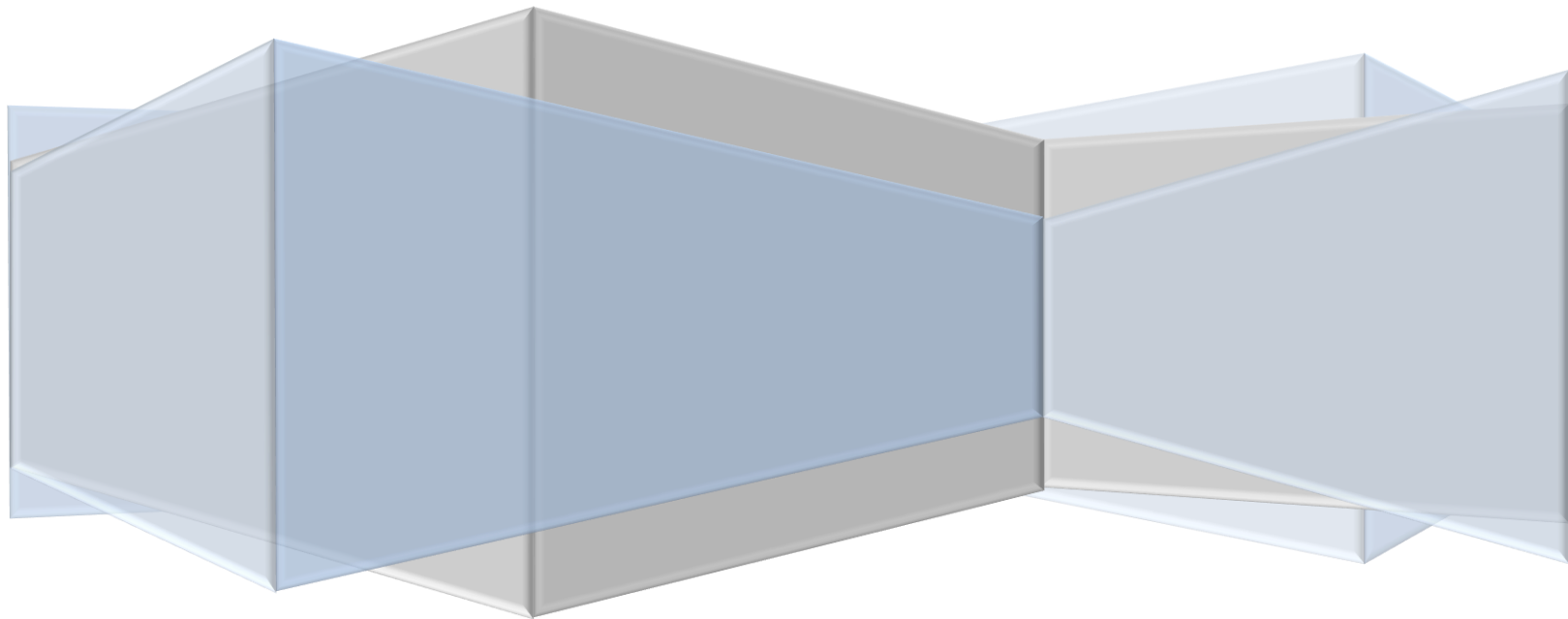


Quinsam Coal Corporations Quarterly Report (July-September)

For Effluent Permit PE: 7008
Environmental Department



Introduction	2
North End Water Management System:	2
South End Water Management System:	3
7-South (7SSD) Water Management:	3
Quarterly Monitoring:.....	4
Non-Compliance Events:.....	4
Precipitation.....	4
Receiving Environment Water Quality:	5
Lakes.....	5
Streams and Rivers	7
Groundwater	9
Passive Treatment System (PTS).....	9
Baseline Biological / Sediment Monitoring on the Iron River:	12
Quality Assurance Quality Control.....	12
Conclusion:.....	12
Figure 1: Daily Precipitation 2-South Pit Area (mm)	5
Figure 2: Long Lake Average Sulphate Concentrations.....	7
Figure 3: 2-South Mine Pool at INF Flow versus Level.	10
Figure 4: Average Sulphate Concentrations in 2-South Area	11
Figure 5: Sulphate Reduction through the Water Management System.	11
Table 1: Summary of Water Quality Guideline Observation for Lakes	6
Table 2: Summary of Guideline Observations for Rivers / Streams, Seeps (LLS, LLSM) and wetland (LLE)	8
Table 3: Summary of Parameters above CSR-AW in Ex-Situ Groundwater	9
Table 4: Flow and level table at 2-South QU11-11 (INF)	10

Appendix I

Tables 1-54
 Graphs 1-9

INTRODUCTION

During Q2 (July through September 2020) Quinsam Mine maintained the environmental obligations for permits PE: 7008 held with the Ministry of Environment and Climate Change Strategy and the Mines Act permit, C-172. The mine continues to be operated in a “*care and maintenance*” mode with The Bowra Group Inc. as the receiver.

NORTH END WATER MANAGEMENT SYSTEM:

Stage pumping / dewatering continued from 7-South Area 5 (7SA5) into 1-Mains 7-South (1M7S) sump, where it then pumps into the 5-South Mine (5SMW), where it remained for the Q2. No pumping has occurred from the 5SMW into 2-North mine pool at 3-Mains 2-North since May except one 6-hour event for sample collection from 5SMW. This is performed in order to characterize the mine pool water quality.

The 3-Mains 2-North (3M2N) mine pool pump cycled intermittently throughout Q2. The 2-North Portal Sump (2NPS) collects seepage water from the tailings dam and groundwater from 2-North mine. The combined 3M2N and 2NPS discharges into Brinco Brook.

The other three major dewatering wells located in the 2-North mine pool include, 1-Mains, 2-North (1M2N) pumps #1 and #2 and 5-Mains #2 (5M#2). Currently only the 1M2N #1 is operating as the 5M#2 failed in February 2020 and has not been replaced. When operating these pumps discharge into either Brinco brook or 2-North Pond (WP). This pond (WP) contains Potentially Acid Generating (PAG) Course Coal Refuse (CCR). The flow direction is controlled by opening gate valves located at the end of the lines into either or both areas.

1M2N #1 has been dewatering the 2-North mine pool continuously to compensate for the 5M#2 pump. Normally both pumps would be turned off in late Q1 as the mine pool would be reduced to have capacity for both tailings’ injections and the fall rains. During Q2 the gate valves were opened directing water from 1M2N into WP periodically in order to recharge water cover over the PAG-CCR. This occurred on the following dates:

- July 6th through 16th
- August 17th through 25th
- September 21st through 29th

In order to reduce discharge from Settling Pond #4 (SP4 / WD) the plant processing pump, located in SP4, was turned on intermittently from July 6th, 10th, 11th, 15th and 16th. This pumps water to the plant, where it overflows from the holding tank down the plant site collection ditch into WP. This water is not coal processing water or wash plant effluent as it was only pumped from SP4 to the plant and gravity fed to WP.

This also maintained a water cover over the PAG-CCR in WP and reduced discharge at SP4. Reduced discharge results in a reduced load of mine contact water on the receiving environment during low flow periods.

SP4 is the authorized discharge location for the North mine area, water management system, where permit limits are applied to water quality and quantity. Discharge occurred 91 out of 91 days. Water quantity for Q2 discharged at SP4 was calculated as 595,728 m³ compared to 2019 Q2 where 269,692 m³ was discharged. All water quality remained below effluent permit limits at Settling Pond #4.

SOUTH END WATER MANAGEMENT SYSTEM:

Water in the south end is managed by pumping the 2-South mine pool into the Passive Treatment System (PTS) where it is directed into the 2-South and 3-South pits. This maintains a water cover over the PAG-CCR during the dry season in 2-South pit while containing the water within the authorized works. During Q2 pumping rates ranged from 5.1 L/s to 6.5 L/s measured at 2-South mine pool (INF) where it is pumped into the first treatment system cell, Biochemical reactor (BCREFF). Treated water flows passively from the BCR to the Sulphide Polishing Cell (SPCEFF) where it is gravity feed into the inlet of the 2S pit entering at 2-South Inflow (2SI). At this location there is a V-notch weir coupled with a pressure transducer and a staff gauge (hydrometric station), where continuous flow is monitored.

The 3-South pit maintains a water cover over the contained PAG-CCR via 2-South pit seepage under the liner and surface water cover overflow. 2-South pit water flows down a designed channel into 3-South pit. Continuous discharge is measured at location 2-South Culvert (2SC) into 3-South Pit. Here there is an H-flume and a flow meter measuring continuous inflow to 3-South pit and outflow from 2-South pit.

Currently 3-South pit water levels are managed by an 88-horsepower pump operating on a float system. Water is directed through a pipeline into Settling Pond #1 (SPD/ SP1) or by toggling a valve located on the 2-South highwall, 3-South water can be directed back to 2-South pit. When water pumped from 3-South pit is directed into 2-South pit it maintains a closed loop circuit and aids in maintaining a water cover over the 2-South Pit. As a result, SP1 will stop discharging (normally during mid-May) reducing the load from mine contact water on the receiving environment.

SP1 is the authorized discharge location for the South water management system where permit limits are applied to water quality and quantity. This quarter all water quality remained within permit limits. Discharge occurred for 57 out of 91 days. With a cumulative quarterly total of 87,495 m³ compared to last year Q2 where 53,395 m³ was discharged. All water quality remained below effluent permit limits at Settling Pond #1.

7-SOUTH (7SSD) WATER MANAGEMENT:

Discharge did not occur during Q2 at 7SSD. Sedimentation pond outflow is controlled by pumping water accumulated in the pre-settling pond to the 7-South Portal Sump. This procedure reduces discharge, decreasing the overall parameter loading and the potential for adverse aquatic impact in the receiving environment; as the biological availability for parameters of concern is much lower than under constant discharge conditions.

A quarterly sample was obtained from the ponded water (7SSD) and the results are available in Appendix I, Table 19.

This quarter, parameters of interest remained within the specified limits of the Water Quality Guidelines (WQG) during all sampling events at 7S. The water quality results corresponding to Stream 1, 7S are available in Table 21.

QUARTERLY MONITORING:

During the 2nd Quarter (Q2) (Summer 2020), the receiving environment monitoring program for both lakes and river/stream stations was completed. Quarterly monitoring was performed for groundwater quality, effluent and with-in (in-situ) mine releases. All environmental sampling and obligations pertaining to permit PE-7008 were completed and results are available in Appendix I.

The reader should note that concentrations for most parameters of interest were not elevated above water quality guideline (WQG) levels in the receiving environment throughout the 5 in 30 sampling period. Those parameters that were included the following: pH, dissolved oxygen (DO), total arsenic (As-T), dissolved copper (Cu-D), total and dissolved iron (Fe-T / Fe-D) and dissolved sulphate (SO₄-D). For the Water Quality Objective for Middle Quinsam Lake Sub basin (WQO) total phosphorous (P-T) was also observed. These parameters occurred at different locations. The majority of the WQG observations were found with dissolved copper. A conservative copper guideline was used for comparison. This data is subject to be reviewed as the dissolved copper guideline has recently been developed, requiring certain parameters such as dissolved organic carbon (DOC), temperature and pH to accurately calculate the acute and chronic guideline used for each sample at each site. All data will be uploaded into the B.C. Copper Biota Ligand Model. From there a site-specific guideline will be used for each site once a lengthy dataset has been obtained. This will be discussed at the Environmental Technical Review meeting and included in the Annual Report. Appendix I, Table 3 displays all WQG and WQO observations.

Additional monitoring included in-situ and ex-situ groundwater wells, underground sumps and dewatering wells located in 2-3 North, 2-3 South, 4-South, 5-South and 7-South mine areas. Ex-situ groundwater is compared to the British Columbia Contaminated Site Regulation (CSR) (BC reg.375/96. O.C. 1480/96), Schedule 6, Aquatic life (CSR-AW). Certain parameters found in ex-situ groundwater continually result above the CSR-AW, these include the following dissolved parameters: arsenic, chloride and sulphide as H₂S and occasionally selenium. Selenium is observed periodically in the ex-situ deep groundwater of QU1105D in the River Barrier Pillar of the 5-South mine this was not observed this quarter. Appendix I, Table 5 displays those parameters in ex-situ groundwater above the CSR-AW.

Routine inspections were also completed with any required maintenance of the water management structures preformed.

NON-COMPLIANCE EVENTS:

There were no non-compliance events to report this quarter.

PRECIPITATION

The amount of precipitation accumulated this quarter was 159.1 mm, much lower than Q2 last year where 209.8 mm was observed. Precipitation in Q2 occurred mostly in September (72.1 mm). This is displayed in Figure 1 below and in Appendix I, tabular format. The receiving environment monitoring program followed the 5 samples in 30 days schedule with sampling events spanning July 8th through August 5th, indicating the “summer low flow” was captured during this monitoring period.

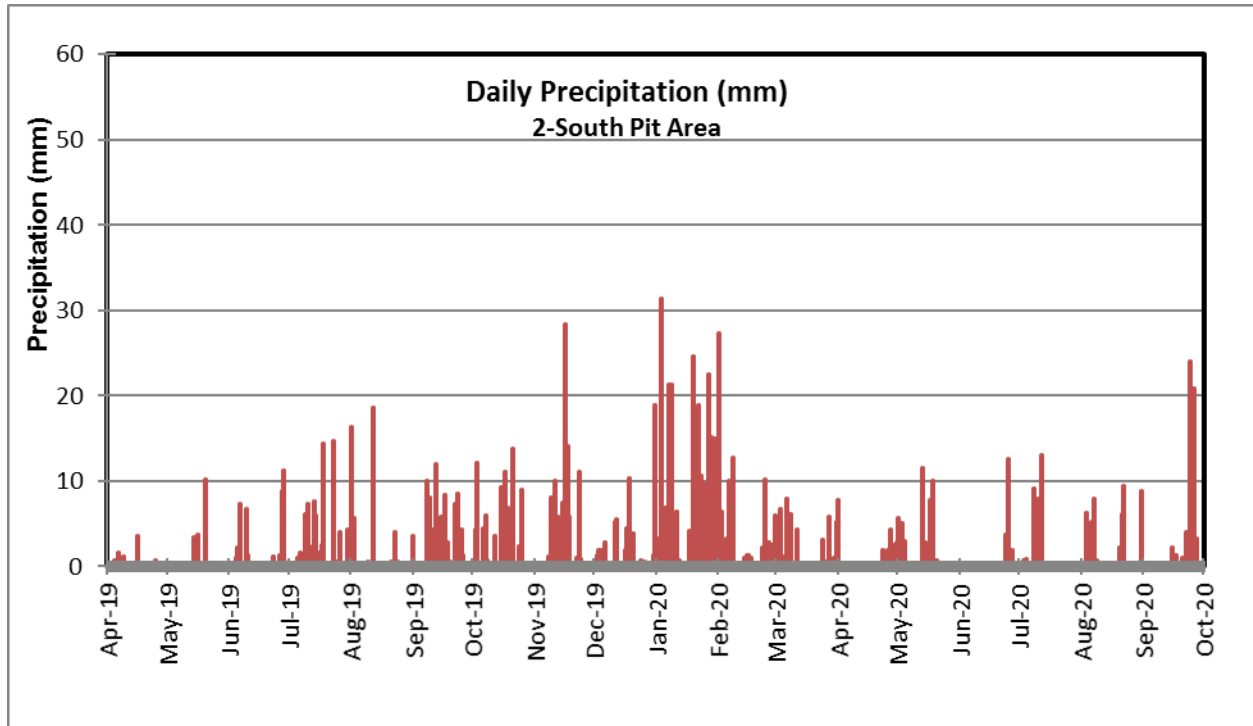


Figure 1: Daily Precipitation 2-South Pit Area (mm)

RECEIVING ENVIRONMENT WATER QUALITY:

Preamble – Water Hardness

For the purposes of this report, the water quality guideline(s) (WQG) for hardness dependent parameters has been derived using site appropriate background values (i.e. monitoring location WA hardness ~30mg/L). Quinsam Coal has adopted this approach for the Iron River to provide a conservative comparison of receiving environment water quality.

LAKES

Lake sampling commenced July 9th following the 5 samples in 30 days approach. This program included Long Lake (LLM) and Middle Quinsam Lake (MQL). The November 1st, 2019 permit amendment 7008 reduced the monitoring program therefore, No Name and Lower Quinsam Lakes are now only monitored in spring. Appendix I, Table 27 displays the depth profiling field results with Tables 28 through 36 displaying the water chemistry results compared to guidelines.

Table 1: Summary of Water Quality Guideline Observation for Lakes

SUMMARY OF WATER QUALITY GUIDELINE OBSERVATIONS AT RECEIVING MONITORING LOCATIONS									
EMS ID & Station Code	Date	Parameter	Water Quality Guidelines			Results above Guidelines			Notes
			WQG-Max	WQG-Min	WQG-Ave	Max	Min	Summer 5 in 30 Average	
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
E206619-LLM (9m-21m depths)	Jul 22, Aug 5	pH	9.00	6.50			6.25		pH resulted in <6.5 in 20/105 results at 9m to 21m depths. (2/5) weeks resulted in <6.5 in the hypolimnion.
	5 in 30	DO		3.00			1.10		D.O. resulted in <3.00 mg/L in 19/105 results at 16m to 21m depths. (5/5) weeks resulted in DO <3.00mg/L in the hypolimnion.
E206619 - LLM1	5 in 30	Cu-D	0.002		0.0003			0.00036	
E206619 - LLM4	5 in 30	Cu-D	0.002		0.0003			0.00031	
E206619 - LLM4	5 in 30	P-T			0.007			0.00706	
E206619 - LLM9	5 in 30	Cu-D	0.002		0.0003			0.00032	
E206619 - LLM9	5 in 30	Cu-D	0.002		0.0003			0.00031	
E206619 - LLM8	5 in 30	SO-4			128			130	
E206618 - MQL1	5 in 30	Cu-D	0.002		0.0003			0.00049	
E206618 - MQL4	5 in 30	Cu-D	0.002		0.0003			0.00049	
E206618 - MQL4	5 in 30	Cu-D	0.002		0.0003			0.00049	
E206618 - MQL9	5 in 30	P-T			0.006			0.00856	
E206618 - MQLB	5 in 30	Cu-D	0.002		0.0003			0.0005	
E206618 - MQLB	5 in 30	Cu-D	0.002		0.0003			0.00039	
LLEZ2	5 in 30	P-T			0.007			0.0119	

Noteworthy observations resulting from the summer lake monitoring program include:

- Average sulphate concentrations were measured at or below the chronic water quality guideline (128 mg/L) at all depths sampled (1 metre (1m), 4 metre (4m), 9 metre (9m) and 1 metre from bottom (1MB)) except at in Long lake.
- In Long lake sulphate accumulates at depth with average sulphate resulting in 54 mg/L at 1m, 61 mg/L at 4m and 118 mg/L at 9m and 130 mg/L at 1MB (Figure 2).
- During summer stratification period there are limited surface contribution to Long lake.
- Long lake displayed pH values < 6.50 at depths 9 to 21 metres in 2 out of 5 weeks of sampling for 20/105 results. The minimum pH was observed to be 6.25.
- Dissolved oxygen in Long lake's hypolimnion (16 to 21 metres) resulted in <3 mg/L in 19 out of 105 results during all weeks of sampling, indicating anoxic conditions at depth.
- Total manganese was not elevated above acute and chronic WQG at depth as a result of anoxic conditions.
- Average sulphate in Middle Quinsam lake (MQL) remained well below chronic guideline level (128 mg/L) throughout the lake averaging 24 mg/L to 36 mg/L, respectively from surface to bottom depths (1m, 4m, 9m and 1MB).
- Average dissolved copper was above the chronic guideline of 0.0003 mg/L in both lakes at 1m, 4m 9m and 1MB depths.
- No results were observed above the acute copper guideline of 0.002 mg/L.
- A conservative guideline (0.003 mg/L for chronic and 0.002 mg/L for acute) was used to evaluate dissolved copper in the receiving environment.
- Phosphorus (P-T) was above the water quality objective (WQO) derived for Middle Quinsam lake Sub-basin in Long and Middle Quinsam Lakes. The objective is different for each lake, Long lake is 0.007 mg/L and Middle lake is 0.006 mg/L.
- In Long lake P-T was above WQO at 4m and where LLE enters the lake near the outlet (LLEZ2).
- In MQL P-T was above the WQO at 9m.

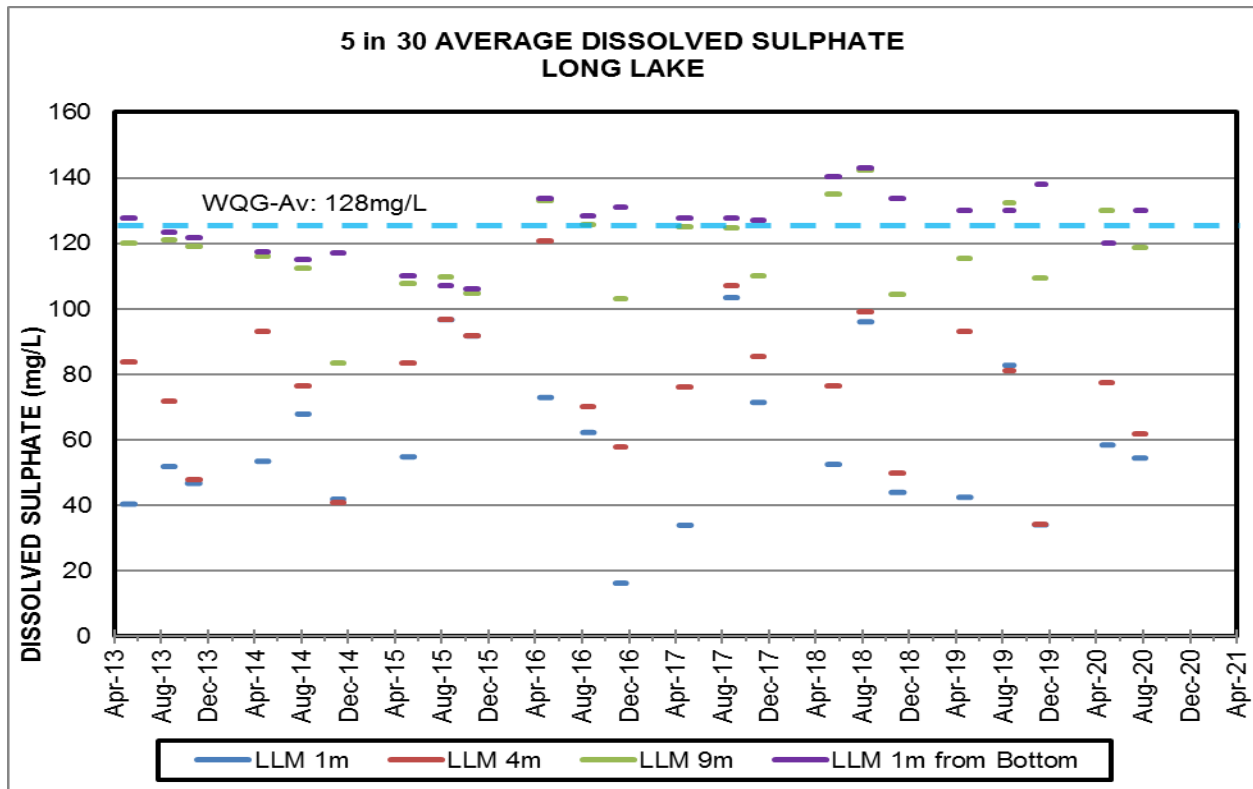


Figure 2: Long Lake Average Sulphate Concentrations

STREAMS AND RIVERS

The 5 samples in 30 days receiving environment program at river and stream sites commenced July 8th and concluded August 4th. Appendix I, Tables 37 through 44 display water quality results from this program compared to water quality guidelines for the Middle Quinsam Lake Sub-basin and Iron River.

Monitoring stations captured within the Middle Quinsam Lake sub-basin include:

- Middle Quinsam Lake Inlet (WA),
- Middle Quinsam Lake Outlet (WB),
- No Name Lake Outlet (NNO),
- Long Lake Outlet (LLO),
- 7-South Quinsam River (7SQR),
- Quinsam River downstream of the confluence with Iron River (IRQR).

Monitoring stations on the Iron River include:

- Iron River Upstream of future 7-South Area 5 development (IR6), and
- Iron River above the confluence with Quinsam River (IR8).

While monitoring location LLE is considered the initial dilution zone (for water quality evaluation purposes) it is important to note that this location is a wetland and represents the uppermost extent of an initial dilution zone for the South water management system discharge into Long Lake.

The Long Lake Seeps (LLSM and LLS) are not considered receiving environment sites but are provided in this table for comparison purposes only.

Table 2: Summary of Guideline Observations for Rivers / Streams, Seeps (LLS, LLSM) and wetland (LLE)

SUMMARY OF WATER QUALITY GUIDELINE OBSERVATIONS AT RECEIVING MONITORING LOCATIONS									
EMS ID & Station Code	Date	Parameter	Water Quality Guidelines			Results above Guidelines			Notes
			WQG-Max	WQG-Min	WQG-Ave	Max	Min	Summer 5 in 30 Average	
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
E217017 - NNO	5 in 30	Cu-D	0.002		0.0003			0.00044	
E0126402 - WA	5 in 30	Cu-D	0.002		0.0003			0.00058	
E0900504 - WB	5 in 30	Cu-D	0.002		0.0003			0.00052	
E292113 - 7SQR	5 in 30	Cu-D	0.002		0.0003			0.00052	
E299256 - IRQR	5 in 30	Cu-D	0.002		0.0003			0.00045	
E297231 - IR6	5 in 30	Cu-D	0.002		0.0003			0.00061	
	5 in 30	Cu-D	0.002		0.0003			0.00057	
E297232 - IR8	28-Jul & 4-Aug	As-T	0.005		0.005	0.00622 & 0.00561			Summer Low Flow (2/5) weeks
E292131 - LLS	Jul 6, Aug 6	Fe-T	1			1.88 & 1.14			
	Jul 6, Aug 6	Fe-D	0.35			1.82 & 1.16			
E292131 - LLSM	Jul-06	Fe-D	0.35			0.437			
E292130 - LLE	Jul 6, Aug 6 & Sep 26	Fe-D	0.35			0.478, 1.06 & 0.471			
	Aug 6 & Sep 26	Fe-T	0.35			2.56 & 1.53			

Noteworthy observations resulting from the river/stream monitoring program include:

- Dissolved copper was above the chronic -WQG (0.0003 mg/L) for the averaged results at all river / stream sites (WA, WB, 7SQR, IRQR, NNO) except Long lake outlet (LLO). These guidelines provide a conservative comparison.
- Total arsenic was above the acute WQG (0.005 mg/L) at Iron River Site 8 (IR8) in 2 out of 5 sampling events.
- All other parameters were below the chronic and acute WQG's for rivers and streams during the summer monitoring.

Noteworthy observations resulting from the Seeps and LLE wetland monitoring locations:

- Flows ceased at the LLSM in late July and at the smaller seep (LLS) in early August.
- Long Lake Seeps display elevated iron in both forms (Fe2+ and Fe3+), with the smaller seep having the lowest flow rate and most elevated results.
- LLE displays elevated concentrations of both total and dissolved forms of iron, Ferric iron (Fe3+) and ferrous iron (Fe2+) due to low dissolved oxygen in the wetland (anoxic conditions).

GROUNDWATER

Groundwater wells are categorized as either ‘in-situ’ or ‘ex-situ’; the definition for each is as follows:

- In-situ: groundwater wells located within the mine workings (disturbance footprint) and therefore represent water accumulated within the mining void. In the absence of groundwater well samples, underground sump samples are used for comparison.
- Ex-situ: groundwater wells located outside the mine workings (disturbance footprint) which reflect water quality flowing from the mine void towards the receiving environment. This also includes baseline and background (up-gradient of workings) groundwater wells.

The groundwater wells outside the mine footprint (ex-situ) are compared to the British Columbia Contaminated Site Regulation (CSR) (BC reg.37/96. O.C. 1480/96), describing water quality standards for freshwater Aquatic Life (AW). The aquatic life standard assumes that a minimum 1:10 dilution is available for groundwater discharged to a freshwater system; together, they are referred to as CSR-AW.

Through Q2, 7 ex-situ groundwater wells, 10 in-situ mine pool locations were monitored. Appendix 1, Tables 46 and 52 provide a description of wells and results of the mine pool / groundwater chemistry.

Exceedances of the CSR-AW in ex-situ groundwater were observed for dissolved concentrations of arsenic, and sulphide as H₂S as displayed in Table 3 below. Arsenic is naturally elevated in the groundwater and is associated with perched water tables interacting with the Dunsmuir sandstone. This has been observed in baseline groundwater monitoring.

Table 3: Summary of Parameters above CSR-AW in Ex-Situ Groundwater

BC CSR Aquatic Life 2019 - Lowest Level Exceedances for Ex-situ Groundwater											
Area Well No.		Freshwater Aquatic Life (C)	3-North Area			River Barrier Pillar			7-South Area		
Date	QU0821GS		QU0821GS	QU0821GD	QU1105S	QU1105D	QU1109S	QU0813A	QU0813A	QU0813B	
Units	13-Aug-20		13-Aug-20	13-Aug-20	23-Sep-20	23-Sep-20	27-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	
Parameter			Replicate						Replicate		
As-D	mg/L	0.05	0.206	0.210	0.152			0.140	0.386	0.392	0.511
H2SEquiv	mg/L	0.02	0.0415	0.0319		0.0755	43.6	0.0383	0.0287	0.0638	

PASSIVE TREATMENT SYSTEM (PTS)

The PTS was operational from May 12th to present. The 15-horsepower pump in borehole QU11-11 (INF) was replaced on May 5th, 2020 and the flange at the well head required repair and was replaced May 11th. The treatment system was operating at 4.0 to 6.7 L/s, averaging 5.8 L/s. Average amount of treated mine water pumped over the quarter (92 days) was 46103 m³. The mine pool water level was measured at 9.9 m

above the pump on July 6th, 2020 and decreased to 5.9 m mid-September. Long lake Middle Seep stopped flowing when the mine pool water level was 8.20 m above the pump. The smaller seep stopping at 7.80 m.

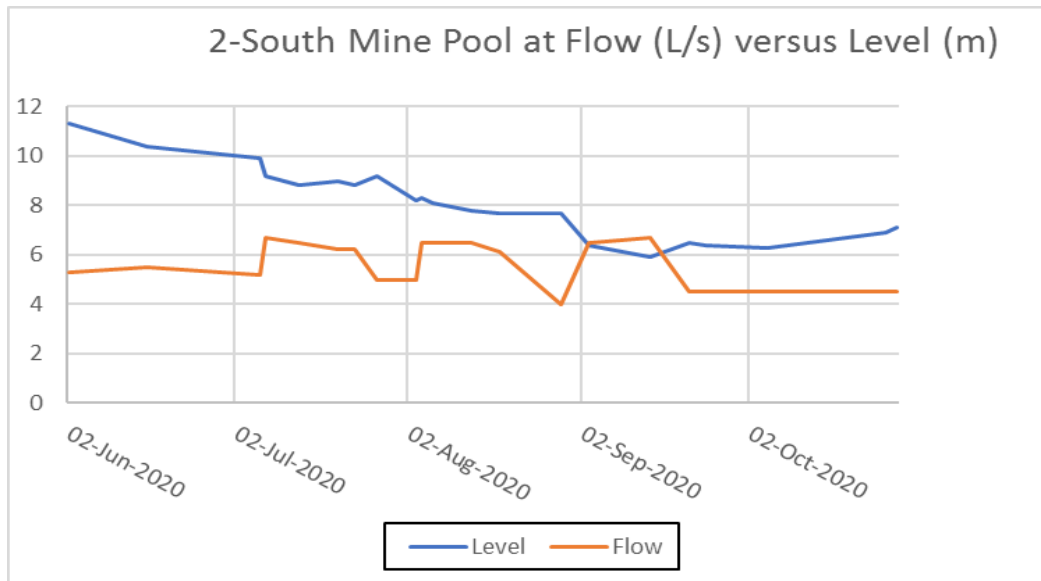


Figure 3: 2-South Mine Pool at INF Flow versus Level.

Table 4: Flow and level table at 2-South QU11-11 (INF)

Date	Level (m)	Flow (L/s)
06-Jul-2020	9.90	5.20
07-Jul-2020	9.20	6.70
13-Jul-2020	8.80	6.50
20-Jul-2020	9.00	6.20
23-Jul-2020	8.80	6.20
27-Jul-2020	9.20	5.00
03-Aug-2020	8.20	5.00
04-Aug-2020	8.30	6.50
06-Aug-2020	8.10	6.50
13-Aug-2020	7.80	6.50
18-Aug-2020	7.70	6.10
29-Aug-2020	7.70	4.00
03-Sep-2020	6.40	6.50
14-Sep-2020	5.90	6.70
21-Sep-2020	6.50	4.50
24-Sep-2020	6.40	4.50
Min	5.90	4.00
Max	9.90	6.70
Avg	8.0	5.8

Average concentrations of dissolved sulphate have been entering the system from the 2-South mine pool measured at INF resulting in 647 mg/L and leaving the system at the Sulphide Polishing Cell (SPCEFF) resulting in 525 mg/L. This has led to a reduction in average sulphate concentrations of 122 mg/L. The station 2-South Inflow (2SI), receives discharge from the PTS, had an average sulphate concentration of 488 mg/L. SPD averaged 319 mg/L for Q2. Overall, the greatest average sulphate reduction exists between INF to SPD resulting in 328 mg/L. Warmer ambient temperatures normally increase microbial metabolic activity within the Biochemical Reactor Cell (BCR) and SPC during summer. Sulphate reduction between INF and Biochemical Reactor (BCR) averaged 45 mg/L. The low average reduction rate between INF and BCR was a result of increased flow rates into the PTS. The system was designed to treat up to 4.5 L/s and average flow rates were 5.8 L/s. Flow rates were increased in an effort to decrease the elevation of the mine pool to below the elevation of the seep. Overall, a sulphate reduction of 300 mg/L was achieved between INF and SPD. This was the original reduction goal for the PTS.

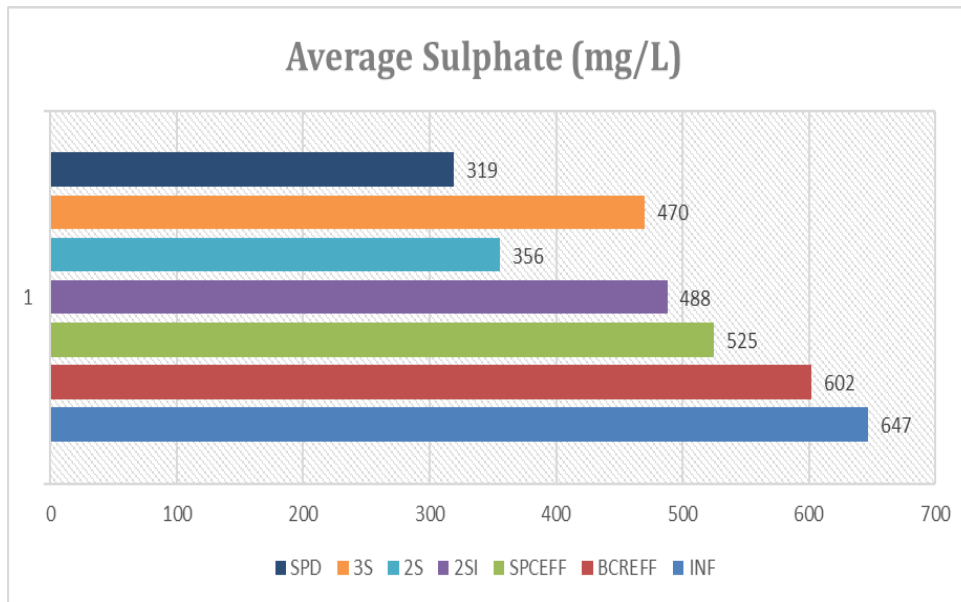


Figure 4: Average Sulphate Concentrations in 2-South Area

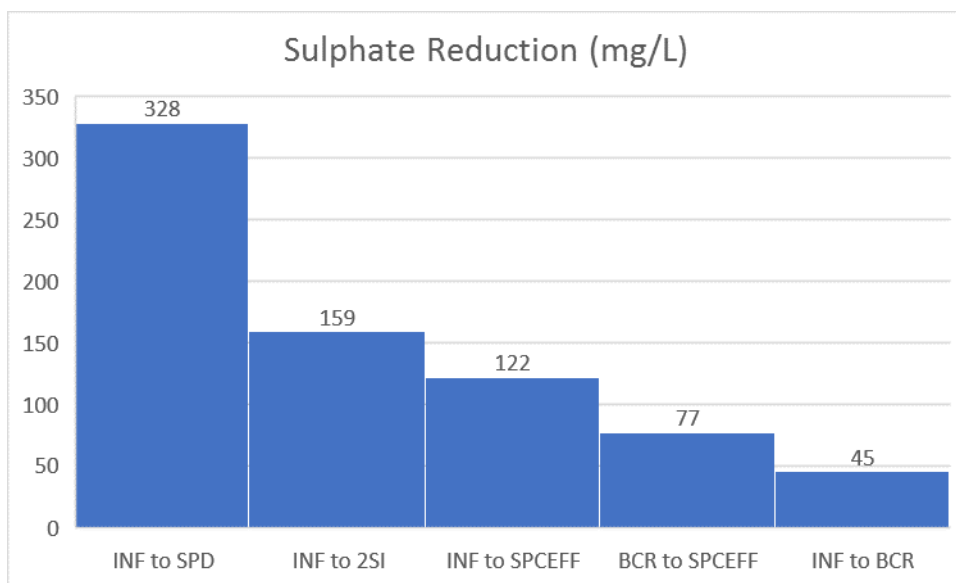


Figure 5: Sulphate Reduction through the Water Management System.

