QUINSAM COAL CORPORTAION

4th Quarterly Report January-March 2016

Iron River Baseline Data summary

Environmental Department

4/27/2016

April 28, 2016

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Mining Operations
Ministry of Environment
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Re: 4th 2016 Quarterly Report for Permit PE-7008

Dear Andrea Doll,

This letter and report summarize the water quality monitoring activities and results for the Quinsam Coal Mine for the 4th quarter period January 1, 2016 to March 31, 2016. Throughout this period, all water quality results for the permitted locations remained below the permit levels except for one daily composite total suspended solids (TSS) sample collected from Settling Pond #1. All data associated with the analytical results for the fourth quarter will be presented in the annual report submitted June 30th, 2016.

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SUMMARY OF EVENTS FOR THE FOURTH QUARTER:

This quarter, all environmental monitoring has been carried out as per the stipulations outlined in the effluent permit PE-07008.

During the 4th quarter all mining production and coal processing ceased at the Quinsam Mine as a result of ongoing depressed coal market conditions. Following the indefinite suspension of all coal production activities at the mine beginning in early 2016, operating areas are being placed into "care and maintenance" mode.

January 13th marked the end of coal production from the 7-South Mine, January 8th was the end of coal production from the 2-North mine and February 2nd marked the end of coal processing for the Quinsam mine. The transition into a care and maintenance program has initiated the commencement of reclamation projects in the 4-South and 2-South areas, such as backfilling and re-contouring portal entries, coal pads and high-walls.

The "*2015 Annual Reclamation Report"* was submitted to Ministry of Energy, Mines and Natural Resources (MEMNR) and Ministry of Environment (MoE) on March 31, 2016.

Groundwater results were compiled as a separate report titled "*Quinsam Coal Corporations 2015 Annual Groundwater Report*" submitted to MEM and MoE as a separate document on March 31st, 2016. This report outlines the 2015 monitoring program, its sampling methods and analytical results for all groundwater wells and underground sumps monitored. During the 4th quarter, monitoring and collection of samples was conducted at 28 groundwater wells, 3 underground sumps and 3 areas where mine water is pumped to surface.

Underground pumping of 5-South mine water into Settling Pond # 1 and 2-North mine water to Settling Pond # 4 continued this quarter with all parameters remaining below permit limits outside of one TSS exceedance of 26 mg/L at Settling Pond #1.

The annual Environmental Technical Review Committee (ETRC) agency meeting was held on December 10th, 2015 with the public meeting held on December 17th, 2015. Quinsam Coal Corporation (QCC) distributed the meetings action items, outcomes and positions for both

meetings after review from all attendees. The follow-up action items requested to be reported on in the 4th quarterly report include:

- Report on Iron River baseline sampling results according to Mines Act permit conditions
- Establish a website for report sharing

The Iron River baseline monitoring is summarized within this report. The website for report sharing will be established by June 2016. The purpose of the website is to increase the availability of the reports to interested parties, and to shift the responsibility of information sharing from government to the company. MoE requests that QCC post both quarterly and annual water quality reports to a publically visible website by their specified submission dates as stipulated in the effluent permit. This deadline was extended as per a letter sent via e-mail from the MoE dated April 12, 2016.

SETTLING POND DISCHARGE:

NORTH WATER MANAGEMENT SYSTEM

SETTLING POND #4 (WD)

Flows remained below the permitted maximum daily discharge of 0.32 m^3/s and exceeded the annual average discharge rate of 0.08 m^3/s during this report period. The rate of discharge at WD for the 4th quarter reached a maximum of 0.238 m^3/sec during March 2016. The quarterly average discharge rate was calculated as 0.1389 m^3/s. Figure 1 represents the maximum daily discharge as well as the average annual discharge (displayed as a cumulative value) against permit limits. As depicted, the annual average discharge exceeded the permit limit of 0.08 m^3/s (2,522,880 m^3 annually) for the reporting year.

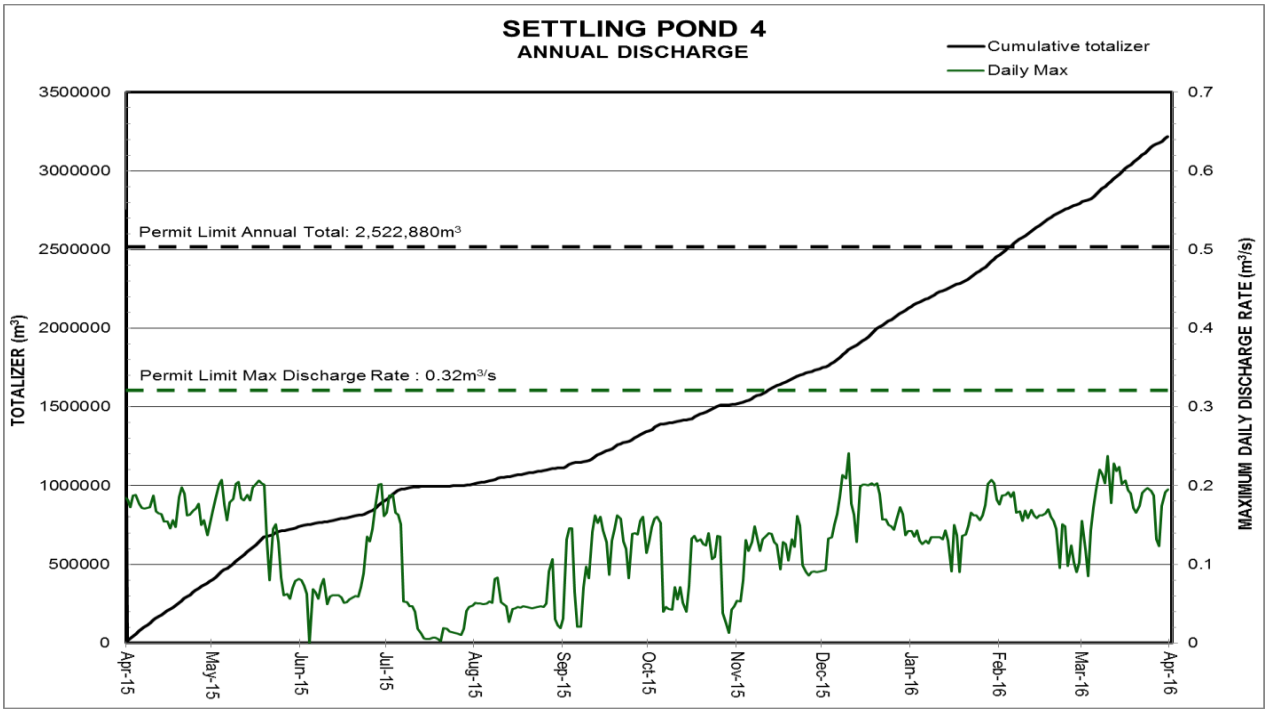

Figure 1 Settling Pond #4 Maximum Daily and Cumulative Discharge

Elevated discharge rates at WD are observed during the winter and spring periods which coincides with increased (seasonal) precipitation events. Consequently, higher surface runoff and enhanced underground dewatering efforts to maintain dry mine operations and facilitate tailings injection increases discharge at WD.

