-07-28 08:30	2986202	8.090	-94.001	266.062	17.902	665.034	769.34	0.380	0.500	6.775	17.902	9.13
2021-07-28 08:45	2987102	8.074	-93.057	268.782	17.888	664.951	769.476	0.380	0.500	6.754	17.888	9.108
2021-07-28 09:00	2988002	8.066	-92.559	270.678	17.873	664.91	769.692	0.380	0.500	6.525	17.873	8.995
2021-07-28 09:15	2988902	8.078	-93.253	272.237	17.852	664.836	769.953	0.380	0.500	***6.240***	17.852	9.314
2021-07-28 09:30	2989802	8.086	-93.744	270.938	17.841	664.343	769.58	0.380	0.500	***6.183***	17.841	8.921
2021-07-28 09:45	2990702	8.092	-94.066	269.915	17.802	663.647	769.429	0.380	0.500	***5.965***	17.802	9.192
2021-07-28 10:00	2991602	8.098	-94.409	270.463	17.768	662.803	769.027	0.380	0.500	***6.494***	17.768	8.981
2021-07-28 10:15	2992502	8.102	-94.64	270.461	17.756	661.635	767.872	0.379	0.499	6.671	17.756	9.067
2021-07-28 10:30	2993402	8.099	-94.461	270.261	17.762	662.849	769.187	0.380	0.500	***5.953***	17.762	8.741
2021-07-28 10:45	2994302	8.086	-93.689	272.905	17.767	663.998	770.429	0.380	0.501	***5.191***	17.767	8.799
2021-07-28 11:00	2995202	8.065	-92.475	275.954	17.789	665.073	771.302	0.381	0.501	***4.492***	17.789	8.552
2021-07-28 11:15	2996102	8.049	-91.579	278.586	17.841	665.75	771.203	0.381	0.501	***4.871***	17.841	12.731
2021-07-28 11:30	2997003	8.042	-91.183	281.502	17.91	664.949	769.097	0.380	0.500	***6.497***	17.91	28.635
2021-07-28 11:45	2997903	8.034	-90.773	281.903	17.965	666.543	770.014	0.380	0.501	***6.192***	17.965	8.189
2021-07-28 12:00	2998803	8.029	-90.492	282.496	18.024	667.128	769.686	0.380	0.500	***6.364***	18.024	7.919
2021-07-28 12:15	2999703	8.034	-90.78	281.681	18.063	667.494	769.437	0.380	0.500	6.785	18.063	7.97
2021-07-28 12:30	3000603	8.048	-91.634	279.726	18.098	668.096	769.543	0.380	0.500	6.911	18.098	9.625
2021-07-28 12:45	3001503	8.069	-92.888	278.76	18.186	668.925	769.017	0.380	0.500	***6.398***	18.186	7.77
2021-07-28 13:00	3002403	8.068	-92.824	279.826	18.233	670.294	769.785	0.380	0.500	***6.307***	18.233	7.65
2021-07-28 13:15	3003303	8.064	-92.614	281.54	18.341	671.691	769.568	0.380	0.500	***6.139***	18.341	7.507
2021-07-28 13:30	3004203	8.062	-92.578	281.626	18.572	674.086	768.432	0.379	0.499	6.896	18.572	7.381
2021-07-28 13:45	3005103	8.093	-94.55	274.836	19.192	683.994	769.335	0.380	0.500	7.792	19.192	8.57
2021-07-28 14:00	3006003	8.116	-95.887	272.433	19.091	683.071	769.964	0.380	0.500	7.485	19.091	8.629
2021-07-28 14:15	3006903	8.129	-96.726	269.481	19.456	688.382	769.909	0.380	0.500	7.854	19.456	8.351
2021-07-28 14:30	3007803	8.137	-97.463	269.591	20.268	702.165	771.935	0.382	0.502	8.123	20.268	8.593
2021-07-28 14:45	3008703	8.183	-100.679	263.168	21.767	729.422	777.426	0.384	0.505	8.045	21.767	8.486
2021-07-28 15:00	3009603	8.197	-101.805	260.159	22.692	757.27	792.197	0.392	0.515	7.624	22.692	8.212
2021-07-28 15:15	3010503	8.200	-102.098	257.114	23.014	773.432	803.925	0.398	0.523	8.121	23.014	8.168
2021-07-28 15:30	3011403	8.191	-101.168	257.581	21.821	730.042	777.232	0.384	0.505	9.103	21.821	8.319
2021-07-28 15:45	3012303	8.201	-101.881	258.781	22.186	745.183	787.503	0.390	0.512	8.741	22.186	8.426
2021-07-28 16:00	3013203	8.205	-102.043	257.949	22.085	741.328	785.039	0.388	0.510	8.118	22.085	8.363
2021-07-28 16:15	3014103	8.219	-102.537	258.192	21.041	709.366	767.399	0.379	0.499	9.604	21.041	8.825
2021-07-28 16:30	3015003	8.230	-102.973	255.424	20.416	701.243	768.532	0.380	0.500	9.812	20.416	9.012
2021-07-28 16:45	3015903	8.235	-103.097	254.472	20.04	692.806	765.3	0.378	0.497	9.587	20.04	9.142
2021-07-28 17:00	3016803	8.232	-102.899	255.355	19.973	691.744	765.22	0.378	0.497	9.021	19.973	9.432
2021-07-28 17:15	3017703	8.227	-102.477	256.218	19.63	686.672	765.149	0.378	0.497	8.997	19.63	9.603
2021-07-28 17:30	3018603	8.224	-102.298	256.599	19.623	686.951	765.572	0.378	0.498	8.613	19.623	9.67
2021-07-28 17:45	3019503	8.216	-101.819	257.903	19.569	686.37	765.817	0.378	0.498	8.555	19.569	9.565
2021-07-28 18:00	3020403	8.219	-101.991	257.465	19.555	686.696	766.394	0.379	0.498	8.480	19.555	8.821
2021-07-28 18:15	3021303	8.211	-101.504	257.55	19.512	687.814	768.349	0.380	0.499	8.182	19.512	8.735
2021-07-28 18:30	3022203	8.204	-101.151	258.63	19.529	686.849	766.992	0.379	0.499	8.079	19.529	9.523
2021-07-28 18:45	3023103	8.212	-101.612	260.025	19.521	686.275	766.49	0.379	0.498	8.226	19.521	9.671

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-28 19:00	3024003	8.206	-101.368	260.309	19.81	690.663	766.668	0.379	0.498	7.781	19.81	7.943
2021-07-28 19:15	3024903	8.193	-101.089	261.17	21.311	714.899	769.081	0.380	0.500	9.053	21.311	9.927
2021-07-28 19:30	3025803	8.245	-104.675	251.53	22.894	752.301	783.833	0.388	0.509	8.804	22.894	10.559
2021-07-28 19:45	3026703	8.263	-105.808	250.176	23.009	757.408	787.342	0.390	0.512	8.257	23.009	13.464
2021-07-28 20:00	3027603	8.235	-104.067	257.46	22.705	751.743	786.203	0.389	0.511	7.514	22.705	13.303
2021-07-28 20:15	3028503	8.214	-102.82	259.317	22.709	751.814	786.21	0.389	0.511	7.554	22.709	7.763
2021-07-28 20:30	3029403	8.203	-101.891	260.636	21.843	727.437	774.111	0.383	0.503	8.746	21.843	8.192
2021-07-28 20:45	3030303	8.229	-103.319	256.818	21.661	722.685	771.914	0.382	0.502	8.499	21.661	7.674
2021-07-28 21:00	3031203	8.231	-103.385	258.397	21.543	720.367	771.295	0.381	0.501	8.245	21.543	8.005
2021-07-28 21:15	3032103	8.242	-103.922	259.508	21.246	715.001	770.233	0.381	0.501	8.895	21.246	7.555
2021-07-28 21:30	3033003	8.256	-104.74	256.52	21.174	713.784	770.06	0.381	0.501	8.415	21.174	7.686
2021-07-28 21:45	3033903	8.238	-103.652	259.801	21.081	712.512	770.163	0.381	0.501	8.026	21.081	8.076
2021-07-28 22:00	3034803	8.232	-103.209	259.932	20.87	708.723	769.414	0.380	0.500	8.767	20.87	7.97
2021-07-28 22:15	3035703	8.237	-103.436	258.173	20.678	704.903	768.331	0.380	0.499	8.655	20.678	8.06
2021-07-28 22:30	3036603	8.251	-104.225	256.38	20.526	703.58	769.313	0.380	0.500	8.293	20.526	7.92
2021-07-28 22:45	3037503	8.255	-104.451	257.801	20.48	702.081	768.421	0.380	0.499	7.918	20.48	8.086
2021-07-28 23:00	3038403	8.239	-103.493	260.211	20.525	708.553	774.777	0.383	0.504	6.860	20.525	7.727
2021-07-28 23:15	3039303	8.199	-101.218	265.461	20.576	708.053	773.411	0.382	0.503	8.579	20.576	7.883
2021-07-28 23:30	3040203	8.168	-99.413	267.988	20.691	709.223	772.822	0.382	0.502	6.654	20.691	7.805
2021-07-28 23:45	3041103	8.146	-98.2	269.29	20.819	715.033	777.092	0.384	0.505	***5.565***	20.819	7.725
2021-07-29 00:00	3042003	8.120	-96.674	272.878	20.867	718.635	780.23	0.386	0.507	***4.949***	20.867	7.582
2021-07-29 00:15	3042903	8.078	-94.247	276.908	20.908	722.232	783.471	0.387	0.509	***5.095***	20.908	7.577
2021-07-29 00:30	3043803	8.066	-93.544	277.632	20.853	725.322	787.712	0.390	0.512	***5.737***	20.853	7.877
2021-07-29 00:45	3044703	8.151	-98.455	269.016	20.73	722.293	786.432	0.389	0.511	7.191	20.73	7.581
2021-07-29 01:00	3045603	8.179	-100.026	266.188	20.629	718.783	784.252	0.388	0.510	7.367	20.629	7.891
2021-07-29 01:15	3046503	8.186	-100.431	265.087	20.543	717.208	783.945	0.388	0.510	6.891	20.543	7.718
2021-07-29 01:30	3047403	8.173	-99.633	266.522	20.483	718.205	786.015	0.389	0.511	***6.374***	20.483	7.877
2021-07-29 01:45	3048303	8.164	-99.092	268.503	20.435	718.211	786.813	0.389	0.511	***6.419***	20.435	7.948
2021-07-29 02:00	3049203	8.153	-98.436	268.277	20.329	715.484	785.564	0.389	0.511	7.199	20.329	7.955
2021-07-29 02:15	3050103	8.169	-99.342	270.642	20.233	714.091	785.619	0.389	0.511	7.329	20.233	8.19
2021-07-29 02:30	3051003	8.186	-100.265	266.887	20.129	711.537	784.519	0.388	0.510	7.352	20.129	7.767
2021-07-29 02:45	3051903	8.194	-100.739	266.498	20.035	708.157	782.352	0.387	0.509	7.423	20.035	7.946
2021-07-29 03:00	3052803	8.202	-101.147	266.279	19.942	707.469	783.117	0.387	0.509	7.624	19.942	7.781
2021-07-29 03:15	3053703	8.210	-101.619	265.442	19.859	705.645	782.486	0.387	0.509	7.315	19.859	7.909
2021-07-29 03:30	3054603	8.213	-101.705	265.225	19.769	703.16	781.206	0.386	0.508	7.427	19.769	8.394
2021-07-29 03:45	3055503	8.222	-102.232	264.777	19.661	702.502	782.266	0.387	0.508	7.768	19.661	8.454
2021-07-29 04:00	3056403	8.207	-101.316	266.77	19.561	700.43	781.625	0.386	0.508	7.557	19.561	7.872
2021-07-29 04:15	3057303	8.208	-101.345	267.109	19.472	699.199	781.732	0.386	0.508	7.426	19.472	8.035
2021-07-29 04:30	3058203	8.202	-100.958	268.024	19.385	696.415	780.079	0.386	0.507	7.808	19.385	7.671
2021-07-29 04:45	3059103	8.199	-100.789	265.821	19.317	698.338	783.374	0.387	0.509	7.472	19.317	8
2021-07-29 05:00	3060003	8.200	-100.789	265.425	19.214	693.948	780.167	0.386	0.507	7.782	19.214	8.071
2021-07-29 05:15	3060903	8.202	-100.887	265.094	19.126	693.281	780.894	0.386	0.508	7.799	19.126	8.168
2021-07-29 05:30	3061803	8.200	-100.703	265.452	19.05	689.75	778.188	0.385	0.506	7.676	19.05	8.191
2021-07-29 05:45	3062703	8.206	-101.056	266.768	18.987	689.471	778.929	0.385	0.506	7.589	18.987	8.018
2021-07-29 06:00	3063603	8.202	-100.76	268.43	18.881	687.302	778.267	0.385	0.506	7.712	18.881	9.472
2021-07-29 06:15	3064503	8.204	-100.865	266.923	18.808	685.208	777.113	0.384	0.505	7.630	18.808	8.567
2021-07-29 06:30	3065403	8.199	-100.57	266.758	18.734	685.411	778.588	0.385	0.506	7.625	18.734	8.581
2021-07-29 06:45	3066303	8.202	-100.739	266.815	18.657	683.987	778.277	0.385	0.506	7.650	18.657	8.705
2021-07-29 07:00	3067203	8.215	-101.435	265.368	18.602	683.085	778.174	0.384	0.506	7.749	18.602	8.516
2021-07-29 07:15	3068103	8.216	-101.466	265.452	18.554	680.775	776.359	0.384	0.505	7.861	18.554	9.132
2021-07-29 07:30	3069003	8.223	-101.862	265.063	18.512	680.856	777.17	0.384	0.505	7.354	18.512	9.414
2021-07-29 07:45	3069903	8.224	-101.9	265.299	18.465	679.71	776.644	0.384	0.505	7.781	18.465	10.56
2021-07-29 08:00	3070803	8.222	-101.807	264.724	18.431	678.464	775.8	0.383	0.504	7.688	18.431	8.004
2021-07-29 08:15	3071703	8.239	-102.77	263.787	18.415	678.388	775.992	0.383	0.504	7.613	18.415	7.98
2021-07-29 08:30	3072603	8.242	-102.928	263.554	18.399	678.321	776.186	0.383	0.505	7.713	18.399	8.022
2021-07-29 08:45	3073503	8.247	-103.235	263.833	18.379	677.814	775.948	0.383	0.504	7.466	18.379	7.823

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-29 09:00	3074403	8.242	-102.894	264.481	18.348	677.183	775.747	0.383	0.504	7.634	18.348	7.946
2021-07-29 09:15	3075303	8.237	-102.634	264.169	18.308	676.431	775.557	0.383	0.504	7.929	18.308	7.754
2021-07-29 09:30	3076203	8.241	-102.844	262.448	18.289	675.896	775.268	0.383	0.504	7.500	18.289	7.814
2021-07-29 09:45	3077103	8.244	-102.994	262.87	18.244	674.713	774.675	0.383	0.504	7.824	18.244	8.686
2021-07-29 10:00	3078003	8.253	-103.481	261.766	18.225	673.652	773.789	0.382	0.503	7.707	18.225	9.469
2021-07-29 10:15	3078903	8.255	-103.619	262.262	18.224	674.113	774.334	0.382	0.503	7.252	18.224	9.761
2021-07-29 10:30	3079803	8.255	-103.633	262.088	18.228	676.173	776.622	0.384	0.505	7.094	18.228	9.398
2021-07-29 10:45	3080703	8.243	-102.93	263.075	18.294	677.488	777.013	0.384	0.505	7.548	18.294	9.554
2021-07-29 11:00	3081603	8.247	-103.214	261.348	18.43	680.836	778.532	0.385	0.506	7.957	18.43	8.863
2021-07-29 11:15	3082503	8.263	-104.222	259.742	18.594	684.003	779.361	0.385	0.507	8.037	18.594	9.328
2021-07-29 11:30	3083403	8.283	-105.395	258.454	18.719	687.631	781.377	0.386	0.508	7.897	18.719	8.41
2021-07-29 11:45	3084303	8.293	-105.994	257.97	18.693	684.997	778.822	0.385	0.506	8.145	18.693	8.965
2021-07-29 12:00	3085203	8.295	-106.156	257.703	18.794	686.262	778.544	0.385	0.506	7.867	18.794	9.153
2021-07-29 12:15	3086103	8.293	-106.13	257.205	19.072	692.876	781.351	0.386	0.508	8.095	19.072	8.611
2021-07-29 12:30	3087003	8.303	-106.773	256.177	19.259	701.012	787.347	0.389	0.512	8.338	19.259	8.213
2021-07-29 12:45	3087903	8.307	-107.219	255.142	19.848	718.939	797.405	0.395	0.518	8.632	19.848	9.029
2021-07-29 13:00	3088803	8.334	-108.988	253.013	20.314	732.856	804.89	0.398	0.523	8.735	20.314	8.96
2021-07-29 13:15	3089703	8.331	-109.279	252.303	21.583	768.744	822.426	0.408	0.535	8.154	21.583	8.979
2021-07-29 13:30	3090603	8.319	-108.802	251.316	22.239	788.196	832.074	0.413	0.541	8.133	22.239	7.814
2021-07-29 13:45	3091503	8.331	-109.58	250.05	22.381	788.799	830.342	0.412	0.540	8.454	22.381	9.184
2021-07-29 14:00	3092403	8.331	-109.696	250.005	22.685	795.755	832.566	0.413	0.541	8.378	22.685	7.824
2021-07-29 14:15	3093303	8.342	-110.352	251.373	22.706	797.346	833.88	0.413	0.542	8.459	22.706	7.928
2021-07-29 14:30	3094203	8.342	-110.321	251.154	22.704	798.161	834.771	0.414	0.543	8.546	22.704	8.068
2021-07-29 14:45	3095103	8.352	-110.898	252.942	22.637	797.778	835.478	0.414	0.543	8.579	22.637	7.641
2021-07-29 15:00	3096003	8.365	-111.566	251.316	22.368	785.939	827.548	0.410	0.538	9.301	22.368	7.786
2021-07-29 15:15	3096903	8.360	-111.756	249.783	23.733	814.054	834.237	0.414	0.542	8.526	23.733	7.414
2021-07-29 15:30	3097803	8.368	-112.543	246.757	24.484	830.431	838.691	0.416	0.545	8.571	24.484	7.481
2021-07-29 15:45	3098703	8.371	-112.667	247.112	24.334	829.724	840.421	0.417	0.546	8.204	24.334	7.656
2021-07-29 16:00	3099603	8.367	-112.374	248.495	24.206	829.524	842.296	0.418	0.547	8.661	24.206	7.592
2021-07-29 16:15	3100503	8.364	-112.169	247.515	24.118	829.977	844.202	0.419	0.549	8.789	24.118	7.851
2021-07-29 16:30	3101403	8.360	-112.031	247	24.441	830.431	839.39	0.416	0.546	8.613	24.441	7.31
2021-07-29 16:45	3102303	8.358	-111.952	248.104	24.502	834.04	842.055	0.418	0.547	8.633	24.502	7.81
2021-07-29 17:00	3103203	8.355	-111.778	247.911	24.529	838.285	845.888	0.420	0.550	8.673	24.529	7.308
2021-07-29 17:15	3104103	8.357	-112.181	246.683	25.244	844.323	840.402	0.417	0.546	8.518	25.244	7.483
2021-07-29 17:30	3105003	8.361	-112.441	247.236	25.356	849.463	843.734	0.419	0.548	7.864	25.356	7.769
2021-07-29 17:45	3105903	8.341	-111.294	249.556	25.41	850.684	844.075	0.419	0.549	7.264	25.41	7.981
2021-07-29 18:00	3106803	8.320	-110.028	251.232	25.345	849.514	843.95	0.419	0.549	7.601	25.345	8.615
2021-07-29 18:15	3107703	8.335	-110.948	248.159	25.479	849.489	841.785	0.417	0.547	8.299	25.479	7.849
2021-07-29 18:30	3108603	8.332	-110.805	247.78	25.602	858.015	848.256	0.421	0.551	8.140	25.602	9.158
2021-07-29 18:45	3109503	8.333	-110.9	248.307	25.658	860.255	849.581	0.421	0.552	7.888	25.658	8.181
2021-07-29 19:00	3110403	8.338	-111.132	248.19	25.542	856.564	847.79	0.421	0.551	8.165	25.542	8.501
2021-07-29 19:15	3111303	8.357	-112.228	246.662	25.429	854.427	847.477	0.420	0.551	8.286	25.429	8.538
2021-07-29 19:30	3112203	8.365	-112.689	247.475	25.356	854.181	848.408	0.421	0.551	8.259	25.356	7.911
2021-07-29 19:45	3113103	8.362	-112.491	247.99	25.279	853.506	848.983	0.421	0.552	7.844	25.279	8.625
2021-07-29 20:00	3114003	8.364	-112.524	248.252	25.134	850.216	848.037	0.421	0.551	8.118	25.134	8.154
2021-07-29 20:15	3114903	8.369	-112.762	249.077	24.947	847.159	848.021	0.421	0.551	8.031	24.947	7.809
2021-07-29 20:30	3115803	8.392	-113.974	249.978	24.64	840.005	845.822	0.420	0.550	8.200	24.64	8.513
2021-07-29 20:45	3116703	8.380	-113.204	252.167	24.349	832.778	843.26	0.418	0.548	8.220	24.349	22.333
2021-07-29 21:00	3117603	8.363	-112.088	253.631	24.18	828.3	841.476	0.417	0.547	7.719	24.18	22.33
2021-07-29 21:15	3118503	8.345	-111.01	256.821	24.099	827.169	841.658	0.417	0.547	6.997	24.099	19.897
2021-07-29 21:30	3119403	8.342	-110.776	257.553	23.899	817.834	835.396	0.414	0.543	7.405	23.899	11.577
2021-07-29 21:45	3120303	8.340	-110.614	258.003	23.81	810.944	829.807	0.411	0.539	6.977	23.81	8.113
2021-07-29 22:00	3121203	8.298	-108.092	264.145	23.729	809.975	830.132	0.412	0.540	***6.268***	23.729	8.287
2021-07-29 22:15	3122103	8.273	-106.535	263.692	23.492	799.445	823.149	0.408	0.535	7.065	23.492	7.927
2021-07-29 22:30	3123003	8.250	-105.2	266.484	23.405	798.819	823.925	0.408	0.536	***6.221***	23.405	7.904
2021-07-29 22:45	3123903	8.231	-103.989	267.96	23.27	795.621	822.808	0.408	0.535	***5.982***	23.27	7.709

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-29 23:00	3124803	8.212	-102.799	270.981	23.089	790.75	820.706	0.407	0.533	***6.437***	23.089	7.439
2021-07-29 23:15	3125703	8.201	-102.146	272.459	22.93	787.159	819.557	0.406	0.533	***6.238***	22.93	7.257
2021-07-29 23:30	3126603	8.198	-101.862	271.898	22.752	781.643	816.708	0.405	0.531	6.696	22.752	7.306
2021-07-29 23:45	3127503	8.208	-102.408	267.969	22.528	774.984	813.384	0.403	0.529	7.252	22.528	7.409
2021-07-30 00:00	3128403	8.219	-103.016	269.316	22.392	771.043	811.467	0.402	0.527	6.553	22.392	7.413
2021-07-30 00:15	3129303	8.211	-102.496	269.829	22.303	770.325	812.16	0.402	0.528	6.550	22.303	7.414
2021-07-30 00:30	3130203	8.194	-101.469	273.553	22.206	769.909	813.31	0.403	0.529	***6.471***	22.206	7.329
2021-07-30 00:45	3131103	8.183	-100.799	275.246	22.118	770.41	815.289	0.404	0.530	6.541	22.118	7.159
2021-07-30 01:00	3132003	8.172	-100.148	274.378	22.066	771.315	817.114	0.405	0.531	***5.851***	22.066	6.988
2021-07-30 01:15	3132903	8.162	-99.535	275.258	22.005	773.763	820.714	0.407	0.533	***5.728***	22.005	7.146
2021-07-30 01:30	3133803	8.168	-99.833	273.687	21.91	773.314	821.817	0.407	0.534	***6.176***	21.91	7.269
2021-07-30 01:45	3134703	8.171	-100.012	274.471	21.811	771.933	822.007	0.407	0.534	***5.785***	21.811	7.007
2021-07-30 02:00	3135603	8.183	-100.636	276.195	21.734	776.47	828.137	0.410	0.538	***6.077***	21.734	7.265
2021-07-30 02:15	3136503	8.193	-101.233	276.786	21.627	777.577	831.125	0.412	0.540	***5.982***	21.627	7.198
2021-07-30 02:30	3137403	8.195	-101.268	276.08	21.543	777.826	832.808	0.413	0.541	***6.429***	21.543	7.828
2021-07-30 02:45	3138303	8.212	-102.224	275.079	21.435	776.434	833.17	0.413	0.542	7.051	21.435	7.781
2021-07-30 03:00	3139203	8.224	-102.904	277.029	21.329	774.369	832.755	0.413	0.541	6.907	21.329	7.455
2021-07-30 03:15	3140103	8.232	-103.362	276.951	21.232	772.5	832.412	0.413	0.541	6.947	21.232	7.395
2021-07-30 03:30	3141003	8.244	-104.01	273.892	21.127	769.197	830.651	0.412	0.540	6.972	21.127	7.744
2021-07-30 03:45	3141903	8.250	-104.306	275.344	21.018	765.725	828.765	0.411	0.539	7.175	21.018	7.694
2021-07-30 04:00	3142803	8.268	-105.34	272.182	20.915	762.885	827.449	0.410	0.538	7.280	20.915	7.337
2021-07-30 04:15	3143703	8.290	-106.554	271.977	20.801	760.375	826.68	0.410	0.537	7.062	20.801	7.31
2021-07-30 04:30	3144603	8.291	-106.628	271.856	20.711	758.19	825.847	0.409	0.537	7.274	20.711	7.039
2021-07-30 04:45	3145503	8.292	-106.633	273.563	20.608	756.407	825.666	0.409	0.537	7.263	20.608	7.739
2021-07-30 05:00	3146403	8.302	-107.188	273.691	20.505	753.633	824.406	0.408	0.536	7.080	20.505	7.898
2021-07-30 05:15	3147303	8.303	-107.217	274.352	20.407	750.544	822.722	0.408	0.535	6.962	20.407	7.585
2021-07-30 05:30	3148203	8.289	-106.373	275.618	20.307	751.493	825.482	0.409	0.537	7.053	20.307	7.209
2021-07-30 05:45	3149103	8.295	-106.654	273.25	20.217	745.456	820.409	0.406	0.533	6.972	20.217	7.346
2021-07-30 06:00	3150003	8.295	-106.604	275.892	20.131	742.988	819.163	0.406	0.532	***6.463***	20.131	7.45
2021-07-30 06:15	3150903	8.290	-106.292	275.475	20.035	740.648	818.238	0.405	0.532	6.718	20.035	7.036
2021-07-30 06:30	3151803	8.286	-106.041	275.57	19.953	735.071	813.489	0.403	0.529	6.697	19.953	7.441
2021-07-30 06:45	3152703	8.275	-105.405	276.676	19.879	734.711	814.362	0.403	0.529	6.645	19.879	7.586
2021-07-30 07:00	3153603	8.266	-104.837	277.63	19.817	735.447	816.255	0.404	0.531	***6.459***	19.817	7.832
2021-07-30 07:15	3154503	8.266	-104.821	278.183	19.734	733.531	815.568	0.404	0.530	6.615	19.734	7.805
2021-07-30 07:30	3155403	8.271	-105.083	277.446	19.661	729.241	812.058	0.402	0.528	6.987	19.661	7.577
2021-07-30 07:45	3156303	8.279	-105.529	277.687	19.624	727.651	810.916	0.401	0.527	6.795	19.624	7.526
2021-07-30 08:00	3157203	8.277	-105.391	278.29	19.556	725.489	809.673	0.401	0.526	6.889	19.556	7.47
2021-07-30 08:15	3158103	8.280	-105.541	277.072	19.493	722.724	807.679	0.400	0.525	6.892	19.493	7.344
2021-07-30 08:30	3159003	8.281	-105.596	277.117	19.461	722.255	807.706	0.400	0.525	6.859	19.461	7.37
2021-07-30 08:45	3159903	8.283	-105.66	277.215	19.425	721.137	807.083	0.399	0.525	6.899	19.425	7.344
2021-07-30 09:00	3160803	8.287	-105.879	276.195	19.383	719.671	806.161	0.399	0.524	7.146	19.383	7.107
2021-07-30 09:15	3161703	8.295	-106.349	276.686	19.362	719.363	806.184	0.399	0.524	7.019	19.362	6.853
2021-07-30 09:30	3162603	8.297	-106.459	278.038	19.34	718.663	805.777	0.399	0.524	7.104	19.34	7.431
2021-07-30 09:45	3163503	8.299	-106.597	277.361	19.324	717.201	804.399	0.398	0.523	7.233	19.324	6.907
2021-07-30 10:00	3164403	8.300	-106.649	277.466	19.316	716.84	804.139	0.398	0.523	7.176	19.316	7.358
2021-07-30 10:15	3165303	8.300	-106.621	277.21	19.299	715.744	803.21	0.397	0.522	7.266	19.299	7.262
2021-07-30 10:30	3166203	8.293	-106.211	278.231	19.304	718.962	806.721	0.399	0.524	6.538	19.304	7.123
2021-07-30 10:45	3167103	8.267	-104.721	283.238	19.324	720.358	807.955	0.400	0.525	***5.786***	19.324	7.014
2021-07-30 11:00	3168003	8.244	-103.4	284.799	19.377	723.271	810.302	0.401	0.527	***5.765***	19.377	7.103
2021-07-30 11:15	3168903	8.234	-102.816	286.742	19.411	724.201	810.749	0.401	0.527	***5.605***	19.411	6.869
2021-07-30 11:30	3169803	8.221	-102.096	288.7	19.451	725.605	811.627	0.402	0.528	***5.373***	19.451	6.82
2021-07-30 11:45	3170703	8.214	-101.726	288.233	19.512	726.62	811.706	0.402	0.528	***5.741***	19.512	6.712
2021-07-30 12:00	3171603	8.209	-101.426	286.514	19.575	716.557	799.389	0.395	0.520	***6.143***	19.575	7.321
2021-07-30 12:15	3172503	8.208	-101.371	285.36	19.627	718.634	800.81	0.396	0.521	***6.027***	19.627	6.58
2021-07-30 12:30	3173403	8.206	-101.299	285.891	19.724	719.373	799.994	0.396	0.520	***6.139***	19.724	6.29
2021-07-30 12:45	3174303	8.204	-101.247	285.441	19.827	721.703	800.835	0.396	0.521	***6.384***	19.827	5.824

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-30 13:00	3175203	8.207	-101.44	286.721	19.94	723.591	801.009	0.396	0.521	***6.462***	19.94	5.796
2021-07-30 13:15	3176103	8.214	-101.857	287.443	20.035	724.865	800.805	0.396	0.521	6.606	20.035	4.941
2021-07-30 13:30	3177003	8.220	-102.27	286.015	20.141	726.177	800.464	0.396	0.520	6.850	20.141	4.813
2021-07-30 13:45	3177903	8.231	-102.944	284.101	20.242	728.109	800.889	0.396	0.521	7.190	20.242	4.843
2021-07-30 14:00	3178803	8.249	-104.048	282.971	20.351	734.528	806.106	0.399	0.524	7.326	20.351	4.891
2021-07-30 14:15	3179703	8.249	-104.039	283.908	20.351	739.147	811.168	0.402	0.527	6.958	20.351	4.856
2021-07-30 14:30	3180603	8.254	-104.327	284.744	20.393	738.535	809.798	0.401	0.526	6.964	20.393	4.812
2021-07-30 14:45	3181503	8.259	-104.656	286.635	20.465	738.781	808.841	0.400	0.526	7.092	20.465	5.246
2021-07-30 15:00	3182403	8.270	-105.326	286.428	20.565	739.751	808.212	0.400	0.525	7.450	20.565	6.034
2021-07-30 15:15	3183303	8.267	-105.169	286.504	20.623	741.091	808.702	0.400	0.526	7.215	20.623	5.401
2021-07-30 15:30	3184203	8.289	-106.471	286.44	20.642	739.869	807.042	0.400	0.525	7.559	20.642	5.203
2021-07-30 15:45	3185103	8.321	-108.328	286.101	20.697	739.945	806.2	0.399	0.524	7.535	20.697	5.296
2021-07-30 16:00	3186003	8.348	-109.928	286.177	20.727	741.073	806.923	0.400	0.524	7.772	20.727	5.471
2021-07-30 16:15	3186903	8.379	-111.74	286.077	20.725	738.878	804.573	0.398	0.523	8.659	20.725	5.611
2021-07-30 16:30	3187803	8.382	-111.94	285.858	20.768	738.131	803.049	0.398	0.522	8.719	20.768	5.425
2021-07-30 16:45	3188703	8.404	-113.254	284.089	20.824	740.002	804.135	0.398	0.523	8.857	20.824	5.615
2021-07-30 17:00	3189603	8.398	-112.901	282.594	20.919	740.68	803.295	0.398	0.522	8.880	20.919	5.824
2021-07-30 17:15	3190503	8.391	-112.557	282.756	20.96	740.378	802.29	0.397	0.521	8.709	20.96	5.586
2021-07-30 17:30	3191403	8.385	-112.197	282.761	21.052	742.869	803.45	0.398	0.522	8.543	21.052	6.011
2021-07-30 17:45	3192303	8.373	-111.53	284.651	21.065	742.342	802.67	0.397	0.522	8.943	21.065	6.168
2021-07-30 18:00	3193203	8.368	-111.239	284.797	21.121	744.056	803.594	0.398	0.522	8.544	21.121	5.802
2021-07-30 18:15	3194103	8.349	-110.166	283.5	21.111	743.392	803.049	0.398	0.522	9.154	21.111	6.258
2021-07-30 18:30	3195003	8.368	-111.241	282.968	21.071	743.302	803.601	0.398	0.522	9.258	21.071	6.169
2021-07-30 18:45	3195903	8.403	-113.23	281.488	20.917	738.662	801.132	0.397	0.521	10.092	20.917	6.382
2021-07-30 19:00	3196803	8.405	-113.332	280.966	20.971	741.678	803.513	0.398	0.522	9.426	20.971	6.128
2021-07-30 19:15	3197703	8.398	-112.944	281.647	20.935	742.067	804.525	0.398	0.523	9.179	20.935	6.111
2021-07-30 19:30	3198603	8.403	-113.223	280.253	20.912	739.462	802.087	0.397	0.521	9.517	20.912	6.687
2021-07-30 19:45	3199503	8.402	-113.132	281.667	20.909	738.945	801.572	0.397	0.521	9.106	20.909	6.194
2021-07-30 20:00	3200403	8.378	-111.778	283.591	20.944	740.297	802.466	0.397	0.522	8.448	20.944	6.423
2021-07-30 20:15	3201303	8.350	-110.133	285.848	20.999	743.028	804.501	0.398	0.523	8.008	20.999	6.256
2021-07-30 20:30	3202203	8.322	-108.507	287.122	21.034	742.815	803.703	0.398	0.522	7.965	21.034	6.369
2021-07-30 20:45	3203103	8.291	-106.711	287.992	21.064	742.94	803.326	0.398	0.522	8.019	21.064	6.202
2021-07-30 21:00	3204003	8.278	-105.999	288.068	21.183	744.538	803.084	0.398	0.522	8.263	21.183	6.101
2021-07-30 21:15	3204903	8.296	-107.107	285.946	21.36	746.064	801.808	0.397	0.521	9.358	21.36	6.339
2021-07-30 21:30	3205803	8.340	-109.751	283.326	21.554	750.213	803.064	0.398	0.522	9.968	21.554	6.644
2021-07-30 21:45	3206703	8.367	-111.399	281.676	21.724	754.812	805.192	0.399	0.523	9.885	21.724	6.324
2021-07-30 22:00	3207603	8.380	-112.226	281.616	21.795	758.875	808.366	0.400	0.525	9.336	21.795	6.551
2021-07-30 22:15	3208503	8.372	-111.747	282.37	21.831	760.274	809.256	0.401	0.526	8.914	21.831	6.567
2021-07-30 22:30	3209403	8.364	-111.315	283.328	21.849	762.308	811.13	0.402	0.527	8.693	21.849	6.446
2021-07-30 22:45	3210303	8.355	-110.788	284.497	21.854	763.637	812.457	0.402	0.528	7.987	21.854	6.545
2021-07-30 23:00	3211203	8.335	-109.601	285.996	21.821	764.415	813.824	0.403	0.529	8.141	21.821	6.767
2021-07-30 23:15	3212103	8.329	-109.227	284.425	21.725	765.505	816.576	0.405	0.531	9.058	21.725	6.501
2021-07-30 23:30	3213003	8.348	-110.302	283.769	21.67	766.874	818.962	0.406	0.532	8.875	21.67	6.685
2021-07-30 23:45	3213903	8.360	-110.967	282.913	21.612	767.988	821.12	0.407	0.534	9.062	21.612	6.893
2021-07-31 00:00	3214803	8.367	-111.33	283.431	21.537	766.77	821.084	0.407	0.534	8.931	21.537	6.694
2021-07-31 00:15	3215703	8.377	-111.892	282.029	21.485	766.023	821.16	0.407	0.534	9.433	21.485	6.79
2021-07-31 00:30	3216603	8.386	-112.431	281.018	21.436	765.989	821.934	0.407	0.534	9.433	21.436	6.944
2021-07-31 00:45	3217503	8.399	-113.187	281.55	21.375	765.871	822.838	0.408	0.535	9.346	21.375	6.661
2021-07-31 01:00	3218403	8.407	-113.58	281.731	21.293	765.758	824.104	0.408	0.536	9.400	21.293	6.906
2021-07-31 01:15	3219303	8.421	-114.393	281.357	21.226	765.405	824.869	0.409	0.536	9.280	21.226	7.183
2021-07-31 01:30	3220203	8.428	-114.779	282.313	21.177	767.276	827.713	0.410	0.538	9.353	21.177	6.764
2021-07-31 01:45	3221103	8.428	-114.782	282.665	21.113	768.257	829.87	0.411	0.539	9.250	21.113	7.147
2021-07-31 02:00	3222003	8.426	-114.591	284.015	21.059	767.512	829.995	0.411	0.539	9.014	21.059	7.032
2021-07-31 02:15	3222903	8.425	-114.548	284.899	20.996	768.26	831.871	0.412	0.541	9.153	20.996	6.609
2021-07-31 02:30	3223803	8.431	-114.877	284.32	20.926	765.543	830.147	0.411	0.540	9.296	20.926	6.673
2021-07-31 02:45	3224703	8.433	-114.977	284.408	20.879	767.813	833.41	0.413	0.542	8.883	20.879	7.146

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-31 03:00	3225603	8.425	-114.489	285.72	20.82	767.452	834.034	0.413	0.542	8.987	20.82	6.773
2021-07-31 03:15	3226503	8.430	-114.746	284.384	20.76	775.704	844.051	0.419	0.549	9.434	20.76	8.081
2021-07-31 03:30	3227403	8.432	-114.818	284.995	20.704	776.35	845.754	0.419	0.550	9.199	20.704	6.801
2021-07-31 03:45	3228303	8.428	-114.551	285.648	20.653	786.817	858.064	0.426	0.558	8.865	20.653	7.286
2021-07-31 04:00	3229203	8.429	-114.601	285.729	20.598	785.277	857.36	0.425	0.557	8.982	20.598	7.183
2021-07-31 04:15	3230103	8.426	-114.441	286.576	20.545	785.165	858.195	0.426	0.558	8.559	20.545	7.237
2021-07-31 04:30	3231003	8.426	-114.381	286.666	20.486	783.552	857.476	0.425	0.557	8.825	20.486	8.046
2021-07-31 04:45	3231903	8.429	-114.567	286.707	20.424	783.477	858.521	0.426	0.558	8.940	20.424	6.799
2021-07-31 05:00	3232803	8.425	-114.284	287.608	20.393	784.869	860.591	0.427	0.559	8.752	20.393	6.977
2021-07-31 05:15	3233703	8.418	-113.866	289.861	20.336	784.024	860.69	0.427	0.559	8.677	20.336	11.681
2021-07-31 05:30	3234603	8.423	-114.148	289.148	20.279	781.029	858.43	0.426	0.558	8.736	20.279	7.047
2021-07-31 05:45	3235503	8.418	-113.847	289.83	20.222	780.805	859.219	0.426	0.558	8.862	20.222	7.424
2021-07-31 06:00	3236403	8.404	-112.982	289.627	20.175	778.028	857.001	0.425	0.557	8.668	20.175	7.313
2021-07-31 06:15	3237303	8.390	-112.181	291.051	20.129	776.445	856.098	0.425	0.556	8.576	20.129	7.068
2021-07-31 06:30	3238203	8.384	-111.78	291.644	20.063	776.805	857.681	0.426	0.557	8.495	20.063	31.061
2021-07-31 06:45	3239103	8.362	-110.517	291.713	20.026	778.006	859.672	0.427	0.559	8.207	20.026	20.677
2021-07-31 07:00	3240003	8.339	-109.134	294.768	19.982	778.602	861.133	0.427	0.560	8.094	19.982	25.057
2021-07-31 07:15	3240903	8.342	-109.32	293.602	19.941	778.105	861.333	0.427	0.560	8.207	19.941	24.505
2021-07-31 07:30	3241803	8.349	-109.718	293.127	19.914	770.013	852.856	0.423	0.554	8.180	19.914	32.162
2021-07-31 07:45	3242703	8.359	-110.281	293.876	19.882	772.247	855.915	0.425	0.556	8.231	19.882	32.127
2021-07-31 08:00	3243603	8.363	-110.476	294.162	19.841	769.572	853.695	0.423	0.555	8.305	19.841	27.298
2021-07-31 08:15	3244503	8.357	-110.135	294.017	19.821	771.503	856.193	0.425	0.557	8.169	19.821	27.199
2021-07-31 08:30	3245403	8.354	-109.951	295.631	19.8	775.299	860.795	0.427	0.560	7.997	19.8	31.298
2021-07-31 08:45	3246303	8.359	-110.233	294.601	19.773	780.286	866.828	0.430	0.563	8.425	19.773	29.81
2021-07-31 09:00	3247203	8.365	-110.59	294.388	19.767	782.477	869.372	0.432	0.565	8.267	19.767	29.415
2021-07-31 09:15	3248103	8.370	-110.841	294.584	19.761	786.675	874.15	0.434	0.568	8.098	19.761	29.815
2021-07-31 09:30	3249003	8.367	-110.667	295.693	19.755	789.717	877.646	0.436	0.570	7.903	19.755	29.673
2021-07-31 09:45	3249903	8.356	-110.021	295.59	19.757	789.628	877.499	0.436	0.570	8.103	19.757	6.587
2021-07-31 10:00	3250803	8.354	-109.947	295.242	19.762	789.629	877.402	0.436	0.570	8.138	19.762	6.484
2021-07-31 10:15	3251703	8.352	-109.813	296.05	19.791	770.723	855.878	0.425	0.556	7.808	19.791	6.563
2021-07-31 10:30	3252603	8.341	-109.224	298.096	19.829	792.982	879.879	0.437	0.572	7.201	19.829	6.742
2021-07-31 10:45	3253503	8.332	-108.666	299.505	19.857	787.28	873.043	0.433	0.567	6.947	19.857	6.845
2021-07-31 11:00	3254403	8.321	-108.078	300.008	19.878	771.102	854.714	0.424	0.556	7.293	19.878	6.861
2021-07-31 11:15	3255303	8.327	-108.428	298.275	19.889	782.689	867.358	0.431	0.564	7.863	19.889	6.961
2021-07-31 11:30	3256203	8.338	-109.034	298.134	19.917	795.837	881.405	0.438	0.573	7.953	19.917	6.91
2021-07-31 11:45	3257103	8.340	-109.177	297.641	19.959	799.457	884.635	0.439	0.575	7.816	19.959	6.834
2021-07-31 12:00	3258003	8.337	-109.034	300.013	20.013	796.958	880.856	0.437	0.573	7.464	20.013	7.017
2021-07-31 12:15	3258903	8.320	-108.08	302.585	20.072	799.464	882.528	0.438	0.574	6.869	20.072	6.827
2021-07-31 12:30	3259803	8.317	-107.911	304.543	20.151	800.677	882.401	0.438	0.574	7.013	20.151	11.692
2021-07-31 12:45	3260703	8.303	-107.131	305.556	20.263	802.136	881.926	0.438	0.573	6.977	20.263	6.833
2021-07-31 13:00	3261603	8.301	-107.048	305.697	20.34	803.442	881.942	0.438	0.573	7.058	20.34	6.935
2021-07-31 13:15	3262503	8.302	-107.136	305.995	20.426	804.921	881.976	0.438	0.573	6.916	20.426	7.807
2021-07-31 13:30	3263403	8.300	-107.062	306.677	20.534	806.698	881.935	0.438	0.573	7.049	20.534	6.901
2021-07-31 13:45	3264303	8.310	-107.72	306.653	20.696	808.099	880.473	0.437	0.572	7.992	20.696	6.899
2021-07-31 14:00	3265203	8.316	-108.135	305.642	20.834	809.83	879.847	0.437	0.572	7.929	20.834	6.611
2021-07-31 14:15	3266103	8.325	-108.64	305.041	20.922	812.811	881.475	0.438	0.573	8.046	20.922	6.574
2021-07-31 14:30	3267003	8.317	-108.266	305.787	21.016	815.199	882.343	0.438	0.574	7.702	21.016	6.76
2021-07-31 14:45	3267903	8.310	-107.884	306.433	21.143	818.199	883.275	0.439	0.574	7.764	21.143	6.491
2021-07-31 15:00	3268803	8.321	-108.54	305.589	21.204	820.38	884.51	0.440	0.575	8.262	21.204	7.328
2021-07-31 15:15	3269703	8.335	-109.403	304.738	21.253	819.139	882.287	0.438	0.573	8.829	21.253	6.709
2021-07-31 15:30	3270603	8.356	-110.667	303.291	21.348	820.857	882.401	0.438	0.574	8.714	21.348	6.781
2021-07-31 15:45	3271503	8.361	-110.936	303.756	21.371	821.078	882.238	0.438	0.573	8.881	21.371	6.633
2021-07-31 16:00	3272403	8.375	-111.766	301.658	21.351	819.796	881.214	0.438	0.573	9.513	21.351	6.495
2021-07-31 16:15	3273303	8.389	-112.569	301.691	21.393	817.642	878.135	0.436	0.571	10.065	21.393	7.536
2021-07-31 16:30	3274203	8.385	-112.417	303.773	21.512	825.615	884.546	0.440	0.575	9.207	21.512	6.613
2021-07-31 16:45	3275103	8.366	-111.377	306.061	21.694	823.489	878.986	0.437	0.571	8.770	21.694	6.458

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-07-31 17:00	3276003	8.357	-110.846	307.156	21.82	826.956	880.441	0.437	0.572	8.663	21.82	6.74
2021-07-31 17:15	3276903	8.345	-110.18	308.055	21.844	826.994	880.047	0.437	0.572	8.748	21.844	6.475
2021-07-31 17:30	3277803	8.352	-110.617	307.521	21.898	826.629	878.693	0.437	0.571	8.955	21.898	6.475
2021-07-31 17:45	3278703	8.340	-109.961	309.049	22.04	831.041	880.848	0.438	0.573	8.555	22.04	6.738
2021-07-31 18:00	3279603	8.314	-108.492	312.465	22.133	833.547	881.841	0.438	0.573	8.030	22.133	6.808
2021-07-31 18:15	3280503	8.289	-107.098	314.575	22.315	835.744	880.916	0.438	0.573	8.025	22.315	8.228
2021-07-31 18:30	3281403	8.288	-107.059	315.477	22.453	838.545	881.425	0.438	0.573	8.098	22.453	7.958
2021-07-31 18:45	3282303	8.271	-106.051	315.453	22.397	835.869	879.605	0.437	0.572	8.539	22.397	8.171
2021-07-31 19:00	3283203	8.269	-105.913	313.286	22.377	835.163	879.213	0.437	0.571	9.079	22.377	9.282
2021-07-31 19:15	3284103	8.262	-105.493	312.589	22.306	833.401	878.617	0.437	0.571	9.691	22.306	19.769
2021-07-31 19:30	3285003	8.297	-107.522	308.686	22.288	833.081	878.592	0.437	0.571	9.987	22.288	18.677
2021-07-31 19:45	3285903	8.310	-108.302	310.501	22.243	831.659	877.879	0.436	0.571	9.278	22.243	19.6
2021-07-31 20:00	3286803	8.313	-108.426	310.708	22.173	766.284	810.017	0.401	0.527	10.004	22.173	20.765
2021-07-31 20:15	3287703	8.330	-109.429	310.172	22.124	765.601	810.093	0.401	0.527	9.888	22.124	19.81
2021-07-31 20:30	3288603	8.344	-110.25	311.202	22.119	766.855	811.507	0.402	0.527	9.155	22.119	22.773
2021-07-31 20:45	3289503	8.337	-109.801	313.526	22.118	768.894	813.686	0.403	0.529	8.580	22.118	22.147
2021-07-31 21:00	3290403	8.317	-108.619	315.784	22.105	769.775	814.825	0.404	0.530	8.262	22.105	22.557
2021-07-31 21:15	3291303	8.301	-107.66	316.437	22.072	768.382	813.901	0.403	0.529	8.678	22.072	22.736
2021-07-31 21:30	3292203	8.306	-107.985	316.206	22.086	769.101	814.435	0.403	0.529	8.267	22.086	21.682
2021-07-31 21:45	3293103	8.300	-107.639	319.704	22.101	769.82	814.948	0.404	0.530	7.845	22.101	21.492
2021-07-31 22:00	3294003	8.282	-106.552	320.107	22.043	767.133	813.057	0.403	0.528	8.656	22.043	21.972
2021-07-31 22:15	3294903	8.288	-106.914	319.585	22.031	767.846	813.999	0.403	0.529	8.121	22.031	22.131
2021-07-31 22:30	3295803	8.288	-106.883	320.023	22.019	767.511	813.844	0.403	0.529	8.293	22.019	21.669
2021-07-31 22:45	3296703	8.282	-106.575	320.321	22.008	768.238	814.8	0.404	0.530	7.799	22.008	11.052
2021-07-31 23:00	3297603	8.281	-106.506	322.257	21.991	768.727	815.609	0.404	0.530	7.571	21.991	11.189
2021-07-31 23:15	3298503	8.271	-105.87	321.256	21.953	761.321	808.372	0.400	0.525	7.988	21.953	11.257
2021-07-31 23:30	3299403	8.271	-105.884	322.348	21.945	768.369	815.982	0.404	0.530	7.426	21.945	22.813
2021-07-31 23:45	3300303	8.261	-105.307	323.244	21.999	760.365	806.597	0.399	0.524	7.413	21.999	23.136
2021-08-01 00:00	3301203	8.237	-103.915	325.752	22.018	770.396	816.926	0.405	0.531	7.143	22.018	12.316
2021-08-01 00:15	3302103	8.227	-103.385	327.107	22.11	772.273	817.397	0.405	0.531	6.905	22.11	36.781
2021-08-01 00:30	3303003	8.209	-102.322	329.114	22.132	772.983	817.777	0.405	0.532	***6.357***	22.132	35.94
2021-08-01 00:45	3303903	8.195	-101.54	329.989	22.183	775.347	819.434	0.406	0.533	***6.354***	22.183	11.404
2021-08-01 01:00	3304803	8.177	-100.465	331.599	22.25	777.54	820.648	0.407	0.533	***6.060***	22.25	11.307
2021-08-01 01:15	3305703	8.163	-99.688	332.326	22.294	779.251	821.725	0.407	0.534	***5.648***	22.294	13.324
2021-08-01 01:30	3306603	8.145	-98.627	334.669	22.248	779.082	822.308	0.408	0.535	***5.169***	22.248	14.24
2021-08-01 01:45	3307503	8.143	-98.512	333.313	22.358	780.373	821.847	0.407	0.534	***6.310***	22.358	16.643
2021-08-01 02:00	3308403	8.146	-98.703	334.121	22.374	786.95	828.501	0.411	0.539	***6.062***	22.374	11.939
2021-08-01 02:15	3309303	8.145	-98.631	335.029	22.369	770.197	810.943	0.402	0.527	***5.123***	22.369	14.263
2021-08-01 02:30	3310203	8.131	-97.826	338.362	22.348	786.867	828.843	0.411	0.539	***4.890***	22.348	13.042
2021-08-01 02:45	3311103	8.118	-97.063	340.182	22.318	786.456	828.922	0.411	0.539	***4.496***	22.318	8.875
2021-08-01 03:00	3312003	8.118	-97.044	337.115	22.299	786.482	829.257	0.411	0.539	***4.779***	22.299	9.809
2021-08-01 03:15	3312903	8.123	-97.356	337.583	22.293	787.459	830.393	0.412	0.540	***4.930***	22.293	9.782
2021-08-01 03:30	3313803	8.123	-97.332	336.596	22.284	788.988	832.153	0.413	0.541	***4.799***	22.284	9.93
2021-08-01 03:45	3314703	8.128	-97.62	336.271	22.261	787.577	831.052	0.412	0.540	***6.470***	22.261	10.752
2021-08-01 04:00	3315603	8.165	-99.75	330.092	22.24	786.978	830.779	0.412	0.540	7.445	22.24	10.58
2021-08-01 04:15	3316503	8.197	-101.612	327.543	22.171	786.305	831.226	0.412	0.540	8.004	22.171	11.256
2021-08-01 04:30	3317403	8.250	-104.718	323.654	22.135	785.727	831.208	0.412	0.540	8.251	22.135	9.906
2021-08-01 04:45	3318303	8.337	-109.808	320.66	22.109	785.794	831.717	0.412	0.541	8.013	22.109	10.354
2021-08-01 05:00	3319203	8.375	-112.028	321.845	22.071	785.685	832.241	0.413	0.541	7.985	22.071	9.525
2021-08-01 05:15	3320103	8.384	-112.514	321.392	22.046	798.12	845.848	0.420	0.550	7.937	22.046	11.138
2021-08-01 05:30	3321003	8.383	-112.443	323.018	22.011	785.879	833.462	0.413	0.542	7.653	22.011	9.631
2021-08-01 05:45	3321903	8.389	-112.798	324.053	21.973	785.28	833.462	0.413	0.542	7.974	21.973	10.928
2021-08-01 06:00	3322803	8.393	-113.01	323.135	21.921	779.071	827.742	0.410	0.538	7.989	21.921	9.71
2021-08-01 06:15	3323703	8.398	-113.316	323.621	21.874	786.011	835.916	0.415	0.543	7.944	21.874	7.091
2021-08-01 06:30	3324603	8.381	-112.29	324.529	21.829	784.346	834.915	0.414	0.543	7.807	21.829	7.098
2021-08-01 06:45	3325503	8.367	-111.439	323.886	21.779	783.705	835.086	0.414	0.543	8.034	21.779	6.732

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-01 07:00	3326403	8.366	-111.353	323.795	21.743	770.852	821.98	0.407	0.534	7.968	21.743	6.706
2021-08-01 07:15	3327303	8.371	-111.649	323.445	21.685	782.532	835.43	0.414	0.543	7.998	21.685	7.181
2021-08-01 07:30	3328203	8.374	-111.835	323.657	21.656	781.94	835.289	0.414	0.543	7.592	21.656	7.184
2021-08-01 07:45	3329103	8.371	-111.635	324.3	21.64	782.795	836.474	0.415	0.544	7.463	21.64	7.028
2021-08-01 08:00	3330003	8.365	-111.263	324.506	21.611	774.069	827.649	0.410	0.538	7.415	21.611	6.681
2021-08-01 08:15	3330903	8.359	-110.915	324.832	21.583	782.506	837.143	0.415	0.544	7.420	21.583	6.694
2021-08-01 08:30	3331803	8.360	-110.97	330.046	21.565	777.385	831.965	0.412	0.541	6.939	21.565	6.882
2021-08-01 08:45	3332703	8.366	-111.294	327.207	21.552	783.096	838.296	0.416	0.545	6.950	21.552	6.976
2021-08-01 09:00	3333603	8.368	-111.425	327.011	21.54	783.263	838.69	0.416	0.545	6.818	21.54	7.004
2021-08-01 09:15	3334503	8.357	-110.755	325.633	21.535	783.287	838.805	0.416	0.545	6.693	21.535	6.841
2021-08-01 09:30	3335403	8.342	-109.885	326.74	21.535	783.24	838.749	0.416	0.545	6.720	21.535	7.697
2021-08-01 09:45	3336303	8.346	-110.13	327.381	21.525	782.696	838.337	0.416	0.545	6.826	21.525	6.901
2021-08-01 10:00	3337203	8.348	-110.214	328.206	21.518	782.161	837.889	0.416	0.545	6.796	21.518	6.631
2021-08-01 10:15	3338103	8.351	-110.409	329.255	21.524	779.336	834.762	0.414	0.543	6.767	21.524	6.683
2021-08-01 10:30	3339003	8.343	-109.968	330.011	21.534	782.841	838.336	0.416	0.545	6.653	21.534	6.438
2021-08-01 10:45	3339903	8.337	-109.606	330.673	21.541	783.509	838.937	0.416	0.545	***6.405***	21.541	6.368
2021-08-01 11:00	3340803	8.334	-109.396	331.615	21.542	783.448	838.851	0.416	0.545	6.534	21.542	6.285
2021-08-01 11:15	3341703	8.330	-109.198	331.958	21.543	777.546	832.513	0.413	0.541	6.588	21.543	6.71
2021-08-01 11:30	3342603	8.326	-108.955	331.927	21.54	782.371	837.739	0.415	0.545	6.533	21.54	6.43
2021-08-01 11:45	3343503	8.325	-108.9	332.521	21.529	781.941	837.454	0.415	0.544	***6.347***	21.529	6.3
2021-08-01 12:00	3344403	8.319	-108.547	333.792	21.525	782.343	837.953	0.416	0.545	***5.977***	21.525	6.49
2021-08-01 12:15	3345303	8.290	-106.857	333.494	21.524	775.258	830.383	0.412	0.540	***5.405***	21.524	7.949
2021-08-01 12:30	3346203	8.261	-105.14	335.292	21.536	771.233	825.878	0.409	0.537	***4.698***	21.536	6.342
2021-08-01 12:45	3347103	8.232	-103.467	338.124	21.549	785.351	840.766	0.417	0.546	***4.511***	21.549	5.617
2021-08-01 13:00	3348003	8.212	-102.267	340.363	21.556	785.303	840.595	0.417	0.546	***3.938***	21.556	6.409
2021-08-01 13:15	3348903	8.193	-101.213	341.381	21.56	787.175	842.539	0.418	0.548	***3.495***	21.56	5.378
2021-08-01 13:30	3349803	8.183	-100.574	342.947	21.566	787.763	843.065	0.418	0.548	***3.416***	21.566	5.415
2021-08-01 13:45	3350703	8.161	-99.325	343.741	21.573	788.365	843.574	0.418	0.548	***3.818***	21.573	4.805
2021-08-01 14:00	3351603	8.150	-98.679	344.397	21.582	787.097	842.07	0.418	0.547	***3.962***	21.582	4.606
2021-08-01 14:15	3352503	8.148	-98.555	344.607	21.578	783.547	838.34	0.416	0.545	***5.089***	21.578	4.571
2021-08-01 14:30	3353403	8.167	-99.645	341.145	21.568	783.137	838.082	0.416	0.545	***5.760***	21.568	4.869
2021-08-01 14:45	3354303	8.200	-101.607	339.485	21.568	782.223	837.102	0.415	0.544	***5.812***	21.568	4.761
2021-08-01 15:00	3355203	8.216	-102.522	339.504	21.567	782.385	837.284	0.415	0.544	***5.236***	21.567	4.693
2021-08-01 15:15	3356103	8.223	-102.911	340.658	21.556	783.502	838.677	0.416	0.545	***4.858***	21.556	5.11
2021-08-01 15:30	3357003	8.226	-103.076	343.667	21.518	782.314	838.058	0.416	0.545	***5.130***	21.518	4.905
2021-08-01 15:45	3357903	8.227	-103.133	341.939	21.427	776.718	833.601	0.413	0.542	***6.056***	21.427	4.86
2021-08-01 16:00	3358803	8.233	-103.469	340.83	21.372	773.747	831.351	0.412	0.540	***6.403***	21.372	4.838
2021-08-01 16:15	3359703	8.240	-103.896	341.462	21.388	774.551	831.947	0.412	0.541	***6.127***	21.388	4.879
2021-08-01 16:30	3360603	8.226	-103.13	341.853	21.522	778.549	833.94	0.413	0.542	***5.567***	21.522	4.677
2021-08-01 16:45	3361503	8.213	-102.37	341.943	21.608	780.429	834.492	0.414	0.542	***5.954***	21.608	4.502
2021-08-01 17:00	3362403	8.212	-102.341	341.278	21.636	781.645	835.315	0.414	0.543	***5.734***	21.636	4.519
2021-08-01 17:15	3363303	8.216	-102.544	341.6	21.606	782.076	836.283	0.415	0.544	***5.326***	21.606	4.629
2021-08-01 17:30	3364203	8.223	-102.966	341.943	21.606	782.01	836.22	0.415	0.544	***5.522***	21.606	4.563
2021-08-01 17:45	3365103	8.222	-102.921	342.952	21.599	781.895	836.215	0.415	0.544	***5.081***	21.599	4.71
2021-08-01 18:00	3366003	8.226	-103.111	343.717	21.532	779.021	834.289	0.414	0.542	***5.599***	21.532	4.891
2021-08-01 18:15	3366903	8.228	-103.199	342.036	21.513	777.654	833.143	0.413	0.542	***5.511***	21.513	5.308
2021-08-01 18:30	3367803	8.221	-102.828	342.172	21.511	778.453	834.039	0.414	0.542	***4.844***	21.511	5.184
2021-08-01 18:45	3368703	8.214	-102.386	344.051	21.517	779.777	835.35	0.414	0.543	***4.584***	21.517	5.301
2021-08-01 19:00	3369603	8.198	-101.483	345.758	21.53	780.67	836.079	0.415	0.543	***4.413***	21.53	4.84
2021-08-01 19:15	3370503	8.181	-100.491	347.258	21.53	781.135	836.577	0.415	0.544	***3.873***	21.53	5.273
2021-08-01 19:30	3371403	8.160	-99.266	348.703	21.524	780.305	835.801	0.414	0.543	***4.078***	21.524	5.064
2021-08-01 19:45	3372303	8.157	-99.034	348.099	21.509	779.956	835.678	0.414	0.543	***4.269***	21.509	4.936
2021-08-01 20:00	3373203	8.156	-98.979	348.841	21.494	780.123	836.119	0.415	0.543	***4.287***	21.494	5.023
2021-08-01 20:15	3374103	8.167	-99.623	347.391	21.375	774.545	832.165	0.413	0.541	***5.428***	21.375	5.303
2021-08-01 20:30	3375003	8.185	-100.594	344.723	21.198	767.409	827.5	0.410	0.538	***5.843***	21.198	4.995
2021-08-01 20:45	3375903	8.195	-101.168	345.975	21.087	764.539	826.291	0.409	0.537	***5.321***	21.087	5.041

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-01 21:00	3376803	8.194	-101.058	347.496	21.039	764.2	826.75	0.410	0.537	***5.135***	21.039	5.183
2021-08-01 21:15	3377703	8.190	-100.811	349.523	21.028	764.233	826.97	0.410	0.538	***5.247***	21.028	5.374
2021-08-01 21:30	3378603	8.183	-100.443	350.767	21.033	764.979	827.688	0.410	0.538	***4.444***	21.033	5.103
2021-08-01 21:45	3379503	8.165	-99.397	352.253	21.047	765.553	828.071	0.410	0.538	***4.256***	21.047	5.232
2021-08-01 22:00	3380403	8.141	-98.002	353.862	21.061	766.045	828.359	0.411	0.538	***3.942***	21.061	4.934
2021-08-01 22:15	3381303	8.117	-96.56	354.894	21.081	767.07	829.132	0.411	0.539	***3.746***	21.081	4.935
2021-08-01 22:30	3382203	8.098	-95.482	357.021	21.1	760.495	821.708	0.407	0.534	***3.459***	21.1	4.871
2021-08-01 22:45	3383103	8.077	-94.283	358.22	21.114	770.05	831.793	0.412	0.541	***3.621***	21.114	4.758
2021-08-01 23:00	3384003	8.078	-94.326	361.06	21.122	771.441	833.16	0.413	0.542	***3.270***	21.122	4.868
2021-08-01 23:15	3384903	8.134	-97.601	358.359	21.112	772.42	834.384	0.414	0.542	***4.610***	21.112	5.047
2021-08-01 23:30	3385803	8.199	-101.39	353.101	21.101	772.304	834.437	0.414	0.542	***6.228***	21.101	4.985
2021-08-01 23:45	3386703	8.251	-104.392	349.747	21.082	772.909	835.434	0.414	0.543	***6.272***	21.082	5.36
2021-08-02 00:00	3387603	8.291	-106.721	347.244	21.058	773	835.938	0.414	0.543	6.715	21.058	5.057
2021-08-02 00:15	3388503	8.319	-108.361	345.641	21.034	772.381	835.693	0.414	0.543	6.896	21.034	4.738
2021-08-02 00:30	3389403	8.338	-109.446	346.876	21.01	771.747	835.414	0.414	0.543	7.105	21.01	4.455
2021-08-02 00:45	3390303	8.336	-109.353	345.01	20.975	770.577	834.744	0.414	0.543	7.358	20.975	4.483
2021-08-02 01:00	3391203	8.330	-108.972	344.595	20.949	770.622	835.248	0.414	0.543	7.332	20.949	4.386
2021-08-02 01:15	3392103	8.324	-108.643	344.027	20.935	769.7	834.488	0.414	0.542	7.223	20.935	4.312
2021-08-02 01:30	3393003	8.324	-108.633	344.738	20.929	770.961	835.965	0.414	0.543	***6.360***	20.929	4.318
2021-08-02 01:45	3393903	8.332	-109.067	344.721	20.91	770.638	835.946	0.414	0.543	6.737	20.91	4.248
2021-08-02 02:00	3394803	8.335	-109.255	345.536	20.89	770.595	836.246	0.415	0.544	6.830	20.89	4.214
2021-08-02 02:15	3395703	8.329	-108.864	346.595	20.871	770.365	836.327	0.415	0.544	6.765	20.871	4.253
2021-08-02 02:30	3396603	8.339	-109.432	346.333	20.85	770.234	836.54	0.415	0.544	6.696	20.85	4.219
2021-08-02 02:45	3397503	8.340	-109.532	347.94	20.824	769.412	836.107	0.415	0.543	6.839	20.824	4.034
2021-08-02 03:00	3398403	8.336	-109.243	347.491	20.811	769.319	836.219	0.415	0.544	6.565	20.811	4.076
2021-08-02 03:15	3399303	8.328	-108.781	347.43	20.778	769.871	837.402	0.415	0.544	6.687	20.778	4.124
2021-08-02 03:30	3400203	8.333	-109.088	346.681	20.737	768.665	836.797	0.415	0.544	7.185	20.737	4.102
2021-08-02 03:45	3401103	8.335	-109.169	346.316	20.724	767.265	835.5	0.414	0.543	6.857	20.724	4.385
2021-08-02 04:00	3402003	8.328	-108.778	345.913	20.705	767.449	836.032	0.414	0.543	6.800	20.705	4.086
2021-08-02 04:15	3402903	8.322	-108.433	346.881	20.688	766.778	835.59	0.414	0.543	6.870	20.688	4.046
2021-08-02 04:30	3403803	8.315	-107.965	347.313	20.67	767.062	836.223	0.415	0.544	6.654	20.67	4.115
2021-08-02 04:45	3404703	8.308	-107.553	347.768	20.644	766.03	835.542	0.414	0.543	6.703	20.644	4.062
2021-08-02 05:00	3405603	8.295	-106.807	348.839	20.63	761.314	830.64	0.412	0.540	6.697	20.63	4.153
2021-08-02 05:15	3406503	8.282	-106.072	348.989	20.616	765.157	835.086	0.414	0.543	6.612	20.616	4.287
2021-08-02 05:30	3407403	8.274	-105.567	350.362	20.602	764.309	834.4	0.414	0.542	6.502	20.602	4.183
2021-08-02 05:45	3408303	8.262	-104.845	351.254	20.583	765.005	835.493	0.414	0.543	***6.331***	20.583	4.209
2021-08-02 06:00	3409203	8.248	-104.065	351.568	20.558	765.573	836.541	0.415	0.544	6.614	20.558	4.497
2021-08-02 06:15	3410103	8.234	-103.252	350.705	20.542	764.451	835.593	0.414	0.543	6.605	20.542	4.373
2021-08-02 06:30	3411003	8.234	-103.23	350.624	20.516	763.38	834.882	0.414	0.543	7.040	20.516	4.74
2021-08-02 06:45	3411903	8.240	-103.569	349.42	20.493	762.903	834.758	0.414	0.543	7.135	20.493	4.349
2021-08-02 07:00	3412803	8.245	-103.865	348.548	20.474	761.65	833.727	0.413	0.542	7.006	20.474	4.395
2021-08-02 07:15	3413703	8.251	-104.17	348.278	20.452	761.368	833.805	0.413	0.542	7.282	20.452	4.386
2021-08-02 07:30	3414603	8.251	-104.196	347.263	20.437	761.124	833.785	0.413	0.542	6.878	20.437	4.544
2021-08-02 07:45	3415503	8.249	-104.065	347.935	20.415	761.187	834.244	0.414	0.542	7.091	20.415	4.383
2021-08-02 08:00	3416403	8.249	-104.041	347.966	20.395	761.021	834.421	0.414	0.542	7.112	20.395	4.382
2021-08-02 08:15	3417303	8.244	-103.753	348.724	20.389	760.862	834.337	0.414	0.542	7.066	20.389	4.362
2021-08-02 08:30	3418203	8.239	-103.481	349.506	20.385	760.846	834.395	0.414	0.542	6.531	20.385	4.357
2021-08-02 08:45	3419103	8.237	-103.326	351.204	20.376	761.25	834.999	0.414	0.543	6.522	20.376	4.224
2021-08-02 09:00	3420003	8.230	-102.937	351.762	20.363	760.704	834.618	0.414	0.543	***6.086***	20.363	4.264
2021-08-02 09:15	3420903	8.222	-102.439	352.484	20.353	760.926	835.05	0.414	0.543	6.697	20.353	4.171
2021-08-02 09:30	3421803	8.216	-102.084	351.511	20.34	759.278	833.465	0.413	0.542	6.994	20.34	4.092
2021-08-02 09:45	3422703	8.215	-102.019	350.314	20.33	760.146	834.582	0.414	0.542	6.778	20.33	4.095
2021-08-02 10:00	3423603	8.210	-101.74	351.034	20.328	760.472	834.987	0.414	0.543	6.510	20.328	3.989
2021-08-02 10:15	3424503	8.204	-101.421	352.057	20.319	760.232	834.868	0.414	0.543	6.593	20.319	4.065
2021-08-02 10:30	3425403	8.197	-100.982	352.324	20.314	756.135	830.468	0.412	0.540	6.713	20.314	4.052
2021-08-02 10:45	3426303	8.189	-100.548	351.862	20.313	759.939	834.667	0.414	0.543	6.896	20.313	4.116

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-02 11:00	3427203	8.180	-100.017	351.69	20.316	761.748	836.586	0.415	0.544	6.898	20.316	4.153
2021-08-02 11:15	3428103	8.178	-99.864	352.408	20.322	760.664	835.296	0.414	0.543	6.937	20.322	4.188
2021-08-02 11:30	3429003	8.173	-99.602	352.47	20.337	760.684	835.064	0.414	0.543	6.922	20.337	4.015
2021-08-02 11:45	3429903	8.169	-99.359	353.361	20.351	760.507	834.611	0.414	0.542	7.138	20.351	4.096
2021-08-02 12:00	3430803	8.167	-99.258	352.951	20.371	760.39	834.138	0.413	0.542	7.340	20.371	3.943
2021-08-02 12:15	3431703	8.167	-99.244	353.087	20.399	760.099	833.332	0.413	0.542	7.586	20.399	3.97
2021-08-02 12:30	3432603	8.175	-99.726	351.993	20.428	761.772	834.664	0.414	0.543	7.977	20.428	4.074
2021-08-02 12:45	3433503	8.181	-100.121	351.876	20.443	762.828	835.56	0.414	0.543	8.157	20.443	4.034
2021-08-02 13:00	3434403	8.187	-100.479	351.444	20.46	764.049	836.598	0.415	0.544	7.984	20.46	3.967
2021-08-02 13:15	3435303	8.199	-101.154	350.357	20.478	766.118	838.541	0.416	0.545	7.742	20.478	4.06
2021-08-02 13:30	3436203	8.206	-101.593	350.074	20.497	767.562	839.794	0.416	0.546	7.839	20.497	4.105
2021-08-02 13:45	3437103	8.216	-102.167	350.1	20.518	768.611	840.562	0.417	0.546	7.960	20.518	4.008
2021-08-02 14:00	3438003	8.225	-102.696	349.616	20.534	770.057	841.871	0.417	0.547	7.605	20.534	5.25
2021-08-02 14:15	3438903	8.232	-103.106	350.116	20.554	770.955	842.505	0.418	0.548	8.189	20.554	5.256
2021-08-02 14:30	3439803	8.235	-103.283	349.776	20.57	771.851	843.19	0.418	0.548	7.898	20.57	5.146
2021-08-02 14:45	3440703	8.227	-102.837	350.131	20.584	772.922	844.119	0.419	0.549	6.828	20.584	5.086
2021-08-02 15:00	3441603	8.218	-102.308	351.392	20.594	773.279	844.327	0.419	0.549	7.330	20.594	4.969
2021-08-02 15:15	3442503	8.204	-101.519	351.306	20.603	773.752	844.692	0.419	0.549	7.181	20.603	4.929
2021-08-02 15:30	3443403	8.192	-100.818	351.423	20.615	774.819	845.651	0.419	0.550	6.851	20.615	4.929
2021-08-02 15:45	3444303	8.188	-100.546	352.796	20.626	775.351	846.039	0.420	0.550	***6.497***	20.626	4.87
2021-08-02 16:00	3445203	8.186	-100.434	353.419	20.634	776.13	846.745	0.420	0.550	7.072	20.634	4.884
2021-08-02 16:15	3446103	8.181	-100.16	353.814	20.641	775.357	845.769	0.419	0.550	7.236	20.641	4.585
2021-08-02 16:30	3447003	8.172	-99.645	353.526	20.658	775.49	845.62	0.419	0.550	6.909	20.658	4.507
2021-08-02 16:45	3447903	8.162	-99.077	354.329	20.676	776.427	846.331	0.420	0.550	6.553	20.676	4.339
2021-08-02 17:00	3448803	8.157	-98.805	355.354	20.694	776.721	846.333	0.420	0.550	***6.005***	20.694	4.207
2021-08-02 17:15	3449703	8.149	-98.317	356.582	20.714	776.649	845.896	0.420	0.550	***5.894***	20.714	3.931
2021-08-02 17:30	3450603	8.142	-97.935	357.467	20.74	776.955	845.77	0.419	0.550	***5.712***	20.74	4.308
2021-08-02 17:45	3451503	8.143	-97.99	357.848	20.769	778.004	846.398	0.420	0.550	***5.667***	20.769	4.206
2021-08-02 18:00	3452403	8.139	-97.795	358.68	20.801	778.742	846.647	0.420	0.550	***4.877***	20.801	4.102
2021-08-02 18:15	3453303	8.121	-96.724	359.877	20.828	779.903	847.426	0.420	0.551	***5.253***	20.828	4.154
2021-08-02 18:30	3454203	8.110	-96.111	361.017	20.85	779.991	847.146	0.420	0.551	***5.590***	20.85	4.17
2021-08-02 18:45	3455103	8.103	-95.687	362.006	20.871	780.468	847.288	0.420	0.551	***5.238***	20.871	3.366
2021-08-02 19:00	3456003	8.099	-95.451	361.026	20.887	781.67	848.308	0.421	0.551	***5.511***	20.887	3.323
2021-08-02 19:15	3456903	8.093	-95.119	360.142	20.899	782.082	848.548	0.421	0.552	***5.503***	20.899	3.266
2021-08-02 19:30	3457803	8.096	-95.31	360.523	20.907	782.229	848.571	0.421	0.552	***6.288***	20.907	3.377
2021-08-02 19:45	3458703	8.097	-95.358	359.734	20.911	781.946	848.196	0.421	0.551	***6.459***	20.911	3.298
2021-08-02 20:00	3459603	8.107	-95.916	358.657	20.91	781.715	847.964	0.421	0.551	***6.434***	20.91	3.366
2021-08-02 20:15	3460503	8.111	-96.2	358.158	20.911	781.066	847.241	0.420	0.551	***6.457***	20.911	3.254
2021-08-02 20:30	3461403	8.111	-96.207	359.119	20.914	781.145	847.262	0.420	0.551	6.823	20.914	3.399
2021-08-02 20:45	3462303	8.110	-96.095	357.5	20.917	780.81	846.851	0.420	0.550	***6.049***	20.917	3.455
2021-08-02 21:00	3463203	8.106	-95.909	358.206	20.922	782.915	849.049	0.421	0.552	***5.274***	20.922	3.494
2021-08-02 21:15	3464103	8.102	-95.67	359.832	20.93	784.004	850.079	0.422	0.553	***4.664***	20.93	3.387
2021-08-02 21:30	3465003	8.094	-95.201	361.055	20.934	784.59	850.644	0.422	0.553	***4.746***	20.934	3.362
2021-08-02 21:45	3465903	8.087	-94.814	361.224	20.942	784.654	850.586	0.422	0.553	***3.952***	20.942	3.294
2021-08-02 22:00	3466803	8.080	-94.378	362.292	20.949	785.071	850.916	0.422	0.553	***3.883***	20.949	3.248
2021-08-02 22:15	3467703	8.068	-93.715	362.562	20.963	785.589	851.217	0.422	0.553	***3.720***	20.963	3.221
2021-08-02 22:30	3468603	8.058	-93.086	362.85	20.993	786.904	852.123	0.423	0.554	***3.706***	20.993	3.353
2021-08-02 22:45	3469503	8.050	-92.661	363.828	21.014	787.496	852.385	0.423	0.554	***3.543***	21.014	3.206
2021-08-02 23:00	3470403	8.037	-91.894	365.387	21.014	789.17	854.197	0.424	0.555	***4.442***	21.014	3.18
2021-08-02 23:15	3471303	8.024	-91.107	367.874	21.002	787.633	852.749	0.423	0.554	***6.450***	21.002	19.41
2021-08-02 23:30	3472203	8.008	-90.22	365.435	21.002	785.519	850.461	0.422	0.553	***5.912***	21.002	21.631
2021-08-02 23:45	3473103	7.997	-89.538	366.691	20.999	786.376	851.437	0.422	0.553	***5.375***	20.999	23.658
2021-08-03 00:00	3474003	7.998	-89.622	364.472	20.964	785.015	850.589	0.422	0.553	7.088	20.964	35.767
2021-08-03 00:15	3474903	8.033	-91.61	359.951	20.936	782.056	847.875	0.421	0.551	7.461	20.936	3.59
2021-08-03 00:30	3475803	8.080	-94.366	356.685	20.885	781.763	848.448	0.421	0.551	7.589	20.885	3.35
2021-08-03 00:45	3476703	8.112	-96.216	353.237	20.838	780.589	847.999	0.421	0.551	7.933	20.838	3.228

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-03 01:00	3477603	8.139	-97.768	352.372	20.797	779.484	847.514	0.420	0.551	8.295	20.797	4.314
2021-08-03 01:15	3478503	8.167	-99.401	350.641	20.744	777.282	846.062	0.420	0.550	8.550	20.744	4.173
2021-08-03 01:30	3479403	8.198	-101.185	349.709	20.696	776.403	845.949	0.420	0.550	8.406	20.696	3.348
2021-08-03 01:45	3480303	8.215	-102.167	349.346	20.65	775.093	845.32	0.419	0.549	8.659	20.65	3.538
2021-08-03 02:00	3481203	8.224	-102.687	349.637	20.609	776.106	847.148	0.420	0.551	8.430	20.609	3.86
2021-08-03 02:15	3482103	8.217	-102.243	349.461	20.563	776.494	848.392	0.421	0.551	8.143	20.563	4.959
2021-08-03 02:30	3483003	8.205	-101.54	348.622	20.507	774.925	847.663	0.420	0.551	8.144	20.507	4.728
2021-08-03 02:45	3483903	8.196	-101.001	348.481	20.46	773.338	846.761	0.420	0.550	8.164	20.46	3.316
2021-08-03 03:00	3484803	8.183	-100.205	348.111	20.419	772.366	846.418	0.420	0.550	8.148	20.419	3.812
2021-08-03 03:15	3485703	8.187	-100.441	348.412	20.374	771.274	846.022	0.420	0.550	7.937	20.374	5.835
2021-08-03 03:30	3486603	8.189	-100.56	348.996	20.337	770.525	845.86	0.419	0.550	7.905	20.337	3.414
2021-08-03 03:45	3487503	8.195	-100.856	350.214	20.295	768.367	844.231	0.419	0.549	7.875	20.295	3.365
2021-08-03 04:00	3488403	8.188	-100.448	351.068	20.256	768.019	844.549	0.419	0.549	7.572	20.256	3.032
2021-08-03 04:15	3489303	8.174	-99.599	352.207	20.226	770.616	847.925	0.421	0.551	7.495	20.226	3.89
2021-08-03 04:30	3490203	8.156	-98.546	353.008	20.176	767.749	845.672	0.419	0.550	6.989	20.176	3.936
2021-08-03 04:45	3491103	8.146	-97.98	353.969	20.156	766.183	844.306	0.419	0.549	7.141	20.156	3.322
2021-08-03 05:00	3492003	8.142	-97.747	354.027	20.118	765.196	843.893	0.418	0.549	7.267	20.118	3.402
2021-08-03 05:15	3492903	8.129	-96.974	353.967	20.091	766.041	845.301	0.419	0.549	6.898	20.091	3.802
2021-08-03 05:30	3493803	8.124	-96.645	354.298	20.056	762.939	842.49	0.418	0.548	7.298	20.056	3.298
2021-08-03 05:45	3494703	8.121	-96.495	355.157	20.027	762.206	842.199	0.418	0.547	7.207	20.027	3.428
2021-08-03 06:00	3495603	8.132	-97.105	354.932	19.977	762.084	842.952	0.418	0.548	7.361	19.977	4.703
2021-08-03 06:15	3496503	8.141	-97.625	353.335	19.942	761.712	843.176	0.418	0.548	7.293	19.942	3.717
2021-08-03 06:30	3497403	8.158	-98.61	353.428	19.911	760.838	842.751	0.418	0.548	7.031	19.911	3.343
2021-08-03 06:45	3498303	8.174	-99.518	353.943	19.875	759.893	842.353	0.418	0.548	7.071	19.875	3.222
2021-08-03 07:00	3499203	8.182	-99.95	354.029	19.837	758.268	841.224	0.417	0.547	6.950	19.837	3.297
2021-08-03 07:15	3500103	8.196	-100.772	355.011	19.802	757.776	841.309	0.417	0.547	7.137	19.802	3.223
2021-08-03 07:30	3501003	8.207	-101.402	355.65	19.783	757.054	840.831	0.417	0.547	7.056	19.783	3.462
2021-08-03 07:45	3501903	8.216	-101.924	355.645	19.764	756.617	840.688	0.417	0.546	7.069	19.764	3.749
2021-08-03 08:00	3502803	8.214	-101.783	356.394	19.743	756.175	840.582	0.417	0.546	7.017	19.743	4.323
2021-08-03 08:15	3503703	8.214	-101.795	357.629	19.738	756.097	840.575	0.417	0.546	6.933	19.738	4.277
2021-08-03 08:30	3504603	8.215	-101.848	358.037	19.706	755.052	839.987	0.416	0.546	7.005	19.706	3.52
2021-08-03 08:45	3505503	8.216	-101.898	357.863	19.688	754.355	839.536	0.416	0.546	6.986	19.688	3.491
2021-08-03 09:00	3506403	8.215	-101.812	357.853	19.679	754.425	839.771	0.416	0.546	6.979	19.679	3.584
2021-08-03 09:15	3507303	8.213	-101.693	357.887	19.666	754.469	840.059	0.416	0.546	7.044	19.666	3.388
2021-08-03 09:30	3508203	8.208	-101.423	358.728	19.66	753.622	839.225	0.416	0.545	7.033	19.66	3.496
2021-08-03 09:45	3509103	8.203	-101.109	359.274	19.655	753.935	839.655	0.416	0.546	7.206	19.655	3.451
2021-08-03 10:00	3510003	8.197	-100.784	360.13	19.659	753.491	839.095	0.416	0.545	7.189	19.659	3.637
2021-08-03 10:15	3510903	8.189	-100.327	360.879	19.666	753.382	838.847	0.416	0.545	7.216	19.666	3.262
2021-08-03 10:30	3511803	8.183	-99.986	361.031	19.688	753.96	839.093	0.416	0.545	6.841	19.688	3.094
2021-08-03 10:45	3512703	8.180	-99.807	361.825	19.716	755.086	839.843	0.416	0.546	***5.619***	19.716	3.155
2021-08-03 11:00	3513603	8.172	-99.325	362.872	19.761	756.198	840.286	0.417	0.546	***5.312***	19.761	3.05
2021-08-03 11:15	3514503	8.164	-98.903	364.624	19.812	757.192	840.475	0.417	0.546	***5.634***	19.812	3.681
2021-08-03 11:30	3515403	8.158	-98.579	365.487	19.846	756.468	839.071	0.416	0.545	6.902	19.846	3.428
2021-08-03 11:45	3516303	8.158	-98.577	363.644	19.895	756.27	837.975	0.415	0.545	7.019	19.895	3.172
2021-08-03 12:00	3517203	8.175	-99.564	361.839	19.948	756.709	837.525	0.415	0.544	7.332	19.948	3.123
2021-08-03 12:15	3518103	8.201	-101.101	360.333	19.991	756.234	836.243	0.414	0.544	7.470	19.991	3.11
2021-08-03 12:30	3519003	8.219	-102.16	359.21	20.032	756.801	836.148	0.414	0.543	7.529	20.032	3.047
2021-08-03 12:45	3519903	8.231	-102.899	358.854	20.125	757.611	835.395	0.414	0.543	7.831	20.125	3.09
2021-08-03 13:00	3520803	8.276	-105.627	355.593	20.476	762.625	834.761	0.414	0.543	8.521	20.476	3.088
2021-08-03 13:15	3521703	8.318	-108.101	354.744	20.414	762.356	835.537	0.414	0.543	8.020	20.414	3.074
2021-08-03 13:30	3522603	8.332	-108.9	354.062	20.407	761.099	834.288	0.414	0.542	8.684	20.407	3.115
2021-08-03 13:45	3523503	8.343	-109.618	354.928	20.651	764.669	833.945	0.413	0.542	9.055	20.651	3.11
2021-08-03 14:00	3524403	8.367	-111.156	352.613	21.059	771.177	833.943	0.413	0.542	9.494	21.059	3.156
2021-08-03 14:15	3525303	8.403	-113.297	349.764	21.123	771.362	833.054	0.413	0.541	9.683	21.123	3.222
2021-08-03 14:30	3526203	8.413	-114.009	349.52	21.441	779.73	836.607	0.415	0.544	9.645	21.441	3.221
2021-08-03 14:45	3527103	8.414	-114.295	349.101	21.992	790.157	838.312	0.416	0.545	9.773	21.992	3.132

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-03 15:00	3528003	8.425	-115.211	347.251	22.747	801.654	837.71	0.415	0.545	9.808	22.747	3.169
2021-08-03 15:15	3528903	8.434	-115.85	346.297	23.074	808.067	838.921	0.416	0.545	9.801	23.074	3.37
2021-08-03 15:30	3529803	8.431	-115.488	346.063	22.58	795.704	834.268	0.414	0.542	9.136	22.58	3.722
2021-08-03 15:45	3530703	8.421	-114.62	345.653	21.81	779.81	830.407	0.412	0.540	10.216	21.81	3.367
2021-08-03 16:00	3531603	8.442	-115.716	345.443	21.512	774.051	829.295	0.411	0.539	10.227	21.512	3.299
2021-08-03 16:15	3532503	8.439	-115.578	346.564	21.575	776.429	830.773	0.412	0.540	10.617	21.575	3.146
2021-08-03 16:30	3533403	8.426	-114.753	347.511	21.444	774.531	830.969	0.412	0.540	9.918	21.444	3.289
2021-08-03 16:45	3534303	8.420	-114.403	347.72	21.383	771.845	829.121	0.411	0.539	10.160	21.383	3.28
2021-08-03 17:00	3535203	8.423	-114.436	348.929	21.062	768.126	830.593	0.412	0.540	9.257	21.062	3.335
2021-08-03 17:15	3536103	8.414	-113.881	350.4	21.02	767.271	830.397	0.412	0.540	9.584	21.02	3.159
2021-08-03 17:30	3537003	8.393	-112.698	350.767	21.039	770.001	833.026	0.413	0.541	9.763	21.039	3.252
2021-08-03 17:45	3537903	8.380	-111.959	351.022	21.111	771.059	832.935	0.413	0.541	10.010	21.111	3.221
2021-08-03 18:00	3538803	8.375	-111.673	350.372	21.138	770.326	831.68	0.412	0.541	10.370	21.138	3.265
2021-08-03 18:15	3539703	8.383	-112.143	350.653	21.202	770.526	830.791	0.412	0.540	10.566	21.202	3.284
2021-08-03 18:30	3540603	8.386	-112.293	350.395	21.147	770.849	832.083	0.412	0.541	10.466	21.147	3.278
2021-08-03 18:45	3541503	8.396	-112.963	349.292	21.346	774.08	832.151	0.413	0.541	11.299	21.346	3.316
2021-08-03 19:00	3542403	8.431	-115.142	345.391	21.674	784.851	838.085	0.416	0.545	11.633	21.674	3.34
2021-08-03 19:15	3543303	8.475	-117.762	343.534	21.802	787.546	838.778	0.416	0.545	11.799	21.802	3.408
2021-08-03 19:30	3544203	8.493	-118.852	343.431	21.919	790.965	840.42	0.417	0.546	11.671	21.919	3.416
2021-08-03 19:45	3545103	8.504	-119.55	343.035	21.999	790.855	838.947	0.416	0.545	11.897	21.999	3.367
2021-08-03 20:00	3546003	8.502	-119.46	342.897	22.014	790.709	838.538	0.416	0.545	11.949	22.014	3.498
2021-08-03 20:15	3546903	8.495	-119.057	343.295	22.064	791.558	838.58	0.416	0.545	11.785	22.064	3.534
2021-08-03 20:30	3547803	8.491	-118.804	340.456	22.04	792.102	839.566	0.416	0.546	11.694	22.04	3.573
2021-08-03 20:45	3548703	8.484	-118.42	341.741	22.103	795.658	842.259	0.418	0.547	11.086	22.103	3.504
2021-08-03 21:00	3549603	8.483	-118.425	342.306	22.287	800.412	844.152	0.419	0.549	10.508	22.287	3.615
2021-08-03 21:15	3550503	8.479	-118.246	342.818	22.433	802.617	844.004	0.419	0.549	10.129	22.433	3.671
2021-08-03 21:30	3551403	8.473	-117.922	343.145	22.491	806.475	847.07	0.420	0.551	9.428	22.491	3.668
2021-08-03 21:45	3552303	8.464	-117.412	344.397	22.524	806.531	846.565	0.420	0.550	8.954	22.524	3.982
2021-08-03 22:00	3553203	8.447	-116.401	345.389	22.548	808.824	848.569	0.421	0.552	8.573	22.548	4.016
2021-08-03 22:15	3554103	8.443	-116.179	345.126	22.563	812.711	852.393	0.423	0.554	8.270	22.563	4.049
2021-08-03 22:30	3555003	8.415	-114.539	346.557	22.522	814.494	854.952	0.424	0.556	8.708	22.522	369.949
2021-08-03 22:45	3555903	8.423	-114.97	343.264	22.452	813.824	855.456	0.425	0.556	9.395	22.452	5.263
2021-08-03 23:00	3556803	8.412	-114.338	342.28	22.384	813.849	856.654	0.425	0.557	9.261	22.384	5.888
2021-08-03 23:15	3557703	8.416	-114.515	342.74	22.313	813.424	857.426	0.426	0.557	9.370	22.313	5.819
2021-08-03 23:30	3558603	8.431	-115.366	345.31	22.278	811.795	856.316	0.425	0.557	8.691	22.278	5.805
2021-08-03 23:45	3559503	8.448	-116.374	344.821	22.231	811.328	856.63	0.425	0.557	9.112	22.231	5.878
2021-08-04 00:00	3560403	8.448	-116.32	344.533	22.176	811.35	857.613	0.426	0.557	9.182	22.176	5.975
2021-08-04 00:15	3561303	8.421	-114.758	343.579	22.11	810.696	858.052	0.426	0.558	9.393	22.11	6.021
2021-08-04 00:30	3562203	8.444	-116.06	343.758	22.048	806.821	855.03	0.424	0.556	8.957	22.048	6.012
2021-08-04 00:45	3563103	8.449	-116.305	345.3	21.992	806.119	855.258	0.424	0.556	8.849	21.992	5.903
2021-08-04 01:00	3564003	8.449	-116.32	347.315	21.935	806.143	856.276	0.425	0.557	9.168	21.935	5.778
2021-08-04 01:15	3564903	8.435	-115.469	345.997	21.886	805.94	856.902	0.425	0.557	9.217	21.886	5.829
2021-08-04 01:30	3565803	8.440	-115.716	344.645	21.835	806.674	858.585	0.426	0.558	9.306	21.835	5.788
2021-08-04 01:45	3566703	8.442	-115.85	343.636	21.786	806.336	859.071	0.426	0.558	9.214	21.786	5.675
2021-08-04 02:00	3567603	8.436	-115.454	342.332	21.717	805.467	859.36	0.427	0.559	9.003	21.717	5.689
2021-08-04 02:15	3568503	8.428	-114.963	342.382	21.671	804.215	858.822	0.426	0.558	8.654	21.671	5.732
2021-08-04 02:30	3569403	8.404	-113.54	342.225	21.587	802.773	858.753	0.426	0.558	9.056	21.587	5.662
2021-08-04 02:45	3570303	8.390	-112.679	343.007	21.541	802.679	859.468	0.427	0.559	8.970	21.541	5.655
2021-08-04 03:00	3571203	8.400	-113.27	344.084	21.503	802.541	859.973	0.427	0.559	8.579	21.503	5.665
2021-08-04 03:15	3572103	8.416	-114.205	344.406	21.433	801.253	859.838	0.427	0.559	8.717	21.433	5.662
2021-08-04 03:30	3573003	8.416	-114.129	343.963	21.38	800.386	859.84	0.427	0.559	7.842	21.38	5.6
2021-08-04 03:45	3573903	8.427	-114.768	345.005	21.322	799.147	859.535	0.427	0.559	7.821	21.322	3.514
2021-08-04 04:00	3574803	8.424	-114.589	345.648	21.252	798.017	859.555	0.427	0.559	7.777	21.252	3.456
2021-08-04 04:15	3575703	8.420	-114.338	346.161	21.188	797.431	860.047	0.427	0.559	8.088	21.188	3.422
2021-08-04 04:30	3576603	8.419	-114.21	346.748	21.129	796.48	860.075	0.427	0.559	7.977	21.129	3.449
2021-08-04 04:45	3577503	8.420	-114.257	348.159	21.079	795.781	860.205	0.427	0.559	7.611	21.079	3.43

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-04 05:00	3578403	8.426	-114.574	349.997	21.009	794.508	860.063	0.427	0.559	7.660	21.009	3.441
2021-08-04 05:15	3579303	8.416	-113.962	351.53	20.941	792.937	859.579	0.427	0.559	7.398	20.941	3.439
2021-08-04 05:30	3580203	8.386	-112.243	352.267	20.889	792.619	860.162	0.427	0.559	7.207	20.889	3.275
2021-08-04 05:45	3581103	8.353	-110.271	353.235	20.822	792.012	860.699	0.427	0.559	6.971	20.822	3.378
2021-08-04 06:00	3582003	8.321	-108.349	353.147	20.751	790.603	860.424	0.427	0.559	7.148	20.751	3.262
2021-08-04 06:15	3582903	8.291	-106.604	355.6	20.677	789.139	860.167	0.427	0.559	7.448	20.677	3.226
2021-08-04 06:30	3583803	8.275	-105.66	356.568	20.62	787.523	859.429	0.427	0.559	7.158	20.62	3.244
2021-08-04 06:45	3584703	8.261	-104.833	356.17	20.57	786.465	859.163	0.426	0.558	7.037	20.57	3.256
2021-08-04 07:00	3585603	8.254	-104.358	355.326	20.495	784.911	858.811	0.426	0.558	7.448	20.495	3.886
2021-08-04 07:15	3586503	8.246	-103.872	356.654	20.442	783.775	858.514	0.426	0.558	6.860	20.442	3.165
2021-08-04 07:30	3587403	8.245	-103.81	358.511	20.393	782.455	857.945	0.426	0.558	7.109	20.393	3.135
2021-08-04 07:45	3588303	8.239	-103.455	358.895	20.352	781.461	857.602	0.426	0.557	7.240	20.352	3.186
2021-08-04 08:00	3589203	8.232	-103.016	357.181	20.296	780.433	857.469	0.425	0.557	6.891	20.296	3.106
2021-08-04 08:15	3590103	8.223	-102.458	356.368	20.257	779.953	857.652	0.426	0.557	7.006	20.257	3.115
2021-08-04 08:30	3591003	8.216	-102.062	358.101	20.211	778.698	857.105	0.425	0.557	7.171	20.211	3.104
2021-08-04 08:45	3591903	8.210	-101.688	359.017	20.166	776.888	855.92	0.425	0.556	7.373	20.166	3.197
2021-08-04 09:00	3592803	8.205	-101.421	359.358	20.141	776.644	856.099	0.425	0.556	6.984	20.141	3.205
2021-08-04 09:15	3593703	8.205	-101.416	357.81	20.116	776.335	856.21	0.425	0.557	6.738	20.116	3.198
2021-08-04 09:30	3594603	8.201	-101.132	358.931	20.081	775.888	856.353	0.425	0.557	6.885	20.081	3.149
2021-08-04 09:45	3595503	8.198	-100.939	358.759	20.059	775.323	856.112	0.425	0.556	6.914	20.059	3.181
2021-08-04 10:00	3596403	8.197	-100.884	358.776	20.037	774.703	855.836	0.425	0.556	7.392	20.037	3.203
2021-08-04 10:15	3597303	8.200	-101.075	357.841	20.021	774.24	855.608	0.424	0.556	6.922	20.021	3.193
2021-08-04 10:30	3598203	8.193	-100.641	358.251	20.04	775.143	856.269	0.425	0.557	***6.268***	20.04	8.036
2021-08-04 10:45	3599103	8.191	-100.544	359.36	20.077	775.338	855.806	0.425	0.556	7.119	20.077	3.872
2021-08-04 11:00	3600003	8.191	-100.57	360.44	20.127	775.922	855.552	0.424	0.556	7.262	20.127	3.787
2021-08-04 11:15	3600903	8.188	-100.417	361.458	20.169	776.529	855.466	0.424	0.556	6.654	20.169	3.672
2021-08-04 11:30	3601803	8.175	-99.69	362.128	20.204	776.854	855.196	0.424	0.556	6.537	20.204	3.684
2021-08-04 11:45	3602703	8.168	-99.263	362.235	20.25	777.868	855.485	0.424	0.556	***6.221***	20.25	3.686
2021-08-04 12:00	3603603	8.557	-122.049	338.145	20.551	776.979	849.143	0.421	0.552	8.562	20.551	96.362
2021-08-04 12:15	3604503	8.533	-120.633	337.156	20.516	777.835	850.688	0.422	0.553	8.437	20.516	13.451
2021-08-04 12:30	3605403	8.506	-119.104	338.703	20.561	778.867	851.014	0.422	0.553	7.991	20.561	7.685
2021-08-04 12:45	3606303	8.523	-120.113	338.942	20.704	781.123	850.939	0.422	0.553	8.160	20.704	5.225
2021-08-04 13:00	3607203	8.533	-120.785	337.898	20.913	784.072	850.463	0.422	0.553	8.306	20.913	4.468
2021-08-04 13:15	3608103	8.535	-121.024	335.22	21.21	787.587	849.041	0.421	0.552	8.783	21.21	5.907
2021-08-04 13:30	3609003	8.519	-120.103	335.644	21.169	787.989	850.205	0.422	0.553	8.877	21.169	3.869
2021-08-04 13:45	3609903	8.443	-115.728	334.643	21.313	790.452	850.327	0.422	0.553	8.572	21.313	3.05
2021-08-04 14:00	3610803	8.169	-99.719	335.94	21.321	791.137	850.93	0.422	0.553	8.424	21.321	2.712
2021-08-04 14:15	3611703	8.063	-93.52	334.395	21.433	792.741	850.7	0.422	0.553	8.406	21.433	2.55
2021-08-04 14:30	3612603	8.097	-95.522	335.175	21.489	793.44	850.478	0.422	0.553	8.752	21.489	2.692
2021-08-04 14:45	3613503	8.291	-107	332.056	21.806	797.906	849.749	0.422	0.552	9.352	21.806	3.349
2021-08-04 15:00	3614403	8.460	-117.609	325.853	23.539	834.693	858.661	0.426	0.558	9.664	23.539	3.275
2021-08-04 15:15	3615303	8.443	-116.839	323.58	24.136	844.888	859.062	0.426	0.558	9.215	24.136	3.491
2021-08-04 15:30	3616203	8.357	-111.821	324.82	24.358	850.924	861.487	0.428	0.560	9.109	24.358	2.619
2021-08-04 15:45	3617103	8.427	-116.317	320.252	25.214	865.601	862.075	0.428	0.560	9.649	25.214	2.948
2021-08-04 16:00	3618003	8.396	-114.45	321.709	25.137	863.666	861.409	0.428	0.560	9.138	25.137	3.058
2021-08-04 16:15	3618903	8.282	-107.055	322.617	23.331	822.053	849.12	0.421	0.552	10.923	23.331	3.481
2021-08-04 16:30	3619803	8.405	-113.924	316.917	22.431	807.088	848.73	0.421	0.552	11.258	22.431	3.991
2021-08-04 16:45	3620703	8.366	-111.685	320.281	22.578	807.462	846.632	0.420	0.550	11.038	22.578	2.951
2021-08-04 17:00	3621603	8.460	-117.168	323.874	22.537	806.329	846.138	0.420	0.550	10.117	22.537	2.883
2021-08-04 17:15	3622503	8.537	-121.789	318.738	22.789	808.285	843.921	0.419	0.549	11.161	22.789	3.253
2021-08-04 17:30	3623403	8.531	-121.629	314.375	23.144	812.629	842.495	0.418	0.548	11.322	23.144	2.915
2021-08-04 17:45	3624303	8.513	-120.363	315.913	22.653	807.851	845.756	0.420	0.550	11.737	22.653	3.322
2021-08-04 18:00	3625203	8.549	-122.409	312.151	22.482	807.97	848.794	0.421	0.552	11.751	22.482	3.149
2021-08-04 18:15	3626103	8.491	-119.035	314.516	22.545	805.785	845.435	0.419	0.550	11.416	22.545	2.934
2021-08-04 18:30	3627003	8.422	-115.037	316.366	22.789	806.95	842.525	0.418	0.548	11.197	22.789	2.143
2021-08-04 18:45	3627903	8.467	-117.717	315.949	22.877	807.317	841.428	0.417	0.547	11.142	22.877	2.31

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-04 19:00	3628803	8.484	-118.771	314.239	22.925	808.068	841.415	0.417	0.547	10.710	22.925	2.26
2021-08-04 19:15	3629703	8.535	-121.741	311.578	22.917	809.447	842.988	0.418	0.548	10.444	22.917	2.418
2021-08-04 19:30	3630603	8.547	-122.437	311.595	22.919	810.129	843.662	0.419	0.548	10.419	22.919	2.071
2021-08-04 19:45	3631503	8.571	-123.837	311.877	22.865	809.634	844.054	0.419	0.549	11.322	22.865	2.861
2021-08-04 20:00	3632403	8.606	-125.842	309.845	22.808	808.808	844.151	0.419	0.549	12.152	22.808	3.076
2021-08-04 20:15	3633303	8.614	-126.326	307.976	22.767	807.073	843.022	0.418	0.548	12.012	22.767	2.977
2021-08-04 20:30	3634203	8.579	-124.264	311.099	22.818	806.305	841.368	0.417	0.547	10.938	22.818	2.193
2021-08-04 20:45	3635103	8.580	-124.381	310.084	22.844	807.375	842.053	0.418	0.547	10.605	22.844	2.419
2021-08-04 21:00	3636003	8.598	-125.358	309.557	22.772	808.009	843.93	0.419	0.549	11.334	22.772	2.818
2021-08-04 21:15	3636903	8.515	-120.554	311.292	22.887	808.356	842.353	0.418	0.548	10.686	22.887	2.513
2021-08-04 21:30	3637803	8.513	-120.513	310.928	23.013	810.432	842.402	0.418	0.548	11.124	23.013	2.148
2021-08-04 21:45	3638703	8.477	-118.415	311.035	23.169	813.316	842.793	0.418	0.548	11.232	23.169	2.045
2021-08-04 22:00	3639603	8.506	-120.175	311.586	23.206	814.557	843.452	0.418	0.548	11.092	23.206	2.483
2021-08-04 22:15	3640503	8.492	-119.302	318.886	23.194	815.072	844.199	0.419	0.549	10.520	23.194	2.392
2021-08-04 22:30	3641403	8.514	-120.623	315.195	23.179	815.999	845.405	0.419	0.550	10.526	23.179	2.26
2021-08-04 22:45	3642303	8.532	-121.698	314.211	23.196	816.775	845.93	0.420	0.550	10.239	23.196	2.274
2021-08-04 23:00	3643203	8.534	-121.753	308.689	23.143	816.596	846.628	0.420	0.550	10.423	23.143	2.656
2021-08-04 23:15	3644103	8.526	-121.293	309.313	23.079	816.601	847.696	0.421	0.551	10.571	23.079	2.337
2021-08-04 23:30	3645003	8.504	-119.979	309.764	23.028	816.144	848.089	0.421	0.551	10.539	23.028	2.533
2021-08-04 23:45	3645903	8.481	-118.597	311.981	22.939	815.923	849.363	0.421	0.552	10.328	22.939	2.736
2021-08-05 00:00	3646803	8.480	-118.48	308.551	22.887	815.778	850.082	0.422	0.553	10.046	22.887	2.597
2021-08-05 00:15	3647703	8.445	-116.394	313.917	22.801	815.806	851.576	0.423	0.554	9.763	22.801	2.492
2021-08-05 00:30	3648603	8.415	-114.596	313.908	22.691	813.645	851.181	0.422	0.553	9.742	22.691	2.207
2021-08-05 00:45	3649503	8.446	-116.379	309.554	22.617	811.644	850.352	0.422	0.553	9.361	22.617	2.421
2021-08-05 01:00	3650403	8.415	-114.56	315.994	22.545	814.692	854.773	0.424	0.556	8.856	22.545	3.053
2021-08-05 01:15	3651303	8.341	-110.195	308.708	22.47	817.738	859.257	0.427	0.559	8.778	22.47	3.588
2021-08-05 01:30	3652203	8.332	-109.618	308.956	22.388	817.785	860.721	0.427	0.559	8.652	22.388	2.889
2021-08-05 01:45	3653103	8.393	-113.13	306.731	22.282	815.784	860.445	0.427	0.559	8.719	22.282	2.966
2021-08-05 02:00	3654003	8.405	-113.847	306.653	22.201	813.68	859.636	0.427	0.559	8.701	22.201	3.035
2021-08-05 02:15	3654903	8.463	-117.216	305.842	22.108	812.06	859.542	0.427	0.559	8.771	22.108	2.931
2021-08-05 02:30	3655803	8.485	-118.475	306.064	22.024	810.36	859.197	0.427	0.558	8.826	22.024	3.325
2021-08-05 02:45	3656703	8.516	-120.242	305.692	21.93	808.505	858.86	0.426	0.558	8.787	21.93	3.223
2021-08-05 03:00	3657603	8.538	-121.489	305.244	21.859	806.455	857.933	0.426	0.558	8.928	21.859	2.631
2021-08-05 03:15	3658503	8.514	-120.022	306.693	21.765	804.321	857.293	0.426	0.557	8.947	21.765	3.24
2021-08-05 03:30	3659403	8.538	-121.419	304.838	21.696	802.956	857.043	0.425	0.557	9.018	21.696	2.675
2021-08-05 03:45	3660303	8.555	-122.397	305.444	21.608	800.914	856.402	0.425	0.557	9.039	21.608	3.168
2021-08-05 04:00	3661203	8.559	-122.595	306.977	21.521	799.526	856.442	0.425	0.557	8.991	21.521	3.123
2021-08-05 04:15	3662103	8.564	-122.812	305.253	21.449	798.419	856.513	0.425	0.557	8.967	21.449	3.178
2021-08-05 04:30	3663003	8.564	-122.826	304.936	21.391	796.998	856.007	0.425	0.556	8.972	21.391	3.006
2021-08-05 04:45	3663903	8.574	-123.37	307.125	21.318	795.453	855.628	0.425	0.556	9.053	21.318	3.102
2021-08-05 05:00	3664803	8.544	-121.57	306.424	21.235	794.461	856.023	0.425	0.556	8.891	21.235	2.92
2021-08-05 05:15	3665703	8.558	-122.352	306.014	21.156	793.376	856.233	0.425	0.557	8.759	21.156	3.046
2021-08-05 05:30	3666603	8.551	-121.922	306.722	21.098	792.034	855.815	0.425	0.556	8.779	21.098	3.444
2021-08-05 05:45	3667503	8.549	-121.815	308.796	21.045	790.687	855.297	0.424	0.556	8.791	21.045	3.64
2021-08-05 06:00	3668403	8.530	-120.676	311.767	20.993	790.333	855.831	0.425	0.556	8.808	20.993	2.534
2021-08-05 06:15	3669303	8.508	-119.35	314.544	20.932	789.719	856.249	0.425	0.557	8.868	20.932	2.669
2021-08-05 06:30	3670203	8.499	-118.806	311.619	20.881	789.174	856.562	0.425	0.557	8.809	20.881	2.52
2021-08-05 06:45	3671103	8.488	-118.165	310.103	20.827	787.946	856.181	0.425	0.557	8.778	20.827	2.445
2021-08-05 07:00	3672003	8.479	-117.574	310.067	20.775	786.566	855.618	0.425	0.556	8.770	20.775	2.634
2021-08-05 07:15	3672903	8.478	-117.514	309.757	20.726	785.458	855.274	0.424	0.556	8.685	20.726	2.854
2021-08-05 07:30	3673803	8.479	-117.54	310.925	20.682	784.723	855.266	0.424	0.556	8.611	20.682	2.46
2021-08-05 07:45	3674703	8.471	-117.054	311.969	20.64	784.033	855.257	0.424	0.556	8.634	20.64	2.41
2021-08-05 08:00	3675603	8.467	-116.832	312.21	20.596	782.891	854.8	0.424	0.556	8.530	20.596	2.955
2021-08-05 08:15	3676503	8.474	-117.247	311.831	20.558	781.931	854.415	0.424	0.555	8.372	20.558	2.593
2021-08-05 08:30	3677403	8.474	-117.19	312.041	20.529	781.208	854.152	0.424	0.555	8.298	20.529	2.386
2021-08-05 08:45	3678303	8.466	-116.737	312.177	20.5	780.569	853.968	0.424	0.555	8.248	20.5	2.224

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-05 09:00	3679203	8.462	-116.479	310.88	20.481	780.261	853.974	0.424	0.555	8.227	20.481	2.579
2021-08-05 09:15	3680103	8.464	-116.584	311.853	20.466	779.815	853.744	0.424	0.555	8.147	20.466	2.853
2021-08-05 09:30	3681003	8.455	-116.093	312.155	20.453	779.365	853.488	0.423	0.555	8.064	20.453	2.569
2021-08-05 09:45	3681903	8.436	-114.934	313.033	20.439	778.981	853.32	0.423	0.555	7.976	20.439	2.917
2021-08-05 10:00	3682803	8.423	-114.191	313.41	20.43	778.63	853.098	0.423	0.555	7.952	20.43	2.428
2021-08-05 10:15	3683703	8.405	-113.132	316.316	20.44	778.272	852.53	0.423	0.554	7.857	20.44	1.837
2021-08-05 10:30	3684603	8.374	-111.358	316.704	20.459	778.618	852.561	0.423	0.554	7.849	20.459	1.901
2021-08-05 10:45	3685503	8.349	-109.918	316.766	20.487	779.044	852.522	0.423	0.554	7.791	20.487	2.197
2021-08-05 11:00	3686403	8.329	-108.783	316.075	20.534	779.533	852.233	0.423	0.554	7.920	20.534	2.089
2021-08-05 11:15	3687303	8.318	-108.168	314.368	20.595	780.102	851.766	0.423	0.554	7.754	20.595	2.005
2021-08-05 11:30	3688203	8.313	-107.853	313.145	20.645	780.919	851.776	0.423	0.554	7.769	20.645	1.987
2021-08-05 11:45	3689103	8.311	-107.789	313.674	20.685	781.405	851.592	0.422	0.554	7.763	20.685	1.953
2021-08-05 12:00	3690003	8.305	-107.441	314.487	20.744	782.007	851.205	0.422	0.553	7.832	20.744	1.957
2021-08-05 12:15	3690903	8.315	-108.042	312.52	20.79	782.423	850.837	0.422	0.553	7.885	20.79	1.924
2021-08-05 12:30	3691803	8.311	-107.808	312.937	20.845	782.665	850.136	0.422	0.553	8.165	20.845	1.961
2021-08-05 12:45	3692703	8.327	-108.776	312.184	20.929	783.884	849.98	0.422	0.552	8.184	20.929	1.919
2021-08-05 13:00	3693603	8.325	-108.721	311.9	21.067	785.761	849.587	0.421	0.552	8.351	21.067	2.007
2021-08-05 13:15	3694503	8.333	-109.241	311.981	21.18	787.709	849.713	0.422	0.552	8.610	21.18	2.029
2021-08-05 13:30	3695403	8.326	-108.848	310.262	21.303	788.528	848.437	0.421	0.551	8.754	21.303	2.019
2021-08-05 13:45	3696303	8.351	-110.338	309.705	21.305	788.563	848.435	0.421	0.551	8.848	21.305	1.916
2021-08-05 14:00	3697203	8.351	-110.331	311.214	21.35	790.081	849.289	0.421	0.552	8.597	21.35	1.93
2021-08-05 14:15	3698103	8.359	-110.803	311.526	21.372	790.504	849.355	0.421	0.552	8.484	21.372	1.934
2021-08-05 14:30	3699003	8.372	-111.592	311.221	21.38	790.993	849.75	0.422	0.552	8.389	21.38	1.923
2021-08-05 14:45	3699903	8.410	-113.838	309.161	21.389	791.63	850.272	0.422	0.553	8.312	21.389	1.91
2021-08-05 15:00	3700803	8.407	-113.661	312.985	21.42	791.911	850.042	0.422	0.553	8.256	21.42	1.871
2021-08-05 15:15	3701703	8.387	-112.474	315.722	21.45	791.777	849.367	0.421	0.552	8.239	21.45	1.917
2021-08-05 15:30	3702603	8.375	-111.775	316.335	21.468	792.026	849.323	0.421	0.552	8.290	21.468	1.838
2021-08-05 15:45	3703503	8.342	-109.894	317.684	21.541	791.736	847.736	0.421	0.551	8.491	21.541	1.957
2021-08-05 16:00	3704403	8.338	-109.673	314.373	21.575	792.837	848.333	0.421	0.551	9.001	21.575	1.908
2021-08-05 16:15	3705303	8.334	-109.427	314.063	21.612	792.987	847.855	0.421	0.551	8.854	21.612	2.094
2021-08-05 16:30	3706203	8.344	-110.049	314.864	21.626	794.033	848.72	0.421	0.552	8.863	21.626	1.953
2021-08-05 16:45	3707103	8.308	-108.023	313.584	21.798	793.975	845.689	0.420	0.550	9.430	21.798	2.011
2021-08-05 17:00	3708003	8.339	-109.832	312.399	21.834	795.137	846.307	0.420	0.550	9.595	21.834	1.968
2021-08-05 17:15	3708903	8.343	-110.085	311.424	21.903	796.151	846.206	0.420	0.550	9.408	21.903	1.939
2021-08-05 17:30	3709803	8.362	-111.217	310.749	21.899	796.468	846.62	0.420	0.550	9.228	21.899	1.975
2021-08-05 17:45	3710703	8.416	-114.362	310.188	21.889	796.402	846.719	0.420	0.550	8.955	21.889	1.993
2021-08-05 18:00	3711603	8.422	-114.706	311.431	21.943	795.252	844.562	0.419	0.549	9.216	21.943	1.883
2021-08-05 18:15	3712503	8.409	-114.005	311.414	21.996	794.731	843.108	0.418	0.548	9.410	21.996	2.071
2021-08-05 18:30	3713403	8.424	-114.834	310.818	21.988	795.251	843.796	0.419	0.548	9.343	21.988	2.036
2021-08-05 18:45	3714303	8.404	-113.714	307.943	22.098	795.955	842.661	0.418	0.548	10.193	22.098	2.055
2021-08-05 19:00	3715203	8.430	-115.273	306.827	22.073	796.858	844.039	0.419	0.549	9.584	22.073	2.111
2021-08-05 19:15	3716103	8.458	-116.885	307.156	22.091	797.695	844.619	0.419	0.549	9.339	22.091	1.924
2021-08-05 19:30	3717003	8.456	-116.775	310.777	22.123	797.806	844.2	0.419	0.549	9.487	22.123	2.191
2021-08-05 19:45	3717903	8.468	-117.505	310.887	22.126	798.146	844.503	0.419	0.549	9.634	22.126	2.021
2021-08-05 20:00	3718803	8.603	-125.282	302.802	21.837	790.785	841.636	0.417	0.547	10.837	21.837	3.84
2021-08-05 20:15	3719703	8.595	-124.593	302.619	21.273	783.02	843.034	0.418	0.548	9.745	21.273	4.658
2021-08-05 20:30	3720603	8.583	-123.787	302.716	21.084	781.25	844.412	0.419	0.549	9.243	21.084	5.338
2021-08-05 20:45	3721503	8.562	-122.533	301.799	21.073	782.419	845.868	0.420	0.550	9.062	21.073	4.434
2021-08-05 21:00	3722403	8.542	-121.424	309.263	21.091	782.74	845.891	0.420	0.550	9.155	21.091	4.224
2021-08-05 21:15	3723303	8.516	-119.915	307.814	21.109	783.345	846.24	0.420	0.550	8.971	21.109	2.958
2021-08-05 21:30	3724203	8.521	-120.177	305.828	21.153	784.028	846.212	0.420	0.550	9.143	21.153	2.481
2021-08-05 21:45	3725103	8.501	-119.035	306.648	21.198	785.076	846.554	0.420	0.550	9.236	21.198	2.685
2021-08-05 22:00	3726003	8.470	-117.314	306.727	21.335	789.199	848.605	0.421	0.552	9.169	21.335	2.658
2021-08-05 22:15	3726903	8.481	-117.984	306.877	21.421	792.116	850.239	0.422	0.553	9.122	21.421	2.679
2021-08-05 22:30	3727803	8.456	-116.534	307.575	21.462	794.051	851.591	0.423	0.554	9.015	21.462	2.495
2021-08-05 22:45	3728703	8.456	-116.563	307.482	21.482	794.909	852.174	0.423	0.554	8.855	21.482	1.951

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-05 23:00	3729603	8.459	-116.687	307.366	21.487	795.277	852.479	0.423	0.554	8.631	21.487	1.926
2021-08-05 23:15	3730503	8.449	-116.103	307.997	21.481	795.914	853.273	0.423	0.555	8.368	21.481	2.359
2021-08-05 23:30	3731403	8.431	-115.061	311.295	21.461	796.827	854.59	0.424	0.555	8.448	21.461	2.293
2021-08-05 23:45	3732303	8.410	-113.845	309.712	21.431	797.138	855.448	0.425	0.556	8.748	21.431	3.626
2021-08-06 00:00	3733203	8.401	-113.308	307.084	21.397	797.455	856.39	0.425	0.557	8.873	21.397	2.479
2021-08-06 00:15	3734103	8.388	-112.495	308	21.364	796.759	856.226	0.425	0.557	8.854	21.364	2.422
2021-08-06 00:30	3735003	8.380	-112.004	307.919	21.328	796.237	856.301	0.425	0.557	8.858	21.328	2.674
2021-08-06 00:45	3735903	8.380	-112.016	307.461	21.297	795.818	856.395	0.425	0.557	8.855	21.297	2.761
2021-08-06 01:00	3736803	8.380	-112.023	307.573	21.275	795.704	856.658	0.425	0.557	8.785	21.275	2.653
2021-08-06 01:15	3737703	8.387	-112.424	306.228	21.233	794.847	856.461	0.425	0.557	8.902	21.233	4.007
2021-08-06 01:30	3738603	8.409	-113.685	304.974	21.188	794.058	856.411	0.425	0.557	8.546	21.188	3.388
2021-08-06 01:45	3739503	8.422	-114.419	304.958	21.138	792.905	856.056	0.425	0.556	8.408	21.138	2.621
2021-08-06 02:00	3740403	8.430	-114.849	306.073	21.102	791.857	855.55	0.425	0.556	8.363	21.102	3.227
2021-08-06 02:15	3741303	8.432	-114.956	306.762	21.079	791.605	855.692	0.425	0.556	8.286	21.079	2.386
2021-08-06 02:30	3742203	8.428	-114.729	306.634	21.058	791.077	855.494	0.425	0.556	8.237	21.058	2.873
2021-08-06 02:45	3743103	8.421	-114.288	305.306	21.015	790.472	855.588	0.425	0.556	8.407	21.015	3.817
2021-08-06 03:00	3744003	8.431	-114.856	305.487	20.974	788.901	854.617	0.424	0.556	8.591	20.974	3.223
2021-08-06 03:15	3744903	8.435	-115.123	305.287	20.944	788.603	854.832	0.424	0.556	8.466	20.944	2.768
2021-08-06 03:30	3745803	8.440	-115.364	305.725	20.924	788.543	855.12	0.424	0.556	8.169	20.924	2.228
2021-08-06 03:45	3746703	8.430	-114.789	306.095	20.893	788.103	855.18	0.424	0.556	8.024	20.893	2.779
2021-08-06 04:00	3747603	8.421	-114.245	306.066	20.854	787.652	855.389	0.424	0.556	7.909	20.854	3.282
2021-08-06 04:15	3748503	8.414	-113.84	306.278	20.814	786.947	855.328	0.424	0.556	7.879	20.814	2.593
2021-08-06 04:30	3749403	8.414	-113.821	307.041	20.774	786.271	855.306	0.424	0.556	8.044	20.774	2.498
2021-08-06 04:45	3750303	8.407	-113.409	308.126	20.742	786.081	855.675	0.425	0.556	8.106	20.742	2.257
2021-08-06 05:00	3751203	8.404	-113.213	308.756	20.699	785.673	855.984	0.425	0.556	8.133	20.699	2.897
2021-08-06 05:15	3752103	8.416	-113.857	306.941	20.649	784.772	855.909	0.425	0.556	8.319	20.649	2.888
2021-08-06 05:30	3753003	8.437	-115.061	306.426	20.63	784.283	855.714	0.425	0.556	8.130	20.63	2.938
2021-08-06 05:45	3753903	8.441	-115.337	306.889	20.609	783.631	855.36	0.424	0.556	8.067	20.609	2.951
2021-08-06 06:00	3754803	8.438	-115.106	307.597	20.592	783.118	855.114	0.424	0.556	7.733	20.592	2.764
2021-08-06 06:15	3755703	8.437	-115.035	308.338	20.559	783.157	855.735	0.425	0.556	7.797	20.559	3.203
2021-08-06 06:30	3756603	8.440	-115.225	308.498	20.526	781.994	855.063	0.424	0.556	7.751	20.526	3.289
2021-08-06 06:45	3757503	8.428	-114.541	309.988	20.495	782.59	856.276	0.425	0.557	7.671	20.495	2.953
2021-08-06 07:00	3758403	8.429	-114.57	310.219	20.463	781.399	855.545	0.424	0.556	7.630	20.463	3.651
2021-08-06 07:15	3759303	8.443	-115.376	310.086	20.433	780.851	855.482	0.424	0.556	7.780	20.433	3.068
2021-08-06 07:30	3760203	8.449	-115.697	309.838	20.403	779.857	854.92	0.424	0.556	7.745	20.403	2.94
2021-08-06 07:45	3761103	8.455	-116.029	309.831	20.38	780.07	855.567	0.424	0.556	7.711	20.38	2.788
2021-08-06 08:00	3762003	8.449	-115.709	310.439	20.362	779.655	855.435	0.424	0.556	7.468	20.362	2.756
2021-08-06 08:15	3762903	8.435	-114.861	310.489	20.339	779.786	855.999	0.425	0.556	7.448	20.339	3.09
2021-08-06 08:30	3763803	8.429	-114.524	310.873	20.314	779.405	856.02	0.425	0.556	7.326	20.314	2.814
2021-08-06 08:45	3764703	8.434	-114.76	311.276	20.289	779.029	856.062	0.425	0.556	7.361	20.289	2.982
2021-08-06 09:00	3765603	8.440	-115.111	310.892	20.272	778.672	855.979	0.425	0.556	7.238	20.272	2.57
2021-08-06 09:15	3766503	8.439	-115.032	311.164	20.257	778.381	855.92	0.425	0.556	7.036	20.257	2.924
2021-08-06 09:30	3767403	8.433	-114.729	311.216	20.24	777.965	855.766	0.425	0.556	7.029	20.24	2.322
2021-08-06 09:45	3768303	8.426	-114.291	311.455	20.219	777.603	855.748	0.425	0.556	6.957	20.219	1.997
2021-08-06 10:00	3769203	8.414	-113.609	312.589	20.21	777.364	855.646	0.425	0.556	7.126	20.21	2.242
2021-08-06 10:15	3770103	8.424	-114.162	311.638	20.198	777.167	855.654	0.425	0.556	7.445	20.198	26.841
2021-08-06 10:30	3771003	8.459	-116.193	309.247	20.189	777.382	856.039	0.425	0.556	7.664	20.189	3.037
2021-08-06 10:45	3771903	8.477	-117.216	308.276	20.182	776.677	855.399	0.424	0.556	7.756	20.182	3.547
2021-08-06 11:00	3772803	8.495	-118.301	307.566	20.162	775.479	854.441	0.424	0.555	7.736	20.162	4
2021-08-06 11:15	3773703	8.500	-118.573	306.398	20.12	772.225	851.595	0.422	0.554	7.555	20.12	3.913
2021-08-06 11:30	3774603	8.486	-117.729	304.207	20.054	769.134	849.366	0.421	0.552	7.351	20.054	4.106
2021-08-06 11:45	3775503	8.466	-116.518	301.932	20.034	769.526	850.162	0.422	0.553	7.200	20.034	3.568
2021-08-06 12:00	3776403	8.453	-115.767	305.413	20.045	769.365	849.796	0.421	0.552	7.158	20.045	2.936
2021-08-06 12:15	3777303	8.433	-114.646	307.945	20.059	767.018	846.952	0.420	0.551	6.608	20.059	3.91
2021-08-06 12:30	3778203	8.408	-113.199	308.884	20.078	764.157	843.443	0.418	0.548	***6.168***	20.078	5.003
2021-08-06 12:45	3779103	8.358	-110.295	297.137	20.107	764.32	843.117	0.418	0.548	***6.423***	20.107	5.339

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-06 13:00	3780003	8.353	-110.018	290.116	20.109	765.789	844.691	0.419	0.549	6.584	20.109	5.38
2021-08-06 13:15	3780903	8.355	-110.102	285.038	20.117	768.277	847.305	0.420	0.551	6.569	20.117	6.944
2021-08-06 13:30	3781803	8.345	-109.544	279.695	20.121	769.625	848.714	0.421	0.552	6.505	20.121	4.571
2021-08-06 13:45	3782703	8.366	-110.765	272.02	20.171	771.265	849.622	0.421	0.552	6.846	20.171	4.814
2021-08-06 14:00	3783603	8.391	-112.247	266.336	20.237	772.298	849.588	0.421	0.552	6.949	20.237	5.586
2021-08-06 14:15	3784503	8.340	-109.298	263.036	20.218	768.601	845.859	0.419	0.550	***6.271***	20.218	6.436
2021-08-06 14:30	3785403	8.308	-107.45	257.841	20.224	767.553	844.596	0.419	0.549	***6.244***	20.224	5.257
2021-08-06 14:45	3786303	8.360	-110.483	248.038	20.261	770.984	847.722	0.420	0.551	6.838	20.261	6.685
2021-08-06 15:00	3787203	8.374	-111.299	245.434	20.291	771.776	848.044	0.421	0.551	6.894	20.291	5.171
2021-08-06 15:15	3788103	8.344	-109.518	245.334	20.276	771.328	847.826	0.420	0.551	***6.495***	20.276	4.966
2021-08-06 15:30	3789003	8.309	-107.52	244.061	20.276	771.944	848.495	0.421	0.552	***6.197***	20.276	6.304
2021-08-06 15:45	3789903	8.186	-100.317	251.006	20.141	770.958	849.82	0.422	0.552	***4.916***	20.141	6.706
2021-08-06 16:00	3790803	8.075	-93.808	258.242	20.062	769.343	849.451	0.421	0.552	***4.102***	20.062	6.894
2021-08-06 16:15	3791703	8.089	-94.645	254.244	20.137	771.364	850.341	0.422	0.553	***4.550***	20.137	5.076
2021-08-06 16:30	3792603	8.077	-93.961	253.738	20.095	772.568	852.433	0.423	0.554	***4.350***	20.095	5.227
2021-08-06 16:45	3793503	8.073	-93.715	252.587	20.112	772.539	852.096	0.423	0.554	***4.371***	20.112	6.263
2021-08-06 17:00	3794403	8.091	-94.748	249.59	20.161	772.97	851.69	0.422	0.554	***4.578***	20.161	8.574
2021-08-06 17:15	3795303	8.076	-93.904	250.541	20.126	774.271	853.745	0.424	0.555	***4.370***	20.126	6.419
2021-08-06 17:30	3796203	8.061	-93.033	251.023	20.115	775.954	855.802	0.425	0.556	***4.216***	20.115	6.97
2021-08-06 17:45	3797103	8.031	-91.238	253.454	20.044	776.213	857.379	0.425	0.557	***3.940***	20.044	6.8
2021-08-06 18:00	3798003	8.015	-90.296	254.976	20.003	776.323	858.236	0.426	0.558	***3.836***	20.003	6.575
2021-08-06 18:15	3798903	8.015	-90.287	255.393	19.985	775.227	857.356	0.425	0.557	***3.797***	19.985	7.445
2021-08-06 18:30	3799803	8.015	-90.27	255.324	19.969	775.664	858.124	0.426	0.558	***3.790***	19.969	8.561
2021-08-06 18:45	3800703	8.009	-89.903	255.922	19.945	775.918	858.834	0.426	0.558	***3.639***	19.945	6.383
2021-08-06 19:00	3801603	8.011	-90.029	256.256	19.919	775.202	858.511	0.426	0.558	***3.779***	19.919	6.046
2021-08-06 19:15	3802503	8.013	-90.125	257	19.909	775.052	858.529	0.426	0.558	***3.884***	19.909	7.027
2021-08-06 19:30	3803403	8.020	-90.537	256.849	19.902	774.971	858.564	0.426	0.558	***3.949***	19.902	6.694
2021-08-06 19:45	3804303	8.045	-91.996	254.825	19.887	773.669	857.393	0.425	0.557	***4.263***	19.887	12.165
2021-08-06 20:00	3805203	8.056	-92.628	254	19.85	772.689	856.986	0.425	0.557	***4.232***	19.85	6.838
2021-08-06 20:15	3806103	8.046	-92.03	255.102	19.786	771.41	856.737	0.425	0.557	***4.070***	19.786	6.399
2021-08-06 20:30	3807003	8.028	-90.95	257.55	19.737	770.4	856.492	0.425	0.557	***3.843***	19.737	6.475
2021-08-06 20:45	3807903	8.008	-89.796	260.099	19.678	769.041	856.057	0.425	0.556	***3.708***	19.678	6.537
2021-08-06 21:00	3808803	8.020	-90.489	259.098	19.604	767.088	855.236	0.424	0.556	***3.847***	19.604	5.295
2021-08-06 21:15	3809703	8.020	-90.413	259.477	19.504	765.196	854.937	0.424	0.556	***3.831***	19.504	5.183
2021-08-06 21:30	3810603	8.018	-90.299	259.932	19.428	764.323	855.349	0.424	0.556	***3.886***	19.428	5.909
2021-08-06 21:45	3811503	8.016	-90.148	260.717	19.382	763.538	855.319	0.424	0.556	***3.858***	19.382	4.817
2021-08-06 22:00	3812403	8.011	-89.846	260.967	19.361	763.754	855.95	0.425	0.556	***3.814***	19.361	5.932
2021-08-06 22:15	3813303	8.002	-89.335	261.131	19.333	763.143	855.773	0.424	0.556	***3.606***	19.333	4.881
2021-08-06 22:30	3814203	7.988	-88.537	265.39	19.306	762.904	855.992	0.425	0.556	***3.667***	19.306	5.469
2021-08-06 22:45	3815103	7.978	-87.905	266.288	19.274	762.454	856.087	0.425	0.556	***3.745***	19.274	5.791
2021-08-06 23:00	3816003	7.977	-87.881	267.118	19.222	761.201	855.622	0.424	0.556	***3.670***	19.222	5.215
2021-08-06 23:15	3816903	7.974	-87.643	264.424	19.186	760.331	855.32	0.424	0.556	***3.629***	19.186	4.881
2021-08-06 23:30	3817803	7.970	-87.428	264.882	19.151	760.214	855.83	0.424	0.556	***3.485***	19.151	3.422
2021-08-06 23:45	3818703	7.955	-86.555	264.999	19.093	759.127	855.669	0.424	0.556	***3.425***	19.093	3.548
2021-08-07 00:00	3819603	7.946	-86.002	265.626	19.051	758.927	856.21	0.425	0.557	***3.570***	19.051	3.495
2021-08-07 00:15	3820503	7.944	-85.857	266.784	19.01	758.403	856.375	0.425	0.557	***3.371***	19.01	3.987
2021-08-07 00:30	3821403	7.943	-85.79	269.488	18.965	755.9	854.389	0.424	0.555	***3.204***	18.965	3.833
2021-08-07 00:45	3822303	7.931	-85.101	269.939	18.909	756.973	856.634	0.425	0.557	***2.874***	18.909	2.86
2021-08-07 01:00	3823203	7.900	-83.308	271.512	18.863	756.35	856.782	0.425	0.557	***3.009***	18.863	2.662
2021-08-07 01:15	3824103	7.871	-81.568	274.452	18.822	755.633	856.72	0.425	0.557	***2.924***	18.822	2.95
2021-08-07 01:30	3825003	7.846	-80.154	276.154	18.786	755.229	856.936	0.425	0.557	***3.044***	18.786	2.694
2021-08-07 01:45	3825903	7.837	-79.622	277.003	18.744	754.462	856.84	0.425	0.557	***3.235***	18.744	3.362
2021-08-07 02:00	3826803	7.842	-79.901	277.518	18.687	752.769	855.973	0.424	0.556	***2.865***	18.687	3.374
2021-08-07 02:15	3827703	7.833	-79.346	278.002	18.668	752.281	855.787	0.424	0.556	***2.602***	18.668	4.7
2021-08-07 02:30	3828603	7.814	-78.256	277.501	18.661	752.625	856.297	0.425	0.557	***2.588***	18.661	4.718
2021-08-07 02:45	3829503	7.833	-79.324	276.066	18.66	753.228	857.005	0.425	0.557	***2.670***	18.66	4.277

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-07 03:00	3830403	7.833	-79.312	276.498	18.645	754.039	858.215	0.426	0.558	***2.860***	18.645	3.483
2021-08-07 03:15	3831303	7.819	-78.533	276.056	18.593	754.335	859.515	0.426	0.559	***3.161***	18.593	2.773
2021-08-07 03:30	3832203	7.821	-78.647	276.502	18.541	753.69	859.758	0.426	0.559	***3.185***	18.541	2.75
2021-08-07 03:45	3833103	7.820	-78.559	273.844	18.501	753.224	859.978	0.426	0.559	***2.848***	18.501	2.829
2021-08-07 04:00	3834003	7.837	-79.525	273.248	18.462	752.715	860.119	0.426	0.559	***2.853***	18.462	3.063
2021-08-07 04:15	3834903	7.853	-80.459	271.779	18.426	752.156	860.166	0.427	0.559	***2.755***	18.426	2.999
2021-08-07 04:30	3835803	7.864	-81.046	271.462	18.372	751.162	860.04	0.426	0.559	***2.685***	18.372	3.679
2021-08-07 04:45	3836703	7.857	-80.652	274.049	18.331	750.361	859.896	0.426	0.559	***2.736***	18.331	3.5
2021-08-07 05:00	3837603	7.860	-80.807	274.802	18.313	750.405	860.278	0.427	0.559	***2.737***	18.313	3.017
2021-08-07 05:15	3838503	7.839	-79.565	279.111	18.277	750.167	860.679	0.427	0.559	***2.707***	18.277	2.493
2021-08-07 05:30	3839403	7.859	-80.719	276.476	18.233	749.886	861.186	0.427	0.560	***3.101***	18.233	2.929
2021-08-07 05:45	3840303	7.915	-83.947	272.206	18.21	749.265	860.916	0.427	0.560	***3.130***	18.21	3.254
2021-08-07 06:00	3841203	7.923	-84.431	270.966	18.206	749.316	861.041	0.427	0.560	***3.173***	18.206	3.426
2021-08-07 06:15	3842103	7.905	-83.389	275.398	18.209	749.635	861.355	0.427	0.560	***3.030***	18.209	2.849
2021-08-07 06:30	3843003	7.903	-83.289	282.463	18.212	750.131	861.881	0.427	0.560	***3.198***	18.212	2.881
2021-08-07 06:45	3843903	7.904	-83.33	281.399	18.211	750.458	862.27	0.428	0.560	***3.079***	18.211	2.565
2021-08-07 07:00	3844803	7.897	-82.943	286.44	18.221	750.798	862.468	0.428	0.561	***2.963***	18.221	2.809
2021-08-07 07:15	3845703	7.894	-82.755	286.28	18.211	751.498	863.46	0.428	0.561	***3.056***	18.211	2.602
2021-08-07 07:30	3846603	7.993	-88.444	276.7	18.146	750.364	863.388	0.428	0.561	***3.884***	18.146	4.501
2021-08-07 07:45	3847503	8.057	-92.144	272.928	18.142	749.764	862.784	0.428	0.561	***4.261***	18.142	4.776
2021-08-07 08:00	3848403	8.087	-93.899	269.707	18.119	749.859	863.324	0.428	0.561	***4.239***	18.119	5.255
2021-08-07 08:15	3849303	8.112	-95.322	268.949	18.088	748.706	862.575	0.428	0.561	***4.332***	18.088	5.175
2021-08-07 08:30	3850203	8.118	-95.644	267.578	18.041	748.25	862.958	0.428	0.561	***4.278***	18.041	6.989
2021-08-07 08:45	3851103	8.128	-96.228	265.256	18.021	747.525	862.501	0.428	0.561	***4.463***	18.021	7.209
2021-08-07 09:00	3852003	8.147	-97.289	263.053	18.011	746.991	862.062	0.427	0.560	***4.607***	18.011	8.637
2021-08-07 09:15	3852903	8.155	-97.773	261.971	18.002	746.135	861.255	0.427	0.560	***4.666***	18.002	8.106
2021-08-07 09:30	3853803	8.171	-98.674	260.109	17.99	746.281	861.638	0.427	0.560	***4.740***	17.99	13.223
2021-08-07 09:45	3854703	8.172	-98.739	259.82	17.983	745.705	861.122	0.427	0.560	***4.740***	17.983	19.081
2021-08-07 10:00	3855603	8.152	-97.589	260.602	17.958	742.065	857.377	0.425	0.557	***4.597***	17.958	15.755
2021-08-07 10:15	3856503	8.133	-96.481	260.228	17.927	740.058	855.659	0.424	0.556	***4.550***	17.927	21.047
2021-08-07 10:30	3857403	8.129	-96.238	260.164	17.917	739.97	855.735	0.424	0.556	***4.558***	17.917	24.299
2021-08-07 10:45	3858303	8.119	-95.675	260.683	17.902	739.086	854.994	0.424	0.556	***4.495***	17.902	28.107
2021-08-07 11:00	3859203	8.109	-95.062	262.166	17.874	738.653	855.03	0.424	0.556	***4.447***	17.874	31.467
2021-08-07 11:15	3860103	8.105	-94.855	262.2	17.85	738	854.724	0.424	0.556	***4.499***	17.85	36.671
2021-08-07 11:30	3861003	8.100	-94.55	262.028	17.813	737.551	854.913	0.424	0.556	***4.478***	17.813	40.835
2021-08-07 11:45	3861903	8.089	-93.896	263.222	17.773	736.69	854.664	0.424	0.556	***4.418***	17.773	46.615
2021-08-07 12:00	3862803	8.081	-93.391	265.027	17.761	736.435	854.595	0.423	0.555	***4.375***	17.761	51.1
2021-08-07 12:15	3863703	8.073	-92.976	265.635	17.741	735.76	854.197	0.423	0.555	***4.392***	17.741	54.271
2021-08-07 12:30	3864603	8.063	-92.363	266.644	17.684	734.166	853.425	0.423	0.555	***4.366***	17.684	53.951
2021-08-07 12:45	3865503	8.062	-92.299	266.365	17.675	733.329	852.62	0.422	0.554	***4.439***	17.675	58.975
2021-08-07 13:00	3866403	8.059	-92.094	267.497	17.668	733.1	852.474	0.422	0.554	***4.413***	17.668	66.105
2021-08-07 13:15	3867303	8.051	-91.636	268.167	17.663	733.595	853.156	0.423	0.555	***4.369***	17.663	66.047
2021-08-07 13:30	3868203	8.044	-91.257	270.838	17.658	734.087	853.829	0.423	0.555	***4.423***	17.658	67.226
2021-08-07 13:45	3869103	8.071	-92.804	267.807	17.63	733.428	853.587	0.423	0.555	***4.587***	17.63	70.044
2021-08-07 14:00	3870003	8.071	-92.802	266.229	17.605	732.459	852.94	0.423	0.554	***4.549***	17.605	76.567
2021-08-07 14:15	3870903	8.065	-92.437	267.419	17.584	731.854	852.631	0.422	0.554	***4.490***	17.584	82.583
2021-08-07 14:30	3871803	8.055	-91.879	268.246	17.572	731.342	852.255	0.422	0.554	***4.389***	17.572	87.376
2021-08-07 14:45	3872703	8.050	-91.569	268.768	17.56	731.325	852.462	0.422	0.554	***4.406***	17.56	92.067
2021-08-07 15:00	3873603	8.035	-90.721	271.209	17.555	731.641	852.92	0.423	0.554	***4.309***	17.555	90.335
2021-08-07 15:15	3874503	8.027	-90.253	272.964	17.541	731.768	853.341	0.423	0.555	***4.518***	17.541	85.535
2021-08-07 15:30	3875403	8.039	-90.938	271.462	17.529	731.08	852.765	0.422	0.554	***4.557***	17.529	88.408
2021-08-07 15:45	3876303	8.051	-91.631	270.649	17.516	730.188	851.976	0.422	0.554	***4.613***	17.516	94.445
2021-08-07 16:00	3877203	8.051	-91.6	270.032	17.517	729.887	851.606	0.422	0.554	***4.669***	17.517	89.052
2021-08-07 16:15	3878103	8.064	-92.368	268.518	17.52	729.451	851.033	0.422	0.553	***4.708***	17.52	104.04
2021-08-07 16:30	3879003	8.064	-92.354	268.141	17.522	729.425	850.974	0.422	0.553	***4.716***	17.522	107.9
2021-08-07 16:45	3879903	8.069	-92.666	267.314	17.516	729.712	851.409	0.422	0.553	***4.781***	17.516	104.195

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-07 17:00	3880803	8.088	-93.76	265.678	17.518	729.599	851.248	0.422	0.553	***4.834***	17.518	111.351
2021-08-07 17:15	3881703	8.086	-93.653	266.525	17.531	730.578	852.144	0.422	0.554	***4.845***	17.531	115.122
2021-08-07 17:30	3882603	8.099	-94.38	264.987	17.539	731.249	852.765	0.422	0.554	***4.893***	17.539	121.271
2021-08-07 17:45	3883503	8.101	-94.471	264.51	17.534	731.122	852.714	0.422	0.554	***4.893***	17.534	122.282
2021-08-07 18:00	3884403	8.092	-93.961	265.974	17.53	730.794	852.413	0.422	0.554	***4.858***	17.53	113.388
2021-08-07 18:15	3885303	8.096	-94.192	266.162	17.538	731.07	852.585	0.422	0.554	***4.993***	17.538	120.43
2021-08-07 18:30	3886203	8.107	-94.829	265.564	17.564	731.642	852.76	0.422	0.554	***5.132***	17.564	129.248
2021-08-07 18:45	3887103	8.114	-95.241	264.596	17.572	732.135	853.185	0.423	0.555	***5.250***	17.572	132.256
2021-08-07 19:00	3888003	8.124	-95.851	263.513	17.564	732.395	853.635	0.423	0.555	***5.248***	17.564	133.247
2021-08-07 19:15	3888903	8.124	-95.818	263.497	17.575	732.842	853.945	0.423	0.555	***5.232***	17.575	135.365
2021-08-07 19:30	3889803	8.125	-95.887	263.32	17.575	733.081	854.219	0.423	0.555	***5.257***	17.575	140.93
2021-08-07 19:45	3890703	8.129	-96.104	263.344	17.563	733.223	854.613	0.423	0.555	***5.288***	17.563	140.828
2021-08-07 20:00	3891603	8.125	-95.89	264.145	17.552	733.379	855.014	0.424	0.556	***5.171***	17.552	143.849
2021-08-07 20:15	3892503	8.116	-95.353	264.336	17.543	733.297	855.093	0.424	0.556	***5.093***	17.543	141.799
2021-08-07 20:30	3893403	8.114	-95.215	264.753	17.515	732.76	854.996	0.424	0.556	***5.095***	17.515	137.598
2021-08-07 20:45	3894303	8.116	-95.367	264.455	17.512	733.278	855.649	0.424	0.556	***5.173***	17.512	143.072
2021-08-07 21:00	3895203	8.116	-95.341	265.926	17.493	733.696	856.51	0.424	0.557	***5.155***	17.493	144.107
2021-08-07 21:15	3896103	8.117	-95.408	265.182	17.492	733.627	856.452	0.424	0.557	***5.155***	17.492	150.638
2021-08-07 21:30	3897003	8.103	-94.621	272.261	17.495	734.686	857.625	0.425	0.557	***5.017***	17.495	147.763
2021-08-07 21:45	3897903	8.087	-93.67	284.346	17.489	735.993	859.26	0.426	0.559	***4.948***	17.489	144.733
2021-08-07 22:00	3898803	8.089	-93.796	277.22	17.449	735.642	859.61	0.426	0.559	***5.137***	17.449	140.445
2021-08-07 22:15	3899703	8.107	-94.779	271.591	17.417	735.114	859.624	0.426	0.559	***5.211***	17.417	146.055
2021-08-07 22:30	3900603	8.126	-95.916	269.705	17.396	737.313	862.597	0.427	0.561	***5.131***	17.396	143.949
2021-08-07 22:45	3901503	8.139	-96.612	268.911	17.369	740.18	866.472	0.429	0.563	***5.063***	17.369	147.547
2021-08-07 23:00	3902403	8.153	-97.435	268.091	17.329	742.345	869.775	0.431	0.565	***5.053***	17.329	149.042
2021-08-07 23:15	3903303	8.152	-97.392	267.678	17.312	743.593	871.567	0.432	0.567	***5.023***	17.312	154.458
2021-08-07 23:30	3904203	8.159	-97.778	266.095	17.314	745.151	873.358	0.433	0.568	***5.076***	17.314	152.468
2021-08-07 23:45	3905103	8.161	-97.873	266.575	17.307	746.421	874.991	0.434	0.569	***5.057***	17.307	151.086
2021-08-08 00:00	3906003	8.147	-97.089	272.695	17.292	747.722	876.815	0.435	0.570	***4.907***	17.292	155.33
2021-08-08 00:15	3906903	8.137	-96.509	280.913	17.277	748.447	877.946	0.435	0.571	***4.689***	17.277	149.171
2021-08-08 00:30	3907803	8.125	-95.778	284.394	17.281	749.188	878.737	0.436	0.571	***4.378***	17.281	147.974
2021-08-08 00:45	3908703	8.108	-94.8	294.665	17.284	749.774	879.379	0.436	0.572	***4.167***	17.284	150.864
2021-08-08 01:00	3909603	8.096	-94.142	295.435	17.289	750.367	879.96	0.436	0.572	***4.091***	17.289	151.569
2021-08-08 01:15	3910503	8.093	-93.951	290.819	17.274	751.02	881.038	0.437	0.573	***4.170***	17.274	127.252
2021-08-08 01:30	3911403	8.098	-94.242	285.236	17.25	750.824	881.274	0.437	0.573	***4.023***	17.25	134.354
2021-08-08 01:45	3912303	8.103	-94.497	283.376	17.219	750.307	881.285	0.437	0.573	***3.841***	17.219	126.726
2021-08-08 02:00	3913203	8.093	-93.925	285.67	17.205	750.292	881.547	0.437	0.573	***3.807***	17.205	135.598
2021-08-08 02:15	3914103	8.091	-93.83	289.732	17.194	750.611	882.134	0.437	0.573	***3.693***	17.194	132.257
2021-08-08 02:30	3915003	8.077	-92.976	286.521	17.177	750.694	882.571	0.438	0.574	***3.618***	17.177	133.651
2021-08-08 02:45	3915903	8.076	-92.909	296.754	17.163	750.579	882.707	0.438	0.574	***3.627***	17.163	132.044
2021-08-08 03:00	3916803	8.068	-92.444	295.833	17.152	750.522	882.86	0.438	0.574	***3.622***	17.152	132.255
2021-08-08 03:15	3917703	8.062	-92.132	293.008	17.138	750.279	882.845	0.438	0.574	***3.615***	17.138	125.011
2021-08-08 03:30	3918603	8.051	-91.476	297.772	17.12	750.025	882.918	0.438	0.574	***3.650***	17.12	134.956
2021-08-08 03:45	3919503	8.044	-91.083	299.138	17.091	749.554	882.934	0.438	0.574	***3.619***	17.091	135.151
2021-08-08 04:00	3920403	8.037	-90.666	299.915	17.073	749.318	883.009	0.438	0.574	***3.523***	17.073	133.353
2021-08-08 04:15	3921303	8.032	-90.38	309.769	17.064	749.267	883.134	0.438	0.574	***3.462***	17.064	144.068
2021-08-08 04:30	3922203	8.019	-89.636	318.993	17.045	749.345	883.608	0.438	0.574	***3.401***	17.045	139.813
2021-08-08 04:45	3923103	8.014	-89.328	318.128	17.026	749.029	883.597	0.438	0.574	***3.229***	17.026	128.349
2021-08-08 05:00	3924003	8.001	-88.587	318.588	17.015	748.824	883.58	0.438	0.574	***3.059***	17.015	127.526
2021-08-08 05:15	3924903	7.999	-88.432	318.748	17.009	748.696	883.543	0.438	0.574	***2.906***	17.009	133.035
2021-08-08 05:30	3925803	7.991	-88.005	321.695	17.002	748.55	883.518	0.438	0.574	***2.835***	17.002	126.08
2021-08-08 05:45	3926703	7.987	-87.743	324.689	16.983	748.372	883.691	0.438	0.574	***2.810***	16.983	136.237
2021-08-08 06:00	3927603	7.983	-87.512	326.918	16.963	748.063	883.719	0.438	0.574	***2.770***	16.963	125.716
2021-08-08 06:15	3928503	7.969	-86.718	320.51	16.949	747.889	883.79	0.438	0.574	***2.735***	16.949	124.41
2021-08-08 06:30	3929403	7.947	-85.466	327.696	16.941	747.833	883.889	0.438	0.575	***2.783***	16.941	123.667
2021-08-08 06:45	3930303	7.935	-84.736	330.037	16.936	747.77	883.916	0.438	0.575	***2.754***	16.936	124.203

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-08 07:00	3931203	7.930	-84.443	329.219	16.93	747.657	883.907	0.438	0.575	***2.675***	16.93	123.217
2021-08-08 07:15	3932103	7.914	-83.542	329.183	16.926	747.658	883.977	0.438	0.575	***2.557***	16.926	122.164
2021-08-08 07:30	3933003	7.894	-82.374	328.592	16.923	747.727	884.118	0.438	0.575	***2.378***	16.923	119.47
2021-08-08 07:45	3933903	7.867	-80.85	331.601	16.916	747.696	884.228	0.438	0.575	***2.214***	16.916	123.133
2021-08-08 08:00	3934803	7.851	-79.882	333.744	16.906	747.522	884.223	0.438	0.575	***2.089***	16.906	119.968
2021-08-08 08:15	3935703	7.833	-78.857	336.388	16.898	747.539	884.399	0.439	0.575	***1.981***	16.898	121.15
2021-08-08 08:30	3936603	7.812	-77.677	340.387	16.893	747.483	884.424	0.439	0.575	***1.964***	16.893	121.246
2021-08-08 08:45	3937503	7.803	-77.164	340.711	16.898	747.623	884.495	0.439	0.575	***1.921***	16.898	120.221
2021-08-08 09:00	3938403	7.792	-76.485	342.287	16.904	747.686	884.462	0.439	0.575	***1.808***	16.904	118.086
2021-08-08 09:15	3939303	7.772	-75.357	344.869	16.907	747.799	884.52	0.439	0.575	***1.684***	16.907	118.139
2021-08-08 09:30	3940203	7.756	-74.468	346.109	16.916	747.893	884.465	0.439	0.575	***1.656***	16.916	118.865
2021-08-08 09:45	3941103	7.751	-74.136	346.366	16.927	748.035	884.414	0.439	0.575	***1.672***	16.927	118.478
2021-08-08 10:00	3942003	7.752	-74.189	346.037	16.947	748.31	884.334	0.439	0.575	***1.671***	16.947	118.302
2021-08-08 10:15	3942903	7.747	-73.926	345.46	16.968	748.454	884.075	0.438	0.575	***1.696***	16.968	115.36
2021-08-08 10:30	3943803	7.736	-73.309	345.596	16.993	748.669	883.831	0.438	0.574	***1.706***	16.993	116.482
2021-08-08 10:45	3944703	7.735	-73.23	345.832	17.018	748.99	883.726	0.438	0.574	***1.697***	17.018	118.005
2021-08-08 11:00	3945603	7.733	-73.171	346.018	17.042	749.21	883.499	0.438	0.574	***1.689***	17.042	116.711
2021-08-08 11:15	3946503	7.731	-73.023	346.092	17.067	749.702	883.583	0.438	0.574	***1.698***	17.067	113.309
2021-08-08 11:30	3947403	7.734	-73.223	346.309	17.093	749.948	883.349	0.438	0.574	***1.701***	17.093	111.45
2021-08-08 11:45	3948303	7.737	-73.388	346.364	17.134	750.076	882.689	0.438	0.574	***1.721***	17.134	111.526
2021-08-08 12:00	3949203	7.740	-73.566	345.396	17.179	750.487	882.29	0.438	0.573	***1.889***	17.179	105.201
2021-08-08 12:15	3950103	7.748	-74.079	345.296	17.202	750.754	882.142	0.437	0.573	***1.989***	17.202	110.067
2021-08-08 12:30	3951003	7.755	-74.468	343.193	17.23	751.266	882.185	0.438	0.573	***2.110***	17.23	106.628
2021-08-08 12:45	3951903	7.763	-74.928	341.383	17.267	751.773	882.05	0.437	0.573	***2.261***	17.267	104.518
2021-08-08 13:00	3952803	7.777	-75.738	340.63	17.29	752.211	882.105	0.438	0.573	***2.467***	17.29	102.377
2021-08-08 13:15	3953703	7.777	-75.767	341.228	17.322	752.612	881.953	0.437	0.573	***2.572***	17.322	102.053
2021-08-08 13:30	3954603	7.767	-75.181	341.817	17.393	753.303	881.366	0.437	0.573	***2.713***	17.393	100.847
2021-08-08 13:45	3955503	7.759	-74.754	341.934	17.458	753.595	880.422	0.437	0.572	***2.942***	17.458	110.602
2021-08-08 14:00	3956403	7.762	-74.944	341.965	17.526	754.315	879.927	0.436	0.572	***3.113***	17.526	99.937
2021-08-08 14:15	3957303	7.770	-75.421	342.38	17.589	755.071	879.577	0.436	0.572	***3.522***	17.589	125.76
2021-08-08 14:30	3958203	7.783	-76.156	340.024	17.639	756.022	879.702	0.436	0.572	***3.848***	17.639	104.555
2021-08-08 14:45	3959103	7.799	-77.112	338.687	17.681	756.675	879.636	0.436	0.572	***4.320***	17.681	117.831
2021-08-08 15:00	3960003	7.830	-78.921	335.246	17.698	757.193	879.905	0.436	0.572	***4.895***	17.698	100.672
2021-08-08 15:15	3960903	7.856	-80.411	332.199	17.723	757.697	880.001	0.437	0.572	***4.995***	17.723	101.258
2021-08-08 15:30	3961803	7.870	-81.26	327.624	17.742	758.171	880.192	0.437	0.572	***5.260***	17.742	103.423
2021-08-08 15:45	3962703	7.889	-82.321	320.896	17.758	758.532	880.301	0.437	0.572	***5.199***	17.758	98.072
2021-08-08 16:00	3963603	7.899	-82.934	312.909	17.768	758.633	880.212	0.437	0.572	***4.967***	17.768	101.596
2021-08-08 16:15	3964503	7.900	-82.977	306.147	17.794	759.044	880.186	0.437	0.572	***5.007***	17.794	101.18
2021-08-08 16:30	3965403	7.898	-82.891	301.539	17.825	759.729	880.386	0.437	0.572	***4.648***	17.825	102.721
2021-08-08 16:45	3966303	7.889	-82.364	303.887	17.856	760.414	880.567	0.437	0.572	***4.416***	17.856	102.614
2021-08-08 17:00	3967203	7.870	-81.279	311.106	17.938	761.695	880.448	0.437	0.572	***4.094***	17.938	102.151
2021-08-08 17:15	3968103	7.857	-80.552	317.544	18.058	763.657	880.398	0.437	0.572	***3.681***	18.058	102.535
2021-08-08 17:30	3969003	7.845	-79.894	321.683	18.212	766.097	880.212	0.437	0.572	***3.727***	18.212	101.084
2021-08-08 17:45	3969903	7.828	-78.993	320.409	18.42	769.165	879.729	0.437	0.572	***3.956***	18.42	101.439
2021-08-08 18:00	3970803	7.836	-79.498	313.762	18.503	770.931	880.154	0.437	0.572	***4.268***	18.503	102.438
2021-08-08 18:15	3971703	7.857	-80.7	307.697	18.559	772.307	880.64	0.437	0.572	***4.352***	18.559	99.048
2021-08-08 18:30	3972603	7.883	-82.252	306.317	18.628	773.975	881.223	0.437	0.573	***4.577***	18.628	102.718
2021-08-08 18:45	3973503	7.903	-83.389	306.681	18.729	776.2	881.824	0.438	0.573	***4.429***	18.729	102.894
2021-08-08 19:00	3974403	7.905	-83.594	310.053	18.859	779.476	883.052	0.438	0.574	***4.248***	18.859	101.003
2021-08-08 19:15	3975303	7.894	-82.932	307.747	18.921	780.94	883.519	0.439	0.574	***4.311***	18.921	102.503
2021-08-08 19:30	3976203	7.896	-83.075	312.647	18.996	782.865	884.266	0.439	0.575	***4.163***	18.996	101.62
2021-08-08 19:45	3977103	7.919	-84.424	315.529	19.052	784.312	884.83	0.439	0.575	***4.099***	19.052	100.798
2021-08-08 20:00	3978003	7.944	-85.857	312.868	19.022	785.022	886.214	0.440	0.576	***4.300***	19.022	102.878
2021-08-08 20:15	3978903	7.940	-85.638	296.425	18.973	785.912	888.156	0.441	0.577	***4.312***	18.973	104.165
2021-08-08 20:30	3979803	7.961	-86.823	276.24	18.957	786.828	889.499	0.442	0.578	***4.729***	18.957	102.62
2021-08-08 20:45	3980703	7.949	-86.122	272.073	18.928	786.657	889.868	0.442	0.578	***5.038***	18.928	103.072

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-08 21:00	3981603	7.974	-87.559	267.211	18.894	786.336	890.158	0.442	0.579	***4.705***	18.894	102.341
2021-08-08 21:15	3982503	7.992	-88.642	271.558	18.879	787.27	891.499	0.443	0.579	***4.726***	18.879	104.041
2021-08-08 21:30	3983403	8.015	-89.941	274.123	18.86	788.002	892.697	0.443	0.580	***4.925***	18.86	108.437
2021-08-08 21:45	3984303	8.012	-89.741	272.514	18.834	788.356	893.591	0.444	0.581	***4.735***	18.834	101.169
2021-08-08 22:00	3985203	7.985	-88.162	271.97	18.8	788.119	893.98	0.444	0.581	***4.366***	18.8	100.852
2021-08-08 22:15	3986103	7.969	-87.264	271.078	18.761	787.376	893.893	0.444	0.581	***4.233***	18.761	102.185
2021-08-08 22:30	3987003	7.992	-88.596	273.949	18.716	786.5	893.775	0.444	0.581	***4.371***	18.716	100.796
2021-08-08 22:45	3987903	7.978	-87.729	274.302	18.669	785.902	894.013	0.444	0.581	***4.525***	18.669	96.951
2021-08-08 23:00	3988803	7.960	-86.66	275.265	18.617	784.73	893.678	0.444	0.581	***4.615***	18.617	97.985
2021-08-08 23:15	3989703	7.942	-85.635	274.683	18.556	783.469	893.437	0.444	0.581	***4.591***	18.556	97.2
2021-08-08 23:30	3990603	7.936	-85.282	274.998	18.505	782.117	892.893	0.443	0.580	***4.529***	18.505	97.018
2021-08-08 23:45	3991503	7.992	-88.494	274.948	18.458	780.821	892.322	0.443	0.580	***4.508***	18.458	98.283
2021-08-09 00:00	3992403	8.020	-90.122	269.927	18.417	779.939	892.105	0.443	0.580	***4.361***	18.417	98.701
2021-08-09 00:15	3993303	8.034	-90.873	268.613	18.379	779.065	891.848	0.443	0.580	***4.245***	18.379	99.32
2021-08-09 00:30	3994203	8.052	-91.913	270.251	18.331	777.733	891.267	0.443	0.579	***4.236***	18.331	98.275
2021-08-09 00:45	3995103	8.064	-92.59	268.611	18.281	776.411	890.71	0.442	0.579	***4.289***	18.281	102.666
2021-08-09 01:00	3996003	8.069	-92.857	268.632	18.247	775.412	890.233	0.442	0.579	***4.256***	18.247	96.676
2021-08-09 01:15	3996903	8.067	-92.757	270.773	18.218	774.777	890.065	0.442	0.579	***4.254***	18.218	96.672
2021-08-09 01:30	3997803	8.072	-93.019	272.764	18.186	774.103	889.925	0.442	0.578	***4.232***	18.186	95.867
2021-08-09 01:45	3998703	8.079	-93.446	273.72	18.148	773.351	889.8	0.442	0.578	***4.185***	18.148	93.76
2021-08-09 02:00	3999603	8.088	-93.963	274.061	18.114	772.698	889.707	0.442	0.578	***4.273***	18.114	84.649
2021-08-09 02:15	4000503	8.095	-94.316	273.398	18.081	771.845	889.371	0.441	0.578	***4.327***	18.081	63.562
2021-08-09 02:30	4001403	8.097	-94.411	275.081	18.054	771.365	889.353	0.441	0.578	***4.284***	18.054	63.268
2021-08-09 02:45	4002303	8.096	-94.342	275.682	18.018	770.682	889.278	0.441	0.578	***4.250***	18.018	60.33
2021-08-09 03:00	4003203	8.098	-94.5	277.12	17.992	770.224	889.247	0.441	0.578	***4.245***	17.992	59.826
2021-08-09 03:15	4004103	8.088	-93.908	277.797	17.966	769.798	889.266	0.441	0.578	***4.235***	17.966	59.957
2021-08-09 03:30	4005003	8.093	-94.163	279.368	17.935	769.294	889.292	0.441	0.578	***4.218***	17.935	60.515
2021-08-09 03:45	4005903	8.093	-94.173	280.658	17.899	768.757	889.389	0.441	0.578	***4.200***	17.899	59.782
2021-08-09 04:00	4006803	8.102	-94.643	278.979	17.871	768.262	889.37	0.441	0.578	***4.227***	17.871	60.246
2021-08-09 04:15	4007703	8.098	-94.402	278.519	17.838	767.655	889.307	0.441	0.578	***4.264***	17.838	60.513
2021-08-09 04:30	4008603	8.094	-94.192	277.761	17.804	767.175	889.412	0.441	0.578	***4.294***	17.804	60.373
2021-08-09 04:45	4009503	8.089	-93.896	277.699	17.767	766.431	889.296	0.441	0.578	***4.310***	17.767	60.988
2021-08-09 05:00	4010403	8.091	-93.982	277.933	17.729	765.804	889.313	0.441	0.578	***4.281***	17.729	59.925
2021-08-09 05:15	4011303	8.095	-94.221	277.284	17.694	765.235	889.347	0.441	0.578	***4.239***	17.694	60.219
2021-08-09 05:30	4012203	8.086	-93.672	276.347	17.662	764.707	889.351	0.441	0.578	***4.228***	17.662	60.758
2021-08-09 05:45	4013103	8.068	-92.64	274.445	17.618	763.958	889.358	0.441	0.578	***4.218***	17.618	58.876
2021-08-09 06:00	4014003	8.064	-92.404	275.382	17.578	763.27	889.334	0.441	0.578	***4.194***	17.578	60.234
2021-08-09 06:15	4014903	8.060	-92.108	276.071	17.546	762.958	889.61	0.441	0.578	***4.207***	17.546	58.72
2021-08-09 06:30	4015803	8.061	-92.201	276.633	17.525	762.702	889.735	0.442	0.578	***4.116***	17.525	60.345
2021-08-09 06:45	4016703	8.060	-92.106	277.749	17.492	762.082	889.664	0.441	0.578	***3.978***	17.492	60.512
2021-08-09 07:00	4017603	8.067	-92.518	278.188	17.448	761.4	889.737	0.441	0.578	***3.903***	17.448	59.934
2021-08-09 07:15	4018503	8.072	-92.764	278.391	17.414	760.914	889.849	0.442	0.578	***3.894***	17.414	60.509
2021-08-09 07:30	4019403	8.077	-93.064	278.786	17.387	760.526	889.923	0.442	0.578	***3.874***	17.387	60.479
2021-08-09 07:45	4020303	8.071	-92.711	278.29	17.363	760.041	889.837	0.442	0.578	***3.836***	17.363	60.59
2021-08-09 08:00	4021203	8.059	-91.987	279.948	17.341	759.716	889.905	0.442	0.578	***3.780***	17.341	60.023
2021-08-09 08:15	4022103	8.066	-92.399	281.254	17.324	759.484	889.967	0.442	0.578	***3.635***	17.324	61.051
2021-08-09 08:30	4023003	8.077	-93.005	281.562	17.277	758.398	889.627	0.441	0.578	***3.357***	17.277	58.914
2021-08-09 08:45	4023903	8.077	-93.05	279.444	17.249	757.562	889.2	0.441	0.578	***3.695***	17.249	57.212
2021-08-09 09:00	4024803	8.093	-93.975	276.831	17.264	757.052	888.299	0.441	0.577	***4.165***	17.264	59.051
2021-08-09 09:15	4025703	8.114	-95.181	274.667	17.273	756.878	887.927	0.440	0.577	***4.514***	17.273	63.072
2021-08-09 09:30	4026603	8.130	-96.049	273.458	17.228	755.72	887.457	0.440	0.577	***4.598***	17.228	64.083
2021-08-09 09:45	4027503	8.119	-95.434	274.266	17.214	755.296	887.236	0.440	0.577	***4.555***	17.214	63.713
2021-08-09 10:00	4028404	8.116	-95.253	273.985	17.227	755.478	887.193	0.440	0.577	***4.608***	17.227	63.428
2021-08-09 10:15	4029304	8.108	-94.79	275.158	17.246	755.85	887.249	0.440	0.577	***4.619***	17.246	60.835
2021-08-09 10:30	4030204	8.105	-94.647	274.991	17.253	755.853	887.115	0.440	0.577	***4.611***	17.253	60.429
2021-08-09 10:45	4031104	8.099	-94.295	274.299	17.27	755.772	886.685	0.440	0.576	***4.566***	17.27	67.792

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-09 11:00	4032004	8.105	-94.669	273.815	17.302	755.768	886.038	0.440	0.576	***4.473***	17.302	62.968
2021-08-09 11:15	4032904	8.114	-95.203	272.881	17.312	755.395	885.401	0.439	0.576	***4.574***	17.312	61.489
2021-08-09 11:30	4033804	8.115	-95.236	270.077	17.319	755.02	884.839	0.439	0.575	***4.608***	17.319	64.79
2021-08-09 11:45	4034704	8.117	-95.367	268.334	17.341	755.019	884.396	0.439	0.575	***4.651***	17.341	70.271
2021-08-09 12:00	4035604	8.110	-94.993	268.568	17.384	755.637	884.276	0.439	0.575	***4.712***	17.384	67.066
2021-08-09 12:15	4036504	8.098	-94.273	269.014	17.428	756.409	884.305	0.439	0.575	***4.573***	17.428	67.132
2021-08-09 12:30	4037404	8.090	-93.837	269.586	17.458	757.124	884.536	0.439	0.575	***4.648***	17.458	69.58
2021-08-09 12:45	4038304	8.102	-94.562	267.118	17.471	757.471	884.695	0.439	0.575	***4.959***	17.471	65.533
2021-08-09 13:00	4039204	8.131	-96.18	265.027	17.475	757.541	884.696	0.439	0.575	***5.041***	17.475	68.228
2021-08-09 13:15	4040104	8.151	-97.37	263.029	17.471	757.302	884.498	0.439	0.575	***5.117***	17.471	70.406
2021-08-09 13:30	4041004	8.151	-97.363	261.737	17.479	757.35	884.387	0.439	0.575	***5.081***	17.479	71.292
2021-08-09 13:45	4041904	8.158	-97.79	261.389	17.526	758.015	884.239	0.439	0.575	***5.135***	17.526	73.02
2021-08-09 14:00	4042804	8.158	-97.787	261.368	17.517	757.985	884.378	0.439	0.575	***5.109***	17.517	65.091
2021-08-09 14:15	4043704	8.148	-97.167	262.638	17.498	757.687	884.41	0.439	0.575	***4.941***	17.498	75.039
2021-08-09 14:30	4044604	8.134	-96.397	263.902	17.485	757.465	884.408	0.439	0.575	***4.791***	17.485	71.187
2021-08-09 14:45	4045504	8.122	-95.685	264.634	17.489	757.396	884.245	0.439	0.575	***4.694***	17.489	74.064
2021-08-09 15:00	4046404	8.108	-94.898	265.919	17.504	757.588	884.176	0.439	0.575	***4.632***	17.504	75.696
2021-08-09 15:15	4047304	8.101	-94.519	266.339	17.541	758.066	883.999	0.439	0.575	***4.612***	17.541	73.958
2021-08-09 15:30	4048204	8.099	-94.395	266.658	17.511	757.337	883.749	0.438	0.574	***4.556***	17.511	77.241
2021-08-09 15:45	4049104	8.085	-93.546	267.774	17.517	757.335	883.627	0.438	0.574	***4.561***	17.517	89.812
2021-08-09 16:00	4050004	8.094	-94.106	266.73	17.549	758.059	883.84	0.438	0.574	***4.805***	17.549	95.546
2021-08-09 16:15	4050904	8.087	-93.66	268	17.495	756.911	883.573	0.438	0.574	***4.518***	17.495	102.051
2021-08-09 16:30	4051804	8.071	-92.738	268.937	17.517	757.167	883.423	0.438	0.574	***4.518***	17.517	108.649
2021-08-09 16:45	4052704	8.067	-92.514	269.049	17.503	756.651	883.114	0.438	0.574	***4.508***	17.503	97.677
2021-08-09 17:00	4053604	8.054	-91.758	269.858	17.499	756.523	883.031	0.438	0.574	***4.426***	17.499	97.912
2021-08-09 17:15	4054504	8.049	-91.486	270.418	17.53	756.956	882.937	0.438	0.574	***4.475***	17.53	115.403
2021-08-09 17:30	4055404	8.055	-91.865	270.356	17.548	757.315	882.991	0.438	0.574	***4.570***	17.548	108.608
2021-08-09 17:45	4056304	8.055	-91.844	270.203	17.546	757.17	882.865	0.438	0.574	***4.594***	17.546	120.094
2021-08-09 18:00	4057204	8.051	-91.612	270.454	17.53	756.856	882.805	0.438	0.574	***4.603***	17.53	124.878
2021-08-09 18:15	4058104	8.052	-91.67	269.664	17.545	756.422	882.02	0.438	0.573	***4.613***	17.545	120.242
2021-08-09 18:30	4059004	8.051	-91.596	269.695	17.547	757.313	883.007	0.438	0.574	***4.708***	17.547	131.781
2021-08-09 18:45	4059904	8.055	-91.817	269.104	17.532	757.199	883.169	0.438	0.574	***4.605***	17.532	121.342
2021-08-09 19:00	4060804	8.043	-91.171	270.435	17.544	757.352	883.119	0.438	0.574	***4.524***	17.544	146.77
2021-08-09 19:15	4061704	8.034	-90.656	270.325	17.553	757.406	883.003	0.438	0.574	***4.547***	17.553	130.469
2021-08-09 19:30	4062604	8.022	-89.972	271.977	17.544	757.403	883.182	0.438	0.574	***4.481***	17.544	128.002
2021-08-09 19:45	4063504	8.015	-89.55	273.462	17.535	757.471	883.442	0.438	0.574	***4.399***	17.535	129.96
2021-08-09 20:00	4064404	8.001	-88.754	275.508	17.532	757.55	883.587	0.438	0.574	***4.273***	17.532	125.678
2021-08-09 20:15	4065304	7.993	-88.267	277.194	17.518	757.645	883.975	0.439	0.575	***4.243***	17.518	125.164
2021-08-09 20:30	4066204	7.983	-87.707	278.982	17.509	757.884	884.42	0.439	0.575	***4.246***	17.509	126.982
2021-08-09 20:45	4067104	7.981	-87.571	279.926	17.492	757.582	884.418	0.439	0.575	***4.215***	17.492	127.336
2021-08-09 21:00	4068004	7.975	-87.185	281.142	17.474	757.291	884.419	0.439	0.575	***4.158***	17.474	128.394
2021-08-09 21:15	4068904	7.983	-87.669	282.143	17.45	756.902	884.447	0.439	0.575	***4.108***	17.45	127.316
2021-08-09 21:30	4069804	7.979	-87.452	281.709	17.433	756.442	884.239	0.439	0.575	***4.067***	17.433	126.109
2021-08-09 21:45	4070704	7.982	-87.597	281.123	17.409	755.745	883.902	0.438	0.575	***4.008***	17.409	130.428
2021-08-09 22:00	4071604	7.980	-87.447	281.388	17.38	755.081	883.705	0.438	0.574	***3.895***	17.38	125.428
2021-08-09 22:15	4072504	7.973	-87.063	281.738	17.357	754.601	883.585	0.438	0.574	***3.800***	17.357	133.712
2021-08-09 22:30	4073404	7.968	-86.741	282.422	17.318	754.041	883.695	0.438	0.574	***3.708***	17.318	119.598
2021-08-09 22:45	4074304	7.961	-86.355	282.813	17.293	753.779	883.885	0.438	0.575	***3.714***	17.293	122.781
2021-08-09 23:00	4075204	7.959	-86.234	283.049	17.274	753.468	883.9	0.438	0.575	***3.725***	17.274	121.254
2021-08-09 23:15	4076104	7.960	-86.253	283.326	17.254	753.251	884.034	0.438	0.575	***3.832***	17.254	122.411
2021-08-09 23:30	4077004	7.958	-86.138	283.548	17.238	752.979	884.05	0.438	0.575	***3.813***	17.238	125.758
2021-08-09 23:45	4077904	7.952	-85.816	284.094	17.207	752.562	884.172	0.439	0.575	***3.849***	17.207	127.305
2021-08-10 00:00	4078804	7.943	-85.287	284.437	17.184	752.231	884.244	0.439	0.575	***3.851***	17.184	135.124
2021-08-10 00:15	4079704	7.941	-85.149	284.964	17.164	751.987	884.34	0.439	0.575	***3.733***	17.164	107.647
2021-08-10 00:30	4080604	7.928	-84.386	286.363	17.134	751.622	884.519	0.439	0.575	***3.610***	17.134	108.603
2021-08-10 00:45	4081504	7.918	-83.795	287.772	17.09	751.168	884.847	0.439	0.575	***3.456***	17.09	112.101

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-10 01:00	4082404	7.910	-83.332	289.499	17.047	750.748	885.214	0.439	0.575	***3.347***	17.047	94.874
2021-08-10 01:15	4083304	7.898	-82.626	291.07	17.036	750.476	885.108	0.439	0.575	***3.243***	17.036	94.01
2021-08-10 01:30	4084204	7.891	-82.233	292.877	17.005	749.811	884.94	0.439	0.575	***3.254***	17.005	104.398
2021-08-10 01:45	4085104	7.885	-81.849	294.553	16.962	750.65	886.803	0.440	0.576	***3.256***	16.962	100.502
2021-08-10 02:00	4086004	7.885	-81.861	294.83	16.922	749.917	886.724	0.440	0.576	***3.191***	16.922	105.376
2021-08-10 02:15	4086904	7.879	-81.518	295.957	16.904	748.287	885.17	0.439	0.575	***3.094***	16.904	108.403
2021-08-10 02:30	4087804	7.871	-81.048	297.314	16.874	748.076	885.517	0.439	0.576	***2.995***	16.874	103.522
2021-08-10 02:45	4088704	7.863	-80.588	298.761	16.834	747.802	885.984	0.439	0.576	***2.567***	16.834	103.788
2021-08-10 03:00	4089604	7.853	-79.975	300.945	16.802	747.608	886.407	0.440	0.576	***2.269***	16.802	98.858
2021-08-10 03:15	4090504	7.843	-79.398	302.545	16.77	747.122	886.46	0.440	0.576	***1.932***	16.77	93.972
2021-08-10 03:30	4091404	7.834	-78.862	304.168	16.733	746.859	886.894	0.440	0.576	***1.558***	16.733	94.361
2021-08-10 03:45	4092304	7.825	-78.321	305.906	16.678	746.059	887.059	0.440	0.577	***1.577***	16.678	92.234
2021-08-10 04:00	4093204	7.820	-78.056	307.633	16.641	745.258	886.854	0.440	0.576	***1.622***	16.641	93.807
2021-08-10 04:15	4094104	7.819	-77.963	308.87	16.609	744.575	886.689	0.440	0.576	***1.932***	16.609	94.455
2021-08-10 04:30	4095004	7.807	-77.302	310.043	16.603	744.203	886.359	0.439	0.576	***1.980***	16.603	93.803
2021-08-10 04:45	4095904	7.800	-76.902	311.154	16.591	743.414	885.661	0.439	0.576	***1.910***	16.591	93.57
2021-08-10 05:00	4096804	7.798	-76.776	312.556	16.561	743.387	886.243	0.439	0.576	***2.022***	16.561	75.198
2021-08-10 05:15	4097704	7.796	-76.623	313.693	16.525	743.025	886.539	0.440	0.576	***2.377***	16.525	94.678
2021-08-10 05:30	4098604	7.802	-76.995	313.784	16.496	742.802	886.84	0.440	0.576	***2.380***	16.496	80.508
2021-08-10 05:45	4099504	7.804	-77.105	314.38	16.472	742.655	887.166	0.440	0.577	***2.318***	16.472	75.246
2021-08-10 06:00	4100404	7.797	-76.702	314.628	16.465	742.613	887.26	0.440	0.577	***2.330***	16.465	78.828
2021-08-10 06:15	4101304	7.798	-76.718	315.324	16.461	741.481	885.98	0.439	0.576	***2.213***	16.461	78.646
2021-08-10 06:30	4102204	7.793	-76.42	316.292	16.455	741.525	886.156	0.439	0.576	***2.293***	16.455	80.157
2021-08-10 06:45	4103104	7.790	-76.263	317.441	16.45	741.562	886.294	0.439	0.576	***2.348***	16.45	81.886
2021-08-10 07:00	4104004	7.783	-75.889	317.727	16.428	741.956	887.219	0.440	0.577	***2.422***	16.428	85.082
2021-08-10 07:15	4104904	7.783	-75.872	318.371	16.395	741.209	886.983	0.440	0.577	***2.480***	16.395	83.109
2021-08-10 07:30	4105804	7.785	-75.972	320.24	16.356	740.89	887.391	0.440	0.577	***2.645***	16.356	85.59
2021-08-10 07:45	4106704	7.799	-76.749	321.115	16.329	740.706	887.72	0.440	0.577	***2.986***	16.329	83.197
2021-08-10 08:00	4107604	7.817	-77.789	319.36	16.309	740.365	887.73	0.440	0.577	***3.370***	16.309	109.378
2021-08-10 08:15	4108504	7.828	-78.433	316.147	16.285	739.876	887.625	0.440	0.577	***3.519***	16.285	89.184
2021-08-10 08:30	4109404	7.847	-79.52	310.1	16.266	739.124	887.115	0.440	0.577	***3.699***	16.266	93.085
2021-08-10 08:45	4110304	7.861	-80.28	306.543	16.269	738.892	886.777	0.440	0.576	***3.734***	16.269	104.67
2021-08-10 09:00	4111204	7.873	-80.976	306.038	16.263	738.974	886.987	0.440	0.577	***3.773***	16.263	104.618
2021-08-10 09:15	4112104	7.896	-82.324	302.933	16.256	738.807	886.931	0.440	0.577	***3.780***	16.256	85.518
2021-08-10 09:30	4113004	7.907	-82.958	301.958	16.258	738.81	886.901	0.440	0.576	***3.826***	16.258	90.186
2021-08-10 09:45	4113904	7.927	-84.097	300.003	16.24	738.676	887.11	0.440	0.577	***3.921***	16.24	96.408
2021-08-10 10:00	4114804	7.950	-85.428	298.11	16.22	737.886	886.557	0.439	0.576	***3.993***	16.22	84.837
2021-08-10 10:15	4115704	7.956	-85.726	296.37	16.207	737.368	886.211	0.439	0.576	***4.059***	16.207	91.147
2021-08-10 10:30	4116604	7.971	-86.594	294.419	16.235	737.739	886.08	0.439	0.576	***4.257***	16.235	96.222
2021-08-10 10:45	4117504	7.979	-87.099	292.476	16.267	738.256	886.057	0.439	0.576	***4.329***	16.267	95.486
2021-08-10 11:00	4118404	7.991	-87.793	288.817	16.29	738.617	886.013	0.439	0.576	***4.312***	16.29	93.893
2021-08-10 11:15	4119304	7.999	-88.224	287.214	16.289	738.726	886.172	0.439	0.576	***4.367***	16.289	91.085
2021-08-10 11:30	4120204	8.007	-88.694	285.002	16.293	739.049	886.466	0.439	0.576	***4.383***	16.293	97.725
2021-08-10 11:45	4121104	8.011	-88.925	283.207	16.335	739.536	886.204	0.439	0.576	***4.342***	16.335	89.925
2021-08-10 12:00	4122004	8.021	-89.529	280.987	16.39	740.387	886.117	0.439	0.576	***4.407***	16.39	102.468
2021-08-10 12:15	4122904	8.020	-89.509	280.253	16.432	741.005	886.002	0.439	0.576	***4.419***	16.432	99.219
2021-08-10 12:30	4123804	8.012	-89.061	280.579	16.472	741.837	886.177	0.439	0.576	***4.558***	16.472	102.898
2021-08-10 12:45	4124704	8.010	-88.913	280.081	16.499	742.323	886.213	0.439	0.576	***4.657***	16.499	104.417
2021-08-10 13:00	4125604	8.001	-88.444	279.225	16.553	743.234	886.21	0.439	0.576	***4.651***	16.553	79.118
2021-08-10 13:15	4126504	7.992	-87.934	280.586	16.628	744.588	886.319	0.439	0.576	***4.589***	16.628	78.922
2021-08-10 13:30	4127404	7.990	-87.841	283.858	16.737	747.19	887.208	0.440	0.577	***4.796***	16.737	77.12
2021-08-10 13:45	4128304	7.986	-87.647	284.253	16.83	748.956	887.433	0.440	0.577	***4.919***	16.83	76.231
2021-08-10 14:00	4129204	8.002	-88.57	282.263	16.902	750.541	887.879	0.440	0.577	***4.900***	16.902	78.187
2021-08-10 14:15	4130104	8.016	-89.407	279.795	16.917	751.471	888.677	0.441	0.578	***5.129***	16.917	80.796
2021-08-10 14:30	4131004	8.028	-90.108	278.999	16.931	752.135	889.18	0.441	0.578	***5.267***	16.931	84.635
2021-08-10 14:45	4131904	8.027	-90.07	277.234	16.939	752.742	889.728	0.441	0.578	***5.324***	16.939	101.214

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-10 15:00	4132804	8.035	-90.52	275.267	16.928	752.857	890.08	0.441	0.579	***5.377***	16.928	89.168
2021-08-10 15:15	4133704	8.038	-90.675	275.706	16.91	752.746	890.309	0.442	0.579	***5.369***	16.91	85.753
2021-08-10 15:30	4134604	8.043	-90.971	275.921	16.895	752.394	890.193	0.442	0.579	***5.378***	16.895	87.399
2021-08-10 15:45	4135504	8.042	-90.911	276.133	16.897	752.191	889.926	0.441	0.578	***5.373***	16.897	79.459
2021-08-10 16:00	4136404	8.041	-90.835	276.729	16.927	752.502	889.689	0.441	0.578	***5.318***	16.927	84.176
2021-08-10 16:15	4137304	8.043	-90.966	277.194	16.962	752.63	889.127	0.441	0.578	***5.377***	16.962	97.885
2021-08-10 16:30	4138204	8.065	-92.251	275.98	16.947	752.749	889.578	0.441	0.578	***5.563***	16.947	98.082
2021-08-10 16:45	4139104	8.082	-93.188	273.019	16.958	752.898	889.529	0.441	0.578	***5.531***	16.958	100.171
2021-08-10 17:00	4140004	8.093	-93.875	271.748	16.956	753.145	889.854	0.441	0.578	***5.581***	16.956	108.261
2021-08-10 17:15	4140904	8.099	-94.199	270.458	16.952	753.14	889.933	0.441	0.578	***5.554***	16.952	79.991
2021-08-10 17:30	4141804	8.078	-92.978	270.11	16.95	753.268	890.133	0.442	0.579	***5.480***	16.95	104.128
2021-08-10 17:45	4142704	8.071	-92.604	270.926	16.947	753.047	889.927	0.441	0.578	***5.437***	16.947	81.106
2021-08-10 18:00	4143604	8.068	-92.411	272.356	16.971	753.232	889.661	0.441	0.578	***5.301***	16.971	83.709
2021-08-10 18:15	4144504	8.066	-92.323	272.073	16.998	753.318	889.221	0.441	0.578	***5.324***	16.998	80.023
2021-08-10 18:30	4145404	8.085	-93.415	270.733	17.004	753.028	888.768	0.441	0.578	***5.643***	17.004	77.282
2021-08-10 18:45	4146304	8.094	-93.939	268.754	17.023	753.953	889.476	0.441	0.578	***5.744***	17.023	80.871
2021-08-10 19:00	4147204	8.098	-94.199	265.378	17.073	754.734	889.39	0.441	0.578	***5.790***	17.073	75.727
2021-08-10 19:15	4148104	8.099	-94.228	266.25	17.106	755.383	889.497	0.441	0.578	***5.896***	17.106	88.186
2021-08-10 19:30	4149004	8.094	-93.949	265.759	17.131	755.855	889.549	0.441	0.578	***5.889***	17.131	80.01
2021-08-10 19:45	4149904	8.091	-93.803	267.335	17.114	755.61	889.595	0.441	0.578	***5.862***	17.114	72.804
2021-08-10 20:00	4150804	8.086	-93.493	268.491	17.088	755.454	889.937	0.441	0.578	***5.776***	17.088	72.553
2021-08-10 20:15	4151704	8.092	-93.801	268.489	17.072	755.813	890.687	0.442	0.579	***5.749***	17.072	81.785
2021-08-10 20:30	4152604	8.094	-93.963	268.835	17.057	755.811	890.981	0.442	0.579	***5.736***	17.057	86.235
2021-08-10 20:45	4153504	8.082	-93.224	268.882	17.056	755.997	891.212	0.442	0.579	***5.627***	17.056	89.726
2021-08-10 21:00	4154404	8.074	-92.807	269.059	17.067	756.164	891.204	0.442	0.579	***5.560***	17.067	88.739
2021-08-10 21:15	4155304	8.074	-92.807	269.15	17.067	756.178	891.21	0.442	0.579	***5.511***	17.067	71.7
2021-08-10 21:30	4156204	8.087	-93.539	268.346	17.062	756.196	891.333	0.442	0.579	***5.455***	17.062	77.344
2021-08-10 21:45	4157104	8.088	-93.598	267.23	17.05	755.802	891.114	0.442	0.579	***5.369***	17.05	82.394
2021-08-10 22:00	4158004	8.084	-93.358	267.347	17.023	755.441	891.22	0.442	0.579	***5.282***	17.023	76.537
2021-08-10 22:15	4158904	8.074	-92.795	268.623	16.991	754.983	891.326	0.442	0.579	***5.099***	16.991	80.289
2021-08-10 22:30	4159804	8.067	-92.382	269.638	16.968	754.687	891.443	0.442	0.579	***4.940***	16.968	83.152
2021-08-10 22:45	4160704	8.057	-91.791	271.4	16.942	754.861	892.174	0.443	0.580	***4.728***	16.942	81.868
2021-08-10 23:00	4161604	8.046	-91.152	273.677	16.923	754.796	892.476	0.443	0.580	***4.612***	16.923	79.376
2021-08-10 23:15	4162504	8.030	-90.213	276.245	16.905	754.524	892.515	0.443	0.580	***4.438***	16.905	76.938
2021-08-10 23:30	4163404	8.009	-88.978	279.359	16.874	754.314	892.893	0.443	0.580	***4.083***	16.874	76.991
2021-08-10 23:45	4164304	7.995	-88.177	282.658	16.826	753.882	893.357	0.443	0.581	***3.603***	16.826	64.866
2021-08-11 00:00	4165204	7.993	-88.043	284.79	16.791	753.495	893.611	0.443	0.581	***3.450***	16.791	65.085
2021-08-11 00:15	4166104	7.990	-87.862	286.85	16.764	753.168	893.766	0.443	0.581	***3.278***	16.764	69.803
2021-08-11 00:30	4167004	7.981	-87.316	288.917	16.74	752.72	893.71	0.443	0.581	***3.117***	16.74	76.295
2021-08-11 00:45	4167904	7.968	-86.613	291.508	16.728	752.56	893.779	0.443	0.581	***2.921***	16.728	78.477
2021-08-11 01:00	4168804	7.953	-85.721	294.451	16.722	752.272	893.557	0.443	0.581	***2.731***	16.722	76.535
2021-08-11 01:15	4169704	7.937	-84.784	297.054	16.717	752.193	893.562	0.443	0.581	***2.626***	16.717	76.35
2021-08-11 01:30	4170604	7.922	-83.93	299.562	16.71	752.005	893.469	0.443	0.581	***2.576***	16.71	67.201
2021-08-11 01:45	4171504	7.915	-83.539	301.388	16.697	751.708	893.381	0.443	0.581	***2.417***	16.697	64.797
2021-08-11 02:00	4172404	7.900	-82.641	303.851	16.677	751.511	893.553	0.443	0.581	***2.135***	16.677	72.549
2021-08-11 02:15	4173304	7.885	-81.782	306.443	16.643	751.439	894.173	0.444	0.581	***1.713***	16.643	79.152
2021-08-11 02:30	4174204	7.878	-81.346	307.518	16.593	751.322	895.052	0.444	0.582	***1.829***	16.593	83.254
2021-08-11 02:45	4175104	7.879	-81.406	307.909	16.546	750.702	895.263	0.444	0.582	***3.768***	16.546	78.763
2021-08-11 03:00	4176004	7.885	-81.737	305.322	16.505	749.834	895.06	0.444	0.582	***4.175***	16.505	80.777
2021-08-11 03:15	4176904	7.935	-84.61	293.065	16.474	749.109	894.831	0.444	0.582	***4.576***	16.474	74.941
2021-08-11 03:30	4177804	7.991	-87.829	284.654	16.448	747.997	894.04	0.443	0.581	***4.673***	16.448	77.202
2021-08-11 03:45	4178704	8.017	-89.297	280.055	16.422	746.976	893.336	0.443	0.581	***4.779***	16.422	75.376
2021-08-11 04:00	4179604	8.025	-89.786	277.897	16.416	746.755	893.193	0.443	0.581	***4.818***	16.416	77.908
2021-08-11 04:15	4180504	8.036	-90.384	278.722	16.395	746.359	893.164	0.443	0.581	***4.824***	16.395	78.854
2021-08-11 04:30	4181404	8.048	-91.066	277.17	16.372	745.921	893.107	0.443	0.581	***4.784***	16.372	75.691
2021-08-11 04:45	4182304	8.052	-91.293	277.938	16.377	746.038	893.131	0.443	0.581	***4.681***	16.377	79.683

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-11 05:00	4183204	8.055	-91.496	278.419	16.344	745.498	893.167	0.443	0.581	***4.660***	16.344	116.213
2021-08-11 05:15	4184104	8.062	-91.853	279.027	16.336	745.363	893.162	0.443	0.581	***4.629***	16.336	110.326
2021-08-11 05:30	4185004	8.053	-91.343	279.125	16.313	745.15	893.372	0.443	0.581	***4.561***	16.313	113.94
2021-08-11 05:45	4185904	8.039	-90.516	279.969	16.3	744.836	893.261	0.443	0.581	***4.374***	16.3	121.725
2021-08-11 06:00	4186804	8.026	-89.781	281.423	16.279	745.007	893.901	0.443	0.581	***4.272***	16.279	127.28
2021-08-11 06:15	4187704	8.013	-89.054	283.717	16.248	744.629	894.087	0.443	0.581	***4.198***	16.248	115.37
2021-08-11 06:30	4188604	7.996	-88.046	286.206	16.209	744.276	894.469	0.443	0.581	***4.129***	16.209	119.087
2021-08-11 06:45	4189504	7.978	-86.997	289.317	16.166	743.861	894.841	0.444	0.582	***4.008***	16.166	118.23
2021-08-11 07:00	4190404	7.964	-86.167	292.045	16.15	743.761	895.058	0.444	0.582	***3.991***	16.15	119.146
2021-08-11 07:15	4191304	7.962	-86.069	293.273	16.129	743.433	895.1	0.444	0.582	***4.010***	16.129	118.042
2021-08-11 07:30	4192204	7.959	-85.883	293.752	16.101	742.952	895.096	0.444	0.582	***4.040***	16.101	120.513
2021-08-11 07:45	4193104	7.956	-85.683	295.171	16.078	742.564	895.09	0.444	0.582	***4.050***	16.078	116.034
2021-08-11 08:00	4194004	7.954	-85.583	295.037	16.061	742.095	894.892	0.444	0.582	***3.950***	16.061	119.374
2021-08-11 08:15	4194904	7.963	-86.093	294.718	16.043	741.615	894.668	0.444	0.582	***4.010***	16.043	100.862
2021-08-11 08:30	4195804	7.971	-86.548	293.332	16.052	741.492	894.344	0.443	0.581	***3.956***	16.052	112.999
2021-08-11 08:45	4196704	7.976	-86.811	293.158	16.036	741.163	894.277	0.443	0.581	***3.987***	16.036	110.723
2021-08-11 09:00	4197604	7.983	-87.214	292.062	16.035	740.846	893.905	0.443	0.581	***4.007***	16.035	107.508
2021-08-11 09:15	4198504	7.983	-87.254	290.912	16.054	740.934	893.635	0.443	0.581	***4.243***	16.054	116.36
2021-08-11 09:30	4199404	7.986	-87.44	289.403	16.073	741.443	893.854	0.443	0.581	***4.408***	16.073	103.492
2021-08-11 09:45	4200304	7.997	-88.062	288.924	16.091	741.005	892.959	0.443	0.580	***4.575***	16.091	109.824
2021-08-11 10:00	4201204	8.006	-88.57	287.801	16.109	740.942	892.515	0.442	0.580	***4.707***	16.109	97.52
2021-08-11 10:15	4202104	8.008	-88.704	286.003	16.121	741.237	892.609	0.443	0.580	***4.690***	16.121	112.807
2021-08-11 10:30	4203004	7.990	-87.69	287.803	16.132	741.935	893.223	0.443	0.581	***4.789***	16.132	100.653
2021-08-11 10:45	4203904	7.979	-87.061	288.814	16.151	741.656	892.499	0.442	0.580	***4.874***	16.151	100.829
2021-08-11 11:00	4204804	7.981	-87.142	288.874	16.18	741.95	892.262	0.442	0.580	***4.979***	16.18	100.467
2021-08-11 11:15	4205704	7.984	-87.328	287.141	16.214	742.298	891.981	0.442	0.580	***5.052***	16.214	105.587
2021-08-11 11:30	4206604	7.994	-87.948	286.835	16.255	742.989	891.976	0.442	0.580	***5.009***	16.255	102.709
2021-08-11 11:45	4207504	8.002	-88.437	281.545	16.314	743.805	891.741	0.442	0.580	***5.136***	16.314	100.531
2021-08-11 12:00	4208404	8.012	-89.033	280.908	16.37	744.857	891.87	0.442	0.580	***5.183***	16.37	100.166
2021-08-11 12:15	4209304	8.017	-89.304	281.483	16.439	746.075	891.914	0.442	0.580	***5.133***	16.439	111.777
2021-08-11 12:30	4210204	8.020	-89.517	281.786	16.525	747.361	891.713	0.442	0.580	***5.168***	16.525	113.321
2021-08-11 12:45	4211104	8.036	-90.492	277.501	16.651	749.89	892.166	0.442	0.580	***5.280***	16.651	101.992
2021-08-11 13:00	4212004	8.042	-90.916	280.529	17.037	757.006	892.794	0.443	0.580	***5.386***	17.037	110.006
2021-08-11 13:15	4212904	8.042	-91.078	279.769	17.538	767.091	894.594	0.444	0.581	***5.295***	17.538	116.202
2021-08-11 13:30	4213804	8.046	-91.445	277.37	17.879	774.736	896.701	0.445	0.583	***5.376***	17.879	113.488
2021-08-11 13:45	4214704	8.051	-91.81	276.979	18.217	782.059	898.462	0.446	0.584	***5.319***	18.217	119.634
2021-08-11 14:00	4215604	8.053	-92.006	274.817	18.488	788.026	899.966	0.447	0.585	***5.222***	18.488	105.372
2021-08-11 14:15	4216504	8.056	-92.239	272.7	18.589	790.762	901.093	0.448	0.586	***5.387***	18.589	99.218
2021-08-11 14:30	4217404	8.036	-91.147	273.005	18.746	793.826	901.522	0.448	0.586	***5.392***	18.746	103.435
2021-08-11 14:45	4218304	8.028	-90.742	275.003	18.931	797.435	901.996	0.448	0.586	***5.392***	18.931	101.813
2021-08-11 15:00	4219204	8.022	-90.358	274.49	18.944	797.866	902.233	0.448	0.586	***5.617***	18.944	102.622
2021-08-11 15:15	4220104	8.020	-90.203	272.158	18.839	797.15	903.459	0.449	0.587	***5.462***	18.839	105.7
2021-08-11 15:30	4221004	8.026	-90.556	268.322	18.79	796.362	903.538	0.449	0.587	***5.267***	18.79	106.433
2021-08-11 15:45	4221904	8.014	-89.865	271.116	18.772	795.569	902.989	0.449	0.587	***5.881***	18.772	97.697
2021-08-11 16:00	4222804	8.040	-91.357	271.236	18.667	792.634	901.701	0.448	0.586	***6.325***	18.667	97.745
2021-08-11 16:15	4223704	8.066	-92.835	266.489	18.602	791.211	901.364	0.448	0.586	***6.156***	18.602	135.57
2021-08-11 16:30	4224604	8.069	-93.002	267.271	18.599	790.837	900.998	0.448	0.586	***6.228***	18.599	120.385
2021-08-11 16:45	4225504	8.050	-91.918	271.488	18.622	790.789	900.488	0.447	0.585	***6.367***	18.622	118.416
2021-08-11 17:00	4226404	8.041	-91.374	272.664	18.644	790.946	900.238	0.447	0.585	***6.464***	18.644	119.326
2021-08-11 17:15	4227304	8.040	-91.288	272.967	18.571	789.162	899.626	0.447	0.585	***6.450***	18.571	118.504
2021-08-11 17:30	4228204	8.049	-91.801	269.595	18.557	788.741	899.43	0.447	0.585	***6.164***	18.557	126.448
2021-08-11 17:45	4229104	8.040	-91.305	273.143	18.648	789.341	898.322	0.446	0.584	***6.031***	18.648	119.226
2021-08-11 18:00	4230004	8.046	-91.679	272.707	18.628	788.984	898.321	0.446	0.584	***6.265***	18.628	122.467
2021-08-11 18:15	4230904	8.061	-92.518	269.259	18.499	787.21	898.817	0.446	0.584	***6.476***	18.499	124.743
2021-08-11 18:30	4231804	8.076	-93.35	265.871	18.446	786.182	898.678	0.446	0.584	***6.185***	18.446	121.295
2021-08-11 18:45	4232704	8.080	-93.575	265.886	18.461	786.128	898.321	0.446	0.584	***6.470***	18.461	118.072

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-11 19:00	4233604	8.072	-93.143	270.778	18.547	787.015	897.656	0.446	0.583	***6.492***	18.547	116.285
2021-08-11 19:15	4234504	8.078	-93.51	273.668	18.612	787.748	897.224	0.446	0.583	***6.408***	18.612	119.816
2021-08-11 19:30	4235404	8.086	-93.985	273.889	18.643	788.576	897.552	0.446	0.583	***6.299***	18.643	117.342
2021-08-11 19:45	4236304	8.077	-93.489	274.667	18.671	789.537	898.102	0.446	0.584	***6.164***	18.671	118.29
2021-08-11 20:00	4237204	8.069	-92.986	275.038	18.666	789.815	898.514	0.446	0.584	***6.025***	18.666	121.431
2021-08-11 20:15	4238104	8.059	-92.416	272.399	18.664	790.052	898.821	0.446	0.584	***5.812***	18.664	121.192
2021-08-11 20:30	4239004	8.051	-91.984	273.083	18.695	790.831	899.104	0.447	0.584	***5.446***	18.695	125.413
2021-08-11 20:45	4239904	8.038	-91.269	276.49	18.745	791.938	899.396	0.447	0.585	***5.086***	18.745	121.938
2021-08-11 21:00	4240804	8.032	-90.921	279.101	18.786	793.068	899.867	0.447	0.585	***4.872***	18.786	115.955
2021-08-11 21:15	4241704	8.026	-90.542	282.22	18.808	794.035	900.537	0.447	0.585	***4.885***	18.808	116.978
2021-08-11 21:30	4242604	8.020	-90.225	284.551	18.821	795.58	902.036	0.448	0.586	***4.851***	18.821	123.102
2021-08-11 21:45	4243504	8.013	-89.8	285.109	18.819	795.09	901.529	0.448	0.586	***4.683***	18.819	119.189
2021-08-11 22:00	4244404	8.006	-89.417	284.637	18.8	795.217	902.04	0.448	0.586	***4.477***	18.8	115.259
2021-08-11 22:15	4245304	8.007	-89.428	284.606	18.761	794.555	902.04	0.448	0.586	***3.984***	18.761	115.263
2021-08-11 22:30	4246204	7.993	-88.639	284.954	18.708	795.307	903.937	0.449	0.588	***3.862***	18.708	108.65
2021-08-11 22:45	4247104	7.997	-88.859	282.465	18.649	795.131	904.897	0.450	0.588	***3.936***	18.649	105.005
2021-08-11 23:00	4248004	8.014	-89.779	283.841	18.588	794.577	905.465	0.450	0.589	***4.070***	18.588	109.344
2021-08-11 23:15	4248904	8.025	-90.418	282.737	18.525	793.608	905.609	0.450	0.589	***4.270***	18.525	109.998
2021-08-11 23:30	4249804	8.032	-90.795	281.473	18.459	792.489	905.638	0.450	0.589	***4.205***	18.459	104.202
2021-08-11 23:45	4250704	8.029	-90.623	281.593	18.393	791.532	905.847	0.450	0.589	***4.148***	18.393	105.144
2021-08-12 00:00	4251604	8.020	-90.086	280.572	18.326	790.332	905.797	0.450	0.589	***4.162***	18.326	112.826
2021-08-12 00:15	4252504	8.019	-89.967	281.063	18.256	788.895	905.544	0.450	0.589	***4.088***	18.256	109.362
2021-08-12 00:30	4253404	8.016	-89.798	282.353	18.185	787.725	905.603	0.450	0.589	***3.981***	18.185	107.778
2021-08-12 00:45	4254304	8.000	-88.863	284.494	18.12	786.661	905.683	0.450	0.589	***3.897***	18.12	107.361
2021-08-12 01:00	4255204	8.004	-89.061	286.254	18.049	785.503	905.76	0.450	0.589	***3.815***	18.049	105.809
2021-08-12 01:15	4256104	8.008	-89.252	286.542	17.97	784.336	905.986	0.450	0.589	***3.738***	17.97	85.888
2021-08-12 01:30	4257004	8.007	-89.214	286.034	17.91	783.411	906.117	0.450	0.589	***3.745***	17.91	84.792
2021-08-12 01:45	4257904	8.006	-89.123	286.432	17.855	782.077	905.67	0.450	0.589	***3.601***	17.855	89.645
2021-08-12 02:00	4258804	8.004	-88.971	287.963	17.798	781.048	905.627	0.450	0.589	***3.459***	17.798	83.681
2021-08-12 02:15	4259704	8.009	-89.273	288.171	17.734	779.771	905.425	0.450	0.589	***3.375***	17.734	88.2
2021-08-12 02:30	4260604	8.015	-89.56	288.094	17.673	778.635	905.331	0.450	0.588	***3.468***	17.673	86.185
2021-08-12 02:45	4261504	8.015	-89.552	288.304	17.611	777.417	905.158	0.449	0.588	***3.502***	17.611	86.439
2021-08-12 03:00	4262404	8.008	-89.138	286.909	17.549	776.303	905.12	0.449	0.588	***3.447***	17.549	85.869
2021-08-12 03:15	4263304	8.015	-89.548	285.915	17.484	775.142	905.07	0.449	0.588	***3.360***	17.484	82.862
2021-08-12 03:30	4264204	8.016	-89.538	285.169	17.425	773.893	904.805	0.449	0.588	***3.359***	17.425	83.188
2021-08-12 03:45	4265104	8.011	-89.252	285.274	17.366	772.727	904.629	0.449	0.588	***3.307***	17.366	87.471
2021-08-12 04:00	4266004	8.002	-88.711	286.108	17.307	770.977	903.784	0.449	0.587	***3.336***	17.307	99.454
2021-08-12 04:15	4266904	8.009	-89.114	284.93	17.247	770.179	904.044	0.449	0.588	***3.394***	17.247	88.756
2021-08-12 04:30	4267804	8.008	-89.002	287.117	17.19	769.137	903.981	0.449	0.588	***3.392***	17.19	85.516
2021-08-12 04:45	4268704	8.000	-88.551	286.778	17.129	767.875	903.731	0.449	0.587	***3.329***	17.129	85.671
2021-08-12 05:00	4269604	7.989	-87.924	286.669	17.069	766.394	903.215	0.448	0.587	***3.384***	17.069	86.226
2021-08-12 05:15	4270504	7.987	-87.764	284.935	17.01	765.293	903.108	0.448	0.587	***3.401***	17.01	86.958
2021-08-12 05:30	4271404	7.990	-87.905	285.448	16.957	764.263	902.977	0.448	0.587	***3.425***	16.957	86.858
2021-08-12 05:45	4272304	7.986	-87.678	287.946	16.906	763.474	903.096	0.448	0.587	***3.306***	16.906	87.924
2021-08-12 06:00	4273204	7.983	-87.495	289.367	16.847	762.297	902.906	0.448	0.587	***3.075***	16.847	87.333
2021-08-12 06:15	4274104	7.975	-87.028	287.718	16.79	761.451	903.059	0.448	0.587	***2.978***	16.79	86.345
2021-08-12 06:30	4275004	7.971	-86.775	289.618	16.733	760.662	903.285	0.448	0.587	***2.917***	16.733	87.566
2021-08-12 06:45	4275904	7.960	-86.086	291.344	16.679	759.602	903.129	0.448	0.587	***2.867***	16.679	87.09
2021-08-12 07:00	4276804	7.951	-85.552	292.433	16.619	758.612	903.184	0.448	0.587	***2.774***	16.619	85.99
2021-08-12 07:15	4277704	7.948	-85.402	292.987	16.565	757.708	903.219	0.448	0.587	***2.690***	16.565	86.277
2021-08-12 07:30	4278604	7.950	-85.516	294.834	16.521	756.715	902.943	0.448	0.587	***2.586***	16.521	85.823
2021-08-12 07:45	4279504	7.934	-84.574	295.817	16.479	755.999	902.954	0.448	0.587	***2.477***	16.479	86.648
2021-08-12 08:00	4280404	7.930	-84.305	297.033	16.437	755.183	902.84	0.448	0.587	***2.528***	16.437	111.76
2021-08-12 08:15	4281304	7.915	-83.432	299.588	16.403	754.483	902.7	0.448	0.587	***2.492***	16.403	96.442
2021-08-12 08:30	4282204	7.913	-83.299	302.092	16.378	753.924	902.563	0.448	0.587	***2.406***	16.378	83.09
2021-08-12 08:45	4283104	7.912	-83.28	305.582	16.357	753.557	902.549	0.448	0.587	***2.363***	16.357	83.404

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-12 09:00	4284004	7.902	-82.672	308.36	16.342	753.273	902.531	0.448	0.587	***2.363***	16.342	84.947
2021-08-12 09:15	4284904	7.900	-82.538	310.36	16.332	753.061	902.47	0.448	0.587	***2.294***	16.332	89.672
2021-08-12 09:30	4285804	7.890	-81.973	312.861	16.328	752.863	902.327	0.448	0.587	***2.248***	16.328	86.326
2021-08-12 09:45	4286704	7.869	-80.8	315.977	16.323	752.805	902.349	0.448	0.587	***2.222***	16.323	88.712
2021-08-12 10:00	4287604	7.868	-80.736	317.451	16.32	752.666	902.249	0.448	0.586	***2.171***	16.32	88.342
2021-08-12 10:15	4288504	7.862	-80.361	319.375	16.299	752.133	902.038	0.447	0.586	***2.174***	16.299	88.452
2021-08-12 10:30	4289404	7.868	-80.726	320.097	16.275	751.106	901.301	0.447	0.586	***2.262***	16.275	89.527
2021-08-12 10:45	4290304	7.879	-81.308	318.967	16.258	750.296	900.693	0.447	0.585	***2.397***	16.258	90.588
2021-08-12 11:00	4291204	7.903	-82.712	312.105	16.276	749.872	899.81	0.446	0.585	***2.678***	16.276	93.292
2021-08-12 11:15	4292104	7.922	-83.828	311.977	16.352	749.837	898.194	0.445	0.584	***2.880***	16.352	93.658
2021-08-12 11:30	4293004	7.922	-83.864	313.596	16.472	751.137	897.302	0.445	0.583	***2.847***	16.472	94.263
2021-08-12 11:45	4293904	7.939	-84.865	308.148	16.628	753.059	896.403	0.445	0.583	***3.348***	16.628	84.932
2021-08-12 12:00	4294804	7.934	-84.71	306.858	17.044	759.494	895.593	0.444	0.582	***3.749***	17.044	84.868
2021-08-12 12:15	4295704	7.969	-86.842	300.225	17.39	765.715	895.932	0.445	0.582	***4.218***	17.39	85.172
2021-08-12 12:30	4296604	7.997	-88.58	296.892	17.802	773.317	896.572	0.445	0.583	***4.474***	17.802	86.457
2021-08-12 12:45	4297504	8.013	-89.679	292.526	18.401	785.768	899.096	0.447	0.584	***4.754***	18.401	86.19
2021-08-12 13:00	4298404	8.042	-91.481	285.181	18.68	792.207	900.967	0.448	0.586	***4.904***	18.68	84.51
2021-08-12 13:15	4299304	8.041	-91.469	285.414	18.886	796.436	901.74	0.448	0.586	***4.873***	18.886	84.902
2021-08-12 13:30	4300204	8.045	-91.741	285.343	19.024	799.526	902.548	0.448	0.587	***4.855***	19.024	85.237
2021-08-12 13:45	4301104	8.027	-90.775	286.394	19.274	804.01	902.733	0.449	0.587	***4.627***	19.274	84.598
2021-08-12 14:00	4302004	8.026	-90.735	284.01	19.355	805.532	902.878	0.449	0.587	***4.930***	19.355	85.026
2021-08-12 14:15	4302904	8.007	-89.622	285.996	19.248	804.235	903.498	0.449	0.587	***5.332***	19.248	85.085
2021-08-12 14:30	4303804	7.991	-88.613	286.406	19.116	803.245	904.945	0.450	0.588	***5.185***	19.116	84.577
2021-08-12 14:45	4304704	7.997	-88.942	281.321	19.041	801.962	904.957	0.450	0.588	***5.171***	19.041	84.063
2021-08-12 15:00	4305604	8.015	-90.024	280.634	19.064	801.068	903.496	0.449	0.587	***5.465***	19.064	83.622
2021-08-12 15:15	4306504	8.031	-91.002	283.281	19.296	803.799	902.077	0.448	0.586	***5.287***	19.296	83.175
2021-08-12 15:30	4307404	8.070	-93.367	280.708	19.607	805.504	898.001	0.446	0.584	***6.154***	19.607	85.796
2021-08-12 15:45	4308304	8.158	-98.712	268.413	20.344	819.733	899.753	0.447	0.585	***6.397***	20.344	83.854
2021-08-12 16:00	4309204	8.134	-97.666	265.18	21.307	839.917	903.661	0.449	0.587	***6.484***	21.307	83.722
2021-08-12 16:15	4310104	8.148	-98.579	259.88	21.683	851.119	908.682	0.452	0.591	***6.305***	21.683	83.203
2021-08-12 16:30	4311004	8.140	-98.164	258.323	21.826	854.904	910.069	0.453	0.592	***6.050***	21.826	83.801
2021-08-12 16:45	4311904	8.122	-97.151	259.892	21.932	857.287	910.659	0.453	0.592	***5.835***	21.932	84.282
2021-08-12 17:00	4312804	8.111	-96.607	263.778	22.192	861.688	910.517	0.453	0.592	***5.629***	22.192	83.069
2021-08-12 17:15	4313704	8.087	-95.277	264.205	22.427	865.729	910.482	0.453	0.592	***5.470***	22.427	84.18
2021-08-12 17:30	4314604	8.061	-93.777	265.585	22.464	866.795	910.921	0.453	0.592	***5.506***	22.464	83.974
2021-08-12 17:45	4315504	8.032	-91.963	264.498	22.261	864.241	911.945	0.454	0.593	***5.893***	22.261	82.707
2021-08-12 18:00	4316404	8.105	-96.164	253.884	22.004	858.788	910.916	0.453	0.592	7.345	22.004	83.61
2021-08-12 18:15	4317304	8.163	-99.521	250.648	21.873	854.308	908.568	0.452	0.591	8.300	21.873	82.651
2021-08-12 18:30	4318204	8.149	-98.753	261.518	22.002	855.428	907.389	0.451	0.590	8.128	22.002	81.705
2021-08-12 18:45	4319104	8.124	-97.308	265.523	22.046	855.795	906.967	0.451	0.590	7.474	22.046	80.665
2021-08-12 19:00	4320004	8.117	-96.908	263.916	22.009	855.516	907.357	0.451	0.590	7.244	22.009	80.623
2021-08-12 19:15	4320904	8.116	-96.769	256.959	21.752	850.211	906.451	0.451	0.589	7.807	21.752	81.433
2021-08-12 19:30	4321804	8.124	-97.172	252.608	21.617	846.41	904.871	0.450	0.588	8.626	21.617	78.66
2021-08-12 19:45	4322704	8.168	-99.692	250.713	21.464	842.267	903.267	0.449	0.587	8.917	21.464	79.805
2021-08-12 20:00	4323604	8.169	-99.692	251.876	21.338	839.13	902.233	0.449	0.586	8.782	21.338	79.355
2021-08-12 20:15	4324504	8.242	-103.822	244.13	20.869	827.334	898.199	0.447	0.584	9.681	20.869	78.858
2021-08-12 20:30	4325404	8.270	-105.495	243.963	20.971	828.575	897.644	0.446	0.583	9.753	20.971	71.967
2021-08-12 20:45	4326304	8.240	-103.812	250.174	21.258	833.754	897.933	0.446	0.584	9.005	21.258	70.883
2021-08-12 21:00	4327204	8.201	-101.633	254.587	21.48	838.677	899.125	0.447	0.584	8.352	21.48	70.932
2021-08-12 21:15	4328104	8.201	-101.609	258.146	21.398	837.719	899.607	0.447	0.585	8.387	21.398	72.376
2021-08-12 21:30	4329004	8.141	-98.066	259.341	21.366	837.941	900.436	0.448	0.585	8.250	21.366	86.398
2021-08-12 21:45	4329904	8.128	-97.349	263.516	21.42	839.562	901.188	0.448	0.586	7.918	21.42	88.118
2021-08-12 22:00	4330804	8.121	-96.917	267.829	21.417	840.279	902.013	0.449	0.586	7.332	21.417	91.885
2021-08-12 22:15	4331704	8.111	-96.354	269.221	21.386	839.948	902.226	0.449	0.586	6.990	21.386	91.795
2021-08-12 22:30	4332604	8.093	-95.22	272.208	21.281	839.027	903.189	0.449	0.587	***6.292***	21.281	114.6
2021-08-12 22:45	4333504	8.112	-96.297	269.123	21.125	835.47	902.247	0.449	0.586	***6.403***	21.125	102.834

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-12 23:00	4334404	8.143	-98.064		266.224	21.02	832.565	901.069	0.448	0.586	6.650	21.02	100.244
2021-08-12 23:15	4335304	8.136	-97.661		265.886	20.921	829.6	899.688	0.447	0.585	6.843	20.921	106.992
2021-08-12 23:30	4336204	8.136	-97.582		267.881	20.774	826.693	899.282	0.447	0.585	6.820	20.774	101.218
2021-08-12 23:45	4337104	8.137	-97.604		269.867	20.681	824.824	898.984	0.447	0.584	***6.427***	20.681	97.86
2021-08-13 00:00	4338004	8.132	-97.311		270.342	20.603	822.903	898.348	0.447	0.584	***6.303***	20.603	100.413
2021-08-13 00:15	4338904	8.113	-96.185		272.69	20.519	821.423	898.307	0.447	0.584	***6.133***	20.519	101.739
2021-08-13 00:30	4339804	8.101	-95.422		275.124	20.446	820.281	898.431	0.447	0.584	***5.776***	20.446	97.421
2021-08-13 00:45	4340704	8.071	-93.682		281.044	20.388	820.302	899.548	0.447	0.585	***5.081***	20.388	98.244
2021-08-13 01:00	4341604	8.045	-92.12		284.268	20.321	821.445	902.062	0.448	0.586	***4.303***	20.321	97.675
2021-08-13 01:15	4342504	8.043	-91.965		286.151	20.22	821.489	904.021	0.449	0.588	***4.238***	20.22	98.531
2021-08-13 01:30	4343404	8.017	-90.449		289.029	20.127	821.284	905.576	0.450	0.589	***4.032***	20.127	101.399
2021-08-13 01:45	4344304	7.985	-88.577		291.735	20.046	820.531	906.284	0.451	0.589	***3.838***	20.046	101.862
2021-08-13 02:00	4345204	7.969	-87.616		293.592	19.956	820.335	907.785	0.451	0.590	***3.840***	19.956	101.09
2021-08-13 02:15	4346104	7.972	-87.736		292.772	19.866	819.8	908.933	0.452	0.591	***3.841***	19.866	101.697
2021-08-13 02:30	4347004	7.987	-88.618		290.378	19.758	818.195	909.236	0.452	0.591	***3.830***	19.758	98.428
2021-08-13 02:45	4347904	7.974	-87.788		289.639	19.68	816.091	908.394	0.452	0.590	***4.008***	19.68	98.281
2021-08-13 03:00	4348804	7.975	-87.826		288.433	19.594	818.909	913.194	0.454	0.594	***4.173***	19.594	101.551
2021-08-13 03:15	4349704	7.961	-87.028		284.549	19.511	813.037	908.266	0.452	0.590	***4.281***	19.511	104.042
2021-08-13 03:30	4350604	7.996	-89.028		281.883	19.426	811.637	908.335	0.452	0.590	***4.225***	19.426	104.338
2021-08-13 03:45	4351504	7.973	-87.664		284.07	19.349	810.275	908.311	0.452	0.590	***3.617***	19.349	166.238
2021-08-13 04:00	4352404	7.971	-87.512		285.586	19.27	808.887	908.292	0.452	0.590	***3.745***	19.27	165.536
2021-08-13 04:15	4353304	7.973	-87.588		283.44	19.182	807.167	908.078	0.451	0.590	***4.004***	19.182	170.203
2021-08-13 04:30	4354204	7.988	-88.437		284.935	19.108	806.359	908.604	0.452	0.591	***4.151***	19.108	167.054
2021-08-13 04:45	4355104	7.970	-87.388		285.784	19.027	804.8	908.444	0.452	0.590	***4.172***	19.027	180.314
2021-08-13 05:00	4356004	7.978	-87.845		284.902	18.952	803.361	908.278	0.451	0.590	***3.952***	18.952	185.121
2021-08-13 05:15	4356904	7.981	-87.996		285.476	18.877	801.368	907.505	0.451	0.590	***3.913***	18.877	182.67
2021-08-13 05:30	4357804	7.990	-88.453		285.96	18.812	800.32	907.597	0.451	0.590	***3.960***	18.812	180.35
2021-08-13 05:45	4358704	7.987	-88.26		284.415	18.743	799.024	907.481	0.451	0.590	***3.946***	18.743	182.272
2021-08-13 06:00	4359604	7.990	-88.415		284.184	18.669	797.747	907.48	0.451	0.590	***3.864***	18.669	173.344
2021-08-13 06:15	4360504	8.007	-89.393		286.335	18.593	796.074	907.084	0.451	0.590	***3.726***	18.593	183.734
2021-08-13 06:30	4361404	8.002	-89.097		285.979	18.516	795.032	907.417	0.451	0.590	***3.849***	18.516	189.185
2021-08-13 06:45	4362304	7.992	-88.48		287.286	18.445	793.461	907.017	0.451	0.590	***3.877***	18.445	188.259
2021-08-13 07:00	4363204	7.968	-87.051		285.438	18.378	791.981	906.65	0.450	0.589	***3.970***	18.378	192.361
2021-08-13 07:15	4364104	7.965	-86.868		284.184	18.319	789.797	905.324	0.450	0.588	***4.197***	18.319	198.384
2021-08-13 07:30	4365004	7.963	-86.753		283.195	18.267	789.232	905.704	0.450	0.589	***4.506***	18.267	196.367
2021-08-13 07:45	4365904	7.963	-86.763		283.784	18.228	788.46	905.585	0.450	0.589	***4.510***	18.228	194.212
2021-08-13 08:00	4366804	7.964	-86.806		284.99	18.187	787.729	905.565	0.450	0.589	***4.230***	18.187	201.267
2021-08-13 08:15	4367704	7.983	-87.893		284.423	18.149	787.047	905.55	0.450	0.589	***3.873***	18.149	204.481
2021-08-13 08:30	4368604	7.978	-87.569		286.888	18.109	786.265	905.437	0.450	0.589	***4.065***	18.109	200.274
2021-08-13 08:45	4369504	7.991	-88.317		288.841	18.07	785.36	905.168	0.450	0.588	***4.043***	18.07	202.143
2021-08-13 09:00	4370404	8.009	-89.319		289.16	18.031	784.694	905.18	0.450	0.588	***4.009***	18.031	205.844
2021-08-13 09:15	4371304	8.009	-89.309		288.218	18.004	783.971	904.884	0.449	0.588	***3.993***	18.004	204.45
2021-08-13 09:30	4372204	8.005	-89.073		290.707	17.976	783.086	904.422	0.449	0.588	***3.796***	17.976	202.843
2021-08-13 09:45	4373104	7.975	-87.366		293.595	17.95	782.785	904.597	0.449	0.588	***3.550***	17.95	201.942
2021-08-13 10:00	4374004	7.972	-87.175		296.446	17.907	782.297	904.88	0.449	0.588	***3.428***	17.907	208.96
2021-08-13 10:15	4374904	7.962	-86.563		302.376	17.817	780.474	904.582	0.449	0.588	***3.422***	17.817	202.984
2021-08-13 10:30	4375804	7.967	-86.792		298.995	17.672	776.788	903.202	0.448	0.587	***3.778***	17.672	211.948
2021-08-13 10:45	4376704	7.998	-88.527		297.905	17.491	770.757	899.813	0.447	0.585	***4.069***	17.491	199.771
2021-08-13 11:00	4377604	8.006	-88.968		295.533	17.392	768.202	898.807	0.446	0.584	***4.235***	17.392	199.64
2021-08-13 11:15	4378504	8.004	-88.818		295.812	17.308	765.624	897.476	0.445	0.583	***4.222***	17.308	222.313
2021-08-13 11:30	4379404	8.003	-88.756		295.604	17.233	763.803	896.853	0.445	0.583	***4.335***	17.233	216.647
2021-08-13 11:45	4380304	8.011	-89.183		288.194	17.195	762.657	896.263	0.445	0.583	***4.306***	17.195	1819.926
2021-08-13 12:00	4381204	8.115	-95.191		283.471	17.236	762.715	895.507	0.444	0.582	***4.982***	17.236	265
2021-08-13 12:15	4382104	8.134	-96.304		281.24	17.301	763.537	895.172	0.444	0.582	***5.338***	17.301	307.49
2021-08-13 12:30	4383004	8.148	-97.151		279.728	17.402	765.617	895.595	0.444	0.582	***5.500***	17.402	267.807
2021-08-13 12:45	4383904	8.162	-97.997		278.97	17.52	767.958	895.958	0.445	0.582	***5.416***	17.52	268.025

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-13 13:00	4384804	8.173	-98.732	275.072	17.693	771.121	896.2	0.445	0.583	***5.823***	17.693	267.275
2021-08-13 13:15	4385704	8.193	-99.914	270.611	17.827	773.487	896.278	0.445	0.583	***6.194***	17.827	285.095
2021-08-13 13:30	4386604	8.210	-100.956	272.869	17.995	776.435	896.367	0.445	0.583	***6.252***	17.995	279.728
2021-08-13 13:45	4387504	8.220	-101.588	271.763	18.111	778.028	895.914	0.445	0.582	***6.476***	18.111	307.127
2021-08-13 14:00	4388404	8.225	-101.85	270.289	18.165	778.749	895.676	0.445	0.582	6.729	18.165	300.885
2021-08-13 14:15	4389304	8.240	-102.751	268.747	18.246	779.693	895.179	0.445	0.582	6.801	18.246	305.996
2021-08-13 14:30	4390204	8.262	-104.072	266.932	18.387	781.529	894.505	0.444	0.581	6.928	18.387	311.296
2021-08-13 14:45	4391104	8.281	-105.236	265.206	18.463	782.082	893.662	0.444	0.581	7.591	18.463	301.688
2021-08-13 15:00	4392004	8.301	-106.385	260.242	18.546	783.007	893.104	0.444	0.581	8.040	18.546	293.557
2021-08-13 15:15	4392904	8.310	-106.885	256.699	18.452	781.268	892.951	0.443	0.580	8.103	18.452	302.746
2021-08-13 15:30	4393804	8.300	-106.297	256.067	18.397	780.682	893.35	0.444	0.581	7.912	18.397	307.687
2021-08-13 15:45	4394704	8.305	-106.58	253.831	18.409	781.151	893.66	0.444	0.581	7.971	18.409	319.178
2021-08-13 16:00	4395604	8.314	-107.121	254.346	18.474	782.588	894.016	0.444	0.581	8.099	18.474	340.946
2021-08-13 16:15	4396504	8.307	-106.781	253.829	18.56	783.92	893.862	0.444	0.581	8.140	18.56	334.736
2021-08-13 16:30	4397404	8.323	-107.741	253.209	18.778	788.186	894.478	0.444	0.581	8.278	18.778	343.491
2021-08-13 16:45	4398304	8.333	-108.38	253.29	18.884	789.913	894.398	0.444	0.581	8.339	18.884	326.776
2021-08-13 17:00	4399204	8.328	-108.147	252.961	18.962	791.46	894.626	0.444	0.582	8.363	18.962	336.376
2021-08-13 17:15	4400104	8.335	-108.578	252.496	19.059	792.98	894.474	0.444	0.581	8.507	19.059	336.455
2021-08-13 17:30	4401004	8.335	-108.609	252.713	19.196	796.896	896.249	0.445	0.583	8.108	19.196	319.589
2021-08-13 17:45	4401904	8.336	-108.721	252.818	19.258	797.401	895.622	0.445	0.582	8.022	19.258	320.59
2021-08-13 18:00	4402804	8.318	-107.694	252.594	19.404	801.562	897.48	0.446	0.583	7.604	19.404	298.158
2021-08-13 18:15	4403704	8.310	-107.298	251.592	19.515	802.542	896.454	0.445	0.583	7.565	19.515	298.189
2021-08-13 18:30	4404604	8.314	-107.539	253.557	19.6	804.205	896.688	0.446	0.583	7.629	19.6	300.567
2021-08-13 18:45	4405504	8.314	-107.555	253.218	19.649	805.637	897.344	0.446	0.583	7.587	19.649	299.776
2021-08-13 19:00	4406404	8.308	-107.203	253.884	19.689	806.765	897.841	0.446	0.584	7.626	19.689	297.925
2021-08-13 19:15	4407304	8.288	-106.068	256.158	19.733	807.854	898.216	0.446	0.584	7.385	19.733	317.434
2021-08-13 19:30	4408204	8.267	-104.847	258.898	19.763	808.774	898.673	0.447	0.584	7.238	19.763	295.997
2021-08-13 19:45	4409104	8.257	-104.325	260.907	19.804	810.036	899.283	0.447	0.585	6.937	19.804	305.246
2021-08-13 20:00	4410004	8.231	-102.818	265.194	19.852	810.919	899.344	0.447	0.585	6.831	19.852	298.36
2021-08-13 20:15	4410904	8.205	-101.29	266.98	19.894	811.944	899.686	0.447	0.585	6.661	19.894	301.151
2021-08-13 20:30	4411804	8.209	-101.554	269.998	19.95	812.821	899.59	0.447	0.585	***6.300***	19.95	301.306
2021-08-13 20:45	4412704	8.213	-101.845	270.983	20.042	814.214	899.391	0.447	0.585	***6.061***	20.042	298.479
2021-08-13 21:00	4413604	8.225	-102.541	270.895	20.156	816.866	900.151	0.447	0.585	***6.148***	20.156	298.864
2021-08-13 21:15	4414504	8.239	-103.424	269.886	20.231	819.023	901.098	0.448	0.586	***6.283***	20.231	311.452
2021-08-13 21:30	4415404	8.247	-103.879	270.899	20.276	820.81	902.212	0.449	0.586	***6.308***	20.276	304.906
2021-08-13 21:45	4416304	8.246	-103.846	275.818	20.303	821.815	902.809	0.449	0.587	***6.093***	20.303	314.976
2021-08-13 22:00	4417204	8.211	-101.788	279.378	20.318	822.328	903.084	0.449	0.587	***5.852***	20.318	315
2021-08-13 22:15	4418104	8.187	-100.417	277.899	20.324	823.097	903.827	0.449	0.587	***5.681***	20.324	315.761
2021-08-13 22:30	4419004	8.187	-100.391	273.536	20.32	819.726	900.192	0.448	0.585	***4.376***	20.32	262.405
2021-08-13 22:45	4419904	8.187	-100.412	275.849	20.305	824.561	905.779	0.450	0.589	***3.861***	20.305	319.553
2021-08-13 23:00	4420804	8.227	-102.735	271.782	20.277	824.602	906.359	0.451	0.589	***4.321***	20.277	310.05
2021-08-13 23:15	4421704	8.254	-104.299	267.671	20.236	823.745	906.2	0.451	0.589	***4.955***	20.236	299.523
2021-08-13 23:30	4422604	8.253	-104.189	265.754	20.19	822.47	905.683	0.450	0.589	***5.649***	20.19	299.408
2021-08-13 23:45	4423504	8.274	-105.405	263.74	20.136	821.29	905.396	0.450	0.589	***5.888***	20.136	287.625
2021-08-14 00:00	4424404	8.266	-104.954	265.342	20.083	820.449	905.484	0.450	0.589	***6.152***	20.083	281.307
2021-08-14 00:15	4425304	8.251	-104.06	264.226	20.032	819.622	905.539	0.450	0.589	***6.325***	20.032	289.484
2021-08-14 00:30	4426204	8.248	-103.838	262.467	19.974	818.41	905.321	0.450	0.588	***6.395***	19.974	244.49
2021-08-14 00:45	4427104	8.268	-104.978	261.255	19.928	817.372	905.047	0.450	0.588	***6.237***	19.928	250.699
2021-08-14 01:00	4428004	8.272	-105.221	259.184	19.885	816.488	904.893	0.450	0.588	***6.175***	19.885	253.615
2021-08-14 01:15	4428904	8.262	-104.594	258.342	19.837	815.501	904.712	0.450	0.588	***6.293***	19.837	278.487
2021-08-14 01:30	4429804	8.269	-104.995	257.734	19.792	814.595	904.57	0.450	0.588	***6.356***	19.792	245.522
2021-08-14 01:45	4430704	8.266	-104.799	259.258	19.749	813.823	904.54	0.450	0.588	***6.314***	19.749	251.402
2021-08-14 02:00	4431604	8.268	-104.921	259.25	19.708	813.255	904.691	0.450	0.588	***6.337***	19.708	251.547
2021-08-14 02:15	4432504	8.249	-103.774	260.118	19.671	812.26	904.312	0.450	0.588	***6.308***	19.671	252.086
2021-08-14 02:30	4433404	8.239	-103.183	260.943	19.634	811.872	904.588	0.450	0.588	***6.342***	19.634	241.751
2021-08-14 02:45	4434304	8.236	-103.014	261.804	19.6	811.455	904.777	0.450	0.588	***6.261***	19.6	250.234

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-14 03:00	4435204	8.230	-102.637	263.063	19.565	810.865	904.796	0.450	0.588	***6.222***	19.565	248.695
2021-08-14 03:15	4436104	8.217	-101.874	264.245	19.531	810.402	904.925	0.450	0.588	***6.126***	19.531	246.766
2021-08-14 03:30	4437004	8.212	-101.588	263.585	19.495	809.823	904.971	0.450	0.588	***5.932***	19.495	246.038
2021-08-14 03:45	4437904	8.219	-101.953	261.184	19.459	808.99	904.739	0.450	0.588	***5.871***	19.459	241.915
2021-08-14 04:00	4438804	8.231	-102.651	264.875	19.392	807.716	904.617	0.450	0.588	***5.752***	19.392	260.019
2021-08-14 04:15	4439704	8.206	-101.185	268.155	19.341	807.229	905.062	0.450	0.588	***5.559***	19.341	263.983
2021-08-14 04:30	4440604	8.192	-100.324	272.371	19.281	806.483	905.378	0.450	0.588	***5.423***	19.281	258.793
2021-08-14 04:45	4441504	8.175	-99.33	276.028	19.245	806.183	905.743	0.450	0.589	***5.331***	19.245	272.99
2021-08-14 05:00	4442404	8.145	-97.556	278.929	19.181	806.162	906.961	0.451	0.590	***5.000***	19.181	248.82
2021-08-14 05:15	4443304	8.082	-93.887	288.042	19.057	805.534	908.683	0.452	0.591	***4.273***	19.057	247.308
2021-08-14 05:30	4444204	8.056	-92.337	287.677	18.914	802.56	908.126	0.451	0.590	***3.848***	18.914	226.189
2021-08-14 05:45	4445104	8.061	-92.602	287.627	18.819	800.529	907.692	0.451	0.590	***3.972***	18.819	292.838
2021-08-14 06:00	4446004	8.057	-92.356	284.303	18.702	797.07	906.057	0.450	0.589	***4.231***	18.702	251.182
2021-08-14 06:15	4446904	8.074	-93.293	286.616	18.609	793.908	904.287	0.449	0.588	***4.749***	18.609	264.937
2021-08-14 06:30	4447804	8.098	-94.662	287.048	18.549	792.191	903.525	0.449	0.587	***5.010***	18.549	262.5
2021-08-14 06:45	4448704	8.102	-94.855	288.836	18.505	791.378	903.451	0.449	0.587	***5.228***	18.505	265.303
2021-08-14 07:00	4449604	8.083	-93.744	288.948	18.468	790.391	903.058	0.449	0.587	***5.157***	18.468	259.897
2021-08-14 07:15	4450504	8.047	-91.658	291.816	18.428	790.031	903.434	0.449	0.587	***5.237***	18.428	259.399
2021-08-14 07:30	4451404	8.042	-91.355	292.596	18.397	789.512	903.459	0.449	0.587	***5.066***	18.397	246.426
2021-08-14 07:45	4452304	8.016	-89.822	296.146	18.357	788.833	903.475	0.449	0.587	***4.961***	18.357	255.438
2021-08-14 08:00	4453204	7.991	-88.372	299.855	18.311	788.563	904.057	0.449	0.588	***4.694***	18.311	258.578
2021-08-14 08:15	4454104	7.982	-87.862	301.129	18.242	787.187	903.856	0.449	0.588	***4.711***	18.242	255.735
2021-08-14 08:30	4455004	7.992	-88.377	302.54	18.173	785.523	903.304	0.449	0.587	***4.793***	18.173	262.35
2021-08-14 08:45	4455904	7.994	-88.501	302.542	18.079	783.712	903.092	0.449	0.587	***4.965***	18.079	256.275
2021-08-14 09:00	4456804	8.021	-90.015	300.244	18.014	782.13	902.563	0.448	0.587	***4.711***	18.014	265.566
2021-08-14 09:15	4457704	8.027	-90.373	298.306	17.975	780.998	902.027	0.448	0.586	***4.997***	17.975	273.47
2021-08-14 09:30	4458604	8.033	-90.711	296.379	17.942	779.906	901.42	0.448	0.586	***5.239***	17.942	262.75
2021-08-14 09:45	4459504	8.046	-91.424	294.622	17.904	778.709	900.802	0.447	0.586	***5.407***	17.904	268.884
2021-08-14 10:00	4460404	8.047	-91.453	292.638	17.847	776.809	899.73	0.447	0.585	***5.443***	17.847	273.875
2021-08-14 10:15	4461304	8.026	-90.227	293.416	17.774	775.68	899.878	0.447	0.585	***5.417***	17.774	265.846
2021-08-14 10:30	4462204	8.050	-91.622	292.751	17.718	774.832	900.009	0.447	0.585	***5.300***	17.718	262.658
2021-08-14 10:45	4463104	8.050	-91.589	292.143	17.662	773.606	899.706	0.447	0.585	***5.262***	17.662	267.141
2021-08-14 11:00	4464004	8.059	-92.118	291.492	17.636	772.778	899.254	0.446	0.585	***5.277***	17.636	275.288
2021-08-14 11:15	4464904	8.042	-91.093	291.899	17.592	771.774	898.971	0.446	0.584	***5.295***	17.592	267.135
2021-08-14 11:30	4465804	8.053	-91.76	291.451	17.572	771.084	898.567	0.446	0.584	***5.302***	17.572	268.538
2021-08-14 11:45	4466704	8.079	-93.222	289.01	17.568	770.322	897.764	0.446	0.584	***5.345***	17.568	268.937
2021-08-14 12:00	4467604	8.101	-94.521	291.43	17.613	770.952	897.603	0.446	0.583	***5.393***	17.613	285.809
2021-08-14 12:15	4468504	8.102	-94.6	288.12	17.624	771.188	897.659	0.446	0.583	***5.475***	17.624	271.459
2021-08-14 12:30	4469404	8.132	-96.326	283.839	17.626	771.263	897.704	0.446	0.584	***5.639***	17.626	281.34
2021-08-14 12:45	4470304	8.129	-96.159	281.953	17.625	771.052	897.481	0.446	0.583	***5.611***	17.625	287.993
2021-08-14 13:00	4471204	8.086	-93.637	282.162	17.575	770.322	897.624	0.446	0.583	***5.430***	17.575	266.985
2021-08-14 13:15	4472104	8.074	-92.907	283.514	17.489	769.847	898.784	0.446	0.584	***4.960***	17.489	259.95
2021-08-14 13:30	4473004	8.047	-91.372	286.978	17.479	768.743	897.706	0.446	0.584	***4.781***	17.479	264.052
2021-08-14 13:45	4473904	8.087	-93.706	285.863	17.583	770.378	897.535	0.446	0.583	***5.030***	17.583	269.167
2021-08-14 14:00	4474804	8.075	-93.019	287.11	17.596	770.948	897.932	0.446	0.584	***5.019***	17.596	264.041
2021-08-14 14:15	4475704	8.085	-93.617	288.914	17.653	771.912	897.92	0.446	0.584	***5.014***	17.653	270.773
2021-08-14 14:30	4476604	8.106	-94.855	287.973	17.713	772.934	897.909	0.446	0.584	***5.295***	17.713	270.564
2021-08-14 14:45	4477504	8.120	-95.696	285.236	17.768	774.226	898.313	0.446	0.584	***5.371***	17.768	293.87
2021-08-14 15:00	4478404	8.114	-95.353	283.045	17.781	774.629	898.521	0.446	0.584	***5.522***	17.781	286.588
2021-08-14 15:15	4479304	8.098	-94.416	282.334	17.781	774.507	898.378	0.446	0.584	***5.556***	17.781	306.101
2021-08-14 15:30	4480204	8.094	-94.175	282.353	17.746	774.234	898.749	0.446	0.584	***5.317***	17.746	299.282
2021-08-14 15:45	4481104	8.091	-93.989	283.417	17.756	774.901	899.329	0.447	0.585	***5.278***	17.756	297.462
2021-08-14 16:00	4482004	8.093	-94.123	283.054	17.765	774.774	899.011	0.446	0.584	***5.238***	17.765	294.16
2021-08-14 16:15	4482904	8.079	-93.307	285.035	17.771	774.525	898.599	0.446	0.584	***5.137***	17.771	294.942
2021-08-14 16:30	4483804	8.091	-93.987	287.949	17.814	776.754	900.33	0.447	0.585	***5.108***	17.814	298.225
2021-08-14 16:45	4484704	8.089	-93.892	286.01	17.828	776.762	900.058	0.447	0.585	***5.222***	17.828	294.519

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-14 17:00	4485604	8.088	-93.861	283.643	17.817	777.712	901.375	0.448	0.586	***5.329***	17.817	290.498
2021-08-14 17:15	4486504	8.082	-93.51	286.23	17.854	777.54	900.44	0.447	0.585	***5.290***	17.854	301.806
2021-08-14 17:30	4487404	8.082	-93.501	288.411	17.883	776.315	898.446	0.446	0.584	***5.271***	17.883	301.918
2021-08-14 17:45	4488304	8.079	-93.358	288.738	17.911	778.209	900.081	0.447	0.585	***5.282***	17.911	296.247
2021-08-14 18:00	4489204	8.076	-93.205	289.775	17.939	779.049	900.49	0.447	0.585	***5.274***	17.939	298.208
2021-08-14 18:15	4490104	8.087	-93.806	289.911	17.959	779.068	900.117	0.447	0.585	***5.435***	17.959	308.632
2021-08-14 18:30	4491004	8.067	-92.702	289.124	17.975	779.315	900.079	0.447	0.585	***5.510***	17.975	300.365
2021-08-14 18:45	4491904	8.076	-93.203	288.905	17.994	779.622	900.072	0.447	0.585	***5.478***	17.994	299.319
2021-08-14 19:00	4492804	8.068	-92.728	289.27	18.01	779.533	899.645	0.447	0.585	***5.502***	18.01	301.083
2021-08-14 19:15	4493704	8.050	-91.689	287.327	18.024	780.451	900.421	0.447	0.585	***5.478***	18.024	299.423
2021-08-14 19:30	4494604	8.055	-92.032	288.027	18.04	780.755	900.453	0.447	0.585	***5.469***	18.04	301.492
2021-08-14 19:45	4495504	8.066	-92.647	288.573	18.055	780.447	899.813	0.447	0.585	***5.435***	18.055	308.817
2021-08-14 20:00	4496404	8.062	-92.418	288.094	18.059	781.295	900.701	0.447	0.585	***5.518***	18.059	302.269
2021-08-14 20:15	4497304	8.071	-92.914	286.709	18.059	781.352	900.772	0.447	0.586	***5.533***	18.059	304.4
2021-08-14 20:30	4498204	8.076	-93.248	284.556	18.057	781.886	901.433	0.448	0.586	***5.466***	18.057	338.828
2021-08-14 20:45	4499104	8.062	-92.44	286.912	18.053	781.867	901.476	0.448	0.586	***5.093***	18.053	316.744
2021-08-14 21:00	4500004	8.043	-91.321	289.611	18.051	781.513	901.113	0.448	0.586	***4.756***	18.051	314.693
2021-08-14 21:15	4500904	8.027	-90.373	289.1	18.05	782.371	902.127	0.448	0.586	***4.613***	18.05	320.657
2021-08-14 21:30	4501804	8.026	-90.363	289.675	18.061	786.33	906.464	0.450	0.589	***4.493***	18.061	334.475
2021-08-14 21:45	4502704	8.026	-90.344	292.894	18.085	783.498	902.721	0.448	0.587	***4.293***	18.085	340.392
2021-08-14 22:00	4503604	8.025	-90.306	297.712	18.142	784.747	903.033	0.449	0.587	***4.229***	18.142	349.926
2021-08-14 22:15	4504504	8.010	-89.478	302.094	18.194	786.032	903.476	0.449	0.587	***3.946***	18.194	352.598
2021-08-14 22:30	4505404	7.998	-88.744	304.233	18.224	786.533	903.464	0.449	0.587	***4.164***	18.224	362.021
2021-08-14 22:45	4506304	7.991	-88.377	303.146	18.246	787.425	904.045	0.449	0.588	***4.447***	18.246	362.382
2021-08-14 23:00	4507204	7.994	-88.551	302.311	18.276	788.065	904.189	0.449	0.588	***4.306***	18.276	344.577
2021-08-14 23:15	4508104	7.995	-88.589	302.747	18.301	788.855	904.602	0.449	0.588	***4.145***	18.301	375.714
2021-08-14 23:30	4509004	8.014	-89.734	300.161	18.316	789.357	904.874	0.450	0.588	***3.988***	18.316	357.64
2021-08-14 23:45	4509904	8.029	-90.613	299.641	18.329	790.036	905.396	0.450	0.589	***3.980***	18.329	364.314
2021-08-15 00:00	4510805	8.025	-90.375	299.41	18.336	790.568	905.862	0.450	0.589	***3.978***	18.336	383.959
2021-08-15 00:15	4511705	8.003	-89.078	302.373	18.34	791.08	906.371	0.450	0.589	***3.937***	18.34	384.341
2021-08-15 00:30	4512605	8.012	-89.61	299.789	18.336	791.482	906.91	0.451	0.589	***4.072***	18.336	381.534
2021-08-15 00:45	4513505	8.019	-90.039	298.279	18.326	791.812	907.486	0.451	0.590	***3.889***	18.326	373.99
2021-08-15 01:00	4514405	8.024	-90.306	294.434	18.31	792.201	908.265	0.451	0.590	***3.708***	18.31	383.337
2021-08-15 01:15	4515305	8.070	-92.94	289.856	18.283	792.094	908.67	0.451	0.591	***4.015***	18.283	377.741
2021-08-15 01:30	4516205	8.094	-94.316	286.981	18.262	791.8	908.758	0.452	0.591	***4.420***	18.262	353.01
2021-08-15 01:45	4517105	8.138	-96.881	290.526	18.24	791.399	908.726	0.452	0.591	***4.634***	18.24	301.574
2021-08-15 02:00	4518005	8.139	-96.905	292.114	18.219	790.963	908.642	0.451	0.591	***4.759***	18.219	300.854
2021-08-15 02:15	4518905	8.136	-96.714	293.48	18.178	789.166	907.406	0.451	0.590	***5.037***	18.178	319.792
2021-08-15 02:30	4519805	8.140	-96.934	289.375	18.168	789.695	908.216	0.451	0.590	***5.461***	18.168	331.538
2021-08-15 02:45	4520705	8.136	-96.736	286.418	18.162	789.967	908.645	0.451	0.591	***5.134***	18.162	318.685
2021-08-15 03:00	4521605	8.138	-96.831	288.914	18.15	790.149	909.099	0.452	0.591	***4.932***	18.15	317.221
2021-08-15 03:15	4522505	8.126	-96.133	287.653	18.132	789.931	909.193	0.452	0.591	***4.705***	18.132	324.34
2021-08-15 03:30	4523405	8.113	-95.403	289.835	18.12	790.195	909.743	0.452	0.591	***4.473***	18.12	332.215
2021-08-15 03:45	4524305	8.096	-94.38	291.284	18.108	789.756	909.468	0.452	0.591	***4.296***	18.108	337.097
2021-08-15 04:00	4525205	8.080	-93.451	292.755	18.095	789.618	909.577	0.452	0.591	***4.104***	18.095	330.885
2021-08-15 04:15	4526105	8.064	-92.561	295.979	18.079	789.347	909.58	0.452	0.591	***3.897***	18.079	333.982
2021-08-15 04:30	4527005	8.053	-91.887	299.462	18.065	790.563	911.265	0.453	0.592	***3.812***	18.065	322.87
2021-08-15 04:45	4527905	8.042	-91.281	302.13	18.05	788.966	909.724	0.452	0.591	***3.805***	18.05	338
2021-08-15 05:00	4528805	8.025	-90.289	304.188	18.038	788.765	909.732	0.452	0.591	***3.701***	18.038	335.916
2021-08-15 05:15	4529705	8.015	-89.681	304.819	18.027	788.684	909.866	0.452	0.591	***3.597***	18.027	350.899
2021-08-15 05:30	4530605	8.012	-89.524	303.525	18.016	788.609	909.992	0.452	0.591	***3.434***	18.016	335.65
2021-08-15 05:45	4531505	8.015	-89.695	304.919	18.004	788.164	909.725	0.452	0.591	***3.380***	18.004	333.074
2021-08-15 06:00	4532405	8.015	-89.676	306.033	17.993	788.352	910.171	0.452	0.592	***3.220***	17.993	334.019
2021-08-15 06:15	4533305	8.016	-89.757	306.886	17.986	788.585	910.565	0.452	0.592	***3.010***	17.986	333.464
2021-08-15 06:30	4534205	8.014	-89.602	307.106	17.976	788.446	910.617	0.452	0.592	***2.783***	17.976	340.235
2021-08-15 06:45	4535105	8.018	-89.853	307.776	17.967	788.353	910.694	0.452	0.592	***2.717***	17.967	330.757

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-15 07:00	4536005	8.029	-90.485	307.208	17.955	788.346	910.912	0.453	0.592	***2.623***	17.955	338.187
2021-08-15 07:15	4536905	8.027	-90.37	306.226	17.94	788.154	911.001	0.453	0.592	***2.429***	17.94	329.019
2021-08-15 07:30	4537805	8.039	-91.016	309.077	17.927	788.108	911.21	0.453	0.592	***2.336***	17.927	330.731
2021-08-15 07:45	4538705	8.060	-92.261	305.971	17.923	788.224	911.419	0.453	0.592	***2.279***	17.923	345.691
2021-08-15 08:00	4539605	8.058	-92.115	308.61	17.919	788.252	911.543	0.453	0.593	***2.311***	17.919	333.525
2021-08-15 08:15	4540505	8.050	-91.693	307.58	17.915	788.119	911.467	0.453	0.592	***2.262***	17.915	332.833
2021-08-15 08:30	4541405	8.035	-90.783	307.614	17.906	788.066	911.572	0.453	0.593	***2.185***	17.906	342.635
2021-08-15 08:45	4542305	8.037	-90.938	311.843	17.902	788.107	911.718	0.453	0.593	***2.167***	17.902	332.853
2021-08-15 09:00	4543205	8.022	-90.036	315.264	17.898	789.033	912.853	0.454	0.593	***2.091***	17.898	332.648
2021-08-15 09:15	4544105	8.015	-89.66	318.099	17.9	788.191	911.847	0.453	0.593	***1.929***	17.9	339.309
2021-08-15 09:30	4545005	8.010	-89.347	320.643	17.903	788.451	912.087	0.453	0.593	***1.762***	17.903	342.16
2021-08-15 09:45	4545905	8.000	-88.811	323.199	17.907	788.37	911.92	0.453	0.593	***1.709***	17.907	335.516
2021-08-15 10:00	4546805	7.999	-88.727	324.682	17.911	788.874	912.412	0.453	0.593	***1.656***	17.911	341.716
2021-08-15 10:15	4547705	7.990	-88.203	325.538	17.915	789.07	912.571	0.453	0.593	***1.619***	17.915	355.961
2021-08-15 10:30	4548605	7.978	-87.507	325.123	17.918	789.285	912.75	0.453	0.593	***1.672***	17.918	349.543
2021-08-15 10:45	4549505	7.967	-86.896	327.519	17.92	789.316	912.736	0.453	0.593	***1.800***	17.92	347.531
2021-08-15 11:00	4550405	7.948	-85.783	329.696	17.924	789.504	912.873	0.454	0.593	***1.598***	17.924	351.577
2021-08-15 11:15	4551305	7.936	-85.075	332.24	17.934	789.709	912.914	0.454	0.593	***1.584***	17.934	345.676
2021-08-15 11:30	4552205	7.940	-85.347	334.526	17.953	789.741	912.575	0.453	0.593	***1.607***	17.953	345.783
2021-08-15 11:45	4553105	7.955	-86.222	336.915	17.98	789.28	911.49	0.453	0.592	***1.495***	17.98	347.574
2021-08-15 12:00	4554005	7.937	-85.192	335.845	18.01	788.903	910.464	0.452	0.592	***1.549***	18.01	343.591
2021-08-15 12:15	4554905	7.924	-84.445	333.143	18.042	789.623	910.646	0.452	0.592	***1.971***	18.042	340.073
2021-08-15 12:30	4555805	7.916	-83.985	331.267	18.079	790.421	910.833	0.453	0.592	***1.943***	18.079	340.575
2021-08-15 12:45	4556705	7.912	-83.74	331.587	18.122	791.247	910.908	0.453	0.592	***2.199***	18.122	342.739
2021-08-15 13:00	4557605	7.920	-84.267	330.256	18.175	791.925	910.63	0.452	0.592	***2.040***	18.175	341.991
2021-08-15 13:15	4558505	7.940	-85.402	330.344	18.226	791.779	909.438	0.452	0.591	***1.944***	18.226	344.842
2021-08-15 13:30	4559405	8.049	-91.705	325.066	18.261	790.779	907.595	0.451	0.590	***4.843***	18.261	347.394
2021-08-15 13:45	4560305	8.172	-98.853	313.393	18.268	789.548	906.039	0.450	0.589	6.629	18.268	351.614
2021-08-15 14:00	4561205	8.202	-100.572	307.151	18.276	788.822	905.054	0.450	0.588	6.869	18.276	346.359
2021-08-15 14:15	4562105	8.261	-103.991	299.567	18.274	788.216	904.397	0.449	0.588	7.207	18.274	345.676
2021-08-15 14:30	4563005	8.305	-106.547	290.416	18.247	788.306	905.047	0.450	0.588	7.281	18.247	340.899
2021-08-15 14:45	4563905	8.307	-106.606	284.024	18.212	785.723	902.77	0.448	0.587	7.121	18.212	344.647
2021-08-15 15:00	4564805	8.278	-104.921	279.604	18.073	784.659	904.312	0.449	0.588	6.648	18.073	359.708
2021-08-15 15:15	4565705	8.161	-98.09	281.929	17.934	780.124	901.83	0.448	0.586	***5.171***	17.934	362.005
2021-08-15 15:30	4566605	8.109	-95.077	283.366	17.891	780.42	903.027	0.448	0.587	***4.689***	17.891	360.596
2021-08-15 15:45	4567505	8.068	-92.688	285.062	17.86	779.181	902.226	0.448	0.586	***4.420***	17.86	360.894
2021-08-15 16:00	4568405	8.048	-91.538	285.081	17.86	778.895	901.891	0.448	0.586	***4.317***	17.86	360.701
2021-08-15 16:15	4569305	8.041	-91.14	284.263	17.832	776.927	900.168	0.447	0.585	***4.281***	17.832	362.051
2021-08-15 16:30	4570205	8.029	-90.458	285.929	17.88	779.15	901.795	0.448	0.586	***4.261***	17.88	362.016
2021-08-15 16:45	4571105	8.012	-89.49	285.338	17.944	780.306	901.843	0.448	0.586	***4.395***	17.944	364.587
2021-08-15 17:00	4572005	8.027	-90.394	285.503	17.976	783.583	905.002	0.450	0.588	***4.473***	17.976	367.202
2021-08-15 17:15	4572905	8.031	-90.642	284.921	18.031	782.939	903.16	0.449	0.587	***4.584***	18.031	371.289
2021-08-15 17:30	4573805	8.059	-92.258	282.487	18.071	783.503	903.021	0.449	0.587	***4.821***	18.071	364.976
2021-08-15 17:45	4574705	8.062	-92.399	280.579	18.095	784.048	903.171	0.449	0.587	***4.963***	18.095	361.821
2021-08-15 18:00	4575605	8.068	-92.773	279.442	18.107	786.362	905.58	0.450	0.589	***4.955***	18.107	382.043
2021-08-15 18:15	4576505	8.053	-91.884	279.015	18.073	784.837	904.502	0.449	0.588	***4.732***	18.073	385.338
2021-08-15 18:30	4577405	8.055	-92.01	277.663	18.091	784.272	903.501	0.449	0.587	***4.768***	18.091	392.44
2021-08-15 18:45	4578305	8.059	-92.239	278.55	18.113	785.824	904.851	0.449	0.588	***4.796***	18.113	393.389
2021-08-15 19:00	4579205	8.046	-91.522	279.568	18.095	785.504	904.831	0.449	0.588	***4.618***	18.095	393.177
2021-08-15 19:15	4580105	8.024	-90.241	281.333	18.05	784.876	905.016	0.450	0.588	***4.375***	18.05	394.685
2021-08-15 19:30	4581005	8.014	-89.638	281.75	18.048	784.854	905.03	0.450	0.588	***4.273***	18.048	392.33
2021-08-15 19:45	4581905	8.011	-89.447	281.988	18.055	785.182	905.273	0.450	0.588	***4.237***	18.055	398.647
2021-08-15 20:00	4582805	8.000	-88.816	283.636	18.048	785.221	905.456	0.450	0.589	***4.124***	18.048	405.656
2021-08-15 20:15	4583705	7.987	-88.058	286.015	18.023	785.119	905.82	0.450	0.589	***3.897***	18.023	410.676
2021-08-15 20:30	4584605	7.975	-87.347	287.419	18.002	784.977	906.082	0.450	0.589	***3.599***	18.002	409.476
2021-08-15 20:45	4585505	7.964	-86.708	289.627	17.982	784.737	906.209	0.450	0.589	***3.443***	17.982	406.663

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-15 21:00	4586405	7.952	-86.045	290.488	17.962	784.586	906.444	0.450	0.589	***3.324***	17.962	408.188
2021-08-15 21:15	4587305	7.942	-85.43	292.276	17.927	784.021	906.479	0.450	0.589	***3.101***	17.927	409.366
2021-08-15 21:30	4588205	7.929	-84.691	294.377	17.897	783.799	906.825	0.450	0.589	***2.889***	17.897	420.652
2021-08-15 21:45	4589105	7.915	-83.845	296.625	17.871	783.497	906.99	0.451	0.590	***2.678***	17.871	416.981
2021-08-15 22:00	4590005	7.916	-83.935	298.303	17.848	783.169	907.087	0.451	0.590	***2.555***	17.848	412.543
2021-08-15 22:15	4590905	7.913	-83.764	299.975	17.823	782.859	907.231	0.451	0.590	***2.394***	17.823	408.886
2021-08-15 22:30	4591805	7.912	-83.683	301.162	17.783	782.187	907.245	0.451	0.590	***2.444***	17.783	405.863
2021-08-15 22:45	4592705	7.906	-83.308	302.078	17.741	781.64	907.459	0.451	0.590	***2.294***	17.741	404.516
2021-08-15 23:00	4593605	7.883	-81.949	304.171	17.653	780.674	908.103	0.451	0.590	***2.106***	17.653	406.638
2021-08-15 23:15	4594505	7.870	-81.205	306.066	17.597	779.654	908.058	0.451	0.590	***2.143***	17.597	413.463
2021-08-15 23:30	4595405	7.884	-81.992	306.216	17.555	778.998	908.133	0.451	0.590	***2.020***	17.555	410.14
2021-08-15 23:45	4596305	7.872	-81.272	306.82	17.519	778.149	907.875	0.451	0.590	***1.868***	17.519	397.098
2021-08-16 00:00	4597205	7.880	-81.728	306.512	17.476	777.281	907.723	0.451	0.590	***1.863***	17.476	400.322
2021-08-16 00:15	4598105	7.879	-81.651	309.714	17.426	776.487	907.806	0.451	0.590	***1.900***	17.426	400.583
2021-08-16 00:30	4599005	7.898	-82.734	308.925	17.418	776.235	907.676	0.451	0.590	***1.926***	17.418	400.525
2021-08-16 00:45	4599905	7.889	-82.259	308.293	17.418	776.868	908.426	0.451	0.590	***1.781***	17.418	402.411
2021-08-16 01:00	4600805	7.876	-81.494	308.901	17.427	776.423	907.717	0.451	0.590	***1.782***	17.427	404.512
2021-08-16 01:15	4601705	7.868	-81.058	310.158	17.449	776.739	907.647	0.451	0.590	***1.923***	17.449	406.001
2021-08-16 01:30	4602605	7.865	-80.891	313.009	17.466	777.305	907.961	0.451	0.590	***2.114***	17.466	407.184
2021-08-16 01:45	4603505	7.857	-80.402	315.551	17.475	777.506	908.008	0.451	0.590	***2.339***	17.475	410.911
2021-08-16 02:00	4604405	7.865	-80.876	319.077	17.474	777.54	908.082	0.451	0.590	***1.884***	17.474	404.625
2021-08-16 02:15	4605305	7.869	-81.074	320.39	17.462	777.368	908.113	0.451	0.590	***1.756***	17.462	410.276
2021-08-16 02:30	4606205	7.851	-80.08	322.133	17.442	777.039	908.128	0.451	0.590	***1.632***	17.442	409.584
2021-08-16 02:45	4607105	7.832	-78.921	320.655	17.401	776.571	908.414	0.451	0.590	***2.070***	17.401	410.51
2021-08-16 03:00	4608005	7.840	-79.422	319.213	17.365	776.34	908.887	0.451	0.591	***1.838***	17.365	409.739
2021-08-16 03:15	4608905	7.834	-79.062	320.109	17.327	775.713	908.927	0.451	0.591	***1.660***	17.327	411.946
2021-08-16 03:30	4609805	7.844	-79.601	321.18	17.285	775.067	909.009	0.451	0.591	***1.863***	17.285	414.947
2021-08-16 03:45	4610705	7.865	-80.831	321.573	17.252	774.899	909.485	0.452	0.591	***1.931***	17.252	414.832
2021-08-16 04:00	4611605	7.873	-81.267	320.865	17.22	773.74	908.789	0.451	0.591	***1.901***	17.22	417.267
2021-08-16 04:15	4612505	7.891	-82.283	317.813	17.181	773.73	909.567	0.452	0.591	***2.169***	17.181	419.583
2021-08-16 04:30	4613405	7.901	-82.879	316.423	17.152	773.371	909.747	0.452	0.591	***2.358***	17.152	414.502
2021-08-16 04:45	4614305	7.897	-82.586	321.721	17.124	772.909	909.765	0.452	0.591	***2.311***	17.124	414.493
2021-08-16 05:00	4615205	7.921	-83.961	319.616	17.087	772.419	909.946	0.452	0.591	***2.652***	17.087	425.788
2021-08-16 05:15	4616105	7.941	-85.135	314.44	17.047	771.506	909.7	0.452	0.591	***2.525***	17.047	427.288
2021-08-16 05:30	4617005	7.944	-85.299	313.066	17.005	770.591	909.464	0.452	0.591	***2.178***	17.005	425.438
2021-08-16 05:45	4617905	7.940	-85.037	313.235	16.972	770.455	909.978	0.452	0.591	***2.122***	16.972	422.536
2021-08-16 06:00	4618805	7.930	-84.441	313.314	16.941	769.435	909.423	0.451	0.591	***1.845***	16.941	400.077
2021-08-16 06:15	4619705	7.922	-83.992	315.145	16.896	768.922	909.735	0.452	0.591	***1.964***	16.896	403.083
2021-08-16 06:30	4620605	7.912	-83.37	316.43	16.843	768.136	909.888	0.452	0.591	***1.923***	16.843	398.858
2021-08-16 06:45	4621505	7.904	-82.905	317.899	16.793	766.823	909.37	0.451	0.591	***2.295***	16.793	399.369
2021-08-16 07:00	4622405	7.893	-82.307	321.945	16.756	766.556	909.814	0.452	0.591	***2.146***	16.756	402.669
2021-08-16 07:15	4623305	7.894	-82.331	321.981	16.738	766.191	909.752	0.452	0.591	***2.016***	16.738	401.373
2021-08-16 07:30	4624205	7.948	-85.404	322.133	16.702	765.375	909.534	0.451	0.591	***2.360***	16.702	402.261
2021-08-16 07:45	4625105	7.988	-87.707	318.147	16.669	764.446	909.115	0.451	0.591	***2.303***	16.669	403.711
2021-08-16 08:00	4626005	8.001	-88.48	316.285	16.646	763.664	908.656	0.451	0.591	***2.452***	16.646	401.785
2021-08-16 08:15	4626905	7.991	-87.864	313.598	16.629	763.319	908.581	0.451	0.591	***2.520***	16.629	401.785
2021-08-16 08:30	4627805	7.999	-88.336	310.944	16.621	763.346	908.795	0.451	0.591	***2.470***	16.621	398.646
2021-08-16 08:45	4628705	8.001	-88.463	310.596	16.614	763.128	908.667	0.451	0.591	***2.566***	16.614	406.388
2021-08-16 09:00	4629605	8.024	-89.765	308.808	16.607	762.389	907.928	0.451	0.590	***2.433***	16.607	402.981
2021-08-16 09:15	4630505	8.030	-90.082	306.653	16.596	762.817	908.683	0.451	0.591	***2.281***	16.596	402.072
2021-08-16 09:30	4631405	8.025	-89.819	306.927	16.58	762.52	908.645	0.451	0.591	***2.540***	16.58	402.249
2021-08-16 09:45	4632305	8.031	-90.177	306.212	16.554	761.87	908.424	0.451	0.590	***3.150***	16.554	404.361
2021-08-16 10:00	4633205	8.047	-91.043	305.561	16.53	761.232	908.143	0.451	0.590	***3.173***	16.53	404.895
2021-08-16 10:15	4634105	8.057	-91.646	304.185	16.511	760.764	907.995	0.451	0.590	***3.416***	16.511	406.187
2021-08-16 10:30	4635005	8.053	-91.419	304.636	16.509	759.79	906.858	0.450	0.589	***3.630***	16.509	405.424
2021-08-16 10:45	4635905	8.051	-91.312	303.618	16.509	760.256	907.415	0.450	0.590	***3.764***	16.509	403.771

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-16 11:00	4636805	8.052	-91.355	301.808	16.501	760.255	907.577	0.450	0.590	***3.782***	16.501	401.874
2021-08-16 11:15	4637705	8.064	-92.025	301.584	16.492	760.078	907.551	0.450	0.590	***3.915***	16.492	403.951
2021-08-16 11:30	4638605	8.063	-91.996	300.513	16.478	759.642	907.32	0.450	0.590	***4.063***	16.478	406.304
2021-08-16 11:45	4639505	8.079	-92.881	299.073	16.441	758.833	907.136	0.450	0.590	***4.147***	16.441	406.307
2021-08-16 12:00	4640405	8.069	-92.328	297.364	16.469	759.176	906.961	0.450	0.590	***4.122***	16.469	408.569
2021-08-16 12:15	4641305	8.069	-92.599	293.616	17.363	777.221	909.954	0.452	0.591	***4.965***	17.363	408.273
2021-08-16 12:30	4642205	8.104	-94.688	289.036	17.583	782.093	911.174	0.453	0.592	***5.246***	17.583	403.688
2021-08-16 12:45	4643105	8.110	-95.093	287.002	17.693	784.463	911.713	0.453	0.593	***5.419***	17.693	405.23
2021-08-16 13:00	4644005	8.111	-95.198	284.342	17.95	789.153	911.957	0.453	0.593	***5.728***	17.95	405.881
2021-08-16 13:15	4644905	8.126	-96.109	278.422	18.106	791.805	911.885	0.453	0.593	***6.041***	18.106	404.728
2021-08-16 13:30	4645805	8.151	-97.632	277.83	18.236	793.639	911.384	0.453	0.592	6.512	18.236	406.664
2021-08-16 13:45	4646705	8.148	-97.47	275.508	18.395	796.205	911.154	0.453	0.592	6.740	18.395	403.511
2021-08-16 14:00	4647605	8.164	-98.488	270.737	18.533	799.014	911.623	0.453	0.593	6.768	18.533	404.496
2021-08-16 14:15	4648505	8.158	-98.143	271.221	18.676	801.766	911.919	0.453	0.593	6.642	18.676	404.97
2021-08-16 14:30	4649405	8.171	-98.953	272.39	18.818	804.425	912.117	0.453	0.593	6.748	18.818	405.838
2021-08-16 14:45	4650305	8.196	-100.455	270.799	19.002	807.137	911.568	0.453	0.593	7.194	19.002	406.341
2021-08-16 15:00	4651205	8.246	-103.388	268.067	19.069	807.845	911.05	0.453	0.592	7.558	19.069	406.668
2021-08-16 15:15	4652105	8.248	-103.5	265.254	19.093	808.619	911.454	0.453	0.592	7.437	19.093	406.621
2021-08-16 15:30	4653005	8.260	-104.244	263.871	19.079	808.879	912.014	0.453	0.593	7.274	19.079	404.506
2021-08-16 15:45	4653905	8.247	-103.469	262.87	19.099	809.046	911.821	0.453	0.593	7.224	19.099	406.016
2021-08-16 16:00	4654805	8.273	-104.978	261.677	19.075	808.771	911.979	0.453	0.593	7.160	19.075	406.384
2021-08-16 16:15	4655705	8.271	-104.842	260.082	19.075	808.87	912.083	0.453	0.593	7.326	19.075	405.761
2021-08-16 16:30	4656605	8.257	-104.07	259.513	19.133	809.516	911.678	0.453	0.593	7.795	19.133	405.38
2021-08-16 16:45	4657505	8.267	-104.644	260.19	19.203	810.512	911.431	0.453	0.592	8.010	19.203	405.26
2021-08-16 17:00	4658405	8.284	-105.681	257.546	19.261	811.713	911.644	0.453	0.593	7.958	19.261	402.922
2021-08-16 17:15	4659305	8.276	-105.257	258.938	19.33	812.911	911.645	0.453	0.593	8.076	19.33	404.124
2021-08-16 17:30	4660205	8.281	-105.553	257.693	19.375	814.057	912.037	0.453	0.593	8.035	19.375	405.1
2021-08-16 17:45	4661105	8.304	-106.874	255.393	19.394	814.68	912.37	0.454	0.593	7.927	19.394	405.215
2021-08-16 18:00	4662005	8.305	-106.952	253.733	19.414	815.211	912.574	0.454	0.593	7.864	19.414	407.251
2021-08-16 18:15	4662905	8.292	-106.218	256.182	19.467	815.946	912.356	0.454	0.593	7.974	19.467	406.333
2021-08-16 18:30	4663805	8.316	-107.61	253.097	19.451	815.637	912.339	0.454	0.593	7.790	19.451	407.384
2021-08-16 18:45	4664705	8.324	-108.094	250.2	19.452	815.514	912.184	0.454	0.593	8.110	19.452	405.788
2021-08-16 19:00	4665605	8.326	-108.192	250.822	19.439	815.215	912.099	0.454	0.593	7.722	19.439	406.704
2021-08-16 19:15	4666505	8.326	-108.132	251.716	19.381	814.31	912.214	0.454	0.593	7.550	19.381	407.314
2021-08-16 19:30	4667405	8.317	-107.608	252.3	19.341	816.348	915.279	0.455	0.595	7.308	19.341	407.984
2021-08-16 19:45	4668305	8.300	-106.633	250.269	19.305	813.36	912.622	0.454	0.593	7.113	19.305	405.912
2021-08-16 20:00	4669205	8.288	-105.91	249.532	19.245	812.44	912.779	0.454	0.593	6.865	19.245	406.46
2021-08-16 20:15	4670105	8.290	-105.979	247.966	19.17	811.231	912.893	0.454	0.593	6.692	19.17	406.037
2021-08-16 20:30	4671005	8.267	-104.637	249.339	19.093	810.085	913.097	0.454	0.594	***6.376***	19.093	407.096
2021-08-16 20:45	4671905	8.257	-104.041	249.716	19.016	808.768	913.142	0.454	0.594	***5.949***	19.016	408.505
2021-08-16 21:00	4672805	8.255	-103.874	251.344	18.947	807.659	913.232	0.454	0.594	***5.997***	18.947	410.004
2021-08-16 21:15	4673705	8.251	-103.638	252.331	18.884	806.75	913.465	0.454	0.594	***5.423***	18.884	406.962
2021-08-16 21:30	4674605	8.236	-102.742	255.376	18.811	805.874	913.909	0.454	0.594	***5.441***	18.811	406.33
2021-08-16 21:45	4675505	8.220	-101.795	256.721	18.753	804.85	913.895	0.454	0.594	***5.591***	18.753	408.255
2021-08-16 22:00	4676405	8.211	-101.271	259.341	18.692	804.259	914.438	0.455	0.594	***5.656***	18.692	409.588
2021-08-16 22:15	4677305	8.199	-100.536	261.301	18.641	803.869	915.006	0.455	0.595	***5.688***	18.641	412.703
2021-08-16 22:30	4678205	8.187	-99.792	264.26	18.59	803.367	915.455	0.455	0.595	***5.488***	18.59	414.171
2021-08-16 22:45	4679105	8.173	-98.968	266.305	18.524	802.644	915.944	0.455	0.595	***5.290***	18.524	412.794
2021-08-16 23:00	4680005	8.174	-99.03	268.136	18.471	801.847	916.08	0.455	0.595	***5.200***	18.471	375.844
2021-08-16 23:15	4680905	8.161	-98.245	268.88	18.421	800.752	915.834	0.455	0.595	***5.149***	18.421	365.984
2021-08-16 23:30	4681805	8.150	-97.609	271.589	18.359	798.28	914.252	0.454	0.594	***5.044***	18.359	345.023
2021-08-16 23:45	4682705	8.143	-97.182	275.234	18.294	799.328	916.752	0.456	0.596	***4.933***	18.294	345.09
2021-08-17 00:00	4683605	8.135	-96.705	276.71	18.239	798.537	916.948	0.456	0.596	***4.991***	18.239	346.52
2021-08-17 00:15	4684505	8.130	-96.39	280.77	18.184	797.638	917.014	0.456	0.596	***4.953***	18.184	344.054
2021-08-17 00:30	4685405	8.114	-95.465	284.749	18.127	796.635	917.023	0.456	0.596	***4.851***	18.127	341.061
2021-08-17 00:45	4686305	8.108	-95.096	287.522	18.068	794.237	915.439	0.455	0.595	***4.822***	18.068	340.148

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-17 01:00	4687205	8.098	-94.502	288.085	18.013	795.946	918.523	0.457	0.597	***4.690***	18.013	340.939
2021-08-17 01:15	4688105	8.092	-94.12	289.169	17.959	793.197	916.448	0.455	0.596	***4.672***	17.959	340.04
2021-08-17 01:30	4689005	8.091	-94.02	289.708	17.907	791.066	915.031	0.455	0.595	***4.637***	17.907	341.049
2021-08-17 01:45	4689905	8.086	-93.751	289.87	17.845	791.254	916.496	0.455	0.596	***4.515***	17.845	342.508
2021-08-17 02:00	4690805	8.076	-93.114	290.781	17.781	790.089	916.449	0.455	0.596	***4.462***	17.781	342.772
2021-08-17 02:15	4691705	8.077	-93.16	291.215	17.717	789.221	916.74	0.455	0.596	***4.453***	17.717	342.921
2021-08-17 02:30	4692605	8.070	-92.735	291.191	17.652	788.382	917.095	0.456	0.596	***4.377***	17.652	341.572
2021-08-17 02:45	4693505	8.067	-92.556	291.399	17.586	787.057	916.895	0.456	0.596	***4.206***	17.586	345.985
2021-08-17 03:00	4694405	8.061	-92.185	291.585	17.519	785.866	916.875	0.456	0.596	***4.053***	17.519	346.022
2021-08-17 03:15	4695305	8.052	-91.619	294.241	17.459	784.825	916.894	0.455	0.596	***3.966***	17.459	344.307
2021-08-17 03:30	4696205	8.038	-90.842	296.892	17.404	783.611	916.604	0.455	0.596	***3.854***	17.404	344.287
2021-08-17 03:45	4697105	8.033	-90.539	298.778	17.341	782.946	917.101	0.456	0.596	***3.845***	17.341	343.994
2021-08-17 04:00	4698005	8.039	-90.845	299.777	17.282	781.844	917.029	0.456	0.596	***3.920***	17.282	345.545
2021-08-17 04:15	4698905	8.044	-91.085	300.151	17.23	781.036	917.138	0.456	0.596	***4.031***	17.23	346.437
2021-08-17 04:30	4699805	8.043	-91.062	301.095	17.189	780.157	916.961	0.455	0.596	***4.027***	17.189	346.57
2021-08-17 04:45	4700705	8.036	-90.647	300.878	17.152	779.346	916.774	0.455	0.596	***3.861***	17.152	348.941
2021-08-17 05:00	4701605	8.028	-90.144	301.906	17.115	778.536	916.567	0.455	0.596	***3.589***	17.115	352.865
2021-08-17 05:15	4702505	8.020	-89.71	303.165	17.075	777.892	916.642	0.455	0.596	***3.379***	17.075	353.351
2021-08-17 05:30	4703405	8.019	-89.641	303.742	17.031	777.225	916.762	0.455	0.596	***3.349***	17.031	350.765
2021-08-17 05:45	4704305	8.017	-89.49	304.698	16.994	776.61	916.792	0.455	0.596	***3.338***	16.994	350.803
2021-08-17 06:00	4705205	8.014	-89.319	304.507	16.957	776.149	917.02	0.455	0.596	***3.339***	16.957	349.443
2021-08-17 06:15	4706105	8.015	-89.345	304.54	16.926	775.675	917.1	0.455	0.596	***3.398***	16.926	346.537
2021-08-17 06:30	4707005	8.014	-89.283	305.58	16.886	774.941	917.072	0.455	0.596	***3.405***	16.886	345.872
2021-08-17 06:45	4707905	8.009	-89.004	306.474	16.844	774.14	916.988	0.455	0.596	***3.455***	16.844	345.491
2021-08-17 07:00	4708805	8.016	-89.381	305.234	16.807	773.439	916.934	0.455	0.596	***3.357***	16.807	346.093
2021-08-17 07:15	4709705	8.023	-89.774	305.883	16.776	772.902	916.931	0.455	0.596	***3.188***	16.776	348.653
2021-08-17 07:30	4710605	8.026	-89.92	306.026	16.741	772.149	916.756	0.455	0.596	***3.123***	16.741	349.522
2021-08-17 07:45	4711505	8.016	-89.335	306.841	16.708	771.346	916.491	0.455	0.596	***3.193***	16.708	352.195
2021-08-17 08:00	4712405	8.016	-89.321	306.109	16.679	770.749	916.383	0.455	0.596	***3.334***	16.679	355.344
2021-08-17 08:15	4713305	8.014	-89.19	306.612	16.654	770.182	916.235	0.455	0.596	***3.136***	16.654	355.875
2021-08-17 08:30	4714205	8.006	-88.716	307.327	16.632	769.655	916.074	0.455	0.595	***2.970***	16.632	356.57
2021-08-17 08:45	4715105	7.995	-88.108	308.281	16.611	769.368	916.161	0.455	0.596	***2.780***	16.611	355.856
2021-08-17 09:00	4716005	7.991	-87.895	307.566	16.594	769.096	916.201	0.455	0.596	***2.896***	16.594	356.2
2021-08-17 09:15	4716905	7.993	-87.979	308.551	16.578	768.874	916.261	0.455	0.596	***2.804***	16.578	357.096
2021-08-17 09:30	4717805	7.993	-87.953	311.331	16.565	768.688	916.322	0.455	0.596	***2.759***	16.565	356.633
2021-08-17 09:45	4718705	7.998	-88.236	313.41	16.553	768.53	916.37	0.455	0.596	***2.739***	16.553	354.634
2021-08-17 10:00	4719605	7.981	-87.283	314.437	16.551	768.361	916.218	0.455	0.596	***2.545***	16.551	356.088
2021-08-17 10:15	4720505	7.967	-86.489	315.176	16.548	768.385	916.301	0.455	0.596	***2.288***	16.548	357.556
2021-08-17 10:30	4721405	7.962	-86.212	314.261	16.547	768.425	916.373	0.455	0.596	***2.395***	16.547	357.664
2021-08-17 10:45	4722305	7.950	-85.499	315.016	16.549	768.41	916.311	0.455	0.596	***2.221***	16.549	356.403
2021-08-17 11:00	4723205	7.932	-84.467	317.017	16.558	768.509	916.253	0.455	0.596	***2.350***	16.558	355.095
2021-08-17 11:15	4724105	7.912	-83.32	320.126	16.582	768.621	915.874	0.455	0.595	***2.632***	16.582	355.639
2021-08-17 11:30	4725005	7.898	-82.526	320.066	16.64	769.137	915.28	0.454	0.595	***2.823***	16.64	357.3
2021-08-17 11:45	4725905	7.898	-82.55	317.413	16.719	769.614	914.206	0.454	0.594	***2.760***	16.719	357.459
2021-08-17 12:00	4726805	7.915	-83.537	314.883	16.798	770.648	913.795	0.454	0.594	***2.879***	16.798	358.658
2021-08-17 12:15	4727705	7.914	-83.528	314.215	16.864	772.008	914.051	0.454	0.594	***2.594***	16.864	360.774
2021-08-17 12:30	4728605	7.933	-84.655	317.043	17.074	775.172	913.461	0.454	0.594	***2.805***	17.074	359.021
2021-08-17 12:45	4729505	7.968	-86.753	313.834	17.266	776.7	911.324	0.453	0.592	***4.245***	17.266	363.227
2021-08-17 13:00	4730405	7.979	-87.397	308.369	17.314	777.563	911.349	0.453	0.592	***4.818***	17.314	358.9
2021-08-17 13:15	4731305	7.982	-87.581	309.535	17.364	778.644	911.592	0.453	0.593	***4.668***	17.364	360.951
2021-08-17 13:30	4732205	7.976	-87.271	309.74	17.406	779.81	912.103	0.453	0.593	***4.367***	17.406	360.075
2021-08-17 13:45	4733105	7.963	-86.515	311.207	17.527	782.151	912.369	0.453	0.593	***4.189***	17.527	378.116
2021-08-17 14:00	4734005	7.963	-86.56	312.823	17.659	784.621	912.566	0.453	0.593	***4.186***	17.659	359.959
2021-08-17 14:15	4734905	7.949	-85.769	311.917	17.715	785.905	912.94	0.454	0.593	***4.277***	17.715	362.993
2021-08-17 14:30	4735805	7.931	-84.767	310.806	17.77	787.09	913.199	0.454	0.594	***4.208***	17.77	362.728
2021-08-17 14:45	4736705	7.936	-85.053	310.453	17.792	787.644	913.397	0.454	0.594	***4.495***	17.792	360.565