The PTS will continue to operate as it aids in maintaining water cover over the PAG-CCR in 2-South pit and reduces discharge at the Middle Seep into Long Lake during low flow periods, by decreasing the elevation of the mine pool below the elevation of the seep. The period of “no flow” at the Middle Seep into Long Lake (LLSM) has been observed to be extended by pumping down the mine pool.

Further monitoring of the PTS will continue and includes the 2-South and 3-South systems and groundwater well MW004. A relationship between MW004, Seep flow and the elevation of the mine pool at the INF location continues to be developed.

BASELINE BIOLOGICAL / SEDIMENT MONITORING ON THE IRON RIVER:

In early September baseline sediment and biological monitoring was performed on the Iron River at two locations using the Canadian Aquatic Biomonitoring Network (CABIN) approach. Iron River upstream of 7-South Area 5 mine influence (IR6) and downstream of 7-South Area 5 mine influence (IR9) were the locations sampled. The locations and sampling approach were approved by Ministry of Environment and Climate Change Strategy (ENV). At this time only those parameters that have a short holding time were analyzed with all others on hold until further notice. A report will be produced once all results have been received from the laboratory.

QUALITY ASSURANCE QUALITY CONTROL

All replicate sampling was performed in compliance with the *British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2013 Edition*.

As per these guidelines and in accordance with the Quinsam Coal Quality Assurance/Quality Control (QA/QC) program, one field replicate sample was collected per sampling event. Relative Percent Difference, RPD values were calculated in accordance with the B.C. field sampling manual.

CONCLUSION:

Quinsam Coal is dedicated to reducing the environmental impacts as a result of mining on the environment. Overall, there were no permit limit exceedances and few provincial water quality guideline observations on site and in the receiving environment this quarter. This exemplifies that the environmental management practices employed by the environmental department are effective in reducing impacts to the surrounding environment. In closing, we trust the information presented in this report satisfies the conditions under Effluent Permit PE-7008. Please contact the Quinsam Coal Environmental Department if you have any questions or comments.

Appendix I

Q2 Report 2020

Table 1	Description of Effluent, In-Mine Releases & Receiving Environment Monitoring Sites
Table 2	Summary of Permit Limit Exceedances & Permit Non-Compliances
Table 3	Summary of Water Quality Guideline Observations at Receiving Monitoring Locations
Table 4	BC CSR Aquatic Life 2019 - Lowest Level Exceedances for Ex-situ Groundwater
	North Mine - Weekly / Monthly In-Mine Releases Surface Water Quality Monitoring
Table 5	Settling Pond # 1 - Authorized Discharge Location for North Mining Operation (WD / SP4)
Table 6	2-North Pit Sump CCR Water Cover (WP)
Table 7	2-North Portal Sump Effluent (2NPS)
Table 8	Culvert, at Middle Quinsam Lake Road (WC)
	South Mine - Weekly / Monthly In-Mine Releases Surface Water Quality Monitoring
Table 9	Settling Pond # 1 - Authorized Discharge Location for South Mining Operation (SPD/ SP1)
Table 10	Passive Treatment System (PTS) Influent from 2S Mine Pool (INF / QU11-11)
Table 11	PTS Biocemical Reactor Cell (BCR-EFF)
Table 12	PTS Sulphide Polishing Cell (SPCEFF)
Table 13	2 South Pit Inflow (2SI)
Table 14	2 South Pit in Pit Water Cover - CCR Water Cover (2S)
Table 15	2 South Culvert into 3-South Pit - (2SC)
Table 16	3 South Pit- South Pit Main Sump Water - CCR Water Cover (3S)
Table 17	Long Lake Entrance - Last wetland prior to entering Long Lake near the outlet - IDZ (LLE)
	Seep Monitoring South Mine Operation
Table 18	Seep into Long Lake (LLS)
Table 19	Middle Seep into Long Lake (LLSM)

Q2 Report 2020

7-South Mining Area	
Table 20	7 South Surface Decant - Permitted discharge location for the 7-South Mining Operation (7SSD)
Discharge from Settling Ponds - Water Quantity	
Table 21	Discharge from Settling Pond # 4
Table 22	Discharge from Settling Pond # 1
Table 23	Discharge from 7-South Surface Decant
Weekly Field Conductivity (us/cm) & pH Measurements	
Table 24	Field Conductivity (us/cm) & pH (North Mine Area & 7-South)
Table 25	Field Conductivity (us/cm) & pH (South Mine Area)
Table 26	Field Conductivity (us/cm) & pH (Rivers & Wetland)
Physical Water Quality from Lakes-Depth Profiling	
Table 27	Lakes Depth Profiling
Receiving Environment - Lakes -5 in 30 Water Quality Monitoring	
Table 28	Long Lake 1 Metre Depth - (LLM1)
Table 29	Long Lake 4 Metre Depth - (LLM4)
Table 30	Long Lake 9 Metre Depth - (LLM9)
Table 31	Long Lake 1 Metre from Bottom Depth - (LLMB)
Table 32	Middle Quinsam Lake 1 Metre Depth - (MQL1)
Table 33	Middle Quinsam Lake 4 Metre Depth - (MQL4)
Table 34	Middle Quinsam Lake 9 Metre Depth - (MQL9)
Table 35	Middle Quinsam Lake 1 Metre from Bottom Depth - (MQLB)
Table 36	LLE Zone of Dilution 2- In Long lake where LLE enters, near the outlet (LLEZ2)

Q2 Report 2020

Table 37	No Name Lake Outlet - (NNO)
Table 38	Long Lake Outlet - (LLO)
Table 39	Quinsam River at Argonaut Bridge - (WA)
Table 40	Middle Quinsam Lake Outlet - (WB)
Table 41	Quinsam River Downstream of 7 South Mine Operation - (7SQR)
Table 42	Quinsam River Downstream of the Confluence with Iron River - (IRQR)
Table 43	Iron River Upstream of 7SA5 & Upstream of Reclaimed 242 Mine (IR6)
Table 44	Iron River Downstream of 7 South Mine Operation (IR8)
Biological Data	
Table 45	Zooplankton Results
Groundwater	
Table 46	Groundwater Wells - Description
Table 47	Ex-Situ Groundwater
Table 48 - 52	In-Situ Mine Water
Precipitation Results (mm)	
Table 53	Daily Precipitation (mm)
2 South Pit Inflow and Outflow Data	
Table 54	2S Inflow and Outflow
Hydrographs	
Graph 1	Flow vs Precipitation - Quinsam River at Argonaut Bridge
Graph 2	Water Level - Middle Quinsam Lake Outflow
Graph 3	Discharge vs Precipitation - LLE
Graph 4	Flow vs Precipitation - Middle Seep into Long Lake (LLSM)
Graph 5	Flow vs Precipitation - Stream 1 (7S)
Graph 6	Flow vs Precipitation - Iron River (IR8)
Graph 7	Flow vs Precipitation - Long Lake Outlet (LLO)
Graph 8	Flow Rate (L/s) @ 90o V-notch Weir vs Percipition (mm) at 2-South Inflow
Graph 9	Flow Rate (L/s) vs Precipitation (mm) at 2South Outflow - Culvert Entering 3-South (2SC)

Table 1
Q2 Report 2020

Description of Effluent, In-Mine Releases & Receiving Environment Monitoring Sites			
EMS ID #	Monitoring Sites	Abbreviation (Station Code)	*Type of Water (MW, FW or GW)
North Coal Mining Operation			
E207409	Settling Pond #4 Decant	WD	Discharge (MW)
E207411	Culvert, at Middle Quinsam Lake Road	WC	MW & FW
E283433	2-North Portal Sump (Adit Sump)	2NPS	MW
E207412	2-North Pit Sump CCR Cover	WP	PAG-CCR Water Cover - MW
E292126	South Dyke Sump	SDS	MW
South Coal Mine			
E218582	Settling Pond #1 Decant	SPD	Discharge (MW)
E217014	Culvert, Downstream End at Access Road	SPC	MW & FW
E217015	South Pit Main Sump Water	3S	PAG-CCR Water Cover (MW & FW)
E292127	2-South Pit In Pit Water Cover (2-South Standpipe)	2S	PAG-CCR Water Cover (MW & FW)
E292128	1977 Bulk Sample Pit	3S77	MW & FW
E292129	Culvert Downstream of 4 South Access Road	4S-Lo	MW & FW
7-South Mining Operation			
E292069	7-South Surface Decant	7SSD	Discharge (MW & FW)
E292110	7-South Adit Sump	7SPS	MW
Seep Monitoring Sites			
E292131	Long Lake Seeps	LLS & LLSM	MW
	Small seep near the plant (PDS) & groundwater surface near road entering MQL (PDSR)	PDS & PDSR	GW & MW
Receiving Environment Monitoring Sites - Initial Zone of Dilution (IDZ)			
Initial Dilution Zone (IDZ) Monitoring Sites			
E292130	Long Lake Entrance (South end water entering Long Lake)	LLE	IDZ
E292109	Road Crossing Bridge on Stream 1 above the Lower Wetland (Downstream of 7SSD).The site name is Stream 1, 7S.	7S	IDZ
Receiving Water (Streams & Lakes Monitoring Sites) 5 in 30 Monitoring Locations			
North Coal Mining Operation			
E0126402	Quinsam River at Argonaut Road	WA	FW
E206618	Middle Quinsam Lake Centre	MQL (1, 4, 9 & 1m from Bottom)	FW
E0900504	Outflow from Middle Quinsam Lake	WB	FW
South Coal Mine			
E217018	No Name Lake	NNL (1, 4, 9 & 1m from Bottom)	FW
E217017	No Name Lake Outlet	NNO	FW
E206619	Long Lake at Centre	LLM (1, 4, 9 & 1m from Bottom)	FW
E219412	Long Lake Outlet	LLO	FW
7-South Mining Operation (Areas 1 to 4)			
E286930	Quinsam River Upstream of 7-South Mining Operation	QRDS1	FW
E292113	Quinsam River Downstream of 7-South Mining Operation	7SQR	FW
E292112	Lower Wetland Outlet at the confluence of the Quinsam River	LWO	FW
E292118	Lower Quinsam Lake Centre	LQL (1, 4, 9 & 1m from Bottom)	FW
7-South (Proposed) Area 5 Mining Operation			
E297230	Iron River upstream of mining operations	IR1	FW
E297231	Iron River upstream of 7SA5	IR6	FW
E297232	Iron River downstream of 7SA5 and 242 inputs	IR8	FW
E299256	Quinsam River downstream of confluence with Iron River	IRQR	FW
E292118	Lower Quinsam Lake Centre	LQL (1, 4, 9 & 1m from Bottom)	FW
Block 242 Mining Operation (Reclaimed / Not Monitored)			
E225798	Iron River upstream of the 242 influence	Not Monitored	FW
E225808	Iron River downstream of the 242 influence	Not Monitored	FW
N/A	Old portal sump used for collection of water from underground	Reclaimed	FW / GW
Long Lake Seep Passive Treatment System			
N/A	Groundwater well (2-South Mine Pool) influent to the treatment system	QU11-11 (INF-EFF)	MW
N/A	Bio Cell Reactor	BCR-EFF	MW
N/A	Sulphide Polishing Cell	SPC-EFF	MW
* MW= Mine Water, FW= Freshwater, GW =Groundwater IDZ = Intial Dilution Zone			

Table 2
Q2 Report 2020

SUMMARY OF PERMIT LIMIT EXCEEDANCES & PERMIT NON-COMPLIANCES							
EMS ID & Site Name	Permit Limit Exceedance (P) or Non-Compliance (PNC)	Parameter Exceeded / Other	Result (mg/L)	Requirement	Date	Non-Compliance Reason	Number of events or period for PNC, P or spill event.
There were no permit limit exceedances or non-compliance in Q2							

Table 3
Q2 Report 2020

SUMMARY OF WATER QUALITY GUIDELINE OBSERVATIONS AT RECEIVING MONITORING LOCATIONS									
EMS ID & Station Code	Date	Parameter	Water Quality Guidelines			Results above Guidelines			Notes
			WQG-Max	WQG-Min	WQG-Ave	Max	Min	Summer 5 in 30 Average	
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
E217017 - NNO	5 in 30	Cu-D	0.002		0.0003			0.00044	
E0126402 - WA	5 in 30	Cu-D	0.002		0.0003			0.00058	
E0900504 - WB	5 in 30	Cu-D	0.002		0.0003			0.00052	
E292113 -7SQR	5 in 30	Cu-D	0.002		0.0003			0.00052	
E299256 - IRQR	5 in 30	Cu-D	0.002		0.0003			0.00045	
E297231 - IR6	5 in 30	Cu-D	0.002		0.0003			0.00061	
	5 in 30	Cu-D	0.002		0.0003			0.00057	
E297232 -IR8	28-Jul & 4-Aug	As-T	0.005		0.005	0.00622 & 0.00561			Summer Low Flow (2/5) weeks
E292131 - LLS	Jul 6, Aug 6	Fe-T	1			1.88 & 1.14			
	Jul 6, Aug 6	Fe-D	0.35			1.82 & 1.16			
E292131 - LLSM	Jul-06	Fe-D	0.35			0.437			
E292130 - LLE	Jul 6, Aug 6 & Sep 26	Fe-D	0.35			0.478, 1.06 & 0.471			
	Aug 6 & Sep 26	Fe-T	0.35			2.56 & 1.53			

Table 4
Q2 Report 2020

BC CSR Aquatic Life 2019 - Lowest Level Exceedances for Ex-situ Groundwater											
Parameter	Area	Freshwater Aquatic Life (C)	3-North Area			River Barrier Pillar			7-South Area		
	Well No.		QU0821GS	QU0821GS	QU0821GD	QU1105S	QU1105D	QU1109S	QU0813A	QU0813A	QU0813B
	Date Units		13-Aug-20	13-Aug-20	13-Aug-20	23-Sep-20	23-Sep-20	27-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20
			Replicate						Replicate		
As-D	mg/L	0.05	0.206	0.210	0.152			0.140	0.386	0.392	0.511
H2SEquiv	mg/L	0.02	0.0415	0.0319		0.0755	43.6	0.0383	0.0287	0.0638	

Table 6 Q2 Report 2020

EMS ID:	E207412		E207412		E207412			
Station Name:	2 North PR PAG-CCR		2 North PR PAG-CCR		2 North PR PAG-CCR			
Station Code:	WP	WP	WP					
Date	6-Jul-20	6-Aug-20	6-Sep-20	Avg.	Min.	Max.	No.	
Lab Report:	C046962	C055513	C064714					
TSS	mg/L	2.0	1.2	3.2	2.1	1.2	3.2	3
SO4-D	mg/L	750	750	650	716	650	750	3
Alk-T	mg/L	190	390	410	330	190	410	3
Acidity83	mg/L	<1.0	<1.0	1.4	0.80	<1.0	1.4	3
Hard-T	mg/L	251	352	336	313	251	352	3
Ag-D	mg/L	<0.00010	<0.000020	<0.000020	0.0000233	<0.000020	<0.00010	3
Ag-T	mg/L	<0.000040	<0.000040	<0.000020	0.0000167	<0.000020	<0.000040	3
Al-D	mg/L	<0.015	<0.0030	<0.0030	0.00350	<0.0030	<0.015	3
Al-T	mg/L	0.0345	<0.0060	0.0062	0.01457	<0.0060	0.0345	3
As-D	mg/L	0.00106	0.00125	0.00107	0.00113	0.00106	0.00125	3
As-T	mg/L	0.00107	0.00152	0.00149	0.00136	0.00107	0.00152	3
Ba-D	mg/L	0.0141	0.0177	0.0174	0.0164	0.0141	0.0177	3
Ba-T	mg/L	0.0126	0.0180	0.0195	0.0167	0.0126	0.0195	3
B-D	mg/L	1.13	0.942	0.962	1.011	0.942	1.13	3
Be-D	mg/L	<0.00050	<0.00010	<0.00010	0.000117	<0.00010	<0.00050	3
Be-T	mg/L	<0.00020	<0.00020	<0.00010	0.000083	<0.00010	<0.00020	3
Bi-D	mg/L	<0.0050	<0.0010	<0.0010	0.00117	<0.0010	<0.0050	3
Bi-T	mg/L	<0.0020	<0.0020	<0.0010	0.00083	<0.0010	<0.0020	3
B-T	mg/L	0.92	0.94	1.06	0.97	0.92	1.06	3
Ca-D	mg/L	77.1	123	112	104.0	77.1	123	3
Ca-T	mg/L	70.2	115	111	98.7	70.2	115	3
Cd-D	mg/L	<0.000050	<0.000010	<0.000010	0.0000117	<0.000010	<0.000050	3
Cd-T	mg/L	<0.000020	<0.000020	<0.000010	0.0000083	<0.000010	<0.000020	3
Co-D	mg/L	<0.0010	<0.00020	<0.00020	0.000233	<0.00020	<0.0010	3
Co-T	mg/L	<0.00040	<0.00040	<0.00020	0.000167	<0.00020	<0.00040	3
Cr-D	mg/L	<0.0050	<0.0010	<0.0010	0.00117	<0.0010	<0.0050	3
Cr-T	mg/L	<0.0020	<0.0020	<0.0010	0.00083	<0.0010	<0.0020	3
Cu-D	mg/L	0.0046	0.00049	0.00034	0.00181	0.00034	0.0046	3
Cu-T	mg/L	0.0025	<0.0010	0.00051	0.00117	<0.0010	0.0025	3
Fe-D	mg/L	0.074	0.118	0.0410	0.0777	0.0410	0.118	3
Fe-T	mg/L	0.139	0.223	0.232	0.198	0.139	0.232	3
Hard-D	mg/L	279	372	340	330.3	279	372	3
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	0.00000095	<0.0000019	<0.0000019	3
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	0.00000095	<0.0000019	<0.0000019	3
K-D	mg/L	5.35	4.98	5.33	5.22	4.98	5.35	3
K-T	mg/L	4.76	5.07	5.31	5.05	4.76	5.31	3
Li-D	mg/L	0.014	0.0116	0.0137	0.0131	0.0116	0.014	3
Li-T	mg/L	0.0116	0.0129	0.0106	0.0117	0.0106	0.0129	3
Mg-D	mg/L	20.9	16.0	14.7	17.2	14.7	20.9	3
Mg-T	mg/L	18.3	15.9	14.4	16.2	14.4	18.3	3
Mn-D	mg/L	0.0161	0.0315	0.0032	0.0169	0.0032	0.0315	3
Mn-T	mg/L	0.0210	0.0375	0.0251	0.0279	0.0210	0.0375	3
Mo-D	mg/L	<0.0050	<0.0010	<0.0010	0.00117	<0.0010	<0.0050	3
Mo-T	mg/L	<0.0020	<0.0020	<0.0010	0.00083	<0.0010	<0.0020	3
Na-D	mg/L	360	343	351	351.3	343	360	3
Na-T	mg/L	313	355	366	344.7	313	366	3
Ni-D	mg/L	<0.0050	<0.0010	<0.0010	0.00117	<0.0010	<0.0050	3
Ni-T	mg/L	<0.0020	<0.0020	<0.0010	0.00083	<0.0010	<0.0020	3
Pb-D	mg/L	<0.0010	<0.00020	<0.00020	0.000233	<0.00020	<0.0010	3
Pb-T	mg/L	<0.00040	<0.00040	<0.00020	0.000167	<0.00020	<0.00040	3
Sb-D	mg/L	<0.0025	<0.00050	<0.00050	0.000583	<0.00050	<0.0025	3
Sb-T	mg/L	<0.0010	<0.0010	<0.00050	0.000417	<0.00050	<0.0010	3
S-D	mg/L	285	248	243	258.7	243	285	3
Se-D	mg/L	<0.00050	<0.00010	<0.00010	0.000117	<0.00010	<0.00050	3
Se-T	mg/L	<0.00020	<0.00020	<0.00010	0.000083	<0.00010	<0.00020	3
Si-D	mg/L	<0.50	2.72	3.45	2.140	<0.50	3.45	3
Si-T	mg/L	0.31	2.62	3.26	2.06	0.31	3.26	3
Sn-D	mg/L	<0.025	<0.0050	<0.0050	0.00583	<0.0050	<0.025	3
Sn-T	mg/L	<0.010	<0.010	<0.0050	0.00417	<0.0050	<0.010	3
Sr-D	mg/L	1.32	1.42	1.51	1.42	1.32	1.51	3
Sr-T	mg/L	1.16	1.46	1.43	1.35	1.16	1.46	3
S-T	mg/L	258	251	273	260.7	251	273	3
Ti-D	mg/L	<0.025	<0.0050	<0.0050	0.00583	<0.0050	<0.025	3
Ti-T	mg/L	<0.010	<0.010	<0.0050	0.00417	<0.0050	<0.010	3
Th-D	mg/L	<0.000050	<0.000010	<0.000010	0.0000117	<0.000010	<0.000050	3
Th-T	mg/L	<0.000020	<0.000020	<0.000010	0.0000083	<0.000010	<0.000020	3
Zn-D	mg/L	<0.025	<0.0050	<0.0050	0.00583	<0.0050	<0.025	3
Zn-T	mg/L	<0.010	<0.010	<0.0050	0.00417	<0.0050	<0.010	3
N-NH3	mg/L	0.016	<0.015	0.022	0.0152	<0.015	0.022	3
N-NO23	mg/L	<0.020	<0.020	<0.020	0.0100	<0.020	<0.020	3
P-T	mg/L	0.012	<0.0030	<0.0030	0.00500	<0.0030	0.012	3
DOC	mg/L							
OG	mg/L							

Notes:

Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 7 Q2 Report 2020

EMS ID: Station Name:		E207411 North Pit Culvert	E207411 North Pit Culvert	E207411 North Pit Culvert				
Station Code:		WC	WC	WC				
Date	Lab Report:	6-Jul-20 C046962	6-Aug-20 C055513	8-Sep-20 C064714	Avg.	Min.	Max.	No.
TSS	mg/L	<1.0	2.0	<1.0	1.00	<1.0	2.0	3
SO4-D	mg/L	600	660	610	623.3	600	660	3
Alk-T	mg/L							
Acidity83	mg/L							
Hard-T	mg/L		344		344.0	344	344	1
Ag-D	mg/L		<0.000020		0.0000100	<0.000020	<0.000020	1
Ag-T	mg/L		<0.000040		0.0000200	<0.000040	<0.000040	1
Al-D	mg/L		<0.0030		0.00150	<0.0030	<0.0030	1
Al-T	mg/L		<0.0060		0.00300	<0.0060	<0.0060	1
As-D	mg/L		0.00057		0.00057	0.00057	0.00057	1
As-T	mg/L		0.00072		0.00072	0.00072	0.00072	1
Ba-D	mg/L		0.0180		0.0180	0.0180	0.0180	1
Ba-T	mg/L		0.0176		0.0176	0.0176	0.0176	1
B-D	mg/L		0.900		0.900	0.900	0.900	1
Be-D	mg/L		<0.00010		0.000050	<0.00010	<0.00010	1
Be-T	mg/L		<0.00020		0.000100	<0.00020	<0.00020	1
Bi-D	mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Bi-T	mg/L		<0.0020		0.00100	<0.0020	<0.0020	1
B-T	mg/L		0.90		0.90	0.90	0.90	1
Ca-D	mg/L		118		118.0	118	118	1
Ca-T	mg/L		113		113.0	113	113	1
Cd-D	mg/L		<0.000010		0.0000050	<0.000010	<0.000010	1
Cd-T	mg/L		<0.000020		0.0000100	<0.000020	<0.000020	1
Co-D	mg/L		<0.000020		0.000100	<0.00020	<0.00020	1
Co-T	mg/L		<0.00040		0.000200	<0.00040	<0.00040	1
Cr-D	mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Cr-T	mg/L		<0.0020		0.00100	<0.0020	<0.0020	1
Cu-D	mg/L		0.00020		0.00020	0.00020	0.00020	1
Cu-T	mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Fe-D	mg/L		0.0183		0.0183	0.0183	0.0183	1
Fe-T	mg/L		0.088		0.088	0.088	0.088	1
Hard-D	mg/L		359		359.0	359	359	1
Hg-D	mg/L		<0.0000019		0.00000095	<0.0000019	<0.0000019	1
Hg-T	mg/L		<0.0000019		0.00000095	<0.0000019	<0.0000019	1
K-D	mg/L		4.82		4.82	4.82	4.82	1
K-T	mg/L		4.77		4.77	4.77	4.77	1
Li-D	mg/L		0.0109		0.0109	0.0109	0.0109	1
Li-T	mg/L		0.0121		0.0121	0.0121	0.0121	1
Mg-D	mg/L		15.8		15.8	15.8	15.8	1
Mg-T	mg/L		14.8		14.8	14.8	14.8	1
Mn-D	mg/L		0.0157		0.0157	0.0157	0.0157	1
Mn-T	mg/L		0.0156		0.0156	0.0156	0.0156	1
Mo-D	mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Mo-T	mg/L		<0.0020		0.00100	<0.0020	<0.0020	1
Na-D	mg/L		330		330.0	330	330	1
Na-T	mg/L		324		324.0	324	324	1
Ni-D	mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Ni-T	mg/L		<0.0020		0.00100	<0.0020	<0.0020	1
Pb-D	mg/L		<0.00020		0.000100	<0.00020	<0.00020	1
Pb-T	mg/L		<0.00040		0.000200	<0.00040	<0.00040	1
Sb-D	mg/L		<0.00050		0.000250	<0.00050	<0.00050	1
Sb-T	mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
S-D	mg/L		240		240.0	240	240	1
Se-D	mg/L		<0.00010		0.000050	<0.00010	<0.00010	1
Se-T	mg/L		<0.00020		0.000100	<0.00020	<0.00020	1
Si-D	mg/L		3.23		3.23	3.23	3.23	1
Si-T	mg/L		3.20		3.20	3.20	3.20	1
Sn-D	mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
Sn-T	mg/L		<0.010		0.0050	<0.010	<0.010	1
Sr-D	mg/L		1.42		1.42	1.42	1.42	1
Sr-T	mg/L		1.38		1.38	1.38	1.38	1
S-T	mg/L		234		234.0	234	234	1
Ti-D	mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
Ti-T	mg/L		<0.010		0.0050	<0.010	<0.010	1
Th-D	mg/L		<0.000010		0.0000050	<0.000010	<0.000010	1
Th-T	mg/L		<0.000020		0.0000100	<0.000020	<0.000020	1
Zn-D	mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
Zn-T	mg/L		<0.010		0.0050	<0.010	<0.010	1
N-NH3	mg/L							
N-NO23	mg/L							
P-T	mg/L							
DOC	mg/L							
OG	mg/L							

Notes:
Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 8 Q2 Report 2020

EMS ID:	E283433		E283433		E283433			
Station Name:	2 North Portal Sump 2 North Portal Sump 2 North Portal Sump							
Station Code:	2NPS		2NPS		2NPS			
Date		6-Jul-20	6-Aug-20	8-Sep-20	Avg.	Min.	Max.	No.
Lab Report:		C046962	C055513	C064714				
TSS	mg/L							
SO4-D	mg/L	930	960	1000	963.3	930	1000	3
Alk-T	mg/L	300	310	320	310.0	300	320	3
Acidity83	mg/L	7.9	5.0	10.7	7.9	5.0	10.7	3
Hard-T	mg/L	741	769	751	753.7	741	769	3
Ag-D	mg/L	<0.000040	<0.000040	<0.000040	0.0000200	<0.000040	<0.000040	3
Ag-T	mg/L	<0.000040	<0.000040	<0.000020	0.0000167	<0.000020	<0.000040	3
Al-D	mg/L	<0.0060	<0.0060	0.0181	0.00803	<0.0060	0.0181	3
Al-T	mg/L	0.0133	0.0330	0.0518	0.0327	0.0133	0.0518	3
As-D	mg/L	0.00066	0.00041	0.00050	0.00052	0.00041	0.00066	3
As-T	mg/L	0.00099	0.00086	0.00080	0.00088	0.00080	0.00099	3
Ba-D	mg/L	0.0109	0.0126	0.0120	0.0118	0.0109	0.0126	3
Ba-T	mg/L	0.0114	0.0124	0.0132	0.0123	0.0114	0.0132	3
B-D	mg/L	0.75	0.82	0.90	0.82	0.75	0.90	3
Be-D	mg/L	<0.00020	<0.00020	<0.00020	0.000100	<0.00020	<0.00020	3
Be-T	mg/L	<0.00020	<0.00020	<0.00010	0.000083	<0.00010	<0.00020	3
Bi-D	mg/L	<0.0020	<0.0020	<0.0020	0.00100	<0.0020	<0.0020	3
Bi-T	mg/L	<0.0020	<0.0020	<0.0010	0.00083	<0.0010	<0.0020	3
B-T	mg/L	0.79	0.74	0.875	0.802	0.74	0.875	3
Ca-D	mg/L	254	274	255	261.0	254	274	3
Ca-T	mg/L	250	262	257	256.3	250	262	3
Cd-D	mg/L	<0.000020	<0.000020	<0.000020	0.0000100	<0.000020	<0.000020	3
Cd-T	mg/L	<0.000020	<0.000020	<0.000010	0.0000083	<0.000010	<0.000020	3
Co-D	mg/L	0.00080	0.00047	0.00109	0.00079	0.00047	0.00109	3
Co-T	mg/L	0.00082	0.00051	0.00101	0.00078	0.00051	0.00101	3
Cr-D	mg/L	<0.0020	<0.0020	<0.0020	0.00100	<0.0020	<0.0020	3
Cr-T	mg/L	<0.0020	<0.0020	<0.0010	0.00083	<0.0010	<0.0020	3
Cu-D	mg/L	<0.00040	<0.00040	0.00045	0.000283	<0.00040	0.00045	3
Cu-T	mg/L	<0.0010	<0.0010	0.00074	0.00058	<0.0010	0.00074	3
Fe-D	mg/L	0.015	0.011	0.014	0.013	0.011	0.015	3
Fe-T	mg/L	0.286	0.202	0.276	0.255	0.202	0.286	3
Hard-D	mg/L	749	804	751	768.0	749	804	3
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	0.00000095	<0.0000019	<0.0000019	3
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	0.00000095	<0.0000019	<0.0000019	3
K-D	mg/L	3.69	3.73	3.82	3.75	3.69	3.82	3
K-T	mg/L	3.85	3.75	3.85	3.82	3.75	3.85	3
Li-D	mg/L	0.0112	0.0119	0.0132	0.0121	0.0112	0.0132	3
Li-T	mg/L	0.0124	0.0119	0.0098	0.0114	0.0098	0.0124	3
Mg-D	mg/L	28.0	29.4	27.9	28.4	27.9	29.4	3
Mg-T	mg/L	28.3	27.9	26.4	27.5	26.4	28.3	3
Mn-D	mg/L	0.205	0.102	0.219	0.175	0.102	0.219	3
Mn-T	mg/L	0.211	0.0968	0.239	0.1823	0.0968	0.239	3
Mo-D	mg/L	<0.0020	<0.0020	<0.0020	0.00100	<0.0020	<0.0020	3
Mo-T	mg/L	<0.0020	<0.0020	<0.0010	0.00083	<0.0010	<0.0020	3
Na-D	mg/L	226	222	237	228.3	222	237	3
Na-T	mg/L	230	227	241	232.7	227	241	3
Ni-D	mg/L	0.0021	<0.0020	0.0031	0.00207	<0.0020	0.0031	3
Ni-T	mg/L	0.0021	0.0020	0.0032	0.0024	0.0020	0.0032	3
Pb-D	mg/L	<0.00040	<0.00040	<0.00040	0.000200	<0.00040	<0.00040	3
Pb-T	mg/L	<0.00040	<0.00040	<0.00020	0.000167	<0.00020	<0.00040	3
Sb-D	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Sb-T	mg/L	<0.0010	<0.0010	<0.00050	0.000417	<0.00050	<0.0010	3
S-D	mg/L	318	313	319	316.7	313	319	3
Se-D	mg/L	<0.00020	<0.00020	0.00020	0.000133	<0.00020	0.00020	3
Se-T	mg/L	<0.00020	<0.00020	<0.00010	0.000083	<0.00010	<0.00020	3
Si-D	mg/L	2.84	3.13	3.22	3.06	2.84	3.22	3
Si-T	mg/L	2.95	2.96	3.35	3.09	2.95	3.35	3
Sn-D	mg/L	<0.010	<0.010	<0.010	0.0050	<0.010	<0.010	3
Sn-T	mg/L	<0.010	<0.010	<0.0050	0.00417	<0.0050	<0.010	3
Sr-D	mg/L	1.79	1.94	2.00	1.91	1.79	2.00	3
Sr-T	mg/L	1.87	2.04	2.01	1.97	1.87	2.04	3
S-T	mg/L	322	325	400	349.0	322	400	3
Ti-D	mg/L	<0.010	<0.010	<0.010	0.0050	<0.010	<0.010	3
Ti-T	mg/L	<0.010	<0.010	<0.0050	0.00417	<0.0050	<0.010	3
Th-D	mg/L	<0.000020	<0.000020	<0.000020	0.0000100	<0.000020	<0.000020	3
Th-T	mg/L	<0.000020	<0.000020	<0.000010	0.0000083	<0.000010	<0.000020	3
Zn-D	mg/L	<0.010	<0.010	<0.010	0.0050	<0.010	<0.010	3
Zn-T	mg/L	<0.010	<0.010	<0.0050	0.00417	<0.0050	<0.010	3
N-NH3	mg/L							
N-NO23	mg/L							
P-T	mg/L							
DOC	mg/L							
OG	mg/L							

Notes:
Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 9 Q2 Report 2020

EWS ID: Station Name:			E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1	E218582 Settling Pond # 1
-----------------------	--	--	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------