SOUTH WATER MANAGEMENT SYSTEMS

SETTLING POND #1 (SPD)

The permitted maximum daily discharge at Settling Pond #1 is 0.46 m^3/s and permitted annual average discharge rate is of 0.10 m^3/s. The rate of discharge at SPD for the 4th quarter reached a maximum of 0.198 m^3/day during March 2016 while the quarterly average discharge rate was measured as 0.073 m^3/s. Figure 2 below, represents the maximum daily discharge as well as the average annual discharge (displayed as a cumulative value) against permit limits. As depicted,

both the maximum and annual average discharge (3,153,600 m^3 annually) remained well below permitted levels for the reporting year.

Daily discharge peaked at Settling Pond #1 during the 4th quarter from January through March (coinciding with increased surface runoff, increased pumping from 3-South pit and 5-South mine and higher precipitation).

Both Settling ponds displayed a peak flow on March 10th, 2016 corresponding with an extreme storm event where 66.6 mm of rain fell in a 24 hour period. This was the most precipitation received for the entire April through March reporting period.

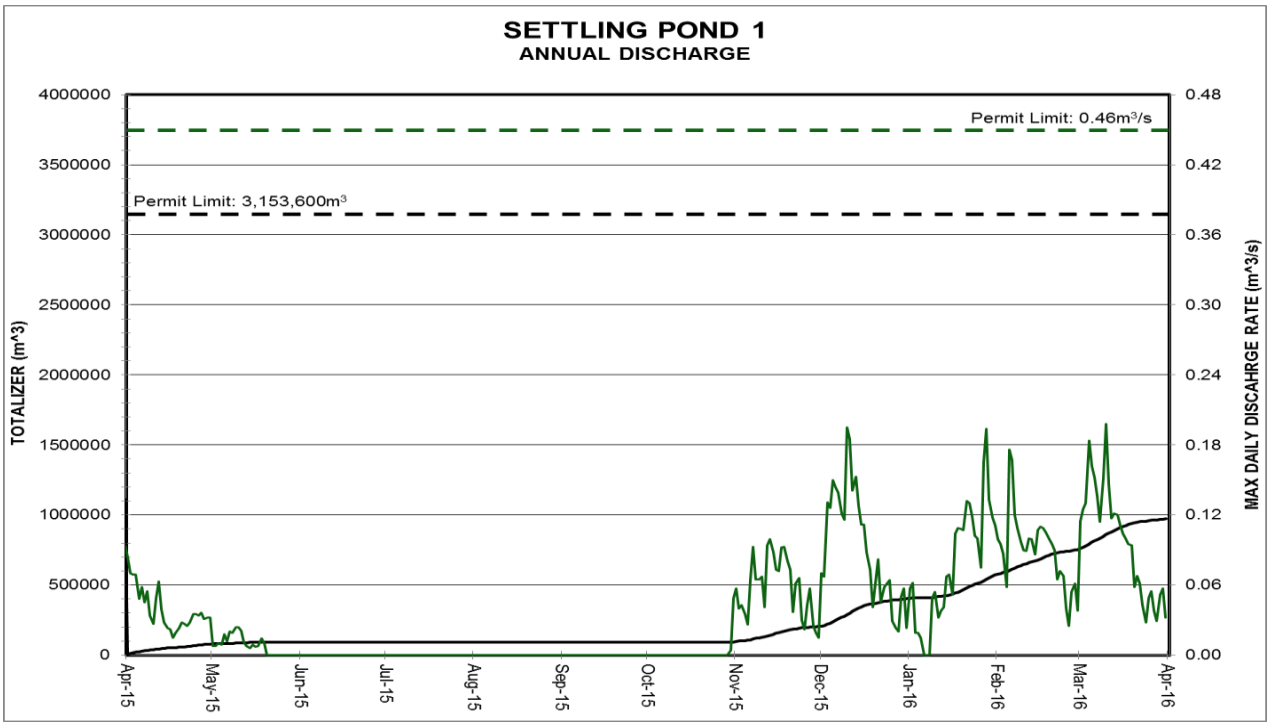

Figure 2 Settling Pond #1 Maximum Daily and Cumulative Discharge

7SSD DISCHARGE (7SSD)

Discharging occurred at 7SSD for 13 days throughout the quarter following procedures recommended in the 7 South Technical Assessment Report[1]. Discharge at 7SSD occurred on

[1] 7-South Technical Assessment Report

January 28th through February 1st, 2016; March 3rd, March 5th through 11th. There were no permitted parameters above the specified limits and the 8:1 dilution[2] ratio was adhered to.

Within this quarter, 1000.813 m^3 of effluent was discharged from 7SSD. This was mostly rain and runoff as discharge only occurred during heavy storm events. The containment pond at 7SSD captures surface drainage, groundwater and some infiltration from the coal pad. There are two pumps set up at this site where water is pumped from the containment pond to the portal pond reducing/eliminating the discharge into 7SSD. The portal pond water is directed underground to 5-South or used for dust/fire suppression underground. 7SSD only discharged during extreme storm events during the 4th quarter.

7 South

The maximum authorized discharge from settling pond 7SSD is 0.005m^3/s (5 L/s). However, discharge quantity is dependent on assimilative capacity of Stream 1 and therefore dynamic in nature. To facilitate determination of the appropriate discharge level at 7SSD a flow rating curve was developed for monitoring station 7S. This rating curve allows for determination of instantaneous flow levels at 7S by reading the installed staff gauge. A flow rate at 7SSD can be adjusted as needed to maintain the dilution ratio. Figure 3 below depicts this curve.