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-17 15:00	4737605	7.976	-87.345	311.218	17.784	787.308	913.156	0.454	0.594	***4.860***	17.784	361.29
2021-08-17 15:15	4738505	8.032	-90.585	303.687	17.776	786.159	912.004	0.453	0.593	***5.560***	17.776	361.696
2021-08-17 15:30	4739405	8.101	-94.607	298.413	17.797	785.991	911.373	0.453	0.592	***6.117***	17.797	361.337
2021-08-17 15:45	4740305	8.077	-93.215	300.411	17.885	786.572	910.272	0.452	0.592	***5.623***	17.885	360.988
2021-08-17 16:00	4741205	8.146	-97.189	296.68	17.894	786.81	910.368	0.452	0.592	***6.223***	17.894	360.477
2021-08-17 16:15	4742105	8.182	-99.287	293.48	17.883	786.411	910.122	0.452	0.592	***6.353***	17.883	359.83
2021-08-17 16:30	4743005	8.229	-101.988	280.448	17.847	784.43	908.564	0.451	0.591	7.429	17.847	359.674
2021-08-17 16:45	4743905	8.257	-103.588	273.281	17.835	783.388	907.603	0.451	0.590	7.900	17.835	359.673
2021-08-17 17:00	4744805	8.269	-104.313	269.474	17.86	783.731	907.487	0.451	0.590	8.279	17.86	361.008
2021-08-17 17:15	4745705	8.273	-104.551	268.308	17.842	783.421	907.483	0.451	0.590	8.380	17.842	359.645
2021-08-17 17:30	4746605	8.280	-104.954	265.514	17.827	783.008	907.304	0.451	0.590	8.565	17.827	359.693
2021-08-17 17:45	4747505	8.271	-104.399	265.266	17.826	782.913	907.224	0.451	0.590	8.589	17.826	359.179
2021-08-17 18:00	4748405	8.281	-104.99	266.689	17.807	783.228	907.976	0.451	0.590	8.302	17.807	362.767
2021-08-17 18:15	4749305	8.271	-104.384	267.822	17.798	783.244	908.165	0.451	0.590	8.246	17.798	359.524
2021-08-17 18:30	4750205	8.272	-104.458	265.187	17.807	783.544	908.334	0.451	0.590	8.088	17.807	364.969
2021-08-17 18:45	4751105	8.282	-105.052	264.863	17.81	783.911	908.709	0.451	0.591	7.963	17.81	383.287
2021-08-17 19:00	4752005	8.282	-105.042	264.708	17.802	783.438	908.323	0.451	0.590	7.957	17.802	365.071
2021-08-17 19:15	4752905	8.286	-105.271	264.758	17.798	783.311	908.243	0.451	0.590	8.001	17.798	364.355
2021-08-17 19:30	4753805	8.293	-105.703	265.173	17.831	784.056	908.446	0.451	0.590	7.752	17.831	364.334
2021-08-17 19:45	4754705	8.286	-105.319	269.064	17.878	784.856	908.423	0.451	0.590	7.116	17.878	363.464
2021-08-17 20:00	4755605	8.269	-104.322	275.563	17.941	786	908.493	0.451	0.591	7.037	17.941	364.15
2021-08-17 20:15	4756505	8.240	-102.711	278.963	18.023	787.265	908.303	0.451	0.590	6.900	18.023	367.269
2021-08-17 20:30	4757405	8.231	-102.16	280.348	18.083	788.049	908.016	0.451	0.590	6.863	18.083	366.798
2021-08-17 20:45	4758305	8.251	-103.333	280.71	18.107	789.232	908.891	0.452	0.591	6.677	18.107	370.042
2021-08-17 21:00	4759205	8.228	-102.005	280.298	18.115	789.55	909.092	0.452	0.591	6.528	18.115	368.681
2021-08-17 21:15	4760105	8.217	-101.407	280.288	18.107	789.786	909.529	0.452	0.591	***6.479***	18.107	368.833
2021-08-17 21:30	4761005	8.196	-100.164	279.921	18.088	789.779	909.895	0.452	0.591	***6.441***	18.088	370.462
2021-08-17 21:45	4761905	8.196	-100.131	279.938	18.056	790.101	910.906	0.453	0.592	***5.712***	18.056	369.493
2021-08-17 22:00	4762805	8.195	-100.102	279.006	18.017	790.171	911.782	0.453	0.593	***5.272***	18.017	368.645
2021-08-17 22:15	4763705	8.202	-100.446	278.133	17.957	789.79	912.543	0.453	0.593	***5.303***	17.957	418.317
2021-08-17 22:30	4764605	8.193	-99.957	278.805	17.898	788.664	912.425	0.453	0.593	***5.311***	17.898	366.211
2021-08-17 22:45	4765505	8.187	-99.535	280.172	17.833	787.879	912.843	0.454	0.593	***5.250***	17.833	364.353
2021-08-17 23:00	4766405	8.176	-98.922	280.191	17.765	786.966	913.147	0.454	0.594	***5.322***	17.765	364.993
2021-08-17 23:15	4767305	8.164	-98.207	281.802	17.702	785.859	913.134	0.454	0.594	***5.368***	17.702	361.783
2021-08-17 23:30	4768205	8.156	-97.699	283.569	17.642	784.778	913.106	0.454	0.594	***5.374***	17.642	365.904
2021-08-17 23:45	4769105	8.146	-97.084	284.959	17.584	783.849	913.204	0.454	0.594	***5.416***	17.584	362.44
2021-08-18 00:00	4770005	8.140	-96.724	286.342	17.523	782.913	913.354	0.454	0.594	***5.352***	17.523	362.486
2021-08-18 00:15	4770905	8.134	-96.378	288.345	17.461	781.914	913.436	0.454	0.594	***5.172***	17.461	364.039
2021-08-18 00:30	4771805	8.126	-95.87	288.752	17.406	780.91	913.4	0.454	0.594	***5.038***	17.406	364.638
2021-08-18 00:45	4772705	8.120	-95.51	290.068	17.348	780.049	913.578	0.454	0.594	***4.932***	17.348	364.891
2021-08-18 01:00	4773605	8.120	-95.522	289.122	17.289	779.24	913.822	0.454	0.594	***4.814***	17.289	365.737
2021-08-18 01:15	4774505	8.125	-95.775	288.497	17.227	778.445	914.173	0.454	0.594	***4.536***	17.227	365.129
2021-08-18 01:30	4775405	8.122	-95.592	287.813	17.171	777.598	914.311	0.454	0.594	***4.366***	17.171	360.941
2021-08-18 01:45	4776305	8.113	-95.072	288.419	17.126	776.917	914.451	0.454	0.594	***4.494***	17.126	362.214
2021-08-18 02:00	4777205	8.105	-94.557	289.153	17.079	776.185	914.54	0.454	0.594	***4.485***	17.079	362.943
2021-08-18 02:15	4778105	8.095	-93.963	288.96	17.035	775.317	914.426	0.454	0.594	***4.266***	17.035	362.087
2021-08-18 02:30	4779005	8.082	-93.253	291.196	16.993	774.371	914.185	0.454	0.594	***4.043***	16.993	361.167
2021-08-18 02:45	4779905	8.072	-92.611	294.062	16.955	774.088	914.639	0.454	0.595	***3.858***	16.955	362.32
2021-08-18 03:00	4780805	8.056	-91.712	296.37	16.916	773.362	914.584	0.454	0.594	***3.778***	16.916	362.88
2021-08-18 03:15	4781705	8.046	-91.09	298.597	16.866	772.569	914.669	0.454	0.595	***3.697***	16.866	360.778
2021-08-18 03:30	4782605	8.040	-90.78	300.23	16.838	772.082	914.684	0.454	0.595	***3.795***	16.838	365.508
2021-08-18 03:45	4783505	8.028	-90.067	302.314	16.808	771.453	914.547	0.454	0.594	***3.712***	16.808	361.554
2021-08-18 04:00	4784405	8.017	-89.407	304.39	16.784	771.073	914.59	0.454	0.594	***3.824***	16.784	360.235
2021-08-18 04:15	4785305	8.012	-89.107	305.659	16.762	770.529	914.399	0.454	0.594	***3.805***	16.762	358.476
2021-08-18 04:30	4786205	8.007	-88.804	306.519	16.739	770.108	914.385	0.454	0.594	***3.821***	16.739	359.729
2021-08-18 04:45	4787105	7.995	-88.148	309.409	16.713	769.736	914.478	0.454	0.594	***3.539***	16.713	358.888

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-18 05:00	4788005	7.977	-87.087	311.03	16.687	769.195	914.384	0.454	0.594	***3.278***	16.687	357.271
2021-08-18 05:15	4788905	7.969	-86.646	311.619	16.659	767.058	912.412	0.453	0.593	***3.061***	16.659	356.814
2021-08-18 05:30	4789805	7.966	-86.434	311.04	16.632	768.335	914.504	0.454	0.594	***2.926***	16.632	357.941
2021-08-18 05:45	4790705	7.964	-86.317	311.757	16.605	767.96	914.603	0.454	0.594	***2.742***	16.605	335.039
2021-08-18 06:00	4791605	7.958	-85.943	313.681	16.575	767.543	914.735	0.454	0.595	***2.638***	16.575	335.339
2021-08-18 06:15	4792505	7.953	-85.64	316.135	16.545	767.095	914.825	0.454	0.595	***2.586***	16.545	337.474
2021-08-18 06:30	4793405	7.945	-85.189	317.959	16.517	766.679	914.913	0.454	0.595	***2.507***	16.517	334.3
2021-08-18 06:45	4794305	7.938	-84.791	319.122	16.493	766.256	914.912	0.454	0.595	***2.619***	16.493	341.524
2021-08-18 07:00	4795205	7.933	-84.505	318.464	16.474	765.966	914.975	0.454	0.595	***2.692***	16.474	334.837
2021-08-18 07:15	4796105	7.929	-84.271	319.446	16.457	765.718	915.022	0.454	0.595	***2.704***	16.457	337.553
2021-08-18 07:30	4797005	7.934	-84.553	320.052	16.444	765.632	915.193	0.454	0.595	***2.613***	16.444	335.073
2021-08-18 07:45	4797905	7.929	-84.271	319.456	16.434	765.56	915.316	0.454	0.595	***2.490***	16.434	338.132
2021-08-18 08:00	4798805	7.920	-83.718	320.717	16.429	765.491	915.338	0.454	0.595	***2.334***	16.429	336.479
2021-08-18 08:15	4799705	7.907	-83.005	324.873	16.427	765.393	915.26	0.454	0.595	***2.143***	16.427	337.3
2021-08-18 08:30	4800605	7.900	-82.593	327.462	16.429	765.391	915.226	0.454	0.595	***1.963***	16.429	339.108
2021-08-18 08:45	4801505	7.899	-82.521	329.052	16.437	765.547	915.24	0.454	0.595	***1.705***	16.437	332.246
2021-08-18 09:00	4802405	7.894	-82.245	330.282	16.443	765.617	915.2	0.454	0.595	***1.462***	16.443	336.656
2021-08-18 09:15	4803305	7.888	-81.885	331.444	16.452	765.898	915.339	0.454	0.595	***1.342***	16.452	336.824
2021-08-18 09:30	4804205	7.885	-81.725	332.402	16.463	765.71	914.881	0.454	0.595	***1.373***	16.463	336.453
2021-08-18 09:45	4805105	7.894	-82.281	331.382	16.478	765.775	914.655	0.454	0.595	***1.456***	16.478	336.636
2021-08-18 10:00	4806005	7.897	-82.448	332.85	16.504	765.475	913.759	0.454	0.594	***1.846***	16.504	337.273
2021-08-18 10:15	4806905	7.920	-83.797	329.553	16.538	765.073	912.559	0.453	0.593	***2.750***	16.538	332.647
2021-08-18 10:30	4807805	7.993	-87.965	325.85	16.567	765.2	912.105	0.453	0.593	***3.882***	16.567	333.958
2021-08-18 10:45	4808705	8.020	-89.56	323.156	16.598	765.124	911.388	0.452	0.592	***4.470***	16.598	334.294
2021-08-18 11:00	4809605	8.063	-91.999	317.076	16.617	765.198	911.08	0.452	0.592	***4.688***	16.617	335.886
2021-08-18 11:15	4810505	8.080	-92.976	313.243	16.636	765.161	910.634	0.452	0.592	***4.811***	16.636	336.17
2021-08-18 11:30	4811405	8.092	-93.67	312.418	16.646	765.329	910.638	0.452	0.592	***4.938***	16.646	335.847
2021-08-18 11:45	4812305	8.116	-95.088	312.179	16.652	765.548	910.766	0.452	0.592	***5.014***	16.652	335.266
2021-08-18 12:00	4813205	8.143	-96.645	308.045	16.66	765.433	910.455	0.452	0.592	***5.129***	16.66	337.213
2021-08-18 12:15	4814105	8.160	-97.613	305.639	16.682	765.721	910.347	0.452	0.592	***5.320***	16.682	339.451
2021-08-18 12:30	4815005	8.161	-97.69	300.916	16.674	765.554	910.309	0.452	0.592	***5.364***	16.674	343.011
2021-08-18 12:45	4815905	8.157	-97.437	297.955	16.674	765.592	910.365	0.452	0.592	***5.285***	16.674	342.107
2021-08-18 13:00	4816805	8.149	-96.986	294.598	16.682	765.193	909.73	0.452	0.591	***5.217***	16.682	341.588
2021-08-18 13:15	4817705	8.141	-96.512	293.03	16.694	765.95	910.366	0.452	0.592	***5.082***	16.694	341.92
2021-08-18 13:30	4818605	8.126	-95.649	293.907	16.72	766.554	910.56	0.452	0.592	***4.854***	16.72	344.274
2021-08-18 13:45	4819505	8.110	-94.745	296.046	16.759	767.267	910.592	0.452	0.592	***5.027***	16.759	342.291
2021-08-18 14:00	4820405	8.108	-94.647	297.369	16.781	767.471	910.381	0.452	0.592	***5.172***	16.781	341.696
2021-08-18 14:15	4821305	8.124	-95.584	298.346	16.781	767.776	910.756	0.452	0.592	***4.882***	16.781	342.935
2021-08-18 14:30	4822205	8.130	-95.928	294.684	16.781	768.133	911.169	0.452	0.592	***4.870***	16.781	344.276
2021-08-18 14:45	4823105	8.124	-95.57	296.317	16.772	767.746	910.889	0.452	0.592	***4.850***	16.772	344.492
2021-08-18 15:00	4824005	8.123	-95.496	296.098	16.761	767.661	911.022	0.452	0.592	***4.909***	16.761	344.37
2021-08-18 15:15	4824905	8.125	-95.611	294.896	16.757	767.503	910.917	0.452	0.592	***5.036***	16.757	344.118
2021-08-18 15:30	4825805	8.128	-95.811	292.145	16.755	767.565	911.029	0.452	0.592	***5.029***	16.755	344.526
2021-08-18 15:45	4826705	8.120	-95.365	292.407	16.758	767.6	911.012	0.452	0.592	***4.903***	16.758	341.99
2021-08-18 16:00	4827605	8.113	-94.931	291.456	16.757	766.604	909.851	0.452	0.591	***4.813***	16.757	342.946
2021-08-18 16:15	4828505	8.107	-94.612	292.6	16.751	767.783	911.366	0.452	0.592	***4.716***	16.751	342.112
2021-08-18 16:30	4829405	8.095	-93.925	293.597	16.748	767.981	911.682	0.453	0.593	***4.458***	16.748	340.5
2021-08-18 16:45	4830305	8.084	-93.265	294.734	16.751	768.271	911.954	0.453	0.593	***4.205***	16.751	341.168
2021-08-18 17:00	4831205	8.076	-92.795	294.691	16.761	768.561	912.1	0.453	0.593	***4.040***	16.761	340.873
2021-08-18 17:15	4832105	8.069	-92.406	294.355	16.762	768.894	912.468	0.453	0.593	***4.069***	16.762	340.039
2021-08-18 17:30	4833005	8.057	-91.732	294.312	16.762	769.041	912.645	0.453	0.593	***3.751***	16.762	342.412
2021-08-18 17:45	4833905	8.048	-91.226	295.795	16.768	769.385	912.927	0.453	0.593	***3.364***	16.768	344.034
2021-08-18 18:00	4834805	8.050	-91.307	297.533	16.777	769.342	912.685	0.453	0.593	***3.398***	16.777	340.922
2021-08-18 18:15	4835705	8.039	-90.68	297.705	16.811	768.957	911.523	0.453	0.592	***4.104***	16.811	342.657
2021-08-18 18:30	4836605	8.041	-90.835	297.033	16.837	768.751	910.753	0.452	0.592	***4.791***	16.837	341.512
2021-08-18 18:45	4837505	8.050	-91.364	294.565	16.839	769.022	911.023	0.452	0.592	***4.660***	16.839	340.808

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-18 19:00	4838405	8.061	-91.994	293.633	16.836	769.041	911.107	0.452	0.592	***4.491***	16.836	337.286
2021-08-18 19:15	4839305	8.070	-92.509	291.177	16.827	769.182	911.458	0.452	0.592	***4.176***	16.827	334.687
2021-08-18 19:30	4840205	8.059	-91.827	293.473	16.815	769.157	911.687	0.453	0.593	***3.866***	16.815	334.073
2021-08-18 19:45	4841105	8.036	-90.511	293.571	16.808	769.031	911.675	0.453	0.593	***3.692***	16.808	333.726
2021-08-18 20:00	4842005	8.023	-89.762	294.126	16.8	769.138	911.965	0.453	0.593	***3.746***	16.8	331.63
2021-08-18 20:15	4842905	8.016	-89.378	294.312	16.797	769.255	912.179	0.453	0.593	***3.753***	16.797	326.718
2021-08-18 20:30	4843805	8.013	-89.192	294.644	16.795	769.294	912.262	0.453	0.593	***3.629***	16.795	328.276
2021-08-18 20:45	4844705	8.012	-89.123	296.308	16.79	769.359	912.43	0.453	0.593	***3.501***	16.79	328.953
2021-08-18 21:00	4845605	8.009	-88.956	296.47	16.787	769.25	912.376	0.453	0.593	***3.341***	16.787	328.894
2021-08-18 21:15	4846505	8.007	-88.847	295.242	16.783	769.224	912.428	0.453	0.593	***3.219***	16.783	328.76
2021-08-18 21:30	4847405	8.019	-89.543	294.808	16.773	769.343	912.779	0.453	0.593	***3.090***	16.773	329.32
2021-08-18 21:45	4848305	8.010	-89.011	295.659	16.762	769.438	913.122	0.453	0.594	***2.893***	16.762	328.078
2021-08-18 22:00	4849205	8.000	-88.437	296.27	16.749	769.381	913.32	0.453	0.594	***3.085***	16.749	327.553
2021-08-18 22:15	4850105	7.992	-87.962	298.713	16.725	768.909	913.26	0.453	0.594	***3.224***	16.725	329.381
2021-08-18 22:30	4851005	7.987	-87.695	300.308	16.696	769.348	914.383	0.454	0.594	***3.130***	16.696	328.915
2021-08-18 22:45	4851905	7.976	-87.051	301.346	16.659	768.533	914.177	0.454	0.594	***2.999***	16.659	330.014
2021-08-18 23:00	4852805	7.961	-86.169	302.659	16.606	767.542	914.098	0.454	0.594	***2.734***	16.606	329.286
2021-08-18 23:15	4853705	7.956	-85.824	303.756	16.548	766.379	913.917	0.454	0.594	***2.509***	16.548	333.936
2021-08-18 23:30	4854605	7.948	-85.38	304.443	16.492	765.404	913.919	0.454	0.594	***2.258***	16.492	349.22
2021-08-18 23:45	4855505	7.944	-85.115	305.377	16.443	764.684	914.082	0.454	0.594	***2.110***	16.443	349.242
2021-08-19 00:00	4856405	7.941	-84.949	307.091	16.418	763.93	913.706	0.453	0.594	***2.007***	16.418	346.235
2021-08-19 00:15	4857305	7.935	-84.579	309.089	16.397	763.888	914.085	0.454	0.594	***2.042***	16.397	344.614
2021-08-19 00:30	4858205	7.923	-83.873	312.794	16.379	763.74	914.286	0.454	0.594	***1.975***	16.379	344.86
2021-08-19 00:45	4859105	7.910	-83.153	315.527	16.363	763.542	914.395	0.454	0.594	***1.895***	16.363	407.19
2021-08-19 01:00	4860005	7.902	-82.669	317.949	16.344	763.287	914.475	0.454	0.594	***1.708***	16.344	406.966
2021-08-19 01:15	4860905	7.903	-82.717	317.124	16.325	763.026	914.563	0.454	0.594	***1.561***	16.325	356.717
2021-08-19 01:30	4861805	7.901	-82.614	317.193	16.306	762.974	914.904	0.454	0.595	***1.457***	16.306	346.612
2021-08-19 01:45	4862705	7.894	-82.18	318.063	16.292	762.621	914.775	0.454	0.595	***1.275***	16.292	345.287
2021-08-19 02:00	4863605	7.885	-81.661	319.172	16.278	762.471	914.885	0.454	0.595	***1.135***	16.278	345.835
2021-08-19 02:15	4864505	7.875	-81.084	322.822	16.266	762.286	914.917	0.454	0.595	***1.131***	16.266	337.199
2021-08-19 02:30	4865405	7.862	-80.352	325.404	16.253	762.122	914.992	0.454	0.595	***1.015***	16.253	336.362
2021-08-19 02:45	4866305	7.850	-79.651	328.711	16.24	761.808	914.885	0.454	0.595	***0.903***	16.24	337.68
2021-08-19 03:00	4867205	7.837	-78.907	330.821	16.227	761.519	914.807	0.454	0.595	***0.876***	16.227	335.475
2021-08-19 03:15	4868105	7.828	-78.38	332.855	16.213	761.291	914.827	0.454	0.595	***1.024***	16.213	335.665
2021-08-19 03:30	4869005	7.826	-78.292	334.49	16.196	761.038	914.886	0.454	0.595	***1.107***	16.196	335.014
2021-08-19 03:45	4869905	7.837	-78.905	336.076	16.177	760.531	914.666	0.454	0.595	***1.096***	16.177	335.975
2021-08-19 04:00	4870805	7.825	-78.213	338.024	16.158	760.285	914.782	0.454	0.595	***0.949***	16.158	335.729
2021-08-19 04:15	4871705	7.811	-77.403	339.631	16.137	759.981	914.84	0.454	0.595	***0.870***	16.137	334.053
2021-08-19 04:30	4872605	7.805	-77.035	341.128	16.122	759.549	914.651	0.454	0.595	***0.825***	16.122	332.97
2021-08-19 04:45	4873505	7.795	-76.466	342.318	16.103	759.384	914.838	0.454	0.595	***0.871***	16.103	331.266
2021-08-19 05:00	4874405	7.786	-75.977	343.469	16.09	758.707	914.301	0.454	0.594	***0.898***	16.09	331.688
2021-08-19 05:15	4875305	7.782	-75.705	344.623	16.078	758.796	914.666	0.454	0.595	***0.865***	16.078	329.358
2021-08-19 05:30	4876205	7.778	-75.476	345.339	16.065	758.551	914.651	0.454	0.595	***0.746***	16.065	330.306
2021-08-19 05:45	4877105	7.771	-75.104	346.066	16.051	758.55	914.926	0.454	0.595	***0.647***	16.051	329.032
2021-08-19 06:00	4878005	7.771	-75.047	347.263	16.038	758.301	914.907	0.454	0.595	***0.530***	16.038	329.25
2021-08-19 06:15	4878905	7.764	-74.654	348.202	16.024	758.062	914.913	0.454	0.595	***0.511***	16.024	328.923
2021-08-19 06:30	4879805	7.765	-74.744	349.861	16.01	757.781	914.863	0.454	0.595	***0.366***	16.01	329.83
2021-08-19 06:45	4880705	7.760	-74.453	350.584	15.996	757.501	914.827	0.454	0.595	***0.298***	15.996	329.497
2021-08-19 07:00	4881605	7.762	-74.539	351.409	15.982	757.307	914.883	0.454	0.595	***0.201***	15.982	330.037
2021-08-19 07:15	4882505	7.764	-74.661	353.049	15.968	756.93	914.728	0.454	0.595	***0.194***	15.968	330.023
2021-08-19 07:30	4883405	7.765	-74.687	354.191	15.953	756.734	914.819	0.454	0.595	***0.090***	15.953	330.489
2021-08-19 07:45	4884305	7.761	-74.463	355.102	15.94	756.456	914.744	0.454	0.595	***0.023***	15.94	330.659
2021-08-19 08:00	4885205	7.751	-73.924	354.978	15.936	756.283	914.634	0.454	0.595	***0.000***	15.936	330.013
2021-08-19 08:15	4886105	7.747	-73.655	354.47	15.937	756.312	914.63	0.454	0.595	***0.000***	15.937	330.428
2021-08-19 08:30	4887005	7.747	-73.698	355.505	15.945	756.46	914.65	0.454	0.595	***0.000***	15.945	330.021
2021-08-19 08:45	4887905	7.746	-73.619	356.747	15.956	756.694	914.69	0.454	0.595	***0.000***	15.956	329.125

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-19 09:00	4888805	7.747	-73.686	357.248	15.975	756.753	914.373	0.454	0.594	***0.000***	15.975	328.322
2021-08-19 09:15	4889705	7.742	-73.404	357.021	15.999	757.2	914.41	0.454	0.594	***0.085***	15.999	328.998
2021-08-19 09:30	4890605	7.743	-73.438	357.026	16.025	757.579	914.314	0.454	0.594	***0.146***	16.025	328.877
2021-08-19 09:45	4891505	7.748	-73.786	355.955	16.058	758.088	914.228	0.454	0.594	***0.259***	16.058	328.986
2021-08-19 10:00	4892405	7.771	-75.104	353.376	16.089	758.058	913.54	0.453	0.594	***0.693***	16.089	327.846
2021-08-19 10:15	4893305	7.777	-75.417	348.738	16.113	758.352	913.384	0.453	0.594	***0.712***	16.113	328.027
2021-08-19 10:30	4894205	7.787	-76.001	349.051	16.141	758.872	913.439	0.453	0.594	***0.582***	16.141	327.418
2021-08-19 10:45	4895105	7.785	-75.941	349.761	16.176	759.5	913.458	0.453	0.594	***0.483***	16.176	327.581
2021-08-19 11:00	4896005	7.780	-75.612	350.25	16.225	760.485	913.618	0.453	0.594	***0.492***	16.225	327.722
2021-08-19 11:15	4896905	7.770	-75.092	351.289	16.277	761.505	913.742	0.453	0.594	***0.553***	16.277	329.55
2021-08-19 11:30	4897805	7.784	-75.877	350.19	16.32	762.258	913.743	0.453	0.594	***0.656***	16.32	330.027
2021-08-19 11:45	4898705	7.783	-75.834	350.851	16.364	763.024	913.753	0.453	0.594	***0.721***	16.364	330.123
2021-08-19 12:00	4899605	7.781	-75.76	349.93	16.405	763.907	913.947	0.454	0.594	***0.681***	16.405	330.836
2021-08-19 12:15	4900505	7.785	-75.986	349.506	16.439	764.342	913.76	0.454	0.594	***0.648***	16.439	330.757
2021-08-19 12:30	4901405	7.791	-76.361	348.698	16.467	764.663	913.556	0.453	0.594	***0.603***	16.467	330.76
2021-08-19 12:45	4902305	7.790	-76.27	347.978	16.493	764.997	913.41	0.453	0.594	***0.542***	16.493	330.584
2021-08-19 13:00	4903205	7.789	-76.237	349.086	16.515	765.162	913.154	0.453	0.594	***0.525***	16.515	330.722
2021-08-19 13:15	4904105	7.793	-76.468	346.285	16.545	765.537	912.974	0.453	0.593	***0.521***	16.545	330.948
2021-08-19 13:30	4905005	7.811	-77.493	344.931	16.573	765.865	912.773	0.453	0.593	***0.586***	16.573	369.788
2021-08-19 13:45	4905905	7.819	-77.958	341.617	16.61	766.438	912.706	0.453	0.593	***0.720***	16.61	367.194
2021-08-19 14:00	4906805	7.825	-78.363	343.898	16.667	767.216	912.447	0.453	0.593	***0.947***	16.667	331.332
2021-08-19 14:15	4907705	7.824	-78.282	340.782	16.741	767.839	911.641	0.453	0.593	***1.135***	16.741	332.15
2021-08-19 14:30	4908605	7.835	-78.933	337.013	16.813	768.765	911.269	0.452	0.592	***1.595***	16.813	333.847
2021-08-19 14:45	4909505	7.855	-80.132	334.102	16.876	769.845	911.234	0.452	0.592	***2.058***	16.876	334.619
2021-08-19 15:00	4910405	7.865	-80.752	333.139	16.995	771.641	910.923	0.452	0.592	***2.005***	16.995	334.423
2021-08-19 15:15	4911305	7.872	-81.136	331.203	17.086	773.101	910.761	0.452	0.592	***2.198***	17.086	334.347
2021-08-19 15:30	4912205	7.889	-82.152	325.381	17.155	774.569	911.077	0.452	0.592	***2.850***	17.155	333.712
2021-08-19 15:45	4913105	7.959	-86.234	324.61	17.212	773.589	908.78	0.451	0.591	***4.738***	17.212	334.494
2021-08-19 16:00	4914005	8.005	-88.902	313.4	17.312	771.422	904.196	0.449	0.588	***5.917***	17.312	334.366
2021-08-19 16:15	4914905	8.007	-88.968	309.836	17.249	767.112	900.422	0.447	0.585	***5.957***	17.249	335.449
2021-08-19 16:30	4915805	8.033	-90.497	307.819	17.216	760.118	892.86	0.443	0.580	***5.959***	17.216	336.797
2021-08-19 16:45	4916705	8.064	-92.275	307.175	17.25	758.699	890.522	0.442	0.579	***6.049***	17.25	334.414
2021-08-19 17:00	4917605	8.113	-95.086	303.625	17.232	760.674	893.198	0.443	0.581	***5.929***	17.232	335.516
2021-08-19 17:15	4918505	8.113	-95.093	301.403	17.248	761.57	893.928	0.444	0.581	***5.717***	17.248	335.425
2021-08-19 17:30	4919405	8.106	-94.697	296.491	17.281	762.818	894.737	0.444	0.582	***5.795***	17.281	335.37
2021-08-19 17:45	4920305	8.102	-94.507	298.146	17.334	763.677	894.675	0.444	0.582	***5.722***	17.334	336.086
2021-08-19 18:00	4921205	8.080	-93.257	299.517	17.389	764.979	895.105	0.444	0.582	***5.579***	17.389	336.062
2021-08-19 18:15	4922106	8.071	-92.74	301.372	17.416	766.563	896.419	0.445	0.583	***5.522***	17.416	335.957
2021-08-19 18:30	4923006	8.083	-93.408	299.619	17.443	767.988	897.538	0.446	0.583	***5.704***	17.443	347.509
2021-08-19 18:45	4923906	8.077	-93.083	299.3	17.473	768.984	898.106	0.446	0.584	***5.665***	17.473	337.289
2021-08-19 19:00	4924806	8.098	-94.326	297.455	17.492	769.794	898.665	0.446	0.584	***5.702***	17.492	336.492
2021-08-19 19:15	4925706	8.091	-93.899	298.656	17.494	770.346	899.262	0.446	0.585	***5.889***	17.494	336.371
2021-08-19 19:30	4926606	8.078	-93.162	298.597	17.487	771.149	900.345	0.447	0.585	***5.543***	17.487	337.188
2021-08-19 19:45	4927506	8.108	-94.872	293.797	17.475	771.805	901.349	0.447	0.586	***5.579***	17.475	337.149
2021-08-19 20:00	4928406	8.119	-95.522	290.111	17.451	771.685	901.703	0.448	0.586	***5.819***	17.451	337.794
2021-08-19 20:15	4929306	8.138	-96.581	291.098	17.421	771.266	901.801	0.448	0.586	***6.347***	17.421	338.058
2021-08-19 20:30	4930206	8.154	-97.518	287.56	17.393	770.572	901.574	0.448	0.586	6.844	17.393	337.4
2021-08-19 20:45	4931106	8.172	-98.541	282.625	17.368	770.283	901.728	0.448	0.586	6.975	17.368	337.316
2021-08-19 21:00	4932006	8.179	-98.941	278.763	17.34	770.141	902.134	0.448	0.586	6.993	17.34	336.934
2021-08-19 21:15	4932906	8.174	-98.615	279.518	17.31	769.839	902.37	0.448	0.587	6.889	17.31	336.998
2021-08-19 21:30	4933806	8.177	-98.777	281.459	17.276	769.37	902.511	0.448	0.587	6.804	17.276	336.867
2021-08-19 21:45	4934706	8.176	-98.715	281.831	17.238	769.045	902.909	0.448	0.587	6.650	17.238	330.918
2021-08-19 22:00	4935606	8.126	-95.82	302.266	17.196	774.068	909.65	0.452	0.591	***4.371***	17.196	336.928
2021-08-19 22:15	4936506	8.027	-90.132	288.998	17.16	770.73	906.465	0.450	0.589	***4.313***	17.16	370.188
2021-08-19 22:30	4937406	8.039	-90.775	283.891	17.124	770.148	906.514	0.450	0.589	***4.916***	17.124	430.355
2021-08-19 22:45	4938306	8.052	-91.555	283.092	17.093	769.379	906.245	0.450	0.589	***5.137***	17.093	439.864

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-19 23:00	4939206	8.058	-91.848	284.125	17.057	768.753	906.232	0.450	0.589	***5.051***	17.057	439.458
2021-08-19 23:15	4940106	8.024	-89.898	287.827	17.024	768.021	906.052	0.450	0.589	***5.069***	17.024	437.179
2021-08-19 23:30	4941006	7.993	-88.122	292.963	16.985	767.827	906.611	0.450	0.589	***4.765***	16.985	437.804
2021-08-19 23:45	4941906	7.975	-87.054	294.439	16.942	766.725	906.198	0.450	0.589	***4.357***	16.942	435.155
2021-08-20 00:00	4942806	7.974	-87.004	295.49	16.902	765.872	906.005	0.450	0.589	***3.916***	16.902	434.406
2021-08-20 00:15	4943706	7.967	-86.572	296.951	16.862	765.133	905.953	0.450	0.589	***3.584***	16.862	436.127
2021-08-20 00:30	4944606	7.964	-86.401	299.109	16.823	764.42	905.9	0.450	0.589	***3.390***	16.823	438.018
2021-08-20 00:45	4945506	7.956	-85.936	301.243	16.79	763.624	905.647	0.449	0.589	***3.122***	16.79	431.298
2021-08-20 01:00	4946406	7.958	-86.002	302.333	16.752	763.212	905.926	0.450	0.589	***2.895***	16.752	430.074
2021-08-20 01:15	4947306	7.973	-86.846	301.608	16.718	762.405	905.666	0.449	0.589	***2.604***	16.718	428.734
2021-08-20 01:30	4948206	7.975	-86.987	302.092	16.686	761.518	905.27	0.449	0.588	***2.303***	16.686	429.916
2021-08-20 01:45	4949106	7.968	-86.565	303.58	16.656	761.199	905.513	0.449	0.589	***2.120***	16.656	429.191
2021-08-20 02:00	4950006	7.969	-86.627	305.11	16.62	760.997	906.006	0.450	0.589	***2.192***	16.62	431.265
2021-08-20 02:15	4950906	7.963	-86.234	308.157	16.578	760.563	906.367	0.450	0.589	***2.211***	16.578	426.769
2021-08-20 02:30	4951806	7.961	-86.112	306.658	16.54	759.262	905.586	0.449	0.589	***2.697***	16.54	448.688
2021-08-20 02:45	4952706	7.950	-85.504	307.981	16.509	758.688	905.557	0.449	0.589	***2.647***	16.509	448.253
2021-08-20 03:00	4953606	7.941	-84.97	310.188	16.476	758.248	905.712	0.449	0.589	***2.417***	16.476	449.036
2021-08-20 03:15	4954506	7.943	-85.08	312.289	16.442	758.077	906.193	0.450	0.589	***2.168***	16.442	449.256
2021-08-20 03:30	4955406	7.954	-85.7	311.221	16.415	757.819	906.445	0.450	0.589	***2.062***	16.415	450.116
2021-08-20 03:45	4956306	7.962	-86.16	309.342	16.387	757.493	906.648	0.450	0.589	***1.962***	16.387	451.254
2021-08-20 04:00	4957206	7.972	-86.701	308.62	16.358	757.26	906.968	0.450	0.590	***1.916***	16.358	452.712
2021-08-20 04:15	4958106	7.974	-86.799	307.847	16.328	756.803	907.04	0.450	0.590	***1.961***	16.328	451.048
2021-08-20 04:30	4959006	7.973	-86.718	307.316	16.298	756.334	907.102	0.450	0.590	***2.065***	16.298	446.33
2021-08-20 04:45	4959906	7.976	-86.92	307.018	16.262	755.954	907.39	0.450	0.590	***2.147***	16.262	443.237
2021-08-20 05:00	4960806	7.980	-87.128	307.378	16.227	755.482	907.56	0.450	0.590	***2.158***	16.227	444.087
2021-08-20 05:15	4961706	7.974	-86.796	308.968	16.189	754.945	907.694	0.450	0.590	***2.183***	16.189	441.475
2021-08-20 05:30	4962606	7.968	-86.398	307.492	16.151	754.332	907.75	0.450	0.590	***2.148***	16.151	438.743
2021-08-20 05:45	4963506	7.967	-86.346	306.271	16.119	753.799	907.786	0.450	0.590	***2.004***	16.119	439.734
2021-08-20 06:00	4964406	7.962	-86.048	306.493	16.086	753.133	907.675	0.450	0.590	***1.888***	16.086	441.106
2021-08-20 06:15	4965306	7.936	-84.541	310.761	16.055	752.44	907.475	0.450	0.590	***1.815***	16.055	439.455
2021-08-20 06:30	4966206	7.922	-83.742	313.219	16.027	751.964	907.502	0.450	0.590	***1.671***	16.027	438.109
2021-08-20 06:45	4967106	7.904	-82.674	317.484	15.998	751.498	907.531	0.450	0.590	***1.510***	15.998	439.983
2021-08-20 07:00	4968006	7.886	-81.68	319.387	15.97	751.065	907.594	0.450	0.590	***1.373***	15.97	437.817
2021-08-20 07:15	4968906	7.876	-81.084	321.094	15.943	750.694	907.723	0.450	0.590	***1.250***	15.943	439.408
2021-08-20 07:30	4969806	7.866	-80.464	323.218	15.917	750.398	907.899	0.450	0.590	***1.162***	15.917	439.39
2021-08-20 07:45	4970706	7.854	-79.789	325.214	15.893	749.981	907.898	0.450	0.590	***1.098***	15.893	436.624
2021-08-20 08:00	4971606	7.842	-79.1	327.395	15.87	749.54	907.858	0.450	0.590	***1.040***	15.87	437.285
2021-08-20 08:15	4972506	7.837	-78.828	328.535	15.85	749.319	908.007	0.450	0.590	***1.141***	15.85	439.002
2021-08-20 08:30	4973406	7.835	-78.697	329.908	15.831	748.919	907.919	0.450	0.590	***1.290***	15.831	438.326
2021-08-20 08:45	4974306	7.827	-78.211	330.988	15.816	748.486	907.719	0.450	0.590	***1.341***	15.816	436.179
2021-08-20 09:00	4975206	7.833	-78.552	331.587	15.8	748.084	907.554	0.450	0.590	***1.386***	15.8	433.832
2021-08-20 09:15	4976106	7.845	-79.243	330.826	15.786	747.768	907.472	0.450	0.590	***1.439***	15.786	432.91
2021-08-20 09:30	4977006	7.839	-78.886	330.619	15.776	747.628	907.509	0.450	0.590	***1.534***	15.776	434.952
2021-08-20 09:45	4977906	7.835	-78.688	330.428	15.778	747.67	907.518	0.450	0.590	***1.448***	15.778	436.716
2021-08-20 10:00	4978806	7.828	-78.27	331.196	15.788	747.815	907.476	0.450	0.590	***1.242***	15.788	433.949
2021-08-20 10:15	4979706	7.828	-78.261	332.102	15.797	748.205	907.767	0.450	0.590	***0.839***	15.797	432.754
2021-08-20 10:30	4980606	7.824	-78.058	333.203	15.805	748.367	907.793	0.450	0.590	***0.557***	15.805	429.919
2021-08-20 10:45	4981506	7.824	-78.061	334.345	15.815	748.671	907.965	0.450	0.590	***0.387***	15.815	429.225
2021-08-20 11:00	4982406	7.814	-77.488	335.354	15.834	749.099	908.081	0.450	0.590	***0.213***	15.834	429.71
2021-08-20 11:15	4983306	7.800	-76.69	336.71	15.852	749.072	907.661	0.450	0.590	***0.190***	15.852	430.103
2021-08-20 11:30	4984206	7.799	-76.64	334.591	15.89	749.47	907.359	0.450	0.590	***0.416***	15.89	430.419
2021-08-20 11:45	4985106	7.804	-76.947	331.944	15.933	749.847	906.898	0.450	0.589	***0.620***	15.933	429.737
2021-08-20 12:00	4986006	7.808	-77.188	328.263	15.998	750.972	906.913	0.450	0.589	***0.829***	15.998	431.022
2021-08-20 12:15	4986906	7.806	-77.09	329.05	16.08	752.737	907.329	0.450	0.590	***0.925***	16.08	431.74
2021-08-20 12:30	4987806	7.798	-76.685	332.247	16.177	754.371	907.26	0.450	0.590	***0.992***	16.177	431.256
2021-08-20 12:45	4988706	7.820	-77.953	330.003	16.356	756.972	906.666	0.450	0.589	***1.290***	16.356	433.955

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-20 13:00	4989606	7.848	-79.646	324.401	16.501	758.795	905.84	0.449	0.589	***1.970***	16.501	429.008
2021-08-20 13:15	4990506	7.878	-81.382	320.786	16.682	761.228	905.009	0.449	0.588	***2.593***	16.682	429.888
2021-08-20 13:30	4991406	7.953	-85.831	314.966	17.088	765.778	902.094	0.448	0.586	***3.566***	17.088	428.908
2021-08-20 13:45	4992306	8.054	-91.851	296.625	17.759	776.608	901.247	0.448	0.586	***6.038***	17.759	429.629
2021-08-20 14:00	4993206	8.110	-95.248	289.775	18.225	784.924	901.599	0.448	0.586	6.810	18.225	428.306
2021-08-20 14:15	4994106	8.143	-97.251	286.466	18.51	790.568	902.426	0.448	0.587	6.902	18.51	430.045
2021-08-20 14:30	4995006	8.155	-98.011	283.459	18.736	795.611	903.735	0.449	0.587	6.732	18.736	429.257
2021-08-20 14:45	4995906	8.144	-97.37	281.85	18.697	795.746	904.663	0.450	0.588	***6.369***	18.697	429.454
2021-08-20 15:00	4996806	8.127	-96.388	280.307	18.721	795.519	903.934	0.449	0.588	***5.965***	18.721	430.248
2021-08-20 15:15	4997706	8.109	-95.348	282.615	18.715	795.864	904.428	0.449	0.588	***5.653***	18.715	430.264
2021-08-20 15:30	4998606	8.164	-98.503	282.954	18.556	794.799	906.36	0.450	0.589	***5.092***	18.556	431.774
2021-08-20 15:45	4999506	8.099	-94.731	283.025	18.683	795.203	904.308	0.449	0.588	***5.470***	18.683	430.774
2021-08-20 16:00	5000406	8.103	-95.026	287.648	18.752	795.723	903.546	0.449	0.587	***5.629***	18.752	429.736
2021-08-20 16:15	5001306	8.152	-97.842	288.783	18.66	795.499	905.104	0.450	0.588	***5.539***	18.66	431.086
2021-08-20 16:30	5002206	8.093	-94.492	290.905	19.006	800.155	903.613	0.449	0.587	***5.950***	19.006	432.422
2021-08-20 16:45	5003106	8.127	-96.631	284.663	19.43	807.419	903.542	0.449	0.587	***6.211***	19.43	436.167
2021-08-20 17:00	5004006	8.125	-96.598	280.25	19.642	809.816	902.137	0.448	0.586	7.234	19.642	436.587
2021-08-20 17:15	5004906	8.155	-98.45	275.634	19.95	816.369	903.517	0.449	0.587	7.844	19.95	438.53
2021-08-20 17:30	5005806	8.175	-99.607	271.31	20.064	820.124	905.488	0.450	0.589	7.591	20.064	435.908
2021-08-20 17:45	5006706	8.191	-100.524	270.735	20.052	819.959	905.531	0.450	0.589	7.369	20.052	437.535
2021-08-20 18:00	5007606	8.215	-101.905	275.22	19.854	820.046	909.429	0.452	0.591	***6.385***	19.854	437.212
2021-08-20 18:15	5008506	8.308	-107.124	268.451	19.344	805.77	903.356	0.449	0.587	***6.040***	19.344	433.607
2021-08-20 18:30	5009406	8.297	-106.413	259.954	19.143	798.344	898.909	0.447	0.584	6.694	19.143	437.863
2021-08-20 18:45	5010306	8.318	-107.539	258.816	18.988	794.668	897.759	0.446	0.584	7.330	18.988	452.875
2021-08-20 19:00	5011206	8.344	-108.953	258.378	18.718	790.522	898.311	0.446	0.584	8.081	18.718	435.237
2021-08-20 19:15	5012106	8.400	-112.033	251.905	18.356	781.484	895.077	0.444	0.582	9.005	18.356	433.968
2021-08-20 19:30	5013006	8.433	-113.916	249.048	18.168	778.092	894.86	0.444	0.582	9.380	18.168	433.465
2021-08-20 19:45	5013906	8.453	-115.044	246.259	18.116	776.863	894.47	0.444	0.581	9.614	18.116	431.597
2021-08-20 20:00	5014806	8.457	-115.263	245.703	18.125	777.346	894.847	0.444	0.582	9.642	18.125	433.604
2021-08-20 20:15	5015706	8.448	-114.758	242.254	18.136	777.71	895.054	0.444	0.582	9.588	18.136	444.254
2021-08-20 20:30	5016606	8.432	-113.816	240.935	18.173	778.812	895.594	0.445	0.582	9.431	18.173	435.769
2021-08-20 20:45	5017506	8.420	-113.199	244.483	18.248	780.162	895.679	0.445	0.582	9.089	18.248	435.746
2021-08-20 21:00	5018406	8.411	-112.646	247.253	18.268	780.764	895.976	0.445	0.582	9.121	18.268	434.939
2021-08-20 21:15	5019306	8.391	-111.475	246.726	18.229	780.243	896.14	0.445	0.582	9.360	18.229	434.796
2021-08-20 21:30	5020206	8.379	-110.788	249.153	18.171	780.256	897.286	0.446	0.583	9.304	18.171	436.028
2021-08-20 21:45	5021106	8.379	-110.743	248.266	18.114	780.164	898.303	0.446	0.584	9.028	18.114	438.265
2021-08-20 22:00	5022006	8.387	-111.215	245.396	18.074	779.232	898.026	0.446	0.584	8.799	18.074	439.63
2021-08-20 22:15	5022906	8.396	-111.694	244.342	18.024	777.662	897.201	0.445	0.583	8.620	18.024	439.921
2021-08-20 22:30	5023806	8.398	-111.773	245.401	17.968	776.448	896.911	0.445	0.583	8.574	17.968	439.52
2021-08-20 22:45	5024706	8.397	-111.723	244.018	17.924	776.111	897.39	0.446	0.583	8.216	17.924	442.269
2021-08-20 23:00	5025606	8.392	-111.418	243.913	17.887	775.783	897.741	0.446	0.584	8.134	17.887	446.772
2021-08-20 23:15	5026506	8.391	-111.372	242.58	17.863	775.568	897.987	0.446	0.584	7.876	17.863	441.998
2021-08-20 23:30	5027406	8.378	-110.583	242.966	17.836	775.3	898.198	0.446	0.584	7.593	17.836	441.544
2021-08-20 23:45	5028306	8.364	-109.777	244.6	17.8	774.903	898.452	0.446	0.584	7.430	17.8	445.908
2021-08-21 00:00	5029206	8.353	-109.117	246.192	17.755	774.702	899.119	0.446	0.584	7.290	17.755	444.268
2021-08-21 00:15	5030106	8.340	-108.356	247.654	17.699	774.182	899.63	0.447	0.585	7.172	17.699	444.416
2021-08-21 00:30	5031006	8.330	-107.756	249.835	17.648	773.506	899.877	0.447	0.585	7.259	17.648	445.961
2021-08-21 00:45	5031906	8.315	-106.838	251.69	17.602	773.164	900.399	0.447	0.585	7.092	17.602	443.071
2021-08-21 01:00	5032806	8.305	-106.287	252.954	17.55	772.915	901.152	0.447	0.586	7.063	17.55	448.627
2021-08-21 01:15	5033706	8.296	-105.746	254.174	17.502	772.476	901.6	0.448	0.586	7.012	17.502	449.593
2021-08-21 01:30	5034606	8.294	-105.619	255.245	17.446	771.701	901.816	0.448	0.586	7.167	17.446	449.981
2021-08-21 01:45	5035506	8.280	-104.768	257.782	17.39	771.059	902.198	0.448	0.586	7.046	17.39	452.943
2021-08-21 02:00	5036406	8.258	-103.512	261.208	17.34	770.663	902.747	0.448	0.587	6.835	17.34	452.094
2021-08-21 02:15	5037306	8.241	-102.47	263.749	17.294	770.144	903.069	0.448	0.587	6.675	17.294	452.581
2021-08-21 02:30	5038206	8.226	-101.578	265.917	17.245	769.452	903.238	0.448	0.587	***6.485***	17.245	454.234
2021-08-21 02:45	5039106	8.206	-100.422	268.422	17.199	769.031	903.686	0.449	0.587	***6.266***	17.199	453.801

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-21 03:00	5040006	8.180	-98.906	271.193	17.145	769.088	904.835	0.449	0.588	***6.001***	17.145	454.672
2021-08-21 03:15	5040906	8.147	-96.989	275.51	17.092	769.18	906.02	0.450	0.589	***5.727***	17.092	446.186
2021-08-21 03:30	5041806	8.078	-93.012	284.377	17.047	769.689	907.552	0.451	0.590	***5.293***	17.047	445.371
2021-08-21 03:45	5042706	8.018	-89.536	291.213	17.002	769.932	908.758	0.451	0.591	***4.752***	17.002	447.523
2021-08-21 04:00	5043606	7.977	-87.197	298.258	16.955	769.91	909.701	0.452	0.591	***4.319***	16.955	449.727
2021-08-21 04:15	5044506	7.954	-85.852	300.814	16.905	769.65	910.405	0.452	0.592	***3.736***	16.905	448.912
2021-08-21 04:30	5045406	7.932	-84.553	303.668	16.86	769.479	911.138	0.452	0.592	***2.958***	16.86	450.257
2021-08-21 04:45	5046306	7.908	-83.175	306.228	16.814	769.337	911.921	0.453	0.593	***2.324***	16.814	449.417
2021-08-21 05:00	5047206	7.897	-82.51	308.293	16.77	769.037	912.464	0.453	0.593	***1.952***	16.77	448.812
2021-08-21 05:15	5048106	7.902	-82.788	307.13	16.718	768.368	912.745	0.453	0.593	***1.665***	16.718	455.558
2021-08-21 05:30	5049006	7.908	-83.12	305.573	16.659	767.267	912.67	0.453	0.593	***1.522***	16.659	456.177
2021-08-21 05:45	5049906	7.908	-83.094	308.038	16.602	766.437	912.86	0.453	0.593	***1.674***	16.602	454.641
2021-08-21 06:00	5050806	7.910	-83.203	310.546	16.546	765.177	912.513	0.453	0.593	***1.968***	16.546	450.201
2021-08-21 06:15	5051706	7.909	-83.098	312.589	16.49	763.929	912.205	0.453	0.593	***2.064***	16.49	447.848
2021-08-21 06:30	5052606	7.905	-82.884	314.437	16.436	762.381	911.463	0.452	0.592	***2.072***	16.436	448.514
2021-08-21 06:45	5053506	7.906	-82.893	314.718	16.384	761.006	910.901	0.452	0.592	***2.121***	16.384	449.051
2021-08-21 07:00	5054406	7.917	-83.563	314.521	16.336	759.984	910.691	0.452	0.592	***2.105***	16.336	450.256
2021-08-21 07:15	5055306	7.926	-84.059	314.232	16.287	759.012	910.539	0.452	0.592	***2.117***	16.287	450.482
2021-08-21 07:30	5056206	7.937	-84.646	315.357	16.244	758.105	910.353	0.452	0.592	***2.084***	16.244	452.204
2021-08-21 07:45	5057106	7.938	-84.732	317.494	16.204	757.546	910.516	0.452	0.592	***2.035***	16.204	451.824
2021-08-21 08:00	5058006	7.944	-85.046	317.124	16.172	755.572	908.801	0.451	0.591	***2.037***	16.172	450.277
2021-08-21 08:15	5058906	7.944	-85.018	317.818	16.144	755.1	908.828	0.451	0.591	***2.023***	16.144	451.966
2021-08-21 08:30	5059806	7.938	-84.672	316.17	16.123	754.926	909.065	0.451	0.591	***1.968***	16.123	449.923
2021-08-21 08:45	5060706	7.946	-85.111	315.88	16.102	754.534	909.024	0.451	0.591	***2.148***	16.102	447.487
2021-08-21 09:00	5061606	7.952	-85.492	315.515	16.079	753.777	908.59	0.451	0.591	***2.388***	16.079	449.406
2021-08-21 09:15	5062506	7.964	-86.153	314.68	16.058	754.353	909.722	0.451	0.591	***2.532***	16.058	449.454
2021-08-21 09:30	5063406	7.963	-86.071	315.322	16.041	753.902	909.548	0.451	0.591	***2.556***	16.041	449.874
2021-08-21 09:45	5064306	7.959	-85.864	315.615	16.024	754.224	910.279	0.452	0.592	***2.453***	16.024	449.442
2021-08-21 10:00	5065206	7.950	-85.344	316.495	16.012	754.158	910.456	0.452	0.592	***2.367***	16.012	449.872
2021-08-21 10:15	5066106	7.954	-85.557	317.849	16.005	753.324	909.595	0.451	0.591	***2.419***	16.005	450.581
2021-08-21 10:30	5067006	7.951	-85.423	320.669	16.007	753.907	910.253	0.452	0.592	***2.493***	16.007	451.491
2021-08-21 10:45	5067906	7.939	-84.724	322.591	16.009	754.041	910.368	0.452	0.592	***2.608***	16.009	451.339
2021-08-21 11:00	5068806	7.923	-83.787	324.408	16.011	754.116	910.421	0.452	0.592	***2.528***	16.011	452.841
2021-08-21 11:15	5069706	7.912	-83.134	325.364	16.028	754.463	910.489	0.452	0.592	***2.423***	16.028	453.472
2021-08-21 11:30	5070606	7.903	-82.626	327.018	16.044	754.666	910.393	0.452	0.592	***2.179***	16.044	454.939
2021-08-21 11:45	5071506	7.898	-82.386	327.867	16.079	754.829	909.863	0.451	0.591	***1.950***	16.079	451.732
2021-08-21 12:00	5072406	7.890	-81.93	329.188	16.13	755.085	909.093	0.451	0.591	***1.693***	16.13	452.457
2021-08-21 12:15	5073306	7.884	-81.592	327.593	16.189	755.976	908.937	0.451	0.591	***1.671***	16.189	454.725
2021-08-21 12:30	5074206	7.880	-81.415	327.324	16.243	757.214	909.309	0.451	0.591	***1.809***	16.243	456.189
2021-08-21 12:45	5075106	7.876	-81.155	328.668	16.298	758.395	909.579	0.451	0.591	***1.755***	16.298	455.939
2021-08-21 13:00	5076006	7.873	-81.019	330.111	16.372	759.388	909.219	0.451	0.591	***1.714***	16.372	455.362
2021-08-21 13:15	5076906	7.875	-81.155	330.673	16.474	760.683	908.656	0.451	0.591	***1.886***	16.474	455.751
2021-08-21 13:30	5077806	7.886	-81.809	329.546	16.57	762.335	908.64	0.451	0.591	***2.092***	16.57	455.687
2021-08-21 13:45	5078706	7.899	-82.581	328.244	16.676	764.211	908.685	0.451	0.591	***2.325***	16.676	457.671
2021-08-21 14:00	5079606	7.893	-82.283	327.893	16.744	765.403	908.705	0.451	0.591	***2.487***	16.744	457.947
2021-08-21 14:15	5080506	7.887	-81.975	329.412	16.805	766.441	908.669	0.451	0.591	***2.553***	16.805	457.902
2021-08-21 14:30	5081406	7.881	-81.632	329.584	16.845	766.958	908.461	0.451	0.590	***2.888***	16.845	457.986
2021-08-21 14:45	5082306	7.894	-82.383	327.893	16.888	766.541	907.091	0.450	0.590	***3.168***	16.888	456.26
2021-08-21 15:00	5083206	7.936	-84.798	319.253	16.926	765.853	905.486	0.449	0.589	***3.435***	16.926	453.24
2021-08-21 15:15	5084106	7.985	-87.65	308.326	16.957	765.763	904.759	0.449	0.588	***4.085***	16.957	453.049
2021-08-21 15:30	5085006	8.035	-90.518	302.871	17.032	767.494	905.274	0.449	0.588	***4.468***	17.032	451.927
2021-08-21 15:45	5085906	8.074	-92.84	305.628	17.142	766.656	902.033	0.448	0.586	***4.650***	17.142	459.435
2021-08-21 16:00	5086806	8.090	-93.78	305.916	17.277	768.961	902.023	0.448	0.586	***5.263***	17.277	454.086
2021-08-21 16:15	5087706	8.099	-94.354	303.351	17.451	772.303	902.417	0.448	0.587	***6.011***	17.451	453.934
2021-08-21 16:30	5088606	8.099	-94.38	301.596	17.572	774.872	902.978	0.448	0.587	***6.384***	17.572	452.79
2021-08-21 16:45	5089506	8.104	-94.714	300.614	17.66	776.83	903.492	0.449	0.587	***6.491***	17.66	456.619

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-21 17:00	5090406	8.150	-97.384	296.723	17.634	777.013	904.228	0.449	0.588	6.603	17.634	454.531
2021-08-21 17:15	5091306	8.208	-100.639	287.765	17.508	775.482	904.977	0.449	0.588	7.649	17.508	452.971
2021-08-21 17:30	5092206	8.270	-104.249	275.67	17.471	773.047	902.881	0.448	0.587	8.610	17.471	454.984
2021-08-21 17:45	5093106	8.332	-107.789	273.93	17.422	770.497	900.884	0.447	0.586	8.368	17.422	458.072
2021-08-21 18:00	5094006	8.354	-109.012	270.232	17.401	769.418	900.044	0.447	0.585	8.157	17.401	458.757
2021-08-21 18:15	5094906	8.358	-109.284	266.603	17.428	769.739	899.884	0.447	0.585	8.469	17.428	453.767
2021-08-21 18:30	5095806	8.346	-108.614	267.428	17.494	771.151	900.211	0.447	0.585	8.443	17.494	453.484
2021-08-21 18:45	5096706	8.305	-106.282	271.372	17.621	772.832	899.617	0.447	0.585	8.635	17.621	453.628
2021-08-21 19:00	5097606	8.286	-105.207	270.625	17.689	773.146	898.631	0.446	0.584	8.742	17.689	450.405
2021-08-21 19:15	5098506	8.285	-105.147	269.974	17.715	773.521	898.549	0.446	0.584	9.073	17.715	453.044
2021-08-21 19:30	5099406	8.327	-107.613	267.855	17.694	772.587	897.888	0.446	0.584	9.665	17.694	452.113
2021-08-21 19:45	5100306	8.353	-109.043	265.805	17.635	772.205	898.621	0.446	0.584	9.402	17.635	452.562
2021-08-21 20:00	5101206	8.366	-109.777	262.6	17.582	771.33	898.658	0.446	0.584	8.829	17.582	453.095
2021-08-21 20:15	5102106	8.370	-110.033	260.836	17.541	770.22	898.184	0.446	0.584	8.195	17.541	452.644
2021-08-21 20:30	5103006	8.363	-109.618	258.363	17.503	769.928	898.601	0.446	0.584	7.804	17.503	455.192
2021-08-21 20:45	5103906	8.373	-110.147	257.226	17.466	768.996	898.247	0.446	0.584	7.453	17.466	456.448
2021-08-21 21:00	5104806	8.378	-110.443	256.664	17.431	768.979	898.929	0.446	0.584	7.200	17.431	454.472
2021-08-21 21:15	5105706	8.379	-110.462	255.357	17.399	768.565	899.098	0.446	0.584	7.114	17.399	453.35
2021-08-21 21:30	5106606	8.378	-110.438	253.788	17.375	770.552	901.896	0.448	0.586	7.182	17.375	454.532
2021-08-21 21:45	5107506	8.386	-110.874	254.344	17.374	768.017	898.949	0.446	0.584	7.711	17.374	451.244
2021-08-21 22:00	5108406	8.371	-109.985	256.013	17.379	770.971	902.309	0.448	0.587	7.807	17.379	453.012
2021-08-21 22:15	5109306	8.344	-108.478	258.566	17.373	769.847	901.111	0.447	0.586	7.753	17.373	458.053
2021-08-21 22:30	5110206	8.313	-106.671	261.427	17.359	770.443	902.089	0.448	0.586	7.783	17.359	455.914
2021-08-21 22:45	5111106	8.302	-106.008	261.799	17.343	770.287	902.239	0.448	0.586	7.567	17.343	456.652
2021-08-21 23:00	5112006	8.300	-105.915	262.264	17.317	770.429	902.936	0.448	0.587	7.337	17.317	447.791
2021-08-21 23:15	5112906	8.302	-106.015	263.99	17.289	770.637	903.742	0.449	0.587	7.055	17.289	439.553
2021-08-21 23:30	5113806	8.278	-104.611	265.971	17.269	770.62	904.135	0.449	0.588	6.658	17.269	432.672
2021-08-21 23:45	5114706	8.246	-102.735	270.766	17.256	771.946	905.952	0.450	0.589	6.610	17.256	452.222
2021-08-22 00:00	5115606	8.228	-101.702	273.129	17.254	772.692	906.867	0.450	0.589	***6.425***	17.254	452.309
2021-08-22 00:15	5116506	8.203	-100.307	277.549	17.25	772.479	906.694	0.450	0.589	***6.140***	17.25	480.986
2021-08-22 00:30	5117406	8.189	-99.485	280.153	17.23	772.853	907.546	0.451	0.590	***5.916***	17.23	452.06
2021-08-22 00:45	5118306	8.178	-98.796	282.396	17.184	772.297	907.82	0.451	0.590	***5.654***	17.184	451.845
2021-08-22 01:00	5119206	8.172	-98.467	281.466	17.137	768.459	904.26	0.449	0.588	***5.421***	17.137	453.084
2021-08-22 01:15	5120106	8.186	-99.268	279.597	17.102	766.672	902.88	0.448	0.587	***5.276***	17.102	449.365
2021-08-22 01:30	5121006	8.184	-99.13	280.548	17.074	766.718	903.487	0.448	0.587	***5.137***	17.074	451.501
2021-08-22 01:45	5121906	8.166	-98.107	282.601	17.05	766.892	904.179	0.449	0.588	***5.070***	17.05	454.898
2021-08-22 02:00	5122806	8.154	-97.387	284.561	17.021	767.092	905.015	0.449	0.588	***4.896***	17.021	455.672
2021-08-22 02:15	5123706	8.152	-97.272	285.855	16.983	766.855	905.512	0.449	0.589	***4.713***	16.983	456.428
2021-08-22 02:30	5124606	8.149	-97.063	288.199	16.942	766.408	905.817	0.450	0.589	***4.693***	16.942	466.624
2021-08-22 02:45	5125506	8.138	-96.405	291.799	16.905	765.919	906.001	0.450	0.589	***4.872***	16.905	462.753
2021-08-22 03:00	5126406	8.128	-95.861	293.745	16.869	764.818	905.439	0.449	0.589	***4.766***	16.869	461.613
2021-08-22 03:15	5127306	8.120	-95.389	295.309	16.832	764.581	905.908	0.450	0.589	***4.583***	16.832	461.621
2021-08-22 03:30	5128206	8.107	-94.609	296.727	16.801	764.237	906.135	0.450	0.589	***4.466***	16.801	464.145
2021-08-22 03:45	5129106	8.091	-93.672	297.915	16.774	763.909	906.299	0.450	0.589	***4.291***	16.774	467.07
2021-08-22 04:00	5130006	8.076	-92.828	299.932	16.752	764.082	906.956	0.450	0.590	***4.305***	16.752	451.934
2021-08-22 04:15	5130906	8.070	-92.459	300.952	16.733	764.323	907.634	0.450	0.590	***4.436***	16.733	454.829
2021-08-22 04:30	5131806	8.065	-92.165	301.758	16.712	763.794	907.445	0.450	0.590	***4.397***	16.712	455.089
2021-08-22 04:45	5132706	8.055	-91.574	305.282	16.686	762.886	906.89	0.450	0.589	***4.258***	16.686	455.706
2021-08-22 05:00	5133606	8.051	-91.312	305.885	16.652	762.468	907.094	0.450	0.590	***4.177***	16.652	470.606
2021-08-22 05:15	5134506	8.053	-91.46	309.175	16.622	762.16	907.35	0.450	0.590	***4.270***	16.622	470.571
2021-08-22 05:30	5135406	8.052	-91.376	309.225	16.592	761.901	907.664	0.450	0.590	***4.457***	16.592	462.8
2021-08-22 05:45	5136306	8.045	-90.935	311.712	16.558	761.303	907.645	0.450	0.590	***4.454***	16.558	457.492
2021-08-22 06:00	5137206	8.039	-90.635	312.921	16.531	760.837	907.649	0.450	0.590	***4.524***	16.531	462.42
2021-08-22 06:15	5138106	8.038	-90.568	314.459	16.507	759.41	906.452	0.450	0.589	***4.433***	16.507	466.438
2021-08-22 06:30	5139006	8.031	-90.144	316.035	16.477	759.289	906.927	0.450	0.590	***4.231***	16.477	461.577
2021-08-22 06:45	5139906	8.028	-89.965	316.945	16.446	759.186	907.439	0.450	0.590	***4.077***	16.446	461.332

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-22 07:00	5140806	8.021	-89.536	317.947	16.421	758.548	907.195	0.450	0.590	***4.009***	16.421	462.154
2021-08-22 07:15	5141706	8.030	-90.024	318.669	16.388	757.962	907.182	0.450	0.590	***3.863***	16.388	458.402
2021-08-22 07:30	5142606	8.032	-90.134	318.443	16.353	757.413	907.246	0.450	0.590	***3.705***	16.353	458.695
2021-08-22 07:45	5143506	8.033	-90.184	316.333	16.327	756.999	907.305	0.450	0.590	***3.545***	16.327	457.132
2021-08-22 08:00	5144406	8.031	-90.077	316.974	16.299	756.482	907.249	0.450	0.590	***3.379***	16.299	455.385
2021-08-22 08:15	5145306	8.028	-89.91	317.694	16.273	756.063	907.288	0.450	0.590	***3.246***	16.273	453.268
2021-08-22 08:30	5146206	8.025	-89.738	317.713	16.25	755.457	907.041	0.450	0.590	***3.138***	16.25	454.008
2021-08-22 08:45	5147106	8.018	-89.293	318.593	16.227	754.442	906.302	0.450	0.589	***2.970***	16.227	454.271
2021-08-22 09:00	5148006	8.016	-89.173	319.458	16.207	753.892	906.065	0.449	0.589	***2.933***	16.207	454.775
2021-08-22 09:15	5148906	8.013	-88.995	319.501	16.185	753.864	906.493	0.450	0.589	***2.875***	16.185	455.046
2021-08-22 09:30	5149806	8.007	-88.668	320.572	16.164	753.683	906.696	0.450	0.589	***2.783***	16.164	455.438
2021-08-22 09:45	5150706	8.001	-88.315	322.05	16.146	753.523	906.889	0.450	0.589	***2.824***	16.146	456.394
2021-08-22 10:00	5151606	7.988	-87.526	323.757	16.126	753.321	907.058	0.450	0.590	***2.912***	16.126	456.045
2021-08-22 10:15	5152506	7.972	-86.637	326.046	16.108	752.637	906.61	0.450	0.589	***2.893***	16.108	458.747
2021-08-22 10:30	5153406	7.960	-85.924	329.248	16.093	752.229	906.445	0.450	0.589	***2.725***	16.093	456.92
2021-08-22 10:45	5154306	7.955	-85.647	329.477	16.078	752.003	906.466	0.450	0.589	***2.438***	16.078	456.771
2021-08-22 11:00	5155206	7.948	-85.249	330.328	16.066	751.473	906.086	0.449	0.589	***2.136***	16.066	455.524
2021-08-22 11:15	5156106	7.947	-85.168	330.251	16.045	750.414	905.243	0.449	0.588	***1.941***	16.045	455.966
2021-08-22 11:30	5157006	7.950	-85.356	332.004	16.029	746.597	900.982	0.447	0.586	***1.853***	16.029	456.815
2021-08-22 11:45	5157906	7.948	-85.242	333.155	16.01	746.791	901.614	0.447	0.586	***1.766***	16.01	454.897
2021-08-22 12:00	5158806	7.950	-85.359	332.781	15.993	746.167	901.204	0.447	0.586	***1.714***	15.993	452.923
2021-08-22 12:15	5159706	7.959	-85.843	332.304	15.962	743.509	898.629	0.446	0.584	***2.117***	15.962	455.405
2021-08-22 12:30	5160606	7.977	-86.887	330.876	15.927	739.649	894.69	0.443	0.582	***2.258***	15.927	464.805
2021-08-22 12:45	5161506	8.003	-88.36	327.953	15.895	737.286	892.496	0.442	0.580	***2.462***	15.895	465.635
2021-08-22 13:00	5162406	8.029	-89.839	324.994	15.878	736.87	892.353	0.442	0.580	***2.734***	15.878	466.54
2021-08-22 13:15	5163306	8.040	-90.437	321.916	15.863	735.41	890.888	0.442	0.579	***3.011***	15.863	468.573
2021-08-22 13:30	5164206	8.054	-91.25	319.158	15.855	736.362	892.204	0.442	0.580	***3.246***	15.855	468.209
2021-08-22 13:45	5165106	8.060	-91.591	317.212	15.841	734.69	890.457	0.441	0.579	***3.320***	15.841	468.195
2021-08-22 14:00	5166006	8.069	-92.106	311.576	15.828	734.292	890.255	0.441	0.579	***3.534***	15.828	467.902
2021-08-22 14:15	5166906	8.070	-92.158	309.755	15.825	734.205	890.198	0.441	0.579	***3.564***	15.825	467.915
2021-08-22 14:30	5167806	8.059	-91.529	309.449	15.808	733.586	889.8	0.441	0.578	***3.708***	15.808	478.668
2021-08-22 14:45	5168706	8.045	-90.749	310.985	15.8	733.229	889.538	0.441	0.578	***3.833***	15.8	468.618
2021-08-22 15:00	5169606	8.043	-90.58	311.304	15.793	732.961	889.355	0.441	0.578	***3.947***	15.793	465.136
2021-08-22 15:15	5170506	8.045	-90.697	309.788	15.78	732.555	889.123	0.441	0.578	***4.041***	15.78	466.177
2021-08-22 15:30	5171406	8.049	-90.957	309.654	15.775	731.973	888.534	0.440	0.578	***4.182***	15.775	466.981
2021-08-22 15:45	5172306	8.048	-90.902	309.094	15.763	731.125	887.743	0.440	0.577	***4.281***	15.763	465.518
2021-08-22 16:00	5173206	8.046	-90.74	309.521	15.748	730.371	887.14	0.440	0.577	***4.361***	15.748	464.685
2021-08-22 16:15	5174106	8.049	-90.919	309.318	15.738	729.717	886.555	0.439	0.576	***4.420***	15.738	463.168
2021-08-22 16:30	5175006	8.046	-90.785	309.709	15.73	728.059	884.698	0.438	0.575	***4.225***	15.73	460.656
2021-08-22 16:45	5175906	8.058	-91.438	309.325	15.718	728.339	885.289	0.439	0.575	***4.307***	15.718	459.063
2021-08-22 17:00	5176806	8.057	-91.367	308.353	15.71	728.725	885.928	0.439	0.576	***4.169***	15.71	461.927
2021-08-22 17:15	5177706	8.056	-91.326	307.232	15.7	728.669	886.059	0.439	0.576	***4.118***	15.7	460.855
2021-08-22 17:30	5178606	8.055	-91.236	306.753	15.688	728.781	886.445	0.439	0.576	***4.061***	15.688	457.786
2021-08-22 17:45	5179506	8.061	-91.586	306.596	15.679	728.993	886.884	0.439	0.576	***3.938***	15.679	452.004
2021-08-22 18:00	5180406	8.060	-91.538	307.42	15.67	729.172	887.296	0.440	0.577	***3.726***	15.67	445.236
2021-08-22 18:15	5181306	8.059	-91.479	306.319	15.66	729.247	887.582	0.440	0.577	***3.505***	15.66	446.125
2021-08-22 18:30	5182206	8.054	-91.217	305.203	15.649	729.197	887.753	0.440	0.577	***3.335***	15.649	445.93
2021-08-22 18:45	5183106	8.050	-90.95	304.874	15.643	729.243	887.936	0.440	0.577	***3.232***	15.643	445.333
2021-08-22 19:00	5184006	8.042	-90.508	305.926	15.631	729.204	888.127	0.440	0.577	***3.158***	15.631	446.574
2021-08-22 19:15	5184906	8.041	-90.466	304.7	15.624	729.185	888.249	0.440	0.577	***3.079***	15.624	450.834
2021-08-22 19:30	5185806	8.047	-90.773	305.263	15.607	729.124	888.54	0.440	0.578	***3.062***	15.607	451.433
2021-08-22 19:45	5186706	8.040	-90.382	305.833	15.582	728.959	888.844	0.440	0.578	***2.932***	15.582	449.185
2021-08-22 20:00	5187606	8.046	-90.718	304.598	15.569	728.724	888.832	0.440	0.578	***2.750***	15.569	452.03
2021-08-22 20:15	5188506	8.040	-90.384	305.647	15.563	728.614	888.821	0.440	0.578	***2.674***	15.563	455.169
2021-08-22 20:30	5189406	8.034	-90.022	305.337	15.557	728.644	888.977	0.440	0.578	***2.668***	15.557	457.046
2021-08-22 20:45	5190306	8.027	-89.61	304.922	15.552	728.559	888.987	0.440	0.578	***2.673***	15.552	477.938

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-22 21:00	5191206	8.026	-89.555	304.292	15.546	728.544	889.085	0.440	0.578	***2.651***	15.546	477.02
2021-08-22 21:15	5192106	8.016	-88.983	303.911	15.536	728.484	889.228	0.441	0.578	***2.603***	15.536	465.137
2021-08-22 21:30	5193006	8.009	-88.558	304.366	15.522	728.423	889.437	0.441	0.578	***2.613***	15.522	467.868
2021-08-22 21:45	5193906	8.011	-88.711	305.122	15.506	728.244	889.545	0.441	0.578	***2.401***	15.506	468.419
2021-08-22 22:00	5194806	8.012	-88.763	306.195	15.495	728.178	889.706	0.441	0.578	***2.254***	15.495	466.765
2021-08-22 22:15	5195706	8.008	-88.482	306.054	15.482	728.284	890.105	0.441	0.579	***2.149***	15.482	466.47
2021-08-22 22:30	5196606	7.999	-87.967	306.326	15.47	728.035	890.052	0.441	0.579	***2.094***	15.47	466.184
2021-08-22 22:45	5197506	7.989	-87.43	306.786	15.457	727.747	889.966	0.441	0.578	***2.089***	15.457	466.092
2021-08-22 23:00	5198406	7.986	-87.228	307.134	15.444	727.461	889.874	0.441	0.578	***2.115***	15.444	470.371
2021-08-22 23:15	5199306	7.979	-86.839	307.511	15.431	727.069	889.683	0.441	0.578	***2.219***	15.431	470.293
2021-08-22 23:30	5200206	7.974	-86.539	308.684	15.413	726.725	889.628	0.441	0.578	***2.339***	15.413	469.186
2021-08-22 23:45	5201106	7.969	-86.269	309.428	15.391	726.44	889.733	0.441	0.578	***2.363***	15.391	469.743
2021-08-23 00:00	5202006	7.968	-86.153	310.58	15.374	726.138	889.72	0.441	0.578	***2.399***	15.374	470.316
2021-08-23 00:15	5202906	7.962	-85.85	310.894	15.355	726.047	890.005	0.441	0.579	***2.461***	15.355	475.565
2021-08-23 00:30	5203806	7.954	-85.361	313.338	15.327	725.756	890.234	0.441	0.579	***2.357***	15.327	468.778
2021-08-23 00:45	5204706	7.953	-85.313	313.383	15.301	724.916	889.747	0.441	0.578	***2.172***	15.301	468.674
2021-08-23 01:00	5205606	7.949	-85.034	311.714	15.271	724.321	889.627	0.441	0.578	***2.089***	15.271	469.814
2021-08-23 01:15	5206506	7.948	-84.987	310.436	15.248	723.594	889.225	0.440	0.578	***1.978***	15.248	471.813
2021-08-23 01:30	5207406	7.942	-84.646	309.731	15.223	723.223	889.29	0.440	0.578	***1.884***	15.223	479.777
2021-08-23 01:45	5208306	7.943	-84.724	308.343	15.201	722.835	889.267	0.440	0.578	***1.949***	15.201	471.04
2021-08-23 02:00	5209206	7.939	-84.457	307.814	15.176	722.302	889.134	0.440	0.578	***2.222***	15.176	477.96
2021-08-23 02:15	5210106	7.941	-84.555	306.777	15.154	721.909	889.114	0.440	0.578	***2.664***	15.154	474.196
2021-08-23 02:30	5211006	7.941	-84.562	306.348	15.132	721.529	889.116	0.440	0.578	***2.960***	15.132	472.145
2021-08-23 02:45	5211906	7.934	-84.143	307.058	15.107	721.672	889.801	0.441	0.578	***2.883***	15.107	472.392
2021-08-23 03:00	5212806	7.930	-83.938	306.345	15.089	721.645	890.149	0.441	0.579	***2.899***	15.089	470.714
2021-08-23 03:15	5213706	7.920	-83.368	306.407	15.077	721.507	890.239	0.441	0.579	***2.797***	15.077	470.622
2021-08-23 03:30	5214606	7.909	-82.719	306.321	15.068	721.49	890.405	0.441	0.579	***2.563***	15.068	469.632
2021-08-23 03:45	5215506	7.901	-82.281	306.729	15.058	721.546	890.672	0.441	0.579	***2.356***	15.058	469.085
2021-08-23 04:00	5216406	7.894	-81.859	308.71	15.049	721.566	890.883	0.441	0.579	***2.145***	15.049	468.404
2021-08-23 04:15	5217306	7.886	-81.372	309.664	15.042	721.672	891.173	0.441	0.579	***1.978***	15.042	470.492
2021-08-23 04:30	5218206	7.882	-81.136	309.583	15.034	721.675	891.352	0.441	0.579	***1.919***	15.034	471.352
2021-08-23 04:45	5219106	7.883	-81.229	309.182	15.019	721.805	891.828	0.442	0.580	***1.992***	15.019	470.479
2021-08-23 05:00	5220006	7.884	-81.239	309.066	15.003	721.503	891.779	0.442	0.580	***2.066***	15.003	470.437
2021-08-23 05:15	5220906	7.876	-80.822	310.289	14.985	721.144	891.708	0.442	0.580	***1.979***	14.985	470.279
2021-08-23 05:30	5221806	7.866	-80.24	311.831	14.974	720.999	891.779	0.442	0.580	***1.914***	14.974	469.836
2021-08-23 05:45	5222706	7.886	-81.353	311.669	14.953	720.583	891.704	0.442	0.580	***1.887***	14.953	469.56
2021-08-23 06:00	5223606	7.874	-80.669	311.643	14.937	720.26	891.644	0.441	0.580	***1.785***	14.937	470.16
2021-08-23 06:15	5224506	7.862	-79.973	312.248	14.922	720.019	891.657	0.441	0.580	***1.630***	14.922	470
2021-08-23 06:30	5225406	7.850	-79.286	312.737	14.911	719.647	891.432	0.441	0.579	***1.474***	14.911	471.273
2021-08-23 06:45	5226306	7.850	-79.272	313.247	14.897	719.497	891.527	0.441	0.579	***1.340***	14.897	470.662
2021-08-23 07:00	5227206	7.848	-79.155	314.985	14.882	718.983	891.204	0.441	0.579	***1.279***	14.882	471.134
2021-08-23 07:15	5228106	7.841	-78.781	316.085	14.866	717.645	889.898	0.441	0.578	***1.328***	14.866	472.555
2021-08-23 07:30	5229006	7.835	-78.402	316.216	14.85	716.589	888.911	0.440	0.578	***1.536***	14.85	472.537
2021-08-23 07:45	5229906	7.828	-78.042	317.661	14.834	715.791	888.267	0.440	0.577	***1.811***	14.834	472.874
2021-08-23 08:00	5230806	7.821	-77.61	319.987	14.81	714.691	887.395	0.439	0.577	***2.047***	14.81	474.664
2021-08-23 08:15	5231706	7.818	-77.407	321.499	14.783	712.786	885.61	0.438	0.576	***2.085***	14.783	474.621
2021-08-23 08:30	5232606	7.820	-77.555	323.58	14.76	711.348	884.301	0.438	0.575	***2.013***	14.76	475.31
2021-08-23 08:45	5233506	7.820	-77.538	325.345	14.735	710.332	883.558	0.437	0.574	***1.993***	14.735	474.323
2021-08-23 09:00	5234406	7.821	-77.569	326.708	14.707	708.402	881.754	0.436	0.573	***1.977***	14.707	473.849
2021-08-23 09:15	5235306	7.814	-77.19	328.096	14.684	706.061	879.318	0.435	0.572	***1.813***	14.684	474.323
2021-08-23 09:30	5236206	7.807	-76.778	329.534	14.665	704.879	878.251	0.434	0.571	***1.657***	14.665	474.828
2021-08-23 09:45	5237106	7.796	-76.122	330.719	14.648	704.003	877.499	0.434	0.570	***1.454***	14.648	474.696
2021-08-23 10:00	5238006	7.787	-75.607	331.389	14.623	703.563	877.471	0.434	0.570	***1.314***	14.623	474.916
2021-08-23 10:15	5238906	7.779	-75.147	333.267	14.587	702.029	876.328	0.433	0.570	***1.218***	14.587	475.204
2021-08-23 10:30	5239806	7.772	-74.739	334.896	14.564	699.567	873.734	0.432	0.568	***1.048***	14.564	475.168
2021-08-23 10:45	5240706	7.768	-74.503	336.548	14.544	698.794	873.173	0.432	0.568	***0.875***	14.544	475.716

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-23 11:00	5241606	7.763	-74.234	337.747	14.527	698.853	873.596	0.432	0.568	***0.760***	14.527	474.546
2021-08-23 11:15	5242506	7.759	-73.974	338.165	14.512	698.717	873.745	0.432	0.568	***0.743***	14.512	474.799
2021-08-23 11:30	5243406	7.755	-73.748	337.952	14.5	698.511	873.737	0.432	0.568	***0.725***	14.5	475.333
2021-08-23 11:45	5244306	7.746	-73.254	338.88	14.493	698	873.256	0.432	0.568	***0.664***	14.493	475.207
2021-08-23 12:00	5245206	7.741	-72.932	339.178	14.488	696.464	871.427	0.431	0.566	***0.648***	14.488	475.917
2021-08-23 12:15	5246106	7.736	-72.651	340.651	14.484	695.87	870.769	0.431	0.566	***0.607***	14.484	476.692
2021-08-23 12:30	5247006	7.728	-72.222	342.69	14.48	695.428	870.293	0.430	0.566	***0.522***	14.48	476.266
2021-08-23 12:45	5247906	7.720	-71.731	345.334	14.476	696.201	871.344	0.431	0.566	***0.490***	14.476	476.379
2021-08-23 13:00	5248806	7.718	-71.666	346.316	14.486	694.413	868.913	0.430	0.565	***0.425***	14.486	476.4
2021-08-23 13:15	5249706	7.725	-72.043	347.363	14.497	690.521	863.816	0.427	0.561	***0.265***	14.497	474.883
2021-08-23 13:30	5250606	7.720	-71.75	348.645	14.492	690.417	863.778	0.427	0.561	***0.343***	14.492	473.392
2021-08-23 13:45	5251506	7.707	-71.027	348.896	14.499	690.338	863.544	0.427	0.561	***0.392***	14.499	473.232
2021-08-23 14:00	5252406	7.701	-70.672	349.659	14.506	690.387	863.45	0.427	0.561	***0.402***	14.506	473.024
2021-08-23 14:15	5253306	7.697	-70.462	350.431	14.51	689.355	862.075	0.426	0.560	***0.381***	14.51	472.754
2021-08-23 14:30	5254206	7.700	-70.636	351.044	14.505	690.924	864.142	0.427	0.562	***0.336***	14.505	472.775
2021-08-23 14:45	5255106	7.704	-70.86	351.568	14.493	691.64	865.292	0.428	0.562	***0.319***	14.493	471.918
2021-08-23 15:00	5256006	7.696	-70.41	353.488	14.48	690.142	863.69	0.427	0.561	***0.323***	14.48	471.446
2021-08-23 15:15	5256906	7.689	-69.964	355.385	14.472	689.273	862.761	0.426	0.561	***0.313***	14.472	470.447
2021-08-23 15:30	5257806	7.683	-69.647	355.653	14.455	686.395	859.516	0.425	0.559	***0.337***	14.455	469.33
2021-08-23 15:45	5258706	7.674	-69.134	357.104	14.455	682.646	854.823	0.422	0.556	***0.369***	14.455	467.796
2021-08-23 16:00	5259606	7.674	-69.158	357.212	14.475	683.098	854.968	0.422	0.556	***0.482***	14.475	467.654
2021-08-23 16:15	5260507	7.677	-69.299	357.72	14.505	682.706	853.867	0.422	0.555	***0.663***	14.505	467.258
2021-08-23 16:30	5261407	7.687	-69.89	357.193	14.526	682.374	853.017	0.421	0.554	***0.717***	14.526	465.87
2021-08-23 16:45	5262307	7.694	-70.283	358.008	14.543	681.725	851.869	0.421	0.554	***0.674***	14.543	466.254
2021-08-23 17:00	5263207	7.697	-70.474	358.702	14.551	680.928	850.702	0.420	0.553	***0.655***	14.551	465.969
2021-08-23 17:15	5264107	7.691	-70.138	359.174	14.545	680.529	850.322	0.420	0.553	***0.777***	14.545	465.196
2021-08-23 17:30	5265007	7.678	-69.344	361.146	14.494	676.91	846.832	0.418	0.550	***0.815***	14.494	464.264
2021-08-23 17:45	5265907	7.676	-69.246	363.694	14.409	662.797	830.863	0.410	0.540	***0.730***	14.409	463.229
2021-08-23 18:00	5266807	7.700	-70.567	362.936	14.273	653.81	822.294	0.406	0.534	***2.167***	14.273	462.983
2021-08-23 18:15	5267707	7.765	-74.251	356.468	14.183	646.701	815.096	0.402	0.530	***3.121***	14.183	463.551
2021-08-23 18:30	5268607	7.777	-74.918	349.547	14.061	640.639	809.848	0.399	0.526	***3.239***	14.061	463.472
2021-08-23 18:45	5269507	7.782	-75.145	347.1	14.003	634.883	803.693	0.396	0.522	***3.213***	14.003	464.643
2021-08-23 19:00	5270407	7.778	-74.923	346.254	13.922	630.877	800.188	0.394	0.520	***3.215***	13.922	465.516
2021-08-23 19:15	5271307	7.775	-74.713	346.185	13.832	626.657	796.567	0.392	0.518	***3.105***	13.832	466.247
2021-08-23 19:30	5272207	7.769	-74.363	346.302	13.728	621.503	792.025	0.390	0.515	***2.979***	13.728	470.143
2021-08-23 19:45	5273107	7.757	-73.688	347.332	13.657	617.581	788.386	0.388	0.512	***2.948***	13.657	470.06
2021-08-23 20:00	5274007	7.726	-71.876	350.791	13.614	616.695	788.075	0.388	0.512	***2.857***	13.614	469.077
2021-08-23 20:15	5274907	7.685	-69.542	355.297	13.605	629.796	805	0.396	0.523	***2.350***	13.605	470.871
2021-08-23 20:30	5275807	7.675	-68.967	358.151	13.588	636.808	814.301	0.401	0.529	***1.937***	13.588	472.012
2021-08-23 20:45	5276707	7.667	-68.521	360.652	13.568	639.019	817.527	0.403	0.531	***1.691***	13.568	472.443
2021-08-23 21:00	5277607	7.659	-68.045	362.719	13.551	639.643	818.671	0.403	0.532	***1.436***	13.551	474.571
2021-08-23 21:15	5278507	7.656	-67.878	364.41	13.543	640.766	820.262	0.404	0.533	***1.177***	13.543	474.249
2021-08-23 21:30	5279407	7.659	-68.071	365.769	13.532	640.392	819.997	0.404	0.533	***1.022***	13.532	473.368
2021-08-23 21:45	5280307	7.662	-68.243	366.577	13.511	638.924	818.554	0.403	0.532	***0.807***	13.511	473.362
2021-08-23 22:00	5281207	7.664	-68.343	367.54	13.492	637.306	816.846	0.402	0.531	***0.663***	13.492	473.716
2021-08-23 22:15	5282107	7.663	-68.254	368.475	13.469	636.296	816.022	0.402	0.530	***0.574***	13.469	473.216
2021-08-23 22:30	5283007	7.659	-68.054	369.765	13.459	635.588	815.318	0.402	0.530	***0.516***	13.459	473.957
2021-08-23 22:45	5283907	7.656	-67.859	370.687	13.447	635.675	815.66	0.402	0.530	***0.441***	13.447	473.619
2021-08-23 23:00	5284807	7.655	-67.79	371.045	13.427	635.884	816.32	0.402	0.531	***0.362***	13.427	472.787
2021-08-23 23:15	5285707	7.654	-67.759	371.672	13.403	635.573	816.406	0.402	0.531	***0.273***	13.403	472.308
2021-08-23 23:30	5286607	7.656	-67.863	372.587	13.385	635.113	816.176	0.402	0.531	***0.188***	13.385	472.214
2021-08-23 23:45	5287507	7.655	-67.761	373.791	13.37	634.958	816.289	0.402	0.531	***0.135***	13.37	471.882
2021-08-24 00:00	5288407	7.647	-67.356	374.852	13.35	634.428	815.991	0.402	0.530	***0.122***	13.35	471.621
2021-08-24 00:15	5289307	7.644	-67.165	375.713	13.339	633.452	814.963	0.401	0.530	***0.086***	13.339	472.768
2021-08-24 00:30	5290207	7.648	-67.363	375.56	13.332	630.266	811.007	0.399	0.527	***0.148***	13.332	473.346
2021-08-24 00:45	5291107	7.644	-67.167	375.892	13.324	629.388	810.037	0.399	0.527	***0.188***	13.324	471.811

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-24 01:00	5292007	7.644	-67.129	376.469	13.315	628.1	808.551	0.398	0.526	***0.192***	13.315	472.273
2021-08-24 01:15	5292907	7.654	-67.728	375.012	13.306	626.616	806.827	0.397	0.524	***0.357***	13.306	475.571
2021-08-24 01:30	5293807	7.664	-68.269	373.963	13.302	625.932	806.029	0.397	0.524	***0.430***	13.302	476.537
2021-08-24 01:45	5294707	7.662	-68.142	373.343	13.296	624.449	804.229	0.396	0.523	***0.394***	13.296	477.316
2021-08-24 02:00	5295607	7.660	-68.08	373.26	13.288	623.967	803.768	0.396	0.522	***0.381***	13.288	476.985
2021-08-24 02:15	5296507	7.653	-67.666	373.949	13.268	623.902	804.075	0.396	0.523	***0.366***	13.268	475.798
2021-08-24 02:30	5297407	7.649	-67.391	373.844	13.256	623.704	804.07	0.396	0.523	***0.275***	13.256	477.633
2021-08-24 02:45	5298307	7.652	-67.568	373.834	13.244	623.836	804.468	0.396	0.523	***0.223***	13.244	477.136
2021-08-24 03:00	5299207	7.649	-67.425	374.259	13.219	623.961	805.131	0.396	0.523	***0.207***	13.219	476.881
2021-08-24 03:15	5300107	7.646	-67.253	374.626	13.187	622.339	803.672	0.396	0.522	***0.206***	13.187	477.643
2021-08-24 03:30	5301007	7.640	-66.876	375.992	13.151	620.873	802.489	0.395	0.522	***0.220***	13.151	477.179
2021-08-24 03:45	5301907	7.635	-66.581	376.59	13.121	617.349	798.534	0.393	0.519	***0.178***	13.121	477.364
2021-08-24 04:00	5302807	7.631	-66.364	376.643	13.089	615.652	796.966	0.392	0.518	***0.146***	13.089	477.673
2021-08-24 04:15	5303707	7.627	-66.125	377.666	13.062	614.989	796.641	0.392	0.518	***0.193***	13.062	477.361
2021-08-24 04:30	5304607	7.625	-65.978	377.432	13.03	613.841	795.785	0.391	0.517	***0.113***	13.03	477.178
2021-08-24 04:45	5305507	7.626	-66.04	376.776	13.004	612.204	794.17	0.391	0.516	***0.099***	13.004	476.569
2021-08-24 05:00	5306407	7.627	-66.121	376.893	12.98	611.472	793.689	0.390	0.516	***0.092***	12.98	476.198
2021-08-24 05:15	5307307	7.627	-66.123	376.621	12.958	611.301	793.9	0.390	0.516	***0.079***	12.958	477.14
2021-08-24 05:30	5308207	7.627	-66.068	377.158	12.938	611.137	794.083	0.390	0.516	***0.173***	12.938	477.392
2021-08-24 05:45	5309107	7.627	-66.106	377.554	12.908	610.921	794.388	0.391	0.516	***0.059***	12.908	476.933
2021-08-24 06:00	5310007	7.627	-66.061	378.689	12.872	608.4	791.828	0.389	0.515	***0.000***	12.872	477.224
2021-08-24 06:15	5310907	7.625	-65.97	379.602	12.85	607.513	791.098	0.389	0.514	***0.000***	12.85	478.081
2021-08-24 06:30	5311807	7.624	-65.897	379.883	12.832	607.466	791.398	0.389	0.514	***0.077***	12.832	478.644
2021-08-24 06:45	5312707	7.619	-65.603	381.151	12.804	607.591	792.109	0.389	0.515	***0.000***	12.804	478.79
2021-08-24 07:00	5313607	7.618	-65.558	382.179	12.77	606.566	791.443	0.389	0.514	***0.000***	12.77	476.464
2021-08-24 07:15	5314507	7.618	-65.536	383.068	12.74	605.687	790.877	0.389	0.514	***0.000***	12.74	477.792
2021-08-24 07:30	5315407	7.619	-65.575	383.669	12.716	605.24	790.773	0.389	0.514	***0.000***	12.716	479.764
2021-08-24 07:45	5316307	7.619	-65.601	384.241	12.693	605.227	791.21	0.389	0.514	***0.000***	12.693	480.507
2021-08-24 08:00	5317207	7.621	-65.703	384.952	12.677	604.835	791.018	0.389	0.514	***0.022***	12.677	479.004
2021-08-24 08:15	5318107	7.621	-65.715	384.899	12.665	605.797	792.504	0.390	0.515	***0.355***	12.665	480.696
2021-08-24 08:30	5319007	7.622	-65.727	385.369	12.658	605.527	792.302	0.389	0.515	***0.490***	12.658	481.521
2021-08-24 08:45	5319907	7.622	-65.727	385.836	12.656	605.383	792.141	0.389	0.515	***0.528***	12.656	482.137
2021-08-24 09:00	5320807	7.620	-65.66	385.939	12.657	605.827	792.713	0.390	0.515	***0.390***	12.657	481.172
2021-08-24 09:15	5321707	7.621	-65.706	384.837	12.661	605.903	792.738	0.390	0.515	***0.316***	12.661	481.049
2021-08-24 09:30	5322607	7.627	-66.013	383.397	12.67	606.225	792.982	0.390	0.515	***0.198***	12.67	480.848
2021-08-24 09:45	5323507	7.627	-66.03	382.675	12.684	605.985	792.386	0.389	0.515	***0.146***	12.684	481.872
2021-08-24 10:00	5324407	7.629	-66.166	382.103	12.705	606.374	792.48	0.390	0.515	***0.030***	12.705	481.621
2021-08-24 10:15	5325307	7.631	-66.259	381.926	12.73	606.412	792.026	0.389	0.515	***0.058***	12.73	482.509
2021-08-24 10:30	5326207	7.629	-66.173	381.64	12.758	606.915	792.139	0.389	0.515	***0.101***	12.758	482.543
2021-08-24 10:45	5327107	7.626	-65.989	381.659	12.786	607.187	791.942	0.389	0.515	***0.138***	12.786	481.806
2021-08-24 11:00	5328007	7.627	-66.075	381.812	12.806	607.733	792.248	0.389	0.515	***0.220***	12.806	483.451
2021-08-24 11:15	5328907	7.637	-66.628	379.63	12.825	608.18	792.461	0.390	0.515	***0.432***	12.825	483.326
2021-08-24 11:30	5329807	7.647	-67.222	375.715	12.841	608.635	792.737	0.390	0.515	***0.443***	12.841	482.102
2021-08-24 11:45	5330707	7.658	-67.816	374.111	12.864	608.227	791.749	0.389	0.515	***0.395***	12.864	482.913
2021-08-24 12:00	5331607	7.657	-67.79	374.097	12.887	609.213	792.579	0.390	0.515	***0.265***	12.887	483.452
2021-08-24 12:15	5332507	7.657	-67.768	374.528	12.917	609.726	792.663	0.390	0.515	***0.252***	12.917	483.857
2021-08-24 12:30	5333407	7.655	-67.67	374.957	12.949	610.272	792.742	0.390	0.515	***0.401***	12.949	484.687
2021-08-24 12:45	5334307	7.652	-67.499	375.265	12.979	610.968	793.052	0.390	0.515	***0.345***	12.979	484.807
2021-08-24 13:00	5335207	7.648	-67.31	375.248	13.007	611.479	793.168	0.390	0.516	***0.404***	13.007	484.781
2021-08-24 13:15	5336107	7.650	-67.399	374.614	13.032	611.819	793.122	0.390	0.516	***0.401***	13.032	483.77
2021-08-24 13:30	5337007	7.646	-67.198	374.898	13.062	612.319	793.184	0.390	0.516	***0.346***	13.062	481.28
2021-08-24 13:45	5337907	7.650	-67.458	374.497	13.112	613.052	793.144	0.390	0.516	***0.286***	13.112	482.155
2021-08-24 14:00	5338807	7.654	-67.67	374.364	13.183	615.088	794.383	0.391	0.516	***0.385***	13.183	483.736
2021-08-24 14:15	5339707	7.657	-67.859	374.852	13.241	614.77	792.833	0.390	0.515	***0.624***	13.241	484.621
2021-08-24 14:30	5340607	7.690	-69.73	373.87	13.288	616.706	794.423	0.391	0.516	***0.976***	13.288	486.246
2021-08-24 14:45	5341507	7.723	-71.64	367.521	13.321	617.444	794.722	0.391	0.517	***1.771***	13.321	486.308

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-24 15:00	5342407	7.752	-73.28	357.262	13.343	617.443	794.287	0.391	0.516	***3.086***	13.343	487.031
2021-08-24 15:15	5343307	7.795	-75.767	347.189	13.369	617.006	793.213	0.390	0.516	***4.155***	13.369	488.516
2021-08-24 15:30	5344207	7.842	-78.413	340.868	13.379	617.322	793.428	0.390	0.516	***4.960***	13.379	489.769
2021-08-24 15:45	5345107	7.871	-80.092	336.059	13.384	616.477	792.257	0.390	0.515	***5.175***	13.384	483.671
2021-08-24 16:00	5346007	7.886	-80.903	330.247	13.39	618.032	794.123	0.391	0.516	***5.196***	13.39	483.43
2021-08-24 16:15	5346907	7.907	-82.145	325.912	13.408	618.168	793.954	0.391	0.516	***5.273***	13.408	484.699
2021-08-24 16:30	5347807	7.916	-82.641	322.067	13.412	616.948	792.31	0.390	0.515	***5.263***	13.412	485.176
2021-08-24 16:45	5348707	7.930	-83.413	318.993	13.409	616.945	792.375	0.390	0.515	***5.301***	13.409	486.11
2021-08-24 17:00	5349607	7.930	-83.418	317.334	13.386	617.521	793.562	0.390	0.516	***5.264***	13.386	488.103
2021-08-24 17:15	5350507	7.929	-83.342	316.118	13.369	617.593	793.986	0.391	0.516	***5.059***	13.369	489.798
2021-08-24 17:30	5351407	7.930	-83.423	314.964	13.349	617.31	794.009	0.391	0.516	***4.988***	13.349	489.994
2021-08-24 17:45	5352307	7.936	-83.783	314.985	13.341	617.602	794.53	0.391	0.516	***4.934***	13.341	490.252
2021-08-24 18:00	5353207	7.936	-83.749	313.436	13.327	617.487	794.657	0.391	0.517	***4.988***	13.327	492.58
2021-08-24 18:15	5354107	7.944	-84.19	312.277	13.324	618.13	795.543	0.391	0.517	***4.920***	13.324	492.501
2021-08-24 18:30	5355007	7.924	-83.039	313.591	13.32	619.357	797.197	0.392	0.518	***4.874***	13.32	493.432
2021-08-24 18:45	5355907	7.923	-82.998	314.463	13.323	620.47	798.583	0.393	0.519	***4.735***	13.323	494.726
2021-08-24 19:00	5356807	7.923	-83.022	313.65	13.338	621.293	799.338	0.393	0.520	***4.657***	13.338	495.035
2021-08-24 19:15	5357707	7.917	-82.684	312.861	13.363	622.007	799.76	0.394	0.520	***4.561***	13.363	495.603
2021-08-24 19:30	5358607	7.913	-82.476	314.573	13.454	622.732	798.912	0.393	0.519	***4.301***	13.454	495.288
2021-08-24 19:45	5359507	7.904	-81.978	316.881	13.587	624.567	798.667	0.393	0.519	***3.638***	13.587	494.302
2021-08-24 20:00	5360407	7.898	-81.697	320.2	13.791	629.025	800.388	0.394	0.520	***3.655***	13.791	494.814
2021-08-24 20:15	5361307	7.900	-81.875	320.603	13.955	632.154	801.164	0.395	0.521	***3.684***	13.955	495.04
2021-08-24 20:30	5362207	7.916	-82.798	321.282	14.058	633.977	801.473	0.395	0.521	***3.617***	14.058	496.989
2021-08-24 20:45	5363107	7.914	-82.712	324.124	14.15	636.055	802.323	0.395	0.522	***3.663***	14.15	499.226
2021-08-24 21:00	5364007	7.888	-81.291	327.314	14.223	637.376	802.581	0.395	0.522	***3.744***	14.223	499.026
2021-08-24 21:15	5364907	7.868	-80.161	330.688	14.299	639.211	803.415	0.396	0.522	***3.821***	14.299	500.968
2021-08-24 21:30	5365807	7.857	-79.536	332.814	14.37	640.927	804.199	0.396	0.523	***3.954***	14.37	500.979
2021-08-24 21:45	5366707	7.864	-79.978	331.31	14.417	642.536	805.316	0.397	0.523	***3.915***	14.417	500.44
2021-08-24 22:00	5367607	7.894	-81.706	330.945	14.452	643.95	806.42	0.398	0.524	***3.903***	14.452	502.589
2021-08-24 22:15	5368507	7.910	-82.581	330.528	14.473	644.985	807.298	0.398	0.525	***3.799***	14.473	502.966
2021-08-24 22:30	5369407	7.920	-83.153	329.202	14.488	645.825	808.067	0.398	0.525	***3.678***	14.488	503.495
2021-08-24 22:45	5370307	7.925	-83.449	329.715	14.495	646.433	808.695	0.399	0.526	***3.612***	14.495	505.361
2021-08-24 23:00	5371207	7.923	-83.365	329.05	14.495	647.775	810.365	0.400	0.527	***3.464***	14.495	506.409
2021-08-24 23:15	5372107	7.921	-83.237	327.886	14.492	647.089	809.574	0.399	0.526	***3.382***	14.492	508.638
2021-08-24 23:30	5373007	7.911	-82.669	328.008	14.485	647.354	810.047	0.399	0.527	***3.352***	14.485	509.345
2021-08-24 23:45	5373907	7.898	-81.89	328.232	14.472	647.517	810.49	0.400	0.527	***3.276***	14.472	507.641
2021-08-25 00:00	5374807	7.872	-80.454	328.947	14.454	647.643	810.995	0.400	0.527	***3.217***	14.454	508.7
2021-08-25 00:15	5375707	7.848	-79.036	331.141	14.431	647.822	811.678	0.400	0.528	***3.112***	14.431	510.434
2021-08-25 00:30	5376607	7.841	-78.642	334.138	14.4	648.21	812.77	0.401	0.528	***2.933***	14.4	511.218
2021-08-25 00:45	5377507	7.844	-78.814	336.205	14.37	648.509	813.726	0.401	0.529	***2.663***	14.37	511.181
2021-08-25 01:00	5378407	7.853	-79.288	338.222	14.325	648.25	814.273	0.402	0.529	***2.357***	14.325	511.147
2021-08-25 01:15	5379307	7.864	-79.913	338.806	14.288	648.041	814.734	0.402	0.530	***2.164***	14.288	512.219
2021-08-25 01:30	5380207	7.876	-80.574	339.049	14.245	647.402	814.783	0.402	0.530	***1.959***	14.245	513.301
2021-08-25 01:45	5381107	7.855	-79.381	339.04	14.204	646.77	814.786	0.402	0.530	***1.924***	14.204	518.759
2021-08-25 02:00	5382007	7.851	-79.124	340.637	14.164	646.205	814.857	0.402	0.530	***1.890***	14.164	528.669
2021-08-25 02:15	5382907	7.855	-79.389	341.531	14.122	645.771	815.134	0.402	0.530	***1.777***	14.122	520.41
2021-08-25 02:30	5383807	7.848	-78.938	341.767	14.074	644.812	814.856	0.402	0.530	***1.791***	14.074	521.874
2021-08-25 02:45	5384707	7.843	-78.647	342.494	14.026	644.22	815.068	0.402	0.530	***1.824***	14.026	523.273
2021-08-25 03:00	5385607	7.841	-78.509	342.606	13.99	643.454	814.797	0.402	0.530	***1.738***	13.99	523.538
2021-08-25 03:15	5386507	7.838	-78.363	342.749	13.953	643.097	815.072	0.402	0.530	***1.738***	13.953	523.081
2021-08-25 03:30	5387407	7.835	-78.149	342.654	13.917	642.504	815.034	0.402	0.530	***1.693***	13.917	524.678
2021-08-25 03:45	5388307	7.825	-77.565	344.232	13.876	641.782	814.922	0.402	0.530	***1.570***	13.876	525.272
2021-08-25 04:00	5389207	7.817	-77.116	345.792	13.837	641.295	815.08	0.402	0.530	***1.419***	13.837	525.549
2021-08-25 04:15	5390107	7.812	-76.842	347.055	13.803	640.819	815.157	0.402	0.530	***1.252***	13.803	525.59
2021-08-25 04:30	5391007	7.803	-76.327	347.649	13.766	640.225	815.133	0.402	0.530	***1.116***	13.766	526.615
2021-08-25 04:45	5391907	7.803	-76.303	348.209	13.726	639.546	815.054	0.402	0.530	***0.915***	13.726	531.61

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-25 05:00	5392807	7.805	-76.423	348.953	13.688	638.827	814.891	0.402	0.530	***0.823***	13.688	527.604
2021-08-25 05:15	5393707	7.801	-76.175	349.749	13.651	637.536	813.979	0.401	0.529	***0.813***	13.651	528.97
2021-08-25 05:30	5394607	7.796	-75.848	350.486	13.617	637.559	814.686	0.401	0.530	***0.780***	13.617	528.964
2021-08-25 05:45	5395507	7.790	-75.533	351.397	13.575	636.874	814.637	0.401	0.530	***0.706***	13.575	529.931
2021-08-25 06:00	5396407	7.787	-75.338	351.979	13.538	635.688	813.858	0.401	0.529	***0.675***	13.538	530.079
2021-08-25 06:15	5397307	7.786	-75.25	352.763	13.504	635.437	814.223	0.401	0.529	***0.707***	13.504	531.45
2021-08-25 06:30	5398207	7.787	-75.309	353.39	13.468	634.912	814.26	0.401	0.529	***0.710***	13.468	532.069
2021-08-25 06:45	5399107	7.784	-75.135	354.155	13.431	634.362	814.289	0.401	0.529	***0.683***	13.431	532.849
2021-08-25 07:00	5400007	7.785	-75.192	354.804	13.398	633.42	813.739	0.401	0.529	***0.683***	13.398	537.808
2021-08-25 07:15	5400907	7.781	-74.964	355.672	13.365	633.089	813.976	0.401	0.529	***0.675***	13.365	535.66
2021-08-25 07:30	5401807	7.780	-74.904	355.352	13.337	632.639	813.96	0.401	0.529	***0.685***	13.337	537.279
2021-08-25 07:45	5402707	7.781	-74.921	355.021	13.303	632.245	814.139	0.401	0.529	***0.665***	13.303	536.564
2021-08-25 08:00	5403607	7.778	-74.77	355.54	13.268	631.717	814.151	0.401	0.529	***0.650***	13.268	536.755
2021-08-25 08:15	5404507	7.779	-74.792	355.796	13.236	631.236	814.184	0.401	0.529	***0.694***	13.236	536.37
2021-08-25 08:30	5405407	7.786	-75.171	355.941	13.204	630.667	814.081	0.401	0.529	***0.834***	13.204	537.107
2021-08-25 08:45	5406307	7.796	-75.736	355.397	13.176	630.072	813.873	0.401	0.529	***1.007***	13.176	536.586
2021-08-25 09:00	5407207	7.791	-75.443	355.669	13.15	629.471	813.621	0.401	0.529	***1.192***	13.15	537.212
2021-08-25 09:15	5408107	7.786	-75.15	356.704	13.129	629.354	813.898	0.401	0.529	***1.450***	13.129	537.999
2021-08-25 09:30	5409007	7.789	-75.362	356.723	13.113	628.899	813.621	0.401	0.529	***1.685***	13.113	538.81
2021-08-25 09:45	5409907	7.795	-75.681	355.998	13.106	628.646	813.434	0.400	0.529	***1.857***	13.106	540.266
2021-08-25 10:00	5410807	7.803	-76.11	354.952	13.099	628.633	813.569	0.401	0.529	***2.060***	13.099	538.555
2021-08-25 10:15	5411707	7.807	-76.354	354.465	13.083	628.229	813.363	0.400	0.529	***2.396***	13.083	537.986
2021-08-25 10:30	5412607	7.813	-76.692	353.361	13.08	628.072	813.224	0.400	0.529	***2.488***	13.08	539.061
2021-08-25 10:45	5413507	7.821	-77.119	350.901	13.079	627.924	813.052	0.400	0.528	***2.552***	13.079	538.817
2021-08-25 11:00	5414407	7.823	-77.279	349.125	13.077	627.842	812.974	0.400	0.528	***2.524***	13.077	538.982
2021-08-25 11:15	5415307	7.827	-77.493	347.794	13.079	627.749	812.822	0.400	0.528	***2.473***	13.079	538.859
2021-08-25 11:30	5416207	7.822	-77.176	348.34	13.083	627.783	812.783	0.400	0.528	***2.509***	13.083	534.818
2021-08-25 11:45	5417107	7.811	-76.559	349.289	13.094	628.095	812.969	0.400	0.528	***2.427***	13.094	534.317
2021-08-25 12:00	5418007	7.797	-75.805	350.596	13.113	628.319	812.868	0.400	0.528	***2.216***	13.113	534.387
2021-08-25 12:15	5418907	7.782	-74.952	353.252	13.167	629.536	813.356	0.400	0.529	***1.897***	13.167	535.02
2021-08-25 12:30	5419807	7.764	-73.969	356.21	13.23	630.995	813.977	0.401	0.529	***1.475***	13.23	536.177
2021-08-25 12:45	5420707	7.748	-73.061	359.1	13.287	632.096	814.254	0.401	0.529	***1.090***	13.287	535.985
2021-08-25 13:00	5421607	7.734	-72.277	361.913	13.363	633.658	814.747	0.401	0.530	***0.848***	13.363	536.645
2021-08-25 13:15	5422507	7.726	-71.867	364.224	13.471	634.795	814.057	0.401	0.529	***0.889***	13.471	536.147
2021-08-25 13:30	5423407	7.724	-71.738	365.69	13.585	635.94	813.257	0.401	0.529	***1.268***	13.585	535.79
2021-08-25 13:45	5424307	7.717	-71.43	366.136	13.766	637.753	811.977	0.400	0.528	***2.280***	13.766	534.835
2021-08-25 14:00	5425207	7.740	-72.77	363.79	13.93	639.871	811.446	0.400	0.527	***2.997***	13.93	537.818
2021-08-25 14:15	5426107	7.750	-73.342	359.737	14.012	640.824	811.043	0.400	0.527	***3.704***	14.012	538.748
2021-08-25 14:30	5427007	7.778	-74.973	356.485	14.087	642.161	811.264	0.400	0.527	***3.987***	14.087	540.084
2021-08-25 14:45	5427907	7.792	-75.76	355.488	14.108	642.981	811.89	0.400	0.528	***4.314***	14.108	539.362
2021-08-25 15:00	5428807	7.832	-78.084	351.363	14.191	644.171	811.754	0.400	0.528	***4.644***	14.191	538.449
2021-08-25 15:15	5429707	7.875	-80.55	347.837	14.182	643.234	810.76	0.400	0.527	***5.054***	14.182	538.101
2021-08-25 15:30	5430607	7.948	-84.67	336.179	14.194	642.291	809.329	0.399	0.526	***6.487***	14.194	538.839
2021-08-25 15:45	5431507	7.998	-87.533	328.313	14.206	641.981	808.718	0.399	0.526	7.299	14.206	545.581
2021-08-25 16:00	5432407	8.046	-90.249	323.025	14.195	641.437	808.243	0.398	0.525	7.797	14.195	542.411
2021-08-25 16:15	5433307	8.091	-92.857	312.568	14.176	640.925	807.955	0.398	0.525	8.085	14.176	556.559
2021-08-25 16:30	5434207	8.112	-94.032	307.599	14.157	640.442	807.731	0.398	0.525	8.180	14.157	556.621
2021-08-25 16:45	5435107	8.124	-94.726	303.699	14.163	640.497	807.674	0.398	0.525	8.150	14.163	559.079
2021-08-25 17:00	5436007	8.138	-95.525	300.349	14.218	641.595	807.99	0.398	0.525	7.896	14.218	560.225
2021-08-25 17:15	5436907	8.125	-94.795	300.451	14.285	642.592	807.945	0.398	0.525	7.663	14.285	561.165
2021-08-25 17:30	5437807	8.119	-94.488	300.344	14.346	643.084	807.379	0.398	0.525	7.589	14.346	568.848
2021-08-25 17:45	5438707	8.102	-93.517	301.951	14.414	644.102	807.348	0.398	0.525	7.491	14.414	570.626
2021-08-25 18:00	5439607	8.096	-93.181	302.392	14.45	644.909	807.65	0.398	0.525	7.443	14.45	570.788
2021-08-25 18:15	5440507	8.094	-93.119	303.105	14.458	645.822	808.648	0.399	0.526	7.550	14.458	572.263
2021-08-25 18:30	5441407	8.190	-98.553	301.126	14.458	645.042	807.663	0.398	0.525	7.841	14.458	575.157
2021-08-25 18:45	5442307	8.262	-102.699	294.062	14.455	643.781	806.156	0.397	0.524	8.821	14.455	576.701

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-25 19:00	5443207	8.319	-105.915	289.859	14.421	642.717	805.472	0.397	0.524	9.420	14.421	577.338
2021-08-25 19:15	5444107	8.331	-106.599	282.267	14.443	642.948	805.337	0.397	0.523	9.647	14.443	580.12
2021-08-25 19:30	5445007	8.330	-106.585	274.955	14.457	642.437	804.421	0.397	0.523	9.805	14.457	584.012
2021-08-25 19:45	5445907	8.318	-105.886	272.39	14.529	646.591	808.238	0.399	0.525	9.643	14.529	586.522
2021-08-25 20:00	5446807	8.251	-102.217	279.933	14.868	649.194	804.982	0.397	0.523	8.296	14.868	587.339
2021-08-25 20:15	5447708	8.236	-101.445	279.638	15.171	653.073	804.012	0.397	0.523	8.356	15.171	588.145
2021-08-25 20:30	5448608	8.291	-104.687	274.731	15.379	656.503	804.309	0.397	0.523	9.116	15.379	591.684
2021-08-25 20:45	5449508	8.335	-107.234	272.304	15.529	660.04	805.806	0.398	0.524	9.300	15.529	597.932
2021-08-25 21:00	5450408	8.358	-108.585	273.963	15.633	662.509	806.858	0.398	0.524	9.031	15.633	597.048
2021-08-25 21:15	5451308	8.326	-106.783	277.098	15.692	663.378	806.82	0.398	0.524	8.764	15.692	597.503
2021-08-25 21:30	5452208	8.301	-105.4	279.931	15.724	664.8	807.938	0.399	0.525	8.615	15.724	598.773
2021-08-25 21:45	5453108	8.298	-105.19	283.276	15.739	665.727	808.783	0.399	0.526	8.450	15.739	600.654
2021-08-25 22:00	5454008	8.295	-105.05	283.829	15.734	666.171	809.429	0.400	0.526	8.135	15.734	601.4
2021-08-25 22:15	5454908	8.288	-104.623	282.263	15.719	666.445	810.036	0.400	0.527	8.005	15.719	601.931
2021-08-25 22:30	5455808	8.273	-103.75	281.292	15.684	667.331	811.771	0.401	0.528	8.270	15.684	604.612
2021-08-25 22:45	5456708	8.264	-103.238	281.29	15.64	667.917	813.322	0.402	0.529	8.103	15.64	604.646
2021-08-25 23:00	5457608	8.250	-102.425	282.677	15.591	665.734	811.589	0.401	0.528	7.596	15.591	612.561
2021-08-25 23:15	5458508	8.234	-101.466	284.022	15.535	664.82	811.532	0.401	0.527	7.026	15.535	614.245
2021-08-25 23:30	5459408	8.223	-100.806	286.134	15.486	664.191	811.695	0.401	0.528	6.781	15.486	617.533
2021-08-25 23:45	5460308	8.209	-99.971	288.614	15.425	665.169	814.043	0.402	0.529	***5.991***	15.425	617.253
2021-08-26 00:00	5461208	8.200	-99.437	288.612	15.363	665.791	815.991	0.403	0.530	***6.121***	15.363	618.148
2021-08-26 00:15	5462108	8.193	-99.063	289.932	15.303	666.161	817.595	0.404	0.531	***6.253***	15.303	620.959
2021-08-26 00:30	5463008	8.180	-98.271	290.982	15.262	665.776	817.895	0.404	0.532	***6.307***	15.262	621.665
2021-08-26 00:45	5463908	8.158	-96.991	293.869	15.21	665.6	818.677	0.404	0.532	***6.213***	15.21	623.984
2021-08-26 01:00	5464808	8.142	-96.045	296.427	15.16	665.24	819.214	0.404	0.532	***6.101***	15.16	630.985
2021-08-26 01:15	5465708	8.129	-95.301	297.853	15.094	664.723	819.845	0.405	0.533	***5.801***	15.094	624.144
2021-08-26 01:30	5466608	8.122	-94.9	297.934	15.025	663.872	820.128	0.405	0.533	***5.703***	15.025	626.56
2021-08-26 01:45	5467508	8.121	-94.788	297.416	14.97	662.919	820.018	0.405	0.533	***5.785***	14.97	624.237
2021-08-26 02:00	5468408	8.105	-93.901	298.713	14.912	661.963	819.95	0.405	0.533	***5.659***	14.912	625.223
2021-08-26 02:15	5469308	8.086	-92.762	302.261	14.841	661.425	820.655	0.405	0.533	***5.380***	14.841	628.022
2021-08-26 02:30	5470208	8.065	-91.567	305.582	14.778	661.181	821.584	0.405	0.534	***5.240***	14.778	628.174
2021-08-26 02:45	5471108	8.043	-90.249	308.162	14.701	659.83	821.406	0.405	0.534	***5.066***	14.701	537.434
2021-08-26 03:00	5472008	8.023	-89.078	309.716	14.638	659.023	821.633	0.405	0.534	***4.916***	14.638	548.977
2021-08-26 03:15	5472908	8.009	-88.279	311.836	14.595	658.49	821.805	0.406	0.534	***4.739***	14.595	550.712
2021-08-26 03:30	5473808	7.997	-87.616	313.903	14.548	657.895	821.983	0.406	0.534	***4.669***	14.548	554.696
2021-08-26 03:45	5474708	7.995	-87.45	314.866	14.483	657.008	822.15	0.406	0.534	***4.771***	14.483	558.902
2021-08-26 04:00	5475608	7.991	-87.192	315.415	14.428	655.875	821.818	0.405	0.534	***4.574***	14.428	554.715
2021-08-26 04:15	5476508	7.999	-87.643	315.181	14.375	654.852	821.573	0.405	0.534	***4.300***	14.375	557.283
2021-08-26 04:30	5477408	7.987	-86.961	316.342	14.315	654.03	821.737	0.405	0.534	***4.234***	14.315	569.058
2021-08-26 04:45	5478308	7.966	-85.709	319.334	14.268	652.971	821.333	0.405	0.534	***4.227***	14.268	564.988
2021-08-26 05:00	5479208	7.977	-86.37	320.76	14.221	652.223	821.319	0.405	0.534	***3.831***	14.221	565.123
2021-08-26 05:15	5480108	7.974	-86.157	322.496	14.172	651.205	820.999	0.405	0.534	***3.634***	14.172	563.897
2021-08-26 05:30	5481008	7.969	-85.85	323.85	14.123	650.446	821.011	0.405	0.534	***3.787***	14.123	564.899
2021-08-26 05:45	5481908	7.964	-85.573	325.104	14.073	650.695	822.314	0.406	0.535	***3.582***	14.073	565.717
2021-08-26 06:00	5482808	7.963	-85.504	326.127	14.035	649.276	821.272	0.405	0.534	***4.361***	14.035	563.346
2021-08-26 06:15	5483708	7.958	-85.211	327.252	13.992	647.694	820.133	0.404	0.533	***4.280***	13.992	544.917
2021-08-26 06:30	5484608	7.952	-84.825	328.242	13.959	647.2	820.166	0.404	0.533	***3.618***	13.959	530.428
2021-08-26 06:45	5485508	7.963	-85.444	329.114	13.913	646.337	819.975	0.404	0.533	***3.310***	13.913	559.43
2021-08-26 07:00	5486408	7.970	-85.855	328.916	13.869	645.492	819.785	0.404	0.533	***3.256***	13.869	561.146
2021-08-26 07:15	5487308	7.950	-84.715	329.815	13.827	645.089	820.101	0.404	0.533	***3.888***	13.827	569.563
2021-08-26 07:30	5488208	7.954	-84.898	331.191	13.789	644.625	820.279	0.404	0.533	***4.026***	13.789	557.447
2021-08-26 07:45	5489108	7.945	-84.386	332.192	13.751	644.33	820.657	0.404	0.533	***4.012***	13.751	557.91
2021-08-26 08:00	5490008	7.942	-84.231	333.365	13.715	643.788	820.678	0.404	0.533	***3.904***	13.715	558.644
2021-08-26 08:15	5490908	7.951	-84.722	332.347	13.683	642.632	819.855	0.404	0.533	***3.793***	13.683	561.537
2021-08-26 08:30	5491808	7.952	-84.748	332.235	13.656	642.047	819.631	0.404	0.533	***3.611***	13.656	560.509
2021-08-26 08:45	5492708	7.947	-84.481	332.204	13.644	642.054	819.893	0.404	0.533	***3.431***	13.644	559.364

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-26 09:00	5493608	7.923	-83.089	333.244	13.642	642.097	819.985	0.404	0.533	***3.289***	13.642	556.804
2021-08-26 09:15	5494508	7.893	-81.413	336.002	13.639	642.042	819.97	0.404	0.533	***3.236***	13.639	556.091
2021-08-26 09:30	5495408	7.870	-80.101	339.245	13.635	642.039	820.042	0.404	0.533	***3.040***	13.635	543.394
2021-08-26 09:45	5496308	7.863	-79.696	341.784	13.636	642.133	820.15	0.404	0.533	***2.917***	13.636	542.941
2021-08-26 10:00	5497208	7.857	-79.365	343.317	13.638	642.25	820.266	0.404	0.533	***2.902***	13.638	541.205
2021-08-26 10:15	5498108	7.850	-78.943	344.974	13.646	642.018	819.794	0.404	0.533	***2.874***	13.646	551.139
2021-08-26 10:30	5499008	7.836	-78.17	346.762	13.661	642.187	819.72	0.404	0.533	***2.766***	13.661	544.529
2021-08-26 10:45	5499908	7.822	-77.386	348.598	13.69	642.611	819.685	0.404	0.533	***2.803***	13.69	544.127
2021-08-26 11:00	5500808	7.817	-77.102	349.461	13.741	643.271	819.499	0.404	0.533	***2.716***	13.741	546.906
2021-08-26 11:15	5501708	7.815	-77.004	349.797	13.823	644.725	819.728	0.404	0.533	***2.696***	13.823	544.559
2021-08-26 11:30	5502608	7.815	-77.045	350.558	13.922	646.362	819.836	0.404	0.533	***3.076***	13.922	539.147
2021-08-26 11:45	5503508	7.822	-77.486	351.194	14.035	648.346	820.105	0.404	0.533	***3.065***	14.035	541.891
2021-08-26 12:00	5504408	7.820	-77.386	351.883	14.139	650.15	820.322	0.405	0.533	***2.963***	14.139	550.169
2021-08-26 12:15	5505308	7.818	-77.271	352.758	14.236	651.705	820.368	0.405	0.533	***3.209***	14.236	566.448
2021-08-26 12:30	5506208	7.813	-77.009	353.156	14.336	653.196	820.28	0.405	0.533	***3.801***	14.336	576.446
2021-08-26 12:45	5507108	7.811	-76.971	352.76	14.46	654.402	819.356	0.404	0.533	***4.610***	14.46	566.088
2021-08-26 13:00	5508008	7.858	-79.718	348.827	14.726	656.821	817.186	0.403	0.531	***5.418***	14.726	566.731
2021-08-26 13:15	5508908	7.963	-85.816	341.61	15.103	662.58	817.02	0.403	0.531	7.595	15.103	575.476
2021-08-26 13:30	5509808	8.075	-92.27	330.659	15.315	666.116	817.296	0.404	0.531	8.700	15.315	576.034
2021-08-26 13:45	5510708	8.222	-100.77	322.93	15.436	670.308	820.114	0.405	0.533	9.409	15.436	576.198
2021-08-26 14:00	5511608	8.260	-102.873	319.99	15.352	669.763	821.061	0.405	0.534	8.302	15.352	579.393
2021-08-26 14:15	5512508	8.319	-106.158	312.623	15.049	664.101	819.946	0.405	0.533	8.365	15.049	583.993
2021-08-26 14:30	5513408	8.328	-106.595	309.135	14.865	659.198	817.44	0.403	0.531	9.067	14.865	605.528
2021-08-26 14:45	5514308	8.356	-108.187	304.867	14.861	658.034	816.079	0.403	0.530	9.243	14.861	590.932
2021-08-26 15:00	5515208	8.355	-108.14	300.757	14.859	657.275	815.172	0.402	0.530	8.246	14.859	584.408
2021-08-26 15:15	5516108	8.336	-107.076	298.148	14.868	657.443	815.205	0.402	0.530	7.933	14.868	591.07
2021-08-26 15:30	5517008	8.345	-107.582	296.584	14.822	656.586	815.032	0.402	0.530	7.629	14.822	590.174
2021-08-26 15:45	5517908	8.379	-109.451	293.08	14.734	655.703	815.639	0.402	0.530	7.981	14.734	594.475
2021-08-26 16:00	5518808	8.404	-110.857	289.992	14.633	652.33	813.395	0.401	0.529	9.389	14.633	593.908
2021-08-26 16:15	5519708	8.391	-110.073	289.723	14.56	651.712	814.033	0.402	0.529	9.179	14.56	594.81
2021-08-26 16:30	5520608	8.377	-109.229	289.27	14.483	651.066	814.73	0.402	0.530	8.515	14.483	598.457
2021-08-26 16:45	5521508	8.369	-108.798	289.46	14.409	649.449	814.134	0.401	0.529	8.933	14.409	594.297
2021-08-26 17:00	5522408	8.358	-108.111	288.855	14.304	648.016	814.382	0.402	0.529	9.197	14.304	599.4
2021-08-26 17:15	5523308	8.370	-108.74	287.336	14.229	646.496	813.952	0.401	0.529	9.309	14.229	599.31
2021-08-26 17:30	5524208	8.353	-107.753	286.549	14.192	645.841	813.838	0.401	0.529	8.767	14.192	600.583
2021-08-26 17:45	5525108	8.336	-106.833	285.591	14.182	645.586	813.71	0.401	0.529	8.689	14.182	591.933
2021-08-26 18:00	5526008	8.314	-105.555	285.493	14.21	645.938	813.607	0.401	0.529	8.546	14.21	590.665
2021-08-26 18:15	5526908	8.309	-105.259	285.221	14.233	646.297	813.613	0.401	0.529	8.702	14.233	588.081
2021-08-26 18:30	5527808	8.292	-104.291	285.007	14.228	646.311	813.733	0.401	0.529	8.721	14.228	582.76
2021-08-26 18:45	5528708	8.311	-105.383	285.734	14.201	645.644	813.423	0.401	0.529	8.575	14.201	580.263
2021-08-26 19:00	5529608	8.320	-105.875	285.872	14.149	646.043	814.933	0.402	0.530	8.405	14.149	583.578
2021-08-26 19:15	5530508	8.313	-105.484	283.226	14.135	645.578	814.638	0.402	0.530	8.545	14.135	583.069
2021-08-26 19:30	5531408	8.326	-106.232	282.243	14.128	644.96	813.989	0.401	0.529	8.698	14.128	583.082
2021-08-26 19:45	5532308	8.320	-105.875	280.524	14.105	644.489	813.838	0.401	0.529	8.697	14.105	584.526
2021-08-26 20:00	5533208	8.306	-105.059	278.655	14.083	643.891	813.525	0.401	0.529	7.913	14.083	583.526
2021-08-26 20:15	5534108	8.286	-103.905	278.36	14.07	644.758	814.865	0.402	0.530	7.579	14.07	581.568
2021-08-26 20:30	5535008	8.264	-102.63	278.593	14.06	644.03	814.159	0.401	0.529	7.528	14.06	580.726
2021-08-26 20:45	5535908	8.264	-102.677	277.919	14.05	643.731	813.974	0.401	0.529	7.369	14.05	585.019
2021-08-26 21:00	5536808	8.267	-102.835	276.266	14.042	643.736	814.134	0.401	0.529	7.100	14.042	580.738
2021-08-26 21:15	5537708	8.262	-102.561	276.3	14.04	643.019	813.266	0.401	0.529	7.028	14.04	579.747
2021-08-26 21:30	5538608	8.255	-102.115	276.915	14.041	643.767	814.201	0.401	0.529	7.059	14.041	587.316
2021-08-26 21:45	5539508	8.255	-102.134	277.902	14.04	643.843	814.308	0.401	0.529	7.021	14.04	587.041
2021-08-26 22:00	5540408	8.251	-101.888	279.452	14.038	643.875	814.378	0.401	0.529	6.938	14.038	593.427
2021-08-26 22:15	5541308	8.233	-100.892	282.332	14.034	644.074	814.717	0.402	0.530	7.103	14.034	582.456
2021-08-26 22:30	5542208	8.200	-98.977	287.734	14.027	644.404	815.263	0.402	0.530	6.640	14.027	599.144
2021-08-26 22:45	5543108	8.175	-97.594	292.362	14.017	643.513	814.347	0.401	0.529	6.569	14.017	597.138

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-26 23:00	5544008	8.166	-97.048	293.637	13.999	644.818	816.343	0.402	0.531	6.785	13.999	593.902
2021-08-26 23:15	5544908	8.135	-95.258	296.079	13.987	644.345	815.996	0.402	0.530	6.847	13.987	603.482
2021-08-26 23:30	5545808	8.120	-94.438	299.021	13.977	643.517	815.14	0.402	0.530	6.726	13.977	586.962
2021-08-26 23:45	5546708	8.117	-94.23	300.831	13.968	644.771	816.895	0.403	0.531	***6.383***	13.968	585.797
2021-08-27 00:00	5547608	8.103	-93.446	303.615	13.96	644.903	817.225	0.403	0.531	***6.060***	13.96	585.377
2021-08-27 00:15	5548508	8.091	-92.762	305.213	13.952	644.949	817.447	0.403	0.531	***5.828***	13.952	585.489
2021-08-27 00:30	5549408	8.076	-91.889	307.978	13.945	644.976	817.618	0.403	0.531	***5.466***	13.945	583.225
2021-08-27 00:45	5550308	8.059	-90.952	310.892	13.94	645.083	817.847	0.403	0.532	***5.187***	13.94	584.614
2021-08-27 01:00	5551208	8.025	-89.011	314.225	13.94	645.775	818.732	0.404	0.532	***4.964***	13.94	588.873
2021-08-27 01:15	5552108	8.010	-88.122	318.483	13.941	646.602	819.76	0.404	0.533	***4.781***	13.941	589.697
2021-08-27 01:30	5553008	7.990	-87.032	321.99	13.943	647.785	821.209	0.405	0.534	***4.700***	13.943	586.89
2021-08-27 01:45	5553908	7.991	-87.092	323.511	13.948	648.985	822.644	0.406	0.535	***4.729***	13.948	585.957
2021-08-27 02:00	5554808	8.002	-87.705	323.757	13.951	649.91	823.745	0.406	0.535	***4.866***	13.951	588.551
2021-08-27 02:15	5555708	8.011	-88.22	323.831	13.958	650.573	824.45	0.407	0.536	***4.679***	13.958	592.295
2021-08-27 02:30	5556608	8.019	-88.661	323.805	13.969	651.415	825.301	0.407	0.536	***4.461***	13.969	590.621
2021-08-27 02:45	5557508	8.005	-87.888	324.897	13.98	651.647	825.379	0.407	0.536	***4.497***	13.98	597.939
2021-08-27 03:00	5558408	8.011	-88.196	325.023	13.992	652.803	826.594	0.408	0.537	***4.611***	13.992	596.934
2021-08-27 03:15	5559308	8.012	-88.263	326.246	14.002	653.503	827.279	0.408	0.538	***4.687***	14.002	591.902
2021-08-27 03:30	5560208	8.021	-88.816	324.374	14.011	654.421	828.271	0.409	0.538	***4.726***	14.011	592.08
2021-08-27 03:45	5561108	8.045	-90.177	322.751	14.017	654.25	827.927	0.408	0.538	***4.806***	14.017	598.301
2021-08-27 04:00	5562008	8.052	-90.582	323.197	14.021	654.997	828.794	0.409	0.539	***4.776***	14.021	595.947
2021-08-27 04:15	5562908	8.051	-90.518	324.88	14.02	656.01	830.092	0.409	0.540	***4.802***	14.02	598.191
2021-08-27 04:30	5563808	8.056	-90.773	325.323	14.015	656.223	830.466	0.410	0.540	***4.895***	14.015	597.536
2021-08-27 04:45	5564708	8.061	-91.076	323.983	14.007	656.645	831.166	0.410	0.540	***4.870***	14.007	597.421
2021-08-27 05:00	5565608	8.054	-90.661	324.999	14	656.838	831.544	0.410	0.541	***4.745***	14	604.14
2021-08-27 05:15	5566508	8.046	-90.201	324.899	13.992	656.788	831.652	0.410	0.541	***4.524***	13.992	602.834
2021-08-27 05:30	5567408	8.041	-89.939	327.202	13.983	657.711	832.986	0.411	0.541	***4.393***	13.983	605.87
2021-08-27 05:45	5568308	8.038	-89.738	328.857	13.975	658.418	834.053	0.411	0.542	***4.249***	13.975	606.446
2021-08-27 06:00	5569208	8.020	-88.701	330.678	13.964	657.79	833.482	0.411	0.542	***4.080***	13.964	605.589
2021-08-27 06:15	5570108	8.010	-88.153	332.969	13.952	657.705	833.617	0.411	0.542	***3.917***	13.952	604.814
2021-08-27 06:30	5571008	8.015	-88.425	332.891	13.939	657.554	833.682	0.411	0.542	***3.735***	13.939	605.218
2021-08-27 06:45	5571908	8.017	-88.565	332.588	13.924	657.826	834.323	0.412	0.542	***3.542***	13.924	601.862
2021-08-27 07:00	5572808	8.021	-88.749	333.201	13.909	658.748	835.8	0.412	0.543	***3.391***	13.909	607.87
2021-08-27 07:15	5573708	8.040	-89.824	332.233	13.893	658.252	835.49	0.412	0.543	***3.325***	13.893	602.966
2021-08-27 07:30	5574608	8.056	-90.771	330.502	13.875	658.223	835.816	0.412	0.543	***3.313***	13.875	600.996
2021-08-27 07:45	5575508	8.059	-90.926	331.672	13.857	658.055	835.987	0.412	0.543	***3.315***	13.857	605.114
2021-08-27 08:00	5576408	8.051	-90.437	333.177	13.842	657.927	836.115	0.412	0.543	***3.428***	13.842	610.12
2021-08-27 08:15	5577308	8.042	-89.917	334.641	13.831	657.882	836.287	0.413	0.544	***3.494***	13.831	629.183
2021-08-27 08:30	5578208	8.033	-89.407	335.773	13.824	657.897	836.451	0.413	0.544	***3.559***	13.824	623.375
2021-08-27 08:45	5579108	8.037	-89.655	335.928	13.818	657.854	836.511	0.413	0.544	***3.663***	13.818	626.271
2021-08-27 09:00	5580008	8.034	-89.476	336.393	13.813	658.995	838.072	0.413	0.545	***3.751***	13.813	629.094
2021-08-27 09:15	5580908	8.036	-89.588	337.559	13.811	657.778	836.552	0.413	0.544	***3.843***	13.811	629.175
2021-08-27 09:30	5581808	8.041	-89.898	337.554	13.811	657.863	836.663	0.413	0.544	***3.705***	13.811	634.458
2021-08-27 09:45	5582708	8.034	-89.493	336.574	13.811	657.889	836.693	0.413	0.544	***3.577***	13.811	640.15
2021-08-27 10:00	5583608	8.019	-88.618	338.284	13.817	657.876	836.559	0.413	0.544	***3.577***	13.817	646.115
2021-08-27 10:15	5584508	8.011	-88.162	339.855	13.823	657.877	836.436	0.413	0.544	***3.492***	13.823	647.964
2021-08-27 10:30	5585408	8.005	-87.824	339.812	13.822	657.909	836.505	0.413	0.544	***3.438***	13.822	649.756
2021-08-27 10:45	5586308	8.007	-87.917	340.806	13.823	657.685	836.196	0.412	0.544	***3.871***	13.823	649.806
2021-08-27 11:00	5587208	8.068	-91.426	342.334	13.819	656.731	835.07	0.412	0.543	***4.666***	13.819	661.424
2021-08-27 11:15	5588108	8.340	-106.897	321.132	13.88	655.755	832.596	0.411	0.541	8.363	13.88	77.667
2021-08-27 11:30	5589008	8.310	-105.195	319.828	13.858	655.237	832.383	0.411	0.541	7.973	13.858	45.846
2021-08-27 11:45	5589908	8.299	-104.582	319.587	13.857	655.554	832.799	0.411	0.541	7.892	13.857	35.728
2021-08-27 12:00	5590808	8.302	-104.74	318.824	13.873	655.858	832.865	0.411	0.541	7.885	13.873	20.5
2021-08-27 12:15	5591708	8.308	-105.081	317.935	13.906	656.322	832.781	0.411	0.541	8.144	13.906	14.985
2021-08-27 12:30	5592608	8.312	-105.362	317.403	13.941	656.704	832.563	0.411	0.541	8.075	13.941	13.229
2021-08-27 12:45	5593508	8.306	-105.019	317.1	13.979	657.415	832.697	0.411	0.541	7.949	13.979	9.616

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-27 13:00	5594408	8.328	-106.323	314.668	14.036	658.309	832.692	0.411	0.541	7.935	14.036	9.057
2021-08-27 13:15	5595308	8.327	-106.313	314.945	14.163	660.146	832.447	0.411	0.541	8.282	14.163	11.137
2021-08-27 13:30	5596208	8.331	-106.58	313.35	14.31	662.122	831.99	0.411	0.541	8.480	14.31	6.736
2021-08-27 13:45	5597108	8.330	-106.494	311.028	14.328	662.282	831.844	0.411	0.541	8.514	14.328	6.118
2021-08-27 14:00	5598008	8.362	-108.385	308.446	14.448	663.825	831.394	0.410	0.540	8.413	14.448	5.72
2021-08-27 14:15	5598908	8.366	-108.659	305.237	14.543	665.187	831.209	0.410	0.540	8.548	14.543	5.812
2021-08-27 14:30	5599808	8.372	-109.031	302.988	14.673	666.87	830.729	0.410	0.540	8.936	14.673	5.59
2021-08-27 14:45	5600708	8.407	-111.048	298.578	14.728	667.381	830.281	0.410	0.540	9.333	14.728	5.663
2021-08-27 15:00	5601608	8.434	-112.643	294.691	14.763	667.576	829.827	0.410	0.539	9.772	14.763	5.315
2021-08-27 15:15	5602508	8.517	-117.357	290.133	14.764	665.986	827.844	0.409	0.538	10.667	14.764	7.046
2021-08-27 15:30	5603408	8.516	-117.269	285.386	14.709	665.022	827.716	0.409	0.538	10.678	14.709	5.674
2021-08-27 15:45	5604308	8.498	-116.284	283.102	14.733	665.294	827.582	0.409	0.538	10.591	14.733	5.111
2021-08-27 16:00	5605208	8.492	-115.948	281.671	14.765	666.07	827.911	0.409	0.538	10.546	14.765	4.459
2021-08-27 16:15	5606108	8.477	-115.085	283.314	14.819	667.107	828.148	0.409	0.538	10.641	14.819	4.403
2021-08-27 16:30	5607008	8.446	-113.399	284.971	14.944	669.308	828.426	0.409	0.538	10.489	14.944	4.19
2021-08-27 16:45	5607908	8.450	-113.668	284.394	15.152	672.332	828.087	0.409	0.538	10.272	15.152	4.43
2021-08-27 17:00	5608808	8.457	-114.169	283.281	15.363	676.094	828.621	0.409	0.539	10.054	15.363	5.259
2021-08-27 17:15	5609708	8.478	-115.542	283.993	15.829	683.233	828.325	0.409	0.538	10.259	15.829	5.839
2021-08-27 17:30	5610608	8.497	-116.696	282.699	15.953	685.093	828.195	0.409	0.538	10.444	15.953	5.739
2021-08-27 17:45	5611508	8.475	-115.488	281.314	16.06	687.676	829.287	0.410	0.539	10.046	16.06	7.394
2021-08-27 18:00	5612408	8.455	-114.422	281.991	16.271	690.763	828.974	0.410	0.539	10.046	16.271	5.566
2021-08-27 18:15	5613308	8.466	-115.18	280.257	16.598	695.491	828.439	0.410	0.538	9.930	16.598	5.217
2021-08-27 18:30	5614208	8.461	-115.016	277.256	16.853	700.133	829.148	0.410	0.539	9.600	16.853	5.807
2021-08-27 18:45	5615108	8.452	-114.551	276.385	17.121	704.839	829.694	0.411	0.539	9.522	17.121	6.858
2021-08-27 19:00	5616008	8.440	-113.974	275.937	17.29	708.04	830.315	0.411	0.540	9.512	17.29	3.408
2021-08-27 19:15	5616908	8.431	-113.466	276.211	17.353	709.704	831.09	0.411	0.540	9.537	17.353	3.586
2021-08-27 19:30	5617808	8.489	-116.72	271.653	17.119	703.236	827.848	0.410	0.538	9.486	17.119	4.058
2021-08-27 19:45	5618708	8.538	-119.393	267.647	16.847	696.104	824.489	0.408	0.536	10.736	16.847	4.303
2021-08-27 20:00	5619608	8.549	-120.053	264.541	16.871	696.858	824.948	0.408	0.536	11.197	16.871	3.547
2021-08-27 20:15	5620508	8.548	-120.065	267.354	16.959	699.31	826.199	0.409	0.537	11.184	16.959	3.442
2021-08-27 20:30	5621408	8.546	-119.948	268.604	16.982	700.25	826.881	0.409	0.537	11.087	16.982	3.52
2021-08-27 20:45	5622308	8.529	-118.88	267.116	16.828	698.315	827.467	0.409	0.538	10.679	16.828	4.569
2021-08-27 21:00	5623208	8.548	-119.812	265.766	16.367	688.813	824.811	0.408	0.536	10.869	16.367	4.312
2021-08-27 21:15	5624108	8.548	-119.627	263.895	15.997	682.91	824.733	0.408	0.536	11.671	15.997	4.532
2021-08-27 21:30	5625008	8.528	-118.444	264.109	15.819	680.396	825.088	0.408	0.536	11.558	15.819	5.098
2021-08-27 21:45	5625908	8.531	-118.549	264.119	15.69	678.317	825.028	0.408	0.536	11.511	15.69	4.212
2021-08-27 22:00	5626808	8.535	-118.706	264.341	15.576	676.891	825.47	0.408	0.537	11.394	15.576	3.89
2021-08-27 22:15	5627708	8.516	-117.548	265.104	15.373	673.894	825.73	0.408	0.537	11.091	15.373	4.02
2021-08-27 22:30	5628608	8.493	-116.196	266.927	15.214	671.806	826.237	0.408	0.537	10.842	15.214	4.535
2021-08-27 22:45	5629508	8.477	-115.237	267.76	15.127	670.797	826.694	0.408	0.537	10.550	15.127	4.286
2021-08-27 23:00	5630408	8.446	-113.406	269.61	15.034	669.788	827.266	0.408	0.538	10.244	15.034	4.386
2021-08-27 23:15	5631308	8.427	-112.302	271.178	14.959	668.954	827.691	0.409	0.538	9.937	14.959	3.559
2021-08-27 23:30	5632208	8.408	-111.191	272.611	14.916	668.569	828.061	0.409	0.538	9.728	14.916	4.014
2021-08-27 23:45	5633108	8.391	-110.228	274.588	14.882	668.049	828.074	0.409	0.538	9.579	14.882	4.02
2021-08-28 00:00	5634008	8.383	-109.737	275.718	14.866	668.007	828.35	0.409	0.538	9.459	14.866	4.285
2021-08-28 00:15	5634908	8.378	-109.463	276.264	14.864	668.413	828.888	0.409	0.539	9.382	14.864	4.095
2021-08-28 00:30	5635808	8.364	-108.681	277.57	14.846	668.763	829.668	0.410	0.539	9.302	14.846	5.448
2021-08-28 00:45	5636708	8.358	-108.309	278.283	14.807	668.542	830.159	0.410	0.540	9.101	14.807	5.707
2021-08-28 01:00	5637608	8.359	-108.371	279.113	14.806	669.081	830.847	0.410	0.540	8.987	14.806	4.101
2021-08-28 01:15	5638508	8.342	-107.372	281.678	14.792	669.527	831.684	0.411	0.541	8.937	14.792	2.587
2021-08-28 01:30	5639408	8.359	-108.325	282.68	14.781	669.362	831.699	0.411	0.541	8.727	14.781	2.891
2021-08-28 01:45	5640308	8.361	-108.461	283.734	14.779	669.094	831.404	0.410	0.540	8.658	14.779	2.561
2021-08-28 02:00	5641208	8.356	-108.171	285.166	14.785	668.916	831.06	0.410	0.540	8.538	14.785	2.772
2021-08-28 02:15	5642108	8.330	-106.671	286.556	14.794	669.411	831.494	0.411	0.540	8.395	14.794	3.164
2021-08-28 02:30	5643008	8.318	-105.984	288.783	14.799	669.911	832.022	0.411	0.541	8.306	14.799	2.446
2021-08-28 02:45	5643908	8.301	-105.057	290.621	14.803	670.366	832.511	0.411	0.541	8.113	14.803	2.639

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-28 03:00	5644808	8.287	-104.253	293.013	14.803	670.597	832.787	0.411	0.541	8.027	14.803	2.521
2021-08-28 03:15	5645708	8.268	-103.152	294.517	14.797	670.621	832.936	0.411	0.541	7.981	14.797	2.204
2021-08-28 03:30	5646608	8.285	-104.096	293.583	14.785	670.552	833.102	0.411	0.542	7.638	14.785	2.737
2021-08-28 03:45	5647508	8.294	-104.644	292.939	14.757	670.242	833.257	0.411	0.542	7.449	14.757	2.316
2021-08-28 04:00	5648408	8.311	-105.565	292.751	14.727	669.652	833.118	0.411	0.542	7.247	14.727	2.134
2021-08-28 04:15	5649308	8.329	-106.611	292.231	14.692	668.949	832.934	0.411	0.541	7.008	14.692	2.176
2021-08-28 04:30	5650208	8.323	-106.254	293.838	14.649	668.004	832.624	0.411	0.541	7.219	14.649	2.273
2021-08-28 04:45	5651108	8.324	-106.282	294.987	14.614	667.333	832.477	0.411	0.541	7.393	14.614	2.499
2021-08-28 05:00	5652008	8.322	-106.158	295.752	14.576	666.661	832.396	0.411	0.541	7.351	14.576	2.292
2021-08-28 05:15	5652908	8.330	-106.587	295.967	14.547	666.186	832.38	0.411	0.541	7.358	14.547	5.011
2021-08-28 05:30	5653808	8.322	-106.139	295.771	14.492	665.298	832.357	0.411	0.541	7.496	14.492	5.77
2021-08-28 05:45	5654708	8.331	-106.623	296.37	14.469	664.676	832.027	0.411	0.541	7.108	14.469	2.378
2021-08-28 06:00	5655608	8.324	-106.211	296.15	14.444	664.593	832.432	0.411	0.541	7.636	14.444	2.055
2021-08-28 06:15	5656508	8.328	-106.447	297.254	14.412	664.177	832.544	0.411	0.541	8.219	14.412	2.126
2021-08-28 06:30	5657408	8.329	-106.506	298.098	14.384	663.846	832.685	0.411	0.541	8.236	14.384	1.765
2021-08-28 06:45	5658308	8.315	-105.684	299.233	14.346	663.234	832.672	0.411	0.541	7.995	14.346	1.586
2021-08-28 07:00	5659208	8.318	-105.82	299.15	14.313	662.742	832.727	0.411	0.541	7.502	14.313	1.616
2021-08-28 07:15	5660108	8.322	-106.039	297.955	14.287	662.391	832.798	0.411	0.541	7.280	14.287	1.632
2021-08-28 07:30	5661008	8.321	-105.953	297.831	14.258	662.019	832.91	0.411	0.541	7.395	14.258	1.631
2021-08-28 07:45	5661908	8.304	-104.973	299.066	14.233	661.712	833.023	0.411	0.541	7.856	14.233	1.864
2021-08-28 08:00	5662808	8.307	-105.188	300.59	14.211	661.61	833.336	0.411	0.542	7.867	14.211	1.389
2021-08-28 08:15	5663708	8.311	-105.379	300.921	14.188	661.232	833.326	0.411	0.542	7.893	14.188	1.506
2021-08-28 08:30	5664608	8.312	-105.46	301.002	14.174	661.478	833.909	0.411	0.542	7.904	14.174	1.505
2021-08-28 08:45	5665508	8.310	-105.305	301.422	14.159	661.527	834.266	0.412	0.542	7.940	14.159	1.439
2021-08-28 09:00	5666408	8.302	-104.833	301.944	14.154	661.471	834.305	0.412	0.542	7.951	14.154	1.495
2021-08-28 09:15	5667308	8.295	-104.461	301.806	14.153	661.42	834.26	0.412	0.542	8.000	14.153	1.503
2021-08-28 09:30	5668208	8.296	-104.499	303.05	14.155	661.236	833.979	0.412	0.542	7.881	14.155	1.516
2021-08-28 09:45	5669108	8.296	-104.52	303.742	14.16	660.98	833.56	0.411	0.542	7.754	14.16	1.759
2021-08-28 10:00	5670008	8.301	-104.826	303.987	14.168	661.285	833.796	0.411	0.542	7.541	14.168	1.766
2021-08-28 10:15	5670908	8.309	-105.25	304.25	14.191	661.845	834.035	0.412	0.542	7.353	14.191	3.551
2021-08-28 10:30	5671809	8.307	-105.15	305.201	14.224	662.443	834.127	0.412	0.542	7.293	14.224	1.771
2021-08-28 10:45	5672709	8.296	-104.573	308.417	14.26	663.57	834.823	0.412	0.543	7.381	14.26	1.654
2021-08-28 11:00	5673609	8.275	-103.347	310.777	14.292	664.352	835.159	0.412	0.543	7.340	14.292	2.102
2021-08-28 11:15	5674509	8.259	-102.468	313.264	14.325	664.754	834.999	0.412	0.543	7.268	14.325	2.272
2021-08-28 11:30	5675409	8.264	-102.787	313.374	14.352	664.453	834.08	0.412	0.542	7.541	14.352	3.373
2021-08-28 11:45	5676309	8.279	-103.612	310.949	14.376	664.225	833.316	0.411	0.542	7.587	14.376	2.27
2021-08-28 12:00	5677209	8.294	-104.475	309.917	14.398	663.904	832.474	0.411	0.541	7.751	14.398	3.426
2021-08-28 12:15	5678109	8.317	-105.844	308.238	14.438	664.338	832.227	0.411	0.541	8.171	14.438	2.389
2021-08-28 12:30	5679009	8.325	-106.273	305.403	14.462	664.761	832.273	0.411	0.541	8.194	14.462	1.983
2021-08-28 12:45	5679909	8.342	-107.26	303.386	14.475	664.878	832.174	0.411	0.541	8.043	14.475	2.133
2021-08-28 13:00	5680809	8.345	-107.427	304.567	14.482	665.151	832.37	0.411	0.541	8.265	14.482	3.072
2021-08-28 13:15	5681709	8.321	-106.051	305.253	14.486	664.88	831.953	0.411	0.541	8.407	14.486	2.921
2021-08-28 13:30	5682609	8.326	-106.337	305.964	14.493	665.226	832.244	0.411	0.541	8.411	14.493	3.02
2021-08-28 13:45	5683509	8.395	-110.283	305.105	14.503	665.179	831.982	0.411	0.541	8.694	14.503	3.448
2021-08-28 14:00	5684409	8.436	-112.607	303.549	14.509	665.337	832.061	0.411	0.541	9.196	14.509	3.341
2021-08-28 14:15	5685309	8.459	-113.969	302.447	14.523	664.937	831.287	0.410	0.540	9.543	14.523	3.347
2021-08-28 14:30	5686209	8.459	-113.931	300.223	14.535	664.999	831.12	0.410	0.540	9.737	14.535	2.864
2021-08-28 14:45	5687109	8.458	-113.914	300.146	14.557	665.987	831.921	0.411	0.541	9.670	14.557	2.806
2021-08-28 15:00	5688009	8.464	-114.25	299.836	14.569	666.238	831.992	0.411	0.541	9.689	14.569	2.916
2021-08-28 15:15	5688909	8.475	-114.882	299.486	14.568	665.678	831.329	0.410	0.540	9.698	14.568	3.418
2021-08-28 15:30	5689809	8.487	-115.569	299.174	14.576	665.423	830.85	0.410	0.540	9.637	14.576	3.505
2021-08-28 15:45	5690709	8.489	-115.685	298.313	14.573	665.411	830.877	0.410	0.540	9.566	14.573	129.917
2021-08-28 16:00	5691609	8.473	-114.796	298.21	14.578	665.807	831.28	0.410	0.540	9.414	14.578	3.218
2021-08-28 16:15	5692509	8.469	-114.57	299.126	14.586	666.276	831.705	0.411	0.541	9.318	14.586	3.5
2021-08-28 16:30	5693409	8.468	-114.527	300.106	14.615	666.955	831.973	0.411	0.541	9.630	14.615	3.212
2021-08-28 16:45	5694309	8.491	-115.833	299.898	14.676	666.345	830.011	0.410	0.540	10.023	14.676	4.588

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-28 17:00	5695209	8.530	-118.055	299.708	14.704	666.504	829.662	0.410	0.539	10.345	14.704	4.009
2021-08-28 17:15	5696109	8.547	-119.05	297.881	14.722	665.98	828.66	0.409	0.539	10.661	14.722	4.771
2021-08-28 17:30	5697009	8.550	-119.226	295.619	14.72	665.329	827.88	0.409	0.538	10.831	14.72	6.094
2021-08-28 17:45	5697909	8.544	-118.859	293.18	14.672	664.307	827.553	0.408	0.538	10.681	14.672	4.691
2021-08-28 18:00	5698809	8.533	-118.232	292.395	14.635	664.086	828.017	0.409	0.538	10.563	14.635	3.854
2021-08-28 18:15	5699709	8.522	-117.574	292.045	14.631	664.478	828.575	0.409	0.539	10.391	14.631	3.192
2021-08-28 18:30	5700609	8.511	-116.954	291.94	14.655	665.931	829.908	0.410	0.539	10.269	14.655	3.111
2021-08-28 18:45	5701509	8.497	-116.191	291.735	14.686	666.799	830.391	0.410	0.540	10.095	14.686	2.867
2021-08-28 19:00	5702409	8.479	-115.185	291.21	14.735	668.283	831.27	0.410	0.540	9.886	14.735	2.475
2021-08-28 19:15	5703309	8.467	-114.534	291.053	14.788	670.065	832.421	0.411	0.541	9.750	14.788	2.84
2021-08-28 19:30	5704209	8.436	-112.751	292.698	14.812	673.562	836.292	0.413	0.544	9.406	14.812	3.706
2021-08-28 19:45	5705109	8.407	-111.108	295.197	14.806	675.319	838.59	0.414	0.545	9.030	14.806	3.183
2021-08-28 20:00	5706009	8.397	-110.507	296.575	14.806	675.789	839.191	0.415	0.545	8.832	14.806	2.657
2021-08-28 20:15	5706909	8.384	-109.785	296.651	14.803	676.007	839.505	0.415	0.546	8.736	14.803	2.81
2021-08-28 20:30	5707809	8.371	-109.024	296.41	14.8	675.774	839.286	0.415	0.546	8.771	14.8	2.645
2021-08-28 20:45	5708709	8.357	-108.23	297.536	14.793	675.667	839.286	0.415	0.546	8.812	14.793	2.444
2021-08-28 21:00	5709609	8.351	-107.884	298.923	14.782	676.412	840.437	0.415	0.546	8.839	14.782	3.205
2021-08-28 21:15	5710509	8.341	-107.284	299.798	14.76	676.348	840.788	0.415	0.547	8.832	14.76	2.878
2021-08-28 21:30	5711409	8.328	-106.556	300.647	14.735	676.019	840.874	0.415	0.547	8.653	14.735	3.259
2021-08-28 21:45	5712309	8.319	-106.053	301.713	14.714	675.699	840.915	0.415	0.547	8.593	14.714	2.704
2021-08-28 22:00	5713209	8.310	-105.493	303.065	14.695	675.521	841.073	0.415	0.547	8.552	14.695	2.237
2021-08-28 22:15	5714109	8.300	-104.93	303.31	14.658	675.272	841.497	0.416	0.547	8.241	14.658	2.79
2021-08-28 22:30	5715009	8.292	-104.454	303.734	14.632	674.799	841.421	0.416	0.547	8.073	14.632	2.518
2021-08-28 22:45	5715909	8.292	-104.439	305.086	14.618	674.908	841.841	0.416	0.547	7.986	14.618	2.524
2021-08-28 23:00	5716809	8.275	-103.476	306.045	14.584	674.839	842.442	0.416	0.548	7.803	14.584	2.639
2021-08-28 23:15	5717709	8.271	-103.235	306.097	14.571	674.655	842.472	0.416	0.548	7.747	14.571	2.564
2021-08-28 23:30	5718609	8.275	-103.476	306.047	14.561	674.794	842.854	0.416	0.548	7.803	14.561	2.152
2021-08-28 23:45	5719509	8.268	-103.071	308.303	14.542	674.292	842.605	0.416	0.548	7.530	14.542	2.275
2021-08-29 00:00	5720409	8.275	-103.445	311.624	14.511	673.698	842.478	0.416	0.548	7.231	14.511	2.113
2021-08-29 00:15	5721309	8.252	-102.103	311.538	14.465	673.501	843.154	0.416	0.548	7.110	14.465	2.088
2021-08-29 00:30	5722209	8.252	-102.112	309.626	14.407	672.526	843.111	0.416	0.548	7.030	14.407	1.789
2021-08-29 00:45	5723109	8.256	-102.293	309.48	14.391	672.322	843.183	0.416	0.548	7.397	14.391	1.825
2021-08-29 01:00	5724009	8.254	-102.212	309.573	14.372	671.995	843.144	0.416	0.548	7.389	14.372	2.125
2021-08-29 01:15	5724909	8.258	-102.441	311.714	14.354	671.365	842.726	0.416	0.548	7.152	14.354	1.719
2021-08-29 01:30	5725809	8.244	-101.635	313.898	14.331	671.16	842.935	0.416	0.548	6.863	14.331	2.042
2021-08-29 01:45	5726709	8.238	-101.244	316.542	14.314	671.298	843.445	0.416	0.548	6.622	14.314	1.909
2021-08-29 02:00	5727609	8.221	-100.272	318.578	14.296	671.282	843.801	0.417	0.548	6.598	14.296	1.642
2021-08-29 02:15	5728509	8.233	-100.939	318.047	14.268	671.04	844.065	0.417	0.549	6.618	14.268	1.777
2021-08-29 02:30	5729409	8.255	-102.181	314.816	14.24	670.361	843.762	0.417	0.548	6.536	14.24	1.66
2021-08-29 02:45	5730309	8.262	-102.582	314.044	14.213	669.882	843.703	0.417	0.548	***6.393***	14.213	1.446
2021-08-29 03:00	5731209	8.262	-102.592	314.728	14.185	669.434	843.721	0.417	0.548	***6.240***	14.185	1.642
2021-08-29 03:15	5732109	8.254	-102.124	312.391	14.161	669.108	843.802	0.417	0.548	***6.284***	14.161	1.709
2021-08-29 03:30	5733009	8.261	-102.501	312.282	14.145	668.944	843.904	0.417	0.549	***6.349***	14.145	1.566
2021-08-29 03:45	5733909	8.268	-102.93	314.566	14.125	668.337	843.545	0.416	0.548	***6.130***	14.125	1.775
2021-08-29 04:00	5734809	8.256	-102.198	319.365	14.098	668.331	844.104	0.417	0.549	***6.284***	14.098	1.898
2021-08-29 04:15	5735709	8.243	-101.48	322.007	14.088	668.238	844.179	0.417	0.549	***6.190***	14.088	1.533
2021-08-29 04:30	5736609	8.233	-100.875	325.13	14.075	668.269	844.484	0.417	0.549	***6.019***	14.075	1.54
2021-08-29 04:45	5737509	8.211	-99.626	326.143	14.057	668.167	844.73	0.417	0.549	***5.920***	14.057	1.611
2021-08-29 05:00	5738409	8.195	-98.739	327.173	14.04	667.909	844.737	0.417	0.549	***5.885***	14.04	1.682
2021-08-29 05:15	5739309	8.187	-98.274	328.296	14.021	667.614	844.765	0.417	0.549	***5.889***	14.021	1.588
2021-08-29 05:30	5740209	8.190	-98.419	328.337	14.009	667.308	844.622	0.417	0.549	***5.888***	14.009	2.303
2021-08-29 05:45	5741109	8.190	-98.388	328.084	13.988	667.184	844.89	0.417	0.549	***5.893***	13.988	2.548
2021-08-29 06:00	5742009	8.177	-97.642	327.989	13.97	666.858	844.84	0.417	0.549	***6.053***	13.97	4.005
2021-08-29 06:15	5742909	8.164	-96.924	329.603	13.953	666.691	844.98	0.417	0.549	***6.092***	13.953	2.11
2021-08-29 06:30	5743809	8.164	-96.898	330.94	13.925	666.092	844.802	0.417	0.549	***6.156***	13.925	1.743
2021-08-29 06:45	5744709	8.152	-96.195	331.117	13.9	665.993	845.182	0.417	0.549	***6.177***	13.9	1.801

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-29 07:00	5745609	8.161	-96.719	332.507	13.887	665.804	845.198	0.417	0.549	***6.226***	13.887	2.092
2021-08-29 07:15	5746509	8.151	-96.154	332.993	13.855	665.368	845.302	0.417	0.549	***6.473***	13.855	1.835
2021-08-29 07:30	5747409	8.126	-94.707	335.075	13.843	665.032	845.129	0.417	0.549	6.663	13.843	1.467
2021-08-29 07:45	5748309	8.105	-93.534	336.679	13.845	664.74	844.724	0.417	0.549	6.676	13.845	1.92
2021-08-29 08:00	5749209	8.106	-93.555	335.516	13.849	664.878	844.812	0.417	0.549	6.621	13.849	3.397
2021-08-29 08:15	5750109	8.135	-95.248	335.187	13.855	665.032	844.874	0.417	0.549	6.529	13.855	2.974
2021-08-29 08:30	5751009	8.169	-97.179	336.539	13.843	664.803	844.826	0.417	0.549	***5.905***	13.843	4.293
2021-08-29 08:45	5751909	8.165	-96.962	336.984	13.847	664.997	845.004	0.417	0.549	***5.683***	13.847	2.621
2021-08-29 09:00	5752809	8.157	-96.502	333.129	13.845	665.149	845.233	0.417	0.549	***5.592***	13.845	2.838
2021-08-29 09:15	5753709	8.156	-96.438	332.459	13.845	665.086	845.164	0.417	0.549	***5.574***	13.845	2.598
2021-08-29 09:30	5754609	8.147	-95.925	333.976	13.84	665.149	845.343	0.417	0.549	***5.600***	13.84	2.309
2021-08-29 09:45	5755509	8.132	-95.057	335.458	13.837	665.147	845.39	0.417	0.550	***5.640***	13.837	2.592
2021-08-29 10:00	5756409	8.141	-95.572	333.692	13.844	664.948	844.993	0.417	0.549	***5.640***	13.844	2.519
2021-08-29 10:15	5757309	8.139	-95.482	333.401	13.861	665.006	844.734	0.417	0.549	***5.976***	13.861	1.746
2021-08-29 10:30	5758209	8.149	-96.018	333.453	13.881	665.062	844.391	0.417	0.549	***6.313***	13.881	1.554
2021-08-29 10:45	5759109	8.150	-96.095	335.032	13.913	666.006	844.926	0.417	0.549	6.572	13.913	1.766
2021-08-29 11:00	5760009	8.131	-95.029	336.035	13.944	665.336	843.441	0.416	0.548	6.755	13.944	2.13
2021-08-29 11:15	5760909	8.166	-97.039	334.831	13.976	665.542	843.059	0.416	0.548	7.057	13.976	2.198
2021-08-29 11:30	5761809	8.214	-99.773	334.92	14.013	665.607	842.374	0.416	0.548	7.216	14.013	2.216
2021-08-29 11:45	5762709	8.261	-102.484	334.974	14.049	665.492	841.513	0.415	0.547	7.447	14.049	2.637
2021-08-29 12:00	5763609	8.285	-103.843	333.887	14.073	665.66	841.236	0.415	0.547	7.598	14.073	3.067
2021-08-29 12:15	5764509	8.282	-103.7	332.113	14.095	665.759	840.901	0.415	0.547	7.796	14.095	2.394
2021-08-29 12:30	5765409	8.291	-104.208	329.264	14.128	666.183	840.78	0.415	0.547	8.027	14.128	3.161
2021-08-29 12:45	5766309	8.281	-103.657	325.874	14.147	666.369	840.622	0.415	0.546	8.135	14.147	2.582
2021-08-29 13:00	5767209	8.272	-103.159	326.129	14.159	666.769	840.887	0.415	0.547	8.219	14.159	2.762
2021-08-29 13:15	5768109	8.280	-103.586	325.154	14.183	667.43	841.224	0.415	0.547	8.231	14.183	2.348
2021-08-29 13:30	5769009	8.285	-103.891	324.193	14.231	667.862	840.799	0.415	0.547	8.325	14.231	2.637
2021-08-29 13:45	5769909	8.317	-105.793	322.86	14.305	669.06	840.814	0.415	0.547	8.404	14.305	3.289
2021-08-29 14:00	5770809	8.309	-105.338	323.752	14.395	670.434	840.718	0.415	0.546	8.543	14.395	2.963
2021-08-29 14:15	5771709	8.310	-105.407	322.791	14.475	671.716	840.727	0.415	0.546	8.712	14.475	3.332
2021-08-29 14:30	5772609	8.333	-106.771	322.427	14.539	672.72	840.688	0.415	0.546	8.827	14.539	3.008
2021-08-29 14:45	5773509	8.359	-108.278	318.962	14.579	673.329	840.654	0.415	0.546	8.899	14.579	3.246
2021-08-29 15:00	5774409	8.384	-109.742	317.839	14.654	674.064	840.064	0.415	0.546	9.017	14.654	3.777
2021-08-29 15:15	5775309	8.400	-110.686	314.459	14.722	674.51	839.263	0.414	0.546	9.221	14.722	3.371
2021-08-29 15:30	5776209	8.419	-111.747	312.26	14.775	674.988	838.813	0.414	0.545	9.523	14.775	3.56
2021-08-29 15:45	5777109	8.454	-113.776	308.756	14.778	674.616	838.28	0.414	0.545	9.822	14.778	3.582
2021-08-29 16:00	5778009	8.449	-113.461	306.412	14.787	674.958	838.521	0.414	0.545	9.929	14.787	3.448
2021-08-29 16:15	5778909	8.458	-113.976	305.754	14.783	675.188	838.903	0.414	0.545	9.889	14.783	3.765
2021-08-29 16:30	5779809	8.470	-114.665	305.811	14.745	674.48	838.778	0.414	0.545	9.813	14.745	3.278
2021-08-29 16:45	5780709	8.467	-114.465	305.463	14.686	673.94	839.276	0.414	0.546	9.724	14.686	3.614
2021-08-29 17:00	5781609	8.449	-113.44	305.842	14.663	673.58	839.286	0.414	0.546	9.682	14.663	3.131
2021-08-29 17:15	5782509	8.443	-113.103	310.363	14.682	673.973	839.386	0.415	0.546	9.645	14.682	2.963
2021-08-29 17:30	5783409	8.430	-112.367	309.571	14.694	674.433	839.737	0.415	0.546	9.563	14.694	3.065
2021-08-29 17:45	5784309	8.446	-113.327	307.347	14.761	675.572	839.807	0.415	0.546	9.463	14.761	5.406
2021-08-29 18:00	5785209	8.435	-112.667	306.534	14.794	675.927	839.596	0.415	0.546	9.410	14.794	3.367
2021-08-29 18:15	5786109	8.437	-112.801	307.161	14.803	676.033	839.544	0.415	0.546	9.569	14.803	12.967
2021-08-29 18:30	5787009	8.441	-113.049	306.848	14.789	675.655	839.354	0.415	0.546	9.562	14.789	4.271
2021-08-29 18:45	5787909	8.450	-113.54	305.43	14.761	675.177	839.317	0.415	0.546	9.484	14.761	4.192
2021-08-29 19:00	5788809	8.453	-113.668	304.254	14.733	674.582	839.134	0.414	0.545	9.465	14.733	3.521
2021-08-29 19:15	5789709	8.454	-113.773	304.412	14.756	675.394	839.689	0.415	0.546	9.497	14.756	3.862
2021-08-29 19:30	5790609	8.449	-113.49	303.773	14.762	675.772	840.033	0.415	0.546	9.482	14.762	3.388
2021-08-29 19:45	5791509	8.453	-113.721	303.208	14.74	675.547	840.202	0.415	0.546	9.399	14.74	3.515
2021-08-29 20:00	5792409	8.442	-113.087	302.254	14.717	675.637	840.777	0.415	0.547	9.385	14.717	3.446
2021-08-29 20:15	5793309	8.435	-112.619	301.656	14.68	675.304	841.102	0.415	0.547	9.283	14.68	2.491
2021-08-29 20:30	5794209	8.412	-111.32	303.456	14.706	676.077	841.528	0.416	0.547	9.307	14.706	2.867
2021-08-29 20:45	5795109	8.407	-111.065	303.241	14.738	676.926	841.952	0.416	0.547	9.189	14.738	2.841

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-29 21:00	5796009	8.399	-110.617	304.073	14.757	678.114	843.049	0.416	0.548	8.942	14.757	2.544
2021-08-29 21:15	5796909	8.388	-109.987	306.026	14.776	678.308	842.917	0.416	0.548	8.822	14.776	2.293
2021-08-29 21:30	5797809	8.390	-110.126	305.692	14.792	678.251	842.518	0.416	0.548	8.682	14.792	2.092
2021-08-29 21:45	5798709	8.399	-110.643	305.787	14.797	678.758	843.045	0.416	0.548	8.631	14.797	2.149
2021-08-29 22:00	5799609	8.388	-110.009	305.511	14.779	678.547	843.138	0.417	0.548	8.540	14.779	2.263
2021-08-29 22:15	5800509	8.388	-109.992	304.371	14.782	678.553	843.087	0.416	0.548	8.457	14.782	2.371
2021-08-29 22:30	5801409	8.392	-110.219	305.542	14.791	678.763	843.18	0.417	0.548	8.308	14.791	2.709
2021-08-29 22:45	5802309	8.382	-109.675	305.527	14.805	679.336	843.606	0.417	0.548	8.169	14.805	2.325
2021-08-29 23:00	5803209	8.378	-109.427	304.798	14.818	679.866	844.001	0.417	0.549	7.930	14.818	2.378
2021-08-29 23:15	5804109	8.373	-109.186	305.411	14.834	680.273	844.199	0.417	0.549	7.896	14.834	2.459
2021-08-29 23:30	5805009	8.365	-108.693	305.287	14.844	680.938	844.822	0.417	0.549	7.873	14.844	2.609
2021-08-29 23:45	5805909	8.361	-108.473	306.405	14.852	681.369	845.198	0.418	0.549	7.770	14.852	2.166
2021-08-30 00:00	5806809	8.349	-107.775	307.094	14.85	681.711	845.66	0.418	0.550	7.712	14.85	1.903
2021-08-30 00:15	5807709	8.334	-106.938	307.833	14.838	681.82	846.027	0.418	0.550	7.725	14.838	6.366
2021-08-30 00:30	5808609	8.310	-105.531	309.795	14.818	682.032	846.702	0.418	0.550	7.600	14.818	2.008
2021-08-30 00:45	5809509	8.300	-105.002	311.419	14.791	682.092	847.305	0.419	0.551	7.365	14.791	2.071
2021-08-30 01:00	5810409	8.303	-105.112	309.893	14.756	682.151	848.095	0.419	0.551	6.908	14.756	3.372
2021-08-30 01:15	5811309	8.298	-104.859	309.12	14.715	681.923	848.634	0.419	0.552	6.621	14.715	1.687
2021-08-30 01:30	5812209	8.306	-105.264	310.534	14.67	681.502	849.013	0.419	0.552	6.608	14.67	1.511
2021-08-30 01:45	5813109	8.306	-105.243	311.373	14.625	681.219	849.572	0.420	0.552	7.121	14.625	1.431
2021-08-30 02:00	5814009	8.296	-104.647	310.587	14.572	680.823	850.155	0.420	0.553	7.174	14.572	2.062
2021-08-30 02:15	5814909	8.306	-105.217	310.873	14.522	680.302	850.52	0.420	0.553	7.215	14.522	1.769
2021-08-30 02:30	5815809	8.300	-104.833	312.756	14.478	679.395	850.276	0.420	0.553	7.089	14.478	1.86
2021-08-30 02:45	5816709	8.285	-103.984	313.686	14.427	678.649	850.375	0.420	0.553	6.889	14.427	1.923
2021-08-30 03:00	5817609	8.278	-103.6	314.051	14.386	678.006	850.405	0.420	0.553	6.697	14.386	1.925
2021-08-30 03:15	5818509	8.330	-106.449	311.004	14.219	674.04	848.82	0.419	0.552	7.250	14.219	6.843
2021-08-30 03:30	5819409	8.329	-106.397	311.526	14.217	674.111	848.952	0.419	0.552	7.439	14.217	5.294
2021-08-30 03:45	5820309	8.321	-105.97	312.146	14.209	674.22	849.254	0.419	0.552	7.229	14.209	5.508
2021-08-30 04:00	5821209	8.311	-105.41	313.35	14.199	674.166	849.404	0.419	0.552	6.822	14.199	3.581
2021-08-30 04:15	5822109	8.301	-104.814	314.811	14.187	674.478	850.04	0.420	0.553	***6.443***	14.187	3.755
2021-08-30 04:30	5823009	8.283	-103.805	316.34	14.166	674.606	850.616	0.420	0.553	***6.319***	14.166	2.013
2021-08-30 04:45	5823909	8.269	-102.98	318.209	14.142	674.395	850.852	0.420	0.553	***6.397***	14.142	2.758
2021-08-30 05:00	5824809	8.256	-102.193	319.866	14.114	674.574	851.646	0.421	0.554	***6.383***	14.114	2.654
2021-08-30 05:15	5825709	8.244	-101.545	320.896	14.087	674.004	851.484	0.420	0.553	***6.299***	14.087	3.389
2021-08-30 05:30	5826609	8.234	-100.935	322.098	14.058	673.844	851.884	0.421	0.554	***6.148***	14.058	2.303
2021-08-30 05:45	5827509	8.221	-100.169	324.603	14.028	673.95	852.64	0.421	0.554	***6.099***	14.028	2.506
2021-08-30 06:00	5828409	8.202	-99.082	325.664	13.998	673.214	852.313	0.421	0.554	***5.877***	13.998	1.858
2021-08-30 06:15	5829309	8.182	-97.969	327.197	13.969	672.846	852.455	0.421	0.554	***5.491***	13.969	2.447
2021-08-30 06:30	5830209	8.173	-97.43	328.635	13.943	672.667	852.751	0.421	0.554	***5.365***	13.943	1.709
2021-08-30 06:45	5831109	8.163	-96.829	328.842	13.918	672.298	852.805	0.421	0.554	***5.408***	13.918	1.716
2021-08-30 07:00	5832009	8.150	-96.104	329.643	13.894	671.952	852.861	0.421	0.554	***5.460***	13.894	2.794
2021-08-30 07:15	5832909	8.136	-95.296	331.238	13.867	671.501	852.842	0.421	0.554	***5.268***	13.867	1.936
2021-08-30 07:30	5833809	8.122	-94.514	333.492	13.837	671.005	852.839	0.421	0.554	***5.197***	13.837	2.084
2021-08-30 07:45	5834709	8.112	-93.937	335.296	13.81	670.709	853.025	0.421	0.554	***4.924***	13.81	2.089
2021-08-30 08:00	5835609	8.111	-93.858	336.362	13.789	670.309	852.954	0.421	0.554	***4.477***	13.789	2.01
2021-08-30 08:15	5836509	8.104	-93.439	336.674	13.772	669.894	852.773	0.421	0.554	***4.495***	13.772	5.97
2021-08-30 08:30	5837409	8.093	-92.795	337.888	13.762	669.764	852.812	0.421	0.554	***4.593***	13.762	3.236
2021-08-30 08:45	5838309	8.075	-91.777	339.9	13.753	669.561	852.742	0.421	0.554	***4.638***	13.753	3.732
2021-08-30 09:00	5839209	8.059	-90.883	341.643	13.751	669.73	853.001	0.421	0.554	***4.754***	13.751	2.106
2021-08-30 09:15	5840109	8.050	-90.361	343.949	13.754	669.703	852.899	0.421	0.554	***4.862***	13.754	1.888
2021-08-30 09:30	5841009	8.045	-90.11	345.353	13.763	669.917	852.988	0.421	0.554	***4.977***	13.763	1.854
2021-08-30 09:45	5841909	8.037	-89.633	346.817	13.773	669.958	852.845	0.421	0.554	***5.103***	13.773	1.687
2021-08-30 10:00	5842809	8.029	-89.2	347.863	13.784	670.178	852.892	0.421	0.554	***5.248***	13.784	2.516
2021-08-30 10:15	5843709	8.020	-88.687	349.165	13.797	670.229	852.691	0.421	0.554	***5.268***	13.797	7.477
2021-08-30 10:30	5844609	8.018	-88.549	349.799	13.809	670.231	852.431	0.421	0.554	***5.290***	13.809	1.659
2021-08-30 10:45	5845509	8.016	-88.446	350.963	13.825	670.221	852.104	0.421	0.554	***5.364***	13.825	1.534

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-30 11:00	5846409	8.003	-87.731	352.25	13.842	670.126	851.617	0.420	0.554	***5.513***	13.842	1.773
2021-08-30 11:15	5847309	7.996	-87.342	353.237	13.864	670.12	851.169	0.420	0.553	***5.836***	13.864	2.268
2021-08-30 11:30	5848209	7.990	-87.011	353.862	13.888	670.309	850.902	0.420	0.553	***6.056***	13.888	2.183
2021-08-30 11:45	5849109	7.990	-87.013	353.635	13.921	670.517	850.477	0.420	0.553	***6.163***	13.921	2.07
2021-08-30 12:00	5850009	8.001	-87.65	352.024	13.964	670.846	850.024	0.420	0.553	***6.232***	13.964	1.794
2021-08-30 12:15	5850909	8.009	-88.136	349.482	14.015	671.537	849.838	0.420	0.552	***6.413***	14.015	2.043
2021-08-30 12:30	5851809	8.014	-88.418	349.99	14.072	672.52	849.911	0.420	0.552	***6.309***	14.072	2.041
2021-08-30 12:45	5852709	8.033	-89.524	349.268	14.126	673.45	849.977	0.420	0.552	***6.180***	14.126	2.146
2021-08-30 13:00	5853609	8.047	-90.322	348.774	14.182	674.43	850.078	0.420	0.553	***6.126***	14.182	1.956
2021-08-30 13:15	5854509	8.053	-90.671	349.461	14.236	675.196	849.928	0.420	0.552	***6.051***	14.236	1.779
2021-08-30 13:30	5855409	8.056	-90.902	349.59	14.3	675.966	849.604	0.420	0.552	***6.240***	14.3	1.923
2021-08-30 13:45	5856309	8.054	-90.783	348.963	14.345	676.496	849.352	0.419	0.552	***6.453***	14.345	1.836
2021-08-30 14:00	5857209	8.049	-90.473	347.375	14.367	676.524	848.94	0.419	0.552	6.602	14.367	1.861
2021-08-30 14:15	5858109	8.072	-91.817	346.988	14.393	676.16	847.948	0.419	0.551	6.615	14.393	1.561
2021-08-30 14:30	5859009	8.106	-93.799	347.241	14.436	675.978	846.854	0.418	0.550	7.179	14.436	1.904
2021-08-30 14:45	5859909	8.137	-95.553	342.845	14.507	676.211	845.711	0.418	0.550	8.014	14.507	1.749
2021-08-30 15:00	5860809	8.150	-96.328	338.987	14.584	677.822	846.165	0.418	0.550	8.207	14.584	1.763
2021-08-30 15:15	5861709	8.168	-97.382	338.691	14.661	679.408	846.58	0.418	0.550	8.068	14.661	1.852
2021-08-30 15:30	5862609	8.172	-97.635	337.568	14.724	680.867	847.127	0.419	0.551	7.841	14.724	2.15
2021-08-30 15:45	5863509	8.172	-97.647	338.083	14.784	681.645	846.897	0.418	0.550	7.709	14.784	2.012
2021-08-30 16:00	5864409	8.175	-97.842	337.673	14.861	682.457	846.361	0.418	0.550	7.881	14.861	2.345
2021-08-30 16:15	5865309	8.189	-98.67	336.755	14.939	683.625	846.251	0.418	0.550	8.147	14.939	2.042
2021-08-30 16:30	5866209	8.207	-99.745	332.948	15	684.404	845.986	0.418	0.550	8.348	15	4.506
2021-08-30 16:45	5867109	8.225	-100.775	331.563	15.07	685.065	845.411	0.418	0.550	8.626	15.07	2.596
2021-08-30 17:00	5868009	8.230	-101.101	331.415	15.134	686.027	845.315	0.418	0.549	8.987	15.134	1.705
2021-08-30 17:15	5868909	8.246	-102.017	329.462	15.225	686.937	844.623	0.417	0.549	9.169	15.225	1.947
2021-08-30 17:30	5869809	8.262	-102.987	327.965	15.303	688.637	845.178	0.418	0.549	9.184	15.303	2.108
2021-08-30 17:45	5870709	8.278	-103.929	326.167	15.361	689.87	845.543	0.418	0.550	9.109	15.361	3.012
2021-08-30 18:00	5871609	8.277	-103.898	325.288	15.412	690.726	845.572	0.418	0.550	9.027	15.412	2.518
2021-08-30 18:15	5872509	8.269	-103.459	326.756	15.453	691.476	845.679	0.418	0.550	8.618	15.453	2.085
2021-08-30 18:30	5873409	8.259	-102.897	327.035	15.495	692.481	846.078	0.418	0.550	8.681	15.495	2.414
2021-08-30 18:45	5874309	8.249	-102.355	327.507	15.541	693.304	846.175	0.418	0.550	8.827	15.541	2.028
2021-08-30 19:00	5875209	8.241	-101.874	327.851	15.59	693.767	845.779	0.418	0.550	8.943	15.59	2.225
2021-08-30 19:15	5876109	8.235	-101.581	326.058	15.629	694.443	845.836	0.418	0.550	9.122	15.629	2.14
2021-08-30 19:30	5877009	8.243	-102	324.901	15.66	695.028	845.935	0.418	0.550	9.167	15.66	2.186
2021-08-30 19:45	5877909	8.249	-102.355	324.475	15.678	695.273	845.874	0.418	0.550	9.054	15.678	2.545
2021-08-30 20:00	5878809	8.254	-102.654	322.379	15.692	695.689	846.117	0.418	0.550	8.830	15.692	2.184
2021-08-30 20:15	5879709	8.256	-102.78	321.304	15.702	695.772	846.01	0.418	0.550	8.614	15.702	2.214
2021-08-30 20:30	5880609	8.254	-102.67	321.287	15.708	696.317	846.568	0.419	0.550	8.437	15.708	2.372
2021-08-30 20:45	5881509	8.243	-102.034	321.594	15.705	696.567	846.925	0.419	0.551	8.356	15.705	2.489
2021-08-30 21:00	5882409	8.244	-102.112	318.497	15.691	696.504	847.116	0.419	0.551	8.115	15.691	2.064
2021-08-30 21:15	5883309	8.293	-104.907	314.811	15.663	695.582	846.554	0.419	0.550	7.891	15.663	2.332
2021-08-30 21:30	5884209	8.328	-106.866	310.775	15.624	693.956	845.333	0.418	0.549	7.435	15.624	1.861
2021-08-30 21:45	5885109	8.351	-108.211	309.335	15.581	692.352	844.239	0.417	0.549	7.593	15.581	1.82
2021-08-30 22:00	5886009	8.380	-109.816	308.605	15.533	691.389	843.996	0.417	0.549	7.403	15.533	1.797
2021-08-30 22:15	5886909	8.377	-109.63	306.655	15.48	690.273	843.676	0.417	0.548	7.487	15.48	8.279
2021-08-30 22:30	5887809	8.373	-109.375	306.655	15.399	689.981	844.915	0.418	0.549	7.493	15.399	1.783
2021-08-30 22:45	5888709	8.367	-109.015	308.52	15.36	689.555	845.179	0.418	0.549	7.899	15.36	1.538
2021-08-30 23:00	5889609	8.371	-109.234	307.993	15.332	689.066	845.129	0.418	0.549	7.975	15.332	1.85
2021-08-30 23:15	5890509	8.362	-108.705	307.888	15.275	688.049	845.012	0.418	0.549	7.808	15.275	2.182
2021-08-30 23:30	5891409	8.361	-108.638	308.531	15.224	687.183	844.959	0.418	0.549	7.640	15.224	1.957
2021-08-30 23:45	5892309	8.364	-108.783	311.478	15.172	685.788	844.275	0.417	0.549	7.703	15.172	1.978
2021-08-31 00:00	5893209	8.370	-109.093	313.922	15.117	684.673	843.986	0.417	0.549	7.573	15.117	1.822
2021-08-31 00:15	5894109	8.366	-108.86	314.356	15.054	683.808	844.165	0.417	0.549	7.859	15.054	2.003
2021-08-31 00:30	5895009	8.347	-107.737	314.795	14.991	682.918	844.329	0.417	0.549	7.568	14.991	2.287
2021-08-31 00:45	5895910	8.338	-107.214	314.43	14.93	681.802	844.161	0.417	0.549	7.306	14.93	2.935

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-31 01:00	5896810	8.341	-107.343	314.108	14.866	680.855	844.27	0.417	0.549	7.090	14.866	2.72
2021-08-31 01:15	5897710	8.350	-107.82	312.885	14.811	679.781	844.041	0.417	0.549	7.081	14.811	2.104
2021-08-31 01:30	5898610	8.346	-107.591	312.153	14.765	678.986	843.971	0.417	0.549	6.805	14.765	2.267
2021-08-31 01:45	5899510	8.341	-107.267	312.995	14.72	678.274	843.989	0.417	0.549	6.643	14.72	2.361
2021-08-31 02:00	5900410	8.329	-106.604	314.685	14.675	677.611	844.067	0.417	0.549	6.599	14.675	2.141
2021-08-31 02:15	5901310	8.324	-106.306	315.286	14.633	676.764	843.862	0.417	0.549	6.720	14.633	1.901
2021-08-31 02:30	5902210	8.319	-105.972	315.613	14.585	676.323	844.262	0.417	0.549	6.656	14.585	1.72
2021-08-31 02:45	5903110	8.314	-105.679	315.975	14.539	675.883	844.653	0.417	0.549	***6.449***	14.539	1.601
2021-08-31 03:00	5904010	8.306	-105.209	315.877	14.492	675.347	844.93	0.417	0.549	***6.384***	14.492	1.93
2021-08-31 03:15	5904910	8.302	-104.98	314.642	14.449	674.752	845.056	0.417	0.549	***6.390***	14.449	1.806
2021-08-31 03:30	5905810	8.295	-104.542	314.661	14.407	674.202	845.203	0.417	0.549	***6.481***	14.407	2.146
2021-08-31 03:45	5906710	8.289	-104.194	314.604	14.37	673.808	845.467	0.418	0.550	6.606	14.37	1.857
2021-08-31 04:00	5907610	8.287	-104.079	313.297	14.334	673.302	845.568	0.418	0.550	6.553	14.334	2.28
2021-08-31 04:15	5908510	8.277	-103.471	315.543	14.306	672.92	845.648	0.418	0.550	6.546	14.306	2.308
2021-08-31 04:30	5909410	8.275	-103.34	316.819	14.274	672.546	845.828	0.418	0.550	***6.496***	14.274	1.77
2021-08-31 04:45	5910310	8.275	-103.35	317.484	14.243	672.189	846.017	0.418	0.550	***6.425***	14.243	1.929
2021-08-31 05:00	5911210	8.273	-103.238	317.141	14.212	671.671	845.986	0.418	0.550	***6.292***	14.212	2.589
2021-08-31 05:15	5912110	8.269	-102.983	316.342	14.182	671.057	845.832	0.418	0.550	***6.139***	14.182	1.98
2021-08-31 05:30	5913010	8.258	-102.344	317.169	14.15	670.438	845.705	0.418	0.550	***6.084***	14.15	2.07
2021-08-31 05:45	5913910	8.250	-101.871	318.247	14.12	669.807	845.517	0.417	0.550	***6.033***	14.12	2.106
2021-08-31 06:00	5914810	8.234	-100.97	318.891	14.09	669.472	845.707	0.417	0.550	***6.051***	14.09	2.078
2021-08-31 06:15	5915710	8.220	-100.141	320.615	14.057	669.012	845.786	0.418	0.550	***5.976***	14.057	2.085
2021-08-31 06:30	5916610	8.215	-99.878	322.09	14.022	668.481	845.84	0.418	0.550	***5.891***	14.022	2.182
2021-08-31 06:45	5917510	8.211	-99.609	323.511	13.983	668.608	846.785	0.418	0.550	***5.839***	13.983	2.091
2021-08-31 07:00	5918410	8.202	-99.072	324.711	13.94	668.022	846.943	0.418	0.551	***5.809***	13.94	1.992
2021-08-31 07:15	5919310	8.199	-98.891	326.623	13.882	667.171	847.047	0.418	0.551	***5.766***	13.882	2.286
2021-08-31 07:30	5920210	8.202	-99.068	326.148	13.836	666.078	846.598	0.418	0.550	***5.745***	13.836	2.406
2021-08-31 07:45	5921110	8.175	-97.489	327.922	13.804	665.549	846.584	0.418	0.550	***5.759***	13.804	2.462
2021-08-31 08:00	5922010	8.159	-96.593	328.151	13.753	664.569	846.397	0.418	0.550	***5.680***	13.753	6.32
2021-08-31 08:15	5922910	8.165	-96.879	331.005	13.722	663.575	845.75	0.417	0.550	***5.946***	13.722	2.464
2021-08-31 08:30	5923810	8.170	-97.167	331.682	13.703	663.245	845.723	0.417	0.550	***6.202***	13.703	2.807
2021-08-31 08:45	5924710	8.171	-97.246	331.427	13.682	662.805	845.597	0.417	0.550	***6.190***	13.682	3.897
2021-08-31 09:00	5925610	8.163	-96.738	330.874	13.659	662.362	845.51	0.417	0.550	***5.886***	13.659	4.237
2021-08-31 09:15	5926510	8.158	-96.486	330.247	13.641	662.139	845.602	0.417	0.550	***5.723***	13.641	6.38
2021-08-31 09:30	5927410	8.158	-96.498	330.747	13.632	662.148	845.802	0.417	0.550	***5.692***	13.632	2.648
2021-08-31 09:45	5928310	8.144	-95.665	332.645	13.627	662.179	845.941	0.417	0.550	***5.693***	13.627	3.173
2021-08-31 10:00	5929210	8.127	-94.678	334.266	13.626	662.1	845.865	0.417	0.550	***5.744***	13.626	2.74
2021-08-31 10:15	5930110	8.122	-94.416	335.69	13.623	662.012	845.809	0.417	0.550	***5.884***	13.623	6.986
2021-08-31 10:30	5931010	8.130	-94.862	335.993	13.602	661.585	845.704	0.417	0.550	***6.018***	13.602	5.043
2021-08-31 10:45	5931910	8.136	-95.215	335.799	13.602	661.508	845.591	0.417	0.550	***6.190***	13.602	6.038
2021-08-31 11:00	5932810	8.147	-95.84	335.356	13.613	661.624	845.517	0.417	0.550	***6.352***	13.613	2.584
2021-08-31 11:15	5933710	8.154	-96.235	334.784	13.615	661.435	845.235	0.417	0.549	***6.423***	13.615	2.496
2021-08-31 11:30	5934610	8.157	-96.397	333.055	13.619	661.131	844.757	0.417	0.549	***6.394***	13.619	2.766
2021-08-31 11:45	5935510	8.166	-96.927	332.416	13.625	660.928	844.378	0.417	0.549	***6.339***	13.625	2.372
2021-08-31 12:00	5936410	8.170	-97.148	331.436	13.638	661.001	844.213	0.416	0.549	***6.417***	13.638	2.763
2021-08-31 12:15	5937310	8.184	-97.973	330.414	13.65	660.865	843.778	0.416	0.548	6.579	13.65	2.447
2021-08-31 12:30	5938210	8.182	-97.868	330.967	13.654	660.594	843.356	0.416	0.548	6.817	13.654	2.464
2021-08-31 12:45	5939110	8.168	-97.063	330.883	13.657	660.294	842.907	0.416	0.548	6.838	13.657	3.056
2021-08-31 13:00	5940010	8.177	-97.57	329.51	13.671	660.126	842.418	0.416	0.548	6.986	13.671	2.487
2021-08-31 13:15	5940910	8.181	-97.806	328.573	13.684	660.14	842.171	0.415	0.547	7.108	13.684	2.751
2021-08-31 13:30	5941810	8.184	-97.973	328.709	13.7	660.073	841.745	0.415	0.547	7.178	13.7	2.33
2021-08-31 13:45	5942710	8.217	-99.876	325.447	13.733	660.464	841.561	0.415	0.547	7.348	13.733	2.158
2021-08-31 14:00	5943610	8.235	-100.899	324.663	13.766	660.978	841.556	0.415	0.547	7.534	13.766	2.52
2021-08-31 14:15	5944510	8.231	-100.691	323.94	13.804	661.295	841.169	0.415	0.547	7.548	13.804	2.471
2021-08-31 14:30	5945410	8.238	-101.082	323.08	13.839	661.631	840.885	0.415	0.547	7.618	13.839	2.572
2021-08-31 14:45	5946310	8.241	-101.278	322.524	13.869	662.238	841.037	0.415	0.547	7.666	13.869	3.476

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-08-31 15:00	5947210	8.242	-101.366	321.976	13.908	662.911	841.098	0.415	0.547	7.691	13.908	2.497
2021-08-31 15:15	5948110	8.238	-101.125	320.564	13.936	663.527	841.316	0.415	0.547	7.832	13.936	2.673
2021-08-31 15:30	5949010	8.241	-101.297	319.511	13.958	663.952	841.402	0.415	0.547	7.825	13.958	3.087
2021-08-31 15:45	5949910	8.244	-101.483	318.505	13.973	664.241	841.461	0.415	0.547	7.753	13.973	2.527
2021-08-31 16:00	5950810	8.230	-100.715	317.541	13.99	664.407	841.332	0.415	0.547	7.665	13.99	2.506
2021-08-31 16:15	5951710	8.239	-101.197	315.622	14.001	664.556	841.306	0.415	0.547	7.626	14.001	2.897
2021-08-31 16:30	5952610	8.254	-102.062	312.596	14.009	664.762	841.385	0.415	0.547	7.851	14.009	3.062
2021-08-31 16:45	5953510	8.260	-102.425	310.479	14.017	664.691	841.133	0.415	0.547	7.957	14.017	2.95
2021-08-31 17:00	5954410	8.260	-102.432	309.442	14.027	664.74	840.998	0.415	0.547	8.027	14.027	2.811
2021-08-31 17:15	5955310	8.275	-103.288	309.34	14.04	665.145	841.257	0.415	0.547	8.125	14.04	3.988
2021-08-31 17:30	5956210	8.307	-105.135	307.902	14.059	665.56	841.381	0.415	0.547	8.289	14.059	2.527
2021-08-31 17:45	5957110	8.317	-105.662	306.774	14.078	665.85	841.362	0.415	0.547	8.517	14.078	2.726
2021-08-31 18:00	5958010	8.329	-106.359	305.02	14.095	665.685	840.824	0.415	0.547	8.671	14.095	2.496
2021-08-31 18:15	5958910	8.335	-106.735	303.858	14.101	665.286	840.189	0.415	0.546	8.679	14.101	3.533
2021-08-31 18:30	5959810	8.336	-106.752	303.103	14.104	665.506	840.403	0.415	0.546	8.585	14.104	2.608
2021-08-31 18:45	5960710	8.321	-105.946	303.315	14.108	665.26	840.013	0.415	0.546	8.301	14.108	2.514
2021-08-31 19:00	5961610	8.299	-104.644	303.227	14.105	665.192	839.996	0.415	0.546	7.970	14.105	2.546
2021-08-31 19:15	5962510	8.288	-104.053	302.974	14.089	665.06	840.151	0.415	0.546	7.778	14.089	2.202
2021-08-31 19:30	5963410	8.276	-103.331	302.469	14.077	664.857	840.138	0.415	0.546	7.673	14.077	1.812
2021-08-31 19:45	5964310	8.278	-103.45	301.584	14.059	664.504	840.049	0.415	0.546	7.730	14.059	2.155
2021-08-31 20:00	5965210	8.271	-103.04	301.231	14.043	664.262	840.072	0.415	0.546	7.769	14.043	2.392
2021-08-31 20:15	5966110	8.269	-102.956	301.734	14.024	664.225	840.404	0.415	0.546	7.653	14.024	2.159
2021-08-31 20:30	5967010	8.265	-102.718	301.768	14.005	663.872	840.357	0.415	0.546	7.471	14.005	2.538
2021-08-31 20:45	5967910	8.259	-102.346	304.064	13.99	663.809	840.572	0.415	0.546	7.305	13.99	2.086
2021-08-31 21:00	5968810	8.237	-101.099	307.869	13.977	664.011	841.101	0.415	0.547	7.245	13.977	2.244
2021-08-31 21:15	5969710	8.211	-99.58	310.51	13.956	665.35	843.219	0.416	0.548	7.002	13.956	2.185
2021-08-31 21:30	5970610	8.203	-99.149	311.676	13.925	664.047	842.21	0.416	0.547	6.666	13.925	1.59
2021-08-31 21:45	5971510	8.191	-98.45	313.593	13.893	664.145	842.975	0.416	0.548	***6.453***	13.893	1.686
2021-08-31 22:00	5972410	8.181	-97.842	314.482	13.865	663.94	843.293	0.416	0.548	***6.470***	13.865	1.774
2021-08-31 22:15	5973310	8.164	-96.86	315.415	13.839	663.638	843.435	0.416	0.548	***6.269***	13.839	1.999
2021-08-31 22:30	5974210	8.154	-96.276	315.551	13.801	663.192	843.642	0.416	0.548	***6.058***	13.801	2.351
2021-08-31 22:45	5975110	8.156	-96.416	316.011	13.759	662.703	843.889	0.416	0.549	***5.984***	13.759	2.365
2021-08-31 23:00	5976010	8.161	-96.667	315.276	13.685	661.638	844.059	0.416	0.549	***6.047***	13.685	3.243
2021-08-31 23:15	5976910	8.166	-96.915	315.472	13.642	661.012	844.132	0.416	0.549	***6.002***	13.642	3.261
2021-08-31 23:30	5977810	8.161	-96.629	316.321	13.604	660.454	844.215	0.416	0.549	***5.991***	13.604	3.456
2021-08-31 23:45	5978710	8.156	-96.347	316.43	13.581	660.111	844.236	0.416	0.549	***5.925***	13.581	3.738
2021-09-01 00:00	5979610	8.153	-96.166	316.757	13.55	659.727	844.382	0.417	0.549	***5.950***	13.55	3.457
2021-09-01 00:15	5980510	8.153	-96.154	317.034	13.525	659.33	844.394	0.417	0.549	***5.895***	13.525	3.369
2021-09-01 00:30	5981410	8.147	-95.775	317.537	13.497	658.751	844.237	0.416	0.549	***5.852***	13.497	3.664
2021-09-01 00:45	5982310	8.136	-95.17	318.052	13.471	658.387	844.304	0.416	0.549	***5.783***	13.471	2.775
2021-09-01 01:00	5983210	8.124	-94.478	319.782	13.444	658.038	844.411	0.416	0.549	***5.753***	13.444	2.662
2021-09-01 01:15	5984110	8.118	-94.135	320.545	13.425	657.927	844.666	0.417	0.549	***5.703***	13.425	2.973
2021-09-01 01:30	5985010	8.121	-94.295	321.087	13.387	657.031	844.312	0.416	0.549	***5.685***	13.387	2.84
2021-09-01 01:45	5985910	8.119	-94.18	321.864	13.361	656.705	844.432	0.416	0.549	***5.625***	13.361	3.099
2021-09-01 02:00	5986810	8.115	-93.935	322.56	13.328	656.101	844.329	0.416	0.549	***5.605***	13.328	3.055
2021-09-01 02:15	5987710	8.115	-93.939	323.671	13.318	656.004	844.423	0.416	0.549	***5.579***	13.318	3.214
2021-09-01 02:30	5988610	8.116	-93.961	323.917	13.31	655.751	844.255	0.416	0.549	***5.636***	13.31	2.981
2021-09-01 02:45	5989510	8.112	-93.753	323.678	13.304	655.641	844.23	0.416	0.549	***5.681***	13.304	3.206
2021-09-01 03:00	5990410	8.114	-93.865	324.119	13.3	655.553	844.216	0.416	0.549	***5.507***	13.3	3.284
2021-09-01 03:15	5991310	8.115	-93.937	324.05	13.292	655.461	844.25	0.416	0.549	***5.263***	13.292	3.387
2021-09-01 03:30	5992210	8.112	-93.765	324.577	13.277	655.242	844.292	0.416	0.549	***5.187***	13.277	3.431
2021-09-01 03:45	5993110	8.114	-93.832	323.831	13.248	654.923	844.469	0.416	0.549	***5.353***	13.248	3.418
2021-09-01 04:00	5994010	8.108	-93.477	323.292	13.228	654.604	844.488	0.416	0.549	***5.366***	13.228	3.711
2021-09-01 04:15	5994910	8.102	-93.169	322.837	13.212	654.287	844.411	0.416	0.549	***5.320***	13.212	3.82
2021-09-01 04:30	5995810	8.096	-92.8	322.705	13.205	654.267	844.519	0.416	0.549	***5.280***	13.205	3.618
2021-09-01 04:45	5996710	8.090	-92.475	322.624	13.213	654.506	844.67	0.416	0.549	***5.143***	13.213	3.606

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-01 05:00	5997610	8.081	-91.939	322.961	13.221	654.597	844.61	0.416	0.549	***5.093***	13.221	3.197
2021-09-01 05:15	5998510	8.077	-91.708	322.896	13.21	654.482	844.695	0.416	0.549	***5.103***	13.21	3.174
2021-09-01 05:30	5999410	8.075	-91.608	323.311	13.192	654.077	844.543	0.416	0.549	***5.140***	13.192	3.645
2021-09-01 05:45	6000310	8.079	-91.841	322.796	13.172	653.75	844.551	0.416	0.549	***5.230***	13.172	3.73
2021-09-01 06:00	6001210	8.076	-91.643	323.211	13.153	653.536	844.658	0.416	0.549	***5.283***	13.153	3.551
2021-09-01 06:15	6002110	8.073	-91.493	323.073	13.13	653.221	844.736	0.416	0.549	***5.245***	13.13	3.486
2021-09-01 06:30	6003010	8.066	-91.078	323.786	13.118	653.127	844.863	0.417	0.549	***5.152***	13.118	3.557
2021-09-01 06:45	6003910	8.063	-90.916	323.657	13.109	653.213	845.155	0.417	0.549	***5.106***	13.109	3.814
2021-09-01 07:00	6004810	8.059	-90.649	324.41	13.097	653.062	845.231	0.417	0.549	***5.070***	13.097	3.634
2021-09-01 07:15	6005710	8.054	-90.387	325.111	13.09	653.029	845.324	0.417	0.549	***5.032***	13.09	3.229
2021-09-01 07:30	6006610	8.045	-89.865	324.763	13.081	652.927	845.376	0.417	0.549	***4.990***	13.081	3.756
2021-09-01 07:45	6007510	8.041	-89.622	323.883	13.075	652.896	845.459	0.417	0.550	***4.990***	13.075	4.034
2021-09-01 08:00	6008410	8.036	-89.347	323.721	13.072	652.953	845.606	0.417	0.550	***4.885***	13.072	3.352
2021-09-01 08:15	6009310	8.036	-89.359	323.681	13.072	652.994	845.663	0.417	0.550	***4.864***	13.072	3.463
2021-09-01 08:30	6010210	8.037	-89.381	323.805	13.054	652.673	845.609	0.417	0.550	***4.861***	13.054	3.512
2021-09-01 08:45	6011110	8.032	-89.145	322.689	13.048	652.678	845.75	0.417	0.550	***5.018***	13.048	3.91
2021-09-01 09:00	6012010	8.027	-88.854	322.388	13.051	652.693	845.714	0.417	0.550	***4.988***	13.051	5.704
2021-09-01 09:15	6012910	8.035	-89.295	322.21	13.056	652.635	845.521	0.417	0.550	***5.103***	13.056	6.57
2021-09-01 09:30	6013810	8.049	-90.115	321.144	13.073	652.811	845.407	0.417	0.550	***5.379***	13.073	6.36
2021-09-01 09:45	6014710	8.058	-90.601	320.164	13.091	652.981	845.251	0.417	0.549	***5.574***	13.091	10.662
2021-09-01 10:00	6015610	8.071	-91.343	318.769	13.093	652.871	845.067	0.417	0.549	***5.526***	13.093	7.042
2021-09-01 10:15	6016510	8.076	-91.65	317.937	13.095	652.812	844.931	0.417	0.549	***5.769***	13.095	4.742
2021-09-01 10:30	6017410	8.085	-92.163	317.878	13.114	653.026	844.815	0.416	0.549	***5.614***	13.114	4.891
2021-09-01 10:45	6018310	8.099	-92.933	316.182	13.157	653.671	844.752	0.416	0.549	***5.733***	13.157	7.518
2021-09-01 11:00	6019210	8.104	-93.269	315.186	13.19	654.083	844.602	0.416	0.549	***5.873***	13.19	5.036
2021-09-01 11:15	6020110	8.116	-93.966	313.839	13.232	654.643	844.454	0.416	0.549	***6.018***	13.232	4.269
2021-09-01 11:30	6021010	8.124	-94.428	311.843	13.278	655.226	844.235	0.416	0.549	***6.321***	13.278	5.365
2021-09-01 11:45	6021910	8.127	-94.602	310.537	13.331	656.035	844.176	0.416	0.549	***6.401***	13.331	4.158
2021-09-01 12:00	6022810	8.132	-94.936	310.115	13.389	656.974	844.188	0.416	0.549	6.518	13.389	5.11
2021-09-01 12:15	6023710	8.127	-94.671	310.122	13.445	658.051	844.405	0.416	0.549	6.584	13.445	3.909
2021-09-01 12:30	6024610	8.134	-95.057	309.347	13.493	658.829	844.427	0.417	0.549	6.803	13.493	5.487
2021-09-01 12:45	6025510	8.153	-96.152	308.331	13.55	659.586	844.211	0.416	0.549	6.852	13.55	5.97
2021-09-01 13:00	6026410	8.166	-96.889	306.131	13.597	660.334	844.191	0.416	0.549	7.210	13.597	3.88
2021-09-01 13:15	6027310	8.171	-97.237	305.246	13.655	661.355	844.302	0.417	0.549	7.354	13.655	4.49
2021-09-01 13:30	6028210	8.178	-97.635	304.314	13.721	662.532	844.447	0.417	0.549	7.350	13.721	3.971
2021-09-01 13:45	6029110	8.186	-98.138	302.585	13.767	663.236	844.4	0.417	0.549	7.524	13.767	4.178
2021-09-01 14:00	6030010	8.190	-98.362	301.62	13.815	664.076	844.479	0.417	0.549	7.618	13.815	3.865
2021-09-01 14:15	6030910	8.193	-98.569	301.141	13.872	665.255	844.812	0.417	0.549	7.697	13.872	4.044
2021-09-01 14:30	6031810	8.195	-98.705	299.884	13.95	666.701	845.063	0.417	0.549	7.747	13.95	4.141
2021-09-01 14:45	6032710	8.206	-99.337	298.423	14.026	667.914	845.037	0.417	0.549	7.860	14.026	3.743
2021-09-01 15:00	6033610	8.212	-99.711	297.931	14.071	668.66	845.055	0.417	0.549	7.874	14.071	3.767
2021-09-01 15:15	6034510	8.220	-100.172	295.867	14.076	668.661	844.964	0.417	0.549	7.654	14.076	4.118
2021-09-01 15:30	6035410	8.210	-99.564	294.834	14.089	669.051	845.185	0.417	0.549	7.698	14.089	3.69
2021-09-01 15:45	6036310	8.201	-99.096	295.719	14.108	669.578	845.467	0.417	0.550	7.574	14.108	4.201
2021-09-01 16:00	6037210	8.196	-98.784	296.913	14.125	669.868	845.487	0.417	0.550	7.530	14.125	3.789
2021-09-01 16:15	6038110	8.195	-98.729	295.781	14.131	670.014	845.549	0.417	0.550	7.620	14.131	3.849
2021-09-01 16:30	6039010	8.190	-98.455	296.315	14.153	670.4	845.578	0.417	0.550	7.595	14.153	4.217
2021-09-01 16:45	6039910	8.180	-97.909	297.354	14.181	671.011	845.795	0.418	0.550	7.557	14.181	4.004
2021-09-01 17:00	6040810	8.162	-96.898	298.954	14.189	671.214	845.887	0.418	0.550	7.566	14.189	3.552
2021-09-01 17:15	6041710	8.146	-95.954	300.075	14.191	671.36	846.024	0.418	0.550	7.475	14.191	5.478
2021-09-01 17:30	6042610	8.143	-95.785	299.932	14.193	671.245	845.828	0.418	0.550	7.242	14.193	3.63
2021-09-01 17:45	6043510	8.162	-96.862	299.591	14.198	671.212	845.699	0.418	0.550	7.579	14.198	3.718
2021-09-01 18:00	6044410	8.172	-97.442	300.003	14.204	671.297	845.683	0.418	0.550	7.718	14.204	3.54
2021-09-01 18:15	6045310	8.173	-97.516	298.868	14.2	670.742	845.054	0.417	0.549	7.465	14.2	3.273
2021-09-01 18:30	6046210	8.163	-96.943	298.895	14.192	670.562	844.991	0.417	0.549	7.178	14.192	2.209
2021-09-01 18:45	6047110	8.155	-96.488	298.799	14.183	670.699	845.356	0.417	0.549	7.082	14.183	2.129

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-01 19:00	6048010	8.146	-95.963	299.724	14.176	670.684	845.478	0.417	0.550	7.056	14.176	1.965
2021-09-01 19:15	6048910	8.140	-95.599	300.473	14.168	670.73	845.704	0.418	0.550	6.967	14.168	1.916
2021-09-01 19:30	6049810	8.135	-95.315	301.527	14.163	670.24	845.184	0.417	0.549	6.814	14.163	1.466
2021-09-01 19:45	6050710	8.124	-94.728	302.943	14.159	670.803	845.974	0.418	0.550	6.635	14.159	1.554
2021-09-01 20:00	6051610	8.114	-94.142	304.645	14.151	671.067	846.469	0.418	0.550	6.584	14.151	1.8
2021-09-01 20:15	6052510	8.109	-93.844	305.899	14.143	671.176	846.772	0.418	0.550	***6.478***	14.143	2.06
2021-09-01 20:30	6053410	8.100	-93.341	307.137	14.133	671.264	847.089	0.418	0.551	***6.212***	14.133	2.195
2021-09-01 20:45	6054310	8.091	-92.8	308.775	14.121	671.292	847.37	0.418	0.551	***6.006***	14.121	2.831
2021-09-01 21:00	6055210	8.078	-92.08	311.509	14.106	671.388	847.786	0.419	0.551	***5.855***	14.106	2.432
2021-09-01 21:15	6056110	8.065	-91.352	314.487	14.09	671.279	847.985	0.419	0.551	***5.610***	14.09	1.935
2021-09-01 21:30	6057010	8.058	-90.895	317.82	14.072	671.203	848.261	0.419	0.551	***5.400***	14.072	1.92
2021-09-01 21:45	6057910	8.049	-90.415	321.876	14.053	671.079	848.485	0.419	0.552	***5.233***	14.053	1.722
2021-09-01 22:00	6058810	8.039	-89.812	322.286	14.032	670.783	848.548	0.419	0.552	***5.142***	14.032	1.702
2021-09-01 22:15	6059710	8.037	-89.7	321.213	14.009	670.576	848.75	0.419	0.552	***5.054***	14.009	1.732
2021-09-01 22:30	6060610	8.032	-89.424	322.672	13.977	670.187	848.913	0.419	0.552	***4.931***	13.977	2.006
2021-09-01 22:45	6061510	8.036	-89.617	321.79	13.943	669.529	848.792	0.419	0.552	***4.456***	13.943	2.166
2021-09-01 23:00	6062410	8.035	-89.557	322.55	13.903	668.877	848.769	0.419	0.552	***4.393***	13.903	1.737
2021-09-01 23:15	6063310	8.030	-89.285	323.068	13.867	668.314	848.796	0.419	0.552	***4.154***	13.867	2.117
2021-09-01 23:30	6064210	8.026	-89.018	324.725	13.833	667.989	849.083	0.419	0.552	***4.152***	13.833	2.239
2021-09-01 23:45	6065110	8.020	-88.644	326.441	13.802	667.383	848.959	0.419	0.552	***4.198***	13.802	2.087
2021-09-02 00:00	6066010	8.014	-88.308	328.306	13.769	666.875	848.989	0.419	0.552	***4.237***	13.769	1.928
2021-09-02 00:15	6066910	8.003	-87.671	329.241	13.741	666.649	849.284	0.419	0.552	***4.144***	13.741	1.776
2021-09-02 00:30	6067810	7.993	-87.123	332.202	13.712	666.262	849.387	0.419	0.552	***4.114***	13.712	2.137
2021-09-02 00:45	6068710	7.977	-86.205	335.337	13.682	666.091	849.784	0.419	0.552	***4.061***	13.682	1.937
2021-09-02 01:00	6069610	7.959	-85.146	336.925	13.656	665.937	850.13	0.420	0.553	***3.981***	13.656	2.289
2021-09-02 01:15	6070510	7.946	-84.383	338.784	13.636	665.764	850.337	0.420	0.553	***3.919***	13.636	1.748
2021-09-02 01:30	6071410	7.942	-84.169	339.905	13.619	665.69	850.594	0.420	0.553	***3.858***	13.619	2.062
2021-09-02 01:45	6072310	7.933	-83.632	341.066	13.601	665.355	850.539	0.420	0.553	***3.794***	13.601	1.726
2021-09-02 02:00	6073210	7.925	-83.175	342.268	13.58	665.07	850.611	0.420	0.553	***3.765***	13.58	1.828
2021-09-02 02:15	6074110	7.919	-82.829	343.605	13.558	664.8	850.722	0.420	0.553	***3.783***	13.558	2.011
2021-09-02 02:30	6075010	7.915	-82.593	344.008	13.53	664.41	850.8	0.420	0.553	***3.748***	13.53	1.669
2021-09-02 02:45	6075910	7.912	-82.433	344.101	13.501	664.221	851.155	0.420	0.553	***3.687***	13.501	1.823
2021-09-02 03:00	6076810	7.910	-82.285	345.219	13.467	663.572	851.031	0.420	0.553	***3.619***	13.467	1.899
2021-09-02 03:15	6077710	7.904	-81.944	347.084	13.425	662.891	851.051	0.420	0.553	***3.596***	13.425	2.484
2021-09-02 03:30	6078610	7.906	-82.045	348.18	13.385	662.256	851.053	0.420	0.553	***3.561***	13.385	1.749
2021-09-02 03:45	6079510	7.901	-81.754	349.616	13.347	661.621	851.047	0.420	0.553	***3.449***	13.347	1.792
2021-09-02 04:00	6080410	7.890	-81.141	349.735	13.305	660.209	850.107	0.419	0.553	***3.313***	13.305	21.249
2021-09-02 04:15	6081310	7.888	-80.988	351.044	13.268	659.377	849.792	0.419	0.552	***3.040***	13.268	1.866
2021-09-02 04:30	6082210	7.876	-80.316	353.647	13.237	658.96	849.915	0.419	0.552	***2.835***	13.237	1.872
2021-09-02 04:45	6083110	7.864	-79.603	356.158	13.207	659.848	851.681	0.420	0.554	***2.697***	13.207	1.784
2021-09-02 05:00	6084010	7.851	-78.864	357.407	13.176	659.864	852.354	0.420	0.554	***2.502***	13.176	1.669
2021-09-02 05:15	6084910	7.841	-78.323	358.821	13.146	659.342	852.311	0.420	0.554	***2.335***	13.146	1.641
2021-09-02 05:30	6085810	7.841	-78.316	358.902	13.115	658.662	852.083	0.420	0.554	***2.312***	13.115	1.535
2021-09-02 05:45	6086710	7.838	-78.106	359.076	13.076	657.536	851.448	0.420	0.553	***2.282***	13.076	1.76
2021-09-02 06:00	6087610	7.836	-77.972	360.411	13.036	657.347	852.05	0.420	0.554	***2.312***	13.036	6.708
2021-09-02 06:15	6088510	7.823	-77.238	362.147	13.002	656.841	852.115	0.420	0.554	***2.056***	13.002	2.227
2021-09-02 06:30	6089410	7.809	-76.451	364.145	12.984	656.452	851.995	0.420	0.554	***2.013***	12.984	2.24
2021-09-02 06:45	6090311	7.799	-75.867	365.175	12.967	656.076	851.859	0.420	0.554	***1.911***	12.967	1.979
2021-09-02 07:00	6091211	7.797	-75.746	365.752	12.947	655.873	852.027	0.420	0.554	***1.811***	12.947	1.918
2021-09-02 07:15	6092111	7.795	-75.622	366.594	12.92	655.429	852.009	0.420	0.554	***1.666***	12.92	1.754
2021-09-02 07:30	6093011	7.791	-75.393	367.559	12.889	654.903	851.981	0.420	0.554	***1.655***	12.889	1.618
2021-09-02 07:45	6093911	7.786	-75.126	368.77	12.86	654.484	852.05	0.420	0.554	***1.681***	12.86	1.631
2021-09-02 08:00	6094811	7.777	-74.601	369.767	12.829	654.103	852.205	0.420	0.554	***1.741***	12.829	1.684
2021-09-02 08:15	6095711	7.770	-74.191	370.141	12.802	653.935	852.559	0.420	0.554	***1.734***	12.802	1.809
2021-09-02 08:30	6096611	7.766	-73.96	370.747	12.78	653.763	852.804	0.420	0.554	***1.629***	12.78	1.922
2021-09-02 08:45	6097511	7.760	-73.59	371.534	12.762	653.586	852.963	0.420	0.554	***1.550***	12.762	1.897

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-02 09:00	6098411	7.753	-73.221	372.854	12.748	653.459	853.104	0.420	0.555	***1.488***	12.748	2.099
2021-09-02 09:15	6099311	7.748	-72.923	373.427	12.735	653.3	853.164	0.421	0.555	***1.511***	12.735	2.04
2021-09-02 09:30	6100211	7.741	-72.527	373.818	12.727	653.171	853.169	0.421	0.555	***1.517***	12.727	2.026
2021-09-02 09:45	6101111	7.735	-72.176	374.888	12.721	653.04	853.128	0.420	0.555	***1.421***	12.721	1.913
2021-09-02 10:00	6102011	7.733	-72.038	375.565	12.714	653.009	853.223	0.421	0.555	***1.312***	12.714	2.189
2021-09-02 10:15	6102911	7.729	-71.821	376.743	12.707	653.437	853.943	0.421	0.555	***1.185***	12.707	2.401
2021-09-02 10:30	6103811	7.722	-71.411	377.861	12.7	653.083	853.628	0.421	0.555	***1.086***	12.7	2.512
2021-09-02 10:45	6104711	7.719	-71.273	379.044	12.689	652.937	853.665	0.421	0.555	***1.027***	12.689	2.046
2021-09-02 11:00	6105611	7.715	-71.03	380.031	12.683	652.796	853.61	0.421	0.555	***0.942***	12.683	2.601
2021-09-02 11:15	6106511	7.708	-70.629	381.12	12.685	652.885	853.677	0.421	0.555	***0.968***	12.685	1.823
2021-09-02 11:30	6107411	7.705	-70.481	382.012	12.687	653.018	853.828	0.421	0.555	***1.045***	12.687	1.805
2021-09-02 11:45	6108311	7.703	-70.331	382.797	12.693	653.903	854.845	0.421	0.556	***1.376***	12.693	1.833
2021-09-02 12:00	6109211	7.702	-70.3	383.314	12.725	653.825	854.065	0.421	0.555	***1.863***	12.725	1.785
2021-09-02 12:15	6110111	7.704	-70.431	381.986	12.793	654.599	853.626	0.421	0.555	***2.152***	12.793	1.697
2021-09-02 12:30	6111011	7.717	-71.182	381.163	12.857	655.524	853.471	0.421	0.555	***2.190***	12.857	2.003
2021-09-02 12:45	6111911	7.720	-71.39	381.471	12.951	656.751	853.081	0.421	0.555	***2.107***	12.951	2.016
2021-09-02 13:00	6112811	7.729	-71.914	381.075	13.001	657.367	852.826	0.421	0.554	***2.257***	13.001	1.928
2021-09-02 13:15	6113711	7.737	-72.348	380.741	13.08	658.675	852.84	0.421	0.554	***2.254***	13.08	1.935
2021-09-02 13:30	6114611	7.735	-72.281	380.87	13.188	660.51	852.946	0.421	0.554	***2.242***	13.188	1.928
2021-09-02 13:45	6115511	7.740	-72.622	380.57	13.393	663.842	852.937	0.421	0.554	***2.388***	13.393	2.612
2021-09-02 14:00	6116411	7.747	-73.061	379.871	13.636	667.392	852.412	0.421	0.554	***2.680***	13.636	2.058
2021-09-02 14:15	6117311	7.749	-73.249	379.146	13.798	670.149	852.57	0.421	0.554	***2.855***	13.798	2.048
2021-09-02 14:30	6118211	7.747	-73.168	379.02	13.94	672.071	852.058	0.421	0.554	***3.278***	13.94	2.367
2021-09-02 14:45	6119111	7.744	-73.037	377.854	14.103	674.831	852.208	0.421	0.554	***3.648***	14.103	2.204
2021-09-02 15:00	6120011	7.734	-72.513	378.119	14.215	676.767	852.347	0.421	0.554	***4.018***	14.215	2.653
2021-09-02 15:15	6120911	7.736	-72.653	376.757	14.313	678.366	852.351	0.421	0.554	***4.277***	14.313	2.779
2021-09-02 15:30	6121811	7.771	-74.615	376.197	14.378	678.78	851.531	0.421	0.553	***4.258***	14.378	2.214
2021-09-02 15:45	6122711	7.810	-76.897	373.565	14.417	677.54	849.184	0.419	0.552	***4.709***	14.417	2.344
2021-09-02 16:00	6123611	7.859	-79.706	367.926	14.528	678.35	847.954	0.419	0.551	***5.373***	14.528	2.603
2021-09-02 16:15	6124511	7.902	-82.209	363.897	14.692	681.777	848.906	0.419	0.552	***5.090***	14.692	2.598
2021-09-02 16:30	6125411	7.899	-82.071	362.421	14.754	683.829	850.216	0.420	0.553	***4.857***	14.754	3.661
2021-09-02 16:45	6126311	7.920	-83.239	361.854	14.716	680.88	847.304	0.419	0.551	***5.286***	14.716	2.841
2021-09-02 17:00	6127211	8.018	-88.847	351.845	14.756	679.609	844.921	0.417	0.549	6.925	14.756	2.959
2021-09-02 17:15	6128111	8.076	-92.123	346.764	14.708	679.322	845.542	0.418	0.550	8.507	14.708	3.031
2021-09-02 17:30	6129011	8.154	-96.569	341.691	14.668	677.759	844.402	0.417	0.549	8.785	14.668	3.281
2021-09-02 17:45	6129911	8.181	-98.138	337.609	14.715	677.372	842.959	0.416	0.548	9.005	14.715	4.746
2021-09-02 18:00	6130811	8.191	-98.76	331.634	14.804	678.601	842.717	0.416	0.548	8.902	14.804	4.634
2021-09-02 18:15	6131711	8.192	-98.839	330.816	14.888	680.709	843.652	0.417	0.548	8.286	14.888	5.747
2021-09-02 18:30	6132611	8.191	-98.801	328.852	14.935	682.186	844.545	0.417	0.549	7.752	14.935	5.515
2021-09-02 18:45	6133511	8.204	-99.561	328.988	15.004	683.707	845.049	0.418	0.549	7.465	15.004	5.971
2021-09-02 19:00	6134411	8.203	-99.54	331.796	15.104	686.004	845.887	0.418	0.550	7.234	15.104	5.302
2021-09-02 19:15	6135311	8.198	-99.308	332.237	15.203	688.218	846.64	0.418	0.550	7.449	15.203	3.482
2021-09-02 19:30	6136211	8.185	-98.567	333.682	15.289	690.095	847.242	0.419	0.551	7.908	15.289	6.17
2021-09-02 19:45	6137111	8.171	-97.818	335.127	15.407	692.668	848.058	0.419	0.551	7.722	15.407	2.857
2021-09-02 20:00	6138011	8.149	-96.624	337.547	15.56	695.78	848.817	0.420	0.552	7.145	15.56	3.7
2021-09-02 20:15	6138911	8.118	-94.891	339.979	15.704	698.349	849.115	0.420	0.552	7.002	15.704	2.806
2021-09-02 20:30	6139811	8.091	-93.353	342.084	15.816	700.391	849.386	0.420	0.552	7.100	15.816	2.685
2021-09-02 20:45	6140711	8.075	-92.466	343.496	15.896	702.017	849.774	0.420	0.552	7.095	15.896	4.02
2021-09-02 21:00	6141611	8.060	-91.639	344.392	15.939	702.851	849.948	0.420	0.552	7.230	15.939	2.782
2021-09-02 21:15	6142511	8.066	-91.96	345.181	15.956	703.428	850.313	0.421	0.553	7.006	15.956	3.516
2021-09-02 21:30	6143411	8.075	-92.509	343.782	15.961	703.637	850.465	0.421	0.553	6.855	15.961	3.772
2021-09-02 21:45	6144311	8.072	-92.337	341.905	15.962	703.686	850.511	0.421	0.553	6.674	15.962	5.219
2021-09-02 22:00	6145211	8.058	-91.527	344.318	15.954	703.849	850.867	0.421	0.553	6.512	15.954	5.556
2021-09-02 22:15	6146111	8.034	-90.148	345.37	15.935	703.807	851.188	0.421	0.553	***6.314***	15.935	5.177
2021-09-02 22:30	6147011	8.023	-89.476	347.763	15.906	703.647	851.554	0.421	0.554	***6.446***	15.906	6.195
2021-09-02 22:45	6147911	8.030	-89.867	348.598	15.86	703.107	851.807	0.421	0.554	***6.406***	15.86	6.767

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-02 23:00	6148811	8.049	-90.961	345.021	15.798	701.529	851.113	0.421	0.553	***6.268***	15.798	4.849
2021-09-02 23:15	6149711	8.149	-96.588	342.761	15.433	694.36	849.605	0.420	0.552	7.332	15.433	10.073
2021-09-02 23:30	6150611	8.179	-98.257	336.939	15.307	692.336	849.64	0.420	0.552	8.393	15.307	7.324
2021-09-02 23:45	6151511	8.199	-99.382	335.203	15.258	691.56	849.665	0.420	0.552	8.371	15.258	5.428
2021-09-03 00:00	6152411	8.213	-100.124	334.769	15.193	690.654	849.832	0.420	0.552	8.199	15.193	5.738
2021-09-03 00:15	6153311	8.216	-100.265	333.029	15.119	689.618	850.044	0.420	0.553	8.035	15.119	6.906
2021-09-03 00:30	6154211	8.219	-100.434	332.214	15.058	688.648	850.071	0.420	0.553	7.782	15.058	7.148
2021-09-03 00:45	6155111	8.211	-99.952	332.466	14.988	687.764	850.372	0.420	0.553	7.596	14.988	4.848
2021-09-03 01:00	6156011	8.219	-100.398	332.409	14.912	686.608	850.481	0.420	0.553	7.384	14.912	5.158
2021-09-03 01:15	6156911	8.228	-100.87	332.519	14.831	685.272	850.451	0.420	0.553	7.270	14.831	4.665
2021-09-03 01:30	6157811	8.227	-100.765	331.804	14.751	683.956	850.438	0.420	0.553	7.374	14.751	6.059
2021-09-03 01:45	6158711	8.219	-100.298	331.641	14.672	682.762	850.548	0.420	0.553	7.371	14.672	7.566
2021-09-03 02:00	6159611	8.212	-99.883	331.815	14.598	681.677	850.687	0.420	0.553	7.233	14.598	7.038
2021-09-03 02:15	6160511	8.201	-99.208	330.371	14.523	680.677	850.968	0.420	0.553	7.135	14.523	7.467
2021-09-03 02:30	6161411	8.201	-99.177	329.117	14.434	679.343	851.107	0.420	0.553	7.226	14.434	6.521
2021-09-03 02:45	6162311	8.213	-99.84	327.386	14.357	678.068	851.075	0.420	0.553	7.241	14.357	7.852
2021-09-03 03:00	6163211	8.206	-99.444	325.493	14.277	676.782	851.093	0.420	0.553	7.062	14.277	7.357
2021-09-03 03:15	6164111	8.201	-99.127	324.11	14.199	675.574	851.17	0.420	0.553	7.164	14.199	7.045
2021-09-03 03:30	6165011	8.187	-98.31	323.514	14.123	674.369	851.211	0.420	0.553	7.241	14.123	7.522
2021-09-03 03:45	6165911	8.176	-97.654	323.468	14.039	673.061	851.271	0.420	0.553	6.995	14.039	8.761
2021-09-03 04:00	6166811	8.188	-98.293	322.856	13.953	671.863	851.537	0.420	0.553	7.279	13.953	7.62
2021-09-03 04:15	6167711	8.191	-98.424	322.825	13.894	670.925	851.558	0.420	0.554	7.022	13.894	6.182
2021-09-03 04:30	6168611	8.184	-97.98	322.341	13.779	668.897	851.369	0.420	0.553	7.095	13.779	6.786
2021-09-03 04:45	6169511	8.175	-97.451	322.286	13.739	668.137	851.216	0.420	0.553	7.171	13.739	21.67
2021-09-03 05:00	6170411	8.161	-96.643	322.429	13.691	667.321	851.18	0.420	0.553	6.921	13.691	7.743
2021-09-03 05:15	6171311	8.148	-95.894	323.697	13.612	666.18	851.363	0.420	0.553	6.536	13.612	8.295
2021-09-03 05:30	6172211	8.141	-95.489	323.993	13.513	664.575	851.369	0.420	0.553	***6.397***	13.513	7.724
2021-09-03 05:45	6173111	8.137	-95.201	323.778	13.429	663.451	851.687	0.420	0.554	6.702	13.429	6.765
2021-09-03 06:00	6174011	8.137	-95.208	323.933	13.346	662.039	851.602	0.420	0.554	6.697	13.346	7.869
2021-09-03 06:15	6174911	8.127	-94.571	321.909	13.274	660.468	851.077	0.420	0.553	***6.496***	13.274	8.661
2021-09-03 06:30	6175811	8.124	-94.402	320.698	13.244	659.983	851.08	0.420	0.553	6.568	13.244	7.629
2021-09-03 06:45	6176711	8.117	-93.985	320.464	13.205	659.269	850.978	0.420	0.553	6.533	13.205	6.973
2021-09-03 07:00	6177611	8.106	-93.334	321.683	13.148	658.497	851.184	0.420	0.553	***6.206***	13.148	7.976
2021-09-03 07:15	6178511	8.088	-92.292	323.571	13.08	657.595	851.451	0.420	0.553	***5.926***	13.08	8.692
2021-09-03 07:30	6179411	8.077	-91.648	324.591	13.007	656.339	851.354	0.420	0.553	***5.738***	13.007	10.532
2021-09-03 07:45	6180311	8.063	-90.871	325.302	12.938	655.194	851.327	0.420	0.553	***5.729***	12.938	9.542
2021-09-03 08:00	6181211	8.055	-90.358	326.637	12.879	654.328	851.437	0.420	0.553	***5.735***	12.879	7.636
2021-09-03 08:15	6182111	8.051	-90.106	327.927	12.84	653.762	851.537	0.420	0.553	***5.724***	12.84	7.843
2021-09-03 08:30	6183011	8.045	-89.788	328.273	12.801	653.221	851.66	0.420	0.554	***5.851***	12.801	7.611
2021-09-03 08:45	6183911	8.042	-89.598	328.897	12.753	652.358	851.554	0.420	0.554	***5.681***	12.753	9.645
2021-09-03 09:00	6184811	8.035	-89.197	329.181	12.71	651.668	851.564	0.420	0.554	***5.607***	12.71	11.115
2021-09-03 09:15	6185711	8.025	-88.608	330.12	12.673	651.151	851.683	0.420	0.554	***5.351***	12.673	9.233
2021-09-03 09:30	6186611	8.014	-87.972	331.463	12.655	651.042	851.907	0.420	0.554	***5.143***	12.655	9.619
2021-09-03 09:45	6187511	8.006	-87.528	332.822	12.645	651.314	852.49	0.420	0.554	***5.183***	12.645	9.212
2021-09-03 10:00	6188411	8.001	-87.237	333.391	12.637	651.305	852.642	0.420	0.554	***5.310***	12.637	9.576
2021-09-03 10:15	6189311	7.992	-86.725	334.068	12.634	651.155	852.507	0.420	0.554	***5.338***	12.634	9.463
2021-09-03 10:30	6190211	7.983	-86.212	334.665	12.634	651.358	852.779	0.420	0.554	***5.275***	12.634	9.919
2021-09-03 10:45	6191111	7.974	-85.685	335.554	12.634	651.404	852.833	0.420	0.554	***5.215***	12.634	10.094
2021-09-03 11:00	6192011	7.973	-85.63	336.174	12.633	651.358	852.791	0.420	0.554	***5.128***	12.633	10.024
2021-09-03 11:15	6192911	7.973	-85.652	336.126	12.636	651.232	852.576	0.420	0.554	***5.054***	12.636	9.226
2021-09-03 11:30	6193811	7.973	-85.64	336.295	12.639	651.394	852.723	0.420	0.554	***5.000***	12.639	8.798
2021-09-03 11:45	6194711	7.971	-85.559	336.732	12.648	651.435	852.578	0.420	0.554	***4.938***	12.648	9.158
2021-09-03 12:00	6195611	7.971	-85.552	337.38	12.669	651.683	852.46	0.420	0.554	***4.794***	12.669	9.079
2021-09-03 12:15	6196511	7.967	-85.323	338.057	12.704	652.405	852.653	0.420	0.554	***4.676***	12.704	8.303
2021-09-03 12:30	6197411	7.957	-84.76	339.371	12.74	653.121	852.813	0.420	0.554	***4.600***	12.74	8.016
2021-09-03 12:45	6198311	7.947	-84.231	341.281	12.779	653.746	852.802	0.420	0.554	***4.490***	12.779	8.607

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-03 13:00	6199211	7.940	-83.814	342.904	12.828	654.433	852.675	0.420	0.554	***4.463***	12.828	8.894
2021-09-03 13:15	6200111	7.934	-83.497	343.331	12.895	655.573	852.72	0.420	0.554	***4.236***	12.895	8.36
2021-09-03 13:30	6201011	7.926	-83.065	344.63	12.989	657.203	852.867	0.421	0.554	***3.979***	12.989	8.56
2021-09-03 13:45	6201911	7.915	-82.51	345.775	13.117	658.848	852.29	0.420	0.554	***3.955***	13.117	8.62
2021-09-03 14:00	6202811	7.910	-82.278	345.479	13.26	660.602	851.552	0.420	0.554	***4.465***	13.26	9.182
2021-09-03 14:15	6203711	7.909	-82.245	345.513	13.387	662.703	851.586	0.420	0.554	***4.530***	13.387	11.574
2021-09-03 14:30	6204611	7.904	-81.978	345.808	13.528	665.016	851.625	0.420	0.554	***4.522***	13.528	8.923
2021-09-03 14:45	6205511	7.901	-81.854	346.178	13.646	667.185	851.932	0.420	0.554	***4.549***	13.646	7.924
2021-09-03 15:00	6206411	7.903	-81.985	345.927	13.725	668.277	851.682	0.420	0.554	***4.666***	13.725	9.897
2021-09-03 15:15	6207311	7.936	-83.895	342.325	13.8	669.106	851.201	0.420	0.553	***4.775***	13.8	11.832
2021-09-03 15:30	6208211	7.973	-85.993	338.625	13.861	669.274	850.138	0.420	0.553	***4.880***	13.861	8.226
2021-09-03 15:45	6209111	7.996	-87.368	335.911	13.918	669.778	849.609	0.419	0.552	***5.006***	13.918	8.012
2021-09-03 16:00	6210011	8.004	-87.841	333.496	14.017	671.742	850.063	0.420	0.553	***5.313***	14.017	8.128
2021-09-03 16:15	6210911	8.004	-87.85	333.642	14.133	674.154	850.732	0.420	0.553	***5.382***	14.133	8.254
2021-09-03 16:30	6211811	8.025	-89.066	327.324	14.139	673.24	849.455	0.419	0.552	***5.530***	14.139	8.442
2021-09-03 16:45	6212711	8.090	-92.747	319.189	14.157	672.723	848.435	0.419	0.551	***5.558***	14.157	8.659
2021-09-03 17:00	6213611	8.121	-94.557	316.325	14.228	674.219	848.878	0.419	0.552	***5.892***	14.228	8.642
2021-09-03 17:15	6214511	8.133	-95.301	316.421	14.314	675.79	849.082	0.419	0.552	***6.330***	14.314	8.518
2021-09-03 17:30	6215411	8.121	-94.604	317.248	14.356	676.028	848.535	0.419	0.552	6.503	14.356	8.053
2021-09-03 17:45	6216311	8.155	-96.579	314.69	14.379	676.356	848.474	0.419	0.552	6.524	14.379	10.386
2021-09-03 18:00	6217211	8.175	-97.73	310.906	14.414	676.65	848.147	0.419	0.551	6.648	14.414	10.247
2021-09-03 18:15	6218111	8.201	-99.194	307.215	14.452	677.606	848.564	0.419	0.552	6.782	14.452	10.6
2021-09-03 18:30	6219011	8.220	-100.3	305.756	14.488	677.769	848.04	0.419	0.551	6.993	14.488	10.525
2021-09-03 18:45	6219911	8.236	-101.194	303.122	14.505	677.379	847.201	0.418	0.551	7.280	14.505	8.675
2021-09-03 19:00	6220811	8.253	-102.193	301.417	14.501	677.262	847.141	0.418	0.551	7.452	14.501	7.663
2021-09-03 19:15	6221711	8.286	-104.053	302.917	14.503	677.682	847.626	0.419	0.551	8.622	14.503	7.55
2021-09-03 19:30	6222611	8.289	-104.249	302.714	14.493	676.431	846.269	0.418	0.550	9.055	14.493	7.71
2021-09-03 19:45	6223511	8.304	-105.088	299.629	14.504	676.864	846.585	0.418	0.550	9.176	14.504	7.6
2021-09-03 20:00	6224411	8.308	-105.348	299.014	14.513	677.361	847.029	0.418	0.551	9.356	14.513	7.535
2021-09-03 20:15	6225311	8.301	-104.957	300.795	14.53	677.438	846.781	0.418	0.550	9.500	14.53	7.751
2021-09-03 20:30	6226211	8.306	-105.255	300.056	14.572	677.831	846.413	0.418	0.550	9.343	14.572	7.545
2021-09-03 20:45	6227111	8.304	-105.171	301.405	14.657	679.686	847.016	0.418	0.551	9.032	14.657	7.537
2021-09-03 21:00	6228011	8.286	-104.139	303.103	14.709	680.841	847.411	0.419	0.551	8.660	14.709	7.599
2021-09-03 21:15	6228911	8.266	-103.006	304.886	14.746	681.78	847.838	0.419	0.551	8.205	14.746	7.593
2021-09-03 21:30	6229811	8.248	-101.976	305.883	14.775	682.565	848.23	0.419	0.551	7.971	14.775	8.432
2021-09-03 21:45	6230711	8.237	-101.402	307.327	14.786	683.005	848.55	0.419	0.552	8.065	14.786	8.605
2021-09-03 22:00	6231611	8.228	-100.856	308.596	14.786	683.278	848.878	0.419	0.552	8.225	14.786	17.784
2021-09-03 22:15	6232511	8.216	-100.181	309.046	14.778	683.65	849.511	0.420	0.552	8.070	14.778	17.769
2021-09-03 22:30	6233411	8.197	-99.103	312.043	14.76	684.788	851.282	0.421	0.553	7.710	14.76	18.034
2021-09-03 22:45	6234311	8.180	-98.121	313.407	14.736	685.559	852.738	0.421	0.554	7.688	14.736	18.237
2021-09-03 23:00	6235211	8.175	-97.816	314.981	14.708	687.071	855.172	0.423	0.556	7.700	14.708	18.786
2021-09-03 23:15	6236111	8.178	-97.988	315.315	14.674	686.869	855.614	0.423	0.556	7.442	14.674	20.36
2021-09-03 23:30	6237011	8.173	-97.666	316.209	14.642	685.684	854.796	0.422	0.556	7.287	14.642	21.725
2021-09-03 23:45	6237911	8.163	-97.096	317.112	14.602	685.347	855.195	0.423	0.556	7.222	14.602	21.164
2021-09-04 00:00	6238811	8.160	-96.92	317.491	14.555	684.666	855.302	0.423	0.556	7.368	14.555	20.34
2021-09-04 00:15	6239711	8.156	-96.638	315.953	14.522	684.117	855.277	0.423	0.556	7.411	14.522	20.435
2021-09-04 00:30	6240611	8.145	-96.009	315.124	14.476	683.231	855.118	0.423	0.556	7.008	14.476	22.776
2021-09-04 00:45	6241511	8.147	-96.118	314.158	14.422	682.27	855.025	0.422	0.556	7.015	14.422	21.793
2021-09-04 01:00	6242411	8.148	-96.138	314.673	14.373	681.576	855.142	0.422	0.556	7.204	14.373	20.285
2021-09-04 01:15	6243311	8.146	-96.021	313.946	14.322	680.876	855.309	0.423	0.556	7.237	14.322	20.491
2021-09-04 01:30	6244211	8.140	-95.644	314.63	14.275	680.083	855.293	0.422	0.556	7.196	14.275	20.552
2021-09-04 01:45	6245111	8.129	-95.015	315.872	14.22	679.217	855.319	0.422	0.556	6.910	14.22	20.355
2021-09-04 02:00	6246011	8.125	-94.767	316.936	14.167	678.466	855.466	0.423	0.556	6.844	14.167	23.322
2021-09-04 02:15	6246911	8.121	-94.502	317.73	14.113	677.701	855.618	0.423	0.556	6.987	14.113	22.744
2021-09-04 02:30	6247811	8.111	-93.92	318.118	14.06	676.829	855.621	0.423	0.556	7.048	14.06	21.487
2021-09-04 02:45	6248711	8.104	-93.515	319.284	14.006	675.858	855.503	0.422	0.556	6.959	14.006	22.541

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-04 03:00	6249611	8.098	-93.167	319.408	13.948	674.973	855.574	0.422	0.556	6.714	13.948	24.206
2021-09-04 03:15	6250511	8.098	-93.129	319.713	13.896	673.922	855.315	0.422	0.556	6.760	13.896	22.549
2021-09-04 03:30	6251411	8.095	-92.976	320.119	13.852	673.454	855.652	0.422	0.556	6.710	13.852	24.431
2021-09-04 03:45	6252311	8.088	-92.535	320.808	13.809	672.743	855.626	0.422	0.556	6.799	13.809	21.225
2021-09-04 04:00	6253211	8.097	-93.017	321.923	13.761	672.022	855.715	0.422	0.556	***6.476***	13.761	21.19
2021-09-04 04:15	6254111	8.089	-92.542	322.415	13.691	671.217	856.149	0.423	0.556	***6.424***	13.691	22.769
2021-09-04 04:30	6255011	8.069	-91.424	323.79	13.651	670.684	856.311	0.423	0.557	***6.319***	13.651	21.556
2021-09-04 04:45	6255911	8.055	-90.597	324.627	13.605	669.798	856.124	0.423	0.556	***6.315***	13.605	21.861
2021-09-04 05:00	6256811	8.049	-90.263	325.133	13.559	668.96	856.026	0.422	0.556	***6.313***	13.559	23.405
2021-09-04 05:15	6257711	8.045	-89.996	325.152	13.513	668.076	855.859	0.422	0.556	***6.238***	13.513	23.759
2021-09-04 05:30	6258611	8.036	-89.471	326.186	13.469	667.218	855.677	0.422	0.556	***6.150***	13.469	22.924
2021-09-04 05:45	6259511	8.031	-89.207	326.878	13.429	666.611	855.725	0.422	0.556	***6.182***	13.429	23.339
2021-09-04 06:00	6260411	8.034	-89.345	326.859	13.401	666.191	855.792	0.422	0.556	***6.291***	13.401	22.807
2021-09-04 06:15	6261311	8.033	-89.297	327.195	13.362	665.387	855.558	0.422	0.556	***6.126***	13.362	21.275
2021-09-04 06:30	6262211	8.029	-89.033	327.886	13.32	664.495	855.298	0.422	0.556	***5.978***	13.32	21.964
2021-09-04 06:45	6263111	8.028	-88.987	327.698	13.276	663.714	855.233	0.422	0.556	***5.880***	13.276	22.584
2021-09-04 07:00	6264011	8.027	-88.887	327.753	13.229	663.225	855.574	0.422	0.556	***5.848***	13.229	22.54
2021-09-04 07:15	6264911	8.031	-89.083	328.132	13.182	661.973	854.953	0.422	0.556	***5.875***	13.182	23.146
2021-09-04 07:30	6265811	8.030	-89.052	328.544	13.136	661.02	854.706	0.422	0.556	***5.909***	13.136	23.233
2021-09-04 07:45	6266711	8.023	-88.613	329.345	13.091	660.14	854.503	0.421	0.555	***5.847***	13.091	23.967
2021-09-04 08:00	6267611	8.034	-89.24	330.075	13.026	659.334	854.83	0.422	0.556	***5.785***	13.026	22.234
2021-09-04 08:15	6268511	8.021	-88.456	330.492	12.997	658.961	854.977	0.422	0.556	***5.761***	12.997	22.014
2021-09-04 08:30	6269411	8.008	-87.721	330.766	12.973	658.629	855.049	0.422	0.556	***5.634***	12.973	23.554
2021-09-04 08:45	6270311	8.000	-87.259	331.062	12.95	658.305	855.108	0.422	0.556	***5.534***	12.95	23.353
2021-09-04 09:00	6271211	7.995	-86.989	331.663	12.931	657.999	855.114	0.422	0.556	***5.438***	12.931	20.863
2021-09-04 09:15	6272111	7.987	-86.551	332.588	12.927	658.159	855.419	0.422	0.556	***5.385***	12.927	20.92
2021-09-04 09:30	6273011	7.974	-85.773	333.904	12.93	658.33	855.561	0.422	0.556	***5.187***	12.93	22.142
2021-09-04 09:45	6273911	7.959	-84.941	335.582	12.944	658.679	855.717	0.422	0.556	***4.745***	12.944	20.849
2021-09-04 10:00	6274811	7.946	-84.231	337.545	12.969	659.124	855.784	0.422	0.556	***4.629***	12.969	22.231
2021-09-04 10:15	6275711	7.938	-83.795	339.657	12.996	659.61	855.824	0.422	0.556	***4.568***	12.996	22.824
2021-09-04 10:30	6276611	7.932	-83.461	341.395	13.036	660.337	855.937	0.422	0.556	***4.696***	13.036	21.303
2021-09-04 10:45	6277511	7.930	-83.327	342.859	13.074	660.989	855.976	0.422	0.556	***4.919***	13.074	22.827
2021-09-04 11:00	6278411	7.919	-82.748	344.07	13.109	661.503	855.892	0.422	0.556	***4.900***	13.109	21.919
2021-09-04 11:15	6279311	7.920	-82.784	344.733	13.141	661.3	854.961	0.422	0.556	***4.864***	13.141	23.127
2021-09-04 11:30	6280211	7.924	-83.022	345.715	13.185	661.904	854.806	0.422	0.556	***4.995***	13.185	20.183
2021-09-04 11:45	6281111	7.924	-83.039	346.147	13.238	662.712	854.734	0.422	0.556	***5.160***	13.238	20.544
2021-09-04 12:00	6282011	7.920	-82.831	347.167	13.273	663.037	854.419	0.421	0.555	***5.111***	13.273	20.839
2021-09-04 12:15	6282911	7.941	-84.04	346.361	13.314	663.094	853.633	0.421	0.555	***4.958***	13.314	22.685
2021-09-04 12:30	6283811	7.989	-86.744	344.282	13.352	662.737	852.365	0.420	0.554	***4.947***	13.352	22.309
2021-09-04 12:45	6284712	8.017	-88.389	341.834	13.385	663.161	852.219	0.420	0.554	***5.320***	13.385	21.135
2021-09-04 13:00	6285612	8.038	-89.571	339.791	13.458	664.317	852.188	0.420	0.554	***5.864***	13.458	21.617
2021-09-04 13:15	6286512	8.030	-89.159	340.682	13.505	665.519	852.742	0.421	0.554	***5.915***	13.505	21.176
2021-09-04 13:30	6287412	8.017	-88.398	342.594	13.557	666.675	853.129	0.421	0.555	***5.809***	13.557	21.433
2021-09-04 13:45	6288312	8.012	-88.167	343.989	13.621	667.872	853.338	0.421	0.555	***5.621***	13.621	20.936
2021-09-04 14:00	6289212	8.003	-87.676	345.522	13.702	669.493	853.714	0.421	0.555	***5.617***	13.702	21.088
2021-09-04 14:15	6290112	7.995	-87.242	346.76	13.781	670.591	853.482	0.421	0.555	***5.498***	13.781	21.368
2021-09-04 14:30	6291012	7.992	-87.075	348.19	13.861	672.41	854.122	0.422	0.555	***5.117***	13.861	20.81
2021-09-04 14:45	6291912	7.982	-86.563	350.116	13.938	673.971	854.527	0.422	0.555	***4.824***	13.938	20.307
2021-09-04 15:00	6292812	7.962	-85.421	352.224	14.002	675.008	854.501	0.422	0.555	***5.177***	14.002	20.609
2021-09-04 15:15	6293712	7.954	-85.006	353.585	14.054	675.856	854.512	0.422	0.555	***4.893***	14.054	24.076
2021-09-04 15:30	6294612	7.972	-86.033	353.566	14.087	675.591	853.491	0.421	0.555	***4.992***	14.087	22.213
2021-09-04 15:45	6295512	8.011	-88.26	351.933	14.131	675.696	852.724	0.421	0.554	***5.522***	14.131	19.947
2021-09-04 16:00	6296412	8.066	-91.398	349.399	14.175	674.972	850.9	0.420	0.553	***6.237***	14.175	19.347
2021-09-04 16:15	6297312	8.122	-94.602	344.99	14.219	673.725	848.428	0.419	0.551	***6.291***	14.219	21.332
2021-09-04 16:30	6298212	8.109	-93.865	345.834	14.223	673.852	848.519	0.419	0.552	***6.280***	14.223	23.184
2021-09-04 16:45	6299112	8.131	-95.148	344.931	14.223	672.698	847.051	0.418	0.551	***6.485***	14.223	22.583

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-04 17:00	6300012	8.200	-99.082	338.77	14.239	672.642	846.658	0.418	0.550	7.669	14.239	20.15
2021-09-04 17:15	6300912	8.257	-102.346	331.146	14.242	671.503	845.162	0.417	0.549	7.678	14.242	19.519
2021-09-04 17:30	6301812	8.285	-103.912	329.093	14.255	671.217	844.546	0.417	0.549	7.773	14.255	19.628
2021-09-04 17:45	6302712	8.289	-104.182	329.233	14.269	671.288	844.337	0.417	0.549	8.135	14.269	21.696
2021-09-04 18:00	6303612	8.294	-104.439	329.288	14.284	671.773	844.644	0.417	0.549	8.427	14.284	21.718
2021-09-04 18:15	6304512	8.287	-104.058	332.161	14.3	672.482	845.229	0.417	0.549	8.692	14.3	21.092
2021-09-04 18:30	6305412	8.269	-103.009	335.633	14.308	672.687	845.324	0.417	0.549	8.672	14.308	20.503
2021-09-04 18:45	6306312	8.267	-102.906	336.059	14.321	673.207	845.711	0.418	0.550	8.571	14.321	21.316
2021-09-04 19:00	6307212	8.282	-103.81	335.246	14.334	673.355	845.626	0.418	0.550	8.405	14.334	20.308
2021-09-04 19:15	6308112	8.281	-103.738	335.292	14.354	674.003	846.031	0.418	0.550	8.315	14.354	20.102
2021-09-04 19:30	6309012	8.240	-101.428	336.338	14.383	675.23	846.983	0.418	0.551	8.103	14.383	21.195
2021-09-04 19:45	6309912	8.182	-98.081	338.567	14.421	676.422	847.704	0.419	0.551	7.912	14.421	22.253
2021-09-04 20:00	6310812	8.161	-96.915	340.716	14.464	677.436	848.11	0.419	0.551	7.902	14.464	19.9
2021-09-04 20:15	6311712	8.164	-97.127	342.57	14.509	678.583	848.629	0.419	0.552	7.926	14.509	20.753
2021-09-04 20:30	6312612	8.172	-97.57	344.123	14.542	679.556	849.175	0.419	0.552	7.834	14.542	21.296
2021-09-04 20:45	6313512	8.157	-96.703	345.505	14.558	680.206	849.669	0.420	0.552	7.601	14.558	21.997
2021-09-04 21:00	6314412	8.141	-95.801	346.645	14.573	680.606	849.857	0.420	0.552	7.436	14.573	22.123
2021-09-04 21:15	6315312	8.124	-94.838	348.049	14.592	680.935	849.879	0.420	0.552	7.107	14.592	21.165
2021-09-04 21:30	6316212	8.123	-94.819	348.905	14.626	681.584	849.998	0.420	0.552	6.613	14.626	20.647
2021-09-04 21:45	6317112	8.135	-95.482	350.105	14.673	682.675	850.411	0.420	0.553	***6.194***	14.673	21.024
2021-09-04 22:00	6318012	8.121	-94.712	352.234	14.709	682.495	849.464	0.420	0.552	***6.233***	14.709	19.883
2021-09-04 22:15	6318912	8.094	-93.16	353.373	14.715	684.179	851.429	0.421	0.553	6.548	14.715	19.862
2021-09-04 22:30	6319812	8.080	-92.359	354.699	14.708	684.091	851.479	0.421	0.553	6.726	14.708	20.186
2021-09-04 22:45	6320712	8.073	-91.96	355.943	14.692	683.84	851.48	0.421	0.553	6.663	14.692	20.085
2021-09-04 23:00	6321612	8.072	-91.932	356.852	14.672	683.691	851.704	0.421	0.554	6.557	14.672	24.83
2021-09-04 23:15	6322512	8.085	-92.642	356.792	14.639	682.622	851.029	0.420	0.553	6.565	14.639	26.932
2021-09-04 23:30	6323412	8.172	-97.616	354.339	14.602	681.151	849.952	0.420	0.552	7.815	14.602	26.663
2021-09-04 23:45	6324312	8.247	-101.871	349.148	14.555	679.542	848.895	0.419	0.552	8.791	14.555	26.035
2021-09-05 00:00	6325212	8.281	-103.807	344.492	14.5	678.814	849.102	0.419	0.552	8.021	14.5	26.21
2021-09-05 00:15	6326112	8.317	-105.824	340.701	14.436	677.092	848.254	0.419	0.551	8.089	14.436	25.044
2021-09-05 00:30	6327012	8.307	-105.219	339.848	14.374	676.1	848.263	0.419	0.551	7.698	14.374	25.004
2021-09-05 00:45	6327912	8.289	-104.148	340.308	14.32	675.234	848.275	0.419	0.551	7.743	14.32	23.438
2021-09-05 01:00	6328812	8.282	-103.776	341.083	14.266	674.378	848.296	0.419	0.551	7.922	14.266	22.901
2021-09-05 01:15	6329712	8.271	-103.13	341.259	14.216	673.857	848.664	0.419	0.552	8.105	14.216	25.001
2021-09-05 01:30	6330612	8.266	-102.799	342.299	14.168	673.438	849.105	0.419	0.552	8.120	14.168	24.164
2021-09-05 01:45	6331512	8.261	-102.482	343.114	14.123	672.999	849.479	0.419	0.552	8.134	14.123	23.51
2021-09-05 02:00	6332412	8.257	-102.267	343.715	14.079	672.578	849.854	0.420	0.552	8.109	14.079	24.632
2021-09-05 02:15	6333312	8.255	-102.112	344.592	14.041	672.215	850.172	0.420	0.553	8.049	14.041	25.636
2021-09-05 02:30	6334212	8.250	-101.86	345.298	14.006	671.812	850.379	0.420	0.553	7.925	14.006	26.725
2021-09-05 02:45	6335112	8.247	-101.635	345.553	13.972	671.493	850.683	0.420	0.553	7.846	13.972	27.047
2021-09-05 03:00	6336012	8.253	-101.96	346.752	13.939	671.195	850.979	0.420	0.553	7.778	13.939	25.778
2021-09-05 03:15	6336912	8.250	-101.774	347.415	13.884	670.676	851.447	0.420	0.553	7.762	13.884	24.876
2021-09-05 03:30	6337812	8.230	-100.665	347.852	13.833	670.076	851.738	0.420	0.554	7.596	13.833	24.582
2021-09-05 03:45	6338712	8.220	-100.06	349.375	13.808	669.83	851.943	0.421	0.554	7.267	13.808	24.87
2021-09-05 04:00	6339612	8.213	-99.623	350.276	13.771	669.341	852.096	0.421	0.554	6.843	13.771	23.833
2021-09-05 04:15	6340512	8.235	-100.87	349.072	13.717	668.643	852.316	0.421	0.554	7.200	13.717	23.959
2021-09-05 04:30	6341412	8.227	-100.436	349.082	13.681	667.949	852.188	0.421	0.554	7.162	13.681	24.369
2021-09-05 04:45	6342312	8.226	-100.372	348.347	13.653	667.46	852.151	0.421	0.554	7.037	13.653	26.16
2021-09-05 05:00	6343212	8.218	-99.881	349.654	13.615	666.787	852.083	0.420	0.554	7.072	13.615	28.899
2021-09-05 05:15	6344112	8.210	-99.392	350.419	13.585	666.566	852.418	0.421	0.554	7.277	13.585	29.69
2021-09-05 05:30	6345012	8.192	-98.355	351.068	13.557	666.452	852.846	0.421	0.554	7.181	13.557	30.206
2021-09-05 05:45	6345912	8.187	-98.104	351.826	13.533	666.389	853.281	0.421	0.555	7.087	13.533	30.05
2021-09-05 06:00	6346812	8.190	-98.264	352.865	13.506	665.794	853.075	0.421	0.554	7.081	13.506	31.322
2021-09-05 06:15	6347712	8.180	-97.675	353.817	13.48	665.513	853.264	0.421	0.555	6.843	13.48	29.387
2021-09-05 06:30	6348612	8.164	-96.75	354.491	13.452	665.139	853.37	0.421	0.555	6.719	13.452	33.569
2021-09-05 06:45	6349512	8.150	-95.952	354.804	13.43	664.746	853.326	0.421	0.555	6.943	13.43	34.718

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-05 07:00	6350412	8.138	-95.234	355.362	13.406	664.456	853.456	0.421	0.555	6.713	13.406	34.389
2021-09-05 07:15	6351312	8.124	-94.447	356.094	13.382	664.132	853.53	0.421	0.555	6.521	13.382	31.397
2021-09-05 07:30	6352212	8.113	-93.83	357.395	13.358	663.738	853.535	0.421	0.555	6.534	13.358	33.177
2021-09-05 07:45	6353112	8.104	-93.327	358.111	13.328	663.433	853.765	0.421	0.555	***6.321***	13.328	31.687
2021-09-05 08:00	6354012	8.095	-92.75	358.12	13.287	662.416	853.318	0.421	0.555	***5.843***	13.287	29.482
2021-09-05 08:15	6354912	8.081	-91.977	359.15	13.243	661.591	853.172	0.421	0.555	***5.543***	13.243	30.699
2021-09-05 08:30	6355812	8.062	-90.857	361.055	13.209	661.431	853.683	0.421	0.555	***5.597***	13.209	31.079
2021-09-05 08:45	6356712	8.048	-90.072	362.338	13.19	661.381	854.016	0.421	0.555	***5.594***	13.19	30.64
2021-09-05 09:00	6357612	8.030	-89.03	363.313	13.172	661.038	853.969	0.421	0.555	***5.704***	13.172	28.943
2021-09-05 09:15	6358512	8.010	-87.876	364.588	13.154	660.861	854.108	0.421	0.555	***5.497***	13.154	29.808
2021-09-05 09:30	6359412	7.994	-87.006	365.835	13.138	660.516	854.012	0.421	0.555	***5.104***	13.138	33.113
2021-09-05 09:45	6360312	7.984	-86.441	366.906	13.123	660.265	854.003	0.421	0.555	***4.845***	13.123	33.111
2021-09-05 10:00	6361212	7.975	-85.912	367.981	13.114	660.109	853.992	0.421	0.555	***4.736***	13.114	33.898
2021-09-05 10:15	6362112	7.966	-85.371	368.901	13.112	660.179	854.115	0.421	0.555	***4.611***	13.112	34.445
2021-09-05 10:30	6363012	7.947	-84.322	369.884	13.114	659.603	853.32	0.421	0.555	***4.302***	13.114	34.033
2021-09-05 10:45	6363912	7.887	-80.917	372.182	13.12	659.055	852.491	0.420	0.554	***3.872***	13.12	36.524
2021-09-05 11:00	6364812	7.861	-79.448	373.326	13.115	659.295	852.907	0.421	0.554	***3.558***	13.115	41.538
2021-09-05 11:15	6365712	7.834	-77.901	373.334	13.093	659.148	853.179	0.421	0.555	***3.379***	13.093	38.984
2021-09-05 11:30	6366612	7.808	-76.38	373.3	13.078	659.207	853.567	0.421	0.555	***2.993***	13.078	36.674
2021-09-05 11:45	6367512	7.808	-76.399	372.072	13.086	659.771	854.138	0.421	0.555	***2.954***	13.086	34.394
2021-09-05 12:00	6368412	7.822	-77.2	369.872	13.088	660.335	854.817	0.422	0.556	***3.170***	13.088	36.179
2021-09-05 12:15	6369312	7.836	-78.018	367.221	13.089	660.617	855.172	0.422	0.556	***3.423***	13.089	38.202
2021-09-05 12:30	6370212	7.854	-79.043	364.212	13.093	660.848	855.388	0.422	0.556	***3.550***	13.093	39.326
2021-09-05 12:45	6371112	7.878	-80.402	361.313	13.111	661.302	855.59	0.422	0.556	***3.785***	13.111	39.993
2021-09-05 13:00	6372012	7.904	-81.849	357.689	13.138	661.883	855.764	0.422	0.556	***4.249***	13.138	40.894
2021-09-05 13:15	6372912	7.918	-82.703	354.861	13.177	662.599	855.879	0.422	0.556	***4.418***	13.177	39.748
2021-09-05 13:30	6373812	7.936	-83.702	351.764	13.244	663.672	855.839	0.422	0.556	***4.634***	13.244	39.895
2021-09-05 13:45	6374712	7.951	-84.6	349.017	13.337	665.237	855.902	0.422	0.556	***4.833***	13.337	40.475
2021-09-05 14:00	6375612	7.966	-85.471	346.392	13.425	666.766	856.009	0.422	0.556	***5.071***	13.425	42.486
2021-09-05 14:15	6376512	7.977	-86.155	344.318	13.512	668.284	856.134	0.423	0.556	***5.280***	13.512	44.147
2021-09-05 14:30	6377412	7.984	-86.584	342.456	13.595	669.72	856.241	0.423	0.557	***5.463***	13.595	45.697
2021-09-05 14:45	6378312	7.999	-87.409	340.115	13.651	670.845	856.497	0.423	0.557	***5.548***	13.651	48.062
2021-09-05 15:00	6379212	8.012	-88.203	338.038	13.697	671.587	856.5	0.423	0.557	***5.715***	13.697	45
2021-09-05 15:15	6380112	8.019	-88.611	336.345	13.714	671.963	856.61	0.423	0.557	***5.856***	13.714	44.61
2021-09-05 15:30	6381012	8.018	-88.546	335.258	13.758	672.85	856.827	0.423	0.557	***5.828***	13.758	45.638
2021-09-05 15:45	6381912	8.021	-88.699	333.999	13.771	673.26	857.086	0.423	0.557	***5.887***	13.771	46.247
2021-09-05 16:00	6382812	8.027	-89.095	332.607	13.815	673.84	856.913	0.423	0.557	***5.993***	13.815	48.398
2021-09-05 16:15	6383712	8.025	-88.99	331.944	13.846	674.553	857.166	0.423	0.557	***6.065***	13.846	50.301
2021-09-05 16:30	6384612	8.031	-89.333	331.026	13.893	675.532	857.429	0.423	0.557	***6.069***	13.893	53.383
2021-09-05 16:45	6385512	8.033	-89.445	330.173	13.908	675.978	857.688	0.424	0.557	***6.116***	13.908	50.956
2021-09-05 17:00	6386412	8.028	-89.19	329.72	13.914	676.433	858.13	0.424	0.558	***6.093***	13.914	48.998
2021-09-05 17:15	6387312	8.034	-89.536	329.078	13.945	677.134	858.383	0.424	0.558	***6.185***	13.945	46.828
2021-09-05 17:30	6388212	8.034	-89.545	328.482	13.972	677.824	858.697	0.424	0.558	***6.209***	13.972	46.727
2021-09-05 17:45	6389112	8.034	-89.557	328.258	14.01	678.831	859.171	0.424	0.558	***6.106***	14.01	45.463
2021-09-05 18:00	6390012	8.038	-89.767	327.538	14.044	679.605	859.454	0.425	0.559	***6.075***	14.044	44.556
2021-09-05 18:15	6390912	8.040	-89.905	327.033	14.039	679.752	859.74	0.425	0.559	***6.021***	14.039	43.146
2021-09-05 18:30	6391812	8.035	-89.6	326.563	14.028	679.586	859.763	0.425	0.559	***5.960***	14.028	44.658
2021-09-05 18:45	6392712	8.034	-89.552	326.415	14.036	679.996	860.116	0.425	0.559	***5.969***	14.036	47.671
2021-09-05 19:00	6393612	8.020	-88.725	326.57	14.011	680.004	860.642	0.425	0.559	***5.756***	14.011	48.097
2021-09-05 19:15	6394512	8.006	-87.912	326.809	13.992	679.829	860.808	0.425	0.560	***5.592***	13.992	48.235
2021-09-05 19:30	6395412	7.998	-87.466	327.734	13.986	679.97	861.115	0.425	0.560	***5.466***	13.986	47.557
2021-09-05 19:45	6396312	7.984	-86.656	328.423	13.971	679.823	861.258	0.425	0.560	***5.166***	13.971	52.051
2021-09-05 20:00	6397212	7.970	-85.845	329.174	13.954	681.566	863.811	0.427	0.561	***5.122***	13.954	52.236
2021-09-05 20:15	6398112	7.959	-85.211	330.576	13.937	681.503	864.093	0.427	0.562	***5.005***	13.937	49.753
2021-09-05 20:30	6399012	7.946	-84.51	332.018	13.92	681.091	863.922	0.427	0.562	***4.806***	13.92	48.444
2021-09-05 20:45	6399912	7.934	-83.823	333.561	13.908	679.405	862.032	0.426	0.560	***4.727***	13.908	101.025

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-05 21:00	6400812	7.922	-83.101	335.53	13.892	678.73	861.506	0.425	0.560	***4.680***	13.892	47.416
2021-09-05 21:15	6401712	7.913	-82.579	336.896	13.876	679.189	862.435	0.426	0.561	***4.537***	13.876	44.551
2021-09-05 21:30	6402612	7.902	-81.973	338.322	13.844	678.88	862.695	0.426	0.561	***4.360***	13.844	44.815
2021-09-05 21:45	6403512	7.894	-81.522	339.531	13.814	678.496	862.839	0.426	0.561	***4.396***	13.814	47.163
2021-09-05 22:00	6404412	7.889	-81.236	340.79	13.789	678.121	862.883	0.426	0.561	***4.195***	13.789	45.782
2021-09-05 22:15	6405312	7.881	-80.743	342.511	13.77	677.854	862.961	0.426	0.561	***4.137***	13.77	45.212
2021-09-05 22:30	6406212	7.871	-80.163	344.146	13.735	677.526	863.26	0.426	0.561	***3.891***	13.735	44.249
2021-09-05 22:45	6407112	7.864	-79.782	345.267	13.696	676.843	863.213	0.426	0.561	***3.784***	13.696	43.309
2021-09-05 23:00	6408012	7.861	-79.589	346.335	13.676	676.054	862.64	0.426	0.561	***3.892***	13.676	41.788
2021-09-05 23:15	6408912	7.855	-79.212	347.456	13.658	676.472	863.537	0.426	0.561	***3.874***	13.658	42.355
2021-09-05 23:30	6409812	7.849	-78.893	348.901	13.642	676.325	863.69	0.426	0.561	***3.892***	13.642	42.316
2021-09-05 23:45	6410712	7.843	-78.547	350.114	13.63	676.274	863.882	0.427	0.562	***3.787***	13.63	48.958
2021-09-06 00:00	6411612	7.834	-78.011	351.192	13.615	675.27	862.918	0.426	0.561	***3.667***	13.615	43.287
2021-09-06 00:15	6412512	7.834	-78.018	352.448	13.596	674.917	862.868	0.426	0.561	***3.478***	13.596	42.925
2021-09-06 00:30	6413412	7.830	-77.791	353.519	13.575	674.38	862.626	0.426	0.561	***3.350***	13.575	42.157
2021-09-06 00:45	6414312	7.822	-77.355	354.911	13.546	673.855	862.56	0.426	0.561	***3.302***	13.546	43.162
2021-09-06 01:00	6415212	7.809	-76.585	356.115	13.517	673.403	862.581	0.426	0.561	***3.257***	13.517	45.109
2021-09-06 01:15	6416112	7.805	-76.332	357.248	13.495	673.033	862.584	0.426	0.561	***3.229***	13.495	45.788
2021-09-06 01:30	6417012	7.794	-75.705	358.154	13.475	672.616	862.479	0.426	0.561	***3.125***	13.475	47.353
2021-09-06 01:45	6417912	7.789	-75.417	358.89	13.457	672.378	862.547	0.426	0.561	***2.761***	13.457	48.152
2021-09-06 02:00	6418812	7.792	-75.569	359.472	13.432	671.989	862.576	0.426	0.561	***2.453***	13.432	48.543
2021-09-06 02:15	6419712	7.789	-75.426	360.132	13.406	671.649	862.685	0.426	0.561	***2.437***	13.406	49.878
2021-09-06 02:30	6420612	7.794	-75.681	360.931	13.388	671.327	862.644	0.426	0.561	***2.064***	13.388	51.738
2021-09-06 02:45	6421512	7.794	-75.707	361.661	13.363	670.923	862.655	0.426	0.561	***2.209***	13.363	49.291
2021-09-06 03:00	6422412	7.796	-75.793	361.63	13.333	670.306	862.516	0.426	0.561	***1.926***	13.333	49.184
2021-09-06 03:15	6423312	7.803	-76.177	361.937	13.291	669.551	862.426	0.426	0.561	***1.586***	13.291	47.726
2021-09-06 03:30	6424212	7.817	-76.983	362.312	13.253	668.72	862.165	0.425	0.560	***1.506***	13.253	46.919
2021-09-06 03:45	6425112	7.822	-77.257	361.756	13.212	668.279	862.455	0.426	0.561	***2.306***	13.212	46.497
2021-09-06 04:00	6426012	7.808	-76.416	362.171	13.185	667.854	862.486	0.426	0.561	***2.293***	13.185	48.889
2021-09-06 04:15	6426912	7.799	-75.915	362.631	13.166	667.433	862.345	0.425	0.561	***2.375***	13.166	48.848
2021-09-06 04:30	6427812	7.796	-75.753	363.682	13.143	667.288	862.652	0.426	0.561	***2.528***	13.143	52.825
2021-09-06 04:45	6428712	7.785	-75.104	364.915	13.126	666.832	862.43	0.425	0.561	***2.457***	13.126	52.576
2021-09-06 05:00	6429612	7.784	-75.08	365.85	13.123	666.794	862.448	0.426	0.561	***2.449***	13.123	51.753
2021-09-06 05:15	6430512	7.781	-74.861	366.353	13.105	666.562	862.517	0.426	0.561	***2.462***	13.105	54.22
2021-09-06 05:30	6431412	7.790	-75.381	366.353	13.093	666.357	862.52	0.426	0.561	***2.495***	13.093	54.807
2021-09-06 05:45	6432312	7.785	-75.08	366.691	13.089	666.225	862.418	0.425	0.561	***2.642***	13.089	55.363
2021-09-06 06:00	6433212	7.786	-75.142	366.608	13.083	666.155	862.46	0.425	0.561	***2.701***	13.083	55.659
2021-09-06 06:15	6434112	7.788	-75.281	366.768	13.084	665.987	862.236	0.425	0.560	***2.813***	13.084	54.376
2021-09-06 06:30	6435012	7.783	-74.985	367.149	13.079	665.93	862.263	0.425	0.560	***2.965***	13.079	53.429
2021-09-06 06:45	6435912	7.790	-75.388	367.07	13.064	665.67	862.244	0.425	0.560	***2.858***	13.064	54.944
2021-09-06 07:00	6436812	7.784	-75.045	367.335	13.058	665.708	862.411	0.425	0.561	***2.781***	13.058	57.075
2021-09-06 07:15	6437712	7.789	-75.343	368.01	13.058	665.787	862.526	0.426	0.561	***2.802***	13.058	57.274
2021-09-06 07:30	6438612	7.775	-74.522	369.044	13.049	665.698	862.608	0.426	0.561	***2.967***	13.049	56.858
2021-09-06 07:45	6439512	7.766	-74.005	369.908	13.034	665.741	862.967	0.426	0.561	***2.660***	13.034	55.001
2021-09-06 08:00	6440412	7.741	-72.582	372.192	13.03	665.949	863.339	0.426	0.561	***2.336***	13.03	54.135
2021-09-06 08:15	6441312	7.735	-72.272	373.203	13.02	665.715	863.237	0.426	0.561	***2.125***	13.02	56.11
2021-09-06 08:30	6442212	7.734	-72.169	373.112	13.012	665.671	863.358	0.426	0.561	***1.988***	13.012	54.481
2021-09-06 08:45	6443112	7.762	-73.795	373.617	12.992	665.326	863.335	0.426	0.561	***1.984***	12.992	55.745
2021-09-06 09:00	6444012	7.794	-75.56	373.002	12.958	664.646	863.185	0.426	0.561	***1.967***	12.958	57.632
2021-09-06 09:15	6444912	7.816	-76.83	372.435	12.915	664.092	863.39	0.426	0.561	***2.118***	12.915	59.755
2021-09-06 09:30	6445812	7.838	-78.082	371.298	12.884	662.86	862.438	0.425	0.561	***2.498***	12.884	60.482
2021-09-06 09:45	6446712	7.840	-78.177	369.91	12.887	662.625	862.082	0.425	0.560	***2.981***	12.887	60.881
2021-09-06 10:00	6447612	7.855	-78.995	368.797	12.882	662.371	861.842	0.425	0.560	***3.169***	12.882	63.951
2021-09-06 10:15	6448512	7.872	-79.958	367.392	12.875	662.112	861.66	0.425	0.560	***3.480***	12.875	64.351
2021-09-06 10:30	6449412	7.879	-80.4	366.284	12.893	662.256	861.469	0.425	0.560	***3.784***	12.893	62.59
2021-09-06 10:45	6450312	7.883	-80.595	365.304	12.905	662.031	860.908	0.425	0.560	***3.656***	12.905	62.956

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-06 11:00	6451212	7.892	-81.129	363.725	12.913	662.48	861.316	0.425	0.560	***3.976***	12.913	65.258
2021-09-06 11:15	6452112	7.899	-81.515	361.854	12.919	662.509	861.23	0.425	0.560	***4.179***	12.919	76.171
2021-09-06 11:30	6453012	7.900	-81.594	360.442	12.922	662.382	861.012	0.425	0.560	***4.041***	12.922	72.951
2021-09-06 11:45	6453912	7.903	-81.749	359.715	12.93	662.324	860.767	0.425	0.559	***4.104***	12.93	66.663
2021-09-06 12:00	6454812	7.914	-82.381	358.187	12.933	662.326	860.701	0.424	0.559	***4.400***	12.933	70.242
2021-09-06 12:15	6455712	7.916	-82.526	356.547	12.93	662.339	860.785	0.425	0.560	***4.494***	12.93	117.82
2021-09-06 12:30	6456612	7.923	-82.901	355.226	12.942	662.645	860.926	0.425	0.560	***4.513***	12.942	74.095
2021-09-06 12:45	6457512	7.930	-83.292	353.738	12.961	662.968	860.931	0.425	0.560	***4.616***	12.961	76.915
2021-09-06 13:00	6458412	7.935	-83.585	352.346	12.988	663.565	861.124	0.425	0.560	***4.670***	12.988	75.126
2021-09-06 13:15	6459312	7.939	-83.861	351.154	13.029	664.35	861.274	0.425	0.560	***4.723***	13.029	77.464
2021-09-06 13:30	6460212	7.949	-84.414	349.477	13.091	664.975	860.773	0.425	0.560	***4.892***	13.091	79.734
2021-09-06 13:45	6461112	7.957	-84.879	348.006	13.186	666.864	861.181	0.425	0.560	***5.006***	13.186	80.282
2021-09-06 14:00	6462012	7.971	-85.754	346.183	13.291	668.523	861.099	0.425	0.560	***5.143***	13.291	77.953
2021-09-06 14:15	6462912	7.978	-86.126	344.826	13.367	669.82	861.156	0.425	0.560	***5.274***	13.367	79.915
2021-09-06 14:30	6463812	7.973	-85.895	343.686	13.412	671.041	861.779	0.425	0.560	***5.274***	13.412	77.643
2021-09-06 14:45	6464712	7.977	-86.133	342.675	13.444	671.119	861.213	0.425	0.560	***5.217***	13.444	77.789
2021-09-06 15:00	6465612	7.982	-86.398	341.846	13.494	672.077	861.387	0.425	0.560	***5.305***	13.494	78.614
2021-09-06 15:15	6466512	7.992	-86.987	341.064	13.522	672.705	861.59	0.425	0.560	***5.519***	13.522	80.517
2021-09-06 15:30	6467412	8.009	-87.955	340.861	13.593	673.875	861.595	0.425	0.560	***5.360***	13.593	87.415
2021-09-06 15:45	6468312	8.024	-88.832	339.528	13.659	674.82	861.406	0.425	0.560	***5.674***	13.659	82.675
2021-09-06 16:00	6469212	8.041	-89.869	338.148	13.729	675.321	860.579	0.425	0.559	***5.903***	13.729	83.665
2021-09-06 16:15	6470112	8.042	-89.867	336.646	13.701	675.1	860.885	0.425	0.560	***6.046***	13.701	83.053
2021-09-06 16:30	6471012	8.038	-89.626	335.728	13.651	673.927	860.446	0.425	0.559	***6.032***	13.651	84.672
2021-09-06 16:45	6471912	8.043	-89.917	334.343	13.686	674.437	860.362	0.425	0.559	***6.056***	13.686	85.496
2021-09-06 17:00	6472812	8.039	-89.748	333.613	13.71	674.909	860.453	0.425	0.559	***6.003***	13.71	90.427
2021-09-06 17:15	6473712	8.036	-89.531	333.31	13.694	674.79	860.633	0.425	0.559	***5.971***	13.694	89.529
2021-09-06 17:30	6474612	8.030	-89.231	333.127	13.698	674.953	860.765	0.425	0.559	***5.929***	13.698	89.597
2021-09-06 17:45	6475512	8.032	-89.324	332.876	13.722	675.427	860.873	0.425	0.560	***5.887***	13.722	89.988
2021-09-06 18:00	6476412	8.025	-88.93	332.552	13.708	676.292	862.253	0.426	0.560	***5.783***	13.708	71.821
2021-09-06 18:15	6477312	8.017	-88.487	333.041	13.722	676.676	862.461	0.426	0.561	***5.503***	13.722	72.847
2021-09-06 18:30	6478212	8.008	-87.981	333.031	13.749	678.507	864.225	0.427	0.562	***5.601***	13.749	80.208
2021-09-06 18:45	6479113	8.014	-88.294	333.365	13.761	677.465	862.641	0.426	0.561	***5.591***	13.761	81.537
2021-09-06 19:00	6480013	8.015	-88.398	332.946	13.748	677.123	862.476	0.426	0.561	***5.586***	13.748	82.152
2021-09-06 19:15	6480913	8.003	-87.698	333.494	13.743	678.02	863.724	0.427	0.561	***5.511***	13.743	81.385
2021-09-06 19:30	6481813	7.985	-86.687	334.221	13.747	677.567	863.068	0.426	0.561	***5.426***	13.747	79.128
2021-09-06 19:45	6482713	7.971	-85.859	335.003	13.747	678.53	864.304	0.427	0.562	***5.342***	13.747	79.508
2021-09-06 20:00	6483613	7.961	-85.278	336.465	13.739	677.581	863.255	0.426	0.561	***5.154***	13.739	75.529
2021-09-06 20:15	6484513	7.946	-84.46	338.865	13.729	677.661	863.558	0.426	0.561	***4.759***	13.729	75.653
2021-09-06 20:30	6485413	7.937	-83.926	340.563	13.721	677.567	863.624	0.426	0.561	***4.694***	13.721	75.366
2021-09-06 20:45	6486313	7.928	-83.385	341.955	13.712	677.669	863.925	0.427	0.562	***4.731***	13.712	75.985
2021-09-06 21:00	6487213	7.922	-83.055	343.77	13.705	677.755	864.183	0.427	0.562	***4.358***	13.705	72.914
2021-09-06 21:15	6488113	7.904	-82.016	345.565	13.696	677.76	864.385	0.427	0.562	***4.149***	13.696	76.189
2021-09-06 21:30	6489013	7.886	-81.017	347.84	13.679	677.729	864.696	0.427	0.562	***3.988***	13.679	95.915
2021-09-06 21:45	6489913	7.867	-79.896	350.014	13.666	677.623	864.839	0.427	0.562	***3.823***	13.666	72.882
2021-09-06 22:00	6490813	7.851	-79.038	352.143	13.665	677.724	864.99	0.427	0.562	***3.688***	13.665	80.034
2021-09-06 22:15	6491713	7.837	-78.232	354.007	13.672	677.849	865.004	0.427	0.562	***3.623***	13.672	78.208
2021-09-06 22:30	6492613	7.826	-77.589	355.307	13.683	678.857	866.055	0.428	0.563	***3.533***	13.683	77.982
2021-09-06 22:45	6493513	7.815	-76.947	356.616	13.699	678.474	865.223	0.427	0.562	***3.411***	13.699	79.11
2021-09-06 23:00	6494413	7.806	-76.487	358.261	13.713	678.637	865.15	0.427	0.562	***3.435***	13.713	76.11
2021-09-06 23:15	6495313	7.795	-75.85	359.989	13.721	678.825	865.215	0.427	0.562	***3.343***	13.721	74.284
2021-09-06 23:30	6496213	7.787	-75.407	362.085	13.725	679.019	865.372	0.427	0.562	***3.169***	13.725	73.73
2021-09-06 23:45	6497113	7.786	-75.324	363.971	13.722	679.18	865.654	0.428	0.563	***2.937***	13.722	73.293
2021-09-07 00:00	6498013	7.784	-75.195	365.435	13.721	679.283	865.806	0.428	0.563	***2.822***	13.721	70.349
2021-09-07 00:15	6498913	7.777	-74.823	367.19	13.717	679.457	866.105	0.428	0.563	***2.617***	13.717	70.034
2021-09-07 00:30	6499813	7.777	-74.828	368.911	13.71	679.595	866.43	0.428	0.563	***2.560***	13.71	69.945
2021-09-07 00:45	6500713	7.778	-74.84	370.377	13.698	679.563	866.647	0.428	0.563	***2.342***	13.698	71.924

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-07 01:00	6501613	7.781	-75.054	371.147	13.683	679.28	866.605	0.428	0.563	***2.402***	13.683	68.027
2021-09-07 01:15	6502513	7.809	-76.606	371.069	13.666	679.256	866.924	0.428	0.564	***2.319***	13.666	70.137
2021-09-07 01:30	6503413	7.796	-75.889	372.602	13.647	679.13	867.165	0.428	0.564	***2.248***	13.647	70.171
2021-09-07 01:45	6504313	7.787	-75.357	373.734	13.632	678.962	867.282	0.428	0.564	***2.139***	13.632	70.972
2021-09-07 02:00	6505213	7.833	-77.949	373.307	13.61	679.003	867.785	0.429	0.564	***2.101***	13.61	71.19
2021-09-07 02:15	6506113	7.837	-78.187	373.877	13.587	678.477	867.614	0.428	0.564	***2.362***	13.587	69.295
2021-09-07 02:30	6507013	7.806	-76.413	375.529	13.557	678.042	867.688	0.428	0.564	***2.518***	13.557	69.295
2021-09-07 02:45	6507913	7.799	-76.001	376.664	13.531	677.886	868.046	0.429	0.564	***2.255***	13.531	71.064
2021-09-07 03:00	6508813	7.815	-76.892	376.18	13.507	677.397	867.929	0.429	0.564	***2.106***	13.507	69.454
2021-09-07 03:15	6509713	7.843	-78.523	373.169	13.477	676.862	867.874	0.428	0.564	***2.044***	13.477	69.303
2021-09-07 03:30	6510613	7.852	-78.983	372.459	13.447	676.221	867.681	0.428	0.564	***2.045***	13.447	69.621
2021-09-07 03:45	6511513	7.864	-79.684	370.563	13.416	675.57	867.507	0.428	0.564	***1.810***	13.416	69.064
2021-09-07 04:00	6512413	7.875	-80.316	369.357	13.387	675.243	867.7	0.428	0.564	***2.070***	13.387	68.807
2021-09-07 04:15	6513313	7.869	-79.97	370.737	13.359	674.602	867.485	0.428	0.564	***1.939***	13.359	69.268
2021-09-07 04:30	6514213	7.873	-80.19	370.232	13.331	674.318	867.717	0.428	0.564	***1.757***	13.331	70.765
2021-09-07 04:45	6515113	7.876	-80.316	371.708	13.304	673.776	867.6	0.428	0.564	***1.969***	13.304	71.253
2021-09-07 05:00	6516013	7.860	-79.422	375.098	13.272	673.313	867.687	0.428	0.564	***2.162***	13.272	71.359
2021-09-07 05:15	6516913	7.847	-78.673	377.086	13.244	673.033	867.913	0.428	0.564	***2.229***	13.244	71.991
2021-09-07 05:30	6517813	7.839	-78.201	378.455	13.218	672.767	868.133	0.428	0.564	***2.438***	13.218	72.074
2021-09-07 05:45	6518713	7.864	-79.629	378.96	13.193	672.362	868.143	0.428	0.564	***1.838***	13.193	72.699
2021-09-07 06:00	6519613	7.859	-79.319	379.108	13.171	672.153	868.338	0.429	0.564	***1.826***	13.171	72.594
2021-09-07 06:15	6520513	7.823	-77.269	380.157	13.151	671.448	867.856	0.428	0.564	***1.854***	13.151	71.645
2021-09-07 06:30	6521413	7.805	-76.241	381.08	13.131	671.165	867.915	0.428	0.564	***1.646***	13.131	75.774
2021-09-07 06:45	6522313	7.796	-75.727	382.649	13.117	671.345	868.45	0.429	0.564	***1.732***	13.117	71.182
2021-09-07 07:00	6523213	7.794	-75.605	384.394	13.102	671.375	868.808	0.429	0.565	***1.770***	13.102	70.106
2021-09-07 07:15	6524113	7.786	-75.188	385.886	13.087	671.256	868.992	0.429	0.565	***1.590***	13.087	72.087
2021-09-07 07:30	6525013	7.760	-73.698	387.331	13.065	670.82	868.889	0.429	0.565	***1.631***	13.065	72.765
2021-09-07 07:45	6525913	7.749	-73.03	388.128	13.045	670.68	869.136	0.429	0.565	***1.639***	13.045	76.895
2021-09-07 08:00	6526813	7.761	-73.724	388.988	13.024	670.353	869.165	0.429	0.565	***1.595***	13.024	75.242
2021-09-07 08:15	6527713	7.765	-73.972	390.054	13.002	670.044	869.232	0.429	0.565	***1.634***	13.002	74.962
2021-09-07 08:30	6528613	7.787	-75.195	390.302	12.961	669.259	869.094	0.429	0.565	***1.622***	12.961	74.424
2021-09-07 08:45	6529513	7.827	-77.441	388.712	12.932	668.651	868.948	0.429	0.565	***1.732***	12.932	74.902
2021-09-07 09:00	6530413	7.836	-77.939	387.539	12.928	668.335	868.619	0.429	0.565	***1.894***	12.928	77.515
2021-09-07 09:15	6531313	7.847	-78.571	387.503	12.926	668.37	868.711	0.429	0.565	***2.082***	12.926	76.722
2021-09-07 09:30	6532213	7.845	-78.473	388.089	12.925	668.435	868.801	0.429	0.565	***1.789***	12.925	78.788
2021-09-07 09:45	6533113	7.823	-77.224	388.745	12.929	668.537	868.854	0.429	0.565	***1.187***	12.929	76.286
2021-09-07 10:00	6534013	7.811	-76.525	389.93	12.94	668.729	868.88	0.429	0.565	***0.652***	12.94	76.795
2021-09-07 10:15	6534913	7.807	-76.334	390.848	12.955	669.068	868.996	0.429	0.565	***1.030***	12.955	75.665
2021-09-07 10:30	6535813	7.796	-75.7	390.85	12.978	669.518	869.076	0.429	0.565	***1.379***	12.978	74.37
2021-09-07 10:45	6536713	7.771	-74.263	392.441	13.011	670.1	869.115	0.429	0.565	***1.271***	13.011	73.714
2021-09-07 11:00	6537613	7.751	-73.161	394.007	13.046	670.692	869.144	0.429	0.565	***1.237***	13.046	72.813
2021-09-07 11:15	6538513	7.742	-72.677	395.035	13.072	671.293	869.344	0.429	0.565	***1.196***	13.072	70.829
2021-09-07 11:30	6539413	7.729	-71.924	396.212	13.093	671.697	869.424	0.429	0.565	***1.363***	13.093	72.044
2021-09-07 11:45	6540313	7.717	-71.259	397.314	13.112	671.978	869.381	0.429	0.565	***1.168***	13.112	72.926
2021-09-07 12:00	6541213	7.716	-71.225	398.267	13.146	672.451	869.254	0.429	0.565	***1.452***	13.146	72.115
2021-09-07 12:15	6542113	7.719	-71.394	397.569	13.191	673.177	869.225	0.429	0.565	***1.324***	13.191	71.869
2021-09-07 12:30	6543013	7.728	-71.933	397.154	13.241	674.017	869.251	0.429	0.565	***1.344***	13.241	70.765
2021-09-07 12:45	6543913	7.728	-71.898	397.643	13.307	675.184	869.341	0.429	0.565	***1.237***	13.307	71.486
2021-09-07 13:00	6544813	7.729	-71.974	397.845	13.387	676.53	869.365	0.429	0.565	***1.320***	13.387	72.18
2021-09-07 13:15	6545713	7.730	-72.083	398.449	13.471	678.085	869.568	0.429	0.565	***1.339***	13.471	71.234
2021-09-07 13:30	6546613	7.732	-72.205	398.582	13.562	679.77	869.789	0.430	0.565	***1.519***	13.562	72.221
2021-09-07 13:45	6547513	7.732	-72.217	398.911	13.669	681.314	869.493	0.429	0.565	***2.873***	13.669	73.155
2021-09-07 14:00	6548413	7.745	-73.013	397.941	13.761	682.36	868.878	0.429	0.565	***4.203***	13.761	73.82
2021-09-07 14:15	6549313	7.808	-76.602	394.708	13.829	683.331	868.669	0.429	0.565	***4.447***	13.829	74.024
2021-09-07 14:30	6550213	7.826	-77.66	393.058	13.895	684.239	868.435	0.429	0.564	***4.506***	13.895	74.628
2021-09-07 14:45	6551113	7.846	-78.8	392.169	13.974	685.391	868.229	0.429	0.564	***4.420***	13.974	74.177