Notes:
Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 11 Q2 Report 2020

EMS ID: Station Name:		BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent	BCR Effluent				
Station Code:		BCREFF	BCREFF	BCREFF	BCREFF	BCREFF	BCREFF	BCREFF	BCREFF	BCREFF	BCREFF	BCREFF	BCREFF	BCREFF				
Date		6-Jul-20	13-Jul-20	20-Jul-20	27-Jul-20	6-Aug-20	13-Aug-20	18-Aug-20	24-Aug-20	3-Sep-20	8-Sep-20	14-Sep-20	21-Sep-20	28-Sep-20	Avg.	Min.	Max.	No.
Lab Report:		C046962	C048926	C050932	C052822	C055513	C057506	C058705	C060788	C063895	C064714	C066684	C069265	C071134				
TSS	mg/L	2.0				2.0					2.0				2.0	2.0	2.0	3
SO4-D	mg/L	650	610	610	640	560	670	540	590	550	590	650	630	540	602	540	670	13
Alk-T	mg/L	210				360					340				303	210	360	3
Acidity83	mg/L	7.1				12.9					20.6				13.5	7.1	20.6	3
Hard-T	mg/L	602				655					665				640.7	602	665	3
Ag-D	mg/L	<0.000020				<0.000040					<0.000020				0.0000133	<0.000020	<0.000040	3
Ag-T	mg/L	<0.000020				<0.000020					<0.000020				0.0000100	<0.000020	<0.000020	3
Al-D	mg/L	<0.0030				0.0079					0.0056				0.00500	<0.0030	0.0079	3
Al-T	mg/L	0.0034				0.0121					0.0066				0.0074	0.0034	0.0121	3
As-D	mg/L	0.00090				0.00031					0.00014				0.00045	0.00014	0.00090	3
As-T	mg/L	0.00112				0.00074					0.00019				0.00068	0.00019	0.00112	3
Ba-D	mg/L	0.0195				0.0359					0.0360				0.0305	0.0195	0.0360	3
Ba-T	mg/L	0.0198				0.0360					0.0353				0.0304	0.0198	0.0360	3
B-D	mg/L	0.735				0.83					0.718				0.761	0.718	0.83	3
Be-D	mg/L	<0.00010				<0.00020					<0.00010				0.000067	<0.00010	<0.00020	3
Be-T	mg/L	<0.00010				<0.00010					<0.00010				0.000050	<0.00010	<0.00010	3
Bi-D	mg/L	<0.0010				<0.0020					<0.0010				0.00067	<0.0010	<0.0020	3
Bi-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
B-T	mg/L	0.722				0.751					0.752				0.742	0.722	0.752	3
Ca-D	mg/L	224				242					243				236.3	224	243	3
Ca-T	mg/L	216				238					241				231.7	216	241	3
Cd-D	mg/L	<0.000010				<0.000020					<0.000010				0.0000067	<0.000010	<0.000020	3
Cd-T	mg/L	<0.000010				0.000047					<0.000010				0.0000190	<0.000010	0.000047	3
Co-D	mg/L	<0.00020				<0.00040					<0.00020				0.000133	<0.00020	<0.00040	3
Co-T	mg/L	<0.00020				<0.00020					<0.00020				0.000100	<0.00020	<0.00020	3
Cr-D	mg/L	<0.0010				<0.0020					<0.0010				0.00067	<0.0010	<0.0020	3
Cr-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Cu-D	mg/L	<0.00020				<0.00040					<0.00020				0.000133	<0.00020	<0.00040	3
Cu-T	mg/L	<0.00050				<0.00050					<0.00050				0.000250	<0.00050	<0.00050	3
Fe-D	mg/L	0.104				0.013					0.0080				0.0417	0.0080	0.104	3
Fe-T	mg/L	0.487				0.017					<0.010				0.1697	<0.010	0.487	3
Hard-D	mg/L	624				666					671				653.7	624	671	3
Hg-D	mg/L	<0.0000019				<0.0000019					<0.0000019				0.00000095	<0.0000019	<0.0000019	3
Hg-T	mg/L	<0.0000019				<0.0000038					<0.0000019				0.00000697	<0.0000019	<0.000038	3
K-D	mg/L	1.94				2.10					2.06				2.03	1.94	2.10	3
K-T	mg/L	1.91				2.16					2.01				2.03	1.91	2.16	3
Li-D	mg/L	0.0213				0.0196					0.0201				0.0203	0.0196	0.0213	3
Li-T	mg/L	0.0222				0.0204					0.0138				0.0188	0.0138	0.0222	3
Mg-D	mg/L	15.9				15.3					15.4				15.5	15.3	15.9	3
Mg-T	mg/L	15.2				14.8					15.5				15.2	14.8	15.5	3
Mn-D	mg/L	0.0483				0.292					0.303				0.2144	0.0483	0.303	3
Mn-T	mg/L	0.100				0.268					0.324				0.231	0.100	0.324	3
Mo-D	mg/L	<0.0010				<0.0020					<0.0010				0.00067	<0.0010	<0.0020	3
Mo-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Na-D	mg/L	122				118					114				118.0	114	122	3
Na-T	mg/L	118				121					120				119.7	118	121	3
Ni-D	mg/L	<0.0010				<0.0020					<0.0010				0.00067	<0.0010	<0.0020	3
Ni-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Pb-D	mg/L	<0.00020				<0.00040					<0.00020				0.000133	<0.00020	<0.00040	3
Pb-T	mg/L	<0.00020				<0.00020					<0.00020				0.000100	<0.00020	<0.00020	3
Sb-D	mg/L	<0.00050				<0.0010					<0.00050				0.000333	<0.00050	<0.0010	3
Sb-T	mg/L	<0.00050				<0.00050					<0.00050				0.000250	<0.00050	<0.00050	3
S-D	mg/L	225				191					239				218.3	191	239	3
Se-D	mg/L	<0.00010				0.00576					0.00431				0.003373	<0.00010	0.00576	3
Se-T	mg/L	<0.00010				<0.00010					<0.00010				0.000050	<0.00010	<0.00010	3
Si-D	mg/L	2.51				4.32					4.31				3.71	2.51	4.32	3
Si-T	mg/L	2.59				4.54					3.98				3.70	2.59	4.54	3
Sn-D	mg/L	<0.0050				<0.010					<0.0050				0.00333	<0.0050	<0.010	3
Sn-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Sr-D	mg/L	2.19				2.29					2.52				2.33	2.19	2.52	3
Sr-T	mg/L	2.19				2.53					2.38				2.37	2.19	2.53	3
S-T	mg/L	220				186					207				204.3	186	220	3
Ti-D	mg/L	<0.0050				<0.010					<0.0050				0.00333	<0.0050	<0.010	3
Ti-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Th-D	mg/L	<0.000010				<0.000020					<0.000010				0.0000067	<0.000010	<0.000020	3
Th-T	mg/L	<0.000010				0.000013					<0.000010				0.0000077	<0.000010	0.000013	3
Zn-D	mg/L	<0.0050				<0.010					<0.0050				0.00333	<0.0050	<0.010	3
Zn-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
N-NH3	mg/L	<0.015				0.089					0.40				0.1655	<0.015	0.40	3
N-NO23	mg/L	<0.020				<0.020					<0.020				0.0100	<0.020	<0.020	3
P-T	mg/L	0.0042				0.018					0.010				0.0107	0.0042	0.018	3
DOC	mg/L	2.1													2.1	2.1	2.1	1
OG	mg/L																	

Notes:

Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 12 Q2 Report 2020

EMS ID: Station Name:		Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff	Sulphide Polishing Cell Eff				
Station Code:		SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF	SPCEFF				
Date	Lab Report:	6-Jul-20 C046962	13-Jul-20 C048926	20-Jul-20 C050932	27-Jul-20 C052822	6-Aug-20 C055513	13-Aug-20 C057506	18-Aug-20 C058705	24-Aug-20 C060788	3-Sep-20 C063895	8-Sep-20 C064714	14-Sep-20 C066684	21-Sep-20 C069265	28-Sep-20 C071134	Avg.	Min.	Max.	No.
TSS	mg/L	4.4				14					5.6				8.0	4.4	14	3
SO4-D	mg/L	500	500	500	530	550	580	530	510	460	550	540	550	530	525	460	580	13
Alk-T	mg/L	350				390					360				366.7	350	390	3
Acidity83	mg/L	13.5				14.0					16.3				14.6	13.5	16.3	3
Hard-T	mg/L	623				634					681				646.0	623	681	3
Ag-D	mg/L	<0.000020				<0.000020					<0.000040				0.0000133	<0.000020	<0.000040	3
Ag-T	mg/L	<0.000020				<0.000020					<0.000020				0.0000100	<0.000020	<0.000020	3
Al-D	mg/L	<0.0030				0.0064					<0.0060				0.00363	<0.0030	0.0064	3
Al-T	mg/L	0.0052				0.0146					0.0065				0.0088	0.0052	0.0146	3
As-D	mg/L	0.00104				0.00331					0.00219				0.00218	0.00104	0.00331	3
As-T	mg/L	0.00204				0.00454					0.00291				0.00316	0.00204	0.00454	3
Ba-D	mg/L	0.0536				0.0576					0.0508				0.0540	0.0508	0.0576	3
Ba-T	mg/L	0.0585				0.0559					0.0556				0.0567	0.0556	0.0585	3
B-D	mg/L	0.777				0.781					0.74				0.766	0.74	0.781	3
Be-D	mg/L	<0.00010				<0.00010					<0.00020				0.000067	<0.00010	<0.00020	3
Be-T	mg/L	<0.00010				<0.00010					<0.00010				0.000050	<0.00010	<0.00010	3
Bi-D	mg/L	<0.0010				<0.0010					<0.0020				0.00067	<0.0010	<0.0020	3
Bi-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
B-T	mg/L	0.786				0.751					0.738				0.758	0.738	0.786	3
Ca-D	mg/L	231				239					232				234.0	231	239	3
Ca-T	mg/L	226				230					247				234.3	226	247	3
Cd-D	mg/L	<0.000010				<0.000010					<0.000020				0.0000067	<0.000010	<0.000020	3
Cd-T	mg/L	<0.000010				<0.000010					<0.000010				0.0000050	<0.000010	<0.000010	3
Co-D	mg/L	0.00030				0.00040					0.000200				0.000200	<0.00020	0.00030	3
Co-T	mg/L	0.00033				0.00034					<0.00020				0.000257	<0.00020	0.00034	3
Cr-D	mg/L	<0.0010				<0.0010					<0.0020				0.00067	<0.0010	<0.0020	3
Cr-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Cu-D	mg/L	0.00061				<0.00020					<0.00040				0.000303	<0.00020	0.00061	3
Cu-T	mg/L	0.00213				0.00649					<0.00050				0.002957	<0.00050	0.00649	3
Fe-D	mg/L	0.0252				0.171					0.931				0.3757	0.0252	0.931	3
Fe-T	mg/L	0.792				4.32					1.53				2.214	0.792	4.32	3
Hard-D	mg/L	637				658					644				646.3	637	658	3
Hg-D	mg/L	<0.0000019				<0.0000019					<0.0000019				0.00000095	<0.0000019	<0.0000019	3
Hg-T	mg/L	<0.0000019				<0.0000019					<0.0000019				0.00000095	<0.0000019	<0.0000019	3
K-D	mg/L	2.03				2.13					1.89				2.02	1.89	2.13	3
K-T	mg/L	2.10				2.15					1.99				2.08	1.99	2.15	3
Li-D	mg/L	0.0130				0.0138					0.0156				0.0141	0.0130	0.0156	3
Li-T	mg/L	0.0137				0.0148					0.0111				0.0132	0.0111	0.0148	3
Mg-D	mg/L	14.8				15.0					15.2				15.2	14.8	15.8	3
Mg-T	mg/L	14.3				14.3					15.5				14.7	14.3	15.5	3
Mn-D	mg/L	0.100				0.0650					0.0763				0.0804	0.0650	0.100	3
Mn-T	mg/L	0.105				0.0630					0.0783				0.0821	0.0630	0.105	3
Mo-D	mg/L	<0.0010				<0.0010					<0.0020				0.00067	<0.0010	<0.0020	3
Mo-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Na-D	mg/L	116				116					114				115.3	114	116	3
Na-T	mg/L	115				117					123				118.3	115	123	3
Ni-D	mg/L	<0.0010				<0.0010					<0.0020				0.00067	<0.0010	<0.0020	3
Ni-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Pb-D	mg/L	<0.00020				<0.00020					<0.00040				0.000133	<0.00020	<0.00040	3
Pb-T	mg/L	<0.00020				<0.00020					<0.00020				0.000100	<0.00020	<0.00020	3
Sb-D	mg/L	<0.00050				<0.00050					<0.0010				0.000333	<0.00050	<0.0010	3
Sb-T	mg/L	<0.00050				<0.00050					<0.00050				0.000250	<0.00050	<0.00050	3
S-D	mg/L	177				167					184				176.0	167	184	3
Se-D	mg/L	<0.00010				0.00268					<0.00020				0.000943	<0.00010	0.00268	3
Se-T	mg/L	<0.00010				<0.00010					<0.00010				0.000050	<0.00010	<0.00010	3
Si-D	mg/L	4.42				4.80					4.34				4.52	4.34	4.80	3
Si-T	mg/L	4.46				5.02					4.54				4.67	4.46	5.02	3
Sn-D	mg/L	<0.0050				<0.0050					<0.010				0.00333	<0.0050	<0.010	3
Sn-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Sr-D	mg/L	2.19				2.35					2.40				2.31	2.19	2.40	3
Sr-T	mg/L	2.26				2.45					2.42				2.38	2.26	2.45	3
S-T	mg/L	176				167					205				182.7	167	205	3
Ti-D	mg/L	<0.0050				<0.0050					<0.010				0.00333	<0.0050	<0.010	3
Ti-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Th-D	mg/L	<0.000010				<0.000010					<0.000020				0.0000067	<0.000010	<0.000020	3
Th-T	mg/L	<0.000010				<0.000010					<0.000010				0.0000050	<0.000010	<0.000010	3
Zn-D	mg/L	<0.0050				<0.0050					<0.010				0.00333	<0.0050	<0.010	3
Zn-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
N-NH3	mg/L	<0.015				<0.015					0.42				0.1450	<0.015	0.42	3
N-NO23	mg/L	<0.020				<0.020					<0.020				0.0100	<0.020	<0.020	3
P-T	mg/L	0.023				0.047					0.023				0.031	0.023	0.047	3
DOC	mg/L	2.0													2.0	2.0	2.0	1
OG	mg/L																	

Notes:
Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 13 Q2 Report 2020

EMS ID:		2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow	2 South Inflow				
Station Name:		2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI				
Station Code:		2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI	2SI				
Date	Lab Report:	6-Jul-20	13-Jul-20	20-Jul-20	27-Jul-20	6-Aug-20	13-Aug-20	18-Aug-20	24-Aug-20	3-Sep-20	8-Sep-20	14-Sep-20	21-Sep-20	28-Sep-20	Avg.	Min.	Max.	No.
		C046962	C048926	C050932	C052822	C055513	C057506	C058705	C060788	C063895	C064714	C066684	C069265	C071134				
TSS	mg/L	1.6				2.4					2.0				2.0	1.6	2.4	3
SO4-D	mg/L	420	450	400	450	440	490	550	460	560	550	530	540	510	488	400	560	13
Alk-T	mg/L	300				360					330				330.0	300	360	3
Acidity83	mg/L	3.7				<1.0					4.1				2.77	<1.0	4.1	3
Hard-T	mg/L	493				576					630				566	493	630	3
Ag-D	mg/L	<0.000020				<0.000020					<0.000020				0.0000100	<0.000020	<0.000020	3
Ag-T	mg/L	<0.000020				<0.000020					<0.000020				0.0000100	<0.000020	<0.000020	3
Al-D	mg/L	<0.0030				<0.0030					<0.0030				0.00150	<0.0030	<0.0030	3
Al-T	mg/L	0.0036				0.0041					0.0039				0.0039	0.0036	0.0041	3
As-D	mg/L	0.00026				0.00038					0.00027				0.00030	0.00026	0.00038	3
As-T	mg/L	0.00029				0.00052					0.00032				0.00038	0.00029	0.00052	3
Ba-D	mg/L	0.0396				0.0484					0.0483				0.0454	0.0396	0.0484	3
Ba-T	mg/L	0.0400				0.0466					0.0479				0.0448	0.0400	0.0479	3
B-D	mg/L	0.600				0.683					0.654				0.646	0.600	0.683	3
Be-D	mg/L	<0.00010				<0.00010					<0.00010				0.000050	<0.00010	<0.00010	3
Be-T	mg/L	<0.00010				<0.00010					<0.00010				0.000050	<0.00010	<0.00010	3
Bi-D	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Bi-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
B-T	mg/L	0.610				0.663					0.691				0.655	0.610	0.691	3
Ca-D	mg/L	191				223					229				214.3	191	229	3
Ca-T	mg/L	176				207					227				203.3	176	227	3
Cd-D	mg/L	<0.000010				<0.000010					<0.000010				0.0000050	<0.000010	<0.000010	3
Cd-T	mg/L	<0.000010				<0.000010					<0.000010				0.0000050	<0.000010	<0.000010	3
Co-D	mg/L	<0.00020				0.00021					<0.00020				0.000137	<0.00020	0.00021	3
Co-T	mg/L	<0.00020				0.00023					<0.00020				0.000143	<0.00020	0.00023	3
Cr-D	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Cr-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Cu-D	mg/L	0.00022				<0.00020					<0.00020				0.000140	<0.00020	0.00022	3
Cu-T	mg/L	0.00054				<0.00050					<0.00050				0.000347	<0.00050	0.00054	3
Fe-D	mg/L	0.0504				0.0420					0.0424				0.0449	0.0420	0.0504	3
Fe-T	mg/L	0.188				0.192					0.113				0.164	0.113	0.192	3
Hard-D	mg/L	535				618					639				597	535	639	3
Hg-D	mg/L	<0.0000019									<0.0000019				0.00000095	<0.0000019	<0.0000019	2
Hg-T	mg/L	<0.0000019									<0.0000019				0.00000095	<0.0000019	<0.0000019	2
K-D	mg/L	1.53				1.97					1.89				1.80	1.53	1.97	3
K-T	mg/L	1.46				1.94					1.84				1.75	1.46	1.94	3
Li-D	mg/L	0.0083				0.0106					0.0128				0.0106	0.0083	0.0128	3
Li-T	mg/L	0.0088				0.0118					0.0087				0.0098	0.0087	0.0118	3
Mg-D	mg/L	14.2				14.8					15.9				15.0	14.2	15.9	3
Mg-T	mg/L	13.0				14.2					15.4				14.2	13.0	15.4	3
Mn-D	mg/L	0.0799				0.0742					0.0438				0.0660	0.0438	0.0799	3
Mn-T	mg/L	0.0803				0.0715					0.0492				0.0670	0.0492	0.0803	3
Mo-D	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Mo-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Na-D	mg/L	97.6				110					112				106.5	97.6	112	3
Na-T	mg/L	90.1				110					117				105.7	90.1	117	3
Ni-D	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Ni-T	mg/L	<0.0010				<0.0010					<0.0010				0.00050	<0.0010	<0.0010	3
Pb-D	mg/L	<0.00020				<0.00020					<0.00020				0.000100	<0.00020	<0.00020	3
Pb-T	mg/L	0.00191				<0.00020					<0.00020				0.000703	<0.00020	0.00191	3
Sb-D	mg/L	<0.00050				<0.00050					<0.00050				0.000250	<0.00050	<0.00050	3
Sb-T	mg/L	<0.00050				<0.00050					<0.00050				0.000250	<0.00050	<0.00050	3
S-D	mg/L	150				158					188				165.3	150	188	3
Se-D	mg/L	<0.00010				<0.00010					<0.00010				0.000050	<0.00010	<0.00010	3
Se-T	mg/L	<0.00010				<0.00010					<0.00010				0.000050	<0.00010	<0.00010	3
Si-D	mg/L	4.35				4.80					4.71				4.62	4.35	4.80	3
Si-T	mg/L	4.08				4.99					4.29				4.45	4.08	4.99	3
Sn-D	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Sn-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Sr-D	mg/L	1.72				2.05					2.36				2.04	1.72	2.36	3
Sr-T	mg/L	1.69				2.14					2.12				1.98	1.69	2.14	3
S-T	mg/L	142				162					203				169.0	142	203	3
Ti-D	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Ti-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Th-D	mg/L	<0.000010				<0.000010					<0.000010				0.0000050	<0.000010	<0.000010	3
Th-T	mg/L	<0.000010				<0.000010					<0.000010				0.0000050	<0.000010	<0.000010	3
Zn-D	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
Zn-T	mg/L	<0.0050				<0.0050					<0.0050				0.00250	<0.0050	<0.0050	3
N-NH3	mg/L	<0.015				<0.015					0.31				0.1083	<0.015	0.31	3
N-NO23	mg/L	0.027				<0.020					0.028				0.0217	<0.020	0.028	3
P-T	mg/L	0.0034				<0.0030					<0.0030				0.00213	<0.0030	0.0034	3
DOC	mg/L	2.7													2.7	2.7	2.7	1
OG	mg/L																	

Notes:

Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 14 Q2 Report 2020

EMS ID:		E292127	E292127	E292127				
Station Name:		2 South Pit CCR Water Cover	2 South Pit CCR Water Cover	2 South Pit CCR Water Cover				
Station Code:		25	25	25				
Date		6-Jul-20	6-Aug-20	8-Sep-20	Avg.	Min.	Max.	No.
	Lab Report:	C046962	C055513	C064714				
TSS	mg/L	1.6	2.0		1.8	1.6	2.0	2
SO4-D	mg/L	290	440	340	356	290	440	3
Alk-T	mg/L	100	170	120	130.0	100	170	3
Acidity83	mg/L	<1.0	1.5	<1.0	0.83	<1.0	1.5	3
Hard-T	mg/L	330	462	433	408	330	462	3
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	0.0000100	<0.000020	<0.000020	3
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	0.0000100	<0.000020	<0.000020	3
Al-D	mg/L	<0.0030	0.0246	<0.0030	0.00920	<0.0030	0.0246	3
Al-T	mg/L	0.0047	0.0031	<0.0030	0.00310	<0.0030	0.0047	3
As-D	mg/L	0.00313	0.00568	0.00562	0.00481	0.00313	0.00568	3
As-T	mg/L	0.00356	0.00826	0.00629	0.00604	0.00356	0.00826	3
Ba-D	mg/L	0.0180	0.0430	0.0246	0.0285	0.0180	0.0430	3
Ba-T	mg/L	0.0190	0.0403	0.0275	0.0289	0.0190	0.0403	3
B-D	mg/L	0.358	0.523	0.501	0.461	0.358	0.523	3
Be-D	mg/L	<0.00010	<0.00010	<0.00010	0.000050	<0.00010	<0.00010	3
Be-T	mg/L	<0.00010	<0.00010	<0.00010	0.000050	<0.00010	<0.00010	3
Bi-D	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Bi-T	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
B-T	mg/L	0.349	0.501	0.547	0.466	0.349	0.547	3
Ca-D	mg/L	113	163	138	138.0	113	163	3
Ca-T	mg/L	110	159	145	138.0	110	159	3
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	0.0000050	<0.000010	<0.000010	3
Cd-T	mg/L	0.000019	<0.000010	<0.000010	0.0000097	<0.000010	0.000019	3
Co-D	mg/L	<0.00020	0.00032	<0.00020	0.000173	<0.00020	0.00032	3
Co-T	mg/L	<0.00020	0.00029	<0.00020	0.000163	<0.00020	0.00029	3
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Cu-D	mg/L	0.00048	0.00051	0.00039	0.00046	0.00039	0.00051	3
Cu-T	mg/L	0.00221	<0.00050	<0.00050	0.000903	<0.00050	0.00221	3
Fe-D	mg/L	0.0162	0.0760	0.0445	0.0456	0.0162	0.0760	3
Fe-T	mg/L	0.046	0.084	0.076	0.069	0.046	0.084	3
Hard-D	mg/L	340	480	413	411	340	480	3
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	0.00000095	<0.0000019	<0.0000019	3
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	0.00000095	<0.0000019	<0.0000019	3
K-D	mg/L	1.69	2.15	2.33	2.06	1.69	2.33	3
K-T	mg/L	1.72	2.11	2.36	2.06	1.72	2.36	3
Li-D	mg/L	0.0118	0.0156	0.0179	0.0151	0.0118	0.0179	3
Li-T	mg/L	0.0132	0.0158	0.0136	0.0142	0.0132	0.0158	3
Mg-D	mg/L	13.7	17.4	16.3	15.8	13.7	17.4	3
Mg-T	mg/L	13.3	16.1	17.0	15.5	13.3	17.0	3
Mn-D	mg/L	0.0013	0.122	0.0180	0.0471	0.0013	0.122	3
Mn-T	mg/L	0.0517	0.116	0.0290	0.0656	0.0290	0.116	3
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Na-D	mg/L	39.8	74.4	62.9	59.0	39.8	74.4	3
Na-T	mg/L	39.4	73.0	69.8	60.7	39.4	73.0	3
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	0.000100	<0.00020	<0.00020	3
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	0.000100	<0.00020	<0.00020	3
Sb-D	mg/L	<0.00050	<0.00050	<0.00050	0.000250	<0.00050	<0.00050	3
Sb-T	mg/L	<0.00050	<0.00050	<0.00050	0.000250	<0.00050	<0.00050	3
S-D	mg/L	106	151	150	135.7	106	151	3
Se-D	mg/L	<0.00010	<0.00010	<0.00010	0.000050	<0.00010	<0.00010	3
Se-T	mg/L	<0.00010	<0.00010	<0.00010	0.000050	<0.00010	<0.00010	3
Si-D	mg/L	0.66	3.12	0.88	1.55	0.66	3.12	3
Si-T	mg/L	0.69	3.27	0.80	1.59	0.69	3.27	3
Sn-D	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
Sn-T	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
Sr-D	mg/L	0.846	1.32	1.26	1.142	0.846	1.32	3
Sr-T	mg/L	0.899	1.34	1.23	1.156	0.899	1.34	3
S-T	mg/L	108	152	169	143.0	108	169	3
Ti-D	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
Ti-T	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
Th-D	mg/L	<0.000010	<0.000010	<0.000010	0.0000050	<0.000010	<0.000010	3
Th-T	mg/L	<0.000010	<0.000010	<0.000010	0.0000050	<0.000010	<0.000010	3
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
N-NH3	mg/L							
N-NO23	mg/L							
P-T	mg/L							
DOC	mg/L							
OG	mg/L							

Notes:

Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 15 Q2 Report 2020

EMS ID: Station Name:		2 South Culvert	2 South Culvert	2 South Culvert				
Station Code:		25C	25C	25C				
Date		6-Jul-20	6-Aug-20	8-Sep-20	Avg.	Min.	Max.	No.
	Lab Report:	C046962	C055513	C064714				
TSS	mg/L	1.6			1.6	1.6	1.6	1
SO4-D	mg/L	560	470	470	500.0	470	560	3
Alk-T	mg/L	220	170	230	206.7	170	230	3
Acidity83	mg/L	3.6	<1.0	4.5	2.87	<1.0	4.5	3
Hard-T	mg/L	681	543	701	641	543	701	3
Ag-D	mg/L	<0.000020	<0.000020	<0.000040	0.0000133	<0.000020	<0.000040	3
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	0.0000100	<0.000020	<0.000020	3
Al-D	mg/L	<0.0030	<0.0030	<0.0060	0.00200	<0.0030	<0.0060	3
Al-T	mg/L	<0.0030	0.0044	<0.0030	0.00247	<0.0030	0.0044	3
As-D	mg/L	0.00039	0.00094	0.00036	0.00056	0.00036	0.00094	3
As-T	mg/L	0.00042	0.00116	0.00040	0.00066	0.00040	0.00116	3
Ba-D	mg/L	0.0168	0.0181	0.0161	0.0170	0.0161	0.0181	3
Ba-T	mg/L	0.0170	0.0178	0.0170	0.0173	0.0170	0.0178	3
B-D	mg/L	0.353	0.395	0.42	0.389	0.353	0.42	3
Be-D	mg/L	<0.00010	<0.00010	<0.00020	0.000067	<0.00010	<0.00020	3
Be-T	mg/L	<0.00010	<0.00010	<0.00010	0.000050	<0.00010	<0.00010	3
Bi-D	mg/L	<0.0010	<0.0010	<0.0020	0.00067	<0.0010	<0.0020	3
Bi-T	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
B-T	mg/L	0.359	0.389	0.428	0.392	0.359	0.428	3
Ca-D	mg/L	233	188	238	219.7	188	238	3
Ca-T	mg/L	230	183	238	217.0	183	238	3
Cd-D	mg/L	<0.000010	<0.000010	<0.000020	0.0000067	<0.000010	<0.000020	3
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	0.0000050	<0.000010	<0.000010	3
Co-D	mg/L	<0.00020	<0.00020	<0.00040	0.000133	<0.00020	<0.00040	3
Co-T	mg/L	<0.00020	<0.00020	<0.00020	0.000100	<0.00020	<0.00020	3
Cr-D	mg/L	<0.0010	<0.0010	<0.0020	0.00067	<0.0010	<0.0020	3
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Cu-D	mg/L	<0.00020	0.00029	<0.00040	0.000197	<0.00020	0.00029	3
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	0.000250	<0.00050	<0.00050	3
Fe-D	mg/L	0.0058	0.0211	<0.010	0.0106	<0.010	0.0211	3
Fe-T	mg/L	0.017	0.036	0.010	0.021	0.010	0.036	3
Hard-D	mg/L	693	554	707	651	554	707	3
Hg-D	mg/L			<0.0000019	0.00000095	<0.0000019	<0.0000019	1
Hg-T	mg/L			<0.0000019	0.00000095	<0.0000019	<0.0000019	1
K-D	mg/L	2.45	2.31	2.51	2.42	2.31	2.51	3
K-T	mg/L	2.43	2.33	2.49	2.42	2.33	2.49	3
Li-D	mg/L	0.0096	0.0114	0.0114	0.0108	0.0096	0.0114	3
Li-T	mg/L	0.0109	0.0129	0.0078	0.0105	0.0078	0.0129	3
Mg-D	mg/L	27.0	20.8	27.0	24.9	20.8	27.0	3
Mg-T	mg/L	25.9	20.9	25.6	24.1	20.9	25.9	3
Mn-D	mg/L	0.0063	0.0044	0.0030	0.0046	0.0030	0.0063	3
Mn-T	mg/L	0.0068	0.0051	0.0030	0.0050	0.0030	0.0068	3
Mo-D	mg/L	<0.0010	<0.0010	<0.0020	0.00067	<0.0010	<0.0020	3
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Na-D	mg/L	43.6	47.7	46.9	46.1	43.6	47.7	3
Na-T	mg/L	42.1	48.2	47.5	45.9	42.1	48.2	3
Ni-D	mg/L	<0.0010	<0.0010	<0.0020	0.00067	<0.0010	<0.0020	3
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	3
Pb-D	mg/L	<0.00020	<0.00020	<0.00040	0.000133	<0.00020	<0.00040	3
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	0.000100	<0.00020	<0.00020	3
Sb-D	mg/L	<0.00050	<0.00050	<0.0010	0.000333	<0.00050	<0.0010	3
Sb-T	mg/L	<0.00050	<0.00050	<0.00050	0.000250	<0.00050	<0.00050	3
S-D	mg/L	189	156	195	180.0	156	195	3
Se-D	mg/L	0.00017	<0.00010	0.00022	0.000147	<0.00010	0.00022	3
Se-T	mg/L	0.00014	0.00011	0.00015	0.00013	0.00011	0.00015	3
Si-D	mg/L	2.41	1.72	2.50	2.21	1.72	2.50	3
Si-T	mg/L	2.46	1.71	2.61	2.26	1.71	2.61	3
Sn-D	mg/L	<0.0050	<0.0050	<0.010	0.00333	<0.0050	<0.010	3
Sn-T	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
Sr-D	mg/L	1.38	1.29	1.55	1.41	1.29	1.55	3
Sr-T	mg/L	1.42	1.31	1.49	1.41	1.31	1.49	3
S-T	mg/L	186	165	207	186.0	165	207	3
Ti-D	mg/L	<0.0050	<0.0050	<0.010	0.00333	<0.0050	<0.010	3
Ti-T	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
Th-D	mg/L	<0.000010	<0.000010	<0.000020	0.0000067	<0.000010	<0.000020	3
Th-T	mg/L	<0.000010	<0.000010	<0.000010	0.0000050	<0.000010	<0.000010	3
Zn-D	mg/L	<0.0050	<0.0050	<0.010	0.00333	<0.0050	<0.010	3
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	3
N-NH3	mg/L							
N-NO23	mg/L							
P-T	mg/L							
DOC	mg/L							
OG	mg/L							

Notes:
Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 16 Q2 Report 2020

EMS ID: Station Name:	E217015 3 South Pit	E217015 3 South Pit	E217015 3 South Pit				
Station Code:	35	35	35				
Date	6-Jul-20	6-Aug-20	8-Sep-20	Avg.	Min.	Max.	No.
Lab Report:	C046962	C055513	C064714				
TSS mg/L							
SO4-D mg/L	460	460	490	470.0	460	490	3
Alk-T mg/L	140	150	150	146.7	140	150	3
Acidity83 mg/L	1.8	<1.0	2.4	1.57	<1.0	2.4	3
Hard-T mg/L		559		559.0	559	559	1
Ag-D mg/L		<0.000020		0.0000100	<0.000020	<0.000020	1
Ag-T mg/L		<0.000020		0.0000100	<0.000020	<0.000020	1
Al-D mg/L		<0.0030		0.00150	<0.0030	<0.0030	1
Al-T mg/L		0.0046		0.0046	0.0046	0.0046	1
As-D mg/L		0.00072		0.00072	0.00072	0.00072	1
As-T mg/L		0.00084		0.00084	0.00084	0.00084	1
Ba-D mg/L		0.0164		0.0164	0.0164	0.0164	1
Ba-T mg/L		0.0165		0.0165	0.0165	0.0165	1
B-D mg/L		0.379		0.379	0.379	0.379	1
Be-D mg/L		<0.00010		0.000050	<0.00010	<0.00010	1
Be-T mg/L		<0.00010		0.000050	<0.00010	<0.00010	1
Bi-D mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Bi-T mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
B-T mg/L		0.368		0.368	0.368	0.368	1
Ca-D mg/L		192		192.0	192	192	1
Ca-T mg/L		185		185.0	185	185	1
Cd-D mg/L		<0.000010		0.0000050	<0.000010	<0.000010	1
Cd-T mg/L		<0.000010		0.0000050	<0.000010	<0.000010	1
Co-D mg/L		<0.00020		0.000100	<0.00020	<0.00020	1
Co-T mg/L		<0.00020		0.000100	<0.00020	<0.00020	1
Cr-D mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Cr-T mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Cu-D mg/L		0.00031		0.00031	0.00031	0.00031	1
Cu-T mg/L		<0.00050		0.000250	<0.00050	<0.00050	1
Fe-D mg/L		0.0184		0.0184	0.0184	0.0184	1
Fe-T mg/L		0.030		0.030	0.030	0.030	1
Hard-D mg/L		578		578.0	578	578	1
Hg-D mg/L		<0.0000019		0.00000095	<0.0000019	<0.0000019	1
Hg-T mg/L		<0.0000019		0.00000095	<0.0000019	<0.0000019	1
K-D mg/L		2.39		2.39	2.39	2.39	1
K-T mg/L		2.41		2.41	2.41	2.41	1
Li-D mg/L		0.0105		0.0105	0.0105	0.0105	1
Li-T mg/L		0.0117		0.0117	0.0117	0.0117	1
Mg-D mg/L		23.8		23.8	23.8	23.8	1
Mg-T mg/L		23.8		23.8	23.8	23.8	1
Mn-D mg/L		0.0061		0.0061	0.0061	0.0061	1
Mn-T mg/L		0.0091		0.0091	0.0091	0.0091	1
Mo-D mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Mo-T mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Na-D mg/L		44.9		44.9	44.9	44.9	1
Na-T mg/L		44.3		44.3	44.3	44.3	1
Ni-D mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Ni-T mg/L		<0.0010		0.00050	<0.0010	<0.0010	1
Pb-D mg/L		<0.00020		0.000100	<0.00020	<0.00020	1
Pb-T mg/L		<0.00020		0.000100	<0.00020	<0.00020	1
Sb-D mg/L		<0.00050		0.000250	<0.00050	<0.00050	1
Sb-T mg/L		<0.00050		0.000250	<0.00050	<0.00050	1
S-D mg/L		168		168.0	168	168	1
Se-D mg/L		<0.00010		0.000050	<0.00010	<0.00010	1
Se-T mg/L		<0.00010		0.000050	<0.00010	<0.00010	1
Si-D mg/L		1.47		1.47	1.47	1.47	1
Si-T mg/L		1.43		1.43	1.43	1.43	1
Sn-D mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
Sn-T mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
Sr-D mg/L		1.32		1.32	1.32	1.32	1
Sr-T mg/L		1.38		1.38	1.38	1.38	1
S-T mg/L		175		175.0	175	175	1
Ti-D mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
Ti-T mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
Th-D mg/L		<0.000010		0.0000050	<0.000010	<0.000010	1
Th-T mg/L		<0.000010		0.0000050	<0.000010	<0.000010	1
Zn-D mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
Zn-T mg/L		<0.0050		0.00250	<0.0050	<0.0050	1
N-NH3 mg/L							
N-NO23 mg/L							
P-T mg/L							
DOC mg/L							
OG mg/L							

Notes:

Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 17 Q2 Report 2020

MS ID: Station Name: Station Code: Date	E292130 South mine water to Long Lake		E292130 South mine water to Long Lake		E292130 South mine water to Long Lake		E292130 South mine water to Long Lake		E292130 South mine water to Long Lake		E292130 South mine water to Long Lake		Avg.	Min.	Max.	No.		
	LLE		LLE		LLE		LLE		LLE									
	6-Jul-20		13-Jul-20		20-Jul-20		27-Jul-20		6-Aug-20		24-Sep-20						28-Sep-20	
	Lab Report:	ML WQGS-Max	C046962	C048926	C050932	C052822	C055513	C069657	C071134									
TSS	mg/L	25	2.8					7.2	9.2				6.4	2.8	9.2	3		
SO4-D	mg/L		180	88	190	240		380	230	210			216	88	380	7		
Alk-T	mg/L		74					120	110				101.3	74	120	3		
Acidity83	mg/L		1.8					3.3	1.4				2.2	1.4	3.3	3		
Hard-T	mg/L		219					377	309				301	219	377	3		
Ag-D	mg/L		<0.000020					<0.000020	<0.000020				0.0000100	<0.000020	<0.000020	3		
Ag-T	mg/L	0.0001	<0.000020					<0.000020	<0.000020				0.0000100	<0.000020	<0.000020	3		
Al-D	mg/L	0.1	0.0049					<0.0030	<0.0030				0.00263	<0.0030	0.0049	3		
Al-T	mg/L		0.0110					0.0400	0.244				0.0983	0.0110	0.244	3		
As-D	mg/L		0.00080					0.00109	0.00077				0.00089	0.00077	0.00109	3		
As-T	mg/L	0.0005	0.00088					0.00160	0.00107				0.00118	0.00088	0.00160	3		
Ba-D	mg/L		0.0237					0.0323	0.0269				0.0276	0.0237	0.0323	3		
Ba-T	mg/L		0.0246					0.0306	0.0272				0.0275	0.0246	0.0306	3		
B-D	mg/L		0.162					0.295	0.233				0.230	0.162	0.295	3		
Be-D	mg/L		<0.00010					<0.00010	<0.00010				0.000050	<0.00010	<0.00010	3		
Be-T	mg/L		<0.00010					<0.00010	<0.00010				0.000050	<0.00010	<0.00010	3		
Bi-D	mg/L		<0.0010					<0.0010	<0.0010				0.00050	<0.0010	<0.0010	3		
Bi-T	mg/L		<0.0010					<0.0010	<0.0010				0.00050	<0.0010	<0.0010	3		
B-T	mg/L		0.160					0.280	0.223				0.221	0.160	0.280	3		
Ca-D	mg/L		70.6					124	97.6				97.4	70.6	124	3		
Ca-T	mg/L		70.3					120	97.1				95.8	70.3	120	3		
Cd-D	mg/L	0.00017	<0.000010					<0.000010	<0.000010				0.0000050	<0.000010	<0.000010	3		
Cd-T	mg/L		<0.000010					<0.000010	<0.000010				0.0000050	<0.000010	<0.000010	3		
Co-D	mg/L		<0.00020					0.00021	<0.00020				0.000137	<0.00020	0.00021	3		
Co-T	mg/L	0.11	<0.00020					0.00026	0.00039				0.000250	<0.00020	0.00039	3		
Cr-D	mg/L		<0.0010					<0.0010	<0.0010				0.00050	<0.0010	<0.0010	3		
Cr-T	mg/L		<0.0010					<0.0010	<0.0010				0.00050	<0.0010	<0.0010	3		
Cu-D	mg/L	0.0002	0.00024					<0.00020	0.00025				0.000197	<0.00020	0.00025	3		
Cu-T	mg/L		<0.00050					<0.00050	0.00150				0.000667	<0.00050	0.00150	3		
Fe-D	mg/L	0.35	0.478					1.06	0.471				0.670	0.471	1.06	3		
Fe-T	mg/L	1.0	0.799					2.56	1.53				1.630	0.799	2.56	3		
Hard-D	mg/L		223					388	310				307	223	388	3		
Hg-D	mg/L		<0.0000019					<0.0000019	<0.0000019				0.00000095	<0.0000019	<0.0000019	3		
Hg-T	mg/L		<0.0000019					<0.0000019	<0.0000019				0.00000095	<0.0000019	<0.0000019	3		
K-D	mg/L		0.835					1.61	2.07				1.505	0.835	2.07	3		
K-T	mg/L		0.829					1.60	2.04				1.490	0.829	2.04	3		
Li-D	mg/L		0.0039					0.0114	0.0074				0.0076	0.0039	0.0114	3		
Li-T	mg/L		0.0042					0.0113	0.0074				0.0076	0.0042	0.0113	3		
Mg-D	mg/L		11.2					18.9	16.1				15.4	11.2	18.9	3		
Mg-T	mg/L		10.6					18.5	16.2				15.1	10.6	18.5	3		
Mn-D	mg/L		0.118					0.461	0.244				0.274	0.118	0.461	3		
Mn-T	mg/L	0.8706	0.117					0.445	0.249				0.270	0.117	0.445	3		
Mo-D	mg/L		<0.0010					<0.0010	<0.0010				0.00050	<0.0010	<0.0010	3		
Mo-T	mg/L	2.0	<0.0010					<0.0010	<0.0010				0.00050	<0.0010	<0.0010	3		
Na-D	mg/L		19.5					35.7	30.4				28.5	19.5	35.7	3		
Na-T	mg/L		19.0					35.6	30.0				28.2	19.0	35.6	3		
Ni-D	mg/L		<0.0010					<0.0010	<0.0010				0.00050	<0.0010	<0.0010	3		
Ni-T	mg/L		<0.0010					<0.0010	<0.0010				0.00050	<0.0010	<0.0010	3		
Pb-D	mg/L		<0.00020					<0.00020	<0.00020				0.000100	<0.00020	<0.00020	3		
Pb-T	mg/L	0.01763	<0.00020					<0.00020	<0.00020				0.000100	<0.00020	<0.00020	3		
Sb-D	mg/L		<0.00050					<0.00050	<0.00050				0.000250	<0.00050	<0.00050	3		
Sb-T	mg/L		<0.00050					<0.00050	<0.00050				0.000250	<0.00050	<0.00050	3		
S-D	mg/L		64.6					112	95.4				90.7	64.6	112	3		
Se-D	mg/L		<0.00010					<0.00010	<0.00010				0.000050	<0.00010	<0.00010	3		
Se-T	mg/L		<0.00010					<0.00010	<0.00010				0.000050	<0.00010	<0.00010	3		
Si-D	mg/L		2.17					2.85	4.01				3.01	2.17	4.01	3		
Si-T	mg/L		2.33					3.02	4.31				3.22	2.33	4.31	3		
Sn-D	mg/L		<0.0050					<0.0050	<0.0050				0.00250	<0.0050	<0.0050	3		
Sn-T	mg/L		<0.0050					<0.0050	<0.0050				0.00250	<0.0050	<0.0050	3		
Sr-D	mg/L		0.430					0.779	0.636				0.615	0.430	0.779	3		
Sr-T	mg/L		0.449					0.791	0.606				0.615	0.449	0.791	3		
S-T	mg/L		64.0					118	95.4				92.5	64.0	118	3		
Ti-D	mg/L		<0.0050					<0.0050	<0.0050				0.00250	<0.0050	<0.0050	3		
Ti-T	mg/L		<0.0050					<0.0050	0.0139				0.00630	<0.0050	0.0139	3		
Tl-D	mg/L		<0.000010					<0.000010	<0.000010				0.0000050	<0.000010	<0.000010	3		
Tl-T	mg/L		<0.000010					<0.000010	<0.000010				0.0000050	<0.000010	<0.000010	3		
Zn-D	mg/L		<0.0050					<0.0050	<0.0050				0.00250	<0.0050	<0.0050	3		
Zn-T	mg/L	0.033	<0.0050					<0.0050	<0.0050				0.00250	<0.0050	<0.0050	3		
N-NH3	mg/L	12.9	<0.015					0.018	0.049				0.0248	<0.015	0.049	3		
N-NO23	mg/L		<0.020					<0.020	0.089				0.0363	<0.020	0.089	3		
P-T	mg/L		0.0035					0.0056	<0.0030				0.00353	<0.0030	0.0056	3		
DOC	mg/L																	
OG	mg/L																	

Notes:
Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 18 Q2 Report 2020

EMS ID:		E292131		E292131					
Station Name:		Seep into Long Lake		Seep into Long Lake					
Station Code:		LLS		LLS					
Date	Lab Report:	M: WQG-Max	6-Jul-20 C046962	6-Aug-20 C055513	Avg.	Min.	Max.	No.	
TSS	mg/L	25	6.4	3.6	5.0	3.6	6.4	2	
SO4-D	mg/L		620	490	555	490	620	2	
Alk-T	mg/L		250	230	240.0	230	250	2	
Acidity83	mg/L		17.2	4.8	11.0	4.8	17.2	2	
Hard-T	mg/L		629	528	578	528	629	2	
Ag-D	mg/L		<0.000020	<0.000020	0.0000100	<0.000020	<0.000020	2	
Ag-T	mg/L	0.0001	<0.000020	<0.000020	0.0000100	<0.000020	<0.000020	2	
Al-D	mg/L	0.1	<0.0030	<0.0030	0.00150	<0.0030	<0.0030	2	
Al-T	mg/L		<0.0030	0.0036	0.00255	<0.0030	0.0036	2	
As-D	mg/L		0.00362	0.00209	0.00286	0.00209	0.00362	2	
As-T	mg/L	0.005	0.00377	0.00269	0.00323	0.00269	0.00377	2	
Ba-D	mg/L		0.0181	0.0186	0.0183	0.0181	0.0186	2	
Ba-T	mg/L		0.0185	0.0183	0.0184	0.0183	0.0185	2	
B-D	mg/L		0.579	0.484	0.532	0.484	0.579	2	
Be-D	mg/L		<0.00010	<0.00010	0.000050	<0.00010	<0.00010	2	
Be-T	mg/L		<0.00010	<0.00010	0.000050	<0.00010	<0.00010	2	
Bi-D	mg/L		<0.0010	<0.0010	0.00050	<0.0010	<0.0010	2	
Bi-T	mg/L		<0.0010	<0.0010	0.00050	<0.0010	<0.0010	2	
B-T	mg/L		0.577	0.457	0.517	0.457	0.577	2	
Ca-D	mg/L		227	190	208.5	190	227	2	
Ca-T	mg/L		221	186	203.5	186	221	2	
Cd-D	mg/L	0.00017	<0.000010	<0.000010	0.0000050	<0.000010	<0.000010	2	
Cd-T	mg/L		<0.000010	0.000014	0.0000095	<0.000010	0.000014	2	
Co-D	mg/L		0.00130	0.00107	0.00118	0.00107	0.00130	2	
Co-T	mg/L	0.11	0.00130	0.00106	0.00118	0.00106	0.00130	2	
Cr-D	mg/L		<0.0010	<0.0010	0.00050	<0.0010	<0.0010	2	
Cr-T	mg/L		<0.0010	<0.0010	0.00050	<0.0010	<0.0010	2	
Cu-D	mg/L	0.002	<0.00020	<0.00020	0.000100	<0.00020	<0.00020	2	
Cu-T	mg/L		<0.00050	<0.00050	0.000250	<0.00050	<0.00050	2	
Fe-D	mg/L	0.35	1.82	1.16	1.49	1.16	1.82	2	
Fe-T	mg/L	1.0	1.88	1.14	1.51	1.14	1.88	2	
Hard-D	mg/L		645	540	592	540	645	2	
Hg-D	mg/L		<0.0000019	<0.0000019	0.00000095	<0.0000019	<0.0000019	2	
Hg-T	mg/L		<0.0000019	<0.0000019	0.00000095	<0.0000019	<0.0000019	2	
K-D	mg/L		2.42	2.22	2.32	2.22	2.42	2	
K-T	mg/L		2.44	2.24	2.34	2.24	2.44	2	
Li-D	mg/L		0.0205	0.0174	0.0190	0.0174	0.0205	2	
Li-T	mg/L		0.0209	0.0184	0.0196	0.0184	0.0209	2	
Mg-D	mg/L		19.2	16.0	17.6	16.0	19.2	2	
Mg-T	mg/L		18.5	15.4	17.0	15.4	18.5	2	
Mn-D	mg/L		0.443	0.335	0.389	0.335	0.443	2	
Mn-T	mg/L	0.8706	0.443	0.322	0.382	0.322	0.443	2	
Mo-D	mg/L		<0.0010	<0.0010	0.00050	<0.0010	<0.0010	2	
Mo-T	mg/L	2.0	<0.0010	<0.0010	0.00050	<0.0010	<0.0010	2	
Na-D	mg/L		98.2	78.5	88.4	78.5	98.2	2	
Na-T	mg/L		97.0	78.5	87.8	78.5	97.0	2	
Ni-D	mg/L		0.0023	0.0019	0.0021	0.0019	0.0023	2	
Ni-T	mg/L		0.0023	0.0019	0.0021	0.0019	0.0023	2	
Pb-D	mg/L		<0.00020	<0.00020	0.000100	<0.00020	<0.00020	2	
Pb-T	mg/L	0.01763	<0.00020	<0.00020	0.000100	<0.00020	<0.00020	2	
Sb-D	mg/L		<0.00050	<0.00050	0.000250	<0.00050	<0.00050	2	
Sb-T	mg/L		<0.00050	<0.00050	0.000250	<0.00050	<0.00050	2	
S-D	mg/L		205	155	180.0	155	205	2	
Se-D	mg/L		<0.00010	<0.00010	0.000050	<0.00010	<0.00010	2	
Se-T	mg/L		<0.00010	<0.00010	0.000050	<0.00010	<0.00010	2	
Si-D	mg/L		2.80	2.61	2.70	2.61	2.80	2	
Si-T	mg/L		2.84	2.60	2.72	2.60	2.84	2	
Sn-D	mg/L		<0.0050	<0.0050	0.00250	<0.0050	<0.0050	2	
Sn-T	mg/L		<0.0050	<0.0050	0.00250	<0.0050	<0.0050	2	
Sr-D	mg/L		2.05	1.76	1.90	1.76	2.05	2	
Sr-T	mg/L		2.06	1.80	1.93	1.80	2.06	2	
S-T	mg/L		203	159	181.0	159	203	2	
Ti-D	mg/L		<0.0050	<0.0050	0.00250	<0.0050	<0.0050	2	
Ti-T	mg/L		<0.0050	<0.0050	0.00250	<0.0050	<0.0050	2	
Th-D	mg/L		<0.000010	<0.000010	0.0000050	<0.000010	<0.000010	2	
Th-T	mg/L		<0.000010	<0.000010	0.0000050	<0.000010	<0.000010	2	
Zn-D	mg/L		<0.0050	<0.0050	0.00250	<0.0050	<0.0050	2	
Zn-T	mg/L	0.033	<0.0050	<0.0050	0.00250	<0.0050	<0.0050	2	
N-NH3	mg/L	12.9							
N-NO23	mg/L								
P-T	mg/L								
DOC	mg/L								
OG	mg/L								

Notes:

Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 19 Q2 Report 2020

EMS ID:		E292131					
Station Name:		Long Lake Middle Seep					
Station Code:		LLSM					
Date	Lab Report:	M: WQG-Max	6-Jul-20 C046962	Avg.	Min.	Max.	No.
TSS	mg/L	25	1.6	1.6	1.6	1.6	1
SO4-D	mg/L		390	390.0	390	390	1
Alk-T	mg/L		200	200.0	200	200	1
Acidity83	mg/L		5.2	5.2	5.2	5.2	1
Hard-T	mg/L		453	453.0	453	453	1
Ag-D	mg/L		<0.000020	0.0000100	<0.000020	<0.000020	1
Ag-T	mg/L	0.0001	<0.000020	0.0000100	<0.000020	<0.000020	1
Al-D	mg/L	0.1	<0.0030	0.00150	<0.0030	<0.0030	1
Al-T	mg/L		0.0050	0.0050	0.0050	0.0050	1
As-D	mg/L		0.00098	0.00098	0.00098	0.00098	1
As-T	mg/L	0.005	0.00112	0.00112	0.00112	0.00112	1
Ba-D	mg/L		0.0176	0.0176	0.0176	0.0176	1
Ba-T	mg/L		0.0179	0.0179	0.0179	0.0179	1
B-D	mg/L		0.412	0.412	0.412	0.412	1
Be-D	mg/L		<0.00010	0.000050	<0.00010	<0.00010	1
Be-T	mg/L		<0.00010	0.000050	<0.00010	<0.00010	1
Bi-D	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Bi-T	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
B-T	mg/L		0.412	0.412	0.412	0.412	1
Ca-D	mg/L		167	167.0	167	167	1
Ca-T	mg/L		158	158.0	158	158	1
Cd-D	mg/L	0.00017	<0.000010	0.0000050	<0.000010	<0.000010	1
Cd-T	mg/L		<0.000010	0.0000050	<0.000010	<0.000010	1
Co-D	mg/L		0.00068	0.00068	0.00068	0.00068	1
Co-T	mg/L	0.11	0.00070	0.00070	0.00070	0.00070	1
Cr-D	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Cr-T	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Cu-D	mg/L	0.002	0.00032	0.00032	0.00032	0.00032	1
Cu-T	mg/L		<0.00050	0.000250	<0.00050	<0.00050	1
Fe-D	mg/L	0.35	0.437	0.437	0.437	0.437	1
Fe-T	mg/L	1.0	0.556	0.556	0.556	0.556	1
Hard-D	mg/L		477	477.0	477	477	1
Hg-D	mg/L		<0.0000019	0.00000095	<0.0000019	<0.0000019	1
Hg-T	mg/L		<0.0000019	0.00000095	<0.0000019	<0.0000019	1
K-D	mg/L		2.00	2.00	2.00	2.00	1
K-T	mg/L		2.03	2.03	2.03	2.03	1
Li-D	mg/L		0.0144	0.0144	0.0144	0.0144	1
Li-T	mg/L		0.0151	0.0151	0.0151	0.0151	1
Mg-D	mg/L		14.9	14.9	14.9	14.9	1
Mg-T	mg/L		14.3	14.3	14.3	14.3	1
Mn-D	mg/L		0.204	0.204	0.204	0.204	1
Mn-T	mg/L	0.8706	0.216	0.216	0.216	0.216	1
Mo-D	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Mo-T	mg/L	2.0	<0.0010	0.00050	<0.0010	<0.0010	1
Na-D	mg/L		67.6	67.6	67.6	67.6	1
Na-T	mg/L		64.2	64.2	64.2	64.2	1
Ni-D	mg/L		0.0016	0.0016	0.0016	0.0016	1
Ni-T	mg/L		0.0016	0.0016	0.0016	0.0016	1
Pb-D	mg/L		<0.00020	0.000100	<0.00020	<0.00020	1
Pb-T	mg/L	0.01763	<0.00020	0.000100	<0.00020	<0.00020	1
Sb-D	mg/L		<0.00050	0.000250	<0.00050	<0.00050	1
Sb-T	mg/L		<0.00050	0.000250	<0.00050	<0.00050	1
S-D	mg/L		141	141.0	141	141	1
Se-D	mg/L		<0.00010	0.000050	<0.00010	<0.00010	1
Se-T	mg/L		<0.00010	0.000050	<0.00010	<0.00010	1
Si-D	mg/L		2.57	2.57	2.57	2.57	1
Si-T	mg/L		2.57	2.57	2.57	2.57	1
Sn-D	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Sn-T	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Sr-D	mg/L		1.42	1.42	1.42	1.42	1
Sr-T	mg/L		1.45	1.45	1.45	1.45	1
S-T	mg/L		137	137.0	137	137	1
Ti-D	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Ti-T	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Th-D	mg/L		<0.000010	0.0000050	<0.000010	<0.000010	1
Th-T	mg/L		<0.000010	0.0000050	<0.000010	<0.000010	1
Zn-D	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Zn-T	mg/L	0.033	<0.0050	0.00250	<0.0050	<0.0050	1
N-NH3	mg/L	12.9					
N-NO23	mg/L						
P-T	mg/L						
DOC	mg/L						
OG	mg/L						

Notes:

Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 20 Q2 Report 2020

EMS ID:		E292069					
Station Name:		75 Surface Decant					
Station Code:		75SD					
Date	Lab Report:	P: PL-75	6-Jul-20	Avg.	Min.	Max.	No.
			C046962				
TSS	mg/L	25	4.0	4.0	4.0	4.0	1
SO4-D	mg/L	500	9.2	9.2	9.2	9.2	1
Alk-T	mg/L		130	130.0	130	130	1
Acidity83	mg/L		<1.0	0.50	<1.0	<1.0	1
Hard-T	mg/L		128	128.0	128	128	1
Ag-D	mg/L		<0.000020	0.0000100	<0.000020	<0.000020	1
Ag-T	mg/L		<0.000020	0.0000100	<0.000020	<0.000020	1
Al-D	mg/L	0.1	0.0038	0.0038	0.0038	0.0038	1
Al-T	mg/L		0.0093	0.0093	0.0093	0.0093	1
As-D	mg/L		0.00802	0.00802	0.00802	0.00802	1
As-T	mg/L		0.00862	0.00862	0.00862	0.00862	1
Ba-D	mg/L		0.0053	0.0053	0.0053	0.0053	1
Ba-T	mg/L		0.0058	0.0058	0.0058	0.0058	1
B-D	mg/L		<0.050	0.0250	<0.050	<0.050	1
Be-D	mg/L		<0.00010	0.000050	<0.00010	<0.00010	1
Be-T	mg/L		<0.00010	0.000050	<0.00010	<0.00010	1
Bi-D	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Bi-T	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
B-T	mg/L		<0.050	0.0250	<0.050	<0.050	1
Ca-D	mg/L		30.7	30.7	30.7	30.7	1
Ca-T	mg/L		31.1	31.1	31.1	31.1	1
Cd-D	mg/L	0.000045	<0.000010	0.0000050	<0.000010	<0.000010	1
Cd-T	mg/L		<0.000010	0.0000050	<0.000010	<0.000010	1
Co-D	mg/L		<0.00020	0.000100	<0.00020	<0.00020	1
Co-T	mg/L		<0.00020	0.000100	<0.00020	<0.00020	1
Cr-D	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Cr-T	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Cu-D	mg/L	0.014	0.00094	0.00094	0.00094	0.00094	1
Cu-T	mg/L		0.00101	0.00101	0.00101	0.00101	1
Fe-D	mg/L	0.35	0.0992	0.0992	0.0992	0.0992	1
Fe-T	mg/L		0.143	0.143	0.143	0.143	1
Hard-D	mg/L		125	125.0	125	125	1
Hg-D	mg/L		<0.0000019	0.00000095	<0.0000019	<0.0000019	1
Hg-T	mg/L		<0.0000019	0.00000095	<0.0000019	<0.0000019	1
K-D	mg/L		0.800	0.800	0.800	0.800	1
K-T	mg/L		0.840	0.840	0.840	0.840	1
Li-D	mg/L		<0.0020	0.00100	<0.0020	<0.0020	1
Li-T	mg/L		<0.0020	0.00100	<0.0020	<0.0020	1
Mg-D	mg/L		11.8	11.8	11.8	11.8	1
Mg-T	mg/L		12.1	12.1	12.1	12.1	1
Mn-D	mg/L		0.0432	0.0432	0.0432	0.0432	1
Mn-T	mg/L		0.0919	0.0919	0.0919	0.0919	1
Mo-D	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Mo-T	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Na-D	mg/L		6.25	6.25	6.25	6.25	1
Na-T	mg/L		6.33	6.33	6.33	6.33	1
Ni-D	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Ni-T	mg/L		<0.0010	0.00050	<0.0010	<0.0010	1
Pb-D	mg/L		<0.00020	0.000100	<0.00020	<0.00020	1
Pb-T	mg/L		<0.00020	0.000100	<0.00020	<0.00020	1
Sb-D	mg/L		<0.00050	0.000250	<0.00050	<0.00050	1
Sb-T	mg/L		<0.00050	0.000250	<0.00050	<0.00050	1
S-D	mg/L		<3.0	1.50	<3.0	<3.0	1
Se-D	mg/L	0.016	<0.00010	0.000050	<0.00010	<0.00010	1
Se-T	mg/L		<0.00010	0.000050	<0.00010	<0.00010	1
Si-D	mg/L		2.55	2.55	2.55	2.55	1
Si-T	mg/L		2.73	2.73	2.73	2.73	1
Sn-D	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Sn-T	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Sr-D	mg/L		0.154	0.154	0.154	0.154	1
Sr-T	mg/L		0.164	0.164	0.164	0.164	1
S-T	mg/L		<3.0	1.50	<3.0	<3.0	1
Ti-D	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Ti-T	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Th-D	mg/L		<0.000010	0.0000050	<0.000010	<0.000010	1
Th-T	mg/L		<0.000010	0.0000050	<0.000010	<0.000010	1
Zn-D	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
Zn-T	mg/L		<0.0050	0.00250	<0.0050	<0.0050	1
N-NH3	mg/L		<0.015	0.0075	<0.015	<0.015	1
N-NO23	mg/L						
P-T	mg/L		0.011	0.011	0.011	0.011	1
DOC	mg/L		5.8	5.8	5.8	5.8	1
OG	mg/L						

Notes:

Factor applied to less-than results when calculating statistics: 0.5
Factor applied to greater-than results when calculating statistics: 1.0
Station standards have been applied.
Samples with no results for these parameters are omitted

Table 21
Q2 Report 2020

EMS ID E207409												
DISCHARGE FROM SETTLING POND # 4 (WD)												
Date	April Max. (m ³ /s)	April Daily (m ³ /s)	May Max. (m ³ /s)	May Daily (m ³ /s)	June Max. (m ³ /s)	June Daily (m ³ /s)	July Max. (m ³ /s)	July Daily (m ³ /s)	August Max. (m ³ /s)	August Daily (m ³ /s)	September Max. (m ³ /s)	September Daily (m ³ /s)
1	0.1090	0.0920	0.1160	0.0900	0.1340	0.1150	0.1020	0.0860	0.1350	0.1150	0.0620	0.0560
2	0.1110	0.0890	0.1340	0.1150	0.1400	0.1180	0.0940	0.0840	0.1330	0.1150	0.1330	0.0780
3	0.1150	0.0920	0.1380	0.1090	0.1370	0.1250	0.0910	0.0860	0.1410	0.1340	0.1330	0.1000
4	0.1270	0.0920	0.0880	0.0480	0.1330	0.1100	0.1020	0.0900	0.1570	0.1410	0.0790	0.0580
5	0.1270	0.1000	0.0820	0.0420	0.1390	0.1300	0.0880	0.0850	0.1450	0.1240	0.0820	0.0510
6	0.1190	0.0900	0.0980	0.0450	0.1540	0.1450	0.0830	0.0760	0.1310	0.1100	0.1360	0.1200
7	0.0990	0.0740	0.0850	0.0380	0.1560	0.1530	0.0810	0.0760	0.1430	0.1370	0.1320	0.1190
8	0.0400	0.0250	0.1320	0.1020	0.1590	0.1350	0.0860	0.0240	0.1420	0.1370	0.1170	0.0910
9	0.0450	0.0250	0.0880	0.0450	0.1320	0.1250	0.0080	0.0010	0.1350	0.1060	0.0860	0.0730
10	0.1360	0.0650	0.0830	0.0330	0.1410	0.1340	0.0000	0.0000	0.1090	0.0950	0.0760	0.0640
11	0.1420	0.0890	0.0910	0.0350	0.1170	0.0930	0.0000	0.0000	0.1130	0.0930	0.0730	0.0620
12	0.0510	0.0370	0.0740	0.0340	0.1240	0.1000	0.0280	0.0110	0.1220	0.1080	0.0750	0.0650
13	0.0400	0.0290	0.1170	0.0640	0.1300	0.1000	0.0260	0.0150	0.1240	0.1020	0.0780	0.0680
14	0.0380	0.0270	0.0870	0.0420	0.1240	0.1020	0.0180	0.0030	0.1120	0.0970	0.0790	0.0750
15	0.0850	0.0390	0.0870	0.0470	0.1330	0.1160	0.0000	0.0000	0.1070	0.0890	0.0800	0.0770
16	0.1450	0.1270	0.0920	0.0440	0.1330	0.1190	0.0000	0.0000	0.0870	0.0780	0.0810	0.0770
17	0.1610	0.1310	0.0890	0.0550	0.1370	0.1110	0.0240	0.0010	0.0800	0.0700	0.0760	0.0670
18	0.1330	0.1070	0.1340	0.1180	0.1250	0.0950	0.1020	0.0670	0.0840	0.0640	0.0430	0.0300
19	0.1300	0.0950	0.1420	0.1310	0.1020	0.0910	0.1290	0.1130	0.0380	0.0220	0.0330	0.0270
20	0.1320	0.1130	0.1410	0.0960	0.1020	0.0890	0.1390	0.1320	0.0300	0.0240	0.0340	0.0280
21	0.1360	0.1140	0.1360	0.1210	0.1050	0.0910	0.1460	0.1400	0.0330	0.0260	0.0330	0.0260
22	0.1330	0.0990	0.1320	0.1100	0.1010	0.0890	0.1480	0.1370	0.0360	0.0300	0.0510	0.0320
23	0.1070	0.0530	0.1330	0.1090	0.1010	0.0930	0.1380	0.1270	0.0350	0.0220	0.0630	0.0540
24	0.1090	0.0860	0.1480	0.1340	0.1150	0.1000	0.1350	0.1300	0.0280	0.0230	0.0940	0.0680
25	0.1310	0.0780	0.1520	0.1150	0.1300	0.1130	0.1420	0.1360	0.0290	0.0190	0.1320	0.1200
26	0.0840	0.0640	0.1350	0.1130	0.1140	0.0930	0.1500	0.1380	0.0670	0.0330	0.1290	0.1040
27	0.0760	0.0380	0.1450	0.1300	0.1080	0.0970	0.1430	0.1380	0.0720	0.0620	0.1180	0.0990
28	0.1030	0.0480	0.1440	0.1140	0.1030	0.0870	0.1570	0.1460	0.0780	0.0600	0.0810	0.0670
29	0.0840	0.0420	0.1350	0.1130	0.0970	0.0850	0.1600	0.1490	0.0800	0.0730	0.0630	0.0560
30	0.0820	0.0470	0.1320	0.1090	0.0970	0.0870	0.1440	0.1150	0.0700	0.0550	0.0640	0.0550
31			0.1330	0.1220			0.1310	0.1030	0.0640	0.0550		
Monthly Max	0.1610		0.1520		0.1590		0.1600		0.1570		0.0839	
Monthly Avg		0.0736		0.0846		0.1080		0.0777		0.0780		0.0689
Weekly TSS is required for decant flow > 0.054 m ³ /s												

Table 22
Q2 Report 2020

EMS ID E218582 DISCHARGE FROM SETTLING POND # 1 (SPD)												
Date	April Max. (m ³ /s)	April Daily (m ³ /s)	May Max. (m ³ /s)	May Daily (m ³ /s)	June Max. (m ³ /s)	June Daily (m ³ /s)	July Max. (m ³ /s)	July Daily (m ³ /s)	August Max. (m ³ /s)	August Daily (m ³ /s)	September Max. (m ³ /s)	September Daily (m ³ /s)
1	0.1088	0.0764	0.0160	0.0032	0.0160	0.0000	0.0534	0.0091	0.0100	0.0032	0.0000	0.0000
2	0.0877	0.0443	0.0160	0.0091	0.0091	0.0032	0.0341	0.0160	0.0100	0.0032	0.0000	0.0000
3	0.0443	0.0250	0.0160	0.0032	0.0091	0.0000	0.0341	0.0250	0.0341	0.0160	0.0000	0.0000
4	0.1185	0.0639	0.0160	0.0091	0.0160	0.0032	0.0764	0.0534	0.0160	0.0091	0.0000	0.0000
5	0.0989	0.0443	0.0160	0.0000	0.0160	0.0032	0.0639	0.0341	0.0160	0.0032	0.0000	0.0000
6	0.0534	0.0341	0.0091	0.0000	0.0877	0.0250	0.0534	0.0091	0.0534	0.0341	0.0000	0.0000
7	0.0534	0.0160	0.0091	0.0000	0.0639	0.0091	0.0443	0.0091	0.0100	0.0032	0.0000	0.0000
8	0.0443	0.0091	0.0091	0.0000	0.0341	0.0091	0.0443	0.0250	0.0000	0.0000	0.0000	0.0000
9	0.0341	0.0032	0.0032	0.0000	0.0341	0.0160	0.1088	0.0341	0.0000	0.0000	0.0443	0.0000
10	0.0160	0.0032	0.0032	0.0000	0.0160	0.0091	0.1088	0.0639	0.0000	0.0000	0.0443	0.0091
11	0.0160	0.0032	0.0032	0.0000	0.0160	0.0032	0.0534	0.0443	0.0000	0.0000	0.0341	0.0091
12	0.0160	0.0032	0.0160	0.0032	0.0534	0.0341	0.0764	0.0443	0.0000	0.0000	0.0341	0.0032
13	0.0091	0.0020	0.0091	0.0032	0.0443	0.0091	0.1088	0.0341	0.0000	0.0000	0.0160	0.0160
14	0.0091	0.0000	0.0091	0.0000	0.0341	0.0091	0.1088	0.0341	0.0000	0.0000	0.0160	0.0091
15	0.0091	0.0000	0.0091	0.0000	0.0989	0.0341	0.0443	0.0032	0.0000	0.0000	0.0160	0.0160
16	0.0091	0.0000	0.0160	0.0091	0.0989	0.0534	0.0250	0.0091	0.0000	0.0000	0.0160	0.0091
17	0.0091	0.0000	0.0341	0.0091	0.0764	0.0341	0.0639	0.0250	0.0000	0.0000	0.0160	0.0032
18	0.0091	0.0000	0.0341	0.0032	0.0639	0.0250	0.0534	0.0091	0.0000	0.0000	0.0160	0.0091
19	0.0032	0.0000	0.0341	0.0032	0.1088	0.0764	0.0250	0.0000	0.0000	0.0000	0.0091	0.0032
20	0.0032	0.0000	0.0160	0.0091	0.0639	0.0443	0.0160	0.0000	0.0000	0.0000	0.0091	0.0032
21	0.0032	0.0000	0.0443	0.0000	0.0764	0.0341	0.0639	0.0000	0.0000	0.0000	0.0989	0.0160
22	0.0032	0.0000	0.0877	0.0341	0.1088	0.0877	0.0639	0.0250	0.0000	0.0000	0.1667	0.0764
23	0.0091	0.0000	0.0160	0.0091	0.0639	0.0443	0.0443	0.0091	0.0000	0.0000	0.0989	0.0341
24	0.0091	0.0000	0.0160	0.0160	0.1279	0.0534	0.0250	0.0000	0.0000	0.0000	0.1185	0.0764
25	0.0032	0.0000	0.0160	0.0091	0.1279	0.0639	0.0160	0.0000	0.0000	0.0000	0.0443	0.0091
26	0.0091	0.0000	0.0341	0.0000	0.0639	0.0443	0.0160	0.0000	0.0000	0.0000	0.0443	0.0032
27	0.0091	0.0000	0.0160	0.0000	0.0639	0.0341	0.0443	0.0032	0.0000	0.0000	0.0250	0.0000
28	0.0091	0.0032	0.0091	0.0000	0.1088	0.0443	0.0250	0.0032	0.0000	0.0000	0.0443	0.0000
29	0.0091	0.0032	0.0534	0.0091	0.0877	0.0341	0.0000	0.0000	0.0000	0.0000	0.0989	0.0250
30	0.0160	0.0032	0.0443	0.0091	0.0534	0.0160	0.0000	0.0000	0.0000	0.0000	0.1279	0.0877
31			0.0091	0.0000			0.0000	0.0000	0.0000	0.0000		
Monthly Max	0.1185		0.0877		0.1279		0.1088		0.0534		0.1667	
Monthly Avg		0.0113		0.0049		0.0286		0.01685		0.00233		0.01394
TSS is required weekly when max daily flow > 0.046m ³ /s												
NF= No Flow All flow data is subject to review												

Table 23
Q2 Report 2020

EMS ID E292069 DISCHARGE FROM 7-SOUTH SURFACE DECANT (7SSD)						
	April	May	June	July	August	September
Date	Daily Average L/S					
1	NF	NF	NF	NF	NF	NF
2	NF	NF	NF	NF	NF	NF
3	NF	NF	NF	NF	NF	NF
4	NF	NF	NF	NF	NF	NF
5	NF	NF	NF	NF	NF	NF
6	NF	NF	NF	NF	NF	NF
7	NF	NF	NF	NF	NF	NF
8	NF	NF	NF	NF	NF	NF
9	NF	NF	NF	NF	NF	NF
10	NF	NF	NF	NF	NF	NF
11	NF	NF	NF	NF	NF	NF
12	NF	NF	NF	NF	NF	NF
13	NF	NF	NF	NF	NF	NF
14	NF	NF	NF	NF	NF	NF
15	NF	NF	NF	NF	NF	NF
16	NF	NF	NF	NF	NF	NF
17	NF	NF	NF	NF	NF	NF
18	NF	NF	NF	NF	NF	NF
19	NF	NF	NF	NF	NF	NF
20	NF	NF	NF	NF	NF	NF
21	NF	NF	NF	NF	NF	NF
22	NF	NF	NF	NF	NF	NF
23	NF	NF	NF	NF	NF	NF
24	NF	NF	NF	NF	NF	NF
25	NF	NF	NF	NF	NF	NF
26	NF	NF	NF	NF	NF	NF
27	NF	NF	NF	NF	NF	NF
28	NF	NF	NF	NF	NF	NF
29	NF	NF	NF	NF	NF	NF
30	NF	NF	NF	NF	NF	NF
31	NF	NF	NF	NF	NF	NF
Monthly Avg	0.000	0.000	0.000	0.000	0.000	0.000
Annual Avg						
Cummulative Daily Totalizer Value						
For Maximum Decant Flow (5.00 L/s)						

Table 24
Q2 Report 2020

Field Conductivity (uS/cm) & pH (North Mine Area & 7-South)																
EMS ID	E283433		E207409		E207412		E207411				E292069		E292109		GW and SW from 2N	
Site Name	2-N-Portal Sump		Settling Pond #4		2 North Pit Sump		North Pit Culvert		7 South Portal Sump		Settling Pond at 7S		Stream 1 -7S		Area at Road	
Site Code	2NPS		WD		WP		WC		7SPS		7SSD		7S		PDSR	
	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH
July 2020	2023	7.88	2023	7.65	2004	7.35	2002	8.30	1085	7.47	351	7.98	Dry	Dry	Dry	Dry
			2011	8.01												
			2019	8.05												
			2011	7.95												
August 2020	1774	6.88	1105	7.33	1223	7.35	1943	7.79	1052	7.45	Dry	Dry	Dry	Dry	Dry	Dry
			2032	7.95												
			416	8.09												
			2060	7.73												
September 2020	1645	7.22	2012	7.90	2002	7.80	2006	7.75	875	7.31	Dry	Dry	Dry	Dry	Dry	Dry
			2014	7.45												
			2009	7.55												
			2001	7.76												
			2001	7.86												
Min	1645.00	7	416	7.33	1223	7.35	1943	7.75	875	7.31	351	7.98	0.00	0.00	0	0.00
Max	2023.00	8	2060	8.09	2004	7.80	2006	8.30	1085	7.47	351	7.98	0.00	0.00	0	0.00
Average	1814.00	7	1824	7.79	1743	7.50	1984	7.95	1004	7.41	351	7.98	0.00	0.00	0	0.00

Table 25
Q2 Report 2020

Field Conductivity (uS/cm) & pH (South Mine Area)																
EMS ID	E292127		E217015		E218582		E217014		E292130		E292131		E292131		E292131	
Site Name	2 South Pit CCR Water Cover		3 South Pit CCR Water Cover		LLSTS Settling Pond Effluent		Settling Pond # 1		South Pit Culvert		Long Lake Entry		Seep into Long Lake		Long Lake Middle Seep	
Site Code	2S (2SS)		3S		SPCEFF		SPD		SPC		LLE		LLS		LLSM	
	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH
July 2020	855	8.15	1224	8.06	1598	7.33	832	7.84	Dry	Dry	610	7.16	1575	6.74	1241	7.99
					1522	7.71	847	7.74			536	7.23				
					1605	7.84	1139	8.04			573	7.29				
					1652	7.80	832	7.52			738	6.77				
August 2020	1215	7.92	1714	7.03	1516	8.09	1658	7.05	Dry	Dry	841	7.60	873	7.05	Dry	Dry
					913	7.99		dry			873	7.05				
					1675	7.23	1703	7.24			Dry	Dry				
					1568	7.65	1003	7.73			Dry	Dry				
September 2020	1452	7.65	1626	6.84	1610	7.72	1060	7.57	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
					1610	7.17	995	7.19			Dry	Dry				
					1602	7.37	1137	7.53			753	7.06				
					1584	7.48	1092	7.41			716	6.89				
					1653	7.44	1102	7.57			738	7.25				
Min	855	7.65	1224	6.84	913	7.17	832	7.05	0	0.00	536	6.77	873	6.74	1241	7.99
Max	1452	8.15	1714	8.06	1675	8.09	1703	8.04	0	0.00	873	7.60	1575	7.05	1241	7.99
Average	1174	7.91	1521	7.31	1547	7.60	1117	7.54	0	0.00	709	7.14	1224	6.90	1241	7.99