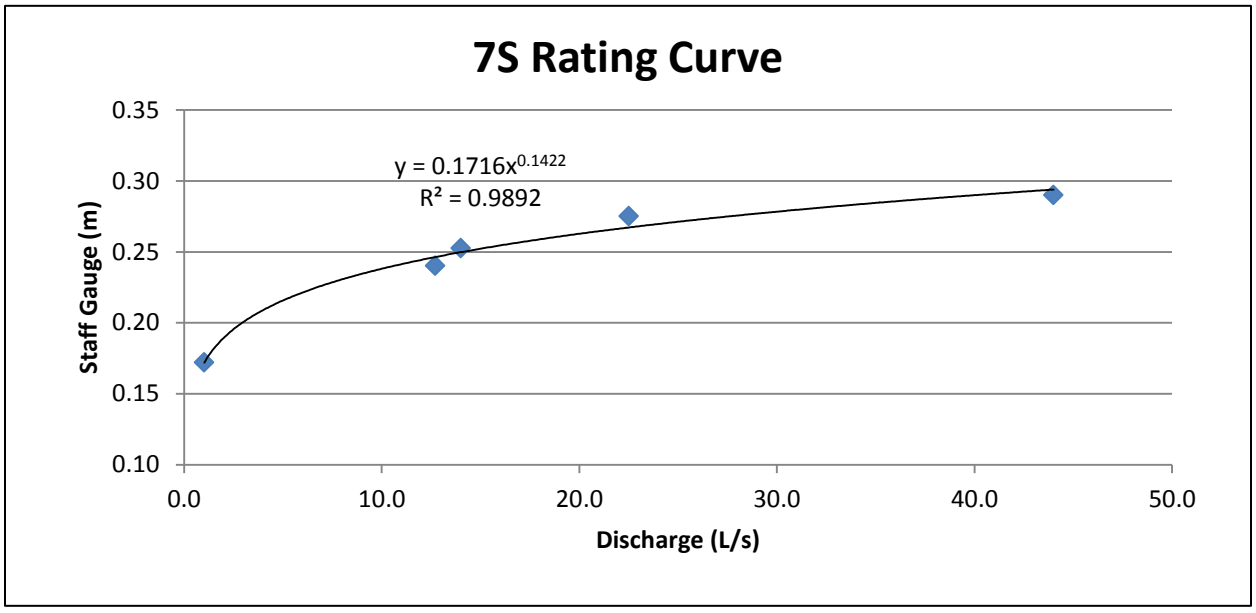

Figure 3: Monitoring Station 7S Stage Discharge Curve

[2] Quinsam Coal Corporations 2015 Environmental Procedures Manual

Initially, an 8:1 dilution ratio was targeted to maintain desirable water quality in the receiving environment downstream of 7S. However, throughout the 7 South operational period, Quinsam has demonstrated that the 8:1 dilution ratio can be amended while maintaining water quality guidelines within the receiving environment (station 7S). The dynamics of this system continues to be monitored and measured as a more robust dataset is developed. The information will be evaluated to ensure discharge is optimized to achieve protection of sensitive aquatic receptors and facilitate mine operations.

Figure 4 below displays daily average discharge measured at 7SSD for this reporting year; a quarterly average flow rate of 0.1273 L/s was recorded and flow rate always remained below the maximum (5 L/s) permitted discharge attained during all discharge periods.

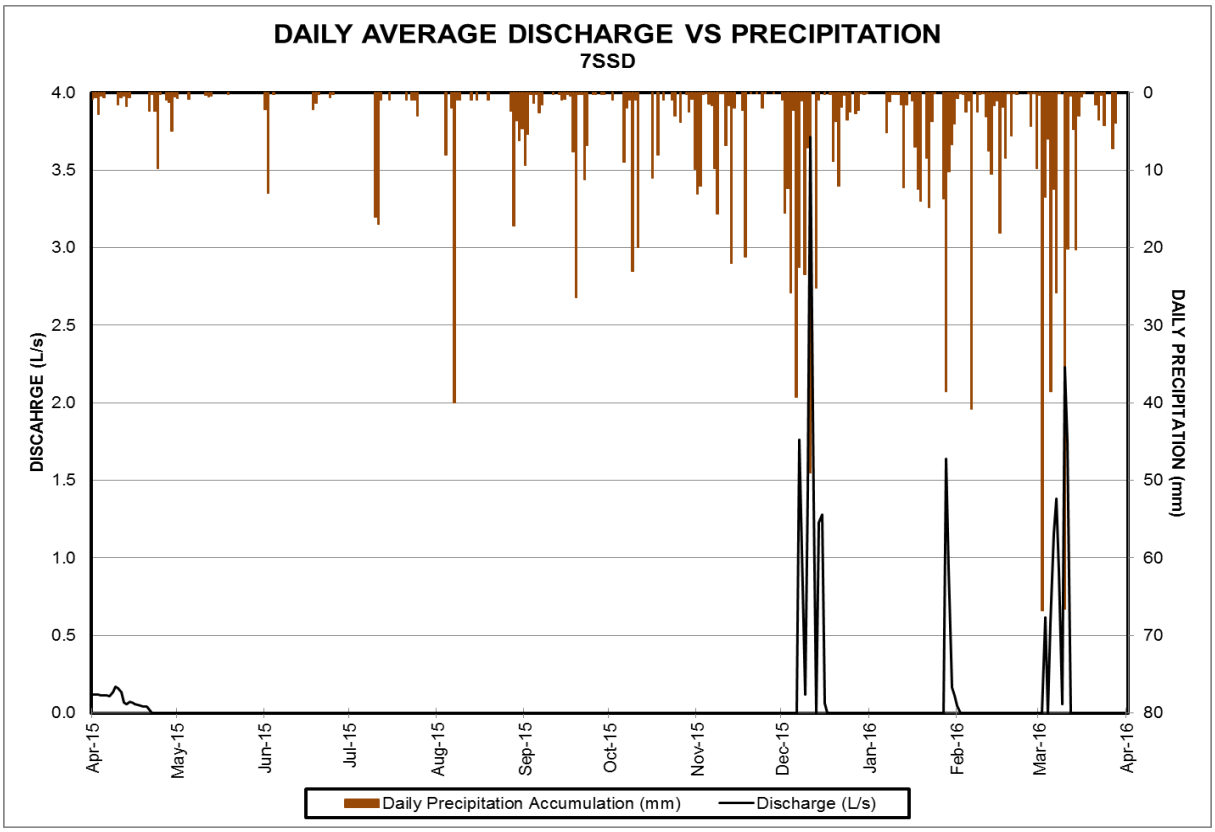

Figure 4: 7SSD Discharge vs Precipitation

WATER QUANTITIES & FLOW RATES:

Water gauge readings and flow data from Long Lake Outlet (LLO), Long Lake Entry (LLE), Middle Quinsam Lake Outlet (WB), Stream 1 7S, and Iron River hydrometric station upstream of site 8 has been collected throughout the quarter. Flow data for WA has been provided by Environment Canada[3] from the Quinsam River at the Argonaut Bridge weather monitor station from January 1, 2016 to March 31, 2016. The data is currently unapproved and subject to revision. The continuous flow data from each site will be presented in the annual report.

Total rainfall precipitation for the fourth quarter was 577.9 mm, an increase from January through March, 2015 of 348 mm.

SAMPLING:

All sampling was performed as required by permit this quarter. Most parameters were below permit limits. All flow data has been collected and all required samples obtained as required by effluent permit PE: 7008.

SPILLS:

On January 23, 2016 a daily composite TSS sample at Settling Pond #1 was elevated (26 mg/L) above permit limits of 25 mg/L. The TSS exceedance was most likely attributed to a combination of heavy precipitation causing increased mobilization of suspended solids and pumping from the 5-South mine. All TSS results preceding the exceedance remained below the permit limit. The corresponding spill report number is 153118.

[3] https://wateroffice.ec.gc.ca/station_metadata/referenceIndex_e.html?stnNum=08HD021
Environment Canada Website

QUALITY ASSURANCE QUALITY CONTROL:

All replicate sampling was performed in compliance with most of the recommendations made in 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*[4]*".*

As per the requirements of the B.C. field sampling manual, Quinsam Coal's environmental department follows a Quality Assurance/Quality Control (QA/QC) program of one field replicate sample collected per sampling event. RPD (Relative Percent Difference) values are calculated in accordance with the B.C. field sampling manual and will be presented in the 2015 / 2016 Annual Report.

IRON RIVER BASELINE SAMPLING:

As part of the 7-South Area 5 Permit Application, baseline water quality monitoring occurred on the Iron River to gain an understanding of existing water quality. There were 10 monitoring stations established on the river to best identify hydrogeological interactions and their respective influences on water quality. Additionally, 6 tributaries were monitored to identify incremental loading sources and one sump.

