

#### **Environmental Report on Latte Creek Placer Lease IW00496**

September 28th, 2018

To Whom It May Concern,

This report and all supplementary appendices are submitted in accordance with the Placer Mining Act to fulfill the requirement for reporting on representation work completed on the placer lease in question for the year October 2, 2017 to October 2, 2018.

Questions regarding this report or any of its contents can be directed to Jasmin Dobson, Environmental Superintendent of the Goldcorp Coffee Gold Project.

asmin Dobson, B.Sc. Environmental Science

**Environmental Superintendent** 

Coffee Gold Project

Goldcorp Inc.

Jasmin.Dobson@goldcorp.com

(867) 334-7698

# Latte Creek Placer Lease Environmental Report -Grant # IW00496

Grant Number	IW00496			
Location (UTMs of corners)	SE: 59445.5232 6970123.719 / SW: 586505.5232 6970980.010 NW: 586676.2903 6971564.598 / NE: 594548.8027 6970723.840			
NTS Map Number	155J14			
Registered Owner	Sheri Chan			
Mining District	Whitehorse			
Author	Jonathan Lowey, B.Sc. Kristina Beckmann, B.Sc. Anne MacLeod, R.P. Bio Pat Tobler, R.P. Bio, CPESC			
Dates of work preformed October 2017-September 2018				

# **Report Prepared For**

Goldcorp Inc.
Suite 3400-666 Burrard Street
Vancouver, BC V6C 2X8

# Prepared By EDI Environmental Dynamics Inc.

2195 – 2<sup>nd</sup> Avenue Whitehorse, YT Y1A 3T8

### **EDI Contact**

Pat Tobler, R.P. Bio. 867.393.4882

# **EDI Project**

18Y0024 September 2018







# TABLE OF CONTENTS

1	INT	RODUCTION	1
	1.1	STUDY AREA	. 1
2	ME'	THODS	3
	2.1	FISHERIES	.3
		2.1.1 Review of past fisheries information	3
		2.1.2 2018 Habitat assessment and Fish sampling	3
	2.2	WATER QUALITY	.5
	2.3	TERRESTRIAL VEGETATION AND WILDLIFE	.5
3	RES	ULTS AND DISCUSSION	7
	3.1	FISHERIES	.7
		3.1.1 Past Fisheries Information	.7
		3.1.2 2018 Fish habitat assessment Procedure	.8
	3.2	WATER QUALITY	.9
	3.3	TERRESTRIAL VEGETATION AND WILDLIFE	0
4	CON	NCLUSIONS AND RECOMMENDATIONS?	3
5	REF	FERENCES	4

# LIST OF APPENDICES

APPENDIX A. LAB DATA: WATER SAMPLING ON COFFEE, LATTE AND HALFWAY CREEKS, OCTOBER 2017 – AUGUST 2018

APPENDIX B. PHOTOGRAPHS

# LIST OF TABLES

Table 1.	Summary of available information sources for fish and fish habitat in the Latte Creek drainage	3
Table 2.	Summary of available information sources for water quality in the Latte Creek drainage	5
Table 3.	Summary of available information sources for terrestrial vegetation and wildlife near Latte Creek	(



Table 4.	Baseline fish sampling and capture data in Latte Creek from 2014 to 2017, ordered by samp downstream to upstream-most site (open water season only).	~
Table 5.	Summary of habitat units identified during August 2018 FHAP survey of Latte Creek	9
Table 6.	Wildlife with conservation status that occur, or have the potential to occur, in the Latte Creek dra	inage <sup>1</sup> 12
	LIST OF FIGURES	
Figure 1. C	Overview map of the Latte Creek study area and Placer Lease	2
Figure 2. F	Fish sampling locations and water quality sites on Latte Creek.	4
	LIST OF PHOTOGRAPHS	
Photo 1.	Example of a cascade habitat unit on Latte Creek, August 2018	B-2
Photo 2.	Example of a cascade habitat unit on Latte Creek, August 2018	B-2
Photo 3.	Example of a glide habitat unit on Latte Creek, August 2018	B-3
Photo 4.	Example of a glide habitat unit on Latte Creek, August 2018	B-3
Photo 5.	Example of a pool habitat unit on Latte Creek, August 2018.	B-4
Photo 6.	Example of pool habitat unit on Latte Creek, August 2018	B-4
Photo 7.	Example of riffle habitat unit on Latte Creek, August 2018	B-5
Photo 8.	Example of riffle habitat unit on Latte Creek, August 2018	B-5
Photo 9.	Example of riffle plus habitat unit on Latte Creek, August 2018	B-6

Photo 10.

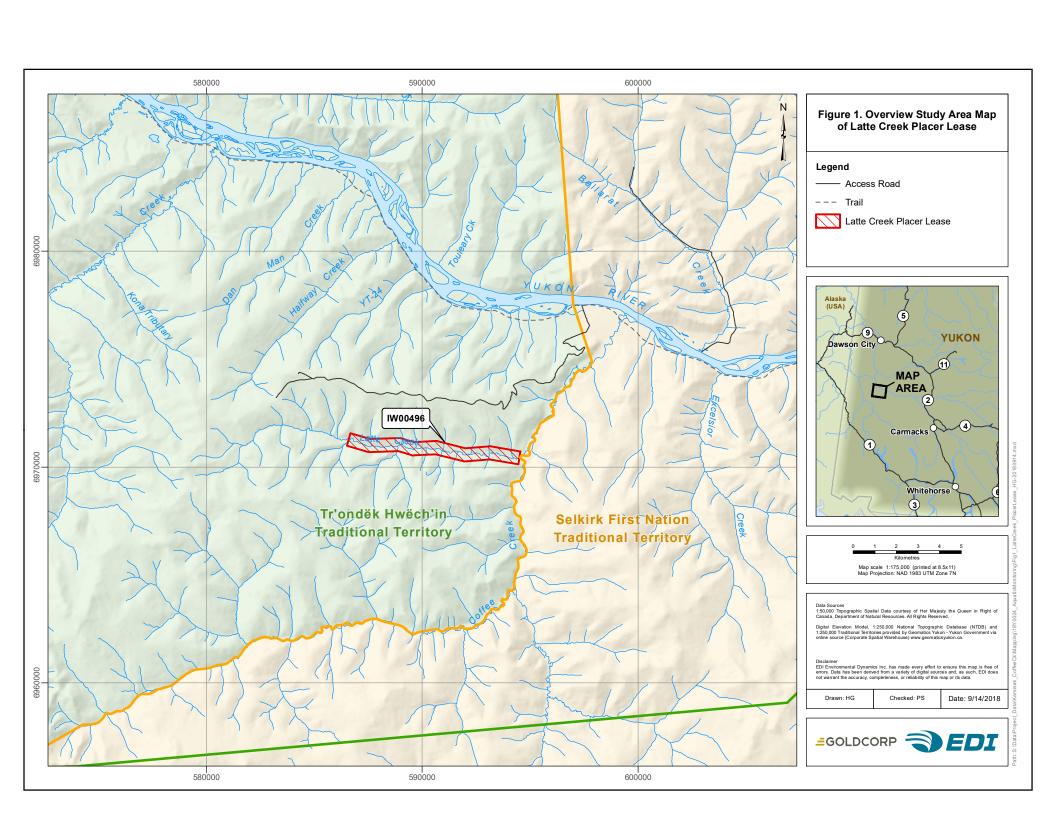


## 1 INTRODUCTION

Goldcorp Inc. holds a placer prospecting lease on Latte Creek (Grant ID: IW00496), a tributary of Coffee Creek which flows into the Yukon River. Significant environmental work has been undertaken in Latte Creek and the surrounding area over the past few years related to quartz mining exploration and mine development for the Coffee Gold project. Such work includes fish and fish habitat surveys, water quality monitoring, and wildlife studies. This report aims to summarize the general knowledge base and present results from work completed within the vicinity of the Latte Creek placer claim lease.

#### 1.1 STUDY AREA

The Latte Creek placer lease is located in the Whitehorse Mining District, approximately 135 km South South-East of Dawson City, Yukon. It is located within the traditional territory of the Tr'ondëk Hwëch'in First Nation and the asserted traditional territory of the White River First Nation. Latte Creek flows eastward into Coffee Creek, which then flows into the Yukon River. Latte Creek flows into Coffee Creek approximately 8.4 km upstream of the Coffee Creek and Yukon River confluence (Figure 1). The placer lease includes approximately 8.0 km of the Latte Creek drainage, beginning at the confluence with Coffee Creek and extending upstream. Latte Creek is a moderately sized creek with an average channel width of 4.97 m, and an average gradient of 2.98 % (from 0 - 12 %) in the area immediately upstream of the placer lease.





## 2 METHODS

Extensive work has been completed on Latte Creek in recent years. This report includes field survey results for Latte Creek from 2018 monitoring, as well as a review of findings from previous years sampling for fisheries, water quality, terrestrial vegetation, and wildlife studies.

#### 2.1 FISHERIES

#### 2.1.1 REVIEW OF PAST FISHERIES INFORMATION

Past fish related studies completed on Halfway Creek were reviewed for information and summarized. This includes sampling effort, capture data and fish distribution within the placer claims and areas downstream that could be affected by placer activity (i.e. through changes in water quality, flows etc.). The fish and fish habitat related reports reviewed are outlined in Table 1.

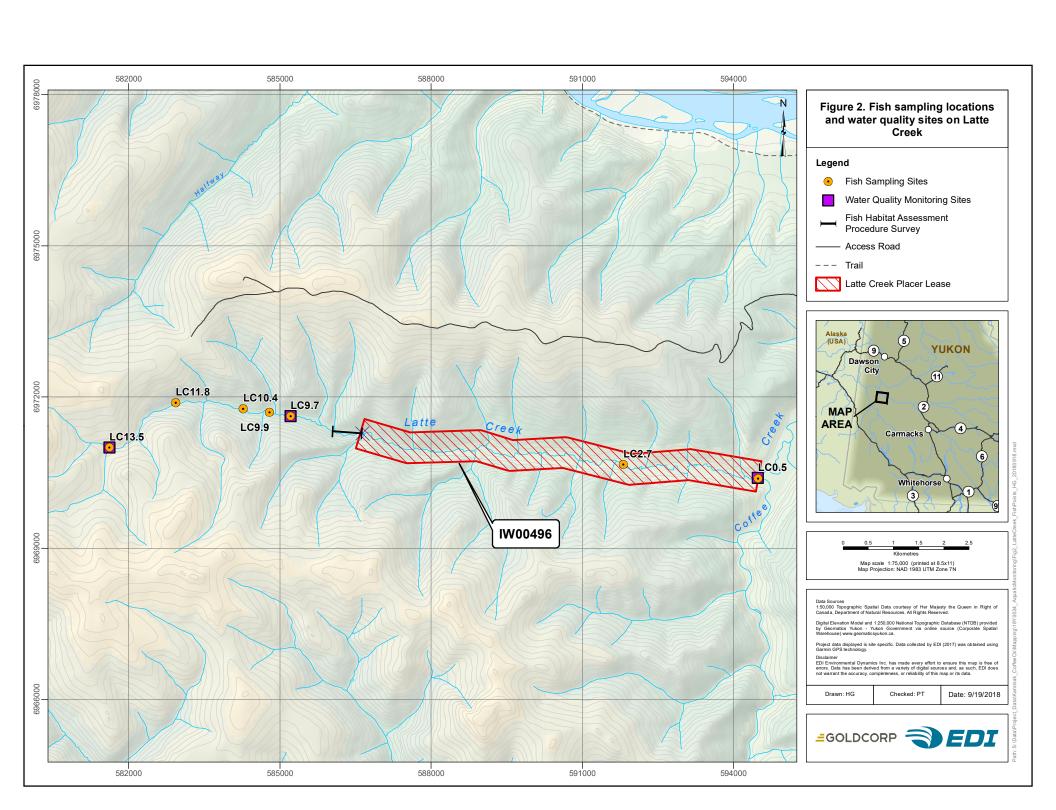
Table 1. Summary of available information sources for fish and fish habitat in the Latte Creek drainage.

Year	Data Summary	Agency	Report References
2017	Triple pass electrofishing at site LC2.7 to estimate fish	EDI Environmental	EDI 2017
	population density.	Dynamics (EDI)	
2016	Winter: fish and fish habitat assessments, environmental DNA	EDI Environmental	EDI 2016
	(eDNA) sampling for Arctic grayling and Chinook salmon and	Dynamics (EDI)	
	benthic invertebrate sampling for analysis of baseline metal	, ,	
	levels.		
	Summer/fall: chlorophyll-a sampling, metals analysis of		
	invertebrates and fish tissue.		
2014, 2015	Fish and aquatic resources baseline report for the Coffee	Palmer Environmental	PECG 2017
	Project, including data on fish and fish habitat, benthic	Consulting Group	
	invertebrates, periphyton and stream sediments. Includes fish	(PECG)	
	tissue sampling data.		
2013	Preliminary fish and fish habitat assessment for the Coffee	Access Consulting	ACG 2014
	Project baseline, including surveys of fish abundance,	Group (ACG)	
	distribution and size/weight data.		

# 2.1.2 2018 HABITAT ASSESSMENT AND FISH SAMPLING

During 2018 monitoring, a Fish Habitat Assessment Procedure (FHAP) survey was conducted August 10, 2018 on a 662 m section of Latte Creek (Figure 2). The objective of the FHAP survey is to describe the characteristics and frequency of different types of available fish habitat by enumerating different habitat units (pool, riffle, glide), and measuring various parameters (e.g., average depth, width, length, etc.). A detailed methodology is outlined in the Fish Habitat Assessment Procedures guide (Johnston and Slaney 1996). The length of habitat units was measured using a laser range finder where as wetted widths and bankfull widths were measured with a measuring tape.

Outside of the habitat assessment, no fish sampling was conducted in Latte Creek in 2018.





## 2.2 WATER QUALITY

Water quality data was collected monthly by Goldcorp staff and consultants at three sites on Latte Creek, LC0.5, LC9.7, and LC13.5 (Figure 2). Site LC0.5 is located approximately 50 m upstream from the confluence of Latte Creek and Coffee Creek, within the Latte Creek placer lease. Water quality monitoring sites LC9.7 and LC13.5 are located outside the placer lease, approximately one and four kilometers, respectively upstream on Latte Creek. Both sites LC9.7 and LC13.5 are within another, different placer prospecting lease (Grant Number: IW00587), owned by Wildwood Exploration Inc. Available information on water quality in Latte Creek is listed in Table 2.

Table 2. Summary of available information sources for water quality in the Latte Creek drainage.

Year	Data Summary	Agency	Report References	
2018	Lab data from water quality sampling between October 2017 and August 2018	Goldcorp	Appendix A of this report	
2010-2017	Water quality sampling results between October 2010 and December 2017	Lorax Environmental (Lorax)	Lorax 2018	

#### 2.3 TERRESTRIAL VEGETATION AND WILDLIFE

Existing information on terrestrial vegetation and wildlife was reviewed and summarized for the placer claim area (Table 3). No targeted vegetation or wildlife studies were undertaken on Latte Creek in 2018.



Table 3. Summary of available information sources for terrestrial vegetation and wildlife near Latte Creek.

Year	Data Summary	Agency	Report References
2017	Field studies on birds and mammals in the Coffee Gold Project area, including Latte Creek. Specifically, methods and results of surveys for caribou, moose, thinhorn sheep, grizzly bears, raptors and other wildlife.	EDI Environmental Dynamics (EDI)	EDI 2018b
2014-2016	Bird baseline report for the Coffee Gold Project area, including Latte Creek. Includes methods and results of field surveys for raptors, waterfowl, game birds, passerines, and various other upland bird species, as well as habitat suitability modelling, and a review of existing information from Traditional Knowledge, regional studies, and other information sources.	EDI Environmental Dynamics (EDI)	EDI 2017b
2014-2016	Vegetation baseline report for the Coffee Gold Project, including the upper sections of Latte Creek. Describes the local vegetation communities, as well as the methods and results of specific vegetation surveys for rare plants, invasive plants, and trace metals.	EDI Environmental Dynamics (EDI)	EDI 2017e
2010-2016	Wildlife baseline report for the Coffee Gold Project, including the Latte Creek area. Includes summary of results of field surveys, habitat modelling, and a review of existing information from Traditional Knowledge, regional studies, and other information sources.	EDI Environmental Dynamics (EDI)	EDI 2017c
2014-2016	Methods and results of field studies on mammals in the Coffee Gold Project area, including Latte Creek. Specifically, surveys for caribou, moose, thinhorn sheep, grizzly bears, wolves, wolverine and other furbearers, bats, collared pika, and other small mammals.	EDI Environmental Dynamics (EDI)	EDI 2017d



# RESULTS AND DISCUSSION

#### 3.1 FISHERIES

#### 3.1.1 PAST FISHERIES INFORMATION

Existing fish information available for Latte Creek mainly relates to baseline investigations associated with the Coffee Gold Project. Table 4 summarizes existing fish capture information available for Latte Creek, and Figure 2 shows the site of sampling locations along Latte Creek in relation to the Latte Creek placer lease. Both Arctic grayling (*Thymallus arcticus*) and slimy sculpin (*Cottus cognatus*) have been captured in Latte Creek near the confluence of Latte Creek and Coffee Creek (within 50 m; Table 4). Only Arctic grayling have been documented in Latte Creek upstream of the confluence (Table 4).

Arctic grayling have been consistently documented in the lower 3 km of Latte Creek (Table 4; Figure 2). No Arctic grayling have been captured during previous sampling upstream of sampling location LC2.7; however, one adult grayling was observed at sampling location LC9.9 during summer 2015 monitoring. Latte Creek is only used by Arctic grayling during the open water season as rearing habitat. This is supported by multiple years sampling data that has captured only adult or sub adult Arctic grayling in Latte Creek in the summer, and winter eDNA sampling which did not detect the presence of Arctic grayling in the winter (EDI 2016, 2017).



Table 4. Baseline fish sampling and capture data in Latte Creek from 2014 to 2017, ordered by sampling site from downstream to upstream-most site (open water season only).

Sampling Site	Sample Date	Sampling Methods	Total Sampling Effort	Fish Captured	
LC0.5a	July 2015	Minnow Trapping	240 trap hours	Slimy sculpin (1)	
LC0.5a	June 2015	Electrofishing	1,839 seconds	Arctic grayling (5) Slimy sculpin (3)	
LC0.5 <sup>a</sup>	July 2015	Electrofishing	1,309 seconds	Arctic grayling (1) Slimy sculpin (1)	
LC0.5a	Sept 2015	Electrofishing	1,100 seconds	Arctic grayling (1) Slimy sculpin (1)	
LC0.5a	Oct 2014	Fyke Netting	25.8 trap hours	Slimy sculpin (7) Arctic grayling (1)	
LC0.5 <sup>a</sup>	Sept 2015	Minnow Trapping	110.4 trap hours	None	
LC2.7	Aug 2014	Minnow Trapping	118.4 trap hours	None	
LC2.7	Aug 2014	Electrofishing	2,898 seconds	Arctic grayling (20)	
LC2.7	June 2015	Electrofishing	1,278 seconds	Arctic grayling (11)	
LC2.7	July 2015	Electrofishing	3,151 seconds	Arctic grayling (39)	
LC2.7	July 2016	Electrofishing	3,108 seconds	Arctic grayling (7)	
LC2.7	Aug 2017	Electrofishing	4,653 seconds	Arctic Grayling (21)	
LC9.9	June 2015	Electrofishing	870 seconds	None	
LC9.9	July 2015	Electrofishing	854 seconds	None	
LC9.9	July 2016	Minnow Trapping	216 trap hours	None	
LC10.4	Aug 2014	Minnow Trapping	58 trap hours	No fish captured	
LC11.8	Aug 2014	Minnow Trapping	55 trap hours	No fish captured	
LC11.8	June 2015	Electrofishing	768 seconds	No fish captured	
LC11.8	July 2015	Electrofishing	835 seconds	No fish captured	

<sup>a</sup>Note while the number of each sampling site is supposed to reflect the distance upstream from mouth in kilometres, Site LC0.5 is was incorrectly labelled and is located 50 m upstream of the mouth with Coffee Creek.

#### 3.1.2 2018 FISH HABITAT ASSESSMENT PROCEDURE

During 2018 monitoring, a Fish Habitat Assessment Procedure (FHAP) survey was conducted on a 662 m section of mid Latte Creek. Twenty-one distinct habitat units were identified during the survey (Table 5). Habitat units identified included cascades (Photos 1 & 2), glides (Photos 3 & 4), pools (Photos 5 & 6), riffles (< 5% grade) (Photos 7 & 8), and steep riffles (≥ 5% grade) (Photos 9 & 10).

The surveyed section of Latte Creek is dominated by riffle and steep riffle habitat which comprise 77 % and 16 % of surveyed habitat units by length, respectively (Table 5). On average, two riffles and one steep riffle habitat unit occur every 100 m length of Latte Creek. Instream boulders and cobbles were the dominant source of cover for fish in these habitats. There are relatively few cascades, glides, and pools, which occur at



frequencies of 0.2, 0.4, and 0.6 habitat units every 100 m length of Latte Creek, and together comprise the remaining 7 % of habitat units by length. The frequency and extent of habitat units in this section of Latte Creek represents relatively low-quality fish habitat with a low frequency of pool and glide habitat units in the surveyed area (Figure 2). Note past studies have documented higher quality habitat in the lower section of Latte Creek (i.e. LC2.7; EDI 2016).

Table 5. Summary of habitat units identified during August 2018 FHAP survey of Latte Creek.

Habitat	Number of Units	Average Length (m)	Total Length (m)
Cascades 1		3.1	3.1
Glides	Glides 2		22.0
Pools	3	7.0	20.9
Riffles (<5% grade)	10	51.2	511.6
Steep Riffles (≥ 5% grade)	5	20.9	104.3
Total	21	31.5	661.9

## 3.2 WATER QUALITY

Water quality information on Latte Creek has been collected since October 2010 and continues to be collected. From a water chemistry perspective Latte Creek can be split between upper Latte Creek, with water chemistry characteristics dominated by surface runoff, and mid to lower Latte Creek, with water chemistry influenced by both surface water runoff, and groundwater discharge (Lorax 2018). The lower Latte Creek water quality monitoring site lies within the Latte Creek placer lease (Figure 2). Because the mid Latte Creek water quality monitoring site lies immediately upstream of the placer lease, parameters from samples collected at this and the lower water quality monitoring site likely represent the range of water quality parameters found within the Latte Creek placer lease. Only results from mid to lower Latte Creek are discussed below given their proximity to the placer lease.

Latte Creek is characterized by soft water (<90 mg/L CaCO<sub>3</sub>) and low levels of major ions during summer freshet, high flow periods, and very hard water (114 - >400 mg/L CaCO<sub>3</sub>) during winter low flow periods. For most parameters, mean monthly concentrations of total and dissolved trace elements are low (e.g., arsenic, antimony, cobalt, chromium, lead, mercury, nickel, selenium, and zinc) and generally fall below the CCME guidelines for the protection of aquatic life. Dissolved aluminum is consistently observed to be elevated well above BCMOE guidelines for the protection of aquatic life, with peak concentrations corresponding to high flow periods. Similarly, concentrations of total copper peak during periods of high flow, and sometimes exceed associated guidelines (CCME 2007). In comparison, total uranium concentrations are generally elevated during winter low-flow periods (20 – 35 ug/L) and are consistently well above CCME guidelines. These high uranium conditions typically extend from November to April (Lorax 2018). The pH in mid and lower Latte Creek remains relatively uniform throughout the year with



values generally ranging between 7.0 and 8.0 (Lorax 2018). Unlike dissolved ions, higher concentrations of Total Suspended Solids (TSS) in Latte Creek coincide with peak snowmelt months or during intense summer rainfall events; at most other flow periods of the year, TSS values are generally below 3.0 mg/L (Lorax 2018). Nutrient parameters are generally found in low concentrations in mid and lower Latte Creek (Lorax 2018). Lab data for October 2017 through August 2018 is presented in Appendix A.

#### 3.3 TERRESTRIAL VEGETATION AND WILDLIFE

Latte Creek is located within the Klondike Plateau Ecoregion of the Boreal Cordillera Ecozone and is located within the Boreal Low (BOL) bioclimate zone. The Boreal Low zone occupies broad to narrow valley bottoms along the Yukon River and its tributaries and is characterized by continuous, closed-to-open coniferous and mixed forest. Extensive studies on wildlife and wildlife habitat have been conducted as part of the nearby Coffee Gold Project, many of which overlap the Latte Creek area. Based on these studies, a variety of species are expected to occur in the placer claim area.

The valley bottom and adjacent slopes of Latte Creek contain heavily forested habitats, with vegetation patterns that reflect the discontinuous distribution of permafrost throughout the region. Ecological and Landscape Classification (ELC) mapping was completed for the Coffee Gold Project between 2014 and 2016, and although this mapping did not overlap directly with the placer claim area, the general habitats described there can be found on Latte Creek (EDI 2017e). The dry, south-facing slopes north of Latte Creek support deciduous and mixed forests dominated by trembling aspen (*Populaus tremuloides*) and white spruce (*Picea glauca*); while on the opposite side of the valley, the cold, north-facing slopes are dominated by stunted black spruce (*Picea mariana*) forests on areas with near-surface permafrost, and coniferous or mixed forests dominated by white spruce, black spruce, and/or Alaska birch (*Betula neoalaskana*). Valley bottom habitats generally consist of white spruce-dominated riparian forest, willow-dominated shrubby riparian communities, and shrubby or treed fen habitats.

The claim area is situated within Game Management Subzone 5-03, and Registered Trapping Concession 115. Game Management Areas are legal boundaries used to manage Yukon wildlife species and are made up of Game Management Zones (GMZ), that are further divided into Game management Subzones (GMS), and similarly, Registered Trapping Concessions (RTCs) are legal boundaries that define trapping areas for furbearing animals. The management of big game species, furbearers, hunting and trapping within GMS and RTCs is the responsibility of Environment Yukon.

The Latte Creek placer claim does not overlap with any wildlife key areas (WKAs), however, moose (Ales americanus) are expected to use habitats throughout Latte Creek drainage. The placer claim also overlaps with the seasonal range of two caribou herds (Rangifer tarandus): the Fortymile Caribou Herd which may be present during the winter some years, and the Klaza Caribou Herd which may occur in small numbers during the spring, summer and fall seasons. However, both herds typically concentrate in areas with abundant terrestrial lichen habitat, often at higher elevations, and are unlikely to be found extensively in the lower elevation areas of Latte Creek. Mule deer (Odocoileus hemionus) and thinhorn sheep (Ovis dalli) have also



been documented in the region (EDI 2017c, 2017d) but are unlikely to use the claim area, due to the absence of suitable habitats.

A variety of large and small carnivores are also expected to occur in the claim area. Grizzly bears (Ursus arctos) are known to use a variety of habitats throughout the region, including those present at Latte Creek, but densities in the area are considered low. Detailed information on black bear (Ursus americanus) and grey wolf (Canis lupus) populations are unknown but both are considered to be healthy and both species may occur in the claim area. Wolverine (Gulo gulo) also have potential to occur in the claim area, but in low densities (EDI 2017c) Several other high-value furbearing species can be found in the area including Canada lynx (Lynx canadensis), American marten (Martes americana), red fox (Vulpes vulpes), American mink (Neovision vison), ermine (Mustela erminea), and least weasel (Mustela nivalis) (EDI 2017c, 2017d). Small mammals may include red squirrel (Tamiascurus hudsonicus), northern flying squirrel (Glaucomys sabrinus), snowshoe hare (Lepus americanus), little brown bat (Myotis lucifugus) and several species of mice, voles, and shrews (EDI 2017c).

The forested habitats of Latte Creek likely provide habitat for a number of raptor species, including several species of hawks and owls, as well as a variety of upland bird species, including game birds (grouse, ptarmigan), woodpeckers, and passerines (songbirds). Shorebirds may also be found along the stream margins and riparian areas of Latte Creek. Common upland bird species detected during breeding bird surveys in the boreal forest habitats around the nearby Coffee Gold Project included dark-eyed junco (*Junco hyemalis*), Swainson's thrush (*Catharus ustulatus*), white-winged crossbill (*Laxia leucoptera*), yellow-rumped warbler (*Setophaga coronata*), and American robin (*Turdus migratorius*) (EDI 2017a).

Several of the wildlife species that may be found within the Latte Creek drainage are considered species at risk in Canada (Table 6). The list includes species identified under the Canadian Species at Risk Act (SARA) or assessed as species of conservation concern by the Council on the Status of Endangered Wildlife in Canada (COSEWIC).



Table 6. Wildlife with conservation status that occur, or have the potential to occur, in the Latte Creek drainage<sup>1</sup>

Common Name	Latin Name	SARA <sup>2</sup>	COSEWIC <sup>3</sup>
Woodland Caribou,	Rangifer tarandus caribou	Special Concern	Woodland Caribou,
Northern Mountain			Northern Mountain
Population			Population
Grizzly Bear	Ursus arctos	Special Concern	Special Concern (2012)
•		(Schedule 1)	
Wolverine	Gulo gulo	Special Concern	Special Concern (2014)
		(Schedule 1)	, ,
Little Brown Myotis	Myotis lucifugus	Endangered	Endangered (2013)
·		(Schedule 1)	
Common Nighthawk	Chordeiles minor	Threatened	Special Concern (2018)
		(Schedule 1)	
Olive-sided Flycatcher	Contopus cooperi	Threatened	Special Concern (2018)
		(Schedule 1)	

<sup>&</sup>lt;sup>1</sup> Table contains only those species for which suitable habitats may be found within the Latte Creek drainage; additional species at risk may be found within the regional area surrounding Latte Creek.

<sup>&</sup>lt;sup>2</sup> Species at Risk Act (SARA) Designation (ECCC 2018).

<sup>&</sup>lt;sup>3</sup> COSEWIC Designation with year last assessed (ECCC 2018).



# 4 CONCLUSIONS AND RECOMMENDATIONS?

Latte Creek is classified as a Moderate-Moderate to Moderate-Low stream with respect to fish habitat suitability by the Yukon Placer Secretariat. This classification is consistent with results from multiple years of fish sampling which have captured Arctic grayling in Latte Creek up to sampling site LC2.7 (Table 4). Juvenile Chinook salmon and slimy sculpin, which are caught in other streams in the area, have not been captured in the upper portion of Latte Creek during any previous sampling events. The area immediately upstream from the confluence of Latte Creek and Coffee Creek is classified as Moderate-High suitable fish habitat; however, juvenile Chinook have not been captured in this area<sup>1</sup> (Figure 2). Regardless, mining activities will have to ensure water quality in Latte Creek, and in Coffee Creek downstream of the confluence with Latte Creek (Moderate-High habitat) is protected accordingly.

Terrestrial habitats adjacent to Latte Creek support a variety of vegetation and wildlife species, most of which are common to west-central Yukon. Any placer activities along Latte Creek should minimize the clearing of vegetation along the creek in order to limit effects to local wildlife. Additionally, mining activities should be managed to ensure that operations do not pose a threat to the local wildlife. In particular, all attractants, including garbage, grey water and other putrescible waste, should be stored and disposed of in a manner that prevents access by bears and other wildlife, thereby limiting the potential for habituation. Employees and contractors working on the placer claim should be prohibited from harassing or feeding wildlife. And in the event that large numbers of the Fortymile Caribou Herd migrate into or through the placer claim area, all non-essential activities should cease until the caribou have moved off on their own accord.

The Latte Creek drainage supports a variety of migratory bird species, all of which are protected under the Migratory Birds Convention Act (MBCA, 1917); the MCBA prohibits the incidental take of migratory birds, their eggs, or active nests. To protect active nests, any clearing of vegetation within the placer claim should be done outside of the bird nesting season (May 1 to August 31). If clearing is required between May 1 and August 31, appropriate measures should be made to locate any active nests within the disturbance area, and all active nests should be protected with a no-disturbance buffer until the birds have left the nest of their own volition.

\_

<sup>&</sup>lt;sup>1</sup> Moderate–High habitat suitability watercourses are defined as watercourses that are highly suitable for rearing juvenile Chinook salmon (Yukon Placer Secretariat, 2018).



## REFERENCES

- **Access Consulting Group (ACG). 2014.** Memorandum: Kaminak Coffee 2013 Fisheries Summary Report. Prepared for Kaminak Gold Corporation, May 30, 2014.
- **B.C. Ministry of Environment (BC MOE). 2006.** British Columbia Approved Water Quality Guidelines, 2006 Edition. Science and Information Branch. http://www.env.gov.bc.ca/wat/wq/BCguidelines/approv\_wq\_guide/approved.html
- Canadian Council of Ministers of the Environment (CCME). 2007. Canadian environmental quality guidelines. Chapter 4. Canadian Water Quality Guidelines for the Protection of Aquatic Life. Canadian Council of Ministers of the Environment, Winnipeg, Manitoba.
- **EDI Environmental Dynamics Inc (EDI). 2018a.** Coffee Gold Project: Fish and Aquatic Resources Studies 2017. Prepared for Goldcorp Inc., Vancouver, BC. Prepared by EDI Environmental Dynamics Inc., Whitehorse, YT. March 2018.
- **EDI Environmental Dynamics Inc (EDI). 2018b.** Coffee Gold Project: 2017 Bird and Wildlife Studies. Prepared for Goldcorp Inc., Vancouver, BC. Prepared by EDI Environmental Dynamics Inc., Whitehorse, YT. April 2018.
- **EDI Environmental Dynamics Inc (EDI). 2017a.** Coffee Gold Project: Fisheries & Aquatic Resources Baseline Update 2016. Prepared for Goldcorp Inc., Vancouver, BC. Prepared by EDI Environmental Dynamics Inc., Whitehorse, YT. March, 2017.
- **EDI Environmental Dynamics Inc (EDI). 2017b.** Coffee Gold Project: Bird Baseline Report, Version 1.2. Prepared for Goldcorp Inc., Vancouver, BC. Prepared by EDI Environmental Dynamics Inc., Whitehorse, YT. March, 2017.
- **EDI Environmental Dynamics Inc (EDI). 2017c.** Coffee Gold Project: Wildlife Baseline Report, Version 1.2. Prepared for Goldcorp Inc., Vancouver, BC. Prepared by EDI Environmental Dynamics Inc., Whitehorse, YT. March, 2017.
- **EDI Environmental Dynamics Inc (EDI). 2017d.** Coffee Gold Project: Wildlife Field Programs Report, Version 1.2. Prepared for Goldcorp Inc., Vancouver, BC. Prepared by EDI Environmental Dynamics Inc., Whitehorse, YT. March, 2017.
- **EDI Environmental Dynamics Inc (EDI). 2017e.** Coffee Gold Project: Vegetation Baseline Report, Version 1.2. Prepared for Goldcorp Inc., Vancouver, BC. Prepared by EDI Environmental Dynamics Inc., Whitehorse, YT. February, 2017.
- Environment and Climate Change Canada (ECCC). 2018. Species at Risk Public Registry. (https://www.registrelep-sararegistry.gc.ca/sar/index/default e.cfm). Accessed September 17, 2018.



- Environment Yukon. 2018. Wildlife Key Area maps, Wildlife Key Areas, 1:250000. Environment Yukon. (<a href="http://www.env.gov.yk.ca/maps/view/nav/2/27/">http://www.env.gov.yk.ca/maps/view/nav/2/27/</a>). Accessed September 17, 2018.
- **Johnston, N.T., and Slaney, P.A. 1996.** Fish Habitat Assessment Procedures. Watershed Restoration Technical Circular No. 8. April 1996.
- Laberge Environmental Services and White Mountain Environmental Consulting. 2002. Investigations into Fish Habitats of Selected Tributaries to the Yukon River between McGregor Creek and Coffee Creek 2000/2001. Prepared for Selkirk First Nation, August 2002.
- **Lorax Environmental (Lorax). 2018.** Coffee Gold Project: Baseline Water Quality Report, 2010 to 2017. Prepared for Goldcorp Inc., Vancouver, BC. Prepared by Lorax Environmental, Vancouver, BC. April 2018.
- Palmer Environmental Consulting Group (PECG). 2017. Coffee Gold Project: Fish and Aquatic Resources Baseline Report. Prepared for the Kaminak Gold Corporation, Feb 20, 2017.
- White Mountain Environmental Consulting. 2001. Fish Habitat and Utilization Assessment for 58 Tributaries to the Yukon River between McGregor and Coffee Creeks, July 2000. Prepared for Selkirk First Nation, February 2001.
- **Yukon Placer Secretariat. 2018.** Fish Habitat Design, Operation and Reclamation Workbook for Placer Mining in the Yukon Territory Moderate-High Habitat Suitability Watercourses. http://www.yukonplacersecretariat.ca/pdf/moderate\_high\_habitat\_suitability\_watercourses\_2016.p df Website accessed Sep 26, 2018.





APPENDIX A. LAB DATA: WATER SAMPLING ON COFFEE, LATTE AND HALFWAY CREEKS, OCTOBER 2017 – AUGUST 2018





Your Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537490-01-01

**Attention:David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/10/16

Report #: R2460831 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B787852 Received: 2017/10/06, 09:28

Sample Matrix: Water # Samples Received: 4

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	4	2017/10/07	2017/10/07	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	4	N/A	2017/10/07	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide WAD (weak acid dissociable)	4	N/A	2017/10/13	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	4	N/A	2017/10/10	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	4	2017/10/07	2017/10/07	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	4	N/A	2017/10/11	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (2)	4	N/A	2017/10/12	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	4	N/A	2017/10/12	BBY WI-00033	Auto Calc
Mercury (Dissolved-LowLevel) by CVAF	4	N/A	2017/10/12	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	4	2017/10/10	2017/10/10	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	4	N/A	2017/10/12	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	4	N/A	2017/10/12	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2017/10/12	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	4	N/A	2017/10/12	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N Low Level (Preserved)	4	N/A	2017/10/10	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	4	N/A	2017/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	4	N/A	2017/10/07	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	4	N/A	2017/10/12	BBY6SOP-00010	SM 22 4500-NO3- I m
ORP Analysis on Water by ARD LAB	4	N/A	2017/10/06	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	4	N/A	2017/10/10	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	4	2017/10/07	2017/10/07	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	4	N/A	2017/10/07	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	4	2017/10/10	2017/10/11	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (4)	4	N/A	2017/10/10	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	4	2017/10/10	2017/10/11	BBY6SOP-00034	SM 22 2540 D

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using



Your Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537490-01-01

**Attention:David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/10/16

Report #: R2460831 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

# MAXXAM JOB #: B787852

Received: 2017/10/06, 09:28

accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- $^{st}$  RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high ("Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxam 16 Oct 2017 18:22:15

Please direct all questions regarding this Certificate of Analysis Project Manager.

Megan Smith, Project Manager

Email: msmith@maxxam.ca

Email: msmith@maxxam.ca Phone# (604) 734 7276

\_\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SD6281	SD6281		SD6282	SD6282		
Sampling Date		2017/10/04	2017/10/04		2017/10/04	2017/10/04		
		16:40	16:40		17:15	17:15		
COC Number		537490-01-01			537490-01-01	537490-01-01		ļ
	UNITS	HC-2.5	HC-2.5 Lab-Dup	QC Batch	CC-1.5	CC-1.5 Lab-Dup	RDL	QC Batch
Parameter								
ORP	mV	282	285	8786542	288			8786542
Calculated Parameters	•		•	•		•	•	
Filter and HNO3 Preservation	N/A	FIELD		ONSITE	FIELD			ONSITE
Nitrate (N)	mg/L	0.694		8784666	0.408		0.0020	8784666
Misc. Inorganics								
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00075	0.00076	8790647	0.00066		0.00050	8790647
Fluoride (F)	mg/L	0.061		8788934	0.068	0.068	0.010	8788934
Dissolved Organic Carbon (C)	mg/L	8.73	8.16	8787616	7.05		0.50	8788142
Alkalinity (Total as CaCO3)	mg/L	74.7		8785525	94.1		0.50	8785525
Total Organic Carbon (C)	mg/L	7.70		8787615	6.54		0.50	8788143
Alkalinity (PP as CaCO3)	mg/L	<0.50		8785525	<0.50		0.50	8785525
Bicarbonate (HCO3)	mg/L	91.1		8785525	115		0.50	8785525
Carbonate (CO3)	mg/L	<0.50		8785525	<0.50		0.50	8785525
Hydroxide (OH)	mg/L	<0.50		8785525	<0.50		0.50	8785525
Anions		•			•			
Dissolved Sulphate (SO4)	mg/L	34.1		8787480	95.3		0.50	8787480
Dissolved Chloride (CI)	mg/L	0.72		8787476	0.53		0.50	8787476
Nutrients	•							
Total Ammonia (N)	mg/L	<0.0050		8789099	<0.0050		0.0050	8789099
Nitrate plus Nitrite (N)	mg/L	0.694		8785985	0.408		0.0020	8785985
Nitrite (N)	mg/L	<0.0020		8785986	<0.0020		0.0020	8785986
Physical Properties	•		•	•		•	•	
Conductivity	uS/cm	226		8785521	376		1.0	8785521
рН	рН	8.03		8785511	8.02			8785511
Physical Properties								
Total Suspended Solids	mg/L	<1.1 (1)		8787378	<1.1 (1)		1.1	8787378
Total Dissolved Solids	mg/L	126		8787190	222		10	8787190
RDL = Reportable Detection Limit	t							
Lab-Dup = Laboratory Initiated D	uplicate							
for a contract of the contract								

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

						1	
Maxxam ID		SD6283	SD6283		SD6284		
Sampling Date		2017/10/04	2017/10/04		2017/10/04		
COC Number		18:20	18:20		18:40		
COC Number		537490-01-01			537490-01-01		
	UNITS	Latte Mix	Latte Mix Lab-Dup	RDL	CC-4.5	RDL	QC Batch
Parameter							
ORP	mV	290			292		8786542
Calculated Parameters							
Filter and HNO3 Preservation	N/A	FIELD			FIELD		ONSITE
Nitrate (N)	mg/L	0.388		0.0020	0.348	0.0020	8784666
Misc. Inorganics							
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00070		0.00050	0.00068	0.00050	8790647
Fluoride (F)	mg/L	0.073		0.010	0.070	0.010	8788934
Dissolved Organic Carbon (C)	mg/L	7.36		0.50	7.27	0.50	8787616
Alkalinity (Total as CaCO3)	mg/L	59.1	59.1	0.50	59.0	0.50	8785525
Total Organic Carbon (C)	mg/L	8.41		0.50	6.98	0.50	8787615
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	0.50	<0.50	0.50	8785525
Bicarbonate (HCO3)	mg/L	72.1	72.2	0.50	72.0	0.50	8785525
Carbonate (CO3)	mg/L	<0.50	<0.50	0.50	<0.50	0.50	8785525
Hydroxide (OH)	mg/L	<0.50	<0.50	0.50	<0.50	0.50	8785525
Anions							
Dissolved Sulphate (SO4)	mg/L	57.5		0.50	55.5	0.50	8787480
Dissolved Chloride (CI)	mg/L	1.2		0.50	1.1	0.50	8787476
Nutrients							
Total Ammonia (N)	mg/L	<0.0050	<0.0050	0.0050	<0.0050	0.0050	8789099
Nitrate plus Nitrite (N)	mg/L	0.388	0.389	0.0020	0.350	0.0020	8785985
Nitrite (N)	mg/L	<0.0020	<0.0020	0.0020	0.0020	0.0020	8785986
Physical Properties	•					•	-
Conductivity	uS/cm	246	245	1.0	242	1.0	8785521
рН	рН	7.97	7.93		7.92		8785511
Physical Properties							
Total Suspended Solids	mg/L	<1.3 (1)		1.3	<1.1 (1)	1.1	8787378
	mg/L	144		10	146	10	8787190

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SD6281	SD6281		SD6282	SD6283	SD6284		
Sampling Date		2017/10/04 16:40	2017/10/04 16:40		2017/10/04 17:15	2017/10/04 18:20	2017/10/04 18:40		
COC Number		537490-01-01	537490-01-01		537490-01-01	537490-01-01	537490-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	QC Batch	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	112		8784217	194	121	117	0.50	8784217
Elements		-	-	!	-	-	-		-
Dissolved Mercury (Hg)	ug/L	0.0033	0.0035	8789843	0.0079	0.0024	0.0024	0.0020	8789843
Dissolved Metals by ICPMS	,							<u> </u>	
Dissolved Aluminum (AI)	ug/L	50.2	49.8	8788681	41.1	38.9	32.6	0.50	8788681
Dissolved Antimony (Sb)	ug/L	0.455	0.432	8788681	0.104	0.099	0.092	0.020	8788681
Dissolved Arsenic (As)	ug/L	0.901	0.893	8788681	0.544	0.334	0.314	0.020	8788681
Dissolved Barium (Ba)	ug/L	37.0	36.8	8788681	44.6	49.6	57.0	0.020	8788681
Dissolved Beryllium (Be)	ug/L	0.012	<0.010	8788681	<0.010	<0.010	<0.010	0.010	8788681
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	8788681	<0.0050	<0.0050	<0.0050	0.0050	8788681
Dissolved Boron (B)	ug/L	<10	<10	8788681	<10	<10	<10	10	8788681
Dissolved Cadmium (Cd)	ug/L	<0.0050	<0.0050	8788681	0.0052	0.0065	0.0078	0.0050	8788681
Dissolved Chromium (Cr)	ug/L	0.49	0.49	8788681	0.21	0.21	0.21	0.10	8788681
Dissolved Cobalt (Co)	ug/L	0.0405	0.0382	8788681	0.0290	0.0397	0.0318	0.0050	8788681
Dissolved Copper (Cu)	ug/L	1.22	1.24	8788681	1.25	1.54	1.50	0.050	8788681
Dissolved Iron (Fe)	ug/L	25.9	25.8	8788681	18.7	30.2	22.2	1.0	8788681
Dissolved Lead (Pb)	ug/L	0.0270 (1)		8791686	<0.0050	<0.0050	<0.0050	0.0050	8788681
Dissolved Lithium (Li)	ug/L	1.17	1.20	8788681	1.88	1.19	0.77	0.50	8788681
Dissolved Manganese (Mn)	ug/L	2.99	3.02	8788681	4.39	9.61	5.87	0.050	8788681
Dissolved Molybdenum (Mo)	ug/L	1.37	1.37	8788681	0.224	0.766	0.727	0.050	8788681
Dissolved Nickel (Ni)	ug/L	0.563	0.549	8788681	0.448	0.775	0.676	0.020	8788681
Dissolved Phosphorus (P)	ug/L	4.2	4.3	8788681	3.9	3.7	3.8	2.0	8788681
Dissolved Selenium (Se)	ug/L	0.064	0.048	8788681	0.079	0.098	0.068	0.040	8788681
Dissolved Silicon (Si)	ug/L	5860	5910	8788681	5800	5160	5040	50	8788681
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	8788681	<0.0050	<0.0050	<0.0050	0.0050	8788681
Dissolved Strontium (Sr)	ug/L	282	285	8788681	358	149	146	0.050	8788681
Dissolved Thallium (TI)	ug/L	0.0026	<0.0020	8788681	0.0031	0.0037	0.0026	0.0020	8788681
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	8788681	<0.20	<0.20	<0.20	0.20	8788681
Dissolved Titanium (Ti)	ug/L	0.56	0.54	8788681	<0.50	<0.50	<0.50	0.50	8788681
Dissolved Uranium (U)	ug/L	27.2	27.2	8788681	9.32	7.67	4.46	0.0020	8788681

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SD6281	SD6281		SD6282	SD6283	SD6284		
Sampling Date		2017/10/04 16:40	2017/10/04 16:40		2017/10/04 17:15	2017/10/04 18:20	2017/10/04 18:40		
COC Number		537490-01-01	537490-01-01		537490-01-01	537490-01-01	537490-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	QC Batch	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.39	0.44	8788681	0.32	0.43	0.37	0.20	8788681
Dissolved Zinc (Zn)	ug/L	0.30	0.28	8788681	0.27	0.29	0.30	0.10	8788681
Dissolved Zirconium (Zr)	ug/L	0.40	0.43	8788681	0.41	0.31	0.31	0.10	8788681
Dissolved Calcium (Ca)	mg/L	28.1		8784314	51.4	30.5	29.8	0.050	8784314
Dissolved Magnesium (Mg)	mg/L	10.1		8784314	16.0	10.9	10.5	0.050	8784314
Dissolved Potassium (K)	mg/L	1.94		8784314	2.84	1.49	1.44	0.050	8784314
Dissolved Sodium (Na)	mg/L	2.96		8784314	4.22	4.88	4.61	0.050	8784314
Dissolved Sulphur (S)	mg/L	12.3		8784314	31.3	20.1	20.6	3.0	8784314

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SD6281	SD6281	SD6282	SD6283	SD6284		
Sampling Date		2017/10/04 16:40	2017/10/04 16:40	2017/10/04 17:15	2017/10/04 18:20	2017/10/04 18:40		
COC Number		537490-01-01	537490-01-01	537490-01-01	537490-01-01	537490-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Calculated Parameters			•	<u> </u>	·	·	<u> </u>	·
Total Hardness (CaCO3)	mg/L	114		198	122	123	0.50	8784364
Elements					I.	I.	1	
Total Mercury (Hg)	ug/L	0.0030		0.0026	0.0021	<0.0020	0.0020	8787404
Total Metals by ICPMS			l		l .		1	ı
Total Aluminum (Al)	ug/L	59.2	56.0	53.1	43.1	54.8	0.50	8788761
Total Antimony (Sb)	ug/L	0.429	0.451	0.107	0.096	0.093	0.020	8788761
Total Arsenic (As)	ug/L	0.903	0.885	0.572	0.350	0.331	0.020	8788761
Total Barium (Ba)	ug/L	37.8	37.3	45.7	49.8	59.0	0.020	8788761
Total Beryllium (Be)	ug/L	0.015	0.015	0.014	<0.010	0.010	0.010	8788761
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8788761
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	10	8788761
Total Cadmium (Cd)	ug/L	<0.0050	<0.0050	0.0062	0.0071	0.0074	0.0050	8788761
Total Chromium (Cr)	ug/L	0.31	0.31	0.25	0.27	0.24	0.10	8788761
Total Cobalt (Co)	ug/L	0.0475	0.0418	0.0370	0.0381	0.0482	0.0050	8788761
Total Copper (Cu)	ug/L	1.28	1.27	1.39	1.57	1.56	0.050	8788761
Total Iron (Fe)	ug/L	32.5	32.1	33.6	38.0	51.9	1.0	8788761
Total Lead (Pb)	ug/L	0.0067	<0.0050	0.0085	0.198	0.0108	0.0050	8788761
Total Lithium (Li)	ug/L	1.18	1.15	1.84	1.19	0.78	0.50	8788761
Total Manganese (Mn)	ug/L	3.33	3.27	4.81	9.77	7.16	0.050	8788761
Total Molybdenum (Mo)	ug/L	1.39	1.40	0.228	0.747	0.722	0.050	8788761
Total Nickel (Ni)	ug/L	0.538	0.594	0.468	0.830	0.778	0.020	8788761
Total Phosphorus (P)	ug/L	4.6	4.6	24.9	4.0	8.8	2.0	8788761
Total Selenium (Se)	ug/L	0.050	0.053	0.077	0.086	0.071	0.040	8788761
Total Silicon (Si)	ug/L	5910	5860	5710	5040	4970	50	8788761
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8788761
Total Strontium (Sr)	ug/L	292	288	365	151	151	0.050	8788761
Total Thallium (TI)	ug/L	0.0021	0.0028	0.0028	0.0039	0.0037	0.0020	8788761
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8788761
Total Titanium (Ti)	ug/L	0.80	0.76	0.70	0.50	1.51	0.50	8788761
Total Uranium (U)	ug/L	27.6	27.5	9.52	7.69	4.64	0.0020	8788761
RDL = Reportable Detection	Limit							

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SD6281	SD6281	SD6282	SD6283	SD6284		
Sampling Date		2017/10/04 16:40	2017/10/04 16:40	2017/10/04 17:15	2017/10/04 18:20	2017/10/04 18:40		
COC Number		537490-01-01	537490-01-01	537490-01-01	537490-01-01	537490-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Total Vanadium (V)	ug/L	0.46	0.46	0.40	0.40	0.46	0.20	8788761
Total Zinc (Zn)	ug/L	0.16	0.18	0.56	0.37	0.44	0.10	8788761
Total Zirconium (Zr)	ug/L	0.41	0.42	0.42	0.31	0.27	0.10	8788761
Total Calcium (Ca)	mg/L	28.7		52.4	30.9	31.5	0.050	8784665
Total Magnesium (Mg)	mg/L	10.2		16.3	11.0	10.7	0.050	8784665
Total Potassium (K)	mg/L	1.96		2.91	1.52	1.53	0.050	8784665
Total Sodium (Na)	mg/L	2.95		4.33	4.92	4.78	0.050	8784665
Total Sulphur (S)	mg/L	12.2		30.4	19.5	19.0	3.0	8784665

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

#### **GENERAL COMMENTS**

Sample SD6281, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

			Matrix	Matrix Spike		Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8785511	рН	2017/10/07			102	97 - 103			0.50	20
8785521	Conductivity	2017/10/07			99	80 - 120	<1.0	uS/cm	0.41	20
8785525	Alkalinity (PP as CaCO3)	2017/10/07					<0.50	mg/L	NC	20
8785525	Alkalinity (Total as CaCO3)	2017/10/07	NC	80 - 120	97	80 - 120	0.60, RDL=0.50	mg/L	0.10	20
8785525	Bicarbonate (HCO3)	2017/10/07					0.73, RDL=0.50	mg/L	0.10	20
8785525	Carbonate (CO3)	2017/10/07					<0.50	mg/L	NC	20
8785525	Hydroxide (OH)	2017/10/07					<0.50	mg/L	NC	20
8785985	Nitrate plus Nitrite (N)	2017/10/07	99	80 - 120	110	80 - 120	<0.0020	mg/L	0.33	25
8785986	Nitrite (N)	2017/10/07	100	80 - 120	104	80 - 120	<0.0020	mg/L	NC	25
8786542	ORP	2017/10/06							1.1	20
8787190	Total Dissolved Solids	2017/10/11	99	80 - 120	89	80 - 120	<10	mg/L	NC	20
8787378	Total Suspended Solids	2017/10/11			97	80 - 120	<1.0	mg/L		
8787404	Total Mercury (Hg)	2017/10/10	98	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
8787476	Dissolved Chloride (Cl)	2017/10/07			99	80 - 120	0.59, RDL=0.50	mg/L		
8787480	Dissolved Sulphate (SO4)	2017/10/07			97	80 - 120	0.51, RDL=0.50	mg/L		
8787615	Total Organic Carbon (C)	2017/10/10	104	80 - 120	110	80 - 120	<0.50	mg/L	4.1	20
8787616	Dissolved Organic Carbon (C)	2017/10/10	106	80 - 120	110	80 - 120	<0.50	mg/L	6.7	20
8788142	Dissolved Organic Carbon (C)	2017/10/10			114	80 - 120	<0.50	mg/L		
8788143	Total Organic Carbon (C)	2017/10/10	116	80 - 120	114	80 - 120	<0.50	mg/L	NC	20
8788681	Dissolved Aluminum (Al)	2017/10/12	107	80 - 120	111	80 - 120	<0.50	ug/L	NC	20
8788681	Dissolved Antimony (Sb)	2017/10/12	96	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
8788681	Dissolved Arsenic (As)	2017/10/12	99	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
8788681	Dissolved Barium (Ba)	2017/10/12	NC	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
8788681	Dissolved Beryllium (Be)	2017/10/12	97	80 - 120	97	80 - 120	<0.010	ug/L	NC	20
8788681	Dissolved Bismuth (Bi)	2017/10/12	100	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
8788681	Dissolved Boron (B)	2017/10/12	103	80 - 120	102	80 - 120	<10	ug/L	NC	20
8788681	Dissolved Cadmium (Cd)	2017/10/12	98	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8788681	Dissolved Chromium (Cr)	2017/10/12	96	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
8788681	Dissolved Cobalt (Co)	2017/10/12	96	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8788681	Dissolved Copper (Cu)	2017/10/12	95	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
8788681	Dissolved Iron (Fe)	2017/10/12	98	80 - 120	104	80 - 120	<1.0	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

			Matrix	Spike	Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8788681	Dissolved Lead (Pb)	2017/10/12	98	80 - 120	102	80 - 120	<0.0050	ug/L	2.0	20
8788681	Dissolved Lithium (Li)	2017/10/12	96	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
8788681	Dissolved Manganese (Mn)	2017/10/12	92	80 - 120	96	80 - 120	<0.050	ug/L	NC	20
8788681	Dissolved Molybdenum (Mo)	2017/10/12	NC	80 - 120	105	80 - 120	<0.050	ug/L	NC	20
8788681	Dissolved Nickel (Ni)	2017/10/12	96	80 - 120	103	80 - 120	<0.020	ug/L	14	20
8788681	Dissolved Phosphorus (P)	2017/10/12					<2.0	ug/L	NC	20
8788681	Dissolved Selenium (Se)	2017/10/12	99	80 - 120	103	80 - 120	<0.040	ug/L	NC	20
8788681	Dissolved Silicon (Si)	2017/10/12					<50	ug/L	NC	20
8788681	Dissolved Silver (Ag)	2017/10/12	103	80 - 120	109	80 - 120	<0.0050	ug/L	NC	20
8788681	Dissolved Strontium (Sr)	2017/10/12	NC	80 - 120	99	80 - 120	<0.050	ug/L	NC	20
8788681	Dissolved Thallium (TI)	2017/10/12	98	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
8788681	Dissolved Tin (Sn)	2017/10/12	96	80 - 120	105	80 - 120	<0.20	ug/L	NC	20
8788681	Dissolved Titanium (Ti)	2017/10/12	99	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
8788681	Dissolved Uranium (U)	2017/10/12	NC	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
8788681	Dissolved Vanadium (V)	2017/10/12	98	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
8788681	Dissolved Zinc (Zn)	2017/10/12	101	80 - 120	106	80 - 120	<0.10	ug/L	3.7	20
8788681	Dissolved Zirconium (Zr)	2017/10/12	97	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
8788761	Total Aluminum (AI)	2017/10/12	108	80 - 120	114	80 - 120	<0.50	ug/L	5.5	20
8788761	Total Antimony (Sb)	2017/10/12	100	80 - 120	103	80 - 120	<0.020	ug/L	5.2	20
8788761	Total Arsenic (As)	2017/10/12	96	80 - 120	99	80 - 120	<0.020	ug/L	1.9	20
8788761	Total Barium (Ba)	2017/10/12	NC	80 - 120	103	80 - 120	<0.020	ug/L	1.5	20
8788761	Total Beryllium (Be)	2017/10/12	96	80 - 120	96	80 - 120	<0.010	ug/L	1.3	20
8788761	Total Bismuth (Bi)	2017/10/12	97	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8788761	Total Boron (B)	2017/10/12	105	80 - 120	104	80 - 120	<10	ug/L	NC	20
8788761	Total Cadmium (Cd)	2017/10/12	98	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8788761	Total Chromium (Cr)	2017/10/12	98	80 - 120	102	80 - 120	<0.10	ug/L	0.35	20
8788761	Total Cobalt (Co)	2017/10/12	97	80 - 120	102	80 - 120	<0.0050	ug/L	13	20
8788761	Total Copper (Cu)	2017/10/12	96	80 - 120	103	80 - 120	<0.050	ug/L	0.82	20
8788761	Total Iron (Fe)	2017/10/12	102	80 - 120	106	80 - 120	<1.0	ug/L	1.0	20
8788761	Total Lead (Pb)	2017/10/12	97	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8788761	Total Lithium (Li)	2017/10/12	97	80 - 120	99	80 - 120	<0.50	ug/L	2.1	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

					Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits		
8788761	Total Manganese (Mn)	2017/10/12	89	80 - 120	96	80 - 120	<0.050	ug/L	1.8	20		
8788761	Total Molybdenum (Mo)	2017/10/12	NC	80 - 120	104	80 - 120	<0.050	ug/L	0.24	20		
8788761	Total Nickel (Ni)	2017/10/12	98	80 - 120	104	80 - 120	<0.020	ug/L	9.8	20		
8788761	Total Phosphorus (P)	2017/10/12					<2.0	ug/L	1.3	20		
8788761	Total Selenium (Se)	2017/10/12	100	80 - 120	103	80 - 120	<0.040	ug/L	5.1	20		
8788761	Total Silicon (Si)	2017/10/12					<50	ug/L	0.84	20		
8788761	Total Silver (Ag)	2017/10/12	106	80 - 120	110	80 - 120	<0.0050	ug/L	NC	20		
8788761	Total Strontium (Sr)	2017/10/12	NC	80 - 120	98	80 - 120	<0.050	ug/L	1.2	20		
8788761	Total Thallium (TI)	2017/10/12	98	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20		
8788761	Total Tin (Sn)	2017/10/12	96	80 - 120	100	80 - 120	<0.20	ug/L	NC	20		
8788761	Total Titanium (Ti)	2017/10/12	98	80 - 120	98	80 - 120	<0.50	ug/L	4.6	20		
8788761	Total Uranium (U)	2017/10/12	NC	80 - 120	99	80 - 120	<0.0020	ug/L	0.41	20		
8788761	Total Vanadium (V)	2017/10/12	100	80 - 120	102	80 - 120	<0.20	ug/L	0.92	20		
8788761	Total Zinc (Zn)	2017/10/12	101	80 - 120	106	80 - 120	<0.10	ug/L	14	20		
8788761	Total Zirconium (Zr)	2017/10/12	97	80 - 120	100	80 - 120	<0.10	ug/L	1.4	20		
8788934	Fluoride (F)	2017/10/11	NC	80 - 120	102	80 - 120	0.012, RDL=0.010	mg/L	0	20		
8789099	Total Ammonia (N)	2017/10/10	92	80 - 120	99	80 - 120	<0.0050	mg/L	NC	20		
8789843	Dissolved Mercury (Hg)	2017/10/12	94	80 - 120	98	80 - 120	<0.0020	ug/L	6.5	20		
8790647	Weak Acid Dissoc. Cyanide (CN)	2017/10/13	102	80 - 120	101	80 - 120	<0.00050	mg/L	1.3	20		
8791686	Dissolved Lead (Pb)	2017/10/13			104	80 - 120	<0.0050	ug/L	12	20		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Ŋ		90	VOICE TO:				Report Info	Report Information					Project information						Page 1 of		
254-7	#36		NVIRONMENTAL SE	RVICES LTD.	Company Na	_ /	*RAX	111.083.001				200	ention #	71	840231	105000000000	3		+	Maxxam Job # Bo	
	riy ramon	a Piaseczny			Contact Nam	The State of the						PD	and harden or	3						070-08-2	11000000000
dres	220	9 BURRARD	STREET		Address							The Land	ect#	1	Gold Co	rp Coffee Creek				E181820	637490
		NCOUVER BO	146614	200 200		_						Prop	oct Name						-	Chain Of Custody Record	Project Manager
konse		4) 688-7173 x	Fax: (604)	688-7175 x	Phone	Donad E	lather@lorax.o		ns:	_		7.50	Site II CB/CH			Icm IAS		-	C#537496-01-01	Megan Smith	
lien	Name and State	a piaseczny@	orax.ca, snuxing.nggg	IOTAX.CB	Email	al Instructions	an militaria y	<i>2</i> 1	-	_		Sam	Analysis F	(ecuented		10	7/	7	-	Turnaround Time (TAT) Reg	interest
Reg	slatory Criteria			-	jogius	an management		2			ZHZ.					3				Please provide advance notice for ru	
	18,5172.8	Samples mus	inking water samples - pleas I be kept cool ( < 10°C ) from t	time of sampling an	til delivery to max	xasm		egulated Drinking Water ? (Y / N ) letals Field Filtered ? (Y / N )	Routine (Alk, EC, pH, TDS)	TSS-Low Level	Anions (CI, F, NO2, NO3, N SO4)	Cyanide - WAD	тос	Doc	Low Level Dissolved Metals incl. CV Hg	Low Level Total Metals incl. Hg	ОКР	(will Stay Plea day Job Date Rush	be applied of the property of	Son Mumber	2 2000 <b>-</b>
-	Sample Barcoc		Sample (Location) Identific	ation D	ate Sampled	Time Sampled	Matrix	œ  ≥	1	-				Deliver.	3.4	-4-4-	200				P 100
2	SID#162		HC-2.5	16	14/M		MOSEB	Y	×	X	X	×	×	×	X	λ	X		5	LL dissolved Meta	iks instruct
	SIDe162		CC-1.5	10	14/17			7	X	×	×	×	×	×	X	X	×	15	5	unclear fon sa	mple
	SID#162		Latte Mix	10	14/17			7	X	×	×	*	×	×	×	×	×	A.	5	container reque	out form)
	SID#162		CC-4.5	10	14/17		1	Y	X	X	X	×	×	×	X	X	X	t	5	- alls for n	preserva
																				in LL but to	add for
																			9	IL Total. Sup	plied wit
																				AND Without	for LL
												MANIS	al Mil	W. 11		8				dissolved-1	Please
											78785			4) (1)					19	chaose as a	DOTOPINA
										D	10/02	2_0			e n						di i
	* RELINQUISHE	D BY: (Signature/P		Date: (YY/MM/I				ED BY (S	ignature/Pr	int)		Dat	te: (YYMM)	-	Time	mot ex	used and	_		Lab Use Only	
	SOUND	McNe	21	17/10/	05 8:00	Ex	Ama Ev	981	FORA	-		201	7/10/	06 6	29:29	K		Timu Seny//ye	Тепри	mature CCI on Receipt	Seat Impot on Cooler?
_	×	1//	RITING, WORK SUBMITTED OF									1	DE SO		of and the same				5	1012	Yes No Maxam Yellow Cher

Maxxam Analytics International Corporation of Maxxam Analytics



Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537488-01-01

#### Attention:David Flather

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/10/19

Report #: R2462768 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B789173 Received: 2017/10/11, 12:30

Sample Matrix: Water # Samples Received: 4

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	2	2017/10/12	2017/10/12	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	2	2017/10/12	2017/10/13	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	4	N/A	2017/10/12	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide WAD (weak acid dissociable)	4	N/A	2017/10/13	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	4	N/A	2017/10/12	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	2	2017/10/12	2017/10/12	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	2	2017/10/12	2017/10/13	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	2	N/A	2017/10/13	BBY6SOP-00048	SM 22 4500-F C m
Fluoride - Low Level	2	N/A	2017/10/16	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (2)	4	N/A	2017/10/16	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	4	N/A	2017/10/17	BBY WI-00033	Auto Calc
Mercury (Dissolved-LowLevel) by CVAF	4	N/A	2017/10/13	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	4	2017/10/12	2017/10/12	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	4	N/A	2017/10/17	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	4	N/A	2017/10/16	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2017/10/16	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	4	N/A	2017/10/13	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N Low Level (Preserved)	4	N/A	2017/10/13	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	4	N/A	2017/10/12	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	4	N/A	2017/10/12	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	4	N/A	2017/10/13	BBY6SOP-00010	SM 22 4500-NO3- I m
ORP Analysis on Water by ARD LAB	4	N/A	2017/10/12	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	4	N/A	2017/10/12	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	2	2017/10/12	2017/10/12	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (3)	2	2017/10/12	2017/10/13	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	3	N/A	2017/10/12	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	1	N/A	2017/10/13	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	1	2017/10/12	2017/10/13	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	2	2017/10/13	2017/10/14	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2017/10/18	2017/10/19	BBY6SOP-00033	SM 22 2540 C m



Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537488-01-01

**Attention:David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/10/19

Report #: R2462768 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B789173 Received: 2017/10/11, 12:30

Sample Matrix: Water # Samples Received: 4

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Carbon (Total Organic) (4)	4	N/A	2017/10/12	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	4	2017/10/12	2017/10/13	BBY6SOP-00034	SM 22 2540 D

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- $^{st}$  RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.



Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537488-01-01

#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/10/19

Report #: R2462768 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B789173 Received: 2017/10/11, 12:30

Encryption Key



Maxxam 19 Oct 2017 13:05:06

Please direct all questions regarding this Certificate of Analysis to Project Manager.

Megan Smith, Project Manager Email: msmith@maxxam.ca Phone# (604) 734 7276

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SE4649		SE4650		SE4651		
Sampling Date		2017/10/09		2017/10/09		2017/10/09		
Sampling Date		17:35		17:20		17:00		
COC Number		537488-01-01		537488-01-01		537488-01-01		
	UNITS	HC-2.5	QC Batch	CC-1.5	QC Batch	Latte Mix	RDL	QC Batch
Parameter								
ORP	mV	272	8790443	270	8790443	267		8790443
Calculated Parameters			•		•			
Filter and HNO3 Preservation	N/A	LAB	8790111	LAB	8790111	LAB		8790111
Nitrate (N)	mg/L	0.682	8789171	0.411	8789171	0.405	0.0020	8789171
Misc. Inorganics			•		•			
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00073	8790647	0.00069	8790647	0.00067	0.00050	8790647
Fluoride (F)	mg/L	0.057	8791775	0.069	8791775	0.083	0.010	8795411
Dissolved Organic Carbon (C)	mg/L	9.34	8790300	7.64	8790300	9.08	0.50	8790300
Alkalinity (Total as CaCO3)	mg/L	74.2	8790850	100	8790850	56.7	0.50	8790901
Total Organic Carbon (C)	mg/L	9.06	8790303	7.82	8790294	8.40	0.50	8790303
Alkalinity (PP as CaCO3)	mg/L	<0.50	8790850	<0.50	8790850	<0.50	0.50	8790901
Bicarbonate (HCO3)	mg/L	90.6	8790850	123	8790850	69.2	0.50	8790901
Carbonate (CO3)	mg/L	<0.50	8790850	<0.50	8790850	<0.50	0.50	8790901
Hydroxide (OH)	mg/L	<0.50	8790850	<0.50	8790850	<0.50	0.50	8790901
Anions	•		•		•		•	
Dissolved Sulphate (SO4)	mg/L	36.1	8791092	105	8791092	58.9	0.50	8791092
Dissolved Chloride (Cl)	mg/L	0.73	8791090	0.64	8791090	0.93	0.50	8791090
Nutrients								
Total Ammonia (N)	mg/L	<0.0050	8795417	<0.0050	8795417	0.044	0.0050	8795417
Nitrate plus Nitrite (N)	mg/L	0.682	8792024	0.411	8792024	0.405	0.0020	8792024
Nitrite (N)	mg/L	<0.0020	8792025	<0.0020	8792025	<0.0020	0.0020	8792025
Physical Properties			•		•		•	-
Conductivity	uS/cm	225	8790848	409	8790848	245	1.0	8790895
рН	рН	7.99	8790836	7.99	8790836	7.89		8790889
Physical Properties								
Total Suspended Solids	mg/L	<1.0	8790120	<1.0	8790120	<1.0	1.0	8790120
Total Dissolved Solids	mg/L	148	8790172	246	8791721	148	10	8791721
RDL = Reportable Detection Limit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

		1	1		
Maxxam ID		SE4652	SE4652		
Sampling Date		2017/10/09	2017/10/09		
Sampling Date		16:45	16:45		
COC Number		537488-01-01	537488-01-01		
	UNITS	CC-4.5	CC-4.5 Lab-Dup	RDL	QC Batch
Parameter					
ORP	mV	265	264		8790443
Calculated Parameters	•			•	•
Filter and HNO3 Preservation	N/A	LAB			8790111
Nitrate (N)	mg/L	0.377		0.0020	8789171
Misc. Inorganics			•		
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00062		0.00050	8790647
Fluoride (F)	mg/L	0.079		0.010	8795411
Dissolved Organic Carbon (C)	mg/L	7.93		0.50	8790293
Alkalinity (Total as CaCO3)	mg/L	59.6		0.50	8790901
Total Organic Carbon (C)	mg/L	8.43		0.50	8790294
Alkalinity (PP as CaCO3)	mg/L	<0.50		0.50	8790901
Bicarbonate (HCO3)	mg/L	72.7		0.50	8790901
Carbonate (CO3)	mg/L	<0.50		0.50	8790901
Hydroxide (OH)	mg/L	<0.50		0.50	8790901
Anions			•		
Dissolved Sulphate (SO4)	mg/L	60.2	61.8	0.50	8794351
Dissolved Chloride (CI)	mg/L	0.93		0.50	8791090
Nutrients			•		
Total Ammonia (N)	mg/L	<0.0050		0.0050	8795417
Nitrate plus Nitrite (N)	mg/L	0.380		0.0020	8792024
Nitrite (N)	mg/L	0.0027		0.0020	8792025
Physical Properties	•			•	•
Conductivity	uS/cm	249		1.0	8790895
рН	рН	7.80			8790889
Physical Properties	•	•	•		•
Total Suspended Solids	mg/L	<1.0		1.0	8790120
Total Dissolved Solids	mg/L	132 (1)		10	8797437
RDI - Reportable Detection Limit					

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

<sup>(1)</sup> Sample was originally analysed within hold time. Data quality required investigation. Reanalysis was completed past recommended hold time.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SE4649	SE4650	SE4651	SE4652		
Sampling Date		2017/10/09	2017/10/09	2017/10/09	2017/10/09		
Sampling Date		17:35	17:20	17:00	16:45		
COC Number		537488-01-01	537488-01-01	537488-01-01	537488-01-01		
	UNITS	HC-2.5	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Misc. Inorganics							
Dissolved Hardness (CaCO3)	mg/L	112	210	115	115	0.50	8788516
Elements			•	•	•	•	
Dissolved Mercury (Hg)	ug/L	0.0035	0.0041	0.0026	0.0022	0.0020	8791797
Dissolved Metals by ICPMS			•	•	•	•	
Dissolved Aluminum (AI)	ug/L	46.2	36.5	38.1	31.6	0.50	8790543
Dissolved Antimony (Sb)	ug/L	0.488	0.113	0.108	0.099	0.020	8790543
Dissolved Arsenic (As)	ug/L	0.963	0.616	0.375	0.341	0.020	8790543
Dissolved Barium (Ba)	ug/L	38.7	49.6	49.5	58.7	0.020	8790543
Dissolved Beryllium (Be)	ug/L	0.016	0.012	<0.010	0.010	0.010	8790543
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8790543
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	10	8790543
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0055	0.0056	0.0069	0.0050	8790543
Dissolved Chromium (Cr)	ug/L	0.31	0.22	0.24	0.23	0.10	8790543
Dissolved Cobalt (Co)	ug/L	0.0385	0.0319	0.0488	0.0388	0.0050	8790543
Dissolved Copper (Cu)	ug/L	1.22	1.30	1.55	1.54	0.050	8790543
Dissolved Iron (Fe)	ug/L	22.9	16.3	31.4	22.4	1.0	8790543
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8790543
Dissolved Lithium (Li)	ug/L	1.24	2.01	1.24	0.82	0.50	8790543
Dissolved Manganese (Mn)	ug/L	3.04	4.98	9.99	5.85	0.050	8790543
Dissolved Molybdenum (Mo)	ug/L	1.46	0.242	0.811	0.756	0.050	8790543
Dissolved Nickel (Ni)	ug/L	0.588	0.476	0.806	0.723	0.020	8790543
Dissolved Phosphorus (P)	ug/L	4.7	5.2	4.3	4.4	2.0	8790543
Dissolved Selenium (Se)	ug/L	0.161	0.155	0.150	0.157	0.040	8790543
Dissolved Silicon (Si)	ug/L	6120	6220	5580	5260	50	8790543
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8790543
Dissolved Strontium (Sr)	ug/L	302	406	147	148	0.050	8790543
Dissolved Thallium (TI)	ug/L	0.0022	0.0038	0.0024	0.0037	0.0020	8790543
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8790543
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	8790543
Dissolved Uranium (U)	ug/L	28.9	11.1	7.80	4.79	0.0020	8790543
Dissolved Vanadium (V)	ug/L	0.38	0.31	0.38	0.36	0.20	8790543
Dissolved Zinc (Zn)	ug/L	0.21	0.39	0.39	0.38	0.10	8790543
RDL = Reportable Detection Li	mit						



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SE4649	SE4650	SE4651	SE4652		
Compling Date		2017/10/09	2017/10/09	2017/10/09	2017/10/09		
Sampling Date		17:35	17:20	17:00	16:45		
COC Number		537488-01-01	537488-01-01	537488-01-01	537488-01-01		
	UNITS	HC-2.5	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.46	0.43	0.35	0.33	0.10	8790543
Dissolved Calcium (Ca)	mg/L	27.9	55.7	28.8	28.7	0.050	8788578
Dissolved Magnesium (Mg)	mg/L	10.2	17.3	10.4	10.4	0.050	8788578
Dissolved Potassium (K)	mg/L	2.07	3.21	1.42	1.46	0.050	8788578
Dissolved Sodium (Na)	mg/L	3.02	4.40	4.74	4.59	0.050	8788578
Dissolved Sulphur (S)	mg/L	13.4	38.8	21.8	22.0	3.0	8788578
RDL = Reportable Detection Li	mit						



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SE4649	SE4650	SE4651	SE4652		
Sampling Date		2017/10/09	2017/10/09	2017/10/09	2017/10/09		
		17:35	17:20	17:00	16:45		
COC Number		537488-01-01	537488-01-01	537488-01-01	537488-01-01		
	UNITS	HC-2.5	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	110	212	115	116	0.50	8788515
Elements	•					•	
Total Mercury (Hg)	ug/L	0.0036	0.0026	0.0022	0.0026	0.0020	8790113
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	81.5	40.4	195	32.0	0.50	8790615
Total Antimony (Sb)	ug/L	0.440	0.099	0.100	0.101	0.020	8790615
Total Arsenic (As)	ug/L	1.09	0.602	0.505	0.357	0.020	8790615
Total Barium (Ba)	ug/L	38.9	51.9	52.6	60.4	0.020	8790615
Total Beryllium (Be)	ug/L	0.015	0.014	0.011	<0.010	0.010	8790615
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8790615
Total Boron (B)	ug/L	<10	<10	<10	<10	10	8790615
Total Cadmium (Cd)	ug/L	0.0063	0.0057	0.0112	0.0086	0.0050	8790615
Total Chromium (Cr)	ug/L	0.36	0.23	0.44	0.21	0.10	8790615
Total Cobalt (Co)	ug/L	0.0724	0.0361	0.201	0.0366	0.0050	8790615
Total Copper (Cu)	ug/L	1.34	1.30	2.15	1.42	0.050	8790615
Total Iron (Fe)	ug/L	71.8	26.7	319	20.7	1.0	8790615
Total Lead (Pb)	ug/L	0.0311	0.0084	0.106	<0.0050	0.0050	8790615
Total Lithium (Li)	ug/L	1.21	2.02	1.29	0.86	0.50	8790615
Total Manganese (Mn)	ug/L	6.32	4.60	23.1	6.13	0.050	8790615
Total Molybdenum (Mo)	ug/L	1.42	0.237	0.796	0.752	0.050	8790615
Total Nickel (Ni)	ug/L	0.578	0.463	1.02	0.754	0.020	8790615
Total Phosphorus (P)	ug/L	7.1	5.2	9.5	2.4	2.0	8790615
Total Selenium (Se)	ug/L	0.071	0.106	0.128	0.092	0.040	8790615
Total Silicon (Si)	ug/L	5580	5520	5200	5060	50	8790615
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8790615
Total Strontium (Sr)	ug/L	297	419	147	148	0.050	8790615
Total Thallium (TI)	ug/L	0.0028	0.0030	0.0045	0.0021	0.0020	8790615
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8790615
Total Titanium (Ti)	ug/L	2.93	0.55	11.0	<0.50	0.50	8790615
Total Uranium (U)	ug/L	29.3	11.1	8.04	4.05	0.0020	8790615
Total Vanadium (V)	ug/L	0.41	0.26	0.98	0.23	0.20	8790615
Total Zinc (Zn)	ug/L	0.92	0.37	1.34	0.31	0.10	8790615
RDL = Reportable Detection	Limit						



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SE4649	SE4650	SE4651	SE4652		
Sampling Date		2017/10/09	2017/10/09	2017/10/09	2017/10/09		
Sampling Date		17:35	17:20	17:00	16:45		
COC Number		537488-01-01	537488-01-01	537488-01-01	537488-01-01		
	UNITS	HC-2.5	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.38	0.36	0.32	0.37	0.10	8790615
Total Calcium (Ca)	mg/L	27.6	55.7	28.5	29.6	0.050	8788579
Total Magnesium (Mg)	mg/L	9.89	17.6	10.5	10.2	0.050	8788579
Total Potassium (K)	mg/L	2.04	3.24	1.53	1.54	0.050	8788579
Total Sodium (Na)	mg/L	2.97	4.34	4.68	4.66	0.050	8788579
Total Sulphur (S)	mg/L	12.2	35.0	20.2	21.9	3.0	8788579
RDL = Reportable Detection L	imit				_		·



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

## **GENERAL COMMENTS**

Sample SE4652 [CC-4.5]: Sample analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Results relate only to the items tested.