Table 26
Q2 Report 2020

Field Conductivity (uS/cm) & pH (Rivers & Wetland)																
EMS ID	E0126402		E0900504		E217017		E219412		E292113		E299256		E297231		E297232	
Site Name	Quinsam River at Argonaut Bridge		Middle Quinsam Lake Outlet		No Name Lake Outlet		Long Lake Outlet		7 South Quinsam River		Iron River & Quinsam River		Iron River upstream of 7SA5		Iron River downstream of 7SA5 and 242 inputs	
Site Code	WA		WB		NNO		LLO		7SQR		IRQR		IR6		IR8	
	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH	Cond	pH
July 2020	48.8	7.72	174.8	8.09	55.4	7.56	187	7.65	169.5	7.79	158	7.15	115.9	7.42	98	7.35
	220	7.92	182	8.05	47.8	7.58	197.6	7.77	138	7.78	143.8	7.76	79.5	7.80	88.6	7.71
	57	7.83	170	7.8	43.8	7.34	200	7.84	142	7.24	133.2	7.96	113	8.18	108.7	8.15
	48.8	7.72	164	7.28	41.2	7.05	182	7.41	156	7.32	135.5	7.38	127.3	7.90	125.2	7.91
August 2020	49.6	7.62	149.7	7.87	48	7.45	197.3	7.45	152	7.80	159.2	7.5	134.9	7.84	135	7.85
September 2020																
Min	49	7.62	150	7.28	41	7.05	182	7.41	138	7.24	133	7.15	79.50	7.42	88.60	7.35
Max	220	7.92	182	8.09	55	7.58	200	7.84	170	7.80	159	7.96	134.90	8.18	135.00	8.15
Average	85	7.76	168	7.82	47	7.40	193	7.62	152	7.59	146	7.55	114.12	7.83	111.10	7.79

Table 27
Q2 Report 2020

STATION NAME: LONG LAKE (LLM) EMS ID: E206619													LONG LAKE DEPTH PROFILING																																
Sample Date	09-Jul						15-Jul						22-Jul						29-Jul						05-Aug																				
Parameter	TEMP.	pH	C	% Sat.	D.O.	ORP	TEMP.	pH	C	% Sat.	D.O.	ORP	TEMP.	pH	C	% Sat.	D.O.	ORP	TEMP.	pH	C	% Sat.	D.O.	ORP	TEMP.	pH	C	% Sat.	D.O.	ORP															
Sample Depth (m)	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV															
1	18.70	7.90	197.80	94.60	9.70	123.00	19.45	7.75	179.00	99.60	9.16	165.70	22.30	7.42	197.30	98.80	8.58	198.50	21.84	7.44	202.20	97.40	8.53	154.00	22.19	7.26	186.10	98.50	8.57	208.50															
2	18.80	7.82	198.10	94.20	8.80	121.00	18.85	7.67	182.40	98.20	9.13	158.30	21.35	7.36	19.40	99.00	8.74	198.10	21.78	7.43	201.90	96.50	8.47	152.20	22.11	7.26	186.50	97.50	8.50	201.90															
3	18.51	7.71	200.16	94.30	9.20	122.40	18.30	7.62	173.70	96.30	9.05	153.70	20.02	7.30	196.50	97.50	8.89	198.80	20.79	7.32	210.60	95.60	8.56	153.20	21.88	7.26	188.90	96.10	7.43	200.40															
4	15.26	7.61	302.10	95.90	9.56	129.00	16.69	7.34	244.50	94.60	9.22	158.30	17.84	7.20	255.50	94.30	9.05	204.50	17.73	7.03	284.80	95.80	9.14	158.70	19.56	7.17	248.40	95.80	8.70	204.50															
5	11.30	7.37	368.20	86.50	9.60	134.70	11.98	7.18	321.00	91.60	9.84	162.60	12.66	7.02	360.50	91.30	9.75	213.00	13.30	6.95	362.10	94.40	9.84	163.30	14.18	7.00	326.10	94.90	9.79	209.60															
6	8.80	7.32	377.20	79.00	9.16	137.60	8.62	7.10	334.80	76.10	8.87	163.80	9.82	6.86	370.50	86.00	9.75	216.80	9.98	6.91	377.00	82.00	9.20	164.40	10.20	6.85	341.00	82.60	9.22	213.10															
7	7.20	7.23	381.00	67.70	8.03	142.00	7.58	7.03	338.20	66.10	7.90	164.20	7.69	6.73	375.20	66.00	7.84	219.30	7.77	6.84	380.20	63.30	7.50	166.00	8.62	6.73	346.20	69.40	8.06	215.80															
8	6.19	7.10	383.40	54.10	6.66	146.50	6.56	6.98	340.60	55.70	6.83	164.60	6.57	6.63	378.60	53.30	6.51	220.50	6.87	6.81	382.40	54.80	6.65	166.40	6.88	6.57	347.50	53.90	6.53	218.70															
9	5.99	7.04	384.00	51.20	6.40	148.10	6.06	6.94	341.80	52.20	6.47	164.80	6.29	6.60	378.60	52.20	6.60	220.30	6.45	6.78	383.80	50.50	6.29	166.90	6.18	6.47	347.60	49.50	6.11	220.10															
10	5.77	7.00	384.40	48.00	6.11	149.10	5.77	6.92	342.50	50.00	6.42	164.40	5.80	6.58	379.90	47.60	5.92	220.50	5.98	6.76	383.50	46.40	5.77	167.30	5.91	6.41	349.10	41.20	5.14	219.70															
11	5.56	6.98	385.90	44.90	5.62	150.10	5.61	6.89	343.10	46.90	5.90	164.30	5.60	6.55	381.00	42.60	5.32	220.60	5.84	6.74	384.90	42.70	5.31	167.50	5.78	6.39	349.40	38.90	4.80	219.80															
12	5.45	6.98	386.00	42.90	5.40	150.50	5.51	6.87	343.50	44.80	5.57	164.00	5.66	6.54	381.60	41.10	5.16	220.70	5.63	6.73	384.90	40.70	5.11	167.60	5.67	6.37	349.60	38.80	4.87	219.70															
13	5.35	6.98	386.90	41.00	5.16	150.90	5.41	6.85	344.40	39.70	4.97	163.80	5.45	6.52	382.20	37.70	4.74	220.70	5.48	6.71	385.30	38.20	4.63	167.60	5.51	6.35	349.80	35.20	4.43	219.90															
14	5.25	6.98	385.60	37.90	4.80	196.30	5.28	6.83	344.60	36.70	4.63	163.90	5.32	6.50	338.70	34.70	4.34	220.60	5.24	6.68	386.70	27.00	3.42	167.90	5.32	6.32	350.30	30.30	3.83	220.40															
15	5.16	6.98	386.50	33.30	4.20	195.40	5.20	6.81	345.50	31.50	4.00	163.80	5.26	6.49	383.10	31.60	3.98	220.50	5.24	6.67	387.00	26.70	3.37	168.00	5.27	6.30	351.00	25.80	3.26	220.40															
16	5.12	6.98	387.00	301.00	3.80	194.20	5.16	6.79	345.90	28.60	3.62	164.00	5.18	6.46	383.30	26.10	3.31	220.20	5.20	6.66	387.10	23.80	3.04	168.10	5.21	6.28	351.20	22.50	2.85	219.90															
17	5.11	6.98	387.10	27.60	3.50	193.10	5.14	6.78	345.90	26.80	3.40	164.10	5.15	6.45	383.70	23.60	3.08	219.40	5.18	6.65	387.30	22.20	2.81	168.20	5.19	6.27	351.50	19.30	2.44	220.30															
18	5.10	6.98	387.30	26.20	3.33	192.10	5.12	6.77	346.20	24.70	3.14	163.60	5.15	6.44	383.80	22.50	2.88	219.50	5.17	6.65	387.50	21.70	2.70	168.50	5.18	6.26	351.90	17.70	2.25	220.00															
19	5.10	6.95	387.00	24.70	3.14	194.30	5.12	6.76	346.50	22.90	2.90	163.70	5.14	6.44	384.00	21.00	2.67	219.30	5.16	6.64	388.10	19.10	2.41	168.90	5.18	6.27	352.40	16.60	2.11	219.50															
20	5.10	6.82	387.60	23.60	3.00	191.00	5.12	6.75	346.80	22.30	2.83	163.80	5.14	6.43	384.20	20.20	2.56	219.30	5.16	6.63	388.60	18.00	2.29	169.00	5.17	6.27	352.60	15.40	1.97	219.30															
21	5.10	6.67	396.50	17.40	2.10	192.30	5.12	6.73	357.20	8.40	1.10	160.40	5.14	6.37	385.90	17.70	2.21	201.30	5.16	6.67	389.00	16.80	2.14	141.00	5.17	6.25	357.20	10.80	1.36	166.80															
1 Metre from bottom sample (1MB) = 21							Metre from bottom sample (1MB) = 2						1 Metre from bottom sample (1MB) = 21						1 Metre from bottom sample (1MB) = 21						1 Metre from bottom sample (1MB) = 21																				
STATION NAME: MIDDLE QUINSAM LAKE (EMS ID: E206618																																MIDDLE QUINSAM LAKE DEPTH PROFILING													
Sample Date	09-Jul						15-Jul						22-Jul						29-Jul						05-Aug																				
Parameter	TEMP.	pH	C	% Sat.	D.O.	ORP	TEMP.	pH	C	% Sat.	D.O.	ORP	TEMP.	pH	C	% Sat.	D.O.	ORP	TEMP.	pH	C	% Sat.	D.O.	ORP	TEMP.	pH	C	% Sat.	D.O.	ORP															
Sample Depth (m)	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV	°C		µS/cm		mg/L	mV															
1	19.20	7.71	172.60	101.70	9.38	128.60	20.45	8.03	143.40	106.00	9.56	36.5	23.11	7.77	132.30	105.50	9.03	153.50	22.62	7.94	145.10	105.20	9.08	130.80	23.06	7.70	141.60	104.10	8.92	176.40															
2	19.20	7.64	172.50	101.70	9.39	124.70	19.94	8.01	143.50	105.10	9.57	40.10	22.40	7.78	133.30	104.60	9.06	153.20	22.51	7.96	145.00	104.70	9.06	130.80	22.76	7.76	141.40	104.50	9.00	171.00															
3	19.26	7.88	172.30	101.80	9.40	123.80	19.42	7.99	145.00	106.00	9.75	42.50	22.14	7.78	132.00	106.60	9.32	153.00	22.43	7.98	144.80	104.00	9.01	131.10	22.66	7.76	141.50	103.60	8.94	170.50															
4	19.11	7.92	171.60	101.10	9.35	122.50	19.11	7.97	143.90	104.00	9.62	45.20	20.61	7.83	151.00	108.90	9.79	152.70	21.95	7.92	150.90	108.10	9.47	133.30	22.36	7.72	142.00	103.40	8.98	171.40															
5	18.81	7.68	171.00	101.40	9.44	123.20	18.81	7.93	144.20	192.90	9.58	47.60	19.90	7.76	154.90	105.70	9.62	153.60	20.83	7.96	160.20	109.00	9.75	133.00	21.93	7.69	146.10	106.40	9.35	171.90															
6	18.52	7.86	167.70	101.50	9.68	123.50	18.22	7.89	144.10																																				

Table 28
Q2 Report 2020

EMS ID	E206619									Water Quality Guidelines	
StnName	Long Lake Middle 1 Metre										
StnCode	LLM1										
Date	9-Jul-20		15-Jul-20	22-Jul-20	29-Jul-20	5-Aug-20	Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit										
SO4-D	mg/L	55	54	53	49	61	5	61	54.4	128	
Turb	NTU	0.25	0.23	0.19	0.23	0.20	5	0.25	0.22		
Chlr-a	ug/L					<0.50	1	<0.50	0.25		
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600
Alk-T	mg/L	29	30	31	34	34	5	34	31.6		
Al-T	mg/L	0.0139	0.0101	0.0091	0.0083	0.0086	5	0.0139	0.0100		
As-T	mg/L	0.00047	0.00050	0.00052	0.00056	<0.50	5	0.00057	0.00052		0.005
Ba-T	mg/L	0.0051	0.0050	0.0050	0.0052	0.0054	5	0.0054	0.0051	1	5
B-T	mg/L	0.052	0.057	<0.050	0.058	0.052	5	0.058	0.0488	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	22.0	23.5	22.5	24.3	24.4	5	24.4	23.3		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00051	<0.00050	<0.00050	<0.00050	<0.00050	5	0.00051	0.000302	0.002	0.007
Hard-T	mg/L	66.8	71.6	68.4	73.3	73.4	5	73.4	70.7		
Fe-T	mg/L	0.067	0.068	0.059	0.058	0.050	5	0.068	0.060		1
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	2.87	3.10	2.93	3.04	3.05	5	3.10	3.00		
Mn-T	mg/L	0.0065	0.0074	0.0050	0.0042	0.0048	5	0.0074	0.0056	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.278	0.260	0.243	0.248	0.258	5	0.278	0.257		
S-T	mg/L	17.3	18.5	16.9	17.7	18.6	5	18.6	17.8		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	7.04	7.15	6.61	6.96	6.92	5	7.15	6.94		
Sr-T	mg/L	0.151	0.154	0.149	0.154	0.163	5	0.163	0.154		
Zn-T	mg/L	0.0111	<0.0050	<0.0050	<0.0050	<0.0050	5	0.0111	0.00422	0.0075	0.033
Al-D	mg/L	0.0088	0.0081	0.0081	0.0075	0.0069	5	0.0088	0.0079	0.05	0.1
As-D	mg/L	0.00048	0.00045	0.00050	0.00053	0.00053	5	0.00053	0.00050		
Ba-D	mg/L	0.0051	0.0052	0.0050	0.0052	0.0050	5	0.0052	0.0051		
B-D	mg/L	0.056	0.052	0.054	0.053	0.054	5	0.056	0.054		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	22.8	23.8	23.0	23.5	23.1	5	23.8	23.2		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00057	0.00031	0.00031	0.00031	0.00028	5	0.00057	0.00036	0.0003	0.002
Hard-D	mg/L	69.4	71.9	69.6	71.4	70.8	5	71.9	70.6		
DOC	mg/L	2.9	2.9	2.7	2.9	2.6	5	2.9	2.8		
Fe-D	mg/L	0.0506	0.0529	0.0461	0.0437	0.0428	5	0.0529	0.0472		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	3.05	3.01	2.97	3.09	3.18	5	3.18	3.06		
Mn-D	mg/L	0.0022	0.0039	0.0015	0.0013	0.0020	5	0.0039	0.0022		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.269	0.251	0.256	0.255	0.243	5	0.269	0.255		
S-D	mg/L	18.7	18.0	17.8	17.4	17.7	5	18.7	17.9		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	7.27	7.01	6.75	6.87	7.21	5	7.27	7.02		
Sr-D	mg/L	0.162	0.159	0.153	0.151	0.153	5	0.162	0.156		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100		
N-NH3	mg/L	<0.015	<0.015	0.017	<0.015	<0.015	5	0.017	0.0094	1.87	12.9
N-TKN	mg/L	0.121	0.119	0.117	0.129	0.107	5	0.129	0.119		
P-T	mg/L	0.0052	0.0046	<0.0030	0.0032	<0.0030	5	0.0052	0.00320	0.007	
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 29
Q2 Report 2020

EMS ID	E206619		E206619	E206619	E206619	E206619	Count	Maximum	5 in 30 Ave	Water Quality Guidelines	
StnName	Long Lake Middle 4 Metre									Average	Max
StnCode	LLM4		LLM4	LLM4	LLM4	LLM4					
Date	9-Jul-20		15-Jul-20	22-Jul-20	29-Jul-20	5-Aug-20					
Parameter	Unit										
SO4-D	mg/L	56	58	64	60	71	5	71	61.8	128	
Turb	NTU	0.22	0.27	0.21	0.25	0.18	5	0.27	0.23		
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600
Alk-T	mg/L	30	31	32	35	35	5	35	32.6		
Al-T	mg/L	0.0107	0.0114	0.0094	0.0088	0.0085	5	0.0114	0.0098		
As-T	mg/L	0.00048	0.00049	0.00053	0.00049	0.00056	5	0.00056	0.00051		0.005
Ba-T	mg/L	0.0047	0.0054	0.0058	0.0056	0.0059	5	0.0059	0.0055	1	5
B-T	mg/L	0.052	0.057	0.055	0.062	0.056	5	0.062	0.056	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	21.7	24.7	25.9	26.5	26.5	5	26.5	25.1		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00057	<0.00050	<0.00050	<0.00050	<0.00050	5	0.00057	0.000314	0.002	0.007
Hard-T	mg/L	65.9	75.1	78.1	80.0	79.7	5	80.0	75.8		
Fe-T	mg/L	0.066	0.091	0.073	0.065	0.056	5	0.091	0.070		1
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	2.83	3.25	3.28	3.38	3.27	5	3.38	3.20		
Mn-T	mg/L	0.0067	0.0096	0.0052	0.0059	0.0058	5	0.0096	0.0066	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.258	0.267	0.275	0.282	0.274	5	0.282	0.271		
S-T	mg/L	16.8	19.1	20.9	20.6	20.9	5	20.9	19.7		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	6.88	7.36	7.54	7.82	7.42	5	7.82	7.40		
Sr-T	mg/L	0.150	0.159	0.177	0.170	0.176	5	0.177	0.166		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0087	0.0081	0.0070	0.0070	0.0085	5	0.0087	0.0079	0.05	0.1
As-D	mg/L	0.00047	0.00048	0.00048	0.00051	0.00049	5	0.00051	0.00049		
Ba-D	mg/L	0.0051	0.0054	0.0052	0.0058	0.0053	5	0.0058	0.0054		
B-D	mg/L	0.057	0.054	0.057	0.059	0.057	5	0.059	0.057		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	23.4	24.3	24.7	26.0	25.3	5	26.0	24.7		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00039	0.00029	0.00029	0.00030	0.00030	5	0.00039	0.00031	0.0003	0.002
Hard-D	mg/L	70.5	73.5	75.0	79.2	77.9	5	79.2	75.2		
DOC	mg/L	2.8	2.9	3.0	2.8	2.8	5	3.0	2.9		
Fe-D	mg/L	0.0502	0.0604	0.0502	0.0494	0.0453	5	0.0604	0.0511		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	2.95	3.14	3.21	3.43	3.56	5	3.56	3.26		
Mn-D	mg/L	0.0019	0.0041	0.0014	0.0024	0.0035	5	0.0041	0.0027		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.263	0.259	0.264	0.291	0.267	5	0.291	0.269		
S-D	mg/L	18.1	19.3	20.1	21.0	20.6	5	21.0	19.8		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	7.05	7.26	7.34	7.71	8.02	5	8.02	7.48		
Sr-D	mg/L	0.162	0.167	0.164	0.178	0.179	5	0.179	0.170		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	0.041	5	0.041	0.0162		
N-NH3	mg/L	<0.015	<0.015	<0.015	<0.015	<0.015	5	<0.015	0.0075	1.87	12.9
N-TKN	mg/L	0.124	0.136	0.099	0.126	0.068	5	0.136	0.111		
P-T	mg/L	0.0034	0.0042	<0.0030	0.023	0.0032	5	0.0230	0.00706	0.007	
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 30
Q2 Report 2020

EMS ID	E206619		E206619	E206619	E206619	E206619	Count	Maximum	5 in 30 Ave	Water Quality Guidelines	
StnName	Long Lake Middle 9 Metre									Average	Max
StnCode	LLM9		LLM9	LLM9	LLM9	LLM9					
Date	9-Jul-20		15-Jul-20	22-Jul-20	29-Jul-20	5-Aug-20					
Parameter	Unit										
SO4-D	mg/L	130	130	120	84	130	5	130	118.8	128	
Turb	NTU	0.17	0.27	0.19	0.21	0.16	5	0.27	0.20		
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	20	5	20	4.40	150	600
Alk-T	mg/L	46	47	46	41	50	5	50	46.0		
Al-T	mg/L	0.0109	0.0098	0.0089	0.0092	0.0094	5	0.0109	0.0096		
As-T	mg/L	0.00021	0.00022	0.00025	0.00044	0.00026	5	0.00044	0.00028		0.005
Ba-T	mg/L	0.0067	0.0070	0.0066	0.0060	0.0072	5	0.0072	0.0067	1	5
B-T	mg/L	0.104	0.108	0.095	0.079	0.110	5	0.110	0.099	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	42.4	45.2	44.2	34.0	48.4	5	48.4	42.8		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00064	<0.00050	<0.00050	<0.00050	<0.00050	5	0.00064	0.000328	0.002	0.007
Hard-T	mg/L	125	134	130	101	142	5	142	126.4		
Fe-T	mg/L	0.026	0.030	0.029	0.043	0.022	5	0.043	0.030		1
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	4.69	4.99	4.67	4.03	5.00	5	5.00	4.68		
Mn-T	mg/L	0.0587	0.0695	0.0563	0.0306	0.0775	5	0.0775	0.0585	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.509	0.527	0.476	0.377	0.534	5	0.534	0.485		
S-T	mg/L	37.7	40.9	38.2	28.0	42.0	5	42.0	37.4		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	15.8	16.8	15.3	11.4	17.2	5	17.2	15.3		
Sr-T	mg/L	0.338	0.354	0.332	0.237	0.382	5	0.382	0.329		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0081	0.0076	0.0081	0.0078	0.0079	5	0.0081	0.0079	0.05	0.1
As-D	mg/L	0.00021	0.00019	0.00022	0.00041	0.00018	5	0.00041	0.00024		
Ba-D	mg/L	0.0071	0.0068	0.0067	0.0059	0.0066	5	0.0071	0.0066		
B-D	mg/L	0.113	0.104	0.105	0.076	0.105	5	0.113	0.101		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	45.5	44.6	44.0	33.4	45.3	5	45.5	42.6		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00040	0.00027	0.00031	0.00034	0.00027	5	0.00040	0.00032	0.0003	0.002
Hard-D	mg/L	134	131	130	99.6	134	5	134	125.7		
DOC	mg/L	2.5	2.3	2.0	2.5	2.1	5	2.5	2.3		
Fe-D	mg/L	0.0159	0.0168	0.0163	0.0313	0.0130	5	0.0313	0.0187		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	4.87	4.86	4.96	3.95	5.15	5	5.15	4.76		
Mn-D	mg/L	0.0601	0.0624	0.0566	0.0285	0.0737	5	0.0737	0.0563		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.527	0.501	0.495	0.376	0.490	5	0.527	0.478		
S-D	mg/L	40.8	41.5	40.8	28.1	40.0	5	41.5	38.2		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	16.4	16.2	16.4	11.2	17.0	5	17.0	15.4		
Sr-D	mg/L	0.358	0.359	0.340	0.242	0.350	5	0.359	0.330		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
N-NO23	mg/L	<0.020	<0.020	0.029	<0.020	0.049	5	0.049	0.0216		
N-NH3	mg/L	<0.015	<0.015	<0.015	<0.015	<0.015	5	<0.015	0.0075	1.87	12.9
N-TKN	mg/L	0.116	0.118	0.073	0.114	0.047	5	0.118	0.094		
P-T	mg/L	0.0055	<0.0030	<0.0030	<0.0030	<0.0030	5	0.0055	0.00230	0.007	
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 31
Q2 Report 2020

EMS ID	E206619		E206619		E206619		E206619		E206619					Water Quality Guidelines	
StnName	Long Lake Middle 1 Metre from Bottom														
StnCode	LLMB		LLMB		LLMB		LLMB		LLMB						
Date	9-Jul-20		15-Jul-20		22-Jul-20		29-Jul-20		5-Aug-20		Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit														
SO4-D	mg/L	130	130	130	130	130	130	130	5	130	5	130	130.0	128	
Turb	NTU	2.1	2.1	1.5	2.5	1.9	5	2.5	2.0						
Cl-D	mg/L	<1.0	2.8	<1.0	<1.0	1.1	5	2.8	1.08	150	600				
Alk-T	mg/L	50	49	47	52	51	5	52	49.8						
Al-T	mg/L	0.0098	0.0087	0.0081	0.0074	0.0078	5	0.0098	0.0084						
As-T	mg/L	0.00027	0.00027	0.00031	0.00030	0.00031	5	0.00031	0.00029		0.005				
Ba-T	mg/L	0.0106	0.0108	0.0109	0.0116	0.0114	5	0.0116	0.0111	1	5				
B-T	mg/L	0.112	0.109	0.104	0.108	0.106	5	0.112	0.108	1.2					
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000023	5	0.000023	0.0000086						
Ca-T	mg/L	45.1	46.0	47.7	49.2	47.4	5	49.2	47.1						
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05				
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250	0.002	0.007				
Hard-T	mg/L	134	135	140	145	139	5	145	138.6						
Fe-T	mg/L	0.074	0.076	0.084	0.095	0.090	5	0.095	0.084		1				
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005				
Mg-T	mg/L	5.12	4.99	5.04	5.29	4.92	5	5.29	5.07						
Mn-T	mg/L	0.316	0.337	0.383	0.549	0.553	5	0.553	0.428	0.737	0.8706				
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001				
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2				
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025				
K-T	mg/L	0.564	0.536	0.545	0.552	0.543	5	0.564	0.548						
S-T	mg/L	40.9	40.5	41.5	42.0	41.6	5	42.0	41.3						
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002					
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001				
Na-T	mg/L	17.4	16.9	17.1	17.7	16.9	5	17.7	17.2						
Sr-T	mg/L	0.367	0.366	0.370	0.363	0.374	5	0.374	0.368						
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033				
Al-D	mg/L	0.0048	0.0046	0.0042	0.0046	0.0039	5	0.0048	0.0044	0.05	0.1				
As-D	mg/L	0.00020	0.00019	0.00018	0.00022	0.00019	5	0.00022	0.00020						
Ba-D	mg/L	0.0097	0.0097	0.0096	0.0105	0.0095	5	0.0105	0.0098						
B-D	mg/L	0.115	0.108	0.112	0.108	0.106	5	0.115	0.110						
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017				
Ca-D	mg/L	46.7	46.3	46.9	46.0	45.2	5	46.9	46.2						
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100						
Cu-D	mg/L	0.00043	0.00029	0.00027	0.00031	0.00025	5	0.00043	0.00031	0.0003	0.002				
Hard-D	mg/L	137	136	138	136	134	5	138	136.2						
DOC	mg/L	2.0	2.2	2.2	2.2	2.1	5	2.2	2.1						
Fe-D	mg/L	0.0125	0.0108	0.0110	0.0134	0.0107	5	0.0134	0.0117		0.35				
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100						
Mg-D	mg/L	4.99	4.93	5.03	5.04	5.12	5	5.12	5.02						
Mn-D	mg/L	0.0968	0.128	0.140	0.311	0.383	5	0.383	0.2118						
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095						
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
K-D	mg/L	0.551	0.523	0.539	0.530	0.499	5	0.551	0.528						
S-D	mg/L	41.3	40.7	41.6	40.0	39.1	5	41.6	40.5						
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050						
Na-D	mg/L	16.8	16.7	17.3	16.6	17.1	5	17.3	16.9						
Sr-D	mg/L	0.369	0.363	0.360	0.371	0.354	5	0.371	0.363						
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250						
N-NO23	mg/L	0.073	0.066	0.076	0.078	0.086	5	0.086	0.076						
N-NH3	mg/L	0.017	0.038	0.036	0.024	0.015	5	0.038	0.026	1.87	12.9				
N-TKN	mg/L	0.102	0.096	0.082	0.105	0.073	5	0.105	0.092						
P-T	mg/L	0.0035	<0.0030	<0.0030	<0.0030	<0.0030	5	0.0035	0.00190	0.007					
Notes:															
Factor applied to less-than results when calculating statistics: 0.5															

Table 32
Q2 Report 2020

EMS ID		E206618	E206618	E206618	E206618	E206618				Water Quality Guidelines	
StnName		Middle Quinsam Lake 1 Metre									
StnCode		MQL1	MQL1	MQL1	MQL1	MQL1					
Date		9-Jul-20	15-Jul-20	22-Jul-20	29-Jul-20	5-Aug-20	Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit										
SO4-D	mg/L	33	31	25	28	34	5	34	30.2	128	
Chlr-a	ug/L					<0.50	1	1		0.25	
Turb	NTU	0.27	0.26	0.25	0.24	0.25	5	0.27	0.25		
Cl-D	mg/L	<1.0	<1.0	1.5	<1.0	<1.0	5	1.5	0.70	150	600
Alk-T	mg/L	36	35	31	36	37	5	37	35.0		
Al-T	mg/L	0.0159	0.0151	0.0154	0.0147	0.0150	5	0.0159	0.0152		
As-T	mg/L	0.00018	0.00016	0.00018	0.00017	0.00019	5	0.00019	0.00018		0.005
Ba-T	mg/L	0.0019	0.0017	0.0014	0.0015	0.0016	5	0.0019	0.0016	1	5
B-T	mg/L	0.058	0.053	<0.050	<0.050	<0.050	5	0.058	0.0372	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	12.2	11.7	10.4	11.4	11.8	5	12.2	11.5		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00059	0.00055	0.00052	0.00073	0.00051	5	0.00073	0.00058	0.002	0.007
Hard-T	mg/L	36.8	35.7	31.3	34.5	35.6	5	36.8	34.8		
Fe-T	mg/L	0.040	0.039	0.041	0.051	0.050	5	0.051	0.044		1
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	1.56	1.54	1.32	1.44	1.49	5	1.56	1.47		
Mn-T	mg/L	0.0075	0.0069	0.0063	0.0071	0.0060	5	0.0075	0.0068	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.275	0.254	0.196	0.220	0.242	5	0.275	0.237		
S-T	mg/L	12.2	11.5	8.1	9.1	11.1	5	12.2	10.4		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	17.8	16.1	11.8	13.9	14.9	5	17.8	14.9		
Sr-T	mg/L	0.0733	0.0648	0.0514	0.0568	0.0652	5	0.0733	0.0623		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0154	0.0117	0.0137	0.0126	0.0138	5	0.0154	0.0134	0.05	0.1
As-D	mg/L	0.00016	0.00014	0.00015	0.00018	0.00017	5	0.00018	0.00016		
Ba-D	mg/L	0.0018	0.0016	0.0014	0.0015	0.0015	5	0.0018	0.0016		
B-D	mg/L	0.054	0.052	<0.050	<0.050	<0.050	5	0.054	0.0362		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	12.1	11.7	10.4	11.2	11.6	5	12.1	11.4		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00049	0.00045	0.00047	0.00048	0.00055	5	0.00055	0.00049	0.0003	0.002
Hard-D	mg/L	36.4	35.4	31.4	33.6	35.3	5	36.4	34.4		
DOC	mg/L	1.9	1.7	1.9	1.5	1.8	5	1.9	1.8		
Fe-D	mg/L	0.0224	0.0225	0.0225	0.0266	0.0249	5	0.0266	0.0238		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	1.54	1.48	1.32	1.39	1.50	5	1.54	1.45		
Mn-D	mg/L	0.0028	0.0031	0.0018	0.0017	0.0013	5	0.0031	0.0021		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.277	0.253	0.198	0.215	0.215	5	0.277	0.232		
S-D	mg/L	12.9	11.8	8.3	9.1	9.7	5	12.9	10.4		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	17.1	16.0	11.8	13.3	14.9	5	17.1	14.6		
Sr-D	mg/L	0.0740	0.0640	0.0504	0.0588	0.0591	5	0.0740	0.0613		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100		
N-NH3	mg/L	<0.015	<0.015	<0.015	<0.015	<0.015	5	<0.015	0.0075	1.87	12.9
N-TKN	mg/L	0.106	0.086	0.088	0.098	0.076	5	0.106	0.091		
P-T	mg/L	<0.0030	0.0037	<0.0030	<0.0030	<0.0030	5	0.0037	0.00194	0.006	
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 33
Q2 Report 2020

EMS ID	E206618		E206618	E206618	E206618	E206618	Count	Maximum	5 in 30 Ave	Water Quality Guidelines	
StnName	Middle Quinsam Lake 4 Metre									Average	Max
StnCode	MQL4		MQL4	MQL4	MQL4	MQL4					
Date	9-Jul-20		15-Jul-20	22-Jul-20	29-Jul-20	5-Aug-20					
Parameter	Unit										
SO4-D	mg/L	35	35	27	30	33	5	35	32.0	128	
Turb	NTU	0.28	0.25	0.27	0.26	0.26	5	0.28	0.26		
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600
Alk-T	mg/L	36	35	31	37	38	5	38	35.4		
Al-T	mg/L	0.0158	0.0148	0.0137	0.0140	0.0151	5	0.0158	0.0147		
As-T	mg/L	0.00017	0.00019	0.00018	0.00017	0.00020	5	0.00020	0.00018		0.005
Ba-T	mg/L	0.0018	0.0018	0.0014	0.0015	0.0017	5	0.0018	0.0016	1	5
B-T	mg/L	0.058	0.054	<0.050	<0.050	<0.050	5	0.058	0.0374	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	12.4	11.9	10.8	11.6	11.6	5	12.4	11.7		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00057	0.00055	0.00050	<0.00050	0.00051	5	0.00057	0.000476	0.002	0.007
Hard-T	mg/L	37.5	36.3	32.3	34.8	35.0	5	37.5	35.2		
Fe-T	mg/L	0.041	0.040	0.043	0.048	0.039	5	0.048	0.042		1
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	1.59	1.57	1.29	1.44	1.46	5	1.59	1.47		
Mn-T	mg/L	0.0076	0.0075	0.0067	0.0073	0.0068	5	0.0076	0.0072	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.275	0.262	0.205	0.221	0.239	5	0.275	0.240		
S-T	mg/L	12.4	12.0	8.4	9.7	10.4	5	12.4	10.6		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	17.6	16.7	12.3	13.8	14.8	5	17.6	15.0		
Sr-T	mg/L	0.0733	0.0673	0.0544	0.0571	0.0648	5	0.0733	0.0634		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0126	0.0115	0.0118	0.0141	0.0115	5	0.0141	0.0123	0.05	0.1
As-D	mg/L	0.00016	0.00017	0.00015	0.00020	0.00017	5	0.00020	0.00017		
Ba-D	mg/L	0.0018	0.0018	0.0015	0.0016	0.0015	5	0.0018	0.0016		
B-D	mg/L	0.055	0.053	<0.050	<0.050	<0.050	5	0.055	0.0366		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	0.000011	<0.000010	5	0.000011	0.0000062	0.000087	0.00017
Ca-D	mg/L	11.9	11.7	10.7	11.0	11.5	5	11.9	11.4		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00050	0.00047	0.00049	0.00057	0.00043	5	0.00057	0.00049	0.0003	0.002
Hard-D	mg/L	35.9	35.4	32.2	33.5	34.7	5	35.9	34.3		
DOC	mg/L	1.7	1.7	1.7	1.7	1.8	5	1.8	1.7		
Fe-D	mg/L	0.0261	0.0209	0.0241	0.0268	0.0213	5	0.0268	0.0238		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	1.54	1.53	1.36	1.44	1.48	5	1.54	1.47		
Mn-D	mg/L	0.0029	0.0014	0.0013	0.0014	<0.0010	5	0.0029	0.00150		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.266	0.253	0.207	0.220	0.216	5	0.266	0.232		
S-D	mg/L	12.9	11.2	8.5	9.6	9.8	5	12.9	10.4		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	17.2	16.2	12.5	13.6	14.7	5	17.2	14.8		
Sr-D	mg/L	0.0734	0.0661	0.0541	0.0600	0.0594	5	0.0734	0.0626		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100		
N-NH3	mg/L	<0.015	<0.015	<0.015	0.017	<0.015	5	0.017	0.0094	1.87	12.9
N-TKN	mg/L	0.089	0.088	0.089	0.076	0.074	5	0.089	0.083		
P-T	mg/L	0.015	<0.0030	<0.0030	<0.0030	<0.0030	5	0.0150	0.00420	0.006	
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 34
Q2 Report 2020