One year of monthly baseline samples were obtained at all sites to maximize interpretation of seasonal variations and trending on the Iron River. Effluent Permit PE-7008 identifies a number of river monitoring stations which represent the receiving environment for various mine related discharge(s). Post-baseline monitoring on the Iron River consists of 5 in 30 and monthly sample frequency and 5 in 30 sampling during the spring, summer and fall seasons. The sites included on this frequency are IR1, IR6 and IR8 and includes two locations on the Quinsam River, 7SQR and IRQR. Figure 1 in Appendix II displays the monitoring locations on the Iron River and the proposed 7 South Area 5 mine development. Baseline monitoring at all other locations was on a frequency of every two weeks to monthly when tributaries flows decreased.

[4] British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2013 Edition

MONITORING STATIONS:

Iron River:

- IR1 through IR4 – These stations are located upstream of any mine related activity and represents baseline conditions. IR1 has been established as a permitted monitoring location.
    - Tributary- IRT1

- IR5, IR6 & IR7 – These stations are located upstream of any mine related activity (currently) and reflects baseline conditions. IR6 has been established as a permitted monitoring location. The primary difference between IR1 and IR7 is the change is geologic formation(s) which influence water quality and the IRS1 sump that has been identified as another source of arsenic contribution in this area of the river.
    - Tributaries- IRT2 through IRT5
    - IRS1- A sump or drillhole site thought to be associated with an exploration program in the 1950's.

- IR8, IR9 & IR10 – represent the downstream monitoring locations on the Iron River. IR8 will be used to quantify potential influence of 7-South Area 5 (once developed) and has been established as a permitted monitoring location.
    - Tributary- IRT6 located upstream of IR8

Quinsam River:

- 7SQR – Located below Stream 1 (7S) and Quinsam River confluence and therefore captures any incremental changes in water quality that may be attributed to 7-South operations. This location is not included in the assessment for this report.
- IRQR – Station located below the confluence of the Iron River and Quinsam river and will represent the cumulative mine related discharge for all current operations (upon development of 7-South Area 5).

DRAINAGE AND FLOWS:

Lorax[5] reported the estimated drainage area reporting to the hydrometric station located upstream of IRT6 & IR8 to be 58 km^2 with the entire Iron River watershed estimated to be 63 km^2. The hydrometric station was established on July 25th, 2012 and continuous flow has been recorded using a level logger accompanied with monthly metric staff gauge measurements. The average flow rates recorded from the hydrometric station were recorded as 1.360 m^3/s for 2014 1.339 m^3/s for 2015 and 4.510 m^3/s from January to March 2016. Extended periods of higher seasonal flows are normally observed during spring through fall. Parameters displaying seasonal trends and those exceeding provincial Water Quality Guidelines (WQG) were graphed against flow. Figure 1 below displays the flows on the Iron River from 2014 to March 2016.

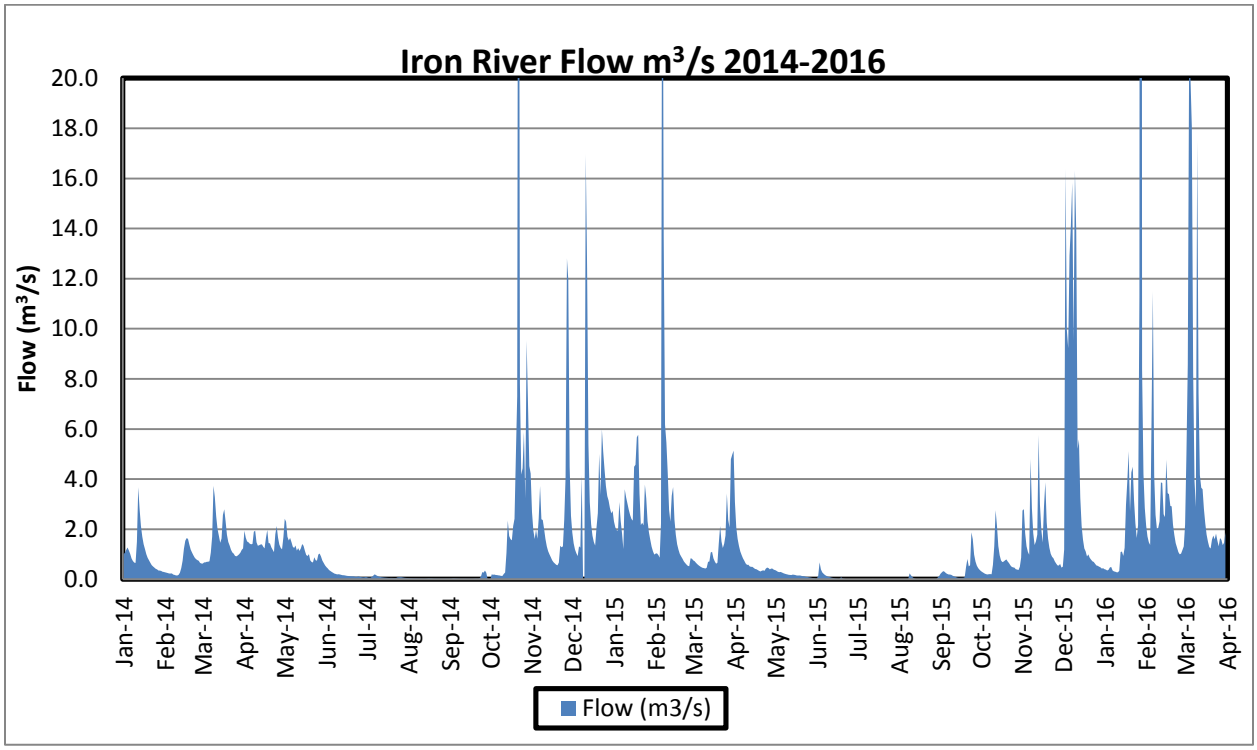

Figure 1: Iron River Continuous Flow Recordings m^3/s

[5] 7-South Area 5 Water Quality Effects Assessment June 5th, 2013 pages 4-16

BASELINE SAMPLING RESULTS:

Most general parameters (e.g. iron & sulphate) were observed to be in low concentration across all sites and remained well below Water Quality Guidelines (WQG). Pronounced seasonal fluctuations are apparent for parameters such as hardness, conductivity and alkalinity as noted by Lorax[6] and observed through baseline monitoring. The seasonal fluctuations represent periods of low flow when ion concentrations increase and higher flows display a decrease in ion concentrations. For example, hardness exhibits seasonal variability with both spring and fall (higher flow) periods remaining soft and summer (lower flow) levels increase to moderately soft to hard as displayed in Figure 2 below. To be consistent with the "*Baseline Surface Water Quality 7-South Area 5 Water Quality Effects Assessment"* an average hardness at IR1 (upstream of mining operations) of 45 mg/L $CaCO_3$/L has been used to calculate the water quality guideline for those parameters with a hardness dependency. Appendix I, Tables 2 through 89 displays the analytical results for the Iron River, Tributaries and IRQR. Table 1 displays the WQG used for this report and Tables 78 through 89 displays the average 5 in 30 values calculated for IR1, IR6, IR8 and IRQR.