## **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

			Matrix	Spike	Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8790113	Total Mercury (Hg)	2017/10/12	98	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
8790120	Total Suspended Solids	2017/10/13			98	80 - 120	<1.0	mg/L		
8790172	Total Dissolved Solids	2017/10/13	99	80 - 120	106	80 - 120	<10	mg/L	2.4	20
8790293	Dissolved Organic Carbon (C)	2017/10/12	NC	80 - 120	115	80 - 120	<0.50	mg/L		
8790294	Total Organic Carbon (C)	2017/10/12	105	80 - 120	115	80 - 120	<0.50	mg/L	2.7	20
8790300	Dissolved Organic Carbon (C)	2017/10/12	112	80 - 120	116	80 - 120	<0.50	mg/L	2.5	20
8790303	Total Organic Carbon (C)	2017/10/12	101	80 - 120	116	80 - 120	<0.50	mg/L	5.8	20
8790443	ORP	2017/10/12							0.64	20
8790543	Dissolved Aluminum (AI)	2017/10/16	108	80 - 120	107	80 - 120	<0.50	ug/L	1.1	20
8790543	Dissolved Antimony (Sb)	2017/10/16	102	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
8790543	Dissolved Arsenic (As)	2017/10/16	99	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
8790543	Dissolved Barium (Ba)	2017/10/16	NC	80 - 120	99	80 - 120	<0.020	ug/L	8.6	20
8790543	Dissolved Beryllium (Be)	2017/10/16	97	80 - 120	98	80 - 120	<0.010	ug/L	NC	20
8790543	Dissolved Bismuth (Bi)	2017/10/16	97	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
8790543	Dissolved Boron (B)	2017/10/16	85	80 - 120	92	80 - 120	<10	ug/L	NC	20
8790543	Dissolved Cadmium (Cd)	2017/10/16	100	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8790543	Dissolved Chromium (Cr)	2017/10/16	95	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
8790543	Dissolved Cobalt (Co)	2017/10/16	92	80 - 120	95	80 - 120	<0.0050	ug/L	NC	20
8790543	Dissolved Copper (Cu)	2017/10/16	94	80 - 120	99	80 - 120	<0.050	ug/L	NC	20
8790543	Dissolved Iron (Fe)	2017/10/16	NC	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
8790543	Dissolved Lead (Pb)	2017/10/16	95	80 - 120	97	80 - 120	<0.0050	ug/L	NC	20
8790543	Dissolved Lithium (Li)	2017/10/16	NC	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
8790543	Dissolved Manganese (Mn)	2017/10/16	NC	80 - 120	95	80 - 120	<0.050	ug/L	NC	20
8790543	Dissolved Molybdenum (Mo)	2017/10/16	101	80 - 120	99	80 - 120	<0.050	ug/L	NC	20
8790543	Dissolved Nickel (Ni)	2017/10/16	96	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
8790543	Dissolved Phosphorus (P)	2017/10/16					<2.0	ug/L	1.6	20
8790543	Dissolved Selenium (Se)	2017/10/16	95	80 - 120	105	80 - 120	<0.040	ug/L	NC	20
8790543	Dissolved Silicon (Si)	2017/10/16					<50	ug/L	NC	20
8790543	Dissolved Silver (Ag)	2017/10/16	102	80 - 120	107	80 - 120	<0.0050	ug/L	NC	20
8790543	Dissolved Strontium (Sr)	2017/10/16	NC	80 - 120	93	80 - 120	<0.050	ug/L	NC	20
8790543	Dissolved Thallium (TI)	2017/10/16	100	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

			Matrix	Spike	Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8790543	Dissolved Tin (Sn)	2017/10/16	95	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
8790543	Dissolved Titanium (Ti)	2017/10/16	95	80 - 120	88	80 - 120	<0.50	ug/L	NC	20
8790543	Dissolved Uranium (U)	2017/10/16	95	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
8790543	Dissolved Vanadium (V)	2017/10/16	99	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
8790543	Dissolved Zinc (Zn)	2017/10/16	95	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
8790543	Dissolved Zirconium (Zr)	2017/10/16	97	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
8790615	Total Aluminum (AI)	2017/10/13	110	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
8790615	Total Antimony (Sb)	2017/10/13	105	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
8790615	Total Arsenic (As)	2017/10/13	107	80 - 120	104	80 - 120	<0.020	ug/L	NC	20
8790615	Total Barium (Ba)	2017/10/13	103	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
8790615	Total Beryllium (Be)	2017/10/13	100	80 - 120	94	80 - 120	<0.010	ug/L	NC	20
8790615	Total Bismuth (Bi)	2017/10/13	101	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8790615	Total Boron (B)	2017/10/13	98	80 - 120	92	80 - 120	<10	ug/L	NC	20
8790615	Total Cadmium (Cd)	2017/10/13	108	80 - 120	104	80 - 120	< 0.0050	ug/L	NC	20
8790615	Total Chromium (Cr)	2017/10/13	106	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
8790615	Total Cobalt (Co)	2017/10/13	103	80 - 120	100	80 - 120	< 0.0050	ug/L	NC	20
8790615	Total Copper (Cu)	2017/10/13	105	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
8790615	Total Iron (Fe)	2017/10/13	107	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
8790615	Total Lead (Pb)	2017/10/13	101	80 - 120	97	80 - 120	< 0.0050	ug/L	NC	20
8790615	Total Lithium (Li)	2017/10/13	100	80 - 120	95	80 - 120	<0.50	ug/L	NC	20
8790615	Total Manganese (Mn)	2017/10/13	95	80 - 120	95	80 - 120	<0.050	ug/L	NC	20
8790615	Total Molybdenum (Mo)	2017/10/13	102	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
8790615	Total Nickel (Ni)	2017/10/13	107	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
8790615	Total Phosphorus (P)	2017/10/13					<2.0	ug/L	NC	20
8790615	Total Selenium (Se)	2017/10/13	119	80 - 120	108	80 - 120	<0.040	ug/L	NC	20
8790615	Total Silicon (Si)	2017/10/13					<50	ug/L	NC	20
8790615	Total Silver (Ag)	2017/10/13	112	80 - 120	107	80 - 120	<0.0050	ug/L	NC	20
8790615	Total Strontium (Sr)	2017/10/13	96	80 - 120	96	80 - 120	<0.050	ug/L	NC	20
8790615	Total Thallium (Tl)	2017/10/13	101	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
8790615	Total Tin (Sn)	2017/10/13	96	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
8790615	Total Titanium (Ti)	2017/10/13	105	80 - 120	101	80 - 120	<0.50	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8790615	Total Uranium (U)	2017/10/13	100	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
8790615	Total Vanadium (V)	2017/10/13	105	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
8790615	Total Zinc (Zn)	2017/10/13	115	80 - 120	106	80 - 120	<0.10	ug/L	NC	20
8790615	Total Zirconium (Zr)	2017/10/13	97	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
8790647	Weak Acid Dissoc. Cyanide (CN)	2017/10/13	102	80 - 120	101	80 - 120	<0.00050	mg/L	1.3	20
8790836	рН	2017/10/12			102	97 - 103			0.12	20
8790848	Conductivity	2017/10/12			99	80 - 120	<1.0	uS/cm	0.095	20
8790850	Alkalinity (PP as CaCO3)	2017/10/12					<0.50	mg/L	0	20
8790850	Alkalinity (Total as CaCO3)	2017/10/12	NC	80 - 120	103	80 - 120	<0.50	mg/L	1.7	20
8790850	Bicarbonate (HCO3)	2017/10/12					<0.50	mg/L	1.8	20
8790850	Carbonate (CO3)	2017/10/12					<0.50	mg/L	0	20
8790850	Hydroxide (OH)	2017/10/12					<0.50	mg/L	NC	20
8790889	рН	2017/10/13			102	97 - 103			0.37	20
8790895	Conductivity	2017/10/13			101	80 - 120	<1.0	uS/cm		
8790901	Alkalinity (PP as CaCO3)	2017/10/13					<0.50	mg/L		
8790901	Alkalinity (Total as CaCO3)	2017/10/13			100	80 - 120	0.77, RDL=0.50	mg/L		
8790901	Bicarbonate (HCO3)	2017/10/13					0.94, RDL=0.50	mg/L		
8790901	Carbonate (CO3)	2017/10/13					<0.50	mg/L		
8790901	Hydroxide (OH)	2017/10/13					<0.50	mg/L		
8791090	Dissolved Chloride (Cl)	2017/10/12	107	80 - 120	98	80 - 120	<0.50	mg/L	13	20
8791092	Dissolved Sulphate (SO4)	2017/10/12	NC	80 - 120	95	80 - 120	<0.50	mg/L	0.39	20
8791721	Total Dissolved Solids	2017/10/14	96	80 - 120	93	80 - 120	<10	mg/L	NC	20
8791775	Fluoride (F)	2017/10/13	104	80 - 120	100	80 - 120	0.010, RDL=0.010	mg/L	4.9	20
8791797	Dissolved Mercury (Hg)	2017/10/13	99	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
8792024	Nitrate plus Nitrite (N)	2017/10/12	103	80 - 120	113	80 - 120	<0.0020	mg/L	NC	25
8792025	Nitrite (N)	2017/10/12	98	80 - 120	106	80 - 120	<0.0020	mg/L	NC	25
8794351	Dissolved Sulphate (SO4)	2017/10/13	108	80 - 120	104	80 - 120	<0.50	mg/L	2.6	20
8795411	Fluoride (F)	2017/10/16	103	80 - 120	102	80 - 120	0.010, RDL=0.010	mg/L	0	20
8795417	Total Ammonia (N)	2017/10/13			104	80 - 120	0.0050, RDL=0.0050	mg/L		



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8797437	Total Dissolved Solids	2017/10/19	98	80 - 120	95	80 - 120	<10	mg/L	0	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

## **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		NVOICE TO:			Report In	formation	,						Project le	nformation	n		現場はあたみがはの内をからはの配を無し	Page 1 of
mpany Name	#3604 LORAX	ENVIRONMENTAL SERVICES L	TD. Company	Name						Que	station #		B40231					Bottle Order #:
tact Name	Aida Piaseczny		Contact f	Device Ci-	ther					P.O	#					B	789173_COC	
ess	2289 BURRARI	Total Control of the	Address							Pro	ject #	- 2	Gold Cor	p Coffe	e Creek			537488
	VANCOUVER E									1000	ject Name	<u> </u>		_			Manager was winnershall a solution of	Project Manage
10	(604) 688-7173	1,000		David Els	ther@lorax		Fax:	_		Site				_		-		Megan Smith
	aida.piaseczny(	@lorax.ca; shukling.ng@lorax.ca	Email	secial Instructions	mer@iorax	TT	T	_	_	San	Analysis F	Decumented					C#S3#488-01-01 Turnaround Time (TAT) Re-	n frank
gulatory C	riteria	-		Secial Instructions		2			NHA,		rectaryara r	rednesied		3			Please provide advance notice for n	
	Samples m	) drinking water exemples - please use the D sust be kept cool ( < 10°C ) from time of sent;	ling until delivery to	naxam	Matrix	Regulated Drinking Water ? ( Y / N )	ie (Alk, E	TSS-Low Level	Anions (Cl, F, NO2, NO3, N SO4)	Cyanide - WAD	700	200	Low Level Dissolved Metals incl. CV Hg	Low Level Total Metals incl Hg	ORP	(will be Standa Please days - Job Sp Date Re	an/irmation Number	NO and Dioxins/Furants : tequired: took for #J
	e Barcode Label	Sample (Location) Identification HC-2.5	Date Sampled	Time Sampled	0			18878		10181	V Grand		1	×	×	13	20.0000	
	SID#162743	110-2.0	9-0ct-1	1 17:35	Water	1	1-	×	×	X	×	×	×		^			
	H144444	CC-1.5	9-oct-1	1 11:20	1	1	) ×	×	×	X	X	×	K	×	×	13		
		Latte Mix	9-oct-1	1 17:00		1	) ×	X	X	X	×	×	×	×	X	12		1 81
		CC-4.5	9-0ct-1	16:45		A	×	1	X	X	X	×	X	X	×	11	Flowable that CC-4.  Hy bottles switche	enea jungit
																	flowable that CC-4.	5 08 DE
						П											the battles switches	d (multolu
					1	H											nowever)	Contraction
			-														11	
						$\sqcap$		100									B 8	
* RELI	QUISHED BY: (Signatur			Time			Signature/P	rint)	M _ E	Di	ate: (YY/MM	(00)	Time		used and	la la	Lab Use Only	
NOWN	Mc Nes	7/1	0/09/20	00 Ea 84	ma EVA	SYK	DEA			20	17/10	/W	12:34	nots	ubmitted	Time Scopitive	remperature (*C) on Receipt	Seal Mact on Cooler? Yes No
INLESS OF	E-AT WWW.MARCKAMEDA	VERITING, WORK SUBMITTED ON THIS CHA VIERMS. RELINQUISHER TO ENSURE THE ACCURACY										OCUMEN	T IS ACKNO	WLEDGME	INT AND ACC	EPTANCE OF OU	R TERMS WHICH ARE AVAILABLE White	Maccam Yellow Cl

Maxxam Analytics International Corporation o/a Maxxam Analytics



Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537487-01-01

#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/10/30

Report #: R2468741 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B793974 Received: 2017/10/23, 15:40

Sample Matrix: Water # Samples Received: 4

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	4	2017/10/25	2017/10/25	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	4	N/A	2017/10/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide WAD (weak acid dissociable)	4	N/A	2017/10/27	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	4	N/A	2017/10/25	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	4	2017/10/25	2017/10/25	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	4	N/A	2017/10/26	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (2)	4	N/A	2017/10/26	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	4	N/A	2017/10/27	BBY WI-00033	Auto Calc
Mercury (Dissolved-LowLevel) by CVAF	4	N/A	2017/10/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	4	2017/10/30	2017/10/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	4	N/A	2017/10/27	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	4	N/A	2017/10/27	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2017/10/26	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	4	N/A	2017/10/26	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N Low Level (Preserved)	4	N/A	2017/10/26	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	4	N/A	2017/10/25	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	4	N/A	2017/10/25	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	4	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
ORP Analysis on Water by ARD LAB	4	N/A	2017/10/30	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	4	N/A	2017/10/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	4	2017/10/25	2017/10/25	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	4	N/A	2017/10/25	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	4	2017/10/25	2017/10/26	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (4)	4	N/A	2017/10/25	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	4	2017/10/25	2017/10/26	BBY6SOP-00034	SM 22 2540 D

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using



Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537487-01-01

**Attention:David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/10/30

Report #: R2468741 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

# MAXXAM JOB #: B793974

Received: 2017/10/23, 15:40

accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- $^{st}$  RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxam 30 Oct 2017 18:40:03

Please direct all questions regarding this Certificate of Analysis Project Manager.

Megan Smith, Project Manager

Email: memith@maxyam.ca

Email: msmith@maxxam.ca Phone# (604) 734 7276

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

## RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SH5998	SH5998	SH5999	SH6000		SH6001		
Sampling Date		2017/10/23 09:25	2017/10/23 09:25	2017/10/23 09:40	2017/10/23 10:00		2017/10/23 10:25		
COC Number		537487-01-01	537487-01-01		537487-01-01		537487-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	CC-1.5	LATTE MIX	QC Batch	CC-4.5	RDL	QC Batch
Parameter		•	•	•	•	•	•	•	-
ORP	mV	277	279	280	280	8807920	282		8807920
Calculated Parameters		1		1	•		1		
Filter and HNO3 Preservation	N/A	LAB		LAB	LAB	8805320	LAB		8805320
Nitrate (N)	mg/L	0.611		0.371	0.438	8805081	0.387	0.0020	8805081
Misc. Inorganics	!								
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00080	0.00082	0.00086	0.00088	8810355	0.00088	0.00050	8810355
Fluoride (F)	mg/L	0.062		0.082	0.083	8808183	0.070	0.010	8808183
Dissolved Organic Carbon (C)	mg/L	3.69	4.43	4.18	6.72	8806958	5.57	0.50	8806958
Alkalinity (Total as CaCO3)	mg/L	88.8		136	63.3	8807425	57.2	0.50	8807432
Total Organic Carbon (C)	mg/L	4.07	4.78	3.94	7.05	8806957	5.27	0.50	8806957
Alkalinity (PP as CaCO3)	mg/L	<0.50		<0.50	<0.50	8807425	<0.50	0.50	8807432
Bicarbonate (HCO3)	mg/L	108		166	77.2	8807425	69.8	0.50	8807432
Carbonate (CO3)	mg/L	<0.50		<0.50	<0.50	8807425	<0.50	0.50	8807432
Hydroxide (OH)	mg/L	<0.50		<0.50	<0.50	8807425	<0.50	0.50	8807432
Anions					•	•			
Dissolved Sulphate (SO4)	mg/L	43.2		144	73.6	8808250	65.8	0.50	8808250
Dissolved Chloride (CI)	mg/L	0.75		0.68	1.1	8808242	0.82	0.50	8808242
Nutrients		1		1	•		1		
Total Ammonia (N)	mg/L	<0.0050	<0.0050	0.0070	0.0080	8808080	0.029	0.0050	8808080
Nitrate plus Nitrite (N)	mg/L	0.613		0.371	0.438	8808495	0.387	0.0020	8808495
Nitrite (N)	mg/L	0.0020		<0.0020	<0.0020	8808497	<0.0020	0.0020	8808497
Physical Properties		1		1	•		1		
Conductivity	uS/cm	274		551	293	8807424	266	1.0	8807430
рН	рН	8.10		8.17	8.00	8807420	7.88		8807428
Physical Properties		ı		ı			1		
Total Suspended Solids	mg/L	<1.0		<1.0	<1.0	8806589	<1.0	1.0	8806589
Total Dissolved Solids	mg/L	146		334	178	8806573	154	10	8806573
RDL = Reportable Detection Limit	:								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SH6001		
Sampling Date		2017/10/23 10:25		
COC Number		537487-01-01		
	UNITS	CC-4.5 Lab-Dup	RDL	QC Batch
Misc. Inorganics				
Alkalinity (Total as CaCO3)	mg/L	58.5	0.50	8807432
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8807432
Bicarbonate (HCO3)	mg/L	71.4	0.50	8807432
Carbonate (CO3)	mg/L	<0.50	0.50	8807432
Hydroxide (OH)	mg/L	<0.50	0.50	8807432
Physical Properties	•	•		-
Conductivity	uS/cm	263	1.0	8807430
рН	рН	7.95		8807428
RDL = Reportable Detection Limi	t			-
Lab-Dup = Laboratory Initiated D	uplicate			



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

		011=000	0115000	0116000	0110004	i	
Maxxam ID		SH5998	SH5999	SH6000	SH6001		
Sampling Date		2017/10/23 09:25	2017/10/23 09:40	2017/10/23 10:00	2017/10/23 10:25		
COC Number		537487-01-01	537487-01-01	537487-01-01	537487-01-01		
COC Number	LINUTC					DDI	000-1-1
	UNITS	HC-2.5	CC-1.5	LATTE MIX	CC-4.5	RDL	QC Batch
Misc. Inorganics							•
Dissolved Hardness (CaCO3)	mg/L	132	277	135	121	0.50	8804813
Elements							
Dissolved Mercury (Hg)	ug/L	0.0029	0.0027	0.0025	0.0021	0.0020	8812670
Dissolved Metals by ICPMS							
Dissolved Aluminum (AI)	ug/L	29.9	20.9	26.0	24.3	0.50	8806571
Dissolved Antimony (Sb)	ug/L	0.547	0.100	0.094	0.087	0.020	8806571
Dissolved Arsenic (As)	ug/L	0.838	0.657	0.316	0.279	0.020	8806571
Dissolved Barium (Ba)	ug/L	44.2	65.0	57.9	65.1	0.020	8806571
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	8806571
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806571
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	10	8806571
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0059	0.0073	0.0076	0.0050	8806571
Dissolved Chromium (Cr)	ug/L	0.24	0.17	0.20	0.20	0.10	8806571
Dissolved Cobalt (Co)	ug/L	0.0350	0.0260	0.0420	0.0356	0.0050	8806571
Dissolved Copper (Cu)	ug/L	1.09	1.10	1.44	1.42	0.050	8806571
Dissolved Iron (Fe)	ug/L	16.0	10.3	26.5	17.4	1.0	8806571
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806571
Dissolved Lithium (Li)	ug/L	1.37	2.36	1.52	0.79	0.50	8806571
Dissolved Manganese (Mn)	ug/L	3.95	5.09	13.7	7.58	0.050	8806571
Dissolved Molybdenum (Mo)	ug/L	1.58	0.281	0.746	0.696	0.050	8806571
Dissolved Nickel (Ni)	ug/L	0.478	0.417	0.772	0.679	0.020	8806571
Dissolved Phosphorus (P)	ug/L	4.3	4.7	3.3	3.4	2.0	8806571
Dissolved Selenium (Se)	ug/L	0.065	0.110	0.101	0.063	0.040	8806571
Dissolved Silicon (Si)	ug/L	5600	5410	5160	4770	50	8806571
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806571
Dissolved Strontium (Sr)	ug/L	340	554	170	159	0.050	8806571
Dissolved Thallium (TI)	ug/L	0.0021	0.0037	0.0027	0.0023	0.0020	8806571
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8806571
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	8806571
Dissolved Uranium (U)	ug/L	38.1	15.7	11.2	5.07	0.0020	8806571
Dissolved Vanadium (V)	ug/L	0.25	0.24	0.25	0.25	0.20	8806571
Dissolved Zinc (Zn)	ug/L	0.46	0.45	0.41	0.30	0.10	8806571
RDL = Reportable Detection Li	mit						



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SH5998	SH5999	SH6000	SH6001		
Sampling Date		2017/10/23	2017/10/23	2017/10/23	2017/10/23		
Sampling Date		09:25	09:40	10:00	10:25		
COC Number		537487-01-01	537487-01-01	537487-01-01	537487-01-01		
	UNITS	HC-2.5	CC-1.5	LATTE MIX	CC-4.5	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.33	0.30	0.28	0.29	0.10	8806571
Dissolved Calcium (Ca)	mg/L	32.3	72.4	33.4	30.6	0.050	8805096
Dissolved Magnesium (Mg)	mg/L	12.5	23.3	12.5	10.9	0.050	8805096
Dissolved Potassium (K)	mg/L	2.27	4.12	1.59	1.50	0.050	8805096
Dissolved Sodium (Na)	mg/L	3.38	5.27	5.41	4.77	0.050	8805096
Dissolved Sulphur (S)	mg/L	14.7	47.6	24.2	21.7	3.0	8805096
RDL = Reportable Detection Lin	nit						



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SH5998	SH5999	SH6000	SH6001		
Sampling Date		2017/10/23	2017/10/23	2017/10/23	2017/10/23		
		09:25	09:40	10:00	10:25		
COC Number		537487-01-01	537487-01-01	537487-01-01	537487-01-01		
	UNITS	HC-2.5	CC-1.5	LATTE MIX	CC-4.5	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	139	294	139	128	0.50	8805041
Elements							
Total Mercury (Hg)	ug/L	0.0021	0.0023	<0.0020	<0.0020	0.0020	8812408
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	34.7	24.1	31.0	42.3	0.50	8806736
Total Antimony (Sb)	ug/L	0.529	0.105	0.098	0.090	0.020	8806736
Total Arsenic (As)	ug/L	0.881	0.676	0.318	0.288	0.020	8806736
Total Barium (Ba)	ug/L	43.3	63.6	55.2	63.2	0.020	8806736
Total Beryllium (Be)	ug/L	0.014	0.013	<0.010	<0.010	0.010	8806736
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806736
Total Boron (B)	ug/L	<10	<10	<10	<10	10	8806736
Total Cadmium (Cd)	ug/L	<0.0050	0.0071	0.0073	0.0086	0.0050	8806736
Total Chromium (Cr)	ug/L	0.23	0.16	0.19	0.22	0.10	8806736
Total Cobalt (Co)	ug/L	0.0349	0.0258	0.0419	0.0431	0.0050	8806736
Total Copper (Cu)	ug/L	1.06	1.07	1.36	1.35	0.050	8806736
Total Iron (Fe)	ug/L	19.3	14.3	35.8	41.9	1.0	8806736
Total Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	0.0057	0.0050	8806736
Total Lithium (Li)	ug/L	1.33	2.30	1.42	0.72	0.50	8806736
Total Manganese (Mn)	ug/L	4.26	5.74	14.1	8.62	0.050	8806736
Total Molybdenum (Mo)	ug/L	1.63	0.291	0.750	0.694	0.050	8806736
Total Nickel (Ni)	ug/L	0.472	0.376	0.698	0.697	0.020	8806736
Total Phosphorus (P)	ug/L	3.7	3.9	4.2	3.9	2.0	8806736
Total Selenium (Se)	ug/L	0.077	0.129	0.102	0.076	0.040	8806736
Total Silicon (Si)	ug/L	6110	5880	5310	5060	50	8806736
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806736
Total Strontium (Sr)	ug/L	346	558	170	158	0.050	8806736
Total Thallium (TI)	ug/L	0.0020	0.0026	0.0028	0.0028	0.0020	8806736
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8806736
Total Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	2.09	0.50	8806736
Total Uranium (U)	ug/L	41.1	16.6	11.5	4.73	0.0020	8806736
Total Vanadium (V)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8806736
Total Zinc (Zn)	ug/L	1.04	0.37	0.29	0.28	0.10	8806736
RDL = Reportable Detection		<u> </u>					



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SH5998	SH5999	SH6000	SH6001		
Sampling Date		2017/10/23 09:25	2017/10/23 09:40	2017/10/23 10:00	2017/10/23 10:25		
COC Number		537487-01-01	537487-01-01	537487-01-01	537487-01-01		
	UNITS	HC-2.5	CC-1.5	LATTE MIX	CC-4.5	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.34	0.32	0.28	0.29	0.10	8806736
Total Calcium (Ca)	mg/L	34.1	78.1	34.7	32.4	0.050	8805097
Total Magnesium (Mg)	mg/L	13.1	24.0	12.6	11.5	0.050	8805097
Total Potassium (K)	mg/L	2.30	4.07	1.49	1.50	0.050	8805097
Total Sodium (Na)	mg/L	3.61	5.35	5.42	4.80	0.050	8805097
Total Sulphur (S)	mg/L	15.7	51.0	23.7	22.2	3.0	8805097
RDL = Reportable Detection L	imit						



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

## **GENERAL COMMENTS**

Results relate only to the items tested.



## **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8806571	Dissolved Aluminum (AI)	2017/10/27	101	80 - 120	108	80 - 120	<0.50	ug/L	4.7	20
8806571	Dissolved Antimony (Sb)	2017/10/27	100	80 - 120	105	80 - 120	<0.020	ug/L	NC	20
8806571	Dissolved Arsenic (As)	2017/10/27	97	80 - 120	104	80 - 120	<0.020	ug/L	1.8	20
8806571	Dissolved Barium (Ba)	2017/10/27	NC	80 - 120	108	80 - 120	<0.020	ug/L	0.79	20
8806571	Dissolved Beryllium (Be)	2017/10/27	94	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
8806571	Dissolved Bismuth (Bi)	2017/10/27	92	80 - 120	107	80 - 120	<0.0050	ug/L	NC	20
8806571	Dissolved Boron (B)	2017/10/27	NC	80 - 120	105	80 - 120	<10	ug/L	4.3	20
8806571	Dissolved Cadmium (Cd)	2017/10/27	93	80 - 120	105	80 - 120	<0.0050	ug/L	NC	20
8806571	Dissolved Chromium (Cr)	2017/10/27	95	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
8806571	Dissolved Cobalt (Co)	2017/10/27	92	80 - 120	104	80 - 120	< 0.0050	ug/L	0.87	20
8806571	Dissolved Copper (Cu)	2017/10/27	90	80 - 120	102	80 - 120	<0.050	ug/L	20	20
8806571	Dissolved Iron (Fe)	2017/10/27	NC	80 - 120	112	80 - 120	<1.0	ug/L	1.9	20
8806571	Dissolved Lead (Pb)	2017/10/27	91	80 - 120	102	80 - 120	<0.0050	ug/L	1.3	20
8806571	Dissolved Lithium (Li)	2017/10/27	NC	80 - 120	105	80 - 120	<0.50	ug/L	0.47	20
8806571	Dissolved Manganese (Mn)	2017/10/27	NC	80 - 120	100	80 - 120	<0.050	ug/L	2.1	20
8806571	Dissolved Molybdenum (Mo)	2017/10/27	NC	80 - 120	105	80 - 120	<0.050	ug/L	1.1	20
8806571	Dissolved Nickel (Ni)	2017/10/27	91	80 - 120	106	80 - 120	<0.020	ug/L	3.7	20
8806571	Dissolved Phosphorus (P)	2017/10/27					<2.0	ug/L	19	20
8806571	Dissolved Selenium (Se)	2017/10/27	94	80 - 120	105	80 - 120	<0.040	ug/L	NC	20
8806571	Dissolved Silicon (Si)	2017/10/27					<50	ug/L	1.0	20
8806571	Dissolved Silver (Ag)	2017/10/27	99	80 - 120	107	80 - 120	<0.0050	ug/L	NC	20
8806571	Dissolved Strontium (Sr)	2017/10/27	NC	80 - 120	99	80 - 120	<0.050	ug/L	1.4	20
8806571	Dissolved Thallium (TI)	2017/10/27	95	80 - 120	101	80 - 120	<0.0020	ug/L	3.0	20
8806571	Dissolved Tin (Sn)	2017/10/27	93	80 - 120	101	80 - 120	<0.20	ug/L	3.4	20
8806571	Dissolved Titanium (Ti)	2017/10/27	97	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
8806571	Dissolved Uranium (U)	2017/10/27	93	80 - 120	100	80 - 120	<0.0020	ug/L	0.55	20
8806571	Dissolved Vanadium (V)	2017/10/27	97	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
8806571	Dissolved Zinc (Zn)	2017/10/27	93	80 - 120	107	80 - 120	<0.10	ug/L	4.4	20
8806571	Dissolved Zirconium (Zr)	2017/10/27	94	80 - 120	93	80 - 120	<0.10	ug/L	NC	20
8806573	Total Dissolved Solids	2017/10/26	98	80 - 120	95	80 - 120	<10	mg/L	0	20
8806589	Total Suspended Solids	2017/10/26			102	80 - 120	<1.0	mg/L		



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	
8806736	Total Aluminum (Al)	2017/10/26	105	80 - 120	111	80 - 120	<0.50	ug/L	2.2	20	
8806736	Total Antimony (Sb)	2017/10/26	102	80 - 120	101	80 - 120	<0.020	ug/L	5.0	20	
8806736	Total Arsenic (As)	2017/10/26	98	80 - 120	101	80 - 120	<0.020	ug/L	0.25	20	
8806736	Total Barium (Ba)	2017/10/26	NC	80 - 120	101	80 - 120	<0.020	ug/L	0.64	20	
8806736	Total Beryllium (Be)	2017/10/26	99	80 - 120	100	80 - 120	<0.010	ug/L	NC	20	
8806736	Total Bismuth (Bi)	2017/10/26	97	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20	
8806736	Total Boron (B)	2017/10/26	97	80 - 120	97	80 - 120	<10	ug/L	NC	20	
8806736	Total Cadmium (Cd)	2017/10/26	99	80 - 120	101	80 - 120	< 0.0050	ug/L	NC	20	
8806736	Total Chromium (Cr)	2017/10/26	97	80 - 120	99	80 - 120	<0.10	ug/L	9.7	20	
8806736	Total Cobalt (Co)	2017/10/26	92	80 - 120	98	80 - 120	< 0.0050	ug/L	1.8	20	
8806736	Total Copper (Cu)	2017/10/26	92	80 - 120	97	80 - 120	<0.050	ug/L	6.5	20	
8806736	Total Iron (Fe)	2017/10/26	99	80 - 120	107	80 - 120	<1.0	ug/L	2.1	20	
8806736	Total Lead (Pb)	2017/10/26	95	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20	
8806736	Total Lithium (Li)	2017/10/26	100	80 - 120	104	80 - 120	<0.50	ug/L	0.66	20	
8806736	Total Manganese (Mn)	2017/10/26	88	80 - 120	97	80 - 120	<0.050	ug/L	1.4	20	
8806736	Total Molybdenum (Mo)	2017/10/26	NC	80 - 120	104	80 - 120	<0.050	ug/L	1.8	20	
8806736	Total Nickel (Ni)	2017/10/26	96	80 - 120	100	80 - 120	<0.020	ug/L	0	20	
8806736	Total Phosphorus (P)	2017/10/26					<2.0	ug/L	1.6	20	
8806736	Total Selenium (Se)	2017/10/26	104	80 - 120	109	80 - 120	<0.040	ug/L	11	20	
8806736	Total Silicon (Si)	2017/10/26					<50	ug/L	0.50	20	
8806736	Total Silver (Ag)	2017/10/26	101	80 - 120	106	80 - 120	<0.0050	ug/L	NC	20	
8806736	Total Strontium (Sr)	2017/10/26	NC	80 - 120	97	80 - 120	<0.050	ug/L	1.5	20	
8806736	Total Thallium (Tl)	2017/10/26	97	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20	
8806736	Total Tin (Sn)	2017/10/26	93	80 - 120	104	80 - 120	<0.20	ug/L	NC	20	
8806736	Total Titanium (Ti)	2017/10/26	95	80 - 120	104	80 - 120	<0.50	ug/L	NC	20	
8806736	Total Uranium (U)	2017/10/26	96	80 - 120	101	80 - 120	<0.0020	ug/L	0.57	20	
8806736	Total Vanadium (V)	2017/10/26	96	80 - 120	98	80 - 120	<0.20	ug/L	NC	20	
8806736	Total Zinc (Zn)	2017/10/26	101	80 - 120	102	80 - 120	<0.10	ug/L	3.6	20	
8806736	Total Zirconium (Zr)	2017/10/26	93	80 - 120	98	80 - 120	<0.10	ug/L	NC	20	
8806957	Total Organic Carbon (C)	2017/10/25	86	80 - 120	112	80 - 120	<0.50	mg/L	16	20	
8806958	Dissolved Organic Carbon (C)	2017/10/25	93	80 - 120	112	80 - 120	<0.50	mg/L	18	20	



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8807420	рН	2017/10/25			102	97 - 103			0.50	20
8807424	Conductivity	2017/10/25			101	80 - 120	<1.0	uS/cm	0.24	20
8807425	Alkalinity (PP as CaCO3)	2017/10/25					<0.50	mg/L	NC	20
8807425	Alkalinity (Total as CaCO3)	2017/10/25	NC	80 - 120	95	80 - 120	<0.50	mg/L	3.4	20
8807425	Bicarbonate (HCO3)	2017/10/25					<0.50	mg/L	3.4	20
8807425	Carbonate (CO3)	2017/10/25					<0.50	mg/L	NC	20
8807425	Hydroxide (OH)	2017/10/25					<0.50	mg/L	NC	20
8807428	рН	2017/10/25			102	97 - 103			0.88	20
8807430	Conductivity	2017/10/25			100	80 - 120	<1.0	uS/cm	1.1	20
8807432	Alkalinity (PP as CaCO3)	2017/10/25					<0.50	mg/L	NC	20
8807432	Alkalinity (Total as CaCO3)	2017/10/25			102	80 - 120	<0.50	mg/L	2.3	20
8807432	Bicarbonate (HCO3)	2017/10/25					<0.50	mg/L	2.3	20
8807432	Carbonate (CO3)	2017/10/25					<0.50	mg/L	NC	20
8807432	Hydroxide (OH)	2017/10/25					<0.50	mg/L	NC	20
8807920	ORP	2017/10/30							0	20
8808080	Total Ammonia (N)	2017/10/26	90	80 - 120	97	80 - 120	<0.0050	mg/L	NC	20
8808183	Fluoride (F)	2017/10/26	100	80 - 120	102	80 - 120	0.010, RDL=0.010	mg/L	8.7	20
8808242	Dissolved Chloride (CI)	2017/10/25	111	80 - 120	97	80 - 120	<0.50	mg/L	6.5	20
8808250	Dissolved Sulphate (SO4)	2017/10/25	NC	80 - 120	96	80 - 120	<0.50	mg/L	0.27	20
8808495	Nitrate plus Nitrite (N)	2017/10/25	NC	80 - 120	104	80 - 120	<0.0020	mg/L	0.65	25
8808497	Nitrite (N)	2017/10/25	96	80 - 120	102	80 - 120	<0.0020	mg/L	NC	25
8810355	Weak Acid Dissoc. Cyanide (CN)	2017/10/27	NC	80 - 120	97	80 - 120	<0.00050	mg/L	2.5	20
8812408	Total Mercury (Hg)	2017/10/30	94	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8812670	Dissolved Mercury (Hg)	2017/10/30	100	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

## **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		INVO	NCE TO:				Report Inf	ormation	1.						Project I	nformatio	n		W 170		e Only
Company Name #3604 LORAX ENVIRONMENTAL SERVICES LTD.			Company Name					Que	Quotation# B402			10231 B7			B793974 COC		Bottle Order				
Common regime		Piaseczny			Contact Name David Flather						P.0	P.O. #						ij.		# W 1 B ( W 1 B B )	
2289 BURRARD STREET VANCOUVER BC V6J 3H9			Address						1035	Project # Gold Corp Coffee			е Стеек	Chain Of Custody Record			537487 Project Manager				
one	(604) 688			388-7175 x	Phone	3	- "		Fax:			Pro Site	ject Name	17					_		Verte 6500
ies Ies	aida.pias	eczny@lo	rax.ca; shukling ng@lo	orax.ca	Email	David.Flat	ner@lorax.			1974 ST			mpled By				25			C#537487-01-01	Megan Smith
Regula	dory Criteria				Speci	ial Instructions		_					Analysis	Requester		-				Turnaround Time (TAT) R	
								Z	-		NH4,				<u>so</u>	0			Danulas (	Please provide advance notice for Standard) TAT	rush projects
				1				S (2	TDS)		NO3, 7	8 (			Metals	s inct			COUNT DISTUR	plied if Rush TAT is not specified)	
							ater /	5   ~   Z	ž				N pe	Metals				TAT = 5-7 Working days for most tests. te: Stendard TAT for certain tests such as i	IOD and Dineino/Euranic		
			n   8   0					NO2.	0	.		solved	- S	1 3	() 8	days - contact your Project Manager for details.					
_	500 p	200720						Drinki d Filte	(Alk, E	Level	LL.	- WAD			el Dis	Total			Job Specifi Date Requi	ic Rush TAT (If applies to entire submission red:Time	Required:
	100000000000000000000000000000000000000		king water samples - please		The state of the s	A CONTRACTOR OF THE CONTRACTOR		fied C	) eu	- 80	s (Ci.	- ap		257	Level CV H	Level			Rush Confin	mation Number	(cell this for III)
	Sample Barcode Labo		e kept coal ( < 10°C ) from lin Sample (Location) Identificat		delivery to max e Sampled	Time Sampled	Matrix	Regula	Routine	TSS-T	Anions SO4)	Cyanide	700	DOC	Low L	Low L Hg	ORP		# of Bottles	Commen	Account of the
I	SID#162743	1111	HC-2.5	00	T. 23/17	09:25	Hao	N N	L	-	1	-	-	·	-	-	-		12	RECEIVED IN WHI	TEHORSE
1	SID#162744	HILDE	CC-1.5	06	T. 23/17	09:40	1120	u N	1	~	~	V	~	~	~	~	~		12	BY: ayon	0@154
1	SID#162745	E180	Latte Mix	oc.	T. 23/17	10:00	1426	NN	v	4	~	~	v	v	v	L	4		12	2017 -10-	- 23
1	SiD#162746	WHI .	CC-4.5	00	1.23/17	10:25	1120	NN	V	V	~	v	4	i	~	1	-		12		
					- 178															TEMP: /	1 1 1
					111-111-11	73.75										- DHG					12-27
	00			l l																	
٠	RELINGUISHED BY: (	Signature/Prin	nt)	Date: (YY/MM/pc	) Time				ignature/P		1		te: (YY/MM		Time		used and ubmitted			Lab Use Only	
-	Mula	wh.		7/10/2	3 15:	Lu Eva Sy	ma E	VAS	YICON	27		21	017/10	1241	3:00	9	or SWITTER.	Time Sens	Tem	perature (*C) on Receipt	Yes No

Maxxam Analytics International Corporation of Maxxam Analytics



#### Attention:David Flather

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 538344-01-01, 538344-02-01, 538344-03-01, 538344-04-01, 538344-05-01

Report Date: 2017/11/03 Report #: R2471807 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B793988 Received: 2017/10/23, 15:40

Sample Matrix: Water # Samples Received: 40

# Samples Received: 40					
		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	35	2017/10/25	2017/10/25	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	5	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	35	N/A	2017/10/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Chloride - Low Level	5	N/A	2017/10/26	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide WAD (weak acid dissociable)	13	N/A	2017/10/27	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	27	N/A	2017/10/31	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	11	N/A	2017/10/25	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - field filtered/preserved (1)	27	N/A	2017/10/27	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - field filtered/preserved (1)	1	N/A	2017/10/31	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - field filtered/preserved (1)	1	N/A	2017/11/03	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	35	2017/10/25	2017/10/25	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	5	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	40	N/A	2017/10/26	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (2)	18	N/A	2017/10/27	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (2)	20	N/A	2017/10/30	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (2)	2	N/A	2017/11/01	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	20	N/A	2017/10/26	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	20	N/A	2017/10/27	BBY WI-00033	Auto Calc
Mercury (Dissolved-LowLevel) by CVAF	40	N/A	2017/10/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	6	2017/10/30	2017/10/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	34	2017/10/31	2017/10/31	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	20	N/A	2017/10/26	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	20	N/A	2017/10/27	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	11	N/A	2017/10/25	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	20	N/A	2017/10/26	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	9	N/A	2017/10/27	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	20	2017/10/26	2017/10/28	BBY7SOP-00003,	BCLM2005,EPA6020bR2m



#### Attention:David Flather

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 538344-01-01, 538344-02-01, 538344-03-01, 538344-04-01, 538344-05-01

Report Date: 2017/11/03 Report #: R2471807 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B793988 Received: 2017/10/23, 15:40

Sample Matrix: Water # Samples Received: 40

# Samples Received: 40					
		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Elements by ICPMS Digested LL (total)	2	2017/10/26	2017/10/31	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	18	N/A	2017/10/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	20	N/A	2017/10/30	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2017/11/01	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	18	N/A	2017/10/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	34	N/A	2017/10/26	BBY6SOP-00009	EPA 350.1 m
Ammonia-N (Preserved)	6	N/A	2017/10/27	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	35	N/A	2017/10/25	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrate+Nitrite (N) (low level)	5	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	35	N/A	2017/10/25	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	5	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	35	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	5	N/A	2017/10/27	BBY6SOP-00010	SM 22 4500-NO3- I m
ORP Analysis on Water by ARD LAB	40	N/A	2017/10/30	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	39	N/A	2017/10/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	35	2017/10/25	2017/10/25	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (3)	5	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	35	N/A	2017/10/25	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	5	N/A	2017/10/26	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	34	2017/10/25	2017/10/26	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	6	2017/10/26	2017/10/27	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (4)	11	N/A	2017/10/25	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (4)	27	N/A	2017/10/27	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (4)	1	N/A	2017/10/31	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (4)	1	N/A	2017/11/03	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	40	2017/10/25	2017/10/26	BBY6SOP-00034	SM 22 2540 D



#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 538344-01-01, 538344-02-01, 538344-03-01, 538344-04-01, 538344-05-01

Report Date: 2017/11/03 Report #: R2471807

Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B793988 Received: 2017/10/23, 15:40

**Remarks:** 

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxam 03 Nov 2017 20:09:18

Please direct all questions regarding this Certificate of Analysis Project Manager.

Megan Smith, Project Manager

Email: msmith@maxxam.ca

Phone# (604) 734 7276



#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 538344-01-01, 538344-02-01, 538344-03-01, 538344-04-01, 538344-05-01

Report Date: 2017/11/03 Report #: R2471807 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B793988 Received: 2017/10/23, 15:40

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6067		SH6067		SH6068		
Samuling Data		2017/10/20		2017/10/20		2017/10/19		
Sampling Date		11:50		11:50		14:50		
COC Number		538344-01-01		538344-01-01		538344-01-01		
	UNITS	CC-0.5	RDL	CC-0.5 Lab-Dup	QC Batch	CC-1.0	RDL	QC Batch
Parameter								
ORP	mV	281		278	8807920	284		8807920
Calculated Parameters	•				•		-	
Filter and HNO3 Preservation	N/A	LAB			8805320	LAB		8805320
Nitrate (N)	mg/L	0.424	0.0020		8805081	0.612	0.0020	8805081
Misc. Inorganics	•							
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00119	0.00050		8810355	0.00093	0.00050	8810355
Fluoride (F)	mg/L	0.082	0.010		8808183	0.090	0.010	8808183
Dissolved Organic Carbon (C)	mg/L	7.67	0.50		8810692	5.10	0.50	8810689
Alkalinity (Total as CaCO3)	mg/L	57.5	0.50		8809055	273	0.50	8807425
Total Organic Carbon (C)	mg/L	9.27	0.50		8810670	5.02	0.50	8810667
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50		8809055	5.90	0.50	8807425
Bicarbonate (HCO3)	mg/L	70.1	0.50		8809055	319	0.50	8807425
Carbonate (CO3)	mg/L	<0.50	0.50		8809055	7.08	0.50	8807425
Hydroxide (OH)	mg/L	<0.50	0.50		8809055	<0.50	0.50	8807425
Anions								
Dissolved Sulphate (SO4)	mg/L	69.3	0.50		8809740	192	0.50	8808250
Dissolved Chloride (CI)	mg/L	0.98	0.50		8809732	0.76	0.50	8808242
Nutrients	•				•		-	
Total Ammonia (N)	mg/L	0.020	0.020		8809198	<0.020	0.020	8808091
Nitrate plus Nitrite (N)	mg/L	0.424	0.0020		8809772	0.612	0.0020	8808490
Nitrite (N)	mg/L	<0.0020	0.0020		8809779	<0.0020	0.0020	8808493
Physical Properties								
Conductivity	uS/cm	269	1.0		8809052	854	1.0	8807424
рН	рН	7.89			8809049	8.41		8807420
Physical Properties								
Total Suspended Solids	mg/L	<1.0	1.0		8807358	<1.0	1.0	8806589
Total Dissolved Solids	mg/L	192	10		8808639	562	10	8806545
RDL = Reportable Detection Limit	:							
Lab-Dup = Laboratory Initiated D	uplicate							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SH6069	SH6070	SH6070	SH6071		SH6072		
Sampling Date		2017/10/19	2017/10/20	2017/10/20	2017/10/19		2017/10/20		
Sampling Date		15:20	12:10	12:10	16:35		13:30		
COC Number		538344-01-01	538344-01-01	538344-01-01	538344-01-01		538344-01-01		
	UNITS	CC-1.5	CC-3.5	CC-3.5 Lab-Dup	CC-4.5	QC Batch	CC-5.0	RDL	QC Batch
Parameter		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>-</u>	<u> </u>
ORP	mV	284	285		282	8807920	282		8807920
Calculated Parameters		•			•	Į.		Į.	
Filter and HNO3 Preservation	N/A	LAB	LAB		LAB	8805320	LAB		8805320
Nitrate (N)	mg/L	0.383	0.468		0.358	8805081	0.150	0.0020	8805081
Misc. Inorganics	,	•			•	!			
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00090	0.00087		0.00100	8810355	0.00115	0.00050	8810355
Fluoride (F)	mg/L	0.077	0.065		0.069	8808183	0.029	0.010	8808183
Dissolved Organic Carbon (C)	mg/L	7.85	8.01	7.81	6.80	8810689	9.25	0.50	8810689
Alkalinity (Total as CaCO3)	mg/L	120	97.0		59.8	8807298	11.6	0.50	8807298
Total Organic Carbon (C)	mg/L	7.67	7.64		8.16	8810667	9.61	0.50	8810670
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50		<0.50	8807298	<0.50	0.50	8807298
Bicarbonate (HCO3)	mg/L	147	118		72.9	8807298	14.2	0.50	8807298
Carbonate (CO3)	mg/L	<0.50	<0.50		<0.50	8807298	<0.50	0.50	8807298
Hydroxide (OH)	mg/L	<0.50	<0.50		<0.50	8807298	<0.50	0.50	8807298
Anions	•					•		•	
Dissolved Sulphate (SO4)	mg/L	127	100		62.3	8808236	0.67	0.50	8808236
Dissolved Chloride (CI)	mg/L	0.60	0.83		1.0	8808228	0.83	0.50	8808228
Nutrients		•			•				
Total Ammonia (N)	mg/L	0.037	0.024		0.024	8808091	0.040	0.020	8808094
Nitrate plus Nitrite (N)	mg/L	0.383	0.468		0.358	8808487	0.150	0.0020	8808490
Nitrite (N)	mg/L	<0.0020	<0.0020		<0.0020	8808489	<0.0020	0.0020	8808493
Physical Properties	•					•		•	
Conductivity	uS/cm	494	399		260	8807416	34.5	1.0	8807416
рН	рН	8.07	8.06		7.92	8807415	7.23		8807415
Physical Properties	•	•		•	•				
Total Suspended Solids	mg/L	<1.0	1.7		1.9	8806589	<1.0	1.0	8806589
Total Dissolved Solids	mg/L	316	260		172	8806545	28	10	8806573
RDL = Reportable Detection Limit	t								
Lab-Dup = Laboratory Initiated D	uplicate								

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6072		SH6073		SH6074		SH6074	
Sampling Date		2017/10/20		2017/10/20		2017/10/20		2017/10/20	
Sampling Date		13:30		14:10		13:50		13:50	
COC Number		538344-01-01		538344-01-01		538344-01-01		538344-01-01	
	UNITS	CC-5.0 Lab-Dup	QC Batch	CC-5.5	QC Batch	CC-6.0	RDL	CC-6.0 Lab-Dup	QC Batch
Parameter									
ORP	mV		8807920	294	8807920	286		287	8807920
Calculated Parameters	•		•						•
Filter and HNO3 Preservation	N/A		8805320	LAB	8805320	LAB			8805320
Nitrate (N)	mg/L		8805081	0.149	8805081	0.129	0.0020		8805081
Misc. Inorganics	•		•		-	•	•		•
Weak Acid Dissoc. Cyanide (CN)	mg/L		8810355	0.00128	8810355	0.00133	0.00050		8810355
Fluoride (F)	mg/L		8808183	0.024	8808183	0.027	0.010		8808183
Dissolved Organic Carbon (C)	mg/L		8810689	12.2	8810689	10.1	0.50		8810689
Alkalinity (Total as CaCO3)	mg/L		8807298	6.35	8807298	10.9	0.50		8807298
Total Organic Carbon (C)	mg/L		8810670	11.0	8810667	9.48	0.50		8810667
Alkalinity (PP as CaCO3)	mg/L		8807298	<0.50	8807298	<0.50	0.50		8807298
Bicarbonate (HCO3)	mg/L		8807298	7.75	8807298	13.2	0.50		8807298
Carbonate (CO3)	mg/L		8807298	<0.50	8807298	<0.50	0.50		8807298
Hydroxide (OH)	mg/L		8807298	<0.50	8807298	<0.50	0.50		8807298
Anions	•								
Dissolved Sulphate (SO4)	mg/L		8808236	1.97	8808236	0.75	0.50		8808236
Dissolved Chloride (Cl)	mg/L		8808228	0.62	8808228	0.54	0.50		8808228
Nutrients	•		•						•
Total Ammonia (N)	mg/L		8808094	<0.020	8808091	0.034	0.020		8809205
Nitrate plus Nitrite (N)	mg/L	0.149	8808490	0.149	8808487	0.129	0.0020		8808487
Nitrite (N)	mg/L	<0.0020	8808493	<0.0020	8808489	<0.0020	0.0020		8808489
Physical Properties	•								
Conductivity	uS/cm		8807416	26.7	8807416	31.5	1.0		8807416
рН	рН		8807415	6.93	8807415	7.09			8807415
Physical Properties	•	•	•	•	-	•	•	•	
Total Suspended Solids	mg/L		8806589	16.7	8806589	<1.0	1.0		8806592
Total Dissolved Solids	mg/L	28	8806573	48	8806545	40	10		8806573
RDL = Reportable Detection Limit	t								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SH6075		SH6076			SH6077		
Sampling Date		2017/10/20		2017/10/20			2017/10/19		
COC November		14:25		12:35			17:25		
COC Number		538344-01-01		538344-01-01			538344-02-01		
	UNITS	CC-A	QC Batch	CC-B	RDL	QC Batch	CC-C	RDL	QC Batch
Parameter									
ORP	mV	291	8807920	291		8807920	291		8807920
Calculated Parameters			•			•			
Filter and HNO3 Preservation	N/A	LAB	8805320	LAB		8805320	LAB		8805320
Nitrate (N)	mg/L	0.401	8805081	0.380	0.0020	8805081	0.613	0.0020	8805081
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00101	8810355	0.00105	0.00050	8810355	0.00095	0.00050	8810355
Fluoride (F)	mg/L	0.051	8808183	0.078	0.010	8808183	0.088	0.010	8808183
Dissolved Organic Carbon (C)	mg/L	6.47	8810689	5.84	0.50	8810689	5.22	0.50	8810689
Alkalinity (Total as CaCO3)	mg/L	54.3	8807298	139	0.50	8807425	269	0.50	8807425
Total Organic Carbon (C)	mg/L	7.60	8810670	6.45	0.50	8810667	6.83	0.50	8810667
Alkalinity (PP as CaCO3)	mg/L	<0.50	8807298	<0.50	0.50	8807425	4.97	0.50	8807425
Bicarbonate (HCO3)	mg/L	66.2	8807298	170	0.50	8807425	316	0.50	8807425
Carbonate (CO3)	mg/L	<0.50	8807298	<0.50	0.50	8807425	5.96	0.50	8807425
Hydroxide (OH)	mg/L	<0.50	8807298	<0.50	0.50	8807425	<0.50	0.50	8807425
Anions	-		•		•	-	•	•	-
Dissolved Sulphate (SO4)	mg/L	72.6	8808236	138	0.50	8808236	191	0.50	8808250
Dissolved Chloride (CI)	mg/L	<0.50	8808228	0.79	0.50	8808228	0.77	0.50	8808242
Nutrients									
Total Ammonia (N)	mg/L	0.025	8808094	<0.020	0.020	8808094	0.040	0.020	8808091
Nitrate plus Nitrite (N)	mg/L	0.401	8808487	0.380	0.0020	8808490	0.613	0.0020	8808490
Nitrite (N)	mg/L	<0.0020	8808489	<0.0020	0.0020	8808493	<0.0020	0.0020	8808493
Physical Properties	•								
Conductivity	uS/cm	278	8807416	539	1.0	8807424	852	1.0	8807424
рН	рН	7.87	8807415	8.21		8807420	8.41		8807420
Physical Properties									
Total Suspended Solids	mg/L	<1.0	8806592	<1.0	1.0	8806592	42.1 (1)	1.1	8806592
Total Dissolved Solids	mg/L	170	8806573	352	10	8806573	574	10	8806545
RDL = Reportable Detection Limit	t								
(1) RDL raised due to limited initi	al sampl	e amount.							

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6078	SH6078		SH6079		SH6080		
Sampling Date		2017/10/20	2017/10/20		2017/10/19		2017/10/20		
Sampling Date		13:10	13:10		14:00		15:40		
COC Number		538344-02-01	538344-02-01		538344-02-01		538344-02-01		
	UNITS	CC-D	CC-D Lab-Dup	QC Batch	HC-2.5	QC Batch	HC-5.0	RDL	QC Batch
Parameter									
ORP	mV	290		8807920	288	8807920	290		8807920
Calculated Parameters	•								
Filter and HNO3 Preservation	N/A	LAB		8805320	LAB	8805320	LAB		8805320
Nitrate (N)	mg/L	0.700		8805081	0.651	8805081	0.494	0.0020	8805081
Misc. Inorganics	•		•			-		•	-
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00088		8810355	0.00111	8810355	0.00076	0.00050	8813885
Fluoride (F)	mg/L	0.080		8808183	0.060	8808183	0.079	0.010	8808371
Dissolved Organic Carbon (C)	mg/L	3.00		8813820	6.97	8810689	8.54	0.50	8810692
Alkalinity (Total as CaCO3)	mg/L	269		8807298	82.9	8807298	77.2	0.50	8807425
Total Organic Carbon (C)	mg/L	3.29		8813837	7.60	8810667	9.22	0.50	8810670
Alkalinity (PP as CaCO3)	mg/L	<0.50		8807298	<0.50	8807298	<0.50	0.50	8807425
Bicarbonate (HCO3)	mg/L	328		8807298	101	8807298	94.2	0.50	8807425
Carbonate (CO3)	mg/L	<0.50		8807298	<0.50	8807298	<0.50	0.50	8807425
Hydroxide (OH)	mg/L	<0.50		8807298	<0.50	8807298	<0.50	0.50	8807425
Anions									
Dissolved Sulphate (SO4)	mg/L	179	178	8808236	39.5	8808236	48.0	0.50	8808236
Dissolved Chloride (CI)	mg/L	0.78	0.78	8808228	0.63	8808228	1.1	0.50	8808228
Nutrients									
Total Ammonia (N)	mg/L	<0.020	<0.020	8808091	0.038	8808094	0.033	0.020	8808094
Nitrate plus Nitrite (N)	mg/L	0.700		8808487	0.651	8808487	0.494	0.0020	8808490
Nitrite (N)	mg/L	<0.0020		8808489	<0.0020	8808489	<0.0020	0.0020	8808493
Physical Properties									
Conductivity	uS/cm	820		8807416	258	8807416	263	1.0	8807424
рН	рН	8.30		8807415	8.03	8807415	8.05		8807420
Physical Properties									
Total Suspended Solids	mg/L	4.6		8806592	<1.0	8806592	<1.0	1.0	8806592
Total Dissolved Solids	mg/L	536		8806573	168	8806545	172	10	8806573
RDL = Reportable Detection Limit	t								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

h									
Maxxam ID		SH6080		SH6081	SH6081		SH6082		
Sampling Date		2017/10/20		2017/10/20	2017/10/20		2017/10/20		
Sampling Bate		15:40		16:35	16:35		15:15		
COC Number		538344-02-01		538344-02-01	538344-02-01		538344-02-01		
	UNITS	HC-5.0 Lab-Dup	QC Batch	HC-A	HC-A Lab-Dup	QC Batch	НС-В	RDL	QC Batch
Parameter									
ORP	mV		8807920	291		8807920	292		8807920
Calculated Parameters	•		•			•			•
Filter and HNO3 Preservation	N/A		8805320	LAB		8805320	LAB		8805320
Nitrate (N)	mg/L		8805081	0.508		8805081	0.547	0.0020	8805081
Misc. Inorganics	•		•		•	•		•	•
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00084	8813885	0.00085		8813885	0.00081	0.00050	8813885
Fluoride (F)	mg/L		8808371	0.062	0.060	8808371	0.058	0.010	8808371
Dissolved Organic Carbon (C)	mg/L		8810692	7.82		8810692	9.00	0.50	8810689
Alkalinity (Total as CaCO3)	mg/L		8807425	76.0		8807425	80.7	0.50	8807425
Total Organic Carbon (C)	mg/L		8810670	8.75		8810667	8.39	0.50	8810670
Alkalinity (PP as CaCO3)	mg/L		8807425	<0.50		8807425	<0.50	0.50	8807425
Bicarbonate (HCO3)	mg/L		8807425	92.7		8807425	98.5	0.50	8807425
Carbonate (CO3)	mg/L		8807425	<0.50		8807425	<0.50	0.50	8807425
Hydroxide (OH)	mg/L		8807425	<0.50		8807425	<0.50	0.50	8807425
Anions	•		•			•			•
Dissolved Sulphate (SO4)	mg/L		8808236	49.4		8808250	48.5	0.50	8808250
Dissolved Chloride (Cl)	mg/L		8808228	0.92		8808242	0.94	0.50	8808242
Nutrients	•		•			•			•
Total Ammonia (N)	mg/L		8808094	<0.020		8808091	<0.020	0.020	8808094
Nitrate plus Nitrite (N)	mg/L		8808490	0.508		8808490	0.547	0.0020	8808490
Nitrite (N)	mg/L		8808493	<0.0020		8808493	<0.0020	0.0020	8808493
Physical Properties	•		•			•			•
Conductivity	uS/cm		8807424	264		8807424	266	1.0	8807424
рН	рН		8807420	8.05		8807420	8.08		8807420
Physical Properties	•	•	•	•	•	•	•	•	
Total Suspended Solids	mg/L		8806592	<1.0		8806592	<1.0	1.0	8806592
Total Dissolved Solids	mg/L		8806573	162		8806573	166	10	8806573
RDL = Reportable Detection Limit	t	•	•	•	•	•	•	•	
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

T							
Maxxam ID		SH6083		SH6084		SH6084	
Sampling Date		2017/10/20		2017/10/21		2017/10/21	
Sampling Date		14:50		12:25		12:25	
COC Number		538344-02-01		538344-02-01		538344-02-01	
	UNITS	HC-C	QC Batch	IC-0.5	RDL	IC-0.5 Lab-Dup	QC Batch
Parameter							
ORP	mV	292	8807920	292		293	8807920
Calculated Parameters	· ·	•		•		1	Į.
Filter and HNO3 Preservation	N/A	LAB	8805320	LAB			8805320
Nitrate (N)	mg/L	0.571	8805081	0.661	0.0020		8805081
Misc. Inorganics			!			-	!
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00087	8813885	0.00090	0.00050		8813885
Fluoride (F)	mg/L	0.058	8808371	0.098	0.010		8808371
Dissolved Organic Carbon (C)	mg/L	5.22	8806958	7.79	0.50		8806958
Alkalinity (Total as CaCO3)	mg/L	82.1	8807425	46.3	0.50		8807298
Total Organic Carbon (C)	mg/L	6.91	8806960	9.57	0.50		8806960
Alkalinity (PP as CaCO3)	mg/L	<0.50	8807425	<0.50	0.50		8807298
Bicarbonate (HCO3)	mg/L	100	8807425	56.5	0.50		8807298
Carbonate (CO3)	mg/L	<0.50	8807425	<0.50	0.50		8807298
Hydroxide (OH)	mg/L	<0.50	8807425	<0.50	0.50		8807298
Anions		•		•			
Dissolved Sulphate (SO4)	mg/L	50.3	8808250	89.5	0.50		8808236
Dissolved Chloride (CI)	mg/L	0.82	8808242	0.87	0.50		8808228
Nutrients		•		•			
Total Ammonia (N)	mg/L	<0.020	8808088	0.032	0.020		8808088
Nitrate plus Nitrite (N)	mg/L	0.571	8808490	0.661	0.0020		8808490
Nitrite (N)	mg/L	<0.0020	8808493	<0.0020	0.0020		8808493
Physical Properties	•		•				•
Conductivity	uS/cm	277	8807424	299	1.0		8807416
рН	рН	8.06	8807420	7.82			8807415
Physical Properties							
Total Suspended Solids	mg/L	<1.0	8806592	<1.0	1.0		8806592
Total Dissolved Solids	mg/L	160	8806573	184	10		8806573
RDL = Reportable Detection Limit	t						
Lab-Dup = Laboratory Initiated D	uplicate						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6085	SH6085		SH6086	SH6086		
Sampling Date		2017/10/21	2017/10/21		2017/10/21	2017/10/21		
Sampling Date		12:10	12:10		12:55	12:55		
COC Number		538344-02-01	538344-02-01		538344-02-01	538344-02-01		
	UNITS	IC-1.5	IC-1.5 Lab-Dup	QC Batch	IC-2.5	IC-2.5 Lab-Dup	RDL	QC Batch
Parameter								
ORP	mV	293		8807920	293			8807920
Calculated Parameters				•				•
Filter and HNO3 Preservation	N/A	LAB		8805320	LAB			8805320
Nitrate (N)	mg/L	0.476		8805081	0.357		0.0020	8805081
Misc. Inorganics	•		•	•	•	•	•	
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00091		8813885	0.00102		0.00050	8813885
Fluoride (F)	mg/L	0.061		8808371	0.047		0.010	8808371
Dissolved Organic Carbon (C)	mg/L	6.30		8806958	7.98	8.85	0.50	8806959
Alkalinity (Total as CaCO3)	mg/L	57.9	59.9	8807425	16.8		0.50	8807298
Total Organic Carbon (C)	mg/L	8.64		8806960	9.79		0.50	8806960
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	8807425	<0.50		0.50	8807298
Bicarbonate (HCO3)	mg/L	70.7	73.1	8807425	20.5		0.50	8807298
Carbonate (CO3)	mg/L	<0.50	<0.50	8807425	<0.50		0.50	8807298
Hydroxide (OH)	mg/L	<0.50	<0.50	8807425	<0.50		0.50	8807298
Anions			•		•			•
Dissolved Sulphate (SO4)	mg/L	23.6		8808236	1.69		0.50	8808236
Dissolved Chloride (CI)	mg/L	0.78		8808228	0.52		0.50	8808228
Nutrients			•		•			•
Total Ammonia (N)	mg/L	0.037		8808088	<0.020		0.020	8808088
Nitrate plus Nitrite (N)	mg/L	0.476		8808490	0.357		0.0020	8808487
Nitrite (N)	mg/L	<0.0020		8808493	<0.0020		0.0020	8808489
Physical Properties			•		•			•
Conductivity	uS/cm	169	168	8807424	49.6		1.0	8807416
рН	рН	7.92	7.96	8807420	7.42			8807415
Physical Properties		•	•	•	•	•	•	
Total Suspended Solids	mg/L	<1.0		8806592	<1.0		1.0	8806592
Total Dissolved Solids	mg/L	100		8806573	44		10	8806587
RDL = Reportable Detection Limit	t							
Lab-Dup = Laboratory Initiated D	uplicate							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SH6087	SH6087			SH6088		
Sampling Date		2017/10/21	2017/10/21			2017/10/21		
		13:15	13:15			13:40		
COC Number		538344-03-01	538344-03-01			538344-03-01		
	UNITS	IC-3.0	IC-3.0 Lab-Dup	RDL	QC Batch	IC-4.5	RDL	QC Batch
Parameter								
ORP	mV	295			8807920	295		8807920
Calculated Parameters	•			•				
Filter and HNO3 Preservation	N/A	LAB			8805320	LAB		8805320
Nitrate (N)	mg/L	0.902		0.0020	8805081	0.465	0.0020	8805081
Misc. Inorganics	•				•			
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00096		0.00050	8813885	0.00094	0.00050	8813885
Fluoride (F)	mg/L	0.065		0.010	8808371	0.069	0.010	8808371
Dissolved Organic Carbon (C)	mg/L	8.71		0.50	8810692	7.49	0.50	8818954
Alkalinity (Total as CaCO3)	mg/L	67.4		0.50	8807425	49.3	0.50	8807298
Total Organic Carbon (C)	mg/L	10.0		0.50	8810670	7.71	0.50	8818956
Alkalinity (PP as CaCO3)	mg/L	<0.50		0.50	8807425	<0.50	0.50	8807298
Bicarbonate (HCO3)	mg/L	82.2		0.50	8807425	60.1	0.50	8807298
Carbonate (CO3)	mg/L	<0.50		0.50	8807425	<0.50	0.50	8807298
Hydroxide (OH)	mg/L	<0.50		0.50	8807425	<0.50	0.50	8807298
Anions		1	•		Į.	1		
Dissolved Sulphate (SO4)	mg/L	61.4		0.50	8808250	43.3	0.50	8808236
Dissolved Chloride (CI)	mg/L	0.68		0.50	8808242	0.88	0.50	8808228
Nutrients	•							
Total Ammonia (N)	mg/L	<0.020	<0.020	0.020	8808094	<0.020	0.020	8808088
Nitrate plus Nitrite (N)	mg/L	0.902		0.0020	8808490	0.465	0.0020	8808490
Nitrite (N)	mg/L	<0.0020		0.0020	8808493	<0.0020	0.0020	8808493
Physical Properties			•					
Conductivity	uS/cm	279		1.0	8807424	206	1.0	8807416
рН	рН	7.99			8807420	7.86		8807415
Physical Properties	•							
Total Suspended Solids	mg/L	<1.1 (1)		1.1	8806592	<1.0	1.0	8806592
Total Dissolved Solids	mg/L	168		10	8806587	118	10	8806587
RDL = Reportable Detection Limit	t	ı		1	ı	ı		
Lab-Dup = Laboratory Initiated D	unlicate							

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6089		SH6090	SH6090		SH6091		
Sampling Date		2017/10/21		2017/10/21	2017/10/21		2017/10/21		
Sampling Date		09:35		10:30	10:30		11:00		
COC Number		538344-03-01		538344-03-01	538344-03-01		538344-03-01		
	UNITS	ML-1.0 (YT-24)	QC Batch	ML-A	ML-A Lab-Dup	QC Batch	ML-B	RDL	QC Batch
Parameter									
ORP	mV	295	8807920	295		8807920	294		8807920
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	8805320	LAB		8805320	LAB		8805320
Nitrate (N)	mg/L	1.02	8805081	0.817		8805081	1.31	0.0020	8805081
Misc. Inorganics									
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00104	8813885	0.00109		8813885	0.00068	0.00050	8813885
Fluoride (F)	mg/L	0.079	8808371	0.070		8808371	0.043	0.010	8808371
Dissolved Organic Carbon (C)	mg/L	9.13	8810689	9.04		8810692	7.81	0.50	8806958
Alkalinity (Total as CaCO3)	mg/L	62.1	8807298	84.2		8807425	38.6	0.50	8807425
Total Organic Carbon (C)	mg/L	8.56	8810667	9.00		8810667	9.80	0.50	8806960
Alkalinity (PP as CaCO3)	mg/L	<0.50	8807298	<0.50		8807425	<0.50	0.50	8807425
Bicarbonate (HCO3)	mg/L	75.7	8807298	103		8807425	47.1	0.50	8807425
Carbonate (CO3)	mg/L	<0.50	8807298	<0.50		8807425	<0.50	0.50	8807425
Hydroxide (OH)	mg/L	<0.50	8807298	<0.50		8807425	<0.50	0.50	8807425
Anions									
Dissolved Sulphate (SO4)	mg/L	90.4	8808236	114	114	8808250	31.0	0.50	8808250
Dissolved Chloride (CI)	mg/L	1.7	8808228	1.3	1.2	8808242	1.1	0.50	8808242
Nutrients									
Total Ammonia (N)	mg/L	0.044	8808094	<0.020		8808094	0.026	0.020	8808088
Nitrate plus Nitrite (N)	mg/L	1.02	8808490	0.817		8808490	1.31	0.0020	8808495
Nitrite (N)	mg/L	<0.0020	8808493	<0.0020		8808493	0.0027	0.0020	8808497
Physical Properties									
Conductivity	uS/cm	330	8807416	417		8807424	164	1.0	8807424
рН	рН	7.93	8807415	8.06		8807420	7.71		8807420
Physical Properties									
Total Suspended Solids	mg/L	<1.0	8806592	<1.0		8806592	39.3	1.0	8806592
Total Dissolved Solids	mg/L	202	8806587	258		8806587	102	10	8806587
RDL = Reportable Detection Limit									
Lab-Dup = Laboratory Initiated Do	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

			_	_		_			_
Maxxam ID		SH6091			SH6092		SH6093		
Sampling Date		2017/10/21			2017/10/21		2017/10/20		
Sampling Date		11:00			11:25		10:35		
COC Number		538344-03-01			538344-03-01		538344-03-01		
	UNITS	ML-B Lab-Dup	RDL	QC Batch	ML-C (YUK-24-2)	QC Batch	YUK-2.0	RDL	QC Batch
Parameter									
ORP	mV			8807920	295	8807920	297		8807920
Calculated Parameters	•	•	•			•		•	
Filter and HNO3 Preservation	N/A			8805320	LAB	8805320	LAB		8805320
Nitrate (N)	mg/L		0.0020	8805081	1.97	8805081	0.0316	0.0020	8805081
Misc. Inorganics					•				•
Weak Acid Dissoc. Cyanide (CN)	mg/L		0.00050	8813885	0.00107	8813885	0.00092	0.00050	8813885
Fluoride (F)	mg/L		0.010	8808371	0.038	8808371	0.120	0.010	8808371
Dissolved Organic Carbon (C)	mg/L		0.50	8806958	7.94	8806958	<0.50	0.50	8806958
Alkalinity (Total as CaCO3)	mg/L		0.50	8807425	20.3	8807425	79.0	0.50	8807425
Total Organic Carbon (C)	mg/L		0.50	8806960	7.64	8806957	2.30	0.50	8806960
Alkalinity (PP as CaCO3)	mg/L		0.50	8807425	<0.50	8807425	<0.50	0.50	8807425
Bicarbonate (HCO3)	mg/L		0.50	8807425	24.8	8807425	96.4	0.50	8807425
Carbonate (CO3)	mg/L		0.50	8807425	<0.50	8807425	<0.50	0.50	8807425
Hydroxide (OH)	mg/L		0.50	8807425	<0.50	8807425	<0.50	0.50	8807425
Anions	•			-					•
Dissolved Sulphate (SO4)	mg/L		0.50	8808250	4.96	8808250	27.9	0.50	8808250
Dissolved Chloride (CI)	mg/L		0.50	8808242	1.1	8808242	0.63	0.50	8808242
Nutrients	•	•		-	•	•		•	•
Total Ammonia (N)	mg/L		0.020	8808088	<0.020	8808087	0.024	0.020	8808088
Nitrate plus Nitrite (N)	mg/L	1.30	0.0020	8808495	1.97	8808490	0.0351	0.0020	8808495
Nitrite (N)	mg/L	0.0020	0.0020	8808497	<0.0020	8808493	0.0035	0.0020	8808497
Physical Properties					•				•
Conductivity	uS/cm		1.0	8807424	76.0	8807424	214	1.0	8807424
рН	рН		ĺ	8807420	7.48	8807420	8.10		8807420
Physical Properties	*	•	•	•	•	•		•	•
Total Suspended Solids	mg/L		1.0	8806592	24.3 (1)	8806592	5.2 (1)	1.1	8806592
Total Dissolved Solids	mg/L	110	10	8806587	48	8806587	124	10	8806573
RDI - Reportable Detection Limit									

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6094		SH6094		SH6095		
Sampling Date		2017/10/21		2017/10/21		2017/10/20		
		14:25		14:25		10:15		
COC Number		538344-03-01		538344-03-01		538344-03-01		
	UNITS	YUK-5.0	RDL	YUK-5.0 Lab-Dup	QC Batch	BALLARAT U/S Y.R.	RDL	QC Batch
Parameter								
ORP	mV	297		297	8807920	283		8807920
Calculated Parameters					'		•	•
Filter and HNO3 Preservation	N/A	LAB			8805320	LAB		8805320
Nitrate (N)	mg/L	0.0372	0.0020		8805081	0.159	0.0020	8805081
Misc. Inorganics	•						•	!
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00099	0.00050		8813885	0.00099	0.00050	8813885
Fluoride (F)	mg/L	0.110	0.010		8808371	0.180	0.010	8808371
Dissolved Organic Carbon (C)	mg/L	0.58	0.50		8806959	7.66	0.50	8810692
Alkalinity (Total as CaCO3)	mg/L	77.3	0.50		8807425	147	0.50	8809055
Total Organic Carbon (C)	mg/L	1.32	0.50		8806957	7.99	0.50	8810670
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50		8807425	<0.50	0.50	8809055
Bicarbonate (HCO3)	mg/L	94.3	0.50		8807425	180	0.50	8809055
Carbonate (CO3)	mg/L	<0.50	0.50		8807425	<0.50	0.50	8809055
Hydroxide (OH)	mg/L	<0.50	0.50		8807425	<0.50	0.50	8809055
Anions	•		-				•	•
Dissolved Sulphate (SO4)	mg/L	26.9	0.50		8808250	164	0.50	8809740
Dissolved Chloride (Cl)	mg/L	0.58	0.50		8808242	1.2	0.50	8809732
Nutrients	•		-				•	•
Total Ammonia (N)	mg/L	<0.020	0.020		8808087	0.020	0.020	8809201
Nitrate plus Nitrite (N)	mg/L	0.0372	0.0020		8808490	0.159	0.0020	8809772
Nitrite (N)	mg/L	<0.0020	0.0020		8808493	<0.0020	0.0020	8809779
Physical Properties	•		-				•	•
Conductivity	uS/cm	210	1.0		8807424	593	1.0	8809052
рН	рН	8.10			8807420	8.19		8809049
Physical Properties	-	•	-	•	· '		-	
Total Suspended Solids	mg/L	3.3	1.0		8806589	<1.0	1.0	8807358
Total Dissolved Solids	mg/L	98	10		8806587	392	10	8808639
RDL = Reportable Detection Limit	t		-		'			
Lab-Dup = Laboratory Initiated D	uplicate							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6096			SH6097		
Sampling Date		2017/10/21			2017/10/21		
Jamping Bate		15:55			15:00		
COC Number		538344-03-01			538344-04-01		
	UNITS	BARKER U/S S.R.	RDL	QC Batch	BLACKHILLS U/S S.R.	RDL	QC Batch
Parameter							
ORP	mV	299		8807920	298		8807920
Calculated Parameters						•	
Filter and HNO3 Preservation	N/A	LAB		8805320	LAB		8805320
Nitrate (N)	mg/L	0.339	0.0020	8805081	0.170	0.0020	8805081
Misc. Inorganics	•		•	•		•	
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00128	0.00050	8813885	0.00127	0.00050	8813885
Fluoride (F)	mg/L	0.120	0.010	8808371	0.140	0.010	8808371
Dissolved Organic Carbon (C)	mg/L	9.45	0.50	8806958	10.4	0.50	8806959
Alkalinity (Total as CaCO3)	mg/L	133	0.50	8807425	129	0.50	8807425
Total Organic Carbon (C)	mg/L	9.05	0.50	8806957	10.7	0.50	8806960
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8807425	<0.50	0.50	8807425
Bicarbonate (HCO3)	mg/L	162	0.50	8807425	157	0.50	8807425
Carbonate (CO3)	mg/L	<0.50	0.50	8807425	<0.50	0.50	8807425
Hydroxide (OH)	mg/L	<0.50	0.50	8807425	<0.50	0.50	8807425
Anions							
Dissolved Sulphate (SO4)	mg/L	89.0	0.50	8808250	82.0	0.50	8808250
Dissolved Chloride (CI)	mg/L	2.6	0.50	8808242	2.0	0.50	8808242
Nutrients							
Total Ammonia (N)	mg/L	0.040	0.020	8808087	0.063	0.020	8808088
Nitrate plus Nitrite (N)	mg/L	0.341	0.0020	8808490	0.172	0.0020	8808490
Nitrite (N)	mg/L	0.0024	0.0020	8808493	0.0025	0.0020	8808493
Physical Properties							
Conductivity	uS/cm	441	1.0	8807424	421	1.0	8807424
рН	рН	8.21		8807420	8.21		8807420
Physical Properties							
Total Suspended Solids	mg/L	5.1 (1)	1.1	8807358	3.9	1.0	8807358
Total Dissolved Solids	mg/L	270	10	8806587	250	10	8806587
RDL = Reportable Detection Limit	t						
(1) RDL raised due to limited initi	al sample	e amount.					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6098		SH6099		SH6100		
Sampling Date		2017/10/21		2017/10/21		2017/10/20		
		15:20		15:45		11:00		
COC Number		538344-04-01		538344-04-01		538344-04-01		
	UNITS	MAISYMAY U/S S.R.	QC Batch	STEWART D/S M.M.	QC Batch	сс-х	RDL	QC Batch
Parameter								
ORP	mV	298	8807920	297	8807920	284		8807920
Calculated Parameters			•		•			•
Filter and HNO3 Preservation	N/A	LAB	8805320	LAB	8805320	LAB		8805320
Nitrate (N)	mg/L	0.143	8805081	0.114	8805081	0.370	0.0020	8805081
Misc. Inorganics			•		•	•		
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00105	8813885	0.00091	8813885	0.00092	0.00050	8813887
Fluoride (F)	mg/L	0.160	8808371	0.100	8808371	0.070	0.010	8808548
Dissolved Organic Carbon (C)	mg/L	5.25	8806958	2.11	8810689	8.97	0.50	8810692
Alkalinity (Total as CaCO3)	mg/L	176	8807425	118	8807298	58.8	0.50	8809055
Total Organic Carbon (C)	mg/L	8.36	8806957	2.17	8810667	8.56	0.50	8810670
Alkalinity (PP as CaCO3)	mg/L	<0.50	8807425	<0.50	8807298	<0.50	0.50	8809055
Bicarbonate (HCO3)	mg/L	215	8807425	143	8807298	71.7	0.50	8809055
Carbonate (CO3)	mg/L	<0.50	8807425	<0.50	8807298	<0.50	0.50	8809055
Hydroxide (OH)	mg/L	<0.50	8807425	<0.50	8807298	<0.50	0.50	8809055
Anions								
Dissolved Sulphate (SO4)	mg/L	145	8808250	105	8808236	63.6	0.50	8809740
Dissolved Chloride (CI)	mg/L	1.6	8808242	0.84	8808228	0.85	0.50	8809732
Nutrients					•			•
Total Ammonia (N)	mg/L	0.047	8808087	0.033	8808094	<0.020	0.020	8809198
Nitrate plus Nitrite (N)	mg/L	0.149	8808490	0.117	8808487	0.370	0.0020	8809772
Nitrite (N)	mg/L	0.0061	8808493	0.0029	8808489	<0.0020	0.0020	8809779
Physical Properties					•			•
Conductivity	uS/cm	625	8807424	435	8807416	256	1.0	8809052
рН	рН	8.28	8807420	8.20	8807415	7.88		8809049
Physical Properties								
Total Suspended Solids	mg/L	11.0	8807358	8.7	8807358	<1.0	1.0	8807358
Total Dissolved Solids	mg/L	398	8806587	252	8806587	168	10	8808639
RDL = Reportable Detection Limit	t				•	-	•	•



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6100		SH6101	SH6101		SH6102		
Sampling Date		2017/10/20 11:00		2017/10/19 16:00	2017/10/19 16:00				
COC Number		538344-04-01		538344-04-01	538344-04-01		538344-05-01		
	UNITS	CC-X Lab-Dup	QC Batch	LATTE MIX	LATTE MIX Lab-Dup	QC Batch	SAMPLE C	RDL	QC Batch
Parameter	· ·	<u> </u>	· · · · · · · · · · · · · · · · · · ·	<u> </u>		<u> </u>	<u> </u>	<u>-</u>	<u> </u>
ORP	mV		8807920	297		8807920	299		8807920
Calculated Parameters									
Filter and HNO3 Preservation	N/A		8805320	LAB		8805320	LAB		8805320
Nitrate (N)	mg/L		8805081	0.422		8805081	0.114	0.0020	8805081
Misc. Inorganics	!								
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00088	8813887	0.00102		8813887	0.00084	0.00050	8813887
Fluoride (F)	mg/L		8808548	0.085	0.084	8808548	0.100	0.010	8808548
Dissolved Organic Carbon (C)	mg/L		8810692	9.09		8810689	2.17	0.50	8810689
Alkalinity (Total as CaCO3)	mg/L		8809055	63.6		8807298	117	0.50	8807298
Total Organic Carbon (C)	mg/L		8810670	9.25		8810667	2.05	0.50	8810667
Alkalinity (PP as CaCO3)	mg/L		8809055	<0.50		8807298	<0.50	0.50	8807298
Bicarbonate (HCO3)	mg/L		8809055	77.6		8807298	143	0.50	8807298
Carbonate (CO3)	mg/L		8809055	<0.50		8807298	<0.50	0.50	8807298
Hydroxide (OH)	mg/L		8809055	<0.50		8807298	<0.50	0.50	8807298
Anions									
Dissolved Sulphate (SO4)	mg/L		8809740	70.4		8808236	106	0.50	8808236
Dissolved Chloride (CI)	mg/L		8809732	1.1		8808228	0.69	0.50	8808228
Nutrients									
Total Ammonia (N)	mg/L		8809198	<0.020		8808091	0.027	0.020	8808094
Nitrate plus Nitrite (N)	mg/L		8809772	0.422		8808490	0.116	0.0020	8808487
Nitrite (N)	mg/L		8809779	<0.0020		8808493	0.0020	0.0020	8808489
Physical Properties									
Conductivity	uS/cm		8809052	285		8807416	435	1.0	8807416
рН	рН		8809049	7.95		8807415	8.19		8807415
Physical Properties									
Total Suspended Solids	mg/L		8807358	<1.0		8807358	8.6	1.0	8807358
Total Dissolved Solids	mg/L		8808639	184		8806545	246	10	8806587
RDL = Reportable Detection Limit									
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SH6102			SH6103			SH6104		
Sampling Date					2017/10/19 19:30					
COC Number		538344-05-01			538344-05-01			538344-05-01		
	UNITS	SAMPLE C Lab-Dup	RDL	QC Batch	FIELD BLANK	RDL	QC Batch	TRIP BLANK	RDL	QC Batch
Parameter		·	<u> </u>		<u> </u>	<u> </u>			·	
ORP	mV			8807920	294		8807920	296		8807920
Calculated Parameters	*				•	,				
Filter and HNO3 Preservation	N/A			8805320	LAB		8805320			8805320
Nitrate (N)	mg/L		0.0020	8805081	<0.0020	0.0020	8805081	<0.0020	0.0020	8805081
Misc. Inorganics	•									
Weak Acid Dissoc. Cyanide (CN)	mg/L		0.00050	8813887	0.00060	0.00050	8813887	0.00087	0.00050	8813887
Fluoride (F)	mg/L		0.010	8808548	<0.010	0.010	8808548	<0.010	0.010	8808548
Dissolved Organic Carbon (C)	mg/L		0.50	8810689	<0.50	0.50	8810689	1.50	0.50	8810689
Alkalinity (Total as CaCO3)	mg/L		0.50	8807298	0.63	0.50	8807298	<0.50	0.50	8806793
Total Organic Carbon (C)	mg/L	1.89	0.50	8810667	<0.50	0.50	8810667	0.64	0.50	8810667
Alkalinity (PP as CaCO3)	mg/L		0.50	8807298	<0.50	0.50	8807298	<0.50	0.50	8806793
Bicarbonate (HCO3)	mg/L		0.50	8807298	0.77	0.50	8807298	<0.50	0.50	8806793
Carbonate (CO3)	mg/L		0.50	8807298	<0.50	0.50	8807298	<0.50	0.50	8806793
Hydroxide (OH)	mg/L		0.50	8807298	<0.50	0.50	8807298	<0.50	0.50	8806793
Anions	•				•					
Dissolved Sulphate (SO4)	mg/L		0.50	8808236	<0.50	0.50	8808236	0.67	0.50	8808408
Dissolved Chloride (CI)	mg/L		0.50	8808228	<0.50	0.50	8808228	0.57	0.50	8808405
Nutrients	•		•	-	•	•	-			
Total Ammonia (N)	mg/L		0.020	8808094	<0.020	0.020	8808094	<0.020	0.020	8808091
Nitrate plus Nitrite (N)	mg/L		0.0020	8808487	<0.0020	0.0020	8808487	<0.0020	0.0020	8808495
Nitrite (N)	mg/L		0.0020	8808489	<0.0020	0.0020	8808489	<0.0020	0.0020	8808497
Physical Properties										
Conductivity	uS/cm		1.0	8807416	1.2	1.0	8807416	<1.0	1.0	8806789
рН	рН			8807415	5.51		8807415	5.37		8806751
Physical Properties										
Total Suspended Solids	mg/L		1.0	8807358	<1.1 (1)	1.1	8807358	<1.0	1.0	8807358
Total Dissolved Solids	mg/L		10	8806587	<10	10	8806545	<10	10	8808639
					1			1		