EMS ID	E206618		E206618	E206618	E206618	E206618	Count	Maximum	5 in 30 Ave	Water Quality Guidelines	
StnName	Middle Quinsam Lake 9 Metre									Average	Max
StnCode	MQL9		MQL9	MQL9	MQL9	MQL9					
Date	9-Jul-20		15-Jul-20	22-Jul-20	29-Jul-20	5-Aug-20					
Parameter	Unit										
SO4-D	mg/L	29	30	31	30	29	5	31	29.8	128	
Turb	NTU	0.20	0.21	0.22	0.31	0.31	5	0.31	0.25		
Cl-D	mg/L	1.5	1.5	1.3	1.6	3.3	5	3.3	1.8	150	600
Alk-T	mg/L	30	31	31	35	32	5	35	31.8		
Al-T	mg/L	0.0111	0.0109	0.0096	0.0095	0.0103	5	0.0111	0.0103		
As-T	mg/L	0.00014	0.00014	0.00013	0.00014	0.00016	5	0.00016	0.00014		0.005
Ba-T	mg/L	0.0016	0.0016	0.0016	0.0016	0.0016	5	0.0016	0.0016	1	5
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	11.9	12.1	12.2	12.1	12.1	5	12.2	12.1		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00055	0.00060	0.00054	0.00058	0.00053	5	0.00060	0.00056	0.002	0.007
Hard-T	mg/L	35.6	36.3	36.5	36.3	36.2	5	36.5	36.2		
Fe-T	mg/L	0.019	0.019	0.023	0.026	0.027	5	0.027	0.023		1
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	1.44	1.49	1.47	1.47	1.45	5	1.49	1.46		
Mn-T	mg/L	0.0048	0.0051	0.0053	0.0059	0.0075	5	0.0075	0.0057	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.198	0.194	0.199	0.193	0.192	5	0.199	0.195		
S-T	mg/L	9.6	10.3	10.1	10.0	9.3	5	10.3	9.9		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	12.5	13.0	12.8	13.1	12.5	5	13.1	12.8		
Sr-T	mg/L	0.0602	0.0614	0.0603	0.0593	0.0621	5	0.0621	0.0607		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0087	0.0081	0.0083	0.0082	0.0200	5	0.0200	0.0107	0.05	0.1
As-D	mg/L	0.00012	0.00013	0.00013	0.00014	0.00012	5	0.00014	0.00013		
Ba-D	mg/L	0.0016	0.0016	0.0015	0.0016	0.0015	5	0.0016	0.0016		
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	11.5	11.8	11.5	11.8	11.9	5	11.9	11.7		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00049	0.00047	0.00047	0.00054	0.00049	5	0.00054	0.00049	0.0003	0.002
Hard-D	mg/L	34.6	35.5	34.8	35.6	35.7	5	35.7	35.2		
DOC	mg/L	1.5	2.2	1.8	1.8	1.8	5	2.2	1.8		
Fe-D	mg/L	0.0097	0.0086	0.0101	0.0119	0.0085	5	0.0119	0.0098		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	1.42	1.46	1.49	1.48	1.47	5	1.49	1.46		
Mn-D	mg/L	0.0019	<0.0010	0.0010	0.0015	0.0015	5	0.0019	0.00128		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	0.0017	5	0.0017	0.00074		
K-D	mg/L	0.194	0.189	0.201	0.201	0.173	5	0.201	0.192		
S-D	mg/L	9.7	9.9	10.6	11.2	9.1	5	11.2	10.1		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	12.1	12.6	13.2	13.0	12.7	5	13.2	12.7		
Sr-D	mg/L	0.0609	0.0594	0.0599	0.0621	0.0567	5	0.0621	0.0598		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100		
N-NH3	mg/L	<0.015	0.031	<0.015	0.023	<0.015	5	0.031	0.0153	1.87	12.9
N-TKN	mg/L	0.099	0.085	0.081	0.127	0.070	5	0.127	0.092		
P-T	mg/L	0.035	<0.0030	<0.0030	0.0033	<0.0030	5	0.0350	0.00856	0.006	
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 35
Q2 Report 2020

EMS ID	E206618		E206618		E206618		E206618		E206618		Count	Maximum	5 in 30 Ave	Water Quality Guidelines	
StnName	Middle Quinsam Lake 1 Metre from Bottom													Average	Max
StnCode	MLQB		MLQB		MLQB		MLQB		MLQB						
Date	9-Jul-20		15-Jul-20		22-Jul-20		29-Jul-20		5-Aug-20						
Parameter	Unit														
SO4-D	mg/L	29	31	30	31	36	5	36	31.4	128					
Turb	NTU	0.18	0.20	0.20	0.25	0.25	5	0.25	0.22						
Cl-D	mg/L	1.8	2.0	2.4	2.5	2.8	5	2.8	2.3	150	600				
Alk-T	mg/L	32	33	32	37	36	5	37	34.0						
Al-T	mg/L	0.0096	0.0089	0.0081	0.0075	0.0078	5	0.0096	0.0084						
As-T	mg/L	0.00011	0.00010	0.00013	0.00012	0.00014	5	0.00014	0.00012		0.005				
Ba-T	mg/L	0.0019	0.0019	0.0019	0.0021	0.0024	5	0.0024	0.0020	1	5				
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2					
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050						
Ca-T	mg/L	12.9	12.6	12.6	13.4	12.8	5	13.4	12.9						
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05				
Cu-T	mg/L	0.00070	0.00051	0.00055	0.00079	0.00057	5	0.00079	0.00062	0.002	0.007				
Hard-T	mg/L	38.9	38.0	38.3	40.4	38.7	5	40.4	38.9						
Fe-T	mg/L	0.018	0.018	0.021	0.024	0.028	5	0.028	0.022		1				
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005				
Mg-T	mg/L	1.63	1.62	1.65	1.71	1.65	5	1.71	1.65						
Mn-T	mg/L	0.0051	0.0055	0.0060	0.0069	0.0078	5	0.0078	0.0063	0.737	0.8706				
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001				
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2				
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025				
K-T	mg/L	0.219	0.215	0.212	0.217	0.217	5	0.219	0.216						
S-T	mg/L	10.8	10.7	10.4	10.7	10.3	5	10.8	10.6						
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002					
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001				
Na-T	mg/L	13.4	13.8	13.5	14.2	13.6	5	14.2	13.7						
Sr-T	mg/L	0.0647	0.0640	0.0648	0.0651	0.0670	5	0.0670	0.0651						
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033				
Al-D	mg/L	0.0069	0.0064	0.0064	0.0096	0.0050	5	0.0096	0.0069	0.05	0.1				
As-D	mg/L	<0.00010	0.00010	0.00010	0.00010	<0.00010	5	0.00010	0.000080						
Ba-D	mg/L	0.0018	0.0018	0.0019	0.0021	0.0020	5	0.0021	0.0019						
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250						
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017				
Ca-D	mg/L	12.5	12.4	12.3	12.3	12.2	5	12.5	12.3						
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100						
Cu-D	mg/L	0.00050	0.00047	0.00050	0.00057	0.00046	5	0.00057	0.00050	0.0003	0.002				
Hard-D	mg/L	37.5	37.3	37.2	37.5	37.4	5	37.5	37.4						
DOC	mg/L	1.8	2.1	1.7	1.7	1.5	5	2.1	1.8						
Fe-D	mg/L	0.0100	0.0107	0.0110	0.0148	0.0122	5	0.0148	0.0117		0.35				
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100						
Mg-D	mg/L	1.54	1.57	1.61	1.63	1.68	5	1.68	1.61						
Mn-D	mg/L	0.0036	0.0035	0.0037	0.0041	0.0042	5	0.0042	0.0038						
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095						
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
K-D	mg/L	0.205	0.209	0.209	0.213	0.200	5	0.213	0.207						
S-D	mg/L	10.9	10.2	10.8	10.3	9.9	5	10.9	10.4						
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050						
Na-D	mg/L	12.7	13.1	13.6	13.5	13.8	5	13.8	13.3						
Sr-D	mg/L	0.0650	0.0625	0.0631	0.0644	0.0596	5	0.0650	0.0629						
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250						
N-NO23	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	5	<0.020	0.0100						
N-NH3	mg/L	<0.015	0.021	<0.015	0.020	<0.015	5	0.021	0.0127	1.87	12.9				
N-TKN	mg/L	0.096	0.081	0.073	0.115	0.103	5	0.115	0.094						
P-T	mg/L	0.0031	0.016	<0.0030	0.0042	0.0035	5	0.0160	0.00566	0.006					
Notes:															
Factor applied to less-than results when calculating statistics: 0.5															

Table 36
Q2 Report 2020

EMS ID							Count	Maximum	5 in 30 Ave	Water Quality Guidelines	
StnName LLE Zone of Dilution 2- In Long lake where LLE enters near the outlet										Average	Max
StnCode LLEZ2											
Date 9-Jul-20 15-Jul-20 22-Jul-20 29-Jul-20 5-Aug-20											
Parameter	Unit										
SO4-D	mg/L	58	57	58	57	63	5	63	58.6	128	
Turb	NTU	0.29	0.24	0.25	0.29	0.18	5	0.29	0.25		
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600
Alk-T	mg/L	29	31	31	34	34	5	34	31.8		
Al-T	mg/L	0.0133	0.0105	0.0120	0.0093	0.0119	5	0.0133	0.0114		
As-T	mg/L	0.00049	0.00050	0.00051	0.00057	0.00059	5	0.00059	0.00053		0.005
Ba-T	mg/L	0.0049	0.0052	0.0052	0.0054	0.0055	5	0.0055	0.0052	1	5
B-T	mg/L	0.053	0.057	0.052	0.056	0.055	5	0.057	0.055	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	0.000015	5	0.000015	0.0000070		
Ca-T	mg/L	21.7	23.6	23.2	25.4	24.6	5	25.4	23.7		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	<0.00050	<0.00050	0.00053	<0.00050	<0.00050	5	0.00053	0.000306	0.002	0.007
Hard-T	mg/L	66.0	71.5	70.2	77.0	74.4	5	77.0	71.8		
Fe-T	mg/L	0.069	0.071	0.066	0.061	0.055	5	0.071	0.064		1
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	2.90	3.09	2.99	3.32	3.16	5	3.32	3.09		
Mn-T	mg/L	0.0074	0.0079	0.0060	0.0050	0.0050	5	0.0079	0.0063	0.737	0.8706
Hg-T	mg/L	<0.0000019	0.0000051	<0.0000019	<0.0000019	<0.0000019	5	0.0000051	0.00000178	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.262	0.261	0.256	0.273	0.269	5	0.273	0.264		
S-T	mg/L	17.2	18.3	17.4	19.1	19.2	5	19.2	18.2		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	7.03	7.10	6.85	7.44	7.12	5	7.44	7.11		
Sr-T	mg/L	0.151	0.156	0.153	0.162	0.166	5	0.166	0.158		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0125	0.0085	0.0084	0.0082	0.0069	5	0.0125	0.0089	0.05	0.1
As-D	mg/L	0.00050	0.00047	0.00051	0.00050	0.00052	5	0.00052	0.00050		
Ba-D	mg/L	0.0052	0.0050	0.0052	0.0052	0.0050	5	0.0052	0.0051		
B-D	mg/L	0.058	0.055	0.054	0.055	0.053	5	0.058	0.055		
Cd-D	mg/L	<0.000010	<0.000010	0.000017	<0.000010	<0.000010	5	0.000017	0.0000074	0.000087	0.00017
Ca-D	mg/L	23.1	23.5	23.0	23.1	23.7	5	23.7	23.3		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00064	0.00029	0.00042	0.00031	0.00028	5	0.00064	0.00039	0.0003	0.002
Hard-D	mg/L	69.9	71.4	70.1	70.4	72.3	5	72.3	70.8		
DOC	mg/L	2.6	2.7	3.1	2.6	3.0	5	3.1	2.8		
Fe-D	mg/L	0.0519	0.0542	0.0462	0.0450	0.0419	5	0.0542	0.0478		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	3.00	3.09	3.04	3.09	3.19	5	3.19	3.08		
Mn-D	mg/L	0.0027	0.0045	0.0026	0.0019	0.0025	5	0.0045	0.0028		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.266	0.256	0.269	0.277	0.238	5	0.277	0.261		
S-D	mg/L	18.4	18.0	18.1	18.1	17.5	5	18.4	18.0		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	7.10	7.08	6.92	6.97	7.22	5	7.22	7.06		
Sr-D	mg/L	0.160	0.160	0.148	0.150	0.154	5	0.160	0.154		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
N-NO23	mg/L	<0.020	<0.020	<0.020	0.027	<0.020	5	0.027	0.0134		
N-NH3	mg/L	<0.015	<0.015	<0.015	<0.015	<0.015	5	<0.015	0.0075	1.87	12.9
N-TKN	mg/L	0.143	0.136	0.136	0.520	0.116	5	0.520	0.210		
P-T	mg/L	<0.0030	0.039	<0.0030	0.016	<0.0030	5	0.0390	0.01190	0.007	

Table 37
Q2 Report 2020

EMS ID	E217017									Water Quailty Guidelines	
StnName	No Name Lake Outlet										
StnCode	NNO										
Date	8-Jul-20		14-Jul-20	21-Jul-20	28-Jul-20	4-Aug-20	Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit										
SO4-D	mg/L	1.6	1.6	2.0	1.4	1.7	5	2.0	1.7	128	
TSS	mg/L	1.2	1.2	3.2	1.6	2.4	5	3.2	1.9	5	25
Alk-T	mg/L	14	15	17	17	17	5	17	16.0		
Al-T	mg/L	0.0247	0.0212	0.0235	0.0242	0.0215	5	0.0247	0.0230		
As-T	mg/L	0.00039	0.00042	0.00041	0.00044	0.00047	5	0.00047	0.00043		0.005
Ba-T	mg/L	0.0013	0.0012	0.0013	0.0013	0.0013	5	0.0013	0.0013	1	5
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	4.78	4.97	4.90	4.98	5.14	5	5.14	4.95		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11
Cu-T	mg/L	0.00082	<0.00050	0.00052	0.00203	<0.00050	5	0.00203	0.000774	0.002	0.007
Hard-T	mg/L	16.3	17.0	16.8	16.9	17.5	5	17.5	16.9		
Fe-T	mg/L	0.135	0.139	0.141	0.147	0.152	5	0.152	0.143		1
P-T	mg/L	0.041	0.0040	0.048	<0.0030	0.0048	5	0.048	0.01986		
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.0039978	0.01763
Mg-T	mg/L	1.07	1.12	1.11	1.08	1.13	5	1.13	1.10		
Mn-T	mg/L	0.0092	0.0050	0.0093	0.0136	0.0116	5	0.0136	0.0097	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.081	0.065	0.076	0.064	0.068	5	0.081	0.071		
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	1.23	1.26	1.28	1.29	1.27	5	1.29	1.27		
Sr-T	mg/L	0.0157	0.0163	0.0160	0.0167	0.0162	5	0.0167	0.0162		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0208	0.0173	0.0162	0.0137	0.0142	5	0.0208	0.0164	0.05	0.1
As-D	mg/L	0.00037	0.00038	0.00047	0.00039	0.00044	5	0.00047	0.00041		
Ba-D	mg/L	0.0011	0.0012	0.0012	0.0011	0.0011	5	0.0012	0.0011		
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250		
Cd-D	mg/L	<0.000010	<0.000010	0.000019	<0.000010	<0.000010	5	0.000019	0.0000078	0.000087	0.00017
Ca-D	mg/L	4.77	5.06	4.90	4.75	5.14	5	5.14	4.92		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00035	0.00036	0.00064	0.00039	0.00048	5	0.00064	0.00044	0.0003	0.002
Hard-D	mg/L	16.3	17.2	16.6	16.3	17.5	5	17.5	16.8		
DOC	mg/L	2.5	2.9	3.2	2.6	3.0	5	3.2	2.8		
Fe-D	mg/L	0.111	0.116	0.108	0.101	0.125	5	0.125	0.112		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	1.06	1.12	1.06	1.07	1.13	5	1.13	1.09		
Mn-D	mg/L	0.0030	0.0031	0.0054	0.0054	0.0074	5	0.0074	0.0049		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.078	0.069	0.072	0.064	0.068	5	0.078	0.070		
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	1.22	1.21	1.27	1.21	1.32	5	1.32	1.25		
Sr-D	mg/L	0.0152	0.0168	0.0162	0.0153	0.0158	5	0.0168	0.0159		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 38
Q2 Report 2020

EMS ID	E219412									Water Quailty Guidelines	
StnName	Long Lake Outlet										
StnCode	LLO										
Date	8-Jul-20	14-Jul-20	21-Jul-20	28-Jul-20	4-Aug-20		Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit										
SO4-D	mg/L	56	55	52	54	62	5	62	55.8	128	
TSS	mg/L	1.6	1.2	1.2	1.6	1.6	5	1.6	1.4	5	25
Alk-T	mg/L	29	30	35	34	34	5	35	32.4		
Al-T	mg/L	0.0148	0.0140	0.0136	0.0116	0.0103	5	0.0148	0.0129		
As-T	mg/L	0.00048	0.00047	0.00056	0.00052	0.00048	5	0.00056	0.00050		0.005
Ba-T	mg/L	0.0050	0.0053	0.0058	0.0055	0.0056	5	0.0058	0.0054	1	5
B-T	mg/L	0.055	0.054	0.053	0.055	<0.050	5	0.055	0.0484	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	22.9	23.6	24.3	24.1	23.5	5	24.3	23.7		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	5	<0.00050	0.000250	0.002	0.007
Hard-T	mg/L	69.6	71.3	74.2	73.6	71.4	5	74.2	72.0		
Fe-T	mg/L	0.078	0.083	0.084	0.052	0.056	5	0.084	0.071		1
P-T	mg/L	0.0078	0.020	0.027	<0.0030	<0.0030	5	0.027	0.01156		
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	3.01	3.01	3.26	3.26	3.06	5	3.26	3.12		
Mn-T	mg/L	0.0125	0.0128	0.0099	0.0090	0.0085	5	0.0128	0.0105	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.267	0.246	0.272	0.269	0.255	5	0.272	0.262		
S-T	mg/L	17.7	19.0	19.2	18.8	16.3	5	19.2	18.2		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	7.23	6.98	7.32	7.32	6.75	5	7.32	7.12		
Sr-T	mg/L	0.155	0.158	0.161	0.158	0.156	5	0.161	0.158		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0081	0.0074	0.0077	0.0059	0.0051	5	0.0081	0.0068	0.05	0.1
As-D	mg/L	0.00045	0.00048	0.00054	0.00045	0.00050	5	0.00054	0.00048		
Ba-D	mg/L	0.0051	0.0053	0.0056	0.0049	0.0053	5	0.0056	0.0052		
B-D	mg/L	0.054	0.054	0.057	<0.050	0.051	5	0.057	0.0482		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	22.4	23.7	24.8	22.7	24.4	5	24.8	23.6		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00030	0.00031	0.00029	0.00029	0.00026	5	0.00031	0.00029	0.0003	0.002
Hard-D	mg/L	68.3	71.5	75.2	68.7	73.6	5	75.2	71.5		
DOC	mg/L	2.6	2.7	2.7	2.2	2.4	5	2.7	2.5		
Fe-D	mg/L	0.0480	0.0540	0.0538	0.0325	0.0290	5	0.0540	0.0435		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	2.99	3.02	3.22	2.91	3.10	5	3.22	3.05		
Mn-D	mg/L	0.0027	0.0032	0.0027	0.0021	0.0023	5	0.0032	0.0026		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.266	0.264	0.267	0.256	0.260	5	0.267	0.263		
S-D	mg/L	17.3	18.4	19.5	16.7	18.9	5	19.5	18.2		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	7.14	6.97	7.10	6.70	6.83	5	7.14	6.95		
Sr-D	mg/L	0.156	0.160	0.167	0.147	0.173	5	0.173	0.161		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 39
Q2 Report 2020

EMS ID	E0126402									Water Quality Guidelines	
StnName	Quinsam River at Argonaut Bridge										
StnCode	WA										
Date	8-Jul-20		14-Jul-20	21-Jul-20	28-Jul-20	4-Aug-20	Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit										
SO4-D	mg/L	1.0	1.1	<1.0	1.5	1.2	5	1.5	1.06	128	
TSS	mg/L	<1.0	1.2	2.0	2.4	<1.0	5	2.4	1.32	5	25
Alk-T	mg/L	18	18	23	23	22	5	23	20.8		
Al-T	mg/L	0.0236	0.0199	0.0225	0.0246	0.0193	5	0.0246	0.0220		
As-T	mg/L	0.00011	0.00011	0.00011	0.00014	0.00011	5	0.00014	0.00012		0.005
Ba-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	5
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	6.66	7.00	6.84	7.33	7.08	5	7.33	6.98		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00073	0.00057	0.00057	0.00072	0.00055	5	0.00073	0.00063	0.002	0.007
Hard-T	mg/L	19.8	20.6	20.3	21.6	20.8	5	21.6	20.6		
Fe-T	mg/L	0.022	0.018	0.022	0.023	0.018	5	0.023	0.021		1
P-T	mg/L	0.011	<0.0030	0.053	<0.0030	<0.0030	5	0.053	0.01370		
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	0.758	0.747	0.788	0.810	0.747	5	0.810	0.770		
Mn-T	mg/L	0.0018	0.0016	0.0019	0.0020	0.0015	5	0.0020	0.0018	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.074	0.053	0.056	0.063	<0.050	5	0.074	0.0542		
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	0.628	0.638	0.621	0.661	0.615	5	0.661	0.633		
Sr-T	mg/L	0.0113	0.0116	0.0116	0.0124	0.0115	5	0.0124	0.0117		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0154	0.0150	0.0164	0.0154	0.0180	5	0.0180	0.0160	0.05	0.1
As-D	mg/L	<0.00010	0.00011	0.00013	<0.00010	<0.00010	5	0.00013	0.000078		
Ba-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	6.64	7.04	6.91	6.66	7.09	5	7.09	6.87		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00053	0.00055	0.00054	0.00052	0.00074	5	0.00074	0.00058	0.0003	0.002
Hard-D	mg/L	19.6	20.7	20.3	19.8	21.0	5	21.0	20.3		
DOC	mg/L	1.5	1.5	1.8	1.2	1.4	5	1.8	1.5		
Fe-D	mg/L	0.0109	0.0127	0.0131	0.0132	0.0135	5	0.0135	0.0127		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	0.736	0.758	0.740	0.757	0.805	5	0.805	0.759		
Mn-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.067	0.055	0.055	0.051	0.051	5	0.067	0.056		
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	0.624	0.607	0.577	0.604	0.612	5	0.624	0.605		
Sr-D	mg/L	0.0112	0.0121	0.0113	0.0108	0.0122	5	0.0122	0.0115		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
Cl-D	mg/L	<1.0	1.3	<1.0	<1.0	1.3	5	1.3	0.82	150	600
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 40
Q2 Report 2020

EMS ID		E0900504					Count	Maximum	5 in 30 Ave	Water Quailty Guidelines	
StnName		Middle Quinsam Lake Outlet								Average	Max
StnCode		WB									
Date		8-Jul-20	14-Jul-20	21-Jul-20	28-Jul-20	4-Aug-20					
Parameter	Unit										
SO4-D	mg/L	37	37	27	29	32	5	37	32.4	128	
TSS	mg/L	2.0	1.2	2.4	1.6	1.6	5	2.4	1.8	5	25
Alk-T	mg/L	36	35	35	36	37	5	37	35.8		
Al-T	mg/L	0.0158	0.0146	0.0160	0.0182	0.0133	5	0.0182	0.0156		
As-T	mg/L	0.00020	0.00016	0.00017	0.00021	0.00018	5	0.00021	0.00018		0.005
Ba-T	mg/L	0.0020	0.0020	0.0016	0.0017	0.0016	5	0.0020	0.0018	1	5
B-T	mg/L	0.056	0.054	<0.050	<0.050	<0.050	5	0.056	0.0370	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	12.6	12.8	10.9	11.5	11.7	5	12.8	11.9		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00070	0.00053	0.00052	0.00116	0.00057	5	0.00116	0.00070	0.002	0.007
Hard-T	mg/L	38.1	38.6	32.9	34.9	35.3	5	38.6	36.0		
Fe-T	mg/L	0.044	0.042	0.044	0.047	0.026	5	0.047	0.041		1
P-T	mg/L	0.012	<0.0030	0.027	<0.0030	<0.0030	5	0.027	0.00870		
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	1.63	1.63	1.38	1.48	1.48	5	1.63	1.52		
Mn-T	mg/L	0.0097	0.0085	0.0084	0.0090	0.0026	5	0.0097	0.0076	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.286	0.260	0.205	0.227	0.228	5	0.286	0.241		
S-T	mg/L	12.3	12.1	8.5	9.1	9.4	5	12.3	10.3		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	17.0	16.1	12.0	13.3	14.3	5	17.0	14.5		
Sr-T	mg/L	0.0751	0.0746	0.0553	0.0611	0.0629	5	0.0751	0.0658		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0116	0.0157	0.0126	0.0127	0.0136	5	0.0157	0.0132	0.05	0.1
As-D	mg/L	0.00017	0.00018	0.00019	0.00017	0.00018	5	0.00019	0.00018		
Ba-D	mg/L	0.0020	0.0020	0.0016	0.0014	0.0016	5	0.0020	0.0017		
B-D	mg/L	0.056	0.054	<0.050	<0.050	<0.050	5	0.056	0.0370		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	12.7	12.8	11.0	10.9	11.7	5	12.8	11.8		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00046	0.00070	0.00049	0.00046	0.00051	5	0.00070	0.00052	0.0003	0.002
Hard-D	mg/L	38.5	38.5	33.1	32.9	35.2	5	38.5	35.6		
DOC	mg/L	2.0	1.8	1.7	1.4	1.8	5	2.0	1.7		
Fe-D	mg/L	0.0288	0.0256	0.0260	0.0262	0.0387	5	0.0387	0.0291		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	1.67	1.60	1.38	1.36	1.46	5	1.67	1.49		
Mn-D	mg/L	0.0052	0.0031	0.0034	0.0030	0.0078	5	0.0078	0.0045		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.282	0.282	0.203	0.207	0.246	5	0.282	0.244		
S-D	mg/L	12.3	12.0	8.9	8.5	10.8	5	12.3	10.5		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	17.0	15.8	11.9	12.4	14.0	5	17.0	14.2		
Sr-D	mg/L	0.0756	0.0771	0.0572	0.0545	0.0664	5	0.0771	0.0662		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
Cl-D	mg/L	<1.0	1.2	<1.0	<1.0	1.1	5	1.2	0.76	150	600
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 41
Q2 Report 2020

EMS ID		E292113					Count	Maximum	5 in 30 Ave	Water Quailty Guidelines	
StnName		7 South Quinsam River								Average	Max
StnCode		7SQR									
Date		8-Jul-20	14-Jul-20	21-Jul-20	28-Jul-20	4-Aug-20					
Parameter	Unit										
SO4-D	mg/L	37	39	26	27	34	5	39	32.6	128	
TSS	mg/L	<1.0	1.2	1.6	3.6	3.6	5	3.6	2.10	5	25
Alk-T	mg/L	38	37	37	38	40	5	40	38.0		
Al-T	mg/L	0.0220	0.0216	0.0261	0.0272	0.0230	5	0.0272	0.0240		
As-T	mg/L	0.00046	0.00048	0.00054	0.00049	0.00047	5	0.00054	0.00049		0.005
Ba-T	mg/L	0.0027	0.0029	0.0026	0.0026	0.0026	5	0.0029	0.0027	1	5
B-T	mg/L	0.060	0.060	<0.050	<0.050	<0.050	5	0.060	0.0390	1.2	
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050		
Ca-T	mg/L	12.5	13.0	11.5	11.3	11.9	5	13.0	12.0		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		0.05
Cu-T	mg/L	0.00052	0.00053	0.00050	0.00054	<0.00050	5	0.00054	0.000468	0.002	0.007
Hard-T	mg/L	37.9	39.6	34.8	34.3	36.2	5	39.6	36.6		
Fe-T	mg/L	0.095	0.109	0.108	0.107	0.100	5	0.109	0.104		1
P-T	mg/L	0.0048	<0.0030	0.064	0.0039	0.0034	5	0.064	0.01552		
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003	0.005
Mg-T	mg/L	1.65	1.75	1.49	1.47	1.56	5	1.75	1.58		
Mn-T	mg/L	0.0065	0.0081	0.0079	0.0084	0.0075	5	0.0084	0.0077	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.299	0.273	0.232	0.236	0.240	5	0.299	0.256		
S-T	mg/L	12.0	12.7	9.1	9.0	9.3	5	12.7	10.4		
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	17.6	17.2	13.3	13.7	14.8	5	17.6	15.3		
Sr-T	mg/L	0.0749	0.0762	0.0612	0.0620	0.0633	5	0.0762	0.0675		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0096	0.0089	0.0105	0.0096	0.0156	5	0.0156	0.0108	0.05	0.1
As-D	mg/L	0.00040	0.00044	0.00047	0.00043	0.00053	5	0.00053	0.00045		
Ba-D	mg/L	0.0026	0.0028	0.0024	0.0024	0.0030	5	0.0030	0.0026		
B-D	mg/L	0.060	0.058	<0.050	<0.050	<0.050	5	0.060	0.0386		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	12.5	13.0	11.0	10.9	12.0	5	13.0	11.9		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00043	0.00044	0.00045	0.00045	0.00085	5	0.00085	0.00052	0.0003	0.002
Hard-D	mg/L	38.1	39.4	33.3	33.0	36.3	5	39.4	36.0		
DOC	mg/L	2.2	1.9	1.7	1.5	1.6	5	2.2	1.8		
Fe-D	mg/L	0.0570	0.0585	0.0494	0.0506	0.0541	5	0.0585	0.0539		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	1.67	1.68	1.42	1.38	1.54	5	1.68	1.54		
Mn-D	mg/L	0.0044	0.0054	0.0049	0.0048	0.0055	5	0.0055	0.0050		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.299	0.283	0.225	0.236	0.249	5	0.299	0.258		
S-D	mg/L	12.1	12.0	9.4	8.0	10.3	5	12.1	10.4		
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050		
Na-D	mg/L	18.0	16.5	12.8	12.9	14.6	5	18.0	15.0		
Sr-D	mg/L	0.0743	0.0787	0.0601	0.0565	0.0684	5	0.0787	0.0676		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
Cl-D	mg/L	1.0	<1.0	1.0	<1.0	1.4	5	1.4	0.88	150	600
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 42
Q2 Report 2020

EMS ID	E299256									Water Quality Guidelines					
StnName	Iron River & Quinsam River														
StnCode	IRQR														
Date	8-Jul-20		14-Jul-20		21-Jul-20		28-Jul-20		4-Aug-20		Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit														
SO4-D	mg/L	30	27	23	25	27	5	30	26.4	128					
TSS	mg/L	<1.0	1.2	1.2	2.4	2.0	5	2.4	1.46	5				25	
Alk-T	mg/L	38	36	38	39	40	5	40	38.2						
Al-T	mg/L	0.0199	0.0219	0.0246	0.0214	0.0191	5	0.0246	0.0214						
As-T	mg/L	0.00064	0.00074	0.00063	0.00058	0.00050	5	0.00074	0.00062					0.005	
Ba-T	mg/L	0.0035	0.0038	0.0033	0.0031	0.0034	5	0.0038	0.0034	1				5	
B-T	mg/L	0.051	<0.050	<0.050	<0.050	<0.050	5	0.051	0.0302	1.2					
Cd-T	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050						
Ca-T	mg/L	12.8	13.1	11.8	12.0	12.8	5	13.1	12.5						
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100					0.05	
Cu-T	mg/L	<0.00050	0.00054	0.00051	0.00052	<0.00050	5	0.00054	0.000414	0.002				0.007	
Hard-T	mg/L	38.6	39.0	35.5	36.1	38.4	5	39.0	37.5						
Fe-T	mg/L	0.083	0.088	0.096	0.094	0.091	5	0.096	0.090					1	
P-T	mg/L	<0.0030	<0.0030	0.065	0.0086	<0.0030	5	0.065	0.01562						
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.003				0.005	
Mg-T	mg/L	1.57	1.55	1.47	1.51	1.55	5	1.57	1.53						
Mn-T	mg/L	0.0054	0.0060	0.0071	0.0072	0.0069	5	0.0072	0.0065	0.737				0.8706	
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002				0.00001	
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1				2	
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025				0.025	
K-T	mg/L	0.284	0.245	0.237	0.233	0.245	5	0.284	0.249						
S-T	mg/L	9.6	9.7	7.4	8.2	8.4	5	9.7	8.7						
Se-T	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050	0.002					
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005				0.0001	
Na-T	mg/L	14.0	12.5	11.2	12.4	13.1	5	14.0	12.6						
Sr-T	mg/L	0.0686	0.0676	0.0584	0.0619	0.0629	5	0.0686	0.0639						
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075				0.033	
Al-D	mg/L	0.0105	0.0115	0.0101	0.0093	0.0096	5	0.0115	0.0102	0.05				0.1	
As-D	mg/L	0.00062	0.00068	0.00060	0.00050	0.00052	5	0.00068	0.00058						
Ba-D	mg/L	0.0035	0.0037	0.0032	0.0029	0.0033	5	0.0037	0.0033						
B-D	mg/L	0.053	<0.050	<0.050	<0.050	<0.050	5	0.053	0.0306						
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087				0.00017	
Ca-D	mg/L	13.1	13.1	11.7	11.5	12.8	5	13.1	12.4						
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100						
Cu-D	mg/L	0.00044	0.00049	0.00046	0.00042	0.00045	5	0.00049	0.00045	0.0003				0.002	
Hard-D	mg/L	39.5	39.0	34.9	34.5	38.3	5	39.5	37.2						
DOC	mg/L	1.6	2.2	1.6	1.4	1.5	5	2.2	1.7						
Fe-D	mg/L	0.0460	0.0507	0.0476	0.0495	0.0484	5	0.0507	0.0484					0.35	
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100						
Mg-D	mg/L	1.62	1.54	1.40	1.41	1.54	5	1.62	1.50						
Mn-D	mg/L	0.0037	0.0043	0.0045	0.0046	0.0051	5	0.0051	0.0044						
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095						
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050						
K-D	mg/L	0.281	0.261	0.227	0.228	0.241	5	0.281	0.248						
S-D	mg/L	9.7	9.0	7.6	7.8	9.4	5	9.7	8.7						
Se-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	5	<0.00010	0.000050						
Na-D	mg/L	14.6	12.3	11.0	11.9	12.8	5	14.6	12.5						
Sr-D	mg/L	0.0700	0.0693	0.0591	0.0566	0.0662	5	0.0700	0.0642						
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250						
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	1.3	5	1.3	0.66	150				600	
Notes:															
Factor applied to less-than results when calculating statistics: 0.5															

Table 43
Q2 Report 2020

EMS ID	E297231									Water Quality Guidelines	
StnName	Iron River Site 6		Iron River Upstream of 7SA5 & Upstream of Reclaimed 242 Mine								
StnCode	IR6										
Date	8-Jul-20		14-Jul-20	21-Jul-20	28-Jul-20	4-Aug-20	Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit										
SO4-D	mg/L	4.8	3.6	4.9	6.3	8.2	5	8.2	5.6	128	
TSS	mg/L	2.0	1.2	<1.0	1.2	3.2	5	3.2	1.62	5	25
Alk-T	mg/L	39	32	46	53	58	5	58	45.6		
Al-T	mg/L	0.0248	0.0300	0.0238	0.0229	0.0205	5	0.0300	0.0244		
As-T	mg/L	0.00145	0.00108	0.00198	0.00304	0.00261	5	0.00304	0.00203		0.005
Ba-T	mg/L	0.0054	0.0049	0.0066	0.0081	0.0089	5	0.0089	0.0068	1	5
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2	
Cd-T	mg/L	0.000011	<0.000010	0.000014	0.000014	0.000012	5	0.000014	0.0000112		
Ca-T	mg/L	14.4	12.4	16.1	19.5	22.4	5	22.4	17.0		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11
Cu-T	mg/L	<0.00050	0.00057	0.00066	0.00054	0.00054	5	0.00066	0.000512	0.002	0.007
Hard-T	mg/L	40.2	34.7	45.2	54.7	62.1	5	62.1	47.4		
Fe-T	mg/L	<0.010	0.018	<0.010	<0.010	<0.010	5	0.018	0.0076		1
P-T	mg/L	<0.0030	<0.0030	0.068	<0.0030	<0.0030	5	0.068	0.01480		
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.0039978	0.01763
Mg-T	mg/L	1.06	0.914	1.19	1.48	1.51	5	1.51	1.231		
Mn-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.204	0.168	0.226	0.243	0.241	5	0.243	0.216		
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50		
Se-T	mg/L	0.00022	0.00018	0.00024	0.00029	0.00029	5	0.00029	0.00024	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	1.35	1.32	1.57	1.88	1.92	5	1.92	1.61		
Sr-T	mg/L	0.0500	0.0433	0.0554	0.0682	0.0749	5	0.0749	0.0584		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0233	0.0272	0.0203	0.0172	0.0180	5	0.0272	0.0212	0.05	0.1
As-D	mg/L	0.00146	0.00111	0.00195	0.00275	0.00266	5	0.00275	0.00199		
Ba-D	mg/L	0.0055	0.0052	0.0065	0.0076	0.0082	5	0.0082	0.0066		
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250		
Cd-D	mg/L	0.000011	<0.000010	<0.000010	0.000010	<0.000010	5	0.000011	0.0000072	0.000087	0.00017
Ca-D	mg/L	14.5	12.7	16.0	19.2	21.4	5	21.4	16.8		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00049	0.00058	0.00072	0.00048	0.00076	5	0.00076	0.00061	0.0003	0.002
Hard-D	mg/L	40.6	35.5	44.6	53.5	60.0	5	60.0	46.8		
DOC	mg/L	2.0	2.6	2.0	1.3	1.3	5	2.6	1.8		
Fe-D	mg/L	0.0072	0.0127	<0.0050	<0.0050	<0.0050	5	0.0127	0.00548		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	1.07	0.949	1.13	1.37	1.55	5	1.55	1.214		
Mn-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.204	0.191	0.284	0.234	0.227	5	0.284	0.228		
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50		
Se-D	mg/L	0.00023	0.00020	0.00023	0.00026	0.00030	5	0.00030	0.00024		
Na-D	mg/L	1.36	1.28	1.66	1.74	1.96	5	1.96	1.60		
Sr-D	mg/L	0.0506	0.0456	0.0551	0.0626	0.0690	5	0.0690	0.0566		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
Cl-D	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	5	<1.0	0.50	150	600
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 44
Q2 Report 2020