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-07 15:00	6552013	7.879	-80.695	390.106	14.077	686.936	868.035	0.429	0.564	***4.182***	14.077	73.7
2021-09-07 15:15	6552913	7.911	-82.545	388.662	14.145	688.004	867.953	0.429	0.564	***3.904***	14.145	74.586
2021-09-07 15:30	6553813	7.967	-85.788	385.486	14.185	688.558	867.818	0.429	0.564	***4.071***	14.185	75.374
2021-09-07 15:45	6554713	8.033	-89.545	383.495	14.178	688.283	867.611	0.429	0.564	***4.605***	14.178	74.542
2021-09-07 16:00	6555613	8.088	-92.645	380.036	14.148	687.244	866.927	0.428	0.564	***5.958***	14.148	76.422
2021-09-07 16:15	6556513	8.118	-94.373	379.738	14.153	686.925	866.439	0.428	0.563	***6.496***	14.153	75.615
2021-09-07 16:30	6557413	8.130	-95.065	377.029	14.174	686.369	865.292	0.428	0.562	6.896	14.174	75.104
2021-09-07 16:45	6558313	8.156	-96.564	373.3	14.221	686.717	864.751	0.427	0.562	7.065	14.221	75.043
2021-09-07 17:00	6559213	8.175	-97.682	368.968	14.272	687.17	864.252	0.427	0.562	7.274	14.272	77.959
2021-09-07 17:15	6560113	8.183	-98.162	367.466	14.337	688.523	864.622	0.427	0.562	7.172	14.337	80.017
2021-09-07 17:30	6561013	8.178	-97.861	366.477	14.365	689.076	864.732	0.427	0.562	***6.295***	14.365	78.565
2021-09-07 17:45	6561913	8.175	-97.671	366.966	14.386	689.556	864.898	0.427	0.562	***6.039***	14.386	76.5
2021-09-07 18:00	6562813	8.171	-97.485	367.693	14.39	689.67	864.962	0.428	0.562	6.614	14.39	74.65
2021-09-07 18:15	6563713	8.194	-98.791	367.647	14.399	689.97	865.147	0.428	0.562	7.037	14.399	76.1
2021-09-07 18:30	6564613	8.212	-99.833	367.452	14.435	690.418	864.966	0.428	0.562	6.644	14.435	76.153
2021-09-07 18:45	6565513	8.212	-99.828	367.576	14.465	690.904	864.938	0.428	0.562	6.831	14.465	76.02
2021-09-07 19:00	6566413	8.206	-99.49	365.807	14.484	691.271	865.023	0.428	0.562	6.929	14.484	77.755
2021-09-07 19:15	6567313	8.190	-98.586	366.844	14.506	691.554	864.913	0.428	0.562	6.765	14.506	76.904
2021-09-07 19:30	6568213	8.165	-97.191	369.724	14.517	691.764	864.941	0.428	0.562	***6.493***	14.517	76.255
2021-09-07 19:45	6569113	8.136	-95.496	370.585	14.546	692.506	865.278	0.428	0.562	***6.358***	14.546	75.604
2021-09-07 20:00	6570013	8.102	-93.617	371.646	14.618	693.71	865.289	0.428	0.562	6.649	14.618	75.484
2021-09-07 20:15	6570913	8.084	-92.642	373	14.786	696.784	865.667	0.428	0.563	***6.358***	14.786	76.588
2021-09-07 20:30	6571813	8.046	-90.516	374.12	14.987	698.998	864.297	0.427	0.562	***5.158***	14.987	76.437
2021-09-07 20:45	6572713	8.057	-91.188	374.185	15.114	700.517	863.578	0.427	0.561	***5.489***	15.114	76.311
2021-09-07 21:00	6573613	8.051	-90.89	375.081	15.19	701.608	863.375	0.427	0.561	***5.849***	15.19	75.145
2021-09-07 21:15	6574513	8.063	-91.56	375.537	15.24	702.998	864.072	0.427	0.562	***5.926***	15.24	76.484
2021-09-07 21:30	6575413	8.072	-92.08	375.715	15.269	701.702	861.903	0.426	0.560	7.030	15.269	75.931
2021-09-07 21:45	6576313	8.067	-91.825	375.775	15.28	702.364	862.481	0.427	0.561	7.237	15.28	76.177
2021-09-07 22:00	6577213	8.110	-94.287	373.274	15.273	702.439	862.728	0.427	0.561	7.113	15.273	75.812
2021-09-07 22:15	6578113	8.155	-96.865	370.485	15.243	702.054	862.861	0.427	0.561	6.871	15.243	74.853
2021-09-07 22:30	6579013	8.183	-98.407	369.683	15.197	701.363	862.942	0.427	0.561	7.415	15.197	75.901
2021-09-07 22:45	6579913	8.194	-99.037	369.314	15.146	700.614	863.051	0.427	0.561	7.478	15.146	77.766
2021-09-07 23:00	6580813	8.189	-98.717	369.257	15.087	699.853	863.317	0.427	0.561	7.568	15.087	77.047
2021-09-07 23:15	6581713	8.183	-98.386	369.505	15.027	698.691	863.09	0.427	0.561	7.523	15.027	76.771
2021-09-07 23:30	6582613	8.180	-98.19	370.268	14.962	697.792	863.302	0.427	0.561	7.318	14.962	77.29
2021-09-07 23:45	6583513	8.167	-97.435	371.481	14.903	696.908	863.416	0.427	0.561	7.234	14.903	77.805
2021-09-08 00:00	6584413	8.152	-96.538	371.693	14.838	695.949	863.572	0.427	0.561	7.119	14.838	76.51
2021-09-08 00:15	6585313	8.148	-96.259	371.808	14.766	694.86	863.686	0.427	0.561	6.995	14.766	75.96
2021-09-08 00:30	6586213	8.150	-96.343	372.406	14.689	694.041	864.238	0.427	0.562	6.982	14.689	77.719
2021-09-08 00:45	6587113	8.152	-96.436	373.179	14.617	693.184	864.662	0.427	0.562	6.977	14.617	79.099
2021-09-08 01:00	6588013	8.148	-96.226	373.207	14.564	692.177	864.492	0.427	0.562	7.120	14.564	77.065
2021-09-08 01:15	6588913	8.138	-95.627	373.985	14.515	691.339	864.448	0.427	0.562	6.999	14.515	79.109
2021-09-08 01:30	6589813	8.134	-95.379	374.328	14.465	690.469	864.409	0.427	0.562	6.757	14.465	79.411
2021-09-08 01:45	6590713	8.123	-94.75	374.833	14.415	689.668	864.442	0.427	0.562	6.535	14.415	79.989
2021-09-08 02:00	6591613	8.107	-93.789	375.775	14.363	688.976	864.653	0.427	0.562	6.610	14.363	80.786
2021-09-08 02:15	6592513	8.101	-93.431	376.683	14.312	688.142	864.648	0.427	0.562	6.577	14.312	81.92
2021-09-08 02:30	6593413	8.097	-93.21	377.103	14.267	687.515	864.791	0.427	0.562	***6.388***	14.267	84.03
2021-09-08 02:45	6594313	8.085	-92.506	377.747	14.22	687.361	865.58	0.428	0.563	***6.158***	14.22	87.855
2021-09-08 03:00	6595213	8.079	-92.161	378.369	14.173	686.624	865.633	0.428	0.563	***6.081***	14.173	87.695
2021-09-08 03:15	6596113	8.068	-91.486	378.572	14.094	685.655	866.05	0.428	0.563	***6.014***	14.094	87.238
2021-09-08 03:30	6597013	8.074	-91.796	379.547	14.033	684.384	865.733	0.428	0.563	***6.309***	14.033	88.021
2021-09-08 03:45	6597913	8.084	-92.392	379.673	14.005	683.886	865.675	0.428	0.563	***6.281***	14.005	88.5
2021-09-08 04:00	6598813	8.096	-93.057	379.68	13.975	683.092	865.314	0.427	0.562	***6.358***	13.975	92.589
2021-09-08 04:15	6599713	8.089	-92.623	380.679	13.937	683.722	866.906	0.428	0.563	6.558	13.937	94.131
2021-09-08 04:30	6600613	8.081	-92.187	380.834	13.896	683.038	866.893	0.428	0.563	***6.446***	13.896	88.081
2021-09-08 04:45	6601513	8.067	-91.338	381.213	13.855	682.475	867.05	0.428	0.564	***5.896***	13.855	87.686

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-08 05:00	6602413	8.050	-90.408	382.208	13.813	681.764	867.029	0.428	0.564	***5.465***	13.813	89.211
2021-09-08 05:15	6603313	8.036	-89.588	383.557	13.773	681.06	866.961	0.428	0.564	***5.158***	13.773	65.264
2021-09-08 05:30	6604213	8.026	-88.975	384.17	13.728	680.516	867.232	0.428	0.564	***4.957***	13.728	62.283
2021-09-08 05:45	6605113	8.025	-88.944	384.875	13.681	679.386	866.768	0.428	0.563	***5.160***	13.681	66.73
2021-09-08 06:00	6606013	8.022	-88.735	385.259	13.632	678.719	866.957	0.428	0.564	***5.182***	13.632	70.342
2021-09-08 06:15	6606913	8.011	-88.103	386.49	13.597	678.213	867.05	0.428	0.564	***4.697***	13.597	71.68
2021-09-08 06:30	6607813	8.008	-87.891	386.99	13.558	677.597	867.104	0.428	0.564	***4.665***	13.558	70.676
2021-09-08 06:45	6608713	7.998	-87.33	387.362	13.523	677.1	867.204	0.428	0.564	***4.781***	13.523	70.739
2021-09-08 07:00	6609613	7.999	-87.368	387.155	13.492	676.489	867.078	0.428	0.564	***4.815***	13.492	70.711
2021-09-08 07:15	6610513	7.996	-87.206	386.432	13.461	675.98	867.073	0.428	0.564	***4.840***	13.461	70.594
2021-09-08 07:30	6611413	7.989	-86.803	386.366	13.433	675.52	867.085	0.428	0.564	***4.705***	13.433	72.109
2021-09-08 07:45	6612313	7.977	-86.093	387.422	13.405	675.032	867.053	0.428	0.564	***4.809***	13.405	74.299
2021-09-08 08:00	6613213	7.959	-85.077	389.32	13.378	674.777	867.299	0.428	0.564	***4.383***	13.378	74.969
2021-09-08 08:15	6614113	7.935	-83.692	390.497	13.353	674.558	867.544	0.428	0.564	***4.132***	13.353	73.064
2021-09-08 08:30	6615013	7.914	-82.481	391.668	13.33	674.2	867.574	0.428	0.564	***4.063***	13.33	71.259
2021-09-08 08:45	6615913	7.899	-81.625	393.528	13.313	673.923	867.577	0.428	0.564	***4.283***	13.313	68.682
2021-09-08 09:00	6616813	7.894	-81.348	395.123	13.303	673.782	867.615	0.428	0.564	***4.098***	13.303	72.816
2021-09-08 09:15	6617713	7.882	-80.693	396.501	13.296	672.891	866.615	0.428	0.563	***4.038***	13.296	74.488
2021-09-08 09:30	6618613	7.877	-80.388	397.81	13.296	673.247	867.072	0.428	0.564	***3.914***	13.296	71.895
2021-09-08 09:45	6619513	7.876	-80.314	398.248	13.303	673.822	867.672	0.428	0.564	***3.787***	13.303	71.972
2021-09-08 10:00	6620413	7.870	-80.006	398.632	13.311	674.087	867.838	0.428	0.564	***3.431***	13.311	70.246
2021-09-08 10:15	6621313	7.871	-80.073	399.35	13.323	674.321	867.877	0.428	0.564	***3.332***	13.323	69.384
2021-09-08 10:30	6622213	7.855	-79.16	400.099	13.342	674.755	868.032	0.428	0.564	***3.740***	13.342	66.569
2021-09-08 10:45	6623113	7.848	-78.75	400.869	13.366	674.55	867.254	0.428	0.564	***3.820***	13.366	68.347
2021-09-08 11:00	6624013	7.844	-78.53	400.573	13.393	675.269	867.616	0.428	0.564	***3.866***	13.393	69.253
2021-09-08 11:15	6624913	7.845	-78.628	400.535	13.423	676.006	867.919	0.428	0.564	***3.637***	13.423	70.391
2021-09-08 11:30	6625813	7.857	-79.272	401.66	13.454	675.901	867.118	0.428	0.564	***3.713***	13.454	74.972
2021-09-08 11:45	6626713	7.851	-78.969	402.521	13.493	676.704	867.328	0.428	0.564	***4.204***	13.493	79.301
2021-09-08 12:00	6627613	7.866	-79.846	399.681	13.537	677.264	867.119	0.428	0.564	***4.529***	13.537	80.831
2021-09-08 12:15	6628513	7.870	-80.056	399.088	13.587	677.655	866.553	0.428	0.563	***5.079***	13.587	83.153
2021-09-08 12:30	6629413	7.879	-80.607	396.961	13.648	678.857	866.81	0.428	0.563	***4.941***	13.648	78.067
2021-09-08 12:45	6630313	7.892	-81.387	396.289	13.72	680.422	867.285	0.428	0.564	***4.672***	13.72	80.468
2021-09-08 13:00	6631213	7.891	-81.313	397.183	13.803	681.853	867.342	0.428	0.564	***4.837***	13.803	80.525
2021-09-08 13:15	6632113	7.914	-82.686	396.916	13.946	684.398	867.562	0.429	0.564	***4.469***	13.946	77.286
2021-09-08 13:30	6633013	7.891	-81.398	397.512	14.05	686.31	867.802	0.429	0.564	***4.279***	14.05	74.595
2021-09-08 13:45	6633913	7.894	-81.568	397.54	14.135	687.985	868.141	0.429	0.564	***4.490***	14.135	77.822
2021-09-08 14:00	6634813	7.893	-81.573	398.537	14.202	689.548	868.707	0.429	0.565	***4.097***	14.202	81.13
2021-09-08 14:15	6635713	7.883	-81.007	399.986	14.248	690.697	869.19	0.430	0.565	***4.010***	14.248	75.812
2021-09-08 14:30	6636613	7.900	-81.999	400.184	14.268	691.359	869.62	0.430	0.565	***4.071***	14.268	75.206
2021-09-08 14:45	6637513	7.906	-82.331	398.728	14.274	691.697	869.922	0.430	0.565	***3.860***	14.274	68.992
2021-09-08 15:00	6638413	7.918	-83.008	397.18	14.276	691.824	870.03	0.430	0.566	***3.948***	14.276	68.662
2021-09-08 15:15	6639313	7.933	-83.861	395.981	14.272	691.769	870.043	0.430	0.566	***4.215***	14.272	67.968
2021-09-08 15:30	6640213	7.945	-84.534	395.313	14.259	691.599	870.107	0.430	0.566	***4.302***	14.259	64.244
2021-09-08 15:45	6641113	7.982	-86.67	395.685	14.249	691.565	870.262	0.430	0.566	***4.565***	14.249	64.082
2021-09-08 16:00	6642013	7.990	-87.137	395.862	14.317	692.753	870.344	0.430	0.566	***5.205***	14.317	64.68
2021-09-08 16:15	6642913	7.957	-85.287	394.298	14.439	694.995	870.611	0.430	0.566	***5.604***	14.439	69.391
2021-09-08 16:30	6643813	7.949	-84.87	393.578	14.575	697.232	870.586	0.430	0.566	***5.545***	14.575	72.998
2021-09-08 16:45	6644713	7.950	-84.975	391.174	14.684	697.651	868.853	0.430	0.565	***6.177***	14.684	75.043
2021-09-08 17:00	6645613	7.966	-85.883	390.998	14.799	700.587	870.111	0.430	0.566	***5.602***	14.799	80.992
2021-09-08 17:15	6646513	7.940	-84.455	394.16	14.911	702.722	870.453	0.431	0.566	***4.875***	14.911	79.204
2021-09-08 17:30	6647413	7.916	-83.117	395.342	15.01	704.279	870.359	0.431	0.566	***4.958***	15.01	78.138
2021-09-08 17:45	6648313	7.914	-83.01	394.615	15.101	705.689	870.227	0.431	0.566	***5.064***	15.101	82.521
2021-09-08 18:00	6649213	7.914	-83.041	394.653	15.176	707.658	871.116	0.431	0.566	***5.004***	15.176	76.196
2021-09-08 18:15	6650113	7.904	-82.476	395.509	15.253	708.693	870.812	0.431	0.566	***5.512***	15.253	73.775
2021-09-08 18:30	6651013	7.894	-81.923	394.341	15.317	709.819	870.877	0.431	0.566	***5.783***	15.317	77.194
2021-09-08 18:45	6651913	7.887	-81.549	393.468	15.362	710.621	870.95	0.431	0.566	***5.950***	15.362	77.765

TABLE C1

Upstream Water Quality Sonde Data

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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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-08 19:00	6652813	7.916	-83.23	394.186	15.39	711.111	870.981	0.431	0.566	***5.890***	15.39	77.587
2021-09-08 19:15	6653713	7.973	-86.505	395.218	15.41	711.265	870.768	0.431	0.566	***5.657***	15.41	80.372
2021-09-08 19:30	6654613	8.005	-88.289	395.099	15.413	711.47	870.955	0.431	0.566	***5.711***	15.413	80.312
2021-09-08 19:45	6655513	8.037	-90.134	394.474	15.4	711.283	870.99	0.431	0.566	***5.534***	15.4	82.812
2021-09-08 20:00	6656413	8.053	-91.04	394.4	15.386	711.232	871.217	0.431	0.566	***6.076***	15.386	83.412
2021-09-08 20:15	6657313	8.049	-90.828	394.522	15.366	710.837	871.126	0.431	0.566	***6.106***	15.366	83.796
2021-09-08 20:30	6658213	8.071	-92.084	394.262	15.333	710.227	871.06	0.431	0.566	***6.435***	15.333	83.33
2021-09-08 20:45	6659113	8.088	-93.043	392.219	15.298	709.522	870.911	0.431	0.566	6.586	15.298	79.664
2021-09-08 21:00	6660013	8.087	-92.964	390.626	15.259	708.587	870.565	0.431	0.566	7.045	15.259	79.076
2021-09-08 21:15	6660913	8.118	-94.714	390.023	15.21	707.6	870.34	0.431	0.566	7.346	15.21	77.278
2021-09-08 21:30	6661813	8.136	-95.754	389.842	15.176	706.488	869.681	0.430	0.565	6.926	15.176	71.271
2021-09-08 21:45	6662713	8.105	-93.966	390.252	15.147	706.097	869.781	0.430	0.565	6.815	15.147	59.308
2021-09-08 22:00	6663613	8.059	-91.331	391.189	15.125	705.521	869.525	0.430	0.565	6.860	15.125	61.684
2021-09-08 22:15	6664513	8.078	-92.416	393.64	15.11	705.1	869.31	0.430	0.565	6.764	15.11	75.115
2021-09-08 22:30	6665413	8.089	-93.04	393.337	15.093	705.247	869.844	0.430	0.565	***6.417***	15.093	75.296
2021-09-08 22:45	6666313	8.099	-93.603	393.442	15.074	704.991	869.92	0.430	0.565	6.575	15.074	78.039
2021-09-08 23:00	6667213	8.092	-93.191	393.99	15.054	704.499	869.716	0.430	0.565	6.838	15.054	78.384
2021-09-08 23:15	6668113	8.096	-93.391	393.077	15.029	704.072	869.702	0.430	0.565	6.553	15.029	80.62
2021-09-08 23:30	6669013	8.103	-93.799	393.463	15.012	703.739	869.634	0.430	0.565	***6.454***	15.012	83.69
2021-09-08 23:45	6669913	8.095	-93.343	393.27	14.971	703.351	870.003	0.430	0.566	6.508	14.971	83.266
2021-09-09 00:00	6670813	8.091	-93.083	395.354	14.942	702.765	869.882	0.430	0.565	6.645	14.942	82.907
2021-09-09 00:15	6671713	8.088	-92.888	395.178	14.915	702.233	869.769	0.430	0.565	6.583	14.915	81.568
2021-09-09 00:30	6672613	8.098	-93.465	394.174	14.893	701.907	869.816	0.430	0.565	6.695	14.893	80.47
2021-09-09 00:45	6673513	8.099	-93.498	392.841	14.875	701.692	869.914	0.430	0.565	6.685	14.875	79.299
2021-09-09 01:00	6674413	8.079	-92.39	393.153	14.854	701.189	869.729	0.430	0.565	***6.428***	14.854	80.017
2021-09-09 01:15	6675313	8.074	-92.065	394.21	14.834	701.002	869.922	0.430	0.565	***6.064***	14.834	80.991
2021-09-09 01:30	6676213	8.083	-92.556	394.262	14.811	699.83	868.934	0.430	0.565	***5.664***	14.811	81.909
2021-09-09 01:45	6677113	8.071	-91.918	394.682	14.788	699.297	868.749	0.430	0.565	***4.835***	14.788	85.163
2021-09-09 02:00	6678013	8.062	-91.379	396.787	14.764	698.411	868.14	0.429	0.564	***3.914***	14.764	81.509
2021-09-09 02:15	6678913	8.057	-91.054	397.292	14.741	697.303	867.229	0.429	0.564	***3.576***	14.741	80.427
2021-09-09 02:30	6679813	8.046	-90.454	398.017	14.72	696.407	866.555	0.428	0.563	***3.806***	14.72	83.338
2021-09-09 02:45	6680713	8.003	-87.95	402.425	14.695	696.003	866.557	0.428	0.563	***4.123***	14.695	83.273
2021-09-09 03:00	6681613	7.959	-85.447	410.355	14.654	695.783	867.143	0.429	0.564	***4.286***	14.654	81.714
2021-09-09 03:15	6682513	7.973	-86.246	407.225	14.617	694.272	866.025	0.428	0.563	***4.618***	14.617	78.736
2021-09-09 03:30	6683413	8.008	-88.251	402.414	14.582	692.125	864.051	0.427	0.562	***4.560***	14.582	79.754
2021-09-09 03:45	6684313	8.018	-88.763	401.136	14.549	689.153	861.026	0.426	0.560	***4.443***	14.549	78.962
2021-09-09 04:00	6685213	8.009	-88.248	405.475	14.527	687.55	859.467	0.425	0.559	***3.873***	14.527	82.456
2021-09-09 04:15	6686113	8.038	-89.905	414.144	14.502	687.087	859.409	0.425	0.559	***3.305***	14.502	84.535
2021-09-09 04:30	6687013	8.023	-89.056	411.257	14.478	685.311	857.681	0.424	0.557	***3.072***	14.478	85.945
2021-09-09 04:45	6687914	7.962	-85.573	415.61	14.454	686.219	859.307	0.425	0.559	***3.288***	14.454	82.443
2021-09-09 05:00	6688814	7.907	-82.445	419.549	14.433	687.499	861.338	0.426	0.560	***3.261***	14.433	82.148
2021-09-09 05:15	6689714	7.812	-76.971	419	14.414	688.875	863.465	0.427	0.561	***3.268***	14.414	82.743
2021-09-09 05:30	6690614	7.795	-75.991	419.637	14.39	689.708	864.991	0.428	0.562	***3.006***	14.39	79.97
2021-09-09 05:45	6691514	7.744	-73.094	420.531	14.366	690.669	866.708	0.428	0.563	***2.912***	14.366	78.807
2021-09-09 06:00	6692414	7.712	-71.254	421.923	14.342	691.513	868.264	0.429	0.564	***2.748***	14.342	111.877
2021-09-09 06:15	6693314	7.698	-70.491	421.723	14.318	691.201	868.377	0.429	0.564	***2.610***	14.318	111.679
2021-09-09 06:30	6694214	7.693	-70.159	422.136	14.295	690.524	868.008	0.429	0.564	***2.924***	14.295	112.596
2021-09-09 06:45	6695114	7.682	-69.528	422.658	14.269	688.426	865.909	0.428	0.563	***2.666***	14.269	110.121
2021-09-09 07:00	6696014	7.670	-68.858	423.976	14.244	685.968	863.326	0.427	0.561	***2.383***	14.244	111.053
2021-09-09 07:15	6696914	7.689	-69.931	424.801	14.216	683.84	861.239	0.426	0.560	***2.114***	14.216	110.135
2021-09-09 07:30	6697814	7.703	-70.691	423.962	14.187	682.473	860.115	0.425	0.559	***1.967***	14.187	100.992
2021-09-09 07:45	6698714	7.721	-71.707	423.254	14.146	676.866	853.88	0.422	0.555	***1.801***	14.146	119.708
2021-09-09 08:00	6699614	7.811	-76.83	420.076	14.094	675.045	852.651	0.421	0.554	***2.344***	14.094	116.27
2021-09-09 08:15	6700514	7.860	-79.622	418.047	14.031	677.139	856.599	0.423	0.557	***3.046***	14.031	110.139
2021-09-09 08:30	6701414	7.843	-78.614	415.906	13.951	678.211	859.622	0.425	0.559	***3.150***	13.951	100.173
2021-09-09 08:45	6702314	7.850	-79.048	415.152	13.904	678.59	861.086	0.425	0.560	***3.479***	13.904	94.834

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-09 09:00	6703214	7.870	-80.175	415.14	13.867	679.225	862.654	0.426	0.561	***3.722***	13.867	86.293
2021-09-09 09:15	6704114	7.873	-80.292	415.107	13.831	679.186	863.363	0.426	0.561	***3.879***	13.831	84.207
2021-09-09 09:30	6705014	7.882	-80.822	414.833	13.781	678.988	864.156	0.427	0.562	***4.113***	13.781	81.232
2021-09-09 09:45	6705914	7.878	-80.559	415.155	13.742	678.811	864.761	0.427	0.562	***4.076***	13.742	86.423
2021-09-09 10:00	6706814	7.882	-80.812	415.429	13.71	678.726	865.319	0.427	0.562	***4.059***	13.71	88.648
2021-09-09 10:15	6707714	7.911	-82.448	414.94	13.675	678.22	865.408	0.427	0.563	***4.158***	13.675	90.537
2021-09-09 10:30	6708614	7.915	-82.641	414.342	13.642	677.983	865.812	0.428	0.563	***4.316***	13.642	89.985
2021-09-09 10:45	6709514	7.919	-82.85	413.848	13.609	677.724	866.181	0.428	0.563	***4.497***	13.609	91.42
2021-09-09 11:00	6710414	7.915	-82.653	413.498	13.592	677.502	866.254	0.428	0.563	***4.534***	13.592	86.393
2021-09-09 11:15	6711314	7.919	-82.865	413.688	13.571	676.666	865.637	0.427	0.563	***4.500***	13.571	87.022
2021-09-09 11:30	6712214	7.909	-82.307	413.865	13.548	676.963	866.487	0.428	0.563	***4.413***	13.548	86.863
2021-09-09 11:45	6713114	7.907	-82.18	413.734	13.527	676.478	866.309	0.428	0.563	***4.328***	13.527	85.854
2021-09-09 12:00	6714014	7.905	-82.047	413.45	13.515	676.33	866.379	0.428	0.563	***4.329***	13.515	84.622
2021-09-09 12:15	6714914	7.897	-81.599	413.445	13.503	676.156	866.424	0.428	0.563	***4.270***	13.503	80.654
2021-09-09 12:30	6715814	7.893	-81.365	413.615	13.501	676.864	867.371	0.428	0.564	***4.156***	13.501	79.302
2021-09-09 12:45	6716714	7.893	-81.353	413.667	13.506	676.132	866.31	0.428	0.563	***4.026***	13.506	76.524
2021-09-09 13:00	6717614	7.899	-81.692	413.841	13.517	676.088	866.021	0.428	0.563	***4.025***	13.517	76.656
2021-09-09 13:15	6718514	7.906	-82.083	413.638	13.542	676.498	866.029	0.428	0.563	***3.987***	13.542	75.115
2021-09-09 13:30	6719414	7.904	-82.006	412.656	13.583	676.901	865.677	0.427	0.563	***3.954***	13.583	76.819
2021-09-09 13:45	6720314	7.897	-81.663	412.747	13.705	679.082	865.889	0.428	0.563	***4.077***	13.705	75.594
2021-09-09 14:00	6721214	7.891	-81.356	412.408	13.892	682.264	865.993	0.428	0.563	***4.053***	13.892	75.737
2021-09-09 14:15	6722114	7.887	-81.153	411.943	14.075	685.148	865.817	0.428	0.563	***4.418***	14.075	74.911
2021-09-09 14:30	6723014	7.900	-81.949	410.403	14.231	687.422	865.428	0.428	0.563	***4.923***	14.231	72.838
2021-09-09 14:45	6723914	7.901	-82.045	408.667	14.352	689.146	865.094	0.428	0.562	***5.385***	14.352	72.281
2021-09-09 15:00	6724814	7.921	-83.251	407.892	14.511	691.827	865.146	0.428	0.562	***5.222***	14.511	74.15
2021-09-09 15:15	6725714	7.939	-84.326	406.996	14.693	695.174	865.58	0.428	0.563	***5.185***	14.693	74.535
2021-09-09 15:30	6726614	7.974	-86.389	405.759	14.951	699.12	865.176	0.428	0.562	***5.950***	14.951	76.841
2021-09-09 15:45	6727514	8.009	-88.451	401.825	15.21	702.922	864.596	0.428	0.562	***6.263***	15.21	79.839
2021-09-09 16:00	6728414	8.088	-93.024	400.13	15.375	705.847	864.836	0.428	0.562	***6.007***	15.375	77.523
2021-09-09 16:15	6729314	8.055	-91.224	399.467	15.581	709.327	864.94	0.428	0.562	***6.230***	15.581	78.8
2021-09-09 16:30	6730214	8.062	-91.681	395.991	15.838	711.734	862.708	0.427	0.561	6.672	15.838	76.196
2021-09-09 16:45	6731114	8.066	-92.053	395.559	16.11	716.626	863.191	0.427	0.561	7.139	16.11	76.432
2021-09-09 17:00	6732014	8.076	-92.654	393.37	16.355	720.554	863.063	0.427	0.561	6.939	16.355	76.875
2021-09-09 17:15	6732914	8.067	-92.235	392.703	16.576	725.565	864.701	0.428	0.562	7.043	16.576	76.916
2021-09-09 17:30	6733814	8.060	-91.92	392.874	16.79	730.376	866.211	0.429	0.563	6.731	16.79	76.317
2021-09-09 17:45	6734714	8.055	-91.674	392.278	16.938	731.678	864.85	0.429	0.562	7.493	16.938	77.093
2021-09-09 18:00	6735614	8.082	-93.281	389.472	17.119	734.714	864.91	0.429	0.562	6.950	17.119	76.132
2021-09-09 18:15	6736514	8.069	-92.552	390.264	17.269	737.258	864.988	0.429	0.562	7.047	17.269	75.467
2021-09-09 18:30	6737414	8.085	-93.524	390.402	17.32	738.061	864.941	0.429	0.562	7.603	17.32	77.685
2021-09-09 18:45	6738314	8.155	-97.528	390.576	17.311	738.817	865.992	0.429	0.563	7.680	17.311	77.156
2021-09-09 19:00	6739214	8.183	-99.089	388.349	17.192	738.112	867.483	0.430	0.564	7.483	17.192	76.398
2021-09-09 19:15	6740114	8.194	-99.699	385.035	17.017	734.283	866.384	0.429	0.563	7.387	17.017	76.213
2021-09-09 19:30	6741014	8.179	-98.815	382.911	16.966	730.997	863.497	0.428	0.561	7.610	16.966	76.773
2021-09-09 19:45	6741914	8.191	-99.49	382.241	16.901	729.214	862.662	0.427	0.561	7.743	16.901	77.858
2021-09-09 20:00	6742814	8.211	-100.596	381.485	16.812	729.076	864.232	0.428	0.562	7.965	16.812	78.442
2021-09-09 20:15	6743714	8.200	-99.964	382.234	16.775	730.307	866.418	0.429	0.563	8.260	16.775	77.797
2021-09-09 20:30	6744614	8.181	-98.832	383.323	16.746	725.795	861.639	0.427	0.560	8.496	16.746	78.665
2021-09-09 20:45	6745514	8.178	-98.684	383.571	16.707	727.034	863.86	0.428	0.562	8.633	16.707	79.842
2021-09-09 21:00	6746414	8.174	-98.391	384.139	16.65	726.08	863.844	0.428	0.561	8.669	16.65	77.811
2021-09-09 21:15	6747314	8.186	-99.075	383.969	16.562	723.724	862.772	0.427	0.561	8.757	16.562	80.131
2021-09-09 21:30	6748214	8.165	-97.852	382.992	16.463	721.138	861.628	0.427	0.560	8.603	16.463	81.402
2021-09-09 21:45	6749114	8.173	-98.252	382.568	16.36	719.246	861.393	0.427	0.560	8.562	16.36	82.659
2021-09-09 22:00	6750014	8.157	-97.301	382.484	16.265	717.139	860.745	0.426	0.559	8.569	16.265	81.218
2021-09-09 22:15	6750914	8.158	-97.313	383.481	16.151	717.558	863.512	0.428	0.561	8.374	16.151	81.81
2021-09-09 22:30	6751814	8.144	-96.467	384.394	16.043	715.782	863.504	0.428	0.561	8.094	16.043	83.267
2021-09-09 22:45	6752714	8.139	-96.185	385.729	15.94	714.588	864.13	0.428	0.562	7.883	15.94	84.912

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-09 23:00	6753614	8.148	-96.66	386.876	15.838	713.2	864.481	0.428	0.562	7.612	15.838	82.143
2021-09-09 23:15	6754514	8.147	-96.521	388.075	15.723	711.278	864.446	0.428	0.562	7.345	15.723	83.398
2021-09-09 23:30	6755414	8.123	-95.115	388.993	15.626	710.372	865.305	0.428	0.562	7.060	15.626	82.511
2021-09-09 23:45	6756314	8.128	-95.415	390.216	15.544	709.315	865.659	0.428	0.563	6.895	15.544	85.032
2021-09-10 00:00	6757214	8.137	-95.88	391.086	15.443	707.7	865.738	0.428	0.563	6.694	15.443	84.236
2021-09-10 00:15	6758114	8.141	-96.073	391.189	15.349	706.02	865.581	0.428	0.563	6.643	15.349	83.318
2021-09-10 00:30	6759014	8.142	-96.085	391.794	15.262	704.737	865.761	0.428	0.563	6.564	15.262	83.288
2021-09-10 00:45	6759914	8.155	-96.796	392.102	15.17	703.349	865.926	0.428	0.563	6.515	15.17	85.22
2021-09-10 01:00	6760814	8.133	-95.546	392.731	15.092	702.04	865.908	0.428	0.563	6.504	15.092	83.744
2021-09-10 01:15	6761714	8.136	-95.696	393.69	15.01	700.587	865.789	0.428	0.563	***6.416***	15.01	87.106
2021-09-10 01:30	6762614	8.143	-96.028	394.026	14.925	699.221	865.831	0.428	0.563	***6.151***	14.925	90.47
2021-09-10 01:45	6763514	8.131	-95.353	394.601	14.842	697.665	865.602	0.428	0.563	***6.140***	14.842	88.45
2021-09-10 02:00	6764414	8.115	-94.385	395.704	14.743	695.604	865.089	0.428	0.562	***6.055***	14.743	90.585
2021-09-10 02:15	6765314	8.102	-93.622	396.844	14.673	694.134	864.689	0.428	0.562	***5.901***	14.673	92.434
2021-09-10 02:30	6766214	8.097	-93.317	397.645	14.6	693.427	865.318	0.428	0.562	***5.748***	14.6	88.662
2021-09-10 02:45	6767114	8.097	-93.293	397.559	14.52	692.718	866.074	0.428	0.563	***5.657***	14.52	87.521
2021-09-10 03:00	6768014	8.087	-92.714	398.022	14.449	690.595	864.885	0.427	0.562	***5.740***	14.449	90.264
2021-09-10 03:15	6768914	8.094	-93.1	398.349	14.382	690.05	865.59	0.428	0.563	***5.703***	14.382	90.499
2021-09-10 03:30	6769814	8.107	-93.808	398.701	14.32	688.97	865.517	0.428	0.563	***5.768***	14.32	92.408
2021-09-10 03:45	6770714	8.103	-93.534	398.942	14.257	687.818	865.389	0.428	0.563	***6.073***	14.257	91.183
2021-09-10 04:00	6771614	8.088	-92.683	399.512	14.203	686.961	865.424	0.428	0.563	***6.286***	14.203	90.126
2021-09-10 04:15	6772514	8.077	-92.041	400.261	14.147	686.226	865.678	0.428	0.563	***6.347***	14.147	91.035
2021-09-10 04:30	6773414	8.079	-92.125	401.279	14.089	685.071	865.421	0.428	0.563	***6.253***	14.089	90.626
2021-09-10 04:45	6774314	8.072	-91.712	401.875	14.034	684.19	865.456	0.428	0.563	***6.063***	14.034	90.168
2021-09-10 05:00	6775214	8.061	-91.062	402.337	13.975	682.529	864.594	0.427	0.562	***5.908***	13.975	88.039
2021-09-10 05:15	6776114	8.056	-90.778	402.588	13.922	681.749	864.703	0.427	0.562	***6.033***	13.922	90.872
2021-09-10 05:30	6777014	8.052	-90.53	402.945	13.866	681.586	865.681	0.428	0.563	***6.032***	13.866	90.106
2021-09-10 05:45	6777914	8.058	-90.864	403.799	13.814	680.346	865.19	0.427	0.562	***6.034***	13.814	88.788
2021-09-10 06:00	6778814	8.051	-90.446	404.18	13.77	679.688	865.29	0.427	0.562	***5.955***	13.77	87.488
2021-09-10 06:15	6779714	8.034	-89.467	404.829	13.721	679.141	865.621	0.427	0.563	***5.965***	13.721	86.694
2021-09-10 06:30	6780614	8.023	-88.813	405.856	13.685	678.239	865.223	0.427	0.562	***5.831***	13.685	84.447
2021-09-10 06:45	6781514	7.995	-87.187	406.679	13.65	677.823	865.444	0.427	0.563	***5.663***	13.65	83.129
2021-09-10 07:00	6782414	7.988	-86.775	407.594	13.588	676.573	865.154	0.427	0.562	***5.475***	13.588	82.844
2021-09-10 07:15	6783314	7.990	-86.899	408.539	13.53	675.131	864.523	0.427	0.562	***5.255***	13.53	83.213
2021-09-10 07:30	6784214	7.984	-86.534	409.108	13.472	674.277	864.658	0.427	0.562	***5.309***	13.472	83.882
2021-09-10 07:45	6785114	7.973	-85.902	409.795	13.42	672.866	863.962	0.426	0.562	***5.139***	13.42	85.188
2021-09-10 08:00	6786014	7.966	-85.461	410.82	13.366	672.442	864.544	0.427	0.562	***5.118***	13.366	83.476
2021-09-10 08:15	6786914	7.952	-84.682	411.595	13.316	671.55	864.465	0.427	0.562	***4.974***	13.316	84.464
2021-09-10 08:30	6787814	7.944	-84.162	412.434	13.267	670.596	864.289	0.427	0.562	***4.870***	13.267	83.685
2021-09-10 08:45	6788714	7.941	-84.026	413.195	13.229	670.193	864.575	0.427	0.562	***4.785***	13.229	82.86
2021-09-10 09:00	6789614	7.942	-84.033	413.994	13.19	670.123	865.31	0.427	0.562	***4.696***	13.19	82.868
2021-09-10 09:15	6790514	7.927	-83.194	414.883	13.164	670.553	866.425	0.428	0.563	***4.542***	13.164	82.873
2021-09-10 09:30	6791414	7.907	-82.037	415.565	13.14	668.634	864.46	0.427	0.562	***4.482***	13.14	83.164
2021-09-10 09:45	6792314	7.896	-81.422	415.696	13.123	668.123	864.167	0.426	0.562	***4.394***	13.123	81.899
2021-09-10 10:00	6793214	7.895	-81.339	414.814	13.104	668.456	864.988	0.427	0.562	***4.352***	13.104	83.672
2021-09-10 10:15	6794114	7.899	-81.606	414.137	13.09	667.218	863.69	0.426	0.561	***4.556***	13.09	85.362
2021-09-10 10:30	6795014	7.875	-80.187	417.134	13.085	668.086	864.93	0.427	0.562	***4.189***	13.085	89.168
2021-09-10 10:45	6795914	7.849	-78.764	419.534	13.081	668.525	865.571	0.427	0.563	***3.683***	13.081	83.555
2021-09-10 11:00	6796814	7.824	-77.331	421.604	13.084	668.273	865.196	0.427	0.562	***3.601***	13.084	82.86
2021-09-10 11:15	6797714	7.801	-76.032	422.758	13.081	668.608	865.683	0.427	0.563	***3.366***	13.081	83.114
2021-09-10 11:30	6798614	7.815	-76.785	423.316	13.074	667.8	864.782	0.427	0.562	***3.304***	13.074	83.003
2021-09-10 11:45	6799514	7.821	-77.169	423.759	13.073	669.187	866.613	0.428	0.563	***2.960***	13.073	81.679
2021-09-10 12:00	6800414	7.808	-76.389	423.661	13.095	670.274	867.532	0.428	0.564	***2.899***	13.095	81.554
2021-09-10 12:15	6801314	7.806	-76.325	423.731	13.139	669.969	866.204	0.427	0.563	***2.760***	13.139	81.951
2021-09-10 12:30	6802214	7.805	-76.258	423.75	13.181	670.825	866.406	0.428	0.563	***3.201***	13.181	81.699
2021-09-10 12:45	6803114	7.801	-76.063	422.744	13.22	672.268	867.447	0.428	0.564	***2.748***	13.22	81.642

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-10 13:00	6804014	7.794	-75.684	423.65	13.256	672.746	867.297	0.428	0.564	***2.284***	13.256	81.024
2021-09-10 13:15	6804914	7.789	-75.386	424.947	13.299	673.714	867.617	0.428	0.564	***2.083***	13.299	81.164
2021-09-10 13:30	6805814	7.781	-74.956	425.969	13.381	674.716	867.149	0.428	0.564	***2.041***	13.381	80.419
2021-09-10 13:45	6806714	7.807	-76.468	424.381	13.61	677.191	865.469	0.427	0.563	***3.172***	13.61	81.558
2021-09-10 14:00	6807614	7.838	-78.301	420.664	13.833	679.7	863.983	0.427	0.562	***4.679***	13.833	80.839
2021-09-10 14:15	6808514	7.845	-78.773	418.113	13.997	683.77	865.705	0.428	0.563	***5.159***	13.997	81.398
2021-09-10 14:30	6809414	7.835	-78.206	417.529	14.116	684.531	864.177	0.427	0.562	***5.184***	14.116	81.594
2021-09-10 14:45	6810314	7.854	-79.329	418.235	14.142	685.524	864.901	0.427	0.562	***5.353***	14.142	80.806
2021-09-10 15:00	6811214	7.889	-81.334	418.218	14.188	686.617	865.307	0.428	0.562	***5.153***	14.188	81.435
2021-09-10 15:15	6812114	7.904	-82.183	417.658	14.249	686.761	864.233	0.427	0.562	***5.300***	14.249	83.232
2021-09-10 15:30	6813014	7.926	-83.454	417.348	14.317	687.695	863.983	0.427	0.562	***5.282***	14.317	83.985
2021-09-10 15:45	6813914	7.938	-84.183	415.782	14.395	688.102	862.881	0.426	0.561	***5.369***	14.395	84.445
2021-09-10 16:00	6814814	7.927	-83.606	414.556	14.498	690.913	864.286	0.427	0.562	***5.432***	14.498	84.429
2021-09-10 16:15	6815714	7.925	-83.487	414.542	14.583	692.1	864	0.427	0.562	***5.303***	14.583	84.397
2021-09-10 16:30	6816614	7.942	-84.491	413.221	14.661	693.315	863.924	0.427	0.562	***5.283***	14.661	82.8
2021-09-10 16:45	6817514	7.978	-86.529	413.517	14.662	693.478	864.103	0.427	0.562	***5.725***	14.662	82.065
2021-09-10 17:00	6818414	8.013	-88.527	410.472	14.668	693.192	863.626	0.427	0.561	***5.585***	14.668	83.345
2021-09-10 17:15	6819314	8.079	-92.282	410.823	14.559	690.986	863.118	0.427	0.561	***5.452***	14.559	83.68
2021-09-10 17:30	6820214	8.127	-94.998	409.704	14.462	688.395	861.87	0.426	0.560	***6.080***	14.462	83.246
2021-09-10 17:45	6821114	8.145	-96.011	405.987	14.433	687.204	860.981	0.425	0.560	7.266	14.433	83.834
2021-09-10 18:00	6822014	8.126	-94.955	403.57	14.475	688.478	861.702	0.426	0.560	7.659	14.475	83.759
2021-09-10 18:15	6822914	8.112	-94.128	402.352	14.522	689.926	862.555	0.426	0.561	7.570	14.522	83.733
2021-09-10 18:30	6823814	8.098	-93.346	402.046	14.589	691.083	862.608	0.426	0.561	7.641	14.589	83.165
2021-09-10 18:45	6824714	8.082	-92.452	402.864	14.584	690.026	861.393	0.426	0.560	7.803	14.584	82.473
2021-09-10 19:00	6825614	8.087	-92.711	403.684	14.575	690.087	861.648	0.426	0.560	7.921	14.575	82.66
2021-09-10 19:15	6826514	8.091	-92.983	402.616	14.564	690.435	862.326	0.426	0.561	7.892	14.564	82.708
2021-09-10 19:30	6827414	8.119	-94.535	401.581	14.509	688.581	861.126	0.426	0.560	8.049	14.509	82.823
2021-09-10 19:45	6828314	8.155	-96.571	399.708	14.486	687.564	860.339	0.425	0.559	8.176	14.486	82.74
2021-09-10 20:00	6829214	8.154	-96.507	399.572	14.47	686.838	859.763	0.425	0.559	8.103	14.47	83.662
2021-09-10 20:15	6830114	8.143	-95.882	398.635	14.487	687.518	860.26	0.425	0.559	7.873	14.487	83.511
2021-09-10 20:30	6831014	8.133	-95.327	397.917	14.503	688.217	860.81	0.425	0.560	7.499	14.503	84.049
2021-09-10 20:45	6831914	8.126	-94.926	398.291	14.52	689.066	861.51	0.426	0.560	7.093	14.52	84.455
2021-09-10 21:00	6832814	8.100	-93.479	398.48	14.528	688.93	861.188	0.426	0.560	6.854	14.528	84.499
2021-09-10 21:15	6833714	8.068	-91.61	400.311	14.499	688.708	861.494	0.426	0.560	7.079	14.499	85.012
2021-09-10 21:30	6834614	8.070	-91.758	400.494	14.518	689.822	862.496	0.426	0.561	7.155	14.518	84.72
2021-09-10 21:45	6835514	8.068	-91.617	400.726	14.529	690.158	862.687	0.426	0.561	7.022	14.529	85.43
2021-09-10 22:00	6836414	8.070	-91.741	401.062	14.55	690.492	862.687	0.426	0.561	6.773	14.55	85.523
2021-09-10 22:15	6837314	8.072	-91.848	402.273	14.565	691.383	863.489	0.427	0.561	6.842	14.565	86.437
2021-09-10 22:30	6838214	8.044	-90.306	403.236	14.573	691.589	863.576	0.427	0.561	6.696	14.573	84.74
2021-09-10 22:45	6839114	8.017	-88.713	403.875	14.571	691.87	863.964	0.427	0.562	6.691	14.571	86.937
2021-09-10 23:00	6840014	8.014	-88.537	405.308	14.564	691.822	864.055	0.427	0.562	6.625	14.564	86.08
2021-09-10 23:15	6840914	8.022	-89.025	404.586	14.552	691.748	864.21	0.427	0.562	***6.403***	14.552	86.517
2021-09-10 23:30	6841814	8.032	-89.598	404.24	14.531	691.34	864.123	0.427	0.562	***6.463***	14.531	87.197
2021-09-10 23:45	6842714	8.033	-89.641	404.159	14.513	691.778	865.053	0.428	0.562	***6.482***	14.513	88.222
2021-09-11 00:00	6843614	8.041	-90.063	403.513	14.491	690.877	864.386	0.427	0.562	6.694	14.491	89.008
2021-09-11 00:15	6844514	8.053	-90.773	403.277	14.463	690.951	865.046	0.428	0.562	6.833	14.463	90.035
2021-09-11 00:30	6845414	8.054	-90.828	403.78	14.436	690.334	864.83	0.427	0.562	6.810	14.436	89.692
2021-09-11 00:45	6846314	8.047	-90.427	404.571	14.408	687.575	861.945	0.426	0.560	6.676	14.408	92.036
2021-09-11 01:00	6847214	8.041	-90.041	405.122	14.382	688.523	863.685	0.427	0.561	6.527	14.382	92.907
2021-09-11 01:15	6848114	8.032	-89.548	405.241	14.354	688.574	864.332	0.427	0.562	***6.479***	14.354	95.042
2021-09-11 01:30	6849014	8.026	-89.171	405.68	14.322	688.382	864.751	0.427	0.562	***6.465***	14.322	97.078
2021-09-11 01:45	6849914	8.021	-88.882	406.297	14.287	688.458	865.579	0.428	0.563	***6.385***	14.287	99.925
2021-09-11 02:00	6850814	8.020	-88.806	407.039	14.249	687.926	865.684	0.428	0.563	***6.219***	14.249	100.505
2021-09-11 02:15	6851714	8.013	-88.387	407.413	14.209	687.173	865.575	0.428	0.563	***6.089***	14.209	102.301
2021-09-11 02:30	6852614	8.010	-88.191	409.302	14.132	686.458	866.269	0.428	0.563	***5.641***	14.132	102.166
2021-09-11 02:45	6853514	7.998	-87.49	411.099	14.08	685.512	866.172	0.428	0.563	***5.150***	14.08	100.627

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-11 03:00	6854414	7.996	-87.388	412.43	13.997	684.049	866.048	0.428	0.563	***5.460***	13.997	104.407
2021-09-11 03:15	6855314	7.988	-86.906	412.081	13.956	684.558	867.56	0.429	0.564	***5.605***	13.956	102.925
2021-09-11 03:30	6856214	7.981	-86.477	412.332	13.922	683.449	866.872	0.428	0.563	***5.417***	13.922	119.412
2021-09-11 03:45	6857114	7.975	-86.133	412.52	13.885	682.332	866.223	0.428	0.563	***5.432***	13.885	119.078
2021-09-11 04:00	6858014	7.972	-85.938	413.059	13.845	682.189	866.897	0.428	0.563	***5.478***	13.845	120.134
2021-09-11 04:15	6858914	7.971	-85.859	413.183	13.798	681.296	866.746	0.428	0.563	***5.576***	13.798	120.405
2021-09-11 04:30	6859814	7.959	-85.168	413.543	13.758	681.882	868.334	0.429	0.564	***5.617***	13.758	119.64
2021-09-11 04:45	6860714	7.958	-85.137	413.765	13.71	679.291	866.046	0.428	0.563	***5.641***	13.71	118.186
2021-09-11 05:00	6861614	7.964	-85.442	413.912	13.666	678.689	866.213	0.428	0.563	***5.646***	13.666	119.339
2021-09-11 05:15	6862514	7.960	-85.208	414.094	13.618	676.794	864.805	0.427	0.562	***5.494***	13.618	118.129
2021-09-11 05:30	6863414	7.956	-84.989	414.411	13.586	677.616	866.522	0.428	0.563	***5.541***	13.586	117.518
2021-09-11 05:45	6864314	7.946	-84.36	414.721	13.549	677.056	866.582	0.428	0.563	***5.592***	13.549	115.826
2021-09-11 06:00	6865214	7.939	-84.004	415.608	13.518	676.958	867.121	0.428	0.564	***5.439***	13.518	116.817
2021-09-11 06:15	6866114	7.937	-83.83	415.605	13.489	676.253	866.836	0.428	0.563	***5.049***	13.489	6.459
2021-09-11 06:30	6867014	7.930	-83.432	415.264	13.457	675.892	867.059	0.428	0.564	***5.138***	13.457	7.183
2021-09-11 06:45	6867914	7.925	-83.179	415.388	13.43	674.541	865.891	0.427	0.563	***5.304***	13.43	6.73
2021-09-11 07:00	6868814	7.930	-83.427	415.395	13.404	674.81	866.797	0.428	0.563	***5.292***	13.404	6.987
2021-09-11 07:15	6869714	7.921	-82.932	415.672	13.38	673.474	865.575	0.427	0.563	***5.241***	13.38	7.289
2021-09-11 07:30	6870614	7.914	-82.507	416.509	13.361	674.462	867.255	0.428	0.564	***5.093***	13.361	6.842
2021-09-11 07:45	6871514	7.903	-81.875	417.536	13.34	673.791	866.844	0.428	0.563	***4.894***	13.34	6.297
2021-09-11 08:00	6872414	7.893	-81.277	418.662	13.321	675.53	869.479	0.429	0.565	***4.523***	13.321	4.281
2021-09-11 08:15	6873314	7.880	-80.571	419.434	13.307	673.81	867.569	0.428	0.564	***4.529***	13.307	4.412
2021-09-11 08:30	6874214	7.876	-80.33	419.985	13.296	673.549	867.472	0.428	0.564	***4.444***	13.296	4.321
2021-09-11 08:45	6875114	7.875	-80.283	420.874	13.271	673.264	867.629	0.428	0.564	***4.108***	13.271	4.819
2021-09-11 09:00	6876014	7.877	-80.39	421.342	13.267	672.92	867.284	0.428	0.564	***3.609***	13.267	4.74
2021-09-11 09:15	6876914	7.874	-80.225	421.723	13.255	672.299	866.731	0.428	0.563	***3.644***	13.255	4.745
2021-09-11 09:30	6877814	7.865	-79.699	422.419	13.245	671.907	866.44	0.428	0.563	***4.107***	13.245	4.33
2021-09-11 09:45	6878714	7.860	-79.408	423.43	13.239	672.206	866.947	0.428	0.564	***4.185***	13.239	4.905
2021-09-11 10:00	6879614	7.850	-78.809	423.928	13.239	672.089	866.803	0.428	0.563	***4.100***	13.239	5.225
2021-09-11 10:15	6880514	7.839	-78.23	424.367	13.244	671.848	866.379	0.428	0.563	***4.054***	13.244	4.584
2021-09-11 10:30	6881414	7.836	-78.063	424.42	13.257	671.672	865.885	0.427	0.563	***4.102***	13.257	4.493
2021-09-11 10:45	6882314	7.835	-78.013	424.114	13.272	671.865	865.811	0.427	0.563	***4.037***	13.272	5.858
2021-09-11 11:00	6883214	7.836	-78.039	424.315	13.289	671.737	865.273	0.427	0.562	***3.946***	13.289	6.123
2021-09-11 11:15	6884114	7.842	-78.382	423.7	13.301	672.239	865.67	0.427	0.563	***4.117***	13.301	6.105
2021-09-11 11:30	6885014	7.848	-78.723	423.411	13.311	672.268	865.498	0.427	0.563	***4.046***	13.311	5.633
2021-09-11 11:45	6885914	7.847	-78.695	423.545	13.318	672.438	865.559	0.427	0.563	***4.047***	13.318	5.36
2021-09-11 12:00	6886814	7.846	-78.654	424.162	13.324	672.388	865.37	0.427	0.562	***4.081***	13.324	6.958
2021-09-11 12:15	6887714	7.844	-78.518	424	13.331	672.369	865.203	0.427	0.562	***4.146***	13.331	5.323
2021-09-11 12:30	6888614	7.848	-78.731	423.366	13.342	672.361	864.97	0.427	0.562	***4.252***	13.342	5.482
2021-09-11 12:45	6889514	7.852	-79.01	423.201	13.357	672.524	864.851	0.427	0.562	***4.201***	13.357	5.759
2021-09-11 13:00	6890414	7.864	-79.682	422.941	13.37	672.698	864.792	0.427	0.562	***4.243***	13.37	5.579
2021-09-11 13:15	6891314	7.883	-80.76	422.846	13.388	672.934	864.71	0.427	0.562	***4.587***	13.388	5.818
2021-09-11 13:30	6892214	7.898	-81.596	421.966	13.405	673.027	864.472	0.427	0.562	***4.805***	13.405	6.894
2021-09-11 13:45	6893114	7.916	-82.629	421.365	13.426	673.068	864.077	0.427	0.562	***4.862***	13.426	6.483
2021-09-11 14:00	6894014	7.922	-82.986	420.917	13.453	673.535	864.106	0.427	0.562	***5.064***	13.453	6.359
2021-09-11 14:15	6894914	7.935	-83.711	420.293	13.482	673.908	863.969	0.426	0.562	***5.305***	13.482	6.501
2021-09-11 14:30	6895814	7.952	-84.739	419.437	13.519	674.459	863.898	0.426	0.562	***5.513***	13.519	6.599
2021-09-11 14:45	6896714	7.968	-85.652	418.655	13.557	675.165	864.011	0.427	0.562	***5.669***	13.557	7.066
2021-09-11 15:00	6897614	7.973	-85.955	418.309	13.572	675.596	864.234	0.427	0.562	***5.656***	13.572	7.212
2021-09-11 15:15	6898514	7.976	-86.107	417.875	13.594	676.368	864.758	0.427	0.562	***5.820***	13.594	6.935
2021-09-11 15:30	6899414	7.964	-85.452	417.889	13.632	677.424	865.298	0.427	0.562	***5.743***	13.632	7.578
2021-09-11 15:45	6900314	7.964	-85.442	417.784	13.633	677.874	865.854	0.428	0.563	***5.672***	13.633	7.047
2021-09-11 16:00	6901214	7.976	-86.095	417.343	13.658	678.235	865.8	0.428	0.563	***5.618***	13.658	6.811
2021-09-11 16:15	6902114	7.987	-86.725	416.986	13.665	678.436	865.893	0.428	0.563	***5.782***	13.665	6.558
2021-09-11 16:30	6903014	8.009	-88.019	416.745	13.673	678.444	865.75	0.428	0.563	***5.799***	13.673	7.278
2021-09-11 16:45	6903915	8.017	-88.458	415.992	13.652	677.947	865.543	0.427	0.563	***6.049***	13.652	10.097

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-11 17:00	6904815	8.007	-87.867	415.517	13.625	677.852	865.999	0.428	0.563	***6.189***	13.625	7.289
2021-09-11 17:15	6905715	7.980	-86.319	415.913	13.618	677.859	866.164	0.428	0.563	***5.908***	13.618	7.271
2021-09-11 17:30	6906615	7.967	-85.59	416.79	13.65	679.323	867.345	0.428	0.564	***5.652***	13.65	8.088
2021-09-11 17:45	6907515	7.949	-84.579	417.317	13.64	679.04	867.199	0.428	0.564	***5.440***	13.64	7.232
2021-09-11 18:00	6908415	7.934	-83.735	417.699	13.643	680.394	868.865	0.429	0.565	***5.271***	13.643	6.9
2021-09-11 18:15	6909315	7.924	-83.139	418.314	13.654	680.56	868.848	0.429	0.565	***5.099***	13.654	6.883
2021-09-11 18:30	6910215	7.912	-82.471	418.743	13.672	681.536	869.708	0.430	0.565	***4.990***	13.672	5.765
2021-09-11 18:45	6911115	7.902	-81.913	419.408	13.681	681.846	869.924	0.430	0.565	***4.883***	13.681	6.086
2021-09-11 19:00	6912015	7.891	-81.296	419.94	13.685	682.341	870.466	0.430	0.566	***4.735***	13.685	6.147
2021-09-11 19:15	6912915	7.875	-80.409	420.741	13.685	682.997	871.301	0.430	0.566	***4.620***	13.685	6.13
2021-09-11 19:30	6913815	7.865	-79.794	421.652	13.683	682.426	870.619	0.430	0.566	***4.485***	13.683	4.939
2021-09-11 19:45	6914715	7.853	-79.134	422.484	13.676	683.071	871.574	0.431	0.567	***4.275***	13.676	5.322
2021-09-11 20:00	6915615	7.842	-78.495	423.418	13.667	684.339	873.39	0.431	0.568	***4.171***	13.667	5.678
2021-09-11 20:15	6916515	7.838	-78.254	424.033	13.657	684.382	873.657	0.432	0.568	***4.089***	13.657	5.644
2021-09-11 20:30	6917415	7.832	-77.903	424.398	13.66	684.558	873.829	0.432	0.568	***4.018***	13.66	5.246
2021-09-11 20:45	6918315	7.826	-77.567	424.639	13.666	684.259	873.305	0.431	0.568	***3.756***	13.666	8.254
2021-09-11 21:00	6919215	7.820	-77.269	425.149	13.675	683.765	872.483	0.431	0.567	***3.437***	13.675	5.505
2021-09-11 21:15	6920115	7.813	-76.871	425.168	13.692	683.795	872.158	0.431	0.567	***2.888***	13.692	5.746
2021-09-11 21:30	6921015	7.811	-76.733	424.918	13.717	683.975	871.865	0.431	0.567	***3.056***	13.717	5.853
2021-09-11 21:45	6921915	7.812	-76.826	424.131	13.744	684.026	871.353	0.430	0.566	***3.185***	13.744	5.266
2021-09-11 22:00	6922815	7.812	-76.816	423.397	13.768	684.31	871.222	0.430	0.566	***3.508***	13.768	5.233
2021-09-11 22:15	6923715	7.812	-76.849	423.197	13.787	684.63	871.223	0.430	0.566	***3.329***	13.787	5.072
2021-09-11 22:30	6924615	7.815	-76.997	423.554	13.801	684.84	871.193	0.430	0.566	***3.452***	13.801	4.822
2021-09-11 22:45	6925515	7.807	-76.54	423.707	13.811	685.107	871.309	0.430	0.566	***3.422***	13.811	4.457
2021-09-11 23:00	6926415	7.800	-76.158	424.639	13.815	685.436	871.645	0.431	0.567	***3.405***	13.815	4.223
2021-09-11 23:15	6927315	7.784	-75.266	425.547	13.815	684.439	870.373	0.430	0.566	***3.463***	13.815	4.297
2021-09-11 23:30	6928215	7.761	-73.917	426.661	13.808	685.606	872.012	0.431	0.567	***3.378***	13.808	4.282
2021-09-11 23:45	6929115	7.765	-74.177	428.351	13.794	685.705	872.433	0.431	0.567	***3.268***	13.794	4.43
2021-09-12 00:00	6930015	7.764	-74.07	430.189	13.772	685.776	872.984	0.431	0.567	***3.028***	13.772	4.864
2021-09-12 00:15	6930915	7.761	-73.912	431.594	13.754	685.528	873.069	0.431	0.567	***2.239***	13.754	4.189
2021-09-12 00:30	6931815	7.751	-73.347	432.24	13.738	685.301	873.116	0.431	0.568	***2.590***	13.738	8.77
2021-09-12 00:45	6932715	7.743	-72.87	432.762	13.722	685.037	873.105	0.431	0.568	***2.905***	13.722	3.993
2021-09-12 01:00	6933615	7.733	-72.291	432.79	13.708	684.771	873.078	0.431	0.568	***2.652***	13.708	4.133
2021-09-12 01:15	6934515	7.725	-71.838	432.423	13.695	684.401	872.867	0.431	0.567	***2.388***	13.695	3.926
2021-09-12 01:30	6935415	7.719	-71.478	432.435	13.687	684.193	872.791	0.431	0.567	***2.465***	13.687	3.844
2021-09-12 01:45	6936315	7.712	-71.115	433.048	13.679	684.242	873.024	0.431	0.567	***2.446***	13.679	4.029
2021-09-12 02:00	6937215	7.704	-70.66	433.546	13.668	684.826	874.005	0.432	0.568	***2.688***	13.668	4.382
2021-09-12 02:15	6938115	7.692	-69.976	434.023	13.656	684.064	873.276	0.431	0.568	***2.478***	13.656	4.601
2021-09-12 02:30	6939015	7.686	-69.621	434.13	13.644	683.512	872.838	0.431	0.567	***2.303***	13.644	4.674
2021-09-12 02:45	6939915	7.683	-69.432	434.24	13.626	683.395	873.065	0.431	0.567	***2.383***	13.626	4.486
2021-09-12 03:00	6940815	7.689	-69.795	434.407	13.602	683.223	873.355	0.431	0.568	***2.198***	13.602	4.318
2021-09-12 03:15	6941715	7.737	-72.486	434.643	13.578	682.21	872.576	0.431	0.567	***1.842***	13.578	4.046
2021-09-12 03:30	6942615	7.783	-75.135	432.955	13.552	681.875	872.698	0.431	0.567	***1.793***	13.552	4.395
2021-09-12 03:45	6943515	7.812	-76.752	430.359	13.524	681.064	872.256	0.431	0.567	***1.717***	13.524	4.155
2021-09-12 04:00	6944415	7.830	-77.76	429.879	13.496	680.185	871.73	0.430	0.567	***1.991***	13.496	3.762
2021-09-12 04:15	6945315	7.850	-78.902	430.168	13.463	680.008	872.205	0.431	0.567	***1.927***	13.463	9.119
2021-09-12 04:30	6946215	7.860	-79.453	429.891	13.429	679.571	872.375	0.431	0.567	***1.311***	13.429	4.472
2021-09-12 04:45	6947115	7.878	-80.476	429.345	13.398	678.781	872.02	0.431	0.567	***1.320***	13.398	4.069
2021-09-12 05:00	6948015	7.881	-80.609	429.41	13.369	678.453	872.217	0.431	0.567	***1.580***	13.369	4.064
2021-09-12 05:15	6948915	7.884	-80.819	429.171	13.341	677.812	872	0.431	0.567	***1.601***	13.341	3.721
2021-09-12 05:30	6949815	7.882	-80.662	431.179	13.317	677.886	872.596	0.431	0.567	***1.825***	13.317	4.36
2021-09-12 05:45	6950715	7.864	-79.622	433.532	13.288	677.712	873.003	0.431	0.567	***1.973***	13.288	4.721
2021-09-12 06:00	6951615	7.870	-79.968	435.342	13.26	677.164	872.898	0.431	0.567	***1.866***	13.26	4.396
2021-09-12 06:15	6952515	7.862	-79.536	435.494	13.233	675.579	871.425	0.430	0.566	***2.105***	13.233	5.171
2021-09-12 06:30	6953415	7.833	-77.848	435.795	13.213	676.594	873.18	0.431	0.568	***2.190***	13.213	5.175
2021-09-12 06:45	6954315	7.818	-77.031	435.809	13.194	676.579	873.569	0.431	0.568	***2.248***	13.194	5.311

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-12 07:00	6955215	7.810	-76.535	435.768	13.175	676.768	874.209	0.432	0.568	***2.280***	13.175	4.927
2021-09-12 07:15	6956115	7.811	-76.587	436.073	13.156	676.451	874.214	0.432	0.568	***2.269***	13.156	4.608
2021-09-12 07:30	6957015	7.795	-75.684	436.414	13.141	675.715	873.594	0.431	0.568	***2.015***	13.141	5.004
2021-09-12 07:45	6957915	7.784	-75.045	436.069	13.126	675.304	873.382	0.431	0.568	***1.988***	13.126	4.919
2021-09-12 08:00	6958815	7.780	-74.801	436.262	13.11	675.047	873.402	0.431	0.568	***2.294***	13.11	4.83
2021-09-12 08:15	6959715	7.790	-75.386	436.233	13.093	674.755	873.386	0.431	0.568	***2.268***	13.093	4.778
2021-09-12 08:30	6960615	7.796	-75.729	436.705	13.076	674.655	873.614	0.431	0.568	***2.287***	13.076	4.947
2021-09-12 08:45	6961515	7.795	-75.662	436.994	13.064	674.456	873.63	0.431	0.568	***2.262***	13.064	4.731
2021-09-12 09:00	6962415	7.783	-74.985	436.603	13.052	674.247	873.609	0.431	0.568	***2.120***	13.052	4.341
2021-09-12 09:15	6963315	7.782	-74.897	436.391	13.048	674.297	873.768	0.431	0.568	***1.968***	13.048	4.364
2021-09-12 09:30	6964215	7.782	-74.947	437.282	13.052	674.267	873.641	0.431	0.568	***1.882***	13.052	4.551
2021-09-12 09:45	6965115	7.792	-75.502	437.733	13.055	674.038	873.267	0.431	0.568	***1.913***	13.055	5.36
2021-09-12 10:00	6966015	7.800	-75.929	438.007	13.061	673.678	872.689	0.431	0.567	***1.939***	13.061	4.87
2021-09-12 10:15	6966915	7.818	-77	437.335	13.064	673.38	872.227	0.430	0.567	***1.982***	13.064	5.247
2021-09-12 10:30	6967815	7.827	-77.503	436.238	13.07	673.499	872.248	0.430	0.567	***2.069***	13.07	5.141
2021-09-12 10:45	6968715	7.835	-77.937	435.58	13.082	673.58	872.096	0.430	0.567	***2.233***	13.082	5.472
2021-09-12 11:00	6969615	7.854	-79.012	433.415	13.096	673.488	871.682	0.430	0.567	***2.553***	13.096	5.965
2021-09-12 11:15	6970515	7.871	-79.985	432.011	13.111	673.555	871.441	0.430	0.566	***2.890***	13.111	6.256
2021-09-12 11:30	6971415	7.899	-81.573	429.798	13.117	673.504	871.241	0.430	0.566	***3.421***	13.117	6.775
2021-09-12 11:45	6972315	7.942	-84.031	427.617	13.114	673.216	870.938	0.430	0.566	***4.566***	13.114	7.328
2021-09-12 12:00	6973215	7.963	-85.218	426.522	13.126	673.259	870.731	0.430	0.566	***5.268***	13.126	7.605
2021-09-12 12:15	6974115	7.962	-85.177	425.571	13.135	673.5	870.864	0.430	0.566	***5.233***	13.135	7.41
2021-09-12 12:30	6975015	7.970	-85.638	425.376	13.144	673.693	870.919	0.430	0.566	***5.345***	13.144	8.373
2021-09-12 12:45	6975915	7.970	-85.628	425.109	13.166	674.071	870.934	0.430	0.566	***5.175***	13.166	7.88
2021-09-12 13:00	6976815	7.963	-85.22	425.047	13.197	674.691	871.06	0.430	0.566	***4.979***	13.197	7.649
2021-09-12 13:15	6977715	7.962	-85.196	424.625	13.238	675.055	870.655	0.430	0.566	***4.896***	13.238	7.818
2021-09-12 13:30	6978615	7.966	-85.43	424.267	13.277	676.517	871.708	0.430	0.567	***4.980***	13.277	7.809
2021-09-12 13:45	6979515	7.963	-85.278	424.212	13.305	676.223	870.719	0.430	0.566	***5.185***	13.305	7.992
2021-09-12 14:00	6980415	7.955	-84.803	424.372	13.325	676.727	870.933	0.430	0.566	***5.207***	13.325	8.223
2021-09-12 14:15	6981315	7.945	-84.276	424.763	13.341	677.143	871.124	0.430	0.566	***5.180***	13.341	7.905
2021-09-12 14:30	6982215	7.936	-83.78	425.276	13.371	678.36	872.052	0.431	0.567	***5.230***	13.371	8.222
2021-09-12 14:45	6983115	7.935	-83.733	425.438	13.425	678.856	871.544	0.430	0.567	***5.147***	13.425	9.025
2021-09-12 15:00	6984015	7.936	-83.804	425.512	13.501	679.665	870.948	0.430	0.566	***5.103***	13.501	9.289
2021-09-12 15:15	6984915	7.949	-84.581	425.268	13.555	680.802	871.255	0.430	0.566	***5.167***	13.555	9.603
2021-09-12 15:30	6985815	7.957	-85.022	424.858	13.568	680.863	871.06	0.430	0.566	***5.392***	13.568	9.842
2021-09-12 15:45	6986715	7.984	-86.567	423.936	13.597	680.927	870.521	0.430	0.566	***5.391***	13.597	10.427
2021-09-12 16:00	6987615	7.992	-87.018	422.615	13.618	681.166	870.386	0.430	0.566	***5.663***	13.618	10.598
2021-09-12 16:15	6988515	7.990	-86.937	422.345	13.622	683.636	873.445	0.431	0.568	***5.892***	13.622	11.421
2021-09-12 16:30	6989415	7.986	-86.691	422.498	13.652	682.46	871.305	0.430	0.566	***5.966***	13.652	10.645
2021-09-12 16:45	6990315	7.988	-86.815	422.293	13.664	683.018	871.781	0.431	0.567	***5.875***	13.664	11.106
2021-09-12 17:00	6991215	7.980	-86.374	422.026	13.666	683.772	872.683	0.431	0.567	***5.861***	13.666	13.168
2021-09-12 17:15	6992115	7.973	-85.938	422.114	13.643	683.611	872.984	0.431	0.567	***5.716***	13.643	11.498
2021-09-12 17:30	6993015	7.961	-85.232	422.634	13.613	684.023	874.138	0.432	0.568	***5.514***	13.613	11.879
2021-09-12 17:45	6993915	7.947	-84.441	423.049	13.61	683.439	873.455	0.431	0.568	***5.398***	13.61	10.477
2021-09-12 18:00	6994815	7.932	-83.618	423.521	13.637	683.661	873.157	0.431	0.568	***5.322***	13.637	9.943
2021-09-12 18:15	6995715	7.924	-83.146	424	13.664	684.718	873.94	0.432	0.568	***5.212***	13.664	10.421
2021-09-12 18:30	6996615	7.921	-83.005	423.983	13.7	684.95	873.466	0.431	0.568	***5.045***	13.7	10.771
2021-09-12 18:45	6997515	7.921	-83.013	423.897	13.7	685.316	873.934	0.432	0.568	***4.990***	13.7	16.998
2021-09-12 19:00	6998415	7.923	-83.139	424.005	13.7	685.551	874.24	0.432	0.568	***5.041***	13.7	10.335
2021-09-12 19:15	6999315	7.915	-82.686	424.389	13.704	685.818	874.495	0.432	0.568	***5.008***	13.704	10.191
2021-09-12 19:30	7000215	7.911	-82.426	424.486	13.698	685.966	874.809	0.432	0.569	***4.999***	13.698	10.908
2021-09-12 19:45	7001115	7.908	-82.242	424.517	13.688	685.996	875.063	0.432	0.569	***4.989***	13.688	10.216
2021-09-12 20:00	7002015	7.900	-81.785	424.761	13.669	685.791	875.202	0.432	0.569	***4.892***	13.669	10.25
2021-09-12 20:15	7002915	7.887	-81.058	425.504	13.633	685.509	875.621	0.433	0.569	***4.836***	13.633	9.44
2021-09-12 20:30	7003815	7.883	-80.824	426.129	13.591	684.895	875.721	0.433	0.569	***4.713***	13.591	10.752
2021-09-12 20:45	7004715	7.876	-80.414	426.453	13.566	684.705	876.012	0.433	0.569	***4.596***	13.566	10.06

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-12 21:00	7005615	7.867	-79.913	426.99	13.539	684.466	876.285	0.433	0.570	***4.464***	13.539	10.216
2021-09-12 21:15	7006515	7.859	-79.436	427.412	13.506	683.936	876.321	0.433	0.570	***4.379***	13.506	10.835
2021-09-12 21:30	7007415	7.846	-78.692	427.839	13.481	683.561	876.367	0.433	0.570	***4.172***	13.481	10.876
2021-09-12 21:45	7008315	7.835	-78.042	429.014	13.457	683.328	876.593	0.433	0.570	***4.074***	13.457	11.111
2021-09-12 22:00	7009215	7.828	-77.648	429.519	13.431	683.045	876.793	0.433	0.570	***3.896***	13.431	10.607
2021-09-12 22:15	7010115	7.818	-77.09	430.104	13.409	682.779	876.911	0.433	0.570	***3.771***	13.409	10.175
2021-09-12 22:30	7011015	7.810	-76.606	430.611	13.375	682.412	877.189	0.433	0.570	***3.674***	13.375	10.009
2021-09-12 22:45	7011915	7.806	-76.373	431.131	13.344	681.998	877.317	0.433	0.570	***3.473***	13.344	10.688
2021-09-12 23:00	7012815	7.806	-76.377	431.448	13.313	681.565	877.42	0.433	0.570	***3.425***	13.313	11.439
2021-09-12 23:15	7013715	7.806	-76.361	431.589	13.294	681.671	877.977	0.434	0.571	***3.489***	13.294	11.159
2021-09-12 23:30	7014615	7.803	-76.175	431.896	13.278	680.954	877.393	0.433	0.570	***3.470***	13.278	12.016
2021-09-12 23:45	7015515	7.796	-75.791	432.333	13.253	680.418	877.246	0.433	0.570	***3.470***	13.253	11.142
2021-09-13 00:00	7016415	7.787	-75.243	432.788	13.238	680.315	877.437	0.433	0.570	***3.433***	13.238	13.721
2021-09-13 00:15	7017315	7.774	-74.52	433.429	13.22	679.945	877.354	0.433	0.570	***3.244***	13.22	11.295
2021-09-13 00:30	7018215	7.764	-73.931	434.002	13.196	679.414	877.18	0.433	0.570	***3.112***	13.196	13.432
2021-09-13 00:45	7019115	7.760	-73.709	434.352	13.167	678.689	876.864	0.433	0.570	***2.931***	13.167	12.115
2021-09-13 01:00	7020015	7.756	-73.464	434.865	13.147	678.331	876.846	0.433	0.570	***2.905***	13.147	12.601
2021-09-13 01:15	7020915	7.752	-73.266	434.974	13.13	677.859	876.593	0.433	0.570	***2.941***	13.13	13.041
2021-09-13 01:30	7021815	7.748	-72.999	435.017	13.109	678.116	877.377	0.433	0.570	***3.076***	13.109	42.617
2021-09-13 01:45	7022715	7.744	-72.78	435.265	13.088	677.71	877.312	0.433	0.570	***2.657***	13.088	44.062
2021-09-13 02:00	7023615	7.744	-72.777	435.475	13.073	678.372	878.496	0.434	0.571	***2.319***	13.073	13.221
2021-09-13 02:15	7024515	7.746	-72.865	436.255	13.042	678.767	879.695	0.434	0.572	***1.663***	13.042	13.16
2021-09-13 02:30	7025415	7.746	-72.858	435.623	13.025	677.131	877.938	0.433	0.571	***2.253***	13.025	12.408
2021-09-13 02:45	7026315	7.747	-72.911	435.828	13.004	676.475	877.548	0.433	0.570	***1.906***	13.004	11.831
2021-09-13 03:00	7027215	7.743	-72.699	436.708	12.979	676.176	877.687	0.433	0.570	***1.553***	12.979	12.392
2021-09-13 03:15	7028115	7.731	-72.012	438.858	12.957	675.942	877.879	0.433	0.571	***1.178***	12.957	12.736
2021-09-13 03:30	7029015	7.720	-71.352	439.743	12.939	675.779	878.06	0.433	0.571	***1.301***	12.939	11.75
2021-09-13 03:45	7029915	7.709	-70.765	440.63	12.92	675.585	878.214	0.433	0.571	***1.323***	12.92	11.548
2021-09-13 04:00	7030815	7.697	-70.052	441.416	12.903	675.417	878.358	0.434	0.571	***1.393***	12.903	10.97
2021-09-13 04:15	7031715	7.683	-69.27	441.965	12.885	675.222	878.497	0.434	0.571	***1.408***	12.885	11.478
2021-09-13 04:30	7032615	7.672	-68.655	442.272	12.87	674.662	878.115	0.433	0.571	***1.421***	12.87	12.62
2021-09-13 04:45	7033515	7.665	-68.226	442.637	12.848	674.482	878.34	0.433	0.571	***1.402***	12.848	12.33
2021-09-13 05:00	7034415	7.666	-68.278	443.054	12.823	673.997	878.26	0.433	0.571	***1.271***	12.823	10.036
2021-09-13 05:15	7035315	7.665	-68.221	443.581	12.796	673.086	877.675	0.433	0.570	***1.076***	12.796	10.303
2021-09-13 05:30	7036215	7.673	-68.65	444.132	12.771	673.002	878.103	0.433	0.571	***0.897***	12.771	10.423
2021-09-13 05:45	7037115	7.674	-68.703	444.409	12.747	672.048	877.377	0.433	0.570	***0.846***	12.747	10.219
2021-09-13 06:00	7038015	7.667	-68.288	444.142	12.725	672.298	878.19	0.433	0.571	***0.812***	12.725	10.193
2021-09-13 06:15	7038915	7.661	-67.964	443.915	12.706	671.903	878.095	0.433	0.571	***0.814***	12.706	9.694
2021-09-13 06:30	7039815	7.656	-67.704	443.939	12.689	671.718	878.219	0.433	0.571	***0.922***	12.689	10.849
2021-09-13 06:45	7040715	7.651	-67.379	443.636	12.668	671.375	878.227	0.433	0.571	***0.944***	12.668	9.833
2021-09-13 07:00	7041615	7.650	-67.327	443.968	12.65	671.012	878.158	0.433	0.571	***0.964***	12.65	32.934
2021-09-13 07:15	7042515	7.648	-67.21	444.497	12.628	669.397	876.525	0.432	0.570	***0.914***	12.628	8.958
2021-09-13 07:30	7043415	7.644	-66.979	445.007	12.603	670.126	878.029	0.433	0.571	***0.983***	12.603	16.489
2021-09-13 07:45	7044315	7.647	-67.172	445.296	12.582	669.715	877.95	0.433	0.571	***0.934***	12.582	16.355
2021-09-13 08:00	7045215	7.654	-67.537	445.472	12.562	669.383	877.966	0.433	0.571	***0.869***	12.562	19.12
2021-09-13 08:15	7046115	7.662	-67.997	445.541	12.539	668.839	877.754	0.433	0.571	***0.836***	12.539	21.068
2021-09-13 08:30	7047015	7.666	-68.226	445.613	12.511	668.213	877.532	0.433	0.570	***0.849***	12.511	21.961
2021-09-13 08:45	7047915	7.675	-68.724	445.777	12.487	667.907	877.67	0.433	0.570	***0.826***	12.487	24.453
2021-09-13 09:00	7048815	7.676	-68.779	446.018	12.471	667.456	877.426	0.433	0.570	***0.774***	12.471	23.879
2021-09-13 09:15	7049715	7.667	-68.257	446.273	12.459	667.261	877.441	0.433	0.570	***0.749***	12.459	25.01
2021-09-13 09:30	7050615	7.662	-67.945	446.202	12.443	666.791	877.169	0.433	0.570	***0.768***	12.443	24.433
2021-09-13 09:45	7051515	7.708	-70.558	443.894	12.409	665.484	876.195	0.432	0.570	***0.927***	12.409	25.978
2021-09-13 10:00	7052415	7.760	-73.526	441.846	12.396	664.759	875.533	0.432	0.569	***2.100***	12.396	22.241
2021-09-13 10:15	7053315	7.778	-74.546	440.928	12.409	664.784	875.277	0.432	0.569	***2.504***	12.409	22.548
2021-09-13 10:30	7054215	7.774	-74.327	440.16	12.414	664.907	875.337	0.432	0.569	***2.663***	12.414	24.471
2021-09-13 10:45	7055115	7.777	-74.496	439.39	12.4	664.589	875.214	0.432	0.569	***2.859***	12.4	25.051

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-13 11:00	7056015	7.783	-74.818	438.749	12.404	664.559	875.082	0.431	0.569	***3.430***	12.404	25.353
2021-09-13 11:15	7056915	7.795	-75.49	438.145	12.418	664.666	874.927	0.431	0.569	***3.577***	12.418	26.389
2021-09-13 11:30	7057815	7.806	-76.127	437.919	12.434	664.859	874.822	0.431	0.569	***3.842***	12.434	20.491
2021-09-13 11:45	7058715	7.816	-76.673	437.332	12.449	664.916	874.57	0.431	0.568	***4.002***	12.449	23.62
2021-09-13 12:00	7059615	7.822	-77.057	436.517	12.466	665.111	874.454	0.431	0.568	***4.035***	12.466	22.544
2021-09-13 12:15	7060515	7.834	-77.705	435.399	12.477	665.153	874.273	0.431	0.568	***4.231***	12.477	21.733
2021-09-13 12:30	7061415	7.850	-78.628	434.607	12.486	665.295	874.253	0.431	0.568	***4.246***	12.486	20.934
2021-09-13 12:45	7062315	7.852	-78.747	434.281	12.501	665.469	874.153	0.431	0.568	***4.372***	12.501	22.127
2021-09-13 13:00	7063215	7.856	-78.967	434.257	12.519	665.902	874.327	0.431	0.568	***4.443***	12.519	22.02
2021-09-13 13:15	7064115	7.854	-78.895	433.754	12.545	666.267	874.234	0.431	0.568	***4.334***	12.545	22.796
2021-09-13 13:30	7065015	7.860	-79.203	433.172	12.6	667.331	874.429	0.431	0.568	***4.244***	12.6	22.093
2021-09-13 13:45	7065915	7.859	-79.207	432.81	12.675	668.661	874.538	0.431	0.568	***4.399***	12.675	25.435
2021-09-13 14:00	7066815	7.873	-80.016	432.192	12.754	670.423	875.104	0.432	0.569	***4.605***	12.754	24.271
2021-09-13 14:15	7067715	7.878	-80.323	431.687	12.848	671.443	874.397	0.431	0.568	***4.683***	12.848	22.41
2021-09-13 14:30	7068615	7.883	-80.631	430.545	12.943	673.248	874.682	0.432	0.569	***4.986***	12.943	23.92
2021-09-13 14:45	7069515	7.890	-81.041	429.653	13.011	674.289	874.554	0.432	0.568	***5.259***	13.011	23.433
2021-09-13 15:00	7070415	7.898	-81.496	428.749	13.065	675.095	874.437	0.432	0.568	***5.325***	13.065	23.515
2021-09-13 15:15	7071315	7.919	-82.703	427.633	13.097	675.613	874.408	0.432	0.568	***5.449***	13.097	23.739
2021-09-13 15:30	7072215	7.939	-83.84	427.028	13.123	675.984	874.317	0.432	0.568	***5.599***	13.123	23.855
2021-09-13 15:45	7073115	7.950	-84.498	426.549	13.152	676.475	874.331	0.432	0.568	***5.724***	13.152	26.034
2021-09-13 16:00	7074015	7.961	-85.146	425.819	13.182	676.841	874.151	0.432	0.568	***5.721***	13.182	23.376
2021-09-13 16:15	7074915	7.967	-85.468	425.283	13.201	676.47	873.273	0.431	0.568	***5.675***	13.201	24.194
2021-09-13 16:30	7075815	7.968	-85.561	424.765	13.227	676.855	873.203	0.431	0.568	***5.790***	13.227	25.049
2021-09-13 16:45	7076716	7.985	-86.541	424.47	13.265	677.763	873.569	0.431	0.568	***6.041***	13.265	25.831
2021-09-13 17:00	7077616	7.995	-87.097	424.117	13.255	678.407	874.611	0.432	0.568	***6.243***	13.255	24.747
2021-09-13 17:15	7078516	8.000	-87.378	423.504	13.241	677.897	874.242	0.432	0.568	***6.200***	13.241	36.08
2021-09-13 17:30	7079416	8.007	-87.762	423.316	13.262	678.51	874.597	0.432	0.568	***6.154***	13.262	39.669
2021-09-13 17:45	7080316	7.997	-87.197	423.516	13.226	678.444	875.282	0.432	0.569	***5.907***	13.226	38.825
2021-09-13 18:00	7081216	7.980	-86.229	423.785	13.2	678.27	875.62	0.432	0.569	***5.853***	13.2	37.689
2021-09-13 18:15	7082116	7.972	-85.766	424.262	13.189	678.323	875.914	0.432	0.569	***5.621***	13.189	43.25
2021-09-13 18:30	7083016	7.956	-84.841	425.235	13.172	678.302	876.268	0.433	0.570	***5.553***	13.172	48.323
2021-09-13 18:45	7083916	7.939	-83.883	425.914	13.155	678.236	876.535	0.433	0.570	***5.436***	13.155	41.622
2021-09-13 19:00	7084816	7.925	-83.079	426.477	13.147	678.176	876.63	0.433	0.570	***5.290***	13.147	43.236
2021-09-13 19:15	7085716	7.915	-82.531	427.257	13.14	678.295	876.942	0.433	0.570	***5.112***	13.14	30.937
2021-09-13 19:30	7086616	7.906	-81.971	427.796	13.134	678.296	877.072	0.433	0.570	***4.971***	13.134	30.261
2021-09-13 19:45	7087516	7.895	-81.379	428.654	13.126	678.264	877.208	0.433	0.570	***4.849***	13.126	33.357
2021-09-13 20:00	7088416	7.884	-80.74	429.35	13.118	678.216	877.32	0.433	0.570	***4.723***	13.118	32.384
2021-09-13 20:15	7089316	7.875	-80.228	430.01	13.112	678.204	877.439	0.433	0.570	***4.635***	13.112	28.355
2021-09-13 20:30	7090216	7.866	-79.691	430.721	13.101	678.272	877.756	0.433	0.571	***4.554***	13.101	29.718
2021-09-13 20:45	7091116	7.856	-79.114	431.198	13.088	678.166	877.908	0.433	0.571	***4.481***	13.088	66.462
2021-09-13 21:00	7092016	7.848	-78.652	431.722	13.074	677.964	877.957	0.433	0.571	***4.367***	13.074	33.549
2021-09-13 21:15	7092916	7.838	-78.132	432.132	13.054	677.722	878.074	0.433	0.571	***4.280***	13.054	25.584
2021-09-13 21:30	7093816	7.829	-77.569	432.342	13.028	677.114	877.858	0.433	0.571	***4.192***	13.028	25.01
2021-09-13 21:45	7094716	7.822	-77.178	432.464	13	676.853	878.122	0.433	0.571	***4.086***	13	25.071
2021-09-13 22:00	7095616	7.818	-76.964	432.678	12.97	676.388	878.166	0.433	0.571	***3.755***	12.97	23.849
2021-09-13 22:15	7096516	7.813	-76.63	432.748	12.95	676.049	878.153	0.433	0.571	***3.754***	12.95	23.511
2021-09-13 22:30	7097416	7.806	-76.277	433.193	12.932	675.772	878.186	0.433	0.571	***3.678***	12.932	26.376
2021-09-13 22:45	7098316	7.796	-75.693	433.947	12.917	675.949	878.75	0.434	0.571	***3.483***	12.917	27.337
2021-09-13 23:00	7099216	7.791	-75.374	434.927	12.9	675.853	879.01	0.434	0.571	***3.234***	12.9	23.044
2021-09-13 23:15	7100116	7.784	-74.997	435.973	12.87	675.421	879.092	0.434	0.571	***2.884***	12.87	22.448
2021-09-13 23:30	7101016	7.774	-74.434	437.411	12.844	675.158	879.32	0.434	0.572	***2.425***	12.844	22.736
2021-09-13 23:45	7101916	7.770	-74.213	438.102	12.826	675.084	879.605	0.434	0.572	***2.063***	12.826	22.462
2021-09-14 00:00	7102816	7.771	-74.22	437.912	12.808	674.802	879.648	0.434	0.572	***2.218***	12.808	23.334
2021-09-14 00:15	7103716	7.771	-74.232	437.819	12.792	674.676	879.818	0.434	0.572	***2.262***	12.792	22.086
2021-09-14 00:30	7104616	7.769	-74.105	438.212	12.765	674.464	880.145	0.434	0.572	***2.101***	12.765	24.933
2021-09-14 00:45	7105516	7.765	-73.881	438.603	12.743	674.185	880.26	0.434	0.572	***1.979***	12.743	25.06

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-14 01:00	7106416	7.770	-74.139	437.883	12.724	673.962	880.378	0.434	0.572	***2.048***	12.724	24.889
2021-09-14 01:15	7107316	7.771	-74.198	437.604	12.71	673.7	880.35	0.434	0.572	***2.267***	12.71	25.414
2021-09-14 01:30	7108216	7.768	-74.046	437.788	12.698	673.646	880.544	0.434	0.572	***2.121***	12.698	25.487
2021-09-14 01:45	7109116	7.760	-73.566	438.329	12.692	673.538	880.541	0.434	0.572	***1.904***	12.692	26.27
2021-09-14 02:00	7110016	7.754	-73.261	440.084	12.692	674.21	881.415	0.435	0.573	***1.048***	12.692	26.279
2021-09-14 02:15	7110916	7.743	-72.601	441.622	12.697	673.846	880.839	0.435	0.573	***1.272***	12.697	27.568
2021-09-14 02:30	7111816	7.728	-71.766	442.246	12.701	674.045	881.011	0.435	0.573	***1.479***	12.701	27.509
2021-09-14 02:45	7112716	7.718	-71.189	442.554	12.71	674.252	881.07	0.435	0.573	***1.664***	12.71	26.401
2021-09-14 03:00	7113616	7.712	-70.856	442.988	12.714	674.4	881.172	0.435	0.573	***1.733***	12.714	25.576
2021-09-14 03:15	7114516	7.711	-70.786	443.667	12.72	674.555	881.262	0.435	0.573	***1.841***	12.72	26.285
2021-09-14 03:30	7115416	7.707	-70.565	443.765	12.722	674.799	881.516	0.435	0.573	***1.727***	12.722	25.924
2021-09-14 03:45	7116316	7.698	-70.055	443.965	12.721	675.12	881.963	0.435	0.573	***1.553***	12.721	25.542
2021-09-14 04:00	7117216	7.689	-69.549	444.311	12.722	674.776	881.504	0.435	0.573	***1.582***	12.722	25.739
2021-09-14 04:15	7118116	7.686	-69.38	444.583	12.721	675.263	882.158	0.435	0.573	***1.546***	12.721	25.866
2021-09-14 04:30	7119016	7.691	-69.664	445.06	12.712	675.376	882.509	0.436	0.574	***1.526***	12.712	25.636
2021-09-14 04:45	7119916	7.702	-70.312	445.176	12.689	675.211	882.783	0.436	0.574	***1.401***	12.689	25.5
2021-09-14 05:00	7120816	7.716	-71.058	443.455	12.659	675.007	883.185	0.436	0.574	***1.194***	12.659	25.632
2021-09-14 05:15	7121716	7.727	-71.709	441.211	12.636	674.677	883.252	0.436	0.574	***2.162***	12.636	24.745
2021-09-14 05:30	7122616	7.738	-72.334	440.348	12.615	674.385	883.336	0.436	0.574	***2.641***	12.615	25.843
2021-09-14 05:45	7123516	7.744	-72.644	440.017	12.595	674.189	883.522	0.436	0.574	***2.366***	12.595	32.672
2021-09-14 06:00	7124416	7.745	-72.691	440.708	12.581	674.335	884.028	0.436	0.575	***2.312***	12.581	23.522
2021-09-14 06:15	7125316	7.745	-72.675	441.538	12.569	674.375	884.358	0.436	0.575	***1.794***	12.569	22.671
2021-09-14 06:30	7126216	7.745	-72.715	442.101	12.555	673.64	883.702	0.436	0.574	***1.566***	12.555	23.629
2021-09-14 06:45	7127116	7.738	-72.286	442.516	12.54	673.774	884.21	0.436	0.575	***1.487***	12.54	23.764
2021-09-14 07:00	7128016	7.737	-72.255	443.112	12.521	673.543	884.329	0.436	0.575	***1.423***	12.521	22.853
2021-09-14 07:15	7128916	7.747	-72.823	443.524	12.497	673.329	884.579	0.436	0.575	***1.207***	12.497	22.883
2021-09-14 07:30	7129816	7.753	-73.128	443.681	12.475	673.04	884.679	0.436	0.575	***1.109***	12.475	23.376
2021-09-14 07:45	7130716	7.759	-73.476	443.939	12.453	672.667	884.679	0.436	0.575	***0.973***	12.453	23.6
2021-09-14 08:00	7131616	7.755	-73.211	444.061	12.433	672.528	884.937	0.437	0.575	***0.829***	12.433	23.814
2021-09-14 08:15	7132516	7.761	-73.555	444.111	12.419	672.316	884.963	0.437	0.575	***0.689***	12.419	23.575
2021-09-14 08:30	7133416	7.756	-73.28	444.645	12.407	672.036	884.88	0.437	0.575	***0.588***	12.407	22.694
2021-09-14 08:45	7134316	7.749	-72.894	445.451	12.397	671.958	884.985	0.437	0.575	***0.487***	12.397	24.223
2021-09-14 09:00	7135216	7.746	-72.73	446.659	12.391	671.881	885.024	0.437	0.575	***0.411***	12.391	25.93
2021-09-14 09:15	7136116	7.735	-72.095	447.894	12.39	671.861	885.027	0.437	0.575	***0.406***	12.39	26.732
2021-09-14 09:30	7137016	7.722	-71.337	448.853	12.398	671.298	884.11	0.436	0.575	***1.093***	12.398	26.655
2021-09-14 09:45	7137916	7.708	-70.565	448.688	12.412	672.227	885.015	0.437	0.575	***1.807***	12.412	27.014
2021-09-14 10:00	7138816	7.701	-70.181	447.894	12.434	672.613	885.03	0.437	0.575	***2.168***	12.434	28.841
2021-09-14 10:15	7139716	7.696	-69.885	447.239	12.461	673.074	885.04	0.437	0.575	***2.424***	12.461	24.377
2021-09-14 10:30	7140616	7.693	-69.74	446.478	12.488	673.472	884.966	0.437	0.575	***2.623***	12.488	24.67
2021-09-14 10:45	7141516	7.695	-69.852	445.834	12.513	673.884	884.934	0.437	0.575	***2.606***	12.513	32.054
2021-09-14 11:00	7142416	7.702	-70.229	445.501	12.539	673.848	884.332	0.436	0.575	***2.539***	12.539	22.984
2021-09-14 11:15	7143316	7.701	-70.195	445.41	12.563	674.462	884.6	0.436	0.575	***2.409***	12.563	22.818
2021-09-14 11:30	7144216	7.695	-69.871	445.546	12.583	674.975	884.825	0.437	0.575	***1.911***	12.583	22.881
2021-09-14 11:45	7145116	7.691	-69.673	445.727	12.602	675.23	884.738	0.437	0.575	***1.689***	12.602	23.367
2021-09-14 12:00	7146016	7.687	-69.427	445.675	12.616	674.641	883.649	0.436	0.574	***1.788***	12.616	23.296
2021-09-14 12:15	7146916	7.685	-69.289	445.868	12.633	675.764	884.743	0.437	0.575	***1.772***	12.633	23.544
2021-09-14 12:30	7147816	7.687	-69.451	446.018	12.65	676.106	884.829	0.437	0.575	***1.705***	12.65	23.818
2021-09-14 12:45	7148716	7.687	-69.411	446.383	12.667	676.263	884.662	0.437	0.575	***1.662***	12.667	24.347
2021-09-14 13:00	7149616	7.682	-69.163	446.695	12.686	676.9	885.057	0.437	0.575	***1.599***	12.686	24.163
2021-09-14 13:15	7150516	7.676	-68.841	446.991	12.71	677.271	885.014	0.437	0.575	***1.656***	12.71	24.446
2021-09-14 13:30	7151416	7.671	-68.521	447.367	12.739	677.333	884.465	0.437	0.575	***2.156***	12.739	24.235
2021-09-14 13:45	7152316	7.669	-68.426	447.372	12.781	677.928	884.315	0.436	0.575	***2.780***	12.781	24.89
2021-09-14 14:00	7153216	7.668	-68.388	446.197	12.838	680.891	886.908	0.438	0.576	***2.555***	12.838	24.61
2021-09-14 14:15	7154116	7.671	-68.595	446.414	12.904	679.813	884.071	0.436	0.575	***2.109***	12.904	24.808
2021-09-14 14:30	7155016	7.671	-68.607	446.819	12.946	680.654	884.239	0.437	0.575	***2.071***	12.946	25.693
2021-09-14 14:45	7155916	7.680	-69.089	447.081	12.97	680.664	883.709	0.436	0.574	***3.154***	12.97	26.694

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-14 15:00	7156816	7.697	-70.086	445.386	13.001	680.217	882.452	0.436	0.574	***4.090***	13.001	22.912
2021-09-14 15:15	7157716	7.714	-71.082	443.2	13.028	679.886	881.444	0.435	0.573	***4.670***	13.028	22.556
2021-09-14 15:30	7158616	7.729	-71.943	441.269	13.059	679.204	879.882	0.434	0.572	***4.985***	13.059	22.019
2021-09-14 15:45	7159516	7.754	-73.352	440.024	13.081	678.503	878.487	0.434	0.571	***5.246***	13.081	22.892
2021-09-14 16:00	7160416	7.759	-73.655	440.069	13.096	679.453	879.406	0.434	0.572	***5.262***	13.096	22.871
2021-09-14 16:15	7161316	7.770	-74.236	440.072	13.093	681.275	881.82	0.435	0.573	***5.284***	13.093	22.826
2021-09-14 16:30	7162216	7.802	-76.072	438.229	13.087	681.405	882.124	0.436	0.573	***5.344***	13.087	23.54
2021-09-14 16:45	7163116	7.824	-77.329	437.556	13.076	681.024	881.857	0.435	0.573	***5.323***	13.076	24.132
2021-09-14 17:00	7164016	7.858	-79.26	437.039	13.068	680.861	881.827	0.435	0.573	***5.730***	13.068	23.658
2021-09-14 17:15	7164916	7.898	-81.482	434.741	13.022	678.556	879.854	0.434	0.572	***6.011***	13.022	23.96
2021-09-14 17:30	7165816	7.902	-81.742	433.551	12.99	677.441	879.098	0.434	0.571	***6.136***	12.99	24.273
2021-09-14 17:45	7166716	7.901	-81.632	433.837	12.974	677.738	879.837	0.434	0.572	***5.605***	12.974	35.766
2021-09-14 18:00	7167616	7.916	-82.519	433.654	12.964	677.642	879.938	0.434	0.572	***5.834***	12.964	26.18
2021-09-14 18:15	7168516	7.935	-83.57	433.387	12.959	677.751	880.177	0.434	0.572	***5.604***	12.959	26.604
2021-09-14 18:30	7169416	7.941	-83.895	434.469	12.938	677.756	880.645	0.435	0.572	***5.512***	12.938	26.669
2021-09-14 18:45	7170316	7.940	-83.876	434.738	12.903	676.992	880.404	0.435	0.572	***5.303***	12.903	27.323
2021-09-14 19:00	7171216	7.934	-83.492	434.784	12.863	676.788	881.017	0.435	0.573	***5.126***	12.863	25.885
2021-09-14 19:15	7172116	7.917	-82.502	434.719	12.821	675.909	880.789	0.435	0.573	***4.999***	12.821	34.753
2021-09-14 19:30	7173016	7.902	-81.673	435.542	12.79	674.799	880.034	0.434	0.572	***4.669***	12.79	24.915
2021-09-14 19:45	7173916	7.891	-81.058	435.969	12.762	673.378	878.8	0.434	0.571	***4.530***	12.762	25.288
2021-09-14 20:00	7174816	7.887	-80.798	436.526	12.74	674.865	881.224	0.435	0.573	***4.427***	12.74	25.198
2021-09-14 20:15	7175716	7.882	-80.528	437.373	12.722	674.529	881.17	0.435	0.573	***4.199***	12.722	24.644
2021-09-14 20:30	7176616	7.872	-79.916	437.84	12.708	674.486	881.428	0.435	0.573	***4.273***	12.708	24.349
2021-09-14 20:45	7177516	7.866	-79.598	438.298	12.693	673.237	880.123	0.434	0.572	***4.254***	12.693	17.968
2021-09-14 21:00	7178416	7.854	-78.912	439.306	12.676	674.139	881.684	0.435	0.573	***3.442***	12.676	11.702
2021-09-14 21:15	7179316	7.855	-78.94	440.105	12.615	672.889	881.372	0.435	0.573	***3.828***	12.615	13.786
2021-09-14 21:30	7180216	7.862	-79.31	440.37	12.573	672.186	881.387	0.435	0.573	***3.895***	12.573	13.525
2021-09-14 21:45	7181116	7.849	-78.59	440.496	12.554	671.887	881.427	0.435	0.573	***3.673***	12.554	12.923
2021-09-14 22:00	7182016	7.839	-77.994	440.847	12.527	671.475	881.477	0.435	0.573	***3.649***	12.527	11.965
2021-09-14 22:15	7182916	7.825	-77.229	441.693	12.497	671.041	881.555	0.435	0.573	***3.510***	12.497	11.03
2021-09-14 22:30	7183816	7.811	-76.435	442.28	12.478	670.85	881.724	0.435	0.573	***3.382***	12.478	10.548
2021-09-14 22:45	7184716	7.801	-75.872	442.654	12.464	670.641	881.771	0.435	0.573	***3.069***	12.464	10.482
2021-09-14 23:00	7185616	7.788	-75.13	442.389	12.444	670.45	881.962	0.435	0.573	***2.879***	12.444	10.658
2021-09-14 23:15	7186516	7.780	-74.673	443.247	12.425	670.38	882.285	0.435	0.573	***2.612***	12.425	10.277
2021-09-14 23:30	7187416	7.774	-74.31	443.741	12.403	670.28	882.657	0.435	0.574	***2.357***	12.403	9.718
2021-09-14 23:45	7188316	7.767	-73.91	444.59	12.37	669.811	882.757	0.435	0.574	***2.143***	12.37	9.33
2021-09-15 00:00	7189216	7.761	-73.574	444.89	12.338	669.311	882.819	0.435	0.574	***1.860***	12.338	9.216
2021-09-15 00:15	7190116	7.756	-73.24	444.463	12.294	669.173	883.605	0.436	0.574	***1.939***	12.294	9.1
2021-09-15 00:30	7191016	7.757	-73.307	444.127	12.253	667.85	882.787	0.435	0.574	***1.845***	12.253	9.842
2021-09-15 00:45	7191916	7.764	-73.698	444.132	12.207	666.951	882.611	0.435	0.574	***1.797***	12.207	10.15
2021-09-15 01:00	7192816	7.761	-73.504	444.621	12.178	666.504	882.671	0.435	0.574	***1.909***	12.178	11.954
2021-09-15 01:15	7193716	7.758	-73.304	444.583	12.16	666.168	882.629	0.435	0.574	***1.830***	12.16	9.241
2021-09-15 01:30	7194616	7.752	-73.011	444.363	12.146	665.88	882.567	0.435	0.574	***1.759***	12.146	9.007
2021-09-15 01:45	7195516	7.748	-72.782	444.835	12.129	665.154	881.967	0.435	0.573	***1.835***	12.129	9.277
2021-09-15 02:00	7196416	7.739	-72.227	447.11	12.109	665.62	883.052	0.435	0.574	***1.583***	12.109	8.973
2021-09-15 02:15	7197316	7.738	-72.157	448.276	12.083	665.182	883.031	0.435	0.574	***1.280***	12.083	10.547
2021-09-15 02:30	7198216	7.733	-71.867	449.537	12.055	663.032	880.804	0.434	0.573	***1.049***	12.055	9.881
2021-09-15 02:45	7199116	7.729	-71.664	449.728	12.007	664.178	883.413	0.435	0.574	***0.763***	12.007	9.679
2021-09-15 03:00	7200016	7.724	-71.368	450.133	11.946	662.953	883.15	0.435	0.574	***0.495***	11.946	9.255
2021-09-15 03:15	7200916	7.720	-71.146	449.439	11.912	662.172	882.883	0.435	0.574	***0.680***	11.912	9.747
2021-09-15 03:30	7201816	7.721	-71.161	448.45	11.892	661.704	882.696	0.435	0.574	***0.881***	11.892	9.817
2021-09-15 03:45	7202716	7.728	-71.568	448.085	11.881	661.641	882.852	0.435	0.574	***1.202***	11.881	9.518
2021-09-15 04:00	7203616	7.734	-71.888	448.123	11.865	661.336	882.814	0.435	0.574	***1.848***	11.865	25.499
2021-09-15 04:15	7204516	7.735	-71.936	448.769	11.849	661.011	882.749	0.435	0.574	***1.552***	11.849	25.886
2021-09-15 04:30	7205416	7.730	-71.673	449.687	11.826	660.967	883.191	0.435	0.574	***1.911***	11.826	26.839
2021-09-15 04:45	7206316	7.722	-71.18	450.495	11.808	661.094	883.786	0.436	0.574	***1.879***	11.808	27.103

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-15 05:00	7207216	7.717	-70.896	450.982	11.786	660.437	883.405	0.435	0.574	***1.825***	11.786	28.062
2021-09-15 05:15	7208116	7.712	-70.648	451.482	11.739	659.228	882.826	0.435	0.574	***1.834***	11.739	28.497
2021-09-15 05:30	7209016	7.718	-70.949	451.714	11.724	659.495	883.529	0.435	0.574	***1.878***	11.724	29.649
2021-09-15 05:45	7209916	7.721	-71.144	451.714	11.71	658.683	882.761	0.435	0.574	***2.182***	11.71	30.789
2021-09-15 06:00	7210816	7.723	-71.225	451.347	11.702	658.597	882.831	0.435	0.574	***2.151***	11.702	29.762
2021-09-15 06:15	7211716	7.727	-71.461	451.149	11.694	657.872	882.026	0.435	0.573	***2.141***	11.694	13.639
2021-09-15 06:30	7212616	7.721	-71.144	451.301	11.687	655.664	879.237	0.433	0.572	***1.667***	11.687	11.336
2021-09-15 06:45	7213516	7.713	-70.658	451.788	11.671	658.058	882.809	0.435	0.574	***1.396***	11.671	11.869
2021-09-15 07:00	7214416	7.712	-70.612	451.697	11.652	657.793	882.875	0.435	0.574	***1.788***	11.652	12.244
2021-09-15 07:15	7215316	7.713	-70.679	451.459	11.636	657.627	883.014	0.435	0.574	***1.883***	11.636	12.465
2021-09-15 07:30	7216216	7.716	-70.815	450.817	11.62	657.144	882.738	0.435	0.574	***2.072***	11.62	12.81
2021-09-15 07:45	7217116	7.724	-71.244	450.381	11.596	656.699	882.671	0.435	0.574	***2.220***	11.596	13.769
2021-09-15 08:00	7218016	7.729	-71.542	449.902	11.567	655.816	882.149	0.434	0.573	***2.476***	11.567	13.492
2021-09-15 08:15	7218916	7.736	-71.94	449.744	11.539	655.369	882.175	0.434	0.573	***2.873***	11.539	14.025
2021-09-15 08:30	7219816	7.750	-72.711	449.351	11.512	654.652	881.84	0.434	0.573	***2.986***	11.512	15.061
2021-09-15 08:45	7220716	7.759	-73.223	449.017	11.492	654.106	881.545	0.434	0.573	***3.185***	11.492	15.813
2021-09-15 09:00	7221616	7.768	-73.698	448.772	11.467	653.513	881.321	0.434	0.573	***3.055***	11.467	15.778
2021-09-15 09:15	7222516	7.777	-74.196	448.509	11.447	650.523	877.727	0.432	0.571	***3.292***	11.447	16.195
2021-09-15 09:30	7223416	7.784	-74.601	448.471	11.431	652.521	880.797	0.434	0.573	***3.475***	11.431	16.464
2021-09-15 09:45	7224316	7.792	-75.035	448.333	11.418	652.198	880.662	0.434	0.572	***3.211***	11.418	12.208
2021-09-15 10:00	7225216	7.793	-75.102	448.028	11.406	651.916	880.541	0.434	0.572	***3.422***	11.406	11.535
2021-09-15 10:15	7226116	7.798	-75.369	447.973	11.392	651.511	880.316	0.433	0.572	***3.518***	11.392	11.867
2021-09-15 10:30	7227016	7.800	-75.505	447.758	11.381	651.285	880.266	0.433	0.572	***3.609***	11.381	12.776
2021-09-15 10:45	7227916	7.804	-75.715	447.594	11.37	651.079	880.238	0.433	0.572	***3.677***	11.37	12.801
2021-09-15 11:00	7228816	7.808	-75.953	447.303	11.362	650.902	880.168	0.433	0.572	***3.761***	11.362	12.28
2021-09-15 11:15	7229716	7.815	-76.356	446.838	11.352	650.475	879.828	0.433	0.572	***3.885***	11.352	12.757
2021-09-15 11:30	7230616	7.818	-76.53	446.068	11.341	650.431	880.004	0.433	0.572	***3.767***	11.341	13.018
2021-09-15 11:45	7231516	7.819	-76.535	445.672	11.33	650.036	879.733	0.433	0.572	***3.820***	11.33	13.072
2021-09-15 12:00	7232416	7.824	-76.869	445.276	11.327	650.085	879.872	0.433	0.572	***4.103***	11.327	13.809
2021-09-15 12:15	7233316	7.832	-77.312	444.738	11.315	649.877	879.858	0.433	0.572	***4.257***	11.315	14.563
2021-09-15 12:30	7234216	7.836	-77.498	444.337	11.299	649.54	879.764	0.433	0.572	***4.292***	11.299	15.02
2021-09-15 12:45	7235116	7.842	-77.841	443.882	11.296	649.439	879.704	0.433	0.572	***4.414***	11.296	15.579
2021-09-15 13:00	7236016	7.852	-78.409	443.226	11.299	649.43	879.615	0.433	0.572	***4.533***	11.299	16.861
2021-09-15 13:15	7236917	7.865	-79.181	442.702	11.317	649.738	879.624	0.433	0.572	***4.484***	11.317	16.097
2021-09-15 13:30	7237817	7.874	-79.658	442.034	11.38	650.894	879.745	0.433	0.572	***4.583***	11.38	18.123
2021-09-15 13:45	7238717	7.881	-80.092	441.216	11.469	652.418	879.796	0.433	0.572	***4.911***	11.469	19.575
2021-09-15 14:00	7239617	7.890	-80.647	440.224	11.54	654.164	880.546	0.434	0.572	***5.103***	11.54	17.904
2021-09-15 14:15	7240517	7.895	-80.96	439.461	11.621	655.64	880.689	0.434	0.572	***5.223***	11.621	16.262
2021-09-15 14:30	7241417	7.904	-81.487	438.915	11.697	656.651	880.324	0.434	0.572	***5.356***	11.697	17.292
2021-09-15 14:45	7242317	7.921	-82.421	438.155	11.751	657.178	879.82	0.433	0.572	***5.530***	11.751	17.782
2021-09-15 15:00	7243217	7.930	-82.994	437.194	11.806	658.155	879.898	0.434	0.572	***5.609***	11.806	18.188
2021-09-15 15:15	7244117	7.929	-82.943	436.388	11.867	659.237	879.961	0.434	0.572	***5.680***	11.867	33.943
2021-09-15 15:30	7245017	7.929	-82.953	435.95	11.905	659.881	879.967	0.434	0.572	***5.685***	11.905	23.517
2021-09-15 15:45	7245917	7.930	-82.996	435.373	11.949	660.459	879.765	0.434	0.572	***5.789***	11.949	16.393
2021-09-15 16:00	7246817	7.944	-83.799	434.457	12.006	661.637	880.043	0.434	0.572	***5.814***	12.006	18.205
2021-09-15 16:15	7247717	7.942	-83.69	433.88	12.04	662.196	880.043	0.434	0.572	***5.810***	12.04	17.771
2021-09-15 16:30	7248617	7.939	-83.57	433.501	12.085	662.988	880.094	0.434	0.572	***5.876***	12.085	16.504
2021-09-15 16:45	7249517	7.936	-83.416	432.874	12.12	663.468	879.946	0.434	0.572	***5.967***	12.12	17.091
2021-09-15 17:00	7250417	7.946	-83.971	432.366	12.163	664.178	879.931	0.434	0.572	***6.036***	12.163	14.644
2021-09-15 17:15	7251317	7.953	-84.407	431.849	12.217	664.989	879.806	0.434	0.572	***6.047***	12.217	15.593
2021-09-15 17:30	7252217	7.962	-84.927	431.601	12.226	664.275	878.663	0.433	0.571	***6.065***	12.226	15.352
2021-09-15 17:45	7253117	7.962	-84.891	431.346	12.219	664.428	879.003	0.433	0.571	***6.123***	12.219	15.49
2021-09-15 18:00	7254017	7.968	-85.213	431.21	12.211	664.553	879.349	0.434	0.572	***6.171***	12.211	15.444
2021-09-15 18:15	7254917	7.974	-85.547	430.826	12.184	664.521	879.907	0.434	0.572	***6.156***	12.184	15.093
2021-09-15 18:30	7255817	7.974	-85.554	430.566	12.154	664.046	879.95	0.434	0.572	***6.006***	12.154	14.519
2021-09-15 18:45	7256717	7.970	-85.323	430.709	12.142	663.948	880.083	0.434	0.572	***5.769***	12.142	14.433

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-15 19:00	7257617	7.969	-85.249	430.969	12.087	663.025	880.084	0.434	0.572	***5.891***	12.087	16.178
2021-09-15 19:15	7258517	7.967	-85.144	431.052	12.059	662.693	880.283	0.434	0.572	***5.793***	12.059	14.433
2021-09-15 19:30	7259417	7.959	-84.679	431.379	12.025	662.119	880.272	0.434	0.572	***5.684***	12.025	13.145
2021-09-15 19:45	7260317	7.950	-84.176	431.875	12.012	662.04	880.456	0.434	0.572	***5.290***	12.012	12.45
2021-09-15 20:00	7261217	7.940	-83.566	432.492	12.014	662.144	880.544	0.434	0.572	***4.955***	12.014	11.382
2021-09-15 20:15	7262117	7.930	-83.046	432.736	12.031	662.433	880.548	0.434	0.572	***5.220***	12.031	12.071
2021-09-15 20:30	7263017	7.919	-82.431	433.401	12.066	663.336	880.97	0.434	0.573	***5.108***	12.066	11.491
2021-09-15 20:45	7263917	7.910	-81.902	433.995	12.1	664.093	881.221	0.434	0.573	***4.988***	12.1	12.153
2021-09-15 21:00	7264817	7.901	-81.437	434.436	12.13	664.677	881.328	0.434	0.573	***4.712***	12.13	11.158
2021-09-15 21:15	7265717	7.894	-81.012	434.97	12.148	665.143	881.546	0.435	0.573	***4.508***	12.148	10.052
2021-09-15 21:30	7266617	7.889	-80.767	435.52	12.157	665.482	881.776	0.435	0.573	***4.537***	12.157	10.058
2021-09-15 21:45	7267517	7.880	-80.252	436.257	12.162	665.754	882.041	0.435	0.573	***4.517***	12.162	9.24
2021-09-15 22:00	7268417	7.871	-79.749	436.887	12.162	665.91	882.234	0.435	0.573	***4.355***	12.162	9.402
2021-09-15 22:15	7269317	7.863	-79.3	437.554	12.163	665.93	882.235	0.435	0.573	***4.202***	12.163	12.203
2021-09-15 22:30	7270217	7.855	-78.809	438.291	12.17	666.2	882.446	0.435	0.574	***3.961***	12.17	9.348
2021-09-15 22:45	7271117	7.846	-78.321	438.939	12.177	666.756	883.034	0.435	0.574	***3.891***	12.177	6.231
2021-09-15 23:00	7272017	7.836	-77.727	439.595	12.179	667.062	883.378	0.436	0.574	***4.074***	12.179	5.843
2021-09-15 23:15	7272917	7.826	-77.198	439.929	12.175	667.144	883.588	0.436	0.574	***3.880***	12.175	5.961
2021-09-15 23:30	7273817	7.820	-76.869	440.162	12.162	667.185	883.937	0.436	0.575	***3.701***	12.162	5.372
2021-09-15 23:45	7274717	7.814	-76.482	440.425	12.149	667.15	884.185	0.436	0.575	***3.519***	12.149	6.737
2021-09-16 00:00	7275617	7.804	-75.939	440.952	12.136	666.37	883.441	0.436	0.574	***3.641***	12.136	6.644
2021-09-16 00:15	7276517	7.794	-75.355	441.571	12.117	667.107	884.827	0.436	0.575	***3.630***	12.117	6.45
2021-09-16 00:30	7277417	7.788	-75.018	442.065	12.094	666.866	885.032	0.436	0.575	***3.729***	12.094	6.197
2021-09-16 00:45	7278317	7.785	-74.861	442.432	12.071	666.517	885.085	0.436	0.575	***3.722***	12.071	6.088
2021-09-16 01:00	7279217	7.784	-74.797	442.721	12.044	666.242	885.334	0.436	0.575	***3.753***	12.044	7.097
2021-09-16 01:15	7280117	7.777	-74.394	442.606	12.015	665.806	885.391	0.436	0.576	***3.761***	12.015	4.192
2021-09-16 01:30	7281017	7.770	-73.957	442.42	11.989	665.196	885.177	0.436	0.575	***3.730***	11.989	4.181
2021-09-16 01:45	7281917	7.766	-73.714	442.694	11.966	664.871	885.246	0.436	0.575	***3.780***	11.966	4.138
2021-09-16 02:00	7282817	7.765	-73.695	443.095	11.941	664.746	885.66	0.437	0.576	***3.780***	11.941	5.944
2021-09-16 02:15	7283717	7.764	-73.583	443.357	11.914	664.324	885.7	0.437	0.576	***3.759***	11.914	4.856
2021-09-16 02:30	7284617	7.759	-73.347	443.801	11.892	663.903	885.628	0.437	0.576	***3.748***	11.892	4.322
2021-09-16 02:45	7285517	7.754	-73.056	444.268	11.875	663.601	885.623	0.436	0.576	***3.619***	11.875	4.214
2021-09-16 03:00	7286417	7.747	-72.656	444.931	11.856	663.281	885.611	0.436	0.576	***3.534***	11.856	4.591
2021-09-16 03:15	7287317	7.744	-72.455	445.663	11.827	662.998	885.903	0.437	0.576	***3.292***	11.827	4.434
2021-09-16 03:30	7288217	7.741	-72.26	446.147	11.79	662.235	885.705	0.436	0.576	***3.000***	11.79	3.781
2021-09-16 03:45	7289117	7.740	-72.196	446.497	11.752	661.679	885.827	0.437	0.576	***2.978***	11.752	3.794
2021-09-16 04:00	7290017	7.741	-72.246	446.686	11.713	661.055	885.878	0.437	0.576	***3.232***	11.713	4.599
2021-09-16 04:15	7290917	7.743	-72.341	446.879	11.672	657.628	882.213	0.435	0.573	***3.395***	11.672	4.116
2021-09-16 04:30	7291817	7.743	-72.341	447.031	11.641	659.706	885.708	0.436	0.576	***3.381***	11.641	4.716
2021-09-16 04:45	7292717	7.742	-72.32	447.198	11.631	659.453	885.579	0.436	0.576	***3.359***	11.631	6.857
2021-09-16 05:00	7293617	7.741	-72.212	447.58	11.618	659.358	885.747	0.436	0.576	***3.260***	11.618	10.923
2021-09-16 05:15	7294517	7.731	-71.64	448.443	11.59	658.965	885.856	0.436	0.576	***3.213***	11.59	4.809
2021-09-16 05:30	7295417	7.722	-71.146	449.208	11.568	658.429	885.652	0.436	0.576	***2.967***	11.568	4.028
2021-09-16 05:45	7296317	7.717	-70.832	449.909	11.55	658.122	885.63	0.436	0.576	***2.765***	11.55	3.673
2021-09-16 06:00	7297217	7.717	-70.856	450.362	11.537	657.7	885.37	0.436	0.575	***2.492***	11.537	3.576
2021-09-16 06:15	7298117	7.715	-70.763	451.17	11.524	657.912	885.945	0.436	0.576	***2.317***	11.524	3.196
2021-09-16 06:30	7299017	7.708	-70.367	452.086	11.517	657.868	886.044	0.436	0.576	***2.181***	11.517	3.18
2021-09-16 06:45	7299917	7.696	-69.668	452.708	11.513	657.869	886.136	0.436	0.576	***2.180***	11.513	2.536
2021-09-16 07:00	7300817	7.686	-69.089	453.004	11.511	657.925	886.257	0.437	0.576	***2.152***	11.511	2.693
2021-09-16 07:15	7301717	7.678	-68.641	453.232	11.508	657.626	885.916	0.436	0.576	***2.108***	11.508	2.775
2021-09-16 07:30	7302617	7.671	-68.235	453.585	11.501	658.154	886.8	0.437	0.576	***2.026***	11.501	2.848
2021-09-16 07:45	7303517	7.663	-67.806	454.069	11.489	658.036	886.903	0.437	0.576	***1.852***	11.489	3.347
2021-09-16 08:00	7304417	7.661	-67.677	454.429	11.479	657.938	887.018	0.437	0.577	***1.693***	11.479	2.96
2021-09-16 08:15	7305317	7.660	-67.63	454.94	11.463	657.666	887.006	0.437	0.577	***1.532***	11.463	2.742
2021-09-16 08:30	7306217	7.662	-67.732	455.395	11.45	657.511	887.107	0.437	0.577	***1.377***	11.45	2.619
2021-09-16 08:45	7307117	7.668	-68.052	455.948	11.442	657.464	887.223	0.437	0.577	***1.124***	11.442	3.493

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-16 09:00	7308017	7.664	-67.816	456.413	11.435	657.372	887.263	0.437	0.577	***1.038***	11.435	3.029
2021-09-16 09:15	7308917	7.659	-67.558	456.694	11.432	657.29	887.199	0.437	0.577	***0.902***	11.432	3.023
2021-09-16 09:30	7309817	7.654	-67.294	456.892	11.436	657.404	887.272	0.437	0.577	***1.083***	11.436	2.961
2021-09-16 09:45	7310717	7.649	-66.996	457.262	11.446	657.001	886.509	0.437	0.576	***2.423***	11.446	3.69
2021-09-16 10:00	7311617	7.644	-66.738	457.381	11.455	657.664	887.177	0.437	0.577	***2.153***	11.455	2.862
2021-09-16 10:15	7312517	7.641	-66.526	457.548	11.471	657.906	887.15	0.437	0.577	***2.471***	11.471	3.125
2021-09-16 10:30	7313417	7.636	-66.268	457.214	11.485	658.264	887.312	0.437	0.577	***1.805***	11.485	4.21
2021-09-16 10:45	7314317	7.638	-66.4	456.809	11.495	658.398	887.254	0.437	0.577	***1.779***	11.495	3.789
2021-09-16 11:00	7315217	7.640	-66.512	456.356	11.506	657.519	885.828	0.436	0.576	***1.551***	11.506	3.964
2021-09-16 11:15	7316117	7.643	-66.645	456.213	11.522	658.676	887.019	0.437	0.577	***1.839***	11.522	3.87
2021-09-16 11:30	7317017	7.646	-66.829	455.958	11.538	659.045	887.15	0.437	0.577	***2.139***	11.538	4.28
2021-09-16 11:45	7317917	7.647	-66.912	455.722	11.549	658.698	886.438	0.437	0.576	***2.511***	11.549	4.687
2021-09-16 12:00	7318817	7.654	-67.32	455.292	11.549	658.631	886.357	0.437	0.576	***2.675***	11.549	5.018
2021-09-16 12:15	7319717	7.665	-67.923	455.013	11.546	658.276	885.945	0.436	0.576	***2.659***	11.546	5.213
2021-09-16 12:30	7320617	7.673	-68.362	454.937	11.535	658.078	885.917	0.436	0.576	***2.491***	11.535	6.228
2021-09-16 12:45	7321517	7.671	-68.252	454.828	11.532	657.766	885.576	0.436	0.576	***2.504***	11.532	7.041
2021-09-16 13:00	7322417	7.672	-68.295	454.787	11.532	657.505	885.222	0.436	0.575	***3.053***	11.532	4.696
2021-09-16 13:15	7323317	7.673	-68.367	454.15	11.551	657.157	884.322	0.436	0.575	***3.570***	11.551	22.053
2021-09-16 13:30	7324217	7.677	-68.622	453.659	11.592	657.969	884.469	0.436	0.575	***3.594***	11.592	4.43
2021-09-16 13:45	7325117	7.688	-69.246	453.147	11.68	659.401	884.401	0.436	0.575	***3.251***	11.68	4.14
2021-09-16 14:00	7326017	7.693	-69.549	452.837	11.758	660.573	884.206	0.436	0.575	***3.631***	11.758	6.451
2021-09-16 14:15	7326917	7.706	-70.319	452.279	11.854	662.04	884.003	0.436	0.575	***4.427***	11.854	5.12
2021-09-16 14:30	7327817	7.715	-70.822	451.027	11.951	663.067	883.185	0.435	0.574	***4.949***	11.951	8.117
2021-09-16 14:45	7328717	7.723	-71.311	450.302	12	664.475	883.962	0.436	0.575	***5.128***	12	5.686
2021-09-16 15:00	7329617	7.724	-71.368	449.668	12.008	664.756	884.151	0.436	0.575	***4.877***	12.008	6.913
2021-09-16 15:15	7330517	7.718	-71.013	449.294	12.013	664.876	884.195	0.436	0.575	***4.739***	12.013	5.108
2021-09-16 15:30	7331417	7.734	-71.964	449.263	12.081	665.833	883.949	0.436	0.575	***4.775***	12.081	4.621
2021-09-16 15:45	7332317	7.750	-72.861	448.769	12.152	667.08	884.005	0.436	0.575	***4.855***	12.152	5.683
2021-09-16 16:00	7333217	7.762	-73.569	448.502	12.15	667.089	884.064	0.436	0.575	***5.050***	12.15	5.509
2021-09-16 16:15	7334117	7.772	-74.093	448.047	12.137	666.808	883.997	0.436	0.575	***5.173***	12.137	6.796
2021-09-16 16:30	7335017	7.782	-74.708	448.307	12.153	666.932	883.793	0.436	0.574	***5.436***	12.153	8.375
2021-09-16 16:45	7335917	7.800	-75.707	447.396	12.142	666.478	883.432	0.436	0.574	***5.425***	12.142	6.372
2021-09-16 17:00	7336817	7.822	-76.959	446.306	12.161	666.685	883.289	0.436	0.574	***5.541***	12.161	6.413
2021-09-16 17:15	7337717	7.837	-77.82	445.925	12.156	666.42	883.054	0.435	0.574	***5.713***	12.156	6.838
2021-09-16 17:30	7338617	7.853	-78.695	445.241	12.146	666.181	882.958	0.435	0.574	***5.856***	12.146	6.086
2021-09-16 17:45	7339517	7.864	-79.327	444.761	12.119	665.768	883.01	0.435	0.574	***5.916***	12.119	6.697
2021-09-16 18:00	7340417	7.879	-80.166	444.368	12.094	665.336	883.007	0.435	0.574	***6.136***	12.094	7.287
2021-09-16 18:15	7341317	7.888	-80.683	443.87	12.059	664.912	883.227	0.435	0.574	***6.186***	12.059	7.578
2021-09-16 18:30	7342217	7.897	-81.148	443.765	12.027	664.489	883.375	0.435	0.574	***6.077***	12.027	7.14
2021-09-16 18:45	7343117	7.897	-81.136	443.662	11.981	663.767	883.451	0.435	0.574	***5.979***	11.981	7.378
2021-09-16 19:00	7344017	7.899	-81.263	443.6	11.935	663.12	883.615	0.436	0.574	***5.868***	11.935	8.032
2021-09-16 19:15	7344917	7.902	-81.384	443.515	11.893	662.391	883.587	0.435	0.574	***5.785***	11.893	8.545
2021-09-16 19:30	7345817	7.899	-81.234	443.298	11.851	661.778	883.722	0.436	0.574	***5.642***	11.851	5.401
2021-09-16 19:45	7346717	7.893	-80.874	443.381	11.826	659.676	881.471	0.434	0.573	***5.433***	11.826	5.772
2021-09-16 20:00	7347617	7.881	-80.209	443.648	11.807	660.967	883.633	0.435	0.574	***5.184***	11.807	6.82
2021-09-16 20:15	7348517	7.869	-79.513	444.025	11.784	660.649	883.722	0.435	0.574	***4.976***	11.784	7.234
2021-09-16 20:30	7349417	7.856	-78.778	444.556	11.749	660.199	883.906	0.436	0.575	***4.683***	11.749	6.875
2021-09-16 20:45	7350317	7.845	-78.146	445.191	11.705	659.579	884.082	0.436	0.575	***4.703***	11.705	6.157
2021-09-16 21:00	7351217	7.840	-77.844	445.646	11.651	658.62	884.006	0.435	0.575	***4.659***	11.651	5.035
2021-09-16 21:15	7352117	7.833	-77.417	446.03	11.604	657.813	884.002	0.435	0.575	***4.523***	11.604	6.036
2021-09-16 21:30	7353017	7.825	-76.957	446.43	11.554	658.073	885.47	0.436	0.576	***4.524***	11.554	6.505
2021-09-16 21:45	7353917	7.819	-76.613	446.814	11.511	657.401	885.563	0.436	0.576	***4.537***	11.511	7.542
2021-09-16 22:00	7354817	7.812	-76.206	447.203	11.468	656.574	885.423	0.436	0.576	***4.585***	11.468	7.366
2021-09-16 22:15	7355717	7.805	-75.781	447.515	11.427	655.3	884.641	0.436	0.575	***4.498***	11.427	8.238
2021-09-16 22:30	7356617	7.800	-75.493	448.08	11.39	654.567	884.49	0.436	0.575	***4.411***	11.39	9.741
2021-09-16 22:45	7357517	7.796	-75.276	448.095	11.341	653.897	884.695	0.436	0.575	***4.413***	11.341	6.66

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-16 23:00	7358417	7.791	-74.987	448.092	11.314	653.629	884.963	0.436	0.575	***4.397***	11.314	6.391
2021-09-16 23:15	7359317	7.789	-74.852	448.052	11.282	652.696	884.437	0.435	0.575	***4.366***	11.282	4.621
2021-09-16 23:30	7360217	7.785	-74.651	448.431	11.255	652.667	885.002	0.436	0.575	***4.293***	11.255	4.282
2021-09-16 23:45	7361117	7.783	-74.53	448.626	11.228	652.034	884.77	0.436	0.575	***4.155***	11.228	4.757
2021-09-17 00:00	7362017	7.780	-74.346	448.736	11.206	651.662	884.757	0.436	0.575	***3.992***	11.206	3.187
2021-09-17 00:15	7362917	7.775	-74.058	448.755	11.184	651.283	884.751	0.436	0.575	***3.760***	11.184	3.003
2021-09-17 00:30	7363817	7.770	-73.738	449.234	11.166	650.936	884.694	0.435	0.575	***3.147***	11.166	2.973
2021-09-17 00:45	7364717	7.765	-73.478	449.852	11.147	650.572	884.63	0.435	0.575	***2.657***	11.147	3.225
2021-09-17 01:00	7365617	7.758	-73.054	450.548	11.13	650.3	884.651	0.435	0.575	***2.346***	11.13	2.564
2021-09-17 01:15	7366517	7.754	-72.849	451.249	11.112	649.779	884.372	0.435	0.575	***2.173***	11.112	2.357
2021-09-17 01:30	7367417	7.752	-72.713	451.64	11.092	649.726	884.756	0.435	0.575	***2.079***	11.092	2.851
2021-09-17 01:45	7368317	7.749	-72.57	452.15	11.069	649.396	884.842	0.435	0.575	***1.982***	11.069	2.47
2021-09-17 02:00	7369217	7.748	-72.47	452.265	11.05	649.233	885.044	0.436	0.575	***1.940***	11.05	2.764
2021-09-17 02:15	7370117	7.746	-72.343	452.663	11.011	648.711	885.236	0.436	0.575	***1.851***	11.011	2.854
2021-09-17 02:30	7371017	7.746	-72.362	453.306	10.996	648.445	885.23	0.436	0.575	***1.572***	10.996	2.797
2021-09-17 02:45	7371917	7.745	-72.312	453.771	10.979	648.06	885.076	0.435	0.575	***1.484***	10.979	2.835
2021-09-17 03:00	7372817	7.744	-72.229	454.119	10.965	647.613	884.801	0.435	0.575	***1.553***	10.965	2.882
2021-09-17 03:15	7373717	7.739	-71.959	454.305	10.951	647.763	885.326	0.436	0.575	***1.477***	10.951	2.767
2021-09-17 03:30	7374618	7.740	-71.976	455.016	10.935	648.289	886.409	0.436	0.576	***1.394***	10.935	2.681
2021-09-17 03:45	7375518	7.741	-72.062	455.478	10.922	647.429	885.552	0.436	0.576	***1.339***	10.922	2.55
2021-09-17 04:00	7376418	7.739	-71.95	455.75	10.907	647.473	885.939	0.436	0.576	***1.235***	10.907	2.501
2021-09-17 04:15	7377318	7.734	-71.669	456.313	10.892	646.683	885.224	0.435	0.575	***1.161***	10.892	2.577
2021-09-17 04:30	7378218	7.729	-71.344	457.145	10.871	646.718	885.746	0.436	0.576	***1.115***	10.871	2.992
2021-09-17 04:45	7379118	7.726	-71.204	457.6	10.855	646.441	885.747	0.436	0.576	***1.046***	10.855	2.836
2021-09-17 05:00	7380018	7.727	-71.261	457.314	10.84	646.273	885.864	0.436	0.576	***1.010***	10.84	2.829
2021-09-17 05:15	7380918	7.726	-71.17	457.252	10.825	646.06	885.907	0.436	0.576	***0.974***	10.825	2.513
2021-09-17 05:30	7381818	7.722	-70.977	457.727	10.814	645.885	885.92	0.436	0.576	***0.957***	10.814	2.204
2021-09-17 05:45	7382718	7.717	-70.662	458.277	10.801	645.705	885.995	0.436	0.576	***0.916***	10.801	2.292
2021-09-17 06:00	7383618	7.711	-70.345	458.75	10.789	644.534	884.663	0.435	0.575	***0.846***	10.789	2.217
2021-09-17 06:15	7384518	7.709	-70.205	459.129	10.778	645.485	886.216	0.436	0.576	***0.797***	10.778	2.249
2021-09-17 06:30	7385418	7.705	-69.993	459.717	10.768	645.465	886.417	0.436	0.576	***0.794***	10.768	2.209
2021-09-17 06:45	7386318	7.700	-69.709	460.371	10.758	645.085	886.143	0.436	0.576	***0.821***	10.758	2.018
2021-09-17 07:00	7387218	7.696	-69.454	460.826	10.74	645.212	886.719	0.436	0.576	***0.921***	10.74	2.17
2021-09-17 07:15	7388118	7.694	-69.375	461.341	10.721	644.795	886.593	0.436	0.576	***0.818***	10.721	2.207
2021-09-17 07:30	7389018	7.693	-69.323	461.534	10.703	644.769	886.969	0.436	0.577	***0.796***	10.703	2.621
2021-09-17 07:45	7389918	7.693	-69.282	460.983	10.693	644.399	886.694	0.436	0.576	***0.679***	10.693	2.808
2021-09-17 08:00	7390818	7.696	-69.454	459.973	10.686	644.515	887.025	0.436	0.577	***0.618***	10.686	3.208
2021-09-17 08:15	7391718	7.697	-69.544	459.739	10.68	644.317	886.882	0.436	0.576	***0.638***	10.68	25.994
2021-09-17 08:30	7392618	7.695	-69.392	460.139	10.678	644.364	887.007	0.436	0.577	***0.688***	10.678	3.334
2021-09-17 08:45	7393518	7.690	-69.096	460.533	10.679	644.602	887.301	0.436	0.577	***0.786***	10.679	2.767
2021-09-17 09:00	7394418	7.684	-68.8	460.912	10.68	644.818	887.575	0.437	0.577	***0.948***	10.68	2.777
2021-09-17 09:15	7395318	7.684	-68.805	461.332	10.684	644.968	887.705	0.437	0.577	***1.054***	10.684	2.47
2021-09-17 09:30	7396218	7.686	-68.874	461.687	10.686	645.059	887.782	0.437	0.577	***1.180***	10.686	2.968
2021-09-17 09:45	7397118	7.686	-68.92	461.894	10.688	645.128	887.827	0.437	0.577	***1.222***	10.688	2.911
2021-09-17 10:00	7398018	7.688	-68.984	462.323	10.692	645.271	887.934	0.437	0.577	***1.190***	10.692	8.685
2021-09-17 10:15	7398918	7.689	-69.058	462.602	10.698	645.411	887.967	0.437	0.577	***1.143***	10.698	2.718
2021-09-17 10:30	7399818	7.686	-68.927	462.884	10.707	645.583	888.011	0.437	0.577	***1.123***	10.707	2.503
2021-09-17 10:45	7400718	7.686	-68.879	463.06	10.715	645.769	888.073	0.437	0.577	***1.231***	10.715	2.641
2021-09-17 11:00	7401618	7.688	-69.022	463.265	10.724	645.92	888.061	0.437	0.577	***1.278***	10.724	2.801
2021-09-17 11:15	7402518	7.698	-69.604	463.351	10.736	646.172	888.139	0.437	0.577	***1.357***	10.736	2.513
2021-09-17 11:30	7403418	7.706	-70.031	463.513	10.745	646.344	888.17	0.437	0.577	***1.366***	10.745	2.604
2021-09-17 11:45	7404318	7.710	-70.283	463.465	10.754	646.457	888.102	0.437	0.577	***1.563***	10.754	2.65
2021-09-17 12:00	7405218	7.712	-70.36	463.268	10.771	646.739	888.092	0.437	0.577	***2.052***	10.771	2.845
2021-09-17 12:15	7406118	7.717	-70.686	463.163	10.791	647.029	888.043	0.437	0.577	***2.393***	10.791	2.672
2021-09-17 12:30	7407018	7.718	-70.729	462.879	10.816	647.459	888.042	0.437	0.577	***2.497***	10.816	3.093
2021-09-17 12:45	7407918	7.716	-70.617	462.683	10.852	648.054	888.029	0.437	0.577	***2.467***	10.852	3.291

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-17 13:00	7408818	7.714	-70.531	462.667	10.894	648.77	888.025	0.437	0.577	***2.396***	10.894	3.206
2021-09-17 13:15	7409718	7.707	-70.143	462.636	10.949	649.633	887.942	0.437	0.577	***2.673***	10.949	3
2021-09-17 13:30	7410618	7.699	-69.699	462.404	11.005	650.455	887.746	0.437	0.577	***2.898***	11.005	3.239
2021-09-17 13:45	7411518	7.693	-69.375	462.035	11.054	651.262	887.718	0.437	0.577	***2.918***	11.054	3.892
2021-09-17 14:00	7412418	7.691	-69.258	461.618	11.095	651.933	887.689	0.437	0.577	***2.648***	11.095	7.097
2021-09-17 14:15	7413318	7.692	-69.344	461.491	11.13	652.648	887.868	0.437	0.577	***2.569***	11.13	4.238
2021-09-17 14:30	7414218	7.694	-69.466	461.56	11.156	653.176	887.968	0.437	0.577	***2.924***	11.156	4.458
2021-09-17 14:45	7415118	7.699	-69.735	461.429	11.18	653.617	888.028	0.437	0.577	***3.198***	11.18	4.305
2021-09-17 15:00	7416018	7.712	-70.477	461.375	11.202	654.011	888.04	0.437	0.577	***3.534***	11.202	4.362
2021-09-17 15:15	7416918	7.722	-71.049	461.184	11.221	654.154	887.815	0.437	0.577	***3.602***	11.221	4.409
2021-09-17 15:30	7417818	7.722	-71.046	461.057	11.232	654.299	887.761	0.437	0.577	***3.393***	11.232	4.463
2021-09-17 15:45	7418718	7.734	-71.721	460.786	11.241	654.266	887.491	0.437	0.577	***3.219***	11.241	4.274
2021-09-17 16:00	7419618	7.745	-72.386	460.621	11.253	654.316	887.284	0.437	0.577	***3.272***	11.253	4.534
2021-09-17 16:15	7420518	7.761	-73.259	460.459	11.263	654.395	887.162	0.437	0.577	***3.539***	11.263	4.33
2021-09-17 16:30	7421418	7.785	-74.62	460.004	11.279	654.64	887.133	0.437	0.577	***3.800***	11.279	4.564
2021-09-17 16:45	7422318	7.787	-74.756	459.336	11.3	654.857	886.945	0.437	0.577	***3.921***	11.3	4.371
2021-09-17 17:00	7423218	7.787	-74.766	458.506	11.326	655.192	886.806	0.437	0.576	***4.096***	11.326	4.416
2021-09-17 17:15	7424118	7.794	-75.183	457.658	11.354	655.684	886.82	0.437	0.576	***4.200***	11.354	5.389
2021-09-17 17:30	7425018	7.796	-75.3	457.185	11.389	656.208	886.737	0.437	0.576	***4.158***	11.389	4.921
2021-09-17 17:45	7425918	7.794	-75.157	456.859	11.422	656.686	886.614	0.437	0.576	***4.098***	11.422	4.525
2021-09-17 18:00	7426818	7.790	-74.954	456.609	11.457	656.206	885.174	0.436	0.575	***4.107***	11.457	4.418
2021-09-17 18:15	7427718	7.794	-75.185	456.289	11.486	657.617	886.424	0.437	0.576	***4.185***	11.486	3.911
2021-09-17 18:30	7428618	7.795	-75.276	456.17	11.505	657.991	886.487	0.437	0.576	***4.163***	11.505	4.222
2021-09-17 18:45	7429518	7.799	-75.459	455.869	11.514	657.972	886.246	0.437	0.576	***4.147***	11.514	4.261
2021-09-17 19:00	7430418	7.815	-76.416	455.412	11.523	658.019	886.118	0.436	0.576	***4.162***	11.523	4.095
2021-09-17 19:15	7431318	7.825	-76.959	455.171	11.53	658.105	886.069	0.436	0.576	***4.213***	11.53	3.922
2021-09-17 19:30	7432218	7.821	-76.745	455.223	11.537	658.121	885.935	0.436	0.576	***4.260***	11.537	3.476
2021-09-17 19:45	7433118	7.820	-76.702	455.111	11.542	657.782	885.373	0.436	0.575	***4.105***	11.542	3.349
2021-09-17 20:00	7434018	7.822	-76.795	455.018	11.544	657.928	885.523	0.436	0.576	***4.149***	11.544	3.211
2021-09-17 20:15	7434918	7.829	-77.157	454.608	11.543	657.65	885.153	0.436	0.575	***4.321***	11.543	3.174
2021-09-17 20:30	7435818	7.830	-77.212	454.026	11.539	658.085	885.85	0.436	0.576	***4.433***	11.539	2.768
2021-09-17 20:45	7436718	7.826	-77.024	453.464	11.528	657.663	885.522	0.436	0.576	***4.482***	11.528	3.033
2021-09-17 21:00	7437618	7.828	-77.116	452.701	11.518	658.079	886.311	0.437	0.576	***4.525***	11.518	3.23
2021-09-17 21:15	7438518	7.831	-77.312	452.15	11.503	657.916	886.437	0.437	0.576	***4.610***	11.503	3.607
2021-09-17 21:30	7439418	7.831	-77.276	452.055	11.486	657.697	886.527	0.437	0.576	***4.759***	11.486	3.772
2021-09-17 21:45	7440318	7.828	-77.136	452.141	11.468	657.443	886.585	0.437	0.576	***4.755***	11.468	3.787
2021-09-17 22:00	7441218	7.828	-77.107	451.888	11.45	657.139	886.595	0.437	0.576	***4.851***	11.45	3.194
2021-09-17 22:15	7442118	7.830	-77.224	451.235	11.431	656.869	886.657	0.437	0.576	***4.881***	11.431	3.615
2021-09-17 22:30	7443018	7.835	-77.467	451.013	11.414	656.569	886.642	0.437	0.576	***4.879***	11.414	3.449
2021-09-17 22:45	7443918	7.840	-77.782	450.896	11.4	656.373	886.701	0.437	0.576	***4.836***	11.4	3.62
2021-09-17 23:00	7444818	7.838	-77.674	451.361	11.375	656.065	886.856	0.437	0.576	***4.777***	11.375	4.199
2021-09-17 23:15	7445718	7.831	-77.271	451.673	11.356	655.838	886.985	0.437	0.577	***4.581***	11.356	3.897
2021-09-17 23:30	7446618	7.827	-77.012	452.121	11.339	655.473	886.881	0.437	0.576	***4.423***	11.339	3.969
2021-09-17 23:45	7447518	7.826	-76.938	452.024	11.32	655.189	886.927	0.437	0.577	***4.403***	11.32	4.309
2021-09-18 00:00	7448418	7.825	-76.914	451.993	11.303	655.051	887.139	0.437	0.577	***4.423***	11.303	4.471
2021-09-18 00:15	7449318	7.821	-76.69	452.176	11.287	654.767	887.122	0.437	0.577	***4.446***	11.287	4.555
2021-09-18 00:30	7450218	7.815	-76.33	452.222	11.27	654.561	887.228	0.437	0.577	***4.402***	11.27	4.555
2021-09-18 00:45	7451118	7.810	-76.053	452.51	11.251	654.397	887.442	0.437	0.577	***4.271***	11.251	4.298
2021-09-18 01:00	7452018	7.806	-75.815	453.066	11.236	654.237	887.579	0.437	0.577	***4.130***	11.236	4.59
2021-09-18 01:15	7452918	7.803	-75.634	453.454	11.22	654.067	887.72	0.437	0.577	***3.999***	11.22	4.723
2021-09-18 01:30	7453818	7.798	-75.352	453.974	11.201	653.826	887.828	0.437	0.577	***3.795***	11.201	4.777
2021-09-18 01:45	7454718	7.792	-75.021	454.301	11.186	653.655	887.946	0.437	0.577	***3.655***	11.186	4.646
2021-09-18 02:00	7455618	7.790	-74.863	454.56	11.172	653.296	887.779	0.437	0.577	***3.528***	11.172	4.866
2021-09-18 02:15	7456518	7.788	-74.766	454.529	11.151	653.083	887.965	0.437	0.577	***3.451***	11.151	4.416
2021-09-18 02:30	7457418	7.784	-74.513	454.642	11.135	652.974	888.187	0.437	0.577	***3.341***	11.135	3.714
2021-09-18 02:45	7458318	7.778	-74.186	455.011	11.123	652.718	888.115	0.437	0.577	***3.316***	11.123	3.321

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-18 03:00	7459218	7.774	-73.957	455.652	11.105	652.506	888.23	0.437	0.577	***3.293***	11.105	3.484
2021-09-18 03:15	7460118	7.771	-73.814	456.187	11.093	652.289	888.227	0.437	0.577	***3.183***	11.093	3.715
2021-09-18 03:30	7461018	7.771	-73.771	456.225	11.078	652.082	888.284	0.437	0.577	***3.057***	11.078	3.607
2021-09-18 03:45	7461918	7.768	-73.605	456.535	11.06	651.882	888.42	0.437	0.577	***2.975***	11.06	3.631
2021-09-18 04:00	7462818	7.764	-73.376	456.756	11.045	651.605	888.409	0.437	0.577	***2.946***	11.045	4.221
2021-09-18 04:15	7463718	7.758	-73.03	457.071	11.029	651.373	888.46	0.437	0.577	***2.763***	11.029	3.758
2021-09-18 04:30	7464618	7.754	-72.803	457.484	11.007	651.02	888.471	0.437	0.578	***2.665***	11.007	4.804
2021-09-18 04:45	7465518	7.753	-72.73	457.731	10.992	650.744	888.445	0.437	0.577	***2.587***	10.992	3.61
2021-09-18 05:00	7466418	7.746	-72.353	457.793	10.981	650.582	888.492	0.437	0.578	***2.599***	10.981	3.668
2021-09-18 05:15	7467318	7.741	-72.062	458.192	10.967	650.399	888.57	0.437	0.578	***2.568***	10.967	3.443
2021-09-18 05:30	7468218	7.736	-71.788	458.735	10.957	650.207	888.53	0.437	0.578	***2.442***	10.957	3.267
2021-09-18 05:45	7469118	7.730	-71.449	459.272	10.946	650.023	888.538	0.437	0.578	***2.341***	10.946	3.234
2021-09-18 06:00	7470018	7.725	-71.144	459.765	10.935	649.73	888.378	0.437	0.577	***2.168***	10.935	3.201
2021-09-18 06:15	7470918	7.721	-70.91	460.232	10.926	649.862	888.778	0.437	0.578	***2.023***	10.926	2.968
2021-09-18 06:30	7471818	7.723	-71.032	460.585	10.915	649.588	888.665	0.437	0.578	***1.864***	10.915	2.797
2021-09-18 06:45	7472718	7.722	-70.982	461.069	10.905	649.443	888.702	0.437	0.578	***1.746***	10.905	3.91
2021-09-18 07:00	7473618	7.717	-70.698	461.47	10.894	649.376	888.848	0.437	0.578	***1.677***	10.894	2.515
2021-09-18 07:15	7474518	7.713	-70.467	461.901	10.883	649.228	888.9	0.437	0.578	***1.585***	10.883	2.592
2021-09-18 07:30	7475418	7.707	-70.107	462.25	10.873	649.076	888.925	0.437	0.578	***1.452***	10.873	2.457
2021-09-18 07:45	7476318	7.698	-69.644	462.691	10.862	648.905	888.963	0.437	0.578	***1.315***	10.862	2.302
2021-09-18 08:00	7477218	7.693	-69.351	463.07	10.851	648.718	888.944	0.437	0.578	***1.143***	10.851	3.931
2021-09-18 08:15	7478118	7.693	-69.323	463.27	10.84	648.782	889.291	0.438	0.578	***1.058***	10.84	2.534
2021-09-18 08:30	7479018	7.695	-69.447	463.439	10.831	648.467	889.085	0.437	0.578	***1.266***	10.831	2.83
2021-09-18 08:45	7479918	7.698	-69.623	463.582	10.824	648.321	889.048	0.437	0.578	***1.274***	10.824	2.61
2021-09-18 09:00	7480818	7.698	-69.585	463.718	10.818	648.31	889.159	0.437	0.578	***1.282***	10.818	2.532
2021-09-18 09:15	7481718	7.693	-69.323	463.992	10.815	648.061	888.884	0.437	0.578	***1.202***	10.815	2.543
2021-09-18 09:30	7482618	7.686	-68.934	464.219	10.819	648.146	888.913	0.437	0.578	***1.118***	10.819	2.209
2021-09-18 09:45	7483518	7.684	-68.805	464.393	10.827	648.261	888.896	0.437	0.578	***1.092***	10.827	2.094
2021-09-18 10:00	7484418	7.678	-68.495	464.514	10.839	648.461	888.876	0.437	0.578	***1.058***	10.839	2.093
2021-09-18 10:15	7485318	7.677	-68.443	464.596	10.861	648.809	888.839	0.437	0.578	***0.997***	10.861	2.707
2021-09-18 10:30	7486218	7.675	-68.324	464.774	10.895	649.325	888.772	0.437	0.578	***1.336***	10.895	4.618
2021-09-18 10:45	7487118	7.677	-68.45	464.91	10.931	649.866	888.671	0.437	0.578	***1.537***	10.931	2.4
2021-09-18 11:00	7488018	7.678	-68.5	465.003	10.965	650.433	888.65	0.437	0.578	***1.695***	10.965	2.439
2021-09-18 11:15	7488918	7.677	-68.44	464.996	10.999	650.96	888.582	0.437	0.578	***1.695***	10.999	2.424
2021-09-18 11:30	7489818	7.670	-68.104	464.958	11.035	651.496	888.478	0.437	0.578	***1.807***	11.035	2.432
2021-09-18 11:45	7490718	7.675	-68.371	464.846	11.073	651.995	888.278	0.437	0.577	***1.860***	11.073	2.911
2021-09-18 12:00	7491618	7.672	-68.197	464.815	11.118	652.767	888.302	0.437	0.577	***2.106***	11.118	3.02
2021-09-18 12:15	7492518	7.668	-68.021	464.886	11.163	653.434	888.153	0.437	0.577	***2.187***	11.163	4.055
2021-09-18 12:30	7493418	7.661	-67.642	464.874	11.208	653.953	887.842	0.437	0.577	***1.826***	11.208	3.84
2021-09-18 12:45	7494318	7.657	-67.401	464.958	11.257	654.576	887.544	0.437	0.577	***1.407***	11.257	3.448
2021-09-18 13:00	7495218	7.652	-67.127	465.146	11.322	655.756	887.659	0.437	0.577	***1.952***	11.322	3.437
2021-09-18 13:15	7496118	7.646	-66.831	465.161	11.374	656.533	887.511	0.437	0.577	***2.307***	11.374	3.79
2021-09-18 13:30	7497018	7.650	-67.015	465.206	11.412	656.977	887.255	0.437	0.577	***2.356***	11.412	3.334
2021-09-18 13:45	7497918	7.658	-67.544	465.094	11.517	658.395	886.757	0.437	0.576	***2.803***	11.517	3.732
2021-09-18 14:00	7498818	7.660	-67.675	464.66	11.676	661.111	886.796	0.437	0.576	***2.496***	11.676	3.981
2021-09-18 14:15	7499718	7.654	-67.363	464.305	11.818	663.575	886.873	0.437	0.576	***2.560***	11.818	4.275
2021-09-18 14:30	7500618	7.650	-67.153	464.064	11.931	665.598	887.021	0.437	0.577	***3.178***	11.931	4.081
2021-09-18 14:45	7501518	7.651	-67.289	463.775	12.111	668.511	886.833	0.437	0.576	***3.654***	12.111	4.144
2021-09-18 15:00	7502418	7.664	-68.059	462.581	12.446	673.982	886.561	0.437	0.576	***3.298***	12.446	4.011
2021-09-18 15:15	7503318	7.670	-68.443	461.904	12.585	676.711	887.053	0.438	0.577	***3.084***	12.585	3.514
2021-09-18 15:30	7504219	7.668	-68.331	462.028	12.555	676.204	887.062	0.438	0.577	***3.074***	12.555	5.458
2021-09-18 15:45	7505119	7.667	-68.285	462.283	12.579	676.625	887.072	0.438	0.577	***3.307***	12.579	4.163
2021-09-18 16:00	7506019	7.673	-68.629	461.992	12.669	678.188	887.126	0.438	0.577	***3.828***	12.669	4.241
2021-09-18 16:15	7506919	7.674	-68.748	461.37	12.776	680.272	887.477	0.438	0.577	***3.409***	12.776	4.143
2021-09-18 16:30	7507819	7.674	-68.727	461.212	12.686	678.741	887.473	0.438	0.577	***3.426***	12.686	4.619
2021-09-18 16:45	7508719	7.677	-68.793	461.444	12.455	673.622	885.899	0.437	0.576	***4.740***	12.455	5.597

TABLE C1

Upstream Water Quality Sonde Data

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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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-18 17:00	7509619	7.700	-70.097	461.291	12.345	671.123	885.053	0.437	0.575	***5.850***	12.345	5.626
2021-09-18 17:15	7510519	7.731	-71.795	460.283	12.201	668.054	884.211	0.436	0.575	6.514	12.201	5.622
2021-09-18 17:30	7511419	7.764	-73.669	459.267	12.138	666.41	883.438	0.436	0.574	7.061	12.138	5.288
2021-09-18 17:45	7512319	7.792	-75.212	458.12	12.048	664.495	882.922	0.435	0.574	7.273	12.048	5.962
2021-09-18 18:00	7513219	7.808	-76.079	457.133	11.922	662.654	883.293	0.435	0.574	7.351	11.922	5.625
2021-09-18 18:15	7514119	7.827	-77.107	456.518	11.772	660.313	883.552	0.435	0.574	7.349	11.772	6.075
2021-09-18 18:30	7515019	7.844	-78.07	456.003	11.688	658.851	883.484	0.435	0.574	7.105	11.688	5.946
2021-09-18 18:45	7515919	7.858	-78.821	455.703	11.602	657.772	883.979	0.435	0.575	6.687	11.602	6.604
2021-09-18 19:00	7516819	7.862	-79.029	455.552	11.518	656.375	884.013	0.435	0.575	***6.219***	11.518	6.78
2021-09-18 19:15	7517719	7.864	-79.134	455.366	11.455	655.409	884.155	0.435	0.575	***5.944***	11.455	6.566
2021-09-18 19:30	7518619	7.868	-79.327	455.235	11.398	654.493	884.199	0.435	0.575	***5.588***	11.398	6.642
2021-09-18 19:45	7519519	7.873	-79.618	455.018	11.335	653.503	884.308	0.435	0.575	***5.215***	11.335	8.348
2021-09-18 20:00	7520419	7.872	-79.553	454.928	11.293	652.853	884.391	0.435	0.575	***4.888***	11.293	7.443
2021-09-18 20:15	7521319	7.865	-79.131	455.211	11.265	652.343	884.329	0.435	0.575	***4.672***	11.265	7.891
2021-09-18 20:30	7522219	7.854	-78.502	455.328	11.234	651.516	883.93	0.435	0.575	***4.508***	11.234	7.196
2021-09-18 20:45	7523119	7.840	-77.693	455.617	11.207	651.86	885.006	0.436	0.575	***4.416***	11.207	7.726
2021-09-18 21:00	7524019	7.829	-77.069	456.041	11.184	651.484	885.027	0.436	0.575	***4.352***	11.184	6.74
2021-09-18 21:15	7524919	7.820	-76.599	456.52	11.155	651.063	885.118	0.436	0.575	***4.257***	11.155	6.891
2021-09-18 21:30	7525819	7.813	-76.163	456.942	11.113	650.409	885.212	0.436	0.575	***4.045***	11.113	45.139
2021-09-18 21:45	7526719	7.808	-75.896	457.288	11.059	649.616	885.361	0.436	0.575	***3.849***	11.059	5.488
2021-09-18 22:00	7527619	7.801	-75.457	457.569	11.012	648.541	884.992	0.435	0.575	***3.747***	11.012	5.107
2021-09-18 22:15	7528519	7.793	-74.99	458.053	10.994	648.389	885.188	0.436	0.575	***3.589***	10.994	4.076
2021-09-18 22:30	7529419	7.788	-74.694	458.428	10.971	648.124	885.356	0.436	0.575	***3.504***	10.971	3.695
2021-09-18 22:45	7530319	7.784	-74.501	458.943	10.951	647.854	885.463	0.436	0.576	***3.477***	10.951	3.171
2021-09-18 23:00	7531219	7.778	-74.155	459.298	10.93	647.474	885.418	0.436	0.576	***3.463***	10.93	3.091
2021-09-18 23:15	7532119	7.771	-73.75	459.56	10.909	647.348	885.74	0.436	0.576	***3.337***	10.909	2.928
2021-09-18 23:30	7533019	7.764	-73.349	459.725	10.887	647.102	885.91	0.436	0.576	***3.290***	10.887	2.952
2021-09-18 23:45	7533919	7.760	-73.104	460.042	10.867	646.383	885.374	0.436	0.575	***3.317***	10.867	2.901
2021-09-19 00:00	7534819	7.756	-72.908	460.306	10.848	646.381	885.829	0.436	0.576	***3.190***	10.848	3.145
2021-09-19 00:15	7535719	7.751	-72.572	460.671	10.825	646.113	885.983	0.436	0.576	***3.161***	10.825	4.059
2021-09-19 00:30	7536619	7.744	-72.215	461.022	10.808	645.806	885.952	0.436	0.576	***3.072***	10.808	2.895
2021-09-19 00:45	7537519	7.739	-71.902	461.398	10.793	645.641	886.084	0.436	0.576	***2.989***	10.793	2.944
2021-09-19 01:00	7538419	7.735	-71.692	461.725	10.776	645.471	886.244	0.436	0.576	***2.971***	10.776	3.083
2021-09-19 01:15	7539319	7.733	-71.537	462.049	10.762	645.381	886.441	0.436	0.576	***2.963***	10.762	2.971
2021-09-19 01:30	7540219	7.728	-71.294	462.364	10.741	645.08	886.523	0.436	0.576	***2.960***	10.741	3.061
2021-09-19 01:45	7541119	7.724	-71.056	462.576	10.72	644.747	886.547	0.436	0.576	***2.929***	10.72	8.04
2021-09-19 02:00	7542019	7.720	-70.846	462.8	10.707	644.727	886.828	0.436	0.576	***2.881***	10.707	8.355
2021-09-19 02:15	7542919	7.716	-70.596	463.07	10.695	645.669	888.41	0.437	0.577	***2.784***	10.695	2.813
2021-09-19 02:30	7543819	7.712	-70.336	463.408	10.683	644.98	887.731	0.437	0.577	***2.640***	10.683	2.741
2021-09-19 02:45	7544719	7.708	-70.15	463.761	10.673	645.249	888.35	0.437	0.577	***2.339***	10.673	2.39
2021-09-19 03:00	7545619	7.703	-69.833	464.159	10.662	645.228	888.556	0.437	0.578	***2.309***	10.662	2.636
2021-09-19 03:15	7546519	7.698	-69.575	464.407	10.655	644.909	888.291	0.437	0.577	***2.061***	10.655	2.508
2021-09-19 03:30	7547419	7.695	-69.396	464.662	10.641	644.793	888.449	0.437	0.577	***1.613***	10.641	2.59
2021-09-19 03:45	7548319	7.693	-69.27	464.998	10.632	644.161	887.806	0.437	0.577	***1.475***	10.632	3.136
2021-09-19 04:00	7549219	7.689	-69.058	465.318	10.627	645.123	889.249	0.437	0.578	***1.270***	10.627	2.761
2021-09-19 04:15	7550119	7.688	-68.984	465.735	10.618	645.426	889.868	0.438	0.578	***1.087***	10.618	3.133
2021-09-19 04:30	7551019	7.683	-68.734	466.1	10.608	645.357	890.01	0.438	0.579	***0.957***	10.608	2.976
2021-09-19 04:45	7551919	7.678	-68.409	466.41	10.593	645.003	889.877	0.438	0.578	***0.901***	10.593	16.221
2021-09-19 05:00	7552819	7.671	-68.038	466.713	10.586	644.926	889.94	0.438	0.578	***0.751***	10.586	3.417
2021-09-19 05:15	7553719	7.667	-67.794	467.073	10.576	644.868	890.074	0.438	0.579	***0.603***	10.576	3.813
2021-09-19 05:30	7554619	7.661	-67.463	467.488	10.567	644.589	889.919	0.438	0.578	***0.469***	10.567	3.424
2021-09-19 05:45	7555519	7.655	-67.148	467.793	10.56	644.685	890.204	0.438	0.579	***0.363***	10.56	3.428
2021-09-19 06:00	7556419	7.650	-66.857	468.079	10.55	644.491	890.185	0.438	0.579	***0.240***	10.55	5.277
2021-09-19 06:15	7557319	7.647	-66.693	468.322	10.538	644.299	890.188	0.438	0.579	***0.105***	10.538	3.162
2021-09-19 06:30	7558219	7.645	-66.552	468.723	10.526	644.085	890.179	0.438	0.579	***0.033***	10.526	3.113
2021-09-19 06:45	7559119	7.644	-66.464	469.021	10.512	644.006	890.4	0.438	0.579	***0.050***	10.512	2.611

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-19 07:00	7560019	7.639	-66.185	469.278	10.498	643.147	889.527	0.437	0.578	***0.024***	10.498	2.694
2021-09-19 07:15	7560919	7.637	-66.085	469.481	10.487	643.02	889.62	0.437	0.578	***0.015***	10.487	5.077
2021-09-19 07:30	7561819	7.636	-66.011	469.612	10.477	642.222	888.753	0.437	0.578	***0.000***	10.477	2.659
2021-09-19 07:45	7562719	7.634	-65.925	469.731	10.464	642.417	889.318	0.437	0.578	***0.000***	10.464	2.679
2021-09-19 08:00	7563619	7.633	-65.832	469.793	10.454	641.661	888.515	0.437	0.578	***0.000***	10.454	22.002
2021-09-19 08:15	7564519	7.636	-66.049	469.772	10.443	640.949	887.79	0.436	0.577	***0.042***	10.443	3.573
2021-09-19 08:30	7565419	7.641	-66.28	469.738	10.435	641.015	888.075	0.437	0.577	***0.136***	10.435	3.709
2021-09-19 08:45	7566319	7.641	-66.299	469.743	10.431	641.026	888.178	0.437	0.577	***0.138***	10.431	2.806
2021-09-19 09:00	7567219	7.640	-66.247	469.764	10.428	641.118	888.37	0.437	0.577	***0.145***	10.428	2.756
2021-09-19 09:15	7568119	7.638	-66.121	469.686	10.429	640.983	888.158	0.437	0.577	***0.147***	10.429	2.815
2021-09-19 09:30	7569019	7.638	-66.116	469.645	10.435	641.207	888.344	0.437	0.577	***0.140***	10.435	3.119
2021-09-19 09:45	7569919	7.637	-66.075	469.626	10.438	641.084	888.089	0.437	0.577	***0.031***	10.438	2.64
2021-09-19 10:00	7570819	7.636	-66.037	469.679	10.447	641.405	888.321	0.437	0.577	***0.112***	10.447	2.677
2021-09-19 10:15	7571719	7.637	-66.063	469.705	10.46	641.473	888.112	0.437	0.577	***0.342***	10.46	2.962
2021-09-19 10:30	7572619	7.637	-66.097	469.769	10.468	641.599	888.092	0.437	0.577	***0.524***	10.468	3.138
2021-09-19 10:45	7573519	7.639	-66.206	469.676	10.477	641.735	888.081	0.437	0.577	***0.531***	10.477	3.254
2021-09-19 11:00	7574419	7.642	-66.359	469.516	10.482	641.728	887.94	0.437	0.577	***0.617***	10.482	3.067
2021-09-19 11:15	7575319	7.645	-66.519	469.359	10.485	641.812	887.991	0.437	0.577	***0.751***	10.485	2.982
2021-09-19 11:30	7576219	7.645	-66.571	469.111	10.493	641.885	887.912	0.437	0.577	***1.188***	10.493	2.859
2021-09-19 11:45	7577119	7.645	-66.533	468.911	10.505	642.099	887.923	0.437	0.577	***1.684***	10.505	3.055
2021-09-19 12:00	7578019	7.645	-66.571	468.887	10.526	642.572	888.075	0.437	0.577	***1.840***	10.526	3.427
2021-09-19 12:15	7578919	7.649	-66.795	468.956	10.556	643.06	888.056	0.437	0.577	***1.867***	10.556	4.462
2021-09-19 12:30	7579819	7.658	-67.301	468.706	10.601	643.829	888.071	0.437	0.577	***2.100***	10.601	4.396
2021-09-19 12:45	7580719	7.666	-67.773	468.289	10.658	644.838	888.12	0.437	0.577	***2.156***	10.658	4.542
2021-09-19 13:00	7581619	7.676	-68.336	467.707	10.709	645.706	888.125	0.437	0.577	***2.453***	10.709	5.002
2021-09-19 13:15	7582519	7.688	-69.034	467.342	10.763	646.645	888.163	0.437	0.577	***2.808***	10.763	4.6
2021-09-19 13:30	7583419	7.695	-69.461	467.03	10.82	647.599	888.15	0.437	0.577	***2.721***	10.82	4.656
2021-09-19 13:45	7584319	7.710	-70.271	466.331	10.867	648.493	888.281	0.437	0.577	***2.763***	10.867	4.879
2021-09-19 14:00	7585219	7.715	-70.581	465.847	10.91	649.03	888.016	0.437	0.577	***3.158***	10.91	5.151
2021-09-19 14:15	7586119	7.722	-71.027	465.609	10.983	650.409	888.199	0.437	0.577	***3.507***	10.983	4.998
2021-09-19 14:30	7587019	7.734	-71.716	465.018	11.04	651.437	888.29	0.437	0.577	***3.384***	11.04	5.146
2021-09-19 14:45	7587919	7.736	-71.802	464.34	11.076	652.255	888.579	0.437	0.578	***3.970***	11.076	5.239
2021-09-19 15:00	7588819	7.742	-72.134	463.732	11.101	652.67	888.563	0.437	0.578	***4.110***	11.101	5.34
2021-09-19 15:15	7589719	7.750	-72.622	463.229	11.1	652.543	888.405	0.437	0.577	***4.433***	11.1	6.353
2021-09-19 15:30	7590619	7.763	-73.345	462.631	11.101	652.331	888.105	0.437	0.577	***4.755***	11.101	5.922
2021-09-19 15:45	7591519	7.777	-74.158	461.944	11.112	652.292	887.794	0.437	0.577	***4.991***	11.112	5.985
2021-09-19 16:00	7592419	7.793	-75.052	461.656	11.139	652.349	887.237	0.437	0.577	***5.251***	11.139	5.498
2021-09-19 16:15	7593319	7.809	-75.96	461.2	11.155	652.529	887.124	0.437	0.577	***5.325***	11.155	5.534
2021-09-19 16:30	7594219	7.819	-76.487	460.75	11.152	652.924	887.715	0.437	0.577	***5.288***	11.152	5.772
2021-09-19 16:45	7595119	7.831	-77.224	459.87	11.179	653.688	888.139	0.437	0.577	***5.368***	11.179	6.441
2021-09-19 17:00	7596019	7.844	-77.922	458.826	11.225	654.58	888.282	0.437	0.577	***5.446***	11.225	5.715
2021-09-19 17:15	7596919	7.858	-78.719	457.834	11.263	655.317	888.42	0.437	0.577	***5.448***	11.263	5.837
2021-09-19 17:30	7597819	7.863	-79.038	457.548	11.256	655.301	888.56	0.438	0.578	***5.415***	11.256	5.853
2021-09-19 17:45	7598719	7.861	-78.895	457.762	11.249	655.251	888.657	0.438	0.578	***5.356***	11.249	5.892
2021-09-19 18:00	7599619	7.857	-78.712	457.758	11.256	655.333	888.592	0.438	0.578	***5.325***	11.256	7.685
2021-09-19 18:15	7600519	7.856	-78.604	457.832	11.251	655.349	888.734	0.438	0.578	***5.331***	11.251	5.736
2021-09-19 18:30	7601419	7.855	-78.557	457.946	11.251	655.355	888.75	0.438	0.578	***5.338***	11.251	5.606
2021-09-19 18:45	7602319	7.855	-78.576	458.041	11.249	655.416	888.877	0.438	0.578	***5.335***	11.249	7.195
2021-09-19 19:00	7603219	7.854	-78.516	457.994	11.234	655.27	889.022	0.438	0.578	***5.318***	11.234	6.611
2021-09-19 19:15	7604119	7.850	-78.28	457.963	11.204	654.77	889.024	0.438	0.578	***5.269***	11.204	10.233
2021-09-19 19:30	7605019	7.844	-77.937	457.803	11.18	654.408	889.094	0.438	0.578	***5.269***	11.18	5.32
2021-09-19 19:45	7605919	7.839	-77.641	457.66	11.151	653.978	889.189	0.438	0.578	***5.142***	11.151	5.308
2021-09-19 20:00	7606819	7.832	-77.255	457.596	11.13	653.655	889.218	0.438	0.578	***4.931***	11.13	4.622
2021-09-19 20:15	7607719	7.823	-76.742	457.665	11.11	653.307	889.21	0.438	0.578	***4.833***	11.11	4.532
2021-09-19 20:30	7608619	7.816	-76.323	457.746	11.091	653.102	889.366	0.438	0.578	***4.747***	11.091	4.324
2021-09-19 20:45	7609519	7.811	-76.034	458.106	11.072	652.715	889.298	0.438	0.578	***4.632***	11.072	4.081

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-19 21:00	7610419	7.808	-75.874	458.468	11.048	652.499	889.556	0.438	0.578	***4.525***	11.048	4.891
2021-09-19 21:15	7611319	7.805	-75.717	458.79	11.023	652.112	889.607	0.438	0.578	***4.429***	11.023	3.968
2021-09-19 21:30	7612219	7.799	-75.364	459.112	10.989	651.759	889.902	0.438	0.578	***4.247***	10.989	4.067
2021-09-19 21:45	7613119	7.792	-74.968	459.419	10.966	651.378	889.925	0.438	0.578	***4.028***	10.966	4.541
2021-09-19 22:00	7614019	7.788	-74.701	459.744	10.946	651.08	889.973	0.438	0.578	***3.979***	10.946	3.622
2021-09-19 22:15	7614919	7.788	-74.711	459.984	10.925	650.866	890.161	0.438	0.579	***3.796***	10.925	4.251
2021-09-19 22:30	7615819	7.784	-74.453	460.5	10.904	652.606	893.045	0.439	0.580	***3.405***	10.904	4.231
2021-09-19 22:45	7616719	7.777	-74.096	460.845	10.883	650.532	890.693	0.438	0.579	***2.985***	10.883	3.952
2021-09-19 23:00	7617619	7.772	-73.812	461.024	10.864	650.305	890.824	0.438	0.579	***2.795***	10.864	3.874
2021-09-19 23:15	7618519	7.769	-73.614	461.088	10.839	650.212	891.276	0.439	0.579	***2.707***	10.839	4.092
2021-09-19 23:30	7619419	7.765	-73.371	461.301	10.814	649.914	891.457	0.439	0.579	***2.755***	10.814	3.586
2021-09-19 23:45	7620319	7.761	-73.161	461.696	10.789	649.335	891.253	0.438	0.579	***2.999***	10.789	3.04
2021-09-20 00:00	7621219	7.755	-72.815	462.061	10.767	649.11	891.457	0.439	0.579	***3.021***	10.767	3.128
2021-09-20 00:15	7622119	7.752	-72.613	462.326	10.75	649.133	891.888	0.439	0.580	***2.990***	10.75	2.967
2021-09-20 00:30	7623019	7.750	-72.52	462.476	10.732	649.004	892.119	0.439	0.580	***2.976***	10.732	4.564
2021-09-20 00:45	7623919	7.748	-72.403	462.655	10.715	648.711	892.13	0.439	0.580	***2.944***	10.715	2.745
2021-09-20 01:00	7624819	7.746	-72.272	462.85	10.698	648.57	892.327	0.439	0.580	***2.873***	10.698	3.037
2021-09-20 01:15	7625719	7.741	-72	463.115	10.682	648.37	892.419	0.439	0.580	***2.724***	10.682	2.25
2021-09-20 01:30	7626619	7.736	-71.733	463.422	10.668	648.044	892.309	0.439	0.580	***2.493***	10.668	2.192
2021-09-20 01:45	7627519	7.733	-71.516	463.84	10.653	648.117	892.755	0.439	0.580	***2.232***	10.653	3.578
2021-09-20 02:00	7628419	7.726	-71.161	464.364	10.643	648.1	892.962	0.439	0.580	***1.920***	10.643	2.556
2021-09-20 02:15	7629319	7.718	-70.689	464.936	10.638	648.138	893.134	0.439	0.581	***1.885***	10.638	2.51
2021-09-20 02:30	7630219	7.710	-70.233	465.666	10.63	648.029	893.168	0.439	0.581	***1.911***	10.63	2.42
2021-09-20 02:45	7631119	7.702	-69.807	466.276	10.624	648.003	893.293	0.439	0.581	***1.984***	10.624	2.278
2021-09-20 03:00	7632019	7.697	-69.485	466.765	10.613	647.859	893.348	0.439	0.581	***1.944***	10.613	2.341
2021-09-20 03:15	7632919	7.695	-69.411	467.156	10.602	647.605	893.253	0.439	0.581	***1.866***	10.602	2.32
2021-09-20 03:30	7633819	7.695	-69.394	467.411	10.589	647.616	893.565	0.439	0.581	***1.773***	10.589	2.115
2021-09-20 03:45	7634720	7.695	-69.392	467.705	10.576	647.458	893.657	0.440	0.581	***1.725***	10.576	2.071
2021-09-20 04:00	7635620	7.695	-69.363	467.974	10.562	647.317	893.79	0.440	0.581	***1.701***	10.562	2.141
2021-09-20 04:15	7636520	7.697	-69.468	468.274	10.547	646.903	893.567	0.439	0.581	***1.649***	10.547	2.058
2021-09-20 04:30	7637420	7.697	-69.468	468.584	10.534	646.883	893.858	0.440	0.581	***1.619***	10.534	2.115
2021-09-20 04:45	7638320	7.698	-69.523	468.718	10.517	646.647	893.923	0.440	0.581	***1.617***	10.517	2.069
2021-09-20 05:00	7639220	7.698	-69.54	468.99	10.5	646.398	893.99	0.440	0.581	***1.561***	10.5	2.049
2021-09-20 05:15	7640120	7.697	-69.468	469.214	10.482	646.118	894.015	0.440	0.581	***1.501***	10.482	2.363
2021-09-20 05:30	7641020	7.698	-69.542	469.321	10.466	645.785	893.943	0.440	0.581	***1.494***	10.466	3.232
2021-09-20 05:45	7641920	7.699	-69.551	469.395	10.449	645.677	894.186	0.440	0.581	***1.464***	10.449	3.167
2021-09-20 06:00	7642820	7.698	-69.487	469.614	10.433	645.233	893.957	0.440	0.581	***1.399***	10.433	4.474
2021-09-20 06:15	7643720	7.695	-69.354	469.841	10.421	645.159	894.136	0.440	0.581	***1.385***	10.421	3.839
2021-09-20 06:30	7644620	7.697	-69.432	470	10.405	644.82	894.055	0.440	0.581	***1.382***	10.405	2.58
2021-09-20 06:45	7645520	7.699	-69.559	470.129	10.388	644.44	893.915	0.439	0.581	***1.370***	10.388	2.092
2021-09-20 07:00	7646420	7.698	-69.506	470.253	10.37	644.271	894.122	0.440	0.581	***1.342***	10.37	2.225
2021-09-20 07:15	7647320	7.696	-69.375	470.313	10.349	644.072	894.341	0.440	0.581	***1.307***	10.349	4.573
2021-09-20 07:30	7648220	7.694	-69.234	470.201	10.329	643.821	894.459	0.440	0.581	***1.266***	10.329	1.781
2021-09-20 07:45	7649120	7.693	-69.206	470.179	10.31	643.297	894.196	0.440	0.581	***1.247***	10.31	1.906
2021-09-20 08:00	7650020	7.696	-69.377	469.974	10.288	643.086	894.406	0.440	0.581	***1.175***	10.288	1.865
2021-09-20 08:15	7650920	7.697	-69.437	469.881	10.263	642.467	894.142	0.439	0.581	***1.074***	10.263	2.597
2021-09-20 08:30	7651820	7.698	-69.451	469.719	10.239	642.179	894.32	0.440	0.581	***1.009***	10.239	1.88
2021-09-20 08:45	7652720	7.697	-69.396	469.426	10.217	641.693	894.161	0.439	0.581	***0.984***	10.217	2.051
2021-09-20 09:00	7653620	7.699	-69.535	469.166	10.204	641.427	894.105	0.439	0.581	***1.046***	10.204	1.915
2021-09-20 09:15	7654520	7.706	-69.909	468.873	10.195	641.235	894.055	0.439	0.581	***1.158***	10.195	2.722
2021-09-20 09:30	7655420	7.706	-69.921	468.844	10.189	641.151	894.081	0.439	0.581	***1.303***	10.189	2.722
2021-09-20 09:45	7656320	7.702	-69.704	469.116	10.187	641.034	893.964	0.439	0.581	***1.346***	10.187	1.851
2021-09-20 10:00	7657220	7.697	-69.37	469.45	10.184	641.092	894.106	0.439	0.581	***1.329***	10.184	1.848
2021-09-20 10:15	7658120	7.690	-69.029	469.75	10.187	641.166	894.138	0.439	0.581	***1.305***	10.187	2.098
2021-09-20 10:30	7659020	7.687	-68.862	470.041	10.193	641.276	894.145	0.439	0.581	***1.275***	10.193	2.095
2021-09-20 10:45	7659920	7.681	-68.517	470.337	10.204	641.489	894.182	0.439	0.581	***1.271***	10.204	3.734

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-20 11:00	7660820	7.683	-68.595	470.182	10.211	641.515	894.051	0.439	0.581	***1.345***	10.211	4.487
2021-09-20 11:15	7661720	7.688	-68.91	469.688	10.218	641.172	893.409	0.439	0.581	***2.012***	10.218	4.644
2021-09-20 11:30	7662620	7.696	-69.363	469.044	10.228	642.224	894.641	0.440	0.582	***2.736***	10.228	5.083
2021-09-20 11:45	7663520	7.706	-69.919	468.367	10.237	641.687	893.688	0.439	0.581	***2.985***	10.237	4.533
2021-09-20 12:00	7664420	7.718	-70.612	467.876	10.247	642.742	894.924	0.440	0.582	***3.180***	10.247	4.982
2021-09-20 12:15	7665320	7.729	-71.223	467.44	10.261	642.253	893.903	0.439	0.581	***3.447***	10.261	5.406
2021-09-20 12:30	7666220	7.738	-71.709	466.844	10.282	642.285	893.451	0.439	0.581	***3.626***	10.282	117.754
2021-09-20 12:45	7667120	7.741	-71.912	466.305	10.307	642.945	893.767	0.439	0.581	***3.665***	10.307	115.589
2021-09-20 13:00	7668020	7.743	-72.002	465.878	10.329	642.823	893.068	0.439	0.580	***3.778***	10.329	115.798
2021-09-20 13:15	7668920	7.750	-72.436	465.528	10.342	643.635	893.889	0.439	0.581	***3.963***	10.342	5.133
2021-09-20 13:30	7669820	7.756	-72.746	465.168	10.369	643.774	893.455	0.439	0.581	***3.989***	10.369	5.342
2021-09-20 13:45	7670720	7.763	-73.178	464.736	10.421	644.488	893.204	0.439	0.581	***4.063***	10.421	8.311
2021-09-20 14:00	7671620	7.772	-73.669	464.255	10.5	645.609	892.904	0.439	0.580	***4.031***	10.5	5.983
2021-09-20 14:15	7672520	7.782	-74.251	463.849	10.568	646.384	892.36	0.439	0.580	***4.111***	10.568	5.024
2021-09-20 14:30	7673420	7.788	-74.642	463.384	10.649	647.658	892.213	0.439	0.580	***4.110***	10.649	5.316
2021-09-20 14:45	7674320	7.797	-75.145	463.029	10.742	649.242	892.216	0.439	0.580	***4.182***	10.742	5.478
2021-09-20 15:00	7675220	7.805	-75.614	462.631	10.822	650.612	892.217	0.439	0.580	***4.480***	10.822	5.501
2021-09-20 15:15	7676120	7.811	-75.994	461.968	10.913	652.09	892.117	0.439	0.580	***4.882***	10.913	5.889
2021-09-20 15:30	7677020	7.823	-76.706	461.234	10.965	652.969	892.109	0.439	0.580	***5.087***	10.965	5.796
2021-09-20 15:45	7677920	7.837	-77.462	460.592	10.989	653.387	892.134	0.439	0.580	***5.191***	10.989	5.546
2021-09-20 16:00	7678820	7.843	-77.813	459.975	10.991	653.339	892.021	0.439	0.580	***5.442***	10.991	5.547
2021-09-20 16:15	7679720	7.849	-78.166	459.856	10.973	652.863	891.796	0.439	0.580	***5.688***	10.973	5.605
2021-09-20 16:30	7680620	7.855	-78.48	459.768	10.936	651.958	891.406	0.439	0.579	***5.850***	10.936	5.929
2021-09-20 16:45	7681520	7.856	-78.557	460.018	10.935	652.138	891.686	0.439	0.580	***5.983***	10.935	5.358
2021-09-20 17:00	7682420	7.868	-79.229	460.025	10.986	652.882	891.509	0.439	0.579	***5.950***	10.986	5.593
2021-09-20 17:15	7683320	7.871	-79.415	459.861	11	653.22	891.647	0.439	0.580	***5.884***	11	11.774
2021-09-20 17:30	7684220	7.866	-79.143	459.563	10.991	653.07	891.652	0.439	0.580	***5.822***	10.991	4.883
2021-09-20 17:45	7685120	7.864	-78.99	459.357	10.995	653.796	892.555	0.439	0.580	***5.800***	10.995	4.708
2021-09-20 18:00	7686020	7.857	-78.611	459.157	11.008	653.529	891.881	0.439	0.580	***5.758***	11.008	4.57
2021-09-20 18:15	7686920	7.850	-78.218	459.102	11.025	653.681	891.689	0.439	0.580	***5.513***	11.025	4.583
2021-09-20 18:30	7687820	7.844	-77.894	459.071	11.042	654.109	891.875	0.439	0.580	***5.468***	11.042	4.878
2021-09-20 18:45	7688720	7.842	-77.779	459.019	11.057	654.326	891.826	0.439	0.580	***5.404***	11.057	4.279
2021-09-20 19:00	7689620	7.842	-77.77	458.842	11.076	654.864	892.134	0.439	0.580	***5.300***	11.076	4.294
2021-09-20 19:15	7690520	7.839	-77.639	458.571	11.086	655.242	892.398	0.439	0.580	***5.217***	11.086	3.879
2021-09-20 19:30	7691420	7.841	-77.736	458.373	11.092	655.394	892.475	0.439	0.580	***5.190***	11.092	4.265
2021-09-20 19:45	7692320	7.838	-77.589	458.59	11.085	655.473	892.749	0.440	0.580	***5.195***	11.085	3.955
2021-09-20 20:00	7693220	7.834	-77.343	458.974	11.067	655.258	892.864	0.440	0.580	***5.194***	11.067	4.135
2021-09-20 20:15	7694120	7.828	-76.995	459.317	11.036	654.861	893.058	0.440	0.580	***5.142***	11.036	4.171
2021-09-20 20:30	7695020	7.823	-76.683	459.582	11.007	654.199	892.823	0.439	0.580	***5.067***	11.007	4.067
2021-09-20 20:45	7695920	7.818	-76.408	459.865	10.987	654.054	893.087	0.440	0.581	***4.806***	10.987	3.326
2021-09-20 21:00	7696820	7.811	-76.02	460.144	10.967	653.689	893.066	0.440	0.580	***4.572***	10.967	3.088
2021-09-20 21:15	7697720	7.807	-75.758	460.414	10.951	653.487	893.153	0.440	0.581	***4.403***	10.951	2.936
2021-09-20 21:30	7698620	7.801	-75.462	460.807	10.937	653.287	893.215	0.440	0.581	***4.216***	10.937	4.666
2021-09-20 21:45	7699520	7.799	-75.319	461.122	10.927	653.157	893.269	0.440	0.581	***4.093***	10.927	12.631
2021-09-20 22:00	7700420	7.796	-75.171	461.336	10.917	653.064	893.376	0.440	0.581	***3.980***	10.917	2.552
2021-09-20 22:15	7701320	7.792	-74.944	461.448	10.904	653.004	893.59	0.440	0.581	***3.890***	10.904	2.612
2021-09-20 22:30	7702220	7.785	-74.53	461.746	10.892	652.558	893.247	0.440	0.581	***3.791***	10.892	2.695
2021-09-20 22:45	7703120	7.782	-74.339	461.982	10.883	652.913	893.958	0.440	0.581	***3.614***	10.883	2.738
2021-09-20 23:00	7704020	7.779	-74.186	462.283	10.872	652.845	894.118	0.440	0.581	***3.457***	10.872	2.785
2021-09-20 23:15	7704920	7.778	-74.108	462.641	10.864	652.76	894.178	0.440	0.581	***3.358***	10.864	2.867
2021-09-20 23:30	7705820	7.776	-74.024	462.981	10.856	652.596	894.154	0.440	0.581	***3.226***	10.856	2.745
2021-09-20 23:45	7706720	7.775	-73.969	463.287	10.847	652.531	894.278	0.440	0.581	***3.100***	10.847	2.888
2021-09-21 00:00	7707620	7.771	-73.729	463.592	10.834	652.374	894.373	0.440	0.581	***2.952***	10.834	2.807
2021-09-21 00:15	7708520	7.768	-73.55	463.926	10.825	652.161	894.281	0.440	0.581	***2.811***	10.825	2.865
2021-09-21 00:30	7709420	7.766	-73.44	464.207	10.814	652.19	894.572	0.440	0.581	***2.719***	10.814	2.881
2021-09-21 00:45	7710320	7.762	-73.218	464.321	10.802	652.102	894.732	0.440	0.582	***2.649***	10.802	2.79

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-21 01:00	7711220	7.757	-72.904	464.46	10.792	651.96	894.773	0.440	0.582	***2.583***	10.792	2.718
2021-09-21 01:15	7712120	7.753	-72.706	464.548	10.779	651.691	894.707	0.440	0.582	***2.518***	10.779	2.702
2021-09-21 01:30	7713020	7.751	-72.572	464.758	10.762	651.367	894.661	0.440	0.582	***2.482***	10.762	2.655
2021-09-21 01:45	7713920	7.749	-72.441	464.932	10.749	651.321	894.92	0.440	0.582	***2.473***	10.749	2.672
2021-09-21 02:00	7714820	7.748	-72.379	464.998	10.737	651.21	895.038	0.440	0.582	***2.496***	10.737	2.602
2021-09-21 02:15	7715720	7.745	-72.246	465.177	10.727	651.077	895.103	0.440	0.582	***2.467***	10.727	2.626
2021-09-21 02:30	7716620	7.745	-72.227	465.28	10.716	650.929	895.157	0.440	0.582	***2.429***	10.716	2.439
2021-09-21 02:45	7717520	7.744	-72.145	465.513	10.706	651.464	896.123	0.441	0.582	***2.381***	10.706	2.455
2021-09-21 03:00	7718420	7.740	-71.921	465.893	10.698	651.539	896.41	0.441	0.583	***2.339***	10.698	2.667
2021-09-21 03:15	7719320	7.733	-71.533	466.36	10.686	650.411	895.142	0.440	0.582	***2.200***	10.686	3.548
2021-09-21 03:30	7720220	7.727	-71.18	466.953	10.68	650.665	895.632	0.441	0.582	***2.349***	10.68	2.868
2021-09-21 03:45	7721120	7.724	-71.063	467.404	10.676	650.632	895.69	0.441	0.582	***2.370***	10.676	2.233
2021-09-21 04:00	7722020	7.724	-71.013	467.738	10.669	650.581	895.768	0.441	0.582	***2.333***	10.669	2.166
2021-09-21 04:15	7722920	7.727	-71.218	467.91	10.658	650.31	895.66	0.441	0.582	***2.274***	10.658	2.454
2021-09-21 04:30	7723820	7.729	-71.299	468.038	10.654	650.214	895.624	0.441	0.582	***2.284***	10.654	2.441
2021-09-21 04:45	7724720	7.730	-71.347	467.933	10.648	650.308	895.901	0.441	0.582	***2.236***	10.648	2.354
2021-09-21 05:00	7725620	7.729	-71.33	467.819	10.643	650.262	895.948	0.441	0.582	***2.184***	10.643	2.627
2021-09-21 05:15	7726520	7.727	-71.208	467.819	10.639	650.167	895.908	0.441	0.582	***2.122***	10.639	2.502
2021-09-21 05:30	7727420	7.722	-70.93	468.053	10.634	650.119	895.954	0.441	0.582	***2.052***	10.634	2.318
2021-09-21 05:45	7728320	7.714	-70.441	468.277	10.629	650.225	896.227	0.441	0.583	***1.993***	10.629	2.446
2021-09-21 06:00	7729220	7.706	-69.99	468.603	10.623	650.061	896.142	0.441	0.582	***1.958***	10.623	2.194
2021-09-21 06:15	7730120	7.699	-69.618	468.971	10.617	650.17	896.428	0.441	0.583	***1.943***	10.617	2.073
2021-09-21 06:30	7731020	7.692	-69.213	469.326	10.61	650.214	896.65	0.441	0.583	***1.885***	10.61	2.006
2021-09-21 06:45	7731920	7.683	-68.715	469.741	10.602	650.255	896.895	0.441	0.583	***1.806***	10.602	1.962
2021-09-21 07:00	7732820	7.673	-68.171	470.141	10.596	649.978	896.663	0.441	0.583	***1.732***	10.596	1.846
2021-09-21 07:15	7733720	7.667	-67.811	470.523	10.587	650.144	897.104	0.441	0.583	***1.680***	10.587	1.849
2021-09-21 07:30	7734620	7.663	-67.556	470.88	10.578	650.097	897.248	0.441	0.583	***1.568***	10.578	1.959
2021-09-21 07:45	7735520	7.658	-67.267	471.276	10.569	650.139	897.518	0.441	0.583	***1.457***	10.569	1.837
2021-09-21 08:00	7736420	7.653	-66.988	471.653	10.563	649.992	897.475	0.441	0.583	***1.329***	10.563	1.97
2021-09-21 08:15	7737320	7.650	-66.831	471.936	10.556	649.997	897.627	0.442	0.583	***1.212***	10.556	1.884
2021-09-21 08:30	7738220	7.649	-66.807	472.177	10.55	649.883	897.632	0.442	0.583	***1.099***	10.55	1.919
2021-09-21 08:45	7739120	7.651	-66.888	472.399	10.544	649.876	897.757	0.442	0.584	***1.024***	10.544	1.937
2021-09-21 09:00	7740020	7.651	-66.907	472.628	10.543	649.831	897.718	0.442	0.584	***1.009***	10.543	1.969
2021-09-21 09:15	7740920	7.653	-66.986	472.788	10.544	649.803	897.648	0.442	0.583	***1.031***	10.544	2.07
2021-09-21 09:30	7741820	7.655	-67.093	472.828	10.549	649.857	897.606	0.442	0.583	***1.073***	10.549	2.483
2021-09-21 09:45	7742720	7.657	-67.234	472.721	10.564	650	897.463	0.441	0.583	***1.252***	10.564	2.537
2021-09-21 10:00	7743620	7.658	-67.291	472.506	10.58	650.112	897.23	0.441	0.583	***1.538***	10.58	2.363
2021-09-21 10:15	7744520	7.655	-67.143	472.48	10.596	650.329	897.139	0.441	0.583	***1.838***	10.596	2.571
2021-09-21 10:30	7745420	7.651	-66.917	472.518	10.612	650.602	897.141	0.441	0.583	***2.041***	10.612	2.722
2021-09-21 10:45	7746320	7.650	-66.879	472.494	10.622	650.821	897.207	0.441	0.583	***2.109***	10.622	3.626
2021-09-21 11:00	7747220	7.650	-66.831	472.633	10.633	651.122	897.358	0.441	0.583	***2.201***	10.633	3.873
2021-09-21 11:15	7748120	7.649	-66.798	472.726	10.644	651.309	897.366	0.441	0.583	***2.297***	10.644	4.354
2021-09-21 11:30	7749020	7.650	-66.85	472.726	10.658	651.572	897.391	0.441	0.583	***2.437***	10.658	4
2021-09-21 11:45	7749921	7.650	-66.853	472.678	10.68	651.778	897.172	0.441	0.583	***2.460***	10.68	4.043
2021-09-21 12:00	7750821	7.655	-67.139	472.506	10.698	651.96	896.981	0.441	0.583	***2.692***	10.698	3.929
2021-09-21 12:15	7751721	7.667	-67.859	472.082	10.732	652.456	896.859	0.441	0.583	***3.066***	10.732	3.53
2021-09-21 12:30	7752621	7.680	-68.567	471.359	10.756	652.448	896.302	0.441	0.583	***3.589***	10.756	5.065
2021-09-21 12:45	7753521	7.706	-70.069	470.165	10.765	652.359	895.95	0.441	0.582	***4.161***	10.765	5.638
2021-09-21 13:00	7754421	7.734	-71.609	468.947	10.804	652.768	895.613	0.441	0.582	***4.530***	10.804	5.502
2021-09-21 13:15	7755321	7.763	-73.273	467.652	10.831	653.115	895.456	0.441	0.582	***4.734***	10.831	5.191
2021-09-21 13:30	7756221	7.787	-74.658	466.639	10.867	653.635	895.32	0.441	0.582	***4.895***	10.867	50.602
2021-09-21 13:45	7757121	7.807	-75.762	465.537	10.916	654.443	895.284	0.441	0.582	***5.007***	10.916	5.424
2021-09-21 14:00	7758021	7.824	-76.74	464.877	10.96	655.136	895.201	0.441	0.582	***5.135***	10.96	5.505
2021-09-21 14:15	7758921	7.839	-77.596	464.35	11.008	655.951	895.194	0.441	0.582	***5.223***	11.008	5.754
2021-09-21 14:30	7759821	7.851	-78.297	463.828	11.04	656.436	895.109	0.441	0.582	***5.383***	11.04	6.087
2021-09-21 14:45	7760721	7.867	-79.21	463.334	11.048	656.481	894.974	0.441	0.582	***5.449***	11.048	5.732

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-21 15:00	7761621	7.878	-79.799	462.788	11.08	656.98	894.907	0.441	0.582	***5.488***	11.08	5.751
2021-09-21 15:15	7762521	7.882	-80.049	462.29	11.131	657.51	894.439	0.440	0.581	***5.510***	11.131	6.664
2021-09-21 15:30	7763421	7.891	-80.576	461.794	11.155	658.383	895.072	0.441	0.582	***5.699***	11.155	6.41
2021-09-21 15:45	7764321	7.899	-81.019	461.375	11.158	657.982	894.464	0.440	0.581	***5.757***	11.158	6.467
2021-09-21 16:00	7765221	7.903	-81.244	460.926	11.189	658.883	894.974	0.441	0.582	***5.762***	11.189	6.227
2021-09-21 16:15	7766121	7.908	-81.522	460.614	11.204	659.115	894.926	0.441	0.582	***5.732***	11.204	5.883
2021-09-21 16:30	7767021	7.905	-81.391	460.483	11.2	659.316	895.298	0.441	0.582	***5.708***	11.2	6.168
2021-09-21 16:45	7767921	7.900	-81.098	460.464	11.208	659.497	895.364	0.441	0.582	***5.643***	11.208	8.8
2021-09-21 17:00	7768821	7.892	-80.652	460.416	11.225	659.768	895.341	0.441	0.582	***5.572***	11.225	5.311
2021-09-21 17:15	7769721	7.886	-80.326	460.497	11.239	660.163	895.544	0.441	0.582	***5.560***	11.239	5.646
2021-09-21 17:30	7770621	7.880	-79.975	460.626	11.261	660.566	895.582	0.441	0.582	***5.526***	11.261	5.513
2021-09-21 17:45	7771521	7.873	-79.584	460.514	11.28	661.195	895.982	0.441	0.582	***5.468***	11.28	5.278
2021-09-21 18:00	7772421	7.865	-79.153	460.519	11.303	661.603	896.015	0.441	0.582	***5.372***	11.303	37.637
2021-09-21 18:15	7773321	7.858	-78.759	460.666	11.318	661.941	896.128	0.441	0.582	***5.290***	11.318	4.794
2021-09-21 18:30	7774221	7.850	-78.306	460.776	11.329	662.352	896.414	0.442	0.583	***5.154***	11.329	5.598
2021-09-21 18:45	7775121	7.845	-78.034	460.797	11.34	662.63	896.532	0.442	0.583	***5.068***	11.34	5.094
2021-09-21 19:00	7776021	7.839	-77.682	460.871	11.349	662.9	896.693	0.442	0.583	***5.016***	11.349	5.264
2021-09-21 19:15	7776921	7.832	-77.288	461.014	11.354	663.194	896.973	0.442	0.583	***4.988***	11.354	4.971
2021-09-21 19:30	7777821	7.821	-76.704	461.048	11.358	663.338	897.074	0.442	0.583	***4.937***	11.358	4.834
2021-09-21 19:45	7778721	7.814	-76.284	461.136	11.371	663.459	896.954	0.442	0.583	***4.881***	11.371	4.658
2021-09-21 20:00	7779621	7.813	-76.256	461.158	11.395	663.936	897.027	0.442	0.583	***4.837***	11.395	4.23
2021-09-21 20:15	7780521	7.814	-76.311	461.334	11.437	664.746	897.165	0.442	0.583	***4.656***	11.437	4.72
2021-09-21 20:30	7781421	7.818	-76.561	461.532	11.502	665.89	897.208	0.442	0.583	***4.574***	11.502	8.207
2021-09-21 20:45	7782321	7.816	-76.451	461.611	11.574	667.123	897.19	0.442	0.583	***4.618***	11.574	4.833
2021-09-21 21:00	7783221	7.814	-76.368	461.827	11.64	668.354	897.337	0.442	0.583	***4.653***	11.64	4.765
2021-09-21 21:15	7784121	7.811	-76.215	461.866	11.677	669.191	897.607	0.442	0.583	***4.825***	11.677	4.413
2021-09-21 21:30	7785021	7.811	-76.187	461.951	11.696	669.577	897.686	0.443	0.583	***4.841***	11.696	4.204
2021-09-21 21:45	7785921	7.810	-76.146	462.168	11.703	669.818	897.851	0.443	0.584	***4.667***	11.703	4.057
2021-09-21 22:00	7786821	7.805	-75.87	462.292	11.698	669.919	898.094	0.443	0.584	***4.617***	11.698	4.064
2021-09-21 22:15	7787721	7.798	-75.459	462.447	11.69	669.64	897.903	0.443	0.584	***4.614***	11.69	4.164
2021-09-21 22:30	7788621	7.793	-75.171	462.652	11.673	669.604	898.24	0.443	0.584	***4.591***	11.673	3.991
2021-09-21 22:45	7789521	7.787	-74.821	462.769	11.656	669.251	898.177	0.443	0.584	***4.503***	11.656	3.813
2021-09-21 23:00	7790421	7.781	-74.513	462.793	11.645	669.187	898.333	0.443	0.584	***4.428***	11.645	3.999
2021-09-21 23:15	7791321	7.774	-74.089	463.017	11.637	669.171	898.494	0.443	0.584	***4.415***	11.637	4.162
2021-09-21 23:30	7792221	7.772	-73.967	463.172	11.629	669.097	898.591	0.443	0.584	***4.459***	11.629	4.097
2021-09-21 23:45	7793121	7.772	-73.974	463.401	11.612	668.852	898.635	0.443	0.584	***4.419***	11.612	4.536
2021-09-22 00:00	7794021	7.769	-73.788	463.644	11.591	668.513	898.666	0.443	0.584	***4.196***	11.591	4.187
2021-09-22 00:15	7794921	7.765	-73.593	463.861	11.552	668.027	898.916	0.443	0.584	***3.947***	11.552	4.261
2021-09-22 00:30	7795821	7.758	-73.192	464.119	11.521	667.471	898.887	0.443	0.584	***3.898***	11.521	3.893
2021-09-22 00:45	7796721	7.751	-72.782	464.364	11.495	666.969	898.821	0.443	0.584	***3.952***	11.495	3.169
2021-09-22 01:00	7797621	7.750	-72.682	464.55	11.475	666.743	898.976	0.443	0.584	***3.939***	11.475	3.268
2021-09-22 01:15	7798521	7.750	-72.684	464.658	11.462	666.539	899.008	0.443	0.584	***4.009***	11.462	3.557
2021-09-22 01:30	7799421	7.749	-72.627	464.753	11.451	666.31	898.954	0.443	0.584	***3.983***	11.451	3.504
2021-09-22 01:45	7800321	7.748	-72.61	464.822	11.441	666.204	899.037	0.443	0.584	***3.953***	11.441	2.937
2021-09-22 02:00	7801221	7.747	-72.527	464.848	11.433	666.08	899.053	0.443	0.584	***3.908***	11.433	2.62
2021-09-22 02:15	7802121	7.748	-72.587	465.039	11.423	665.946	899.112	0.443	0.584	***3.717***	11.423	2.572
2021-09-22 02:30	7803021	7.749	-72.656	465.409	11.41	665.767	899.151	0.443	0.584	***3.617***	11.41	2.42
2021-09-22 02:45	7803921	7.752	-72.803	465.587	11.399	665.578	899.162	0.443	0.584	***3.401***	11.399	2.364
2021-09-22 03:00	7804821	7.749	-72.622	465.809	11.389	665.413	899.165	0.443	0.584	***3.229***	11.389	2.473
2021-09-22 03:15	7805721	7.748	-72.553	466.155	11.373	665.441	899.581	0.443	0.585	***3.066***	11.373	2.928
2021-09-22 03:30	7806621	7.742	-72.25	466.598	11.364	665.298	899.602	0.443	0.585	***2.879***	11.364	2.962
2021-09-22 03:45	7807521	7.740	-72.086	466.949	11.359	665.279	899.689	0.443	0.585	***2.717***	11.359	3.09
2021-09-22 04:00	7808421	7.735	-71.833	467.259	11.354	665.323	899.864	0.443	0.585	***2.614***	11.354	2.974
2021-09-22 04:15	7809321	7.728	-71.428	467.528	11.35	665.381	900.043	0.443	0.585	***2.543***	11.35	2.876
2021-09-22 04:30	7810221	7.720	-70.98	467.926	11.345	665.398	900.173	0.444	0.585	***2.491***	11.345	5.732
2021-09-22 04:45	7811121	7.713	-70.562	468.372	11.337	665.445	900.412	0.444	0.585	***2.437***	11.337	2.644

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-22 05:00	7812021	7.707	-70.212	468.808	11.331	665.44	900.56	0.444	0.585	***2.380***	11.331	2.269
2021-09-22 05:15	7812921	7.702	-69.938	469.245	11.321	665.271	900.554	0.444	0.585	***2.197***	11.321	2.412
2021-09-22 05:30	7813821	7.699	-69.757	469.655	11.31	665.249	900.776	0.444	0.586	***1.963***	11.31	2.548
2021-09-22 05:45	7814721	7.697	-69.695	469.853	11.301	665.253	900.995	0.444	0.586	***1.834***	11.301	2.626
2021-09-22 06:00	7815621	7.696	-69.621	469.931	11.294	665.248	901.155	0.444	0.586	***1.610***	11.294	2.604
2021-09-22 06:15	7816521	7.699	-69.757	470.062	11.286	665.239	901.339	0.444	0.586	***1.614***	11.286	2.574
2021-09-22 06:30	7817421	7.701	-69.883	470.217	11.28	665.267	901.508	0.444	0.586	***1.623***	11.28	2.394
2021-09-22 06:45	7818321	7.700	-69.847	470.387	11.273	665.257	901.667	0.444	0.586	***1.625***	11.273	2.272
2021-09-22 07:00	7819221	7.699	-69.778	470.577	11.264	665.114	901.665	0.444	0.586	***1.556***	11.264	2.319
2021-09-22 07:15	7820121	7.698	-69.73	470.844	11.252	665.052	901.861	0.444	0.586	***1.506***	11.252	3.72
2021-09-22 07:30	7821021	7.701	-69.885	471.183	11.239	665.054	902.176	0.444	0.586	***1.430***	11.239	3.514
2021-09-22 07:45	7821921	7.705	-70.086	471.295	11.221	664.804	902.25	0.444	0.586	***1.313***	11.221	2.291
2021-09-22 08:00	7822821	7.706	-70.148	471.085	11.204	664.509	902.262	0.444	0.586	***1.190***	11.204	2.469
2021-09-22 08:15	7823721	7.703	-69.954	470.799	11.186	664.129	902.172	0.444	0.586	***1.200***	11.186	2.532
2021-09-22 08:30	7824621	7.703	-69.964	470.649	11.168	663.78	902.108	0.444	0.586	***1.411***	11.168	2.53
2021-09-22 08:45	7825521	7.707	-70.202	470.549	11.15	663.493	902.133	0.444	0.586	***1.553***	11.15	2.82
2021-09-22 09:00	7826421	7.709	-70.331	470.406	11.133	663.068	901.961	0.444	0.586	***1.592***	11.133	2.743
2021-09-22 09:15	7827321	7.708	-70.271	470.294	11.117	662.736	901.896	0.444	0.586	***1.575***	11.117	2.598
2021-09-22 09:30	7828221	7.709	-70.288	470.101	11.09	662.201	901.793	0.444	0.586	***1.557***	11.09	2.633
2021-09-22 09:45	7829121	7.712	-70.443	470.01	11.073	661.937	901.823	0.444	0.586	***1.823***	11.073	4.742
2021-09-22 10:00	7830021	7.719	-70.832	469.922	11.079	662.16	901.983	0.444	0.586	***2.261***	11.079	4.247
2021-09-22 10:15	7830921	7.722	-71.03	469.843	11.087	662.16	901.797	0.444	0.586	***2.496***	11.087	4.755
2021-09-22 10:30	7831821	7.732	-71.571	469.676	11.095	662.018	901.431	0.444	0.586	***2.853***	11.095	4.602
2021-09-22 10:45	7832721	7.744	-72.255	469.443	11.107	661.98	901.079	0.444	0.586	***3.212***	11.107	4.612
2021-09-22 11:00	7833621	7.765	-73.476	469.18	11.115	661.713	900.539	0.444	0.585	***3.764***	11.115	5.633
2021-09-22 11:15	7834521	7.786	-74.666	469.021	11.11	661.379	900.196	0.443	0.585	***4.254***	11.11	5.675
2021-09-22 11:30	7835421	7.816	-76.318	468.41	11.1	660.832	899.68	0.443	0.585	***4.409***	11.1	6.645
2021-09-22 11:45	7836321	7.841	-77.727	467.473	11.088	660.342	899.311	0.443	0.585	***4.589***	11.088	7.71
2021-09-22 12:00	7837221	7.850	-78.235	466.894	11.081	659.99	898.996	0.443	0.584	***4.549***	11.081	7.644
2021-09-22 12:15	7838121	7.851	-78.318	466.448	11.08	659.448	898.279	0.442	0.584	***4.431***	11.08	7.832
2021-09-22 12:30	7839021	7.849	-78.185	466.267	11.079	660.002	899.044	0.443	0.584	***4.349***	11.079	8.986
2021-09-22 12:45	7839921	7.846	-78.044	466.09	11.082	660.034	899.018	0.443	0.584	***4.312***	11.082	7.435
2021-09-22 13:00	7840821	7.842	-77.817	466.1	11.086	660.015	898.896	0.443	0.584	***4.321***	11.086	7.416
2021-09-22 13:15	7841721	7.839	-77.646	465.974	11.101	660.101	898.682	0.443	0.584	***4.404***	11.101	7.57
2021-09-22 13:30	7842621	7.839	-77.636	465.926	11.154	661.252	898.995	0.443	0.584	***4.664***	11.154	8.052
2021-09-22 13:45	7843521	7.843	-77.894	465.78	11.215	662.316	899.02	0.443	0.584	***4.904***	11.215	7.731
2021-09-22 14:00	7844421	7.850	-78.321	465.525	11.275	663.321	898.994	0.443	0.584	***5.081***	11.275	8.544
2021-09-22 14:15	7845321	7.855	-78.59	465.296	11.334	664.268	898.904	0.443	0.584	***5.236***	11.334	8.266
2021-09-22 14:30	7846221	7.862	-78.983	464.991	11.389	665.228	898.931	0.443	0.584	***5.368***	11.389	8.144
2021-09-22 14:45	7847121	7.867	-79.317	464.619	11.45	666.235	898.876	0.443	0.584	***5.466***	11.45	7.457
2021-09-22 15:00	7848021	7.873	-79.646	464.302	11.509	667.281	898.911	0.443	0.584	***5.587***	11.509	7.787
2021-09-22 15:15	7848921	7.879	-80.004	464.011	11.544	667.855	898.868	0.443	0.584	***5.768***	11.544	8.122
2021-09-22 15:30	7849821	7.887	-80.45	463.63	11.567	668.2	898.814	0.443	0.584	***5.875***	11.567	7.8
2021-09-22 15:45	7850721	7.892	-80.774	463.372	11.597	668.808	898.938	0.443	0.584	***5.887***	11.597	7.441
2021-09-22 16:00	7851621	7.900	-81.213	463.222	11.631	669.317	898.84	0.443	0.584	***5.875***	11.631	8.365
2021-09-22 16:15	7852521	7.906	-81.582	463.074	11.644	669.526	898.809	0.443	0.584	***5.889***	11.644	7.233
2021-09-22 16:30	7853421	7.910	-81.794	463.005	11.664	669.949	898.93	0.443	0.584	***5.875***	11.664	10.107
2021-09-22 16:45	7854321	7.912	-81.918	462.948	11.679	669.495	897.959	0.443	0.584	***5.763***	11.679	11.164
2021-09-22 17:00	7855221	7.912	-81.925	462.869	11.682	669.765	898.258	0.443	0.584	***5.713***	11.682	9.003
2021-09-22 17:15	7856121	7.910	-81.816	462.722	11.691	670.222	898.661	0.443	0.584	***5.630***	11.691	11.767
2021-09-22 17:30	7857021	7.912	-81.944	462.402	11.696	670.863	899.411	0.443	0.585	***5.583***	11.696	7.744
2021-09-22 17:45	7857921	7.915	-82.066	462.276	11.709	671.281	899.662	0.444	0.585	***5.543***	11.709	7.89
2021-09-22 18:00	7858821	7.915	-82.114	462.145	11.713	670.963	899.153	0.443	0.584	***5.497***	11.713	8.057
2021-09-22 18:15	7859721	7.913	-81.992	462.188	11.705	671.646	900.261	0.444	0.585	***5.417***	11.705	8.808
2021-09-22 18:30	7860621	7.912	-81.93	462.164	11.679	670.989	899.966	0.444	0.585	***5.342***	11.679	8.822
2021-09-22 18:45	7861521	7.913	-81.961	462.116	11.662	670.966	900.333	0.444	0.585	***5.244***	11.662	8.496

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-22 19:00	7862421	7.911	-81.828	462.097	11.648	670.947	900.628	0.444	0.585	***5.149***	11.648	8.625
2021-09-22 19:15	7863321	7.910	-81.758	462.011	11.627	670.586	900.63	0.444	0.585	***5.074***	11.627	9.271
2021-09-22 19:30	7864221	7.905	-81.513	461.98	11.601	670.363	900.934	0.444	0.586	***5.003***	11.601	8.652
2021-09-22 19:45	7865121	7.903	-81.346	461.892	11.572	669.835	900.889	0.444	0.586	***4.953***	11.572	8.885
2021-09-22 20:00	7866021	7.898	-81.11	461.985	11.548	669.493	900.989	0.444	0.586	***4.889***	11.548	9.233
2021-09-22 20:15	7866921	7.894	-80.862	462.061	11.53	669.376	901.244	0.444	0.586	***4.829***	11.53	8.626
2021-09-22 20:30	7867821	7.890	-80.616	462.135	11.512	669.059	901.228	0.444	0.586	***4.778***	11.512	7.873
2021-09-22 20:45	7868721	7.879	-80.018	462.369	11.498	668.899	901.352	0.444	0.586	***4.708***	11.498	7.614
2021-09-22 21:00	7869621	7.868	-79.398	462.667	11.49	668.85	901.477	0.444	0.586	***4.655***	11.49	7.628
2021-09-22 21:15	7870521	7.858	-78.824	462.958	11.478	668.74	901.594	0.444	0.586	***4.585***	11.478	9.871
2021-09-22 21:30	7871421	7.848	-78.216	463.313	11.468	668.688	901.756	0.444	0.586	***4.509***	11.468	6.279
2021-09-22 21:45	7872321	7.835	-77.517	463.766	11.452	668.465	901.83	0.444	0.586	***4.402***	11.452	5.244
2021-09-22 22:00	7873221	7.822	-76.749	464.212	11.426	668.169	902.027	0.445	0.586	***4.324***	11.426	4.793
2021-09-22 22:15	7874121	7.808	-75.974	464.598	11.391	667.699	902.207	0.445	0.586	***4.181***	11.391	4.218
2021-09-22 22:30	7875021	7.800	-75.514	465.058	11.331	666.778	902.359	0.445	0.587	***4.025***	11.331	6.616
2021-09-22 22:45	7875921	7.796	-75.226	465.454	11.287	666.026	902.371	0.445	0.587	***3.897***	11.287	6.904
2021-09-22 23:00	7876821	7.789	-74.84	465.728	11.258	665.628	902.51	0.445	0.587	***3.904***	11.258	6.715
2021-09-22 23:15	7877721	7.782	-74.451	465.988	11.223	665.227	902.784	0.445	0.587	***3.925***	11.223	6.75
2021-09-22 23:30	7878621	7.777	-74.151	466.188	11.196	664.654	902.635	0.445	0.587	***3.932***	11.196	6.626
2021-09-22 23:45	7879521	7.771	-73.812	466.3	11.163	664.135	902.703	0.445	0.587	***3.899***	11.163	5.907
2021-09-23 00:00	7880421	7.766	-73.526	466.458	11.127	663.626	902.855	0.445	0.587	***3.865***	11.127	5.866
2021-09-23 00:15	7881321	7.760	-73.199	466.71	11.104	663.211	902.827	0.445	0.587	***3.817***	11.104	5.633
2021-09-23 00:30	7882221	7.755	-72.887	466.918	11.076	662.851	903.011	0.445	0.587	***3.736***	11.076	5.232
2021-09-23 00:45	7883121	7.751	-72.658	467.17	11.025	662.051	903.113	0.445	0.587	***3.663***	11.025	6.007
2021-09-23 01:00	7884021	7.746	-72.374	467.547	10.971	661.208	903.241	0.445	0.587	***3.584***	10.971	6.385
2021-09-23 01:15	7884921	7.745	-72.284	467.938	10.927	660.392	903.147	0.445	0.587	***3.554***	10.927	112.304
2021-09-23 01:30	7885821	7.742	-72.086	468.222	10.904	659.921	903.046	0.445	0.587	***3.590***	10.904	129.148
2021-09-23 01:45	7886722	7.737	-71.805	468.477	10.888	659.689	903.113	0.445	0.587	***3.606***	10.888	125.958
2021-09-23 02:00	7887622	7.734	-71.621	468.689	10.871	659.504	903.252	0.445	0.587	***3.494***	10.871	42.546
2021-09-23 02:15	7888522	7.732	-71.514	468.894	10.852	659.173	903.251	0.445	0.587	***3.471***	10.852	43.316
2021-09-23 02:30	7889422	7.732	-71.526	469.097	10.81	658.441	903.243	0.445	0.587	***3.329***	10.81	42.689
2021-09-23 02:45	7890322	7.730	-71.414	469.28	10.778	657.847	903.194	0.445	0.587	***3.248***	10.778	4.977
2021-09-23 03:00	7891222	7.726	-71.175	469.478	10.752	657.366	903.145	0.445	0.587	***3.202***	10.752	4.79
2021-09-23 03:15	7892122	7.721	-70.868	469.688	10.725	656.939	903.207	0.445	0.587	***3.221***	10.725	4.554
2021-09-23 03:30	7893022	7.720	-70.813	469.855	10.691	656.451	903.338	0.445	0.587	***3.184***	10.691	3.351
2021-09-23 03:45	7893922	7.722	-70.949	470.031	10.672	656.07	903.261	0.445	0.587	***2.983***	10.672	3.131
2021-09-23 04:00	7894822	7.722	-70.934	470.191	10.653	655.849	903.412	0.445	0.587	***2.752***	10.653	3.311
2021-09-23 04:15	7895722	7.721	-70.879	470.377	10.632	655.574	903.522	0.445	0.587	***2.251***	10.632	3.283
2021-09-23 04:30	7896622	7.720	-70.801	470.513	10.609	655.102	903.426	0.445	0.587	***1.920***	10.609	3.316
2021-09-23 04:45	7897522	7.720	-70.775	470.799	10.58	654.826	903.734	0.445	0.587	***1.817***	10.58	3.317
2021-09-23 05:00	7898422	7.720	-70.782	471.143	10.543	654.307	903.897	0.445	0.588	***1.775***	10.543	3.37
2021-09-23 05:15	7899322	7.719	-70.722	471.541	10.517	653.79	903.805	0.445	0.587	***1.758***	10.517	3.363
2021-09-23 05:30	7900222	7.717	-70.608	471.77	10.5	653.551	903.89	0.445	0.588	***1.710***	10.5	3.189
2021-09-23 05:45	7901122	7.717	-70.603	471.939	10.482	653.225	903.849	0.445	0.588	***1.630***	10.482	3.139
2021-09-23 06:00	7902022	7.717	-70.61	472.12	10.466	652.958	903.871	0.445	0.588	***1.534***	10.466	3.275
2021-09-23 06:15	7902922	7.717	-70.57	472.451	10.44	652.568	903.955	0.445	0.588	***1.384***	10.44	4.367
2021-09-23 06:30	7903822	7.711	-70.264	472.718	10.417	652.182	903.967	0.445	0.588	***1.411***	10.417	4.323
2021-09-23 06:45	7904722	7.705	-69.895	472.897	10.393	651.766	903.969	0.445	0.588	***1.483***	10.393	4.221
2021-09-23 07:00	7905622	7.700	-69.582	473.15	10.366	651.275	903.934	0.445	0.588	***1.525***	10.366	3.343
2021-09-23 07:15	7906522	7.699	-69.566	473.384	10.341	650.816	903.883	0.445	0.588	***1.551***	10.341	3.236
2021-09-23 07:30	7907422	7.700	-69.573	473.636	10.311	650.375	904	0.445	0.588	***1.517***	10.311	3.156
2021-09-23 07:45	7908322	7.702	-69.673	473.872	10.282	649.847	903.967	0.445	0.588	***1.496***	10.282	3.107
2021-09-23 08:00	7909222	7.701	-69.616	474.154	10.258	649.4	903.928	0.444	0.588	***1.470***	10.258	2.94
2021-09-23 08:15	7910122	7.700	-69.592	474.397	10.238	648.97	903.789	0.444	0.587	***1.442***	10.238	2.954
2021-09-23 08:30	7911022	7.701	-69.628	474.559	10.221	648.59	903.688	0.444	0.587	***1.412***	10.221	5.067
2021-09-23 08:45	7911922	7.702	-69.692	474.743	10.196	648.228	903.777	0.444	0.587	***1.394***	10.196	3.373

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-23 09:00	7912822	7.700	-69.542	474.969	10.159	647.703	903.934	0.444	0.588	***1.368***	10.159	2.91
2021-09-23 09:15	7913722	7.696	-69.33	475.25	10.136	647.162	903.742	0.444	0.587	***1.342***	10.136	3.704
2021-09-23 09:30	7914622	7.697	-69.389	475.272	10.125	646.952	903.706	0.444	0.587	***1.328***	10.125	3.449
2021-09-23 09:45	7915522	7.701	-69.606	475.1	10.1	646.692	903.943	0.444	0.588	***1.313***	10.1	3.269
2021-09-23 10:00	7916422	7.704	-69.737	475.141	10.075	646.23	903.894	0.444	0.588	***1.291***	10.075	3.777
2021-09-23 10:15	7917322	7.702	-69.664	475.165	10.066	646.07	903.899	0.444	0.588	***1.285***	10.066	3.982
2021-09-23 10:30	7918222	7.700	-69.551	475.162	10.07	646.048	903.764	0.444	0.587	***1.379***	10.07	5.037
2021-09-23 10:45	7919122	7.702	-69.63	475.06	10.08	646.013	903.483	0.444	0.587	***1.724***	10.08	4.462
2021-09-23 11:00	7920022	7.707	-69.931	474.926	10.097	646.073	903.162	0.444	0.587	***2.015***	10.097	4.875
2021-09-23 11:15	7920922	7.713	-70.3	474.85	10.124	646.339	902.88	0.444	0.587	***2.347***	10.124	4.408
2021-09-23 11:30	7921822	7.716	-70.438	474.704	10.154	646.754	902.731	0.444	0.587	***2.586***	10.154	4.426
2021-09-23 11:45	7922722	7.714	-70.369	474.44	10.18	647.07	902.559	0.444	0.587	***2.688***	10.18	4.832
2021-09-23 12:00	7923622	7.713	-70.302	474.161	10.207	647.566	902.587	0.444	0.587	***2.819***	10.207	5.184
2021-09-23 12:15	7924522	7.714	-70.369	473.903	10.247	648.199	902.501	0.444	0.587	***2.974***	10.247	7.87
2021-09-23 12:30	7925422	7.714	-70.4	473.777	10.299	649.035	902.416	0.444	0.587	***3.102***	10.299	4.414
2021-09-23 12:45	7926322	7.715	-70.469	473.767	10.356	649.763	902.075	0.444	0.586	***3.245***	10.356	4.658
2021-09-23 13:00	7927222	7.713	-70.369	473.77	10.403	650.491	901.949	0.444	0.586	***3.357***	10.403	5.029
2021-09-23 13:15	7928122	7.716	-70.541	473.646	10.46	651.369	901.806	0.444	0.586	***3.458***	10.46	5.589
2021-09-23 13:30	7929022	7.722	-70.868	473.469	10.508	652.13	901.722	0.444	0.586	***3.529***	10.508	5.343
2021-09-23 13:45	7929922	7.726	-71.123	473.307	10.568	653.008	901.515	0.444	0.586	***3.661***	10.568	4.725
2021-09-23 14:00	7930822	7.728	-71.259	473.107	10.644	654.241	901.414	0.444	0.586	***3.922***	10.644	5.59
2021-09-23 14:15	7931722	7.729	-71.323	472.935	10.719	655.658	901.57	0.444	0.586	***4.161***	10.719	5.038
2021-09-23 14:30	7932622	7.731	-71.452	472.735	10.777	656.708	901.646	0.444	0.586	***4.294***	10.777	5.174
2021-09-23 14:45	7933522	7.734	-71.633	472.42	10.836	657.789	901.732	0.444	0.586	***4.311***	10.836	5.405
2021-09-23 15:00	7934422	7.738	-71.902	472.144	10.907	659.069	901.822	0.444	0.586	***4.349***	10.907	5.767
2021-09-23 15:15	7935322	7.739	-71.959	471.965	10.98	660.384	901.888	0.444	0.586	***4.421***	10.98	4.916
2021-09-23 15:30	7936222	7.743	-72.222	471.688	11.044	661.584	902.026	0.444	0.586	***4.570***	11.044	5.122
2021-09-23 15:45	7937122	7.746	-72.374	471.443	11.115	662.981	902.257	0.444	0.586	***4.611***	11.115	4.668
2021-09-23 16:00	7938022	7.754	-72.849	471.1	11.19	664.314	902.312	0.444	0.587	***4.593***	11.19	5.144
2021-09-23 16:15	7938922	7.761	-73.247	470.744	11.239	665.309	902.526	0.445	0.587	***4.581***	11.239	4.832
2021-09-23 16:30	7939822	7.764	-73.423	470.279	11.258	665.693	902.611	0.445	0.587	***4.554***	11.258	5.071
2021-09-23 16:45	7940722	7.765	-73.473	469.846	11.266	665.95	902.772	0.445	0.587	***4.556***	11.266	5.396
2021-09-23 17:00	7941622	7.767	-73.6	469.624	11.274	666.117	902.805	0.445	0.587	***4.609***	11.274	5.266
2021-09-23 17:15	7942522	7.771	-73.862	469.221	11.276	665.377	901.743	0.444	0.586	***4.664***	11.276	5.61
2021-09-23 17:30	7943422	7.773	-73.965	468.806	11.258	665.744	902.68	0.445	0.587	***4.796***	11.258	8.162
2021-09-23 17:45	7944322	7.773	-73.953	468.341	11.222	665.134	902.691	0.445	0.587	***5.206***	11.222	6.736
2021-09-23 18:00	7945222	7.770	-73.774	467.862	11.183	664.511	902.757	0.445	0.587	***5.706***	11.183	6.097
2021-09-23 18:15	7946122	7.770	-73.76	467.592	11.159	663.963	902.559	0.445	0.587	***6.075***	11.159	6.373
2021-09-23 18:30	7947022	7.775	-74.034	467.414	11.128	663.491	902.644	0.445	0.587	***6.182***	11.128	15.144
2021-09-23 18:45	7947922	7.778	-74.21	467.294	11.105	662.947	902.462	0.444	0.587	***6.184***	11.105	6.158
2021-09-23 19:00	7948822	7.779	-74.255	467.218	11.084	662.356	902.129	0.444	0.586	***6.217***	11.084	6.599
2021-09-23 19:15	7949722	7.781	-74.358	467.163	11.071	662.313	902.387	0.444	0.587	***6.197***	11.071	6.064
2021-09-23 19:30	7950622	7.786	-74.611	466.939	11.06	662.169	902.444	0.444	0.587	***6.155***	11.06	5.76
2021-09-23 19:45	7951522	7.792	-74.949	466.639	11.053	662.078	902.494	0.444	0.587	***6.112***	11.053	5.702
2021-09-23 20:00	7952422	7.797	-75.235	466.377	11.043	661.938	902.523	0.444	0.587	***6.033***	11.043	5.92
2021-09-23 20:15	7953322	7.802	-75.5	466.202	11.03	661.743	902.574	0.444	0.587	***5.961***	11.03	5.77
2021-09-23 20:30	7954222	7.804	-75.614	466.005	11.017	661.581	902.649	0.445	0.587	***5.800***	11.017	5.047
2021-09-23 20:45	7955122	7.807	-75.784	465.859	11.004	661.404	902.72	0.445	0.587	***5.680***	11.004	4.948
2021-09-23 21:00	7956022	7.812	-76.06	465.842	10.999	661.523	903.008	0.445	0.587	***5.518***	10.999	4.808
2021-09-23 21:15	7956922	7.820	-76.518	465.58	10.991	661.572	903.258	0.445	0.587	***5.358***	10.991	4.971
2021-09-23 21:30	7957822	7.821	-76.573	465.502	10.985	661.582	903.412	0.445	0.587	***5.215***	10.985	5.68
2021-09-23 21:45	7958722	7.818	-76.396	465.521	10.981	661.65	903.598	0.445	0.587	***5.146***	10.981	6.218
2021-09-23 22:00	7959622	7.816	-76.27	465.604	10.976	661.675	903.744	0.445	0.587	***5.066***	10.976	6.111
2021-09-23 22:15	7960522	7.812	-76.06	465.885	10.971	661.701	903.895	0.445	0.588	***4.949***	10.971	4.729
2021-09-23 22:30	7961422	7.808	-75.855	466.205	10.967	661.848	904.198	0.445	0.588	***4.881***	10.967	4.732
2021-09-23 22:45	7962322	7.804	-75.593	466.45	10.962	661.932	904.426	0.445	0.588	***4.804***	10.962	5.114

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-23 23:00	7963222	7.796	-75.15	466.713	10.956	661.904	904.546	0.445	0.588	***4.714***	10.956	4.66
2021-09-23 23:15	7964122	7.791	-74.883	466.951	10.943	661.887	904.815	0.446	0.588	***4.639***	10.943	3.873
2021-09-23 23:30	7965022	7.789	-74.778	467.263	10.937	661.772	904.806	0.446	0.588	***4.589***	10.937	3.574
2021-09-23 23:45	7965922	7.788	-74.692	467.495	10.929	661.897	905.158	0.446	0.588	***4.272***	10.929	3.425
2021-09-24 00:00	7966822	7.785	-74.542	467.697	10.924	661.992	905.417	0.446	0.589	***4.083***	10.924	3.858
2021-09-24 00:15	7967722	7.781	-74.334	467.826	10.917	661.94	905.501	0.446	0.589	***3.881***	10.917	3.417
2021-09-24 00:30	7968622	7.778	-74.122	467.983	10.91	662.086	905.877	0.446	0.589	***3.744***	10.91	3.488
2021-09-24 00:45	7969522	7.777	-74.062	468.124	10.9	661.998	906.002	0.446	0.589	***3.709***	10.9	4.079
2021-09-24 01:00	7970422	7.778	-74.108	468.315	10.886	661.909	906.202	0.446	0.589	***3.686***	10.886	5.27
2021-09-24 01:15	7971322	7.780	-74.213	468.398	10.866	661.746	906.449	0.446	0.589	***3.576***	10.866	3.97
2021-09-24 01:30	7972222	7.780	-74.22	468.501	10.847	661.371	906.391	0.446	0.589	***3.506***	10.847	4.014
2021-09-24 01:45	7973122	7.779	-74.191	468.553	10.823	661.182	906.71	0.446	0.589	***3.438***	10.823	3.891
2021-09-24 02:00	7974022	7.780	-74.215	468.625	10.799	660.819	906.764	0.446	0.589	***3.428***	10.799	3.956
2021-09-24 02:15	7974922	7.782	-74.356	468.765	10.78	660.535	906.831	0.446	0.589	***3.472***	10.78	3.936
2021-09-24 02:30	7975822	7.784	-74.415	468.804	10.761	660.213	906.833	0.446	0.589	***3.519***	10.761	3.722
2021-09-24 02:45	7976722	7.786	-74.52	468.696	10.742	659.994	906.992	0.446	0.590	***3.641***	10.742	3.537
2021-09-24 03:00	7977622	7.789	-74.694	468.653	10.722	659.683	907.038	0.446	0.590	***3.774***	10.722	3.56
2021-09-24 03:15	7978522	7.789	-74.692	468.63	10.704	659.401	907.073	0.446	0.590	***3.787***	10.704	4.743
2021-09-24 03:30	7979422	7.787	-74.584	468.606	10.687	659.241	907.257	0.447	0.590	***3.724***	10.687	3.419
2021-09-24 03:45	7980322	7.782	-74.301	468.794	10.671	659.008	907.334	0.447	0.590	***3.640***	10.671	9.529
2021-09-24 04:00	7981222	7.778	-74.096	469.009	10.654	658.813	907.463	0.447	0.590	***3.511***	10.654	3.197
2021-09-24 04:15	7982122	7.777	-74.031	469.202	10.638	658.558	907.486	0.447	0.590	***3.380***	10.638	2.752
2021-09-24 04:30	7983022	7.777	-73.979	469.412	10.621	658.335	907.605	0.447	0.590	***3.193***	10.621	2.513
2021-09-24 04:45	7983922	7.776	-73.922	469.598	10.607	658.131	907.652	0.447	0.590	***3.116***	10.607	2.403
2021-09-24 05:00	7984822	7.775	-73.879	469.812	10.593	658.018	907.824	0.447	0.590	***2.966***	10.593	2.499
2021-09-24 05:15	7985722	7.770	-73.621	470.134	10.582	657.941	907.985	0.447	0.590	***2.656***	10.582	2.584
2021-09-24 05:30	7986622	7.766	-73.397	470.451	10.569	657.745	908.023	0.447	0.590	***2.416***	10.569	2.484
2021-09-24 05:45	7987522	7.761	-73.071	470.875	10.555	657.724	908.323	0.447	0.590	***2.245***	10.555	2.602
2021-09-24 06:00	7988422	7.755	-72.763	471.295	10.544	657.65	908.496	0.447	0.591	***2.136***	10.544	2.586
2021-09-24 06:15	7989322	7.753	-72.606	471.705	10.532	657.539	908.624	0.447	0.591	***2.021***	10.532	2.48
2021-09-24 06:30	7990222	7.748	-72.374	472.141	10.522	657.449	908.732	0.447	0.591	***1.915***	10.522	2.554
2021-09-24 06:45	7991122	7.745	-72.2	472.616	10.512	657.143	908.555	0.447	0.591	***1.818***	10.512	2.412
2021-09-24 07:00	7992022	7.744	-72.095	472.971	10.498	656.482	907.988	0.447	0.590	***1.786***	10.498	2.526
2021-09-24 07:15	7992922	7.740	-71.905	473.253	10.484	656.765	908.721	0.447	0.591	***1.735***	10.484	2.387
2021-09-24 07:30	7993822	7.735	-71.619	473.477	10.469	656.407	908.579	0.447	0.591	***1.647***	10.469	2.413
2021-09-24 07:45	7994722	7.732	-71.445	473.674	10.452	656.167	908.646	0.447	0.591	***1.561***	10.452	2.477
2021-09-24 08:00	7995622	7.729	-71.268	473.875	10.438	656.004	908.762	0.447	0.591	***1.487***	10.438	2.377
2021-09-24 08:15	7996522	7.725	-71.054	474.099	10.421	655.225	908.098	0.447	0.590	***1.383***	10.421	2.566
2021-09-24 08:30	7997422	7.722	-70.882	474.371	10.406	655.548	908.903	0.447	0.591	***1.235***	10.406	2.601
2021-09-24 08:45	7998322	7.717	-70.565	474.535	10.392	655.283	908.86	0.447	0.591	***1.097***	10.392	2.817
2021-09-24 09:00	7999222	7.712	-70.3	474.7	10.382	655.129	908.891	0.447	0.591	***1.076***	10.382	2.941
2021-09-24 09:15	8000122	7.708	-70.083	474.938	10.371	654.806	908.703	0.447	0.591	***1.047***	10.371	2.71
2021-09-24 09:30	8001022	7.706	-69.969	475.131	10.365	654.863	908.943	0.447	0.591	***1.019***	10.365	2.61
2021-09-24 09:45	8001923	7.705	-69.885	475.286	10.361	654.649	908.741	0.447	0.591	***0.990***	10.361	2.776
2021-09-24 10:00	8002823	7.702	-69.695	475.386	10.358	654.729	908.927	0.447	0.591	***0.976***	10.358	2.688
2021-09-24 10:15	8003723	7.700	-69.633	475.498	10.36	654.743	908.882	0.447	0.591	***0.994***	10.36	2.441
2021-09-24 10:30	8004623	7.700	-69.587	475.627	10.361	654.808	908.967	0.447	0.591	***1.010***	10.361	2.634
2021-09-24 10:45	8005523	7.698	-69.492	475.875	10.358	654.779	908.997	0.447	0.591	***0.999***	10.358	2.792
2021-09-24 11:00	8006423	7.691	-69.122	476.185	10.374	654.737	908.554	0.447	0.591	***1.181***	10.374	3.229
2021-09-24 11:15	8007323	7.686	-68.848	476.478	10.404	654.938	908.098	0.447	0.590	***2.009***	10.404	3.927
2021-09-24 11:30	8008223	7.692	-69.199	476.581	10.438	654.795	907.08	0.446	0.590	***3.428***	10.438	6.132
2021-09-24 11:45	8009123	7.723	-70.946	476.183	10.464	654.548	906.133	0.446	0.589	***4.373***	10.464	6.531
2021-09-24 12:00	8010023	7.760	-73.006	475.219	10.492	654.442	905.295	0.445	0.588	***4.861***	10.492	6.707
2021-09-24 12:15	8010923	7.786	-74.472	474.137	10.523	654.784	905.045	0.445	0.588	***5.070***	10.523	7.112
2021-09-24 12:30	8011823	7.809	-75.765	473.212	10.55	655.142	904.885	0.445	0.588	***5.147***	10.55	7.176
2021-09-24 12:45	8012723	7.836	-77.312	472.23	10.565	655.44	904.948	0.445	0.588	***5.201***	10.565	7.614

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-24 13:00	8013623	7.852	-78.235	471.348	10.581	655.592	904.77	0.445	0.588	***5.212***	10.581	7.134
2021-09-24 13:15	8014523	7.863	-78.845	470.778	10.61	655.887	904.475	0.445	0.588	***5.224***	10.61	7.002
2021-09-24 13:30	8015423	7.869	-79.191	470.303	10.664	656.842	904.526	0.445	0.588	***5.318***	10.664	7.209
2021-09-24 13:45	8016323	7.872	-79.398	469.922	10.713	657.12	903.734	0.445	0.587	***5.458***	10.713	7.708
2021-09-24 14:00	8017223	7.873	-79.429	469.595	10.753	658.07	904.099	0.445	0.588	***5.544***	10.753	8.555
2021-09-24 14:15	8018123	7.878	-79.739	469.195	10.814	659.376	904.424	0.445	0.588	***5.643***	10.814	8.644
2021-09-24 14:30	8019023	7.887	-80.259	468.935	10.883	660.487	904.334	0.445	0.588	***5.894***	10.883	7.416
2021-09-24 14:45	8019923	7.899	-80.938	468.632	10.935	661.278	904.186	0.445	0.588	***6.026***	10.935	7.674
2021-09-24 15:00	8020823	7.902	-81.143	468.15	10.968	661.903	904.263	0.445	0.588	***6.091***	10.968	6.972
2021-09-24 15:15	8021723	7.905	-81.327	467.626	10.997	662.385	904.23	0.445	0.588	***6.083***	10.997	7.205
2021-09-24 15:30	8022623	7.911	-81.682	467.151	11.028	662.946	904.255	0.445	0.588	***6.108***	11.028	6.62
2021-09-24 15:45	8023523	7.912	-81.754	466.922	11.05	663.337	904.282	0.445	0.588	***6.100***	11.05	12.826
2021-09-24 16:00	8024423	7.914	-81.882	466.682	11.09	664.099	904.383	0.445	0.588	***6.158***	11.09	13.029
2021-09-24 16:15	8025323	7.915	-81.913	466.355	11.112	664.482	904.369	0.445	0.588	***6.249***	11.112	6.73
2021-09-24 16:30	8026223	7.916	-81.959	466.233	11.123	664.665	904.372	0.445	0.588	***6.266***	11.123	6.985
2021-09-24 16:45	8027123	7.918	-82.109	466.043	11.146	664.891	904.138	0.445	0.588	***6.263***	11.146	6.729
2021-09-24 17:00	8028023	7.921	-82.25	465.831	11.17	665.165	903.953	0.445	0.588	***6.281***	11.17	6.271
2021-09-24 17:15	8028923	7.922	-82.324	465.633	11.167	665.237	904.115	0.445	0.588	***6.267***	11.167	6.972
2021-09-24 17:30	8029823	7.924	-82.464	465.256	11.152	665.341	904.605	0.446	0.588	***6.231***	11.152	7.202
2021-09-24 17:45	8030723	7.928	-82.688	464.779	11.144	665.321	904.776	0.446	0.588	***6.167***	11.144	7.505
2021-09-24 18:00	8031623	7.935	-83.051	464.145	11.131	665.169	904.867	0.446	0.588	***6.070***	11.131	6.915
2021-09-24 18:15	8032523	7.938	-83.196	463.804	11.124	664.915	904.689	0.446	0.588	***5.965***	11.124	6.61
2021-09-24 18:30	8033423	7.938	-83.196	463.68	11.121	665.262	905.238	0.446	0.588	***5.851***	11.121	6.515
2021-09-24 18:45	8034323	7.934	-82.974	463.659	11.12	665.443	905.491	0.446	0.589	***5.739***	11.12	6.242
2021-09-24 19:00	8035223	7.933	-82.934	463.656	11.119	665.676	905.841	0.446	0.589	***5.618***	11.119	6.735
2021-09-24 19:15	8036123	7.931	-82.796	463.561	11.118	665.769	905.995	0.446	0.589	***5.538***	11.118	6.501
2021-09-24 19:30	8037023	7.926	-82.562	463.785	11.114	665.763	906.079	0.446	0.589	***5.422***	11.114	6.286
2021-09-24 19:45	8037923	7.923	-82.378	463.961	11.111	665.619	905.96	0.446	0.589	***5.337***	11.111	6.02
2021-09-24 20:00	8038823	7.920	-82.188	464.069	11.101	665.713	906.314	0.446	0.589	***5.276***	11.101	6.45
2021-09-24 20:15	8039723	7.918	-82.097	464.164	11.092	665.37	906.066	0.446	0.589	***5.214***	11.092	7.718
2021-09-24 20:30	8040623	7.913	-81.811	464.262	11.085	665.779	906.788	0.447	0.589	***5.158***	11.085	6.609
2021-09-24 20:45	8041523	7.908	-81.511	464.348	11.078	665.778	906.952	0.447	0.590	***5.094***	11.078	6.986
2021-09-24 21:00	8042423	7.903	-81.251	464.51	11.073	665.835	907.145	0.447	0.590	***5.061***	11.073	6.676
2021-09-24 21:15	8043323	7.898	-80.943	464.691	11.068	665.855	907.289	0.447	0.590	***4.967***	11.068	6.331
2021-09-24 21:30	8044223	7.892	-80.619	464.741	11.065	665.844	907.35	0.447	0.590	***4.869***	11.065	6.244
2021-09-24 21:45	8045123	7.889	-80.423	464.879	11.06	665.87	907.503	0.447	0.590	***4.803***	11.06	6.201
2021-09-24 22:00	8046023	7.887	-80.326	465.022	11.05	665.806	907.638	0.447	0.590	***4.784***	11.05	6.207
2021-09-24 22:15	8046923	7.882	-80.025	465.242	11.041	665.7	907.707	0.447	0.590	***4.723***	11.041	5.838
2021-09-24 22:30	8047823	7.877	-79.732	465.456	11.031	665.526	907.699	0.447	0.590	***4.666***	11.031	5.78
2021-09-24 22:45	8048723	7.873	-79.496	465.678	11.021	665.477	907.881	0.447	0.590	***4.615***	11.021	5.464
2021-09-24 23:00	8049623	7.873	-79.508	465.857	11.011	665.296	907.872	0.447	0.590	***4.556***	11.011	5.463
2021-09-24 23:15	8050523	7.870	-79.341	466.043	11.005	665.243	907.942	0.447	0.590	***4.500***	11.005	5.484
2021-09-24 23:30	8051423	7.860	-78.809	466.262	11	665.224	908.037	0.447	0.590	***4.454***	11	5.231
2021-09-24 23:45	8052323	7.847	-78.037	466.489	10.995	665.179	908.084	0.447	0.590	***4.427***	10.995	5.117
2021-09-25 00:00	8053223	7.835	-77.374	466.632	10.993	665.289	908.289	0.447	0.590	***4.359***	10.993	4.341
2021-09-25 00:15	8054123	7.826	-76.857	466.76	10.987	665.263	908.403	0.447	0.590	***4.271***	10.987	4.048
2021-09-25 00:30	8055023	7.816	-76.296	466.975	10.981	665.297	908.58	0.448	0.591	***4.178***	10.981	4.448
2021-09-25 00:45	8055923	7.805	-75.705	467.275	10.975	665.215	908.62	0.448	0.591	***4.059***	10.975	4.279
2021-09-25 01:00	8056823	7.794	-75.068	467.685	10.969	665.393	908.988	0.448	0.591	***3.943***	10.969	4.278
2021-09-25 01:15	8057723	7.786	-74.577	468.093	10.961	665.394	909.196	0.448	0.591	***3.819***	10.961	4.166
2021-09-25 01:30	8058623	7.780	-74.275	468.482	10.954	665.329	909.271	0.448	0.591	***3.650***	10.954	4.259
2021-09-25 01:45	8059523	7.774	-73.9	468.827	10.949	665.333	909.386	0.448	0.591	***3.613***	10.949	4.514
2021-09-25 02:00	8060423	7.766	-73.466	469.199	10.942	665.336	909.553	0.448	0.591	***3.506***	10.942	4.37
2021-09-25 02:15	8061323	7.757	-72.968	469.674	10.938	665.297	909.611	0.448	0.591	***3.407***	10.938	4.397
2021-09-25 02:30	8062223	7.751	-72.629	470.074	10.933	665.398	909.857	0.448	0.591	***3.342***	10.933	3.822
2021-09-25 02:45	8063123	7.745	-72.269	470.487	10.926	665.422	910.055	0.448	0.592	***3.270***	10.926	3.231

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-25 03:00	8064023	7.738	-71.909	470.957	10.921	665.408	910.15	0.448	0.592	***3.178***	10.921	3.859
2021-09-25 03:15	8064923	7.733	-71.628	471.34	10.915	665.303	910.159	0.448	0.592	***3.042***	10.915	4.308
2021-09-25 03:30	8065823	7.729	-71.352	471.696	10.909	665.506	910.586	0.448	0.592	***2.893***	10.909	11.81
2021-09-25 03:45	8066723	7.725	-71.168	472.161	10.903	665.518	910.741	0.449	0.592	***2.735***	10.903	4.24
2021-09-25 04:00	8067623	7.722	-70.984	472.53	10.894	665.529	910.965	0.449	0.592	***2.588***	10.894	3.793
2021-09-25 04:15	8068523	7.719	-70.784	473.024	10.887	665.571	911.19	0.449	0.592	***2.450***	10.887	3.729
2021-09-25 04:30	8069423	7.715	-70.579	473.493	10.88	665.594	911.39	0.449	0.592	***2.294***	10.88	3.799
2021-09-25 04:45	8070323	7.709	-70.26	473.942	10.869	665.576	911.634	0.449	0.593	***2.047***	10.869	7.608
2021-09-25 05:00	8071223	7.702	-69.859	474.428	10.859	665.298	911.489	0.449	0.592	***1.843***	10.859	4.996
2021-09-25 05:15	8072123	7.738	-71.843	473.093	10.851	664.865	911.077	0.449	0.592	***1.780***	10.851	4.493
2021-09-25 05:30	8073023	7.730	-71.416	473.152	10.845	664.777	911.104	0.449	0.592	***1.813***	10.845	4.14
2021-09-25 05:45	8073923	7.723	-71.011	473.355	10.838	664.587	911.021	0.449	0.592	***1.786***	10.838	4.071
2021-09-25 06:00	8074823	7.715	-70.553	473.596	10.829	664.504	911.106	0.449	0.592	***1.756***	10.829	7.589
2021-09-25 06:15	8075723	7.707	-70.128	473.965	10.821	664.287	910.998	0.449	0.592	***1.727***	10.821	3.577
2021-09-25 06:30	8076623	7.701	-69.802	474.256	10.813	664.256	911.15	0.449	0.592	***1.677***	10.813	3.754
2021-09-25 06:45	8077523	7.696	-69.492	474.559	10.805	664.123	911.158	0.449	0.592	***1.594***	10.805	3.69
2021-09-25 07:00	8078423	7.692	-69.244	474.912	10.799	664.128	911.317	0.449	0.592	***1.453***	10.799	3.327
2021-09-25 07:15	8079323	7.687	-69.003	475.215	10.793	664.012	911.295	0.449	0.592	***1.305***	10.793	3.126
2021-09-25 07:30	8080223	7.687	-68.953	475.446	10.791	663.898	911.186	0.449	0.592	***1.181***	10.791	15.183
2021-09-25 07:45	8081123	7.683	-68.76	475.653	10.792	664.091	911.435	0.449	0.592	***1.073***	10.792	3.108
2021-09-25 08:00	8082023	7.679	-68.548	475.873	10.798	664.167	911.386	0.449	0.592	***0.983***	10.798	3.084
2021-09-25 08:15	8082923	7.674	-68.254	476.123	10.803	664.263	911.404	0.449	0.592	***0.933***	10.803	3.055
2021-09-25 08:30	8083823	7.669	-67.947	476.373	10.808	664.486	911.578	0.449	0.593	***0.896***	10.808	3.028
2021-09-25 08:45	8084723	7.663	-67.656	476.64	10.811	664.638	911.72	0.449	0.593	***0.912***	10.811	2.994
2021-09-25 09:00	8085623	7.660	-67.482	476.805	10.811	664.777	911.918	0.449	0.593	***0.939***	10.811	3.101
2021-09-25 09:15	8086523	7.658	-67.329	477.02	10.811	664.826	911.985	0.449	0.593	***0.925***	10.811	3.266
2021-09-25 09:30	8087423	7.658	-67.341	477.17	10.809	664.905	912.143	0.449	0.593	***0.866***	10.809	3.282
2021-09-25 09:45	8088323	7.659	-67.406	477.325	10.807	664.99	912.298	0.449	0.593	***0.762***	10.807	3.582
2021-09-25 10:00	8089223	7.660	-67.463	477.508	10.805	665.217	912.665	0.449	0.593	***0.632***	10.805	3.336
2021-09-25 10:15	8090123	7.663	-67.642	477.556	10.803	665.392	912.944	0.450	0.593	***0.535***	10.803	3.67
2021-09-25 10:30	8091023	7.666	-67.818	477.518	10.803	665.658	913.322	0.450	0.594	***0.523***	10.803	3.699
2021-09-25 10:45	8091923	7.670	-68.002	477.391	10.807	665.777	913.391	0.450	0.594	***0.632***	10.807	3.445
2021-09-25 11:00	8092823	7.669	-67.978	477.394	10.82	666.186	913.643	0.450	0.594	***0.788***	10.82	3.587
2021-09-25 11:15	8093723	7.670	-68.035	477.413	10.84	666.599	913.71	0.450	0.594	***0.842***	10.84	3.386
2021-09-25 11:30	8094623	7.667	-67.859	477.525	10.864	667.148	913.899	0.450	0.594	***0.929***	10.864	3.417
2021-09-25 11:45	8095523	7.665	-67.747	477.687	10.892	667.881	914.225	0.450	0.594	***1.112***	10.892	3.325
2021-09-25 12:00	8096423	7.661	-67.563	477.828	10.927	668.559	914.331	0.450	0.594	***1.296***	10.927	3.39
2021-09-25 12:15	8097323	7.657	-67.325	477.952	10.96	669.328	914.584	0.451	0.594	***1.313***	10.96	3.415
2021-09-25 12:30	8098223	7.656	-67.294	478.03	10.988	670.043	914.898	0.451	0.595	***1.144***	10.988	3.478
2021-09-25 12:45	8099123	7.655	-67.244	478.085	11.017	670.719	915.136	0.451	0.595	***1.850***	11.017	4.752
2021-09-25 13:00	8100023	7.657	-67.356	478.102	11.032	670.886	915	0.451	0.595	***2.214***	11.032	3.995
2021-09-25 13:15	8100923	7.661	-67.592	477.985	11.054	671.362	915.13	0.451	0.595	***2.483***	11.054	4.754
2021-09-25 13:30	8101823	7.665	-67.794	477.785	11.092	671.867	914.904	0.451	0.595	***2.389***	11.092	5.518
2021-09-25 13:45	8102723	7.674	-68.333	477.496	11.127	672.441	914.864	0.451	0.595	***3.090***	11.127	6.884
2021-09-25 14:00	8103623	7.679	-68.638	477.051	11.149	672.869	914.906	0.451	0.595	***3.491***	11.149	5.78
2021-09-25 14:15	8104523	7.688	-69.127	476.619	11.176	673.3	914.859	0.451	0.595	***3.593***	11.176	11.519
2021-09-25 14:30	8105423	7.695	-69.549	476.137	11.214	673.852	914.703	0.451	0.595	***3.881***	11.214	7
2021-09-25 14:45	8106323	7.711	-70.431	475.594	11.218	673.959	914.762	0.451	0.595	***4.005***	11.218	5.841
2021-09-25 15:00	8107223	7.720	-70.972	475.012	11.239	674.263	914.68	0.451	0.595	***4.051***	11.239	5.488
2021-09-25 15:15	8108123	7.725	-71.263	474.452	11.281	674.893	914.521	0.451	0.594	***4.329***	11.281	5.359
2021-09-25 15:30	8109023	7.732	-71.635	474.07	11.308	675.501	914.719	0.451	0.595	***4.580***	11.308	4.734
2021-09-25 15:45	8109923	7.738	-71.962	473.832	11.322	675.713	914.663	0.451	0.595	***4.739***	11.322	5.439
2021-09-25 16:00	8110823	7.745	-72.372	473.238	11.332	675.899	914.678	0.451	0.595	***4.821***	11.332	6.372
2021-09-25 16:15	8111723	7.750	-72.658	472.707	11.344	676.158	914.752	0.451	0.595	***4.908***	11.344	9.488
2021-09-25 16:30	8112623	7.755	-72.927	472.318	11.342	676.099	914.713	0.451	0.595	***4.985***	11.342	9.261
2021-09-25 16:45	8113523	7.758	-73.102	471.698	11.354	676.256	914.647	0.451	0.595	***5.058***	11.354	7.014

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-25 17:00	8114423	7.758	-73.121	471.376	11.356	676.31	914.686	0.451	0.595	***5.187***	11.356	5.691
2021-09-25 17:15	8115323	7.755	-72.98	471.112	11.358	676.457	914.821	0.451	0.595	***5.276***	11.358	6.357
2021-09-25 17:30	8116223	7.752	-72.803	470.811	11.369	676.59	914.747	0.451	0.595	***5.299***	11.369	5.315
2021-09-25 17:45	8117123	7.756	-73.02	470.592	11.386	676.937	914.809	0.451	0.595	***5.261***	11.386	5.301
2021-09-25 18:00	8118023	7.763	-73.44	470.377	11.398	677.279	914.992	0.451	0.595	***5.209***	11.398	5.464
2021-09-25 18:15	8118923	7.769	-73.762	470.103	11.411	677.427	914.884	0.451	0.595	***5.145***	11.411	5.097
2021-09-25 18:30	8119823	7.770	-73.795	469.831	11.431	677.775	914.884	0.451	0.595	***5.071***	11.431	7.994
2021-09-25 18:45	8120723	7.771	-73.879	469.502	11.453	678.199	914.932	0.451	0.595	***4.959***	11.453	5.095
2021-09-25 19:00	8121623	7.773	-73.993	469.18	11.47	678.489	914.922	0.451	0.595	***4.882***	11.47	5.211
2021-09-25 19:15	8122523	7.774	-74.081	468.956	11.487	678.921	915.107	0.451	0.595	***4.795***	11.487	5.365
2021-09-25 19:30	8123423	7.774	-74.086	468.775	11.495	679.126	915.203	0.451	0.595	***4.723***	11.495	5.51
2021-09-25 19:45	8124323	7.775	-74.148	468.644	11.505	679.206	915.065	0.451	0.595	***4.671***	11.505	5.972
2021-09-25 20:00	8125223	7.776	-74.155	468.644	11.513	679.087	914.729	0.451	0.595	***4.582***	11.513	5.016
2021-09-25 20:15	8126123	7.777	-74.229	468.634	11.523	679.381	914.89	0.451	0.595	***4.527***	11.523	3.975
2021-09-25 20:30	8127023	7.774	-74.1	468.448	11.531	679.623	915.021	0.451	0.595	***4.467***	11.531	6.822
2021-09-25 20:45	8127923	7.773	-74.043	468.277	11.538	679.808	915.104	0.451	0.595	***4.363***	11.538	4.251
2021-09-25 21:00	8128823	7.769	-73.822	468.332	11.545	679.798	914.932	0.451	0.595	***4.243***	11.545	4.264
2021-09-25 21:15	8129723	7.764	-73.509	468.465	11.548	679.971	915.077	0.451	0.595	***4.116***	11.548	4.932
2021-09-25 21:30	8130623	7.757	-73.109	468.596	11.554	680.263	915.349	0.451	0.595	***3.954***	11.554	6.956
2021-09-25 21:45	8131524	7.752	-72.82	468.68	11.558	680.409	915.449	0.452	0.595	***3.821***	11.558	4.087
2021-09-25 22:00	8132424	7.750	-72.727	468.897	11.561	680.54	915.557	0.452	0.595	***3.686***	11.561	3.979
2021-09-25 22:15	8133324	7.748	-72.596	469.011	11.564	680.667	915.636	0.452	0.595	***3.571***	11.564	4.493
2021-09-25 22:30	8134224	7.746	-72.494	469.137	11.571	680.808	915.68	0.452	0.595	***3.457***	11.571	4.331
2021-09-25 22:45	8135124	7.744	-72.412	469.223	11.579	680.87	915.579	0.452	0.595	***3.364***	11.579	3.627
2021-09-25 23:00	8136024	7.740	-72.153	469.414	11.591	681.231	915.779	0.452	0.595	***3.294***	11.591	3.428
2021-09-25 23:15	8136924	7.736	-71.948	469.569	11.602	681.376	915.702	0.452	0.595	***3.274***	11.602	3.463
2021-09-25 23:30	8137824	7.732	-71.743	469.609	11.612	681.644	915.824	0.452	0.595	***3.213***	11.612	3.26
2021-09-25 23:45	8138724	7.727	-71.456	469.841	11.621	681.971	916.06	0.452	0.595	***3.214***	11.621	14.384
2021-09-26 00:00	8139624	7.724	-71.261	470.082	11.629	682.118	916.074	0.452	0.595	***3.164***	11.629	3.117
2021-09-26 00:15	8140524	7.717	-70.856	470.303	11.632	682.253	916.186	0.452	0.596	***3.112***	11.632	3.001
2021-09-26 00:30	8141424	7.709	-70.448	470.53	11.636	682.531	916.462	0.452	0.596	***3.057***	11.636	3.03
2021-09-26 00:45	8142324	7.703	-70.107	470.933	11.636	682.762	916.778	0.452	0.596	***2.998***	11.636	3.636
2021-09-26 01:00	8143224	7.694	-69.582	471.498	11.632	682.976	917.141	0.452	0.596	***2.913***	11.632	4.692
2021-09-26 01:15	8144124	7.685	-69.094	472.268	11.628	682.981	917.256	0.452	0.596	***2.757***	11.628	4.083
2021-09-26 01:30	8145024	7.676	-68.552	473.107	11.62	683.115	917.623	0.453	0.596	***2.481***	11.62	3.653
2021-09-26 01:45	8145924	7.671	-68.293	473.856	11.61	683.271	918.072	0.453	0.597	***2.359***	11.61	4.104
2021-09-26 02:00	8146824	7.668	-68.104	474.392	11.599	683.253	918.3	0.453	0.597	***2.154***	11.599	3.463
2021-09-26 02:15	8147724	7.666	-68.014	474.876	11.586	683.159	918.48	0.453	0.597	***1.865***	11.586	3.309
2021-09-26 02:30	8148624	7.669	-68.15	475.274	11.575	683.118	918.689	0.453	0.597	***1.601***	11.575	3.377
2021-09-26 02:45	8149524	7.674	-68.433	475.429	11.563	683.002	918.814	0.453	0.597	***1.379***	11.563	3.333
2021-09-26 03:00	8150424	7.681	-68.848	475.458	11.553	682.87	918.877	0.453	0.597	***1.187***	11.553	3.834
2021-09-26 03:15	8151324	7.688	-69.191	475.405	11.542	682.782	919.018	0.453	0.597	***1.043***	11.542	3.33
2021-09-26 03:30	8152224	7.690	-69.306	475.393	11.53	682.618	919.076	0.453	0.597	***0.838***	11.53	3.2
2021-09-26 03:45	8153124	7.692	-69.439	475.463	11.521	682.444	919.06	0.453	0.597	***0.682***	11.521	3.132
2021-09-26 04:00	8154024	7.696	-69.642	475.51	11.509	682.314	919.152	0.453	0.597	***0.548***	11.509	27.124
2021-09-26 04:15	8154924	7.699	-69.811	475.482	11.499	682.158	919.185	0.453	0.597	***0.475***	11.499	3.005
2021-09-26 04:30	8155824	7.700	-69.871	475.482	11.49	682.116	919.345	0.453	0.598	***0.406***	11.49	3.144
2021-09-26 04:45	8156724	7.700	-69.878	475.529	11.479	682.058	919.521	0.454	0.598	***0.326***	11.479	2.9
2021-09-26 05:00	8157624	7.700	-69.864	475.665	11.469	681.937	919.598	0.454	0.598	***0.249***	11.469	2.829
2021-09-26 05:15	8158524	7.700	-69.878	475.758	11.458	681.85	919.735	0.454	0.598	***0.167***	11.458	5.67
2021-09-26 05:30	8159424	7.699	-69.823	475.846	11.446	681.713	919.842	0.454	0.598	***0.087***	11.446	3.52
2021-09-26 05:45	8160324	7.698	-69.742	475.768	11.434	681.529	919.876	0.454	0.598	***0.012***	11.434	3.182
2021-09-26 06:00	8161224	7.697	-69.692	475.658	11.423	681.476	920.065	0.454	0.598	***0.000***	11.423	3.203
2021-09-26 06:15	8162124	7.697	-69.702	475.56	11.415	681.423	920.192	0.454	0.598	***0.135***	11.415	2.812
2021-09-26 06:30	8163024	7.697	-69.709	475.703	11.405	681.289	920.233	0.454	0.598	***0.288***	11.405	2.936
2021-09-26 06:45	8163924	7.695	-69.602	475.951	11.396	681.087	920.174	0.454	0.598	***0.252***	11.396	2.896

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-26 07:00	8164824	7.694	-69.523	476.214	11.387	681.095	920.401	0.454	0.598	***0.189***	11.387	2.884
2021-09-26 07:15	8165724	7.692	-69.423	476.469	11.381	680.993	920.425	0.454	0.598	***0.068***	11.381	2.812
2021-09-26 07:30	8166624	7.688	-69.156	476.762	11.373	680.924	920.52	0.454	0.598	***0.000***	11.373	2.763
2021-09-26 07:45	8167524	7.681	-68.803	477.084	11.364	680.926	920.722	0.454	0.598	***0.000***	11.364	2.699
2021-09-26 08:00	8168424	7.674	-68.412	477.36	11.357	680.828	920.753	0.454	0.598	***0.000***	11.357	2.609
2021-09-26 08:15	8169324	7.667	-67.961	477.599	11.35	680.835	920.929	0.454	0.599	***0.000***	11.35	2.622
2021-09-26 08:30	8170224	7.661	-67.627	477.732	11.341	680.799	921.101	0.454	0.599	***0.000***	11.341	3.568
2021-09-26 08:45	8171124	7.656	-67.346	477.828	11.335	680.802	921.255	0.454	0.599	***0.000***	11.335	3.312
2021-09-26 09:00	8172024	7.652	-67.16	477.828	11.33	680.703	921.242	0.454	0.599	***0.000***	11.33	3.716
2021-09-26 09:15	8172924	7.646	-66.817	477.864	11.324	680.774	921.476	0.454	0.599	***0.000***	11.324	3.908
2021-09-26 09:30	8173824	7.642	-66.543	477.84	11.322	680.792	921.544	0.454	0.599	***0.000***	11.322	3.065
2021-09-26 09:45	8174724	7.637	-66.259	477.775	11.322	680.83	921.591	0.454	0.599	***0.000***	11.322	2.816
2021-09-26 10:00	8175624	7.631	-65.966	477.706	11.327	680.877	921.531	0.454	0.599	***0.000***	11.327	4.191
2021-09-26 10:15	8176524	7.627	-65.725	477.606	11.337	681.021	921.502	0.454	0.599	***0.000***	11.337	3.96
2021-09-26 10:30	8177424	7.624	-65.536	477.475	11.348	681.184	921.462	0.454	0.599	***0.073***	11.348	5.317
2021-09-26 10:45	8178324	7.622	-65.432	477.332	11.362	681.343	921.337	0.454	0.599	***0.066***	11.362	5.982
2021-09-26 11:00	8179224	7.620	-65.334	477.186	11.376	681.582	921.328	0.454	0.599	***0.117***	11.376	2.86
2021-09-26 11:15	8180124	7.618	-65.238	477.058	11.399	681.883	921.18	0.454	0.599	***0.254***	11.399	2.823
2021-09-26 11:30	8181024	7.618	-65.217	476.907	11.424	682.183	920.989	0.454	0.599	***0.515***	11.424	2.908
2021-09-26 11:45	8181924	7.619	-65.32	476.71	11.459	682.671	920.834	0.454	0.599	***0.927***	11.459	3.325
2021-09-26 12:00	8182824	7.616	-65.148	476.593	11.494	683.096	920.56	0.454	0.598	***1.213***	11.494	3.332
2021-09-26 12:15	8183724	7.615	-65.112	476.4	11.516	683.336	920.382	0.454	0.598	***1.121***	11.516	3.361
2021-09-26 12:30	8184624	7.615	-65.098	476.173	11.556	683.673	919.873	0.454	0.598	***1.246***	11.556	3.583
2021-09-26 12:45	8185524	7.616	-65.188	475.992	11.586	684.246	919.934	0.454	0.598	***1.790***	11.586	3.414
2021-09-26 13:00	8186424	7.626	-65.749	475.844	11.601	684.017	919.271	0.454	0.598	***2.168***	11.601	4.717
2021-09-26 13:15	8187324	7.642	-66.65	475.658	11.623	683.856	918.556	0.453	0.597	***2.476***	11.623	3.488
2021-09-26 13:30	8188224	7.654	-67.339	475.312	11.642	683.723	917.93	0.453	0.597	***2.843***	11.642	3.336
2021-09-26 13:45	8189124	7.665	-67.937	474.759	11.665	683.69	917.339	0.453	0.596	***3.167***	11.665	3.324
2021-09-26 14:00	8190024	7.676	-68.603	474.128	11.715	684.117	916.727	0.452	0.596	***3.318***	11.715	4.33
2021-09-26 14:15	8190924	7.693	-69.585	473.67	11.777	684.679	916.036	0.452	0.595	***3.729***	11.777	4.031
2021-09-26 14:30	8191824	7.703	-70.155	473.143	11.848	685.537	915.514	0.452	0.595	***4.560***	11.848	3.634
2021-09-26 14:45	8192724	7.715	-70.848	472.375	11.911	686.261	915.006	0.452	0.595	***4.995***	11.911	3.506
2021-09-26 15:00	8193624	7.728	-71.576	471.491	11.964	686.726	914.406	0.451	0.594	***5.349***	11.964	3.647
2021-09-26 15:15	8194524	7.736	-72.041	470.701	12.003	687.22	914.151	0.451	0.594	***5.545***	12.003	3.781
2021-09-26 15:30	8195424	7.755	-73.149	470	12.037	687.512	913.747	0.451	0.594	***5.408***	12.037	3.413
2021-09-26 15:45	8196324	7.777	-74.406	469.383	12.048	687.511	913.488	0.451	0.594	***5.566***	12.048	3.665
2021-09-26 16:00	8197224	7.793	-75.29	468.906	12.037	687.092	913.184	0.451	0.594	***5.896***	12.037	4.377
2021-09-26 16:15	8198124	7.806	-76.022	468.401	12.016	686.578	912.998	0.451	0.593	***5.940***	12.016	4.738
2021-09-26 16:30	8199024	7.815	-76.511	468.103	11.991	685.874	912.63	0.450	0.593	***6.433***	11.991	4.761
2021-09-26 16:45	8199924	7.824	-76.99	468.026	11.969	685.391	912.513	0.450	0.593	7.127	11.969	4.909
2021-09-26 17:00	8200824	7.834	-77.6	468.014	11.951	684.977	912.366	0.450	0.593	7.494	11.951	4.786
2021-09-26 17:15	8201724	7.845	-78.208	467.826	11.92	684.279	912.167	0.450	0.593	7.580	11.92	7.841
2021-09-26 17:30	8202624	7.854	-78.721	467.514	11.903	683.872	912.014	0.450	0.593	7.565	11.903	5.006
2021-09-26 17:45	8203524	7.864	-79.269	466.882	11.885	683.496	911.928	0.450	0.593	7.515	11.885	4.702
2021-09-26 18:00	8204424	7.869	-79.551	466.388	11.864	682.914	911.653	0.450	0.593	7.391	11.864	4.948
2021-09-26 18:15	8205324	7.871	-79.625	466.105	11.841	682.564	911.707	0.450	0.593	7.261	11.841	4.708
2021-09-26 18:30	8206224	7.873	-79.77	465.924	11.806	681.859	911.583	0.450	0.593	7.174	11.806	4.692
2021-09-26 18:45	8207124	7.876	-79.925	465.695	11.774	681.101	911.315	0.450	0.592	7.092	11.774	5.661
2021-09-26 19:00	8208024	7.880	-80.142	465.404	11.748	680.437	911.029	0.449	0.592	6.895	11.748	5.241
2021-09-26 19:15	8208924	7.886	-80.442	464.994	11.73	679.876	910.695	0.449	0.592	6.647	11.73	5.336
2021-09-26 19:30	8209824	7.891	-80.745	464.529	11.729	679.831	910.671	0.449	0.592	***6.436***	11.729	5.903
2021-09-26 19:45	8210724	7.895	-80.988	464.116	11.726	679.802	910.691	0.449	0.592	***6.368***	11.726	5.164
2021-09-26 20:00	8211624	7.893	-80.86	463.737	11.729	679.725	910.524	0.449	0.592	***6.346***	11.729	5.023
2021-09-26 20:15	8212524	7.891	-80.752	463.585	11.733	679.911	910.685	0.449	0.592	***6.210***	11.733	4.423
2021-09-26 20:30	8213424	7.887	-80.504	463.396	11.734	679.99	910.753	0.449	0.592	***6.097***	11.734	4.198
2021-09-26 20:45	8214324	7.882	-80.256	463.167	11.733	680.124	910.973	0.449	0.592	***5.973***	11.733	4.467

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-26 21:00	8215224	7.875	-79.825	463.048	11.726	680.041	911.005	0.449	0.592	***5.796***	11.726	4.596
2021-09-26 21:15	8216124	7.866	-79.336	463.051	11.713	679.964	911.212	0.449	0.592	***5.623***	11.713	4.457
2021-09-26 21:30	8217024	7.859	-78.931	463.113	11.696	679.852	911.45	0.450	0.592	***5.583***	11.696	4.344
2021-09-26 21:45	8217924	7.855	-78.704	463.105	11.674	679.586	911.623	0.450	0.593	***5.301***	11.674	4.63
2021-09-26 22:00	8218824	7.851	-78.428	462.924	11.647	679.3	911.858	0.450	0.593	***5.000***	11.647	4.401
2021-09-26 22:15	8219724	7.849	-78.352	462.786	11.613	678.904	912.127	0.450	0.593	***4.713***	11.613	4.709
2021-09-26 22:30	8220624	7.847	-78.235	462.867	11.58	678.356	912.151	0.450	0.593	***4.667***	11.58	4.365
2021-09-26 22:45	8221524	7.847	-78.204	462.817	11.544	677.882	912.362	0.450	0.593	***4.823***	11.544	4.049
2021-09-26 23:00	8222424	7.846	-78.137	462.896	11.517	677.289	912.207	0.450	0.593	***5.002***	11.517	4.104
2021-09-26 23:15	8223324	7.846	-78.149	463.034	11.497	677.137	912.479	0.450	0.593	***5.084***	11.497	4.532
2021-09-26 23:30	8224224	7.848	-78.225	463.203	11.482	676.996	912.643	0.450	0.593	***5.115***	11.482	4.668
2021-09-26 23:45	8225124	7.847	-78.161	463.153	11.467	676.84	912.782	0.450	0.593	***5.134***	11.467	4.958
2021-09-27 00:00	8226024	7.844	-77.98	463.372	11.451	676.86	913.172	0.450	0.594	***5.044***	11.451	4.817
2021-09-27 00:15	8226924	7.838	-77.653	463.747	11.434	676.68	913.335	0.450	0.594	***4.850***	11.434	4.858
2021-09-27 00:30	8227824	7.832	-77.324	464.085	11.418	676.572	913.562	0.450	0.594	***4.690***	11.418	4.648
2021-09-27 00:45	8228724	7.826	-76.957	464.312	11.404	676.421	913.692	0.450	0.594	***4.491***	11.404	4.746
2021-09-27 01:00	8229624	7.819	-76.556	464.6	11.389	676.363	913.967	0.451	0.594	***4.333***	11.389	4.665
2021-09-27 01:15	8230524	7.812	-76.196	465.068	11.371	676.267	914.252	0.451	0.594	***4.214***	11.371	3.636
2021-09-27 01:30	8231424	7.804	-75.734	465.49	11.354	676.121	914.464	0.451	0.594	***4.099***	11.354	5.067
2021-09-27 01:45	8232324	7.797	-75.312	465.845	11.34	676.072	914.741	0.451	0.595	***3.954***	11.34	4.138
2021-09-27 02:00	8233224	7.789	-74.883	466.257	11.325	676.048	915.047	0.451	0.595	***3.662***	11.325	4.078
2021-09-27 02:15	8234124	7.784	-74.592	466.67	11.31	675.957	915.278	0.451	0.595	***3.495***	11.31	3.948
2021-09-27 02:30	8235024	7.778	-74.26	467.168	11.295	675.847	915.486	0.451	0.595	***3.313***	11.295	3.666
2021-09-27 02:45	8235924	7.773	-73.948	467.669	11.281	675.84	915.815	0.451	0.595	***3.063***	11.281	3.397
2021-09-27 03:00	8236824	7.765	-73.497	468.222	11.269	675.921	916.211	0.452	0.596	***2.734***	11.269	3.02
2021-09-27 03:15	8237724	7.758	-73.102	468.835	11.257	675.969	916.553	0.452	0.596	***2.473***	11.257	5.816
2021-09-27 03:30	8238624	7.748	-72.544	469.507	11.246	675.994	916.857	0.452	0.596	***2.319***	11.246	3.007
2021-09-27 03:45	8239524	7.738	-71.94	470.174	11.235	676.107	917.256	0.452	0.596	***2.047***	11.235	3.423
2021-09-27 04:00	8240424	7.730	-71.497	470.661	11.228	676.126	917.463	0.452	0.596	***1.405***	11.228	2.992
2021-09-27 04:15	8241324	7.731	-71.564	470.878	11.221	676.13	917.627	0.452	0.596	***1.467***	11.221	2.789
2021-09-27 04:30	8242224	7.729	-71.44	471.133	11.214	676.038	917.664	0.452	0.596	***1.626***	11.214	2.664
2021-09-27 04:45	8243124	7.721	-71.025	471.493	11.208	676.025	917.799	0.452	0.597	***1.688***	11.208	2.569
2021-09-27 05:00	8244024	7.714	-70.608	471.889	11.203	675.979	917.844	0.452	0.597	***1.749***	11.203	2.564
2021-09-27 05:15	8244924	7.707	-70.212	472.304	11.198	675.935	917.916	0.452	0.597	***1.774***	11.198	2.565
2021-09-27 05:30	8245824	7.700	-69.821	472.683	11.194	676	918.107	0.453	0.597	***1.786***	11.194	2.556
2021-09-27 05:45	8246724	7.694	-69.449	473.043	11.19	675.925	918.092	0.453	0.597	***1.779***	11.19	2.658
2021-09-27 06:00	8247624	7.688	-69.141	473.422	11.187	675.956	918.213	0.453	0.597	***1.732***	11.187	2.793
2021-09-27 06:15	8248524	7.684	-68.903	473.777	11.183	676.017	918.393	0.453	0.597	***1.658***	11.183	2.678
2021-09-27 06:30	8249424	7.680	-68.662	474.054	11.178	675.946	918.41	0.453	0.597	***1.571***	11.178	2.691
2021-09-27 06:45	8250324	7.679	-68.607	474.318	11.174	675.912	918.454	0.453	0.597	***1.468***	11.174	2.599
2021-09-27 07:00	8251224	7.674	-68.343	474.549	11.17	675.789	918.372	0.453	0.597	***1.425***	11.17	2.598
2021-09-27 07:15	8252124	7.671	-68.176	474.75	11.168	675.717	918.326	0.453	0.597	***1.297***	11.168	2.633
2021-09-27 07:30	8253024	7.669	-68.073	474.936	11.165	675.745	918.441	0.453	0.597	***1.183***	11.165	3.079
2021-09-27 07:45	8253924	7.666	-67.885	475.084	11.16	675.526	918.259	0.453	0.597	***1.132***	11.16	2.673
2021-09-27 08:00	8254824	7.664	-67.744	475.169	11.153	675.561	918.474	0.453	0.597	***1.041***	11.153	2.874
2021-09-27 08:15	8255724	7.660	-67.52	475.317	11.145	675.456	918.52	0.453	0.597	***0.958***	11.145	2.823
2021-09-27 08:30	8256624	7.658	-67.401	475.37	11.134	675.34	918.628	0.453	0.597	***0.878***	11.134	2.758
2021-09-27 08:45	8257524	7.656	-67.313	475.427	11.126	675.283	918.753	0.453	0.597	***0.821***	11.126	2.863
2021-09-27 09:00	8258424	7.655	-67.246	475.417	11.12	675.169	918.727	0.453	0.597	***0.795***	11.12	3.466
2021-09-27 09:15	8259324	7.654	-67.186	475.405	11.117	675.125	918.754	0.453	0.597	***0.800***	11.117	5.422
2021-09-27 09:30	8260224	7.652	-67.096	475.362	11.122	675.111	918.608	0.453	0.597	***0.806***	11.122	2.703
2021-09-27 09:45	8261124	7.650	-66.977	475.291	11.131	675.242	918.58	0.453	0.597	***0.779***	11.131	2.635
2021-09-27 10:00	8262024	7.645	-66.721	475.327	11.145	675.429	918.485	0.453	0.597	***0.809***	11.145	2.525
2021-09-27 10:15	8262924	7.644	-66.631	475.21	11.164	675.459	918.068	0.453	0.597	***0.876***	11.164	2.477
2021-09-27 10:30	8263824	7.642	-66.533	475.105	11.185	675.838	918.085	0.453	0.597	***0.877***	11.185	2.535
2021-09-27 10:45	8264724	7.642	-66.566	474.995	11.208	676.272	918.133	0.453	0.597	***0.892***	11.208	2.6