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH7906	SH7906		SH7907		
Sampling Date							
COC Number		538344-04-01	538344-04-01		538344-04-01		
	UNITS	SAMPLE A	SAMPLE A Lab-Dup	QC Batch	SAMPLE B	RDL	QC Batch
Parameter							
ORP	mV	286		8807920	288		8807920
Calculated Parameters		1	•		1		
Filter and HNO3 Preservation	N/A	LAB		8805320	LAB		8805320
Nitrate (N)	mg/L	0.390		8806893	0.508	0.0020	8806893
Misc. Inorganics	·	•	•		•		
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00119		8813887	0.00142	0.00050	8813887
Fluoride (F)	mg/L	0.067		8808548	0.076	0.010	8808548
Dissolved Organic Carbon (C)	mg/L	8.53	8.51	8810692	8.69	0.50	8810692
Alkalinity (Total as CaCO3)	mg/L	59.4		8809055	79.0	0.50	8809055
Total Organic Carbon (C)	mg/L	8.46		8810670	9.12	0.50	8810677
Alkalinity (PP as CaCO3)	mg/L	<0.50		8809055	<0.50	0.50	8809055
Bicarbonate (HCO3)	mg/L	72.5		8809055	96.4	0.50	8809055
Carbonate (CO3)	mg/L	<0.50		8809055	<0.50	0.50	8809055
Hydroxide (OH)	mg/L	<0.50		8809055	<0.50	0.50	8809055
Anions		!	!	!	!		
Dissolved Sulphate (SO4)	mg/L	65.4		8809740	49.0	0.50	8809740
Dissolved Chloride (CI)	mg/L	1.1		8809732	1.1	0.50	8809732
Nutrients		I.			I.		
Total Ammonia (N)	mg/L	<0.020		8809200	<0.020	0.020	8809201
Nitrate plus Nitrite (N)	mg/L	0.390		8809770	0.508	0.0020	8809770
Nitrite (N)	mg/L	<0.0020		8809771	<0.0020	0.0020	8809771
Physical Properties							
Conductivity	uS/cm	258		8809052	258	1.0	8809052
рН	рН	7.90		8809049	8.00	ĺ	8809049
Physical Properties	•	•	•		•		
Total Suspended Solids	mg/L	<1.0		8807358	<1.0	1.0	8807358
Total Dissolved Solids	mg/L	176		8808639	172	10	8808639
RDL = Reportable Detection Limit		1			1	1	
Lab-Dup = Laboratory Initiated D							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SH6067		SH6068	SH6068	SH6069	SH6070		
		2017/10/20		2017/10/19	2017/10/19	2017/10/19	2017/10/20		
Sampling Date		11:50		14:50	14:50	15:20	12:10		
COC Number		538344-01-01		538344-01-01	538344-01-01	538344-01-01	538344-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.0	CC-1.0 Lab-Dup	CC-1.5	CC-3.5	RDL	QC Batch
Misc. Inorganics	•	•	·	•		<u> </u>	<u> </u>		<u> </u>
Dissolved Hardness (CaCO3)	mg/L	120	8804813	492		256	202	0.50	8804813
Elements		1	Į.	1					
Dissolved Mercury (Hg)	ug/L	0.0021	8812262	<0.0020		0.0024	0.0024	0.0020	8812262
Dissolved Metals by ICPMS		·	·	·					
Dissolved Aluminum (AI)	ug/L	27.4	8806580	6.59	6.33	25.0	19.7	0.50	8806576
Dissolved Antimony (Sb)	ug/L	0.101	8806580	0.142	0.143	0.109	0.081	0.020	8806576
Dissolved Arsenic (As)	ug/L	0.332	8806580	1.03	1.03	0.559	0.247	0.020	8806576
Dissolved Barium (Ba)	ug/L	53.4	8806580	98.5	98.8	55.6	71.5	0.020	8806576
Dissolved Beryllium (Be)	ug/L	<0.010	8806580	<0.010	<0.010	0.011	<0.010	0.010	8806576
Dissolved Bismuth (Bi)	ug/L	<0.0050	8806580	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806576
Dissolved Boron (B)	ug/L	<10	8806580	<10	<10	<10	<10	10	8806576
Dissolved Cadmium (Cd)	ug/L	0.0075	8806580	<0.0050	<0.0050	0.0060	0.0066	0.0050	8806576
Dissolved Chromium (Cr)	ug/L	0.20	8806580	<0.10	<0.10	0.17	0.13	0.10	8806576
Dissolved Cobalt (Co)	ug/L	0.0460	8806580	0.0178	0.0191	0.0262	0.0252	0.0050	8806576
Dissolved Copper (Cu)	ug/L	1.50	8806580	0.596	0.589	1.09	0.909	0.050	8806576
Dissolved Iron (Fe)	ug/L	28.4	8806580	2.6	2.6	11.3	6.9	1.0	8806576
Dissolved Lead (Pb)	ug/L	<0.0050	8806580	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806576
Dissolved Lithium (Li)	ug/L	1.54	8806580	5.43	5.40	2.11	0.54	0.50	8806576
Dissolved Manganese (Mn)	ug/L	14.7	8806580	0.224	0.217	4.64	0.325	0.050	8806576
Dissolved Molybdenum (Mo)	ug/L	0.764	8806580	0.322	0.329	0.262	0.346	0.050	8806576
Dissolved Nickel (Ni)	ug/L	0.810	8806580	0.385	0.418	0.400	0.422	0.020	8806576
Dissolved Phosphorus (P)	ug/L	3.3	8806580	2.7	2.7	3.2	2.8	2.0	8806576
Dissolved Selenium (Se)	ug/L	0.096	8806580	0.378	0.414	0.109	0.066	0.040	8806576
Dissolved Silicon (Si)	ug/L	5180	8806580	5480	5570	5590	4530	50	8806576
Dissolved Silver (Ag)	ug/L	<0.0050	8806580	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806576
Dissolved Strontium (Sr)	ug/L	148	8806580	1160	1180	479	336	0.050	8806576
Dissolved Thallium (TI)	ug/L	0.0032	8806580	0.0041	0.0038	0.0027	<0.0020	0.0020	8806576
Dissolved Tin (Sn)	ug/L	<0.20	8806580	<0.20	<0.20	<0.20	<0.20	0.20	8806576
Dissolved Titanium (Ti)	ug/L	<0.50	8806580	<0.50	<0.50	<0.50	<0.50	0.50	8806576
Dissolved Uranium (U)	ug/L	10.0	8806580	32.6	32.4	13.7	12.5	0.0020	8806576
RDI = Reportable Detection Lie	mit								

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SH6067		SH6068	SH6068	SH6069	SH6070		
Sampling Date		2017/10/20		2017/10/19	2017/10/19	2017/10/19	2017/10/20		
Sampling Date		11:50		14:50	14:50	15:20	12:10		
COC Number		538344-01-01		538344-01-01	538344-01-01	538344-01-01	538344-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.0	CC-1.0 Lab-Dup	CC-1.5	CC-3.5	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.25	8806580	<0.20	<0.20	<0.20	<0.20	0.20	8806576
Dissolved Zinc (Zn)	ug/L	0.39	8806580	0.18	0.16	0.34	0.21	0.10	8806576
Dissolved Zirconium (Zr)	ug/L	0.28	8806580	<0.10	<0.10	0.32	0.31	0.10	8806576
Dissolved Calcium (Ca)	mg/L	29.5	8805096	122		67.7	53.8	0.050	8805096
Dissolved Magnesium (Mg)	mg/L	11.2	8805096	45.7		21.2	16.3	0.050	8805096
Dissolved Potassium (K)	mg/L	1.32	8805096	5.90		3.66	2.54	0.050	8805096
Dissolved Sodium (Na)	mg/L	5.16	8805096	5.43		5.13	4.70	0.050	8805096
Dissolved Sulphur (S)	mg/L	23.4	8805096	67.9		42.9	33.2	3.0	8805096

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6071	SH6072	SH6073	SH6074		SH6075		
		2017/10/19	2017/10/20	2017/10/20	2017/10/20		2017/10/20		
Sampling Date		16:35	13:30	14:10	13:50		14:25		
COC Number		538344-01-01	538344-01-01	538344-01-01	538344-01-01		538344-01-01		
	UNITS	CC-4.5	CC-5.0	CC-5.5	CC-6.0	QC Batch	CC-A	RDL	QC Batch
Misc. Inorganics	•				•	-			
Dissolved Hardness (CaCO3)	mg/L	120	15.4	10.8	13.9	8804813	130	0.50	8805971
Elements					•				
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0038	0.0036	0.0037	8812262	0.0035	0.0020	8812262
Dissolved Metals by ICPMS					•				L.
Dissolved Aluminum (AI)	ug/L	26.4	93.5	137	103	8806576	36.6	0.50	8806576
Dissolved Antimony (Sb)	ug/L	0.085	0.073	0.106	0.061	8806576	0.092	0.020	8806576
Dissolved Arsenic (As)	ug/L	0.271	0.460	0.339	0.403	8806576	0.307	0.020	8806576
Dissolved Barium (Ba)	ug/L	60.8	12.1	12.6	11.8	8806576	34.6	0.020	8806576
Dissolved Beryllium (Be)	ug/L	0.010	0.021	0.023	0.016	8806576	0.014	0.010	8806576
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8806576	<0.0050	0.0050	8806576
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	8806576	<10	10	8806576
Dissolved Cadmium (Cd)	ug/L	0.0083	0.0146	0.0129	0.0074	8806576	<0.0050	0.0050	8806576
Dissolved Chromium (Cr)	ug/L	0.18	0.41	0.51	0.42	8806576	0.20	0.10	8806576
Dissolved Cobalt (Co)	ug/L	0.0344	0.206	0.0462	0.123	8806576	0.0304	0.0050	8806576
Dissolved Copper (Cu)	ug/L	1.32	1.15	1.22	1.05	8806576	1.28	0.050	8806576
Dissolved Iron (Fe)	ug/L	16.1	187	86.3	149	8806576	16.7	1.0	8806576
Dissolved Lead (Pb)	ug/L	<0.0050	0.0086	0.0095	0.0050	8806576	<0.0050	0.0050	8806576
Dissolved Lithium (Li)	ug/L	0.63	<0.50	<0.50	<0.50	8806576	1.46	0.50	8806576
Dissolved Manganese (Mn)	ug/L	6.75	111	7.81	66.5	8806576	3.62	0.050	8806576
Dissolved Molybdenum (Mo)	ug/L	0.683	0.052	<0.050	<0.050	8806576	0.131	0.050	8806576
Dissolved Nickel (Ni)	ug/L	0.654	0.825	0.704	0.746	8806576	0.401	0.020	8806576
Dissolved Phosphorus (P)	ug/L	3.1	5.5	5.3	5.9	8806576	3.7	2.0	8806576
Dissolved Selenium (Se)	ug/L	0.068	<0.040	<0.040	<0.040	8806576	0.049	0.040	8806576
Dissolved Silicon (Si)	ug/L	4900	6300	6920	6680	8806576	5910	50	8806576
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8806576	<0.0050	0.0050	8806576
Dissolved Strontium (Sr)	ug/L	153	19.8	15.8	18.7	8806576	222	0.050	8806576
Dissolved Thallium (TI)	ug/L	0.0020	0.0021	<0.0020	<0.0020	8806576	0.0031	0.0020	8806576
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	8806576	<0.20	0.20	8806576
Dissolved Titanium (Ti)	ug/L	<0.50	0.58	0.70	0.51	8806576	<0.50	0.50	8806576
Dissolved Uranium (U)	ug/L	5.18	0.293	0.408	0.324	8806576	4.05	0.0020	8806576
Dissolved Vanadium (V)	ug/L	<0.20	<0.20	<0.20	<0.20	8806576	<0.20	0.20	8806576
RDL = Reportable Detection Lir	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6071	SH6072	SH6073	SH6074		SH6075		·
Sampling Date		2017/10/19	2017/10/20	2017/10/20	2017/10/20		2017/10/20		
Sampling Date		16:35	13:30	14:10	13:50		14:25		
COC Number		538344-01-01	538344-01-01	538344-01-01	538344-01-01		538344-01-01		
	UNITS	CC-4.5	CC-5.0	CC-5.5	CC-6.0	QC Batch	CC-A	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.40	1.11	1.53	0.76	8806576	0.27	0.10	8806576
Dissolved Zirconium (Zr)	ug/L	0.29	0.69	0.81	0.70	8806576	0.42	0.10	8806576
Dissolved Calcium (Ca)	mg/L	30.5	4.09	2.88	3.72	8805096	36.2	0.050	8805096
Dissolved Magnesium (Mg)	mg/L	10.8	1.25	0.888	1.11	8805096	9.54	0.050	8805096
Dissolved Potassium (K)	mg/L	1.43	0.143	0.059	0.105	8805096	1.86	0.050	8805096
Dissolved Sodium (Na)	mg/L	4.62	1.31	1.06	1.17	8805096	4.14	0.050	8805096
Dissolved Sulphur (S)	mg/L	21.4	<3.0	<3.0	<3.0	8805096	23.9	3.0	8805096
RDL = Reportable Detection Li	mit					•			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SH6076	SH6077	SH6078		SH6079	SH6079		
Committee Date		2017/10/20	2017/10/19	2017/10/20		2017/10/19	2017/10/19		
Sampling Date		12:35	17:25	13:10		14:00	14:00		
COC Number		538344-01-01	538344-02-01	538344-02-01		538344-02-01	538344-02-01		
	UNITS	СС-В	CC-C	CC-D	QC Batch	HC-2.5	HC-2.5 Lab-Dup	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	287	497	475	8805971	131		0.50	8805971
Elements	,				•				
Dissolved Mercury (Hg)	ug/L	0.0021	<0.0020	<0.0020	8812262	0.0044	0.0025	0.0020	8812611
Dissolved Metals by ICPMS	,				•				
Dissolved Aluminum (Al)	ug/L	24.1	7.54	4.95	8806576	39.6		0.50	8806576
Dissolved Antimony (Sb)	ug/L	0.108	0.147	0.159	8806576	0.511		0.020	8806576
Dissolved Arsenic (As)	ug/L	0.536	1.08	0.523	8806576	0.843		0.020	8806576
Dissolved Barium (Ba)	ug/L	65.0	101	94.6	8806576	40.8		0.020	8806576
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	8806576	0.015		0.010	8806576
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	8806576	<0.0050		0.0050	8806576
Dissolved Boron (B)	ug/L	<10	<10	<10	8806576	<10		10	8806576
Dissolved Cadmium (Cd)	ug/L	<0.0050	<0.0050	<0.0050	8806576	<0.0050		0.0050	8806576
Dissolved Chromium (Cr)	ug/L	0.15	<0.10	<0.10	8806576	0.24		0.10	8806576
Dissolved Cobalt (Co)	ug/L	0.0275	0.0185	0.0205	8806576	0.0306		0.0050	8806576
Dissolved Copper (Cu)	ug/L	0.933	0.586	0.514	8806576	1.05		0.050	8806576
Dissolved Iron (Fe)	ug/L	9.5	2.8	2.4	8806576	16.8		1.0	8806576
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	8806576	0.0083		0.0050	8806576
Dissolved Lithium (Li)	ug/L	1.62	5.47	5.24	8806576	1.25		0.50	8806576
Dissolved Manganese (Mn)	ug/L	1.91	0.217	4.11	8806576	2.91		0.050	8806576
Dissolved Molybdenum (Mo)	ug/L	0.465	0.342	0.300	8806576	1.53		0.050	8806576
Dissolved Nickel (Ni)	ug/L	0.314	0.435	0.432	8806576	0.446		0.020	8806576
Dissolved Phosphorus (P)	ug/L	3.3	3.0	2.9	8806576	4.0		2.0	8806576
Dissolved Selenium (Se)	ug/L	0.093	0.360	0.353	8806576	0.057		0.040	8806576
Dissolved Silicon (Si)	ug/L	5430	5680	5640	8806576	5960		50	8806576
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	8806576	<0.0050		0.0050	8806576
Dissolved Strontium (Sr)	ug/L	608	1220	1150	8806576	326		0.050	8806576
Dissolved Thallium (TI)	ug/L	0.0022	0.0040	<0.0020	8806576	<0.0020		0.0020	8806576
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	8806576	<0.20		0.20	8806576
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	8806576	<0.50		0.50	8806576
Dissolved Uranium (U)	ug/L	19.3	31.9	33.6	8806576	35.8		0.0020	8806576
RDL = Reportable Detection Lir	nit								

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

		t		t	t				
Maxxam ID		SH6076	SH6077	SH6078		SH6079	SH6079		
Sampling Date		2017/10/20	2017/10/19	2017/10/20		2017/10/19	2017/10/19		
Sampling Date		12:35	17:25	13:10		14:00	14:00		
COC Number		538344-01-01	538344-02-01	538344-02-01		538344-02-01	538344-02-01		
	UNITS	СС-В	CC-C	CC-D	QC Batch	HC-2.5	HC-2.5 Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	<0.20	<0.20	8806576	<0.20		0.20	8806576
Dissolved Zinc (Zn)	ug/L	0.34	0.20	0.21	8806576	0.36		0.10	8806576
Dissolved Zirconium (Zr)	ug/L	0.29	<0.10	<0.10	8806576	0.37		0.10	8806576
Dissolved Calcium (Ca)	mg/L	75.5	125	118	8805096	32.3		0.050	8805096
Dissolved Magnesium (Mg)	mg/L	24.0	45.2	43.6	8805096	12.2		0.050	8805096
Dissolved Potassium (K)	mg/L	4.55	5.76	5.48	8805096	2.15		0.050	8805096
Dissolved Sodium (Na)	mg/L	5.07	5.46	4.89	8805096	3.44		0.050	8805096
Dissolved Sulphur (S)	mg/L	48.9	70.3	63.3	8805096	14.6		3.0	8805096

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6080	SH6081	SH6082		SH6083		
Carrallia - Data		2017/10/20	2017/10/20	2017/10/20		2017/10/20		
Sampling Date		15:40	16:35	15:15		14:50		
COC Number		538344-02-01	538344-02-01	538344-02-01		538344-02-01		
	UNITS	HC-5.0	HC-A	НС-В	QC Batch	нс-с	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	131	130	134	8805971	139	0.50	8805971
Elements			·				ı	
Dissolved Mercury (Hg)	ug/L	0.0022	0.0021	0.0023	8812611	0.0025	0.0020	8812611
Dissolved Metals by ICPMS			1				l.	Į.
Dissolved Aluminum (Al)	ug/L	21.6	24.3	24.2	8806576	22.9	0.50	8806576
Dissolved Antimony (Sb)	ug/L	0.195	0.254	0.294	8806576	0.337	0.020	8806576
Dissolved Arsenic (As)	ug/L	0.482	0.533	0.676	8806576	0.647	0.020	8806576
Dissolved Barium (Ba)	ug/L	48.1	51.6	42.1	8806576	43.0	0.020	8806576
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	0.011	8806576	0.011	0.010	8806576
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	8806576	<0.0050	0.0050	8806576
Dissolved Boron (B)	ug/L	<10	<10	<10	8806576	<10	10	8806576
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0197	<0.0050	8806576	<0.0050	0.0050	8806576
Dissolved Chromium (Cr)	ug/L	0.21	0.23	0.21	8806576	0.18	0.10	8806576
Dissolved Cobalt (Co)	ug/L	0.0356	0.0326	0.0305	8806576	0.0319	0.0050	8806576
Dissolved Copper (Cu)	ug/L	1.36	1.38	1.02	8806576	1.02	0.050	8806576
Dissolved Iron (Fe)	ug/L	10.1	10.8	12.1	8806576	10.0	1.0	8806576
Dissolved Lead (Pb)	ug/L	< 0.0050	0.0120	<0.0050	8806576	<0.0050	0.0050	8806576
Dissolved Lithium (Li)	ug/L	0.90	0.74	0.90	8806576	1.09	0.50	8806576
Dissolved Manganese (Mn)	ug/L	0.164	0.308	1.55	8806576	6.31	0.050	8806576
Dissolved Molybdenum (Mo)	ug/L	0.625	0.683	0.847	8806576	0.924	0.050	8806576
Dissolved Nickel (Ni)	ug/L	0.638	0.526	0.416	8806576	0.415	0.020	8806576
Dissolved Phosphorus (P)	ug/L	3.5	4.1	4.2	8806576	4.2	2.0	8806576
Dissolved Selenium (Se)	ug/L	0.064	0.042	<0.040	8806576	<0.040	0.040	8806576
Dissolved Silicon (Si)	ug/L	5010	5100	5370	8806576	5400	50	8806576
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	8806576	<0.0050	0.0050	8806576
Dissolved Strontium (Sr)	ug/L	258	285	291	8806576	301	0.050	8806576
Dissolved Thallium (TI)	ug/L	0.0023	<0.0020	<0.0020	8806576	<0.0020	0.0020	8806576
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	8806576	<0.20	0.20	8806576
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	8806576	<0.50	0.50	8806576
Dissolved Uranium (U)	ug/L	12.4	16.1	25.5	8806576	27.5	0.0020	8806576
Dissolved Vanadium (V)	ug/L	<0.20	<0.20	<0.20	8806576	<0.20	0.20	8806576
RDL = Reportable Detection Li	mit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6080	SH6081	SH6082		SH6083			
Sampling Date		2017/10/20	2017/10/20	2017/10/20		2017/10/20			
Sampling Date		15:40	16:35	15:15		14:50			
COC Number		538344-02-01	538344-02-01	538344-02-01		538344-02-01			
	UNITS	HC-5.0	HC-A	НС-В	QC Batch	нс-с	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	0.19	2.11	0.19	8806576	0.68	0.10	8816333	
Dissolved Zirconium (Zr)	ug/L	0.33	0.36	0.33	8806576	0.33	0.10	8806576	
Dissolved Calcium (Ca)	mg/L	34.5	33.4	33.6	8805096	34.7	0.050	8805096	
Dissolved Magnesium (Mg)	mg/L	10.8	11.2	12.2	8805096	12.8	0.050	8805096	
Dissolved Potassium (K)	mg/L	2.37	2.39	1.77	8805096	1.80	0.050	8805096	
Dissolved Sodium (Na)	mg/L	3.79	3.82	3.85	8805096	3.89	0.050	8805096	
Dissolved Sulphur (S)	mg/L	17.1	17.5	17.7	8805096	17.5	3.0	8805096	
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampling Date  COC Number  UNITS  Misc. Inorganics  Dissolved Hardness (CaCO3) mg/L  Elements  Dissolved Mercury (Hg) ug/L  Dissolved Aluminum (Al) ug/L  Dissolved Antimony (Sb) ug/L  Dissolved Barium (Ba) ug/L  Dissolved Beryllium (Be) ug/L  Dissolved Bismuth (Bi) ug/L  Dissolved Cadmium (Cd) ug/L  Dissolved Copper (Cu) ug/L  Dissolved Iron (Fe) ug/L  Dissolved Lead (Pb) ug/L  Dissolved Manganese (Mn) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Nickel (Ni) ug/L	2017/10/21 12:25 538344-02-01 IC-0.5 145 0.0029 53.8 0.093 0.441 34.3 0.012 <0.0050 <10 0.0216 0.30 0.0454	2017/10/21 12:10 538344-02-01 IC-1.5 79.0 0.0035 37.7 0.110 0.206 33.5 0.010 <0.0050 <10 <0.0050 0.22 0.0245	2017/10/21 12:55 538344-02-01 IC-2.5 24.1 0.0034 102 0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8805971 8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576 8806576	2017/10/21 13:15 538344-03-01 IC-3.0 134 0.0026 26.5 0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.50 0.0020 0.0020 0.020 0.020 0.010 0.0050 10 0.0050 0.10	8805971 8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576						
Misc. Inorganics Dissolved Hardness (CaCO3) mg/L Elements Dissolved Mercury (Hg) ug/L Dissolved Metals by ICPMS Dissolved Aluminum (Al) ug/L Dissolved Antimony (Sb) ug/L Dissolved Barium (Ba) ug/L Dissolved Beryllium (Be) ug/L Dissolved Beryllium (Be) ug/L Dissolved Boron (B) ug/L Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Miscel (Ni) ug/L	12:25 538344-02-01 IC-0.5  145  0.0029  53.8 0.093 0.441 34.3 0.012 <0.0050 <10 0.0216 0.30 0.0454	12:10 538344-02-01 IC-1.5 79.0 0.0035 37.7 0.110 0.206 33.5 0.010 <0.0050 <10 <0.0050 0.22	12:55 538344-02-01 IC-2.5  24.1  0.0034  102 0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8805971 8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576	134  0.0026  26.5  0.327  0.800  47.5  0.013  <0.0050  <10  <0.0050	0.50 0.0020 0.50 0.020 0.020 0.020 0.010 0.0050 10	8805971 8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576						
Misc. Inorganics  Dissolved Hardness (CaCO3) mg/L  Elements  Dissolved Mercury (Hg) ug/L  Dissolved Metals by ICPMS  Dissolved Aluminum (Al) ug/L  Dissolved Antimony (Sb) ug/L  Dissolved Barium (Ba) ug/L  Dissolved Beryllium (Be) ug/L  Dissolved Beryllium (Be) ug/L  Dissolved Boron (B) ug/L  Dissolved Cadmium (Cd) ug/L  Dissolved Chromium (Cr) ug/L  Dissolved Cobalt (Co) ug/L  Dissolved Copper (Cu) ug/L  Dissolved Lead (Pb) ug/L  Dissolved Manganese (Mn) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Nickel (Ni) ug/L	145  0.0029  53.8  0.093  0.441  34.3  0.012  <0.0050  <10  0.0216  0.30  0.0454	79.0  0.0035  37.7  0.110  0.206  33.5  0.010  <0.0050  <10  <0.0050  0.22	102 0.0034 102 0.116 0.753 13.7 0.011 <0.0050 <10	8805971 8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576	134 0.0026 26.5 0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.50 0.0020 0.50 0.020 0.020 0.020 0.010 0.0050 10	8805971 8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576						
Misc. Inorganics  Dissolved Hardness (CaCO3) mg/L  Elements  Dissolved Mercury (Hg) ug/L  Dissolved Metals by ICPMS  Dissolved Antimony (Sb) ug/L  Dissolved Arsenic (As) ug/L  Dissolved Barium (Ba) ug/L  Dissolved Beryllium (Be) ug/L  Dissolved Boron (B) ug/L  Dissolved Cadmium (Cd) ug/L  Dissolved Cobalt (Co) ug/L  Dissolved Copper (Cu) ug/L  Dissolved Iron (Fe) ug/L  Dissolved Lithium (Li) ug/L  Dissolved Manganese (Mn) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Missolved (Ni) ug/L	145  0.0029  53.8  0.093  0.441  34.3  0.012  <0.0050  <10  0.0216  0.30  0.0454	79.0  0.0035  37.7  0.110  0.206  33.5  0.010  <0.0050  <10  <0.0050  0.22	24.1 0.0034 102 0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8805971 8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576	134 0.0026 26.5 0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.50 0.0020 0.50 0.020 0.020 0.020 0.010 0.0050 10	8805971 8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576						
Dissolved Hardness (CaCO3) mg/L  Elements  Dissolved Mercury (Hg) ug/L  Dissolved Metals by ICPMS  Dissolved Aluminum (Al) ug/L  Dissolved Antimony (Sb) ug/L  Dissolved Arsenic (As) ug/L  Dissolved Barium (Ba) ug/L  Dissolved Beryllium (Be) ug/L  Dissolved Bismuth (Bi) ug/L  Dissolved Cadmium (Cd) ug/L  Dissolved Cobalt (Co) ug/L  Dissolved Copper (Cu) ug/L  Dissolved Iron (Fe) ug/L  Dissolved Lead (Pb) ug/L  Dissolved Manganese (Mn) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Missolved (Ni) ug/L	0.0029  53.8  0.093  0.441  34.3  0.012  <0.0050  <10  0.0216  0.30  0.0454	0.0035  37.7  0.110  0.206  33.5  0.010  <0.0050  <10  <0.0050  0.22	0.0034 102 0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576	0.0026  26.5 0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.0020 0.50 0.020 0.020 0.020 0.010 0.0050 10	8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576						
Elements  Dissolved Mercury (Hg) ug/L  Dissolved Metals by ICPMS  Dissolved Aluminum (Al) ug/L  Dissolved Antimony (Sb) ug/L  Dissolved Arsenic (As) ug/L  Dissolved Barium (Ba) ug/L  Dissolved Beryllium (Be) ug/L  Dissolved Bismuth (Bi) ug/L  Dissolved Boron (B) ug/L  Dissolved Cadmium (Cd) ug/L  Dissolved Chromium (Cr) ug/L  Dissolved Copper (Cu) ug/L  Dissolved Iron (Fe) ug/L  Dissolved Lead (Pb) ug/L  Dissolved Manganese (Mn) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Missolved (Ni) ug/L	0.0029  53.8  0.093  0.441  34.3  0.012  <0.0050  <10  0.0216  0.30  0.0454	0.0035  37.7  0.110  0.206  33.5  0.010  <0.0050  <10  <0.0050  0.22	0.0034 102 0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576	0.0026  26.5 0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.0020 0.50 0.020 0.020 0.020 0.010 0.0050 10	8812611 8806576 8806576 8806576 8806576 8806576 8806576 8806576						
Dissolved Mercury (Hg) ug/L  Dissolved Metals by ICPMS  Dissolved Aluminum (Al) ug/L  Dissolved Antimony (Sb) ug/L  Dissolved Arsenic (As) ug/L  Dissolved Barium (Ba) ug/L  Dissolved Beryllium (Be) ug/L  Dissolved Bismuth (Bi) ug/L  Dissolved Boron (B) ug/L  Dissolved Cadmium (Cd) ug/L  Dissolved Chromium (Cr) ug/L  Dissolved Cobalt (Co) ug/L  Dissolved Copper (Cu) ug/L  Dissolved Iron (Fe) ug/L  Dissolved Lead (Pb) ug/L  Dissolved Manganese (Mn) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Molybdenum (Mo) ug/L	53.8 0.093 0.441 34.3 0.012 <0.0050 <10 0.0216 0.30 0.0454	37.7 0.110 0.206 33.5 0.010 <0.0050 <10 <0.0050 0.22	102 0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8806576 8806576 8806576 8806576 8806576 8806576 8806576	26.5 0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.50 0.020 0.020 0.020 0.010 0.0050 10	8806576 8806576 8806576 8806576 8806576 8806576 8806576						
Dissolved Metals by ICPMS  Dissolved Aluminum (AI) ug/L  Dissolved Antimony (Sb) ug/L  Dissolved Arsenic (As) ug/L  Dissolved Barium (Ba) ug/L  Dissolved Beryllium (Be) ug/L  Dissolved Bismuth (Bi) ug/L  Dissolved Boron (B) ug/L  Dissolved Cadmium (Cd) ug/L  Dissolved Chromium (Cr) ug/L  Dissolved Copper (Cu) ug/L  Dissolved Iron (Fe) ug/L  Dissolved Lead (Pb) ug/L  Dissolved Manganese (Mn) ug/L  Dissolved Molybdenum (Mo) ug/L  Dissolved Molybdenum (Mo) ug/L	53.8 0.093 0.441 34.3 0.012 <0.0050 <10 0.0216 0.30 0.0454	37.7 0.110 0.206 33.5 0.010 <0.0050 <10 <0.0050 0.22	102 0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8806576 8806576 8806576 8806576 8806576 8806576 8806576	26.5 0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.50 0.020 0.020 0.020 0.010 0.0050 10	8806576 8806576 8806576 8806576 8806576 8806576 8806576						
Dissolved Aluminum (AI) ug/L Dissolved Antimony (Sb) ug/L Dissolved Arsenic (As) ug/L Dissolved Barium (Ba) ug/L Dissolved Beryllium (Be) ug/L Dissolved Bismuth (Bi) ug/L Dissolved Boron (B) ug/L Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Mickel (Ni) ug/L	0.093 0.441 34.3 0.012 <0.0050 <10 0.0216 0.30 0.0454	0.110 0.206 33.5 0.010 <0.0050 <10 <0.0050 0.22	0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8806576 8806576 8806576 8806576 8806576 8806576	0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.020 0.020 0.020 0.010 0.0050 10	8806576 8806576 8806576 8806576 8806576 8806576						
Dissolved Antimony (Sb) ug/L Dissolved Arsenic (As) ug/L Dissolved Barium (Ba) ug/L Dissolved Beryllium (Be) ug/L Dissolved Bismuth (Bi) ug/L Dissolved Boron (B) ug/L Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	0.093 0.441 34.3 0.012 <0.0050 <10 0.0216 0.30 0.0454	0.110 0.206 33.5 0.010 <0.0050 <10 <0.0050 0.22	0.116 0.753 13.7 0.011 <0.0050 <10 <0.0050	8806576 8806576 8806576 8806576 8806576 8806576	0.327 0.800 47.5 0.013 <0.0050 <10 <0.0050	0.020 0.020 0.020 0.010 0.0050 10	8806576 8806576 8806576 8806576 8806576 8806576						
Dissolved Arsenic (As) ug/L Dissolved Barium (Ba) ug/L Dissolved Beryllium (Be) ug/L Dissolved Bismuth (Bi) ug/L Dissolved Boron (B) ug/L Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Mickel (Ni) ug/L	0.441 34.3 0.012 <0.0050 <10 0.0216 0.30 0.0454	0.206 33.5 0.010 <0.0050 <10 <0.0050 0.22	0.753 13.7 0.011 <0.0050 <10 <0.0050	8806576 8806576 8806576 8806576 8806576	0.800 47.5 0.013 <0.0050 <10 <0.0050	0.020 0.020 0.010 0.0050 10 0.0050	8806576 8806576 8806576 8806576 8806576						
Dissolved Barium (Ba) ug/L Dissolved Beryllium (Be) ug/L Dissolved Bismuth (Bi) ug/L Dissolved Boron (B) ug/L Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	34.3 0.012 <0.0050 <10 0.0216 0.30 0.0454	33.5 0.010 <0.0050 <10 <0.0050 0.22	13.7 0.011 <0.0050 <10 <0.0050	8806576 8806576 8806576 8806576 8806576	47.5 0.013 <0.0050 <10 <0.0050	0.020 0.010 0.0050 10 0.0050	8806576 8806576 8806576 8806576 8806576						
Dissolved Beryllium (Be) ug/L Dissolved Bismuth (Bi) ug/L Dissolved Boron (B) ug/L Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	0.012 <0.0050 <10 0.0216 0.30 0.0454	0.010 <0.0050 <10 <0.0050 0.22	0.011 <0.0050 <10 <0.0050	8806576 8806576 8806576 8806576	0.013 <0.0050 <10 <0.0050	0.010 0.0050 10 0.0050	8806576 8806576 8806576 8806576						
Dissolved Bismuth (Bi) ug/L Dissolved Boron (B) ug/L Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	<0.0050 <10 0.0216 0.30 0.0454	<0.0050 <10 <0.0050 0.22	<0.0050 <10 <0.0050	8806576 8806576 8806576	<0.0050 <10 <0.0050	0.0050 10 0.0050	8806576 8806576 8806576						
Dissolved Boron (B) ug/L Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	<10 0.0216 0.30 0.0454	<10 <0.0050 0.22	<10 <0.0050	8806576 8806576	<10 <0.0050	10 0.0050	8806576 8806576						
Dissolved Cadmium (Cd) ug/L Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	0.0216 0.30 0.0454	<0.0050 0.22	<0.0050	8806576	<0.0050	0.0050	8806576						
Dissolved Chromium (Cr) ug/L Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	0.30 0.0454	0.22											
Dissolved Cobalt (Co) ug/L Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	0.0454		0.47	8806576	0.21	0.10	0000576						
Dissolved Copper (Cu) ug/L Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L		0.0245			0.21	0.10	8806576						
Dissolved Iron (Fe) ug/L Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L		0.0243	0.0455	8806576	0.0389	0.0050	8806576						
Dissolved Lead (Pb) ug/L Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	2.04	1.17	1.28	8806576	1.34	0.050	8806576						
Dissolved Lithium (Li) ug/L Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	31.1	16.8	214	8806576	12.1	1.0	8806576						
Dissolved Manganese (Mn) ug/L Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	<0.0050	<0.0050	0.0093	8806576	<0.0050	0.0050	8806576						
Dissolved Molybdenum (Mo) ug/L Dissolved Nickel (Ni) ug/L	2.59	3.15	0.66	8806576	<0.50	0.50	8806576						
Dissolved Nickel (Ni) ug/L	5.79	0.715	1.45	8806576	3.42	0.050	8816333						
	0.404	0.302	0.101	8806576	0.396	0.050	8806576						
51 1 151 1 (5)	1.79	0.543	0.775	8806576	0.578	0.020	8806576						
Dissolved Phosphorus (P) ug/L	4.0	3.5	5.0	8806576	4.2	2.0	8806576						
Dissolved Selenium (Se) ug/L	0.229	<0.040	0.045	8806576	0.049	0.040	8806576						
Dissolved Silicon (Si) ug/L	5890	5520	6820	8806576	5050	50	8806576						
Dissolved Silver (Ag) ug/L	<0.0050	<0.0050	<0.0050	8806576	<0.0050	0.0050	8806576						
Dissolved Strontium (Sr) ug/L	101	128	29.7	8806576	206	0.050	8806576						
Dissolved Thallium (TI) ug/L	0.0035	0.0028	<0.0020	8806576	0.0028	0.0020	8806576						
Dissolved Tin (Sn) ug/L	<0.20	<0.20	<0.20	8806576	<0.20	0.20	8806576						
Dissolved Titanium (Ti) ug/L	<0.50	<0.50	1.14	8806576	<0.50	0.50	8806576						
Dissolved Uranium (U) ug/L	1.14	3.18	0.570	8806576	4.84	0.0020	8806576						
Dissolved Vanadium (V) ug/L		<0.20	0.28	8806576	<0.20	0.20	8806576						
RDL = Reportable Detection Limit	<0.20												



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6084	SH6085	SH6086		SH6087			
Sampling Date		2017/10/21	2017/10/21	2017/10/21		2017/10/21			
Sampling Date		12:25	12:10	12:55		13:15			
COC Number		538344-02-01	538344-02-01	538344-02-01		538344-03-01			
	UNITS	IC-0.5	IC-1.5	IC-2.5	QC Batch	IC-3.0	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	1.51	0.45	0.42	8806576	1.28	0.10	8816333	
Dissolved Zirconium (Zr)	ug/L	0.52	0.42	1.04	8806576	0.40	0.10	8806576	
Dissolved Calcium (Ca)	mg/L	34.0	20.9	6.46	8805972	41.5	0.050	8805972	
Dissolved Magnesium (Mg)	mg/L	14.7	6.53	1.92	8805972	7.36	0.050	8805972	
Dissolved Potassium (K)	mg/L	1.13	1.04	0.229	8805972	2.25	0.050	8805972	
Dissolved Sodium (Na)	mg/L	4.15	4.27	1.68	8805972	3.99	0.050	8805972	
Dissolved Sulphur (S)	mg/L	29.8	7.5	<3.0	8805972	20.4	3.0	8805972	
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SH6088	SH6088	SH6089	SH6090	SH6091	SH6092		
Sampling Date		2017/10/21	2017/10/21	2017/10/21	2017/10/21	2017/10/21	2017/10/21		
Jamping Date		13:40	13:40	09:35	10:30	11:00	11:25		
COC Number		538344-03-01	538344-03-01	538344-03-01	538344-03-01	538344-03-01	538344-03-01		
	UNITS	IC-4.5	IC-4.5 Lab-Dup	ML-1.0 (YT-24)	ML-A	ML-B	ML-C (YUK-24-2)	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	90.5		151	197	72.7	32.9	0.50	8805971
Elements	•							•	•
Dissolved Mercury (Hg)	ug/L	0.0026		0.0026	0.0022	0.0037	0.0068	0.0020	8812611
Dissolved Metals by ICPMS				•					
Dissolved Aluminum (AI)	ug/L	35.8	36.2	23.4	20.9	47.4	58.8	0.50	8806580
Dissolved Antimony (Sb)	ug/L	0.086	0.093	0.144	0.138	0.195	0.400	0.020	8806580
Dissolved Arsenic (As)	ug/L	0.306	0.317	0.327	0.363	0.350	1.29	0.020	8806580
Dissolved Barium (Ba)	ug/L	44.5	44.0	80.3	101	46.4	24.9	0.020	8806580
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	0.012	0.020	0.016	0.010	8806580
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806580
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	8806580
Dissolved Cadmium (Cd)	ug/L	0.0078	0.0082	0.0067	0.0057	0.0077	0.0058	0.0050	8806580
Dissolved Chromium (Cr)	ug/L	0.25	0.24	0.18	0.20	0.30	0.34	0.10	8806580
Dissolved Cobalt (Co)	ug/L	0.0333	0.0318	0.0487	0.0455	0.0505	0.0569	0.0050	8806580
Dissolved Copper (Cu)	ug/L	1.46	1.44	1.33	1.33	1.50	1.52	0.050	8806580
Dissolved Iron (Fe)	ug/L	25.0	25.1	10.8	12.1	20.3	26.5	1.0	8806580
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0061	0.0050	8806580
Dissolved Lithium (Li)	ug/L	1.12	1.13	<0.50	1.08	<0.50	<0.50	0.50	8806580
Dissolved Manganese (Mn)	ug/L	2.46	2.47	0.288	3.47	2.37	0.464	0.050	8806580
Dissolved Molybdenum (Mo)	ug/L	0.275	0.279	0.469	0.597	0.657	0.139	0.050	8806580
Dissolved Nickel (Ni)	ug/L	0.854	0.864	0.639	0.585	0.782	0.725	0.020	8806580
Dissolved Phosphorus (P)	ug/L	3.6	3.6	3.5	4.2	4.3	4.8	2.0	8806580
Dissolved Selenium (Se)	ug/L	0.063	0.051	0.053	0.044	<0.040	<0.040	0.040	8806580
Dissolved Silicon (Si)	ug/L	5100	5090	3980	4160	4490	4170	50	8806580
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806580
Dissolved Strontium (Sr)	ug/L	128	128	254	450	119	35.1	0.050	8806580
Dissolved Thallium (TI)	ug/L	0.0022	0.0026	<0.0020	<0.0020	<0.0020	0.0020	0.0020	8806580
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8806580
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	0.50	8806580
Dissolved Uranium (U)	ug/L	1.02	1.00	1.56	9.24	3.15	0.330	0.0020	8806580
						•	•	•	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SH6088	SH6088	SH6089	SH6090	SH6091	SH6092		
Sampling Date		2017/10/21	2017/10/21	2017/10/21	2017/10/21	2017/10/21	2017/10/21		
Sampling Date		13:40	13:40	09:35	10:30	11:00	11:25		
COC Number		538344-03-01	538344-03-01	538344-03-01	538344-03-01	538344-03-01	538344-03-01		
	UNITS	IC-4.5	IC-4.5 Lab-Dup	ML-1.0 (YT-24)	ML-A	ML-B	ML-C (YUK-24-2)	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.23	0.21	<0.20	<0.20	<0.20	0.25	0.20	8806580
Dissolved Zinc (Zn)	ug/L	0.46	0.41	0.23	0.27	0.35	0.30	0.10	8806580
Dissolved Zirconium (Zr)	ug/L	0.45	0.46	0.31	0.44	0.80	0.49	0.10	8806580
Dissolved Calcium (Ca)	mg/L	24.0		42.4	51.6	21.8	10.1	0.050	8805972
Dissolved Magnesium (Mg)	mg/L	7.40		10.9	16.5	4.42	1.85	0.050	8805972
Dissolved Potassium (K)	mg/L	1.19		2.16	2.56	0.901	0.589	0.050	8805972
Dissolved Sodium (Na)	mg/L	3.80		3.98	5.11	1.96	1.22	0.050	8805972
Dissolved Sulphur (S)	mg/L	15.2		30.1	38.3	10.5	<3.0	3.0	8805972

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6093	SH6094	SH6095	SH6096	SH6097		
		2017/10/20	2017/10/21	2017/10/20	2017/10/21	2017/10/21		
Sampling Date		10:35	14:25	10:15	15:55	15:00		
COC Number		538344-03-01	538344-03-01	538344-03-01	538344-03-01	538344-04-01		
	UNITS	YUK-2.0	YUK-5.0	BALLARAT U/S	BARKER U/S	BLACKHILLS U/S	RDL	QC Batch
	ONITS	10K-2.0	101-3.0	Y.R.	S.R.	S.R.	KDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	104	100	301	214	200	0.50	8805971
Elements	•						•	
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8812611
Dissolved Metals by ICPMS	•						•	
Dissolved Aluminum (AI)	ug/L	15.5	14.8	6.28	20.0	7.52	0.50	8806580
Dissolved Antimony (Sb)	ug/L	0.089	0.084	0.025	0.064	0.114	0.020	8806580
Dissolved Arsenic (As)	ug/L	0.358	0.345	0.179	0.384	0.872	0.020	8806580
Dissolved Barium (Ba)	ug/L	42.6	43.0	67.3	86.4	89.0	0.020	8806580
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8806580
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806580
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	10	8806580
Dissolved Cadmium (Cd)	ug/L	0.0272	0.0266	<0.0050	0.0193	0.0097	0.0050	8806580
Dissolved Chromium (Cr)	ug/L	<0.10	0.11	0.13	0.35	0.26	0.10	8806580
Dissolved Cobalt (Co)	ug/L	0.0104	0.0109	0.0304	0.264	0.335	0.0050	8806580
Dissolved Copper (Cu)	ug/L	0.552	0.606	1.26	1.94	1.57	0.050	8806580
Dissolved Iron (Fe)	ug/L	12.7	7.8	14.4	102	400	1.0	8806580
Dissolved Lead (Pb)	ug/L	0.0051	<0.0050	<0.0050	0.0097	0.0503	0.0050	8806580
Dissolved Lithium (Li)	ug/L	1.72	1.59	0.79	2.25	3.04	0.50	8806580
Dissolved Manganese (Mn)	ug/L	0.893	1.74	4.63	226	242	0.050	8806580
Dissolved Molybdenum (Mo)	ug/L	1.21	1.22	0.775	0.901	1.04	0.050	8806580
Dissolved Nickel (Ni)	ug/L	1.33	1.24	0.348	1.24	2.05	0.020	8806580
Dissolved Phosphorus (P)	ug/L	2.9	4.3	3.4	15.4	9.2	2.0	8806580
Dissolved Selenium (Se)	ug/L	0.312	0.303	0.134	0.178	0.220	0.040	8806580
Dissolved Silicon (Si)	ug/L	2730	2750	4350	5230	6460	50	8806580
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8806580
Dissolved Strontium (Sr)	ug/L	131	127	542	307	224	0.050	8806580
Dissolved Thallium (TI)	ug/L	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8806580
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8806580
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8806580
Dissolved Uranium (U)	ug/L	1.05	1.08	4.12	3.64	2.11	0.0020	8806580
Dissolved Vanadium (V)	ug/L	0.20	<0.20	0.30	0.58	0.95	0.20	8806580
RDL = Reportable Detection Lir	nit	-						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6093	SH6094	SH6095	SH6096	SH6097				
Sampling Date		2017/10/20 10:35	2017/10/21 14:25	2017/10/20 10:15	2017/10/21 15:55	2017/10/21 15:00				
COC Number		538344-03-01	538344-03-01	538344-03-01	538344-03-01	538344-04-01				
	UNITS	YUK-2.0	YUK-5.0	BALLARAT U/S Y.R.	BARKER U/S S.R.	BLACKHILLS U/S S.R.	RDL	QC Batch		
Dissolved Zinc (Zn)	ug/L	1.32	1.51	0.18	0.73	0.19	0.10	8806580		
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	0.12	0.32	0.37	0.10	8806580		
Dissolved Calcium (Ca)	mg/L	28.1	27.2	69.2	53.6	52.6	0.050	8805972		
Dissolved Magnesium (Mg)	mg/L	8.26	7.82	31.1	19.5	16.8	0.050	8805972		
Dissolved Potassium (K)	mg/L	0.782	0.795	3.09	2.14	2.19	0.050	8805972		
Dissolved Sodium (Na)	mg/L	2.11	2.10	8.89	9.64	7.52	0.050	8805972		
Dissolved Sulphur (S)	mg/L	9.1	8.9	55.3	29.7	27.4	3.0	8805972		
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6098		SH6099		SH6100		
Canadia a Data		2017/10/21		2017/10/21		2017/10/20		
Sampling Date		15:20		15:45		11:00		
COC Number		538344-04-01		538344-04-01		538344-04-01		
	UNITS	MAISYMAY U/S S.R.	QC Batch	STEWART D/S M.M.	QC Batch	сс-х	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	326	8805971	222	8805971	117	0.50	8805971
Elements			'		1			
Dissolved Mercury (Hg)	ug/L	0.0027	8812611	<0.0020	8812670	0.0021	0.0020	8812670
Dissolved Metals by ICPMS			'		1			
Dissolved Aluminum (AI)	ug/L	5.15	8806580	46.5	8806580	25.7	0.50	8806580
Dissolved Antimony (Sb)	ug/L	0.062	8806580	0.112	8806580	0.092	0.020	8806580
Dissolved Arsenic (As)	ug/L	0.418	8806580	0.406	8806580	0.276	0.020	8806580
Dissolved Barium (Ba)	ug/L	88.2	8806580	65.9	8806580	64.6	0.020	8806580
Dissolved Beryllium (Be)	ug/L	<0.010	8806580	<0.010	8806580	<0.010	0.010	8806580
Dissolved Bismuth (Bi)	ug/L	<0.0050	8806580	<0.0050	8806580	<0.0050	0.0050	8806580
Dissolved Boron (B)	ug/L	<10	8806580	<10	8806580	<10	10	8806580
Dissolved Cadmium (Cd)	ug/L	0.0111	8806580	0.221	8806580	0.0085	0.0050	8806580
Dissolved Chromium (Cr)	ug/L	0.15	8806580	<0.10	8806580	0.20	0.10	8806580
Dissolved Cobalt (Co)	ug/L	0.310	8806580	0.122	8806580	0.0340	0.0050	8806580
Dissolved Copper (Cu)	ug/L	1.49	8806580	0.827	8806580	1.45	0.050	8806580
Dissolved Iron (Fe)	ug/L	22.2	8806580	7.8	8806580	17.9	1.0	8806580
Dissolved Lead (Pb)	ug/L	<0.0050	8806580	0.0050	8806580	<0.0050	0.0050	8806580
Dissolved Lithium (Li)	ug/L	3.64	8806580	4.38	8806580	0.74	0.50	8806580
Dissolved Manganese (Mn)	ug/L	338	8806580	21.0	8806580	4.99	0.050	8806580
Dissolved Molybdenum (Mo)	ug/L	1.34	8806580	0.617	8806580	0.685	0.050	8806580
Dissolved Nickel (Ni)	ug/L	2.14	8806580	7.00	8806580	0.710	0.020	8806580
Dissolved Phosphorus (P)	ug/L	4.9	8806580	2.9	8806580	7.4	2.0	8806580
Dissolved Selenium (Se)	ug/L	0.344	8806580	0.724	8806580	0.055	0.040	8806580
Dissolved Silicon (Si)	ug/L	5680	8806580	2590	8806580	4670	50	8806580
Dissolved Silver (Ag)	ug/L	<0.0050	8806580	<0.0050	8806580	<0.0050	0.0050	8806580
Dissolved Strontium (Sr)	ug/L	283	8806580	249	8806580	152	0.050	8806580
Dissolved Thallium (TI)	ug/L	0.0025	8806580	0.0038	8806580	0.0025	0.0020	8806580
Dissolved Tin (Sn)	ug/L	<0.20	8806580	<0.20	8806580	<0.20	0.20	8806580
Dissolved Titanium (Ti)	ug/L	<0.50	8806580	<0.50	8806580	<0.50	0.50	8806580
Dissolved Uranium (U)	ug/L	2.95	8806580	1.28	8806580	4.84	0.0020	8806580
Dissolved Vanadium (V)	ug/L	0.52	8806580	<0.20	8806580	0.26	0.20	8806580
RDL = Reportable Detection Li	mit				•			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6098		SH6099		SH6100				
Sampling Date		2017/10/21 15:20		2017/10/21 15:45		2017/10/20 11:00				
COC Number		538344-04-01		538344-04-01		538344-04-01				
	UNITS	MAISYMAY U/S S.R.	QC Batch	STEWART D/S M.M.	QC Batch	СС-Х	RDL	QC Batch		
Dissolved Zinc (Zn)	ug/L	0.16	8806580	9.76	8806580	1.15	0.10	8816333		
Dissolved Zirconium (Zr)	ug/L	0.18	8806580	<0.10	8806580	0.28	0.10	8806580		
Dissolved Calcium (Ca)	mg/L	74.9	8805972	54.8	8805972	29.6	0.050	8805972		
Dissolved Magnesium (Mg)	mg/L	33.7	8805972	20.7	8805972	10.6	0.050	8805972		
Dissolved Potassium (K)	mg/L	3.46	8805972	0.626	8805972	1.50	0.050	8805972		
Dissolved Sodium (Na)	mg/L	7.48	8805972	2.48	8805972	4.61	0.050	8805972		
Dissolved Sulphur (S)	mg/L	49.6	8805972	33.1	8805972	21.2	3.0	8805972		
RDL = Reportable Detection Li	RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6101	SH6102	SH6103	SH6104		SH7906		
Sampling Date		2017/10/19		2017/10/19					
Jamping Date		16:00		19:30					
COC Number		538344-04-01	538344-05-01	538344-05-01	538344-05-01		538344-04-01		
	UNITS	LATTE MIX	SAMPLE C	FIELD BLANK	TRIP BLANK	QC Batch	SAMPLE A	RDL	QC Batch
Misc. Inorganics					•			*	•
Dissolved Hardness (CaCO3)	mg/L	129	227	<0.50	<0.50	8805971	120	0.50	8806340
Elements								•	
Dissolved Mercury (Hg)	ug/L	0.0025	0.0026	<0.0020	<0.0020	8812670	0.0027	0.0020	8812670
Dissolved Metals by ICPMS					•				
Dissolved Aluminum (AI)	ug/L	24.8	48.1	<0.50	<0.50	8806580	26.2	0.50	8806580
Dissolved Antimony (Sb)	ug/L	0.093	0.118	<0.020	<0.020	8806580	0.083	0.020	8806580
Dissolved Arsenic (As)	ug/L	0.329	0.419	<0.020	<0.020	8806580	0.281	0.020	8806580
Dissolved Barium (Ba)	ug/L	56.3	66.8	<0.020	<0.020	8806580	65.0	0.020	8806580
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	8806580	<0.010	0.010	8806580
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8806580	<0.0050	0.0050	8806580
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	8806580	<10	10	8806580
Dissolved Cadmium (Cd)	ug/L	0.0085	0.211	<0.0050	<0.0050	8806580	0.0067	0.0050	8806580
Dissolved Chromium (Cr)	ug/L	0.18	<0.10	<0.10	<0.10	8806580	0.19	0.10	8806580
Dissolved Cobalt (Co)	ug/L	0.0464	0.114	<0.0050	<0.0050	8806580	0.0312	0.0050	8806580
Dissolved Copper (Cu)	ug/L	1.42	0.847	<0.050	<0.050	8806580	1.38	0.050	8806580
Dissolved Iron (Fe)	ug/L	26.2	8.2	<1.0	<1.0	8806580	17.9	1.0	8806580
Dissolved Lead (Pb)	ug/L	<0.0050	0.0066	<0.0050	<0.0050	8806580	<0.0050	0.0050	8806580
Dissolved Lithium (Li)	ug/L	1.50	4.45	<0.50	<0.50	8806580	0.76	0.50	8806580
Dissolved Manganese (Mn)	ug/L	14.5	19.5	<0.050	<0.050	8806580	5.17	0.050	8806580
Dissolved Molybdenum (Mo)	ug/L	0.716	0.616	<0.050	<0.050	8806580	0.682	0.050	8806580
Dissolved Nickel (Ni)	ug/L	0.702	6.97	<0.020	<0.020	8806580	0.706	0.020	8806580
Dissolved Phosphorus (P)	ug/L	3.4	3.0	2.3	3.0	8806580	3.2	2.0	8806580
Dissolved Selenium (Se)	ug/L	0.073	0.731	<0.040	<0.040	8806580	0.086	0.040	8806580
Dissolved Silicon (Si)	ug/L	4940	2680	<50	<50	8806580	4730	50	8806580
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8806580	<0.0050	0.0050	8806580
Dissolved Strontium (Sr)	ug/L	170	250	<0.050	<0.050	8806580	156	0.050	8806580
Dissolved Thallium (TI)	ug/L	0.0035	0.0026	<0.0020	<0.0020	8806580	0.0021	0.0020	8806580
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	8806580	<0.20	0.20	8806580
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	8806580	<0.50	0.50	8806580
Dissolved Uranium (U)	ug/L	12.2	1.27	<0.0020	<0.0020	8806580	5.09	0.0020	8806580
Dissolved Vanadium (V)	ug/L	0.26	<0.20	<0.20	<0.20	8806580	0.26	0.20	8806580
RDL = Reportable Detection Lin	mit		-						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

		1	1	1	i					
Maxxam ID		SH6101	SH6102	SH6103	SH6104		SH7906			
Sampling Date		2017/10/19		2017/10/19						
Sampling Date		16:00		19:30						
COC Number		538344-04-01	538344-05-01	538344-05-01	538344-05-01		538344-04-01			
	UNITS	LATTE MIX	SAMPLE C	FIELD BLANK	TRIP BLANK	QC Batch	SAMPLE A	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	0.40	9.78	<0.10	<0.10	8806580	0.32	0.10	8806580	
Dissolved Zirconium (Zr)	ug/L	0.29	<0.10	<0.10	<0.10	8806580	0.28	0.10	8806580	
Dissolved Calcium (Ca)	mg/L	31.9	56.3	<0.050	<0.050	8805972	30.0	0.050	8806341	
Dissolved Magnesium (Mg)	mg/L	12.0	21.0	<0.050	<0.050	8805972	10.9	0.050	8806341	
Dissolved Potassium (K)	mg/L	1.49	0.628	<0.050	<0.050	8805972	1.52	0.050	8806341	
Dissolved Sodium (Na)	mg/L	5.26	2.49	<0.050	<0.050	8805972	4.65	0.050	8806341	
Dissolved Sulphur (S)	mg/L	23.5	33.3	<3.0	<3.0	8805972	21.0	3.0	8806341	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH7907							
Sampling Date									
COC Number		538344-04-01							
	UNITS	SAMPLE B	RDL	QC Batch					
Misc. Inorganics	•								
Dissolved Hardness (CaCO3)	mg/L	123	0.50	8806340					
Elements									
Dissolved Mercury (Hg)	ug/L	0.0026	0.0020	8812670					
Dissolved Metals by ICPMS			l.						
Dissolved Aluminum (Al)	ug/L	19.8	0.50	8806580					
Dissolved Antimony (Sb)	ug/L	0.202	0.020	8806580					
Dissolved Arsenic (As)	ug/L	0.501	0.020	8806580					
Dissolved Barium (Ba)	ug/L	49.1	0.020	8806580					
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8806580					
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8806580					
Dissolved Boron (B)	ug/L	<10	10	8806580					
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	8806580					
Dissolved Chromium (Cr)	ug/L	0.20	0.10	8806580					
Dissolved Cobalt (Co)	ug/L	0.0312	0.0050	8806580					
Dissolved Copper (Cu)	ug/L	1.38	0.050	8806580					
Dissolved Iron (Fe)	ug/L	9.9	1.0	8806580					
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8806580					
Dissolved Lithium (Li)	ug/L	0.96	0.50	8806580					
Dissolved Manganese (Mn)	ug/L	0.192	0.050	8806580					
Dissolved Molybdenum (Mo)	ug/L	0.608	0.050	8806580					
Dissolved Nickel (Ni)	ug/L	0.696	0.020	8806580					
Dissolved Phosphorus (P)	ug/L	6.4	2.0	8806580					
Dissolved Selenium (Se)	ug/L	0.073	0.040	8806580					
Dissolved Silicon (Si)	ug/L	4670	50	8806580					
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8806580					
Dissolved Strontium (Sr)	ug/L	250	0.050	8806580					
Dissolved Thallium (TI)	ug/L	0.0021	0.0020	8806580					
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8806580					
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8806580					
Dissolved Uranium (U)	ug/L	11.9	0.0020	8806580					
Dissolved Vanadium (V)	ug/L	0.27	0.20	8806580					
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SH7907						
Sampling Date								
COC Number		538344-04-01						
	UNITS	SAMPLE B	RDL	QC Batch				
Dissolved Zinc (Zn)	ug/L	0.18	0.10	8806580				
Dissolved Zirconium (Zr)	ug/L	0.32	0.10	8806580				
Dissolved Calcium (Ca)	mg/L	32.0	0.050	8806341				
Dissolved Magnesium (Mg)	mg/L	10.4	0.050	8806341				
Dissolved Potassium (K)	mg/L	2.28	0.050	8806341				
Dissolved Sodium (Na)	mg/L	3.58	0.050	8806341				
Dissolved Sulphur (S)	mg/L	16.5	3.0	8806341				
RDL = Reportable Detection Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6067	SH6068		SH6070		SH6076			
		2017/10/20	2017/10/19		2017/10/20		2017/10/20			
Sampling Date		11:50	14:50		12:10		12:35			
COC Number		538344-01-01	538344-01-01		538344-01-01		538344-01-01			
	UNITS	CC-0.5	CC-1.0	QC Batch	CC-3.5	QC Batch	СС-В	RDL	QC Batch	
Calculated Parameters		·	<u> </u>	· · · · · · · · · · · · · · · · · · ·		<u> </u>	·		<u> </u>	
Total Hardness (CaCO3)	mg/L	121	463	8805855	188	8805855	276	0.50	8805855	
Elements		1				•	1			
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	8812408	0.0020	8812408	<0.0020	0.0020	8813221	
Total Metals by ICPMS		1					1		Į.	
Total Aluminum (Al)	ug/L	40.3	8.38	8807644	19.3	8807644	25.8	0.50	8807644	
Total Antimony (Sb)	ug/L	0.104	0.156	8807644	0.084	8807644	0.122	0.020	8807644	
Total Arsenic (As)	ug/L	0.379	1.09	8807644	0.274	8807644	0.570	0.020	8807644	
Total Barium (Ba)	ug/L	54.6	105	8807644	75.2	8807644	68.9	0.020	8807644	
Total Beryllium (Be)	ug/L	<0.010	<0.010	8807644	<0.010	8807644	<0.010	0.010	8807644	
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	8807644	<0.0050	8807644	<0.0050	0.0050	8807644	
Total Boron (B)	ug/L	<10	<10	8807644	<10	8807644	<10	10	8807644	
Total Cadmium (Cd)	ug/L	0.0100	<0.0050	8807644	0.0050	8807644	0.0050	0.0050	8807644	
Total Chromium (Cr)	ug/L	0.22	0.10	8807644	0.12	8807644	0.16	0.10	8807644	
Total Cobalt (Co)	ug/L	0.0550	0.0200	8807644	0.0260	8807644	0.0250	0.0050	8807644	
Total Copper (Cu)	ug/L	1.54	0.640	8807644	0.966	8807644	0.992	0.050	8807644	
Total Iron (Fe)	ug/L	45.0	5.2	8807644	6.9	8807644	12.3	1.0	8807644	
Total Lead (Pb)	ug/L	0.0090	0.0060	8807644	<0.0050	8807644	0.0110	0.0050	8807644	
Total Lithium (Li)	ug/L	1.61	5.75	8807644	0.54	8807644	1.68	0.50	8807644	
Total Manganese (Mn)	ug/L	19.4	0.568	8807644	0.471	8807644	2.41	0.050	8807644	
Total Molybdenum (Mo)	ug/L	0.774	0.348	8807644	0.351	8807644	0.479	0.050	8807644	
Total Nickel (Ni)	ug/L	0.818	0.422	8807644	0.458	8807644	0.373	0.020	8807644	
Total Phosphorus (P)	ug/L	4.2	3.2	8807644	2.1	8807644	4.0	2.0	8807644	
Total Selenium (Se)	ug/L	0.096	0.360	8807644	0.075	8807644	0.087	0.040	8807644	
Total Silicon (Si)	ug/L	4840	4750	8807644	3960	8807644	4610	50	8807644	
Total Silver (Ag)	ug/L	<0.0050	<0.0050	8807644	<0.0050	8807644	<0.0050	0.0050	8807644	
Total Strontium (Sr)	ug/L	160	1320	8807644	369	8807644	655	0.050	8807644	
Total Thallium (TI)	ug/L	0.0040	0.0040	8807644	0.0020	8807644	0.0030	0.0020	8807644	
Total Tin (Sn)	ug/L	<0.20	<0.20	8807644	<0.20	8807644	<0.20	0.20	8807644	
Total Titanium (Ti)	ug/L	0.99	<0.50	8807644	<0.50	8807644	0.52	0.50	8807644	
Total Uranium (U)	ug/L	11.0	33.2	8807644	13.0	8807644	20.2	0.0020	8807644	
Total Vanadium (V)	ug/L	0.30	0.27	8807644	0.22	8807644	0.27	0.20	8807644	
RDL = Reportable Detection L	RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6067	SH6068		SH6070		SH6076			
Sampling Date		2017/10/20	2017/10/19		2017/10/20		2017/10/20			
Sampling Date		11:50	14:50		12:10		12:35			
COC Number		538344-01-01	538344-01-01		538344-01-01		538344-01-01			
	UNITS	CC-0.5	CC-1.0	QC Batch	CC-3.5	QC Batch	СС-В	RDL	QC Batch	
Total Zinc (Zn)	ug/L	1.02	0.47	8807644	0.10	8807644	0.14	0.10	8807644	
Total Zirconium (Zr)	ug/L	0.28	<0.10	8807644	0.28	8807644	0.27	0.10	8807644	
Total Calcium (Ca)	mg/L	29.1	113	8805097	50.3	8805973	72.8	0.050	8805973	
Total Magnesium (Mg)	mg/L	11.9	43.7	8805097	15.2	8805973	23.0	0.050	8805973	
Total Potassium (K)	mg/L	1.38	5.72	8805097	2.46	8805973	4.50	0.050	8805973	
Total Sodium (Na)	mg/L	5.44	5.25	8805097	4.62	8805973	5.00	0.050	8805973	
Total Sulphur (S) mg/L 23.6 69.5 8805097 32.9 8805973 46.8 3.0 8805973										
RDL = Reportable Detection L	RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6083	SH6084	SH6085	SH6087	SH6088	SH6089		
Sampling Date		2017/10/20	2017/10/21	2017/10/21	2017/10/21	2017/10/21	2017/10/21		
. 0		14:50	12:25	12:10	13:15	13:40	09:35		
COC Number		538344-02-01	538344-02-01	538344-02-01	538344-03-01	538344-03-01	538344-03-01		
	UNITS	HC-C	IC-0.5	IC-1.5	IC-3.0	IC-4.5	ML-1.0 (YT-24)	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	130	139	75.1	123	91.1	150	0.50	8805855
Elements									
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8813221
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	31.2	57.0	47.7	28.0	43.7	61.5	0.50	8807644
Total Antimony (Sb)	ug/L	0.328	0.095	0.119	0.320	0.098	0.149	0.020	8807644
Total Arsenic (As)	ug/L	0.704	0.492	0.233	0.861	0.363	0.373	0.020	8807644
Total Barium (Ba)	ug/L	44.5	36.0	36.1	40.7	45.7	83.1	0.020	8807644
Total Beryllium (Be)	ug/L	0.011	0.015	0.010	0.013	0.012	0.010	0.010	8807644
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8807644
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	8807644
Total Cadmium (Cd)	ug/L	0.0050	0.0220	0.0060	<0.0050	0.0110	0.0090	0.0050	8807644
Total Chromium (Cr)	ug/L	0.21	0.31	0.22	0.20	0.26	0.24	0.10	8807644
Total Cobalt (Co)	ug/L	0.0420	0.0520	0.0320	0.0380	0.0360	0.0740	0.0050	8807644
Total Copper (Cu)	ug/L	1.07	2.18	1.26	1.45	1.50	1.44	0.050	8807644
Total Iron (Fe)	ug/L	20.0	36.3	28.7	13.7	32.7	61.3	1.0	8807644
Total Lead (Pb)	ug/L	0.0100	0.0050	0.0140	<0.0050	0.0080	0.0470	0.0050	8807644
Total Lithium (Li)	ug/L	1.19	2.84	3.37	<0.50	1.22	0.56	0.50	8807644
Total Manganese (Mn)	ug/L	10.0	6.97	1.79	0.709	4.62	1.93	0.050	8807644
Total Molybdenum (Mo)	ug/L	0.937	0.426	0.307	0.409	0.294	0.473	0.050	8807644
Total Nickel (Ni)	ug/L	0.427	1.88	0.575	0.610	0.892	0.673	0.020	8807644
Total Phosphorus (P)	ug/L	4.3	3.9	4.5	3.7	6.1	5.5	2.0	8807644
Total Selenium (Se)	ug/L	<0.040	0.257	0.043	0.040	0.066	0.065	0.040	8807644
Total Silicon (Si)	ug/L	4660	5420	5110	4580	4470	3690	50	8807644
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8807644
Total Strontium (Sr)	ug/L	321	107	136	221	136	273	0.050	8807644
Total Thallium (TI)	ug/L	<0.0020	0.0040	0.0030	0.0020	0.0020	0.0020	0.0020	8807644
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8807644
Total Titanium (Ti)	ug/L	0.76	<0.50	0.72	<0.50	<0.50	2.56	0.50	8807644
Total Uranium (U)	ug/L	28.8	1.25	3.52	5.32	1.11	1.75	0.0020	8807644
Total Vanadium (V)	ug/L	0.26	0.32	0.29	0.26	0.27	0.33	0.20	8807644
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6083	SH6084	SH6085	SH6087	SH6088	SH6089			
Sampling Date		2017/10/20 14:50	2017/10/21 12:25	2017/10/21 12:10	2017/10/21 13:15	2017/10/21 13:40	2017/10/21 09:35			
COC Number		538344-02-01	538344-02-01	538344-02-01	538344-03-01	538344-03-01	538344-03-01			
	UNITS	нс-с	IC-0.5	IC-1.5	IC-3.0	IC-4.5	ML-1.0 (YT-24)	RDL	QC Batch	
Total Zinc (Zn)	ug/L	<0.10	1.54	0.59	<0.10	0.52	0.34	0.10	8807644	
Total Zirconium (Zr)	ug/L	0.30	0.49	0.38	0.39	0.50	0.31	0.10	8807644	
Total Calcium (Ca)	mg/L	31.8	31.6	19.5	37.0	23.7	40.9	0.050	8805973	
Total Magnesium (Mg)	mg/L	12.2	14.6	6.42	7.35	7.78	11.6	0.050	8805973	
Total Potassium (K)	mg/L	1.77	1.14	1.06	2.13	1.25	2.17	0.050	8805973	
Total Sodium (Na)	mg/L	3.84	4.18	4.34	3.86	4.03	4.25	0.050	8805973	
Total Sulphur (S) mg/L 16.7 30.5 7.6 22.2 15.9 31.2 3.0 8805973										
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SH6093	SH6093	SH6094	SH6095	SH6100		
Sampling Date		2017/10/20	2017/10/20	2017/10/21	2017/10/20	2017/10/20		
		10:35	10:35	14:25	10:15	11:00		
COC Number		538344-03-01	538344-03-01	538344-03-01	538344-03-01	538344-04-01		
	UNITS	YUK-2.0	YUK-2.0 Lab-Dup	YUK-5.0	BALLARAT U/S Y.R.	сс-х	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	102		98.9	325	114	0.50	8805855
Elements	•					•	•	
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8813222
Total Metals by ICPMS						•	•	
Total Aluminum (Al)	ug/L	142		115	10.4	49.0	0.50	8807644
Total Antimony (Sb)	ug/L	0.093		0.093	0.039	0.096	0.020	8807644
Total Arsenic (As)	ug/L	0.491		0.454	0.173	0.328	0.020	8807644
Total Barium (Ba)	ug/L	48.7		47.5	69.7	67.4	0.020	8807644
Total Beryllium (Be)	ug/L	0.011		<0.010	<0.010	<0.010	0.010	8807644
Total Bismuth (Bi)	ug/L	<0.0050		<0.0050	<0.0050	<0.0050	0.0050	8807644
Total Boron (B)	ug/L	<10		<10	<10	<10	10	8807644
Total Cadmium (Cd)	ug/L	0.0620		0.0440	<0.0050	0.0100	0.0050	8807644
Total Chromium (Cr)	ug/L	0.28		0.25	0.14	0.23	0.10	8807644
Total Cobalt (Co)	ug/L	0.156		0.106	0.0390	0.0570	0.0050	8807644
Total Copper (Cu)	ug/L	0.987		0.830	1.34	1.46	0.050	8807644
Total Iron (Fe)	ug/L	256		184	24.1	50.0	1.0	8807644
Total Lead (Pb)	ug/L	0.163		0.102	<0.0050	0.0170	0.0050	8807644
Total Lithium (Li)	ug/L	1.89		1.73	0.77	0.75	0.50	8807644
Total Manganese (Mn)	ug/L	18.3		12.0	7.47	10.8	0.050	8807644
Total Molybdenum (Mo)	ug/L	1.24		1.23	0.809	0.707	0.050	8807644
Total Nickel (Ni)	ug/L	1.99		1.65	0.355	0.700	0.020	8807644
Total Phosphorus (P)	ug/L	12.9		10.2	4.6	3.7	2.0	8807644
Total Selenium (Se)	ug/L	0.365		0.334	0.154	0.068	0.040	8807644
Total Silicon (Si)	ug/L	2860		2720	4080	4430	50	8807644
Total Silver (Ag)	ug/L	<0.0050		<0.0050	<0.0050	<0.0050	0.0050	8807644
Total Strontium (Sr)	ug/L	138		137	616	165	0.050	8807644
Total Thallium (TI)	ug/L	0.0040		0.0030	<0.0020	0.0020	0.0020	8807644
Total Tin (Sn)	ug/L	<0.20		<0.20	<0.20	<0.20	0.20	8807644
Total Titanium (Ti)	ug/L	4.21		2.79	<0.50	2.12	0.50	8807644
Total Uranium (U)	ug/L	1.17		1.21	4.52	5.53	0.0020	8807644
RDL = Reportable Detection	Limit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SH6093	SH6093	SH6094	SH6095	SH6100		
Sampling Date		2017/10/20	2017/10/20	2017/10/21	2017/10/20	2017/10/20		
Sampling Date		10:35	10:35	14:25	10:15	11:00		
COC Number		538344-03-01	538344-03-01	538344-03-01	538344-03-01	538344-04-01		
	UNITS	YUK-2.0	YUK-2.0 Lab-Dup	YUK-5.0	BALLARAT U/S Y.R.	сс-х	RDL	QC Batch
Total Vanadium (V)	ug/L	0.57		0.50	0.35	0.35	0.20	8807644
Total Zinc (Zn)	ug/L	5.09		3.64	0.12	0.52	0.10	8807644
Total Zirconium (Zr)	ug/L	<0.10		<0.10	0.12	0.27	0.10	8807644
Total Calcium (Ca)	mg/L	27.1		26.4	76.8	27.7	0.050	8805973
Total Magnesium (Mg)	mg/L	8.37		7.98	32.4	10.7	0.050	8805973
Total Potassium (K)	mg/L	0.803		0.818	3.18	1.45	0.050	8805973
Total Sodium (Na)	mg/L	2.14		2.20	9.21	4.66	0.050	8805973
Total Sulphur (S)	mg/L	9.0		8.4	57.8	21.4	3.0	8805973

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SH6103	SH6103	SH6104	SH6104		SH7906		
Sampling Date		2017/10/19 19:30	2017/10/19 19:30						
COC Number		538344-05-01	538344-05-01	538344-05-01	538344-05-01		538344-04-01		
	UNITS	FIELD BLANK	FIELD BLANK Lab-Dup	TRIP BLANK	TRIP BLANK Lab-Dup	QC Batch	SAMPLE A	RDL	QC Batch
Calculated Parameters		•	•	•	•		•		•
Total Hardness (CaCO3)	mg/L	<0.50		<0.50		8805855	118	0.50	8806308
Elements		1	1		•			l.	Į.
Total Mercury (Hg)	ug/L	<0.0020		<0.0020		8813222	<0.0020	0.0020	8813222
Total Metals by ICPMS		1	1		•			l.	Į.
Total Aluminum (AI)	ug/L	<0.50	<0.50	<0.50	<0.50	8807644	30.1	0.50	8807644
Total Antimony (Sb)	ug/L	<0.020	<0.020	<0.020	<0.020	8807644	0.089	0.020	8807644
Total Arsenic (As)	ug/L	<0.020	<0.020	<0.020	<0.020	8807644	0.293	0.020	8807644
Total Barium (Ba)	ug/L	<0.020	<0.020	<0.020	<0.020	8807644	63.2	0.020	8807644
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	8807644	<0.010	0.010	8807644
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8807644	<0.0050	0.0050	8807644
Total Boron (B)	ug/L	<10	<10	<10	<10	8807644	<10	10	8807644
Total Cadmium (Cd)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8807644	0.0080	0.0050	8807644
Total Chromium (Cr)	ug/L	<0.10	<0.10	<0.10	<0.10	8807644	0.19	0.10	8807644
Total Cobalt (Co)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8807644	0.0390	0.0050	8807644
Total Copper (Cu)	ug/L	<0.050	<0.050	<0.050	<0.050	8807644	1.46	0.050	8807644
Total Iron (Fe)	ug/L	<1.0	<1.0	<1.0	<1.0	8807644	27.0	1.0	8807644
Total Lead (Pb)	ug/L	0.0060	<0.0050	<0.0050	<0.0050	8807644	0.0060	0.0050	8807644
Total Lithium (Li)	ug/L	<0.50	<0.50	<0.50	<0.50	8807644	0.68	0.50	8807644
Total Manganese (Mn)	ug/L	<0.050	<0.050	<0.050	<0.050	8807644	7.17	0.050	8807644
Total Molybdenum (Mo)	ug/L	<0.050	<0.050	<0.050	<0.050	8807644	0.686	0.050	8807644
Total Nickel (Ni)	ug/L	<0.020	<0.020	<0.020	<0.020	8807644	0.720	0.020	8807644
Total Phosphorus (P)	ug/L	<2.0	<2.0	<2.0	<2.0	8807644	2.8	2.0	8807644
Total Selenium (Se)	ug/L	<0.040	<0.040	<0.040	<0.040	8807644	0.075	0.040	8807644
Total Silicon (Si)	ug/L	<50	<50	<50	<50	8807644	4480	50	8807644
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8807644	<0.0050	0.0050	8807644
Total Strontium (Sr)	ug/L	<0.050	<0.050	<0.050	<0.050	8807644	165	0.050	8807644
Total Thallium (TI)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	8807644	0.0020	0.0020	8807644
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	8807644	<0.20	0.20	8807644
Total Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	8807644	0.68	0.50	8807644
Total Uranium (U)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	8807644	5.28	0.0020	8807644
RDI = Reportable Detection	Limit								

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SH6103	SH6103	SH6104	SH6104		SH7906		
Sampling Date		2017/10/19 19:30	2017/10/19 19:30						
COC Number		538344-05-01	538344-05-01	538344-05-01	538344-05-01		538344-04-01		
	UNITS	FIELD BLANK	FIELD BLANK Lab-Dup	TRIP BLANK	TRIP BLANK Lab-Dup	QC Batch	SAMPLE A	RDL	QC Batch
Total Vanadium (V)	ug/L	<0.20	<0.20	<0.20	<0.20	8807644	0.27	0.20	8807644
Total Zinc (Zn)	ug/L	<0.10	<0.10	<0.10	<0.10	8807644	0.26	0.10	8807644
Total Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	<0.10	8807644	0.29	0.10	8807644
Total Calcium (Ca)	mg/L	<0.050		<0.050		8805973	28.8	0.050	8806442
Total Magnesium (Mg)	mg/L	<0.050		<0.050		8805973	11.1	0.050	8806442
Total Potassium (K)	mg/L	<0.050		<0.050		8805973	1.49	0.050	8806442
Total Sodium (Na)	mg/L	<0.050		<0.050		8805973	4.76	0.050	8806442
Total Sulphur (S)	mg/L	<3.0		<3.0		8805973	21.5	3.0	8806442