EMS ID	E297232									Water Quality Guidelines	
StnName	Iron River Site 8		Iron River Downstream of 7 South Mine Operation								
StnCode	IR8										
Date	8-Jul-20		14-Jul-20	21-Jul-20	28-Jul-20	4-Aug-20	Count	Maximum	5 in 30 Ave	Average	Max
Parameter	Unit										
SO4-D	mg/L	4.3	3.4	5.2	5.8	7.7	5	7.7	5.3	128	
TSS	mg/L	<1.0	<1.0	<1.0	1.2	3.6	5	3.6	1.26	5	25
Alk-T	mg/L	39	33	46	55	58	5	58	46.2		
Al-T	mg/L	0.0294	0.0279	0.0223	0.0218	0.0195	5	0.0294	0.0242		
As-T	mg/L	0.00295	0.00201	0.00401	0.00622	0.00561	5	0.00622	0.00416		0.005
Ba-T	mg/L	0.0061	0.0054	0.0073	0.0091	0.0101	5	0.0101	0.0076	1	5
B-T	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250	1.2	
Cd-T	mg/L	0.000010	0.000012	0.000010	0.000011	0.000010	5	0.000012	0.000011		
Ca-T	mg/L	15.0	12.4	16.1	19.4	21.8	5	21.8	16.9		
Cr-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.004	0.11
Cu-T	mg/L	0.00058	0.00087	0.00061	0.00080	0.00067	5	0.00087	0.00071	0.002	0.007
Hard-T	mg/L	42.0	34.9	45.3	54.8	61.3	5	61.3	47.7		
Fe-T	mg/L	0.014	0.017	<0.010	0.012	<0.010	5	0.017	0.0106		1
P-T	mg/L	<0.0030	<0.0030	0.037	<0.0030	0.0036	5	0.037	0.00902		
Pb-T	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100	0.0039978	0.01763
Mg-T	mg/L	1.14	0.947	1.26	1.52	1.64	5	1.64	1.301		
Mn-T	mg/L	0.0012	<0.0010	<0.0010	0.0012	<0.0010	5	0.0012	0.00078	0.737	0.8706
Hg-T	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095	0.00002	0.00001
Mo-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	1	2
Ni-T	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050	0.025	0.025
K-T	mg/L	0.219	0.182	0.233	0.258	0.258	5	0.258	0.230		
S-T	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50		
Se-T	mg/L	0.00021	0.00018	0.00022	0.00026	0.00025	5	0.00026	0.00022	0.002	
Ag-T	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	5	<0.000020	0.0000100	0.00005	0.0001
Na-T	mg/L	1.60	1.45	1.83	2.32	2.38	5	2.38	1.92		
Sr-T	mg/L	0.0525	0.0439	0.0549	0.0699	0.0756	5	0.0756	0.0594		
Zn-T	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250	0.0075	0.033
Al-D	mg/L	0.0220	0.0242	0.0189	0.0165	0.0159	5	0.0242	0.0195	0.05	0.1
As-D	mg/L	0.00283	0.00196	0.00399	0.00568	0.00545	5	0.00568	0.00398		
Ba-D	mg/L	0.0060	0.0056	0.0072	0.0083	0.0089	5	0.0089	0.0072		
B-D	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	5	<0.050	0.0250		
Cd-D	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	5	<0.000010	0.0000050	0.000087	0.00017
Ca-D	mg/L	14.6	13.0	15.9	18.6	21.2	5	21.2	16.7		
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Co-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Cu-D	mg/L	0.00054	0.00068	0.00054	0.00052	0.00055	5	0.00068	0.00057	0.0003	0.002
Hard-D	mg/L	41.2	36.5	44.6	52.2	59.7	5	59.7	46.8		
DOC	mg/L	2.1	2.3	1.9	1.2	1.5	5	2.3	1.8		
Fe-D	mg/L	0.0081	0.0119	0.0064	0.0055	0.0061	5	0.0119	0.0076		0.35
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	5	<0.00020	0.000100		
Mg-D	mg/L	1.15	0.985	1.21	1.42	1.63	5	1.63	1.279		
Mn-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	5	<0.0000019	0.00000095		
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
Ni-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	5	<0.0010	0.00050		
K-D	mg/L	0.207	0.195	0.213	0.231	0.248	5	0.248	0.219		
S-D	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	5	<3.0	1.50		
Se-D	mg/L	0.00022	0.00017	0.00022	0.00023	0.00024	5	0.00024	0.00022		
Na-D	mg/L	1.53	1.43	1.80	2.16	2.37	5	2.37	1.86		
Sr-D	mg/L	0.0512	0.0455	0.0563	0.0637	0.0690	5	0.0690	0.0571		
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	5	<0.0050	0.00250		
Cl-D	mg/L	<1.0	<1.0	<1.0	1.0	1.5	5	1.5	0.80	150	600
Notes:											
Factor applied to less-than results when calculating statistics: 0.5											

Table 45
Q2 Report 2020

Summer Taxa and Abundance of Zooplankton Samples Summer 2020				
level of id. : lowest/lowest				
Site Name		LLM	MQL	MQL Replicate
FES Sample Number		200024	200025	200026
Sampling Date(s)		August 5, 2020	August 5, 2020	August 5, 2020
units = total organisms/sample				
	stage			
Sub-class : Copepoda				
Order : Cyclopoida				
<u>Cryptocyclops bicolor</u>	adult	16	41	46
<u>Diacyclops thomasi</u>	adult	62	8	7
<u>Microcyclops varicans</u>	adult	31		
UID	copepodid	244	55	41
Order : Calanoida				
Family : Diaptomidae				
<u>Hesperodiaptomus novemdecimus</u>	adult		10	15
<u>Skistodiaptomus oregonensis</u>	adult	104	178	144
UID	copepodid	40	29	26
UID Calanoida / Cyclopoida	nauplii	1,458	486	278
Order : Cladocera				
<u>Bosmina longirostris</u>	adult	45	10	5
<u>Bosmina longirostris</u>	juvenile	5		
<u>Daphnia ambigua</u>	adult	60	133	139
<u>Daphnia longiremis</u>	adult	253		
<u>Daphnia rosea</u>	adult	1,204	964	1,189
<u>Daphnia sp.</u>	juvenile	20	94	67
<u>Diaphanosoma brachyurum</u>	adult	60	16	10
<u>Holopedium gibberum</u>	adult		6	10
<u>Polyphemus pediculus</u>	adult	15		
<u>Sida crystallina</u>	adult	5		
Phylum : Rotifera				
<u>Asplanchna sp.</u>		288		
<u>Conochilus sp.</u> ¹	cells		509	211
<u>Kellicottia longispina</u>		96	19	36
<u>Keratella cochlearis</u>		787	6	31
<u>Keratella quadrata</u>		96		
<u>Polyarthra sp.</u>		19	175	191
UID		19	3	
Benthic				
Group : Hydracarina			3	5
TOTAL		4,927	2,745	2,451
UID = unidentified due to lack of size and/or missing morphological characters.				
¹ : Note : The solitary <u>Conochilus</u> (individual counts) versus colony counts distort the total counts per sample.				
The number of individual <u>Conochilus</u> in a colony can average between 25-90 individuals.				

Table 46
Q2 Report 2020

Groundwater Wells - Description				
Area	Groundwater ID	In-situ / Ex-situ	Screened Interval	Comment
2-North	1 Mains 2-North (1M2N)	In-situ	No. 1 Seam	Flooded Underground Workings Dewatering well
	5 Mains#2 (5M#2)	In-situ	No. 1 Seam	Flooded Underground Workings Dewatering well
	QU08-21GD	Ex-situ	No. 1 Seam	Down gradient of u/g tailings disposal, measure water quality and hydraulic gradients downstream of forjan fault
	QU08-21GS	Ex-situ	No. 4 Coal Seam and	
	QU10-10D	Ex-situ	No. 1 Seam / mudstone	Down gradient of u/g tailings disposal, measure water quality and hydraulic head downstream of 2 North workings
	QU10-10S	Ex-situ	No. 4 Seam /	
	QU10-11S	Ex-situ	Fractured Sandstone	Measure water quality and hydraulic gradient in Forjan Fault
	QU10-11D	Ex-situ	No.1 Seam	Down gradient of u/g tailings disposal, measure water quality and hydraulic head downstream of 2 North workings
	QU10-13D	In-situ	Caved Zone	Measure hydraulic head above 2 North mine (1 mains), fine tailing disposal
5-South Mine Pool	5SMW	In-situ	Mine Pool (1 Seam)	5-S Mine Pool pumped into 2-North Mine Pool
River Barrier Pillar (RBP)	QU11-05S	Ex-situ	Sandstone	Monitoring water quality and vertical gradients downstream of the RBP and 2-North mine.
	QU11-05D	Ex-situ	Sandstone	Monitoring water quality and vertical gradients downstream of the RBP and 2-North mine.
	QU11-09S	Ex-situ	Sandstone	Monitor water quality & gradients downstream of the RBP and 2-North workings. Mine pool – CCR backfill in River Barrier Pillar
	QU11-09M	In-situ	RBP Mine Pool	Monitor water quality & gradients downstream of the RBP and 2-North workings. Mine pool – CCR backfill in River Barrier Pillar.
2-North Plant Site	MW-00-1S	Ex-situ	Till	Seepage to MQL
	MW-00-1D	Ex-situ	1-Seam	Seepage to MQL
	MW-00-6D	Ex-situ	Till	Seepage to MQL
	MW-00-6S	Ex-situ	Till	Seepage to MQL
4-South	QU10-08D	Ex-situ	No. 3 Seam	4 South (just outside mine pool) up gradient of existing workings
	QU11-01		Foot print area of 4 South GOB	Assess 4 South Mine Pool water quality
	QU10-09S	Ex-situ	Down gradient of existing workings	Access vertical gradients and water quality adjacent to Long Lake.
	QU10-09D	Ex-situ	Down gradient of existing workings	Access vertical gradients and water quality adjacent to Long Lake.
2-South & 3-South	MW002	Ex-situ	1 Seam	3S seepage to Long Lake
	MW004	In-Situ	Mine Pool (1 Seam)	2-South Mine Pool Gob depillared area
	MW1223	Ex-situ	Silt Stone	2-South seepage to No Name Lake
	MW1224	Ex-situ	Silt Stone	2-South seepage to No Name Lake
	QU11-11 (INF)	In-Situ	Mine Pool (1 Seam)	2-South mine pool dewatering well for Passive Treatment System
7-South	1M7S	In-Situ	No. 4 Coal Seam	Underground Sump
	QU08-10	Ex-situ	No. 4 Coal Seam	Downgradient of 7S -screened No. 3 Coal -Southern margin of workings
	QU08-13A	Ex-situ	No. 4 Coal Seam	Down Gradient of the CCR backfill towards QR
	QU08-13B	Ex-situ	Till & SST contact	Down Gradient of the CCR backfill towards QR
	QU14-10	In-Situ	Mine Void	PAG Storage Mine Void
7- South Area 5	7SA5	In-Situ	Mine Void	Groundwater draining into mine void
	QU1128	Ex-situ	N0. 4 Seam and 4L	Upgradiernrnt of 7SA5. Background 7 South Area 5
	QU1118S	Ex-situ	Till	Down Gradient of 7SA5 - Background info for 7S A5 Subcrop
	QU1118D	Ex-situ	Sandstone	Down Gradient of 7SA5 - Background info for 7S A5 Subcrop
	QU1206S	Ex-situ	Faulted sandstone near No. 4 Seam	Upgradient of 7SA5 along margine with proposed 4S expansion
	QU11-35	Ex-situ	Sandstone above No. 4 Seam	South end of 7SA5 footprint at 100280m N (mine grid)
242 AREA	QU11-36S	Ex-situ	Sandstone below No. 5 seam	Downgradient of 7SA5. Background (Between 242 and IR).
	QU11-36D	Ex-situ	Sandstone below No. 5 seam	Downgradient of 7SA5. Background (Between 242 and IR).
	242MW	In-situ	No. 4 Seam	Mine pool
	242PS	Ex-situ	Shallow groundwater/ rain water	Old Portal Sump

Table 47
Q2 Report 2020

Q2 Report Ex-Situ Groundwater											
	Area		3-North Area			River Barrier Pillar			7-South Area		
	Well ID		QU0821GS	QU0821GS	QU0821GD	QU1105S	QU1105D	QU1109S	QU0813A	QU0813A	QU0813B
	Date		13-Aug-20	13-Aug-20	13-Aug-20	23-Sep-20	23-Sep-20	27-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20
	QA/QC			Replicate						Replicate	
Parameter	Units	CSR Freshwater Aquatic Life (C)									
SO4-D	mg/L	1280	<1.0	<1.0	<1.0	44	140	160	32	33	35
H2SEquiv	mg/L	0.02	0.0415	0.0319	0.0159	0.0755	43.6	0.0383	0.0287	0.0638	0.0191
Turb	NTU		4.3	3.4	13	2.9	130	3.8	2.2	2.2	13
Alk-T	mg/L		200	200	210	84	400	430	190	200	120
Acidity83	mg/L		<1.0	<1.0	2.4	<1.0	<1.0	<1.0	2.7	2.8	1.1
N-D	mg/L		0.249	0.265	0.504	0.247	0.482	0.328	0.234	0.208	0.144
DOC	mg/L		<1.0	1.0	10	1.2	10	1.1	1.0	<0.50	<0.50
Hydrox	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bicarb	mg/L		240	240	260	100	460	520	230	240	150
Carb	mg/L		<1.0	<1.0	<1.0	<1.0	8.9	3.1	<1.0	<1.0	<1.0
Cl-D	mg/L	1500	190	200	1200	1.9	1500	29	11	12	1.4
F-D	mg/L	2 to 3	1.8	1.8	1.1	0.16	<0.050	0.66	0.79	0.79	0.40
Br-D	mg/L		0.28	0.29	1.6	<0.010	2.1	<0.010	<0.010	<0.010	<0.010
P-D	mg/L		0.052	0.055	0.017	0.0033	0.48	0.060	0.030	0.027	0.072
TSS	mg/L										
Al-D	mg/L		<0.0060	<0.0030	<0.015	0.0462	0.0113	<0.0030	<0.0030	<0.0030	0.0039
Ag-D	mg/L	0.0005	<0.000040	<0.000020	<0.00010	<0.000020	<0.000040	<0.000020	<0.000020	<0.000020	<0.000020
As-D	mg/L	0.05	0.206	0.210	0.152	0.0489	0.00716	0.140	0.386	0.392	0.511
Ba-D	mg/L	10	0.623	0.619	2.87	0.0409	0.265	0.0490	0.244	0.244	0.0540
B-D	mg/L	50	2.16	2.07	3.42	0.244	0.42	1.76	0.712	0.724	0.271
Be-D	mg/L	0.053	<0.00020	<0.00010	<0.00050	<0.00010	<0.00020	<0.00010	<0.00010	<0.00010	<0.00010
Bi-D	mg/L		<0.0020	<0.0010	<0.0050	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010
Cd-D	mg/L	0.0001	<0.000020	<0.000010	<0.000050	<0.000010	<0.000020	<0.000010	<0.000010	<0.000010	<0.000010
Ca-D	mg/L		27.5	28.0	129	17.0	160	26.3	34.6	34.1	31.2
Cr-D	mg/L	0.01	<0.0020	<0.0010	<0.0050	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010
Co-D	mg/L	0.04	<0.00040	<0.00020	<0.0010	<0.00020	<0.00040	<0.00020	<0.00020	<0.00020	<0.00020
Cu-D	mg/L	0.02	<0.00040	<0.00020	<0.0010	<0.00020	<0.00040	<0.00020	<0.00020	<0.00020	<0.00020
Fe-D	mg/L		0.386	0.351	1.27	0.472	<0.010	0.107	0.167	0.164	0.152
Hard-D	mg/L		92.6	93.4	402	54.1	418	94.6	121	120	100
Pb-D	mg/L	0.04	<0.00040	<0.00020	<0.0010	<0.00020	<0.00040	<0.00020	<0.00020	<0.00020	<0.00020
Mg-D	mg/L		5.78	5.70	19.1	2.85	4.81	7.05	8.31	8.52	5.47
Mn-D	mg/L		0.0656	0.0635	0.112	0.0548	0.121	0.0225	0.0347	0.0351	0.0703
Hg-D	mg/L	0.001	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.000038	<0.0000019	0.0000098	<0.0000019	<0.0000019
Na-D	mg/L		172	168	635	30.7	911	236	48.3	48.4	24.1
Mo-D	mg/L	10	<0.0020	<0.0010	<0.0050	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	0.0024
Ni-D	mg/L	0.25	<0.0020	<0.0010	<0.0050	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010
K-D	mg/L		4.80	4.73	10.8	1.28	5.19	3.16	2.25	2.21	1.42
S-D	mg/L		<6.0	<3.0	<15	13.1	55.4	53.8	12.0	11.9	12.1
Sb-D	mg/L	0.2	<0.0010	<0.00050	<0.0025	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050
Se-D	mg/L	0.01	<0.00020	<0.00010	<0.00050	<0.00010	0.00835	0.00137	0.00051	0.00039	<0.00010
Si-D	mg/L		3.37	3.36	4.38	2.33	4.55	6.61	3.97	3.92	4.41
Sr-D	mg/L		0.705	0.703	2.76	0.170	1.84	0.354	0.497	0.515	0.276
Tl-D	mg/L	0.003	<0.000020	<0.000010	<0.000050	<0.000010	<0.000020	<0.000010	<0.000010	<0.000010	<0.000010
Ti-D	mg/L	1	<0.010	<0.0050	<0.025	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
U-D	mg/L	3	<0.00020	<0.00010	<0.00050	<0.00010	0.00037	<0.00010	<0.00010	<0.00010	<0.00010
V-D	mg/L		<0.010	<0.0050	<0.025	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
Zn-D	mg/L	0.075	<0.010	<0.0050	<0.025	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050

Table 48
Q2 Report 2020

Q2 Report In-Situ Groundwater / Flooded Mine Pools									
	Area	3-South Pit	2-North Mine Pool						
	Well ID	MW002	1M2N	1M2N	1M2N	3M2N	3M2N	3M2N	QU1013D
Date		24-Aug-20	20-Jul-20	24-Aug-20	29-Sep-20	20-Jul-20	24-Aug-20	29-Sep-20	10-Aug-20
Parameter	QA/QC								
	Units								
SO4-D	mg/L	1300	700	560	470	460	1000	790	520
H2SEquiv	mg/L	0.000957		0.0223	0.0500		0.000957	0.000957	0.213
Turb	NTU	31	28	52	30	13	0.19	11	5.3
Alk-T	mg/L	280	540	540	550	440	280	440	610
Acidity83	mg/L	28.2	8.6	33.0	12.1	15.8	2.5	15.4	9.1
N-D	mg/L	0.230	0.263	0.648	0.283	0.277	0.070	0.188	0.236
DOC	mg/L	1.2	0.79	<0.50	1.1	1.1	<0.50	0.88	0.63
Hydrox	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bicarb	mg/L	340	660	660	670	530	340	530	750
Carb	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cl-D	mg/L	2.0	13	19	26	6.3	8.7	7.1	33
F-D	mg/L	0.13	0.12	0.13	0.14	0.14	0.10	0.14	0.10
Br-D	mg/L	<0.050	0.16	0.13	0.15	0.19	<0.050	0.10	0.16
P-D	mg/L	<0.0010	0.035	<0.0010	<0.0030	0.059	<0.0010	<0.0030	0.011
TSS	mg/L								
Al-D	mg/L	<0.0060	<0.0060	<0.0030	<0.0030	<0.0060	<0.0060	<0.0030	<0.0060
Ag-D	mg/L	<0.000040	<0.000040	<0.000020	<0.000020	<0.000040	<0.000040	<0.000020	<0.000040
As-D	mg/L	0.00179	0.00879	0.0102	0.0102	<0.00020	<0.00020	0.00019	0.00111
Ba-D	mg/L	0.0147	0.0246	0.0233	0.0212	0.0134	0.0111	0.0137	0.0432
B-D	mg/L	0.74	1.04	0.985	1.01	0.80	0.78	0.780	1.24
Be-D	mg/L	<0.00020	<0.00020	<0.00010	<0.00010	<0.00020	<0.00020	<0.00010	<0.00020
Bi-D	mg/L	<0.0020	<0.0020	<0.0010	<0.0010	<0.0020	<0.0020	<0.0010	<0.0020
Cd-D	mg/L	<0.000020	<0.000020	<0.000010	<0.000010	<0.000020	<0.000020	<0.000010	<0.000020
Ca-D	mg/L	459	126	125	102	131	268	141	56.3
Cr-D	mg/L	<0.0020	<0.0020	<0.0010	<0.0010	<0.0020	<0.0020	<0.0010	<0.0020
Co-D	mg/L	0.00332	<0.00040	<0.00020	<0.00020	0.00230	<0.00040	0.00134	<0.00040
Cu-D	mg/L	<0.00040	<0.00040	0.00020	<0.00020	0.00146	0.00045	<0.00020	<0.00040
Fe-D	mg/L	3.95	4.07	3.88	3.15	0.227	<0.010	0.0054	0.760
Hard-D	mg/L	1350	364	362	292	403	772	431	154
Pb-D	mg/L	<0.00040	<0.00040	<0.00020	<0.00020	<0.00040	<0.00040	<0.00020	<0.00040
Mg-D	mg/L	48.4	12.4	12.2	9.17	18.4	25.2	19.0	3.19
Mn-D	mg/L	1.51	0.451	0.430	0.332	0.241	0.0080	0.238	0.163
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	0.0000043	<0.0000019	<0.0000019
Na-D	mg/L	67.1	371	365	334	339	210	344	460
Mo-D	mg/L	<0.0020	<0.0020	<0.0010	<0.0010	<0.0020	<0.0020	<0.0010	<0.0020
Ni-D	mg/L	0.0024	<0.0020	<0.0010	<0.0010	0.0040	0.0020	0.0018	<0.0020
K-D	mg/L	5.16	5.09	5.14	4.52	3.87	3.98	3.68	4.03
S-D	mg/L	417	225	217	173	246	326	273	176
Sb-D	mg/L	<0.0010	<0.0010	<0.00050	<0.00050	<0.0010	<0.0010	<0.00050	<0.0010
Se-D	mg/L	<0.00020	<0.00020	<0.00010	<0.00010	<0.00020	<0.00020	<0.00010	0.00161
Si-D	mg/L	3.81	3.86	3.90	3.77	3.08	2.91	3.33	4.44
Sr-D	mg/L	4.25	1.35	1.37	1.10	1.40	1.86	1.51	0.650
Tl-D	mg/L	<0.000020	<0.000020	<0.000010	<0.000010	<0.000020	<0.000020	<0.000010	<0.000020
Ti-D	mg/L	<0.010	<0.010	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.010
U-D	mg/L	0.00043	<0.00020	<0.00010	<0.00010	<0.00020	<0.00020	<0.00010	<0.00020
V-D	mg/L	<0.010	<0.010	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.010
Zn-D	mg/L	<0.010	<0.010	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.010

Table 49
Q2 Report 2020

Q2 Report								
In-Situ Groundwater / Flooded Mine Pools								
	Area	2-3 South Mine Pool				4-South Mine Pool		5-South Mine Pool
	Well ID	INF	INF	INF	MW004	QU1101	QU1101	5SMW
Date		6-Jul-20	6-Aug-20	8-Sep-20	26-Aug-20	17-Aug-20	17-Aug-20	26-Aug-20
	QA/QC						Replicate	
Parameter	Units							
SO4-D	mg/L	690	590	630	320	1400	1400	290
H2SEquiv	mg/L	0.000957	0.00670	0.00574	0.000957	0.0648	0.0446	0.0340
Turb	NTU				0.97	770	860	160
Alk-T	mg/L	260	270	280	160	91	110	320
Acidity83	mg/L	16.8	9.7	17.5	4.4	124	147	13.0
N-D	mg/L				0.458	0.570	0.402	0.288
DOC	mg/L	1.1			3.9	2.8	1.9	0.86
Hydrox	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bicarb	mg/L	310	340	340	200	110	130	390
Carb	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cl-D	mg/L				1.1	2.5	2.5	6.5
F-D	mg/L				0.092	0.46	0.47	0.19
Br-D	mg/L				0.070	0.30	0.27	0.045
P-D	mg/L				<0.0030	0.0096	0.0098	<0.0030
TSS	mg/L	10	12	10				
Al-D	mg/L	<0.0060	<0.0060	<0.0060	<0.0030	<0.015	<0.015	0.0057
Ag-D	mg/L	<0.000040	<0.000040	<0.000040	<0.000020	<0.00010	<0.00010	<0.000020
As-D	mg/L	0.00416	0.00444	0.00489	0.00045	0.107	0.0977	0.00148
Ba-D	mg/L	0.0216	0.0227	0.0209	0.0295	0.0123	0.0114	0.0357
B-D	mg/L	0.73	0.75	0.77	0.270	1.19	1.09	0.901
Be-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00010	<0.00050	<0.00050	<0.00010
Bi-D	mg/L	<0.0020	<0.0020	<0.0020	<0.0010	<0.0050	<0.0050	<0.0010
Cd-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000010	<0.000050	<0.000050	<0.000010
Ca-D	mg/L	239	249	241	154	379	342	57.7
Cr-D	mg/L	<0.0020	<0.0020	<0.0020	<0.0010	<0.0050	<0.0050	<0.0010
Co-D	mg/L	0.00048	0.00050	0.00045	<0.00020	<0.0010	<0.0010	0.00759
Cu-D	mg/L	<0.00040	<0.00040	<0.00040	0.00076	<0.0010	<0.0010	<0.00020
Fe-D	mg/L	4.03	4.32	4.50	<0.0050	170	157	17.8
Hard-D	mg/L	662	689	666	455	1190	1060	178
Pb-D	mg/L	<0.00040	<0.00040	<0.00040	<0.00020	<0.0010	<0.0010	<0.00020
Mg-D	mg/L	15.7	16.3	15.6	16.9	58.5	51.2	8.22
Mn-D	mg/L	0.442	0.453	0.422	0.0325	2.83	2.61	0.345
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	0.0000044	<0.0000019	<0.0000019	<0.0000019
Na-D	mg/L	118	119	114	40.8	139	125	197
Mo-D	mg/L	<0.0020	<0.0020	<0.0020	<0.0010	<0.0050	<0.0050	0.0018
Ni-D	mg/L	<0.0020	<0.0020	<0.0020	0.0010	<0.0050	<0.0050	0.0113
K-D	mg/L	1.98	2.04	1.90	1.67	6.53	5.70	4.47
S-D	mg/L	218	216	212	129	533	487	104
Sb-D	mg/L	<0.0010	<0.0010	<0.0010	<0.00050	<0.0025	<0.0025	<0.00050
Se-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00010	<0.00050	<0.00050	<0.00010
Si-D	mg/L	3.28	3.49	3.40	2.98	5.46	4.96	3.36
Sr-D	mg/L	2.12	2.30	2.34	1.24	2.26	2.01	0.763
Tl-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000010	<0.000050	<0.000050	<0.000010
Ti-D	mg/L	<0.010	<0.010	<0.010	<0.0050	<0.025	<0.025	<0.0050
U-D	mg/L	<0.00020	<0.00020	<0.00020	<0.00010	<0.00050	<0.00050	<0.00010
V-D	mg/L	<0.010	<0.010	<0.010	<0.0050	<0.025	<0.025	<0.0050
Zn-D	mg/L	<0.010	<0.010	<0.010	<0.0050	<0.025	<0.025	<0.0050

Table 50
Q2 Report 2020

Q2 Report							
In-Situ Groundwater / Flooded Mine Po				Water Cover Over PAG-CCR			
	Area	River Barrier Pillar		7-South Mine Pool			
	Well ID	QU1109M	QU1109M	QU1410	QU1410	QU1410	QU1410
Date		27-Aug-20	27-Aug-20	30-Jul-20	30-Jul-20	27-Aug-20	27-Aug-20
	QA/QC		Replicate		Replicate		Replicate
Parameter	Units						
SO4-D	mg/L	550	560	1900	1500	1800	1900
H2SEquiv	mg/L	0.00531	0.0106	0.000957	0.00287	0.000957	0.000957
Turb	NTU	73	78	21	18	9.4	8.5
Alk-T	mg/L	490	490	310	310	310	310
Acidity83	mg/L	11.8	12.3	20.1	13.3	30.9	32.6
N-D	mg/L	0.396	0.346	0.263	0.238	0.219	0.223
DOC	mg/L	0.64	0.67	1.4	1.6	0.99	1.1
Hydrox	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bicarb	mg/L	600	600	380	380	370	370
Carb	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cl-D	mg/L	42	42	5.6	5.5	5.8	5.9
F-D	mg/L	0.12	0.12	0.17	0.18	0.18	0.18
Br-D	mg/L	0.14	0.13	0.51	0.36	0.18	0.19
P-D	mg/L	0.0034	0.0015	0.0035	<0.0030	0.0049	0.0049
TSS	mg/L						
Al-D	mg/L	<0.0030	<0.0030	<0.030	<0.030	<0.015	<0.015
Ag-D	mg/L	<0.000020	<0.000020	<0.00020	<0.00020	<0.00010	<0.00010
As-D	mg/L	0.00311	0.00314	0.104	0.0997	0.0855	0.0994
Ba-D	mg/L	0.0181	0.0182	0.017	0.017	0.0141	0.0164
B-D	mg/L	0.827	0.827	1.08	1.08	1.04	1.19
Be-D	mg/L	<0.00010	<0.00010	<0.0010	<0.0010	<0.00050	<0.00050
Bi-D	mg/L	<0.0010	<0.0010	<0.010	<0.010	<0.0050	<0.0050
Cd-D	mg/L	<0.000010	<0.000010	<0.00010	0.00031	<0.000050	<0.000050
Ca-D	mg/L	90.6	88.0	540	533	480	570
Cr-D	mg/L	<0.0010	<0.0010	<0.010	<0.010	<0.0050	<0.0050
Co-D	mg/L	<0.00020	<0.00020	<0.0020	<0.0020	<0.0010	<0.0010
Cu-D	mg/L	<0.00020	<0.00020	<0.0020	<0.0020	<0.0010	<0.0010
Fe-D	mg/L	6.95	6.69	1.77	1.88	1.64	1.92
Hard-D	mg/L	267	260	2100	2070	1850	2180
Pb-D	mg/L	<0.00020	<0.00020	<0.0020	<0.0020	<0.0010	<0.0010
Mg-D	mg/L	9.84	9.88	182	179	159	185
Mn-D	mg/L	0.262	0.271	1.48	1.44	1.33	1.55
Hg-D	mg/L	0.0000025	0.0000022	<0.0000019	<0.0000019	0.0000025	<0.0000019
Na-D	mg/L	374	374	54.9	54.2	47.6	56.1
Mo-D	mg/L	0.0012	0.0012	<0.010	<0.010	<0.0050	<0.0050
Ni-D	mg/L	<0.0010	<0.0010	<0.010	<0.010	<0.0050	<0.0050
K-D	mg/L	5.26	5.30	7.56	7.45	6.66	7.70
S-D	mg/L	191	190	664	637	558	642
Sb-D	mg/L	<0.00050	<0.00050	<0.0050	<0.0050	<0.0025	<0.0025
Se-D	mg/L	<0.00010	<0.00010	<0.0010	<0.0010	<0.00050	<0.00050
Si-D	mg/L	3.60	3.49	3.5	3.4	2.93	3.47
Sr-D	mg/L	1.16	1.16	4.99	4.91	4.17	4.88
Tl-D	mg/L	<0.000010	<0.000010	<0.00010	<0.00010	<0.000050	<0.000050
Ti-D	mg/L	<0.0050	<0.0050	<0.050	<0.050	<0.025	<0.025
U-D	mg/L	<0.00010	<0.00010	<0.0010	0.0012	0.00077	0.00090
V-D	mg/L	<0.0050	<0.0050	<0.050	<0.050	<0.025	<0.025
Zn-D	mg/L	<0.0050	<0.0050	<0.050	<0.050	<0.025	<0.025

Table 51
Q2 Report 2020

Q2 Report									
In-Situ Groundwater / Flooded Mine Pools									
	Area	7-South Portal Sump			1 Mains 7-South Area 5		7-South Area 5		
	Well ID	7SPS	7SPS	7SPS	1M7SA5	1M7SA5	7SA5	7SA5	7SA5
Date		6-Jul-20	6-Aug-20	8-Sep-20	25-Aug-20	30-Sep-20	20-Jul-20	24-Aug-20	29-Sep-20
Parameter	QA/QC Units								
SO4-D	mg/L	350	370	260	350	470	52	47	78
H2SEquiv	mg/L				0.000957	0.000957		0.000957	0.000957
Turb	NTU				72	170	0.68	1.5	0.80
Alk-T	mg/L	120	110	140	140	29	160	170	150
Acidity83	mg/L	4.7	1.4	3.2	2.0	5.6	<1.0	<1.0	<1.0
N-D	mg/L				0.191	0.138	0.160	0.230	0.175
DOC	mg/L				1.4	0.60	0.98	<0.50	0.53
Hydrox	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bicarb	mg/L	150	130	170	170	36	200	200	190
Carb	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cl-D	mg/L				2.8	1.7	1.7	2.0	2.5
F-D	mg/L				0.29	0.18	0.61	0.51	0.61
Br-D	mg/L				0.078	0.076	0.013	<0.010	<0.010
P-D	mg/L				<0.0010	<0.0030	0.086	0.011	0.012
TSS	mg/L	5.2	15	6.8					
Al-D	mg/L	<0.0030	0.0050	0.0035	<0.0030	0.0057	<0.0030	<0.0030	<0.0030
Ag-D	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
As-D	mg/L	0.00027	0.00036	0.00046	0.00070	0.00024	0.258	0.242	0.247
Ba-D	mg/L	0.0176	0.0241	0.0658	0.0824	0.0999	0.177	0.363	0.163
B-D	mg/L	0.092	0.115	0.246	0.458	0.353	0.547	0.487	0.560
Be-D	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bi-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cd-D	mg/L	<0.000010	0.000014	<0.000010	<0.000010	0.000089	<0.000010	<0.000010	<0.000010
Ca-D	mg/L	143	148	122	134	138	46.4	45.9	48.9
Cr-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Co-D	mg/L	0.00328	0.00359	0.00130	0.00099	0.0149	0.00027	<0.00020	<0.00020
Cu-D	mg/L	0.00025	0.00068	0.00055	0.00099	0.00357	<0.00020	<0.00020	<0.00020
Fe-D	mg/L	0.0196	0.0290	0.356	0.284	9.45	0.0108	0.0082	0.0075
Hard-D	mg/L	502	509	413	453	467	158	155	170
Pb-D	mg/L	<0.00020	<0.00020	<0.00020	0.00021	<0.00020	<0.00020	<0.00020	<0.00020
Mg-D	mg/L	35.5	34.0	26.1	28.6	30.0	10.1	9.86	11.7
Mn-D	mg/L	0.319	0.341	0.0955	0.158	0.490	0.0117	0.0155	0.0067
Hg-D	mg/L	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019
Na-D	mg/L	15.2	15.4	20.0	19.8	13.6	24.9	22.1	24.7
Mo-D	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	0.0015
Ni-D	mg/L	0.0073	0.0079	0.0042	0.0044	0.0256	0.0010	<0.0010	<0.0010
K-D	mg/L	1.59	1.99	2.15	2.91	2.29	2.19	2.32	2.24
S-D	mg/L	136	141	105	125	149	18.0	15.4	25.8
Sb-D	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Se-D	mg/L	<0.00010	0.00014	<0.00010	<0.00010	0.00013	<0.00010	<0.00010	<0.00010
Si-D	mg/L	5.65	5.60	5.61	3.59	4.91	5.07	4.87	4.90
Sr-D	mg/L	0.540	0.586	0.708	0.936	0.802	0.565	0.569	0.621
Tl-D	mg/L	<0.000010	<0.000010	<0.000010	0.000013	0.000029	<0.000010	<0.000010	<0.000010
Ti-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
U-D	mg/L	0.00041	0.00034	0.00029	0.00017	0.00012	<0.00010	<0.00010	<0.00010
V-D	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Zn-D	mg/L	<0.0050	<0.0050	<0.0050	0.0072	0.0441	<0.0050	<0.0050	<0.0050

Table 52
Q2 Report 2020

Q2 Report			
In-Situ Groundwater / Flooded Mine Pools			
	Area	242 Mine Pool	
	Well ID	242MW	242MW
Date		22-Sep-20	22-Sep-20
	QA/QC		Replicate
Parameter	Units		
SO4-D	mg/L	39	37
H2SEquiv	mg/L	0.0138	0.0159
Turb	NTU	120	120
Alk-T	mg/L	94	94
Acidity83	mg/L	3.4	4.3
N-D	mg/L	0.215	0.141
DOC	mg/L	<0.50	<0.50
Hydrox	mg/L	<1.0	<1.0
Bicarb	mg/L	110	110
Carb	mg/L	<1.0	<1.0
Cl-D	mg/L	1.3	<1.0
F-D	mg/L	0.091	0.088
Br-D	mg/L	<0.010	<0.010
P-D	mg/L	<0.0030	<0.0030
TSS	mg/L		
Al-D	mg/L	<0.0030	<0.0030
Ag-D	mg/L	<0.000020	<0.000020
As-D	mg/L	0.0797	0.0791
Ba-D	mg/L	0.0676	0.0671
B-D	mg/L	0.063	0.064
Be-D	mg/L	<0.00010	<0.00010
Bi-D	mg/L	<0.0010	<0.0010
Cd-D	mg/L	<0.000010	<0.000010
Ca-D	mg/L	43.7	44.4
Cr-D	mg/L	<0.0010	<0.0010
Co-D	mg/L	0.00197	0.00197
Cu-D	mg/L	<0.00020	<0.00020
Fe-D	mg/L	14.3	14.3
Hard-D	mg/L	124	125
Pb-D	mg/L	<0.00020	<0.00020
Mg-D	mg/L	3.50	3.47
Mn-D	mg/L	0.791	0.817
Hg-D	mg/L	<0.0000019	<0.0000019
Na-D	mg/L	2.71	2.68
Mo-D	mg/L	<0.0010	<0.0010
Ni-D	mg/L	0.0014	0.0014
K-D	mg/L	0.516	0.511
S-D	mg/L	12.3	12.0
Sb-D	mg/L	<0.00050	<0.00050
Se-D	mg/L	<0.00010	<0.00010
Si-D	mg/L	3.71	3.75
Sr-D	mg/L	0.0737	0.0730
Tl-D	mg/L	0.000014	0.000013
Ti-D	mg/L	<0.0050	<0.0050
U-D	mg/L	<0.00010	<0.00010
V-D	mg/L	<0.0050	<0.0050
Zn-D	mg/L	<0.0050	<0.0050