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-27 11:00	8265624	7.642	-66.535	474.9	11.231	676.803	918.312	0.453	0.597	***0.980***	11.231	2.494
2021-09-27 11:15	8266524	7.641	-66.516	474.848	11.253	677.204	918.33	0.453	0.597	***1.313***	11.253	2.531
2021-09-27 11:30	8267424	7.641	-66.507	474.774	11.273	677.686	918.512	0.453	0.597	***1.899***	11.273	2.58
2021-09-27 11:45	8268325	7.643	-66.6	474.69	11.29	677.796	918.24	0.453	0.597	***2.364***	11.29	2.612
2021-09-27 12:00	8269225	7.645	-66.752	474.523	11.312	678.012	918.013	0.453	0.597	***2.743***	11.312	2.781
2021-09-27 12:15	8270125	7.646	-66.793	474.375	11.33	678.215	917.865	0.453	0.597	***3.088***	11.33	2.642
2021-09-27 12:30	8271025	7.649	-66.957	474.209	11.345	678.249	917.569	0.452	0.596	***3.278***	11.345	2.762
2021-09-27 12:45	8271925	7.654	-67.267	473.901	11.355	678.334	917.432	0.452	0.596	***3.427***	11.355	2.898
2021-09-27 13:00	8272825	7.658	-67.48	473.727	11.37	678.35	917.098	0.452	0.596	***3.567***	11.37	2.923
2021-09-27 13:15	8273725	7.666	-67.961	473.515	11.383	678.31	916.75	0.452	0.596	***3.753***	11.383	3.241
2021-09-27 13:30	8274625	7.679	-68.703	473.095	11.403	678.514	916.535	0.452	0.596	***3.995***	11.403	3.055
2021-09-27 13:45	8275525	7.691	-69.346	472.652	11.431	678.692	916.13	0.452	0.595	***4.334***	11.431	3.37
2021-09-27 14:00	8276425	7.702	-70	472.153	11.467	679.001	915.697	0.452	0.595	***4.625***	11.467	3.41
2021-09-27 14:15	8277325	7.711	-70.496	471.612	11.524	679.627	915.178	0.451	0.595	***4.842***	11.524	3.679
2021-09-27 14:30	8278225	7.713	-70.648	471.028	11.659	681.641	914.716	0.451	0.595	***5.127***	11.659	3.44
2021-09-27 14:45	8279125	7.717	-70.915	470.206	11.832	684.841	914.954	0.451	0.595	***4.569***	11.832	3.578
2021-09-27 15:00	8280025	7.719	-71.08	469.671	11.98	687.456	914.995	0.452	0.595	***4.316***	11.98	3.457
2021-09-27 15:15	8280925	7.720	-71.17	469.242	12.064	689.138	915.289	0.452	0.595	***4.361***	12.064	3.283
2021-09-27 15:30	8281825	7.730	-71.721	468.913	12.161	690.92	915.399	0.452	0.595	***4.288***	12.161	3.507
2021-09-27 15:45	8282725	7.739	-72.293	468.625	12.261	692.85	915.641	0.452	0.595	***4.356***	12.261	3.34
2021-09-27 16:00	8283625	7.743	-72.525	468.46	12.351	694.492	915.725	0.452	0.595	***4.184***	12.351	3.449
2021-09-27 16:15	8284525	7.742	-72.505	468.322	12.447	696.249	915.823	0.452	0.595	***4.168***	12.447	3.785
2021-09-27 16:30	8285425	7.737	-72.243	468.277	12.56	697.957	915.472	0.452	0.595	***4.479***	12.56	2.87
2021-09-27 16:45	8286325	7.733	-72.069	468.007	12.679	699.787	915.148	0.452	0.595	***4.760***	12.679	3.077
2021-09-27 17:00	8287225	7.731	-71.974	467.488	12.76	700.981	914.858	0.452	0.595	***5.049***	12.76	3.054
2021-09-27 17:15	8288125	7.729	-71.862	467.092	12.809	701.806	914.818	0.452	0.595	***5.295***	12.809	3.159
2021-09-27 17:30	8289025	7.726	-71.681	466.799	12.81	701.903	914.915	0.452	0.595	***5.430***	12.81	3.742
2021-09-27 17:45	8289925	7.720	-71.342	466.672	12.744	700.496	914.596	0.452	0.594	***5.298***	12.744	7.814
2021-09-27 18:00	8290825	7.719	-71.256	466.841	12.611	697.713	914	0.452	0.594	***5.997***	12.611	4.43
2021-09-27 18:15	8291725	7.733	-71.955	467.185	12.376	692.593	912.651	0.451	0.593	7.428	12.376	4.445
2021-09-27 18:30	8292625	7.753	-73.075	467.263	12.269	689.967	911.638	0.450	0.593	8.474	12.269	4.503
2021-09-27 18:45	8293525	7.779	-74.556	467.128	12.222	688.95	911.386	0.450	0.592	8.969	12.222	4.291
2021-09-27 19:00	8294425	7.804	-75.951	466.753	12.183	688.063	911.116	0.450	0.592	8.772	12.183	4.43
2021-09-27 19:15	8295325	7.824	-77.059	466.288	12.166	687.563	910.842	0.450	0.592	9.001	12.166	4.359
2021-09-27 19:30	8296225	7.850	-78.516	465.955	12.162	687.425	910.733	0.450	0.592	8.988	12.162	4.002
2021-09-27 19:45	8297125	7.873	-79.842	465.382	12.153	687.161	910.601	0.449	0.592	8.865	12.153	5.629
2021-09-27 20:00	8298025	7.889	-80.75	464.548	12.15	686.961	910.4	0.449	0.592	8.684	12.15	5.016
2021-09-27 20:15	8298925	7.904	-81.611	463.678	12.143	686.787	910.327	0.449	0.592	8.659	12.143	4.122
2021-09-27 20:30	8299825	7.913	-82.092	462.848	12.134	686.709	910.452	0.449	0.592	8.739	12.134	4.198
2021-09-27 20:45	8300725	7.920	-82.517	462.166	12.116	686.407	910.454	0.449	0.592	8.680	12.116	3.799
2021-09-27 21:00	8301625	7.921	-82.564	461.622	12.093	686.03	910.477	0.449	0.592	8.246	12.093	3.733
2021-09-27 21:15	8302525	7.923	-82.619	461.158	12.059	685.551	910.646	0.449	0.592	7.819	12.059	3.964
2021-09-27 21:30	8303425	7.924	-82.703	460.871	12.003	684.708	910.821	0.449	0.592	7.493	12.003	4.008
2021-09-27 21:45	8304325	7.922	-82.531	460.654	11.958	683.946	910.845	0.449	0.592	7.393	11.958	4.557
2021-09-27 22:00	8305225	7.923	-82.624	460.504	11.913	683.299	911.026	0.450	0.592	7.301	11.913	4.473
2021-09-27 22:15	8306125	7.924	-82.653	460.459	11.86	682.447	911.112	0.450	0.592	7.307	11.86	4.484
2021-09-27 22:30	8307025	7.924	-82.605	460.38	11.812	681.602	911.092	0.449	0.592	7.273	11.812	11.909
2021-09-27 22:45	8307925	7.922	-82.502	460.299	11.762	680.757	911.125	0.449	0.592	7.215	11.762	4.742
2021-09-27 23:00	8308825	7.928	-82.822	460.213	11.716	680.081	911.301	0.450	0.592	7.130	11.716	4.77
2021-09-27 23:15	8309725	7.928	-82.805	460.078	11.663	679.085	911.201	0.449	0.592	6.999	11.663	4.578
2021-09-27 23:30	8310625	7.926	-82.657	460.061	11.609	678.248	911.345	0.449	0.592	6.927	11.609	4.282
2021-09-27 23:45	8311525	7.923	-82.505	459.965	11.562	677.459	911.367	0.449	0.592	6.811	11.562	4.304
2021-09-28 00:00	8312425	7.921	-82.369	460.07	11.514	676.685	911.473	0.449	0.592	6.742	11.514	4.235
2021-09-28 00:15	8313325	7.917	-82.13	460.106	11.469	675.924	911.486	0.449	0.592	6.619	11.469	4.284
2021-09-28 00:30	8314225	7.915	-82.016	460.078	11.439	675.434	911.532	0.449	0.592	***6.474***	11.439	3.889
2021-09-28 00:45	8315125	7.918	-82.176	460.032	11.406	674.842	911.513	0.449	0.592	***6.380***	11.406	3.912

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-28 01:00	8316025	7.920	-82.25	460.025	11.376	674.645	911.944	0.450	0.593	***6.184***	11.376	4.013
2021-09-28 01:15	8316925	7.917	-82.116	459.982	11.346	674.22	912.095	0.450	0.593	***5.804***	11.346	3.952
2021-09-28 01:30	8317825	7.916	-82.028	460.08	11.316	673.761	912.165	0.450	0.593	***5.646***	11.316	4.05
2021-09-28 01:45	8318725	7.912	-81.809	460.199	11.289	673.37	912.286	0.450	0.593	***5.586***	11.289	3.79
2021-09-28 02:00	8319625	7.907	-81.508	460.373	11.261	673.05	912.494	0.450	0.593	***5.390***	11.261	4.227
2021-09-28 02:15	8320525	7.900	-81.105	460.595	11.231	672.584	912.582	0.450	0.593	***5.258***	11.231	4.257
2021-09-28 02:30	8321425	7.893	-80.717	460.8	11.204	672.264	912.779	0.450	0.593	***5.105***	11.204	4.317
2021-09-28 02:45	8322325	7.886	-80.304	461.119	11.181	671.984	912.959	0.450	0.593	***4.915***	11.181	4.234
2021-09-28 03:00	8323225	7.878	-79.818	461.472	11.159	671.816	913.237	0.450	0.594	***4.796***	11.159	4.199
2021-09-28 03:15	8324125	7.870	-79.408	461.842	11.138	671.609	913.473	0.450	0.594	***4.671***	11.138	4.119
2021-09-28 03:30	8325025	7.863	-78.971	462.192	11.113	671.446	913.836	0.450	0.594	***4.549***	11.113	3.502
2021-09-28 03:45	8325925	7.856	-78.571	462.633	11.091	671.268	914.109	0.450	0.594	***3.972***	11.091	3.525
2021-09-28 04:00	8326825	7.847	-78.049	463.258	11.069	671.072	914.381	0.451	0.594	***3.817***	11.069	3.98
2021-09-28 04:15	8327725	7.840	-77.646	463.816	11.045	670.952	914.781	0.451	0.595	***3.567***	11.045	10.509
2021-09-28 04:30	8328625	7.833	-77.279	464.3	11.025	670.742	914.97	0.451	0.595	***3.392***	11.025	3.388
2021-09-28 04:45	8329525	7.828	-77.007	464.731	11.005	670.609	915.263	0.451	0.595	***3.219***	11.005	3.51
2021-09-28 05:00	8330425	7.822	-76.652	465.158	10.983	670.334	915.421	0.451	0.595	***3.051***	10.983	3.434
2021-09-28 05:15	8331325	7.814	-76.206	465.63	10.964	670.143	915.596	0.451	0.595	***2.930***	10.964	3.447
2021-09-28 05:30	8332225	7.808	-75.829	466.112	10.944	669.92	915.768	0.451	0.595	***2.831***	10.944	3.229
2021-09-28 05:45	8333125	7.801	-75.433	466.655	10.923	669.604	915.846	0.451	0.595	***2.746***	10.923	3.073
2021-09-28 06:00	8334025	7.795	-75.08	467.163	10.903	669.377	916.021	0.451	0.595	***2.676***	10.903	2.918
2021-09-28 06:15	8334925	7.788	-74.706	467.64	10.883	668.787	915.692	0.451	0.595	***2.642***	10.883	2.743
2021-09-28 06:30	8335825	7.782	-74.377	468.162	10.863	668.75	916.121	0.451	0.595	***2.602***	10.863	2.766
2021-09-28 06:45	8336725	7.777	-74.079	468.584	10.843	668.494	916.246	0.451	0.596	***2.541***	10.843	2.697
2021-09-28 07:00	8337625	7.772	-73.8	469.016	10.82	668.17	916.344	0.451	0.596	***2.499***	10.82	2.557
2021-09-28 07:15	8338525	7.766	-73.423	469.416	10.801	667.879	916.401	0.451	0.596	***2.445***	10.801	2.54
2021-09-28 07:30	8339425	7.762	-73.218	469.686	10.779	667.57	916.505	0.451	0.596	***2.355***	10.779	2.605
2021-09-28 07:45	8340325	7.759	-73.025	469.927	10.757	667.304	916.687	0.451	0.596	***2.213***	10.757	2.758
2021-09-28 08:00	8341225	7.757	-72.887	470.146	10.733	666.932	916.749	0.451	0.596	***2.048***	10.733	2.81
2021-09-28 08:15	8342125	7.755	-72.77	470.329	10.702	666.462	916.851	0.451	0.596	***1.870***	10.702	2.82
2021-09-28 08:30	8343025	7.752	-72.627	470.577	10.677	666.085	916.925	0.451	0.596	***1.661***	10.677	2.62
2021-09-28 08:45	8343925	7.751	-72.541	470.799	10.654	665.762	917.04	0.452	0.596	***1.470***	10.654	12.998
2021-09-28 09:00	8344825	7.748	-72.36	471.066	10.631	665.426	917.13	0.452	0.596	***1.358***	10.631	2.506
2021-09-28 09:15	8345725	7.742	-72.029	471.367	10.612	665.124	917.172	0.452	0.596	***1.334***	10.612	2.532
2021-09-28 09:30	8346625	7.738	-71.821	471.724	10.594	664.896	917.286	0.452	0.596	***1.320***	10.594	2.739
2021-09-28 09:45	8347525	7.735	-71.654	472.056	10.58	664.646	917.295	0.452	0.596	***1.291***	10.58	2.482
2021-09-28 10:00	8348425	7.732	-71.478	472.444	10.568	664.358	917.184	0.452	0.596	***1.293***	10.568	2.675
2021-09-28 10:15	8349325	7.728	-71.223	472.807	10.558	664.245	917.254	0.452	0.596	***1.305***	10.558	2.372
2021-09-28 10:30	8350225	7.725	-71.068	473.169	10.552	664.145	917.272	0.452	0.596	***1.323***	10.552	2.547
2021-09-28 10:45	8351125	7.718	-70.665	473.517	10.553	664.095	917.185	0.452	0.596	***1.344***	10.553	2.344
2021-09-28 11:00	8352025	7.712	-70.331	473.872	10.564	664.209	917.063	0.451	0.596	***1.352***	10.564	2.404
2021-09-28 11:15	8352925	7.705	-69.952	474.106	10.576	664.388	917.022	0.451	0.596	***1.351***	10.576	2.374
2021-09-28 11:30	8353825	7.700	-69.647	474.366	10.593	664.504	916.769	0.451	0.596	***1.351***	10.593	2.416
2021-09-28 11:45	8354725	7.697	-69.485	474.6	10.617	664.883	916.712	0.451	0.596	***1.431***	10.617	5.464
2021-09-28 12:00	8355625	7.696	-69.454	474.781	10.647	665.17	916.394	0.451	0.596	***1.766***	10.647	2.775
2021-09-28 12:15	8356525	7.696	-69.435	474.869	10.681	665.595	916.156	0.451	0.596	***2.181***	10.681	2.6
2021-09-28 12:30	8357425	7.695	-69.413	474.848	10.718	666.143	916.03	0.451	0.595	***2.429***	10.718	2.627
2021-09-28 12:45	8358325	7.697	-69.561	474.716	10.749	666.554	915.849	0.451	0.595	***2.496***	10.749	2.707
2021-09-28 13:00	8359225	7.699	-69.668	474.528	10.775	666.839	915.619	0.451	0.595	***2.632***	10.775	3.063
2021-09-28 13:15	8360125	7.701	-69.764	474.366	10.804	667.232	915.46	0.451	0.595	***2.939***	10.804	2.98
2021-09-28 13:30	8361025	7.704	-69.964	474.228	10.834	667.557	915.171	0.451	0.595	***3.360***	10.834	2.822
2021-09-28 13:45	8361925	7.708	-70.169	474.087	10.854	667.706	914.891	0.451	0.595	***3.671***	10.854	3.001
2021-09-28 14:00	8362825	7.707	-70.128	473.927	10.871	667.881	914.73	0.451	0.595	***3.891***	10.871	3.349
2021-09-28 14:15	8363725	7.712	-70.384	473.763	10.884	667.84	914.367	0.450	0.594	***4.025***	10.884	3.858
2021-09-28 14:30	8364625	7.727	-71.27	473.572	10.898	667.839	914.027	0.450	0.594	***3.969***	10.898	4.211
2021-09-28 14:45	8365525	7.739	-71.919	473.293	10.912	667.805	913.66	0.450	0.594	***3.940***	10.912	4.589

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-28 15:00	8366425	7.746	-72.343	473.026	10.939	668.07	913.373	0.450	0.594	***4.056***	10.939	4.804
2021-09-28 15:15	8367325	7.752	-72.708	472.659	10.96	668.42	913.341	0.450	0.594	***4.238***	10.96	4.704
2021-09-28 15:30	8368225	7.758	-73.025	472.244	11.002	669.077	913.252	0.450	0.594	***4.377***	11.002	4.761
2021-09-28 15:45	8369125	7.766	-73.473	471.843	11.031	669.619	913.299	0.450	0.594	***4.505***	11.031	4.668
2021-09-28 16:00	8370025	7.772	-73.814	471.455	11.044	669.861	913.312	0.450	0.594	***4.600***	11.044	4.768
2021-09-28 16:15	8370925	7.773	-73.874	471.116	11.065	670.345	913.464	0.450	0.594	***4.657***	11.065	4.685
2021-09-28 16:30	8371825	7.775	-74.005	470.806	11.088	670.781	913.528	0.450	0.594	***4.677***	11.088	4.595
2021-09-28 16:45	8372725	7.780	-74.296	470.618	11.111	671.366	913.762	0.450	0.594	***4.690***	11.111	4.573
2021-09-28 17:00	8373625	7.784	-74.534	470.513	11.126	671.58	913.713	0.450	0.594	***4.692***	11.126	3.655
2021-09-28 17:15	8374525	7.781	-74.368	470.458	11.133	672.111	914.264	0.451	0.594	***4.586***	11.133	4.356
2021-09-28 17:30	8375425	7.781	-74.363	470.432	11.139	672.407	914.525	0.451	0.594	***4.418***	11.139	4.252
2021-09-28 17:45	8376325	7.780	-74.282	470.47	11.131	672.448	914.759	0.451	0.595	***4.315***	11.131	4.242
2021-09-28 18:00	8377225	7.774	-73.943	470.489	11.124	672.521	915.043	0.451	0.595	***4.232***	11.124	4.095
2021-09-28 18:15	8378125	7.771	-73.793	470.618	11.123	672.693	915.289	0.451	0.595	***4.086***	11.123	4.53
2021-09-28 18:30	8379025	7.768	-73.619	470.759	11.122	672.823	915.486	0.451	0.595	***3.994***	11.122	4.599
2021-09-28 18:45	8379925	7.761	-73.252	470.906	11.11	672.802	915.748	0.451	0.595	***3.890***	11.11	5.292
2021-09-28 19:00	8380825	7.755	-72.892	471.018	11.101	672.938	916.147	0.451	0.595	***3.747***	11.101	4.651
2021-09-28 19:15	8381725	7.753	-72.768	471.081	11.09	673.119	916.667	0.452	0.596	***3.615***	11.09	4.07
2021-09-28 19:30	8382625	7.750	-72.577	471.207	11.079	673.206	917.046	0.452	0.596	***3.469***	11.079	4.307
2021-09-28 19:45	8383525	7.746	-72.393	471.433	11.065	673.446	917.702	0.452	0.597	***3.306***	11.065	4.676
2021-09-28 20:00	8384425	7.741	-72.117	471.703	11.052	673.509	918.093	0.452	0.597	***3.191***	11.052	4.54
2021-09-28 20:15	8385325	7.738	-71.9	471.87	11.035	673.629	918.666	0.453	0.597	***3.016***	11.035	4.357
2021-09-28 20:30	8386225	7.738	-71.938	472.008	11.02	673.598	918.99	0.453	0.597	***2.924***	11.02	5.689
2021-09-28 20:45	8387125	7.738	-71.928	472.175	11.007	673.725	919.458	0.453	0.598	***2.864***	11.007	5.63
2021-09-28 21:00	8388025	7.737	-71.857	472.428	10.992	673.658	919.74	0.453	0.598	***2.739***	10.992	4.883
2021-09-28 21:15	8388925	7.733	-71.635	472.618	10.977	673.681	920.134	0.453	0.598	***2.557***	10.977	4.9
2021-09-28 21:30	8389825	7.730	-71.44	472.852	10.958	673.666	920.559	0.454	0.598	***2.344***	10.958	6.216
2021-09-28 21:45	8390725	7.727	-71.254	473.057	10.935	673.406	920.76	0.454	0.598	***2.341***	10.935	6.581
2021-09-28 22:00	8391625	7.724	-71.104	473.26	10.91	673.182	921.051	0.454	0.599	***2.501***	10.91	5.736
2021-09-28 22:15	8392525	7.724	-71.092	473.407	10.885	672.959	921.363	0.454	0.599	***2.580***	10.885	6.159
2021-09-28 22:30	8393425	7.721	-70.934	473.603	10.859	672.655	921.563	0.454	0.599	***2.582***	10.859	5.959
2021-09-28 22:45	8394325	7.718	-70.744	473.796	10.825	672.184	921.738	0.454	0.599	***2.511***	10.825	4.858
2021-09-28 23:00	8395225	7.718	-70.713	473.965	10.788	671.611	921.856	0.454	0.599	***2.426***	10.788	5.473
2021-09-28 23:15	8396125	7.716	-70.622	474.125	10.759	671.095	921.846	0.454	0.599	***2.405***	10.759	5.406
2021-09-28 23:30	8397025	7.713	-70.448	474.323	10.738	670.82	921.979	0.454	0.599	***2.391***	10.738	4.827
2021-09-28 23:45	8397925	7.709	-70.19	474.566	10.716	670.617	922.216	0.454	0.599	***2.339***	10.716	3.914
2021-09-29 00:00	8398826	7.705	-69.976	474.788	10.695	670.272	922.264	0.454	0.599	***2.279***	10.695	5.538
2021-09-29 00:15	8399726	7.704	-69.923	475.036	10.673	669.969	922.382	0.454	0.600	***2.195***	10.673	3.615
2021-09-29 00:30	8400626	7.706	-69.995	475.196	10.652	669.672	922.475	0.454	0.600	***2.102***	10.652	3.495
2021-09-29 00:45	8401526	7.707	-70.038	475.362	10.625	669.223	922.516	0.454	0.600	***1.965***	10.625	3.243
2021-09-29 01:00	8402426	7.704	-69.871	475.446	10.598	668.833	922.628	0.454	0.600	***1.850***	10.598	3.335
2021-09-29 01:15	8403326	7.701	-69.687	475.548	10.569	668.349	922.655	0.454	0.600	***1.814***	10.569	3.283
2021-09-29 01:30	8404226	7.698	-69.556	475.627	10.539	667.85	922.719	0.454	0.600	***1.801***	10.539	3.486
2021-09-29 01:45	8405126	7.698	-69.554	475.78	10.51	667.43	922.834	0.454	0.600	***1.747***	10.51	3.759
2021-09-29 02:00	8406026	7.696	-69.396	475.92	10.478	666.773	922.713	0.454	0.600	***1.766***	10.478	3.778
2021-09-29 02:15	8406926	7.692	-69.158	476.068	10.449	666.301	922.756	0.454	0.600	***1.778***	10.449	3.809
2021-09-29 02:30	8407826	7.689	-68.989	476.257	10.418	665.753	922.75	0.454	0.600	***1.773***	10.418	4.798
2021-09-29 02:45	8408726	7.689	-69.005	476.416	10.383	665.075	922.666	0.454	0.600	***1.743***	10.383	4.509
2021-09-29 03:00	8409626	7.690	-69.067	476.483	10.344	664.48	922.794	0.454	0.600	***1.608***	10.344	4.201
2021-09-29 03:15	8410526	7.690	-69.027	476.578	10.311	663.868	922.755	0.454	0.600	***1.566***	10.311	3.945
2021-09-29 03:30	8411426	7.688	-68.903	476.659	10.28	663.287	922.716	0.454	0.600	***1.528***	10.28	3.405
2021-09-29 03:45	8412326	7.686	-68.803	476.817	10.25	662.775	922.734	0.454	0.600	***1.429***	10.25	3.334
2021-09-29 04:00	8413226	7.685	-68.707	477.079	10.222	662.333	922.806	0.454	0.600	***1.368***	10.222	2.635
2021-09-29 04:15	8414126	7.684	-68.655	477.399	10.19	661.824	922.885	0.454	0.600	***1.249***	10.19	2.738
2021-09-29 04:30	8415026	7.680	-68.436	477.718	10.156	661.241	922.894	0.454	0.600	***0.933***	10.156	2.533
2021-09-29 04:45	8415926	7.677	-68.243	478.021	10.124	660.651	922.874	0.454	0.600	***0.671***	10.124	3.027

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-29 05:00	8416826	7.677	-68.245	478.162	10.087	660.1	923.006	0.454	0.600	***0.474***	10.087	3.83
2021-09-29 05:15	8417726	7.678	-68.288	478.2	10.054	659.57	923.087	0.454	0.600	***0.365***	10.054	4.562
2021-09-29 05:30	8418626	7.679	-68.345	478.209	10.018	658.957	923.118	0.454	0.600	***0.318***	10.018	4.843
2021-09-29 05:45	8419526	7.679	-68.331	478.286	9.985	658.341	923.073	0.454	0.600	***0.290***	9.985	5.151
2021-09-29 06:00	8420426	7.679	-68.345	478.371	9.947	657.745	923.155	0.454	0.600	***0.252***	9.947	4.655
2021-09-29 06:15	8421326	7.680	-68.347	478.543	9.916	657.149	923.09	0.454	0.600	***0.205***	9.916	3.517
2021-09-29 06:30	8422226	7.679	-68.307	478.81	9.887	656.598	923.053	0.454	0.600	***0.162***	9.887	4.183
2021-09-29 06:45	8423126	7.679	-68.285	479.041	9.857	656.148	923.158	0.454	0.600	***0.111***	9.857	4.931
2021-09-29 07:00	8424026	7.674	-68.011	479.275	9.828	655.619	923.123	0.454	0.600	***0.082***	9.828	4.649
2021-09-29 07:15	8424926	7.670	-67.768	479.535	9.799	655.081	923.096	0.454	0.600	***0.062***	9.799	3.469
2021-09-29 07:30	8425826	7.668	-67.668	479.699	9.773	654.659	923.138	0.454	0.600	***0.029***	9.773	4.256
2021-09-29 07:45	8426726	7.666	-67.568	479.864	9.742	654.172	923.228	0.454	0.600	***0.060***	9.742	2.695
2021-09-29 08:00	8427626	7.665	-67.489	480.033	9.712	653.65	923.228	0.454	0.600	***0.050***	9.712	2.651
2021-09-29 08:15	8428526	7.663	-67.365	480.15	9.68	653.069	923.201	0.454	0.600	***0.052***	9.68	2.573
2021-09-29 08:30	8429426	7.661	-67.246	480.221	9.648	652.397	923.056	0.454	0.600	***0.087***	9.648	4.739
2021-09-29 08:45	8430326	7.661	-67.215	480.257	9.622	652.043	923.209	0.454	0.600	***0.110***	9.622	3.766
2021-09-29 09:00	8431226	7.662	-67.265	480.269	9.6	651.568	923.073	0.454	0.600	***0.116***	9.6	3.678
2021-09-29 09:15	8432126	7.660	-67.165	480.369	9.587	651.353	923.111	0.454	0.600	***0.102***	9.587	3.596
2021-09-29 09:30	8433026	7.655	-66.867	480.539	9.583	651.245	923.048	0.454	0.600	***0.078***	9.583	4.625
2021-09-29 09:45	8433926	7.649	-66.531	480.674	9.589	651.383	923.107	0.454	0.600	***0.062***	9.589	2.726
2021-09-29 10:00	8434826	7.644	-66.278	480.889	9.599	651.512	923.03	0.454	0.600	***0.071***	9.599	2.398
2021-09-29 10:15	8435726	7.642	-66.144	481.034	9.611	651.782	923.108	0.454	0.600	***0.103***	9.611	2.675
2021-09-29 10:30	8436626	7.639	-66.004	481.158	9.626	652.139	923.236	0.454	0.600	***0.131***	9.626	2.319
2021-09-29 10:45	8437526	7.635	-65.811	481.278	9.647	652.541	923.29	0.454	0.600	***0.160***	9.647	2.283
2021-09-29 11:00	8438426	7.633	-65.66	481.364	9.672	653.037	923.373	0.454	0.600	***0.151***	9.672	2.238
2021-09-29 11:15	8439326	7.631	-65.563	481.409	9.7	653.407	923.183	0.454	0.600	***0.141***	9.7	2.292
2021-09-29 11:30	8440226	7.630	-65.544	481.43	9.738	653.738	922.723	0.454	0.600	***0.147***	9.738	2.287
2021-09-29 11:45	8441126	7.628	-65.436	481.456	9.777	654.385	922.667	0.454	0.600	***0.164***	9.777	3.734
2021-09-29 12:00	8442026	7.627	-65.398	481.48	9.813	654.927	922.523	0.453	0.600	***0.235***	9.813	2.26
2021-09-29 12:15	8442926	7.626	-65.298	481.514	9.844	655.438	922.48	0.454	0.600	***0.452***	9.844	2.348
2021-09-29 12:30	8443826	7.625	-65.289	481.504	9.872	655.799	922.279	0.453	0.599	***0.633***	9.872	2.381
2021-09-29 12:45	8444726	7.625	-65.293	481.471	9.907	656.28	922.098	0.453	0.599	***0.919***	9.907	2.476
2021-09-29 13:00	8445626	7.624	-65.26	481.44	9.952	657.03	922.042	0.453	0.599	***1.390***	9.952	3.704
2021-09-29 13:15	8446526	7.624	-65.269	481.316	10.014	658.002	921.875	0.453	0.599	***1.554***	10.014	2.609
2021-09-29 13:30	8447426	7.626	-65.386	481.08	10.088	659.24	921.778	0.453	0.599	***1.600***	10.088	2.303
2021-09-29 13:45	8448326	7.633	-65.818	480.77	10.203	661.122	921.588	0.453	0.599	***1.236***	10.203	2.253
2021-09-29 14:00	8449226	7.638	-66.106	480.446	10.33	663.377	921.607	0.454	0.599	***1.143***	10.33	2.439
2021-09-29 14:15	8450126	7.639	-66.216	480.136	10.471	665.686	921.382	0.454	0.599	***1.245***	10.471	2.394
2021-09-29 14:30	8451026	7.641	-66.357	479.826	10.622	668.346	921.366	0.454	0.599	***1.683***	10.622	2.429
2021-09-29 14:45	8451926	7.642	-66.438	479.442	10.787	671.319	921.469	0.454	0.599	***1.841***	10.787	2.673
2021-09-29 15:00	8452826	7.644	-66.581	479.089	10.945	674.006	921.342	0.454	0.599	***2.117***	10.945	2.355
2021-09-29 15:15	8453726	7.642	-66.521	478.808	11.066	676.014	921.171	0.454	0.599	***2.699***	11.066	2.559
2021-09-29 15:30	8454626	7.640	-66.414	478.498	11.133	677.159	921.138	0.454	0.599	***3.117***	11.133	3.033
2021-09-29 15:45	8455526	7.642	-66.507	478.293	11.097	676.459	921.039	0.454	0.599	***3.341***	11.097	4.285
2021-09-29 16:00	8456426	7.652	-67.031	478.19	10.967	674.229	921.104	0.454	0.599	***3.205***	10.967	8.291
2021-09-29 16:15	8457326	7.673	-68.197	478.1	10.807	670.767	920.222	0.453	0.598	***4.097***	10.807	5.689
2021-09-29 16:30	8458226	7.689	-69.103	477.873	10.724	668.907	919.666	0.453	0.598	***4.721***	10.724	5.584
2021-09-29 16:45	8459126	7.706	-69.988	477.649	10.614	666.647	919.234	0.453	0.598	***4.865***	10.614	5.498
2021-09-29 17:00	8460026	7.720	-70.782	477.439	10.547	665.056	918.65	0.452	0.597	***4.856***	10.547	4.966
2021-09-29 17:15	8460926	7.735	-71.63	477.241	10.509	664.01	918.13	0.452	0.597	***4.843***	10.509	4.67
2021-09-29 17:30	8461826	7.745	-72.184	476.946	10.473	663.182	917.867	0.452	0.597	***4.796***	10.473	4.638
2021-09-29 17:45	8462726	7.753	-72.61	476.612	10.429	662.316	917.713	0.452	0.597	***4.805***	10.429	5.008
2021-09-29 18:00	8463626	7.760	-72.966	476.29	10.386	661.464	917.585	0.452	0.596	***4.847***	10.386	3.661
2021-09-29 18:15	8464526	7.761	-73.009	476.03	10.35	660.698	917.409	0.451	0.596	***4.867***	10.35	3.8
2021-09-29 18:30	8465426	7.764	-73.168	475.815	10.311	660.109	917.542	0.451	0.596	***4.808***	10.311	3.186
2021-09-29 18:45	8466326	7.767	-73.373	475.689	10.279	659.561	917.539	0.451	0.596	***4.692***	10.279	2.849

TABLE C1

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2021-09-29 19:00	8467226	7.772	-73.628	475.63	10.257	659.241	917.638	0.451	0.596	***4.523***	10.257	2.666
2021-09-29 19:15	8468126	7.772	-73.633	475.517	10.239	659.012	917.761	0.451	0.597	***4.286***	10.239	2.616
2021-09-29 19:30	8469026	7.775	-73.771	475.336	10.218	658.799	917.979	0.452	0.597	***3.831***	10.218	2.977
2021-09-29 19:45	8469926	7.776	-73.843	475.134	10.199	658.617	918.19	0.452	0.597	***3.389***	10.199	2.939
2021-09-29 20:00	8470826	7.777	-73.895	474.905	10.176	658.309	918.32	0.452	0.597	***3.170***	10.176	6.275
2021-09-29 20:15	8471726	7.777	-73.905	474.793	10.159	658.081	918.412	0.452	0.597	***3.133***	10.159	3.233
2021-09-29 20:30	8472626	7.777	-73.876	474.614	10.143	657.914	918.581	0.452	0.597	***3.229***	10.143	3.259
2021-09-29 20:45	8473526	7.776	-73.829	474.511	10.127	657.655	918.613	0.452	0.597	***3.284***	10.127	3.297
2021-09-29 21:00	8474426	7.775	-73.779	474.392	10.107	657.318	918.629	0.452	0.597	***3.370***	10.107	3.584
2021-09-29 21:15	8475326	7.774	-73.709	474.313	10.081	657.035	918.863	0.452	0.597	***3.293***	10.081	3.659
2021-09-29 21:30	8476226	7.770	-73.464	474.304	10.052	656.584	918.962	0.452	0.597	***3.235***	10.052	4.661
2021-09-29 21:45	8477126	7.765	-73.195	474.321	10.016	656.118	919.184	0.452	0.597	***3.163***	10.016	51.684
2021-09-29 22:00	8478026	7.762	-73.016	474.34	9.979	655.552	919.305	0.452	0.598	***3.020***	9.979	5.198
2021-09-29 22:15	8478926	7.760	-72.873	474.44	9.941	654.983	919.446	0.452	0.598	***2.965***	9.941	5.151
2021-09-29 22:30	8479826	7.759	-72.806	474.559	9.911	654.557	919.585	0.452	0.598	***2.950***	9.911	4.914
2021-09-29 22:45	8480726	7.756	-72.632	474.712	9.873	654.006	919.741	0.452	0.598	***2.978***	9.873	4.657
2021-09-29 23:00	8481626	7.752	-72.408	474.843	9.841	653.526	919.848	0.452	0.598	***2.993***	9.841	4.584
2021-09-29 23:15	8482526	7.747	-72.131	474.998	9.819	653.122	919.841	0.452	0.598	***3.004***	9.819	4.743
2021-09-29 23:30	8483426	7.746	-72.057	475.231	9.795	652.848	920.04	0.452	0.598	***2.985***	9.795	4.23
2021-09-29 23:45	8484326	7.743	-71.898	475.453	9.774	652.522	920.115	0.452	0.598	***2.947***	9.774	4.165
2021-09-30 00:00	8485226	7.740	-71.695	475.572	9.751	652.154	920.143	0.452	0.598	***2.854***	9.751	4.328
2021-09-30 00:15	8486126	7.737	-71.537	475.68	9.727	651.844	920.303	0.452	0.598	***2.746***	9.727	4.374
2021-09-30 00:30	8487026	7.735	-71.404	475.78	9.707	651.464	920.278	0.452	0.598	***2.614***	9.707	4.34
2021-09-30 00:45	8487926	7.733	-71.28	475.909	9.682	651.179	920.5	0.452	0.598	***2.586***	9.682	4.203
2021-09-30 01:00	8488826	7.730	-71.137	476.052	9.659	650.902	920.659	0.452	0.598	***2.537***	9.659	4.179
2021-09-30 01:15	8489726	7.727	-70.92	476.261	9.639	650.612	920.755	0.452	0.598	***2.484***	9.639	3.966
2021-09-30 01:30	8490626	7.723	-70.741	476.469	9.621	650.399	920.912	0.452	0.599	***2.414***	9.621	3.999
2021-09-30 01:45	8491526	7.720	-70.558	476.669	9.604	650.192	921.038	0.453	0.599	***2.323***	9.604	3.989
2021-09-30 02:00	8492426	7.717	-70.364	476.85	9.59	649.994	921.104	0.453	0.599	***2.236***	9.59	4.02
2021-09-30 02:15	8493326	7.712	-70.093	477.046	9.577	649.772	921.105	0.453	0.599	***2.149***	9.577	3.778
2021-09-30 02:30	8494226	7.709	-69.938	477.236	9.564	649.592	921.174	0.453	0.599	***2.061***	9.564	3.72
2021-09-30 02:45	8495126	7.706	-69.759	477.494	9.554	649.458	921.246	0.453	0.599	***1.978***	9.554	3.445
2021-09-30 03:00	8496026	7.704	-69.616	477.68	9.546	649.45	921.427	0.453	0.599	***1.898***	9.546	3.013
2021-09-30 03:15	8496926	7.702	-69.518	477.899	9.535	649.366	921.577	0.453	0.599	***1.832***	9.535	2.871
2021-09-30 03:30	8497826	7.700	-69.385	478.185	9.527	649.173	921.503	0.453	0.599	***1.746***	9.527	2.829
2021-09-30 03:45	8498726	7.695	-69.096	478.507	9.519	649.02	921.49	0.453	0.599	***1.671***	9.519	2.914
2021-09-30 04:00	8499626	7.689	-68.808	478.874	9.51	648.875	921.522	0.453	0.599	***1.598***	9.51	4.899
2021-09-30 04:15	8500526	7.684	-68.495	479.237	9.502	648.866	921.699	0.453	0.599	***1.446***	9.502	2.774
2021-09-30 04:30	8501426	7.680	-68.274	479.575	9.495	648.641	921.559	0.453	0.599	***1.395***	9.495	2.544
2021-09-30 04:45	8502326	7.677	-68.083	479.869	9.488	648.535	921.591	0.453	0.599	***1.385***	9.488	2.494
2021-09-30 05:00	8503226	7.673	-67.871	480.186	9.482	648.427	921.581	0.453	0.599	***1.368***	9.482	2.507
2021-09-30 05:15	8504126	7.670	-67.704	480.469	9.477	648.416	921.699	0.453	0.599	***1.349***	9.477	2.295
2021-09-30 05:30	8505026	7.667	-67.52	480.725	9.473	648.278	921.582	0.453	0.599	***1.283***	9.473	2.357
2021-09-30 05:45	8505926	7.663	-67.306	481.003	9.471	647.895	921.091	0.452	0.599	***1.271***	9.471	2.264
2021-09-30 06:00	8506827	7.659	-67.11	481.213	9.469	648.18	921.54	0.453	0.599	***1.225***	9.469	2.236
2021-09-30 06:15	8507727	7.656	-66.946	481.456	9.466	648.156	921.598	0.453	0.599	***1.214***	9.466	2.182
2021-09-30 06:30	8508627	7.653	-66.762	481.609	9.461	648.058	921.589	0.453	0.599	***1.135***	9.461	2.128
2021-09-30 06:45	8509527	7.652	-66.698	481.802	9.454	647.932	921.574	0.453	0.599	***1.100***	9.454	2.259
2021-09-30 07:00	8510427	7.650	-66.586	481.96	9.443	647.861	921.738	0.453	0.599	***1.079***	9.443	2.234
2021-09-30 07:15	8511327	7.648	-66.435	482.117	9.429	647.648	921.796	0.453	0.599	***1.007***	9.429	2.105
2021-09-30 07:30	8512227	7.647	-66.423	482.289	9.413	647.413	921.864	0.453	0.599	***0.887***	9.413	2.157
2021-09-30 07:45	8513127	7.646	-66.316	482.47	9.391	647.216	922.127	0.453	0.599	***0.704***	9.391	2.144
2021-09-30 08:00	8514027	7.642	-66.13	482.589	9.37	646.913	922.235	0.453	0.599	***0.453***	9.37	2.184
2021-09-30 08:15	8514927	7.639	-65.942	482.668	9.345	646.706	922.572	0.453	0.600	***0.225***	9.345	2.064
2021-09-30 08:30	8515827	7.635	-65.737	482.711	9.323	646.413	922.69	0.453	0.600	***0.066***	9.323	2.197
2021-09-30 08:45	8516727	7.633	-65.61	482.761	9.305	646.103	922.701	0.453	0.600	***0.000***	9.305	2.105

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-30 09:00	8517627	7.632	-65.522	482.68	9.29	645.861	922.75	0.453	0.600	***0.000***	9.29	2.189
2021-09-30 09:15	8518527	7.630	-65.434	482.582	9.275	645.596	922.748	0.453	0.600	***0.000***	9.275	2.085
2021-09-30 09:30	8519427	7.629	-65.386	482.486	9.264	645.376	922.71	0.453	0.600	***0.000***	9.264	2.063
2021-09-30 09:45	8520327	7.628	-65.303	482.379	9.252	645.11	922.631	0.453	0.600	***0.000***	9.252	2.042
2021-09-30 10:00	8521227	7.626	-65.2	482.253	9.243	644.906	922.548	0.453	0.600	***0.000***	9.243	2.073
2021-09-30 10:15	8522127	7.626	-65.21	482.126	9.235	644.745	922.532	0.453	0.600	***0.000***	9.235	2.107
2021-09-30 10:30	8523027	7.626	-65.169	482.024	9.232	644.621	922.423	0.453	0.600	***0.000***	9.232	2.063
2021-09-30 10:45	8523927	7.625	-65.15	481.89	9.234	644.5	922.214	0.453	0.599	***0.000***	9.234	2.058
2021-09-30 11:00	8524827	7.627	-65.224	481.79	9.243	644.598	922.116	0.453	0.599	***0.000***	9.243	2.026
2021-09-30 11:15	8525727	7.630	-65.415	481.633	9.255	644.683	921.934	0.453	0.599	***0.000***	9.255	2.15
2021-09-30 11:30	8526627	7.630	-65.434	481.483	9.277	645.014	921.862	0.453	0.599	***0.000***	9.277	2.105
2021-09-30 11:45	8527527	7.637	-65.804	481.302	9.301	645.299	921.663	0.453	0.599	***0.000***	9.301	2.106
2021-09-30 12:00	8528427	7.642	-66.128	481.192	9.321	645.396	921.301	0.452	0.599	***0.012***	9.321	2.178
2021-09-30 12:15	8529327	7.643	-66.154	481.104	9.339	645.662	921.22	0.452	0.599	***0.032***	9.339	2.125
2021-09-30 12:30	8530227	7.642	-66.125	481.039	9.36	645.954	921.106	0.452	0.599	***0.185***	9.36	2.49
2021-09-30 12:45	8531127	7.641	-66.071	480.958	9.388	646.307	920.912	0.452	0.599	***0.511***	9.388	2.795
2021-09-30 13:00	8532027	7.636	-65.799	480.868	9.423	646.684	920.574	0.452	0.598	***1.128***	9.423	2.523
2021-09-30 13:15	8532927	7.633	-65.646	480.791	9.466	647.308	920.385	0.452	0.598	***1.883***	9.466	2.133
2021-09-30 13:30	8533827	7.639	-65.97	480.674	9.514	647.899	920.037	0.452	0.598	***2.333***	9.514	3.629
2021-09-30 13:45	8534727	7.649	-66.559	480.519	9.543	648.265	919.832	0.452	0.598	***2.541***	9.543	2.479
2021-09-30 14:00	8535627	7.653	-66.757	480.322	9.572	648.711	919.738	0.452	0.598	***2.799***	9.572	2.7
2021-09-30 14:15	8536527	7.654	-66.838	480.047	9.603	649.184	919.627	0.452	0.598	***3.113***	9.603	2.217
2021-09-30 14:30	8537427	7.652	-66.752	479.852	9.653	649.981	919.509	0.452	0.598	***3.395***	9.653	2.183
2021-09-30 14:45	8538327	7.652	-66.726	479.623	9.712	650.96	919.434	0.452	0.598	***3.561***	9.712	2.256
2021-09-30 15:00	8539227	7.653	-66.805	479.382	9.763	651.75	919.297	0.452	0.598	***3.649***	9.763	2.706
2021-09-30 15:15	8540127	7.657	-67.046	479.127	9.781	652.03	919.241	0.452	0.598	***3.711***	9.781	3.323
2021-09-30 15:30	8541027	7.660	-67.227	478.934	9.772	652.137	919.615	0.452	0.598	***3.753***	9.772	3.135
2021-09-30 15:45	8541927	7.662	-67.332	478.758	9.765	651.563	918.984	0.452	0.597	***3.784***	9.765	3.325
2021-09-30 16:00	8542827	7.666	-67.565	478.505	9.785	652.054	919.161	0.452	0.597	***3.782***	9.785	3.564
2021-09-30 16:15	8543727	7.675	-68.069	478.281	9.841	653.617	919.998	0.452	0.598	***3.813***	9.841	4.535
2021-09-30 16:30	8544627	7.680	-68.374	478.033	9.899	654.474	919.752	0.452	0.598	***3.890***	9.899	4.355
2021-09-30 16:45	8545527	7.691	-68.991	477.628	9.931	655.003	919.724	0.452	0.598	***3.844***	9.931	4.336
2021-09-30 17:00	8546427	7.707	-69.892	477.222	9.963	654.896	918.784	0.452	0.597	***3.882***	9.963	4.505
2021-09-30 17:15	8547327	7.710	-70.064	476.919	9.988	655.403	918.874	0.452	0.597	***4.108***	9.988	4.31
2021-09-30 17:30	8548227	7.712	-70.207	476.753	10.017	655.988	918.986	0.452	0.597	***4.193***	10.017	4.632
2021-09-30 17:45	8549127	7.722	-70.736	476.528	10.039	656.399	919.006	0.452	0.597	***4.151***	10.039	4.382
2021-09-30 18:00	8550027	7.736	-71.573	476.333	10.037	656.457	919.13	0.452	0.597	***4.000***	10.037	4.337
2021-09-30 18:15	8550927	7.752	-72.427	476.009	10.035	656.446	919.168	0.452	0.597	***3.941***	10.035	4.593
2021-09-30 18:30	8551827	7.771	-73.495	475.565	10.037	656.541	919.265	0.452	0.598	***3.874***	10.037	5.003
2021-09-30 18:45	8552727	7.790	-74.599	474.888	10.026	656.535	919.525	0.452	0.598	***3.827***	10.026	5.892
2021-09-30 19:00	8553627	7.804	-75.347	474.287	10.013	656.364	919.59	0.452	0.598	***3.862***	10.013	5.576
2021-09-30 19:15	8554527	7.805	-75.405	473.977	10.012	656.445	919.742	0.452	0.598	***3.761***	10.012	5.131
2021-09-30 19:30	8555427	7.803	-75.331	473.648	10.009	656.442	919.804	0.452	0.598	***3.754***	10.009	4.754
2021-09-30 19:45	8556327	7.800	-75.13	473.479	10.004	656.46	919.955	0.452	0.598	***3.773***	10.004	4.12
2021-09-30 20:00	8557227	7.793	-74.756	473.412	9.997	656.367	920.01	0.452	0.598	***3.768***	9.997	3.708
2021-09-30 20:15	8558127	7.789	-74.489	473.396	9.988	656.344	920.192	0.452	0.598	***3.725***	9.988	3.581
2021-09-30 20:30	8559027	7.783	-74.167	473.365	9.98	656.246	920.24	0.453	0.598	***3.577***	9.98	3.532
2021-09-30 20:45	8559927	7.777	-73.848	473.396	9.969	656.199	920.45	0.453	0.598	***3.449***	9.969	3.894
2021-09-30 21:00	8560827	7.775	-73.729	473.443	9.956	656.007	920.517	0.453	0.598	***3.359***	9.956	3.549
2021-09-30 21:15	8561727	7.770	-73.428	473.579	9.94	655.637	920.373	0.453	0.598	***3.313***	9.94	3.424
2021-09-30 21:30	8562627	7.762	-73.004	473.732	9.926	655.619	920.692	0.453	0.598	***3.183***	9.926	3.43
2021-09-30 21:45	8563527	7.755	-72.608	473.932	9.913	655.536	920.906	0.453	0.599	***2.982***	9.913	3.737
2021-09-30 22:00	8564427	7.750	-72.315	474.108	9.895	655.293	920.997	0.453	0.599	***2.908***	9.895	3.97
2021-09-30 22:15	8565327	7.745	-72.021	474.318	9.88	655.104	921.111	0.453	0.599	***2.885***	9.88	3.975
2021-09-30 22:30	8566227	7.740	-71.723	474.573	9.861	654.953	921.383	0.453	0.599	***2.865***	9.861	4.165
2021-09-30 22:45	8567127	7.734	-71.414	474.824	9.838	654.605	921.45	0.453	0.599	***2.798***	9.838	3.974

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-09-30 23:00	8568027	7.731	-71.194	475.05	9.813	654.257	921.592	0.453	0.599	***2.708***	9.813	3.545
2021-09-30 23:15	8568927	7.728	-71.042	475.317	9.775	653.694	921.729	0.453	0.599	***2.624***	9.775	2.876
2021-09-30 23:30	8569827	7.724	-70.827	475.51	9.752	653.455	921.967	0.453	0.599	***2.486***	9.752	3.416
2021-09-30 23:45	8570727	7.721	-70.655	475.758	9.732	653.193	922.1	0.453	0.599	***2.288***	9.732	3.72
2021-10-01 00:00	8571627	7.719	-70.531	475.975	9.711	652.866	922.166	0.453	0.599	***2.063***	9.711	3.922
2021-10-01 00:15	8572527	7.720	-70.555	476.114	9.682	652.484	922.322	0.453	0.600	***1.886***	9.682	3.908
2021-10-01 00:30	8573427	7.724	-70.808	476.237	9.657	652.02	922.294	0.453	0.599	***1.763***	9.657	4.092
2021-10-01 00:45	8574327	7.727	-70.946	476.302	9.629	651.566	922.357	0.453	0.600	***1.628***	9.629	3.264
2021-10-01 01:00	8575227	7.725	-70.813	476.426	9.604	651.361	922.681	0.453	0.600	***1.700***	9.604	3.404
2021-10-01 01:15	8576127	7.720	-70.548	476.621	9.582	651.018	922.766	0.453	0.600	***1.683***	9.582	3.244
2021-10-01 01:30	8577027	7.715	-70.226	476.85	9.563	650.735	922.832	0.453	0.600	***1.725***	9.563	3.289
2021-10-01 01:45	8577927	7.710	-69.969	477.127	9.545	650.469	922.9	0.453	0.600	***1.704***	9.545	3.388
2021-10-01 02:00	8578827	7.707	-69.795	477.432	9.53	650.255	922.984	0.453	0.600	***1.691***	9.53	3.249
2021-10-01 02:15	8579727	7.700	-69.425	477.725	9.516	649.988	922.939	0.453	0.600	***1.667***	9.516	2.979
2021-10-01 02:30	8580627	7.696	-69.196	477.983	9.502	649.839	923.09	0.453	0.600	***1.619***	9.502	3.352
2021-10-01 02:45	8581527	7.695	-69.118	478.297	9.481	649.546	923.203	0.453	0.600	***1.502***	9.481	3.588
2021-10-01 03:00	8582427	7.695	-69.129	478.417	9.457	649.148	923.218	0.453	0.600	***1.329***	9.457	3.875
2021-10-01 03:15	8583327	7.695	-69.118	478.471	9.439	648.938	923.38	0.454	0.600	***1.197***	9.439	4.169
2021-10-01 03:30	8584227	7.694	-69.065	478.51	9.424	648.634	923.336	0.453	0.600	***1.158***	9.424	3.931
2021-10-01 03:45	8585127	7.699	-69.342	478.624	9.41	648.429	923.388	0.454	0.600	***1.300***	9.41	3.749
2021-10-01 04:00	8586027	7.699	-69.296	478.655	9.405	648.299	923.315	0.453	0.600	***1.486***	9.405	3.768
2021-10-01 04:15	8586927	7.698	-69.244	478.739	9.397	648.055	923.17	0.453	0.600	***1.764***	9.397	3.549
2021-10-01 04:30	8587827	7.696	-69.139	478.812	9.388	647.861	923.135	0.453	0.600	***1.889***	9.388	3.725
2021-10-01 04:45	8588727	7.696	-69.139	478.805	9.377	647.647	923.109	0.453	0.600	***1.842***	9.377	3.627
2021-10-01 05:00	8589627	7.698	-69.232	478.808	9.362	647.487	923.247	0.453	0.600	***1.820***	9.362	3.406
2021-10-01 05:15	8590527	7.698	-69.249	478.791	9.353	647.33	923.252	0.453	0.600	***1.773***	9.353	3.297
2021-10-01 05:30	8591427	7.696	-69.158	478.824	9.34	646.991	923.089	0.453	0.600	***1.684***	9.34	3.37
2021-10-01 05:45	8592327	7.698	-69.213	478.855	9.326	646.886	923.309	0.453	0.600	***1.578***	9.326	3.274
2021-10-01 06:00	8593227	7.697	-69.206	478.87	9.306	646.539	923.301	0.453	0.600	***1.487***	9.306	3.488
2021-10-01 06:15	8594127	7.694	-69.027	479.029	9.286	646.237	923.373	0.453	0.600	***1.419***	9.286	4.172
2021-10-01 06:30	8595027	7.692	-68.877	479.115	9.262	645.882	923.465	0.453	0.600	***1.321***	9.262	4.535
2021-10-01 06:45	8595927	7.689	-68.722	479.28	9.242	645.514	923.458	0.453	0.600	***1.213***	9.242	4.37
2021-10-01 07:00	8596827	7.686	-68.562	479.37	9.225	645.175	923.394	0.453	0.600	***1.196***	9.225	4.191
2021-10-01 07:15	8597727	7.687	-68.572	479.416	9.215	645.031	923.432	0.453	0.600	***1.176***	9.215	4.227
2021-10-01 07:30	8598627	7.684	-68.452	479.451	9.206	644.806	923.349	0.453	0.600	***1.205***	9.206	4.148
2021-10-01 07:45	8599527	7.681	-68.266	479.561	9.196	644.619	923.345	0.453	0.600	***1.230***	9.196	5.665
2021-10-01 08:00	8600427	7.678	-68.071	479.74	9.185	644.41	923.307	0.453	0.600	***1.209***	9.185	5.192
2021-10-01 08:15	8601327	7.677	-68.014	479.904	9.173	644.173	923.266	0.453	0.600	***1.177***	9.173	5.35
2021-10-01 08:30	8602227	7.674	-67.88	480.052	9.161	643.979	923.311	0.453	0.600	***1.155***	9.161	5.057
2021-10-01 08:45	8603127	7.671	-67.675	480.231	9.149	643.75	923.263	0.453	0.600	***1.135***	9.149	5.947
2021-10-01 09:00	8604027	7.667	-67.456	480.446	9.137	643.551	923.284	0.453	0.600	***1.141***	9.137	5.822
2021-10-01 09:15	8604927	7.665	-67.317	480.648	9.12	643.222	923.244	0.453	0.600	***1.149***	9.12	4.86
2021-10-01 09:30	8605827	7.663	-67.22	480.818	9.108	643.053	923.322	0.453	0.600	***1.083***	9.108	4.25
2021-10-01 09:45	8606727	7.663	-67.21	480.818	9.103	642.907	923.242	0.453	0.600	***1.080***	9.103	4.227
2021-10-01 10:00	8607627	7.663	-67.246	480.818	9.098	642.793	923.201	0.453	0.600	***1.136***	9.098	4.298
2021-10-01 10:15	8608527	7.662	-67.172	480.832	9.095	642.72	923.166	0.453	0.600	***1.196***	9.095	4.357
2021-10-01 10:30	8609427	7.662	-67.165	480.901	9.091	642.585	923.073	0.453	0.600	***1.307***	9.091	4.278
2021-10-01 10:45	8610327	7.662	-67.17	480.987	9.09	642.553	923.052	0.453	0.600	***1.426***	9.09	4.508
2021-10-01 11:00	8611227	7.661	-67.101	481.063	9.09	642.535	923.023	0.453	0.600	***1.535***	9.09	7.162
2021-10-01 11:15	8612127	7.660	-67.065	481.201	9.09	642.515	922.998	0.453	0.600	***1.657***	9.09	4.131
2021-10-01 11:30	8613027	7.658	-66.969	481.366	9.092	642.474	922.885	0.453	0.600	***1.812***	9.092	6.115
2021-10-01 11:45	8613927	7.659	-66.972	481.461	9.088	642.384	922.855	0.453	0.600	***2.011***	9.088	4.376
2021-10-01 12:00	8614828	7.657	-66.862	481.526	9.084	642.272	922.789	0.453	0.600	***2.283***	9.084	5.119
2021-10-01 12:15	8615728	7.657	-66.879	481.623	9.078	642.081	922.675	0.453	0.600	***2.462***	9.078	4.424
2021-10-01 12:30	8616628	7.658	-66.917	481.65	9.073	641.919	922.567	0.453	0.600	***2.582***	9.073	4.639
2021-10-01 12:45	8617528	7.662	-67.158	481.602	9.064	641.609	922.358	0.453	0.600	***2.794***	9.064	4.991

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-01 13:00	8618428	7.671	-67.67	481.459	9.052	641.306	922.227	0.453	0.599	***2.901***	9.052	4.456
2021-10-01 13:15	8619328	7.682	-68.305	481.173	9.048	641.035	921.933	0.452	0.599	***2.891***	9.048	4.015
2021-10-01 13:30	8620228	7.690	-68.731	480.913	9.057	641.16	921.879	0.452	0.599	***3.032***	9.057	4.567
2021-10-01 13:45	8621128	7.696	-69.06	480.689	9.071	641.374	921.83	0.452	0.599	***3.269***	9.071	4.661
2021-10-01 14:00	8622028	7.700	-69.294	480.386	9.105	641.882	921.703	0.452	0.599	***3.364***	9.105	4.821
2021-10-01 14:15	8622928	7.707	-69.68	480.057	9.137	642.36	921.59	0.452	0.599	***3.488***	9.137	4.71
2021-10-01 14:30	8623828	7.714	-70.076	479.706	9.179	642.907	921.298	0.452	0.599	***3.650***	9.179	4.391
2021-10-01 14:45	8624728	7.726	-70.775	479.349	9.234	643.742	921.124	0.452	0.599	***3.939***	9.234	4.708
2021-10-01 15:00	8625628	7.738	-71.445	479.037	9.271	644.389	921.11	0.452	0.599	***3.942***	9.271	4.691
2021-10-01 15:15	8626528	7.745	-71.871	478.648	9.296	644.721	920.957	0.452	0.599	***3.908***	9.296	5.409
2021-10-01 15:30	8627428	7.754	-72.386	478.266	9.336	645.303	920.795	0.452	0.599	***3.988***	9.336	4.836
2021-10-01 15:45	8628328	7.765	-73.004	477.921	9.368	645.909	920.853	0.452	0.599	***4.121***	9.368	5.07
2021-10-01 16:00	8629228	7.772	-73.411	477.53	9.414	646.699	920.816	0.452	0.599	***4.300***	9.414	8.552
2021-10-01 16:15	8630128	7.778	-73.736	477.225	9.447	647.281	920.822	0.452	0.599	***4.492***	9.447	5.205
2021-10-01 16:30	8631028	7.779	-73.812	476.924	9.482	647.837	920.746	0.452	0.598	***4.671***	9.482	4.79
2021-10-01 16:45	8631928	7.781	-73.95	476.602	9.513	648.469	920.852	0.452	0.599	***4.747***	9.513	4.755
2021-10-01 17:00	8632828	7.783	-74.053	476.328	9.531	648.745	920.795	0.452	0.599	***4.774***	9.531	4.18
2021-10-01 17:15	8633728	7.783	-74.05	476.152	9.536	648.814	920.79	0.452	0.599	***4.773***	9.536	4.328
2021-10-01 17:30	8634628	7.778	-73.781	476.071	9.539	648.73	920.587	0.452	0.598	***4.748***	9.539	4.366
2021-10-01 17:45	8635528	7.775	-73.628	475.992	9.546	648.934	920.688	0.452	0.598	***4.767***	9.546	4.238
2021-10-01 18:00	8636428	7.772	-73.454	475.939	9.555	649.023	920.609	0.452	0.598	***4.778***	9.555	4.082
2021-10-01 18:15	8637328	7.774	-73.564	475.911	9.559	649.137	920.652	0.452	0.598	***4.768***	9.559	4.121
2021-10-01 18:30	8638228	7.770	-73.323	476.056	9.563	649.203	920.663	0.452	0.598	***4.751***	9.563	4.372
2021-10-01 18:45	8639128	7.768	-73.24	475.878	9.564	649.259	920.721	0.452	0.598	***4.730***	9.564	4.283
2021-10-01 19:00	8640028	7.764	-72.997	475.918	9.57	649.339	920.675	0.452	0.598	***4.682***	9.57	4.398
2021-10-01 19:15	8640928	7.763	-72.97	476.006	9.576	649.493	920.746	0.452	0.598	***4.637***	9.576	4.275
2021-10-01 19:30	8641828	7.763	-72.963	476.068	9.58	649.582	920.766	0.452	0.598	***4.605***	9.58	4.501
2021-10-01 19:45	8642728	7.765	-73.075	475.994	9.583	649.682	920.846	0.452	0.599	***4.583***	9.583	4.089
2021-10-01 20:00	8643628	7.768	-73.233	475.756	9.582	649.724	920.917	0.452	0.599	***4.561***	9.582	3.833
2021-10-01 20:15	8644528	7.772	-73.442	475.522	9.578	649.702	920.983	0.452	0.599	***4.521***	9.578	3.692
2021-10-01 20:30	8645428	7.776	-73.695	475.312	9.569	649.596	921.064	0.452	0.599	***4.470***	9.569	3.674
2021-10-01 20:45	8646328	7.779	-73.841	475.212	9.558	649.493	921.184	0.453	0.599	***4.420***	9.558	3.436
2021-10-01 21:00	8647228	7.780	-73.905	475.124	9.548	649.282	921.139	0.453	0.599	***4.317***	9.548	3.336
2021-10-01 21:15	8648128	7.782	-74.019	475.131	9.535	649.064	921.159	0.453	0.599	***4.155***	9.535	3.517
2021-10-01 21:30	8649028	7.783	-74.081	475.138	9.52	648.653	920.945	0.452	0.599	***3.963***	9.52	10.435
2021-10-01 21:45	8649928	7.786	-74.196	475.169	9.505	648.246	920.737	0.452	0.598	***3.865***	9.505	3.327
2021-10-01 22:00	8650828	7.785	-74.153	475.267	9.489	647.931	920.704	0.452	0.598	***3.790***	9.489	3.887
2021-10-01 22:15	8651728	7.780	-73.9	475.389	9.466	647.577	920.768	0.452	0.598	***3.725***	9.466	3.41
2021-10-01 22:30	8652628	7.776	-73.633	475.579	9.436	647.062	920.789	0.452	0.599	***3.592***	9.436	3.409
2021-10-01 22:45	8653528	7.772	-73.404	475.899	9.398	646.372	920.744	0.452	0.598	***3.544***	9.398	3.418
2021-10-01 23:00	8654428	7.767	-73.116	476.271	9.351	645.684	920.96	0.452	0.599	***3.400***	9.351	3.265
2021-10-01 23:15	8655328	7.764	-72.93	476.617	9.3	644.707	920.829	0.452	0.599	***3.199***	9.3	3.237
2021-10-01 23:30	8656228	7.759	-72.663	476.931	9.246	643.884	921.008	0.452	0.599	***3.007***	9.246	3.208
2021-10-01 23:45	8657128	7.753	-72.291	477.206	9.195	642.95	920.97	0.452	0.599	***2.897***	9.195	3.334
2021-10-02 00:00	8658028	7.751	-72.145	477.415	9.148	642.096	920.939	0.452	0.599	***2.820***	9.148	5.674
2021-10-02 00:15	8658928	7.747	-71.909	477.668	9.104	641.169	920.7	0.452	0.598	***2.741***	9.104	5.458
2021-10-02 00:30	8659828	7.743	-71.692	477.904	9.063	640.41	920.642	0.452	0.598	***2.693***	9.063	2.886
2021-10-02 00:45	8660728	7.737	-71.375	478.195	9.031	639.66	920.391	0.452	0.598	***2.622***	9.031	2.8
2021-10-02 01:00	8661628	7.735	-71.23	478.424	9.005	638.898	919.952	0.451	0.598	***2.526***	9.005	2.778
2021-10-02 01:15	8662528	7.734	-71.168	478.727	8.983	638	919.208	0.451	0.597	***2.427***	8.983	2.701
2021-10-02 01:30	8663428	7.731	-71.013	479.032	8.966	637.092	918.33	0.450	0.597	***2.327***	8.966	2.853
2021-10-02 01:45	8664328	7.726	-70.701	479.315	8.954	636.057	917.143	0.450	0.596	***2.230***	8.954	2.729
2021-10-02 02:00	8665228	7.722	-70.5	479.544	8.948	635.07	915.863	0.449	0.595	***2.167***	8.948	2.817
2021-10-02 02:15	8666128	7.719	-70.348	479.757	8.945	634.202	914.699	0.449	0.595	***2.133***	8.945	2.821
2021-10-02 02:30	8667028	7.718	-70.269	479.938	8.944	633.436	913.626	0.448	0.594	***2.117***	8.944	2.84
2021-10-02 02:45	8667928	7.716	-70.152	480.078	8.946	632.821	912.682	0.448	0.593	***2.064***	8.946	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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-02 03:00	8668828	7.712	-69.959	480.205	8.947	632.187	911.739	0.447	0.593	***2.095***	8.947	2.795
2021-10-02 03:15	8669728	7.710	-69.823	480.324	8.949	631.848	911.193	0.447	0.592	***2.104***	8.949	2.814
2021-10-02 03:30	8670628	7.707	-69.637	480.45	8.951	631.38	910.461	0.446	0.592	***2.111***	8.951	3.223
2021-10-02 03:45	8671528	7.706	-69.616	480.515	8.955	630.98	909.792	0.446	0.591	***2.118***	8.955	3.346
2021-10-02 04:00	8672428	7.703	-69.447	480.579	8.956	630.554	909.146	0.446	0.591	***2.132***	8.956	3.62
2021-10-02 04:15	8673328	7.700	-69.282	480.622	8.959	630.228	908.61	0.445	0.591	***2.154***	8.959	4.117
2021-10-02 04:30	8674228	7.699	-69.201	480.736	8.958	629.915	908.181	0.445	0.590	***2.180***	8.958	4.396
2021-10-02 04:45	8675128	7.698	-69.177	480.801	8.959	629.724	907.894	0.445	0.590	***2.238***	8.959	4.407
2021-10-02 05:00	8676028	7.697	-69.113	480.846	8.958	629.638	907.783	0.445	0.590	***2.295***	8.958	3.872
2021-10-02 05:15	8676928	7.694	-68.951	480.93	8.955	629.618	907.839	0.445	0.590	***2.329***	8.955	3.666
2021-10-02 05:30	8677828	7.692	-68.824	480.97	8.951	629.603	907.906	0.445	0.590	***2.386***	8.951	3.393
2021-10-02 05:45	8678728	7.690	-68.696	481.054	8.945	629.269	907.573	0.445	0.590	***2.433***	8.945	3.083
2021-10-02 06:00	8679628	7.688	-68.564	481.199	8.937	629.201	907.682	0.445	0.590	***2.409***	8.937	3.027
2021-10-02 06:15	8680528	7.684	-68.386	481.299	8.925	629.065	907.789	0.445	0.590	***2.368***	8.925	2.828
2021-10-02 06:30	8681428	7.683	-68.321	481.414	8.912	628.896	907.872	0.445	0.590	***2.298***	8.912	2.737
2021-10-02 06:45	8682328	7.682	-68.25	481.561	8.9	628.823	908.065	0.445	0.590	***2.255***	8.9	2.95
2021-10-02 07:00	8683228	7.681	-68.161	481.702	8.885	628.493	907.947	0.445	0.590	***2.223***	8.885	3.274
2021-10-02 07:15	8684128	7.679	-68.076	481.845	8.873	628.214	907.866	0.445	0.590	***2.174***	8.873	3.222
2021-10-02 07:30	8685028	7.677	-67.978	482.043	8.858	628.053	907.995	0.445	0.590	***2.116***	8.858	3.497
2021-10-02 07:45	8685928	7.677	-67.93	482.234	8.843	627.878	908.123	0.445	0.590	***2.102***	8.843	3.574
2021-10-02 08:00	8686828	7.674	-67.759	482.42	8.827	627.601	908.119	0.445	0.590	***2.077***	8.827	3.738
2021-10-02 08:15	8687728	7.671	-67.596	482.577	8.812	627.351	908.147	0.445	0.590	***2.030***	8.812	3.62
2021-10-02 08:30	8688628	7.668	-67.413	482.77	8.797	627.104	908.153	0.445	0.590	***1.978***	8.797	3.601
2021-10-02 08:45	8689528	7.666	-67.315	482.92	8.782	626.695	907.945	0.445	0.590	***1.916***	8.782	3.481
2021-10-02 09:00	8690428	7.664	-67.184	483.063	8.77	626.255	907.595	0.445	0.590	***1.886***	8.77	4.397
2021-10-02 09:15	8691328	7.660	-66.996	483.204	8.76	625.914	907.359	0.445	0.590	***1.862***	8.76	3.607
2021-10-02 09:30	8692228	7.658	-66.855	483.361	8.754	625.656	907.128	0.444	0.590	***1.836***	8.754	3.671
2021-10-02 09:45	8693128	7.656	-66.776	483.469	8.754	625.153	906.421	0.444	0.589	***1.822***	8.754	3.737
2021-10-02 10:00	8694028	7.655	-66.712	483.597	8.757	624.766	905.785	0.444	0.589	***1.818***	8.757	3.809
2021-10-02 10:15	8694928	7.654	-66.667	483.679	8.758	624.528	905.413	0.444	0.589	***1.756***	8.758	3.974
2021-10-02 10:30	8695828	7.654	-66.614	483.75	8.762	624.331	905.023	0.443	0.588	***1.781***	8.762	3.976
2021-10-02 10:45	8696728	7.653	-66.574	483.805	8.768	624.153	904.599	0.443	0.588	***1.848***	8.768	3.896
2021-10-02 11:00	8697628	7.652	-66.54	483.886	8.773	624.017	904.297	0.443	0.588	***1.941***	8.773	3.983
2021-10-02 11:15	8698528	7.652	-66.54	483.965	8.775	624.121	904.387	0.443	0.588	***2.010***	8.775	4.225
2021-10-02 11:30	8699428	7.651	-66.502	484.07	8.772	623.962	904.229	0.443	0.588	***2.030***	8.772	4.262
2021-10-02 11:45	8700328	7.651	-66.476	484.148	8.769	623.978	904.328	0.443	0.588	***2.007***	8.769	4.582
2021-10-02 12:00	8701228	7.651	-66.457	484.17	8.77	623.878	904.165	0.443	0.588	***2.036***	8.77	5.029
2021-10-02 12:15	8702128	7.649	-66.352	484.315	8.772	623.921	904.162	0.443	0.588	***2.221***	8.772	5.267
2021-10-02 12:30	8703028	7.650	-66.428	484.38	8.772	623.649	903.78	0.443	0.587	***2.430***	8.772	5.491
2021-10-02 12:45	8703928	7.656	-66.772	484.408	8.789	623.693	903.426	0.443	0.587	***2.638***	8.789	5.707
2021-10-02 13:00	8704828	7.678	-68.004	484.146	8.832	623.71	902.365	0.442	0.587	***3.047***	8.832	6.812
2021-10-02 13:15	8705728	7.701	-69.323	483.731	8.877	623.613	901.108	0.442	0.586	***3.548***	8.877	7.107
2021-10-02 13:30	8706628	7.720	-70.384	483.061	8.931	624.282	900.739	0.441	0.585	***3.945***	8.931	6.605
2021-10-02 13:45	8707528	7.745	-71.769	482.255	8.98	625.162	900.79	0.442	0.586	***4.234***	8.98	6.944
2021-10-02 14:00	8708429	7.773	-73.378	481.349	9.041	626.755	901.556	0.442	0.586	***4.408***	9.041	6.643
2021-10-02 14:15	8709329	7.798	-74.809	480.438	9.083	628.068	902.405	0.442	0.587	***4.742***	9.083	6.944
2021-10-02 14:30	8710229	7.820	-76.027	479.63	9.121	629.128	903.001	0.443	0.587	***4.978***	9.121	6.801
2021-10-02 14:45	8711129	7.833	-76.778	478.886	9.176	630.373	903.432	0.443	0.587	***5.082***	9.176	6.575
2021-10-02 15:00	8712029	7.846	-77.531	478.255	9.234	631.747	903.95	0.443	0.588	***5.209***	9.234	6.325
2021-10-02 15:15	8712929	7.858	-78.189	477.668	9.281	632.991	904.568	0.444	0.588	***5.310***	9.281	6.657
2021-10-02 15:30	8713829	7.869	-78.838	477.112	9.332	634.435	905.383	0.444	0.588	***5.401***	9.332	6.467
2021-10-02 15:45	8714729	7.879	-79.408	476.505	9.381	635.665	905.911	0.445	0.589	***5.502***	9.381	6.585
2021-10-02 16:00	8715629	7.885	-79.732	475.978	9.41	636.462	906.348	0.445	0.589	***5.589***	9.41	6.576
2021-10-02 16:15	8716529	7.896	-80.373	475.472	9.435	637.161	906.734	0.445	0.589	***5.586***	9.435	6.937
2021-10-02 16:30	8717429	7.903	-80.769	475.074	9.463	637.977	907.19	0.445	0.590	***5.590***	9.463	6.942
2021-10-02 16:45	8718329	7.904	-80.85	474.74	9.488	638.603	907.459	0.445	0.590	***5.619***	9.488	6.86

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-02 17:00	8719229	7.908	-81.053	474.352	9.511	639.446	908.1	0.446	0.590	***5.666***	9.511	6.987
2021-10-02 17:15	8720129	7.913	-81.351	473.906	9.524	639.891	908.411	0.446	0.590	***5.739***	9.524	6.708
2021-10-02 17:30	8721029	7.922	-81.875	473.403	9.527	640.448	909.123	0.446	0.591	***5.709***	9.527	6.19
2021-10-02 17:45	8721929	7.926	-82.064	473.114	9.528	640.661	909.393	0.447	0.591	***5.735***	9.528	7.307
2021-10-02 18:00	8722829	7.926	-82.085	472.862	9.531	640.968	909.771	0.447	0.591	***5.687***	9.531	7.464
2021-10-02 18:15	8723729	7.926	-82.061	472.68	9.526	640.943	909.852	0.447	0.591	***5.543***	9.526	5.867
2021-10-02 18:30	8724629	7.926	-82.071	472.513	9.511	640.959	910.237	0.447	0.592	***5.489***	9.511	5.662
2021-10-02 18:45	8725529	7.925	-82.023	472.425	9.495	640.729	910.311	0.447	0.592	***5.498***	9.495	6.812
2021-10-02 19:00	8726429	7.922	-81.835	472.292	9.472	640.673	910.796	0.447	0.592	***5.428***	9.472	5.434
2021-10-02 19:15	8727329	7.918	-81.608	472.17	9.459	640.527	910.911	0.447	0.592	***5.322***	9.459	5.408
2021-10-02 19:30	8728229	7.914	-81.403	472.101	9.442	640.316	911.038	0.447	0.592	***5.320***	9.442	5.364
2021-10-02 19:45	8729129	7.909	-81.077	472.006	9.424	640.089	911.165	0.447	0.592	***5.302***	9.424	5.262
2021-10-02 20:00	8730029	7.902	-80.671	471.932	9.407	639.911	911.333	0.447	0.592	***5.285***	9.407	4.938
2021-10-02 20:15	8730929	7.891	-80.08	471.953	9.385	639.695	911.576	0.447	0.593	***5.211***	9.385	5.268
2021-10-02 20:30	8731829	7.880	-79.472	472.032	9.354	639.266	911.733	0.448	0.593	***5.130***	9.354	5.383
2021-10-02 20:45	8732729	7.871	-78.943	472.122	9.321	638.75	911.81	0.448	0.593	***5.033***	9.321	5.642
2021-10-02 21:00	8733629	7.866	-78.661	472.211	9.286	638.283	912.023	0.448	0.593	***5.091***	9.286	5.668
2021-10-02 21:15	8734529	7.862	-78.402	472.375	9.254	637.763	912.064	0.448	0.593	***5.054***	9.254	5.772
2021-10-02 21:30	8735429	7.855	-78.011	472.509	9.22	637.261	912.201	0.448	0.593	***5.122***	9.22	5.829
2021-10-02 21:45	8736329	7.849	-77.653	472.683	9.184	636.579	912.125	0.448	0.593	***5.116***	9.184	5.244
2021-10-02 22:00	8737229	7.844	-77.372	472.766	9.143	636	912.312	0.448	0.593	***5.102***	9.143	5.847
2021-10-02 22:15	8738129	7.841	-77.169	472.907	9.101	635.417	912.52	0.448	0.593	***5.087***	9.101	5.484
2021-10-02 22:30	8739029	7.836	-76.931	473.081	9.06	634.737	912.563	0.448	0.593	***5.025***	9.06	5.445
2021-10-02 22:45	8739929	7.831	-76.611	473.255	9.015	634.081	912.766	0.448	0.593	***4.963***	9.015	5.772
2021-10-02 23:00	8740829	7.826	-76.337	473.403	8.967	633.133	912.607	0.448	0.593	***4.858***	8.967	5.868
2021-10-02 23:15	8741729	7.825	-76.227	473.558	8.915	632.263	912.659	0.447	0.593	***4.838***	8.915	7.982
2021-10-02 23:30	8742629	7.822	-76.07	473.717	8.859	631.422	912.841	0.448	0.593	***4.817***	8.859	5.614
2021-10-02 23:45	8743529	7.818	-75.817	473.858	8.825	630.845	912.866	0.447	0.593	***4.800***	8.825	5.617
2021-10-03 00:00	8744429	7.814	-75.579	474.025	8.791	630.248	912.874	0.447	0.593	***4.775***	8.791	5.829
2021-10-03 00:15	8745329	7.812	-75.457	474.211	8.749	629.606	913.004	0.447	0.593	***4.741***	8.749	5.386
2021-10-03 00:30	8746229	7.811	-75.414	474.316	8.729	629.254	912.979	0.447	0.593	***4.669***	8.729	5.467
2021-10-03 00:45	8747129	7.810	-75.355	474.437	8.711	628.993	913.06	0.447	0.593	***4.595***	8.711	5.484
2021-10-03 01:00	8748029	7.809	-75.309	474.504	8.689	628.647	913.122	0.447	0.594	***4.513***	8.689	5.277
2021-10-03 01:15	8748929	7.818	-75.777	474.547	8.677	628.61	913.362	0.448	0.594	***4.473***	8.677	5.357
2021-10-03 01:30	8749829	7.826	-76.256	474.533	8.666	628.44	913.397	0.448	0.594	***4.333***	8.666	4.912
2021-10-03 01:45	8750729	7.832	-76.547	474.614	8.664	628.588	913.66	0.448	0.594	***4.196***	8.664	4.88
2021-10-03 02:00	8751629	7.831	-76.492	474.762	8.662	628.438	913.495	0.448	0.594	***3.963***	8.662	4.458
2021-10-03 02:15	8752529	7.828	-76.325	474.895	8.659	628.497	913.659	0.448	0.594	***3.832***	8.659	4.559
2021-10-03 02:30	8753429	7.822	-76.032	475.043	8.65	628.349	913.674	0.448	0.594	***3.728***	8.65	4.84
2021-10-03 02:45	8754329	7.818	-75.798	475.186	8.642	628.235	913.719	0.448	0.594	***3.625***	8.642	4.799
2021-10-03 03:00	8755229	7.813	-75.517	475.343	8.635	628.105	913.698	0.448	0.594	***3.532***	8.635	4.591
2021-10-03 03:15	8756129	7.806	-75.102	475.649	8.629	628.192	913.992	0.448	0.594	***3.471***	8.629	4.024
2021-10-03 03:30	8757029	7.797	-74.587	475.923	8.622	628.131	914.061	0.448	0.594	***3.367***	8.622	3.883
2021-10-03 03:45	8757929	7.790	-74.198	476.311	8.605	627.922	914.196	0.448	0.594	***3.301***	8.605	3.775
2021-10-03 04:00	8758829	7.783	-73.836	476.662	8.578	627.561	914.362	0.448	0.594	***3.237***	8.578	3.44
2021-10-03 04:15	8759729	7.778	-73.5	477.055	8.561	627.259	914.365	0.448	0.594	***3.121***	8.561	3.41
2021-10-03 04:30	8760629	7.774	-73.311	477.287	8.55	627.088	914.382	0.448	0.594	***2.974***	8.55	3.924
2021-10-03 04:45	8761529	7.768	-72.937	477.606	8.537	626.968	914.534	0.448	0.594	***2.756***	8.537	3.425
2021-10-03 05:00	8762429	7.763	-72.68	478.059	8.518	626.767	914.717	0.448	0.595	***2.580***	8.518	3.235
2021-10-03 05:15	8763329	7.757	-72.336	478.483	8.492	626.402	914.852	0.448	0.595	***2.378***	8.492	3.137
2021-10-03 05:30	8764229	7.753	-72.088	478.901	8.461	625.856	914.857	0.448	0.595	***2.174***	8.461	3.297
2021-10-03 05:45	8765129	7.753	-72.069	479.196	8.436	625.422	914.869	0.448	0.595	***1.999***	8.436	3.604
2021-10-03 06:00	8766029	7.754	-72.134	479.444	8.406	624.941	914.908	0.448	0.595	***1.850***	8.406	3.989
2021-10-03 06:15	8766929	7.753	-72.103	479.726	8.369	624.304	914.922	0.448	0.595	***1.734***	8.369	6.068
2021-10-03 06:30	8767829	7.754	-72.136	479.964	8.342	623.792	914.882	0.448	0.595	***1.659***	8.342	4.974
2021-10-03 06:45	8768729	7.755	-72.2	480.119	8.308	623.207	914.893	0.448	0.595	***1.573***	8.308	5.258

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-03 07:00	8769629	7.755	-72.188	480.276	8.277	622.849	915.169	0.448	0.595	***1.463***	8.277	8.716
2021-10-03 07:15	8770529	7.756	-72.207	480.384	8.264	622.575	915.095	0.448	0.595	***1.382***	8.264	5.532
2021-10-03 07:30	8771429	7.754	-72.098	480.5	8.251	622.353	915.094	0.448	0.595	***1.384***	8.251	3.725
2021-10-03 07:45	8772329	7.750	-71.869	480.66	8.236	622.111	915.12	0.448	0.595	***1.432***	8.236	3.779
2021-10-03 08:00	8773229	7.748	-71.738	480.891	8.21	621.861	915.431	0.448	0.595	***1.546***	8.21	6.951
2021-10-03 08:15	8774129	7.745	-71.583	481.271	8.214	621.726	915.139	0.448	0.595	***1.995***	8.214	3.616
2021-10-03 08:30	8775029	7.742	-71.433	481.545	8.228	621.803	914.891	0.448	0.595	***2.355***	8.228	3.348
2021-10-03 08:45	8775929	7.740	-71.337	481.726	8.242	622.122	914.993	0.448	0.595	***2.488***	8.242	3.574
2021-10-03 09:00	8776829	7.741	-71.383	481.778	8.26	622.346	914.854	0.448	0.595	***2.514***	8.26	3.449
2021-10-03 09:15	8777729	7.745	-71.623	481.769	8.276	621.959	913.885	0.447	0.594	***2.530***	8.276	3.279
2021-10-03 09:30	8778629	7.750	-71.89	481.688	8.285	622.645	914.665	0.448	0.595	***2.599***	8.285	3.519
2021-10-03 09:45	8779529	7.752	-72.01	481.6	8.289	622.708	914.641	0.448	0.595	***2.666***	8.289	3.638
2021-10-03 10:00	8780429	7.754	-72.138	481.518	8.289	622.746	914.71	0.448	0.595	***2.654***	8.289	3.671
2021-10-03 10:15	8781329	7.761	-72.491	481.456	8.288	622.649	914.579	0.448	0.594	***2.758***	8.288	3.573
2021-10-03 10:30	8782229	7.769	-72.937	481.302	8.281	622.402	914.387	0.448	0.594	***3.063***	8.281	3.599
2021-10-03 10:45	8783129	7.771	-73.073	481.096	8.274	622.142	914.19	0.448	0.594	***3.405***	8.274	4.107
2021-10-03 11:00	8784029	7.772	-73.135	481.07	8.26	621.256	913.25	0.447	0.594	***3.592***	8.26	4.653
2021-10-03 11:15	8784929	7.782	-73.667	480.942	8.234	620.488	912.802	0.447	0.593	***3.872***	8.234	5.256
2021-10-03 11:30	8785829	7.807	-75.037	480.274	8.199	619.499	912.244	0.446	0.593	***4.338***	8.199	6.001
2021-10-03 11:45	8786729	7.832	-76.418	479.253	8.167	618.721	911.901	0.446	0.593	***4.857***	8.167	8.924
2021-10-03 12:00	8787629	7.856	-77.786	478.345	8.151	618.222	911.572	0.446	0.593	***5.107***	8.151	6.574
2021-10-03 12:15	8788529	7.872	-78.673	477.506	8.14	617.983	911.524	0.446	0.592	***5.195***	8.14	6.511
2021-10-03 12:30	8789429	7.884	-79.317	476.865	8.132	615.758	908.437	0.444	0.590	***5.304***	8.132	6.731
2021-10-03 12:45	8790329	7.899	-80.147	476.321	8.126	618.074	912.006	0.446	0.593	***5.401***	8.126	6.709
2021-10-03 13:00	8791229	7.909	-80.707	475.835	8.117	617.923	912.017	0.446	0.593	***5.405***	8.117	6.64
2021-10-03 13:15	8792129	7.918	-81.198	475.439	8.118	617.955	912.029	0.446	0.593	***5.431***	8.118	6.567
2021-10-03 13:30	8793029	7.923	-81.518	475.186	8.129	618.172	912.076	0.446	0.593	***5.493***	8.129	6.228
2021-10-03 13:45	8793929	7.926	-81.706	474.905	8.164	618.772	912.064	0.446	0.593	***5.575***	8.164	6.687
2021-10-03 14:00	8794829	7.930	-81.916	474.547	8.202	619.587	912.274	0.446	0.593	***5.666***	8.202	8.422
2021-10-03 14:15	8795729	7.937	-82.324	474.251	8.248	620.403	912.316	0.447	0.593	***5.791***	8.248	6.686
2021-10-03 14:30	8796629	7.941	-82.548	473.951	8.302	621.365	912.349	0.447	0.593	***5.859***	8.302	6.899
2021-10-03 14:45	8797529	7.939	-82.474	473.582	8.355	622.371	912.458	0.447	0.593	***5.950***	8.355	6.727
2021-10-03 15:00	8798429	7.947	-82.929	473.264	8.395	623.05	912.424	0.447	0.593	***6.016***	8.395	6.432
2021-10-03 15:15	8799329	7.952	-83.199	473.016	8.437	623.862	912.56	0.447	0.593	***6.063***	8.437	6.809
2021-10-03 15:30	8800229	7.957	-83.511	472.676	8.463	624.344	912.591	0.447	0.593	***6.147***	8.463	6.517
2021-10-03 15:45	8801129	7.961	-83.733	472.418	8.498	624.922	912.542	0.447	0.593	***6.252***	8.498	6.156
2021-10-03 16:00	8802030	7.965	-83.954	472.115	8.525	625.378	912.517	0.447	0.593	***6.282***	8.525	6.473
2021-10-03 16:15	8802930	7.968	-84.121	471.882	8.548	625.836	912.601	0.447	0.593	***6.286***	8.548	6.397
2021-10-03 16:30	8803830	7.974	-84.472	471.662	8.573	626.28	912.624	0.447	0.593	***6.372***	8.573	6.705
2021-10-03 16:45	8804730	7.978	-84.743	471.35	8.606	626.907	912.7	0.447	0.593	***6.422***	8.606	8.609
2021-10-03 17:00	8805630	7.979	-84.753	471.088	8.622	627.191	912.695	0.447	0.593	***6.453***	8.622	6.058
2021-10-03 17:15	8806530	7.981	-84.872	470.926	8.63	627.376	912.769	0.447	0.593	***6.487***	8.63	6.022
2021-10-03 17:30	8807430	7.985	-85.12	470.74	8.638	627.531	912.779	0.447	0.593	***6.483***	8.638	6.027
2021-10-03 17:45	8808330	7.989	-85.347	470.582	8.632	627.504	912.899	0.447	0.593	***6.483***	8.632	5.934
2021-10-03 18:00	8809230	7.993	-85.568	470.32	8.63	627.531	912.995	0.447	0.593	***6.451***	8.63	5.987
2021-10-03 18:15	8810130	7.995	-85.683	470.122	8.621	627.276	912.862	0.447	0.593	***6.453***	8.621	5.986
2021-10-03 18:30	8811030	7.995	-85.671	469.979	8.609	627.111	912.91	0.447	0.593	***6.445***	8.609	5.793
2021-10-03 18:45	8811930	7.995	-85.68	469.9	8.595	626.884	912.933	0.447	0.593	***6.445***	8.595	5.601
2021-10-03 19:00	8812830	7.995	-85.676	469.807	8.577	626.612	913.005	0.447	0.593	***6.417***	8.577	5.828
2021-10-03 19:15	8813730	7.990	-85.371	469.726	8.562	626.357	913.023	0.447	0.593	***6.310***	8.562	5.67
2021-10-03 19:30	8814630	7.989	-85.306	469.645	8.541	626.13	913.215	0.447	0.594	***6.242***	8.541	5.693
2021-10-03 19:45	8815530	7.987	-85.199	469.581	8.523	625.472	912.703	0.447	0.593	***6.187***	8.523	5.5
2021-10-03 20:00	8816430	7.984	-85.02	469.562	8.508	625.27	912.806	0.447	0.593	***6.220***	8.508	5.359
2021-10-03 20:15	8817330	7.979	-84.758	469.581	8.492	625.016	912.825	0.447	0.593	***6.169***	8.492	5.104
2021-10-03 20:30	8818230	7.972	-84.367	469.578	8.475	624.904	913.1	0.447	0.594	***6.134***	8.475	5.227
2021-10-03 20:45	8819130	7.967	-84.081	469.607	8.451	624.562	913.205	0.447	0.594	***6.073***	8.451	5.189

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-03 21:00	8820030	7.965	-83.95	469.66	8.428	624.161	913.217	0.447	0.594	***5.996***	8.428	4.904
2021-10-03 21:15	8820930	7.958	-83.535	469.753	8.406	623.854	913.329	0.447	0.594	***5.901***	8.406	4.868
2021-10-03 21:30	8821830	7.949	-83.048	469.829	8.383	623.519	913.425	0.447	0.594	***5.769***	8.383	4.767
2021-10-03 21:45	8822730	7.938	-82.4	470.077	8.357	623.031	913.374	0.447	0.594	***5.563***	8.357	4.839
2021-10-03 22:00	8823630	7.929	-81.875	470.294	8.328	622.671	913.583	0.447	0.594	***5.379***	8.328	5.265
2021-10-03 22:15	8824530	7.924	-81.601	470.506	8.294	622.163	913.725	0.447	0.594	***5.303***	8.294	5.677
2021-10-03 22:30	8825430	7.917	-81.198	470.754	8.256	621.582	913.825	0.447	0.594	***5.279***	8.256	6.241
2021-10-03 22:45	8826330	7.909	-80.764	470.985	8.22	621.027	913.957	0.447	0.594	***5.230***	8.22	6.728
2021-10-03 23:00	8827230	7.903	-80.426	471.14	8.172	620.254	914.029	0.447	0.594	***5.150***	8.172	6.931
2021-10-03 23:15	8828130	7.899	-80.194	471.286	8.133	619.639	914.131	0.447	0.594	***5.089***	8.133	7.166
2021-10-03 23:30	8829030	7.895	-79.954	471.481	8.107	619.197	914.163	0.447	0.594	***5.087***	8.107	7.061
2021-10-03 23:45	8829930	7.892	-79.744	471.65	8.078	618.794	914.311	0.447	0.594	***5.160***	8.078	6.513
2021-10-04 00:00	8830830	7.887	-79.467	471.772	8.048	618.427	914.527	0.447	0.594	***5.213***	8.048	5.913
2021-10-04 00:15	8831730	7.886	-79.422	471.867	8.004	617.785	914.73	0.447	0.595	***5.224***	8.004	5.467
2021-10-04 00:30	8832630	7.886	-79.389	472.006	7.948	616.946	914.935	0.447	0.595	***5.133***	7.948	5.534
2021-10-04 00:45	8833530	7.884	-79.234	472.084	7.886	615.775	914.801	0.447	0.595	***5.050***	7.886	6.653
2021-10-04 01:00	8834430	7.878	-78.938	472.113	7.841	614.989	914.795	0.447	0.595	***5.033***	7.841	6.956
2021-10-04 01:15	8835330	7.874	-78.652	472.158	7.801	614.403	914.959	0.447	0.595	***5.057***	7.801	6.674
2021-10-04 01:30	8836230	7.872	-78.537	472.261	7.763	613.729	914.953	0.447	0.595	***5.070***	7.763	7.219
2021-10-04 01:45	8837130	7.870	-78.423	472.285	7.735	613.09	914.742	0.447	0.595	***5.141***	7.735	7.633
2021-10-04 02:00	8838030	7.866	-78.201	472.37	7.703	612.552	914.762	0.447	0.595	***5.180***	7.703	7.325
2021-10-04 02:15	8838930	7.864	-78.063	472.473	7.673	612.159	914.95	0.447	0.595	***5.151***	7.673	6.57
2021-10-04 02:30	8839830	7.860	-77.829	472.699	7.64	611.588	914.979	0.447	0.595	***5.108***	7.64	5.73
2021-10-04 02:45	8840730	7.857	-77.696	473.038	7.625	611.259	914.88	0.447	0.595	***4.968***	7.625	5.209
2021-10-04 03:00	8841630	7.855	-77.569	473.312	7.596	610.813	914.971	0.447	0.595	***4.845***	7.596	4.979
2021-10-04 03:15	8842530	7.850	-77.286	473.586	7.566	610.381	915.103	0.447	0.595	***4.699***	7.566	5.178
2021-10-04 03:30	8843430	7.847	-77.095	473.868	7.549	610.009	914.976	0.447	0.595	***4.593***	7.549	4.874
2021-10-04 03:45	8844330	7.847	-77.109	474.118	7.534	609.971	915.332	0.447	0.595	***4.516***	7.534	4.489
2021-10-04 04:00	8845230	7.842	-76.818	474.364	7.521	609.737	915.308	0.447	0.595	***4.435***	7.521	4.146
2021-10-04 04:15	8846130	7.834	-76.342	474.714	7.501	609.464	915.441	0.447	0.595	***4.302***	7.501	4.346
2021-10-04 04:30	8847030	7.824	-75.805	475.162	7.47	609.182	915.83	0.447	0.595	***4.263***	7.47	3.803
2021-10-04 04:45	8847930	7.819	-75.531	475.651	7.443	608.687	915.791	0.447	0.595	***4.209***	7.443	4.118
2021-10-04 05:00	8848830	7.819	-75.533	476.099	7.416	608.335	915.965	0.447	0.595	***4.121***	7.416	4.479
2021-10-04 05:15	8849730	7.817	-75.4	476.507	7.397	608.101	916.113	0.447	0.595	***3.961***	7.397	4.615
2021-10-04 05:30	8850630	7.812	-75.111	476.857	7.375	607.836	916.3	0.447	0.596	***3.840***	7.375	4.291
2021-10-04 05:45	8851530	7.805	-74.713	477.232	7.355	607.58	916.444	0.447	0.596	***3.744***	7.355	3.981
2021-10-04 06:00	8852430	7.799	-74.363	477.701	7.331	607.305	916.648	0.448	0.596	***3.678***	7.331	4.367
2021-10-04 06:15	8853330	7.791	-73.924	478.121	7.312	606.947	916.627	0.447	0.596	***3.620***	7.312	4.755
2021-10-04 06:30	8854230	7.784	-73.54	478.514	7.291	606.747	916.879	0.448	0.596	***3.515***	7.291	10.785
2021-10-04 06:45	8855130	7.777	-73.156	478.87	7.273	606.531	917.019	0.448	0.596	***3.464***	7.273	14.559
2021-10-04 07:00	8856030	7.771	-72.78	479.23	7.255	606.053	916.764	0.447	0.596	***3.429***	7.255	6.853
2021-10-04 07:15	8856930	7.764	-72.422	479.521	7.242	606.13	917.245	0.448	0.596	***3.400***	7.242	5.149
2021-10-04 07:30	8857830	7.760	-72.165	479.814	7.228	605.898	917.262	0.448	0.596	***3.377***	7.228	4.416
2021-10-04 07:45	8858730	7.755	-71.893	480.143	7.212	605.713	917.408	0.448	0.596	***3.341***	7.212	3.927
2021-10-04 08:00	8859630	7.751	-71.695	480.412	7.198	605.509	917.465	0.448	0.596	***3.313***	7.198	3.857
2021-10-04 08:15	8860530	7.747	-71.442	480.701	7.188	605.332	917.469	0.448	0.596	***3.282***	7.188	3.832
2021-10-04 08:30	8861430	7.744	-71.299	480.87	7.174	605.094	917.469	0.448	0.596	***3.239***	7.174	4.207
2021-10-04 08:45	8862330	7.742	-71.149	481.046	7.163	604.927	917.524	0.448	0.596	***3.190***	7.163	3.977
2021-10-04 09:00	8863230	7.739	-70.982	481.204	7.153	604.802	917.599	0.448	0.596	***3.139***	7.153	3.719
2021-10-04 09:15	8864130	7.736	-70.791	481.359	7.142	604.8	917.87	0.448	0.597	***3.076***	7.142	4.556
2021-10-04 09:30	8865030	7.731	-70.524	481.545	7.135	604.73	917.946	0.448	0.597	***3.002***	7.135	3.705
2021-10-04 09:45	8865930	7.728	-70.348	481.707	7.132	604.628	917.876	0.448	0.597	***2.916***	7.132	4.151
2021-10-04 10:00	8866830	7.724	-70.145	481.909	7.13	604.627	917.932	0.448	0.597	***2.847***	7.13	4.624
2021-10-04 10:15	8867730	7.721	-69.981	482.11	7.135	604.75	917.991	0.448	0.597	***2.775***	7.135	4.36
2021-10-04 10:30	8868630	7.718	-69.804	482.303	7.149	604.962	917.93	0.448	0.597	***2.710***	7.149	3.958
2021-10-04 10:45	8869530	7.715	-69.659	482.491	7.169	605.32	917.956	0.448	0.597	***2.662***	7.169	3.757

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-04 11:00	8870430	7.712	-69.501	482.61	7.191	605.644	917.865	0.448	0.597	***2.615***	7.191	3.694
2021-10-04 11:15	8871330	7.712	-69.509	482.701	7.208	605.837	917.686	0.448	0.596	***2.575***	7.208	282.347
2021-10-04 11:30	8872230	7.712	-69.509	482.808	7.224	605.972	917.485	0.448	0.596	***2.542***	7.224	45.613
2021-10-04 11:45	8873130	7.713	-69.542	482.885	7.245	606.205	917.275	0.448	0.596	***2.523***	7.245	17.024
2021-10-04 12:00	8874030	7.712	-69.537	482.923	7.265	606.471	917.134	0.448	0.596	***2.564***	7.265	12.88
2021-10-04 12:15	8874930	7.712	-69.52	482.939	7.294	606.721	916.741	0.448	0.596	***2.655***	7.294	18.317
2021-10-04 12:30	8875830	7.711	-69.489	482.97	7.329	607.185	916.534	0.447	0.596	***2.823***	7.329	67.967
2021-10-04 12:45	8876730	7.709	-69.385	482.954	7.361	607.598	916.294	0.447	0.596	***3.012***	7.361	189.244
2021-10-04 13:00	8877630	7.708	-69.339	482.961	7.398	608.111	916.092	0.447	0.595	***3.150***	7.398	208.844
2021-10-04 13:15	8878530	7.706	-69.239	482.98	7.446	608.762	915.808	0.447	0.595	***3.286***	7.446	293.209
2021-10-04 13:30	8879430	7.705	-69.165	482.901	7.497	609.559	915.669	0.447	0.595	***3.432***	7.497	274.188
2021-10-04 13:45	8880330	7.706	-69.251	482.813	7.534	610.111	915.534	0.447	0.595	***3.534***	7.534	262.071
2021-10-04 14:00	8881230	7.708	-69.361	482.691	7.566	610.491	915.26	0.447	0.595	***3.617***	7.566	162.975
2021-10-04 14:15	8882130	7.713	-69.652	482.465	7.597	610.682	914.731	0.447	0.595	***4.025***	7.597	225.24
2021-10-04 14:30	8883030	7.723	-70.236	482.076	7.633	610.935	914.176	0.447	0.594	***4.552***	7.633	224.876
2021-10-04 14:45	8883930	7.728	-70.505	481.423	7.664	611.325	913.951	0.447	0.594	***4.881***	7.664	134.812
2021-10-04 15:00	8884830	7.732	-70.758	480.763	7.703	611.797	913.625	0.446	0.594	***5.041***	7.703	141.001
2021-10-04 15:15	8885730	7.739	-71.111	480.202	7.743	612.31	913.362	0.446	0.594	***5.169***	7.743	154.577
2021-10-04 15:30	8886630	7.742	-71.337	479.74	7.781	612.887	913.229	0.446	0.594	***5.292***	7.781	130.669
2021-10-04 15:45	8887530	7.747	-71.588	479.346	7.803	613.259	913.211	0.446	0.594	***5.345***	7.803	129.906
2021-10-04 16:00	8888431	7.751	-71.824	478.989	7.811	613.274	913.043	0.446	0.593	***5.405***	7.811	124.968
2021-10-04 16:15	8889331	7.756	-72.105	478.669	7.816	613.34	913.012	0.446	0.593	***5.581***	7.816	106.739
2021-10-04 16:30	8890231	7.763	-72.505	478.321	7.817	613.315	912.924	0.446	0.593	***5.848***	7.817	100.812
2021-10-04 16:45	8891131	7.771	-72.942	478.069	7.821	613.361	912.903	0.446	0.593	***6.084***	7.821	95.586
2021-10-04 17:00	8892031	7.780	-73.421	477.618	7.821	613.366	912.911	0.446	0.593	***6.218***	7.821	84.43
2021-10-04 17:15	8892931	7.786	-73.755	477.203	7.821	613.372	912.924	0.446	0.593	***6.304***	7.821	72.285
2021-10-04 17:30	8893831	7.792	-74.084	476.791	7.818	613.274	912.843	0.446	0.593	***6.377***	7.818	68.993
2021-10-04 17:45	8894731	7.795	-74.303	476.435	7.818	613.284	912.852	0.446	0.593	***6.385***	7.818	44.77
2021-10-04 18:00	8895631	7.801	-74.637	476.164	7.813	613.211	912.896	0.446	0.593	***6.413***	7.813	36.683
2021-10-04 18:15	8896531	7.810	-75.135	475.928	7.807	613.11	912.888	0.446	0.593	***6.394***	7.807	32.293
2021-10-04 18:30	8897431	7.816	-75.459	475.537	7.805	613.051	912.862	0.446	0.593	***6.388***	7.805	27.076
2021-10-04 18:45	8898331	7.822	-75.774	475.296	7.801	613.017	912.92	0.446	0.593	***6.398***	7.801	4.692
2021-10-04 19:00	8899231	7.828	-76.101	475.117	7.795	612.985	913.027	0.446	0.593	***6.399***	7.795	5.308
2021-10-04 19:15	8900131	7.833	-76.396	474.859	7.786	612.877	913.078	0.446	0.594	***6.333***	7.786	70.842
2021-10-04 19:30	8901031	7.837	-76.582	474.607	7.775	612.741	913.169	0.446	0.594	***6.272***	7.775	9.17
2021-10-04 19:45	8901931	7.841	-76.823	474.428	7.759	612.484	913.21	0.446	0.594	***6.261***	7.759	8.709
2021-10-04 20:00	8902831	7.851	-77.357	474.161	7.745	612.296	913.287	0.446	0.594	***6.252***	7.745	5.452
2021-10-04 20:15	8903731	7.856	-77.639	473.772	7.725	611.989	913.361	0.446	0.594	***6.263***	7.725	5.442
2021-10-04 20:30	8904631	7.856	-77.624	473.396	7.708	611.802	913.51	0.446	0.594	***6.352***	7.708	5.427
2021-10-04 20:45	8905531	7.858	-77.748	473.19	7.689	611.548	913.629	0.446	0.594	***6.268***	7.689	5.274
2021-10-04 21:00	8906431	7.861	-77.929	473.028	7.666	611.239	913.76	0.447	0.594	***6.284***	7.666	4.928
2021-10-04 21:15	8907331	7.866	-78.166	472.888	7.641	610.457	913.259	0.446	0.594	***6.222***	7.641	4.834
2021-10-04 21:30	8908231	7.868	-78.273	472.795	7.613	610.458	913.986	0.447	0.594	***6.192***	7.613	5.295
2021-10-04 21:45	8909131	7.870	-78.375	472.714	7.586	610.017	914.035	0.447	0.594	***6.185***	7.586	4.755
2021-10-04 22:00	8910031	7.870	-78.378	472.563	7.56	609.642	914.141	0.447	0.594	***6.173***	7.56	4.43
2021-10-04 22:15	8910931	7.871	-78.416	472.492	7.537	609.261	914.184	0.447	0.594	***6.156***	7.537	5.211
2021-10-04 22:30	8911831	7.870	-78.378	472.425	7.509	608.826	914.261	0.447	0.594	***6.167***	7.509	5.356
2021-10-04 22:45	8912731	7.872	-78.478	472.389	7.484	608.391	914.27	0.447	0.594	***6.124***	7.484	5.367
2021-10-04 23:00	8913631	7.873	-78.516	472.366	7.46	607.986	914.285	0.446	0.594	***6.074***	7.46	5.371
2021-10-04 23:15	8914531	7.875	-78.621	472.354	7.444	607.767	914.369	0.447	0.594	***6.010***	7.444	5.443
2021-10-04 23:30	8915431	7.877	-78.743	472.292	7.426	607.539	914.506	0.447	0.594	***5.970***	7.426	5.516
2021-10-04 23:45	8916331	7.878	-78.769	472.33	7.412	607.306	914.534	0.447	0.594	***5.911***	7.412	5.072
2021-10-05 00:00	8917231	7.877	-78.728	472.399	7.394	607.063	914.617	0.447	0.595	***5.870***	7.394	5.759
2021-10-05 00:15	8918131	7.878	-78.79	472.478	7.38	606.833	914.664	0.447	0.595	***5.802***	7.38	5.673
2021-10-05 00:30	8919031	7.876	-78.642	472.528	7.366	606.7	914.816	0.447	0.595	***5.755***	7.366	5.476
2021-10-05 00:45	8919931	7.873	-78.509	472.604	7.353	606.503	914.854	0.447	0.595	***5.684***	7.353	5.133

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-05 01:00	8920831	7.869	-78.297	472.745	7.341	606.412	915.035	0.447	0.595	***5.599***	7.341	5.109
2021-10-05 01:15	8921731	7.866	-78.118	472.869	7.328	606.33	915.261	0.447	0.595	***5.519***	7.328	5.267
2021-10-05 01:30	8922631	7.865	-78.049	473.019	7.314	606.248	915.498	0.447	0.595	***5.447***	7.314	4.982
2021-10-05 01:45	8923531	7.862	-77.858	473.241	7.302	606.085	915.571	0.447	0.595	***5.337***	7.302	4.558
2021-10-05 02:00	8924431	7.861	-77.789	473.424	7.29	605.989	915.76	0.447	0.595	***5.174***	7.29	4.588
2021-10-05 02:15	8925331	7.860	-77.744	473.589	7.276	605.921	916.008	0.447	0.595	***5.101***	7.276	4.274
2021-10-05 02:30	8926231	7.856	-77.541	473.782	7.265	605.857	916.223	0.447	0.596	***5.029***	7.265	4.255
2021-10-05 02:45	8927131	7.854	-77.422	474.018	7.25	605.767	916.464	0.447	0.596	***4.948***	7.25	4.092
2021-10-05 03:00	8928031	7.853	-77.326	474.199	7.241	605.654	916.532	0.447	0.596	***4.831***	7.241	4.161
2021-10-05 03:15	8928931	7.850	-77.183	474.385	7.232	605.611	916.719	0.447	0.596	***4.725***	7.232	4.465
2021-10-05 03:30	8929831	7.846	-76.964	474.573	7.224	605.655	916.99	0.448	0.596	***4.608***	7.224	4.338
2021-10-05 03:45	8930731	7.842	-76.754	474.755	7.218	605.569	917.015	0.448	0.596	***4.496***	7.218	4.196
2021-10-05 04:00	8931631	7.840	-76.642	474.89	7.212	605.494	917.066	0.448	0.596	***4.398***	7.212	4.155
2021-10-05 04:15	8932531	7.839	-76.592	475.034	7.207	605.528	917.247	0.448	0.596	***4.292***	7.207	4.336
2021-10-05 04:30	8933431	7.837	-76.458	475.227	7.201	606.071	918.235	0.448	0.597	***4.151***	7.201	4.227
2021-10-05 04:45	8934331	7.834	-76.303	475.379	7.197	605.437	917.368	0.448	0.596	***4.046***	7.197	4.162
2021-10-05 05:00	8935231	7.829	-76.015	475.544	7.193	605.515	917.614	0.448	0.596	***3.941***	7.193	4.106
2021-10-05 05:15	8936131	7.821	-75.569	475.651	7.188	605.046	917.026	0.448	0.596	***3.839***	7.188	3.807
2021-10-05 05:30	8937031	7.813	-75.102	475.928	7.181	605.542	917.958	0.448	0.597	***3.715***	7.181	4.08
2021-10-05 05:45	8937931	7.809	-74.868	476.257	7.173	605.497	918.118	0.448	0.597	***3.610***	7.173	4.016
2021-10-05 06:00	8938831	7.806	-74.713	476.612	7.165	605.375	918.131	0.448	0.597	***3.491***	7.165	3.75
2021-10-05 06:15	8939731	7.801	-74.461	477.031	7.157	605.23	918.132	0.448	0.597	***3.383***	7.157	3.576
2021-10-05 06:30	8940631	7.797	-74.22	477.484	7.145	605.408	918.716	0.448	0.597	***3.220***	7.145	3.736
2021-10-05 06:45	8941531	7.792	-73.95	477.933	7.134	605.26	918.786	0.448	0.597	***3.096***	7.134	3.515
2021-10-05 07:00	8942431	7.787	-73.652	478.393	7.118	605.054	918.898	0.448	0.597	***2.974***	7.118	3.5
2021-10-05 07:15	8943331	7.783	-73.442	478.841	7.106	604.911	919.012	0.448	0.597	***2.864***	7.106	3.506
2021-10-05 07:30	8944231	7.779	-73.199	479.294	7.093	604.813	919.196	0.448	0.597	***2.763***	7.093	3.892
2021-10-05 07:45	8945131	7.774	-72.908	479.742	7.079	604.604	919.254	0.448	0.598	***2.679***	7.079	3.902
2021-10-05 08:00	8946031	7.768	-72.572	480.152	7.065	604.42	919.364	0.449	0.598	***2.599***	7.065	3.274
2021-10-05 08:15	8946931	7.764	-72.327	480.524	7.043	604.156	919.548	0.449	0.598	***2.524***	7.043	5.335
2021-10-05 08:30	8947831	7.759	-72.091	480.875	7.019	603.773	919.596	0.449	0.598	***2.443***	7.019	4.433
2021-10-05 08:45	8948731	7.755	-71.833	481.197	6.991	603.355	919.716	0.449	0.598	***2.386***	6.991	4.339
2021-10-05 09:00	8949631	7.752	-71.657	481.492	6.978	603.123	919.7	0.449	0.598	***2.329***	6.978	5.955
2021-10-05 09:15	8950531	7.748	-71.449	481.778	6.957	602.808	919.784	0.449	0.598	***2.283***	6.957	6.259
2021-10-05 09:30	8951431	7.745	-71.251	481.991	6.939	602.474	919.758	0.449	0.598	***2.227***	6.939	2.577
2021-10-05 09:45	8952331	7.740	-70.963	482.231	6.922	602.195	919.786	0.449	0.598	***2.160***	6.922	2.165
2021-10-05 10:00	8953231	7.736	-70.753	482.446	6.91	602.019	919.841	0.449	0.598	***2.083***	6.91	2.255
2021-10-05 10:15	8954131	7.734	-70.622	482.703	6.894	601.51	919.483	0.448	0.598	***2.021***	6.894	2.378
2021-10-05 10:30	8955031	7.733	-70.586	482.897	6.887	601.328	919.399	0.448	0.598	***2.022***	6.887	2.487
2021-10-05 10:45	8955931	7.735	-70.713	483.04	6.892	601.209	919.075	0.448	0.597	***2.104***	6.892	2.603
2021-10-05 11:00	8956831	7.740	-70.98	483.078	6.907	601.18	918.631	0.448	0.597	***2.204***	6.907	2.54
2021-10-05 11:15	8957731	7.743	-71.154	483.013	6.921	601	918.004	0.448	0.597	***2.316***	6.921	2.442
2021-10-05 11:30	8958631	7.746	-71.321	482.958	6.938	601.015	917.551	0.447	0.596	***2.443***	6.938	2.369
2021-10-05 11:45	8959531	7.748	-71.437	482.932	6.956	600.933	916.941	0.447	0.596	***2.842***	6.956	2.456
2021-10-05 12:00	8960431	7.749	-71.492	482.844	6.977	601.219	916.826	0.447	0.596	***2.976***	6.977	2.721
2021-10-05 12:15	8961331	7.748	-71.471	482.808	7.002	601.437	916.482	0.447	0.596	***3.064***	7.002	2.876
2021-10-05 12:30	8962231	7.747	-71.411	482.765	7.028	601.747	916.272	0.447	0.596	***3.218***	7.028	3.117
2021-10-05 12:45	8963131	7.750	-71.597	482.651	7.068	602.037	915.646	0.447	0.595	***3.541***	7.068	3.475
2021-10-05 13:00	8964031	7.758	-72.007	482.479	7.098	602.368	915.366	0.447	0.595	***3.876***	7.098	3.867
2021-10-05 13:15	8964931	7.766	-72.463	482.239	7.11	602.491	915.209	0.446	0.595	***4.152***	7.11	3.662
2021-10-05 13:30	8965831	7.774	-72.942	481.955	7.12	602.596	915.112	0.446	0.595	***4.197***	7.12	3.906
2021-10-05 13:45	8966731	7.785	-73.526	481.583	7.128	602.659	915.002	0.446	0.595	***4.280***	7.128	4.319
2021-10-05 14:00	8967632	7.794	-74.043	481.156	7.13	602.627	914.896	0.446	0.595	***4.274***	7.13	3.67
2021-10-05 14:15	8968532	7.803	-74.518	480.734	7.13	602.678	914.963	0.446	0.595	***4.219***	7.13	3.436
2021-10-05 14:30	8969432	7.806	-74.716	480.291	7.134	602.758	914.994	0.446	0.595	***4.040***	7.134	3.65
2021-10-05 14:45	8970332	7.804	-74.594	479.871	7.138	602.922	915.137	0.446	0.595	***3.811***	7.138	3.93

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-05 15:00	8971232	7.805	-74.627	479.656	7.13	602.909	915.336	0.447	0.595	***3.619***	7.13	3.998
2021-10-05 15:15	8972132	7.813	-75.085	479.509	7.123	602.822	915.384	0.447	0.595	***3.466***	7.123	4.369
2021-10-05 15:30	8973032	7.826	-75.827	479.213	7.129	602.973	915.453	0.447	0.595	***3.692***	7.129	4.699
2021-10-05 15:45	8973932	7.833	-76.194	478.936	7.131	603.134	915.642	0.447	0.595	***4.007***	7.131	5.109
2021-10-05 16:00	8974832	7.841	-76.656	478.584	7.129	603.237	915.836	0.447	0.595	***4.163***	7.129	5.141
2021-10-05 16:15	8975732	7.846	-76.957	478.252	7.131	603.284	915.869	0.447	0.595	***4.226***	7.131	6.388
2021-10-05 16:30	8976632	7.848	-77.026	477.947	7.131	603.311	915.919	0.447	0.595	***4.321***	7.131	5.09
2021-10-05 16:45	8977532	7.847	-77.002	477.711	7.129	603.32	915.978	0.447	0.595	***4.426***	7.129	8.71
2021-10-05 17:00	8978432	7.850	-77.155	477.492	7.126	603.298	916.014	0.447	0.595	***4.556***	7.126	5.297
2021-10-05 17:15	8979332	7.852	-77.276	477.267	7.122	603.337	916.18	0.447	0.596	***4.679***	7.122	5.478
2021-10-05 17:30	8980232	7.852	-77.25	477.163	7.118	603.305	916.241	0.447	0.596	***4.822***	7.118	4.805
2021-10-05 17:45	8981132	7.847	-76.959	477.036	7.111	603.22	916.308	0.447	0.596	***4.910***	7.111	5.124
2021-10-05 18:00	8982032	7.842	-76.709	476.915	7.094	603.014	916.431	0.447	0.596	***4.987***	7.094	5.105
2021-10-05 18:15	8982932	7.835	-76.296	476.938	7.078	602.774	916.5	0.447	0.596	***4.956***	7.078	18.055
2021-10-05 18:30	8983832	7.831	-76.108	477.034	7.066	602.599	916.562	0.447	0.596	***4.915***	7.066	5.315
2021-10-05 18:45	8984732	7.830	-76.039	477.108	7.05	602.253	916.465	0.447	0.596	***4.929***	7.05	4.918
2021-10-05 19:00	8985632	7.830	-76.036	477.117	7.034	602.125	916.689	0.447	0.596	***4.980***	7.034	4.65
2021-10-05 19:15	8986532	7.828	-75.903	477.182	7.02	601.622	916.287	0.447	0.596	***5.008***	7.02	4.25
2021-10-05 19:30	8987432	7.829	-75.96	477.208	7.01	601.733	916.719	0.447	0.596	***5.084***	7.01	4.361
2021-10-05 19:45	8988332	7.832	-76.094	477.191	7.003	601.586	916.703	0.447	0.596	***5.061***	7.003	4.56
2021-10-05 20:00	8989232	7.832	-76.137	477.27	6.99	601.376	916.709	0.447	0.596	***4.976***	6.99	4.397
2021-10-05 20:15	8990132	7.831	-76.051	477.396	6.976	601.073	916.625	0.447	0.596	***4.849***	6.976	4.113
2021-10-05 20:30	8991032	7.830	-75.994	477.582	6.962	600.922	916.766	0.447	0.596	***4.731***	6.962	4.321
2021-10-05 20:45	8991932	7.827	-75.815	477.79	6.947	600.576	916.643	0.447	0.596	***4.675***	6.947	4.11
2021-10-05 21:00	8992832	7.824	-75.641	477.983	6.934	600.546	916.947	0.447	0.596	***4.601***	6.934	4.126
2021-10-05 21:15	8993732	7.820	-75.433	478.145	6.921	600.351	917.012	0.447	0.596	***4.489***	6.921	3.818
2021-10-05 21:30	8994632	7.815	-75.164	478.252	6.902	600.05	917.051	0.447	0.596	***4.430***	6.902	3.728
2021-10-05 21:45	8995532	7.810	-74.852	478.398	6.885	599.813	917.149	0.447	0.596	***4.348***	6.885	3.568
2021-10-05 22:00	8996432	7.805	-74.573	478.622	6.867	599.548	917.217	0.447	0.596	***4.249***	6.867	3.42
2021-10-05 22:15	8997332	7.803	-74.444	478.808	6.85	599.299	917.282	0.447	0.596	***4.160***	6.85	3.627
2021-10-05 22:30	8998232	7.801	-74.332	478.994	6.835	599.037	917.285	0.447	0.596	***4.102***	6.835	3.481
2021-10-05 22:45	8999132	7.800	-74.313	479.192	6.825	598.863	917.298	0.447	0.596	***4.049***	6.825	3.515
2021-10-05 23:00	9000032	7.801	-74.353	479.387	6.813	598.706	917.38	0.447	0.596	***3.969***	6.813	3.611
2021-10-05 23:15	9000932	7.801	-74.339	479.58	6.799	598.481	917.419	0.447	0.596	***3.912***	6.799	3.613
2021-10-05 23:30	9001832	7.800	-74.277	479.783	6.785	598.379	917.634	0.447	0.596	***3.859***	6.785	3.595
2021-10-05 23:45	9002732	7.799	-74.234	479.983	6.773	598.171	917.639	0.447	0.596	***3.815***	6.773	3.92
2021-10-06 00:00	9003632	7.796	-74.031	480.21	6.76	597.975	917.693	0.447	0.597	***3.761***	6.76	3.905
2021-10-06 00:15	9004532	7.791	-73.767	480.455	6.75	597.862	917.772	0.447	0.597	***3.685***	6.75	3.935
2021-10-06 00:30	9005432	7.784	-73.385	480.71	6.739	597.739	917.884	0.447	0.597	***3.591***	6.739	15.78
2021-10-06 00:45	9006332	7.778	-73.059	481.018	6.728	597.557	917.892	0.447	0.597	***3.453***	6.728	4.398
2021-10-06 01:00	9007232	7.773	-72.78	481.304	6.72	597.44	917.935	0.447	0.597	***3.393***	6.72	4.039
2021-10-06 01:15	9008132	7.768	-72.484	481.645	6.711	597.44	918.172	0.447	0.597	***3.229***	6.711	4.374
2021-10-06 01:30	9009032	7.762	-72.126	482.053	6.701	597.33	918.278	0.447	0.597	***3.058***	6.701	4.391
2021-10-06 01:45	9009932	7.756	-71.84	482.427	6.691	597.166	918.305	0.447	0.597	***2.950***	6.691	4.03
2021-10-06 02:00	9010832	7.752	-71.614	482.727	6.679	597.051	918.448	0.447	0.597	***2.787***	6.679	4.093
2021-10-06 02:15	9011732	7.748	-71.385	482.978	6.669	596.854	918.415	0.447	0.597	***2.721***	6.669	4.148
2021-10-06 02:30	9012632	7.745	-71.185	483.206	6.656	596.75	918.591	0.448	0.597	***2.652***	6.656	4.231
2021-10-06 02:45	9013532	7.741	-70.977	483.478	6.642	596.499	918.593	0.447	0.597	***2.583***	6.642	4.167
2021-10-06 03:00	9014432	7.737	-70.755	483.736	6.628	596.505	918.982	0.448	0.597	***2.505***	6.628	3.991
2021-10-06 03:15	9015332	7.733	-70.496	483.965	6.614	596.379	919.175	0.448	0.597	***2.427***	6.614	3.894
2021-10-06 03:30	9016232	7.728	-70.24	484.196	6.59	596.029	919.275	0.448	0.598	***2.299***	6.59	4.315
2021-10-06 03:45	9017132	7.724	-70.035	484.425	6.572	595.54	918.994	0.448	0.597	***2.231***	6.572	3.801
2021-10-06 04:00	9018032	7.722	-69.885	484.625	6.56	595.382	919.081	0.448	0.597	***2.136***	6.56	3.568
2021-10-06 04:15	9018932	7.718	-69.687	484.902	6.55	595.258	919.166	0.448	0.597	***1.986***	6.55	3.725
2021-10-06 04:30	9019832	7.714	-69.451	485.176	6.539	595.228	919.423	0.448	0.598	***1.858***	6.539	3.572
2021-10-06 04:45	9020732	7.710	-69.218	485.457	6.528	595.096	919.526	0.448	0.598	***1.776***	6.528	3.676

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)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: Turb SN#: 730625 Turbidity (NTU)
2021-10-06 05:00	9021632	7.705	-68.939	485.712	6.516	594.976	919.66	0.448	0.598	*1.739*	6.516	3.761
2021-10-06 05:15	9022532	7.702	-68.767	485.903	6.506	594.392	919.028	0.448	0.597	*1.711*	6.506	3.65
2021-10-06 05:30	9023432	7.698	-68.562	486.096	6.497	596.409	922.399	0.449	0.600	*1.683*	6.497	6.212
2021-10-06 05:45	9024332	7.694	-68.324	486.299	6.49	596.324	922.455	0.449	0.600	*1.658*	6.49	3.433
2021-10-06 06:00	9025232	7.691	-68.169	486.475	6.482	594.297	919.534	0.448	0.598	*1.631*	6.482	3.745
2021-10-06 06:15	9026132	7.688	-67.99	486.64	6.478	594.236	919.531	0.448	0.598	*1.616*	6.478	4.123
2021-10-06 06:30	9027032	7.686	-67.852	486.764	6.472	594.118	919.531	0.448	0.598	*1.609*	6.472	3.596
2021-10-06 06:45	9027932	7.683	-67.701	486.9	6.467	594.02	919.506	0.448	0.598	*1.603*	6.467	3.7
2021-10-06 07:00	9028832	7.681	-67.58	487.016	6.464	593.93	919.455	0.448	0.598	*1.614*	6.464	3.501
2021-10-06 07:15	9029732	7.678	-67.437	487.169	6.459	593.854	919.475	0.448	0.598	*1.612*	6.459	3.444
2021-10-06 07:30	9030632	7.676	-67.291	487.271	6.456	593.667	919.271	0.448	0.598	*1.590*	6.456	3.512
2021-10-06 07:45	9031532	7.673	-67.174	487.396	6.451	593.789	919.579	0.448	0.598	*1.572*	6.451	3.607
2021-10-06 08:00	9032432	7.672	-67.11	487.512	6.448	593.418	919.079	0.447	0.597	*1.568*	6.448	4.242
2021-10-06 08:15	9033332	7.670	-66.979	487.61	6.445	593.349	919.073	0.447	0.597	*1.531*	6.445	3.901
2021-10-06 08:30	9034232	7.667	-66.822	487.76	6.44	593.326	919.158	0.447	0.597	*1.540*	6.44	3.687
2021-10-06 08:45	9035132	7.664	-66.652	487.887	6.437	593.229	919.111	0.447	0.597	*1.539*	6.437	3.764
2021-10-06 09:00	9036032	7.662	-66.512	488.056	6.434	593.205	919.152	0.447	0.597	*1.522*	6.434	3.531
2021-10-06 09:15	9036932	7.659	-66.392	488.199	6.432	593.057	918.958	0.447	0.597	*1.498*	6.432	3.511
2021-10-06 09:30	9037832	7.656	-66.214	488.361	6.432	593.469	919.616	0.448	0.598	*1.471*	6.432	3.581
2021-10-06 09:45	9038732	7.654	-66.113	488.487	6.436	593.33	919.294	0.448	0.598	*1.438*	6.436	3.481
2021-10-06 10:00	9039632	7.652	-65.975	488.621	6.446	593.664	919.529	0.448	0.598	*1.401*	6.446	3.418
2021-10-06 10:15	9040533	7.650	-65.887	488.728	6.466	593.971	919.463	0.448	0.598	*1.359*	6.466	3.373
2021-10-06 10:30	9041433	7.648	-65.761	488.797	6.491	594.354	919.384	0.448	0.598	*1.321*	6.491	3.488
2021-10-06 10:45	9042333	7.647	-65.727	488.814	6.519	594.946	919.52	0.448	0.598	*1.305*	6.519	3.409
2021-10-06 11:00	9043233	7.646	-65.67	488.84	6.547	595.395	919.454	0.448	0.598	*1.295*	6.547	3.414
2021-10-06 11:15	9044133	7.645	-65.639	488.833	6.578	595.856	919.327	0.448	0.598	*1.297*	6.578	3.435
2021-10-06 11:30	9045033	7.645	-65.634	488.795	6.609	596.059	918.819	0.448	0.597	*1.285*	6.609	3.375
2021-10-06 11:45	9045933	7.645	-65.639	488.797	6.637	596.856	919.278	0.448	0.598	*1.250*	6.637	3.304
2021-10-06 12:00	9046833	7.645	-65.62	488.776	6.665	597.267	919.152	0.448	0.597	*1.265*	6.665	3.269
2021-10-06 12:15	9047733	7.645	-65.634	488.752	6.693	597.653	918.984	0.448	0.597	*1.434*	6.693	3.335
2021-10-06 12:30	9048633	7.645	-65.637	488.714	6.722	598.037	918.796	0.448	0.597	*1.675*	6.722	3.22
2021-10-06 12:45	9049533	7.644	-65.598	488.683	6.748	598.294	918.501	0.448	0.597	*1.935*	6.748	3.154
2021-10-06 13:00	9050433	7.646	-65.711	488.635	6.782	598.706	918.213	0.448	0.597	*2.219*	6.782	5.769
2021-10-06 13:15	9051333	7.647	-65.775	488.64	6.801	598.837	917.901	0.447	0.597	*2.363*	6.801	5.851
2021-10-06 13:30	9052233	7.647	-65.799	488.566	6.818	599.107	917.856	0.447	0.597	*2.444*	6.818	5.9
2021-10-06 13:45	9053133	7.646	-65.758	488.483	6.829	599.126	917.578	0.447	0.596	*2.531*	6.829	5.892
AEP Freshwater Aquatic Life*		**6.5-9.0^{pH}**	**NS**	**NS**	**narrative**	**NS**	**NS**	**NS**	**NS**	**6.5^{DO}**	**NS**	**narrative**

Notes:

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

SO4 - guideline level is hardness dependent; hardness values greater than 250 mg/L need to be determined based on site water

* - *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#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-24 17:15	0	7.814	-78.485	20.429	458.859	502.754	0.245	31.708	20.429	6.621
2021-06-24 17:30	900	7.897	-83.311	20.370	458.687	503.186	0.245	19.714	20.370	6.547
2021-06-24 17:45	1800	7.971	-87.595	20.342	460.062	504.989	0.246	21.190	20.342	6.539
2021-06-24 18:00	2700	8.021	-90.516	20.352	460.876	505.774	0.246	14.833	20.352	6.579
2021-06-24 18:15	3600	8.054	-92.437	20.388	461.302	505.866	0.247	12.694	20.388	6.566
2021-06-24 18:30	4500	8.077	-93.799	20.456	461.560	505.430	0.246	10.271	20.456	6.607
2021-06-24 18:45	5400	8.090	-94.583	20.494	462.231	505.761	0.246	11.477	20.494	6.596
2021-06-24 19:00	6300	8.098	-95.043	20.523	463.609	506.957	0.247	9.639	20.523	6.614
2021-06-24 19:15	7200	8.104	-95.425	20.595	463.512	506.095	0.247	9.623	20.595	6.641
2021-06-24 19:30	8100	8.100	-95.201	20.659	466.147	508.293	0.248	9.235	20.659	6.641
2021-06-24 19:45	9000	8.095	-94.914	20.680	466.845	508.829	0.248	8.133	20.680	6.607
2021-06-24 20:00	9900	8.099	-95.160	20.709	466.860	508.540	0.248	8.967	20.709	6.613
2021-06-24 20:15	10800	8.099	-95.148	20.746	465.989	507.198	0.247	8.614	20.746	6.614
2021-06-24 20:30	11700	8.090	-94.621	20.740	466.775	508.118	0.248	7.906	20.740	6.575
2021-06-24 20:45	12600	8.089	-94.614	20.756	466.894	508.084	0.248	7.841	20.756	6.570
2021-06-24 21:00	13500	8.089	-94.554	20.714	467.480	509.164	0.248	7.206	20.714	6.516
2021-06-24 21:15	14400	8.085	-94.316	20.711	466.757	508.406	0.248	7.857	20.711	***6.494***
2021-06-24 21:30	15300	8.080	-94.054	20.696	467.146	508.989	0.248	7.674	20.696	***6.454***
2021-06-24 21:45	16200	8.073	-93.615	20.677	466.857	508.873	0.248	8.223	20.677	***6.432***
2021-06-24 22:00	17100	8.073	-93.651	20.651	467.093	509.405	0.248	6.920	20.651	***6.385***
2021-06-24 22:15	18000	8.062	-92.986	20.627	465.754	508.206	0.248	7.599	20.627	***6.336***
2021-06-24 22:30	18900	8.060	-92.826	20.584	467.073	510.096	0.249	7.706	20.584	***6.322***
2021-06-24 22:45	19800	8.064	-93.083	20.554	467.154	510.504	0.249	7.421	20.554	***6.283***
2021-06-24 23:00	20700	8.054	-92.461	20.555	466.710	510.009	0.249	6.507	20.555	***6.265***
2021-06-24 23:15	21600	8.050	-92.256	20.523	466.299	509.903	0.249	6.788	20.523	***6.226***
2021-06-24 23:30	22500	8.051	-92.287	20.490	466.741	510.731	0.249	7.571	20.490	***6.198***
2021-06-24 23:45	23400	8.045	-91.934	20.462	467.468	511.832	0.250	6.270	20.462	***6.193***
2021-06-25 0:00	24300	8.047	-92.053	20.451	466.643	511.047	0.249	7.693	20.451	***6.175***
2021-06-25 0:15	25200	8.041	-91.701	20.437	466.131	510.633	0.249	7.630	20.437	***6.162***
2021-06-25 0:30	26100	8.045	-91.901	20.412	467.001	511.857	0.250	6.359	20.412	***6.123***
2021-06-25 0:45	27000	8.037	-91.467	20.379	467.338	512.583	0.250	6.313	20.379	***6.119***
2021-06-25 1:00	27900	8.039	-91.527	20.380	466.166	511.280	0.249	6.007	20.380	***6.117***
2021-06-25 1:15	28800	8.045	-91.927	20.361	466.732	512.103	0.250	5.658	20.361	***6.095***
2021-06-25 1:30	29700	8.040	-91.579	20.339	466.557	512.151	0.250	6.369	20.339	***6.089***
2021-06-25 1:45	30600	8.032	-91.157	20.326	466.143	511.835	0.250	6.458	20.326	***6.074***
2021-06-25 2:00	31500	8.034	-91.236	20.326	465.741	511.395	0.249	6.214	20.326	***6.051***
2021-06-25 2:15	32400	8.029	-90.973	20.307	465.612	511.452	0.249	6.700	20.307	***6.038***
2021-06-25 2:30	33300	8.033	-91.155	20.266	466.351	512.711	0.250	6.975	20.266	***6.027***
2021-06-25 2:45	34200	8.025	-90.694	20.262	466.296	512.696	0.250	6.594	20.262	***6.005***
2021-06-25 3:00	35100	8.032	-91.133	20.249	466.231	512.765	0.250	5.700	20.249	***6.004***
2021-06-25 3:15	36000	8.025	-90.678	20.225	466.327	513.125	0.250	6.437	20.225	***5.987***
2021-06-25 3:30	36900	8.025	-90.666	20.216	466.123	512.998	0.250	6.794	20.216	***5.979***
2021-06-25 3:45	37800	8.025	-90.699	20.196	466.298	513.404	0.250	7.115	20.196	***5.961***
2021-06-25 4:00	38700	8.031	-91.012	20.177	465.525	512.761	0.250	6.318	20.177	***5.951***
2021-06-25 4:15	39600	8.021	-90.427	20.142	465.804	513.449	0.250	6.230	20.142	***5.939***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-25 4:30	40500	8.020	-90.377	20.153	465.912	513.440	0.250	6.327	20.153	***5.942***
2021-06-25 4:45	41400	8.025	-90.680	20.122	465.329	513.142	0.250	5.319	20.122	***5.937***
2021-06-25 5:00	42300	8.021	-90.399	20.110	464.997	512.896	0.250	5.905	20.110	***5.916***
2021-06-25 5:15	43200	8.021	-90.415	20.065	464.913	513.292	0.250	5.476	20.065	***5.914***
2021-06-25 5:30	44100	8.032	-91.026	20.041	464.650	513.270	0.250	5.868	20.041	***5.917***
2021-06-25 5:45	45000	8.022	-90.475	19.995	465.280	514.457	0.251	5.813	19.995	***5.906***
2021-06-25 6:00	45900	8.028	-90.804	19.959	464.887	514.419	0.251	4.983	19.959	***5.890***
2021-06-25 6:15	46800	8.021	-90.365	19.938	464.498	514.216	0.251	6.693	19.938	***5.881***
2021-06-25 6:30	47700	8.029	-90.833	19.907	464.594	514.663	0.251	5.188	19.907	***5.872***
2021-06-25 6:45	48600	8.025	-90.616	19.892	465.086	515.363	0.251	5.540	19.892	***5.896***
2021-06-25 7:00	49500	8.016	-90.048	19.882	464.126	514.416	0.251	5.829	19.882	***5.884***
2021-06-25 7:15	50400	8.024	-90.525	19.849	465.292	516.062	0.252	5.878	19.849	***5.864***
2021-06-25 7:30	51300	8.012	-89.817	19.834	465.714	516.702	0.252	6.068	19.834	***5.853***
2021-06-25 7:45	52200	8.012	-89.834	19.833	463.886	514.675	0.251	6.101	19.833	***5.853***
2021-06-25 8:00	53100	8.022	-90.380	19.814	464.674	515.762	0.251	5.360	19.814	***5.854***
2021-06-25 8:15	54000	8.019	-90.234	19.814	464.361	515.412	0.251	5.139	19.814	***5.845***
2021-06-25 8:30	54900	8.026	-90.604	19.806	465.981	517.296	0.252	5.411	19.806	***5.852***
2021-06-25 8:45	55800	8.023	-90.437	19.771	462.006	513.271	0.250	5.154	19.771	***5.842***
2021-06-25 9:00	56700	8.027	-90.668	19.778	464.390	515.836	0.251	5.507	19.778	***5.869***
2021-06-25 9:15	57600	8.028	-90.756	19.808	464.788	515.955	0.252	5.847	19.808	***5.913***
2021-06-25 9:30	58500	8.029	-90.778	19.834	465.442	516.398	0.252	6.009	19.834	***5.920***
2021-06-25 9:45	59400	8.023	-90.473	19.920	477.652	528.973	0.258	5.526	19.920	***5.953***
2021-06-25 10:00	60300	8.037	-91.372	20.084	467.685	516.146	0.252	4.960	20.084	***6.022***
2021-06-25 10:15	61200	8.045	-91.891	20.253	469.870	516.717	0.252	5.368	20.253	***6.060***
2021-06-25 10:30	62100	8.039	-91.558	20.403	471.754	517.160	0.252	5.927	20.403	***6.094***
2021-06-25 10:45	63000	8.052	-92.366	20.552	474.899	518.990	0.253	5.427	20.552	***6.138***
2021-06-25 11:00	63900	6.871	-23.634	21.608	0.000	0.000	0.000	0.255	21.608	6.652
2021-06-25 11:15	64800	7.086	-36.013	20.223	0.000	0.000	0.000	0.019	20.223	6.814
2021-06-25 11:30	65700	7.061	-34.583	20.343	0.000	0.000	0.000	0.003	20.343	6.828
2021-06-25 11:45	66600	7.044	-33.610	20.193	0.000	0.000	0.000	0.024	20.193	6.969
2021-06-25 12:00	67500	6.840	-21.780	20.959	0.000	0.000	0.000	0.115	20.959	6.946
2021-06-25 12:15	68400	6.743	-16.165	22.299	0.000	0.000	0.000	0.137	22.299	6.737
2021-06-25 12:30	69300	8.609	-128.891	30.101	0.000	0.000	0.000	1.142	30.101	***5.824***
2021-06-25 12:45	70200	***9.552***	-188.911	35.496	0.000	0.000	0.000	2.135	35.496	***5.066***
2021-06-25 13:00	71100	6.731	-15.767	27.634	0.000	0.000	0.000	1.214	27.634	***5.443***
2021-06-25 13:15	72000	7.793	-77.653	21.948	488.473	518.706	0.253	19.110	21.948	***6.428***
2021-06-25 13:30	72900	7.791	-77.510	21.810	487.933	519.588	0.253	13.145	21.810	6.501
2021-06-25 13:45	73800	7.808	-78.547	22.098	494.803	523.840	0.256	11.427	22.098	6.543
2021-06-25 14:00	74700	7.874	-82.464	22.327	498.369	525.179	0.256	8.128	22.327	6.562
2021-06-25 14:15	75600	7.991	-89.397	22.555	501.624	526.200	0.257	9.320	22.555	6.587
2021-06-25 14:30	76500	8.071	-94.123	22.579	502.105	526.453	0.257	9.160	22.579	6.626
2021-06-25 14:45	77400	8.120	-97.110	22.866	509.506	531.150	0.259	9.261	22.866	6.634
2021-06-25 15:00	78300	8.138	-98.219	23.029	510.882	530.864	0.259	8.563	23.029	6.657
2021-06-25 15:15	79200	8.144	-98.624	23.219	513.320	531.397	0.259	6.854	23.219	6.676
2021-06-25 15:30	80100	8.147	-98.853	23.383	517.034	533.507	0.260	8.033	23.383	6.698

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-25 15:45	81000	8.147	-98.929	23.571	520.597	535.204	0.261	8.615	23.571	6.700
2021-06-25 16:00	81900	8.143	-98.732	23.694	524.601	538.019	0.263	6.196	23.694	6.720
2021-06-25 16:15	82800	8.143	-98.796	23.986	526.137	536.532	0.262	7.000	23.986	6.704
2021-06-25 16:30	83700	8.150	-99.251	24.020	526.554	536.595	0.262	6.123	24.020	6.709
2021-06-25 16:45	84600	8.143	-98.789	24.005	523.568	533.712	0.261	7.727	24.005	6.757
2021-06-25 17:00	85500	8.145	-99.020	24.189	527.543	535.843	0.262	6.562	24.189	6.716
2021-06-25 17:15	86400	8.152	-99.421	24.281	529.178	536.542	0.262	5.918	24.281	6.751
2021-06-25 17:30	87300	8.142	-98.803	24.175	526.275	534.701	0.261	6.534	24.175	6.656
2021-06-25 17:45	88200	8.146	-99.080	24.223	526.991	534.933	0.261	6.231	24.223	6.697
2021-06-25 18:00	89100	8.139	-98.693	24.299	528.695	535.870	0.262	5.237	24.299	6.654
2021-06-25 18:15	90000	8.139	-98.708	24.360	528.552	535.097	0.261	5.885	24.360	6.617
2021-06-25 18:30	90900	8.144	-99.027	24.438	528.959	534.702	0.261	6.331	24.438	6.666
2021-06-25 18:45	91800	8.144	-99.051	24.488	529.466	534.695	0.261	5.225	24.488	6.692
2021-06-25 19:00	92700	8.137	-98.634	24.478	529.762	535.094	0.261	5.485	24.478	6.643
2021-06-25 19:15	93600	8.142	-98.903	24.504	530.238	535.304	0.261	5.956	24.504	6.652
2021-06-25 19:30	94500	8.144	-99.037	24.529	530.162	534.975	0.261	6.224	24.529	6.671
2021-06-25 19:45	95400	8.138	-98.665	24.507	530.365	535.410	0.261	6.144	24.507	6.602
2021-06-25 20:00	96300	8.130	-98.162	24.414	529.801	535.800	0.262	5.113	24.414	6.503
2021-06-25 20:15	97200	8.125	-97.857	24.355	528.559	535.155	0.261	6.846	24.355	***6.484***
2021-06-25 20:30	98100	8.121	-97.654	24.321	528.257	535.196	0.261	5.615	24.321	***6.446***
2021-06-25 20:45	99000	8.119	-97.518	24.268	527.807	535.295	0.261	5.557	24.268	***6.408***
2021-06-25 21:00	99900	8.113	-97.094	24.183	526.660	535.011	0.261	5.465	24.183	***6.366***
2021-06-25 21:15	100800	8.109	-96.831	24.122	526.163	535.139	0.261	6.971	24.122	***6.325***
2021-06-25 21:30	101700	8.108	-96.772	24.067	525.178	534.703	0.261	5.351	24.067	***6.307***
2021-06-25 21:45	102600	8.105	-96.548	23.999	524.562	534.786	0.261	4.890	23.999	***6.282***
2021-06-25 22:00	103500	8.097	-96.080	23.906	523.478	534.649	0.261	5.214	23.906	***6.209***
2021-06-25 22:15	104400	8.097	-96.021	23.817	522.280	534.353	0.261	5.857	23.817	***6.183***
2021-06-25 22:30	105300	8.095	-95.880	23.718	521.047	534.126	0.261	5.462	23.718	***6.149***
2021-06-25 22:45	106200	8.088	-95.465	23.635	519.976	533.891	0.261	4.957	23.635	***6.138***
2021-06-25 23:00	107100	8.089	-95.503	23.566	519.095	533.718	0.261	5.429	23.566	***6.117***
2021-06-25 23:15	108000	8.086	-95.301	23.486	518.472	533.915	0.261	6.535	23.486	***6.082***
2021-06-25 23:30	108900	8.084	-95.153	23.421	517.505	533.603	0.261	6.166	23.421	***6.066***
2021-06-25 23:45	109800	8.083	-95.077	23.350	516.947	533.769	0.261	9.280	23.350	***6.062***
2021-06-26 0:00	110700	8.079	-94.812	23.280	516.097	533.624	0.261	5.940	23.280	***6.014***
2021-06-26 0:15	111600	8.078	-94.736	23.208	515.115	533.374	0.260	5.141	23.208	***6.007***
2021-06-26 0:30	112500	8.075	-94.507	23.121	514.462	533.608	0.261	5.782	23.121	***5.993***
2021-06-26 0:45	113400	8.075	-94.481	23.046	513.560	533.470	0.260	5.947	23.046	***5.977***
2021-06-26 1:00	114300	8.072	-94.321	22.976	512.841	533.463	0.260	5.682	22.976	***5.970***
2021-06-26 1:15	115200	8.071	-94.218	22.889	512.952	534.499	0.261	6.254	22.889	***5.936***
2021-06-26 1:30	116100	8.070	-94.159	22.823	511.462	533.649	0.261	6.678	22.823	***5.899***
2021-06-26 1:45	117000	8.068	-94.018	22.748	510.205	533.135	0.260	5.515	22.748	***5.889***
2021-06-26 2:00	117900	8.066	-93.830	22.663	509.064	532.853	0.260	6.504	22.663	***5.904***
2021-06-26 2:15	118800	8.063	-93.637	22.583	508.215	532.814	0.260	5.275	22.583	***5.880***
2021-06-26 2:30	119700	8.062	-93.553	22.505	507.829	533.240	0.260	9.694	22.505	***5.861***
2021-06-26 2:45	120600	8.059	-93.379	22.434	506.598	532.711	0.260	6.948	22.434	***5.869***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-26 3:00	121500	8.062	-93.517	22.354	505.743	532.658	0.260	5.930	22.354	***5.872***
2021-06-26 3:15	122400	8.056	-93.162	22.274	505.087	532.831	0.260	7.476	22.274	***5.855***
2021-06-26 3:30	123300	8.057	-93.155	22.213	504.225	532.577	0.260	6.611	22.213	***5.835***
2021-06-26 3:45	124200	8.053	-92.931	22.139	503.552	532.656	0.260	5.633	22.139	***5.816***
2021-06-26 4:00	125100	8.052	-92.833	22.079	499.269	528.766	0.258	6.048	22.079	***5.774***
2021-06-26 4:15	126000	8.054	-92.971	22.025	502.020	532.264	0.260	6.537	22.025	***5.779***
2021-06-26 4:30	126900	8.049	-92.659	21.955	501.558	532.524	0.260	5.344	21.955	***5.773***
2021-06-26 4:45	127800	8.047	-92.504	21.894	500.653	532.231	0.260	4.874	21.894	***5.778***
2021-06-26 5:00	128700	8.044	-92.292	21.825	499.937	532.212	0.260	8.934	21.825	***5.757***
2021-06-26 5:15	129600	8.044	-92.292	21.760	499.115	532.037	0.260	8.774	21.760	***5.729***
2021-06-26 5:30	130500	8.045	-92.297	21.705	498.179	531.638	0.260	5.514	21.705	***5.743***
2021-06-26 5:45	131400	8.040	-91.994	21.632	497.822	532.053	0.260	4.868	21.632	***5.717***
2021-06-26 6:00	132300	8.040	-92.008	21.566	496.752	531.618	0.260	4.373	21.566	***5.701***
2021-06-26 6:15	133200	8.042	-92.056	21.496	495.880	531.445	0.259	4.709	21.496	***5.724***
2021-06-26 6:30	134100	8.035	-91.670	21.448	495.660	531.738	0.260	4.795	21.448	***5.680***
2021-06-26 6:45	135000	8.029	-91.300	21.392	495.333	531.993	0.260	5.080	21.392	***5.680***
2021-06-26 7:00	135900	8.035	-91.627	21.358	494.791	531.778	0.260	4.539	21.358	***5.688***
2021-06-26 7:15	136800	8.035	-91.598	21.320	494.280	531.652	0.260	5.419	21.320	***5.672***
2021-06-26 7:30	137700	8.034	-91.534	21.274	493.765	531.597	0.259	4.551	21.274	***5.658***
2021-06-26 7:45	138600	8.032	-91.403	21.236	492.806	530.976	0.259	3.754	21.236	***5.648***
2021-06-26 8:00	139500	8.026	-91.043	21.207	492.929	531.433	0.259	3.805	21.207	***5.640***
2021-06-26 8:15	140400	8.030	-91.288	21.194	492.640	531.260	0.259	4.227	21.194	***5.651***
2021-06-26 8:30	141300	8.017	-90.497	21.177	492.342	531.120	0.259	3.833	21.177	***5.648***
2021-06-26 8:45	142200	8.030	-91.293	21.161	492.056	530.992	0.259	4.235	21.161	***5.699***
2021-06-26 9:00	143100	8.036	-91.648	21.151	491.620	530.629	0.259	4.309	21.151	***5.708***
2021-06-26 9:15	144000	8.038	-91.727	21.153	491.862	530.870	0.259	4.224	21.153	***5.732***
2021-06-26 9:30	144900	8.038	-91.729	21.181	492.069	530.783	0.259	3.946	21.181	***5.693***
2021-06-26 9:45	145800	8.042	-92.006	21.242	492.630	530.722	0.259	4.307	21.242	***5.818***
2021-06-26 10:00	146700	8.040	-91.901	21.312	493.580	530.988	0.259	4.035	21.312	***5.803***
2021-06-26 10:15	147600	8.041	-91.980	21.382	494.575	531.294	0.259	5.491	21.382	***5.836***
2021-06-26 10:30	148500	8.048	-92.449	21.606	496.978	531.425	0.259	3.805	21.606	***5.918***
2021-06-26 10:45	149400	8.058	-93.148	22.001	501.197	531.648	0.260	3.632	22.001	***5.969***
2021-06-26 11:00	150300	8.065	-93.708	22.329	505.803	532.999	0.260	3.701	22.329	***6.024***
2021-06-26 11:15	151200	8.063	-93.627	22.523	507.746	532.965	0.260	3.665	22.523	***6.032***
2021-06-26 11:30	152100	8.070	-94.132	22.825	511.554	533.727	0.261	3.140	22.825	***6.085***
2021-06-26 11:45	153000	8.054	-93.207	22.907	512.472	533.811	0.261	4.296	22.907	***6.085***
2021-06-26 12:00	153900	8.064	-93.908	23.154	515.353	534.189	0.261	3.773	23.154	***6.106***
2021-06-26 12:15	154800	8.068	-94.075	23.017	514.213	534.453	0.261	3.195	23.017	***6.115***
2021-06-26 12:30	155700	8.071	-94.321	23.203	516.867	535.235	0.261	3.851	23.203	***6.207***
2021-06-26 12:45	156600	8.079	-94.845	23.451	520.098	535.958	0.262	3.425	23.451	***6.238***
2021-06-26 13:00	157500	8.076	-94.707	23.539	521.417	536.380	0.262	3.788	23.539	***6.301***
2021-06-26 13:15	158400	8.088	-95.515	23.829	524.882	536.893	0.262	3.775	23.829	***6.363***
2021-06-26 13:30	159300	8.093	-95.897	24.143	529.390	538.197	0.263	3.486	24.143	***6.372***
2021-06-26 13:45	160200	8.095	-96.147	24.413	532.603	538.639	0.263	4.065	24.413	***6.391***
2021-06-26 14:00	161100	8.094	-96.095	24.506	533.683	538.764	0.263	3.891	24.506	***6.451***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-26 14:15	162000	8.096	-96.326	24.952	540.278	540.771	0.264	3.191	24.952	***6.434***
2021-06-26 14:30	162900	8.099	-96.626	25.191	544.853	542.872	0.265	3.279	25.191	***6.440***
2021-06-26 14:45	163800	8.099	-96.731	25.491	547.098	542.013	0.265	3.708	25.491	***6.436***
2021-06-26 15:00	164700	8.107	-97.311	25.806	552.401	544.021	0.266	3.945	25.806	***6.414***
2021-06-26 15:15	165600	8.105	-97.225	26.015	554.191	543.654	0.265	3.637	26.015	***6.413***
2021-06-26 15:30	166500	8.106	-97.342	26.148	555.409	543.494	0.265	3.828	26.148	***6.451***
2021-06-26 15:45	167400	8.108	-97.554	26.400	559.028	544.467	0.266	4.130	26.400	***6.406***
2021-06-26 16:00	168300	8.106	-97.466	26.535	560.052	544.103	0.266	4.114	26.535	***6.432***
2021-06-26 16:15	169200	8.112	-97.852	26.727	563.126	545.145	0.266	4.634	26.727	***6.412***
2021-06-26 16:30	170100	8.110	-97.795	26.848	564.450	545.202	0.266	4.830	26.848	***6.388***
2021-06-26 16:45	171000	8.112	-97.938	26.856	564.335	545.013	0.266	3.601	26.856	***6.419***
2021-06-26 17:00	171900	8.116	-98.190	26.862	564.621	545.231	0.266	3.762	26.862	***6.207***
2021-06-26 17:15	172800	8.112	-97.933	26.943	566.266	546.007	0.267	3.587	26.943	***6.420***
2021-06-26 17:30	173700	8.124	-98.650	26.969	566.724	546.181	0.267	4.089	26.969	***6.423***
2021-06-26 17:45	174600	8.122	-98.591	27.012	567.367	546.372	0.267	5.259	27.012	***6.361***
2021-06-26 18:00	175500	8.123	-98.624	27.031	568.014	546.800	0.267	4.058	27.031	***6.393***
2021-06-26 18:15	176400	8.128	-98.929	27.080	568.842	547.109	0.267	3.987	27.080	***6.347***
2021-06-26 18:30	177300	8.123	-98.681	27.095	568.916	547.028	0.267	6.072	27.095	***6.360***
2021-06-26 18:45	178200	8.129	-99.008	27.097	569.305	547.384	0.267	3.741	27.097	***6.337***
2021-06-26 19:00	179100	8.127	-98.865	27.083	569.809	548.009	0.268	3.744	27.083	***6.296***
2021-06-26 19:15	180000	8.128	-98.941	27.022	569.034	547.870	0.268	4.547	27.022	***6.280***
2021-06-26 19:30	180900	8.125	-98.743	26.965	568.947	548.368	0.268	4.956	26.965	***6.245***
2021-06-26 19:45	181800	8.120	-98.381	26.892	568.609	548.780	0.268	5.813	26.892	***6.152***
2021-06-26 20:00	182700	8.116	-98.143	26.804	567.788	548.879	0.268	3.723	26.804	***6.074***
2021-06-26 20:15	183600	8.114	-97.964	26.678	566.565	548.968	0.268	4.246	26.678	***6.024***
2021-06-26 20:30	184500	8.119	-98.271	26.590	560.491	543.974	0.266	3.240	26.590	***6.037***
2021-06-26 20:45	185400	8.122	-98.383	26.478	563.888	548.404	0.268	3.608	26.478	***6.031***
2021-06-26 21:00	186300	8.119	-98.155	26.350	562.811	548.660	0.268	3.377	26.350	***5.992***
2021-06-26 21:15	187200	8.110	-97.637	26.271	562.238	548.907	0.268	3.843	26.271	***5.955***
2021-06-26 21:30	188100	8.111	-97.637	26.178	560.907	548.567	0.268	3.375	26.178	***5.925***
2021-06-26 21:45	189000	8.097	-96.786	26.073	560.290	549.041	0.268	3.417	26.073	***5.851***
2021-06-26 22:00	189900	8.103	-97.108	25.976	559.222	548.989	0.268	3.387	25.976	***5.830***
2021-06-26 22:15	190800	8.101	-96.955	25.891	558.481	549.136	0.268	3.465	25.891	***5.783***
2021-06-26 22:30	191700	8.095	-96.595	25.798	557.647	549.272	0.268	5.113	25.798	***5.762***
2021-06-26 22:45	192600	8.099	-96.750	25.709	556.629	549.195	0.268	4.868	25.709	***5.724***
2021-06-26 23:00	193500	8.097	-96.602	25.624	555.451	548.905	0.268	4.217	25.624	***5.701***
2021-06-26 23:15	194400	8.096	-96.529	25.527	554.495	548.969	0.268	4.278	25.527	***5.675***
2021-06-26 23:30	195300	8.094	-96.421	25.440	553.348	548.740	0.268	4.548	25.440	***5.674***
2021-06-26 23:45	196200	8.091	-96.171	25.339	552.422	548.868	0.268	3.981	25.339	***5.657***
2021-06-27 0:00	197100	8.094	-96.321	25.234	551.026	548.569	0.268	4.000	25.234	***5.663***
2021-06-27 0:15	198000	8.094	-96.304	25.147	550.090	548.547	0.268	6.602	25.147	***5.667***
2021-06-27 0:30	198900	8.091	-96.073	25.055	548.700	548.127	0.268	4.149	25.055	***5.641***
2021-06-27 0:45	199800	8.089	-95.930	24.966	548.579	548.936	0.268	5.502	24.966	***5.618***
2021-06-27 1:00	200700	8.091	-96.021	24.866	546.978	548.384	0.268	4.705	24.866	***5.604***
2021-06-27 1:15	201600	8.086	-95.711	24.768	545.473	547.897	0.268	3.979	24.768	***5.570***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-27 1:30	202500	8.092	-96.045	24.676	545.706	549.107	0.268	4.710	24.676	***5.523***
2021-06-27 1:45	203400	8.090	-95.851	24.583	543.517	547.884	0.268	5.982	24.583	***5.563***
2021-06-27 2:00	204300	8.091	-95.899	24.495	542.435	547.713	0.268	4.118	24.495	***5.564***
2021-06-27 2:15	205200	8.090	-95.830	24.395	541.346	547.675	0.268	5.814	24.395	***5.551***
2021-06-27 2:30	206100	8.081	-95.270	24.302	540.399	547.695	0.268	4.285	24.302	***5.540***
2021-06-27 2:45	207000	8.084	-95.417	24.213	539.291	547.516	0.268	5.045	24.213	***5.551***
2021-06-27 3:00	207900	8.081	-95.208	24.121	538.237	547.432	0.267	4.053	24.121	***5.532***
2021-06-27 3:15	208800	8.079	-95.072	24.026	537.083	547.262	0.267	4.884	24.026	***5.516***
2021-06-27 3:30	209700	8.073	-94.655	23.934	536.026	547.169	0.267	4.815	23.934	***5.530***
2021-06-27 3:45	210600	8.073	-94.635	23.850	535.111	547.126	0.267	4.833	23.850	***5.519***
2021-06-27 4:00	211500	8.078	-94.905	23.755	533.994	546.997	0.267	4.999	23.755	***5.494***
2021-06-27 4:15	212400	8.073	-94.562	23.667	533.150	547.082	0.267	4.050	23.667	***5.422***
2021-06-27 4:30	213300	8.067	-94.221	23.567	532.542	547.533	0.268	3.686	23.567	***5.426***
2021-06-27 4:45	214200	8.075	-94.657	23.480	531.384	547.268	0.267	3.856	23.480	***5.352***
2021-06-27 5:00	215100	8.041	-92.633	23.389	533.522	550.456	0.269	3.656	23.389	***5.411***
2021-06-27 5:15	216000	8.065	-93.997	23.309	529.869	547.560	0.268	3.020	23.309	***5.391***
2021-06-27 5:30	216900	8.063	-93.875	23.221	528.006	546.581	0.267	3.636	23.221	***5.481***
2021-06-27 5:45	217800	8.058	-93.534	23.124	524.264	543.746	0.266	3.579	23.124	***5.441***
2021-06-27 6:00	218700	8.062	-93.758	23.049	520.568	540.715	0.264	3.277	23.049	***5.435***
2021-06-27 6:15	219600	8.065	-93.906	22.972	520.195	541.152	0.264	3.301	22.972	***5.478***
2021-06-27 6:30	220500	8.057	-93.396	22.886	512.034	533.578	0.261	3.646	22.886	***5.401***
2021-06-27 6:45	221400	8.053	-93.153	22.833	523.850	546.466	0.267	3.139	22.833	***5.432***
2021-06-27 7:00	222300	8.052	-93.055	22.778	522.734	545.901	0.267	3.042	22.778	***5.445***
2021-06-27 7:15	223200	8.058	-93.424	22.725	522.070	545.782	0.267	3.037	22.725	***5.289***
2021-06-27 7:30	224100	8.048	-92.797	22.667	520.938	545.231	0.266	2.703	22.667	***5.253***
2021-06-27 7:45	225000	8.062	-93.594	22.625	520.568	545.303	0.266	2.613	22.625	***5.433***
2021-06-27 8:00	225900	8.061	-93.534	22.577	520.418	545.677	0.267	2.952	22.577	***5.372***
2021-06-27 8:15	226800	8.047	-92.702	22.559	520.308	545.752	0.267	3.150	22.559	***5.225***
2021-06-27 8:30	227700	8.055	-93.167	22.534	519.852	545.548	0.267	2.577	22.534	***5.377***
2021-06-27 8:45	228600	8.058	-93.365	22.523	518.812	544.576	0.266	3.538	22.523	***5.485***
2021-06-27 9:00	229500	8.067	-93.877	22.501	513.480	539.219	0.263	3.299	22.501	***5.524***
2021-06-27 9:15	230400	8.064	-93.658	22.486	518.604	544.766	0.266	3.338	22.486	***5.532***
2021-06-27 9:30	231300	8.060	-93.431	22.493	518.265	544.328	0.266	2.878	22.493	***5.625***
2021-06-27 9:45	232200	8.082	-94.750	22.553	518.807	544.248	0.266	3.354	22.553	***5.730***
2021-06-27 10:00	233100	8.069	-94.023	22.643	519.860	544.372	0.266	3.175	22.643	***5.734***
2021-06-27 10:15	234000	8.082	-94.843	22.765	520.819	544.042	0.266	3.503	22.765	***5.806***
2021-06-27 10:30	234900	8.073	-94.314	22.875	519.982	541.982	0.265	2.581	22.875	***5.826***
2021-06-27 10:45	235800	8.082	-94.919	22.988	523.376	544.296	0.266	2.632	22.988	***5.623***
2021-06-27 11:00	236700	8.084	-95.034	23.104	524.660	544.373	0.266	2.861	23.104	***5.920***
2021-06-27 11:15	237600	8.086	-95.201	23.273	526.750	544.718	0.266	2.545	23.273	***5.979***
2021-06-27 11:30	238500	8.032	-92.072	23.429	528.064	544.402	0.266	2.340	23.429	***6.005***
2021-06-27 11:45	239400	8.086	-95.301	23.527	529.700	545.039	0.266	3.879	23.527	***6.009***
2021-06-27 12:00	240300	8.081	-95.074	23.641	541.747	556.182	0.272	178.057	23.641	***6.054***
2021-06-27 12:15	241200	8.097	-96.045	23.731	532.796	546.027	0.267	2.330	23.731	***6.050***
2021-06-27 12:30	242100	8.103	-96.443	23.890	534.734	546.318	0.267	2.111	23.890	***6.164***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-27 12:45	243000	8.110	-96.886	24.073	536.809	546.482	0.267	2.324	24.073	***6.205***
2021-06-27 13:00	243900	8.115	-97.239	24.247	539.065	546.927	0.267	2.050	24.247	***6.243***
2021-06-27 13:15	244800	8.118	-97.437	24.307	539.604	546.839	0.267	2.291	24.307	***6.303***
2021-06-27 13:30	245700	8.117	-97.454	24.473	541.428	546.929	0.267	2.147	24.473	***6.330***
2021-06-27 13:45	246600	8.116	-97.444	24.660	543.805	547.359	0.267	3.485	24.660	***6.292***
2021-06-27 14:00	247500	8.114	-97.435	24.931	546.398	547.124	0.267	2.391	24.931	***6.399***
2021-06-27 14:15	248400	8.116	-97.613	25.165	549.312	547.590	0.268	1.764	25.165	***6.398***
2021-06-27 14:30	249300	8.120	-97.885	25.342	551.727	548.141	0.268	2.616	25.342	***6.444***
2021-06-27 14:45	250200	8.122	-98.026	25.444	553.149	548.497	0.268	2.039	25.444	***6.446***
2021-06-27 15:00	251100	8.122	-98.116	25.552	556.679	550.869	0.269	2.295	25.552	***6.480***
2021-06-27 15:15	252000	8.120	-97.978	25.659	555.755	548.849	0.268	2.629	25.659	6.501
2021-06-27 15:30	252900	8.121	-98.128	25.838	557.595	548.807	0.268	2.627	25.838	***6.491***
2021-06-27 15:45	253800	8.129	-98.693	26.068	560.254	549.051	0.268	1.994	26.068	***6.467***
2021-06-27 16:00	254700	8.132	-98.853	26.161	554.169	542.145	0.265	1.771	26.161	6.504
2021-06-27 16:15	255600	8.111	-97.609	26.138	561.281	549.340	0.268	1.995	26.138	6.519
2021-06-27 16:30	256500	8.122	-98.255	26.120	561.412	549.653	0.268	2.469	26.120	6.548
2021-06-27 16:45	257400	8.129	-98.684	26.103	561.149	549.568	0.268	2.164	26.103	6.520
2021-06-27 17:00	258300	8.105	-97.291	26.118	561.418	549.675	0.269	2.738	26.118	***6.440***
2021-06-27 17:15	259200	8.136	-99.113	26.123	557.752	546.045	0.267	2.139	26.123	6.536
2021-06-27 17:30	260100	8.108	-97.463	26.187	561.997	549.541	0.268	2.076	26.187	6.544
2021-06-27 17:45	261000	8.134	-99.006	26.199	561.662	549.082	0.268	1.992	26.199	6.569
2021-06-27 18:00	261900	8.140	-99.311	26.111	560.192	548.555	0.268	1.804	26.111	6.636
2021-06-27 18:15	262800	8.139	-99.256	26.039	558.995	548.121	0.268	1.725	26.039	6.667
2021-06-27 18:30	263700	8.141	-99.394	26.035	558.746	547.910	0.268	1.862	26.035	6.660
2021-06-27 18:45	264600	8.135	-99.018	26.031	558.727	547.940	0.268	2.174	26.031	6.585
2021-06-27 19:00	265500	8.139	-99.244	25.971	557.837	547.679	0.268	2.143	25.971	6.517
2021-06-27 19:15	266400	8.088	-96.214	25.958	557.828	547.804	0.268	1.732	25.958	6.642
2021-06-27 19:30	267300	8.132	-98.822	25.950	558.186	548.241	0.268	1.885	25.950	***6.329***
2021-06-27 19:45	268200	8.129	-98.608	25.897	558.338	548.938	0.268	1.370	25.897	6.567
2021-06-27 20:00	269100	8.106	-97.265	25.874	552.343	543.276	0.265	1.677	25.874	***6.459***
2021-06-27 20:15	270000	8.093	-96.512	25.984	560.617	550.275	0.269	1.789	25.984	***6.229***
2021-06-27 20:30	270900	8.112	-97.692	26.118	561.712	549.965	0.269	1.485	26.118	***6.157***
2021-06-27 20:45	271800	8.086	-96.190	26.201	563.260	550.630	0.269	1.867	26.201	***5.844***
2021-06-27 21:00	272700	8.092	-96.560	26.275	564.118	550.709	0.269	2.336	26.275	***5.824***
2021-06-27 21:15	273600	8.109	-97.561	26.323	564.693	550.777	0.269	1.640	26.323	***5.853***
2021-06-27 21:30	274500	8.087	-96.266	26.338	565.109	551.027	0.269	1.477	26.338	***5.903***
2021-06-27 21:45	275400	8.095	-96.755	26.342	565.221	551.094	0.269	1.688	26.342	***5.411***
2021-06-27 22:00	276300	8.104	-97.294	26.330	565.607	551.599	0.269	2.258	26.330	***5.671***
2021-06-27 22:15	277200	8.105	-97.308	26.313	565.975	552.131	0.270	1.872	26.313	***5.701***
2021-06-27 22:30	278100	8.104	-97.253	26.275	566.159	552.703	0.270	2.171	26.275	***5.742***
2021-06-27 22:45	279000	8.102	-97.146	26.217	565.387	552.539	0.270	2.297	26.217	***5.571***
2021-06-27 23:00	279900	8.098	-96.858	26.153	564.772	552.601	0.270	1.999	26.153	***5.628***
2021-06-27 23:15	280800	8.102	-97.084	26.095	564.349	552.783	0.270	1.871	26.095	***5.594***
2021-06-27 23:30	281700	8.096	-96.717	26.039	563.747	552.781	0.270	2.417	26.039	***5.537***
2021-06-27 23:45	282600	8.099	-96.891	25.976	563.058	552.755	0.270	4.103	25.976	***5.567***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-28 0:00	283500	8.091	-96.362	25.903	562.158	552.630	0.270	2.583	25.903	***5.442***
2021-06-28 0:15	284400	8.091	-96.321	25.810	561.195	552.645	0.270	3.544	25.810	***5.454***
2021-06-28 0:30	285300	8.083	-95.830	25.730	560.494	552.790	0.270	3.832	25.730	***5.391***
2021-06-28 0:45	286200	8.093	-96.390	25.642	559.225	552.451	0.270	3.128	25.642	***5.444***
2021-06-28 1:00	287100	8.090	-96.169	25.544	558.053	552.317	0.270	2.897	25.544	***5.368***
2021-06-28 1:15	288000	8.091	-96.226	25.464	557.130	552.237	0.270	2.690	25.464	***5.413***
2021-06-28 1:30	288900	8.078	-95.415	25.393	556.413	552.265	0.270	2.635	25.393	***5.158***
2021-06-28 1:45	289800	8.088	-95.999	25.295	555.242	552.131	0.270	4.376	25.295	***5.136***
2021-06-28 2:00	290700	8.088	-95.954	25.203	554.266	552.121	0.270	4.507	25.203	***5.236***
2021-06-28 2:15	291600	8.086	-95.825	25.124	553.173	551.871	0.270	3.514	25.124	***5.271***
2021-06-28 2:30	292500	8.088	-95.904	25.052	552.579	552.030	0.270	2.267	25.052	***5.269***
2021-06-28 2:45	293400	8.091	-96.076	24.969	551.420	551.744	0.270	3.294	24.969	***5.252***
2021-06-28 3:00	294300	8.089	-95.940	24.883	551.179	552.408	0.270	4.474	24.883	***5.299***
2021-06-28 3:15	295200	8.090	-95.952	24.794	550.267	552.436	0.270	2.765	24.794	***5.370***
2021-06-28 3:30	296100	8.083	-95.520	24.724	549.793	552.705	0.270	2.961	24.724	***5.249***
2021-06-28 3:45	297000	8.082	-95.427	24.647	542.577	546.263	0.267	2.490	24.647	***5.265***
2021-06-28 4:00	297900	8.069	-94.655	24.564	547.639	552.237	0.270	3.176	24.564	***5.185***
2021-06-28 4:15	298800	8.086	-95.611	24.471	546.822	552.407	0.270	3.624	24.471	***5.229***
2021-06-28 4:30	299700	8.081	-95.270	24.403	546.115	552.418	0.270	4.833	24.403	***5.269***
2021-06-28 4:45	300600	8.078	-95.105	24.323	545.332	552.480	0.270	3.183	24.323	***5.281***
2021-06-28 5:00	301500	8.066	-94.371	24.257	544.275	552.109	0.270	3.763	24.257	***5.174***
2021-06-28 5:15	302400	8.072	-94.705	24.188	543.895	552.468	0.270	3.301	24.188	***5.268***
2021-06-28 5:30	303300	8.077	-94.993	24.124	543.645	552.896	0.270	2.783	24.124	***5.298***
2021-06-28 5:45	304200	8.069	-94.502	24.064	542.731	552.607	0.270	3.034	24.064	***5.249***
2021-06-28 6:00	305100	8.070	-94.502	23.998	541.941	552.520	0.270	2.896	23.998	***5.187***
2021-06-28 6:15	306000	8.065	-94.187	23.946	541.149	552.262	0.270	2.018	23.946	***5.045***
2021-06-28 6:30	306900	8.062	-94.016	23.890	540.561	552.270	0.270	2.380	23.890	***4.900***
2021-06-28 6:45	307800	8.067	-94.266	23.848	533.189	545.190	0.266	2.474	23.848	***5.078***
2021-06-28 7:00	308700	8.065	-94.130	23.808	539.089	551.652	0.270	2.017	23.808	***4.903***
2021-06-28 7:15	309600	8.065	-94.163	23.757	538.711	551.815	0.270	2.979	23.757	***5.082***
2021-06-28 7:30	310500	8.069	-94.361	23.712	538.945	552.534	0.270	2.008	23.712	***5.275***
2021-06-28 7:45	311400	8.067	-94.230	23.682	538.861	552.781	0.270	2.297	23.682	***5.278***
2021-06-28 8:00	312300	8.069	-94.349	23.650	539.178	553.452	0.271	2.473	23.650	***5.234***
2021-06-28 8:15	313200	8.068	-94.285	23.639	538.968	553.347	0.270	2.397	23.639	***5.241***
2021-06-28 8:30	314100	8.061	-93.849	23.639	538.941	553.322	0.270	2.427	23.639	***5.239***
2021-06-28 8:45	315000	8.059	-93.729	23.634	538.285	552.705	0.270	2.098	23.634	***5.169***
2021-06-28 9:00	315900	8.067	-94.194	23.630	535.580	549.972	0.269	1.790	23.630	***5.194***
2021-06-28 9:15	316800	8.060	-93.834	23.641	538.871	553.228	0.270	2.432	23.641	***5.303***
2021-06-28 9:30	317700	8.069	-94.311	23.641	537.579	551.903	0.270	2.319	23.641	***5.363***
2021-06-28 9:45	318600	8.059	-93.787	23.687	538.575	552.434	0.270	2.359	23.687	***5.401***
2021-06-28 10:00	319500	8.072	-94.569	23.767	539.990	553.012	0.270	2.432	23.767	***5.454***
2021-06-28 10:15	320400	8.070	-94.457	23.839	540.091	552.341	0.270	2.796	23.839	***5.461***
2021-06-28 10:30	321300	8.042	-92.857	23.968	541.829	552.730	0.270	1.576	23.968	***5.335***
2021-06-28 10:45	322200	8.051	-93.412	24.106	541.901	551.320	0.269	2.191	24.106	***5.330***
2021-06-28 11:00	323100	8.061	-94.068	24.233	542.771	550.842	0.269	2.063	24.233	***5.334***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-28 11:15	324000	8.069	-94.590	24.437	546.232	552.174	0.270	1.897	24.437	***5.483***
2021-06-28 11:30	324900	8.077	-95.143	24.718	549.806	552.783	0.270	1.589	24.718	***5.736***
2021-06-28 11:45	325800	8.083	-95.577	24.976	553.232	553.487	0.270	1.756	24.976	***5.813***
2021-06-28 12:00	326700	8.082	-95.630	25.244	556.316	553.737	0.271	1.595	25.244	***5.803***
2021-06-28 12:15	327600	8.057	-94.202	25.393	557.833	553.679	0.271	1.742	25.393	***5.850***
2021-06-28 12:30	328500	8.086	-95.978	25.704	562.127	554.667	0.271	2.614	25.704	***5.770***
2021-06-28 12:45	329400	8.081	-95.789	25.947	565.311	555.269	0.271	2.590	25.947	***5.686***
2021-06-28 13:00	330300	8.108	-97.387	26.034	566.365	555.395	0.271	2.079	26.034	***5.890***
2021-06-28 13:15	331200	8.116	-97.940	26.202	568.068	555.322	0.271	2.075	26.202	***5.894***
2021-06-28 13:30	332100	8.119	-98.221	26.467	571.210	555.643	0.271	2.078	26.467	***5.895***
2021-06-28 13:45	333000	8.106	-97.516	26.643	574.060	556.591	0.272	1.809	26.643	***5.953***
2021-06-28 14:00	333900	8.092	-96.729	26.853	576.557	556.852	0.272	2.762	26.853	***6.076***
2021-06-28 14:15	334800	8.090	-96.657	27.064	579.410	557.431	0.272	1.764	27.064	***6.044***
2021-06-28 14:30	335700	8.114	-98.162	27.314	582.768	558.099	0.273	1.938	27.314	***6.034***
2021-06-28 14:45	336600	8.067	-95.370	27.315	584.259	559.521	0.273	1.635	27.315	***5.977***
2021-06-28 15:00	337500	8.110	-98.038	27.581	586.775	559.212	0.273	2.735	27.581	***6.139***
2021-06-28 15:15	338400	8.113	-98.279	27.697	588.870	560.026	0.274	2.093	27.697	***6.124***
2021-06-28 15:30	339300	8.080	-96.343	27.840	581.862	551.925	0.269	2.460	27.840	***6.192***
2021-06-28 15:45	340200	8.115	-98.429	27.886	591.671	560.763	0.274	2.016	27.886	***5.939***
2021-06-28 16:00	341100	8.118	-98.612	27.842	583.289	553.256	0.270	1.770	27.842	***6.069***
2021-06-28 16:15	342000	8.099	-97.516	27.921	582.442	551.659	0.269	1.938	27.921	***6.135***
2021-06-28 16:30	342900	8.088	-96.877	28.023	599.946	567.192	0.277	2.253	28.023	***5.935***
2021-06-28 16:45	343800	8.106	-97.997	28.153	595.668	561.830	0.274	1.735	28.153	***6.178***
2021-06-28 17:00	344700	8.114	-98.491	28.283	597.975	562.695	0.275	3.263	28.283	***6.148***
2021-06-28 17:15	345600	8.081	-96.526	28.355	599.573	563.465	0.275	1.859	28.355	***6.101***
2021-06-28 17:30	346500	8.099	-97.618	28.390	600.247	563.750	0.275	1.919	28.390	***6.124***
2021-06-28 17:45	347400	8.101	-97.756	28.363	600.712	564.454	0.276	2.319	28.363	***6.063***
2021-06-28 18:00	348300	8.098	-97.568	28.372	599.943	563.637	0.275	1.826	28.372	***5.895***
2021-06-28 18:15	349200	8.086	-96.860	28.378	598.470	562.199	0.275	6.242	28.378	***5.672***
2021-06-28 18:30	350100	8.084	-96.757	28.353	599.477	563.397	0.275	2.800	28.353	***6.024***
2021-06-28 18:45	351000	8.118	-98.782	28.318	598.770	563.087	0.275	2.087	28.318	***5.774***
2021-06-28 19:00	351900	8.125	-99.125	28.247	597.354	562.471	0.275	1.879	28.247	***6.069***
2021-06-28 19:15	352800	8.125	-99.120	28.220	597.842	563.206	0.275	1.713	28.220	***6.083***
2021-06-28 19:30	353700	8.099	-97.601	28.214	597.133	562.592	0.275	2.048	28.214	***6.019***
2021-06-28 19:45	354600	8.120	-98.815	28.193	597.173	562.846	0.275	1.777	28.193	***5.713***
2021-06-28 20:00	355500	8.111	-98.243	28.113	597.375	563.854	0.275	5.511	28.113	***5.750***
2021-06-28 20:15	356400	8.109	-98.104	28.028	595.559	562.997	0.275	2.120	28.028	***5.598***
2021-06-28 20:30	357300	8.102	-97.690	27.999	595.772	563.496	0.275	2.081	27.999	***5.641***
2021-06-28 20:45	358200	8.111	-98.250	27.970	595.457	563.491	0.275	1.818	27.970	***5.523***
2021-06-28 21:00	359100	8.119	-98.708	27.921	594.429	563.013	0.275	2.337	27.921	***5.667***
2021-06-28 21:15	360000	8.106	-97.899	27.874	593.675	562.783	0.275	6.693	27.874	***5.710***
2021-06-28 21:30	360900	8.114	-98.369	27.821	593.471	563.129	0.275	1.887	27.821	***5.577***
2021-06-28 21:45	361800	8.114	-98.312	27.753	592.893	563.279	0.275	2.278	27.753	***5.506***
2021-06-28 22:00	362700	8.108	-97.969	27.684	592.475	563.584	0.275	2.392	27.684	***5.518***
2021-06-28 22:15	363600	8.111	-98.104	27.619	591.608	563.423	0.275	2.513	27.619	***5.454***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-28 22:30	364500	8.113	-98.183	27.547	590.827	563.421	0.275	2.204	27.547	***5.477***
2021-06-28 22:45	365400	8.112	-98.093	27.465	589.896	563.376	0.275	1.879	27.465	***5.453***
2021-06-28 23:00	366300	8.112	-98.102	27.404	589.276	563.405	0.275	2.787	27.404	***5.368***
2021-06-28 23:15	367200	8.112	-98.083	27.337	588.565	563.419	0.275	2.439	27.337	***5.325***
2021-06-28 23:30	368100	8.106	-97.680	27.270	587.846	563.413	0.275	5.578	27.270	***5.288***
2021-06-28 23:45	369000	8.108	-97.797	27.203	587.133	563.430	0.275	3.305	27.203	***5.288***
2021-06-29 0:00	369900	8.107	-97.713	27.131	586.539	563.603	0.275	3.181	27.131	***5.227***
2021-06-29 0:15	370800	8.103	-97.475	27.057	586.037	563.885	0.276	2.647	27.057	***5.191***
2021-06-29 0:30	371700	8.105	-97.528	26.993	585.489	564.015	0.276	3.794	26.993	***5.159***
2021-06-29 0:45	372600	8.105	-97.528	26.914	584.271	563.670	0.275	4.389	26.914	***5.191***
2021-06-29 1:00	373500	8.104	-97.458	26.823	583.752	564.108	0.276	3.744	26.823	***5.156***
2021-06-29 1:15	374400	8.106	-97.516	26.742	582.376	563.619	0.275	5.751	26.742	***5.141***
2021-06-29 1:30	375300	8.106	-97.516	26.658	581.473	563.630	0.275	4.241	26.658	***5.130***
2021-06-29 1:45	376200	8.099	-97.063	26.580	581.085	564.064	0.276	2.561	26.580	***5.077***
2021-06-29 2:00	377100	8.096	-96.858	26.504	580.410	564.198	0.276	3.579	26.504	***5.067***
2021-06-29 2:15	378000	8.093	-96.643	26.425	579.416	564.062	0.276	2.666	26.425	***5.051***
2021-06-29 2:30	378900	8.061	-94.745	26.359	578.276	563.640	0.276	2.758	26.359	***5.083***
2021-06-29 2:45	379800	8.103	-97.225	26.284	577.576	563.749	0.276	3.127	26.284	***5.022***
2021-06-29 3:00	380700	8.103	-97.158	26.206	576.612	563.627	0.276	4.302	26.206	***5.007***
2021-06-29 3:15	381600	8.096	-96.741	26.126	576.026	563.896	0.276	3.411	26.126	***5.047***
2021-06-29 3:30	382500	8.098	-96.855	26.050	575.057	563.749	0.276	6.826	26.050	***4.962***
2021-06-29 3:45	383400	8.098	-96.810	25.974	573.844	563.368	0.275	6.262	25.974	***5.063***
2021-06-29 4:00	384300	8.096	-96.681	25.902	572.127	562.438	0.275	3.079	25.902	***4.992***
2021-06-29 4:15	385200	8.092	-96.424	25.823	571.854	563.005	0.275	4.849	25.823	***4.954***
2021-06-29 4:30	386100	8.092	-96.381	25.745	571.479	563.462	0.275	4.314	25.745	***4.978***
2021-06-29 4:45	387000	8.093	-96.378	25.668	570.150	562.965	0.275	4.018	25.668	***4.971***
2021-06-29 5:00	387900	8.094	-96.419	25.575	569.449	563.265	0.275	4.806	25.575	***4.798***
2021-06-29 5:15	388800	8.094	-96.409	25.495	565.978	560.674	0.274	3.018	25.495	***4.959***
2021-06-29 5:30	389700	8.088	-96.030	25.412	567.347	562.918	0.275	3.507	25.412	***4.896***
2021-06-29 5:45	390600	8.086	-95.875	25.351	566.365	562.589	0.275	2.733	25.351	***4.900***
2021-06-29 6:00	391500	8.049	-93.706	25.298	565.591	562.388	0.275	2.143	25.298	***4.941***
2021-06-29 6:15	392400	8.084	-95.735	25.232	564.799	562.312	0.275	18.166	25.232	***4.838***
2021-06-29 6:30	393300	8.074	-95.148	25.164	561.165	559.413	0.273	2.544	25.164	***4.914***
2021-06-29 6:45	394200	8.076	-95.208	25.119	560.936	559.669	0.274	2.564	25.119	***4.974***
2021-06-29 7:00	395100	8.082	-95.539	25.082	563.239	562.354	0.275	2.473	25.082	***4.833***
2021-06-29 7:15	396000	8.073	-94.998	25.041	562.790	562.352	0.275	2.314	25.041	***4.698***
2021-06-29 7:30	396900	8.073	-95.017	24.989	561.049	561.169	0.274	2.406	24.989	***4.680***
2021-06-29 7:45	397800	8.082	-95.530	24.962	561.917	562.325	0.275	2.583	24.962	***4.842***
2021-06-29 8:00	398700	8.076	-95.160	24.931	561.795	562.539	0.275	6.414	24.931	***4.959***
2021-06-29 8:15	399600	8.080	-95.422	24.921	561.603	562.454	0.275	2.862	24.921	***4.917***
2021-06-29 8:30	400500	8.079	-95.313	24.917	561.659	562.552	0.275	2.266	24.917	***4.941***
2021-06-29 8:45	401400	8.037	-92.828	24.919	567.513	568.397	0.278	2.494	24.919	***4.983***
2021-06-29 9:00	402300	8.086	-95.763	24.921	561.493	562.343	0.275	1.937	24.921	***4.866***
2021-06-29 9:15	403200	8.070	-94.776	24.921	561.606	562.455	0.275	2.134	24.921	***4.995***
2021-06-29 9:30	404100	8.089	-95.956	24.954	559.804	560.299	0.274	2.573	24.954	***4.912***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-29 9:45	405000	8.092	-96.097	24.978	561.561	561.795	0.275	2.804	24.978	***5.053***
2021-06-29 10:00	405900	8.115	-97.528	25.081	562.110	561.245	0.274	3.103	25.081	***5.225***
2021-06-29 10:15	406800	8.102	-96.786	25.164	563.645	561.885	0.275	4.919	25.164	***5.335***
2021-06-29 10:30	407700	8.089	-96.064	25.262	564.819	562.003	0.275	3.593	25.262	***5.331***
2021-06-29 10:45	408600	8.092	-96.271	25.369	565.887	561.925	0.275	2.216	25.369	***5.372***
2021-06-29 11:00	409500	8.104	-96.991	25.470	567.062	562.013	0.275	1.941	25.470	***5.382***
2021-06-29 11:15	410400	8.079	-95.544	25.582	568.351	562.101	0.275	2.241	25.582	***5.410***
2021-06-29 11:30	411300	8.099	-96.769	25.722	568.211	560.487	0.274	2.869	25.722	***5.355***
2021-06-29 11:45	412200	8.117	-97.914	25.900	571.738	562.080	0.275	2.099	25.900	***5.349***
2021-06-29 12:00	413100	8.113	-97.725	26.106	573.872	561.999	0.275	1.834	26.106	***5.490***
2021-06-29 12:15	414000	8.098	-96.936	26.356	577.091	562.527	0.275	2.215	26.356	***5.533***
2021-06-29 12:30	414900	8.106	-97.516	26.717	581.571	563.108	0.275	3.111	26.717	***5.674***
2021-06-29 12:45	415800	8.110	-97.845	27.034	585.901	563.986	0.276	2.956	27.034	***5.742***
2021-06-29 13:00	416700	8.110	-97.904	27.239	589.145	564.982	0.276	2.658	27.239	***5.762***
2021-06-29 13:15	417600	8.125	-98.844	27.359	590.779	565.310	0.276	1.941	27.359	***5.798***
2021-06-29 13:30	418500	8.127	-98.999	27.456	591.958	565.433	0.276	1.903	27.456	***5.835***
2021-06-29 13:45	419400	8.111	-98.112	27.674	594.676	565.785	0.276	1.725	27.674	***5.806***
2021-06-29 14:00	420300	8.128	-99.261	28.036	598.723	565.905	0.277	1.908	28.036	***5.925***
2021-06-29 14:15	421200	8.143	-100.281	28.476	604.929	567.269	0.277	2.175	28.476	***5.929***
2021-06-29 14:30	422100	8.148	-100.577	28.452	605.096	567.665	0.277	2.068	28.452	***5.946***
2021-06-29 14:45	423000	8.123	-99.118	28.589	604.282	565.515	0.276	2.041	28.589	***5.941***
2021-06-29 15:00	423900	8.135	-99.964	28.844	609.458	567.772	0.277	1.951	28.844	***5.969***
2021-06-29 15:15	424800	8.156	-101.223	28.914	611.155	568.648	0.278	1.949	28.914	***5.913***
2021-06-29 15:30	425700	8.149	-100.803	28.956	608.137	565.411	0.276	1.800	28.956	***5.968***
2021-06-29 15:45	426600	8.132	-99.878	29.091	613.950	569.449	0.278	2.128	29.091	***5.839***
2021-06-29 16:00	427500	8.143	-100.605	29.393	617.610	569.801	0.278	3.974	29.393	***5.984***
2021-06-29 16:15	428400	8.150	-101.111	29.649	621.202	570.542	0.279	2.156	29.649	***5.911***
2021-06-29 16:30	429300	8.157	-101.523	29.676	621.925	570.931	0.279	1.876	29.676	***5.881***
2021-06-29 16:45	430200	8.141	-100.560	29.642	621.235	570.641	0.279	2.040	29.642	***5.966***
2021-06-29 17:00	431100	8.134	-100.145	29.702	623.389	572.019	0.279	2.335	29.702	***5.933***
2021-06-29 17:15	432000	8.086	-97.296	29.817	623.373	570.847	0.279	1.962	29.817	***5.902***
2021-06-29 17:30	432900	8.124	-99.626	29.880	624.088	570.874	0.279	1.942	29.880	***5.902***
2021-06-29 17:45	433800	8.122	-99.492	29.860	624.261	571.236	0.279	2.015	29.860	***5.786***
2021-06-29 18:00	434700	8.114	-99.051	30.007	638.891	583.126	0.285	2.108	30.007	***5.373***
2021-06-29 18:15	435600	8.111	-98.917	30.081	642.487	585.650	0.286	2.046	30.081	***5.766***
2021-06-29 18:30	436500	8.128	-99.962	30.169	629.250	572.706	0.280	1.951	30.169	***5.503***
2021-06-29 18:45	437400	8.142	-100.801	30.154	630.608	574.097	0.280	2.051	30.154	***5.807***
2021-06-29 19:00	438300	8.094	-97.907	30.160	630.417	573.865	0.280	2.023	30.160	***5.817***
2021-06-29 19:15	439200	8.135	-100.400	30.131	630.877	574.571	0.281	1.824	30.131	***5.658***
2021-06-29 19:30	440100	8.105	-98.588	30.123	630.554	574.356	0.281	1.851	30.123	***5.780***
2021-06-29 19:45	441000	8.128	-99.959	30.079	629.247	573.601	0.280	1.830	30.079	***5.637***
2021-06-29 20:00	441900	8.122	-99.568	30.059	630.503	574.952	0.281	1.977	30.059	***5.552***
2021-06-29 20:15	442800	8.142	-100.772	30.021	630.137	574.990	0.281	2.046	30.021	***5.601***
2021-06-29 20:30	443700	8.133	-100.205	29.977	630.089	575.395	0.281	2.066	29.977	***5.456***
2021-06-29 20:45	444600	8.123	-99.571	29.921	629.589	575.498	0.281	3.772	29.921	***5.447***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-29 21:00	445500	8.126	-99.719	29.828	628.890	575.796	0.281	5.300	29.828	***5.344***
2021-06-29 21:15	446400	8.128	-99.826	29.738	627.437	575.368	0.281	5.599	29.738	***5.267***
2021-06-29 21:30	447300	8.134	-100.176	29.641	626.816	575.778	0.281	2.047	29.641	***5.341***
2021-06-29 21:45	448200	8.124	-99.540	29.550	625.789	575.750	0.281	2.201	29.550	***5.271***
2021-06-29 22:00	449100	8.133	-100.048	29.481	626.284	576.905	0.282	2.481	29.481	***5.228***
2021-06-29 22:15	450000	8.129	-99.761	29.405	624.536	576.067	0.281	2.982	29.405	***5.274***
2021-06-29 22:30	450900	8.125	-99.483	29.328	624.076	576.423	0.282	3.624	29.328	***5.300***
2021-06-29 22:45	451800	8.133	-99.938	29.234	622.468	575.894	0.281	2.100	29.234	***5.143***
2021-06-29 23:00	452700	8.119	-99.065	29.143	622.031	576.421	0.282	2.279	29.143	***5.103***
2021-06-29 23:15	453600	8.126	-99.509	29.076	621.755	576.842	0.282	2.670	29.076	***5.052***
2021-06-29 23:30	454500	8.120	-99.075	28.990	621.225	577.238	0.282	4.489	28.990	***5.009***
2021-06-29 23:45	455400	8.122	-99.163	28.894	620.098	577.171	0.282	3.435	28.894	***5.002***
2021-06-30 0:00	456300	8.121	-99.106	28.801	619.580	577.646	0.282	2.302	28.801	***4.913***
2021-06-30 0:15	457200	8.124	-99.230	28.702	618.732	577.869	0.282	4.154	28.702	***4.896***
2021-06-30 0:30	458100	8.121	-99.058	28.606	617.614	577.812	0.282	2.396	28.606	***4.798***
2021-06-30 0:45	459000	8.124	-99.180	28.506	616.654	577.946	0.283	3.478	28.506	***4.803***
2021-06-30 1:00	459900	8.118	-98.794	28.397	615.889	578.363	0.283	5.142	28.397	***4.594***
2021-06-30 1:15	460800	8.117	-98.717	28.297	614.532	578.128	0.283	3.418	28.297	***4.744***
2021-06-30 1:30	461700	8.118	-98.696	28.193	613.386	578.133	0.283	4.455	28.193	***4.735***
2021-06-30 1:45	462600	8.094	-97.229	28.081	612.074	578.059	0.283	3.590	28.081	***4.610***
2021-06-30 2:00	463500	8.093	-97.179	27.976	604.453	571.938	0.280	3.089	27.976	***4.532***
2021-06-30 2:15	464400	8.099	-97.506	27.874	607.082	575.490	0.281	3.146	27.874	***4.433***
2021-06-30 2:30	465300	8.036	-93.663	27.788	608.997	578.206	0.283	3.439	27.788	***4.536***
2021-06-30 2:45	466200	8.111	-98.116	27.684	607.258	577.647	0.282	4.115	27.684	***4.461***
2021-06-30 3:00	467100	8.108	-97.938	27.588	603.863	575.418	0.281	42.919	27.588	***4.295***
2021-06-30 3:15	468000	8.097	-97.253	27.499	604.612	577.064	0.282	7.904	27.499	***4.424***
2021-06-30 3:30	468900	8.111	-98.009	27.388	603.314	576.999	0.282	3.403	27.388	***4.662***
2021-06-30 3:45	469800	8.106	-97.735	27.300	601.861	576.532	0.282	3.840	27.300	***4.670***
2021-06-30 4:00	470700	8.109	-97.852	27.203	600.652	576.398	0.282	2.813	27.203	***4.627***
2021-06-30 4:15	471600	8.101	-97.353	27.118	599.026	575.738	0.282	5.178	27.118	***4.628***
2021-06-30 4:30	472500	8.104	-97.499	27.025	598.698	576.404	0.282	4.332	27.025	***4.620***
2021-06-30 4:45	473400	8.103	-97.435	26.943	597.722	576.334	0.282	2.921	26.943	***4.403***
2021-06-30 5:00	474300	8.107	-97.628	26.850	596.567	576.203	0.282	7.689	26.850	***4.652***
2021-06-30 5:15	475200	8.092	-96.679	26.736	589.112	570.203	0.279	5.985	26.736	***4.635***
2021-06-30 5:30	476100	8.100	-97.146	26.640	588.243	570.372	0.279	4.783	26.640	***4.669***
2021-06-30 5:45	477000	8.107	-97.532	26.571	592.518	575.256	0.281	4.909	26.571	***4.522***
2021-06-30 6:00	477900	8.102	-97.229	26.492	595.013	578.524	0.283	4.922	26.492	***4.695***
2021-06-30 6:15	478800	8.105	-97.363	26.435	594.592	578.732	0.283	3.564	26.435	***4.692***
2021-06-30 6:30	479700	8.100	-97.044	26.362	589.909	574.952	0.281	17.053	26.362	***4.578***
2021-06-30 6:45	480600	8.101	-97.077	26.300	588.550	574.294	0.281	2.941	26.300	***4.637***
2021-06-30 7:00	481500	8.097	-96.836	26.242	584.557	571.007	0.279	2.936	26.242	***4.497***
2021-06-30 7:15	482400	8.091	-96.481	26.189	588.911	575.831	0.282	3.303	26.189	***4.253***
2021-06-30 7:30	483300	8.107	-97.399	26.146	586.191	573.632	0.281	2.500	26.146	***4.596***
2021-06-30 7:45	484200	8.095	-96.703	26.127	586.145	573.797	0.281	3.046	26.127	***4.577***
2021-06-30 8:00	485100	8.102	-97.055	26.090	585.761	573.818	0.281	2.971	26.090	***4.658***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-30 8:15	486000	8.085	-96.071	26.069	585.296	573.586	0.281	3.712	26.069	***4.575***
2021-06-30 8:30	486900	8.092	-96.483	26.053	579.763	568.329	0.278	3.235	26.053	***4.368***
2021-06-30 8:45	487800	8.097	-96.765	26.052	581.323	569.869	0.279	3.299	26.052	***4.572***
2021-06-30 9:00	488700	8.029	-92.750	26.057	585.257	573.680	0.281	4.413	26.057	***4.584***
2021-06-30 9:15	489600	8.095	-96.679	26.063	581.131	569.564	0.279	4.442	26.063	***4.764***
2021-06-30 9:30	490500	8.088	-96.262	26.071	582.023	570.351	0.279	3.368	26.071	***4.647***
2021-06-30 9:45	491400	8.059	-94.519	26.077	586.035	574.218	0.281	2.783	26.077	***4.408***
2021-06-30 10:00	492300	8.098	-96.848	26.073	585.271	573.515	0.281	3.028	26.073	***4.600***
2021-06-30 10:15	493200	8.054	-94.223	26.108	585.479	573.342	0.280	3.269	26.108	***4.716***
2021-06-30 10:30	494100	8.085	-96.076	26.166	586.735	573.951	0.281	4.244	26.166	***4.811***
2021-06-30 10:45	495000	8.068	-95.115	26.266	584.112	570.324	0.279	2.848	26.266	***5.055***
2021-06-30 11:00	495900	8.096	-96.803	26.402	581.350	566.189	0.277	3.162	26.402	***5.212***
2021-06-30 11:15	496800	8.066	-95.029	26.463	595.204	579.022	0.283	2.972	26.463	***5.200***
2021-06-30 11:30	497700	8.049	-94.047	26.518	598.489	581.629	0.285	2.971	26.518	***5.200***
2021-06-30 11:45	498600	8.037	-93.381	26.592	587.651	570.310	0.279	3.884	26.592	***5.148***
2021-06-30 12:00	499500	8.059	-94.745	26.715	598.668	579.678	0.284	3.738	26.715	***5.143***
2021-06-30 12:15	500400	8.064	-95.055	26.907	596.858	575.879	0.282	3.215	26.907	***5.212***
2021-06-30 12:30	501300	8.067	-95.310	27.132	599.634	576.172	0.282	5.831	27.132	***5.249***
2021-06-30 12:45	502200	8.106	-97.673	27.245	601.603	576.871	0.282	4.501	27.245	***5.111***
2021-06-30 13:00	503100	8.107	-97.814	27.368	599.658	573.708	0.281	4.391	27.368	***5.062***
2021-06-30 13:15	504000	8.137	-99.704	27.772	606.234	575.754	0.282	4.317	27.772	***5.131***
2021-06-30 13:30	504900	8.130	-99.366	28.068	609.770	576.016	0.282	4.722	28.068	***5.654***
2021-06-30 13:45	505800	8.145	-100.374	28.359	613.146	576.183	0.282	4.670	28.359	***5.684***
2021-06-30 14:00	506700	8.150	-100.796	28.641	618.701	578.469	0.283	3.982	28.641	***5.627***
2021-06-30 14:15	507600	8.137	-100.100	28.970	623.153	579.236	0.283	3.596	28.970	***5.568***
2021-06-30 14:30	508500	8.115	-98.796	29.049	623.674	578.902	0.283	2.706	29.049	***5.571***
2021-06-30 14:45	509400	8.146	-100.651	29.033	623.250	578.676	0.283	3.082	29.033	***5.564***
2021-06-30 15:00	510300	8.129	-99.742	29.307	626.787	579.141	0.283	3.629	29.307	***5.590***
2021-06-30 15:15	511200	8.120	-99.258	29.448	630.316	580.965	0.284	2.482	29.448	***5.593***
2021-06-30 15:30	512100	8.154	-101.335	29.590	632.043	581.098	0.284	2.488	29.590	***5.534***
2021-06-30 15:45	513000	8.140	-100.517	29.602	631.826	580.778	0.284	2.498	29.602	***5.645***
2021-06-30 16:00	513900	8.150	-101.080	29.546	632.445	581.916	0.284	2.617	29.546	***5.524***
2021-06-30 16:15	514800	8.129	-99.838	29.565	633.153	582.377	0.285	2.365	29.565	***5.456***
2021-06-30 16:30	515700	8.141	-100.582	29.679	634.193	582.164	0.285	2.667	29.679	***5.584***
2021-06-30 16:45	516600	8.131	-100.033	29.764	634.526	581.603	0.284	2.475	29.764	***5.549***
2021-06-30 17:00	517500	8.133	-100.238	30.006	633.584	578.290	0.283	2.168	30.006	***5.660***
2021-06-30 17:15	518400	8.145	-100.949	30.068	639.699	583.240	0.285	2.253	30.068	***5.605***
2021-06-30 17:30	519300	8.138	-100.515	29.976	639.449	583.944	0.285	2.289	29.976	***5.711***
2021-06-30 17:45	520200	8.117	-99.223	29.911	636.218	581.654	0.284	2.220	29.911	***5.509***
2021-06-30 18:00	521100	8.130	-100.021	29.921	636.795	582.083	0.284	2.434	29.921	***5.647***
2021-06-30 18:15	522000	8.099	-98.121	29.881	634.411	580.314	0.284	2.160	29.881	***5.612***
2021-06-30 18:30	522900	8.076	-96.767	29.972	630.918	576.195	0.281	2.471	29.972	***5.550***
2021-06-30 18:45	523800	8.141	-100.739	30.226	634.742	577.138	0.282	2.400	30.226	***5.621***
2021-06-30 19:00	524700	8.136	-100.513	30.421	632.977	573.585	0.280	2.163	30.421	***5.579***
2021-06-30 19:15	525600	8.135	-100.517	30.534	645.901	584.161	0.285	2.607	30.534	***5.507***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-06-30 19:30	526500	8.126	-99.976	30.617	648.166	585.367	0.286	2.374	30.617	***5.502***
2021-06-30 19:45	527400	8.107	-98.841	30.645	666.254	601.411	0.294	2.338	30.645	***5.116***
2021-06-30 20:00	528300	8.164	-102.255	30.581	648.595	586.120	0.286	1.915	30.581	***4.993***
2021-06-30 20:15	529200	8.156	-101.757	30.460	649.620	588.271	0.288	2.266	30.460	***5.087***
2021-06-30 20:30	530100	8.137	-100.589	30.354	648.575	588.408	0.288	2.039	30.354	***4.960***
2021-06-30 20:45	531000	8.115	-99.201	30.238	647.808	588.889	0.288	2.093	30.238	***4.697***
2021-06-30 21:00	531900	8.142	-100.827	30.141	645.449	587.736	0.287	2.079	30.141	***4.900***
2021-06-30 21:15	532800	8.135	-100.360	30.055	650.671	593.379	0.290	2.965	30.055	***4.755***
2021-06-30 21:30	533700	8.165	-102.098	29.960	642.862	587.232	0.287	3.236	29.960	***4.510***
2021-06-30 21:45	534600	8.146	-100.937	29.850	642.417	587.949	0.287	4.874	29.850	***4.389***
2021-06-30 22:00	535500	8.153	-101.316	29.736	640.737	587.583	0.287	3.218	29.736	***4.849***
2021-06-30 22:15	536400	8.154	-101.340	29.628	639.986	588.009	0.287	2.340	29.628	***4.577***
2021-06-30 22:30	537300	8.133	-100.076	29.520	638.680	587.922	0.287	2.084	29.520	***4.576***
2021-06-30 22:45	538200	8.150	-101.054	29.418	638.112	588.458	0.288	2.203	29.418	***4.511***
2021-06-30 23:00	539100	8.135	-100.098	29.318	637.265	588.713	0.288	2.042	29.318	***4.661***
2021-06-30 23:15	540000	8.143	-100.582	29.232	636.125	588.555	0.288	2.213	29.232	***4.396***
2021-06-30 23:30	540900	8.145	-100.670	29.137	634.036	587.607	0.287	2.303	29.137	***4.688***
2021-06-30 23:45	541800	8.145	-100.627	29.050	632.766	587.338	0.287	3.341	29.050	***4.651***
2021-07-01 0:00	542700	8.138	-100.188	28.962	631.057	586.662	0.287	3.303	28.962	***4.356***
2021-07-01 0:15	543600	8.129	-99.607	28.856	624.038	581.230	0.284	3.309	28.856	***4.212***
2021-07-01 0:30	544500	8.124	-99.261	28.715	630.259	588.499	0.288	4.480	28.715	***4.478***
2021-07-01 0:45	545400	8.132	-99.690	28.570	628.187	588.092	0.288	5.868	28.570	***4.403***
2021-07-01 1:00	546300	8.149	-100.641	28.380	625.713	587.765	0.288	4.075	28.380	***4.592***
2021-07-01 1:15	547200	8.155	-100.913	28.177	622.310	586.707	0.287	4.292	28.177	***4.406***
2021-07-01 1:30	548100	8.143	-100.133	28.048	620.795	586.648	0.287	4.424	28.048	***4.344***
2021-07-01 1:45	549000	8.136	-99.735	27.934	619.528	586.649	0.287	4.556	27.934	***4.305***
2021-07-01 2:00	549900	8.138	-99.790	27.796	617.995	586.665	0.287	6.022	27.796	***4.473***
2021-07-01 2:15	550800	8.137	-99.699	27.653	615.631	585.941	0.287	5.150	27.653	***4.427***
2021-07-01 2:30	551700	8.132	-99.361	27.521	613.970	585.761	0.287	5.163	27.521	***4.006***
2021-07-01 2:45	552600	8.131	-99.258	27.417	612.436	585.406	0.286	5.139	27.417	***4.219***
2021-07-01 3:00	553500	8.126	-98.934	27.320	609.750	583.875	0.286	5.875	27.320	***4.330***
2021-07-01 3:15	554400	8.125	-98.820	27.224	608.693	583.889	0.286	3.842	27.224	***4.266***
2021-07-01 3:30	555300	8.122	-98.593	27.150	607.965	583.986	0.286	5.010	27.150	***4.400***
2021-07-01 3:45	556200	8.120	-98.469	27.079	606.177	583.029	0.285	5.201	27.079	***4.409***
2021-07-01 4:00	557100	8.123	-98.631	26.997	611.291	588.828	0.288	5.296	26.997	***4.330***
2021-07-01 4:15	558000	8.090	-96.624	26.918	604.452	583.087	0.285	5.830	26.918	***4.115***
2021-07-01 4:30	558900	8.120	-98.398	26.846	603.536	582.979	0.285	4.362	26.846	***3.849***
2021-07-01 4:45	559800	8.111	-97.854	26.783	602.566	582.721	0.285	6.276	26.783	***3.913***
2021-07-01 5:00	560700	8.116	-98.124	26.708	601.528	582.528	0.285	3.446	26.708	***4.397***
2021-07-01 5:15	561600	8.109	-97.682	26.620	597.222	579.297	0.283	8.975	26.620	***4.386***
2021-07-01 5:30	562500	8.116	-98.033	26.530	599.788	582.754	0.285	7.299	26.530	***4.282***
2021-07-01 5:45	563400	8.103	-97.239	26.444	598.826	582.752	0.285	3.983	26.444	***4.358***
2021-07-01 6:00	564300	8.110	-97.611	26.352	597.776	582.725	0.285	3.466	26.352	***4.221***
2021-07-01 6:15	565200	8.095	-96.703	26.272	596.931	582.776	0.285	2.982	26.272	***4.154***
2021-07-01 6:30	566100	8.098	-96.877	26.182	595.912	582.752	0.285	2.977	26.182	***4.197***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-01 6:45	567000	8.088	-96.269	26.091	594.221	582.094	0.285	3.375	26.091	***4.194***
2021-07-01 7:00	567900	8.100	-96.953	26.007	593.885	582.676	0.285	3.047	26.007	***4.476***
2021-07-01 7:15	568800	8.111	-97.539	25.919	592.499	582.281	0.285	3.562	25.919	***4.071***
2021-07-01 7:30	569700	8.114	-97.706	25.878	590.951	581.209	0.284	3.638	25.878	***4.040***
2021-07-01 7:45	570600	8.108	-97.339	25.840	591.677	582.337	0.285	4.806	25.840	***4.412***
2021-07-01 8:00	571500	8.111	-97.516	25.781	590.744	582.057	0.285	3.724	25.781	***4.510***
2021-07-01 8:15	572400	8.114	-97.678	25.721	590.077	582.059	0.285	4.767	25.721	***4.342***
2021-07-01 8:30	573300	8.112	-97.525	25.690	590.108	582.430	0.285	4.822	25.690	***4.371***
2021-07-01 8:45	574200	8.112	-97.511	25.656	588.722	581.435	0.285	5.590	25.656	***4.451***
2021-07-01 9:00	575100	8.106	-97.194	25.630	589.347	582.336	0.285	6.330	25.630	***4.193***
2021-07-01 9:15	576000	8.122	-98.090	25.640	589.498	582.379	0.285	6.157	25.640	***4.732***
2021-07-01 9:30	576900	8.123	-98.155	25.625	588.923	581.973	0.285	4.256	25.625	***4.772***
2021-07-01 9:45	577800	8.119	-97.914	25.607	599.245	592.382	0.290	5.134	25.607	***4.844***
2021-07-01 10:00	578700	8.126	-98.364	25.597	588.471	581.835	0.285	4.334	25.597	***4.865***
2021-07-01 10:15	579600	8.131	-98.655	25.602	588.488	581.803	0.285	4.624	25.602	***4.913***
2021-07-01 10:30	580500	8.101	-96.841	25.614	585.215	578.426	0.283	4.093	25.614	***4.777***
2021-07-01 10:45	581400	8.131	-98.674	25.674	584.018	576.592	0.282	4.891	25.674	***4.761***
2021-07-01 11:00	582300	8.130	-98.643	25.732	590.070	581.929	0.285	4.562	25.732	***4.773***
2021-07-01 11:15	583200	8.133	-98.803	25.803	590.107	581.190	0.284	4.903	25.803	***4.791***
2021-07-01 11:30	584100	8.127	-98.493	25.860	590.473	580.935	0.284	3.707	25.860	***4.844***
2021-07-01 11:45	585000	8.121	-98.143	25.939	589.151	578.766	0.283	4.331	25.939	***5.037***
2021-07-01 12:00	585900	8.110	-97.537	26.055	591.237	579.554	0.284	3.808	26.055	***5.045***
2021-07-01 12:15	586800	8.091	-96.421	26.142	589.425	576.847	0.282	5.069	26.142	***5.129***
2021-07-01 12:30	587700	8.112	-97.697	26.215	590.805	577.410	0.282	3.538	26.215	***5.148***
2021-07-01 12:45	588600	8.111	-97.680	26.319	599.540	584.810	0.286	3.147	26.319	***5.170***
2021-07-01 13:00	589500	8.112	-97.804	26.427	596.696	580.866	0.284	3.665	26.427	***5.103***
2021-07-01 13:15	590400	8.087	-96.347	26.525	599.912	582.937	0.285	3.274	26.525	***5.220***
2021-07-01 13:30	591300	8.110	-97.764	26.655	596.890	578.605	0.283	3.532	26.655	***5.187***
2021-07-01 13:45	592200	8.102	-97.308	26.767	600.417	580.814	0.284	5.287	26.767	***5.155***
2021-07-01 14:00	593100	8.105	-97.549	26.909	605.016	583.728	0.286	4.010	26.909	***5.285***
2021-07-01 14:15	594000	8.123	-98.619	27.038	606.556	583.827	0.286	3.010	27.038	***5.365***
2021-07-01 14:30	594900	8.125	-98.791	27.160	608.750	584.628	0.286	3.681	27.160	***5.440***
2021-07-01 14:45	595800	8.129	-99.108	27.314	610.312	584.476	0.286	5.289	27.314	***5.319***
2021-07-01 15:00	596700	8.133	-99.359	27.478	612.227	584.561	0.286	3.581	27.478	***5.374***
2021-07-01 15:15	597600	8.149	-100.391	27.634	613.181	583.811	0.286	3.530	27.634	***5.547***
2021-07-01 15:30	598500	8.147	-100.272	27.726	615.202	584.756	0.286	4.322	27.726	***5.546***
2021-07-01 15:45	599400	8.178	-102.134	27.707	615.466	585.209	0.286	4.335	27.707	***5.549***
2021-07-01 16:00	600300	8.175	-101.926	27.676	615.257	585.335	0.286	4.654	27.676	***5.433***
2021-07-01 16:15	601200	8.184	-102.425	27.582	615.378	586.461	0.287	3.582	27.582	***5.540***
2021-07-01 16:30	602100	8.170	-101.595	27.538	612.945	584.610	0.286	4.964	27.538	***5.330***
2021-07-01 16:45	603000	8.177	-102.088	27.649	613.984	584.413	0.286	4.416	27.649	***5.456***
2021-07-01 17:00	603900	8.162	-101.163	27.694	614.449	584.381	0.286	4.217	27.694	***5.460***
2021-07-01 17:15	604800	8.190	-102.844	27.655	613.310	583.715	0.286	4.147	27.655	***5.443***
2021-07-01 17:30	605700	8.194	-103.037	27.581	612.104	583.348	0.285	3.765	27.581	***5.278***
2021-07-01 17:45	606600	8.190	-102.789	27.482	612.747	585.017	0.286	3.619	27.482	***5.417***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-01 18:00	607500	8.185	-102.456	27.370	611.468	584.984	0.286	2.893	27.370	***5.249***
2021-07-01 18:15	608400	8.178	-101.995	27.241	608.776	583.786	0.286	3.134	27.241	***5.193***
2021-07-01 18:30	609300	8.180	-102.084	27.133	606.217	582.492	0.285	3.595	27.133	***5.136***
2021-07-01 18:45	610200	8.169	-101.359	27.018	605.091	582.633	0.285	6.075	27.018	***4.772***
2021-07-01 19:00	611100	8.173	-101.600	26.910	602.679	581.467	0.284	3.209	26.910	***4.878***
2021-07-01 19:15	612000	8.172	-101.469	26.793	601.792	581.865	0.285	4.464	26.793	***4.878***
2021-07-01 19:30	612900	8.158	-100.579	26.696	600.951	582.096	0.285	3.862	26.696	***4.873***
2021-07-01 19:45	613800	8.161	-100.775	26.602	599.870	582.060	0.285	4.166	26.602	***4.912***
2021-07-01 20:00	614700	8.156	-100.434	26.519	598.120	581.260	0.284	3.853	26.519	***4.779***
2021-07-01 20:15	615600	8.151	-100.100	26.436	597.212	581.271	0.284	3.841	26.436	***4.564***
2021-07-01 20:30	616500	8.162	-100.746	26.340	605.070	589.967	0.289	4.763	26.340	***4.879***
2021-07-01 20:45	617400	8.143	-99.573	26.232	595.422	581.739	0.285	4.044	26.232	***4.696***
2021-07-01 21:00	618300	8.160	-100.532	26.191	594.752	581.521	0.285	3.675	26.191	***4.919***
2021-07-01 21:15	619200	8.163	-100.729	26.110	593.821	581.497	0.285	4.039	26.110	***4.674***
2021-07-01 21:30	620100	8.157	-100.353	26.040	594.209	582.631	0.285	4.538	26.040	***4.908***
2021-07-01 21:45	621000	8.153	-100.088	25.979	592.007	581.139	0.284	4.881	25.979	***4.723***
2021-07-01 22:00	621900	8.139	-99.216	25.918	591.374	581.184	0.284	4.122	25.918	***4.841***
2021-07-01 22:15	622800	8.145	-99.556	25.878	590.509	580.765	0.284	3.646	25.878	***4.733***
2021-07-01 22:30	623700	8.142	-99.363	25.839	589.750	580.445	0.284	3.874	25.839	***4.757***
2021-07-01 22:45	624600	8.140	-99.254	25.790	589.167	580.412	0.284	3.568	25.790	***4.374***
2021-07-01 23:00	625500	8.120	-98.045	25.744	589.660	581.395	0.285	4.863	25.744	***3.871***
2021-07-01 23:15	626400	8.110	-97.451	25.703	588.003	580.216	0.284	4.826	25.703	***4.438***
2021-07-01 23:30	627300	8.127	-98.426	25.670	587.526	580.098	0.284	4.090	25.670	***4.486***
2021-07-01 23:45	628200	8.116	-97.768	25.621	586.319	579.442	0.284	7.615	25.621	***3.909***
2021-07-02 0:00	629100	8.112	-97.525	25.580	585.444	579.032	0.283	5.722	25.580	***4.443***
2021-07-02 0:15	630000	8.121	-98.002	25.544	585.026	579.009	0.283	5.714	25.544	***4.154***
2021-07-02 0:30	630900	8.120	-97.964	25.513	585.491	579.813	0.284	6.063	25.513	***4.101***
2021-07-02 0:45	631800	8.107	-97.206	25.485	584.614	579.250	0.283	6.221	25.485	***4.122***
2021-07-02 1:00	632700	8.112	-97.456	25.429	584.251	579.501	0.284	6.006	25.429	***4.408***
2021-07-02 1:15	633600	8.111	-97.361	25.390	583.896	579.577	0.284	7.387	25.390	***4.313***
2021-07-02 1:30	634500	8.116	-97.678	25.351	583.005	579.123	0.283	6.950	25.351	***4.584***
2021-07-02 1:45	635400	8.092	-96.211	25.319	582.689	579.158	0.283	3.883	25.319	***4.227***
2021-07-02 2:00	636300	8.108	-97.187	25.285	581.986	578.840	0.283	6.614	25.285	***4.444***
2021-07-02 2:15	637200	8.099	-96.612	25.251	581.839	579.060	0.283	7.443	25.251	***4.404***
2021-07-02 2:30	638100	8.102	-96.765	25.214	574.159	571.819	0.280	6.597	25.214	***3.742***
2021-07-02 2:45	639000	8.105	-96.948	25.179	591.163	589.154	0.288	7.424	25.179	***4.400***
2021-07-02 3:00	639900	8.092	-96.200	25.142	581.062	579.490	0.284	6.985	25.142	***4.247***
2021-07-02 3:15	640800	8.102	-96.743	25.097	580.549	579.478	0.284	6.396	25.097	***3.824***
2021-07-02 3:30	641700	8.085	-95.744	25.059	580.104	579.449	0.284	5.602	25.059	***4.283***
2021-07-02 3:45	642600	8.081	-95.460	25.020	579.034	578.812	0.283	6.023	25.020	***3.925***
2021-07-02 4:00	643500	8.090	-96.035	24.990	581.741	581.850	0.285	6.190	24.990	***4.206***
2021-07-02 4:15	644400	8.056	-94.004	24.957	578.356	578.832	0.283	5.834	24.957	***3.888***
2021-07-02 4:30	645300	8.079	-95.305	24.912	577.994	578.964	0.283	6.653	24.912	***4.261***
2021-07-02 4:45	646200	8.079	-95.322	24.876	570.098	571.453	0.280	6.580	24.876	***4.109***
2021-07-02 5:00	647100	8.075	-95.050	24.843	569.426	571.141	0.279	7.415	24.843	***3.830***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-02 5:15	648000	8.067	-94.583	24.807	576.575	578.703	0.283	4.895	24.807	***4.360***
2021-07-02 5:30	648900	8.053	-93.780	24.772	577.585	580.107	0.284	6.016	24.772	***4.318***
2021-07-02 5:45	649800	8.064	-94.364	24.719	575.135	578.238	0.283	7.485	24.719	***4.320***
2021-07-02 6:00	650700	8.051	-93.627	24.677	574.914	578.479	0.283	4.930	24.677	***4.326***
2021-07-02 6:15	651600	8.054	-93.770	24.630	573.999	578.082	0.283	7.448	24.630	***4.379***
2021-07-02 6:30	652500	8.054	-93.734	24.596	572.331	576.780	0.282	4.488	24.596	***4.360***
2021-07-02 6:45	653400	8.056	-93.873	24.559	570.635	575.480	0.282	5.138	24.559	***4.420***
2021-07-02 7:00	654300	8.045	-93.203	24.539	573.618	578.710	0.283	4.990	24.539	***4.289***
2021-07-02 7:15	655200	8.048	-93.365	24.542	570.848	575.890	0.282	37.747	24.542	***4.488***
2021-07-02 7:30	656100	8.049	-93.448	24.533	572.522	577.671	0.283	5.628	24.533	***4.123***
2021-07-02 7:45	657000	8.057	-93.913	24.494	572.172	577.759	0.283	4.726	24.494	***4.427***
2021-07-02 8:00	657900	8.054	-93.739	24.460	571.660	577.619	0.283	5.552	24.460	***4.318***
2021-07-02 8:15	658800	8.061	-94.118	24.447	571.579	577.683	0.283	4.841	24.447	***4.391***
2021-07-02 8:30	659700	8.061	-94.130	24.439	571.276	577.464	0.283	5.551	24.439	***4.436***
2021-07-02 8:45	660600	8.059	-93.982	24.445	571.399	577.524	0.283	4.631	24.445	***4.455***
2021-07-02 9:00	661500	8.066	-94.430	24.439	571.433	577.626	0.283	4.008	24.439	***3.987***
2021-07-02 9:15	662400	8.065	-94.354	24.422	570.824	577.195	0.282	5.109	24.422	***4.384***
2021-07-02 9:30	663300	8.071	-94.702	24.406	570.458	577.009	0.282	4.289	24.406	***4.536***
2021-07-02 9:45	664200	8.076	-95.007	24.449	565.730	571.752	0.280	6.099	24.449	***4.624***
2021-07-02 10:00	665100	8.096	-96.233	24.534	571.135	576.259	0.282	6.345	24.534	***4.794***
2021-07-02 10:15	666000	8.094	-96.154	24.636	572.424	576.429	0.282	5.400	24.636	***4.869***
2021-07-02 10:30	666900	8.094	-96.209	24.782	572.845	575.240	0.281	5.020	24.782	***4.872***
2021-07-02 10:45	667800	8.091	-96.042	24.896	575.361	576.502	0.282	6.088	24.896	***4.882***
2021-07-02 11:00	668700	8.097	-96.438	25.031	576.150	575.809	0.282	5.102	25.031	***5.015***
2021-07-02 11:15	669600	8.111	-97.320	25.135	577.469	575.989	0.282	4.336	25.135	***5.031***
2021-07-02 11:30	670500	8.108	-97.196	25.308	579.015	575.629	0.282	4.812	25.308	***5.164***
2021-07-02 11:45	671400	8.127	-98.369	25.443	580.991	576.120	0.282	5.917	25.443	***5.227***
2021-07-02 12:00	672300	8.139	-99.146	25.641	582.725	575.672	0.282	3.991	25.641	***5.298***
2021-07-02 12:15	673200	8.138	-99.089	25.728	583.365	575.360	0.281	4.806	25.728	***5.355***
2021-07-02 12:30	674100	8.139	-99.170	25.774	589.967	581.367	0.285	4.996	25.774	***5.421***
2021-07-02 12:45	675000	8.139	-99.239	25.957	585.567	575.057	0.281	4.077	25.957	***5.409***
2021-07-02 13:00	675900	8.148	-99.852	26.148	589.034	576.391	0.282	4.404	26.148	***5.498***
2021-07-02 13:15	676800	8.153	-100.179	26.327	591.545	576.926	0.282	5.308	26.327	***5.513***
2021-07-02 13:30	677700	8.149	-100.026	26.502	593.377	576.831	0.282	4.339	26.502	***5.586***
2021-07-02 13:45	678600	8.164	-101.008	26.753	596.545	577.220	0.282	4.379	26.753	***5.626***
2021-07-02 14:00	679500	8.171	-101.402	26.828	597.015	576.876	0.282	3.789	26.828	***5.697***
2021-07-02 14:15	680400	8.172	-101.469	26.800	596.929	577.088	0.282	4.820	26.800	***5.752***
2021-07-02 14:30	681300	8.168	-101.297	26.924	598.636	577.415	0.282	4.944	26.924	***5.766***
2021-07-02 14:45	682200	8.173	-101.657	27.170	602.262	578.290	0.283	5.775	27.170	***5.714***
2021-07-02 15:00	683100	8.178	-101.981	27.308	599.257	573.952	0.281	3.325	27.308	***5.854***
2021-07-02 15:15	684000	8.184	-102.410	27.384	604.690	578.358	0.283	5.335	27.384	***5.847***
2021-07-02 15:30	684900	8.197	-103.157	27.329	603.004	577.321	0.282	3.364	27.329	***5.943***
2021-07-02 15:45	685800	8.136	-99.516	27.309	601.030	575.645	0.282	5.441	27.309	***5.931***
2021-07-02 16:00	686700	8.200	-103.321	27.386	602.903	576.625	0.282	3.948	27.386	***5.987***
2021-07-02 16:15	687600	8.196	-103.106	27.441	604.901	577.959	0.283	3.811	27.441	***6.076***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-02 16:30	688500	8.180	-102.153	27.466	605.678	578.436	0.283	3.163	27.466	***6.021***
2021-07-02 16:45	689400	8.201	-103.447	27.458	600.151	573.236	0.280	3.551	27.458	***6.164***
2021-07-02 17:00	690300	8.204	-103.605	27.406	603.020	576.521	0.282	3.607	27.406	***6.234***
2021-07-02 17:15	691200	8.206	-103.676	27.344	602.268	576.462	0.282	3.254	27.344	***6.202***
2021-07-02 17:30	692100	8.207	-103.788	27.388	601.337	575.108	0.281	3.953	27.388	***6.141***
2021-07-02 17:45	693000	8.232	-105.250	27.324	599.171	573.710	0.281	17.048	27.324	***6.102***
2021-07-02 18:00	693900	8.216	-104.227	27.161	598.470	574.750	0.281	3.552	27.161	***6.261***
2021-07-02 18:15	694800	8.233	-105.200	27.073	596.161	573.457	0.280	3.515	27.073	***6.280***
2021-07-02 18:30	695700	8.233	-105.214	27.055	594.247	571.805	0.280	3.724	27.055	***6.370***
2021-07-02 18:45	696600	8.244	-105.836	27.009	597.594	575.512	0.281	97.439	27.009	***6.363***
2021-07-02 19:00	697500	8.240	-105.586	26.930	595.810	574.626	0.281	2.858	26.930	***6.437***
2021-07-02 19:15	698400	8.245	-105.844	26.824	594.267	574.266	0.281	3.417	26.824	***6.427***
2021-07-02 19:30	699300	8.250	-106.053	26.691	592.985	574.432	0.281	4.053	26.691	***6.405***
2021-07-02 19:45	700200	8.246	-105.824	26.584	592.421	575.025	0.281	3.065	26.584	***6.388***
2021-07-02 20:00	701100	8.201	-103.071	26.447	590.332	574.458	0.281	3.134	26.447	***6.411***
2021-07-02 20:15	702000	8.253	-106.163	26.349	588.478	573.691	0.281	4.805	26.349	***6.334***
2021-07-02 20:30	702900	8.248	-105.793	26.271	576.689	563.018	0.275	4.803	26.271	***6.305***
2021-07-02 20:45	703800	8.232	-104.842	26.203	587.895	574.690	0.281	3.581	26.203	***6.152***
2021-07-02 21:00	704700	8.223	-104.258	26.092	585.714	573.752	0.281	3.382	26.092	***5.465***
2021-07-02 21:15	705600	8.236	-104.997	25.991	583.583	572.744	0.280	4.300	25.991	***5.371***
2021-07-02 21:30	706500	8.237	-104.988	25.871	582.277	572.749	0.280	3.138	25.871	***5.731***
2021-07-02 21:45	707400	8.228	-104.434	25.739	581.169	573.076	0.280	3.473	25.739	***6.010***
2021-07-02 22:00	708300	8.225	-104.194	25.636	578.039	571.103	0.279	4.376	25.636	***5.957***
2021-07-02 22:15	709200	8.199	-102.654	25.522	582.776	577.018	0.282	3.959	25.522	***5.856***
2021-07-02 22:30	710100	8.218	-103.731	25.431	577.172	572.455	0.280	3.560	25.431	***5.912***
2021-07-02 22:45	711000	8.189	-101.988	25.333	577.025	573.376	0.281	4.815	25.333	***5.767***
2021-07-02 23:00	711900	8.213	-103.376	25.257	576.196	573.383	0.281	3.932	25.257	***5.900***
2021-07-02 23:15	712800	8.214	-103.436	25.178	575.491	573.543	0.281	3.945	25.178	***5.836***
2021-07-02 23:30	713700	8.210	-103.171	25.093	574.295	573.278	0.280	3.868	25.093	***5.795***
2021-07-02 23:45	714600	8.183	-101.519	25.005	573.624	573.566	0.281	4.364	25.005	***5.749***
2021-07-03 0:00	715500	8.196	-102.289	24.942	572.696	573.330	0.281	4.701	24.942	***5.722***
2021-07-03 0:15	716400	8.203	-102.644	24.863	571.677	573.182	0.280	4.228	24.863	***5.707***
2021-07-03 0:30	717300	8.196	-102.241	24.798	573.612	575.829	0.282	4.905	24.798	***5.569***
2021-07-03 0:45	718200	8.200	-102.408	24.720	570.574	573.641	0.281	4.694	24.720	***5.688***
2021-07-03 1:00	719100	8.201	-102.451	24.666	569.622	573.280	0.280	6.961	24.666	***5.690***
2021-07-03 1:15	720000	8.190	-101.812	24.589	568.883	573.380	0.281	5.749	24.589	***5.526***
2021-07-03 1:30	720900	8.191	-101.836	24.511	567.824	573.176	0.280	4.724	24.511	***5.662***
2021-07-03 1:45	721800	8.193	-101.936	24.452	567.085	573.087	0.280	6.196	24.452	***5.590***
2021-07-03 2:00	722700	8.183	-101.283	24.368	565.761	572.671	0.280	6.025	24.368	***5.576***
2021-07-03 2:15	723600	8.179	-101.049	24.290	565.355	573.123	0.280	5.936	24.290	***5.438***
2021-07-03 2:30	724500	8.176	-100.811	24.226	563.465	571.920	0.280	5.580	24.226	***5.449***
2021-07-03 2:45	725400	8.177	-100.853	24.153	563.456	572.717	0.280	5.526	24.153	***5.484***
2021-07-03 3:00	726300	8.179	-100.958	24.105	562.722	572.506	0.280	6.975	24.105	***5.279***
2021-07-03 3:15	727200	8.181	-101.051	24.053	561.923	572.273	0.280	5.999	24.053	***5.365***
2021-07-03 3:30	728100	8.167	-100.238	24.009	561.515	572.345	0.280	5.339	24.009	***5.387***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-03 3:45	729000	8.170	-100.389	23.935	561.073	572.723	0.280	5.382	23.935	***5.321***
2021-07-03 4:00	729900	8.176	-100.703	23.883	559.792	571.994	0.280	7.785	23.883	***5.389***
2021-07-03 4:15	730800	8.172	-100.467	23.826	559.745	572.584	0.280	3.382	23.826	***5.308***
2021-07-03 4:30	731700	8.170	-100.315	23.772	558.624	572.046	0.280	4.650	23.772	***5.256***
2021-07-03 4:45	732600	8.171	-100.384	23.696	557.827	572.081	0.280	31.470	23.696	***5.238***
2021-07-03 5:00	733500	8.160	-99.688	23.633	556.729	571.660	0.280	5.222	23.633	***5.261***
2021-07-03 5:15	734400	8.144	-98.712	23.571	558.091	573.750	0.281	4.026	23.571	***5.166***
2021-07-03 5:30	735300	8.132	-97.980	23.513	553.259	569.432	0.279	5.234	23.513	***4.914***
2021-07-03 5:45	736200	8.137	-98.310	23.469	555.093	571.816	0.280	2.883	23.469	***4.741***
2021-07-03 6:00	737100	8.137	-98.250	23.425	555.420	572.648	0.280	4.440	23.425	***5.082***
2021-07-03 6:15	738000	8.132	-97.978	23.381	555.230	572.948	0.280	3.560	23.381	***4.568***
2021-07-03 6:30	738900	8.129	-97.792	23.335	549.398	567.449	0.278	4.551	23.335	***4.770***
2021-07-03 6:45	739800	8.131	-97.883	23.283	535.906	554.076	0.271	3.577	23.283	***4.974***
2021-07-03 7:00	740700	8.126	-97.573	23.240	553.237	572.476	0.280	3.696	23.240	***4.921***
2021-07-03 7:15	741600	8.126	-97.570	23.225	552.593	571.979	0.280	3.892	23.225	***4.984***
2021-07-03 7:30	742500	8.081	-94.886	23.179	561.723	581.963	0.285	3.446	23.179	***4.985***
2021-07-03 7:45	743400	8.116	-96.946	23.156	552.393	572.558	0.280	3.692	23.156	***5.035***
2021-07-03 8:00	744300	8.121	-97.239	23.131	551.416	571.826	0.280	3.403	23.131	***5.012***
2021-07-03 8:15	745200	8.119	-97.098	23.110	543.977	564.351	0.276	3.586	23.110	***4.766***
2021-07-03 8:30	746100	8.103	-96.164	23.069	550.832	571.922	0.280	4.185	23.069	***4.938***
2021-07-03 8:45	747000	8.116	-96.908	23.071	551.454	572.546	0.280	4.072	23.071	***4.987***
2021-07-03 9:00	747900	8.115	-96.877	23.052	551.712	573.038	0.280	3.872	23.052	***5.049***
2021-07-03 9:15	748800	8.111	-96.655	23.087	549.923	570.777	0.279	4.597	23.087	***4.897***
2021-07-03 9:30	749700	8.113	-96.726	23.090	551.522	572.401	0.280	4.360	23.090	***4.994***
2021-07-03 9:45	750600	8.112	-96.669	23.111	552.557	573.241	0.281	3.928	23.111	***5.114***
2021-07-03 10:00	751500	8.110	-96.588	23.101	552.155	572.931	0.280	3.510	23.101	***5.092***
2021-07-03 10:15	752400	8.115	-96.886	23.132	552.514	572.962	0.280	4.907	23.132	***5.133***
2021-07-03 10:30	753300	8.116	-96.941	23.184	553.254	573.129	0.280	4.516	23.184	***5.028***
2021-07-03 10:45	754200	8.127	-97.632	23.240	553.993	573.263	0.281	5.351	23.240	***5.123***
2021-07-03 11:00	755100	8.124	-97.477	23.361	555.846	573.809	0.281	4.511	23.361	***5.089***
2021-07-03 11:15	756000	8.144	-98.715	23.514	557.544	573.827	0.281	3.979	23.514	***5.283***
2021-07-03 11:30	756900	8.145	-98.763	23.485	557.469	574.084	0.281	4.333	23.485	***5.327***
2021-07-03 11:45	757800	8.146	-98.808	23.491	557.204	573.742	0.281	3.623	23.491	***5.302***
2021-07-03 12:00	758700	8.152	-99.223	23.708	560.156	574.333	0.281	4.045	23.708	***5.418***
2021-07-03 12:15	759600	8.158	-99.690	23.882	562.528	574.807	0.281	3.780	23.882	***5.473***
2021-07-03 12:30	760500	8.156	-99.621	24.043	564.954	575.476	0.282	4.204	24.043	***5.457***
2021-07-03 12:45	761400	8.164	-100.129	24.228	567.816	576.310	0.282	3.760	24.228	***5.483***
2021-07-03 13:00	762300	8.144	-98.989	24.408	570.297	576.824	0.282	3.015	24.408	***5.565***
2021-07-03 13:15	763200	8.141	-98.901	24.567	572.188	576.963	0.282	6.204	24.567	***5.545***
2021-07-03 13:30	764100	8.103	-96.707	24.758	575.148	577.824	0.283	4.002	24.758	***5.531***
2021-07-03 13:45	765000	8.149	-99.492	24.942	577.221	577.863	0.283	4.289	24.942	***5.679***
2021-07-03 14:00	765900	8.071	-94.917	25.068	578.545	577.793	0.283	3.783	25.068	***5.629***
2021-07-03 14:15	766800	8.083	-95.689	25.204	579.815	577.563	0.283	3.462	25.204	***5.768***
2021-07-03 14:30	767700	8.091	-96.178	25.380	578.204	574.038	0.281	4.147	25.380	***5.801***
2021-07-03 14:45	768600	8.177	-101.318	25.441	579.177	574.343	0.281	3.447	25.441	***5.770***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-03 15:00	769500	8.182	-101.595	25.493	583.707	578.266	0.283	2.852	25.493	***5.832***
2021-07-03 15:15	770400	8.189	-102.024	25.513	583.330	577.673	0.283	4.122	25.513	***5.839***
2021-07-03 15:30	771300	8.194	-102.379	25.588	583.990	577.506	0.283	4.885	25.588	***5.871***
2021-07-03 15:45	772200	8.134	-98.813	25.583	584.210	577.775	0.283	3.615	25.583	***5.853***
2021-07-03 16:00	773100	8.086	-95.990	25.614	584.862	578.081	0.283	6.220	25.614	***5.894***
2021-07-03 16:15	774000	8.136	-98.951	25.575	584.558	578.205	0.283	5.475	25.575	***5.902***
2021-07-03 16:30	774900	8.179	-101.480	25.554	584.588	578.462	0.283	6.560	25.554	***6.041***
2021-07-03 16:45	775800	8.208	-103.204	25.543	583.930	577.933	0.283	4.218	25.543	***6.063***
2021-07-03 17:00	776700	8.149	-99.673	25.536	582.434	576.527	0.282	3.324	25.536	***6.039***
2021-07-03 17:15	777600	8.202	-102.844	25.525	579.213	573.460	0.281	13.932	25.525	***5.969***
2021-07-03 17:30	778500	8.216	-103.650	25.499	583.218	577.710	0.283	2.878	25.499	***6.171***
2021-07-03 17:45	779400	8.224	-104.113	25.486	583.220	577.858	0.283	2.538	25.486	***6.054***
2021-07-03 18:00	780300	8.226	-104.210	25.415	581.771	577.194	0.282	3.441	25.415	***5.937***
2021-07-03 18:15	781200	8.232	-104.520	25.294	581.402	578.155	0.283	4.789	25.294	***6.045***
2021-07-03 18:30	782100	8.226	-104.125	25.180	580.228	578.237	0.283	3.106	25.180	***6.057***
2021-07-03 18:45	783000	8.237	-104.740	25.062	578.917	578.234	0.283	2.150	25.062	***5.969***
2021-07-03 19:00	783900	8.237	-104.706	24.949	576.235	576.801	0.282	2.255	24.949	***6.061***
2021-07-03 19:15	784800	8.241	-104.907	24.829	574.285	576.168	0.282	3.640	24.829	***5.872***
2021-07-03 19:30	785700	8.244	-105.014	24.710	573.365	576.562	0.282	11.105	24.710	***5.777***
2021-07-03 19:45	786600	8.243	-104.914	24.612	572.094	576.370	0.282	10.986	24.612	***5.820***
2021-07-03 20:00	787500	8.242	-104.821	24.539	570.928	576.001	0.282	68.623	24.539	***5.648***
2021-07-03 20:15	788400	8.239	-104.630	24.471	570.232	576.047	0.282	2.795	24.471	***5.890***
2021-07-03 20:30	789300	8.240	-104.697	24.400	569.784	576.393	0.282	3.088	24.400	***5.729***
2021-07-03 20:45	790200	8.240	-104.651	24.334	568.716	576.041	0.282	5.957	24.334	***5.625***
2021-07-03 21:00	791100	8.231	-104.122	24.252	567.990	576.221	0.282	15.807	24.252	***5.578***
2021-07-03 21:15	792000	8.176	-100.808	24.196	566.760	575.600	0.282	2.803	24.196	***5.731***
2021-07-03 21:30	792900	8.222	-103.545	24.124	566.770	576.420	0.282	3.816	24.124	***5.691***
2021-07-03 21:45	793800	8.228	-103.831	24.037	566.528	577.148	0.282	3.221	24.037	***5.513***
2021-07-03 22:00	794700	8.232	-104.084	23.979	565.467	576.718	0.282	2.839	23.979	***5.622***
2021-07-03 22:15	795600	8.228	-103.786	23.920	564.356	576.242	0.282	3.181	23.920	***5.686***
2021-07-03 22:30	796500	8.223	-103.505	23.881	563.395	575.695	0.282	3.006	23.881	***5.687***
2021-07-03 22:45	797400	8.221	-103.357	23.829	563.447	576.332	0.282	3.854	23.829	***5.661***
2021-07-03 23:00	798300	8.216	-103.054	23.761	562.668	576.301	0.282	4.878	23.761	***5.571***
2021-07-03 23:15	799200	8.202	-102.179	23.710	562.521	576.737	0.282	6.516	23.710	***5.492***
2021-07-03 23:30	800100	8.209	-102.606	23.678	561.717	576.266	0.282	5.089	23.678	***5.295***
2021-07-03 23:45	801000	8.204	-102.272	23.636	561.113	576.125	0.282	7.096	23.636	***5.370***
2021-07-04 0:00	801900	8.199	-101.950	23.581	561.376	577.020	0.282	5.357	23.581	***5.242***
2021-07-04 0:15	802800	8.193	-101.616	23.531	559.967	576.128	0.282	7.031	23.531	***5.276***
2021-07-04 0:30	803700	8.201	-102.093	23.500	559.658	576.167	0.282	4.552	23.500	***5.302***
2021-07-04 0:45	804600	8.197	-101.826	23.456	559.024	576.008	0.282	5.439	23.456	***5.369***
2021-07-04 1:00	805500	8.199	-101.900	23.416	558.647	576.075	0.282	4.986	23.416	***5.336***
2021-07-04 1:15	806400	8.187	-101.199	23.379	557.969	575.798	0.282	4.398	23.379	***5.318***
2021-07-04 1:30	807300	8.184	-101.027	23.318	558.219	576.742	0.282	6.273	23.318	***5.210***
2021-07-04 1:45	808200	8.185	-101.020	23.287	554.016	572.759	0.280	6.289	23.287	***5.169***
2021-07-04 2:00	809100	8.185	-101.016	23.257	557.427	576.622	0.282	5.428	23.257	***5.213***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-04 2:15	810000	8.183	-100.904	23.222	557.106	576.688	0.282	5.123	23.222	***5.023***
2021-07-04 2:30	810900	8.125	-97.504	23.184	556.759	576.764	0.282	5.158	23.184	***5.107***
2021-07-04 2:45	811800	8.176	-100.470	23.152	556.284	576.634	0.282	4.884	23.152	***4.876***
2021-07-04 3:00	812700	8.163	-99.704	23.120	555.965	576.673	0.282	5.229	23.120	***5.090***
2021-07-04 3:15	813600	8.157	-99.356	23.083	555.671	576.793	0.282	4.060	23.083	***4.898***
2021-07-04 3:30	814500	8.164	-99.742	23.040	563.886	585.817	0.287	4.054	23.040	***4.778***
2021-07-04 3:45	815400	8.165	-99.785	23.005	554.424	576.386	0.282	4.329	23.005	***5.045***
2021-07-04 4:00	816300	8.166	-99.843	22.971	550.765	572.966	0.280	3.417	22.971	***5.089***
2021-07-04 4:15	817200	8.160	-99.430	22.929	553.539	576.336	0.282	4.717	22.929	***5.072***
2021-07-04 4:30	818100	8.148	-98.753	22.904	553.706	576.794	0.282	3.374	22.904	***4.832***
2021-07-04 4:45	819000	8.153	-99.032	22.872	553.123	576.562	0.282	3.601	22.872	***4.987***
2021-07-04 5:00	819900	8.144	-98.462	22.837	552.153	575.945	0.282	3.823	22.837	***4.914***
2021-07-04 5:15	820800	8.150	-98.817	22.807	552.083	576.216	0.282	2.944	22.807	***4.957***
2021-07-04 5:30	821700	8.145	-98.538	22.762	544.457	568.769	0.278	2.781	22.762	***4.944***
2021-07-04 5:45	822600	8.143	-98.388	22.729	551.082	576.075	0.282	3.433	22.729	***4.789***
2021-07-04 6:00	823500	8.141	-98.281	22.703	550.858	576.136	0.282	3.169	22.703	***4.843***
2021-07-04 6:15	824400	8.146	-98.581	22.682	550.484	575.989	0.282	2.798	22.682	***4.651***
2021-07-04 6:30	825300	8.131	-97.690	22.659	550.206	575.953	0.282	2.714	22.659	***4.929***
2021-07-04 6:45	826200	8.152	-98.910	22.655	539.594	564.891	0.276	3.657	22.655	***4.800***
2021-07-04 7:00	827100	8.147	-98.619	22.639	544.747	570.476	0.279	2.770	22.639	***4.937***
2021-07-04 7:15	828000	8.142	-98.288	22.623	545.900	571.866	0.280	8.377	22.623	***5.025***
2021-07-04 7:30	828900	8.135	-97.899	22.611	548.415	574.637	0.281	2.993	22.611	***4.998***
2021-07-04 7:45	829800	8.137	-98.011	22.579	547.957	574.526	0.281	2.594	22.579	***4.946***
2021-07-04 8:00	830700	8.125	-97.303	22.564	548.661	575.434	0.282	3.031	22.564	***4.797***
2021-07-04 8:15	831600	8.137	-97.988	22.576	549.240	575.900	0.282	2.726	22.576	***4.820***
2021-07-04 8:30	832500	8.142	-98.281	22.560	548.254	575.058	0.281	2.549	22.560	***5.110***
2021-07-04 8:45	833400	8.148	-98.658	22.559	553.745	580.826	0.284	3.294	22.559	***5.042***
2021-07-04 9:00	834300	8.143	-98.364	22.555	548.939	575.828	0.282	2.889	22.555	***5.110***
2021-07-04 9:15	835200	8.148	-98.670	22.594	549.254	575.709	0.282	3.003	22.594	***5.113***
2021-07-04 9:30	836100	8.148	-98.646	22.648	546.484	572.184	0.280	2.687	22.648	***5.015***
2021-07-04 9:45	837000	8.133	-97.804	22.684	549.458	574.890	0.281	2.309	22.684	***5.023***
2021-07-04 10:00	837900	8.126	-97.373	22.708	549.422	574.579	0.281	2.592	22.708	***4.778***
2021-07-04 10:15	838800	8.084	-94.931	22.744	549.265	573.999	0.281	3.776	22.744	***4.829***
2021-07-04 10:30	839700	8.106	-96.233	22.796	549.968	574.134	0.281	2.693	22.796	***4.977***
2021-07-04 10:45	840600	8.141	-98.321	22.806	550.218	574.279	0.281	2.942	22.806	***5.003***
2021-07-04 11:00	841500	8.121	-97.165	22.956	553.102	575.576	0.282	3.364	22.956	***5.029***
2021-07-04 11:15	842400	8.135	-98.073	23.112	555.036	575.795	0.282	3.981	23.112	***5.191***
2021-07-04 11:30	843300	8.140	-98.448	23.335	558.151	576.487	0.282	3.689	23.335	***5.268***
2021-07-04 11:45	844200	8.136	-98.188	23.405	559.116	576.682	0.282	3.677	23.405	***5.296***
2021-07-04 12:00	845100	8.140	-98.412	23.395	558.758	576.427	0.282	3.486	23.395	***5.128***
2021-07-04 12:15	846000	8.144	-98.653	23.402	558.883	576.474	0.282	2.975	23.402	***5.303***
2021-07-04 12:30	846900	8.136	-98.264	23.633	562.537	577.621	0.283	3.536	23.633	***5.193***
2021-07-04 12:45	847800	8.139	-98.479	23.728	563.619	577.658	0.283	3.792	23.728	***5.348***
2021-07-04 13:00	848700	8.143	-98.672	23.615	562.133	577.413	0.283	3.709	23.615	***5.471***
2021-07-04 13:15	849600	8.128	-97.799	23.627	562.281	577.418	0.283	2.153	23.627	***5.404***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-04 13:30	850500	8.130	-97.952	23.674	563.560	578.210	0.283	4.512	23.674	***5.300***
2021-07-04 13:45	851400	8.158	-99.571	23.695	563.523	577.929	0.283	3.830	23.695	***5.452***
2021-07-04 14:00	852300	8.158	-99.611	23.800	564.560	577.804	0.283	3.443	23.800	***5.495***
2021-07-04 14:15	853200	8.165	-100.110	23.967	565.478	576.854	0.282	3.566	23.967	***5.669***
2021-07-04 14:30	854100	8.157	-99.711	24.134	569.064	578.640	0.283	4.841	24.134	***5.514***
2021-07-04 14:45	855000	8.178	-100.977	24.258	570.729	578.932	0.283	2.942	24.258	***5.584***
2021-07-04 15:00	855900	8.168	-100.446	24.495	574.471	580.069	0.284	3.285	24.495	***5.584***
2021-07-04 15:15	856800	8.157	-99.831	24.602	575.924	580.331	0.284	4.245	24.602	***5.923***
2021-07-04 15:30	857700	8.171	-100.722	24.695	575.948	579.319	0.284	3.753	24.695	***5.946***
2021-07-04 15:45	858600	8.164	-100.315	24.785	577.947	580.335	0.284	3.685	24.785	***5.846***
2021-07-04 16:00	859500	8.174	-100.901	24.710	598.074	601.402	0.295	3.426	24.710	***5.895***
2021-07-04 16:15	860400	8.191	-101.867	24.634	574.592	578.636	0.283	3.624	24.634	***5.934***
2021-07-04 16:30	861300	8.191	-101.857	24.608	571.995	576.305	0.282	3.238	24.608	***5.955***
2021-07-04 16:45	862200	8.198	-102.282	24.570	574.543	579.304	0.284	2.975	24.570	***5.851***
2021-07-04 17:00	863100	8.182	-101.304	24.627	574.020	578.136	0.283	0.926	24.627	***5.781***
2021-07-04 17:15	864000	8.178	-101.132	24.765	573.347	575.931	0.282	1.939	24.765	***5.846***
2021-07-04 17:30	864900	8.195	-102.198	24.902	577.364	578.445	0.283	2.042	24.902	***5.854***
2021-07-04 17:45	865800	8.202	-102.582	24.918	577.942	578.849	0.283	2.625	24.918	***5.952***
2021-07-04 18:00	866700	8.209	-102.994	24.853	574.174	575.786	0.282	2.656	24.853	***6.116***
2021-07-04 18:15	867600	8.133	-98.457	24.680	574.064	577.599	0.283	2.805	24.680	***6.114***
2021-07-04 18:30	868500	8.109	-97.024	24.563	570.968	575.774	0.282	3.013	24.563	***6.143***
2021-07-04 18:45	869400	8.199	-102.298	24.462	572.386	578.331	0.283	2.915	24.462	***6.037***
2021-07-04 19:00	870300	8.206	-102.680	24.427	568.816	575.114	0.281	3.585	24.427	***6.058***
2021-07-04 19:15	871200	8.201	-102.332	24.280	569.356	577.292	0.283	3.920	24.280	***6.091***
2021-07-04 19:30	872100	8.195	-101.948	24.179	569.355	578.420	0.283	3.535	24.179	***6.096***
2021-07-04 19:45	873000	8.195	-101.900	24.112	568.021	577.818	0.283	3.496	24.112	***5.849***
2021-07-04 20:00	873900	8.192	-101.740	24.030	567.610	578.325	0.283	3.270	24.030	***6.063***
2021-07-04 20:15	874800	8.189	-101.504	23.946	567.032	578.679	0.283	3.044	23.946	***5.969***
2021-07-04 20:30	875700	8.189	-101.469	23.872	564.874	577.316	0.283	3.272	23.872	***6.050***
2021-07-04 20:45	876600	8.191	-101.562	23.824	563.948	576.904	0.282	6.140	23.824	***5.977***
2021-07-04 21:00	877500	8.196	-101.845	23.779	562.679	576.120	0.282	2.966	23.779	***6.026***
2021-07-04 21:15	878400	8.200	-102.115	23.741	562.048	575.893	0.282	3.220	23.741	***5.888***
2021-07-04 21:30	879300	8.195	-101.783	23.685	561.284	575.739	0.282	3.495	23.685	***5.877***
2021-07-04 21:45	880200	8.189	-101.409	23.614	561.996	577.283	0.283	4.443	23.614	***5.927***
2021-07-04 22:00	881100	8.178	-100.732	23.533	560.482	576.637	0.282	4.701	23.533	***5.874***
2021-07-04 22:15	882000	8.172	-100.343	23.452	559.323	576.365	0.282	3.859	23.452	***5.792***
2021-07-04 22:30	882900	8.163	-99.783	23.365	558.422	576.419	0.282	14.592	23.365	***5.044***
2021-07-04 22:45	883800	8.158	-99.440	23.272	556.942	575.954	0.282	4.935	23.272	***5.509***
2021-07-04 23:00	884700	8.163	-99.699	23.185	556.348	576.330	0.282	3.779	23.185	***5.610***
2021-07-04 23:15	885600	8.161	-99.597	23.126	555.445	576.065	0.282	5.240	23.126	***5.668***
2021-07-04 23:30	886500	8.158	-99.375	23.060	554.767	576.113	0.282	6.711	23.060	***4.569***
2021-07-04 23:45	887400	8.170	-100.057	22.998	553.606	575.612	0.282	4.588	22.998	***5.515***
2021-07-05 0:00	888300	8.144	-98.498	22.921	552.871	575.738	0.282	5.716	22.921	***5.479***
2021-07-05 0:15	889200	8.142	-98.350	22.821	551.812	575.772	0.282	11.025	22.821	***5.456***
2021-07-05 0:30	890100	8.159	-99.339	22.753	550.967	575.673	0.282	4.598	22.753	***5.465***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-05 0:45	891000	8.165	-99.640	22.675	549.809	575.363	0.282	4.380	22.675	***5.422***
2021-07-05 1:00	891900	8.164	-99.599	22.614	548.848	575.051	0.281	5.182	22.614	***5.409***
2021-07-05 1:15	892800	8.157	-99.180	22.546	547.341	574.253	0.281	4.631	22.546	***5.401***
2021-07-05 1:30	893700	8.164	-99.535	22.496	547.364	574.852	0.281	5.357	22.496	***5.385***
2021-07-05 1:45	894600	8.157	-99.096	22.446	546.906	574.958	0.281	3.477	22.446	***5.341***
2021-07-05 2:00	895500	8.141	-98.183	22.363	545.774	574.720	0.281	3.264	22.363	***5.397***
2021-07-05 2:15	896400	8.140	-98.057	22.324	545.279	574.647	0.281	4.789	22.324	***5.382***
2021-07-05 2:30	897300	8.152	-98.743	22.255	544.449	574.573	0.281	3.357	22.255	***5.319***
2021-07-05 2:45	898200	8.157	-99.010	22.198	543.690	574.437	0.281	5.795	22.198	***5.355***
2021-07-05 3:00	899100	8.157	-99.037	22.148	542.724	573.992	0.281	4.125	22.148	***5.294***
2021-07-05 3:15	900000	8.152	-98.717	22.077	541.906	573.950	0.281	4.077	22.077	***5.346***
2021-07-05 3:30	900900	8.142	-98.116	22.023	541.716	574.375	0.281	3.007	22.023	***5.280***
2021-07-05 3:45	901800	8.142	-98.052	21.963	540.862	574.172	0.281	4.363	21.963	***5.198***
2021-07-05 4:00	902700	8.133	-97.516	21.905	540.175	574.113	0.281	2.505	21.905	***5.202***
2021-07-05 4:15	903600	8.127	-97.158	21.852	540.102	574.654	0.281	2.265	21.852	***5.120***
2021-07-05 4:30	904500	8.123	-96.896	21.816	539.637	574.574	0.281	2.793	21.816	***5.102***
2021-07-05 4:45	905400	8.118	-96.581	21.752	539.077	574.732	0.281	48.988	21.752	***5.045***
2021-07-05 5:00	906300	8.113	-96.304	21.680	538.235	574.672	0.281	2.758	21.680	***4.996***
2021-07-05 5:15	907200	8.109	-96.052	21.620	537.736	574.842	0.281	1.840	21.620	***4.903***
2021-07-05 5:30	908100	8.110	-96.054	21.584	538.871	576.484	0.282	2.702	21.584	***4.875***
2021-07-05 5:45	909000	8.109	-95.985	21.527	540.007	578.372	0.283	2.913	21.527	***4.863***
2021-07-05 6:00	909900	8.102	-95.563	21.494	530.920	569.028	0.278	2.442	21.494	***4.741***
2021-07-05 6:15	910800	8.100	-95.487	21.460	536.548	575.463	0.282	3.079	21.460	***4.787***
2021-07-05 6:30	911700	8.098	-95.313	21.413	533.696	572.951	0.280	2.519	21.413	***4.858***
2021-07-05 6:45	912600	8.097	-95.284	21.381	535.155	574.894	0.281	2.407	21.381	***4.749***
2021-07-05 7:00	913500	8.096	-95.186	21.355	535.733	575.824	0.282	2.415	21.355	***4.850***
2021-07-05 7:15	914400	8.091	-94.883	21.324	534.214	574.549	0.281	2.483	21.324	***4.858***
2021-07-05 7:30	915300	8.081	-94.311	21.311	534.464	574.976	0.281	2.653	21.311	***4.865***
2021-07-05 7:45	916200	8.078	-94.135	21.297	534.440	575.115	0.281	2.797	21.297	***4.831***
2021-07-05 8:00	917100	8.082	-94.326	21.295	534.490	575.195	0.281	63.503	21.295	***4.699***
2021-07-05 8:15	918000	8.072	-93.775	21.300	534.759	575.424	0.282	1.637	21.300	***4.776***
2021-07-05 8:30	918900	8.070	-93.639	21.313	535.100	575.642	0.282	3.083	21.313	***4.686***
2021-07-05 8:45	919800	8.076	-94.008	21.317	534.868	575.344	0.282	2.776	21.317	***4.736***
2021-07-05 9:00	920700	8.074	-93.899	21.295	536.603	577.473	0.283	2.977	21.295	***4.859***
2021-07-05 9:15	921600	8.065	-93.377	21.279	534.378	575.265	0.282	2.484	21.279	***4.812***
2021-07-05 9:30	922500	8.060	-93.043	21.273	534.459	575.416	0.282	1.587	21.273	***4.753***
2021-07-05 9:45	923400	8.066	-93.381	21.264	533.968	574.994	0.281	6.009	21.264	***4.772***
2021-07-05 10:00	924300	8.057	-92.878	21.255	534.786	575.987	0.282	2.476	21.255	***4.793***
2021-07-05 10:15	925200	8.058	-92.909	21.245	534.456	575.745	0.282	2.527	21.245	***4.674***
2021-07-05 10:30	926100	8.056	-92.802	21.251	534.522	575.746	0.282	2.225	21.251	***4.661***
2021-07-05 10:45	927000	8.051	-92.540	21.295	534.648	575.366	0.282	3.457	21.295	***4.693***
2021-07-05 11:00	927900	8.050	-92.561	21.456	536.387	575.329	0.282	3.557	21.456	***4.699***
2021-07-05 11:15	928800	8.059	-93.100	21.665	537.788	574.380	0.281	3.740	21.665	***4.886***
2021-07-05 11:30	929700	8.043	-92.220	21.819	539.478	574.381	0.281	3.501	21.819	***4.992***
2021-07-05 11:45	930600	8.070	-93.830	21.867	541.511	575.972	0.282	3.729	21.867	***5.091***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-05 12:00	931500	8.072	-93.973	21.862	541.659	576.198	0.282	4.845	21.862	***4.963***
2021-07-05 12:15	932400	8.063	-93.427	21.939	544.259	578.051	0.283	4.249	21.939	***4.917***
2021-07-05 12:30	933300	8.060	-93.317	22.066	545.534	577.921	0.283	5.118	22.066	***5.044***
2021-07-05 12:45	934200	8.053	-92.962	22.227	548.240	578.902	0.283	4.128	22.227	***5.067***
2021-07-05 13:00	935100	8.062	-93.575	22.508	552.454	580.069	0.284	4.339	22.508	***5.194***
2021-07-05 13:15	936000	8.067	-93.915	22.696	553.889	579.385	0.284	3.619	22.696	***5.265***
2021-07-05 13:30	936900	8.058	-93.474	22.951	556.368	579.024	0.283	4.180	22.951	***5.324***
2021-07-05 13:45	937800	8.066	-94.039	23.181	568.557	589.016	0.288	3.442	23.181	***5.414***
2021-07-05 14:00	938700	8.074	-94.509	23.270	570.749	590.253	0.289	3.335	23.270	***5.414***
2021-07-05 14:15	939600	8.070	-94.264	23.298	571.581	590.791	0.289	3.389	23.298	***5.421***
2021-07-05 14:30	940500	8.072	-94.438	23.400	572.186	590.218	0.289	4.173	23.400	***5.404***
2021-07-05 14:45	941400	8.064	-94.008	23.567	571.876	587.968	0.288	3.180	23.567	***5.414***
2021-07-05 15:00	942300	8.051	-93.312	23.732	574.775	589.046	0.288	3.052	23.732	***5.438***
2021-07-05 15:15	943200	8.056	-93.632	23.802	576.376	589.873	0.289	4.814	23.802	***5.542***
2021-07-05 15:30	944100	8.087	-95.460	23.901	569.507	581.722	0.285	3.892	23.901	***5.580***
2021-07-05 15:45	945000	8.082	-95.291	24.187	573.335	582.383	0.285	4.202	24.187	***5.626***
2021-07-05 16:00	945900	8.081	-95.315	24.398	576.394	583.095	0.285	3.613	24.398	***5.407***
2021-07-05 16:15	946800	8.094	-96.056	24.467	577.561	583.496	0.286	2.801	24.467	***5.641***
2021-07-05 16:30	947700	8.113	-97.215	24.599	576.489	580.944	0.284	3.221	24.599	***5.743***
2021-07-05 16:45	948600	8.110	-97.063	24.629	575.539	579.652	0.284	2.800	24.629	***5.724***
2021-07-05 17:00	949500	8.084	-95.572	24.645	576.136	580.071	0.284	3.076	24.645	***5.739***
2021-07-05 17:15	950400	8.077	-95.170	24.757	577.597	580.290	0.284	3.635	24.757	***5.655***
2021-07-05 17:30	951300	8.092	-96.109	24.938	577.935	578.618	0.283	3.082	24.938	***5.785***
2021-07-05 17:45	952200	8.092	-96.209	25.154	582.040	580.335	0.284	2.740	25.154	***5.811***
2021-07-05 18:00	953100	8.110	-97.332	25.334	584.130	580.428	0.284	3.024	25.334	***5.809***
2021-07-05 18:15	954000	8.096	-96.512	25.399	585.000	580.570	0.284	2.637	25.399	***5.799***
2021-07-05 18:30	954900	8.091	-96.233	25.444	585.521	580.596	0.284	2.771	25.444	***5.670***
2021-07-05 18:45	955800	8.116	-97.699	25.472	586.226	580.992	0.284	2.857	25.472	***5.701***
2021-07-05 19:00	956700	8.117	-97.775	25.478	586.753	581.449	0.285	3.018	25.478	***5.848***
2021-07-05 19:15	957600	8.121	-97.971	25.370	585.968	581.858	0.285	3.663	25.370	***5.861***
2021-07-05 19:30	958500	8.120	-97.866	25.203	587.538	585.271	0.287	2.802	25.203	***5.740***
2021-07-05 19:45	959400	8.113	-97.382	24.970	585.417	585.747	0.287	3.271	24.970	***5.705***
2021-07-05 20:00	960300	8.104	-96.729	24.706	581.513	584.791	0.286	3.211	24.706	***5.849***
2021-07-05 20:15	961200	8.125	-97.942	24.518	577.392	582.761	0.285	3.278	24.518	***5.813***
2021-07-05 20:30	962100	8.119	-97.525	24.376	573.538	580.452	0.284	2.830	24.376	***5.745***
2021-07-05 20:45	963000	8.144	-98.972	24.334	572.488	579.869	0.284	6.494	24.334	***5.865***
2021-07-05 21:00	963900	8.145	-98.994	24.231	570.510	579.012	0.283	3.352	24.231	***5.599***
2021-07-05 21:15	964800	8.157	-99.697	24.115	568.067	577.832	0.283	3.134	24.115	***5.717***
2021-07-05 21:30	965700	8.158	-99.669	23.980	567.229	578.500	0.283	18.956	23.980	***5.661***
2021-07-05 21:45	966600	8.158	-99.685	23.867	565.667	578.173	0.283	2.628	23.867	***5.495***
2021-07-05 22:00	967500	8.157	-99.561	23.767	564.748	578.367	0.283	3.209	23.767	***5.553***
2021-07-05 22:15	968400	8.151	-99.168	23.615	562.620	577.907	0.283	2.753	23.615	***5.486***
2021-07-05 22:30	969300	8.153	-99.235	23.492	560.798	577.428	0.283	4.454	23.492	***5.420***
2021-07-05 22:45	970200	8.149	-98.984	23.382	559.367	577.210	0.283	3.212	23.382	***5.545***
2021-07-05 23:00	971100	8.150	-98.965	23.296	558.997	577.805	0.283	3.317	23.296	***5.628***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-05 23:15	972000	8.148	-98.822	23.194	557.554	577.479	0.283	3.518	23.194	***5.620***
2021-07-05 23:30	972900	8.141	-98.388	23.096	557.822	578.868	0.283	4.549	23.096	***5.601***
2021-07-05 23:45	973800	8.141	-98.333	22.979	557.017	579.377	0.284	4.650	22.979	***5.507***
2021-07-06 0:00	974700	8.125	-97.404	22.868	556.472	580.095	0.284	3.266	22.868	***5.312***
2021-07-06 0:15	975600	8.131	-97.704	22.773	555.463	580.143	0.284	3.815	22.773	***5.323***
2021-07-06 0:30	976500	8.133	-97.816	22.687	554.562	580.190	0.284	2.985	22.687	***5.350***
2021-07-06 0:45	977400	8.124	-97.229	22.598	553.952	580.584	0.284	5.194	22.598	***5.328***
2021-07-06 1:00	978300	8.130	-97.544	22.532	552.809	580.161	0.284	3.849	22.532	***5.197***
2021-07-06 1:15	979200	8.125	-97.249	22.456	551.644	579.813	0.284	4.106	22.456	***5.194***
2021-07-06 1:30	980100	8.120	-96.960	22.386	550.548	579.481	0.284	4.307	22.386	***5.233***
2021-07-06 1:45	981000	8.115	-96.629	22.305	549.218	579.025	0.283	5.508	22.305	***5.176***
2021-07-06 2:00	981900	8.107	-96.102	22.257	548.667	579.008	0.283	4.353	22.257	***5.035***
2021-07-06 2:15	982800	8.108	-96.164	22.176	547.410	578.616	0.283	4.213	22.176	***5.068***
2021-07-06 2:30	983700	8.110	-96.245	22.105	546.405	578.391	0.283	5.004	22.105	***5.080***
2021-07-06 2:45	984600	8.103	-95.823	22.041	545.460	578.140	0.283	4.276	22.041	***5.072***
2021-07-06 3:00	985500	8.096	-95.394	21.985	544.600	577.883	0.283	4.798	21.985	***5.067***
2021-07-06 3:15	986400	8.096	-95.346	21.908	538.509	572.305	0.280	3.826	21.908	***5.101***
2021-07-06 3:30	987300	8.105	-95.880	21.809	536.532	571.357	0.280	3.685	21.809	***5.068***
2021-07-06 3:45	988200	8.105	-95.842	21.740	542.064	578.057	0.283	3.383	21.740	***5.037***
2021-07-06 4:00	989100	8.102	-95.634	21.669	541.192	577.964	0.283	3.371	21.669	***5.015***
2021-07-06 4:15	990000	8.106	-95.866	21.590	540.610	578.275	0.283	8.202	21.590	***5.023***
2021-07-06 4:30	990900	8.105	-95.785	21.521	540.040	578.480	0.283	3.337	21.521	***4.973***
2021-07-06 4:45	991800	8.104	-95.713	21.477	539.290	578.199	0.283	4.708	21.477	***4.948***
2021-07-06 5:00	992700	8.100	-95.470	21.410	538.855	578.529	0.283	2.905	21.410	***4.945***
2021-07-06 5:15	993600	8.096	-95.160	21.338	538.001	578.458	0.283	2.738	21.338	***4.972***
2021-07-06 5:30	994500	8.088	-94.724	21.274	537.183	578.342	0.283	4.148	21.274	***4.888***
2021-07-06 5:45	995400	8.086	-94.566	21.198	536.279	578.276	0.283	2.881	21.198	***4.939***
2021-07-06 6:00	996300	8.082	-94.321	21.136	535.507	578.178	0.283	3.073	21.136	***4.904***
2021-07-06 6:15	997200	8.085	-94.483	21.078	534.872	578.181	0.283	3.445	21.078	***4.878***
2021-07-06 6:30	998100	8.083	-94.302	21.014	534.224	578.253	0.283	3.736	21.014	***4.884***
2021-07-06 6:45	999000	8.082	-94.273	20.961	533.366	577.954	0.283	2.313	20.961	***4.922***
2021-07-06 7:00	999900	8.074	-93.749	20.912	532.611	577.716	0.283	2.769	20.912	***4.895***
2021-07-06 7:15	1000800	8.074	-93.753	20.892	532.302	577.627	0.283	1.924	20.892	***4.860***
2021-07-06 7:30	1001700	8.069	-93.453	20.852	532.110	577.890	0.283	3.605	20.852	***4.844***
2021-07-06 7:45	1002600	8.066	-93.257	20.814	530.296	576.385	0.282	2.894	20.814	***4.859***
2021-07-06 8:00	1003500	8.071	-93.515	20.767	531.745	578.517	0.283	2.429	20.767	***4.767***
2021-07-06 8:15	1004400	8.066	-93.253	20.733	531.334	578.479	0.283	3.687	20.733	***4.639***
2021-07-06 8:30	1005300	8.056	-92.664	20.801	531.243	577.565	0.283	3.272	20.801	***4.646***
2021-07-06 8:45	1006200	8.059	-92.859	20.858	531.886	577.575	0.283	3.964	20.858	***4.809***
2021-07-06 9:00	1007100	8.063	-93.119	20.900	532.426	577.662	0.283	4.318	20.900	***4.534***
2021-07-06 9:15	1008000	8.059	-92.883	20.887	532.638	578.051	0.283	2.866	20.887	***4.596***
2021-07-06 9:30	1008900	8.050	-92.328	20.873	532.667	578.247	0.283	2.721	20.873	***4.525***
2021-07-06 9:45	1009800	8.038	-91.662	20.896	532.330	577.609	0.283	4.053	20.896	***4.635***
2021-07-06 10:00	1010700	8.048	-92.287	21.035	535.069	578.911	0.283	3.884	21.035	***4.808***
2021-07-06 10:15	1011600	8.062	-93.117	21.134	534.188	576.781	0.282	3.822	21.134	***4.866***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-06 10:30	1012500	8.047	-92.320	21.281	536.276	577.281	0.283	4.401	21.281	***4.979***
2021-07-06 10:45	1013400	8.064	-93.379	21.493	538.620	577.283	0.283	3.027	21.493	***5.060***
2021-07-06 11:00	1014300	8.051	-92.669	21.710	541.105	577.390	0.283	3.842	21.710	***5.088***
2021-07-06 11:15	1015200	8.068	-93.732	21.899	539.917	573.910	0.281	3.611	21.899	***5.124***
2021-07-06 11:30	1016100	8.068	-93.772	22.107	545.661	577.575	0.283	3.635	22.107	***5.199***
2021-07-06 11:45	1017000	8.072	-94.097	22.339	549.658	579.095	0.283	3.112	22.339	***5.170***
2021-07-06 12:00	1017900	8.065	-93.760	22.570	546.552	573.157	0.280	3.150	22.570	***5.204***
2021-07-06 12:15	1018800	8.076	-94.442	22.700	554.406	579.876	0.284	4.503	22.700	***5.245***
2021-07-06 12:30	1019700	8.081	-94.748	22.777	556.847	581.536	0.285	3.530	22.777	***5.231***
2021-07-06 12:45	1020600	8.056	-93.353	22.942	559.630	582.528	0.285	3.223	22.942	***5.170***
2021-07-06 13:00	1021500	8.062	-93.772	23.195	562.380	582.462	0.285	11.924	23.195	***5.351***
2021-07-06 13:15	1022400	8.068	-94.249	23.512	565.832	582.380	0.285	2.412	23.512	***5.421***
2021-07-06 13:30	1023300	8.081	-95.091	23.819	569.406	582.542	0.285	2.678	23.819	***5.492***
2021-07-06 13:45	1024200	8.076	-94.910	24.134	577.749	587.462	0.288	2.531	24.134	***5.496***
2021-07-06 14:00	1025100	8.092	-95.961	24.497	580.369	585.999	0.287	5.313	24.497	***5.296***
2021-07-06 14:15	1026000	8.105	-96.726	24.474	578.638	584.507	0.286	2.878	24.474	***5.631***
2021-07-06 14:30	1026900	8.097	-96.343	24.646	581.854	585.811	0.287	2.938	24.646	***5.663***
2021-07-06 14:45	1027800	8.090	-95.956	24.890	584.891	586.122	0.287	2.776	24.890	***5.701***
2021-07-06 15:00	1028700	8.095	-96.350	25.154	588.973	587.243	0.288	3.016	25.154	***5.681***
2021-07-06 15:15	1029600	8.094	-96.376	25.321	590.620	587.018	0.287	2.540	25.321	***5.705***
2021-07-06 15:30	1030500	8.072	-95.074	25.361	591.262	587.218	0.288	2.921	25.361	***5.685***
2021-07-06 15:45	1031400	8.053	-93.954	25.476	593.127	587.786	0.288	120.424	25.476	***5.580***
2021-07-06 16:00	1032300	8.093	-96.428	25.665	595.721	588.248	0.288	122.459	25.665	***5.732***
2021-07-06 16:15	1033200	8.108	-97.165	25.196	586.529	584.336	0.286	42.511	25.196	***5.777***
2021-07-06 16:30	1034100	8.094	-96.333	25.328	589.771	586.103	0.287	43.477	25.328	***5.746***
2021-07-06 16:45	1035000	8.081	-95.556	25.232	586.807	584.214	0.286	42.059	25.232	***5.944***
2021-07-06 17:00	1035900	8.071	-95.024	25.341	588.745	584.935	0.286	22.192	25.341	***5.772***
2021-07-06 17:15	1036800	8.084	-95.842	25.647	585.605	578.456	0.283	3.468	25.647	***5.765***
2021-07-06 17:30	1037700	8.089	-96.238	25.815	587.583	578.579	0.283	2.886	25.815	***5.842***
2021-07-06 17:45	1038600	8.101	-97.003	25.989	590.913	579.952	0.284	2.751	25.989	***5.788***
2021-07-06 18:00	1039500	8.107	-97.427	26.236	594.331	580.628	0.284	3.771	26.236	***5.768***
2021-07-06 18:15	1040400	8.108	-97.487	26.277	594.241	580.090	0.284	2.592	26.277	***5.850***
2021-07-06 18:30	1041300	8.076	-95.587	26.260	593.515	579.572	0.284	2.667	26.260	***5.816***
2021-07-06 18:45	1042200	8.070	-95.232	26.235	598.791	584.996	0.286	3.024	26.235	***5.795***
2021-07-06 19:00	1043100	8.101	-97.070	26.163	597.611	584.620	0.286	2.473	26.163	***5.860***
2021-07-06 19:15	1044000	8.063	-94.798	26.187	598.482	585.213	0.286	1.779	26.187	***5.684***
2021-07-06 19:30	1044900	8.113	-97.690	26.053	595.278	583.547	0.286	2.671	26.053	***5.896***
2021-07-06 19:45	1045800	8.112	-97.592	25.936	595.582	585.118	0.286	2.295	25.936	***5.742***
2021-07-06 20:00	1046700	8.106	-97.189	25.788	589.848	581.102	0.284	2.625	25.788	***5.852***
2021-07-06 20:15	1047600	8.105	-97.136	25.641	587.230	580.130	0.284	2.651	25.641	***5.849***
2021-07-06 20:30	1048500	8.103	-96.896	25.436	583.814	578.992	0.283	10.350	25.436	***5.819***
2021-07-06 20:45	1049400	8.102	-96.836	25.280	581.464	578.370	0.283	2.254	25.280	***5.750***
2021-07-06 21:00	1050300	8.105	-96.912	25.126	579.385	577.995	0.283	2.613	25.126	***5.609***
2021-07-06 21:15	1051200	8.097	-96.443	24.967	577.643	578.012	0.283	2.393	24.967	***5.475***
2021-07-06 21:30	1052100	8.103	-96.729	24.825	575.789	577.721	0.283	3.462	24.825	***5.525***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-06 21:45	1053000	8.102	-96.614	24.687	578.897	582.382	0.285	2.256	24.687	***5.505***
2021-07-06 22:00	1053900	8.077	-95.081	24.553	574.831	579.784	0.284	2.472	24.553	***5.429***
2021-07-06 22:15	1054800	8.078	-95.131	24.407	566.295	572.783	0.280	2.627	24.407	***5.472***
2021-07-06 22:30	1055700	8.085	-95.470	24.281	563.204	571.044	0.279	2.711	24.281	***5.471***
2021-07-06 22:45	1056600	8.081	-95.232	24.155	564.159	573.418	0.281	3.643	24.155	***5.511***
2021-07-06 23:00	1057500	8.082	-95.203	24.034	571.059	581.791	0.285	6.496	24.034	***4.669***
2021-07-06 23:15	1058400	8.099	-96.204	23.918	570.068	582.097	0.285	3.555	23.918	***5.355***
2021-07-06 23:30	1059300	8.087	-95.472	23.801	568.098	581.409	0.285	4.723	23.801	***5.160***
2021-07-06 23:45	1060200	8.097	-96.011	23.682	566.828	581.461	0.285	4.861	23.682	***5.382***
2021-07-07 0:00	1061100	8.100	-96.121	23.560	565.213	581.203	0.285	5.684	23.560	***5.192***
2021-07-07 0:15	1062000	8.086	-95.303	23.462	564.009	581.077	0.284	3.890	23.462	***5.410***
2021-07-07 0:30	1062900	8.088	-95.375	23.347	563.050	581.403	0.285	3.993	23.347	***5.265***
2021-07-07 0:45	1063800	8.087	-95.284	23.233	562.131	581.771	0.285	4.303	23.233	***5.342***
2021-07-07 1:00	1064700	8.085	-95.096	23.141	561.282	581.946	0.285	5.133	23.141	***5.278***
2021-07-07 1:15	1065600	8.097	-95.782	23.026	559.747	581.674	0.285	4.000	23.026	***5.324***
2021-07-07 1:30	1066500	8.103	-96.087	22.930	558.490	581.485	0.285	4.992	22.930	***5.388***
2021-07-07 1:45	1067400	8.104	-96.135	22.838	557.468	581.479	0.285	3.820	22.838	***5.336***
2021-07-07 2:00	1068300	8.095	-95.563	22.728	556.760	582.018	0.285	3.786	22.728	***5.251***
2021-07-07 2:15	1069200	8.094	-95.496	22.650	555.885	582.009	0.285	5.106	22.650	***5.245***
2021-07-07 2:30	1070100	8.098	-95.716	22.549	553.793	580.992	0.284	4.281	22.549	***5.303***
2021-07-07 2:45	1071000	8.109	-96.333	22.463	552.529	580.665	0.284	4.254	22.463	***5.318***
2021-07-07 3:00	1071900	8.091	-95.215	22.374	551.937	581.084	0.284	3.538	22.374	***5.267***
2021-07-07 3:15	1072800	8.089	-95.091	22.292	551.427	581.503	0.285	3.740	22.292	***5.238***
2021-07-07 3:30	1073700	8.086	-94.864	22.194	549.869	581.010	0.284	3.726	22.194	***5.205***
2021-07-07 3:45	1074600	8.094	-95.291	22.106	548.794	580.899	0.284	3.729	22.106	***5.160***
2021-07-07 4:00	1075500	8.102	-95.749	22.033	547.659	580.556	0.284	3.262	22.033	***5.193***
2021-07-07 4:15	1076400	8.104	-95.856	21.952	546.800	580.599	0.284	3.850	21.952	***5.210***
2021-07-07 4:30	1077300	8.090	-95.007	21.871	545.826	580.525	0.284	2.978	21.871	***5.104***
2021-07-07 4:45	1078200	8.101	-95.637	21.782	544.538	580.202	0.284	3.922	21.782	***5.092***
2021-07-07 5:00	1079100	8.096	-95.332	21.714	543.619	580.026	0.284	2.876	21.714	***5.168***
2021-07-07 5:15	1080000	8.101	-95.563	21.636	542.612	579.865	0.284	3.009	21.636	***5.187***
2021-07-07 5:30	1080900	8.102	-95.608	21.569	542.124	580.143	0.284	3.402	21.569	***5.201***
2021-07-07 5:45	1081800	8.097	-95.270	21.495	541.267	580.104	0.284	3.091	21.495	***5.179***
2021-07-07 6:00	1082700	8.088	-94.721	21.425	540.328	579.930	0.284	2.542	21.425	***5.093***
2021-07-07 6:15	1083600	8.083	-94.445	21.356	539.795	580.172	0.284	2.317	21.356	***5.070***
2021-07-07 6:30	1084500	8.095	-95.122	21.296	538.859	579.885	0.284	7.210	21.296	***5.170***
2021-07-07 6:45	1085400	8.096	-95.165	21.249	538.023	579.549	0.284	11.094	21.249	***5.130***
2021-07-07 7:00	1086300	8.096	-95.115	21.207	532.749	574.357	0.281	11.252	21.207	***5.091***
2021-07-07 7:15	1087200	8.098	-95.270	21.177	537.002	579.305	0.284	38.240	21.177	***5.113***
2021-07-07 7:30	1088100	8.092	-94.905	21.148	536.888	579.525	0.284	22.882	21.148	***5.170***
2021-07-07 7:45	1089000	8.093	-94.943	21.112	536.531	579.569	0.284	2.661	21.112	***5.116***
2021-07-07 8:00	1089900	8.085	-94.461	21.095	536.462	579.702	0.284	2.392	21.095	***5.092***
2021-07-07 8:15	1090800	8.094	-95.010	21.086	536.356	579.689	0.284	2.589	21.086	***5.048***
2021-07-07 8:30	1091700	8.088	-94.626	21.079	536.202	579.604	0.284	1.785	21.079	***5.093***
2021-07-07 8:45	1092600	8.092	-94.881	21.079	535.994	579.381	0.284	2.524	21.079	***5.147***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-07 9:00	1093500	8.092	-94.900	21.098	536.289	579.482	0.284	4.675	21.098	***5.092***
2021-07-07 9:15	1094400	8.094	-94.974	21.115	536.153	579.122	0.283	2.668	21.115	***5.051***
2021-07-07 9:30	1095300	8.081	-94.264	21.142	536.672	579.360	0.284	2.852	21.142	***4.963***
2021-07-07 9:45	1096200	8.071	-93.691	21.175	536.921	579.235	0.284	2.135	21.175	***4.862***
2021-07-07 10:00	1097100	8.048	-92.378	21.254	537.509	578.926	0.283	2.369	21.254	***5.035***
2021-07-07 10:15	1098000	8.038	-91.767	21.338	537.028	577.418	0.283	2.876	21.338	***5.099***
2021-07-07 10:30	1098900	8.049	-92.461	21.471	540.031	579.061	0.283	1.720	21.471	***5.172***
2021-07-07 10:45	1099800	8.068	-93.670	21.648	542.372	579.468	0.284	2.882	21.648	***5.237***
2021-07-07 11:00	1100700	8.065	-93.558	21.831	544.970	580.079	0.284	2.914	21.831	***5.196***
2021-07-07 11:15	1101600	8.077	-94.318	22.014	547.390	580.501	0.284	2.748	22.014	***5.351***
2021-07-07 11:30	1102500	8.061	-93.408	22.260	550.941	581.364	0.285	2.563	22.260	***5.304***
2021-07-07 11:45	1103400	8.081	-94.652	22.501	554.530	582.329	0.285	3.464	22.501	***5.426***
2021-07-07 12:00	1104300	8.066	-93.875	22.784	558.500	583.182	0.286	2.309	22.784	***5.326***
2021-07-07 12:15	1105200	8.063	-93.799	22.992	561.648	584.044	0.286	2.452	22.992	***5.418***
2021-07-07 12:30	1106100	8.054	-93.260	23.050	561.706	583.437	0.286	2.711	23.050	***5.315***
2021-07-07 12:45	1107000	8.058	-93.541	23.127	562.827	583.709	0.286	2.110	23.127	***5.413***
2021-07-07 13:00	1107900	8.017	-91.190	23.267	563.964	583.265	0.286	2.600	23.267	***5.399***
2021-07-07 13:15	1108800	8.058	-93.651	23.581	569.737	585.613	0.287	1.805	23.581	***5.372***
2021-07-07 13:30	1109700	8.080	-95.050	23.830	572.041	585.111	0.287	2.382	23.830	***5.646***
2021-07-07 13:45	1110600	8.075	-94.705	23.746	570.628	584.625	0.286	3.139	23.746	***5.822***
2021-07-07 14:00	1111500	8.071	-94.519	23.888	573.412	585.854	0.287	2.721	23.888	***5.864***
2021-07-07 14:15	1112400	8.075	-94.683	23.616	568.276	583.704	0.286	3.845	23.616	***6.257***
2021-07-07 14:30	1113300	8.083	-95.291	24.031	571.568	582.348	0.285	3.914	24.031	***5.921***
2021-07-07 14:45	1114200	8.094	-95.842	23.708	569.216	583.623	0.286	4.198	23.708	***6.107***
2021-07-07 15:00	1115100	8.113	-97.189	24.494	581.753	587.434	0.288	4.064	24.494	***6.079***
2021-07-07 15:15	1116000	8.116	-97.430	24.694	583.213	586.638	0.287	2.766	24.694	***5.824***
2021-07-07 15:30	1116900	8.100	-96.629	25.000	587.213	587.215	0.288	4.299	25.000	***5.838***
2021-07-07 15:45	1117800	8.111	-97.373	25.343	591.803	587.956	0.288	2.976	25.343	***5.680***
2021-07-07 16:00	1118700	8.101	-96.743	25.218	589.194	586.749	0.287	3.935	25.218	***6.267***
2021-07-07 16:15	1119600	8.087	-96.056	25.661	596.603	589.162	0.288	2.905	25.661	***5.961***
2021-07-07 16:30	1120500	8.105	-97.098	25.531	595.122	589.143	0.288	2.938	25.531	***6.295***
2021-07-07 16:45	1121400	8.081	-95.754	25.768	597.961	589.313	0.289	2.816	25.768	***5.950***
2021-07-07 17:00	1122300	8.120	-98.040	25.690	596.897	589.130	0.288	3.172	25.690	***5.955***
2021-07-07 17:15	1123200	8.103	-97.029	25.753	597.874	589.402	0.289	2.638	25.753	***6.137***
2021-07-07 17:30	1124100	8.127	-98.493	25.903	599.911	589.735	0.289	117.159	25.903	***6.015***
2021-07-07 17:45	1125000	8.118	-97.990	25.922	600.228	589.836	0.289	2.321	25.922	***6.010***
2021-07-07 18:00	1125900	8.097	-96.741	25.919	601.264	590.891	0.289	1.544	25.919	***5.851***
2021-07-07 18:15	1126800	8.122	-98.228	25.966	602.378	591.461	0.290	1.825	25.966	***5.883***
2021-07-07 18:30	1127700	8.144	-99.442	25.676	596.243	588.641	0.288	2.083	25.676	***6.109***
2021-07-07 18:45	1128600	8.132	-98.681	25.499	594.401	588.784	0.288	2.056	25.499	***6.071***
2021-07-07 19:00	1129500	8.132	-98.662	25.481	595.114	589.692	0.289	2.123	25.481	***6.069***
2021-07-07 19:15	1130400	8.140	-99.101	25.371	593.931	589.746	0.289	2.353	25.371	***6.089***
2021-07-07 19:30	1131300	8.126	-98.300	25.404	592.341	587.808	0.288	2.555	25.404	***5.909***
2021-07-07 19:45	1132200	8.149	-99.616	25.367	593.811	589.677	0.289	2.048	25.367	***6.051***
2021-07-07 20:00	1133100	8.143	-99.211	25.185	591.678	589.598	0.289	1.992	25.185	***5.841***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-07 20:15	1134000	8.146	-99.323	25.031	590.052	589.708	0.289	2.180	25.031	***5.633***
2021-07-07 20:30	1134900	8.143	-99.075	24.854	589.949	591.603	0.290	2.874	24.854	***5.812***
2021-07-07 20:45	1135800	8.144	-99.118	24.682	588.733	592.326	0.290	2.178	24.682	***6.037***
2021-07-07 21:00	1136700	8.155	-99.657	24.443	584.211	590.488	0.289	2.068	24.443	***6.118***
2021-07-07 21:15	1137600	8.153	-99.466	24.254	581.464	589.874	0.289	1.728	24.254	***6.072***
2021-07-07 21:30	1138500	8.147	-99.099	24.101	581.150	591.299	0.290	1.847	24.101	***6.048***
2021-07-07 21:45	1139400	8.156	-99.590	23.960	580.078	591.838	0.290	2.016	23.960	***5.886***
2021-07-07 22:00	1140300	8.163	-99.947	23.834	577.661	590.821	0.289	2.503	23.834	***5.959***
2021-07-07 22:15	1141200	8.159	-99.664	23.734	575.611	589.876	0.289	2.425	23.734	***5.841***
2021-07-07 22:30	1142100	8.160	-99.704	23.629	573.797	589.224	0.289	2.589	23.629	***5.925***
2021-07-07 22:45	1143000	8.163	-99.843	23.533	574.599	591.166	0.290	1.371	23.533	***5.838***
2021-07-07 23:00	1143900	8.160	-99.614	23.426	569.405	587.051	0.287	2.796	23.426	***5.949***
2021-07-07 23:15	1144800	8.156	-99.347	23.316	570.156	589.108	0.289	3.008	23.316	***5.801***
2021-07-07 23:30	1145700	8.142	-98.481	23.217	569.416	589.494	0.289	3.851	23.217	***5.706***
2021-07-07 23:45	1146600	8.153	-99.106	23.085	566.748	588.268	0.288	3.309	23.085	***5.711***
2021-07-08 0:00	1147500	8.153	-99.041	22.993	566.652	589.237	0.289	3.145	22.993	***5.678***
2021-07-08 0:15	1148400	8.159	-99.385	22.909	564.993	588.495	0.288	3.348	22.909	***5.666***
2021-07-08 0:30	1149300	8.157	-99.273	22.842	564.291	588.544	0.288	7.583	22.842	***5.679***
2021-07-08 0:45	1150200	8.154	-99.032	22.766	562.176	587.231	0.288	2.661	22.766	***5.695***
2021-07-08 1:00	1151100	8.148	-98.650	22.684	561.400	587.388	0.288	2.556	22.684	***5.658***
2021-07-08 1:15	1152000	8.147	-98.567	22.612	560.461	587.251	0.288	32.777	22.612	***5.641***
2021-07-08 1:30	1152900	8.148	-98.636	22.545	559.609	587.143	0.288	2.883	22.545	***5.571***
2021-07-08 1:45	1153800	8.149	-98.636	22.480	557.330	585.507	0.287	5.118	22.480	***5.583***
2021-07-08 2:00	1154700	8.143	-98.271	22.409	556.619	585.596	0.287	2.547	22.409	***5.508***
2021-07-08 2:15	1155600	8.140	-98.062	22.338	556.017	585.807	0.287	3.119	22.338	***5.622***
2021-07-08 2:30	1156500	8.136	-97.818	22.272	554.413	584.889	0.286	3.056	22.272	***5.557***
2021-07-08 2:45	1157400	8.137	-97.840	22.205	577.005	609.548	0.299	2.071	22.205	***5.498***
2021-07-08 3:00	1158300	8.128	-97.322	22.126	584.239	618.171	0.303	2.829	22.126	***5.561***
2021-07-08 3:15	1159200	8.127	-97.229	22.055	584.982	619.844	0.304	3.937	22.055	***5.548***
2021-07-08 3:30	1160100	8.120	-96.776	21.976	580.428	616.004	0.302	3.880	21.976	***5.337***
2021-07-08 3:45	1161000	8.117	-96.626	21.904	575.517	611.683	0.300	2.577	21.904	***5.273***
2021-07-08 4:00	1161900	8.113	-96.309	21.827	577.805	615.079	0.302	3.002	21.827	***5.350***
2021-07-08 4:15	1162800	8.114	-96.366	21.755	549.137	585.416	0.287	2.176	21.755	***5.357***
2021-07-08 4:30	1163700	8.119	-96.629	21.696	548.634	585.586	0.287	2.507	21.696	***5.336***
2021-07-08 4:45	1164600	8.116	-96.450	21.633	548.029	585.696	0.287	2.359	21.633	***5.332***
2021-07-08 5:00	1165500	8.113	-96.250	21.567	547.333	585.744	0.287	4.797	21.567	***5.291***
2021-07-08 5:15	1166400	8.098	-95.344	21.497	545.187	584.277	0.286	1.407	21.497	***5.081***
2021-07-08 5:30	1167300	8.115	-96.307	21.442	544.272	583.959	0.286	1.597	21.442	***5.109***
2021-07-08 5:45	1168200	8.106	-95.758	21.370	543.297	583.774	0.286	1.238	21.370	***5.162***
2021-07-08 6:00	1169100	8.114	-96.221	21.317	542.679	583.738	0.286	1.978	21.317	***5.206***
2021-07-08 6:15	1170000	8.104	-95.608	21.267	542.292	583.928	0.286	1.336	21.267	***5.259***
2021-07-08 6:30	1170900	8.106	-95.737	21.215	541.667	583.875	0.286	2.257	21.215	***5.133***
2021-07-08 6:45	1171800	8.109	-95.904	21.192	541.307	583.765	0.286	1.937	21.192	***5.185***
2021-07-08 7:00	1172700	8.085	-94.509	21.187	541.525	584.065	0.286	1.623	21.187	***4.948***
2021-07-08 7:15	1173600	8.096	-95.110	21.174	541.330	584.013	0.286	1.686	21.174	***5.217***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-08 7:30	1174500	8.115	-96.231	21.146	541.007	583.990	0.286	2.326	21.146	***5.130***
2021-07-08 7:45	1175400	8.116	-96.307	21.136	540.983	584.095	0.286	2.262	21.136	***5.256***
2021-07-08 8:00	1176300	8.113	-96.097	21.124	541.711	585.021	0.286	0.991	21.124	***5.257***
2021-07-08 8:15	1177200	8.115	-96.214	21.127	541.621	584.884	0.286	2.096	21.127	***5.209***
2021-07-08 8:30	1178100	8.117	-96.362	21.137	541.920	585.086	0.286	1.580	21.137	***5.236***
2021-07-08 8:45	1179000	8.121	-96.583	21.173	542.451	585.233	0.287	2.131	21.173	***5.205***
2021-07-08 9:00	1179900	8.121	-96.602	21.220	543.077	585.336	0.287	3.536	21.220	***5.138***
2021-07-08 9:15	1180800	8.062	-93.160	21.257	543.594	585.445	0.287	2.586	21.257	***5.219***
2021-07-08 9:30	1181700	8.116	-96.366	21.289	543.800	585.285	0.287	2.229	21.289	***5.291***
2021-07-08 9:45	1182600	8.110	-95.990	21.325	544.361	585.452	0.287	2.144	21.325	***5.185***
2021-07-08 10:00	1183500	8.115	-96.300	21.372	544.579	585.128	0.286	2.469	21.372	***5.153***
2021-07-08 10:15	1184400	8.123	-96.810	21.441	545.708	585.515	0.287	2.476	21.441	***5.308***
2021-07-08 10:30	1185300	8.132	-97.356	21.530	546.373	585.155	0.287	2.182	21.530	***5.351***
2021-07-08 10:45	1186200	8.135	-97.580	21.603	547.268	585.236	0.287	4.358	21.603	***5.417***
2021-07-08 11:00	1187100	8.135	-97.582	21.650	548.101	585.569	0.287	2.280	21.650	***5.453***
2021-07-08 11:15	1188000	8.132	-97.392	21.694	548.842	585.829	0.287	2.346	21.694	***5.547***
2021-07-08 11:30	1188900	8.129	-97.268	21.761	550.091	586.370	0.287	6.123	21.761	***5.383***
2021-07-08 11:45	1189800	8.134	-97.592	21.859	551.525	586.728	0.287	2.898	21.859	***5.569***
2021-07-08 12:00	1190700	8.136	-97.706	21.973	553.425	587.390	0.288	3.567	21.973	***5.566***
2021-07-08 12:15	1191600	8.129	-97.344	22.081	555.395	588.189	0.288	2.230	22.081	***5.567***
2021-07-08 12:30	1192500	8.136	-97.795	22.189	557.168	588.779	0.288	3.108	22.189	***5.645***
2021-07-08 12:45	1193400	8.141	-98.102	22.264	558.307	589.096	0.289	2.440	22.264	***5.705***
2021-07-08 13:00	1194300	8.142	-98.219	22.323	559.416	589.563	0.289	2.052	22.323	***5.730***
2021-07-08 13:15	1195200	8.142	-98.217	22.396	560.528	589.869	0.289	3.023	22.396	***5.687***
2021-07-08 13:30	1196100	8.127	-97.334	22.450	561.745	590.507	0.289	3.893	22.450	***5.734***
2021-07-08 13:45	1197000	8.113	-96.550	22.469	562.134	590.694	0.289	3.181	22.469	***5.654***
2021-07-08 14:00	1197900	8.086	-94.941	22.381	559.850	589.327	0.289	3.042	22.381	***5.587***
2021-07-08 14:15	1198800	8.085	-94.972	22.606	561.820	588.738	0.288	8.035	22.606	***5.470***
2021-07-08 14:30	1199700	8.108	-96.340	22.774	565.584	590.694	0.289	6.755	22.774	***5.535***
2021-07-08 14:45	1200600	8.110	-96.493	22.848	566.531	590.821	0.289	5.592	22.848	***5.664***
2021-07-08 15:00	1201500	8.092	-95.494	22.958	568.078	591.132	0.290	5.701	22.958	***5.615***
2021-07-08 15:15	1202400	8.113	-96.738	23.094	570.187	591.730	0.290	3.268	23.094	***5.737***
2021-07-08 15:30	1203300	8.104	-96.257	23.170	571.260	591.955	0.290	3.017	23.170	***5.950***
2021-07-08 15:45	1204200	8.104	-96.276	23.238	572.510	592.444	0.290	2.577	23.238	***6.032***
2021-07-08 16:00	1205100	8.143	-98.565	23.318	573.193	592.220	0.290	2.371	23.318	***6.170***
2021-07-08 16:15	1206000	8.137	-98.245	23.384	574.381	592.670	0.290	9.092	23.384	***6.192***
2021-07-08 16:30	1206900	8.121	-97.342	23.487	575.637	592.768	0.290	2.142	23.487	***6.106***
2021-07-08 16:45	1207800	8.116	-97.098	23.579	576.488	592.575	0.290	3.057	23.579	***6.020***
2021-07-08 17:00	1208700	8.140	-98.531	23.751	577.820	591.942	0.290	3.359	23.751	***6.218***
2021-07-08 17:15	1209600	8.175	-100.629	23.702	578.668	593.376	0.291	2.894	23.702	***6.389***
2021-07-08 17:30	1210500	8.197	-101.914	23.748	579.718	593.915	0.291	3.967	23.748	***6.147***
2021-07-08 17:45	1211400	8.201	-102.193	23.820	580.919	594.309	0.291	2.366	23.820	***6.235***
2021-07-08 18:00	1212300	8.228	-103.796	23.865	581.487	594.370	0.291	2.723	23.865	***6.229***
2021-07-08 18:15	1213200	8.241	-104.582	23.895	589.194	601.899	0.295	2.586	23.895	***6.241***
2021-07-08 18:30	1214100	8.240	-104.518	23.911	589.496	602.017	0.295	82.089	23.911	***6.259***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-08 18:45	1215000	8.241	-104.537	23.892	581.404	593.974	0.291	1.630	23.892	***6.412***
2021-07-08 19:00	1215900	8.234	-104.108	23.859	580.654	593.588	0.291	1.841	23.859	***6.422***
2021-07-08 19:15	1216800	8.236	-104.253	23.813	579.056	592.493	0.290	1.483	23.813	***6.441***
2021-07-08 19:30	1217700	8.232	-103.993	23.765	578.778	592.759	0.290	1.131	23.765	***6.434***
2021-07-08 19:45	1218600	8.226	-103.605	23.715	579.184	593.760	0.291	0.791	23.715	***6.427***
2021-07-08 20:00	1219500	8.227	-103.660	23.644	578.054	593.420	0.291	2.585	23.644	***6.323***
2021-07-08 20:15	1220400	8.233	-103.996	23.559	577.337	593.680	0.291	2.406	23.559	***6.428***
2021-07-08 20:30	1221300	8.237	-104.191	23.472	577.014	594.358	0.291	2.365	23.472	***6.374***
2021-07-08 20:45	1222200	8.233	-103.917	23.397	576.428	594.638	0.291	2.436	23.397	***6.201***
2021-07-08 21:00	1223100	8.238	-104.175	23.309	575.682	594.892	0.291	1.879	23.309	***6.333***
2021-07-08 21:15	1224000	8.244	-104.513	23.221	579.330	599.707	0.294	1.862	23.221	***6.135***
2021-07-08 21:30	1224900	8.246	-104.561	23.110	576.206	597.791	0.293	2.296	23.110	***6.140***
2021-07-08 21:45	1225800	8.240	-104.208	23.016	572.230	594.768	0.291	2.565	23.016	***6.153***
2021-07-08 22:00	1226700	8.237	-103.984	22.920	570.581	594.191	0.291	2.015	22.920	***6.125***
2021-07-08 22:15	1227600	8.241	-104.203	22.812	568.869	593.684	0.291	2.622	22.812	***6.118***
2021-07-08 22:30	1228500	8.238	-103.943	22.708	569.232	595.292	0.292	2.020	22.708	***6.072***
2021-07-08 22:45	1229400	8.238	-103.927	22.600	567.210	594.460	0.291	1.902	22.600	***6.059***
2021-07-08 23:00	1230300	8.235	-103.693	22.495	564.674	593.046	0.291	2.176	22.495	***5.954***
2021-07-08 23:15	1231200	8.223	-102.973	22.408	564.123	593.503	0.291	124.272	22.408	***5.857***
2021-07-08 23:30	1232100	8.226	-103.099	22.329	562.201	592.420	0.290	2.458	22.329	***5.895***
2021-07-08 23:45	1233000	8.210	-102.179	22.231	561.028	592.355	0.290	2.743	22.231	***5.864***
2021-07-09 0:00	1233900	8.200	-101.526	22.147	559.940	592.209	0.290	3.934	22.147	***5.784***
2021-07-09 0:15	1234800	8.195	-101.235	22.067	558.196	591.324	0.290	3.088	22.067	***5.714***
2021-07-09 0:30	1235700	8.204	-101.700	21.992	558.042	592.060	0.290	2.853	21.992	***5.725***
2021-07-09 0:45	1236600	8.207	-101.840	21.911	557.132	592.059	0.290	2.354	21.911	***5.548***
2021-07-09 1:00	1237500	8.196	-101.211	21.847	556.318	591.973	0.290	2.815	21.847	***5.482***
2021-07-09 1:15	1238400	8.198	-101.278	21.768	552.018	588.332	0.288	3.257	21.768	***5.600***
2021-07-09 1:30	1239300	8.192	-100.946	21.703	548.717	585.596	0.287	2.471	21.703	***5.718***
2021-07-09 1:45	1240200	8.197	-101.216	21.633	549.281	587.029	0.287	4.093	21.633	***5.740***
2021-07-09 2:00	1241100	8.195	-101.054	21.557	552.874	591.795	0.290	2.045	21.557	***5.604***
2021-07-09 2:15	1242000	8.180	-100.129	21.516	552.196	591.559	0.290	1.850	21.516	***5.612***
2021-07-09 2:30	1242900	8.186	-100.489	21.449	551.505	591.629	0.290	1.413	21.449	***5.617***
2021-07-09 2:45	1243800	8.183	-100.298	21.386	548.564	589.240	0.289	1.503	21.386	***5.592***
2021-07-09 3:00	1244700	8.180	-100.100	21.325	547.889	589.253	0.289	1.543	21.325	***5.543***
2021-07-09 3:15	1245600	8.189	-100.620	21.284	546.897	588.681	0.288	2.243	21.284	***5.567***
2021-07-09 3:30	1246500	8.186	-100.431	21.230	546.749	589.174	0.289	2.104	21.230	***5.565***
2021-07-09 3:45	1247400	8.169	-99.387	21.146	548.159	591.711	0.290	1.829	21.146	***5.392***
2021-07-09 4:00	1248300	8.177	-99.838	21.112	548.072	592.043	0.290	1.647	21.112	***5.423***
2021-07-09 4:15	1249200	8.182	-100.090	21.056	547.359	591.957	0.290	2.102	21.056	***5.472***
2021-07-09 4:30	1250100	8.178	-99.866	21.009	547.036	592.173	0.290	2.777	21.009	***5.481***
2021-07-09 4:45	1251000	8.157	-98.615	20.940	546.544	592.485	0.290	2.363	20.940	***5.262***
2021-07-09 5:00	1251900	8.182	-100.088	20.898	545.864	592.270	0.290	4.332	20.898	***5.218***
2021-07-09 5:15	1252800	8.168	-99.239	20.852	545.680	592.630	0.290	5.965	20.852	***5.083***
2021-07-09 5:30	1253700	8.166	-99.103	20.778	545.019	592.829	0.290	1.854	20.778	***5.132***
2021-07-09 5:45	1254600	8.161	-98.782	20.719	544.312	592.777	0.290	1.777	20.719	***5.100***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-09 6:00	1255500	8.155	-98.405	20.694	543.855	592.596	0.290	1.859	20.694	***5.124***
2021-07-09 6:15	1256400	8.147	-97.930	20.670	543.461	592.464	0.290	1.459	20.670	***5.012***
2021-07-09 6:30	1257300	8.151	-98.176	20.605	542.795	592.536	0.290	1.613	20.605	***5.080***
2021-07-09 6:45	1258200	8.146	-97.823	20.567	542.331	592.496	0.290	2.633	20.567	***5.024***
2021-07-09 7:00	1259100	8.151	-98.169	20.564	541.994	592.169	0.290	2.204	20.564	***5.078***
2021-07-09 7:15	1260000	8.147	-97.914	20.546	541.749	592.119	0.290	2.015	20.546	***5.071***
2021-07-09 7:30	1260900	8.146	-97.821	20.547	541.445	591.781	0.290	2.730	20.547	***5.089***
2021-07-09 7:45	1261800	8.148	-97.961	20.542	541.225	591.599	0.290	1.918	20.542	***5.014***
2021-07-09 8:00	1262700	8.135	-97.184	20.545	541.219	591.549	0.290	2.033	20.545	***4.961***
2021-07-09 8:15	1263600	8.140	-97.497	20.552	541.246	591.493	0.290	2.190	20.552	***4.926***
2021-07-09 8:30	1264500	8.137	-97.299	20.561	540.532	590.611	0.289	1.763	20.561	***4.862***
2021-07-09 8:45	1265400	8.130	-96.955	20.599	541.504	591.206	0.290	2.063	20.599	***4.945***
2021-07-09 9:00	1266300	8.121	-96.414	20.627	541.939	591.328	0.290	2.351	20.627	***4.901***
2021-07-09 9:15	1267200	8.123	-96.560	20.678	542.508	591.324	0.290	2.901	20.678	***4.984***
2021-07-09 9:30	1268100	8.125	-96.686	20.699	542.829	591.408	0.290	6.016	20.699	***5.035***
2021-07-09 9:45	1269000	8.130	-96.998	20.749	543.557	591.594	0.290	1.542	20.749	***4.989***
2021-07-09 10:00	1269900	8.117	-96.226	20.850	544.941	591.853	0.290	2.378	20.850	***5.099***
2021-07-09 10:15	1270800	8.118	-96.366	20.961	546.488	592.167	0.290	1.900	20.961	***5.181***
2021-07-09 10:30	1271700	8.119	-96.414	21.065	547.767	592.277	0.290	2.285	21.065	***5.222***
2021-07-09 10:45	1272600	8.117	-96.352	21.206	549.555	592.485	0.290	3.196	21.206	***5.265***
2021-07-09 11:00	1273500	8.110	-96.030	21.339	550.959	592.379	0.290	2.245	21.339	***5.147***
2021-07-09 11:15	1274400	8.118	-96.505	21.483	552.392	592.166	0.290	2.601	21.483	***5.292***
2021-07-09 11:30	1275300	8.098	-95.387	21.661	553.918	591.650	0.290	2.274	21.661	***5.166***
2021-07-09 11:45	1276200	8.079	-94.309	21.778	554.721	591.095	0.290	1.927	21.778	***4.720***
2021-07-09 12:00	1277100	8.068	-93.689	21.787	554.918	591.193	0.290	1.677	21.787	***5.234***
2021-07-09 12:15	1278000	8.101	-95.561	21.567	551.297	589.983	0.289	3.738	21.567	***5.715***
2021-07-09 12:30	1278900	8.107	-95.928	21.587	551.829	590.309	0.289	3.592	21.587	***5.640***
2021-07-09 12:45	1279800	8.127	-97.113	21.641	552.388	590.256	0.289	3.191	21.641	***5.634***
2021-07-09 13:00	1280700	8.123	-96.936	21.883	556.158	591.363	0.290	4.259	21.883	***5.420***
2021-07-09 13:15	1281600	8.114	-96.462	22.091	559.002	591.892	0.290	3.810	22.091	***5.444***
2021-07-09 13:30	1282500	8.143	-98.169	22.081	558.364	591.336	0.290	2.318	22.081	***5.492***
2021-07-09 13:45	1283400	8.155	-98.882	22.102	558.714	591.458	0.290	2.950	22.102	***5.653***
2021-07-09 14:00	1284300	8.149	-98.546	22.182	559.489	591.319	0.290	4.367	22.182	***5.723***
2021-07-09 14:15	1285200	8.060	-93.431	22.417	566.916	596.335	0.292	5.162	22.417	***5.952***
2021-07-09 14:30	1286100	8.160	-99.294	22.396	571.156	601.052	0.295	5.750	22.396	***6.185***
2021-07-09 14:45	1287000	8.140	-98.155	22.514	572.062	600.583	0.294	2.501	22.514	***5.951***
2021-07-09 15:00	1287900	8.188	-101.085	22.944	573.391	596.832	0.292	4.726	22.944	6.578
2021-07-09 15:15	1288800	8.145	-98.648	23.227	573.200	593.294	0.291	3.984	23.227	***6.186***
2021-07-09 15:30	1289700	8.158	-99.411	23.167	569.516	590.177	0.289	2.889	23.167	6.637
2021-07-09 15:45	1290600	8.167	-99.986	23.244	571.971	591.815	0.290	4.558	23.244	6.941
2021-07-09 16:00	1291500	8.136	-98.209	23.332	573.339	592.209	0.290	4.608	23.332	***6.481***
2021-07-09 16:15	1292400	8.129	-97.804	23.359	579.323	598.072	0.293	2.808	23.359	***6.253***
2021-07-09 16:30	1293300	8.119	-97.198	23.441	565.132	582.473	0.285	4.404	23.441	***6.292***
2021-07-09 16:45	1294200	8.153	-99.304	23.715	567.985	582.280	0.285	4.888	23.715	***6.405***
2021-07-09 17:00	1295100	8.205	-102.615	24.451	586.108	592.320	0.290	3.519	24.451	7.095