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Calculated Parameters   Total Hardness (CaCO3)   mg/L   119   0.50   880630	Maxxam ID		SH7907	SH7907		
Calculated Parameters         mg/L         119         0.50         880630           Elements           Total Hardness (CaCO3)         mg/L         119         0.50         880630           Elements         Total Mercury (Hg)         ug/L         <0.0020         0.0020         881322           Total Metals by ICPMS         Total Aluminum (Al)         ug/L         22.1         22.9         0.50         880764           Total Antimony (Sb)         ug/L         0.204         0.210         0.020         880764           Total Antimony (Sb)         ug/L         0.507         0.500         0.020         880764           Total Arsenic (As)         ug/L         0.507         0.500         0.020         880764           Total Barium (Ba)         ug/L         49.6         50.0         0.020         880764           Total Beryllium (Be)         ug/L         <0.010         <0.010         880764           Total Beryllium (Be)         ug/L         <10         10         880764           Total Boron (B)         ug/L         <10         10         880764           Total Cadmium (Cd)         ug/L         <0.0050         <0.0050         0.0050         880764 </th <th>Sampling Date</th> <th></th> <th></th> <th></th> <th></th> <th></th>	Sampling Date					
Calculated Parameters   Total Hardness (CaCO3)   mg/L   119   0.50   880630	COC Number		538344-04-01	538344-04-01		
Total Hardness (CaCO3)   mg/L   119   0.50   880630		UNITS	SAMPLE B		RDL	QC Batch
Total Mercury (Hg)	Calculated Parameters					
Total Mercury (Hg)	Total Hardness (CaCO3)	mg/L	119		0.50	8806308
Total Metals by ICPMS           Total Aluminum (Al)         ug/L         22.1         22.9         0.50         880764           Total Antimony (Sb)         ug/L         0.204         0.210         0.020         880764           Total Arsenic (As)         ug/L         0.507         0.500         0.020         880764           Total Barium (Ba)         ug/L         49.6         50.0         0.020         880764           Total Beryllium (Be)         ug/L         <0.010	Elements	•			•	
Total Aluminum (Al)         ug/L         22.1         22.9         0.50         880764           Total Antimony (Sb)         ug/L         0.204         0.210         0.020         880764           Total Arsenic (As)         ug/L         0.507         0.500         0.020         880764           Total Barium (Ba)         ug/L         49.6         50.0         0.020         880764           Total Beryllium (Be)         ug/L         <0.010	Total Mercury (Hg)	ug/L	<0.0020		0.0020	8813222
Total Antimony (Sb)         ug/L         0.204         0.210         0.020         880764           Total Arsenic (As)         ug/L         0.507         0.500         0.020         880764           Total Barium (Ba)         ug/L         49.6         50.0         0.020         880764           Total Beryllium (Be)         ug/L         <0.010	Total Metals by ICPMS	•			•	
Total Arsenic (As)         ug/L         0.507         0.500         0.020         880764           Total Barium (Ba)         ug/L         49.6         50.0         0.020         880764           Total Beryllium (Be)         ug/L         <0.010	Total Aluminum (AI)	ug/L	22.1	22.9	0.50	8807644
Total Barium (Ba)         ug/L         49.6         50.0         0.020         880764           Total Beryllium (Be)         ug/L         <0.010	Total Antimony (Sb)	ug/L	0.204	0.210	0.020	8807644
Total Beryllium (Be)         ug/L         <0.010	Total Arsenic (As)	ug/L	0.507	0.500	0.020	8807644
Total Bismuth (Bi)         ug/L         <0.0050         <0.0050         880764           Total Boron (B)         ug/L         <10	Total Barium (Ba)	ug/L	49.6	50.0	0.020	8807644
Total Boron (B)         ug/L         <10         <10         880764           Total Cadmium (Cd)         ug/L         <0.0050	Total Beryllium (Be)	ug/L	<0.010	<0.010	0.010	8807644
Total Cadmium (Cd)         ug/L         <0.0050         <0.0050         880764           Total Chromium (Cr)         ug/L         0.21         0.21         0.10         880764           Total Cobalt (Co)         ug/L         0.0340         0.0330         0.0050         880764           Total Copper (Cu)         ug/L         1.38         1.38         0.050         880764           Total Iron (Fe)         ug/L         11.4         11.7         1.0         880764           Total Lead (Pb)         ug/L         <0.0050	Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0050	8807644
Total Chromium (Cr)         ug/L         0.21         0.21         0.10         880764           Total Cobalt (Co)         ug/L         0.0340         0.0330         0.0050         880764           Total Copper (Cu)         ug/L         1.38         1.38         0.050         880764           Total Iron (Fe)         ug/L         11.4         11.7         1.0         880764           Total Lead (Pb)         ug/L         0.0050         <0.0050	Total Boron (B)	ug/L	<10	<10	10	8807644
Total Cobalt (Co)         ug/L         0.0340         0.0330         0.0050         880764           Total Copper (Cu)         ug/L         1.38         1.38         0.050         880764           Total Iron (Fe)         ug/L         11.4         11.7         1.0         880764           Total Lead (Pb)         ug/L         <0.0050	Total Cadmium (Cd)	ug/L	<0.0050	<0.0050	0.0050	8807644
Total Copper (Cu)         ug/L         1.38         1.38         0.050         880764           Total Iron (Fe)         ug/L         11.4         11.7         1.0         880764           Total Lead (Pb)         ug/L         <0.0050	Total Chromium (Cr)	ug/L	0.21	0.21	0.10	8807644
Total Iron (Fe)         ug/L         11.4         11.7         1.0         880764           Total Lead (Pb)         ug/L         <0.0050	Total Cobalt (Co)	ug/L	0.0340	0.0330	0.0050	8807644
Total Lead (Pb)         ug/L         <0.0050         <0.0050         0.0050         880764           Total Lithium (Li)         ug/L         0.85         0.91         0.50         880764           Total Manganese (Mn)         ug/L         0.329         0.281         0.050         880764           Total Molybdenum (Mo)         ug/L         0.626         0.648         0.050         880764           Total Nickel (Ni)         ug/L         0.675         0.706         0.020         880764           Total Phosphorus (P)         ug/L         3.2         3.5         2.0         880764           Total Selenium (Se)         ug/L         0.067         0.063         0.040         880764           Total Silicon (Si)         ug/L         4290         4390         50         880764           Total Silver (Ag)         ug/L         <0.0050	Total Copper (Cu)	ug/L	1.38	1.38	0.050	8807644
Total Lithium (Li)         ug/L         0.85         0.91         0.50         880764           Total Manganese (Mn)         ug/L         0.329         0.281         0.050         880764           Total Molybdenum (Mo)         ug/L         0.626         0.648         0.050         880764           Total Nickel (Ni)         ug/L         0.675         0.706         0.020         880764           Total Phosphorus (P)         ug/L         3.2         3.5         2.0         880764           Total Selenium (Se)         ug/L         0.067         0.063         0.040         880764           Total Silicon (Si)         ug/L         4290         4390         50         880764           Total Silver (Ag)         ug/L         <0.0050	Total Iron (Fe)	ug/L	11.4	11.7	1.0	8807644
Total Manganese (Mn)         ug/L         0.329         0.281         0.050         880764           Total Molybdenum (Mo)         ug/L         0.626         0.648         0.050         880764           Total Nickel (Ni)         ug/L         0.675         0.706         0.020         880764           Total Phosphorus (P)         ug/L         3.2         3.5         2.0         880764           Total Selenium (Se)         ug/L         0.067         0.063         0.040         880764           Total Silicon (Si)         ug/L         4290         4390         50         880764           Total Silver (Ag)         ug/L         <0.0050	Total Lead (Pb)	ug/L	<0.0050	<0.0050	0.0050	8807644
Total Molybdenum (Mo)         ug/L         0.626         0.648         0.050         880764           Total Nickel (Ni)         ug/L         0.675         0.706         0.020         880764           Total Phosphorus (P)         ug/L         3.2         3.5         2.0         880764           Total Selenium (Se)         ug/L         0.067         0.063         0.040         880764           Total Silicon (Si)         ug/L         4290         4390         50         880764           Total Silver (Ag)         ug/L         <0.0050	Total Lithium (Li)	ug/L	0.85	0.91	0.50	8807644
Total Nickel (Ni)         ug/L         0.675         0.706         0.020         880764           Total Phosphorus (P)         ug/L         3.2         3.5         2.0         880764           Total Selenium (Se)         ug/L         0.067         0.063         0.040         880764           Total Silicon (Si)         ug/L         4290         4390         50         880764           Total Silver (Ag)         ug/L         <0.0050	Total Manganese (Mn)	ug/L	0.329	0.281	0.050	8807644
Total Phosphorus (P)         ug/L         3.2         3.5         2.0         880764           Total Selenium (Se)         ug/L         0.067         0.063         0.040         880764           Total Silicon (Si)         ug/L         4290         4390         50         880764           Total Silver (Ag)         ug/L         <0.0050	Total Molybdenum (Mo)	ug/L	0.626	0.648	0.050	8807644
Total Selenium (Se)         ug/L         0.067         0.063         0.040         880764           Total Silicon (Si)         ug/L         4290         4390         50         880764           Total Silver (Ag)         ug/L         <0.0050	Total Nickel (Ni)	ug/L	0.675	0.706	0.020	8807644
Total Silicon (Si)         ug/L         4290         4390         50         880764           Total Silver (Ag)         ug/L         <0.0050	Total Phosphorus (P)	ug/L	3.2	3.5	2.0	8807644
Total Silver (Ag)         ug/L         <0.0050         <0.0050         0.0050         880764           Total Strontium (Sr)         ug/L         271         263         0.050         880764           Total Thallium (Tl)         ug/L         0.0020         0.0020         0.0020         880764           Total Tin (Sn)         ug/L         <0.20	Total Selenium (Se)	ug/L	0.067	0.063	0.040	8807644
Total Strontium (Sr)         ug/L         271         263         0.050         880764           Total Thallium (TI)         ug/L         0.0020         0.0020         0.0020         880764           Total Tin (Sn)         ug/L         <0.20	Total Silicon (Si)	ug/L	4290	4390	50	8807644
Total Thallium (TI)         ug/L         0.0020         0.0020         0.0020         880764           Total Tin (Sn)         ug/L         <0.20	Total Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	8807644
Total Tin (Sn)	Total Strontium (Sr)	ug/L	271	263	0.050	8807644
Total Titanium (Ti) ug/L <0.50 0.55 0.50 880764	Total Thallium (TI)	ug/L	0.0020	0.0020	0.0020	8807644
	Total Tin (Sn)	ug/L	<0.20	<0.20	0.20	8807644
Total Uranium (U) ug/L 12.9 12.9 0.0020 880764	Total Titanium (Ti)	ug/L	<0.50	0.55	0.50	8807644
	Total Uranium (U)	ug/L	12.9	12.9	0.0020	8807644



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SH7907	SH7907		
Sampling Date					
COC Number		538344-04-01	538344-04-01		
	UNITS	SAMPLE B	SAMPLE B Lab-Dup	RDL	QC Batch
Total Vanadium (V)	ug/L	0.26	0.29	0.20	8807644
Total Zinc (Zn)	ug/L	0.26	0.22	0.10	8807644
Total Zirconium (Zr)	ug/L	0.31	0.29	0.10	8807644
Total Calcium (Ca)	mg/L	30.8		0.050	8806442
Total Magnesium (Mg)	mg/L	10.3		0.050	8806442
Total Potassium (K)	mg/L	2.23		0.050	8806442
Total Sodium (Na)	mg/L	3.62		0.050	8806442
Total Sulphur (S)	mg/L	17.1		3.0	8806442

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6069	SH6069		SH6071	SH6072		
Campling Data		2017/10/19	2017/10/19		2017/10/19	2017/10/20		
Sampling Date		15:20	15:20		16:35	13:30		
COC Number		538344-01-01	538344-01-01		538344-01-01	538344-01-01		
	UNITS	CC-1.5	CC-1.5 Lab-Dup	QC Batch	CC-4.5	CC-5.0	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	217		8805855	118	15.3	0.50	8805855
Elements								
Total Mercury (Hg)	ug/L	0.0024		8812408	<0.0020	0.0037	0.0020	8812408
Total Metals by ICPMS	•			•				
Total Aluminum (AI)	ug/L	35.7	34.1	8808480	96.2	109	3.0	8808480
Total Antimony (Sb)	ug/L	0.100	0.103	8808480	0.094	0.071	0.020	8808480
Total Arsenic (As)	ug/L	0.560	0.612	8808480	0.372	0.640	0.020	8808480
Total Barium (Ba)	ug/L	59.6	58.1	8808480	67.1	13.5	0.050	8808480
Total Beryllium (Be)	ug/L	<0.010	<0.010	8808480	<0.010	0.017	0.010	8808480
Total Bismuth (Bi)	ug/L	<0.010	<0.010	8808480	<0.010	<0.010	0.010	8808480
Total Boron (B)	ug/L	<10	<10	8808480	<10	<10	10	8808480
Total Cadmium (Cd)	ug/L	0.0080	0.0070	8808480	0.0110	0.0180	0.0050	8808480
Total Chromium (Cr)	ug/L	0.16	0.18	8808480	0.29	0.48	0.10	8808480
Total Cobalt (Co)	ug/L	0.031	0.029	8808480	0.079	0.218	0.010	8808480
Total Copper (Cu)	ug/L	1.23	1.22	8808480	1.60	1.26	0.10	8808480
Total Iron (Fe)	ug/L	29.8	27.8	8808480	112	333	5.0	8808480
Total Lead (Pb)	ug/L	0.113 (1)	0.063 (2)	8808480	0.059	<0.020	0.020	8808480
Total Lithium (Li)	ug/L	2.00	2.05	8808480	0.75	<0.50	0.50	8808480
Total Manganese (Mn)	ug/L	6.25	6.11	8808480	12.4	124	0.10	8808480
Total Molybdenum (Mo)	ug/L	0.384	0.339	8808480	0.750	0.057	0.050	8808480
Total Nickel (Ni)	ug/L	0.47	0.43	8808480	0.74	0.86	0.10	8808480
Total Phosphorus (P)	ug/L	6.6	5.2	8808480	6.1	8.6	5.0	8808480
Total Selenium (Se)	ug/L	0.091	0.090	8808480	0.067	<0.040	0.040	8808480
Total Silicon (Si)	ug/L	5850	5850	8808480	5680	6940	50	8808480
Total Silver (Ag)	ug/L	<0.010	<0.010	8808480	<0.010	<0.010	0.010	8808480
Total Strontium (Sr)	ug/L	455	474	8808480	172	22.3	0.050	8808480
Total Thallium (TI)	ug/L	0.0030	0.0030	8808480	0.0030	0.0020	0.0020	8808480
Total Tin (Sn)	ug/L	<0.20	<0.20	8808480	<0.20	<0.20	0.20	8808480

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

<sup>(1)</sup> Duplicate RPD for (Lead) above control limit - Reanalysis confirmed sample inhomogeneity.

<sup>(2)</sup> Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SH6069	SH6069		SH6071	SH6072		
Sampling Date		2017/10/19	2017/10/19		2017/10/19	2017/10/20		
Sampling Date		15:20	15:20		16:35	13:30		
COC Number		538344-01-01	538344-01-01		538344-01-01	538344-01-01		
	UNITS	CC-1.5	CC-1.5 Lab-Dup	QC Batch	CC-4.5	CC-5.0	RDL	QC Batch
Total Titanium (Ti)	ug/L	<2.0	<2.0	8808480	4.4	<2.0	2.0	8808480
Total Uranium (U)	ug/L	12.7	13.2	8808480	5.63	0.335	0.0050	8808480
Total Vanadium (V)	ug/L	0.26	0.25	8808480	0.46	0.29	0.20	8808480
Total Zinc (Zn)	ug/L	<1.0	<1.0	8808480	<1.0	1.2	1.0	8808480
Total Zirconium (Zr)	ug/L	0.31	0.31	8808480	0.21	0.65	0.10	8808480
Total Calcium (Ca)	mg/L	57.4		8805097	29.6	4.05	0.25	8805973
Total Magnesium (Mg)	mg/L	17.8		8805097	10.7	1.27	0.25	8805973
Total Potassium (K)	mg/L	3.10		8805097	1.53	<0.25	0.25	8805973
Total Sodium (Na)	mg/L	4.67		8805097	4.59	1.30	0.25	8805973
Total Sulphur (S)	mg/L	40.7		8805097	22.6	<3.0	3.0	8805973

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SH6073	SH6073	SH6074	SH6075	SH6077	SH6078		
Sampling Date		2017/10/20	2017/10/20	2017/10/20	2017/10/20	2017/10/19	2017/10/20		
		14:10	14:10	13:50	14:25	17:25	13:10		
COC Number		538344-01-01	538344-01-01	538344-01-01	538344-01-01	538344-02-01	538344-02-01		
	UNITS	CC-5.5	CC-5.5 Lab-Dup	CC-6.0	CC-A	CC-C	CC-D	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	11.4		13.3	126	483	459	0.50	8805855
Elements	•							•	
Total Mercury (Hg)	ug/L	0.0039	0.0047	0.0037	0.0025	<0.0020	<0.0020	0.0020	8813221
Total Metals by ICPMS	•							•	
Total Aluminum (Al)	ug/L	351		115	42.5	990	17.8	3.0	8808480
Total Antimony (Sb)	ug/L	0.142		0.063	0.098	0.177	0.155	0.020	8808480
Total Arsenic (As)	ug/L	0.755		0.481	0.380	3.15	0.598	0.020	8808480
Total Barium (Ba)	ug/L	19.8		13.0	38.2	120	98.4	0.050	8808480
Total Beryllium (Be)	ug/L	0.032		0.015	0.011	0.037	<0.010	0.010	8808480
Total Bismuth (Bi)	ug/L	<0.010		<0.010	<0.010	0.011	<0.010	0.010	8808480
Total Boron (B)	ug/L	<10		<10	<10	<10	<10	10	8808480
Total Cadmium (Cd)	ug/L	0.0230		0.0090	0.0060	0.0210	0.0050	0.0050	8808480
Total Chromium (Cr)	ug/L	0.85		0.41	0.23	3.08	0.11	0.10	8808480
Total Cobalt (Co)	ug/L	0.277		0.143	0.029	0.753	0.026	0.010	8808480
Total Copper (Cu)	ug/L	1.61		1.11	1.40	2.38	0.66	0.10	8808480
Total Iron (Fe)	ug/L	505		241	21.9	1360	16.9	5.0	8808480
Total Lead (Pb)	ug/L	0.245		<0.020	<0.020	0.656	<0.020	0.020	8808480
Total Lithium (Li)	ug/L	0.50		<0.50	1.62	6.69	5.86	0.50	8808480
Total Manganese (Mn)	ug/L	67.6		74.1	4.30	53.0	6.02	0.10	8808480
Total Molybdenum (Mo)	ug/L	<0.050		<0.050	0.155	0.330	0.322	0.050	8808480
Total Nickel (Ni)	ug/L	0.94		0.72	0.41	2.67	0.45	0.10	8808480
Total Phosphorus (P)	ug/L	17.9		7.2	7.4	50.9	<5.0	5.0	8808480
Total Selenium (Se)	ug/L	0.040		0.047	<0.040	0.387	0.335	0.040	8808480
Total Silicon (Si)	ug/L	7390		6810	6470	7590	6000	50	8808480
Total Silver (Ag)	ug/L	<0.010		<0.010	<0.010	<0.010	<0.010	0.010	8808480
Total Strontium (Sr)	ug/L	18.2		20.4	251	1320	1270	0.050	8808480
Total Thallium (TI)	ug/L	0.0030		<0.0020	0.0030	0.0200	0.0030	0.0020	8808480
Total Tin (Sn)	ug/L	<0.20		<0.20	<0.20	<0.20	<0.20	0.20	8808480
Total Titanium (Ti)	ug/L	9.5		<2.0	<2.0	53.7	<2.0	2.0	8808480
Total Uranium (U)	ug/L	0.612		0.348	4.38	32.4	34.0	0.0050	8808480
DDI - Papartable Detection	I then the								

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SH6073	SH6073	SH6074	SH6075	SH6077	SH6078		
Sampling Date		2017/10/20	2017/10/20	2017/10/20	2017/10/20	2017/10/19	2017/10/20		
Sampling Date		14:10	14:10	13:50	14:25	17:25	13:10		
COC Number		538344-01-01	538344-01-01	538344-01-01	538344-01-01	538344-02-01	538344-02-01		
	UNITS	CC-5.5	CC-5.5 Lab-Dup	CC-6.0	CC-A	CC-C	CC-D	RDL	QC Batch
Total Vanadium (V)	ug/L	1.02		0.26	0.22	2.59	0.22	0.20	8808480
Total Zinc (Zn)	ug/L	2.5		<1.0	<1.0	4.1	<1.0	1.0	8808480
Total Zirconium (Zr)	ug/L	0.68		0.65	0.39	0.12	<0.10	0.10	8808480
Total Calcium (Ca)	mg/L	2.94		3.51	35.6	122	113	0.25	8805973
Total Magnesium (Mg)	mg/L	0.99		1.11	8.98	43.3	43.1	0.25	8805973
Total Potassium (K)	mg/L	<0.25		<0.25	1.78	5.83	5.59	0.25	8805973
Total Sodium (Na)	mg/L	1.06		1.12	3.90	5.29	4.81	0.25	8805973
Total Sulphur (S)	mg/L	<3.0		<3.0	26.4	73.2	69.1	3.0	8805973

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6079	SH6080	SH6081	SH6082	SH6086	SH6090		
Sampling Date		2017/10/19	2017/10/20	2017/10/20	2017/10/20	2017/10/21	2017/10/21		
Jumphing Dute		14:00	15:40	16:35	15:15	12:55	10:30		
COC Number		538344-02-01	538344-02-01	538344-02-01	538344-02-01	538344-02-01	538344-03-01		
	UNITS	HC-2.5	HC-5.0	HC-A	НС-В	IC-2.5	ML-A	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	126	130	128	128	22.2	199	0.50	8805855
Elements									
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	0.0021	<0.0020	0.0026	<0.0020	0.0020	8813221
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	40.5	25.6	28.1	27.0	126	27.3	3.0	8808480
Total Antimony (Sb)	ug/L	0.552	0.223	0.260	0.313	0.124	0.154	0.020	8808480
Total Arsenic (As)	ug/L	1.00	0.618	0.632	0.734	0.987	0.404	0.020	8808480
Total Barium (Ba)	ug/L	44.2	53.8	53.3	44.5	14.9	104	0.050	8808480
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	0.017	0.012	0.010	8808480
Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8808480
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	8808480
Total Cadmium (Cd)	ug/L	0.0060	<0.0050	0.0260	0.0060	<0.0050	0.0070	0.0050	8808480
Total Chromium (Cr)	ug/L	0.27	0.23	0.26	0.28	0.52	0.21	0.10	8808480
Total Cobalt (Co)	ug/L	0.036	0.035	0.037	0.034	0.052	0.045	0.010	8808480
Total Copper (Cu)	ug/L	1.23	1.49	1.60	1.10	1.37	1.41	0.10	8808480
Total Iron (Fe)	ug/L	23.7	13.5	15.6	14.8	320	17.2	5.0	8808480
Total Lead (Pb)	ug/L	0.076	<0.020	0.029	<0.020	0.034	<0.020	0.020	8808480
Total Lithium (Li)	ug/L	1.35	1.02	0.85	0.99	0.79	1.18	0.50	8808480
Total Manganese (Mn)	ug/L	4.03	0.45	0.51	1.61	2.86	3.80	0.10	8808480
Total Molybdenum (Mo)	ug/L	1.68	0.688	0.702	0.890	0.103	0.672	0.050	8808480
Total Nickel (Ni)	ug/L	0.53	0.79	0.64	0.46	0.83	0.68	0.10	8808480
Total Phosphorus (P)	ug/L	<5.0	7.2	9.8	5.1	7.9	5.2	5.0	8808480
Total Selenium (Se)	ug/L	0.060	0.069	0.060	0.044	0.044	0.062	0.040	8808480
Total Silicon (Si)	ug/L	6060	5740	5500	5750	7230	4550	50	8808480
Total Silver (Ag)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8808480
Total Strontium (Sr)	ug/L	362	297	317	310	29.9	493	0.050	8808480
Total Thallium (TI)	ug/L	0.0020	0.0030	0.0020	<0.0020	<0.0020	0.0030	0.0020	8808480
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8808480
Total Titanium (Ti)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	8808480
Total Uranium (U)	ug/L	37.5	13.9	16.6	26.8	0.538	10.3	0.0050	8808480
Total Vanadium (V)	ug/L	0.31	0.30	0.27	0.24	0.46	0.20	0.20	8808480
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6079	SH6080	SH6081	SH6082	SH6086	SH6090		
Sampling Date		2017/10/19 14:00	2017/10/20 15:40	2017/10/20 16:35	2017/10/20 15:15	2017/10/21 12:55	2017/10/21 10:30		
COC Number		538344-02-01	538344-02-01	538344-02-01	538344-02-01	538344-02-01	538344-03-01		
	UNITS	HC-2.5	HC-5.0	НС-А	НС-В	IC-2.5	ML-A	RDL	QC Batch
Total Zinc (Zn)	ug/L	<1.0	<1.0	2.2	<1.0	<1.0	1.0	1.0	8808480
Total Zirconium (Zr)	ug/L	0.32	0.27	0.30	0.25	0.99	0.40	0.10	8808480
Total Calcium (Ca)	mg/L	31.1	33.7	33.1	31.9	5.91	52.1	0.25	8805973
Total Magnesium (Mg)	mg/L	11.8	11.1	10.9	11.7	1.80	16.7	0.25	8805973
Total Potassium (K)	mg/L	2.20	2.45	2.42	1.75	<0.25	2.54	0.25	8805973
Total Sodium (Na)	mg/L	3.36	3.94	3.83	3.76	1.62	5.21	0.25	8805973
Total Sulphur (S)	mg/L	15.9	18.8	18.4	17.8	<3.0	42.4	3.0	8805973
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6091	SH6092		SH6096	SH6097		
Sampling Date		2017/10/21	2017/10/21		2017/10/21	2017/10/21		
Jamping Date		11:00	11:25		15:55	15:00		
COC Number		538344-03-01	538344-03-01		538344-03-01	538344-04-01		
	UNITS	ML-B	ML-C (YUK-24-2)	QC Batch	BARKER U/S S.R.	BLACKHILLS U/S S.R.	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	75.1	34.1	8805855	218	207	0.50	8805855
Elements		•	1			ı		Į.
Total Mercury (Hg)	ug/L	0.0023	0.0035	8813221	<0.0020	<0.0020	0.0020	8813222
Total Metals by ICPMS		1	1			ı		·
Total Aluminum (Al)	ug/L	389	186	8808480	126	105	3.0	8808480
Total Antimony (Sb)	ug/L	0.223	0.456	8808480	0.078	0.127	0.020	8808480
Total Arsenic (As)	ug/L	0.732	2.10	8808480	0.576	1.31	0.020	8808480
Total Barium (Ba)	ug/L	54.0	30.6	8808480	92.0	99.1	0.050	8808480
Total Beryllium (Be)	ug/L	0.052	0.037	8808480	0.011	0.015	0.010	8808480
Total Bismuth (Bi)	ug/L	<0.010	<0.010	8808480	<0.010	<0.010	0.010	8808480
Total Boron (B)	ug/L	<10	<10	8808480	<10	<10	10	8808480
Total Cadmium (Cd)	ug/L	0.0160	0.0120	8808480	0.0280	0.0150	0.0050	8808480
Total Chromium (Cr)	ug/L	0.79	0.51	8808480	0.52	0.49	0.10	8808480
Total Cobalt (Co)	ug/L	0.258	0.108	8808480	0.356	0.416	0.010	8808480
Total Copper (Cu)	ug/L	2.12	1.85	8808480	2.92	2.00	0.10	8808480
Total Iron (Fe)	ug/L	469	195	8808480	383	838	5.0	8808480
Total Lead (Pb)	ug/L	0.349	0.281	8808480	0.119	0.198	0.020	8808480
Total Lithium (Li)	ug/L	0.76	<0.50	8808480	2.47	3.49	0.50	8808480
Total Manganese (Mn)	ug/L	14.7	4.21	8808480	243	259	0.10	8808480
Total Molybdenum (Mo)	ug/L	0.666	0.147	8808480	0.973	1.15	0.050	8808480
Total Nickel (Ni)	ug/L	1.19	0.89	8808480	1.31	2.25	0.10	8808480
Total Phosphorus (P)	ug/L	24.2	12.4	8808480	16.7	16.9	5.0	8808480
Total Selenium (Se)	ug/L	0.054	0.053	8808480	0.171	0.239	0.040	8808480
Total Silicon (Si)	ug/L	5710	5200	8808480	6310	7170	50	8808480
Total Silver (Ag)	ug/L	<0.010	<0.010	8808480	<0.010	<0.010	0.010	8808480
Total Strontium (Sr)	ug/L	134	39.0	8808480	344	256	0.050	8808480
Total Thallium (TI)	ug/L	0.0070	0.0050	8808480	0.0020	0.0020	0.0020	8808480
Total Tin (Sn)	ug/L	<0.20	<0.20	8808480	<0.20	<0.20	0.20	8808480
Total Titanium (Ti)	ug/L	17.8	5.8	8808480	3.6	5.4	2.0	8808480
Total Uranium (U)	ug/L	4.71	0.516	8808480	3.99	2.44	0.0050	8808480
Total Vanadium (V)	ug/L	1.10	0.56	8808480	1.11	1.58	0.20	8808480
RDL = Reportable Detection		1	<u> </u>	1	<u> </u>	<u> </u>	1	ı



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6091	SH6092		SH6096	SH6097			
Sampling Date		2017/10/21	2017/10/21		2017/10/21	2017/10/21			
		11:00	11:25		15:55	15:00			
COC Number		538344-03-01	538344-03-01		538344-03-01	538344-04-01			
	UNITS	ML-B	ML-C (YUK-24-2)	OC Batch	BARKER U/S	BLACKHILLS U/S	RDL	QC Batch	
	Oitiii	IVIL	WE C (10K 24 2)	QC Batti	S.R.	S.R.	NDL.	QC Batch	
Total Zinc (Zn)	ug/L	1.8	1.0	8808480	1.3	<1.0	1.0	8808480	
Total Zirconium (Zr)	ug/L	0.67	0.54	8808480	0.28	0.47	0.10	8808480	
Total Calcium (Ca)	mg/L	22.4	10.4	8805973	54.6	54.9	0.25	8805973	
Total Magnesium (Mg)	mg/L	4.67	2.00	8805973	19.7	17.0	0.25	8805973	
Total Potassium (K)	mg/L	0.95	0.65	8805973	2.17	2.19	0.25	8805973	
Total Sodium (Na)	mg/L	2.05	1.30	8805973	9.50	7.48	0.25	8805973	
Total Sulphur (S)	mg/L	11.5	<3.0	8805973	33.1	30.2	3.0	8805973	
RDL = Reportable Detection L	RDL = Reportable Detection Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SH6098	SH6099		SH6101	SH6101		
Sampling Date		2017/10/21 15:20	2017/10/21 15:45		2017/10/19 16:00	2017/10/19 16:00		
COC Number		538344-04-01	538344-04-01		538344-04-01	538344-04-01		
	UNITS	MAISYMAY U/S S.R.	STEWART D/S M.M.	QC Batch	LATTE MIX	LATTE MIX Lab-Dup	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	324	236	8805855	119		0.50	8805855
Elements			1		1	•		·
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	8813222	<0.0020		0.0020	8813222
Total Metals by ICPMS			1		1	•		·
Total Aluminum (Al)	ug/L	226	178	8808480	29.9	28.7	3.0	8808595
Total Antimony (Sb)	ug/L	0.074	0.144	8808480	0.106	0.102	0.020	8808595
Total Arsenic (As)	ug/L	0.812	0.811	8808480	0.352	0.347	0.020	8808595
Total Barium (Ba)	ug/L	100	76.8	8808480	54.3	54.2	0.050	8808595
Total Beryllium (Be)	ug/L	0.017	0.013	8808480	<0.010	<0.010	0.010	8808595
Total Bismuth (Bi)	ug/L	<0.010	<0.010	8808480	<0.010	<0.010	0.010	8808595
Total Boron (B)	ug/L	<10	<10	8808480	<10	<10	10	8808595
Total Cadmium (Cd)	ug/L	0.0240	0.323	8808480	0.0083	0.0080	0.0050	8808595
Total Chromium (Cr)	ug/L	0.83	0.20	8808480	0.16	0.17	0.10	8808595
Total Cobalt (Co)	ug/L	0.571	0.279	8808480	0.039	0.042	0.010	8808595
Total Copper (Cu)	ug/L	2.41	1.57	8808480	1.41	1.39	0.10	8808595
Total Iron (Fe)	ug/L	823	291	8808480	30.7	30.7	5.0	8808595
Total Lead (Pb)	ug/L	0.349	0.227	8808480	<0.020	<0.020	0.020	8808595
Total Lithium (Li)	ug/L	4.04	4.94	8808480	1.46	1.48	0.50	8808595
Total Manganese (Mn)	ug/L	351	37.2	8808480	14.6	14.6	0.10	8808595
Total Molybdenum (Mo)	ug/L	1.43	0.702	8808480	0.683	0.680	0.050	8808595
Total Nickel (Ni)	ug/L	2.95	8.50	8808480	0.72	0.68	0.10	8808595
Total Phosphorus (P)	ug/L	17.4	13.7	8808480	<5.0	<5.0	5.0	8808595
Total Selenium (Se)	ug/L	0.415	0.847	8808480	0.106	0.096	0.040	8808595
Total Silicon (Si)	ug/L	6400	3410	8808480	4940	5010	50	8808595
Total Silver (Ag)	ug/L	0.014	<0.010	8808480	<0.010	<0.010	0.010	8808595
Total Strontium (Sr)	ug/L	307	295	8808480	160	158	0.050	8808595
Total Thallium (TI)	ug/L	0.0060	0.0050	8808480	0.0027	0.0030	0.0020	8808595
Total Tin (Sn)	ug/L	<0.20	<0.20	8808480	<0.20	<0.20	0.20	8808595
Total Titanium (Ti)	ug/L	11.2	2.7	8808480	<2.0	<2.0	2.0	8808595
Total Uranium (U)	ug/L	3.32	1.45	8808480	12.2	12.2	0.0050	8808595



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LL TOTAL METALS (DIGESTED) WITH CV HG

	SH6098	SH6099		SH6101	SH6101		
	2017/10/21 15:20	2017/10/21 15:45		2017/10/19 16:00	2017/10/19 16:00		
	538344-04-01	538344-04-01		538344-04-01	538344-04-01		
UNITS	MAISYMAY U/S S.R.	STEWART D/S M.M.	QC Batch	LATTE MIX	LATTE MIX Lab-Dup	RDL	QC Batch
ug/L	1.92	0.44	8808480	0.22	0.24	0.20	8808595
ug/L	1.7	21.5	8808480	<1.0	<1.0	1.0	8808595
ug/L	0.24	<0.10	8808480	0.24	0.24	0.10	8808595
mg/L	77.5	57.4	8805973	29.7		0.25	8805973
mg/L	31.7	22.6	8805973	10.8		0.25	8805973
mg/L	3.31	0.71	8805973	1.49		0.25	8805973
mg/L	7.27	2.76	8805973	4.79		0.25	8805973
mg/L	53.9	40.4	8805973	23.9		3.0	8805973
	ug/L ug/L ug/L mg/L mg/L mg/L	2017/10/21 15:20 538344-04-01 WAISYMAY U/S S.R. ug/L 1.92 ug/L 1.7 ug/L 0.24 mg/L 77.5 mg/L 31.7 mg/L 3.31 mg/L 7.27	2017/10/21   2017/10/21   15:20   15:45     538344-04-01   538344-04-01     WAISYMAY U/S S.R.   STEWART D/S M.M.     ug/L	2017/10/21   2017/10/21   15:20   15:45       538344-04-01   538344-04-01       UNITS	2017/10/21   2017/10/21   2017/10/19   15:20   15:45   16:00     538344-04-01   538344-04-01   538344-04-01     WINITS   MAISYMAY U/S S.R.   STEWART D/S M.M.   QC Batch LATTE MIX     Ug/L	2017/10/21   2017/10/21   2017/10/19   16:00   16:00     538344-04-01   538344-04-01   538344-04-01   538344-04-01     Walsymay U/S S.R.   STEWART D/S M.M.   QC Batch   LATTE MIX Lab-Dup	2017/10/21   2017/10/21   2017/10/19   16:00   16:00       538344-04-01   538344-04-01   538344-04-01   538344-04-01     UNITS

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6102		
Sampling Date				
COC Number		538344-05-01		
	UNITS	SAMPLE C	RDL	QC Batch
Calculated Parameters	•		•	
Total Hardness (CaCO3)	mg/L	206	0.50	8805855
Elements				
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8813222
Total Metals by ICPMS				
Total Aluminum (Al)	ug/L	133	3.0	8808595
Total Antimony (Sb)	ug/L	0.134	0.020	8808595
Total Arsenic (As)	ug/L	0.636	0.020	8808595
Total Barium (Ba)	ug/L	68.5	0.050	8808595
Total Beryllium (Be)	ug/L	0.013	0.010	8808595
Total Bismuth (Bi)	ug/L	<0.010	0.010	8808595
Total Boron (B)	ug/L	<10	10	8808595
Total Cadmium (Cd)	ug/L	0.301	0.0050	8808595
Total Chromium (Cr)	ug/L	0.13	0.10	8808595
Total Cobalt (Co)	ug/L	0.232	0.010	8808595
Total Copper (Cu)	ug/L	1.37	0.10	8808595
Total Iron (Fe)	ug/L	223	5.0	8808595
Total Lead (Pb)	ug/L	0.184	0.020	8808595
Total Lithium (Li)	ug/L	4.39	0.50	8808595
Total Manganese (Mn)	ug/L	31.9	0.10	8808595
Total Molybdenum (Mo)	ug/L	0.595	0.050	8808595
Total Nickel (Ni)	ug/L	7.51	0.10	8808595
Total Phosphorus (P)	ug/L	9.8	5.0	8808595
Total Selenium (Se)	ug/L	0.836	0.040	8808595
Total Silicon (Si)	ug/L	2770	50	8808595
Total Silver (Ag)	ug/L	<0.010	0.010	8808595
Total Strontium (Sr)	ug/L	238	0.050	8808595
Total Thallium (TI)	ug/L	0.0042	0.0020	8808595
Total Tin (Sn)	ug/L	<0.20	0.20	8808595
Total Titanium (Ti)	ug/L	<2.0	2.0	8808595
Total Uranium (U)	ug/L	1.25	0.0050	8808595
Total Vanadium (V)	ug/L	0.30	0.20	8808595
RDL = Reportable Detection	Limit	•	•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SH6102		
Sampling Date				
COC Number		538344-05-01		
	UNITS	SAMPLE C	RDL	QC Batch
Total Zinc (Zn)	ug/L	19.7	1.0	8808595
Total Zirconium (Zr)	ug/L	<0.10	0.10	8808595
Total Calcium (Ca)	mg/L	51.0	0.25	8805973
Total Magnesium (Mg)	mg/L	19.1	0.25	8805973
Total Potassium (K)	mg/L	0.63	0.25	8805973
Total Sodium (Na)	mg/L	2.40	0.25	8805973
Total Sulphur (S)	mg/L	35.0	3.0	8805973
RDL = Reportable Detection	Limit			



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample SH6067 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6068 [CC-1.0]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6069 [CC-1.5]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample SH6070 [CC-3.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6071 [CC-4.5]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample SH6072 [CC-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6073 [CC-5.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6074 [CC-6.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6075 [CC-A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6076 [CC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6077 [CC-C]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6078 [CC-D]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6079 [HC-2.5]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

(N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6080 [HC-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6081 [HC-A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6082 [HC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6083 [HC-C]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6084 [IC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6085 [IC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6086 [IC-2.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6087 [IC-3.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6088 [IC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6089 [ML-1.0 (YT-24)]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6090 [ML-A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6091 [ML-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6092 [ML-C (YUK-24-2)]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6093 [YUK-2.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

hold time for Nitrite (N) (low level).

Sample SH6094 [YUK-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6095 [BALLARAT U/S Y.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6096 [BARKER U/S S.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6097 [BLACKHILLS U/S S.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6098 [MAISYMAY U/S S.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6099 [STEWART D/S M.M.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6100 [CC-X]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6101 [LATTE MIX]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6103 [FIELD BLANK]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SH6083, Elements by ICPMS Low Level (dissolved): Test repeated.

Sample SH6087, Elements by ICPMS Low Level (dissolved): Test repeated.

Sample SH6100, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8806545	Total Dissolved Solids	2017/10/26	100	80 - 120	101	80 - 120	<10	mg/L	0.63	20
8806573	Total Dissolved Solids	2017/10/26	98	80 - 120	95	80 - 120	<10	mg/L	0	20
8806576	Dissolved Aluminum (Al)	2017/10/25	110	80 - 120	111	80 - 120	<0.50	ug/L	3.9	20
8806576	Dissolved Antimony (Sb)	2017/10/25	104	80 - 120	106	80 - 120	<0.020	ug/L	1.1	20
8806576	Dissolved Arsenic (As)	2017/10/25	105	80 - 120	101	80 - 120	<0.020	ug/L	0.48	20
8806576	Dissolved Barium (Ba)	2017/10/25	NC	80 - 120	100	80 - 120	<0.020	ug/L	0.27	20
8806576	Dissolved Beryllium (Be)	2017/10/25	98	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
8806576	Dissolved Bismuth (Bi)	2017/10/25	98	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8806576	Dissolved Boron (B)	2017/10/25	101	80 - 120	98	80 - 120	<10	ug/L	NC	20
8806576	Dissolved Cadmium (Cd)	2017/10/25	98	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
8806576	Dissolved Chromium (Cr)	2017/10/25	100	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
8806576	Dissolved Cobalt (Co)	2017/10/25	93	80 - 120	98	80 - 120	<0.0050	ug/L	7.0	20
8806576	Dissolved Copper (Cu)	2017/10/25	91	80 - 120	98	80 - 120	<0.050	ug/L	1.3	20
8806576	Dissolved Iron (Fe)	2017/10/25	104	80 - 120	104	80 - 120	<1.0	ug/L	1.6	20
8806576	Dissolved Lead (Pb)	2017/10/25	97	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
8806576	Dissolved Lithium (Li)	2017/10/25	100	80 - 120	104	80 - 120	<0.50	ug/L	0.51	20
8806576	Dissolved Manganese (Mn)	2017/10/25	97	80 - 120	97	80 - 120	<0.050	ug/L	3.2	20
8806576	Dissolved Molybdenum (Mo)	2017/10/25	108	80 - 120	104	80 - 120	< 0.050	ug/L	2.1	20
8806576	Dissolved Nickel (Ni)	2017/10/25	94	80 - 120	101	80 - 120	<0.020	ug/L	8.4	20
8806576	Dissolved Phosphorus (P)	2017/10/25					<2.0	ug/L	0.97	20
8806576	Dissolved Selenium (Se)	2017/10/25	109	80 - 120	111	80 - 120	<0.040	ug/L	9.0	20
8806576	Dissolved Silicon (Si)	2017/10/25					<50	ug/L	1.6	20
8806576	Dissolved Silver (Ag)	2017/10/25	104	80 - 120	106	80 - 120	<0.0050	ug/L	NC	20
8806576	Dissolved Strontium (Sr)	2017/10/25	NC	80 - 120	99	80 - 120	<0.050	ug/L	1.6	20
8806576	Dissolved Thallium (TI)	2017/10/25	100	80 - 120	101	80 - 120	<0.0020	ug/L	7.6	20
8806576	Dissolved Tin (Sn)	2017/10/25	98	80 - 120	97	80 - 120	<0.20	ug/L	NC	20
8806576	Dissolved Titanium (Ti)	2017/10/25	101	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
8806576	Dissolved Uranium (U)	2017/10/25	NC	80 - 120	99	80 - 120	<0.0020	ug/L	0.57	20
8806576	Dissolved Vanadium (V)	2017/10/25	100	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
8806576	Dissolved Zinc (Zn)	2017/10/25	95	80 - 120	108	80 - 120	<0.10	ug/L	10	20
8806576	Dissolved Zirconium (Zr)	2017/10/25	101	80 - 120	96	80 - 120	<0.10	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	)
QC Batch	Parameter	Date	% Recovery	% Recovery QC Limits %		QC Limits	Value	UNITS	Value (%)	QC Limits
8806580	Dissolved Aluminum (AI)	2017/10/26	98	80 - 120	107	80 - 120	<0.50	ug/L	1.2	20
8806580	Dissolved Antimony (Sb)	2017/10/26	96	80 - 120	104	80 - 120	<0.020	ug/L	7.4	20
8806580	Dissolved Arsenic (As)	2017/10/26	95	80 - 120	105	80 - 120	<0.020	ug/L	3.3	20
8806580	Dissolved Barium (Ba)	2017/10/26	NC	80 - 120	106	80 - 120	<0.020	ug/L	1.2	20
8806580	Dissolved Beryllium (Be)	2017/10/26	95	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
8806580	Dissolved Bismuth (Bi)	2017/10/26	94	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
8806580	Dissolved Boron (B)	2017/10/26	101	80 - 120	104	80 - 120	<10	ug/L	NC	20
8806580	Dissolved Cadmium (Cd)	2017/10/26	96	80 - 120	105	80 - 120	< 0.0050	ug/L	5.0	20
8806580	Dissolved Chromium (Cr)	2017/10/26	95	80 - 120	107	80 - 120	<0.10	ug/L	1.8	20
8806580	Dissolved Cobalt (Co)	2017/10/26	94	80 - 120	105	80 - 120	< 0.0050	ug/L	4.6	20
8806580	Dissolved Copper (Cu)	2017/10/26	93	80 - 120	105	80 - 120	<0.050	ug/L	0.70	20
8806580	Dissolved Iron (Fe)	2017/10/26	94	80 - 120	111	80 - 120	<1.0	ug/L	0.48	20
8806580	Dissolved Lead (Pb)	2017/10/26	94	80 - 120	101	80 - 120	< 0.0050	ug/L	NC	20
8806580	Dissolved Lithium (Li)	2017/10/26	97	80 - 120	106	80 - 120	<0.50	ug/L	0.77	20
8806580	Dissolved Manganese (Mn)	2017/10/26	92	80 - 120	100	80 - 120	<0.050	ug/L	0.68	20
8806580	Dissolved Molybdenum (Mo)	2017/10/26	99	80 - 120	108	80 - 120	<0.050	ug/L	1.3	20
8806580	Dissolved Nickel (Ni)	2017/10/26	94	80 - 120	105	80 - 120	<0.020	ug/L	1.3	20
8806580	Dissolved Phosphorus (P)	2017/10/26					<2.0	ug/L	0.67	20
8806580	Dissolved Selenium (Se)	2017/10/26	98	80 - 120	109	80 - 120	<0.040	ug/L	20	20
8806580	Dissolved Silicon (Si)	2017/10/26					<50	ug/L	0.18	20
8806580	Dissolved Silver (Ag)	2017/10/26	100	80 - 120	111	80 - 120	<0.0050	ug/L	NC	20
8806580	Dissolved Strontium (Sr)	2017/10/26	NC	80 - 120	101	80 - 120	<0.050	ug/L	0.086	20
8806580	Dissolved Thallium (TI)	2017/10/26	98	80 - 120	102	80 - 120	<0.0020	ug/L	17	20
8806580	Dissolved Tin (Sn)	2017/10/26	95	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
8806580	Dissolved Titanium (Ti)	2017/10/26	97	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
8806580	Dissolved Uranium (U)	2017/10/26	93	80 - 120	98	80 - 120	<0.0020	ug/L	1.3	20
8806580	Dissolved Vanadium (V)	2017/10/26	97	80 - 120	106	80 - 120	<0.20	ug/L	7.3	20
8806580	Dissolved Zinc (Zn)	2017/10/26	95	80 - 120	109	80 - 120	<0.10	ug/L	13	20
8806580	Dissolved Zirconium (Zr)	2017/10/26	89	80 - 120	87	80 - 120	<0.10	ug/L	2.2	20
8806587	Total Dissolved Solids	2017/10/26	100	80 - 120	95	80 - 120	<10	mg/L	7.5	20
8806589	Total Suspended Solids	2017/10/26			102	80 - 120	<1.0	mg/L		



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Matrix Spike		Blank	Method B	lank	RPD	
QC Batch	Parameter	Date	% Recovery			QC Limits	Value	UNITS	Value (%)	QC Limits
8806592	Total Suspended Solids	2017/10/26			102	80 - 120	<1.0	mg/L		
8806751	рН	2017/10/25			102	97 - 103			0.88	20
8806789	Conductivity	2017/10/25			100	80 - 120	<1.0	uS/cm		
8806793	Alkalinity (PP as CaCO3)	2017/10/25					<0.50	mg/L	NC	20
8806793	Alkalinity (Total as CaCO3)	2017/10/25	97	80 - 120	101	80 - 120	<0.50	mg/L	NC	20
8806793	Bicarbonate (HCO3)	2017/10/25					<0.50	mg/L	NC	20
8806793	Carbonate (CO3)	2017/10/25					<0.50	mg/L	NC	20
8806793	Hydroxide (OH)	2017/10/25					<0.50	mg/L	NC	20
8806957	Total Organic Carbon (C)	2017/10/25	86	80 - 120	112	80 - 120	<0.50	mg/L	16	20
8806958	Dissolved Organic Carbon (C)	2017/10/25	93	80 - 120	112	80 - 120	<0.50	mg/L	18	20
8806959	Dissolved Organic Carbon (C)	2017/10/25	99	80 - 120	102	80 - 120	<0.50	mg/L	10	20
8806960	Total Organic Carbon (C)	2017/10/25	99	80 - 120	102	80 - 120	<0.50	mg/L	7.0	20
8807298	Alkalinity (PP as CaCO3)	2017/10/25					<0.50	mg/L	NC	20
8807298	Alkalinity (Total as CaCO3)	2017/10/25	99	80 - 120	98	80 - 120	0.51, RDL=0.50	mg/L	2.5	20
8807298	Bicarbonate (HCO3)	2017/10/25					0.62, RDL=0.50	mg/L	2.5	20
8807298	Carbonate (CO3)	2017/10/25					<0.50	mg/L	NC	20
8807298	Hydroxide (OH)	2017/10/25					<0.50	mg/L	NC	20
8807358	Total Suspended Solids	2017/10/26			99	80 - 120	<1.0	mg/L		
8807415	pH	2017/10/25			102	97 - 103			0.39	20
8807416	Conductivity	2017/10/25			101	80 - 120	<1.0	uS/cm	2.1	20
8807420	рН	2017/10/25			102	97 - 103			0.50	20
8807424	Conductivity	2017/10/25			101	80 - 120	<1.0	uS/cm	0.24	20
8807425	Alkalinity (PP as CaCO3)	2017/10/25					<0.50	mg/L	NC	20
8807425	Alkalinity (Total as CaCO3)	2017/10/25	NC	80 - 120	95	80 - 120	<0.50	mg/L	3.4	20
8807425	Bicarbonate (HCO3)	2017/10/25					<0.50	mg/L	3.4	20
8807425	Carbonate (CO3)	2017/10/25					<0.50	mg/L	NC	20
8807425	Hydroxide (OH)	2017/10/25					<0.50	mg/L	NC	20
8807644	Total Aluminum (Al)	2017/10/27	106	80 - 120	104	80 - 120	<0.50	ug/L	3.8	20
8807644	Total Antimony (Sb)	2017/10/27	102	80 - 120	98	80 - 120	<0.020	ug/L	2.9	20
8807644	Total Arsenic (As)	2017/10/27	102	80 - 120	96	80 - 120	<0.020	ug/L	1.4	20
8807644	Total Barium (Ba)	2017/10/27	NC	80 - 120	100	80 - 120	<0.020	ug/L	0.90	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	% Recovery QC Limits %		QC Limits	Value	UNITS	Value (%)	QC Limits
8807644	Total Beryllium (Be)	2017/10/27	104	80 - 120	97	80 - 120	<0.010	ug/L	NC	20
8807644	Total Bismuth (Bi)	2017/10/27	97	80 - 120	97	80 - 120	<0.0050	ug/L	NC	20
8807644	Total Boron (B)	2017/10/27	98	80 - 120	96	80 - 120	<10	ug/L	NC	20
8807644	Total Cadmium (Cd)	2017/10/27	98	80 - 120	96	80 - 120	<0.0050	ug/L	NC	20
8807644	Total Chromium (Cr)	2017/10/27	99	80 - 120	96	80 - 120	<0.10	ug/L	0.96	20
8807644	Total Cobalt (Co)	2017/10/27	97	80 - 120	95	80 - 120	<0.0050	ug/L	3.0	20
8807644	Total Copper (Cu)	2017/10/27	96	80 - 120	96	80 - 120	<0.050	ug/L	0.22	20
8807644	Total Iron (Fe)	2017/10/27	97	80 - 120	95	80 - 120	<1.0	ug/L	2.8	20
8807644	Total Lead (Pb)	2017/10/27	99	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
8807644	Total Lithium (Li)	2017/10/27	104	80 - 120	99	80 - 120	<0.50	ug/L	7.1	20
8807644	Total Manganese (Mn)	2017/10/27	101	80 - 120	97	80 - 120	<0.050	ug/L	16	20
8807644	Total Molybdenum (Mo)	2017/10/27	98	80 - 120	98	80 - 120	<0.050	ug/L	3.5	20
8807644	Total Nickel (Ni)	2017/10/27	98	80 - 120	98	80 - 120	<0.020	ug/L	4.5	20
8807644	Total Phosphorus (P)	2017/10/27					<2.0	ug/L	9.0	20
8807644	Total Selenium (Se)	2017/10/27	104	80 - 120	99	80 - 120	<0.040	ug/L	6.2	20
8807644	Total Silicon (Si)	2017/10/27					<50	ug/L	2.2	20
8807644	Total Silver (Ag)	2017/10/27	106	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
8807644	Total Strontium (Sr)	2017/10/27	NC	80 - 120	95	80 - 120	<0.050	ug/L	2.8	20
8807644	Total Thallium (Tl)	2017/10/27	96	80 - 120	94	80 - 120	<0.0020	ug/L	0	20
8807644	Total Tin (Sn)	2017/10/27	97	80 - 120	97	80 - 120	<0.20	ug/L	NC	20
8807644	Total Titanium (Ti)	2017/10/27	98	80 - 120	87	80 - 120	<0.50	ug/L	9.9	20
8807644	Total Uranium (U)	2017/10/27	NC	80 - 120	102	80 - 120	<0.0020	ug/L	0.50	20
8807644	Total Vanadium (V)	2017/10/27	99	80 - 120	95	80 - 120	<0.20	ug/L	14	20
8807644	Total Zinc (Zn)	2017/10/27	101	80 - 120	97	80 - 120	<0.10	ug/L	17	20
8807644	Total Zirconium (Zr)	2017/10/27	100	80 - 120	88	80 - 120	<0.10	ug/L	6.7	20
8807920	ORP	2017/10/30							0	20
8808087	Total Ammonia (N)	2017/10/26	NC	80 - 120	97	80 - 120	<0.020	mg/L	0.85	20
8808088	Total Ammonia (N)	2017/10/26	NC	80 - 120	106	80 - 120	<0.020	mg/L	1.7	20
8808091	Total Ammonia (N)	2017/10/26	94	80 - 120	99	80 - 120	<0.020	mg/L	NC	20
8808094	Total Ammonia (N)	2017/10/26	93	80 - 120	100	80 - 120	<0.020	mg/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	lank	RPD	
QC Batch	Parameter	Date	% Recovery	% Recovery QC Limits % R		QC Limits	Value	UNITS	Value (%)	QC Limits
8808183	Fluoride (F)	2017/10/26	100	80 - 120	102	80 - 120	0.010, RDL=0.010	mg/L	8.7	20
8808228	Dissolved Chloride (Cl)	2017/10/25	113	80 - 120	96	80 - 120	<0.50	mg/L	0.51	20
8808236	Dissolved Sulphate (SO4)	2017/10/25	NC	80 - 120	94	80 - 120	<0.50	mg/L	0.16	20
8808242	Dissolved Chloride (Cl)	2017/10/25	111	80 - 120	97	80 - 120	<0.50	mg/L	6.5	20
8808250	Dissolved Sulphate (SO4)	2017/10/25	NC	80 - 120	96	80 - 120	<0.50	mg/L	0.27	20
8808371	Fluoride (F)	2017/10/26	98	80 - 120	100	80 - 120	0.012, RDL=0.010	mg/L	3.3	20
8808405	Dissolved Chloride (Cl)	2017/10/25			97	80 - 120	<0.50	mg/L		
8808408	Dissolved Sulphate (SO4)	2017/10/25			96	80 - 120	<0.50	mg/L		
8808480	Total Aluminum (Al)	2017/10/28	109	80 - 120	114	80 - 120	<3.0	ug/L	4.5	20
8808480	Total Antimony (Sb)	2017/10/28	99	80 - 120	105	80 - 120	<0.020	ug/L	3.0	20
8808480	Total Arsenic (As)	2017/10/28	106	80 - 120	107	80 - 120	<0.020	ug/L	8.9	20
8808480	Total Barium (Ba)	2017/10/28	NC	80 - 120	108	80 - 120	<0.050	ug/L	2.7	20
8808480	Total Beryllium (Be)	2017/10/28	102	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
8808480	Total Bismuth (Bi)	2017/10/28	100	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
8808480	Total Boron (B)	2017/10/28	99	80 - 120	104	80 - 120	<10	ug/L	NC	20
8808480	Total Cadmium (Cd)	2017/10/28	98	80 - 120	104	80 - 120	< 0.0050	ug/L	13	20
8808480	Total Chromium (Cr)	2017/10/28	99	80 - 120	105	80 - 120	<0.10	ug/L	12	20
8808480	Total Cobalt (Co)	2017/10/28	96	80 - 120	100	80 - 120	<0.010	ug/L	6.7	20
8808480	Total Copper (Cu)	2017/10/28	93	80 - 120	102	80 - 120	<0.10	ug/L	0.74	20
8808480	Total Iron (Fe)	2017/10/28	111	80 - 120	105	80 - 120	<5.0	ug/L	7.2	20
8808480	Total Lead (Pb)	2017/10/28	101	80 - 120	105	80 - 120	<0.020	ug/L	57 (1)	20
8808480	Total Lithium (Li)	2017/10/28	101	80 - 120	107	80 - 120	<0.50	ug/L	2.5	20
8808480	Total Manganese (Mn)	2017/10/28	103	80 - 120	100	80 - 120	<0.10	ug/L	2.3	20
8808480	Total Molybdenum (Mo)	2017/10/28	108	80 - 120	109	80 - 120	<0.050	ug/L	12	20
8808480	Total Nickel (Ni)	2017/10/28	96	80 - 120	103	80 - 120	<0.10	ug/L	8.0	20
8808480	Total Phosphorus (P)	2017/10/28					<5.0	ug/L	NC	20
8808480	Total Selenium (Se)	2017/10/28	106	80 - 120	106	80 - 120	<0.040	ug/L	1.1	20
8808480	Total Silicon (Si)	2017/10/28					<50	ug/L	0.015	20
8808480	Total Silver (Ag)	2017/10/28	107	80 - 120	112	80 - 120	<0.010	ug/L	NC	20
8808480	Total Strontium (Sr)	2017/10/28	NC	80 - 120	102	80 - 120	<0.050	ug/L	4.2	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Matrix Spike		Blank	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	% Recovery QC Limits % R		QC Limits	Value	UNITS	Value (%)	QC Limits
8808480	Total Thallium (TI)	2017/10/28	102	80 - 120	104	80 - 120	<0.0020	ug/L	0	20
8808480	Total Tin (Sn)	2017/10/28	101	80 - 120	106	80 - 120	<0.20	ug/L	NC	20
8808480	Total Titanium (Ti)	2017/10/28	103	80 - 120	103	80 - 120	<2.0	ug/L	NC	20
8808480	Total Uranium (U)	2017/10/28	NC	80 - 120	105	80 - 120	<0.0050	ug/L	3.8	20
8808480	Total Vanadium (V)	2017/10/28	101	80 - 120	103	80 - 120	<0.20	ug/L	1.2	20
8808480	Total Zinc (Zn)	2017/10/28	98	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
8808480	Total Zirconium (Zr)	2017/10/28	104	80 - 120	106	80 - 120	<0.10	ug/L	0	20
8808487	Nitrate plus Nitrite (N)	2017/10/25	NC	80 - 120	107	80 - 120	<0.0020	mg/L	1.1	25
8808489	Nitrite (N)	2017/10/25	95	80 - 120	101	80 - 120	<0.0020	mg/L	0	25
8808490	Nitrate plus Nitrite (N)	2017/10/25	98	80 - 120	105	80 - 120	<0.0020	mg/L	0.80	25
8808493	Nitrite (N)	2017/10/25	97	80 - 120	100	80 - 120	< 0.0020	mg/L	NC	25
8808495	Nitrate plus Nitrite (N)	2017/10/25	NC	80 - 120	104	80 - 120	<0.0020	mg/L	0.65	25
8808497	Nitrite (N)	2017/10/25	96	80 - 120	102	80 - 120	<0.0020	mg/L	NC	25
8808548	Fluoride (F)	2017/10/26	97	80 - 120	100	80 - 120	<0.010	mg/L	1.2	20
8808595	Total Aluminum (Al)	2017/10/31	107	80 - 120	108	80 - 120	<3.0	ug/L	4.1	20
8808595	Total Antimony (Sb)	2017/10/31	107	80 - 120	105	80 - 120	<0.020	ug/L	4.3	20
8808595	Total Arsenic (As)	2017/10/31	113	80 - 120	99	80 - 120	<0.020	ug/L	1.3	20
8808595	Total Barium (Ba)	2017/10/31	NC	80 - 120	102	80 - 120	<0.050	ug/L	0.22	20
8808595	Total Beryllium (Be)	2017/10/31	106	80 - 120	105	80 - 120	<0.010	ug/L	NC	20
8808595	Total Bismuth (Bi)	2017/10/31	105	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8808595	Total Boron (B)	2017/10/31	104	80 - 120	107	80 - 120	<10	ug/L	NC	20
8808595	Total Cadmium (Cd)	2017/10/31	100	80 - 120	101	80 - 120	<0.0050	ug/L	3.7	20
8808595	Total Chromium (Cr)	2017/10/31	101	80 - 120	100	80 - 120	<0.10	ug/L	5.1	20
8808595	Total Cobalt (Co)	2017/10/31	98	80 - 120	100	80 - 120	<0.010	ug/L	6.6	20
8808595	Total Copper (Cu)	2017/10/31	97	80 - 120	101	80 - 120	<0.10	ug/L	1.2	20
8808595	Total Iron (Fe)	2017/10/31	102	80 - 120	102	80 - 120	<5.0	ug/L	0.14	20
8808595	Total Lead (Pb)	2017/10/31	100	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
8808595	Total Lithium (Li)	2017/10/31	104	80 - 120	105	80 - 120	<0.50	ug/L	1.6	20
8808595	Total Manganese (Mn)	2017/10/31	NC	80 - 120	97	80 - 120	<0.10	ug/L	0.15	20
8808595	Total Molybdenum (Mo)	2017/10/31	113	80 - 120	99	80 - 120	<0.050	ug/L	0.48	20
8808595	Total Nickel (Ni)	2017/10/31	97	80 - 120	101	80 - 120	<0.10	ug/L	5.7	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	% Recovery QC Limits %		QC Limits	Value	UNITS	Value (%)	QC Limits
8808595	Total Phosphorus (P)	2017/10/31					<5.0	ug/L	NC	20
8808595	Total Selenium (Se)	2017/10/31	106	80 - 120	106	80 - 120	<0.040	ug/L	9.8	20
8808595	Total Silicon (Si)	2017/10/31					<50	ug/L	1.4	20
8808595	Total Silver (Ag)	2017/10/31	109	80 - 120	108	80 - 120	<0.010	ug/L	NC	20
8808595	Total Strontium (Sr)	2017/10/31	NC	80 - 120	95	80 - 120	<0.050	ug/L	1.0	20
8808595	Total Thallium (TI)	2017/10/31	103	80 - 120	102	80 - 120	<0.0020	ug/L	11	20
8808595	Total Tin (Sn)	2017/10/31	97	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
8808595	Total Titanium (Ti)	2017/10/31	110	80 - 120	96	80 - 120	<2.0	ug/L	NC	20
8808595	Total Uranium (U)	2017/10/31	NC	80 - 120	98	80 - 120	<0.0050	ug/L	0.19	20
8808595	Total Vanadium (V)	2017/10/31	101	80 - 120	100	80 - 120	<0.20	ug/L	7.5	20
8808595	Total Zinc (Zn)	2017/10/31	100	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
8808595	Total Zirconium (Zr)	2017/10/31	99	80 - 120	97	80 - 120	<0.10	ug/L	0.66	20
8808639	Total Dissolved Solids	2017/10/27	100	80 - 120	103	80 - 120	<10	mg/L	0.92	20
8809049	рН	2017/10/26			102	97 - 103			7.4	20
8809052	Conductivity	2017/10/26			101	80 - 120	<1.0	uS/cm		
8809055	Alkalinity (PP as CaCO3)	2017/10/26					<0.50	mg/L		
8809055	Alkalinity (Total as CaCO3)	2017/10/26			101	80 - 120	<0.50	mg/L		
8809055	Bicarbonate (HCO3)	2017/10/26					<0.50	mg/L		
8809055	Carbonate (CO3)	2017/10/26					<0.50	mg/L		
8809055	Hydroxide (OH)	2017/10/26					<0.50	mg/L		
8809198	Total Ammonia (N)	2017/10/27	NC	80 - 120	98	80 - 120	<0.020	mg/L	0.49	20
8809200	Total Ammonia (N)	2017/10/27	97	80 - 120	102	80 - 120	<0.020	mg/L	NC	20
8809201	Total Ammonia (N)	2017/10/27	88	80 - 120	97	80 - 120	<0.020	mg/L	NC	20
8809205	Total Ammonia (N)	2017/10/27	101	80 - 120	108	80 - 120	<0.020	mg/L	14	20
8809732	Dissolved Chloride (CI)	2017/10/26			99	80 - 120	<0.50	mg/L		
8809740	Dissolved Sulphate (SO4)	2017/10/26			99	80 - 120	<0.50	mg/L		
8809770	Nitrate plus Nitrite (N)	2017/10/26			103	80 - 120	<0.0020	mg/L		
8809771	Nitrite (N)	2017/10/26			101	80 - 120	<0.0020	mg/L		
8809772	Nitrate plus Nitrite (N)	2017/10/26	94	80 - 120	104	80 - 120	<0.0020	mg/L	6.7	25
8809779	Nitrite (N)	2017/10/26	91	80 - 120	101	80 - 120	<0.0020	mg/L	14	25
8810355	Weak Acid Dissoc. Cyanide (CN)	2017/10/27	NC	80 - 120	97	80 - 120	<0.00050	mg/L	2.5	20



#### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8810667	Total Organic Carbon (C)	2017/10/27	107	80 - 120	115	80 - 120	<0.50	mg/L	8.1	20
8810670	Total Organic Carbon (C)	2017/10/27	109	80 - 120	108	80 - 120	<0.50	mg/L	NC	20
8810677	Total Organic Carbon (C)	2017/10/27			112	80 - 120	<0.50	mg/L		
8810689	Dissolved Organic Carbon (C)	2017/10/27	100	80 - 120	117	80 - 120	<0.50	mg/L	2.5	20
8810692	Dissolved Organic Carbon (C)	2017/10/27	102	80 - 120	104	80 - 120	<0.50	mg/L	0.23	20
8812262	Dissolved Mercury (Hg)	2017/10/30	98	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
8812408	Total Mercury (Hg)	2017/10/30	94	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
8812611	Dissolved Mercury (Hg)	2017/10/30	87	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
8812670	Dissolved Mercury (Hg)	2017/10/30	100	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
8813221	Total Mercury (Hg)	2017/10/31	85	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
8813222	Total Mercury (Hg)	2017/10/31	90	80 - 120	91	80 - 120	<0.0020	ug/L	NC	20
8813820	Dissolved Organic Carbon (C)	2017/10/31	97	80 - 120	102	80 - 120	<0.50	mg/L	2.6	20
8813837	Total Organic Carbon (C)	2017/10/31	101	80 - 120	104	80 - 120	<0.50	mg/L	4.9	20
8813885	Weak Acid Dissoc. Cyanide (CN)	2017/10/31	100	80 - 120	102	80 - 120	<0.00050	mg/L	10	20
8813887	Weak Acid Dissoc. Cyanide (CN)	2017/10/31	102	80 - 120	104	80 - 120	<0.00050	mg/L	4.4	20
8816333	Dissolved Manganese (Mn)	2017/11/02			97	80 - 120	<0.050	ug/L		
8816333	Dissolved Zinc (Zn)	2017/11/02			104	80 - 120	<0.10	ug/L		
8818954	Dissolved Organic Carbon (C)	2017/11/03	108	80 - 120	103	80 - 120	<0.50	mg/L	1.0	20
8818956	Total Organic Carbon (C)	2017/11/03	102	80 - 120	107	80 - 120	<0.50	mg/L	9.5	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

A Bury	XXam	4606 Canada Way, Burnaby, British Col	umbia Canada V5G 1K5	161(604) 134 1516	CONTINUE BOOLS	53-6266	Fax.[004]	r31.2300	WWW.ITHUOS	ern.car									Page 1 of		
na = = =		INVOICE TO:			Report Infor	mation		2-3			201	3301	Project	ct Information				Laboratory Use Only			
Company N	me #3604 LORAX	ENVIRONMENTAL SERVICES I	LTD. Company Na							Que	Guotation# B40231						Maxxam Job #		Bottle Order#:		
Contact Nan			Contact Nam	David Flath	er					P.O.	P.O.# Gold Corp Coffee Creek-S				- Const	CIM	_	B793988	1 101 101 111 111 111 111 111 111		
Address	2289 BURRARI VANCOUVER I	- Control Cont	Address	-			_				oct #	4	Guid Co	rp Cone	e Creek	244	+-	Chain Of Custody Record	538344 Project Manager		
Phone	(604) 688-7173		5 x Phone	Fax:					Proj	ect Name	-										
mail		@lorax.ca; shukling.ng@lorax.ca	Email	The control of the co				1000	pled By							C#538344-01-01	Megan Smith				
Regulato	ry Criteria		Speci	al Instructions							Analysis	Requested	1	15				Turnaround Time (TAT) Req			
		drinking water samples - please use the D				Id Filtered ? (Y/N)	(Alk, EC, pH, TDS)	Level	(Ci, F, NO2, NO3, NH4,	- WAD			el Dissolved Metals Hg	vel Total Metals incl. CV		3	vill be applie tandard TAT lease note: ! ays - contact	Please provide advance notice for ruindard) TAT and if Rush TAT is not specified)  T = 5-7 Working days for most tests. Standard TAT for certain tests such as 80 of your Project Manager for details.  Rush TAT (if applies to entire submission)  Time Re	D and Dioxins/Fursins are		
		ling until delivery to max			als Fie	Routine (	TSS-Low	Anions (C SO4)	Cyanide	700	DOC	Low Level incl. CV Hg	Low Leve	ORP	R	sh Confirmatio		and too for It)			
	mple Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	77.00	Met Met	œ	F	4 W	O	F	0	7.5	JI	0	#	f Bottles	Comments			
t RIM	SID#162743	CC-0.5	OCT. 20/19	11:50	H20	N	V	0	V	0	1	~	-	U		/	2				
2 0/46	SID#162744	CC-1.0	GCT 19/17	14:50	1	VN	~	V	L	V	_	4	L	~	~		2				
3	SID#162745	CC-1.5	OCT. 19/1	15:20	1	N	L	U	V	V	V	V	L	V	V		12	RECEIVED IN WHIT			
E BIND	SID#162746	CC-3.5	OCT 20/17	12:10	/	14		U	~	_	V	V	V	U	~	/	2	BY: Sygnol	21340		
5 UID	SID#162747	CC-4.5	0019/11	16:35		N	~	V	V	V	V	~	V	V	/		12	2017 -10-	23		
1100	SID#162748	CC-5.0	OCT. 29/1	13:30		N	V	V	V	1	~	1	~	V	/		12	53.	1 . 4		
BIRE	SID#149895	CC-5.5	OCT. 20/11	14:10		NA	V	~	V	V	V	~	L	V	V		12	TEMP: 3/3	14		
, com	SID#149896	CC-6.0	OCT. 2%1	13:50		NN	7	L	V	)	1	L	V	~	V	/	2	8 8	· Sq		
	SID#149897	CC-A	007.20/11	14:25	1	UN	~	V	/	1	V	1	V	/	/	/ /	2	à 3	3		
o HIN	SID#140898	CC-B	OCT. 20/17	1/2:35		MN	1	V	V	1	V	V	V	V	V		2				
* RI	A LONGUES SED SE HOMPHATUR	Date: (1	10/21/5.	40 m	RECEIVED H	-	gnature/Pr	int)			7/10/		13:00	mot s	used and ubmitted	Time Sensitiv	1	Lab Use Only Custody CTR C	Seel Intact on Cooler?		

	1
B793988 COC	

Maxxam Analytics International Corporation of Maxxam Analytics

		INVOICE TO:			Report Inf	ormation							Project I	nformatio	n			Labora	story Use On	ly
mpany Name	#3604 LORAX	ENVIRONMENTAL SERVICES	LTD. Compa	ny Name						Our	tation#	1	B40231					Maxxam Job #		Bottle Order #
ntact Name	Aida Piaseczny		Contac	Dould Flat	her			5510		P.0.							0 -	0200	0	100000000
ress	2289 BURRARI	STREET	Addres							Proje	ect#	(	Gold Co	rp Coffe	e Creek	SW	187	9398	6	538344
	VANCOUVER B						- 55			Proj	eci Name	9					Chai	n Of Custody Reco	rd	Project Manage
ne	(604) 688-7173					-	Fax:			Site	#	-							HAR FAN	Megan Smith
il	aida.plaseczny(	@lorax.ca; shukling.ng@lorax.ca			her@lorax.	ca	_			Sam	pled By			_				C#538344-02-01		
Regulatory C	Criteria			Special Instructions	-	-	-	Т-	100	-	Analysis	Requested		6		_	Die	Turnaround Time ase provide advance		
	Note: For regulated	drinking water samples - please use the	Drinking Water Cha	in of Custady Form		3 Drinking Water?(Y/N)	(Alk, EC, pH, T	w Level	(CI, F, NO2, NO3, NH4,	WAD			rel Dissolved Metals Hg	vel Total Metals incl.		(will Sta Pla day Job Date	ndard TAT = 5-7 V ase note: Standard s - contact your Pr	h TAT is not specified Vorking days for most of TAT for certain test roject Manager for de (if applies to entire a	st leats. Is such as BOD a etails.	
	Samples m	ust be kept cool ( $\leq 10^{\circ}$ C ) from time of sar	npling until delivery to	таххат		egulate etals Fi	Routine	SS-Lo	Anions SO4)	Cyanide	TOC	200	Low Lev incl. CV	Low Le	ORP	-				ab for #)
1000	le Barcode Label	Sample (Location) Identification CC-C	Date Samples	/	H <sub>2</sub> O	NA		-	40	0	-		77	7	-		2		Comments	
URUIN	SID#149899	CC-D	OCT. 19/1	1 17:25	H10	NN	1	-	0	2	_	_	v	U	~	35		V. SALIO	WHITEH	ORSE 1540
	SID#149901	HC-2.5	OCT. 19/	1 14.00	1420	NN	V	~	U	v	V	V	L	v	V	_ /	2	201	7 10 2	
	SID#149902	HC-5.0	007.20/	1 15:40	H20	NN	V	v	V	~	~	v	U	~		1	2	5	4	4
	SID#149903	HC-A	OCT. 29	M 16:35	1/20	NN	V	V	V	1	V	/	1	V	V	1	2 TI	EMP: 3	13	13
	SID#149904	нс-в	OCT. 29	1 15:15	H20	NN	V	V	1	/	V	V	V	V	~	/	2	5	با	6
	SID#094856	нс-с	OCT. 29	114:50	H20	NN	V	V	V	V	V	1	V	V	1	1	2	8	_5	\$
	SID#176820	IC-0.5	OCT. 21/	1 12:25	1120	NN	V	V	V	V	-	U	v	V		1	2	a	3	3
	SID#176821	IC-1.5	OCT. 24	12:10	1/20	NN	1	V	V	V	~	V	V	1	1	1	2			
	SID#176822	IC-2.5	OC T. 21	12:55	1420	NN	V	V	V	~	~	~	V	1	/	13	2			
* RENIN	YOU HED BY: (Signature	e/Print) Date:	/ / /	Time			ilgnature/Pr	riest)			e: (YY/MM		Time		used and ubmitted	Tour Frank	- M	Lab Use On		t below on France
14	ra W	12/	10/23/	5:40 MM	KON	MAPL			-	20	A/10/2	4	13:00	200		Time Sensitive	Temperature (*	) on Receipt	Custody Sea	f intact on Cooler?

Maxxam Analytics International Corporation o/a Maxxam Analytics

	IN	VOICE TO:				Report In	formation							Project I	nformatio	n			Laboratory Use	Only
Company Na	#3604 LORAX I	ENVIRONMENTAL SERVICES	SLTD. Com	pany Nan	wa.	00.73-3-00		- 7			0	tation#		B40231	111111				Maxxam Job #	Bottle Order #:
ompany Na Contact Nam Iddress	Aida Dinasana		-	act Name	David Clath	er					P.O.			Gold Co	rp Coffe	e Creek-	SW		B7 93 988	538344
Lightens	VANCOUVER BO	C V6J 3H9	1433								- 1	ect Name							Chain Of Custody Record	Project Manage
hone	(604) 688-7173 x			18				Fax:			Site	#	- 6					1		Megan Smith
mail	aida.piaseczny@	lorax.ca; shukling.ng@lorax.c	a Emu		David.Flathe	er@lorax	ca	-			Sam	pled By	-					-	C#538344-03-01	1095763555555
Regulatory	Criteria			Specia	Instructions		î	-		1.2		Analysis F	Requested		3	1			Turnaround Time (TAT) Re Please provide advance notice for n	
	Samples mu	inking water samples - please use the st be kept cool ( < 10°C ) from time of sa	mpling until deliver	to maxx	am		egulated Drinking Water ? ( Y	4	TSS-Low Level	Anions (Cl. F, NO2, NO3, NH4, SO4)	Cyanide - WAD	тос	DOC	Low Level Dissolved Metals incl. CV Hg	Low Level Total Metals Incl. Hg	ORP	(W SA PA da Jol Dan Rus	if be applianced TA case note ys - conta case Specific e Require h Confirma	tion Number	Required:(call tab for #)
- 12 POINT	ple Barcode Label	Sample (Location) Identification	Date Samp	ed	Time Sampled	Matrix	E 2		F	₹ Ø	0	-	Δ	25	JI	0		Bottles	RECEIVED IN WHITE	
	SIO#176823	IC-3.0	007.21	111	13:15	H20	NA	1	0	-	-	~	~	~	-		1	2	ALKON	21540
1101	SID#176824	IC-4.5	oc7.2	11	13:40	1	NA	10	V	V	V	~	~	v	V	v	1	2	BY: UGONG	0 10 12
FIRST	SID#176825	ML-1.0 (YT-24)	ocT2	11	09:35		NN	V	~	1	V	V	1	v	/	V	1	2	2017 -10- 5 4	13 4
1000	SID#178956	ML-A	ocT.2	117	10:30		NN	V	V	V	U	1	V	V	V	~	1	2	TEMP: 3 / 3	13
E IMIT	SID#178957	ML-B	oc7.2	11	11:00		NA	V	V	/	V	~	V	v	~	V		2	\$ 8	6
11001	SID#178958	ML-C (YUK-24-2)	067.2	1/1	11:25		NA	1	V	V	~	1	V	V	~	1	1	2	92 5	7
1000	SID#178959	YUK-2.0	OCT. 2	di	10:35		NN	V	V	V	/	V	~	V	~	V	1	2		
1 (0)	\$10#178960	YUK-5.0	OCT. 2/	1	14:25		NA	1	~	~	V	V	)		1	1	1	2		
1981	SID#178961	Ballarat U/S Y.R.	ac7,20	1/1	10:15		NI	1	V	V	V	7	V	1	V	/	1	2		
11111	SID#178962	Barker U/S S.R.	oc T. 2	11	15:55	1	NV	1	V	V	V	V	V	v	v	~	1	2		
• REI	POLYSHED BY: (Signature)	Print) Date	(YY/MM/DD)	Time	show			Signature/P	rient)		201	*: (YY/MM/ 31 101		7 : a0		used and ubmitted	Time Sensitive		Lab Use Only  crature (°C) on Receipt Custod	Seal Intact on Cooler?
1	the winh		1176	1.4	1	MA L	Allen				1.0	31 14	- 1	5.00			П	A	(10.	Yes No

Maxxam Analytics International Corporation o/a Maxxam Analytics

		INVOICE TO:			Report In	formation							Project I	Informatio	on .			Laboratory Use (	Only
ompany Name	#3604 LORAX	ENVIRONMENTAL SERVICES L	TD. Company No	ime						0.0	tation#		B40231					Maxxam Job #	Bottle Order#:
ontact Name	Aida Piaseczny		Contact Nam	Desid Flori	her					P.O.		- 1					))	h-	
ddress	2289 BURRARI		Address							Proje	ect#	1	Gold Co	rp Coffe	e Creek	SW		B7 93 988	538344
	VANCOUVER E								_	1 2.37	ct Name	196					-	Chain Of Custody Record	Project Manager
hone mail	(604) 688-7173 aida piaseczny(	x Fax: (604) 688-7175 @lorax.ca; shukling.ng@lorax.ca	Phone Email	David.Flat	her@lorax		Fax:			Site	# pled By	13					- 1	C#538344-04-01	Megan Smith
Regulatory C	2000	giorania, oraniging giorania		al Instructions		TT				_	Analysis F	Requested	1					Turnaround Time (TAT) Regi	iired
***************************************	999798					finking Water ? (Y/N) Filtered ? (Y/N)	(Alk, EC, pH, TDS)	evel	F, NO2, NO3, NH4,	WAD			Level Dissolved Metals CV Hg	Total Metals incl. CV		3	will be app Standard T. Please note fays - cont	Please provide advance notice for rus standard) TAT is not specified)  AT = 5-7 Working days for most leats, a: Standard TAT for certain tests such as BOL act your Project Manager for details. Rush TAT (if applies to entire submission) ad:  Time Re	and Diaxins/Furans an
	and the same of th	drinking water samples - pisase use the Dr sust be kept cool ( $< 10^{\mu}$ G ) from time of sample				julated D	Routine (A	TSS-Low L	Anions (Cl. F. I SO4)	Cyanide -	T0C	DOC	w Level	w Level	ORP	-	ush Confirm	nation Number	all tab for #)
Samp	le Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	A. N.	ı ı	55	SC	Õ	2	ă	Low incl.	Low Hg	Ö	#	of Bottles	Comments	HODEL
1,00000000	SID#178963	Blackhills U/S S.R.	OCT. 21/17	15:00	1120	NN	V	V	~	~	L	/	/	V	~	_	12	RECEIVED IN WHITE	10HSE
	SID#178964	MaisyMay U/S S.R.	OCT. 21/17	15:20	/	NN	1	V	V	V	V	V	~	~	-		12	2017 10 2	1
	SID#178965	Stewart D/S M.M.	DCT. 21/17	15:45		NN	V	V	V	V	V	/	1	V	~		12	5 4	34
	SID#184576	CC-X	OCT. 20/M	11:00	)	NN	1	V	0	V	~	U	~	~	~		12	TEMP: 3 / 3	13
	SID#184577	Coffee Mix	0															5 9	6
	SID#184578	Halfway Mix																2 2	착
	SID#184579	Latte Mix	OCT. 19/11	16:00	1120	NN	1	V	V	v	/	~	V	V	1	/	2	ν 5	5
	SID#184580	YT-24 Mix	1017																
	51D#184581	Sample A																	
	SIDW184582	Sample B																	
Me	Guistana ay: (Signature	e(Print) Date: (Y	//MM/DD) Time 0/23 /5:4		RECEI		APUR	int)			10/2		7:00	# jars not s	used and submitted	Time Sersitiv	a Temp	Lab Use Only  Derature (°C) on Receipt  Custody	Seal Intact on Cooler?