Table 53
Q2 Report 2020

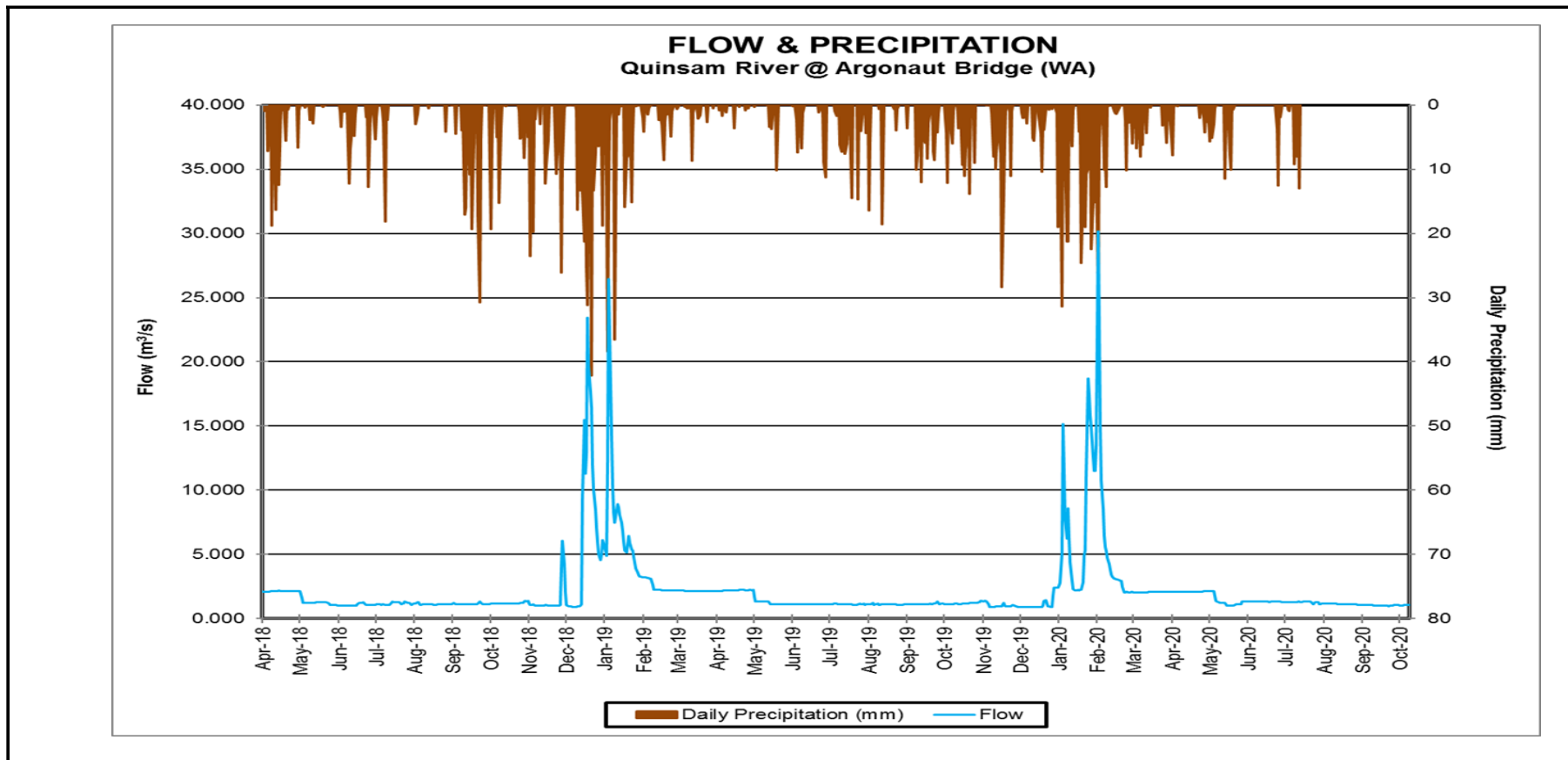
Daily Precipitation (mm)						
DATE	APRIL	MAY	JUNE	JULY	AUG	SEPT
1	7.8	5.7	0	0.0	0.0	0.1
2	0.4	0	0	0.0	0.0	0.0
3	0	5.1	0	0.7	6.3	0.0
4	0	3	0	0.9	2.7	0.0
5	0.2	0.5	0	0.0	0.0	0.0
6	0	0	0	0.0	5.3	0.0
7	0	0.1	0	0.0	8.0	0.0
8	0	0	0	9.2	0.7	0.0
9	0	0	0	5.3	0.0	0.0
10	0	0	0	8.0	0.0	0.0
11	0	0	0	0.0	0.0	0.0
12	0	0	0	13.0	0.0	0.0
13	0	11.5	0	0.0	0.0	0.0
14	0	2.9	0	0.0	0.0	0.0
15	0	1.6	0	0.0	0.0	2.3
16	0	0	0	0.0	0.0	0.1
17	0	7.8	0	0.0	0.0	1.3
18	0	10.1	0	0.0	0.0	0.2
19	0	0.1	0	0.0	0.1	0.1
20	0	0.7	0	0.0	2.2	1.0
21	0	0	0	0.0	6.2	0.4
22	0.2	0	0	0.0	9.5	4.1
23	2	0	0	0.0	0.0	0.7
24	0	0	3.8	0.0	0.0	24.1
25	0	0	12.6	0.0	0.0	13.1
26	1.9	0	0	0.0	0.0	20.9
27	4.3	0	1.9	0.0	0.0	3.3
28	0.7	0	0	0.0	0.0	0.4
29	2.5	0	0	0.0	0.0	0.0
30	2.8	0	0	0.0	0.0	0.0
31		0		0.0	8.9	
Monthly Total (mm)	22.80	49.10	18.30	37.10	49.90	72.10
2020 Q2 Total (mm)	159.10					

Table 54
Q2 Report 2020

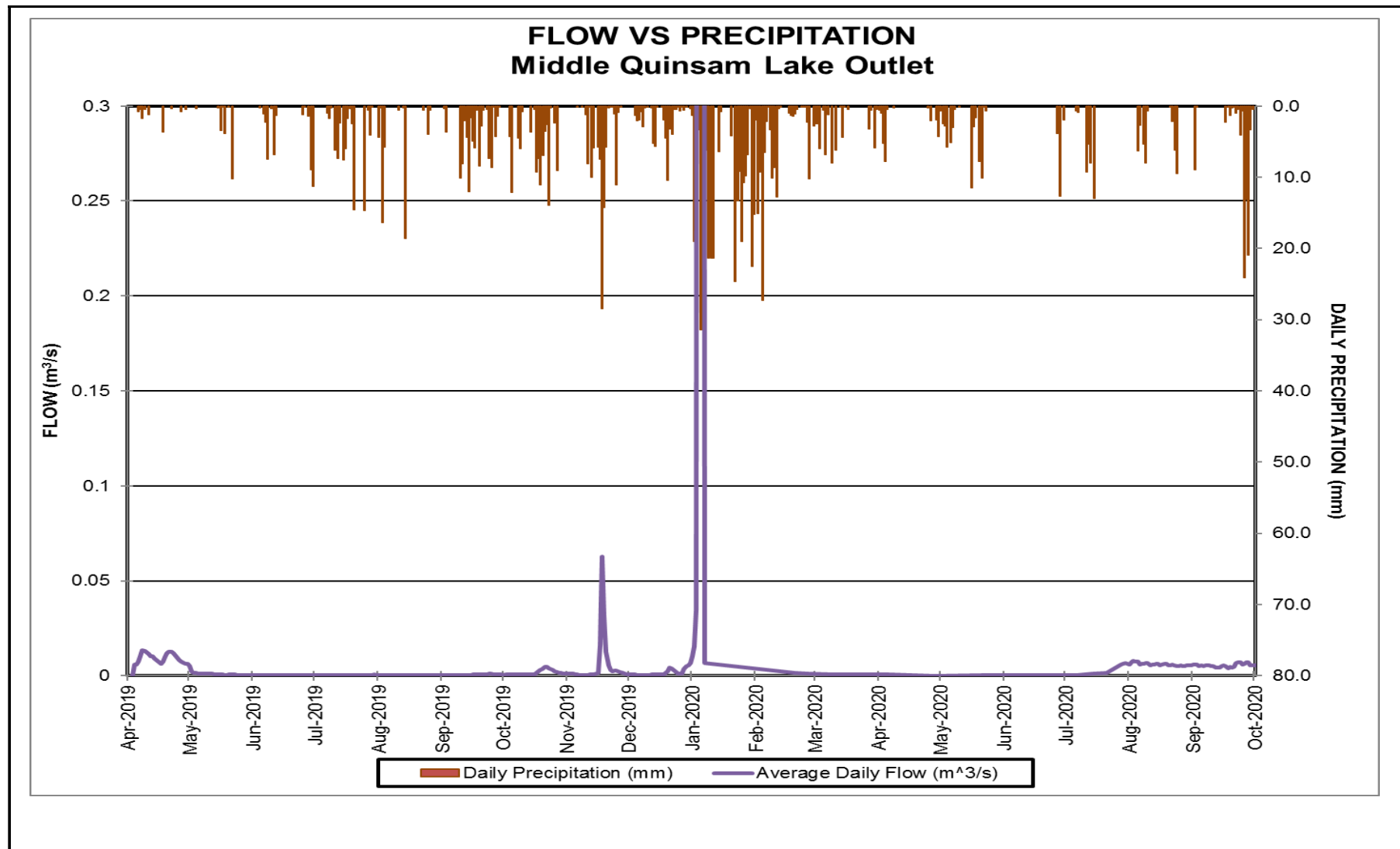
Date	2S Inflow						2S Outflow Culvert into 3S Pit					
	July		August		September		July		August		September	
	Level	Q (L/s)	Level	Q (L/s)	Level	Q (L/s)	Level	Q (L/s)	Level	Q (L/s)	Level	Q (L/s)
1	0.128	2.214	0.149	4.056	0.169	6.431	0.099	5.206	0.120	7.768	0.121	7.930
2	0.132	2.506	0.154	4.568	0.167	6.236	0.096	4.922	0.122	8.093	0.115	7.112
3	0.135	2.729	0.154	4.578	0.194	10.493	0.097	5.001	0.114	7.049	0.108	6.311
4	0.135	2.716	0.149	4.035	0.104	0.853	0.098	5.111	0.104	5.784	0.098	5.160
5	0.132	2.493	0.149	4.088	0.110	1.132	0.098	5.136	0.118	7.461	0.095	4.820
6	0.147	3.811	0.167	6.253	0.109	1.088	0.097	5.009	0.143	11.299	0.093	4.659
7	0.165	5.924	0.169	6.480	0.110	1.127	0.102	5.541	0.124	8.400	0.092	4.551
8	0.165	5.912	0.167	6.144	0.170	6.590	0.118	7.517	0.129	9.095	0.089	4.206
9	0.168	6.332	0.165	5.879	0.152	4.333	0.127	8.755	0.150	12.438	0.086	3.907
10	0.167	6.238	0.162	5.551	0.170	6.611	0.169	16.019	0.119	7.587	0.086	3.911
11	0.177	7.600	0.158	5.073	0.184	8.741	0.149	12.321	0.111	6.634	0.087	3.995
12	0.171	6.807	0.135	2.746	0.184	8.721	0.150	12.515	0.137	10.231	0.088	4.171
13	0.165	5.953	0.106	0.956	0.185	8.928	0.137	10.240	0.104	5.768	0.093	4.599
14	0.163	5.674	0.135	2.729	0.149	4.059	0.151	12.638	0.092	4.485	0.093	4.620
15	0.160	5.241	0.135	2.742	0.151	4.234	0.119	7.603	0.089	4.221	0.092	4.549
16	0.162	5.539	0.136	2.793	0.151	4.268	0.112	6.696	0.089	4.242	0.090	4.295
17	0.162	5.511	0.147	3.879	0.152	4.374	0.135	9.966	0.088	4.118	0.092	4.509
18	0.159	5.197	0.162	5.528	0.152	4.383	0.125	8.418	0.102	5.557	0.102	5.522
19	0.159	5.158	0.161	5.419	0.153	4.501	0.109	6.376	0.119	7.644	0.106	5.981
20	0.156	4.779	0.163	5.715	0.150	4.154	0.104	5.784	0.121	7.958	0.142	11.167
21	0.155	4.743	0.171	6.714	0.156	4.866	0.105	5.917	0.132	9.505	0.168	15.901
22	0.156	4.860	0.167	6.165	0.156	4.871	0.135	9.940	0.122	8.022	0.131	9.393
23	0.158	5.024	0.168	6.269	0.168	6.314	0.117	7.327	0.117	7.381	0.147	11.941
24	0.152	4.400	0.169	6.518	0.168	6.339	0.102	5.527	0.114	7.029	0.155	13.307
25	0.151	4.281	0.169	6.482	0.180	8.073	0.097	5.038	0.115	7.079	0.165	15.342
26	0.149	4.091	0.169	6.413	0.163	5.660	0.095	4.833	0.115	7.125	0.140	10.684
27	0.149	4.087	0.168	6.373	0.161	5.406	0.122	8.038	0.114	7.019	0.129	8.984
28	0.151	4.267	0.168	6.281	0.159	5.146	0.110	6.468	0.117	7.320	0.118	7.523
29	0.150	4.194	0.167	6.151	0.146	3.754	0.099	5.274	0.113	6.927	0.114	7.039
30	0.149	3.992	0.170	6.598	0.126	2.048	0.095	4.815	0.123	8.141	0.103	5.722
31	0.151	4.251	0.172	6.888			0.095	4.855	0.127	8.759		

Q2 Report 2020

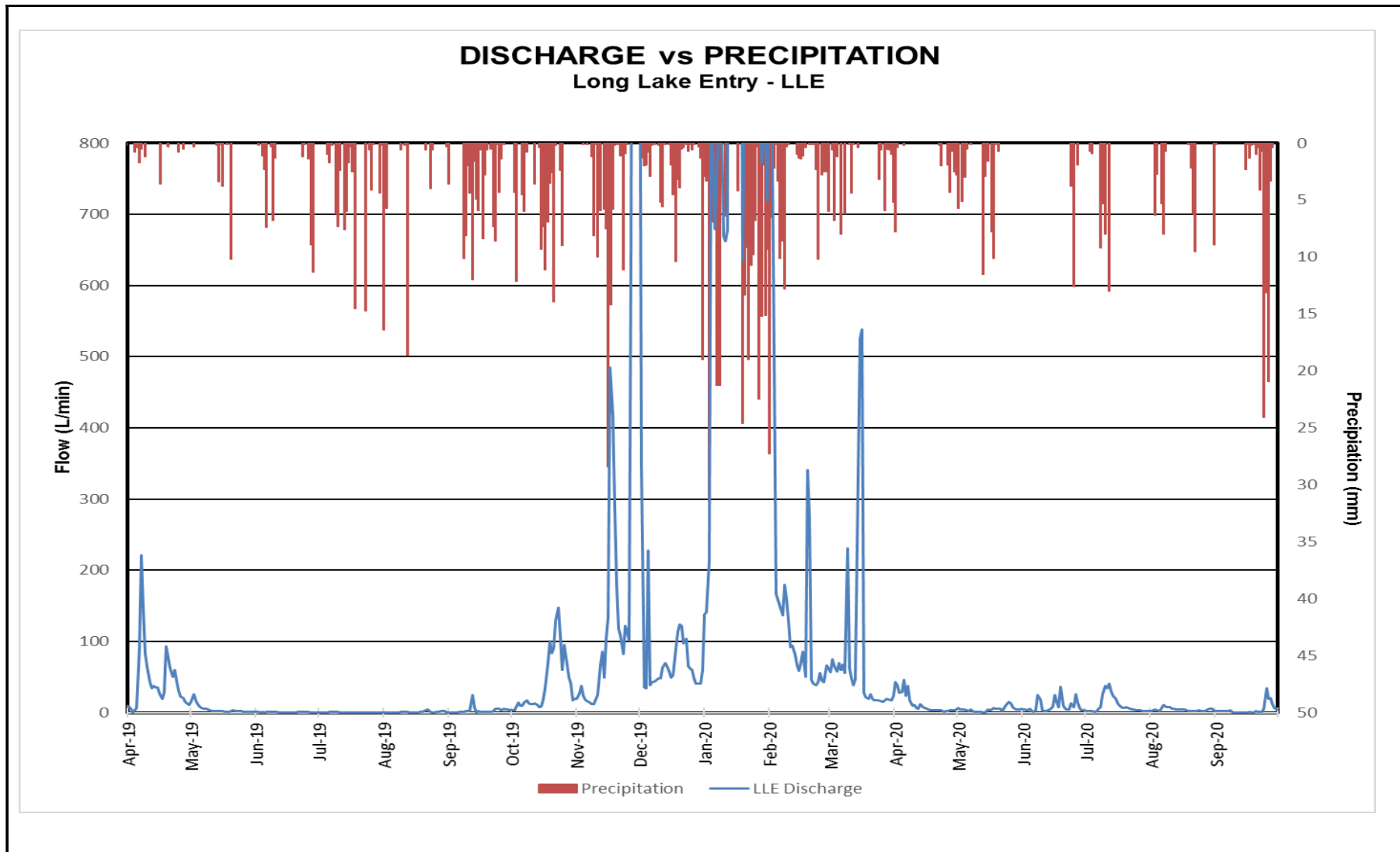
Graph 1



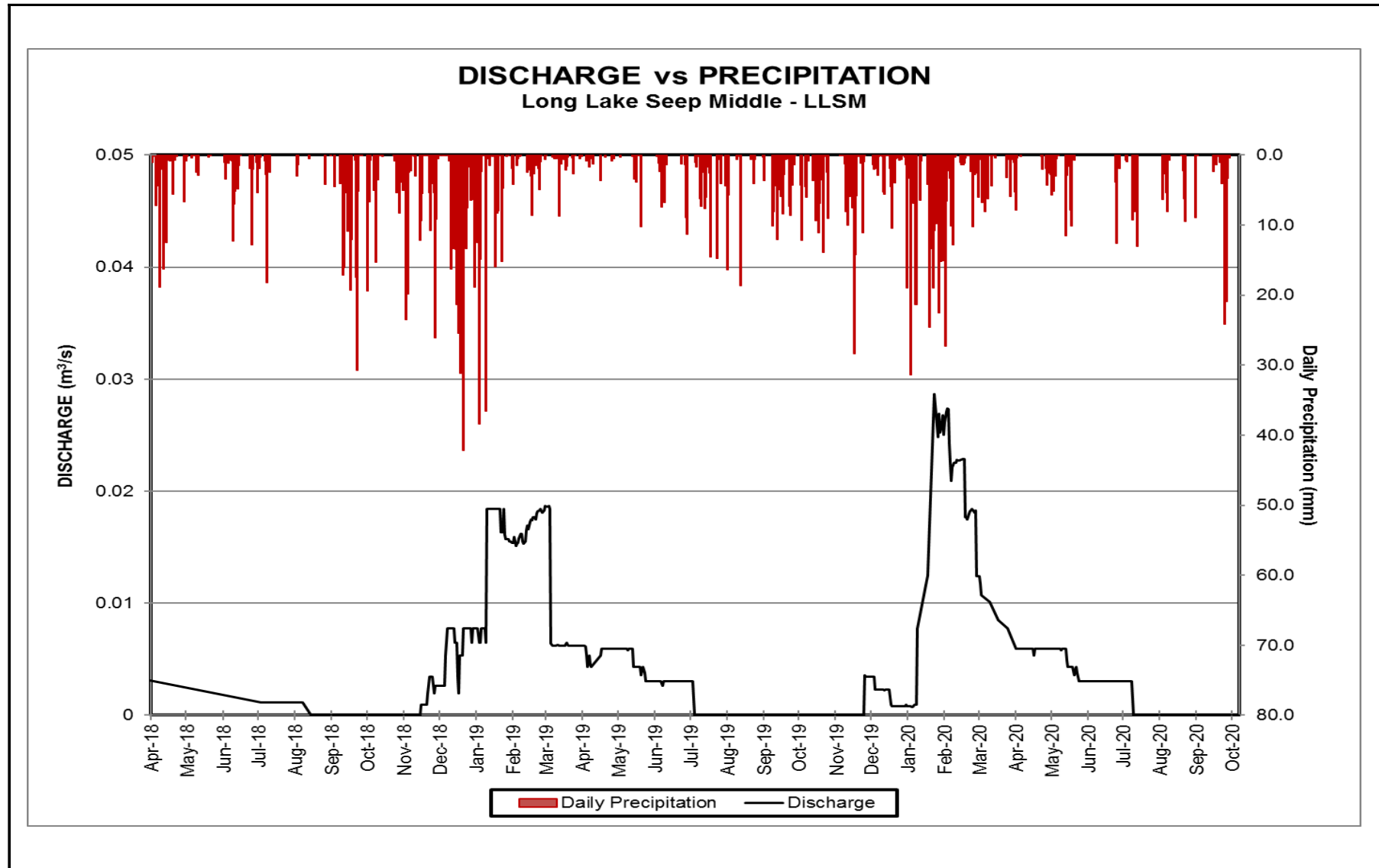
Q2 Report 2020
Graph 2



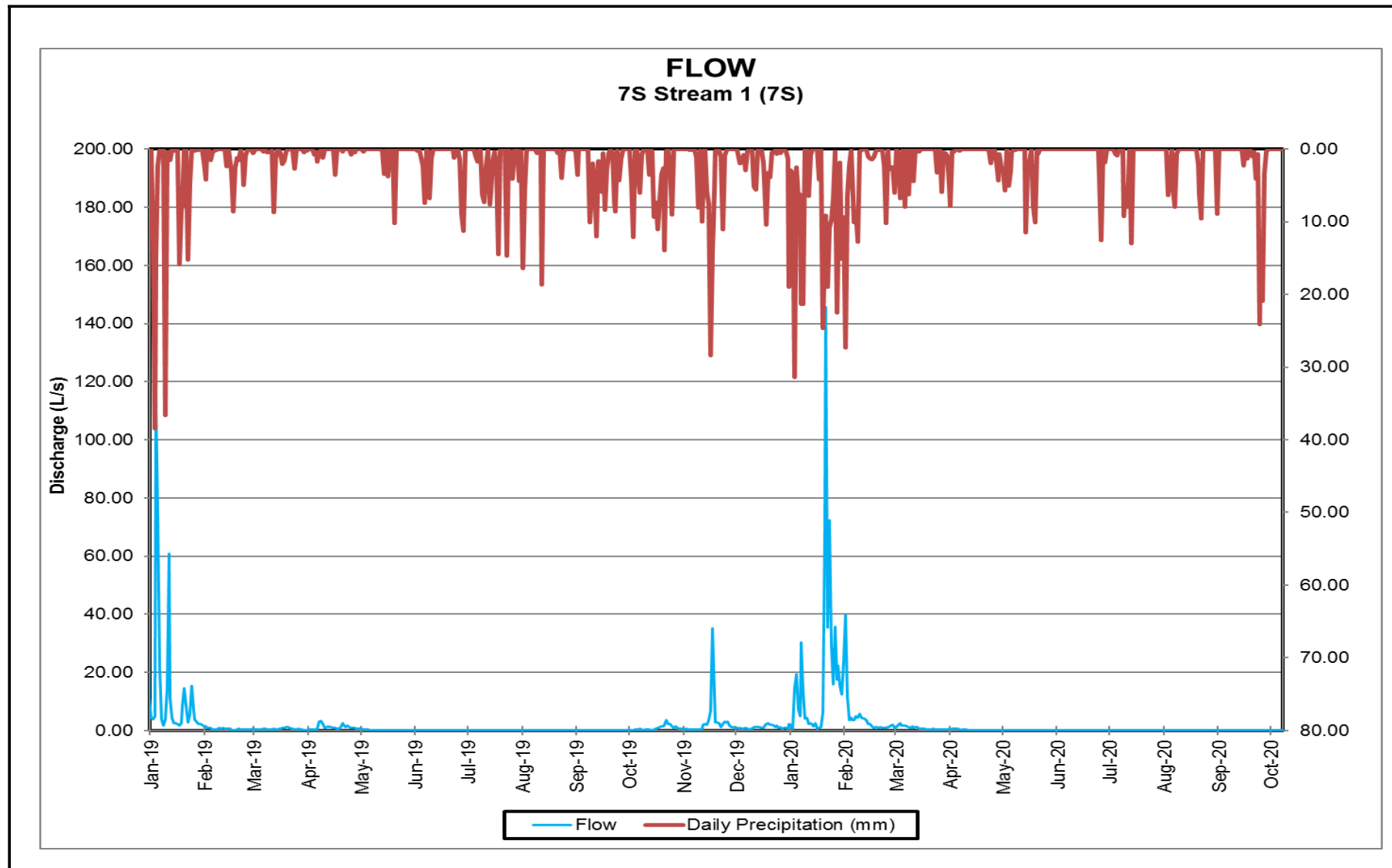
Q2 Report 2020
Graph 3



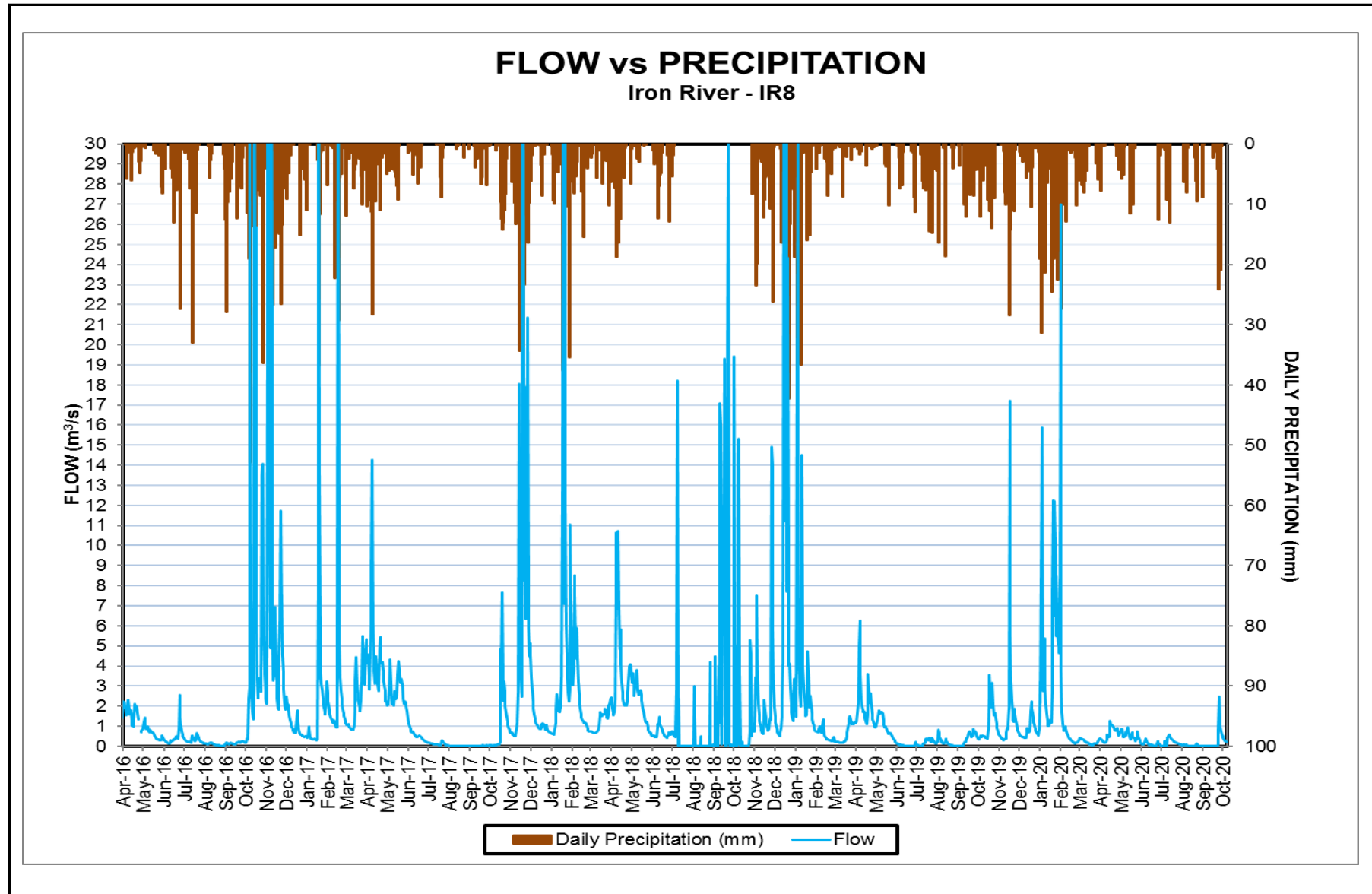
Q2 Report 2020
Graph 4



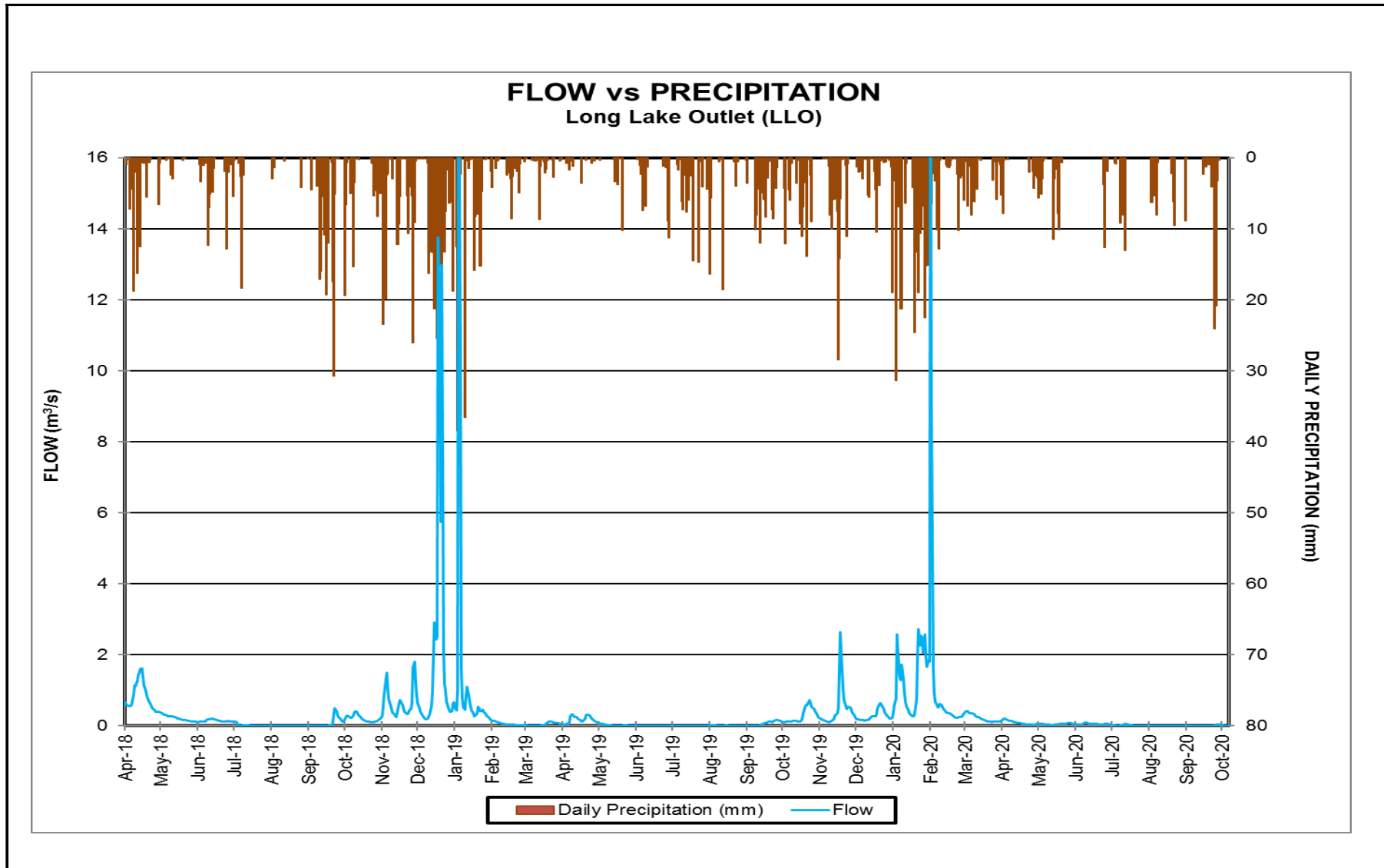
Q2 Report 2020
Graph 5



Q2 Report 2020
Graph 6

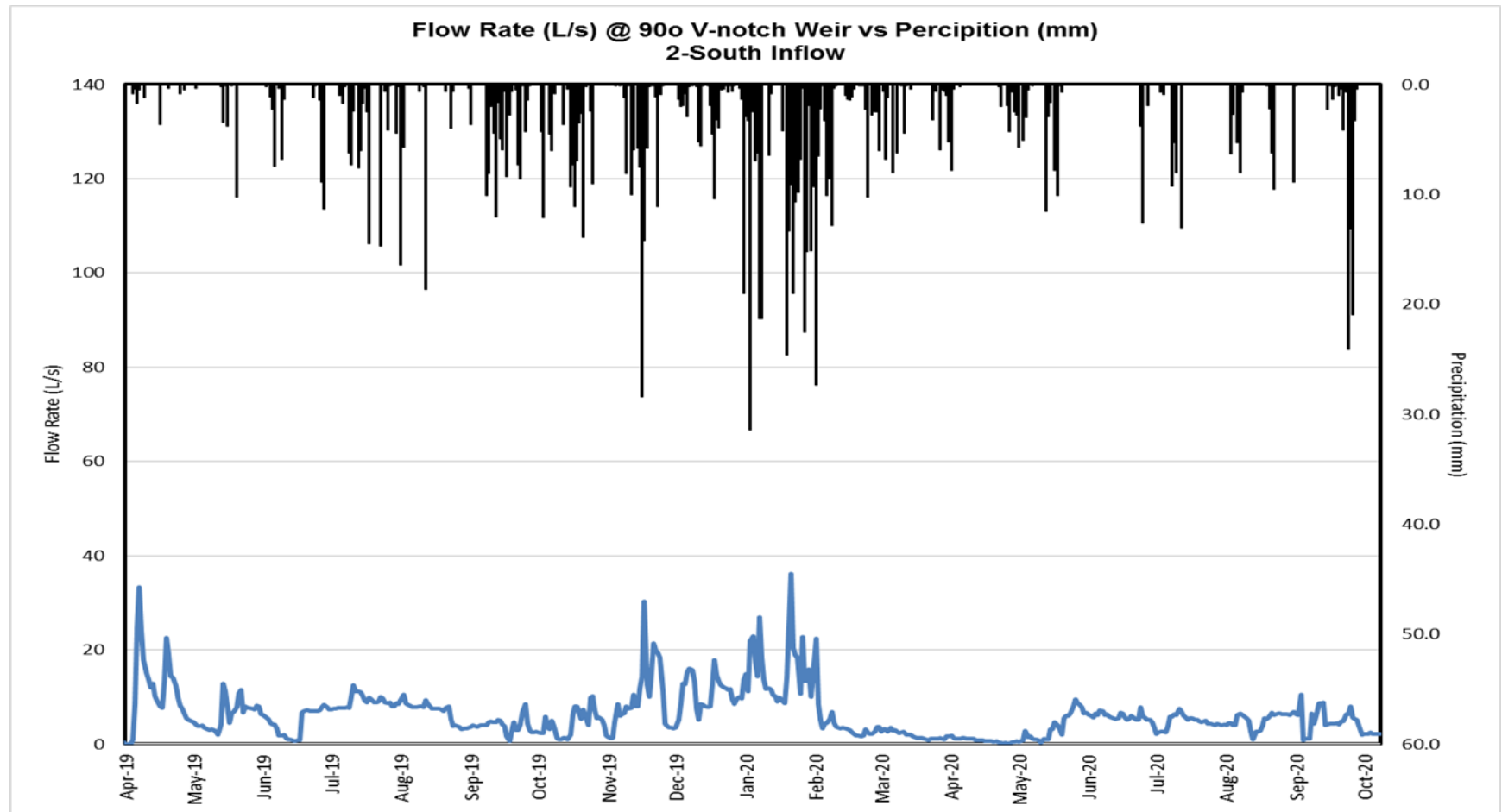


Q2 Report 2020
Graph 7



Q2 Report 2020

Graph 8



Q2 Report 2020

Graph 9