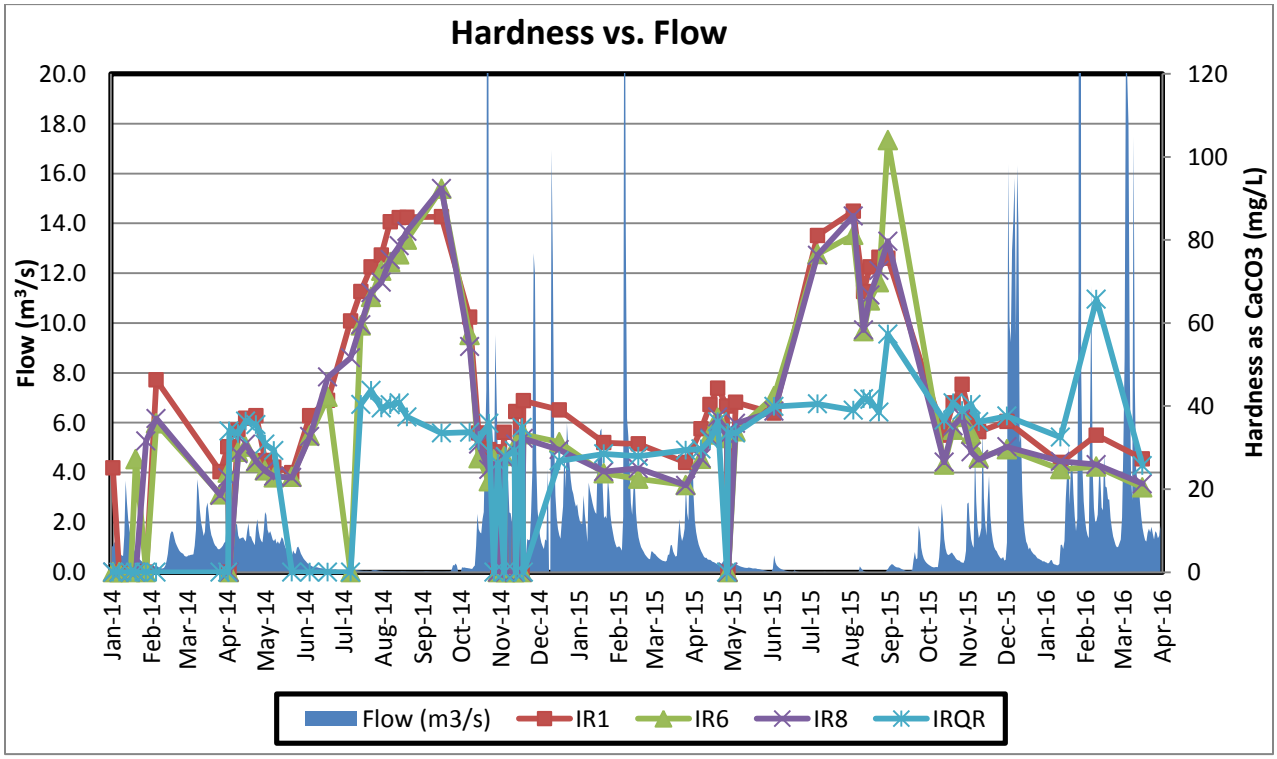

Figure 2: Hardness vs Flow

[6] 7-South Area 5 Water Quality Effects Assessment June 5th, 2013 pages 4-11

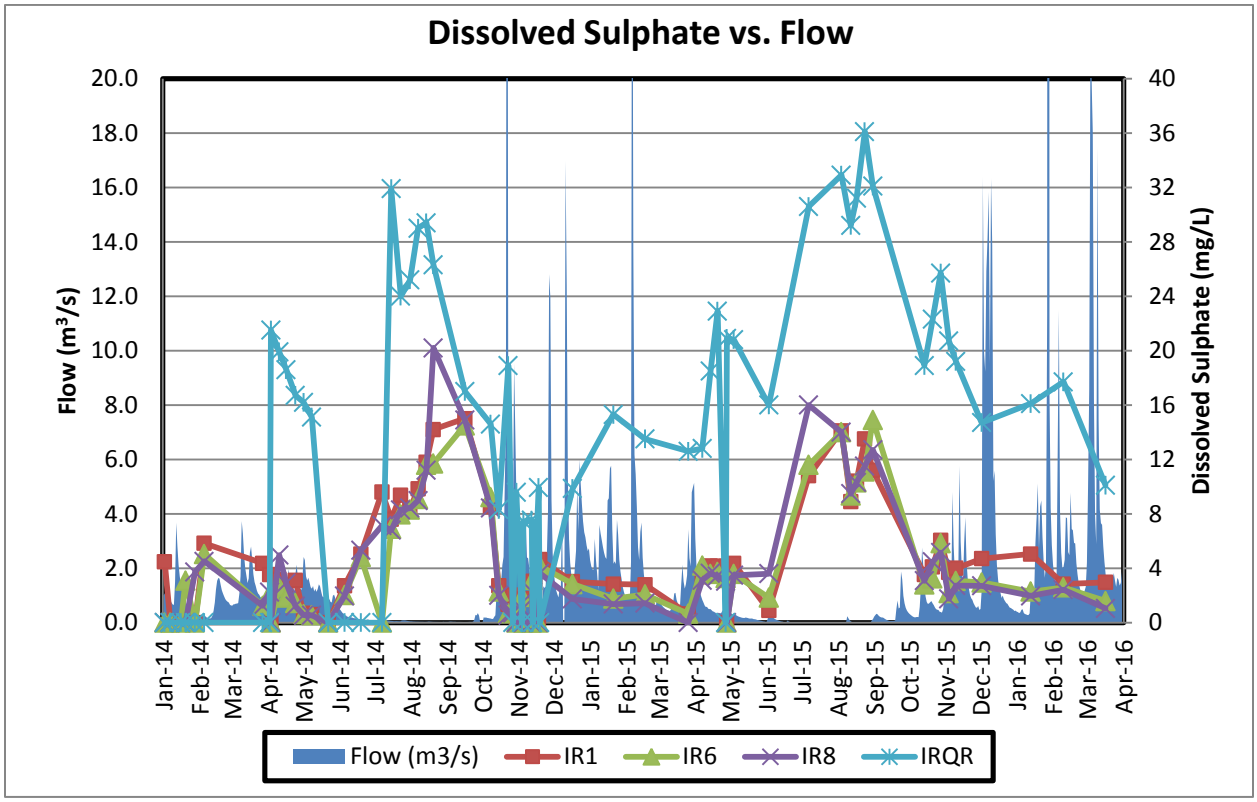

Figure 3: Dissolved Sulphate vs Flow

The seasonal fluctuation is observed in Figures 2 and 3 above for hardness and sulphate compared to flow. Hardness and sulphate along with other major ions such as alkalinity, conductivity and pH are strongly influenced by varying inputs of low-ionic–strength meteoric water and higher-salinity groundwater's as was observed by Lorax[7]. Meteoric water is the water derived from precipitation (snow and rain), which includes water from lakes, rivers, and ice melts, which all originate from precipitation indirectly. Variations in seasonal signatures such as natural drainages during winter high flow periods identified through low ionic strength and summer low flow periods with groundwater inputs identified with higher ionic strength are driven by the seasonal water balance on the Iron River.