Maxxam Analytics International Corporation of Maxxam Analytics

	Xam	The second secon			Section Control	NISO SOLIC				_		_	- Jan 17 5		7/			1200-2000-000		Page 5 of
		INVOICE TO:			Report In	formation				-				nformatio	n				ry Use Only	
mpany Name		ENVIRONMENTAL SERVICES	LTD. Company N							Quo	station #		840231				-	Maxxam Job #		Bottle Order #:
intact Name	Aida Piaseczny	O OTOCET	Contact Na	ne David Flat	her					P.O.	.#	7	Cold Co	m Coffe	o Cenak	CIAI	-	B793989		
dress	VANCOUVER E		Address			_		_		Proj	ect #	2	Gold Col	rp Cone	e Creek-	OVV	+	Chain Of Custody Record	_	538344 Project Manager
	(604) 688-7173	V1-103303 P3B3	5 v	-				12.5		1000	ect Name	12					100	CONTRACTOR	1000	r toject manager
one nail		@lorax.ca; shukling.ng@lorax.ca	D X Phone Email	David.Flat	her@lorax		ак			Site	mpled By	-					- 111	C#538344-05-01		Megan Smith
Regulatory C	-	, , , , , , , , , , , , , , , , , , ,	177.55	cial Instructions		TT	I				Analysis R	equested						Turnaround Time (1	(AT) Required	
						Drinking Water ? (Y/N)	(Alk, EC, pH, TDS)	Level	1, F, NO2, NO3, NH4,	WAD			Level Dissolved Metals CV Hg	Total Metals incl. C		(W St P) dt	andard TAT èase note: : rys - contact	d if Rush TAT is not specified) f = 5-7 Working days for most te Standard TAT for certain tests so t your Project Manager for detail ush TAT (if applies to entire sub	ests. uch as BOD and ès.	Dioxins/Furans an
	Samples m	drinkling water samples - please use the l ust be kept cool ( < 10°C ) from time of sam	pling until delivery to ma	xxam	o foliace	gufated tals Fiel	Routine (	TSS-Low	Anions (CI, SO4)	Cyanide -	TOC	DOC	Low Leve incl. CV H	Low Level	ORP	-	ift Confirmation	100000000000000000000000000000000000000	(cell fab	for fi)
EMEDIE	Barcode Label	Sample (Location) Identification Sample C	Date Sampled	Time Sampled	H <sub>2</sub> O	V/ V	10	~	V 8 8	-	-	-	V	~	-		Bottles 2	RECEIVED IN V	WHITEHO	RSE
100000		FIELD BLANK	B C T. 19/2	19:30	1	NN	V	v	~	L	~	L	v	~	~	_	2	BY: 840	MO(	137
	SID#189835	TRIP BLANK	1			N	V	V	~	/	v	7	~	1	_	1	2	2017	-10- 23	170
LILLING	HD#189836	40																TEMP: 3	1 3	3_
	#D#189637	100				Ш												<u> </u>	3	4
																		8	-5	\$
																		2	3	3
-																				
	L,									_										
• RELIN	Query HED BY: (Signature		(V/MM/DD) Tim	on	RECE	MAP	ignature/Pr	nt)			17/10/2		(3:00	0.00	used and ubmitted	Time Sensitive	Temper	Lab Use Only	Custody Seal I	ntact on Cooler?

Maxxam Analytics International Corporation o/a Maxxam Analytics

		INVOICE TO:			Report Inf	ormation							Project I	nformatio	N .			THE SALE	AARSAN	APMA E	DE MILIT	2 - 10
ompany Name	#3604 LORAX	ENVIRONMENTAL SERVICES L	TD. Company Na	пе						Quot	tation #	3	B40231							30.37	7.0 III	ttle Order
ntact Name	Aida Piaseczny		Contact Nam	David Flat	her					P.O.											A3-400 III	188008000
ldress	2289 BURRARI		Address			_			_	Proje	ect.#		Gold Co	p Coffe	e Creek-S			9988	_coc			538344
	VANCOUVER E			-				_		1000	sct Name	-		-	_	-	- 1				. 1	ject Manag
none	(604) 688-7173	x Fax: (604) 688-7175 @lorax.ca; shukling.ng@lorax.ca		Dovid Flat	her@lorax.		Fax:			Site		-			- 39.	0.00	- " 111		#538344-04-C			Megan Smitt
nell	alda.plaseczny(	giorax.ca, shukiing.ng@iorax.ca	Email	al Instructions	Heritgiolax.	II	1				pled By Analysis R	- Pottounes	_		_			17.000	urnaround '		D Booulead	
Regulatory Co	T TENTINA	9	•			Drinking Water?(Y/N)	K. EC. pH. TDS)	evel	(CI, F, NO2, NO3, NH4,	WAD .			Level Dissolved Metals CV Hg	Total Metals incl. CV			Regular (Stan (will be applied Standard TAT Please note: S days - contact Job Specific Ru Date Required:	dard) TA If Rush T = 5-7 Wa tandard T your Proje	T TAT is not spe rking days for TAT for certain ect Manager	ecified) or most lests, in lests such for details intire submiss	as BOD and	Dioxins/Furans
	Note: For regulated	drinking water samples - please use the Dr	inking Water Chain of	Custody Form		Ind Dr	Routine (Alk.	TSS-Low Leve	(C		9		evel V Hç	evel		- 1	Rush Confirmation	i Number	_			No.
	Samples m	nust be kept cool ( < 10°C ) from time of sample	ing until delivery to max	kism.		sing 4	ontin	SS-L	Anions (SO4)	Cyanide	TOC	000	Low L	Low Le	ORP					neista.	(call tab)	(or N)
Sample	e Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Reg Mar	M.	12	SRA	Ű.	¥	ŏ	25	31	ŏ	-	A of Boffles			Com	ments	
		Blackhills U/S S.R.																				
	######################################	MaisyMay U/S S.R.		50-5 AV-53						V42							REC BY:_		DIN WI HCV	WEHC	O I D	00
	SID#178965	Stewart D/S M.M.																	1 2017 -1	10 2-		
	SID#184576	CC-X	1		1														201/ -1	U- L 3		
	SID#184577	Coffee Mix															TEM	P:	11	1	1	
	SID#184578	Halfway Mix																				
	5ID#184579	Latte Mix																				
		YT-24 Mix																				
	SID#184591	Sample A			HW	NI	1 0	L	1	V	~	L	·V	-	~		12					
		Sample B			Hw	NN	1/	1	V	V	~	~	~	L	~		12					
Au /	QUISHED BY: (Signatur	1 1 22 1	0/24 D12		RECEIV		Signature/	Print)			71/012		04: Y		used and ubmitted	Time Serai	Eve Tempera	ture (°C)	Lab Ur on Receipt	Ise Only	ustody Mai tr	tact on Cooler

Maxxam Analytics International Corporation of Maxxam Analytics



Your Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537489-01-01

#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/11/08

Report #: R2473827 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B796803 Received: 2017/10/30, 12:50

Sample Matrix: Water # Samples Received: 4

# Samples Neceiveu. 4		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Alkalinity - Low Level	4	2017/11/01	2017/11/01	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	4	N/A	2017/11/02	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide (weak acid dissociable) (1)	4	N/A	2017/11/08	EENVSOP-00062	SM 4500-CN-I
Carbon (DOC) - field filtered/preserved (2)	4	N/A	2017/11/01	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	4	2017/11/01	2017/11/01	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	4	N/A	2017/11/01	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	4	N/A	2017/11/06	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	4	N/A	2017/11/03	BBY WI-00033	Auto Calc
Mercury (Dissolved-LowLevel) by CVAF	4	N/A	2017/11/06	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	4	2017/11/06	2017/11/06	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	4	N/A	2017/11/03	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	4	N/A	2017/11/03	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2017/11/06	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	4	N/A	2017/11/04	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N Low Level (Preserved)	4	N/A	2017/11/01	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	4	N/A	2017/10/31	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	4	N/A	2017/10/31	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	4	N/A	2017/11/01	BBY6SOP-00010	SM 22 4500-NO3- I m
Filter and HNO3 Preserve for Metals	4	N/A	2017/11/01	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	4	2017/11/01	2017/11/01	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	3	N/A	2017/11/02	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	1	N/A	2017/11/03	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	4	2017/11/01	2017/11/02	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	4	N/A	2017/11/01	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids	4	2017/11/01	2017/11/02	BBY6SOP-00034	SM 22 2540 D

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using



Your Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 537489-01-01

**Attention:David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2017/11/08

Report #: R2473827 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

#### MAXXAM JOB #: B796803 Received: 2017/10/30, 12:50

accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- $^{st}$  RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Edmonton Environmental  $\,$
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

#### **Encryption Key**



Maxxam 08 Nov 2017 13:52:37

Please direct all questions regarding this Certificate of Analysis Project Manager. Megan Smith, Project Manager

Email: msmith@maxxam.ca Phone# (604) 734 7276

-----

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

Maxxam ID		SJ2398	SJ2398		SJ2399	SJ2399		
Sampling Date		2017/10/28	2017/10/28		2017/10/28	2017/10/28		
Sampling Date		11:15	11:15		11:48	11:48		
COC Number		537489-01-01	537489-01-01		537489-01-01	537489-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	QC Batch	CC-1.5	CC-1.5 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB		8815259	LAB			8815259
Nitrate (N)	mg/L	0.628		8813846	0.371		0.0020	8813846
Misc. Inorganics				•				
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.0010	<0.0010	8823150	<0.0010		0.0010	8823150
Fluoride (F)	mg/L	0.100		8815429	0.100		0.010	8815429
Dissolved Organic Carbon (C)	mg/L	6.21		8815893	7.15		0.50	8815893
Alkalinity (Total as CaCO3)	mg/L	95.5		8815933	143		0.50	8815933
Total Organic Carbon (C)	mg/L	7.36		8815900	6.97		0.50	8815900
Alkalinity (PP as CaCO3)	mg/L	<0.50		8815933	<0.50		0.50	8815933
Bicarbonate (HCO3)	mg/L	117		8815933	175		0.50	8815933
Carbonate (CO3)	mg/L	<0.50		8815933	<0.50		0.50	8815933
Hydroxide (OH)	mg/L	<0.50		8815933	<0.50		0.50	8815933
Anions				•				
Dissolved Sulphate (SO4)	mg/L	48.6		8816151	168		0.50	8820572
Dissolved Chloride (CI)	mg/L	0.60		8816150	0.61		0.50	8816150
Nutrients	•			•			•	
Total Ammonia (N)	mg/L	<0.0050	<0.0050	8814932	<0.0050		0.0050	8814932
Nitrate plus Nitrite (N)	mg/L	0.628		8815315	0.371	0.373	0.0020	8815315
Nitrite (N)	mg/L	<0.0020		8815318	<0.0020	<0.0020	0.0020	8815318
Physical Properties				•			•	
Conductivity	uS/cm	281		8815929	572		1.0	8815929
рН	рН	7.94		8815907	8.05			8815907
Physical Properties								
Total Suspended Solids	mg/L	<4.0		8815567	<4.0		4.0	8815567
Total Dissolved Solids	mg/L	172		8815316	340		10	8815330
RDL = Reportable Detection Limit	t							
Lab-Dup = Laboratory Initiated D	uplicate							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

Calculated Parameters           Filter and HNO3 Preservation         N/A         LAB         LAB         88152           Nitrate (N)         mg/L         0.466         0.430         0.0020         88138           Misc. Inorganics           Weak Acid Dissoc. Cyanide (CN)         mg/L         0.0010         <0.0010         0.0010         88231           Fluoride (F)         mg/L         0.096         0.084         0.010         88154           Dissolved Organic Carbon (C)         mg/L         8.80         9.28         0.50         88158           Alkalinity (Total as CaCO3)         mg/L         61.4         59.6         0.50         88159           Total Organic Carbon (C)         mg/L         8.55         8.41         0.50         88159           Alkalinity (PP as CaCO3)         mg/L         <0.50         <0.50         0.50         88159           Carbonate (HCO3)         mg/L         75.0         72.7         0.50         88159           Carbonate (CO3)         mg/L         <0.50         <0.50         0.50         88159           Anions         mg/L         <0.50         <0.50         0.50         88161           Dissolved Sulphate (SO4)         mg	Maxxam ID		SJ2400	SJ2401		
12:13   12:30	Sampling Date		2017/10/28	2017/10/28		
UNITS   Latte Mix   CC-4.5   RDL   QC Base   QC Base	Sampling Date		12:13	12:30		
Calculated Parameters Filter and HNO3 Preservation N/A LAB LAB 88152 Nitrate (N) mg/L 0.466 0.430 0.0020 88138  Misc. Inorganics  Weak Acid Dissoc. Cyanide (CN) mg/L 0.096 0.084 0.010 88231 Fluoride (F) mg/L 0.096 0.084 0.010 88154 Dissolved Organic Carbon (C) mg/L 8.80 9.28 0.50 88158 Alkalinity (Total as CaCO3) mg/L 61.4 59.6 0.50 88159 Total Organic Carbon (C) mg/L 8.55 8.41 0.50 88159 Bicarbonate (HCO3) mg/L 75.0 72.7 0.50 88159 Bicarbonate (HCO3) mg/L <0.50 <0.50 0.50 88159 Hydroxide (OH) mg/L <0.50 <0.50 0.50 88159  Anions Dissolved Sulphate (SO4) mg/L 75.8 71.2 0.50 88161 Dissolved Chloride (Cl) mg/L 0.95 1.0 0.50 88161  Nutrients Total Ammonia (N) mg/L <0.0050 <0.0050 0.0050 88163  Nitrite (N) mg/L <0.0050 <0.0050 0.0050 88163  Physical Properties  Conductivity uS/cm 283 270 1.0 88159  Physical Properties  Total Suspended Solids mg/L <4.0 <4.0 4.0 88159  Physical Properties	COC Number		537489-01-01	537489-01-01		
Filter and HNO3 Preservation         N/A         LAB         LAB         88152           Nitrate (N)         mg/L         0.466         0.430         0.0020         88138           Misc. Inorganics         Weak Acid Dissoc. Cyanide (CN)         mg/L         <0.0010         <0.0010         0.0010         88231           Fluoride (F)         mg/L         0.096         0.084         0.010         88154           Dissolved Organic Carbon (C)         mg/L         8.80         9.28         0.50         88158           Alkalinity (Total as CaCO3)         mg/L         61.4         59.6         0.50         88159           Total Organic Carbon (C)         mg/L         8.55         8.41         0.50         88159           Alkalinity (PP as CaCO3)         mg/L         <0.50         <0.50         0.50         88159           Carbonate (HCO3)         mg/L         <0.50         <0.50         0.50         88159           Carbonate (CO3)         mg/L         <0.50         <0.50         0.50         88159           Anions         Dissolved Sulphate (SO4)         mg/L         75.8         71.2         0.50         88161           Nutrients         Total Ammonia (N)         mg/L		UNITS	Latte Mix	CC-4.5	RDL	QC Batch
Nitrate (N)         mg/L         0.466         0.430         0.0020         88138           Misc. Inorganics         Weak Acid Dissoc. Cyanide (CN)         mg/L         <0.0010         <0.0010         0.0010         88231           Fluoride (F)         mg/L         0.096         0.084         0.010         88154           Dissolved Organic Carbon (C)         mg/L         8.80         9.28         0.50         88158           Alkalinity (Total as CaCO3)         mg/L         61.4         59.6         0.50         88159           Total Organic Carbon (C)         mg/L         8.55         8.41         0.50         88159           Alkalinity (PP as CaCO3)         mg/L         <0.50         <0.50         0.50         88159           Garbonate (HCO3)         mg/L         <0.50         <0.50         0.50         88159           Carbonate (CO3)         mg/L         <0.50         <0.50         0.50         88159           Anions         Dissolved Sulphate (SO4)         mg/L         75.8         71.2         0.50         88161           Nutrients         Total Ammonia (N)         mg/L         <0.0050         <0.0050         <0.0050         <0.0050         <0.0020         <0.0020         <0.0020	Calculated Parameters					
Misc. Inorganics           Weak Acid Dissoc. Cyanide (CN)         mg/L         <0.0010	Filter and HNO3 Preservation	N/A	LAB	LAB		8815259
Weak Acid Dissoc. Cyanide (CN)         mg/L         <0.0010         <0.0010         0.0010         88231           Fluoride (F)         mg/L         0.096         0.084         0.010         88154           Dissolved Organic Carbon (C)         mg/L         8.80         9.28         0.50         88158           Alkalinity (Total as CaCO3)         mg/L         61.4         59.6         0.50         88159           Total Organic Carbon (C)         mg/L         8.55         8.41         0.50         88159           Alkalinity (PP as CaCO3)         mg/L         <0.50	Nitrate (N)	mg/L	0.466	0.430	0.0020	8813846
Fluoride (F) mg/L 0.096 0.084 0.010 88154 Dissolved Organic Carbon (C) mg/L 8.80 9.28 0.50 88158 Alkalinity (Total as CaCO3) mg/L 61.4 59.6 0.50 88159 Total Organic Carbon (C) mg/L 8.55 8.41 0.50 88159 Alkalinity (PP as CaCO3) mg/L 75.0 72.7 0.50 88159 Bicarbonate (HCO3) mg/L 75.0 72.7 0.50 88159 Carbonate (CO3) mg/L 0.50 0.50 0.50 88159 Hydroxide (OH) mg/L 0.50 0.50 0.50 88159 Anions Dissolved Sulphate (SO4) mg/L 75.8 71.2 0.50 88161 Dissolved Chloride (Cl) mg/L 0.95 1.0 0.50 88161  Nutrients Total Ammonia (N) mg/L 0.466 0.430 0.0020 88153 Nitrite (N) mg/L 0.0020 0.0020 88153  Physical Properties Conductivity uS/cm 283 270 1.0 88159 Physical Properties Total Suspended Solids mg/L <4.0 <4.0 4.0 88159	Misc. Inorganics	•				
Dissolved Organic Carbon (C) mg/L 8.80 9.28 0.50 88158 Alkalinity (Total as CaCO3) mg/L 61.4 59.6 0.50 88159 Total Organic Carbon (C) mg/L 8.55 8.41 0.50 88159 Alkalinity (PP as CaCO3) mg/L <0.50 <0.50 0.50 88159 Bicarbonate (HCO3) mg/L 75.0 72.7 0.50 88159 Carbonate (CO3) mg/L <0.50 <0.50 0.50 88159 Hydroxide (OH) mg/L <0.50 <0.50 0.50 88159 Anions Dissolved Sulphate (SO4) mg/L 75.8 71.2 0.50 88161 Nutrients Total Ammonia (N) mg/L 0.95 1.0 0.50 88161 Nitrate plus Nitrite (N) mg/L 0.466 0.430 0.0020 88153 Physical Properties Conductivity uS/cm 283 270 1.0 88159 Physical Properties Total Suspended Solids mg/L <4.0 <4.0 4.0 88159 Physical Properties Total Suspended Solids mg/L <4.0 <4.0 4.0 88159	Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.0010	<0.0010	0.0010	8823150
Alkalinity (Total as CaCO3) mg/L 61.4 59.6 0.50 88159  Total Organic Carbon (C) mg/L 8.55 8.41 0.50 88159  Alkalinity (PP as CaCO3) mg/L <0.50 <0.50 0.50 88159  Bicarbonate (HCO3) mg/L 75.0 72.7 0.50 88159  Carbonate (CO3) mg/L <0.50 <0.50 0.50 88159  Carbonate (CO3) mg/L <0.50 <0.50 0.50 88159  Hydroxide (OH) mg/L <0.50 <0.50 0.50 88159  Anions  Dissolved Sulphate (SO4) mg/L 75.8 71.2 0.50 88161  Dissolved Chloride (Cl) mg/L 0.95 1.0 0.50 88161  Nutrients  Total Ammonia (N) mg/L 0.466 0.430 0.0020 88153  Nitrite (N) mg/L <0.0020 <0.0020 0.0020 88153  Physical Properties  Conductivity uS/cm 283 270 1.0 88159  Physical Properties  Total Suspended Solids mg/L <4.0 <4.0 4.0 88159	Fluoride (F)	mg/L	0.096	0.084	0.010	8815429
Total Organic Carbon (C)         mg/L         8.55         8.41         0.50         88159           Alkalinity (PP as CaCO3)         mg/L         <0.50	Dissolved Organic Carbon (C)	mg/L	8.80	9.28	0.50	8815893
Alkalinity (PP as CaCO3) mg/L <0.50 <0.50 0.50 88159 Bicarbonate (HCO3) mg/L 75.0 72.7 0.50 88159 Carbonate (CO3) mg/L <0.50 <0.50 0.50 88159 Hydroxide (OH) mg/L <0.50 <0.50 0.50 88159 Anions Dissolved Sulphate (SO4) mg/L 75.8 71.2 0.50 88161 Dissolved Chloride (Cl) mg/L 0.95 1.0 0.50 88161  Nutrients Total Ammonia (N) mg/L <0.0050 <0.0050 0.0050 88163 Nitrate plus Nitrite (N) mg/L 0.466 0.430 0.0020 88153 Nitrite (N) mg/L <0.0020 <0.0020 0.0020 88153 Physical Properties Conductivity uS/cm 283 270 1.0 88159 Physical Properties Total Suspended Solids mg/L <4.0 <4.0 4.0 88155	Alkalinity (Total as CaCO3)	mg/L	61.4	59.6	0.50	8815933
Bicarbonate (HCO3)   mg/L   75.0   72.7   0.50   88159	Total Organic Carbon (C)	mg/L	8.55	8.41	0.50	8815900
Carbonate (CO3)         mg/L         <0.50         <0.50         0.50         88159           Hydroxide (OH)         mg/L         <0.50	Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	0.50	8815933
Hydroxide (OH)   mg/L   <0.50   <0.50   0.50   88159	Bicarbonate (HCO3)	mg/L	75.0	72.7	0.50	8815933
Anions  Dissolved Sulphate (SO4) mg/L 75.8 71.2 0.50 88161  Dissolved Chloride (Cl) mg/L 0.95 1.0 0.50 88161  Nutrients  Total Ammonia (N) mg/L 0.466 0.430 0.0020 88153  Nitrate plus Nitrite (N) mg/L 0.0020 0.0020 0.0020 88153  Physical Properties  Conductivity uS/cm 283 270 1.0 88159  Physical Properties  Total Suspended Solids mg/L <4.0 <4.0 4.0 88155	Carbonate (CO3)	mg/L	<0.50	<0.50	0.50	8815933
Dissolved Sulphate (SO4) mg/L 75.8 71.2 0.50 88161 Dissolved Chloride (Cl) mg/L 0.95 1.0 0.50 88161  Nutrients  Total Ammonia (N) mg/L 0.466 0.430 0.0020 88153 Nitrite (N) mg/L <0.0020 <0.0020 0.0020 88153  Physical Properties  Conductivity uS/cm 283 270 1.0 88159 Physical Properties  Total Suspended Solids mg/L <4.0 <4.0 4.0 88155	Hydroxide (OH)	mg/L	<0.50	<0.50	0.50	8815933
Dissolved Chloride (CI)         mg/L         0.95         1.0         0.50         88161           Nutrients         Total Ammonia (N)         mg/L         <0.0050	Anions					
Nutrients         mg/L         <0.0050         <0.0050         0.0050         88149           Nitrate plus Nitrite (N)         mg/L         0.466         0.430         0.0020         88153           Nitrite (N)         mg/L         <0.0020	Dissolved Sulphate (SO4)	mg/L	75.8	71.2	0.50	8816151
Total Ammonia (N) mg/L <0.0050 <0.0050 0.0050 88149 Nitrate plus Nitrite (N) mg/L 0.466 0.430 0.0020 88153 Nitrite (N) mg/L <0.0020 <0.0020 0.0020 88153  Physical Properties  Conductivity uS/cm 283 270 1.0 88159 pH pH 7.82 7.79 88159  Physical Properties  Total Suspended Solids mg/L <4.0 <4.0 4.0 88155	Dissolved Chloride (CI)	mg/L	0.95	1.0	0.50	8816150
Nitrate plus Nitrite (N)         mg/L         0.466         0.430         0.0020         88153           Nitrite (N)         mg/L         <0.0020         <0.0020         0.0020         0.0020         88153           Physical Properties           Conductivity         uS/cm         283         270         1.0         88159           pH         pH         7.82         7.79         88159           Physical Properties           Total Suspended Solids         mg/L         <4.0	Nutrients					
Nitrite (N)         mg/L         <0.0020         <0.0020         0.0020         88153           Physical Properties           Conductivity         uS/cm         283         270         1.0         88159           pH         pH         7.82         7.79         88159           Physical Properties           Total Suspended Solids         mg/L         <4.0	Total Ammonia (N)	mg/L	<0.0050	<0.0050	0.0050	8814932
Physical Properties           Conductivity         uS/cm         283         270         1.0         88159           pH         pH         7.82         7.79         88159           Physical Properties           Total Suspended Solids         mg/L         <4.0	Nitrate plus Nitrite (N)	mg/L	0.466	0.430	0.0020	8815315
Conductivity         uS/cm         283         270         1.0         88159           pH         pH         7.82         7.79         88159           Physical Properties           Total Suspended Solids         mg/L         <4.0	Nitrite (N)	mg/L	<0.0020	<0.0020	0.0020	8815318
pH pH 7.82 7.79 88159  Physical Properties  Total Suspended Solids mg/L <4.0 <4.0 4.0 88155	Physical Properties					
Physical Properties  Total Suspended Solids mg/L <4.0 <4.0 4.0 88155	Conductivity	uS/cm	283	270	1.0	8815929
Total Suspended Solids mg/L <4.0 <4.0 4.0 88155	рН	рН	7.82	7.79		8815907
,	Physical Properties					
Total Dissolved Solids mg/L 180 168 10 88153	Total Suspended Solids	mg/L	<4.0	<4.0	4.0	8815567
] 0, 1	Total Dissolved Solids	mg/L	180	168	10	8815330



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SJ2398	SJ2398	SJ2399		SJ2400	SJ2401		
Sampling Date		2017/10/28 11:15	2017/10/28 11:15	2017/10/28 11:48		2017/10/28 12:13	2017/10/28 12:30		
COC Number		537489-01-01	537489-01-01	537489-01-01		537489-01-01	537489-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	CC-1.5	QC Batch	Latte Mix	CC-4.5	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	139		308	8813398	137	131	0.50	8813398
Elements		•	1	1	Į.	1	1	ı	·
Dissolved Mercury (Hg)	ug/L	0.0028		0.0022	8820965	<0.0020	<0.0020	0.0020	8820965
Dissolved Metals by ICPMS		•	I.	·		·	1	ı	
Dissolved Aluminum (AI)	ug/L	27.5	27.3	20.2	8815608	26.7	25.7	0.50	8815608
Dissolved Antimony (Sb)	ug/L	0.554	0.574	0.108	8815608	0.101	0.093	0.020	8815608
Dissolved Arsenic (As)	ug/L	0.894	0.906	0.716	8815608	0.332	0.298	0.020	8815608
Dissolved Barium (Ba)	ug/L	46.8	46.4	74.1	8815608	60.7	71.0	0.020	8815608
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	8815608	<0.010	<0.010	0.010	8815608
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	8815608	<0.0050	<0.0050	0.0050	8815608
Dissolved Boron (B)	ug/L	<10	<10	<10	8815608	<10	<10	10	8815608
Dissolved Cadmium (Cd)	ug/L	<0.0050	<0.0050	0.0070	8815608	0.0080	0.0086	0.0050	8815608
Dissolved Chromium (Cr)	ug/L	0.18	0.19	0.14	8815608	0.17	0.17	0.10	8815608
Dissolved Cobalt (Co)	ug/L	0.0303	0.0317	0.0240	8815608	0.0407	0.0360	0.0050	8815608
Dissolved Copper (Cu)	ug/L	0.983	0.971	1.11	8815608	1.42	1.40	0.050	8815608
Dissolved Iron (Fe)	ug/L	14.4	14.3	10.1	8815608	28.1	18.5	1.0	8815608
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	8815608	<0.0050	<0.0050	0.0050	8815608
Dissolved Lithium (Li)	ug/L	1.31	1.27	2.18	8815608	1.39	0.76	0.50	8815608
Dissolved Manganese (Mn)	ug/L	4.38	4.39	5.39	8815608	13.6	7.72	0.050	8815608
Dissolved Molybdenum (Mo)	ug/L	1.66	1.67	0.306	8815608	0.767	0.723	0.050	8815608
Dissolved Nickel (Ni)	ug/L	0.427	0.442	0.427	8815608	0.757	0.687	0.020	8815608
Dissolved Phosphorus (P)	ug/L	3.4	3.4	3.5	8815608	3.5	2.7	2.0	8815608
Dissolved Selenium (Se)	ug/L	0.067	0.072	0.116	8815608	0.087	0.076	0.040	8815608
Dissolved Silicon (Si)	ug/L	5810	5820	5240	8815608	5130	4690	50	8815608
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	8815608	<0.0050	<0.0050	0.0050	8815608
Dissolved Strontium (Sr)	ug/L	357	357	616	8815608	173	171	0.050	8815608
Dissolved Thallium (TI)	ug/L	<0.0020	<0.0020	0.0029	8815608	0.0041	0.0021	0.0020	8815608
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	8815608	<0.20	<0.20	0.20	8815608
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	8815608	<0.50	<0.50	0.50	8815608
Dissolved Uranium (U)	ug/L	43.9	44.1	17.4	8815608	10.6	5.63	0.0020	8815608

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SJ2398	SJ2398	SJ2399		SJ2400	SJ2401		
Sampling Date		2017/10/28 11:15	2017/10/28 11:15	2017/10/28 11:48		2017/10/28 12:13	2017/10/28 12:30		
COC Number		537489-01-01	537489-01-01	537489-01-01		537489-01-01	537489-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	CC-1.5	QC Batch	Latte Mix	CC-4.5	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.27	0.28	0.22	8815608	0.26	0.26	0.20	8815608
Dissolved Zinc (Zn)	ug/L	0.25	0.25	0.25	8815608	0.41	0.36	0.10	8822325
Dissolved Zirconium (Zr)	ug/L	0.30	0.31	0.28	8815608	0.28	0.28	0.10	8815608
Dissolved Calcium (Ca)	mg/L	34.7		81.9	8813625	34.7	33.2	0.050	8813625
Dissolved Magnesium (Mg)	mg/L	12.7		25.1	8813625	12.2	11.6	0.050	8813625
Dissolved Potassium (K)	mg/L	2.28		4.64	8813625	1.57	1.62	0.050	8813625
Dissolved Sodium (Na)	mg/L	3.41		5.70	8813625	5.20	4.86	0.050	8813625
Dissolved Sulphur (S)	mg/L	16.6		49.2	8813625	23.7	21.7	3.0	8813625

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SJ2398	SJ2398	SJ2399	SJ2400	SJ2401		
Sampling Date		2017/10/28 11:15	2017/10/28 11:15	2017/10/28 11:48	2017/10/28 12:13	2017/10/28 12:30		
COC Number		537489-01-01	537489-01-01	537489-01-01	537489-01-01	537489-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Calculated Parameters	<del>-</del>	-	•	·	•	•	•	•
Total Hardness (CaCO3)	mg/L	140		302	134	129	0.50	8814308
Elements								
Total Mercury (Hg)	ug/L	0.0023	0.0025	0.0022	0.0048	<0.0020	0.0020	8821020
Total Metals by ICPMS						l		
Total Aluminum (AI)	ug/L	31.8	31.9	19.3	29.3	26.1	0.50	8817237
Total Antimony (Sb)	ug/L	0.552	0.559	0.107	0.091	0.091	0.020	8817237
Total Arsenic (As)	ug/L	0.882	0.890	0.698	0.331	0.298	0.020	8817237
Total Barium (Ba)	ug/L	44.9	44.7	68.6	56.1	65.3	0.020	8817237
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8817237
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8817237
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	10	8817237
Total Cadmium (Cd)	ug/L	<0.0050	<0.0050	0.0070	0.0070	0.0084	0.0050	8817237
Total Chromium (Cr)	ug/L	0.21	0.21	0.15	0.18	0.17	0.10	8817237
Total Cobalt (Co)	ug/L	0.0338	0.0313	0.0237	0.0440	0.0330	0.0050	8817237
Total Copper (Cu)	ug/L	1.08	1.11	0.992	1.35	1.30	0.050	8817237
Total Iron (Fe)	ug/L	19.6	19.3	8.9	29.0	18.2	1.0	8817237
Total Lead (Pb)	ug/L	0.0058	0.0062	<0.0050	<0.0050	<0.0050	0.0050	8817237
Total Lithium (Li)	ug/L	1.36	1.39	2.41	1.54	0.83	0.50	8817237
Total Manganese (Mn)	ug/L	4.93	5.00	5.27	13.7	7.64	0.050	8817237
Total Molybdenum (Mo)	ug/L	1.62	1.64	0.298	0.752	0.701	0.050	8817237
Total Nickel (Ni)	ug/L	0.439	0.422	0.450	0.750	0.704	0.020	8817237
Total Phosphorus (P)	ug/L	3.7	3.6	3.8	3.1	2.9	2.0	8817237
Total Selenium (Se)	ug/L	0.111	0.102	0.172	0.137	0.107	0.040	8817237
Total Silicon (Si)	ug/L	5970	5740	5700	5380	5150	50	8817237
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8817237
Total Strontium (Sr)	ug/L	346	355	579	162	159	0.050	8817237
Total Thallium (TI)	ug/L	0.0020	<0.0020	0.0033	0.0026	<0.0020	0.0020	8817237
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8817237
Total Titanium (Ti)	ug/L	0.54	<0.50	<0.50	<0.50	<0.50	0.50	8817237
Total Uranium (U)	ug/L	43.3	43.3	17.3	10.5	5.44	0.0020	8817237
RDL = Reportable Detection	Limit							

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SJ2398	SJ2398	SJ2399	SJ2400	SJ2401		
Sampling Date		2017/10/28	2017/10/28	2017/10/28	2017/10/28	2017/10/28		
Sampling Date		11:15	11:15	11:48	12:13	12:30		
COC Number		537489-01-01	537489-01-01	537489-01-01	537489-01-01	537489-01-01		
	UNITS	HC-2.5	HC-2.5 Lab-Dup	CC-1.5	Latte Mix	CC-4.5	RDL	QC Batch
Total Vanadium (V)	ug/L	0.29	0.27	0.23	0.27	0.25	0.20	8817237
Total Zinc (Zn)	ug/L	0.18	0.16	0.23	0.34	0.31	0.10	8817237
Total Zirconium (Zr)	ug/L	0.31	0.32	0.30	0.27	0.28	0.10	8817237
Total Calcium (Ca)	mg/L	34.3		78.5	33.1	32.1	0.050	8813845
Total Magnesium (Mg)	mg/L	13.2		25.7	12.5	11.8	0.050	8813845
Total Potassium (K)	mg/L	2.29		4.25	1.46	1.47	0.050	8813845
Total Sodium (Na)	mg/L	3.55		5.71	5.42	5.06	0.050	8813845
Total Sulphur (S)	mg/L	16.4		55.8	26.0	24.4	3.0	8813845

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

### **GENERAL COMMENTS**

Sample SJ2400, Elements by ICPMS Low Level (dissolved): Test repeated. Sample SJ2401, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8814932	Total Ammonia (N)	2017/11/01	87	80 - 120	108	80 - 120	<0.0050	mg/L	NC	20
8815315	Nitrate plus Nitrite (N)	2017/10/31	NC	80 - 120	106	80 - 120	<0.0020	mg/L	0.62	25
8815316	Total Dissolved Solids	2017/11/02	100	80 - 120	109	80 - 120	<10	mg/L	5.0	20
8815318	Nitrite (N)	2017/10/31	99	80 - 120	96	80 - 120	<0.0020	mg/L	NC	25
8815330	Total Dissolved Solids	2017/11/02	101	80 - 120	93	80 - 120	<10	mg/L	4.4	20
8815429	Fluoride (F)	2017/11/01	NC	80 - 120	104	80 - 120	0.015, RDL=0.010	mg/L	0	20
8815567	Total Suspended Solids	2017/11/02	105	80 - 120	100	80 - 120	<4.0	mg/L	NC	20
8815608	Dissolved Aluminum (Al)	2017/11/03	102	80 - 120	109	80 - 120	<0.50	ug/L	0.65	20
8815608	Dissolved Antimony (Sb)	2017/11/03	101	80 - 120	105	80 - 120	<0.020	ug/L	3.5	20
8815608	Dissolved Arsenic (As)	2017/11/03	98	80 - 120	101	80 - 120	<0.020	ug/L	1.2	20
8815608	Dissolved Barium (Ba)	2017/11/03	NC	80 - 120	107	80 - 120	<0.020	ug/L	0.95	20
8815608	Dissolved Beryllium (Be)	2017/11/03	91	80 - 120	97	80 - 120	<0.010	ug/L	NC	20
8815608	Dissolved Bismuth (Bi)	2017/11/03	96	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
8815608	Dissolved Boron (B)	2017/11/03	89	80 - 120	97	80 - 120	<10	ug/L	NC	20
8815608	Dissolved Cadmium (Cd)	2017/11/03	98	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
8815608	Dissolved Chromium (Cr)	2017/11/03	94	80 - 120	99	80 - 120	<0.10	ug/L	2.7	20
8815608	Dissolved Cobalt (Co)	2017/11/03	93	80 - 120	101	80 - 120	< 0.0050	ug/L	4.5	20
8815608	Dissolved Copper (Cu)	2017/11/03	94	80 - 120	102	80 - 120	<0.050	ug/L	1.2	20
8815608	Dissolved Iron (Fe)	2017/11/03	101	80 - 120	111	80 - 120	<1.0	ug/L	0.56	20
8815608	Dissolved Lead (Pb)	2017/11/03	95	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8815608	Dissolved Lithium (Li)	2017/11/03	88	80 - 120	101	80 - 120	<0.50	ug/L	2.9	20
8815608	Dissolved Manganese (Mn)	2017/11/03	88	80 - 120	96	80 - 120	<0.050	ug/L	0.10	20
8815608	Dissolved Molybdenum (Mo)	2017/11/03	NC	80 - 120	102	80 - 120	<0.050	ug/L	0.53	20
8815608	Dissolved Nickel (Ni)	2017/11/03	95	80 - 120	105	80 - 120	<0.020	ug/L	3.3	20
8815608	Dissolved Phosphorus (P)	2017/11/03					<2.0	ug/L	1.7	20
8815608	Dissolved Selenium (Se)	2017/11/03	101	80 - 120	106	80 - 120	<0.040	ug/L	8.2	20
8815608	Dissolved Silicon (Si)	2017/11/03					<50	ug/L	0.22	20
8815608	Dissolved Silver (Ag)	2017/11/03	105	80 - 120	112	80 - 120	<0.0050	ug/L	NC	20
8815608	Dissolved Strontium (Sr)	2017/11/03	NC	80 - 120	99	80 - 120	<0.050	ug/L	0.16	20
8815608	Dissolved Thallium (TI)	2017/11/03	97	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8815608	Dissolved Tin (Sn)	2017/11/03	94	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
8815608	Dissolved Titanium (Ti)	2017/11/03	99	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
8815608	Dissolved Uranium (U)	2017/11/03	NC	80 - 120	100	80 - 120	<0.0020	ug/L	0.45	20
8815608	Dissolved Vanadium (V)	2017/11/03	98	80 - 120	103	80 - 120	<0.20	ug/L	5.1	20
8815608	Dissolved Zinc (Zn)	2017/11/03	100	80 - 120	101	80 - 120	<0.10	ug/L	3.9	20
8815608	Dissolved Zirconium (Zr)	2017/11/03	91	80 - 120	98	80 - 120	<0.10	ug/L	1.9	20
8815893	Dissolved Organic Carbon (C)	2017/11/01			105	80 - 120	<0.50	mg/L		
8815900	Total Organic Carbon (C)	2017/11/01	104	80 - 120	113	80 - 120	<0.50	mg/L	NC	20
8815907	рН	2017/11/01			101	97 - 103			0.94	20
8815929	Conductivity	2017/11/01			100	80 - 120	<1.0	uS/cm		
8815933	Alkalinity (PP as CaCO3)	2017/11/01					<0.50	mg/L		
8815933	Alkalinity (Total as CaCO3)	2017/11/01			101	80 - 120	<0.50	mg/L		
8815933	Bicarbonate (HCO3)	2017/11/01					<0.50	mg/L		
8815933	Carbonate (CO3)	2017/11/01					<0.50	mg/L		
8815933	Hydroxide (OH)	2017/11/01					<0.50	mg/L		
8816150	Dissolved Chloride (CI)	2017/11/02			99	80 - 120	0.61, RDL=0.50	mg/L		
8816151	Dissolved Sulphate (SO4)	2017/11/02			98	80 - 120	<0.50	mg/L		
8817237	Total Aluminum (AI)	2017/11/04	104	80 - 120	112	80 - 120	<0.50	ug/L	0.40	20
8817237	Total Antimony (Sb)	2017/11/04	98	80 - 120	105	80 - 120	<0.020	ug/L	1.4	20
8817237	Total Arsenic (As)	2017/11/04	98	80 - 120	102	80 - 120	<0.020	ug/L	0.95	20
8817237	Total Barium (Ba)	2017/11/04	NC	80 - 120	104	80 - 120	<0.020	ug/L	0.45	20
8817237	Total Beryllium (Be)	2017/11/04	97	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
8817237	Total Bismuth (Bi)	2017/11/04	95	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8817237	Total Boron (B)	2017/11/04	97	80 - 120	102	80 - 120	<10	ug/L	NC	20
8817237	Total Cadmium (Cd)	2017/11/04	96	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8817237	Total Chromium (Cr)	2017/11/04	95	80 - 120	105	80 - 120	<0.10	ug/L	0.094	20
8817237	Total Cobalt (Co)	2017/11/04	92	80 - 120	102	80 - 120	<0.0050	ug/L	7.7	20
8817237	Total Copper (Cu)	2017/11/04	89	80 - 120	102	80 - 120	<0.050	ug/L	2.2	20
8817237	Total Iron (Fe)	2017/11/04	98	80 - 120	110	80 - 120	<1.0	ug/L	1.4	20
8817237	Total Lead (Pb)	2017/11/04	95	80 - 120	103	80 - 120	<0.0050	ug/L	6.7	20
8817237	Total Lithium (Li)	2017/11/04	97	80 - 120	105	80 - 120	<0.50	ug/L	1.9	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

			Matrix	Spike	Spiked	Blank	Method I	Blank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8817237	Total Manganese (Mn)	2017/11/04	88	80 - 120	99	80 - 120	<0.050	ug/L	1.3	20
8817237	Total Molybdenum (Mo)	2017/11/04	NC	80 - 120	103	80 - 120	<0.050	ug/L	1.5	20
8817237	Total Nickel (Ni)	2017/11/04	92	80 - 120	104	80 - 120	<0.020	ug/L	3.9	20
8817237	Total Phosphorus (P)	2017/11/04					<2.0	ug/L	3.5	20
8817237	Total Selenium (Se)	2017/11/04	103	80 - 120	106	80 - 120	<0.040	ug/L	8.4	20
8817237	Total Silicon (Si)	2017/11/04					<50	ug/L	3.9	20
8817237	Total Silver (Ag)	2017/11/04	103	80 - 120	110	80 - 120	<0.0050	ug/L	NC	20
8817237	Total Strontium (Sr)	2017/11/04	NC	80 - 120	99	80 - 120	<0.050	ug/L	2.7	20
8817237	Total Thallium (TI)	2017/11/04	96	80 - 120	102	80 - 120	<0.0020	ug/L	0	20
8817237	Total Tin (Sn)	2017/11/04	97	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
8817237	Total Titanium (Ti)	2017/11/04	95	80 - 120	93	80 - 120	<0.50	ug/L	8.2	20
8817237	Total Uranium (U)	2017/11/04	NC	80 - 120	99	80 - 120	<0.0020	ug/L	0.091	20
8817237	Total Vanadium (V)	2017/11/04	96	80 - 120	104	80 - 120	<0.20	ug/L	5.8	20
8817237	Total Zinc (Zn)	2017/11/04	99	80 - 120	110	80 - 120	<0.10	ug/L	10	20
8817237	Total Zirconium (Zr)	2017/11/04	92	80 - 120	99	80 - 120	<0.10	ug/L	3.1	20
8820572	Dissolved Sulphate (SO4)	2017/11/03			103	80 - 120	<0.50	mg/L		
8820965	Dissolved Mercury (Hg)	2017/11/06	94	80 - 120	105	80 - 120	<0.0020	ug/L	NC	20
8821020	Total Mercury (Hg)	2017/11/06	106	80 - 120	92	80 - 120	<0.0020	ug/L	9.3	20
8822325	Dissolved Zinc (Zn)	2017/11/07			102	80 - 120	<0.10	ug/L		
8823150	Weak Acid Dissoc. Cyanide (CN)	2017/11/08	108	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: CB

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Winnie Au, B.Sc., QP, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

	1	NVOICE TO:				Report Inf	ormatio	n.						Project I	nformatio	in			PRESENTED THE PROPERTY OF THE	
ompany Nam	#3604 LORAX	ENVIRONMENTAL SER	RVICES LTD.	Company Na							Que	otation #		B40231						stile Order #:
ontact Name	Aida Piaseczny			Contact Nam	e David Fla	ther					P.0	),#	- 6			-				
ddress	2289 BURRARI			Address	-		_				1000	ject #	9	Gold Co	rp Coffe	e Creek	_	<b>D</b> /9	6803_COC	537489 oject Manager
	(604) 688-7173		688-7175 x	Phone				Fax:			Pro	ject Name	3							
hone mail		@lorax.ca; shukling.ng@l		Email	David.Fla	ther@lorax.	ca					npled By	8						C#537489-01-01	Megan Smith
Regulatory	Criteria			Spec	al Instructions				_		_	Analysis	Requeste	d					Turnaround Time (TAT) Require	
		drinking water samples - pless ust be kept cool ( < 10°C ) from t	e use the Drinking	Water Chain of		nosgn Hu	lated Drinking Water? (Y / P	line (Alk, EC, pH, TDS)	- Lagrangement	ns (Cl, F, NO2, NO3, NH4)	Cyanide - WAD			Level Dissolved Metals CV Hg	Level Total Metals incl. C\			(will be ap Standard Please no days - cor Job Specif Date Requi	mation Number	d Dioxins/Furans are
9217	AND THE RESERVE OF THE PERSON	Sample (Location) Identifica	-	te Sampled	Time Sampled	Matrix	Regul	Routine	SS	Anions ( SO4)	Cyar	100	DOC	Low incl.	NG H	ORP		# of Bodies	Comments	
1000	ole Barcode Label	HC-2.5	979.0	T28	Time bumping	H20	N,	X	X	X	X	X	X	X	X	X		11		s vial
11000	SID#162744	CC-1.5	00	T 28			1	X	X	X	X	X	X	X	X	X		11	have been f	ield
11111111	SID#162745	Latte Mix	00	T 28				X	X	X	X	X	X	X	X	X		11	tiltered bu	t not
E HINNEY	SID#162746	CC-4.5	00	T 28		1	4	X	X	X	X	X	X	X	X	X		11	preserved.	
							Ш							3						
8								1											RECEIVED IN WHITEHO	RSE
		<del></del>					П												BY: SUMMO	1250
																			2017 -10- 3 0	
																			TEMP: 2,2,	2
0																			, , ,	
-	INQUISHED BY: (Smaltur		Date: (YY/MM/C					Signature/	Print)			rte: (YY/MM		Time		used and ubmitted	Time Sen	entre I	Lab Use Only	Intact on Cooler?
('ry	stal Dec	udny	007 30	3 125	o Eval.	Ana EVA	SIL	JEH			20	17/10	/3[	13:47					mperature (°C) on Receipt Custooy Seal  8 totille/3 N/A Yes  ERMS WHICH ARE AVAILABLE White: Maxx	[77] Ac

Maxxam Analytics International Corporation o/a Maxxam Analytics

10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Control of the contro	95170 F		Gent Flat						EAST BOX			B	7968	03_0	oc	外核	
		RUN H20 Rai	ORI or	? if en ? all is iters	Did.	Manual Construction of CV (N)	are (Ab. EC. pet 108)	1	On (Ct. F. 602, ND3, Avid.	Dww. web	Amy		COVING	Clark Total Muser per CV				Deplement of the (IAS) (Control IAS) (Contro
Prag	Serger Landon State Co.		Desplet	Time Sampled	-		2	100	400	8	8	8	38	3.5	8	5.65		or to make a make the
Dimit d	HC25	-	T 28	11:15	1100	N.	X	X	X	X	X	X	X	X	X,		No.	ausolula met
PIE	00-15	- 100	T 28			1	X	X	X	X	X	X	X	X	X	602	11	have been
MINIE	Latte Mia	00	T 28	-			X	X	X	X	X	X	X	X	X		11	tiltered b
	CC45	OC	7 28	12:30		4	X	X	X	X	×	×	×	×	X		11	preserved.
	(A) (S) (A) (A) (A)		7		24			Ý			9		18			が確認		Styros
3 to 1	Anti-	1 8	Var.			10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		105 120							3			2 2
10 FO #4	merce was superino an	OCT 30	12:5	20					FOY EARL C	183	wetter o		Time N scoots	侧	TANK			
EXAM-CA!	CHOCHES IS NOT IN THE VO				200	15/10/20	V 100 P	000	ORLAY CASH	Control of the	9997750	i.						



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

### Attention:David Flather

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 540800-01-01, 540800-02-01, 540800-03-01, 540800-04-01

Report Date: 2017/11/27 Report #: R2483129 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B7A1648 Received: 2017/11/14, 11:15

Sample Matrix: Water # Samples Received: 25

# Samples Received: 25					
		Date	Date		
Analyses		Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	9			BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	9	2017/11/17	2017/11/19	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	1			BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	6	2017/11/17	2018/11/18	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	25	N/A	2017/11/16	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide WAD (weak acid dissociable)	17	N/A	2017/11/20	BBY6SOP-00004	SM 22 4500-CN O m
Cyanide WAD (weak acid dissociable)	8	N/A	2017/11/21	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	3	N/A	2017/11/20	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - field filtered/preserved (1)	20	N/A	2017/11/21	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - field filtered/preserved (1)	2	N/A	2017/11/27	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	8	2017/11/17	2017/11/18	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	9	2017/11/17	2017/11/19	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	6	2017/11/17	2018/11/18	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	2	2017/11/18	2017/11/18	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	25	N/A	2017/11/17	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (2)	20	N/A	2017/11/20	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (2)	3	N/A	2017/11/21	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (2)	2	N/A	2017/11/22	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	25	N/A	2017/11/20	BBY WI-00033	Auto Calc
Mercury (Dissolved-LowLevel) by CVAF	20	N/A	2017/11/17	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved-LowLevel) by CVAF	5	N/A	2017/11/20	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	20	2017/11/17	2017/11/17	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	5	2017/11/20	2017/11/20	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	25	N/A	2017/11/20	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	5	N/A	2017/11/17	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Low Level (dissolved)	20	N/A	2017/11/18	BBY7SOP-00002	EPA 6020B R2 m
Elements by ICPMS Digested LL (total)	2	2017/11/17	2017/11/20	BBY7SOP-00003,	BCLM2005,EPA6020bR2m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 540800-01-01, 540800-02-01, 540800-03-01, 540800-04-01

Report Date: 2017/11/27 Report #: R2483129 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B7A1648 Received: 2017/11/14, 11:15

Sample Matrix: Water # Samples Received: 25

# Samples Received: 25					
		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Elements by ICPMS Digested LL (total)	1	2017/11/20	2017/11/21	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Digested LL (total)	2	2017/11/21	2017/11/22	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	20	N/A	2017/11/20	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2017/11/21	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2017/11/22	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by ICPMS Low Level (total)	20	N/A	2017/11/17	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N Low Level (Preserved)	25	N/A	2017/11/16	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	25	N/A	2017/11/16	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	25	N/A	2017/11/16	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	25	N/A	2017/11/17	BBY6SOP-00010	SM 22 4500-NO3- I m
ORP Analysis on Water by ARD LAB	1	N/A	2017/11/16	BBY0SOP-00004	SM 22 2580 B
ORP Analysis on Water by ARD LAB	24	N/A	2017/11/17	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	24	N/A	2017/11/16	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	7	2017/11/17	2017/11/18	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (3)	9	2017/11/17	2017/11/19	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (3)	7	2017/11/17	2018/11/18	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (3)	2	2017/11/18	2017/11/18	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	22	N/A	2017/11/16	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	3	N/A	2017/11/17	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	22	2017/11/16	2017/11/17	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	3	2017/11/17	2017/11/20	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (4)	23	N/A	2017/11/20	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (4)	2	N/A	2017/11/27	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	25	2017/11/16	2017/11/17	BBY6SOP-00034	SM 22 2540 D

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted,



Your Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD. 2289 BURRARD STREET VANCOUVER, BC CANADA V6J 3H9

Your C.O.C. #: 540800-01-01, 540800-02-01, 540800-03-01, 540800-04-01

> Report Date: 2017/11/27 Report #: R2483129

Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B7A1648** Received: 2017/11/14, 11:15

procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxam 27 Nov 2017 18:59:54

Please direct all questions regarding this Certificate of Analysis Project Manager.

Megan Smith, Project Manager Email: msmith@maxxam.ca Phone# (604) 734 7276

\_\_\_\_\_\_ This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SM3058			SM3058		SM3059		
		2017/11/11			2017/11/11		2017/11/11		
Sampling Date		10:35			10:35		14:50		
COC Number		540800-01-01			540800-01-01		540800-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	QC Batch	CC-1.0	RDL	QC Batch
Parameter			<u> </u>			<u> </u>		<u> </u>	
ORP	mV	279		8831744	281	8831744	285		8831744
Calculated Parameters			!			!		!	
Filter and HNO3 Preservation	N/A	LAB		8831807			LAB		8831807
Nitrate (N)	mg/L	0.443	0.0020	8830953			0.615	0.0020	8830953
Misc. Inorganics				L.					L.
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00054	0.00050	8835955			<0.00050	0.00050	8835955
Fluoride (F)	mg/L	0.088	0.010	8833372			0.090	0.010	8833372
Dissolved Organic Carbon (C)	mg/L	7.28	0.50	8837065			4.13	0.50	8844067
Alkalinity (Total as CaCO3)	mg/L	76.2	0.50	8834245			279	0.50	8834245
Total Organic Carbon (C)	mg/L	6.97	0.50	8836181			3.57	0.50	8844066
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8834245			8.67	0.50	8834245
Bicarbonate (HCO3)	mg/L	93.0	0.50	8834245			319	0.50	8834245
Carbonate (CO3)	mg/L	<0.50	0.50	8834245			10.4	0.50	8834245
Hydroxide (OH)	mg/L	<0.50	0.50	8834245			<0.50	0.50	8834245
Anions				L.					L.
Dissolved Sulphate (SO4)	mg/L	80.1	0.50	8832726			220 (1)	5.0	8832726
Dissolved Chloride (Cl)	mg/L	0.99	0.50	8832725			0.63	0.50	8832725
Nutrients	!								
Total Ammonia (N)	mg/L	<0.0050	0.0050	8831318			<0.0050	0.0050	8831318
Nitrate plus Nitrite (N)	mg/L	0.443	0.0020	8833279			0.615	0.0020	8833279
Nitrite (N)	mg/L	<0.0020	0.0020	8833283			<0.0020	0.0020	8833283
Physical Properties						•			
Conductivity	uS/cm	319	1.0	8834243			874	1.0	8834243
рН	рН	8.03		8834241			8.47		8834241
Physical Properties			•	-		•		•	
Total Suspended Solids	mg/L	<1.0	1.0	8831903			<1.0	1.0	8831903
Total Dissolved Solids	mg/L	196	10	8832181			588	10	8832181
RDI - Reportable Detection Limit									

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) Detection limits raised due to dilution to bring analyte within the calibrated range.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3060		SM3061		SM3062		
Sampling Date		2017/11/11		2017/11/11		2017/11/11		
Jampinig Bacc		15:20		11:00		10:10		
COC Number		540800-01-01		540800-01-01		540800-01-01		
	UNITS	CC-1.5	QC Batch	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch
Parameter			-	•	<u> </u>			
ORP	mV	284	8831744	284	8831744	285		8831744
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	8831807	LAB	8831807	LAB		8831807
Nitrate (N)	mg/L	0.308	8830953	0.460	8830953	0.419	0.0020	8830953
Misc. Inorganics			-	•	•		•	-
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00057	8835955	0.00065	8835955	0.00059	0.00050	8835955
Fluoride (F)	mg/L	0.083	8833372	0.060	8833372	0.062	0.010	8833372
Dissolved Organic Carbon (C)	mg/L	6.03	8837065	6.50	8837064	8.16	0.50	8837064
Alkalinity (Total as CaCO3)	mg/L	162	8834245	107	8834245	62.5	0.50	8834240
Total Organic Carbon (C)	mg/L	5.51	8836181	5.98	8836182	7.02	0.50	8836182
Alkalinity (PP as CaCO3)	mg/L	<0.50	8834245	<0.50	8834245	<0.50	0.50	8834240
Bicarbonate (HCO3)	mg/L	197	8834245	131	8834245	76.2	0.50	8834240
Carbonate (CO3)	mg/L	<0.50	8834245	<0.50	8834245	<0.50	0.50	8834240
Hydroxide (OH)	mg/L	<0.50	8834245	<0.50	8834245	<0.50	0.50	8834240
Anions								
Dissolved Sulphate (SO4)	mg/L	179	8836643	102	8836643	70.7	0.50	8832718
Dissolved Chloride (Cl)	mg/L	<0.50	8832725	0.67	8832715	0.97	0.50	8832715
Nutrients			•		•		•	•
Total Ammonia (N)	mg/L	0.0080	8831318	<0.0050	8831318	<0.0050	0.0050	8831318
Nitrate plus Nitrite (N)	mg/L	0.308	8833279	0.460	8833274	0.419	0.0020	8833274
Nitrite (N)	mg/L	<0.0020	8833283	<0.0020	8833284	<0.0020	0.0020	8833284
Physical Properties			•		•		•	•
Conductivity	uS/cm	621	8834243	401	8834243	274	1.0	8834239
рН	рН	8.30	8834241	8.17	8834241	7.94		8834238
Physical Properties			•	•	•		•	•
Total Suspended Solids	mg/L	<1.0	8831903	1.0	8831903	1.0	1.0	8831903
Total Dissolved Solids	mg/L	418	8832181	256	8833350	162	10	8832181
RDL = Reportable Detection Limit	:			•			•	



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3063		SM3064			SM3064		
Samuling Data		2017/11/11		2017/11/11			2017/11/11		
Sampling Date		12:45		14:25			14:25		
COC Number		540800-01-01		540800-01-01			540800-01-01		
	UNITS	CC-A	QC Batch	СС-В	RDL	QC Batch	CC-B Lab-Dup	RDL	QC Batch
Parameter									
ORP	mV	288	8831744	290		8831744			
Calculated Parameters	•		•		•			•	
Filter and HNO3 Preservation	N/A	LAB	8831807	LAB		8831807			
Nitrate (N)	mg/L	0.314	8830953	0.356	0.0020	8830953			
Misc. Inorganics	•		•	•	•			•	
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00067	8835955	0.00051	0.00050	8835955			
Fluoride (F)	mg/L	0.059	8833372	0.074	0.010	8833372			
Dissolved Organic Carbon (C)	mg/L	7.05	8844067	6.22	0.50	8837062	6.23	0.50	8837062
Alkalinity (Total as CaCO3)	mg/L	90.2	8834240	176	0.50	8834240			
Total Organic Carbon (C)	mg/L	6.41	8844066	5.23	0.50	8836181			
Alkalinity (PP as CaCO3)	mg/L	<0.50	8834240	0.85	0.50	8834240			
Bicarbonate (HCO3)	mg/L	110	8834240	213	0.50	8834240			
Carbonate (CO3)	mg/L	<0.50	8834240	1.02	0.50	8834240			
Hydroxide (OH)	mg/L	<0.50	8834240	<0.50	0.50	8834240			
Anions	•		•		•			•	
Dissolved Sulphate (SO4)	mg/L	135	8832718	169	0.50	8832710			
Dissolved Chloride (CI)	mg/L	<0.50	8832715	<0.50	0.50	8832709			
Nutrients	•		•		•			•	
Total Ammonia (N)	mg/L	<0.0050	8831318	<0.0050	0.0050	8831318			
Nitrate plus Nitrite (N)	mg/L	0.314	8833274	0.356	0.0020	8833274			
Nitrite (N)	mg/L	<0.0020	8833284	<0.0020	0.0020	8833284			
Physical Properties									
Conductivity	uS/cm	444	8834239	636	1.0	8834239			
рН	рН	8.06	8834238	8.30		8834238			
Physical Properties									
Total Suspended Solids	mg/L	1.4	8831903	1.1	1.0	8831903			
Total Dissolved Solids	mg/L	270	8832181	418	10	8832181			
RDL = Reportable Detection Limit	i i								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3065			SM3066		SM3068		
Sampling Date		2017/11/11			2017/11/11		2017/11/12		
Samping Bacc		16:00			10:00		11:50		
COC Number		540800-01-01			540800-01-01		540800-02-01		
	UNITS	CC-C	RDL	QC Batch	CC-X	QC Batch	HC-2.5	RDL	QC Batch
Parameter									
ORP	mV	292		8831744	289	8831744	293		8831744
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB		8831807	LAB	8831807	LAB		8831807
Nitrate (N)	mg/L	0.616	0.0020	8830953	0.448	8830953	0.564	0.0020	8830953
Misc. Inorganics	-		•	•		•		•	•
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00063	0.00050	8835955	0.00056	8835955	0.00053	0.00050	8835955
Fluoride (F)	mg/L	0.086	0.010	8833372	0.061	8833372	0.061	0.010	8833372
Dissolved Organic Carbon (C)	mg/L	4.32	0.50	8837062	7.15	8837059	6.50	0.50	8837062
Alkalinity (Total as CaCO3)	mg/L	287	0.50	8834240	57.1	8834245	110	0.50	8834245
Total Organic Carbon (C)	mg/L	4.62	0.50	8836181	7.38	8836181	6.10	0.50	8836181
Alkalinity (PP as CaCO3)	mg/L	8.27	0.50	8834240	<0.50	8834245	<0.50	0.50	8834245
Bicarbonate (HCO3)	mg/L	330	0.50	8834240	69.6	8834245	134	0.50	8834245
Carbonate (CO3)	mg/L	9.92	0.50	8834240	<0.50	8834245	<0.50	0.50	8834245
Hydroxide (OH)	mg/L	<0.50	0.50	8834240	<0.50	8834245	<0.50	0.50	8834245
Anions	•								!
Dissolved Sulphate (SO4)	mg/L	201 (1)	5.0	8832718	73.4	8836643	53.5	0.50	8832726
Dissolved Chloride (Cl)	mg/L	0.61	0.50	8832715	0.85	8832725	<0.50	0.50	8832725
Nutrients						•			•
Total Ammonia (N)	mg/L	0.0060	0.0050	8831795	<0.0050	8831795	<0.0050	0.0050	8831795
Nitrate plus Nitrite (N)	mg/L	0.616	0.0020	8833274	0.448	8833279	0.564	0.0020	8833279
Nitrite (N)	mg/L	<0.0020	0.0020	8833284	<0.0020	8833283	<0.0020	0.0020	8833283
Physical Properties	•								!
Conductivity	uS/cm	864	1.0	8834239	268	8834243	320	1.0	8834243
рН	рН	8.46		8834238	7.94	8834241	8.17		8834241
Physical Properties	•		ļ.	ļ.				ļ.	ļ.
Total Suspended Solids	mg/L	2.1	1.0	8831903	<1.0	8831903	1.2	1.0	8831903
Total Dissolved Solids	mg/L	590	10	8832181	166	8832181	182	10	8832215
RDL = Reportable Detection Limit	<u> </u>			•					

<sup>(1)</sup> Detection limits raised due to dilution to bring analyte within the calibrated range.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3068		SM3069		SM3070		
Sampling Date		2017/11/12		2017/11/12		2017/11/12		
Sampling Date		11:50		11:40		11:00		
COC Number		540800-02-01		540800-02-01		540800-02-01		
	UNITS	HC-2.5 Lab-Dup	QC Batch	HC-C	QC Batch	IC-0.5	RDL	QC Batch
Parameter								
ORP	mV	294	8831744	295	8831744	311		8831744
Calculated Parameters			•		•			
Filter and HNO3 Preservation	N/A			LAB	8831807	LAB		8831807
Nitrate (N)	mg/L			0.504	8830953	0.690	0.0020	8830953
Misc. Inorganics	•							
Weak Acid Dissoc. Cyanide (CN)	mg/L			0.00060	8835955	0.00060	0.00050	8835955
Fluoride (F)	mg/L			0.059	8833372	0.075	0.010	8833372
Dissolved Organic Carbon (C)	mg/L			7.32	8837062	9.59	0.50	8836184
Alkalinity (Total as CaCO3)	mg/L			99.9	8834240	78.1	0.50	8834240
Total Organic Carbon (C)	mg/L			6.77	8836181	9.20	0.50	8836181
Alkalinity (PP as CaCO3)	mg/L			<0.50	8834240	<0.50	0.50	8834240
Bicarbonate (HCO3)	mg/L			122	8834240	95.3	0.50	8834240
Carbonate (CO3)	mg/L			<0.50	8834240	<0.50	0.50	8834240
Hydroxide (OH)	mg/L			<0.50	8834240	<0.50	0.50	8834240
Anions								
Dissolved Sulphate (SO4)	mg/L			63.3	8832718	173	0.50	8832710
Dissolved Chloride (CI)	mg/L			0.53	8832715	0.56	0.50	8832709
Nutrients								
Total Ammonia (N)	mg/L			0.0070	8831795	<0.0050	0.0050	8831795
Nitrate plus Nitrite (N)	mg/L			0.504	8833274	0.690	0.0020	8833274
Nitrite (N)	mg/L			<0.0020	8833284	<0.0020	0.0020	8833284
Physical Properties								
Conductivity	uS/cm			321	8834239	509	1.0	8834239
рН	рН			8.11	8834238	7.95		8834238
Physical Properties								
Total Suspended Solids	mg/L			1.3	8831903	7.0	1.0	8831903
Total Dissolved Solids	mg/L			202	8832215	330	10	8832215
RDL = Reportable Detection Limit	:							
Lab-Dup = Laboratory Initiated D	uplicate							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SM3071		SM3072			SM3073		
Sampling Date		2017/11/12		2017/11/12			2017/11/12		
Sampling Date		10:45		10:00			09:30		
COC Number		540800-02-01		540800-02-01			540800-03-01		
	UNITS	IC-1.5	QC Batch	IC-4.5	RDL	QC Batch	YUK-5.0	RDL	QC Batch
Parameter					•				
ORP	mV	309	8831744	310		8831744	311		8831744
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	8831807	LAB		8831807	LAB		8831807
Nitrate (N)	mg/L	0.488	8830953	0.495	0.0020	8830953	0.0389	0.0020	8830953
Misc. Inorganics			•						
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00069	8835955	0.00085	0.00050	8835955	<0.00050	0.00050	8835955
Fluoride (F)	mg/L	0.100	8833372	0.062	0.010	8833372	0.120	0.010	8833372
Dissolved Organic Carbon (C)	mg/L	7.37	8837062	9.17	0.50	8837059	3.18	0.50	8837062
Alkalinity (Total as CaCO3)	mg/L	75.5	8834240	50.8	0.50	8834240	83.3	0.50	8834240
Total Organic Carbon (C)	mg/L	7.18	8836181	8.56	0.50	8836181	2.72	0.50	8836181
Alkalinity (PP as CaCO3)	mg/L	<0.50	8834240	<0.50	0.50	8834240	<0.50	0.50	8834240
Bicarbonate (HCO3)	mg/L	92.1	8834240	62.0	0.50	8834240	102	0.50	8834240
Carbonate (CO3)	mg/L	<0.50	8834240	<0.50	0.50	8834240	<0.50	0.50	8834240
Hydroxide (OH)	mg/L	<0.50	8834240	<0.50	0.50	8834240	<0.50	0.50	8834240
Anions			•						
Dissolved Sulphate (SO4)	mg/L	28.2	8832710	47.3	0.50	8832710	18.8	0.50	8832710
Dissolved Chloride (Cl)	mg/L	0.52	8832709	0.64	0.50	8832709	0.56	0.50	8832709
Nutrients			•						
Total Ammonia (N)	mg/L	<0.0050	8831795	<0.0050	0.0050	8831795	<0.0050	0.0050	8831795
Nitrate plus Nitrite (N)	mg/L	0.488	8833274	0.495	0.0020	8833274	0.0389	0.0020	8833274
Nitrite (N)	mg/L	<0.0020	8833284	<0.0020	0.0020	8833284	<0.0020	0.0020	8833284
Physical Properties	•		•						
Conductivity	uS/cm	204	8834239	210	1.0	8834239	194	1.0	8834239
рН	рН	7.99	8834238	7.81		8834238	8.04		8834238
Physical Properties			•		•	-			-
Total Suspended Solids	mg/L	1.2	8831903	<1.0	1.0	8831903	1.8 (1)	1.1	8831903
Total Dissolved Solids	mg/L	130	8832215	122	10	8832215	102	10	8832215
RDL = Reportable Detection Limit	t		•		•				
(1) RDI raised due to limited initia	al samnl	e amount							

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3073			SM3074		SM3075		
Sampling Date		2017/11/12 09:30			2017/11/11 09:35		2017/11/11 12:55		
COC Number		540800-03-01			540800-03-01		540800-03-01		
	UNITS	YUK-5.0 Lab-Dup	RDL	QC Batch	Ballarat U/S Y.R.	QC Batch	Barker U/S S.R.	RDL	QC Batch
Parameter	•			•		•			
ORP	mV				314	8831744	314		8831744
Calculated Parameters								•	
Filter and HNO3 Preservation	N/A				LAB	8831807	LAB		8831807
Nitrate (N)	mg/L				0.216	8830953	0.300	0.0020	8830953
Misc. Inorganics								•	
Weak Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	8835955	0.00069	0.00050	8835955
Fluoride (F)	mg/L				0.170	8833372	0.100	0.010	8833984
Dissolved Organic Carbon (C)	mg/L				7.70	8837062	13.5	0.50	8837059
Alkalinity (Total as CaCO3)	mg/L				147	8834245	147	0.50	8834240
Total Organic Carbon (C)	mg/L				6.31	8836181	12.6	0.50	8836179
Alkalinity (PP as CaCO3)	mg/L				0.81	8834245	<0.50	0.50	8834240
Bicarbonate (HCO3)	mg/L				177	8834245	179	0.50	8834240
Carbonate (CO3)	mg/L				0.97	8834245	<0.50	0.50	8834240
Hydroxide (OH)	mg/L				<0.50	8834245	<0.50	0.50	8834240
Anions				'					
Dissolved Sulphate (SO4)	mg/L				171	8832726	94.0	0.50	8832718
Dissolved Chloride (Cl)	mg/L				1.0	8832725	2.9	0.50	8832715
Nutrients				'					
Total Ammonia (N)	mg/L				<0.0050	8831795	0.016	0.0050	8831795
Nitrate plus Nitrite (N)	mg/L	0.0408	0.0020	8833274	0.216	8833279	0.300	0.0020	8833274
Nitrite (N)	mg/L	<0.0020	0.0020	8833284	<0.0020	8833283	<0.0020	0.0020	8833284
Physical Properties									
Conductivity	uS/cm				612	8834243	471	1.0	8834239
рН	рН				8.30	8834241	8.24		8834238
Physical Properties	•							•	
Total Suspended Solids	mg/L				<1.0	8831903	10.1	1.0	8831903
Total Dissolved Solids	mg/L				402	8832215	306	10	8832215
RDL = Reportable Detection Limit	:			. '		•		•	
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3076			SM3076		
Committee Date		2017/11/11			2017/11/11		
Sampling Date		11:50			11:50		
COC Number		540800-03-01			540800-03-01		
	UNITS	Blackhills U/S S.R.	RDL	QC Batch	Blackhills U/S S.R. Lab-Dup	RDL	QC Batch
Parameter							
ORP	mV	314		8831744			
Calculated Parameters				-			!
Filter and HNO3 Preservation	N/A	LAB		8831807			
Nitrate (N)	mg/L	0.172	0.0020	8830953			
Misc. Inorganics			1				•
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00061	0.00050	8838880			
Fluoride (F)	mg/L	0.140	0.010	8833984	0.140	0.010	8833984
Dissolved Organic Carbon (C)	mg/L	10.3	0.50	8837062			
Alkalinity (Total as CaCO3)	mg/L	168	0.50	8834240			
Total Organic Carbon (C)	mg/L	9.94	0.50	8836181			
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8834240			
Bicarbonate (HCO3)	mg/L	205	0.50	8834240			
Carbonate (CO3)	mg/L	<0.50	0.50	8834240			
Hydroxide (OH)	mg/L	<0.50	0.50	8834240			
Anions			•			•	•
Dissolved Sulphate (SO4)	mg/L	99.1	0.50	8832710			
Dissolved Chloride (Cl)	mg/L	2.2	0.50	8832709			
Nutrients			•	-		•	•
Total Ammonia (N)	mg/L	0.037	0.0050	8831795			
Nitrate plus Nitrite (N)	mg/L	0.172	0.0020	8833274			
Nitrite (N)	mg/L	<0.0020	0.0020	8833284			
Physical Properties			•			•	•
Conductivity	uS/cm	495	1.0	8834239			
рН	рН	8.20		8834238			
Physical Properties	•		-			•	•
Total Suspended Solids	mg/L	4.8	1.0	8831916			
Total Dissolved Solids	mg/L	320	10	8832215			
RDL = Reportable Detection Limit	· · · · ·		•			•	
Lab-Dup = Laboratory Initiated D	uplicate						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3077		SM3086			SM3086		
Sampling Date		2017/11/11 12:00		2017/11/11 12:35			2017/11/11 12:35		
COC Number		540800-03-01		540800-04-01			540800-04-01		
	UNITS	MaisyMay U/S S.R.	QC Batch	Stewart D/S M.M.	RDL	QC Batch	Stewart D/S M.M. Lab-Dup	RDL	QC Batch
Parameter					•			•	
ORP	mV	316	8831744	317		8831744			
Calculated Parameters			-		+	<del>!</del>			1
Filter and HNO3 Preservation	N/A	LAB	8831807	LAB		8831807			
Nitrate (N)	mg/L	0.144	8830953	0.168	0.0020	8830953			
Misc. Inorganics			· '		•	· '			
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00122	8836944	0.00068	0.00050	8836944			
Fluoride (F)	mg/L	0.170	8833984	0.120	0.010	8833984			
Dissolved Organic Carbon (C)	mg/L	8.49	8836184	2.77	0.50	8836184	2.44	0.50	8836184
Alkalinity (Total as CaCO3)	mg/L	199	8834245	153	0.50	8834245			
Total Organic Carbon (C)	mg/L	8.22	8836182	2.64	0.50	8836181			
Alkalinity (PP as CaCO3)	mg/L	0.88	8834245	1.13	0.50	8834245			
Bicarbonate (HCO3)	mg/L	240	8834245	184	0.50	8834245			
Carbonate (CO3)	mg/L	1.06	8834245	1.36	0.50	8834245			
Hydroxide (OH)	mg/L	<0.50	8834245	<0.50	0.50	8834245			
Anions									
Dissolved Sulphate (SO4)	mg/L	170	8832718	127	0.50	8832726			
Dissolved Chloride (CI)	mg/L	1.6	8832715	0.62	0.50	8832725			
Nutrients									
Total Ammonia (N)	mg/L	0.040	8831795	<0.0050	0.0050	8831795			
Nitrate plus Nitrite (N)	mg/L	0.152	8833274	0.168	0.0020	8833279			
Nitrite (N)	mg/L	0.0082	8833284	<0.0020	0.0020	8833283			
Physical Properties									
Conductivity	uS/cm	680	8834243	520	1.0	8834243			
рН	рН	8.30	8834241	8.32		8834241			
Physical Properties									
Total Suspended Solids	mg/L	10.7	8831916	143	1.0	8831916			
Total Dissolved Solids	mg/L	450	8832215	320	10	8832215			
RDL = Reportable Detection Limi Lab-Dup = Laboratory Initiated D								_	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3087			SM3087		SM3088		
Sampling Date		2017/11/11			2017/11/11				
COC Number		10:25 540800-04-01			10:25 540800-04-01		540800-04-01		
COC Number		340600-04-01			Latte Mix		340600-04-01		
	UNITS	Latte Mix	RDL	QC Batch	Lab-Dup	QC Batch	Sample A	RDL	QC Batch
Parameter	· <u>··</u>		•	•		•			
ORP	mV	316		8831744	317	8831744	317		8831744
Calculated Parameters	•			•					
Filter and HNO3 Preservation	N/A	LAB		8831807			LAB		8831807
Nitrate (N)	mg/L	0.440	0.0020	8830953			0.483	0.0020	8830953
Misc. Inorganics	-					•			
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00082	0.00050	8836944			0.00105	0.00050	8836944
Fluoride (F)	mg/L	0.085	0.010	8833984			0.062	0.010	8833984
Dissolved Organic Carbon (C)	mg/L	7.54	0.50	8837059			9.45	0.50	8837059
Alkalinity (Total as CaCO3)	mg/L	80.8	0.50	8834240			49.8	0.50	8834240
Total Organic Carbon (C)	mg/L	6.50	0.50	8836182			8.14	0.50	8836181
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8834240			<0.50	0.50	8834240
Bicarbonate (HCO3)	mg/L	98.6	0.50	8834240			60.8	0.50	8834240
Carbonate (CO3)	mg/L	<0.50	0.50	8834240			<0.50	0.50	8834240
Hydroxide (OH)	mg/L	<0.50	0.50	8834240			<0.50	0.50	8834240
Anions						•			
Dissolved Sulphate (SO4)	mg/L	81.5	0.50	8832718			48.1	0.50	8832710
Dissolved Chloride (CI)	mg/L	0.90	0.50	8832715			0.61	0.50	8832709
Nutrients						•			
Total Ammonia (N)	mg/L	<0.0050	0.0050	8831795			<0.0050	0.0050	8831795
Nitrate plus Nitrite (N)	mg/L	0.440	0.0020	8833274			0.483	0.0020	8833274
Nitrite (N)	mg/L	<0.0020	0.0020	8833284			<0.0020	0.0020	8833284
Physical Properties									
Conductivity	uS/cm	334	1.0	8834239			208	1.0	8834239
рН	рН	8.05		8834238			7.81		8834238
Physical Properties									
Total Suspended Solids	mg/L	1.1	1.0	8831916			1.4	1.0	8831916
Total Dissolved Solids	mg/L	198	10	8832215			116	10	8832215
RDL = Reportable Detection Limit	:								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3088			SM3089			SM3089	
Sampling Date									
COC Number		540800-04-01			540800-04-01			540800-04-01	
	UNITS	Sample A Lab-Dup	RDL	QC Batch	Sample C	RDL	QC Batch	Sample C Lab-Dup	QC Batch
Parameter	-			•	•		•	•	
ORP	mV				320		8831744	320	8831744
Calculated Parameters	•	•							
Filter and HNO3 Preservation	N/A				LAB		8831807		
Nitrate (N)	mg/L				0.141	0.0020	8830953		
Misc. Inorganics	•	•							•
Weak Acid Dissoc. Cyanide (CN)	mg/L				0.00098	0.00050	8836944		
Fluoride (F)	mg/L				0.170	0.010	8833984		
Dissolved Organic Carbon (C)	mg/L	9.36	0.50	8837059	9.64	0.50	8837064		
Alkalinity (Total as CaCO3)	mg/L				199	0.50	8834240		
Total Organic Carbon (C)	mg/L				7.95	0.50	8836181		
Alkalinity (PP as CaCO3)	mg/L				2.89	0.50	8834240		
Bicarbonate (HCO3)	mg/L				236	0.50	8834240		
Carbonate (CO3)	mg/L				3.47	0.50	8834240		
Hydroxide (OH)	mg/L				<0.50	0.50	8834240		
Anions	-								
Dissolved Sulphate (SO4)	mg/L				172	0.50	8832710		
Dissolved Chloride (CI)	mg/L				1.6	0.50	8832709		
Nutrients									
Total Ammonia (N)	mg/L				0.071	0.0050	8831795		
Nitrate plus Nitrite (N)	mg/L				0.150	0.0020	8833274		
Nitrite (N)	mg/L				0.0088	0.0020	8833284		
Physical Properties	-	-		-		•	-		•
Conductivity	uS/cm				686	1.0	8834239		
рН	рН				8.35		8834238		
Physical Properties									
Total Suspended Solids	mg/L				11.7	1.0	8831903		
Total Dissolved Solids	mg/L				386	10	8833350		
RDL = Reportable Detection Limit	:								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3090		SM3091			SM3091		
Sampling Date		2017/11/11 19:00		2017/11/15			2017/11/15		
COC Number		540800-04-01		540800-04-01			540800-04-01		
	UNITS	FIELD BLANK	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Parameter									
ORP	mV	309	8831744	309		8831744			
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	8831807						
Nitrate (N)	mg/L	<0.0020	8830953	<0.0020	0.0020	8830953			
Misc. Inorganics	•							!	
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8838880	<0.00050	0.00050	8838880			
Fluoride (F)	mg/L	0.018	8833984	0.014	0.010	8833984			
Dissolved Organic Carbon (C)	mg/L	0.80	8837065	0.67	0.50	8837064	0.56	0.50	8837064
Alkalinity (Total as CaCO3)	mg/L	<0.50	8834236	<0.50	0.50	8834236	<0.50	0.50	8834236
Total Organic Carbon (C)	mg/L	0.92	8836179	0.75	0.50	8836179			
Alkalinity (PP as CaCO3)	mg/L	<0.50	8834236	<0.50	0.50	8834236	<0.50	0.50	8834236
Bicarbonate (HCO3)	mg/L	<0.50	8834236	<0.50	0.50	8834236	<0.50	0.50	8834236
Carbonate (CO3)	mg/L	<0.50	8834236	<0.50	0.50	8834236	<0.50	0.50	8834236
Hydroxide (OH)	mg/L	<0.50	8834236	<0.50	0.50	8834236	<0.50	0.50	8834236
Anions									
Dissolved Sulphate (SO4)	mg/L	<0.50	8832718	<0.50	0.50	8832718	<0.50	0.50	8832718
Dissolved Chloride (CI)	mg/L	<0.50	8832715	<0.50	0.50	8832715	<0.50	0.50	8832715
Nutrients									
Total Ammonia (N)	mg/L	< 0.0050	8831795	<0.0050	0.0050	8831795	<0.0050	0.0050	8831795
Nitrate plus Nitrite (N)	mg/L	<0.0020	8833274	<0.0020	0.0020	8833279			
Nitrite (N)	mg/L	<0.0020	8833284	<0.0020	0.0020	8833283			
Physical Properties									
Conductivity	uS/cm	1.1	8834234	1.0	1.0	8834234	1.0	1.0	8834234
рН	рН	5.08	8834226	5.08		8834226	5.07		8834226
Physical Properties			'		'				
Total Suspended Solids	mg/L	<1.0	8831903	<1.0	1.0	8831903			
Total Dissolved Solids	mg/L	<10	8832215	<10	10	8833938			
RDL = Reportable Detection Limit	t								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SM3058			SM3058			SM3059		
Sampling Date		2017/11/11			2017/11/11			2017/11/11		
Janipinig Date		10:35			10:35			14:50		
COC Number		540800-01-01			540800-01-01			540800-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	147	0.50	8830414				502	0.50	8830414
Elements	•					•			•	
Dissolved Mercury (Hg)	ug/L	0.0021	0.0020	8833494	<0.0020	0.0020	8833494	<0.0020	0.0020	8833494
Dissolved Metals by ICPMS										
Dissolved Aluminum (AI)	ug/L	18.6	0.50	8833233	17.8	0.50	8833233	4.43	0.50	8833233
Dissolved Antimony (Sb)	ug/L	0.093	0.020	8833233	0.095	0.020	8833233	0.182	0.020	8833233
Dissolved Arsenic (As)	ug/L	0.299	0.020	8833233	0.282	0.020	8833233	1.10	0.020	8833233
Dissolved Barium (Ba)	ug/L	64.3	0.020	8833233	64.6	0.020	8833233	107	0.020	8833233
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8833233	<0.010	0.010	8833233	<0.010	0.010	8833233
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8833233	<0.0050	0.0050	8833233	<0.0050	0.0050	8833233
Dissolved Boron (B)	ug/L	<10	10	8833233	<10	10	8833233	<10	10	8833233
Dissolved Cadmium (Cd)	ug/L	0.0129	0.0050	8833233	0.0126	0.0050	8833233	0.0159	0.0050	8833233
Dissolved Chromium (Cr)	ug/L	0.18	0.10	8833233	0.15	0.10	8833233	<0.10	0.10	8833233
Dissolved Cobalt (Co)	ug/L	0.0414	0.0050	8833233	0.0360	0.0050	8833233	0.0198	0.0050	8833233
Dissolved Copper (Cu)	ug/L	1.08	0.050	8833233	1.08	0.050	8833233	0.811	0.050	8833233
Dissolved Iron (Fe)	ug/L	19.1	1.0	8833233	19.1	1.0	8833233	2.8	1.0	8833233
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8833233	<0.0050	0.0050	8833233	0.0145	0.0050	8833233
Dissolved Lithium (Li)	ug/L	2.09	0.50	8833233	2.09	0.50	8833233	5.77	0.50	8833233
Dissolved Manganese (Mn)	ug/L	18.1	0.050	8833233	18.4	0.050	8833233	0.601	0.050	8833233
Dissolved Molybdenum (Mo)	ug/L	0.669	0.050	8833233	0.668	0.050	8833233	0.329	0.050	8833233
Dissolved Nickel (Ni)	ug/L	0.593	0.020	8833233	0.603	0.020	8833233	0.420	0.020	8833233
Dissolved Phosphorus (P)	ug/L	2.7	2.0	8833233	2.8	2.0	8833233	3.4	2.0	8833233
Dissolved Selenium (Se)	ug/L	0.112	0.040	8833233	0.101	0.040	8833233	0.422	0.040	8833233
Dissolved Silicon (Si)	ug/L	5340	50	8833233	5530	50	8833233	5550	50	8833233
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8833233	<0.0050	0.0050	8833233	<0.0050	0.0050	8833233
Dissolved Strontium (Sr)	ug/L	179	0.050	8833233	178	0.050	8833233	1190	0.050	8833233
Dissolved Thallium (TI)	ug/L	0.0025	0.0020	8833233	0.0020	0.0020	8833233	0.0041	0.0020	8833233
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8833233	<0.20	0.20	8833233	<0.20	0.20	8833233
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8833233	<0.50	0.50	8833233	<0.50	0.50	8833233
Dissolved Uranium (U)	ug/L	18.7	0.0020	8833233	18.7	0.0020	8833233	32.1	0.0020	8833233
RDL = Reportable Detection Li	mit									
Lab-Dup = Laboratory Initiated	l Duplica	ite								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SM3058			SM3058			SM3059		
Sampling Date		2017/11/11			2017/11/11			2017/11/11		
Sampling Date		10:35			10:35			14:50		
COC Number		540800-01-01			540800-01-01			540800-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.25	0.20	8833233	0.26	0.20	8833233	0.26	0.20	8833233
Dissolved Zinc (Zn)	ug/L	0.91 (1)	0.10	8833233	1.00	0.10	8833233	3.47	0.10	8833233
Dissolved Zirconium (Zr)	ug/L	0.26	0.10	8833233	0.27	0.10	8833233	<0.10	0.10	8833233
Dissolved Calcium (Ca)	mg/L	37.0	0.050	8830416				125	0.050	8830416
Dissolved Magnesium (Mg)	mg/L	13.2	0.050	8830416				46.0	0.050	8830416
Dissolved Potassium (K)	mg/L	1.33	0.050	8830416				5.66	0.050	8830416
Dissolved Sodium (Na)	mg/L	5.91	0.050	8830416				5.60	0.050	8830416
Dissolved Sulphur (S)	mg/L	26.2	3.0	8830416				70.6	3.0	8830416