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-09 17:15	1296000	8.175	-100.875	24.573	588.995	593.838	0.291	2.399	24.573	6.779
2021-07-09 17:30	1296900	8.151	-99.397	24.340	593.001	600.574	0.294	2.421	24.340	6.669
2021-07-09 17:45	1297800	8.163	-100.048	24.084	613.636	624.565	0.306	3.358	24.084	6.844
2021-07-09 18:00	1298700	8.165	-100.212	24.209	616.075	625.530	0.307	3.717	24.209	6.890
2021-07-09 18:15	1299600	8.181	-101.070	24.116	614.262	624.806	0.307	2.696	24.116	6.992
2021-07-09 18:30	1300500	8.158	-99.778	24.167	614.450	624.379	0.306	1.634	24.167	6.800
2021-07-09 18:45	1301400	8.134	-98.407	24.312	614.278	622.456	0.305	2.735	24.312	6.578
2021-07-09 19:00	1302300	8.118	-97.482	24.474	610.802	617.000	0.303	2.679	24.474	***4.922***
2021-07-09 19:15	1303200	8.116	-97.375	24.490	625.227	631.377	0.310	2.336	24.490	***5.981***
2021-07-09 19:30	1304100	8.175	-100.982	24.751	615.091	618.036	0.303	2.474	24.751	***6.133***
2021-07-09 19:45	1305000	8.188	-101.774	24.831	610.047	612.027	0.300	2.094	24.831	***6.068***
2021-07-09 20:00	1305900	8.180	-101.285	24.830	604.942	606.911	0.297	1.475	24.830	***5.620***
2021-07-09 20:15	1306800	8.206	-102.785	24.767	618.869	621.633	0.305	2.751	24.767	***5.844***
2021-07-09 20:30	1307700	8.210	-102.978	24.671	618.764	622.672	0.305	1.628	24.671	***5.797***
2021-07-09 20:45	1308600	8.209	-102.890	24.552	614.005	619.309	0.304	1.904	24.552	***5.887***
2021-07-09 21:00	1309500	8.211	-102.952	24.440	609.904	616.500	0.302	1.947	24.440	***5.953***
2021-07-09 21:15	1310400	8.207	-102.735	24.345	609.106	616.817	0.303	1.793	24.345	***5.856***
2021-07-09 21:30	1311300	8.215	-103.164	24.231	609.160	618.242	0.303	2.200	24.231	***5.915***
2021-07-09 21:45	1312200	8.212	-102.913	24.116	596.891	607.146	0.298	2.224	24.116	***5.942***
2021-07-09 22:00	1313100	8.208	-102.654	23.972	596.340	608.286	0.298	2.301	23.972	***5.920***
2021-07-09 22:15	1314000	8.209	-102.670	23.859	594.515	607.760	0.298	1.491	23.859	***5.888***
2021-07-09 22:30	1314900	8.209	-102.649	23.745	593.875	608.459	0.298	1.883	23.745	***5.827***
2021-07-09 22:45	1315800	8.206	-102.420	23.628	591.025	606.932	0.298	1.655	23.628	***5.689***
2021-07-09 23:00	1316700	8.208	-102.499	23.525	581.880	598.754	0.293	2.250	23.525	***5.843***
2021-07-09 23:15	1317600	8.206	-102.317	23.416	576.776	594.774	0.291	1.698	23.416	***5.615***
2021-07-09 23:30	1318500	8.200	-101.926	23.320	575.377	594.452	0.291	1.645	23.320	***5.496***
2021-07-09 23:45	1319400	8.193	-101.473	23.216	572.694	592.897	0.290	2.002	23.216	***5.541***
2021-07-10 0:00	1320300	8.195	-101.600	23.104	571.452	592.918	0.290	2.985	23.104	***5.659***
2021-07-10 0:15	1321200	8.189	-101.197	22.998	574.339	597.176	0.293	15.497	22.998	***5.633***
2021-07-10 0:30	1322100	8.201	-101.855	22.919	572.717	596.424	0.292	3.217	22.919	***5.700***
2021-07-10 0:45	1323000	8.187	-101.037	22.828	572.268	597.039	0.293	4.211	22.828	***5.634***
2021-07-10 1:00	1323900	8.187	-100.958	22.740	570.840	596.598	0.292	3.209	22.740	***5.569***
2021-07-10 1:15	1324800	8.177	-100.379	22.635	569.957	596.925	0.292	3.217	22.635	***5.356***
2021-07-10 1:30	1325700	8.168	-99.785	22.570	569.150	596.847	0.292	2.742	22.570	***5.473***
2021-07-10 1:45	1326600	8.186	-100.830	22.499	568.226	596.731	0.292	4.059	22.499	***5.586***
2021-07-10 2:00	1327500	8.174	-100.107	22.429	567.539	596.849	0.292	3.197	22.429	***5.610***
2021-07-10 2:15	1328400	8.192	-101.156	22.379	566.689	596.554	0.292	2.941	22.379	***5.550***
2021-07-10 2:30	1329300	8.186	-100.756	22.299	565.811	596.583	0.292	2.546	22.299	***5.554***
2021-07-10 2:45	1330200	8.175	-100.131	22.228	565.619	597.238	0.293	2.144	22.228	***5.451***
2021-07-10 3:00	1331100	8.173	-99.947	22.188	563.275	595.242	0.292	2.705	22.188	***5.447***
2021-07-10 3:15	1332000	8.172	-99.885	22.143	557.222	589.382	0.289	2.345	22.143	***5.367***
2021-07-10 3:30	1332900	8.173	-99.940	22.078	556.548	589.446	0.289	1.942	22.078	***5.351***
2021-07-10 3:45	1333800	8.178	-100.236	22.038	549.553	582.508	0.285	2.716	22.038	***5.446***
2021-07-10 4:00	1334700	8.178	-100.191	21.958	553.278	587.408	0.288	2.077	21.958	***5.363***
2021-07-10 4:15	1335600	8.161	-99.192	21.913	552.616	587.241	0.288	1.889	21.913	***5.392***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-10 4:30	1336500	8.177	-100.093	21.852	551.855	587.156	0.288	1.752	21.852	***5.368***
2021-07-10 4:45	1337400	8.168	-99.559	21.785	553.634	589.860	0.289	1.841	21.785	***5.232***
2021-07-10 5:00	1338300	8.173	-99.833	21.755	545.654	581.710	0.285	2.012	21.755	***5.252***
2021-07-10 5:15	1339200	8.161	-99.094	21.741	544.403	580.541	0.284	1.734	21.741	***5.357***
2021-07-10 5:30	1340100	8.170	-99.614	21.679	544.448	581.318	0.285	1.887	21.679	***5.216***
2021-07-10 5:45	1341000	8.160	-99.013	21.627	562.616	601.364	0.295	2.225	21.627	***5.286***
2021-07-10 6:00	1341900	8.171	-99.666	21.592	561.721	600.834	0.294	1.926	21.592	***5.216***
2021-07-10 6:15	1342800	8.172	-99.695	21.562	567.856	607.772	0.298	2.586	21.562	***5.117***
2021-07-10 6:30	1343700	8.174	-99.833	21.522	567.590	607.982	0.298	1.836	21.522	***5.209***
2021-07-10 6:45	1344600	8.169	-99.523	21.496	555.940	595.813	0.292	2.129	21.496	***5.208***
2021-07-10 7:00	1345500	8.160	-98.941	21.456	556.982	597.422	0.293	2.591	21.456	***5.216***
2021-07-10 7:15	1346400	8.161	-99.008	21.417	556.092	596.944	0.292	2.265	21.417	***5.177***
2021-07-10 7:30	1347300	8.170	-99.480	21.328	555.262	597.148	0.293	2.220	21.328	***5.165***
2021-07-10 7:45	1348200	8.165	-99.175	21.258	554.405	597.074	0.293	2.270	21.258	***5.176***
2021-07-10 8:00	1349100	8.163	-99.082	21.242	554.035	596.878	0.292	2.452	21.242	***5.155***
2021-07-10 8:15	1350000	8.162	-98.982	21.236	554.097	597.020	0.292	2.031	21.236	***5.120***
2021-07-10 8:30	1350900	8.159	-98.820	21.227	553.928	596.950	0.292	2.121	21.227	***5.097***
2021-07-10 8:45	1351800	8.155	-98.577	21.210	553.881	597.105	0.293	1.862	21.210	***5.079***
2021-07-10 9:00	1352700	8.149	-98.219	21.199	552.284	595.517	0.292	2.280	21.199	***5.122***
2021-07-10 9:15	1353600	8.159	-98.801	21.183	552.021	595.426	0.292	2.144	21.183	***5.055***
2021-07-10 9:30	1354500	8.150	-98.279	21.162	551.842	595.496	0.292	1.968	21.162	***4.921***
2021-07-10 9:45	1355400	8.150	-98.307	21.160	551.355	594.994	0.291	2.260	21.160	***5.029***
2021-07-10 10:00	1356300	8.156	-98.655	21.160	551.733	595.404	0.292	1.925	21.160	***4.907***
2021-07-10 10:15	1357200	8.153	-98.467	21.146	551.561	595.391	0.292	1.938	21.146	***4.967***
2021-07-10 10:30	1358100	8.151	-98.333	21.132	551.458	595.446	0.292	1.940	21.132	***4.952***
2021-07-10 10:45	1359000	8.139	-97.656	21.157	551.331	595.005	0.291	1.879	21.157	***5.070***
2021-07-10 11:00	1359900	8.147	-98.119	21.204	552.365	595.550	0.292	1.302	21.204	***5.032***
2021-07-10 11:15	1360800	8.158	-98.803	21.316	552.796	594.633	0.291	2.289	21.316	***5.213***
2021-07-10 11:30	1361700	8.168	-99.475	21.545	551.176	590.123	0.289	2.832	21.545	***5.439***
2021-07-10 11:45	1362600	8.154	-98.712	21.695	553.649	590.952	0.289	2.746	21.695	***5.513***
2021-07-10 12:00	1363500	8.137	-97.697	21.753	554.880	591.569	0.290	2.594	21.753	***5.465***
2021-07-10 12:15	1364400	8.140	-97.935	21.793	551.885	587.900	0.288	3.160	21.793	***5.355***
2021-07-10 12:30	1365300	8.177	-100.088	21.823	553.458	589.211	0.289	3.890	21.823	***5.313***
2021-07-10 12:45	1366200	8.179	-100.224	21.844	555.382	591.007	0.289	3.947	21.844	***5.465***
2021-07-10 13:00	1367100	8.164	-99.316	21.840	556.349	592.085	0.290	2.190	21.840	***5.607***
2021-07-10 13:15	1368000	8.124	-96.896	21.651	556.259	594.268	0.291	2.418	21.651	***5.267***
2021-07-10 13:30	1368900	8.080	-94.371	21.685	557.102	594.762	0.291	2.006	21.685	***5.133***
2021-07-10 13:45	1369800	8.091	-95.043	21.892	556.327	591.441	0.290	2.770	21.892	***5.104***
2021-07-10 14:00	1370700	8.107	-96.054	22.076	558.601	591.644	0.290	3.870	22.076	***5.370***
2021-07-10 14:15	1371600	8.127	-97.265	22.242	560.959	592.149	0.290	2.307	22.242	***5.468***
2021-07-10 14:30	1372500	8.129	-97.468	22.349	561.972	591.950	0.290	2.233	22.349	***5.336***
2021-07-10 14:45	1373400	8.109	-96.254	22.338	563.006	593.168	0.291	2.957	22.338	***5.501***
2021-07-10 15:00	1374300	8.120	-96.910	22.385	564.167	593.823	0.291	5.273	22.385	***5.512***
2021-07-10 15:15	1375200	8.120	-96.936	22.438	564.467	593.513	0.291	3.513	22.438	***5.753***
2021-07-10 15:30	1376100	8.100	-95.806	22.571	571.557	599.359	0.294	1.439	22.571	***5.842***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-10 15:45	1377000	8.101	-95.840	22.542	569.738	597.804	0.293	2.019	22.542	***6.119***
2021-07-10 16:00	1377900	8.111	-96.407	22.448	569.271	598.440	0.293	10.272	22.448	***5.833***
2021-07-10 16:15	1378800	8.059	-93.448	22.665	571.857	598.556	0.293	2.919	22.665	***5.465***
2021-07-10 16:30	1379700	8.079	-94.669	22.821	571.413	596.223	0.292	3.186	22.821	***5.371***
2021-07-10 16:45	1380600	8.105	-96.204	22.778	571.224	596.542	0.292	1.763	22.778	***6.146***
2021-07-10 17:00	1381500	8.078	-94.635	22.844	575.072	599.768	0.294	14.284	22.844	***6.042***
2021-07-10 17:15	1382400	8.127	-97.563	23.082	577.722	599.688	0.294	15.866	23.082	***5.887***
2021-07-10 17:30	1383300	8.182	-100.896	23.389	582.003	600.475	0.294	20.049	23.389	***6.228***
2021-07-10 17:45	1384200	8.191	-101.392	23.328	580.811	599.976	0.294	18.153	23.328	***6.332***
2021-07-10 18:00	1385100	8.191	-101.378	23.150	577.897	599.066	0.294	25.623	23.150	***6.049***
2021-07-10 18:15	1386000	8.196	-101.571	22.842	573.804	598.473	0.293	4.496	22.842	***6.316***
2021-07-10 18:30	1386900	8.189	-101.094	22.671	571.659	598.274	0.293	10.421	22.671	***6.325***
2021-07-10 18:45	1387800	8.175	-100.181	22.518	570.626	599.025	0.294	8.222	22.518	***6.296***
2021-07-10 19:00	1388700	8.155	-99.041	22.511	571.324	599.846	0.294	6.442	22.511	***5.972***
2021-07-10 19:15	1389600	8.151	-98.901	22.861	576.170	600.709	0.294	5.183	22.861	***6.309***
2021-07-10 19:30	1390500	8.163	-99.699	23.051	578.073	600.424	0.294	4.950	23.051	***6.265***
2021-07-10 19:45	1391400	8.179	-100.667	23.193	579.475	600.190	0.294	3.504	23.193	***6.160***
2021-07-10 20:00	1392300	8.190	-101.297	23.138	578.871	600.223	0.294	4.516	23.138	***6.106***
2021-07-10 20:15	1393200	8.160	-99.547	23.237	580.557	600.790	0.294	2.923	23.237	***5.888***
2021-07-10 20:30	1394100	8.154	-99.196	23.265	582.925	602.910	0.296	1.990	23.265	***5.374***
2021-07-10 20:45	1395000	8.161	-99.623	23.325	584.517	603.836	0.296	3.812	23.325	***5.503***
2021-07-10 21:00	1395900	8.230	-103.705	23.314	584.506	603.959	0.296	1.212	23.314	***5.495***
2021-07-10 21:15	1396800	8.268	-105.927	23.250	579.315	599.351	0.294	2.461	23.250	***5.983***
2021-07-10 21:30	1397700	8.271	-106.037	23.155	578.076	599.186	0.294	2.547	23.155	***6.118***
2021-07-10 21:45	1398600	8.270	-105.977	23.069	577.383	599.488	0.294	1.741	23.069	***5.819***
2021-07-10 22:00	1399500	8.273	-106.091	22.949	573.722	597.117	0.293	3.863	22.949	***6.099***
2021-07-10 22:15	1400400	8.283	-106.637	22.803	572.112	597.165	0.293	3.182	22.803	***6.121***
2021-07-10 22:30	1401300	8.283	-106.568	22.672	570.961	597.530	0.293	1.065	22.672	***6.176***
2021-07-10 22:45	1402200	8.279	-106.335	22.567	568.794	596.516	0.292	1.227	22.567	***6.280***
2021-07-10 23:00	1403100	8.270	-105.741	22.454	568.348	597.397	0.293	1.796	22.454	***6.022***
2021-07-10 23:15	1404000	8.270	-105.710	22.359	568.052	598.232	0.293	1.610	22.359	***6.325***
2021-07-10 23:30	1404900	8.260	-105.097	22.261	566.868	598.155	0.293	2.187	22.261	***5.958***
2021-07-10 23:45	1405800	8.254	-104.718	22.173	564.848	597.086	0.293	2.611	22.173	***5.654***
2021-07-11 0:00	1406700	8.249	-104.413	22.075	564.359	597.749	0.293	2.963	22.075	***5.746***
2021-07-11 0:15	1407600	8.247	-104.229	21.972	563.458	598.041	0.293	3.364	21.972	***5.792***
2021-07-11 0:30	1408500	8.240	-103.803	21.893	561.902	597.356	0.293	3.825	21.893	***5.779***
2021-07-11 0:45	1409400	8.234	-103.412	21.811	560.890	597.265	0.293	2.728	21.811	***5.547***
2021-07-11 1:00	1410300	8.225	-102.851	21.740	572.363	610.373	0.299	1.931	21.740	***5.707***
2021-07-11 1:15	1411200	8.222	-102.663	21.652	572.120	611.204	0.300	1.060	21.652	***5.654***
2021-07-11 1:30	1412100	8.228	-103.002	21.584	567.039	606.615	0.297	1.165	21.584	***5.631***
2021-07-11 1:45	1413000	8.230	-103.087	21.531	568.484	608.829	0.298	2.295	21.531	***5.622***
2021-07-11 2:00	1413900	8.218	-102.379	21.481	567.951	608.880	0.299	3.444	21.481	***5.554***
2021-07-11 2:15	1414800	8.194	-100.958	21.456	560.279	600.958	0.295	3.623	21.456	***5.556***
2021-07-11 2:30	1415700	8.203	-101.476	21.400	560.440	601.825	0.295	2.597	21.400	***5.459***
2021-07-11 2:45	1416600	8.208	-101.762	21.358	561.193	603.147	0.296	2.034	21.358	***5.485***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-11 3:00	1417500	8.211	-101.888	21.289	549.516	591.440	0.290	5.902	21.289	***5.480***
2021-07-11 3:15	1418400	8.202	-101.333	21.229	551.574	594.382	0.291	2.621	21.229	***5.391***
2021-07-11 3:30	1419300	8.200	-101.228	21.168	551.111	594.636	0.291	2.594	21.168	***5.431***
2021-07-11 3:45	1420200	8.208	-101.633	21.102	557.686	602.549	0.295	2.948	21.102	***5.521***
2021-07-11 4:00	1421100	8.207	-101.604	21.072	556.610	601.757	0.295	2.894	21.072	***5.539***
2021-07-11 4:15	1422000	8.202	-101.292	21.026	551.589	596.893	0.292	2.942	21.026	***5.381***
2021-07-11 4:30	1422900	8.196	-100.904	20.986	545.891	591.212	0.290	1.727	20.986	***5.315***
2021-07-11 4:45	1423800	8.175	-99.649	20.934	544.043	589.852	0.289	2.264	20.934	***5.376***
2021-07-11 5:00	1424700	8.172	-99.452	20.874	543.899	590.434	0.289	2.976	20.874	***5.310***
2021-07-11 5:15	1425600	8.172	-99.468	20.817	542.886	590.031	0.289	2.636	20.817	***5.355***
2021-07-11 5:30	1426500	8.171	-99.368	20.784	539.648	586.913	0.287	2.713	20.784	***5.194***
2021-07-11 5:45	1427400	8.137	-97.413	20.764	538.018	585.375	0.287	3.050	20.764	***5.335***
2021-07-11 6:00	1428300	8.188	-100.353	20.728	540.140	588.125	0.288	2.994	20.728	***5.273***
2021-07-11 6:15	1429200	8.186	-100.205	20.687	540.148	588.635	0.288	2.433	20.687	***5.229***
2021-07-11 6:30	1430100	8.186	-100.224	20.644	542.099	591.294	0.290	2.685	20.644	***5.243***
2021-07-11 6:45	1431000	8.174	-99.461	20.591	552.153	602.932	0.295	2.205	20.591	***4.964***
2021-07-11 7:00	1431900	8.145	-97.806	20.558	545.829	596.428	0.292	1.820	20.558	***4.888***
2021-07-11 7:15	1432800	8.154	-98.319	20.505	544.686	595.838	0.292	3.540	20.505	***5.184***
2021-07-11 7:30	1433700	8.142	-97.597	20.492	545.004	596.354	0.292	2.464	20.492	***5.163***
2021-07-11 7:45	1434600	8.122	-96.409	20.489	548.497	600.214	0.294	15.504	20.489	***5.111***
2021-07-11 8:00	1435500	8.132	-97.027	20.477	546.510	598.184	0.293	1.906	20.477	***5.135***
2021-07-11 8:15	1436400	8.130	-96.850	20.450	548.559	600.765	0.294	2.646	20.450	***4.733***
2021-07-11 8:30	1437300	8.117	-96.114	20.429	547.077	599.412	0.294	2.508	20.429	***4.954***
2021-07-11 8:45	1438200	8.117	-96.111	20.429	550.222	602.849	0.295	2.619	20.429	***4.845***
2021-07-11 9:00	1439100	8.119	-96.216	20.446	536.948	588.106	0.288	3.391	20.446	***4.993***
2021-07-11 9:15	1440000	8.110	-95.723	20.456	537.285	588.344	0.288	3.349	20.456	***4.972***
2021-07-11 9:30	1440900	8.130	-96.874	20.453	539.083	590.356	0.289	3.964	20.453	***4.986***
2021-07-11 9:45	1441800	8.091	-94.614	20.460	536.570	587.513	0.288	2.474	20.460	***4.863***
2021-07-11 10:00	1442700	8.095	-94.857	20.490	537.552	588.216	0.288	2.051	20.490	***5.059***
2021-07-11 10:15	1443600	8.086	-94.328	20.564	541.000	591.083	0.289	2.481	20.564	***4.001***
2021-07-11 10:30	1444500	8.101	-95.255	20.586	540.742	590.533	0.289	1.900	20.586	***4.129***
2021-07-11 10:45	1445400	8.109	-95.770	20.756	539.606	587.203	0.288	1.854	20.756	***4.583***
2021-07-11 11:00	1446300	8.144	-97.847	20.840	542.734	589.578	0.289	2.183	20.840	***4.854***
2021-07-11 11:15	1447200	8.123	-96.653	20.958	544.825	590.408	0.289	2.718	20.958	***5.125***
2021-07-11 11:30	1448100	8.120	-96.533	21.131	545.819	589.367	0.289	2.353	21.131	***4.918***
2021-07-11 11:45	1449000	8.120	-96.512	21.193	542.720	585.279	0.287	2.160	21.193	***5.171***
2021-07-11 12:00	1449900	8.143	-97.864	21.143	552.857	596.830	0.292	4.399	21.143	***5.138***
2021-07-11 12:15	1450800	8.109	-95.913	21.270	553.586	596.050	0.292	3.843	21.270	***5.156***
2021-07-11 12:30	1451700	8.118	-96.488	21.375	558.399	599.937	0.294	2.785	21.375	***5.197***
2021-07-11 12:45	1452600	8.143	-97.954	21.428	561.189	602.278	0.295	3.244	21.428	***4.992***
2021-07-11 13:00	1453500	8.176	-99.833	21.322	555.496	597.472	0.293	4.487	21.322	***5.492***
2021-07-11 13:15	1454400	8.172	-99.630	21.403	578.856	621.560	0.305	5.155	21.403	***5.543***
2021-07-11 13:30	1455300	8.158	-98.841	21.490	578.809	620.401	0.304	5.488	21.490	***5.282***
2021-07-11 13:45	1456200	8.163	-99.137	21.497	577.693	619.119	0.304	6.102	21.497	***4.873***
2021-07-11 14:00	1457100	8.126	-97.058	21.686	578.871	617.989	0.303	5.747	21.686	***5.352***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-11 14:15	1458000	8.137	-97.723	21.793	581.239	619.168	0.304	5.567	21.793	***5.082***
2021-07-11 14:30	1458900	8.127	-97.208	21.938	584.378	620.683	0.305	5.656	21.938	***5.409***
2021-07-11 14:45	1459800	8.070	-93.942	22.195	588.981	622.319	0.305	8.059	22.195	***5.786***
2021-07-11 15:00	1460700	8.120	-96.908	22.285	588.199	620.375	0.304	5.448	22.285	***6.008***
2021-07-11 15:15	1461600	8.084	-94.848	22.542	596.454	625.831	0.307	4.641	22.542	***6.069***
2021-07-11 15:30	1462500	8.093	-95.422	22.588	571.012	598.589	0.293	3.858	22.588	***4.735***
2021-07-11 15:45	1463400	8.106	-96.190	22.632	572.723	599.857	0.294	2.485	22.632	***4.422***
2021-07-11 16:00	1464300	8.136	-97.921	22.524	583.003	611.943	0.300	4.818	22.524	***4.578***
2021-07-11 16:15	1465200	8.151	-98.801	22.570	593.991	622.900	0.306	4.838	22.570	***5.262***
2021-07-11 16:30	1466100	8.196	-101.619	23.076	597.415	620.202	0.304	5.463	23.076	***6.343***
2021-07-11 16:45	1467000	8.177	-100.515	23.126	593.457	615.493	0.302	4.384	23.126	***5.307***
2021-07-11 17:00	1467900	8.186	-101.013	23.051	598.140	621.269	0.305	4.926	23.051	***6.253***
2021-07-11 17:15	1468800	8.175	-100.482	23.349	573.543	592.218	0.290	3.381	23.349	***6.495***
2021-07-11 17:30	1469700	8.214	-102.770	23.341	573.925	592.709	0.290	1.888	23.341	***5.273***
2021-07-11 17:45	1470600	8.218	-103.061	23.412	575.369	593.362	0.291	2.447	23.412	***5.798***
2021-07-11 18:00	1471500	8.162	-99.812	23.604	577.969	593.799	0.291	3.131	23.604	***5.697***
2021-07-11 18:15	1472400	8.200	-102.112	23.852	582.259	595.314	0.292	2.711	23.852	***6.238***
2021-07-11 18:30	1473300	8.190	-101.562	23.913	584.517	596.906	0.292	2.623	23.913	***4.847***
2021-07-11 18:45	1474200	8.198	-102.057	24.041	586.806	597.756	0.293	2.151	24.041	***5.442***
2021-07-11 19:00	1475100	8.188	-101.469	24.080	577.901	588.236	0.288	1.413	24.080	***5.356***
2021-07-11 19:15	1476000	8.222	-103.502	24.083	577.942	588.246	0.288	1.698	24.083	***4.452***
2021-07-11 19:30	1476900	8.233	-104.156	24.078	590.078	600.654	0.294	1.685	24.078	***5.347***
2021-07-11 19:45	1477800	8.232	-104.082	24.033	597.240	608.474	0.298	1.936	24.033	***4.751***
2021-07-11 20:00	1478700	8.242	-104.673	23.981	597.203	609.060	0.299	1.635	23.981	***5.337***
2021-07-11 20:15	1479600	8.241	-104.575	23.931	596.478	608.911	0.299	2.005	23.931	***5.659***
2021-07-11 20:30	1480500	8.240	-104.475	23.867	593.803	606.936	0.298	2.069	23.867	***4.572***
2021-07-11 20:45	1481400	8.243	-104.618	23.793	615.779	630.312	0.309	1.624	23.793	***5.054***
2021-07-11 21:00	1482300	8.243	-104.625	23.723	591.418	606.200	0.297	1.745	23.723	***5.149***
2021-07-11 21:15	1483200	8.230	-103.788	23.624	596.570	612.677	0.300	12.095	23.624	***5.554***
2021-07-11 21:30	1484100	8.238	-104.225	23.527	598.246	615.568	0.302	2.016	23.527	***5.317***
2021-07-11 21:45	1485000	8.241	-104.413	23.423	590.393	608.723	0.298	2.269	23.423	***5.433***
2021-07-11 22:00	1485900	8.242	-104.442	23.324	581.617	600.850	0.294	1.469	23.324	***5.346***
2021-07-11 22:15	1486800	8.242	-104.353	23.224	580.399	600.782	0.294	1.424	23.224	***5.066***
2021-07-11 22:30	1487700	8.232	-103.788	23.130	578.679	600.118	0.294	1.550	23.130	***5.410***
2021-07-11 22:45	1488600	8.224	-103.228	23.030	580.063	602.738	0.295	1.906	23.030	***5.405***
2021-07-11 23:00	1489500	8.221	-103.052	22.928	590.088	614.408	0.301	1.730	22.928	***4.618***
2021-07-11 23:15	1490400	8.218	-102.866	22.846	583.503	608.545	0.298	2.168	22.846	***4.714***
2021-07-11 23:30	1491300	8.220	-102.897	22.753	582.384	608.495	0.298	2.147	22.753	***4.604***
2021-07-11 23:45	1492200	8.201	-101.757	22.679	581.504	608.474	0.298	2.596	22.679	***5.402***
2021-07-12 0:00	1493100	8.193	-101.302	22.573	581.378	609.643	0.299	4.713	22.573	***4.255***
2021-07-12 0:15	1494000	8.186	-100.842	22.468	580.027	609.508	0.299	1.438	22.468	***4.116***
2021-07-12 0:30	1494900	8.192	-101.137	22.374	578.989	609.564	0.299	2.208	22.374	***5.290***
2021-07-12 0:45	1495800	8.195	-101.271	22.291	577.619	609.134	0.299	1.802	22.291	***4.909***
2021-07-12 1:00	1496700	8.197	-101.387	22.218	570.997	603.044	0.296	1.696	22.218	***5.171***
2021-07-12 1:15	1497600	8.200	-101.552	22.158	570.717	603.479	0.296	1.688	22.158	***5.462***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-12 1:30	1498500	8.200	-101.509	22.070	569.034	602.767	0.295	0.693	22.070	***5.353***
2021-07-12 1:45	1499400	8.202	-101.624	22.002	574.840	609.755	0.299	1.566	22.002	***5.367***
2021-07-12 2:00	1500300	8.200	-101.476	21.913	569.987	605.699	0.297	0.831	21.913	***5.347***
2021-07-12 2:15	1501200	8.203	-101.597	21.843	570.021	606.600	0.297	1.323	21.843	***5.369***
2021-07-12 2:30	1502100	8.200	-101.383	21.773	569.208	606.593	0.297	1.098	21.773	***5.293***
2021-07-12 2:45	1503000	8.195	-101.089	21.698	568.468	606.730	0.297	2.278	21.698	***5.347***
2021-07-12 3:00	1503900	8.190	-100.751	21.607	567.390	606.711	0.297	2.035	21.607	***5.313***
2021-07-12 3:15	1504800	8.185	-100.439	21.538	566.352	606.448	0.297	1.479	21.538	***5.347***
2021-07-12 3:30	1505700	8.177	-99.936	21.454	565.320	606.392	0.297	1.100	21.454	***5.254***
2021-07-12 3:45	1506600	8.179	-100.050	21.386	564.743	606.612	0.297	2.119	21.386	***5.227***
2021-07-12 4:00	1507500	8.186	-100.467	21.333	565.345	607.924	0.298	1.906	21.333	***5.249***
2021-07-12 4:15	1508400	8.180	-100.071	21.257	564.118	607.559	0.298	2.175	21.257	***5.109***
2021-07-12 4:30	1509300	8.175	-99.769	21.187	562.191	606.351	0.297	2.776	21.187	***5.094***
2021-07-12 4:45	1510200	8.177	-99.854	21.086	560.616	605.908	0.297	1.598	21.086	***5.037***
2021-07-12 5:00	1511100	8.172	-99.533	20.997	562.078	608.605	0.298	1.792	20.997	***4.930***
2021-07-12 5:15	1512000	8.172	-99.504	20.924	557.933	605.032	0.297	3.973	20.924	***4.967***
2021-07-12 5:30	1512900	8.158	-98.619	20.856	555.912	603.692	0.296	0.901	20.856	***4.939***
2021-07-12 5:45	1513800	8.138	-97.475	20.820	557.073	605.403	0.297	2.621	20.820	***4.874***
2021-07-12 6:00	1514700	8.152	-98.302	20.792	552.730	601.042	0.295	2.456	20.792	***4.868***
2021-07-12 6:15	1515600	8.154	-98.355	20.743	552.916	601.847	0.295	2.659	20.743	***4.873***
2021-07-12 6:30	1516500	8.156	-98.464	20.651	548.966	598.692	0.293	4.687	20.651	***4.844***
2021-07-12 6:45	1517400	8.152	-98.212	20.584	550.285	600.977	0.294	2.514	20.584	***4.807***
2021-07-12 7:00	1518300	8.147	-97.892	20.542	550.973	602.250	0.295	2.740	20.542	***4.843***
2021-07-12 7:15	1519200	8.102	-95.270	20.525	561.669	614.167	0.301	3.183	20.525	***4.802***
2021-07-12 7:30	1520100	8.108	-95.632	20.506	550.372	602.047	0.295	2.007	20.506	***4.814***
2021-07-12 7:45	1521000	8.101	-95.229	20.492	552.989	605.088	0.297	1.476	20.492	***4.917***
2021-07-12 8:00	1521900	8.121	-96.374	20.495	550.007	601.794	0.295	2.441	20.495	***4.851***
2021-07-12 8:15	1522800	8.157	-98.450	20.478	537.122	587.898	0.288	1.609	20.478	***4.956***
2021-07-12 8:30	1523700	8.136	-97.232	20.480	543.454	594.805	0.291	1.700	20.480	***4.835***
2021-07-12 8:45	1524600	8.116	-96.064	20.505	547.939	599.402	0.294	2.857	20.505	***4.975***
2021-07-12 9:00	1525500	8.119	-96.238	20.529	544.151	594.952	0.291	2.103	20.529	***4.944***
2021-07-12 9:15	1526400	8.120	-96.338	20.557	544.114	594.565	0.291	2.490	20.557	***5.028***
2021-07-12 9:30	1527300	8.118	-96.190	20.567	551.594	602.613	0.295	2.342	20.567	***4.858***
2021-07-12 9:45	1528200	8.116	-96.095	20.600	557.071	608.184	0.298	2.712	20.600	***5.096***
2021-07-12 10:00	1529100	8.140	-97.551	20.740	571.995	622.663	0.305	3.165	20.740	***5.136***
2021-07-12 10:15	1530000	8.133	-97.198	20.873	561.040	609.052	0.299	2.578	20.873	***5.183***
2021-07-12 10:30	1530900	8.137	-97.475	20.969	562.498	609.417	0.299	3.279	20.969	***5.195***
2021-07-12 10:45	1531800	8.147	-98.102	21.108	559.953	604.916	0.296	2.725	21.108	***5.242***
2021-07-12 11:00	1532700	8.134	-97.375	21.232	561.434	604.973	0.297	2.562	21.232	***5.123***
2021-07-12 11:15	1533600	8.120	-96.591	21.384	562.333	604.053	0.296	2.431	21.384	***5.128***
2021-07-12 11:30	1534500	8.124	-96.867	21.517	564.768	605.012	0.297	2.574	21.517	***5.247***
2021-07-12 11:45	1535400	8.125	-97.027	21.699	567.851	606.056	0.297	2.654	21.699	***5.245***
2021-07-12 12:00	1536300	8.140	-97.978	22.059	573.391	607.517	0.298	3.258	22.059	***5.470***
2021-07-12 12:15	1537200	8.146	-98.417	22.272	576.012	607.677	0.298	2.842	22.272	***5.532***
2021-07-12 12:30	1538100	8.153	-98.834	22.371	575.537	605.969	0.297	3.067	22.371	***5.518***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-12 12:45	1539000	8.113	-96.614	22.584	578.363	606.340	0.297	2.498	22.584	***5.339***
2021-07-12 13:00	1539900	8.128	-97.592	22.881	581.615	606.152	0.297	2.372	22.881	***5.427***
2021-07-12 13:15	1540800	8.150	-98.789	22.766	583.913	609.942	0.299	1.427	22.766	***5.313***
2021-07-12 13:30	1541700	8.096	-95.716	23.051	580.358	602.793	0.295	2.375	23.051	***4.911***
2021-07-12 13:45	1542600	8.176	-100.379	22.921	579.646	603.620	0.296	2.617	22.921	***5.719***
2021-07-12 14:00	1543500	8.157	-99.497	23.514	586.993	604.137	0.296	3.986	23.514	***5.822***
2021-07-12 14:15	1544400	8.204	-102.153	23.266	586.276	606.356	0.297	5.034	23.266	6.718
2021-07-12 14:30	1545300	8.201	-102.036	23.343	593.514	612.906	0.301	6.024	23.343	***6.182***
2021-07-12 14:45	1546200	8.228	-103.467	22.908	588.202	612.686	0.300	5.173	22.908	6.530
2021-07-12 15:00	1547100	8.192	-101.449	23.182	565.494	585.840	0.287	2.477	23.182	***6.216***
2021-07-12 15:15	1548000	8.219	-102.952	22.929	569.615	593.078	0.291	3.728	22.929	***6.341***
2021-07-12 15:30	1548900	8.196	-101.619	22.983	582.701	606.051	0.297	6.681	22.983	***6.039***
2021-07-12 15:45	1549800	8.194	-101.643	23.396	583.775	602.220	0.295	6.593	23.396	***5.856***
2021-07-12 16:00	1550700	8.180	-100.861	23.542	571.988	588.367	0.288	3.038	23.542	***5.373***
2021-07-12 16:15	1551600	8.189	-101.457	23.789	577.097	590.766	0.289	2.964	23.789	***5.934***
2021-07-12 16:30	1552500	8.165	-100.281	24.485	598.775	604.721	0.296	2.484	24.485	***5.889***
2021-07-12 16:45	1553400	8.201	-102.324	24.176	591.186	600.639	0.294	1.154	24.176	***6.212***
2021-07-12 17:00	1554300	8.153	-99.928	25.516	610.245	604.293	0.296	3.203	25.516	6.539
2021-07-12 17:15	1555200	8.195	-102.496	25.856	622.831	612.815	0.300	1.951	25.856	***5.999***
2021-07-12 17:30	1556100	8.200	-102.634	25.395	642.628	637.814	0.313	2.783	25.395	***6.219***
2021-07-12 17:45	1557000	8.203	-102.856	25.508	623.443	617.456	0.303	2.231	25.508	***6.067***
2021-07-12 18:00	1557900	8.195	-102.401	25.546	637.127	630.552	0.309	2.156	25.546	***5.977***
2021-07-12 18:15	1558800	8.188	-102.019	25.548	616.029	609.649	0.299	2.629	25.548	***5.997***
2021-07-12 18:30	1559700	8.184	-101.724	25.416	616.034	611.175	0.300	2.927	25.416	***5.805***
2021-07-12 18:45	1560600	8.166	-100.627	25.425	622.759	617.748	0.303	1.689	25.425	***5.850***
2021-07-12 19:00	1561500	8.184	-101.748	25.424	623.770	618.763	0.303	2.388	25.424	***6.001***
2021-07-12 19:15	1562400	8.189	-102.019	25.445	623.195	617.941	0.303	2.477	25.445	***5.771***
2021-07-12 19:30	1563300	8.180	-101.514	25.482	623.764	618.073	0.303	2.586	25.482	***5.652***
2021-07-12 19:45	1564200	8.200	-102.677	25.434	623.607	618.475	0.303	2.636	25.434	***5.829***
2021-07-12 20:00	1565100	8.202	-102.732	25.298	622.084	618.559	0.303	1.938	25.298	***5.383***
2021-07-12 20:15	1566000	8.196	-102.351	25.152	621.066	619.271	0.304	2.660	25.152	***4.806***
2021-07-12 20:30	1566900	8.200	-102.534	24.997	618.686	618.716	0.303	1.564	24.997	***4.979***
2021-07-12 20:45	1567800	8.208	-102.918	24.863	616.090	617.710	0.303	4.383	24.863	***5.204***
2021-07-12 21:00	1568700	8.206	-102.806	24.752	615.381	618.305	0.303	2.036	24.752	***5.319***
2021-07-12 21:15	1569600	8.210	-102.985	24.640	614.048	618.303	0.303	2.233	24.640	***5.674***
2021-07-12 21:30	1570500	8.207	-102.744	24.530	612.879	618.431	0.303	1.588	24.530	***5.674***
2021-07-12 21:45	1571400	8.212	-103.045	24.417	611.057	617.937	0.303	2.433	24.417	***5.095***
2021-07-12 22:00	1572300	8.209	-102.801	24.259	608.562	617.301	0.303	2.325	24.259	***4.913***
2021-07-12 22:15	1573200	8.207	-102.623	24.119	609.066	619.492	0.304	5.096	24.119	***4.544***
2021-07-12 22:30	1574100	8.205	-102.465	23.983	606.149	618.152	0.303	2.486	23.983	***5.225***
2021-07-12 22:45	1575000	8.176	-100.710	23.862	607.070	620.553	0.304	3.393	23.862	***5.091***
2021-07-12 23:00	1575900	8.201	-102.167	23.732	603.154	618.123	0.303	2.517	23.732	***4.997***
2021-07-12 23:15	1576800	8.202	-102.179	23.604	600.259	616.699	0.302	2.331	23.604	***5.310***
2021-07-12 23:30	1577700	8.197	-101.812	23.482	602.924	620.928	0.305	1.761	23.482	***4.714***
2021-07-12 23:45	1578600	8.200	-101.979	23.361	601.166	620.591	0.304	1.598	23.361	***4.722***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-13 0:00	1579500	8.196	-101.709	23.266	596.871	617.315	0.303	1.477	23.266	***5.115***
2021-07-13 0:15	1580400	8.200	-101.929	23.197	596.321	617.594	0.303	1.802	23.197	***5.256***
2021-07-13 0:30	1581300	8.205	-102.158	23.109	592.935	615.152	0.302	1.239	23.109	***5.316***
2021-07-13 0:45	1582200	8.167	-99.924	23.014	601.909	625.645	0.307	2.727	23.014	***5.279***
2021-07-13 1:00	1583100	8.180	-100.651	22.936	590.748	614.998	0.302	1.533	22.936	***5.295***
2021-07-13 1:15	1584000	8.186	-100.932	22.846	589.129	614.402	0.301	1.590	22.846	***5.109***
2021-07-13 1:30	1584900	8.172	-100.105	22.747	588.896	615.381	0.302	2.392	22.747	***5.012***
2021-07-13 1:45	1585800	8.187	-100.975	22.661	587.500	614.970	0.302	1.975	22.661	***4.833***
2021-07-13 2:00	1586700	8.186	-100.863	22.582	582.424	610.624	0.299	2.459	22.582	***4.818***
2021-07-13 2:15	1587600	8.181	-100.536	22.494	581.436	610.661	0.299	2.150	22.494	***4.926***
2021-07-13 2:30	1588500	8.179	-100.403	22.413	579.872	610.012	0.299	1.560	22.413	***4.907***
2021-07-13 2:45	1589400	8.181	-100.486	22.338	577.479	608.417	0.298	2.892	22.338	***5.138***
2021-07-13 3:00	1590300	8.188	-100.863	22.255	576.140	608.017	0.298	2.639	22.255	***5.238***
2021-07-13 3:15	1591200	8.166	-99.578	22.175	575.288	608.105	0.298	1.058	22.175	***5.239***
2021-07-13 3:30	1592100	8.170	-99.788	22.093	573.835	607.566	0.298	0.860	22.093	***5.247***
2021-07-13 3:45	1593000	8.170	-99.728	22.007	572.467	607.178	0.298	0.808	22.007	***5.144***
2021-07-13 4:00	1593900	8.171	-99.795	21.928	570.988	606.576	0.297	1.076	21.928	***5.036***
2021-07-13 4:15	1594800	8.172	-99.773	21.857	568.621	604.942	0.297	2.849	21.857	***5.030***
2021-07-13 4:30	1595700	8.170	-99.671	21.751	571.083	608.863	0.299	2.726	21.751	***4.865***
2021-07-13 4:45	1596600	8.170	-99.642	21.667	571.669	610.540	0.299	2.199	21.667	***4.918***
2021-07-13 5:00	1597500	8.156	-98.777	21.592	567.700	607.232	0.298	1.405	21.592	***4.714***
2021-07-13 5:15	1598400	8.136	-97.601	21.525	568.653	609.076	0.299	1.787	21.525	***4.915***
2021-07-13 5:30	1599300	8.139	-97.713	21.446	568.571	609.977	0.299	1.845	21.446	***4.855***
2021-07-13 5:45	1600200	8.151	-98.450	21.415	568.651	610.448	0.299	1.368	21.415	***4.880***
2021-07-13 6:00	1601100	8.120	-96.610	21.376	571.134	613.608	0.301	1.186	21.376	***4.828***
2021-07-13 6:15	1602000	8.131	-97.189	21.291	571.134	614.675	0.301	9.014	21.291	***4.942***
2021-07-13 6:30	1602900	8.126	-96.924	21.263	568.452	612.146	0.300	1.982	21.263	***4.932***
2021-07-13 6:45	1603800	8.136	-97.458	21.224	565.666	609.634	0.299	2.018	21.224	***4.888***
2021-07-13 7:00	1604700	8.119	-96.467	21.212	565.651	609.772	0.299	2.247	21.212	***4.981***
2021-07-13 7:15	1605600	8.118	-96.424	21.193	565.083	609.391	0.299	1.188	21.193	***4.950***
2021-07-13 7:30	1606500	8.131	-97.184	21.180	565.810	610.339	0.299	2.257	21.180	***4.994***
2021-07-13 7:45	1607400	8.134	-97.365	21.157	565.350	610.133	0.299	1.861	21.157	***4.918***
2021-07-13 8:00	1608300	8.138	-97.582	21.144	563.560	608.368	0.298	1.702	21.144	***4.903***
2021-07-13 8:15	1609200	8.147	-98.093	21.124	564.010	609.102	0.299	1.533	21.124	***4.897***
2021-07-13 8:30	1610100	8.151	-98.350	21.105	562.253	607.443	0.298	2.746	21.105	***4.926***
2021-07-13 8:45	1611000	8.157	-98.655	21.086	559.780	605.010	0.297	1.789	21.086	***4.922***
2021-07-13 9:00	1611900	8.101	-95.439	21.139	565.510	610.534	0.299	2.283	21.139	***5.076***
2021-07-13 9:15	1612800	8.094	-95.000	21.216	566.092	610.188	0.299	2.502	21.216	***5.138***
2021-07-13 9:30	1613700	8.100	-95.422	21.310	567.259	610.272	0.299	2.013	21.310	***5.206***
2021-07-13 9:45	1614600	8.139	-97.723	21.369	566.224	608.418	0.298	2.158	21.369	***5.303***
2021-07-13 10:00	1615500	8.088	-94.771	21.433	567.308	608.778	0.298	2.387	21.433	***5.375***
2021-07-13 10:15	1616400	8.162	-99.087	21.532	573.333	614.007	0.301	2.698	21.532	***5.465***
2021-07-13 10:30	1617300	8.163	-99.189	21.644	570.304	609.358	0.299	2.802	21.644	***5.400***
2021-07-13 10:45	1618200	8.137	-97.728	21.770	575.889	613.748	0.301	2.382	21.770	***5.422***
2021-07-13 11:00	1619100	8.136	-97.690	21.880	575.980	612.484	0.300	2.143	21.880	***5.258***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-13 11:15	1620000	8.172	-99.862	21.964	576.622	612.114	0.300	3.256	21.964	***5.573***
2021-07-13 11:30	1620900	8.180	-100.327	22.079	580.581	614.891	0.302	2.359	22.079	***5.552***
2021-07-13 11:45	1621800	8.173	-99.969	22.244	582.614	614.988	0.302	2.548	22.244	***5.567***
2021-07-13 12:00	1622700	8.164	-99.559	22.449	585.521	615.514	0.302	2.259	22.449	***5.626***
2021-07-13 12:15	1623600	8.126	-97.344	22.653	589.363	617.022	0.303	2.140	22.653	***5.406***
2021-07-13 12:30	1624500	8.155	-99.142	22.797	591.951	617.957	0.303	1.925	22.797	***4.836***
2021-07-13 12:45	1625400	8.152	-98.989	22.956	593.802	617.931	0.303	2.240	22.956	***4.542***
2021-07-13 13:00	1626300	8.123	-97.284	23.006	594.808	618.363	0.303	2.903	23.006	***4.436***
2021-07-13 13:15	1627200	8.146	-98.665	23.040	596.285	619.476	0.304	2.031	23.040	***5.035***
2021-07-13 13:30	1628100	8.120	-97.256	23.295	597.726	617.847	0.303	1.797	23.295	***4.310***
2021-07-13 13:45	1629000	8.153	-99.115	23.138	594.522	616.444	0.302	2.935	23.138	***5.324***
2021-07-13 14:00	1629900	8.141	-98.722	24.144	607.850	617.955	0.303	1.803	24.144	***5.385***
2021-07-13 14:15	1630800	8.197	-102.191	24.506	617.137	623.019	0.306	2.386	24.506	***6.104***
2021-07-13 14:30	1631700	8.196	-101.929	23.908	604.740	617.621	0.303	1.857	23.908	***5.783***
2021-07-13 14:45	1632600	8.210	-102.739	23.859	604.214	617.669	0.303	1.466	23.859	***6.326***
2021-07-13 15:00	1633500	8.221	-103.383	23.905	607.135	620.106	0.304	1.267	23.905	***5.970***
2021-07-13 15:15	1634400	8.191	-101.752	24.301	612.726	621.018	0.305	1.488	24.301	***5.661***
2021-07-13 15:30	1635300	8.236	-104.303	23.987	610.276	622.320	0.305	3.324	23.987	***6.334***
2021-07-13 15:45	1636200	8.199	-102.172	24.144	614.155	624.365	0.306	5.164	24.144	6.876
2021-07-13 16:00	1637100	8.207	-102.625	24.099	611.559	622.262	0.305	2.270	24.099	***5.744***
2021-07-13 16:15	1638000	8.191	-101.693	24.212	613.303	622.681	0.306	3.470	24.212	***5.992***
2021-07-13 16:30	1638900	8.213	-103.009	24.199	614.562	624.115	0.306	1.422	24.199	***5.989***
2021-07-13 16:45	1639800	8.142	-98.903	24.410	612.526	619.505	0.304	1.541	24.410	***6.078***
2021-07-13 17:00	1640700	8.161	-100.148	24.837	617.184	619.111	0.304	3.339	24.837	***6.274***
2021-07-13 17:15	1641600	8.171	-100.904	25.297	622.211	618.705	0.303	1.824	25.297	***5.738***
2021-07-13 17:30	1642500	8.214	-103.288	24.781	616.548	619.140	0.304	2.430	24.781	***6.376***
2021-07-13 17:45	1643400	8.179	-101.357	25.151	621.642	619.855	0.304	1.998	25.151	6.633
2021-07-13 18:00	1644300	8.160	-100.348	25.550	627.090	620.567	0.304	3.474	25.550	***6.166***
2021-07-13 18:15	1645200	8.189	-102.279	26.189	638.784	624.599	0.306	2.062	26.189	***5.696***
2021-07-13 18:30	1646100	8.184	-102.088	26.428	642.933	625.859	0.307	1.713	26.428	***5.720***
2021-07-13 18:45	1647000	8.159	-100.594	26.558	646.362	627.684	0.308	2.414	26.558	***5.654***
2021-07-13 19:00	1647900	8.131	-98.982	26.598	655.777	636.357	0.312	2.766	26.598	***5.466***
2021-07-13 19:15	1648800	8.131	-98.989	26.598	647.336	628.160	0.308	1.566	26.598	***5.196***
2021-07-13 19:30	1649700	8.184	-102.105	26.531	648.427	630.000	0.309	5.872	26.531	***5.333***
2021-07-13 19:45	1650600	8.203	-103.176	26.421	645.705	628.642	0.308	1.728	26.421	***5.354***
2021-07-13 20:00	1651500	8.193	-102.568	26.270	643.957	628.710	0.308	2.009	26.270	***5.694***
2021-07-13 20:15	1652400	8.200	-102.925	26.117	641.070	627.681	0.308	1.997	26.117	***5.707***
2021-07-13 20:30	1653300	8.201	-102.887	25.957	640.779	629.282	0.309	1.846	25.957	***5.704***
2021-07-13 20:45	1654200	8.204	-103.037	25.819	637.903	628.077	0.308	1.991	25.819	***5.545***
2021-07-13 21:00	1655100	8.207	-103.152	25.710	636.163	627.650	0.308	1.593	25.710	***5.354***
2021-07-13 21:15	1656000	8.207	-103.121	25.576	634.753	627.846	0.308	1.410	25.576	***4.384***
2021-07-13 21:30	1656900	8.207	-103.092	25.418	624.991	620.042	0.304	1.714	25.418	***4.679***
2021-07-13 21:45	1657800	8.198	-102.499	25.259	622.883	619.817	0.304	1.485	25.259	***4.583***
2021-07-13 22:00	1658700	8.201	-102.642	25.118	621.710	620.310	0.304	1.270	25.118	***4.492***
2021-07-13 22:15	1659600	8.190	-101.929	24.971	619.658	620.003	0.304	2.459	24.971	***4.357***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-13 22:30	1660500	8.201	-102.499	24.801	616.718	619.074	0.304	2.051	24.801	***4.617***
2021-07-13 22:45	1661400	8.204	-102.646	24.666	624.432	628.446	0.308	1.092	24.666	***4.513***
2021-07-13 23:00	1662300	8.202	-102.482	24.515	612.940	618.676	0.303	1.592	24.515	***4.631***
2021-07-13 23:15	1663200	8.209	-102.828	24.393	609.285	616.431	0.302	1.334	24.393	***4.705***
2021-07-13 23:30	1664100	8.208	-102.754	24.251	607.445	616.256	0.302	1.752	24.251	***4.878***
2021-07-13 23:45	1665000	8.212	-102.935	24.129	605.537	615.779	0.302	2.277	24.129	***5.166***
2021-07-14 0:00	1665900	8.207	-102.599	24.013	604.470	616.089	0.302	3.116	24.013	***5.115***
2021-07-14 0:15	1666800	8.199	-102.074	23.884	603.128	616.267	0.302	1.283	23.884	***4.901***
2021-07-14 0:30	1667700	8.200	-102.086	23.771	602.015	616.482	0.302	2.433	23.771	***4.573***
2021-07-14 0:45	1668600	8.209	-102.592	23.675	603.254	618.912	0.304	2.159	23.675	***5.005***
2021-07-14 1:00	1669500	8.210	-102.599	23.566	601.131	618.062	0.303	2.528	23.566	***4.914***
2021-07-14 1:15	1670400	8.210	-102.587	23.459	600.374	618.576	0.303	2.589	23.459	***4.765***
2021-07-14 1:30	1671300	8.204	-102.193	23.371	598.936	618.175	0.303	1.865	23.371	***5.034***
2021-07-14 1:45	1672200	8.206	-102.260	23.244	597.174	617.898	0.303	2.639	23.244	***5.050***
2021-07-14 2:00	1673100	8.180	-100.718	23.156	595.323	617.053	0.303	1.165	23.156	***5.047***
2021-07-14 2:15	1674000	8.176	-100.424	23.059	594.058	616.933	0.303	3.464	23.059	***5.044***
2021-07-14 2:30	1674900	8.160	-99.487	22.990	596.904	620.731	0.305	2.884	22.990	***5.013***
2021-07-14 2:45	1675800	8.195	-101.497	22.909	595.862	620.647	0.305	2.433	22.909	***4.952***
2021-07-14 3:00	1676700	8.196	-101.559	22.831	593.724	619.380	0.304	3.230	22.831	***5.030***
2021-07-14 3:15	1677600	8.201	-101.805	22.760	592.652	619.136	0.304	4.665	22.760	***4.928***
2021-07-14 3:30	1678500	8.179	-100.458	22.669	591.872	619.454	0.304	3.871	22.669	***4.845***
2021-07-14 3:45	1679400	8.177	-100.353	22.613	591.885	620.159	0.304	2.224	22.613	***4.513***
2021-07-14 4:00	1680300	8.188	-100.970	22.544	593.090	622.277	0.305	3.551	22.544	***4.803***
2021-07-14 4:15	1681200	8.179	-100.398	22.424	589.959	620.490	0.304	1.851	22.424	***4.603***
2021-07-14 4:30	1682100	8.171	-99.931	22.349	590.161	621.639	0.305	3.051	22.349	***4.526***
2021-07-14 4:45	1683000	8.165	-99.518	22.295	589.366	621.470	0.305	1.811	22.295	***4.562***
2021-07-14 5:00	1683900	8.163	-99.401	22.205	580.117	612.838	0.301	1.765	22.205	***4.421***
2021-07-14 5:15	1684800	8.160	-99.180	22.129	585.928	619.924	0.304	1.342	22.129	***4.396***
2021-07-14 5:30	1685700	8.160	-99.182	22.051	586.669	621.689	0.305	4.109	22.051	***4.499***
2021-07-14 5:45	1686600	8.157	-98.965	21.955	585.877	622.053	0.305	1.877	21.955	***4.386***
2021-07-14 6:00	1687500	8.150	-98.526	21.907	586.802	623.647	0.306	4.347	21.907	***4.462***
2021-07-14 6:15	1688400	8.151	-98.574	21.832	587.355	625.178	0.307	10.489	21.832	***4.606***
2021-07-14 6:30	1689300	8.123	-96.905	21.786	584.949	623.202	0.306	3.864	21.786	***4.490***
2021-07-14 6:45	1690200	8.155	-98.784	21.724	584.212	623.212	0.306	3.080	21.724	***4.434***
2021-07-14 7:00	1691100	8.141	-97.952	21.671	585.189	624.931	0.307	4.521	21.671	***4.323***
2021-07-14 7:15	1692000	8.141	-97.923	21.629	584.540	624.763	0.307	5.258	21.629	***4.506***
2021-07-14 7:30	1692900	8.147	-98.264	21.612	583.020	623.356	0.306	8.008	21.612	***4.443***
2021-07-14 7:45	1693800	8.142	-97.957	21.591	583.818	624.475	0.306	1.770	21.591	***4.560***
2021-07-14 8:00	1694700	8.130	-97.249	21.552	583.446	624.574	0.306	3.833	21.552	***4.317***
2021-07-14 8:15	1695600	8.116	-96.438	21.531	582.463	623.792	0.306	3.124	21.531	***4.563***
2021-07-14 8:30	1696500	8.140	-97.840	21.524	580.737	622.031	0.305	2.091	21.524	***4.560***
2021-07-14 8:45	1697400	8.139	-97.787	21.524	582.215	623.613	0.306	4.060	21.524	***4.290***
2021-07-14 9:00	1698300	8.134	-97.444	21.540	581.754	622.926	0.306	3.952	21.540	***4.519***
2021-07-14 9:15	1699200	8.114	-96.326	21.556	580.596	621.483	0.305	4.672	21.556	***4.392***
2021-07-14 9:30	1700100	8.140	-97.842	21.576	583.691	624.538	0.306	3.357	21.576	***4.720***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-14 9:45	1701000	8.140	-97.866	21.614	580.860	621.025	0.305	3.691	21.614	***4.717***
2021-07-14 10:00	1701900	8.151	-98.472	21.636	580.716	620.590	0.304	3.354	21.636	***4.530***
2021-07-14 10:15	1702800	8.131	-97.392	21.794	581.757	619.702	0.304	4.112	21.794	***4.997***
2021-07-14 10:30	1703700	8.156	-98.889	21.929	584.104	620.496	0.304	4.158	21.929	***5.157***
2021-07-14 10:45	1704600	8.158	-99.053	22.089	585.388	619.846	0.304	4.251	22.089	***5.141***
2021-07-14 11:00	1705500	8.141	-98.109	22.155	586.813	620.527	0.304	3.791	22.155	***5.181***
2021-07-14 11:15	1706400	8.172	-99.912	22.260	587.670	620.128	0.304	3.852	22.260	***4.933***
2021-07-14 11:30	1707300	8.158	-99.168	22.348	590.133	621.623	0.305	3.800	22.348	***5.070***
2021-07-14 11:45	1708200	8.171	-99.959	22.424	591.538	622.143	0.305	3.965	22.424	***5.245***
2021-07-14 12:00	1709100	8.157	-99.134	22.483	593.005	622.954	0.306	4.296	22.483	***4.769***
2021-07-14 12:15	1710000	8.120	-96.941	22.499	594.017	623.818	0.306	3.294	22.499	***4.280***
2021-07-14 12:30	1710900	8.115	-96.655	22.395	593.564	624.642	0.307	4.349	22.395	***4.361***
2021-07-14 12:45	1711800	8.136	-97.833	22.277	591.625	624.080	0.306	4.224	22.277	***4.357***
2021-07-14 13:00	1712700	8.115	-96.614	22.262	592.164	624.839	0.307	5.040	22.262	***4.633***
2021-07-14 13:15	1713600	8.083	-94.724	22.315	594.211	626.335	0.307	5.048	22.315	***4.690***
2021-07-14 13:30	1714500	8.088	-95.062	22.371	600.019	631.736	0.310	4.702	22.371	***4.766***
2021-07-14 13:45	1715400	8.109	-96.321	22.497	605.326	635.713	0.312	4.288	22.497	***4.975***
2021-07-14 14:00	1716300	8.111	-96.481	22.603	607.861	637.020	0.313	5.906	22.603	***4.908***
2021-07-14 14:15	1717200	8.102	-95.997	22.730	611.132	638.830	0.314	5.993	22.730	***5.085***
2021-07-14 14:30	1718100	8.093	-95.520	22.846	613.045	639.353	0.314	4.997	22.846	***5.200***
2021-07-14 14:45	1719000	8.124	-97.339	22.936	617.725	643.077	0.316	5.681	22.936	***5.424***
2021-07-14 15:00	1719900	8.117	-96.974	23.038	602.876	626.350	0.307	5.895	23.038	***5.204***
2021-07-14 15:15	1720800	8.108	-96.467	23.107	604.892	627.584	0.308	5.634	23.107	***4.269***
2021-07-14 15:30	1721700	8.101	-96.116	23.265	606.471	627.264	0.308	4.856	23.265	***5.265***
2021-07-14 15:45	1722600	8.041	-92.638	23.408	607.879	626.948	0.308	3.917	23.408	***5.436***
2021-07-14 16:00	1723500	8.028	-91.877	23.550	607.073	624.360	0.306	4.537	23.550	***5.773***
2021-07-14 16:15	1724400	8.119	-97.318	23.683	608.385	624.085	0.306	6.305	23.683	***5.491***
2021-07-14 16:30	1725300	8.153	-99.266	23.626	608.141	624.533	0.306	5.011	23.626	***5.396***
2021-07-14 16:45	1726200	8.159	-99.590	23.567	606.918	623.993	0.306	5.174	23.567	***5.673***
2021-07-14 17:00	1727100	8.145	-98.879	23.829	610.347	624.309	0.306	15.356	23.829	***5.951***
2021-07-14 17:15	1728000	8.136	-98.379	23.932	611.815	624.559	0.306	3.917	23.932	***5.714***
2021-07-14 17:30	1728900	8.178	-100.875	23.945	612.388	624.985	0.307	4.478	23.945	***5.746***
2021-07-14 17:45	1729800	8.154	-99.471	24.014	620.031	631.930	0.310	3.830	24.014	***6.169***
2021-07-14 18:00	1730700	8.138	-98.646	24.306	617.698	625.998	0.307	3.708	24.306	***6.209***
2021-07-14 18:15	1731600	8.151	-99.447	24.409	619.260	626.330	0.307	4.601	24.409	***6.340***
2021-07-14 18:30	1732500	8.192	-101.848	24.411	613.483	620.464	0.304	3.460	24.411	***6.300***
2021-07-14 18:45	1733400	8.146	-99.189	24.612	616.338	620.941	0.305	3.623	24.612	***6.192***
2021-07-14 19:00	1734300	8.176	-100.980	24.559	621.907	627.186	0.308	4.206	24.559	***5.959***
2021-07-14 19:15	1735200	8.211	-102.983	24.438	620.555	627.290	0.308	4.104	24.438	***6.074***
2021-07-14 19:30	1736100	8.145	-99.061	24.423	620.650	627.562	0.308	3.101	24.423	***6.386***
2021-07-14 19:45	1737000	8.089	-95.859	24.633	623.884	628.291	0.308	3.452	24.633	***5.858***
2021-07-14 20:00	1737900	8.159	-99.924	24.563	623.212	628.458	0.308	2.811	24.563	***5.622***
2021-07-14 20:15	1738800	8.181	-101.290	24.612	624.387	629.047	0.309	3.934	24.612	***5.696***
2021-07-14 20:30	1739700	8.238	-104.582	24.551	625.395	630.801	0.310	1.565	24.551	***5.808***
2021-07-14 20:45	1740600	8.248	-105.147	24.458	624.908	631.440	0.310	1.384	24.458	***5.513***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-14 21:00	1741500	8.227	-103.877	24.373	623.986	631.551	0.310	3.278	24.373	***5.475***
2021-07-14 21:15	1742400	8.243	-104.818	24.295	622.523	631.019	0.310	4.789	24.295	***5.583***
2021-07-14 21:30	1743300	8.265	-106.046	24.102	618.900	629.706	0.309	3.430	24.102	***5.802***
2021-07-14 21:45	1744200	8.267	-106.134	23.949	616.825	629.459	0.309	2.626	23.949	***5.853***
2021-07-14 22:00	1745100	8.260	-105.674	23.803	615.136	629.530	0.309	2.707	23.803	***5.613***
2021-07-14 22:15	1746000	8.255	-105.276	23.653	612.612	628.792	0.309	3.242	23.653	***5.558***
2021-07-14 22:30	1746900	8.215	-102.904	23.489	610.746	628.901	0.309	2.491	23.489	***5.087***
2021-07-14 22:45	1747800	8.242	-104.401	23.361	609.271	628.962	0.309	1.727	23.361	***5.161***
2021-07-14 23:00	1748700	8.242	-104.380	23.248	608.202	629.254	0.309	1.632	23.248	***5.367***
2021-07-14 23:15	1749600	8.237	-104.039	23.154	606.263	628.422	0.308	1.986	23.154	***5.275***
2021-07-14 23:30	1750500	8.237	-104.001	23.055	604.962	628.304	0.308	2.946	23.055	***5.185***
2021-07-14 23:45	1751400	8.233	-103.784	22.961	604.059	628.540	0.309	1.929	22.961	***5.126***
2021-07-15 0:00	1752300	8.225	-103.283	22.876	602.167	627.630	0.308	2.622	22.876	***4.994***
2021-07-15 0:15	1753200	8.212	-102.494	22.793	601.995	628.488	0.308	1.398	22.793	***5.026***
2021-07-15 0:30	1754100	8.212	-102.427	22.716	604.317	631.879	0.310	1.637	22.716	***5.018***
2021-07-15 0:45	1755000	8.213	-102.479	22.633	600.143	628.558	0.309	2.269	22.633	***4.924***
2021-07-15 1:00	1755900	8.222	-102.992	22.541	599.373	628.905	0.309	1.831	22.541	***4.989***
2021-07-15 1:15	1756800	8.225	-103.090	22.444	599.672	630.457	0.309	1.350	22.444	***5.031***
2021-07-15 1:30	1757700	8.202	-101.719	22.365	597.774	629.454	0.309	3.605	22.365	***5.141***
2021-07-15 1:45	1758600	8.201	-101.669	22.299	596.467	628.912	0.309	0.865	22.299	***4.990***
2021-07-15 2:00	1759500	8.198	-101.442	22.228	596.049	629.377	0.309	5.621	22.228	***4.933***
2021-07-15 2:15	1760400	8.204	-101.764	22.158	595.406	629.578	0.309	2.131	22.158	***4.904***
2021-07-15 2:30	1761300	8.211	-102.174	22.070	593.845	629.052	0.309	2.048	22.070	***4.865***
2021-07-15 2:45	1762200	8.222	-102.775	21.965	592.587	629.056	0.309	1.639	21.965	***4.824***
2021-07-15 3:00	1763100	8.212	-102.172	21.879	592.123	629.654	0.309	1.580	21.879	***5.030***
2021-07-15 3:15	1764000	8.202	-101.564	21.814	590.834	629.123	0.309	2.748	21.814	***5.047***
2021-07-15 3:30	1764900	8.192	-100.961	21.754	590.657	629.697	0.309	3.345	21.754	***4.997***
2021-07-15 3:45	1765800	8.195	-101.106	21.699	589.806	629.494	0.309	1.890	21.699	***4.675***
2021-07-15 4:00	1766700	8.185	-100.505	21.643	589.357	629.733	0.309	2.780	21.643	***4.766***
2021-07-15 4:15	1767600	8.174	-99.843	21.600	581.189	621.551	0.305	2.152	21.600	***4.828***
2021-07-15 4:30	1768500	8.166	-99.347	21.548	588.408	629.939	0.309	3.061	21.548	***4.797***
2021-07-15 4:45	1769400	8.174	-99.821	21.499	588.109	630.251	0.309	4.256	21.499	***4.796***
2021-07-15 5:00	1770300	8.176	-99.912	21.456	587.421	630.066	0.309	2.447	21.456	***4.776***
2021-07-15 5:15	1771200	8.180	-100.088	21.390	585.831	629.213	0.309	4.914	21.390	***4.670***
2021-07-15 5:30	1772100	8.175	-99.797	21.344	585.697	629.672	0.309	6.347	21.344	***4.748***
2021-07-15 5:45	1773000	8.159	-98.860	21.280	584.412	629.108	0.309	45.487	21.280	***4.450***
2021-07-15 6:00	1773900	8.166	-99.256	21.223	589.499	635.331	0.312	3.649	21.223	***4.247***
2021-07-15 6:15	1774800	8.150	-98.314	21.193	588.834	635.002	0.312	3.906	21.193	***4.249***
2021-07-15 6:30	1775700	8.158	-98.732	21.163	586.327	632.699	0.311	4.581	21.163	***4.306***
2021-07-15 6:45	1776600	8.152	-98.407	21.144	588.525	635.317	0.312	3.808	21.144	***4.271***
2021-07-15 7:00	1777500	8.154	-98.526	21.122	589.879	637.063	0.313	9.918	21.122	***3.959***
2021-07-15 7:15	1778400	8.148	-98.126	21.106	587.973	635.221	0.312	3.030	21.106	***3.530***
2021-07-15 7:30	1779300	8.139	-97.587	21.070	584.074	631.471	0.310	4.514	21.070	***3.471***
2021-07-15 7:45	1780200	8.132	-97.218	21.047	583.638	631.308	0.310	2.099	21.047	***2.761***
2021-07-15 8:00	1781100	8.118	-96.347	21.025	583.399	631.332	0.310	2.862	21.025	***3.186***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-15 8:15	1782000	8.144	-97.904	21.027	581.815	629.597	0.309	4.382	21.027	***3.804***
2021-07-15 8:30	1782900	8.148	-98.097	21.042	581.687	629.262	0.309	4.702	21.042	***3.533***
2021-07-15 8:45	1783800	8.130	-97.070	21.050	582.832	630.388	0.309	4.062	21.050	***3.840***
2021-07-15 9:00	1784700	8.134	-97.296	21.081	585.317	632.670	0.311	3.545	21.081	***3.020***
2021-07-15 9:15	1785600	8.133	-97.251	21.111	585.839	632.848	0.311	4.139	21.111	***3.082***
2021-07-15 9:30	1786500	8.110	-95.968	21.149	585.249	631.711	0.310	3.932	21.149	***3.071***
2021-07-15 9:45	1787400	8.129	-97.072	21.148	582.222	628.457	0.308	4.275	21.148	***4.467***
2021-07-15 10:00	1788300	8.136	-97.439	21.173	584.161	630.224	0.309	4.284	21.173	***4.615***
2021-07-15 10:15	1789200	8.155	-98.584	21.204	585.720	631.508	0.310	5.127	21.204	***4.575***
2021-07-15 10:30	1790100	8.145	-97.985	21.221	583.549	628.948	0.309	3.744	21.221	***4.220***
2021-07-15 10:45	1791000	8.093	-94.972	21.191	582.479	628.174	0.308	6.949	21.191	***3.451***
2021-07-15 11:00	1791900	8.080	-94.225	21.178	584.791	630.838	0.310	6.212	21.178	***3.682***
2021-07-15 11:15	1792800	8.068	-93.510	21.197	585.404	631.251	0.310	7.780	21.197	***3.405***
2021-07-15 11:30	1793700	8.071	-93.694	21.221	585.502	631.050	0.310	7.151	21.221	***3.871***
2021-07-15 11:45	1794600	8.073	-93.806	21.273	586.625	631.588	0.310	5.959	21.273	***3.505***
2021-07-15 12:00	1795500	8.079	-94.151	21.277	586.900	631.830	0.310	7.825	21.277	***4.104***
2021-07-15 12:15	1796400	8.089	-94.764	21.303	586.634	631.201	0.310	7.192	21.303	***3.707***
2021-07-15 12:30	1797300	8.079	-94.182	21.333	587.200	631.430	0.310	6.430	21.333	***3.766***
2021-07-15 12:45	1798200	8.066	-93.439	21.444	588.342	631.210	0.310	5.756	21.444	***3.056***
2021-07-15 13:00	1799100	8.073	-93.887	21.528	589.625	631.504	0.310	9.217	21.528	***4.078***
2021-07-15 13:15	1800000	8.061	-93.229	21.622	590.167	630.870	0.310	8.670	21.622	***3.048***
2021-07-15 13:30	1800900	8.088	-94.848	21.686	590.750	630.672	0.310	7.181	21.686	***4.186***
2021-07-15 13:45	1801800	8.093	-95.131	21.761	591.631	630.643	0.310	8.066	21.761	***3.381***
2021-07-15 14:00	1802700	8.134	-97.570	21.803	591.393	629.854	0.309	7.649	21.803	***4.914***
2021-07-15 14:15	1803600	8.137	-97.749	21.813	592.915	631.343	0.310	5.755	21.813	***4.297***
2021-07-15 14:30	1804500	8.140	-97.950	21.912	592.401	629.537	0.309	5.425	21.912	***3.999***
2021-07-15 14:45	1805400	8.125	-97.113	22.112	595.260	630.016	0.309	3.938	22.112	***4.896***
2021-07-15 15:00	1806300	8.133	-97.666	22.263	596.574	629.482	0.309	5.653	22.263	***4.982***
2021-07-15 15:15	1807200	8.150	-98.715	22.385	598.800	630.274	0.309	4.523	22.385	***4.752***
2021-07-15 15:30	1808100	8.150	-98.732	22.469	600.242	630.731	0.310	4.500	22.469	***5.351***
2021-07-15 15:45	1809000	8.142	-98.293	22.667	602.784	630.894	0.310	4.911	22.667	***5.558***
2021-07-15 16:00	1809900	8.127	-97.432	22.693	603.307	631.118	0.310	3.596	22.693	***4.473***
2021-07-15 16:15	1810800	8.130	-97.668	22.879	605.323	630.880	0.310	3.989	22.879	***5.359***
2021-07-15 16:30	1811700	8.121	-97.198	23.036	599.724	623.103	0.306	6.390	23.036	***4.252***
2021-07-15 16:45	1812600	8.200	-101.867	23.029	598.926	622.357	0.305	3.130	23.029	***2.838***
2021-07-15 17:00	1813500	8.167	-99.933	23.125	600.035	622.322	0.305	4.747	23.125	***4.690***
2021-07-15 17:15	1814400	8.208	-102.341	23.139	599.085	621.169	0.305	5.303	23.139	***5.719***
2021-07-15 17:30	1815300	8.217	-102.897	23.110	598.276	620.686	0.305	3.829	23.110	***4.701***
2021-07-15 17:45	1816200	8.198	-101.786	23.165	604.489	626.446	0.307	3.213	23.165	***4.349***
2021-07-15 18:00	1817100	8.167	-99.959	23.237	611.427	632.730	0.311	3.547	23.237	***5.033***
2021-07-15 18:15	1818000	8.173	-100.329	23.309	612.585	633.030	0.311	3.358	23.309	***5.204***
2021-07-15 18:30	1818900	8.137	-98.314	23.592	615.535	632.543	0.311	4.613	23.592	***5.067***
2021-07-15 18:45	1819800	8.170	-100.324	23.750	620.062	635.223	0.312	3.438	23.750	***4.729***
2021-07-15 19:00	1820700	8.170	-100.377	23.859	622.987	636.871	0.313	3.267	23.859	***5.149***
2021-07-15 19:15	1821600	8.199	-102.131	23.953	625.453	638.220	0.313	2.674	23.953	***5.192***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-15 19:30	1822500	8.197	-101.967	23.956	625.419	638.145	0.313	2.470	23.956	***4.019***
2021-07-15 19:45	1823400	8.261	-105.743	23.894	625.297	638.792	0.314	2.734	23.894	***4.920***
2021-07-15 20:00	1824300	8.270	-106.268	23.861	625.537	639.444	0.314	2.048	23.861	***4.946***
2021-07-15 20:15	1825200	8.272	-106.337	23.842	625.539	639.693	0.314	3.513	23.842	***4.259***
2021-07-15 20:30	1826100	8.275	-106.521	23.782	624.632	639.512	0.314	2.682	23.782	***4.069***
2021-07-15 20:45	1827000	8.279	-106.709	23.675	623.147	639.333	0.314	2.466	23.675	***4.207***
2021-07-15 21:00	1827900	8.263	-105.741	23.586	621.618	638.875	0.314	6.512	23.586	***4.711***
2021-07-15 21:15	1828800	8.262	-105.660	23.479	619.068	637.586	0.313	3.068	23.479	***3.858***
2021-07-15 21:30	1829700	8.260	-105.510	23.365	617.941	637.865	0.313	2.135	23.365	***4.666***
2021-07-15 21:45	1830600	8.246	-104.642	23.255	616.976	638.254	0.313	3.165	23.255	***4.315***
2021-07-15 22:00	1831500	8.241	-104.284	23.164	615.876	638.259	0.313	2.305	23.164	***3.783***
2021-07-15 22:15	1832400	8.242	-104.327	23.067	614.007	637.545	0.313	3.231	23.067	***4.010***
2021-07-15 22:30	1833300	8.239	-104.094	22.983	612.944	637.507	0.313	1.956	22.983	***4.277***
2021-07-15 22:45	1834200	8.231	-103.593	22.896	611.906	637.530	0.313	5.746	22.896	***4.700***
2021-07-15 23:00	1835100	8.227	-103.350	22.835	609.945	636.251	0.312	3.175	22.835	***4.922***
2021-07-15 23:15	1836000	8.227	-103.335	22.776	610.631	637.718	0.313	3.470	22.776	***5.122***
2021-07-15 23:30	1836900	8.229	-103.412	22.709	609.616	637.517	0.313	3.213	22.709	***5.113***
2021-07-15 23:45	1837800	8.222	-102.983	22.638	608.910	637.681	0.313	4.514	22.638	***4.984***
2021-07-16 0:00	1838700	8.220	-102.837	22.572	608.153	637.730	0.313	4.087	22.572	***4.806***
2021-07-16 0:15	1839600	8.218	-102.725	22.504	607.465	637.871	0.313	2.368	22.504	***4.630***
2021-07-16 0:30	1840500	8.216	-102.553	22.431	607.014	638.330	0.313	4.434	22.431	***4.800***
2021-07-16 0:45	1841400	8.215	-102.468	22.308	605.973	638.817	0.314	3.150	22.308	***4.117***
2021-07-16 1:00	1842300	8.209	-102.060	22.200	605.328	639.526	0.314	4.373	22.200	***3.729***
2021-07-16 1:15	1843200	8.212	-102.224	22.151	604.556	639.345	0.314	3.517	22.151	***4.570***
2021-07-16 1:30	1844100	8.203	-101.717	22.069	603.653	639.450	0.314	4.173	22.069	***4.480***
2021-07-16 1:45	1845000	8.199	-101.409	21.978	602.664	639.575	0.314	4.348	21.978	***4.274***
2021-07-16 2:00	1845900	8.186	-100.641	21.907	601.672	639.442	0.314	18.273	21.907	***4.374***
2021-07-16 2:15	1846800	8.188	-100.744	21.852	600.524	638.946	0.314	4.099	21.852	***4.500***
2021-07-16 2:30	1847700	8.182	-100.396	21.800	599.874	638.927	0.314	16.684	21.800	***4.481***
2021-07-16 2:45	1848600	8.179	-100.191	21.750	599.131	638.778	0.314	3.938	21.750	***4.407***
2021-07-16 3:00	1849500	8.189	-100.732	21.690	598.469	638.863	0.314	7.747	21.690	***4.319***
2021-07-16 3:15	1850400	8.193	-100.923	21.623	597.871	639.097	0.314	3.969	21.623	***4.407***
2021-07-16 3:30	1851300	8.184	-100.420	21.541	603.381	646.061	0.317	3.820	21.541	***4.244***
2021-07-16 3:45	1852200	8.195	-100.996	21.470	601.405	644.883	0.317	4.165	21.470	***4.580***
2021-07-16 4:00	1853100	8.190	-100.677	21.413	601.040	645.244	0.317	4.080	21.413	***4.444***
2021-07-16 4:15	1854000	8.177	-99.912	21.352	600.632	645.617	0.317	3.786	21.352	***4.241***
2021-07-16 4:30	1854900	8.165	-99.201	21.300	598.097	643.572	0.316	4.662	21.300	***4.206***
2021-07-16 4:45	1855800	8.159	-98.860	21.242	599.215	645.557	0.317	4.276	21.242	***4.483***
2021-07-16 5:00	1856700	8.174	-99.695	21.152	597.667	645.081	0.317	4.555	21.152	***4.538***
2021-07-16 5:15	1857600	8.162	-98.941	21.086	597.546	645.831	0.317	4.302	21.086	***4.447***
2021-07-16 5:30	1858500	8.143	-97.818	21.026	592.537	641.201	0.315	4.453	21.026	***4.389***
2021-07-16 5:45	1859400	8.148	-98.104	20.950	589.654	639.084	0.314	3.536	20.950	***4.101***
2021-07-16 6:00	1860300	8.146	-97.988	20.916	589.013	638.849	0.314	4.012	20.916	***4.138***
2021-07-16 6:15	1861200	8.139	-97.532	20.883	588.991	639.260	0.314	3.973	20.883	***4.005***
2021-07-16 6:30	1862100	8.144	-97.837	20.859	589.085	639.677	0.314	4.004	20.859	***3.703***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-16 6:45	1863000	8.142	-97.682	20.815	588.584	639.724	0.314	5.254	20.815	***3.916***
2021-07-16 7:00	1863900	8.141	-97.628	20.760	587.564	639.334	0.314	16.851	20.760	***4.163***
2021-07-16 7:15	1864800	8.156	-98.450	20.703	586.409	638.842	0.314	8.384	20.703	***3.978***
2021-07-16 7:30	1865700	8.147	-97.935	20.677	585.968	638.699	0.314	6.639	20.677	***3.897***
2021-07-16 7:45	1866600	8.143	-97.723	20.638	586.190	639.468	0.314	4.953	20.638	***3.749***
2021-07-16 8:00	1867500	8.129	-96.853	20.604	585.953	639.667	0.314	4.889	20.604	***3.562***
2021-07-16 8:15	1868400	8.127	-96.729	20.575	585.608	639.670	0.314	4.774	20.575	***3.699***
2021-07-16 8:30	1869300	8.119	-96.290	20.544	584.950	639.361	0.314	5.022	20.544	***3.809***
2021-07-16 8:45	1870200	8.125	-96.631	20.513	584.529	639.316	0.314	5.136	20.513	***3.803***
2021-07-16 9:00	1871100	8.119	-96.231	20.478	584.191	639.417	0.314	4.928	20.478	***3.985***
2021-07-16 9:15	1872000	8.126	-96.648	20.445	583.766	639.397	0.314	4.423	20.445	***4.024***
2021-07-16 9:30	1872900	8.119	-96.223	20.431	583.558	639.351	0.314	3.802	20.431	***3.886***
2021-07-16 9:45	1873800	8.107	-95.525	20.424	583.681	639.588	0.314	3.737	20.424	***3.976***
2021-07-16 10:00	1874700	8.111	-95.773	20.408	583.375	639.462	0.314	3.290	20.408	***3.911***
2021-07-16 10:15	1875600	8.117	-96.080	20.373	582.955	639.472	0.314	6.095	20.373	***3.811***
2021-07-16 10:30	1876500	8.117	-96.111	20.338	583.213	640.225	0.314	5.532	20.338	***3.871***
2021-07-16 10:45	1877400	8.103	-95.234	20.313	583.544	640.916	0.315	5.648	20.313	***3.803***
2021-07-16 11:00	1878300	8.091	-94.571	20.298	587.180	645.119	0.317	2.784	20.298	***3.831***
2021-07-16 11:15	1879200	8.099	-94.988	20.273	586.829	645.066	0.317	1.843	20.273	***3.859***
2021-07-16 11:30	1880100	8.096	-94.852	20.241	581.254	639.369	0.314	1.854	20.241	***3.911***
2021-07-16 11:45	1881000	8.097	-94.874	20.214	581.252	639.728	0.314	2.302	20.214	***3.625***
2021-07-16 12:00	1881900	8.098	-94.931	20.183	580.798	639.654	0.314	1.359	20.183	***3.397***
2021-07-16 12:15	1882800	8.087	-94.252	20.149	579.945	639.173	0.314	1.470	20.149	***3.522***
2021-07-16 12:30	1883700	8.084	-94.111	20.100	578.467	638.200	0.313	2.148	20.100	***3.586***
2021-07-16 12:45	1884600	8.078	-93.720	20.055	577.099	637.297	0.313	3.654	20.055	***3.707***
2021-07-16 13:00	1885500	8.081	-93.880	19.998	579.859	641.104	0.315	3.420	19.998	***3.521***
2021-07-16 13:15	1886400	8.066	-92.986	19.993	579.118	640.357	0.314	2.535	19.993	***3.690***
2021-07-16 13:30	1887300	8.071	-93.267	19.975	579.355	640.859	0.315	3.255	19.975	***3.740***
2021-07-16 13:45	1888200	8.076	-93.551	19.949	579.183	641.025	0.315	4.302	19.949	***3.737***
2021-07-16 14:00	1889100	8.075	-93.524	19.911	579.488	641.879	0.315	2.988	19.911	***3.761***
2021-07-16 14:15	1890000	8.076	-93.575	19.889	579.113	641.765	0.315	2.849	19.889	***3.679***
2021-07-16 14:30	1890900	8.066	-92.988	19.869	575.196	637.693	0.313	3.494	19.869	***3.682***
2021-07-16 14:45	1891800	8.077	-93.603	19.845	574.992	637.792	0.313	2.905	19.845	***3.722***
2021-07-16 15:00	1892700	8.077	-93.594	19.827	574.518	637.506	0.313	3.606	19.827	***3.873***
2021-07-16 15:15	1893600	8.081	-93.801	19.809	574.416	637.642	0.313	4.668	19.809	***3.713***
2021-07-16 15:30	1894500	8.086	-94.104	19.797	574.349	637.722	0.313	2.489	19.797	***3.917***
2021-07-16 15:45	1895400	8.084	-93.958	19.780	574.359	637.972	0.313	3.174	19.780	***3.925***
2021-07-16 16:00	1896300	8.091	-94.407	19.754	573.897	637.807	0.313	2.967	19.754	***3.826***
2021-07-16 16:15	1897200	8.094	-94.535	19.737	573.689	637.806	0.313	3.314	19.737	***3.799***
2021-07-16 16:30	1898100	8.086	-94.101	19.718	573.502	637.848	0.313	2.642	19.718	***3.871***
2021-07-16 16:45	1899000	8.084	-93.951	19.705	573.432	637.953	0.313	4.424	19.705	***3.896***
2021-07-16 17:00	1899900	8.083	-93.920	19.689	573.372	638.102	0.313	3.694	19.689	***3.952***
2021-07-16 17:15	1900800	8.094	-94.545	19.676	573.708	638.649	0.313	3.933	19.676	***3.976***
2021-07-16 17:30	1901700	8.086	-94.039	19.673	573.983	638.999	0.314	3.307	19.673	***3.875***
2021-07-16 17:45	1902600	8.084	-93.970	19.669	572.993	637.946	0.313	4.125	19.669	***3.823***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-16 18:00	1903500	8.097	-94.683	19.650	572.211	637.332	0.313	3.308	19.650	***3.945***
2021-07-16 18:15	1904400	8.095	-94.593	19.629	572.077	637.474	0.313	3.352	19.629	***3.881***
2021-07-16 18:30	1905300	8.094	-94.521	19.596	572.941	638.890	0.314	3.549	19.596	***3.877***
2021-07-16 18:45	1906200	8.092	-94.395	19.564	572.683	639.032	0.314	3.429	19.564	***3.954***
2021-07-16 19:00	1907100	8.093	-94.428	19.541	572.800	639.482	0.314	3.893	19.541	***3.881***
2021-07-16 19:15	1908000	8.091	-94.333	19.514	572.861	639.919	0.314	3.423	19.514	***3.852***
2021-07-16 19:30	1908900	8.087	-94.092	19.489	572.623	639.989	0.314	3.262	19.489	***3.862***
2021-07-16 19:45	1909800	8.081	-93.708	19.463	572.481	640.183	0.314	2.759	19.463	***3.888***
2021-07-16 20:00	1910700	8.078	-93.548	19.440	572.321	640.327	0.314	3.626	19.440	***3.627***
2021-07-16 20:15	1911600	8.076	-93.398	19.411	571.976	640.327	0.314	3.913	19.411	***3.718***
2021-07-16 20:30	1912500	8.076	-93.408	19.381	571.723	640.466	0.314	1.827	19.381	***3.736***
2021-07-16 20:45	1913400	8.070	-93.055	19.349	571.257	640.380	0.314	3.422	19.349	***3.701***
2021-07-16 21:00	1914300	8.068	-92.919	19.303	570.850	640.545	0.314	3.391	19.303	***3.747***
2021-07-16 21:15	1915200	8.066	-92.785	19.275	570.959	641.056	0.315	4.051	19.275	***3.594***
2021-07-16 21:30	1916100	8.064	-92.642	19.236	570.313	640.868	0.315	3.963	19.236	***3.499***
2021-07-16 21:45	1917000	8.063	-92.585	19.199	569.741	640.730	0.314	2.383	19.199	***3.418***
2021-07-16 22:00	1917900	8.058	-92.301	19.162	568.855	640.242	0.314	3.219	19.162	***3.556***
2021-07-16 22:15	1918800	8.053	-91.991	19.132	568.635	640.413	0.314	2.907	19.132	***3.406***
2021-07-16 22:30	1919700	8.053	-91.951	19.102	568.598	640.780	0.314	2.822	19.102	***3.405***
2021-07-16 22:45	1920600	8.046	-91.538	19.072	568.617	641.223	0.315	3.670	19.072	***3.387***
2021-07-16 23:00	1921500	8.037	-91.040	19.047	568.498	641.433	0.315	3.531	19.047	***3.208***
2021-07-16 23:15	1922400	8.030	-90.628	19.014	568.041	641.371	0.315	3.537	19.014	***3.321***
2021-07-16 23:30	1923300	8.031	-90.661	18.930	564.645	638.694	0.313	4.044	18.930	***3.514***
2021-07-16 23:45	1924200	8.027	-90.377	18.839	558.865	633.406	0.311	4.066	18.839	***3.516***
2021-07-17 0:00	1925100	8.017	-89.760	18.796	555.350	629.998	0.309	4.017	18.796	***3.542***
2021-07-17 0:15	1926000	8.019	-89.860	18.741	553.975	629.193	0.309	3.570	18.741	***3.508***
2021-07-17 0:30	1926900	8.010	-89.357	18.697	551.467	626.942	0.307	6.885	18.697	***3.583***
2021-07-17 0:45	1927800	8.007	-89.147	18.675	550.624	626.290	0.307	5.019	18.675	***3.551***
2021-07-17 1:00	1928700	8.010	-89.319	18.635	550.060	626.181	0.307	5.501	18.635	***3.341***
2021-07-17 1:15	1929600	8.002	-88.854	18.624	548.856	624.967	0.306	4.337	18.624	***3.355***
2021-07-17 1:30	1930500	8.002	-88.885	18.608	548.354	624.608	0.306	4.616	18.608	***3.082***
2021-07-17 1:45	1931400	8.007	-89.147	18.615	548.673	624.875	0.306	4.142	18.615	***3.298***
2021-07-17 2:00	1932300	8.011	-89.374	18.625	549.642	625.841	0.307	5.131	18.625	***3.394***
2021-07-17 2:15	1933200	8.018	-89.791	18.631	551.046	627.365	0.308	5.231	18.631	***3.397***
2021-07-17 2:30	1934100	8.020	-89.889	18.634	552.524	629.003	0.308	4.449	18.634	***3.110***
2021-07-17 2:45	1935000	8.025	-90.189	18.635	553.882	630.532	0.309	5.109	18.635	***3.294***
2021-07-17 3:00	1935900	8.028	-90.375	18.633	554.740	631.541	0.310	3.681	18.633	***3.398***
2021-07-17 3:15	1936800	8.033	-90.652	18.637	555.263	632.076	0.310	2.615	18.637	***2.982***
2021-07-17 3:30	1937700	8.028	-90.363	18.627	555.709	632.727	0.310	3.378	18.627	***3.205***
2021-07-17 3:45	1938600	8.021	-89.960	18.618	556.086	633.274	0.311	4.425	18.618	***3.356***
2021-07-17 4:00	1939500	8.016	-89.641	18.602	559.192	637.035	0.313	5.470	18.602	***2.861***
2021-07-17 4:15	1940400	8.015	-89.626	18.596	556.655	634.232	0.311	4.403	18.596	***3.031***
2021-07-17 4:30	1941300	8.011	-89.366	18.579	556.647	634.461	0.311	4.014	18.579	***2.633***
2021-07-17 4:45	1942200	8.004	-88.961	18.563	556.659	634.690	0.311	3.423	18.563	***2.867***
2021-07-17 5:00	1943100	8.008	-89.195	18.555	556.714	634.859	0.311	3.179	18.555	***2.693***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-17 5:15	1944000	8.010	-89.293	18.540	556.589	634.934	0.311	4.141	18.540	***2.884***
2021-07-17 5:30	1944900	8.009	-89.252	18.518	556.610	635.263	0.312	3.479	18.518	***2.960***
2021-07-17 5:45	1945800	7.996	-88.501	18.498	553.852	632.388	0.310	7.300	18.498	***3.059***
2021-07-17 6:00	1946700	8.000	-88.687	18.479	553.677	632.449	0.310	4.910	18.479	***2.524***
2021-07-17 6:15	1947600	7.995	-88.425	18.463	553.762	632.768	0.310	3.452	18.463	***2.866***
2021-07-17 6:30	1948500	7.988	-88.012	18.439	552.954	632.172	0.310	3.239	18.439	***2.806***
2021-07-17 6:45	1949400	7.991	-88.181	18.435	552.832	632.093	0.310	4.264	18.435	***2.860***
2021-07-17 7:00	1950300	7.984	-87.774	18.416	553.043	632.593	0.310	3.545	18.416	***2.817***
2021-07-17 7:15	1951200	7.985	-87.810	18.395	552.889	632.714	0.310	4.196	18.395	***3.020***
2021-07-17 7:30	1952100	7.977	-87.314	18.371	552.538	632.639	0.310	5.667	18.371	***3.136***
2021-07-17 7:45	1953000	7.968	-86.815	18.350	552.252	632.595	0.310	5.237	18.350	***2.924***
2021-07-17 8:00	1953900	7.966	-86.677	18.328	551.482	632.018	0.310	4.669	18.328	***3.204***
2021-07-17 8:15	1954800	7.979	-87.454	18.318	550.565	631.105	0.309	4.261	18.318	***3.168***
2021-07-17 8:30	1955700	7.984	-87.733	18.310	550.464	631.112	0.309	4.735	18.310	***3.182***
2021-07-17 8:45	1956600	7.982	-87.636	18.301	550.462	631.228	0.310	4.220	18.301	***3.172***
2021-07-17 9:00	1957500	7.995	-88.363	18.301	553.584	634.804	0.311	2.609	18.301	***3.065***
2021-07-17 9:15	1958400	7.991	-88.122	18.297	553.193	634.419	0.311	3.517	18.297	***3.315***
2021-07-17 9:30	1959300	7.978	-87.397	18.308	551.654	632.500	0.310	5.061	18.308	***3.219***
2021-07-17 9:45	1960200	7.981	-87.545	18.351	554.612	635.288	0.312	5.145	18.351	***3.249***
2021-07-17 10:00	1961100	7.973	-87.116	18.433	555.725	635.425	0.312	5.319	18.433	***3.304***
2021-07-17 10:15	1962000	7.973	-87.142	18.470	555.312	634.435	0.311	16.125	18.470	***3.203***
2021-07-17 10:30	1962900	7.982	-87.652	18.491	548.337	626.183	0.307	4.903	18.491	***3.206***
2021-07-17 10:45	1963800	7.993	-88.286	18.508	548.497	626.134	0.307	5.187	18.508	***3.301***
2021-07-17 11:00	1964700	7.996	-88.508	18.520	547.480	624.814	0.306	5.235	18.520	***3.294***
2021-07-17 11:15	1965600	7.993	-88.327	18.509	548.373	625.975	0.307	6.884	18.509	***2.932***
2021-07-17 11:30	1966500	7.982	-87.655	18.505	547.461	624.989	0.306	4.773	18.505	***3.435***
2021-07-17 11:45	1967400	7.983	-87.748	18.501	545.929	623.294	0.306	4.573	18.501	***2.844***
2021-07-17 12:00	1968300	7.987	-87.945	18.491	546.590	624.185	0.306	4.241	18.491	***2.671***
2021-07-17 12:15	1969200	7.985	-87.862	18.500	542.414	619.294	0.304	3.950	18.500	***3.275***
2021-07-17 12:30	1970100	7.982	-87.681	18.486	534.390	610.325	0.299	4.520	18.486	***3.488***
2021-07-17 12:45	1971000	7.984	-87.752	18.450	529.640	605.378	0.296	4.803	18.450	***2.985***
2021-07-17 13:00	1971900	7.977	-87.388	18.447	540.059	617.331	0.303	4.157	18.447	***3.318***
2021-07-17 13:15	1972800	7.974	-87.197	18.440	533.418	609.832	0.299	4.877	18.440	***3.310***
2021-07-17 13:30	1973700	7.977	-87.380	18.435	526.368	601.833	0.295	4.562	18.435	***3.485***
2021-07-17 13:45	1974600	7.975	-87.271	18.426	528.750	604.674	0.296	3.910	18.426	***3.398***
2021-07-17 14:00	1975500	7.979	-87.461	18.424	528.654	604.597	0.296	4.205	18.424	***3.093***
2021-07-17 14:15	1976400	7.977	-87.347	18.437	559.083	639.207	0.314	4.236	18.437	***3.542***
2021-07-17 14:30	1977300	7.973	-87.109	18.439	539.784	617.120	0.302	6.341	18.439	***3.305***
2021-07-17 14:45	1978200	7.981	-87.569	18.432	544.593	622.708	0.305	3.854	18.432	***3.646***
2021-07-17 15:00	1979100	7.982	-87.669	18.438	543.365	621.232	0.304	4.071	18.438	***3.444***
2021-07-17 15:15	1980000	7.976	-87.323	18.454	543.251	620.875	0.304	3.841	18.454	***3.489***
2021-07-17 15:30	1980900	7.979	-87.473	18.463	542.426	619.820	0.304	3.595	18.463	***3.425***
2021-07-17 15:45	1981800	7.974	-87.214	18.464	541.775	619.061	0.303	4.257	18.464	***3.314***
2021-07-17 16:00	1982700	7.986	-87.903	18.459	539.000	615.947	0.302	4.009	18.459	***3.603***
2021-07-17 16:15	1983600	7.976	-87.287	18.454	523.069	597.819	0.293	4.956	18.454	***3.761***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-17 16:30	1984500	7.982	-87.681	18.468	526.927	602.034	0.295	4.297	18.468	***3.664***
2021-07-17 16:45	1985400	7.973	-87.128	18.498	522.796	596.922	0.292	3.527	18.498	***3.623***
2021-07-17 17:00	1986300	7.971	-87.063	18.546	531.690	606.449	0.297	3.132	18.546	***3.699***
2021-07-17 17:15	1987200	7.979	-87.516	18.574	526.338	599.973	0.294	3.142	18.574	***3.724***
2021-07-17 17:30	1988100	7.983	-87.788	18.613	530.190	603.858	0.296	3.542	18.613	***3.687***
2021-07-17 17:45	1989000	7.979	-87.531	18.665	526.455	598.920	0.293	3.500	18.665	***3.608***
2021-07-17 18:00	1989900	7.990	-88.220	18.702	527.670	599.818	0.294	3.280	18.702	***3.701***
2021-07-17 18:15	1990800	7.985	-87.929	18.736	528.953	600.840	0.294	3.940	18.736	***3.828***
2021-07-17 18:30	1991700	7.979	-87.585	18.744	532.886	605.206	0.296	4.678	18.744	***4.072***
2021-07-17 18:45	1992600	7.976	-87.380	18.730	540.630	614.186	0.301	3.822	18.730	***3.994***
2021-07-17 19:00	1993500	7.982	-87.717	18.720	534.651	607.516	0.298	4.079	18.720	***3.981***
2021-07-17 19:15	1994400	7.991	-88.243	18.696	534.218	607.349	0.297	4.424	18.696	***3.395***
2021-07-17 19:30	1995300	7.981	-87.652	18.681	528.430	600.962	0.294	3.986	18.681	***2.721***
2021-07-17 19:45	1996200	7.998	-88.665	18.673	529.831	602.666	0.295	3.151	18.673	***3.314***
2021-07-17 20:00	1997100	7.997	-88.608	18.664	532.329	605.616	0.297	3.344	18.664	***3.545***
2021-07-17 20:15	1998000	7.996	-88.518	18.631	534.942	609.025	0.298	3.758	18.631	***3.554***
2021-07-17 20:30	1998900	7.989	-88.084	18.586	534.175	608.747	0.298	3.756	18.586	***3.466***
2021-07-17 20:45	1999800	7.984	-87.817	18.551	533.619	608.583	0.298	3.365	18.551	***3.507***
2021-07-17 21:00	2000700	7.972	-87.121	18.527	534.103	609.456	0.299	3.446	18.527	***2.764***
2021-07-17 21:15	2001600	7.965	-86.670	18.505	535.579	611.428	0.300	3.608	18.505	***2.267***
2021-07-17 21:30	2002500	7.959	-86.322	18.479	535.294	611.446	0.300	3.743	18.479	***2.297***
2021-07-17 21:45	2003400	7.954	-86.017	18.448	532.645	608.831	0.298	3.709	18.448	***2.797***
2021-07-17 22:00	2004300	7.946	-85.578	18.426	532.362	608.809	0.298	3.223	18.426	***2.635***
2021-07-17 22:15	2005200	7.943	-85.409	18.393	532.622	609.543	0.299	4.593	18.393	***2.825***
2021-07-17 22:30	2006100	7.937	-85.008	18.358	532.594	609.981	0.299	2.899	18.358	***2.678***
2021-07-17 22:45	2007000	7.933	-84.770	18.327	530.416	607.894	0.298	3.571	18.327	***2.612***
2021-07-17 23:00	2007900	7.928	-84.498	18.287	538.613	617.825	0.303	4.159	18.287	***2.542***
2021-07-17 23:15	2008800	7.918	-83.868	18.258	536.226	615.482	0.302	4.642	18.258	***2.565***
2021-07-17 23:30	2009700	7.919	-83.923	18.235	538.065	617.912	0.303	4.590	18.235	***3.246***
2021-07-17 23:45	2010600	7.906	-83.218	18.213	539.813	620.217	0.304	6.095	18.213	***3.035***
2021-07-18 0:00	2011500	7.900	-82.822	18.175	536.083	616.440	0.302	6.281	18.175	***2.790***
2021-07-18 0:15	2012400	7.897	-82.672	18.143	526.228	605.536	0.296	6.541	18.143	***2.366***
2021-07-18 0:30	2013300	7.892	-82.378	18.124	528.697	608.635	0.298	5.231	18.124	***2.384***
2021-07-18 0:45	2014200	7.885	-81.925	18.099	528.535	608.783	0.298	8.100	18.099	***1.902***
2021-07-18 1:00	2015100	7.880	-81.677	18.083	528.343	608.764	0.298	6.530	18.083	***2.278***
2021-07-18 1:15	2016000	7.880	-81.644	18.065	526.696	607.111	0.297	5.008	18.065	***1.804***
2021-07-18 1:30	2016900	7.873	-81.229	18.038	528.292	609.312	0.298	8.059	18.038	***2.175***
2021-07-18 1:45	2017800	7.873	-81.232	18.006	526.426	607.588	0.298	8.847	18.006	***1.966***
2021-07-18 2:00	2018700	7.867	-80.853	17.988	525.081	606.278	0.297	8.230	17.988	***1.427***
2021-07-18 2:15	2019600	7.867	-80.874	17.970	534.219	617.071	0.302	7.307	17.970	***1.469***
2021-07-18 2:30	2020500	7.872	-81.129	17.944	535.366	618.758	0.303	7.613	17.944	***1.752***
2021-07-18 2:45	2021400	7.866	-80.812	17.922	534.071	617.553	0.303	6.134	17.922	***1.528***
2021-07-18 3:00	2022300	7.860	-80.435	17.914	534.952	618.686	0.303	5.308	17.914	***1.620***
2021-07-18 3:15	2023200	7.863	-80.614	17.888	536.358	620.666	0.304	6.613	17.888	***1.477***
2021-07-18 3:30	2024100	7.865	-80.748	17.874	534.978	619.268	0.303	7.004	17.874	***1.928***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-18 3:45	2025000	7.863	-80.633	17.858	556.798	644.750	0.316	5.953	17.858	***2.506***
2021-07-18 4:00	2025900	7.867	-80.833	17.832	552.221	639.823	0.314	5.599	17.832	***2.417***
2021-07-18 4:15	2026800	7.863	-80.571	17.816	560.587	649.742	0.319	5.460	17.816	***1.848***
2021-07-18 4:30	2027700	7.860	-80.435	17.802	545.415	632.357	0.310	5.153	17.802	***0.930***
2021-07-18 4:45	2028600	7.864	-80.664	17.797	539.994	626.141	0.307	5.210	17.797	***2.080***
2021-07-18 5:00	2029500	7.862	-80.540	17.774	530.938	615.956	0.302	6.854	17.774	***2.703***
2021-07-18 5:15	2030400	7.858	-80.307	17.763	524.011	608.057	0.298	6.683	17.763	***2.827***
2021-07-18 5:30	2031300	7.858	-80.261	17.750	526.908	611.593	0.299	6.356	17.750	***1.715***
2021-07-18 5:45	2032200	7.857	-80.233	17.727	521.423	605.541	0.296	5.869	17.727	***2.099***
2021-07-18 6:00	2033100	7.856	-80.142	17.708	520.817	605.087	0.296	5.160	17.708	***1.799***
2021-07-18 6:15	2034000	7.856	-80.161	17.687	525.647	610.989	0.299	4.506	17.687	***1.742***
2021-07-18 6:30	2034900	7.851	-79.873	17.669	528.788	614.883	0.301	8.198	17.669	***1.422***
2021-07-18 6:45	2035800	7.842	-79.319	17.654	533.033	620.028	0.304	6.254	17.654	***1.391***
2021-07-18 7:00	2036700	7.841	-79.291	17.657	532.721	619.625	0.304	6.387	17.657	***2.024***
2021-07-18 7:15	2037600	7.843	-79.427	17.666	529.198	615.406	0.301	6.044	17.666	***1.702***
2021-07-18 7:30	2038500	7.846	-79.563	17.659	529.698	616.075	0.302	6.571	17.659	***2.270***
2021-07-18 7:45	2039400	7.851	-79.875	17.657	524.038	609.520	0.298	6.070	17.657	***2.229***
2021-07-18 8:00	2040300	7.851	-79.870	17.645	505.881	588.558	0.288	6.331	17.645	***2.320***
2021-07-18 8:15	2041200	7.848	-79.684	17.642	518.780	603.612	0.295	7.945	17.642	***2.502***
2021-07-18 8:30	2042100	7.840	-79.198	17.642	540.554	628.938	0.308	6.215	17.642	***2.285***
2021-07-18 8:45	2043000	7.847	-79.606	17.640	522.976	608.514	0.298	6.058	17.640	***1.845***
2021-07-18 9:00	2043900	7.849	-79.710	17.639	529.616	616.255	0.302	7.854	17.639	***2.030***
2021-07-18 9:15	2044800	7.841	-79.300	17.639	519.691	604.712	0.296	4.505	17.639	***1.781***
2021-07-18 9:30	2045700	7.842	-79.348	17.638	523.072	608.662	0.298	4.477	17.638	***1.694***
2021-07-18 9:45	2046600	7.852	-79.896	17.631	524.084	609.927	0.299	451.886	17.631	***2.231***
2021-07-18 10:00	2047500	7.852	-79.918	17.623	523.493	609.351	0.298	20.350	17.623	***2.664***
2021-07-18 10:15	2048400	7.850	-79.782	17.612	526.159	612.603	0.300	4.651	17.612	***2.809***
2021-07-18 10:30	2049300	7.842	-79.334	17.608	523.910	610.047	0.299	4.859	17.608	***2.693***
2021-07-18 10:45	2050200	7.848	-79.694	17.599	529.268	616.400	0.302	4.679	17.599	***2.661***
2021-07-18 11:00	2051100	7.835	-78.921	17.593	527.782	614.752	0.301	4.445	17.593	***2.806***
2021-07-18 11:15	2052000	7.823	-78.223	17.601	551.614	642.398	0.315	4.650	17.601	***2.579***
2021-07-18 11:30	2052900	7.826	-78.402	17.612	531.933	619.327	0.303	3.771	17.612	***2.526***
2021-07-18 11:45	2053800	7.836	-78.998	17.620	530.752	617.837	0.303	3.726	17.620	***2.323***
2021-07-18 12:00	2054700	7.838	-79.122	17.631	525.365	611.420	0.299	3.102	17.631	***2.612***
2021-07-18 12:15	2055600	7.846	-79.591	17.643	532.466	619.519	0.303	3.462	17.643	***2.678***
2021-07-18 12:30	2056500	7.848	-79.677	17.640	539.763	628.050	0.308	4.348	17.640	***2.814***
2021-07-18 12:45	2057400	7.851	-79.865	17.643	544.905	633.999	0.311	5.169	17.643	***2.969***
2021-07-18 13:00	2058300	7.842	-79.336	17.658	545.094	633.994	0.311	4.091	17.658	***2.949***
2021-07-18 13:15	2059200	7.849	-79.765	17.673	545.314	634.043	0.311	3.583	17.673	***2.706***
2021-07-18 13:30	2060100	7.852	-79.942	17.681	545.570	634.233	0.311	3.312	17.681	***2.828***
2021-07-18 13:45	2061000	7.854	-80.011	17.684	545.761	634.412	0.311	3.785	17.684	***3.029***
2021-07-18 14:00	2061900	7.845	-79.525	17.689	546.268	634.928	0.311	4.724	17.689	***2.896***
2021-07-18 14:15	2062800	7.856	-80.125	17.680	546.100	634.866	0.311	4.509	17.680	***3.049***
2021-07-18 14:30	2063700	7.847	-79.639	17.683	546.248	634.994	0.311	4.218	17.683	***3.019***
2021-07-18 14:45	2064600	7.834	-78.871	17.692	546.423	635.062	0.311	3.330	17.692	***2.861***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-18 15:00	2065500	7.834	-78.866	17.698	546.626	635.215	0.311	3.927	17.698	***2.889***
2021-07-18 15:15	2066400	7.838	-79.114	17.711	546.779	635.214	0.311	4.399	17.711	***2.947***
2021-07-18 15:30	2067300	7.837	-79.093	17.726	547.002	635.263	0.311	2.357	17.726	***3.098***
2021-07-18 15:45	2068200	7.844	-79.484	17.729	547.283	635.540	0.312	3.044	17.729	***3.166***
2021-07-18 16:00	2069100	7.840	-79.226	17.743	547.512	635.610	0.312	2.570	17.743	***2.716***
2021-07-18 16:15	2070000	7.833	-78.835	17.761	547.803	635.693	0.312	2.902	17.761	***1.328***
2021-07-18 16:30	2070900	7.831	-78.723	17.795	548.077	635.537	0.312	2.307	17.795	***1.839***
2021-07-18 16:45	2071800	7.827	-78.497	17.812	548.704	636.029	0.312	2.782	17.812	***2.010***
2021-07-18 17:00	2072700	7.809	-77.462	17.834	548.633	635.633	0.312	2.765	17.834	***1.891***
2021-07-18 17:15	2073600	7.815	-77.837	17.857	549.422	636.221	0.312	2.402	17.857	***2.323***
2021-07-18 17:30	2074500	7.817	-77.958	17.871	550.037	636.744	0.312	2.488	17.871	***2.673***
2021-07-18 17:45	2075400	7.830	-78.685	17.883	550.158	636.713	0.312	2.934	17.883	***2.679***
2021-07-18 18:00	2076300	7.842	-79.424	17.885	550.350	636.906	0.312	3.612	17.885	***3.119***
2021-07-18 18:15	2077200	7.847	-79.660	17.880	550.488	637.131	0.312	3.425	17.880	***3.043***
2021-07-18 18:30	2078100	7.846	-79.603	17.880	550.521	637.171	0.312	2.985	17.880	***2.386***
2021-07-18 18:45	2079000	7.837	-79.112	17.878	550.531	637.218	0.312	4.644	17.878	***1.291***
2021-07-18 19:00	2079900	7.847	-79.670	17.870	550.558	637.354	0.313	2.795	17.870	***1.414***
2021-07-18 19:15	2080800	7.846	-79.594	17.845	550.333	637.448	0.313	3.397	17.845	***1.993***
2021-07-18 19:30	2081700	7.840	-79.272	17.827	550.152	637.497	0.313	3.330	17.827	***2.186***
2021-07-18 19:45	2082600	7.829	-78.640	17.805	550.170	637.816	0.313	3.014	17.805	***2.279***
2021-07-18 20:00	2083500	7.819	-78.034	17.791	550.224	638.084	0.313	3.365	17.791	***1.509***
2021-07-18 20:15	2084400	7.817	-77.941	17.772	550.167	638.285	0.313	3.069	17.772	***1.622***
2021-07-18 20:30	2085300	7.814	-77.767	17.761	550.241	638.532	0.313	3.092	17.761	***1.349***
2021-07-18 20:45	2086200	7.815	-77.794	17.740	550.064	638.619	0.313	3.208	17.740	***1.564***
2021-07-18 21:00	2087100	7.810	-77.510	17.720	549.856	638.657	0.313	4.054	17.720	***2.233***
2021-07-18 21:15	2088000	7.811	-77.584	17.704	549.700	638.699	0.313	4.046	17.704	***2.077***
2021-07-18 21:30	2088900	7.807	-77.317	17.688	549.719	638.957	0.313	4.073	17.688	***2.198***
2021-07-18 21:45	2089800	7.808	-77.376	17.673	549.230	638.606	0.313	4.189	17.673	***1.924***
2021-07-18 22:00	2090700	7.805	-77.181	17.652	549.337	639.015	0.313	3.749	17.652	***1.301***
2021-07-18 22:15	2091600	7.809	-77.424	17.631	548.218	638.020	0.313	3.606	17.631	***1.800***
2021-07-18 22:30	2092500	7.812	-77.569	17.599	548.977	639.357	0.314	4.693	17.599	***1.664***
2021-07-18 22:45	2093400	7.809	-77.429	17.566	547.612	638.229	0.313	4.108	17.566	***1.847***
2021-07-18 23:00	2094300	7.801	-76.907	17.498	542.228	632.920	0.310	4.668	17.498	***2.210***
2021-07-18 23:15	2095200	7.802	-77.002	17.462	538.931	629.579	0.309	5.096	17.462	***2.305***
2021-07-18 23:30	2096100	7.804	-77.093	17.449	538.612	629.390	0.308	5.560	17.449	***1.984***
2021-07-18 23:45	2097000	7.807	-77.264	17.447	538.784	629.612	0.309	4.795	17.447	***1.130***
2021-07-19 0:00	2097900	7.806	-77.195	17.443	541.100	632.382	0.310	4.648	17.443	***0.938***
2021-07-19 0:15	2098800	7.812	-77.529	17.423	540.413	631.862	0.310	5.045	17.423	***1.072***
2021-07-19 0:30	2099700	7.813	-77.605	17.409	541.434	633.243	0.310	5.080	17.409	***1.712***
2021-07-19 0:45	2100600	7.811	-77.503	17.394	541.605	633.655	0.311	4.335	17.394	***1.518***
2021-07-19 1:00	2101500	7.815	-77.686	17.383	541.582	633.794	0.311	4.737	17.383	***1.288***
2021-07-19 1:15	2102400	7.812	-77.510	17.369	541.858	634.316	0.311	5.126	17.369	***1.818***
2021-07-19 1:30	2103300	7.812	-77.536	17.361	541.649	634.175	0.311	5.077	17.361	***2.071***
2021-07-19 1:45	2104200	7.819	-77.908	17.351	541.772	634.458	0.311	6.076	17.351	***2.282***
2021-07-19 2:00	2105100	7.820	-77.975	17.345	542.134	634.978	0.311	5.776	17.345	***1.969***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-19 2:15	2106000	7.815	-77.698	17.342	542.321	635.228	0.311	5.734	17.342	***2.168***
2021-07-19 2:30	2106900	7.816	-77.772	17.331	542.341	635.416	0.311	5.897	17.331	***2.822***
2021-07-19 2:45	2107800	7.815	-77.693	17.317	542.313	635.588	0.312	7.795	17.317	***2.633***
2021-07-19 3:00	2108700	7.813	-77.598	17.316	542.533	635.859	0.312	8.516	17.316	***1.623***
2021-07-19 3:15	2109600	7.805	-77.138	17.309	542.911	636.392	0.312	7.042	17.309	***1.015***
2021-07-19 3:30	2110500	7.807	-77.202	17.307	542.933	636.448	0.312	7.360	17.307	***1.057***
2021-07-19 3:45	2111400	7.806	-77.167	17.300	542.844	636.451	0.312	6.211	17.300	***0.782***
2021-07-19 4:00	2112300	7.807	-77.229	17.294	542.728	636.396	0.312	6.560	17.294	***1.205***
2021-07-19 4:15	2113200	7.808	-77.269	17.285	542.504	636.257	0.312	7.156	17.285	***0.817***
2021-07-19 4:30	2114100	7.802	-76.942	17.285	542.508	636.271	0.312	6.826	17.285	***1.146***
2021-07-19 4:45	2115000	7.802	-76.938	17.280	542.967	636.877	0.312	6.639	17.280	***0.908***
2021-07-19 5:00	2115900	7.804	-77.062	17.265	542.870	636.976	0.312	7.193	17.265	***1.521***
2021-07-19 5:15	2116800	7.803	-76.976	17.249	542.683	636.990	0.312	6.634	17.249	***1.283***
2021-07-19 5:30	2117700	7.802	-76.933	17.225	542.691	637.337	0.312	7.399	17.225	***1.331***
2021-07-19 5:45	2118600	7.802	-76.938	17.201	542.687	637.677	0.313	7.446	17.201	***0.923***
2021-07-19 6:00	2119500	7.794	-76.475	17.195	542.732	637.816	0.313	7.654	17.195	***1.360***
2021-07-19 6:15	2120400	7.788	-76.106	17.195	543.534	638.764	0.313	8.446	17.195	***1.926***
2021-07-19 6:30	2121300	7.787	-76.058	17.192	543.989	639.331	0.313	9.209	17.192	***1.799***
2021-07-19 6:45	2122200	7.787	-76.046	17.194	543.762	639.044	0.313	10.372	17.194	***2.052***
2021-07-19 7:00	2123100	7.787	-76.039	17.192	544.094	639.465	0.313	9.845	17.192	***2.172***
2021-07-19 7:15	2124000	7.782	-75.777	17.198	544.790	640.194	0.314	9.920	17.198	***0.768***
2021-07-19 7:30	2124900	7.777	-75.498	17.205	545.058	640.407	0.314	9.112	17.205	***1.844***
2021-07-19 7:45	2125800	7.778	-75.512	17.210	545.029	640.304	0.314	8.684	17.210	***2.258***
2021-07-19 8:00	2126700	7.782	-75.765	17.210	545.970	641.403	0.314	8.623	17.210	***2.383***
2021-07-19 8:15	2127600	7.781	-75.681	17.218	546.547	641.960	0.315	7.771	17.218	***1.595***
2021-07-19 8:30	2128500	7.780	-75.662	17.224	546.825	642.207	0.315	7.675	17.224	***2.059***
2021-07-19 8:45	2129400	7.780	-75.634	17.233	547.084	642.383	0.315	7.401	17.233	***2.167***
2021-07-19 9:00	2130300	7.783	-75.819	17.243	547.218	642.399	0.315	8.915	17.243	***1.503***
2021-07-19 9:15	2131200	7.772	-75.166	17.250	547.686	642.845	0.315	11.863	17.250	***2.154***
2021-07-19 9:30	2132100	7.774	-75.288	17.255	547.823	642.935	0.315	11.200	17.255	***1.390***
2021-07-19 9:45	2133000	7.773	-75.264	17.266	548.286	643.323	0.315	11.095	17.266	***1.717***
2021-07-19 10:00	2133900	7.768	-74.978	17.290	548.802	643.570	0.316	10.451	17.290	***1.205***
2021-07-19 10:15	2134800	7.765	-74.811	17.315	549.215	643.695	0.316	11.929	17.315	***1.259***
2021-07-19 10:30	2135700	7.766	-74.871	17.335	549.627	643.889	0.316	9.519	17.335	***0.990***
2021-07-19 10:45	2136600	7.756	-74.291	17.355	549.996	644.038	0.316	9.587	17.355	***0.955***
2021-07-19 11:00	2137500	7.744	-73.586	17.373	550.420	644.277	0.316	9.619	17.373	***0.521***
2021-07-19 11:15	2138400	7.744	-73.597	17.391	551.770	645.599	0.317	9.844	17.391	***0.784***
2021-07-19 11:30	2139300	7.742	-73.528	17.405	552.440	646.176	0.317	10.663	17.405	***0.519***
2021-07-19 11:45	2140200	7.753	-74.148	17.416	553.420	647.165	0.317	11.909	17.416	***0.733***
2021-07-19 12:00	2141100	7.762	-74.677	17.429	554.009	647.669	0.318	10.952	17.429	***1.446***
2021-07-19 12:15	2142000	7.765	-74.849	17.444	554.258	647.742	0.318	14.828	17.444	***2.006***
2021-07-19 12:30	2142900	7.762	-74.694	17.454	554.931	648.376	0.318	13.352	17.454	***1.906***
2021-07-19 12:45	2143800	7.778	-75.586	17.463	555.571	648.999	0.318	14.545	17.463	***1.430***
2021-07-19 13:00	2144700	7.769	-75.102	17.471	555.806	649.157	0.318	9.632	17.471	***0.532***
2021-07-19 13:15	2145600	7.765	-74.863	17.487	556.193	649.370	0.319	9.658	17.487	***0.940***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-19 13:30	2146500	7.779	-75.688	17.512	556.620	649.518	0.319	11.468	17.512	***1.268***
2021-07-19 13:45	2147400	7.768	-75.026	17.544	557.001	649.494	0.319	9.904	17.544	***1.150***
2021-07-19 14:00	2148300	7.771	-75.228	17.578	557.346	649.411	0.319	9.989	17.578	***1.506***
2021-07-19 14:15	2149200	7.775	-75.464	17.613	557.816	649.444	0.319	9.608	17.613	***1.482***
2021-07-19 14:30	2150100	7.777	-75.579	17.641	558.170	649.449	0.319	8.146	17.641	***1.759***
2021-07-19 14:45	2151000	7.768	-75.061	17.653	558.702	649.905	0.319	8.946	17.653	***1.218***
2021-07-19 15:00	2151900	7.772	-75.281	17.653	559.332	650.633	0.319	9.599	17.653	***0.550***
2021-07-19 15:15	2152800	7.779	-75.724	17.660	559.524	650.757	0.319	8.812	17.660	***0.631***
2021-07-19 15:30	2153700	7.801	-76.957	17.679	559.773	650.769	0.319	9.272	17.679	***1.503***
2021-07-19 15:45	2154600	7.803	-77.112	17.705	559.942	650.595	0.319	8.770	17.705	***2.083***
2021-07-19 16:00	2155500	7.811	-77.546	17.739	560.286	650.499	0.319	9.197	17.739	***1.644***
2021-07-19 16:15	2156400	7.806	-77.317	17.803	560.908	650.302	0.319	8.763	17.803	***2.208***
2021-07-19 16:30	2157300	7.794	-76.606	17.909	562.102	650.166	0.319	9.677	17.909	***2.288***
2021-07-19 16:45	2158200	7.777	-75.703	18.011	563.224	649.998	0.319	10.578	18.011	***2.512***
2021-07-19 17:00	2159100	7.778	-75.777	18.131	564.586	649.848	0.319	10.395	18.131	***2.975***
2021-07-19 17:15	2160000	7.792	-76.604	18.187	565.193	649.736	0.319	8.398	18.187	***3.131***
2021-07-19 17:30	2160900	7.829	-78.728	18.217	565.735	649.944	0.319	9.151	18.217	***2.843***
2021-07-19 17:45	2161800	7.846	-79.775	18.329	567.060	649.863	0.319	11.201	18.329	***2.972***
2021-07-19 18:00	2162700	7.831	-78.905	18.480	569.172	650.137	0.319	10.325	18.480	***3.297***
2021-07-19 18:15	2163600	7.852	-80.125	18.481	569.198	650.153	0.319	9.137	18.481	***3.383***
2021-07-19 18:30	2164500	7.866	-80.969	18.511	569.586	650.162	0.319	10.796	18.511	***2.571***
2021-07-19 18:45	2165400	7.851	-80.106	18.613	571.101	650.457	0.319	11.616	18.613	***3.177***
2021-07-19 19:00	2166300	7.831	-78.957	18.689	572.357	650.803	0.320	8.587	18.689	***3.369***
2021-07-19 19:15	2167200	7.859	-80.619	18.728	573.626	651.692	0.320	8.896	18.728	***3.807***
2021-07-19 19:30	2168100	7.877	-81.692	18.750	575.747	653.798	0.321	9.596	18.750	***4.010***
2021-07-19 19:45	2169000	7.877	-81.637	18.729	578.723	657.474	0.323	9.948	18.729	***2.082***
2021-07-19 20:00	2169900	7.874	-81.439	18.641	581.944	662.393	0.325	10.658	18.641	***2.562***
2021-07-19 20:15	2170801	7.865	-80.936	18.609	582.097	663.030	0.326	10.036	18.609	***3.128***
2021-07-19 20:30	2171701	7.879	-81.720	18.595	582.061	663.186	0.326	10.046	18.595	***2.940***
2021-07-19 20:45	2172601	7.880	-81.801	18.565	581.934	663.475	0.326	10.170	18.565	***1.801***
2021-07-19 21:00	2173501	7.881	-81.825	18.528	581.521	663.539	0.326	10.103	18.528	***2.538***
2021-07-19 21:15	2174401	7.873	-81.339	18.489	581.348	663.918	0.326	9.797	18.489	***2.521***
2021-07-19 21:30	2175301	7.884	-81.980	18.433	580.829	664.128	0.326	11.212	18.433	***3.306***
2021-07-19 21:45	2176201	7.895	-82.603	18.365	580.667	664.940	0.327	10.621	18.365	***3.101***
2021-07-19 22:00	2177101	7.890	-82.285	18.316	580.782	665.775	0.327	11.032	18.316	***2.556***
2021-07-19 22:15	2178001	7.892	-82.395	18.242	578.813	664.598	0.326	11.164	18.242	***2.572***
2021-07-19 22:30	2178901	7.883	-81.823	18.176	578.193	664.847	0.327	10.667	18.176	***2.649***
2021-07-19 22:45	2179801	7.879	-81.599	18.104	577.534	665.140	0.327	15.566	18.104	***3.160***
2021-07-19 23:00	2180701	7.883	-81.804	18.035	576.422	664.872	0.327	14.192	18.035	***3.186***
2021-07-19 23:15	2181601	7.884	-81.837	17.956	575.457	664.919	0.327	16.692	17.956	***2.960***
2021-07-19 23:30	2182501	7.880	-81.580	17.891	574.325	664.555	0.326	16.922	17.891	***2.793***
2021-07-19 23:45	2183401	7.874	-81.205	17.833	573.336	664.266	0.326	16.877	17.833	***2.753***
2021-07-20 0:00	2184301	7.870	-80.996	17.775	572.334	663.955	0.326	17.735	17.775	***2.788***
2021-07-20 0:15	2185201	7.867	-80.824	17.717	571.291	663.607	0.326	18.368	17.717	***2.753***
2021-07-20 0:30	2186101	7.864	-80.621	17.654	570.269	663.341	0.326	17.560	17.654	***2.993***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-20 0:45	2187001	7.865	-80.640	17.606	569.462	663.113	0.326	18.645	17.606	***2.883***
2021-07-20 1:00	2187901	7.862	-80.445	17.555	568.642	662.902	0.325	17.444	17.555	***3.229***
2021-07-20 1:15	2188801	7.858	-80.249	17.517	567.813	662.506	0.325	17.879	17.517	***3.313***
2021-07-20 1:30	2189701	7.851	-79.823	17.461	566.989	662.364	0.325	20.139	17.461	***3.171***
2021-07-20 1:45	2190601	7.844	-79.372	17.420	567.502	663.574	0.326	20.401	17.420	***2.620***
2021-07-20 2:00	2191501	7.834	-78.793	17.374	565.243	661.606	0.325	19.775	17.374	***3.011***
2021-07-20 2:15	2192401	7.823	-78.173	17.329	564.851	661.824	0.325	19.470	17.329	***3.091***
2021-07-20 2:30	2193301	7.817	-77.808	17.286	564.430	661.959	0.325	19.726	17.286	***2.940***
2021-07-20 2:45	2194201	7.816	-77.708	17.252	563.973	661.935	0.325	19.741	17.252	***2.725***
2021-07-20 3:00	2195101	7.809	-77.343	17.212	563.473	661.944	0.325	19.669	17.212	***2.777***
2021-07-20 3:15	2196001	7.806	-77.164	17.188	563.244	662.016	0.325	19.362	17.188	***2.429***
2021-07-20 3:30	2196901	7.805	-77.100	17.165	562.974	662.042	0.325	19.706	17.165	***2.664***
2021-07-20 3:45	2197801	7.803	-76.969	17.134	562.618	662.091	0.325	21.001	17.134	***2.826***
2021-07-20 4:00	2198701	7.797	-76.618	17.104	560.837	660.444	0.324	21.261	17.104	***2.739***
2021-07-20 4:15	2199601	7.795	-76.485	17.073	560.620	660.639	0.324	19.748	17.073	***2.561***
2021-07-20 4:30	2200501	7.793	-76.370	17.044	560.215	660.604	0.324	21.543	17.044	***2.496***
2021-07-20 4:45	2201401	7.792	-76.272	17.024	559.940	660.574	0.324	21.526	17.024	***2.524***
2021-07-20 5:00	2202301	7.803	-76.940	16.992	561.535	662.934	0.325	17.699	16.992	***2.268***
2021-07-20 5:15	2203201	7.793	-76.349	16.975	561.157	662.737	0.325	13.963	16.975	***2.207***
2021-07-20 5:30	2204101	7.787	-76.003	16.970	560.879	662.485	0.325	12.550	16.970	***2.170***
2021-07-20 5:45	2205001	7.788	-76.056	16.967	560.816	662.453	0.325	25.960	16.967	***2.195***
2021-07-20 6:00	2205901	7.787	-75.982	16.968	560.797	662.424	0.325	42.111	16.968	***1.817***
2021-07-20 6:15	2206801	7.778	-75.486	16.964	560.768	662.447	0.325	42.088	16.964	***1.700***
2021-07-20 6:30	2207701	7.770	-74.980	16.963	560.793	662.483	0.325	42.448	16.963	***1.226***
2021-07-20 6:45	2208601	7.762	-74.568	16.965	560.951	662.652	0.325	13.387	16.965	***0.893***
2021-07-20 7:00	2209501	7.757	-74.284	16.966	561.041	662.740	0.325	12.074	16.966	***0.713***
2021-07-20 7:15	2210401	7.753	-74.000	16.968	561.350	663.065	0.325	13.036	16.968	***0.839***
2021-07-20 7:30	2211301	7.760	-74.415	16.969	561.640	663.406	0.326	13.636	16.969	***1.472***
2021-07-20 7:45	2212201	7.745	-73.562	16.966	561.543	663.338	0.326	14.374	16.966	***1.153***
2021-07-20 8:00	2213101	7.747	-73.683	16.960	561.714	663.627	0.326	13.662	16.960	***0.160***
2021-07-20 8:15	2214001	7.750	-73.855	16.954	561.794	663.802	0.326	13.371	16.954	***0.062***
2021-07-20 8:30	2214901	7.745	-73.545	16.949	562.082	664.216	0.326	14.050	16.949	***0.602***
2021-07-20 8:45	2215801	7.744	-73.497	16.950	562.086	664.209	0.326	12.710	16.950	***1.039***
2021-07-20 9:00	2216701	7.747	-73.657	16.948	562.136	664.303	0.326	16.423	16.948	***1.576***
2021-07-20 9:15	2217601	7.746	-73.597	16.945	562.401	664.656	0.326	14.803	16.945	***1.946***
2021-07-20 9:30	2218501	7.747	-73.700	16.943	562.642	664.967	0.326	15.354	16.943	***2.031***
2021-07-20 9:45	2219401	7.751	-73.926	16.946	562.992	665.345	0.327	14.218	16.946	***1.628***
2021-07-20 10:00	2220301	7.757	-74.267	16.945	563.375	665.814	0.327	15.546	16.945	***1.607***
2021-07-20 10:15	2221201	7.762	-74.532	16.942	563.772	666.321	0.327	16.890	16.942	***0.972***
2021-07-20 10:30	2222101	7.756	-74.193	16.938	563.848	666.469	0.327	13.835	16.938	***0.835***
2021-07-20 10:45	2223001	7.758	-74.294	16.937	564.450	667.199	0.328	13.433	16.937	***0.957***
2021-07-20 11:00	2223901	7.760	-74.408	16.940	564.721	667.483	0.328	13.225	16.940	***1.729***
2021-07-20 11:15	2224801	7.752	-73.991	16.952	565.030	667.656	0.328	14.100	16.952	***2.046***
2021-07-20 11:30	2225701	7.747	-73.662	16.963	565.232	667.730	0.328	12.743	16.963	***2.033***
2021-07-20 11:45	2226601	7.743	-73.466	16.983	565.781	668.073	0.328	13.403	16.983	***1.789***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-20 12:00	2227501	7.740	-73.268	17.006	566.094	668.111	0.328	11.715	17.006	***1.817***
2021-07-20 12:15	2228401	7.735	-73.030	17.020	566.361	668.202	0.328	12.196	17.020	***1.558***
2021-07-20 12:30	2229301	7.730	-72.708	17.037	566.758	668.421	0.328	12.699	17.037	***1.083***
2021-07-20 12:45	2230201	7.726	-72.513	17.067	567.389	668.710	0.328	13.237	17.067	***0.552***
2021-07-20 13:00	2231101	7.737	-73.166	17.096	568.130	669.148	0.329	12.482	17.096	***1.041***
2021-07-20 13:15	2232001	7.738	-73.187	17.129	568.642	669.248	0.329	12.105	17.129	***1.334***
2021-07-20 13:30	2232901	7.734	-72.970	17.165	569.182	669.351	0.329	10.489	17.165	***1.586***
2021-07-20 13:45	2233801	7.736	-73.130	17.208	569.878	669.526	0.329	10.530	17.208	***2.042***
2021-07-20 14:00	2234701	7.735	-73.059	17.238	570.507	669.816	0.329	10.858	17.238	***2.193***
2021-07-20 14:15	2235601	7.740	-73.385	17.287	571.275	669.976	0.329	10.446	17.287	***2.298***
2021-07-20 14:30	2236501	7.747	-73.786	17.323	571.832	670.084	0.329	10.228	17.323	***2.405***
2021-07-20 14:45	2237401	7.741	-73.433	17.363	572.403	670.160	0.329	10.333	17.363	***2.338***
2021-07-20 15:00	2238301	7.742	-73.531	17.452	573.666	670.304	0.329	10.346	17.452	***2.315***
2021-07-20 15:15	2239201	7.739	-73.352	17.528	575.011	670.734	0.329	10.455	17.528	***2.256***
2021-07-20 15:30	2240101	7.730	-72.873	17.611	576.124	670.791	0.329	10.735	17.611	***2.438***
2021-07-20 15:45	2241001	7.716	-72.091	17.737	577.836	670.905	0.330	9.919	17.737	***2.706***
2021-07-20 16:00	2241901	7.712	-71.859	17.837	579.215	671.026	0.330	11.922	17.837	***2.876***
2021-07-20 16:15	2242801	7.719	-72.303	17.940	580.564	671.048	0.330	9.675	17.940	***2.869***
2021-07-20 16:30	2243701	7.721	-72.439	17.988	581.089	670.948	0.330	10.506	17.988	***2.924***
2021-07-20 16:45	2244601	7.762	-74.759	17.899	580.102	671.120	0.330	12.798	17.899	***2.201***
2021-07-20 17:00	2245501	7.772	-75.331	17.837	578.637	670.348	0.329	10.937	17.837	***2.551***
2021-07-20 17:15	2246401	7.760	-74.646	17.899	578.892	669.729	0.329	10.295	17.899	***2.163***
2021-07-20 17:30	2247301	7.744	-73.740	17.934	579.062	669.398	0.329	11.170	17.934	***2.077***
2021-07-20 17:45	2248201	7.763	-74.837	17.892	578.446	669.310	0.329	11.842	17.892	***2.315***
2021-07-20 18:00	2249101	7.759	-74.646	17.944	578.915	669.083	0.329	12.423	17.944	***2.204***
2021-07-20 18:15	2250001	7.750	-74.184	18.198	582.356	669.313	0.329	13.592	18.198	***2.583***
2021-07-20 18:30	2250901	7.775	-75.643	18.381	586.112	670.939	0.330	12.103	18.381	***3.003***
2021-07-20 18:45	2251801	7.781	-76.027	18.457	587.062	670.910	0.330	10.931	18.457	***2.890***
2021-07-20 19:00	2252701	7.794	-76.804	18.528	588.029	670.977	0.330	9.494	18.528	***3.715***
2021-07-20 19:15	2253601	7.791	-76.628	18.563	588.786	671.324	0.330	7.937	18.563	***3.510***
2021-07-20 19:30	2254501	7.803	-77.314	18.588	589.972	672.303	0.330	8.979	18.588	***3.160***
2021-07-20 19:45	2255401	7.808	-77.651	18.593	591.166	673.598	0.331	9.421	18.593	***4.208***
2021-07-20 20:00	2256301	7.820	-78.347	18.589	592.201	674.836	0.332	9.633	18.589	***4.505***
2021-07-20 20:15	2257201	7.838	-79.372	18.599	593.019	675.622	0.332	8.967	18.599	***4.239***
2021-07-20 20:30	2258101	7.857	-80.473	18.574	593.497	676.528	0.333	10.247	18.574	***3.580***
2021-07-20 20:45	2259001	7.886	-82.121	18.514	594.493	678.552	0.334	9.466	18.514	***2.363***
2021-07-20 21:00	2259901	7.889	-82.264	18.458	594.755	679.682	0.334	9.682	18.458	***1.459***
2021-07-20 21:15	2260801	7.885	-82.042	18.403	594.529	680.238	0.334	9.577	18.403	***2.433***
2021-07-20 21:30	2261701	7.896	-82.643	18.327	593.903	680.663	0.335	10.494	18.327	***3.274***
2021-07-20 21:45	2262601	7.914	-83.683	18.246	593.337	681.211	0.335	10.460	18.246	***2.850***
2021-07-20 22:00	2263501	7.917	-83.833	18.183	592.465	681.152	0.335	10.269	18.183	***2.928***
2021-07-20 22:15	2264401	7.918	-83.828	18.110	592.010	681.724	0.335	9.960	18.110	***2.869***
2021-07-20 22:30	2265301	7.917	-83.766	18.013	592.146	683.343	0.336	10.654	18.013	***2.909***
2021-07-20 22:45	2266201	7.918	-83.799	17.925	591.290	683.673	0.336	11.447	17.925	***2.419***
2021-07-20 23:00	2267101	7.904	-82.974	17.873	590.607	683.671	0.336	10.999	17.873	***2.246***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-20 23:15	2268001	7.901	-82.796	17.801	589.760	683.774	0.336	10.744	17.801	***2.750***
2021-07-20 23:30	2268901	7.894	-82.386	17.741	588.817	683.595	0.336	10.270	17.741	***2.604***
2021-07-20 23:45	2269801	7.892	-82.257	17.683	587.132	682.514	0.335	10.540	17.683	***2.824***
2021-07-21 0:00	2270701	7.891	-82.161	17.623	586.862	683.114	0.336	10.667	17.623	***2.815***
2021-07-21 0:15	2271601	7.889	-82.021	17.560	586.987	684.217	0.336	10.439	17.560	***2.900***
2021-07-21 0:30	2272501	7.890	-82.042	17.511	586.282	684.138	0.336	11.391	17.511	***2.917***
2021-07-21 0:45	2273401	7.883	-81.632	17.454	585.680	684.303	0.336	10.755	17.454	***3.117***
2021-07-21 1:00	2274301	7.880	-81.449	17.407	584.974	684.202	0.336	11.275	17.407	***2.767***
2021-07-21 1:15	2275201	7.881	-81.518	17.348	583.848	683.792	0.336	11.848	17.348	***2.591***
2021-07-21 1:30	2276101	7.872	-80.943	17.301	583.629	684.255	0.336	11.959	17.301	***2.412***
2021-07-21 1:45	2277001	7.849	-79.608	17.257	583.070	684.269	0.336	10.965	17.257	***2.223***
2021-07-21 2:00	2277901	7.839	-79.055	17.201	582.902	684.936	0.337	11.323	17.201	***2.253***
2021-07-21 2:15	2278801	7.839	-79.036	17.157	582.591	685.244	0.337	11.001	17.157	***1.833***
2021-07-21 2:30	2279701	7.843	-79.231	17.115	582.581	685.881	0.337	10.180	17.115	***1.687***
2021-07-21 2:45	2280601	7.826	-78.259	17.084	581.855	685.496	0.337	11.582	17.084	***2.684***
2021-07-21 3:00	2281501	7.833	-78.628	17.046	582.282	686.595	0.337	11.033	17.046	***2.777***
2021-07-21 3:15	2282401	7.835	-78.745	17.017	582.529	687.323	0.338	10.673	17.017	***1.858***
2021-07-21 3:30	2283301	7.831	-78.542	16.979	582.937	688.403	0.338	11.079	16.979	***2.521***
2021-07-21 3:45	2284201	7.829	-78.387	16.933	582.768	688.920	0.339	11.079	16.933	***3.308***
2021-07-21 4:00	2285101	7.831	-78.497	16.890	582.751	689.568	0.339	12.658	16.890	***3.439***
2021-07-21 4:15	2286001	7.827	-78.261	16.850	582.422	689.795	0.339	12.112	16.850	***3.618***
2021-07-21 4:30	2286901	7.834	-78.661	16.829	581.507	689.042	0.339	11.848	16.829	***3.598***
2021-07-21 4:45	2287801	7.858	-80.054	16.803	581.904	689.927	0.339	15.591	16.803	***2.827***
2021-07-21 5:00	2288701	7.856	-79.927	16.786	581.654	689.888	0.339	12.375	16.786	***2.254***
2021-07-21 5:15	2289601	7.845	-79.284	16.768	581.345	689.802	0.339	10.812	16.768	***1.782***
2021-07-21 5:30	2290501	7.846	-79.312	16.745	580.676	689.365	0.339	9.784	16.745	***2.068***
2021-07-21 5:45	2291401	7.850	-79.546	16.723	580.877	689.947	0.339	11.696	16.723	***1.623***
2021-07-21 6:00	2292301	7.848	-79.448	16.702	580.746	690.127	0.339	12.123	16.702	***2.650***
2021-07-21 6:15	2293201	7.841	-79.024	16.692	580.470	689.947	0.339	10.952	16.692	***2.873***
2021-07-21 6:30	2294101	7.848	-79.434	16.690	580.380	689.873	0.339	10.512	16.690	***3.009***
2021-07-21 6:45	2295001	7.847	-79.353	16.680	580.272	689.901	0.339	10.411	16.680	***2.875***
2021-07-21 7:00	2295901	7.841	-78.995	16.658	581.525	691.741	0.340	11.077	16.658	***2.725***
2021-07-21 7:15	2296801	7.841	-79.029	16.652	579.027	688.865	0.338	12.263	16.652	***2.995***
2021-07-21 7:30	2297701	7.834	-78.607	16.655	579.171	688.988	0.338	11.024	16.655	***3.106***
2021-07-21 7:45	2298601	7.826	-78.120	16.654	579.120	688.945	0.338	10.872	16.654	***2.981***
2021-07-21 8:00	2299501	7.832	-78.514	16.655	579.304	689.153	0.339	10.401	16.655	***2.977***
2021-07-21 8:15	2300401	7.835	-78.685	16.657	579.710	689.603	0.339	11.623	16.657	***2.958***
2021-07-21 8:30	2301301	7.828	-78.280	16.660	579.835	689.706	0.339	9.580	16.660	***2.597***
2021-07-21 8:45	2302201	7.826	-78.156	16.655	579.799	689.735	0.339	11.211	16.655	***2.556***
2021-07-21 9:00	2303101	7.830	-78.361	16.649	579.553	689.534	0.339	13.772	16.649	***2.549***
2021-07-21 9:15	2304001	7.826	-78.137	16.647	579.209	689.164	0.339	13.114	16.647	***2.591***
2021-07-21 9:30	2304901	7.820	-77.813	16.639	578.988	689.019	0.339	13.619	16.639	***2.530***
2021-07-21 9:45	2305801	7.822	-77.903	16.630	579.080	689.268	0.339	17.558	16.630	***2.348***
2021-07-21 10:00	2306701	7.811	-77.255	16.628	579.295	689.562	0.339	16.301	16.628	***2.200***
2021-07-21 10:15	2307601	7.805	-76.940	16.628	579.211	689.466	0.339	14.628	16.628	***2.241***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-21 10:30	2308501	7.794	-76.315	16.627	579.004	689.232	0.339	16.254	16.627	***2.403***
2021-07-21 10:45	2309401	7.796	-76.396	16.634	577.559	687.395	0.338	17.044	16.634	***2.222***
2021-07-21 11:00	2310301	7.799	-76.613	16.635	577.692	687.540	0.338	16.649	16.635	***2.293***
2021-07-21 11:15	2311201	7.801	-76.723	16.633	577.750	687.645	0.338	16.798	16.633	***2.448***
2021-07-21 11:30	2312101	7.803	-76.818	16.631	577.831	687.769	0.338	16.285	16.631	***2.640***
2021-07-21 11:45	2313001	7.800	-76.663	16.622	578.203	688.358	0.338	16.694	16.622	***2.563***
2021-07-21 12:00	2313901	7.802	-76.773	16.614	577.872	688.079	0.338	16.993	16.614	***2.779***
2021-07-21 12:15	2314801	7.804	-76.845	16.617	578.629	688.936	0.338	15.778	16.617	***2.744***
2021-07-21 12:30	2315701	7.802	-76.759	16.630	578.846	688.995	0.338	16.216	16.630	***2.440***
2021-07-21 12:45	2316601	7.800	-76.642	16.642	579.078	689.079	0.339	18.640	16.642	***2.414***
2021-07-21 13:00	2317501	7.799	-76.611	16.677	579.196	688.673	0.338	18.790	16.677	***2.238***
2021-07-21 13:15	2318401	7.779	-75.493	16.769	580.694	689.014	0.339	20.284	16.769	***2.179***
2021-07-21 13:30	2319301	7.760	-74.425	16.874	581.943	688.863	0.338	21.635	16.874	***2.693***
2021-07-21 13:45	2320201	7.768	-74.897	16.982	583.385	688.879	0.339	20.514	16.982	***3.018***
2021-07-21 14:00	2321101	7.759	-74.420	17.085	585.003	689.198	0.339	21.081	17.085	***2.828***
2021-07-21 14:15	2322001	7.761	-74.558	17.189	586.600	689.455	0.339	20.873	17.189	***2.861***
2021-07-21 14:30	2322901	7.752	-74.058	17.279	587.976	689.684	0.339	21.577	17.279	***2.691***
2021-07-21 14:45	2323801	7.758	-74.446	17.383	589.366	689.711	0.339	21.413	17.383	***2.623***
2021-07-21 15:00	2324701	7.768	-75.006	17.461	590.618	689.969	0.339	20.238	17.461	***2.678***
2021-07-21 15:15	2325601	7.799	-76.833	17.524	591.954	690.554	0.340	15.591	17.524	***3.379***
2021-07-21 15:30	2326501	7.801	-76.923	17.564	592.424	690.496	0.339	14.202	17.564	***3.305***
2021-07-21 15:45	2327401	7.823	-78.218	17.582	593.210	691.125	0.340	14.112	17.582	***3.344***
2021-07-21 16:00	2328301	7.856	-80.128	17.564	593.416	691.648	0.340	17.461	17.564	***3.884***
2021-07-21 16:15	2329201	7.869	-80.883	17.533	593.437	692.149	0.340	47.252	17.533	***2.800***
2021-07-21 16:30	2330101	7.861	-80.397	17.477	592.953	692.458	0.340	76.463	17.477	***1.653***
2021-07-21 16:45	2331001	7.851	-79.772	17.413	592.263	692.637	0.341	26.062	17.413	***2.138***
2021-07-21 17:00	2331901	7.825	-78.163	16.955	584.279	690.360	0.339	35.348	16.955	***2.781***
2021-07-21 17:15	2332801	7.809	-77.269	16.979	584.140	689.816	0.339	20.650	16.979	***2.598***
2021-07-21 17:30	2333701	7.800	-76.733	16.995	584.004	689.412	0.339	18.391	16.995	***2.826***
2021-07-21 17:45	2334601	7.812	-77.455	17.000	584.001	689.334	0.339	20.240	17.000	***2.657***
2021-07-21 18:00	2335501	7.807	-77.143	17.050	584.262	688.857	0.339	19.389	17.050	***2.484***
2021-07-21 18:15	2336401	7.779	-75.581	17.099	584.454	688.335	0.338	19.164	17.099	***3.413***
2021-07-21 18:30	2337301	7.833	-78.688	17.128	584.879	688.386	0.338	18.947	17.128	***2.623***
2021-07-21 18:45	2338201	7.835	-78.788	17.152	585.114	688.283	0.338	18.141	17.152	***1.394***
2021-07-21 19:00	2339101	7.841	-79.119	17.168	585.260	688.209	0.338	18.824	17.168	***1.321***
2021-07-21 19:15	2340001	7.821	-77.987	17.185	586.049	688.875	0.339	18.641	17.185	***1.275***
2021-07-21 19:30	2340901	7.818	-77.853	17.198	586.315	688.993	0.339	19.704	17.198	***1.417***
2021-07-21 19:45	2341801	7.824	-78.175	17.195	586.639	689.414	0.339	19.370	17.195	***1.021***
2021-07-21 20:00	2342701	7.885	-81.689	17.185	586.525	689.440	0.339	21.147	17.185	***1.072***
2021-07-21 20:15	2343601	7.901	-82.605	17.174	586.281	689.316	0.339	18.938	17.174	***1.111***
2021-07-21 20:30	2344501	7.912	-83.241	17.164	586.223	689.401	0.339	22.667	17.164	***0.504***
2021-07-21 20:45	2345401	7.924	-83.942	17.146	585.806	689.185	0.339	17.864	17.146	***1.222***
2021-07-21 21:00	2346301	7.932	-84.367	17.122	585.650	689.385	0.339	17.436	17.122	***2.383***
2021-07-21 21:15	2347201	7.924	-83.897	17.085	585.095	689.305	0.339	18.124	17.085	***2.490***
2021-07-21 21:30	2348101	7.917	-83.516	17.036	585.096	690.060	0.339	19.139	17.036	***2.804***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-21 21:45	2349001	7.917	-83.499	16.978	583.888	689.534	0.339	19.811	16.978	***2.740***
2021-07-21 22:00	2349901	7.907	-82.870	16.921	583.235	689.655	0.339	19.802	16.921	***2.380***
2021-07-21 22:15	2350801	7.898	-82.355	16.880	583.548	690.661	0.339	19.519	16.880	***2.103***
2021-07-21 22:30	2351701	7.891	-81.944	16.826	582.865	690.705	0.339	21.776	16.826	***2.695***
2021-07-21 22:45	2352601	7.890	-81.830	16.763	583.355	692.274	0.340	20.580	16.763	***2.966***
2021-07-21 23:00	2353501	7.879	-81.215	16.704	583.040	692.823	0.340	22.036	16.704	***2.687***
2021-07-21 23:15	2354401	7.863	-80.259	16.657	582.758	693.222	0.341	22.966	16.657	***2.581***
2021-07-21 23:30	2355301	7.856	-79.870	16.627	582.390	693.259	0.341	22.180	16.627	***2.770***
2021-07-21 23:45	2356201	7.854	-79.744	16.588	581.597	692.931	0.340	25.469	16.588	***2.722***
2021-07-22 0:00	2357101	7.857	-79.870	16.531	580.718	692.789	0.340	25.778	16.531	***3.440***
2021-07-22 0:15	2358001	7.850	-79.448	16.478	580.228	693.030	0.341	23.972	16.478	***2.431***
2021-07-22 0:30	2358901	7.853	-79.625	16.418	579.420	693.010	0.340	23.887	16.418	***2.651***
2021-07-22 0:45	2359801	7.846	-79.238	16.369	579.468	693.846	0.341	24.788	16.369	***2.648***
2021-07-22 1:00	2360701	7.854	-79.672	16.336	578.897	693.688	0.341	24.723	16.336	***3.105***
2021-07-22 1:15	2361601	7.856	-79.794	16.297	578.359	693.672	0.341	24.626	16.297	***3.247***
2021-07-22 1:30	2362501	7.859	-79.942	16.252	577.703	693.589	0.341	26.618	16.252	***3.422***
2021-07-22 1:45	2363401	7.859	-79.930	16.203	577.218	693.788	0.341	26.294	16.203	***3.180***
2021-07-22 2:00	2364301	7.854	-79.618	16.140	576.561	694.012	0.341	28.390	16.140	***1.431***
2021-07-22 2:15	2365201	7.847	-79.176	16.106	576.065	693.955	0.341	26.527	16.106	***2.073***
2021-07-22 2:30	2366101	7.844	-79.000	16.086	575.808	693.954	0.341	27.066	16.086	***2.340***
2021-07-22 2:45	2367001	7.845	-79.050	16.053	575.294	693.869	0.341	24.836	16.053	***2.417***
2021-07-22 3:00	2367901	7.841	-78.835	16.024	574.918	693.880	0.341	24.971	16.024	***2.877***
2021-07-22 3:15	2368801	7.843	-78.921	15.992	574.528	693.923	0.341	22.952	15.992	***1.885***
2021-07-22 3:30	2369701	7.843	-78.914	15.977	574.470	694.085	0.341	23.831	15.977	***2.503***
2021-07-22 3:45	2370601	7.838	-78.616	15.950	574.045	694.000	0.341	24.877	15.950	***2.118***
2021-07-22 4:00	2371501	7.845	-79.033	15.904	573.393	693.952	0.341	23.261	15.904	***3.178***
2021-07-22 4:15	2372401	7.841	-78.795	15.855	572.729	693.939	0.341	26.200	15.855	***2.453***
2021-07-22 4:30	2373301	7.839	-78.661	15.830	572.329	693.858	0.341	24.666	15.830	***2.882***
2021-07-22 4:45	2374201	7.843	-78.893	15.795	572.027	694.046	0.341	21.727	15.795	***2.881***
2021-07-22 5:00	2375101	7.850	-79.262	15.754	571.511	694.080	0.341	21.387	15.754	***3.152***
2021-07-22 5:15	2376001	7.840	-78.712	15.690	570.847	694.307	0.341	35.736	15.690	***3.034***
2021-07-22 5:30	2376901	7.837	-78.502	15.670	570.953	694.764	0.341	7.333	15.670	***3.182***
2021-07-22 5:45	2377801	7.839	-78.614	15.652	570.956	695.063	0.341	9.594	15.652	***3.090***
2021-07-22 6:00	2378701	7.834	-78.318	15.633	570.790	695.168	0.341	6.688	15.633	***2.779***
2021-07-22 6:15	2379601	7.836	-78.442	15.595	570.497	695.423	0.341	10.238	15.595	***3.052***
2021-07-22 6:30	2380501	7.840	-78.633	15.559	570.917	696.509	0.342	7.470	15.559	***2.515***
2021-07-22 6:45	2381401	7.838	-78.530	15.538	569.204	694.764	0.341	11.472	15.538	***3.045***
2021-07-22 7:00	2382301	7.839	-78.573	15.532	567.726	693.063	0.340	8.199	15.532	***2.809***
2021-07-22 7:15	2383201	7.835	-78.385	15.546	569.685	695.215	0.341	7.582	15.546	***2.498***
2021-07-22 7:30	2384101	7.828	-77.972	15.568	569.764	694.955	0.341	7.861	15.568	***2.791***
2021-07-22 7:45	2385001	7.815	-77.238	15.594	570.364	695.270	0.341	11.035	15.594	***2.661***
2021-07-22 8:00	2385901	7.823	-77.713	15.612	571.181	695.980	0.342	9.343	15.612	***3.165***
2021-07-22 8:15	2386801	7.820	-77.517	15.643	571.752	696.170	0.342	7.622	15.643	***2.891***
2021-07-22 8:30	2387701	7.811	-77.000	15.682	572.237	696.128	0.342	7.488	15.682	***3.050***
2021-07-22 8:45	2388601	7.827	-77.949	15.709	573.231	696.899	0.342	6.578	15.709	***2.935***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-22 9:00	2389501	7.850	-79.260	15.701	573.498	697.348	0.342	8.242	15.701	***3.378***
2021-07-22 9:15	2390401	7.847	-79.086	15.690	573.637	697.699	0.343	9.245	15.690	***3.191***
2021-07-22 9:30	2391301	7.841	-78.745	15.675	573.569	697.856	0.343	8.859	15.675	***1.393***
2021-07-22 9:45	2392201	7.844	-78.900	15.671	573.704	698.096	0.343	8.900	15.671	***2.578***
2021-07-22 10:00	2393101	7.844	-78.890	15.672	574.162	698.640	0.343	7.835	15.672	***2.754***
2021-07-22 10:15	2394001	7.843	-78.850	15.679	573.265	697.425	0.343	8.555	15.679	***2.247***
2021-07-22 10:30	2394901	7.848	-79.160	15.688	573.311	697.344	0.342	8.369	15.688	***2.973***
2021-07-22 10:45	2395801	7.852	-79.360	15.693	573.205	697.135	0.342	8.756	15.693	***3.402***
2021-07-22 11:00	2396701	7.857	-79.689	15.697	573.006	696.828	0.342	8.261	15.697	***3.141***
2021-07-22 11:15	2397601	7.856	-79.618	15.727	573.340	696.736	0.342	8.922	15.727	***3.565***
2021-07-22 11:30	2398501	7.847	-79.131	15.762	573.820	696.758	0.342	8.749	15.762	***3.126***
2021-07-22 11:45	2399401	7.840	-78.731	15.768	573.782	696.624	0.342	9.938	15.768	***2.081***
2021-07-22 12:00	2400301	7.829	-78.058	15.683	571.238	694.903	0.341	9.535	15.683	***2.329***
2021-07-22 12:15	2401201	7.824	-77.782	15.694	570.856	694.260	0.341	13.416	15.694	***1.875***
2021-07-22 12:30	2402101	7.824	-77.779	15.745	571.163	693.805	0.341	9.546	15.745	***2.590***
2021-07-22 12:45	2403001	7.851	-79.291	15.664	572.265	696.462	0.342	9.785	15.664	***2.556***
2021-07-22 13:00	2403901	7.856	-79.594	15.650	569.441	693.245	0.340	10.171	15.650	***2.608***
2021-07-22 13:15	2404801	7.856	-79.622	15.685	569.758	693.067	0.340	9.283	15.685	***2.532***
2021-07-22 13:30	2405701	7.853	-79.451	15.787	571.131	693.090	0.340	7.783	15.787	***2.905***
2021-07-22 13:45	2406601	7.856	-79.625	15.811	571.490	693.145	0.340	9.581	15.811	***2.738***
2021-07-22 14:00	2407501	7.867	-80.264	15.874	572.019	692.775	0.340	9.632	15.874	***2.399***
2021-07-22 14:15	2408401	7.874	-80.729	15.953	573.116	692.843	0.340	9.036	15.953	***3.076***
2021-07-22 14:30	2409301	7.880	-81.069	16.043	574.264	692.782	0.340	11.100	16.043	***2.895***
2021-07-22 14:45	2410201	7.899	-82.195	16.130	575.464	692.844	0.340	9.331	16.130	***3.590***
2021-07-22 15:00	2411101	7.913	-83.008	16.163	576.019	692.992	0.340	9.721	16.163	***3.795***
2021-07-22 15:15	2412001	7.916	-83.237	16.265	577.336	692.950	0.340	9.799	16.265	***4.173***
2021-07-22 15:30	2412901	7.912	-83.053	16.439	579.629	692.932	0.340	9.731	16.439	***4.824***
2021-07-22 15:45	2413801	7.922	-83.647	16.570	581.843	693.508	0.341	10.750	16.570	***5.394***
2021-07-22 16:00	2414701	7.945	-85.015	16.658	583.052	693.551	0.341	10.343	16.658	***5.674***
2021-07-22 16:15	2415601	7.955	-85.580	16.728	584.057	693.650	0.341	13.612	16.728	***5.554***
2021-07-22 16:30	2416501	7.953	-85.502	16.848	585.625	693.631	0.341	13.119	16.848	***5.092***
2021-07-22 16:45	2417401	7.959	-85.876	16.946	587.141	693.889	0.341	13.116	16.946	***5.224***
2021-07-22 17:00	2418301	7.976	-86.861	16.998	588.068	694.158	0.341	12.722	16.998	***5.638***
2021-07-22 17:15	2419201	7.986	-87.464	17.036	588.925	694.578	0.341	13.234	17.036	***5.980***
2021-07-22 17:30	2420101	7.988	-87.569	17.087	589.513	694.471	0.341	13.707	17.087	***6.135***
2021-07-22 17:45	2421001	7.998	-88.198	17.134	590.350	694.719	0.342	12.755	17.134	***6.187***
2021-07-22 18:00	2421901	8.005	-88.611	17.183	591.080	694.827	0.342	12.995	17.183	***6.158***
2021-07-22 18:15	2422801	8.008	-88.763	17.173	591.211	695.124	0.342	13.141	17.173	***6.142***
2021-07-22 18:30	2423701	8.010	-88.880	17.212	591.862	695.292	0.342	12.162	17.212	***6.079***
2021-07-22 18:45	2424601	7.993	-87.948	17.224	592.131	695.422	0.342	12.416	17.224	***5.637***
2021-07-22 19:00	2425501	8.014	-89.161	17.262	592.676	695.457	0.342	13.193	17.262	***6.233***
2021-07-22 19:15	2426401	8.020	-89.517	17.283	592.406	694.822	0.342	12.977	17.283	***6.182***
2021-07-22 19:30	2427301	8.023	-89.641	17.261	592.280	695.006	0.342	13.192	17.261	***4.923***
2021-07-22 19:45	2428201	8.019	-89.426	17.250	592.432	695.361	0.342	12.946	17.250	***4.809***
2021-07-22 20:00	2429101	8.013	-89.085	17.247	590.992	693.717	0.341	12.883	17.247	***4.979***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-22 20:15	2430001	7.994	-88.024	17.370	592.904	694.046	0.341	11.719	17.370	***5.322***
2021-07-22 20:30	2430901	8.009	-88.835	17.278	591.743	694.123	0.341	12.860	17.278	***4.762***
2021-07-22 20:45	2431801	8.009	-88.832	17.252	591.530	694.279	0.341	21.075	17.252	***5.095***
2021-07-22 21:00	2432701	8.005	-88.630	17.230	591.371	694.435	0.341	12.519	17.230	***4.566***
2021-07-22 21:15	2433601	8.011	-88.925	17.185	590.842	694.515	0.341	12.950	17.185	***5.078***
2021-07-22 21:30	2434501	8.011	-88.937	17.148	590.511	694.692	0.342	12.655	17.148	***4.948***
2021-07-22 21:45	2435401	8.015	-89.130	17.117	596.746	702.526	0.345	12.120	17.117	***5.022***
2021-07-22 22:00	2436301	8.028	-89.898	17.086	596.689	702.946	0.346	12.914	17.086	***5.115***
2021-07-22 22:15	2437201	8.029	-89.936	17.036	593.871	700.405	0.344	13.381	17.036	***5.235***
2021-07-22 22:30	2438101	8.031	-90.053	16.989	597.100	704.969	0.347	12.481	16.989	***5.312***
2021-07-22 22:45	2439001	8.031	-89.993	16.941	597.255	705.920	0.347	10.174	16.941	***4.846***
2021-07-22 23:00	2439901	8.029	-89.905	16.869	590.538	699.115	0.344	11.081	16.869	***4.884***
2021-07-22 23:15	2440801	8.021	-89.386	16.805	591.281	701.003	0.345	10.952	16.805	***5.461***
2021-07-22 23:30	2441701	8.020	-89.340	16.722	590.190	701.031	0.345	9.137	16.722	***5.391***
2021-07-22 23:45	2442601	8.011	-88.782	16.638	589.366	701.381	0.345	8.644	16.638	***5.152***
2021-07-23 0:00	2443501	8.003	-88.301	16.582	588.866	701.692	0.345	8.275	16.582	***4.843***
2021-07-23 0:15	2444401	7.995	-87.845	16.531	588.656	702.252	0.345	8.789	16.531	***4.389***
2021-07-23 0:30	2445301	7.985	-87.266	16.488	588.240	702.450	0.345	8.502	16.488	***3.472***
2021-07-23 0:45	2446201	7.976	-86.694	16.435	588.087	703.110	0.346	7.670	16.435	***2.611***
2021-07-23 1:00	2447101	7.966	-86.091	16.379	587.827	703.705	0.346	8.359	16.379	***2.964***
2021-07-23 1:15	2448001	7.961	-85.838	16.330	587.286	703.844	0.346	8.355	16.330	***2.638***
2021-07-23 1:30	2448901	7.955	-85.433	16.285	586.766	703.946	0.346	7.710	16.285	***3.529***
2021-07-23 1:45	2449801	7.947	-85.003	16.237	586.193	704.027	0.346	8.643	16.237	***2.270***
2021-07-23 2:00	2450701	7.938	-84.472	16.185	585.589	704.150	0.346	8.203	16.185	***2.396***
2021-07-23 2:15	2451601	7.930	-83.950	16.139	584.987	704.170	0.346	8.924	16.139	***2.368***
2021-07-23 2:30	2452501	7.921	-83.473	16.099	584.450	704.163	0.346	8.981	16.099	***2.458***
2021-07-23 2:45	2453401	7.918	-83.244	16.050	583.830	704.211	0.346	9.583	16.050	***2.484***
2021-07-23 3:00	2454301	7.915	-83.094	16.004	583.483	704.539	0.346	9.013	16.004	***2.263***
2021-07-23 3:15	2455201	7.916	-83.094	15.957	583.102	704.851	0.346	9.168	15.957	***3.047***
2021-07-23 3:30	2456101	7.912	-82.889	15.907	582.567	705.007	0.346	8.903	15.907	***1.972***
2021-07-23 3:45	2457001	7.909	-82.695	15.872	582.172	705.102	0.346	8.977	15.872	***2.874***
2021-07-23 4:00	2457901	7.904	-82.369	15.810	581.291	705.050	0.346	8.857	15.810	***2.749***
2021-07-23 4:15	2458801	7.900	-82.135	15.758	580.732	705.211	0.346	9.280	15.758	***3.381***
2021-07-23 4:30	2459701	7.894	-81.816	15.727	580.320	705.219	0.346	9.256	15.727	***3.203***
2021-07-23 4:45	2460601	7.891	-81.587	15.688	579.796	705.229	0.346	9.363	15.688	***3.051***
2021-07-23 5:00	2461501	7.890	-81.549	15.630	579.130	705.370	0.347	9.130	15.630	***2.824***
2021-07-23 5:15	2462401	7.887	-81.360	15.597	578.762	705.461	0.347	8.873	15.597	***2.618***
2021-07-23 5:30	2463301	7.882	-81.072	15.552	578.266	705.595	0.347	9.100	15.552	***2.686***
2021-07-23 5:45	2464201	7.878	-80.831	15.510	577.583	705.452	0.347	9.078	15.510	***2.962***
2021-07-23 6:00	2465101	7.874	-80.576	15.476	576.789	705.045	0.346	9.018	15.476	***3.104***
2021-07-23 6:15	2466001	7.874	-80.595	15.452	576.518	705.107	0.346	9.448	15.452	***3.097***
2021-07-23 6:30	2466901	7.874	-80.576	15.418	575.777	704.757	0.346	9.089	15.418	***3.042***
2021-07-23 6:45	2467801	7.874	-80.547	15.383	575.161	704.585	0.346	8.965	15.383	***3.297***
2021-07-23 7:00	2468701	7.872	-80.411	15.382	575.072	704.497	0.346	8.864	15.382	***2.859***
2021-07-23 7:15	2469601	7.873	-80.469	15.348	574.659	704.539	0.346	9.882	15.348	***3.193***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-23 7:30	2470501	7.871	-80.364	15.330	574.503	704.650	0.346	10.032	15.330	***3.018***
2021-07-23 7:45	2471401	7.871	-80.349	15.302	574.162	704.688	0.346	10.052	15.302	***3.057***
2021-07-23 8:00	2472301	7.868	-80.202	15.288	573.975	704.701	0.346	9.814	15.288	***3.019***
2021-07-23 8:15	2473201	7.866	-80.056	15.285	574.371	705.231	0.346	9.397	15.285	***2.847***
2021-07-23 8:30	2474101	7.866	-80.042	15.267	573.445	704.392	0.346	9.882	15.267	***2.956***
2021-07-23 8:45	2475001	7.867	-80.092	15.257	573.512	704.638	0.346	10.285	15.257	***2.814***
2021-07-23 9:00	2475901	7.866	-80.070	15.254	573.526	704.710	0.346	10.173	15.254	***2.581***
2021-07-23 9:15	2476801	7.866	-80.037	15.245	574.249	705.736	0.347	10.309	15.245	***2.502***
2021-07-23 9:30	2477701	7.864	-79.939	15.252	574.397	705.817	0.347	9.827	15.252	***2.297***
2021-07-23 9:45	2478601	7.863	-79.889	15.264	574.729	706.017	0.347	9.822	15.264	***2.046***
2021-07-23 10:00	2479501	7.862	-79.832	15.290	575.051	705.985	0.347	8.718	15.290	***2.225***
2021-07-23 10:15	2480401	7.859	-79.660	15.314	575.474	706.099	0.347	9.100	15.314	***2.131***
2021-07-23 10:30	2481301	7.857	-79.584	15.337	575.711	706.023	0.347	9.395	15.337	***2.045***
2021-07-23 10:45	2482201	7.856	-79.541	15.376	575.884	705.581	0.347	9.682	15.376	***1.963***
2021-07-23 11:00	2483101	7.854	-79.436	15.423	576.517	705.585	0.347	9.662	15.423	***2.006***
2021-07-23 11:15	2484001	7.871	-80.409	15.443	575.772	704.349	0.346	10.471	15.443	***2.328***
2021-07-23 11:30	2484901	7.890	-81.477	15.482	575.044	702.806	0.345	10.346	15.482	***3.016***
2021-07-23 11:45	2485801	7.911	-82.698	15.552	574.643	701.175	0.344	10.229	15.552	***3.738***
2021-07-23 12:00	2486701	7.926	-83.625	15.642	575.307	700.521	0.344	9.949	15.642	***4.202***
2021-07-23 12:15	2487601	7.930	-83.873	15.736	575.662	699.413	0.344	9.962	15.736	***4.288***
2021-07-23 12:30	2488501	7.934	-84.121	15.846	577.929	700.379	0.344	12.186	15.846	***4.484***
2021-07-23 12:45	2489401	7.943	-84.631	15.926	579.671	701.191	0.344	11.613	15.926	***4.657***
2021-07-23 13:00	2490301	7.949	-85.025	16.040	581.194	701.189	0.345	11.097	16.040	***4.963***
2021-07-23 13:15	2491201	7.960	-85.688	16.126	577.141	694.929	0.341	11.071	16.126	***5.353***
2021-07-23 13:30	2492101	7.948	-85.063	16.271	583.431	700.172	0.344	10.658	16.271	***5.447***
2021-07-23 13:45	2493001	7.965	-86.029	16.368	584.751	700.194	0.344	13.024	16.368	***5.574***
2021-07-23 14:00	2493901	7.988	-87.385	16.436	587.005	701.808	0.345	9.114	16.436	***5.811***
2021-07-23 14:15	2494801	7.995	-87.819	16.468	587.566	701.965	0.345	8.643	16.468	***5.890***
2021-07-23 14:30	2495701	7.997	-87.967	16.596	589.233	701.907	0.345	9.914	16.596	***6.145***
2021-07-23 14:45	2496601	8.018	-89.195	16.718	590.696	701.696	0.345	8.453	16.718	***6.189***
2021-07-23 15:00	2497501	8.024	-89.595	16.791	591.684	701.708	0.345	9.108	16.791	***6.438***
2021-07-23 15:15	2498401	8.044	-90.730	16.787	591.818	701.931	0.345	8.399	16.787	6.637
2021-07-23 15:30	2499301	8.062	-91.786	16.801	591.679	701.543	0.345	8.490	16.801	6.836
2021-07-23 15:45	2500201	8.049	-91.071	16.960	593.743	701.454	0.345	8.211	16.960	6.812
2021-07-23 16:00	2501101	8.053	-91.367	17.188	596.713	701.363	0.345	8.010	17.188	6.878
2021-07-23 16:15	2502001	8.064	-92.065	17.327	599.224	702.117	0.345	8.912	17.327	6.872
2021-07-23 16:30	2502901	8.059	-91.803	17.426	600.265	701.784	0.345	8.726	17.426	6.906
2021-07-23 16:45	2503801	8.054	-91.510	17.491	600.569	701.132	0.345	8.276	17.491	6.989
2021-07-23 17:00	2504701	8.068	-92.323	17.539	601.552	701.530	0.345	9.291	17.539	6.996
2021-07-23 17:15	2505601	8.093	-93.751	17.514	601.242	701.558	0.345	11.256	17.514	***6.419***
2021-07-23 17:30	2506501	8.109	-94.678	17.485	601.161	701.904	0.345	9.167	17.485	7.180
2021-07-23 17:45	2507401	8.086	-93.453	17.681	603.795	701.922	0.345	7.586	17.681	7.262
2021-07-23 18:00	2508301	8.094	-93.956	17.894	606.915	702.222	0.346	8.678	17.894	7.279
2021-07-23 18:15	2509201	8.102	-94.454	17.967	608.021	702.370	0.346	7.991	17.967	7.196
2021-07-23 18:30	2510101	8.094	-93.973	18.031	609.013	702.531	0.346	8.142	18.031	7.230

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-23 18:45	2511001	8.126	-95.801	17.929	607.129	701.922	0.345	8.764	17.929	***6.311***
2021-07-23 19:00	2511901	8.124	-95.646	17.833	605.983	702.085	0.345	8.949	17.833	6.816
2021-07-23 19:15	2512801	8.108	-94.807	17.938	607.514	702.232	0.346	7.903	17.938	7.109
2021-07-23 19:30	2513701	8.106	-94.700	18.024	608.778	702.357	0.346	7.667	18.024	7.152
2021-07-23 19:45	2514601	8.110	-94.931	18.053	609.327	702.544	0.346	9.548	18.053	7.191
2021-07-23 20:00	2515501	8.124	-95.713	18.017	609.304	703.084	0.346	8.208	18.017	***6.499***
2021-07-23 20:15	2516401	8.109	-94.850	18.062	609.937	703.112	0.346	7.561	18.062	6.983
2021-07-23 20:30	2517301	8.123	-95.689	18.051	609.791	703.119	0.346	8.242	18.051	7.230
2021-07-23 20:45	2518201	8.133	-96.290	18.061	609.985	703.177	0.346	9.010	18.061	7.046
2021-07-23 21:00	2519101	8.122	-95.649	18.070	610.217	703.315	0.346	7.707	18.070	7.076
2021-07-23 21:15	2520001	8.117	-95.334	18.072	610.361	703.443	0.346	7.831	18.072	7.025
2021-07-23 21:30	2520901	8.116	-95.301	18.070	610.485	703.624	0.346	8.171	18.070	***6.235***
2021-07-23 21:45	2521801	8.119	-95.448	18.071	610.681	703.835	0.346	7.983	18.071	***4.434***
2021-07-23 22:00	2522701	8.109	-94.879	18.062	610.964	704.290	0.347	7.482	18.062	***4.342***
2021-07-23 22:15	2523601	8.098	-94.216	18.066	611.799	705.202	0.347	7.274	18.066	***2.925***
2021-07-23 22:30	2524501	8.096	-94.125	17.999	613.306	707.970	0.348	7.576	17.999	***3.929***
2021-07-23 22:45	2525401	8.090	-93.765	17.937	613.713	709.419	0.349	8.292	17.937	***5.033***
2021-07-23 23:00	2526301	8.086	-93.472	17.873	613.704	710.411	0.350	9.320	17.873	***5.411***
2021-07-23 23:15	2527201	8.083	-93.298	17.799	613.389	711.212	0.350	10.276	17.799	***5.070***
2021-07-23 23:30	2528101	8.079	-93.048	17.708	612.834	711.999	0.350	10.000	17.708	***4.811***
2021-07-23 23:45	2529001	8.078	-92.955	17.589	611.429	712.253	0.351	9.779	17.589	***5.227***
2021-07-24 0:00	2529901	8.078	-92.876	17.472	610.262	712.747	0.351	10.929	17.472	***5.771***
2021-07-24 0:15	2530801	8.076	-92.731	17.386	609.200	712.875	0.351	9.775	17.386	***5.667***
2021-07-24 0:30	2531701	8.067	-92.230	17.311	608.215	712.917	0.351	10.494	17.311	***5.155***
2021-07-24 0:45	2532601	8.059	-91.717	17.236	607.187	712.906	0.351	9.467	17.236	***5.066***
2021-07-24 1:00	2533501	8.054	-91.414	17.143	605.786	712.749	0.351	10.615	17.143	***5.210***
2021-07-24 1:15	2534401	8.050	-91.178	17.059	604.308	712.356	0.350	10.159	17.059	***4.772***
2021-07-24 1:30	2535301	8.044	-90.790	16.958	602.329	711.633	0.350	10.420	16.958	***4.966***
2021-07-24 1:45	2536201	8.033	-90.134	16.897	601.286	711.392	0.350	9.328	16.897	***4.543***
2021-07-24 2:00	2537101	8.030	-89.900	16.802	600.138	711.557	0.350	10.407	16.802	***4.703***
2021-07-24 2:15	2538001	8.038	-90.380	16.769	598.892	710.614	0.350	10.879	16.769	***4.625***
2021-07-24 2:30	2538901	8.050	-91.074	16.740	598.366	710.454	0.349	10.594	16.740	***4.335***
2021-07-24 2:45	2539801	8.054	-91.250	16.684	597.126	709.874	0.349	10.133	16.684	***3.948***
2021-07-24 3:00	2540701	8.055	-91.283	16.614	595.920	709.578	0.349	11.428	16.614	***3.291***
2021-07-24 3:15	2541601	8.049	-90.945	16.536	595.047	709.798	0.349	9.451	16.536	***2.792***
2021-07-24 3:30	2542501	8.043	-90.570	16.446	593.932	709.924	0.349	11.190	16.446	***3.136***
2021-07-24 3:45	2543401	8.037	-90.206	16.387	593.329	710.151	0.349	11.969	16.387	***3.205***
2021-07-24 4:00	2544301	8.026	-89.521	16.301	592.630	710.716	0.349	12.375	16.301	***4.614***
2021-07-24 4:15	2545201	8.014	-88.837	16.239	592.544	711.625	0.350	13.826	16.239	***4.714***
2021-07-24 4:30	2546102	8.003	-88.189	16.199	592.736	712.513	0.350	11.960	16.199	***4.628***
2021-07-24 4:45	2547002	7.988	-87.321	16.198	592.976	712.821	0.350	13.277	16.198	***3.973***
2021-07-24 5:00	2547902	7.979	-86.789	16.172	592.928	713.176	0.351	12.055	16.172	***3.281***
2021-07-24 5:15	2548802	7.983	-87.006	16.127	592.334	713.196	0.351	13.595	16.127	***3.755***
2021-07-24 5:30	2549702	7.977	-86.672	16.102	592.116	713.354	0.351	12.133	16.102	***3.346***
2021-07-24 5:45	2550602	7.972	-86.374	16.067	591.446	713.116	0.351	12.282	16.067	***3.041***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-24 6:00	2551502	7.965	-85.933	16.037	590.778	712.803	0.350	11.226	16.037	***2.928***
2021-07-24 6:15	2552402	7.958	-85.537	16.012	590.236	712.557	0.350	10.890	16.012	***2.927***
2021-07-24 6:30	2553302	7.959	-85.590	15.958	589.287	712.296	0.350	12.354	15.958	***2.376***
2021-07-24 6:45	2554202	7.954	-85.313	15.917	588.597	712.143	0.350	12.443	15.917	***2.876***
2021-07-24 7:00	2555102	7.944	-84.689	15.907	588.372	712.042	0.350	11.400	15.907	***2.976***
2021-07-24 7:15	2556002	7.941	-84.541	15.897	588.388	712.215	0.350	13.817	15.897	***2.512***
2021-07-24 7:30	2556902	7.939	-84.403	15.871	588.030	712.212	0.350	12.829	15.871	***2.425***
2021-07-24 7:45	2557802	7.925	-83.618	15.869	588.150	712.394	0.350	13.605	15.869	***3.187***
2021-07-24 8:00	2558702	7.906	-82.517	15.873	588.167	712.351	0.350	14.163	15.873	***3.567***
2021-07-24 8:15	2559602	7.906	-82.505	15.870	588.098	712.315	0.350	12.830	15.870	***3.785***
2021-07-24 8:30	2560502	7.919	-83.253	15.854	587.631	712.017	0.350	11.670	15.854	***3.832***
2021-07-24 8:45	2561402	7.919	-83.239	15.842	587.065	711.524	0.350	12.667	15.842	***3.672***
2021-07-24 9:00	2562302	7.923	-83.489	15.835	586.728	711.234	0.350	11.650	15.835	***3.057***
2021-07-24 9:15	2563202	7.932	-84.007	15.833	587.583	712.300	0.350	11.611	15.833	***2.572***
2021-07-24 9:30	2564102	7.934	-84.136	15.832	587.305	711.975	0.350	12.193	15.832	***1.561***
2021-07-24 9:45	2565002	7.944	-84.667	15.808	587.076	712.091	0.350	14.183	15.808	***1.277***
2021-07-24 10:00	2565902	7.942	-84.562	15.816	587.201	712.121	0.350	14.018	15.816	***1.716***
2021-07-24 10:15	2566802	7.938	-84.376	15.876	587.894	711.968	0.350	13.385	15.876	***1.735***
2021-07-24 10:30	2567702	7.906	-82.555	15.948	589.121	712.262	0.350	13.957	15.948	***1.850***
2021-07-24 10:45	2568602	7.880	-81.100	16.046	590.377	712.168	0.350	12.855	16.046	***1.971***
2021-07-24 11:00	2569502	7.879	-81.067	16.134	591.093	711.591	0.350	11.544	16.134	***2.020***
2021-07-24 11:15	2570402	7.887	-81.515	16.202	592.363	712.017	0.350	13.780	16.202	***2.628***
2021-07-24 11:30	2571302	7.893	-81.921	16.316	594.097	712.234	0.350	14.005	16.316	***3.255***
2021-07-24 11:45	2572202	7.874	-80.826	16.439	595.729	712.184	0.350	13.658	16.439	***3.368***
2021-07-24 12:00	2573102	7.892	-81.890	16.553	597.222	712.116	0.350	15.541	16.553	***3.640***
2021-07-24 12:15	2574002	7.923	-83.699	16.642	598.068	711.680	0.350	14.032	16.642	***4.245***
2021-07-24 12:30	2574902	7.926	-83.938	16.735	598.938	711.206	0.350	15.106	16.735	***4.754***
2021-07-24 12:45	2575802	7.944	-84.994	16.856	600.202	710.761	0.350	15.400	16.856	***5.029***
2021-07-24 13:00	2576702	7.946	-85.139	16.963	601.166	710.190	0.349	15.162	16.963	***4.976***
2021-07-24 13:15	2577602	7.966	-86.305	17.040	602.087	710.039	0.349	16.328	17.040	***5.265***
2021-07-24 13:30	2578502	7.974	-86.815	17.147	603.534	710.028	0.349	16.946	17.147	***5.440***
2021-07-24 13:45	2579402	7.970	-86.613	17.229	604.683	710.084	0.349	15.565	17.229	***5.427***
2021-07-24 14:00	2580302	8.000	-88.356	17.303	605.631	710.012	0.349	16.572	17.303	***5.730***
2021-07-24 14:15	2581202	7.974	-86.927	17.472	607.778	709.845	0.349	15.248	17.472	***5.656***
2021-07-24 14:30	2582102	7.991	-87.886	17.566	608.995	709.772	0.349	17.879	17.566	***5.828***
2021-07-24 14:45	2583002	8.016	-89.366	17.634	610.014	709.892	0.349	15.793	17.634	***6.244***
2021-07-24 15:00	2583902	8.033	-90.389	17.710	611.080	709.931	0.349	15.960	17.710	***6.412***
2021-07-24 15:15	2584802	8.016	-89.471	17.902	613.624	709.868	0.349	18.082	17.902	***6.166***
2021-07-24 15:30	2585702	7.987	-87.812	18.098	615.845	709.357	0.349	13.897	18.098	***6.135***
2021-07-24 15:45	2586602	7.997	-88.482	18.228	617.541	709.277	0.349	15.744	18.228	***6.050***
2021-07-24 16:00	2587502	7.984	-87.743	18.369	619.796	709.670	0.349	15.682	18.369	***5.964***
2021-07-24 16:15	2588402	7.988	-87.991	18.490	621.627	709.903	0.350	17.655	18.490	***5.787***
2021-07-24 16:30	2589302	7.988	-88.034	18.577	622.946	710.051	0.350	15.491	18.577	***5.708***
2021-07-24 16:45	2590202	7.995	-88.489	18.676	624.553	710.356	0.350	15.886	18.676	***5.860***
2021-07-24 17:00	2591102	8.021	-89.989	18.726	625.599	710.778	0.350	15.695	18.726	***6.392***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-24 17:15	2592002	8.063	-92.437	18.682	625.014	710.781	0.350	17.026	18.682	***5.106***
2021-07-24 17:30	2592902	8.093	-94.137	18.653	624.482	710.630	0.350	17.211	18.653	***5.188***
2021-07-24 17:45	2593802	8.114	-95.346	18.638	624.132	710.460	0.350	19.233	18.638	***5.269***
2021-07-24 18:00	2594702	8.134	-96.481	18.537	622.753	710.449	0.350	18.783	18.537	***5.834***
2021-07-24 18:15	2595602	8.145	-97.067	18.468	621.903	710.557	0.350	17.888	18.468	***5.686***
2021-07-24 18:30	2596502	8.147	-97.237	18.525	622.422	710.256	0.350	18.711	18.525	6.837
2021-07-24 18:45	2597402	8.091	-94.068	18.758	624.643	709.191	0.349	19.256	18.758	7.075
2021-07-24 19:00	2598302	8.083	-93.629	18.884	626.270	709.097	0.349	22.816	18.884	7.289
2021-07-24 19:15	2599202	8.086	-93.811	18.939	627.219	709.341	0.349	22.567	18.939	7.540
2021-07-24 19:30	2600102	8.116	-95.599	18.957	627.839	709.762	0.350	21.659	18.957	7.804
2021-07-24 19:45	2601002	8.133	-96.574	18.960	628.075	709.975	0.350	24.321	18.960	7.775
2021-07-24 20:00	2601902	8.124	-96.076	19.029	629.082	710.059	0.350	21.041	19.029	7.618
2021-07-24 20:15	2602802	8.096	-94.478	19.068	629.836	710.317	0.350	24.708	19.068	7.419
2021-07-24 20:30	2603702	8.098	-94.562	19.083	630.321	710.640	0.350	23.009	19.083	7.098
2021-07-24 20:45	2604602	8.103	-94.874	19.102	630.866	710.950	0.350	20.843	19.102	6.698
2021-07-24 21:00	2605502	8.101	-94.769	19.119	631.171	711.047	0.350	21.478	19.119	6.658
2021-07-24 21:15	2606402	8.097	-94.540	19.135	631.594	711.277	0.350	26.355	19.135	6.772
2021-07-24 21:30	2607302	8.099	-94.633	19.165	632.287	711.594	0.351	23.745	19.165	6.686
2021-07-24 21:45	2608202	8.066	-92.759	19.214	633.439	712.143	0.351	28.154	19.214	***5.918***
2021-07-24 22:00	2609102	8.038	-91.164	19.268	634.640	712.657	0.351	28.802	19.268	***5.418***
2021-07-24 22:15	2610002	8.031	-90.775	19.285	635.390	713.251	0.351	19.518	19.285	***5.254***
2021-07-24 22:30	2610902	8.060	-92.442	19.249	636.727	715.293	0.352	20.178	19.249	***3.316***
2021-07-24 22:45	2611802	8.095	-94.399	19.155	637.172	717.246	0.353	21.079	19.155	***2.529***
2021-07-24 23:00	2612702	8.108	-95.146	19.018	636.230	718.296	0.354	20.607	19.018	***4.512***
2021-07-24 23:15	2613602	8.117	-95.603	18.875	633.914	717.907	0.354	21.136	18.875	***5.287***
2021-07-24 23:30	2614502	8.121	-95.785	18.726	633.342	719.567	0.355	20.883	18.726	***5.441***
2021-07-24 23:45	2615402	8.121	-95.751	18.611	631.867	719.698	0.355	21.031	18.611	***5.290***
2021-07-25 0:00	2616302	8.115	-95.370	18.487	630.329	719.878	0.355	21.519	18.487	***4.712***
2021-07-25 0:15	2617202	8.109	-94.976	18.354	628.726	720.137	0.355	21.886	18.354	***4.695***
2021-07-25 0:30	2618102	8.108	-94.862	18.256	627.297	720.040	0.355	21.824	18.256	***4.846***
2021-07-25 0:45	2619002	8.107	-94.764	18.141	625.188	719.438	0.354	23.029	18.141	***5.251***
2021-07-25 1:00	2619902	8.107	-94.802	18.099	624.229	718.996	0.354	22.251	18.099	***4.935***
2021-07-25 1:15	2620802	8.114	-95.141	18.027	623.183	718.939	0.354	22.021	18.027	***4.993***
2021-07-25 1:30	2621702	8.114	-95.119	17.977	622.065	718.442	0.354	22.364	17.977	***4.779***
2021-07-25 1:45	2622602	8.115	-95.162	17.938	621.355	718.238	0.354	23.053	17.938	***4.449***
2021-07-25 2:00	2623502	8.108	-94.779	17.933	620.906	717.792	0.353	22.816	17.933	***4.569***
2021-07-25 2:15	2624402	8.103	-94.485	17.900	620.187	717.492	0.353	22.231	17.900	***4.825***
2021-07-25 2:30	2625302	8.108	-94.771	17.841	619.161	717.235	0.353	23.056	17.841	***5.187***
2021-07-25 2:45	2626202	8.111	-94.907	17.755	617.810	717.031	0.353	23.108	17.755	***5.364***
2021-07-25 3:00	2627102	8.111	-94.891	17.694	616.798	716.820	0.353	23.336	17.694	***5.365***
2021-07-25 3:15	2628002	8.111	-94.879	17.630	615.656	716.516	0.353	23.377	17.630	***5.526***
2021-07-25 3:30	2628902	8.108	-94.686	17.580	614.790	716.312	0.353	24.184	17.580	***5.579***
2021-07-25 3:45	2629802	8.107	-94.564	17.481	613.166	715.986	0.352	25.570	17.481	***5.342***
2021-07-25 4:00	2630702	8.101	-94.182	17.383	611.804	715.969	0.352	25.458	17.383	***5.027***
2021-07-25 4:15	2631602	8.091	-93.598	17.336	611.389	716.232	0.353	25.972	17.336	***4.934***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-25 4:30	2632502	8.088	-93.429	17.326	610.909	715.832	0.352	26.154	17.326	***5.254***
2021-07-25 4:45	2633402	8.088	-93.422	17.284	610.419	715.936	0.352	26.466	17.284	***5.388***
2021-07-25 5:00	2634302	8.089	-93.431	17.243	610.128	716.240	0.353	26.410	17.243	***5.328***
2021-07-25 5:15	2635202	8.085	-93.217	17.203	609.708	716.393	0.353	23.930	17.203	***5.298***
2021-07-25 5:30	2636102	8.089	-93.415	17.129	608.358	716.004	0.352	23.480	17.129	***5.174***
2021-07-25 5:45	2637002	8.077	-92.692	17.055	607.125	715.739	0.352	26.699	17.055	***5.113***
2021-07-25 6:00	2637902	8.083	-93.021	16.980	605.914	715.514	0.352	26.406	16.980	***5.047***
2021-07-25 6:15	2638802	8.074	-92.483	16.937	604.959	715.091	0.352	26.813	16.937	***5.120***
2021-07-25 6:30	2639702	8.064	-91.879	16.862	603.649	714.748	0.352	203.096	16.862	***5.109***
2021-07-25 6:45	2640602	8.055	-91.381	16.801	602.905	714.858	0.352	206.497	16.801	***4.883***
2021-07-25 7:00	2641502	8.053	-91.259	16.759	602.273	714.790	0.352	211.112	16.759	***4.555***
2021-07-25 7:15	2642402	8.050	-91.064	16.744	602.130	714.854	0.352	150.049	16.744	***4.404***
2021-07-25 7:30	2643302	8.050	-91.038	16.724	601.774	714.764	0.352	151.137	16.724	***4.514***
2021-07-25 7:45	2644202	8.050	-91.057	16.709	601.749	714.968	0.352	149.943	16.709	***4.429***
2021-07-25 8:00	2645102	8.047	-90.866	16.711	601.462	714.590	0.352	148.062	16.711	***4.397***
2021-07-25 8:15	2646002	8.043	-90.654	16.711	601.391	714.507	0.351	149.373	16.711	***4.189***
2021-07-25 8:30	2646902	8.047	-90.864	16.703	601.237	714.465	0.351	152.425	16.703	***4.449***
2021-07-25 8:45	2647802	8.048	-90.897	16.698	601.194	714.487	0.351	152.976	16.698	***4.501***
2021-07-25 9:00	2648702	8.047	-90.888	16.709	601.371	714.516	0.351	152.206	16.709	***4.368***
2021-07-25 9:15	2649602	8.045	-90.795	16.749	601.973	714.586	0.352	153.333	16.749	***3.935***
2021-07-25 9:30	2650502	8.026	-89.688	16.793	602.734	714.779	0.352	153.822	16.793	***3.502***
2021-07-25 9:45	2651402	8.037	-90.301	16.817	603.282	715.045	0.352	153.871	16.817	***3.343***
2021-07-25 10:00	2652302	8.032	-90.075	16.865	604.196	715.340	0.352	149.375	16.865	***3.236***
2021-07-25 10:15	2653202	7.978	-86.966	16.946	605.372	715.421	0.352	151.360	16.946	***2.716***
2021-07-25 10:30	2654102	7.948	-85.297	17.034	606.567	715.424	0.352	153.666	17.034	***2.560***
2021-07-25 10:45	2655002	7.940	-84.817	17.140	607.588	714.921	0.352	170.766	17.140	***2.619***
2021-07-25 11:00	2655902	7.942	-84.960	17.241	609.500	715.549	0.352	145.436	17.241	***2.682***
2021-07-25 11:15	2656802	7.933	-84.474	17.320	610.793	715.789	0.352	167.268	17.320	***2.868***
2021-07-25 11:30	2657702	7.977	-87.068	17.360	611.558	716.043	0.352	167.868	17.360	***2.881***
2021-07-25 11:45	2658602	8.026	-89.848	17.369	602.275	705.034	0.347	169.424	17.369	***2.359***
2021-07-25 12:00	2659502	8.033	-90.296	17.378	608.924	712.681	0.351	156.114	17.378	***2.184***
2021-07-25 12:15	2660402	8.031	-90.158	17.417	612.750	716.528	0.353	150.790	17.417	***2.561***
2021-07-25 12:30	2661302	8.037	-90.532	17.488	613.129	715.834	0.352	153.539	17.488	***3.711***
2021-07-25 12:45	2662202	8.032	-90.294	17.587	614.545	715.915	0.352	154.784	17.587	***4.473***
2021-07-25 13:00	2663102	8.021	-89.660	17.646	615.597	716.191	0.353	157.921	17.646	***4.531***
2021-07-25 13:15	2664002	8.015	-89.345	17.775	617.354	716.185	0.353	161.723	17.775	***4.356***
2021-07-25 13:30	2664902	7.987	-87.748	17.885	618.932	716.276	0.353	155.897	17.885	***4.776***
2021-07-25 13:45	2665802	7.988	-87.836	17.948	619.622	716.075	0.353	154.773	17.948	***5.140***
2021-07-25 14:00	2666702	7.994	-88.205	18.011	620.421	715.992	0.353	155.233	18.011	***4.983***
2021-07-25 14:15	2667602	8.021	-89.784	18.072	621.279	716.029	0.353	159.849	18.072	***5.144***
2021-07-25 14:30	2668502	8.017	-89.574	18.121	621.733	715.786	0.352	158.756	18.121	***5.190***
2021-07-25 14:45	2669402	8.040	-90.888	18.120	621.691	715.748	0.352	158.307	18.120	***4.599***
2021-07-25 15:00	2670302	8.061	-92.146	18.106	621.218	715.416	0.352	147.152	18.106	***2.517***
2021-07-25 15:15	2671202	8.092	-93.913	18.055	620.685	715.609	0.352	148.099	18.055	***4.299***
2021-07-25 15:30	2672102	8.094	-93.985	18.051	620.526	715.490	0.352	149.899	18.051	***4.860***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-25 15:45	2673002	8.082	-93.343	18.150	621.438	714.977	0.352	146.935	18.150	***5.589***
2021-07-25 16:00	2673902	8.062	-92.206	18.230	622.764	715.259	0.352	150.691	18.230	***5.802***
2021-07-25 16:15	2674802	8.038	-90.866	18.348	624.077	714.914	0.352	144.296	18.348	***5.786***
2021-07-25 16:30	2675702	8.034	-90.699	18.481	625.483	714.440	0.352	144.857	18.481	***5.976***
2021-07-25 16:45	2676602	8.035	-90.754	18.592	627.172	714.639	0.352	147.571	18.592	***5.917***
2021-07-25 17:00	2677502	8.049	-91.581	18.611	627.699	714.942	0.352	149.628	18.611	***5.388***
2021-07-25 17:15	2678402	8.059	-92.180	18.662	628.363	714.911	0.352	148.037	18.662	***5.822***
2021-07-25 17:30	2679302	8.061	-92.294	18.707	629.101	715.052	0.352	147.809	18.707	***5.933***
2021-07-25 17:45	2680202	8.092	-94.125	18.700	628.836	714.853	0.352	147.412	18.700	***5.015***
2021-07-25 18:00	2681102	8.061	-92.366	18.819	630.388	714.773	0.352	143.779	18.819	***5.680***
2021-07-25 18:15	2682002	8.029	-90.570	19.038	632.710	714.020	0.352	146.483	19.038	***6.162***
2021-07-25 18:30	2682902	8.046	-91.534	19.084	633.704	714.439	0.352	153.722	19.084	***6.140***
2021-07-25 18:45	2683802	8.083	-93.684	19.036	633.713	715.175	0.352	145.889	19.036	***4.797***
2021-07-25 19:00	2684702	8.103	-94.855	18.992	633.314	715.406	0.352	151.451	18.992	***4.625***
2021-07-25 19:15	2685602	8.118	-95.706	19.001	633.565	715.546	0.353	141.435	19.001	***5.112***
2021-07-25 19:30	2686502	8.127	-96.238	18.984	633.283	715.501	0.352	145.124	18.984	***4.533***
2021-07-25 19:45	2687402	8.129	-96.376	19.017	633.589	715.328	0.352	148.458	19.017	***4.978***
2021-07-25 20:00	2688302	8.122	-95.959	19.006	629.504	710.896	0.350	148.264	19.006	***4.903***
2021-07-25 20:15	2689202	8.127	-96.228	19.000	632.382	714.240	0.352	146.522	19.000	***4.317***
2021-07-25 20:30	2690102	8.124	-96.071	19.033	634.312	715.903	0.353	116.843	19.033	***5.195***
2021-07-25 20:45	2691002	8.073	-93.129	19.096	635.197	715.931	0.353	117.630	19.096	***5.346***
2021-07-25 21:00	2691902	8.050	-91.786	19.144	636.256	716.384	0.353	118.058	19.144	***5.155***
2021-07-25 21:15	2692802	8.026	-90.439	19.204	637.590	716.952	0.353	118.091	19.204	***5.134***
2021-07-25 21:30	2693702	8.020	-90.106	19.272	639.068	717.575	0.354	120.128	19.272	***5.167***
2021-07-25 21:45	2694602	8.053	-92.049	19.272	639.037	717.544	0.354	119.587	19.272	***4.435***
2021-07-25 22:00	2695502	8.125	-96.185	19.244	639.917	718.963	0.354	120.911	19.244	***3.415***
2021-07-25 22:15	2696402	8.162	-98.314	19.188	640.278	720.227	0.355	121.118	19.188	***3.612***
2021-07-25 22:30	2697302	8.177	-99.130	19.077	639.663	721.252	0.355	122.273	19.077	***4.079***
2021-07-25 22:45	2698202	8.202	-100.577	18.936	638.941	722.639	0.356	123.232	18.936	***5.502***
2021-07-25 23:00	2699102	8.207	-100.822	18.805	637.132	722.634	0.356	124.524	18.805	***5.759***
2021-07-25 23:15	2700002	8.211	-100.958	18.682	635.652	722.886	0.356	127.774	18.682	***6.084***
2021-07-25 23:30	2700902	8.210	-100.887	18.555	633.820	722.790	0.356	126.117	18.555	***5.935***
2021-07-25 23:45	2701802	8.202	-100.381	18.433	632.082	722.742	0.356	132.856	18.433	***5.691***
2021-07-26 0:00	2702702	8.183	-99.247	18.303	630.523	723.004	0.356	133.552	18.303	***5.308***
2021-07-26 0:15	2703602	8.175	-98.727	18.180	629.087	723.307	0.356	141.043	18.180	***5.264***
2021-07-26 0:30	2704502	8.177	-98.808	18.068	627.268	722.994	0.356	136.515	18.068	***5.834***
2021-07-26 0:45	2705402	8.178	-98.834	18.007	626.528	723.104	0.356	135.668	18.007	***5.647***
2021-07-26 1:00	2706302	8.176	-98.689	17.932	625.300	722.885	0.356	136.830	17.932	***5.377***
2021-07-26 1:15	2707202	8.171	-98.379	17.853	624.343	723.036	0.356	136.626	17.853	***5.322***
2021-07-26 1:30	2708102	8.160	-97.740	17.794	623.087	722.525	0.356	137.903	17.794	***4.849***
2021-07-26 1:45	2709002	8.149	-97.096	17.742	622.947	723.203	0.356	136.181	17.742	***4.312***
2021-07-26 2:00	2709902	8.149	-97.070	17.672	621.258	722.368	0.356	137.247	17.672	***3.863***
2021-07-26 2:15	2710802	8.152	-97.210	17.606	620.215	722.203	0.356	134.634	17.606	***4.190***
2021-07-26 2:30	2711702	8.152	-97.187	17.541	619.356	722.258	0.356	135.711	17.541	***4.630***
2021-07-26 2:45	2712602	8.152	-97.191	17.488	617.053	720.419	0.355	137.257	17.488	***4.556***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-26 3:00	2713502	8.147	-96.886	17.434	617.281	721.555	0.355	136.967	17.434	***4.852***
2021-07-26 3:15	2714402	8.142	-96.555	17.380	616.562	721.586	0.355	136.831	17.380	***5.115***
2021-07-26 3:30	2715302	8.141	-96.467	17.334	615.732	721.348	0.355	138.785	17.334	***4.916***
2021-07-26 3:45	2716202	8.138	-96.307	17.264	614.485	721.019	0.355	147.195	17.264	***5.205***
2021-07-26 4:00	2717102	8.133	-95.999	17.202	615.202	722.868	0.356	147.279	17.202	***5.281***
2021-07-26 4:15	2718002	8.132	-95.928	17.140	614.212	722.715	0.356	147.175	17.140	***5.212***
2021-07-26 4:30	2718902	8.135	-96.016	17.042	611.100	720.634	0.355	148.533	17.042	***5.205***
2021-07-26 4:45	2719802	8.123	-95.334	16.993	610.929	721.230	0.355	147.804	16.993	***5.226***
2021-07-26 5:00	2720702	8.122	-95.284	16.955	610.483	721.321	0.355	148.121	16.955	***5.057***
2021-07-26 5:15	2721602	8.123	-95.305	16.904	609.903	721.466	0.355	149.563	16.904	***4.973***
2021-07-26 5:30	2722502	8.119	-95.038	16.856	609.354	721.598	0.355	151.772	16.856	***5.050***
2021-07-26 5:45	2723402	8.114	-94.736	16.799	608.647	721.690	0.355	153.984	16.799	***5.119***
2021-07-26 6:00	2724302	8.110	-94.509	16.742	607.068	720.758	0.355	161.781	16.742	***4.937***
2021-07-26 6:15	2725202	8.108	-94.397	16.691	607.321	721.884	0.355	166.546	16.691	***4.892***
2021-07-26 6:30	2726102	8.102	-94.032	16.634	606.104	721.373	0.355	178.538	16.634	***4.799***
2021-07-26 6:45	2727002	8.099	-93.815	16.586	605.414	721.335	0.355	186.350	16.586	***4.585***
2021-07-26 7:00	2727902	8.095	-93.584	16.539	604.320	720.802	0.355	193.684	16.539	***4.579***
2021-07-26 7:15	2728802	8.093	-93.467	16.508	604.701	721.775	0.355	198.015	16.508	***4.438***
2021-07-26 7:30	2729702	8.089	-93.243	16.488	603.702	720.903	0.355	140.482	16.488	***4.389***
2021-07-26 7:45	2730602	8.088	-93.174	16.473	603.831	721.307	0.355	185.730	16.473	***4.333***
2021-07-26 8:00	2731502	8.087	-93.067	16.469	603.475	720.950	0.355	178.330	16.469	***4.266***
2021-07-26 8:15	2732402	8.086	-93.021	16.466	603.840	721.434	0.355	160.733	16.466	***4.392***
2021-07-26 8:30	2733302	8.086	-93.055	16.468	603.783	721.333	0.355	163.705	16.468	***3.912***
2021-07-26 8:45	2734202	8.085	-92.957	16.457	603.664	721.369	0.355	160.522	16.457	***3.758***
2021-07-26 9:00	2735102	8.084	-92.921	16.454	603.713	721.485	0.355	164.436	16.454	***4.218***
2021-07-26 9:15	2736002	8.078	-92.564	16.473	603.928	721.430	0.355	164.776	16.473	***4.134***
2021-07-26 9:30	2736902	8.063	-91.741	16.514	604.509	721.441	0.355	168.689	16.514	***3.783***
2021-07-26 9:45	2737802	8.035	-90.127	16.572	605.230	721.349	0.355	172.653	16.572	***3.311***
2021-07-26 10:00	2738702	7.995	-87.876	16.653	606.290	721.275	0.355	173.985	16.653	***2.826***
2021-07-26 10:15	2739602	7.985	-87.342	16.751	607.375	720.972	0.355	154.269	16.751	***2.628***
2021-07-26 10:30	2740502	7.988	-87.483	16.796	604.696	717.061	0.353	158.274	16.796	***2.632***
2021-07-26 10:45	2741402	7.980	-87.082	16.869	609.161	721.163	0.355	160.278	16.869	***2.873***
2021-07-26 11:00	2742302	7.955	-85.654	17.015	610.610	720.494	0.355	169.019	17.015	***3.313***
2021-07-26 11:15	2743202	7.940	-84.870	17.148	612.094	720.094	0.354	211.789	17.148	***3.919***
2021-07-26 11:30	2744102	7.942	-84.994	17.256	613.594	720.108	0.354	212.689	17.256	***4.490***
2021-07-26 11:45	2745002	7.958	-85.940	17.298	614.664	720.682	0.355	212.570	17.298	***4.183***
2021-07-26 12:00	2745902	8.017	-89.352	17.306	614.974	720.920	0.355	212.944	17.306	***2.951***
2021-07-26 12:15	2746802	8.040	-90.640	17.337	615.728	721.303	0.355	217.419	17.337	***3.096***
2021-07-26 12:30	2747702	8.047	-91.081	17.368	616.257	721.425	0.355	217.821	17.368	***3.415***
2021-07-26 12:45	2748602	8.037	-90.494	17.419	617.096	721.575	0.355	219.781	17.419	***3.482***
2021-07-26 13:00	2749502	8.036	-90.461	17.487	618.090	721.652	0.355	219.255	17.487	***4.314***
2021-07-26 13:15	2750402	8.038	-90.632	17.615	619.538	721.280	0.355	219.812	17.615	***4.954***
2021-07-26 13:30	2751302	8.010	-89.104	17.802	621.648	720.733	0.355	218.737	17.802	***5.078***
2021-07-26 13:45	2752202	8.017	-89.521	17.941	623.156	720.272	0.355	217.138	17.941	***5.006***
2021-07-26 14:00	2753102	8.025	-90.034	18.061	624.753	720.204	0.355	215.151	18.061	***5.218***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-26 14:15	2754002	8.033	-90.542	18.170	626.146	720.082	0.355	214.464	18.170	***5.542***
2021-07-26 14:30	2754902	8.043	-91.116	18.166	626.421	720.459	0.355	216.022	18.166	***5.311***
2021-07-26 14:45	2755802	8.070	-92.680	18.176	626.785	720.720	0.355	215.711	18.176	***3.966***
2021-07-26 15:00	2756702	8.077	-93.057	18.212	627.244	720.677	0.355	216.999	18.212	***4.795***
2021-07-26 15:15	2757602	8.076	-93.040	18.251	627.852	720.759	0.355	219.754	18.251	***5.390***
2021-07-26 15:30	2758502	8.071	-92.764	18.267	628.098	720.785	0.355	221.103	18.267	***5.039***
2021-07-26 15:45	2759402	8.096	-94.190	18.245	627.776	720.776	0.355	223.751	18.245	***3.933***
2021-07-26 16:00	2760302	8.125	-95.830	18.139	626.025	720.426	0.355	221.869	18.139	***5.813***
2021-07-26 16:15	2761202	8.123	-95.725	18.154	626.029	720.203	0.355	79.826	18.154	***5.424***
2021-07-26 16:30	2762102	8.084	-93.598	18.548	631.008	719.702	0.355	66.526	18.548	***5.413***
2021-07-26 16:45	2763002	8.067	-92.757	19.011	637.621	719.975	0.355	67.809	19.011	***6.359***
2021-07-26 17:00	2763902	8.078	-93.477	19.359	642.981	720.627	0.355	67.338	19.359	6.928
2021-07-26 17:15	2764802	8.078	-93.560	19.556	645.757	720.697	0.355	66.087	19.556	6.517
2021-07-26 17:30	2765702	8.074	-93.517	20.083	655.141	723.042	0.356	67.617	20.083	6.584
2021-07-26 17:45	2766602	8.082	-94.068	20.364	660.553	724.724	0.357	67.642	20.364	***6.423***
2021-07-26 18:00	2767502	8.082	-94.061	20.397	661.132	724.862	0.357	68.256	20.397	***6.107***
2021-07-26 18:15	2768402	8.073	-93.524	20.389	661.980	725.912	0.358	67.335	20.389	***4.871***
2021-07-26 18:30	2769302	8.071	-93.429	20.438	662.612	725.858	0.358	66.774	20.438	***4.111***
2021-07-26 18:45	2770202	8.063	-93.017	20.557	665.764	727.507	0.359	66.772	20.557	***4.241***
2021-07-26 19:00	2771102	8.054	-92.509	20.607	663.264	724.020	0.357	66.239	20.607	***4.216***
2021-07-26 19:15	2772002	8.051	-92.359	20.637	664.431	724.839	0.357	66.149	20.637	***4.256***
2021-07-26 19:30	2772902	8.051	-92.320	20.636	665.319	725.825	0.358	64.887	20.636	***3.466***
2021-07-26 19:45	2773802	8.042	-91.832	20.628	668.668	729.597	0.360	64.928	20.628	***2.681***
2021-07-26 20:00	2774702	8.073	-93.629	20.615	670.407	731.696	0.361	65.303	20.615	***2.828***
2021-07-26 20:15	2775602	8.102	-95.320	20.599	671.078	732.672	0.361	64.948	20.599	***2.437***
2021-07-26 20:30	2776502	8.176	-99.571	20.543	671.203	733.663	0.362	63.166	20.543	***3.767***
2021-07-26 20:45	2777402	8.204	-101.199	20.464	670.034	733.584	0.362	62.506	20.464	***5.089***
2021-07-26 21:00	2778302	8.222	-102.198	20.398	670.159	734.738	0.362	62.553	20.398	***4.743***
2021-07-26 21:15	2779202	8.243	-103.412	20.322	669.391	735.074	0.363	62.729	20.322	***5.021***
2021-07-26 21:30	2780102	8.248	-103.674	20.238	668.080	734.932	0.363	61.334	20.238	***5.163***
2021-07-26 21:45	2781002	8.246	-103.550	20.174	667.525	735.302	0.363	63.276	20.174	***4.491***
2021-07-26 22:00	2781902	8.244	-103.393	20.098	666.734	735.604	0.363	64.797	20.098	***4.205***
2021-07-26 22:15	2782802	8.247	-103.531	19.994	665.663	736.033	0.363	65.313	19.994	***4.121***
2021-07-26 22:30	2783702	8.255	-103.941	19.862	663.523	735.722	0.363	64.543	19.862	***3.738***
2021-07-26 22:45	2784602	8.258	-104.058	19.739	661.828	735.768	0.363	62.256	19.739	***5.140***
2021-07-26 23:00	2785502	8.246	-103.321	19.546	658.910	735.528	0.363	64.203	19.546	***5.507***
2021-07-26 23:15	2786402	8.245	-103.219	19.369	656.660	735.791	0.363	67.088	19.369	***5.042***
2021-07-26 23:30	2787302	8.238	-102.768	19.231	654.541	735.590	0.363	63.612	19.231	***5.605***
2021-07-26 23:45	2788202	8.229	-102.179	19.127	652.880	735.372	0.363	65.479	19.127	***5.548***
2021-07-27 0:00	2789102	8.229	-102.153	19.003	650.731	734.913	0.362	63.202	19.003	***5.721***
2021-07-27 0:15	2790002	8.225	-101.876	18.922	649.327	734.601	0.362	62.185	18.922	***5.789***
2021-07-27 0:30	2790902	8.237	-102.551	18.821	647.768	734.441	0.362	62.000	18.821	***5.951***
2021-07-27 0:45	2791802	8.246	-103.014	18.716	645.764	733.840	0.362	62.893	18.716	***6.018***
2021-07-27 1:00	2792702	8.249	-103.152	18.609	643.327	732.777	0.361	63.064	18.609	***6.010***
2021-07-27 1:15	2793602	8.250	-103.173	18.523	641.791	732.392	0.361	63.036	18.523	***6.240***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-27 1:30	2794502	8.248	-103.066	18.448	647.753	740.408	0.365	63.442	18.448	***6.088***
2021-07-27 1:45	2795402	8.242	-102.661	18.387	646.931	740.456	0.365	63.803	18.387	***5.825***
2021-07-27 2:00	2796302	8.237	-102.384	18.306	645.916	740.606	0.365	64.605	18.306	***5.836***
2021-07-27 2:15	2797202	8.235	-102.191	18.216	644.602	740.558	0.365	64.179	18.216	***5.730***
2021-07-27 2:30	2798102	8.230	-101.912	18.133	643.621	740.774	0.365	63.465	18.133	***5.550***
2021-07-27 2:45	2799002	8.227	-101.697	18.057	642.311	740.516	0.365	69.286	18.057	***5.615***
2021-07-27 3:00	2799902	8.225	-101.552	17.969	641.184	740.640	0.365	53.695	17.969	***5.736***
2021-07-27 3:15	2800802	8.219	-101.192	17.864	639.730	740.685	0.365	54.259	17.864	***5.893***
2021-07-27 3:30	2801702	8.208	-100.482	17.796	638.715	740.614	0.365	53.862	17.796	***5.550***
2021-07-27 3:45	2802602	8.199	-99.959	17.736	635.846	738.276	0.364	54.195	17.736	***5.190***
2021-07-27 4:00	2803502	8.200	-100.005	17.667	634.914	738.326	0.364	57.947	17.667	***5.283***
2021-07-27 4:15	2804402	8.202	-100.071	17.598	634.006	738.405	0.364	52.634	17.598	***5.559***
2021-07-27 4:30	2805302	8.198	-99.821	17.549	633.425	738.527	0.364	54.322	17.549	***5.435***
2021-07-27 4:45	2806202	8.191	-99.394	17.473	632.587	738.793	0.364	55.023	17.473	***5.525***
2021-07-27 5:00	2807102	8.184	-98.984	17.406	625.640	731.783	0.360	55.027	17.406	***5.608***
2021-07-27 5:15	2808002	8.175	-98.433	17.359	625.322	732.179	0.361	55.568	17.359	***5.462***
2021-07-27 5:30	2808902	8.166	-97.895	17.305	624.206	731.748	0.360	56.639	17.305	***5.346***
2021-07-27 5:45	2809802	8.168	-97.992	17.240	623.431	731.908	0.360	54.240	17.240	***5.502***
2021-07-27 6:00	2810702	8.163	-97.692	17.190	622.457	731.596	0.360	54.451	17.190	***5.325***
2021-07-27 6:15	2811602	8.163	-97.678	17.128	621.334	731.294	0.360	54.839	17.128	***5.414***
2021-07-27 6:30	2812502	8.163	-97.642	17.091	620.419	730.819	0.360	54.360	17.091	***5.331***
2021-07-27 6:45	2813402	8.157	-97.311	17.039	619.670	730.794	0.360	54.620	17.039	***5.271***
2021-07-27 7:00	2814302	8.145	-96.602	17.004	619.029	730.608	0.360	56.177	17.004	***4.717***
2021-07-27 7:15	2815202	8.142	-96.416	16.960	618.320	730.490	0.360	56.821	16.960	***4.693***
2021-07-27 7:30	2816102	8.139	-96.245	16.929	618.140	730.793	0.360	67.137	16.929	***4.947***
2021-07-27 7:45	2817002	8.138	-96.147	16.888	617.574	730.805	0.360	67.229	16.888	***4.892***
2021-07-27 8:00	2817902	8.132	-95.782	16.850	616.631	730.322	0.360	73.336	16.850	***4.501***
2021-07-27 8:15	2818802	8.127	-95.518	16.803	616.040	730.385	0.360	71.658	16.803	***4.164***
2021-07-27 8:30	2819702	8.122	-95.186	16.788	615.841	730.408	0.360	70.528	16.788	***4.254***
2021-07-27 8:45	2820602	8.120	-95.115	16.768	615.315	730.113	0.359	70.546	16.768	***3.793***
2021-07-27 9:00	2821502	8.123	-95.239	16.729	614.454	729.736	0.359	71.331	16.729	***4.172***
2021-07-27 9:15	2822402	8.127	-95.472	16.707	614.278	729.886	0.359	62.641	16.707	***4.227***
2021-07-27 9:30	2823302	8.124	-95.282	16.684	613.531	729.387	0.359	63.307	16.684	***4.155***
2021-07-27 9:45	2824202	8.117	-94.879	16.685	613.391	729.205	0.359	69.228	16.685	***3.827***
2021-07-27 10:00	2825102	8.106	-94.275	16.694	613.411	729.082	0.359	68.807	16.694	***3.507***
2021-07-27 10:15	2826002	8.080	-92.788	16.728	614.364	729.643	0.359	72.214	16.728	***3.649***
2021-07-27 10:30	2826902	8.056	-91.391	16.793	615.935	730.427	0.360	72.682	16.793	***3.320***
2021-07-27 10:45	2827802	8.050	-91.109	16.859	616.422	729.927	0.359	67.356	16.859	***3.528***
2021-07-27 11:00	2828702	8.046	-90.866	16.943	617.467	729.769	0.359	69.212	16.943	***3.592***
2021-07-27 11:15	2829602	8.035	-90.270	16.988	618.422	730.153	0.360	69.668	16.988	***3.744***
2021-07-27 11:30	2830502	8.042	-90.690	17.018	618.861	730.189	0.360	110.043	17.018	***3.237***
2021-07-27 11:45	2831402	8.050	-91.181	17.075	619.827	730.389	0.360	69.829	17.075	***3.850***
2021-07-27 12:00	2832302	8.055	-91.453	17.176	621.128	730.262	0.360	67.370	17.176	***4.211***
2021-07-27 12:15	2833202	8.046	-90.992	17.277	622.762	730.528	0.360	128.110	17.277	***4.540***
2021-07-27 12:30	2834102	8.044	-90.895	17.365	624.088	730.628	0.360	130.194	17.365	***5.151***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-27 12:45	2835002	8.037	-90.542	17.417	624.783	730.601	0.360	129.321	17.417	***5.485***
2021-07-27 13:00	2835902	8.028	-90.046	17.506	625.777	730.315	0.360	129.884	17.506	***5.446***
2021-07-27 13:15	2836802	8.028	-90.058	17.587	626.622	729.978	0.360	131.520	17.587	***5.520***
2021-07-27 13:30	2837702	8.026	-89.986	17.666	627.263	729.441	0.359	130.882	17.666	***5.387***
2021-07-27 13:45	2838602	8.029	-90.156	17.787	628.392	728.792	0.359	131.791	17.787	***5.484***
2021-07-27 14:00	2839502	8.020	-89.703	17.889	630.388	729.464	0.359	126.308	17.889	***5.518***
2021-07-27 14:15	2840402	8.020	-89.698	17.986	631.739	729.456	0.359	122.671	17.986	***5.648***
2021-07-27 14:30	2841302	8.018	-89.660	18.103	632.383	728.330	0.359	116.534	18.103	***5.659***
2021-07-27 14:45	2842202	8.019	-89.715	18.255	635.601	729.595	0.360	117.821	18.255	***5.882***
2021-07-27 15:00	2843102	7.998	-88.589	18.396	637.444	729.448	0.359	118.382	18.396	***5.883***
2021-07-27 15:15	2844002	8.009	-89.221	18.510	638.277	728.597	0.359	117.359	18.510	***6.262***
2021-07-27 15:30	2844902	8.010	-89.350	18.670	640.337	728.402	0.359	126.683	18.670	***6.220***
2021-07-27 15:45	2845802	8.018	-89.850	18.780	641.587	728.078	0.359	118.492	18.780	***6.411***
2021-07-27 16:00	2846702	8.030	-90.570	18.864	642.940	728.289	0.359	119.271	18.864	6.532
2021-07-27 16:15	2847602	8.036	-90.976	18.997	644.761	728.256	0.359	118.852	18.997	***6.357***
2021-07-27 16:30	2848502	8.034	-90.866	19.121	646.403	728.173	0.359	120.375	19.121	***6.124***
2021-07-27 16:45	2849402	8.038	-91.133	19.193	647.389	728.143	0.359	118.645	19.193	***6.176***
2021-07-27 17:00	2850302	8.066	-92.759	19.257	648.250	728.112	0.359	143.075	19.257	***6.000***
2021-07-27 17:15	2851202	8.069	-92.959	19.382	651.219	729.496	0.360	141.939	19.382	***6.317***
2021-07-27 17:30	2852102	8.055	-92.242	19.564	653.243	728.933	0.359	124.699	19.564	***6.295***
2021-07-27 17:45	2853002	8.069	-93.081	19.713	655.090	728.675	0.359	123.014	19.713	6.670
2021-07-27 18:00	2853902	8.075	-93.458	19.817	656.996	729.181	0.360	124.434	19.817	6.900
2021-07-27 18:15	2854802	8.079	-93.775	19.967	659.391	729.525	0.360	128.065	19.967	7.003
2021-07-27 18:30	2855702	8.087	-94.287	20.105	661.156	729.350	0.360	128.286	20.105	6.903
2021-07-27 18:45	2856602	8.089	-94.419	20.222	662.794	729.354	0.360	127.780	20.222	7.100
2021-07-27 19:00	2857502	8.095	-94.800	20.286	664.331	730.065	0.360	128.327	20.286	6.873
2021-07-27 19:15	2858402	8.097	-94.903	20.327	665.398	730.607	0.360	128.070	20.327	***5.792***
2021-07-27 19:30	2859302	8.095	-94.812	20.357	666.309	731.150	0.361	126.014	20.357	***4.573***
2021-07-27 19:45	2860202	8.102	-95.198	20.331	667.335	732.679	0.361	139.150	20.331	***3.957***
2021-07-27 20:00	2861102	8.153	-98.157	20.192	665.927	733.258	0.362	130.957	20.192	7.054
2021-07-27 20:15	2862002	8.167	-98.908	20.118	664.633	732.976	0.362	132.166	20.118	***6.471***
2021-07-27 20:30	2862902	8.141	-97.415	20.172	664.851	732.388	0.361	132.355	20.172	6.833
2021-07-27 20:45	2863802	8.114	-95.909	20.305	665.654	731.230	0.361	142.115	20.305	6.774
2021-07-27 21:00	2864702	8.105	-95.377	20.390	665.952	730.255	0.360	149.314	20.390	6.622
2021-07-27 21:15	2865602	8.096	-94.931	20.494	668.107	731.030	0.361	156.809	20.494	6.772
2021-07-27 21:30	2866502	8.109	-95.694	20.530	668.901	731.339	0.361	159.886	20.530	6.883
2021-07-27 21:45	2867402	8.114	-95.992	20.553	670.155	732.355	0.361	140.135	20.553	***6.338***
2021-07-27 22:00	2868302	8.110	-95.747	20.594	671.179	732.857	0.362	131.959	20.594	***6.202***
2021-07-27 22:15	2869202	8.102	-95.322	20.608	670.734	732.154	0.361	130.324	20.608	***4.682***
2021-07-27 22:30	2870102	8.118	-96.228	20.589	672.903	734.815	0.363	134.048	20.589	***5.022***
2021-07-27 22:45	2871002	8.172	-99.313	20.494	675.097	738.671	0.365	137.771	20.494	***5.745***
2021-07-27 23:00	2871902	8.193	-100.503	20.369	675.130	740.647	0.366	138.768	20.369	***5.753***
2021-07-27 23:15	2872802	8.200	-100.913	20.242	673.917	741.276	0.366	140.920	20.242	***5.667***
2021-07-27 23:30	2873702	8.206	-101.163	20.090	671.970	741.502	0.366	100.503	20.090	***5.945***
2021-07-27 23:45	2874602	8.202	-100.877	19.965	668.106	739.199	0.365	218.753	19.965	***5.856***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-28 0:00	2875502	8.195	-100.465	19.829	666.360	739.390	0.365	104.255	19.829	***5.409***
2021-07-28 0:15	2876402	8.200	-100.687	19.707	664.210	738.908	0.365	109.434	19.707	***5.689***
2021-07-28 0:30	2877302	8.202	-100.768	19.558	661.784	738.551	0.364	117.239	19.558	***5.661***
2021-07-28 0:45	2878202	8.201	-100.677	19.414	659.432	738.198	0.364	111.661	19.414	***5.461***
2021-07-28 1:00	2879102	8.198	-100.424	19.282	657.595	738.212	0.364	123.884	19.282	***5.407***
2021-07-28 1:15	2880002	8.194	-100.164	19.161	655.976	738.323	0.364	114.849	19.161	***5.370***
2021-07-28 1:30	2880902	8.200	-100.453	19.019	653.329	737.590	0.364	119.736	19.019	***5.515***
2021-07-28 1:45	2881802	8.205	-100.684	18.893	650.815	736.746	0.363	124.937	18.893	***5.691***
2021-07-28 2:00	2882702	8.208	-100.870	18.786	648.782	736.157	0.363	118.906	18.786	***5.665***
2021-07-28 2:15	2883602	8.212	-101.058	18.694	646.734	735.296	0.363	108.052	18.694	***5.784***
2021-07-28 2:30	2884502	8.211	-100.932	18.610	644.786	734.418	0.362	92.595	18.610	***5.691***
2021-07-28 2:45	2885402	8.199	-100.241	18.541	643.762	734.353	0.362	92.119	18.541	***5.325***
2021-07-28 3:00	2886302	8.195	-99.995	18.443	642.026	733.938	0.362	90.207	18.443	***5.289***
2021-07-28 3:15	2887202	8.192	-99.776	18.378	641.224	734.062	0.362	88.837	18.378	***5.257***
2021-07-28 3:30	2888102	8.182	-99.206	18.322	640.525	734.163	0.362	88.321	18.322	***4.555***
2021-07-28 3:45	2889002	8.183	-99.208	18.251	642.082	737.096	0.363	86.852	18.251	***4.839***
2021-07-28 4:00	2889902	8.176	-98.808	18.192	641.168	736.998	0.363	88.499	18.192	***4.767***
2021-07-28 4:15	2890802	8.178	-98.853	18.109	639.492	736.414	0.363	87.768	18.109	***4.893***
2021-07-28 4:30	2891702	8.167	-98.255	18.063	638.397	735.901	0.363	92.916	18.063	***4.435***
2021-07-28 4:45	2892602	8.163	-97.992	18.008	637.264	735.481	0.362	79.798	18.008	***3.996***
2021-07-28 5:00	2893502	8.162	-97.883	17.947	635.690	734.661	0.362	79.198	17.947	***4.444***
2021-07-28 5:15	2894402	8.159	-97.685	17.890	634.620	734.352	0.362	80.493	17.890	***4.720***
2021-07-28 5:30	2895302	8.155	-97.475	17.836	633.862	734.344	0.362	83.503	17.836	***4.936***
2021-07-28 5:45	2896202	8.147	-96.984	17.776	631.782	732.906	0.361	22.309	17.776	***4.519***
2021-07-28 6:00	2897102	8.125	-95.670	17.735	631.568	733.320	0.361	20.351	17.735	***3.960***
2021-07-28 6:15	2898002	8.116	-95.155	17.689	630.693	733.063	0.361	19.389	17.689	***3.644***
2021-07-28 6:30	2898902	8.115	-95.074	17.643	630.244	733.277	0.361	18.135	17.643	***3.889***
2021-07-28 6:45	2899802	8.117	-95.189	17.607	630.309	733.953	0.362	18.275	17.607	***3.756***
2021-07-28 7:00	2900702	8.121	-95.417	17.579	631.919	736.277	0.363	22.201	17.579	***3.800***
2021-07-28 7:15	2901602	8.125	-95.606	17.549	629.290	733.702	0.361	15.810	17.549	***3.475***
2021-07-28 7:30	2902502	8.135	-96.197	17.528	628.883	733.575	0.361	16.551	17.528	***3.295***
2021-07-28 7:45	2903402	8.128	-95.820	17.506	628.135	733.059	0.361	16.993	17.506	***3.010***
2021-07-28 8:00	2904302	8.127	-95.758	17.505	627.148	731.926	0.361	15.512	17.505	***3.007***
2021-07-28 8:15	2905202	8.115	-95.031	17.517	627.055	731.619	0.360	14.445	17.517	***2.666***
2021-07-28 8:30	2906102	8.094	-93.839	17.549	641.927	748.447	0.369	20.215	17.549	***4.512***
2021-07-28 8:45	2907002	8.081	-93.071	17.550	625.107	728.819	0.359	19.311	17.550	***4.031***
2021-07-28 9:00	2907902	8.078	-92.902	17.539	630.146	734.875	0.362	17.822	17.539	***3.788***
2021-07-28 9:15	2908802	8.080	-93.038	17.517	624.177	728.259	0.359	16.382	17.517	***3.763***
2021-07-28 9:30	2909702	8.088	-93.486	17.495	624.571	729.090	0.359	16.483	17.495	***3.647***
2021-07-28 9:45	2910602	8.087	-93.460	17.529	624.685	728.654	0.359	17.831	17.529	***3.410***
2021-07-28 10:00	2911502	8.060	-91.922	17.598	626.128	729.223	0.359	18.255	17.598	***3.105***
2021-07-28 10:15	2912402	8.032	-90.315	17.663	629.832	732.477	0.361	17.735	17.663	***2.984***
2021-07-28 10:30	2913302	8.026	-89.991	17.757	628.152	729.002	0.359	20.312	17.757	***2.858***
2021-07-28 10:45	2914202	8.019	-89.626	17.867	642.449	743.790	0.367	18.348	17.867	***3.305***
2021-07-28 11:00	2915102	8.006	-88.899	17.995	641.611	740.721	0.365	18.647	17.995	***3.727***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-28 11:15	2916002	7.999	-88.513	18.062	640.973	738.881	0.364	16.883	18.062	***4.016***
2021-07-28 11:30	2916902	8.002	-88.699	18.119	631.620	727.198	0.358	15.610	18.119	***3.828***
2021-07-28 11:45	2917802	8.019	-89.686	18.164	631.634	726.496	0.358	17.050	18.164	***2.898***
2021-07-28 12:00	2918702	8.032	-90.499	18.224	633.419	727.583	0.359	16.448	18.224	***3.947***
2021-07-28 12:15	2919602	8.028	-90.282	18.294	637.878	731.582	0.361	17.068	18.294	***3.689***
2021-07-28 12:30	2920502	8.024	-90.067	18.385	639.426	731.899	0.361	17.318	18.385	***3.914***
2021-07-28 12:45	2921402	8.028	-90.346	18.452	640.205	731.715	0.361	19.884	18.452	***3.771***
2021-07-28 13:00	2922302	8.044	-91.264	18.533	641.418	731.808	0.361	16.673	18.533	***4.565***
2021-07-28 13:15	2923202	8.042	-91.183	18.636	639.623	728.122	0.359	15.913	18.636	***5.342***
2021-07-28 13:30	2924102	8.056	-92.056	18.771	640.947	727.499	0.359	15.577	18.771	***5.106***
2021-07-28 13:45	2925002	8.058	-92.192	18.855	642.128	727.519	0.359	17.880	18.855	***4.535***
2021-07-28 14:00	2925902	8.066	-92.673	18.969	643.955	727.794	0.359	16.859	18.969	***4.507***
2021-07-28 14:15	2926802	8.058	-92.266	19.083	645.938	728.232	0.359	15.415	19.083	***5.136***
2021-07-28 14:30	2927702	8.066	-92.735	19.223	647.980	728.340	0.359	15.841	19.223	***5.225***
2021-07-28 14:45	2928602	8.058	-92.335	19.343	649.054	727.680	0.359	14.477	19.343	***4.872***
2021-07-28 15:00	2929502	8.074	-93.312	19.509	651.062	727.343	0.359	17.032	19.509	***4.982***
2021-07-28 15:15	2930402	8.054	-92.192	19.592	652.946	728.164	0.359	14.880	19.592	***5.231***
2021-07-28 15:30	2931302	8.052	-92.103	19.764	654.516	727.242	0.359	20.425	19.764	***5.307***
2021-07-28 15:45	2932202	8.065	-92.950	19.928	656.424	726.830	0.358	19.706	19.928	***5.466***
2021-07-28 16:00	2933102	8.079	-93.808	20.128	659.349	727.000	0.359	18.201	20.128	***5.682***
2021-07-28 16:15	2934002	8.108	-95.804	21.133	672.573	726.208	0.358	18.321	21.133	6.903
2021-07-28 16:30	2934902	8.139	-97.413	20.545	661.971	723.544	0.357	18.229	20.545	7.894
2021-07-28 16:45	2935802	8.152	-98.083	20.258	659.053	724.684	0.357	17.416	20.258	7.397
2021-07-28 17:00	2936702	8.150	-98.019	20.321	659.862	724.623	0.357	18.835	20.321	7.450
2021-07-28 17:15	2937602	8.222	-102.305	20.607	669.822	731.174	0.361	23.794	20.607	8.636
2021-07-28 17:30	2938502	8.202	-101.078	20.545	673.550	736.200	0.363	20.804	20.545	8.128
2021-07-28 17:45	2939402	8.200	-100.987	20.546	674.457	737.169	0.364	18.891	20.546	8.044
2021-07-28 18:00	2940302	8.198	-100.908	20.641	669.640	730.452	0.360	19.948	20.641	8.043
2021-07-28 18:15	2941202	8.159	-98.760	20.951	673.551	730.004	0.360	23.845	20.951	7.764
2021-07-28 18:30	2942102	8.171	-99.466	20.989	674.331	730.277	0.360	20.650	20.989	7.188
2021-07-28 18:45	2943002	8.221	-102.298	20.865	672.214	729.851	0.360	21.046	20.865	7.764
2021-07-28 19:00	2943902	8.203	-101.333	21.050	676.034	731.204	0.361	22.792	21.050	7.661
2021-07-28 19:15	2944802	8.164	-99.139	21.245	678.771	731.220	0.361	22.078	21.245	7.720
2021-07-28 19:30	2945702	8.151	-98.402	21.307	679.898	731.502	0.361	21.209	21.307	7.113
2021-07-28 19:45	2946602	8.181	-100.136	21.255	680.265	732.680	0.362	11.292	21.255	***6.484***
2021-07-28 20:00	2947502	8.221	-102.477	21.264	680.852	733.173	0.362	12.440	21.264	***6.142***
2021-07-28 20:15	2948402	8.206	-101.624	21.343	682.701	733.968	0.362	12.579	21.343	***6.222***
2021-07-28 20:30	2949302	8.196	-101.030	21.324	681.854	733.336	0.362	12.712	21.324	***6.483***
2021-07-28 20:45	2950202	8.187	-100.539	21.387	682.708	733.311	0.362	12.359	21.387	6.888
2021-07-28 21:00	2951102	8.175	-99.831	21.393	682.394	732.891	0.362	12.333	21.393	6.948
2021-07-28 21:15	2952002	8.104	-95.775	21.666	687.439	734.191	0.362	13.373	21.666	6.820
2021-07-28 21:30	2952902	8.074	-94.054	21.841	691.551	735.962	0.363	12.945	21.841	6.816
2021-07-28 21:45	2953802	8.060	-93.277	21.949	695.994	739.059	0.365	12.773	21.949	6.787
2021-07-28 22:00	2954702	8.075	-94.185	21.992	699.458	742.095	0.366	12.603	21.992	6.791
2021-07-28 22:15	2955602	8.086	-94.798	22.018	701.986	744.382	0.368	12.210	22.018	***6.397***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-28 22:30	2956502	8.093	-95.220	21.955	701.545	744.870	0.368	11.577	21.955	***5.694***
2021-07-28 22:45	2957402	8.159	-99.030	21.848	702.335	747.321	0.369	13.092	21.848	***5.624***
2021-07-28 23:00	2958302	8.173	-99.831	21.794	703.996	749.921	0.370	12.844	21.794	***4.670***
2021-07-28 23:15	2959202	8.197	-101.216	21.642	702.600	750.758	0.371	13.738	21.642	***4.901***
2021-07-28 23:30	2960102	8.203	-101.469	21.503	702.767	753.059	0.372	13.971	21.503	***4.915***
2021-07-28 23:45	2961002	8.204	-101.495	21.364	701.097	753.415	0.372	113.251	21.364	***4.456***
2021-07-29 0:00	2961902	8.214	-102.019	21.212	698.760	753.264	0.372	70.601	21.212	***4.542***
2021-07-29 0:15	2962802	8.207	-101.573	21.094	695.953	752.056	0.371	16.189	21.094	***5.125***
2021-07-29 0:30	2963702	8.212	-101.826	20.965	693.957	751.907	0.371	13.912	20.965	***5.243***
2021-07-29 0:45	2964602	8.218	-102.167	20.833	692.027	751.876	0.371	14.019	20.833	***5.392***
2021-07-29 1:00	2965502	8.232	-102.897	20.708	690.523	752.192	0.371	16.591	20.708	***5.199***
2021-07-29 1:15	2966402	8.223	-102.363	20.590	688.611	751.946	0.371	12.699	20.590	***5.049***
2021-07-29 1:30	2967302	8.234	-102.959	20.497	686.327	750.916	0.371	13.036	20.497	***5.368***
2021-07-29 1:45	2968202	8.232	-102.813	20.380	684.194	750.416	0.371	13.386	20.380	***5.154***
2021-07-29 2:00	2969102	8.226	-102.410	20.243	681.329	749.414	0.370	12.644	20.243	***5.331***
2021-07-29 2:15	2970002	8.222	-102.131	20.151	680.065	749.486	0.370	13.584	20.151	***5.107***
2021-07-29 2:30	2970902	8.222	-102.103	20.035	678.557	749.641	0.370	13.918	20.035	***5.572***
2021-07-29 2:45	2971802	8.223	-102.146	19.934	677.619	750.206	0.370	12.618	19.934	***5.049***
2021-07-29 3:00	2972702	8.224	-102.119	19.835	676.039	750.028	0.370	13.091	19.835	***4.790***
2021-07-29 3:15	2973602	8.219	-101.829	19.726	674.680	750.260	0.370	14.049	19.726	***4.857***
2021-07-29 3:30	2974502	8.216	-101.573	19.623	673.435	750.507	0.370	14.325	19.623	***5.010***
2021-07-29 3:45	2975402	8.207	-101.061	19.535	671.895	750.196	0.370	14.422	19.535	***4.873***
2021-07-29 4:00	2976302	8.218	-101.671	19.444	670.778	750.416	0.370	13.542	19.444	***4.914***
2021-07-29 4:15	2977202	8.208	-101.054	19.346	668.998	749.990	0.370	15.009	19.346	***4.583***
2021-07-29 4:30	2978102	8.201	-100.610	19.273	668.387	750.474	0.370	13.193	19.273	***4.599***
2021-07-29 4:45	2979002	8.212	-101.235	19.187	667.064	750.369	0.370	13.381	19.187	***4.564***
2021-07-29 5:00	2979902	8.207	-100.925	19.100	663.998	748.334	0.369	13.406	19.100	***4.458***
2021-07-29 5:15	2980802	8.196	-100.210	19.015	664.633	750.419	0.370	13.771	19.015	***4.120***
2021-07-29 5:30	2981702	8.200	-100.424	18.929	663.409	750.429	0.370	14.844	18.929	***4.168***
2021-07-29 5:45	2982602	8.193	-99.988	18.868	662.290	750.155	0.370	15.475	18.868	***4.149***
2021-07-29 6:00	2983502	8.196	-100.133	18.778	661.448	750.654	0.370	15.213	18.778	***4.522***
2021-07-29 6:15	2984402	8.190	-99.802	18.735	660.864	750.688	0.370	14.701	18.735	***4.378***
2021-07-29 6:30	2985302	8.191	-99.819	18.651	659.782	750.837	0.370	13.705	18.651	***4.144***
2021-07-29 6:45	2986202	8.185	-99.466	18.575	658.290	750.374	0.370	14.848	18.575	***3.969***
2021-07-29 7:00	2987102	8.183	-99.311	18.520	657.144	749.969	0.370	15.111	18.520	***4.379***
2021-07-29 7:15	2988002	8.185	-99.411	18.443	656.588	750.595	0.370	15.763	18.443	***4.473***
2021-07-29 7:30	2988902	8.173	-98.684	18.423	656.246	750.531	0.370	17.726	18.423	***4.313***
2021-07-29 7:45	2989802	8.157	-97.771	18.413	656.494	750.970	0.370	18.092	18.413	***4.081***
2021-07-29 8:00	2990702	8.148	-97.249	18.420	655.157	749.334	0.370	17.223	18.420	***3.254***
2021-07-29 8:15	2991602	8.129	-96.154	18.428	658.318	752.817	0.371	18.110	18.428	***3.043***
2021-07-29 8:30	2992502	8.126	-96.002	18.420	656.696	751.097	0.371	15.441	18.420	***2.857***
2021-07-29 8:45	2993402	8.138	-96.667	18.393	656.497	751.314	0.371	15.385	18.393	***1.883***
2021-07-29 9:00	2994302	8.147	-97.177	18.367	655.387	750.463	0.370	12.968	18.367	***2.810***
2021-07-29 9:15	2995202	8.144	-97.034	18.382	655.969	750.883	0.370	14.992	18.382	***4.197***
2021-07-29 9:30	2996102	8.149	-97.313	18.383	656.182	751.114	0.371	15.136	18.383	***4.117***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-29 9:45	2997002	8.135	-96.474	18.415	659.718	754.624	0.372	16.277	18.415	***2.889***
2021-07-29 10:00	2997902	8.099	-94.438	18.473	655.770	749.159	0.370	15.038	18.473	***2.843***
2021-07-29 10:15	2998802	8.074	-93.009	18.597	654.197	745.350	0.368	15.043	18.597	***4.139***
2021-07-29 10:30	2999702	8.083	-93.572	18.754	655.901	744.753	0.367	15.182	18.754	***4.858***
2021-07-29 10:45	3000602	8.089	-93.951	18.855	656.775	744.109	0.367	14.963	18.855	***5.084***
2021-07-29 11:00	3001502	8.091	-94.123	18.954	658.865	744.876	0.367	12.803	18.954	***4.650***
2021-07-29 11:15	3002402	8.123	-95.966	18.971	661.413	747.490	0.369	13.499	18.971	***3.604***
2021-07-29 11:30	3003302	8.129	-96.338	19.028	663.182	748.562	0.369	12.872	19.028	***3.696***
2021-07-29 11:45	3004202	8.130	-96.455	19.099	663.461	747.733	0.369	12.442	19.099	***3.814***
2021-07-29 12:00	3005102	8.135	-96.753	19.175	664.196	747.338	0.369	11.907	19.175	***2.817***
2021-07-29 12:15	3006002	8.133	-96.641	19.251	663.828	745.715	0.368	14.085	19.251	***3.597***
2021-07-29 12:30	3006902	8.127	-96.364	19.341	665.320	745.949	0.368	13.267	19.341	***4.150***
2021-07-29 12:45	3007802	8.118	-95.840	19.413	667.817	747.602	0.369	14.011	19.413	***3.925***
2021-07-29 13:00	3008702	8.119	-95.913	19.499	668.963	747.501	0.369	13.942	19.499	***4.169***
2021-07-29 13:15	3009602	8.120	-96.030	19.595	668.567	745.527	0.368	13.544	19.595	***3.640***
2021-07-29 13:30	3010502	8.104	-95.122	19.737	672.565	747.733	0.369	14.129	19.737	***4.436***
2021-07-29 13:45	3011402	8.103	-95.122	19.873	674.060	747.234	0.369	13.986	19.873	***4.757***
2021-07-29 14:00	3012302	8.100	-94.981	20.012	676.058	747.253	0.369	13.905	20.012	***5.320***
2021-07-29 14:15	3013202	8.100	-95.053	20.126	678.585	748.249	0.369	12.601	20.126	***5.220***
2021-07-29 14:30	3014102	8.080	-93.920	20.294	680.810	748.045	0.369	14.546	20.294	***5.153***
2021-07-29 14:45	3015002	8.072	-93.493	20.437	683.061	748.274	0.369	12.023	20.437	***5.433***
2021-07-29 15:00	3015902	8.071	-93.472	20.523	684.662	748.687	0.370	11.614	20.523	***4.866***
2021-07-29 15:15	3016802	8.058	-92.742	20.677	686.352	748.131	0.369	12.608	20.677	***5.543***
2021-07-29 15:30	3017702	8.058	-92.833	20.885	687.287	745.909	0.368	13.516	20.885	***5.694***
2021-07-29 15:45	3018602	8.070	-93.539	21.027	689.240	745.842	0.368	13.244	21.027	***6.259***
2021-07-29 16:00	3019502	8.086	-94.543	21.228	691.101	744.762	0.368	15.128	21.228	***6.382***
2021-07-29 16:15	3020402	8.129	-97.191	21.558	695.274	744.204	0.367	14.780	21.558	7.019
2021-07-29 16:30	3021302	8.135	-97.559	21.668	697.138	744.522	0.368	13.233	21.668	***4.244***
2021-07-29 16:45	3022202	8.125	-97.055	21.882	700.867	745.246	0.368	13.482	21.882	***4.871***
2021-07-29 17:00	3023102	8.135	-97.690	21.938	702.444	746.080	0.368	15.834	21.938	***5.644***
2021-07-29 17:15	3024002	8.114	-96.474	22.025	703.953	746.366	0.369	12.077	22.025	***5.896***
2021-07-29 17:30	3024902	8.163	-99.292	21.906	699.156	743.073	0.367	12.020	21.906	6.595
2021-07-29 17:45	3025802	8.120	-96.796	22.030	700.947	743.103	0.367	12.672	22.030	6.554
2021-07-29 18:00	3026702	8.208	-101.905	21.885	697.871	742.024	0.366	12.760	21.885	8.602
2021-07-29 18:15	3027602	8.188	-100.806	22.061	699.673	741.279	0.366	15.202	22.061	8.138
2021-07-29 18:30	3028502	8.174	-100.060	22.224	701.805	741.102	0.366	21.429	22.224	7.507
2021-07-29 18:45	3029402	8.176	-100.167	22.231	698.549	737.559	0.364	22.187	22.231	7.418
2021-07-29 19:00	3030302	8.165	-99.525	22.289	699.603	737.809	0.364	51.199	22.289	7.323
2021-07-29 19:15	3031202	8.152	-98.820	22.346	697.657	734.914	0.363	12.399	22.346	7.056
2021-07-29 19:30	3032102	8.200	-101.559	22.231	694.631	733.417	0.362	14.119	22.231	7.977
2021-07-29 19:45	3033002	8.190	-101.037	22.377	698.382	735.218	0.363	23.497	22.377	7.983
2021-07-29 20:00	3033902	8.141	-98.240	22.550	701.614	736.064	0.363	14.210	22.550	7.468
2021-07-29 20:15	3034802	8.124	-97.263	22.601	702.432	736.170	0.363	14.009	22.601	6.981
2021-07-29 20:30	3035702	8.116	-96.765	22.654	704.546	737.603	0.364	14.234	22.654	7.897
2021-07-29 20:45	3036602	8.136	-97.959	22.667	708.944	742.005	0.366	14.647	22.667	7.586

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-29 21:00	3037502	8.099	-95.870	22.887	714.796	744.859	0.368	15.042	22.887	7.097
2021-07-29 21:15	3038402	8.084	-94.979	22.918	725.316	755.346	0.373	14.820	22.918	7.455
2021-07-29 21:30	3039302	8.179	-100.601	22.937	719.583	749.104	0.370	17.013	22.937	7.394
2021-07-29 21:45	3040202	8.151	-98.977	23.054	724.948	752.936	0.372	14.702	23.054	7.640
2021-07-29 22:00	3041102	8.126	-97.516	23.114	727.754	754.947	0.373	14.429	23.114	7.716
2021-07-29 22:15	3042002	8.133	-97.923	23.007	724.842	753.528	0.372	15.116	23.007	7.714
2021-07-29 22:30	3042902	8.164	-99.685	22.899	723.479	753.726	0.372	14.408	22.899	7.462
2021-07-29 22:45	3043802	8.181	-100.675	22.878	728.720	759.498	0.375	13.475	22.878	***6.373***
2021-07-29 23:00	3044702	8.202	-101.879	22.806	736.003	768.198	0.380	15.705	22.806	***5.268***
2021-07-29 23:15	3045602	8.201	-101.798	22.675	738.584	772.904	0.382	16.669	22.675	***4.674***
2021-07-29 23:30	3046502	8.209	-102.208	22.537	737.001	773.389	0.382	16.465	22.537	***4.450***
2021-07-29 23:45	3047402	8.213	-102.422	22.419	736.298	774.474	0.383	12.119	22.419	***4.264***
2021-07-30 0:00	3048302	8.219	-102.708	22.293	734.659	774.711	0.383	11.297	22.293	***4.138***
2021-07-30 0:15	3049202	8.216	-102.510	22.167	732.396	774.295	0.383	10.990	22.167	***4.137***
2021-07-30 0:30	3050102	8.219	-102.625	22.044	729.714	773.377	0.382	10.579	22.044	***4.116***
2021-07-30 0:45	3051002	8.221	-102.677	21.916	727.467	772.998	0.382	11.489	21.916	***3.883***
2021-07-30 1:00	3051902	8.219	-102.530	21.799	725.683	772.937	0.382	10.936	21.799	***3.961***
2021-07-30 1:15	3052802	8.217	-102.403	21.683	723.239	772.159	0.382	10.519	21.683	***3.973***
2021-07-30 1:30	3053702	8.217	-102.346	21.558	721.069	771.810	0.382	10.313	21.558	***4.052***
2021-07-30 1:45	3054602	8.216	-102.248	21.441	718.782	771.210	0.381	10.437	21.441	***4.032***
2021-07-30 2:00	3055502	8.212	-101.986	21.330	716.895	770.928	0.381	10.606	21.330	***3.925***
2021-07-30 2:15	3056402	8.214	-102.053	21.210	715.220	771.028	0.381	10.339	21.210	***4.001***
2021-07-30 2:30	3057302	8.215	-102.031	21.104	714.145	771.555	0.381	10.183	21.104	***3.961***
2021-07-30 2:45	3058202	8.212	-101.829	20.988	712.587	771.727	0.381	10.672	20.988	***4.012***
2021-07-30 3:00	3059102	8.211	-101.771	20.880	710.974	771.695	0.381	10.672	20.880	***4.054***
2021-07-30 3:15	3060002	8.210	-101.628	20.780	709.708	771.926	0.382	11.009	20.780	***4.141***
2021-07-30 3:30	3060902	8.209	-101.540	20.668	707.810	771.662	0.381	10.791	20.668	***4.214***
2021-07-30 3:45	3061802	8.208	-101.459	20.565	706.529	771.912	0.382	11.719	20.565	***4.133***
2021-07-30 4:00	3062702	8.198	-100.861	20.463	705.043	771.938	0.382	10.772	20.463	***4.009***
2021-07-30 4:15	3063602	8.196	-100.708	20.375	703.648	771.832	0.381	10.736	20.375	***3.943***
2021-07-30 4:30	3064502	8.195	-100.636	20.291	702.468	771.897	0.381	11.810	20.291	***3.843***
2021-07-30 4:45	3065402	8.196	-100.636	20.194	701.007	771.859	0.381	11.248	20.194	***3.915***
2021-07-30 5:00	3066302	8.196	-100.584	20.103	699.429	771.606	0.381	10.966	20.103	***4.012***
2021-07-30 5:15	3067202	8.197	-100.660	20.027	698.456	771.762	0.381	10.651	20.027	***3.839***
2021-07-30 5:30	3068102	8.195	-100.474	19.957	697.485	771.824	0.381	11.231	19.957	***3.682***
2021-07-30 5:45	3069002	8.196	-100.546	19.882	696.582	772.057	0.382	11.341	19.882	***3.820***
2021-07-30 6:00	3069902	8.192	-100.291	19.802	695.394	772.047	0.382	11.510	19.802	***3.818***
2021-07-30 6:15	3070802	8.186	-99.924	19.746	694.481	771.945	0.381	10.235	19.746	***3.482***
2021-07-30 6:30	3071702	8.183	-99.692	19.685	693.709	772.097	0.382	12.218	19.685	***3.564***
2021-07-30 6:45	3072602	8.182	-99.633	19.652	693.352	772.236	0.382	11.452	19.652	***3.422***
2021-07-30 7:00	3073502	8.175	-99.223	19.609	693.213	772.788	0.382	11.068	19.609	***3.230***
2021-07-30 7:15	3074402	8.174	-99.142	19.552	692.583	773.015	0.382	10.807	19.552	***3.482***
2021-07-30 7:30	3075302	8.172	-98.999	19.508	692.015	773.114	0.382	10.581	19.508	***3.545***
2021-07-30 7:45	3076202	8.175	-99.180	19.480	691.949	773.503	0.382	10.546	19.480	***3.380***
2021-07-30 8:00	3077102	8.178	-99.328	19.455	691.545	773.457	0.382	10.384	19.455	***3.271***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-30 8:15	3078002	8.181	-99.518	19.423	690.964	773.348	0.382	11.367	19.423	***3.575***
2021-07-30 8:30	3078902	8.178	-99.318	19.397	694.359	777.574	0.384	11.374	19.397	***3.097***
2021-07-30 8:45	3079802	8.175	-99.151	19.377	689.109	772.025	0.381	11.632	19.377	***2.950***
2021-07-30 9:00	3080702	8.173	-99.008	19.359	688.949	772.139	0.381	10.712	19.359	***3.104***
2021-07-30 9:15	3081602	8.175	-99.146	19.365	689.129	772.237	0.382	11.942	19.365	***3.064***
2021-07-30 9:30	3082502	8.164	-98.524	19.381	689.409	772.286	0.382	12.427	19.381	***3.057***
2021-07-30 9:45	3083402	8.149	-97.625	19.419	689.526	771.804	0.381	13.789	19.419	***2.226***
2021-07-30 10:00	3084302	8.121	-96.016	19.479	689.711	771.011	0.381	13.899	19.479	***2.814***
2021-07-30 10:15	3085202	8.098	-94.752	19.557	689.120	769.076	0.380	13.169	19.557	***2.636***
2021-07-30 10:30	3086102	8.097	-94.681	19.670	688.848	766.916	0.379	12.945	19.670	***3.666***
2021-07-30 10:45	3087002	8.101	-94.998	19.819	691.093	766.998	0.379	13.385	19.819	***4.226***
2021-07-30 11:00	3087902	8.102	-95.067	19.967	694.083	767.903	0.379	13.639	19.967	***3.880***
2021-07-30 11:15	3088802	8.100	-94.984	20.060	695.829	768.318	0.380	12.756	20.060	***3.612***
2021-07-30 11:30	3089702	8.094	-94.647	20.106	697.240	769.129	0.380	11.193	20.106	***3.463***
2021-07-30 11:45	3090602	8.093	-94.604	20.170	697.811	768.729	0.380	11.735	20.170	***3.303***
2021-07-30 12:00	3091502	8.089	-94.447	20.263	699.151	768.704	0.380	12.302	20.263	***3.680***
2021-07-30 12:15	3092402	8.079	-93.880	20.381	701.191	769.043	0.380	12.371	20.381	***3.614***
2021-07-30 12:30	3093302	8.065	-93.098	20.539	704.002	769.568	0.380	13.007	20.539	***3.513***
2021-07-30 12:45	3094202	8.057	-92.731	20.867	708.149	768.839	0.380	13.912	20.867	***3.245***
2021-07-30 13:00	3095102	8.093	-95.010	21.316	715.824	769.999	0.381	14.234	21.316	***4.252***
2021-07-30 13:15	3096002	8.109	-96.033	21.520	720.553	771.854	0.382	14.975	21.520	***4.216***
2021-07-30 13:30	3096902	8.120	-96.726	21.800	726.136	773.403	0.382	21.491	21.800	***5.269***
2021-07-30 13:45	3097802	8.155	-98.851	22.073	730.682	773.957	0.383	17.710	22.073	***5.269***
2021-07-30 14:00	3098702	8.163	-99.447	22.283	734.378	774.575	0.383	14.844	22.283	***5.364***
2021-07-30 14:15	3099602	8.157	-99.082	22.415	737.240	775.538	0.384	13.150	22.415	***5.140***
2021-07-30 14:30	3100502	8.143	-98.312	22.538	740.083	776.609	0.384	15.265	22.538	***4.313***
2021-07-30 14:45	3101402	8.124	-97.277	22.809	744.039	776.529	0.384	14.242	22.809	***5.337***
2021-07-30 15:00	3102302	8.161	-99.621	23.203	748.941	775.567	0.384	14.677	23.203	***5.616***
2021-07-30 15:15	3103202	8.172	-100.319	23.450	752.394	775.340	0.383	12.694	23.450	***5.617***
2021-07-30 15:30	3104102	8.164	-99.876	23.430	753.676	776.981	0.384	11.586	23.430	***4.558***
2021-07-30 15:45	3105002	8.157	-99.478	23.568	755.809	777.058	0.384	13.675	23.568	***5.363***
2021-07-30 16:00	3105902	8.139	-98.495	23.753	758.619	777.132	0.384	13.010	23.753	***5.060***
2021-07-30 16:15	3106802	8.123	-97.663	24.018	762.568	777.151	0.384	14.029	24.018	***5.731***
2021-07-30 16:30	3107702	8.132	-98.205	24.171	764.985	777.293	0.384	13.386	24.171	***5.126***
2021-07-30 16:45	3108602	8.135	-98.424	24.276	767.058	777.810	0.385	13.569	24.276	***4.857***
2021-07-30 17:00	3109502	8.128	-98.090	24.397	768.969	777.924	0.385	13.167	24.397	***4.639***
2021-07-30 17:15	3110402	8.127	-98.064	24.529	771.043	778.041	0.385	12.454	24.529	***4.953***
2021-07-30 17:30	3111302	8.130	-98.240	24.515	771.462	778.681	0.385	11.609	24.515	***4.963***
2021-07-30 17:45	3112202	8.115	-97.373	24.601	773.174	779.115	0.385	12.952	24.601	***5.115***
2021-07-30 18:00	3113102	8.101	-96.567	24.691	774.657	779.254	0.385	12.415	24.691	***5.623***
2021-07-30 18:15	3114002	8.093	-96.130	24.767	775.710	779.171	0.385	13.538	24.767	6.894
2021-07-30 18:30	3114902	8.082	-95.510	24.997	780.878	780.919	0.386	14.368	24.997	***4.903***
2021-07-30 18:45	3115802	8.092	-96.188	25.225	784.783	781.425	0.386	12.651	25.225	***4.561***
2021-07-30 19:00	3116702	8.085	-95.794	25.238	785.727	782.165	0.387	12.123	25.238	***4.023***
2021-07-30 19:15	3117602	8.118	-97.716	25.097	785.560	784.111	0.388	11.901	25.097	***4.689***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-30 19:30	3118502	8.168	-100.594	24.886	780.946	782.657	0.387	55.133	24.886	***5.380***
2021-07-30 19:45	3119402	8.164	-100.329	24.759	780.500	784.114	0.388	56.405	24.759	***5.445***
2021-07-30 20:00	3120302	8.160	-100.026	24.692	780.267	784.878	0.388	58.715	24.692	***5.379***
2021-07-30 20:15	3121202	8.163	-100.212	24.579	778.734	785.046	0.388	55.781	24.579	***5.356***
2021-07-30 20:30	3122102	8.172	-100.701	24.471	778.023	785.969	0.389	51.452	24.471	***5.209***
2021-07-30 20:45	3123002	8.176	-100.868	24.363	778.463	788.048	0.390	51.875	24.363	***4.876***
2021-07-30 21:00	3123902	8.176	-100.851	24.276	777.475	788.384	0.390	51.733	24.276	***4.733***
2021-07-30 21:15	3124802	8.180	-101.078	24.189	779.455	791.724	0.392	50.984	24.189	***4.473***
2021-07-30 21:30	3125702	8.183	-101.180	24.095	779.648	793.367	0.393	50.325	24.095	***4.432***
2021-07-30 21:45	3126602	8.185	-101.311	23.989	778.284	793.612	0.393	47.128	23.989	***4.544***
2021-07-30 22:00	3127502	8.190	-101.545	23.873	776.294	793.374	0.393	46.924	23.873	***4.596***
2021-07-30 22:15	3128402	8.210	-102.642	23.656	767.951	788.185	0.390	46.355	23.656	***5.296***
2021-07-30 22:30	3129302	8.221	-103.288	23.551	766.694	788.520	0.390	47.071	23.551	***4.852***
2021-07-30 22:45	3130202	8.219	-103.106	23.445	764.227	787.615	0.390	45.005	23.445	***4.988***
2021-07-30 23:00	3131102	8.220	-103.142	23.355	764.176	788.968	0.390	44.855	23.355	***4.697***
2021-07-30 23:15	3132002	8.221	-103.114	23.217	762.665	789.558	0.391	12.837	23.217	***4.643***
2021-07-30 23:30	3132902	8.223	-103.230	23.072	760.228	789.290	0.391	13.014	23.072	***4.691***
2021-07-30 23:45	3133802	8.219	-102.937	22.937	758.663	789.776	0.391	13.148	22.937	***4.504***
2021-07-31 0:00	3134702	8.218	-102.842	22.828	756.102	788.832	0.390	13.135	22.828	***4.580***
2021-07-31 0:15	3135602	8.213	-102.477	22.714	754.189	788.622	0.390	13.437	22.714	***4.498***
2021-07-31 0:30	3136502	8.212	-102.417	22.602	751.850	787.947	0.390	13.260	22.602	***4.716***
2021-07-31 0:45	3137402	8.208	-102.153	22.501	749.810	787.389	0.390	13.030	22.501	***4.900***
2021-07-31 1:00	3138302	8.211	-102.258	22.393	745.910	784.994	0.388	13.476	22.393	***4.778***
2021-07-31 1:15	3139202	8.206	-101.962	22.282	743.583	784.302	0.388	13.148	22.282	***4.618***
2021-07-31 1:30	3140102	8.195	-101.266	22.177	741.536	783.795	0.388	14.229	22.177	***4.566***
2021-07-31 1:45	3141002	8.192	-101.061	22.079	739.358	783.041	0.387	14.095	22.079	***4.587***
2021-07-31 2:00	3141902	8.192	-101.035	21.981	737.429	782.552	0.387	14.975	21.981	***4.556***
2021-07-31 2:15	3142802	8.188	-100.770	21.877	734.103	780.669	0.386	15.178	21.877	***4.702***
2021-07-31 2:30	3143702	8.186	-100.617	21.781	730.949	778.834	0.385	15.002	21.781	***4.739***
2021-07-31 2:45	3144602	8.189	-100.732	21.683	729.307	778.644	0.385	16.018	21.683	***4.649***
2021-07-31 3:00	3145502	8.189	-100.713	21.600	726.970	777.464	0.384	16.124	21.600	***4.737***
2021-07-31 3:15	3146402	8.188	-100.610	21.505	724.209	776.013	0.384	16.006	21.505	***4.664***
2021-07-31 3:30	3147302	8.186	-100.474	21.417	722.663	775.760	0.384	19.045	21.417	***4.647***
2021-07-31 3:45	3148202	8.186	-100.408	21.312	722.233	776.956	0.384	13.539	21.312	***4.797***
2021-07-31 4:00	3149102	8.192	-100.739	21.184	721.089	777.773	0.385	13.488	21.184	***4.677***
2021-07-31 4:15	3150002	8.196	-100.956	21.089	719.509	777.602	0.384	13.098	21.089	***4.599***
2021-07-31 4:30	3150902	8.196	-100.956	21.044	718.996	777.767	0.385	12.710	21.044	***4.421***
2021-07-31 4:45	3151802	8.185	-100.288	21.003	717.716	777.032	0.384	13.482	21.003	***4.463***
2021-07-31 5:00	3152702	8.182	-100.093	20.922	715.394	775.822	0.384	13.469	20.922	***4.736***
2021-07-31 5:15	3153602	8.181	-99.983	20.859	713.994	775.315	0.383	12.770	20.859	***4.520***
2021-07-31 5:30	3154502	8.180	-99.936	20.806	712.597	774.647	0.383	13.050	20.806	***4.523***
2021-07-31 5:45	3155402	8.179	-99.819	20.733	710.874	773.951	0.383	12.937	20.733	***4.681***
2021-07-31 6:00	3156302	8.177	-99.659	20.639	708.858	773.265	0.382	12.839	20.639	***4.640***
2021-07-31 6:15	3157202	8.174	-99.447	20.527	708.047	774.192	0.383	13.205	20.527	***4.669***
2021-07-31 6:30	3158102	8.165	-98.917	20.489	706.905	773.548	0.382	12.580	20.489	***4.602***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-31 6:45	3159002	8.155	-98.312	20.450	705.513	772.669	0.382	12.631	20.450	***4.623***
2021-07-31 7:00	3159902	8.153	-98.217	20.393	704.802	772.802	0.382	13.324	20.393	***4.627***
2021-07-31 7:15	3160802	8.154	-98.257	20.326	703.437	772.391	0.382	13.465	20.326	***4.719***
2021-07-31 7:30	3161702	8.159	-98.500	20.265	702.097	771.909	0.381	13.048	20.265	***4.472***
2021-07-31 7:45	3162602	8.152	-98.107	20.254	701.982	771.957	0.382	12.901	20.254	***4.277***
2021-07-31 8:00	3163502	8.145	-97.654	20.226	701.445	771.827	0.381	12.930	20.226	***4.401***
2021-07-31 8:15	3164402	8.139	-97.322	20.211	701.208	771.805	0.381	12.546	20.211	***4.383***
2021-07-31 8:30	3165302	8.134	-97.029	20.198	700.753	771.522	0.381	12.681	20.198	***4.296***
2021-07-31 8:45	3166202	8.129	-96.762	20.189	700.653	771.545	0.381	12.596	20.189	***4.260***
2021-07-31 9:00	3167102	8.132	-96.924	20.191	700.582	771.441	0.381	12.448	20.191	***4.174***
2021-07-31 9:15	3168002	8.135	-97.108	20.201	700.747	771.451	0.381	12.241	20.201	***3.775***
2021-07-31 9:30	3168902	8.138	-97.249	20.219	701.057	771.512	0.381	12.705	20.219	***3.430***
2021-07-31 9:45	3169802	8.136	-97.187	20.250	701.839	771.867	0.381	11.720	20.250	***3.333***
2021-07-31 10:00	3170702	8.127	-96.684	20.301	702.995	772.317	0.382	14.715	20.301	***3.180***
2021-07-31 10:15	3171602	8.106	-95.475	20.361	704.197	772.666	0.382	17.394	20.361	***3.061***
2021-07-31 10:30	3172502	8.083	-94.128	20.421	705.253	772.853	0.382	12.567	20.421	***2.820***
2021-07-31 10:45	3173402	8.067	-93.231	20.501	706.578	773.011	0.382	14.960	20.501	***2.724***
2021-07-31 11:00	3174302	8.061	-92.897	20.595	707.704	772.714	0.382	13.332	20.595	***2.872***
2021-07-31 11:15	3175202	8.055	-92.583	20.685	709.551	773.279	0.382	11.810	20.685	***3.290***
2021-07-31 11:30	3176102	8.045	-92.041	20.771	711.009	773.490	0.382	12.415	20.771	***3.104***
2021-07-31 11:45	3177002	8.063	-93.100	20.767	710.696	773.211	0.382	14.283	20.767	***3.479***
2021-07-31 12:00	3177902	8.098	-95.098	20.783	710.799	773.060	0.382	16.240	20.783	***3.987***
2021-07-31 12:15	3178802	8.110	-95.856	20.821	711.195	772.892	0.382	14.913	20.821	***3.545***
2021-07-31 12:30	3179702	8.121	-96.514	20.882	712.902	773.758	0.383	15.615	20.882	***3.913***
2021-07-31 12:45	3180602	8.122	-96.583	20.959	714.672	774.447	0.383	14.988	20.959	***3.842***
2021-07-31 13:00	3181502	8.113	-96.104	21.065	716.489	774.713	0.383	63.296	21.065	***3.808***
2021-07-31 13:15	3182402	8.096	-95.139	21.188	719.701	776.212	0.384	22.818	21.188	***3.873***
2021-07-31 13:30	3183302	8.085	-94.507	21.244	720.900	776.608	0.384	23.955	21.244	***3.682***
2021-07-31 13:45	3184202	8.083	-94.404	21.290	721.672	776.707	0.384	23.876	21.290	***3.503***
2021-07-31 14:00	3185102	8.094	-95.067	21.306	721.872	776.667	0.384	26.309	21.306	***4.086***
2021-07-31 14:15	3186002	8.108	-95.921	21.372	722.709	776.523	0.384	30.817	21.372	***4.261***
2021-07-31 14:30	3186902	8.104	-95.723	21.477	723.937	776.161	0.384	20.795	21.477	***4.355***
2021-07-31 14:45	3187802	8.095	-95.253	21.678	725.489	774.638	0.383	17.409	21.678	***4.706***
2021-07-31 15:00	3188702	8.090	-94.988	21.836	728.232	775.071	0.383	17.110	21.836	***5.000***
2021-07-31 15:15	3189602	8.091	-95.172	22.144	732.261	774.515	0.383	15.309	22.144	***5.631***
2021-07-31 15:30	3190502	8.096	-95.661	22.780	742.123	774.986	0.383	15.309	22.780	***6.010***
2021-07-31 15:45	3191402	8.099	-96.107	23.572	755.320	776.497	0.384	14.833	23.572	***6.232***
2021-07-31 16:00	3192302	8.114	-96.886	23.361	751.461	775.753	0.384	13.897	23.361	***5.984***
2021-07-31 16:15	3193202	8.128	-97.735	23.380	752.863	776.907	0.384	13.738	23.380	6.739
2021-07-31 16:30	3194102	8.164	-99.699	23.003	742.320	771.755	0.382	30.998	23.003	7.535
2021-07-31 16:45	3195002	8.195	-101.495	22.891	740.701	771.794	0.382	14.149	22.891	7.734
2021-07-31 17:00	3195902	8.206	-102.136	22.865	741.163	772.668	0.382	14.651	22.865	7.833
2021-07-31 17:15	3196802	8.198	-101.700	22.952	742.947	773.196	0.382	14.250	22.952	7.351
2021-07-31 17:30	3197702	8.194	-101.540	23.110	747.194	775.182	0.383	18.015	23.110	7.545
2021-07-31 17:45	3198602	8.181	-100.791	23.292	750.902	776.226	0.384	18.018	23.292	7.346