As a baseline comparison for the Iron River, sulphate concentrations at IR1 ranged from <0.05 mg/L to 15 mg/L averaging 5.44 mg/L for the combined data set spanning 2014 through March of 2016. Highest concentrations were observed both years in summer reaching maximum values of 15 mg/L and 13.5 mg/L during 2014 and 2015, respectively. IR1 displayed the greatest overall average of 5.44 mg/L, however most other sites remained within the average

[7] 7-South Area 5 Water Quality Effects Assessment June 5th, 2013 pages 5-8.

range of 3 mg/L to 5.53 mg/L throughout the entire monitoring period (2014-2016) and followed a similar trend to one another. IR8 displayed the greatest peak concentrations with a maximum value 20.8 mg/L during August 2014 and 16 mg/L during July 2015 with the entire monitoring period (2014-2016) averaging 4.98 mg/L. IR5 and IRS1 were the only sites that fell outside of the range for sulphate concertation's averaging 9.7 mg/L and 20.4 mg/L, respectively. The location of IR5 was seasonally dangerous and difficult to get to therefore it was only sampled 3 times making the average appear greater than the others sites.

IRS1 was sampled 18 times with sulphate concentrations ranging from 17 mg/L to 22.5 mg/L averaging 20.4 mg/L. Overall sulphate concentrations on the Iron River remained well below Average WQG of 218 mg/L.

Dissolved aluminum (Al-D) and total arsenic (As-T) were determined to be the two primary parameters of interest in the Iron River. Both parameters exceeded the maximum WQG's of 0.05 mg/L and 0.005 mg/L, respectively during multiple sampling events at most sites. Al-D was observed to be in highest concentration during high flow events and was elevated naturally throughout the watershed at all locations except IRS1. Figure 3 below displays the permitted location's (IR1, IR6, IR8 and IRQR) graphed against flow.

Although Al-D was found elevated at all locations, the tributaries IRT3 and IRT4 contributed the highest concentrations to the river with 12 out of 14 parameters in excess of maximum WQG at IRT3 and 11 out of 15 at IRT4. Monitoring location IRS1 did not exceed Al-D on any occasions. The tributaries are low flow and therefore the load to the Iron River is considered trivial.

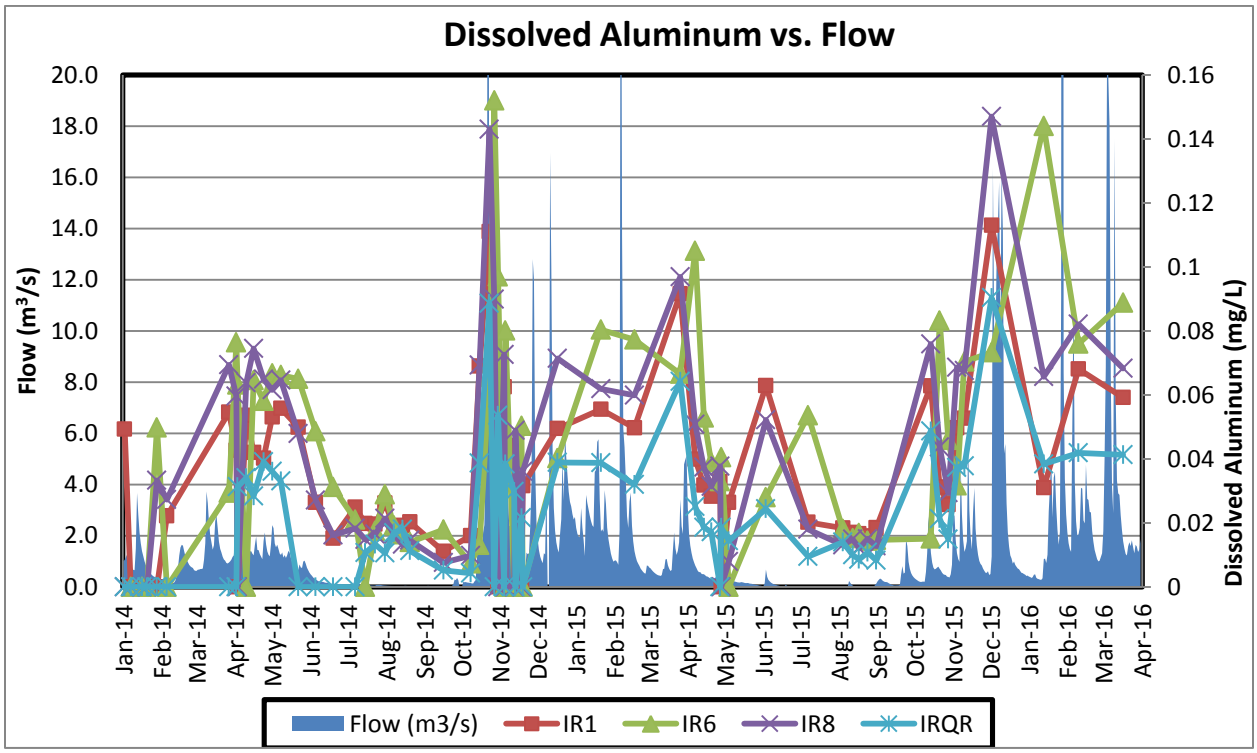

Figure 4: Dissolved Aluminum vs Flow

Similar to the major ions, there appears to be an inverse relationship between parameters Al-D and As-T in that Al-D is elevated during periods of higher flow while arsenic is elevated at times of low flow. For example, arsenic exceeded the WQG at IR6 through IR9 during the summer 2014 and 2015 sampling program 8 out of 51 times at IR6, 3 out of 18 times at IR7, 15 out of 52 at IR8 and 3 out of 18 times at IR9. Tributaries IRT3 and IRT4 exceeded maximum WQG 3 out of 14 times and 2 out of 15 times respectively, during late spring early summer, while dissolved aluminum remained below guideline levels during low flows. This relationship is presented in Figure 5 below and Appendix II, Figure 2 displays the As-T concentrations on the Iron River from the Upper site to the Lower sites with IR8 displaying the greatest concentration. The Iron River receives water that interacts with elevated arsenic bearing lithology of the Dunsmuir Member geological units from sites IR5 to IR8. Therefore this section of the river displays the elevated Arsenic.