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SM3060		SM3061	SM3062	SM3063	SM3064		
Sampling Date		2017/11/11		2017/11/11	2017/11/11	2017/11/11	2017/11/11		
Sampling Date		15:20		11:00	10:10	12:45	14:25		
COC Number		540800-01-01		540800-01-01	540800-01-01	540800-01-01	540800-01-01		
	UNITS	CC-1.5	QC Batch	CC-3.5	CC-4.5	CC-A	СС-В	RDL	QC Batch
Misc. Inorganics	•	•	•	•	•	•	•		
Dissolved Hardness (CaCO3)	mg/L	324	8830414	192	128	212	333	0.50	8831270
Elements	!				•			!	
Dissolved Mercury (Hg)	ug/L	0.0023	8833494	0.0024	0.0021	0.0025	<0.0020	0.0020	8833494
Dissolved Metals by ICPMS		·	•		•	·			
Dissolved Aluminum (AI)	ug/L	14.9	8833233	12.8	15.5	19.0	12.8	0.50	8833233
Dissolved Antimony (Sb)	ug/L	0.095	8833233	0.075	0.087	0.090	0.112	0.020	8833233
Dissolved Arsenic (As)	ug/L	0.777	8833233	0.239	0.258	0.320	0.535	0.020	8833233
Dissolved Barium (Ba)	ug/L	73.4	8833233	78.2	71.2	54.6	85.5	0.020	8833233
Dissolved Beryllium (Be)	ug/L	<0.010	8833233	<0.010	<0.010	0.016	<0.010	0.010	8833233
Dissolved Bismuth (Bi)	ug/L	<0.0050	8833233	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8833233
Dissolved Boron (B)	ug/L	<10	8833233	<10	<10	<10	<10	10	8833233
Dissolved Cadmium (Cd)	ug/L	0.0104	8833233	0.0066	0.0076	0.0159	0.0058	0.0050	8833233
Dissolved Chromium (Cr)	ug/L	0.12	8833233	<0.10	0.13	0.12	0.11	0.10	8833233
Dissolved Cobalt (Co)	ug/L	0.0203	8833233	0.0246	0.0265	0.0312	0.0178	0.0050	8833233
Dissolved Copper (Cu)	ug/L	0.960	8833233	0.752	1.11	1.42	0.799	0.050	8833233
Dissolved Iron (Fe)	ug/L	6.0	8833233	4.6	9.9	13.6	5.9	1.0	8833233
Dissolved Lead (Pb)	ug/L	<0.0050	8833233	0.0080	<0.0050	0.0102	<0.0050	0.0050	8833233
Dissolved Lithium (Li)	ug/L	2.29	8833233	0.60	0.56	2.12	1.80	0.50	8833233
Dissolved Manganese (Mn)	ug/L	6.87	8833233	0.328	5.90	10.1	1.31	0.050	8833233
Dissolved Molybdenum (Mo)	ug/L	0.312	8833233	0.358	0.642	0.264 (1)	0.513	0.050	8833233
Dissolved Nickel (Ni)	ug/L	0.360	8833233	0.374	0.593	0.326	0.303	0.020	8833233
Dissolved Phosphorus (P)	ug/L	5.1	8833233	3.2	3.3	4.0	3.5	2.0	8833233
Dissolved Selenium (Se)	ug/L	0.172	8833233	0.107	0.073	0.048	0.125	0.040	8833233
Dissolved Silicon (Si)	ug/L	5210	8833233	4420	4690	5910	5170	50	8833233
Dissolved Silver (Ag)	ug/L	<0.0050	8833233	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8833233
Dissolved Strontium (Sr)	ug/L	627	8833233	316	162	386	721	0.050	8833233
Dissolved Thallium (TI)	ug/L	0.0031	8833233	<0.0020	0.0023	0.0029	0.0025	0.0020	8833233
Dissolved Tin (Sn)	ug/L	<0.20	8833233	<0.20	<0.20	<0.20	<0.20	0.20	8833233
Dissolved Titanium (Ti)	ug/L	<0.50	8833233	<0.50	<0.50	<0.50	<0.50	0.50	8833233
Dissolved Uranium (U)	ug/L	20.9	8833233	10.7	3.53	8.21	24.3	0.0020	8833233
DDI Damantakia Dataatian Lin									

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3060		SM3061	SM3062	SM3063	SM3064		
Sampling Date		2017/11/11		2017/11/11	2017/11/11	2017/11/11	2017/11/11		
Sampling Date		15:20		11:00	10:10	12:45	14:25		
COC Number		540800-01-01		540800-01-01	540800-01-01	540800-01-01	540800-01-01		
	UNITS	CC-1.5	QC Batch	CC-3.5	CC-4.5	CC-A	СС-В	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.25	8833233	0.21	0.26	0.21	0.28	0.20	8833233
Dissolved Zinc (Zn)	ug/L	1.45 (1)	8833233	0.50	0.26	1.54	0.27	0.10	8833233
Dissolved Zirconium (Zr)	ug/L	0.27	8833233	0.24	0.26	0.27	0.27	0.10	8833233
Dissolved Calcium (Ca)	mg/L	85.8	8830416	52.6	32.9	60.2	88.7	0.050	8830416
Dissolved Magnesium (Mg)	mg/L	26.7	8830416	14.8	11.1	14.9	27.0	0.050	8830416
Dissolved Potassium (K)	mg/L	4.11	8830416	2.27	1.35	2.51	4.87	0.050	8830416
Dissolved Sodium (Na)	mg/L	5.85	8830416	4.23	4.63	5.76	5.25	0.050	8830416
Dissolved Sulphur (S)	mg/L	57.9	8830416	30.8	23.5	42.8	55.6	3.0	8830416

RDL = Reportable Detection Limit

<sup>(1)</sup> Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3065	SM3066	SM3068	SM3069	SM3070	SM3071		
		2017/11/11	2017/11/11	2017/11/12	2017/11/12	2017/11/12	2017/11/12		
Sampling Date		16:00	10:00	11:50	11:40	11:00	10:45		
COC Number		540800-01-01	540800-01-01	540800-02-01	540800-02-01	540800-02-01	540800-02-01		
	UNITS	CC-C	сс-х	HC-2.5	HC-C	IC-0.5	IC-1.5	RDL	QC Batch
Misc. Inorganics			<u> </u>	<u> </u>	·	<u> </u>	<u> </u>		
Dissolved Hardness (CaCO3)	mg/L	490	126	160	155	256	93.9	0.50	8831270
Elements					1				
Dissolved Mercury (Hg)	ug/L	0.0021	<0.0020	0.0021	0.0024	0.0026	0.0035	0.0020	8833494
Dissolved Metals by ICPMS					1				
Dissolved Aluminum (Al)	ug/L	3.40	22.3	16.5	12.4	28.9	20.1	0.50	8833233
Dissolved Antimony (Sb)	ug/L	0.142	0.090	0.556	0.262	0.084	0.108	0.020	8833233
Dissolved Arsenic (As)	ug/L	1.13	0.275	0.711	0.556	0.518	0.226	0.020	8833233
Dissolved Barium (Ba)	ug/L	106	71.6	49.1	49.7	61.9	39.0	0.020	8833233
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	0.014	0.013	0.010	8833233
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8833233
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	8833233
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0097	0.0118	0.0152	0.0268	0.0066	0.0050	8833233
Dissolved Chromium (Cr)	ug/L	<0.10	0.14	0.13	0.14	0.22	0.13	0.10	8833233
Dissolved Cobalt (Co)	ug/L	0.0182	0.0281	0.0257	0.0307	0.0311	0.0232	0.0050	8833233
Dissolved Copper (Cu)	ug/L	0.601	1.13	0.848	1.06	1.47	1.01	0.050	8833233
Dissolved Iron (Fe)	ug/L	2.4	11.2	7.4	6.1	12.6	7.9	1.0	8833233
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	0.0058	<0.0050	<0.0050	0.0050	8833233
Dissolved Lithium (Li)	ug/L	5.73	<0.50	1.53	1.41	2.85	2.87	0.50	8833233
Dissolved Manganese (Mn)	ug/L	0.448	3.55	8.14	15.0	0.818	1.56	0.050	8833233
Dissolved Molybdenum (Mo)	ug/L	0.317	0.662	1.61	0.794	0.311	0.402	0.050	8833233
Dissolved Nickel (Ni)	ug/L	0.382	0.588	0.361	0.350	1.22	0.635	0.020	8833233
Dissolved Phosphorus (P)	ug/L	3.0	2.8	3.5	4.0	4.6	2.8	2.0	8833233
Dissolved Selenium (Se)	ug/L	0.436	0.060	0.065	0.046	0.391	0.047	0.040	8833233
Dissolved Silicon (Si)	ug/L	5330	4850	5770	5190	6350	5710	50	8833233
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8833233
Dissolved Strontium (Sr)	ug/L	1170	162	368	327	180	143	0.050	8833233
Dissolved Thallium (TI)	ug/L	0.0046	<0.0020	0.0020	<0.0020	0.0028	0.0023	0.0020	8833233
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8833233
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8833233
Dissolved Uranium (U)	ug/L	32.6	2.51	50.2	38.4	2.31	3.72	0.0020	8833233
Dissolved Vanadium (V)	ug/L	0.24	0.27	0.29	0.24	0.31	0.26	0.20	8833233
RDL = Reportable Detection Lin	nit		-	-					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3065	SM3066	SM3068	SM3069	SM3070	SM3071		
Sampling Date		2017/11/11	2017/11/11	2017/11/12	2017/11/12	2017/11/12	2017/11/12		
Sampling Date		16:00	10:00	11:50	11:40	11:00	10:45		
COC Number		540800-01-01	540800-01-01	540800-02-01	540800-02-01	540800-02-01	540800-02-01		
	UNITS	CC-C	сс-х	HC-2.5	нс-с	IC-0.5	IC-1.5	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.62	0.37	0.80	1.44	1.07	0.68	0.10	8833233
Dissolved Zirconium (Zr)	ug/L	<0.10	0.26	0.26	0.30	0.39	0.35	0.10	8833233
Dissolved Calcium (Ca)	mg/L	122	32.5	39.3	38.7	59.0	25.3	0.050	8830416
Dissolved Magnesium (Mg)	mg/L	44.8	10.8	15.1	14.1	26.3	7.49	0.050	8830416
Dissolved Potassium (K)	mg/L	5.44	1.33	2.30	1.69	1.30	1.03	0.050	8830416
Dissolved Sodium (Na)	mg/L	5.39	4.50	3.77	4.49	5.79	4.84	0.050	8830416
Dissolved Sulphur (S)	mg/L	69.9	24.0	18.4	21.4	59.2	9.0	3.0	8830416
RDL = Reportable Detection L	mit						_	•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3072	SM3073	SM3074	SM3075	SM3076		
Sampling Date		2017/11/12	2017/11/12	2017/11/11	2017/11/11	2017/11/11		
Sampling Date		10:00	09:30	09:35	12:55	11:50		
COC Number		540800-02-01	540800-03-01	540800-03-01	540800-03-01	540800-03-01		
	UNITS	IC-4.5	YUK-5.0	Ballarat U/S	Barker U/S	Blackhills U/S	RDL	QC Batch
				Y.R.	S.R.	S.R.	<u> </u>	
Misc. Inorganics		T						ı
Dissolved Hardness (CaCO3)	mg/L	96.0	98.2	315	237	250	0.50	8831270
Elements							_	
Dissolved Mercury (Hg)	ug/L	0.0026	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8833494
Dissolved Metals by ICPMS								
Dissolved Aluminum (AI)	ug/L	33.6	3.63	6.24	20.3	11.9	0.50	8833233
Dissolved Antimony (Sb)	ug/L	0.086	0.086	0.037	0.084	0.117	0.020	8833233
Dissolved Arsenic (As)	ug/L	0.275	0.388	0.171	0.357	0.545	0.020	8833233
Dissolved Barium (Ba)	ug/L	50.2	43.1	79.0	104	111	0.020	8833233
Dissolved Beryllium (Be)	ug/L	0.012	<0.010	<0.010	<0.010	0.014	0.010	8833233
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0069	0.0050	8833233
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	13	10	8833233
Dissolved Cadmium (Cd)	ug/L	0.0142	0.0195	<0.0050	0.0200	0.0170	0.0050	8833233
Dissolved Chromium (Cr)	ug/L	0.18	<0.10	0.10	0.22	0.25	0.10	8833233
Dissolved Cobalt (Co)	ug/L	0.0283	0.0121	0.0269	0.241	0.561	0.0050	8833233
Dissolved Copper (Cu)	ug/L	1.30	0.459	1.20	2.03	1.96	0.050	8833233
Dissolved Iron (Fe)	ug/L	12.6	3.6	11.7	106	188	1.0	8833233
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	0.0050	0.0086	0.0583	0.0050	8833233
Dissolved Lithium (Li)	ug/L	0.82	1.26	0.60	2.18	3.42	0.50	8833233
Dissolved Manganese (Mn)	ug/L	8.30	2.19	5.56	171	325	0.050	8833233
Dissolved Molybdenum (Mo)	ug/L	0.236	1.39	0.737	0.654	1.00	0.050	8833233
Dissolved Nickel (Ni)	ug/L	0.812	0.553	0.340	1.46	2.41	0.020	8833233
Dissolved Phosphorus (P)	ug/L	3.3	2.4	3.3	6.1	17.8	2.0	8833233
Dissolved Selenium (Se)	ug/L	0.080	0.217	0.140	0.155	0.217	0.040	8833233
Dissolved Silicon (Si)	ug/L	5060	3050	4510	5510	7260	50	8833233
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8833233
Dissolved Strontium (Sr)	ug/L	126	125	543	321	280	0.050	8833233
Dissolved Thallium (TI)	ug/L	0.0030	0.0021	<0.0020	0.0031	0.0053	0.0020	8833233
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8833233
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8833233
Dissolved Uranium (U)	ug/L	0.540	1.15	4.61	3.34	2.45	0.0020	8833233
Dissolved Vanadium (V)	ug/L	0.26	0.22	0.29	0.48	0.44	0.20	8833233
RDL = Reportable Detection Li		L	l l				I	1



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3072	SM3073	SM3074	SM3075	SM3076		
Sampling Date		2017/11/12 10:00	2017/11/12 09:30	2017/11/11 09:35	2017/11/11 12:55	2017/11/11 11:50		
COC Number		540800-02-01	540800-03-01	540800-03-01	540800-03-01	540800-03-01		
	UNITS	IC-4.5	YUK-5.0	Ballarat U/S Y.R.	Barker U/S S.R.	Blackhills U/S S.R.	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.40	0.65	0.45	0.58	1.05	0.10	8833233
Dissolved Zirconium (Zr)	ug/L	0.44	<0.10	0.14	0.33	0.40	0.10	8833233
Dissolved Calcium (Ca)	mg/L	25.9	27.7	73.8	59.9	67.5	0.050	8830416
Dissolved Magnesium (Mg)	mg/L	7.63	7.04	31.6	21.2	19.9	0.050	8830416
Dissolved Potassium (K)	mg/L	1.13	0.812	2.88	2.22	2.49	0.050	8830416
Dissolved Sodium (Na)	mg/L	3.75	2.20	8.81	9.73	8.53	0.050	8830416
Dissolved Sulphur (S)	mg/L	16.1	6.2	56.7	32.2	33.3	3.0	8830416
RDL = Reportable Detection Li	mit					_		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3077	SM3086	1	SM3087	SM3088		
		2017/11/11	2017/11/11	1	2017/11/11			
Sampling Date		12:00	12:35		10:25			
COC Number		540800-03-01	540800-04-01		540800-04-01	540800-04-01		
	UNITS	MaisyMay U/S S.R.	Stewart D/S M.M.	QC Batch	Latte Mix	Sample A	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	373	272	8831270	159	94.0	0.50	8831270
Elements				•				
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	8833494	0.0021	0.0025	0.0020	8835363
Dissolved Metals by ICPMS						1	l.	Į.
Dissolved Aluminum (Al)	ug/L	3.29	15.1	8833233	17.9	33.6	0.50	8833316
Dissolved Antimony (Sb)	ug/L	0.077	0.163	8833233	0.098	0.084	0.020	8833316
Dissolved Arsenic (As)	ug/L	0.336	0.460	8833233	0.292	0.275	0.020	8833316
Dissolved Barium (Ba)	ug/L	104	89.6	8833233	67.7	50.3	0.020	8833316
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	8833233	<0.010	0.011	0.010	8833316
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	8833233	0.0066	<0.0050	0.0050	8833316
Dissolved Boron (B)	ug/L	<10	<10	8833233	<10	<10	10	8833316
Dissolved Cadmium (Cd)	ug/L	0.0177	0.129	8833233	0.0082	0.0153	0.0050	8833316
Dissolved Chromium (Cr)	ug/L	0.12	<0.10	8833233	0.14	0.20	0.10	8833316
Dissolved Cobalt (Co)	ug/L	0.315	0.0301	8833233	0.0405	0.0335	0.0050	8833316
Dissolved Copper (Cu)	ug/L	1.29	0.664	8833233	1.08	1.28	0.050	8833316
Dissolved Iron (Fe)	ug/L	21.2	3.3	8833233	20.4	13.1	1.0	8833316
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	8833233	<0.0050	<0.0050	0.0050	8833316
Dissolved Lithium (Li)	ug/L	4.04	5.33	8833233	1.82	0.77	0.50	8833316
Dissolved Manganese (Mn)	ug/L	427	8.74	8833233	17.6	8.16	0.050	8833316
Dissolved Molybdenum (Mo)	ug/L	1.20	0.754	8833233	0.658	0.244	0.050	8833316
Dissolved Nickel (Ni)	ug/L	2.03	4.46	8833233	0.596	0.868	0.020	8833316
Dissolved Phosphorus (P)	ug/L	4.9	4.3	8833233	2.8	2.9	2.0	8833316
Dissolved Selenium (Se)	ug/L	0.396	0.989	8833233	0.101	0.091	0.040	8833316
Dissolved Silicon (Si)	ug/L	6360	3350	8833233	5390	4660	50	8833316
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	8833233	<0.0050	<0.0050	0.0050	8833316
Dissolved Strontium (Sr)	ug/L	310	296	8833233	204	126	0.050	8833316
Dissolved Thallium (TI)	ug/L	0.0026	0.0041	8833233	0.0027	<0.0020	0.0020	8833316
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	8833233	<0.20	<0.20	0.20	8833316
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	8833233	<0.50	<0.50	0.50	8833316
Dissolved Uranium (U)	ug/L	3.52	1.68	8833233	18.9	0.543	0.0020	8833316
Dissolved Vanadium (V)	ug/L	0.44	<0.20	8833233	0.26	0.26	0.20	8833316
RDL = Reportable Detection Lir	nit			-		•		•



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3077	SM3086		SM3087	SM3088		
Sampling Date		2017/11/11 12:00	2017/11/11 12:35		2017/11/11 10:25			
COC Number		540800-03-01	540800-04-01		540800-04-01	540800-04-01		
	UNITS	MaisyMay U/S S.R.	Stewart D/S M.M.	QC Batch	Latte Mix	Sample A	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.44	4.60	8833233	0.49	0.40	0.10	8833316
Dissolved Zirconium (Zr)	ug/L	0.20	<0.10	8833233	0.27	0.43	0.10	8833316
Dissolved Calcium (Ca)	mg/L	87.4	69.2	8830416	41.4	25.1	0.050	8830416
Dissolved Magnesium (Mg)	mg/L	37.6	24.0	8830416	13.6	7.61	0.050	8830416
Dissolved Potassium (K)	mg/L	3.48	0.776	8830416	1.49	1.16	0.050	8830416
Dissolved Sodium (Na)	mg/L	8.40	3.26	8830416	5.69	3.75	0.050	8830416
Dissolved Sulphur (S)	mg/L	56.7	39.4	8830416	26.5	15.3	3.0	8830416
RDL = Reportable Detection L	imit			-			-	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3089		SM3090		SM3091		
Sampling Date				2017/11/11 19:00		2017/11/15		
COC Number		540800-04-01		540800-04-01		540800-04-01		
	UNITS	Sample C	QC Batch	FIELD BLANK	QC Batch	TRIP BLANK	RDL	QC Batch
Misc. Inorganics	<u>-                                      </u>		· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Dissolved Hardness (CaCO3)	mg/L	374	8831270	<0.50	8831270	<0.50	0.50	8831270
Elements								
Dissolved Mercury (Hg)	ug/L	<0.0020	8835363	<0.0020	8835363	<0.0020	0.0020	8835363
Dissolved Metals by ICPMS							•	
Dissolved Aluminum (Al)	ug/L	3.96	8833316	<0.50	8838337	<0.50	0.50	8833316
Dissolved Antimony (Sb)	ug/L	0.076	8833316	<0.020	8833316	<0.020	0.020	8833316
Dissolved Arsenic (As)	ug/L	0.355	8833316	<0.020	8833316	<0.020	0.020	8833316
Dissolved Barium (Ba)	ug/L	103	8833316	<0.020	8833316	<0.020	0.020	8833316
Dissolved Beryllium (Be)	ug/L	<0.010	8833316	<0.010	8833316	<0.010	0.010	8833316
Dissolved Bismuth (Bi)	ug/L	<0.0050	8833316	<0.0050	8833316	<0.0050	0.0050	8833316
Dissolved Boron (B)	ug/L	<10	8833316	<10	8833316	<10	10	8833316
Dissolved Cadmium (Cd)	ug/L	0.0171	8833316	<0.0050	8833316	<0.0050	0.0050	8833316
Dissolved Chromium (Cr)	ug/L	0.14	8833316	<0.10	8833316	<0.10	0.10	8833316
Dissolved Cobalt (Co)	ug/L	0.332	8833316	<0.0050	8833316	<0.0050	0.0050	8833316
Dissolved Copper (Cu)	ug/L	1.34	8833316	<0.050	8833316	<0.050	0.050	8833316
Dissolved Iron (Fe)	ug/L	22.1	8833316	<1.0	8833316	<1.0	1.0	8833316
Dissolved Lead (Pb)	ug/L	<0.0050	8833316	<0.0050	8833316	< 0.0050	0.0050	8833316
Dissolved Lithium (Li)	ug/L	4.14	8833316	<0.50	8833316	<0.50	0.50	8833316
Dissolved Manganese (Mn)	ug/L	424	8833316	<0.050	8833316	<0.050	0.050	8833316
Dissolved Molybdenum (Mo)	ug/L	1.20	8833316	<0.050	8833316	<0.050	0.050	8833316
Dissolved Nickel (Ni)	ug/L	2.12	8833316	<0.020	8833316	<0.020	0.020	8833316
Dissolved Phosphorus (P)	ug/L	4.2	8833316	<2.0	8833316	<2.0	2.0	8833316
Dissolved Selenium (Se)	ug/L	0.428	8833316	<0.040	8833316	<0.040	0.040	8833316
Dissolved Silicon (Si)	ug/L	6240	8833316	<50	8833316	<50	50	8833316
Dissolved Silver (Ag)	ug/L	<0.0050	8833316	<0.0050	8833316	<0.0050	0.0050	8833316
Dissolved Strontium (Sr)	ug/L	305	8833316	<0.050	8833316	<0.050	0.050	8833316
Dissolved Thallium (TI)	ug/L	0.0022	8833316	<0.0020	8833316	<0.0020	0.0020	8833316
Dissolved Tin (Sn)	ug/L	<0.20	8833316	<0.20	8833316	<0.20	0.20	8833316
Dissolved Titanium (Ti)	ug/L	<0.50	8833316	<0.50	8833316	<0.50	0.50	8833316
Dissolved Uranium (U)	ug/L	3.45	8833316	<0.0020	8833316	<0.0020	0.0020	8833316
Dissolved Vanadium (V)	ug/L	0.47	8833316	<0.20	8833316	<0.20	0.20	8833316
RDL = Reportable Detection Lir	mit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3089		SM3090		SM3091		
Sampling Date				2017/11/11 19:00		2017/11/15		
COC Number		540800-04-01		540800-04-01		540800-04-01		
	UNITS	Sample C	QC Batch	FIELD BLANK	QC Batch	TRIP BLANK	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.31	8833316	<0.10	8833316	<0.10	0.10	8833316
Dissolved Zirconium (Zr)	ug/L	0.19	8833316	<0.10	8833316	<0.10	0.10	8833316
Dissolved Calcium (Ca)	mg/L	88.6	8830416	<0.050	8830416	<0.050	0.050	8830416
Dissolved Magnesium (Mg)	mg/L	37.1	8830416	<0.050	8830416	<0.050	0.050	8830416
Dissolved Potassium (K)	mg/L	3.54	8830416	<0.050	8830416	<0.050	0.050	8830416
Dissolved Sodium (Na)	mg/L	8.52	8830416	<0.050	8830416	<0.050	0.050	8830416
Dissolved Sulphur (S)	mg/L	54.4	8830416	<3.0	8830416	<3.0	3.0	8830416
RDL = Reportable Detection Li	mit							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SM3058			SM3058			SM3059		
Sampling Date		2017/11/11			2017/11/11			2017/11/11		
Janipinig Date		10:35			10:35			14:50		
COC Number		540800-01-01			540800-01-01			540800-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	138	0.50	8830340				464	0.50	8830340
Elements										
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8833205				<0.0020	0.0020	8833205
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	23.2	0.50	8832435	23.8	0.50	8832435	18.6	0.50	8832435
Total Antimony (Sb)	ug/L	0.094	0.020	8832435	0.093	0.020	8832435	0.249	0.020	8832435
Total Arsenic (As)	ug/L	0.351	0.020	8832435	0.345	0.020	8832435	1.26	0.020	8832435
Total Barium (Ba)	ug/L	65.5	0.020	8832435	63.7	0.020	8832435	109	0.020	8832435
Total Beryllium (Be)	ug/L	<0.010	0.010	8832435	<0.010	0.010	8832435	<0.010	0.010	8832435
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435	0.0060	0.0050	8832435
Total Boron (B)	ug/L	<10	10	8832435	<10	10	8832435	<10	10	8832435
Total Cadmium (Cd)	ug/L	0.0100	0.0050	8832435	0.0110	0.0050	8832435	0.0210	0.0050	8832435
Total Chromium (Cr)	ug/L	0.15	0.10	8832435	0.15	0.10	8832435	0.22	0.10	8832435
Total Cobalt (Co)	ug/L	0.0410	0.0050	8832435	0.0410	0.0050	8832435	0.0310	0.0050	8832435
Total Copper (Cu)	ug/L	1.37	0.050	8832435	1.39	0.050	8832435	1.21	0.050	8832435
Total Iron (Fe)	ug/L	26.7	1.0	8832435	27.0	1.0	8832435	25.4	1.0	8832435
Total Lead (Pb)	ug/L	0.0220	0.0050	8832435	0.0200	0.0050	8832435	0.0810	0.0050	8832435
Total Lithium (Li)	ug/L	1.97	0.50	8832435	1.95	0.50	8832435	5.40	0.50	8832435
Total Manganese (Mn)	ug/L	20.3	0.050	8832435	20.1	0.050	8832435	1.37	0.050	8832435
Total Molybdenum (Mo)	ug/L	0.702	0.050	8832435	0.711	0.050	8832435	0.332	0.050	8832435
Total Nickel (Ni)	ug/L	0.672	0.020	8832435	0.643	0.020	8832435	0.592	0.020	8832435
Total Phosphorus (P)	ug/L	2.2	2.0	8832435	2.0	2.0	8832435	7.5	2.0	8832435
Total Selenium (Se)	ug/L	0.094	0.040	8832435	0.116	0.040	8832435	0.401	0.040	8832435
Total Silicon (Si)	ug/L	5920	50	8832435	5770	50	8832435	5190	50	8832435
Total Silver (Ag)	ug/L	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435	0.0090	0.0050	8832435
Total Strontium (Sr)	ug/L	190	0.050	8832435	193	0.050	8832435	1370	0.050	8832435
Total Thallium (TI)	ug/L	0.0030	0.0020	8832435	0.0030	0.0020	8832435	0.0040	0.0020	8832435
Total Tin (Sn)	ug/L	<0.20	0.20	8832435	<0.20	0.20	8832435	<0.20	0.20	8832435
Total Titanium (Ti)	ug/L	0.74	0.50	8832435	<0.50	0.50	8832435	0.56	0.50	8832435
Total Uranium (U)	ug/L	20.0	0.0020	8832435	20.3	0.0020	8832435	30.8	0.0020	8832435
RDL = Reportable Detection	Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SM3058			SM3058			SM3059		
Sampling Date		2017/11/11			2017/11/11			2017/11/11		
Sampling Date		10:35			10:35			14:50		
COC Number		540800-01-01			540800-01-01			540800-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Total Vanadium (V)	ug/L	0.22	0.20	8832435	0.23	0.20	8832435	0.27	0.20	8832435
Total Zinc (Zn)	ug/L	0.68	0.10	8832435	0.63	0.10	8832435	4.44	0.10	8832435
Total Zirconium (Zr)	ug/L	0.27	0.10	8832435	0.27	0.10	8832435	<0.10	0.10	8832435
Total Calcium (Ca)	mg/L	34.5	0.050	8830952				114	0.050	8830952
Total Magnesium (Mg)	mg/L	12.5	0.050	8830952				43.6	0.050	8830952
Total Potassium (K)	mg/L	1.35	0.050	8830952				5.68	0.050	8830952
Total Sodium (Na)	mg/L	5.72	0.050	8830952				5.38	0.050	8830952
Total Sulphur (S)	mg/L	26.5	3.0	8830952				71.8	3.0	8830952

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3060	SM3061	SM3062	SM3063	SM3064	SM3065		
Sampling Date		2017/11/11	2017/11/11	2017/11/11	2017/11/11	2017/11/11	2017/11/11		
Jamping Date		15:20	11:00	10:10	12:45	14:25	16:00		
COC Number		540800-01-01	540800-01-01	540800-01-01	540800-01-01	540800-01-01	540800-01-01		
	UNITS	CC-1.5	CC-3.5	CC-4.5	CC-A	СС-В	CC-C	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	319	187	124	202	321	470	0.50	8830340
Elements					•				
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8833205
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	19.3	20.4	112	32.6	28.3	35.2	0.50	8832435
Total Antimony (Sb)	ug/L	0.101	0.104	0.090	0.105	0.131	0.148	0.020	8832435
Total Arsenic (As)	ug/L	0.842	0.282	0.357	0.395	0.617	1.30	0.020	8832435
Total Barium (Ba)	ug/L	77.7	83.1	72.4	54.7	89.4	106	0.020	8832435
Total Beryllium (Be)	ug/L	0.010	<0.010	0.010	<0.010	<0.010	<0.010	0.010	8832435
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8832435
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	8832435
Total Cadmium (Cd)	ug/L	0.0080	0.0070	0.0140	0.0180	0.0060	0.0050	0.0050	8832435
Total Chromium (Cr)	ug/L	0.13	0.13	0.30	0.21	0.15	0.19	0.10	8832435
Total Cobalt (Co)	ug/L	0.0210	0.0300	0.103	0.0370	0.0270	0.0460	0.0050	8832435
Total Copper (Cu)	ug/L	1.18	0.891	1.60	1.69	0.998	0.773	0.050	8832435
Total Iron (Fe)	ug/L	12.8	13.4	154	37.5	26.8	43.0	1.0	8832435
Total Lead (Pb)	ug/L	0.0050	0.0220	0.0730	0.0420	0.0230	0.0270	0.0050	8832435
Total Lithium (Li)	ug/L	2.19	0.57	0.56	2.02	1.72	5.36	0.50	8832435
Total Manganese (Mn)	ug/L	8.78	0.872	17.8	12.2	2.27	3.71	0.050	8832435
Total Molybdenum (Mo)	ug/L	0.332	0.384	0.657	0.156	0.566	0.332	0.050	8832435
Total Nickel (Ni)	ug/L	0.436	0.476	0.758	0.421	0.353	0.518	0.020	8832435
Total Phosphorus (P)	ug/L	3.5	2.7	11.8	4.7	4.6	3.0	2.0	8832435
Total Selenium (Se)	ug/L	0.130	0.111	0.061	0.047	0.095	0.414	0.040	8832435
Total Silicon (Si)	ug/L	5760	4680	4710	6270	5190	5420	50	8832435
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8832435
Total Strontium (Sr)	ug/L	679	344	170	428	804	1350	0.050	8832435
Total Thallium (TI)	ug/L	0.0040	<0.0020	0.0030	0.0030	0.0030	0.0040	0.0020	8832435
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8832435
Total Titanium (Ti)	ug/L	0.58	0.62	6.80	1.21	0.88	2.35	0.50	8832435
Total Uranium (U)	ug/L	21.9	11.5	3.68	8.09	24.5	31.2	0.0020	8832435
Total Vanadium (V)	ug/L	0.25	0.22	0.56	<0.20	0.33	0.31	0.20	8832435
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3060	SM3061	SM3062	SM3063	SM3064	SM3065			
Sampling Date		2017/11/11	2017/11/11	2017/11/11	2017/11/11	2017/11/11	2017/11/11			
Sampling Date		15:20	11:00	10:10	12:45	14:25	16:00			
COC Number		540800-01-01	540800-01-01	540800-01-01	540800-01-01	540800-01-01	540800-01-01			
	UNITS	CC-1.5	CC-3.5	CC-4.5	CC-A	СС-В	CC-C	RDL	QC Batch	
Total Zinc (Zn)	ug/L	0.62	0.59	1.20	1.85	0.45	0.74	0.10	8832435	
Total Zirconium (Zr)	ug/L	0.30	0.26	0.24	0.22	0.25	<0.10	0.10	8832435	
Total Calcium (Ca)	mg/L	84.0	51.7	31.2	56.6	85.6	118	0.050	8830952	
Total Magnesium (Mg)	mg/L	26.6	14.1	11.3	14.6	26.0	42.4	0.050	8830952	
Total Potassium (K)	mg/L	4.38	2.36	1.44	2.64	5.00	5.52	0.050	8830952	
Total Sodium (Na)	mg/L	5.82	4.21	4.64	5.69	5.09	5.28	0.050	8830952	
Total Sulphur (S)	mg/L	57.8	30.7	23.1	42.5	54.5	71.4	3.0	8830952	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3066	SM3068	SM3069	SM3070	SM3071	SM3072		
Sampling Date		2017/11/11	2017/11/12	2017/11/12	2017/11/12	2017/11/12	2017/11/12		
		10:00	11:50	11:40	11:00	10:45	10:00		
COC Number		540800-01-01	540800-02-01	540800-02-01	540800-02-01	540800-02-01	540800-02-01		
	UNITS	CC-X	HC-2.5	HC-C	IC-0.5	IC-1.5	IC-4.5	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	117	149	148	240	91.0	89.7	0.50	8830340
Elements									
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0025	<0.0020	0.0020	8833205
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	28.0	21.0	24.4	49.1	28.7	38.6	0.50	8832435
Total Antimony (Sb)	ug/L	0.085	0.507	0.336	0.087	0.117	0.085	0.020	8832435
Total Arsenic (As)	ug/L	0.263	0.755	0.695	0.640	0.259	0.321	0.020	8832435
Total Barium (Ba)	ug/L	70.9	46.1	50.4	61.6	40.1	50.3	0.020	8832435
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	0.014	0.013	<0.010	0.010	8832435
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8832435
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	8832435
Total Cadmium (Cd)	ug/L	0.0090	0.0120	0.0180	0.0270	0.0100	0.0150	0.0050	8832435
Total Chromium (Cr)	ug/L	0.17	0.20	0.29	0.27	0.17	0.21	0.10	8832435
Total Cobalt (Co)	ug/L	0.0320	0.0260	0.0450	0.0510	0.0240	0.0300	0.0050	8832435
Total Copper (Cu)	ug/L	1.34	0.995	1.36	1.74	1.18	1.41	0.050	8832435
Total Iron (Fe)	ug/L	18.3	14.3	21.2	35.7	17.1	17.2	1.0	8832435
Total Lead (Pb)	ug/L	0.0060	0.0190	0.0370	0.0190	0.0110	<0.0050	0.0050	8832435
Total Lithium (Li)	ug/L	<0.50	1.28	1.31	2.67	2.73	0.75	0.50	8832435
Total Manganese (Mn)	ug/L	4.17	10.0	25.1	3.35	2.21	9.72	0.050	8832435
Total Molybdenum (Mo)	ug/L	0.640	1.59	0.839	0.331	0.417	0.249	0.050	8832435
Total Nickel (Ni)	ug/L	0.658	0.395	0.469	1.36	0.691	0.901	0.020	8832435
Total Phosphorus (P)	ug/L	2.2	3.5	7.0	5.3	2.4	2.9	2.0	8832435
Total Selenium (Se)	ug/L	0.068	0.069	0.052	0.401	0.051	0.082	0.040	8832435
Total Silicon (Si)	ug/L	4770	5420	4920	6250	5650	5160	50	8832435
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8832435
Total Strontium (Sr)	ug/L	163	383	363	190	155	134	0.050	8832435
Total Thallium (TI)	ug/L	0.0020	<0.0020	<0.0020	0.0030	0.0030	0.0020	0.0020	8832435
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8832435
Total Titanium (Ti)	ug/L	<0.50	<0.50	0.67	1.08	0.66	0.51	0.50	8832435
Total Uranium (U)	ug/L	2.57	44.5	36.0	2.32	3.77	0.538	0.0020	8832435
Total Vanadium (V)	ug/L	<0.20	0.27	0.27	0.37	0.24	0.20	0.20	8832435
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3066	SM3068	SM3069	SM3070	SM3071	SM3072			
Sampling Date		2017/11/11	2017/11/12	2017/11/12	2017/11/12	2017/11/12	2017/11/12			
Sampling Date		10:00	11:50	11:40	11:00	10:45	10:00			
COC Number		540800-01-01	540800-02-01	540800-02-01	540800-02-01	540800-02-01	540800-02-01			
	UNITS	сс-х	HC-2.5	нс-с	IC-0.5	IC-1.5	IC-4.5	RDL	QC Batch	
Total Zinc (Zn)	ug/L	0.48	1.09	1.97	1.38	0.79	0.40	0.10	8832435	
Total Zirconium (Zr)	ug/L	0.25	0.23	0.29	0.39	0.33	0.46	0.10	8832435	
Total Calcium (Ca)	mg/L	29.3	36.6	36.1	54.4	24.3	23.7	0.050	8830952	
Total Magnesium (Mg)	mg/L	10.6	13.9	14.0	25.3	7.35	7.40	0.050	8830952	
Total Potassium (K)	mg/L	1.41	2.27	1.82	1.41	1.10	1.19	0.050	8830952	
Total Sodium (Na)	mg/L	4.34	3.56	4.58	5.64	4.75	3.66	0.050	8830952	
Total Sulphur (S)	mg/L	22.3	16.8	21.3	58.8	8.7	15.2	3.0	8830952	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SM3073	SM3074		SM3087	SM3088	SM3090		
Sampling Date		2017/11/12	2017/11/11		2017/11/11		2017/11/11		
		09:30	09:35		10:25		19:00		
COC Number		540800-03-01	540800-03-01		540800-04-01	540800-04-01	540800-04-01		
	UNITS	YUK-5.0	Ballarat U/S Y.R.	QC Batch	Latte Mix	Sample A	FIELD BLANK	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	94.5	304	8830340	149	89.9	<0.50	0.50	8830340
Elements	•			•					
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	8833205	<0.0020	<0.0020	<0.0020	0.0020	8835353
Total Metals by ICPMS					1	1		ı	
Total Aluminum (AI)	ug/L	76.0	12.7	8832435	23.9	40.2	<0.50	0.50	8832435
Total Antimony (Sb)	ug/L	0.091	0.043	8832435	0.101	0.085	<0.020	0.020	8832435
Total Arsenic (As)	ug/L	0.521	0.243	8832435	0.364	0.299	0.035	0.020	8832435
Total Barium (Ba)	ug/L	44.6	79.5	8832435	71.1	51.0	<0.020	0.020	8832435
Total Beryllium (Be)	ug/L	<0.010	<0.010	8832435	<0.010	<0.010	<0.010	0.010	8832435
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	8832435	0.0080	<0.0050	<0.0050	0.0050	8832435
Total Boron (B)	ug/L	<10	<10	8832435	<10	<10	<10	10	8832435
Total Cadmium (Cd)	ug/L	0.0270	0.0060	8832435	0.0070	0.0160	<0.0050	0.0050	8832435
Total Chromium (Cr)	ug/L	0.24	0.13	8832435	0.15	0.24	0.15	0.10	8832435
Total Cobalt (Co)	ug/L	0.0800	0.0340	8832435	0.0460	0.0320	<0.0050	0.0050	8832435
Total Copper (Cu)	ug/L	0.747	1.35	8832435	1.27	1.47	<0.050	0.050	8832435
Total Iron (Fe)	ug/L	111	24.6	8832435	28.5	17.8	11.6 (1)	1.0	8832435
Total Lead (Pb)	ug/L	0.0710	0.0070	8832435	0.0140	0.0070	<0.0050	0.0050	8832435
Total Lithium (Li)	ug/L	1.27	0.53	8832435	1.79	0.75	<0.50	0.50	8832435
Total Manganese (Mn)	ug/L	11.3	8.79	8832435	20.2	9.88	<0.050	0.050	8832435
Total Molybdenum (Mo)	ug/L	1.45	0.776	8832435	0.691	0.249	<0.050	0.050	8832435
Total Nickel (Ni)	ug/L	0.938	0.358	8832435	0.713	1.00	<0.020	0.020	8832435
Total Phosphorus (P)	ug/L	7.1	4.0	8832435	3.0	3.0	<2.0	2.0	8832435
Total Selenium (Se)	ug/L	0.283	0.123	8832435	0.110	0.082	<0.040	0.040	8832435
Total Silicon (Si)	ug/L	3170	4590	8832435	4860	5090	<50	50	8832435
Total Silver (Ag)	ug/L	<0.0050	<0.0050	8832435	<0.0050	<0.0050	<0.0050	0.0050	8832435
Total Strontium (Sr)	ug/L	134	587	8832435	225	132	<0.050	0.050	8832435
Total Thallium (TI)	ug/L	0.0030	<0.0020	8832435	0.0030	0.0020	<0.0020	0.0020	8832435
Total Tin (Sn)	ug/L	<0.20	<0.20	8832435	<0.20	<0.20	<0.20	0.20	8832435
Total Titanium (Ti)	ug/L	2.52	<0.50	8832435	<0.50	0.56	<0.50	0.50	8832435
Total Uranium (U)	ug/L	1.14	4.64	8832435	19.6	0.571	<0.0020	0.0020	8832435

RDL = Reportable Detection Limit

(1) Duplicate RPD for (Iron) above control limit - (10% of analytes failure allowed).



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SM3073	SM3074		SM3087	SM3088	SM3090		
Sampling Date		2017/11/12	2017/11/11		2017/11/11		2017/11/11		
Sampling Date		09:30	09:35		10:25		19:00		
COC Number		540800-03-01	540800-03-01		540800-04-01	540800-04-01	540800-04-01		
	UNITS	YUK-5.0	Ballarat U/S Y.R.	QC Batch	Latte Mix	Sample A	FIELD BLANK	RDL	QC Batch
Total Vanadium (V)	ug/L	0.45	0.31	8832435	0.27	0.21	<0.20	0.20	8832435
Total Zinc (Zn)	ug/L	1.77	0.25	8832435	0.58	0.47	<0.10	0.10	8832435
Total Zirconium (Zr)	ug/L	<0.10	0.14	8832435	0.21	0.41	<0.10	0.10	8832435
Total Calcium (Ca)	mg/L	26.0	72.6	8830952	37.0	23.4	<0.050	0.050	8830952
Total Magnesium (Mg)	mg/L	7.18	29.8	8830952	13.8	7.65	<0.050	0.050	8830952
Total Potassium (K)	mg/L	0.894	2.89	8830952	1.63	1.21	<0.050	0.050	8830952
Total Sodium (Na)	mg/L	2.33	8.60	8830952	5.96	3.86	<0.050	0.050	8830952
Total Sulphur (S)	mg/L	5.8	55.1	8830952	27.1	15.6	<3.0	3.0	8830952
RDL = Reportable Detection	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SM3090			SM3091			SM3091		
Sampling Date		2017/11/11 19:00			2017/11/15			2017/11/15		
COC Number		540800-04-01			540800-04-01			540800-04-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L				<0.50	0.50	8830340			
Elements	•		•			•			•	
Total Mercury (Hg)	ug/L				<0.0020	0.0020	8835353			
Total Metals by ICPMS	•		•			•			•	
Total Aluminum (AI)	ug/L	<0.50	0.50	8832435	<0.50	0.50	8832435	<0.50	0.50	8832435
Total Antimony (Sb)	ug/L	<0.020	0.020	8832435	<0.020	0.020	8832435	<0.020	0.020	8832435
Total Arsenic (As)	ug/L	0.024	0.020	8832435	<0.020	0.020	8832435	<0.020	0.020	8832435
Total Barium (Ba)	ug/L	<0.020	0.020	8832435	0.030	0.020	8832435	0.026	0.020	8832435
Total Beryllium (Be)	ug/L	<0.010	0.010	8832435	<0.010	0.010	8832435	<0.010	0.010	8832435
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435
Total Boron (B)	ug/L	<10	10	8832435	<10	10	8832435	<10	10	8832435
Total Cadmium (Cd)	ug/L	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435
Total Chromium (Cr)	ug/L	<0.10	0.10	8832435	<0.10	0.10	8832435	<0.10	0.10	8832435
Total Cobalt (Co)	ug/L	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435
Total Copper (Cu)	ug/L	<0.050	0.050	8832435	<0.050	0.050	8832435	<0.050	0.050	8832435
Total Iron (Fe)	ug/L	8.8 (1)	1.0	8832435	<1.0	1.0	8832435	<1.0	1.0	8832435
Total Lead (Pb)	ug/L	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435
Total Lithium (Li)	ug/L	<0.50	0.50	8832435	<0.50	0.50	8832435	<0.50	0.50	8832435
Total Manganese (Mn)	ug/L	<0.050	0.050	8832435	<0.050	0.050	8832435	<0.050	0.050	8832435
Total Molybdenum (Mo)	ug/L	<0.050	0.050	8832435	<0.050	0.050	8832435	<0.050	0.050	8832435
Total Nickel (Ni)	ug/L	<0.020	0.020	8832435	<0.020	0.020	8832435	<0.020	0.020	8832435
Total Phosphorus (P)	ug/L	<2.0	2.0	8832435	<2.0	2.0	8832435	<2.0	2.0	8832435
Total Selenium (Se)	ug/L	<0.040	0.040	8832435	<0.040	0.040	8832435	<0.040	0.040	8832435
Total Silicon (Si)	ug/L	<50	50	8832435	<50	50	8832435	<50	50	8832435
Total Silver (Ag)	ug/L	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435	<0.0050	0.0050	8832435
Total Strontium (Sr)	ug/L	<0.050	0.050	8832435	<0.050	0.050	8832435	<0.050	0.050	8832435
Total Thallium (TI)	ug/L	<0.0020	0.0020	8832435	<0.0020	0.0020	8832435	<0.0020	0.0020	8832435
Total Tin (Sn)	ug/L	<0.20	0.20	8832435	<0.20	0.20	8832435	<0.20	0.20	8832435
Total Titanium (Ti)	ug/L	<0.50	0.50	8832435	<0.50	0.50	8832435	<0.50	0.50	8832435

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SM3090			SM3091			SM3091		
Sampling Date		2017/11/11 19:00			2017/11/15			2017/11/15		
COC Number		540800-04-01			540800-04-01			540800-04-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Total Uranium (U)	ug/L	<0.0020	0.0020	8832435	<0.0020	0.0020	8832435	<0.0020	0.0020	8832435
Total Vanadium (V)	ug/L	<0.20	0.20	8832435	<0.20	0.20	8832435	<0.20	0.20	8832435
Total Zinc (Zn)	ug/L	<0.10	0.10	8832435	<0.10	0.10	8832435	<0.10	0.10	8832435
Total Zirconium (Zr)	ug/L	<0.10	0.10	8832435	<0.10	0.10	8832435	<0.10	0.10	8832435
Total Calcium (Ca)	mg/L				<0.050	0.050	8830952			
Total Magnesium (Mg)	mg/L				<0.050	0.050	8830952			
Total Potassium (K)	mg/L				<0.050	0.050	8830952			
Total Sodium (Na)	mg/L				<0.050	0.050	8830952			
Total Sulphur (S)	mg/L				<3.0	3.0	8830952			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LL TOTAL METALS (DIGESTED) WITH CV HG

							· · · · · · · · ·			
Maxxam ID		SM3075			SM3075			SM3076		
Sampling Date		2017/11/11			2017/11/11			2017/11/11		
		12:55			12:55			11:50		
COC Number		540800-03-01			540800-03-01			540800-03-01		
	UNITS	Barker U/S S.R.	RDL	QC Batch	Barker U/S S.R. Lab-Dup	RDL	QC Batch	Blackhills U/S S.R.	RDL	QC Batch
Calculated Parameters					•		<u> </u>			
Total Hardness (CaCO3)	mg/L	232	0.50	8830340				248	0.50	8830340
Elements	O.		I				]		1	
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8833205				<0.0020	0.0020	8833205
Total Metals by ICPMS	-		1				<u> </u>			l
Total Aluminum (Al)	ug/L	80.1	3.0	8833960	76.8	3.0	8833960	89.4	3.0	8833960
Total Antimony (Sb)	ug/L	0.081	0.020	8833960	0.080	0.020	8833960	0.115	0.020	8833960
Total Arsenic (As)	ug/L	0.462	0.020	8833960	0.467	0.020	8833960	0.819	0.020	8833960
Total Barium (Ba)	ug/L	102	0.050	8833960	100	0.050	8833960	108	0.050	8833960
Total Beryllium (Be)	ug/L	<0.010	0.010	8833960	<0.010	0.010	8833960	0.011	0.010	8833960
Total Bismuth (Bi)	ug/L	<0.010	0.010	8833960	<0.010	0.010	8833960	<0.010	0.010	8833960
Total Boron (B)	ug/L	<10	10	8833960	<10	10	8833960	14	10	8833960
Total Cadmium (Cd)	ug/L	0.0253	0.0050	8833960	0.0271	0.0050	8833960	0.0183	0.0050	8833960
Total Chromium (Cr)	ug/L	0.46	0.10	8833960	0.48	0.10	8833960	0.43	0.10	8833960
Total Cobalt (Co)	ug/L	0.324	0.010	8833960	0.331	0.010	8833960	0.640	0.010	8833960
Total Copper (Cu)	ug/L	2.44	0.10	8833960	2.41	0.10	8833960	2.20	0.10	8833960
Total Iron (Fe)	ug/L	263	5.0	8833960	251	5.0	8833960	693	5.0	8833960
Total Lead (Pb)	ug/L	0.057	0.020	8833960	0.057	0.020	8833960	0.111	0.020	8833960
Total Lithium (Li)	ug/L	2.07	0.50	8833960	2.06	0.50	8833960	3.27	0.50	8833960
Total Manganese (Mn)	ug/L	191	0.10	8833960	190	0.10	8833960	335	0.10	8833960
Total Molybdenum (Mo)	ug/L	0.669	0.050	8833960	0.725	0.050	8833960	0.969	0.050	8833960
Total Nickel (Ni)	ug/L	1.66	0.10	8833960	1.75	0.10	8833960	2.80	0.10	8833960
Total Phosphorus (P)	ug/L	7.5	5.0	8833960	11.0	5.0	8833960	9.9	5.0	8833960
Total Selenium (Se)	ug/L	0.148	0.040	8833960	0.173	0.040	8833960	0.224	0.040	8833960
Total Silicon (Si)	ug/L	5900	50	8833960	5960	50	8833960	7640	50	8833960
Total Silver (Ag)	ug/L	<0.010	0.010	8833960	<0.010	0.010	8833960	<0.010	0.010	8833960
Total Strontium (Sr)	ug/L	354	0.050	8833960	357	0.050	8833960	298	0.050	8833960
Total Thallium (TI)	ug/L	0.0034	0.0020	8833960	0.0035	0.0020	8833960	0.0028	0.0020	8833960
Total Tin (Sn)	ug/L	<0.20	0.20	8833960	<0.20	0.20	8833960	<0.20	0.20	8833960
Total Titanium (Ti)	ug/L	2.7	2.0	8833960	2.7	2.0	8833960	5.0	2.0	8833960
Total Uranium (U)	ug/L	3.24	0.0050	8833960	3.26	0.0050	8833960	2.34	0.0050	8833960
RDL = Reportable Detection I	imit									

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SM3075			SM3075			SM3076		
Sampling Date		2017/11/11 12:55			2017/11/11 12:55			2017/11/11 11:50		
COC Number		540800-03-01			540800-03-01			540800-03-01		
	UNITS	Barker U/S S.R.	RDL	QC Batch	Barker U/S S.R. Lab-Dup	RDL	QC Batch	Blackhills U/S S.R.	RDL	QC Batch
Total Vanadium (V)	ug/L	0.69	0.20	8833960	0.69	0.20	8833960	0.91	0.20	8833960
Total Zinc (Zn)	ug/L	<1.0	1.0	8833960	<1.0	1.0	8833960	<1.0	1.0	8833960
Total Zirconium (Zr)	ug/L	0.33	0.10	8833960	0.31	0.10	8833960	0.44	0.10	8833960
Total Calcium (Ca)	mg/L	58.1	0.25	8830952				66.9	0.25	8830952
Total Magnesium (Mg)	mg/L	21.1	0.25	8830952				19.6	0.25	8830952
Total Potassium (K)	mg/L	2.32	0.25	8830952				2.57	0.25	8830952
Total Sodium (Na)	mg/L	9.42	0.25	8830952				8.46	0.25	8830952
Total Sulphur (S)	mg/L	33.9	3.0	8830952				33.0	3.0	8830952

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SM3077			SM3077		
Sampling Date		2017/11/11			2017/11/11		
		12:00			12:00		
COC Number		540800-03-01			540800-03-01		
	UNITS	MaisyMay U/S S.R.	RDL	QC Batch	MaisyMay U/S S.R. Lab-Dup	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	370	0.50	8830340			
Elements			•			•	•
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8833205			
Total Metals by ICPMS						•	•
Total Aluminum (Al)	ug/L	312	3.0	8835565	296	3.0	8835565
Total Antimony (Sb)	ug/L	0.083	0.020	8835565	0.084	0.020	8835565
Total Arsenic (As)	ug/L	0.758	0.020	8835565	0.761	0.020	8835565
Total Barium (Ba)	ug/L	108	0.050	8835565	108	0.050	8835565
Total Beryllium (Be)	ug/L	0.015	0.010	8835565	0.014	0.010	8835565
Total Bismuth (Bi)	ug/L	<0.010	0.010	8835565	<0.010	0.010	8835565
Total Boron (B)	ug/L	14	10	8835565	11	10	8835565
Total Cadmium (Cd)	ug/L	0.0258	0.0050	8835565	0.0282	0.0050	8835565
Total Chromium (Cr)	ug/L	1.14	0.10	8835565	1.13	0.10	8835565
Total Cobalt (Co)	ug/L	0.674	0.010	8835565	0.653	0.010	8835565
Total Copper (Cu)	ug/L	2.56	0.10	8835565	2.52	0.10	8835565
Total Iron (Fe)	ug/L	986	5.0	8835565	956	5.0	8835565
Total Lead (Pb)	ug/L	0.381	0.020	8835565	0.368	0.020	8835565
Total Lithium (Li)	ug/L	3.96	0.50	8835565	3.84	0.50	8835565
Total Manganese (Mn)	ug/L	473	0.10	8835565	475	0.10	8835565
Total Molybdenum (Mo)	ug/L	1.30	0.050	8835565	1.26	0.050	8835565
Total Nickel (Ni)	ug/L	3.23	0.10	8835565	3.14	0.10	8835565
Total Phosphorus (P)	ug/L	14.7	5.0	8835565	15.3	5.0	8835565
Total Selenium (Se)	ug/L	0.426	0.040	8835565	0.415	0.040	8835565
Total Silicon (Si)	ug/L	7160	50	8835565	7130	50	8835565
Total Silver (Ag)	ug/L	0.014	0.010	8835565	0.015	0.010	8835565
Total Strontium (Sr)	ug/L	344	0.050	8835565	346	0.050	8835565
Total Thallium (TI)	ug/L	0.0084	0.0020	8835565	0.0092	0.0020	8835565
Total Tin (Sn)	ug/L	<0.20	0.20	8835565	<0.20	0.20	8835565
Total Titanium (Ti)	ug/L	17.0	2.0	8835565	16.3	2.0	8835565
Total Uranium (U)	ug/L	3.32	0.0050	8835565	3.35	0.0050	8835565
RDL = Reportable Detection	Limit						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SM3077			SM3077		
Sampling Date		2017/11/11 12:00			2017/11/11 12:00		
COC Number		540800-03-01			540800-03-01		
	UNITS	MaisyMay U/S S.R.	RDL	QC Batch	MaisyMay U/S S.R. Lab-Dup	RDL	QC Batch
Total Vanadium (V)	ug/L	2.04	0.20	8835565	2.08	0.20	8835565
Total Zinc (Zn)	ug/L	2.8	1.0	8835565	2.6	1.0	8835565
Total Zirconium (Zr)	ug/L	0.24	0.10	8835565	0.25	0.10	8835565
Total Calcium (Ca)	mg/L	88.8	0.25	8830952			
Total Magnesium (Mg)	mg/L	36.0	0.25	8830952			
Total Potassium (K)	mg/L	3.68	0.25	8830952			
Total Sodium (Na)	mg/L	8.03	0.25	8830952			
Total Sulphur (S)	mg/L	57.2	3.0	8830952			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

			1	1		1		1	1	
Maxxam ID		SM3086	1		SM3086			SM3089		
Sampling Date		2017/11/11 12:35			2017/11/11 12:35					
COC Number		540800-04-01			540800-04-01			540800-04-01		
	UNITS	Stewart D/S M.M.	RDL	QC Batch	Stewart D/S M.M. Lab-Dup	RDL	QC Batch	Sample C	RDL	QC Batch
Calculated Parameters			•	•		•			•	
Total Hardness (CaCO3)	mg/L	285	0.50	8830340				365	0.50	8830340
Elements						_1	I .		1	
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8833205	<0.0020	0.0020	8833205	<0.0020	0.0020	8835353
Total Metals by ICPMS						_1	I .		1	
Total Aluminum (Al)	ug/L	694	3.0	8836949				317	3.0	8836949
Total Antimony (Sb)	ug/L	0.266	0.020	8836949				0.099	0.020	8836949
Total Arsenic (As)	ug/L	1.78	0.020	8836949				0.806	0.020	8836949
Total Barium (Ba)	ug/L	130	0.050	8836949				114	0.050	8836949
Total Beryllium (Be)	ug/L	0.042	0.010	8836949				0.024	0.010	8836949
Total Bismuth (Bi)	ug/L	0.019	0.010	8836949				<0.010	0.010	8836949
Total Boron (B)	ug/L	<10	10	8836949				<10	10	8836949
Total Cadmium (Cd)	ug/L	0.354	0.0050	8836949				0.0289	0.0050	8836949
Total Chromium (Cr)	ug/L	1.09	0.10	8836949				1.22	0.10	8836949
Total Cobalt (Co)	ug/L	0.909	0.010	8836949				0.687	0.010	8836949
Total Copper (Cu)	ug/L	3.50	0.10	8836949				2.70	0.10	8836949
Total Iron (Fe)	ug/L	1630	5.0	8836949				1070	5.0	8836949
Total Lead (Pb)	ug/L	1.01	0.020	8836949				0.376	0.020	8836949
Total Lithium (Li)	ug/L	6.25	0.50	8836949				4.16	0.50	8836949
Total Manganese (Mn)	ug/L	75.6	0.10	8836949				476	0.10	8836949
Total Molybdenum (Mo)	ug/L	0.931	0.050	8836949				1.37	0.050	8836949
Total Nickel (Ni)	ug/L	9.82	0.10	8836949				3.31	0.10	8836949
Total Phosphorus (P)	ug/L	61.5	5.0	8836949				18.8	5.0	8836949
Total Selenium (Se)	ug/L	1.22	0.040	8836949				0.460	0.040	8836949
Total Silicon (Si)	ug/L	4440	50	8836949				7210	50	8836949
Total Silver (Ag)	ug/L	0.023	0.010	8836949				0.014	0.010	8836949
Total Strontium (Sr)	ug/L	338	0.050	8836949				345	0.050	8836949
Total Thallium (Tl)	ug/L	0.0145	0.0020	8836949				0.0085	0.0020	8836949
Total Tin (Sn)	ug/L	<0.20	0.20	8836949				<0.20	0.20	8836949
Total Titanium (Ti)	ug/L	12.8	2.0	8836949				17.1	2.0	8836949
Total Uranium (U)	ug/L	1.76	0.0050	8836949				3.32	0.0050	8836949
RDL = Reportable Detection	Limit									

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SM3086			SM3086			SM3089		
Sampling Date		2017/11/11 12:35			2017/11/11 12:35					
COC Number		540800-04-01			540800-04-01			540800-04-01		
	UNITS	Stewart D/S M.M.	RDL	QC Batch	Stewart D/S M.M. Lab-Dup	RDL	QC Batch	Sample C	RDL	QC Batch
Total Vanadium (V)	ug/L	1.91	0.20	8836949				2.16	0.20	8836949
Total Zinc (Zn)	ug/L	32.0	1.0	8836949				2.7	1.0	8836949
Total Zirconium (Zr)	ug/L	<0.10	0.10	8836949				0.23	0.10	8836949
Total Calcium (Ca)	mg/L	72.8	0.25	8830952				86.1	0.25	8830952
Total Magnesium (Mg)	mg/L	25.0	0.25	8830952				36.5	0.25	8830952
Total Potassium (K)	mg/L	0.95	0.25	8830952				3.84	0.25	8830952
Total Sodium (Na)	mg/L	3.32	0.25	8830952				8.27	0.25	8830952
Total Sulphur (S)	mg/L	44.2	3.0	8830952				60.3	3.0	8830952

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SM3089		
Sampling Date				
COC Number		540800-04-01		
	UNITS	Sample C Lab-Dup	RDL	QC Batch
Total Metals by ICPMS				
Total Aluminum (Al)	ug/L	269	3.0	8836949
Total Antimony (Sb)	ug/L	0.103	0.020	8836949
Total Arsenic (As)	ug/L	0.766	0.020	8836949
Total Barium (Ba)	ug/L	112	0.050	8836949
Total Beryllium (Be)	ug/L	0.012	0.010	8836949
Total Bismuth (Bi)	ug/L	<0.010	0.010	8836949
Total Boron (B)	ug/L	<10	10	8836949
Total Cadmium (Cd)	ug/L	0.0280	0.0050	8836949
Total Chromium (Cr)	ug/L	1.04	0.10	8836949
Total Cobalt (Co)	ug/L	0.616	0.010	8836949
Total Copper (Cu)	ug/L	2.47	0.10	8836949
Total Iron (Fe)	ug/L	1020	5.0	8836949
Total Lead (Pb)	ug/L	0.325	0.020	8836949
Total Lithium (Li)	ug/L	4.09	0.50	8836949
Total Manganese (Mn)	ug/L	462	0.10	8836949
Total Molybdenum (Mo)	ug/L	1.40	0.050	8836949
Total Nickel (Ni)	ug/L	3.16	0.10	8836949
Total Phosphorus (P)	ug/L	13.3	5.0	8836949
Total Selenium (Se)	ug/L	0.443	0.040	8836949
Total Silicon (Si)	ug/L	7230	50	8836949
Total Silver (Ag)	ug/L	0.011	0.010	8836949
Total Strontium (Sr)	ug/L	341	0.050	8836949
Total Thallium (TI)	ug/L	0.0087	0.0020	8836949
Total Tin (Sn)	ug/L	<0.20	0.20	8836949
Total Titanium (Ti)	ug/L	14.2	2.0	8836949
Total Uranium (U)	ug/L	3.29	0.0050	8836949
Total Vanadium (V)	ug/L	1.94	0.20	8836949
Total Zinc (Zn)	ug/L	2.4	1.0	8836949
RDL = Reportable Detection				
Lab-Dup = Laboratory Initia	ted Duplic	cate		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SM3089		
Sampling Date				
COC Number		540800-04-01		
	UNITS	Sample C Lab-Dup	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.23	0.10	8836949

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample SM3058 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3059 [CC-1.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3060 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3061 [CC-3.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3062 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3063 [CC-A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3064 [CC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3065 [CC-C]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3066 [CC-X]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3068 [HC-2.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3069 [HC-C]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3070 [IC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3071 [IC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3072 [IC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

Nitrite (N) (low level).