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-07-31 18:00	3199502	8.164	-99.845	23.307	751.084	776.184	0.384	11.441	23.307	7.883
2021-07-31 18:15	3200402	8.177	-100.586	23.223	747.511	773.772	0.383	11.855	23.223	8.318
2021-07-31 18:30	3201302	8.198	-101.826	23.270	748.199	773.765	0.383	11.780	23.270	8.203
2021-07-31 18:45	3202202	8.226	-103.409	23.211	745.156	771.523	0.381	11.718	23.211	8.270
2021-07-31 19:00	3203102	8.229	-103.619	23.275	747.984	773.461	0.382	12.265	23.275	8.062
2021-07-31 19:15	3204002	8.221	-103.230	23.437	752.453	775.614	0.384	12.664	23.437	7.594
2021-07-31 19:30	3204902	8.224	-103.385	23.343	747.984	772.427	0.382	33.827	23.343	8.264
2021-07-31 19:45	3205802	8.253	-105.004	23.207	744.565	770.962	0.381	14.606	23.207	8.341
2021-07-31 20:00	3206702	8.258	-105.331	23.207	745.460	771.899	0.382	17.040	23.207	8.026
2021-07-31 20:15	3207602	8.256	-105.228	23.234	747.094	773.170	0.382	8.975	23.234	7.967
2021-07-31 20:30	3208502	8.255	-105.162	23.239	746.674	772.670	0.382	10.610	23.239	7.671
2021-07-31 20:45	3209402	8.255	-105.159	23.215	746.810	773.166	0.382	12.321	23.215	7.205
2021-07-31 21:00	3210302	8.250	-104.845	23.282	749.199	774.616	0.383	15.162	23.282	6.975
2021-07-31 21:15	3211202	8.236	-104.091	23.385	752.058	775.998	0.384	12.425	23.385	6.598
2021-07-31 21:30	3212102	8.224	-103.393	23.421	753.606	777.047	0.384	12.214	23.421	6.808
2021-07-31 21:45	3213002	8.197	-101.874	23.604	757.904	778.659	0.385	12.355	23.604	***6.334***
2021-07-31 22:00	3213902	8.150	-99.132	23.730	760.867	779.787	0.386	12.877	23.730	***5.192***
2021-07-31 22:15	3214802	8.132	-98.045	23.581	758.160	779.288	0.385	13.389	23.581	6.717
2021-07-31 22:30	3215702	8.120	-97.363	23.767	764.043	782.469	0.387	13.534	23.767	***5.562***
2021-07-31 22:45	3216602	8.110	-96.774	23.704	763.603	782.991	0.387	12.466	23.704	***5.655***
2021-07-31 23:00	3217502	8.121	-97.418	23.686	762.223	781.849	0.387	23.904	23.686	***5.395***
2021-07-31 23:15	3218402	8.129	-97.895	23.641	762.695	783.021	0.387	24.387	23.641	***5.057***
2021-07-31 23:30	3219302	8.147	-98.917	23.616	762.315	783.009	0.387	19.471	23.616	***4.810***
2021-07-31 23:45	3220202	8.155	-99.397	23.581	764.173	785.464	0.389	26.624	23.581	***4.156***
2021-08-01 0:00	3221102	8.158	-99.568	23.538	763.949	785.891	0.389	23.753	23.538	***3.720***
2021-08-01 0:15	3222002	8.171	-100.286	23.497	767.303	789.984	0.391	29.174	23.497	***3.678***
2021-08-01 0:30	3222902	8.188	-101.283	23.424	770.039	793.945	0.393	20.457	23.424	***3.486***
2021-08-01 0:45	3223802	8.195	-101.688	23.357	772.114	797.123	0.395	24.148	23.357	***3.353***
2021-08-01 1:00	3224702	8.207	-102.313	23.271	771.611	797.960	0.395	24.889	23.271	***3.221***
2021-08-01 1:15	3225602	8.221	-103.147	23.173	770.581	798.442	0.395	33.586	23.173	***3.375***
2021-08-01 1:30	3226502	8.227	-103.426	23.082	769.450	798.703	0.395	33.433	23.082	***3.372***
2021-08-01 1:45	3227402	8.226	-103.388	22.994	768.863	799.492	0.396	32.070	22.994	***3.260***
2021-08-01 2:00	3228302	8.227	-103.400	22.918	767.925	799.729	0.396	15.325	22.918	***3.617***
2021-08-01 2:15	3229202	8.225	-103.269	22.837	765.772	798.771	0.395	35.178	22.837	***3.667***
2021-08-01 2:30	3230102	8.235	-103.781	22.759	763.199	797.330	0.395	14.021	22.759	***3.273***
2021-08-01 2:45	3231002	8.230	-103.464	22.688	763.179	798.436	0.395	14.782	22.688	***3.357***
2021-08-01 3:00	3231902	8.225	-103.192	22.609	762.218	798.692	0.395	21.390	22.609	***3.493***
2021-08-01 3:15	3232802	8.220	-102.873	22.552	760.499	797.804	0.395	14.456	22.552	***3.281***
2021-08-01 3:30	3233702	8.223	-102.994	22.496	760.311	798.493	0.395	23.514	22.496	***3.562***
2021-08-01 3:45	3234602	8.225	-103.128	22.433	759.216	798.355	0.395	13.536	22.433	***3.780***
2021-08-01 4:00	3235502	8.223	-102.963	22.372	756.607	796.591	0.394	13.167	22.372	***3.497***
2021-08-01 4:15	3236402	8.222	-102.894	22.326	755.062	795.705	0.394	13.401	22.326	***3.770***
2021-08-01 4:30	3237302	8.217	-102.582	22.272	756.595	798.182	0.395	13.153	22.272	***3.586***
2021-08-01 4:45	3238202	8.217	-102.592	22.224	756.766	799.141	0.396	13.689	22.224	***3.570***
2021-08-01 5:00	3239102	8.218	-102.575	22.173	756.436	799.616	0.396	13.330	22.173	***3.497***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-01 5:15	3240002	8.216	-102.496	22.119	754.427	798.354	0.395	13.638	22.119	***3.415***
2021-08-01 5:30	3240902	8.213	-102.258	22.072	754.569	799.274	0.396	13.859	22.072	***3.415***
2021-08-01 5:45	3241802	8.204	-101.750	22.013	753.796	799.402	0.396	16.565	22.013	***3.290***
2021-08-01 6:00	3242702	8.196	-101.209	21.946	753.222	799.878	0.396	22.811	21.946	***3.215***
2021-08-01 6:15	3243602	8.186	-100.641	21.869	751.502	799.302	0.396	15.939	21.869	***3.139***
2021-08-01 6:30	3244502	8.173	-99.826	21.792	750.548	799.540	0.396	15.196	21.792	***3.011***
2021-08-01 6:45	3245402	8.164	-99.316	21.727	750.444	800.481	0.396	21.569	21.727	***3.082***
2021-08-01 7:00	3246302	8.153	-98.636	21.685	749.175	799.812	0.396	23.634	21.685	***2.910***
2021-08-01 7:15	3247202	8.148	-98.338	21.637	748.547	799.936	0.396	25.860	21.637	***2.787***
2021-08-01 7:30	3248102	8.140	-97.852	21.613	747.995	799.733	0.396	21.966	21.613	***2.611***
2021-08-01 7:45	3249002	8.134	-97.487	21.594	747.117	799.104	0.396	16.842	21.594	***2.577***
2021-08-01 8:00	3249902	8.132	-97.392	21.583	747.295	799.467	0.396	15.249	21.583	***2.883***
2021-08-01 8:15	3250802	8.130	-97.229	21.567	746.974	799.385	0.396	14.552	21.567	***3.058***
2021-08-01 8:30	3251702	8.131	-97.270	21.546	746.529	799.255	0.396	15.102	21.546	***3.027***
2021-08-01 8:45	3252602	8.133	-97.406	21.539	745.306	798.059	0.395	15.173	21.539	***2.888***
2021-08-01 9:00	3253502	8.136	-97.575	21.529	745.517	798.448	0.395	14.817	21.529	***2.750***
2021-08-01 9:15	3254402	8.142	-97.933	21.526	744.850	797.779	0.395	15.611	21.526	***2.705***
2021-08-01 9:30	3255302	8.145	-98.093	21.524	744.830	797.791	0.395	15.556	21.524	***2.798***
2021-08-01 9:45	3256202	8.147	-98.248	21.530	744.748	797.609	0.395	15.410	21.530	***2.374***
2021-08-01 10:00	3257102	8.145	-98.124	21.541	744.884	797.583	0.395	15.565	21.541	***2.080***
2021-08-01 10:15	3258002	8.147	-98.238	21.554	744.766	797.242	0.395	15.354	21.554	***2.237***
2021-08-01 10:30	3258902	8.146	-98.169	21.578	745.071	797.177	0.395	14.238	21.578	***1.907***
2021-08-01 10:45	3259802	8.138	-97.744	21.614	745.670	797.236	0.395	15.517	21.614	***2.598***
2021-08-01 11:00	3260702	8.127	-97.082	21.649	746.378	797.418	0.395	14.296	21.649	***2.668***
2021-08-01 11:15	3261602	8.117	-96.538	21.688	746.962	797.406	0.395	14.798	21.688	***2.656***
2021-08-01 11:30	3262502	8.108	-95.994	21.716	747.708	797.745	0.395	14.003	21.716	***2.565***
2021-08-01 11:45	3263402	8.097	-95.358	21.739	748.445	798.150	0.395	15.492	21.739	***2.186***
2021-08-01 12:00	3264302	8.079	-94.314	21.750	748.972	798.546	0.395	16.058	21.750	***2.244***
2021-08-01 12:15	3265202	8.099	-95.489	21.751	749.460	799.048	0.396	29.592	21.751	***2.131***
2021-08-01 12:30	3266102	8.117	-96.569	21.746	749.924	799.626	0.396	29.840	21.746	***1.840***
2021-08-01 12:45	3267002	8.140	-97.914	21.739	750.186	800.015	0.396	29.927	21.739	***2.414***
2021-08-01 13:00	3267902	8.153	-98.643	21.731	750.109	800.062	0.396	29.301	21.731	***3.344***
2021-08-01 13:15	3268802	8.164	-99.261	21.727	749.948	799.949	0.396	29.695	21.727	***3.472***
2021-08-01 13:30	3269702	8.172	-99.733	21.732	749.690	799.605	0.396	32.462	21.732	***3.092***
2021-08-01 13:45	3270602	8.177	-100.050	21.726	749.901	799.916	0.396	27.706	21.726	***3.142***
2021-08-01 14:00	3271502	8.183	-100.427	21.727	750.095	800.111	0.396	39.746	21.727	***3.291***
2021-08-01 14:15	3272402	8.188	-100.667	21.733	750.007	799.922	0.396	40.669	21.733	***3.188***
2021-08-01 14:30	3273302	8.191	-100.877	21.738	750.511	800.378	0.396	40.887	21.738	***3.405***
2021-08-01 14:45	3274202	8.185	-100.544	21.740	750.833	800.687	0.396	39.287	21.740	***3.475***
2021-08-01 15:00	3275102	8.181	-100.262	21.746	750.755	800.500	0.396	38.111	21.746	***3.157***
2021-08-01 15:15	3276002	8.183	-100.400	21.752	750.717	800.372	0.396	37.523	21.752	***2.896***
2021-08-01 15:30	3276902	8.185	-100.510	21.762	751.238	800.765	0.396	39.358	21.762	***3.205***
2021-08-01 15:45	3277802	8.180	-100.217	21.770	751.045	800.431	0.396	38.709	21.770	***3.541***
2021-08-01 16:00	3278702	8.193	-100.977	21.779	751.647	800.927	0.397	39.822	21.779	***3.770***
2021-08-01 16:15	3279602	8.199	-101.371	21.794	751.711	800.744	0.396	39.736	21.794	***3.537***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-01 16:30	3280502	8.184	-100.513	21.802	751.050	799.915	0.396	39.594	21.802	***3.157***
2021-08-01 16:45	3281402	8.173	-99.838	21.817	752.270	800.972	0.397	42.076	21.817	***3.072***
2021-08-01 17:00	3282302	8.162	-99.192	21.834	752.335	800.762	0.396	37.750	21.834	***3.368***
2021-08-01 17:15	3283202	8.144	-98.155	21.856	751.731	799.753	0.396	38.654	21.856	***3.488***
2021-08-01 17:30	3284102	8.130	-97.363	21.878	753.926	801.734	0.397	38.938	21.878	***3.246***
2021-08-01 17:45	3285002	8.122	-96.884	21.896	754.559	802.106	0.397	38.978	21.896	***2.858***
2021-08-01 18:00	3285902	8.121	-96.843	21.901	754.572	802.051	0.397	40.253	21.901	***2.821***
2021-08-01 18:15	3286802	8.128	-97.232	21.903	754.200	801.610	0.397	37.921	21.903	***2.549***
2021-08-01 18:30	3287702	8.135	-97.666	21.900	754.909	802.417	0.397	45.501	21.900	***2.905***
2021-08-01 18:45	3288602	8.157	-98.927	21.892	753.914	801.497	0.397	48.466	21.892	***3.423***
2021-08-01 19:00	3289502	8.179	-100.198	21.875	753.702	801.545	0.397	50.292	21.875	***3.104***
2021-08-01 19:15	3290402	8.188	-100.737	21.857	753.023	801.118	0.397	51.839	21.857	***3.392***
2021-08-01 19:30	3291302	8.209	-101.933	21.835	752.304	800.708	0.396	53.479	21.835	***3.496***
2021-08-01 19:45	3292202	8.220	-102.594	21.804	751.790	800.667	0.396	53.291	21.804	***3.908***
2021-08-01 20:00	3293102	8.230	-103.142	21.769	751.231	800.647	0.396	53.072	21.769	***3.575***
2021-08-01 20:15	3294002	8.231	-103.238	21.734	749.577	799.452	0.396	52.518	21.734	***3.738***
2021-08-01 20:30	3294902	8.229	-103.095	21.700	748.388	798.730	0.395	49.688	21.700	***3.556***
2021-08-01 20:45	3295802	8.233	-103.331	21.671	748.420	799.239	0.396	49.615	21.671	***3.426***
2021-08-01 21:00	3296702	8.232	-103.219	21.619	749.314	801.040	0.397	50.074	21.619	***3.501***
2021-08-01 21:15	3297602	8.204	-101.602	21.568	748.361	800.855	0.396	51.101	21.568	***3.349***
2021-08-01 21:30	3298502	8.191	-100.820	21.549	747.294	800.025	0.396	50.797	21.549	***3.297***
2021-08-01 21:45	3299402	8.192	-100.882	21.533	750.005	803.188	0.398	50.034	21.533	***3.146***
2021-08-01 22:00	3300302	8.194	-100.977	21.512	749.844	803.357	0.398	15.189	21.512	***3.174***
2021-08-01 22:15	3301202	8.199	-101.233	21.485	749.725	803.678	0.398	14.480	21.485	***3.420***
2021-08-01 22:30	3302102	8.205	-101.616	21.458	751.341	805.860	0.399	14.240	21.458	***2.801***
2021-08-01 22:45	3303002	8.203	-101.461	21.425	749.663	804.597	0.398	15.760	21.425	***2.765***
2021-08-01 23:00	3303902	8.208	-101.745	21.384	749.804	805.434	0.399	15.508	21.384	***2.571***
2021-08-01 23:15	3304802	8.204	-101.523	21.354	749.450	805.546	0.399	13.692	21.354	***3.147***
2021-08-01 23:30	3305702	8.203	-101.442	21.325	748.473	804.974	0.399	14.660	21.325	***3.101***
2021-08-01 23:45	3306602	8.200	-101.275	21.294	748.112	805.100	0.399	15.911	21.294	***3.077***
2021-08-02 0:00	3307502	8.191	-100.725	21.270	748.299	805.695	0.399	15.588	21.270	***2.958***
2021-08-02 0:15	3308402	8.191	-100.698	21.227	746.878	804.884	0.399	16.436	21.227	***2.972***
2021-08-02 0:30	3309302	8.179	-100.007	21.193	747.334	805.939	0.399	16.664	21.193	***3.288***
2021-08-02 0:45	3310202	8.171	-99.487	21.180	746.757	805.536	0.399	16.772	21.180	***2.970***
2021-08-02 1:00	3311102	8.161	-98.906	21.155	747.210	806.432	0.399	17.675	21.155	***2.652***
2021-08-02 1:15	3312002	8.162	-98.965	21.133	746.691	806.242	0.399	17.790	21.133	***2.932***
2021-08-02 1:30	3312902	8.152	-98.372	21.104	746.512	806.521	0.399	16.955	21.104	***2.972***
2021-08-02 1:45	3313802	8.143	-97.840	21.087	746.327	806.607	0.399	16.747	21.087	***2.925***
2021-08-02 2:00	3314702	8.147	-98.059	21.063	745.378	805.978	0.399	16.781	21.063	***2.766***
2021-08-02 2:15	3315602	8.147	-98.057	21.042	745.738	806.719	0.399	16.857	21.042	***2.801***
2021-08-02 2:30	3316502	8.144	-97.897	21.021	745.132	806.422	0.399	19.573	21.021	***2.906***
2021-08-02 2:45	3317402	8.142	-97.785	21.003	745.366	806.968	0.400	16.682	21.003	***2.775***
2021-08-02 3:00	3318302	8.143	-97.787	20.974	743.744	805.705	0.399	16.545	20.974	***2.825***
2021-08-02 3:15	3319202	8.142	-97.735	20.950	742.959	805.250	0.399	16.824	20.950	***2.831***
2021-08-02 3:30	3320102	8.143	-97.799	20.925	743.209	805.943	0.399	16.945	20.925	***2.820***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-02 3:45	3321002	8.144	-97.857	20.899	742.865	806.002	0.399	16.615	20.899	***2.663***
2021-08-02 4:00	3321902	8.138	-97.499	20.881	743.011	806.451	0.399	16.846	20.881	***2.390***
2021-08-02 4:15	3322802	8.141	-97.661	20.850	741.759	805.621	0.399	18.233	20.850	***2.717***
2021-08-02 4:30	3323702	8.135	-97.306	20.830	742.596	806.867	0.399	17.509	20.830	***2.664***
2021-08-02 4:45	3324602	8.131	-97.029	20.807	742.345	806.973	0.400	18.055	20.807	***2.616***
2021-08-02 5:00	3325503	8.127	-96.834	20.776	742.161	807.289	0.400	20.873	20.776	***2.794***
2021-08-02 5:15	3326403	8.118	-96.309	20.759	741.123	806.442	0.399	20.127	20.759	***2.691***
2021-08-02 5:30	3327303	8.112	-95.925	20.742	740.541	806.094	0.399	20.963	20.742	***2.739***
2021-08-02 5:45	3328203	8.115	-96.064	20.719	739.997	805.889	0.399	20.639	20.719	***2.615***
2021-08-02 6:00	3329103	8.113	-95.944	20.703	740.299	806.483	0.399	20.964	20.703	***2.351***
2021-08-02 6:15	3330003	8.112	-95.894	20.685	739.946	806.412	0.399	21.460	20.685	***2.269***
2021-08-02 6:30	3330903	8.114	-96.030	20.651	739.018	805.962	0.399	21.232	20.651	***2.382***
2021-08-02 6:45	3331803	8.116	-96.128	20.627	739.594	806.993	0.400	21.198	20.627	***2.169***
2021-08-02 7:00	3332703	8.114	-96.002	20.603	738.271	805.951	0.399	21.436	20.603	***2.180***
2021-08-02 7:15	3333603	8.115	-96.028	20.584	737.833	805.796	0.399	21.620	20.584	***2.300***
2021-08-02 7:30	3334503	8.110	-95.727	20.566	738.751	807.105	0.400	21.087	20.566	***2.252***
2021-08-02 7:45	3335403	8.112	-95.868	20.546	737.608	806.185	0.399	20.635	20.546	***2.132***
2021-08-02 8:00	3336303	8.105	-95.465	20.538	737.349	806.049	0.399	20.348	20.538	***2.188***
2021-08-02 8:15	3337203	8.102	-95.277	20.523	737.205	806.131	0.399	20.110	20.523	***2.302***
2021-08-02 8:30	3338103	8.100	-95.139	20.508	737.370	806.566	0.399	20.695	20.508	***2.246***
2021-08-02 8:45	3339003	8.104	-95.391	20.499	735.455	804.627	0.398	22.448	20.499	***2.210***
2021-08-02 9:00	3339903	8.103	-95.332	20.479	735.473	804.986	0.398	25.409	20.479	***2.169***
2021-08-02 9:15	3340803	8.100	-95.112	20.455	734.880	804.734	0.398	24.759	20.455	***2.159***
2021-08-02 9:30	3341703	8.092	-94.669	20.440	736.169	806.406	0.399	22.714	20.440	***2.033***
2021-08-02 9:45	3342603	8.080	-93.939	20.428	734.575	804.862	0.398	22.837	20.428	***1.936***
2021-08-02 10:00	3343503	8.070	-93.384	20.422	733.804	804.113	0.398	23.157	20.422	***1.794***
2021-08-02 10:15	3344403	8.065	-93.093	20.417	734.436	804.887	0.398	22.842	20.417	***1.773***
2021-08-02 10:30	3345303	8.065	-93.091	20.418	734.214	804.639	0.398	21.294	20.418	***1.578***
2021-08-02 10:45	3346203	8.066	-93.126	20.426	733.962	804.230	0.398	20.389	20.426	***1.343***
2021-08-02 11:00	3347103	8.064	-93.007	20.436	734.017	804.115	0.398	20.545	20.436	***1.601***
2021-08-02 11:15	3348003	8.055	-92.487	20.447	735.076	805.084	0.399	20.803	20.447	***1.683***
2021-08-02 11:30	3348903	8.049	-92.168	20.458	734.823	804.622	0.398	20.206	20.458	***1.569***
2021-08-02 11:45	3349803	8.045	-91.939	20.473	735.579	805.194	0.399	20.666	20.473	***1.330***
2021-08-02 12:00	3350703	8.034	-91.305	20.491	735.631	804.957	0.398	20.980	20.491	***1.120***
2021-08-02 12:15	3351603	8.018	-90.346	20.506	736.236	805.358	0.399	19.895	20.506	***0.818***
2021-08-02 12:30	3352503	8.001	-89.359	20.524	736.738	805.606	0.399	20.238	20.524	***0.886***
2021-08-02 12:45	3353403	7.992	-88.861	20.544	736.670	805.194	0.399	24.877	20.544	***0.689***
2021-08-02 13:00	3354303	7.982	-88.263	20.562	736.852	805.104	0.399	19.540	20.562	***0.682***
2021-08-02 13:15	3355203	7.972	-87.709	20.580	737.582	805.600	0.399	19.390	20.580	***0.567***
2021-08-02 13:30	3356103	7.962	-87.109	20.601	738.162	805.876	0.399	20.031	20.601	***0.337***
2021-08-02 13:45	3357003	7.967	-87.407	20.625	738.686	806.041	0.399	20.641	20.625	***0.088***
2021-08-02 14:00	3357903	7.965	-87.340	20.642	738.520	805.581	0.399	22.003	20.642	***0.000***
2021-08-02 14:15	3358803	7.971	-87.688	20.674	739.478	806.088	0.399	22.360	20.674	***0.344***
2021-08-02 14:30	3359703	7.967	-87.438	20.684	739.823	806.293	0.399	22.416	20.684	***0.277***
2021-08-02 14:45	3360603	7.965	-87.347	20.702	739.755	805.909	0.399	21.422	20.702	***0.619***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-02 15:00	3361503	7.956	-86.839	20.720	739.919	805.797	0.399	21.364	20.720	***1.008***
2021-08-02 15:15	3362403	7.948	-86.377	20.735	740.554	806.235	0.399	21.175	20.735	***1.045***
2021-08-02 15:30	3363303	7.939	-85.835	20.751	741.177	806.641	0.399	20.279	20.751	***0.816***
2021-08-02 15:45	3364203	7.931	-85.392	20.770	740.677	805.779	0.399	20.299	20.770	***0.936***
2021-08-02 16:00	3365103	7.921	-84.801	20.794	741.077	805.814	0.399	20.977	20.794	***0.894***
2021-08-02 16:15	3366003	7.906	-83.914	20.819	741.690	806.066	0.399	20.909	20.819	***0.877***
2021-08-02 16:30	3366903	7.895	-83.296	20.846	742.446	806.438	0.399	20.272	20.846	***0.771***
2021-08-02 16:45	3367803	7.902	-83.694	20.852	742.993	806.923	0.400	21.663	20.852	***0.842***
2021-08-02 17:00	3368703	7.911	-84.248	20.860	742.751	806.523	0.399	21.878	20.860	***1.593***
2021-08-02 17:15	3369603	7.917	-84.610	20.879	743.405	806.917	0.400	20.880	20.879	***1.881***
2021-08-02 17:30	3370503	7.914	-84.450	20.908	744.165	807.261	0.400	20.720	20.908	***1.787***
2021-08-02 17:45	3371403	7.906	-83.973	20.940	744.775	807.380	0.400	20.643	20.940	***1.631***
2021-08-02 18:00	3372303	7.901	-83.661	20.963	745.510	807.800	0.400	20.074	20.963	***1.181***
2021-08-02 18:15	3373203	7.885	-82.767	21.004	746.397	808.071	0.400	20.940	21.004	***1.103***
2021-08-02 18:30	3374103	7.865	-81.625	21.060	747.815	808.677	0.400	20.646	21.060	***0.777***
2021-08-02 18:45	3375003	7.853	-80.903	21.110	748.711	808.812	0.401	20.967	21.110	***0.265***
2021-08-02 19:00	3375903	7.842	-80.318	21.143	748.467	807.985	0.400	20.504	21.143	***0.000***
2021-08-02 19:15	3376803	7.832	-79.679	21.150	749.175	808.645	0.400	20.179	21.150	***0.000***
2021-08-02 19:30	3377703	7.842	-80.268	21.139	749.112	808.760	0.400	19.807	21.139	***0.262***
2021-08-02 19:45	3378603	7.853	-80.905	21.143	748.794	808.335	0.400	19.402	21.143	***0.843***
2021-08-02 20:00	3379503	7.853	-80.948	21.174	750.431	809.596	0.401	20.722	21.174	***0.890***
2021-08-02 20:15	3380403	7.847	-80.612	21.245	750.989	809.014	0.401	20.517	21.245	***0.197***
2021-08-02 20:30	3381303	7.825	-79.336	21.343	751.821	808.278	0.400	20.858	21.343	***0.000***
2021-08-02 20:45	3382203	7.810	-78.516	21.390	752.471	808.189	0.400	20.631	21.390	***0.000***
2021-08-02 21:00	3383103	7.805	-78.177	21.424	753.195	808.402	0.400	20.395	21.424	***0.256***
2021-08-02 21:15	3384003	7.799	-77.834	21.428	753.339	808.504	0.400	20.266	21.428	***0.000***
2021-08-02 21:30	3384903	7.806	-78.232	21.408	752.751	808.203	0.400	20.329	21.408	***0.136***
2021-08-02 21:45	3385803	7.794	-77.548	21.400	751.313	806.790	0.399	30.286	21.400	***0.645***
2021-08-02 22:00	3386703	7.807	-78.342	21.396	751.638	807.197	0.400	17.395	21.396	***0.778***
2021-08-02 22:15	3387603	7.896	-83.504	21.367	750.623	806.590	0.399	19.301	21.367	***0.587***
2021-08-02 22:30	3388503	8.037	-91.705	21.322	751.460	808.244	0.400	20.619	21.322	***3.026***
2021-08-02 22:45	3389403	8.118	-96.450	21.272	749.349	806.799	0.399	20.130	21.272	***3.647***
2021-08-02 23:00	3390303	8.163	-99.056	21.200	747.588	806.086	0.399	20.321	21.200	***3.291***
2021-08-02 23:15	3391203	8.198	-101.070	21.138	746.848	806.322	0.399	19.868	21.138	***3.464***
2021-08-02 23:30	3392103	8.221	-102.386	21.093	746.585	806.787	0.399	19.152	21.093	***3.977***
2021-08-02 23:45	3393003	8.235	-103.221	21.043	745.054	805.970	0.399	19.479	21.043	***3.839***
2021-08-03 0:00	3393903	8.239	-103.438	20.988	744.453	806.241	0.399	20.800	20.988	***3.915***
2021-08-03 0:15	3394803	8.243	-103.617	20.941	743.600	806.100	0.399	20.534	20.941	***3.754***
2021-08-03 0:30	3395703	8.241	-103.502	20.883	743.467	806.923	0.400	17.565	20.883	***3.558***
2021-08-03 0:45	3396603	8.236	-103.197	20.820	742.198	806.595	0.399	22.205	20.820	***3.389***
2021-08-03 1:00	3397503	8.232	-102.954	20.765	740.979	806.195	0.399	23.483	20.765	***3.372***
2021-08-03 1:15	3398403	8.232	-102.899	20.709	741.120	807.276	0.400	22.584	20.709	***3.404***
2021-08-03 1:30	3399303	8.226	-102.525	20.656	739.160	806.038	0.399	22.274	20.656	***3.335***
2021-08-03 1:45	3400203	8.216	-101.957	20.606	740.071	807.873	0.400	21.927	20.606	***3.334***
2021-08-03 2:00	3401103	8.210	-101.604	20.559	739.548	808.090	0.400	23.437	20.559	***3.292***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-03 2:15	3402003	8.206	-101.302	20.506	738.789	808.162	0.400	25.250	20.506	***3.274***
2021-08-03 2:30	3402903	8.198	-100.861	20.448	737.778	808.023	0.400	30.124	20.448	***3.306***
2021-08-03 2:45	3403803	8.189	-100.315	20.405	736.245	807.078	0.400	32.374	20.405	***3.214***
2021-08-03 3:00	3404703	8.185	-100.031	20.358	736.567	808.230	0.400	31.828	20.358	***2.802***
2021-08-03 3:15	3405603	8.179	-99.683	20.309	736.457	808.941	0.400	31.999	20.309	***3.083***
2021-08-03 3:30	3406503	8.171	-99.187	20.261	734.395	807.481	0.400	32.320	20.261	***2.974***
2021-08-03 3:45	3407403	8.168	-98.987	20.213	734.620	808.540	0.400	31.769	20.213	***2.939***
2021-08-03 4:00	3408303	8.160	-98.505	20.175	733.495	807.955	0.400	31.244	20.175	***2.877***
2021-08-03 4:15	3409203	8.154	-98.152	20.148	734.043	809.015	0.401	30.924	20.148	***2.757***
2021-08-03 4:30	3410103	8.151	-97.969	20.109	732.205	807.660	0.400	30.435	20.109	***2.925***
2021-08-03 4:45	3411003	8.144	-97.563	20.071	732.464	808.579	0.400	30.546	20.071	***2.371***
2021-08-03 5:00	3411903	8.142	-97.420	20.043	732.883	809.535	0.401	31.939	20.043	***2.436***
2021-08-03 5:15	3412803	8.135	-97.017	20.005	732.301	809.527	0.401	31.054	20.005	***2.392***
2021-08-03 5:30	3413703	8.132	-96.815	19.972	731.912	809.671	0.401	31.858	19.972	***2.147***
2021-08-03 5:45	3414603	8.128	-96.569	19.937	731.005	809.259	0.401	31.226	19.937	***2.448***
2021-08-03 6:00	3415503	8.127	-96.495	19.902	730.310	809.095	0.401	30.240	19.902	***2.632***
2021-08-03 6:15	3416403	8.129	-96.636	19.869	729.997	809.307	0.401	28.928	19.869	***2.561***
2021-08-03 6:30	3417303	8.127	-96.498	19.834	729.719	809.611	0.401	29.532	19.834	***2.627***
2021-08-03 6:45	3418203	8.118	-95.959	19.797	728.809	809.236	0.401	29.270	19.797	***2.363***
2021-08-03 7:00	3419103	8.109	-95.425	19.759	728.331	809.349	0.401	32.487	19.759	***2.274***
2021-08-03 7:15	3420003	8.097	-94.733	19.725	728.222	809.815	0.401	33.088	19.725	***2.382***
2021-08-03 7:30	3420903	8.086	-94.061	19.703	727.689	809.599	0.401	33.807	19.703	***2.256***
2021-08-03 7:45	3421803	8.073	-93.327	19.681	728.550	810.937	0.401	35.094	19.681	***1.974***
2021-08-03 8:00	3422703	8.063	-92.723	19.654	727.192	809.896	0.401	36.178	19.654	***1.960***
2021-08-03 8:15	3423603	8.056	-92.316	19.643	727.478	810.402	0.401	34.072	19.643	***1.572***
2021-08-03 8:30	3424503	8.054	-92.185	19.633	726.280	809.232	0.401	32.687	19.633	***1.745***
2021-08-03 8:45	3425403	8.053	-92.151	19.628	727.555	810.749	0.401	32.856	19.628	***2.035***
2021-08-03 9:00	3426303	8.045	-91.639	19.615	727.044	810.398	0.401	30.695	19.615	***2.118***
2021-08-03 9:15	3427203	8.035	-91.097	19.613	726.955	810.327	0.401	32.693	19.613	***2.000***
2021-08-03 9:30	3428103	8.030	-90.811	19.631	727.039	810.120	0.401	30.774	19.631	***2.040***
2021-08-03 9:45	3429003	8.028	-90.721	19.662	726.705	809.213	0.401	30.723	19.662	***1.938***
2021-08-03 10:00	3429903	8.023	-90.437	19.701	727.985	809.968	0.401	35.379	19.701	***1.733***
2021-08-03 10:15	3430803	8.012	-89.800	19.774	729.758	810.681	0.401	36.142	19.774	***1.257***
2021-08-03 10:30	3431703	7.990	-88.522	19.873	731.081	810.447	0.401	34.666	19.873	***2.084***
2021-08-03 10:45	3432603	7.966	-87.192	19.981	731.813	809.412	0.401	33.183	19.981	***2.443***
2021-08-03 11:00	3433503	7.955	-86.570	20.085	732.785	808.702	0.400	32.703	20.085	***2.227***
2021-08-03 11:15	3434403	7.971	-87.538	20.179	734.267	808.742	0.400	35.877	20.179	***2.234***
2021-08-03 11:30	3435303	8.004	-89.426	20.138	733.980	809.120	0.401	35.724	20.138	***2.734***
2021-08-03 11:45	3436203	8.012	-89.900	20.155	733.797	808.620	0.400	34.965	20.155	***2.391***
2021-08-03 12:00	3437103	8.008	-89.667	20.192	733.919	808.130	0.400	34.945	20.192	***2.440***
2021-08-03 12:15	3438003	7.998	-89.128	20.280	735.274	808.128	0.400	44.236	20.280	***2.425***
2021-08-03 12:30	3438903	7.998	-89.128	20.346	736.366	808.212	0.400	41.562	20.346	***2.504***
2021-08-03 12:45	3439803	7.994	-88.935	20.396	736.843	807.880	0.400	79.218	20.396	***2.368***
2021-08-03 13:00	3440703	8.000	-89.293	20.426	737.093	807.651	0.400	32.808	20.426	***2.101***
2021-08-03 13:15	3441603	8.013	-90.036	20.460	736.954	806.931	0.399	163.185	20.460	***2.703***

TABLE C2

Downstream Water Quality Sonde Data

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Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-03 13:30	3442503	8.013	-90.072	20.506	737.436	806.677	0.399	27.589	20.506	***2.673***
2021-08-03 13:45	3443403	8.007	-89.769	20.556	737.770	806.197	0.399	28.521	20.556	***2.801***
2021-08-03 14:00	3444303	8.001	-89.421	20.627	738.966	806.314	0.399	30.771	20.627	***2.931***
2021-08-03 14:15	3445203	8.001	-89.426	20.706	739.944	806.050	0.399	30.485	20.706	***3.061***
2021-08-03 14:30	3446103	7.997	-89.223	20.834	741.425	805.519	0.399	21.554	20.834	***3.245***
2021-08-03 14:45	3447003	7.980	-88.291	21.024	743.368	804.461	0.398	20.022	21.024	***3.360***
2021-08-03 15:00	3447903	7.959	-87.175	21.260	746.224	803.630	0.398	20.586	21.260	***3.477***
2021-08-03 15:15	3448803	7.946	-86.460	21.479	749.785	803.845	0.398	20.859	21.479	***3.559***
2021-08-03 15:30	3449703	7.943	-86.310	21.589	750.858	803.193	0.398	20.372	21.589	***3.492***
2021-08-03 15:45	3450603	7.943	-86.341	21.648	751.565	802.973	0.398	32.929	21.648	***3.204***
2021-08-03 16:00	3451503	7.946	-86.491	21.679	751.732	802.646	0.397	23.253	21.679	***3.510***
2021-08-03 16:15	3452403	7.992	-89.207	21.573	750.389	802.951	0.398	22.624	21.573	***3.905***
2021-08-03 16:30	3453303	8.028	-91.286	21.493	749.137	802.928	0.398	23.420	21.493	***4.617***
2021-08-03 16:45	3454203	8.046	-92.292	21.490	748.906	802.716	0.397	23.716	21.490	***4.830***
2021-08-03 17:00	3455103	8.017	-90.673	21.620	750.695	802.497	0.397	23.373	21.620	***4.667***
2021-08-03 17:15	3456003	7.990	-89.083	21.737	752.801	802.844	0.397	22.593	21.737	***4.264***
2021-08-03 17:30	3456903	7.969	-87.888	21.837	753.747	802.209	0.397	24.268	21.837	***4.414***
2021-08-03 17:45	3457803	7.954	-87.104	22.001	755.312	801.203	0.397	33.235	22.001	***4.587***
2021-08-03 18:00	3458703	7.951	-86.970	22.233	758.280	800.594	0.396	33.602	22.233	***4.542***
2021-08-03 18:15	3459603	7.943	-86.586	22.510	762.620	800.696	0.396	40.271	22.510	***4.764***
2021-08-03 18:30	3460503	7.950	-87.001	22.595	763.205	799.956	0.396	40.449	22.595	***4.815***
2021-08-03 18:45	3461403	7.949	-87.004	22.653	764.423	800.301	0.396	39.880	22.653	***4.747***
2021-08-03 19:00	3462303	7.952	-87.147	22.709	765.240	800.261	0.396	41.943	22.709	***4.626***
2021-08-03 19:15	3463203	7.954	-87.316	22.802	766.872	800.470	0.396	41.593	22.802	***5.063***
2021-08-03 19:30	3464103	7.963	-87.864	22.822	767.856	801.188	0.397	39.666	22.822	***4.887***
2021-08-03 19:45	3465003	8.001	-90.046	22.710	766.330	801.386	0.397	39.352	22.710	***4.780***
2021-08-03 20:00	3465903	8.039	-92.239	22.541	763.591	801.229	0.397	39.659	22.541	***5.332***
2021-08-03 20:15	3466803	8.054	-93.067	22.470	761.797	800.474	0.396	39.303	22.470	***5.513***
2021-08-03 20:30	3467703	8.047	-92.695	22.497	762.188	800.463	0.396	39.868	22.497	***5.374***
2021-08-03 20:45	3468603	8.026	-91.500	22.589	764.131	801.026	0.397	41.277	22.589	***4.863***
2021-08-03 21:00	3469503	8.002	-90.122	22.728	766.664	801.439	0.397	39.815	22.728	***5.003***
2021-08-03 21:15	3470403	8.002	-90.156	22.804	767.389	800.981	0.397	42.797	22.804	***5.092***
2021-08-03 21:30	3471303	8.007	-90.458	22.860	767.988	800.709	0.396	42.103	22.860	***4.573***
2021-08-03 21:45	3472203	8.005	-90.313	22.880	769.467	801.945	0.397	39.987	22.880	***4.658***
2021-08-03 22:00	3473103	8.015	-90.897	22.880	769.585	802.064	0.397	33.604	22.880	***3.855***
2021-08-03 22:15	3474003	8.012	-90.733	22.866	770.648	803.400	0.398	31.119	22.866	***3.630***
2021-08-03 22:30	3474903	8.015	-90.885	22.825	770.732	804.134	0.398	30.158	22.825	***4.031***
2021-08-03 22:45	3475803	8.021	-91.224	22.787	771.482	805.536	0.399	27.813	22.787	***3.862***
2021-08-03 23:00	3476703	8.032	-91.898	22.743	772.016	806.801	0.400	27.923	22.743	***3.091***
2021-08-03 23:15	3477603	8.060	-93.505	22.669	772.812	808.817	0.401	34.357	22.669	***3.171***
2021-08-03 23:30	3478503	8.085	-94.950	22.563	773.103	810.850	0.402	32.025	22.563	***3.188***
2021-08-03 23:45	3479403	8.099	-95.732	22.437	772.560	812.324	0.402	35.054	22.437	***3.427***
2021-08-04 0:00	3480303	8.095	-95.460	22.319	771.708	813.358	0.403	36.534	22.319	***3.179***
2021-08-04 0:15	3481203	8.083	-94.702	22.202	770.506	814.004	0.403	36.885	22.202	***2.735***
2021-08-04 0:30	3482103	8.071	-93.958	22.081	769.112	814.524	0.404	42.091	22.081	***2.737***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-04 0:45	3483003	8.059	-93.234	21.975	768.326	815.445	0.404	38.039	21.975	***2.581***
2021-08-04 1:00	3483903	8.049	-92.580	21.880	765.827	814.350	0.403	37.540	21.880	***2.391***
2021-08-04 1:15	3484803	8.040	-92.075	21.781	764.636	814.730	0.404	38.489	21.781	***1.922***
2021-08-04 1:30	3485703	8.030	-91.412	21.684	764.546	816.239	0.404	41.827	21.684	***2.093***
2021-08-04 1:45	3486603	8.011	-90.272	21.581	763.011	816.311	0.404	46.377	21.581	***1.700***
2021-08-04 2:00	3487503	7.998	-89.517	21.473	761.194	816.172	0.404	47.125	21.473	***1.550***
2021-08-04 2:15	3488403	7.989	-88.923	21.362	758.051	814.652	0.404	45.230	21.362	***1.645***
2021-08-04 2:30	3489303	7.983	-88.575	21.272	756.604	814.611	0.404	40.256	21.272	***1.708***
2021-08-04 2:45	3490203	7.978	-88.232	21.181	755.853	815.321	0.404	39.991	21.181	***1.751***
2021-08-04 3:00	3491103	7.975	-88.015	21.100	754.374	815.091	0.404	30.310	21.100	***1.743***
2021-08-04 3:15	3492003	7.967	-87.578	21.035	752.352	813.991	0.403	20.925	21.035	***1.528***
2021-08-04 3:30	3492903	7.960	-87.135	20.976	751.552	814.126	0.403	21.743	20.976	***1.387***
2021-08-04 3:45	3493803	7.971	-87.733	20.920	751.122	814.603	0.403	16.640	20.920	***1.989***
2021-08-04 4:00	3494703	7.991	-88.873	20.848	749.505	814.054	0.403	18.164	20.848	***2.674***
2021-08-04 4:15	3495603	7.995	-89.128	20.758	747.680	813.600	0.403	18.046	20.758	***2.814***
2021-08-04 4:30	3496503	7.987	-88.613	20.725	745.982	812.308	0.402	17.976	20.725	***2.512***
2021-08-04 4:45	3497403	7.993	-88.959	20.662	745.131	812.447	0.402	17.531	20.662	***2.898***
2021-08-04 5:00	3498303	8.002	-89.495	20.599	743.538	811.770	0.402	17.019	20.599	***2.965***
2021-08-04 5:15	3499203	8.019	-90.449	20.524	741.181	810.464	0.401	17.352	20.524	***2.918***
2021-08-04 5:30	3500103	8.019	-90.432	20.459	739.364	809.587	0.401	17.860	20.459	***2.996***
2021-08-04 5:45	3501003	8.024	-90.656	20.383	738.199	809.593	0.401	21.392	20.383	***2.994***
2021-08-04 6:00	3501903	8.025	-90.730	20.263	735.287	808.436	0.400	21.270	20.263	***2.801***
2021-08-04 6:15	3502803	8.016	-90.156	20.191	733.948	808.177	0.400	21.694	20.191	***2.593***
2021-08-04 6:30	3503703	8.006	-89.560	20.144	734.515	809.600	0.401	17.546	20.144	***2.467***
2021-08-04 6:45	3504603	7.993	-88.792	20.136	733.580	808.708	0.400	16.755	20.136	***1.682***
2021-08-04 7:00	3505503	7.994	-88.861	20.087	733.050	808.959	0.400	17.923	20.087	***2.146***
2021-08-04 7:15	3506403	7.989	-88.546	20.046	732.080	808.589	0.400	17.337	20.046	***2.187***
2021-08-04 7:30	3507303	7.989	-88.503	20.006	732.485	809.716	0.401	17.057	20.006	***2.069***
2021-08-04 7:45	3508203	7.989	-88.520	19.980	731.133	808.675	0.400	17.523	19.980	***1.964***
2021-08-04 8:00	3509103	7.990	-88.553	19.958	730.912	808.804	0.400	15.958	19.958	***2.183***
2021-08-04 8:15	3510003	7.983	-88.184	19.948	729.909	807.858	0.400	16.092	19.948	***1.582***
2021-08-04 8:30	3510903	7.981	-88.067	19.941	729.966	808.044	0.400	29.670	19.941	***1.785***
2021-08-04 8:45	3511803	7.977	-87.802	19.929	730.420	808.748	0.400	21.597	19.929	***1.634***
2021-08-04 9:00	3512703	7.970	-87.395	19.931	730.639	808.965	0.400	16.157	19.931	***1.010***
2021-08-04 9:15	3513603	7.960	-86.799	19.941	729.998	808.087	0.400	18.461	19.941	***0.280***
2021-08-04 9:30	3514503	7.951	-86.293	19.948	730.724	808.759	0.400	16.110	19.948	***0.000***
2021-08-04 9:45	3515403	7.946	-86.031	19.955	729.753	807.577	0.400	16.032	19.955	***0.003***
2021-08-04 10:00	3516303	7.935	-85.397	19.989	731.214	808.606	0.400	17.134	19.989	***0.626***
2021-08-04 10:15	3517203	7.916	-84.286	20.059	731.119	807.305	0.400	17.966	20.059	***1.782***
2021-08-04 10:30	3518103	7.894	-83.046	20.171	733.372	807.887	0.400	18.024	20.171	***2.534***
2021-08-04 10:45	3519003	7.877	-82.097	20.297	735.189	807.743	0.400	17.662	20.297	***2.731***
2021-08-04 11:00	3519903	7.870	-81.744	20.414	737.674	808.487	0.400	17.530	20.414	***2.512***
2021-08-04 11:15	3520803	7.877	-82.135	20.485	738.548	808.243	0.400	18.286	20.485	***2.362***
2021-08-04 11:30	3521703	7.880	-82.378	20.598	741.041	809.066	0.401	18.842	20.598	***2.309***
2021-08-04 11:45	3522603	7.877	-82.221	20.685	742.422	809.105	0.401	16.335	20.685	***2.220***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-04 12:00	3523503	7.874	-82.042	20.736	743.046	808.924	0.401	15.659	20.736	***2.041***
2021-08-04 12:15	3524403	7.863	-81.477	20.933	746.129	808.977	0.401	15.723	20.933	***2.140***
2021-08-04 12:30	3525303	7.855	-81.029	21.064	747.704	808.485	0.400	16.887	21.064	***1.910***
2021-08-04 12:45	3526203	7.885	-82.793	21.028	747.143	808.480	0.400	16.287	21.028	***0.894***
2021-08-04 13:00	3527103	7.909	-84.193	21.103	748.143	808.305	0.400	15.554	21.103	***1.375***
2021-08-04 13:15	3528003	7.910	-84.298	21.222	750.010	808.341	0.400	14.286	21.222	***2.237***
2021-08-04 13:30	3528903	7.905	-84.019	21.320	751.586	808.414	0.400	14.476	21.320	***2.264***
2021-08-04 13:45	3529803	7.898	-83.632	21.401	752.871	808.439	0.400	15.060	21.401	***2.235***
2021-08-04 14:00	3530703	7.900	-83.747	21.481	754.390	808.748	0.401	16.865	21.481	***2.254***
2021-08-04 14:15	3531603	7.896	-83.575	21.605	756.295	808.734	0.401	18.495	21.605	***2.788***
2021-08-04 14:30	3532503	7.885	-82.951	21.726	758.164	808.743	0.401	17.237	21.726	***3.161***
2021-08-04 14:45	3533403	7.870	-82.188	21.993	762.146	808.580	0.400	15.726	21.993	***3.705***
2021-08-04 15:00	3534303	7.862	-81.809	22.449	768.117	807.453	0.400	15.121	22.449	***4.742***
2021-08-04 15:15	3535203	8.209	-102.682	23.850	12.798	13.085	0.005	3.779	23.850	***6.184***
2021-08-04 15:30	3536103	8.260	-105.677	23.970	786.229	802.013	0.397	29.920	23.970	***6.402***
2021-08-04 16:00	0	8.210	-102.990	24.665	803.471	808.644	0.400	41.931	24.665	8.088
2021-08-04 16:15	900	8.193	-101.395	22.981	773.872	804.915	0.399	12.094	22.981	8.608
2021-08-04 16:30	1800	8.166	-99.823	23.022	777.647	808.185	0.400	12.516	23.022	8.733
2021-08-04 16:45	2700	8.185	-101.006	23.195	779.382	807.207	0.400	10.559	23.195	8.662
2021-08-04 17:00	3600	8.163	-100.162	24.420	808.471	817.523	0.405	19.505	24.420	8.555
2021-08-04 17:15	4500	8.160	-100.467	25.943	837.911	823.091	0.408	9.096	25.943	7.202
2021-08-04 17:30	5400	8.185	-102.177	26.645	850.885	824.965	0.409	6.911	26.645	7.168
2021-08-04 17:45	6300	8.291	-108.311	26.124	829.342	811.907	0.402	7.405	26.124	9.417
2021-08-04 18:00	7200	8.343	-111.294	25.819	819.237	806.625	0.399	6.723	25.819	10.760
2021-08-04 18:15	8100	8.313	-109.446	25.672	818.227	807.860	0.400	5.293	25.672	11.861
2021-08-04 18:30	9000	8.289	-107.970	25.498	817.356	809.650	0.401	5.523	25.498	11.540
2021-08-04 18:45	9900	8.285	-107.715	25.496	818.726	811.041	0.402	4.175	25.496	11.190
2021-08-04 19:00	10800	8.246	-105.474	25.666	824.973	814.611	0.403	5.999	25.666	10.343
2021-08-04 19:15	11700	8.262	-106.442	25.640	823.777	813.833	0.403	4.564	25.640	10.142
2021-08-04 19:30	12600	8.280	-107.455	25.506	821.277	813.408	0.403	3.580	25.506	10.287
2021-08-04 19:45	13500	8.266	-106.549	25.413	819.551	813.131	0.403	3.933	25.413	10.251
2021-08-04 20:00	14400	8.259	-106.161	25.400	819.991	813.778	0.403	3.700	25.400	10.212
2021-08-04 20:15	15300	8.236	-104.823	25.434	819.865	813.130	0.403	4.251	25.434	9.888
2021-08-04 20:30	16200	8.213	-103.455	25.446	822.785	815.834	0.404	3.221	25.446	9.115
2021-08-04 20:45	17100	8.198	-102.525	25.370	824.416	818.629	0.406	3.497	25.370	7.803
2021-08-04 21:00	18000	8.194	-102.232	25.255	823.679	819.693	0.406	3.608	25.255	7.488
2021-08-04 21:15	18900	8.190	-101.941	25.106	820.778	819.117	0.406	3.981	25.106	7.420
2021-08-04 21:30	19800	8.190	-101.931	24.922	819.564	820.790	0.407	6.109	24.922	7.232
2021-08-04 21:45	20700	8.199	-102.370	24.796	819.465	822.664	0.408	4.993	24.796	6.810
2021-08-04 22:00	21600	8.204	-102.603	24.636	816.681	822.394	0.408	5.020	24.636	6.543
2021-08-04 22:15	22500	8.207	-102.777	24.461	813.356	821.823	0.407	4.761	24.461	***6.464***
2021-08-04 22:30	23400	8.203	-102.451	24.287	809.708	820.886	0.407	4.623	24.287	***6.394***
2021-08-04 22:45	24300	8.214	-103.061	24.165	808.569	821.678	0.407	4.716	24.165	***6.274***
2021-08-04 23:00	25200	8.224	-103.610	24.026	806.338	821.616	0.407	4.552	24.026	***6.340***
2021-08-04 23:15	26100	8.212	-102.856	23.894	805.314	822.698	0.408	4.392	23.894	***5.993***

TABLE C2

Downstream Water Quality Sonde Data

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Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-04 23:30	27000	8.198	-101.998	23.754	804.318	823.933	0.408	4.421	23.754	***5.631***
2021-08-04 23:45	27900	8.184	-101.104	23.617	802.634	824.419	0.409	4.531	23.617	***5.309***
2021-08-05 0:00	28800	8.174	-100.460	23.474	800.841	824.882	0.409	4.288	23.474	***5.076***
2021-08-05 0:15	29700	8.173	-100.372	23.336	798.713	824.927	0.409	4.287	23.336	***5.010***
2021-08-05 0:30	30600	8.171	-100.226	23.209	796.140	824.346	0.409	4.688	23.209	***5.035***
2021-08-05 0:45	31500	8.166	-99.843	23.085	793.575	823.709	0.408	4.662	23.085	***5.032***
2021-08-05 1:00	32400	8.167	-99.871	22.980	791.451	823.208	0.408	5.175	22.980	***5.000***
2021-08-05 1:15	33300	8.165	-99.714	22.855	789.305	823.021	0.408	6.129	22.855	***4.983***
2021-08-05 1:30	34200	8.167	-99.788	22.741	787.296	822.805	0.408	5.364	22.741	***4.962***
2021-08-05 1:45	35100	8.155	-99.065	22.603	784.994	822.653	0.408	5.812	22.603	***4.904***
2021-08-05 2:00	36000	8.159	-99.266	22.509	783.406	822.538	0.408	6.102	22.509	***4.897***
2021-08-05 2:15	36900	8.156	-99.027	22.400	781.521	822.354	0.408	6.080	22.400	***4.970***
2021-08-05 2:30	37800	8.151	-98.689	22.293	779.746	822.257	0.407	5.117	22.293	***4.908***
2021-08-05 2:45	38700	8.151	-98.693	22.186	777.948	822.139	0.407	5.414	22.186	***4.855***
2021-08-05 3:00	39600	8.148	-98.474	22.066	776.025	822.100	0.407	5.147	22.066	***4.839***
2021-08-05 3:15	40500	8.141	-98.042	21.939	773.925	821.975	0.407	5.092	21.939	***4.783***
2021-08-05 3:30	41400	8.123	-96.910	21.826	772.646	822.509	0.408	6.431	21.826	***4.633***
2021-08-05 3:45	42300	8.087	-94.767	21.717	772.649	824.337	0.409	10.177	21.717	***4.394***
2021-08-05 4:00	43200	8.039	-91.958	21.623	771.669	824.868	0.409	12.266	21.623	***4.066***
2021-08-05 4:15	44100	8.018	-90.709	21.528	770.093	824.786	0.409	11.428	21.528	***3.766***
2021-08-05 4:30	45000	7.986	-88.782	21.405	767.248	823.818	0.408	10.534	21.405	***3.389***
2021-08-05 4:45	45900	7.997	-89.355	21.262	763.180	821.861	0.407	9.105	21.262	***3.599***
2021-08-05 5:00	46800	8.006	-89.879	21.188	761.756	821.571	0.407	6.934	21.188	***3.528***
2021-08-05 5:15	47700	8.048	-92.323	21.085	757.372	818.584	0.406	6.201	21.085	***4.491***
2021-08-05 5:30	48600	8.060	-92.962	21.017	755.795	818.031	0.405	5.421	21.017	***4.473***
2021-08-05 5:45	49500	8.077	-93.951	21.001	754.745	817.161	0.405	5.080	21.001	***4.668***
2021-08-05 6:00	50400	8.087	-94.545	20.947	752.724	815.891	0.404	4.841	20.947	***5.178***
2021-08-05 6:15	51300	8.083	-94.306	20.877	751.114	815.323	0.404	7.575	20.877	***5.040***
2021-08-05 6:30	52200	8.089	-94.621	20.837	749.404	814.142	0.403	4.473	20.837	***5.175***
2021-08-05 6:45	53100	8.087	-94.454	20.760	747.883	813.788	0.403	4.896	20.760	***5.296***
2021-08-05 7:00	54000	8.080	-94.070	20.687	746.660	813.683	0.403	4.419	20.687	***5.108***
2021-08-05 7:15	54900	8.076	-93.801	20.661	746.065	813.490	0.403	4.281	20.661	***5.224***
2021-08-05 7:30	55800	8.076	-93.820	20.639	745.539	813.289	0.403	4.159	20.639	***5.466***
2021-08-05 7:45	56700	8.077	-93.837	20.575	744.146	812.839	0.403	4.798	20.575	***5.330***
2021-08-05 8:00	57600	8.069	-93.336	20.568	744.092	812.901	0.403	3.888	20.568	***5.423***
2021-08-05 8:15	58500	8.072	-93.553	20.550	743.480	812.537	0.402	4.429	20.550	***5.531***
2021-08-05 8:30	59400	8.070	-93.415	20.545	743.330	812.466	0.402	3.644	20.545	***5.566***
2021-08-05 8:45	60300	8.071	-93.486	20.551	743.362	812.390	0.402	4.464	20.551	***5.502***
2021-08-05 9:00	61200	8.066	-93.169	20.565	743.817	812.654	0.402	5.419	20.565	***5.234***
2021-08-05 9:15	62100	8.056	-92.626	20.578	743.982	812.613	0.402	4.613	20.578	***5.036***
2021-08-05 9:30	63000	8.063	-93.033	20.563	743.504	812.352	0.402	3.549	20.563	***5.160***
2021-08-05 9:45	63900	8.066	-93.200	20.569	743.657	812.409	0.402	2.732	20.569	***5.545***
2021-08-05 10:00	64800	8.009	-89.889	20.630	744.890	812.730	0.402	4.715	20.630	***5.188***
2021-08-05 10:15	65700	8.016	-90.325	20.755	746.725	812.614	0.402	4.776	20.755	***5.020***
2021-08-05 10:30	66600	8.030	-91.169	20.848	748.056	812.486	0.402	6.028	20.848	***5.154***

TABLE C2

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Beaverlodge River

Date and Time	Elapsed Time Seconds	Sensor: pH/ORP SN#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-05 10:45	67500	8.034	-91.448	20.895	748.850	812.554	0.402	5.914	20.895	***5.184***
2021-08-05 11:00	68400	8.021	-90.673	20.941	749.725	812.726	0.403	5.510	20.941	***4.903***
2021-08-05 11:15	69300	8.021	-90.725	21.031	751.178	812.801	0.403	5.634	21.031	***4.846***
2021-08-05 11:30	70200	8.038	-91.732	21.155	753.113	812.811	0.403	5.129	21.155	***5.363***
2021-08-05 11:45	71100	8.042	-92.006	21.274	755.391	813.262	0.403	5.162	21.274	***5.369***
2021-08-05 12:00	72000	8.045	-92.196	21.356	756.357	812.935	0.403	4.866	21.356	***5.599***
2021-08-05 12:15	72900	8.038	-91.794	21.397	757.327	813.289	0.403	3.796	21.397	***5.720***
2021-08-05 12:30	73800	8.006	-89.974	21.517	759.279	813.387	0.403	4.641	21.517	***5.690***
2021-08-05 12:45	74700	8.006	-90.022	21.635	761.327	813.619	0.403	3.458	21.635	***5.628***
2021-08-05 13:00	75600	8.028	-91.407	21.887	764.921	813.281	0.403	5.006	21.887	***5.689***
2021-08-05 13:15	76500	8.118	-96.624	21.799	763.287	812.992	0.403	3.474	21.799	7.202
2021-08-05 13:30	77400	8.107	-95.983	21.809	763.687	813.249	0.403	3.689	21.809	7.478
2021-08-05 13:45	78300	8.109	-96.092	21.850	764.845	813.808	0.403	2.350	21.850	7.386
2021-08-05 14:00	79200	8.101	-95.649	21.911	766.213	814.252	0.403	3.862	21.911	7.328
2021-08-05 14:15	80100	8.092	-95.162	21.962	767.112	814.364	0.403	3.163	21.962	7.153
2021-08-05 14:30	81000	8.108	-96.092	22.021	768.189	814.530	0.404	2.994	22.021	7.035
2021-08-05 14:45	81900	8.089	-95.017	22.105	769.472	814.511	0.404	3.575	22.105	6.905
2021-08-05 15:00	82800	8.119	-96.791	22.172	770.324	814.300	0.403	3.438	22.172	6.840
2021-08-05 15:15	83700	8.139	-97.964	22.229	770.329	813.382	0.403	3.146	22.229	6.787
2021-08-05 15:30	84600	8.157	-99.056	22.267	770.699	813.151	0.403	2.872	22.267	7.439
2021-08-05 15:45	85500	8.135	-97.790	22.344	771.408	812.631	0.403	2.804	22.344	7.119
2021-08-05 16:00	86400	8.175	-100.126	22.380	772.001	812.663	0.403	2.302	22.380	7.517
2021-08-05 16:15	87300	8.206	-101.976	22.429	772.066	811.939	0.402	2.187	22.429	7.787
2021-08-05 16:30	88200	8.113	-96.586	22.621	776.253	813.197	0.403	3.381	22.621	7.355
2021-08-05 16:45	89100	8.070	-94.132	22.770	779.101	813.769	0.403	3.266	22.770	7.571
2021-08-05 17:00	90000	8.102	-96.049	22.904	781.154	813.732	0.403	3.723	22.904	7.613
2021-08-05 17:15	90900	8.090	-95.403	23.060	784.419	814.610	0.404	3.941	23.060	7.670
2021-08-05 17:30	91800	8.100	-96.006	23.186	786.698	814.927	0.404	3.778	23.186	7.575
2021-08-05 17:45	92700	8.158	-99.490	23.338	789.520	815.397	0.404	3.787	23.338	7.464
2021-08-05 18:00	93600	8.118	-97.206	23.524	793.376	816.386	0.404	4.259	23.524	7.516
2021-08-05 18:15	94500	8.075	-94.764	23.828	799.414	817.719	0.405	3.512	23.828	7.168
2021-08-05 18:30	95400	8.080	-95.155	24.118	804.089	817.868	0.405	3.801	24.118	7.092
2021-08-05 18:45	96300	8.110	-96.982	24.310	808.573	819.369	0.406	3.870	24.310	7.192
2021-08-05 19:00	97200	8.104	-96.641	24.371	809.874	819.717	0.406	3.435	24.371	6.934
2021-08-05 19:15	98100	8.196	-102.026	24.307	807.458	818.296	0.405	2.777	24.307	7.103
2021-08-05 19:30	99000	8.257	-105.593	24.236	802.850	814.734	0.404	2.806	24.236	8.143
2021-08-05 19:45	99900	8.232	-104.110	24.215	802.267	814.481	0.404	2.568	24.215	9.204
2021-08-05 20:00	100800	8.250	-104.754	22.919	773.063	805.065	0.399	7.024	22.919	10.777
2021-08-05 20:15	101700	8.044	-92.180	21.428	755.491	810.801	0.402	6.980	21.428	7.179
2021-08-05 20:30	102600	7.980	-88.406	21.427	757.550	813.037	0.403	6.865	21.427	***6.490***
2021-08-05 20:45	103500	7.990	-89.073	21.570	760.916	814.263	0.403	5.681	21.570	***6.449***
2021-08-05 21:00	104400	7.978	-88.396	21.647	763.078	815.295	0.404	5.951	21.647	***6.127***
2021-08-05 21:15	105300	7.993	-89.333	21.802	766.548	816.423	0.404	6.098	21.802	***6.095***
2021-08-05 21:30	106200	8.014	-90.587	22.035	770.632	816.887	0.405	8.291	22.035	***5.878***
2021-08-05 21:45	107100	8.014	-90.644	22.196	773.455	817.224	0.405	5.492	22.196	***5.617***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-05 22:00	108000	8.024	-91.279	22.304	775.215	817.299	0.405	4.944	22.304	***5.326***
2021-08-05 22:15	108900	8.020	-91.033	22.350	776.018	817.384	0.405	4.643	22.350	***5.220***
2021-08-05 22:30	109800	8.055	-93.086	22.360	777.059	818.318	0.405	3.132	22.360	***5.214***
2021-08-05 22:45	110700	8.103	-95.909	22.343	777.518	819.089	0.406	3.246	22.343	***5.240***
2021-08-05 23:00	111600	8.118	-96.815	22.311	777.026	819.086	0.406	3.801	22.311	***5.098***
2021-08-05 23:15	112500	8.131	-97.520	22.270	777.256	820.020	0.406	4.803	22.270	***4.794***
2021-08-05 23:30	113400	8.122	-96.982	22.224	776.745	820.234	0.406	4.467	22.224	***4.850***
2021-08-05 23:45	114300	8.097	-95.499	22.174	776.021	820.303	0.406	4.914	22.174	***4.602***
2021-08-06 0:00	115200	8.099	-95.639	22.125	775.299	820.348	0.407	4.354	22.125	***4.770***
2021-08-06 0:15	116100	8.107	-96.087	22.070	774.826	820.763	0.407	4.441	22.070	***4.978***
2021-08-06 0:30	117000	8.107	-96.061	21.992	773.691	820.853	0.407	4.638	21.992	***4.798***
2021-08-06 0:45	117900	8.105	-95.911	21.938	773.175	821.201	0.407	4.720	21.938	***4.784***
2021-08-06 1:00	118800	8.091	-95.081	21.881	773.044	822.020	0.407	5.109	21.881	***4.555***
2021-08-06 1:15	119700	8.074	-94.080	21.814	772.034	822.064	0.407	5.520	21.814	***4.297***
2021-08-06 1:30	120600	8.073	-93.992	21.742	770.755	821.907	0.407	5.181	21.742	***4.457***
2021-08-06 1:45	121500	8.080	-94.383	21.694	771.057	823.028	0.408	5.038	21.694	***4.389***
2021-08-06 2:00	122400	8.082	-94.481	21.625	770.319	823.400	0.408	5.745	21.625	***4.184***
2021-08-06 2:15	123300	8.088	-94.783	21.542	769.339	823.748	0.408	5.991	21.542	***4.298***
2021-08-06 2:30	124200	8.083	-94.485	21.465	768.449	824.086	0.408	6.567	21.465	***4.201***
2021-08-06 2:45	125100	8.083	-94.452	21.396	767.397	824.130	0.408	7.069	21.396	***4.196***
2021-08-06 3:00	126000	8.080	-94.223	21.325	766.287	824.140	0.408	6.910	21.325	***4.083***
2021-08-06 3:15	126900	8.064	-93.284	21.251	765.146	824.168	0.408	6.427	21.251	***4.111***
2021-08-06 3:30	127800	8.061	-93.093	21.177	763.015	823.113	0.408	6.361	21.177	***4.131***
2021-08-06 3:45	128700	8.059	-92.955	21.113	760.888	821.910	0.407	6.936	21.113	***4.304***
2021-08-06 4:00	129600	8.059	-92.945	21.027	757.836	820.070	0.406	6.604	21.027	***4.376***
2021-08-06 4:15	130500	8.064	-93.229	20.975	755.545	818.461	0.405	5.984	20.975	***4.569***
2021-08-06 4:30	131400	8.068	-93.436	20.912	752.101	815.801	0.404	4.945	20.912	***5.015***
2021-08-06 4:45	132300	8.073	-93.660	20.843	749.876	814.543	0.403	4.374	20.843	***5.045***
2021-08-06 5:00	133200	8.068	-93.386	20.801	748.092	813.327	0.403	3.865	20.801	***5.370***
2021-08-06 5:15	134100	8.061	-92.967	20.723	747.332	813.821	0.403	5.163	20.723	***5.209***
2021-08-06 5:30	135000	8.040	-91.732	20.689	749.076	816.290	0.404	4.202	20.689	***4.629***
2021-08-06 5:45	135900	8.020	-90.528	20.700	749.656	816.737	0.405	4.040	20.700	***4.230***
2021-08-06 6:00	136800	8.063	-93.019	20.668	746.321	813.636	0.403	4.701	20.668	***4.763***
2021-08-06 6:15	137700	8.058	-92.750	20.574	743.722	812.397	0.402	4.393	20.574	***5.248***
2021-08-06 6:30	138600	8.057	-92.640	20.553	743.343	812.343	0.402	3.728	20.553	***5.197***
2021-08-06 6:45	139500	8.039	-91.608	20.536	743.074	812.338	0.402	3.350	20.536	***5.193***
2021-08-06 7:00	140400	8.039	-91.584	20.483	742.112	812.190	0.402	3.793	20.483	***5.057***
2021-08-06 7:15	141300	8.035	-91.333	20.437	741.622	812.426	0.402	3.550	20.437	***5.207***
2021-08-06 7:30	142200	8.024	-90.675	20.412	741.329	812.530	0.402	3.910	20.412	***5.286***
2021-08-06 7:45	143100	8.041	-91.674	20.303	740.825	813.838	0.403	3.548	20.303	***5.139***
2021-08-06 8:00	144000	8.023	-90.609	20.329	741.402	814.035	0.403	4.387	20.329	***4.875***
2021-08-06 8:15	144900	8.013	-90.046	20.327	741.138	813.771	0.403	3.174	20.327	***4.648***
2021-08-06 8:30	145800	8.021	-90.458	20.285	739.707	812.922	0.403	3.966	20.285	***4.859***
2021-08-06 8:45	146700	8.013	-89.986	20.246	738.867	812.660	0.402	4.315	20.246	***4.943***
2021-08-06 9:00	147600	8.020	-90.408	20.215	738.836	813.149	0.403	4.257	20.215	***5.039***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-06 9:15	148500	8.028	-90.878	20.190	739.044	813.816	0.403	3.158	20.190	***4.889***
2021-08-06 9:30	149400	8.022	-90.499	20.183	739.233	814.146	0.403	3.609	20.183	***4.653***
2021-08-06 9:45	150300	8.030	-90.952	20.173	739.493	814.602	0.403	4.249	20.173	***4.808***
2021-08-06 10:00	151200	8.026	-90.711	20.185	740.067	815.016	0.404	3.821	20.185	***4.884***
2021-08-06 10:15	152100	8.028	-90.859	20.203	737.900	812.334	0.402	4.136	20.203	***4.796***
2021-08-06 10:30	153000	8.030	-90.988	20.204	742.835	817.742	0.405	5.225	20.204	***4.624***
2021-08-06 10:45	153900	8.038	-91.457	20.205	743.576	818.547	0.405	4.542	20.205	***4.743***
2021-08-06 11:00	154800	8.044	-91.805	20.212	744.266	819.185	0.406	7.000	20.212	***4.850***
2021-08-06 11:15	155700	8.049	-92.070	20.229	744.935	819.616	0.406	5.072	20.229	***4.980***
2021-08-06 11:30	156600	8.008	-89.719	20.301	746.056	819.623	0.406	5.257	20.301	***4.770***
2021-08-06 11:45	157500	7.991	-88.775	20.389	747.101	819.256	0.406	6.700	20.389	***4.749***
2021-08-06 12:00	158400	8.024	-90.687	20.447	747.749	818.970	0.406	5.670	20.447	***4.709***
2021-08-06 12:15	159300	8.049	-92.204	20.503	748.722	819.072	0.406	6.903	20.503	***4.849***
2021-08-06 12:30	160200	8.049	-92.185	20.559	749.958	819.472	0.406	4.112	20.559	***5.235***
2021-08-06 12:45	161100	8.025	-90.761	20.474	745.683	816.247	0.404	5.950	20.474	***5.668***
2021-08-06 13:00	162000	7.980	-88.127	20.404	743.428	814.977	0.404	5.611	20.404	***5.158***
2021-08-06 13:15	162900	7.979	-88.086	20.372	742.695	814.710	0.403	6.514	20.372	***5.276***
2021-08-06 13:30	163800	7.973	-87.707	20.369	742.463	814.501	0.403	5.634	20.369	***5.158***
2021-08-06 13:45	164700	7.969	-87.504	20.435	743.584	814.606	0.403	5.635	20.435	***5.277***
2021-08-06 14:00	165600	7.961	-87.070	20.486	744.126	814.337	0.403	6.544	20.486	***5.676***
2021-08-06 14:15	166500	7.983	-88.315	20.507	743.892	813.729	0.403	5.643	20.507	***5.754***
2021-08-06 14:30	167400	7.986	-88.489	20.521	743.611	813.185	0.403	5.750	20.521	***5.601***
2021-08-06 14:45	168300	7.993	-88.906	20.532	743.721	813.111	0.403	5.652	20.532	***5.651***
2021-08-06 15:00	169200	7.989	-88.716	20.557	743.985	812.976	0.403	5.365	20.557	***5.939***
2021-08-06 15:15	170100	7.987	-88.568	20.591	744.397	812.849	0.403	5.619	20.591	***5.918***
2021-08-06 15:30	171000	7.998	-89.216	20.600	744.433	812.734	0.402	6.102	20.600	***6.141***
2021-08-06 15:45	171900	7.979	-88.158	20.778	747.477	813.043	0.403	6.253	20.778	***6.301***
2021-08-06 16:00	172800	8.023	-90.744	20.739	746.537	812.681	0.402	6.195	20.739	6.513
2021-08-06 16:15	173700	8.036	-91.512	20.771	746.918	812.550	0.402	6.045	20.771	***6.403***
2021-08-06 16:30	174600	8.023	-90.761	20.809	747.250	812.276	0.402	6.863	20.809	6.655
2021-08-06 16:45	175500	8.026	-90.942	20.826	747.181	811.908	0.402	6.954	20.826	6.828
2021-08-06 17:00	176400	8.050	-92.328	20.822	747.132	811.929	0.402	6.464	20.822	6.893
2021-08-06 17:15	177300	8.045	-92.032	20.856	747.416	811.657	0.402	7.238	20.856	7.048
2021-08-06 17:30	178200	8.066	-93.291	20.859	747.445	811.632	0.402	6.800	20.859	7.182
2021-08-06 17:45	179100	8.065	-93.246	20.900	748.268	811.839	0.402	5.853	20.900	7.194
2021-08-06 18:00	180000	8.067	-93.341	20.942	749.240	812.193	0.402	5.525	20.942	7.272
2021-08-06 18:15	180900	8.090	-94.688	20.903	748.629	812.181	0.402	6.139	20.903	7.260
2021-08-06 18:30	181800	8.090	-94.674	20.882	748.670	812.584	0.402	6.089	20.882	7.237
2021-08-06 18:45	182700	8.096	-95.034	20.833	747.903	812.582	0.402	5.425	20.833	7.140
2021-08-06 19:00	183600	8.086	-94.411	20.794	747.282	812.551	0.402	5.316	20.794	7.186
2021-08-06 19:15	184500	8.092	-94.769	20.758	747.158	813.025	0.403	4.586	20.758	7.354
2021-08-06 19:30	185400	8.097	-95.038	20.728	747.272	813.656	0.403	4.984	20.728	7.243
2021-08-06 19:45	186300	8.118	-96.288	20.693	747.106	814.071	0.403	5.109	20.693	7.276
2021-08-06 20:00	187200	8.134	-97.201	20.654	747.218	814.860	0.404	5.140	20.654	7.172
2021-08-06 20:15	188100	8.133	-97.103	20.551	745.871	815.142	0.404	5.089	20.551	7.149

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-06 20:30	189000	8.114	-95.966	20.436	743.231	814.200	0.403	8.525	20.436	7.096
2021-08-06 20:45	189900	8.106	-95.460	20.354	742.159	814.423	0.403	4.866	20.354	7.027
2021-08-06 21:00	190800	8.106	-95.415	20.299	742.822	816.098	0.404	4.795	20.299	6.675
2021-08-06 21:15	191700	8.095	-94.764	20.205	741.926	816.726	0.404	4.511	20.205	6.606
2021-08-06 21:30	192600	8.097	-94.831	20.127	741.234	817.308	0.405	4.439	20.127	***6.405***
2021-08-06 21:45	193500	8.101	-95.048	20.043	740.461	817.900	0.405	4.128	20.043	***6.196***
2021-08-06 22:00	194400	8.088	-94.273	19.971	740.098	818.737	0.405	4.163	19.971	***5.972***
2021-08-06 22:15	195300	8.083	-93.992	19.900	739.956	819.822	0.406	4.369	19.900	***5.756***
2021-08-06 22:30	196200	8.076	-93.532	19.813	739.517	820.832	0.407	4.870	19.813	***5.533***
2021-08-06 22:45	197100	8.065	-92.864	19.765	739.491	821.640	0.407	5.395	19.765	***5.198***
2021-08-06 23:00	198000	8.063	-92.733	19.675	739.110	822.793	0.408	5.042	19.675	***5.171***
2021-08-06 23:15	198900	8.062	-92.616	19.584	738.358	823.553	0.408	4.601	19.584	***4.975***
2021-08-06 23:30	199800	8.057	-92.330	19.493	736.908	823.530	0.408	5.010	19.493	***4.874***
2021-08-06 23:45	200700	8.054	-92.108	19.426	736.837	824.631	0.408	4.778	19.426	***4.669***
2021-08-07 0:00	201600	8.048	-91.772	19.353	735.960	824.932	0.409	4.952	19.353	***4.570***
2021-08-07 0:15	202500	8.044	-91.498	19.283	734.978	825.067	0.409	5.243	19.283	***4.415***
2021-08-07 0:30	203400	8.040	-91.226	19.214	734.299	825.530	0.409	5.188	19.214	***4.173***
2021-08-07 0:45	204300	8.036	-90.997	19.121	732.944	825.664	0.409	4.523	19.121	***4.026***
2021-08-07 1:00	205200	8.041	-91.276	19.069	731.741	825.233	0.409	4.520	19.069	***4.086***
2021-08-07 1:15	206100	8.031	-90.666	18.998	730.655	825.253	0.409	4.321	18.998	***4.013***
2021-08-07 1:30	207000	8.031	-90.671	18.941	729.853	825.365	0.409	4.640	18.941	***3.849***
2021-08-07 1:45	207900	8.024	-90.201	18.862	728.614	825.370	0.409	5.057	18.862	***3.705***
2021-08-07 2:00	208800	8.017	-89.815	18.798	727.681	825.470	0.409	4.234	18.798	***3.811***
2021-08-07 2:15	209700	8.021	-89.977	18.728	726.426	825.295	0.409	4.506	18.728	***3.968***
2021-08-07 2:30	210600	8.012	-89.440	18.686	725.227	824.676	0.408	4.566	18.686	***4.015***
2021-08-07 2:45	211500	8.009	-89.254	18.614	723.917	824.487	0.408	4.654	18.614	***3.957***
2021-08-07 3:00	212400	8.002	-88.861	18.544	722.663	824.316	0.408	3.861	18.544	***3.809***
2021-08-07 3:15	213300	7.993	-88.303	18.498	722.414	824.842	0.408	5.018	18.498	***3.693***
2021-08-07 3:30	214200	7.988	-87.962	18.408	721.169	825.040	0.408	5.118	18.408	***3.591***
2021-08-07 3:45	215100	7.974	-87.171	18.357	720.286	824.951	0.408	4.491	18.357	***3.555***
2021-08-07 4:00	216000	7.973	-87.070	18.294	719.096	824.727	0.408	5.238	18.294	***3.351***
2021-08-07 4:15	216900	7.969	-86.844	18.223	718.071	824.834	0.408	4.780	18.223	***3.304***
2021-08-07 4:30	217800	7.962	-86.391	18.172	717.114	824.655	0.408	4.839	18.172	***3.501***
2021-08-07 4:45	218700	7.960	-86.308	18.104	715.731	824.311	0.408	4.697	18.104	***3.566***
2021-08-07 5:00	219600	7.961	-86.312	18.039	714.234	823.754	0.408	4.825	18.039	***3.649***
2021-08-07 5:15	220500	7.949	-85.640	17.996	713.520	823.708	0.408	5.177	17.996	***3.491***
2021-08-07 5:30	221400	7.938	-84.958	17.943	713.102	824.188	0.408	6.690	17.943	***3.197***
2021-08-07 5:45	222300	7.922	-84.040	17.890	712.061	823.958	0.408	5.284	17.890	***3.206***
2021-08-07 6:00	223200	7.916	-83.659	17.864	711.130	823.343	0.407	5.687	17.864	***3.144***
2021-08-07 6:15	224100	7.912	-83.425	17.833	709.882	822.477	0.407	4.998	17.833	***3.103***
2021-08-07 6:30	225000	7.904	-82.953	17.817	709.845	822.719	0.407	5.614	17.817	***3.047***
2021-08-07 6:45	225900	7.904	-82.943	17.791	709.087	822.321	0.407	5.188	17.791	***2.754***
2021-08-07 7:00	226800	7.905	-82.986	17.754	709.142	823.044	0.407	5.980	17.754	***2.872***
2021-08-07 7:15	227700	7.894	-82.357	17.725	708.162	822.445	0.407	4.781	17.725	***2.742***
2021-08-07 7:30	228600	7.891	-82.185	17.721	708.601	823.031	0.407	6.074	17.721	***2.822***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-07 7:45	229500	7.885	-81.832	17.700	708.088	822.813	0.407	5.890	17.700	***2.869***
2021-08-07 8:00	230400	7.880	-81.558	17.681	707.708	822.715	0.407	12.100	17.681	***2.957***
2021-08-07 8:15	231300	7.873	-81.134	17.652	707.378	822.865	0.407	5.157	17.652	***2.917***
2021-08-07 8:30	232200	7.873	-81.115	17.627	707.080	822.971	0.407	5.134	17.627	***2.940***
2021-08-07 8:45	233100	7.877	-81.329	17.595	706.691	823.110	0.407	5.091	17.595	***3.056***
2021-08-07 9:00	234000	7.876	-81.260	17.564	706.196	823.090	0.407	4.969	17.564	***3.130***
2021-08-07 9:15	234900	7.889	-82.030	17.551	705.696	822.754	0.407	5.267	17.551	***3.220***
2021-08-07 9:30	235800	7.897	-82.445	17.522	705.257	822.772	0.407	5.309	17.522	***3.303***
2021-08-07 9:45	236700	7.908	-83.086	17.512	704.849	822.489	0.407	5.832	17.512	***3.539***
2021-08-07 10:00	237600	7.917	-83.649	17.499	703.845	821.553	0.406	6.366	17.499	***3.873***
2021-08-07 10:15	238500	7.935	-84.641	17.473	701.742	819.565	0.405	6.243	17.473	***4.225***
2021-08-07 10:30	239400	7.950	-85.499	17.453	699.428	817.228	0.404	6.141	17.453	***4.797***
2021-08-07 10:45	240300	7.980	-87.209	17.422	697.847	815.947	0.404	6.176	17.422	***5.198***
2021-08-07 11:00	241200	7.997	-88.222	17.402	696.315	814.517	0.403	6.326	17.402	***5.489***
2021-08-07 11:15	242100	8.003	-88.551	17.383	694.979	813.305	0.402	6.519	17.383	***5.745***
2021-08-07 11:30	243000	8.015	-89.219	17.355	693.828	812.460	0.402	7.407	17.355	***5.796***
2021-08-07 11:45	243900	8.023	-89.691	17.313	693.071	812.344	0.402	6.543	17.313	***5.953***
2021-08-07 12:00	244800	8.030	-90.077	17.274	692.245	812.072	0.402	6.009	17.274	***5.985***
2021-08-07 12:15	245700	8.036	-90.375	17.235	691.180	811.547	0.401	6.260	17.235	***6.030***
2021-08-07 12:30	246600	8.037	-90.473	17.215	690.712	811.357	0.401	6.006	17.215	***6.065***
2021-08-07 12:45	247500	8.054	-91.403	17.158	689.479	810.939	0.401	7.026	17.158	***6.292***
2021-08-07 13:00	248400	8.062	-91.875	17.139	689.083	810.829	0.401	6.665	17.139	***6.312***
2021-08-07 13:15	249300	8.063	-91.932	17.112	688.625	810.771	0.401	5.747	17.112	***6.282***
2021-08-07 13:30	250200	8.064	-91.991	17.087	688.231	810.766	0.401	6.451	17.087	***6.345***
2021-08-07 13:45	251100	8.068	-92.168	17.061	687.826	810.762	0.401	6.057	17.061	***6.425***
2021-08-07 14:00	252000	8.073	-92.442	17.027	687.202	810.659	0.401	6.094	17.027	6.529
2021-08-07 14:15	252900	8.076	-92.661	17.005	686.786	810.567	0.401	6.890	17.005	6.622
2021-08-07 14:30	253800	8.082	-92.976	16.953	685.853	810.407	0.401	6.892	16.953	6.631
2021-08-07 14:45	254700	8.078	-92.728	16.938	685.698	810.505	0.401	6.219	16.938	6.622
2021-08-07 15:00	255600	8.078	-92.723	16.928	685.577	810.544	0.401	5.531	16.928	6.677
2021-08-07 15:15	256500	8.088	-93.288	16.890	684.762	810.276	0.400	6.048	16.890	***6.483***
2021-08-07 15:30	257400	8.095	-93.672	16.859	684.130	810.090	0.400	6.454	16.859	6.679
2021-08-07 15:45	258300	8.095	-93.699	16.833	683.692	810.054	0.400	6.374	16.833	6.759
2021-08-07 16:00	259200	8.097	-93.799	16.838	683.743	810.023	0.400	6.672	16.838	6.884
2021-08-07 16:15	260100	8.105	-94.233	16.829	683.402	809.784	0.400	6.784	16.829	6.938
2021-08-07 16:30	261000	8.112	-94.640	16.822	683.110	809.571	0.400	6.390	16.822	7.098
2021-08-07 16:45	261900	8.116	-94.850	16.822	683.110	809.558	0.400	6.267	16.822	7.211
2021-08-07 17:00	262800	8.119	-95.019	16.797	682.656	809.476	0.400	6.457	16.797	7.238
2021-08-07 17:15	263700	8.119	-95.041	16.782	682.227	809.252	0.400	6.443	16.782	7.258
2021-08-07 17:30	264600	8.121	-95.153	16.774	682.285	809.462	0.400	6.562	16.774	7.311
2021-08-07 17:45	265500	8.121	-95.165	16.760	682.069	809.457	0.400	6.369	16.760	7.304
2021-08-07 18:00	266400	8.117	-94.888	16.772	682.189	809.397	0.400	6.118	16.772	7.327
2021-08-07 18:15	267300	8.116	-94.879	16.786	682.619	809.638	0.400	6.322	16.786	7.325
2021-08-07 18:30	268200	8.124	-95.310	16.778	682.423	809.562	0.400	6.439	16.778	7.386
2021-08-07 18:45	269100	8.125	-95.360	16.773	682.313	809.518	0.400	6.551	16.773	7.347

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-07 19:00	270000	8.126	-95.408	16.777	682.217	809.331	0.400	6.047	16.777	7.529
2021-08-07 19:15	270900	8.129	-95.630	16.784	682.410	809.432	0.400	6.138	16.784	7.571
2021-08-07 19:30	271800	8.128	-95.541	16.770	682.068	809.289	0.400	6.193	16.770	7.558
2021-08-07 19:45	272700	8.128	-95.530	16.759	681.912	809.298	0.400	5.966	16.759	7.503
2021-08-07 20:00	273600	8.125	-95.370	16.748	681.766	809.323	0.400	6.133	16.748	7.466
2021-08-07 20:15	274500	8.116	-94.848	16.731	681.565	809.399	0.400	5.977	16.731	7.400
2021-08-07 20:30	275400	8.118	-94.974	16.721	681.483	809.490	0.400	6.517	16.721	7.314
2021-08-07 20:45	276300	8.112	-94.621	16.705	681.290	809.546	0.400	6.340	16.705	7.332
2021-08-07 21:00	277200	8.114	-94.719	16.683	680.979	809.580	0.400	6.204	16.683	7.284
2021-08-07 21:15	278100	8.107	-94.306	16.661	680.724	809.694	0.400	6.417	16.661	7.298
2021-08-07 21:30	279000	8.100	-93.892	16.642	680.521	809.800	0.400	6.200	16.642	7.354
2021-08-07 21:45	279900	8.094	-93.532	16.621	680.396	810.041	0.400	5.997	16.621	7.116
2021-08-07 22:00	280800	8.088	-93.195	16.599	680.158	810.146	0.400	6.007	16.599	6.760
2021-08-07 22:15	281700	8.083	-92.885	16.581	680.020	810.321	0.400	6.114	16.581	6.966
2021-08-07 22:30	282600	8.077	-92.564	16.555	679.736	810.466	0.400	6.142	16.555	6.911
2021-08-07 22:45	283500	8.072	-92.249	16.524	679.607	810.874	0.401	5.719	16.524	6.879
2021-08-07 23:00	284400	8.062	-91.667	16.511	679.670	811.206	0.401	5.777	16.511	6.716
2021-08-07 23:15	285300	8.048	-90.859	16.491	679.738	811.652	0.401	5.377	16.491	6.561
2021-08-07 23:30	286200	8.036	-90.137	16.472	679.882	812.181	0.401	5.333	16.472	***6.385***
2021-08-07 23:45	287100	8.025	-89.526	16.440	679.730	812.585	0.402	5.775	16.440	***6.228***
2021-08-08 0:00	288000	8.014	-88.861	16.409	679.574	812.974	0.402	5.617	16.409	***6.099***
2021-08-08 0:15	288900	8.004	-88.308	16.368	679.174	813.255	0.402	5.850	16.368	***5.983***
2021-08-08 0:30	289800	7.994	-87.690	16.346	679.061	813.523	0.402	6.428	16.346	***5.827***
2021-08-08 0:45	290700	7.982	-87.008	16.312	678.653	813.676	0.402	6.593	16.312	***5.746***
2021-08-08 1:00	291600	7.976	-86.644	16.279	678.005	813.515	0.402	6.287	16.279	***5.695***
2021-08-08 1:15	292500	7.966	-86.081	16.244	677.549	813.612	0.402	6.048	16.244	***5.586***
2021-08-08 1:30	293400	7.965	-86.007	16.218	677.338	813.848	0.402	5.952	16.218	***5.442***
2021-08-08 1:45	294300	7.953	-85.304	16.196	677.084	813.950	0.402	6.536	16.196	***5.319***
2021-08-08 2:00	295200	7.947	-84.960	16.176	677.006	814.237	0.402	5.831	16.176	***5.198***
2021-08-08 2:15	296100	7.939	-84.476	16.155	676.976	814.584	0.402	6.200	16.155	***5.072***
2021-08-08 2:30	297000	7.930	-83.952	16.134	676.817	814.797	0.403	5.694	16.134	***4.991***
2021-08-08 2:45	297900	7.923	-83.544	16.112	676.690	815.060	0.403	5.402	16.112	***4.930***
2021-08-08 3:00	298800	7.915	-83.082	16.093	676.595	815.292	0.403	6.418	16.093	***4.704***
2021-08-08 3:15	299700	7.905	-82.495	16.074	676.169	815.148	0.403	6.139	16.074	***4.615***
2021-08-08 3:30	300600	7.891	-81.689	16.050	675.959	815.343	0.403	5.455	16.050	***4.654***
2021-08-08 3:45	301500	7.891	-81.725	16.034	675.690	815.307	0.403	5.704	16.034	***4.605***
2021-08-08 4:00	302400	7.885	-81.382	16.017	675.363	815.246	0.403	6.217	16.017	***4.524***
2021-08-08 4:15	303300	7.883	-81.217	16.001	675.102	815.217	0.403	6.567	16.001	***4.418***
2021-08-08 4:30	304200	7.876	-80.853	15.982	674.877	815.302	0.403	6.813	15.982	***4.324***
2021-08-08 4:45	305100	7.865	-80.202	15.964	674.699	815.429	0.403	6.192	15.964	***4.276***
2021-08-08 5:00	306000	7.862	-80.047	15.948	674.436	815.407	0.403	6.565	15.948	***4.228***
2021-08-08 5:15	306900	7.859	-79.815	15.933	674.140	815.339	0.403	7.173	15.933	***4.014***
2021-08-08 5:30	307800	7.850	-79.341	15.915	673.762	815.225	0.403	7.160	15.915	***3.872***
2021-08-08 5:45	308700	7.835	-78.475	15.900	673.522	815.216	0.403	6.923	15.900	***3.863***
2021-08-08 6:00	309600	7.830	-78.182	15.889	673.379	815.257	0.403	6.292	15.889	***3.656***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-08 6:15	310500	7.819	-77.527	15.868	673.262	815.496	0.403	6.633	15.868	***3.776***
2021-08-08 6:30	311400	7.812	-77.121	15.850	673.084	815.631	0.403	7.596	15.850	***3.744***
2021-08-08 6:45	312300	7.809	-76.931	15.830	672.814	815.669	0.403	23.485	15.830	***3.691***
2021-08-08 7:00	313200	7.805	-76.716	15.817	672.473	815.511	0.403	6.546	15.817	***3.449***
2021-08-08 7:15	314100	7.802	-76.540	15.811	672.233	815.333	0.403	5.611	15.811	***3.511***
2021-08-08 7:30	315000	7.803	-76.575	15.804	672.066	815.270	0.403	5.617	15.804	***3.469***
2021-08-08 7:45	315900	7.798	-76.320	15.792	671.893	815.272	0.403	5.965	15.792	***3.329***
2021-08-08 8:00	316800	7.801	-76.482	15.778	671.747	815.375	0.403	5.376	15.778	***3.128***
2021-08-08 8:15	317700	7.804	-76.637	15.777	671.395	814.961	0.402	5.567	15.777	***3.208***
2021-08-08 8:30	318600	7.809	-76.957	15.777	671.376	814.941	0.402	5.241	15.777	***3.284***
2021-08-08 8:45	319500	7.805	-76.711	15.791	671.597	814.934	0.402	5.053	15.791	***3.315***
2021-08-08 9:00	320400	7.805	-76.737	15.797	671.685	814.927	0.402	5.498	15.797	***3.313***
2021-08-08 9:15	321300	7.809	-76.966	15.801	671.517	814.654	0.402	4.992	15.801	***3.377***
2021-08-08 9:30	322200	7.810	-76.990	15.811	671.433	814.370	0.402	15.598	15.811	***3.399***
2021-08-08 9:45	323100	7.807	-76.811	15.826	671.530	814.190	0.402	4.762	15.826	***3.515***
2021-08-08 10:00	324000	7.811	-77.088	15.851	671.808	814.056	0.402	4.126	15.851	***3.456***
2021-08-08 10:15	324900	7.813	-77.178	15.871	672.038	813.962	0.402	4.649	15.871	***3.378***
2021-08-08 10:30	325800	7.810	-77.002	15.889	672.328	813.972	0.402	4.838	15.889	***3.385***
2021-08-08 10:45	326700	7.810	-77.007	15.916	672.677	813.882	0.402	4.653	15.916	***3.361***
2021-08-08 11:00	327600	7.812	-77.140	15.947	673.142	813.868	0.402	6.323	15.947	***3.474***
2021-08-08 11:15	328500	7.801	-76.542	15.980	673.448	813.623	0.402	5.367	15.980	***3.761***
2021-08-08 11:30	329400	7.794	-76.153	16.025	674.004	813.445	0.402	6.900	16.025	***3.919***
2021-08-08 11:45	330300	7.777	-75.161	16.102	674.949	813.148	0.402	6.961	16.102	***4.017***
2021-08-08 12:00	331200	7.789	-75.905	16.147	675.645	813.147	0.402	6.470	16.147	***3.889***
2021-08-08 12:15	332100	7.794	-76.180	16.239	676.901	812.941	0.402	9.918	16.239	***3.825***
2021-08-08 12:30	333000	7.877	-80.931	16.228	676.303	812.420	0.401	23.323	16.228	***4.148***
2021-08-08 12:45	333900	7.917	-83.284	16.282	676.801	812.007	0.401	6.038	16.282	***4.915***
2021-08-08 13:00	334800	7.954	-85.423	16.332	677.370	811.764	0.401	6.920	16.332	***5.705***
2021-08-08 13:15	335700	7.895	-82.042	16.433	678.202	810.886	0.401	6.403	16.433	***6.078***
2021-08-08 13:30	336600	7.888	-81.704	16.556	679.717	810.430	0.400	6.400	16.556	***6.289***
2021-08-08 13:45	337500	7.898	-82.281	16.626	680.518	810.094	0.400	5.945	16.626	***6.398***
2021-08-08 14:00	338400	7.895	-82.107	16.703	681.495	809.837	0.400	7.601	16.703	6.728
2021-08-08 14:15	339300	7.911	-83.079	16.847	683.292	809.324	0.400	7.202	16.847	7.089
2021-08-08 14:30	340200	7.945	-85.075	17.004	684.891	808.347	0.400	7.426	17.004	7.206
2021-08-08 14:45	341100	7.967	-86.377	17.119	686.455	808.093	0.399	7.518	17.119	7.644
2021-08-08 15:00	342000	7.988	-87.624	17.231	688.230	808.146	0.399	6.839	17.231	7.969
2021-08-08 15:15	342900	8.009	-88.913	17.412	690.578	807.621	0.399	6.511	17.412	8.234
2021-08-08 15:30	343800	8.036	-90.487	17.575	692.928	807.446	0.399	6.813	17.575	8.339
2021-08-08 15:45	344700	8.044	-91.014	17.711	694.966	807.371	0.399	7.316	17.711	8.579
2021-08-08 16:00	345600	8.039	-90.737	17.822	696.476	807.139	0.399	6.065	17.822	8.727
2021-08-08 16:15	346500	8.052	-91.550	17.915	697.950	807.183	0.399	5.195	17.915	9.015
2021-08-08 16:30	347400	8.148	-97.094	17.917	697.695	806.843	0.399	4.556	17.917	8.730
2021-08-08 16:45	348300	8.147	-97.058	18.050	700.454	807.668	0.399	6.538	18.050	9.093
2021-08-08 17:00	349200	8.192	-99.690	18.087	700.733	807.338	0.399	5.575	18.087	9.191
2021-08-08 17:15	350100	8.159	-97.823	18.234	703.556	807.967	0.400	6.535	18.234	9.289

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-08 17:30	351000	8.102	-94.574	18.397	705.816	807.679	0.400	5.959	18.397	9.255
2021-08-08 17:45	351900	8.113	-95.277	18.652	709.605	807.520	0.400	6.006	18.652	9.453
2021-08-08 18:00	352800	8.124	-96.040	18.880	712.692	807.019	0.399	6.057	18.880	9.568
2021-08-08 18:15	353700	8.149	-97.487	19.040	714.827	806.651	0.399	6.138	19.040	10.230
2021-08-08 18:30	354600	8.160	-98.236	19.227	717.563	806.494	0.399	7.128	19.227	10.107
2021-08-08 18:45	355500	8.174	-99.199	19.805	728.185	808.404	0.400	7.059	19.805	10.329
2021-08-08 19:00	356400	8.185	-99.938	20.105	732.842	808.432	0.400	6.061	20.105	10.726
2021-08-08 19:15	357300	8.162	-98.691	20.229	736.619	810.481	0.401	8.797	20.229	9.898
2021-08-08 19:30	358200	8.132	-96.965	20.303	738.093	810.828	0.401	4.703	20.303	9.588
2021-08-08 19:45	359100	8.124	-96.476	20.298	738.248	811.086	0.402	4.092	20.298	9.399
2021-08-08 20:00	360000	8.121	-96.281	20.270	738.398	811.727	0.402	4.096	20.270	9.399
2021-08-08 20:15	360900	8.118	-96.083	20.078	733.047	809.109	0.401	3.931	20.078	10.644
2021-08-08 20:30	361800	8.198	-100.577	19.725	724.060	805.178	0.398	3.903	19.725	11.862
2021-08-08 20:45	362700	8.250	-103.505	19.452	718.472	803.629	0.398	4.070	19.452	12.021
2021-08-08 21:00	363600	8.268	-104.496	19.304	716.183	803.615	0.398	3.800	19.304	11.940
2021-08-08 21:15	364500	8.259	-104.032	19.384	718.099	804.389	0.398	4.201	19.384	11.792
2021-08-08 21:30	365400	8.244	-103.085	19.293	717.119	804.848	0.398	3.774	19.293	11.391
2021-08-08 21:45	366300	8.236	-102.634	19.225	716.499	805.325	0.398	4.369	19.225	10.899
2021-08-08 22:00	367200	8.188	-99.821	19.218	717.697	806.801	0.399	3.677	19.218	10.020
2021-08-08 22:15	368100	8.160	-98.202	19.202	718.685	808.181	0.400	4.082	19.202	9.617
2021-08-08 22:30	369000	8.100	-94.709	19.153	722.855	813.726	0.403	4.886	19.153	8.439
2021-08-08 22:45	369900	8.061	-92.435	19.099	722.982	814.821	0.403	5.025	19.099	7.715
2021-08-08 23:00	370800	8.035	-90.919	19.029	722.359	815.353	0.404	4.754	19.029	7.216
2021-08-08 23:15	371700	8.005	-89.126	18.958	722.128	816.330	0.404	5.530	18.958	6.743
2021-08-08 23:30	372600	7.969	-87.047	18.884	721.713	817.169	0.405	4.754	18.884	***6.442***
2021-08-08 23:45	373500	7.950	-85.902	18.814	720.351	816.857	0.404	5.189	18.814	***6.244***
2021-08-09 0:00	374400	7.908	-83.463	18.756	722.761	820.632	0.406	5.550	18.756	***5.606***
2021-08-09 0:15	375300	7.868	-81.120	18.694	723.071	822.083	0.407	5.738	18.694	***5.015***
2021-08-09 0:30	376200	7.836	-79.269	18.618	721.795	821.985	0.407	5.665	18.618	***4.791***
2021-08-09 0:45	377100	7.823	-78.459	18.549	720.819	822.116	0.407	5.668	18.549	***4.633***
2021-08-09 1:00	378000	7.825	-78.580	18.480	720.002	822.428	0.407	5.696	18.480	***4.790***
2021-08-09 1:15	378900	7.829	-78.766	18.405	718.936	822.544	0.407	5.854	18.405	***4.554***
2021-08-09 1:30	379800	7.821	-78.335	18.326	718.041	822.947	0.407	6.173	18.326	***4.548***
2021-08-09 1:45	380700	7.812	-77.786	18.261	717.863	823.908	0.408	6.101	18.261	***4.253***
2021-08-09 2:00	381600	7.806	-77.431	18.197	717.420	824.560	0.408	6.104	18.197	***3.980***
2021-08-09 2:15	382500	7.792	-76.587	18.127	716.383	824.630	0.408	5.625	18.127	***3.919***
2021-08-09 2:30	383400	7.793	-76.632	18.060	715.306	824.620	0.408	5.724	18.060	***3.698***
2021-08-09 2:45	384300	7.782	-75.960	17.995	714.343	824.688	0.408	5.618	17.995	***3.659***
2021-08-09 3:00	385200	7.783	-75.986	17.925	713.298	824.746	0.408	5.706	17.925	***3.535***
2021-08-09 3:15	386100	7.779	-75.784	17.860	712.577	825.102	0.408	5.695	17.860	***3.141***
2021-08-09 3:30	387000	7.769	-75.183	17.793	711.815	825.446	0.409	5.591	17.793	***3.008***
2021-08-09 3:45	387900	7.762	-74.720	17.730	710.926	825.553	0.409	5.506	17.730	***2.846***
2021-08-09 4:00	388800	7.757	-74.449	17.669	710.109	825.724	0.409	6.031	17.669	***2.726***
2021-08-09 4:15	389700	7.751	-74.093	17.612	709.355	825.890	0.409	5.569	17.612	***2.572***
2021-08-09 4:30	390600	7.748	-73.888	17.548	708.600	826.202	0.409	5.121	17.548	***2.665***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-09 4:45	391500	7.745	-73.695	17.480	707.803	826.508	0.409	5.425	17.480	***2.632***
2021-08-09 5:00	392400	7.743	-73.576	17.406	706.784	826.689	0.409	5.407	17.406	***2.426***
2021-08-09 5:15	393300	7.744	-73.583	17.330	705.620	826.737	0.409	5.250	17.330	***2.425***
2021-08-09 5:30	394200	7.739	-73.287	17.259	704.472	826.708	0.409	5.813	17.259	***2.400***
2021-08-09 5:45	395100	7.733	-72.937	17.223	704.118	826.957	0.409	5.411	17.223	***2.177***
2021-08-09 6:00	396000	7.704	-71.263	17.161	703.426	827.293	0.409	5.898	17.161	***1.912***
2021-08-09 6:15	396900	7.697	-70.848	17.051	701.474	827.046	0.409	5.787	17.051	***1.579***
2021-08-09 6:30	397800	7.703	-71.146	16.943	698.857	825.959	0.409	6.680	16.943	***1.749***
2021-08-09 6:45	398700	7.711	-71.552	16.844	696.193	824.656	0.408	5.699	16.844	***2.173***
2021-08-09 7:00	399600	7.709	-71.476	16.793	694.836	823.996	0.407	6.668	16.793	***2.346***
2021-08-09 7:15	400500	7.739	-73.156	16.752	692.979	822.557	0.407	6.084	16.752	***2.490***
2021-08-09 7:30	401400	7.785	-75.779	16.714	691.165	821.116	0.406	6.041	16.714	***2.922***
2021-08-09 7:45	402300	7.794	-76.313	16.676	689.634	819.998	0.405	6.069	16.676	***3.149***
2021-08-09 8:00	403200	7.802	-76.742	16.653	688.538	819.132	0.405	5.525	16.653	***3.742***
2021-08-09 8:15	404100	7.824	-78.011	16.644	686.180	816.500	0.404	4.840	16.644	***5.039***
2021-08-09 8:30	405000	7.808	-77.107	16.644	685.603	815.813	0.403	4.981	16.644	***4.205***
2021-08-09 8:45	405900	7.870	-80.674	16.620	685.204	815.778	0.403	5.256	16.620	***4.395***
2021-08-09 9:00	406800	7.877	-81.072	16.591	684.617	815.610	0.403	5.994	16.591	***4.347***
2021-08-09 9:15	407700	7.855	-79.806	16.556	684.529	816.166	0.403	5.475	16.556	***4.500***
2021-08-09 9:30	408600	7.847	-79.339	16.541	684.362	816.241	0.403	5.089	16.541	***4.523***
2021-08-09 9:45	409500	7.842	-79.033	16.535	684.419	816.410	0.404	4.982	16.535	***4.476***
2021-08-09 10:00	410400	7.851	-79.551	16.544	684.513	816.355	0.403	4.933	16.544	***4.653***
2021-08-09 10:15	411300	7.846	-79.255	16.570	684.928	816.383	0.404	5.096	16.570	***4.763***
2021-08-09 10:30	412200	7.833	-78.511	16.604	685.414	816.324	0.403	5.663	16.604	***4.823***
2021-08-09 10:45	413100	7.817	-77.648	16.672	687.205	817.186	0.404	5.022	16.672	***4.757***
2021-08-09 11:00	414000	7.815	-77.538	16.766	687.663	816.002	0.403	5.795	16.766	***4.696***
2021-08-09 11:15	414900	7.822	-77.970	16.817	688.046	815.507	0.403	5.307	16.817	***5.235***
2021-08-09 11:30	415800	7.825	-78.158	16.875	688.629	815.119	0.403	5.997	16.875	***5.358***
2021-08-09 11:45	416700	7.839	-78.943	16.927	688.980	814.584	0.403	5.623	16.927	***5.955***
2021-08-09 12:00	417600	7.855	-79.908	16.971	689.383	814.251	0.403	6.057	16.971	***6.288***
2021-08-09 12:15	418500	7.865	-80.504	17.020	689.769	813.816	0.402	5.505	17.020	***6.168***
2021-08-09 12:30	419400	7.871	-80.841	17.056	690.037	813.469	0.402	6.590	17.056	***6.329***
2021-08-09 12:45	420300	7.879	-81.303	17.097	690.371	813.104	0.402	6.216	17.097	6.773
2021-08-09 13:00	421200	7.896	-82.307	17.136	690.164	812.147	0.402	6.311	17.136	7.253
2021-08-09 13:15	422100	7.972	-86.668	17.157	690.115	811.719	0.401	6.607	17.157	7.531
2021-08-09 13:30	423000	7.986	-87.488	17.199	690.784	811.726	0.401	6.810	17.199	7.641
2021-08-09 13:45	423900	7.983	-87.376	17.317	692.616	811.730	0.401	7.284	17.317	7.833
2021-08-09 14:00	424800	8.001	-88.434	17.362	693.402	811.835	0.401	7.512	17.362	8.118
2021-08-09 14:15	425700	8.042	-90.771	17.335	692.825	811.659	0.401	6.427	17.335	7.856
2021-08-09 14:30	426600	8.049	-91.188	17.348	693.024	811.658	0.401	6.856	17.348	8.004
2021-08-09 14:45	427500	8.058	-91.710	17.374	693.286	811.488	0.401	6.715	17.374	7.987
2021-08-09 15:00	428400	8.060	-91.836	17.414	693.734	811.274	0.401	7.671	17.414	8.013
2021-08-09 15:15	429300	8.048	-91.193	17.493	694.811	811.107	0.401	6.846	17.493	8.247
2021-08-09 15:30	430200	8.070	-92.432	17.502	694.851	811.003	0.401	6.994	17.502	8.387
2021-08-09 15:45	431100	8.091	-93.670	17.529	695.180	810.892	0.401	7.401	17.529	8.499

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-09 16:00	432000	8.103	-94.376	17.553	694.378	809.522	0.400	6.916	17.553	8.596
2021-08-09 16:15	432900	8.101	-94.249	17.579	695.780	810.689	0.401	7.085	17.579	8.568
2021-08-09 16:30	433800	8.106	-94.571	17.606	696.082	810.557	0.401	8.117	17.606	8.692
2021-08-09 16:45	434700	8.128	-95.830	17.614	696.019	810.331	0.401	7.309	17.614	8.933
2021-08-09 17:00	435600	8.131	-95.975	17.622	696.195	810.397	0.401	8.480	17.622	8.882
2021-08-09 17:15	436500	8.136	-96.271	17.636	696.346	810.311	0.401	7.305	17.636	8.988
2021-08-09 17:30	437400	8.141	-96.581	17.647	696.474	810.266	0.401	6.972	17.647	9.063
2021-08-09 17:45	438300	8.148	-97.024	17.668	696.645	810.093	0.401	7.984	17.668	9.120
2021-08-09 18:00	439200	8.162	-97.775	17.654	696.584	810.273	0.401	7.390	17.654	9.005
2021-08-09 18:15	440100	8.156	-97.435	17.664	696.762	810.309	0.401	7.300	17.664	8.992
2021-08-09 18:30	441000	8.163	-97.859	17.660	696.716	810.318	0.401	7.618	17.660	9.053
2021-08-09 18:45	441900	8.163	-97.876	17.655	696.609	810.279	0.401	7.922	17.655	9.071
2021-08-09 19:00	442800	8.160	-97.704	17.666	696.862	810.372	0.401	7.140	17.666	9.074
2021-08-09 19:15	443700	8.160	-97.702	17.668	696.789	810.264	0.401	7.210	17.668	9.056
2021-08-09 19:30	444600	8.160	-97.699	17.650	696.582	810.351	0.401	6.822	17.650	8.931
2021-08-09 19:45	445500	8.157	-97.511	17.637	696.430	810.401	0.401	6.832	17.637	8.781
2021-08-09 20:00	446400	8.156	-97.423	17.625	696.244	810.406	0.401	6.344	17.625	8.642
2021-08-09 20:15	447300	8.156	-97.411	17.601	695.815	810.324	0.401	6.877	17.601	8.534
2021-08-09 20:30	448200	8.149	-97.044	17.570	695.664	810.710	0.401	6.628	17.570	8.479
2021-08-09 20:45	449100	8.146	-96.824	17.543	695.315	810.788	0.401	6.571	17.543	8.498
2021-08-09 21:00	450000	8.143	-96.650	17.512	694.780	810.723	0.401	7.721	17.512	8.411
2021-08-09 21:15	450900	8.140	-96.474	17.474	694.250	810.795	0.401	6.965	17.474	8.224
2021-08-09 21:30	451800	8.139	-96.374	17.431	693.626	810.844	0.401	7.492	17.431	8.058
2021-08-09 21:45	452700	8.131	-95.944	17.392	693.171	811.018	0.401	7.449	17.392	8.078
2021-08-09 22:00	453600	8.128	-95.725	17.332	692.444	811.262	0.401	7.222	17.332	8.148
2021-08-09 22:15	454500	8.122	-95.391	17.271	691.647	811.431	0.401	7.249	17.271	7.978
2021-08-09 22:30	455400	8.118	-95.127	17.219	690.743	811.311	0.401	9.316	17.219	7.893
2021-08-09 22:45	456300	8.114	-94.886	17.164	689.823	811.239	0.401	7.810	17.164	7.810
2021-08-09 23:00	457200	8.105	-94.340	17.107	688.952	811.257	0.401	6.582	17.107	7.794
2021-08-09 23:15	458100	8.097	-93.842	17.052	688.302	811.483	0.401	5.879	17.052	7.617
2021-08-09 23:30	459000	8.090	-93.436	17.004	687.647	811.600	0.401	5.833	17.004	7.355
2021-08-09 23:45	459900	8.080	-92.866	16.948	686.869	811.707	0.401	6.047	16.948	7.375
2021-08-10 0:00	460800	8.070	-92.249	16.895	686.188	811.864	0.401	6.073	16.895	7.264
2021-08-10 0:15	461700	8.056	-91.412	16.857	685.698	811.979	0.401	6.161	16.857	7.117
2021-08-10 0:30	462600	8.049	-91.021	16.812	683.906	810.695	0.401	5.837	16.812	7.055
2021-08-10 0:45	463500	8.040	-90.456	16.762	684.508	812.320	0.401	16.244	16.762	6.951
2021-08-10 1:00	464400	8.030	-89.910	16.713	683.880	812.479	0.402	6.356	16.713	6.791
2021-08-10 1:15	465300	8.016	-89.047	16.661	683.200	812.637	0.402	6.252	16.661	6.635
2021-08-10 1:30	466200	8.008	-88.613	16.607	682.508	812.809	0.402	6.312	16.607	***6.497***
2021-08-10 1:45	467100	7.997	-87.962	16.554	681.794	812.930	0.402	6.094	16.554	***6.382***
2021-08-10 2:00	468000	7.989	-87.492	16.498	681.102	813.146	0.402	6.283	16.498	***6.252***
2021-08-10 2:15	468900	7.980	-86.954	16.429	680.167	813.313	0.402	5.906	16.429	***6.081***
2021-08-10 2:30	469800	7.973	-86.534	16.377	679.488	813.461	0.402	6.079	16.377	***5.993***
2021-08-10 2:45	470700	7.956	-85.523	16.328	679.540	814.440	0.402	5.998	16.328	***5.699***
2021-08-10 3:00	471600	7.933	-84.205	16.278	679.524	815.362	0.403	6.053	16.278	***5.361***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-10 3:15	472500	7.917	-83.280	16.227	679.171	815.889	0.403	5.768	16.227	***5.123***
2021-08-10 3:30	473400	7.899	-82.233	16.188	679.019	816.437	0.403	5.902	16.188	***5.015***
2021-08-10 3:45	474300	7.885	-81.413	16.157	678.838	816.802	0.404	5.556	16.157	***4.755***
2021-08-10 4:00	475200	7.879	-81.062	16.119	678.009	816.517	0.403	5.997	16.119	***4.691***
2021-08-10 4:15	476100	7.890	-81.646	16.059	676.849	816.242	0.403	5.833	16.059	***4.907***
2021-08-10 4:30	477000	7.904	-82.433	16.005	675.723	815.897	0.403	6.285	16.005	***5.210***
2021-08-10 4:45	477900	7.894	-81.868	15.948	674.946	816.026	0.403	6.402	15.948	***4.846***
2021-08-10 5:00	478800	7.884	-81.294	15.892	674.259	816.249	0.403	6.321	15.892	***4.693***
2021-08-10 5:15	479700	7.879	-80.965	15.846	673.595	816.318	0.403	5.837	15.846	***4.666***
2021-08-10 5:30	480600	7.890	-81.606	15.797	672.543	815.978	0.403	13.733	15.797	***4.968***
2021-08-10 5:45	481500	7.889	-81.542	15.760	671.620	815.549	0.403	5.317	15.760	***5.054***
2021-08-10 6:00	482400	7.880	-80.991	15.720	671.190	815.779	0.403	4.836	15.720	***4.795***
2021-08-10 6:15	483300	7.885	-81.255	15.700	671.087	816.044	0.403	4.881	15.700	***4.585***
2021-08-10 6:30	484200	7.887	-81.363	15.688	670.936	816.077	0.403	3.380	15.688	***4.722***
2021-08-10 6:45	485100	7.875	-80.688	15.690	670.900	816.007	0.403	3.824	15.690	***4.770***
2021-08-10 7:00	486000	7.864	-80.042	15.675	670.475	815.761	0.403	5.189	15.675	***4.425***
2021-08-10 7:15	486900	7.890	-81.537	15.630	669.492	815.434	0.403	5.379	15.630	***4.450***
2021-08-10 7:30	487800	7.911	-82.748	15.577	668.345	815.029	0.402	4.956	15.577	***4.668***
2021-08-10 7:45	488700	7.909	-82.591	15.554	667.924	814.951	0.402	4.950	15.554	***5.120***
2021-08-10 8:00	489600	7.924	-83.468	15.520	667.262	814.803	0.402	5.080	15.520	***5.324***
2021-08-10 8:15	490500	7.936	-84.150	15.512	667.035	814.661	0.402	5.095	15.512	***5.523***
2021-08-10 8:30	491400	7.943	-84.512	15.504	666.745	814.475	0.402	4.647	15.504	***5.419***
2021-08-10 8:45	492300	7.949	-84.879	15.485	666.255	814.237	0.402	5.154	15.485	***5.711***
2021-08-10 9:00	493200	7.950	-84.920	15.462	665.792	814.093	0.402	4.745	15.462	***5.763***
2021-08-10 9:15	494100	7.945	-84.639	15.440	665.317	813.943	0.402	5.073	15.440	***5.695***
2021-08-10 9:30	495000	7.944	-84.581	15.408	664.780	813.896	0.402	6.086	15.408	***5.616***
2021-08-10 9:45	495900	7.947	-84.705	15.377	664.171	813.734	0.402	5.535	15.377	***5.661***
2021-08-10 10:00	496800	7.953	-85.046	15.347	663.614	813.630	0.402	7.599	15.347	***5.680***
2021-08-10 10:15	497700	7.961	-85.514	15.337	663.088	813.163	0.401	7.050	15.337	***5.102***
2021-08-10 10:30	498600	7.958	-85.328	15.358	663.653	813.457	0.402	7.334	15.358	***5.465***
2021-08-10 10:45	499500	7.953	-85.101	15.404	664.250	813.309	0.402	7.452	15.404	***5.914***
2021-08-10 11:00	500400	7.936	-84.150	15.458	665.080	813.303	0.402	7.725	15.458	***5.972***
2021-08-10 11:15	501300	7.925	-83.489	15.520	665.837	813.055	0.401	7.802	15.520	***5.915***
2021-08-10 11:30	502200	7.916	-83.044	15.614	666.864	812.530	0.401	7.862	15.614	***6.206***
2021-08-10 11:45	503101	7.941	-84.453	15.697	667.650	811.923	0.401	8.001	15.697	6.725
2021-08-10 12:00	504001	7.972	-86.246	15.734	668.093	811.760	0.401	8.080	15.734	7.221
2021-08-10 12:15	504901	8.027	-89.445	15.753	668.355	811.716	0.401	6.462	15.753	7.542
2021-08-10 12:30	505801	8.038	-90.070	15.757	668.600	811.940	0.401	6.465	15.757	7.614
2021-08-10 12:45	506701	8.043	-90.370	15.778	668.898	811.905	0.401	6.318	15.778	7.740
2021-08-10 13:00	507601	8.070	-91.877	15.800	669.220	811.887	0.401	5.535	15.800	7.626
2021-08-10 13:15	508501	8.098	-93.527	15.828	669.503	811.692	0.401	5.872	15.828	7.550
2021-08-10 13:30	509401	8.104	-93.853	15.857	669.854	811.588	0.401	5.730	15.857	7.477
2021-08-10 13:45	510301	8.102	-93.765	15.880	669.883	811.185	0.401	5.755	15.880	7.592
2021-08-10 14:00	511201	8.108	-94.135	15.882	669.671	810.891	0.400	6.357	15.882	7.705
2021-08-10 14:15	512101	8.124	-95.019	15.895	669.571	810.528	0.400	6.758	15.895	7.939

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-10 14:30	513001	8.137	-95.813	15.940	670.267	810.523	0.400	12.810	15.940	7.997
2021-08-10 14:45	513901	8.122	-94.965	15.967	671.075	810.998	0.401	10.293	15.967	7.852
2021-08-10 15:00	514801	8.125	-95.117	15.996	671.352	810.786	0.400	8.767	15.996	7.679
2021-08-10 15:15	515701	8.112	-94.402	16.002	671.576	810.938	0.401	7.851	16.002	7.740
2021-08-10 15:30	516601	8.116	-94.607	16.007	671.834	811.161	0.401	7.106	16.007	7.757
2021-08-10 15:45	517501	8.118	-94.702	16.018	672.035	811.197	0.401	6.822	16.018	7.806
2021-08-10 16:00	518401	8.129	-95.382	16.042	672.449	811.252	0.401	6.306	16.042	7.870
2021-08-10 16:15	519301	8.143	-96.152	16.069	672.467	810.778	0.400	7.362	16.069	7.871
2021-08-10 16:30	520201	8.155	-96.884	16.079	672.261	810.341	0.400	6.796	16.079	8.203
2021-08-10 16:45	521101	8.164	-97.368	16.090	672.092	809.931	0.400	6.872	16.090	8.357
2021-08-10 17:00	522001	8.160	-97.148	16.112	672.519	810.026	0.400	6.791	16.112	8.444
2021-08-10 17:15	522901	8.162	-97.313	16.142	672.992	810.043	0.400	6.769	16.142	8.348
2021-08-10 17:30	523801	8.167	-97.597	16.163	673.428	810.173	0.400	6.189	16.163	8.450
2021-08-10 17:45	524701	8.169	-97.694	16.198	674.055	810.282	0.400	6.807	16.198	8.336
2021-08-10 18:00	525601	8.161	-97.260	16.227	674.556	810.347	0.400	5.555	16.227	8.314
2021-08-10 18:15	526501	8.160	-97.191	16.239	674.520	810.076	0.400	6.039	16.239	8.383
2021-08-10 18:30	527401	8.156	-97.008	16.234	675.088	810.849	0.401	7.243	16.234	8.604
2021-08-10 18:45	528301	8.163	-97.392	16.242	674.856	810.421	0.400	7.647	16.242	8.538
2021-08-10 19:00	529201	8.176	-98.157	16.271	675.244	810.352	0.400	7.138	16.271	8.635
2021-08-10 19:15	530101	8.171	-97.890	16.329	676.243	810.465	0.400	7.693	16.329	8.619
2021-08-10 19:30	531001	8.169	-97.740	16.339	676.204	810.232	0.400	6.775	16.339	8.841
2021-08-10 19:45	531901	8.168	-97.678	16.337	676.286	810.364	0.400	8.199	16.337	8.405
2021-08-10 20:00	532801	8.163	-97.389	16.337	676.674	810.830	0.401	7.204	16.337	8.525
2021-08-10 20:15	533701	8.173	-97.985	16.349	676.126	809.966	0.400	8.224	16.349	8.714
2021-08-10 20:30	534601	8.169	-97.761	16.352	676.433	810.269	0.400	7.344	16.352	8.802
2021-08-10 20:45	535501	8.172	-97.935	16.362	676.504	810.179	0.400	6.713	16.362	8.786
2021-08-10 21:00	536401	8.173	-97.983	16.365	676.506	810.109	0.400	6.758	16.365	8.762
2021-08-10 21:15	537301	8.162	-97.356	16.369	676.573	810.115	0.400	7.379	16.369	8.699
2021-08-10 21:30	538201	8.165	-97.530	16.367	676.560	810.141	0.400	7.601	16.367	8.616
2021-08-10 21:45	539101	8.155	-96.936	16.351	676.485	810.344	0.400	7.777	16.351	8.559
2021-08-10 22:00	540001	8.143	-96.242	16.331	676.531	810.787	0.401	7.952	16.331	8.252
2021-08-10 22:15	540901	8.141	-96.118	16.307	676.264	810.898	0.401	7.665	16.307	7.898
2021-08-10 22:30	541801	8.131	-95.580	16.282	675.896	810.927	0.401	8.618	16.282	7.617
2021-08-10 22:45	542701	8.135	-95.804	16.257	675.570	811.007	0.401	7.817	16.257	7.946
2021-08-10 23:00	543601	8.130	-95.458	16.230	675.214	811.072	0.401	7.687	16.230	7.612
2021-08-10 23:15	544501	8.125	-95.174	16.215	675.131	811.260	0.401	7.510	16.215	7.754
2021-08-10 23:30	545401	8.101	-93.806	16.193	675.360	811.939	0.401	7.435	16.193	7.504
2021-08-10 23:45	546301	8.086	-92.938	16.160	675.728	813.000	0.402	7.771	16.160	7.129
2021-08-11 0:00	547201	8.069	-91.956	16.138	675.921	813.633	0.402	7.258	16.138	6.969
2021-08-11 0:15	548101	8.040	-90.306	16.109	676.604	815.007	0.403	7.376	16.109	6.711
2021-08-11 0:30	549001	8.013	-88.696	16.079	677.044	816.103	0.403	7.354	16.079	***6.257***
2021-08-11 0:45	549901	7.987	-87.209	16.069	677.511	816.848	0.404	7.250	16.069	***5.935***
2021-08-11 1:00	550801	7.966	-86.007	16.033	677.904	817.996	0.404	7.251	16.033	***5.465***
2021-08-11 1:15	551701	7.963	-85.804	15.997	677.763	818.517	0.404	7.455	15.997	***5.277***
2021-08-11 1:30	552601	7.945	-84.803	15.961	677.441	818.808	0.405	7.131	15.961	***5.169***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-11 1:45	553501	7.912	-82.901	15.936	678.431	820.471	0.405	6.989	15.936	***4.856***
2021-08-11 2:00	554401	7.887	-81.456	15.901	678.454	821.170	0.406	7.098	15.901	***4.481***
2021-08-11 2:15	555301	7.872	-80.595	15.854	678.392	821.978	0.406	7.249	15.854	***4.201***
2021-08-11 2:30	556201	7.858	-79.744	15.813	678.066	822.366	0.406	7.175	15.813	***4.138***
2021-08-11 2:45	557101	7.852	-79.381	15.764	676.696	821.644	0.406	7.448	15.764	***3.938***
2021-08-11 3:00	558001	7.870	-80.392	15.718	675.625	821.206	0.406	8.396	15.718	***4.061***
2021-08-11 3:15	558901	7.882	-81.105	15.675	674.551	820.735	0.405	7.605	15.675	***4.677***
2021-08-11 3:30	559801	7.895	-81.816	15.634	673.515	820.241	0.405	7.856	15.634	***5.396***
2021-08-11 3:45	560701	7.889	-81.441	15.592	672.157	819.388	0.405	7.991	15.592	***5.693***
2021-08-11 4:00	561601	7.898	-81.975	15.547	671.041	818.892	0.404	7.716	15.547	***5.929***
2021-08-11 4:15	562501	7.939	-84.319	15.505	669.715	818.071	0.404	8.221	15.505	***6.006***
2021-08-11 4:30	563401	7.952	-85.053	15.447	667.189	816.092	0.403	8.150	15.447	***5.897***
2021-08-11 4:45	564301	7.953	-85.087	15.406	666.012	815.431	0.403	8.721	15.406	***5.899***
2021-08-11 5:00	565201	7.951	-84.939	15.345	664.712	815.004	0.402	8.682	15.345	***5.805***
2021-08-11 5:15	566101	7.950	-84.877	15.306	663.987	814.864	0.402	8.811	15.306	***5.898***
2021-08-11 5:30	567001	7.945	-84.569	15.263	663.262	814.789	0.402	8.694	15.263	***5.831***
2021-08-11 5:45	567901	7.942	-84.419	15.207	662.275	814.654	0.402	8.758	15.207	***5.754***
2021-08-11 6:00	568801	7.942	-84.393	15.158	661.631	814.796	0.402	9.147	15.158	***5.692***
2021-08-11 6:15	569701	7.934	-83.938	15.125	661.244	814.946	0.402	8.891	15.125	***5.631***
2021-08-11 6:30	570601	7.928	-83.575	15.075	660.653	815.179	0.402	8.677	15.075	***5.562***
2021-08-11 6:45	571501	7.928	-83.554	15.040	660.232	815.333	0.402	8.801	15.040	***5.516***
2021-08-11 7:00	572401	7.929	-83.597	15.002	659.643	815.339	0.402	8.966	15.002	***5.496***
2021-08-11 7:15	573301	7.923	-83.222	14.968	659.046	815.258	0.402	8.890	14.968	***5.362***
2021-08-11 7:30	574201	7.926	-83.375	14.941	658.687	815.327	0.402	8.686	14.941	***5.221***
2021-08-11 7:45	575101	7.932	-83.759	14.920	658.321	815.294	0.402	8.937	14.920	***5.245***
2021-08-11 8:00	576001	7.935	-83.930	14.906	657.988	815.136	0.402	9.117	14.906	***5.377***
2021-08-11 8:15	576901	7.938	-84.043	14.890	657.606	814.985	0.402	10.920	14.890	***5.346***
2021-08-11 8:30	577801	7.938	-84.088	14.880	657.447	814.967	0.402	8.582	14.880	***5.591***
2021-08-11 8:45	578701	7.942	-84.307	14.875	657.288	814.884	0.402	8.707	14.875	***5.778***
2021-08-11 9:00	579601	7.935	-83.921	14.875	657.344	814.939	0.402	8.521	14.875	***5.736***
2021-08-11 9:15	580501	7.926	-83.380	14.896	657.844	815.165	0.402	8.965	14.896	***5.813***
2021-08-11 9:30	581401	7.927	-83.470	14.915	658.688	815.831	0.403	8.973	14.915	***5.739***
2021-08-11 9:45	582301	7.938	-84.074	14.940	659.046	815.806	0.403	9.357	14.940	***5.749***
2021-08-11 10:00	583201	7.945	-84.481	14.974	659.189	815.323	0.402	10.119	14.974	***5.763***
2021-08-11 10:15	584101	7.948	-84.662	15.014	659.751	815.247	0.402	9.906	15.014	***5.830***
2021-08-11 10:30	585001	7.944	-84.443	15.061	660.399	815.133	0.402	10.089	15.061	***5.941***
2021-08-11 10:45	585901	7.941	-84.279	15.107	661.045	815.054	0.402	9.703	15.107	***6.068***
2021-08-11 11:00	586801	7.941	-84.343	15.150	661.642	814.957	0.402	9.846	15.150	***6.195***
2021-08-11 11:15	587701	7.937	-84.126	15.209	662.170	814.487	0.402	10.207	15.209	***6.371***
2021-08-11 11:30	588601	7.934	-83.969	15.262	662.696	814.122	0.402	10.191	15.262	***6.444***
2021-08-11 11:45	589501	7.948	-84.758	15.304	663.232	813.981	0.402	10.450	15.304	6.500
2021-08-11 12:00	590401	7.982	-86.737	15.330	663.564	813.893	0.402	8.704	15.330	6.821
2021-08-11 12:15	591301	7.999	-87.678	15.357	663.897	813.783	0.402	8.514	15.357	6.943
2021-08-11 12:30	592201	8.008	-88.232	15.399	664.428	813.629	0.402	9.427	15.399	7.006
2021-08-11 12:45	593101	7.993	-87.414	15.472	664.835	812.749	0.401	10.473	15.472	7.338

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-11 13:00	594001	7.960	-85.547	15.543	665.518	812.229	0.401	10.560	15.543	7.541
2021-08-11 13:15	594901	7.952	-85.118	15.639	666.548	811.667	0.401	10.396	15.639	7.648
2021-08-11 13:30	595801	7.969	-86.067	15.729	667.625	811.285	0.401	11.283	15.729	7.780
2021-08-11 13:45	596701	7.992	-87.416	15.777	668.285	811.180	0.401	10.267	15.777	7.957
2021-08-11 14:00	597601	8.059	-91.271	15.828	669.112	811.231	0.401	10.092	15.828	8.221
2021-08-11 14:15	598501	8.082	-92.645	15.891	669.932	811.033	0.401	9.485	15.891	8.274
2021-08-11 14:30	599401	8.105	-93.982	15.951	670.699	810.850	0.400	9.379	15.951	8.272
2021-08-11 14:45	600301	8.125	-95.096	15.988	670.860	810.346	0.400	10.264	15.988	8.237
2021-08-11 15:00	601201	8.137	-95.832	16.044	671.721	810.343	0.400	11.007	16.044	8.292
2021-08-11 15:15	602101	8.159	-97.113	16.083	672.559	810.625	0.400	11.894	16.083	8.569
2021-08-11 15:30	603001	8.178	-98.214	16.197	672.706	808.668	0.399	9.259	16.197	9.147
2021-08-11 15:45	603901	8.166	-97.554	16.315	674.198	808.284	0.399	9.375	16.315	9.375
2021-08-11 16:00	604801	8.161	-97.320	16.447	675.924	807.901	0.399	8.901	16.447	9.527
2021-08-11 16:15	605701	8.196	-99.387	16.500	677.015	808.239	0.399	8.818	16.500	9.749
2021-08-11 16:30	606601	8.216	-100.532	16.609	678.669	808.197	0.399	9.579	16.609	9.757
2021-08-11 16:45	607501	8.196	-99.466	16.770	681.592	808.720	0.400	10.160	16.770	9.780
2021-08-11 17:00	608401	8.193	-99.318	16.876	683.107	808.579	0.400	8.578	16.876	10.023
2021-08-11 17:15	609301	8.194	-99.392	16.965	684.491	808.587	0.400	11.278	16.965	9.973
2021-08-11 17:30	610201	8.190	-99.230	17.094	686.440	808.536	0.400	12.281	17.094	9.958
2021-08-11 17:45	611101	8.197	-99.638	17.179	687.731	808.505	0.400	9.566	17.179	10.106
2021-08-11 18:00	612001	8.198	-99.711	17.243	688.813	808.618	0.400	17.993	17.243	10.131
2021-08-11 18:15	612901	8.192	-99.409	17.318	689.776	808.383	0.400	9.191	17.318	10.384
2021-08-11 18:30	613801	8.210	-100.489	17.366	690.780	808.688	0.400	10.243	17.366	10.759
2021-08-11 18:45	614701	8.251	-102.870	17.405	691.700	809.070	0.400	8.532	17.405	10.857
2021-08-11 19:00	615601	8.267	-103.800	17.449	692.450	809.147	0.400	8.651	17.449	10.877
2021-08-11 19:15	616501	8.270	-103.993	17.473	692.951	809.301	0.400	7.322	17.473	10.863
2021-08-11 19:30	617401	8.280	-104.539	17.477	692.901	809.174	0.400	7.010	17.477	10.770
2021-08-11 19:45	618301	8.254	-103.052	17.455	692.929	809.600	0.400	7.850	17.455	10.574
2021-08-11 20:00	619201	8.248	-102.704	17.428	692.369	809.429	0.400	8.994	17.428	9.999
2021-08-11 20:15	620101	8.244	-102.460	17.405	691.969	809.388	0.400	7.714	17.405	9.834
2021-08-11 20:30	621001	8.235	-101.898	17.378	692.401	810.372	0.401	7.700	17.378	9.812
2021-08-11 20:45	621901	8.187	-99.161	17.352	693.119	811.687	0.401	8.338	17.352	9.574
2021-08-11 21:00	622801	8.152	-97.091	17.321	694.086	813.388	0.402	13.110	17.321	8.984
2021-08-11 21:15	623701	8.128	-95.720	17.274	693.893	814.020	0.403	7.413	17.274	8.760
2021-08-11 21:30	624601	8.142	-96.519	17.204	693.078	814.338	0.403	7.504	17.204	8.642
2021-08-11 21:45	625501	8.152	-97.067	17.143	691.867	814.035	0.402	7.408	17.143	8.855
2021-08-11 22:00	626401	8.127	-95.601	17.079	691.517	814.795	0.403	7.767	17.079	8.332
2021-08-11 22:15	627301	8.098	-93.884	17.016	691.504	815.929	0.403	7.740	17.016	7.920
2021-08-11 22:30	628201	8.089	-93.336	16.934	690.829	816.641	0.404	7.815	16.934	7.878
2021-08-11 22:45	629101	8.081	-92.866	16.886	690.850	817.549	0.404	8.078	16.886	7.497
2021-08-11 23:00	630001	8.018	-89.231	16.825	692.522	820.665	0.406	9.738	16.825	6.849
2021-08-11 23:15	630901	8.005	-88.439	16.738	691.638	821.233	0.406	7.697	16.738	6.777
2021-08-11 23:30	631801	8.042	-90.573	16.668	689.826	820.380	0.406	7.805	16.668	7.337
2021-08-11 23:45	632701	8.105	-94.166	16.608	687.899	819.216	0.405	7.784	16.608	7.994
2021-08-12 0:00	633601	8.168	-97.768	16.535	684.947	817.055	0.404	7.935	16.535	8.195

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-12 0:15	634501	8.191	-99.087	16.470	682.928	815.841	0.403	7.827	16.470	8.693
2021-08-12 0:30	635401	8.207	-99.990	16.420	680.494	813.876	0.402	7.539	16.420	8.914
2021-08-12 0:45	636301	8.218	-100.586	16.382	678.991	812.783	0.402	7.714	16.382	8.937
2021-08-12 1:00	637201	8.217	-100.532	16.333	677.670	812.103	0.401	7.811	16.333	8.829
2021-08-12 1:15	638101	8.216	-100.412	16.271	676.273	811.579	0.401	7.574	16.271	8.882
2021-08-12 1:30	639001	8.209	-100.043	16.219	675.342	811.439	0.401	7.860	16.219	8.901
2021-08-12 1:45	639901	8.207	-99.909	16.179	674.708	811.415	0.401	7.689	16.179	8.934
2021-08-12 2:00	640801	8.206	-99.802	16.141	673.936	811.203	0.401	7.730	16.141	8.898
2021-08-12 2:15	641701	8.215	-100.310	16.065	672.721	811.157	0.401	7.884	16.065	8.764
2021-08-12 2:30	642601	8.210	-100.012	16.015	671.758	810.922	0.401	7.829	16.015	8.779
2021-08-12 2:45	643501	8.212	-100.117	15.964	670.964	810.913	0.400	7.820	15.964	8.752
2021-08-12 3:00	644401	8.203	-99.554	15.911	670.186	810.977	0.401	7.647	15.911	8.644
2021-08-12 3:15	645301	8.198	-99.280	15.869	669.489	810.919	0.400	7.832	15.869	8.661
2021-08-12 3:30	646201	8.194	-99.037	15.809	668.640	811.009	0.400	7.860	15.809	8.604
2021-08-12 3:45	647101	8.197	-99.154	15.724	667.396	811.092	0.400	8.281	15.724	8.500
2021-08-12 4:00	648001	8.192	-98.870	15.670	666.677	811.238	0.401	7.992	15.670	8.474
2021-08-12 4:15	648901	8.189	-98.698	15.663	666.714	811.415	0.401	7.784	15.663	8.385
2021-08-12 4:30	649801	8.186	-98.517	15.606	665.892	811.501	0.401	7.748	15.606	8.116
2021-08-12 4:45	650701	8.192	-98.774	15.502	664.295	811.509	0.401	8.269	15.502	8.293
2021-08-12 5:00	651601	8.179	-98.028	15.463	663.918	811.787	0.401	8.118	15.463	8.275
2021-08-12 5:15	652501	8.169	-97.487	15.448	663.780	811.911	0.401	8.161	15.448	8.210
2021-08-12 5:30	653401	8.164	-97.132	15.362	662.520	811.988	0.401	8.050	15.362	7.685
2021-08-12 5:45	654301	8.159	-96.869	15.308	661.997	812.374	0.401	8.362	15.308	7.819
2021-08-12 6:00	655201	8.157	-96.738	15.297	661.914	812.484	0.401	7.852	15.297	7.571
2021-08-12 6:15	656101	8.150	-96.338	15.266	661.424	812.472	0.401	7.705	15.266	7.671
2021-08-12 6:30	657001	8.147	-96.138	15.222	660.751	812.501	0.401	7.371	15.222	7.486
2021-08-12 6:45	657901	8.142	-95.840	15.182	660.139	812.508	0.401	7.412	15.182	7.259
2021-08-12 7:00	658801	8.143	-95.847	15.147	659.615	812.520	0.401	7.313	15.147	7.148
2021-08-12 7:15	659701	8.136	-95.427	15.096	658.875	812.592	0.401	7.675	15.096	7.147
2021-08-12 7:30	660601	8.132	-95.236	15.047	658.166	812.647	0.401	7.616	15.047	7.110
2021-08-12 7:45	661501	8.133	-95.286	15.020	657.803	812.727	0.401	7.870	15.020	7.274
2021-08-12 8:00	662401	8.130	-95.105	14.999	657.479	812.718	0.401	7.648	14.999	7.276
2021-08-12 8:15	663301	8.094	-93.002	14.969	657.419	813.219	0.401	7.033	14.969	7.179
2021-08-12 8:30	664201	8.094	-92.981	14.943	656.245	812.269	0.401	6.891	14.943	7.168
2021-08-12 8:45	665101	8.104	-93.560	14.917	655.465	811.802	0.401	6.974	14.917	7.405
2021-08-12 9:00	666001	8.117	-94.280	14.913	655.494	811.927	0.401	7.671	14.913	7.607
2021-08-12 9:15	666901	8.110	-93.911	14.914	655.588	812.016	0.401	7.720	14.914	7.703
2021-08-12 9:30	667801	8.135	-95.313	14.922	655.544	811.800	0.401	7.913	14.922	7.801
2021-08-12 9:45	668701	8.142	-95.758	14.940	655.815	811.794	0.401	8.082	14.940	7.803
2021-08-12 10:00	669601	8.118	-94.411	14.968	656.255	811.802	0.401	9.004	14.968	7.779
2021-08-12 10:15	670501	8.118	-94.426	15.025	657.256	811.957	0.401	9.870	15.025	7.776
2021-08-12 10:30	671401	8.110	-93.980	15.095	658.460	812.089	0.401	10.698	15.095	7.726
2021-08-12 10:45	672301	8.118	-94.442	15.159	659.432	812.065	0.401	9.993	15.159	7.698
2021-08-12 11:00	673201	8.108	-93.875	15.192	660.089	812.248	0.401	10.347	15.192	7.826
2021-08-12 11:15	674101	8.101	-93.503	15.236	660.840	812.330	0.401	9.217	15.236	7.831

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-12 11:30	675001	8.103	-93.639	15.325	662.110	812.190	0.401	9.098	15.325	7.747
2021-08-12 11:45	675901	8.085	-92.628	15.416	663.482	812.146	0.401	8.583	15.416	7.639
2021-08-12 12:00	676801	8.067	-91.653	15.489	664.618	812.163	0.401	8.574	15.489	7.590
2021-08-12 12:15	677701	8.062	-91.364	15.561	665.687	812.102	0.401	8.957	15.561	7.624
2021-08-12 12:30	678601	8.057	-91.102	15.659	667.163	812.039	0.401	9.121	15.659	7.652
2021-08-12 12:45	679501	8.056	-91.064	15.749	668.565	812.057	0.401	10.567	15.749	7.693
2021-08-12 13:00	680401	8.061	-91.410	15.876	670.594	812.116	0.401	10.527	15.876	7.808
2021-08-12 13:15	681301	8.070	-91.944	15.988	672.346	812.129	0.401	9.194	15.988	7.847
2021-08-12 13:30	682201	8.077	-92.423	16.146	674.587	811.884	0.401	9.414	16.146	8.006
2021-08-12 13:45	683101	8.107	-94.156	16.249	676.208	811.910	0.401	10.291	16.249	8.181
2021-08-12 14:00	684001	8.106	-94.154	16.365	678.081	812.000	0.401	9.934	16.365	8.469
2021-08-12 14:15	684901	8.147	-96.509	16.397	678.736	812.197	0.401	9.297	16.397	8.808
2021-08-12 14:30	685801	8.172	-97.964	16.423	678.946	811.968	0.401	8.914	16.423	9.002
2021-08-12 14:45	686701	8.184	-98.662	16.448	678.958	811.516	0.401	8.824	16.448	9.245
2021-08-12 15:00	687601	8.156	-97.139	16.633	681.438	811.059	0.401	11.713	16.633	9.230
2021-08-12 15:15	688501	8.142	-96.364	16.846	684.120	810.327	0.400	11.382	16.846	9.447
2021-08-12 15:30	689401	8.152	-97.020	17.058	687.317	810.220	0.400	10.457	17.058	9.644
2021-08-12 15:45	690301	8.167	-97.961	17.351	691.697	810.040	0.400	10.600	17.351	9.965
2021-08-12 16:00	691201	8.193	-99.597	17.651	696.352	810.063	0.401	9.794	17.651	10.269
2021-08-12 16:15	692101	8.208	-100.529	17.857	699.235	809.709	0.400	9.967	17.857	10.547
2021-08-12 16:30	693001	8.211	-100.741	18.004	701.926	810.195	0.401	10.331	18.004	10.606
2021-08-12 16:45	693901	8.186	-99.320	18.111	703.917	810.580	0.401	9.911	18.111	10.054
2021-08-12 17:00	694801	8.201	-100.281	18.263	705.846	810.086	0.401	9.625	18.263	9.945
2021-08-12 17:15	695701	8.214	-101.097	18.466	708.416	809.427	0.400	9.725	18.466	10.060
2021-08-12 17:30	696601	8.240	-102.634	18.564	710.288	809.832	0.401	9.613	18.564	10.401
2021-08-12 17:45	697501	8.236	-102.446	18.673	711.642	809.462	0.401	9.976	18.673	10.423
2021-08-12 18:00	698401	8.237	-102.520	18.758	713.486	810.065	0.401	9.644	18.758	10.494
2021-08-12 18:15	699301	8.234	-102.375	18.847	715.140	810.383	0.401	9.705	18.847	10.442
2021-08-12 18:30	700201	8.241	-102.787	18.874	716.535	811.483	0.402	9.576	18.874	10.279
2021-08-12 18:45	701101	8.210	-101.073	19.061	716.242	807.887	0.400	9.938	19.061	10.794
2021-08-12 19:00	702001	8.255	-103.710	19.185	717.926	807.619	0.400	9.239	19.185	10.967
2021-08-12 19:15	702901	8.298	-106.206	19.231	719.418	808.507	0.400	9.289	19.231	10.639
2021-08-12 19:30	703801	8.329	-107.970	19.139	718.312	808.853	0.400	9.109	19.139	10.960
2021-08-12 19:45	704701	8.348	-109.029	19.028	716.413	808.650	0.400	8.577	19.028	10.949
2021-08-12 20:00	705601	8.323	-107.622	19.052	717.205	809.127	0.400	9.508	19.052	11.199
2021-08-12 20:15	706501	8.295	-106.003	19.118	718.753	809.716	0.401	8.661	19.118	11.190
2021-08-12 20:30	707401	8.283	-105.333	19.177	719.397	809.421	0.401	8.542	19.177	11.048
2021-08-12 20:45	708301	8.287	-105.555	19.217	721.589	811.191	0.401	11.285	19.217	10.971
2021-08-12 21:00	709201	8.268	-104.504	19.239	721.748	810.984	0.401	9.263	19.239	10.810
2021-08-12 21:15	710101	8.214	-101.378	19.270	723.069	811.930	0.402	9.707	19.270	9.891
2021-08-12 21:30	711001	8.184	-99.633	19.286	724.374	813.109	0.402	9.874	19.286	9.532
2021-08-12 21:45	711901	8.155	-97.964	19.289	725.303	814.105	0.403	8.767	19.289	9.730
2021-08-12 22:00	712801	8.154	-97.888	19.263	725.134	814.366	0.403	9.117	19.263	9.302
2021-08-12 22:15	713701	8.200	-100.534	19.218	724.455	814.388	0.403	9.524	19.218	9.270
2021-08-12 22:30	714601	8.217	-101.511	19.180	723.519	814.006	0.403	9.481	19.180	9.431

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-12 22:45	715501	8.228	-102.115	19.160	723.066	813.850	0.403	9.381	19.160	9.220
2021-08-12 23:00	716401	8.228	-102.141	19.139	722.337	813.391	0.403	9.291	19.139	8.991
2021-08-12 23:15	717301	8.243	-103.002	19.098	721.282	812.930	0.402	9.091	19.098	9.012
2021-08-12 23:30	718201	8.257	-103.753	19.039	720.117	812.647	0.402	9.334	19.039	8.209
2021-08-12 23:45	719101	8.269	-104.470	18.962	718.629	812.317	0.402	9.850	18.962	9.293
2021-08-13 0:00	720001	8.270	-104.473	18.903	717.679	812.263	0.402	9.402	18.903	9.378
2021-08-13 0:15	720901	8.263	-104.024	18.808	716.128	812.189	0.402	9.609	18.808	8.835
2021-08-13 0:30	721801	8.267	-104.220	18.729	714.902	812.186	0.402	9.766	18.729	8.834
2021-08-13 0:45	722701	8.263	-103.991	18.656	713.756	812.167	0.402	9.660	18.656	8.413
2021-08-13 1:00	723601	8.265	-104.051	18.585	712.807	812.347	0.402	9.614	18.585	9.021
2021-08-13 1:15	724501	8.261	-103.838	18.526	711.968	812.420	0.402	9.501	18.526	9.162
2021-08-13 1:30	725401	8.255	-103.452	18.471	711.078	812.388	0.402	9.541	18.471	9.095
2021-08-13 1:45	726301	8.241	-102.630	18.399	709.983	812.418	0.402	9.575	18.399	8.888
2021-08-13 2:00	727201	8.237	-102.370	18.334	709.069	812.524	0.402	9.757	18.334	8.842
2021-08-13 2:15	728101	8.231	-102.007	18.267	708.457	813.008	0.402	9.768	18.267	8.915
2021-08-13 2:30	729001	8.252	-103.171	18.199	706.962	812.501	0.402	9.489	18.199	8.844
2021-08-13 2:45	729901	8.256	-103.395	18.146	706.070	812.429	0.402	9.625	18.146	8.901
2021-08-13 3:00	730801	8.257	-103.419	18.082	705.044	812.380	0.402	9.624	18.082	8.885
2021-08-13 3:15	731701	8.254	-103.219	18.022	704.142	812.413	0.402	9.797	18.022	8.790
2021-08-13 3:30	732601	8.252	-103.076	17.957	703.165	812.452	0.402	9.738	17.957	8.690
2021-08-13 3:45	733501	8.252	-103.056	17.896	702.258	812.497	0.402	9.755	17.896	8.644
2021-08-13 4:00	734401	8.249	-102.863	17.831	701.285	812.544	0.402	9.543	17.831	8.624
2021-08-13 4:15	735301	8.243	-102.494	17.771	700.364	812.549	0.402	9.589	17.771	8.528
2021-08-13 4:30	736201	8.241	-102.355	17.716	699.561	812.611	0.402	9.667	17.716	8.530
2021-08-13 4:45	737101	8.234	-101.991	17.670	698.882	812.662	0.402	9.468	17.670	8.561
2021-08-13 5:00	738001	8.231	-101.764	17.613	697.969	812.618	0.402	9.659	17.613	8.503
2021-08-13 5:15	738901	8.229	-101.609	17.556	697.071	812.600	0.402	9.826	17.556	8.518
2021-08-13 5:30	739801	8.224	-101.328	17.501	696.251	812.652	0.402	9.450	17.501	8.383
2021-08-13 5:45	740701	8.221	-101.156	17.435	695.349	812.798	0.402	10.130	17.435	8.012
2021-08-13 6:00	741601	8.220	-101.020	17.319	693.745	813.013	0.402	9.889	17.319	8.144
2021-08-13 6:15	742501	8.209	-100.374	17.262	692.958	813.136	0.402	9.734	17.262	8.057
2021-08-13 6:30	743401	8.201	-99.928	17.233	692.431	813.054	0.402	9.020	17.233	7.408
2021-08-13 6:45	744301	8.205	-100.131	17.191	692.061	813.369	0.402	10.567	17.191	7.933
2021-08-13 7:00	745201	8.203	-99.967	17.140	691.313	813.427	0.402	9.520	17.140	7.554
2021-08-13 7:15	746101	8.170	-98.085	17.103	691.297	814.091	0.402	9.411	17.103	7.946
2021-08-13 7:30	747001	8.177	-98.479	17.085	685.537	807.635	0.399	9.505	17.085	7.998
2021-08-13 7:45	747901	8.167	-97.904	17.068	690.544	813.838	0.402	9.370	17.068	7.936
2021-08-13 8:00	748801	8.173	-98.252	17.044	690.301	813.997	0.402	9.269	17.044	7.746
2021-08-13 8:15	749701	8.186	-98.994	17.021	689.596	813.581	0.402	8.817	17.021	7.716
2021-08-13 8:30	750601	8.164	-97.702	17.010	689.448	813.615	0.402	8.744	17.010	7.467
2021-08-13 8:45	751501	8.130	-95.732	16.992	689.260	813.723	0.402	8.389	16.992	7.370
2021-08-13 9:00	752401	8.097	-93.818	16.982	689.354	814.015	0.402	8.288	16.982	7.355
2021-08-13 9:15	753301	8.091	-93.489	16.976	689.101	813.826	0.402	8.525	16.976	7.513
2021-08-13 9:30	754201	8.096	-93.772	16.977	688.887	813.549	0.402	9.092	16.977	7.597
2021-08-13 9:45	755101	8.100	-94.032	16.980	688.901	813.514	0.402	8.911	16.980	7.654

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-13 10:00	756001	8.104	-94.221	16.989	688.909	813.358	0.402	8.979	16.989	7.687
2021-08-13 10:15	756901	8.140	-96.345	17.012	689.213	813.305	0.402	10.427	17.012	7.721
2021-08-13 10:30	757801	8.137	-96.138	17.028	689.373	813.201	0.402	10.120	17.028	7.793
2021-08-13 10:45	758701	8.117	-94.984	17.011	689.729	813.926	0.402	10.155	17.011	7.439
2021-08-13 11:00	759601	8.079	-92.814	17.016	689.996	814.146	0.402	11.488	17.016	7.271
2021-08-13 11:15	760501	8.081	-92.938	17.070	691.143	814.507	0.403	12.246	17.070	7.358
2021-08-13 11:30	761401	8.081	-92.959	17.162	692.994	815.007	0.403	12.792	17.162	7.309
2021-08-13 11:45	762301	8.065	-92.070	17.244	694.476	815.246	0.403	12.583	17.244	7.296
2021-08-13 12:00	763201	8.067	-92.220	17.296	695.472	815.461	0.403	12.080	17.296	7.353
2021-08-13 12:15	764101	8.059	-91.774	17.407	697.219	815.477	0.403	12.886	17.407	7.303
2021-08-13 12:30	765001	8.058	-91.743	17.547	699.548	815.660	0.403	12.311	17.547	7.559
2021-08-13 12:45	765901	8.055	-91.629	17.619	700.648	815.629	0.403	12.062	17.619	7.644
2021-08-13 13:00	766801	8.058	-91.841	17.699	701.637	815.340	0.403	11.945	17.699	8.134
2021-08-13 13:15	767701	8.082	-93.231	17.832	703.255	814.805	0.403	12.248	17.832	8.442
2021-08-13 13:30	768601	8.110	-94.895	17.925	704.351	814.400	0.403	12.291	17.925	8.864
2021-08-13 13:45	769501	8.119	-95.434	17.972	704.995	814.307	0.403	11.482	17.972	9.050
2021-08-13 14:00	770401	8.142	-96.750	18.029	705.908	814.333	0.403	11.843	18.029	9.125
2021-08-13 14:15	771301	8.124	-95.787	18.169	707.112	813.205	0.402	13.083	18.169	8.839
2021-08-13 14:30	772201	8.149	-97.277	18.304	708.685	812.605	0.402	12.733	18.304	9.358
2021-08-13 14:45	773101	8.172	-98.639	18.445	710.619	812.323	0.402	12.634	18.445	9.854
2021-08-13 15:00	774001	8.188	-99.576	18.521	711.719	812.233	0.402	12.273	18.521	9.983
2021-08-13 15:15	774901	8.204	-100.508	18.534	711.968	812.293	0.402	13.283	18.534	9.998
2021-08-13 15:30	775801	8.190	-99.735	18.645	713.473	812.037	0.402	12.500	18.645	10.135
2021-08-13 15:45	776701	8.192	-99.943	18.849	716.542	811.936	0.402	13.054	18.849	10.377
2021-08-13 16:00	777601	8.201	-100.527	18.990	719.100	812.348	0.402	12.760	18.990	10.374
2021-08-13 16:15	778501	8.209	-101.032	19.123	721.545	812.786	0.402	13.177	19.123	10.220
2021-08-13 16:30	779401	8.208	-101.011	19.201	722.173	812.116	0.402	13.271	19.201	10.441
2021-08-13 16:45	780301	8.211	-101.197	19.270	723.291	812.171	0.402	13.454	19.270	10.805
2021-08-13 17:00	781201	8.223	-101.895	19.364	724.381	811.771	0.402	12.950	19.364	11.091
2021-08-13 17:15	782101	8.225	-102.074	19.418	725.209	811.754	0.402	13.105	19.418	11.138
2021-08-13 17:30	783001	8.223	-101.948	19.468	725.953	811.727	0.402	13.824	19.468	11.349
2021-08-13 17:45	783901	8.235	-102.699	19.570	726.806	810.901	0.401	14.016	19.570	11.295
2021-08-13 18:00	784801	8.243	-103.178	19.694	728.492	810.653	0.401	14.132	19.694	10.984
2021-08-13 18:15	785701	8.243	-103.219	19.707	729.257	811.277	0.402	12.849	19.707	10.903
2021-08-13 18:30	786601	8.236	-102.825	19.813	730.917	811.300	0.402	13.263	19.813	10.693
2021-08-13 18:45	787501	8.244	-103.271	19.821	731.839	812.179	0.402	12.301	19.821	10.603
2021-08-13 19:00	788401	8.240	-103.056	19.870	732.707	812.292	0.402	12.980	19.870	10.362
2021-08-13 19:15	789301	8.231	-102.558	19.901	733.579	812.730	0.402	12.487	19.901	10.234
2021-08-13 19:30	790201	8.233	-102.673	19.925	734.404	813.236	0.403	13.732	19.925	10.385
2021-08-13 19:45	791101	8.216	-101.719	19.946	735.063	813.600	0.403	14.653	19.946	10.459
2021-08-13 20:00	792001	8.204	-101.020	19.965	735.791	814.079	0.403	13.174	19.965	10.368
2021-08-13 20:15	792901	8.196	-100.565	19.981	736.527	814.627	0.403	11.430	19.981	10.088
2021-08-13 20:30	793801	8.178	-99.514	19.988	736.920	814.930	0.404	11.873	19.988	9.855
2021-08-13 20:45	794701	8.176	-99.409	19.983	737.239	815.366	0.404	13.333	19.983	9.335
2021-08-13 21:00	795601	8.215	-101.638	19.963	737.377	815.872	0.404	12.432	19.963	8.795

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-13 21:15	796501	8.228	-102.379	19.927	736.862	815.913	0.404	13.028	19.927	9.188
2021-08-13 21:30	797401	8.226	-102.267	19.877	736.450	816.331	0.404	12.506	19.877	9.810
2021-08-13 21:45	798301	8.222	-101.988	19.806	735.317	816.301	0.404	12.441	19.806	9.572
2021-08-13 22:00	799201	8.217	-101.702	19.739	727.883	809.200	0.401	10.733	19.739	9.399
2021-08-13 22:15	800101	8.210	-101.273	19.657	732.674	815.937	0.404	9.802	19.657	9.515
2021-08-13 22:30	801001	8.219	-101.762	19.574	731.917	816.542	0.404	11.474	19.574	9.476
2021-08-13 22:45	801901	8.242	-103.071	19.507	730.025	815.588	0.404	11.798	19.507	9.479
2021-08-13 23:00	802801	8.239	-102.906	19.461	729.021	815.272	0.404	11.488	19.461	9.546
2021-08-13 23:15	803701	8.245	-103.228	19.434	728.150	814.766	0.403	11.848	19.434	9.551
2021-08-13 23:30	804601	8.259	-104.034	19.387	727.106	814.416	0.403	11.804	19.387	9.437
2021-08-13 23:45	805501	8.262	-104.182	19.340	725.910	813.889	0.403	11.237	19.340	9.237
2021-08-14 0:00	806401	8.262	-104.177	19.289	724.992	813.757	0.403	12.005	19.289	9.101
2021-08-14 0:15	807301	8.264	-104.253	19.235	724.163	813.759	0.403	11.722	19.235	8.832
2021-08-14 0:30	808201	8.259	-103.962	19.189	723.045	813.317	0.403	10.812	19.189	8.694
2021-08-14 0:45	809101	8.254	-103.631	19.124	722.195	813.496	0.403	11.487	19.124	8.801
2021-08-14 1:00	810001	8.252	-103.521	19.075	721.431	813.490	0.403	11.732	19.075	8.612
2021-08-14 1:15	810901	8.241	-102.856	19.037	720.858	813.512	0.403	11.299	19.037	8.553
2021-08-14 1:30	811801	8.251	-103.421	19.001	720.325	813.544	0.403	11.077	19.001	8.859
2021-08-14 1:45	812701	8.248	-103.219	18.956	719.735	813.658	0.403	10.514	18.956	8.665
2021-08-14 2:00	813601	8.237	-102.594	18.896	718.992	813.888	0.403	11.111	18.896	8.088
2021-08-14 2:15	814501	8.218	-101.440	18.850	718.757	814.425	0.403	11.500	18.850	7.929
2021-08-14 2:30	815401	8.195	-100.110	18.830	718.532	814.525	0.403	11.143	18.830	8.137
2021-08-14 2:45	816301	8.177	-99.049	18.807	718.547	814.942	0.403	10.507	18.807	8.101
2021-08-14 3:00	817201	8.194	-100.002	18.755	717.499	814.666	0.403	9.947	18.755	7.941
2021-08-14 3:15	818101	8.166	-98.367	18.725	717.412	815.103	0.403	9.725	18.725	8.038
2021-08-14 3:30	819001	8.141	-96.908	18.692	717.645	815.951	0.404	9.088	18.692	7.948
2021-08-14 3:45	819901	8.097	-94.378	18.653	717.176	816.104	0.404	8.754	18.653	7.636
2021-08-14 4:00	820801	8.101	-94.571	18.611	715.913	815.410	0.404	9.273	18.611	7.845
2021-08-14 4:15	821701	8.135	-96.552	18.568	715.104	815.253	0.403	9.296	18.568	7.859
2021-08-14 4:30	822601	8.132	-96.347	18.531	714.481	815.207	0.403	9.004	18.531	8.009
2021-08-14 4:45	823501	8.132	-96.319	18.472	714.148	815.878	0.404	9.013	18.472	7.496
2021-08-14 5:00	824401	8.155	-97.656	18.386	712.605	815.647	0.404	9.377	18.386	7.978
2021-08-14 5:15	825301	8.127	-96.006	18.335	712.385	816.308	0.404	9.407	18.335	7.836
2021-08-14 5:30	826201	8.112	-95.131	18.274	712.457	817.476	0.405	9.163	18.274	7.498
2021-08-14 5:45	827101	8.112	-95.081	18.193	711.237	817.526	0.405	9.364	18.193	7.314
2021-08-14 6:00	828001	8.100	-94.416	18.187	711.171	817.562	0.405	10.127	18.187	7.206
2021-08-14 6:15	828901	8.100	-94.404	18.190	710.849	817.140	0.404	10.210	18.190	7.188
2021-08-14 6:30	829801	8.091	-93.899	18.185	710.808	817.181	0.404	8.585	18.185	7.271
2021-08-14 6:45	830701	8.109	-94.876	18.141	709.663	816.657	0.404	7.615	18.141	7.387
2021-08-14 7:00	831601	8.106	-94.726	18.106	709.211	816.762	0.404	8.748	18.106	7.264
2021-08-14 7:15	832501	8.094	-94.028	18.076	709.119	817.190	0.404	8.505	18.076	7.055
2021-08-14 7:30	833401	8.066	-92.363	18.059	709.413	817.833	0.405	8.327	18.059	6.943
2021-08-14 7:45	834301	8.056	-91.798	18.069	709.170	817.382	0.404	8.489	18.069	6.796
2021-08-14 8:00	835201	8.033	-90.468	18.041	707.785	816.285	0.404	8.258	18.041	6.648
2021-08-14 8:15	836101	7.995	-88.282	18.062	709.427	817.789	0.405	9.570	18.062	6.759

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-14 8:30	837001	8.004	-88.801	18.069	710.114	818.455	0.405	33.367	18.069	***6.493***
2021-08-14 8:45	837901	7.997	-88.391	18.097	710.649	818.579	0.405	9.222	18.097	6.622
2021-08-14 9:00	838801	8.005	-88.892	18.074	710.957	819.339	0.405	9.330	18.074	***6.089***
2021-08-14 9:15	839701	7.988	-87.905	18.077	711.609	820.046	0.406	10.188	18.077	***6.414***
2021-08-14 9:30	840601	7.966	-86.610	18.090	712.516	820.857	0.406	9.916	18.090	***6.342***
2021-08-14 9:45	841501	7.948	-85.616	18.122	713.198	821.061	0.406	11.452	18.122	***5.720***
2021-08-14 10:00	842401	7.933	-84.748	18.142	713.575	821.128	0.406	10.171	18.142	***5.404***
2021-08-14 10:15	843301	7.938	-85.018	18.168	713.966	821.115	0.406	11.648	18.168	***5.393***
2021-08-14 10:30	844201	7.959	-86.260	18.194	715.898	822.863	0.407	15.664	18.194	***6.468***
2021-08-14 10:45	845101	7.945	-85.418	18.202	716.406	823.310	0.408	9.894	18.202	6.538
2021-08-14 11:00	846001	7.939	-85.096	18.237	716.758	823.078	0.407	10.083	18.237	***6.374***
2021-08-14 11:15	846901	7.942	-85.266	18.280	717.243	822.850	0.407	10.344	18.280	6.887
2021-08-14 11:30	847801	7.958	-86.224	18.242	715.766	821.845	0.407	10.251	18.242	6.848
2021-08-14 11:45	848701	7.961	-86.362	18.231	714.605	820.715	0.406	10.563	18.231	7.243
2021-08-14 12:00	849601	8.001	-88.661	18.228	712.668	818.538	0.405	10.910	18.228	7.267
2021-08-14 12:15	850501	8.009	-89.142	18.271	712.869	818.007	0.405	10.656	18.271	7.297
2021-08-14 12:30	851401	8.030	-90.368	18.307	712.620	817.062	0.404	11.165	18.307	7.595
2021-08-14 12:45	852301	8.050	-91.589	18.396	712.981	815.888	0.404	11.818	18.396	7.972
2021-08-14 13:00	853201	8.091	-93.927	18.395	712.898	815.826	0.404	11.440	18.395	8.193
2021-08-14 13:15	854101	8.099	-94.390	18.365	712.635	816.060	0.404	12.149	18.365	8.121
2021-08-14 13:30	855001	8.098	-94.376	18.403	713.203	816.020	0.404	10.829	18.403	8.088
2021-08-14 13:45	855901	8.086	-93.701	18.507	714.302	815.436	0.404	11.945	18.507	8.118
2021-08-14 14:00	856801	8.086	-93.687	18.566	715.475	815.711	0.404	11.278	18.566	8.154
2021-08-14 14:15	857701	8.097	-94.342	18.586	715.766	815.703	0.404	11.664	18.586	8.252
2021-08-14 14:30	858601	8.112	-95.232	18.578	715.781	815.860	0.404	12.385	18.578	8.451
2021-08-14 14:45	859501	8.133	-96.431	18.587	715.749	815.655	0.404	11.379	18.587	8.504
2021-08-14 15:00	860401	8.128	-96.178	18.599	710.252	809.188	0.400	12.922	18.599	8.328
2021-08-14 15:15	861301	8.122	-95.799	18.632	713.797	812.631	0.402	13.838	18.632	8.367
2021-08-14 15:30	862201	8.124	-95.968	18.663	716.439	815.100	0.403	10.239	18.663	8.304
2021-08-14 15:45	863101	8.127	-96.157	18.708	717.401	815.399	0.404	8.969	18.708	8.228
2021-08-14 16:00	864001	8.155	-97.764	18.744	717.996	815.433	0.404	9.707	18.744	8.613
2021-08-14 16:15	864901	8.171	-98.684	18.766	718.536	815.654	0.404	9.731	18.766	8.892
2021-08-14 16:30	865801	8.179	-99.163	18.775	718.452	815.402	0.404	7.255	18.775	9.108
2021-08-14 16:45	866701	8.182	-99.313	18.780	718.366	815.220	0.403	7.669	18.780	9.025
2021-08-14 17:00	867601	8.172	-98.743	18.778	718.268	815.146	0.403	7.682	18.778	8.621
2021-08-14 17:15	868501	8.152	-97.578	18.785	718.357	815.109	0.403	7.390	18.785	8.538
2021-08-14 17:30	869401	8.143	-97.098	18.800	718.688	815.225	0.403	7.094	18.800	8.511
2021-08-14 17:45	870301	8.144	-97.136	18.853	719.531	815.250	0.404	7.262	18.853	8.647
2021-08-14 18:00	871201	8.138	-96.805	18.906	720.398	815.290	0.404	7.096	18.906	8.726
2021-08-14 18:15	872101	8.163	-98.305	18.946	721.037	815.320	0.404	10.715	18.946	8.778
2021-08-14 18:30	873001	8.179	-99.216	18.951	721.152	815.355	0.404	6.603	18.951	8.474
2021-08-14 18:45	873901	8.208	-100.911	18.949	720.963	815.169	0.403	6.848	18.949	9.090
2021-08-14 19:00	874801	8.219	-101.562	18.948	720.539	814.720	0.403	6.377	18.948	9.387
2021-08-14 19:15	875701	8.211	-101.075	18.942	720.350	814.605	0.403	6.149	18.942	9.403
2021-08-14 19:30	876601	8.221	-101.662	18.934	720.093	814.449	0.403	6.842	18.934	9.477

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-14 19:45	877501	8.213	-101.185	18.947	719.234	813.249	0.403	6.835	18.947	9.520
2021-08-14 20:00	878401	8.225	-101.886	18.924	721.298	815.993	0.404	6.348	18.924	9.093
2021-08-14 20:15	879301	8.216	-101.352	18.893	721.104	816.322	0.404	7.443	18.893	9.321
2021-08-14 20:30	880201	8.218	-101.459	18.848	720.758	816.729	0.404	6.390	18.848	8.859
2021-08-14 20:45	881101	8.224	-101.781	18.812	720.166	816.686	0.404	6.796	18.812	9.336
2021-08-14 21:00	882001	8.223	-101.702	18.767	719.881	817.157	0.404	6.650	18.767	8.718
2021-08-14 21:15	882901	8.189	-99.738	18.706	719.511	817.831	0.405	6.431	18.706	8.748
2021-08-14 21:30	883801	8.122	-95.820	18.623	719.047	818.779	0.405	6.538	18.623	8.312
2021-08-14 21:45	884701	8.083	-93.515	18.535	718.422	819.632	0.406	6.749	18.535	7.853
2021-08-14 22:00	885601	8.079	-93.281	18.449	717.399	820.006	0.406	6.675	18.449	7.610
2021-08-14 22:15	886501	8.082	-93.412	18.393	716.432	819.905	0.406	6.396	18.393	7.546
2021-08-14 22:30	887401	8.149	-97.270	18.331	713.868	818.071	0.405	6.186	18.331	7.926
2021-08-14 22:45	888301	8.177	-98.898	18.295	712.751	817.431	0.405	5.866	18.295	8.012
2021-08-14 23:00	889201	8.168	-98.360	18.268	711.974	817.037	0.404	5.618	18.268	7.708
2021-08-14 23:15	890101	8.148	-97.187	18.235	711.452	817.020	0.404	6.166	18.235	6.955
2021-08-14 23:30	891001	8.161	-97.919	18.224	711.685	817.477	0.405	5.411	18.224	6.867
2021-08-14 23:45	891901	8.186	-99.382	18.184	710.177	816.474	0.404	5.090	18.184	6.512
2021-08-15 0:00	892801	8.195	-99.893	18.153	708.983	815.661	0.404	5.441	18.153	***6.427***
2021-08-15 0:15	893701	8.194	-99.823	18.115	708.265	815.509	0.403	5.061	18.115	6.671
2021-08-15 0:30	894601	8.191	-99.633	18.061	707.328	815.395	0.403	4.899	18.061	6.792
2021-08-15 0:45	895501	8.183	-99.137	18.018	706.737	815.484	0.403	4.549	18.018	6.766
2021-08-15 1:00	896401	8.187	-99.318	17.946	705.604	815.472	0.403	5.893	17.946	6.897
2021-08-15 1:15	897301	8.182	-99.020	17.891	704.701	815.414	0.403	6.077	17.891	7.060
2021-08-15 1:30	898201	8.177	-98.767	17.864	704.367	815.523	0.403	6.089	17.864	6.869
2021-08-15 1:45	899101	8.176	-98.648	17.843	704.014	815.492	0.403	5.646	17.843	***6.499***
2021-08-15 2:00	900001	8.106	-94.638	17.818	704.531	816.541	0.404	5.217	17.818	6.612
2021-08-15 2:15	900901	8.044	-91.062	17.799	704.615	816.977	0.404	5.331	17.799	6.710
2021-08-15 2:30	901801	8.044	-91.012	17.776	704.279	817.015	0.404	4.977	17.776	6.757
2021-08-15 2:45	902701	8.013	-89.254	17.761	704.418	817.443	0.404	5.014	17.761	6.751
2021-08-15 3:00	903601	7.997	-88.325	17.748	704.367	817.625	0.404	4.768	17.748	6.736
2021-08-15 3:15	904501	8.007	-88.887	17.737	704.165	817.582	0.404	5.287	17.737	6.731
2021-08-15 3:30	905401	8.016	-89.374	17.711	703.475	817.250	0.404	4.910	17.711	6.620
2021-08-15 3:45	906301	8.011	-89.121	17.709	703.322	817.109	0.404	5.514	17.709	***6.425***
2021-08-15 4:00	907202	8.020	-89.610	17.711	703.153	816.878	0.404	5.511	17.711	***6.351***
2021-08-15 4:15	908102	8.004	-88.727	17.706	702.944	816.734	0.404	4.544	17.706	***6.327***
2021-08-15 4:30	909002	8.015	-89.328	17.692	703.032	817.083	0.404	4.322	17.692	***6.333***
2021-08-15 4:45	909902	7.993	-88.034	17.683	702.986	817.200	0.404	4.900	17.683	***6.240***
2021-08-15 5:00	910802	7.985	-87.605	17.669	702.969	817.419	0.404	4.648	17.669	***6.177***
2021-08-15 5:15	911702	7.972	-86.832	17.656	702.846	817.526	0.404	4.305	17.656	***6.066***
2021-08-15 5:30	912602	8.026	-89.951	17.634	702.135	817.098	0.404	5.144	17.634	***6.094***
2021-08-15 5:45	913502	8.082	-93.172	17.621	701.456	816.546	0.404	4.510	17.621	***5.935***
2021-08-15 6:00	914402	8.093	-93.827	17.587	700.323	815.839	0.404	6.847	17.587	***6.191***
2021-08-15 6:15	915302	8.077	-92.866	17.564	699.940	815.810	0.404	5.392	17.564	***6.216***
2021-08-15 6:30	916202	8.050	-91.290	17.537	699.935	816.294	0.404	5.517	17.537	***6.041***
2021-08-15 6:45	917102	8.042	-90.809	17.506	699.915	816.838	0.404	5.317	17.506	***5.856***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-15 7:00	918002	8.036	-90.454	17.479	699.481	816.819	0.404	5.642	17.479	***5.895***
2021-08-15 7:15	918902	8.020	-89.521	17.458	699.461	817.184	0.404	4.995	17.458	***5.968***
2021-08-15 7:30	919802	8.053	-91.431	17.439	698.663	816.583	0.404	4.652	17.439	***6.153***
2021-08-15 7:45	920702	8.048	-91.135	17.429	698.316	816.372	0.404	4.968	17.429	***6.314***
2021-08-15 8:00	921602	8.060	-91.834	17.420	698.046	816.221	0.404	5.213	17.420	***6.309***
2021-08-15 8:15	922502	8.059	-91.801	17.418	697.968	816.169	0.404	5.074	17.418	***6.331***
2021-08-15 8:30	923402	8.038	-90.547	17.419	698.046	816.235	0.404	4.896	17.419	***6.420***
2021-08-15 8:45	924302	8.038	-90.592	17.422	698.083	816.229	0.404	5.077	17.422	***6.386***
2021-08-15 9:00	925202	8.037	-90.530	17.425	698.067	816.144	0.404	5.232	17.425	***6.395***
2021-08-15 9:15	926102	8.036	-90.492	17.433	698.257	816.228	0.404	5.078	17.433	***6.411***
2021-08-15 9:30	927002	8.034	-90.377	17.441	698.424	816.269	0.404	4.819	17.441	***6.307***
2021-08-15 9:45	927902	8.017	-89.369	17.457	698.887	816.519	0.404	5.384	17.457	***6.391***
2021-08-15 10:00	928802	8.014	-89.204	17.466	699.613	817.214	0.404	7.150	17.466	***6.175***
2021-08-15 10:15	929702	7.999	-88.358	17.480	699.792	817.162	0.404	7.171	17.480	***4.825***
2021-08-15 10:30	930602	8.011	-89.037	17.483	699.551	816.834	0.404	8.085	17.483	***4.152***
2021-08-15 10:45	931502	8.036	-90.468	17.480	699.184	816.459	0.404	9.469	17.480	***3.662***
2021-08-15 11:00	932402	8.039	-90.680	17.484	699.436	816.674	0.404	8.736	17.484	***4.461***
2021-08-15 11:15	933302	8.051	-91.355	17.498	699.537	816.539	0.404	7.396	17.498	***4.481***
2021-08-15 11:30	934202	8.039	-90.673	17.531	700.158	816.661	0.404	8.183	17.531	***4.653***
2021-08-15 11:45	935102	8.012	-89.154	17.591	701.023	816.572	0.404	7.570	17.591	***4.811***
2021-08-15 12:00	936002	8.001	-88.515	17.660	701.987	816.443	0.404	10.952	17.660	***4.917***
2021-08-15 12:15	936902	8.018	-89.498	17.727	702.907	816.307	0.404	7.567	17.727	***5.322***
2021-08-15 12:30	937802	8.035	-90.508	17.776	703.863	816.533	0.404	6.359	17.776	***6.455***
2021-08-15 12:45	938702	8.077	-92.933	17.831	704.634	816.420	0.404	8.153	17.831	7.795
2021-08-15 13:00	939602	8.120	-95.491	17.911	705.076	815.498	0.403	6.982	17.911	7.956
2021-08-15 13:15	940502	8.117	-95.301	17.965	705.929	815.508	0.403	8.679	17.965	7.167
2021-08-15 13:30	941402	8.090	-93.751	17.953	707.718	817.784	0.405	7.861	17.953	6.999
2021-08-15 13:45	942302	8.039	-90.806	17.896	707.596	818.683	0.405	9.401	17.896	6.965
2021-08-15 14:00	943202	8.051	-91.472	17.923	707.416	817.977	0.405	8.875	17.923	7.041
2021-08-15 14:15	944102	8.038	-90.754	17.936	707.156	817.441	0.404	10.520	17.936	6.944
2021-08-15 14:30	945002	8.036	-90.623	17.929	706.538	816.857	0.404	9.851	17.929	7.032
2021-08-15 14:45	945902	8.028	-90.144	17.984	707.167	816.596	0.404	10.252	17.984	6.968
2021-08-15 15:00	946802	8.041	-90.926	18.020	707.268	816.057	0.404	10.868	18.020	7.062
2021-08-15 15:15	947702	8.040	-90.973	18.247	711.177	816.495	0.404	10.889	18.247	7.140
2021-08-15 15:30	948602	8.072	-92.881	18.519	715.777	816.893	0.404	11.770	18.519	8.222
2021-08-15 15:45	949502	8.095	-94.185	18.425	713.926	816.451	0.404	9.934	18.425	8.045
2021-08-15 16:00	950402	8.081	-93.386	18.483	714.847	816.483	0.404	9.550	18.483	7.914
2021-08-15 16:15	951302	8.097	-94.392	18.625	717.154	816.590	0.404	9.587	18.625	8.422
2021-08-15 16:30	952202	8.126	-96.030	18.608	716.376	816.003	0.404	9.877	18.608	8.799
2021-08-15 16:45	953102	8.120	-95.761	18.778	719.009	815.985	0.404	9.091	18.778	8.560
2021-08-15 17:00	954002	8.120	-95.768	18.837	719.409	815.399	0.404	8.853	18.837	8.742
2021-08-15 17:15	954902	8.135	-96.684	18.916	719.663	814.290	0.403	9.902	18.916	9.307
2021-08-15 17:30	955802	8.165	-98.433	18.966	721.083	815.018	0.403	9.260	18.966	9.057
2021-08-15 17:45	956702	8.188	-99.721	18.901	719.938	814.864	0.403	8.899	18.901	9.178
2021-08-15 18:00	957602	8.187	-99.695	18.931	720.031	814.438	0.403	10.405	18.931	8.921

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-15 18:15	958502	8.188	-99.747	18.886	719.754	814.922	0.403	11.214	18.886	8.805
2021-08-15 18:30	959402	8.197	-100.262	18.852	718.740	814.368	0.403	9.559	18.852	9.068
2021-08-15 18:45	960302	8.197	-100.262	18.868	718.902	814.272	0.403	9.293	18.868	9.020
2021-08-15 19:00	961202	8.191	-99.919	18.891	719.280	814.300	0.403	8.939	18.891	9.021
2021-08-15 19:15	962102	8.166	-98.429	18.855	719.002	814.613	0.403	9.264	18.855	9.011
2021-08-15 19:30	963002	8.207	-100.811	18.826	718.440	814.493	0.403	9.181	18.826	9.058
2021-08-15 19:45	963902	8.169	-98.588	18.799	718.046	814.520	0.403	8.911	18.799	8.960
2021-08-15 20:00	964802	8.211	-101.032	18.751	716.733	813.866	0.403	8.915	18.751	8.590
2021-08-15 20:15	965702	8.221	-101.547	18.686	716.502	814.758	0.403	9.450	18.686	8.863
2021-08-15 20:30	966602	8.204	-100.551	18.604	716.348	816.034	0.404	9.160	18.604	9.061
2021-08-15 20:45	967502	8.183	-99.325	18.546	715.669	816.301	0.404	10.158	18.546	8.482
2021-08-15 21:00	968402	8.158	-97.854	18.470	714.173	815.932	0.404	9.544	18.470	7.956
2021-08-15 21:15	969302	8.119	-95.530	18.358	713.217	816.846	0.404	9.838	18.358	7.990
2021-08-15 21:30	970202	8.089	-93.815	18.273	713.139	818.281	0.405	10.339	18.273	7.594
2021-08-15 21:45	971102	8.046	-91.250	18.182	712.916	819.663	0.406	12.203	18.182	7.091
2021-08-15 22:00	972002	8.027	-90.134	18.092	712.255	820.515	0.406	9.129	18.092	***6.224***
2021-08-15 22:15	972902	8.007	-88.966	18.021	711.703	821.159	0.406	9.769	18.021	***6.366***
2021-08-15 22:30	973802	7.995	-88.255	17.918	710.300	821.408	0.406	9.656	17.918	***6.373***
2021-08-15 22:45	974702	7.983	-87.552	17.860	709.332	821.344	0.406	9.169	17.860	***5.450***
2021-08-15 23:00	975602	7.947	-85.452	17.811	708.682	821.485	0.406	8.509	17.811	***5.767***
2021-08-15 23:15	976502	7.995	-88.201	17.732	706.216	820.063	0.406	8.595	17.732	***4.796***
2021-08-15 23:30	977402	8.020	-89.581	17.634	704.069	819.337	0.405	7.910	17.634	***3.789***
2021-08-15 23:45	978302	7.989	-87.793	17.596	703.426	819.287	0.405	8.463	17.596	***5.220***
2021-08-16 0:00	979202	7.969	-86.613	17.558	703.031	819.524	0.405	9.385	17.558	***5.801***
2021-08-16 0:15	980102	8.002	-88.532	17.563	702.559	818.869	0.405	10.206	17.563	***6.387***
2021-08-16 0:30	981002	8.016	-89.304	17.504	700.935	818.053	0.405	8.903	17.504	***5.978***
2021-08-16 0:45	981902	8.057	-91.693	17.431	699.030	817.171	0.404	9.124	17.431	***5.092***
2021-08-16 1:00	982802	8.062	-91.941	17.396	698.515	817.210	0.404	7.885	17.396	***5.456***
2021-08-16 1:15	983702	8.005	-88.665	17.397	698.794	817.505	0.404	7.487	17.397	***5.961***
2021-08-16 1:30	984602	8.016	-89.281	17.338	698.033	817.698	0.404	6.398	17.338	***5.945***
2021-08-16 1:45	985502	8.005	-88.608	17.271	696.829	817.511	0.404	6.539	17.271	***6.248***
2021-08-16 2:00	986402	8.006	-88.675	17.237	695.999	817.156	0.404	6.425	17.237	***6.043***
2021-08-16 2:15	987302	7.981	-87.221	17.207	695.288	816.884	0.404	6.378	17.207	***5.939***
2021-08-16 2:30	988202	7.970	-86.579	17.168	694.515	816.684	0.404	6.601	17.168	***6.040***
2021-08-16 2:45	989102	7.943	-84.991	17.107	693.996	817.189	0.404	6.776	17.107	***6.006***
2021-08-16 3:00	990002	7.964	-86.207	17.066	693.281	817.102	0.404	6.821	17.066	***6.066***
2021-08-16 3:15	990902	7.971	-86.565	16.998	691.950	816.793	0.404	6.998	16.998	***6.135***
2021-08-16 3:30	991802	7.993	-87.817	16.921	690.317	816.267	0.404	6.976	16.921	***6.086***
2021-08-16 3:45	992702	7.996	-88.007	16.875	689.264	815.881	0.403	6.985	16.875	***6.076***
2021-08-16 4:00	993602	8.011	-88.837	16.825	688.296	815.657	0.403	6.597	16.825	***6.078***
2021-08-16 4:15	994502	8.018	-89.207	16.764	687.189	815.466	0.403	6.391	16.764	***6.168***
2021-08-16 4:30	995402	8.049	-90.978	16.681	685.624	815.152	0.403	6.737	16.681	***6.186***
2021-08-16 4:45	996302	8.049	-90.933	16.613	684.495	815.054	0.403	6.840	16.613	***6.102***
2021-08-16 5:00	997202	8.042	-90.504	16.545	683.504	815.133	0.403	6.883	16.545	***6.065***
2021-08-16 5:15	998102	8.057	-91.369	16.488	682.523	815.023	0.403	11.913	16.488	***6.317***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-16 5:30	999002	8.067	-91.908	16.397	679.818	813.483	0.402	9.423	16.397	***6.047***
2021-08-16 5:45	999902	8.057	-91.312	16.297	679.768	815.287	0.403	12.168	16.297	***5.908***
2021-08-16 6:00	1000802	8.054	-91.083	16.191	678.195	815.390	0.403	10.850	16.191	***5.942***
2021-08-16 6:15	1001702	8.035	-90.005	16.106	677.071	815.629	0.403	9.726	16.106	***5.831***
2021-08-16 6:30	1002602	8.044	-90.489	16.100	676.799	815.404	0.403	15.707	16.100	***5.875***
2021-08-16 6:45	1003502	8.050	-90.802	16.021	675.575	815.418	0.403	17.089	16.021	***5.797***
2021-08-16 7:00	1004402	8.049	-90.735	15.971	674.758	815.370	0.403	14.200	15.971	***5.880***
2021-08-16 7:15	1005302	8.056	-91.164	16.033	675.328	814.894	0.403	11.650	16.033	***6.034***
2021-08-16 7:30	1006202	8.027	-89.512	15.967	674.721	815.397	0.403	11.431	15.967	***5.856***
2021-08-16 7:45	1007102	8.011	-88.575	15.931	674.698	816.050	0.403	10.195	15.931	***5.884***
2021-08-16 8:00	1008002	8.015	-88.797	15.889	674.419	816.505	0.403	14.436	15.889	***5.331***
2021-08-16 8:15	1008902	8.037	-90.029	15.818	673.235	816.409	0.403	10.280	15.818	***4.624***
2021-08-16 8:30	1009802	8.042	-90.311	15.760	672.070	816.097	0.403	12.018	15.760	***4.745***
2021-08-16 8:45	1010702	8.040	-90.187	15.771	672.216	816.061	0.403	21.560	15.771	***5.795***
2021-08-16 9:00	1011602	8.036	-89.924	15.750	671.846	816.025	0.403	25.536	15.750	***5.565***
2021-08-16 9:15	1012502	8.044	-90.427	15.756	671.942	816.010	0.403	9.413	15.756	***6.096***
2021-08-16 9:30	1013402	8.055	-91.004	15.748	671.647	815.802	0.403	12.074	15.748	***6.241***
2021-08-16 9:45	1014302	8.063	-91.474	15.686	670.786	815.945	0.403	12.773	15.686	***6.290***
2021-08-16 10:00	1015202	8.058	-91.178	15.645	670.713	816.626	0.403	9.952	15.645	***6.254***
2021-08-16 10:15	1016102	8.035	-89.846	15.597	670.495	817.284	0.404	9.148	15.597	***6.063***
2021-08-16 10:30	1017002	8.021	-89.035	15.540	669.657	817.338	0.404	9.129	15.540	***5.848***
2021-08-16 10:45	1017902	8.013	-88.539	15.504	669.271	817.548	0.404	8.813	15.504	***5.911***
2021-08-16 11:00	1018802	7.993	-87.383	15.504	669.398	817.708	0.404	9.294	15.504	***5.517***
2021-08-16 11:15	1019702	7.986	-87.020	15.611	670.413	816.901	0.403	9.278	15.611	***5.774***
2021-08-16 11:30	1020602	8.022	-89.152	15.711	671.428	816.245	0.403	10.289	15.711	***6.286***
2021-08-16 11:45	1021502	8.032	-89.731	15.840	673.319	816.094	0.403	9.743	15.840	6.676
2021-08-16 12:00	1022402	8.048	-90.663	15.924	674.518	815.965	0.403	10.906	15.924	6.913
2021-08-16 12:15	1023302	8.042	-90.377	15.984	674.843	815.239	0.403	9.240	15.984	6.904
2021-08-16 12:30	1024202	8.033	-89.872	16.053	677.041	816.579	0.403	9.755	16.053	6.515
2021-08-16 12:45	1025102	8.026	-89.488	16.191	678.231	815.424	0.403	9.692	16.191	7.124
2021-08-16 13:00	1026002	8.034	-89.970	16.259	679.269	815.404	0.403	10.092	16.259	7.248
2021-08-16 13:15	1026902	8.063	-91.670	16.278	679.678	815.546	0.403	9.228	16.278	7.168
2021-08-16 13:30	1027802	8.069	-92.034	16.359	680.773	815.341	0.403	10.398	16.359	7.107
2021-08-16 13:45	1028702	8.082	-92.771	16.385	681.264	815.451	0.403	11.979	16.385	7.337
2021-08-16 14:00	1029602	8.101	-93.863	16.395	681.137	815.104	0.403	10.637	16.395	7.118
2021-08-16 14:15	1030502	8.100	-93.875	16.492	682.681	815.144	0.403	11.686	16.492	7.364
2021-08-16 14:30	1031402	8.118	-94.881	16.535	682.883	814.594	0.403	11.700	16.535	7.395
2021-08-16 14:45	1032302	8.097	-93.749	16.669	684.442	813.969	0.402	9.518	16.669	7.567
2021-08-16 15:00	1033202	8.102	-94.047	16.722	685.366	814.077	0.402	9.565	16.722	7.906
2021-08-16 15:15	1034102	8.110	-94.533	16.798	686.410	813.918	0.402	10.290	16.798	8.062
2021-08-16 15:30	1035002	8.115	-94.814	16.870	687.520	813.897	0.402	9.757	16.870	8.366
2021-08-16 15:45	1035902	8.137	-96.135	16.918	687.860	813.419	0.402	9.146	16.918	8.438
2021-08-16 16:00	1036802	8.166	-97.780	16.977	688.834	813.498	0.402	11.500	16.977	8.824
2021-08-16 16:15	1037702	8.186	-98.977	17.051	689.773	813.237	0.402	10.033	17.051	9.019
2021-08-16 16:30	1038602	8.174	-98.355	17.155	691.007	812.787	0.402	9.870	17.155	9.280

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-16 16:45	1039502	8.155	-97.284	17.287	692.701	812.377	0.402	22.600	17.287	9.805
2021-08-16 17:00	1040402	8.170	-98.224	17.510	696.043	812.241	0.402	27.070	17.510	9.625
2021-08-16 17:15	1041302	8.208	-100.441	17.584	697.351	812.419	0.402	12.461	17.584	9.534
2021-08-16 17:30	1042202	8.231	-101.752	17.616	697.550	812.076	0.402	9.789	17.616	9.475
2021-08-16 17:45	1043102	8.249	-102.828	17.622	697.113	811.464	0.401	10.052	17.622	9.882
2021-08-16 18:00	1044002	8.260	-103.467	17.651	697.526	811.419	0.401	11.449	17.651	9.933
2021-08-16 18:15	1044902	8.257	-103.326	17.707	698.425	811.460	0.401	10.368	17.707	9.840
2021-08-16 18:30	1045802	8.252	-103.009	17.770	699.270	811.310	0.401	9.428	17.770	9.986
2021-08-16 18:45	1046702	8.258	-103.388	17.799	699.904	811.520	0.401	9.089	17.799	10.141
2021-08-16 19:00	1047602	8.283	-104.816	17.783	699.602	811.457	0.401	9.312	17.783	10.036
2021-08-16 19:15	1048502	8.274	-104.299	17.742	699.122	811.644	0.401	8.405	17.742	9.243
2021-08-16 19:30	1049402	8.263	-103.633	17.705	698.714	811.823	0.401	9.269	17.705	9.636
2021-08-16 19:45	1050302	8.266	-103.805	17.652	697.741	811.660	0.401	9.123	17.652	9.308
2021-08-16 20:00	1051202	8.279	-104.544	17.619	697.104	811.504	0.401	8.588	17.619	10.023
2021-08-16 20:15	1052102	8.276	-104.363	17.547	695.946	811.456	0.401	8.897	17.547	9.488
2021-08-16 20:30	1053002	8.281	-104.623	17.485	695.064	811.556	0.401	8.140	17.485	9.762
2021-08-16 20:45	1053902	8.271	-104.015	17.488	695.593	812.117	0.402	7.662	17.488	9.591
2021-08-16 21:00	1054802	8.261	-103.440	17.462	695.592	812.590	0.402	7.848	17.462	9.290
2021-08-16 21:15	1055702	8.264	-103.607	17.417	694.949	812.654	0.402	6.979	17.417	8.874
2021-08-16 21:30	1056602	8.264	-103.564	17.369	694.338	812.814	0.402	7.483	17.369	8.754
2021-08-16 21:45	1057502	8.259	-103.261	17.324	693.654	812.821	0.402	6.992	17.324	8.689
2021-08-16 22:00	1058402	8.258	-103.202	17.254	692.724	813.008	0.402	7.474	17.254	8.661
2021-08-16 22:15	1059302	8.253	-102.911	17.189	692.067	813.425	0.402	7.643	17.189	8.551
2021-08-16 22:30	1060202	8.244	-102.353	17.099	690.678	813.438	0.402	7.726	17.099	8.420
2021-08-16 22:45	1061102	8.239	-102.048	17.026	689.662	813.577	0.402	7.917	17.026	8.181
2021-08-16 23:00	1062002	8.237	-101.874	16.960	688.612	813.543	0.402	6.898	16.960	8.017
2021-08-16 23:15	1062902	8.218	-100.729	16.855	687.149	813.751	0.402	6.974	16.855	8.024
2021-08-16 23:30	1063802	8.221	-100.906	16.788	685.854	813.448	0.402	7.803	16.788	7.948
2021-08-16 23:45	1064702	8.213	-100.427	16.715	685.239	814.050	0.402	8.533	16.715	7.581
2021-08-17 0:00	1065602	8.207	-100.031	16.626	683.892	814.106	0.402	7.147	16.626	7.741
2021-08-17 0:15	1066502	8.187	-98.870	16.532	682.676	814.387	0.402	7.496	16.532	7.866
2021-08-17 0:30	1067402	8.176	-98.205	16.517	682.714	814.722	0.403	6.889	16.517	7.905
2021-08-17 0:45	1068302	8.180	-98.438	16.450	680.900	813.793	0.402	11.646	16.450	7.800
2021-08-17 1:00	1069202	8.203	-99.735	16.394	679.954	813.715	0.402	8.056	16.394	7.900
2021-08-17 1:15	1070102	8.215	-100.398	16.315	678.978	814.002	0.402	10.130	16.315	8.039
2021-08-17 1:30	1071002	8.205	-99.809	16.283	678.615	814.178	0.402	7.789	16.283	8.053
2021-08-17 1:45	1071902	8.204	-99.747	16.241	678.086	814.324	0.402	6.659	16.241	7.949
2021-08-17 2:00	1072802	8.189	-98.853	16.184	677.276	814.402	0.402	7.016	16.184	7.874
2021-08-17 2:15	1073702	8.183	-98.507	16.142	676.735	814.555	0.402	6.246	16.142	7.824
2021-08-17 2:30	1074602	8.176	-98.100	16.078	675.775	814.587	0.402	6.562	16.078	7.720
2021-08-17 2:45	1075502	8.171	-97.771	16.005	674.581	814.529	0.402	6.422	16.005	7.629
2021-08-17 3:00	1076402	8.167	-97.508	15.943	673.559	814.456	0.402	6.795	15.943	7.612
2021-08-17 3:15	1077302	8.170	-97.637	15.875	672.561	814.521	0.402	8.149	15.875	7.523
2021-08-17 3:30	1078202	8.173	-97.806	15.843	671.921	814.346	0.402	7.790	15.843	7.482
2021-08-17 3:45	1079102	8.171	-97.702	15.782	671.201	814.629	0.402	7.255	15.782	7.412

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-17 4:00	1080002	8.174	-97.816	15.707	669.960	814.539	0.402	7.653	15.707	7.398
2021-08-17 4:15	1080902	8.175	-97.847	15.646	669.063	814.603	0.402	6.712	15.646	7.421
2021-08-17 4:30	1081802	8.170	-97.556	15.592	668.260	814.653	0.402	6.718	15.592	7.321
2021-08-17 4:45	1082702	8.163	-97.129	15.517	667.210	814.789	0.402	6.472	15.517	7.218
2021-08-17 5:00	1083602	8.158	-96.824	15.447	666.165	814.839	0.402	7.588	15.447	7.202
2021-08-17 5:15	1084502	8.158	-96.815	15.414	665.823	815.052	0.402	8.086	15.414	7.136
2021-08-17 5:30	1085402	8.143	-95.963	15.361	665.052	815.112	0.402	7.669	15.361	7.076
2021-08-17 5:45	1086302	8.129	-95.131	15.299	664.155	815.196	0.402	6.573	15.299	6.996
2021-08-17 6:00	1087202	8.128	-95.053	15.258	663.782	815.528	0.403	11.666	15.258	6.959
2021-08-17 6:15	1088102	8.123	-94.719	15.179	662.495	815.466	0.403	11.241	15.179	6.793
2021-08-17 6:30	1089002	8.107	-93.837	15.169	662.617	815.806	0.403	12.411	15.169	6.746
2021-08-17 6:45	1089902	8.107	-93.801	15.068	660.944	815.684	0.403	9.463	15.068	6.564
2021-08-17 7:00	1090802	8.099	-93.331	15.030	660.631	816.033	0.403	9.651	15.030	***6.471***
2021-08-17 7:15	1091702	8.101	-93.405	15.002	660.158	815.979	0.403	8.189	15.002	6.527
2021-08-17 7:30	1092602	8.092	-92.919	14.995	659.913	815.818	0.403	10.183	14.995	6.714
2021-08-17 7:45	1093502	8.084	-92.459	14.958	659.361	815.837	0.403	11.451	14.958	6.764
2021-08-17 8:00	1094402	8.078	-92.108	14.964	659.452	815.835	0.403	11.654	14.964	6.773
2021-08-17 8:15	1095302	8.094	-93.021	14.925	658.634	815.574	0.402	11.018	14.925	6.902
2021-08-17 8:30	1096202	8.091	-92.800	14.909	658.295	815.470	0.402	10.776	14.909	6.903
2021-08-17 8:45	1097102	8.097	-93.179	14.873	657.909	815.678	0.402	10.375	14.873	7.087
2021-08-17 9:00	1098002	8.110	-93.920	14.890	657.966	815.428	0.402	11.110	14.890	7.069
2021-08-17 9:15	1098902	8.107	-93.722	14.889	657.859	815.305	0.402	11.155	14.889	7.130
2021-08-17 9:30	1099802	8.110	-93.892	14.908	657.879	814.974	0.402	11.165	14.908	7.261
2021-08-17 9:45	1100702	8.110	-93.887	14.909	657.812	814.868	0.402	10.835	14.909	7.364
2021-08-17 10:00	1101602	8.118	-94.395	14.950	658.425	814.830	0.402	11.249	14.950	7.493
2021-08-17 10:15	1102502	8.128	-94.984	14.993	659.216	814.992	0.402	11.100	14.993	7.550
2021-08-17 10:30	1103402	8.135	-95.396	15.032	659.792	814.951	0.402	11.679	15.032	7.616
2021-08-17 10:45	1104302	8.127	-94.903	15.049	659.835	814.678	0.402	11.707	15.049	7.691
2021-08-17 11:00	1105202	8.125	-94.845	15.206	661.493	813.713	0.402	12.251	15.206	7.747
2021-08-17 11:15	1106102	8.111	-94.144	15.504	665.982	813.543	0.402	12.837	15.504	8.034
2021-08-17 11:30	1107002	8.120	-94.721	15.700	669.174	813.715	0.402	12.109	15.700	8.147
2021-08-17 11:45	1107902	8.114	-94.450	15.844	671.453	813.759	0.402	12.846	15.844	7.711
2021-08-17 12:00	1108802	8.108	-94.135	15.920	672.938	814.133	0.402	12.296	15.920	7.661
2021-08-17 12:15	1109702	8.105	-93.977	16.012	674.501	814.290	0.402	11.792	16.012	7.683
2021-08-17 12:30	1110602	8.108	-94.197	16.087	675.977	814.661	0.402	11.824	16.087	7.639
2021-08-17 12:45	1111502	8.113	-94.500	16.149	676.997	814.733	0.403	12.444	16.149	7.775
2021-08-17 13:00	1112402	8.090	-93.200	16.228	678.069	814.549	0.402	11.066	16.228	7.767
2021-08-17 13:15	1113302	8.093	-93.534	16.715	685.137	813.943	0.402	12.832	16.715	8.200
2021-08-17 13:30	1114202	8.155	-97.051	16.582	683.488	814.439	0.403	12.716	16.582	9.151
2021-08-17 13:45	1115102	8.162	-97.601	16.976	689.451	814.240	0.403	13.355	16.976	9.726
2021-08-17 14:00	1116002	8.205	-100.358	17.949	704.046	813.617	0.402	13.365	17.949	10.801
2021-08-17 14:15	1116902	8.225	-101.528	17.862	701.043	811.706	0.401	11.487	17.862	10.422
2021-08-17 14:30	1117802	8.262	-103.645	17.778	700.265	812.320	0.402	17.395	17.778	11.390
2021-08-17 14:45	1118702	8.262	-103.576	17.619	698.204	812.787	0.402	13.729	17.619	10.397
2021-08-17 15:00	1119602	8.250	-102.892	17.708	699.050	812.171	0.402	13.369	17.708	10.258

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-17 15:15	1120502	8.256	-103.152	17.438	695.748	813.204	0.402	12.186	17.438	10.919
2021-08-17 15:30	1121402	8.251	-102.961	17.778	702.790	815.250	0.403	14.879	17.778	11.436
2021-08-17 15:45	1122302	8.242	-102.880	18.914	718.223	812.697	0.402	13.001	18.914	11.533
2021-08-17 16:00	1123202	8.244	-102.901	18.725	715.190	812.571	0.402	12.492	18.725	12.623
2021-08-17 16:15	1124102	8.266	-104.072	18.327	708.789	812.326	0.402	12.434	18.327	12.281
2021-08-17 16:30	1125002	8.276	-104.508	18.036	702.944	810.789	0.401	12.006	18.036	11.958
2021-08-17 16:45	1125902	8.269	-104.001	17.775	698.990	810.888	0.401	12.931	17.775	11.310
2021-08-17 17:00	1126802	8.261	-103.576	17.870	700.496	810.937	0.401	13.089	17.870	11.836
2021-08-17 17:15	1127702	8.256	-103.531	18.549	710.885	810.790	0.401	13.992	18.549	12.443
2021-08-17 17:30	1128602	8.261	-103.734	18.347	708.058	811.135	0.401	13.708	18.347	12.036
2021-08-17 17:45	1129502	8.244	-102.961	18.837	715.857	811.361	0.402	14.301	18.837	12.244
2021-08-17 18:00	1130402	8.241	-102.825	18.898	716.496	811.024	0.401	13.641	18.898	12.535
2021-08-17 18:15	1131302	8.245	-103.061	18.919	717.339	811.605	0.402	13.156	18.919	12.392
2021-08-17 18:30	1132202	8.268	-104.365	18.840	715.596	811.023	0.401	12.703	18.840	12.500
2021-08-17 18:45	1133102	8.296	-105.968	18.805	713.697	809.482	0.401	12.842	18.805	12.789
2021-08-17 19:00	1134002	8.310	-106.740	18.769	712.509	808.754	0.400	12.845	18.769	12.889
2021-08-17 19:15	1134902	8.333	-108.078	18.770	712.407	808.620	0.400	12.748	18.770	12.773
2021-08-17 19:30	1135802	8.358	-109.537	18.728	711.545	808.394	0.400	12.905	18.728	12.039
2021-08-17 19:45	1136702	8.359	-109.553	18.696	711.128	808.467	0.400	13.168	18.696	12.048
2021-08-17 20:00	1137602	8.352	-109.112	18.653	711.391	809.526	0.401	12.653	18.653	11.116
2021-08-17 20:15	1138502	8.332	-107.930	18.577	710.419	809.755	0.401	12.662	18.577	11.161
2021-08-17 20:30	1139402	8.339	-108.337	18.469	708.317	809.272	0.400	13.758	18.469	11.406
2021-08-17 20:45	1140302	8.344	-108.562	18.369	706.326	808.760	0.400	13.297	18.369	11.635
2021-08-17 21:00	1141202	8.343	-108.452	18.276	704.928	808.797	0.400	14.242	18.276	11.559
2021-08-17 21:15	1142102	8.334	-107.932	18.159	703.293	808.994	0.400	13.800	18.159	11.904
2021-08-17 21:30	1143002	8.329	-107.577	18.020	701.306	809.187	0.400	12.541	18.020	11.680
2021-08-17 21:45	1143902	8.325	-107.281	17.890	699.814	809.778	0.400	14.947	17.890	11.509
2021-08-17 22:00	1144802	8.311	-106.423	17.784	698.130	809.732	0.400	14.346	17.784	10.977
2021-08-17 22:15	1145702	8.290	-105.219	17.677	697.179	810.550	0.401	15.060	17.677	10.880
2021-08-17 22:30	1146602	8.277	-104.411	17.569	696.275	811.446	0.401	13.717	17.569	10.183
2021-08-17 22:45	1147502	8.266	-103.762	17.472	695.586	812.391	0.402	12.980	17.472	9.962
2021-08-17 23:00	1148402	8.253	-102.942	17.378	694.860	813.246	0.402	13.612	17.378	9.908
2021-08-17 23:15	1149302	8.241	-102.227	17.277	693.896	813.968	0.402	14.512	17.277	9.665
2021-08-17 23:30	1150202	8.231	-101.588	17.167	692.433	814.262	0.403	12.672	17.167	9.349
2021-08-17 23:45	1151102	8.219	-100.913	17.071	691.107	814.453	0.403	14.939	17.071	9.219
2021-08-18 0:00	1152002	8.199	-99.697	16.966	689.832	814.868	0.403	14.138	16.966	8.841
2021-08-18 0:15	1152902	8.187	-98.987	16.889	688.865	815.144	0.403	13.017	16.889	8.653
2021-08-18 0:30	1153802	8.179	-98.472	16.817	687.969	815.406	0.403	13.235	16.817	8.447
2021-08-18 0:45	1154702	8.165	-97.668	16.751	687.152	815.665	0.403	12.800	16.751	8.322
2021-08-18 1:00	1155602	8.145	-96.490	16.659	685.760	815.718	0.403	13.032	16.659	8.172
2021-08-18 1:15	1156502	8.139	-96.097	16.585	684.674	815.800	0.403	13.557	16.585	8.032
2021-08-18 1:30	1157402	8.134	-95.811	16.477	682.855	815.639	0.403	14.079	16.477	8.014
2021-08-18 1:45	1158302	8.150	-96.676	16.390	680.791	814.777	0.403	20.071	16.390	7.887
2021-08-18 2:00	1159202	8.155	-96.972	16.317	679.623	814.748	0.403	19.954	16.317	7.900
2021-08-18 2:15	1160102	8.151	-96.695	16.250	679.036	815.288	0.403	19.965	16.250	7.827

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-18 2:30	1161002	8.133	-95.675	16.256	678.841	814.936	0.403	12.163	16.256	7.793
2021-08-18 2:45	1161902	8.120	-94.867	16.121	677.048	815.312	0.403	11.384	16.121	7.633
2021-08-18 3:00	1162802	8.120	-94.898	16.112	676.392	814.701	0.402	12.694	16.112	7.661
2021-08-18 3:15	1163702	8.129	-95.351	16.040	675.336	814.778	0.402	12.559	16.040	7.540
2021-08-18 3:30	1164602	8.127	-95.241	16.006	675.029	815.032	0.403	13.947	16.006	7.657
2021-08-18 3:45	1165502	8.114	-94.497	15.956	674.379	815.205	0.403	13.254	15.956	7.328
2021-08-18 4:00	1166402	8.118	-94.705	15.889	673.320	815.170	0.403	12.931	15.889	7.413
2021-08-18 4:15	1167302	8.115	-94.509	15.844	672.626	815.191	0.403	12.488	15.844	7.349
2021-08-18 4:30	1168202	8.099	-93.567	15.776	671.931	815.624	0.403	12.174	15.776	7.240
2021-08-18 4:45	1169102	8.095	-93.315	15.758	671.982	816.037	0.403	14.599	15.758	7.098
2021-08-18 5:00	1170002	8.098	-93.503	15.729	672.439	817.132	0.404	13.405	15.729	7.124
2021-08-18 5:15	1170902	8.092	-93.145	15.711	671.270	816.058	0.403	13.824	15.711	7.096
2021-08-18 5:30	1171802	8.086	-92.728	15.590	669.975	816.776	0.403	14.513	15.590	7.111
2021-08-18 5:45	1172702	8.085	-92.690	15.646	669.925	815.659	0.403	14.594	15.646	7.059
2021-08-18 6:00	1173602	8.082	-92.518	15.627	669.611	815.619	0.403	15.647	15.627	6.904
2021-08-18 6:15	1174502	8.082	-92.506	15.558	668.140	815.149	0.403	15.312	15.558	6.857
2021-08-18 6:30	1175402	8.088	-92.869	15.520	667.513	815.112	0.402	15.202	15.520	6.729
2021-08-18 6:45	1176302	8.081	-92.406	15.462	666.877	815.431	0.403	15.436	15.462	***6.426***
2021-08-18 7:00	1177202	8.065	-91.503	15.400	666.148	815.725	0.403	34.185	15.400	***6.179***
2021-08-18 7:15	1178102	8.052	-90.737	15.405	666.518	816.081	0.403	44.140	15.405	***6.295***
2021-08-18 7:30	1179002	8.048	-90.504	15.421	667.176	816.573	0.403	15.114	15.421	***6.394***
2021-08-18 7:45	1179902	8.049	-90.592	15.408	667.289	816.954	0.403	14.983	15.408	***6.431***
2021-08-18 8:00	1180802	8.075	-92.094	15.482	667.329	815.593	0.403	21.656	15.482	6.788
2021-08-18 8:15	1181702	8.067	-91.629	15.504	667.773	815.719	0.403	16.642	15.504	6.578
2021-08-18 8:30	1182602	8.062	-91.338	15.497	667.751	815.826	0.403	16.167	15.497	***6.449***
2021-08-18 8:45	1183502	8.043	-90.289	15.528	668.436	816.073	0.403	15.950	15.528	6.549
2021-08-18 9:00	1184402	8.042	-90.213	15.557	668.910	816.103	0.403	16.146	15.557	6.549
2021-08-18 9:15	1185302	8.045	-90.413	15.570	669.049	816.016	0.403	15.283	15.570	6.560
2021-08-18 9:30	1186202	8.041	-90.203	15.597	669.775	816.399	0.403	15.825	15.597	***6.449***
2021-08-18 9:45	1187102	8.034	-89.784	15.635	670.063	816.034	0.403	15.091	15.635	***6.018***
2021-08-18 10:00	1188002	7.997	-87.674	15.667	670.856	816.384	0.403	15.008	15.667	***6.258***
2021-08-18 10:15	1188902	7.990	-87.307	15.735	671.697	816.110	0.403	15.909	15.735	***6.391***
2021-08-18 10:30	1189802	8.000	-87.912	15.797	672.534	815.971	0.403	15.870	15.797	***6.447***
2021-08-18 10:45	1190702	8.001	-87.938	15.840	673.237	816.005	0.403	15.590	15.840	6.824
2021-08-18 11:00	1191602	7.997	-87.752	15.859	674.151	816.755	0.403	15.329	15.859	6.928
2021-08-18 11:15	1192502	7.998	-87.824	15.871	674.845	817.359	0.404	15.850	15.871	***6.404***
2021-08-18 11:30	1193402	7.994	-87.585	15.878	675.122	817.575	0.404	17.958	15.878	***6.161***
2021-08-18 11:45	1194302	8.014	-88.706	15.877	674.850	817.249	0.404	17.216	15.877	6.624
2021-08-18 12:00	1195202	7.990	-87.326	15.885	674.762	817.004	0.404	17.810	15.885	6.574
2021-08-18 12:15	1196102	7.980	-86.761	15.931	675.243	816.717	0.403	18.886	15.931	***6.467***
2021-08-18 12:30	1197002	7.982	-86.894	15.941	675.401	816.712	0.403	18.426	15.941	6.511
2021-08-18 12:45	1197902	7.982	-86.930	15.948	675.718	816.971	0.404	18.301	15.948	***6.494***
2021-08-18 13:00	1198802	7.967	-86.074	15.970	675.876	816.742	0.403	18.422	15.970	***6.471***
2021-08-18 13:15	1199702	7.979	-86.768	15.998	676.408	816.856	0.404	17.893	15.998	***6.359***
2021-08-18 13:30	1200602	7.992	-87.526	16.049	676.956	816.561	0.403	18.477	16.049	***6.351***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-18 13:45	1201502	7.991	-87.476	16.106	677.730	816.412	0.403	19.417	16.106	***6.486***
2021-08-18 14:00	1202402	7.994	-87.667	16.138	678.047	816.209	0.403	18.732	16.138	6.870
2021-08-18 14:15	1203302	8.009	-88.515	16.151	678.262	816.219	0.403	19.147	16.151	7.227
2021-08-18 14:30	1204202	7.974	-86.529	16.174	678.698	816.313	0.403	19.003	16.174	7.329
2021-08-18 14:45	1205102	7.972	-86.379	16.163	678.642	816.450	0.403	19.994	16.163	7.099
2021-08-18 15:00	1206002	8.010	-88.561	16.139	678.326	816.519	0.403	20.162	16.139	6.895
2021-08-18 15:15	1206902	7.995	-87.705	16.136	678.073	816.272	0.403	20.417	16.136	7.246
2021-08-18 15:30	1207802	8.019	-89.095	16.126	678.210	816.624	0.403	20.629	16.126	7.247
2021-08-18 15:45	1208702	8.015	-88.832	16.125	677.969	816.358	0.403	21.418	16.125	7.232
2021-08-18 16:00	1209602	8.061	-91.510	16.110	678.377	817.116	0.404	21.880	16.110	7.512
2021-08-18 16:15	1210502	8.063	-91.627	16.133	678.671	817.052	0.404	20.910	16.133	7.850
2021-08-18 16:30	1211402	8.055	-91.155	16.157	679.115	817.125	0.404	20.875	16.157	8.032
2021-08-18 16:45	1212302	8.044	-90.518	16.180	679.483	817.146	0.404	21.687	16.180	8.077
2021-08-18 17:00	1213202	8.045	-90.623	16.200	680.011	817.408	0.404	21.418	16.200	8.539
2021-08-18 17:15	1214102	8.037	-90.168	16.209	679.859	817.040	0.404	21.622	16.209	8.420
2021-08-18 17:30	1215002	8.014	-88.799	16.213	679.992	817.134	0.404	21.562	16.213	7.961
2021-08-18 17:45	1215902	8.007	-88.398	16.224	679.966	816.901	0.404	21.037	16.224	7.797
2021-08-18 18:00	1216802	8.022	-89.281	16.241	679.937	816.546	0.403	21.928	16.241	7.156
2021-08-18 18:15	1217702	8.041	-90.387	16.279	680.006	815.921	0.403	21.518	16.279	7.496
2021-08-18 18:30	1218602	8.035	-90.065	16.297	679.515	814.995	0.403	21.619	16.297	7.493
2021-08-18 18:45	1219502	8.051	-90.954	16.258	678.376	814.357	0.402	22.899	16.258	7.054
2021-08-18 19:00	1220402	8.039	-90.241	16.243	677.680	813.790	0.402	23.162	16.243	7.572
2021-08-18 19:15	1221302	8.011	-88.649	16.238	678.694	815.114	0.403	23.300	16.238	7.639
2021-08-18 19:30	1222202	8.034	-89.967	16.229	678.461	814.999	0.403	23.036	16.229	7.312
2021-08-18 19:45	1223102	8.022	-89.309	16.225	678.189	814.747	0.403	21.805	16.225	6.750
2021-08-18 20:00	1224002	8.022	-89.262	16.224	678.916	815.628	0.403	22.143	16.224	7.667
2021-08-18 20:15	1224902	8.033	-89.910	16.219	680.651	817.805	0.404	22.380	16.219	7.708
2021-08-18 20:30	1225802	8.019	-89.090	16.217	680.761	817.989	0.404	22.107	16.217	7.012
2021-08-18 20:45	1226702	8.027	-89.540	16.200	680.821	818.375	0.404	23.844	16.200	6.832
2021-08-18 21:00	1227602	8.044	-90.554	16.163	679.606	817.610	0.404	23.104	16.163	***6.247***
2021-08-18 21:15	1228502	8.039	-90.244	16.111	678.069	816.743	0.404	23.681	16.111	***6.377***
2021-08-18 21:30	1229402	8.012	-88.646	16.067	677.820	817.258	0.404	23.104	16.067	6.942
2021-08-18 21:45	1230302	8.000	-87.919	15.964	675.975	816.974	0.404	24.459	15.964	6.825
2021-08-18 22:00	1231202	8.007	-88.308	15.915	675.622	817.467	0.404	24.987	15.915	7.115
2021-08-18 22:15	1232102	8.008	-88.382	15.842	674.364	817.331	0.404	25.222	15.842	7.097
2021-08-18 22:30	1233002	8.007	-88.298	15.744	672.576	817.021	0.404	25.505	15.744	6.553
2021-08-18 22:45	1233902	8.014	-88.623	15.629	670.620	816.827	0.403	24.304	15.629	***6.481***
2021-08-18 23:00	1234802	7.998	-87.707	15.540	669.234	816.820	0.403	29.697	15.540	6.570
2021-08-18 23:15	1235702	8.002	-87.886	15.425	667.171	816.502	0.403	29.624	15.425	6.682
2021-08-18 23:30	1236602	8.007	-88.186	15.405	666.840	816.461	0.403	30.064	15.405	6.743
2021-08-18 23:45	1237502	8.023	-89.118	15.438	667.098	816.152	0.403	39.655	15.438	6.802
2021-08-19 0:00	1238402	8.035	-89.786	15.455	667.706	816.578	0.403	31.973	15.455	6.783
2021-08-19 0:15	1239302	8.041	-90.127	15.443	666.983	815.916	0.403	31.677	15.443	6.790
2021-08-19 0:30	1240202	8.047	-90.480	15.413	666.023	815.317	0.403	31.498	15.413	6.838
2021-08-19 0:45	1241102	8.042	-90.196	15.393	665.682	815.276	0.403	30.910	15.393	6.919

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-19 1:00	1242002	8.045	-90.337	15.376	665.178	814.983	0.402	31.430	15.376	6.928
2021-08-19 1:15	1242902	8.056	-90.990	15.395	665.290	814.758	0.402	30.516	15.395	6.821
2021-08-19 1:30	1243802	8.064	-91.403	15.371	664.645	814.437	0.402	29.820	15.371	6.871
2021-08-19 1:45	1244702	8.067	-91.586	15.363	664.374	814.258	0.402	29.781	15.363	6.785
2021-08-19 2:00	1245602	8.061	-91.240	15.367	664.127	813.863	0.402	27.719	15.367	6.737
2021-08-19 2:15	1246502	8.060	-91.176	15.368	664.518	814.326	0.402	26.048	15.368	6.626
2021-08-19 2:30	1247402	8.049	-90.580	15.353	664.441	814.515	0.402	24.333	15.353	6.611
2021-08-19 2:45	1248302	8.031	-89.500	15.315	664.058	814.784	0.402	24.291	15.315	***6.488***
2021-08-19 3:00	1249202	8.018	-88.763	15.298	663.837	814.828	0.402	23.735	15.298	***6.384***
2021-08-19 3:15	1250102	8.020	-88.894	15.305	664.191	815.130	0.402	24.366	15.305	***6.296***
2021-08-19 3:30	1251002	8.003	-87.879	15.284	664.115	815.436	0.403	21.795	15.284	***6.111***
2021-08-19 3:45	1251902	7.988	-87.042	15.256	663.912	815.732	0.403	21.274	15.256	***5.896***
2021-08-19 4:00	1252802	8.000	-87.695	15.194	663.018	815.809	0.403	21.333	15.194	***5.847***
2021-08-19 4:15	1253702	7.993	-87.302	15.142	662.072	815.654	0.403	21.983	15.142	***5.988***
2021-08-19 4:30	1254602	7.993	-87.287	15.140	662.117	815.734	0.403	22.640	15.140	***6.033***
2021-08-19 4:45	1255502	8.011	-88.310	15.125	661.777	815.617	0.403	23.546	15.125	***5.980***
2021-08-19 5:00	1256403	8.009	-88.186	15.114	660.903	814.740	0.402	23.945	15.114	***5.944***
2021-08-19 5:15	1257303	8.004	-87.917	15.108	661.441	815.526	0.403	23.947	15.108	***6.097***
2021-08-19 5:30	1258203	7.986	-86.868	15.072	660.791	815.405	0.402	22.559	15.072	***5.950***
2021-08-19 5:45	1259103	7.995	-87.349	15.037	660.700	815.978	0.403	21.399	15.037	***5.828***
2021-08-19 6:00	1260003	8.000	-87.674	14.995	659.864	815.752	0.403	29.931	14.995	***6.205***
2021-08-19 6:15	1260903	8.002	-87.776	14.983	659.126	815.068	0.402	34.159	14.983	***6.101***
2021-08-19 6:30	1261803	7.979	-86.389	14.855	657.592	815.641	0.402	25.277	14.855	***5.828***
2021-08-19 6:45	1262703	7.974	-86.091	14.835	657.346	815.713	0.402	9.048	14.835	***5.693***
2021-08-19 7:00	1263603	7.960	-85.328	14.812	657.287	816.100	0.403	7.642	14.812	***5.630***
2021-08-19 7:15	1264503	7.970	-85.855	14.813	657.397	816.213	0.403	8.011	14.813	***5.669***
2021-08-19 7:30	1265403	7.973	-86.043	14.796	657.162	816.244	0.403	7.478	14.796	***5.710***
2021-08-19 7:45	1266303	7.978	-86.315	14.800	657.019	815.996	0.403	8.008	14.800	***5.737***
2021-08-19 8:00	1267203	7.976	-86.234	14.818	657.838	816.669	0.403	7.562	14.818	***5.525***
2021-08-19 8:15	1268103	7.974	-86.107	14.850	657.867	816.073	0.403	7.347	14.850	***5.833***
2021-08-19 8:30	1269003	7.959	-85.268	14.912	658.846	816.100	0.403	7.203	14.912	***5.866***
2021-08-19 8:45	1269903	7.945	-84.505	14.963	659.377	815.765	0.403	7.238	14.963	***5.563***
2021-08-19 9:00	1270803	7.955	-85.077	15.026	660.142	815.494	0.402	9.392	15.026	***5.827***
2021-08-19 9:15	1271703	7.983	-86.715	15.081	660.870	815.333	0.402	9.176	15.081	***6.087***
2021-08-19 9:30	1272603	8.005	-88.000	15.147	662.275	815.795	0.403	8.935	15.147	***6.148***
2021-08-19 9:45	1273503	8.021	-88.894	15.220	663.122	815.453	0.403	13.592	15.220	***6.037***
2021-08-19 10:00	1274403	8.004	-87.967	15.254	664.420	816.388	0.403	10.258	15.254	***6.200***
2021-08-19 10:15	1275303	7.998	-87.590	15.278	664.991	816.628	0.403	8.969	15.278	***5.863***
2021-08-19 10:30	1276203	8.015	-88.625	15.309	665.648	816.848	0.403	9.763	15.309	6.699
2021-08-19 10:45	1277103	8.021	-88.968	15.344	666.801	817.587	0.404	7.750	15.344	***6.375***
2021-08-19 11:00	1278003	8.006	-88.096	15.427	667.008	816.261	0.403	8.236	15.427	***5.766***
2021-08-19 11:15	1278903	8.014	-88.615	15.457	668.927	818.032	0.404	7.188	15.457	6.607
2021-08-19 11:30	1279803	8.037	-89.915	15.486	670.318	819.184	0.405	7.750	15.486	7.049
2021-08-19 11:45	1280703	8.023	-89.104	15.531	670.381	818.393	0.404	11.360	15.531	6.973
2021-08-19 12:00	1281603	8.011	-88.432	15.543	671.024	818.950	0.404	10.963	15.543	***6.452***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-19 12:15	1282503	7.994	-87.464	15.550	670.501	818.178	0.404	16.991	15.550	***6.406***
2021-08-19 12:30	1283403	7.999	-87.771	15.601	670.638	817.365	0.404	223.535	15.601	6.961
2021-08-19 12:45	1284303	7.988	-87.130	15.627	671.006	817.322	0.404	105.478	15.627	6.686
2021-08-19 13:00	1285203	7.962	-85.654	15.658	671.646	817.512	0.404	63.014	15.658	***6.111***
2021-08-19 13:15	1286103	7.962	-85.690	15.725	660.411	802.599	0.396	21.504	15.725	***6.396***
2021-08-19 13:30	1287003	7.959	-85.506	15.725	671.805	816.446	0.403	9.002	15.725	***6.375***
2021-08-19 13:45	1287903	7.954	-85.251	15.762	671.955	815.913	0.403	7.615	15.762	***6.103***
2021-08-19 14:00	1288803	7.936	-84.262	15.861	673.751	816.227	0.403	6.834	15.861	***5.803***
2021-08-19 14:15	1289703	7.959	-85.611	16.057	676.162	815.444	0.403	7.066	16.057	***6.196***
2021-08-19 14:30	1290603	8.006	-88.377	16.216	678.040	814.725	0.403	8.889	16.216	7.844
2021-08-19 14:45	1291503	7.980	-86.920	16.436	681.577	814.875	0.403	7.535	16.436	7.126
2021-08-19 15:00	1292403	8.004	-88.375	16.582	684.168	815.245	0.403	8.569	16.582	7.783
2021-08-19 15:15	1293303	7.999	-88.084	16.632	684.490	814.711	0.403	7.953	16.632	7.594
2021-08-19 15:30	1294203	8.000	-88.139	16.697	684.810	813.874	0.402	7.878	16.697	7.673
2021-08-19 15:45	1295103	8.064	-91.879	16.775	676.160	802.173	0.396	12.079	16.775	9.172
2021-08-19 16:00	1296003	8.171	-97.935	16.480	658.784	786.819	0.388	13.283	16.480	9.635
2021-08-19 16:15	1296903	8.132	-95.637	16.418	660.936	790.519	0.390	12.229	16.418	9.126
2021-08-19 16:30	1297803	8.118	-94.848	16.463	661.291	790.130	0.390	12.741	16.463	9.012
2021-08-19 16:45	1298703	8.103	-94.109	16.715	662.087	786.552	0.388	14.839	16.715	8.941
2021-08-19 17:00	1299603	8.112	-94.721	17.016	655.317	773.235	0.382	17.544	17.016	9.265
2021-08-19 17:15	1300503	8.113	-94.898	17.382	655.541	767.162	0.379	22.135	17.382	9.294
2021-08-19 17:30	1301403	8.104	-94.509	17.734	655.113	760.678	0.375	20.725	17.734	9.343
2021-08-19 17:45	1302303	8.080	-93.169	17.884	656.172	759.387	0.375	16.704	17.884	9.091
2021-08-19 18:00	1303203	8.059	-91.972	17.940	657.990	760.553	0.375	17.643	17.940	8.924
2021-08-19 18:15	1304103	8.086	-93.522	17.969	661.593	764.220	0.377	15.649	17.969	9.288
2021-08-19 18:30	1305003	8.131	-96.138	17.976	663.156	765.918	0.378	15.295	17.976	8.971
2021-08-19 18:45	1305903	8.166	-98.133	17.979	664.682	767.622	0.379	14.899	17.979	10.057
2021-08-19 19:00	1306803	8.164	-98.054	18.077	667.285	768.972	0.380	19.082	18.077	10.706
2021-08-19 19:15	1307703	8.217	-101.111	18.053	668.011	770.210	0.380	15.938	18.053	11.060
2021-08-19 19:30	1308603	8.242	-102.563	17.984	669.425	773.013	0.382	14.160	17.984	11.315
2021-08-19 19:45	1309503	8.250	-102.978	17.921	670.084	774.846	0.383	13.529	17.921	11.248
2021-08-19 20:00	1310403	8.266	-103.848	17.851	670.328	776.331	0.383	11.642	17.851	10.862
2021-08-19 20:15	1311303	8.247	-102.746	17.761	670.578	778.178	0.384	11.052	17.761	10.514
2021-08-19 20:30	1312203	8.228	-101.614	17.649	669.285	778.602	0.384	11.188	17.649	9.639
2021-08-19 20:45	1313103	8.249	-102.766	17.560	667.656	778.246	0.384	12.060	17.560	10.456
2021-08-19 21:00	1314003	8.263	-103.576	17.494	666.870	778.476	0.384	11.570	17.494	10.639
2021-08-19 21:15	1314903	8.251	-102.859	17.398	665.644	778.708	0.384	12.090	17.398	10.468
2021-08-19 21:30	1315803	8.257	-103.171	17.287	664.695	779.538	0.385	12.957	17.287	9.894
2021-08-19 21:45	1316703	8.252	-102.842	17.154	662.435	779.199	0.385	12.320	17.154	10.236
2021-08-19 22:00	1317603	8.239	-102.024	17.076	661.606	779.600	0.385	20.363	17.076	10.437
2021-08-19 22:15	1318503	8.225	-101.190	16.971	660.865	780.576	0.385	13.485	16.971	10.243
2021-08-19 22:30	1319403	8.200	-99.697	16.826	659.779	781.837	0.386	12.988	16.826	9.788
2021-08-19 22:45	1320303	8.168	-97.833	16.717	659.787	783.790	0.387	12.499	16.717	9.408
2021-08-19 23:00	1321203	8.126	-95.415	16.633	659.909	785.432	0.388	12.388	16.633	8.457
2021-08-19 23:15	1322103	8.081	-92.781	16.549	660.377	787.482	0.389	12.238	16.549	8.117

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-19 23:30	1323003	8.063	-91.739	16.480	660.026	788.305	0.389	13.757	16.480	7.970
2021-08-19 23:45	1323903	8.043	-90.537	16.368	660.645	791.071	0.390	12.319	16.368	7.908
2021-08-20 0:00	1324803	7.994	-87.669	16.293	660.058	791.719	0.391	12.091	16.293	7.384
2021-08-20 0:15	1325703	7.973	-86.505	16.254	659.344	791.567	0.391	14.010	16.254	7.202
2021-08-20 0:30	1326603	7.953	-85.299	16.199	658.970	792.133	0.391	12.921	16.199	6.895
2021-08-20 0:45	1327503	7.934	-84.193	16.134	658.744	793.035	0.391	12.620	16.134	6.561
2021-08-20 1:00	1328403	7.912	-82.893	16.046	657.622	793.292	0.392	13.196	16.046	***6.279***
2021-08-20 1:15	1329303	7.884	-81.298	16.009	657.435	793.747	0.392	10.400	16.009	***5.906***
2021-08-20 1:30	1330203	7.884	-81.272	15.946	656.481	793.752	0.392	10.525	15.946	***5.699***
2021-08-20 1:45	1331103	7.887	-81.418	15.890	655.672	793.797	0.392	10.464	15.890	***5.856***
2021-08-20 2:00	1332003	7.903	-82.316	15.845	654.522	793.229	0.391	10.407	15.845	***6.125***
2021-08-20 2:15	1332903	7.916	-83.096	15.832	654.290	793.183	0.391	10.057	15.832	***6.004***
2021-08-20 2:30	1333803	7.943	-84.612	15.824	654.352	793.407	0.391	11.866	15.824	***6.343***
2021-08-20 2:45	1334703	7.971	-86.255	15.806	653.823	793.085	0.391	12.784	15.806	6.597
2021-08-20 3:00	1335603	7.985	-87.028	15.761	651.674	791.313	0.390	10.820	15.761	6.507
2021-08-20 3:15	1336503	7.974	-86.343	15.702	651.943	792.728	0.391	10.711	15.702	***6.429***
2021-08-20 3:30	1337403	7.984	-86.958	15.680	651.879	793.056	0.391	10.250	15.680	***6.420***
2021-08-20 3:45	1338303	7.938	-84.276	15.640	651.738	793.624	0.392	10.116	15.640	6.501
2021-08-20 4:00	1339203	7.954	-85.187	15.577	650.972	793.853	0.392	10.884	15.577	6.504
2021-08-20 4:15	1340103	7.953	-85.120	15.500	649.933	794.009	0.392	11.404	15.500	***6.447***
2021-08-20 4:30	1341003	7.935	-84.066	15.498	650.094	794.238	0.392	10.742	15.498	***6.337***
2021-08-20 4:45	1341903	7.914	-82.879	15.449	649.767	794.748	0.392	9.700	15.449	***6.334***
2021-08-20 5:00	1342803	7.930	-83.790	15.422	649.820	795.312	0.392	10.323	15.422	***6.286***
2021-08-20 5:15	1343703	7.957	-85.280	15.365	648.837	795.176	0.392	10.578	15.365	***6.282***
2021-08-20 5:30	1344603	7.955	-85.135	15.281	647.658	795.285	0.392	9.984	15.281	***6.208***
2021-08-20 5:45	1345503	7.974	-86.234	15.241	647.129	795.388	0.392	12.057	15.241	***6.297***
2021-08-20 6:00	1346403	7.975	-86.255	15.176	646.352	795.652	0.392	15.577	15.176	***6.188***
2021-08-20 6:15	1347303	7.976	-86.339	15.120	645.552	795.716	0.392	12.701	15.120	***6.192***
2021-08-20 6:30	1348203	7.956	-85.180	15.085	646.436	797.463	0.393	11.248	15.085	***5.821***
2021-08-20 6:45	1349103	7.973	-86.060	14.940	643.674	796.763	0.393	12.061	14.940	***5.862***
2021-08-20 7:00	1350003	7.962	-85.466	14.943	643.668	796.703	0.393	12.407	14.943	***5.736***
2021-08-20 7:15	1350903	7.955	-85.073	14.912	643.305	796.837	0.393	11.876	14.912	***5.704***
2021-08-20 7:30	1351803	7.963	-85.504	14.861	642.524	796.832	0.393	11.745	14.861	***5.777***
2021-08-20 7:45	1352703	7.930	-83.611	14.831	642.391	797.231	0.393	12.279	14.831	***5.852***
2021-08-20 8:00	1353603	7.928	-83.492	14.811	642.290	797.483	0.393	11.581	14.811	***6.003***
2021-08-20 8:15	1354503	7.959	-85.211	14.771	641.769	797.593	0.393	11.806	14.771	***6.083***
2021-08-20 8:30	1355403	7.953	-84.915	14.781	641.969	797.651	0.393	11.498	14.781	***6.091***
2021-08-20 8:45	1356303	7.972	-85.995	14.781	641.949	797.634	0.393	11.410	14.781	***6.189***
2021-08-20 9:00	1357203	7.942	-84.252	14.768	642.159	798.146	0.393	11.832	14.768	***6.302***
2021-08-20 9:15	1358103	7.950	-84.703	14.738	641.853	798.335	0.394	12.235	14.738	***6.432***
2021-08-20 9:30	1359003	7.954	-84.949	14.746	641.908	798.239	0.394	11.729	14.746	***6.393***
2021-08-20 9:45	1359903	7.932	-83.721	14.790	642.515	798.157	0.393	12.735	14.790	6.586
2021-08-20 10:00	1360803	7.946	-84.548	14.936	644.349	797.672	0.393	12.286	14.936	6.753
2021-08-20 10:15	1361703	7.963	-85.542	15.006	645.622	797.940	0.393	11.936	15.006	6.743
2021-08-20 10:30	1362603	7.979	-86.479	15.042	646.505	798.355	0.394	11.880	15.042	***6.421***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-20 10:45	1363503	7.966	-85.740	15.069	647.159	798.643	0.394	11.950	15.069	***5.968***
2021-08-20 11:00	1364403	7.951	-84.860	15.122	647.796	798.439	0.394	13.647	15.122	7.199
2021-08-20 11:15	1365303	7.951	-84.925	15.359	650.803	797.694	0.393	13.680	15.359	7.485
2021-08-20 11:30	1366203	7.981	-86.730	15.556	653.855	797.755	0.394	13.129	15.556	7.377
2021-08-20 11:45	1367103	7.975	-86.434	15.649	656.408	799.133	0.394	14.246	15.649	7.422
2021-08-20 12:00	1368003	7.997	-87.729	15.770	657.618	798.363	0.394	16.572	15.770	7.165
2021-08-20 12:15	1368903	8.009	-88.429	15.862	659.769	799.262	0.394	14.678	15.862	7.217
2021-08-20 12:30	1369803	7.997	-87.783	15.935	659.918	798.096	0.394	14.155	15.935	7.111
2021-08-20 12:45	1370703	8.004	-88.196	16.119	663.186	798.663	0.394	14.557	16.119	7.407
2021-08-20 13:00	1371603	8.056	-91.357	16.652	670.706	797.926	0.394	13.358	16.652	8.141
2021-08-20 13:15	1372503	8.097	-93.875	17.194	680.173	799.347	0.395	13.423	17.194	9.669
2021-08-20 13:30	1373403	8.081	-93.019	17.384	682.883	799.121	0.395	12.507	17.384	9.043
2021-08-20 13:45	1374303	8.076	-92.916	17.966	697.319	805.539	0.398	21.502	17.966	9.287
2021-08-20 14:00	1375203	8.067	-92.514	18.283	701.163	804.354	0.398	14.845	18.283	8.914
2021-08-20 14:15	1376103	8.056	-91.906	18.306	701.545	804.395	0.398	13.747	18.306	8.615
2021-08-20 14:30	1377003	8.024	-90.053	18.439	700.962	801.394	0.396	13.641	18.439	8.412
2021-08-20 14:45	1377903	8.006	-89.099	18.674	705.145	802.050	0.397	13.263	18.674	8.112
2021-08-20 15:00	1378803	8.001	-88.952	19.018	713.769	805.845	0.399	13.672	19.018	8.269
2021-08-20 15:15	1379703	8.045	-91.562	19.375	715.812	801.969	0.397	13.423	19.375	9.206
2021-08-20 15:30	1380603	8.080	-93.663	19.541	718.960	802.654	0.397	13.878	19.541	9.336
2021-08-20 15:45	1381503	8.095	-94.543	19.576	723.151	806.728	0.399	12.924	19.576	9.482
2021-08-20 16:00	1382403	8.187	-99.871	19.454	715.431	800.203	0.396	13.191	19.454	10.931
2021-08-20 16:15	1383303	8.210	-101.190	19.479	715.895	800.289	0.396	12.752	19.479	11.038
2021-08-20 16:30	1384203	8.205	-100.908	19.477	718.037	802.711	0.397	13.157	19.477	11.425
2021-08-20 16:45	1385103	8.230	-102.346	19.349	712.743	798.978	0.395	12.821	19.349	12.451
2021-08-20 17:00	1386003	8.241	-102.923	19.175	709.986	798.863	0.395	12.626	19.175	12.614
2021-08-20 17:15	1386903	8.230	-102.205	19.086	709.390	799.723	0.396	12.557	19.086	12.188
2021-08-20 17:30	1387803	8.213	-101.247	19.102	710.313	800.489	0.396	13.404	19.102	12.039
2021-08-20 17:45	1388703	8.208	-100.949	19.105	709.414	799.426	0.395	14.322	19.105	12.028
2021-08-20 18:00	1389603	8.225	-101.910	19.053	709.134	799.999	0.396	12.532	19.053	12.371
2021-08-20 18:15	1390503	8.177	-99.170	19.090	710.081	800.428	0.396	13.105	19.090	12.260
2021-08-20 18:30	1391403	8.202	-100.608	19.084	710.157	800.619	0.396	13.120	19.084	12.055
2021-08-20 18:45	1392303	8.234	-102.482	19.085	709.778	800.182	0.396	12.567	19.085	11.592
2021-08-20 19:00	1393203	8.237	-102.646	19.111	709.161	799.031	0.395	14.342	19.111	12.088
2021-08-20 19:15	1394103	8.248	-103.207	18.951	706.662	798.980	0.395	15.639	18.951	12.341
2021-08-20 19:30	1395003	8.237	-102.596	18.901	705.871	798.947	0.395	14.371	18.901	12.182
2021-08-20 19:45	1395903	8.231	-102.198	18.759	703.989	799.267	0.395	13.302	18.759	12.750
2021-08-20 20:00	1396803	8.237	-102.496	18.648	703.144	800.235	0.396	13.551	18.648	12.626
2021-08-20 20:15	1397703	8.257	-103.605	18.479	700.552	800.225	0.396	13.701	18.479	11.940
2021-08-20 20:30	1398603	8.193	-99.792	18.273	703.505	807.215	0.399	13.359	18.273	11.311
2021-08-20 20:45	1399503	8.126	-95.897	18.115	704.598	811.290	0.401	13.274	18.115	10.229
2021-08-20 21:00	1400403	8.105	-94.652	18.027	701.279	809.033	0.400	13.524	18.027	9.719
2021-08-20 21:15	1401303	8.137	-96.447	17.859	695.992	805.911	0.399	14.693	17.859	10.303
2021-08-20 21:30	1402203	8.144	-96.769	17.720	693.207	805.168	0.398	15.007	17.720	10.220
2021-08-20 21:45	1403103	8.139	-96.431	17.593	692.467	806.568	0.399	17.636	17.593	10.278

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-20 22:00	1404003	8.123	-95.487	17.465	690.187	806.214	0.399	21.434	17.465	10.102
2021-08-20 22:15	1404903	8.118	-95.162	17.345	687.707	805.483	0.398	16.416	17.345	9.903
2021-08-20 22:30	1405803	8.099	-94.054	17.253	686.704	805.957	0.398	15.349	17.253	9.613
2021-08-20 22:45	1406703	8.088	-93.338	17.121	685.023	806.365	0.399	15.693	17.121	9.223
2021-08-20 23:00	1407603	8.071	-92.347	17.050	684.281	806.786	0.399	16.229	17.050	9.106
2021-08-20 23:15	1408503	8.062	-91.810	16.937	682.915	807.229	0.399	15.117	16.937	8.777
2021-08-20 23:30	1409403	8.055	-91.395	16.828	681.406	807.430	0.399	15.401	16.828	8.344
2021-08-20 23:45	1410303	8.061	-91.712	16.742	679.578	806.838	0.399	14.973	16.742	8.077
2021-08-21 0:00	1411203	8.049	-91.002	16.687	678.968	807.127	0.399	14.759	16.687	8.226
2021-08-21 0:15	1412103	8.047	-90.823	16.618	677.526	806.674	0.399	79.525	16.618	8.125
2021-08-21 0:30	1413003	8.049	-90.892	16.463	674.518	805.933	0.398	13.743	16.463	8.136
2021-08-21 0:45	1413903	8.046	-90.699	16.428	673.680	805.574	0.398	106.262	16.428	8.014
2021-08-21 1:00	1414803	8.054	-91.157	16.370	671.768	804.358	0.397	15.331	16.370	7.949
2021-08-21 1:15	1415703	8.061	-91.572	16.292	669.914	803.572	0.397	13.256	16.292	7.903
2021-08-21 1:30	1416603	8.078	-92.523	16.247	668.708	802.948	0.397	12.909	16.247	8.004
2021-08-21 1:45	1417503	8.079	-92.564	16.188	667.391	802.457	0.396	12.539	16.188	7.938
2021-08-21 2:00	1418403	8.085	-92.874	16.143	666.296	801.958	0.396	12.347	16.143	7.840
2021-08-21 2:15	1419303	8.093	-93.324	16.093	665.267	801.648	0.396	12.437	16.093	7.963
2021-08-21 2:30	1420203	8.073	-92.180	16.062	664.819	801.674	0.396	13.147	16.062	7.905
2021-08-21 2:45	1421103	8.088	-93.021	16.011	663.867	801.476	0.396	13.879	16.011	8.043
2021-08-21 3:00	1422003	8.083	-92.702	15.965	662.453	800.613	0.395	12.655	15.965	7.933
2021-08-21 3:15	1422903	8.066	-91.734	15.929	662.213	800.985	0.395	11.839	15.929	7.795
2021-08-21 3:30	1423803	8.081	-92.556	15.873	661.224	800.835	0.395	11.837	15.873	7.815
2021-08-21 3:45	1424703	8.084	-92.723	15.853	661.103	801.056	0.395	12.241	15.853	7.608
2021-08-21 4:00	1425603	8.068	-91.784	15.819	660.586	801.056	0.395	12.148	15.819	7.644
2021-08-21 4:15	1426503	8.066	-91.658	15.764	659.661	800.956	0.395	12.043	15.764	7.688
2021-08-21 4:30	1427403	8.071	-91.941	15.681	658.135	800.651	0.395	12.331	15.681	7.564
2021-08-21 4:45	1428303	8.052	-90.823	15.662	658.186	801.066	0.395	11.867	15.662	7.370
2021-08-21 5:00	1429203	8.043	-90.277	15.583	657.254	801.392	0.395	11.497	15.583	7.297
2021-08-21 5:15	1430103	8.056	-90.995	15.513	656.088	801.276	0.395	11.868	15.513	7.367
2021-08-21 5:30	1431003	8.054	-90.876	15.511	655.803	800.970	0.395	11.617	15.511	7.294
2021-08-21 5:45	1431903	8.059	-91.150	15.464	654.835	800.667	0.395	11.773	15.464	7.343
2021-08-21 6:00	1432803	8.048	-90.544	15.401	653.421	800.123	0.395	12.413	15.401	7.195
2021-08-21 6:15	1433703	8.050	-90.606	15.330	652.962	800.888	0.395	15.798	15.330	7.300
2021-08-21 6:30	1434603	8.041	-90.117	15.348	653.239	800.880	0.395	15.418	15.348	7.117
2021-08-21 6:45	1435503	8.042	-90.158	15.309	653.037	801.374	0.395	19.201	15.309	7.077
2021-08-21 7:00	1436403	8.035	-89.719	15.269	652.259	801.169	0.395	13.356	15.269	6.797
2021-08-21 7:15	1437303	8.032	-89.552	15.158	650.545	801.144	0.395	12.206	15.158	6.780
2021-08-21 7:30	1438203	8.026	-89.183	15.176	650.858	801.197	0.395	12.038	15.176	6.869
2021-08-21 7:45	1439103	8.008	-88.196	15.211	651.750	801.631	0.395	12.134	15.211	6.876
2021-08-21 8:00	1440003	8.009	-88.227	15.217	651.697	801.448	0.395	12.434	15.217	6.820
2021-08-21 8:15	1440903	8.012	-88.406	15.208	651.374	801.235	0.395	12.141	15.208	6.697
2021-08-21 8:30	1441803	8.005	-87.993	15.164	650.487	800.955	0.395	11.095	15.164	***6.186***
2021-08-21 8:45	1442703	8.000	-87.655	15.091	649.262	800.827	0.395	11.664	15.091	6.812
2021-08-21 9:00	1443603	8.008	-88.124	15.076	649.087	800.893	0.395	12.128	15.076	7.010

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-21 9:15	1444503	8.004	-87.907	15.026	648.252	800.809	0.395	11.769	15.026	7.078
2021-08-21 9:30	1445403	8.002	-87.750	15.033	648.963	801.564	0.395	11.964	15.033	6.970
2021-08-21 9:45	1446303	7.998	-87.538	15.049	649.884	802.382	0.396	12.711	15.049	7.019
2021-08-21 10:00	1447203	7.982	-86.627	15.090	649.382	800.993	0.395	12.647	15.090	6.953
2021-08-21 10:15	1448103	7.987	-86.944	15.102	649.665	801.117	0.395	12.252	15.102	7.078
2021-08-21 10:30	1449003	7.996	-87.466	15.115	649.990	801.271	0.395	12.574	15.115	7.164
2021-08-21 10:45	1449903	7.990	-87.132	15.146	650.271	801.030	0.395	13.147	15.146	7.152
2021-08-21 11:00	1450803	8.007	-88.105	15.224	651.293	800.825	0.395	14.049	15.224	7.320
2021-08-21 11:15	1451703	7.989	-87.144	15.447	654.387	800.430	0.395	15.014	15.447	7.307
2021-08-21 11:30	1452603	7.986	-87.099	15.789	660.284	801.241	0.395	14.797	15.789	7.489
2021-08-21 11:45	1453503	7.995	-87.683	16.070	665.012	801.758	0.396	13.591	16.070	7.677
2021-08-21 12:00	1454403	7.983	-87.063	16.222	667.250	801.649	0.396	13.251	16.222	7.537
2021-08-21 12:15	1455303	7.969	-86.269	16.278	667.909	801.422	0.396	13.905	16.278	7.354
2021-08-21 12:30	1456203	7.962	-85.883	16.316	668.951	801.966	0.396	12.722	16.316	7.146
2021-08-21 12:45	1457103	7.948	-85.106	16.506	671.726	801.801	0.396	13.732	16.506	7.021
2021-08-21 13:00	1458003	7.942	-84.841	16.711	675.023	802.002	0.396	13.851	16.711	6.920
2021-08-21 13:15	1458903	7.947	-85.154	16.832	676.683	801.765	0.396	13.267	16.832	6.830
2021-08-21 13:30	1459803	7.959	-85.843	16.802	676.702	802.329	0.396	13.009	16.802	6.704
2021-08-21 13:45	1460703	7.958	-85.809	16.861	677.775	802.527	0.396	12.499	16.861	6.632
2021-08-21 14:00	1461603	7.941	-84.820	16.934	679.061	802.729	0.397	12.309	16.934	6.696
2021-08-21 14:15	1462503	7.931	-84.286	17.070	681.103	802.678	0.397	13.110	17.070	6.703
2021-08-21 14:30	1463403	7.929	-84.267	17.408	685.753	802.066	0.396	13.027	17.408	7.157
2021-08-21 14:45	1464303	7.936	-84.755	17.544	688.004	802.261	0.397	13.554	17.544	7.480
2021-08-21 15:00	1465203	7.930	-84.422	17.701	690.213	802.030	0.396	13.597	17.701	7.548
2021-08-21 15:15	1466103	7.935	-84.834	18.025	694.039	800.719	0.396	13.789	18.025	7.965
2021-08-21 15:30	1467003	7.977	-87.450	18.778	707.441	802.848	0.397	16.604	18.778	9.918
2021-08-21 15:45	1467903	8.113	-95.456	19.139	710.086	799.593	0.396	15.129	19.139	10.736
2021-08-21 16:00	1468803	8.125	-96.223	19.425	714.803	799.995	0.396	15.602	19.425	11.197
2021-08-21 16:15	1469703	8.107	-95.241	19.486	715.684	799.934	0.396	14.705	19.486	10.948
2021-08-21 16:30	1470603	8.077	-93.572	19.745	719.964	800.296	0.396	14.108	19.745	11.044
2021-08-21 16:45	1471503	8.076	-93.641	20.149	725.702	799.803	0.396	15.583	20.149	11.511
2021-08-21 17:00	1472403	8.094	-94.731	20.347	728.595	799.670	0.396	14.575	20.347	11.795
2021-08-21 17:15	1473303	8.286	-105.801	20.053	720.674	795.877	0.394	14.748	20.053	13.794
2021-08-21 17:30	1474203	8.338	-108.721	19.673	713.919	794.785	0.393	14.709	19.673	14.439
2021-08-21 17:45	1475103	8.315	-107.329	19.546	714.161	797.201	0.394	15.568	19.546	14.563
2021-08-21 18:00	1476003	8.301	-106.549	19.574	716.314	799.140	0.395	14.852	19.574	14.148
2021-08-21 18:15	1476903	8.269	-104.752	19.751	718.553	798.627	0.395	15.128	19.751	13.748
2021-08-21 18:30	1477803	8.263	-104.389	19.717	719.495	800.241	0.396	14.911	19.717	13.677
2021-08-21 18:45	1478703	8.251	-103.724	19.954	718.277	794.884	0.393	15.498	19.954	13.410
2021-08-21 19:00	1479603	8.243	-103.350	20.199	719.584	792.222	0.392	15.665	20.199	13.962
2021-08-21 19:15	1480503	8.284	-105.801	20.271	719.470	790.903	0.391	15.898	20.271	13.946
2021-08-21 19:30	1481403	8.291	-106.175	20.221	717.959	790.077	0.391	15.125	20.221	13.320
2021-08-21 19:45	1482303	8.283	-105.619	19.981	717.843	793.959	0.393	16.738	19.981	11.390
2021-08-21 20:00	1483203	8.277	-105.240	19.880	716.578	794.254	0.393	16.215	19.880	11.070
2021-08-21 20:15	1484103	8.302	-106.597	19.645	712.477	793.660	0.393	16.755	19.645	11.597

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-21 20:30	1485003	8.297	-106.177	19.343	708.064	793.842	0.393	16.788	19.343	11.092
2021-08-21 20:45	1485903	8.287	-105.491	19.014	703.519	794.341	0.393	17.114	19.014	10.885
2021-08-21 21:00	1486803	8.267	-104.263	18.795	701.261	795.538	0.393	16.652	18.795	10.156
2021-08-21 21:15	1487703	8.242	-102.775	18.599	698.919	796.269	0.394	16.452	18.599	10.207
2021-08-21 21:30	1488603	8.205	-100.532	18.408	697.011	797.406	0.394	16.894	18.408	9.793
2021-08-21 21:45	1489503	8.186	-99.418	18.290	694.684	796.811	0.394	17.154	18.290	9.470
2021-08-21 22:00	1490403	8.174	-98.684	18.129	691.487	795.951	0.393	18.375	18.129	9.100
2021-08-21 22:15	1491303	8.173	-98.557	17.962	689.331	796.383	0.394	16.689	17.962	9.039
2021-08-21 22:30	1492203	8.171	-98.357	17.825	686.815	795.886	0.393	17.250	17.825	8.732
2021-08-21 22:45	1493103	8.164	-97.914	17.727	685.245	795.794	0.393	17.652	17.727	8.606
2021-08-21 23:00	1494003	8.161	-97.742	17.641	683.789	795.617	0.393	17.117	17.641	8.497
2021-08-21 23:15	1494903	8.162	-97.759	17.530	681.572	794.997	0.393	17.428	17.530	8.514
2021-08-21 23:30	1495803	8.164	-97.852	17.410	679.816	795.085	0.393	17.611	17.410	8.496
2021-08-21 23:45	1496703	8.148	-96.879	17.362	679.138	795.143	0.393	17.312	17.362	8.184
2021-08-22 0:00	1497603	8.144	-96.633	17.240	677.224	795.060	0.393	16.691	17.240	8.017
2021-08-22 0:15	1498503	8.154	-97.148	17.074	669.036	788.390	0.389	17.560	17.074	7.972
2021-08-22 0:30	1499403	8.147	-96.710	16.981	667.210	787.880	0.389	18.158	16.981	7.772
2021-08-22 0:45	1500303	8.129	-95.611	16.868	665.131	787.441	0.389	18.123	16.868	7.581
2021-08-22 1:00	1501203	8.116	-94.845	16.771	664.709	788.663	0.389	17.829	16.771	7.545
2021-08-22 1:15	1502103	8.098	-93.825	16.733	664.362	788.931	0.389	17.730	16.733	7.179
2021-08-22 1:30	1503003	8.098	-93.796	16.681	663.271	788.576	0.389	17.892	16.681	7.063
2021-08-22 1:45	1503903	8.080	-92.735	16.657	663.752	789.564	0.390	17.747	16.657	7.159
2021-08-22 2:00	1504803	8.062	-91.710	16.576	663.270	790.446	0.390	17.176	16.576	7.279
2021-08-22 2:15	1505703	8.075	-92.394	16.521	662.380	790.380	0.390	17.371	16.521	7.181
2021-08-22 2:30	1506603	8.095	-93.534	16.461	660.938	789.735	0.390	16.076	16.461	7.372
2021-08-22 2:45	1507503	8.097	-93.622	16.388	659.537	789.378	0.390	15.939	16.388	7.545
2021-08-22 3:00	1508403	8.104	-94.049	16.364	659.686	789.994	0.390	17.761	16.364	7.476
2021-08-22 3:15	1509303	8.109	-94.318	16.347	659.494	790.073	0.390	18.986	16.347	7.394
2021-08-22 3:30	1510203	8.110	-94.349	16.281	658.986	790.656	0.390	17.371	16.281	7.369
2021-08-22 3:45	1511103	8.104	-94.018	16.219	657.805	790.354	0.390	18.333	16.219	7.255
2021-08-22 4:00	1512003	8.107	-94.132	16.197	657.249	790.095	0.390	18.731	16.197	7.197
2021-08-22 4:15	1512903	8.103	-93.899	16.140	656.474	790.190	0.390	19.181	16.140	7.228
2021-08-22 4:30	1513803	8.110	-94.321	16.108	655.733	789.892	0.390	19.712	16.108	7.301
2021-08-22 4:45	1514703	8.113	-94.461	16.087	656.655	791.373	0.391	19.372	16.087	7.387
2021-08-22 5:00	1515603	8.107	-94.078	16.027	655.098	790.595	0.390	19.144	16.027	7.335
2021-08-22 5:15	1516503	8.097	-93.505	15.995	654.779	790.797	0.390	19.022	15.995	7.312
2021-08-22 5:30	1517403	8.094	-93.319	15.972	654.722	791.139	0.390	19.379	15.972	7.219
2021-08-22 5:45	1518303	8.086	-92.866	15.966	654.848	791.405	0.391	19.735	15.966	7.060
2021-08-22 6:00	1519203	8.079	-92.471	15.927	654.513	791.709	0.391	19.375	15.927	6.996
2021-08-22 6:15	1520103	8.073	-92.134	15.910	654.185	791.623	0.391	19.397	15.910	6.967
2021-08-22 6:30	1521003	8.071	-91.984	15.836	653.631	792.312	0.391	18.994	15.836	7.006
2021-08-22 6:45	1521903	8.067	-91.717	15.768	651.998	791.582	0.391	18.737	15.768	6.897
2021-08-22 7:00	1522803	8.058	-91.228	15.770	652.212	791.803	0.391	18.391	15.770	6.829
2021-08-22 7:15	1523703	8.037	-90.027	15.757	651.920	791.687	0.391	18.566	15.757	6.775
2021-08-22 7:30	1524603	8.045	-90.427	15.720	650.888	791.103	0.390	18.424	15.720	6.631