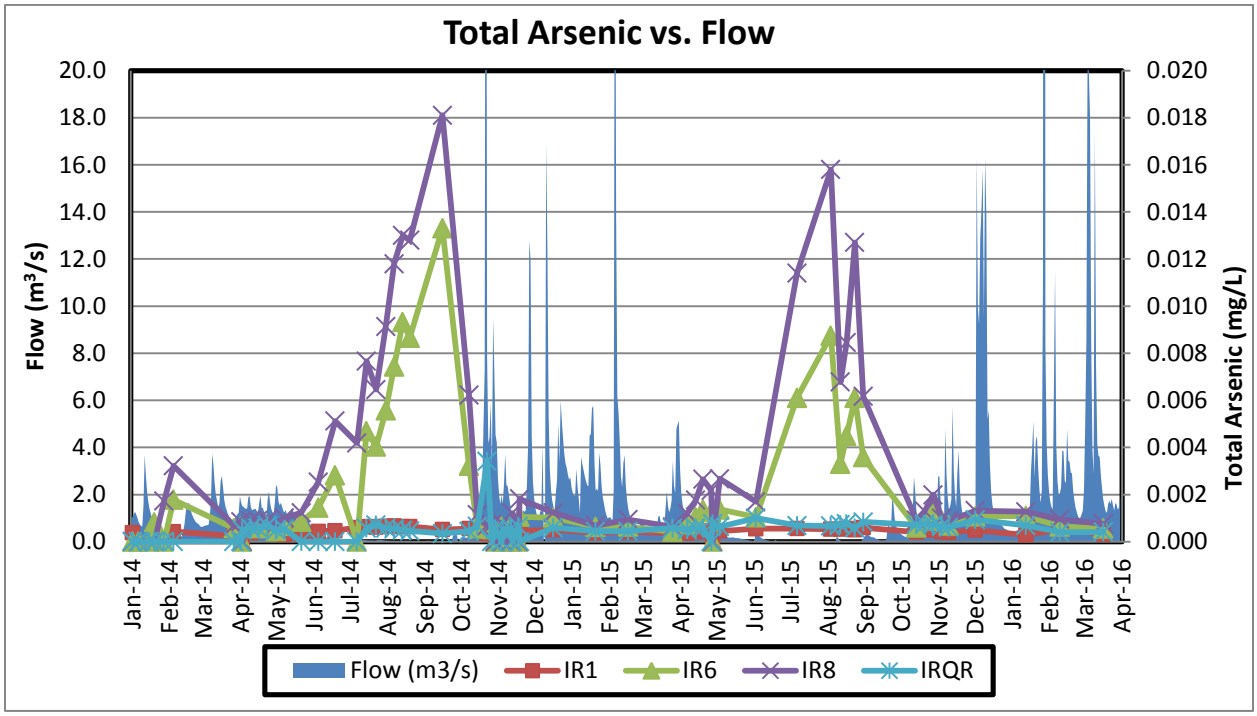

Figure 5: Total Arsenic vs Flow

Elevated As-T concentrations were observed at an old exploration site beside the river below 242 mine site. This site (IRS1) is a contributor to the arsenic concentration increase observed between IR7 and IR8. This location is believed to be a sump or drillhole site thought to be associated with an exploration program performed in the 1950's, targeting a known iron-copper skarn deposit, bearing iron, copper, and silver within oxides and sulphides such as magnetite, chalcopyrite, and arsenopyrite[89] (FeAsS). The sump or site depression remains filled with water, and has a pipe in the base that is artesian. Original excavation of this drill site or sump was not performed by Quinsam and any direct information on the hole is unknown. Efforts are presently underway to control/stop the flow and reclaim this area. The As-T concentrations exceeded maximum WQG 18/18 sampling events and ranged from 0.399 mg/L to 22.1 mg/L averaging 2.15 mg/L from January 2014 to March 26, 2015. Figure 5 below displays As-T concentrations at IRS1 from 2014 to March 2015. As depicted the elevated As-T of 22.1 mg/L was sampled during summer low flow (August) and As-T concentrations were not detected at that level again; however, concentrations have remained elevated above maximum WQG's.

[8] Report on the Preliminary Rock Geochemistry Survey of the Iron River Claims, Assessment Report 13574, March, 1985.
[9] Airborne Geophysical Report for the Iron River Project, Assessment Report 30123, April, 2008.

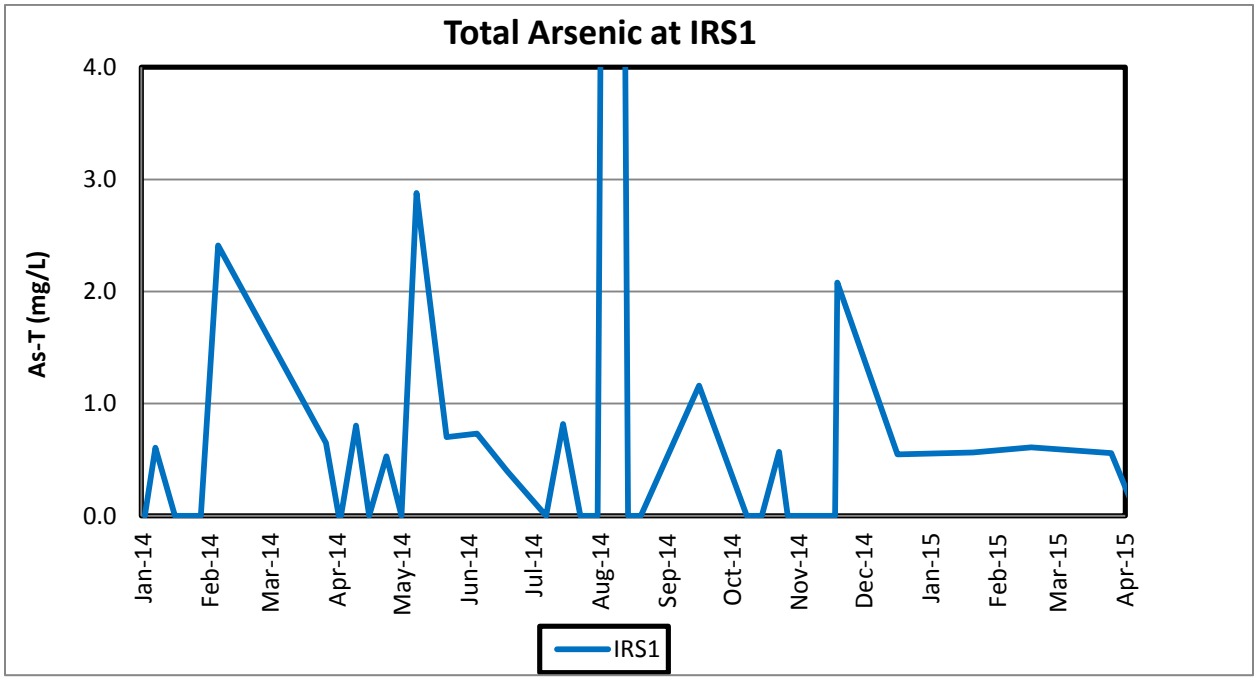

Figure 6: Total Arsenic at IRS1

In general, mean concentrations of total and dissolved trace metal concentrations are low and mostly fall below detection limits or below WQG in the Iron River. Other parameters found to be naturally elevated on occasion throughout the Iron River include total copper (Cu-T), total phosphorous (P-T), total suspended solids (TSS) and total zinc (Zn-T). Other parameters of concern such as iron, manganese and selenium remained below WQG's.

Cu-T was observed in low to moderately elevated concentrations within the Iron River with elevated concentrations occurring intermittently with peak concentrations detected during high flow events in excess of maximum WQG 0.002 mg/L. Permitted locations are displayed in Figure 6 below with IR6 displaying the greatest concentrations overall.

IRS1 had one Cu-T result elevated above maximum WQG; therefore, contributions to the Iron River were minimal for this parameter. IRT5 was also exceeded max guidelines during low flow during 6 events. IRQR exceeded during one event in December coinciding with elevated concentrations upstream.