Sample SM3073 [YUK-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3074 [Ballarat U/S Y.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3075 [Barker U/S S.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3076 [Blackhills U/S S.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3077 [MaisyMay U/S S.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3086 [Stewart D/S M.M.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3087 [Latte Mix]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3090 [FIELD BLANK]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SM3090, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method Blank		RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8831318	Total Ammonia (N)	2017/11/16			100	80 - 120	<0.0050	mg/L		
8831744	ORP	2017/11/17							0.094	20
8831795	Total Ammonia (N)	2017/11/16	100	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20
8831903	Total Suspended Solids	2017/11/17			99	80 - 120	<1.0	mg/L		
8831916	Total Suspended Solids	2017/11/17			101	80 - 120	<1.0	mg/L		
8832181	Total Dissolved Solids	2017/11/17	101	80 - 120	94	80 - 120	<10	mg/L	2.5	20
8832215	Total Dissolved Solids	2017/11/17	99	80 - 120	92	80 - 120	<10	mg/L	5.7	20
8832435	Total Aluminum (AI)	2017/11/17	103	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
8832435	Total Antimony (Sb)	2017/11/17	98	80 - 120	95	80 - 120	<0.020	ug/L	NC	20
8832435	Total Arsenic (As)	2017/11/17	100	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
8832435	Total Barium (Ba)	2017/11/17	NC	80 - 120	98	80 - 120	<0.020	ug/L	14	20
8832435	Total Beryllium (Be)	2017/11/17	98	80 - 120	95	80 - 120	<0.010	ug/L	NC	20
8832435	Total Bismuth (Bi)	2017/11/17	96	80 - 120	95	80 - 120	<0.0050	ug/L	NC	20
8832435	Total Boron (B)	2017/11/17	94	80 - 120	93	80 - 120	<10	ug/L	NC	20
8832435	Total Cadmium (Cd)	2017/11/17	96	80 - 120	95	80 - 120	<0.0050	ug/L	NC	20
8832435	Total Chromium (Cr)	2017/11/17	99	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
8832435	Total Cobalt (Co)	2017/11/17	96	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
8832435	Total Copper (Cu)	2017/11/17	96	80 - 120	101	80 - 120	<0.050	ug/L	NC	20
8832435	Total Iron (Fe)	2017/11/17	102	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
8832435	Total Lead (Pb)	2017/11/17	97	80 - 120	95	80 - 120	<0.0050	ug/L	NC	20
8832435	Total Lithium (Li)	2017/11/17	93	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
8832435	Total Manganese (Mn)	2017/11/17	NC	80 - 120	101	80 - 120	<0.050	ug/L	NC	20
8832435	Total Molybdenum (Mo)	2017/11/17	103	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
8832435	Total Nickel (Ni)	2017/11/17	97	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
8832435	Total Phosphorus (P)	2017/11/17					<2.0	ug/L	NC	20
8832435	Total Selenium (Se)	2017/11/17	100	80 - 120	101	80 - 120	<0.040	ug/L	NC	20
8832435	Total Silicon (Si)	2017/11/17					<50	ug/L	NC	20
8832435	Total Silver (Ag)	2017/11/17	104	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
8832435	Total Strontium (Sr)	2017/11/17	NC	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
8832435	Total Thallium (TI)	2017/11/17	95	80 - 120	93	80 - 120	<0.0020	ug/L	NC	20
8832435	Total Tin (Sn)	2017/11/17	96	80 - 120	93	80 - 120	<0.20	ug/L	NC	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8832435	Total Titanium (Ti)	2017/11/17	90	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
8832435	Total Uranium (U)	2017/11/17	NC	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
8832435	Total Vanadium (V)	2017/11/17	99	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
8832435	Total Zinc (Zn)	2017/11/17	105	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
8832435	Total Zirconium (Zr)	2017/11/17	91	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
8832709	Dissolved Chloride (CI)	2017/11/16	115	80 - 120	98	80 - 120	<0.50	mg/L	4.5	20
8832710	Dissolved Sulphate (SO4)	2017/11/16	NC	80 - 120	97	80 - 120	<0.50	mg/L	0.31	20
8832715	Dissolved Chloride (CI)	2017/11/16	115	80 - 120	99	80 - 120	<0.50	mg/L	NC	20
8832718	Dissolved Sulphate (SO4)	2017/11/16	115	80 - 120	97	80 - 120	0.60, RDL=0.50	mg/L	NC	20
8832725	Dissolved Chloride (CI)	2017/11/16			100	80 - 120	<0.50	mg/L		
8832726	Dissolved Sulphate (SO4)	2017/11/16			97	80 - 120	<0.50	mg/L		
8833205	Total Mercury (Hg)	2017/11/17	98	80 - 120	94	80 - 120	<0.0020	ug/L	NC	20
8833233	Dissolved Aluminum (Al)	2017/11/18	98	80 - 120	107	80 - 120	<0.50	ug/L	3.9	20
8833233	Dissolved Antimony (Sb)	2017/11/18	101	80 - 120	105	80 - 120	<0.020	ug/L	1.7	20
8833233	Dissolved Arsenic (As)	2017/11/18	99	80 - 120	101	80 - 120	<0.020	ug/L	5.9	20
8833233	Dissolved Barium (Ba)	2017/11/18	NC	80 - 120	105	80 - 120	<0.020	ug/L	0.45	20
8833233	Dissolved Beryllium (Be)	2017/11/18	99	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
8833233	Dissolved Bismuth (Bi)	2017/11/18	99	80 - 120	108	80 - 120	<0.0050	ug/L	NC	20
8833233	Dissolved Boron (B)	2017/11/18	91	80 - 120	97	80 - 120	<10	ug/L	NC	20
8833233	Dissolved Cadmium (Cd)	2017/11/18	98	80 - 120	104	80 - 120	<0.0050	ug/L	2.4	20
8833233	Dissolved Chromium (Cr)	2017/11/18	90	80 - 120	96	80 - 120	<0.10	ug/L	14	20
8833233	Dissolved Cobalt (Co)	2017/11/18	87	80 - 120	94	80 - 120	<0.0050	ug/L	14	20
8833233	Dissolved Copper (Cu)	2017/11/18	85	80 - 120	93	80 - 120	<0.050	ug/L	0.63	20
8833233	Dissolved Iron (Fe)	2017/11/18	90	80 - 120	96	80 - 120	<1.0	ug/L	0.46	20
8833233	Dissolved Lead (Pb)	2017/11/18	94	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8833233	Dissolved Lithium (Li)	2017/11/18	102	80 - 120	107	80 - 120	<0.50	ug/L	0	20
8833233	Dissolved Manganese (Mn)	2017/11/18	NC	80 - 120	98	80 - 120	<0.050	ug/L	1.8	20
8833233	Dissolved Molybdenum (Mo)	2017/11/18	100	80 - 120	104	80 - 120	<0.050	ug/L	0.13	20
8833233	Dissolved Nickel (Ni)	2017/11/18	87	80 - 120	95	80 - 120	<0.020	ug/L	1.7	20
8833233	Dissolved Phosphorus (P)	2017/11/18					<2.0	ug/L	4.5	20
8833233	Dissolved Selenium (Se)	2017/11/18	100	80 - 120	106	80 - 120	<0.040	ug/L	11	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8833233	Dissolved Silicon (Si)	2017/11/18					<50	ug/L	3.4	20
8833233	Dissolved Silver (Ag)	2017/11/18	108	80 - 120	113	80 - 120	<0.0050	ug/L	NC	20
8833233	Dissolved Strontium (Sr)	2017/11/18	NC	80 - 120	100	80 - 120	<0.050	ug/L	0.41	20
8833233	Dissolved Thallium (TI)	2017/11/18	99	80 - 120	107	80 - 120	<0.0020	ug/L	NC	20
8833233	Dissolved Tin (Sn)	2017/11/18	95	80 - 120	105	80 - 120	<0.20	ug/L	NC	20
8833233	Dissolved Titanium (Ti)	2017/11/18	105	80 - 120	106	80 - 120	<0.50	ug/L	NC	20
8833233	Dissolved Uranium (U)	2017/11/18	NC	80 - 120	105	80 - 120	<0.0020	ug/L	0.025	20
8833233	Dissolved Vanadium (V)	2017/11/18	91	80 - 120	97	80 - 120	<0.20	ug/L	2.3	20
8833233	Dissolved Zinc (Zn)	2017/11/18	93	80 - 120	99	80 - 120	<0.10	ug/L	9.9	20
8833233	Dissolved Zirconium (Zr)	2017/11/18	99	80 - 120	98	80 - 120	<0.10	ug/L	5.1	20
8833274	Nitrate plus Nitrite (N)	2017/11/16	102	80 - 120	104	80 - 120	< 0.0020	mg/L	4.8	25
8833279	Nitrate plus Nitrite (N)	2017/11/16	100	80 - 120	104	80 - 120	<0.0020	mg/L	0.67	25
8833283	Nitrite (N)	2017/11/16	99	80 - 120	101	80 - 120	<0.0020	mg/L	0	25
8833284	Nitrite (N)	2017/11/16	99	80 - 120	99	80 - 120	<0.0020	mg/L	NC	25
8833316	Dissolved Aluminum (Al)	2017/11/17	103	80 - 120	106	80 - 120	<0.50	ug/L	11	20
8833316	Dissolved Antimony (Sb)	2017/11/17	99	80 - 120	103	80 - 120	<0.020	ug/L	0.22	20
8833316	Dissolved Arsenic (As)	2017/11/17	98	80 - 120	102	80 - 120	<0.020	ug/L	3.3	20
8833316	Dissolved Barium (Ba)	2017/11/17	NC	80 - 120	106	80 - 120	<0.020	ug/L	0.64	20
8833316	Dissolved Beryllium (Be)	2017/11/17	98	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8833316	Dissolved Bismuth (Bi)	2017/11/17	100	80 - 120	106	80 - 120	<0.0050	ug/L	NC	20
8833316	Dissolved Boron (B)	2017/11/17	95	80 - 120	96	80 - 120	<10	ug/L	NC	20
8833316	Dissolved Cadmium (Cd)	2017/11/17	98	80 - 120	104	80 - 120	< 0.0050	ug/L	NC	20
8833316	Dissolved Chromium (Cr)	2017/11/17	93	80 - 120	98	80 - 120	<0.10	ug/L	1.2	20
8833316	Dissolved Cobalt (Co)	2017/11/17	92	80 - 120	97	80 - 120	<0.0050	ug/L	11	20
8833316	Dissolved Copper (Cu)	2017/11/17	88	80 - 120	96	80 - 120	<0.050	ug/L	5.4	20
8833316	Dissolved Iron (Fe)	2017/11/17	93	80 - 120	100	80 - 120	<1.0	ug/L	7.1	20
8833316	Dissolved Lead (Pb)	2017/11/17	95	80 - 120	102	80 - 120	<0.0050	ug/L	3.2	20
8833316	Dissolved Lithium (Li)	2017/11/17	103	80 - 120	104	80 - 120	<0.50	ug/L	0.31	20
8833316	Dissolved Manganese (Mn)	2017/11/17	94	80 - 120	100	80 - 120	<0.050	ug/L	3.1	20
8833316	Dissolved Molybdenum (Mo)	2017/11/17	102	80 - 120	106	80 - 120	<0.050	ug/L	1.5	20
8833316	Dissolved Nickel (Ni)	2017/11/17	92	80 - 120	98	80 - 120	<0.020	ug/L	0.17	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8833316	Dissolved Phosphorus (P)	2017/11/17					<2.0	ug/L		
8833316	Dissolved Selenium (Se)	2017/11/17	101	80 - 120	106	80 - 120	<0.040	ug/L	0.47	20
8833316	Dissolved Silicon (Si)	2017/11/17					<50	ug/L	1.3	20
8833316	Dissolved Silver (Ag)	2017/11/17	111	80 - 120	114	80 - 120	<0.0050	ug/L	NC	20
8833316	Dissolved Strontium (Sr)	2017/11/17	NC	80 - 120	101	80 - 120	<0.050	ug/L	2.0	20
8833316	Dissolved Thallium (TI)	2017/11/17	102	80 - 120	105	80 - 120	<0.0020	ug/L	9.3	20
8833316	Dissolved Tin (Sn)	2017/11/17	NC	80 - 120	102	80 - 120	<0.20	ug/L	6.4	20
8833316	Dissolved Titanium (Ti)	2017/11/17	108	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
8833316	Dissolved Uranium (U)	2017/11/17	98	80 - 120	103	80 - 120	<0.0020	ug/L	0.36	20
8833316	Dissolved Vanadium (V)	2017/11/17	96	80 - 120	98	80 - 120	<0.20	ug/L	NC	20
8833316	Dissolved Zinc (Zn)	2017/11/17	99	80 - 120	102	80 - 120	<0.10	ug/L	1.0	20
8833316	Dissolved Zirconium (Zr)	2017/11/17	97	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
8833350	Total Dissolved Solids	2017/11/20	100	80 - 120	95	80 - 120	<10	mg/L	4.4	20
8833372	Fluoride (F)	2017/11/17	NC	80 - 120	104	80 - 120	0.016, RDL=0.010	mg/L	5.6	20
8833494	Dissolved Mercury (Hg)	2017/11/17	99	80 - 120	83	80 - 120	<0.0020	ug/L	5.4	20
8833938	Total Dissolved Solids	2017/11/20	99	80 - 120	103	80 - 120	<10	mg/L	2.2	20
8833960	Total Aluminum (AI)	2017/11/20	117	80 - 120	110	80 - 120	<3.0	ug/L	4.2	20
8833960	Total Antimony (Sb)	2017/11/20	107	80 - 120	103	80 - 120	<0.020	ug/L	1.7	20
8833960	Total Arsenic (As)	2017/11/20	110	80 - 120	104	80 - 120	<0.020	ug/L	1.1	20
8833960	Total Barium (Ba)	2017/11/20	NC	80 - 120	98	80 - 120	<0.050	ug/L	1.7	20
8833960	Total Beryllium (Be)	2017/11/20	102	80 - 120	99	80 - 120	<0.010	ug/L	NC	20
8833960	Total Bismuth (Bi)	2017/11/20	98	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
8833960	Total Boron (B)	2017/11/20	99	80 - 120	97	80 - 120	<10	ug/L	NC	20
8833960	Total Cadmium (Cd)	2017/11/20	105	80 - 120	102	80 - 120	<0.0050	ug/L	6.9	20
8833960	Total Chromium (Cr)	2017/11/20	100	80 - 120	101	80 - 120	<0.10	ug/L	5.2	20
8833960	Total Cobalt (Co)	2017/11/20	98	80 - 120	103	80 - 120	<0.010	ug/L	1.9	20
8833960	Total Copper (Cu)	2017/11/20	95	80 - 120	102	80 - 120	<0.10	ug/L	1.0	20
8833960	Total Iron (Fe)	2017/11/20	NC	80 - 120	106	80 - 120	<5.0	ug/L	4.6	20
8833960	Total Lead (Pb)	2017/11/20	97	80 - 120	99	80 - 120	<0.020	ug/L	0.17	20
8833960	Total Lithium (Li)	2017/11/20	100	80 - 120	99	80 - 120	<0.50	ug/L	0.40	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8833960	Total Manganese (Mn)	2017/11/20	NC	80 - 120	104	80 - 120	<0.10	ug/L	0.30	20
8833960	Total Molybdenum (Mo)	2017/11/20	116	80 - 120	101	80 - 120	<0.050	ug/L	8.0	20
8833960	Total Nickel (Ni)	2017/11/20	99	80 - 120	103	80 - 120	<0.10	ug/L	5.3	20
8833960	Total Phosphorus (P)	2017/11/20					<5.0	ug/L	NC	20
8833960	Total Selenium (Se)	2017/11/20	113	80 - 120	104	80 - 120	<0.040	ug/L	16	20
8833960	Total Silicon (Si)	2017/11/20					<50	ug/L	1.0	20
8833960	Total Silver (Ag)	2017/11/20	107	80 - 120	110	80 - 120	<0.010	ug/L	NC	20
8833960	Total Strontium (Sr)	2017/11/20	NC	80 - 120	100	80 - 120	<0.050	ug/L	0.99	20
8833960	Total Thallium (TI)	2017/11/20	104	80 - 120	101	80 - 120	<0.0020	ug/L	2.9	20
8833960	Total Tin (Sn)	2017/11/20	102	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
8833960	Total Titanium (Ti)	2017/11/20	106	80 - 120	101	80 - 120	<2.0	ug/L	2.4	20
8833960	Total Uranium (U)	2017/11/20	103	80 - 120	100	80 - 120	<0.0050	ug/L	0.63	20
8833960	Total Vanadium (V)	2017/11/20	104	80 - 120	102	80 - 120	<0.20	ug/L	0.96	20
8833960	Total Zinc (Zn)	2017/11/20	109	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
8833960	Total Zirconium (Zr)	2017/11/20	101	80 - 120	98	80 - 120	<0.10	ug/L	5.1	20
8833984	Fluoride (F)	2017/11/17	106	80 - 120	104	80 - 120	0.014, RDL=0.010	mg/L	0	20
8834226	рН	2017/11/18			102	97 - 103			0.20	20
8834234	Conductivity	2017/11/18			100	80 - 120	<1.0	uS/cm	0.99	20
8834236	Alkalinity (PP as CaCO3)	2017/11/18					<0.50	mg/L	NC	20
8834236	Alkalinity (Total as CaCO3)	2017/11/18	102	80 - 120	99	80 - 120	<0.50	mg/L	NC	20
8834236	Bicarbonate (HCO3)	2017/11/18					<0.50	mg/L	NC	20
8834236	Carbonate (CO3)	2017/11/18					<0.50	mg/L	NC	20
8834236	Hydroxide (OH)	2017/11/18					<0.50	mg/L	NC	20
8834238	рН	2017/11/18			101	97 - 103			0	20
8834239	Conductivity	2017/11/18			100	80 - 120	<1.0	uS/cm	0.64	20
8834240	Alkalinity (PP as CaCO3)	2017/11/18					<0.50	mg/L	NC	20
8834240	Alkalinity (Total as CaCO3)	2017/11/18	NC	80 - 120	98	80 - 120	<0.50	mg/L	0.13	20
8834240	Bicarbonate (HCO3)	2017/11/18					<0.50	mg/L	0.13	20
8834240	Carbonate (CO3)	2017/11/18					<0.50	mg/L	NC	20
8834240	Hydroxide (OH)	2017/11/18					<0.50	mg/L	NC	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8834241	рН	2017/11/19			102	97 - 103			0.12	20
8834243	Conductivity	2017/11/19			100	80 - 120	<1.0	uS/cm		
8834245	Alkalinity (PP as CaCO3)	2017/11/19					<0.50	mg/L		
8834245	Alkalinity (Total as CaCO3)	2017/11/19			97	80 - 120	0.87, RDL=0.50	mg/L		
8834245	Bicarbonate (HCO3)	2017/11/19					1.06, RDL=0.50	mg/L		
8834245	Carbonate (CO3)	2017/11/19					<0.50	mg/L		
8834245	Hydroxide (OH)	2017/11/19					<0.50	mg/L		
8835353	Total Mercury (Hg)	2017/11/20	95	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
8835363	Dissolved Mercury (Hg)	2017/11/20	94	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
8835565	Total Aluminum (Al)	2017/11/21	NC	80 - 120	112	80 - 120	<3.0	ug/L	5.3	20
8835565	Total Antimony (Sb)	2017/11/21	104	80 - 120	102	80 - 120	<0.020	ug/L	0.72	20
8835565	Total Arsenic (As)	2017/11/21	106	80 - 120	100	80 - 120	<0.020	ug/L	0.47	20
8835565	Total Barium (Ba)	2017/11/21	NC	80 - 120	98	80 - 120	<0.050	ug/L	0.18	20
8835565	Total Beryllium (Be)	2017/11/21	99	80 - 120	97	80 - 120	<0.010	ug/L	8.9	20
8835565	Total Bismuth (Bi)	2017/11/21	99	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
8835565	Total Boron (B)	2017/11/21	89	80 - 120	96	80 - 120	<10	ug/L	NC	20
8835565	Total Cadmium (Cd)	2017/11/21	104	80 - 120	102	80 - 120	<0.0050	ug/L	8.9	20
8835565	Total Chromium (Cr)	2017/11/21	97	80 - 120	101	80 - 120	<0.10	ug/L	1.3	20
8835565	Total Cobalt (Co)	2017/11/21	96	80 - 120	102	80 - 120	<0.010	ug/L	3.1	20
8835565	Total Copper (Cu)	2017/11/21	92	80 - 120	100	80 - 120	<0.10	ug/L	1.2	20
8835565	Total Iron (Fe)	2017/11/21	NC	80 - 120	107	80 - 120	<5.0	ug/L	3.1	20
8835565	Total Lead (Pb)	2017/11/21	96	80 - 120	100	80 - 120	<0.020	ug/L	3.4	20
8835565	Total Lithium (Li)	2017/11/21	96	80 - 120	95	80 - 120	<0.50	ug/L	3.2	20
8835565	Total Manganese (Mn)	2017/11/21	NC	80 - 120	105	80 - 120	<0.10	ug/L	0.46	20
8835565	Total Molybdenum (Mo)	2017/11/21	NC	80 - 120	105	80 - 120	<0.050	ug/L	2.5	20
8835565	Total Nickel (Ni)	2017/11/21	94	80 - 120	103	80 - 120	<0.10	ug/L	2.7	20
8835565	Total Phosphorus (P)	2017/11/21					<5.0	ug/L	4.0	20
8835565	Total Selenium (Se)	2017/11/21	108	80 - 120	104	80 - 120	<0.040	ug/L	2.6	20
8835565	Total Silicon (Si)	2017/11/21					<50	ug/L	0.43	20
8835565	Total Silver (Ag)	2017/11/21	109	80 - 120	108	80 - 120	<0.010	ug/L	8.1	20
8835565	Total Strontium (Sr)	2017/11/21	NC	80 - 120	99	80 - 120	<0.050	ug/L	0.65	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8835565	Total Thallium (TI)	2017/11/21	103	80 - 120	105	80 - 120	<0.0020	ug/L	9.1	20
8835565	Total Tin (Sn)	2017/11/21	104	80 - 120	98	80 - 120	<0.20	ug/L	NC	20
8835565	Total Titanium (Ti)	2017/11/21	NC	80 - 120	98	80 - 120	<2.0	ug/L	3.8	20
8835565	Total Uranium (U)	2017/11/21	104	80 - 120	100	80 - 120	<0.0050	ug/L	0.97	20
8835565	Total Vanadium (V)	2017/11/21	102	80 - 120	101	80 - 120	<0.20	ug/L	1.6	20
8835565	Total Zinc (Zn)	2017/11/21	99	80 - 120	107	80 - 120	<1.0	ug/L	7.0	20
8835565	Total Zirconium (Zr)	2017/11/21	101	80 - 120	96	80 - 120	<0.10	ug/L	5.9	20
8835955	Weak Acid Dissoc. Cyanide (CN)	2017/11/20	111	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8836179	Total Organic Carbon (C)	2017/11/20	103	80 - 120	110	80 - 120	<0.50	mg/L	NC	20
8836181	Total Organic Carbon (C)	2017/11/20	98	80 - 120	106	80 - 120	<0.50	mg/L		
8836182	Total Organic Carbon (C)	2017/11/20	102	80 - 120	108	80 - 120	<0.50	mg/L	5.2	20
8836184	Dissolved Organic Carbon (C)	2017/11/20	106	80 - 120	108	80 - 120	<0.50	mg/L	13	20
8836643	Dissolved Sulphate (SO4)	2017/11/17			96	80 - 120	<0.50	mg/L		
8836944	Weak Acid Dissoc. Cyanide (CN)	2017/11/21			97	80 - 120	<0.00050	mg/L		
8836949	Total Aluminum (AI)	2017/11/22	NC	80 - 120	103	80 - 120	<3.0	ug/L	16	20
8836949	Total Antimony (Sb)	2017/11/22	103	80 - 120	99	80 - 120	<0.020	ug/L	3.4	20
8836949	Total Arsenic (As)	2017/11/22	110	80 - 120	98	80 - 120	<0.020	ug/L	5.1	20
8836949	Total Barium (Ba)	2017/11/22	NC	80 - 120	96	80 - 120	<0.050	ug/L	2.0	20
8836949	Total Beryllium (Be)	2017/11/22	101	80 - 120	92	80 - 120	<0.010	ug/L	NC	20
8836949	Total Bismuth (Bi)	2017/11/22	95	80 - 120	96	80 - 120	< 0.010	ug/L	NC	20
8836949	Total Boron (B)	2017/11/22	101	80 - 120	92	80 - 120	<10	ug/L	NC	20
8836949	Total Cadmium (Cd)	2017/11/22	103	80 - 120	97	80 - 120	< 0.0050	ug/L	3.2	20
8836949	Total Chromium (Cr)	2017/11/22	98	80 - 120	95	80 - 120	<0.10	ug/L	16	20
8836949	Total Cobalt (Co)	2017/11/22	97	80 - 120	97	80 - 120	<0.010	ug/L	11	20
8836949	Total Copper (Cu)	2017/11/22	95	80 - 120	96	80 - 120	<0.10	ug/L	8.7	20
8836949	Total Iron (Fe)	2017/11/22	NC	80 - 120	103	80 - 120	<5.0	ug/L	5.1	20
8836949	Total Lead (Pb)	2017/11/22	94	80 - 120	92	80 - 120	<0.020	ug/L	15	20
8836949	Total Lithium (Li)	2017/11/22	99	80 - 120	93	80 - 120	<0.50	ug/L	1.7	20
8836949	Total Manganese (Mn)	2017/11/22	NC	80 - 120	99	80 - 120	<0.10	ug/L	3.1	20
8836949	Total Molybdenum (Mo)	2017/11/22	NC	80 - 120	97	80 - 120	<0.050	ug/L	1.7	20
8836949	Total Nickel (Ni)	2017/11/22	96	80 - 120	98	80 - 120	< 0.10	ug/L	4.6	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8836949	Total Phosphorus (P)	2017/11/22					<5.0	ug/L	NC	20
8836949	Total Selenium (Se)	2017/11/22	113	80 - 120	103	80 - 120	<0.040	ug/L	3.8	20
8836949	Total Silicon (Si)	2017/11/22					<50	ug/L	0.31	20
8836949	Total Silver (Ag)	2017/11/22	108	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
8836949	Total Strontium (Sr)	2017/11/22	NC	80 - 120	95	80 - 120	<0.050	ug/L	1.1	20
8836949	Total Thallium (Tl)	2017/11/22	98	80 - 120	95	80 - 120	<0.0020	ug/L	2.3	20
8836949	Total Tin (Sn)	2017/11/22	101	80 - 120	97	80 - 120	<0.20	ug/L	NC	20
8836949	Total Titanium (Ti)	2017/11/22	NC	80 - 120	95	80 - 120	<2.0	ug/L	19	20
8836949	Total Uranium (U)	2017/11/22	99	80 - 120	92	80 - 120	<0.0050	ug/L	1.1	20
8836949	Total Vanadium (V)	2017/11/22	104	80 - 120	96	80 - 120	<0.20	ug/L	11	20
8836949	Total Zinc (Zn)	2017/11/22	98	80 - 120	98	80 - 120	<1.0	ug/L	11	20
8836949	Total Zirconium (Zr)	2017/11/22	104	80 - 120	94	80 - 120	<0.10	ug/L	0.69	20
8837059	Dissolved Organic Carbon (C)	2017/11/21	101	80 - 120	108	80 - 120	<0.50	mg/L	0.96	20
8837062	Dissolved Organic Carbon (C)	2017/11/21	109	80 - 120	110	80 - 120	<0.50	mg/L	0.16	20
8837064	Dissolved Organic Carbon (C)	2017/11/21	113	80 - 120	114	80 - 120	<0.50	mg/L	18	20
8837065	Dissolved Organic Carbon (C)	2017/11/21	107	80 - 120	113	80 - 120	<0.50	mg/L	2.9	20
8838337	Dissolved Aluminum (Al)	2017/11/22			104	80 - 120	<0.50	ug/L		
8838880	Weak Acid Dissoc. Cyanide (CN)	2017/11/22	101	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20
8844066	Total Organic Carbon (C)	2017/11/27	112	80 - 120	106	80 - 120	<0.50	mg/L	NC	20
8844067	Dissolved Organic Carbon (C)	2017/11/27	NC	80 - 120	106	80 - 120	<0.50	mg/L	6.6	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

V,a		4606 Canada Way, Burnaby, British C		5 (61,1004) 234 7270	Toll-free.com	1-303-0704	, rax.(004	11312360	WHAT INDUCE	anti-tale									Page 1 of 4
		NVOICE TO:			Report In	formation							Project	Informatio	и			Laboratory Use	
Company Name		ENVIRONMENTAL SERVICES	LTD. Company N	The second second		3.0	1			Que	itation #	-	B40231					Maxxam Job #	Bottle Order#:
Contact Name	Aida Piaseczny 2289 BURRARD	CTREET	Contact Na	me David Flat	her					P.O	.#	2	0.110	- 0.11	. 01	0144	_	B7A1648	
Address	VANCOUVER B	AND DESCRIPTION OF THE PARTY OF	Address	8	71.		_			100	ect #	-	Gold Co	rp Coffe	e Creek	SW	+	Chain Of Custody Record	540800 Project Manager
Phone	(604) 688-7173		75 x Phone				Fax			10.00	ect Name		_				+		Project manager
mail	aida.piaseczny@	lorax.ca; shukling.ng@lorax.ca	Email	David.Flat	her@lorax		-ax			Site	pled By	- 7						C#540800-01-01	Megan Smith
Regulatory C	Criteria		Spe	cial Instructions		T						Requested						Turnaround Time (TAT) Req	uired
200 130		[				ž			NH4,					5				Please provide advance notice for rus	h projects
	4					rinking Water?(Y/N)	(Alk, EC, pH, TDS)	Level	F, NO2, NO3,	WAD			Level Dissolved Metals CV Hg	Total Metals incl.			(will be ap Standard Please no days - cor	Standard TAT  piled if Rush TAT is not specified)  TAT = 5-7 Working days for most tests, ite: Standard TAT for certain tests such as 8Oi tlact your Project Manager for details.  To Rush TAT (if applies to entire submission) red:  Time Ru	
		trinking water samples - please use the l ust be kept cool ( < 10°C ) from time of sam		SPACES CONTRACTOR		lated D	Routine (A	3-Low	Anions (CI, SO4)	Cyanide -		o	Level C CV Hg	Level	0	1	lush Confin	mation Number	all (ab for #)
Sampl	le Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regi	Rou	TSS.	Sov	Š	700	DOC	Low incl.	₽ E	ORP		of Bottles	Comments	
	######################################	CC-0.5	NOV. 14/1	10:35	1/20	NN	V	~	v	~	~	v	L	~	/		12	RECEIVED IN WH	ITEHORSE
	SID#162744	CC-1.0	Nov. 11/17	14:50	HZU	N	V	V	~	~	- ~	V	V	-	V		12	BY: Styon	0@1115
	SID#162745	CC-1.5	Nov. 11/1	15:20	H20	NN	V	V	v	~	/	1	~	_	V		2	2017 -11	- 1
	SID#162746	CC-3.5	No V.11/1	11:00	1/20	NN	V	1	/	~	V	V	V	V	~		2	2011	10
	SID#162747	CC-4.5	Nov. 11/1	10:10	1120	NN	V	v	~	V	~	V	~	~	v		12	TEMP: -2 /-	3 1-1
	SIDW162748	CC-A	Nov. 12/1	12:45	H20	NN	V	/	v	V	V	V	v	V	V		12	- a -	1 -1
	BID#149695	СС-В	Nov. 11/17	14:25	11/20	NN	V	1	1	/	1	~	V	-	/		12	- 2 -	-1 Ø
	######################################	CC-C		16:00	H20	NN	V	1	V	1	V	1	/	~	V		12	- 3	-3 -4
	31 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CC-D						_										- a	-4 -2
	ID#149898	сс-х	Nov. 11/10	10:00	420	NN	V	V	V	V	V	V	V	V	1		12		
+ RELIN	DUIS HER BY: (Signature)		YY/MM/DD) Time		RECEI	VEO 8Y: (5	IgnatureiPi	rint)			e: CYY/MJA	(00)	Time		used and			Lab Use Only	
	in Wir	he Nor	14 11:1	5/M	ROW	MAP	E			201	411/1	5	14:1	5 note	ubmitted	Time Sensiti	Ten	sperature (*C) on Recept	Seal Infact on Cooler?
		1974		1.1	5.5	100				100	1	- 1	(20)				C	2E ACTR ·	res No

B7A1648\_COC

Maxxam Analytics International Corporation of Maxxam Analytics

A Bureau	XX am	4606 Canada Way, Burnaby, British Col	umbia Canada V5G 1K5	Tel:(604) 734 7276	Toll-free:800	-563-6266	Fax (604)	731 2386	www.maxx	ım.ca										Page 2 c
		INVOICE TO:			Report Int	formation							Project I	nformatio	n			Laboratory	Use Only	
Company Nam	#3604 LORAX	ENVIRONMENTAL SERVICES L	TD. Company No	ime						Quel	tation #		B40231	28				Maxxam Job #	Bottle	le Order#:
Contact Name	Aida Piaseczny		Contact Nan	David Flatt	her					P.0.	#			_				B7A 1648	11111	
ddress	2289 BURRARE		Address	-						Proje	ect W	- 1	Gold Cor	rp Coffe	e Creek-	SW				40800
	VANCOUVER B	100.11 000 71.77	-	5				_		10000	oct Name	1.5	_					Chain Of Custody Record	A3355400	ct Manag
hone	(604) 688-7173	x Fax: (604) 688-7179 @lorax.ca; shukling.ng@lorax.ca	D X Phone Email	David.Flatt	ner@lorax		ах:			Site		2					- 1	C#548800-02-01	Meg	gan Smith
mail		giorax.co, situreing.ngegiorax.co		ial Instructions	io i es io i an	TT	Ť	_	_		pled By Analysis I	Requested				- 3	_	Turnaround Time (TA)	D Required	_
Regulatory	Criteria		45.0			ž.			4,					3				Please provide advance notic		
	Note: For regulated	drinking water samples - please use the D	rinking Water Chain of	Custody Form		Drinking Water? (Y/	(Alk, EC. pH, TDS)	Level	(CI, F, NO2, NO3, NH4	- WAD			Level Dissolved Metals CV Hg	el Total Metals incl.			(will be app Standard T. Please note days - contr Job Specific Date Require		as BOO and Dioxins	JF urans
	444444	ust be kept cool ( < 10°C ) from time of same				ated s Fiel		Low	) su (	apir				Level	2 1		Rush Confirm	ason Number	(call lab for il)	
Samp	le Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regul	Routine	TSS-L	Anions ( SO4)	Cyanide	T0C	DOC	Low incl.	Low	ORP		of Bothes	Com	ments	
1/01/1	SID#149899	HC-2.5	Nov. 12/17	11:50	1/20	NN	1	v	~	~	~	V	4	V	~		12	RECEIVED IN W	HITEHORS	E
Limite	SID#149900	HC-5.0				$\vdash$											-	BY: Syon	0@11	15
1100111	SID#149901	HC-A	-		-									_				2017 -	11- 1 4	
#10041X	SID#149902	нс-в	-			+											-			
1111111	SID#149903	HC-C	Nov. 12/11	11:40	1/20	NN	V	L	V	L	~	U	~	1	V		12	TEMP: -2 /	-3/-	-1
DEFE	SID#149904	IC-0.5	Nov. 12/11 Nov. 12/11 Nov. 12/11	11:00	H20	NN	V	v	V	1	1	~	~	1	~		12	-2	1	-1
11101111	SID#094856	IC-1.5	Nov. 12/17	10:45	1120	NN	V	V	V	/	1	/	~	V	~		12	-2	-1	Ø
LIMILI	SID#176820	IC-2.5				H										_	=	-3	-3	-4
110111	SiDe176821	IC-3.0	-							_								-2	-4	-6
1100111	SID#176822	IC-4.5	Nov. 12/17	10:00	H20	NN	/	V	V	~	V	V	1	V	V		12			
* RELI	NOUISHED BY: (Signature		Y/MM/DD) Time			/ED BY: (S	gnature/Pr	int)		Dat	= (YYMM	(DD)	Time	# jars	used and ubmitted			Lab Use Only	CONTRACTOR OF	46.00
1	la Win	Nov	: 14 11:1.	5/10	Kon	MAPU	E .			201	7/11/	15	14:15			Time Sens	Temp	ersture (°C) on Receipt	Custody Seal Intact on	n Cooler Vo

Maxxam Analytics International Corporation o/a Maxxam Analytics

	IN	VOICE TO:			Report In	formation							Project h	nformation	1			Laboratory Use (	nlv
-	HACAL LODAY	NVIRONMENTAL SERVICES L	TD -									-	340231					Maxxam Job #	Bottle Order #
	Name Aida Piaseczny		Company f  Contact Na  Address	Devide Flesh	ner					P.O.	tation # # ect #	54 (2	Gold Cor	p Coffee	e Creek-	SW		B7A1648	540800
intess	VANCOUVER BO	C V6J 3H9	Audiesa							1050	ect Name	( <del>-</del>						Chain Of Custody Record	Project Manag
none	(604) 688-7173 x	Fax: (604) 688-7175	5 x Phone			Fa	RC			Site									Megan Smith
nair	aida piaseczny@	lorax.ca; shukling.ng@lorax.ca	Emed	David.Flatt	ner@lorax.	.ca	00			Sam	pled By							C#540800-03-01	megan sam
Regu	ulatory Criteria		Spe	cial Instructions							Analysis F	Requested		3				Turnaround Time (TAT) Requ Please provide advance notice for rus	
		inking water samples - please use the D	All of the state of the state of	100		ulated Drinking Water ? (Y / N ) its Field Filtered ? (Y / N )	ne (AIK, EC, pH, TDS)	ow Level	s (Ci, F, NO2, NO3, NH4	de - WAD			Level Dissolved Metals CV Hg	Level Total Metals incl.			(will be ap, Standard I Please no days - con Job Specifi Date Requir	nation Number	CONTRACTOR CONTRACTOR
	Samples mu Sample Barcode Label	to be kept cool ( < 10°C ) from time of samp Sample (Location) Identification	ling until delivery to m	Time Sampled	Matrix	Regula	Routine	TSS-Low	Anions SO4)	Cyanide	TOC	DOC	Low L	Low L	ORP	j	Fal Battes	Comments	N AND THE RE
1	SID#176823	ML-1.0 (YT-24)															_	RECEIVED IN WHITE	HORSE
1	SID#176824	ML-A	-															BY: Sycroa	1115
	SID#176825	ML-B	-															2017 -11-	1 4
1	SID#178956	ML-C (YUK-24-2)													-				
1	SID#178957	YUK-2.0	-															TEMP: -21-3	3 1-1
	SID#178958	YUK-5.0	Nov.12/1	09:30	H20	NN	1	V	V	V	v	1	V	~	~		12	-2 -	1 -1
	SID#178959	Ballarat U/S Y.R.	Nov. 11/1	09:35	H20	NN	V	V	V	V	V	V	V	V	V		12	-a -	1 0
1	SID#178960	Barker U/S S.R.	Nov. 11/11	12:55	H20	NN	V	V	V	~	V	~	V	V	V		12	-3 -	3 -4
	SID#178961	Blackhills U/S S.R.	Nov. 11/17	11:50	420	NN	V	~	~	V	V	V	~	V	~		12	- a -	-4 -a
	SID#178962	MaisyMay U/S S.R.	Nov. 11/17	12:00	H20	NN	V	V	V	~	V	~	V	~	~		12		
_	REGINGUISHED BY: (Signature)	Print) Date: (V	7/MM/DO) Tim	5/m	N 1	VED BY: (Sign	nature/Pr	int)		201-	1/11/1		4:14		used and ubmitted	Time Sensit	tem	perature (%) on recopt	pal Intact on Cooler?

Maxxam Analytics International Corporation o/a Maxxam Analytics

	1	NVOICE TO:				Report Inf	ormation							Project In	vformatio	n			Laboratory Use	Only
npany Na	#3604 LORAX	ENVIRONMENTAL SERVI	CES LTD.	Company Nan	ne			- 1			Ount	ation #	- 6	340231					Maxxam Job #	Bottle Order #
itact Nam	Aida Diaggassa			Contact Name	Devict Plant	ner					P.O.		-						B74 1648	INTERNET
ress	2289 BURRARD	STREET		Address							Proje	ct#	-	Gold Cor	p Coffe	e Creek-	SW		57A1448	540800
	VANCOUVER B										Proje	ct Name	-					_	Chain Of Custody Record	Project Manage
ne	(604) 688-7173		8-7175 x	Phone		-		ак			Site i	1	-					- 1		Megan Smith
d	aida.piaseczny@	glorax.ca; shukling.ng@lora	ax.ca	Email	David.Flath	er@lorax.	ca	_		_		aled By	-				-		C#540808-04-01	
egulator	Criteria		-	Specia	Instructions		-	_		at.		Analysis R	equested		5				Turnaround Time (TAT) Re Please provide advance riptice for r	
		frinking water samples - please u: ust be kept cool ( < 10°C ) from lime			The state of the s		ulated Drinking Water ? (Y / N ) als Field Filtered ? (Y / N )	Routine (Alk, EC, pH, TDS)	3-Low Level	Anions (Cl. F, NO2, NO3, NH4, SO4)	Cyanide - WAD	0	o	v Level Dissolved Metals	v Levei Total Metals incl.	0.		Standard TA Please note: days - contai	ed if Rush TAT is not specified)  7 = 5-7 Working days for most tests. Standard TAT for certain tests such as B tl your Project Manager for details. Rush TAT (If applies to entire submission):  Time ion Number	
San	nple Barcode Label	Sample (Location) Identificatio	n Date	Sampled	Time Sampled	Matrix	Reg Metz	80	TSS-L	SO	Š	TOC	200	Low incl.	Low	ORP		of Bottles	Comments	
1011	SID#178963	Stewart D/S M.M.	No	1.11/17	12:35	420	NN	V	v	v	c	~	~	V	/	V		12	RECEIVED IN WHI	TEHORSE
UIU	\$ID#178964	Latte Mix	No	v.11/17	10:25	1120	NN	~	1	~	V	~	V	~	V	~		12	BY: Slyon	0@1115
11111	SID#178965	Sample A				1/20	NN	1	~	V	1	1	~	V	~	~		12	2017 -11-	- 14
1188	SID#184576	Sample B		_																
LIIII	SID#184577	Sample C				H20	NN	1	1	V	~	V	V	~	~	~		12	1.MP: -2/-	3 /-1
11111	SIDW184578	FIELD BLANK	No	v.1/17	19:00	H20	NN	V	v	V	v	~	V	V	V	V		12	-a -	-1 -1
11111	SID#184579	TRIP BLANK				H20	NN	V	L	V	/	~	v	/	V	L		12	- 2	-1 Ø
11111	SID#184580	6																	-3	-3 -4
1000	SID#184581																		-2	-4 -2
* RE	INCUISHED BY (Signature		Date: (YY/MM/DD		MAA	RECEIV		PUE			Oats	HILL	-	Time		used and ubmitted	Time Sensi	ive I	Lab Use Only	y Saul Intact on Cooler
-/	no vent		Vov. 14	11:1-	> ////	KON	MA	ruc		_	0001	7/14/	1	4:15	-			Tempe	rature (*C) on Receipt	Yes No

Maxxam Analytics International Corporation o/a Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### Attention:David Flather

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 542329-01-01, 542329-02-01, 542329-03-01

Report Date: 2017/12/19

Report #: R2493669 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B7B0016 Received: 2017/12/11, 16:40

Sample Matrix: Water # Samples Received: 20

oratory Method Analytical Me	thod
6SOP-00026 SM 22 2320 B	m
'6SOP-00026 SM 22 2320 B	m
'6SOP-00011 SM 22 4500-C	I- E m
'6SOP-00011 SM 22 4500-C	I- E m
'6SOP-00004 SM 22 4500-C	N O m
'6SOP-00004 SM 22 4500-C	N O m
'6SOP-00003 SM 22 5310 C	m
'6SOP-00003 SM 22 5310 C	m
'6SOP-00026 SM 22 2510 B	m
'6SOP-00026 SM 22 2510 B	m
'6SOP-00048 SM 22 4500-F	C m
'6SOP-00048 SM 22 4500-F	C m
WI-00033 Auto Calc	
WI-00033 Auto Calc	
7SOP-00015 BCMOE BCLM	Oct2013 m
7SOP-00015 BCMOE BCLM	Oct2013 m
WI-00033 Auto Calc	
7SOP-00002 BCMOE BCLM	Nov 2015
7SOP-00003, BCMOE BCLM	Nov 2015
WI-00033 Auto Calc	
7SOP-00003, BCMOE BCLM	Nov 2015
'6SOP-00009 EPA 350.1 m	
'6SOP-00010 SM 22 4500-N	103- I m
'6SOP-00010 SM 22 4500-N	103- I m
WI-00033 Auto Calc	
'0SOP-00004 SM 22 2580 B	
7 WI-00004 BCMOE Reqs (	08/14
'6SOP-00026 SM 22 4500-H	l+ B m
'0S '7 '	OP-00004 SM 22 2580 B WI-00004 BCMOE Reqs (



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 542329-01-01, 542329-02-01, 542329-03-01

Report Date: 2017/12/19

Report #: R2493669 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B7B0016 Received: 2017/12/11, 16:40

Sample Matrix: Water # Samples Received: 20

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
pH Water (3)	4	2017/12/13	2017/12/14	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	19	N/A	2017/12/13	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	1	N/A	2017/12/14	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	16	2017/12/13	2017/12/14	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	4	2017/12/14	2017/12/15	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (4)	19	N/A	2017/12/14	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (4)	1	N/A	2017/12/18	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	20	2017/12/13	2017/12/14	BBY6SOP-00034	SM 22 2540 D

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention:David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 542329-01-01, 542329-02-01, 542329-03-01

Report Date: 2017/12/19

Report #: R2493669 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

#### MAXXAM JOB #: B7B0016 Received: 2017/12/11, 16:40

- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxam 19 Dec 2017 16:50:51

Please direct all questions regarding this Certificate of Analysis Project Manager.

Megan Smith, Project Manager Email: msmith@maxxam.ca Phone# (604) 734 7276

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9365			SQ9365			SQ9366		
Sampling Date		2017/12/09 13:10			2017/12/09 13:10			2017/12/09 14:20		
COC Number		542329-01-01			542329-01-01			542329-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Parameter	•	•	•		•		•		-	
ORP	mV	267		8861462	266		8861462	266		8861462
Calculated Parameters		•			•					
Filter and HNO3 Preservation	N/A	LAB		8860721				LAB		8860721
Nitrate (N)	mg/L	0.356	0.0020	8860649				0.281	0.0020	8860649
Misc. Inorganics		•			•	•			•	
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8861719	<0.00050	0.00050	8861719	<0.00050	0.00050	8861719
Fluoride (F)	mg/L	0.095	0.010	8861551				0.099	0.010	8861551
Dissolved Organic Carbon (C)	mg/L	6.74	0.50	8862354				5.21	0.50	8862354
Alkalinity (Total as CaCO3)	mg/L	114	0.50	8861679				184	0.50	8861679
Total Organic Carbon (C)	mg/L	5.78	0.50	8862846				4.89	0.50	8862844
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8861679				<0.50	0.50	8861679
Bicarbonate (HCO3)	mg/L	139	0.50	8861679				225	0.50	8861679
Carbonate (CO3)	mg/L	<0.50	0.50	8861679				<0.50	0.50	8861679
Hydroxide (OH)	mg/L	<0.50	0.50	8861679				<0.50	0.50	8861679
Anions		•			•					
Dissolved Sulphate (SO4)	mg/L	95.1	0.50	8862461				182	0.50	8862461
Dissolved Chloride (Cl)	mg/L	1.2	0.50	8862459				0.54	0.50	8862459
Nutrients		•			•					
Total Ammonia (N)	mg/L	0.0090	0.0050	8861890				<0.0050	0.0050	8861890
Nitrate plus Nitrite (N)	mg/L	0.356	0.0020	8862490				0.281	0.0020	8862490
Nitrite (N)	mg/L	<0.0020	0.0020	8862494				<0.0020	0.0020	8862494
Physical Properties		•			•					
Conductivity	uS/cm	409	1.0	8861678				683	1.0	8861678
рН	рН	7.88		8861675				8.06		8861675
Physical Properties		•	•		•	•		-	•	
Total Suspended Solids	mg/L	<1.0	1.0	8861207				4.0	1.0	8861207
Total Dissolved Solids	mg/L	266	10	8861384				440	10	8861384
RDL = Reportable Detection Limit	:	•	-		•	•			-	
Lab-Dup = Laboratory Initiated D	uplicate									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9366			SQ9367			SQ9367		
Committee Date		2017/12/09			2017/12/09			2017/12/09		
Sampling Date		14:20			13:25			13:25		
COC Number		542329-01-01			542329-01-01			542329-01-01		
	UNITS	CC-1.5 Lab-Dup	RDL	QC Batch	CC-3.5	RDL	QC Batch	CC-3.5 Lab-Dup	RDL	QC Batch
Parameter	-	·	<u> </u>	<u> </u>	·	<u>-</u>	<u> </u>	<u> </u>	-	<u> </u>
ORP	mV				262		8861462			
Calculated Parameters										
Filter and HNO3 Preservation	N/A				LAB		8860721			
Nitrate (N)	mg/L				0.481	0.0020	8860649			
Misc. Inorganics		-	!	!	-	!	!		!	
Weak Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	8861719			
Fluoride (F)	mg/L	0.098	0.010	8861551	0.049	0.010	8861551			
Dissolved Organic Carbon (C)	mg/L				5.36	0.50	8862354			
Alkalinity (Total as CaCO3)	mg/L				112	0.50	8861679			
Total Organic Carbon (C)	mg/L				5.09	0.50	8862844	5.08	0.50	8862844
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	8861679			
Bicarbonate (HCO3)	mg/L				137	0.50	8861679			
Carbonate (CO3)	mg/L				<0.50	0.50	8861679			
Hydroxide (OH)	mg/L				<0.50	0.50	8861679			
Anions		1	ı	Į.	1		Į.			
Dissolved Sulphate (SO4)	mg/L				95.4	0.50	8862461			
Dissolved Chloride (CI)	mg/L				0.71	0.50	8862459			
Nutrients		•		Į.	1		Į.			L.
Total Ammonia (N)	mg/L				0.054	0.0050	8861890			
Nitrate plus Nitrite (N)	mg/L				0.481	0.0020	8862490			
Nitrite (N)	mg/L				<0.0020	0.0020	8862494			
Physical Properties										
Conductivity	uS/cm				404	1.0	8861678			
рН	рН				7.90		8861675			
Physical Properties	•	•		•	•		•			
Total Suspended Solids	mg/L				<1.0	1.0	8861207			
Total Dissolved Solids	mg/L				256	10	8861384			
RDL = Reportable Detection Limit	t		•						•	
Lab-Dup = Laboratory Initiated D	uplicate									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9368		SQ9369		SQ9370		
Sampling Date		2017/12/09		2017/12/09		2017/12/09		
Jamping Date		12:20		14:55		13:40		
COC Number		542329-01-01		542329-01-01		542329-01-01		
	UNITS	CC-4.5	RDL	CC-A	QC Batch	СС-В	RDL	QC Batch
Parameter								
ORP	mV	259		257	8861462	250		8861462
Calculated Parameters	•						•	
Filter and HNO3 Preservation	N/A	LAB		LAB	8860721	LAB		8860721
Nitrate (N)	mg/L	0.501	0.0020	0.187	8860649	0.343	0.0020	8860649
Misc. Inorganics	•							
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	<0.00050	8861719	<0.00050	0.00050	8861719
Fluoride (F)	mg/L	0.055	0.010	0.065	8861551	0.070	0.010	8861551
Dissolved Organic Carbon (C)	mg/L	5.80	0.50	5.25	8862354	4.86	0.50	8862354
Alkalinity (Total as CaCO3)	mg/L	60.9	0.50	116	8861679	183	0.50	8861679
Total Organic Carbon (C)	mg/L	5.87	0.50	5.61	8862844	4.87	0.50	8862846
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	<0.50	8861679	<0.50	0.50	8861679
Bicarbonate (HCO3)	mg/L	74.3	0.50	142	8861679	223	0.50	8861679
Carbonate (CO3)	mg/L	<0.50	0.50	<0.50	8861679	<0.50	0.50	8861679
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	8861679	<0.50	0.50	8861679
Anions	-		•		-		•	-
Dissolved Sulphate (SO4)	mg/L	67.3	0.50	173	8862461	180	0.50	8862461
Dissolved Chloride (CI)	mg/L	0.91	0.50	<0.50	8862459	0.57	0.50	8862459
Nutrients								
Total Ammonia (N)	mg/L	<0.0050	0.0050	<0.0050	8861890	<0.0050	0.0050	8861890
Nitrate plus Nitrite (N)	mg/L	0.501	0.0020	0.187	8862490	0.343	0.0020	8862490
Nitrite (N)	mg/L	<0.0020	0.0020	<0.0020	8862494	<0.0020	0.0020	8862494
Physical Properties	•	•	•	•	-	•	•	•
Conductivity	uS/cm	274	1.0	562	8861678	677	1.0	8861678
рН	рН	7.72		7.85	8861675	8.03		8861675
Physical Properties								
Total Suspended Solids	mg/L	14.0 (1)	1.1	1.8	8861207	6.9	1.0	8861258
Total Dissolved Solids	mg/L	166	10	360	8861384	438	10	8861384
RDL = Reportable Detection Limi	t							
(1) RDL raised due to limited initi	al sampl	e amount.						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9370			SQ9371			SQ9371		
Compline Date		2017/12/09			2017/12/09			2017/12/09		
Sampling Date		13:40			12:05			12:05		
COC Number		542329-01-01			542329-01-01			542329-01-01		
	UNITS	CC-B Lab-Dup	RDL	QC Batch	сс-х	RDL	QC Batch	CC-X Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV				253		8861462			
Calculated Parameters	•			•						
Filter and HNO3 Preservation	N/A				LAB		8860721			
Nitrate (N)	mg/L				0.616	0.0020	8860649			
Misc. Inorganics	•		!			,			!	
Weak Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	8861719			
Fluoride (F)	mg/L				0.050	0.010	8861551			
Dissolved Organic Carbon (C)	mg/L	5.46	0.50	8862354	6.04	0.50	8862354			
Alkalinity (Total as CaCO3)	mg/L				57.0	0.50	8861679	56.2	0.50	8861679
Total Organic Carbon (C)	mg/L				5.91	0.50	8862844			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	8861679	<0.50	0.50	8861679
Bicarbonate (HCO3)	mg/L				69.6	0.50	8861679	68.6	0.50	8861679
Carbonate (CO3)	mg/L				<0.50	0.50	8861679	<0.50	0.50	8861679
Hydroxide (OH)	mg/L				<0.50	0.50	8861679	<0.50	0.50	8861679
Anions	•			•					•	
Dissolved Sulphate (SO4)	mg/L				68.8	0.50	8862461	67.4	0.50	8862461
Dissolved Chloride (Cl)	mg/L				1.6	0.50	8862459	1.1	0.50	8862459
Nutrients	•			•						
Total Ammonia (N)	mg/L				0.054	0.0050	8861890			
Nitrate plus Nitrite (N)	mg/L				0.616	0.0020	8862490	0.611	0.0020	8862490
Nitrite (N)	mg/L				<0.0020	0.0020	8862494	<0.0020	0.0020	8862494
Physical Properties	•									
Conductivity	uS/cm				264	1.0	8861678	265	1.0	8861678
рН	рН				7.50		8861675	7.53		8861675
Physical Properties			•						•	
Total Suspended Solids	mg/L				57.0	1.0	8861258			
Total Dissolved Solids	mg/L				160	10	8861384			
RDL = Reportable Detection Limit	t									
Lab-Dup = Laboratory Initiated D	uplicate									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9372		SQ9384		SQ9385		
Sampling Date		2017/12/10		2017/12/10		2017/12/10		
Sampling Date		14:05		13:05		11:15		
COC Number		542329-01-01		542329-02-01		542329-02-01		
	UNITS	HC-2.5	QC Batch	IC-4.5	QC Batch	YUK-2.0	RDL	QC Batch
Parameter								
ORP	mV	252	8861462	249	8861462	248		8861462
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	8860721	LAB	8860721	LAB		8860721
Nitrate (N)	mg/L	0.546	8860649	0.575	8860649	0.0682	0.0020	8860649
Misc. Inorganics	•		•		•		•	
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8861719	<0.00050	8861719	<0.00050	0.00050	8861719
Fluoride (F)	mg/L	0.057	8861551	0.058	8861551	0.110	0.010	8861551
Dissolved Organic Carbon (C)	mg/L	4.53	8862354	6.98	8862354	1.83	0.50	8862354
Alkalinity (Total as CaCO3)	mg/L	122	8861679	48.1	8861679	90.0	0.50	8861679
Total Organic Carbon (C)	mg/L	4.58	8862844	6.18	8862846	2.49	0.50	8862844
Alkalinity (PP as CaCO3)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Bicarbonate (HCO3)	mg/L	148	8861679	58.6	8861679	110	0.50	8861679
Carbonate (CO3)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Hydroxide (OH)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Anions			•		•			
Dissolved Sulphate (SO4)	mg/L	59.1	8862461	47.9	8862461	26.7	0.50	8862482
Dissolved Chloride (CI)	mg/L	<0.50	8862459	0.78	8862459	0.56	0.50	8862477
Nutrients	•		•		•			
Total Ammonia (N)	mg/L	<0.0050	8861890	0.039	8861890	0.0070	0.0050	8861890
Nitrate plus Nitrite (N)	mg/L	0.546	8862490	0.575	8862490	0.0682	0.0020	8862490
Nitrite (N)	mg/L	<0.0020	8862494	<0.0020	8862494	<0.0020	0.0020	8862494
Physical Properties			•		•			
Conductivity	uS/cm	350	8861678	208	8861678	225	1.0	8861678
рН	рН	7.94	8861675	7.52	8861675	7.95		8861675
Physical Properties				ı			ı	
Total Suspended Solids	mg/L	<1.0	8861258	2.6	8861258	18.7	1.0	8861258
Total Dissolved Solids	mg/L	194	8862465	124	8862465	114	10	8861384
RDL = Reportable Detection Limit	t .	<u> </u>						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9386		SQ9387		SQ9388		
Sampling Date		2017/12/10		2017/12/09		2017/12/11		
Sampling Date		12:50		11:35		12:05		
COC Number		542329-02-01		542329-02-01		542329-02-01		
	UNITS	YUK-5.0	QC Batch	BALLARAT U/S Y.R.	QC Batch	BARKER U/S S.R.	RDL	QC Batch
Parameter								
ORP	mV	247	8861462	246	8861462	244		8861462
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	8860721	LAB	8860721	LAB		8860721
Nitrate (N)	mg/L	0.0884	8860649	0.282	8860649	0.119	0.0020	8860649
Misc. Inorganics	•							
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8861719	<0.00050	8861719	<0.00050	0.00050	8861719
Fluoride (F)	mg/L	0.110	8861551	0.160	8861551	0.099	0.010	8861551
Dissolved Organic Carbon (C)	mg/L	1.66	8862354	7.14	8866453	12.7	0.50	8862349
Alkalinity (Total as CaCO3)	mg/L	91.5	8861679	161	8861679	154	0.50	8861679
Total Organic Carbon (C)	mg/L	1.08	8862844	6.56	8866454	12.9	0.50	8862844
Alkalinity (PP as CaCO3)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Bicarbonate (HCO3)	mg/L	112	8861679	196	8861679	187	0.50	8861679
Carbonate (CO3)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Hydroxide (OH)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Anions								
Dissolved Sulphate (SO4)	mg/L	29.9	8862461	172	8862461	105	0.50	8862461
Dissolved Chloride (CI)	mg/L	<0.50	8862459	1.8	8862459	3.2	0.50	8862459
Nutrients								
Total Ammonia (N)	mg/L	<0.0050	8861890	0.0060	8861890	0.023	0.0050	8861890
Nitrate plus Nitrite (N)	mg/L	0.0884	8862490	0.282	8862490	0.119	0.0020	8862490
Nitrite (N)	mg/L	<0.0020	8862494	<0.0020	8862494	<0.0020	0.0020	8862494
Physical Properties								
Conductivity	uS/cm	232	8861678	634	8861678	505	1.0	8861678
рН	рН	7.94	8861675	8.00	8861675	7.85		8861675
Physical Properties			•					
Total Suspended Solids	mg/L	<1.0	8861258	4.0	8861258	1.6	1.0	8861258
Total Dissolved Solids	mg/L	126	8861384	410	8861384	296	10	8861384
RDL = Reportable Detection Limit			•		•		•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SQ9388			SQ9389		
Sampling Date		2017/12/11			2017/12/11		
Jamping Date		12:05			11:00		
COC Number		542329-02-01			542329-02-01		
	UNITS	BARKER U/S S.R. Lab-Dup	RDL	QC Batch	BLACKHILLS U/S S.R.	RDL	QC Batch
Parameter							
ORP	mV	245		8861462	244		8861462
Calculated Parameters							
Filter and HNO3 Preservation	N/A				LAB		8860721
Nitrate (N)	mg/L				0.0088	0.0020	8860649
Misc. Inorganics	•		•			•	•
Weak Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	8861719
Fluoride (F)	mg/L				0.100	0.010	8861551
Dissolved Organic Carbon (C)	mg/L				13.6	0.50	8862354
Alkalinity (Total as CaCO3)	mg/L				165	0.50	8861679
Total Organic Carbon (C)	mg/L				14.6	0.50	8862844
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	8861679
Bicarbonate (HCO3)	mg/L				202	0.50	8861679
Carbonate (CO3)	mg/L				<0.50	0.50	8861679
Hydroxide (OH)	mg/L				<0.50	0.50	8861679
Anions			•			•	
Dissolved Sulphate (SO4)	mg/L				68.5	0.50	8862461
Dissolved Chloride (Cl)	mg/L				1.8	0.50	8862459
Nutrients	•		•	•		•	•
Total Ammonia (N)	mg/L	0.023	0.0050	8861890	0.15	0.0050	8861893
Nitrate plus Nitrite (N)	mg/L				0.0088	0.0020	8862490
Nitrite (N)	mg/L				<0.0020	0.0020	8862494
Physical Properties			•	•		*	•
Conductivity	uS/cm				461	1.0	8861678
рН	рН				7.92		8861675
Physical Properties							
Total Suspended Solids	mg/L				2.0 (1)	1.1	8861258
Total Dissolved Solids	mg/L				312	10	8861384
RDL = Reportable Detection Limit	t						
Lab-Dup = Laboratory Initiated D	uplicate						

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9390		SQ9391		SQ9392		
Sampling Date		2017/12/11		2017/12/09				
Sampling Date		11:50		12:45				
COC Number		542329-03-01		542329-03-01		542329-03-01		
	UNITS	STEWART D/S M.M.	QC Batch	LATTE MIX	QC Batch	SAMPLE A	RDL	QC Batch
Parameter								
ORP	mV	243	8861462	242	8861462	241		8861462
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	8860721	LAB	8860721	LAB		8860721
Nitrate (N)	mg/L	0.155	8860649	0.380	8860649	0.498	0.0020	8860649
Misc. Inorganics			•					
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	8861719	<0.00050	8862856	<0.00050	0.00050	8862856
Fluoride (F)	mg/L	0.087	8861551	0.077	8861551	0.054	0.010	8861551
Dissolved Organic Carbon (C)	mg/L	1.81	8862354	5.69	8862354	6.46	0.50	8862354
Alkalinity (Total as CaCO3)	mg/L	121	8861679	127	8861679	59.7	0.50	8861679
Total Organic Carbon (C)	mg/L	0.82	8862844	4.72	8862844	7.65	0.50	8862844
Alkalinity (PP as CaCO3)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Bicarbonate (HCO3)	mg/L	148	8861679	154	8861679	72.8	0.50	8861679
Carbonate (CO3)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Hydroxide (OH)	mg/L	<0.50	8861679	<0.50	8861679	<0.50	0.50	8861679
Anions			•		•			•
Dissolved Sulphate (SO4)	mg/L	99.0	8862482	98.2	8864565	69.6	0.50	8862461
Dissolved Chloride (CI)	mg/L	0.66	8862477	0.97	8867947	0.78	0.50	8862459
Nutrients			•		•		•	•
Total Ammonia (N)	mg/L	0.016	8861893	<0.0050	8861893	0.075	0.0050	8861893
Nitrate plus Nitrite (N)	mg/L	0.155	8862490	0.380	8862490	0.498	0.0020	8862490
Nitrite (N)	mg/L	<0.0020	8862494	<0.0020	8862494	<0.0020	0.0020	8862494
Physical Properties			•		•			•
Conductivity	uS/cm	420	8861678	419	8861678	273	1.0	8861678
рН	рН	8.00	8861675	7.98	8861675	7.73		8861675
Physical Properties			•			•	•	
Total Suspended Solids	mg/L	7.7	8861258	<1.0	8861258	<1.0	1.0	8861258
Total Dissolved Solids	mg/L	248	8862465	282	8861384	164	10	8862465
RDL = Reportable Detection Limit	i		•			•		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9393		SQ9394			SQ9394		
Sampling Date				2017/12/09 20:00			2017/12/09 20:00		
COC Number		542329-03-01		542329-03-01			542329-03-01		
	UNITS	SAMPLE B	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Parameter	•				•				
ORP	mV	242	8861462	234		8861462			
Calculated Parameters			I						
Filter and HNO3 Preservation	N/A	LAB	8860721	LAB		8860721			
Nitrate (N)	mg/L	0.123	8860649	<0.0020	0.0020	8860649			
Misc. Inorganics			!		!			!	
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00052	8862856	<0.00050	0.00050	8862856			
Fluoride (F)	mg/L	0.093	8863850	0.010	0.010	8863850	<0.010	0.010	8863850
Dissolved Organic Carbon (C)	mg/L	12.3	8862354	<0.50	0.50	8862354			
Alkalinity (Total as CaCO3)	mg/L	149	8861679	<0.50	0.50	8861679			
Total Organic Carbon (C)	mg/L	12.5	8862844	<0.50	0.50	8862846			
Alkalinity (PP as CaCO3)	mg/L	<0.50	8861679	<0.50	0.50	8861679			
Bicarbonate (HCO3)	mg/L	182	8861679	<0.50	0.50	8861679			
Carbonate (CO3)	mg/L	<0.50	8861679	<0.50	0.50	8861679			
Hydroxide (OH)	mg/L	<0.50	8861679	<0.50	0.50	8861679			
Anions			•					•	
Dissolved Sulphate (SO4)	mg/L	113	8862482	0.56	0.50	8862461			
Dissolved Chloride (Cl)	mg/L	3.3	8867947	<0.50	0.50	8862459			
Nutrients			•		•			•	
Total Ammonia (N)	mg/L	0.0070	8861893	<0.0050	0.0050	8861893			
Nitrate plus Nitrite (N)	mg/L	0.123	8862490	<0.0020	0.0020	8862490			
Nitrite (N)	mg/L	<0.0020	8862494	<0.0020	0.0020	8862494			
Physical Properties			•					•	
Conductivity	uS/cm	504	8861678	1.2	1.0	8861678			
рН	рН	7.87	8861675	5.06		8861675			
Physical Properties									
Total Suspended Solids	mg/L	5.8	8861258	<1.0	1.0	8861258			
Total Dissolved Solids	mg/L	300	8861384	<10	10	8861384			
RDL = Reportable Detection Limit	:								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9395		
Sampling Date		2017/12/11		
Sampling Date		16:40		
COC Number		542329-03-01		
	UNITS	TRIP BLANK	RDL	QC Batch
Parameter				
ORP	mV	325		8861462
Calculated Parameters				
Nitrate (N)	mg/L	<0.0020	0.0020	8860649
Misc. Inorganics			•	•
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8862856
Fluoride (F)	mg/L	<0.010	0.010	8863850
Dissolved Organic Carbon (C)	mg/L	<0.50	0.50	8862354
Alkalinity (Total as CaCO3)	mg/L	<0.50	0.50	8861679
Total Organic Carbon (C)	mg/L	<0.50	0.50	8862844
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8861679
Bicarbonate (HCO3)	mg/L	<0.50	0.50	8861679
Carbonate (CO3)	mg/L	<0.50	0.50	8861679
Hydroxide (OH)	mg/L	<0.50	0.50	8861679
Anions				
Dissolved Sulphate (SO4)	mg/L	<0.50	0.50	8862482
Dissolved Chloride (Cl)	mg/L	<0.50	0.50	8862477
Nutrients				
Total Ammonia (N)	mg/L	<0.0050	0.0050	8861893
Nitrate plus Nitrite (N)	mg/L	<0.0020	0.0020	8862490
Nitrite (N)	mg/L	<0.0020	0.0020	8862494
Physical Properties			•	-
Conductivity	uS/cm	1.0	1.0	8861678
рН	рН	5.11		8861675
Physical Properties				
Total Suspended Solids	mg/L	<1.0	1.0	8861258
Total Dissolved Solids	mg/L	<10	10	8861384
RDL = Reportable Detection Limit				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9365			SQ9365			SQ9366		
Sampling Date		2017/12/09			2017/12/09			2017/12/09		
Sampling Date		13:10			13:10			14:20		
COC Number		542329-01-01			542329-01-01			542329-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	191	0.50	8859886				346	0.50	8859886
Elements						•				
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	8861203				<0.0020	0.0020	8861203
Dissolved Metals by ICPMS										
Dissolved Aluminum (AI)	ug/L	15.7	0.50	8861191	15.3	0.50	8861191	11.0	0.50	8861191
Dissolved Antimony (Sb)	ug/L	0.081	0.020	8861191	0.082	0.020	8861191	0.092	0.020	8861191
Dissolved Arsenic (As)	ug/L	0.298	0.020	8861191	0.297	0.020	8861191	0.908	0.020	8861191
Dissolved Barium (Ba)	ug/L	91.4	0.020	8861191	90.0	0.020	8861191	71.7	0.020	8861191
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8861191	<0.010	0.010	8861191	<0.010	0.010	8861191
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8861191	<0.0050	0.0050	8861191	<0.0050	0.0050	8861191
Dissolved Boron (B)	ug/L	<10	10	8861191	<10	10	8861191	<10	10	8861191
Dissolved Cadmium (Cd)	ug/L	0.0097	0.0050	8861191	0.0115	0.0050	8861191	0.0087	0.0050	8861191
Dissolved Chromium (Cr)	ug/L	0.12	0.10	8861191	0.12	0.10	8861191	0.10	0.10	8861191
Dissolved Cobalt (Co)	ug/L	0.0508	0.0050	8861191	0.0524	0.0050	8861191	0.0210	0.0050	8861191
Dissolved Copper (Cu)	ug/L	1.03	0.050	8861191	1.00	0.050	8861191	0.948	0.050	8861191
Dissolved Iron (Fe)	ug/L	19.5	1.0	8861191	19.4	1.0	8861191	4.3	1.0	8861191
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8861191	<0.0050	0.0050	8861191	<0.0050	0.0050	8861191
Dissolved Lithium (Li)	ug/L	1.99	0.50	8861191	1.98	0.50	8861191	2.39	0.50	8861191
Dissolved Manganese (Mn)	ug/L	22.8	0.050	8861191	22.9	0.050	8861191	10.3	0.050	8861191
Dissolved Molybdenum (Mo)	ug/L	0.521	0.050	8861191	0.593	0.050	8861191	0.395	0.050	8861191
Dissolved Nickel (Ni)	ug/L	0.662	0.020	8861191	0.650	0.020	8861191	0.444	0.020	8861191
Dissolved Phosphorus (P)	ug/L	4.2	2.0	8861191	2.6	2.0	8861191	2.9	2.0	8861191
Dissolved Selenium (Se)	ug/L	0.085	0.040	8861191	0.098	0.040	8861191	0.163	0.040	8861191
Dissolved Silicon (Si)	ug/L	6150	50	8861191	6220	50	8861191	4990	50	8861191
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8861191	<0.0050	0.0050	8861191	<0.0050	0.0050	8861191
Dissolved Strontium (Sr)	ug/L	286	0.050	8861191	285	0.050	8861191	755	0.050	8861191
Dissolved Thallium (TI)	ug/L	0.0025	0.0020	8861191	0.0025	0.0020	8861191	0.0047	0.0020	8861191
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8861191	<0.20	0.20	8861191	<0.20	0.20	8861191
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8861191	<0.50	0.50	8861191	<0.50	0.50	8861191
Dissolved Uranium (U)	ug/L	24.6	0.0020	8861191	24.8	0.0020	8861191	29.1	0.0020	8861191
RDL = Reportable Detection Lin	nit									
Lab-Dup = Laboratory Initiated	Duplica	ite								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SQ9365			SQ9365			SQ9366		
Sampling Date		2017/12/09			2017/12/09			2017/12/09		
Sampling Bate		13:10			13:10			14:20		
COC Number		542329-01-01			542329-01-01			542329-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.20	8861191	<0.20	0.20	8861191	0.20	0.20	8861191
Dissolved Zinc (Zn)	ug/L	0.40	0.10	8861191	0.46	0.10	8861191	0.52	0.10	8861191
Dissolved Zirconium (Zr)	ug/L	0.30	0.10	8861191	0.31	0.10	8861191	0.28	0.10	8861191
Dissolved Calcium (Ca)	mg/L	50.9	0.050	8860165				92.0	0.050	8860165
Dissolved Magnesium (Mg)	mg/L	15.4	0.050	8860165				28.1	0.050	8860165
Dissolved Potassium (K)	mg/L	1.85	0.050	8860165				5.15	0.050	8860165
Dissolved Sodium (Na)	mg/L	7.20	0.050	8860165				6.18	0.050	8860165
Dissolved Sulphur (S)	mg/L	31.4	3.0	8860165				62.0	3.0	8860165

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9367	SQ9368		SQ9369		SQ9370		
		2017/12/09	2017/12/09		2017/12/09		2017/12/09		
Sampling Date		13:25	12:20		14:55		13:40		
COC Number		542329-01-01	542329-01-01		542329-01-01		542329-01-01		
	UNITS	CC-3.5	CC-4.5	QC Batch	CC-A	QC Batch	СС-В	RDL	QC Batch
Calculated Parameters		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>
Dissolved Hardness (CaCO3)	mg/L	190	122	8859886	271	8859886	345	0.50	8859886
Elements									I.
Dissolved Mercury (Hg)	ug/L	0.0022	<0.0020	8861203	0.0024	8861203	<0.0020	0.0020	8861203
Dissolved Metals by ICPMS									I.
Dissolved Aluminum (Al)	ug/L	13.9	22.5	8861191	13.5	8861191	11.6	0.50	8861191
Dissolved Antimony (Sb)	ug/L	0.064	0.076	8861191	0.086	8861191	0.124	0.020	8861191
Dissolved Arsenic (As)	ug/L	0.223	0.246	8861191	0.359	8861191	0.545	0.020	8861191
Dissolved Barium (Ba)	ug/L	86.6	78.1	8861191	62.7	8861191	107	0.020	8861191
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	8861191	0.011	8861191	<0.010	0.010	8861191
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	8861191	<0.0050	8861191	<0.0050	0.0050	8861191
Dissolved Boron (B)	ug/L	<10	<10	8861191	<10	8861191	<10	10	8861191
Dissolved Cadmium (Cd)	ug/L	0.0054	0.0080	8861191	0.0240	8865597	0.0089	0.0050	8861191
Dissolved Chromium (Cr)	ug/L	<0.10	0.14	8861191	<0.10	8861191	0.11	0.10	8861191
Dissolved Cobalt (Co)	ug/L	0.0239	0.0266	8861191	0.0474	8861191	0.0215	0.0050	8861191
Dissolved Copper (Cu)	ug/L	0.769	1.13	8861191	1.31	8861191	1.01	0.050	8861191
Dissolved Iron (Fe)	ug/L	5.0	8.3	8861191	15.9	8861191	5.6	1.0	8861191
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	8861191	<0.0050	8861191	<0.0050	0.0050	8861191
Dissolved Lithium (Li)	ug/L	0.63	<0.50	8861191	2.57	8861191	1.51	0.50	8861191
Dissolved Manganese (Mn)	ug/L	0.287	2.10	8861191	24.3	8861191	0.650	0.050	8861191
Dissolved Molybdenum (Mo)	ug/L	0.238	0.578	8861191	0.176	8861191	0.543	0.050	8861191
Dissolved Nickel (Ni)	ug/L	0.452	0.624	8861191	0.376	8861191	0.354	0.020	8861191
Dissolved Phosphorus (P)	ug/L	<2.0	3.5	8861191	5.3	8861191	4.1	2.0	8861191
Dissolved Selenium (Se)	ug/L	0.061	0.068	8861191	0.040	8861191	0.085	0.040	8861191
Dissolved Silicon (Si)	ug/L	4450	4500	8861191	5950	8861191	4920	50	8861191
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	8861191	<0.0050	8861191	<0.0050	0.0050	8861191
Dissolved Strontium (Sr)	ug/L	368	182	8861191	588	8861191	908	0.050	8861191
Dissolved Thallium (TI)	ug/L	<0.0020	<0.0020	8861191	0.0043	8861191	0.0020	0.0020	8861191
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	8861191	<0.20	8861191	<0.20	0.20	8861191
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	8861191	<0.50	8861191	<0.50	0.50	8861191
Dissolved Uranium (U)	ug/L	8.20	1.60	8861191	16.1	8861191	27.8	0.0020	8861191
Dissolved Vanadium (V)	ug/L	<0.20	0.22	8861191	<0.20	8861191	0.25	0.20	8861191
RDL = Reportable Detection Lir	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9367	SQ9368		SQ9369		SQ9370		
Sampling Date		2017/12/09	2017/12/09		2017/12/09		2017/12/09		
Sampling Date		13:25	12:20		14:55		13:40		
COC Number		542329-01-01	542329-01-01		542329-01-01		542329-01-01		
	UNITS	CC-3.5	CC-4.5	QC Batch	CC-A	QC Batch	СС-В	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.23	0.33	8861191	0.66	8861191	0.36	0.10	8861191
Dissolved Zirconium (Zr)	ug/L	0.27	0.28	8861191	0.23	8861191	0.29	0.10	8861191
Dissolved Calcium (Ca)	mg/L	53.4	31.3	8860165	77.2	8860165	92.4	0.050	8860165
Dissolved Magnesium (Mg)	mg/L	13.8	10.7	8860165	18.9	8860165	27.8	0.050	8860165
Dissolved Potassium (K)	mg/L	2.41	1.51	8860165	3.28	8860165	5.63	0.050	8860165
Dissolved Sodium (Na)	mg/L	3.95	4.23	8860165	6.88	8860165	5.31	0.050	8860165
Dissolved Sulphur (S)	mg/L	30.9	23.1	8860165	56.6	8860165	57.1	3.0	8860165
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9371	SQ9372	SQ9384	SQ9385	SQ9386		
Campling Data		2017/12/09	2017/12/10	2017/12/10	2017/12/10	2017/12/10		
Sampling Date		12:05	14:05	13:05	11:15	12:50		
COC Number		542329-01-01	542329-01-01	542329-02-01	542329-02-01	542329-02-01		
	UNITS	сс-х	HC-2.5	IC-4.5	YUK-2.0	YUK-5.0	RDL	QC Batch
Calculated Parameters	•			-			•	
Dissolved Hardness (CaCO3)	mg/L	119	171	90.6	106	113	0.50	8859886
Elements								
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	0.0027	<0.0020	<0.0020	0.0020	8861203
Dissolved Metals by ICPMS							ı	
Dissolved Aluminum (AI)	ug/L	29.1	12.7	32.9	3.65	1.08	0.50	8861191
Dissolved Antimony (Sb)	ug/L	0.079	0.480	0.086	0.103	0.098	0.020	8861191
Dissolved Arsenic (As)	ug/L	0.238	0.656	0.277	0.378	0.168	0.020	8861191
Dissolved Barium (Ba)	ug/L	76.9	57.7	52.7	49.4	85.2	0.020	8861191
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	0.010	<0.010	<0.010	0.010	8861191
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8861191
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	10	8861191
Dissolved Cadmium (Cd)	ug/L	0.0125	0.0059	0.0141	0.0780	0.0231	0.0050	8861191
Dissolved Chromium (Cr)	ug/L	0.14	0.12	0.18	0.10	<0.10	0.10	8861191
Dissolved Cobalt (Co)	ug/L	0.0263	0.0252	0.0255	0.0091	0.0114	0.0050	8861191
Dissolved Copper (Cu)	ug/L	1.21	0.828	1.26	0.909	0.382	0.050	8861191
Dissolved Iron (Fe)	ug/L	8.4	5.2	9.2	4.7	3.1	1.0	8861191
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	0.0126	<0.0050	0.0050	8861191
Dissolved Lithium (Li)	ug/L	<0.50	1.31	0.70	1.66	1.29	0.50	8861191
Dissolved Manganese (Mn)	ug/L	0.879	14.4	0.284	1.62	4.66	0.050	8861191
Dissolved Molybdenum (Mo)	ug/L	0.617	1.60	0.282	1.28	1.27	0.050	8861191
Dissolved Nickel (Ni)	ug/L	0.618	0.367	0.794	1.34	0.294	0.020	8861191
Dissolved Phosphorus (P)	ug/L	3.5	3.2	4.6	26.6	<2.0	2.0	8861191
Dissolved Selenium (Se)	ug/L	0.061	0.064	0.077	0.359	0.368	0.040	8861191
Dissolved Silicon (Si)	ug/L	4300	5310	4500	2870	2650	50	8861191
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8861191
Dissolved Strontium (Sr)	ug/L	174	455	132	147	154	0.050	8861191
Dissolved Thallium (TI)	ug/L	0.0022	<0.0020	0.0021	0.0022	<0.0020	0.0020	8861191
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8861191
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8861191
Dissolved Uranium (U)	ug/L	1.02	58.5	0.410	1.13	1.37	0.0020	8861191
Dissolved Vanadium (V)	ug/L	<0.20	0.24	<0.20	<0.20	<0.20	0.20	8861191
RDL = Reportable Detection Lin	mit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9371	SQ9372	SQ9384	SQ9385	SQ9386		
Sampling Date		2017/12/09	2017/12/10	2017/12/10	2017/12/10	2017/12/10		
Sampling Date		12:05	14:05	13:05	11:15	12:50		
COC Number		542329-01-01	542329-01-01	542329-02-01	542329-02-01	542329-02-01		
	UNITS	сс-х	HC-2.5	IC-4.5	YUK-2.0	YUK-5.0	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	1.03	0.24	0.72	7.19	1.22	0.10	8861191
Dissolved Zirconium (Zr)	ug/L	0.27	0.25	0.41	<0.10	<0.10	0.10	8861191
Dissolved Calcium (Ca)	mg/L	30.7	41.3	23.9	29.2	31.3	0.050	8860165
Dissolved Magnesium (Mg)	mg/L	10.4	16.6	7.49	8.13	8.50	0.050	8860165
Dissolved Potassium (K)	mg/L	1.44	2.59	1.21	0.876	0.854	0.050	8860165
Dissolved Sodium (Na)	mg/L	4.26	3.78	3.53	2.39	2.13	0.050	8860165
Dissolved Sulphur (S)	mg/L	22.3	19.8	15.3	10.7	9.2	3.0	8860165
RDL = Reportable Detection Lir	nit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SQ9387	SQ9388	SQ9389	SQ9390		
Sampling Date		2017/12/09	2017/12/11	2017/12/11	2017/12/11		
		11:35	12:05	11:00	11:50		
COC Number		542329-02-01	542329-02-01	542329-02-01	542329-03-01		
	UNITS	BALLARAT U/S Y.R.	BARKER U/S S.R.	BLACKHILLS U/S S.R.	STEWART D/S M.M.	RDL	QC Batch
Calculated Parameters							
Dissolved Hardness (CaCO3)	mg/L	310	245	236	210	0.50	8859886
Elements			•				
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8861203
Dissolved Metals by ICPMS			•				
Dissolved Aluminum (AI)	ug/L	6.11	12.6	13.6	4.84	0.50	8861191
Dissolved Antimony (Sb)	ug/L	0.055	0.345	0.149 (1)	0.134	0.020	8861191
Dissolved Arsenic (As)	ug/L	0.193	1.00	1.34	0.250	0.020	8861191
Dissolved Barium (Ba)	ug/L	85.3	142	186	82.4	0.020	8861191
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	0.028	<0.010	0.010	8861191
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8861191
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	10	8861191
Dissolved Cadmium (Cd)	ug/L	0.119 (1)	0.0536	0.0155	0.128	0.0050	8861191
Dissolved Chromium (Cr)	ug/L	0.32	0.25	1.24 (1)	<0.10	0.10	8861191
Dissolved Cobalt (Co)	ug/L	0.0262	0.561	0.727	0.0210	0.0050	8861191
Dissolved Copper (Cu)	ug/L	1.61	2.81	0.528	0.385	0.050	8861191
Dissolved Iron (Fe)	ug/L	7.0	268	2910	3.5	1.0	8861191
Dissolved Lead (Pb)	ug/L	0.0100	0.0080	0.0303	<0.0050	0.0050	8861191
Dissolved Lithium (Li)	ug/L	<0.50	1.22	2.10	3.79	0.50	8861191
Dissolved Manganese (Mn)	ug/L	0.959	146	760	7.48	0.050	8861191
Dissolved Molybdenum (Mo)	ug/L	0.807	0.999	0.441	0.631	0.050	8861191
Dissolved Nickel (Ni)	ug/L	0.394	3.84	2.15	3.15	0.020	8861191
Dissolved Phosphorus (P)	ug/L	25.7	9.5	40.8	2.0	2.0	8861191
Dissolved Selenium (Se)	ug/L	0.120	0.205	0.123	0.821	0.040	8861191
Dissolved Silicon (Si)	ug/L	4440	5080	7460	2680	50	8861191
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8861191
Dissolved Strontium (Sr)	ug/L	607	386	306	274	0.050	8861191
Dissolved Thallium (TI)	ug/L	<0.0020	0.0081	<0.0020	0.0028	0.0020	8861191
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8861191
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	1.12	<0.50	0.50	8861191
Dissolved Uranium (U)	ug/L	4.83	5.57	0.809	1.27	0.0020	8861191
RDL = Reportable Detection Lir	mit						

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SQ9387	SQ9388	SQ9389	SQ9390		
Sampling Date		2017/12/09	2017/12/11	2017/12/11	2017/12/11		
Sampling Date		11:35	12:05	11:00	11:50		
COC Number		542329-02-01	542329-02-01	542329-02-01	542329-03-01		
	UNITS	BALLARAT U/S	BARKER U/S	BLACKHILLS U/S	STEWART D/S	RDL	QC Batch
	ONITS	Y.R.	S.R.	S.R.	M.M.	KDL	QC Battii
Dissolved Vanadium (V)	ug/L	0.28	0.44	1.20	<0.20	0.20	8861191
Dissolved Zinc (Zn)	ug/L	9.11	1.57	1.91 (1)	9.47	0.10	8861191
Dissolved Zirconium (Zr)	ug/L	0.17	0.38	0.64	<0.10	0.10	8861191
Dissolved Calcium (Ca)	mg/L	73.6	61.5	65.1	54.2	0.050	8860165
Dissolved Magnesium (Mg)	mg/L	30.8	22.1	17.7	18.2	0.050	8860165
Dissolved Potassium (K)	mg/L	3.04	2.10	2.16	0.709	0.050	8860165
Dissolved Sodium (Na)	mg/L	9.21	9.67	6.51	2.49	0.050	8860165
Dissolved Sulphur (S)	mg/L	56.9	33.9	24.1	31.2	3.0	8860165