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-22 7:45	1525503	8.054	-90.969	15.683	649.204	789.736	0.390	19.022	15.683	6.759
2021-08-22 8:00	1526403	8.059	-91.255	15.661	648.435	789.219	0.389	18.266	15.661	6.762
2021-08-22 8:15	1527303	8.066	-91.627	15.661	648.189	788.902	0.389	18.861	15.661	6.981
2021-08-22 8:30	1528203	8.059	-91.205	15.649	648.056	788.960	0.389	18.789	15.649	6.894
2021-08-22 8:45	1529103	8.050	-90.716	15.620	647.669	789.024	0.389	18.487	15.620	6.818
2021-08-22 9:00	1530003	8.052	-90.816	15.599	647.745	789.512	0.389	18.436	15.599	6.751
2021-08-22 9:15	1530903	8.042	-90.222	15.598	646.452	787.954	0.389	21.927	15.598	6.878
2021-08-22 9:30	1531803	8.035	-89.836	15.542	645.087	787.314	0.388	18.598	15.542	6.694
2021-08-22 9:45	1532703	8.037	-89.915	15.430	637.026	779.508	0.384	19.353	15.430	6.908
2021-08-22 10:00	1533603	8.030	-89.509	15.433	637.477	780.017	0.384	19.854	15.433	6.977
2021-08-22 10:15	1534503	8.023	-89.102	15.401	634.333	776.746	0.383	19.652	15.401	6.737
2021-08-22 10:30	1535403	8.038	-89.922	15.329	629.765	772.457	0.381	18.689	15.329	6.922
2021-08-22 10:45	1536303	8.049	-90.513	15.288	626.772	769.520	0.379	19.400	15.288	6.930
2021-08-22 11:00	1537203	8.060	-91.147	15.266	624.186	766.734	0.378	19.357	15.266	6.838
2021-08-22 11:15	1538103	8.050	-90.592	15.271	623.940	766.353	0.377	18.901	15.271	6.735
2021-08-22 11:30	1539003	8.045	-90.282	15.262	623.358	765.793	0.377	18.931	15.262	6.789
2021-08-22 11:45	1539903	8.053	-90.756	15.269	624.481	767.038	0.378	18.963	15.269	6.950
2021-08-22 12:00	1540803	8.065	-91.445	15.223	625.656	769.324	0.379	19.280	15.223	7.127
2021-08-22 12:15	1541703	8.091	-92.871	15.126	621.180	765.569	0.377	19.720	15.126	7.397
2021-08-22 12:30	1542603	8.098	-93.246	15.053	618.234	763.246	0.376	20.091	15.053	7.443
2021-08-22 12:45	1543503	8.073	-91.825	15.013	615.815	760.967	0.375	20.628	15.013	7.486
2021-08-22 13:00	1544403	8.063	-91.224	14.984	614.490	759.850	0.374	20.939	14.984	7.529
2021-08-22 13:15	1545303	8.064	-91.321	14.999	614.126	759.141	0.374	19.990	14.999	7.536
2021-08-22 13:30	1546203	8.061	-91.143	15.025	616.236	761.281	0.375	19.699	15.025	7.435
2021-08-22 13:45	1547103	8.049	-90.439	15.029	617.549	762.826	0.376	20.122	15.029	6.707
2021-08-22 14:00	1548003	8.048	-90.368	15.009	617.737	763.423	0.376	20.562	15.009	***6.472***
2021-08-22 14:15	1548903	8.034	-89.607	14.974	616.466	762.483	0.375	21.066	14.974	6.996
2021-08-22 14:30	1549803	8.067	-91.426	14.922	614.406	760.862	0.375	21.444	14.922	7.194
2021-08-22 14:45	1550703	8.071	-91.636	14.852	612.339	759.569	0.374	20.106	14.852	7.492
2021-08-22 15:00	1551603	8.015	-88.491	14.915	623.468	772.223	0.380	20.679	14.915	***6.310***
2021-08-22 15:15	1552503	7.989	-87.044	15.071	633.627	781.904	0.385	21.898	15.071	***5.566***
2021-08-22 15:30	1553403	7.985	-86.830	15.170	638.780	786.435	0.388	22.336	15.170	***5.868***
2021-08-22 15:45	1554303	7.976	-86.379	15.264	644.127	791.266	0.390	22.099	15.264	***5.771***
2021-08-22 16:00	1555203	7.984	-86.858	15.354	648.766	795.282	0.392	23.645	15.354	***5.663***
2021-08-22 16:15	1556103	7.988	-87.092	15.454	652.100	797.516	0.393	24.848	15.454	***5.385***
2021-08-22 16:30	1557003	7.997	-87.657	15.559	658.513	803.378	0.396	24.378	15.559	***5.199***
2021-08-22 16:45	1557903	7.992	-87.364	15.635	662.625	806.960	0.398	25.734	15.635	***5.639***
2021-08-22 17:00	1558803	7.985	-86.977	15.704	665.916	809.684	0.400	24.122	15.704	***5.752***
2021-08-22 17:15	1559703	7.983	-86.877	15.728	667.581	811.258	0.401	25.824	15.728	***5.500***
2021-08-22 17:30	1560603	7.998	-87.769	15.735	669.274	813.176	0.402	25.358	15.735	***5.455***
2021-08-22 17:45	1561503	8.015	-88.723	15.735	669.523	813.479	0.402	24.856	15.735	***5.759***
2021-08-22 18:00	1562403	8.024	-89.228	15.724	669.708	813.916	0.402	25.089	15.724	***5.886***
2021-08-22 18:15	1563303	8.029	-89.505	15.708	668.956	813.288	0.402	24.672	15.708	***5.786***
2021-08-22 18:30	1564203	8.024	-89.209	15.700	669.853	814.537	0.402	25.474	15.700	***5.657***
2021-08-22 18:45	1565103	8.018	-88.906	15.692	670.426	815.396	0.403	25.273	15.692	***5.742***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-22 19:00	1566003	8.013	-88.589	15.672	671.480	817.046	0.404	25.395	15.672	***5.656***
2021-08-22 19:15	1566903	8.015	-88.708	15.670	672.495	818.324	0.404	26.028	15.670	***5.750***
2021-08-22 19:30	1567803	8.019	-88.956	15.653	673.455	819.814	0.405	24.550	15.653	***5.677***
2021-08-22 19:45	1568703	8.022	-89.068	15.619	675.717	823.220	0.407	25.043	15.619	***5.572***
2021-08-22 20:00	1569603	8.021	-89.030	15.597	676.303	824.361	0.407	24.180	15.597	***5.373***
2021-08-22 20:15	1570503	8.022	-89.083	15.573	678.098	827.013	0.409	23.892	15.573	***5.178***
2021-08-22 20:30	1571403	8.027	-89.371	15.558	680.316	830.001	0.410	24.586	15.558	***5.581***
2021-08-22 20:45	1572303	8.022	-89.068	15.522	680.073	830.392	0.410	24.455	15.522	***5.501***
2021-08-22 21:00	1573203	8.023	-89.107	15.472	678.914	829.955	0.410	25.909	15.472	***5.668***
2021-08-22 21:15	1574103	8.026	-89.293	15.439	678.128	829.639	0.410	25.031	15.439	***5.604***
2021-08-22 21:30	1575003	8.014	-88.596	15.397	678.077	830.382	0.410	25.349	15.397	***5.530***
2021-08-22 21:45	1575903	8.026	-89.269	15.363	679.322	832.576	0.411	27.255	15.363	***5.492***
2021-08-22 22:00	1576803	8.023	-89.045	15.331	678.137	831.736	0.411	24.584	15.331	***5.422***
2021-08-22 22:15	1577703	8.036	-89.769	15.282	677.426	831.816	0.411	23.957	15.282	***5.609***
2021-08-22 22:30	1578603	8.036	-89.791	15.268	677.346	832.003	0.411	24.993	15.268	***5.745***
2021-08-22 22:45	1579503	8.040	-90.032	15.255	678.280	833.408	0.412	25.131	15.255	***5.804***
2021-08-22 23:00	1580403	8.042	-90.139	15.235	678.288	833.800	0.412	25.671	15.235	***5.736***
2021-08-22 23:15	1581303	8.042	-90.137	15.218	677.904	833.660	0.412	24.651	15.218	***5.561***
2021-08-22 23:30	1582203	8.046	-90.356	15.199	678.953	835.324	0.413	24.712	15.199	***5.701***
2021-08-22 23:45	1583103	8.044	-90.206	15.181	679.171	835.954	0.413	24.822	15.181	***5.803***
2021-08-23 0:00	1584003	8.042	-90.103	15.162	679.626	836.878	0.413	24.746	15.162	***5.860***
2021-08-23 0:15	1584903	8.049	-90.506	15.138	676.005	832.888	0.411	23.416	15.138	***5.374***
2021-08-23 0:30	1585803	8.052	-90.683	15.116	678.820	836.792	0.413	24.736	15.116	***5.397***
2021-08-23 0:45	1586703	8.055	-90.814	15.108	679.789	838.151	0.414	24.479	15.108	***5.414***
2021-08-23 1:00	1587603	8.051	-90.594	15.089	680.328	839.183	0.415	26.218	15.089	***5.638***
2021-08-23 1:15	1588504	8.050	-90.528	15.070	680.161	839.356	0.415	25.207	15.070	***5.696***
2021-08-23 1:30	1589404	8.058	-91.007	15.055	681.457	841.259	0.416	26.079	15.055	***5.839***
2021-08-23 1:45	1590304	8.063	-91.257	15.040	682.571	842.935	0.417	26.428	15.040	***5.991***
2021-08-23 2:00	1591204	8.060	-91.059	15.024	683.112	843.906	0.417	25.490	15.024	***5.948***
2021-08-23 2:15	1592104	8.058	-90.945	15.013	683.748	844.925	0.418	26.268	15.013	***5.947***
2021-08-23 2:30	1593004	8.058	-90.945	14.999	683.999	845.506	0.418	25.662	14.999	***5.825***
2021-08-23 2:45	1593904	8.051	-90.561	14.986	685.090	847.112	0.419	25.097	14.986	***5.672***
2021-08-23 3:00	1594804	8.029	-89.281	14.970	685.723	848.210	0.419	25.209	14.970	***5.444***
2021-08-23 3:15	1595704	8.028	-89.223	14.952	686.378	849.399	0.420	24.653	14.952	***5.345***
2021-08-23 3:30	1596604	8.033	-89.507	14.935	686.781	850.224	0.420	24.760	14.935	***5.470***
2021-08-23 3:45	1597504	8.035	-89.612	14.923	687.549	851.417	0.421	24.830	14.923	***5.283***
2021-08-23 4:00	1598404	8.023	-88.935	14.914	687.261	851.254	0.421	24.514	14.914	***5.301***
2021-08-23 4:15	1599304	8.027	-89.135	14.899	687.530	851.887	0.421	24.553	14.899	***5.599***
2021-08-23 4:30	1600204	8.027	-89.138	14.882	687.994	852.802	0.422	26.364	14.882	***5.490***
2021-08-23 4:45	1601104	8.010	-88.172	14.866	688.230	853.420	0.422	26.599	14.866	***5.332***
2021-08-23 5:00	1602004	8.014	-88.408	14.854	689.055	854.679	0.422	24.671	14.854	***5.197***
2021-08-23 5:15	1602904	8.017	-88.575	14.840	688.485	854.251	0.422	25.753	14.840	***5.083***
2021-08-23 5:30	1603804	8.019	-88.661	14.824	688.863	855.056	0.423	31.048	14.824	***5.294***
2021-08-23 5:45	1604704	8.010	-88.158	14.809	689.339	855.952	0.423	26.650	14.809	***5.309***
2021-08-23 6:00	1605604	8.003	-87.743	14.796	689.236	856.085	0.423	27.857	14.796	***5.005***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-23 6:15	1606504	8.008	-88.038	14.775	689.417	856.739	0.423	27.196	14.775	***5.236***
2021-08-23 6:30	1607404	8.012	-88.246	14.761	689.710	857.375	0.424	26.340	14.761	***5.073***
2021-08-23 6:45	1608304	8.001	-87.626	14.742	689.401	857.390	0.424	25.453	14.742	***4.851***
2021-08-23 7:00	1609204	8.002	-87.667	14.723	689.485	857.874	0.424	26.052	14.723	***4.696***
2021-08-23 7:15	1610104	7.996	-87.347	14.710	689.550	858.234	0.424	24.542	14.710	***4.661***
2021-08-23 7:30	1611004	7.994	-87.183	14.688	689.127	858.155	0.424	25.323	14.688	***4.472***
2021-08-23 7:45	1611904	7.993	-87.132	14.673	689.562	859.004	0.425	24.772	14.673	***4.585***
2021-08-23 8:00	1612804	7.996	-87.311	14.663	689.380	858.964	0.425	24.903	14.663	***4.853***
2021-08-23 8:15	1613704	7.997	-87.371	14.653	689.624	859.480	0.425	25.148	14.653	***4.748***
2021-08-23 8:30	1614604	8.005	-87.850	14.643	689.550	859.597	0.425	25.644	14.643	***4.875***
2021-08-23 8:45	1615504	8.002	-87.638	14.632	689.488	859.743	0.425	26.464	14.632	***4.891***
2021-08-23 9:00	1616404	8.000	-87.545	14.620	689.383	859.848	0.425	26.192	14.620	***4.836***
2021-08-23 9:15	1617304	8.000	-87.545	14.608	688.979	859.589	0.425	26.598	14.608	***4.796***
2021-08-23 9:30	1618204	7.995	-87.235	14.603	688.886	859.578	0.425	26.013	14.603	***4.493***
2021-08-23 9:45	1619104	7.984	-86.634	14.598	689.137	859.999	0.425	25.927	14.598	***4.289***
2021-08-23 10:00	1620004	7.972	-85.926	14.593	689.394	860.417	0.425	27.851	14.593	***4.819***
2021-08-23 10:15	1620904	7.975	-86.110	14.585	689.114	860.232	0.425	25.543	14.585	***4.848***
2021-08-23 10:30	1621804	7.979	-86.312	14.581	688.717	859.830	0.425	25.868	14.581	***4.810***
2021-08-23 10:45	1622704	7.983	-86.544	14.570	688.693	860.016	0.425	26.957	14.570	***5.013***
2021-08-23 11:00	1623604	7.966	-85.602	14.568	688.379	859.670	0.425	26.151	14.568	***4.928***
2021-08-23 11:15	1624504	7.969	-85.764	14.570	688.637	859.953	0.425	26.286	14.570	***4.920***
2021-08-23 11:30	1625404	7.960	-85.261	14.579	688.715	859.859	0.425	26.807	14.579	***4.715***
2021-08-23 11:45	1626304	7.953	-84.860	14.604	689.206	859.969	0.425	26.459	14.604	***4.615***
2021-08-23 12:00	1627204	7.943	-84.283	14.628	689.985	860.440	0.425	27.357	14.628	***4.741***
2021-08-23 12:15	1628104	7.958	-85.113	14.636	689.824	860.080	0.425	29.263	14.636	***4.434***
2021-08-23 12:30	1629004	7.955	-84.953	14.637	688.864	858.865	0.425	26.708	14.637	***4.892***
2021-08-23 12:45	1629904	7.942	-84.224	14.646	689.041	858.903	0.425	26.708	14.646	***4.800***
2021-08-23 13:00	1630804	7.934	-83.799	14.667	689.482	859.014	0.425	27.469	14.667	***4.701***
2021-08-23 13:15	1631704	7.936	-83.888	14.706	689.554	858.302	0.424	27.784	14.706	***4.945***
2021-08-23 13:30	1632604	7.928	-83.447	14.735	689.749	857.966	0.424	30.123	14.735	***5.057***
2021-08-23 13:45	1633504	7.941	-84.198	14.744	679.236	844.704	0.417	26.483	14.744	***4.985***
2021-08-23 14:00	1634404	7.935	-83.873	14.756	679.195	844.417	0.417	27.267	14.756	***4.653***
2021-08-23 14:15	1635304	7.921	-83.034	14.764	680.126	845.406	0.418	26.761	14.764	***4.239***
2021-08-23 14:30	1636204	7.910	-82.440	14.763	683.526	849.663	0.420	26.084	14.763	***3.950***
2021-08-23 14:45	1637104	7.941	-84.176	14.746	682.007	848.109	0.419	26.736	14.746	***3.388***
2021-08-23 15:00	1638004	7.973	-86.050	14.729	687.780	855.636	0.423	26.828	14.729	***3.278***
2021-08-23 15:15	1638904	7.949	-84.634	14.723	687.790	855.776	0.423	27.745	14.723	***3.608***
2021-08-23 15:30	1639804	7.918	-82.896	14.750	688.192	855.724	0.423	29.481	14.750	***4.369***
2021-08-23 15:45	1640704	7.898	-81.763	14.771	688.818	856.072	0.423	29.706	14.771	***4.603***
2021-08-23 16:00	1641604	7.891	-81.351	14.796	689.539	856.455	0.423	29.531	14.796	***5.017***
2021-08-23 16:15	1642504	7.901	-81.921	14.864	689.945	855.585	0.423	30.586	14.864	***5.317***
2021-08-23 16:30	1643404	7.905	-82.211	14.916	690.511	855.232	0.423	30.709	14.916	***5.545***
2021-08-23 16:45	1644304	7.919	-83.005	14.938	690.591	854.892	0.423	29.307	14.938	***5.347***
2021-08-23 17:00	1645204	7.921	-83.129	14.936	690.331	854.611	0.422	29.005	14.936	***4.980***
2021-08-23 17:15	1646104	7.926	-83.413	14.941	690.070	854.186	0.422	28.616	14.941	***4.612***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-23 17:30	1647004	7.980	-86.465	14.925	688.612	852.697	0.421	29.139	14.925	***4.668***
2021-08-23 17:45	1647904	7.970	-85.917	14.911	688.462	852.799	0.422	29.180	14.911	***4.358***
2021-08-23 18:00	1648804	7.928	-83.482	14.887	687.763	852.424	0.421	29.920	14.887	***5.176***
2021-08-23 18:15	1649704	7.938	-84.047	14.862	687.002	851.981	0.421	30.443	14.862	***5.598***
2021-08-23 18:30	1650604	7.945	-84.474	14.841	685.650	850.718	0.420	29.182	14.841	***5.714***
2021-08-23 18:45	1651504	7.925	-83.323	14.826	685.441	850.755	0.420	30.978	14.826	***5.840***
2021-08-23 19:00	1652404	7.928	-83.454	14.830	684.855	849.958	0.420	29.655	14.830	***5.751***
2021-08-23 19:15	1653304	7.933	-83.776	14.831	684.289	849.237	0.420	29.147	14.831	***5.691***
2021-08-23 19:30	1654204	7.974	-86.088	14.807	682.726	847.771	0.419	30.830	14.807	***5.595***
2021-08-23 19:45	1655104	7.936	-83.930	14.758	682.746	848.797	0.419	29.879	14.758	***5.406***
2021-08-23 20:00	1656004	7.916	-82.781	14.714	680.855	847.328	0.419	26.266	14.714	***5.184***
2021-08-23 20:15	1656904	7.911	-82.450	14.682	679.530	846.321	0.418	27.478	14.682	***5.814***
2021-08-23 20:30	1657804	7.919	-82.941	14.657	679.094	846.284	0.418	26.411	14.657	***5.981***
2021-08-23 20:45	1658704	7.947	-84.515	14.620	677.964	845.604	0.418	27.100	14.620	***6.070***
2021-08-23 21:00	1659604	7.986	-86.715	14.584	676.813	844.894	0.417	28.946	14.584	***5.992***
2021-08-23 21:15	1660504	7.980	-86.360	14.549	675.949	844.523	0.417	31.556	14.549	***5.857***
2021-08-23 21:30	1661404	7.985	-86.665	14.513	675.391	844.552	0.417	30.808	14.513	***5.848***
2021-08-23 21:45	1662304	7.991	-86.944	14.470	675.011	844.960	0.417	32.670	14.470	***5.554***
2021-08-23 22:00	1663204	7.986	-86.682	14.423	674.327	845.045	0.417	31.928	14.423	***5.612***
2021-08-23 22:15	1664104	7.995	-87.144	14.364	673.184	844.798	0.417	31.741	14.364	***5.369***
2021-08-23 22:30	1665004	7.987	-86.677	14.336	673.106	845.263	0.417	32.490	14.336	***5.514***
2021-08-23 22:45	1665904	7.992	-86.992	14.301	671.801	844.353	0.417	32.946	14.301	***5.561***
2021-08-23 23:00	1666804	7.997	-87.252	14.251	670.472	843.688	0.417	34.311	14.251	***5.416***
2021-08-23 23:15	1667704	7.985	-86.584	14.233	669.822	843.241	0.416	31.449	14.233	***5.395***
2021-08-23 23:30	1668604	7.951	-84.627	14.207	669.957	843.925	0.417	30.747	14.207	***4.887***
2021-08-23 23:45	1669504	7.941	-84.012	14.174	669.245	843.698	0.417	30.365	14.174	***4.861***
2021-08-24 0:00	1670404	7.914	-82.510	14.147	668.689	843.549	0.416	28.787	14.147	***4.045***
2021-08-24 0:15	1671304	7.893	-81.258	14.123	668.587	843.916	0.417	28.255	14.123	***3.560***
2021-08-24 0:30	1672204	7.881	-80.614	14.096	668.134	843.894	0.417	27.886	14.096	***4.407***
2021-08-24 0:45	1673104	7.891	-81.131	14.067	667.051	843.106	0.416	27.751	14.067	***4.428***
2021-08-24 1:00	1674004	7.896	-81.446	14.034	666.000	842.447	0.416	28.026	14.034	***4.735***
2021-08-24 1:15	1674904	7.891	-81.136	14.001	665.237	842.168	0.416	29.825	14.001	***4.951***
2021-08-24 1:30	1675804	7.901	-81.718	13.964	664.050	841.413	0.415	30.004	13.964	***5.085***
2021-08-24 1:45	1676704	7.924	-82.994	13.934	662.896	840.549	0.415	30.195	13.934	***5.198***
2021-08-24 2:00	1677604	7.911	-82.271	13.913	662.296	840.229	0.415	29.879	13.913	***5.203***
2021-08-24 2:15	1678504	7.925	-83.063	13.892	661.170	839.221	0.414	29.980	13.892	***5.198***
2021-08-24 2:30	1679404	7.944	-84.121	13.865	659.656	837.842	0.413	29.348	13.865	***5.124***
2021-08-24 2:45	1680304	7.935	-83.590	13.847	659.242	837.684	0.413	29.660	13.847	***5.047***
2021-08-24 3:00	1681204	7.918	-82.600	13.822	658.565	837.326	0.413	24.745	13.822	***5.061***
2021-08-24 3:15	1682104	7.915	-82.448	13.801	658.025	837.076	0.413	24.510	13.801	***4.851***
2021-08-24 3:30	1683004	7.912	-82.285	13.774	655.280	834.138	0.411	25.892	13.774	***3.833***
2021-08-24 3:45	1683904	7.890	-80.991	13.733	655.959	835.831	0.412	26.655	13.733	***3.815***
2021-08-24 4:00	1684804	7.906	-81.921	13.692	654.419	834.709	0.412	26.365	13.692	***4.748***
2021-08-24 4:15	1685704	7.925	-82.982	13.653	652.488	833.038	0.411	28.799	13.653	***4.830***
2021-08-24 4:30	1686604	7.924	-82.891	13.618	651.566	832.555	0.411	22.377	13.618	***4.971***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-24 4:45	1687504	7.914	-82.300	13.588	650.680	832.040	0.410	23.875	13.588	***4.930***
2021-08-24 5:00	1688404	7.922	-82.786	13.554	649.317	830.988	0.410	24.235	13.554	***4.940***
2021-08-24 5:15	1689304	7.910	-82.085	13.533	649.030	831.035	0.410	22.934	13.533	***4.933***
2021-08-24 5:30	1690204	7.903	-81.666	13.487	647.498	830.022	0.409	25.152	13.487	***5.036***
2021-08-24 5:45	1691104	7.911	-82.107	13.446	646.690	829.808	0.409	24.976	13.446	***5.050***
2021-08-24 6:00	1692004	7.909	-81.987	13.397	644.897	828.503	0.408	25.260	13.397	***5.071***
2021-08-24 6:15	1692904	7.912	-82.157	13.365	643.988	828.001	0.408	24.900	13.365	***5.051***
2021-08-24 6:30	1693804	7.899	-81.425	13.346	643.387	827.596	0.408	24.441	13.346	***4.857***
2021-08-24 6:45	1694704	7.895	-81.165	13.303	642.501	827.334	0.408	25.582	13.303	***4.817***
2021-08-24 7:00	1695604	7.893	-81.034	13.258	641.350	826.773	0.407	24.691	13.258	***4.819***
2021-08-24 7:15	1696504	7.892	-80.957	13.209	640.421	826.570	0.407	24.986	13.209	***4.867***
2021-08-24 7:30	1697404	7.899	-81.377	13.191	639.652	825.954	0.407	24.064	13.191	***4.884***
2021-08-24 7:45	1698304	7.886	-80.600	13.187	639.786	826.209	0.407	24.456	13.187	***4.825***
2021-08-24 8:00	1699204	7.870	-79.734	13.177	639.507	826.047	0.407	24.729	13.177	***4.658***
2021-08-24 8:15	1700104	7.860	-79.126	13.167	638.723	825.244	0.407	24.806	13.167	***4.658***
2021-08-24 8:30	1701004	7.867	-79.520	13.169	638.862	825.378	0.407	22.543	13.169	***4.587***
2021-08-24 8:45	1701904	7.878	-80.166	13.177	639.109	825.528	0.407	22.177	13.177	***4.389***
2021-08-24 9:00	1702804	7.865	-79.405	13.196	639.210	825.277	0.407	21.833	13.196	***4.507***
2021-08-24 9:15	1703704	7.879	-80.216	13.222	639.067	824.569	0.406	23.138	13.222	***4.817***
2021-08-24 9:30	1704604	7.890	-80.843	13.249	639.091	824.036	0.406	23.815	13.249	***4.869***
2021-08-24 9:45	1705504	7.875	-80.030	13.283	638.818	823.006	0.405	22.680	13.283	***4.665***
2021-08-24 10:00	1706404	7.884	-80.566	13.315	639.613	823.375	0.406	23.453	13.315	***4.510***
2021-08-24 10:15	1707304	7.876	-80.090	13.347	639.970	823.180	0.406	24.696	13.347	***4.544***
2021-08-24 10:30	1708204	7.868	-79.639	13.382	640.514	823.184	0.406	24.189	13.382	***4.661***
2021-08-24 10:45	1709104	7.867	-79.584	13.414	640.919	823.062	0.406	24.415	13.414	***4.594***
2021-08-24 11:00	1710004	7.850	-78.616	13.445	641.828	823.597	0.406	24.541	13.445	***4.508***
2021-08-24 11:15	1710904	7.849	-78.573	13.469	641.779	823.041	0.406	25.322	13.469	***4.114***
2021-08-24 11:30	1711804	7.850	-78.673	13.493	642.280	823.201	0.406	24.604	13.493	***3.987***
2021-08-24 11:45	1712704	7.850	-78.669	13.538	642.522	822.611	0.405	29.852	13.538	***4.256***
2021-08-24 12:00	1713604	7.856	-79.010	13.547	642.392	822.272	0.405	28.409	13.547	***4.276***
2021-08-24 12:15	1714504	7.866	-79.567	13.492	642.548	823.574	0.406	25.991	13.492	***3.910***
2021-08-24 12:30	1715404	7.869	-79.758	13.486	642.750	823.960	0.406	25.084	13.486	***4.739***
2021-08-24 12:45	1716304	7.872	-79.882	13.497	643.147	824.236	0.406	23.812	13.497	***4.775***
2021-08-24 13:00	1717204	7.853	-78.859	13.525	643.918	824.662	0.406	22.652	13.525	***4.774***
2021-08-24 13:15	1718104	7.854	-78.902	13.550	644.881	825.381	0.407	22.824	13.550	***4.599***
2021-08-24 13:30	1719004	7.859	-79.217	13.578	645.597	825.740	0.407	23.364	13.578	***4.265***
2021-08-24 13:45	1719904	7.840	-78.142	13.595	646.077	826.020	0.407	22.918	13.595	***4.366***
2021-08-24 14:00	1720804	7.832	-77.682	13.620	646.901	826.570	0.407	22.647	13.620	***4.660***
2021-08-24 14:15	1721704	7.857	-79.112	13.700	647.814	826.104	0.407	25.704	13.700	***4.797***
2021-08-24 14:30	1722604	7.867	-79.684	13.799	649.259	825.971	0.407	24.945	13.799	***4.682***
2021-08-24 14:45	1723504	7.867	-79.756	13.906	650.780	825.748	0.407	24.780	13.906	***4.712***
2021-08-24 15:00	1724404	7.868	-79.854	14.011	652.480	825.813	0.407	24.586	14.011	***4.902***
2021-08-24 15:15	1725304	7.879	-80.462	14.130	654.511	826.005	0.407	24.186	14.130	***5.231***
2021-08-24 15:30	1726204	7.906	-82.076	14.217	655.657	825.728	0.407	23.319	14.217	***5.550***
2021-08-24 15:45	1727104	7.932	-83.542	14.257	657.141	826.783	0.408	23.206	14.257	***6.286***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-24 16:00	1728004	7.922	-82.984	14.318	658.853	827.731	0.408	23.481	14.318	***6.348***
2021-08-24 16:15	1728904	7.932	-83.563	14.407	659.868	827.239	0.408	24.147	14.407	***6.269***
2021-08-24 16:30	1729804	7.932	-83.623	14.517	662.307	828.108	0.409	26.676	14.517	***6.187***
2021-08-24 16:45	1730704	7.946	-84.426	14.635	664.575	828.623	0.409	26.801	14.635	6.650
2021-08-24 17:00	1731604	7.973	-86.031	14.708	667.169	830.412	0.410	26.788	14.708	6.749
2021-08-24 17:15	1732504	7.979	-86.393	14.804	668.332	829.960	0.410	23.273	14.804	6.968
2021-08-24 17:30	1733404	7.960	-85.347	14.973	670.933	829.873	0.410	26.349	14.973	7.099
2021-08-24 17:45	1734304	7.962	-85.504	15.157	674.173	830.263	0.410	25.666	15.157	7.233
2021-08-24 18:00	1735204	7.979	-86.501	15.273	676.318	830.630	0.410	25.389	15.273	7.249
2021-08-24 18:15	1736104	7.985	-86.877	15.308	678.311	832.404	0.411	25.658	15.308	7.087
2021-08-24 18:30	1737004	7.997	-87.585	15.341	678.967	832.562	0.411	23.366	15.341	7.573
2021-08-24 18:45	1737904	8.009	-88.291	15.430	680.676	832.917	0.412	24.241	15.430	7.675
2021-08-24 19:00	1738804	7.991	-87.364	15.674	684.545	832.916	0.412	25.663	15.674	7.789
2021-08-24 19:15	1739704	8.010	-88.458	15.720	685.597	833.290	0.412	23.941	15.720	7.943
2021-08-24 19:30	1740604	8.012	-88.613	15.880	688.443	833.664	0.412	25.861	15.880	7.823
2021-08-24 19:45	1741504	8.062	-91.481	15.930	689.274	833.710	0.412	25.294	15.930	8.128
2021-08-24 20:00	1742404	8.039	-90.210	15.986	690.482	834.077	0.412	27.311	15.986	8.015
2021-08-24 20:15	1743304	8.001	-88.046	16.027	691.673	834.729	0.413	24.612	16.027	8.057
2021-08-24 20:30	1744204	7.967	-86.105	16.103	692.565	834.351	0.413	27.898	16.103	8.130
2021-08-24 20:45	1745104	7.958	-85.618	16.191	694.345	834.804	0.413	26.327	16.191	7.927
2021-08-24 21:00	1746004	7.962	-85.847	16.261	695.443	834.771	0.413	25.209	16.261	7.841
2021-08-24 21:15	1746904	7.961	-85.838	16.393	697.298	834.490	0.413	28.302	16.393	7.284
2021-08-24 21:30	1747804	7.939	-84.589	16.371	697.591	835.258	0.413	25.927	16.371	6.858
2021-08-24 21:45	1748704	7.978	-86.806	16.459	697.987	834.057	0.413	29.152	16.459	6.576
2021-08-24 22:00	1749604	7.968	-86.234	16.463	698.260	834.304	0.413	25.811	16.463	***6.255***
2021-08-24 22:15	1750504	7.957	-85.611	16.471	697.302	832.997	0.412	28.261	16.471	***6.204***
2021-08-24 22:30	1751404	7.936	-84.431	16.483	697.459	832.961	0.412	24.642	16.483	***6.221***
2021-08-24 22:45	1752304	7.908	-82.798	16.413	693.844	829.976	0.410	24.327	16.413	***5.854***
2021-08-24 23:00	1753204	7.893	-81.921	16.348	694.357	831.813	0.411	25.799	16.348	***5.357***
2021-08-24 23:15	1754104	7.926	-83.790	16.203	685.564	824.027	0.407	23.413	16.203	***4.544***
2021-08-24 23:30	1755004	7.961	-85.776	16.113	681.616	820.966	0.406	26.228	16.113	***5.148***
2021-08-24 23:45	1755904	7.952	-85.204	15.995	679.978	821.232	0.406	25.019	15.995	***5.554***
2021-08-25 0:00	1756804	7.969	-86.122	15.877	677.019	819.889	0.405	27.594	15.877	***5.223***
2021-08-25 0:15	1757704	7.989	-87.252	15.743	673.750	818.466	0.404	26.657	15.743	***5.934***
2021-08-25 0:30	1758604	8.004	-88.041	15.625	671.328	817.757	0.404	26.515	15.625	***5.304***
2021-08-25 0:45	1759504	8.002	-87.900	15.520	669.753	817.836	0.404	26.538	15.520	***4.827***
2021-08-25 1:00	1760404	8.012	-88.460	15.441	668.540	817.867	0.404	27.530	15.441	***6.055***
2021-08-25 1:15	1761304	8.014	-88.568	15.324	666.961	818.172	0.404	27.833	15.324	***5.662***
2021-08-25 1:30	1762204	8.010	-88.286	15.230	665.042	817.621	0.404	31.296	15.230	***6.349***
2021-08-25 1:45	1763104	8.015	-88.520	15.112	663.105	817.502	0.404	29.724	15.112	***5.953***
2021-08-25 2:00	1764004	8.028	-89.259	14.971	660.747	817.312	0.403	29.000	14.971	***5.590***
2021-08-25 2:15	1764904	8.028	-89.195	14.869	659.252	817.435	0.403	28.449	14.869	***5.267***
2021-08-25 2:30	1765804	8.016	-88.480	14.774	657.354	816.919	0.403	28.174	14.774	***5.261***
2021-08-25 2:45	1766704	8.017	-88.522	14.682	656.208	817.269	0.403	28.508	14.682	***5.330***
2021-08-25 3:00	1767604	8.032	-89.364	14.591	654.929	817.451	0.403	28.684	14.591	***5.726***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-25 3:15	1768504	8.016	-88.425	14.509	653.667	817.465	0.403	34.143	14.509	***6.272***
2021-08-25 3:30	1769404	8.028	-89.045	14.424	652.458	817.615	0.403	34.189	14.424	***5.965***
2021-08-25 3:45	1770304	8.021	-88.620	14.346	651.226	817.606	0.403	42.635	14.346	***5.749***
2021-08-25 4:00	1771204	8.024	-88.789	14.269	649.991	817.555	0.403	37.577	14.269	***5.689***
2021-08-25 4:15	1772104	8.019	-88.468	14.193	648.678	817.402	0.403	37.087	14.193	***5.631***
2021-08-25 4:30	1773004	8.012	-88.055	14.136	647.914	817.562	0.403	35.336	14.136	***5.241***
2021-08-25 4:45	1773904	7.999	-87.307	14.062	646.562	817.313	0.403	33.546	14.062	***5.050***
2021-08-25 5:00	1774804	7.991	-86.844	14.004	645.277	816.840	0.403	33.656	14.004	***4.871***
2021-08-25 5:15	1775704	7.993	-86.906	13.939	644.422	817.031	0.403	33.578	13.939	***5.199***
2021-08-25 5:30	1776604	7.981	-86.234	13.880	643.370	816.870	0.403	32.691	13.880	***5.219***
2021-08-25 5:45	1777504	7.986	-86.505	13.831	642.469	816.686	0.403	34.577	13.831	***5.663***
2021-08-25 6:00	1778404	7.985	-86.422	13.779	641.566	816.582	0.402	34.433	13.779	***5.296***
2021-08-25 6:15	1779304	7.981	-86.157	13.716	640.873	816.949	0.403	34.993	13.716	***5.121***
2021-08-25 6:30	1780204	7.979	-86.024	13.669	641.103	818.174	0.403	35.248	13.669	***5.124***
2021-08-25 6:45	1781104	7.978	-85.988	13.593	639.312	817.404	0.403	35.800	13.593	***4.985***
2021-08-25 7:00	1782004	7.972	-85.585	13.522	638.378	817.634	0.403	36.120	13.522	***4.876***
2021-08-25 7:15	1782904	7.963	-85.094	13.465	637.564	817.727	0.403	35.807	13.465	***4.740***
2021-08-25 7:30	1783804	7.960	-84.875	13.418	636.896	817.800	0.403	35.546	13.418	***4.578***
2021-08-25 7:45	1784704	7.957	-84.686	13.363	636.317	818.174	0.403	35.692	13.363	***4.850***
2021-08-25 8:00	1785604	7.943	-83.904	13.331	635.660	817.972	0.403	35.357	13.331	***4.767***
2021-08-25 8:15	1786504	7.946	-84.078	13.295	635.085	817.940	0.403	34.875	13.295	***4.578***
2021-08-25 8:30	1787404	7.945	-84.007	13.243	634.037	817.657	0.403	35.245	13.243	***4.483***
2021-08-25 8:45	1788304	7.929	-83.067	13.232	633.968	817.785	0.403	34.531	13.232	***4.683***
2021-08-25 9:00	1789204	7.915	-82.300	13.212	633.656	817.780	0.403	34.198	13.212	***4.461***
2021-08-25 9:15	1790104	7.908	-81.878	13.195	632.957	817.215	0.402	34.035	13.195	***4.302***
2021-08-25 9:30	1791004	7.897	-81.220	13.184	632.615	816.995	0.402	33.916	13.184	***4.030***
2021-08-25 9:45	1791904	7.887	-80.700	13.174	632.221	816.695	0.402	34.898	13.174	***3.784***
2021-08-25 10:00	1792804	7.898	-81.310	13.178	631.870	816.168	0.402	34.063	13.178	***3.825***
2021-08-25 10:15	1793704	7.903	-81.565	13.178	631.446	815.608	0.402	34.886	13.178	***4.110***
2021-08-25 10:30	1794604	7.905	-81.708	13.184	631.089	815.028	0.401	35.654	13.184	***3.766***
2021-08-25 10:45	1795504	7.891	-80.903	13.193	631.483	815.365	0.401	37.216	13.193	***3.755***
2021-08-25 11:00	1796404	7.890	-80.874	13.209	631.473	815.020	0.401	38.186	13.209	***3.999***
2021-08-25 11:15	1797304	7.861	-79.238	13.317	633.734	815.759	0.402	40.146	13.317	***4.377***
2021-08-25 11:30	1798204	7.854	-78.869	13.512	637.606	816.838	0.402	40.513	13.512	***4.840***
2021-08-25 11:45	1799104	7.865	-79.584	13.674	640.964	817.906	0.403	40.247	13.674	***5.340***
2021-08-25 12:00	1800004	7.866	-79.646	13.789	644.033	819.515	0.404	41.755	13.789	***5.373***
2021-08-25 12:15	1800904	7.862	-79.427	13.875	645.356	819.489	0.404	41.070	13.875	***5.171***
2021-08-25 12:30	1801804	7.861	-79.389	13.913	646.519	820.208	0.404	41.051	13.913	***4.669***
2021-08-25 12:45	1802704	7.854	-79.026	13.934	647.434	820.944	0.405	41.405	13.934	***4.558***
2021-08-25 13:00	1803604	7.847	-78.650	14.008	648.607	820.976	0.405	43.601	14.008	***4.320***
2021-08-25 13:15	1804504	7.839	-78.187	14.080	649.631	820.839	0.405	41.360	14.080	***4.137***
2021-08-25 13:30	1805404	7.829	-77.651	14.126	650.490	821.016	0.405	40.746	14.126	***4.203***
2021-08-25 13:45	1806304	7.836	-78.044	14.153	650.734	820.781	0.405	39.843	14.153	***4.194***
2021-08-25 14:00	1807204	7.853	-79.017	14.196	650.967	820.218	0.404	42.921	14.196	***4.637***
2021-08-25 14:15	1808104	7.848	-78.783	14.303	652.554	820.118	0.404	40.504	14.303	***4.645***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-25 14:30	1809004	7.835	-78.084	14.443	654.758	820.125	0.405	41.056	14.443	***4.593***
2021-08-25 14:45	1809904	7.848	-78.812	14.498	655.869	820.437	0.405	40.345	14.498	***4.607***
2021-08-25 15:00	1810804	7.866	-79.913	14.647	658.071	820.265	0.405	40.123	14.647	***4.599***
2021-08-25 15:15	1811704	7.852	-79.114	14.754	659.978	820.554	0.405	39.922	14.754	***4.617***
2021-08-25 15:30	1812605	7.865	-79.873	14.846	661.569	820.744	0.405	40.120	14.846	***5.057***
2021-08-25 15:45	1813505	7.864	-79.851	15.018	664.120	820.574	0.405	40.953	15.018	***5.476***
2021-08-25 16:00	1814405	7.909	-82.488	15.173	666.693	820.752	0.405	42.742	15.173	6.988
2021-08-25 16:15	1815305	7.950	-84.867	15.270	667.125	819.410	0.405	33.634	15.270	7.972
2021-08-25 16:30	1816205	7.983	-86.787	15.326	668.027	819.434	0.405	30.744	15.326	8.435
2021-08-25 16:45	1817105	7.969	-85.995	15.450	670.070	819.566	0.405	30.664	15.450	8.355
2021-08-25 17:00	1818005	7.962	-85.645	15.570	672.163	819.819	0.405	30.825	15.570	7.882
2021-08-25 17:15	1818905	7.967	-86.031	15.974	677.722	818.903	0.405	31.235	15.974	8.491
2021-08-25 17:30	1819805	7.962	-85.785	16.048	679.191	819.273	0.405	31.110	16.048	8.425
2021-08-25 17:45	1820705	7.950	-85.182	16.270	682.622	819.217	0.405	32.132	16.270	8.417
2021-08-25 18:00	1821605	7.944	-84.865	16.348	684.653	820.188	0.405	31.357	16.348	8.605
2021-08-25 18:15	1822505	7.979	-86.863	16.362	684.773	820.080	0.405	29.911	16.362	8.257
2021-08-25 18:30	1823405	8.024	-89.431	16.289	683.599	820.045	0.405	29.334	16.289	8.823
2021-08-25 18:45	1824305	8.085	-92.952	16.313	683.440	819.397	0.405	29.446	16.313	9.179
2021-08-25 19:00	1825205	8.075	-92.394	16.438	685.342	819.333	0.405	30.699	16.438	9.159
2021-08-25 19:15	1826105	8.087	-93.086	16.388	684.601	819.385	0.405	30.879	16.388	8.978
2021-08-25 19:30	1827005	8.157	-97.108	16.358	683.862	819.049	0.405	30.041	16.358	10.120
2021-08-25 19:45	1827905	8.161	-97.306	16.297	682.761	818.875	0.405	30.509	16.297	10.464
2021-08-25 20:00	1828805	8.149	-96.612	16.359	684.062	819.269	0.405	29.941	16.359	10.564
2021-08-25 20:15	1829705	8.129	-95.453	16.355	684.537	819.931	0.405	29.818	16.355	10.012
2021-08-25 20:30	1830605	8.140	-96.123	16.341	683.965	819.498	0.405	29.890	16.341	9.761
2021-08-25 20:45	1831505	8.134	-95.758	16.359	684.395	819.670	0.405	29.575	16.359	9.380
2021-08-25 21:00	1832405	8.125	-95.260	16.337	685.072	820.907	0.406	29.571	16.337	9.738
2021-08-25 21:15	1833305	8.104	-94.049	16.411	686.586	821.321	0.406	30.045	16.411	9.891
2021-08-25 21:30	1834205	8.131	-95.627	16.430	686.370	820.713	0.406	30.052	16.430	10.424
2021-08-25 21:45	1835105	8.108	-94.256	16.380	686.231	821.474	0.406	29.602	16.380	10.133
2021-08-25 22:00	1836005	8.122	-95.105	16.434	687.183	821.614	0.406	29.792	16.434	9.708
2021-08-25 22:15	1836905	8.122	-95.158	16.555	688.596	821.029	0.406	31.641	16.555	9.589
2021-08-25 22:30	1837805	8.087	-93.191	16.709	690.139	819.994	0.405	28.464	16.709	8.873
2021-08-25 22:45	1838705	8.108	-94.359	16.658	689.496	820.172	0.405	30.579	16.658	9.227
2021-08-25 23:00	1839605	8.106	-94.249	16.666	690.350	821.047	0.406	27.961	16.666	9.169
2021-08-25 23:15	1840505	8.081	-92.833	16.706	690.876	820.923	0.406	28.288	16.706	8.802
2021-08-25 23:30	1841405	8.053	-91.209	16.648	688.726	819.451	0.405	39.982	16.648	8.110
2021-08-25 23:45	1842305	7.993	-87.740	16.539	686.635	818.997	0.405	34.813	16.539	6.865
2021-08-26 0:00	1843205	7.967	-86.176	16.445	684.331	817.987	0.404	28.925	16.445	***5.997***
2021-08-26 0:15	1844105	7.974	-86.563	16.334	682.052	817.347	0.404	28.716	16.334	***6.037***
2021-08-26 0:30	1845005	7.974	-86.513	16.213	680.007	817.143	0.404	29.656	16.213	***5.670***
2021-08-26 0:45	1845905	7.967	-86.083	16.112	677.619	816.178	0.403	33.183	16.112	***4.986***
2021-08-26 1:00	1846805	7.963	-85.843	16.016	676.036	816.071	0.403	31.159	16.016	***5.696***
2021-08-26 1:15	1847705	7.960	-85.645	15.893	674.111	816.060	0.403	30.808	15.893	***5.227***
2021-08-26 1:30	1848605	7.953	-85.220	15.800	672.748	816.168	0.403	31.703	15.800	***5.223***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-26 1:45	1849505	7.958	-85.468	15.716	671.618	816.392	0.403	31.685	15.716	***5.231***
2021-08-26 2:00	1850405	7.961	-85.618	15.590	669.462	816.149	0.403	30.582	15.590	***5.459***
2021-08-26 2:15	1851305	7.958	-85.418	15.489	667.853	816.115	0.403	31.380	15.489	***5.316***
2021-08-26 2:30	1852205	7.954	-85.154	15.386	666.423	816.316	0.403	31.642	15.386	***5.198***
2021-08-26 2:45	1853105	7.954	-85.130	15.290	665.017	816.428	0.403	32.129	15.290	***5.126***
2021-08-26 3:00	1854005	7.956	-85.211	15.205	664.064	816.891	0.403	31.467	15.205	***5.042***
2021-08-26 3:15	1854905	7.953	-84.965	15.088	662.573	817.298	0.403	31.469	15.088	***5.185***
2021-08-26 3:30	1855805	7.950	-84.779	15.005	661.496	817.570	0.404	31.561	15.005	***5.018***
2021-08-26 3:45	1856705	7.944	-84.410	14.927	659.896	817.097	0.403	32.306	14.927	***4.989***
2021-08-26 4:00	1857605	7.952	-84.841	14.825	657.828	816.513	0.403	31.471	14.825	***5.013***
2021-08-26 4:15	1858505	7.953	-84.879	14.737	656.367	816.407	0.403	32.496	14.737	***4.623***
2021-08-26 4:30	1859405	7.952	-84.794	14.650	655.274	816.734	0.403	32.528	14.650	***4.814***
2021-08-26 4:45	1860305	7.942	-84.212	14.565	653.745	816.471	0.403	32.080	14.565	***4.761***
2021-08-26 5:00	1861205	7.934	-83.706	14.475	652.099	816.173	0.403	38.295	14.475	***4.698***
2021-08-26 5:15	1862105	7.930	-83.489	14.395	650.535	815.771	0.402	37.281	14.395	***4.890***
2021-08-26 5:30	1863005	7.927	-83.268	14.320	649.187	815.551	0.402	35.230	14.320	***4.579***
2021-08-26 5:45	1863905	7.926	-83.206	14.237	647.506	815.068	0.402	35.553	14.237	***4.485***
2021-08-26 6:00	1864805	7.933	-83.578	14.147	646.240	815.225	0.402	34.767	14.147	***4.389***
2021-08-26 6:15	1865705	7.933	-83.530	14.083	645.158	815.124	0.402	36.596	14.083	***4.643***
2021-08-26 6:30	1866605	7.923	-82.991	14.038	642.912	813.165	0.401	32.174	14.038	***4.668***
2021-08-26 6:45	1867505	7.915	-82.498	13.979	643.488	815.063	0.402	32.479	13.979	***4.659***
2021-08-26 7:00	1868405	7.916	-82.536	13.891	642.082	815.009	0.402	36.924	13.891	***4.147***
2021-08-26 7:15	1869305	7.915	-82.433	13.826	640.911	814.806	0.402	49.879	13.826	***3.747***
2021-08-26 7:30	1870205	7.908	-82.049	13.783	640.297	814.882	0.402	37.685	13.783	***3.830***
2021-08-26 7:45	1871105	7.901	-81.625	13.751	639.772	814.845	0.402	37.133	13.751	***3.809***
2021-08-26 8:00	1872005	7.904	-81.792	13.746	639.760	814.925	0.402	41.173	13.746	***3.757***
2021-08-26 8:15	1872905	7.902	-81.701	13.746	639.361	814.424	0.401	36.983	13.746	***3.721***
2021-08-26 8:30	1873805	7.900	-81.565	13.744	639.390	814.506	0.401	36.996	13.744	***3.654***
2021-08-26 8:45	1874705	7.884	-80.669	13.751	639.671	814.726	0.401	37.020	13.751	***3.537***
2021-08-26 9:00	1875605	7.892	-81.098	13.763	640.129	815.068	0.402	36.944	13.763	***3.498***
2021-08-26 9:15	1876505	7.900	-81.589	13.779	640.484	815.190	0.402	36.871	13.779	***3.570***
2021-08-26 9:30	1877405	7.893	-81.193	13.795	641.241	815.848	0.402	37.002	13.795	***3.643***
2021-08-26 9:45	1878305	7.888	-80.893	13.811	641.484	815.840	0.402	36.956	13.811	***3.782***
2021-08-26 10:00	1879205	7.898	-81.477	13.829	641.657	815.699	0.402	38.971	13.829	***3.885***
2021-08-26 10:15	1880105	7.899	-81.522	13.856	642.140	815.770	0.402	37.928	13.856	***3.795***
2021-08-26 10:30	1881005	7.894	-81.303	13.898	643.188	816.277	0.402	37.188	13.898	***3.812***
2021-08-26 10:45	1881905	7.889	-81.024	13.962	644.294	816.420	0.402	37.427	13.962	***4.114***
2021-08-26 11:00	1882805	7.874	-80.163	14.032	645.396	816.422	0.402	36.090	14.032	***4.195***
2021-08-26 11:15	1883705	7.893	-81.313	14.139	646.625	815.871	0.402	37.548	14.139	***5.073***
2021-08-26 11:30	1884605	7.897	-81.506	14.176	647.300	815.993	0.402	38.930	14.176	***4.932***
2021-08-26 11:45	1885505	7.889	-81.053	14.199	647.848	816.241	0.402	39.107	14.199	***4.936***
2021-08-26 12:00	1886405	7.910	-82.297	14.230	648.930	816.990	0.403	36.923	14.230	***5.150***
2021-08-26 12:15	1887305	7.922	-82.970	14.249	649.456	817.281	0.403	37.327	14.249	***5.313***
2021-08-26 12:30	1888205	7.928	-83.320	14.276	650.541	818.120	0.403	36.722	14.276	***5.401***
2021-08-26 12:45	1889105	7.931	-83.480	14.318	651.406	818.376	0.404	36.527	14.318	***5.638***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-26 13:00	1890005	7.914	-82.576	14.372	652.507	818.697	0.404	36.876	14.372	***5.756***
2021-08-26 13:15	1890905	7.899	-81.735	14.415	653.524	819.127	0.404	36.586	14.415	***5.848***
2021-08-26 13:30	1891805	7.893	-81.370	14.435	653.988	819.313	0.404	37.051	14.435	***6.354***
2021-08-26 13:45	1892705	7.876	-80.404	14.430	653.988	819.410	0.404	38.414	14.430	6.753
2021-08-26 14:00	1893605	7.851	-78.967	14.392	656.170	822.897	0.406	38.813	14.392	7.097
2021-08-26 14:15	1894505	7.868	-79.904	14.358	653.444	820.140	0.405	38.843	14.358	7.223
2021-08-26 14:30	1895405	7.912	-82.452	14.366	653.053	819.502	0.404	37.901	14.366	7.010
2021-08-26 14:45	1896305	7.958	-85.070	14.402	653.582	819.455	0.404	38.686	14.402	6.898
2021-08-26 15:00	1897205	7.956	-84.977	14.479	655.416	820.255	0.405	38.313	14.479	6.805
2021-08-26 15:15	1898105	7.939	-84.040	14.552	656.967	820.745	0.405	37.690	14.552	6.817
2021-08-26 15:30	1899005	7.950	-84.686	14.643	658.479	820.869	0.405	37.937	14.643	7.199
2021-08-26 15:45	1899905	7.948	-84.562	14.710	659.932	821.358	0.405	38.380	14.710	7.317
2021-08-26 16:00	1900805	7.978	-86.310	14.755	660.939	821.741	0.406	37.979	14.755	7.322
2021-08-26 16:15	1901705	7.988	-86.892	14.825	662.161	821.898	0.406	38.988	14.825	7.263
2021-08-26 16:30	1902605	7.967	-85.752	14.933	664.115	822.212	0.406	38.965	14.933	7.210
2021-08-26 16:45	1903505	7.969	-85.886	15.052	665.986	822.203	0.406	39.531	15.052	7.275
2021-08-26 17:00	1904405	7.970	-85.955	15.160	667.826	822.396	0.406	42.521	15.160	7.232
2021-08-26 17:15	1905305	7.971	-86.081	15.290	669.522	821.971	0.406	39.430	15.290	7.567
2021-08-26 17:30	1906205	7.972	-86.186	15.394	670.472	821.124	0.406	38.132	15.394	7.535
2021-08-26 17:45	1907105	7.979	-86.601	15.491	672.882	822.214	0.406	38.210	15.491	7.357
2021-08-26 18:00	1908005	7.980	-86.715	15.615	674.907	822.300	0.406	39.657	15.615	7.423
2021-08-26 18:15	1908905	7.988	-87.199	15.705	676.514	822.547	0.406	38.521	15.705	8.000
2021-08-26 18:30	1909805	8.047	-90.582	15.729	676.810	822.448	0.406	37.950	15.729	8.404
2021-08-26 18:45	1910705	7.976	-86.484	15.698	676.288	822.410	0.406	38.585	15.698	8.235
2021-08-26 19:00	1911605	7.982	-86.801	15.685	675.941	822.220	0.406	38.428	15.685	8.476
2021-08-26 19:15	1912505	8.029	-89.517	15.694	676.234	822.407	0.406	38.212	15.694	8.988
2021-08-26 19:30	1913405	8.060	-91.290	15.742	677.211	822.685	0.406	37.761	15.742	8.865
2021-08-26 19:45	1914305	8.052	-90.883	15.754	677.673	823.018	0.407	37.389	15.754	8.677
2021-08-26 20:00	1915205	8.054	-90.973	15.672	677.672	824.586	0.407	37.834	15.672	8.681
2021-08-26 20:15	1916105	8.072	-91.932	15.587	675.531	823.613	0.407	38.733	15.587	8.763
2021-08-26 20:30	1917005	8.077	-92.218	15.526	674.453	823.470	0.407	38.720	15.526	9.092
2021-08-26 20:45	1917905	8.074	-92.034	15.516	674.247	823.395	0.407	38.723	15.516	9.102
2021-08-26 21:00	1918805	8.078	-92.301	15.567	675.043	823.396	0.407	40.453	15.567	8.807
2021-08-26 21:15	1919705	8.057	-91.107	15.636	675.949	823.185	0.407	41.211	15.636	8.423
2021-08-26 21:30	1920605	8.039	-90.063	15.684	677.194	823.782	0.407	41.130	15.684	8.148
2021-08-26 21:45	1921505	8.025	-89.290	15.725	678.302	824.333	0.407	40.107	15.725	7.964
2021-08-26 22:00	1922405	8.014	-88.685	15.734	678.202	824.040	0.407	36.433	15.734	7.642
2021-08-26 22:15	1923305	8.025	-89.314	15.732	677.744	823.525	0.407	36.778	15.732	7.633
2021-08-26 22:30	1924205	8.037	-89.965	15.728	677.185	822.927	0.407	37.046	15.728	7.325
2021-08-26 22:45	1925105	7.924	-83.482	15.693	677.671	824.187	0.407	35.630	15.693	***6.304***
2021-08-26 23:00	1926005	7.903	-82.269	15.656	677.445	824.608	0.407	35.918	15.656	6.629
2021-08-26 23:15	1926905	7.894	-81.761	15.610	676.282	824.089	0.407	36.046	15.610	6.965
2021-08-26 23:30	1927805	7.899	-82.033	15.529	672.046	820.465	0.405	36.264	15.529	6.712
2021-08-26 23:45	1928705	7.906	-82.421	15.477	671.372	820.646	0.405	37.138	15.477	***6.320***
2021-08-27 0:00	1929605	7.902	-82.176	15.398	670.248	820.770	0.405	35.562	15.398	***5.875***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-27 0:15	1930505	7.921	-83.201	15.313	668.610	820.402	0.405	34.830	15.313	***5.524***
2021-08-27 0:30	1931405	7.912	-82.664	15.245	666.733	819.401	0.405	34.391	15.245	***5.469***
2021-08-27 0:45	1932305	7.910	-82.538	15.182	665.173	818.690	0.404	164.552	15.182	***5.601***
2021-08-27 1:00	1933205	7.912	-82.624	15.102	664.172	819.003	0.404	9.101	15.102	***5.506***
2021-08-27 1:15	1934105	7.913	-82.674	15.033	662.967	818.860	0.404	8.966	15.033	***5.408***
2021-08-27 1:30	1935005	7.914	-82.705	14.983	662.189	818.857	0.404	8.878	14.983	***5.361***
2021-08-27 1:45	1935905	7.909	-82.405	14.941	661.159	818.396	0.404	8.957	14.941	***5.274***
2021-08-27 2:00	1936805	7.899	-81.849	14.902	660.510	818.347	0.404	8.857	14.902	***5.104***
2021-08-27 2:15	1937705	7.893	-81.463	14.864	659.595	817.952	0.404	8.877	14.864	***4.998***
2021-08-27 2:30	1938605	7.886	-81.096	14.829	658.799	817.647	0.403	9.088	14.829	***4.997***
2021-08-27 2:45	1939505	7.876	-80.488	14.794	658.134	817.491	0.403	9.001	14.794	***4.754***
2021-08-27 3:00	1940405	7.868	-80.042	14.761	657.310	817.109	0.403	9.048	14.761	***4.478***
2021-08-27 3:15	1941305	7.865	-79.870	14.723	656.713	817.094	0.403	9.132	14.723	***4.099***
2021-08-27 3:30	1942205	7.861	-79.610	14.678	655.919	816.997	0.403	11.993	14.678	***3.937***
2021-08-27 3:45	1943105	7.857	-79.381	14.631	655.154	816.954	0.403	9.285	14.631	***4.122***
2021-08-27 4:00	1944005	7.862	-79.629	14.578	654.084	816.650	0.403	9.525	14.578	***3.967***
2021-08-27 4:15	1944905	7.856	-79.253	14.510	653.001	816.614	0.403	9.235	14.510	***3.850***
2021-08-27 4:30	1945805	7.860	-79.477	14.459	652.196	816.602	0.403	9.200	14.459	***3.589***
2021-08-27 4:45	1946705	7.855	-79.188	14.411	651.310	816.425	0.403	9.411	14.411	***3.771***
2021-08-27 5:00	1947605	7.842	-78.437	14.379	650.982	816.638	0.403	9.148	14.379	***3.940***
2021-08-27 5:15	1948505	7.841	-78.359	14.342	649.862	815.971	0.402	9.196	14.342	***3.943***
2021-08-27 5:30	1949405	7.830	-77.732	14.298	649.721	816.643	0.403	9.713	14.298	***3.932***
2021-08-27 5:45	1950305	7.836	-78.089	14.237	649.037	816.988	0.403	9.704	14.237	***3.999***
2021-08-27 6:00	1951205	7.827	-77.553	14.184	648.389	817.219	0.403	9.682	14.184	***3.982***
2021-08-27 6:15	1952105	7.828	-77.569	14.150	648.283	817.746	0.403	9.776	14.150	***3.991***
2021-08-27 6:30	1953005	7.829	-77.620	14.115	647.530	817.495	0.403	9.865	14.115	***3.912***
2021-08-27 6:45	1953905	7.823	-77.286	14.084	647.027	817.473	0.403	9.960	14.084	***3.789***
2021-08-27 7:00	1954805	7.825	-77.395	14.038	646.642	817.880	0.403	9.684	14.038	***3.832***
2021-08-27 7:15	1955705	7.840	-78.208	13.990	646.043	818.084	0.403	10.613	13.990	***4.236***
2021-08-27 7:30	1956605	7.854	-79.000	13.959	645.642	818.189	0.403	9.484	13.959	***4.452***
2021-08-27 7:45	1957505	7.858	-79.253	13.939	645.374	818.242	0.403	9.194	13.939	***4.677***
2021-08-27 8:00	1958405	7.864	-79.553	13.934	645.571	818.592	0.404	9.467	13.934	***4.743***
2021-08-27 8:15	1959305	7.862	-79.467	13.928	645.398	818.490	0.403	23.888	13.928	***4.831***
2021-08-27 8:30	1960205	7.866	-79.660	13.926	645.816	819.060	0.404	15.289	13.926	***4.992***
2021-08-27 8:45	1961105	7.874	-80.161	13.933	645.751	818.830	0.404	15.105	13.933	***5.202***
2021-08-27 9:00	1962005	7.870	-79.930	13.938	646.370	819.522	0.404	11.952	13.938	***5.286***
2021-08-27 9:15	1962905	7.874	-80.121	13.941	646.436	819.555	0.404	8.374	13.941	***5.468***
2021-08-27 9:30	1963805	7.879	-80.438	13.942	646.098	819.104	0.404	8.304	13.942	***5.710***
2021-08-27 9:45	1964705	7.900	-81.646	13.941	646.437	819.553	0.404	7.893	13.941	***5.897***
2021-08-27 10:00	1965605	7.911	-82.259	13.957	646.820	819.718	0.404	25.041	13.957	***5.962***
2021-08-27 10:15	1966505	7.921	-82.862	13.981	647.433	820.015	0.404	8.245	13.981	***5.871***
2021-08-27 10:30	1967405	7.936	-83.680	14.001	647.842	820.138	0.404	40.614	14.001	***5.767***
2021-08-27 10:45	1968305	7.935	-83.663	14.030	648.278	820.115	0.404	7.621	14.030	***5.494***
2021-08-27 11:00	1969205	7.919	-82.769	14.055	648.766	820.245	0.404	6.812	14.055	***5.373***
2021-08-27 11:15	1970105	7.900	-81.670	14.071	649.326	820.634	0.405	7.315	14.071	***5.137***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-27 11:30	1971005	7.895	-81.375	14.085	649.540	820.623	0.405	7.085	14.085	***4.792***
2021-08-27 11:45	1971905	7.896	-81.427	14.113	649.964	820.592	0.405	8.045	14.113	***4.584***
2021-08-27 12:00	1972805	7.996	-87.185	14.255	653.488	822.228	0.406	28.665	14.255	7.825
2021-08-27 12:15	1973705	7.998	-87.323	14.251	653.262	822.035	0.405	21.857	14.251	7.582
2021-08-27 12:30	1974605	7.984	-86.534	14.273	653.761	822.215	0.406	14.975	14.273	7.460
2021-08-27 12:45	1975505	7.976	-86.064	14.311	654.460	822.347	0.406	13.504	14.311	7.354
2021-08-27 13:00	1976405	8.010	-88.034	14.366	655.359	822.390	0.406	10.907	14.366	7.533
2021-08-27 13:15	1977305	7.991	-86.963	14.410	655.481	821.684	0.405	12.410	14.410	7.483
2021-08-27 13:30	1978205	8.003	-87.671	14.464	656.937	822.452	0.406	10.635	14.464	7.521
2021-08-27 13:45	1979105	7.988	-86.820	14.468	657.186	822.682	0.406	9.033	14.468	7.431
2021-08-27 14:00	1980005	7.971	-85.850	14.487	657.108	822.199	0.406	8.742	14.487	7.310
2021-08-27 14:15	1980905	7.972	-85.926	14.564	658.565	822.517	0.406	7.310	14.564	7.315
2021-08-27 14:30	1981805	8.014	-88.336	14.653	659.719	822.218	0.406	6.813	14.653	7.437
2021-08-27 14:45	1982705	8.024	-88.961	14.720	660.835	822.295	0.406	5.914	14.720	7.964
2021-08-27 15:00	1983605	8.023	-88.899	14.811	662.347	822.392	0.406	4.784	14.811	8.367
2021-08-27 15:15	1984505	8.053	-90.666	14.872	663.516	822.664	0.406	6.453	14.872	8.640
2021-08-27 15:30	1985405	8.062	-91.109	14.803	662.243	822.420	0.406	6.305	14.803	8.069
2021-08-27 15:45	1986305	8.042	-89.972	14.784	661.595	821.980	0.406	8.386	14.784	7.950
2021-08-27 16:00	1987205	8.085	-92.516	14.940	664.097	822.051	0.406	2.842	14.940	8.600
2021-08-27 16:15	1988105	8.135	-95.396	15.123	666.445	821.410	0.406	2.602	15.123	8.591
2021-08-27 16:30	1989005	8.130	-95.208	15.363	669.658	820.722	0.405	4.305	15.363	8.725
2021-08-27 16:45	1989905	8.101	-93.582	15.525	672.287	820.839	0.405	2.715	15.525	8.924
2021-08-27 17:00	1990805	8.111	-94.218	15.639	674.325	821.145	0.406	3.407	15.639	9.072
2021-08-27 17:15	1991705	8.105	-93.875	15.640	674.525	821.367	0.406	7.919	15.640	9.177
2021-08-27 17:30	1992605	8.100	-93.510	15.469	671.072	820.425	0.405	6.720	15.469	8.885
2021-08-27 17:45	1993505	8.129	-95.160	15.451	671.250	820.982	0.405	6.348	15.451	9.670
2021-08-27 18:00	1994405	8.130	-95.248	15.529	672.586	821.122	0.406	9.154	15.529	9.805
2021-08-27 18:15	1995305	8.125	-95.007	15.584	673.586	821.290	0.406	7.663	15.584	9.574
2021-08-27 18:30	1996205	8.115	-94.466	15.707	675.676	821.495	0.406	5.227	15.707	9.519
2021-08-27 18:45	1997105	8.124	-95.007	15.801	677.340	821.722	0.406	3.034	15.801	9.462
2021-08-27 19:00	1998005	8.128	-95.258	15.879	678.399	821.509	0.406	3.108	15.879	9.615
2021-08-27 19:15	1998905	8.141	-96.035	15.953	679.596	821.568	0.406	4.822	15.953	10.010
2021-08-27 19:30	1999805	8.135	-95.680	15.976	680.116	821.746	0.406	5.089	15.976	10.245
2021-08-27 19:45	2000705	8.125	-95.117	15.985	680.438	821.979	0.406	7.926	15.985	10.150
2021-08-27 20:00	2001605	8.109	-94.211	15.989	681.635	823.345	0.407	2.964	15.989	10.026
2021-08-27 20:15	2002505	8.079	-92.478	15.996	680.766	822.166	0.406	5.410	15.996	9.955
2021-08-27 20:30	2003405	8.117	-94.652	15.976	680.411	822.102	0.406	5.375	15.976	9.162
2021-08-27 20:45	2004305	8.112	-94.328	15.933	679.941	822.360	0.406	6.485	15.933	9.139
2021-08-27 21:00	2005205	8.116	-94.574	15.854	678.309	821.883	0.406	8.139	15.854	9.259
2021-08-27 21:15	2006105	8.120	-94.781	15.815	678.938	823.385	0.407	17.762	15.815	9.425
2021-08-27 21:30	2007005	8.102	-93.668	15.657	676.831	823.846	0.407	10.103	15.657	9.051
2021-08-27 21:45	2007905	8.083	-92.564	15.571	675.162	823.458	0.407	8.362	15.571	8.877
2021-08-27 22:00	2008805	8.081	-92.444	15.550	675.494	824.274	0.407	7.022	15.550	9.035
2021-08-27 22:15	2009705	8.065	-91.550	15.526	675.650	824.921	0.408	5.824	15.526	8.769
2021-08-27 22:30	2010605	8.058	-91.109	15.498	673.427	822.754	0.406	7.835	15.498	8.301

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-27 22:45	2011505	8.045	-90.401	15.497	675.380	825.144	0.408	5.793	15.497	8.373
2021-08-27 23:00	2012405	8.035	-89.815	15.492	675.431	825.316	0.408	4.355	15.492	8.295
2021-08-27 23:15	2013305	8.037	-89.886	15.483	675.714	825.838	0.408	5.129	15.483	8.250
2021-08-27 23:30	2014205	8.039	-90.048	15.468	675.477	825.824	0.408	3.834	15.468	8.134
2021-08-27 23:45	2015105	8.031	-89.562	15.444	674.858	825.537	0.408	5.084	15.444	8.119
2021-08-28 0:00	2016005	8.015	-88.658	15.431	674.563	825.425	0.408	5.446	15.431	7.784
2021-08-28 0:15	2016905	8.015	-88.642	15.406	674.026	825.247	0.408	4.650	15.406	7.635
2021-08-28 0:30	2017805	7.999	-87.705	15.357	672.989	824.915	0.407	4.933	15.357	7.539
2021-08-28 0:45	2018705	8.005	-88.046	15.313	671.654	824.137	0.407	3.993	15.313	7.442
2021-08-28 1:00	2019605	7.989	-87.121	15.279	668.537	820.972	0.405	20.298	15.279	7.087
2021-08-28 1:15	2020505	7.971	-86.029	15.216	668.318	821.908	0.406	4.832	15.216	6.829
2021-08-28 1:30	2021405	7.947	-84.662	15.133	666.888	821.763	0.406	5.456	15.133	6.650
2021-08-28 1:45	2022305	7.932	-83.754	15.080	665.914	821.590	0.406	4.834	15.080	6.503
2021-08-28 2:00	2023205	7.923	-83.261	15.036	665.171	821.509	0.406	5.539	15.036	***6.329***
2021-08-28 2:15	2024105	7.923	-83.213	14.984	664.178	821.302	0.405	4.835	14.984	***6.089***
2021-08-28 2:30	2025005	7.927	-83.430	14.942	663.397	821.142	0.405	5.493	14.942	***5.877***
2021-08-28 2:45	2025905	7.899	-81.861	14.882	662.338	820.994	0.405	4.591	14.882	***5.671***
2021-08-28 3:00	2026805	7.899	-81.837	14.821	661.223	820.797	0.405	5.260	14.821	***5.651***
2021-08-28 3:15	2027705	7.884	-80.926	14.773	660.533	820.871	0.405	5.442	14.773	***5.636***
2021-08-28 3:30	2028605	7.873	-80.292	14.713	659.413	820.651	0.405	5.271	14.713	***5.324***
2021-08-28 3:45	2029505	7.862	-79.656	14.662	658.545	820.573	0.405	5.158	14.662	***5.157***
2021-08-28 4:00	2030405	7.860	-79.510	14.596	657.042	819.994	0.405	4.693	14.596	***5.044***
2021-08-28 4:15	2031305	7.865	-79.772	14.534	656.454	820.471	0.405	4.653	14.534	***4.787***
2021-08-28 4:30	2032205	7.857	-79.312	14.491	655.136	819.668	0.404	3.648	14.491	***4.585***
2021-08-28 4:45	2033105	7.853	-79.091	14.402	653.427	819.272	0.404	5.206	14.402	***4.571***
2021-08-28 5:00	2034005	7.861	-79.544	14.350	653.338	820.171	0.405	4.341	14.350	***4.754***
2021-08-28 5:15	2034905	7.838	-78.175	14.300	652.361	819.935	0.404	4.472	14.300	***4.811***
2021-08-28 5:30	2035805	7.817	-77.004	14.240	651.356	819.839	0.404	4.714	14.240	***4.643***
2021-08-28 5:45	2036705	7.841	-78.361	14.194	650.584	819.786	0.404	3.840	14.194	***4.531***
2021-08-28 6:00	2037605	7.835	-77.977	14.131	649.491	819.642	0.404	4.541	14.131	***4.320***
2021-08-28 6:15	2038505	7.830	-77.696	14.099	650.004	820.927	0.405	5.064	14.099	***4.379***
2021-08-28 6:30	2039405	7.827	-77.465	14.018	647.604	819.504	0.404	4.795	14.018	***4.266***
2021-08-28 6:45	2040305	7.821	-77.131	13.939	646.057	819.113	0.404	2.660	13.939	***4.307***
2021-08-28 7:00	2041205	7.814	-76.740	13.896	645.780	819.604	0.404	2.830	13.896	***4.400***
2021-08-28 7:15	2042105	7.828	-77.477	13.845	644.889	819.490	0.404	4.393	13.845	***4.056***
2021-08-28 7:30	2043005	7.811	-76.501	13.820	644.658	819.686	0.404	5.674	13.820	***3.627***
2021-08-28 7:45	2043905	7.811	-76.523	13.797	644.455	819.896	0.404	5.105	13.797	***3.264***
2021-08-28 8:00	2044805	7.823	-77.186	13.788	644.258	819.828	0.404	4.356	13.788	***3.076***
2021-08-28 8:15	2045705	7.844	-78.406	13.793	644.203	819.644	0.404	3.458	13.793	***3.630***
2021-08-28 8:30	2046605	7.860	-79.315	13.805	644.179	819.379	0.404	3.595	13.805	***4.651***
2021-08-28 8:45	2047505	7.890	-81.048	13.811	644.297	819.412	0.404	3.731	13.811	***5.111***
2021-08-28 9:00	2048405	7.907	-82.018	13.812	644.386	819.504	0.404	2.731	13.812	***4.832***
2021-08-28 9:15	2049305	7.912	-82.288	13.817	644.669	819.761	0.404	3.695	13.817	***5.564***
2021-08-28 9:30	2050205	7.933	-83.482	13.826	644.468	819.327	0.404	3.648	13.826	***5.863***
2021-08-28 9:45	2051105	7.946	-84.219	13.835	644.893	819.692	0.404	2.776	13.835	***5.810***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-28 10:00	2052005	7.936	-83.649	13.855	645.234	819.729	0.404	3.509	13.855	***5.815***
2021-08-28 10:15	2052905	7.915	-82.476	13.900	645.906	819.683	0.404	3.014	13.900	***5.875***
2021-08-28 10:30	2053805	7.903	-81.782	13.963	646.951	819.766	0.404	1.908	13.963	***5.958***
2021-08-28 10:45	2054705	7.885	-80.805	14.040	648.127	819.734	0.404	2.263	14.040	***5.848***
2021-08-28 11:00	2055605	7.904	-81.897	14.108	649.226	819.772	0.404	1.909	14.108	***5.641***
2021-08-28 11:15	2056505	7.917	-82.648	14.176	650.189	819.648	0.404	1.451	14.176	***5.497***
2021-08-28 11:30	2057406	7.929	-83.389	14.294	651.416	818.854	0.404	3.178	14.294	***5.412***
2021-08-28 11:45	2058306	7.928	-83.356	14.325	651.948	818.927	0.404	1.901	14.325	***5.400***
2021-08-28 12:00	2059206	7.916	-82.631	14.333	652.395	819.321	0.404	12.639	14.333	***5.532***
2021-08-28 12:15	2060106	7.894	-81.391	14.374	653.005	819.290	0.404	3.239	14.374	***5.756***
2021-08-28 12:30	2061006	7.879	-80.566	14.407	653.786	819.612	0.404	3.272	14.407	***6.167***
2021-08-28 12:45	2061906	7.870	-80.049	14.432	654.303	819.775	0.404	5.162	14.432	***6.365***
2021-08-28 13:00	2062806	7.868	-79.932	14.455	654.763	819.902	0.404	4.083	14.455	6.533
2021-08-28 13:15	2063706	7.869	-79.992	14.477	655.187	820.003	0.405	4.206	14.477	6.664
2021-08-28 13:30	2064606	7.872	-80.204	14.500	655.782	820.296	0.405	3.667	14.500	6.602
2021-08-28 13:45	2065506	7.874	-80.318	14.518	656.221	820.496	0.405	7.811	14.518	***6.447***
2021-08-28 14:00	2066406	7.875	-80.380	14.543	656.682	820.575	0.405	8.618	14.543	***6.078***
2021-08-28 14:15	2067306	7.923	-83.091	14.549	657.180	821.088	0.405	9.113	14.549	***6.409***
2021-08-28 14:30	2068206	7.918	-82.855	14.541	657.135	821.187	0.405	9.835	14.541	***5.973***
2021-08-28 14:45	2069106	7.885	-80.962	14.542	656.650	820.545	0.405	9.034	14.542	***5.862***
2021-08-28 15:00	2070006	7.907	-82.188	14.546	656.378	820.145	0.405	16.192	14.546	***5.967***
2021-08-28 15:15	2070906	7.926	-83.311	14.555	656.240	819.779	0.404	13.760	14.555	***5.945***
2021-08-28 15:30	2071806	7.926	-83.308	14.577	656.304	819.445	0.404	7.740	14.577	***6.117***
2021-08-28 15:45	2072706	7.940	-84.109	14.574	656.193	819.359	0.404	7.390	14.574	***6.318***
2021-08-28 16:00	2073606	7.941	-84.169	14.593	656.247	819.054	0.404	7.194	14.593	6.594
2021-08-28 16:15	2074506	7.922	-83.101	14.642	656.947	818.978	0.404	6.314	14.642	7.179
2021-08-28 16:30	2075406	7.897	-81.651	14.717	658.302	819.197	0.404	4.407	14.717	7.574
2021-08-28 16:45	2076306	7.949	-84.684	14.813	660.093	819.551	0.404	4.652	14.813	7.739
2021-08-28 17:00	2077206	7.965	-85.638	14.878	661.328	819.821	0.405	4.027	14.878	8.149
2021-08-28 17:15	2078106	7.976	-86.234	14.895	661.696	819.960	0.405	6.099	14.895	8.586
2021-08-28 17:30	2079006	8.007	-87.984	14.843	660.898	819.973	0.405	12.047	14.843	7.858
2021-08-28 17:45	2079906	7.960	-85.289	14.803	659.914	819.532	0.404	11.370	14.803	***6.425***
2021-08-28 18:00	2080806	7.957	-85.127	14.778	659.301	819.257	0.404	11.256	14.778	***6.156***
2021-08-28 18:15	2081706	7.976	-86.226	14.826	659.984	819.173	0.404	6.721	14.826	7.591
2021-08-28 18:30	2082606	8.034	-89.555	14.960	662.173	819.290	0.404	5.945	14.960	8.274
2021-08-28 18:45	2083506	8.078	-92.144	15.096	664.369	819.369	0.404	6.284	15.096	8.227
2021-08-28 19:00	2084406	8.076	-92.080	15.234	666.658	819.523	0.405	4.511	15.234	8.146
2021-08-28 19:15	2085306	8.109	-93.977	15.335	668.358	819.678	0.405	5.150	15.335	8.046
2021-08-28 19:30	2086206	8.118	-94.552	15.396	669.350	819.716	0.405	3.951	15.396	8.024
2021-08-28 19:45	2087106	8.107	-93.896	15.430	669.886	819.714	0.405	4.932	15.430	8.097
2021-08-28 20:00	2088006	8.080	-92.347	15.459	670.546	819.971	0.405	5.602	15.459	8.119
2021-08-28 20:15	2088906	8.071	-91.877	15.473	670.837	820.063	0.405	5.553	15.473	8.105
2021-08-28 20:30	2089806	8.071	-91.839	15.481	671.080	820.211	0.405	5.371	15.481	8.033
2021-08-28 20:45	2090706	8.065	-91.517	15.490	671.148	820.113	0.405	3.801	15.490	7.959
2021-08-28 21:00	2091606	8.049	-90.580	15.494	671.443	820.396	0.405	3.978	15.494	7.820

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-28 21:15	2092506	8.038	-89.948	15.496	671.600	820.553	0.405	4.948	15.496	7.585
2021-08-28 21:30	2093406	8.045	-90.380	15.497	671.163	820.005	0.405	4.768	15.497	6.907
2021-08-28 21:45	2094306	8.039	-90.010	15.482	671.279	820.435	0.405	4.923	15.482	6.913
2021-08-28 22:00	2095206	8.069	-91.720	15.439	669.675	819.290	0.405	6.547	15.439	***6.369***
2021-08-28 22:15	2096106	8.013	-88.515	15.412	669.968	820.173	0.405	5.986	15.412	***6.130***
2021-08-28 22:30	2097006	7.979	-86.558	15.376	669.248	819.966	0.405	6.388	15.376	6.815
2021-08-28 22:45	2097906	7.982	-86.720	15.340	668.467	819.711	0.405	5.612	15.340	7.112
2021-08-28 23:00	2098806	7.980	-86.598	15.306	667.750	819.488	0.405	5.571	15.306	7.191
2021-08-28 23:15	2099706	7.964	-85.652	15.256	666.812	819.296	0.405	5.409	15.256	7.053
2021-08-28 23:30	2100606	7.984	-86.789	15.211	667.584	821.101	0.405	5.132	15.211	6.827
2021-08-28 23:45	2101506	7.964	-85.657	15.155	664.706	818.641	0.404	4.544	15.155	6.640
2021-08-29 0:00	2102406	7.942	-84.362	15.121	665.177	819.883	0.405	4.442	15.121	***6.383***
2021-08-29 0:15	2103306	7.930	-83.654	15.049	664.033	819.851	0.405	7.670	15.049	***5.487***
2021-08-29 0:30	2104206	7.913	-82.650	14.955	662.715	820.059	0.405	6.627	14.955	***5.351***
2021-08-29 0:45	2105106	7.914	-82.674	14.877	661.402	819.940	0.405	5.923	14.877	***5.343***
2021-08-29 1:00	2106006	7.919	-82.982	14.815	660.607	820.158	0.405	5.424	14.815	***5.540***
2021-08-29 1:15	2106906	7.913	-82.605	14.773	659.857	820.037	0.405	5.848	14.773	***5.557***
2021-08-29 1:30	2107806	7.910	-82.395	14.696	658.752	820.160	0.405	6.644	14.696	***5.082***
2021-08-29 1:45	2108706	7.896	-81.608	14.657	658.038	820.044	0.405	5.998	14.657	***4.905***
2021-08-29 2:00	2109606	7.879	-80.602	14.596	657.132	820.095	0.405	6.501	14.596	***4.735***
2021-08-29 2:15	2110506	7.878	-80.521	14.510	655.751	820.051	0.405	6.484	14.510	***4.564***
2021-08-29 2:30	2111406	7.879	-80.571	14.462	654.980	820.041	0.405	6.050	14.462	***4.441***
2021-08-29 2:45	2112306	7.853	-79.074	14.386	653.740	819.967	0.404	5.717	14.386	***4.606***
2021-08-29 3:00	2113206	7.845	-78.595	14.318	652.524	819.774	0.404	5.244	14.318	***4.588***
2021-08-29 3:15	2114106	7.845	-78.568	14.273	651.864	819.842	0.404	5.411	14.273	***4.447***
2021-08-29 3:30	2115006	7.832	-77.803	14.218	650.997	819.821	0.404	5.627	14.218	***4.244***
2021-08-29 3:45	2115906	7.820	-77.133	14.181	650.283	819.652	0.404	5.215	14.181	***4.089***
2021-08-29 4:00	2116806	7.815	-76.818	14.133	649.544	819.684	0.404	5.744	14.133	***4.161***
2021-08-29 4:15	2117706	7.824	-77.317	14.090	648.665	819.406	0.404	5.189	14.090	***3.904***
2021-08-29 4:30	2118606	7.802	-76.087	14.041	647.727	819.206	0.404	5.145	14.041	***4.038***
2021-08-29 4:45	2119506	7.795	-75.667	13.998	646.826	818.920	0.404	4.648	13.998	***4.088***
2021-08-29 5:00	2120406	7.809	-76.463	13.941	645.773	818.701	0.404	5.153	13.941	***4.192***
2021-08-29 5:15	2121306	7.803	-76.087	13.910	645.121	818.500	0.403	4.508	13.910	***4.092***
2021-08-29 5:30	2122206	7.799	-75.872	13.889	644.832	818.544	0.403	4.968	13.889	***3.947***
2021-08-29 5:45	2123106	7.811	-76.561	13.855	644.153	818.351	0.403	5.703	13.855	***3.702***
2021-08-29 6:00	2124006	7.802	-76.029	13.819	643.247	817.916	0.403	7.908	13.819	***3.025***
2021-08-29 6:15	2124906	7.794	-75.548	13.790	642.761	817.884	0.403	6.823	13.790	***3.535***
2021-08-29 6:30	2125806	7.852	-78.838	13.768	642.352	817.785	0.403	6.133	13.768	***4.409***
2021-08-29 6:45	2126706	7.897	-81.389	13.746	641.610	817.295	0.403	6.849	13.746	***4.433***
2021-08-29 7:00	2127606	7.899	-81.496	13.743	640.755	816.251	0.402	5.491	13.743	***4.137***
2021-08-29 7:15	2128506	7.881	-80.478	13.738	641.354	817.111	0.403	5.346	13.738	***4.043***
2021-08-29 7:30	2129406	7.874	-80.080	13.731	641.224	817.087	0.403	4.313	13.731	***4.087***
2021-08-29 7:45	2130306	7.885	-80.726	13.705	641.090	817.435	0.403	7.276	13.705	***4.190***
2021-08-29 8:00	2131206	7.866	-79.634	13.696	641.000	817.511	0.403	5.010	13.696	***4.439***
2021-08-29 8:15	2132106	7.857	-79.129	13.691	640.924	817.500	0.403	6.460	13.691	***4.372***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-29 8:30	2133006	7.852	-78.833	13.685	640.810	817.475	0.403	6.125	13.685	***3.628***
2021-08-29 8:45	2133906	7.829	-77.529	13.674	640.635	817.484	0.403	7.324	13.674	***3.431***
2021-08-29 9:00	2134806	7.828	-77.426	13.658	640.624	817.775	0.403	8.768	13.658	***3.342***
2021-08-29 9:15	2135706	7.828	-77.422	13.640	640.052	817.411	0.403	8.968	13.640	***3.365***
2021-08-29 9:30	2136606	7.816	-76.754	13.617	639.735	817.461	0.403	4.806	13.617	***3.489***
2021-08-29 9:45	2137506	7.836	-77.887	13.615	639.626	817.362	0.403	4.780	13.615	***3.903***
2021-08-29 10:00	2138406	7.841	-78.158	13.622	639.566	817.153	0.403	3.736	13.622	***4.412***
2021-08-29 10:15	2139306	7.871	-79.920	13.648	640.147	817.371	0.403	3.937	13.648	***4.555***
2021-08-29 10:30	2140206	7.888	-80.900	13.683	640.661	817.329	0.403	3.078	13.683	***4.755***
2021-08-29 10:45	2141106	7.891	-81.050	13.730	641.366	817.289	0.403	3.171	13.730	***4.691***
2021-08-29 11:00	2142006	7.898	-81.458	13.785	642.121	817.165	0.403	3.904	13.785	***4.587***
2021-08-29 11:15	2142906	7.900	-81.584	13.811	642.731	817.423	0.403	3.686	13.811	***4.597***
2021-08-29 11:30	2143806	7.888	-80.945	13.841	643.280	817.516	0.403	3.817	13.841	***4.702***
2021-08-29 11:45	2144706	7.877	-80.318	13.882	644.097	817.745	0.403	3.862	13.882	***4.892***
2021-08-29 12:00	2145606	7.880	-80.478	13.920	644.820	817.916	0.403	3.956	13.920	***4.990***
2021-08-29 12:15	2146506	7.884	-80.695	13.950	645.423	818.080	0.403	5.641	13.950	***5.044***
2021-08-29 12:30	2147406	7.870	-79.920	13.977	645.960	818.231	0.403	39.815	13.977	***5.225***
2021-08-29 12:45	2148306	7.843	-78.404	14.004	646.326	818.153	0.403	7.202	14.004	***5.212***
2021-08-29 13:00	2149206	7.861	-79.412	14.034	646.663	817.999	0.403	6.942	14.034	***5.104***
2021-08-29 13:15	2150106	7.870	-79.970	14.071	647.302	818.072	0.403	8.590	14.071	***5.039***
2021-08-29 13:30	2151006	7.877	-80.342	14.124	648.175	818.135	0.403	8.704	14.124	***5.215***
2021-08-29 13:45	2151906	7.872	-80.080	14.166	648.826	818.122	0.403	6.380	14.166	***5.360***
2021-08-29 14:00	2152806	7.872	-80.092	14.212	649.794	818.433	0.404	6.428	14.212	***5.441***
2021-08-29 14:15	2153706	7.869	-79.985	14.283	650.913	818.435	0.404	5.169	14.283	***5.455***
2021-08-29 14:30	2154606	7.885	-80.879	14.373	652.412	818.566	0.404	4.702	14.373	***5.580***
2021-08-29 14:45	2155506	7.923	-83.070	14.396	653.063	818.917	0.404	8.107	14.396	***6.103***
2021-08-29 15:00	2156406	7.936	-83.804	14.455	654.099	819.063	0.404	7.205	14.455	***6.434***
2021-08-29 15:15	2157306	7.946	-84.414	14.500	654.871	819.145	0.404	6.113	14.500	6.734
2021-08-29 15:30	2158206	7.956	-85.027	14.558	655.805	819.180	0.404	7.605	14.558	6.929
2021-08-29 15:45	2159106	7.949	-84.605	14.621	656.788	819.180	0.404	8.454	14.621	7.067
2021-08-29 16:00	2160006	7.959	-85.218	14.709	658.025	819.013	0.404	6.095	14.709	7.130
2021-08-29 16:15	2160906	7.947	-84.548	14.778	659.007	818.885	0.404	10.580	14.778	7.092
2021-08-29 16:30	2161806	7.966	-85.664	14.810	659.307	818.629	0.404	9.062	14.810	6.968
2021-08-29 16:45	2162706	7.967	-85.695	14.815	659.269	818.490	0.404	11.788	14.815	6.980
2021-08-29 17:00	2163606	7.930	-83.599	14.821	659.267	818.383	0.404	11.596	14.821	6.826
2021-08-29 17:15	2164506	7.915	-82.726	14.850	659.557	818.178	0.404	9.159	14.850	7.451
2021-08-29 17:30	2165406	7.909	-82.438	14.891	659.992	817.925	0.404	8.631	14.891	7.608
2021-08-29 17:45	2166306	7.923	-83.258	14.952	660.936	817.909	0.404	9.110	14.952	7.935
2021-08-29 18:00	2167206	7.939	-84.143	14.948	660.839	817.871	0.404	11.423	14.948	7.942
2021-08-29 18:15	2168106	7.969	-85.838	14.891	659.516	817.329	0.403	12.390	14.891	7.500
2021-08-29 18:30	2169006	7.991	-87.094	14.927	659.684	816.836	0.403	17.223	14.927	7.695
2021-08-29 18:45	2169906	7.999	-87.564	14.987	660.446	816.625	0.403	10.822	14.987	7.670
2021-08-29 19:00	2170806	8.034	-89.583	15.041	661.341	816.695	0.403	34.039	15.041	7.652
2021-08-29 19:15	2171706	8.069	-91.586	15.039	661.477	816.893	0.403	10.974	15.039	7.740
2021-08-29 19:30	2172606	8.082	-92.359	15.034	661.604	817.151	0.403	9.062	15.034	8.110

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-29 19:45	2173506	8.097	-93.224	15.010	661.346	817.295	0.403	6.915	15.010	8.205
2021-08-29 20:00	2174406	8.087	-92.602	14.994	661.305	817.553	0.404	8.355	14.994	7.947
2021-08-29 20:15	2175306	8.041	-89.979	14.973	660.846	817.381	0.403	7.530	14.973	7.757
2021-08-29 20:30	2176206	8.008	-88.108	14.948	661.181	818.285	0.404	7.535	14.948	8.282
2021-08-29 20:45	2177106	8.009	-88.160	14.933	660.418	817.624	0.404	9.848	14.933	8.017
2021-08-29 21:00	2178006	8.021	-88.830	14.922	659.535	816.754	0.403	3.965	14.922	8.336
2021-08-29 21:15	2178906	8.026	-89.073	14.890	659.876	817.801	0.404	6.815	14.890	8.093
2021-08-29 21:30	2179806	8.034	-89.524	14.861	659.693	818.125	0.404	5.815	14.861	8.155
2021-08-29 21:45	2180706	8.036	-89.667	14.820	659.432	818.606	0.404	7.280	14.820	7.898
2021-08-29 22:00	2181606	8.052	-90.573	14.790	659.135	818.822	0.404	5.854	14.790	7.340
2021-08-29 22:15	2182506	8.053	-90.585	14.749	658.706	819.077	0.404	6.763	14.749	7.252
2021-08-29 22:30	2183406	8.027	-89.092	14.703	658.074	819.193	0.404	7.698	14.703	7.276
2021-08-29 22:45	2184306	7.982	-86.505	14.680	657.691	819.160	0.404	6.605	14.680	7.036
2021-08-29 23:00	2185206	7.961	-85.304	14.645	657.543	819.650	0.404	6.277	14.645	6.978
2021-08-29 23:15	2186106	7.950	-84.667	14.614	657.189	819.826	0.404	6.603	14.614	6.797
2021-08-29 23:30	2187006	7.954	-84.875	14.550	656.138	819.751	0.404	7.538	14.550	***6.453***
2021-08-29 23:45	2187906	7.945	-84.364	14.471	654.419	819.162	0.404	7.556	14.471	***6.104***
2021-08-30 0:00	2188806	7.949	-84.584	14.411	654.292	820.181	0.405	7.384	14.411	***5.874***
2021-08-30 0:15	2189706	7.947	-84.441	14.356	653.723	820.535	0.405	7.638	14.356	***5.762***
2021-08-30 0:30	2190606	7.937	-83.849	14.287	652.974	820.949	0.405	6.021	14.287	***5.555***
2021-08-30 0:45	2191506	7.925	-83.122	14.217	652.057	821.175	0.405	12.720	14.217	***5.370***
2021-08-30 1:00	2192406	7.913	-82.438	14.141	650.726	821.019	0.405	8.676	14.141	***5.158***
2021-08-30 1:15	2193306	7.904	-81.873	14.076	650.332	821.804	0.405	14.816	14.076	***4.905***
2021-08-30 1:30	2194206	7.895	-81.332	13.993	649.392	822.259	0.405	5.477	13.993	***4.689***
2021-08-30 1:45	2195106	7.889	-80.974	13.937	648.445	822.178	0.405	6.327	13.937	***4.607***
2021-08-30 2:00	2196006	7.875	-80.168	13.845	647.386	822.664	0.406	5.145	13.845	***4.473***
2021-08-30 2:15	2196906	7.873	-80.035	13.762	645.985	822.538	0.405	7.155	13.762	***4.398***
2021-08-30 2:30	2197806	7.859	-79.229	13.674	644.914	822.935	0.406	6.502	13.674	***4.353***
2021-08-30 2:45	2198706	7.861	-79.291	13.595	643.575	822.817	0.406	7.923	13.595	***4.261***
2021-08-30 3:00	2199606	7.863	-79.417	13.504	642.080	822.722	0.405	5.546	13.504	***4.152***
2021-08-30 3:15	2200506	7.863	-79.396	13.443	641.118	822.717	0.405	5.745	13.443	***4.067***
2021-08-30 3:30	2201406	7.834	-77.698	13.402	640.569	822.857	0.405	5.324	13.402	***3.954***
2021-08-30 3:45	2202306	7.827	-77.338	13.386	640.431	822.989	0.405	5.489	13.386	***3.772***
2021-08-30 4:00	2203206	7.812	-76.458	13.344	639.847	823.096	0.406	6.513	13.344	***3.654***
2021-08-30 4:15	2204106	7.823	-77.074	13.317	639.193	822.786	0.405	4.972	13.317	***3.609***
2021-08-30 4:30	2205006	7.842	-78.144	13.296	638.783	822.694	0.405	4.559	13.296	***3.608***
2021-08-30 4:45	2205906	7.840	-78.042	13.268	638.157	822.449	0.405	5.208	13.268	***3.741***
2021-08-30 5:00	2206806	7.839	-77.991	13.243	637.603	822.252	0.405	5.811	13.243	***4.034***
2021-08-30 5:15	2207706	7.857	-78.957	13.199	636.674	821.930	0.405	7.534	13.199	***4.365***
2021-08-30 5:30	2208606	7.904	-81.627	13.132	635.055	821.213	0.404	9.630	13.132	***4.713***
2021-08-30 5:45	2209506	7.912	-82.090	13.079	634.144	821.104	0.404	6.324	13.079	***4.918***
2021-08-30 6:00	2210406	7.930	-83.053	13.026	632.523	820.074	0.404	8.233	13.026	***4.992***
2021-08-30 6:15	2211306	7.947	-84.026	13.013	631.803	819.404	0.403	12.906	13.013	***5.694***
2021-08-30 6:30	2212206	7.969	-85.270	13.013	631.500	819.017	0.403	10.507	13.013	***5.740***
2021-08-30 6:45	2213106	7.953	-84.367	12.986	630.947	818.837	0.403	8.244	12.986	***5.752***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-30 7:00	2214006	7.952	-84.295	12.970	630.580	818.703	0.403	6.241	12.970	***5.722***
2021-08-30 7:15	2214906	7.934	-83.270	12.940	630.078	818.659	0.403	5.327	12.940	***5.516***
2021-08-30 7:30	2215806	7.918	-82.388	12.928	629.729	818.444	0.403	4.945	12.928	***5.409***
2021-08-30 7:45	2216706	7.907	-81.728	12.915	628.726	817.399	0.402	5.040	12.915	***5.385***
2021-08-30 8:00	2217606	7.896	-81.103	12.905	629.415	818.507	0.403	5.184	12.905	***5.362***
2021-08-30 8:15	2218506	7.896	-81.112	12.895	629.421	818.711	0.403	4.921	12.895	***5.380***
2021-08-30 8:30	2219406	7.909	-81.859	12.877	629.219	818.807	0.403	4.750	12.877	***5.426***
2021-08-30 8:45	2220306	7.917	-82.271	12.862	629.170	819.059	0.403	4.454	12.862	***5.439***
2021-08-30 9:00	2221206	7.909	-81.837	12.868	629.431	819.281	0.403	4.077	12.868	***5.450***
2021-08-30 9:15	2222106	7.918	-82.376	12.881	629.706	819.361	0.403	4.000	12.881	***5.510***
2021-08-30 9:30	2223006	7.932	-83.168	12.893	630.117	819.659	0.403	4.358	12.893	***5.528***
2021-08-30 9:45	2223906	7.931	-83.079	12.902	630.307	819.722	0.404	5.532	12.902	***5.485***
2021-08-30 10:00	2224806	7.928	-82.939	12.919	630.538	819.684	0.404	4.660	12.919	***5.470***
2021-08-30 10:15	2225706	7.935	-83.349	12.941	630.338	818.964	0.403	3.528	12.941	***5.435***
2021-08-30 10:30	2226606	7.947	-83.997	12.972	631.363	819.674	0.404	3.591	12.972	***5.360***
2021-08-30 10:45	2227506	7.946	-83.957	13.004	631.903	819.722	0.404	3.507	13.004	***5.297***
2021-08-30 11:00	2228406	7.938	-83.525	13.038	632.404	819.684	0.404	2.755	13.038	***5.309***
2021-08-30 11:15	2229306	7.934	-83.339	13.082	633.076	819.652	0.404	3.181	13.082	***5.304***
2021-08-30 11:30	2230206	7.927	-82.912	13.140	634.003	819.676	0.404	3.491	13.140	***5.276***
2021-08-30 11:45	2231106	7.917	-82.390	13.242	635.595	819.674	0.404	3.659	13.242	***5.285***
2021-08-30 12:00	2232006	7.916	-82.364	13.314	636.773	819.743	0.404	3.801	13.314	***5.220***
2021-08-30 12:15	2232906	7.931	-83.261	13.393	637.936	819.651	0.404	3.694	13.393	***5.084***
2021-08-30 12:30	2233806	7.927	-83.017	13.485	639.165	819.368	0.404	4.053	13.485	***5.028***
2021-08-30 12:45	2234706	7.925	-82.972	13.573	640.423	819.230	0.404	3.985	13.573	***5.164***
2021-08-30 13:00	2235606	7.941	-83.876	13.664	643.403	821.216	0.405	3.926	13.664	***5.334***
2021-08-30 13:15	2236506	7.940	-83.866	13.740	642.667	818.754	0.404	4.001	13.740	***5.431***
2021-08-30 13:30	2237406	7.945	-84.167	13.800	643.721	818.900	0.404	2.955	13.800	***5.432***
2021-08-30 13:45	2238306	7.963	-85.161	13.844	644.356	818.824	0.404	3.861	13.844	***5.448***
2021-08-30 14:00	2239206	7.967	-85.452	13.870	644.838	818.934	0.404	5.379	13.870	***5.518***
2021-08-30 14:15	2240106	7.954	-84.660	13.880	645.139	819.115	0.404	5.680	13.880	***5.638***
2021-08-30 14:30	2241006	7.942	-84.023	13.885	645.026	818.860	0.404	6.944	13.885	***5.712***
2021-08-30 14:45	2241906	7.933	-83.523	13.912	645.117	818.449	0.403	5.892	13.912	***5.805***
2021-08-30 15:00	2242806	7.959	-85.027	13.985	645.999	818.112	0.403	6.322	13.985	***5.875***
2021-08-30 15:15	2243706	8.001	-87.423	14.061	646.995	817.872	0.403	7.404	14.061	***5.892***
2021-08-30 15:30	2244606	8.019	-88.463	14.106	647.795	817.994	0.403	99.898	14.106	***5.878***
2021-08-30 15:45	2245506	8.019	-88.451	14.171	648.693	817.847	0.403	4.367	14.171	***5.925***
2021-08-30 16:00	2246406	8.027	-89.006	14.348	651.036	817.333	0.403	3.570	14.348	***6.035***
2021-08-30 16:15	2247306	8.030	-89.183	14.457	652.949	817.579	0.403	4.218	14.457	***6.341***
2021-08-30 16:30	2248206	8.060	-90.926	14.445	652.924	817.783	0.403	6.056	14.445	6.635
2021-08-30 16:45	2249106	8.068	-91.410	14.534	653.956	817.345	0.403	4.987	14.534	6.801
2021-08-30 17:00	2250006	8.109	-93.796	14.803	658.027	817.178	0.403	4.593	14.803	7.204
2021-08-30 17:15	2250906	8.108	-93.741	14.818	658.594	817.589	0.403	6.259	14.818	7.682
2021-08-30 17:30	2251806	8.073	-91.727	14.720	657.047	817.568	0.403	6.892	14.720	7.561
2021-08-30 17:45	2252706	8.010	-88.141	14.757	657.080	816.898	0.403	4.834	14.757	7.633
2021-08-30 18:00	2253606	8.096	-93.093	14.855	658.772	817.107	0.403	4.227	14.855	7.965

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-30 18:15	2254506	8.118	-94.323	14.847	658.536	816.957	0.403	6.340	14.847	8.003
2021-08-30 18:30	2255406	8.022	-88.816	14.669	655.709	816.893	0.403	7.869	14.669	8.055
2021-08-30 18:45	2256306	8.046	-90.172	14.630	655.060	816.847	0.403	9.019	14.630	8.503
2021-08-30 19:00	2257206	8.044	-90.048	14.654	655.300	816.675	0.403	7.648	14.654	8.691
2021-08-30 19:15	2258106	8.046	-90.203	14.687	655.800	816.667	0.403	6.503	14.687	8.777
2021-08-30 19:30	2259006	8.037	-89.693	14.706	656.090	816.662	0.403	96.874	14.706	8.875
2021-08-30 19:45	2259906	8.022	-88.835	14.699	655.990	816.670	0.403	5.851	14.699	8.957
2021-08-30 20:00	2260806	8.011	-88.165	14.701	655.993	816.632	0.403	6.267	14.701	9.003
2021-08-30 20:15	2261706	8.040	-89.853	14.671	655.460	816.555	0.403	6.360	14.671	8.936
2021-08-30 20:30	2262606	8.068	-91.441	14.647	654.946	816.378	0.403	6.414	14.647	8.730
2021-08-30 20:45	2263506	8.066	-91.286	14.619	654.420	816.266	0.403	5.095	14.619	8.724
2021-08-30 21:00	2264406	8.097	-93.060	14.559	653.901	816.791	0.403	7.010	14.559	8.800
2021-08-30 21:15	2265306	8.053	-90.532	14.513	652.981	816.527	0.403	7.282	14.513	8.677
2021-08-30 21:30	2266206	8.031	-89.271	14.460	652.336	816.751	0.403	8.728	14.460	8.444
2021-08-30 21:45	2267106	8.033	-89.340	14.436	650.764	815.260	0.402	6.109	14.436	8.208
2021-08-30 22:00	2268006	8.040	-89.755	14.387	651.552	817.202	0.403	7.451	14.387	8.034
2021-08-30 22:15	2268906	8.029	-89.118	14.342	650.957	817.334	0.403	7.096	14.342	7.849
2021-08-30 22:30	2269806	8.026	-88.940	14.316	649.662	816.225	0.403	7.309	14.316	7.736
2021-08-30 22:45	2270706	8.038	-89.617	14.292	650.317	817.528	0.403	6.686	14.292	7.685
2021-08-30 23:00	2271606	7.998	-87.297	14.250	650.052	818.010	0.403	16.761	14.250	7.619
2021-08-30 23:15	2272506	7.981	-86.291	14.172	648.780	817.947	0.403	6.006	14.172	7.312
2021-08-30 23:30	2273406	7.961	-85.146	14.107	649.234	819.790	0.404	6.383	14.107	6.924
2021-08-30 23:45	2274307	7.950	-84.524	14.042	648.591	820.277	0.404	5.873	14.042	6.530
2021-08-31 0:00	2275207	7.923	-82.951	13.977	646.819	819.323	0.404	4.800	13.977	***6.228***
2021-08-31 0:15	2276107	7.926	-83.113	13.937	646.718	819.974	0.404	4.820	13.937	***6.013***
2021-08-31 0:30	2277007	7.930	-83.315	13.855	645.643	820.242	0.404	5.766	13.855	***5.809***
2021-08-31 0:45	2277907	7.934	-83.497	13.797	645.107	820.724	0.405	5.410	13.797	***5.643***
2021-08-31 1:00	2278807	7.922	-82.800	13.726	644.183	820.958	0.405	6.265	13.726	***5.472***
2021-08-31 1:15	2279707	7.915	-82.438	13.685	643.735	821.208	0.405	5.437	13.685	***5.328***
2021-08-31 1:30	2280607	7.876	-80.166	13.649	643.285	821.355	0.405	5.094	13.649	***5.308***
2021-08-31 1:45	2281507	7.879	-80.349	13.621	642.879	821.397	0.405	4.935	13.621	***5.263***
2021-08-31 2:00	2282407	7.893	-81.110	13.611	642.740	821.415	0.405	4.471	13.611	***5.157***
2021-08-31 2:15	2283307	7.883	-80.583	13.598	642.491	821.362	0.405	3.971	13.598	***5.010***
2021-08-31 2:30	2284207	7.875	-80.090	13.576	643.163	822.675	0.405	3.602	13.576	***4.808***
2021-08-31 2:45	2285107	7.861	-79.305	13.547	642.001	821.756	0.405	4.372	13.547	***4.608***
2021-08-31 3:00	2286007	7.849	-78.588	13.525	641.621	821.711	0.405	4.060	13.525	***4.431***
2021-08-31 3:15	2286907	7.850	-78.652	13.510	643.149	823.972	0.406	3.411	13.510	***4.288***
2021-08-31 3:30	2287807	7.847	-78.502	13.498	641.445	822.037	0.405	3.530	13.498	***4.156***
2021-08-31 3:45	2288707	7.843	-78.242	13.475	641.088	822.048	0.405	4.529	13.475	***4.029***
2021-08-31 4:00	2289607	7.840	-78.053	13.458	640.129	821.154	0.405	4.470	13.458	***3.788***
2021-08-31 4:15	2290507	7.837	-77.910	13.438	640.498	822.036	0.405	4.546	13.438	***3.703***
2021-08-31 4:30	2291407	7.829	-77.443	13.415	640.245	822.167	0.405	4.332	13.415	***3.640***
2021-08-31 4:45	2292307	7.823	-77.095	13.399	639.921	822.084	0.405	4.411	13.399	***3.579***
2021-08-31 5:00	2293207	7.816	-76.671	13.378	639.624	822.116	0.405	4.267	13.378	***3.472***
2021-08-31 5:15	2294107	7.800	-75.753	13.356	639.288	822.128	0.405	4.269	13.356	***3.340***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-31 5:30	2295007	7.798	-75.684	13.338	639.124	822.273	0.405	4.015	13.338	***3.265***
2021-08-31 5:45	2295907	7.796	-75.524	13.319	638.887	822.361	0.405	3.701	13.319	***3.250***
2021-08-31 6:00	2296807	7.787	-75.018	13.301	638.576	822.316	0.405	3.800	13.301	***3.164***
2021-08-31 6:15	2297707	7.784	-74.830	13.283	638.206	822.206	0.405	3.859	13.283	***3.101***
2021-08-31 6:30	2298607	7.786	-74.985	13.265	638.225	822.597	0.405	4.171	13.265	***3.119***
2021-08-31 6:45	2299507	7.787	-75.002	13.255	638.018	822.533	0.405	4.149	13.255	***3.166***
2021-08-31 7:00	2300407	7.780	-74.623	13.242	637.949	822.717	0.405	4.424	13.242	***3.149***
2021-08-31 7:15	2301307	7.776	-74.408	13.228	637.779	822.776	0.405	3.760	13.228	***3.069***
2021-08-31 7:30	2302207	7.777	-74.406	13.189	637.166	822.778	0.405	4.730	13.189	***3.051***
2021-08-31 7:45	2303107	7.773	-74.174	13.165	636.788	822.779	0.405	4.709	13.165	***3.198***
2021-08-31 8:00	2304007	7.773	-74.186	13.141	636.359	822.714	0.405	4.631	13.141	***3.247***
2021-08-31 8:15	2304907	7.768	-73.893	13.114	635.833	822.579	0.405	4.242	13.114	***3.288***
2021-08-31 8:30	2305807	7.768	-73.917	13.095	635.505	822.535	0.405	200.285	13.095	***3.359***
2021-08-31 8:45	2306707	7.768	-73.888	13.077	635.237	822.550	0.405	4.405	13.077	***3.409***
2021-08-31 9:00	2307607	7.773	-74.153	13.059	634.800	822.367	0.405	4.499	13.059	***3.435***
2021-08-31 9:15	2308507	7.778	-74.432	13.046	634.540	822.292	0.405	4.410	13.046	***3.469***
2021-08-31 9:30	2309407	7.774	-74.224	13.031	634.273	822.240	0.405	4.856	13.031	***3.492***
2021-08-31 9:45	2310307	7.776	-74.351	13.016	634.178	822.423	0.405	4.825	13.016	***3.544***
2021-08-31 10:00	2311207	7.775	-74.289	13.003	633.831	822.247	0.405	5.063	13.003	***3.563***
2021-08-31 10:15	2312107	7.780	-74.546	12.995	633.818	822.390	0.405	5.209	12.995	***3.610***
2021-08-31 10:30	2313007	7.786	-74.906	12.991	633.686	822.300	0.405	5.111	12.991	***3.690***
2021-08-31 10:45	2313907	7.790	-75.116	12.990	633.760	822.418	0.405	5.113	12.990	***3.719***
2021-08-31 11:00	2314807	7.796	-75.436	12.993	633.744	822.339	0.405	5.004	12.993	***3.719***
2021-08-31 11:15	2315707	7.807	-76.060	12.999	634.166	822.750	0.405	4.933	12.999	***3.700***
2021-08-31 11:30	2316607	7.818	-76.718	13.006	633.733	822.047	0.405	4.162	13.006	***3.624***
2021-08-31 11:45	2317507	7.829	-77.322	13.018	633.841	821.948	0.405	3.891	13.018	***3.543***
2021-08-31 12:00	2318407	7.839	-77.915	13.036	633.970	821.749	0.405	3.756	13.036	***3.548***
2021-08-31 12:15	2319307	7.841	-78.022	13.059	634.217	821.607	0.405	3.798	13.059	***3.646***
2021-08-31 12:30	2320207	7.843	-78.173	13.082	634.243	821.171	0.404	3.391	13.082	***3.733***
2021-08-31 12:45	2321107	7.851	-78.583	13.109	634.513	820.967	0.404	3.519	13.109	***3.762***
2021-08-31 13:00	2322007	7.848	-78.456	13.138	634.980	820.977	0.404	4.328	13.138	***3.751***
2021-08-31 13:15	2322907	7.848	-78.466	13.167	635.260	820.767	0.404	3.115	13.167	***3.776***
2021-08-31 13:30	2323807	7.860	-79.131	13.199	635.340	820.212	0.404	2.831	13.199	***3.758***
2021-08-31 13:45	2324707	7.859	-79.079	13.243	635.974	820.138	0.404	2.491	13.243	***3.818***
2021-08-31 14:00	2325607	7.870	-79.715	13.282	636.431	819.942	0.404	3.230	13.282	***3.842***
2021-08-31 14:15	2326507	7.867	-79.558	13.316	636.657	819.547	0.404	4.731	13.316	***3.851***
2021-08-31 14:30	2327407	7.846	-78.382	13.345	637.055	819.488	0.404	5.181	13.345	***3.795***
2021-08-31 14:45	2328307	7.821	-76.995	13.367	637.156	819.161	0.404	7.065	13.367	***3.608***
2021-08-31 15:00	2329207	7.836	-77.822	13.382	637.258	819.000	0.403	8.493	13.382	***3.249***
2021-08-31 15:15	2330107	7.849	-78.564	13.391	637.411	819.015	0.403	9.350	13.391	***3.120***
2021-08-31 15:30	2331007	7.850	-78.638	13.392	637.240	818.770	0.403	8.994	13.392	***3.158***
2021-08-31 15:45	2331907	7.865	-79.503	13.387	636.886	818.420	0.403	11.581	13.387	***3.067***
2021-08-31 16:00	2332807	7.862	-79.334	13.390	636.349	817.676	0.403	9.581	13.390	***2.978***
2021-08-31 16:15	2333707	7.874	-80.016	13.399	636.057	817.107	0.402	9.432	13.399	***3.080***
2021-08-31 16:30	2334607	7.890	-80.888	13.405	636.072	817.009	0.402	8.881	13.405	***3.197***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-08-31 16:45	2335507	7.890	-80.886	13.410	635.882	816.657	0.402	7.627	13.410	***3.348***
2021-08-31 17:00	2336407	7.880	-80.330	13.425	634.800	814.973	0.401	7.125	13.425	***3.652***
2021-08-31 17:15	2337307	7.871	-79.815	13.445	636.201	816.370	0.402	7.178	13.445	***3.952***
2021-08-31 17:30	2338207	7.871	-79.844	13.472	636.608	816.352	0.402	8.458	13.472	***4.285***
2021-08-31 17:45	2339107	7.878	-80.268	13.489	637.043	816.565	0.402	6.860	13.489	***4.520***
2021-08-31 18:00	2340007	7.910	-82.049	13.492	636.944	816.396	0.402	8.947	13.492	***4.561***
2021-08-31 18:15	2340907	7.935	-83.492	13.503	637.550	816.941	0.402	9.712	13.503	***4.247***
2021-08-31 18:30	2341807	7.940	-83.783	13.514	636.969	815.974	0.402	9.630	13.514	***4.330***
2021-08-31 18:45	2342707	7.945	-84.045	13.525	637.446	816.367	0.402	8.362	13.525	***4.564***
2021-08-31 19:00	2343607	7.953	-84.548	13.525	637.562	816.514	0.402	7.159	13.525	***4.756***
2021-08-31 19:15	2344507	7.966	-85.239	13.520	637.397	816.408	0.402	7.493	13.520	***4.878***
2021-08-31 19:30	2345407	7.969	-85.444	13.511	637.300	816.463	0.402	7.699	13.511	***5.032***
2021-08-31 19:45	2346307	7.963	-85.080	13.499	637.049	816.391	0.402	8.116	13.499	***5.179***
2021-08-31 20:00	2347207	7.957	-84.715	13.488	636.970	816.498	0.402	6.807	13.488	***5.231***
2021-08-31 20:15	2348107	7.954	-84.586	13.474	636.779	816.532	0.402	6.360	13.474	***5.332***
2021-08-31 20:30	2349007	7.941	-83.818	13.456	636.604	816.663	0.402	7.079	13.456	***5.402***
2021-08-31 20:45	2349907	7.919	-82.545	13.435	636.202	816.582	0.402	7.627	13.435	***5.322***
2021-08-31 21:00	2350807	7.934	-83.408	13.400	635.578	816.474	0.402	7.694	13.400	***5.014***
2021-08-31 21:15	2351707	7.920	-82.588	13.362	635.178	816.715	0.402	6.515	13.362	***4.752***
2021-08-31 21:30	2352607	7.874	-79.954	13.322	633.291	815.105	0.401	6.437	13.322	***5.072***
2021-08-31 21:45	2353507	7.860	-79.145	13.296	634.415	817.072	0.402	7.240	13.296	***5.338***
2021-08-31 22:00	2354407	7.845	-78.311	13.278	634.416	817.436	0.403	4.697	13.278	***5.510***
2021-08-31 22:15	2355307	7.851	-78.645	13.257	634.388	817.809	0.403	6.149	13.257	***5.546***
2021-08-31 22:30	2356207	7.851	-78.659	13.235	634.243	818.071	0.403	5.797	13.235	***5.509***
2021-08-31 22:45	2357107	7.865	-79.427	13.208	633.959	818.244	0.403	5.711	13.208	***5.466***
2021-08-31 23:00	2358007	7.870	-79.703	13.178	634.212	819.185	0.403	7.255	13.178	***5.357***
2021-08-31 23:15	2358907	7.879	-80.218	13.155	633.386	818.573	0.403	5.644	13.155	***5.206***
2021-08-31 23:30	2359807	7.876	-80.063	13.130	633.092	818.699	0.403	5.467	13.130	***5.263***
2021-08-31 23:45	2360707	7.865	-79.389	13.108	632.752	818.718	0.403	5.831	13.108	***5.302***
2021-09-01 0:00	2361607	7.879	-80.194	13.074	632.380	818.912	0.403	6.549	13.074	***5.279***
2021-09-01 0:15	2362507	7.882	-80.333	13.043	632.029	819.094	0.403	5.593	13.043	***5.175***
2021-09-01 0:30	2363407	7.851	-78.597	13.014	631.582	819.093	0.403	4.678	13.014	***5.186***
2021-09-01 0:45	2364307	7.852	-78.611	12.971	631.181	819.443	0.403	6.136	12.971	***5.150***
2021-09-01 1:00	2365207	7.854	-78.714	12.937	630.681	819.488	0.403	5.021	12.937	***5.009***
2021-09-01 1:15	2366107	7.846	-78.268	12.894	630.157	819.698	0.404	5.348	12.894	***4.930***
2021-09-01 1:30	2367007	7.841	-77.977	12.867	629.865	819.861	0.404	5.320	12.867	***4.864***
2021-09-01 1:45	2367907	7.841	-77.989	12.844	629.529	819.886	0.404	4.310	12.844	***4.826***
2021-09-01 2:00	2368807	7.844	-78.120	12.819	629.158	819.912	0.404	4.554	12.819	***4.785***
2021-09-01 2:15	2369707	7.848	-78.337	12.791	628.897	820.143	0.404	5.058	12.791	***4.734***
2021-09-01 2:30	2370607	7.846	-78.244	12.767	628.748	820.440	0.404	4.934	12.767	***4.662***
2021-09-01 2:45	2371507	7.838	-77.770	12.745	628.613	820.712	0.404	5.819	12.745	***4.604***
2021-09-01 3:00	2372407	7.832	-77.412	12.722	628.318	820.812	0.404	6.212	12.722	***4.565***
2021-09-01 3:15	2373307	7.830	-77.322	12.696	627.844	820.726	0.404	5.253	12.696	***4.506***
2021-09-01 3:30	2374207	7.836	-77.610	12.667	627.252	820.534	0.404	4.413	12.667	***4.500***
2021-09-01 3:45	2375107	7.839	-77.810	12.642	626.547	820.121	0.404	4.822	12.642	***4.486***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-01 4:00	2376007	7.835	-77.574	12.621	626.724	820.793	0.404	5.733	12.621	***4.440***
2021-09-01 4:15	2376907	7.831	-77.319	12.611	626.664	820.922	0.404	5.208	12.611	***4.425***
2021-09-01 4:30	2377807	7.826	-77.059	12.595	626.993	821.682	0.404	5.413	12.595	***4.382***
2021-09-01 4:45	2378707	7.823	-76.857	12.569	626.155	821.121	0.404	5.427	12.569	***4.292***
2021-09-01 5:00	2379607	7.817	-76.554	12.551	625.908	821.169	0.404	5.014	12.551	***4.245***
2021-09-01 5:15	2380507	7.817	-76.532	12.542	625.697	821.068	0.404	5.148	12.542	***4.226***
2021-09-01 5:30	2381407	7.817	-76.523	12.535	625.712	821.237	0.404	4.401	12.535	***4.210***
2021-09-01 5:45	2382307	7.818	-76.578	12.524	625.564	821.272	0.404	4.497	12.524	***4.169***
2021-09-01 6:00	2383207	7.818	-76.599	12.512	625.535	821.478	0.404	5.828	12.512	***4.089***
2021-09-01 6:15	2384107	7.819	-76.611	12.501	625.321	821.421	0.404	4.965	12.501	***4.020***
2021-09-01 6:30	2385007	7.819	-76.644	12.489	625.203	821.514	0.404	5.230	12.489	***3.992***
2021-09-01 6:45	2385907	7.820	-76.692	12.478	625.194	821.726	0.404	5.270	12.478	***3.965***
2021-09-01 7:00	2386807	7.820	-76.649	12.468	625.094	821.805	0.404	76.259	12.468	***3.921***
2021-09-01 7:15	2387707	7.821	-76.745	12.460	625.059	821.919	0.404	5.417	12.460	***3.886***
2021-09-01 7:30	2388607	7.821	-76.711	12.453	624.923	821.881	0.404	5.688	12.453	***3.826***
2021-09-01 7:45	2389507	7.818	-76.563	12.445	624.735	821.798	0.404	6.256	12.445	***3.765***
2021-09-01 8:00	2390407	7.819	-76.635	12.437	624.654	821.864	0.404	6.182	12.437	***3.708***
2021-09-01 8:15	2391307	7.817	-76.501	12.430	624.684	822.057	0.404	6.100	12.430	***3.667***
2021-09-01 8:30	2392207	7.820	-76.649	12.427	624.615	822.025	0.404	6.396	12.427	***3.648***
2021-09-01 8:45	2393107	7.820	-76.647	12.425	624.458	821.853	0.404	6.216	12.425	***3.593***
2021-09-01 9:00	2394007	7.818	-76.547	12.426	624.464	821.845	0.404	6.206	12.426	***3.550***
2021-09-01 9:15	2394907	7.819	-76.625	12.432	624.561	821.837	0.404	6.529	12.432	***3.538***
2021-09-01 9:30	2395807	7.819	-76.613	12.441	624.735	821.879	0.404	5.725	12.441	***3.483***
2021-09-01 9:45	2396707	7.824	-76.888	12.460	625.261	822.185	0.405	6.094	12.460	***3.387***
2021-09-01 10:00	2397607	7.825	-76.952	12.479	625.544	822.159	0.405	5.218	12.479	***3.332***
2021-09-01 10:15	2398507	7.827	-77.095	12.501	625.908	822.195	0.405	4.945	12.501	***3.290***
2021-09-01 10:30	2399407	7.828	-77.133	12.526	626.181	822.030	0.404	4.659	12.526	***3.279***
2021-09-01 10:45	2400307	7.828	-77.150	12.558	626.686	822.043	0.405	5.166	12.558	***3.330***
2021-09-01 11:00	2401207	7.826	-77.071	12.591	627.214	822.043	0.405	5.335	12.591	***3.414***
2021-09-01 11:15	2402107	7.825	-76.997	12.627	627.763	822.022	0.405	6.291	12.627	***3.490***
2021-09-01 11:30	2403007	7.820	-76.752	12.670	628.317	821.877	0.404	6.900	12.670	***3.569***
2021-09-01 11:45	2403907	7.823	-76.895	12.701	628.725	821.763	0.404	7.376	12.701	***3.658***
2021-09-01 12:00	2404807	7.827	-77.126	12.724	629.200	821.917	0.405	6.121	12.724	***3.728***
2021-09-01 12:15	2405707	7.827	-77.159	12.747	629.331	821.615	0.404	6.671	12.747	***3.758***
2021-09-01 12:30	2406607	7.823	-76.909	12.766	629.469	821.407	0.404	5.988	12.766	***3.746***
2021-09-01 12:45	2407507	7.815	-76.504	12.797	629.976	821.442	0.404	7.718	12.797	***3.731***
2021-09-01 13:00	2408407	7.814	-76.406	12.830	630.326	821.210	0.404	6.815	12.830	***3.783***
2021-09-01 13:15	2409307	7.814	-76.461	12.863	630.735	821.064	0.404	6.666	12.863	***3.858***
2021-09-01 13:30	2410207	7.818	-76.678	12.902	631.219	820.899	0.404	8.185	12.902	***3.935***
2021-09-01 13:45	2411107	7.825	-77.085	12.931	631.467	820.642	0.404	8.201	12.931	***4.040***
2021-09-01 14:00	2412007	7.834	-77.612	12.974	631.876	820.303	0.404	6.981	12.974	***4.141***
2021-09-01 14:15	2412907	7.847	-78.344	13.005	632.260	820.165	0.404	6.893	13.005	***4.209***
2021-09-01 14:30	2413807	7.856	-78.876	13.051	632.787	819.920	0.404	6.908	13.051	***4.336***
2021-09-01 14:45	2414707	7.860	-79.134	13.091	633.363	819.839	0.404	6.833	13.091	***4.444***
2021-09-01 15:00	2415607	7.860	-79.143	13.104	633.495	819.757	0.404	9.329	13.104	***4.502***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-01 15:15	2416507	7.849	-78.506	13.095	633.209	819.572	0.404	14.176	13.095	***4.550***
2021-09-01 15:30	2417407	7.854	-78.785	13.111	633.284	819.330	0.403	9.845	13.111	***4.340***
2021-09-01 15:45	2418307	7.862	-79.246	13.130	632.889	818.436	0.403	9.682	13.130	***4.335***
2021-09-01 16:00	2419207	7.859	-79.072	13.174	633.338	818.136	0.403	7.751	13.174	***4.365***
2021-09-01 16:15	2420107	7.870	-79.706	13.220	634.130	818.222	0.403	5.342	13.220	***4.515***
2021-09-01 16:30	2421007	7.879	-80.230	13.282	634.990	818.082	0.403	6.358	13.282	***4.746***
2021-09-01 16:45	2421907	7.854	-78.807	13.311	635.985	818.786	0.403	7.249	13.311	***4.410***
2021-09-01 17:00	2422807	7.853	-78.776	13.292	781.203	1006.212	0.500	11.016	13.292	8.346
2021-09-01 17:15	2423707	7.917	-82.428	13.307	852.067	1097.094	0.547	10.316	13.307	8.885
2021-09-01 17:30	2424607	7.951	-84.338	13.291	909.473	1171.448	0.585	12.801	13.291	8.799
2021-09-01 17:45	2425507	7.995	-86.854	13.292	950.190	1223.868	0.612	11.944	13.292	9.111
2021-09-01 18:00	2426407	7.999	-87.063	13.302	962.739	1239.741	0.621	9.049	13.302	8.956
2021-09-01 18:15	2427307	7.999	-87.094	13.305	976.300	1257.112	0.630	8.541	13.305	8.802
2021-09-01 18:30	2428207	8.000	-87.142	13.284	995.300	1282.224	0.643	11.403	13.284	8.785
2021-09-01 18:45	2429107	8.036	-89.154	13.205	1049.755	1355.033	0.681	11.132	13.205	9.107
2021-09-01 19:00	2430007	8.054	-90.182	13.166	1070.076	1382.588	0.695	10.858	13.166	8.784
2021-09-01 19:15	2430907	8.054	-90.132	13.146	1082.841	1399.750	0.704	8.798	13.146	8.626
2021-09-01 19:30	2431807	8.065	-90.749	13.109	1090.886	1411.437	0.711	9.269	13.109	8.521
2021-09-01 19:45	2432707	8.076	-91.410	13.086	1099.533	1423.440	0.717	9.283	13.086	8.391
2021-09-01 20:00	2433607	8.086	-91.922	13.036	1101.043	1427.186	0.719	8.202	13.036	8.275
2021-09-01 20:15	2434507	8.093	-92.347	13.017	1099.867	1426.326	0.718	8.053	13.017	8.183
2021-09-01 20:30	2435407	8.098	-92.580	12.958	1094.406	1421.307	0.716	7.927	12.958	8.068
2021-09-01 20:45	2436307	8.113	-93.396	12.902	1086.312	1412.766	0.711	7.748	12.902	7.970
2021-09-01 21:00	2437207	8.130	-94.364	12.820	1084.829	1413.708	0.711	6.854	12.820	7.937
2021-09-01 21:15	2438107	8.127	-94.194	12.804	1082.567	1411.339	0.710	6.641	12.804	7.919
2021-09-01 21:30	2439007	8.121	-93.853	12.769	1084.109	1414.564	0.712	6.362	12.769	7.825
2021-09-01 21:45	2439907	8.124	-93.954	12.698	1084.817	1417.994	0.714	7.321	12.698	7.751
2021-09-01 22:00	2440807	8.127	-94.147	12.676	1086.842	1421.420	0.715	7.074	12.676	7.866
2021-09-01 22:15	2441707	8.103	-92.740	12.601	1088.851	1426.715	0.718	7.403	12.601	7.539
2021-09-01 22:30	2442607	8.106	-92.890	12.553	1092.630	1433.418	0.721	8.356	12.553	7.359
2021-09-01 22:45	2443507	8.110	-93.155	12.519	1098.311	1442.101	0.726	8.097	12.519	7.373
2021-09-01 23:00	2444407	8.110	-93.117	12.494	1103.909	1450.332	0.730	7.832	12.494	7.603
2021-09-01 23:15	2445307	8.101	-92.618	12.473	1111.201	1460.680	0.736	7.450	12.473	7.727
2021-09-01 23:30	2446207	8.100	-92.514	12.441	1115.246	1467.182	0.739	6.666	12.441	7.736
2021-09-01 23:45	2447108	8.099	-92.480	12.421	1117.764	1471.254	0.741	7.763	12.421	7.734
2021-09-02 0:00	2448008	8.103	-92.685	12.394	1120.853	1476.299	0.744	7.002	12.394	7.717
2021-09-02 0:15	2448908	8.105	-92.812	12.364	1123.108	1480.393	0.746	7.878	12.364	7.732
2021-09-02 0:30	2449808	8.108	-92.959	12.346	1123.464	1481.529	0.747	7.186	12.346	7.702
2021-09-02 0:45	2450708	8.104	-92.721	12.322	1123.847	1482.944	0.747	7.644	12.322	7.645
2021-09-02 1:00	2451608	8.104	-92.721	12.299	1124.504	1484.673	0.748	7.546	12.299	7.531
2021-09-02 1:15	2452508	8.106	-92.795	12.278	1126.443	1488.009	0.750	7.728	12.278	7.482
2021-09-02 1:30	2453408	8.103	-92.630	12.260	1125.858	1487.922	0.750	7.003	12.260	7.418
2021-09-02 1:45	2454308	8.106	-92.795	12.236	1126.808	1490.072	0.751	6.683	12.236	7.356
2021-09-02 2:00	2455208	8.099	-92.380	12.221	1127.161	1491.119	0.751	6.537	12.221	7.323
2021-09-02 2:15	2456108	8.094	-92.096	12.189	1126.846	1491.909	0.752	6.925	12.189	7.242

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-02 2:30	2457008	8.083	-91.486	12.139	1126.072	1492.757	0.752	6.900	12.139	7.115
2021-09-02 2:45	2457908	8.082	-91.412	12.079	1125.577	1494.362	0.753	6.871	12.079	7.071
2021-09-02 3:00	2458808	8.083	-91.455	12.035	1125.418	1495.842	0.754	7.081	12.035	7.087
2021-09-02 3:15	2459708	8.077	-91.059	11.979	1124.615	1496.887	0.754	7.216	11.979	7.069
2021-09-02 3:30	2460608	8.075	-90.928	11.907	1123.986	1498.782	0.755	7.222	11.907	7.103
2021-09-02 3:45	2461508	8.081	-91.252	11.852	1122.115	1498.400	0.755	7.017	11.852	7.159
2021-09-02 4:00	2462408	8.079	-91.124	11.796	1122.563	1501.137	0.756	6.590	11.796	7.189
2021-09-02 4:15	2463308	8.075	-90.871	11.723	1121.117	1501.997	0.756	6.477	11.723	7.186
2021-09-02 4:30	2464208	8.070	-90.592	11.658	1119.822	1502.764	0.757	6.600	11.658	7.191
2021-09-02 4:45	2465108	8.068	-90.470	11.601	1118.162	1502.737	0.757	6.789	11.601	7.207
2021-09-02 5:00	2466008	8.067	-90.396	11.552	1117.062	1503.171	0.757	6.486	11.552	7.226
2021-09-02 5:15	2466908	8.067	-90.377	11.485	1115.413	1503.524	0.757	6.959	11.485	7.201
2021-09-02 5:30	2467808	8.058	-89.812	11.412	1113.477	1503.758	0.757	7.223	11.412	7.185
2021-09-02 5:45	2468708	8.054	-89.557	11.349	1110.910	1502.705	0.756	7.139	11.349	7.169
2021-09-02 6:00	2469608	8.050	-89.316	11.295	1110.545	1504.317	0.757	7.225	11.295	7.125
2021-09-02 6:15	2470508	8.049	-89.285	11.235	1106.776	1501.545	0.756	6.890	11.235	7.110
2021-09-02 6:30	2471408	8.047	-89.142	11.171	1106.898	1504.209	0.757	7.635	11.171	7.084
2021-09-02 6:45	2472308	8.038	-88.613	11.079	1104.156	1504.066	0.757	7.219	11.079	7.072
2021-09-02 7:00	2473208	8.034	-88.325	11.015	1102.125	1503.801	0.756	7.704	11.015	7.104
2021-09-02 7:15	2474108	8.048	-89.128	10.950	1099.934	1503.380	0.756	7.417	10.950	7.107
2021-09-02 7:30	2475008	8.059	-89.688	10.865	1097.554	1503.449	0.756	7.656	10.865	7.162
2021-09-02 7:45	2475908	8.061	-89.781	10.790	1094.884	1502.762	0.755	7.719	10.790	7.226
2021-09-02 8:00	2476808	8.050	-89.183	10.727	1092.798	1502.372	0.755	7.865	10.727	7.259
2021-09-02 8:15	2477708	8.046	-88.928	10.671	1091.150	1502.312	0.755	7.242	10.671	7.294
2021-09-02 8:30	2478608	8.054	-89.338	10.620	1089.528	1502.073	0.755	7.041	10.620	7.304
2021-09-02 8:45	2479508	8.050	-89.114	10.557	1087.888	1502.315	0.755	7.745	10.557	7.311
2021-09-02 9:00	2480408	8.053	-89.269	10.527	1086.981	1502.258	0.755	7.505	10.527	7.292
2021-09-02 9:15	2481308	8.059	-89.579	10.485	1085.326	1501.649	0.754	7.077	10.485	7.216
2021-09-02 9:30	2482208	8.066	-89.955	10.446	1083.365	1500.454	0.754	6.913	10.446	7.195
2021-09-02 9:45	2483108	8.067	-90.003	10.406	1081.658	1499.695	0.753	15.369	10.406	7.263
2021-09-02 10:00	2484008	8.066	-89.941	10.375	1079.800	1498.355	0.752	6.452	10.375	7.345
2021-09-02 10:15	2484908	8.068	-90.053	10.361	1078.148	1496.614	0.752	6.502	10.361	7.387
2021-09-02 10:30	2485808	8.067	-89.993	10.351	1077.381	1495.950	0.751	6.027	10.351	7.381
2021-09-02 10:45	2486708	8.062	-89.738	10.349	1076.455	1494.746	0.751	6.193	10.349	7.350
2021-09-02 11:00	2487608	8.060	-89.610	10.338	1075.537	1493.902	0.750	6.107	10.338	7.320
2021-09-02 11:15	2488508	8.058	-89.467	10.338	1074.698	1492.712	0.749	6.143	10.338	7.303
2021-09-02 11:30	2489408	8.053	-89.226	10.354	1072.464	1488.981	0.748	5.957	10.354	7.284
2021-09-02 11:45	2490308	8.053	-89.216	10.368	1073.892	1490.421	0.748	5.569	10.368	7.255
2021-09-02 12:00	2491208	8.052	-89.176	10.388	1073.756	1489.451	0.748	6.079	10.388	7.224
2021-09-02 12:15	2492108	8.049	-89.014	10.434	1073.615	1487.430	0.747	6.390	10.434	7.182
2021-09-02 12:30	2493008	8.047	-88.918	10.492	1074.200	1485.976	0.746	6.493	10.492	7.138
2021-09-02 12:45	2493908	8.049	-89.056	10.546	1075.096	1485.089	0.746	6.744	10.546	7.150
2021-09-02 13:00	2494808	8.049	-89.092	10.601	1075.891	1484.049	0.745	6.689	10.601	7.200
2021-09-02 13:15	2495708	8.045	-88.856	10.689	1077.131	1482.309	0.745	6.601	10.689	7.282
2021-09-02 13:30	2496608	8.042	-88.761	10.811	1079.586	1480.932	0.744	6.633	10.811	7.361

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-02 13:45	2497508	8.040	-88.696	10.953	1080.698	1476.960	0.742	6.326	10.953	7.490
2021-09-02 14:00	2498408	8.062	-89.979	11.112	1083.137	1474.171	0.741	6.989	11.112	7.642
2021-09-02 14:15	2499308	8.042	-88.894	11.311	1086.323	1470.890	0.740	7.046	11.311	7.921
2021-09-02 14:30	2500208	8.062	-90.101	11.590	1090.425	1465.885	0.737	7.351	11.590	8.103
2021-09-02 14:45	2501108	8.058	-89.967	11.852	1094.605	1461.685	0.735	7.381	11.852	8.324
2021-09-02 15:00	2502008	8.053	-89.748	12.069	1098.162	1458.330	0.734	6.812	12.069	8.424
2021-09-02 15:15	2502908	8.068	-90.680	12.296	1102.664	1455.935	0.733	6.649	12.296	8.449
2021-09-02 15:30	2503808	8.064	-90.511	12.483	1106.792	1454.531	0.733	6.627	12.483	8.416
2021-09-02 15:45	2504708	8.061	-90.435	12.711	1112.366	1453.541	0.732	6.767	12.711	8.379
2021-09-02 16:00	2505608	8.063	-90.568	12.885	1116.419	1452.535	0.732	6.310	12.885	8.370
2021-09-02 16:15	2506508	8.065	-90.737	13.043	1120.273	1451.859	0.732	6.580	13.043	8.341
2021-09-02 16:30	2507408	8.067	-90.895	13.187	1124.112	1451.631	0.732	6.156	13.187	8.367
2021-09-02 16:45	2508308	8.074	-91.355	13.289	1126.699	1451.323	0.732	6.363	13.289	8.355
2021-09-02 17:00	2509208	8.078	-91.622	13.415	1129.771	1450.797	0.732	6.504	13.415	8.311
2021-09-02 17:15	2510108	8.082	-91.865	13.499	1131.894	1450.516	0.732	6.166	13.499	8.292
2021-09-02 17:30	2511008	8.077	-91.586	13.505	1132.070	1450.543	0.732	6.844	13.505	8.217
2021-09-02 17:45	2511908	8.079	-91.677	13.545	1134.782	1452.596	0.733	7.429	13.545	7.852
2021-09-02 18:00	2512808	8.081	-91.841	13.638	1137.401	1452.630	0.733	6.847	13.638	7.543
2021-09-02 18:15	2513708	8.084	-92.061	13.726	1140.587	1453.581	0.733	6.515	13.726	7.433
2021-09-02 18:30	2514608	8.092	-92.514	13.791	1142.540	1453.790	0.734	6.303	13.791	7.432
2021-09-02 18:45	2515508	8.094	-92.652	13.828	1143.779	1454.039	0.734	6.243	13.828	7.427
2021-09-02 19:00	2516408	8.100	-93.002	13.854	1144.800	1454.436	0.734	6.290	13.854	7.464
2021-09-02 19:15	2517308	8.100	-92.976	13.854	1144.758	1454.386	0.734	6.199	13.854	7.463
2021-09-02 19:30	2518208	8.099	-92.955	13.849	1144.590	1454.328	0.734	6.399	13.849	7.484
2021-09-02 19:45	2519108	8.088	-92.301	13.831	1143.153	1453.149	0.733	5.878	13.831	7.690
2021-09-02 20:00	2520008	8.090	-92.435	13.804	1142.183	1452.883	0.733	7.635	13.804	7.889
2021-09-02 20:15	2520908	8.100	-92.971	13.755	1141.810	1454.118	0.734	7.314	13.755	8.041
2021-09-02 20:30	2521808	8.107	-93.346	13.731	1141.642	1454.746	0.734	7.000	13.731	8.177
2021-09-02 20:45	2522708	8.105	-93.200	13.671	1140.157	1454.981	0.734	7.905	13.671	8.073
2021-09-02 21:00	2523608	8.103	-93.088	13.634	1139.187	1455.061	0.734	7.562	13.634	8.095
2021-09-02 21:15	2524508	8.104	-93.122	13.612	1140.190	1457.122	0.735	7.444	13.612	8.090
2021-09-02 21:30	2525408	8.113	-93.656	13.589	1137.797	1454.895	0.734	7.167	13.589	8.103
2021-09-02 21:45	2526308	8.104	-93.131	13.543	1136.914	1455.385	0.734	7.602	13.543	7.946
2021-09-02 22:00	2527208	8.114	-93.672	13.498	1136.145	1456.022	0.734	7.515	13.498	7.827
2021-09-02 22:15	2528108	8.121	-94.080	13.470	1134.925	1455.437	0.734	7.455	13.470	7.702
2021-09-02 22:30	2529008	8.120	-93.985	13.450	1135.189	1456.515	0.735	7.378	13.450	7.628
2021-09-02 22:45	2529908	8.102	-92.940	13.386	1132.247	1455.000	0.734	8.047	13.386	7.624
2021-09-02 23:00	2530808	8.107	-93.215	13.378	1134.317	1457.956	0.735	8.283	13.378	7.792
2021-09-02 23:15	2531708	8.115	-93.672	13.364	1134.345	1458.490	0.736	8.206	13.364	7.750
2021-09-02 23:30	2532608	8.131	-94.569	13.332	1133.279	1458.251	0.735	7.934	13.332	7.694
2021-09-02 23:45	2533508	8.128	-94.390	13.299	1131.975	1457.774	0.735	7.907	13.299	7.571
2021-09-03 0:00	2534408	8.114	-93.613	13.248	1130.389	1457.545	0.735	7.442	13.248	7.451
2021-09-03 0:15	2535308	8.110	-93.327	13.188	1128.622	1457.441	0.735	8.503	13.188	7.534
2021-09-03 0:30	2536208	8.101	-92.795	13.142	1127.143	1457.176	0.735	8.346	13.142	7.603
2021-09-03 0:45	2537108	8.096	-92.549	13.098	1125.908	1457.153	0.735	8.041	13.098	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#: 723090 pH (pH)	Sensor: pH/ORP SN#: 723090 pH(mV) (mV)	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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-03 1:00	2538008	8.092	-92.263	13.017	1123.560	1457.045	0.734	7.322	13.017	7.558
2021-09-03 1:15	2538908	8.102	-92.809	12.951	1120.581	1455.558	0.734	8.718	12.951	7.509
2021-09-03 1:30	2539808	8.105	-92.998	12.910	1120.260	1456.639	0.734	7.837	12.910	7.517
2021-09-03 1:45	2540708	8.098	-92.535	12.870	1118.851	1456.225	0.734	7.438	12.870	7.420
2021-09-03 2:00	2541608	8.092	-92.168	12.787	1115.853	1455.337	0.733	8.248	12.787	7.375
2021-09-03 2:15	2542508	8.089	-92.020	12.717	1114.268	1455.799	0.733	7.496	12.717	7.360
2021-09-03 2:30	2543408	8.090	-92.046	12.639	1111.844	1455.462	0.733	8.846	12.639	7.314
2021-09-03 2:45	2544308	8.093	-92.185	12.584	1110.351	1455.508	0.733	7.653	12.584	7.305
2021-09-03 3:00	2545208	8.084	-91.672	12.517	1108.177	1455.103	0.733	8.792	12.517	7.204
2021-09-03 3:15	2546108	8.085	-91.674	12.436	1106.935	1456.448	0.733	8.940	12.436	7.202
2021-09-03 3:30	2547008	8.085	-91.691	12.391	1106.734	1457.814	0.734	155.309	12.391	7.240
2021-09-03 3:45	2547908	8.084	-91.603	12.342	1105.991	1458.651	0.734	9.241	12.342	7.270
2021-09-03 4:00	2548808	8.084	-91.600	12.296	1105.016	1459.057	0.735	8.787	12.296	7.274
2021-09-03 4:15	2549708	8.084	-91.558	12.254	1103.950	1459.192	0.735	9.534	12.254	7.262
2021-09-03 4:30	2550608	8.080	-91.305	12.193	1102.464	1459.453	0.735	8.610	12.193	7.239
2021-09-03 4:45	2551508	8.079	-91.226	12.138	1100.648	1459.090	0.734	7.741	12.138	7.237
2021-09-03 5:00	2552408	8.076	-91.054	12.057	1098.645	1459.435	0.735	12.804	12.057	7.266
2021-09-03 5:15	2553308	8.073	-90.866	11.998	1096.853	1459.248	0.734	8.741	11.998	7.278
2021-09-03 5:30	2554208	8.064	-90.313	11.923	1093.794	1457.949	0.734	8.832	11.923	7.231
2021-09-03 5:45	2555108	8.062	-90.215	11.856	1092.677	1458.944	0.734	10.468	11.856	7.175
2021-09-03 6:00	2556008	8.062	-90.187	11.801	1090.928	1458.653	0.734	8.814	11.801	7.116
2021-09-03 6:15	2556908	8.061	-90.098	11.738	1089.025	1458.457	0.734	10.557	11.738	7.144
2021-09-03 6:30	2557808	8.060	-90.039	11.687	1087.635	1458.510	0.734	7.940	11.687	7.139
2021-09-03 6:45	2558708	8.059	-89.929	11.618	1085.796	1458.607	0.734	164.224	11.618	7.114
2021-09-03 7:00	2559608	8.059	-89.917	11.559	1084.295	1458.802	0.734	8.452	11.559	7.057
2021-09-03 7:15	2560508	8.051	-89.488	11.493	1082.690	1459.128	0.734	9.056	11.493	7.057
2021-09-03 7:30	2561408	8.055	-89.676	11.449	1081.494	1459.160	0.734	8.985	11.449	7.059
2021-09-03 7:45	2562308	8.054	-89.598	11.391	1079.968	1459.282	0.734	8.805	11.391	7.042
2021-09-03 8:00	2563208	8.049	-89.319	11.328	1078.330	1459.427	0.734	9.117	11.328	7.074
2021-09-03 8:15	2564108	8.043	-88.949	11.257	1076.356	1459.444	0.733	8.430	11.257	7.084
2021-09-03 8:30	2565008	8.040	-88.761	11.192	1074.646	1459.589	0.733	12.113	11.192	7.096
2021-09-03 8:45	2565908	8.040	-88.749	11.146	1073.321	1459.534	0.733	9.797	11.146	7.085
2021-09-03 9:00	2566808	8.037	-88.561	11.094	1071.899	1459.558	0.733	9.110	11.094	7.084
2021-09-03 9:15	2567708	8.038	-88.573	11.058	1070.900	1459.557	0.733	9.007	11.058	7.073
2021-09-03 9:30	2568608	8.035	-88.437	11.028	1069.933	1459.397	0.733	8.843	11.028	7.047
2021-09-03 9:45	2569508	8.032	-88.224	11.008	1069.448	1459.498	0.733	8.710	11.008	7.047
2021-09-03 10:00	2570408	8.031	-88.165	10.998	1069.271	1459.641	0.733	8.732	10.998	7.059
2021-09-03 10:15	2571308	8.036	-88.429	10.991	1068.808	1459.283	0.733	8.677	10.991	7.118
2021-09-03 10:30	2572208	8.040	-88.701	10.976	1068.489	1459.393	0.733	8.592	10.976	7.142
2021-09-03 10:45	2573108	8.040	-88.685	10.975	1068.534	1459.508	0.733	8.322	10.975	7.139
2021-09-03 11:00	2574008	8.040	-88.658	10.986	1068.749	1459.373	0.733	7.926	10.986	7.134
2021-09-03 11:15	2574908	8.041	-88.727	11.001	1068.842	1458.920	0.733	7.814	11.001	7.158
2021-09-03 11:30	2575808	8.039	-88.656	11.028	1069.736	1459.145	0.733	7.841	11.028	7.155
2021-09-03 11:45	2576708	8.034	-88.379	11.062	1070.532	1458.926	0.733	7.422	11.062	7.146
2021-09-03 12:00	2577608	8.030	-88.186	11.120	1072.111	1458.861	0.733	7.586	11.120	7.147

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-03 12:15	2578508	8.021	-87.674	11.175	1073.102	1458.123	0.733	7.514	11.175	7.120
2021-09-03 12:30	2579408	8.004	-86.701	11.231	1074.174	1457.470	0.732	7.645	11.231	7.085
2021-09-03 12:45	2580308	7.989	-85.924	11.285	1075.215	1456.833	0.732	7.707	11.285	7.041
2021-09-03 13:00	2581208	8.003	-86.684	11.358	1076.025	1455.212	0.731	8.248	11.358	7.003
2021-09-03 13:15	2582108	8.018	-87.569	11.441	1076.679	1452.951	0.730	8.479	11.441	7.074
2021-09-03 13:30	2583008	8.023	-87.874	11.551	1077.591	1450.080	0.729	8.666	11.551	7.284
2021-09-03 13:45	2583908	8.025	-88.058	11.686	1079.195	1447.203	0.728	9.196	11.686	7.522
2021-09-03 14:00	2584808	8.031	-88.444	11.884	1083.475	1445.623	0.727	8.310	11.884	7.723
2021-09-03 14:15	2585708	8.043	-89.197	12.113	1087.762	1442.914	0.726	8.821	12.113	7.833
2021-09-03 14:30	2586608	8.046	-89.426	12.354	1092.125	1439.934	0.725	8.842	12.354	8.000
2021-09-03 14:45	2587508	8.043	-89.376	12.597	1096.906	1437.413	0.724	8.811	12.597	8.116
2021-09-03 15:00	2588408	8.036	-89.045	12.830	1102.049	1435.795	0.723	8.307	12.830	8.216
2021-09-03 15:15	2589308	8.037	-89.171	13.028	1106.503	1434.540	0.723	8.681	13.028	8.265
2021-09-03 15:30	2590208	8.041	-89.412	13.202	1110.844	1433.985	0.723	8.553	13.202	8.254
2021-09-03 15:45	2591108	8.038	-89.359	13.433	1116.552	1433.188	0.722	8.498	13.433	8.189
2021-09-03 16:00	2592009	8.041	-89.552	13.673	1123.359	1433.476	0.723	8.137	13.673	8.156
2021-09-03 16:15	2592909	8.056	-90.461	13.803	1126.578	1433.049	0.723	7.797	13.803	8.143
2021-09-03 16:30	2593809	8.059	-90.694	13.908	1129.945	1433.679	0.723	7.913	13.908	8.052
2021-09-03 16:45	2594709	8.057	-90.630	14.037	1133.660	1433.912	0.723	8.010	14.037	7.982
2021-09-03 17:00	2595609	8.055	-90.501	14.153	1136.916	1434.006	0.724	8.185	14.153	7.921
2021-09-03 17:15	2596509	8.067	-91.240	14.251	1140.203	1434.776	0.724	8.467	14.251	7.889
2021-09-03 17:30	2597409	8.073	-91.619	14.324	1142.254	1434.842	0.724	8.965	14.324	7.751
2021-09-03 17:45	2598309	8.073	-91.643	14.364	1144.421	1436.162	0.725	9.360	14.364	7.569
2021-09-03 18:00	2599209	8.076	-91.832	14.428	1146.458	1436.526	0.725	9.239	14.428	7.345
2021-09-03 18:15	2600109	8.076	-91.820	14.499	1149.342	1437.690	0.726	9.050	14.499	7.426
2021-09-03 18:30	2601009	8.077	-91.882	14.558	1151.572	1438.450	0.726	9.005	14.558	7.530
2021-09-03 18:45	2601909	8.080	-92.111	14.597	1152.988	1438.885	0.727	9.003	14.597	7.598
2021-09-03 19:00	2602809	8.082	-92.232	14.618	1154.478	1440.040	0.727	8.644	14.618	7.675
2021-09-03 19:15	2603709	8.085	-92.397	14.570	1154.343	1441.524	0.728	8.517	14.570	7.692
2021-09-03 19:30	2604609	8.068	-91.393	14.540	1154.189	1442.334	0.728	8.003	14.540	7.598
2021-09-03 19:45	2605509	8.069	-91.426	14.536	1154.668	1443.087	0.729	8.742	14.536	7.630
2021-09-03 20:00	2606409	8.056	-90.683	14.522	1154.921	1443.887	0.729	8.166	14.522	7.665
2021-09-03 20:15	2607309	8.045	-90.086	14.509	1154.718	1444.085	0.729	8.477	14.509	7.763
2021-09-03 20:30	2608209	8.036	-89.536	14.481	1154.862	1445.234	0.730	7.644	14.481	7.832
2021-09-03 20:45	2609109	8.049	-90.280	14.434	1154.001	1445.789	0.730	7.832	14.434	7.792
2021-09-03 21:00	2610009	8.061	-90.945	14.386	1153.132	1446.358	0.730	8.164	14.386	7.740
2021-09-03 21:15	2610909	8.069	-91.400	14.357	1152.808	1446.937	0.731	8.322	14.357	7.684
2021-09-03 21:30	2611809	8.079	-91.922	14.294	1151.500	1447.476	0.731	8.182	14.294	7.627
2021-09-03 21:45	2612709	8.101	-93.210	14.277	1151.692	1448.327	0.731	9.311	14.277	7.531
2021-09-03 22:00	2613609	8.097	-92.938	14.247	1151.613	1449.269	0.732	8.680	14.247	7.550
2021-09-03 22:15	2614509	8.088	-92.390	14.165	1149.156	1449.041	0.731	8.648	14.165	7.500
2021-09-03 22:30	2615409	8.100	-93.055	14.117	1148.966	1450.453	0.732	9.128	14.117	7.496
2021-09-03 22:45	2616309	8.117	-94.047	14.084	1148.384	1450.880	0.732	8.826	14.084	7.484
2021-09-03 23:00	2617209	8.108	-93.498	14.017	1147.048	1451.556	0.733	9.320	14.017	7.481
2021-09-03 23:15	2618109	8.109	-93.548	13.965	1145.558	1451.475	0.733	9.202	13.965	7.449

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-03 23:30	2619009	8.105	-93.274	13.915	1144.706	1452.146	0.733	9.725	13.915	7.425
2021-09-03 23:45	2619909	8.099	-92.962	13.853	1143.369	1452.660	0.733	10.030	13.853	7.398
2021-09-04 0:00	2620809	8.099	-92.947	13.800	1142.188	1453.006	0.733	9.852	13.800	7.375
2021-09-04 0:15	2621709	8.090	-92.378	13.738	1140.830	1453.497	0.733	10.177	13.738	7.335
2021-09-04 0:30	2622609	8.081	-91.848	13.667	1139.214	1453.940	0.734	9.689	13.667	7.222
2021-09-04 0:45	2623509	8.091	-92.416	13.616	1138.247	1454.498	0.734	9.598	13.616	7.211
2021-09-04 1:00	2624409	8.099	-92.824	13.581	1138.098	1455.556	0.734	9.031	13.581	7.219
2021-09-04 1:15	2625309	8.091	-92.382	13.510	1135.792	1455.148	0.734	8.999	13.510	7.174
2021-09-04 1:30	2626209	8.089	-92.218	13.396	1133.644	1456.431	0.735	9.778	13.396	7.165
2021-09-04 1:45	2627109	8.096	-92.571	13.337	1132.276	1456.791	0.735	9.212	13.337	7.195
2021-09-04 2:00	2628009	8.093	-92.440	13.285	1130.669	1456.587	0.735	9.187	13.285	7.175
2021-09-04 2:15	2628909	8.088	-92.127	13.211	1128.577	1456.552	0.734	10.004	13.211	7.167
2021-09-04 2:30	2629809	8.082	-91.732	13.147	1126.586	1456.281	0.734	9.906	13.147	7.148
2021-09-04 2:45	2630709	8.079	-91.515	13.055	1124.223	1456.544	0.734	10.000	13.055	7.137
2021-09-04 3:00	2631609	8.084	-91.820	13.006	1122.984	1456.707	0.734	9.684	13.006	7.131
2021-09-04 3:15	2632509	8.085	-91.839	12.942	1120.813	1456.178	0.734	9.969	12.942	7.126
2021-09-04 3:30	2633409	8.074	-91.205	12.858	1118.782	1456.578	0.734	9.129	12.858	7.109
2021-09-04 3:45	2634309	8.072	-91.069	12.784	1116.844	1456.726	0.734	9.626	12.784	7.147
2021-09-04 4:00	2635209	8.081	-91.534	12.744	1116.283	1457.461	0.734	9.147	12.744	7.170
2021-09-04 4:15	2636109	8.090	-92.030	12.697	1115.109	1457.641	0.734	8.956	12.697	7.175
2021-09-04 4:30	2637009	8.084	-91.689	12.631	1113.108	1457.409	0.734	9.633	12.631	7.170
2021-09-04 4:45	2637909	8.078	-91.310	12.558	1110.823	1457.090	0.734	9.389	12.558	7.147
2021-09-04 5:00	2638809	8.068	-90.759	12.497	1109.229	1457.214	0.734	10.800	12.497	7.157
2021-09-04 5:15	2639709	8.056	-90.020	12.431	1107.043	1456.748	0.734	11.026	12.431	7.135
2021-09-04 5:30	2640609	8.059	-90.208	12.363	1105.107	1456.725	0.734	8.643	12.363	7.104
2021-09-04 5:45	2641509	8.063	-90.377	12.315	1103.728	1456.654	0.733	9.728	12.315	7.023
2021-09-04 6:00	2642409	8.063	-90.363	12.264	1102.138	1456.432	0.733	8.702	12.264	7.024
2021-09-04 6:15	2643309	8.064	-90.423	12.204	1100.935	1457.050	0.733	9.837	12.204	7.010
2021-09-04 6:30	2644209	8.064	-90.377	12.134	1099.012	1457.084	0.733	10.459	12.134	7.019
2021-09-04 6:45	2645109	8.060	-90.151	12.067	1097.224	1457.166	0.733	9.226	12.067	7.058
2021-09-04 7:00	2646009	8.054	-89.808	12.007	1095.507	1457.111	0.733	9.324	12.007	7.052
2021-09-04 7:15	2646909	8.048	-89.428	11.938	1093.456	1456.954	0.733	9.337	11.938	7.070
2021-09-04 7:30	2647809	8.044	-89.166	11.867	1088.974	1453.577	0.731	9.377	11.867	7.032
2021-09-04 7:45	2648709	8.042	-89.073	11.802	1089.451	1456.629	0.733	9.745	11.802	6.974
2021-09-04 8:00	2649609	8.037	-88.763	11.746	1087.753	1456.443	0.733	9.815	11.746	6.919
2021-09-04 8:15	2650509	8.034	-88.561	11.702	1086.316	1456.159	0.732	9.785	11.702	6.898
2021-09-04 8:30	2651409	8.035	-88.634	11.667	1085.207	1455.986	0.732	9.574	11.667	6.856
2021-09-04 8:45	2652309	8.045	-89.183	11.639	1082.298	1453.141	0.731	9.463	11.639	6.816
2021-09-04 9:00	2653209	8.055	-89.712	11.602	1082.694	1455.038	0.732	9.174	11.602	6.854
2021-09-04 9:15	2654109	8.050	-89.412	11.563	1081.288	1454.605	0.731	9.405	11.563	6.901
2021-09-04 9:30	2655009	8.050	-89.405	11.543	1078.561	1451.683	0.730	9.364	11.543	6.936
2021-09-04 9:45	2655909	8.036	-88.601	11.533	1080.056	1454.078	0.731	8.809	11.533	6.862
2021-09-04 10:00	2656809	8.038	-88.761	11.552	1080.300	1453.696	0.731	9.151	11.552	6.789
2021-09-04 10:15	2657709	8.043	-89.042	11.566	1080.405	1453.291	0.731	9.253	11.566	6.794
2021-09-04 10:30	2658609	8.049	-89.390	11.578	1081.078	1453.772	0.731	9.108	11.578	6.812

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-04 10:45	2659509	8.058	-89.884	11.590	1081.307	1453.637	0.731	8.724	11.590	6.784
2021-09-04 11:00	2660409	8.055	-89.729	11.614	1081.605	1453.141	0.731	8.369	11.614	6.755
2021-09-04 11:15	2661309	8.052	-89.560	11.639	1082.857	1453.891	0.731	8.450	11.639	6.788
2021-09-04 11:30	2662209	8.047	-89.302	11.674	1084.172	1454.325	0.731	8.442	11.674	6.826
2021-09-04 11:45	2663109	8.053	-89.643	11.718	1084.810	1453.565	0.731	8.392	11.718	6.862
2021-09-04 12:00	2664009	8.054	-89.712	11.783	1086.443	1453.310	0.731	8.279	11.783	6.954
2021-09-04 12:15	2664909	8.059	-90.032	11.839	1088.162	1453.557	0.731	8.087	11.839	7.018
2021-09-04 12:30	2665809	8.061	-90.144	11.894	1089.585	1453.412	0.731	8.131	11.894	7.108
2021-09-04 12:45	2666709	8.065	-90.387	11.956	1091.155	1453.205	0.731	7.887	11.956	7.149
2021-09-04 13:00	2667609	8.070	-90.678	12.024	1092.894	1452.998	0.731	8.016	12.024	7.224
2021-09-04 13:15	2668509	8.072	-90.821	12.105	1093.780	1451.219	0.730	8.033	12.105	7.395
2021-09-04 13:30	2669409	8.063	-90.344	12.169	1096.867	1452.955	0.731	8.185	12.169	7.516
2021-09-04 13:45	2670309	8.068	-90.661	12.235	1098.695	1452.940	0.731	8.087	12.235	7.548
2021-09-04 14:00	2671209	8.084	-91.586	12.336	1101.172	1452.520	0.731	8.290	12.336	7.543
2021-09-04 14:15	2672109	8.067	-90.640	12.413	1103.092	1452.223	0.731	8.348	12.413	7.641
2021-09-04 14:30	2673009	8.086	-91.765	12.501	1105.821	1452.602	0.732	8.238	12.501	7.732
2021-09-04 14:45	2673909	8.087	-91.870	12.593	1107.906	1451.999	0.731	8.157	12.593	7.812
2021-09-04 15:00	2674809	8.077	-91.336	12.690	1110.618	1452.009	0.731	8.132	12.690	7.911
2021-09-04 15:15	2675709	8.072	-91.076	12.781	1112.878	1451.661	0.731	8.072	12.781	7.993
2021-09-04 15:30	2676609	8.099	-92.618	12.874	1115.660	1451.943	0.732	8.164	12.874	7.992
2021-09-04 15:45	2677509	8.093	-92.282	12.961	1118.276	1452.187	0.732	8.077	12.961	8.010
2021-09-04 16:00	2678409	8.072	-91.164	13.043	1120.350	1451.928	0.732	8.444	13.043	8.101
2021-09-04 16:15	2679309	8.064	-90.718	13.115	1122.516	1452.158	0.732	8.427	13.115	8.139
2021-09-04 16:30	2680209	8.085	-91.939	13.178	1123.995	1451.800	0.732	8.280	13.178	8.104
2021-09-04 16:45	2681109	8.099	-92.728	13.245	1125.577	1451.449	0.732	8.454	13.245	8.096
2021-09-04 17:00	2682009	8.102	-92.926	13.314	1127.029	1450.878	0.732	8.688	13.314	8.217
2021-09-04 17:15	2682909	8.099	-92.773	13.382	1128.990	1450.964	0.732	8.458	13.382	8.309
2021-09-04 17:30	2683809	8.087	-92.108	13.429	1130.138	1450.775	0.732	8.873	13.429	8.445
2021-09-04 17:45	2684709	8.088	-92.182	13.474	1131.304	1450.645	0.732	8.787	13.474	8.444
2021-09-04 18:00	2685609	8.089	-92.285	13.513	1132.139	1450.334	0.731	8.371	13.513	8.350
2021-09-04 18:15	2686509	8.084	-92.008	13.547	1132.542	1449.674	0.731	8.848	13.547	8.280
2021-09-04 18:30	2687409	8.084	-91.996	13.573	1133.135	1449.496	0.731	8.537	13.573	8.230
2021-09-04 18:45	2688309	8.084	-92.027	13.609	1134.024	1449.375	0.731	8.778	13.609	8.199
2021-09-04 19:00	2689209	8.082	-91.915	13.639	1134.340	1448.716	0.731	8.391	13.639	8.185
2021-09-04 19:15	2690109	8.082	-91.898	13.675	1135.138	1448.449	0.731	8.621	13.675	8.139
2021-09-04 19:30	2691009	8.083	-91.994	13.711	1136.085	1448.388	0.731	8.857	13.711	8.049
2021-09-04 19:45	2691909	8.076	-91.593	13.736	1136.708	1448.305	0.731	8.666	13.736	7.987
2021-09-04 20:00	2692809	8.074	-91.496	13.763	1137.230	1448.029	0.731	9.027	13.763	7.946
2021-09-04 20:15	2693709	8.074	-91.510	13.789	1137.585	1447.545	0.730	8.887	13.789	7.928
2021-09-04 20:30	2694609	8.073	-91.448	13.806	1138.251	1447.798	0.730	9.025	13.806	7.856
2021-09-04 20:45	2695509	8.068	-91.155	13.818	1138.436	1447.608	0.730	8.752	13.818	7.791
2021-09-04 21:00	2696409	8.071	-91.310	13.828	1138.433	1447.245	0.730	8.841	13.828	7.675
2021-09-04 21:15	2697309	8.074	-91.522	13.834	1138.738	1447.418	0.730	9.025	13.834	7.558
2021-09-04 21:30	2698209	8.067	-91.124	13.833	1138.733	1447.468	0.730	9.080	13.833	7.428
2021-09-04 21:45	2699109	8.077	-91.660	13.831	1138.452	1447.162	0.730	10.029	13.831	7.198

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-04 22:00	2700009	8.089	-92.342	13.825	1138.682	1447.679	0.730	9.961	13.825	7.035
2021-09-04 22:15	2700909	8.115	-93.822	13.819	1138.282	1447.396	0.730	10.680	13.819	6.709
2021-09-04 22:30	2701809	8.113	-93.720	13.807	1138.263	1447.780	0.730	10.330	13.807	***6.084***
2021-09-04 22:45	2702709	8.102	-93.060	13.764	1137.293	1448.075	0.731	9.874	13.764	***6.234***
2021-09-04 23:00	2703609	8.105	-93.234	13.718	1136.151	1448.227	0.731	10.892	13.718	6.899
2021-09-04 23:15	2704509	8.096	-92.738	13.694	1135.933	1448.796	0.731	10.809	13.694	6.999
2021-09-04 23:30	2705409	8.099	-92.890	13.671	1135.355	1448.855	0.731	10.660	13.671	7.052
2021-09-04 23:45	2706309	8.084	-92.030	13.631	1134.639	1449.367	0.731	10.953	13.631	7.292
2021-09-05 0:00	2707209	8.091	-92.399	13.600	1133.878	1449.494	0.731	10.958	13.600	7.529
2021-09-05 0:15	2708109	8.100	-92.888	13.577	1133.527	1449.860	0.731	11.312	13.577	7.626
2021-09-05 0:30	2709009	8.103	-93.040	13.558	1133.164	1450.056	0.731	10.553	13.558	7.688
2021-09-05 0:45	2709909	8.115	-93.749	13.542	1133.648	1451.265	0.732	10.130	13.542	7.684
2021-09-05 1:00	2710809	8.105	-93.176	13.493	1132.241	1451.183	0.732	10.444	13.493	7.648
2021-09-05 1:15	2711709	8.105	-93.155	13.427	1130.992	1451.931	0.732	10.675	13.427	7.585
2021-09-05 1:30	2712609	8.109	-93.353	13.409	1130.649	1452.124	0.732	10.550	13.409	7.550
2021-09-05 1:45	2713509	8.117	-93.796	13.384	1130.188	1452.420	0.732	10.406	13.384	7.653
2021-09-05 2:00	2714409	8.105	-93.124	13.348	1129.532	1452.862	0.733	10.041	13.348	7.666
2021-09-05 2:15	2715309	8.102	-92.943	13.317	1128.991	1453.277	0.733	10.654	13.317	7.685
2021-09-05 2:30	2716209	8.102	-92.926	13.299	1128.676	1453.516	0.733	10.870	13.299	7.620
2021-09-05 2:45	2717109	8.112	-93.508	13.286	1128.606	1453.883	0.733	10.811	13.286	7.546
2021-09-05 3:00	2718009	8.114	-93.582	13.269	1128.225	1454.015	0.733	10.723	13.269	7.516
2021-09-05 3:15	2718909	8.100	-92.804	13.252	1127.276	1453.385	0.733	10.840	13.252	7.502
2021-09-05 3:30	2719809	8.102	-92.881	13.227	1126.933	1453.858	0.733	10.513	13.227	7.521
2021-09-05 3:45	2720709	8.097	-92.623	13.188	1125.488	1453.384	0.733	10.845	13.188	7.496
2021-09-05 4:00	2721609	8.077	-91.469	13.139	1123.904	1453.086	0.733	10.801	13.139	7.467
2021-09-05 4:15	2722509	8.072	-91.174	13.093	1122.642	1453.126	0.732	11.364	13.093	7.371
2021-09-05 4:30	2723409	8.078	-91.507	13.050	1120.997	1452.546	0.732	10.925	13.050	7.264
2021-09-05 4:45	2724309	8.083	-91.736	13.027	1119.451	1451.365	0.731	11.357	13.027	7.247
2021-09-05 5:00	2725209	8.079	-91.546	12.998	1119.802	1452.863	0.732	11.586	12.998	7.165
2021-09-05 5:15	2726109	8.070	-91.000	12.954	1118.613	1452.901	0.732	11.910	12.954	7.115
2021-09-05 5:30	2727009	8.068	-90.854	12.925	1117.870	1452.971	0.732	11.523	12.925	7.114
2021-09-05 5:45	2727909	8.065	-90.697	12.903	1117.220	1452.916	0.732	11.515	12.903	7.082
2021-09-05 6:00	2728809	8.067	-90.828	12.896	1117.277	1453.232	0.732	11.382	12.896	7.097
2021-09-05 6:15	2729709	8.063	-90.575	12.874	1116.644	1453.211	0.732	11.933	12.874	7.092
2021-09-05 6:30	2730609	8.062	-90.485	12.835	1115.321	1452.914	0.732	11.579	12.835	7.077
2021-09-05 6:45	2731509	8.058	-90.268	12.789	1113.193	1451.792	0.731	11.717	12.789	7.017
2021-09-05 7:00	2732409	8.047	-89.619	12.751	1111.524	1450.999	0.731	11.769	12.751	7.020
2021-09-05 7:15	2733309	8.038	-89.104	12.711	1110.571	1451.197	0.731	11.843	12.711	6.959
2021-09-05 7:30	2734209	8.033	-88.797	12.674	1109.474	1451.113	0.731	11.751	12.674	6.929
2021-09-05 7:45	2735109	8.036	-88.964	12.646	1108.573	1450.930	0.731	11.602	12.646	7.031
2021-09-05 8:00	2736009	8.031	-88.665	12.609	1107.500	1450.867	0.731	12.198	12.609	6.992
2021-09-05 8:15	2736909	8.036	-88.933	12.565	1106.185	1450.733	0.731	12.613	12.565	6.986
2021-09-05 8:30	2737809	8.037	-88.968	12.524	1104.924	1450.573	0.730	11.777	12.524	6.950
2021-09-05 8:45	2738709	8.034	-88.797	12.486	1103.970	1450.722	0.731	11.948	12.486	6.977
2021-09-05 9:00	2739609	8.035	-88.871	12.467	1103.476	1450.772	0.731	11.580	12.467	6.945

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-05 9:15	2740509	8.036	-88.892	12.438	1102.569	1450.640	0.730	11.793	12.438	7.015
2021-09-05 9:30	2741409	8.041	-89.188	12.406	1101.511	1450.397	0.730	12.013	12.406	7.051
2021-09-05 9:45	2742309	8.034	-88.804	12.382	1100.684	1450.192	0.730	12.636	12.382	7.057
2021-09-05 10:00	2743209	8.039	-89.059	12.367	1100.016	1449.865	0.730	12.643	12.367	7.126
2021-09-05 10:15	2744109	8.044	-89.335	12.357	1099.557	1449.603	0.730	12.721	12.357	7.184
2021-09-05 10:30	2745009	8.044	-89.347	12.355	1099.207	1449.240	0.730	12.681	12.355	7.247
2021-09-05 10:45	2745909	8.037	-88.940	12.368	1099.424	1449.030	0.729	16.180	12.368	7.130
2021-09-05 11:00	2746809	8.035	-88.816	12.390	1099.920	1448.888	0.729	12.219	12.390	7.155
2021-09-05 11:15	2747709	8.040	-89.128	12.403	1100.099	1448.637	0.729	12.400	12.403	7.337
2021-09-05 11:30	2748609	8.042	-89.238	12.414	1100.284	1448.485	0.729	12.555	12.414	7.552
2021-09-05 11:45	2749509	8.038	-88.999	12.430	1100.484	1448.178	0.729	18.792	12.430	7.581
2021-09-05 12:00	2750409	8.031	-88.611	12.441	1100.727	1448.080	0.729	13.023	12.441	7.610
2021-09-05 12:15	2751309	8.031	-88.651	12.451	1100.751	1447.767	0.729	13.241	12.451	7.576
2021-09-05 12:30	2752209	8.035	-88.840	12.466	1100.847	1447.321	0.729	12.729	12.466	7.558
2021-09-05 12:45	2753109	8.040	-89.157	12.486	1101.080	1446.904	0.728	12.513	12.486	7.669
2021-09-05 13:00	2754009	8.048	-89.610	12.515	1101.432	1446.326	0.728	12.552	12.515	7.719
2021-09-05 13:15	2754909	8.037	-88.980	12.550	1101.983	1445.788	0.728	12.464	12.550	7.675
2021-09-05 13:30	2755809	8.038	-89.059	12.613	1103.189	1445.076	0.728	17.148	12.613	7.743
2021-09-05 13:45	2756709	8.051	-89.839	12.661	1104.298	1444.793	0.728	12.403	12.661	7.834
2021-09-05 14:00	2757609	8.052	-89.898	12.727	1105.485	1443.981	0.727	12.334	12.727	7.893
2021-09-05 14:15	2758509	8.047	-89.648	12.864	1109.211	1443.919	0.727	12.886	12.864	7.907
2021-09-05 14:30	2759409	8.074	-91.231	13.033	1113.693	1443.672	0.727	12.206	13.033	7.950
2021-09-05 14:45	2760309	8.076	-91.424	13.192	1117.991	1443.562	0.728	12.355	13.192	8.061
2021-09-05 15:00	2761209	8.098	-92.695	13.306	1120.592	1442.862	0.727	12.422	13.306	8.160
2021-09-05 15:15	2762109	8.088	-92.196	13.424	1125.108	1444.494	0.728	12.558	13.424	8.321
2021-09-05 15:30	2763009	8.095	-92.604	13.450	1126.501	1445.347	0.729	13.057	13.450	8.557
2021-09-05 15:45	2763909	8.086	-92.111	13.513	1128.673	1445.893	0.729	12.888	13.513	8.610
2021-09-05 16:00	2764810	8.093	-92.504	13.553	1130.672	1447.051	0.730	13.089	13.553	8.667
2021-09-05 16:15	2765710	8.090	-92.363	13.611	1133.070	1448.065	0.730	13.205	13.611	8.683
2021-09-05 16:30	2766610	8.093	-92.533	13.676	1135.652	1449.077	0.731	13.788	13.676	8.819
2021-09-05 16:45	2767510	8.098	-92.859	13.765	1138.638	1449.740	0.731	13.920	13.765	8.959
2021-09-05 17:00	2768410	8.107	-93.403	13.865	1142.009	1450.482	0.732	13.848	13.865	8.942
2021-09-05 17:15	2769310	8.140	-95.294	13.951	1145.070	1451.371	0.732	14.664	13.951	8.914
2021-09-05 17:30	2770210	8.147	-95.735	14.020	1147.654	1452.225	0.733	14.999	14.020	8.772
2021-09-05 17:45	2771110	8.160	-96.464	14.097	1150.237	1452.787	0.733	14.554	14.097	8.697
2021-09-05 18:00	2772010	8.123	-94.409	14.112	1151.355	1453.675	0.734	14.214	14.112	8.819
2021-09-05 18:15	2772910	8.122	-94.359	14.118	1151.824	1454.040	0.734	16.557	14.118	8.941
2021-09-05 18:30	2773810	8.126	-94.578	14.127	1152.480	1454.547	0.734	15.505	14.127	8.957
2021-09-05 18:45	2774710	8.121	-94.302	14.121	1152.509	1454.816	0.734	14.938	14.121	9.097
2021-09-05 19:00	2775610	8.120	-94.218	14.149	1153.230	1454.730	0.734	15.099	14.149	9.104
2021-09-05 19:15	2776510	8.116	-93.999	14.161	1152.268	1453.082	0.734	14.312	14.161	9.173
2021-09-05 19:30	2777410	8.115	-93.937	14.172	1153.903	1454.786	0.735	15.953	14.172	9.181
2021-09-05 19:45	2778310	8.121	-94.299	14.194	1154.491	1454.739	0.735	15.316	14.194	9.155
2021-09-05 20:00	2779210	8.111	-93.713	14.223	1154.958	1454.319	0.734	15.354	14.223	8.995
2021-09-05 20:15	2780110	8.115	-93.958	14.249	1156.021	1454.730	0.735	17.009	14.249	8.909

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-05 20:30	2781010	8.115	-93.985	14.266	1156.164	1454.318	0.734	16.110	14.266	8.915
2021-09-05 20:45	2781910	8.127	-94.655	14.274	1156.745	1454.783	0.735	16.230	14.274	8.925
2021-09-05 21:00	2782810	8.125	-94.583	14.286	1156.542	1454.106	0.734	29.783	14.286	8.843
2021-09-05 21:15	2783710	8.120	-94.285	14.286	1156.305	1453.796	0.734	15.908	14.286	8.823
2021-09-05 21:30	2784610	8.143	-95.603	14.273	1155.356	1453.069	0.734	15.525	14.273	8.831
2021-09-05 21:45	2785510	8.147	-95.801	14.260	1155.676	1453.909	0.734	15.088	14.260	8.731
2021-09-05 22:00	2786410	8.136	-95.170	14.239	1154.401	1453.039	0.734	14.358	14.239	8.594
2021-09-05 22:15	2787310	8.132	-94.948	14.215	1153.436	1452.665	0.733	14.359	14.215	8.567
2021-09-05 22:30	2788210	8.142	-95.463	14.165	1150.931	1451.253	0.733	14.793	14.165	8.471
2021-09-05 22:45	2789110	8.138	-95.260	14.135	1149.487	1450.495	0.732	14.876	14.135	8.382
2021-09-05 23:00	2790010	8.135	-95.084	14.115	1149.105	1450.720	0.732	14.798	14.115	7.905
2021-09-05 23:15	2790910	8.150	-95.897	14.073	1147.767	1450.502	0.732	15.724	14.073	7.683
2021-09-05 23:30	2791810	8.141	-95.403	13.993	1143.656	1448.087	0.731	15.905	13.993	7.703
2021-09-05 23:45	2792710	8.135	-95.029	13.935	1140.690	1446.383	0.730	14.561	13.935	7.698
2021-09-06 0:00	2793610	8.120	-94.154	13.905	1138.187	1444.227	0.729	15.194	13.905	7.482
2021-09-06 0:15	2794510	8.115	-93.880	13.889	1137.843	1444.383	0.729	14.988	13.889	7.214
2021-09-06 0:30	2795410	8.125	-94.399	13.858	1137.505	1445.013	0.729	15.435	13.858	7.185
2021-09-06 0:45	2796310	8.124	-94.345	13.814	1136.554	1445.359	0.729	230.373	13.814	7.191
2021-09-06 1:00	2797210	8.120	-94.097	13.767	1134.990	1445.027	0.729	16.273	13.767	7.116
2021-09-06 1:15	2798110	8.125	-94.402	13.740	1134.607	1445.464	0.729	17.311	13.740	7.080
2021-09-06 1:30	2799010	8.119	-94.035	13.714	1134.140	1445.792	0.729	17.169	13.714	6.928
2021-09-06 1:45	2799910	8.107	-93.303	13.666	1132.693	1445.642	0.729	17.616	13.666	6.870
2021-09-06 2:00	2800810	8.085	-92.084	13.614	1130.920	1445.210	0.729	15.220	13.614	6.843
2021-09-06 2:15	2801710	8.100	-92.876	13.518	1126.960	1443.523	0.728	16.106	13.518	6.841
2021-09-06 2:30	2802610	8.120	-93.973	13.442	1122.997	1441.127	0.727	16.877	13.442	6.828
2021-09-06 2:45	2803510	8.113	-93.567	13.384	1120.310	1439.728	0.726	16.647	13.384	6.772
2021-09-06 3:00	2804410	8.104	-93.067	13.357	1118.765	1438.717	0.725	16.970	13.357	6.632
2021-09-06 3:15	2805310	8.089	-92.189	13.320	1117.426	1438.300	0.725	17.137	13.320	6.582
2021-09-06 3:30	2806210	8.090	-92.230	13.260	1115.871	1438.396	0.725	17.812	13.260	6.620
2021-09-06 3:45	2807110	8.090	-92.194	13.210	1114.319	1438.166	0.725	17.578	13.210	6.589
2021-09-06 4:00	2808010	8.084	-91.853	13.182	1113.492	1438.103	0.725	38.968	13.182	6.515
2021-09-06 4:15	2808910	8.083	-91.786	13.160	1112.775	1437.966	0.725	18.283	13.160	***6.401***
2021-09-06 4:30	2809810	8.077	-91.462	13.141	1111.911	1437.512	0.724	18.320	13.141	***6.423***
2021-09-06 4:45	2810710	8.080	-91.643	13.116	1111.738	1438.168	0.725	19.037	13.116	***6.337***
2021-09-06 5:00	2811610	8.077	-91.438	13.099	1111.728	1438.784	0.725	20.557	13.099	***6.240***
2021-09-06 5:15	2812510	8.072	-91.159	13.074	1111.428	1439.266	0.725	18.343	13.074	***6.098***
2021-09-06 5:30	2813410	8.069	-90.942	13.043	1110.508	1439.175	0.725	17.605	13.043	***6.035***
2021-09-06 5:45	2814310	8.057	-90.258	13.009	1109.781	1439.466	0.725	18.039	13.009	***6.029***
2021-09-06 6:00	2815210	8.050	-89.872	12.969	1108.899	1439.742	0.725	16.189	12.969	***6.016***
2021-09-06 6:15	2816110	8.048	-89.738	12.943	1108.123	1439.651	0.725	15.792	12.943	***5.987***
2021-09-06 6:30	2817010	8.048	-89.750	12.913	1107.280	1439.643	0.725	16.531	12.913	***5.895***
2021-09-06 6:45	2817910	8.040	-89.276	12.863	1105.877	1439.595	0.725	16.154	12.863	***5.699***
2021-09-06 7:00	2818810	8.045	-89.538	12.818	1104.913	1439.954	0.725	15.615	12.818	***5.586***
2021-09-06 7:15	2819710	8.041	-89.283	12.783	1104.110	1440.160	0.725	15.241	12.783	***5.609***
2021-09-06 7:30	2820610	8.039	-89.185	12.765	1103.352	1439.826	0.725	15.492	12.765	***5.573***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-06 7:45	2821510	8.031	-88.708	12.731	1102.641	1440.129	0.725	15.835	12.731	***5.563***
2021-09-06 8:00	2822410	8.028	-88.542	12.699	1101.937	1440.344	0.725	15.332	12.699	***5.634***
2021-09-06 8:15	2823310	8.019	-88.034	12.672	1101.204	1440.361	0.725	15.178	12.672	***5.664***
2021-09-06 8:30	2824210	8.012	-87.631	12.648	1100.345	1440.113	0.725	15.098	12.648	***5.611***
2021-09-06 8:45	2825110	8.012	-87.628	12.616	1099.322	1439.922	0.725	15.705	12.616	***5.533***
2021-09-06 9:00	2826010	8.021	-88.091	12.588	1098.438	1439.761	0.725	16.311	12.588	***5.436***
2021-09-06 9:15	2826910	8.030	-88.599	12.568	1097.662	1439.471	0.725	16.606	12.568	***5.303***
2021-09-06 9:30	2827810	8.035	-88.866	12.548	1096.719	1438.961	0.724	17.004	12.548	***5.237***
2021-09-06 9:45	2828710	8.008	-87.349	12.494	1095.655	1439.492	0.725	17.468	12.494	***4.962***
2021-09-06 10:00	2829610	8.000	-86.880	12.445	1094.029	1439.120	0.724	17.151	12.445	***4.907***
2021-09-06 10:15	2830510	8.013	-87.609	12.387	1093.277	1440.248	0.725	16.251	12.387	***5.280***
2021-09-06 10:30	2831410	8.026	-88.325	12.314	1092.595	1442.002	0.726	16.009	12.314	***5.573***
2021-09-06 10:45	2832310	8.043	-89.233	12.238	1092.513	1444.668	0.727	15.865	12.238	***5.922***
2021-09-06 11:00	2833210	8.050	-89.643	12.163	1092.290	1447.088	0.728	15.270	12.163	***6.161***
2021-09-06 11:15	2834110	8.060	-90.148	12.142	1094.101	1450.268	0.730	15.390	12.142	***6.398***
2021-09-06 11:30	2835010	8.073	-90.911	12.101	1095.478	1453.615	0.732	15.089	12.101	6.559
2021-09-06 11:45	2835910	8.074	-90.961	12.094	1097.246	1456.223	0.733	14.975	12.094	6.776
2021-09-06 12:00	2836810	8.062	-90.251	12.083	1098.152	1457.832	0.734	15.061	12.083	6.902
2021-09-06 12:15	2837710	8.068	-90.582	12.081	1098.199	1457.943	0.734	14.546	12.081	6.956
2021-09-06 12:30	2838610	8.074	-90.947	12.103	1098.652	1457.740	0.734	14.917	12.103	6.972
2021-09-06 12:45	2839510	8.068	-90.625	12.140	1099.030	1456.882	0.733	14.057	12.140	7.006
2021-09-06 13:00	2840410	8.083	-91.486	12.182	1099.036	1455.348	0.733	13.785	12.182	7.005
2021-09-06 13:15	2841310	8.089	-91.827	12.226	1099.135	1453.841	0.732	13.697	12.226	6.985
2021-09-06 13:30	2842210	8.084	-91.560	12.275	1098.997	1451.853	0.731	13.937	12.275	6.982
2021-09-06 13:45	2843110	8.090	-91.910	12.327	1099.720	1450.931	0.730	13.300	12.327	7.037
2021-09-06 14:00	2844010	8.090	-91.958	12.368	1099.999	1449.792	0.730	12.976	12.368	7.076
2021-09-06 14:15	2844910	8.094	-92.173	12.439	1101.205	1448.779	0.729	13.684	12.439	7.166
2021-09-06 14:30	2845810	8.097	-92.375	12.509	1102.142	1447.482	0.729	13.890	12.509	7.163
2021-09-06 14:45	2846710	8.099	-92.506	12.573	1103.785	1447.298	0.729	14.529	12.573	7.138
2021-09-06 15:00	2847610	8.106	-92.919	12.643	1105.012	1446.401	0.728	15.017	12.643	7.184
2021-09-06 15:15	2848510	8.095	-92.361	12.704	1106.238	1445.786	0.728	14.439	12.704	7.281
2021-09-06 15:30	2849410	8.116	-93.579	12.820	1109.903	1446.385	0.729	13.914	12.820	7.372
2021-09-06 15:45	2850310	8.126	-94.180	12.924	1112.908	1446.567	0.729	15.554	12.924	7.571
2021-09-06 16:00	2851210	8.120	-93.834	13.012	1115.586	1446.874	0.729	15.953	13.012	7.612
2021-09-06 16:15	2852110	8.125	-94.197	13.117	1119.192	1447.783	0.730	15.600	13.117	7.966
2021-09-06 16:30	2853010	8.128	-94.378	13.211	1122.452	1448.653	0.730	14.029	13.211	8.471
2021-09-06 16:45	2853910	8.136	-94.864	13.288	1125.713	1450.113	0.731	34.392	13.288	8.698
2021-09-06 17:00	2854810	8.146	-95.470	13.340	1128.615	1451.988	0.732	14.526	13.340	8.949
2021-09-06 17:15	2855710	8.158	-96.123	13.404	1130.660	1452.330	0.732	14.659	13.404	9.017
2021-09-06 17:30	2856610	8.160	-96.252	13.463	1134.596	1455.261	0.734	14.374	13.463	9.093
2021-09-06 17:45	2857510	8.176	-97.206	13.515	1137.246	1456.807	0.735	13.640	13.515	9.164
2021-09-06 18:00	2858410	8.184	-97.685	13.541	1138.653	1457.696	0.735	14.948	13.541	9.129
2021-09-06 18:15	2859310	8.185	-97.718	13.575	1140.122	1458.368	0.736	14.726	13.575	9.057
2021-09-06 18:30	2860210	8.208	-99.053	13.616	1141.704	1458.920	0.736	14.423	13.616	9.110
2021-09-06 18:45	2861110	8.204	-98.855	13.625	1142.630	1459.786	0.737	14.378	13.625	8.929

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-06 19:00	2862010	8.198	-98.495	13.616	1143.226	1460.877	0.737	15.644	13.616	8.766
2021-09-06 19:15	2862910	8.202	-98.734	13.620	1143.925	1461.630	0.738	15.593	13.620	8.745
2021-09-06 19:30	2863810	8.196	-98.360	13.617	1144.138	1461.999	0.738	18.525	13.617	8.815
2021-09-06 19:45	2864710	8.197	-98.429	13.633	1144.734	1462.174	0.738	18.193	13.633	8.881
2021-09-06 20:00	2865610	8.196	-98.388	13.638	1145.360	1462.797	0.738	18.197	13.638	8.990
2021-09-06 20:15	2866510	8.188	-97.935	13.644	1145.665	1462.995	0.738	18.002	13.644	8.965
2021-09-06 20:30	2867410	8.178	-97.356	13.648	1145.836	1463.076	0.738	18.528	13.648	8.934
2021-09-06 20:45	2868310	8.175	-97.191	13.645	1145.715	1463.018	0.738	19.054	13.645	8.862
2021-09-06 21:00	2869210	8.160	-96.338	13.635	1144.937	1462.365	0.738	18.408	13.635	8.663
2021-09-06 21:15	2870110	8.150	-95.785	13.614	1144.937	1463.131	0.738	18.476	13.614	8.495
2021-09-06 21:30	2871010	8.179	-97.408	13.578	1143.458	1462.515	0.738	19.012	13.578	8.275
2021-09-06 21:45	2871910	8.180	-97.461	13.548	1141.845	1461.526	0.737	19.416	13.548	8.046
2021-09-06 22:00	2872810	8.180	-97.451	13.524	1140.888	1461.164	0.737	33.909	13.524	7.751
2021-09-06 22:15	2873710	8.182	-97.556	13.501	1139.586	1460.306	0.737	20.073	13.501	7.409
2021-09-06 22:30	2874610	8.177	-97.272	13.470	1138.700	1460.287	0.737	19.721	13.470	7.336
2021-09-06 22:45	2875510	8.178	-97.294	13.420	1136.404	1459.117	0.736	19.796	13.420	7.360
2021-09-06 23:00	2876410	8.169	-96.748	13.386	1134.498	1457.911	0.735	18.669	13.386	7.262
2021-09-06 23:15	2877310	8.160	-96.242	13.361	1133.082	1456.961	0.735	17.702	13.361	7.169
2021-09-06 23:30	2878210	8.155	-95.968	13.336	1132.318	1456.886	0.735	17.309	13.336	7.089
2021-09-06 23:45	2879110	8.152	-95.761	13.314	1131.177	1456.199	0.734	17.193	13.314	6.956
2021-09-07 0:00	2880010	8.154	-95.882	13.288	1129.814	1455.400	0.734	18.817	13.288	6.807
2021-09-07 0:15	2880910	8.143	-95.236	13.269	1128.792	1454.755	0.734	18.097	13.269	6.765
2021-09-07 0:30	2881810	8.134	-94.728	13.246	1128.526	1455.225	0.734	17.953	13.246	***6.434***
2021-09-07 0:45	2882710	8.135	-94.757	13.225	1127.620	1454.828	0.734	18.234	13.225	***6.037***
2021-09-07 1:00	2883610	8.133	-94.671	13.204	1127.138	1454.936	0.734	17.032	13.204	***5.688***
2021-09-07 1:15	2884510	8.137	-94.864	13.190	1126.747	1454.956	0.734	17.171	13.190	***5.426***
2021-09-07 1:30	2885410	8.125	-94.202	13.172	1126.157	1454.810	0.733	17.516	13.172	***5.226***
2021-09-07 1:45	2886310	8.106	-93.133	13.157	1126.718	1456.100	0.734	19.370	13.157	***4.841***
2021-09-07 2:00	2887210	8.110	-93.305	13.131	1126.009	1456.113	0.734	18.455	13.131	***4.642***
2021-09-07 2:15	2888110	8.108	-93.186	13.101	1125.639	1456.692	0.734	18.494	13.101	***4.621***
2021-09-07 2:30	2889010	8.099	-92.692	13.071	1125.086	1457.056	0.735	18.718	13.071	***4.614***
2021-09-07 2:45	2889910	8.092	-92.266	13.034	1123.770	1456.685	0.734	18.505	13.034	***4.656***
2021-09-07 3:00	2890810	8.093	-92.313	12.993	1122.359	1456.366	0.734	18.233	12.993	***4.713***
2021-09-07 3:15	2891710	8.091	-92.204	12.947	1120.804	1455.989	0.734	18.359	12.947	***4.835***
2021-09-07 3:30	2892610	8.089	-92.087	12.924	1119.714	1455.402	0.734	18.272	12.924	***4.738***
2021-09-07 3:45	2893510	8.082	-91.665	12.903	1118.891	1455.094	0.733	17.800	12.903	***4.463***
2021-09-07 4:00	2894410	8.079	-91.507	12.883	1118.380	1455.148	0.733	17.878	12.883	***4.199***
2021-09-07 4:15	2895310	8.072	-91.083	12.849	1117.695	1455.488	0.733	17.838	12.849	***3.884***
2021-09-07 4:30	2896210	8.065	-90.692	12.802	1116.413	1455.541	0.733	17.610	12.802	***3.851***
2021-09-07 4:45	2897110	8.061	-90.446	12.749	1114.940	1455.528	0.733	17.446	12.749	***3.953***
2021-09-07 5:00	2898010	8.054	-90.015	12.694	1113.409	1455.510	0.733	17.708	12.694	***3.969***
2021-09-07 5:15	2898910	8.047	-89.612	12.642	1111.727	1455.207	0.733	17.671	12.642	***3.781***
2021-09-07 5:30	2899810	8.037	-89.016	12.594	1110.190	1454.956	0.733	17.951	12.594	***3.563***
2021-09-07 5:45	2900710	8.030	-88.596	12.547	1108.515	1454.469	0.733	17.925	12.547	***3.119***
2021-09-07 6:00	2901610	8.029	-88.532	12.508	1107.095	1454.016	0.732	17.770	12.508	***2.771***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-07 6:15	2902510	8.022	-88.115	12.477	1105.876	1453.546	0.732	17.617	12.477	***2.573***
2021-09-07 6:30	2903410	8.014	-87.674	12.444	1104.802	1453.334	0.732	17.684	12.444	***2.425***
2021-09-07 6:45	2904310	8.009	-87.354	12.409	1103.722	1453.201	0.732	17.308	12.409	***2.257***
2021-09-07 7:00	2905210	7.998	-86.744	12.377	1102.874	1453.245	0.732	17.476	12.377	***2.159***
2021-09-07 7:15	2906110	7.987	-86.088	12.345	1102.078	1453.357	0.732	17.478	12.345	***2.107***
2021-09-07 7:30	2907010	7.982	-85.809	12.316	1101.198	1453.265	0.732	17.565	12.316	***2.015***
2021-09-07 7:45	2907910	7.972	-85.227	12.287	1100.563	1453.496	0.732	18.512	12.287	***1.826***
2021-09-07 8:00	2908810	7.966	-84.877	12.255	1099.698	1453.523	0.732	18.864	12.255	***1.682***
2021-09-07 8:15	2909710	7.966	-84.867	12.231	1098.919	1453.380	0.732	18.521	12.231	***1.602***
2021-09-07 8:30	2910610	7.960	-84.510	12.204	1097.914	1453.050	0.731	18.752	12.204	***1.527***
2021-09-07 8:45	2911510	7.955	-84.248	12.179	1097.075	1452.859	0.731	18.037	12.179	***1.465***
2021-09-07 9:00	2912410	7.952	-84.045	12.155	1095.692	1451.902	0.731	17.396	12.155	***1.693***
2021-09-07 9:15	2913310	7.951	-84.000	12.133	1094.459	1451.073	0.730	17.543	12.133	***1.721***
2021-09-07 9:30	2914210	7.948	-83.807	12.110	1093.203	1450.241	0.730	17.247	12.110	***1.723***
2021-09-07 9:45	2915110	7.944	-83.566	12.089	1091.565	1448.849	0.729	17.801	12.089	***1.586***
2021-09-07 10:00	2916010	7.943	-83.520	12.073	1090.237	1447.664	0.728	17.456	12.073	***1.487***
2021-09-07 10:15	2916910	7.944	-83.609	12.056	1088.687	1446.252	0.728	17.374	12.056	***1.477***
2021-09-07 10:30	2917810	7.942	-83.485	12.047	1086.718	1443.971	0.726	17.380	12.047	***1.564***
2021-09-07 10:45	2918710	7.945	-83.637	12.052	1084.785	1441.223	0.725	17.309	12.052	***1.652***
2021-09-07 11:00	2919610	7.947	-83.780	12.059	1083.343	1439.032	0.724	17.227	12.059	***1.617***
2021-09-07 11:15	2920510	7.942	-83.466	12.068	1081.766	1436.627	0.723	17.422	12.068	***1.513***
2021-09-07 11:30	2921410	7.944	-83.611	12.078	1080.617	1434.732	0.722	17.287	12.078	***1.435***
2021-09-07 11:45	2922310	7.955	-84.219	12.098	1078.904	1431.732	0.720	17.122	12.098	***1.439***
2021-09-07 12:00	2923210	7.969	-85.044	12.125	1077.144	1428.417	0.718	17.126	12.125	***1.519***
2021-09-07 12:15	2924110	7.983	-85.824	12.156	1075.794	1425.490	0.717	16.737	12.156	***1.572***
2021-09-07 12:30	2925010	7.978	-85.566	12.184	1074.424	1422.678	0.715	16.700	12.184	***1.617***
2021-09-07 12:45	2925910	7.967	-84.920	12.213	1073.153	1419.961	0.714	16.966	12.213	***1.690***
2021-09-07 13:00	2926810	7.962	-84.634	12.242	1072.514	1418.067	0.713	20.939	12.242	***1.837***
2021-09-07 13:15	2927710	7.959	-84.491	12.281	1072.062	1416.084	0.712	17.277	12.281	***2.024***
2021-09-07 13:30	2928610	7.951	-84.038	12.318	1071.466	1413.967	0.711	17.337	12.318	***2.117***
2021-09-07 13:45	2929510	7.984	-85.943	12.346	1070.932	1412.260	0.710	17.234	12.346	***2.110***
2021-09-07 14:00	2930410	7.987	-86.119	12.379	1070.577	1410.621	0.709	17.488	12.379	***2.081***
2021-09-07 14:15	2931310	7.989	-86.215	12.425	1070.652	1409.105	0.709	17.660	12.425	***2.072***
2021-09-07 14:30	2932210	7.985	-86.040	12.478	1070.769	1407.362	0.708	17.356	12.478	***2.101***
2021-09-07 14:45	2933110	8.018	-87.919	12.549	1071.734	1406.122	0.707	17.346	12.549	***2.191***
2021-09-07 15:00	2934010	8.070	-90.926	12.640	1073.809	1405.656	0.707	20.693	12.640	***2.481***
2021-09-07 15:15	2934910	8.108	-93.100	12.728	1078.307	1408.449	0.709	22.479	12.728	***3.407***
2021-09-07 15:30	2935810	8.132	-94.495	12.798	1082.148	1410.992	0.710	22.962	12.798	***4.382***
2021-09-07 15:45	2936710	8.125	-94.116	12.863	1085.744	1413.383	0.711	23.167	12.863	***4.577***
2021-09-07 16:00	2937611	8.140	-94.969	12.914	1089.006	1415.851	0.713	23.249	12.914	***5.196***
2021-09-07 16:15	2938511	8.157	-95.966	13.000	1092.586	1417.454	0.714	22.046	13.000	***5.402***
2021-09-07 16:30	2939411	8.148	-95.489	13.141	1097.208	1418.519	0.714	21.373	13.141	***5.663***
2021-09-07 16:45	2940311	8.116	-93.796	13.456	1105.760	1418.548	0.715	21.251	13.456	***6.459***
2021-09-07 17:00	2941211	8.150	-95.737	13.573	1109.509	1419.276	0.715	20.063	13.573	6.820
2021-09-07 17:15	2942111	8.128	-94.476	13.543	1111.981	1423.465	0.717	21.218	13.543	***5.981***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-07 17:30	2943011	8.129	-94.585	13.613	1115.073	1425.004	0.718	21.744	13.613	6.772
2021-09-07 17:45	2943911	8.127	-94.504	13.719	1118.564	1425.780	0.719	21.539	13.719	7.329
2021-09-07 18:00	2944811	8.125	-94.364	13.736	1120.657	1427.844	0.720	21.902	13.736	7.714
2021-09-07 18:15	2945711	8.136	-94.988	13.762	1122.172	1428.884	0.720	21.165	13.762	7.903
2021-09-07 18:30	2946611	8.185	-97.830	13.809	1124.486	1430.194	0.721	21.352	13.809	7.931
2021-09-07 18:45	2947511	8.197	-98.517	13.834	1126.495	1431.858	0.722	21.358	13.834	8.016
2021-09-07 19:00	2948411	8.199	-98.624	13.854	1128.441	1433.661	0.723	21.336	13.854	7.713
2021-09-07 19:15	2949311	8.182	-97.699	13.878	1130.328	1435.202	0.724	21.908	13.878	7.750
2021-09-07 19:30	2950211	8.169	-96.931	13.906	1131.940	1436.272	0.724	21.413	13.906	8.487
2021-09-07 19:45	2951111	8.161	-96.509	13.929	1133.286	1437.205	0.725	21.205	13.929	8.893
2021-09-07 20:00	2952011	8.170	-96.991	13.953	1134.559	1437.965	0.725	21.740	13.953	9.142
2021-09-07 20:15	2952911	8.176	-97.392	13.977	1135.668	1438.535	0.726	23.172	13.977	9.170
2021-09-07 20:30	2953811	8.169	-96.989	14.001	1136.696	1438.990	0.726	21.494	14.001	9.160
2021-09-07 20:45	2954711	8.167	-96.867	14.026	1137.795	1439.541	0.726	21.181	14.026	8.990
2021-09-07 21:00	2955611	8.167	-96.877	14.081	1139.215	1439.401	0.726	20.724	14.081	8.847
2021-09-07 21:15	2956511	8.168	-96.979	14.138	1140.730	1439.329	0.726	20.482	14.138	8.753
2021-09-07 21:30	2957411	8.173	-97.277	14.166	1141.466	1439.284	0.726	20.140	14.166	8.674
2021-09-07 21:45	2958311	8.174	-97.339	14.169	1142.212	1440.119	0.727	20.220	14.169	8.575
2021-09-07 22:00	2959211	8.199	-98.710	14.156	1143.130	1441.749	0.728	20.294	14.156	8.119
2021-09-07 22:15	2960111	8.169	-97.015	14.144	1143.871	1443.092	0.728	20.863	14.144	7.918
2021-09-07 22:30	2961011	8.177	-97.475	14.104	1144.391	1445.132	0.729	21.769	14.104	8.400
2021-09-07 22:45	2961911	8.216	-99.676	14.066	1144.745	1446.935	0.730	22.050	14.066	9.451
2021-09-07 23:00	2962811	8.242	-101.140	14.061	1145.543	1448.098	0.731	21.637	14.061	9.860
2021-09-07 23:15	2963711	8.255	-101.883	14.058	1145.910	1448.684	0.731	22.412	14.058	10.153
2021-09-07 23:30	2964611	8.262	-102.289	14.043	1146.574	1450.033	0.732	22.070	14.043	10.196
2021-09-07 23:45	2965511	8.261	-102.236	14.013	1146.282	1450.734	0.732	21.920	14.013	10.273
2021-09-08 0:00	2966411	8.223	-100.040	13.932	1145.261	1452.268	0.733	22.432	13.932	10.058
2021-09-08 0:15	2967311	8.222	-99.943	13.855	1144.299	1453.749	0.734	21.777	13.855	10.360
2021-09-08 0:30	2968211	8.219	-99.759	13.819	1143.927	1454.562	0.734	21.747	13.819	10.335
2021-09-08 0:45	2969111	8.214	-99.444	13.800	1143.561	1454.769	0.734	22.174	13.800	10.081
2021-09-08 1:00	2970011	8.204	-98.903	13.775	1143.340	1455.359	0.734	21.604	13.775	9.886
2021-09-08 1:15	2970911	8.196	-98.426	13.747	1142.768	1455.634	0.735	21.506	13.747	9.730
2021-09-08 1:30	2971811	8.192	-98.157	13.715	1142.082	1455.903	0.735	21.461	13.715	9.570
2021-09-08 1:45	2972711	8.177	-97.330	13.683	1141.343	1456.066	0.735	21.826	13.683	9.388
2021-09-08 2:00	2973611	8.158	-96.226	13.637	1139.272	1455.053	0.734	21.364	13.637	9.224
2021-09-08 2:15	2974511	8.137	-95.019	13.575	1142.088	1460.863	0.737	22.396	13.575	9.031
2021-09-08 2:30	2975411	8.124	-94.221	13.514	1132.443	1450.708	0.732	21.112	13.514	8.868
2021-09-08 2:45	2976311	8.125	-94.285	13.469	1131.580	1451.200	0.732	21.400	13.469	8.682
2021-09-08 3:00	2977211	8.123	-94.192	13.438	1130.909	1451.438	0.732	21.331	13.438	8.443
2021-09-08 3:15	2978111	8.099	-92.816	13.397	1128.376	1449.635	0.731	21.473	13.397	8.211
2021-09-08 3:30	2979011	8.077	-91.517	13.327	1123.568	1445.960	0.729	21.212	13.327	8.017
2021-09-08 3:45	2979911	8.068	-90.976	13.260	1120.792	1444.744	0.728	21.257	13.260	7.814
2021-09-08 4:00	2980811	8.061	-90.566	13.187	1118.389	1444.249	0.728	20.978	13.187	7.646
2021-09-08 4:15	2981711	8.059	-90.411	13.116	1115.845	1443.498	0.727	21.333	13.116	7.475
2021-09-08 4:30	2982611	8.060	-90.489	13.067	1114.703	1443.782	0.728	21.095	13.067	7.249

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-08 4:45	2983511	8.055	-90.168	13.017	1112.906	1443.234	0.727	21.128	13.017	6.996
2021-09-08 5:00	2984411	8.054	-90.070	12.960	1110.760	1442.472	0.727	23.130	12.960	6.784
2021-09-08 5:15	2985311	8.047	-89.705	12.910	1108.268	1441.032	0.726	20.998	12.910	6.559
2021-09-08 5:30	2986211	8.041	-89.304	12.867	1106.156	1439.823	0.725	21.001	12.867	***6.286***
2021-09-08 5:45	2987111	8.033	-88.849	12.828	1103.717	1438.037	0.724	21.919	12.828	***6.044***
2021-09-08 6:00	2988011	8.029	-88.594	12.787	1102.321	1437.671	0.724	22.154	12.787	***5.759***
2021-09-08 6:15	2988911	8.024	-88.305	12.750	1099.163	1434.889	0.722	22.275	12.750	***5.384***
2021-09-08 6:30	2989811	8.020	-88.100	12.718	1097.476	1433.844	0.722	22.188	12.718	***4.928***
2021-09-08 6:45	2990711	8.013	-87.690	12.683	1095.383	1432.349	0.721	20.963	12.683	***4.671***
2021-09-08 7:00	2991611	8.007	-87.323	12.645	1093.592	1431.352	0.721	21.089	12.645	***4.578***
2021-09-08 7:15	2992511	8.004	-87.137	12.616	1091.974	1430.301	0.720	21.171	12.616	***4.537***
2021-09-08 7:30	2993411	8.001	-86.985	12.594	1090.153	1428.701	0.719	21.143	12.594	***4.317***
2021-09-08 7:45	2994311	7.995	-86.653	12.578	1088.257	1426.781	0.718	21.088	12.578	***4.088***
2021-09-08 8:00	2995211	7.989	-86.257	12.558	1085.306	1423.610	0.716	20.784	12.558	***3.971***
2021-09-08 8:15	2996111	7.982	-85.886	12.537	1083.153	1421.555	0.715	20.889	12.537	***3.988***
2021-09-08 8:30	2997011	7.974	-85.442	12.519	1080.731	1418.990	0.714	20.864	12.519	***3.917***
2021-09-08 8:45	2997911	7.966	-84.963	12.511	1078.416	1416.236	0.712	20.579	12.511	***3.793***
2021-09-08 9:00	2998811	7.968	-85.087	12.503	1076.103	1413.479	0.711	20.622	12.503	***3.826***
2021-09-08 9:15	2999711	7.990	-86.296	12.497	1074.060	1411.030	0.710	20.775	12.497	***3.867***
2021-09-08 9:30	3000611	8.011	-87.481	12.488	1071.228	1407.607	0.708	20.652	12.488	***3.803***
2021-09-08 9:45	3001511	8.021	-88.091	12.485	1068.845	1404.607	0.706	20.591	12.485	***3.704***
2021-09-08 10:00	3002411	8.047	-89.540	12.488	1067.602	1402.850	0.705	20.770	12.488	***3.517***
2021-09-08 10:15	3003311	8.057	-90.113	12.499	1066.939	1401.604	0.705	20.745	12.499	***3.252***
2021-09-08 10:30	3004211	8.067	-90.690	12.516	1066.949	1401.010	0.704	20.907	12.516	***3.195***
2021-09-08 10:45	3005111	8.072	-91.007	12.536	1067.115	1400.536	0.704	23.256	12.536	***2.986***
2021-09-08 11:00	3006011	8.072	-90.981	12.554	1067.100	1399.892	0.704	20.974	12.554	***2.853***
2021-09-08 11:15	3006911	8.080	-91.422	12.570	1067.705	1400.108	0.704	20.904	12.570	***2.744***
2021-09-08 11:30	3007811	8.084	-91.655	12.586	1067.784	1399.649	0.704	21.155	12.586	***2.604***
2021-09-08 11:45	3008711	8.088	-91.932	12.603	1067.987	1399.311	0.704	21.538	12.603	***2.338***
2021-09-08 12:00	3009611	8.092	-92.161	12.623	1068.289	1399.001	0.703	21.983	12.623	***2.325***
2021-09-08 12:15	3010511	8.102	-92.711	12.649	1068.845	1398.840	0.703	22.148	12.649	***2.320***
2021-09-08 12:30	3011411	8.116	-93.527	12.680	1070.051	1399.332	0.704	21.470	12.680	***2.278***
2021-09-08 12:45	3012311	8.125	-94.054	12.705	1071.690	1400.598	0.704	21.377	12.705	***2.316***
2021-09-08 13:00	3013211	8.136	-94.695	12.730	1073.329	1401.871	0.705	21.777	12.730	***2.461***
2021-09-08 13:15	3014111	8.142	-95.017	12.757	1075.196	1403.353	0.706	22.071	12.757	***2.681***
2021-09-08 13:30	3015011	8.148	-95.387	12.783	1076.696	1404.399	0.707	22.152	12.783	***2.633***
2021-09-08 13:45	3015911	8.149	-95.432	12.804	1078.119	1405.515	0.707	21.890	12.804	***2.521***
2021-09-08 14:00	3016811	8.149	-95.468	12.823	1079.489	1406.660	0.708	21.731	12.823	***2.438***
2021-09-08 14:15	3017711	8.145	-95.215	12.838	1080.580	1407.530	0.708	22.081	12.838	***2.037***
2021-09-08 14:30	3018611	8.158	-95.975	12.847	1081.830	1408.848	0.709	22.174	12.847	***1.889***
2021-09-08 14:45	3019511	8.160	-96.097	12.855	1082.886	1409.934	0.709	22.630	12.855	***2.045***
2021-09-08 15:00	3020411	8.159	-95.999	12.871	1083.841	1410.643	0.710	22.555	12.871	***2.195***
2021-09-08 15:15	3021311	8.150	-95.491	12.888	1084.733	1411.208	0.710	22.880	12.888	***2.169***
2021-09-08 15:30	3022211	8.146	-95.325	12.911	1085.758	1411.726	0.711	22.781	12.911	***2.057***
2021-09-08 15:45	3023111	8.143	-95.131	12.960	1086.841	1411.430	0.710	22.849	12.960	***2.142***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-08 16:00	3024011	8.129	-94.352	13.041	1088.899	1411.239	0.710	23.262	13.041	***2.760***
2021-09-08 16:15	3024911	8.111	-93.393	13.133	1092.099	1412.171	0.711	23.007	13.133	***3.307***
2021-09-08 16:30	3025811	8.116	-93.668	13.215	1093.659	1411.352	0.711	23.221	13.215	***3.710***
2021-09-08 16:45	3026711	8.133	-94.671	13.281	1095.520	1411.434	0.711	22.786	13.281	***4.032***
2021-09-08 17:00	3027611	8.170	-96.812	13.323	1096.883	1411.740	0.711	23.177	13.323	***3.791***
2021-09-08 17:15	3028511	8.190	-97.954	13.353	1098.006	1412.150	0.711	23.682	13.353	***3.396***
2021-09-08 17:30	3029411	8.200	-98.550	13.374	1099.028	1412.744	0.712	23.831	13.374	***3.191***
2021-09-08 17:45	3030311	8.208	-99.010	13.396	1099.993	1413.199	0.712	23.678	13.396	***3.287***
2021-09-08 18:00	3031211	8.217	-99.487	13.406	1100.975	1414.134	0.712	23.737	13.406	***3.529***
2021-09-08 18:15	3032111	8.228	-100.162	13.430	1102.066	1414.703	0.713	25.191	13.430	***3.951***
2021-09-08 18:30	3033011	8.216	-99.475	13.432	1103.544	1416.540	0.714	26.377	13.432	***4.847***
2021-09-08 18:45	3033911	8.207	-98.927	13.454	1105.348	1418.088	0.714	26.039	13.454	***5.837***
2021-09-08 19:00	3034811	8.217	-99.504	13.482	1106.788	1418.933	0.715	26.436	13.482	***6.388***
2021-09-08 19:15	3035711	8.215	-99.449	13.508	1108.014	1419.610	0.715	25.954	13.508	***6.495***
2021-09-08 19:30	3036611	8.216	-99.506	13.539	1109.010	1419.827	0.715	25.409	13.539	***6.236***
2021-09-08 19:45	3037511	8.188	-97.916	13.568	1110.170	1420.278	0.716	24.756	13.568	***6.193***
2021-09-08 20:00	3038411	8.185	-97.737	13.601	1111.318	1420.619	0.716	24.069	13.601	***6.351***
2021-09-08 20:15	3039311	8.182	-97.599	13.628	1112.231	1420.855	0.716	23.625	13.628	6.756
2021-09-08 20:30	3040211	8.186	-97.814	13.660	1112.817	1420.502	0.716	23.314	13.660	6.695
2021-09-08 20:45	3041111	8.194	-98.314	13.690	1113.056	1419.740	0.716	23.012	13.690	7.186
2021-09-08 21:00	3042011	8.204	-98.910	13.757	1113.792	1418.393	0.715	23.384	13.757	7.685
2021-09-08 21:15	3042911	8.207	-99.065	13.765	1113.375	1417.562	0.714	23.814	13.765	8.145
2021-09-08 21:30	3043811	8.207	-99.070	13.747	1112.627	1417.240	0.714	23.960	13.747	8.182
2021-09-08 21:45	3044711	8.198	-98.546	13.723	1111.846	1417.078	0.714	23.033	13.723	7.670
2021-09-08 22:00	3045611	8.190	-98.054	13.689	1110.715	1416.785	0.714	22.742	13.689	7.381
2021-09-08 22:15	3046511	8.176	-97.284	13.675	1109.785	1416.107	0.714	22.483	13.675	7.319
2021-09-08 22:30	3047411	8.167	-96.767	13.665	1108.913	1415.324	0.713	22.516	13.665	6.865
2021-09-08 22:45	3048311	8.159	-96.276	13.658	1108.357	1414.849	0.713	22.241	13.658	6.575
2021-09-08 23:00	3049211	8.154	-96.011	13.651	1107.459	1413.954	0.712	21.721	13.651	***6.272***
2021-09-08 23:15	3050111	8.148	-95.644	13.643	1107.715	1414.544	0.713	23.227	13.643	***6.130***
2021-09-08 23:30	3051011	8.144	-95.429	13.636	1107.559	1414.601	0.713	23.317	13.636	***6.134***
2021-09-08 23:45	3051911	8.138	-95.077	13.629	1107.344	1414.557	0.713	23.250	13.629	***6.143***
2021-09-09 0:00	3052811	8.128	-94.538	13.617	1107.004	1414.553	0.713	21.800	13.617	***6.013***
2021-09-09 0:15	3053711	8.126	-94.395	13.603	1106.557	1414.457	0.713	23.532	13.603	***5.773***
2021-09-09 0:30	3054611	8.125	-94.316	13.594	1106.190	1414.305	0.713	22.344	13.594	***5.466***
2021-09-09 0:45	3055511	8.111	-93.546	13.587	1105.931	1414.210	0.713	22.780	13.587	***5.149***
2021-09-09 1:00	3056411	8.102	-93.029	13.585	1105.639	1413.924	0.712	22.358	13.585	***4.895***
2021-09-09 1:15	3057311	8.092	-92.463	13.581	1105.231	1413.514	0.712	22.214	13.581	***4.751***
2021-09-09 1:30	3058211	8.090	-92.325	13.585	1104.823	1412.875	0.712	21.850	13.585	***4.753***
2021-09-09 1:45	3059111	8.085	-92.053	13.581	1104.639	1412.751	0.712	21.323	13.581	***4.805***
2021-09-09 2:00	3060011	8.084	-92.015	13.576	1104.127	1412.276	0.712	20.552	13.576	***4.719***
2021-09-09 2:15	3060911	8.088	-92.232	13.574	1103.661	1411.745	0.711	21.742	13.574	***4.583***
2021-09-09 2:30	3061811	8.078	-91.660	13.567	1103.277	1411.495	0.711	21.975	13.567	***4.426***
2021-09-09 2:45	3062711	8.068	-91.057	13.542	1102.317	1411.136	0.711	22.405	13.542	***4.043***
2021-09-09 3:00	3063611	8.057	-90.392	13.437	1097.653	1408.799	0.710	22.556	13.437	***4.177***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-09 3:15	3064511	8.046	-89.736	13.319	1090.684	1403.922	0.707	22.789	13.319	***4.724***
2021-09-09 3:30	3065411	8.037	-89.238	13.281	1087.190	1400.702	0.705	23.155	13.281	***4.528***
2021-09-09 3:45	3066311	8.031	-88.859	13.268	1084.573	1397.774	0.704	24.020	13.268	***3.707***
2021-09-09 4:00	3067211	8.024	-88.460	13.265	1082.867	1395.710	0.702	24.474	13.265	***3.213***
2021-09-09 4:15	3068111	8.014	-87.929	13.261	1081.474	1394.049	0.702	24.143	13.261	***2.984***
2021-09-09 4:30	3069011	8.009	-87.619	13.254	1080.495	1393.014	0.701	24.556	13.254	***2.853***
2021-09-09 4:45	3069911	8.002	-87.230	13.252	1079.326	1391.572	0.700	23.463	13.252	***2.758***
2021-09-09 5:00	3070811	7.999	-87.059	13.248	1079.180	1391.522	0.700	24.445	13.248	***2.718***
2021-09-09 5:15	3071711	7.992	-86.653	13.242	1078.899	1391.360	0.700	23.635	13.242	***2.831***
2021-09-09 5:30	3072611	7.989	-86.477	13.237	1078.831	1391.443	0.700	23.499	13.237	***2.825***
2021-09-09 5:45	3073511	7.983	-86.124	13.235	1078.451	1391.044	0.700	23.309	13.235	***2.889***
2021-09-09 6:00	3074411	7.974	-85.616	13.232	1078.845	1391.658	0.700	25.215	13.232	***2.934***
2021-09-09 6:15	3075311	7.971	-85.437	13.231	1078.118	1390.723	0.700	24.062	13.231	***2.906***
2021-09-09 6:30	3076211	7.965	-85.149	13.231	1078.265	1390.932	0.700	23.759	13.231	***2.877***
2021-09-09 6:45	3077111	7.952	-84.388	13.231	1078.100	1390.709	0.700	23.649	13.231	***2.801***
2021-09-09 7:00	3078011	7.949	-84.212	13.229	1077.964	1390.627	0.700	23.544	13.229	***2.752***
2021-09-09 7:15	3078911	7.945	-83.969	13.226	1077.273	1389.805	0.699	23.800	13.226	***2.553***
2021-09-09 7:30	3079811	7.944	-83.942	13.225	1078.220	1391.068	0.700	23.561	13.225	***2.492***
2021-09-09 7:45	3080711	7.943	-83.878	13.222	1078.523	1391.577	0.700	23.863	13.222	***2.385***
2021-09-09 8:00	3081611	7.954	-84.486	13.214	1079.414	1392.997	0.701	23.452	13.214	***2.234***
2021-09-09 8:15	3082511	7.951	-84.288	13.201	1079.508	1393.547	0.701	23.820	13.201	***1.961***
2021-09-09 8:30	3083411	7.962	-84.927	13.177	1078.820	1393.503	0.701	23.810	13.177	***1.829***
2021-09-09 8:45	3084311	7.976	-85.738	13.143	1077.616	1393.106	0.701	24.126	13.143	***1.669***
2021-09-09 9:00	3085211	7.988	-86.405	13.120	1076.518	1392.482	0.701	23.792	13.120	***1.498***
2021-09-09 9:15	3086111	7.985	-86.229	13.088	1074.999	1391.618	0.700	24.146	13.088	***1.391***
2021-09-09 9:30	3087011	7.998	-86.970	13.060	1074.014	1391.291	0.700	24.451	13.060	***1.331***
2021-09-09 9:45	3087911	8.010	-87.612	13.056	1073.617	1390.931	0.700	24.524	13.056	***1.269***
2021-09-09 10:00	3088811	8.019	-88.141	13.047	1073.263	1390.777	0.700	24.816	13.047	***1.194***
2021-09-09 10:15	3089711	8.014	-87.831	13.026	1073.432	1391.735	0.700	24.871	13.026	***1.150***
2021-09-09 10:30	3090611	8.015	-87.879	12.983	1072.608	1392.140	0.700	25.558	12.983	***1.509***
2021-09-09 10:45	3091511	8.012	-87.700	12.941	1072.575	1393.538	0.701	26.838	12.941	***1.785***
2021-09-09 11:00	3092411	7.989	-86.405	12.916	1072.963	1394.925	0.702	27.577	12.916	***2.140***
2021-09-09 11:15	3093311	7.990	-86.443	12.902	1072.958	1395.412	0.702	27.144	12.902	***2.100***
2021-09-09 11:30	3094211	7.996	-86.756	12.887	1073.134	1396.133	0.702	27.180	12.887	***2.068***
2021-09-09 11:45	3095111	8.002	-87.116	12.876	1072.973	1396.331	0.702	27.672	12.876	***2.156***
2021-09-09 12:00	3096011	8.011	-87.619	12.871	1072.928	1396.424	0.702	26.924	12.871	***2.078***
2021-09-09 12:15	3096911	8.012	-87.698	12.869	1073.075	1396.694	0.703	27.581	12.869	***2.113***
2021-09-09 12:30	3097811	8.013	-87.724	12.875	1073.078	1396.499	0.702	27.878	12.875	***2.131***
2021-09-09 12:45	3098711	8.022	-88.279	12.892	1073.573	1396.553	0.703	27.420	12.892	***2.185***
2021-09-09 13:00	3099611	8.006	-87.388	12.937	1074.605	1396.330	0.702	28.145	12.937	***2.322***
2021-09-09 13:15	3100511	8.002	-87.109	12.946	1075.067	1396.600	0.703	27.949	12.946	***2.674***
2021-09-09 13:30	3101411	7.996	-86.823	12.976	1075.597	1396.242	0.702	25.664	12.976	***2.846***
2021-09-09 13:45	3102311	7.997	-86.870	13.003	1075.844	1395.630	0.702	27.436	13.003	***3.200***
2021-09-09 14:00	3103211	8.001	-87.123	13.034	1076.460	1395.362	0.702	26.986	13.034	***3.465***
2021-09-09 14:15	3104111	8.007	-87.461	13.095	1077.641	1394.797	0.702	27.360	13.095	***3.765***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-09 14:30	3105011	8.001	-87.171	13.168	1077.797	1392.484	0.701	27.021	13.168	***4.322***
2021-09-09 14:45	3105911	8.020	-88.243	13.251	1077.670	1389.478	0.699	28.256	13.251	***4.676***
2021-09-09 15:00	3106811	8.056	-90.332	13.309	1076.733	1386.293	0.698	26.379	13.309	***5.005***
2021-09-09 15:15	3107711	8.067	-90.983	13.353	1075.557	1383.271	0.696	26.014	13.353	***5.032***
2021-09-09 15:30	3108611	8.102	-92.947	13.405	1074.828	1380.569	0.695	30.804	13.405	***4.978***
2021-09-09 15:45	3109511	8.104	-93.074	13.477	1074.307	1377.477	0.693	27.541	13.477	***5.195***
2021-09-09 16:00	3110411	8.117	-93.842	13.551	1074.485	1375.211	0.692	28.401	13.551	***5.407***
2021-09-09 16:15	3111311	8.134	-94.838	13.629	1074.612	1372.770	0.691	30.458	13.629	***5.742***
2021-09-09 16:30	3112211	8.126	-94.430	13.715	1075.479	1370.976	0.690	31.059	13.715	***6.037***
2021-09-09 16:45	3113111	8.116	-93.865	13.792	1076.254	1369.411	0.689	29.688	13.792	***6.415***
2021-09-09 17:00	3114011	8.116	-93.939	13.877	1077.394	1368.033	0.689	29.514	13.877	6.604
2021-09-09 17:15	3114911	8.127	-94.566	13.954	1078.815	1367.284	0.688	31.226	13.954	6.937
2021-09-09 17:30	3115811	8.137	-95.160	14.020	1080.110	1366.734	0.688	31.118	14.020	7.172
2021-09-09 17:45	3116711	8.142	-95.484	14.098	1081.709	1366.182	0.688	29.629	14.098	7.233
2021-09-09 18:00	3117611	8.146	-95.701	14.158	1082.895	1365.714	0.688	29.502	14.158	7.312
2021-09-09 18:15	3118511	8.134	-95.029	14.226	1084.420	1365.399	0.687	29.321	14.226	7.560
2021-09-09 18:30	3119411	8.143	-95.563	14.282	1085.379	1364.759	0.687	28.883	14.282	7.664
2021-09-09 18:45	3120311	8.148	-95.894	14.362	1087.084	1364.303	0.687	27.850	14.362	7.653
2021-09-09 19:00	3121211	8.159	-96.519	14.422	1088.617	1364.263	0.687	26.568	14.422	7.535
2021-09-09 19:15	3122111	8.164	-96.831	14.464	1089.392	1363.863	0.687	26.827	14.464	7.342
2021-09-09 19:30	3123011	8.170	-97.210	14.500	1090.343	1363.871	0.687	26.967	14.500	7.092
2021-09-09 19:45	3123911	8.171	-97.256	14.532	1090.960	1363.607	0.687	27.065	14.532	7.171
2021-09-09 20:00	3124812	8.162	-96.738	14.564	1091.665	1363.441	0.687	26.919	14.564	7.111
2021-09-09 20:15	3125712	8.159	-96.619	14.599	1092.389	1363.189	0.687	27.104	14.599	7.143
2021-09-09 20:30	3126612	8.157	-96.529	14.631	1093.193	1363.167	0.687	26.601	14.631	7.022
2021-09-09 20:45	3127512	8.159	-96.641	14.675	1094.251	1363.053	0.687	26.348	14.675	7.095
2021-09-09 21:00	3128412	8.168	-97.163	14.709	1095.125	1363.043	0.687	26.814	14.709	7.153
2021-09-09 21:15	3129312	8.157	-96.564	14.742	1095.878	1362.912	0.687	27.348	14.742	7.069
2021-09-09 21:30	3130212	8.155	-96.414	14.782	1096.658	1362.573	0.686	27.536	14.782	7.065
2021-09-09 21:45	3131112	8.151	-96.183	14.715	1094.678	1362.294	0.686	27.019	14.715	7.122
2021-09-09 22:00	3132012	8.150	-96.128	14.675	1093.120	1361.638	0.686	27.533	14.675	7.284
2021-09-09 22:15	3132912	8.143	-95.708	14.675	1092.344	1360.680	0.685	27.439	14.675	6.799
2021-09-09 22:30	3133812	8.143	-95.689	14.628	1090.268	1359.614	0.685	27.087	14.628	6.662
2021-09-09 22:45	3134712	8.137	-95.344	14.593	1088.292	1358.286	0.684	27.746	14.593	6.739
2021-09-09 23:00	3135612	8.128	-94.767	14.470	1083.422	1356.183	0.683	27.680	14.470	6.686
2021-09-09 23:15	3136512	8.111	-93.784	14.422	1077.350	1350.115	0.680	29.387	14.422	7.021
2021-09-09 23:30	3137412	8.101	-93.215	14.375	1074.497	1348.065	0.679	30.622	14.375	***6.397***
2021-09-09 23:45	3138312	8.094	-92.809	14.318	1070.519	1344.920	0.677	31.325	14.318	***6.051***
2021-09-10 0:00	3139212	8.082	-92.089	14.266	1067.324	1342.565	0.676	29.348	14.266	***5.539***
2021-09-10 0:15	3140112	8.072	-91.543	14.220	1063.558	1339.318	0.674	29.976	14.220	***5.065***
2021-09-10 0:30	3141012	8.059	-90.792	14.199	1061.387	1337.263	0.673	30.036	14.199	***4.727***
2021-09-10 0:45	3141912	8.064	-91.062	14.139	1058.901	1336.046	0.672	30.095	14.139	***4.434***
2021-09-10 1:00	3142812	8.053	-90.406	14.084	1056.615	1334.944	0.671	31.219	14.084	***4.420***
2021-09-10 1:15	3143712	8.038	-89.512	14.011	1053.178	1332.943	0.670	30.965	14.011	***4.411***
2021-09-10 1:30	3144612	8.038	-89.507	13.950	1049.980	1330.852	0.669	29.731	13.950	***4.220***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-10 1:45	3145512	8.039	-89.526	13.900	1047.469	1329.307	0.668	30.690	13.900	***3.863***
2021-09-10 2:00	3146412	8.041	-89.607	13.848	1045.290	1328.207	0.668	28.776	13.848	***3.471***
2021-09-10 2:15	3147312	8.038	-89.450	13.834	1043.935	1326.934	0.667	28.616	13.834	***3.262***
2021-09-10 2:30	3148212	8.033	-89.183	13.819	1042.994	1326.218	0.667	29.457	13.819	***3.089***
2021-09-10 2:45	3149112	8.037	-89.381	13.780	1043.513	1328.130	0.667	30.313	13.780	***2.755***
2021-09-10 3:00	3150012	8.022	-88.546	13.747	1044.655	1330.669	0.669	47.286	13.747	***2.669***
2021-09-10 3:15	3150912	8.023	-88.542	13.718	1045.026	1332.076	0.670	31.910	13.718	***2.581***
2021-09-10 3:30	3151812	8.022	-88.525	13.676	1045.494	1334.012	0.670	33.151	13.676	***2.608***
2021-09-10 3:45	3152712	8.029	-88.894	13.644	1045.039	1334.487	0.671	34.971	13.644	***2.663***
2021-09-10 4:00	3153612	8.035	-89.235	13.606	1044.157	1334.604	0.671	32.403	13.606	***2.576***
2021-09-10 4:15	3154512	8.017	-88.170	13.559	1043.946	1335.849	0.671	31.895	13.559	***2.813***
2021-09-10 4:30	3155412	8.016	-88.124	13.523	1043.314	1336.226	0.671	36.293	13.523	***3.505***
2021-09-10 4:45	3156312	8.010	-87.762	13.502	1043.039	1336.569	0.672	40.810	13.502	***3.438***
2021-09-10 5:00	3157212	8.014	-88.007	13.482	1043.094	1337.287	0.672	41.276	13.482	***3.225***
2021-09-10 5:15	3158112	8.010	-87.774	13.464	1043.575	1338.489	0.673	39.655	13.464	***3.068***
2021-09-10 5:30	3159012	8.008	-87.616	13.438	1043.557	1339.311	0.673	37.913	13.438	***3.202***
2021-09-10 5:45	3159912	8.021	-88.377	13.391	1040.705	1337.205	0.672	36.317	13.391	***3.381***
2021-09-10 6:00	3160812	8.028	-88.720	13.327	1040.496	1339.037	0.673	35.219	13.327	***3.416***
2021-09-10 6:15	3161712	8.024	-88.513	13.289	1038.937	1338.298	0.672	34.156	13.289	***2.958***
2021-09-10 6:30	3162612	8.021	-88.303	13.248	1037.420	1337.694	0.672	33.448	13.248	***2.763***
2021-09-10 6:45	3163512	8.017	-88.055	13.207	1036.254	1337.512	0.672	33.026	13.207	***2.701***
2021-09-10 7:00	3164412	8.010	-87.659	13.179	1035.203	1337.095	0.672	33.438	13.179	***2.656***
2021-09-10 7:15	3165312	8.003	-87.261	13.143	1034.394	1337.239	0.672	33.965	13.143	***2.642***
2021-09-10 7:30	3166212	8.000	-87.066	13.100	1033.123	1336.998	0.671	34.515	13.100	***2.797***
2021-09-10 7:45	3167112	7.994	-86.739	13.063	1031.693	1336.393	0.671	35.017	13.063	***2.911***
2021-09-10 8:00	3168012	7.989	-86.424	13.023	1030.199	1335.762	0.671	35.898	13.023	***2.890***
2021-09-10 8:15	3168912	7.994	-86.679	12.963	1027.640	1334.433	0.670	36.391	12.963	***2.956***
2021-09-10 8:30	3169812	7.989	-86.408	12.893	1023.965	1331.981	0.669	35.343	12.893	***2.933***
2021-09-10 8:45	3170712	7.984	-86.110	12.841	1020.740	1329.510	0.667	35.476	12.841	***2.853***
2021-09-10 9:00	3171612	7.982	-85.979	12.807	1018.342	1327.487	0.666	32.654	12.807	***2.635***
2021-09-10 9:15	3172512	7.979	-85.766	12.775	1015.880	1325.336	0.665	33.228	12.775	***2.279***
2021-09-10 9:30	3173412	7.973	-85.416	12.738	1013.107	1322.938	0.664	33.296	12.738	***2.101***
2021-09-10 9:45	3174312	7.979	-85.738	12.720	1011.756	1321.791	0.663	32.723	12.720	***2.042***
2021-09-10 10:00	3175212	7.981	-85.874	12.700	1010.654	1320.984	0.663	31.263	12.700	***1.871***
2021-09-10 10:15	3176112	7.981	-85.876	12.675	1009.415	1320.216	0.662	31.905	12.675	***1.733***
2021-09-10 10:30	3177012	7.978	-85.671	12.641	1007.555	1318.888	0.662	32.317	12.641	***1.562***
2021-09-10 10:45	3177912	7.974	-85.444	12.613	1005.524	1317.159	0.661	34.204	12.613	***1.457***
2021-09-10 11:00	3178812	7.972	-85.332	12.575	1002.871	1314.916	0.659	32.933	12.575	***1.415***
2021-09-10 11:15	3179712	7.974	-85.411	12.531	999.899	1312.491	0.658	31.758	12.531	***1.318***
2021-09-10 11:30	3180612	7.981	-85.800	12.514	998.115	1310.681	0.657	31.581	12.514	***1.265***
2021-09-10 11:45	3181512	7.977	-85.599	12.517	997.403	1309.648	0.657	31.679	12.517	***1.225***
2021-09-10 12:00	3182412	7.967	-85.027	12.527	997.077	1308.907	0.656	31.991	12.527	***1.233***
2021-09-10 12:15	3183312	7.958	-84.536	12.548	997.101	1308.242	0.656	32.564	12.548	***1.261***
2021-09-10 12:30	3184212	7.952	-84.186	12.588	997.959	1308.056	0.656	34.785	12.588	***1.346***
2021-09-10 12:45	3185112	7.946	-83.868	12.609	998.695	1308.341	0.656	42.956	12.609	***1.447***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-10 13:00	3186012	7.937	-83.327	12.634	999.437	1308.480	0.656	32.718	12.634	***1.464***
2021-09-10 13:15	3186912	7.935	-83.268	12.666	1000.233	1308.498	0.656	33.528	12.666	***1.649***
2021-09-10 13:30	3187812	7.933	-83.146	12.698	1001.075	1308.524	0.656	34.277	12.698	***1.791***
2021-09-10 13:45	3188712	7.928	-82.896	12.742	1001.970	1308.268	0.656	32.037	12.742	***1.929***
2021-09-10 14:00	3189612	7.927	-82.827	12.788	1002.704	1307.741	0.656	32.365	12.788	***2.072***
2021-09-10 14:15	3190512	7.924	-82.657	12.848	1003.514	1306.838	0.655	31.979	12.848	***2.394***
2021-09-10 14:30	3191412	7.921	-82.510	12.944	1004.388	1304.864	0.654	32.165	12.944	***2.843***
2021-09-10 14:45	3192312	7.935	-83.346	13.069	1005.659	1302.479	0.653	32.259	13.069	***3.547***
2021-09-10 15:00	3193212	7.935	-83.470	13.338	1009.669	1299.007	0.652	31.312	13.338	***4.124***
2021-09-10 15:15	3194112	7.942	-83.940	13.578	1009.145	1290.739	0.648	33.359	13.578	***4.725***
2021-09-10 15:30	3195012	7.965	-85.306	13.782	1008.402	1283.387	0.644	39.955	13.782	***5.206***
2021-09-10 15:45	3195912	7.972	-85.776	14.009	1010.759	1279.316	0.642	38.887	14.009	***5.624***
2021-09-10 16:00	3196812	7.987	-86.625	14.147	1010.880	1275.234	0.640	34.189	14.147	***5.976***
2021-09-10 16:15	3197712	7.997	-87.240	14.234	1008.319	1269.324	0.637	34.286	14.234	***6.494***
2021-09-10 16:30	3198612	8.001	-87.502	14.295	1007.578	1266.552	0.636	34.285	14.295	***6.454***
2021-09-10 16:45	3199512	8.003	-87.628	14.285	1009.775	1269.598	0.637	34.720	14.285	***5.733***
2021-09-10 17:00	3200412	8.051	-90.320	14.313	1012.234	1271.847	0.638	36.598	14.313	***6.193***
2021-09-10 17:15	3201312	8.053	-90.461	14.342	1014.743	1274.108	0.640	37.943	14.342	***6.231***
2021-09-10 17:30	3202212	8.058	-90.754	14.360	1017.607	1277.143	0.641	37.986	14.360	***6.119***
2021-09-10 17:45	3203112	8.067	-91.271	14.359	1020.985	1281.430	0.644	37.502	14.359	***6.061***
2021-09-10 18:00	3204012	8.076	-91.760	14.340	1024.795	1286.801	0.646	35.452	14.340	***6.318***
2021-09-10 18:15	3204912	8.081	-92.053	14.312	1027.967	1291.643	0.649	37.180	14.312	7.466
2021-09-10 18:30	3205812	8.078	-91.889	14.314	1030.279	1294.503	0.650	37.115	14.314	8.380
2021-09-10 18:45	3206712	8.094	-92.824	14.331	1032.883	1297.223	0.652	37.508	14.331	8.892
2021-09-10 19:00	3207612	8.083	-92.173	14.328	1034.509	1299.357	0.653	37.613	14.328	9.118
2021-09-10 19:15	3208512	8.081	-92.082	14.316	1036.057	1301.694	0.654	36.841	14.316	9.068
2021-09-10 19:30	3209412	8.064	-91.109	14.293	1037.073	1303.688	0.655	36.387	14.293	8.987
2021-09-10 19:45	3210312	8.059	-90.771	14.270	1038.083	1305.679	0.656	38.046	14.270	8.968
2021-09-10 20:00	3211212	8.061	-90.930	14.283	1039.526	1307.079	0.657	38.781	14.283	9.058
2021-09-10 20:15	3212112	8.065	-91.147	14.295	1040.885	1308.397	0.658	38.698	14.295	9.296
2021-09-10 20:30	3213012	8.053	-90.475	14.328	1042.413	1309.282	0.658	37.495	14.328	9.196
2021-09-10 20:45	3213912	8.051	-90.334	14.346	1043.383	1309.954	0.658	38.455	14.346	9.007
2021-09-10 21:00	3214812	8.050	-90.282	14.351	1044.174	1310.777	0.659	39.897	14.351	8.743
2021-09-10 21:15	3215712	8.051	-90.349	14.361	1044.948	1311.424	0.659	36.220	14.361	8.481
2021-09-10 21:30	3216612	8.050	-90.289	14.368	1045.771	1312.248	0.660	38.617	14.368	8.350
2021-09-10 21:45	3217512	8.051	-90.365	14.348	1045.595	1312.667	0.660	38.487	14.348	8.075
2021-09-10 22:00	3218412	8.044	-89.924	14.309	1045.592	1313.897	0.660	51.996	14.309	7.873
2021-09-10 22:15	3219312	8.034	-89.366	14.279	1045.146	1314.269	0.661	46.465	14.279	7.727
2021-09-10 22:30	3220212	8.023	-88.716	14.219	1043.495	1314.078	0.661	37.130	14.219	7.838
2021-09-10 22:45	3221112	8.030	-89.092	14.190	1042.709	1314.005	0.660	37.133	14.190	8.077
2021-09-10 23:00	3222012	8.022	-88.649	14.169	1041.393	1313.034	0.660	39.219	14.169	8.236
2021-09-10 23:15	3222912	8.028	-89.009	14.164	1041.946	1313.865	0.660	37.961	14.164	8.223
2021-09-10 23:30	3223812	8.023	-88.720	14.140	1041.124	1313.603	0.660	38.190	14.140	7.815
2021-09-10 23:45	3224712	8.033	-89.242	14.120	1040.970	1314.026	0.660	38.072	14.120	7.504
2021-09-11 0:00	3225612	8.031	-89.128	14.105	1040.472	1313.880	0.660	38.453	14.105	6.903

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-11 0:15	3226512	8.022	-88.651	14.087	1039.977	1313.830	0.660	37.598	14.087	***6.445***
2021-09-11 0:30	3227412	8.011	-87.984	14.082	1039.889	1313.873	0.660	37.241	14.082	***5.933***
2021-09-11 0:45	3228312	8.001	-87.435	14.077	1039.598	1313.664	0.660	35.612	14.077	***5.642***
2021-09-11 1:00	3229212	7.999	-87.321	14.063	1038.558	1312.798	0.660	42.348	14.063	***5.517***
2021-09-11 1:15	3230112	7.986	-86.555	14.072	1037.938	1311.736	0.659	38.991	14.072	***5.556***
2021-09-11 1:30	3231012	7.983	-86.393	14.054	1037.246	1311.439	0.659	39.664	14.054	***5.629***
2021-09-11 1:45	3231912	7.976	-85.986	14.041	1036.758	1311.220	0.659	41.823	14.041	***5.292***
2021-09-11 2:00	3232812	7.971	-85.716	14.029	1036.531	1311.314	0.659	42.917	14.029	***4.909***
2021-09-11 2:15	3233712	7.965	-85.335	13.999	1034.909	1310.219	0.658	43.419	13.999	***4.669***
2021-09-11 2:30	3234612	7.959	-85.006	13.945	1034.777	1311.750	0.659	43.411	13.945	***4.857***
2021-09-11 2:45	3235512	7.961	-85.106	13.904	1033.899	1311.957	0.659	44.888	13.904	***4.622***
2021-09-11 3:00	3236412	7.969	-85.540	13.866	1029.282	1307.283	0.657	43.646	13.866	***4.198***
2021-09-11 3:15	3237312	7.967	-85.406	13.858	1024.089	1300.953	0.653	43.997	13.858	***3.867***
2021-09-11 3:30	3238212	7.959	-84.958	13.857	1028.844	1307.012	0.656	39.501	13.857	***3.685***
2021-09-11 3:45	3239112	7.950	-84.445	13.849	1028.085	1306.319	0.656	44.945	13.849	***3.419***
2021-09-11 4:00	3240012	7.944	-84.088	13.833	1027.262	1305.769	0.656	41.774	13.833	***3.276***
2021-09-11 4:15	3240912	7.936	-83.640	13.815	1026.491	1305.365	0.656	44.431	13.815	***3.118***
2021-09-11 4:30	3241812	7.930	-83.287	13.781	1026.351	1306.254	0.656	38.104	13.781	***2.964***
2021-09-11 4:45	3242712	7.917	-82.531	13.740	1024.896	1305.717	0.656	30.731	13.740	***3.465***
2021-09-11 5:00	3243612	7.928	-83.160	13.726	1024.220	1305.302	0.655	33.541	13.726	***3.740***
2021-09-11 5:15	3244512	7.933	-83.427	13.698	1023.720	1305.542	0.656	40.685	13.698	***3.484***
2021-09-11 5:30	3245412	7.933	-83.404	13.675	1022.975	1305.315	0.655	37.256	13.675	***2.968***
2021-09-11 5:45	3246312	7.929	-83.187	13.656	1022.047	1304.735	0.655	36.749	13.656	***2.684***
2021-09-11 6:00	3247212	7.923	-82.858	13.625	1021.557	1305.115	0.655	35.003	13.625	***2.511***
2021-09-11 6:15	3248112	7.925	-82.922	13.586	1020.041	1304.406	0.655	35.516	13.586	***2.629***
2021-09-11 6:30	3249012	7.916	-82.436	13.541	1018.864	1304.337	0.655	36.525	13.541	***2.367***
2021-09-11 6:45	3249912	7.917	-82.486	13.512	1017.747	1303.820	0.654	37.253	13.512	***2.810***
2021-09-11 7:00	3250812	7.914	-82.285	13.489	1017.440	1304.172	0.655	40.964	13.489	***2.463***
2021-09-11 7:15	3251712	7.911	-82.138	13.473	1015.879	1302.695	0.654	40.760	13.473	***2.460***
2021-09-11 7:30	3252612	7.909	-82.011	13.451	1014.992	1302.240	0.654	41.270	13.451	***2.954***
2021-09-11 7:45	3253512	7.912	-82.176	13.433	1015.407	1303.373	0.654	40.212	13.433	***2.730***
2021-09-11 8:00	3254412	7.892	-81.036	13.415	1015.095	1303.530	0.654	42.253	13.415	***2.613***
2021-09-11 8:15	3255312	7.899	-81.444	13.400	1014.515	1303.268	0.654	42.475	13.400	***2.703***
2021-09-11 8:30	3256212	7.898	-81.329	13.374	1013.475	1302.756	0.654	40.809	13.374	***2.965***
2021-09-11 8:45	3257112	7.902	-81.589	13.347	1012.884	1302.858	0.654	41.663	13.347	***3.507***
2021-09-11 9:00	3258012	7.910	-82.028	13.328	1012.306	1302.739	0.654	43.178	13.328	***4.028***
2021-09-11 9:15	3258912	7.921	-82.631	13.307	1011.813	1302.773	0.654	46.248	13.307	***4.327***
2021-09-11 9:30	3259812	7.929	-83.108	13.290	1011.656	1303.112	0.654	46.606	13.290	***4.486***
2021-09-11 9:45	3260712	7.932	-83.237	13.286	1011.119	1302.555	0.654	49.019	13.286	***4.791***
2021-09-11 10:00	3261612	7.937	-83.544	13.287	1011.155	1302.577	0.654	54.286	13.287	***4.987***
2021-09-11 10:15	3262512	7.945	-84.016	13.299	1011.459	1302.567	0.654	45.307	13.299	***5.156***
2021-09-11 10:30	3263412	7.951	-84.322	13.314	1011.713	1302.411	0.654	44.637	13.314	***5.182***
2021-09-11 10:45	3264312	7.954	-84.541	13.321	1011.903	1302.437	0.654	45.464	13.321	***5.242***
2021-09-11 11:00	3265212	7.952	-84.429	13.321	1012.092	1302.694	0.654	49.831	13.321	***5.281***
2021-09-11 11:15	3266112	7.955	-84.567	13.300	1011.861	1303.060	0.654	51.775	13.300	***5.302***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-11 11:30	3267012	7.965	-85.144	13.272	1011.501	1303.489	0.654	52.387	13.272	***5.570***
2021-09-11 11:45	3267912	7.972	-85.530	13.249	1011.296	1303.967	0.654	52.378	13.249	***5.880***
2021-09-11 12:00	3268812	7.980	-85.967	13.235	1011.371	1304.520	0.655	52.149	13.235	***6.041***
2021-09-11 12:15	3269712	7.984	-86.205	13.233	1011.609	1304.886	0.655	53.058	13.233	***6.192***
2021-09-11 12:30	3270612	7.996	-86.899	13.236	1011.974	1305.242	0.655	51.501	13.236	***6.250***
2021-09-11 12:45	3271512	8.004	-87.364	13.247	1012.558	1305.659	0.655	49.791	13.247	***6.279***
2021-09-11 13:00	3272412	8.010	-87.659	13.252	1012.740	1305.719	0.655	49.901	13.252	***6.307***
2021-09-11 13:15	3273312	8.040	-89.395	13.247	1011.328	1304.057	0.654	51.368	13.247	***6.353***
2021-09-11 13:30	3274212	8.057	-90.363	13.234	1010.531	1303.451	0.654	53.551	13.234	***6.340***
2021-09-11 13:45	3275112	8.056	-90.320	13.240	1010.811	1303.622	0.654	45.071	13.240	***6.364***
2021-09-11 14:00	3276012	8.052	-90.063	13.253	1011.211	1303.719	0.654	44.374	13.253	***6.398***
2021-09-11 14:15	3276912	8.053	-90.137	13.278	1011.815	1303.696	0.654	44.463	13.278	***6.415***
2021-09-11 14:30	3277812	8.055	-90.263	13.338	1013.411	1303.832	0.654	43.528	13.338	6.633
2021-09-11 14:45	3278712	8.058	-90.456	13.400	1014.935	1303.793	0.654	43.863	13.400	6.770
2021-09-11 15:00	3279612	8.059	-90.542	13.441	1015.849	1303.660	0.654	41.534	13.441	6.917
2021-09-11 15:15	3280512	8.060	-90.594	13.468	1016.415	1303.533	0.654	40.566	13.468	7.024
2021-09-11 15:30	3281412	8.066	-90.957	13.491	1016.386	1302.761	0.654	39.992	13.491	7.080
2021-09-11 15:45	3282312	8.077	-91.589	13.513	1015.609	1301.070	0.653	38.439	13.513	7.069
2021-09-11 16:00	3283212	8.081	-91.836	13.555	1015.783	1299.943	0.653	38.907	13.555	7.093
2021-09-11 16:15	3284112	8.083	-91.953	13.619	1016.412	1298.726	0.652	38.206	13.619	7.111
2021-09-11 16:30	3285012	8.084	-92.020	13.692	1015.985	1295.864	0.650	39.395	13.692	7.221
2021-09-11 16:45	3285912	8.094	-92.623	13.748	1015.248	1293.174	0.649	42.923	13.748	7.339
2021-09-11 17:00	3286812	8.104	-93.176	13.788	1014.952	1291.541	0.648	48.798	13.788	7.432
2021-09-11 17:15	3287712	8.101	-93.055	13.836	1014.618	1289.604	0.647	49.595	13.836	7.701
2021-09-11 17:30	3288612	8.108	-93.470	13.867	1014.120	1288.004	0.647	45.958	13.867	7.930
2021-09-11 17:45	3289512	8.107	-93.405	13.904	1014.070	1286.783	0.646	43.371	13.904	7.922
2021-09-11 18:00	3290412	8.105	-93.291	13.948	1014.111	1285.461	0.645	44.576	13.948	7.860
2021-09-11 18:15	3291312	8.108	-93.479	14.010	1014.582	1284.128	0.645	42.102	14.010	7.843
2021-09-11 18:30	3292212	8.100	-93.062	14.075	1015.247	1282.968	0.644	42.258	14.075	7.777
2021-09-11 18:45	3293112	8.100	-93.071	14.130	1015.942	1282.127	0.644	42.423	14.130	7.774
2021-09-11 19:00	3294012	8.097	-92.950	14.191	1017.138	1281.753	0.644	39.930	14.191	7.669
2021-09-11 19:15	3294912	8.093	-92.738	14.224	1017.597	1281.321	0.643	38.931	14.224	7.471
2021-09-11 19:30	3295812	8.093	-92.695	14.245	1017.583	1280.648	0.643	38.921	14.245	7.281
2021-09-11 19:45	3296712	8.086	-92.325	14.259	1017.889	1280.619	0.643	38.181	14.259	6.860
2021-09-11 20:00	3297612	8.081	-92.058	14.267	1018.073	1280.594	0.643	38.551	14.267	***6.435***
2021-09-11 20:15	3298512	8.079	-91.949	14.268	1018.231	1280.749	0.643	38.134	14.268	***6.076***
2021-09-11 20:30	3299412	8.074	-91.662	14.266	1017.764	1280.236	0.643	38.242	14.266	***5.668***
2021-09-11 20:45	3300312	8.069	-91.333	14.259	1017.731	1280.409	0.643	37.951	14.259	***5.245***
2021-09-11 21:00	3301212	8.061	-90.907	14.248	1017.173	1280.036	0.643	37.675	14.248	***4.918***
2021-09-11 21:15	3302112	8.053	-90.418	14.237	1017.155	1280.371	0.643	38.211	14.237	***4.711***
2021-09-11 21:30	3303012	8.046	-90.024	14.227	1016.643	1280.012	0.643	38.044	14.227	***4.417***
2021-09-11 21:45	3303912	8.036	-89.459	14.223	1016.469	1279.943	0.643	38.152	14.223	***4.169***
2021-09-11 22:00	3304812	8.029	-89.040	14.217	1016.271	1279.868	0.643	41.648	14.217	***4.092***
2021-09-11 22:15	3305712	8.025	-88.816	14.207	1015.789	1279.578	0.642	55.241	14.207	***3.924***
2021-09-11 22:30	3306612	8.024	-88.794	14.188	1015.160	1279.371	0.642	56.832	14.188	***3.697***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-11 22:45	3307512	8.026	-88.866	14.167	1014.523	1279.197	0.642	55.409	14.167	***3.601***
2021-09-11 23:00	3308412	8.013	-88.112	14.146	1013.755	1278.891	0.642	51.772	14.146	***3.390***
2021-09-11 23:15	3309312	8.008	-87.812	14.127	1013.264	1278.860	0.642	82.302	14.127	***3.167***
2021-09-11 23:30	3310212	8.022	-88.642	14.101	1012.029	1278.077	0.642	41.953	14.101	***3.025***
2021-09-11 23:45	3311112	8.016	-88.303	14.082	1009.092	1274.978	0.640	42.139	14.082	***2.877***
2021-09-12 0:00	3312012	8.017	-88.348	14.059	1010.216	1277.104	0.641	42.444	14.059	***2.798***
2021-09-12 0:15	3312912	8.021	-88.561	14.024	1008.381	1275.846	0.640	43.206	14.024	***2.635***
2021-09-12 0:30	3313812	8.022	-88.604	13.990	1006.827	1274.940	0.640	44.883	13.990	***2.433***
2021-09-12 0:45	3314712	8.012	-87.996	13.959	1005.150	1273.759	0.639	45.727	13.959	***2.223***
2021-09-12 1:00	3315612	8.022	-88.596	13.918	1003.101	1272.440	0.638	46.036	13.918	***2.153***
2021-09-12 1:15	3316512	8.024	-88.649	13.885	1001.457	1271.368	0.638	48.208	13.885	***2.191***
2021-09-12 1:30	3317412	8.027	-88.816	13.850	999.449	1269.902	0.637	50.732	13.850	***2.062***
2021-09-12 1:45	3318312	8.030	-89.021	13.824	997.416	1268.117	0.636	51.719	13.824	***1.850***
2021-09-12 2:00	3319213	8.032	-89.114	13.798	996.364	1267.582	0.636	50.566	13.798	***1.708***
2021-09-12 2:15	3320113	8.034	-89.190	13.781	995.252	1266.693	0.635	45.402	13.781	***1.642***
2021-09-12 2:30	3321013	8.027	-88.806	13.756	994.321	1266.250	0.635	44.833	13.756	***1.626***
2021-09-12 2:45	3321913	8.019	-88.344	13.729	993.586	1266.166	0.635	45.746	13.729	***1.526***
2021-09-12 3:00	3322813	8.024	-88.630	13.703	992.767	1265.918	0.635	45.552	13.703	***1.604***
2021-09-12 3:15	3323713	8.018	-88.296	13.686	992.010	1265.488	0.635	43.374	13.686	***1.395***
2021-09-12 3:30	3324613	8.014	-88.060	13.661	990.861	1264.775	0.634	41.432	13.661	***1.312***
2021-09-12 3:45	3325513	8.006	-87.600	13.639	990.043	1264.423	0.634	40.700	13.639	***1.325***
2021-09-12 4:00	3326413	8.001	-87.287	13.601	988.894	1264.111	0.634	40.442	13.601	***1.351***
2021-09-12 4:15	3327313	7.993	-86.830	13.568	987.248	1263.019	0.633	41.081	13.568	***1.365***
2021-09-12 4:30	3328213	7.979	-86.012	13.538	985.790	1262.108	0.633	40.629	13.538	***1.319***
2021-09-12 4:45	3329113	7.967	-85.287	13.498	985.010	1262.316	0.633	40.311	13.498	***1.202***
2021-09-12 5:00	3330013	7.952	-84.419	13.453	984.027	1262.468	0.633	40.793	13.453	***1.188***
2021-09-12 5:15	3330913	7.934	-83.411	13.407	982.216	1261.544	0.632	41.727	13.407	***1.195***
2021-09-12 5:30	3331813	7.940	-83.759	13.347	980.252	1260.896	0.632	43.195	13.347	***1.337***
2021-09-12 5:45	3332713	7.940	-83.730	13.281	978.394	1260.534	0.632	44.588	13.281	***1.478***
2021-09-12 6:00	3333613	7.939	-83.661	13.215	975.838	1259.290	0.631	43.218	13.215	***1.579***
2021-09-12 6:15	3334513	7.937	-83.520	13.165	973.619	1257.981	0.630	47.286	13.165	***1.516***
2021-09-12 6:30	3335413	7.933	-83.277	13.124	972.034	1257.209	0.630	47.948	13.124	***1.396***
2021-09-12 6:45	3336313	7.926	-82.886	13.082	970.360	1256.348	0.629	47.359	13.082	***1.333***
2021-09-12 7:00	3337213	7.919	-82.471	13.044	968.495	1255.116	0.629	46.065	13.044	***1.187***
2021-09-12 7:15	3338113	7.912	-82.042	13.008	967.587	1255.060	0.629	46.390	13.008	***1.134***
2021-09-12 7:30	3339013	7.907	-81.766	12.977	966.466	1254.548	0.628	45.952	12.977	***1.041***
2021-09-12 7:45	3339913	7.897	-81.165	12.949	965.693	1254.441	0.628	46.794	12.949	***0.959***
2021-09-12 8:00	3340813	7.892	-80.888	12.924	965.333	1254.750	0.628	47.532	12.924	***0.928***
2021-09-12 8:15	3341713	7.886	-80.512	12.905	964.467	1254.214	0.628	49.148	12.905	***0.917***
2021-09-12 8:30	3342613	7.883	-80.364	12.888	963.694	1253.732	0.628	53.112	12.888	***0.880***
2021-09-12 8:45	3343513	7.879	-80.161	12.872	962.773	1253.046	0.627	44.305	12.872	***0.853***
2021-09-12 9:00	3344413	7.881	-80.249	12.853	961.342	1251.746	0.627	42.086	12.853	***0.865***
2021-09-12 9:15	3345313	7.883	-80.376	12.833	960.216	1250.920	0.626	40.686	12.833	***0.872***
2021-09-12 9:30	3346213	7.883	-80.333	12.813	959.078	1250.046	0.626	39.351	12.813	***0.835***
2021-09-12 9:45	3347113	7.892	-80.874	12.804	958.363	1249.397	0.625	38.787	12.804	***0.865***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-12 10:00	3348013	7.936	-83.368	12.811	958.624	1249.526	0.625	38.670	12.811	***0.741***
2021-09-12 10:15	3348913	7.956	-84.503	12.800	958.597	1249.848	0.626	37.895	12.800	***0.721***
2021-09-12 10:30	3349813	7.971	-85.320	12.777	958.521	1250.437	0.626	38.886	12.777	***0.770***
2021-09-12 10:45	3350713	7.981	-85.902	12.747	957.695	1250.303	0.626	38.385	12.747	***0.865***
2021-09-12 11:00	3351613	7.987	-86.200	12.727	956.898	1249.896	0.626	38.693	12.727	***0.877***
2021-09-12 11:15	3352513	7.991	-86.412	12.706	954.194	1247.003	0.624	37.750	12.706	***0.935***
2021-09-12 11:30	3353413	7.999	-86.887	12.674	954.863	1248.887	0.625	38.513	12.674	***0.733***
2021-09-12 11:45	3354313	8.009	-87.419	12.651	954.104	1248.606	0.625	40.609	12.651	***0.868***
2021-09-12 12:00	3355213	8.014	-87.700	12.636	953.481	1248.261	0.625	40.836	12.636	***0.756***
2021-09-12 12:15	3356113	8.009	-87.416	12.633	953.035	1247.772	0.624	38.192	12.633	***0.771***
2021-09-12 12:30	3357013	8.006	-87.268	12.638	953.314	1247.982	0.624	38.643	12.638	***0.876***
2021-09-12 12:45	3357913	8.014	-87.745	12.656	953.669	1247.874	0.624	38.851	12.656	***0.890***
2021-09-12 13:00	3358813	8.020	-88.089	12.676	954.038	1247.731	0.624	38.937	12.676	***0.981***
2021-09-12 13:15	3359713	8.025	-88.346	12.701	954.482	1247.549	0.624	42.364	12.701	***1.147***
2021-09-12 13:30	3360613	8.024	-88.315	12.730	955.208	1247.576	0.624	41.260	12.730	***1.221***
2021-09-12 13:45	3361513	8.019	-88.062	12.760	955.865	1247.509	0.624	41.591	12.760	***1.214***
2021-09-12 14:00	3362413	8.017	-87.926	12.780	956.353	1247.529	0.624	42.340	12.780	***1.318***
2021-09-12 14:15	3363313	8.018	-88.000	12.793	956.406	1247.202	0.624	42.630	12.793	***1.312***
2021-09-12 14:30	3364213	8.020	-88.120	12.810	955.896	1245.998	0.624	42.936	12.810	***1.440***
2021-09-12 14:45	3365113	8.027	-88.542	12.845	955.260	1244.101	0.623	43.129	12.845	***1.578***
2021-09-12 15:00	3366013	8.039	-89.228	12.899	951.246	1237.191	0.619	43.203	12.899	***1.919***
2021-09-12 15:15	3366913	8.052	-89.972	12.949	954.800	1240.291	0.621	44.968	12.949	***2.164***
2021-09-12 15:30	3367813	8.062	-90.547	13.002	954.487	1238.255	0.620	45.360	13.002	***2.245***
2021-09-12 15:45	3368713	8.070	-91.062	13.064	954.553	1236.425	0.619	45.315	13.064	***2.485***
2021-09-12 16:00	3369613	8.079	-91.562	13.137	954.706	1234.410	0.618	46.134	13.137	***2.790***
2021-09-12 16:15	3370513	8.084	-91.877	13.213	955.053	1232.542	0.617	48.730	13.213	***3.336***
2021-09-12 16:30	3371413	8.097	-92.649	13.284	957.604	1233.669	0.618	47.821	13.284	***3.868***
2021-09-12 16:45	3372313	8.113	-93.558	13.348	956.536	1230.363	0.616	49.819	13.348	***4.338***
2021-09-12 17:00	3373213	8.116	-93.749	13.400	957.389	1229.868	0.616	49.969	13.400	***4.536***
2021-09-12 17:15	3374113	8.125	-94.261	13.415	957.345	1229.380	0.615	50.198	13.415	***4.620***
2021-09-12 17:30	3375013	8.124	-94.194	13.430	957.528	1229.161	0.615	50.555	13.430	***4.628***
2021-09-12 17:45	3375913	8.128	-94.454	13.459	958.040	1228.949	0.615	50.887	13.459	***4.526***
2021-09-12 18:00	3376813	8.125	-94.295	13.515	958.571	1227.935	0.615	48.919	13.515	***4.388***
2021-09-12 18:15	3377713	8.120	-94.018	13.576	959.061	1226.733	0.614	47.302	13.576	***4.368***
2021-09-12 18:30	3378613	8.118	-93.930	13.627	960.833	1227.483	0.615	46.701	13.627	***4.796***
2021-09-12 18:45	3379513	8.113	-93.646	13.660	961.426	1227.239	0.615	48.110	13.660	***4.853***
2021-09-12 19:00	3380413	8.114	-93.725	13.681	962.162	1227.546	0.615	48.172	13.681	***4.382***
2021-09-12 19:15	3381313	8.111	-93.594	13.699	962.254	1227.141	0.615	43.648	13.699	***4.150***
2021-09-12 19:30	3382213	8.107	-93.343	13.712	962.255	1226.755	0.614	42.397	13.712	***4.025***
2021-09-12 19:45	3383113	8.104	-93.181	13.722	962.336	1226.560	0.614	41.494	13.722	***3.910***
2021-09-12 20:00	3384013	8.101	-93.017	13.729	962.103	1226.044	0.614	40.057	13.729	***3.839***
2021-09-12 20:15	3384913	8.102	-93.048	13.730	961.892	1225.756	0.614	40.147	13.730	***3.623***
2021-09-12 20:30	3385813	8.108	-93.398	13.720	961.320	1225.322	0.614	40.269	13.720	***3.491***
2021-09-12 20:45	3386713	8.109	-93.486	13.711	960.628	1224.693	0.613	40.857	13.711	***3.132***
2021-09-12 21:00	3387613	8.110	-93.520	13.700	960.310	1224.629	0.613	39.616	13.700	***2.850***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-12 21:15	3388513	8.113	-93.670	13.672	959.392	1224.270	0.613	39.947	13.672	***2.609***
2021-09-12 21:30	3389413	8.118	-93.951	13.637	957.718	1223.188	0.612	39.400	13.637	***2.408***
2021-09-12 21:45	3390313	8.121	-94.118	13.594	955.148	1221.176	0.611	38.456	13.594	***2.270***
2021-09-12 22:00	3391213	8.120	-94.011	13.566	954.402	1221.059	0.611	38.213	13.566	***2.260***
2021-09-12 22:15	3392113	8.108	-93.360	13.546	953.562	1220.593	0.611	38.506	13.546	***2.144***
2021-09-12 22:30	3393013	8.099	-92.859	13.528	952.361	1219.580	0.610	38.731	13.528	***2.191***
2021-09-12 22:45	3393913	8.093	-92.473	13.517	951.920	1219.359	0.610	38.219	13.517	***2.148***
2021-09-12 23:00	3394813	8.095	-92.618	13.500	951.529	1219.352	0.610	38.949	13.500	***2.095***
2021-09-12 23:15	3395713	8.087	-92.151	13.477	950.391	1218.585	0.610	38.629	13.477	***2.227***
2021-09-12 23:30	3396613	8.082	-91.853	13.446	950.452	1219.584	0.610	38.176	13.446	***2.132***
2021-09-12 23:45	3397513	8.079	-91.667	13.402	949.399	1219.556	0.610	38.701	13.402	***1.971***
2021-09-13 0:00	3398413	8.075	-91.405	13.347	947.464	1218.720	0.610	39.460	13.347	***1.937***
2021-09-13 0:15	3399313	8.061	-90.628	13.321	946.195	1217.871	0.609	38.524	13.321	***1.699***
2021-09-13 0:30	3400213	8.052	-90.106	13.289	944.988	1217.264	0.609	38.251	13.289	***1.677***
2021-09-13 0:45	3401113	8.052	-90.055	13.260	944.041	1216.921	0.609	37.452	13.260	***1.786***
2021-09-13 1:00	3402013	8.044	-89.602	13.244	943.133	1216.230	0.608	37.894	13.244	***1.799***
2021-09-13 1:15	3402913	8.032	-88.933	13.229	942.464	1215.810	0.608	38.978	13.229	***1.845***
2021-09-13 1:30	3403813	8.023	-88.391	13.204	941.579	1215.422	0.608	37.672	13.204	***1.856***
2021-09-13 1:45	3404713	8.030	-88.780	13.180	940.048	1214.152	0.607	36.800	13.180	***1.826***
2021-09-13 2:00	3405613	8.021	-88.274	13.162	940.257	1214.961	0.608	36.628	13.162	***1.860***
2021-09-13 2:15	3406513	8.008	-87.566	13.147	938.925	1213.685	0.607	36.715	13.147	***1.770***
2021-09-13 2:30	3407413	8.003	-87.242	13.135	938.151	1213.053	0.607	37.307	13.135	***1.599***
2021-09-13 2:45	3408313	7.993	-86.689	13.119	937.383	1212.531	0.606	36.769	13.119	***1.488***
2021-09-13 3:00	3409213	8.001	-87.111	13.098	935.642	1210.925	0.606	37.402	13.098	***1.483***
2021-09-13 3:15	3410113	8.008	-87.488	13.059	935.328	1211.669	0.606	36.367	13.059	***1.372***
2021-09-13 3:30	3411013	8.008	-87.473	13.005	932.779	1209.985	0.605	37.581	13.005	***1.404***
2021-09-13 3:45	3411913	7.997	-86.854	12.969	929.603	1206.959	0.603	37.788	12.969	***1.457***
2021-09-13 4:00	3412813	7.982	-86.019	12.937	929.149	1207.321	0.604	37.676	12.937	***1.433***
2021-09-13 4:15	3413713	7.970	-85.297	12.913	927.824	1206.320	0.603	37.033	12.913	***1.477***
2021-09-13 4:30	3414613	7.966	-85.089	12.888	926.534	1205.388	0.602	37.547	12.888	***1.469***
2021-09-13 4:45	3415513	7.959	-84.658	12.866	925.744	1205.003	0.602	37.611	12.866	***1.382***
2021-09-13 5:00	3416413	7.954	-84.388	12.851	924.898	1204.365	0.602	38.144	12.851	***1.351***
2021-09-13 5:15	3417313	7.951	-84.181	12.826	924.133	1204.126	0.602	38.013	12.826	***1.203***
2021-09-13 5:30	3418213	7.953	-84.317	12.788	923.167	1203.998	0.602	37.398	12.788	***1.142***
2021-09-13 5:45	3419113	7.955	-84.434	12.746	921.023	1202.463	0.601	38.844	12.746	***1.132***
2021-09-13 6:00	3420013	7.947	-83.973	12.719	924.188	1207.397	0.603	38.385	12.719	***1.153***
2021-09-13 6:15	3420913	7.944	-83.778	12.680	918.575	1201.249	0.600	39.694	12.680	***1.222***
2021-09-13 6:30	3421813	7.940	-83.539	12.631	917.157	1200.867	0.600	38.453	12.631	***1.233***
2021-09-13 6:45	3422713	7.934	-83.194	12.587	915.522	1200.045	0.599	38.488	12.587	***1.244***
2021-09-13 7:00	3423613	7.929	-82.877	12.537	914.556	1200.282	0.599	38.682	12.537	***1.196***
2021-09-13 7:15	3424513	7.921	-82.402	12.484	912.920	1199.729	0.599	39.102	12.484	***1.214***
2021-09-13 7:30	3425413	7.917	-82.192	12.444	911.543	1199.102	0.599	40.011	12.444	***1.189***
2021-09-13 7:45	3426313	7.913	-81.947	12.394	909.978	1198.568	0.598	40.778	12.394	***1.207***
2021-09-13 8:00	3427213	7.906	-81.527	12.342	908.771	1198.544	0.598	40.107	12.342	***1.194***
2021-09-13 8:15	3428113	7.900	-81.172	12.293	906.452	1196.964	0.598	39.933	12.293	***1.185***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-13 8:30	3429013	7.901	-81.184	12.244	905.708	1197.464	0.598	39.012	12.244	***1.189***
2021-09-13 8:45	3429913	7.899	-81.058	12.204	904.114	1196.543	0.597	39.348	12.204	***1.116***
2021-09-13 9:00	3430813	7.891	-80.645	12.174	903.061	1196.062	0.597	40.657	12.174	***1.036***
2021-09-13 9:15	3431713	7.884	-80.190	12.144	902.209	1195.848	0.597	41.808	12.144	***1.026***
2021-09-13 9:30	3432613	7.884	-80.202	12.112	901.256	1195.552	0.597	41.369	12.112	***1.022***
2021-09-13 9:45	3433513	7.882	-80.092	12.084	899.922	1194.644	0.596	40.402	12.084	***1.024***
2021-09-13 10:00	3434413	7.884	-80.161	12.059	898.848	1193.956	0.596	42.463	12.059	***0.988***
2021-09-13 10:15	3435313	7.891	-80.597	12.038	897.239	1192.449	0.595	42.079	12.038	***1.023***
2021-09-13 10:30	3436213	7.916	-81.987	12.011	895.697	1191.225	0.594	40.046	12.011	***0.986***
2021-09-13 10:45	3437113	7.953	-84.085	11.982	894.451	1190.457	0.594	42.805	11.982	***0.953***
2021-09-13 11:00	3438013	7.964	-84.696	11.958	893.043	1189.296	0.593	44.994	11.958	***0.928***
2021-09-13 11:15	3438913	7.985	-85.855	11.933	891.779	1188.373	0.593	41.499	11.933	***1.007***
2021-09-13 11:30	3439813	8.001	-86.763	11.905	890.538	1187.569	0.592	38.259	11.905	***0.943***
2021-09-13 11:45	3440713	8.010	-87.273	11.879	889.229	1186.601	0.592	39.535	11.879	***0.946***
2021-09-13 12:00	3441613	8.016	-87.569	11.855	887.750	1185.363	0.591	39.042	11.855	***0.947***
2021-09-13 12:15	3442513	8.019	-87.752	11.830	886.554	1184.521	0.591	38.892	11.830	***1.036***
2021-09-13 12:30	3443413	8.032	-88.501	11.826	885.611	1183.371	0.590	39.110	11.826	***1.043***
2021-09-13 12:45	3444313	8.036	-88.720	11.836	885.830	1183.376	0.590	40.302	11.836	***1.176***
2021-09-13 13:00	3445213	8.035	-88.639	11.825	885.386	1183.100	0.590	39.656	11.825	***1.271***
2021-09-13 13:15	3446113	8.038	-88.820	11.832	885.513	1183.064	0.590	40.518	11.832	***1.329***
2021-09-13 13:30	3447013	8.002	-86.815	11.886	886.904	1183.304	0.590	45.368	11.886	***1.913***
2021-09-13 13:45	3447913	8.000	-86.691	11.908	888.555	1184.845	0.591	44.694	11.908	***3.019***
2021-09-13 14:00	3448813	8.035	-88.718	11.931	887.645	1182.935	0.590	42.634	11.931	***3.373***
2021-09-13 14:15	3449713	8.049	-89.519	11.986	889.365	1183.567	0.590	42.965	11.986	***3.623***
2021-09-13 14:30	3450613	8.054	-89.808	12.060	890.881	1183.365	0.590	42.409	12.060	***3.952***
2021-09-13 14:45	3451513	8.062	-90.303	12.119	892.421	1183.640	0.590	43.305	12.119	***4.420***
2021-09-13 15:00	3452413	8.068	-90.625	12.173	893.495	1183.441	0.590	43.142	12.173	***4.983***
2021-09-13 15:15	3453313	8.069	-90.694	12.214	894.785	1183.904	0.591	43.350	12.214	***5.420***
2021-09-13 15:30	3454213	8.070	-90.792	12.254	895.919	1184.206	0.591	44.740	12.254	***5.605***
2021-09-13 15:45	3455113	8.083	-91.553	12.320	897.279	1184.034	0.591	46.729	12.320	***6.078***
2021-09-13 16:00	3456013	8.101	-92.580	12.376	899.276	1184.993	0.591	44.945	12.376	6.614
2021-09-13 16:15	3456913	8.102	-92.628	12.424	899.524	1183.895	0.591	44.529	12.424	6.867
2021-09-13 16:30	3457813	8.106	-92.916	12.487	901.477	1184.607	0.591	45.593	12.487	7.272
2021-09-13 16:45	3458713	8.112	-93.248	12.553	903.059	1184.723	0.591	45.151	12.553	7.641
2021-09-13 17:00	3459613	8.122	-93.853	12.608	904.088	1184.422	0.591	44.639	12.608	7.803
2021-09-13 17:15	3460513	8.134	-94.504	12.646	905.303	1184.883	0.592	44.157	12.646	7.952
2021-09-13 17:30	3461413	8.136	-94.650	12.710	906.676	1184.798	0.592	48.626	12.710	8.065
2021-09-13 17:45	3462313	8.142	-95.036	12.742	907.902	1185.436	0.592	45.331	12.742	8.159
2021-09-13 18:00	3463213	8.140	-94.917	12.767	908.238	1185.137	0.592	45.269	12.767	8.260
2021-09-13 18:15	3464113	8.136	-94.717	12.800	908.981	1185.151	0.592	46.774	12.800	8.204
2021-09-13 18:30	3465013	8.126	-94.116	12.832	909.717	1185.144	0.592	44.393	12.832	8.079
2021-09-13 18:45	3465913	8.126	-94.147	12.861	910.286	1185.038	0.592	47.516	12.861	7.863
2021-09-13 19:00	3466813	8.126	-94.161	12.888	910.963	1185.128	0.592	45.784	12.888	7.661
2021-09-13 19:15	3467713	8.124	-94.037	12.910	911.421	1185.092	0.592	45.073	12.910	7.458
2021-09-13 19:30	3468613	8.118	-93.722	12.928	911.933	1185.204	0.592	41.631	12.928	7.239

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-13 19:45	3469513	8.111	-93.315	12.943	912.327	1185.296	0.592	41.789	12.943	6.949
2021-09-13 20:00	3470413	8.108	-93.129	12.955	912.760	1185.507	0.592	40.946	12.955	6.518
2021-09-13 20:15	3471313	8.105	-93.014	12.954	912.734	1185.477	0.592	40.645	12.954	***6.351***
2021-09-13 20:30	3472213	8.116	-93.586	12.946	912.641	1185.603	0.592	41.064	12.946	***5.957***
2021-09-13 20:45	3473113	8.125	-94.104	12.936	912.003	1185.085	0.592	40.313	12.936	***5.589***
2021-09-13 21:00	3474013	8.134	-94.635	12.930	911.681	1184.839	0.592	40.686	12.930	***5.065***
2021-09-13 21:15	3474913	8.133	-94.564	12.926	911.310	1184.449	0.592	40.914	12.926	***4.687***
2021-09-13 21:30	3475813	8.132	-94.519	12.922	911.254	1184.522	0.592	40.754	12.922	***4.402***
2021-09-13 21:45	3476713	8.130	-94.376	12.921	910.011	1182.915	0.591	40.285	12.921	***4.084***
2021-09-13 22:00	3477613	8.119	-93.758	12.913	911.295	1184.828	0.592	40.343	12.913	***3.854***
2021-09-13 22:15	3478513	8.108	-93.131	12.910	910.475	1183.840	0.591	41.052	12.910	***3.727***
2021-09-13 22:30	3479413	8.097	-92.509	12.907	910.493	1183.946	0.591	40.751	12.907	***3.678***
2021-09-13 22:45	3480313	8.095	-92.418	12.894	910.235	1184.009	0.591	42.241	12.894	***3.461***
2021-09-13 23:00	3481213	8.101	-92.742	12.876	909.987	1184.222	0.591	44.019	12.876	***3.296***
2021-09-13 23:15	3482113	8.096	-92.440	12.849	909.494	1184.374	0.592	43.499	12.849	***3.661***
2021-09-13 23:30	3483013	8.091	-92.154	12.823	908.901	1184.349	0.591	43.535	12.823	***3.847***
2021-09-13 23:45	3483913	8.086	-91.875	12.802	909.030	1185.139	0.592	43.547	12.802	***3.699***
2021-09-14 0:00	3484814	8.076	-91.305	12.775	907.901	1184.459	0.591	43.743	12.775	***3.471***
2021-09-14 0:15	3485714	8.066	-90.733	12.747	905.119	1181.662	0.590	43.823	12.747	***3.227***
2021-09-14 0:30	3486614	8.053	-89.936	12.723	903.859	1180.729	0.589	44.588	12.723	***2.999***
2021-09-14 0:45	3487514	8.064	-90.594	12.680	901.772	1179.259	0.589	44.613	12.680	***2.866***
2021-09-14 1:00	3488414	8.062	-90.451	12.642	900.135	1178.242	0.588	44.699	12.642	***2.688***
2021-09-14 1:15	3489314	8.042	-89.314	12.606	897.862	1176.333	0.587	43.903	12.606	***2.461***
2021-09-14 1:30	3490214	8.043	-89.340	12.563	893.180	1171.469	0.585	43.971	12.563	***2.308***
2021-09-14 1:45	3491114	8.031	-88.680	12.529	894.132	1173.716	0.586	43.151	12.529	***2.243***
2021-09-14 2:00	3492014	8.007	-87.304	12.494	892.846	1173.032	0.585	45.161	12.494	***2.236***
2021-09-14 2:15	3492914	8.014	-87.664	12.463	891.301	1171.916	0.585	44.839	12.463	***2.084***
2021-09-14 2:30	3493814	8.018	-87.876	12.430	889.748	1170.865	0.584	43.572	12.430	***1.934***
2021-09-14 2:45	3494714	8.025	-88.291	12.396	888.312	1169.975	0.584	44.175	12.396	***1.796***
2021-09-14 3:00	3495614	8.018	-87.895	12.370	886.991	1168.982	0.583	44.869	12.370	***1.736***
2021-09-14 3:15	3496514	8.031	-88.615	12.343	885.783	1168.182	0.583	44.222	12.343	***1.606***
2021-09-14 3:30	3497414	8.028	-88.394	12.323	883.990	1166.412	0.582	44.452	12.323	***1.463***
2021-09-14 3:45	3498314	8.014	-87.626	12.307	883.798	1166.636	0.582	45.662	12.307	***1.336***
2021-09-14 4:00	3499214	8.020	-87.976	12.289	883.099	1166.242	0.582	45.479	12.289	***1.204***
2021-09-14 4:15	3500114	8.018	-87.812	12.271	882.634	1166.154	0.581	45.739	12.271	***1.075***
2021-09-14 4:30	3501014	8.031	-88.539	12.249	882.251	1166.282	0.582	45.105	12.249	***0.987***
2021-09-14 4:45	3501914	8.037	-88.904	12.234	882.012	1166.433	0.582	44.516	12.234	***0.984***
2021-09-14 5:00	3502814	8.026	-88.279	12.219	881.671	1166.400	0.582	44.290	12.219	***0.952***
2021-09-14 5:15	3503714	8.010	-87.345	12.196	881.183	1166.440	0.582	43.799	12.196	***0.884***
2021-09-14 5:30	3504614	7.992	-86.355	12.178	881.102	1166.858	0.582	44.004	12.178	***0.978***
2021-09-14 5:45	3505514	7.986	-85.979	12.150	880.683	1167.128	0.582	45.027	12.150	***1.091***
2021-09-14 6:00	3506414	7.972	-85.185	12.128	880.256	1167.233	0.582	45.223	12.128	***1.239***
2021-09-14 6:15	3507314	7.957	-84.352	12.109	879.829	1167.215	0.582	45.324	12.109	***1.347***
2021-09-14 6:30	3508214	7.952	-84.047	12.083	874.362	1160.720	0.578	46.559	12.083	***1.321***
2021-09-14 6:45	3509114	7.941	-83.389	12.057	878.941	1167.577	0.582	46.089	12.057	***1.317***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-14 7:00	3510014	7.933	-82.974	12.027	878.269	1167.586	0.582	46.151	12.027	***1.301***
2021-09-14 7:15	3510914	7.926	-82.576	12.002	877.828	1167.723	0.582	46.120	12.002	***1.322***
2021-09-14 7:30	3511814	7.917	-82.052	11.963	877.168	1168.012	0.582	46.040	11.963	***1.242***
2021-09-14 7:45	3512714	7.919	-82.119	11.918	875.927	1167.703	0.582	46.507	11.918	***1.226***
2021-09-14 8:00	3513614	7.916	-81.952	11.874	875.169	1167.989	0.582	46.326	11.874	***1.254***
2021-09-14 8:15	3514514	7.910	-81.615	11.845	874.022	1167.326	0.582	46.188	11.845	***1.345***
2021-09-14 8:30	3515414	7.908	-81.487	11.824	871.944	1165.177	0.581	46.144	11.824	***1.329***
2021-09-14 8:45	3516314	7.912	-81.682	11.810	872.405	1166.219	0.581	45.740	11.810	***1.226***
2021-09-14 9:00	3517214	7.911	-81.670	11.804	871.746	1165.514	0.581	46.192	11.804	***1.055***
2021-09-14 9:15	3518114	7.916	-81.940	11.799	871.008	1164.659	0.580	48.836	11.799	***0.966***
2021-09-14 9:30	3519014	7.947	-83.659	11.798	870.584	1164.124	0.580	47.287	11.798	***0.938***
2021-09-14 9:45	3519914	7.987	-85.931	11.799	870.192	1163.566	0.580	47.956	11.799	***0.934***
2021-09-14 10:00	3520814	8.021	-87.874	11.803	869.910	1163.084	0.579	46.025	11.803	***0.904***
2021-09-14 10:15	3521714	8.039	-88.875	11.806	870.072	1163.203	0.579	46.251	11.806	***1.087***
2021-09-14 10:30	3522614	8.058	-89.982	11.806	869.991	1163.106	0.579	46.658	11.806	***1.295***
2021-09-14 10:45	3523514	8.058	-89.972	11.801	870.406	1163.812	0.580	46.928	11.801	***1.230***
2021-09-14 11:00	3524414	8.066	-90.408	11.797	870.524	1164.077	0.580	46.828	11.797	***1.394***
2021-09-14 11:15	3525314	8.073	-90.783	11.797	870.950	1164.662	0.580	46.442	11.797	***1.649***
2021-09-14 11:30	3526214	8.072	-90.752	11.799	871.459	1165.278	0.581	46.528	11.799	***1.677***
2021-09-14 11:45	3527114	8.076	-90.954	11.793	871.593	1165.616	0.581	46.513	11.793	***1.671***
2021-09-14 12:00	3528014	8.081	-91.269	11.791	871.713	1165.835	0.581	46.695	11.791	***1.577***
2021-09-14 12:15	3528914	8.073	-90.785	11.803	872.068	1165.953	0.581	46.595	11.803	***1.571***
2021-09-14 12:30	3529814	8.065	-90.373	11.821	872.730	1166.327	0.581	47.224	11.821	***1.586***
2021-09-14 12:45	3530714	8.064	-90.330	11.828	873.057	1166.547	0.581	47.788	11.828	***1.579***
2021-09-14 13:00	3531614	8.072	-90.756	11.832	873.259	1166.688	0.581	48.355	11.832	***1.617***
2021-09-14 13:15	3532514	8.071	-90.725	11.844	873.673	1166.891	0.581	49.131	11.844	***1.904***
2021-09-14 13:30	3533414	8.076	-90.981	11.863	874.358	1167.245	0.582	49.946	11.863	***2.163***
2021-09-14 13:45	3534314	8.079	-91.162	11.892	875.181	1167.474	0.582	50.999	11.892	***2.581***
2021-09-14 14:00	3535214	8.082	-91.362	11.930	875.928	1167.334	0.582	50.651	11.930	***3.165***
2021-09-14 14:15	3536114	8.074	-90.923	11.975	877.221	1167.718	0.582	50.899	11.975	***3.695***
2021-09-14 14:30	3537014	8.071	-90.780	12.008	878.006	1167.803	0.582	51.161	12.008	***4.168***
2021-09-14 14:45	3537914	8.079	-91.217	12.039	878.938	1168.117	0.582	49.001	12.039	***4.485***
2021-09-14 15:00	3538814	8.082	-91.400	12.098	880.344	1168.217	0.582	48.676	12.098	***5.301***
2021-09-14 15:15	3539714	8.080	-91.329	12.182	882.131	1168.111	0.582	48.557	12.182	***6.322***
2021-09-14 15:30	3540614	8.072	-90.928	12.306	884.811	1168.010	0.582	48.614	12.306	6.867
2021-09-14 15:45	3541514	8.084	-91.598	12.320	885.316	1168.248	0.583	50.591	12.320	6.750
2021-09-14 16:00	3542414	8.082	-91.505	12.339	885.684	1168.192	0.583	51.499	12.339	6.505
2021-09-14 16:15	3543314	8.077	-91.197	12.367	887.148	1169.289	0.583	52.409	12.367	6.599
2021-09-14 16:30	3544214	8.099	-92.463	12.364	887.688	1170.075	0.584	54.095	12.364	6.693
2021-09-14 16:45	3545114	8.106	-92.816	12.310	887.370	1171.251	0.584	52.820	12.310	***6.004***
2021-09-14 17:00	3546014	8.110	-93.040	12.209	884.785	1170.835	0.584	55.799	12.209	***6.242***
2021-09-14 17:15	3546914	8.119	-93.491	12.086	883.061	1172.203	0.584	54.731	12.086	6.639
2021-09-14 17:30	3547814	8.123	-93.701	11.986	882.591	1174.552	0.586	54.761	11.986	7.157
2021-09-14 17:45	3548714	8.120	-93.491	11.916	881.697	1175.459	0.586	54.135	11.916	7.468
2021-09-14 18:00	3549614	8.120	-93.477	11.891	881.737	1176.251	0.586	53.946	11.891	7.594

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-14 18:15	3550514	8.126	-93.806	11.873	881.887	1176.974	0.587	53.879	11.873	7.730
2021-09-14 18:30	3551414	8.118	-93.355	11.850	881.703	1177.445	0.587	52.062	11.850	7.821
2021-09-14 18:45	3552314	8.114	-93.129	11.807	881.181	1178.034	0.587	59.052	11.807	7.746
2021-09-14 19:00	3553214	8.110	-92.912	11.788	881.027	1178.384	0.587	57.046	11.788	7.621
2021-09-14 19:15	3554114	8.105	-92.590	11.774	881.089	1178.895	0.588	56.108	11.774	7.562
2021-09-14 19:30	3555014	8.105	-92.583	11.768	881.296	1179.354	0.588	54.011	11.768	7.484
2021-09-14 19:45	3555914	8.103	-92.487	11.769	881.436	1179.512	0.588	57.102	11.769	7.432
2021-09-14 20:00	3556814	8.098	-92.196	11.779	881.837	1179.755	0.588	54.371	11.779	7.416
2021-09-14 20:15	3557714	8.093	-91.913	11.798	882.346	1179.857	0.588	52.041	11.798	7.474
2021-09-14 20:30	3558614	8.083	-91.357	11.818	882.597	1179.584	0.588	52.175	11.818	7.481
2021-09-14 20:45	3559514	8.071	-90.704	11.834	883.418	1180.201	0.588	51.212	11.834	7.443
2021-09-14 21:00	3560414	8.063	-90.277	11.844	884.090	1180.795	0.589	51.136	11.844	7.366
2021-09-14 21:15	3561314	8.052	-89.629	11.847	883.187	1179.516	0.588	53.628	11.847	7.262
2021-09-14 21:30	3562214	8.048	-89.386	11.835	884.196	1181.199	0.589	53.701	11.835	7.167
2021-09-14 21:45	3563114	8.047	-89.347	11.827	884.105	1181.335	0.589	54.796	11.827	7.139
2021-09-14 22:00	3564014	8.057	-89.905	11.819	883.955	1181.374	0.589	55.524	11.819	7.092
2021-09-14 22:15	3564914	8.048	-89.386	11.807	883.658	1181.340	0.589	52.468	11.807	7.031
2021-09-14 22:30	3565814	8.044	-89.164	11.795	883.749	1181.824	0.589	52.750	11.795	6.915
2021-09-14 22:45	3566714	8.036	-88.727	11.782	883.422	1181.775	0.589	52.810	11.782	6.692
2021-09-14 23:00	3567614	8.033	-88.513	11.777	883.529	1182.078	0.589	51.547	11.777	***6.436***
2021-09-14 23:15	3568514	8.026	-88.129	11.772	883.409	1182.066	0.589	51.694	11.772	***6.162***
2021-09-14 23:30	3569414	8.019	-87.755	11.767	883.306	1182.065	0.589	51.643	11.767	***5.932***
2021-09-14 23:45	3570314	8.013	-87.421	11.764	883.379	1182.270	0.589	51.809	11.764	***5.760***
2021-09-15 0:00	3571214	8.011	-87.276	11.761	883.339	1182.310	0.589	51.719	11.761	***5.536***
2021-09-15 0:15	3572114	8.002	-86.753	11.757	883.443	1182.554	0.589	51.140	11.757	***5.275***
2021-09-15 0:30	3573014	7.992	-86.210	11.753	883.359	1182.573	0.589	52.347	11.753	***5.018***
2021-09-15 0:45	3573914	7.996	-86.443	11.737	882.983	1182.552	0.589	51.698	11.737	***4.807***
2021-09-15 1:00	3574814	8.002	-86.741	11.711	881.989	1181.993	0.589	51.452	11.711	***4.750***
2021-09-15 1:15	3575714	8.000	-86.637	11.686	880.776	1181.149	0.589	51.410	11.686	***4.777***
2021-09-15 1:30	3576614	8.001	-86.677	11.656	880.064	1181.092	0.589	52.224	11.656	***4.903***
2021-09-15 1:45	3577514	7.996	-86.386	11.629	879.247	1180.821	0.588	54.854	11.629	***5.006***
2021-09-15 2:00	3578414	7.988	-85.967	11.614	878.782	1180.636	0.588	59.302	11.614	***5.029***
2021-09-15 2:15	3579314	7.987	-85.852	11.595	878.399	1180.715	0.588	59.763	11.595	***4.788***
2021-09-15 2:30	3580214	7.978	-85.361	11.569	877.759	1180.633	0.588	56.003	11.569	***4.509***
2021-09-15 2:45	3581114	7.970	-84.877	11.549	877.420	1180.787	0.588	57.348	11.549	***4.183***
2021-09-15 3:00	3582014	7.959	-84.288	11.535	876.996	1180.628	0.588	56.940	11.535	***3.840***
2021-09-15 3:15	3582914	7.953	-83.935	11.523	876.655	1180.545	0.588	51.552	11.523	***3.525***
2021-09-15 3:30	3583814	7.952	-83.885	11.488	875.816	1180.478	0.588	52.479	11.488	***3.309***
2021-09-15 3:45	3584714	7.947	-83.551	11.447	874.743	1180.278	0.588	52.757	11.447	***3.204***
2021-09-15 4:00	3585614	7.946	-83.530	11.397	872.569	1178.861	0.587	52.755	11.397	***3.232***
2021-09-15 4:15	3586514	7.943	-83.299	11.348	870.511	1177.558	0.586	56.372	11.348	***3.281***
2021-09-15 4:30	3587414	7.936	-82.917	11.316	869.592	1177.296	0.586	56.592	11.316	***3.296***
2021-09-15 4:45	3588314	7.934	-82.805	11.275	868.598	1177.201	0.586	54.619	11.275	***3.255***
2021-09-15 5:00	3589214	7.933	-82.726	11.229	867.268	1176.799	0.586	55.770	11.229	***3.188***
2021-09-15 5:15	3590114	7.933	-82.734	11.189	865.491	1175.606	0.585	51.387	11.189	***3.049***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-15 5:30	3591014	7.935	-82.834	11.158	863.615	1173.996	0.584	51.620	11.158	***2.811***
2021-09-15 5:45	3591914	7.937	-82.924	11.131	861.987	1172.600	0.584	52.401	11.131	***2.603***
2021-09-15 6:00	3592814	7.937	-82.927	11.095	860.191	1171.272	0.583	50.686	11.095	***2.427***
2021-09-15 6:15	3593714	7.937	-82.867	11.050	857.706	1169.251	0.582	52.394	11.050	***2.304***
2021-09-15 6:30	3594614	7.940	-83.032	11.011	855.901	1167.977	0.581	50.936	11.011	***2.336***
2021-09-15 6:45	3595514	7.937	-82.848	10.978	854.169	1166.607	0.580	49.851	10.978	***2.362***
2021-09-15 7:00	3596414	7.934	-82.676	10.945	853.309	1166.435	0.580	51.526	10.945	***2.318***
2021-09-15 7:15	3597314	7.931	-82.488	10.905	851.600	1165.337	0.580	51.748	10.905	***2.236***
2021-09-15 7:30	3598214	7.937	-82.815	10.856	849.871	1164.444	0.579	52.007	10.856	***2.123***
2021-09-15 7:45	3599114	7.940	-82.991	10.820	848.034	1163.014	0.578	52.712	10.820	***2.089***
2021-09-15 8:00	3600014	7.938	-82.889	10.778	846.276	1161.888	0.578	59.168	10.778	***1.956***
2021-09-15 8:15	3600914	7.940	-82.998	10.737	844.510	1160.723	0.577	53.954	10.737	***1.849***
2021-09-15 8:30	3601814	7.951	-83.597	10.699	842.061	1158.520	0.576	53.242	10.699	***1.806***
2021-09-15 8:45	3602714	7.964	-84.295	10.665	840.289	1157.094	0.575	52.872	10.665	***1.726***
2021-09-15 9:00	3603614	7.967	-84.465	10.644	838.248	1154.929	0.574	53.196	10.644	***1.682***
2021-09-15 9:15	3604514	7.967	-84.476	10.612	836.552	1153.566	0.573	52.136	10.612	***1.648***
2021-09-15 9:30	3605414	7.974	-84.853	10.582	834.770	1152.021	0.572	52.568	10.582	***1.626***
2021-09-15 9:45	3606314	7.986	-85.497	10.545	832.859	1150.513	0.571	54.600	10.545	***1.622***
2021-09-15 10:00	3607214	7.995	-86.002	10.504	830.976	1149.129	0.571	55.699	10.504	***1.547***
2021-09-15 10:15	3608114	8.000	-86.281	10.478	829.329	1147.648	0.570	52.927	10.478	***1.456***
2021-09-15 10:30	3609014	8.002	-86.401	10.454	827.686	1146.114	0.569	54.053	10.454	***1.272***
2021-09-15 10:45	3609914	8.007	-86.644	10.428	826.738	1145.592	0.569	53.635	10.428	***1.200***
2021-09-15 11:00	3610814	8.012	-86.918	10.395	825.268	1144.556	0.568	56.326	10.395	***1.187***
2021-09-15 11:15	3611714	8.018	-87.225	10.361	823.996	1143.808	0.568	61.434	10.361	***1.160***
2021-09-15 11:30	3612614	8.022	-87.452	10.305	822.145	1142.927	0.567	57.023	10.305	***1.170***
2021-09-15 11:45	3613514	8.032	-87.993	10.266	820.162	1141.378	0.566	56.951	10.266	***1.281***
2021-09-15 12:00	3614414	8.036	-88.236	10.243	818.957	1140.385	0.566	53.596	10.243	***1.346***
2021-09-15 12:15	3615314	8.038	-88.327	10.211	817.523	1139.359	0.565	59.054	10.211	***1.427***
2021-09-15 12:30	3616214	8.045	-88.735	10.177	815.878	1138.090	0.565	58.671	10.177	***1.524***
2021-09-15 12:45	3617114	8.049	-88.902	10.148	814.731	1137.368	0.564	54.274	10.148	***1.676***
2021-09-15 13:00	3618014	8.051	-89.049	10.124	813.699	1136.656	0.564	58.516	10.124	***1.645***
2021-09-15 13:15	3618914	8.048	-88.837	10.106	812.455	1135.455	0.563	60.992	10.106	***1.885***
2021-09-15 13:30	3619814	8.042	-88.518	10.116	811.161	1133.356	0.562	54.326	10.116	***2.375***
2021-09-15 13:45	3620714	8.043	-88.599	10.131	810.805	1132.411	0.562	52.941	10.131	***2.932***
2021-09-15 14:00	3621614	8.047	-88.837	10.161	810.329	1130.836	0.561	56.642	10.161	***3.659***
2021-09-15 14:15	3622515	8.051	-89.056	10.213	810.692	1129.769	0.560	52.835	10.213	***4.256***
2021-09-15 14:30	3623415	8.056	-89.395	10.299	811.652	1128.544	0.560	61.528	10.299	***4.634***
2021-09-15 14:45	3624315	8.068	-90.082	10.374	812.611	1127.604	0.559	55.806	10.374	***5.363***
2021-09-15 15:00	3625215	8.080	-90.775	10.450	813.541	1126.646	0.559	56.353	10.450	***5.832***
2021-09-15 15:15	3626115	8.086	-91.114	10.526	814.831	1126.174	0.559	55.260	10.526	***6.225***
2021-09-15 15:30	3627015	8.099	-91.865	10.558	815.538	1126.184	0.559	56.902	10.558	6.511
2021-09-15 15:45	3627915	8.093	-91.515	10.571	815.380	1125.588	0.559	61.286	10.571	6.894
2021-09-15 16:00	3628815	8.094	-91.627	10.606	815.656	1124.935	0.558	59.270	10.606	7.193
2021-09-15 16:15	3629715	8.107	-92.330	10.670	816.799	1124.599	0.558	57.992	10.670	7.486
2021-09-15 16:30	3630615	8.123	-93.293	10.749	818.027	1123.978	0.558	55.703	10.749	7.646

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-15 16:45	3631515	8.133	-93.863	10.794	818.899	1123.843	0.558	57.376	10.794	7.761
2021-09-15 17:00	3632415	8.138	-94.123	10.812	819.251	1123.783	0.558	57.379	10.812	8.001
2021-09-15 17:15	3633315	8.140	-94.280	10.846	819.826	1123.578	0.558	54.441	10.846	7.979
2021-09-15 17:30	3634215	8.140	-94.259	10.883	820.590	1123.531	0.558	56.470	10.883	8.167
2021-09-15 17:45	3635115	8.142	-94.421	10.916	821.259	1123.475	0.558	56.565	10.916	8.408
2021-09-15 18:00	3636015	8.141	-94.359	10.985	822.482	1123.135	0.558	58.111	10.985	8.471
2021-09-15 18:15	3636915	8.158	-95.325	11.025	823.271	1123.047	0.558	59.856	11.025	8.489
2021-09-15 18:30	3637815	8.164	-95.716	11.047	823.623	1122.868	0.558	56.467	11.047	8.400
2021-09-15 18:45	3638715	8.164	-95.706	11.066	823.663	1122.365	0.558	53.454	11.066	8.328
2021-09-15 19:00	3639615	8.165	-95.749	11.072	823.883	1122.482	0.558	55.957	11.072	8.109
2021-09-15 19:15	3640515	8.169	-95.975	11.065	823.517	1122.205	0.557	57.434	11.065	7.740
2021-09-15 19:30	3641415	8.169	-95.954	11.054	823.094	1121.951	0.557	58.229	11.054	7.326
2021-09-15 19:45	3642315	8.165	-95.747	11.040	823.036	1122.267	0.557	58.813	11.040	7.038
2021-09-15 20:00	3643215	8.157	-95.310	11.023	822.771	1122.415	0.557	59.413	11.023	6.766
2021-09-15 20:15	3644115	8.151	-94.924	11.003	822.426	1122.517	0.558	58.877	11.003	6.692
2021-09-15 20:30	3645015	8.150	-94.874	10.987	822.166	1122.638	0.558	59.089	10.987	6.627
2021-09-15 20:45	3645915	8.148	-94.774	10.974	822.219	1123.090	0.558	64.360	10.974	***6.296***
2021-09-15 21:00	3646815	8.152	-94.984	10.965	821.912	1122.937	0.558	58.634	10.965	***5.833***
2021-09-15 21:15	3647715	8.149	-94.798	10.956	821.907	1123.184	0.558	58.870	10.956	***5.580***
2021-09-15 21:30	3648615	8.147	-94.707	10.943	821.916	1123.600	0.558	57.958	10.943	***5.367***
2021-09-15 21:45	3649515	8.155	-95.165	10.923	821.629	1123.774	0.558	55.741	10.923	***5.168***
2021-09-15 22:00	3650415	8.164	-95.630	10.904	821.285	1123.866	0.558	54.947	10.904	***5.221***
2021-09-15 22:15	3651315	8.161	-95.475	10.890	820.916	1123.779	0.558	55.291	10.890	***5.235***
2021-09-15 22:30	3652215	8.154	-95.069	10.869	820.644	1124.026	0.558	56.590	10.869	***5.215***
2021-09-15 22:45	3653115	8.134	-93.937	10.847	820.402	1124.326	0.558	57.640	10.847	***5.443***
2021-09-15 23:00	3654015	8.121	-93.193	10.836	820.257	1124.447	0.558	56.758	10.836	***5.419***
2021-09-15 23:15	3654915	8.128	-93.575	10.826	820.463	1125.038	0.559	57.073	10.826	***5.530***
2021-09-15 23:30	3655815	8.122	-93.222	10.810	820.234	1125.203	0.559	59.704	10.810	***5.470***
2021-09-15 23:45	3656715	8.100	-92.003	10.789	819.760	1125.178	0.559	62.896	10.789	***5.495***
2021-09-16 0:00	3657615	8.096	-91.772	10.775	819.823	1125.677	0.559	61.362	10.775	***5.893***
2021-09-16 0:15	3658515	8.102	-92.106	10.751	819.328	1125.685	0.559	62.523	10.751	***6.356***
2021-09-16 0:30	3659415	8.109	-92.480	10.728	818.861	1125.728	0.559	62.556	10.728	6.601
2021-09-16 0:45	3660315	8.109	-92.499	10.712	818.713	1126.012	0.559	62.242	10.712	6.519
2021-09-16 1:00	3661215	8.103	-92.163	10.694	818.294	1125.945	0.559	61.761	10.694	***5.988***
2021-09-16 1:15	3662115	8.100	-91.977	10.671	817.542	1125.589	0.559	60.700	10.671	***5.757***
2021-09-16 1:30	3663015	8.100	-91.975	10.641	817.373	1126.259	0.559	61.729	10.641	***5.625***
2021-09-16 1:45	3663915	8.101	-92.027	10.612	816.626	1126.075	0.559	60.936	10.612	***5.507***
2021-09-16 2:00	3664815	8.103	-92.123	10.591	815.933	1125.757	0.559	60.502	10.591	***5.523***
2021-09-16 2:15	3665715	8.098	-91.839	10.570	815.327	1125.551	0.559	60.626	10.570	***5.361***
2021-09-16 2:30	3666615	8.097	-91.774	10.549	815.193	1125.981	0.559	57.732	10.549	***5.271***
2021-09-16 2:45	3667515	8.095	-91.629	10.530	814.771	1125.954	0.559	57.747	10.530	***5.452***
2021-09-16 3:00	3668415	8.095	-91.646	10.515	814.462	1125.980	0.559	57.780	10.515	***5.455***
2021-09-16 3:15	3669315	8.086	-91.135	10.503	814.164	1125.921	0.559	59.757	10.503	***5.329***
2021-09-16 3:30	3670215	8.078	-90.671	10.488	814.032	1126.177	0.559	62.278	10.488	***5.284***
2021-09-16 3:45	3671115	8.080	-90.761	10.475	813.784	1126.228	0.559	62.096	10.475	***5.023***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-16 4:00	3672015	8.066	-89.991	10.459	813.062	1125.709	0.559	61.783	10.459	***4.811***
2021-09-16 4:15	3672915	8.048	-88.942	10.442	813.586	1126.935	0.559	63.215	10.442	***4.843***
2021-09-16 4:30	3673815	8.039	-88.460	10.430	813.334	1126.958	0.559	63.507	10.430	***5.018***
2021-09-16 4:45	3674715	8.039	-88.475	10.418	813.531	1127.575	0.559	63.387	10.418	***5.217***
2021-09-16 5:00	3675615	8.043	-88.687	10.404	813.311	1127.698	0.559	63.575	10.404	***5.256***
2021-09-16 5:15	3676515	8.041	-88.575	10.389	813.353	1128.203	0.560	63.873	10.389	***5.357***
2021-09-16 5:30	3677415	8.032	-88.058	10.375	813.404	1128.703	0.560	64.970	10.375	***5.415***
2021-09-16 5:45	3678315	8.025	-87.631	10.361	813.328	1129.003	0.560	67.037	10.361	***5.426***
2021-09-16 6:00	3679215	8.017	-87.192	10.347	812.843	1128.753	0.560	66.071	10.347	***5.574***
2021-09-16 6:15	3680115	8.025	-87.616	10.335	813.298	1129.738	0.560	66.408	10.335	***5.578***
2021-09-16 6:30	3681015	8.032	-88.017	10.320	813.268	1130.137	0.561	63.812	10.320	***5.447***
2021-09-16 6:45	3681915	8.025	-87.612	10.307	812.839	1129.927	0.561	63.784	10.307	***5.315***
2021-09-16 7:00	3682815	8.028	-87.810	10.299	813.099	1130.536	0.561	64.693	10.299	***5.288***
2021-09-16 7:15	3683715	8.020	-87.323	10.293	813.065	1130.688	0.561	64.230	10.293	***5.121***
2021-09-16 7:30	3684615	8.011	-86.844	10.287	813.021	1130.785	0.561	63.032	10.287	***4.764***
2021-09-16 7:45	3685515	8.006	-86.532	10.283	813.475	1131.534	0.561	63.454	10.283	***4.450***
2021-09-16 8:00	3686415	7.999	-86.160	10.280	813.155	1131.193	0.561	64.750	10.280	***4.225***
2021-09-16 8:15	3687315	8.002	-86.334	10.277	813.304	1131.499	0.561	64.377	10.277	***4.158***
2021-09-16 8:30	3688215	8.002	-86.350	10.274	813.425	1131.748	0.561	64.693	10.274	***4.133***
2021-09-16 8:45	3689115	8.011	-86.825	10.272	813.301	1131.649	0.561	63.306	10.272	***4.063***
2021-09-16 9:00	3690015	8.031	-87.962	10.261	812.958	1131.477	0.561	62.517	10.261	***4.087***
2021-09-16 9:15	3690915	8.050	-89.023	10.252	812.631	1131.319	0.561	62.366	10.252	***4.233***
2021-09-16 9:30	3691815	8.058	-89.462	10.244	812.280	1131.064	0.561	61.786	10.244	***4.385***
2021-09-16 9:45	3692715	8.068	-90.044	10.238	811.544	1130.207	0.561	62.511	10.238	***4.553***
2021-09-16 10:00	3693615	8.076	-90.497	10.242	811.751	1130.368	0.561	61.352	10.242	***4.641***
2021-09-16 10:15	3694515	8.082	-90.826	10.244	811.720	1130.268	0.561	61.258	10.244	***4.643***
2021-09-16 10:30	3695415	8.086	-91.050	10.240	811.150	1129.608	0.560	62.339	10.240	***4.542***
2021-09-16 10:45	3696315	8.099	-91.758	10.219	810.134	1128.821	0.560	64.200	10.219	***4.579***
2021-09-16 11:00	3697215	8.110	-92.385	10.189	808.835	1127.910	0.559	64.262	10.189	***4.881***
2021-09-16 11:15	3698115	8.112	-92.492	10.154	807.714	1127.398	0.559	64.611	10.154	***5.217***
2021-09-16 11:30	3699015	8.102	-91.870	10.111	805.883	1126.137	0.558	65.071	10.111	***5.766***
2021-09-16 11:45	3699915	8.090	-91.207	10.074	804.159	1124.834	0.558	65.441	10.074	***6.083***
2021-09-16 12:00	3700815	8.094	-91.441	10.042	803.095	1124.311	0.557	64.168	10.042	***5.958***
2021-09-16 12:15	3701715	8.100	-91.777	10.013	802.091	1123.762	0.557	62.633	10.013	***5.587***
2021-09-16 12:30	3702615	8.104	-91.982	9.986	801.391	1123.589	0.557	64.317	9.986	***5.217***
2021-09-16 12:45	3703515	8.111	-92.361	9.964	800.174	1122.545	0.556	64.038	9.964	***5.050***
2021-09-16 13:00	3704415	8.112	-92.392	9.950	799.626	1122.223	0.556	63.767	9.950	***4.805***
2021-09-16 13:15	3705315	8.115	-92.573	9.946	799.198	1121.738	0.556	63.063	9.946	***4.665***
2021-09-16 13:30	3706215	8.122	-92.955	9.960	799.124	1121.196	0.556	63.776	9.960	***4.634***
2021-09-16 13:45	3707115	8.130	-93.396	9.973	799.219	1120.948	0.555	62.788	9.973	***4.617***
2021-09-16 14:00	3708015	8.138	-93.906	9.996	799.484	1120.642	0.555	62.596	9.996	***4.884***
2021-09-16 14:15	3708915	8.135	-93.751	10.041	800.309	1120.434	0.555	64.219	10.041	***5.288***
2021-09-16 14:30	3709815	8.133	-93.663	10.109	801.205	1119.648	0.555	62.245	10.109	***5.797***
2021-09-16 14:45	3710715	8.141	-94.101	10.159	802.036	1119.320	0.555	62.053	10.159	***6.316***
2021-09-16 15:00	3711615	8.148	-94.502	10.186	802.246	1118.817	0.555	63.276	10.186	6.533