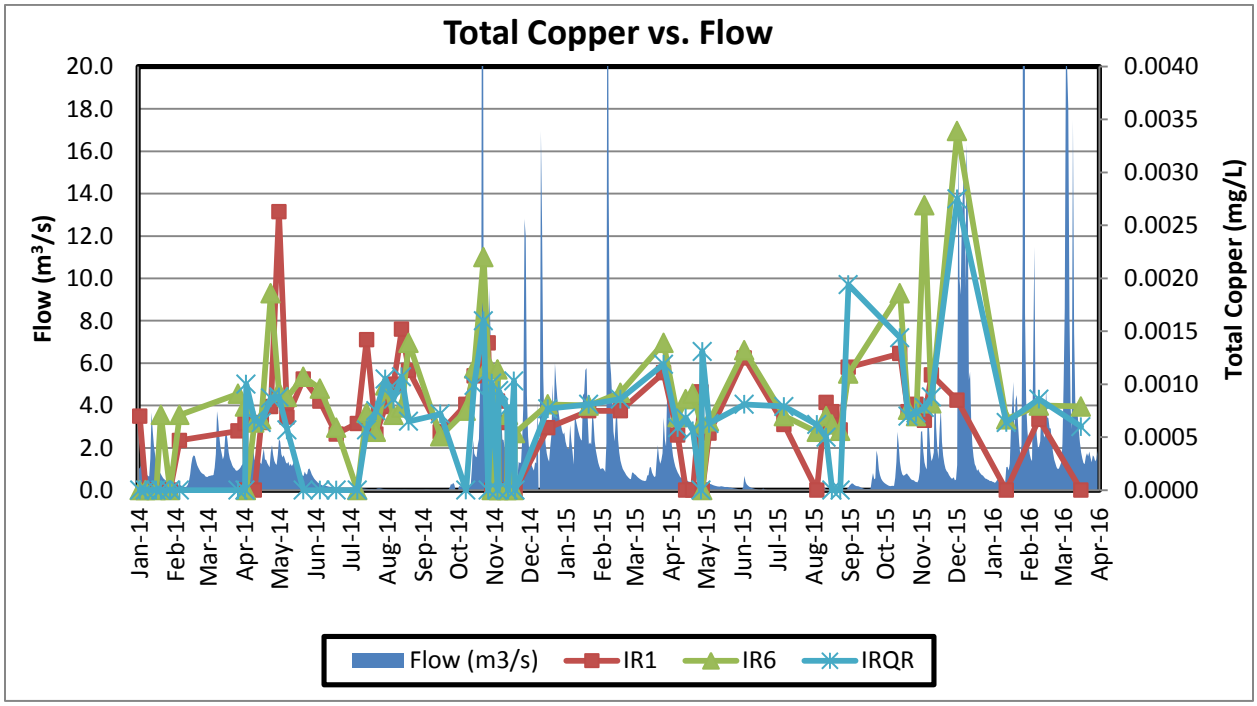

Figure 7: Total Copper vs. Flow

P-T was sampled intermittently, with most results elevated above WQG of 0.01 mg/L, which is a drinking water and recreation guideline set for lakes as there are no proposed phosphate criteria for streams or rivers. This is relative as the Iron River drains into Lower Quinsam Lake. Iron River stations ranged from <0.005 mg/L to 0.0154 mg/L with all exceedances occurring on Oct 23rd, 2014 sampling event. IR1 was the only site that did not exceed WQG during this event.

TSS was found mostly below laboratory detection limits (LDL) of 4.0 mg/L with a few occasions where LDL were raised to 8.0 mg/L due to insufficient sample volume. There was one occasion were TSS was recorded as 51 mg/L on May 22, 2014 at IR2. This result is considered an outlier as the downstream results are not reflective of this. The Iron River has been found to have low concentrations of TSS.

As displayed in Figure 8 below, Zn-T has been found in moderate to elevated concentrations during high flow events throughout the Iron River, tributaries and at IRQR. These events were consistent with elevated values measured at background sites such as No Name Lake and Middle Quinsam Inlet.

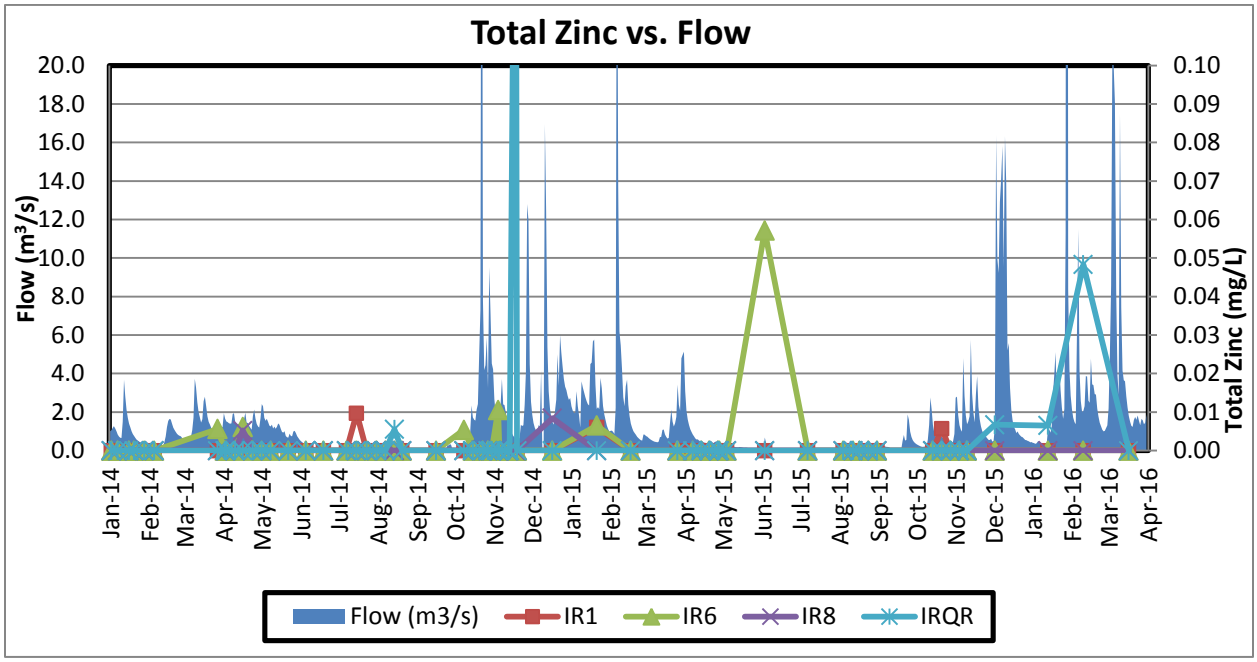

Figure 8: Total Zinc vs. Flow

All other parameters of interest (from the Iron River) were below their respective guideline levels at IR1, IR6 and IR8. Furthermore, no other WQG exceedances were observed at station IRQR throughout the reporting period; therefore, mixing of the Quinsam and Iron River(s) results in sufficient dilution to reduce total arsenic and dissolved aluminum.

Appendix I, Tables displays relevant data for all Iron River stations (2 - 89) and Appendix II Figure 1 is a map of the Iron River and all monitoring stations with the proposed 7-South Area 5 mine plan.

We trust the information presented in this quarterly report meets the requirements of the effluent permit. Please contact the Environmental Department at (250- 286-3224, EXT 225) if you have any questions or comments.

Sincerely,

Kathleen Russell

Environmental Coordinator
Quinsam Coal Corporation

CC,
Gary Gould,
Mine Manager
Quinsam Coal Corporation