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-16 15:15	3712515	8.151	-94.671	10.208	802.727	1118.818	0.555	67.719	10.208	***6.387***
2021-09-16 15:30	3713415	8.166	-95.525	10.238	802.942	1118.245	0.554	70.093	10.238	***6.340***
2021-09-16 15:45	3714315	8.174	-96.009	10.267	803.254	1117.797	0.554	69.363	10.267	***6.380***
2021-09-16 16:00	3715215	8.179	-96.262	10.284	803.631	1117.813	0.554	68.744	10.284	6.812
2021-09-16 16:15	3716115	8.178	-96.216	10.317	804.161	1117.579	0.554	67.883	10.317	7.188
2021-09-16 16:30	3717015	8.187	-96.765	10.353	804.927	1117.583	0.554	69.146	10.353	7.380
2021-09-16 16:45	3717915	8.184	-96.619	10.392	805.484	1117.210	0.554	69.218	10.392	7.345
2021-09-16 17:00	3718815	8.184	-96.607	10.464	806.920	1117.048	0.554	66.019	10.464	7.533
2021-09-16 17:15	3719715	8.190	-97.005	10.529	807.965	1116.571	0.554	66.475	10.529	7.914
2021-09-16 17:30	3720615	8.204	-97.783	10.574	809.072	1116.792	0.554	66.139	10.574	8.226
2021-09-16 17:45	3721515	8.204	-97.795	10.625	810.147	1116.780	0.554	68.455	10.625	8.474
2021-09-16 18:00	3722415	8.206	-97.957	10.662	810.698	1116.434	0.554	68.750	10.662	8.613
2021-09-16 18:15	3723315	8.205	-97.857	10.693	811.356	1116.433	0.554	66.406	10.693	8.714
2021-09-16 18:30	3724215	8.211	-98.217	10.701	811.233	1116.042	0.554	66.967	10.701	8.791
2021-09-16 18:45	3725115	8.212	-98.276	10.701	811.157	1115.934	0.554	65.521	10.701	8.814
2021-09-16 19:00	3726015	8.210	-98.190	10.693	810.992	1115.931	0.554	65.614	10.693	8.953
2021-09-16 19:15	3726915	8.196	-97.399	10.680	810.286	1115.350	0.553	64.068	10.680	9.031
2021-09-16 19:30	3727815	8.201	-97.656	10.674	810.222	1115.425	0.553	64.067	10.674	9.041
2021-09-16 19:45	3728715	8.199	-97.544	10.675	810.044	1115.160	0.553	64.859	10.675	9.053
2021-09-16 20:00	3729615	8.191	-97.082	10.680	809.909	1114.832	0.553	64.950	10.680	9.032
2021-09-16 20:15	3730515	8.184	-96.710	10.686	810.012	1114.804	0.553	64.882	10.686	9.092
2021-09-16 20:30	3731415	8.178	-96.383	10.693	809.835	1114.350	0.553	64.950	10.693	9.128
2021-09-16 20:45	3732315	8.171	-95.956	10.710	810.217	1114.367	0.553	65.295	10.710	9.041
2021-09-16 21:00	3733215	8.164	-95.558	10.724	810.494	1114.333	0.553	67.284	10.724	8.932
2021-09-16 21:15	3734115	8.157	-95.189	10.738	810.653	1114.165	0.553	66.532	10.738	8.792
2021-09-16 21:30	3735015	8.151	-94.852	10.743	811.012	1114.500	0.553	66.192	10.743	8.631
2021-09-16 21:45	3735915	8.143	-94.399	10.747	810.986	1114.353	0.553	65.046	10.747	8.479
2021-09-16 22:00	3736815	8.132	-93.801	10.744	811.034	1114.489	0.553	65.013	10.744	8.316
2021-09-16 22:15	3737715	8.123	-93.291	10.734	810.987	1114.720	0.553	64.472	10.734	8.203
2021-09-16 22:30	3738615	8.116	-92.869	10.714	810.393	1114.485	0.553	64.052	10.714	8.148
2021-09-16 22:45	3739515	8.116	-92.876	10.690	809.396	1113.822	0.553	64.577	10.690	8.180
2021-09-16 23:00	3740415	8.116	-92.852	10.667	808.535	1113.321	0.552	64.299	10.667	8.165
2021-09-16 23:15	3741315	8.117	-92.897	10.635	807.460	1112.776	0.552	64.155	10.635	8.108
2021-09-16 23:30	3742215	8.110	-92.478	10.610	806.169	1111.725	0.551	66.296	10.610	8.014
2021-09-16 23:45	3743115	8.112	-92.635	10.600	805.704	1111.371	0.551	68.263	10.600	8.042
2021-09-17 0:00	3744015	8.112	-92.623	10.592	805.277	1111.037	0.551	68.485	10.592	8.053
2021-09-17 0:15	3744916	8.108	-92.390	10.580	804.979	1110.970	0.551	66.394	10.580	7.935
2021-09-17 0:30	3745816	8.101	-91.982	10.563	805.527	1112.207	0.552	69.684	10.563	7.832
2021-09-17 0:45	3746716	8.102	-92.015	10.549	804.053	1110.588	0.551	70.136	10.549	7.780
2021-09-17 1:00	3747616	8.106	-92.249	10.532	803.877	1110.841	0.551	67.459	10.532	7.700
2021-09-17 1:15	3748516	8.103	-92.099	10.513	803.343	1110.661	0.551	75.004	10.513	7.682
2021-09-17 1:30	3749416	8.097	-91.710	10.486	802.873	1110.807	0.551	69.928	10.486	7.654
2021-09-17 1:45	3750316	8.091	-91.374	10.455	804.803	1114.405	0.553	72.294	10.455	7.686
2021-09-17 2:00	3751216	8.089	-91.259	10.426	800.896	1109.826	0.550	66.409	10.426	7.811
2021-09-17 2:15	3752116	8.087	-91.166	10.402	800.211	1109.600	0.550	69.772	10.402	7.865

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-17 2:30	3753016	8.092	-91.419	10.386	799.360	1108.890	0.550	70.819	10.386	7.863
2021-09-17 2:45	3753916	8.091	-91.381	10.371	798.850	1108.610	0.550	70.032	10.371	7.859
2021-09-17 3:00	3754816	8.087	-91.116	10.360	798.378	1108.274	0.549	70.049	10.360	7.845
2021-09-17 3:15	3755716	8.085	-91.004	10.343	797.752	1107.904	0.549	70.722	10.343	7.800
2021-09-17 3:30	3756616	8.081	-90.809	10.327	796.889	1107.179	0.549	78.225	10.327	7.792
2021-09-17 3:45	3757516	8.078	-90.625	10.316	796.579	1107.061	0.549	72.535	10.316	7.793
2021-09-17 4:00	3758416	8.079	-90.654	10.301	796.149	1106.929	0.549	71.273	10.301	7.709
2021-09-17 4:15	3759316	8.077	-90.563	10.276	795.211	1106.344	0.548	70.894	10.276	7.614
2021-09-17 4:30	3760216	8.075	-90.399	10.254	794.408	1105.881	0.548	71.340	10.254	7.515
2021-09-17 4:45	3761116	8.071	-90.194	10.233	793.655	1105.431	0.548	75.517	10.233	7.390
2021-09-17 5:00	3762016	8.075	-90.389	10.210	792.652	1104.721	0.547	74.942	10.210	7.130
2021-09-17 5:15	3762916	8.080	-90.697	10.192	792.218	1104.644	0.547	71.745	10.192	6.783
2021-09-17 5:30	3763816	8.073	-90.306	10.180	791.502	1104.012	0.547	70.012	10.180	***6.401***
2021-09-17 5:45	3764716	8.070	-90.086	10.157	790.624	1103.464	0.547	70.882	10.157	***6.008***
2021-09-17 6:00	3765616	8.065	-89.843	10.130	789.728	1102.995	0.546	69.630	10.130	***5.819***
2021-09-17 6:15	3766516	8.058	-89.447	10.123	788.988	1102.164	0.546	68.673	10.123	***5.703***
2021-09-17 6:30	3767416	8.054	-89.211	10.118	788.595	1101.758	0.546	69.848	10.118	***5.512***
2021-09-17 6:45	3768316	8.050	-88.942	10.096	787.874	1101.407	0.546	72.975	10.096	***5.323***
2021-09-17 7:00	3769216	8.046	-88.713	10.069	787.184	1101.235	0.545	72.043	10.069	***5.147***
2021-09-17 7:15	3770116	8.044	-88.627	10.034	786.202	1100.881	0.545	70.909	10.034	***5.033***
2021-09-17 7:30	3771016	8.047	-88.785	10.006	785.156	1100.244	0.545	70.142	10.006	***4.968***
2021-09-17 7:45	3771916	8.037	-88.227	9.985	784.041	1099.302	0.544	69.432	9.985	***4.870***
2021-09-17 8:00	3772816	8.035	-88.084	9.961	783.265	1098.926	0.544	70.195	9.961	***4.751***
2021-09-17 8:15	3773716	8.032	-87.888	9.939	782.078	1097.910	0.544	68.312	9.939	***4.566***
2021-09-17 8:30	3774616	8.037	-88.153	9.914	781.422	1097.735	0.543	76.415	9.914	***4.385***
2021-09-17 8:45	3775516	8.042	-88.456	9.908	780.648	1096.805	0.543	79.144	9.908	***4.263***
2021-09-17 9:00	3776416	8.035	-88.038	9.892	779.686	1095.941	0.542	79.772	9.892	***4.175***
2021-09-17 9:15	3777316	8.047	-88.735	9.870	778.816	1095.351	0.542	80.357	9.870	***4.077***
2021-09-17 9:30	3778216	8.053	-89.052	9.856	777.763	1094.298	0.542	81.154	9.856	***3.978***
2021-09-17 9:45	3779116	8.057	-89.276	9.837	776.895	1093.624	0.541	81.374	9.837	***3.920***
2021-09-17 10:00	3780016	8.059	-89.388	9.820	776.252	1093.207	0.541	83.613	9.820	***3.900***
2021-09-17 10:15	3780916	8.059	-89.357	9.813	775.841	1092.846	0.541	85.870	9.813	***3.915***
2021-09-17 10:30	3781816	8.058	-89.309	9.808	775.403	1092.362	0.541	79.584	9.808	***3.826***
2021-09-17 10:45	3782716	8.061	-89.505	9.803	774.992	1091.937	0.540	77.098	9.803	***3.822***
2021-09-17 11:00	3783616	8.062	-89.519	9.798	774.820	1091.850	0.540	76.270	9.798	***3.679***
2021-09-17 11:15	3784516	8.065	-89.691	9.787	774.269	1091.397	0.540	70.504	9.787	***3.521***
2021-09-17 11:30	3785416	8.070	-89.982	9.771	773.948	1091.421	0.540	70.699	9.771	***3.547***
2021-09-17 11:45	3786316	8.068	-89.879	9.752	773.445	1091.258	0.540	71.000	9.752	***3.739***
2021-09-17 12:00	3787216	8.072	-90.113	9.739	772.656	1090.527	0.540	71.695	9.739	***3.938***
2021-09-17 12:15	3788116	8.066	-89.760	9.734	772.161	1089.969	0.539	71.491	9.734	***3.998***
2021-09-17 12:30	3789016	8.064	-89.622	9.741	772.089	1089.671	0.539	69.725	9.741	***4.125***
2021-09-17 12:45	3789916	8.061	-89.471	9.758	771.957	1088.970	0.539	68.374	9.758	***4.162***
2021-09-17 13:00	3790816	8.060	-89.417	9.792	772.242	1088.400	0.538	68.123	9.792	***4.318***
2021-09-17 13:15	3791716	8.062	-89.545	9.828	772.745	1088.031	0.538	67.444	9.828	***4.419***
2021-09-17 13:30	3792616	8.065	-89.741	9.856	773.165	1087.822	0.538	67.702	9.856	***4.335***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-17 13:45	3793516	8.067	-89.869	9.871	773.577	1087.944	0.538	67.800	9.871	***4.338***
2021-09-17 14:00	3794416	8.069	-89.989	9.877	773.550	1087.734	0.538	68.867	9.877	***4.297***
2021-09-17 14:15	3795316	8.080	-90.554	9.870	773.664	1088.113	0.538	68.688	9.870	***4.484***
2021-09-17 14:30	3796216	8.086	-90.885	9.858	773.479	1088.190	0.538	66.806	9.858	***4.851***
2021-09-17 14:45	3797116	8.082	-90.666	9.853	773.425	1088.277	0.538	67.047	9.853	***5.190***
2021-09-17 15:00	3798016	8.078	-90.470	9.863	773.544	1088.146	0.538	68.581	9.863	***5.507***
2021-09-17 15:15	3798916	8.070	-89.998	9.877	773.800	1088.084	0.538	68.027	9.877	***5.831***
2021-09-17 15:30	3799816	8.070	-89.998	9.881	774.090	1088.380	0.539	69.106	9.881	***5.960***
2021-09-17 15:45	3800716	8.066	-89.803	9.887	774.216	1088.378	0.539	68.424	9.887	***6.027***
2021-09-17 16:00	3801616	8.062	-89.574	9.897	774.474	1088.472	0.539	68.242	9.897	***6.037***
2021-09-17 16:15	3802516	8.068	-89.900	9.908	774.737	1088.511	0.539	66.543	9.908	***6.038***
2021-09-17 16:30	3803416	8.062	-89.600	9.930	775.042	1088.303	0.539	67.811	9.930	***6.072***
2021-09-17 16:45	3804316	8.057	-89.307	9.963	776.696	1089.647	0.539	69.840	9.963	***5.988***
2021-09-17 17:00	3805216	8.050	-88.954	10.008	776.864	1088.578	0.539	71.843	10.008	***5.960***
2021-09-17 17:15	3806116	8.044	-88.606	10.060	777.985	1088.627	0.539	70.754	10.060	***5.992***
2021-09-17 17:30	3807016	8.036	-88.170	10.121	779.272	1088.662	0.539	69.615	10.121	***5.997***
2021-09-17 17:45	3807916	8.030	-87.862	10.195	781.053	1089.003	0.539	69.065	10.195	***6.131***
2021-09-17 18:00	3808816	8.027	-87.731	10.284	783.406	1089.705	0.540	69.900	10.284	***6.223***
2021-09-17 18:15	3809716	8.029	-87.867	10.358	783.479	1087.653	0.539	70.196	10.358	***6.252***
2021-09-17 18:30	3810616	8.034	-88.177	10.405	785.555	1089.171	0.540	68.260	10.405	***6.266***
2021-09-17 18:45	3811516	8.030	-87.950	10.440	786.411	1089.355	0.540	70.362	10.440	***6.356***
2021-09-17 19:00	3812416	8.026	-87.729	10.473	787.221	1089.528	0.540	69.854	10.473	***6.394***
2021-09-17 19:15	3813316	8.023	-87.597	10.490	787.668	1089.659	0.540	68.895	10.490	***6.407***
2021-09-17 19:30	3814216	8.020	-87.390	10.487	787.703	1089.777	0.540	69.355	10.487	***6.314***
2021-09-17 19:45	3815116	8.022	-87.531	10.475	788.002	1090.563	0.540	70.503	10.475	***6.169***
2021-09-17 20:00	3816016	8.034	-88.186	10.455	787.808	1090.870	0.541	68.364	10.455	***6.183***
2021-09-17 20:15	3816916	8.057	-89.471	10.447	787.868	1091.176	0.541	72.330	10.447	***6.347***
2021-09-17 20:30	3817816	8.067	-90.005	10.449	788.086	1091.419	0.541	71.178	10.449	6.546
2021-09-17 20:45	3818716	8.069	-90.175	10.462	788.429	1091.531	0.541	72.194	10.462	***6.209***
2021-09-17 21:00	3819616	8.041	-88.592	10.538	789.762	1091.173	0.541	68.107	10.538	***6.238***
2021-09-17 21:15	3820516	8.016	-87.204	10.613	791.077	1090.816	0.541	74.530	10.613	***6.299***
2021-09-17 21:30	3821416	8.024	-87.688	10.615	791.208	1090.956	0.541	71.162	10.615	***6.319***
2021-09-17 21:45	3822316	8.027	-87.833	10.545	790.625	1092.166	0.541	77.458	10.545	***5.653***
2021-09-17 22:00	3823216	8.023	-87.590	10.494	790.138	1092.946	0.542	70.615	10.494	***5.831***
2021-09-17 22:15	3824116	8.031	-88.036	10.468	789.820	1093.272	0.542	69.799	10.468	***6.323***
2021-09-17 22:30	3825016	8.047	-88.890	10.451	789.781	1093.704	0.542	68.381	10.451	6.794
2021-09-17 22:45	3825916	8.056	-89.436	10.445	789.910	1094.068	0.542	71.833	10.445	7.263
2021-09-17 23:00	3826816	8.052	-89.173	10.447	790.058	1094.202	0.542	71.159	10.447	7.475
2021-09-17 23:15	3827716	8.041	-88.573	10.444	790.236	1094.548	0.542	70.689	10.444	7.464
2021-09-17 23:30	3828616	8.036	-88.279	10.432	790.171	1094.795	0.543	72.255	10.432	7.493
2021-09-17 23:45	3829516	8.031	-87.993	10.425	790.121	1094.935	0.543	77.122	10.425	7.447
2021-09-18 0:00	3830416	8.027	-87.757	10.412	789.912	1095.028	0.543	77.244	10.412	7.427
2021-09-18 0:15	3831316	8.022	-87.481	10.400	789.860	1095.301	0.543	75.208	10.400	7.436
2021-09-18 0:30	3832216	8.018	-87.247	10.399	789.954	1095.452	0.543	74.972	10.399	7.412
2021-09-18 0:45	3833116	8.012	-86.927	10.397	789.971	1095.528	0.543	75.678	10.397	7.328

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-18 1:00	3834016	8.009	-86.737	10.401	789.995	1095.438	0.543	73.949	10.401	7.189
2021-09-18 1:15	3834916	8.002	-86.381	10.390	789.975	1095.745	0.543	77.639	10.390	7.014
2021-09-18 1:30	3835816	7.989	-85.623	10.363	789.479	1095.853	0.543	76.794	10.363	6.782
2021-09-18 1:45	3836716	7.982	-85.213	10.338	789.366	1096.419	0.543	77.935	10.338	6.610
2021-09-18 2:00	3837616	7.978	-84.984	10.319	789.012	1096.470	0.543	78.924	10.319	6.540
2021-09-18 2:15	3838516	7.974	-84.741	10.317	789.133	1096.686	0.543	78.669	10.317	6.546
2021-09-18 2:30	3839416	7.969	-84.507	10.317	789.303	1096.925	0.544	77.231	10.317	6.603
2021-09-18 2:45	3840316	7.966	-84.336	10.318	789.750	1097.531	0.544	74.643	10.318	6.627
2021-09-18 3:00	3841216	7.964	-84.198	10.320	789.573	1097.212	0.544	72.204	10.320	6.612
2021-09-18 3:15	3842116	7.961	-84.021	10.315	789.328	1097.012	0.544	71.763	10.315	6.524
2021-09-18 3:30	3843016	7.957	-83.773	10.304	789.556	1097.671	0.544	76.476	10.304	***6.456***
2021-09-18 3:45	3843916	7.953	-83.599	10.299	789.289	1097.423	0.544	78.643	10.299	***6.328***
2021-09-18 4:00	3844816	7.952	-83.504	10.296	789.388	1097.665	0.544	79.655	10.296	***6.238***
2021-09-18 4:15	3845716	7.950	-83.416	10.287	789.216	1097.675	0.544	79.933	10.287	***6.193***
2021-09-18 4:30	3846616	7.950	-83.373	10.272	789.274	1098.192	0.544	78.730	10.272	***6.100***
2021-09-18 4:45	3847516	7.947	-83.213	10.265	789.250	1098.376	0.544	77.660	10.265	***5.899***
2021-09-18 5:00	3848416	7.942	-82.948	10.260	789.136	1098.375	0.544	74.058	10.260	***5.804***
2021-09-18 5:15	3849316	7.939	-82.767	10.249	788.860	1098.301	0.544	76.388	10.249	***5.777***
2021-09-18 5:30	3850216	7.937	-82.638	10.231	788.398	1098.189	0.544	75.158	10.231	***5.626***
2021-09-18 5:45	3851116	7.937	-82.664	10.211	788.069	1098.310	0.544	77.825	10.211	***5.652***
2021-09-18 6:00	3852016	7.936	-82.586	10.204	787.819	1098.160	0.544	78.412	10.204	***5.738***
2021-09-18 6:15	3852916	7.941	-82.846	10.195	787.886	1098.513	0.544	75.810	10.195	***5.766***
2021-09-18 6:30	3853816	7.944	-83.041	10.184	789.047	1100.458	0.545	76.773	10.184	***5.779***
2021-09-18 6:45	3854716	7.944	-83.015	10.174	787.486	1098.590	0.544	78.405	10.174	***5.793***
2021-09-18 7:00	3855616	7.943	-82.953	10.162	787.369	1098.769	0.544	77.440	10.162	***5.792***
2021-09-18 7:15	3856516	7.943	-82.963	10.153	787.176	1098.761	0.544	78.935	10.153	***5.823***
2021-09-18 7:30	3857416	7.942	-82.905	10.142	786.902	1098.695	0.544	77.221	10.142	***5.839***
2021-09-18 7:45	3858316	7.939	-82.750	10.128	786.519	1098.579	0.544	76.981	10.128	***5.826***
2021-09-18 8:00	3859216	7.948	-83.258	10.110	786.068	1098.461	0.544	78.521	10.110	***5.842***
2021-09-18 8:15	3860117	7.954	-83.597	10.095	785.757	1098.467	0.544	80.662	10.095	***5.813***
2021-09-18 8:30	3861017	7.949	-83.301	10.085	785.321	1098.173	0.544	80.968	10.085	***5.764***
2021-09-18 8:45	3861917	7.938	-82.674	10.076	785.564	1098.766	0.544	85.556	10.076	***5.696***
2021-09-18 9:00	3862817	7.938	-82.655	10.069	784.949	1098.104	0.544	82.029	10.069	***5.677***
2021-09-18 9:15	3863717	7.937	-82.617	10.068	784.586	1097.633	0.544	83.256	10.068	***5.568***
2021-09-18 9:30	3864617	7.938	-82.676	10.068	784.530	1097.559	0.544	78.952	10.068	***5.437***
2021-09-18 9:45	3865517	7.939	-82.734	10.075	784.387	1097.144	0.543	79.329	10.075	***5.305***
2021-09-18 10:00	3866417	7.942	-82.893	10.085	784.494	1096.991	0.543	78.055	10.085	***5.217***
2021-09-18 10:15	3867317	7.941	-82.817	10.102	784.463	1096.456	0.543	77.304	10.102	***5.178***
2021-09-18 10:30	3868217	7.938	-82.691	10.121	784.408	1095.819	0.543	75.270	10.121	***5.129***
2021-09-18 10:45	3869117	7.937	-82.633	10.139	784.414	1095.309	0.542	78.652	10.139	***4.982***
2021-09-18 11:00	3870017	7.930	-82.235	10.153	784.560	1095.102	0.542	85.901	10.153	***4.949***
2021-09-18 11:15	3870917	7.929	-82.166	10.164	784.476	1094.656	0.542	91.277	10.164	***5.093***
2021-09-18 11:30	3871817	7.928	-82.157	10.174	784.484	1094.382	0.542	91.108	10.174	***5.207***
2021-09-18 11:45	3872717	7.925	-81.949	10.182	784.189	1093.758	0.542	96.960	10.182	***5.203***
2021-09-18 12:00	3873617	7.931	-82.321	10.194	784.393	1093.688	0.542	96.729	10.194	***5.272***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-18 12:15	3874517	7.931	-82.324	10.206	784.305	1093.218	0.541	97.547	10.206	***5.427***
2021-09-18 12:30	3875417	7.934	-82.476	10.220	784.663	1093.312	0.542	97.281	10.220	***5.607***
2021-09-18 12:45	3876317	7.941	-82.865	10.247	785.120	1093.145	0.541	97.287	10.247	***5.687***
2021-09-18 13:00	3877217	7.951	-83.463	10.287	785.945	1093.145	0.542	98.297	10.287	***5.777***
2021-09-18 13:15	3878117	7.957	-83.799	10.327	786.619	1092.916	0.541	93.795	10.327	***5.948***
2021-09-18 13:30	3879017	7.963	-84.174	10.361	787.565	1093.228	0.542	92.120	10.361	***6.118***
2021-09-18 13:45	3879917	7.962	-84.097	10.380	787.958	1093.249	0.542	89.434	10.380	***6.267***
2021-09-18 14:00	3880817	7.961	-84.045	10.396	788.186	1093.086	0.542	86.587	10.396	***6.309***
2021-09-18 14:15	3881717	7.967	-84.388	10.437	789.069	1093.137	0.542	86.234	10.437	***6.404***
2021-09-18 14:30	3882617	7.979	-85.118	10.507	790.463	1093.025	0.542	97.757	10.507	***6.419***
2021-09-18 14:45	3883517	7.994	-85.940	10.573	791.666	1092.797	0.542	93.892	10.573	6.514
2021-09-18 15:00	3884417	7.996	-86.074	10.618	793.010	1093.350	0.542	99.607	10.618	***6.439***
2021-09-18 15:15	3885317	7.993	-85.948	10.640	793.409	1093.251	0.542	94.731	10.640	***6.425***
2021-09-18 15:30	3886217	8.000	-86.343	10.642	793.856	1093.810	0.542	99.409	10.642	6.602
2021-09-18 15:45	3887117	8.011	-86.949	10.637	793.663	1093.713	0.542	94.322	10.637	6.735
2021-09-18 16:00	3888017	8.017	-87.264	10.636	793.578	1093.616	0.542	89.121	10.636	6.957
2021-09-18 16:15	3888917	7.998	-86.195	10.636	793.363	1093.306	0.542	92.875	10.636	7.238
2021-09-18 16:30	3889817	8.033	-88.191	10.601	792.247	1092.794	0.542	88.700	10.601	7.561
2021-09-18 16:45	3890717	8.047	-88.973	10.567	791.242	1092.371	0.541	87.968	10.567	7.525
2021-09-18 17:00	3891617	8.045	-88.854	10.562	790.904	1092.041	0.541	87.226	10.562	7.533
2021-09-18 17:15	3892517	8.050	-89.130	10.582	790.807	1091.350	0.541	87.521	10.582	7.569
2021-09-18 17:30	3893417	8.054	-89.357	10.591	790.956	1091.296	0.541	85.670	10.591	7.672
2021-09-18 17:45	3894317	8.059	-89.614	10.600	790.163	1089.947	0.540	85.376	10.600	7.803
2021-09-18 18:00	3895217	8.069	-90.213	10.594	790.828	1091.018	0.541	87.785	10.594	7.880
2021-09-18 18:15	3896117	8.075	-90.556	10.592	790.648	1090.848	0.541	86.018	10.592	7.832
2021-09-18 18:30	3897017	8.075	-90.520	10.579	790.249	1090.676	0.541	87.202	10.579	7.900
2021-09-18 18:45	3897917	8.072	-90.365	10.570	790.011	1090.584	0.541	87.207	10.570	8.019
2021-09-18 19:00	3898817	8.071	-90.306	10.566	789.739	1090.327	0.540	85.155	10.566	8.101
2021-09-18 19:15	3899717	8.066	-90.034	10.571	789.655	1090.082	0.540	84.508	10.571	8.216
2021-09-18 19:30	3900617	8.059	-89.629	10.586	789.649	1089.622	0.540	85.294	10.586	8.297
2021-09-18 19:45	3901517	8.053	-89.297	10.604	789.893	1089.441	0.540	91.348	10.604	8.283
2021-09-18 20:00	3902417	8.051	-89.173	10.610	789.985	1089.419	0.540	92.960	10.610	8.246
2021-09-18 20:15	3903317	8.037	-88.403	10.600	789.696	1089.306	0.540	94.715	10.600	8.199
2021-09-18 20:30	3904217	8.032	-88.089	10.587	789.322	1089.166	0.540	91.876	10.587	8.133
2021-09-18 20:45	3905117	8.038	-88.439	10.581	789.226	1089.200	0.540	99.470	10.581	8.041
2021-09-18 21:00	3906017	8.034	-88.203	10.571	788.315	1088.225	0.539	91.328	10.571	7.923
2021-09-18 21:15	3906917	8.039	-88.470	10.570	788.896	1089.053	0.540	89.927	10.570	7.798
2021-09-18 21:30	3907817	8.037	-88.387	10.588	789.034	1088.726	0.540	91.353	10.588	7.657
2021-09-18 21:45	3908717	8.037	-88.415	10.615	789.602	1088.722	0.540	88.036	10.615	7.477
2021-09-18 22:00	3909617	8.049	-89.076	10.652	790.262	1088.574	0.540	87.829	10.652	7.254
2021-09-18 22:15	3910517	8.040	-88.604	10.685	790.758	1088.315	0.539	85.949	10.685	7.113
2021-09-18 22:30	3911417	8.033	-88.201	10.703	791.162	1088.375	0.540	84.030	10.703	7.026
2021-09-18 22:45	3912317	8.028	-87.934	10.705	791.293	1088.488	0.540	86.490	10.705	6.963
2021-09-18 23:00	3913217	8.015	-87.187	10.698	791.014	1088.314	0.540	89.889	10.698	6.883
2021-09-18 23:15	3914117	8.013	-87.078	10.685	791.112	1088.824	0.540	82.560	10.685	6.754

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-18 23:30	3915017	8.019	-87.409	10.670	790.752	1088.743	0.540	82.653	10.670	6.649
2021-09-18 23:45	3915917	8.010	-86.899	10.656	790.427	1088.688	0.540	84.000	10.656	6.600
2021-09-19 0:00	3916817	8.002	-86.458	10.643	790.135	1088.682	0.540	80.768	10.643	6.550
2021-09-19 0:15	3917717	8.002	-86.420	10.638	790.042	1088.669	0.540	80.395	10.638	6.506
2021-09-19 0:30	3918617	7.996	-86.071	10.642	790.156	1088.727	0.540	79.955	10.642	***6.395***
2021-09-19 0:45	3919517	7.989	-85.683	10.638	790.081	1088.726	0.540	79.871	10.638	***6.217***
2021-09-19 1:00	3920417	7.981	-85.270	10.623	789.825	1088.826	0.540	81.924	10.623	***6.070***
2021-09-19 1:15	3921317	7.975	-84.898	10.610	789.539	1088.786	0.540	81.600	10.610	***5.969***
2021-09-19 1:30	3922217	7.976	-84.941	10.605	789.116	1088.365	0.539	82.000	10.605	***5.951***
2021-09-19 1:45	3923117	7.977	-85.006	10.597	789.219	1088.732	0.540	82.495	10.597	***5.871***
2021-09-19 2:00	3924017	7.973	-84.794	10.588	788.989	1088.661	0.540	82.376	10.588	***5.784***
2021-09-19 2:15	3924917	7.970	-84.591	10.584	788.514	1088.124	0.539	82.253	10.584	***5.686***
2021-09-19 2:30	3925817	7.968	-84.498	10.578	788.360	1088.073	0.539	81.693	10.578	***5.551***
2021-09-19 2:45	3926717	7.967	-84.465	10.567	788.274	1088.291	0.539	82.369	10.567	***5.344***
2021-09-19 3:00	3927617	7.969	-84.538	10.550	787.961	1088.332	0.539	81.697	10.550	***5.276***
2021-09-19 3:15	3928517	7.964	-84.255	10.548	787.836	1088.235	0.539	81.729	10.548	***5.208***
2021-09-19 3:30	3929417	7.959	-83.961	10.538	787.605	1088.176	0.539	81.916	10.538	***5.095***
2021-09-19 3:45	3930317	7.956	-83.814	10.535	787.591	1088.248	0.539	82.451	10.535	***4.931***
2021-09-19 4:00	3931217	7.953	-83.637	10.532	787.458	1088.151	0.539	82.132	10.532	***4.734***
2021-09-19 4:15	3932117	7.950	-83.461	10.531	787.341	1088.014	0.539	82.364	10.531	***4.487***
2021-09-19 4:30	3933017	7.944	-83.153	10.532	787.340	1087.988	0.539	82.199	10.532	***4.259***
2021-09-19 4:45	3933917	7.941	-82.994	10.534	787.229	1087.780	0.539	81.809	10.534	***4.128***
2021-09-19 5:00	3934817	7.939	-82.843	10.531	787.076	1087.651	0.539	81.962	10.531	***3.949***
2021-09-19 5:15	3935717	7.935	-82.633	10.525	787.061	1087.811	0.539	82.369	10.525	***3.844***
2021-09-19 5:30	3936617	7.931	-82.419	10.518	787.109	1088.070	0.539	82.232	10.518	***3.769***
2021-09-19 5:45	3937517	7.930	-82.338	10.507	786.883	1088.068	0.539	83.205	10.507	***3.739***
2021-09-19 6:00	3938417	7.927	-82.159	10.498	786.980	1088.482	0.539	85.311	10.498	***3.699***
2021-09-19 6:15	3939317	7.923	-81.928	10.490	786.618	1088.198	0.539	86.392	10.490	***3.705***
2021-09-19 6:30	3940217	7.920	-81.792	10.482	786.525	1088.311	0.539	87.458	10.482	***3.750***
2021-09-19 6:45	3941117	7.912	-81.291	10.472	786.334	1088.327	0.539	89.982	10.472	***3.793***
2021-09-19 7:00	3942017	7.908	-81.093	10.463	786.502	1088.817	0.540	89.932	10.463	***3.836***
2021-09-19 7:15	3942917	7.883	-79.696	10.451	785.291	1087.501	0.539	131.566	10.451	***3.685***
2021-09-19 7:30	3943817	7.877	-79.358	10.446	784.903	1087.093	0.539	128.358	10.446	***3.914***
2021-09-19 7:45	3944717	7.878	-79.412	10.430	784.102	1086.436	0.538	129.054	10.430	***4.178***
2021-09-19 8:00	3945617	7.877	-79.334	10.414	783.370	1085.885	0.538	128.953	10.414	***4.360***
2021-09-19 8:15	3946517	7.908	-81.096	10.402	782.658	1085.254	0.538	128.687	10.402	***4.506***
2021-09-19 8:30	3947417	7.922	-81.842	10.391	781.957	1084.606	0.537	131.579	10.391	***4.618***
2021-09-19 8:45	3948317	7.918	-81.635	10.383	781.295	1083.901	0.537	130.835	10.383	***4.706***
2021-09-19 9:00	3949217	7.914	-81.415	10.380	780.624	1083.046	0.536	129.820	10.380	***4.795***
2021-09-19 9:15	3950117	7.917	-81.573	10.377	780.242	1082.618	0.536	129.471	10.377	***4.817***
2021-09-19 9:30	3951017	7.924	-81.975	10.377	779.879	1082.098	0.536	127.453	10.377	***4.844***
2021-09-19 9:45	3951917	7.926	-82.066	10.378	779.368	1081.366	0.536	129.317	10.378	***4.939***
2021-09-19 10:00	3952817	7.930	-82.316	10.383	779.123	1080.877	0.535	131.273	10.383	***5.142***
2021-09-19 10:15	3953717	7.931	-82.335	10.382	778.487	1080.025	0.535	133.711	10.382	***5.265***
2021-09-19 10:30	3954617	7.930	-82.295	10.379	777.809	1079.196	0.534	132.699	10.379	***5.331***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-19 10:45	3955517	7.932	-82.431	10.370	777.365	1078.810	0.534	132.240	10.370	***5.342***
2021-09-19 11:00	3956417	7.935	-82.569	10.360	776.845	1078.376	0.534	129.437	10.360	***5.380***
2021-09-19 11:15	3957317	7.931	-82.340	10.344	776.147	1077.866	0.534	130.691	10.344	***5.579***
2021-09-19 11:30	3958217	7.935	-82.555	10.327	775.489	1077.435	0.533	128.803	10.327	***5.682***
2021-09-19 11:45	3959117	7.930	-82.302	10.317	774.662	1076.582	0.533	128.366	10.317	***5.809***
2021-09-19 12:00	3960017	7.925	-82.006	10.318	774.268	1076.003	0.533	127.611	10.318	***5.894***
2021-09-19 12:15	3960917	7.934	-82.514	10.319	774.074	1075.710	0.533	128.195	10.319	***5.939***
2021-09-19 12:30	3961817	7.945	-83.106	10.316	772.695	1073.869	0.532	130.377	10.316	***5.973***
2021-09-19 12:45	3962717	7.978	-84.994	10.293	772.721	1074.558	0.532	132.091	10.293	***6.201***
2021-09-19 13:00	3963617	8.000	-86.198	10.253	770.713	1072.918	0.531	131.336	10.253	***6.440***
2021-09-19 13:15	3964517	8.013	-86.899	10.228	767.389	1069.015	0.529	131.087	10.228	6.619
2021-09-19 13:30	3965417	8.025	-87.597	10.222	766.595	1068.066	0.529	131.282	10.222	6.561
2021-09-19 13:45	3966317	8.023	-87.492	10.236	764.894	1065.299	0.527	127.689	10.236	6.513
2021-09-19 14:00	3967217	8.017	-87.183	10.258	763.842	1063.212	0.526	127.281	10.258	***6.458***
2021-09-19 14:15	3968117	8.015	-87.063	10.274	763.107	1061.736	0.525	129.300	10.274	***6.400***
2021-09-19 14:30	3969017	8.026	-87.678	10.279	761.895	1059.909	0.524	126.037	10.279	***6.338***
2021-09-19 14:45	3969917	8.028	-87.774	10.293	760.985	1058.264	0.524	126.549	10.293	***6.272***
2021-09-19 15:00	3970817	8.036	-88.234	10.312	760.347	1056.828	0.523	125.460	10.312	***6.261***
2021-09-19 15:15	3971717	8.048	-88.937	10.329	759.695	1055.440	0.522	125.948	10.329	***6.258***
2021-09-19 15:30	3972617	8.054	-89.288	10.335	758.904	1054.186	0.522	121.527	10.335	***6.248***
2021-09-19 15:45	3973517	8.059	-89.540	10.376	758.433	1052.386	0.521	125.655	10.376	***6.127***
2021-09-19 16:00	3974417	8.055	-89.350	10.433	758.447	1050.810	0.520	129.369	10.433	***5.974***
2021-09-19 16:15	3975318	8.055	-89.355	10.493	758.664	1049.446	0.519	124.742	10.493	***5.867***
2021-09-19 16:30	3976218	8.055	-89.393	10.543	759.135	1048.706	0.519	128.325	10.543	***5.727***
2021-09-19 16:45	3977118	8.050	-89.135	10.599	758.963	1046.940	0.518	128.504	10.599	***5.697***
2021-09-19 17:00	3978018	8.046	-88.892	10.661	759.454	1045.896	0.518	126.336	10.661	***5.691***
2021-09-19 17:15	3978918	8.052	-89.288	10.699	759.653	1045.126	0.517	127.171	10.699	***5.745***
2021-09-19 17:30	3979818	8.060	-89.707	10.749	760.098	1044.382	0.517	133.608	10.749	***5.802***
2021-09-19 17:45	3980718	8.069	-90.280	10.809	759.454	1041.838	0.516	130.755	10.809	***5.824***
2021-09-19 18:00	3981618	8.063	-89.962	10.872	761.128	1042.406	0.516	134.157	10.872	***5.851***
2021-09-19 18:15	3982518	8.058	-89.691	10.931	761.484	1041.313	0.516	126.465	10.931	***5.892***
2021-09-19 18:30	3983418	8.063	-90.003	10.976	762.012	1040.792	0.515	131.804	10.976	***5.876***
2021-09-19 18:45	3984318	8.078	-90.809	11.007	761.893	1039.809	0.515	134.590	11.007	***5.744***
2021-09-19 19:00	3985218	8.072	-90.482	11.015	760.818	1038.106	0.514	132.760	11.015	***5.548***
2021-09-19 19:15	3986118	8.068	-90.258	11.022	761.324	1038.612	0.514	133.404	11.022	***5.174***
2021-09-19 19:30	3987018	8.058	-89.686	11.025	760.709	1037.684	0.514	130.346	11.025	***4.759***
2021-09-19 19:45	3987918	8.048	-89.123	11.031	759.773	1036.253	0.513	123.093	11.031	***4.497***
2021-09-19 20:00	3988818	8.035	-88.434	11.034	760.838	1037.612	0.514	124.016	11.034	***4.287***
2021-09-19 20:15	3989718	8.029	-88.077	11.040	759.681	1035.894	0.513	123.239	11.040	***4.129***
2021-09-19 20:30	3990618	8.020	-87.562	11.042	760.677	1037.198	0.514	144.657	11.042	***4.002***
2021-09-19 20:45	3991518	8.015	-87.276	11.044	760.676	1037.124	0.514	126.845	11.044	***3.945***
2021-09-19 21:00	3992418	8.009	-86.977	11.047	760.637	1036.997	0.513	124.038	11.047	***4.042***
2021-09-19 21:15	3993318	8.005	-86.734	11.055	760.107	1036.072	0.513	121.176	11.055	***4.026***
2021-09-19 21:30	3994218	8.009	-86.968	11.067	760.037	1035.651	0.513	121.676	11.067	***3.950***
2021-09-19 21:45	3995118	8.013	-87.194	11.088	759.995	1035.016	0.512	121.419	11.088	***3.971***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-19 22:00	3996018	8.022	-87.683	11.107	760.200	1034.785	0.512	115.830	11.107	***4.067***
2021-09-19 22:15	3996918	8.022	-87.721	11.115	760.164	1034.536	0.512	119.865	11.115	***4.076***
2021-09-19 22:30	3997818	8.023	-87.743	11.117	760.161	1034.478	0.512	119.967	11.117	***3.830***
2021-09-19 22:45	3998718	8.024	-87.795	11.098	759.542	1034.141	0.512	118.712	11.098	***3.600***
2021-09-19 23:00	3999618	8.018	-87.454	11.069	759.022	1034.199	0.512	119.501	11.069	***3.371***
2021-09-19 23:15	4000518	8.016	-87.347	11.042	757.887	1033.389	0.512	119.036	11.042	***3.289***
2021-09-19 23:30	4001418	8.019	-87.523	11.015	757.065	1032.996	0.511	119.179	11.015	***3.214***
2021-09-19 23:45	4002318	8.018	-87.430	10.987	755.909	1032.162	0.511	118.581	10.987	***3.019***
2021-09-20 0:00	4003218	8.019	-87.509	10.959	755.444	1032.280	0.511	119.331	10.959	***2.924***
2021-09-20 0:15	4004118	8.023	-87.733	10.931	753.953	1030.989	0.510	118.645	10.931	***2.741***
2021-09-20 0:30	4005018	8.018	-87.407	10.899	752.646	1030.075	0.510	118.038	10.899	***2.618***
2021-09-20 0:45	4005918	8.014	-87.187	10.870	751.590	1029.419	0.509	118.177	10.870	***2.531***
2021-09-20 1:00	4006818	8.031	-88.134	10.856	750.750	1028.642	0.509	119.184	10.856	***2.305***
2021-09-20 1:15	4007718	8.038	-88.499	10.840	750.040	1028.105	0.509	119.425	10.840	***2.073***
2021-09-20 1:30	4008618	8.043	-88.778	10.819	749.400	1027.783	0.508	118.951	10.819	***1.844***
2021-09-20 1:45	4009518	8.042	-88.742	10.793	748.440	1027.164	0.508	120.505	10.793	***1.660***
2021-09-20 2:00	4010418	8.044	-88.842	10.785	748.079	1026.890	0.508	120.745	10.785	***1.625***
2021-09-20 2:15	4011318	8.033	-88.198	10.770	748.128	1027.364	0.508	119.708	10.770	***1.540***
2021-09-20 2:30	4012218	8.015	-87.216	10.751	747.767	1027.370	0.508	120.959	10.751	***1.509***
2021-09-20 2:45	4013118	8.005	-86.608	10.728	747.646	1027.838	0.508	127.184	10.728	***1.547***
2021-09-20 3:00	4014018	7.999	-86.286	10.707	747.339	1027.984	0.508	126.631	10.707	***1.529***
2021-09-20 3:15	4014918	7.994	-86.021	10.690	746.933	1027.884	0.508	125.840	10.690	***1.578***
2021-09-20 3:30	4015818	7.989	-85.685	10.673	746.502	1027.733	0.508	126.567	10.673	***1.680***
2021-09-20 3:45	4016718	7.981	-85.261	10.651	746.129	1027.815	0.508	125.080	10.651	***1.750***
2021-09-20 4:00	4017618	7.971	-84.696	10.634	745.422	1027.315	0.508	126.024	10.634	***1.668***
2021-09-20 4:15	4018518	7.965	-84.355	10.610	745.155	1027.583	0.508	124.772	10.610	***1.627***
2021-09-20 4:30	4019418	7.968	-84.503	10.583	743.376	1025.868	0.507	125.431	10.583	***1.609***
2021-09-20 4:45	4020318	7.971	-84.636	10.558	743.603	1026.852	0.508	126.127	10.558	***1.615***
2021-09-20 5:00	4021218	7.959	-83.966	10.541	743.394	1027.018	0.508	124.417	10.541	***1.582***
2021-09-20 5:15	4022118	7.949	-83.416	10.511	742.678	1026.848	0.508	124.528	10.511	***1.577***
2021-09-20 5:30	4023018	7.949	-83.404	10.478	741.621	1026.293	0.507	124.236	10.478	***1.466***
2021-09-20 5:45	4023918	7.956	-83.776	10.450	740.853	1025.973	0.507	123.647	10.450	***1.399***
2021-09-20 6:00	4024818	7.957	-83.816	10.420	739.935	1025.507	0.507	123.846	10.420	***1.339***
2021-09-20 6:15	4025718	7.944	-83.110	10.396	739.469	1025.523	0.507	123.378	10.396	***1.328***
2021-09-20 6:30	4026618	7.935	-82.569	10.364	738.872	1025.576	0.507	123.895	10.364	***1.334***
2021-09-20 6:45	4027518	7.930	-82.295	10.324	738.059	1025.521	0.507	122.433	10.324	***1.257***
2021-09-20 7:00	4028418	7.927	-82.116	10.293	737.650	1025.800	0.507	122.950	10.293	***1.249***
2021-09-20 7:15	4029318	7.921	-81.773	10.256	736.869	1025.734	0.507	121.408	10.256	***1.235***
2021-09-20 7:30	4030218	7.918	-81.561	10.202	735.968	1025.943	0.507	121.739	10.202	***1.200***
2021-09-20 7:45	4031118	7.912	-81.215	10.142	734.957	1026.179	0.507	121.415	10.142	***1.096***
2021-09-20 8:00	4032018	7.908	-80.993	10.101	733.846	1025.742	0.507	124.634	10.101	***1.051***
2021-09-20 8:15	4032918	7.907	-80.924	10.068	733.941	1026.782	0.507	125.069	10.068	***1.090***
2021-09-20 8:30	4033818	7.911	-81.134	10.030	732.758	1026.163	0.507	124.759	10.030	***1.127***
2021-09-20 8:45	4034718	7.910	-81.043	9.993	731.941	1026.039	0.507	125.677	9.993	***1.157***
2021-09-20 9:00	4035618	7.904	-80.738	9.956	731.222	1026.046	0.507	124.890	9.956	***1.108***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-20 9:15	4036518	7.898	-80.388	9.914	730.292	1025.891	0.507	124.179	9.914	***1.023***
2021-09-20 9:30	4037418	7.894	-80.125	9.868	729.294	1025.768	0.506	124.073	9.868	***0.939***
2021-09-20 9:45	4038318	7.891	-79.947	9.836	728.357	1025.317	0.506	123.080	9.836	***0.871***
2021-09-20 10:00	4039218	7.891	-79.951	9.821	727.490	1024.520	0.506	123.696	9.821	***0.903***
2021-09-20 10:15	4040118	7.888	-79.765	9.813	727.101	1024.177	0.506	123.468	9.813	***0.958***
2021-09-20 10:30	4041018	7.890	-79.865	9.799	726.157	1023.233	0.505	123.204	9.799	***0.968***
2021-09-20 10:45	4041918	7.925	-81.832	9.779	725.021	1022.205	0.504	124.090	9.779	***1.017***
2021-09-20 11:00	4042818	7.946	-83.017	9.755	723.429	1020.604	0.504	132.347	9.755	***0.992***
2021-09-20 11:15	4043718	7.954	-83.470	9.726	722.188	1019.644	0.503	125.376	9.726	***0.937***
2021-09-20 11:30	4044618	7.953	-83.420	9.690	720.478	1018.218	0.502	122.813	9.690	***0.896***
2021-09-20 11:45	4045518	7.963	-83.942	9.663	718.837	1016.640	0.501	130.141	9.663	***0.878***
2021-09-20 12:00	4046418	7.977	-84.722	9.647	717.369	1015.024	0.501	122.978	9.647	***0.861***
2021-09-20 12:15	4047318	7.987	-85.270	9.643	716.270	1013.565	0.500	118.357	9.643	***0.794***
2021-09-20 12:30	4048218	7.989	-85.411	9.647	715.237	1011.985	0.499	125.390	9.647	***0.743***
2021-09-20 12:45	4049118	7.984	-85.151	9.655	714.833	1011.210	0.499	125.175	9.655	***0.663***
2021-09-20 13:00	4050018	7.983	-85.058	9.661	714.534	1010.627	0.498	122.585	9.661	***0.640***
2021-09-20 13:15	4050918	7.982	-84.994	9.652	714.794	1011.246	0.499	139.039	9.652	***0.663***
2021-09-20 13:30	4051818	7.979	-84.829	9.654	713.495	1009.350	0.498	126.008	9.654	***0.680***
2021-09-20 13:45	4052718	7.981	-84.980	9.667	713.414	1008.874	0.497	127.158	9.667	***0.738***
2021-09-20 14:00	4053618	7.981	-84.970	9.689	713.474	1008.351	0.497	128.097	9.689	***0.806***
2021-09-20 14:15	4054518	7.979	-84.846	9.736	714.011	1007.832	0.497	132.454	9.736	***0.928***
2021-09-20 14:30	4055418	7.980	-84.958	9.809	714.702	1006.827	0.497	133.100	9.809	***1.326***
2021-09-20 14:45	4056318	7.990	-85.545	9.883	715.693	1006.221	0.496	130.197	9.883	***1.792***
2021-09-20 15:00	4057218	7.999	-86.043	9.941	716.519	1005.807	0.496	135.732	9.941	***2.289***
2021-09-20 15:15	4058118	8.002	-86.246	9.984	717.106	1005.474	0.496	125.532	9.984	***2.671***
2021-09-20 15:30	4059018	8.005	-86.420	10.003	716.979	1004.786	0.496	129.920	10.003	***2.724***
2021-09-20 15:45	4059918	8.003	-86.319	10.021	717.049	1004.419	0.496	137.171	10.021	***3.033***
2021-09-20 16:00	4060818	8.008	-86.608	10.049	717.470	1004.238	0.496	131.890	10.049	***3.553***
2021-09-20 16:15	4061718	8.014	-86.958	10.091	717.950	1003.791	0.495	130.873	10.091	***3.925***
2021-09-20 16:30	4062618	8.020	-87.316	10.131	718.732	1003.799	0.495	131.110	10.131	***4.104***
2021-09-20 16:45	4063518	8.020	-87.295	10.184	719.472	1003.432	0.495	129.967	10.184	***4.209***
2021-09-20 17:00	4064418	8.015	-87.061	10.230	720.130	1003.113	0.495	128.589	10.230	***4.183***
2021-09-20 17:15	4065318	8.018	-87.192	10.265	720.993	1003.373	0.495	129.127	10.265	***3.783***
2021-09-20 17:30	4066218	8.019	-87.295	10.293	721.279	1003.048	0.495	127.272	10.293	***3.528***
2021-09-20 17:45	4067118	8.019	-87.287	10.325	721.922	1003.070	0.495	127.157	10.325	***3.377***
2021-09-20 18:00	4068018	8.021	-87.442	10.358	722.204	1002.595	0.495	126.677	10.358	***3.249***
2021-09-20 18:15	4068918	8.023	-87.564	10.390	722.866	1002.650	0.495	127.180	10.390	***3.113***
2021-09-20 18:30	4069818	8.023	-87.564	10.418	723.328	1002.552	0.495	125.106	10.418	***3.133***
2021-09-20 18:45	4070718	8.026	-87.705	10.440	723.614	1002.359	0.495	126.030	10.440	***2.895***
2021-09-20 19:00	4071618	8.029	-87.886	10.459	723.858	1002.191	0.495	124.148	10.459	***2.855***
2021-09-20 19:15	4072518	8.029	-87.924	10.474	724.221	1002.317	0.495	125.132	10.474	***2.846***
2021-09-20 19:30	4073418	8.025	-87.664	10.483	724.240	1002.093	0.495	129.060	10.483	***2.823***
2021-09-20 19:45	4074318	8.024	-87.609	10.488	724.244	1001.971	0.495	125.107	10.488	***2.847***
2021-09-20 20:00	4075218	8.029	-87.907	10.487	724.255	1002.008	0.495	125.848	10.487	***2.871***
2021-09-20 20:15	4076118	8.034	-88.196	10.481	724.047	1001.881	0.495	126.173	10.481	***2.747***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-20 20:30	4077018	8.038	-88.382	10.466	723.581	1001.638	0.495	125.045	10.466	***2.602***
2021-09-20 20:45	4077918	8.045	-88.799	10.449	723.433	1001.880	0.495	125.859	10.449	***2.514***
2021-09-20 21:00	4078818	8.048	-88.940	10.433	723.030	1001.757	0.495	125.284	10.433	***2.499***
2021-09-20 21:15	4079718	8.046	-88.835	10.425	723.087	1002.033	0.495	126.935	10.425	***2.477***
2021-09-20 21:30	4080618	8.042	-88.634	10.419	723.072	1002.166	0.495	129.519	10.419	***2.380***
2021-09-20 21:45	4081518	8.038	-88.382	10.412	723.013	1002.268	0.495	139.532	10.412	***2.193***
2021-09-20 22:00	4082418	8.035	-88.217	10.410	722.831	1002.079	0.495	140.162	10.410	***2.192***
2021-09-20 22:15	4083318	8.033	-88.103	10.410	722.858	1002.121	0.495	140.222	10.410	***2.249***
2021-09-20 22:30	4084218	8.024	-87.633	10.424	723.128	1002.128	0.495	140.355	10.424	***2.254***
2021-09-20 22:45	4085118	8.017	-87.214	10.432	723.371	1002.236	0.495	141.943	10.432	***2.221***
2021-09-20 23:00	4086018	8.014	-87.035	10.434	724.004	1003.064	0.495	142.755	10.434	***2.222***
2021-09-20 23:15	4086918	8.019	-87.309	10.435	723.392	1002.205	0.495	141.574	10.435	***2.259***
2021-09-20 23:30	4087818	8.021	-87.466	10.433	723.768	1002.779	0.495	142.274	10.433	***2.389***
2021-09-20 23:45	4088718	8.022	-87.478	10.434	724.019	1003.083	0.495	141.875	10.434	***2.310***
2021-09-21 0:00	4089618	8.019	-87.337	10.435	724.050	1003.118	0.495	141.964	10.435	***2.178***
2021-09-21 0:15	4090518	8.014	-87.039	10.435	724.267	1003.394	0.496	139.928	10.435	***2.191***
2021-09-21 0:30	4091418	8.011	-86.870	10.441	724.438	1003.486	0.496	140.000	10.441	***2.165***
2021-09-21 0:45	4092318	8.005	-86.560	10.444	724.505	1003.499	0.496	139.349	10.444	***2.102***
2021-09-21 1:00	4093218	7.997	-86.102	10.449	724.609	1003.513	0.496	138.561	10.449	***2.049***
2021-09-21 1:15	4094118	7.989	-85.654	10.454	724.909	1003.787	0.496	135.239	10.454	***1.955***
2021-09-21 1:30	4095018	7.987	-85.526	10.459	725.153	1004.007	0.496	139.904	10.459	***1.997***
2021-09-21 1:45	4095918	7.986	-85.506	10.462	725.282	1004.089	0.496	137.170	10.462	***1.978***
2021-09-21 2:00	4096818	7.985	-85.425	10.466	725.436	1004.212	0.496	137.271	10.466	***1.913***
2021-09-21 2:15	4097718	7.983	-85.313	10.467	725.626	1004.426	0.496	138.976	10.467	***1.894***
2021-09-21 2:30	4098619	7.980	-85.161	10.470	726.189	1005.139	0.496	138.935	10.470	***1.872***
2021-09-21 2:45	4099519	7.983	-85.285	10.469	726.006	1004.900	0.496	138.907	10.469	***1.826***
2021-09-21 3:00	4100419	7.982	-85.258	10.469	726.521	1005.631	0.497	141.107	10.469	***1.927***
2021-09-21 3:15	4101319	7.980	-85.132	10.466	727.123	1006.543	0.497	141.402	10.466	***1.971***
2021-09-21 3:30	4102219	7.973	-84.739	10.461	727.405	1007.051	0.497	141.932	10.461	***2.131***
2021-09-21 3:45	4103119	7.971	-84.643	10.458	727.880	1007.800	0.498	141.626	10.458	***2.240***
2021-09-21 4:00	4104019	7.971	-84.648	10.452	728.179	1008.366	0.498	140.886	10.452	***2.280***
2021-09-21 4:15	4104919	7.971	-84.653	10.447	728.513	1008.970	0.498	143.355	10.447	***2.278***
2021-09-21 4:30	4105819	7.970	-84.567	10.443	728.814	1009.491	0.499	144.563	10.443	***2.265***
2021-09-21 4:45	4106719	7.967	-84.405	10.444	728.872	1009.536	0.499	147.683	10.444	***2.303***
2021-09-21 5:00	4107619	7.961	-84.090	10.446	729.098	1009.806	0.499	146.856	10.446	***2.218***
2021-09-21 5:15	4108519	7.954	-83.663	10.445	729.353	1010.179	0.499	148.833	10.445	***2.146***
2021-09-21 5:30	4109419	7.950	-83.458	10.445	729.382	1010.222	0.499	148.952	10.445	***2.094***
2021-09-21 5:45	4110319	7.946	-83.210	10.441	729.528	1010.534	0.499	148.529	10.441	***2.070***
2021-09-21 6:00	4111219	7.944	-83.108	10.440	729.658	1010.741	0.499	148.732	10.440	***1.961***
2021-09-21 6:15	4112119	7.942	-82.989	10.438	729.586	1010.690	0.499	152.199	10.438	***1.831***
2021-09-21 6:30	4113019	7.937	-82.712	10.439	729.114	1010.025	0.499	150.026	10.439	***1.755***
2021-09-21 6:45	4113919	7.933	-82.490	10.437	730.087	1011.417	0.500	150.661	10.437	***1.715***
2021-09-21 7:00	4114819	7.922	-81.851	10.437	730.194	1011.556	0.500	150.422	10.437	***1.793***
2021-09-21 7:15	4115719	7.912	-81.296	10.438	730.402	1011.827	0.500	158.946	10.438	***1.797***
2021-09-21 7:30	4116619	7.900	-80.657	10.434	730.579	1012.186	0.500	157.556	10.434	***1.902***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-21 7:45	4117519	7.902	-80.726	10.430	730.771	1012.559	0.500	149.985	10.430	***2.054***
2021-09-21 8:00	4118419	7.905	-80.931	10.421	730.899	1012.966	0.500	143.401	10.421	***2.394***
2021-09-21 8:15	4119319	7.911	-81.248	10.416	731.002	1013.251	0.501	139.217	10.416	***2.655***
2021-09-21 8:30	4120219	7.902	-80.762	10.415	731.053	1013.349	0.501	151.920	10.415	***2.760***
2021-09-21 8:45	4121119	7.890	-80.054	10.414	731.142	1013.482	0.501	153.054	10.414	***2.893***
2021-09-21 9:00	4122019	7.879	-79.436	10.415	731.189	1013.540	0.501	152.283	10.415	***2.832***
2021-09-21 9:15	4122919	7.871	-78.993	10.413	731.461	1013.955	0.501	145.493	10.413	***2.841***
2021-09-21 9:30	4123819	7.870	-78.957	10.407	731.494	1014.161	0.501	144.963	10.407	***3.008***
2021-09-21 9:45	4124719	7.877	-79.341	10.393	731.116	1014.029	0.501	142.432	10.393	***3.198***
2021-09-21 10:00	4125619	7.866	-78.688	10.370	730.548	1013.838	0.501	144.583	10.370	***3.552***
2021-09-21 10:15	4126519	7.858	-78.251	10.345	729.975	1013.719	0.501	147.320	10.345	***4.057***
2021-09-21 10:30	4127419	7.871	-78.998	10.331	729.516	1013.458	0.501	152.126	10.331	***4.219***
2021-09-21 10:45	4128319	7.884	-79.710	10.319	729.050	1013.139	0.500	144.141	10.319	***4.236***
2021-09-21 11:00	4129219	7.898	-80.473	10.312	728.610	1012.728	0.500	147.122	10.312	***4.279***
2021-09-21 11:15	4130119	7.916	-81.491	10.302	728.191	1012.412	0.500	151.264	10.302	***4.312***
2021-09-21 11:30	4131019	7.923	-81.859	10.298	727.870	1012.065	0.500	152.757	10.298	***4.471***
2021-09-21 11:45	4131919	7.932	-82.414	10.302	727.943	1012.074	0.500	151.929	10.302	***4.592***
2021-09-21 12:00	4132819	7.940	-82.846	10.304	727.804	1011.819	0.500	162.640	10.304	***4.638***
2021-09-21 12:15	4133719	7.935	-82.572	10.306	727.612	1011.500	0.500	157.114	10.306	***4.540***
2021-09-21 12:30	4134619	7.928	-82.147	10.299	727.563	1011.624	0.500	170.502	10.299	***4.544***
2021-09-21 12:45	4135519	7.916	-81.513	10.279	727.063	1011.453	0.500	159.313	10.279	***4.614***
2021-09-21 13:00	4136419	7.932	-82.397	10.273	726.507	1010.843	0.499	153.560	10.273	***4.683***
2021-09-21 13:15	4137319	7.960	-83.971	10.279	726.079	1010.096	0.499	162.864	10.279	***4.676***
2021-09-21 13:30	4138219	7.981	-85.168	10.283	725.717	1009.467	0.498	164.037	10.283	***4.682***
2021-09-21 13:45	4139119	7.992	-85.793	10.307	725.286	1008.228	0.498	158.788	10.307	***4.682***
2021-09-21 14:00	4140019	7.998	-86.114	10.345	724.960	1006.766	0.497	159.100	10.345	***4.728***
2021-09-21 14:15	4140919	7.999	-86.200	10.393	724.874	1005.372	0.497	150.656	10.393	***4.804***
2021-09-21 14:30	4141819	7.998	-86.133	10.449	727.366	1007.335	0.498	144.374	10.449	***5.023***
2021-09-21 14:45	4142719	7.995	-86.017	10.502	724.728	1002.272	0.495	156.363	10.502	***5.320***
2021-09-21 15:00	4143619	7.998	-86.162	10.549	725.008	1001.417	0.495	141.075	10.549	***5.390***
2021-09-21 15:15	4144519	8.003	-86.482	10.613	725.288	1000.119	0.494	152.138	10.613	***5.524***
2021-09-21 15:30	4145419	8.008	-86.758	10.677	725.895	999.268	0.494	153.998	10.677	***5.857***
2021-09-21 15:45	4146319	8.018	-87.388	10.727	726.211	998.386	0.493	151.833	10.727	***6.150***
2021-09-21 16:00	4147219	8.024	-87.719	10.782	726.684	997.599	0.493	146.652	10.782	***6.268***
2021-09-21 16:15	4148119	8.025	-87.819	10.841	727.441	997.092	0.493	141.082	10.841	***6.398***
2021-09-21 16:30	4149019	8.024	-87.776	10.887	727.792	996.365	0.492	136.284	10.887	***6.485***
2021-09-21 16:45	4149919	8.024	-87.740	10.931	728.195	995.784	0.492	138.562	10.931	***6.253***
2021-09-21 17:00	4150819	8.022	-87.650	10.976	728.677	995.268	0.492	156.269	10.976	***6.198***
2021-09-21 17:15	4151719	8.019	-87.533	11.017	729.128	994.829	0.492	164.258	11.017	***6.141***
2021-09-21 17:30	4152619	8.020	-87.566	11.057	729.419	994.178	0.491	155.947	11.057	***5.933***
2021-09-21 17:45	4153519	8.017	-87.402	11.098	729.888	993.760	0.491	152.667	11.098	***5.815***
2021-09-21 18:00	4154419	8.011	-87.111	11.133	730.143	993.207	0.491	153.770	11.133	***5.650***
2021-09-21 18:15	4155319	8.008	-86.944	11.162	730.493	992.935	0.491	157.412	11.162	***5.498***
2021-09-21 18:30	4156219	8.009	-86.987	11.185	730.726	992.664	0.491	135.073	11.185	***5.296***
2021-09-21 18:45	4157119	8.007	-86.889	11.204	730.942	992.453	0.491	131.472	11.204	***4.917***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-21 19:00	4158019	8.005	-86.789	11.220	731.152	992.323	0.491	128.740	11.220	***4.492***
2021-09-21 19:15	4158919	8.003	-86.672	11.230	731.764	992.905	0.491	135.109	11.230	***4.255***
2021-09-21 19:30	4159819	8.003	-86.670	11.239	731.091	991.772	0.490	150.029	11.239	***4.036***
2021-09-21 19:45	4160719	8.007	-86.925	11.245	731.320	991.924	0.490	153.051	11.245	***3.837***
2021-09-21 20:00	4161619	8.005	-86.789	11.250	731.192	991.608	0.490	177.733	11.250	***3.621***
2021-09-21 20:15	4162519	7.994	-86.191	11.255	731.327	991.667	0.490	136.727	11.255	***3.431***
2021-09-21 20:30	4163419	7.986	-85.692	11.259	731.257	991.469	0.490	141.330	11.259	***3.313***
2021-09-21 20:45	4164319	7.974	-85.056	11.263	731.540	991.740	0.490	135.267	11.263	***3.126***
2021-09-21 21:00	4165219	7.966	-84.593	11.266	731.487	991.613	0.490	131.209	11.266	***3.140***
2021-09-21 21:15	4166119	7.959	-84.190	11.270	731.621	991.692	0.490	128.467	11.270	***3.046***
2021-09-21 21:30	4167019	7.955	-83.997	11.272	731.733	991.773	0.490	128.373	11.272	***2.978***
2021-09-21 21:45	4167919	7.956	-84.009	11.274	731.718	991.706	0.490	132.687	11.274	***2.990***
2021-09-21 22:00	4168819	7.956	-84.004	11.276	731.894	991.909	0.490	137.122	11.276	***2.881***
2021-09-21 22:15	4169719	7.959	-84.176	11.275	731.892	991.917	0.490	141.604	11.275	***2.889***
2021-09-21 22:30	4170619	7.963	-84.403	11.276	731.977	992.020	0.491	153.271	11.276	***2.768***
2021-09-21 22:45	4171519	7.949	-83.661	11.274	732.159	992.300	0.491	145.542	11.274	***2.500***
2021-09-21 23:00	4172419	7.935	-82.839	11.275	732.187	992.328	0.491	151.514	11.275	***2.264***
2021-09-21 23:15	4173319	7.927	-82.397	11.277	732.179	992.258	0.491	151.931	11.277	***2.266***
2021-09-21 23:30	4174219	7.923	-82.173	11.279	732.154	992.181	0.491	188.963	11.279	***2.272***
2021-09-21 23:45	4175119	7.921	-82.068	11.283	732.372	992.376	0.491	135.587	11.283	***2.116***
2021-09-22 0:00	4176019	7.928	-82.438	11.284	732.429	992.407	0.491	131.821	11.284	***1.895***
2021-09-22 0:15	4176919	7.937	-82.936	11.287	732.482	992.409	0.491	133.129	11.287	***1.835***
2021-09-22 0:30	4177819	7.941	-83.170	11.289	732.603	992.518	0.491	138.430	11.289	***1.801***
2021-09-22 0:45	4178719	7.941	-83.199	11.291	732.942	992.924	0.491	138.534	11.291	***1.635***
2021-09-22 1:00	4179619	7.948	-83.582	11.292	732.820	992.748	0.491	134.399	11.292	***1.538***
2021-09-22 1:15	4180519	7.954	-83.914	11.292	732.926	992.897	0.491	144.341	11.292	***1.499***
2021-09-22 1:30	4181419	7.950	-83.704	11.292	732.891	992.849	0.491	176.223	11.292	***1.419***
2021-09-22 1:45	4182319	7.941	-83.213	11.293	730.099	989.043	0.489	190.986	11.293	***1.375***
2021-09-22 2:00	4183219	7.938	-83.008	11.294	733.159	993.154	0.491	192.498	11.294	***1.444***
2021-09-22 2:15	4184119	7.933	-82.755	11.295	733.214	993.197	0.491	186.118	11.295	***1.422***
2021-09-22 2:30	4185019	7.925	-82.276	11.297	733.285	993.245	0.491	193.739	11.297	***1.440***
2021-09-22 2:45	4185919	7.920	-82.006	11.298	733.483	993.484	0.491	189.820	11.298	***1.485***
2021-09-22 3:00	4186819	7.919	-81.930	11.296	733.502	993.551	0.491	197.955	11.296	***1.418***
2021-09-22 3:15	4187719	7.915	-81.744	11.298	733.719	993.803	0.491	202.917	11.298	***1.263***
2021-09-22 3:30	4188619	7.910	-81.422	11.298	733.566	993.607	0.491	199.524	11.298	***1.201***
2021-09-22 3:45	4189519	7.903	-81.058	11.296	733.703	993.828	0.491	131.577	11.296	***1.137***
2021-09-22 4:00	4190419	7.901	-80.907	11.293	733.758	993.992	0.492	130.367	11.293	***1.053***
2021-09-22 4:15	4191319	7.913	-81.632	11.288	733.730	994.072	0.492	130.681	11.288	***1.001***
2021-09-22 4:30	4192219	7.922	-82.088	11.282	733.439	993.835	0.491	127.984	11.282	***1.131***
2021-09-22 4:45	4193119	7.931	-82.645	11.275	733.417	993.992	0.492	122.632	11.275	***1.118***
2021-09-22 5:00	4194019	7.940	-83.113	11.269	732.902	993.437	0.491	131.272	11.269	***1.017***
2021-09-22 5:15	4194919	7.941	-83.196	11.261	732.776	993.474	0.491	132.568	11.261	***0.925***
2021-09-22 5:30	4195819	7.940	-83.134	11.254	732.424	993.189	0.491	129.236	11.254	***0.856***
2021-09-22 5:45	4196719	7.942	-83.227	11.245	732.072	992.937	0.491	129.741	11.245	***0.801***
2021-09-22 6:00	4197619	7.948	-83.542	11.235	731.587	992.528	0.491	130.201	11.235	***0.775***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-22 6:15	4198519	7.954	-83.907	11.227	731.104	992.093	0.491	131.627	11.227	***0.803***
2021-09-22 6:30	4199419	7.961	-84.322	11.219	730.731	991.793	0.490	131.418	11.219	***0.774***
2021-09-22 6:45	4200319	7.964	-84.445	11.210	730.468	991.650	0.490	132.784	11.210	***0.692***
2021-09-22 7:00	4201219	7.963	-84.429	11.203	730.019	991.240	0.490	153.351	11.203	***0.593***
2021-09-22 7:15	4202119	7.961	-84.281	11.195	726.892	987.183	0.488	151.744	11.195	***0.577***
2021-09-22 7:30	4203019	7.958	-84.143	11.188	729.153	990.450	0.490	136.505	11.188	***0.629***
2021-09-22 7:45	4203919	7.957	-84.062	11.181	728.812	990.152	0.489	138.346	11.181	***0.744***
2021-09-22 8:00	4204819	7.953	-83.811	11.173	728.370	989.763	0.489	137.279	11.173	***0.782***
2021-09-22 8:15	4205719	7.948	-83.525	11.165	728.076	989.568	0.489	164.744	11.165	***0.798***
2021-09-22 8:30	4206619	7.940	-83.072	11.159	727.937	989.536	0.489	196.234	11.159	***0.712***
2021-09-22 8:45	4207519	7.931	-82.557	11.151	727.673	989.389	0.489	199.490	11.151	***0.703***
2021-09-22 9:00	4208419	7.921	-82.014	11.142	727.309	989.119	0.489	154.172	11.142	***0.781***
2021-09-22 9:15	4209319	7.913	-81.537	11.132	727.951	990.250	0.489	148.434	11.132	***0.822***
2021-09-22 9:30	4210219	7.908	-81.260	11.124	726.880	988.998	0.489	144.044	11.124	***0.821***
2021-09-22 9:45	4211119	7.903	-80.993	11.109	726.350	988.657	0.489	141.280	11.109	***0.840***
2021-09-22 10:00	4212019	7.900	-80.824	11.080	725.736	988.557	0.489	143.391	11.080	***1.047***
2021-09-22 10:15	4212919	7.899	-80.736	11.053	725.054	988.326	0.488	143.318	11.053	***1.020***
2021-09-22 10:30	4213819	7.895	-80.497	11.031	724.496	988.132	0.488	127.726	11.031	***1.127***
2021-09-22 10:45	4214719	7.890	-80.233	11.017	724.052	987.886	0.488	160.397	11.017	***1.314***
2021-09-22 11:00	4215619	7.889	-80.154	10.999	722.976	986.887	0.488	146.687	10.999	***1.549***
2021-09-22 11:15	4216519	7.887	-80.051	10.962	722.949	987.806	0.488	135.498	10.962	***1.477***
2021-09-22 11:30	4217419	7.891	-80.252	10.915	721.856	987.510	0.488	156.066	10.915	***1.235***
2021-09-22 11:45	4218319	7.895	-80.497	10.870	720.336	986.615	0.487	138.086	10.870	***1.314***
2021-09-22 12:00	4219219	7.891	-80.259	10.831	717.581	983.846	0.486	128.032	10.831	***1.702***
2021-09-22 12:15	4220119	7.904	-80.943	10.818	717.980	984.715	0.486	137.426	10.818	***2.004***
2021-09-22 12:30	4221019	7.912	-81.429	10.813	717.208	983.796	0.486	135.168	10.813	***1.922***
2021-09-22 12:45	4221919	7.918	-81.728	10.801	716.476	983.085	0.485	130.786	10.801	***1.985***
2021-09-22 13:00	4222820	7.920	-81.851	10.790	715.829	982.474	0.485	133.669	10.790	***1.998***
2021-09-22 13:15	4223720	7.924	-82.066	10.781	715.176	981.814	0.485	132.140	10.781	***2.031***
2021-09-22 13:30	4224620	7.932	-82.529	10.780	714.521	980.946	0.484	131.813	10.780	***2.346***
2021-09-22 13:45	4225520	7.930	-82.436	10.784	714.042	980.192	0.484	131.569	10.784	***2.560***
2021-09-22 14:00	4226420	7.924	-82.107	10.799	713.819	979.510	0.484	135.394	10.799	***2.838***
2021-09-22 14:15	4227320	7.921	-81.942	10.838	713.979	978.712	0.483	151.714	10.838	***3.281***
2021-09-22 14:30	4228220	7.919	-81.849	10.898	714.873	978.416	0.483	180.256	10.898	***4.033***
2021-09-22 14:45	4229120	7.922	-82.047	10.966	715.758	977.868	0.483	147.030	10.966	***4.738***
2021-09-22 15:00	4230020	7.928	-82.378	11.070	716.980	976.908	0.483	137.057	11.070	***5.333***
2021-09-22 15:15	4230920	7.943	-83.237	11.116	718.160	977.331	0.483	130.491	11.116	***5.856***
2021-09-22 15:30	4231820	7.946	-83.418	11.157	718.734	977.084	0.483	140.363	11.157	***6.285***
2021-09-22 15:45	4232720	7.951	-83.702	11.193	718.957	976.453	0.482	151.060	11.193	***6.398***
2021-09-22 16:00	4233620	7.952	-83.835	11.288	720.725	976.465	0.483	152.038	11.288	6.734
2021-09-22 16:15	4234520	7.965	-84.581	11.329	721.448	976.397	0.483	137.606	11.329	6.959
2021-09-22 16:30	4235420	7.968	-84.767	11.379	722.314	976.307	0.483	159.874	11.379	7.110
2021-09-22 16:45	4236320	7.979	-85.349	11.390	722.334	976.051	0.482	199.855	11.390	7.146
2021-09-22 17:00	4237220	7.990	-85.979	11.397	722.404	975.985	0.482	209.577	11.397	7.151
2021-09-22 17:15	4238120	7.992	-86.093	11.418	720.126	972.388	0.481	181.250	11.418	7.279

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-22 17:30	4239020	7.992	-86.141	11.447	723.298	975.936	0.482	136.939	11.447	7.447
2021-09-22 17:45	4239920	7.992	-86.153	11.480	723.834	975.817	0.482	147.954	11.480	7.611
2021-09-22 18:00	4240820	7.991	-86.067	11.496	723.948	975.568	0.482	142.025	11.496	7.676
2021-09-22 18:15	4241720	7.993	-86.176	11.503	724.211	975.752	0.482	143.889	11.503	7.440
2021-09-22 18:30	4242620	7.994	-86.217	11.500	723.958	975.490	0.482	151.547	11.500	7.348
2021-09-22 18:45	4243520	7.995	-86.286	11.487	723.660	975.422	0.482	138.974	11.487	7.305
2021-09-22 19:00	4244420	8.011	-87.192	11.476	723.274	975.173	0.482	140.152	11.476	7.169
2021-09-22 19:15	4245320	8.020	-87.721	11.448	722.853	975.310	0.482	139.533	11.448	7.221
2021-09-22 19:30	4246220	8.025	-87.962	11.422	722.342	975.277	0.482	168.074	11.422	7.342
2021-09-22 19:45	4247120	8.025	-87.967	11.386	721.573	975.139	0.482	156.879	11.386	7.330
2021-09-22 20:00	4248020	8.027	-88.050	11.353	720.776	974.897	0.482	160.958	11.353	7.219
2021-09-22 20:15	4248920	8.031	-88.251	11.311	719.901	974.770	0.482	154.601	11.311	7.242
2021-09-22 20:30	4249820	8.027	-88.038	11.277	719.268	974.760	0.482	149.088	11.277	7.308
2021-09-22 20:45	4250720	8.019	-87.585	11.248	718.357	974.263	0.481	147.922	11.248	7.363
2021-09-22 21:00	4251620	8.021	-87.664	11.219	717.779	974.205	0.481	147.105	11.219	7.386
2021-09-22 21:15	4252520	8.021	-87.655	11.200	717.324	974.057	0.481	149.808	11.200	7.426
2021-09-22 21:30	4253420	8.016	-87.411	11.174	717.461	974.920	0.482	148.194	11.174	7.496
2021-09-22 21:45	4254320	8.023	-87.759	11.147	715.213	972.539	0.480	144.244	11.147	7.628
2021-09-22 22:00	4255220	8.030	-88.167	11.134	715.684	973.499	0.481	144.351	11.134	7.680
2021-09-22 22:15	4256120	8.035	-88.437	11.115	715.395	973.607	0.481	139.758	11.115	7.671
2021-09-22 22:30	4257020	8.041	-88.770	11.097	714.955	973.464	0.481	140.467	11.097	7.600
2021-09-22 22:45	4257920	8.040	-88.682	11.062	714.068	973.119	0.481	145.430	11.062	7.456
2021-09-22 23:00	4258820	8.028	-88.024	11.033	713.733	973.406	0.481	142.309	11.033	7.415
2021-09-22 23:15	4259720	8.036	-88.482	11.000	713.096	973.389	0.481	143.345	11.000	7.351
2021-09-22 23:30	4260620	8.042	-88.789	10.956	712.227	973.314	0.481	412.164	10.956	7.342
2021-09-22 23:45	4261520	8.044	-88.863	10.916	711.498	973.336	0.481	146.503	10.916	7.365
2021-09-23 0:00	4262420	8.044	-88.866	10.890	710.974	973.275	0.481	144.373	10.890	7.388
2021-09-23 0:15	4263320	8.044	-88.861	10.867	710.602	973.348	0.481	143.369	10.867	7.370
2021-09-23 0:30	4264220	8.045	-88.942	10.842	710.013	973.171	0.480	142.917	10.842	7.321
2021-09-23 0:45	4265120	8.042	-88.737	10.818	709.497	973.093	0.480	143.747	10.818	7.287
2021-09-23 1:00	4266020	8.036	-88.384	10.787	708.935	973.102	0.480	142.567	10.787	7.238
2021-09-23 1:15	4266920	8.033	-88.227	10.747	707.965	972.798	0.480	139.884	10.747	7.171
2021-09-23 1:30	4267820	8.030	-88.031	10.707	707.232	972.813	0.480	140.044	10.707	7.076
2021-09-23 1:45	4268720	8.022	-87.597	10.688	707.106	973.111	0.480	137.309	10.688	6.984
2021-09-23 2:00	4269620	8.012	-86.977	10.662	706.710	973.243	0.480	136.585	10.662	6.892
2021-09-23 2:15	4270520	7.999	-86.250	10.623	705.585	972.695	0.480	137.879	10.623	6.830
2021-09-23 2:30	4271420	8.005	-86.613	10.590	704.881	972.562	0.480	135.786	10.590	6.753
2021-09-23 2:45	4272320	8.002	-86.424	10.548	703.777	972.101	0.480	137.444	10.548	6.763
2021-09-23 3:00	4273220	8.011	-86.875	10.499	702.312	971.338	0.479	137.327	10.499	6.837
2021-09-23 3:15	4274120	8.008	-86.730	10.453	699.618	968.794	0.478	139.138	10.453	6.789
2021-09-23 3:30	4275020	8.000	-86.236	10.406	699.746	970.181	0.478	139.434	10.406	6.732
2021-09-23 3:45	4275920	7.989	-85.645	10.367	698.536	969.507	0.478	138.487	10.367	6.610
2021-09-23 4:00	4276820	7.986	-85.416	10.341	697.959	969.357	0.478	139.139	10.341	***6.486***
2021-09-23 4:15	4277720	7.986	-85.461	10.315	697.328	969.159	0.478	139.887	10.315	***6.299***
2021-09-23 4:30	4278620	7.986	-85.421	10.286	696.645	968.962	0.478	141.008	10.286	***6.059***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-23 4:45	4279520	7.983	-85.247	10.249	696.012	969.026	0.478	139.576	10.249	***5.822***
2021-09-23 5:00	4280420	7.976	-84.858	10.196	695.103	969.122	0.478	139.619	10.196	***5.577***
2021-09-23 5:15	4281320	7.963	-84.119	10.150	694.127	968.964	0.478	138.676	10.150	***5.500***
2021-09-23 5:30	4282220	7.954	-83.566	10.117	693.557	969.026	0.478	137.469	10.117	***5.447***
2021-09-23 5:45	4283120	7.949	-83.306	10.093	692.913	968.740	0.477	137.476	10.093	***5.183***
2021-09-23 6:00	4284020	7.944	-83.017	10.061	692.353	968.780	0.477	137.887	10.061	***4.942***
2021-09-23 6:15	4284920	7.940	-82.738	10.029	691.641	968.602	0.477	139.040	10.029	***4.710***
2021-09-23 6:30	4285820	7.933	-82.366	9.990	691.068	968.832	0.477	141.565	9.990	***4.495***
2021-09-23 6:45	4286720	7.927	-81.992	9.957	690.314	968.613	0.477	138.754	9.957	***4.316***
2021-09-23 7:00	4287620	7.922	-81.711	9.914	689.773	968.970	0.477	139.370	9.914	***4.142***
2021-09-23 7:15	4288520	7.922	-81.701	9.861	688.578	968.678	0.477	139.156	9.861	***4.047***
2021-09-23 7:30	4289420	7.923	-81.754	9.816	687.830	968.791	0.477	140.057	9.816	***3.982***
2021-09-23 7:45	4290320	7.916	-81.327	9.772	687.284	969.166	0.477	140.541	9.772	***3.863***
2021-09-23 8:00	4291220	7.910	-80.981	9.717	686.189	969.058	0.477	139.603	9.717	***3.757***
2021-09-23 8:15	4292120	7.911	-81.031	9.667	688.175	973.182	0.479	138.035	9.667	***3.672***
2021-09-23 8:30	4293020	7.910	-80.969	9.617	684.445	969.205	0.477	138.777	9.617	***3.593***
2021-09-23 8:45	4293920	7.902	-80.516	9.574	683.499	969.000	0.477	141.389	9.574	***3.496***
2021-09-23 9:00	4294820	7.893	-79.987	9.536	682.902	969.166	0.477	139.890	9.536	***3.319***
2021-09-23 9:15	4295720	7.888	-79.718	9.500	682.219	969.128	0.477	139.799	9.500	***3.245***
2021-09-23 9:30	4296620	7.887	-79.606	9.461	681.456	969.078	0.477	142.569	9.461	***3.217***
2021-09-23 9:45	4297520	7.884	-79.446	9.424	680.672	968.934	0.477	143.353	9.424	***3.175***
2021-09-23 10:00	4298420	7.882	-79.343	9.383	679.888	968.890	0.477	145.354	9.383	***3.130***
2021-09-23 10:15	4299320	7.883	-79.374	9.345	678.928	968.534	0.476	145.590	9.345	***3.101***
2021-09-23 10:30	4300220	7.882	-79.319	9.318	678.132	968.116	0.476	148.880	9.318	***3.064***
2021-09-23 10:45	4301120	7.881	-79.260	9.301	677.340	967.416	0.476	146.939	9.301	***2.995***
2021-09-23 11:00	4302020	7.881	-79.236	9.286	676.204	966.196	0.475	137.724	9.286	***2.929***
2021-09-23 11:15	4302920	7.886	-79.520	9.286	674.588	963.877	0.474	141.214	9.286	***2.865***
2021-09-23 11:30	4303820	7.891	-79.837	9.330	674.357	962.403	0.473	140.627	9.330	***2.777***
2021-09-23 11:45	4304720	7.915	-81.172	9.368	674.558	961.690	0.473	142.422	9.368	***2.771***
2021-09-23 12:00	4305620	7.940	-82.595	9.405	675.147	961.574	0.473	144.036	9.405	***2.918***
2021-09-23 12:15	4306520	7.958	-83.623	9.439	676.091	962.011	0.473	141.387	9.439	***3.001***
2021-09-23 12:30	4307420	7.970	-84.279	9.470	676.903	962.357	0.473	141.410	9.470	***3.303***
2021-09-23 12:45	4308320	7.979	-84.801	9.498	677.831	962.960	0.474	145.445	9.498	***3.502***
2021-09-23 13:00	4309220	7.989	-85.359	9.513	678.567	963.609	0.474	145.427	9.513	***3.636***
2021-09-23 13:15	4310120	7.998	-85.843	9.525	679.246	964.259	0.474	144.707	9.525	***3.733***
2021-09-23 13:30	4311020	8.012	-86.677	9.527	679.898	965.133	0.475	143.123	9.527	***4.049***
2021-09-23 13:45	4311920	8.022	-87.211	9.529	680.260	965.577	0.475	145.549	9.529	***4.274***
2021-09-23 14:00	4312820	8.023	-87.290	9.536	680.789	966.148	0.475	143.225	9.536	***4.481***
2021-09-23 14:15	4313720	8.024	-87.349	9.552	681.517	966.779	0.476	141.914	9.552	***4.767***
2021-09-23 14:30	4314620	8.022	-87.247	9.576	682.060	966.911	0.476	141.785	9.576	***4.833***
2021-09-23 14:45	4315520	8.016	-86.894	9.606	682.957	967.385	0.476	142.797	9.606	***5.058***
2021-09-23 15:00	4316420	8.014	-86.825	9.632	683.429	967.382	0.476	142.022	9.632	***5.389***
2021-09-23 15:15	4317320	8.014	-86.794	9.657	684.378	968.073	0.477	141.128	9.657	***5.596***
2021-09-23 15:30	4318220	8.010	-86.579	9.671	685.005	968.586	0.477	143.979	9.671	***5.761***
2021-09-23 15:45	4319120	8.009	-86.536	9.682	685.437	968.927	0.477	143.602	9.682	***5.968***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-23 16:00	4320020	8.021	-87.230	9.685	685.671	969.156	0.477	143.275	9.685	***6.247***
2021-09-23 16:15	4320920	8.032	-87.817	9.681	685.711	969.339	0.477	143.137	9.681	***6.412***
2021-09-23 16:30	4321820	8.039	-88.198	9.678	686.190	970.073	0.478	143.873	9.678	6.611
2021-09-23 16:45	4322720	8.044	-88.496	9.682	686.134	969.900	0.478	143.820	9.682	6.794
2021-09-23 17:00	4323620	8.049	-88.792	9.691	686.637	970.365	0.478	143.721	9.691	6.920
2021-09-23 17:15	4324520	8.047	-88.694	9.713	687.010	970.337	0.478	142.578	9.713	6.984
2021-09-23 17:30	4325420	8.048	-88.716	9.730	687.498	970.576	0.478	159.152	9.730	7.139
2021-09-23 17:45	4326320	8.060	-89.397	9.728	687.309	970.354	0.478	144.216	9.728	7.285
2021-09-23 18:00	4327220	8.070	-89.951	9.710	684.555	966.951	0.476	145.901	9.710	7.387
2021-09-23 18:15	4328120	8.075	-90.251	9.695	687.301	971.209	0.478	141.102	9.695	7.549
2021-09-23 18:30	4329020	8.079	-90.461	9.683	687.163	971.322	0.478	139.995	9.683	7.672
2021-09-23 18:45	4329920	8.082	-90.613	9.679	687.200	971.491	0.478	137.680	9.679	7.743
2021-09-23 19:00	4330820	8.083	-90.687	9.685	687.349	971.548	0.478	139.196	9.685	7.745
2021-09-23 19:15	4331720	8.082	-90.659	9.699	687.561	971.484	0.478	138.466	9.699	7.729
2021-09-23 19:30	4332620	8.082	-90.652	9.712	687.778	971.447	0.478	138.329	9.712	7.780
2021-09-23 19:45	4333520	8.079	-90.489	9.722	688.339	971.957	0.479	141.630	9.722	7.850
2021-09-23 20:00	4334420	8.084	-90.785	9.732	688.489	971.918	0.479	140.983	9.732	7.885
2021-09-23 20:15	4335320	8.091	-91.128	9.738	688.497	971.774	0.479	143.684	9.738	7.883
2021-09-23 20:30	4336220	8.096	-91.438	9.742	688.827	972.138	0.479	144.628	9.742	7.899
2021-09-23 20:45	4337120	8.097	-91.469	9.743	689.102	972.494	0.479	144.720	9.743	7.932
2021-09-23 21:00	4338021	8.091	-91.143	9.747	689.314	972.682	0.479	143.843	9.747	7.956
2021-09-23 21:15	4338921	8.088	-90.981	9.754	689.535	972.818	0.479	144.273	9.754	7.955
2021-09-23 21:30	4339821	8.083	-90.725	9.758	689.645	972.857	0.479	141.526	9.758	7.949
2021-09-23 21:45	4340721	8.075	-90.272	9.764	689.833	972.967	0.479	141.842	9.764	7.922
2021-09-23 22:00	4341621	8.076	-90.315	9.768	689.898	972.952	0.479	142.329	9.768	7.886
2021-09-23 22:15	4342521	8.071	-90.053	9.773	690.136	973.179	0.479	141.823	9.773	7.834
2021-09-23 22:30	4343421	8.064	-89.648	9.776	690.210	973.188	0.479	141.574	9.776	7.791
2021-09-23 22:45	4344321	8.060	-89.407	9.778	690.322	973.295	0.479	141.142	9.778	7.733
2021-09-23 23:00	4345221	8.063	-89.569	9.778	690.323	973.298	0.479	145.033	9.778	7.656
2021-09-23 23:15	4346121	8.071	-90.070	9.777	690.456	973.525	0.480	148.565	9.777	7.594
2021-09-23 23:30	4347021	8.080	-90.556	9.775	690.384	973.457	0.479	152.054	9.775	7.552
2021-09-23 23:45	4347921	8.090	-91.090	9.772	690.373	973.537	0.480	156.649	9.772	7.552
2021-09-24 0:00	4348821	8.090	-91.090	9.767	689.189	971.989	0.479	151.075	9.767	7.554
2021-09-24 0:15	4349721	8.089	-91.028	9.762	689.919	973.159	0.479	150.633	9.762	7.538
2021-09-24 0:30	4350621	8.091	-91.174	9.757	690.323	973.861	0.480	151.910	9.757	7.514
2021-09-24 0:45	4351521	8.093	-91.283	9.751	690.241	973.899	0.480	155.168	9.751	7.510
2021-09-24 1:00	4352421	8.091	-91.147	9.744	690.105	973.879	0.480	151.115	9.744	7.543
2021-09-24 1:15	4353321	8.093	-91.271	9.739	690.211	974.165	0.480	145.654	9.739	7.502
2021-09-24 1:30	4354221	8.094	-91.295	9.734	690.093	974.135	0.480	236.816	9.734	7.452
2021-09-24 1:45	4355121	8.094	-91.317	9.730	689.121	972.858	0.479	147.825	9.730	7.394
2021-09-24 2:00	4356021	8.093	-91.250	9.728	690.080	974.268	0.480	149.325	9.728	7.344
2021-09-24 2:15	4356921	8.089	-91.043	9.725	690.052	974.303	0.480	146.379	9.725	7.256
2021-09-24 2:30	4357821	8.084	-90.773	9.722	690.074	974.427	0.480	146.482	9.722	7.179
2021-09-24 2:45	4358721	8.081	-90.563	9.718	690.079	974.531	0.480	145.879	9.718	7.145
2021-09-24 3:00	4359621	8.079	-90.470	9.716	690.120	974.653	0.480	145.173	9.716	7.126

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-24 3:15	4360521	8.080	-90.501	9.711	689.802	974.322	0.480	145.833	9.711	7.060
2021-09-24 3:30	4361421	8.075	-90.220	9.708	688.612	972.732	0.479	145.298	9.708	6.945
2021-09-24 3:45	4362321	8.067	-89.791	9.703	690.036	974.871	0.480	147.680	9.703	6.926
2021-09-24 4:00	4363221	8.057	-89.223	9.697	690.012	974.984	0.480	150.206	9.697	6.895
2021-09-24 4:15	4364121	8.054	-89.042	9.690	689.909	975.031	0.480	154.574	9.690	6.939
2021-09-24 4:30	4365021	8.051	-88.885	9.682	690.023	975.400	0.480	150.899	9.682	6.991
2021-09-24 4:45	4365921	8.051	-88.866	9.673	689.944	975.537	0.480	152.688	9.673	7.065
2021-09-24 5:00	4366821	8.054	-89.052	9.664	689.669	975.382	0.480	150.730	9.664	7.131
2021-09-24 5:15	4367721	8.056	-89.173	9.655	689.571	975.467	0.480	152.738	9.655	7.162
2021-09-24 5:30	4368621	8.057	-89.190	9.646	689.331	975.382	0.480	148.211	9.646	7.171
2021-09-24 5:45	4369521	8.056	-89.157	9.637	689.222	975.456	0.480	149.291	9.637	7.163
2021-09-24 6:00	4370421	8.056	-89.173	9.631	689.002	975.298	0.480	150.361	9.631	7.159
2021-09-24 6:15	4371321	8.052	-88.930	9.624	688.723	975.091	0.480	150.301	9.624	7.142
2021-09-24 6:30	4372221	8.050	-88.825	9.618	688.607	975.094	0.480	149.699	9.618	7.063
2021-09-24 6:45	4373121	8.046	-88.596	9.613	688.276	974.742	0.480	148.649	9.613	7.009
2021-09-24 7:00	4374021	8.039	-88.203	9.607	688.256	974.879	0.480	148.149	9.607	6.995
2021-09-24 7:15	4374921	8.034	-87.900	9.600	688.072	974.794	0.480	145.977	9.600	6.997
2021-09-24 7:30	4375821	8.031	-87.752	9.593	686.602	972.890	0.479	147.095	9.593	6.889
2021-09-24 7:45	4376721	8.026	-87.442	9.583	687.850	974.940	0.480	143.947	9.583	6.629
2021-09-24 8:00	4377621	8.018	-87.020	9.576	687.594	974.752	0.480	141.983	9.576	6.652
2021-09-24 8:15	4378521	8.014	-86.796	9.566	687.505	974.897	0.480	139.162	9.566	6.689
2021-09-24 8:30	4379421	8.009	-86.503	9.555	687.175	974.723	0.480	135.894	9.555	6.647
2021-09-24 8:45	4380321	8.004	-86.234	9.547	687.240	975.010	0.480	135.142	9.547	6.669
2021-09-24 9:00	4381221	8.001	-86.057	9.538	686.880	974.739	0.480	131.449	9.538	6.682
2021-09-24 9:15	4382121	7.996	-85.752	9.537	686.915	974.833	0.480	130.117	9.537	6.687
2021-09-24 9:30	4383021	7.993	-85.607	9.528	686.653	974.679	0.480	127.790	9.528	6.668
2021-09-24 9:45	4383921	7.992	-85.523	9.516	686.523	974.818	0.480	131.274	9.516	6.677
2021-09-24 10:00	4384821	7.987	-85.225	9.496	686.035	974.665	0.480	133.449	9.496	6.684
2021-09-24 10:15	4385721	7.981	-84.929	9.477	684.003	972.276	0.479	138.017	9.477	6.679
2021-09-24 10:30	4386621	7.984	-85.049	9.464	685.178	974.282	0.480	139.465	9.464	6.635
2021-09-24 10:45	4387521	7.984	-85.053	9.451	684.812	974.115	0.479	140.270	9.451	6.571
2021-09-24 11:00	4388421	7.987	-85.208	9.431	684.136	973.667	0.479	134.609	9.431	6.552
2021-09-24 11:15	4389321	7.989	-85.306	9.412	683.357	973.060	0.479	131.543	9.412	6.594
2021-09-24 11:30	4390221	7.995	-85.649	9.375	682.674	973.075	0.479	129.440	9.375	6.635
2021-09-24 11:45	4391121	7.999	-85.874	9.358	682.030	972.618	0.479	129.013	9.358	6.634
2021-09-24 12:00	4392021	7.997	-85.740	9.365	681.703	971.966	0.478	130.479	9.365	6.586
2021-09-24 12:15	4392921	7.993	-85.533	9.383	681.722	971.499	0.478	133.054	9.383	6.582
2021-09-24 12:30	4393821	7.988	-85.292	9.412	681.827	970.882	0.478	138.190	9.412	6.641
2021-09-24 12:45	4394721	7.987	-85.213	9.445	682.166	970.508	0.478	136.200	9.445	6.706
2021-09-24 13:00	4395621	7.984	-85.094	9.479	682.557	970.152	0.477	142.591	9.479	6.808
2021-09-24 13:15	4396521	7.982	-84.949	9.521	682.986	969.666	0.477	146.035	9.521	6.937
2021-09-24 13:30	4397421	7.979	-84.794	9.564	683.523	969.307	0.477	150.980	9.564	6.974
2021-09-24 13:45	4398321	7.975	-84.600	9.609	683.898	968.646	0.477	157.790	9.609	6.960
2021-09-24 14:00	4399221	7.974	-84.558	9.653	684.471	968.302	0.477	158.228	9.653	6.974
2021-09-24 14:15	4400121	7.977	-84.741	9.717	685.689	968.358	0.477	147.253	9.717	7.098

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-24 14:30	4401021	7.987	-85.320	9.783	686.851	968.282	0.477	146.050	9.783	7.258
2021-09-24 14:45	4401921	7.998	-85.962	9.851	687.878	967.962	0.477	151.931	9.851	7.514
2021-09-24 15:00	4402821	8.004	-86.303	9.913	688.698	967.491	0.477	154.100	9.913	7.777
2021-09-24 15:15	4403721	8.011	-86.741	9.963	690.163	968.241	0.477	157.210	9.963	7.953
2021-09-24 15:30	4404621	8.016	-87.004	10.011	689.534	966.139	0.476	168.037	10.011	8.092
2021-09-24 15:45	4405521	8.022	-87.371	10.050	691.017	967.196	0.477	176.257	10.050	8.197
2021-09-24 16:00	4406421	8.026	-87.624	10.111	692.102	967.142	0.477	194.647	10.111	8.192
2021-09-24 16:15	4407321	8.031	-87.943	10.159	692.952	967.094	0.477	166.026	10.159	8.310
2021-09-24 16:30	4408221	8.039	-88.370	10.185	693.515	967.207	0.477	170.260	10.185	8.420
2021-09-24 16:45	4409121	8.043	-88.634	10.219	694.054	967.066	0.477	165.943	10.219	8.449
2021-09-24 17:00	4410021	8.047	-88.825	10.246	694.338	966.765	0.477	160.123	10.246	8.521
2021-09-24 17:15	4410921	8.048	-88.911	10.275	694.972	966.920	0.477	156.565	10.275	8.615
2021-09-24 17:30	4411821	8.047	-88.890	10.304	695.577	967.005	0.477	156.686	10.304	8.686
2021-09-24 17:45	4412721	8.047	-88.851	10.347	696.135	966.690	0.477	146.584	10.347	8.763
2021-09-24 18:00	4413621	8.044	-88.723	10.388	697.073	966.932	0.477	154.036	10.388	8.747
2021-09-24 18:15	4414521	8.040	-88.522	10.417	697.430	966.683	0.477	157.756	10.417	8.711
2021-09-24 18:30	4415421	8.035	-88.215	10.439	697.856	966.722	0.477	149.734	10.439	8.701
2021-09-24 18:45	4416321	8.032	-88.079	10.458	698.167	966.648	0.477	155.163	10.458	8.630
2021-09-24 19:00	4417221	8.028	-87.864	10.474	698.412	966.586	0.477	153.799	10.474	8.578
2021-09-24 19:15	4418121	8.025	-87.698	10.484	698.652	966.653	0.477	155.766	10.484	8.513
2021-09-24 19:30	4419021	8.022	-87.488	10.493	698.763	966.592	0.477	158.405	10.493	8.440
2021-09-24 19:45	4419921	8.019	-87.349	10.497	698.814	966.568	0.477	156.598	10.497	8.416
2021-09-24 20:00	4420821	8.019	-87.323	10.498	698.884	966.627	0.477	136.187	10.498	8.434
2021-09-24 20:15	4421721	8.018	-87.292	10.490	698.536	966.346	0.477	150.611	10.490	8.400
2021-09-24 20:30	4422621	8.022	-87.495	10.487	698.539	966.442	0.477	149.918	10.487	8.318
2021-09-24 20:45	4423521	8.033	-88.108	10.483	698.482	966.446	0.477	157.129	10.483	8.242
2021-09-24 21:00	4424421	8.035	-88.236	10.481	698.440	966.457	0.477	149.162	10.481	8.171
2021-09-24 21:15	4425321	8.030	-87.953	10.478	697.913	965.794	0.476	146.723	10.478	8.096
2021-09-24 21:30	4426221	8.022	-87.526	10.477	697.131	964.727	0.476	146.203	10.477	7.997
2021-09-24 21:45	4427121	8.014	-87.082	10.477	698.374	966.467	0.477	148.626	10.477	7.870
2021-09-24 22:00	4428021	8.008	-86.715	10.480	698.367	966.377	0.477	145.749	10.480	7.689
2021-09-24 22:15	4428921	8.001	-86.353	10.479	698.413	966.474	0.477	145.968	10.479	7.498
2021-09-24 22:30	4429821	7.997	-86.076	10.473	698.388	966.577	0.477	145.065	10.473	7.336
2021-09-24 22:45	4430721	7.998	-86.167	10.468	698.294	966.575	0.477	149.976	10.468	7.298
2021-09-24 23:00	4431621	7.999	-86.181	10.457	698.029	966.497	0.477	150.953	10.457	7.173
2021-09-24 23:15	4432521	8.000	-86.267	10.441	697.935	966.784	0.477	148.630	10.441	7.221
2021-09-24 23:30	4433421	7.999	-86.217	10.424	697.674	966.837	0.477	149.575	10.424	7.312
2021-09-24 23:45	4434321	7.999	-86.191	10.411	697.450	966.859	0.477	148.511	10.411	7.412
2021-09-25 0:00	4435221	8.002	-86.336	10.401	696.627	965.989	0.476	149.992	10.401	7.486
2021-09-25 0:15	4436121	8.005	-86.513	10.390	695.756	965.051	0.476	149.344	10.390	7.597
2021-09-25 0:30	4437021	8.006	-86.555	10.383	697.054	967.048	0.477	147.238	10.383	7.668
2021-09-25 0:45	4437921	8.009	-86.746	10.376	696.979	967.122	0.477	149.192	10.376	7.709
2021-09-25 1:00	4438821	8.012	-86.889	10.366	696.856	967.194	0.477	149.837	10.366	7.756
2021-09-25 1:15	4439721	8.017	-87.211	10.358	696.484	966.886	0.477	149.801	10.358	7.658
2021-09-25 1:30	4440621	8.023	-87.509	10.350	696.372	966.934	0.477	150.014	10.350	7.589

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-25 1:45	4441521	8.024	-87.583	10.342	696.517	967.329	0.477	151.498	10.342	7.631
2021-09-25 2:00	4442421	8.025	-87.643	10.338	696.358	967.218	0.477	154.436	10.338	7.677
2021-09-25 2:15	4443321	8.026	-87.678	10.333	696.238	967.174	0.477	153.225	10.333	7.696
2021-09-25 2:30	4444221	8.027	-87.771	10.328	696.186	967.242	0.477	150.530	10.328	7.688
2021-09-25 2:45	4445121	8.028	-87.810	10.325	696.164	967.296	0.477	151.563	10.325	7.633
2021-09-25 3:00	4446022	8.031	-87.945	10.320	696.326	967.645	0.477	149.250	10.320	7.500
2021-09-25 3:15	4446922	8.032	-88.036	10.317	696.396	967.806	0.477	149.427	10.317	7.453
2021-09-25 3:30	4447822	8.033	-88.053	10.315	696.370	967.841	0.477	150.032	10.315	7.350
2021-09-25 3:45	4448722	8.031	-87.967	10.311	696.311	967.860	0.477	145.690	10.311	7.232
2021-09-25 4:00	4449622	8.028	-87.821	10.307	696.684	968.464	0.477	144.314	10.307	7.072
2021-09-25 4:15	4450522	8.026	-87.681	10.303	696.629	968.501	0.478	142.988	10.303	7.037
2021-09-25 4:30	4451422	8.028	-87.779	10.299	696.832	968.873	0.478	145.584	10.299	7.064
2021-09-25 4:45	4452322	8.032	-87.998	10.296	696.089	967.938	0.477	144.103	10.296	7.135
2021-09-25 5:00	4453222	8.036	-88.260	10.293	696.027	967.909	0.477	143.016	10.293	7.149
2021-09-25 5:15	4454122	8.037	-88.294	10.295	697.072	969.321	0.478	143.306	10.295	7.101
2021-09-25 5:30	4455022	8.034	-88.134	10.298	697.185	969.389	0.478	142.503	10.298	7.108
2021-09-25 5:45	4455922	8.028	-87.814	10.302	697.403	969.596	0.478	142.367	10.302	7.078
2021-09-25 6:00	4456822	8.021	-87.414	10.305	696.322	968.019	0.477	145.230	10.305	7.047
2021-09-25 6:15	4457722	8.017	-87.149	10.304	697.730	969.993	0.478	157.345	10.304	7.012
2021-09-25 6:30	4458622	8.014	-87.025	10.304	697.892	970.229	0.478	143.862	10.304	6.908
2021-09-25 6:45	4459522	8.010	-86.789	10.303	697.908	970.270	0.478	147.636	10.303	6.795
2021-09-25 7:00	4460422	8.009	-86.718	10.298	698.028	970.560	0.479	150.007	10.298	6.743
2021-09-25 7:15	4461322	8.010	-86.794	10.293	697.982	970.645	0.479	149.888	10.293	6.703
2021-09-25 7:30	4462222	8.010	-86.756	10.287	697.930	970.718	0.479	150.150	10.287	6.580
2021-09-25 7:45	4463122	8.007	-86.586	10.280	697.956	970.930	0.479	150.339	10.280	6.556
2021-09-25 8:00	4464022	8.003	-86.365	10.275	697.816	970.865	0.479	152.735	10.275	6.595
2021-09-25 8:15	4464922	7.998	-86.098	10.268	698.110	971.453	0.479	153.324	10.268	6.632
2021-09-25 8:30	4465822	7.994	-85.857	10.262	698.148	971.664	0.479	152.950	10.262	6.613
2021-09-25 8:45	4466722	7.990	-85.623	10.265	698.262	971.743	0.479	151.919	10.265	6.681
2021-09-25 9:00	4467622	7.988	-85.530	10.263	698.005	971.447	0.479	153.212	10.263	6.664
2021-09-25 9:15	4468522	7.987	-85.449	10.260	698.233	971.838	0.479	153.418	10.260	6.642
2021-09-25 9:30	4469422	7.988	-85.545	10.256	698.412	972.199	0.479	151.884	10.256	6.597
2021-09-25 9:45	4470322	7.990	-85.618	10.254	698.514	972.375	0.479	151.266	10.254	6.568
2021-09-25 10:00	4471222	7.989	-85.595	10.249	698.237	972.134	0.479	152.432	10.249	6.554
2021-09-25 10:15	4472122	7.988	-85.518	10.248	698.307	972.259	0.479	152.029	10.248	***6.494***
2021-09-25 10:30	4473022	7.989	-85.554	10.244	698.274	972.307	0.479	151.961	10.244	***6.423***
2021-09-25 10:45	4473922	7.987	-85.459	10.240	698.019	972.045	0.479	152.195	10.240	***6.364***
2021-09-25 11:00	4474822	7.987	-85.466	10.238	698.123	972.246	0.479	152.434	10.238	***6.244***
2021-09-25 11:15	4475722	7.983	-85.261	10.239	698.067	972.161	0.479	151.627	10.239	***6.320***
2021-09-25 11:30	4476622	7.977	-84.908	10.235	697.763	971.818	0.479	152.149	10.235	***6.440***
2021-09-25 11:45	4477522	7.972	-84.651	10.234	697.719	971.783	0.479	149.683	10.234	6.531
2021-09-25 12:00	4478422	7.971	-84.560	10.237	697.721	971.731	0.479	151.624	10.237	6.603
2021-09-25 12:15	4479322	7.968	-84.403	10.233	697.179	971.060	0.479	152.155	10.233	6.735
2021-09-25 12:30	4480222	7.966	-84.269	10.231	697.443	971.479	0.479	154.455	10.231	6.815
2021-09-25 12:45	4481122	7.967	-84.322	10.230	697.392	971.456	0.479	150.592	10.230	6.880

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-25 13:00	4482022	7.968	-84.410	10.238	697.322	971.130	0.479	140.305	10.238	6.954
2021-09-25 13:15	4482922	7.972	-84.636	10.252	697.506	971.045	0.479	150.330	10.252	6.930
2021-09-25 13:30	4483822	7.976	-84.870	10.264	697.665	970.938	0.479	151.148	10.264	6.858
2021-09-25 13:45	4484722	7.983	-85.244	10.274	697.623	970.637	0.479	149.083	10.274	6.848
2021-09-25 14:00	4485622	7.990	-85.630	10.281	697.615	970.431	0.478	147.534	10.281	6.976
2021-09-25 14:15	4486522	7.996	-85.981	10.308	697.886	970.128	0.478	148.800	10.308	7.103
2021-09-25 14:30	4487422	8.007	-86.637	10.339	698.255	969.840	0.478	148.089	10.339	7.152
2021-09-25 14:45	4488322	8.015	-87.080	10.357	698.657	969.916	0.478	149.592	10.357	7.073
2021-09-25 15:00	4489222	8.020	-87.345	10.381	699.022	969.823	0.478	150.510	10.381	6.942
2021-09-25 15:15	4490122	8.023	-87.550	10.403	698.670	968.755	0.478	151.550	10.403	6.895
2021-09-25 15:30	4491022	8.022	-87.488	10.440	699.932	969.562	0.478	151.068	10.440	6.957
2021-09-25 15:45	4491922	8.022	-87.502	10.485	700.663	969.411	0.478	152.223	10.485	7.098
2021-09-25 16:00	4492822	8.026	-87.764	10.526	701.142	969.043	0.478	153.138	10.526	7.127
2021-09-25 16:15	4493722	8.029	-87.950	10.560	701.846	969.149	0.478	152.666	10.560	7.274
2021-09-25 16:30	4494622	8.034	-88.215	10.584	702.295	969.146	0.478	150.914	10.584	7.391
2021-09-25 16:45	4495522	8.037	-88.387	10.600	702.542	969.087	0.478	153.754	10.600	7.464
2021-09-25 17:00	4496422	8.040	-88.565	10.618	702.765	968.924	0.478	152.398	10.618	7.271
2021-09-25 17:15	4497322	8.042	-88.692	10.648	703.211	968.772	0.478	153.341	10.648	7.170
2021-09-25 17:30	4498222	8.043	-88.742	10.682	703.702	968.580	0.478	154.071	10.682	7.322
2021-09-25 17:45	4499122	8.044	-88.816	10.719	704.493	968.726	0.478	151.133	10.719	7.442
2021-09-25 18:00	4500022	8.041	-88.685	10.756	704.968	968.435	0.478	151.556	10.756	7.538
2021-09-25 18:15	4500922	8.036	-88.420	10.792	705.533	968.302	0.478	151.605	10.792	7.730
2021-09-25 18:30	4501822	8.034	-88.315	10.827	706.311	968.475	0.478	150.678	10.827	7.773
2021-09-25 18:45	4502722	8.031	-88.134	10.862	706.879	968.387	0.478	151.582	10.862	7.780
2021-09-25 19:00	4503622	8.030	-88.079	10.887	707.481	968.570	0.478	153.258	10.887	7.751
2021-09-25 19:15	4504522	8.033	-88.239	10.910	707.933	968.591	0.478	152.804	10.910	7.725
2021-09-25 19:30	4505422	8.030	-88.086	10.932	708.292	968.541	0.478	151.584	10.932	7.722
2021-09-25 19:45	4506322	8.025	-87.833	10.948	708.542	968.468	0.478	150.863	10.948	7.712
2021-09-25 20:00	4507222	8.024	-87.790	10.963	708.515	968.056	0.478	152.381	10.963	7.692
2021-09-25 20:15	4508122	8.019	-87.488	10.978	709.083	968.464	0.478	154.101	10.978	7.664
2021-09-25 20:30	4509022	8.012	-87.113	10.991	709.334	968.480	0.478	152.512	10.991	7.640
2021-09-25 20:45	4509922	8.003	-86.598	11.008	709.571	968.352	0.478	153.062	11.008	7.641
2021-09-25 21:00	4510822	7.999	-86.358	11.017	709.576	968.149	0.478	152.452	11.017	7.655
2021-09-25 21:15	4511722	7.997	-86.296	11.023	709.825	968.330	0.478	151.883	11.023	7.661
2021-09-25 21:30	4512622	7.998	-86.334	11.029	709.952	968.361	0.478	152.966	11.029	7.672
2021-09-25 21:45	4513522	7.999	-86.398	11.034	710.019	968.325	0.478	152.040	11.034	7.651
2021-09-25 22:00	4514422	7.999	-86.374	11.036	710.041	968.290	0.478	153.390	11.036	7.606
2021-09-25 22:15	4515322	7.995	-86.141	11.039	710.193	968.429	0.478	151.080	11.039	7.553
2021-09-25 22:30	4516222	7.995	-86.155	11.041	710.197	968.382	0.478	150.944	11.041	7.471
2021-09-25 22:45	4517122	7.996	-86.241	11.042	710.202	968.369	0.478	152.889	11.042	7.372
2021-09-25 23:00	4518022	7.992	-85.993	11.043	709.930	967.981	0.478	153.877	11.043	7.278
2021-09-25 23:15	4518922	7.989	-85.797	11.042	710.074	968.179	0.478	154.359	11.042	7.190
2021-09-25 23:30	4519822	7.983	-85.490	11.043	709.187	966.965	0.477	151.533	11.043	7.106
2021-09-25 23:45	4520722	7.977	-85.170	11.041	710.132	968.305	0.478	154.388	11.041	7.019
2021-09-26 0:00	4521622	7.975	-85.049	11.040	710.193	968.398	0.478	154.242	11.040	6.945

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-26 0:15	4522522	7.973	-84.910	11.039	707.779	965.128	0.477	154.442	11.039	6.859
2021-09-26 0:30	4523422	7.969	-84.674	11.039	710.308	968.575	0.478	155.560	11.039	6.750
2021-09-26 0:45	4524322	7.964	-84.410	11.040	710.410	968.689	0.478	156.163	11.040	6.658
2021-09-26 1:00	4525222	7.959	-84.114	11.040	710.345	968.617	0.478	156.654	11.040	6.577
2021-09-26 1:15	4526122	7.954	-83.830	11.038	710.308	968.621	0.478	154.796	11.038	***6.449***
2021-09-26 1:30	4527022	7.949	-83.566	11.035	710.536	969.003	0.478	155.474	11.035	***6.241***
2021-09-26 1:45	4527922	7.948	-83.506	11.037	710.741	969.231	0.479	153.851	11.037	***6.228***
2021-09-26 2:00	4528822	7.947	-83.449	11.035	710.911	969.512	0.479	156.316	11.035	***6.182***
2021-09-26 2:15	4529722	7.945	-83.337	11.033	710.213	968.605	0.478	155.549	11.033	***6.196***
2021-09-26 2:30	4530622	7.943	-83.232	11.030	709.951	968.325	0.478	156.950	11.030	***6.263***
2021-09-26 2:45	4531522	7.943	-83.220	11.027	711.282	970.217	0.479	159.099	11.027	***6.317***
2021-09-26 3:00	4532422	7.941	-83.132	11.019	711.292	970.442	0.479	158.982	11.019	***6.404***
2021-09-26 3:15	4533322	7.944	-83.258	11.007	711.128	970.513	0.479	158.782	11.007	***6.493***
2021-09-26 3:30	4534222	7.952	-83.742	10.996	711.061	970.688	0.479	155.589	10.996	***6.333***
2021-09-26 3:45	4535122	7.958	-84.071	10.985	710.780	970.606	0.479	159.571	10.985	***6.267***
2021-09-26 4:00	4536022	7.956	-83.928	10.977	710.893	970.952	0.479	149.302	10.977	***6.343***
2021-09-26 4:15	4536922	7.949	-83.535	10.976	710.813	970.873	0.479	160.405	10.976	***6.454***
2021-09-26 4:30	4537822	7.941	-83.110	10.966	711.028	971.412	0.480	160.762	10.966	***6.462***
2021-09-26 4:45	4538722	7.934	-82.724	10.955	710.529	971.024	0.479	160.240	10.955	***6.451***
2021-09-26 5:00	4539622	7.929	-82.426	10.941	710.537	971.369	0.480	158.392	10.941	***6.475***
2021-09-26 5:15	4540522	7.927	-82.285	10.930	710.471	971.555	0.480	158.424	10.930	***6.398***
2021-09-26 5:30	4541422	7.926	-82.235	10.920	710.081	971.292	0.480	158.478	10.920	***6.223***
2021-09-26 5:45	4542322	7.925	-82.169	10.911	710.261	971.760	0.480	158.207	10.911	***6.132***
2021-09-26 6:00	4543222	7.922	-81.983	10.902	710.073	971.727	0.480	157.463	10.902	***6.108***
2021-09-26 6:15	4544122	7.919	-81.816	10.895	709.764	971.491	0.480	157.584	10.895	***6.017***
2021-09-26 6:30	4545022	7.918	-81.787	10.887	709.207	970.936	0.479	158.068	10.887	***5.845***
2021-09-26 6:45	4545922	7.917	-81.689	10.880	709.571	971.615	0.480	158.101	10.880	***5.700***
2021-09-26 7:00	4546822	7.915	-81.601	10.872	709.325	971.478	0.480	156.913	10.872	***5.564***
2021-09-26 7:15	4547722	7.912	-81.415	10.863	709.377	971.759	0.480	158.487	10.863	***5.407***
2021-09-26 7:30	4548622	7.910	-81.334	10.857	708.950	971.344	0.480	159.380	10.857	***5.283***
2021-09-26 7:45	4549522	7.908	-81.217	10.849	708.904	971.469	0.480	159.124	10.849	***5.148***
2021-09-26 8:00	4550422	7.903	-80.931	10.842	708.844	971.579	0.480	159.809	10.842	***5.188***
2021-09-26 8:15	4551322	7.897	-80.562	10.838	708.881	971.719	0.480	159.402	10.838	***5.273***
2021-09-26 8:30	4552222	7.888	-80.066	10.834	708.808	971.738	0.480	160.188	10.834	***5.387***
2021-09-26 8:45	4553122	7.880	-79.634	10.830	708.673	971.642	0.480	161.476	10.830	***5.484***
2021-09-26 9:00	4554022	7.876	-79.401	10.828	708.527	971.505	0.480	159.679	10.828	***5.611***
2021-09-26 9:15	4554922	7.875	-79.358	10.825	708.648	971.727	0.480	158.052	10.825	***5.747***
2021-09-26 9:30	4555822	7.876	-79.401	10.823	708.838	972.056	0.480	159.074	10.823	***5.763***
2021-09-26 9:45	4556722	7.876	-79.391	10.823	708.864	972.089	0.480	158.204	10.823	***5.748***
2021-09-26 10:00	4557622	7.876	-79.384	10.822	708.875	972.132	0.480	159.441	10.822	***5.753***
2021-09-26 10:15	4558522	7.875	-79.319	10.819	708.875	972.199	0.480	158.713	10.819	***5.753***
2021-09-26 10:30	4559422	7.881	-79.675	10.818	708.742	972.058	0.480	157.211	10.818	***5.809***
2021-09-26 10:45	4560322	7.899	-80.707	10.816	708.566	971.867	0.480	160.131	10.816	***5.847***
2021-09-26 11:00	4561222	7.906	-81.105	10.818	708.724	972.022	0.480	159.820	10.818	***5.860***
2021-09-26 11:15	4562122	7.908	-81.213	10.827	708.966	972.135	0.480	158.925	10.827	***5.838***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-26 11:30	4563022	7.908	-81.201	10.842	709.158	972.008	0.480	160.590	10.842	***5.780***
2021-09-26 11:45	4563922	7.904	-80.991	10.856	709.382	971.959	0.480	159.487	10.856	***5.771***
2021-09-26 12:00	4564822	7.900	-80.755	10.877	709.734	971.891	0.480	158.545	10.877	***5.802***
2021-09-26 12:15	4565722	7.897	-80.581	10.905	710.116	971.719	0.480	158.430	10.905	***5.887***
2021-09-26 12:30	4566622	7.893	-80.373	10.941	710.645	971.516	0.480	157.717	10.941	***5.937***
2021-09-26 12:45	4567522	7.889	-80.142	10.983	711.429	971.539	0.480	158.039	10.983	***5.954***
2021-09-26 13:00	4568423	7.886	-79.989	11.027	712.365	971.685	0.480	157.687	11.027	***5.967***
2021-09-26 13:15	4569323	7.883	-79.880	11.069	713.036	971.543	0.480	161.914	11.069	***5.990***
2021-09-26 13:30	4570223	7.879	-79.648	11.089	713.376	971.513	0.480	158.889	11.089	***5.993***
2021-09-26 13:45	4571123	7.879	-79.658	11.100	713.578	971.496	0.480	156.666	11.100	***5.973***
2021-09-26 14:00	4572023	7.883	-79.844	11.119	713.819	971.341	0.480	159.753	11.119	***5.980***
2021-09-26 14:15	4572923	7.886	-80.020	11.158	714.261	970.960	0.480	156.385	11.158	***6.137***
2021-09-26 14:30	4573823	7.887	-80.140	11.223	714.309	969.400	0.479	157.629	11.223	***6.362***
2021-09-26 14:45	4574723	7.890	-80.302	11.291	716.555	970.727	0.480	156.133	11.291	6.507
2021-09-26 15:00	4575623	7.900	-80.883	11.354	717.474	970.402	0.480	156.783	11.354	***6.483***
2021-09-26 15:15	4576523	7.905	-81.193	11.395	718.198	970.345	0.480	156.939	11.395	***6.429***
2021-09-26 15:30	4577423	7.912	-81.570	11.422	718.540	970.129	0.479	158.301	11.422	***6.428***
2021-09-26 15:45	4578323	7.925	-82.297	11.411	718.489	970.339	0.480	156.896	11.411	6.664
2021-09-26 16:00	4579223	7.936	-82.953	11.396	718.219	970.339	0.480	156.299	11.396	7.064
2021-09-26 16:15	4580123	7.942	-83.301	11.395	718.030	970.121	0.479	157.286	11.395	7.417
2021-09-26 16:30	4581023	7.948	-83.599	11.377	717.567	969.953	0.479	159.531	11.377	7.715
2021-09-26 16:45	4581923	7.952	-83.854	11.379	717.208	969.409	0.479	159.835	11.379	7.882
2021-09-26 17:00	4582823	7.960	-84.288	11.387	716.917	968.825	0.479	158.454	11.387	7.975
2021-09-26 17:15	4583723	7.963	-84.450	11.398	716.303	967.722	0.478	155.217	11.398	7.956
2021-09-26 17:30	4584623	7.966	-84.636	11.406	716.852	968.253	0.478	158.885	11.406	7.889
2021-09-26 17:45	4585523	7.960	-84.269	11.402	716.353	967.686	0.478	156.950	11.402	7.841
2021-09-26 18:00	4586423	7.954	-83.981	11.396	715.893	967.220	0.478	158.536	11.396	7.816
2021-09-26 18:15	4587323	7.957	-84.133	11.392	715.388	966.618	0.478	156.971	11.392	7.840
2021-09-26 18:30	4588223	7.959	-84.260	11.388	715.185	966.456	0.478	156.719	11.388	7.928
2021-09-26 18:45	4589123	7.960	-84.281	11.397	715.376	966.487	0.478	157.347	11.397	8.023
2021-09-26 19:00	4590023	7.963	-84.460	11.420	715.190	965.656	0.477	167.480	11.420	8.059
2021-09-26 19:15	4590923	7.961	-84.345	11.465	715.861	965.442	0.477	173.762	11.465	8.124
2021-09-26 19:30	4591823	7.959	-84.293	11.525	716.802	965.231	0.477	174.088	11.525	8.117
2021-09-26 19:45	4592723	7.963	-84.522	11.600	717.840	964.772	0.477	176.422	11.600	8.025
2021-09-26 20:00	4593623	7.961	-84.441	11.678	719.119	964.550	0.477	156.805	11.678	7.868
2021-09-26 20:15	4594523	7.963	-84.548	11.757	720.212	964.054	0.477	156.647	11.757	7.714
2021-09-26 20:30	4595423	7.965	-84.701	11.824	721.478	964.095	0.477	157.060	11.824	7.618
2021-09-26 20:45	4596323	7.967	-84.825	11.894	722.538	963.802	0.477	159.857	11.894	7.561
2021-09-26 21:00	4597223	7.970	-85.044	11.945	723.434	963.744	0.477	158.768	11.945	7.562
2021-09-26 21:15	4598123	7.973	-85.192	11.962	723.858	963.887	0.477	157.793	11.962	7.601
2021-09-26 21:30	4599023	7.973	-85.208	11.955	723.804	963.987	0.477	151.683	11.955	7.618
2021-09-26 21:45	4599923	7.970	-85.049	11.948	723.513	963.776	0.477	152.844	11.948	7.657
2021-09-26 22:00	4600823	7.968	-84.884	11.943	723.629	964.058	0.477	155.136	11.943	7.667
2021-09-26 22:15	4601723	7.963	-84.612	11.921	722.988	963.727	0.477	155.543	11.921	7.654
2021-09-26 22:30	4602623	7.962	-84.529	11.884	722.173	963.566	0.476	155.690	11.884	7.638

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-26 22:45	4603523	7.957	-84.276	11.839	721.244	963.416	0.476	156.285	11.839	7.693
2021-09-26 23:00	4604423	7.953	-83.997	11.810	720.623	963.301	0.476	159.152	11.810	7.744
2021-09-26 23:15	4605323	7.950	-83.849	11.798	720.568	963.523	0.476	157.717	11.798	7.658
2021-09-26 23:30	4606223	7.951	-83.876	11.735	719.115	963.133	0.476	156.119	11.735	7.613
2021-09-26 23:45	4607123	7.958	-84.276	11.684	718.001	962.906	0.476	156.649	11.684	7.683
2021-09-27 0:00	4608023	7.959	-84.312	11.646	714.224	958.766	0.474	155.621	11.646	7.704
2021-09-27 0:15	4608923	7.956	-84.126	11.616	716.359	962.370	0.476	156.592	11.616	7.615
2021-09-27 0:30	4609823	7.957	-84.159	11.590	716.051	962.601	0.476	157.418	11.590	7.540
2021-09-27 0:45	4610723	7.955	-84.059	11.563	715.464	962.480	0.476	157.721	11.563	7.459
2021-09-27 1:00	4611623	7.956	-84.119	11.537	714.943	962.422	0.476	156.438	11.537	7.422
2021-09-27 1:15	4612523	7.954	-83.971	11.516	714.631	962.529	0.476	158.378	11.516	7.345
2021-09-27 1:30	4613423	7.952	-83.890	11.483	713.770	962.174	0.475	158.234	11.483	7.301
2021-09-27 1:45	4614323	7.952	-83.840	11.444	709.909	957.944	0.473	168.488	11.444	7.281
2021-09-27 2:00	4615223	7.951	-83.814	11.406	711.957	961.645	0.475	159.065	11.406	7.188
2021-09-27 2:15	4616123	7.952	-83.821	11.372	711.717	962.163	0.475	159.308	11.372	7.176
2021-09-27 2:30	4617023	7.949	-83.659	11.338	710.979	962.010	0.475	157.285	11.338	7.195
2021-09-27 2:45	4617923	7.941	-83.196	11.317	710.443	961.811	0.475	154.260	11.317	7.168
2021-09-27 3:00	4618823	7.938	-82.998	11.290	710.256	962.230	0.475	154.226	11.290	7.160
2021-09-27 3:15	4619723	7.935	-82.834	11.260	709.640	962.137	0.475	156.109	11.260	7.174
2021-09-27 3:30	4620623	7.933	-82.746	11.237	709.146	962.037	0.475	157.879	11.237	7.159
2021-09-27 3:45	4621523	7.931	-82.617	11.213	708.786	962.141	0.475	156.491	11.213	7.143
2021-09-27 4:00	4622423	7.926	-82.295	11.180	708.169	962.135	0.475	158.802	11.180	7.057
2021-09-27 4:15	4623323	7.923	-82.130	11.150	707.384	961.815	0.475	158.645	11.150	6.970
2021-09-27 4:30	4624223	7.917	-81.813	11.127	707.206	962.142	0.475	159.792	11.127	6.855
2021-09-27 4:45	4625123	7.912	-81.511	11.105	706.713	962.025	0.475	157.297	11.105	6.740
2021-09-27 5:00	4626023	7.909	-81.301	11.085	706.153	961.760	0.475	156.347	11.085	6.682
2021-09-27 5:15	4626923	7.907	-81.222	11.066	705.668	961.590	0.475	153.226	11.066	6.648
2021-09-27 5:30	4627823	7.907	-81.205	11.051	705.348	961.518	0.475	154.525	11.051	6.548
2021-09-27 5:45	4628723	7.907	-81.208	11.049	705.409	961.654	0.475	155.187	11.049	***6.396***
2021-09-27 6:00	4629623	7.906	-81.134	11.040	705.226	961.622	0.475	154.342	11.040	***6.410***
2021-09-27 6:15	4630523	7.904	-81.005	11.024	704.827	961.480	0.475	152.678	11.024	***6.326***
2021-09-27 6:30	4631423	7.900	-80.786	11.006	703.299	959.858	0.474	157.901	11.006	***6.267***
2021-09-27 6:45	4632323	7.897	-80.602	10.994	704.333	961.564	0.475	156.696	10.994	***6.213***
2021-09-27 7:00	4633223	7.892	-80.333	10.985	703.984	961.317	0.475	158.063	10.985	***6.148***
2021-09-27 7:15	4634123	7.886	-80.009	10.976	703.961	961.509	0.475	157.619	10.976	***6.047***
2021-09-27 7:30	4635023	7.884	-79.873	10.968	703.639	961.277	0.474	156.103	10.968	***5.965***
2021-09-27 7:45	4635923	7.883	-79.846	10.962	703.628	961.404	0.475	156.163	10.962	***5.901***
2021-09-27 8:00	4636823	7.883	-79.806	10.957	703.571	961.444	0.475	156.453	10.957	***5.822***
2021-09-27 8:15	4637723	7.882	-79.772	10.950	703.418	961.412	0.475	154.042	10.950	***5.730***
2021-09-27 8:30	4638623	7.881	-79.694	10.939	703.256	961.484	0.475	157.010	10.939	***5.623***
2021-09-27 8:45	4639523	7.877	-79.463	10.922	702.739	961.185	0.474	155.598	10.922	***5.525***
2021-09-27 9:00	4640423	7.873	-79.238	10.910	702.669	961.392	0.474	155.189	10.910	***5.474***
2021-09-27 9:15	4641323	7.872	-79.162	10.895	702.354	961.342	0.474	156.826	10.895	***5.448***
2021-09-27 9:30	4642223	7.867	-78.897	10.879	702.151	961.482	0.474	160.360	10.879	***5.404***
2021-09-27 9:45	4643123	7.861	-78.547	10.862	698.085	956.339	0.472	160.634	10.862	***5.360***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-27 10:00	4644023	7.855	-78.187	10.852	701.517	961.291	0.474	161.734	10.852	***5.322***
2021-09-27 10:15	4644923	7.853	-78.108	10.845	701.259	961.107	0.474	160.855	10.845	***5.284***
2021-09-27 10:30	4645823	7.852	-78.051	10.846	701.040	960.771	0.474	159.907	10.846	***5.225***
2021-09-27 10:45	4646723	7.853	-78.106	10.849	701.051	960.717	0.474	159.838	10.849	***5.168***
2021-09-27 11:00	4647623	7.853	-78.082	10.854	700.907	960.382	0.474	159.484	10.854	***5.142***
2021-09-27 11:15	4648523	7.850	-77.946	10.860	700.916	960.254	0.474	159.866	10.860	***5.121***
2021-09-27 11:30	4649423	7.848	-77.844	10.862	700.372	959.459	0.473	161.343	10.862	***5.082***
2021-09-27 11:45	4650323	7.848	-77.815	10.864	700.713	959.881	0.474	161.003	10.864	***5.021***
2021-09-27 12:00	4651223	7.847	-77.760	10.867	700.386	959.356	0.473	160.806	10.867	***4.938***
2021-09-27 12:15	4652123	7.846	-77.715	10.874	700.691	959.596	0.474	161.388	10.874	***4.776***
2021-09-27 12:30	4653023	7.847	-77.775	10.879	700.859	959.698	0.474	162.540	10.879	***4.674***
2021-09-27 12:45	4653923	7.848	-77.839	10.885	700.835	959.516	0.473	158.143	10.885	***4.701***
2021-09-27 13:00	4654823	7.851	-77.977	10.897	701.078	959.558	0.474	157.149	10.897	***4.790***
2021-09-27 13:15	4655723	7.851	-78.027	10.921	701.408	959.388	0.473	155.269	10.921	***4.910***
2021-09-27 13:30	4656623	7.851	-78.006	10.952	701.999	959.437	0.474	157.521	10.952	***5.051***
2021-09-27 13:45	4657523	7.853	-78.115	10.975	702.048	958.913	0.473	159.448	10.975	***5.159***
2021-09-27 14:00	4658423	7.855	-78.273	11.000	702.388	958.758	0.473	159.368	11.000	***5.201***
2021-09-27 14:15	4659323	7.859	-78.514	11.044	703.390	959.032	0.473	162.181	11.044	***5.269***
2021-09-27 14:30	4660223	7.860	-78.599	11.141	704.840	958.584	0.473	161.618	11.141	***5.422***
2021-09-27 14:45	4661123	7.860	-78.583	11.264	706.978	958.438	0.473	161.104	11.264	***5.552***
2021-09-27 15:00	4662023	7.862	-78.723	11.328	708.174	958.454	0.473	163.891	11.328	***5.570***
2021-09-27 15:15	4662923	7.860	-78.638	11.297	707.747	958.648	0.473	160.264	11.297	***5.571***
2021-09-27 15:30	4663823	7.858	-78.475	11.236	706.893	959.018	0.474	159.113	11.236	***5.916***
2021-09-27 15:45	4664723	7.863	-78.752	11.192	705.958	958.822	0.473	155.707	11.192	***6.346***
2021-09-27 16:00	4665623	7.864	-78.819	11.192	705.928	958.795	0.473	154.876	11.192	6.632
2021-09-27 16:15	4666523	7.862	-78.690	11.240	706.600	958.516	0.473	153.211	11.240	6.687
2021-09-27 16:30	4667423	7.866	-78.964	11.320	708.121	958.579	0.473	157.027	11.320	6.604
2021-09-27 16:45	4668323	7.876	-79.567	11.406	709.720	958.610	0.473	157.759	11.406	6.550
2021-09-27 17:00	4669223	7.885	-80.078	11.446	710.362	958.507	0.473	152.942	11.446	6.580
2021-09-27 17:15	4670123	7.889	-80.278	11.468	710.924	958.719	0.474	151.697	11.468	6.579
2021-09-27 17:30	4671023	7.888	-80.278	11.478	711.011	958.585	0.474	149.919	11.478	6.505
2021-09-27 17:45	4671923	7.887	-80.209	11.507	710.682	957.425	0.473	151.718	11.507	***6.432***
2021-09-27 18:00	4672823	7.888	-80.276	11.551	712.375	958.614	0.474	154.051	11.551	***6.489***
2021-09-27 18:15	4673723	7.886	-80.163	11.562	712.511	958.540	0.474	160.901	11.562	6.518
2021-09-27 18:30	4674623	7.883	-80.013	11.552	712.518	958.801	0.474	166.398	11.552	6.528
2021-09-27 18:45	4675523	7.883	-79.973	11.533	711.392	957.750	0.473	166.595	11.533	6.694
2021-09-27 19:00	4676423	7.894	-80.571	11.512	710.214	956.668	0.473	167.137	11.512	6.982
2021-09-27 19:15	4677323	7.903	-81.105	11.497	711.315	958.527	0.474	165.606	11.497	7.268
2021-09-27 19:30	4678223	7.909	-81.422	11.497	709.955	956.688	0.473	167.254	11.497	7.562
2021-09-27 19:45	4679123	7.907	-81.313	11.522	711.738	958.467	0.474	164.285	11.522	7.590
2021-09-27 20:00	4680023	7.905	-81.253	11.568	712.495	958.359	0.474	162.360	11.568	7.644
2021-09-27 20:15	4680923	7.903	-81.110	11.594	713.253	958.744	0.474	160.721	11.594	7.634
2021-09-27 20:30	4681823	7.904	-81.184	11.608	713.452	958.667	0.474	158.970	11.608	7.610
2021-09-27 20:45	4682723	7.897	-80.776	11.628	713.785	958.610	0.474	157.290	11.628	7.582
2021-09-27 21:00	4683623	7.894	-80.612	11.637	713.870	958.505	0.474	150.360	11.637	7.531

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-27 21:15	4684523	7.890	-80.392	11.642	714.001	958.557	0.474	158.845	11.642	7.441
2021-09-27 21:30	4685423	7.886	-80.194	11.626	713.796	958.678	0.474	161.255	11.626	7.309
2021-09-27 21:45	4686323	7.878	-79.730	11.594	713.190	958.653	0.474	162.758	11.594	7.186
2021-09-27 22:00	4687223	7.878	-79.713	11.556	712.454	958.613	0.474	164.316	11.556	7.092
2021-09-27 22:15	4688123	7.897	-80.767	11.517	711.479	958.265	0.473	163.961	11.517	7.007
2021-09-27 22:30	4689023	7.909	-81.413	11.482	710.702	958.065	0.473	165.222	11.482	7.035
2021-09-27 22:45	4689923	7.914	-81.701	11.450	710.602	958.733	0.474	164.438	11.450	7.091
2021-09-27 23:00	4690823	7.912	-81.615	11.419	709.342	957.792	0.473	164.108	11.419	7.181
2021-09-27 23:15	4691723	7.904	-81.141	11.372	708.300	957.540	0.473	165.997	11.372	7.244
2021-09-27 23:30	4692623	7.901	-80.936	11.260	706.055	957.269	0.473	163.617	11.260	7.205
2021-09-27 23:45	4693523	7.906	-81.184	11.181	704.261	956.794	0.472	160.936	11.181	7.079
2021-09-28 0:00	4694423	7.915	-81.670	11.129	703.004	956.375	0.472	158.482	11.129	6.930
2021-09-28 0:15	4695323	7.924	-82.154	11.066	701.445	955.819	0.472	159.687	11.066	6.799
2021-09-28 0:30	4696223	7.929	-82.438	11.011	700.110	955.381	0.471	167.999	11.011	6.715
2021-09-28 0:45	4697123	7.928	-82.355	10.969	698.955	954.842	0.471	169.356	10.969	6.616
2021-09-28 1:00	4698024	7.922	-82.030	10.930	697.938	954.422	0.471	166.748	10.930	***6.486***
2021-09-28 1:15	4698924	7.916	-81.680	10.895	697.168	954.242	0.471	164.525	10.895	***6.312***
2021-09-28 1:30	4699824	7.912	-81.449	10.860	696.060	953.598	0.470	162.054	10.860	***6.187***
2021-09-28 1:45	4700724	7.908	-81.172	10.826	695.618	953.847	0.471	159.494	10.826	***6.030***
2021-09-28 2:00	4701624	7.901	-80.802	10.783	694.541	953.435	0.470	160.245	10.783	***5.849***
2021-09-28 2:15	4702524	7.894	-80.369	10.756	693.999	953.375	0.470	167.442	10.756	***5.607***
2021-09-28 2:30	4703424	7.886	-79.954	10.729	693.438	953.278	0.470	170.260	10.729	***5.404***
2021-09-28 2:45	4704324	7.880	-79.553	10.699	692.724	953.048	0.470	172.152	10.699	***5.253***
2021-09-28 3:00	4705224	7.874	-79.231	10.672	692.136	952.906	0.470	174.385	10.672	***5.072***
2021-09-28 3:15	4706124	7.868	-78.878	10.647	691.684	952.917	0.470	169.364	10.647	***4.885***
2021-09-28 3:30	4707024	7.864	-78.661	10.622	690.734	952.233	0.469	162.721	10.622	***4.740***
2021-09-28 3:45	4707924	7.861	-78.478	10.589	690.310	952.490	0.470	158.454	10.589	***4.639***
2021-09-28 4:00	4708824	7.858	-78.301	10.553	689.537	952.322	0.469	165.478	10.553	***4.553***
2021-09-28 4:15	4709724	7.855	-78.106	10.517	688.663	952.019	0.469	170.905	10.517	***4.463***
2021-09-28 4:30	4710624	7.854	-78.042	10.482	687.474	951.240	0.469	172.299	10.482	***4.366***
2021-09-28 4:45	4711524	7.854	-78.061	10.449	686.602	950.884	0.469	171.823	10.449	***4.282***
2021-09-28 5:00	4712424	7.854	-78.044	10.418	685.191	949.691	0.468	170.076	10.418	***4.194***
2021-09-28 5:15	4713324	7.854	-78.034	10.389	683.964	948.728	0.467	167.914	10.389	***4.124***
2021-09-28 5:30	4714224	7.852	-77.901	10.361	682.695	947.659	0.467	166.428	10.361	***4.054***
2021-09-28 5:45	4715124	7.849	-77.732	10.335	681.143	946.162	0.466	162.968	10.335	***3.991***
2021-09-28 6:00	4716024	7.846	-77.543	10.307	679.971	945.233	0.466	170.477	10.307	***3.914***
2021-09-28 6:15	4716924	7.841	-77.283	10.277	677.809	942.989	0.464	170.910	10.277	***3.794***
2021-09-28 6:30	4717824	7.838	-77.078	10.242	677.324	943.181	0.464	173.693	10.242	***3.695***
2021-09-28 6:45	4718724	7.835	-76.895	10.208	675.764	941.862	0.464	170.371	10.208	***3.618***
2021-09-28 7:00	4719624	7.832	-76.718	10.170	674.173	940.591	0.463	170.115	10.170	***3.527***
2021-09-28 7:15	4720524	7.829	-76.573	10.135	672.586	939.260	0.462	190.628	10.135	***3.409***
2021-09-28 7:30	4721424	7.826	-76.377	10.095	670.966	938.010	0.462	194.922	10.095	***3.295***
2021-09-28 7:45	4722324	7.825	-76.296	10.050	669.336	936.843	0.461	198.659	10.050	***3.165***
2021-09-28 8:00	4723224	7.822	-76.149	9.998	667.781	935.970	0.461	195.249	9.998	***3.102***
2021-09-28 8:15	4724124	7.819	-75.932	9.946	666.262	935.153	0.460	197.284	9.946	***3.058***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-28 8:30	4725024	7.815	-75.703	9.895	664.622	934.114	0.459	200.649	9.895	***2.998***
2021-09-28 8:45	4725924	7.811	-75.481	9.851	663.491	933.635	0.459	206.071	9.851	***2.930***
2021-09-28 9:00	4726824	7.807	-75.207	9.809	662.236	932.923	0.459	202.859	9.809	***2.842***
2021-09-28 9:15	4727724	7.803	-75.011	9.766	661.158	932.485	0.459	203.779	9.766	***2.728***
2021-09-28 9:30	4728624	7.801	-74.863	9.729	659.923	931.677	0.458	208.997	9.729	***2.596***
2021-09-28 9:45	4729524	7.798	-74.706	9.694	659.074	931.358	0.458	199.773	9.694	***2.465***
2021-09-28 10:00	4730424	7.795	-74.544	9.659	657.928	930.608	0.457	198.287	9.659	***2.315***
2021-09-28 10:15	4731324	7.791	-74.308	9.627	656.840	929.883	0.457	197.119	9.627	***2.101***
2021-09-28 10:30	4732224	7.787	-74.048	9.599	654.027	926.595	0.455	198.459	9.599	***1.878***
2021-09-28 10:45	4733124	7.782	-73.748	9.579	654.513	927.782	0.456	194.102	9.579	***1.691***
2021-09-28 11:00	4734024	7.777	-73.502	9.567	654.315	927.812	0.456	195.014	9.567	***1.582***
2021-09-28 11:15	4734924	7.773	-73.247	9.559	653.540	926.898	0.455	195.076	9.559	***1.532***
2021-09-28 11:30	4735824	7.770	-73.111	9.559	652.730	925.768	0.455	192.811	9.559	***1.493***
2021-09-28 11:45	4736724	7.765	-72.837	9.569	652.060	924.544	0.454	191.797	9.569	***1.439***
2021-09-28 12:00	4737624	7.762	-72.627	9.586	651.536	923.388	0.454	192.320	9.586	***1.398***
2021-09-28 12:15	4738524	7.757	-72.401	9.610	651.018	922.063	0.453	196.190	9.610	***1.371***
2021-09-28 12:30	4739424	7.752	-72.124	9.640	648.995	918.457	0.451	197.163	9.640	***1.370***
2021-09-28 12:45	4740324	7.748	-71.898	9.670	649.759	918.790	0.451	197.261	9.670	***1.380***
2021-09-28 13:00	4741224	7.746	-71.778	9.705	649.562	917.642	0.451	201.604	9.705	***1.349***
2021-09-28 13:15	4742124	7.747	-71.855	9.749	649.520	916.495	0.450	206.276	9.749	***1.286***
2021-09-28 13:30	4743024	7.755	-72.315	9.806	649.955	915.692	0.450	211.347	9.806	***1.233***
2021-09-28 13:45	4743924	7.769	-73.085	9.860	650.728	915.453	0.450	211.431	9.860	***1.233***
2021-09-28 14:00	4744824	7.778	-73.647	9.908	651.722	915.665	0.450	211.445	9.908	***1.227***
2021-09-28 14:15	4745724	7.787	-74.143	9.954	652.872	916.158	0.450	208.428	9.954	***1.247***
2021-09-28 14:30	4746624	7.798	-74.778	10.005	654.619	917.354	0.451	204.955	10.005	***1.285***
2021-09-28 14:45	4747524	7.812	-75.576	10.080	657.380	919.383	0.452	203.065	10.080	***1.197***
2021-09-28 15:00	4748424	7.820	-76.067	10.151	660.566	922.074	0.454	193.795	10.151	***1.536***
2021-09-28 15:15	4749324	7.825	-76.351	10.203	663.691	925.170	0.455	189.826	10.203	***1.927***
2021-09-28 15:30	4750224	7.840	-77.212	10.237	666.622	928.410	0.457	194.410	10.237	***2.886***
2021-09-28 15:45	4751124	7.843	-77.357	10.264	669.054	931.123	0.458	199.921	10.264	***3.649***
2021-09-28 16:00	4752024	7.850	-77.794	10.303	671.182	933.132	0.459	210.715	10.303	***4.264***
2021-09-28 16:15	4752924	7.854	-78.013	10.336	673.332	935.284	0.461	225.205	10.336	***4.893***
2021-09-28 16:30	4753824	7.865	-78.659	10.372	671.086	931.273	0.459	227.535	10.372	***5.201***
2021-09-28 16:45	4754724	7.875	-79.205	10.426	676.530	937.504	0.462	226.131	10.426	***5.349***
2021-09-28 17:00	4755624	7.886	-79.861	10.487	677.969	937.985	0.462	227.524	10.487	***5.451***
2021-09-28 17:15	4756524	7.898	-80.540	10.543	680.097	939.519	0.463	232.071	10.543	***5.564***
2021-09-28 17:30	4757424	7.908	-81.103	10.588	681.590	940.477	0.463	221.276	10.588	***5.730***
2021-09-28 17:45	4758324	7.920	-81.789	10.623	682.569	940.959	0.464	219.616	10.623	***5.888***
2021-09-28 18:00	4759224	7.931	-82.467	10.651	683.295	941.259	0.464	220.877	10.651	***6.055***
2021-09-28 18:15	4760124	7.939	-82.908	10.676	684.448	942.228	0.464	222.598	10.676	***6.146***
2021-09-28 18:30	4761024	7.944	-83.201	10.690	685.165	942.868	0.465	219.797	10.690	***6.189***
2021-09-28 18:45	4761924	7.950	-83.518	10.687	685.545	943.464	0.465	212.732	10.687	***6.113***
2021-09-28 19:00	4762824	7.953	-83.692	10.680	685.651	943.789	0.465	206.754	10.680	***5.968***
2021-09-28 19:15	4763724	7.953	-83.690	10.670	685.752	944.167	0.465	211.888	10.670	***5.926***
2021-09-28 19:30	4764624	7.949	-83.437	10.662	685.710	944.309	0.465	215.330	10.662	***5.876***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-28 19:45	4765524	7.942	-83.082	10.655	685.639	944.405	0.466	212.733	10.655	***5.949***
2021-09-28 20:00	4766424	7.936	-82.712	10.648	685.606	944.511	0.466	212.123	10.648	***6.085***
2021-09-28 20:15	4767324	7.927	-82.238	10.641	685.778	944.922	0.466	212.655	10.641	***6.100***
2021-09-28 20:30	4768224	7.923	-81.978	10.632	685.210	944.373	0.465	215.563	10.632	***6.138***
2021-09-28 20:45	4769124	7.919	-81.747	10.624	685.649	945.185	0.466	214.641	10.624	***6.107***
2021-09-28 21:00	4770024	7.913	-81.437	10.612	685.562	945.354	0.466	233.256	10.612	***6.103***
2021-09-28 21:15	4770924	7.907	-81.053	10.596	685.474	945.622	0.466	222.715	10.596	***6.237***
2021-09-28 21:30	4771824	7.900	-80.676	10.581	685.041	945.422	0.466	213.726	10.581	***6.396***
2021-09-28 21:45	4772724	7.896	-80.466	10.571	685.024	945.629	0.466	213.437	10.571	***6.418***
2021-09-28 22:00	4773624	7.896	-80.423	10.556	684.795	945.688	0.466	210.349	10.556	***6.397***
2021-09-28 22:15	4774524	7.893	-80.245	10.531	684.050	945.291	0.466	209.219	10.531	***6.471***
2021-09-28 22:30	4775424	7.906	-81.003	10.497	683.436	945.283	0.466	210.151	10.497	6.514
2021-09-28 22:45	4776324	7.924	-82.014	10.450	682.021	944.509	0.465	208.326	10.450	6.541
2021-09-28 23:00	4777224	7.935	-82.607	10.402	680.973	944.258	0.465	207.200	10.402	6.564
2021-09-28 23:15	4778124	7.939	-82.815	10.365	679.950	943.760	0.465	203.236	10.365	6.542
2021-09-28 23:30	4779024	7.936	-82.624	10.334	679.003	943.209	0.465	205.715	10.334	***6.387***
2021-09-28 23:45	4779924	7.932	-82.412	10.313	675.815	939.324	0.463	218.354	10.313	***6.206***
2021-09-29 0:00	4780824	7.927	-82.121	10.288	677.769	942.664	0.464	222.620	10.288	***6.035***
2021-09-29 0:15	4781724	7.919	-81.646	10.271	677.520	942.727	0.464	220.267	10.271	***5.863***
2021-09-29 0:30	4782624	7.910	-81.131	10.251	676.908	942.394	0.464	221.053	10.251	***5.732***
2021-09-29 0:45	4783524	7.903	-80.726	10.217	676.411	942.544	0.464	274.389	10.217	***5.613***
2021-09-29 1:00	4784424	7.904	-80.757	10.169	675.095	941.914	0.464	224.300	10.169	***5.642***
2021-09-29 1:15	4785324	7.904	-80.738	10.107	673.346	941.027	0.463	220.696	10.107	***5.648***
2021-09-29 1:30	4786224	7.901	-80.593	10.056	671.935	940.323	0.463	232.944	10.056	***5.554***
2021-09-29 1:45	4787124	7.898	-80.385	9.998	669.080	937.787	0.461	224.284	9.998	***5.472***
2021-09-29 2:00	4788024	7.895	-80.211	9.939	668.945	939.090	0.462	220.270	9.939	***5.403***
2021-09-29 2:15	4788924	7.893	-80.068	9.891	667.555	938.354	0.462	223.186	9.891	***5.254***
2021-09-29 2:30	4789824	7.891	-79.980	9.848	666.876	938.480	0.462	221.018	9.848	***4.791***
2021-09-29 2:45	4790724	7.889	-79.820	9.792	665.427	937.850	0.461	228.235	9.792	***4.492***
2021-09-29 3:00	4791624	7.886	-79.644	9.736	664.068	937.355	0.461	242.953	9.736	***4.325***
2021-09-29 3:15	4792524	7.883	-79.463	9.677	662.647	936.816	0.461	228.994	9.677	***4.108***
2021-09-29 3:30	4793424	7.878	-79.188	9.620	661.648	936.855	0.461	224.875	9.620	***3.940***
2021-09-29 3:45	4794324	7.875	-78.957	9.568	660.622	936.724	0.460	225.134	9.568	***3.686***
2021-09-29 4:00	4795224	7.869	-78.647	9.523	659.218	935.863	0.460	225.173	9.523	***3.448***
2021-09-29 4:15	4796124	7.866	-78.440	9.468	658.533	936.286	0.460	228.622	9.468	***3.321***
2021-09-29 4:30	4797024	7.863	-78.263	9.403	657.308	936.213	0.460	227.935	9.403	***3.296***
2021-09-29 4:45	4797924	7.859	-78.020	9.351	656.397	936.246	0.460	229.007	9.351	***3.201***
2021-09-29 5:00	4798824	7.857	-77.879	9.286	655.278	936.287	0.460	227.198	9.286	***3.128***
2021-09-29 5:15	4799724	7.854	-77.708	9.234	654.303	936.241	0.460	228.029	9.234	***2.971***
2021-09-29 5:30	4800624	7.850	-77.488	9.179	652.916	935.640	0.459	234.417	9.179	***2.854***
2021-09-29 5:45	4801524	7.846	-77.231	9.126	652.242	936.039	0.460	234.240	9.126	***2.801***
2021-09-29 6:00	4802424	7.842	-76.973	9.009	650.228	936.160	0.460	237.327	9.009	***2.616***
2021-09-29 6:15	4803324	7.837	-76.683	8.970	649.325	935.863	0.459	231.070	8.970	***2.351***
2021-09-29 6:30	4804224	7.833	-76.437	8.929	648.622	935.893	0.459	229.646	8.929	***2.158***
2021-09-29 6:45	4805124	7.831	-76.306	8.891	647.190	934.811	0.459	232.205	8.891	***2.043***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-29 7:00	4806024	7.829	-76.215	8.839	645.895	934.294	0.458	225.830	8.839	***1.981***
2021-09-29 7:15	4806924	7.827	-76.094	8.788	644.958	934.251	0.458	256.630	8.788	***1.959***
2021-09-29 7:30	4807824	7.826	-76.032	8.736	641.915	931.168	0.457	253.998	8.736	***1.992***
2021-09-29 7:45	4808724	7.824	-75.874	8.683	642.144	932.888	0.458	251.663	8.683	***1.992***
2021-09-29 8:00	4809624	7.820	-75.662	8.626	641.385	933.256	0.458	254.076	8.626	***1.929***
2021-09-29 8:15	4810524	7.818	-75.495	8.560	640.033	932.999	0.457	250.804	8.560	***1.797***
2021-09-29 8:30	4811424	7.813	-75.202	8.506	639.051	932.957	0.457	253.695	8.506	***1.693***
2021-09-29 8:45	4812324	7.809	-74.997	8.419	637.403	932.833	0.457	259.692	8.419	***1.693***
2021-09-29 9:00	4813225	7.806	-74.792	8.364	635.710	931.783	0.457	261.673	8.364	***1.755***
2021-09-29 9:15	4814125	7.803	-74.606	8.328	634.515	930.970	0.456	266.201	8.328	***1.618***
2021-09-29 9:30	4815025	7.800	-74.444	8.306	632.697	928.867	0.455	265.187	8.306	***1.470***
2021-09-29 9:45	4815925	7.797	-74.260	8.310	633.253	929.586	0.455	264.398	8.310	***1.337***
2021-09-29 10:00	4816825	7.794	-74.098	8.318	632.975	928.980	0.455	266.473	8.318	***1.246***
2021-09-29 10:15	4817725	7.790	-73.898	8.321	632.352	927.984	0.455	265.946	8.321	***1.171***
2021-09-29 10:30	4818625	7.786	-73.690	8.322	631.922	927.317	0.454	266.819	8.322	***1.130***
2021-09-29 10:45	4819525	7.784	-73.535	8.331	631.485	926.449	0.454	263.683	8.331	***1.081***
2021-09-29 11:00	4820425	7.780	-73.357	8.339	631.144	925.747	0.453	259.648	8.339	***1.031***
2021-09-29 11:15	4821325	7.777	-73.183	8.353	630.407	924.302	0.453	257.881	8.353	***1.070***
2021-09-29 11:30	4822225	7.775	-73.078	8.375	629.785	922.823	0.452	253.987	8.375	***1.106***
2021-09-29 11:45	4823125	7.772	-72.913	8.401	629.481	921.696	0.451	254.801	8.401	***1.143***
2021-09-29 12:00	4824025	7.770	-72.775	8.429	629.022	920.293	0.451	252.694	8.429	***1.130***
2021-09-29 12:15	4824925	7.767	-72.663	8.461	628.646	918.944	0.450	248.518	8.461	***1.132***
2021-09-29 12:30	4825825	7.765	-72.525	8.498	628.399	917.622	0.450	247.464	8.498	***1.123***
2021-09-29 12:45	4826725	7.762	-72.372	8.535	628.186	916.378	0.449	251.181	8.535	***1.133***
2021-09-29 13:00	4827625	7.757	-72.131	8.572	627.941	915.070	0.448	251.869	8.572	***1.165***
2021-09-29 13:15	4828525	7.753	-71.921	8.617	628.236	914.341	0.448	256.625	8.617	***1.138***
2021-09-29 13:30	4829425	7.750	-71.769	8.670	628.387	913.224	0.447	258.112	8.670	***1.096***
2021-09-29 13:45	4830325	7.748	-71.630	8.709	628.886	912.962	0.447	259.223	8.709	***1.055***
2021-09-29 14:00	4831225	7.745	-71.509	8.758	627.908	910.302	0.446	259.750	8.758	***1.035***
2021-09-29 14:15	4832125	7.743	-71.361	8.821	629.545	911.094	0.447	258.691	8.821	***1.059***
2021-09-29 14:30	4833025	7.740	-71.232	8.900	630.635	910.680	0.446	259.893	8.900	***1.108***
2021-09-29 14:45	4833925	7.737	-71.094	8.973	631.339	909.866	0.446	262.978	8.973	***1.155***
2021-09-29 15:00	4834825	7.735	-71.020	9.028	631.873	909.245	0.446	266.887	9.028	***1.147***
2021-09-29 15:15	4835725	7.743	-71.473	9.078	633.668	910.597	0.447	262.963	9.078	***1.076***
2021-09-29 15:30	4836625	7.774	-73.173	9.119	635.119	911.649	0.447	261.512	9.119	***1.112***
2021-09-29 15:45	4837525	7.800	-74.658	9.148	636.326	912.665	0.448	266.187	9.148	***1.305***
2021-09-29 16:00	4838425	7.815	-75.493	9.169	637.844	914.303	0.449	271.114	9.169	***1.738***
2021-09-29 16:15	4839325	7.823	-75.982	9.185	639.040	915.628	0.449	273.162	9.185	***2.251***
2021-09-29 16:30	4840225	7.829	-76.325	9.198	640.205	916.963	0.450	275.814	9.198	***2.612***
2021-09-29 16:45	4841125	7.831	-76.401	9.207	641.290	918.291	0.451	276.773	9.207	***2.897***
2021-09-29 17:00	4842025	7.830	-76.351	9.210	640.977	917.757	0.450	265.155	9.210	***3.169***
2021-09-29 17:15	4842925	7.834	-76.566	9.210	642.071	919.330	0.451	265.768	9.210	***3.339***
2021-09-29 17:30	4843825	7.839	-76.876	9.200	643.841	922.114	0.453	261.665	9.200	***3.578***
2021-09-29 17:45	4844725	7.846	-77.226	9.184	644.448	923.385	0.453	251.349	9.184	***3.961***
2021-09-29 18:00	4845625	7.851	-77.536	9.179	645.154	924.532	0.454	247.271	9.179	***4.384***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-29 18:15	4846525	7.855	-77.782	9.182	645.987	925.657	0.454	249.275	9.182	***4.759***
2021-09-29 18:30	4847425	7.863	-78.185	9.180	646.946	927.061	0.455	258.300	9.180	***5.021***
2021-09-29 18:45	4848325	7.869	-78.545	9.173	647.720	928.357	0.456	256.354	9.173	***5.217***
2021-09-29 19:00	4849225	7.879	-79.074	9.155	648.196	929.487	0.456	252.280	9.155	***5.397***
2021-09-29 19:15	4850125	7.886	-79.505	9.140	648.689	930.595	0.457	247.516	9.140	***5.605***
2021-09-29 19:30	4851025	7.890	-79.694	9.127	649.015	931.386	0.457	247.284	9.127	***5.720***
2021-09-29 19:45	4851925	7.893	-79.851	9.119	649.252	931.933	0.458	243.461	9.119	***5.822***
2021-09-29 20:00	4852825	7.893	-79.889	9.119	649.727	932.621	0.458	244.201	9.119	***5.898***
2021-09-29 20:15	4853725	7.893	-79.880	9.116	650.184	933.342	0.458	242.563	9.116	***5.902***
2021-09-29 20:30	4854625	7.893	-79.868	9.117	650.710	934.085	0.459	246.985	9.117	***5.898***
2021-09-29 20:45	4855525	7.895	-79.961	9.120	650.916	934.297	0.459	250.513	9.120	***5.903***
2021-09-29 21:00	4856425	7.897	-80.070	9.121	651.378	934.930	0.459	250.163	9.121	***5.912***
2021-09-29 21:15	4857325	7.900	-80.254	9.124	649.544	932.221	0.458	253.698	9.124	***5.744***
2021-09-29 21:30	4858225	7.902	-80.378	9.128	652.062	935.734	0.459	254.607	9.128	***5.767***
2021-09-29 21:45	4859125	7.902	-80.357	9.130	652.553	936.394	0.460	251.681	9.130	***5.778***
2021-09-29 22:00	4860025	7.901	-80.326	9.132	652.700	936.543	0.460	256.663	9.132	***5.737***
2021-09-29 22:15	4860925	7.901	-80.333	9.134	653.328	937.400	0.460	253.824	9.134	***5.631***
2021-09-29 22:30	4861825	7.900	-80.276	9.130	653.383	937.583	0.460	254.233	9.130	***5.649***
2021-09-29 22:45	4862725	7.896	-80.025	9.123	653.752	938.282	0.461	254.661	9.123	***5.670***
2021-09-29 23:00	4863625	7.895	-79.992	9.113	653.691	938.457	0.461	257.934	9.113	***5.700***
2021-09-29 23:15	4864525	7.895	-79.970	9.104	654.034	939.187	0.461	248.293	9.104	***5.764***
2021-09-29 23:30	4865425	7.893	-79.839	9.093	653.980	939.396	0.461	245.056	9.093	***5.814***
2021-09-29 23:45	4866325	7.893	-79.854	9.084	653.981	939.621	0.461	243.507	9.084	***5.809***
2021-09-30 0:00	4867225	7.899	-80.185	9.076	653.979	939.831	0.462	242.992	9.076	***5.786***
2021-09-30 0:15	4868125	7.903	-80.416	9.067	653.895	939.946	0.462	240.654	9.067	***5.751***
2021-09-30 0:30	4869025	7.904	-80.483	9.055	653.786	940.086	0.462	241.604	9.055	***5.721***
2021-09-30 0:45	4869925	7.905	-80.538	9.045	653.577	940.047	0.462	241.806	9.045	***5.704***
2021-09-30 1:00	4870825	7.905	-80.535	9.035	651.809	937.760	0.460	241.385	9.035	***5.685***
2021-09-30 1:15	4871725	7.903	-80.373	9.027	653.594	940.549	0.462	241.518	9.027	***5.679***
2021-09-30 1:30	4872625	7.902	-80.359	9.015	653.307	940.441	0.462	242.038	9.015	***5.668***
2021-09-30 1:45	4873525	7.900	-80.233	9.005	653.218	940.561	0.462	242.470	9.005	***5.665***
2021-09-30 2:00	4874425	7.897	-80.049	8.990	653.138	940.832	0.462	242.046	8.990	***5.602***
2021-09-30 2:15	4875325	7.897	-80.037	8.977	650.974	938.055	0.460	242.221	8.977	***5.572***
2021-09-30 2:30	4876225	7.898	-80.080	8.960	651.752	939.604	0.461	239.069	8.960	***5.550***
2021-09-30 2:45	4877125	7.896	-79.999	8.954	652.519	940.885	0.462	237.483	8.954	***5.520***
2021-09-30 3:00	4878025	7.894	-79.896	8.948	652.430	940.906	0.462	236.116	8.948	***5.471***
2021-09-30 3:15	4878925	7.896	-79.980	8.942	651.684	939.992	0.461	237.777	8.942	***5.412***
2021-09-30 3:30	4879825	7.897	-80.037	8.936	652.315	941.063	0.462	239.340	8.936	***5.321***
2021-09-30 3:45	4880725	7.895	-79.923	8.929	652.268	941.172	0.462	238.333	8.929	***5.204***
2021-09-30 4:00	4881625	7.892	-79.727	8.922	652.201	941.252	0.462	238.967	8.922	***5.103***
2021-09-30 4:15	4882525	7.890	-79.641	8.914	652.165	941.412	0.462	240.616	8.914	***4.994***
2021-09-30 4:30	4883425	7.889	-79.575	8.908	652.130	941.500	0.462	239.901	8.908	***4.970***
2021-09-30 4:45	4884325	7.886	-79.389	8.904	652.071	941.518	0.462	241.470	8.904	***4.974***
2021-09-30 5:00	4885225	7.883	-79.217	8.899	651.413	940.699	0.462	242.257	8.899	***4.930***
2021-09-30 5:15	4886125	7.881	-79.134	8.894	652.064	941.768	0.462	243.719	8.894	***4.928***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-30 5:30	4887025	7.881	-79.124	8.890	650.436	939.520	0.461	245.077	8.890	***4.995***
2021-09-30 5:45	4887925	7.879	-79.033	8.886	652.140	942.088	0.462	245.475	8.886	***5.064***
2021-09-30 6:00	4888825	7.880	-79.045	8.882	652.154	942.210	0.462	244.132	8.882	***5.033***
2021-09-30 6:15	4889725	7.875	-78.804	8.874	652.078	942.317	0.463	248.714	8.874	***5.033***
2021-09-30 6:30	4890625	7.873	-78.697	8.864	651.755	942.121	0.462	244.342	8.864	***5.121***
2021-09-30 6:45	4891525	7.875	-78.781	8.854	651.816	942.451	0.463	245.345	8.854	***5.196***
2021-09-30 7:00	4892425	7.878	-78.948	8.849	651.668	942.386	0.463	245.826	8.849	***5.243***
2021-09-30 7:15	4893325	7.881	-79.134	8.838	651.496	942.425	0.463	244.435	8.838	***5.273***
2021-09-30 7:30	4894225	7.884	-79.296	8.826	651.194	942.289	0.462	241.933	8.826	***5.224***
2021-09-30 7:45	4895125	7.885	-79.336	8.811	650.939	942.320	0.462	241.320	8.811	***5.187***
2021-09-30 8:00	4896025	7.885	-79.329	8.794	650.454	942.050	0.462	240.790	8.794	***5.116***
2021-09-30 8:15	4896925	7.886	-79.365	8.780	650.403	942.340	0.462	243.991	8.780	***5.053***
2021-09-30 8:30	4897825	7.889	-79.515	8.764	649.859	941.983	0.462	246.266	8.764	***4.971***
2021-09-30 8:45	4898725	7.887	-79.405	8.754	649.879	942.274	0.462	246.536	8.754	***4.944***
2021-09-30 9:00	4899625	7.883	-79.174	8.744	649.067	941.341	0.462	246.250	8.744	***4.922***
2021-09-30 9:15	4900525	7.881	-79.079	8.734	649.358	942.025	0.462	244.259	8.734	***4.958***
2021-09-30 9:30	4901425	7.880	-78.995	8.710	648.212	940.999	0.462	242.381	8.710	***4.980***
2021-09-30 9:45	4902325	7.876	-78.788	8.683	648.177	941.643	0.462	242.013	8.683	***4.952***
2021-09-30 10:00	4903225	7.876	-78.802	8.657	647.556	941.418	0.462	242.743	8.657	***4.903***
2021-09-30 10:15	4904125	7.876	-78.788	8.638	644.815	937.924	0.460	243.933	8.638	***4.803***
2021-09-30 10:30	4905025	7.873	-78.626	8.627	646.574	940.785	0.461	242.102	8.627	***4.717***
2021-09-30 10:45	4905925	7.871	-78.487	8.620	646.093	940.257	0.461	243.535	8.620	***4.650***
2021-09-30 11:00	4906826	7.867	-78.287	8.611	645.864	940.166	0.461	242.695	8.611	***4.602***
2021-09-30 11:15	4907726	7.863	-78.046	8.592	645.189	939.682	0.461	242.798	8.592	***4.544***
2021-09-30 11:30	4908626	7.859	-77.834	8.561	644.553	939.572	0.461	239.389	8.561	***4.593***
2021-09-30 11:45	4909526	7.858	-77.724	8.536	643.878	939.239	0.461	240.319	8.536	***4.726***
2021-09-30 12:00	4910426	7.857	-77.655	8.515	640.689	935.123	0.458	241.046	8.515	***4.736***
2021-09-30 12:15	4911326	7.858	-77.722	8.499	642.761	938.572	0.460	242.127	8.499	***4.656***
2021-09-30 12:30	4912226	7.857	-77.670	8.494	642.472	938.275	0.460	242.492	8.494	***4.688***
2021-09-30 12:45	4913126	7.854	-77.498	8.499	642.373	938.002	0.460	244.773	8.499	***4.737***
2021-09-30 13:00	4914026	7.853	-77.460	8.516	642.343	937.503	0.460	245.590	8.516	***4.728***
2021-09-30 13:15	4914926	7.850	-77.307	8.543	642.556	937.112	0.459	245.111	8.543	***4.799***
2021-09-30 13:30	4915826	7.846	-77.105	8.585	642.821	936.407	0.459	245.822	8.585	***4.876***
2021-09-30 13:45	4916726	7.843	-76.911	8.605	643.209	936.452	0.459	242.222	8.605	***4.967***
2021-09-30 14:00	4917626	7.843	-76.902	8.609	643.101	936.189	0.459	241.836	8.609	***5.001***
2021-09-30 14:15	4918526	7.847	-77.136	8.624	643.406	936.257	0.459	240.979	8.624	***4.919***
2021-09-30 14:30	4919426	7.848	-77.217	8.649	643.375	935.540	0.459	246.088	8.649	***4.829***
2021-09-30 14:45	4920326	7.847	-77.145	8.680	643.810	935.367	0.459	249.241	8.680	***4.865***
2021-09-30 15:00	4921226	7.847	-77.195	8.719	644.349	935.157	0.459	245.126	8.719	***4.963***
2021-09-30 15:15	4922126	7.851	-77.393	8.753	644.859	935.007	0.459	243.936	8.753	***5.035***
2021-09-30 15:30	4923026	7.853	-77.534	8.794	645.413	934.753	0.459	247.415	8.794	***5.125***
2021-09-30 15:45	4923926	7.853	-77.572	8.826	645.859	934.560	0.459	250.354	8.826	***5.294***
2021-09-30 16:00	4924826	7.853	-77.579	8.861	646.380	934.422	0.459	242.061	8.861	***5.412***
2021-09-30 16:15	4925726	7.855	-77.665	8.905	646.974	934.154	0.458	248.935	8.905	***5.483***
2021-09-30 16:30	4926626	7.859	-77.932	8.953	647.641	933.868	0.458	248.486	8.953	***5.616***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-09-30 16:45	4927526	7.866	-78.325	9.001	648.448	933.808	0.458	248.246	9.001	***5.791***
2021-09-30 17:00	4928426	7.873	-78.740	9.032	648.605	933.235	0.458	252.582	9.032	***5.862***
2021-09-30 17:15	4929326	7.880	-79.105	9.063	648.176	931.822	0.457	253.588	9.063	***5.927***
2021-09-30 17:30	4930226	7.886	-79.486	9.096	649.419	932.769	0.458	252.347	9.096	***6.065***
2021-09-30 17:45	4931126	7.888	-79.594	9.159	650.291	932.404	0.458	251.475	9.159	***6.192***
2021-09-30 18:00	4932026	7.887	-79.539	9.173	650.926	932.963	0.458	255.196	9.173	***6.291***
2021-09-30 18:15	4932926	7.885	-79.439	9.193	651.133	932.727	0.458	245.156	9.193	***6.405***
2021-09-30 18:30	4933826	7.881	-79.241	9.214	651.443	932.639	0.458	245.216	9.214	6.527
2021-09-30 18:45	4934726	7.877	-78.979	9.213	651.175	932.278	0.458	239.667	9.213	6.653
2021-09-30 19:00	4935626	7.869	-78.568	9.217	651.234	932.276	0.458	243.029	9.217	6.769
2021-09-30 19:15	4936526	7.865	-78.328	9.224	651.302	932.197	0.458	245.275	9.224	6.867
2021-09-30 19:30	4937426	7.863	-78.237	9.216	650.978	931.927	0.458	244.742	9.216	6.880
2021-09-30 19:45	4938326	7.864	-78.285	9.204	650.756	931.909	0.458	246.023	9.204	6.820
2021-09-30 20:00	4939226	7.871	-78.661	9.200	650.510	931.667	0.457	246.305	9.200	6.741
2021-09-30 20:15	4940126	7.876	-78.955	9.196	650.535	931.801	0.458	310.407	9.196	6.691
2021-09-30 20:30	4941026	7.882	-79.262	9.200	650.492	931.647	0.457	247.716	9.200	6.656
2021-09-30 20:45	4941926	7.884	-79.386	9.204	650.372	931.365	0.457	246.103	9.204	6.625
2021-09-30 21:00	4942826	7.882	-79.298	9.207	650.257	931.123	0.457	247.710	9.207	6.591
2021-09-30 21:15	4943726	7.881	-79.243	9.206	650.388	931.332	0.457	248.405	9.206	6.564
2021-09-30 21:30	4944626	7.881	-79.212	9.202	650.240	931.236	0.457	245.375	9.202	6.508
2021-09-30 21:45	4945526	7.883	-79.303	9.198	650.079	931.096	0.457	246.491	9.198	***6.392***
2021-09-30 22:00	4946426	7.883	-79.341	9.196	649.895	930.883	0.457	246.734	9.196	***6.338***
2021-09-30 22:15	4947326	7.884	-79.355	9.189	649.865	931.020	0.457	246.152	9.189	***6.250***
2021-09-30 22:30	4948226	7.886	-79.501	9.181	649.398	930.566	0.457	248.000	9.181	***6.085***
2021-09-30 22:45	4949126	7.888	-79.601	9.170	648.747	929.901	0.457	250.805	9.170	***5.934***
2021-09-30 23:00	4950026	7.889	-79.629	9.160	646.610	927.096	0.455	246.290	9.160	***6.046***
2021-09-30 23:15	4950926	7.891	-79.756	9.148	648.493	930.104	0.457	240.835	9.148	***6.126***
2021-09-30 23:30	4951826	7.896	-80.049	9.137	648.344	930.165	0.457	242.770	9.137	***6.111***
2021-09-30 23:45	4952726	7.902	-80.345	9.128	648.808	931.064	0.457	240.428	9.128	***6.104***
2021-10-01 0:00	4953626	7.903	-80.416	9.120	648.152	930.322	0.457	241.976	9.120	***6.085***
2021-10-01 0:15	4954526	7.902	-80.383	9.114	648.499	930.981	0.457	240.914	9.114	***6.053***
2021-10-01 0:30	4955426	7.902	-80.349	9.107	648.356	930.953	0.457	239.273	9.107	***6.047***
2021-10-01 0:45	4956326	7.902	-80.371	9.100	648.418	931.218	0.457	240.017	9.100	***6.010***
2021-10-01 1:00	4957226	7.905	-80.552	9.091	648.250	931.201	0.457	238.873	9.091	***5.946***
2021-10-01 1:15	4958126	7.905	-80.533	9.079	645.342	927.328	0.455	240.795	9.079	***5.993***
2021-10-01 1:30	4959026	7.903	-80.395	9.061	647.492	930.882	0.457	256.376	9.061	***5.984***
2021-10-01 1:45	4959926	7.901	-80.309	9.033	647.003	930.899	0.457	251.170	9.033	***5.958***
2021-10-01 2:00	4960826	7.896	-79.997	9.005	646.362	930.692	0.457	242.691	9.005	***6.058***
2021-10-01 2:15	4961726	7.890	-79.646	8.974	645.814	930.700	0.457	244.948	8.974	***6.023***
2021-10-01 2:30	4962626	7.888	-79.544	8.949	644.848	929.943	0.456	250.545	8.949	***5.974***
2021-10-01 2:45	4963526	7.890	-79.639	8.929	644.793	930.367	0.457	251.653	8.929	***6.020***
2021-10-01 3:00	4964426	7.893	-79.794	8.909	644.409	930.342	0.456	250.444	8.909	***5.965***
2021-10-01 3:15	4965326	7.895	-79.930	8.891	644.080	930.332	0.456	251.449	8.891	***6.012***
2021-10-01 3:30	4966226	7.898	-80.099	8.866	643.710	930.431	0.456	249.993	8.866	***6.011***
2021-10-01 3:45	4967126	7.900	-80.154	8.845	642.838	929.711	0.456	251.325	8.845	***5.962***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-01 4:00	4968026	7.898	-80.056	8.821	642.801	930.274	0.456	253.071	8.821	***5.964***
2021-10-01 4:15	4968926	7.897	-80.020	8.790	642.117	930.080	0.456	254.049	8.790	***5.881***
2021-10-01 4:30	4969826	7.893	-79.741	8.767	641.381	929.602	0.456	251.198	8.767	***5.897***
2021-10-01 4:45	4970726	7.889	-79.536	8.749	641.233	929.859	0.456	253.605	8.749	***5.881***
2021-10-01 5:00	4971626	7.890	-79.565	8.734	639.885	928.282	0.455	253.900	8.734	***5.862***
2021-10-01 5:15	4972526	7.891	-79.622	8.708	640.189	929.385	0.456	252.974	8.708	***5.807***
2021-10-01 5:30	4973426	7.891	-79.598	8.663	639.561	929.640	0.456	254.429	8.663	***5.701***
2021-10-01 5:45	4974326	7.891	-79.629	8.629	638.699	929.276	0.456	253.680	8.629	***5.587***
2021-10-01 6:00	4975226	7.891	-79.601	8.601	638.296	929.410	0.456	255.358	8.601	***5.526***
2021-10-01 6:15	4976126	7.889	-79.508	8.581	637.793	929.188	0.456	252.806	8.581	***5.514***
2021-10-01 6:30	4977026	7.887	-79.365	8.562	637.523	929.292	0.456	251.558	8.562	***5.497***
2021-10-01 6:45	4977926	7.887	-79.346	8.539	636.965	929.062	0.455	252.261	8.539	***5.539***
2021-10-01 7:00	4978826	7.885	-79.260	8.515	636.587	929.139	0.455	246.898	8.515	***5.513***
2021-10-01 7:15	4979726	7.884	-79.176	8.486	636.028	929.079	0.455	244.297	8.486	***5.465***
2021-10-01 7:30	4980626	7.881	-79.007	8.466	635.626	928.998	0.455	244.590	8.466	***5.431***
2021-10-01 7:45	4981526	7.876	-78.747	8.450	635.258	928.894	0.455	246.466	8.450	***5.393***
2021-10-01 8:00	4982426	7.873	-78.580	8.431	634.974	928.958	0.455	248.134	8.431	***5.335***
2021-10-01 8:15	4983326	7.871	-78.411	8.421	634.729	928.872	0.455	249.562	8.421	***5.348***
2021-10-01 8:30	4984226	7.868	-78.254	8.409	634.446	928.767	0.455	253.874	8.409	***5.277***
2021-10-01 8:45	4985126	7.867	-78.192	8.383	633.758	928.440	0.455	256.555	8.383	***5.283***
2021-10-01 9:00	4986026	7.865	-78.080	8.343	633.082	928.466	0.455	258.160	8.343	***5.277***
2021-10-01 9:15	4986926	7.861	-77.868	8.298	631.919	927.951	0.455	256.576	8.298	***5.329***
2021-10-01 9:30	4987826	7.858	-77.679	8.259	631.267	927.985	0.454	255.125	8.259	***5.385***
2021-10-01 9:45	4988726	7.857	-77.603	8.226	629.182	925.784	0.453	256.176	8.226	***5.418***
2021-10-01 10:00	4989626	7.855	-77.512	8.201	630.137	927.847	0.454	258.857	8.201	***5.395***
2021-10-01 10:15	4990526	7.854	-77.412	8.190	629.560	927.273	0.454	262.476	8.190	***5.369***
2021-10-01 10:30	4991426	7.854	-77.426	8.182	629.448	927.315	0.454	259.254	8.182	***5.371***
2021-10-01 10:45	4992326	7.856	-77.560	8.177	629.309	927.240	0.454	260.399	8.177	***5.370***
2021-10-01 11:00	4993226	7.861	-77.806	8.170	627.898	925.355	0.453	260.812	8.170	***5.361***
2021-10-01 11:15	4994126	7.864	-77.968	8.164	628.860	926.919	0.454	264.225	8.164	***5.405***
2021-10-01 11:30	4995026	7.867	-78.123	8.155	628.680	926.909	0.454	261.613	8.155	***5.471***
2021-10-01 11:45	4995926	7.870	-78.321	8.147	628.394	926.681	0.454	260.007	8.147	***5.587***
2021-10-01 12:00	4996826	7.873	-78.449	8.136	628.208	926.703	0.454	259.010	8.136	***5.661***
2021-10-01 12:15	4997726	7.876	-78.647	8.121	627.857	926.572	0.454	261.919	8.121	***5.741***
2021-10-01 12:30	4998626	7.878	-78.762	8.111	627.877	926.860	0.454	257.067	8.111	***5.833***
2021-10-01 12:45	4999526	7.881	-78.881	8.100	627.566	926.693	0.454	257.026	8.100	***5.966***
2021-10-01 13:00	5000427	7.884	-79.062	8.085	627.429	926.875	0.454	257.347	8.085	***5.989***
2021-10-01 13:15	5001327	7.888	-79.267	8.071	626.687	926.149	0.453	258.194	8.071	***6.006***
2021-10-01 13:30	5002227	7.889	-79.319	8.069	626.838	926.440	0.453	258.271	8.069	***6.081***
2021-10-01 13:45	5003127	7.887	-79.260	8.073	627.053	926.632	0.454	262.352	8.073	***6.186***
2021-10-01 14:00	5004027	7.887	-79.224	8.085	627.193	926.529	0.454	258.171	8.085	***6.230***
2021-10-01 14:15	5004927	7.888	-79.308	8.111	627.718	926.628	0.454	262.149	8.111	***6.286***
2021-10-01 14:30	5005827	7.888	-79.293	8.159	628.264	926.194	0.453	258.792	8.159	***6.327***
2021-10-01 14:45	5006727	7.889	-79.384	8.199	629.142	926.427	0.454	257.885	8.199	***6.438***
2021-10-01 15:00	5007627	7.893	-79.591	8.226	629.578	926.381	0.454	264.859	8.226	6.525

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-01 15:15	5008527	7.899	-79.925	8.242	629.701	926.145	0.454	263.098	8.242	6.611
2021-10-01 15:30	5009427	7.905	-80.304	8.264	630.228	926.336	0.454	264.524	8.264	6.647
2021-10-01 15:45	5010327	7.911	-80.624	8.295	630.696	926.209	0.454	268.295	8.295	6.666
2021-10-01 16:00	5011227	7.916	-80.938	8.336	631.423	926.216	0.454	280.238	8.336	6.647
2021-10-01 16:15	5012127	7.922	-81.248	8.375	631.786	925.734	0.453	281.659	8.375	6.693
2021-10-01 16:30	5013027	7.927	-81.584	8.412	632.542	925.887	0.454	286.601	8.412	6.752
2021-10-01 16:45	5013927	7.933	-81.916	8.437	633.004	925.916	0.454	284.545	8.437	6.884
2021-10-01 17:00	5014827	7.939	-82.221	8.455	633.302	925.897	0.454	274.702	8.455	6.981
2021-10-01 17:15	5015727	7.942	-82.445	8.460	633.181	925.576	0.454	270.435	8.460	7.078
2021-10-01 17:30	5016627	7.947	-82.712	8.467	633.349	925.646	0.454	268.626	8.467	7.126
2021-10-01 17:45	5017527	7.950	-82.877	8.483	633.422	925.332	0.453	264.909	8.483	7.110
2021-10-01 18:00	5018427	7.950	-82.853	8.504	633.809	925.376	0.453	264.103	8.504	7.140
2021-10-01 18:15	5019327	7.946	-82.653	8.518	634.034	925.344	0.453	263.335	8.518	7.175
2021-10-01 18:30	5020227	7.943	-82.469	8.529	633.911	924.863	0.453	264.559	8.529	7.212
2021-10-01 18:45	5021127	7.940	-82.319	8.539	634.573	925.589	0.454	264.342	8.539	7.249
2021-10-01 19:00	5022027	7.940	-82.331	8.545	634.428	925.217	0.453	265.916	8.545	7.273
2021-10-01 19:15	5022927	7.940	-82.331	8.551	634.657	925.406	0.454	265.147	8.551	7.293
2021-10-01 19:30	5023827	7.940	-82.328	8.556	634.571	925.148	0.453	266.258	8.556	7.300
2021-10-01 19:45	5024727	7.938	-82.235	8.558	632.836	922.560	0.452	268.643	8.558	7.258
2021-10-01 20:00	5025627	7.935	-82.080	8.560	634.632	925.121	0.453	268.494	8.560	7.165
2021-10-01 20:15	5026527	7.936	-82.109	8.563	634.881	925.407	0.454	269.690	8.563	7.140
2021-10-01 20:30	5027427	7.936	-82.090	8.563	634.919	925.461	0.454	267.443	8.563	7.140
2021-10-01 20:45	5028327	7.937	-82.173	8.565	635.016	925.551	0.454	268.573	8.565	7.040
2021-10-01 21:00	5029227	7.939	-82.285	8.568	635.186	925.717	0.454	270.429	8.568	6.918
2021-10-01 21:15	5030127	7.940	-82.345	8.570	635.226	925.726	0.454	270.037	8.570	6.897
2021-10-01 21:30	5031027	7.941	-82.376	8.572	635.339	925.851	0.454	270.866	8.572	6.839
2021-10-01 21:45	5031927	7.941	-82.388	8.571	634.404	924.520	0.453	270.906	8.571	6.642
2021-10-01 22:00	5032827	7.938	-82.231	8.571	635.270	925.763	0.454	271.663	8.571	***6.494***
2021-10-01 22:15	5033727	7.935	-82.054	8.570	635.542	926.196	0.454	278.348	8.570	***6.425***
2021-10-01 22:30	5034627	7.932	-81.887	8.565	635.416	926.143	0.454	280.361	8.565	***6.485***
2021-10-01 22:45	5035527	7.927	-81.599	8.556	635.525	926.520	0.454	279.059	8.556	***6.429***
2021-10-01 23:00	5036427	7.925	-81.506	8.544	634.906	925.939	0.454	282.033	8.544	***6.421***
2021-10-01 23:15	5037327	7.925	-81.511	8.530	635.427	927.055	0.454	282.228	8.530	6.503
2021-10-01 23:30	5038227	7.928	-81.651	8.521	635.364	927.204	0.454	282.693	8.521	6.619
2021-10-01 23:45	5039127	7.929	-81.716	8.508	635.201	927.305	0.454	285.986	8.508	6.701
2021-10-02 0:00	5040027	7.931	-81.801	8.496	635.157	927.551	0.455	283.623	8.496	6.726
2021-10-02 0:15	5040927	7.933	-81.892	8.479	634.833	927.505	0.455	283.328	8.479	6.758
2021-10-02 0:30	5041827	7.931	-81.816	8.464	634.784	927.818	0.455	341.871	8.464	6.776
2021-10-02 0:45	5042727	7.927	-81.599	8.448	634.608	927.996	0.455	279.581	8.448	6.774
2021-10-02 1:00	5043627	7.924	-81.427	8.436	634.445	928.062	0.455	280.109	8.436	6.759
2021-10-02 1:15	5044527	7.923	-81.341	8.422	634.305	928.210	0.455	281.103	8.422	6.709
2021-10-02 1:30	5045427	7.921	-81.213	8.406	633.980	928.145	0.455	284.789	8.406	6.622
2021-10-02 1:45	5046327	7.923	-81.341	8.391	633.864	928.361	0.455	284.261	8.391	6.616
2021-10-02 2:00	5047227	7.926	-81.494	8.378	633.622	928.350	0.455	283.248	8.378	6.639
2021-10-02 2:15	5048127	7.927	-81.534	8.364	633.329	928.298	0.455	284.138	8.364	6.621

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-02 2:30	5049027	7.924	-81.398	8.343	633.099	928.491	0.455	286.447	8.343	6.652
2021-10-02 2:45	5049927	7.920	-81.136	8.327	632.659	928.260	0.455	287.115	8.327	6.697
2021-10-02 3:00	5050827	7.918	-81.027	8.309	632.362	928.302	0.455	287.521	8.309	6.690
2021-10-02 3:15	5051727	7.915	-80.872	8.290	632.057	928.358	0.455	287.592	8.290	6.666
2021-10-02 3:30	5052627	7.911	-80.609	8.268	629.420	925.044	0.453	288.929	8.268	6.680
2021-10-02 3:45	5053527	7.905	-80.264	8.248	630.933	927.801	0.454	289.285	8.248	6.666
2021-10-02 4:00	5054427	7.900	-80.023	8.224	630.839	928.286	0.455	289.026	8.224	6.598
2021-10-02 4:15	5055327	7.897	-79.813	8.205	630.457	928.219	0.455	289.918	8.205	6.501
2021-10-02 4:30	5056227	7.894	-79.651	8.189	629.941	927.876	0.454	290.566	8.189	***6.430***
2021-10-02 4:45	5057127	7.893	-79.622	8.170	629.745	928.090	0.454	291.788	8.170	***6.381***
2021-10-02 5:00	5058027	7.892	-79.525	8.153	629.339	927.925	0.454	292.625	8.153	***6.354***
2021-10-02 5:15	5058927	7.892	-79.513	8.127	628.824	927.833	0.454	291.746	8.127	***6.331***
2021-10-02 5:30	5059827	7.892	-79.513	8.107	628.202	927.453	0.454	285.993	8.107	***6.329***
2021-10-02 5:45	5060727	7.893	-79.565	8.092	627.955	927.482	0.454	285.087	8.092	***6.328***
2021-10-02 6:00	5061627	7.896	-79.725	8.075	627.432	927.146	0.454	283.113	8.075	***6.316***
2021-10-02 6:15	5062527	7.898	-79.849	8.061	627.267	927.262	0.454	279.746	8.061	***6.280***
2021-10-02 6:30	5063427	7.902	-80.092	8.048	626.856	927.001	0.454	278.523	8.048	***6.195***
2021-10-02 6:45	5064327	7.910	-80.521	8.036	626.773	927.184	0.454	278.891	8.036	***6.173***
2021-10-02 7:00	5065227	7.916	-80.841	8.021	626.386	927.014	0.454	279.352	8.021	***6.177***
2021-10-02 7:15	5066127	7.919	-80.981	8.014	626.094	926.767	0.454	279.778	8.014	***6.132***
2021-10-02 7:30	5067027	7.919	-80.979	8.003	626.049	926.985	0.454	278.695	8.003	***6.129***
2021-10-02 7:45	5067927	7.917	-80.886	7.989	625.817	927.002	0.454	278.285	7.989	***6.112***
2021-10-02 8:00	5068827	7.917	-80.895	7.974	625.581	927.054	0.454	277.800	7.974	***6.082***
2021-10-02 8:15	5069727	7.917	-80.886	7.963	625.260	926.878	0.454	275.153	7.963	***6.051***
2021-10-02 8:30	5070627	7.915	-80.786	7.952	625.070	926.865	0.454	274.718	7.952	***6.009***
2021-10-02 8:45	5071527	7.915	-80.764	7.944	624.989	926.963	0.454	275.968	7.944	***5.998***
2021-10-02 9:00	5072427	7.915	-80.769	7.936	624.667	926.707	0.453	275.356	7.936	***5.967***
2021-10-02 9:15	5073327	7.916	-80.793	7.928	624.692	926.954	0.454	273.446	7.928	***5.910***
2021-10-02 9:30	5074227	7.916	-80.800	7.920	624.582	926.997	0.454	273.054	7.920	***5.866***
2021-10-02 9:45	5075127	7.913	-80.631	7.910	624.398	926.983	0.454	273.584	7.910	***5.880***
2021-10-02 10:00	5076027	7.908	-80.359	7.897	624.062	926.825	0.453	273.221	7.897	***5.920***
2021-10-02 10:15	5076927	7.897	-79.744	7.882	623.839	926.894	0.453	272.086	7.882	***5.968***
2021-10-02 10:30	5077827	7.889	-79.279	7.865	623.485	926.815	0.453	271.964	7.865	***6.038***
2021-10-02 10:45	5078727	7.887	-79.167	7.848	623.202	926.826	0.453	271.724	7.848	***6.119***
2021-10-02 11:00	5079627	7.888	-79.219	7.838	622.958	926.738	0.453	271.294	7.838	***6.160***
2021-10-02 11:15	5080527	7.889	-79.284	7.828	621.989	925.570	0.453	271.478	7.828	***6.199***
2021-10-02 11:30	5081427	7.887	-79.184	7.819	622.277	926.232	0.453	273.379	7.819	***6.161***
2021-10-02 11:45	5082327	7.889	-79.272	7.806	621.769	925.821	0.453	275.802	7.806	***6.072***
2021-10-02 12:00	5083227	7.890	-79.348	7.786	621.385	925.757	0.453	275.772	7.786	***5.985***
2021-10-02 12:15	5084127	7.888	-79.200	7.769	620.451	924.820	0.452	274.777	7.769	***5.964***
2021-10-02 12:30	5085027	7.886	-79.072	7.754	620.688	925.568	0.453	279.640	7.754	***6.003***
2021-10-02 12:45	5085927	7.884	-78.993	7.739	620.445	925.613	0.453	282.234	7.739	***6.108***
2021-10-02 13:00	5086827	7.884	-78.986	7.729	620.364	925.741	0.453	283.556	7.729	***6.249***
2021-10-02 13:15	5087727	7.885	-79.019	7.731	620.115	925.314	0.452	289.409	7.731	***6.297***
2021-10-02 13:30	5088627	7.886	-79.074	7.739	620.213	925.251	0.452	302.811	7.739	***6.306***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-02 13:45	5089527	7.886	-79.088	7.757	620.262	924.847	0.452	317.533	7.757	***6.297***
2021-10-02 14:00	5090427	7.886	-79.086	7.787	620.894	924.997	0.452	327.445	7.787	***6.284***
2021-10-02 14:15	5091327	7.886	-79.134	7.829	620.913	923.926	0.452	331.176	7.829	***6.271***
2021-10-02 14:30	5092227	7.887	-79.207	7.893	620.035	920.957	0.450	319.965	7.893	***6.206***
2021-10-02 14:45	5093127	7.887	-79.207	7.967	623.500	924.169	0.452	324.754	7.967	***6.131***
2021-10-02 15:00	5094027	7.892	-79.513	8.049	624.558	923.567	0.452	307.983	8.049	***6.078***
2021-10-02 15:15	5094928	7.900	-79.954	8.104	625.468	923.487	0.452	305.967	8.104	***6.127***
2021-10-02 15:30	5095828	7.906	-80.338	8.156	626.198	923.222	0.452	288.652	8.156	***6.352***
2021-10-02 15:45	5096728	7.916	-80.883	8.212	626.787	922.629	0.452	280.431	8.212	6.632
2021-10-02 16:00	5097628	7.927	-81.537	8.266	627.594	922.428	0.452	277.000	8.266	6.899
2021-10-02 16:15	5098528	7.937	-82.109	8.308	628.690	922.948	0.452	281.846	8.308	7.109
2021-10-02 16:30	5099428	7.947	-82.662	8.331	628.491	922.058	0.452	277.866	8.331	7.184
2021-10-02 16:45	5100328	7.953	-82.986	8.361	629.654	922.977	0.452	278.582	8.361	7.235
2021-10-02 17:00	5101228	7.956	-83.165	8.381	629.711	922.557	0.452	279.589	8.381	7.326
2021-10-02 17:15	5102128	7.958	-83.263	8.390	629.957	922.683	0.452	283.775	8.390	7.466
2021-10-02 17:30	5103028	7.956	-83.206	8.393	627.185	918.533	0.450	282.528	8.393	7.497
2021-10-02 17:45	5103928	7.954	-83.053	8.413	630.079	922.275	0.452	285.090	8.413	7.492
2021-10-02 18:00	5104828	7.955	-83.122	8.447	629.251	920.179	0.451	289.488	8.447	7.565
2021-10-02 18:15	5105728	7.957	-83.280	8.497	631.098	921.595	0.452	286.970	8.497	7.725
2021-10-02 18:30	5106628	7.963	-83.587	8.496	631.206	921.785	0.452	290.129	8.496	7.874
2021-10-02 18:45	5107528	7.967	-83.795	8.473	630.862	921.854	0.452	292.747	8.473	7.824
2021-10-02 19:00	5108428	7.973	-84.121	8.445	629.950	921.250	0.451	289.881	8.445	7.812
2021-10-02 19:15	5109328	7.977	-84.338	8.418	629.699	921.583	0.451	287.529	8.418	7.771
2021-10-02 19:30	5110228	7.978	-84.403	8.389	627.557	919.190	0.450	286.104	8.389	7.725
2021-10-02 19:45	5111128	7.979	-84.481	8.362	628.580	921.389	0.451	289.993	8.362	7.751
2021-10-02 20:00	5112028	7.982	-84.624	8.342	628.109	921.214	0.451	286.533	8.342	7.781
2021-10-02 20:15	5112928	7.979	-84.453	8.326	627.909	921.328	0.451	282.714	8.326	7.794
2021-10-02 20:30	5113828	7.974	-84.140	8.313	627.633	921.258	0.451	282.165	8.313	7.730
2021-10-02 20:45	5114728	7.971	-83.981	8.298	627.463	921.399	0.451	279.781	8.298	7.676
2021-10-02 21:00	5115628	7.969	-83.897	8.282	627.121	921.298	0.451	280.917	8.282	7.656
2021-10-02 21:15	5116528	7.969	-83.883	8.268	625.903	919.892	0.450	273.540	8.268	7.652
2021-10-02 21:30	5117428	7.970	-83.899	8.256	626.630	921.252	0.451	272.527	8.256	7.642
2021-10-02 21:45	5118328	7.969	-83.854	8.246	626.114	920.749	0.451	274.477	8.246	7.627
2021-10-02 22:00	5119228	7.969	-83.852	8.237	626.247	921.195	0.451	276.956	8.237	7.590
2021-10-02 22:15	5120128	7.970	-83.897	8.231	626.067	921.087	0.451	277.802	8.231	7.537
2021-10-02 22:30	5121028	7.973	-84.088	8.222	625.994	921.193	0.451	279.633	8.222	7.495
2021-10-02 22:45	5121928	7.977	-84.307	8.215	625.648	920.870	0.451	281.440	8.215	7.470
2021-10-02 23:00	5122828	7.979	-84.436	8.205	625.643	921.139	0.451	284.590	8.205	7.466
2021-10-02 23:15	5123728	7.979	-84.431	8.191	625.276	920.948	0.451	284.236	8.191	7.479
2021-10-02 23:30	5124628	7.979	-84.405	8.163	624.855	921.058	0.451	291.048	8.163	7.558
2021-10-02 23:45	5125528	7.972	-84.002	8.137	624.173	920.728	0.451	292.475	8.137	7.674
2021-10-03 0:00	5126428	7.962	-83.439	8.109	623.676	920.716	0.451	296.833	8.109	7.699
2021-10-03 0:15	5127328	7.957	-83.117	8.081	623.151	920.668	0.451	310.431	8.081	7.693
2021-10-03 0:30	5128228	7.953	-82.896	8.026	622.119	920.560	0.450	321.064	8.026	7.666
2021-10-03 0:45	5129128	7.949	-82.643	7.984	621.341	920.519	0.450	317.167	7.984	7.626

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-03 1:00	5130028	7.954	-82.910	7.947	619.808	919.215	0.450	318.205	7.947	7.539
2021-10-03 1:15	5130928	7.955	-83.008	7.929	620.250	920.320	0.450	317.319	7.929	7.487
2021-10-03 1:30	5131828	7.955	-82.982	7.914	619.961	920.296	0.450	309.831	7.914	7.397
2021-10-03 1:45	5132728	7.957	-83.070	7.886	619.588	920.474	0.450	307.809	7.886	7.256
2021-10-03 2:00	5133628	7.956	-83.022	7.849	618.789	920.249	0.450	305.072	7.849	7.210
2021-10-03 2:15	5134528	7.954	-82.898	7.827	616.667	917.659	0.449	302.672	7.827	7.250
2021-10-03 2:30	5135428	7.953	-82.819	7.809	618.085	920.241	0.450	301.470	7.809	7.165
2021-10-03 2:45	5136328	7.953	-82.808	7.775	617.314	920.001	0.450	298.905	7.775	7.108
2021-10-03 3:00	5137228	7.952	-82.760	7.740	616.778	920.108	0.450	299.307	7.740	7.103
2021-10-03 3:15	5138128	7.950	-82.645	7.714	616.219	919.967	0.450	298.127	7.714	6.999
2021-10-03 3:30	5139028	7.952	-82.774	7.691	615.982	920.194	0.450	299.522	7.691	6.930
2021-10-03 3:45	5139928	7.955	-82.936	7.677	615.587	919.976	0.450	298.747	7.677	6.916
2021-10-03 4:00	5140828	7.961	-83.270	7.665	615.495	920.152	0.450	298.647	7.665	6.940
2021-10-03 4:15	5141728	7.969	-83.659	7.644	614.296	918.924	0.449	299.866	7.644	6.979
2021-10-03 4:30	5142628	7.974	-83.945	7.622	614.900	920.385	0.450	296.876	7.622	6.961
2021-10-03 4:45	5143528	7.976	-84.081	7.591	614.421	920.511	0.450	297.027	7.591	6.946
2021-10-03 5:00	5144428	7.971	-83.783	7.544	613.319	920.086	0.450	297.734	7.544	6.913
2021-10-03 5:15	5145328	7.967	-83.544	7.502	612.694	920.242	0.450	299.434	7.502	6.793
2021-10-03 5:30	5146228	7.964	-83.368	7.476	612.264	920.285	0.450	300.697	7.476	6.652
2021-10-03 5:45	5147128	7.963	-83.275	7.457	611.833	920.155	0.449	297.380	7.457	6.516
2021-10-03 6:00	5148028	7.960	-83.137	7.428	611.391	920.261	0.449	298.416	7.428	***6.490***
2021-10-03 6:15	5148928	7.960	-83.084	7.385	610.650	920.284	0.449	296.911	7.385	***6.459***
2021-10-03 6:30	5149828	7.957	-82.915	7.324	609.740	920.510	0.449	296.069	7.324	***6.390***
2021-10-03 6:45	5150728	7.954	-82.760	7.271	608.540	920.106	0.449	296.857	7.271	***6.291***
2021-10-03 7:00	5151628	7.953	-82.645	7.227	607.942	920.366	0.449	296.320	7.227	***6.099***
2021-10-03 7:15	5152528	7.950	-82.502	7.186	607.304	920.503	0.449	296.726	7.186	***5.889***
2021-10-03 7:30	5153428	7.948	-82.378	7.149	606.635	920.464	0.449	297.125	7.149	***5.663***
2021-10-03 7:45	5154328	7.947	-82.278	7.106	605.997	920.642	0.449	296.779	7.106	***5.454***
2021-10-03 8:00	5155228	7.947	-82.293	7.052	604.938	920.478	0.449	297.778	7.052	***5.312***
2021-10-03 8:15	5156128	7.945	-82.157	7.020	604.569	920.793	0.449	291.333	7.020	***5.202***
2021-10-03 8:30	5157028	7.940	-81.890	7.007	604.371	920.838	0.449	295.749	7.007	***5.169***
2021-10-03 8:45	5157928	7.936	-81.646	6.998	603.971	920.467	0.449	299.322	6.998	***5.151***
2021-10-03 9:00	5158828	7.931	-81.372	6.985	603.852	920.637	0.449	489.741	6.985	***5.124***
2021-10-03 9:15	5159728	7.928	-81.201	6.975	603.542	920.435	0.449	296.460	6.975	***5.124***
2021-10-03 9:30	5160628	7.924	-80.972	6.962	603.204	920.267	0.449	293.937	6.962	***5.117***
2021-10-03 9:45	5161528	7.921	-80.831	6.951	603.081	920.365	0.449	293.758	6.951	***5.094***
2021-10-03 10:00	5162428	7.919	-80.698	6.941	602.773	920.168	0.449	293.918	6.941	***5.074***
2021-10-03 10:15	5163328	7.918	-80.612	6.927	602.549	920.206	0.449	290.283	6.927	***5.066***
2021-10-03 10:30	5164228	7.916	-80.519	6.897	601.594	919.536	0.448	290.627	6.897	***5.105***
2021-10-03 10:45	5165128	7.918	-80.640	6.881	601.782	920.254	0.449	291.991	6.881	***5.098***
2021-10-03 11:00	5166028	7.922	-80.838	6.850	600.873	919.710	0.448	294.745	6.850	***5.035***
2021-10-03 11:15	5166928	7.920	-80.726	6.808	600.141	919.698	0.448	286.908	6.808	***4.934***
2021-10-03 11:30	5167828	7.920	-80.712	6.778	599.815	920.029	0.448	284.955	6.778	***4.906***
2021-10-03 11:45	5168728	7.920	-80.676	6.742	599.182	920.013	0.448	283.009	6.742	***5.041***
2021-10-03 12:00	5169628	7.922	-80.788	6.688	598.399	920.284	0.448	290.180	6.688	***5.259***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-03 12:15	5170528	7.926	-80.996	6.647	597.423	919.893	0.448	287.069	6.647	***5.522***
2021-10-03 12:30	5171428	7.932	-81.320	6.605	596.726	919.938	0.448	285.649	6.605	***5.710***
2021-10-03 12:45	5172328	7.937	-81.601	6.571	595.712	919.300	0.448	283.742	6.571	***5.853***
2021-10-03 13:00	5173228	7.942	-81.861	6.552	595.646	919.700	0.448	291.875	6.552	***5.971***
2021-10-03 13:15	5174129	7.944	-81.952	6.549	595.711	919.896	0.448	293.544	6.549	***6.062***
2021-10-03 13:30	5175029	7.945	-82.009	6.562	595.879	919.798	0.448	297.844	6.562	***6.230***
2021-10-03 13:45	5175929	7.943	-81.909	6.582	595.997	919.448	0.448	292.484	6.582	***6.417***
2021-10-03 14:00	5176829	7.942	-81.892	6.620	596.638	919.398	0.448	292.676	6.620	6.614
2021-10-03 14:15	5177729	7.939	-81.732	6.693	597.860	919.311	0.448	306.044	6.693	6.791
2021-10-03 14:30	5178629	7.935	-81.534	6.775	599.075	918.970	0.448	297.202	6.775	6.891
2021-10-03 14:45	5179529	7.930	-81.286	6.850	600.502	919.142	0.448	304.827	6.850	6.908
2021-10-03 15:00	5180429	7.930	-81.275	6.910	601.652	919.271	0.448	302.488	6.910	7.122
2021-10-03 15:15	5181329	7.933	-81.496	6.949	602.315	919.250	0.448	301.005	6.949	7.402
2021-10-03 15:30	5182229	7.942	-81.959	6.944	602.324	919.383	0.448	297.046	6.944	7.428
2021-10-03 15:45	5183129	7.947	-82.288	6.981	602.828	919.183	0.448	299.396	6.981	7.427
2021-10-03 16:00	5184029	7.965	-83.287	6.973	602.814	919.362	0.448	301.641	6.973	7.531
2021-10-03 16:15	5184929	7.984	-84.288	6.943	602.644	919.900	0.449	307.444	6.943	7.479
2021-10-03 16:30	5185829	7.994	-84.865	6.942	602.442	919.622	0.448	297.100	6.942	7.626
2021-10-03 16:45	5186729	7.996	-84.968	6.989	603.282	919.640	0.449	294.525	6.989	7.658
2021-10-03 17:00	5187629	8.000	-85.247	7.057	604.324	919.429	0.449	297.226	7.057	7.744
2021-10-03 17:15	5188529	8.009	-85.719	7.076	604.753	919.557	0.449	299.303	7.076	7.910
2021-10-03 17:30	5189429	8.014	-86.002	7.058	603.008	917.391	0.448	304.793	7.058	7.993
2021-10-03 17:45	5190329	8.018	-86.198	7.030	602.580	917.477	0.448	292.211	7.030	8.178
2021-10-03 18:00	5191229	8.019	-86.303	7.017	603.895	919.833	0.449	295.872	7.017	8.354
2021-10-03 18:15	5192129	8.023	-86.489	7.001	603.643	919.868	0.449	294.830	7.001	8.465
2021-10-03 18:30	5193029	8.026	-86.658	6.993	603.089	919.241	0.448	297.556	6.993	8.479
2021-10-03 18:45	5193929	8.026	-86.634	6.992	603.439	919.814	0.449	290.395	6.992	8.408
2021-10-03 19:00	5194829	8.025	-86.606	6.986	603.345	919.823	0.449	292.687	6.986	8.345
2021-10-03 19:15	5195729	8.028	-86.751	6.979	603.251	919.881	0.449	296.762	6.979	8.302
2021-10-03 19:30	5196629	8.030	-86.899	6.969	602.692	919.297	0.448	293.389	6.969	8.280
2021-10-03 19:45	5197529	8.031	-86.918	6.954	602.863	919.953	0.449	294.800	6.954	8.250
2021-10-03 20:00	5198429	8.029	-86.799	6.938	602.493	919.826	0.449	292.832	6.938	8.199
2021-10-03 20:15	5199329	8.027	-86.670	6.923	602.243	919.834	0.449	293.431	6.923	8.168
2021-10-03 20:30	5200229	8.026	-86.625	6.911	601.984	919.757	0.448	293.046	6.911	8.122
2021-10-03 20:45	5201129	8.028	-86.749	6.898	599.789	916.765	0.447	293.027	6.898	8.047
2021-10-03 21:00	5202029	8.032	-86.961	6.883	601.575	919.892	0.449	290.431	6.883	7.964
2021-10-03 21:15	5202929	8.033	-86.999	6.862	601.232	919.924	0.448	291.379	6.862	7.868
2021-10-03 21:30	5203829	8.030	-86.820	6.837	600.744	919.862	0.448	289.186	6.837	7.981
2021-10-03 21:45	5204729	8.022	-86.353	6.808	600.188	919.789	0.448	290.097	6.808	8.065
2021-10-03 22:00	5205629	8.013	-85.890	6.786	598.816	918.275	0.448	287.996	6.786	8.021
2021-10-03 22:15	5206529	8.013	-85.843	6.766	599.654	920.107	0.448	285.029	6.766	8.012
2021-10-03 22:30	5207429	8.015	-85.976	6.745	599.273	920.071	0.448	288.335	6.745	8.069
2021-10-03 22:45	5208329	8.019	-86.174	6.721	598.857	920.098	0.448	287.002	6.721	8.129
2021-10-03 23:00	5209229	8.026	-86.553	6.704	598.269	919.636	0.448	286.698	6.704	8.158
2021-10-03 23:15	5210129	8.033	-86.970	6.687	598.389	920.289	0.448	286.756	6.687	8.166

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-03 23:30	5211029	8.040	-87.335	6.673	597.656	919.523	0.448	286.672	6.673	8.285
2021-10-03 23:45	5211929	8.046	-87.662	6.660	598.090	920.555	0.449	289.088	6.660	8.291
2021-10-04 0:00	5212829	8.052	-87.991	6.643	597.252	919.727	0.448	288.316	6.643	8.254
2021-10-04 0:15	5213729	8.053	-88.048	6.630	597.627	920.657	0.449	285.115	6.630	8.312
2021-10-04 0:30	5214629	8.048	-87.774	6.618	597.321	920.506	0.448	283.347	6.618	8.351
2021-10-04 0:45	5215529	8.045	-87.569	6.598	597.382	921.150	0.449	281.477	6.598	8.384
2021-10-04 1:00	5216429	8.047	-87.714	6.580	596.917	920.915	0.449	281.851	6.580	8.392
2021-10-04 1:15	5217329	8.049	-87.826	6.563	596.759	921.127	0.449	283.917	6.563	8.380
2021-10-04 1:30	5218229	8.050	-87.836	6.542	596.464	921.240	0.449	283.774	6.542	8.338
2021-10-04 1:45	5219129	8.048	-87.721	6.518	596.185	921.479	0.449	283.672	6.518	8.296
2021-10-04 2:00	5220029	8.044	-87.523	6.491	595.661	921.385	0.449	285.806	6.491	8.248
2021-10-04 2:15	5220929	8.043	-87.435	6.455	595.224	921.711	0.449	286.139	6.455	8.177
2021-10-04 2:30	5221829	8.041	-87.314	6.420	593.892	920.588	0.448	284.145	6.420	8.097
2021-10-04 2:45	5222729	8.039	-87.216	6.392	594.004	921.514	0.449	282.190	6.392	8.008
2021-10-04 3:00	5223629	8.036	-87.001	6.369	593.738	921.740	0.449	282.504	6.369	7.926
2021-10-04 3:15	5224529	8.034	-86.904	6.318	592.876	921.800	0.449	281.800	6.318	7.844
2021-10-04 3:30	5225429	8.030	-86.663	6.269	592.208	922.088	0.449	280.701	6.269	7.783
2021-10-04 3:45	5226329	8.026	-86.432	6.232	591.548	922.096	0.449	282.435	6.232	7.737
2021-10-04 4:00	5227229	8.022	-86.198	6.198	590.974	922.132	0.449	280.832	6.198	7.696
2021-10-04 4:15	5228129	8.019	-86.033	6.161	590.391	922.227	0.449	280.447	6.161	7.643
2021-10-04 4:30	5229029	8.018	-85.921	6.116	589.681	922.365	0.449	279.845	6.116	7.589
2021-10-04 4:45	5229929	8.018	-85.914	6.068	588.897	922.458	0.449	278.898	6.068	7.535
2021-10-04 5:00	5230829	8.019	-85.943	6.022	588.030	922.374	0.448	277.056	6.022	7.460
2021-10-04 5:15	5231729	8.019	-85.957	5.981	587.478	922.637	0.449	278.044	5.981	7.382
2021-10-04 5:30	5232629	8.019	-85.933	5.941	586.677	922.484	0.448	277.607	5.941	7.304
2021-10-04 5:45	5233529	8.019	-85.926	5.892	586.027	922.817	0.448	279.176	5.892	7.206
2021-10-04 6:00	5234429	8.019	-85.924	5.844	585.483	923.287	0.449	275.318	5.844	7.108
2021-10-04 6:15	5235329	8.015	-85.669	5.808	584.526	922.783	0.448	275.434	5.808	7.033
2021-10-04 6:30	5236229	8.012	-85.528	5.782	584.223	923.033	0.448	274.181	5.782	6.955
2021-10-04 6:45	5237129	8.009	-85.313	5.753	583.138	922.141	0.448	274.864	5.753	6.890
2021-10-04 7:00	5238029	8.006	-85.151	5.725	583.339	923.241	0.448	282.278	5.725	6.823
2021-10-04 7:15	5238929	8.004	-85.015	5.697	580.040	918.776	0.446	284.312	5.697	6.765
2021-10-04 7:30	5239829	8.002	-84.920	5.671	581.627	922.025	0.448	284.179	5.671	6.714
2021-10-04 7:45	5240729	8.000	-84.803	5.646	581.793	922.971	0.448	284.005	5.646	6.666
2021-10-04 8:00	5241629	7.999	-84.717	5.618	581.543	923.385	0.448	283.208	5.618	6.629
2021-10-04 8:15	5242529	7.997	-84.598	5.591	580.353	922.239	0.448	282.915	5.591	6.582
2021-10-04 8:30	5243429	7.995	-84.484	5.564	580.724	923.592	0.448	286.184	5.564	6.521
2021-10-04 8:45	5244329	7.992	-84.355	5.542	580.268	923.464	0.448	288.131	5.542	***6.454***
2021-10-04 9:00	5245229	7.991	-84.286	5.528	579.315	922.356	0.448	288.822	5.528	***6.393***
2021-10-04 9:15	5246130	7.989	-84.140	5.523	579.928	923.471	0.448	288.758	5.523	***6.341***
2021-10-04 9:30	5247030	7.987	-84.035	5.527	579.828	923.200	0.448	289.165	5.527	***6.289***
2021-10-04 9:45	5247930	7.984	-83.895	5.538	580.035	923.211	0.448	289.218	5.538	***6.255***
2021-10-04 10:00	5248830	7.983	-83.838	5.558	580.479	923.353	0.448	288.467	5.558	***6.231***
2021-10-04 10:15	5249730	7.983	-83.838	5.582	580.815	923.210	0.448	288.666	5.582	***6.213***
2021-10-04 10:30	5250630	7.982	-83.814	5.611	581.176	922.996	0.448	288.612	5.611	***6.195***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-04 10:45	5251530	7.980	-83.694	5.642	581.705	922.970	0.448	286.636	5.642	***6.179***
2021-10-04 11:00	5252430	7.978	-83.609	5.673	582.103	922.723	0.448	287.827	5.673	***6.154***
2021-10-04 11:15	5253330	7.976	-83.508	5.705	582.723	922.805	0.448	286.123	5.705	***6.112***
2021-10-04 11:30	5254230	7.977	-83.530	5.737	583.304	922.838	0.448	285.842	5.737	***6.054***
2021-10-04 11:45	5255130	7.977	-83.585	5.767	583.828	922.833	0.448	285.420	5.767	***5.987***
2021-10-04 12:00	5256030	7.979	-83.706	5.794	583.749	921.963	0.448	284.212	5.794	***5.942***
2021-10-04 12:15	5256930	7.984	-83.976	5.817	584.550	922.577	0.448	284.995	5.817	***5.912***
2021-10-04 12:30	5257830	7.987	-84.147	5.844	585.076	922.645	0.448	284.292	5.844	***5.878***
2021-10-04 12:45	5258730	7.991	-84.388	5.865	585.479	922.699	0.448	283.285	5.865	***5.855***
2021-10-04 13:00	5259630	7.993	-84.493	5.885	585.719	922.527	0.448	283.072	5.885	***5.871***
2021-10-04 13:15	5260530	7.996	-84.636	5.900	586.146	922.784	0.448	283.033	5.900	***5.912***
2021-10-04 13:30	5261430	8.001	-84.925	5.916	584.877	920.355	0.447	282.141	5.916	***5.899***
2021-10-04 13:45	5262330	8.004	-85.125	5.933	586.779	922.876	0.449	282.112	5.933	***5.826***
2021-10-04 14:00	5263230	8.006	-85.237	5.944	587.128	923.119	0.449	281.613	5.944	***5.753***
2021-10-04 14:15	5264130	8.008	-85.337	5.968	587.282	922.695	0.449	283.733	5.968	***5.760***
2021-10-04 14:30	5265030	8.012	-85.573	5.995	588.041	923.138	0.449	282.147	5.995	***5.882***
2021-10-04 14:45	5265930	8.015	-85.754	6.025	588.528	923.068	0.449	282.110	6.025	***6.039***
2021-10-04 15:00	5266830	8.019	-85.971	6.061	589.075	922.938	0.449	281.887	6.061	***6.223***
2021-10-04 15:15	5267730	8.023	-86.212	6.096	589.628	922.839	0.449	281.712	6.096	***6.398***
2021-10-04 15:30	5268630	8.027	-86.460	6.112	589.831	922.709	0.449	281.617	6.112	6.521
2021-10-04 15:45	5269530	8.031	-86.679	6.116	588.857	921.077	0.448	280.204	6.116	6.683
2021-10-04 16:00	5270430	8.033	-86.756	6.106	590.270	923.549	0.449	280.480	6.106	6.945
2021-10-04 16:15	5271330	8.031	-86.660	6.097	589.671	922.882	0.449	281.848	6.097	7.249
2021-10-04 16:30	5272230	8.030	-86.601	6.081	589.459	922.979	0.449	280.011	6.081	7.483
2021-10-04 16:45	5273130	8.030	-86.610	6.066	589.345	923.202	0.449	280.362	6.066	7.652
2021-10-04 17:00	5274030	8.030	-86.615	6.055	589.097	923.130	0.449	280.735	6.055	7.751
2021-10-04 17:15	5274930	8.031	-86.637	6.042	588.657	922.796	0.449	281.504	6.042	7.878
2021-10-04 17:30	5275830	8.030	-86.553	6.026	588.517	923.036	0.449	281.979	6.026	7.979
2021-10-04 17:45	5276730	8.028	-86.477	6.008	588.211	923.046	0.449	282.656	6.008	8.068
2021-10-04 18:00	5277630	8.028	-86.455	5.998	585.417	918.935	0.447	282.846	5.998	8.153
2021-10-04 18:15	5278530	8.029	-86.486	5.988	587.802	922.962	0.449	282.827	5.988	8.183
2021-10-04 18:30	5279430	8.029	-86.524	5.979	587.187	922.233	0.448	280.808	5.979	8.193
2021-10-04 18:45	5280330	8.030	-86.579	5.973	586.026	920.572	0.447	278.862	5.973	8.185
2021-10-04 19:00	5281230	8.031	-86.591	5.968	587.174	922.517	0.448	278.554	5.968	8.179
2021-10-04 19:15	5282130	8.030	-86.572	5.965	587.232	922.708	0.449	278.318	5.965	8.194
2021-10-04 19:30	5283030	8.030	-86.567	5.962	586.982	922.391	0.448	278.844	5.962	8.230
2021-10-04 19:45	5283930	8.028	-86.474	5.961	587.136	922.659	0.448	275.222	5.961	8.322
2021-10-04 20:00	5284830	8.025	-86.272	5.963	587.181	922.671	0.448	275.245	5.963	8.409
2021-10-04 20:15	5285730	8.023	-86.186	5.967	587.020	922.306	0.448	276.318	5.967	8.445
2021-10-04 20:30	5286630	8.021	-86.069	5.973	587.264	922.528	0.448	276.238	5.973	8.437
2021-10-04 20:45	5287530	8.018	-85.900	5.980	587.221	922.267	0.448	277.289	5.980	8.418
2021-10-04 21:00	5288430	8.016	-85.793	5.986	587.407	922.392	0.448	275.089	5.986	8.401
2021-10-04 21:15	5289330	8.014	-85.666	5.994	585.096	918.534	0.446	277.247	5.994	8.396
2021-10-04 21:30	5290230	8.013	-85.645	6.003	587.497	922.059	0.448	278.025	6.003	8.389
2021-10-04 21:45	5291130	8.013	-85.661	6.012	587.783	922.246	0.448	280.184	6.012	8.395

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-04 22:00	5292030	8.014	-85.671	6.021	588.014	922.362	0.448	282.059	6.021	8.385
2021-10-04 22:15	5292930	8.012	-85.609	6.031	588.029	922.123	0.448	282.263	6.031	8.371
2021-10-04 22:30	5293830	8.012	-85.585	6.040	587.370	920.833	0.448	280.091	6.040	8.350
2021-10-04 22:45	5294730	8.012	-85.592	6.051	588.505	922.308	0.448	276.834	6.051	8.307
2021-10-04 23:00	5295630	8.011	-85.542	6.061	588.602	922.194	0.448	280.280	6.061	8.163
2021-10-04 23:15	5296530	8.006	-85.237	6.071	588.688	922.057	0.448	281.121	6.071	8.024
2021-10-04 23:30	5297430	8.003	-85.118	6.081	587.456	919.843	0.447	281.832	6.081	7.960
2021-10-04 23:45	5298330	7.998	-84.801	6.091	589.237	922.352	0.449	282.157	6.091	8.028
2021-10-05 0:00	5299230	7.992	-84.479	6.100	589.543	922.599	0.449	282.410	6.100	8.140
2021-10-05 0:15	5300130	7.994	-84.612	6.106	589.744	922.726	0.449	285.598	6.106	8.268
2021-10-05 0:30	5301030	8.002	-85.065	6.109	589.883	922.877	0.449	287.955	6.109	8.334
2021-10-05 0:45	5301930	8.008	-85.366	6.106	589.123	921.753	0.448	288.497	6.106	8.397
2021-10-05 1:00	5302830	8.015	-85.752	6.103	590.122	923.406	0.449	289.272	6.103	8.474
2021-10-05 1:15	5303730	8.025	-86.303	6.095	589.804	923.129	0.449	288.592	6.095	8.554
2021-10-05 1:30	5304630	8.031	-86.675	6.088	589.863	923.412	0.449	292.848	6.088	8.587
2021-10-05 1:45	5305530	8.036	-86.915	6.079	589.837	923.621	0.449	294.039	6.079	8.541
2021-10-05 2:00	5306430	8.038	-87.056	6.065	588.895	922.549	0.449	296.444	6.065	8.468
2021-10-05 2:15	5307330	8.033	-86.763	6.049	589.786	924.374	0.449	296.003	6.049	8.418
2021-10-05 2:30	5308230	8.027	-86.439	6.032	589.596	924.557	0.450	290.469	6.032	8.384
2021-10-05 2:45	5309130	8.024	-86.265	6.013	589.472	924.889	0.450	292.553	6.013	8.379
2021-10-05 3:00	5310030	8.025	-86.298	6.003	589.352	924.968	0.450	291.556	6.003	8.374
2021-10-05 3:15	5310930	8.028	-86.465	5.997	587.176	921.730	0.448	293.062	5.997	8.392
2021-10-05 3:30	5311830	8.033	-86.713	5.992	589.380	925.314	0.450	293.137	5.992	8.435
2021-10-05 3:45	5312730	8.035	-86.837	5.989	589.513	925.617	0.450	293.725	5.989	8.453
2021-10-05 4:00	5313630	8.038	-87.030	5.989	589.434	925.481	0.450	294.918	5.989	8.450
2021-10-05 4:15	5314530	8.043	-87.264	5.990	589.457	925.489	0.450	293.888	5.990	8.435
2021-10-05 4:30	5315430	8.042	-87.225	5.995	589.731	925.797	0.450	292.582	5.995	8.399
2021-10-05 4:45	5316330	8.039	-87.063	6.001	589.486	925.234	0.450	290.172	6.001	8.366
2021-10-05 5:00	5317230	8.034	-86.801	6.009	590.240	926.197	0.450	290.656	6.009	8.341
2021-10-05 5:15	5318131	8.030	-86.575	6.016	590.390	926.236	0.450	291.565	6.016	8.329
2021-10-05 5:30	5319031	8.027	-86.412	6.024	590.676	926.474	0.451	291.870	6.024	8.310
2021-10-05 5:45	5319931	8.023	-86.217	6.030	590.942	926.705	0.451	293.149	6.030	8.282
2021-10-05 6:00	5320831	8.020	-86.024	6.041	591.076	926.625	0.451	296.004	6.041	8.235
2021-10-05 6:15	5321731	8.015	-85.752	6.053	591.243	926.560	0.451	296.219	6.053	8.187
2021-10-05 6:30	5322631	8.011	-85.514	6.061	591.679	927.004	0.451	299.948	6.061	8.140
2021-10-05 6:45	5323531	8.007	-85.316	6.070	590.276	924.564	0.450	299.197	6.070	8.111
2021-10-05 7:00	5324431	8.006	-85.287	6.082	592.150	927.170	0.451	299.718	6.082	8.058
2021-10-05 7:15	5325331	8.008	-85.368	6.093	592.014	926.653	0.451	302.656	6.093	7.854
2021-10-05 7:30	5326231	8.010	-85.511	6.100	592.767	927.636	0.451	300.069	6.100	7.638
2021-10-05 7:45	5327131	8.009	-85.454	6.103	592.884	927.745	0.451	301.267	6.103	7.574
2021-10-05 8:00	5328031	8.005	-85.223	6.093	592.945	928.110	0.451	299.670	6.093	7.601
2021-10-05 8:15	5328931	8.002	-85.051	6.080	592.825	928.271	0.452	299.862	6.080	7.634
2021-10-05 8:30	5329831	8.002	-85.063	6.061	592.679	928.573	0.452	299.420	6.061	7.637
2021-10-05 8:45	5330731	8.005	-85.189	6.037	592.420	928.834	0.452	297.630	6.037	7.606
2021-10-05 9:00	5331631	8.006	-85.268	6.009	592.078	929.089	0.452	294.980	6.009	7.572

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-05 9:15	5332531	8.006	-85.249	5.981	591.668	929.222	0.452	292.117	5.981	7.542
2021-10-05 9:30	5333431	8.004	-85.137	5.954	591.328	929.448	0.452	291.058	5.954	7.519
2021-10-05 9:45	5334331	8.003	-85.042	5.930	590.992	929.574	0.452	288.759	5.930	7.495
2021-10-05 10:00	5335231	8.000	-84.870	5.909	590.732	929.759	0.452	288.300	5.909	7.481
2021-10-05 10:15	5336131	7.997	-84.717	5.897	590.581	929.851	0.452	288.996	5.897	7.459
2021-10-05 10:30	5337031	7.995	-84.584	5.891	590.502	929.897	0.452	290.879	5.891	7.438
2021-10-05 10:45	5337931	7.990	-84.343	5.892	590.565	929.977	0.452	287.721	5.892	7.418
2021-10-05 11:00	5338831	7.986	-84.085	5.905	590.781	929.935	0.452	286.227	5.905	7.405
2021-10-05 11:15	5339731	7.978	-83.675	5.920	591.055	929.961	0.452	286.290	5.920	7.399
2021-10-05 11:30	5340631	7.974	-83.432	5.918	591.085	930.059	0.452	285.117	5.918	7.397
2021-10-05 11:45	5341531	7.968	-83.094	5.907	590.851	929.990	0.452	284.261	5.907	7.389
2021-10-05 12:00	5342431	7.964	-82.865	5.911	590.812	929.818	0.452	284.273	5.911	7.358
2021-10-05 12:15	5343331	7.959	-82.633	5.947	591.078	929.253	0.452	283.919	5.947	7.317
2021-10-05 12:30	5344231	7.963	-82.843	5.981	591.372	928.759	0.452	281.607	5.981	7.275
2021-10-05 12:45	5345131	7.967	-83.077	6.017	591.609	928.128	0.451	280.429	6.017	7.241
2021-10-05 13:00	5346031	7.968	-83.146	6.052	591.879	927.571	0.451	280.427	6.052	7.216
2021-10-05 13:15	5346931	7.971	-83.308	6.100	592.270	926.859	0.451	280.535	6.100	7.195
2021-10-05 13:30	5347831	7.970	-83.308	6.123	592.101	925.950	0.450	280.303	6.123	7.175
2021-10-05 13:45	5348731	7.971	-83.344	6.132	592.131	925.744	0.450	279.822	6.132	7.135
2021-10-05 14:00	5349631	7.970	-83.296	6.116	591.594	925.366	0.450	279.824	6.116	7.094
2021-10-05 14:15	5350531	7.969	-83.227	6.098	590.866	924.700	0.450	280.927	6.098	7.033
2021-10-05 14:30	5351431	7.967	-83.127	6.084	589.706	923.281	0.449	280.139	6.084	6.967
2021-10-05 14:45	5352331	7.967	-83.079	6.060	589.896	924.246	0.449	280.351	6.060	6.890
2021-10-05 15:00	5353231	7.966	-83.008	6.026	589.111	923.968	0.449	281.142	6.026	6.821
2021-10-05 15:15	5354131	7.964	-82.915	6.008	588.557	923.594	0.449	284.830	6.008	6.756
2021-10-05 15:30	5355031	7.960	-82.684	6.049	588.963	923.081	0.449	277.629	6.049	6.685
2021-10-05 15:45	5355931	7.954	-82.386	6.157	589.775	921.392	0.448	278.245	6.157	6.632
2021-10-05 16:00	5356831	7.956	-82.560	6.218	589.610	919.461	0.447	277.736	6.218	6.619
2021-10-05 16:15	5357731	7.959	-82.734	6.252	590.429	919.808	0.448	283.058	6.252	6.604
2021-10-05 16:30	5358631	7.960	-82.781	6.267	590.409	919.361	0.447	279.146	6.267	6.562
2021-10-05 16:45	5359531	7.962	-82.881	6.269	590.132	918.860	0.447	278.506	6.269	***6.495***
2021-10-05 17:00	5360431	7.965	-83.070	6.255	589.914	918.915	0.447	277.716	6.255	***6.404***
2021-10-05 17:15	5361331	7.971	-83.394	6.223	588.975	918.326	0.447	278.280	6.223	***6.294***
2021-10-05 17:30	5362231	7.976	-83.642	6.164	587.730	918.006	0.446	278.046	6.164	***6.156***
2021-10-05 17:45	5363131	7.981	-83.892	6.077	585.794	917.361	0.446	279.189	6.077	***6.048***
2021-10-05 18:00	5364031	7.986	-84.114	6.003	584.256	916.964	0.446	279.518	6.003	***5.963***
2021-10-05 18:15	5364931	7.989	-84.281	5.949	583.066	916.595	0.445	280.378	5.949	***5.857***
2021-10-05 18:30	5365831	7.990	-84.343	5.902	582.073	916.320	0.445	281.354	5.902	***5.752***
2021-10-05 18:45	5366731	7.994	-84.531	5.868	581.284	916.002	0.445	281.454	5.868	***5.649***
2021-10-05 19:00	5367631	7.998	-84.724	5.842	580.631	915.702	0.445	281.153	5.842	***5.522***
2021-10-05 19:15	5368531	8.001	-84.903	5.818	580.041	915.440	0.445	281.392	5.818	***5.399***
2021-10-05 19:30	5369431	8.006	-85.187	5.800	579.579	915.201	0.444	282.449	5.800	***5.279***
2021-10-05 19:45	5370331	8.011	-85.459	5.786	579.189	914.976	0.444	281.655	5.786	***5.191***
2021-10-05 20:00	5371231	8.015	-85.661	5.771	578.907	914.930	0.444	281.419	5.771	***5.113***
2021-10-05 20:15	5372131	8.015	-85.669	5.761	578.625	914.781	0.444	284.095	5.761	***5.045***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-05 20:30	5373031	8.014	-85.592	5.752	578.410	914.672	0.444	282.656	5.752	***4.953***
2021-10-05 20:45	5373931	8.011	-85.456	5.746	578.179	914.473	0.444	282.915	5.746	***4.837***
2021-10-05 21:00	5374831	8.009	-85.328	5.741	578.179	914.612	0.444	281.961	5.741	***4.754***
2021-10-05 21:15	5375731	8.009	-85.337	5.736	577.934	914.367	0.444	281.332	5.736	***4.713***
2021-10-05 21:30	5376631	8.011	-85.456	5.732	577.805	914.265	0.444	281.444	5.732	***4.704***
2021-10-05 21:45	5377531	8.013	-85.559	5.730	577.825	914.361	0.444	280.710	5.730	***4.702***
2021-10-05 22:00	5378431	8.014	-85.607	5.727	578.113	914.905	0.444	280.764	5.727	***4.678***
2021-10-05 22:15	5379331	8.015	-85.633	5.728	578.085	914.824	0.444	280.352	5.728	***4.627***
2021-10-05 22:30	5380231	8.014	-85.588	5.725	577.373	913.773	0.444	280.217	5.725	***4.543***
2021-10-05 22:45	5381131	8.013	-85.540	5.725	578.169	915.048	0.444	278.656	5.725	***4.450***
2021-10-05 23:00	5382031	8.013	-85.533	5.723	578.073	914.961	0.444	277.904	5.723	***4.399***
2021-10-05 23:15	5382931	8.013	-85.533	5.719	578.054	915.037	0.444	278.231	5.719	***4.390***
2021-10-05 23:30	5383831	8.012	-85.473	5.718	577.261	913.789	0.444	278.519	5.718	***4.404***
2021-10-05 23:45	5384731	8.009	-85.340	5.718	577.715	914.527	0.444	278.218	5.718	***4.424***
2021-10-06 0:00	5385631	8.006	-85.177	5.716	578.103	915.193	0.444	278.213	5.716	***4.451***
2021-10-06 0:15	5386531	8.005	-85.108	5.715	578.162	915.305	0.444	279.695	5.715	***4.495***
2021-10-06 0:30	5387431	8.004	-85.065	5.719	577.966	914.892	0.444	278.325	5.719	***4.515***
2021-10-06 0:45	5388331	8.003	-84.987	5.723	577.597	914.205	0.444	277.596	5.723	***4.485***
2021-10-06 1:00	5389231	8.001	-84.875	5.725	576.927	913.070	0.443	277.826	5.725	***4.435***
2021-10-06 1:15	5390132	7.999	-84.786	5.728	578.516	915.515	0.445	277.762	5.728	***4.388***
2021-10-06 1:30	5391032	7.998	-84.696	5.732	578.667	915.633	0.445	278.591	5.732	***4.350***
2021-10-06 1:45	5391932	7.996	-84.615	5.735	578.736	915.654	0.445	276.974	5.735	***4.305***
2021-10-06 2:00	5392832	7.993	-84.457	5.738	578.929	915.897	0.445	277.805	5.738	***4.247***
2021-10-06 2:15	5393732	7.993	-84.457	5.742	578.998	915.886	0.445	279.028	5.742	***4.157***
2021-10-06 2:30	5394632	7.993	-84.424	5.744	578.979	915.797	0.445	278.064	5.744	***4.062***
2021-10-06 2:45	5395532	7.992	-84.379	5.746	579.044	915.858	0.445	278.846	5.746	***3.967***
2021-10-06 3:00	5396432	7.991	-84.352	5.749	579.278	916.136	0.445	278.963	5.749	***3.867***
2021-10-06 3:15	5397332	7.991	-84.322	5.750	579.347	916.220	0.445	279.095	5.750	***3.781***
2021-10-06 3:30	5398232	7.992	-84.393	5.754	578.731	915.130	0.444	278.565	5.754	***3.700***
2021-10-06 3:45	5399132	7.990	-84.305	5.754	579.586	916.472	0.445	278.746	5.754	***3.621***
2021-10-06 4:00	5400032	7.988	-84.193	5.758	579.571	916.354	0.445	280.147	5.758	***3.549***
2021-10-06 4:15	5400932	7.987	-84.128	5.762	579.791	916.582	0.445	278.945	5.762	***3.447***
2021-10-06 4:30	5401832	7.984	-83.950	5.764	579.901	916.711	0.445	279.111	5.764	***3.346***
2021-10-06 4:45	5402732	7.981	-83.785	5.765	579.921	916.704	0.445	279.889	5.765	***3.288***
2021-10-06 5:00	5403632	7.978	-83.613	5.767	579.476	915.944	0.445	280.621	5.767	***3.259***
2021-10-06 5:15	5404532	7.976	-83.530	5.767	579.975	916.742	0.445	279.724	5.767	***3.236***
2021-10-06 5:30	5405432	7.975	-83.444	5.765	580.223	917.182	0.445	280.571	5.765	***3.229***
2021-10-06 5:45	5406332	7.972	-83.299	5.765	580.153	917.072	0.445	280.597	5.765	***3.221***
2021-10-06 6:00	5407232	7.969	-83.148	5.764	580.287	917.307	0.445	280.646	5.764	***3.206***
2021-10-06 6:15	5408132	7.966	-82.943	5.765	580.291	917.293	0.445	281.575	5.765	***3.201***
2021-10-06 6:30	5409032	7.964	-82.822	5.768	580.475	917.494	0.446	280.404	5.768	***3.224***
2021-10-06 6:45	5409932	7.961	-82.695	5.768	580.153	916.981	0.445	281.596	5.768	***3.276***
2021-10-06 7:00	5410832	7.958	-82.531	5.768	580.315	917.239	0.445	281.084	5.768	***3.319***
2021-10-06 7:15	5411732	7.956	-82.388	5.767	580.385	917.378	0.446	281.534	5.767	***3.342***
2021-10-06 7:30	5412632	7.953	-82.254	5.769	580.381	917.314	0.445	281.075	5.769	***3.323***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-06 7:45	5413532	7.951	-82.111	5.772	580.416	917.285	0.445	280.704	5.772	***3.312***
2021-10-06 8:00	5414432	7.948	-81.987	5.775	580.464	917.298	0.445	281.040	5.775	***3.298***
2021-10-06 8:15	5415332	7.945	-81.809	5.775	580.502	917.356	0.446	282.196	5.775	***3.295***
2021-10-06 8:30	5416232	7.943	-81.704	5.772	580.508	917.430	0.446	282.304	5.772	***3.283***
2021-10-06 8:45	5417132	7.941	-81.594	5.775	580.542	917.422	0.446	281.740	5.775	***3.235***
2021-10-06 9:00	5418032	7.940	-81.539	5.773	580.400	917.232	0.445	282.144	5.773	***3.178***
2021-10-06 9:15	5418932	7.938	-81.396	5.777	580.473	917.248	0.445	281.871	5.777	***3.139***
2021-10-06 9:30	5419832	7.936	-81.308	5.780	580.467	917.148	0.445	281.927	5.780	***3.148***
2021-10-06 9:45	5420732	7.934	-81.191	5.784	580.749	917.493	0.446	281.605	5.784	***3.175***
2021-10-06 10:00	5421632	7.932	-81.093	5.790	580.819	917.428	0.446	281.299	5.790	***3.204***
2021-10-06 10:15	5422532	7.931	-81.031	5.792	580.869	917.458	0.446	280.893	5.792	***3.149***
2021-10-06 10:30	5423432	7.931	-81.034	5.789	580.802	917.431	0.446	281.101	5.789	***3.051***
2021-10-06 10:45	5424332	7.932	-81.103	5.784	580.654	917.341	0.446	280.322	5.784	***2.958***
2021-10-06 11:00	5425232	7.934	-81.189	5.777	580.679	917.578	0.446	281.174	5.777	***2.880***
2021-10-06 11:15	5426132	7.936	-81.289	5.770	579.650	916.139	0.445	281.478	5.770	***2.789***
2021-10-06 11:30	5427032	7.938	-81.398	5.770	580.264	917.106	0.445	280.401	5.770	***2.682***
2021-10-06 11:45	5427932	7.941	-81.587	5.774	580.379	917.192	0.445	280.712	5.774	***2.587***
2021-10-06 12:00	5428832	7.946	-81.863	5.779	580.320	916.961	0.445	280.341	5.779	***2.516***
2021-10-06 12:15	5429732	7.951	-82.142	5.784	580.430	916.979	0.445	280.655	5.784	***2.461***
2021-10-06 12:30	5430632	7.954	-82.302	5.792	580.427	916.757	0.445	282.363	5.792	***2.430***
2021-10-06 12:45	5431532	7.958	-82.505	5.799	580.441	916.583	0.445	280.107	5.799	***2.419***
2021-10-06 13:00	5432432	7.961	-82.717	5.802	580.357	916.379	0.445	280.565	5.802	***2.370***
2021-10-06 13:15	5433332	7.965	-82.905	5.806	580.300	916.172	0.445	280.959	5.806	***2.346***
2021-10-06 13:30	5434232	7.967	-83.027	5.812	580.442	916.223	0.445	282.466	5.812	***2.281***
2021-10-06 13:45	5435132	7.970	-83.184	5.820	580.458	916.029	0.445	282.032	5.820	***2.170***
2021-10-06 14:00	5436032	7.972	-83.294	5.832	580.567	915.873	0.445	284.250	5.832	***2.079***
2021-10-06 14:15	5436932	7.972	-83.327	5.841	580.576	915.641	0.445	283.941	5.841	***2.019***
2021-10-06 14:30	5437832	7.972	-83.337	5.848	580.297	915.020	0.444	283.665	5.848	***1.984***
2021-10-06 14:45	5438732	7.974	-83.413	5.851	580.510	915.262	0.445	284.064	5.851	***1.965***
2021-10-06 15:00	5439632	7.974	-83.423	5.859	580.442	914.936	0.444	283.511	5.859	***1.898***
2021-10-06 15:15	5440532	7.972	-83.296	5.865	580.623	915.053	0.444	285.000	5.865	***1.831***
2021-10-06 15:30	5441432	7.970	-83.203	5.872	580.671	914.948	0.444	287.704	5.872	***1.777***
2021-10-06 15:45	5442332	7.967	-83.032	5.875	579.495	912.992	0.443	288.461	5.875	***1.727***
2021-10-06 16:00	5443232	7.961	-82.741	5.881	580.546	914.491	0.444	289.470	5.881	***1.676***
2021-10-06 16:15	5444132	7.959	-82.610	5.894	580.693	914.364	0.444	289.692	5.894	***1.665***
2021-10-06 16:30	5445032	7.960	-82.667	5.905	579.128	911.608	0.443	290.322	5.905	***1.696***
2021-10-06 16:45	5445932	7.964	-82.908	5.908	580.203	913.207	0.444	290.072	5.908	***1.762***
2021-10-06 17:00	5446832	7.967	-83.048	5.919	580.827	913.901	0.444	290.494	5.919	***1.809***
2021-10-06 17:15	5447732	7.968	-83.127	5.919	580.667	913.630	0.444	291.884	5.919	***1.815***
2021-10-06 17:30	5448632	7.964	-82.915	5.921	580.680	913.608	0.444	368.635	5.921	***1.759***
2021-10-06 17:45	5449532	7.958	-82.550	5.929	580.791	913.554	0.444	301.507	5.929	***1.691***
2021-10-06 18:00	5450432	7.949	-82.078	5.938	580.667	913.110	0.444	296.941	5.938	***1.639***
2021-10-06 18:15	5451332	7.939	-81.518	5.951	581.017	913.301	0.444	296.319	5.951	***1.577***
2021-10-06 18:30	5452232	7.932	-81.115	5.966	581.165	913.138	0.444	295.183	5.966	***1.540***
2021-10-06 18:45	5453132	7.926	-80.788	5.980	581.404	913.132	0.444	295.461	5.980	***1.514***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-06 19:00	5454032	7.921	-80.526	5.990	581.384	912.815	0.444	295.663	5.990	***1.516***
2021-10-06 19:15	5454933	7.918	-80.364	5.998	581.722	913.124	0.444	295.208	5.998	***1.488***
2021-10-06 19:30	5455833	7.915	-80.206	6.006	581.869	913.150	0.444	294.131	6.006	***1.429***
2021-10-06 19:45	5456733	7.911	-80.001	6.009	581.958	913.200	0.444	293.178	6.009	***1.335***
2021-10-06 20:00	5457633	7.909	-79.851	6.015	581.936	913.009	0.444	292.425	6.015	***1.286***
2021-10-06 20:15	5458533	7.905	-79.653	6.019	582.044	913.068	0.444	295.201	6.019	***1.282***
2021-10-06 20:30	5459433	7.902	-79.484	6.024	582.097	913.004	0.444	296.041	6.024	***1.319***
2021-10-06 20:45	5460333	7.900	-79.353	6.028	582.141	912.958	0.444	297.587	6.028	***1.276***
2021-10-06 21:00	5461233	7.898	-79.274	6.036	582.166	912.795	0.444	295.574	6.036	***1.220***
2021-10-06 21:15	5462133	7.897	-79.215	6.041	582.178	912.663	0.444	294.676	6.041	***1.250***
2021-10-06 21:30	5463033	7.897	-79.195	6.047	582.274	912.651	0.444	293.972	6.047	***1.290***
2021-10-06 21:45	5463933	7.898	-79.281	6.052	582.250	912.480	0.444	294.464	6.052	***1.328***
2021-10-06 22:00	5464833	7.896	-79.179	6.056	582.130	912.187	0.443	293.203	6.056	***1.365***
2021-10-06 22:15	5465733	7.896	-79.169	6.056	582.089	912.113	0.443	293.483	6.056	***1.389***
2021-10-06 22:30	5466633	7.897	-79.236	6.058	582.076	912.054	0.443	294.631	6.058	***1.406***
2021-10-06 22:45	5467533	7.899	-79.305	6.052	582.011	912.123	0.443	292.797	6.052	***1.443***
2021-10-06 23:00	5468433	7.897	-79.243	6.048	581.343	911.165	0.443	295.478	6.048	***1.447***
2021-10-06 23:15	5469333	7.896	-79.155	6.045	581.783	911.946	0.443	295.281	6.045	***1.433***
2021-10-06 23:30	5470233	7.893	-79.002	6.040	581.638	911.852	0.443	293.753	6.040	***1.414***
2021-10-06 23:45	5471133	7.892	-78.948	6.032	580.089	909.634	0.442	294.481	6.032	***1.379***
2021-10-07 0:00	5472033	7.891	-78.855	6.023	581.023	911.343	0.443	292.950	6.023	***1.359***
2021-10-07 0:15	5472933	7.889	-78.785	6.016	581.175	911.770	0.443	293.930	6.016	***1.366***
2021-10-07 0:30	5473833	7.890	-78.814	6.010	580.935	911.573	0.443	292.838	6.010	***1.407***
2021-10-07 0:45	5474733	7.891	-78.883	6.001	580.879	911.718	0.443	292.199	6.001	***1.441***
2021-10-07 1:00	5475633	7.895	-79.098	5.987	580.858	912.088	0.443	293.131	5.987	***1.435***
2021-10-07 1:15	5476533	7.903	-79.556	5.973	580.670	912.159	0.443	293.387	5.973	***1.440***
2021-10-07 1:30	5477433	7.910	-79.942	5.963	580.416	912.044	0.443	292.659	5.963	***1.439***
2021-10-07 1:45	5478333	7.914	-80.140	5.952	580.289	912.146	0.443	293.252	5.952	***1.405***
2021-10-07 2:00	5479233	7.916	-80.259	5.934	579.933	912.083	0.443	290.986	5.934	***1.383***
2021-10-07 2:15	5480133	7.918	-80.349	5.913	579.782	912.414	0.443	290.991	5.913	***1.374***
2021-10-07 2:30	5481033	7.919	-80.390	5.896	579.305	912.139	0.443	291.714	5.896	***1.371***
2021-10-07 2:45	5481933	7.920	-80.438	5.876	579.189	912.500	0.443	290.818	5.876	***1.400***
2021-10-07 3:00	5482833	7.920	-80.462	5.855	577.459	910.337	0.442	290.947	5.855	***1.430***
2021-10-07 3:15	5483733	7.920	-80.407	5.835	578.320	912.245	0.443	291.765	5.835	***1.446***
2021-10-07 3:30	5484633	7.917	-80.278	5.817	578.173	912.515	0.443	292.908	5.817	***1.437***
2021-10-07 3:45	5485533	7.915	-80.118	5.798	578.018	912.781	0.443	292.227	5.798	***1.429***
2021-10-07 4:00	5486433	7.911	-79.894	5.776	577.591	912.717	0.443	292.161	5.776	***1.389***
2021-10-07 4:15	5487333	7.907	-79.708	5.751	577.177	912.761	0.443	292.629	5.751	***1.342***
2021-10-07 4:30	5488233	7.904	-79.541	5.736	576.900	912.745	0.443	293.520	5.736	***1.327***
2021-10-07 4:45	5489133	7.902	-79.401	5.722	576.635	912.710	0.443	294.117	5.722	***1.322***
2021-10-07 5:00	5490033	7.899	-79.205	5.706	576.450	912.860	0.443	294.258	5.706	***1.298***
2021-10-07 5:15	5490933	7.895	-79.019	5.687	576.219	913.014	0.443	293.433	5.687	***1.234***
2021-10-07 5:30	5491833	7.891	-78.788	5.660	575.713	912.949	0.443	293.910	5.660	***1.130***
2021-10-07 5:45	5492733	7.888	-78.623	5.623	575.069	912.941	0.443	294.688	5.623	***1.036***
2021-10-07 6:00	5493633	7.883	-78.321	5.579	573.842	912.230	0.443	292.637	5.579	***0.962***

TABLE C2

Downstream 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: 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: Turb SN#: 730625 Turbidity (NTU)	Sensor: Internal SN#: 740839 Temperature (C)	Sensor: RDO SN#: 732433 Dissolved Oxygen (concentration) (mg/L)
2021-10-07 6:15	5494533	7.879	-78.096	5.512	573.439	913.435	0.443	293.189	5.512	***0.894***
2021-10-07 6:30	5495433	7.875	-77.829	5.468	572.888	913.792	0.443	294.559	5.468	***0.851***
2021-10-07 6:45	5496333	7.871	-77.608	5.424	571.842	913.346	0.443	294.160	5.424	***0.855***
2021-10-07 7:00	5497233	7.867	-77.374	5.382	571.179	913.451	0.443	294.326	5.382	***0.947***
2021-10-07 7:15	5498133	7.864	-77.212	5.346	569.683	912.074	0.442	294.265	5.346	***1.039***
2021-10-07 7:30	5499033	7.864	-77.190	5.312	569.954	913.436	0.443	294.393	5.312	***1.060***
2021-10-07 7:45	5499933	7.862	-77.069	5.282	569.467	913.492	0.443	294.748	5.282	***1.065***
2021-10-07 8:00	5500833	7.862	-77.057	5.243	568.793	913.508	0.443	294.470	5.243	***1.035***
2021-10-07 8:15	5501733	7.863	-77.102	5.199	567.915	913.353	0.443	293.544	5.199	***0.984***
2021-10-07 8:30	5502633	7.864	-77.124	5.151	567.017	913.231	0.442	294.932	5.151	***0.941***
2021-10-07 8:45	5503533	7.867	-77.257	5.067	565.591	913.300	0.442	291.668	5.067	***0.977***
2021-10-07 9:00	5504433	7.870	-77.415	5.013	564.385	912.880	0.442	293.067	5.013	***1.122***
2021-10-07 9:15	5505333	7.874	-77.622	4.965	563.493	912.802	0.442	291.859	4.965	***1.256***
2021-10-07 9:30	5506233	8.311	-100.782	2.333	1.275	2.249	0.000	0.022	2.333	13.105
2021-10-07 9:45	5507133	8.160	-92.008	0.745	1.042	1.941	0.000	0.000	0.745	13.704
AEP Freshwater Aquatic Life*		**6.5-9.0^{pH}**	**NS**	**narrative**	**NS**	**NS**	**NS**	**narrative**	**NS**	**6.5^{DO}**

Notes:

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

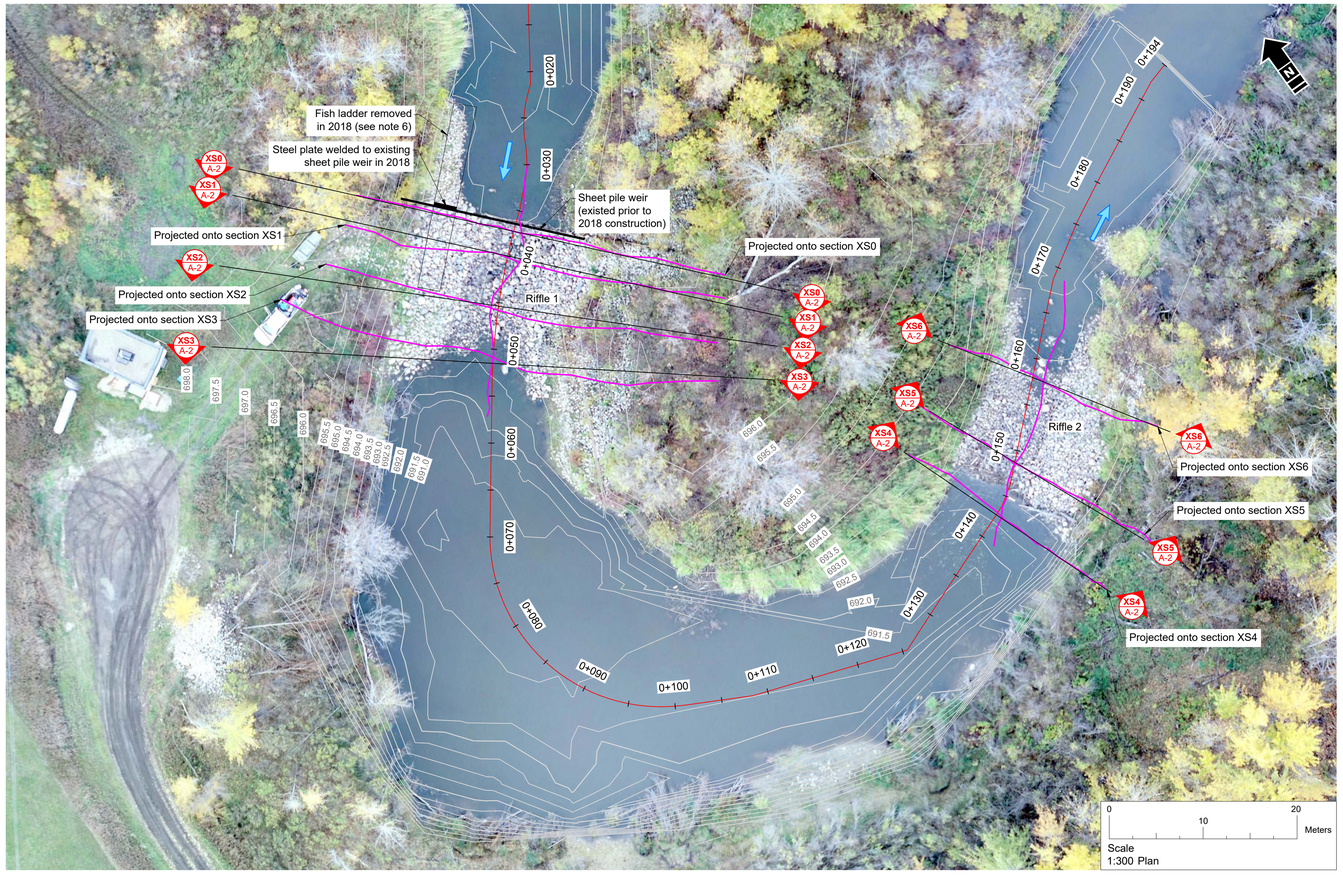
NS - not specified

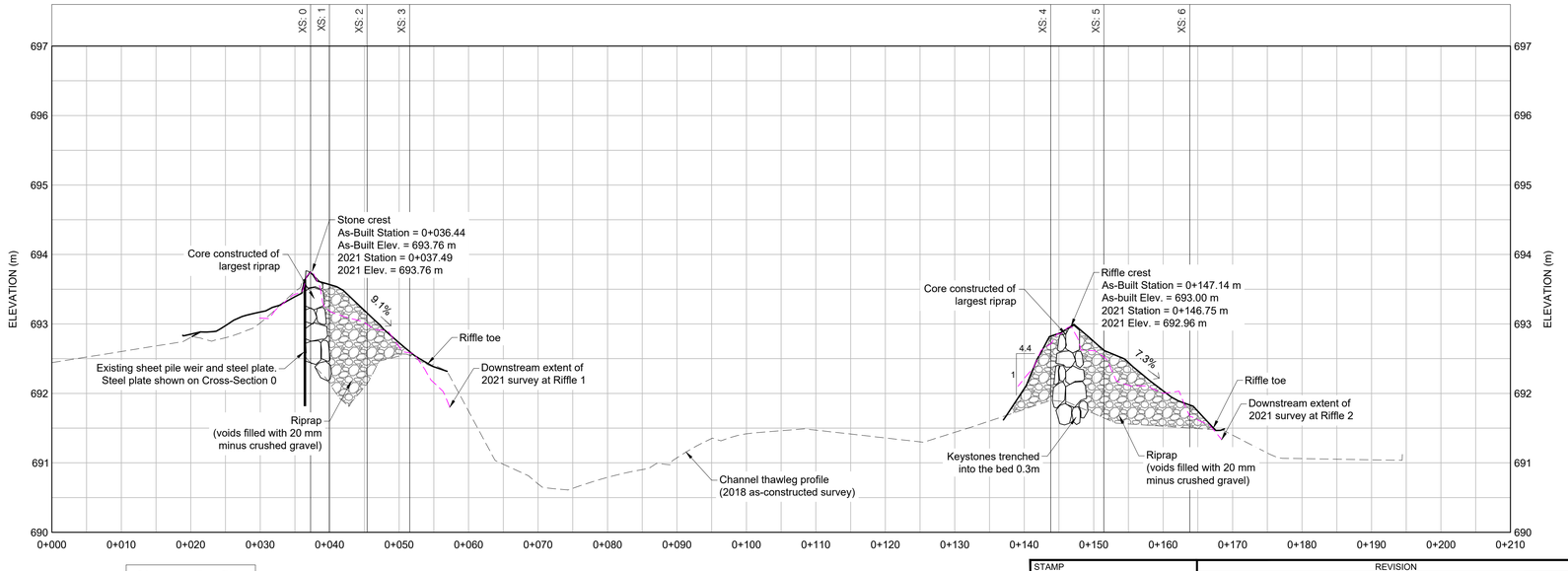
SO4 - guideline level is hardness dependent; hardness values greater than 250 mg/L need to be determined based on site water

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

Italics - values do not meet applicable guidelines

APPENDIX D
Monitoring Survey Figures





Channel Profile
Horizontal Scale 1:400
Vertical Scale 1:40

Approximate Riffle Stone Size Distribution

D84	550mm
D50	425mm
D16	325mm

Legend	
	Channel centreline
693.5 693.0	Contour (2015 Channel Survey by Matrix)
XS0 A-2	Cross section sample line
	2021 Cross-Section Survey Location

Notes:

1. Channel surveys used for design and ground contours completed by Matrix Solutions Inc. dated May and July 2015.
2. Final as-constructed survey by Velocity Group - Surveying & Engineering dated October 2018. The 2018 as-constructed survey was benchmarked to a local reference point, i.e., a property line nail marker. The 2018 as-constructed survey data had several datum transformations applied so that it matched the pre-construction channel surveys completed in 2015.
3. Post-construction topographic survey and UAV imagery by Matrix Solutions Inc. (Oct. 2021). 2021 topographic survey data was calibrated to Alberta Survey Control Marker (ASCM) 774786 in the town of Beaverlodge, AB. The 2021 survey was benchmarked to ASCM marker 774786. The surveys were approximately vertically and horizontally aligned based on the as-built and 2021 elevation of the sheet pile weir crest. Specifically the 2021 survey was adjusted by a vertical shift of 0.754 m and a horizontal shift of 1.397 m to match the as-constructed survey locations. The 2021 survey sections were collected as close as possible to the 2018 as-constructed survey; however, the surveys could not be perfectly aligned since the as-constructed benchmark datum transformations could not be replicated in the field.
4. Original 2018 as-built survey cross sections 4, 5, and 6 were moved to match the locations of the cross sections collected during the 2021 monitoring survey.
5. The size of the riffle stones ranges from 325 mm to 550 mm and thus the surveyed surface can be variable between surveys.
6. All steel elements of the existing fish ladder are cut down to existing ground elevation. Remaining voids are filled with riprap salvaged from the area directly upstream of the existing weir.

STAMP

Permit to Practice No.: P5540

REVISION

No.	DATE	DESCRIPTION	BY	CHK.	DRN.
09	12 16 2021	Issued Draft for Review with 2021 Monitoring Survey	KS	KC	CW
08	02 06 2019	Issued for Record	TO	MB	ZS
07	04 09 2018	Issued for Construction	MB	TO	PC
06	01 26 2018	Re-issued for Tender	BC	TO	ZS
05	11 10 2017	Issued for Tender	BC	MS	ZS
04	06 13 2016	Re-issued for regulatory approvals	MU	MS	ESD
03	03 15 2016	Issued for regulatory approval	MU	MB	ESD
02	02 24 2016	Draft for Review	TH	JP	ESD
01	08 14 2015	Draft for Review	TH	JP	ESD

Matrix Solutions Inc. ENVIRONMENT & ENGINEERING

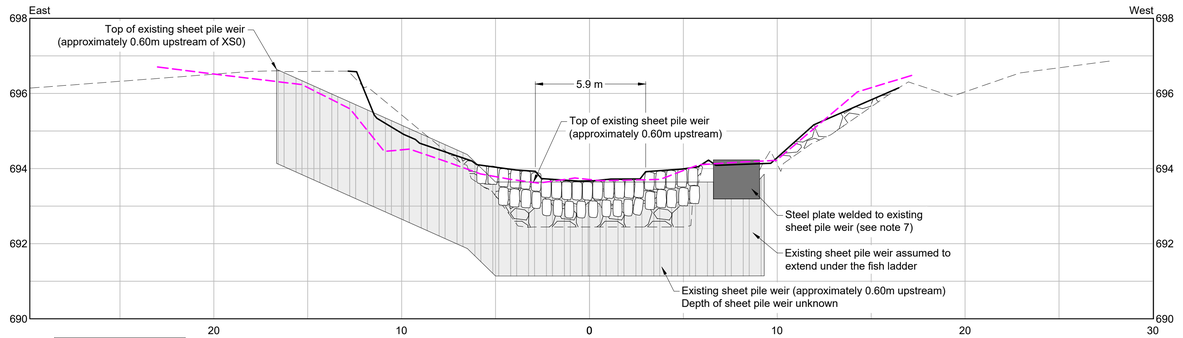
Mighty Peace Watershed Alliance
Beaverlodge River

Monitoring Plan and Profile

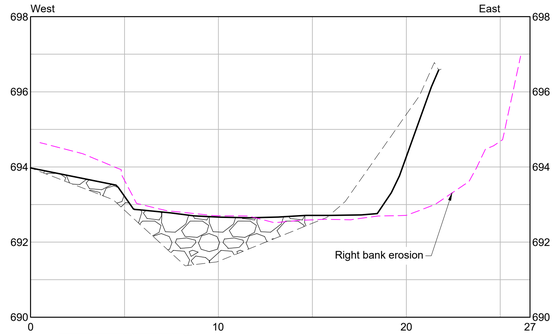
Date:	Project:	Technical:	Reviewer:	Drawn:
12 15 2021	2199 Beaverlodge	K. Seasons	K. Curtis	C. Welk

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.

Figure D1



Cross Section 0
Horizontal Scale 1:150
Vertical Scale 1:75

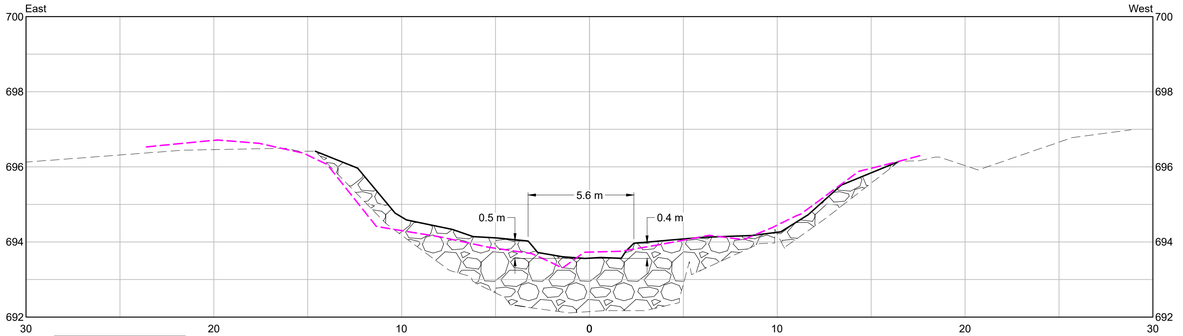


Cross Section 4
Horizontal Scale 1:150
Vertical Scale 1:75

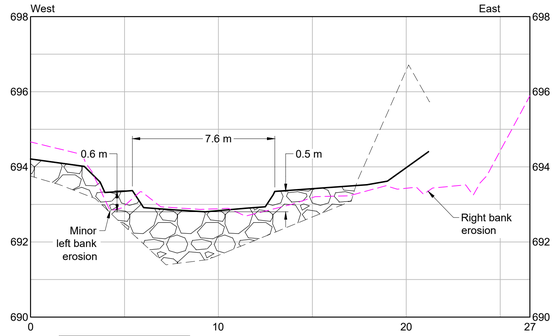
Legend	
	As Built Grade
	Pre-construction grade
	2021 Monitoring Grade
	Riffle

Approximate Riffle Stone Size Distribution

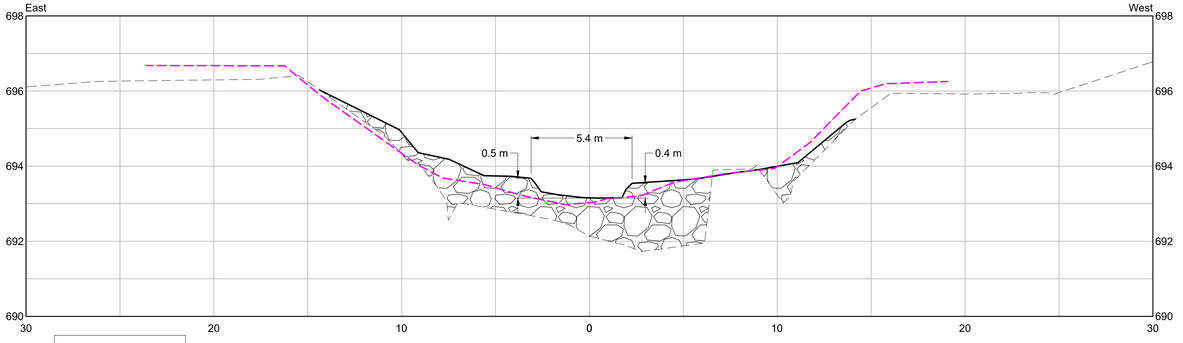
D84	550mm
D50	425mm
D16	325mm



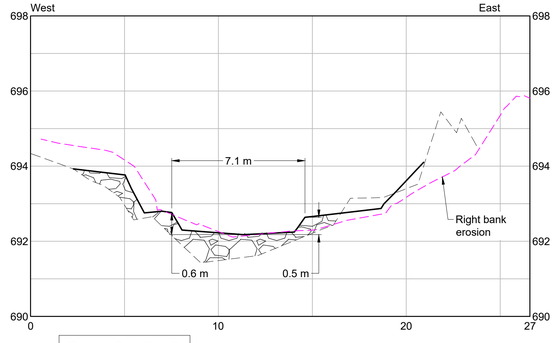
Cross Section 1
Horizontal Scale 1:150
Vertical Scale 1:75



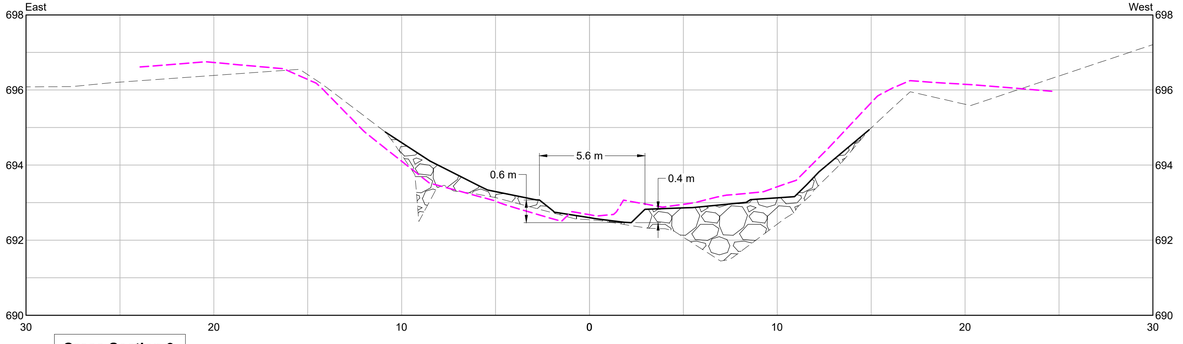
Cross Section 5
Horizontal Scale 1:150
Vertical Scale 1:75



Cross Section 2
Horizontal Scale 1:150
Vertical Scale 1:75



Cross Section 6
Horizontal Scale 1:150
Vertical Scale 1:75



Cross Section 3
Horizontal Scale 1:150
Vertical Scale 1:75

Notes:

1. Channel surveys used for design and ground contours completed by Matrix Solutions Inc. dated May and July 2015.
2. Final as-constructed survey by Velocity Group - Surveying & Engineering dated October 2018. The 2018 as-constructed survey was benchmarked to a local reference point, i.e., a property line nail marker. The 2018 as-constructed survey data had several datum transformations applied so that it matched the pre-construction channel surveys completed in 2015.
3. Post-construction topographic survey and UAV imagery by Matrix Solutions Inc. (Oct. 2021). 2021 topographic survey data was calibrated to Alberta Survey Control Marker (ASCM) 774786 in the town of Beaverlodge, AB. The 2021 survey was benchmarked to ASCM marker 774786. The surveys were approximately vertically and horizontally aligned based on the as-built and 2021 elevation of the sheet pile weir crest. Specifically the 2021 survey was adjusted by a vertical shift of 0.754 m and a horizontal shift of 1.397 m to match the as-constructed survey locations. The 2021 survey sections were collected as close as possible to the 2018 as-constructed survey; however, the surveys could not be perfectly aligned since the as-constructed benchmark datum transformations could not be replicated in the field.
4. Original 2018 as-built survey cross sections 4, 5, and 6 were moved to match the locations of the cross sections collected during the 2021 monitoring survey.
5. The size of the riffle stones ranges from 325 mm to 550 mm and thus the surveyed surface can be variable between surveys.
6. All steel elements of the existing fish ladder are cut down to existing ground elevation. Remaining voids are filled with riprap salvaged from the area directly upstream of the existing weir.
7. Welded steel plate width is based on Matrix 2015 surveys. Depth unknown.

STAMP

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08	02 06 2019	Issued for Record	TO	MB	ZS
07	04 09 2018	Issued for Construction	MB	TO	PC
06	01 26 2018	Re-issued for Tender	BC	TO	ZS
05	11 10 2017	Issued for Tender	BC	MS	ZS
04	06 13 2016	Re-issued for regulatory approvals	MU	MS	ESD
03	03 15 2016	Issued for regulatory approval	MU	MB	ESD
02	02 24 2016	Draft for Review	TH	JP	ESD
01	08 14 2015	Draft for Review	TH	JP	ESD

Matrix Solutions Inc.
ENVIRONMENT & ENGINEERING

Mighty Peace Watershed Alliance
Beaverlodge River

Monitoring
Cross Sections 0 - 6

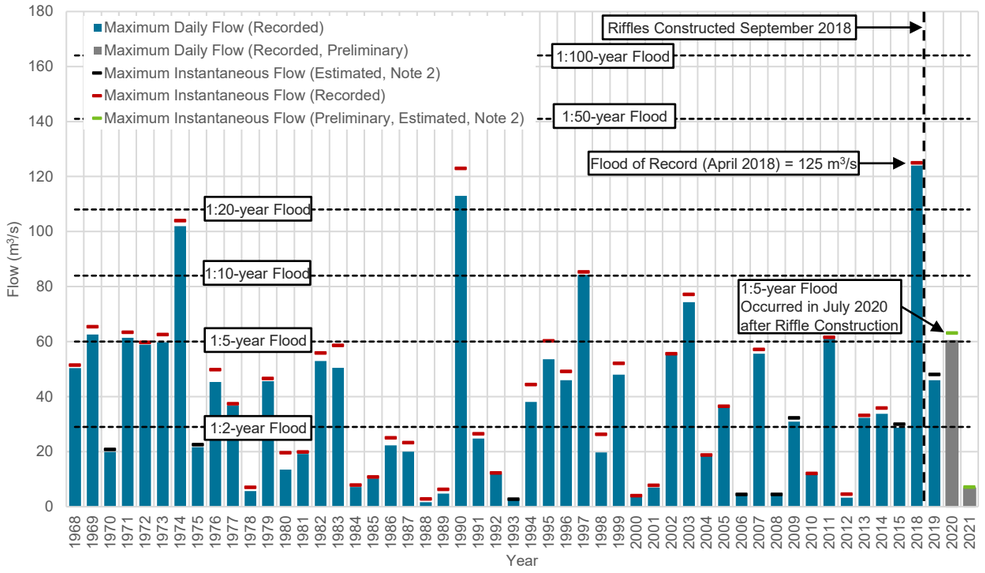
Date:	Project:	Technical:	Reviewer:	Drawn:
12 15 2021	2199 Beaverlodge	K. Seasons	K. Curtis	C. Welk

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.

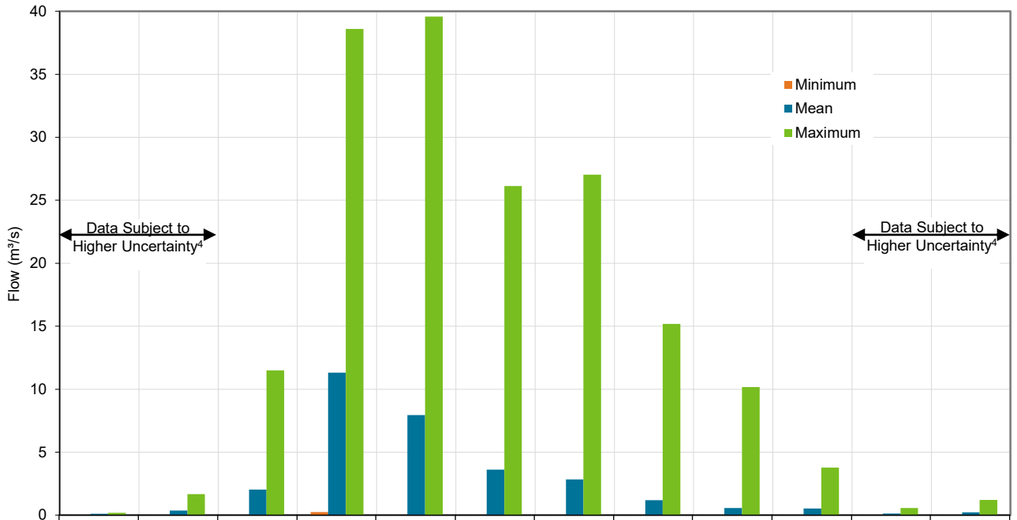
Figure D2

Matrix Solutions Inc. - Do Not Scale

Annual Maximum Daily Average and Instantaneous Flow History



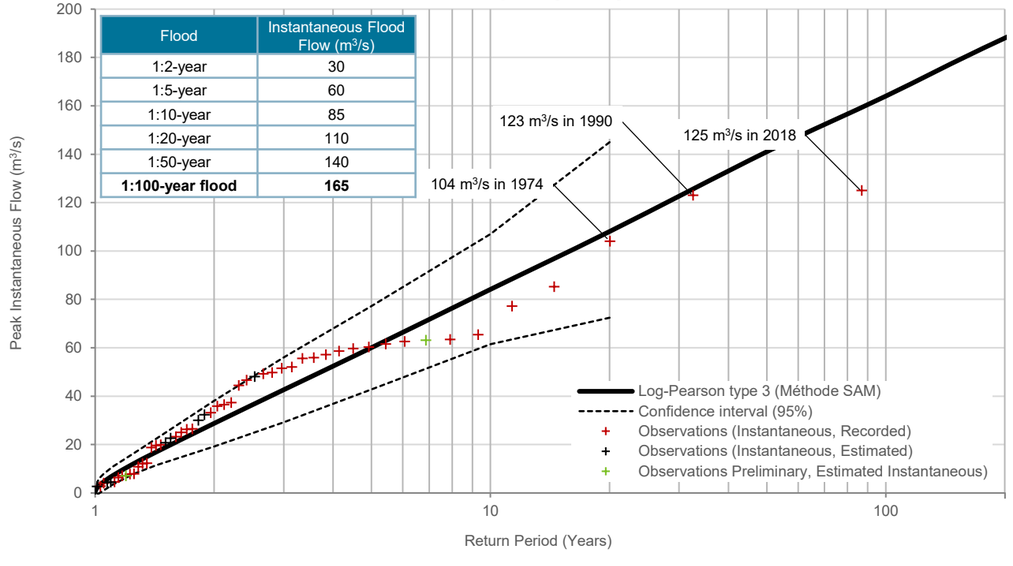
Monthly Flows[3]



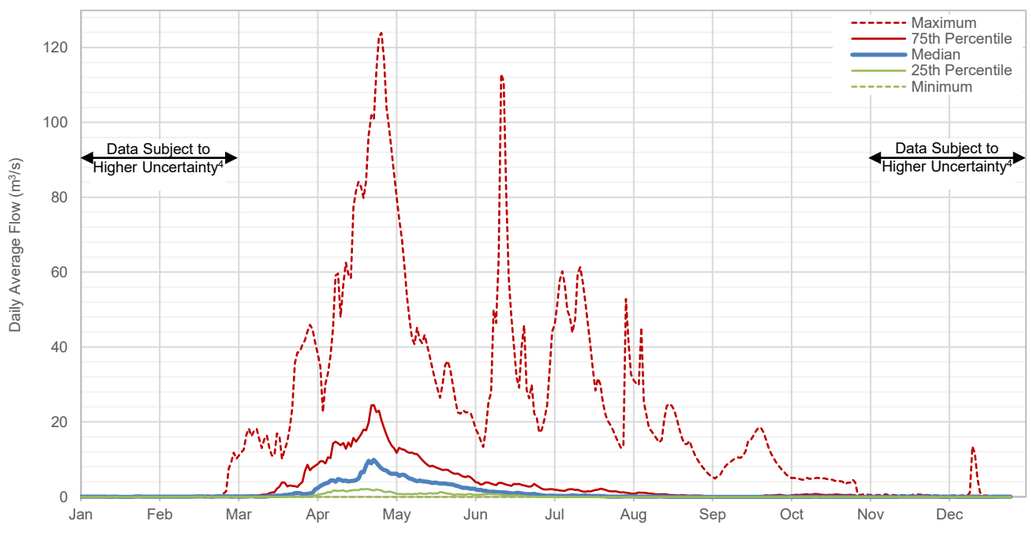
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Min. Monthly[6] Flow	0.002	0.100	0.004	0.123	0.022	0.015	0.013	0.003	0.002	0.002	0.002	0.002
Mean Monthly[6] Flow	0.1	0.8	5.9	17.0	14.7	5.7	4.1	2.4	0.9	0.7	0.3	0.1
Max. Monthly[6] Flow	0.3	9.4	46.0	124.0	98.6	113.0	61.4	52.9	18.6	8.3	0.8	0.3

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	140
1:100-year flood	**165**



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 52 years of daily flow data from 1968 to 2021 (50 years of published data and two years of preliminary data).
2. The annual maximum flow record consists of 52 years of daily flow data (50 years of published data and two years of preliminary data), and 52 years of instantaneous flow data (42 years of recorded data, eight years [15%], of estimated data, and two years [4%] 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. Flows from 2020 and 2021 are preliminary and have not been finalized by WSC. A check was completed to determine the effect of excluding the preliminary data in the frequency analysis. The check indicated there is negligible difference on the 1:100-year flood magnitude when the preliminary data is excluded.
4. 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 2021 (45 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.
5. Flooding typically occurs from April through July.
6. Monthly flow is the average of the daily flows within that month for a given year.
7. 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:
November 2021	2199-522	K. Seasons	K. Curtis

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Figure D3

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