RDL = Reportable Detection Limit

<sup>(1)</sup> Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SQ9391	SQ9392	SQ9393	SQ9394			SQ9394		
Sampling Date		2017/12/09			2017/12/09			2017/12/09		
Janipinig Date		12:45			20:00			20:00		
COC Number		542329-03-01	542329-03-01	542329-03-01	542329-03-01			542329-03-01		
	UNITS	LATTE MIX	SAMPLE A	SAMPLE B	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	207	121	242	<0.50	0.50	8859886			
Elements										
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8861203	<0.0020	0.0020	8861203
Dissolved Metals by ICPMS			1	·						
Dissolved Aluminum (AI)	ug/L	11.9	22.7	11.8	<0.50	0.50	8861191			
Dissolved Antimony (Sb)	ug/L	0.071	0.077	0.407	<0.020	0.020	8861191			
Dissolved Arsenic (As)	ug/L	0.307	0.244	1.04	<0.020	0.020	8861191			
Dissolved Barium (Ba)	ug/L	92.8	76.1	142	<0.020	0.020	8861191			
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	8861191			
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8861191			
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	10	8861191			
Dissolved Cadmium (Cd)	ug/L	0.0057	0.0107	0.0580	<0.0050	0.0050	8861191			
Dissolved Chromium (Cr)	ug/L	0.10	0.15	0.21	<0.10	0.10	8861191			
Dissolved Cobalt (Co)	ug/L	0.0422	0.0297	0.596	<0.0050	0.0050	8861191			
Dissolved Copper (Cu)	ug/L	0.826	1.18	3.18	<0.050	0.050	8861191			
Dissolved Iron (Fe)	ug/L	21.0	8.0	219	<1.0	1.0	8861191			
Dissolved Lead (Pb)	ug/L	<0.0050	0.0087	<0.0050	<0.0050	0.0050	8861191			
Dissolved Lithium (Li)	ug/L	1.32	<0.50	1.18	<0.50	0.50	8861191			
Dissolved Manganese (Mn)	ug/L	15.5	2.17	135	<0.050	0.050	8861191			
Dissolved Molybdenum (Mo)	ug/L	0.541	0.574	1.08	<0.050	0.050	8861191			
Dissolved Nickel (Ni)	ug/L	0.535	0.576	4.14	<0.020	0.020	8861191			
Dissolved Phosphorus (P)	ug/L	2.5	5.6	8.8	<2.0	2.0	8861191			
Dissolved Selenium (Se)	ug/L	0.111	0.065	0.242	<0.040	0.040	8861191			
Dissolved Silicon (Si)	ug/L	5170	4290	5190	<50	50	8861191			
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8861191			
Dissolved Strontium (Sr)	ug/L	333	176	380	<0.050	0.050	8861191			
Dissolved Thallium (TI)	ug/L	0.0024	<0.0020	0.0076	<0.0020	0.0020	8861191			
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8861191			
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	8861191			
Dissolved Uranium (U)	ug/L	19.7	1.52	5.72	<0.0020	0.0020	8861191			
RDL = Reportable Detection Li	mit					_			_	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SQ9391	SQ9392	SQ9393	SQ9394			SQ9394		
Sampling Date		2017/12/09 12:45			2017/12/09 20:00			2017/12/09 20:00		
COC Number		542329-03-01	542329-03-01	542329-03-01	542329-03-01			542329-03-01		
	UNITS	LATTE MIX	SAMPLE A	SAMPLE B	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.20	0.36	<0.20	0.20	8861191			
Dissolved Zinc (Zn)	ug/L	0.27	0.91 (1)	1.29	<0.10	0.10	8861191			
Dissolved Zirconium (Zr)	ug/L	0.25	0.26	0.40	<0.10	0.10	8861191			
Dissolved Calcium (Ca)	mg/L	56.7	30.7	60.8	<0.050	0.050	8860165			
Dissolved Magnesium (Mg)	mg/L	15.8	10.7	22.0	<0.050	0.050	8860165			
Dissolved Potassium (K)	mg/L	2.18	1.52	2.01	<0.050	0.050	8860165			
Dissolved Sodium (Na)	mg/L	5.82	4.35	9.52	<0.050	0.050	8860165			
Dissolved Sulphur (S)	mg/L	28.9	21.3	35.0	<3.0	3.0	8860165			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9395		
Sampling Date		2017/12/11		
		16:40		
COC Number		542329-03-01		
	UNITS	TRIP BLANK	RDL	QC Batch
Calculated Parameters				
Dissolved Hardness (CaCO3)	mg/L	<0.50	0.50	8859886
Elements				
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	8861203
Dissolved Metals by ICPMS				
Dissolved Aluminum (AI)	ug/L	<0.50	0.50	8861191
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	8861191
Dissolved Arsenic (As)	ug/L	<0.020	0.020	8861191
Dissolved Barium (Ba)	ug/L	<0.020	0.020	8861191
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8861191
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8861191
Dissolved Boron (B)	ug/L	<10	10	8861191
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	8861191
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	8861191
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	8861191
Dissolved Copper (Cu)	ug/L	<0.050	0.050	8861191
Dissolved Iron (Fe)	ug/L	<1.0	1.0	8861191
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8861191
Dissolved Lithium (Li)	ug/L	<0.50	0.50	8861191
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	8861191
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	8861191
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	8861191
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	8861191
Dissolved Selenium (Se)	ug/L	<0.040	0.040	8861191
Dissolved Silicon (Si)	ug/L	<50	50	8861191
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8861191
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	8861191
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	8861191
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8861191
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8861191
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	8861191
Dissolved Vanadium (V)	ug/L	<0.20	0.20	8861191
RDL = Reportable Detection Li	mit			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SQ9395		
Sampling Date		2017/12/11 16:40		
COC Number		542329-03-01		
	UNITS	TRIP BLANK	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	8861191
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	8861191
Dissolved Calcium (Ca)	mg/L	<0.050	0.050	8860165
Dissolved Magnesium (Mg)	mg/L	<0.050	0.050	8860165
Dissolved Potassium (K)	mg/L	<0.050	0.050	8860165
Dissolved Sodium (Na)	mg/L	<0.050	0.050	8860165
Dissolved Sulphur (S)	mg/L	<3.0	3.0	8860165
RDL = Reportable Detection L	imit			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SQ9365	SQ9366	SQ9367	SQ9369	SQ9370	SQ9371				
Sampling Date		2017/12/09	2017/12/09	2017/12/09	2017/12/09	2017/12/09	2017/12/09				
		13:10	14:20	13:25	14:55	13:40	12:05				
COC Number		542329-01-01	542329-01-01	542329-01-01	542329-01-01	542329-01-01	542329-01-01				
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-A	СС-В	CC-X	RDL	QC Batch		
Calculated Parameters											
Total Hardness (CaCO3)	mg/L	198	359	185	271	336	121	0.50	8859784		
Elements	•										
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	0.0020	8861293		
Total Metals by ICPMS											
Total Aluminum (Al)	ug/L	17.0	35.5	17.0	41.9	54.0	92.5	0.50	8861331		
Total Antimony (Sb)	ug/L	0.083	0.097	0.071	0.105	0.135	0.077	0.020	8861331		
Total Arsenic (As)	ug/L	0.270	1.01	0.266	0.438	0.625	0.291	0.020	8861331		
Total Barium (Ba)	ug/L	89.5	76.4	88.5	62.8	109	77.3	0.020	8861331		
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8861331		
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8861331		
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	8861331		
Total Cadmium (Cd)	ug/L	0.0090	0.0110	0.0050	0.0170	0.0090	0.0150	0.0050	8861331		
Total Chromium (Cr)	ug/L	0.11	0.16	0.13	0.36	0.16	0.28	0.10	8861331		
Total Cobalt (Co)	ug/L	0.0490	0.0380	0.0230	0.0650	0.0320	0.0890	0.0050	8861331		
Total Copper (Cu)	ug/L	1.02	1.07	0.836	1.50	0.958	1.38	0.050	8861331		
Total Iron (Fe)	ug/L	24.1	42.6	6.9	61.0	87.0	108	1.0	8861331		
Total Lead (Pb)	ug/L	0.0110	0.0370	0.0100	0.0800	0.0280	0.0590	0.0050	8861331		
Total Lithium (Li)	ug/L	2.02	2.48	0.64	2.67	1.60	<0.50	0.50	8861331		
Total Manganese (Mn)	ug/L	21.5	16.8	0.400	24.3	2.44	8.05	0.050	8861331		
Total Molybdenum (Mo)	ug/L	0.544	0.389	0.230	0.171	0.536	0.593	0.050	8861331		
Total Nickel (Ni)	ug/L	0.661	0.434	0.461	0.370	0.370	0.638	0.020	8861331		
Total Phosphorus (P)	ug/L	<2.0	6.6	7.2	10.0	5.5	6.2	2.0	8861331		
Total Selenium (Se)	ug/L	0.095	0.159	0.044	<0.040	0.105	0.054	0.040	8861331		
Total Silicon (Si)	ug/L	6500	5230	4640	6200	5750	4820	50	8861331		
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8861331		
Total Strontium (Sr)	ug/L	263	712	347	539	830	156	0.050	8861331		
Total Thallium (TI)	ug/L	0.0020	0.0040	<0.0020	0.0050	0.0020	0.0030	0.0020	8861331		
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8861331		
Total Titanium (Ti)	ug/L	<0.50	2.11	<0.50	2.46	2.05	3.75	0.50	8861331		
Total Uranium (U)	ug/L	23.8	29.8	7.84	15.2	27.0	1.12	0.0020	8861331		
Total Vanadium (V)	ug/L	0.23	0.31	0.21	<0.20	0.38	0.44	0.20	8861331		
RDL = Reportable Detection L	imit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SQ9365	SQ9366	SQ9367	SQ9369	SQ9370	SQ9371		
Sampling Date		2017/12/09	2017/12/09	2017/12/09	2017/12/09	2017/12/09	2017/12/09		
Sampling Date		13:10	14:20	13:25	14:55	13:40	12:05		
COC Number		542329-01-01	542329-01-01	542329-01-01	542329-01-01	542329-01-01	542329-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-A	СС-В	сс-х	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.37	0.76	0.44	1.72	0.71	2.35	0.10	8861331
Total Zirconium (Zr)	ug/L	0.26	0.22	0.22	0.18	0.24	0.20	0.10	8861331
Total Calcium (Ca)	mg/L	52.8	94.0	49.5	75.8	87.8	30.7	0.050	8860648
Total Magnesium (Mg)	mg/L	16.0	30.3	14.9	19.9	28.3	10.9	0.050	8860648
Total Potassium (K)	mg/L	1.79	5.08	2.42	3.17	5.25	1.42	0.050	8860648
Total Sodium (Na)	mg/L	7.23	6.65	4.32	7.12	5.31	4.56	0.050	8860648
Total Sulphur (S)	mg/L	31.9	63.8	31.5	57.8	61.9	23.6	3.0	8860648
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SQ9372	SQ9386	SQ9387	SQ9390	SQ9391				
Sampling Date		2017/12/10	2017/12/10	2017/12/09	2017/12/11	2017/12/09				
Sampling Date		14:05	12:50	11:35	11:50	12:45				
COC Number		542329-01-01	542329-02-01	542329-02-01	542329-03-01	542329-03-01				
	UNITS	HC-2.5	YUK-5.0	BALLARAT U/S Y.R.	STEWART D/S M.M.	LATTE MIX	RDL	QC Batch		
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	174	116	331	216	203	0.50	8859784		
Elements			1		•	1		l .		
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8861293		
Total Metals by ICPMS			1		•	1		l .		
Total Aluminum (Al)	ug/L	20.2	8.58	33.4	65.7	12.7	0.50	8861331		
Total Antimony (Sb)	ug/L	0.471	0.089	0.121	0.168	0.074	0.020	8861331		
Total Arsenic (As)	ug/L	0.607	0.174	0.230	0.466	0.286	0.020	8861331		
Total Barium (Ba)	ug/L	56.7	79.1	89.6	89.7	90.7	0.020	8861331		
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8861331		
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0090	<0.0050	<0.0050	0.0050	8861331		
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	10	8861331		
Total Cadmium (Cd)	ug/L	<0.0050	0.0240	0.0310	0.171	0.0070	0.0050	8861331		
Total Chromium (Cr)	ug/L	0.13	<0.10	0.51	0.19	0.11	0.10	8861331		
Total Cobalt (Co)	ug/L	0.0290	0.0220	0.0600	0.129	0.0400	0.0050	8861331		
Total Copper (Cu)	ug/L	0.850	0.557	2.02	0.874	0.803	0.050	8861331		
Total Iron (Fe)	ug/L	15.5	22.2	54.7	154	24.9	1.0	8861331		
Total Lead (Pb)	ug/L	0.0050	0.0240	0.218	0.175	<0.0050	0.0050	8861331		
Total Lithium (Li)	ug/L	1.31	1.21	<0.50	3.83	1.31	0.50	8861331		
Total Manganese (Mn)	ug/L	17.3	5.32	12.5	17.7	15.2	0.050	8861331		
Total Molybdenum (Mo)	ug/L	1.52	1.16	0.777	0.611	0.496	0.050	8861331		
Total Nickel (Ni)	ug/L	0.319	0.282	0.505	3.54	0.499	0.020	8861331		
Total Phosphorus (P)	ug/L	4.4	4.7	28.4	29.6	3.6	2.0	8861331		
Total Selenium (Se)	ug/L	0.069	0.429	0.159	0.865	0.119	0.040	8861331		
Total Silicon (Si)	ug/L	6070	2510	4710	3240	5430	50	8861331		
Total Silver (Ag)	ug/L	<0.0050	<0.0050	0.0080	0.0050	<0.0050	0.0050	8861331		
Total Strontium (Sr)	ug/L	416	145	598	257	309	0.050	8861331		
Total Thallium (TI)	ug/L	0.0020	<0.0020	<0.0020	0.0040	<0.0020	0.0020	8861331		
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8861331		
Total Titanium (Ti)	ug/L	0.60	0.82	1.44	4.20	<0.50	0.50	8861331		
Total Uranium (U)	ug/L	53.0	1.26	4.82	1.20	18.4	0.0020	8861331		
Total Vanadium (V)	ug/L	0.26	<0.20	0.39	0.27	0.21	0.20	8861331		
RDL = Reportable Detection I	imit		-				•			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SQ9372	SQ9386	SQ9387	SQ9390	SQ9391		
Sampling Date		2017/12/10	2017/12/10	2017/12/09	2017/12/11	2017/12/09		
, b		14:05	12:50	11:35	11:50	12:45		
COC Number		542329-01-01	542329-02-01	542329-02-01	542329-03-01	542329-03-01		
	UNITS	HC-2.5	YUK-5.0	BALLARAT U/S Y.R.	STEWART D/S M.M.	LATTE MIX	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.19	1.42	11.1	14.7	0.23	0.10	8861331
Total Zirconium (Zr)	ug/L	0.21	<0.10	0.15	<0.10	0.23	0.10	8861331
Total Calcium (Ca)	mg/L	42.3	31.6	77.1	55.9	53.8	0.050	8860648
Total Magnesium (Mg)	mg/L	16.6	8.97	33.7	18.6	16.5	0.050	8860648
Total Potassium (K)	mg/L	2.51	0.845	3.12	0.733	2.14	0.050	8860648
Total Sodium (Na)	mg/L	3.90	2.31	10.0	2.82	6.01	0.050	8860648
Total Sulphur (S)	mg/L	20.1	9.8	61.9	32.4	30.8	3.0	8860648
RDL = Reportable Detection	n Limit	•				•		



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SQ9392	SQ9394	SQ9395			SQ9395		
		303332	2017/12/09	2017/12/11			2017/12/11		
Sampling Date			20:00	16:40			16:40		
COC Number		542329-03-01	542329-03-01	542329-03-01			542329-03-01		
	UNITS	SAMPLE A	FIELD BLANK	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	120	<0.50	<0.50	0.50	8859784			
Elements				•	•		•	•	
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	0.0020	8861293	<0.0020	0.0020	8861293
Total Metals by ICPMS	•				•			•	
Total Aluminum (Al)	ug/L	27.2	0.77	<0.50	0.50	8861331			
Total Antimony (Sb)	ug/L	0.079	<0.020	<0.020	0.020	8861331			
Total Arsenic (As)	ug/L	0.246	<0.020	<0.020	0.020	8861331			
Total Barium (Ba)	ug/L	78.5	<0.020	<0.020	0.020	8861331			
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	0.010	8861331			
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	8861331			
Total Boron (B)	ug/L	<10	<10	<10	10	8861331			
Total Cadmium (Cd)	ug/L	0.0070	<0.0050	<0.0050	0.0050	8861331			
Total Chromium (Cr)	ug/L	0.14	<0.10	<0.10	0.10	8861331			
Total Cobalt (Co)	ug/L	0.0320	0.0050	<0.0050	0.0050	8861331			
Total Copper (Cu)	ug/L	1.15	<0.050	<0.050	0.050	8861331			
Total Iron (Fe)	ug/L	13.5	1.2	<1.0	1.0	8861331			
Total Lead (Pb)	ug/L	0.0060	0.0050	<0.0050	0.0050	8861331			
Total Lithium (Li)	ug/L	<0.50	<0.50	<0.50	0.50	8861331			
Total Manganese (Mn)	ug/L	2.73	<0.050	0.076	0.050	8861331			
Total Molybdenum (Mo)	ug/L	0.558	<0.050	<0.050	0.050	8861331			
Total Nickel (Ni)	ug/L	0.598	0.036	<0.020	0.020	8861331			
Total Phosphorus (P)	ug/L	2.5	<2.0	3.5	2.0	8861331			
Total Selenium (Se)	ug/L	0.074	<0.040	<0.040	0.040	8861331			
Total Silicon (Si)	ug/L	4700	<50	<50	50	8861331			
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	8861331			
Total Strontium (Sr)	ug/L	173	0.056	0.060	0.050	8861331			
Total Thallium (TI)	ug/L	0.0020	<0.0020	<0.0020	0.0020	8861331			
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	8861331			
Total Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	0.50	8861331			
Total Uranium (U)	ug/L	1.50	0.0020	<0.0020	0.0020	8861331			
RDL = Reportable Detection	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SQ9392	SQ9394	SQ9395			SQ9395		
Sampling Date			2017/12/09 20:00	2017/12/11 16:40			2017/12/11 16:40		
COC Number		542329-03-01	542329-03-01	542329-03-01			542329-03-01		
	UNITS	SAMPLE A	FIELD BLANK	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Total Vanadium (V)	ug/L	0.24	<0.20	<0.20	0.20	8861331			
Total Zinc (Zn)	ug/L	0.43	0.13	<0.10	0.10	8861331			
Total Zirconium (Zr)	ug/L	0.22	<0.10	<0.10	0.10	8861331			
Total Calcium (Ca)	mg/L	29.8	<0.050	<0.050	0.050	8860648			
Total Magnesium (Mg)	mg/L	11.1	<0.050	<0.050	0.050	8860648			
Total Potassium (K)	mg/L	1.46	<0.050	<0.050	0.050	8860648			
Total Sodium (Na)	mg/L	4.68	<0.050	<0.050	0.050	8860648			
Total Sulphur (S)	mg/L	23.9	<3.0	<3.0	3.0	8860648			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SQ9368			SQ9368			SQ9384		
Committee Date		2017/12/09			2017/12/09			2017/12/10		
Sampling Date		12:20			12:20			13:05		
COC Number		542329-01-01			542329-01-01			542329-02-01		
	UNITS	CC-4.5	RDL	QC Batch	CC-4.5 Lab-Dup	RDL	QC Batch	IC-4.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	126	0.50	8859784				93.9	0.50	8859784
Elements										
Total Mercury (Hg)	ug/L	0.0021	0.0020	8861293				<0.0020	0.0020	8861293
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	34.3	3.0	8861387	38.9	3.0	8861387	62.8	3.0	8861387
Total Antimony (Sb)	ug/L	0.094	0.020	8861387	0.085	0.020	8861387	0.098	0.020	8861387
Total Arsenic (As)	ug/L	0.234	0.020	8861387	0.252	0.020	8861387	0.305	0.020	8861387
Total Barium (Ba)	ug/L	78.4	0.050	8861387	75.4	0.050	8861387	55.4	0.050	8861387
Total Beryllium (Be)	ug/L	0.011	0.010	8861387	0.013	0.010	8861387	0.017	0.010	8861387
Total Bismuth (Bi)	ug/L	<0.010	0.010	8861387	<0.010	0.010	8861387	<0.010	0.010	8861387
Total Boron (B)	ug/L	<10	10	8861387	<10	10	8861387	<10	10	8861387
Total Cadmium (Cd)	ug/L	0.0180	0.0050	8861387	0.0170	0.0050	8861387	0.0220	0.0050	8861387
Total Chromium (Cr)	ug/L	0.19	0.10	8861387	0.20	0.10	8861387	0.25	0.10	8861387
Total Cobalt (Co)	ug/L	0.036	0.010	8861387	0.034	0.010	8861387	0.049	0.010	8861387
Total Copper (Cu)	ug/L	1.29 (1)	0.10	8861387	1.78 (2)	0.10	8861387	1.52	0.10	8861387
Total Iron (Fe)	ug/L	21.7	5.0	8861387	27.0	5.0	8861387	44.2	5.0	8861387
Total Lead (Pb)	ug/L	0.022	0.020	8861387	0.033	0.020	8861387	0.038	0.020	8861387
Total Lithium (Li)	ug/L	0.51	0.50	8861387	<0.50	0.50	8861387	0.82	0.50	8861387
Total Manganese (Mn)	ug/L	3.24	0.10	8861387	3.26	0.10	8861387	2.62	0.10	8861387
Total Molybdenum (Mo)	ug/L	0.595	0.050	8861387	0.571	0.050	8861387	0.288	0.050	8861387
Total Nickel (Ni)	ug/L	0.70	0.10	8861387	0.74	0.10	8861387	0.96	0.10	8861387
Total Phosphorus (P)	ug/L	9.0	5.0	8861387	5.9	5.0	8861387	7.8	5.0	8861387
Total Selenium (Se)	ug/L	0.068	0.040	8861387	0.059	0.040	8861387	0.085	0.040	8861387
Total Silicon (Si)	ug/L	4920	50	8861387	5050	50	8861387	5200	50	8861387
Total Silver (Ag)	ug/L	<0.010	0.010	8861387	<0.010	0.010	8861387	<0.010	0.010	8861387
Total Strontium (Sr)	ug/L	176	0.050	8861387	166	0.050	8861387	130	0.050	8861387
Total Thallium (TI)	ug/L	0.0030	0.0020	8861387	0.0030	0.0020	8861387	0.0040	0.0020	8861387
Total Tin (Sn)	ug/L	<0.20	0.20	8861387	<0.20	0.20	8861387	<0.20	0.20	8861387

RDL = Reportable Detection Limit

<sup>(1)</sup> Duplicate RPD for (Cu) above control limit - Reanalysis confirmed sample inhomogeneity.

<sup>(2)</sup> Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SQ9368			SQ9368			SQ9384		
Sampling Date		2017/12/09 12:20			2017/12/09 12:20			2017/12/10 13:05		
COC Number		542329-01-01			542329-01-01			542329-02-01		
	Lab-Dup		RDL	QC Batch	IC-4.5	RDL	QC Batch			
Total Titanium (Ti)	ug/L	<2.0	2.0	8861387	<2.0	2.0	8861387	<2.0	2.0	8861387
Total Uranium (U)	ug/L	1.77	0.0050	8861387	1.71	0.0050	8861387	0.501	0.0050	8861387
Total Vanadium (V)	ug/L	0.26	0.20	8861387	0.25	0.20	8861387	0.25	0.20	8861387
Total Zinc (Zn)	ug/L	<1.0	1.0	8861387	<1.0	1.0	8861387	1.2	1.0	8861387
Total Zirconium (Zr)	ug/L	0.24	0.10	8861387	0.24	0.10	8861387	0.35	0.10	8861387
Total Calcium (Ca)	mg/L	31.6	0.25	8860648				24.8	0.25	8860648
Total Magnesium (Mg)	mg/L	11.4	0.25	8860648				7.75	0.25	8860648
Total Potassium (K)	mg/L	1.45	0.25	8860648				1.18	0.25	8860648
Total Sodium (Na)	mg/L	4.42	0.25	8860648				3.56	0.25	8860648
Total Sulphur (S)	mg/L	25.2	3.0	8860648				16.8	3.0	8860648

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SQ9385	SQ9388	SQ9389	SQ9393		
Sampling Date		2017/12/10	2017/12/11	2017/12/11			
Jumphing Dute		11:15	12:05	11:00			
COC Number		542329-02-01	542329-02-01	542329-02-01	542329-03-01		
	UNITS	YUK-2.0	BARKER U/S	BLACKHILLS U/S	SAMPLE B	RDL	QC Batch
			S.R.	S.R.			
Calculated Parameters		1		I		T	
Total Hardness (CaCO3)	mg/L	108	242	229	244	0.50	8859784
Elements							•
Total Mercury (Hg)	ug/L	<0.0020	0.0021	<0.0020	<0.0020	0.0020	8861293
Total Metals by ICPMS							
Total Aluminum (AI)	ug/L	62.3	23.9	60.1	17.6	3.0	8861387
Total Antimony (Sb)	ug/L	0.132	0.384	0.085	0.390	0.020	8861387
Total Arsenic (As)	ug/L	0.435	1.24	2.15	1.30	0.020	8861387
Total Barium (Ba)	ug/L	52.4	146	183	141	0.050	8861387
Total Beryllium (Be)	ug/L	0.014	0.016	0.048	0.015	0.010	8861387
Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	8861387
Total Boron (B)	ug/L	<10	<10	<10	<10	10	8861387
Total Cadmium (Cd)	ug/L	0.115	0.105	0.0230	0.0960	0.0050	8861387
Total Chromium (Cr)	ug/L	0.35	0.24	0.91	0.24	0.10	8861387
Total Cobalt (Co)	ug/L	0.082	0.518	0.859	0.587	0.010	8861387
Total Copper (Cu)	ug/L	1.32	3.97	0.82	3.98	0.10	8861387
Total Iron (Fe)	ug/L	134	415	5510	412	5.0	8861387
Total Lead (Pb)	ug/L	0.184	0.041	0.104	0.029	0.020	8861387
Total Lithium (Li)	ug/L	1.90	1.34	2.16	1.25	0.50	8861387
Total Manganese (Mn)	ug/L	11.0	138	838	141	0.10	8861387
Total Molybdenum (Mo)	ug/L	1.28	1.05	0.475	1.07	0.050	8861387
Total Nickel (Ni)	ug/L	1.73	3.65	2.52	4.00	0.10	8861387
Total Phosphorus (P)	ug/L	40.7	16.1	59.5	16.2	5.0	8861387
Total Selenium (Se)	ug/L	0.405	0.231	0.151	0.244	0.040	8861387
Total Silicon (Si)	ug/L	3280	5590	12200	5890	50	8861387
Total Silver (Ag)	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	8861387
Total Strontium (Sr)	ug/L	142	360	284	371	0.050	8861387
Total Thallium (TI)	ug/L	0.0050	0.0100	0.0040	0.0100	0.0020	8861387
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8861387
Total Titanium (Ti)	ug/L	2.4	<2.0	4.3	<2.0	2.0	8861387
Total Uranium (U)	ug/L	1.19	6.08	0.862	5.93	0.0050	8861387
Total Vanadium (V)	ug/L	0.41	0.48	2.00	0.52	0.20	8861387
RDL = Reportable Detection		-			1		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SQ9385	SQ9388	SQ9389	SQ9393		
Sampling Date		2017/12/10	2017/12/11	2017/12/11			
Jamping Date		11:15	12:05	11:00			
COC Number		542329-02-01	542329-02-01	542329-02-01	542329-03-01		
	UNITS	YUK-2.0	BARKER U/S S.R.	BLACKHILLS U/S S.R.	SAMPLE B	RDL	QC Batch
Total Zinc (Zn)	ug/L	9.9	2.1	1.1	1.7	1.0	8861387
Total Zirconium (Zr)	ug/L	<0.10	0.36	0.73	0.39	0.10	8861387
Total Calcium (Ca)	mg/L	29.2	62.3	63.0	61.0	0.25	8860648
Total Magnesium (Mg)	mg/L	8.51	20.9	17.4	22.2	0.25	8860648
Total Potassium (K)	mg/L	0.86	1.89	1.94	1.96	0.25	8860648
Total Sodium (Na)	mg/L	2.90	9.25	6.31	9.53	0.25	8860648
Total Sulphur (S)	mg/L	24.7	35.1	25.2	36.2	3.0	8860648
RDL = Reportable Detection	n Limit						



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample SQ9365 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SQ9366 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SQ9367 [CC-3.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SQ9368 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SQ9369 [CC-A]: Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample SQ9370 [CC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SQ9371 [CC-X]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SQ9387 [BALLARAT U/S Y.R.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SQ9391 [LATTE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SQ9394 [FIELD BLANK]: Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample SQ9369, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8861191	Dissolved Aluminum (Al)	2017/12/15	105	80 - 120	105	80 - 120	<0.50	ug/L	2.6	20
8861191	Dissolved Antimony (Sb)	2017/12/15	104	80 - 120	102	80 - 120	<0.020	ug/L	1.4	20
8861191	Dissolved Arsenic (As)	2017/12/15	107	80 - 120	105	80 - 120	<0.020	ug/L	0.44	20
8861191	Dissolved Barium (Ba)	2017/12/15	NC	80 - 120	104	80 - 120	<0.020	ug/L	1.6	20
8861191	Dissolved Beryllium (Be)	2017/12/15	100	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8861191	Dissolved Bismuth (Bi)	2017/12/15	97	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
8861191	Dissolved Boron (B)	2017/12/15	101	80 - 120	104	80 - 120	<10	ug/L	NC	20
8861191	Dissolved Cadmium (Cd)	2017/12/15	103	80 - 120	102	80 - 120	< 0.0050	ug/L	17	20
8861191	Dissolved Chromium (Cr)	2017/12/15	99	80 - 120	101	80 - 120	<0.10	ug/L	1.3	20
8861191	Dissolved Cobalt (Co)	2017/12/15	99	80 - 120	102	80 - 120	< 0.0050	ug/L	3.1	20
8861191	Dissolved Copper (Cu)	2017/12/15	94	80 - 120	99	80 - 120	<0.050	ug/L	2.2	20
8861191	Dissolved Iron (Fe)	2017/12/15	99	80 - 120	100	80 - 120	<1.0	ug/L	0.46	20
8861191	Dissolved Lead (Pb)	2017/12/15	98	80 - 120	99	80 - 120	< 0.0050	ug/L	NC	20
8861191	Dissolved Lithium (Li)	2017/12/15	101	80 - 120	102	80 - 120	<0.50	ug/L	0.43	20
8861191	Dissolved Manganese (Mn)	2017/12/15	NC	80 - 120	104	80 - 120	<0.050	ug/L	0.27	20
8861191	Dissolved Molybdenum (Mo)	2017/12/15	113	80 - 120	107	80 - 120	<0.050	ug/L	13	20
8861191	Dissolved Nickel (Ni)	2017/12/15	98	80 - 120	103	80 - 120	<0.020	ug/L	1.7	20
8861191	Dissolved Phosphorus (P)	2017/12/15					<2.0	ug/L	NC	20
8861191	Dissolved Selenium (Se)	2017/12/15	102	80 - 120	103	80 - 120	<0.040	ug/L	14	20
8861191	Dissolved Silicon (Si)	2017/12/15					<50	ug/L	1.3	20
8861191	Dissolved Silver (Ag)	2017/12/15	106	80 - 120	108	80 - 120	< 0.0050	ug/L	NC	20
8861191	Dissolved Strontium (Sr)	2017/12/15	NC	80 - 120	102	80 - 120	<0.050	ug/L	0.66	20
8861191	Dissolved Thallium (TI)	2017/12/15	100	80 - 120	99	80 - 120	<0.0020	ug/L	0	20
8861191	Dissolved Tin (Sn)	2017/12/15	104	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
8861191	Dissolved Titanium (Ti)	2017/12/15	102	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
8861191	Dissolved Uranium (U)	2017/12/15	NC	80 - 120	99	80 - 120	< 0.0020	ug/L	0.70	20
8861191	Dissolved Vanadium (V)	2017/12/15	103	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
8861191	Dissolved Zinc (Zn)	2017/12/15	104	80 - 120	102	80 - 120	<0.10	ug/L	14	20
8861191	Dissolved Zirconium (Zr)	2017/12/15	105	80 - 120	101	80 - 120	<0.10	ug/L	0.85	20
8861203	Dissolved Mercury (Hg)	2017/12/13	94	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
8861207	Total Suspended Solids	2017/12/14			100	80 - 120	<1.0	mg/L		



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8861258	Total Suspended Solids	2017/12/14			102	80 - 120	<1.0	mg/L		
8861293	Total Mercury (Hg)	2017/12/13	96	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
8861331	Total Aluminum (AI)	2017/12/15	105	80 - 120	106	80 - 120	<0.50	ug/L		
8861331	Total Antimony (Sb)	2017/12/15	NC	80 - 120	102	80 - 120	<0.020	ug/L		
8861331	Total Arsenic (As)	2017/12/15	115	80 - 120	95	80 - 120	<0.020	ug/L		
8861331	Total Barium (Ba)	2017/12/15	NC	80 - 120	102	80 - 120	<0.020	ug/L		
8861331	Total Beryllium (Be)	2017/12/15	101	80 - 120	105	80 - 120	<0.010	ug/L		
8861331	Total Bismuth (Bi)	2017/12/15	100	80 - 120	107	80 - 120	<0.0050	ug/L		
8861331	Total Boron (B)	2017/12/15	101	80 - 120	107	80 - 120	<10	ug/L		
8861331	Total Cadmium (Cd)	2017/12/15	104	80 - 120	104	80 - 120	<0.0050	ug/L		
8861331	Total Chromium (Cr)	2017/12/14	98	80 - 120	98	80 - 120	<0.10	ug/L	0.46	20
8861331	Total Cobalt (Co)	2017/12/15	97	80 - 120	95	80 - 120	<0.0050	ug/L		
8861331	Total Copper (Cu)	2017/12/15	97	80 - 120	99	80 - 120	<0.050	ug/L		
8861331	Total Iron (Fe)	2017/12/15	104	80 - 120	104	80 - 120	<1.0	ug/L		
8861331	Total Lead (Pb)	2017/12/15	100	80 - 120	106	80 - 120	<0.0050	ug/L		
8861331	Total Lithium (Li)	2017/12/15	102	80 - 120	106	80 - 120	<0.50	ug/L		
8861331	Total Manganese (Mn)	2017/12/15	99	80 - 120	99	80 - 120	<0.050	ug/L		
8861331	Total Molybdenum (Mo)	2017/12/15	NC	80 - 120	104	80 - 120	<0.050	ug/L		
8861331	Total Nickel (Ni)	2017/12/15	111	80 - 120	98	80 - 120	<0.020	ug/L		
8861331	Total Phosphorus (P)	2017/12/15					<2.0	ug/L		
8861331	Total Selenium (Se)	2017/12/15	106	80 - 120	102	80 - 120	<0.040	ug/L		
8861331	Total Silicon (Si)	2017/12/15					<50	ug/L		
8861331	Total Silver (Ag)	2017/12/15	108	80 - 120	111	80 - 120	<0.0050	ug/L		
8861331	Total Strontium (Sr)	2017/12/15	NC	80 - 120	91	80 - 120	<0.050	ug/L		
8861331	Total Thallium (TI)	2017/12/15	100	80 - 120	106	80 - 120	<0.0020	ug/L		
8861331	Total Tin (Sn)	2017/12/15	102	80 - 120	104	80 - 120	<0.20	ug/L		
8861331	Total Titanium (Ti)	2017/12/15	97	80 - 120	104	80 - 120	<0.50	ug/L		
8861331	Total Uranium (U)	2017/12/15	105	80 - 120	108	80 - 120	<0.0020	ug/L		
8861331	Total Vanadium (V)	2017/12/15	102	80 - 120	97	80 - 120	<0.20	ug/L		
8861331	Total Zinc (Zn)	2017/12/15	104	80 - 120	99	80 - 120	<0.10	ug/L		
8861331	Total Zirconium (Zr)	2017/12/15	110	80 - 120	94	80 - 120	<0.10	ug/L		



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8861384	Total Dissolved Solids	2017/12/14	102	80 - 120	99	80 - 120	<10	mg/L	2.0	20
8861387	Total Aluminum (Al)	2017/12/14	108	80 - 120	109	80 - 120	<3.0	ug/L	12	20
8861387	Total Antimony (Sb)	2017/12/14	110	80 - 120	105	80 - 120	<0.020	ug/L	10	20
8861387	Total Arsenic (As)	2017/12/14	104	80 - 120	111	80 - 120	<0.020	ug/L	7.4	20
8861387	Total Barium (Ba)	2017/12/14	NC	80 - 120	104	80 - 120	<0.050	ug/L	3.9	20
8861387	Total Beryllium (Be)	2017/12/14	110	80 - 120	107	80 - 120	<0.010	ug/L	17	20
8861387	Total Bismuth (Bi)	2017/12/14	104	80 - 120	107	80 - 120	<0.010	ug/L	NC	20
8861387	Total Boron (B)	2017/12/14	105	80 - 120	112	80 - 120	<10	ug/L	NC	20
8861387	Total Cadmium (Cd)	2017/12/14	107	80 - 120	104	80 - 120	<0.0050	ug/L	5.7	20
8861387	Total Chromium (Cr)	2017/12/14	98	80 - 120	112	80 - 120	<0.10	ug/L	4.7	20
8861387	Total Cobalt (Co)	2017/12/14	93	80 - 120	109	80 - 120	<0.010	ug/L	5.7	20
8861387	Total Copper (Cu)	2017/12/14	92	80 - 120	113	80 - 120	<0.10	ug/L	32 (2)	20
8861387	Total Iron (Fe)	2017/12/14	110	80 - 120	93	80 - 120	<5.0	ug/L	NC	20
8861387	Total Lead (Pb)	2017/12/14	106	80 - 120	109	80 - 120	<0.020	ug/L	NC	20
8861387	Total Lithium (Li)	2017/12/14	111	80 - 120	109	80 - 120	<0.50	ug/L	1.2	20
8861387	Total Manganese (Mn)	2017/12/14	96	80 - 120	111	80 - 120	<0.10	ug/L	0.74	20
8861387	Total Molybdenum (Mo)	2017/12/14	110	80 - 120	109	80 - 120	<0.050	ug/L	4.1	20
8861387	Total Nickel (Ni)	2017/12/14	95	80 - 120	113	80 - 120	<0.10	ug/L	5.8	20
8861387	Total Phosphorus (P)	2017/12/14					6.0, RDL=5.0 (1)	ug/L	NC	20
8861387	Total Selenium (Se)	2017/12/14	109	80 - 120	97	80 - 120	<0.040	ug/L	14	20
8861387	Total Silicon (Si)	2017/12/14					<50	ug/L	2.8	20
8861387	Total Silver (Ag)	2017/12/14	110	80 - 120	112	80 - 120	<0.010	ug/L	NC	20
8861387	Total Strontium (Sr)	2017/12/14	NC	80 - 120	104	80 - 120	<0.050	ug/L	6.1	20
8861387	Total Thallium (TI)	2017/12/14	107	80 - 120	109	80 - 120	<0.0020	ug/L	0	20
8861387	Total Tin (Sn)	2017/12/14	99	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
8861387	Total Titanium (Ti)	2017/12/14	89	80 - 120	114	80 - 120	<2.0	ug/L	NC	20
8861387	Total Uranium (U)	2017/12/14	111	80 - 120	112	80 - 120	<0.0050	ug/L	3.6	20
8861387	Total Vanadium (V)	2017/12/14	96	80 - 120	109	80 - 120	<0.20	ug/L	4.4	20
8861387	Total Zinc (Zn)	2017/12/14	104	80 - 120	113	80 - 120	<1.0	ug/L	NC	20
8861387	Total Zirconium (Zr)	2017/12/14	103	80 - 120	107	80 - 120	<0.10	ug/L	2.9	20
8861462	ORP	2017/12/15							0.25	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8861551	Fluoride (F)	2017/12/13	103	80 - 120	100	80 - 120	<0.010	mg/L	1.0	20
8861675	рН	2017/12/13			101	97 - 103			0.40	20
8861678	Conductivity	2017/12/13			99	80 - 120	1.1, RDL=1.0	uS/cm	0.38	20
8861679	Alkalinity (PP as CaCO3)	2017/12/13					<0.50	mg/L	NC	20
8861679	Alkalinity (Total as CaCO3)	2017/12/13	NC	80 - 120	97	80 - 120	<0.50	mg/L	1.4	20
8861679	Bicarbonate (HCO3)	2017/12/13					<0.50	mg/L	1.4	20
8861679	Carbonate (CO3)	2017/12/13					<0.50	mg/L	NC	20
8861679	Hydroxide (OH)	2017/12/13					<0.50	mg/L	NC	20
8861719	Weak Acid Dissoc. Cyanide (CN)	2017/12/13	99	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20
8861890	Total Ammonia (N)	2017/12/13	NC	80 - 120	103	80 - 120	<0.0050	mg/L	0	20
8861893	Total Ammonia (N)	2017/12/13			108	80 - 120	<0.0050	mg/L		
8862349	Dissolved Organic Carbon (C)	2017/12/14	102	80 - 120	111	80 - 120	<0.50	mg/L	8.9	20
8862354	Dissolved Organic Carbon (C)	2017/12/14	102	80 - 120	113	80 - 120	<0.50	mg/L	12	20
8862459	Dissolved Chloride (CI)	2017/12/13	112	80 - 120	97	80 - 120	<0.50	mg/L	NC	20
8862461	Dissolved Sulphate (SO4)	2017/12/13	NC	80 - 120	93	80 - 120	<0.50	mg/L	2.0	20
8862465	Total Dissolved Solids	2017/12/15	102	80 - 120	94	80 - 120	<10	mg/L	3.9	20
8862477	Dissolved Chloride (CI)	2017/12/13			99	80 - 120	<0.50	mg/L		
8862482	Dissolved Sulphate (SO4)	2017/12/13			97	80 - 120	<0.50	mg/L		
8862490	Nitrate plus Nitrite (N)	2017/12/13	NC	80 - 120	106	80 - 120	<0.0020	mg/L	0.80	25
8862494	Nitrite (N)	2017/12/13	101	80 - 120	102	80 - 120	<0.0020	mg/L	NC	25
8862844	Total Organic Carbon (C)	2017/12/14	104	80 - 120	108	80 - 120	<0.50	mg/L	0.20	20
8862846	Total Organic Carbon (C)	2017/12/14	94	80 - 120	108	80 - 120	<0.50	mg/L	NC	20
8862856	Weak Acid Dissoc. Cyanide (CN)	2017/12/14	105	80 - 120	101	80 - 120	<0.00050	mg/L	NC	20
8863850	Fluoride (F)	2017/12/15	100	80 - 120	98	80 - 120	0.013, RDL=0.010	mg/L	0	20
8864565	Dissolved Sulphate (SO4)	2017/12/14			102	80 - 120	0.53, RDL=0.50	mg/L		
8865597	Dissolved Cadmium (Cd)	2017/12/18			105	80 - 120	<0.0050	ug/L		
8866453	Dissolved Organic Carbon (C)	2017/12/18			106	80 - 120	<0.50	mg/L		
8866454	Total Organic Carbon (C)	2017/12/18	115	80 - 120	106	80 - 120	<0.50	mg/L	11	20



#### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

				Matrix	Spike	Spiked Blank		Method Blank		RPD	)
QC B	Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8867	7947	Dissolved Chloride (CI)	2017/12/14			104	80 - 120	<0.50	mg/L		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

- (1) Method Blank exceeds acceptance limits for (P) 2X RDL acceptable for low level metals determination
- (2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 545120-01-01, 545120-02-01, 545120-03-01

Report Date: 2018/02/05

Report #: R2510024 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B806180 Received: 2018/01/24, 12:50

Sample Matrix: Water # Samples Received: 14

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	14	2018/01/26	2018/01/26	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	14	N/A	2018/01/29	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide WAD (weak acid dissociable)	14	N/A	2018/01/30	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	14	N/A	2018/01/26	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	14	2018/01/26	2018/01/26	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	14	N/A	2018/01/31	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (2)	6	N/A	2018/01/29	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (2)	7	N/A	2018/01/30	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (2)	1	N/A	2018/02/05	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	11	N/A	2018/01/29	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	2	N/A	2018/01/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	1	N/A	2018/02/02	BBY WI-00033	Auto Calc
Mercury (Dissolved-LowLevel) by CVAF	14	N/A	2018/01/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total-LowLevel) by CVAF	14	2018/01/30	2018/01/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	11	N/A	2018/01/29	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	2	N/A	2018/01/30	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2018/02/02	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	13	N/A	2018/01/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (dissolved)	1	N/A	2018/01/29	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	7	2018/01/26	2018/01/30	BBY7SOP-00003,	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	1	2018/02/02	2018/02/03	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	6	N/A	2018/01/29	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	7	N/A	2018/01/30	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2018/02/05	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	6	N/A	2018/01/29	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	14	N/A	2018/01/26	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	14	N/A	2018/01/25	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	14	N/A	2018/01/25	BBY6SOP-00010	SM 22 4500-NO3- I m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 545120-01-01, 545120-02-01, 545120-03-01

Report Date: 2018/02/05

Report #: R2510024 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B806180 Received: 2018/01/24, 12:50

Sample Matrix: Water # Samples Received: 14

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Nitrogen - Nitrate (as N) Low Level Calc	14	N/A	2018/01/26	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	14	N/A	2018/01/31	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	13	N/A	2018/01/26	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	14	2018/01/26	2018/01/26	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	12	N/A	2018/01/29	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	2	N/A	2018/01/30	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	14	2018/01/26	2018/01/31	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (4)	13	N/A	2018/01/26	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (4)	1	N/A	2018/01/30	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	6	2018/01/26	2018/01/29	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	8	2018/01/29	2018/01/30	BBY6SOP-00034	SM 22 2540 D

#### **Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 545120-01-01, 545120-02-01, 545120-03-01

Report Date: 2018/02/05

Report #: R2510024 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B806180 Received: 2018/01/24, 12:50

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.

Encryption Key



Maxxam 05 Feb 2018 18:34:48

Please direct all questions regarding this Certificate of Analysis Project Manager.

Megan Smith, Project Manager Email: msmith@maxxam.ca Phone# (604) 734 7276

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1585			SW1585			SW1586		
Sampling Date		2018/01/21			2018/01/21			2018/01/21		
Sampling Date		14:05			14:05			15:20		
COC Number		545120-01-01			545120-01-01			545120-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Parameter										
ORP	mV	266		8897652	267		8897652	266		8897652
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		8894713				LAB		8894713
Nitrate (N)	mg/L	0.0799	0.0020	8894557				0.291	0.0020	8894557
Misc. Inorganics	•			•						•
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8898072	<0.00050	0.00050	8898072	0.00053	0.00050	8898072
Fluoride (F)	mg/L	0.066	0.010	8899108				0.110	0.010	8899108
Dissolved Organic Carbon (C)	mg/L	4.47	0.50	8895416				4.68	0.50	8895416
Alkalinity (Total as CaCO3)	mg/L	146	0.50	8895785				205	0.50	8895785
Total Organic Carbon (C)	mg/L	3.96	0.50	8895401				4.46	0.50	8895401
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8895785				<0.50	0.50	8895785
Bicarbonate (HCO3)	mg/L	178	0.50	8895785				250	0.50	8895785
Carbonate (CO3)	mg/L	<0.50	0.50	8895785				<0.50	0.50	8895785
Hydroxide (OH)	mg/L	<0.50	0.50	8895785				<0.50	0.50	8895785
Anions	•			•						•
Dissolved Sulphate (SO4)	mg/L	91.1	0.50	8897461				219 (1)	5.0	8897461
Dissolved Chloride (Cl)	mg/L	<0.50	0.50	8897457				<0.50	0.50	8897457
Nutrients						•				
Total Ammonia (N)	mg/L	0.021	0.0050	8896147				0.0070	0.0050	8896147
Nitrate plus Nitrite (N)	mg/L	0.0799	0.0020	8895011				0.291	0.0020	8895024
Nitrite (N)	mg/L	<0.0020	0.0020	8895012				<0.0020	0.0020	8895025
Physical Properties	•		•			•				
Conductivity	uS/cm	455	1.0	8895784				752	1.0	8895784
рН	рН	8.10		8895770				8.18		8895770
Physical Properties										
Total Suspended Solids	mg/L	4.0 (2)	1.2	8895408				<1.3 (2)	1.3	8895408
Total Dissolved Solids	mg/L	258	10	8895485				492	10	8895499
			•			•			•	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

<sup>(1)</sup> Detection limits raised due to dilution to bring analyte within the calibrated range.

<sup>(2)</sup> RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1586			SW1587			SW1588		
Sampling Date		2018/01/21			2018/01/21			2018/01/21		
		15:20			12:55			14:50		
COC Number		545120-01-01			545120-01-01			545120-01-01		
	UNITS	CC-1.5 Lab-Dup	RDL	QC Batch	CC-4.5	RDL	QC Batch	СС-В	RDL	QC Batch
Parameter										
ORP	mV				258		8897652	258		8897652
Calculated Parameters										
Filter and HNO3 Preservation	N/A				LAB		8894713	LAB		8894713
Nitrate (N)	mg/L				0.690	0.0020	8894557	0.426	0.0020	8894557
Misc. Inorganics										
Weak Acid Dissoc. Cyanide (CN)	mg/L				0.00067	0.00050	8898072	0.00063	0.00050	8898072
Fluoride (F)	mg/L				0.060	0.010	8899108	0.067	0.010	8899108
Dissolved Organic Carbon (C)	mg/L	4.28	0.50	8895416	6.67	0.50	8895416	5.46	0.50	8895399
Alkalinity (Total as CaCO3)	mg/L				64.6	0.50	8895785	198	0.50	8895785
Total Organic Carbon (C)	mg/L				10.5	0.50	8895401	5.07	0.50	8895401
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	8895785	<0.50	0.50	8895785
Bicarbonate (HCO3)	mg/L				78.8	0.50	8895785	242	0.50	8895785
Carbonate (CO3)	mg/L				<0.50	0.50	8895785	<0.50	0.50	8895785
Hydroxide (OH)	mg/L				<0.50	0.50	8895785	<0.50	0.50	8895785
Anions										
Dissolved Sulphate (SO4)	mg/L				80.5	0.50	8897461	217 (1)	5.0	8897461
Dissolved Chloride (CI)	mg/L				0.83	0.50	8897457	<0.50	0.50	8897457
Nutrients										
Total Ammonia (N)	mg/L				<0.0050	0.0050	8896147	<0.0050	0.0050	8896147
Nitrate plus Nitrite (N)	mg/L				0.690	0.0020	8895024	0.426	0.0020	8895024
Nitrite (N)	mg/L				<0.0020	0.0020	8895025	<0.0020	0.0020	8895025
Physical Properties	•	•	-	•	•	•	•	•	•	•
Conductivity	uS/cm				309	1.0	8895784	748	1.0	8895784
рН	рН				7.80		8895770	8.11		8895770
Physical Properties										
Total Suspended Solids	mg/L				7.3 (2)	1.4	8895408	12.0 (2)	1.3	8895408
Total Dissolved Solids	mg/L				168	10	8895499	496	10	8895485

RDL = Reportable Detection Limit

- (1) Detection limits raised due to dilution to bring analyte within the calibrated range.
- (2) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1588			SW1589			SW1589		
Sampling Date		2018/01/21			2018/01/22			2018/01/22		
Sampling Date		14:50			12:30			12:30		
COC Number		545120-01-01			545120-01-01			545120-01-01		
	UNITS	CC-B Lab-Dup	RDL	QC Batch	HC-2.5	RDL	QC Batch	HC-2.5 Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV				294		8897652			
Calculated Parameters					•				!	
Filter and HNO3 Preservation	N/A				LAB		8894713			
Nitrate (N)	mg/L				0.471	0.0020	8894557			
Misc. Inorganics	•	•		•	•	•		•	•	
Weak Acid Dissoc. Cyanide (CN)	mg/L				0.00078	0.00050	8898072			
Fluoride (F)	mg/L				0.067	0.010	8899108			
Dissolved Organic Carbon (C)	mg/L				4.63	0.50	8895416			
Alkalinity (Total as CaCO3)	mg/L				134	0.50	8895785			
Total Organic Carbon (C)	mg/L	5.12	0.50	8895401	4.58	0.50	8895400			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	8895785			
Bicarbonate (HCO3)	mg/L				163	0.50	8895785			
Carbonate (CO3)	mg/L				<0.50	0.50	8895785			
Hydroxide (OH)	mg/L				<0.50	0.50	8895785			
Anions		1		Į.	•	Į.		1		
Dissolved Sulphate (SO4)	mg/L				71.8	0.50	8898706			
Dissolved Chloride (CI)	mg/L				<0.50	0.50	8897457			
Nutrients									,	
Total Ammonia (N)	mg/L				<0.0050	0.0050	8896147			
Nitrate plus Nitrite (N)	mg/L				0.471	0.0020	8895024	0.472	0.0020	8895024
Nitrite (N)	mg/L				<0.0020	0.0020	8895025	<0.0020	0.0020	8895025
Physical Properties		1		Į.	•	Į.		1		
Conductivity	uS/cm				398	1.0	8895784			
рН	рН				8.04		8895770			
Physical Properties										
Total Suspended Solids	mg/L				<1.1 (1)	1.1	8896776			
Total Dissolved Solids	mg/L				222	10	8895499			
RDI = Reportable Detection Limit										•

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1590		SW1591			SW1591		
Sampling Date		2018/01/22		2018/01/22			2018/01/22		
		13:25		14:00			14:00		
COC Number		545120-02-01		545120-02-01			545120-02-01		
	UNITS	IC-4.5	QC Batch	YUK-5.0	RDL	QC Batch	YUK-5.0 Lab-Dup	RDL	QC Batch
Parameter									
ORP	mV	290	8897652	288		8897652			
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	8894713	LAB		8894713			
Nitrate (N)	mg/L	0.712	8894557	0.0858	0.0020	8894557			
Misc. Inorganics	•							•	
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00075	8898072	0.00059	0.00050	8898072			
Fluoride (F)	mg/L	0.058	8899108	0.120	0.010	8899108	0.120	0.010	8899108
Dissolved Organic Carbon (C)	mg/L	6.86	8895399	1.03	0.50	8895399			
Alkalinity (Total as CaCO3)	mg/L	54.8	8895785	87.5	0.50	8895785			
Total Organic Carbon (C)	mg/L	6.74	8895400	1.31	0.50	8895400			
Alkalinity (PP as CaCO3)	mg/L	<0.50	8895785	<0.50	0.50	8895785			
Bicarbonate (HCO3)	mg/L	66.9	8895785	107	0.50	8895785			
Carbonate (CO3)	mg/L	<0.50	8895785	<0.50	0.50	8895785			
Hydroxide (OH)	mg/L	<0.50	8895785	<0.50	0.50	8895785			
Anions									
Dissolved Sulphate (SO4)	mg/L	53.6	8898706	24.2	0.50	8897461			
Dissolved Chloride (Cl)	mg/L	0.55	8897457	<0.50	0.50	8897457			
Nutrients									
Total Ammonia (N)	mg/L	<0.0050	8896147	< 0.0050	0.0050	8896147			
Nitrate plus Nitrite (N)	mg/L	0.712	8895024	0.0880	0.0020	8895011			
Nitrite (N)	mg/L	<0.0020	8895025	0.0022	0.0020	8895012			
Physical Properties									
Conductivity	uS/cm	233	8895784	220	1.0	8895784			
рН	рН	7.71	8895770	8.00		8895770			
Physical Properties									
Total Suspended Solids	mg/L	1.4	8896776	<1.0	1.0	8896776			
Total Dissolved Solids	mg/L	130	8895499	102	10	8895499			
RDL = Reportable Detection Limit	:								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1592			SW1592		
Sampling Date		2018/01/23			2018/01/23		
COCAL		13:45			13:45	+	
COC Number		545120-02-01			545120-02-01	+	
	UNITS	BARKER U/S S.R.	RDL	QC Batch	BARKER U/S S.R. Lab-Dup	RDL	QC Batch
Parameter			*			•	
ORP	mV	285		8897652			
Calculated Parameters			<del>!</del>	!			
Filter and HNO3 Preservation	N/A	LAB		8894713			
Nitrate (N)	mg/L	0.0027	0.0020	8894557			
Misc. Inorganics			•				
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00095	0.00050	8898072			
Fluoride (F)	mg/L	0.100	0.010	8899108			
Dissolved Organic Carbon (C)	mg/L	14.8	0.50	8895399			
Alkalinity (Total as CaCO3)	mg/L	148	0.50	8895785			
Total Organic Carbon (C)	mg/L	15.5	0.50	8895400	15.9	0.50	8895400
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8895785			
Bicarbonate (HCO3)	mg/L	181	0.50	8895785			
Carbonate (CO3)	mg/L	<0.50	0.50	8895785			
Hydroxide (OH)	mg/L	<0.50	0.50	8895785			
Anions			•				
Dissolved Sulphate (SO4)	mg/L	84.4	0.50	8897461			
Dissolved Chloride (CI)	mg/L	2.7	0.50	8897457			
Nutrients							
Total Ammonia (N)	mg/L	0.055	0.0050	8896147			
Nitrate plus Nitrite (N)	mg/L	0.0027	0.0020	8895024			
Nitrite (N)	mg/L	<0.0020	0.0020	8895025			
Physical Properties			•			•	-
Conductivity	uS/cm	457	1.0	8895784			
рН	рН	7.82		8895770			
Physical Properties							
Total Suspended Solids	mg/L	180 (1)	5.0	8896776			
Total Dissolved Solids	mg/L	276	10	8895499			
RDL = Reportable Detection Limit	t						
Lab-Dup = Laboratory Initiated D	uplicate						

(1) RDL raised due to high concentration of solids in the sample.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1593			SW1594			SW1594		
Sampling Date		2018/01/23			2018/01/21			2018/01/21		
Sampling Date		13:15			12:45			12:45		
COC Number		545120-02-01			545120-02-01			545120-02-01		
	UNITS	STEWART D/S M.M.	RDL	QC Batch	LATTE MIX	RDL	QC Batch	LATTE MIX Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV	284		8897652	284		8897652			
Calculated Parameters	• •					,			!	
Filter and HNO3 Preservation	N/A	LAB		8894713	LAB		8894713			
Nitrate (N)	mg/L	0.191	0.0020	8894557	0.304	0.0020	8894557			
Misc. Inorganics	, ,		•						•	
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00068	0.00050	8898072	0.00065	0.00050	8898072			
Fluoride (F)	mg/L	0.095	0.010	8899108	0.077	0.010	8899108			
Dissolved Organic Carbon (C)	mg/L	1.10	0.50	8895399	3.66	0.50	8895399			
Alkalinity (Total as CaCO3)	mg/L	127	0.50	8895785	154	0.50	8895785			
Total Organic Carbon (C)	mg/L	1.70	0.50	8895400	3.67	0.50	8895400			
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8895785	<0.50	0.50	8895785			
Bicarbonate (HCO3)	mg/L	155	0.50	8895785	188	0.50	8895785			
Carbonate (CO3)	mg/L	<0.50	0.50	8895785	<0.50	0.50	8895785			
Hydroxide (OH)	mg/L	<0.50	0.50	8895785	<0.50	0.50	8895785			
Anions			•						•	
Dissolved Sulphate (SO4)	mg/L	96.6	0.50	8897461	88.5	0.50	8897461	88.3	0.50	8897461
Dissolved Chloride (Cl)	mg/L	<0.50	0.50	8897457	0.56	0.50	8897457	0.58	0.50	8897457
Nutrients						•			•	
Total Ammonia (N)	mg/L	0.0090	0.0050	8896147	<0.0050	0.0050	8896147			
Nitrate plus Nitrite (N)	mg/L	0.191	0.0020	8895011	0.304	0.0020	8895024			
Nitrite (N)	mg/L	<0.0020	0.0020	8895012	<0.0020	0.0020	8895025			
Physical Properties										
Conductivity	uS/cm	428	1.0	8895784	460	1.0	8895784			
рН	рН	8.06		8895770	8.19		8895770			
Physical Properties	•		•		•	•		•	•	
Total Suspended Solids	mg/L	<1.0	1.0	8896776	<1.5 (1)	1.5	8895408			
Total Dissolved Solids	mg/L	244	10	8895499	264	10	8895499			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1595			SW1595			SW1597		
Sampling Date										
COC Number		545120-02-01			545120-02-01			545120-03-01		
	UNITS	SAMPLE A	RDL	QC Batch	SAMPLE A Lab-Dup	RDL	QC Batch	SAMPLE B	RDL	QC Batch
Parameter										
ORP	mV	286		8897652				284		8897652
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		8894713				LAB		8894713
Nitrate (N)	mg/L	0.293	0.0020	8894557				<0.0020	0.0020	8894557
Misc. Inorganics										
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00060	0.00050	8898072				0.00077	0.00050	8898072
Fluoride (F)	mg/L	0.110	0.010	8899108				0.110	0.010	8899108
Dissolved Organic Carbon (C)	mg/L	3.92	0.50	8895399	4.04	0.50	8895399	15.6	0.50	8895399
Alkalinity (Total as CaCO3)	mg/L	205	0.50	8895785				151	0.50	8895785
Total Organic Carbon (C)	mg/L	4.83	0.50	8895400				18.9	0.50	8895400
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8895785				<0.50	0.50	8895785
Bicarbonate (HCO3)	mg/L	250	0.50	8895785				184	0.50	8895785
Carbonate (CO3)	mg/L	<0.50	0.50	8895785				<0.50	0.50	8895785
Hydroxide (OH)	mg/L	<0.50	0.50	8895785				<0.50	0.50	8895785
Anions		•	Į.							l.
Dissolved Sulphate (SO4)	mg/L	221 (1)	5.0	8897461				85.0	0.50	8897461
Dissolved Chloride (CI)	mg/L	<0.50	0.50	8897457				2.7	0.50	8897457
Nutrients		1	Į.							
Total Ammonia (N)	mg/L	0.0070	0.0050	8896147				0.067	0.0050	8896147
Nitrate plus Nitrite (N)	mg/L	0.293	0.0020	8895011				<0.0020	0.0020	8895011
Nitrite (N)	mg/L	<0.0020	0.0020	8895012				<0.0020	0.0020	8895012
Physical Properties	•	•		•		•			•	
Conductivity	uS/cm	759	1.0	8895784				460	1.0	8895784
рН	рН	8.04		8895770				7.85		8895770
Physical Properties	•	•	•							
Total Suspended Solids	mg/L	<1.3 (2)	1.3	8896774				135 (3)	5.0	8896774
Total Dissolved Solids	mg/L	472	10	8895499				290	10	8895499

RDL = Reportable Detection Limit

- (1) Detection limits raised due to dilution to bring analyte within the calibrated range.
- (2) RDL raised due to limited initial sample amount.
- (3) RDL raised due to high concentration of solids in the sample.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1597		SW1598			SW1598		
Sampling Date				2018/01/21			2018/01/21		
Sumpling Succ				19:00			19:00		
COC Number		545120-03-01		545120-03-01			545120-03-01		
	UNITS	SAMPLE B Lab-Dup	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Parameter									
ORP	mV	284	8897652	284		8897652			
Calculated Parameters			•					•	
Filter and HNO3 Preservation	N/A			LAB		8894713			
Nitrate (N)	mg/L			<0.0020	0.0020	8894557			
Misc. Inorganics	•							!	
Weak Acid Dissoc. Cyanide (CN)	mg/L			<0.00050	0.00050	8898072			
Fluoride (F)	mg/L			0.011	0.010	8899108			
Dissolved Organic Carbon (C)	mg/L			<0.50	0.50	8895399			
Alkalinity (Total as CaCO3)	mg/L			<0.50	0.50	8895785	<0.50	0.50	8895785
Total Organic Carbon (C)	mg/L			<0.50	0.50	8897806			
Alkalinity (PP as CaCO3)	mg/L			<0.50	0.50	8895785	<0.50	0.50	8895785
Bicarbonate (HCO3)	mg/L			<0.50	0.50	8895785	<0.50	0.50	8895785
Carbonate (CO3)	mg/L			<0.50	0.50	8895785	<0.50	0.50	8895785
Hydroxide (OH)	mg/L			<0.50	0.50	8895785	<0.50	0.50	8895785
Anions	•		•		•			•	
Dissolved Sulphate (SO4)	mg/L			<0.50	0.50	8897461			
Dissolved Chloride (Cl)	mg/L			<0.50	0.50	8897457			
Nutrients									
Total Ammonia (N)	mg/L			<0.0050	0.0050	8896147			
Nitrate plus Nitrite (N)	mg/L			<0.0020	0.0020	8895024			
Nitrite (N)	mg/L			<0.0020	0.0020	8895025			
Physical Properties									
Conductivity	uS/cm			1.1	1.0	8895784	1.1	1.0	8895784
рН	рН			5.26		8895770	5.20		8895770
Physical Properties									
Total Suspended Solids	mg/L			<1.0	1.0	8895408			
Total Dissolved Solids	mg/L			<10	10	8895499	<10	10	8895499
RDL = Reportable Detection Limit	t								
Lab-Dup = Laboratory Initiated D	uplicate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SW1599			SW1599		
Sampling Date		2018/01/25			2018/01/25		
COC Number		545120-03-01			545120-03-01		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Parameter							
ORP	mV	249		8897652			
Calculated Parameters					•		
Nitrate (N)	mg/L	<0.0020	0.0020	8894557			
Misc. Inorganics					•		
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8898072			
Fluoride (F)	mg/L	<0.010	0.010	8899108			
Dissolved Organic Carbon (C)	mg/L	<0.50	0.50	8895399			
Alkalinity (Total as CaCO3)	mg/L	<0.50	0.50	8895785			
Total Organic Carbon (C)	mg/L	<0.50	0.50	8895400			
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8895785			
Bicarbonate (HCO3)	mg/L	<0.50	0.50	8895785			
Carbonate (CO3)	mg/L	<0.50	0.50	8895785			
Hydroxide (OH)	mg/L	<0.50	0.50	8895785			
Anions					•		
Dissolved Sulphate (SO4)	mg/L	<0.50	0.50	8897461			
Dissolved Chloride (Cl)	mg/L	<0.50	0.50	8897457			
Nutrients	•		•	•	•	•	
Total Ammonia (N)	mg/L	<0.0050	0.0050	8896147	<0.0050	0.0050	8896147
Nitrate plus Nitrite (N)	mg/L	<0.0020	0.0020	8895024			
Nitrite (N)	mg/L	<0.0020	0.0020	8895025			
Physical Properties			•	•		•	
Conductivity	uS/cm	1.1	1.0	8895784			
рН	рН	5.23		8895770			
Physical Properties	•	•	•	•	•	•	-
Total Suspended Solids	mg/L	<1.0	1.0	8896776			
Total Dissolved Solids	mg/L	<10	10	8895499			
RDL = Reportable Detection Limit	:	•	•		•		
Lab-Dup = Laboratory Initiated D	uplicate						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1585			SW1585			SW1586		
Campling Data		2018/01/21			2018/01/21			2018/01/21		
Sampling Date		14:05			14:05			15:20		
COC Number		545120-01-01			545120-01-01			545120-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	235 (1)	0.50	8900100				406	0.50	8893771
Elements										
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	8897658				<0.0020	0.0020	8897658
Dissolved Metals by ICPMS									•	
Dissolved Aluminum (AI)	ug/L	3.38	0.50	8895112	3.64	0.50	8895112	9.22	0.50	8895112
Dissolved Antimony (Sb)	ug/L	0.032	0.020	8895112	0.032	0.020	8895112	0.100	0.020	8895112
Dissolved Arsenic (As)	ug/L	0.357	0.020	8895112	0.312	0.020	8895112	1.03	0.020	8895112
Dissolved Barium (Ba)	ug/L	95.0	0.020	8895112	100	0.020	8895112	75.3	0.020	8895112
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8895112	<0.010	0.010	8895112	<0.010	0.010	8895112
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Boron (B)	ug/L	<10	10	8895112	<10	10	8895112	<10	10	8895112
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112	0.0057	0.0050	8895112
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	8895112	<0.10	0.10	8895112	<0.10	0.10	8895112
Dissolved Cobalt (Co)	ug/L	0.193	0.0050	8895112	0.176	0.0050	8895112	0.0179	0.0050	8895112
Dissolved Copper (Cu)	ug/L	0.450	0.050	8895112	0.397	0.050	8895112	0.999	0.050	8895112
Dissolved Iron (Fe)	ug/L	129	1.0	8895112	150	1.0	8895112	5.0	1.0	8895112
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112	0.0079	0.0050	8895112
Dissolved Lithium (Li)	ug/L	0.80	0.50	8895112	0.85	0.50	8895112	2.52	0.50	8895112
Dissolved Manganese (Mn)	ug/L	128	0.050	8895112	116	0.050	8895112	8.70	0.050	8895112
Dissolved Molybdenum (Mo)	ug/L	0.219	0.050	8895112	0.238	0.050	8895112	0.387	0.050	8895112
Dissolved Nickel (Ni)	ug/L	0.601	0.020	8895112	0.550	0.020	8895112	0.453	0.020	8895112
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	8895112	<2.0	2.0	8895112	2.7	2.0	8895112
Dissolved Selenium (Se)	ug/L	<0.040	0.040	8895112	<0.040	0.040	8895112	0.191	0.040	8895112
Dissolved Silicon (Si)	ug/L	4500	50	8895112	4430	50	8895112	5460	50	8895112
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Strontium (Sr)	ug/L	312	0.050	8895112	281	0.050	8895112	815	0.050	8895112
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	8895112	<0.0020	0.0020	8895112	0.0035	0.0020	8895112
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8895112	<0.20	0.20	8895112	<0.20	0.20	8895112
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8895112	<0.50	0.50	8895112	<0.50	0.50	8895112
Dissolved Uranium (U)	ug/L	5.21	0.0020	8895112	5.50	0.0020	8895112	36.9	0.0020	8895112

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1585			SW1585			SW1586		
Sampling Date		2018/01/21			2018/01/21			2018/01/21		
		14:05			14:05			15:20		
COC Number		545120-01-01			545120-01-01			545120-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.20	8895112	<0.20	0.20	8895112	0.25	0.20	8895112
Dissolved Zinc (Zn)	ug/L	0.25	0.10	8895112	0.19	0.10	8895112	0.35	0.10	8895112
Dissolved Zirconium (Zr)	ug/L	0.11	0.10	8895112	0.12	0.10	8895112	0.23	0.10	8895112
Dissolved Calcium (Ca)	mg/L	72.9 (1)	0.050	8900066				106	0.050	8894556
Dissolved Magnesium (Mg)	mg/L	12.7 (1)	0.050	8900066				34.3	0.050	8894556
Dissolved Potassium (K)	mg/L	1.96 (1)	0.050	8900066				5.38	0.050	8894556
Dissolved Sodium (Na)	mg/L	3.84 (1)	0.050	8900066				6.70	0.050	8894556
Dissolved Sulphur (S)	mg/L	31.1 (1)	3.0	8900066				71.2	3.0	8894556

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1587	SW1588	SW1589			SW1589		
Sampling Date		2018/01/21	2018/01/21	2018/01/22			2018/01/22		
Sampling Date		12:55	14:50	12:30			12:30		
COC Number		545120-01-01	545120-01-01	545120-01-01			545120-01-01		
	UNITS	CC-4.5	СС-В	HC-2.5	RDL	QC Batch	HC-2.5 Lab-Dup	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	134	427	199	0.50	8893771			
Elements	•				•			•	
Dissolved Mercury (Hg)	ug/L	0.0024	0.0022	<0.0020	0.0020	8897658	<0.0020	0.0020	8897658
Dissolved Metals by ICPMS									
Dissolved Aluminum (AI)	ug/L	18.8	12.6	8.33	0.50	8895112			
Dissolved Antimony (Sb)	ug/L	0.082	0.126	0.368	0.020	8895112			
Dissolved Arsenic (As)	ug/L	0.261	0.626	0.470	0.020	8895112			
Dissolved Barium (Ba)	ug/L	85.6	141	50.0	0.020	8895112			
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	0.010	8895112			
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	8895112			
Dissolved Boron (B)	ug/L	<10	<10	<10	10	8895112			
Dissolved Cadmium (Cd)	ug/L	0.0088	0.0098	<0.0050	0.0050	8895112			
Dissolved Chromium (Cr)	ug/L	0.13	0.13	0.11	0.10	8895112			
Dissolved Cobalt (Co)	ug/L	0.0442	0.0239	0.0185	0.0050	8895112			
Dissolved Copper (Cu)	ug/L	1.15	1.12	0.774	0.050	8895112			
Dissolved Iron (Fe)	ug/L	6.1	5.3	4.0	1.0	8895112			
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	8895112			
Dissolved Lithium (Li)	ug/L	<0.50	1.43	1.20	0.50	8895112			
Dissolved Manganese (Mn)	ug/L	1.38	0.809	36.2	0.050	8895112			
Dissolved Molybdenum (Mo)	ug/L	0.527	0.514	1.21	0.050	8895112			
Dissolved Nickel (Ni)	ug/L	0.581	0.389	0.392	0.020	8895112			
Dissolved Phosphorus (P)	ug/L	2.7	2.4	2.6	2.0	8895112			
Dissolved Selenium (Se)	ug/L	0.070	0.112	0.084	0.040	8895112			
Dissolved Silicon (Si)	ug/L	4590	5310	5490	50	8895112			
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	8895112			
Dissolved Strontium (Sr)	ug/L	164	1070	405	0.050	8895112			
Dissolved Thallium (TI)	ug/L	<0.0020	<0.0020	<0.0020	0.0020	8895112			
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	8895112			
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	0.50	8895112			
Dissolved Uranium (U)	ug/L	1.67	36.2	72.2	0.0020	8895112			
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1587	SW1588	SW1589			SW1589		
Sampling Date		2018/01/21 12:55	2018/01/21 14:50	2018/01/22 12:30			2018/01/22 12:30		
COC Number		545120-01-01	545120-01-01	545120-01-01			545120-01-01		
	UNITS	CC-4.5	СС-В	HC-2.5	RDL	QC Batch	HC-2.5 Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.21	0.29	<0.20	0.20	8895112			
Dissolved Zinc (Zn)	ug/L	0.62	0.31	0.33	0.10	8895112			
Dissolved Zirconium (Zr)	ug/L	0.21	0.39	0.21	0.10	8895112			
Dissolved Calcium (Ca)	mg/L	33.7	116	47.8	0.050	8894556			
Dissolved Magnesium (Mg)	mg/L	12.1	33.5	19.5	0.050	8894556			
Dissolved Potassium (K)	mg/L	1.50	5.72	2.50	0.050	8894556			
Dissolved Sodium (Na)	mg/L	4.80	5.87	4.31	0.050	8894556			
Dissolved Sulphur (S)	mg/L	25.5	82.0	23.1	3.0	8894556			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

		C14/4=00		I
Maxxam ID SW1590 SW1591	SW1592	SW1593		
Sampling Date 2018/01/22 2018/01/22	2018/01/23	2018/01/23		
13:25 14:00	13:45	13:15		
COC Number         545120-02-01         545120-02-01	545120-02-01	545120-02-01		
UNITS IC-4.5 QC Batch YUK-5.0 QC Batch	h BARKER U/S S.R.	STEWART D/S M.M.	RDL	QC Batch
Calculated Parameters	<del>'</del>	-		<u> </u>
Dissolved Hardness (CaCO3)   mg/L   102   8893771   108   8893772	1 230	216	0.50	8893771
Elements				I.
Dissolved Mercury (Hg)	3 <0.0020	<0.0020	0.0020	8897658
Dissolved Metals by ICPMS	- I	I		
Dissolved Aluminum (Al) ug/L 27.4 8895112 2.40 8895112	2 14.1	2.49	0.50	8895112
Dissolved Antimony (Sb) ug/L 0.068 8895112 0.078 8895112	2 0.060	0.124	0.020	8895112
Dissolved Arsenic (As) ug/L 0.265 8895112 0.283 8895112	_	0.210	0.020	8895112
Dissolved Barium (Ba) ug/L 53.4 8895112 54.4 8895112	2 190	84.3	0.020	8895112
Dissolved Beryllium (Be) ug/L <0.010 8895112 <0.010 8895112	2 <0.010	<0.010	0.010	8895112
Dissolved Bismuth (Bi) ug/L <0.0050 8895112 <0.0050 8895112	2 <0.0050	<0.0050	0.0050	8895112
Dissolved Boron (B) ug/L <10 8895112 <10 8895112	2 <10	<10	10	8895112
Dissolved Cadmium (Cd) ug/L 0.0087 8895112 0.0242 8895112	2 0.0114	0.138	0.0050	8895112
Dissolved Chromium (Cr) ug/L 0.17 8895112 <0.10 8895112	2 0.30	0.46	0.10	8895112
Dissolved Cobalt (Co) ug/L 0.0247 8895112 0.0119 8895112	2 1.25	0.0212	0.0050	8895112
Dissolved Copper (Cu) ug/L 1.23 8895112 0.518 8895112	0.604	0.402	0.050	8895112
Dissolved Iron (Fe) ug/L 8.3 8895112 8.5 8895112	2 2460	4.0	1.0	8895112
Dissolved Lead (Pb) ug/L <0.0050 8895112 <0.0050 8895112	2 0.0100	<0.0050	0.0050	8895112
Dissolved Lithium (Li) ug/L 0.59 8895112 1.10 8895112	2 1.16	3.28	0.50	8895112
Dissolved Manganese (Mn) ug/L 0.290 8895112 11.1 8895112	2 858	8.20	0.050	8895112
Dissolved Molybdenum (Mo) ug/L 0.244 8895112 1.27 8895112	2 1.08	0.624	0.050	8895112
Dissolved Nickel (Ni) ug/L 0.854 8895112 0.873 8895112	2 3.87	3.31	0.020	8895112
Dissolved Phosphorus (P) ug/L <2.0 8895112 <2.0 8895112	2 11.8	<2.0	2.0	8895112
Dissolved Selenium (Se) ug/L 0.073 8895112 0.360 8897282	0.124	0.929	0.040	8895112
Dissolved Silicon (Si) ug/L 5150 8895112 2930 8895112	5220	2740	50	8895112
Dissolved Silver (Ag) ug/L <0.0050 8895112 <0.0050 8895112	2 <0.0050	<0.0050	0.0050	8895112
Dissolved Strontium (Sr) ug/L 136 8895112 131 8895112	2 286	249	0.050	8895112
Dissolved Thallium (TI) ug/L <0.0020 8895112 <0.0020 8895112	2 <0.0020	<0.0020	0.0020	8895112
Dissolved Tin (Sn) ug/L <0.20 8895112 <0.20 8895112	2 <0.20	<0.20	0.20	8895112
Dissolved Titanium (Ti)	0.72	<0.50	0.50	8895112
Dissolved Uranium (U)	2 1.32	1.51	0.0020	8895112
Dissolved Vanadium (V) ug/L <0.20 8895112 <0.20 8895112	2 0.90	<0.20	0.20	8895112
RDL = Reportable Detection Limit	•		•	•



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATE

# Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1590		SW1591		SW1592	SW1593		
Sampling Date		2018/01/22 13:25		2018/01/22 14:00		2018/01/23 13:45	2018/01/23 13:15		
COC Number		545120-02-01		545120-02-01		545120-02-01	545120-02-01		
	UNITS	IC-4.5	QC Batch	YUK-5.0	QC Batch	BARKER U/S S.R.	STEWART D/S M.M.	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.25	8895112	2.33	8895112	0.42	11.9	0.10	8895112
Dissolved Zirconium (Zr)	ug/L	0.33	8895112	<0.10	8895112	0.60	<0.10	0.10	8895112
Dissolved Calcium (Ca)	mg/L	25.9	8894556	28.9	8894556	57.7	54.6	0.050	8894556
Dissolved Magnesium (Mg)	mg/L	8.96	8894556	8.71	8894556	21.0	19.4	0.050	8894556
Dissolved Potassium (K)	mg/L	1.25	8894556	0.895	8894556	1.95	0.716	0.050	8894556
Dissolved Sodium (Na)	mg/L	4.13	8894556	2.33	8894556	8.63	2.78	0.050	8894556
Dissolved Sulphur (S)	mg/L	17.5	8894556	8.6	8894556	25.8	31.8	3.0	8894556
RDL = Reportable Detection L	mit	•	•		•	•		•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1594	SW1595	SW1597	SW1598			SW1598		
Sampling Date		2018/01/21			2018/01/21			2018/01/21		
		12:45			19:00			19:00		
COC Number		545120-02-01	545120-02-01	545120-03-01	545120-03-01			545120-03-01		
	UNITS	LATTE MIX	SAMPLE A	SAMPLE B	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	239	392	218	<0.50	0.50	8893771			
Elements										
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8897658			
Dissolved Metals by ICPMS						•	•		•	
Dissolved Aluminum (AI)	ug/L	5.13	6.73	7.53	<0.50	0.50	8895112	<0.50	0.50	8895112
Dissolved Antimony (Sb)	ug/L	0.048	0.095	0.092	<0.020	0.020	8895112	<0.020	0.020	8895112
Dissolved Arsenic (As)	ug/L	0.254	1.17	1.72	<0.020	0.020	8895112	<0.020	0.020	8895112
Dissolved Barium (Ba)	ug/L	98.8	71.0	181	<0.020	0.020	8895112	<0.020	0.020	8895112
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	8895112	<0.010	0.010	8895112
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	10	8895112	<10	10	8895112
Dissolved Cadmium (Cd)	ug/L	<0.0050	<0.0050	0.0240	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Chromium (Cr)	ug/L	0.10	0.12	0.27	<0.10	0.10	8895112	<0.10	0.10	8895112
Dissolved Cobalt (Co)	ug/L	0.0525	0.0215	0.636	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Copper (Cu)	ug/L	0.542	0.997	1.89	<0.050	0.050	8895112	<0.050	0.050	8895112
Dissolved Iron (Fe)	ug/L	17.1	3.3	451	<1.0	1.0	8895112	<1.0	1.0	8895112
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Lithium (Li)	ug/L	0.77	2.40	0.99	<0.50	0.50	8895112	<0.50	0.50	8895112
Dissolved Manganese (Mn)	ug/L	29.4	9.00	417	<0.050	0.050	8895112	<0.050	0.050	8895112
Dissolved Molybdenum (Mo)	ug/L	0.490	0.384	0.939	<0.050	0.050	8895112	<0.050	0.050	8895112
Dissolved Nickel (Ni)	ug/L	0.427	0.388	2.78	<0.020	0.020	8895112	<0.020	0.020	8895112
Dissolved Phosphorus (P)	ug/L	3.3	2.2	12.5	<2.0	2.0	8895112	<2.0	2.0	8895112
Dissolved Selenium (Se)	ug/L	0.113	0.205	0.102	<0.040	0.040	8895112	<0.040	0.040	8895112
Dissolved Silicon (Si)	ug/L	4820	5360	5020	<50	50	8895112	<50	50	8895112
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Strontium (Sr)	ug/L	353	785	298	<0.050	0.050	8895112	<0.050	0.050	8895112
Dissolved Thallium (TI)	ug/L	<0.0020	0.0022	0.0022	<0.0020	0.0020	8895112	<0.0020	0.0020	8895112
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8895112	<0.20	0.20	8895112
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	0.58	<0.50	0.50	8895112	<0.50	0.50	8895112
Dissolved Uranium (U)	ug/L	17.8	33.2	2.05	<0.0020	0.0020	8895112	<0.0020	0.0020	8895112
RDL = Reportable Detection Li	mit									

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1594	SW1595	SW1597	SW1598			SW1598		
Sampling Date		2018/01/21 12:45			2018/01/21 19:00			2018/01/21 19:00		
COC Number		545120-02-01	545120-02-01	545120-03-01	545120-03-01			545120-03-01		
	UNITS	LATTE MIX	SAMPLE A	SAMPLE B	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.23	0.25	<0.20	0.20	8895112	<0.20	0.20	8895112
Dissolved Zinc (Zn)	ug/L	0.16	0.24	0.31	<0.10	0.10	8895112	<0.10	0.10	8895112
Dissolved Zirconium (Zr)	ug/L	0.17	0.28	0.44	<0.10	0.10	8895112	<0.10	0.10	8895112
Dissolved Calcium (Ca)	mg/L	67.5	102	54.0	<0.050	0.050	8894556			
Dissolved Magnesium (Mg)	mg/L	17.2	33.4	20.1	<0.050	0.050	8894556			
Dissolved Potassium (K)	mg/L	2.43	5.20	1.85	<0.050	0.050	8894556			
Dissolved Sodium (Na)	mg/L	4.82	6.50	8.77	<0.050	0.050	8894556			
Dissolved Sulphur (S)	mg/L	32.9	72.3	29.0	<3.0	3.0	8894556			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1599			SW1599		
Sampling Date		2018/01/25			2018/01/25		
COC Number		545120-03-01			545120-03-01		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters							
Dissolved Hardness (CaCO3)	mg/L	<0.50	0.50	8893771			
Elements	•		•			•	
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	8897658			
Dissolved Metals by ICPMS						•	
Dissolved Aluminum (Al)	ug/L	<0.50	0.50	8895112	<0.50	0.50	8895112
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	8895112	<0.020	0.020	8895112
Dissolved Arsenic (As)	ug/L	<0.020	0.020	8895112	<0.020	0.020	8895112
Dissolved Barium (Ba)	ug/L	<0.020	0.020	8895112	<0.020	0.020	8895112
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8895112	<0.010	0.010	8895112
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Boron (B)	ug/L	<10	10	8895112	<10	10	8895112
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	8895112	<0.10	0.10	8895112
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Copper (Cu)	ug/L	<0.050	0.050	8895112	<0.050	0.050	8895112
Dissolved Iron (Fe)	ug/L	<1.0	1.0	8895112	<1.0	1.0	8895112
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Lithium (Li)	ug/L	<0.50	0.50	8895112	<0.50	0.50	8895112
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	8895112	<0.050	0.050	8895112
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	8895112	<0.050	0.050	8895112
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	8895112	<0.020	0.020	8895112
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	8895112	<2.0	2.0	8895112
Dissolved Selenium (Se)	ug/L	<0.040	0.040	8895112	<0.040	0.040	8895112
Dissolved Silicon (Si)	ug/L	<50	50	8895112	<50	50	8895112
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8895112	<0.0050	0.0050	8895112
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	8895112	<0.050	0.050	8895112
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	8895112	<0.0020	0.0020	8895112
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8895112	<0.20	0.20	8895112
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8895112	<0.50	0.50	8895112
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	8895112	<0.0020	0.0020	8895112
RDL = Reportable Detection Li Lab-Dup = Laboratory Initiated		nte					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SW1599			SW1599		
Sampling Date		2018/01/25			2018/01/25		
COC Number		545120-03-01			545120-03-01		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.20	8895112	<0.20	0.20	8895112
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	8895112	<0.10	0.10	8895112
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	8895112	<0.10	0.10	8895112
Dissolved Calcium (Ca)	mg/L	<0.050	0.050	8894556			
Dissolved Magnesium (Mg)	mg/L	<0.050	0.050	8894556			
Dissolved Potassium (K)	mg/L	<0.050	0.050	8894556			
Dissolved Sodium (Na)	mg/L	<0.050	0.050	8894556			
Dissolved Sulphur (S)	mg/L	<3.0	3.0	8894556			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SW1586			SW1586			SW1590		
Sampling Date		2018/01/21			2018/01/21			2018/01/22		
Sampling Date		15:20			15:20			13:25		
COC Number		545120-01-01			545120-01-01			545120-02-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	IC-4.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	406	0.50	8893629				103	0.50	8893629
Elements										
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8897455				<0.0020	0.0020	8897455
Total Metals by ICPMS	-					•			•	
Total Aluminum (AI)	ug/L	18.4	0.50	8895993	16.7	0.50	8895993	60.1	0.50	8895993
Total Antimony (Sb)	ug/L	0.094	0.020	8895993	0.092	0.020	8895993	0.071	0.020	8895993
Total Arsenic (As)	ug/L	1.19	0.020	8895993	1.22	0.020	8895993	0.285	0.020	8895993
Total Barium (Ba)	ug/L	80.9	0.020	8895993	78.3	0.020	8895993	58.4	0.020	8895993
Total Beryllium (Be)	ug/L	<0.010	0.010	8895993	<0.010	0.010	8895993	0.010	0.010	8895993
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	8895993	<0.0050	0.0050	8895993	<0.0050	0.0050	8895993
Total Boron (B)	ug/L	<10	10	8895993	<10	10	8895993	<10	10	8895993
Total Cadmium (Cd)	ug/L	0.0074	0.0050	8895993	0.0063	0.0050	8895993	0.0126	0.0050	8895993
Total Chromium (Cr)	ug/L	0.13	0.10	8895993	0.12	0.10	8895993	0.23	0.10	8895993
Total Cobalt (Co)	ug/L	0.0323	0.0050	8895993	0.0320	0.0050	8895993	0.0478	0.0050	8895993
Total Copper (Cu)	ug/L	0.927	0.050	8895993	0.908	0.050	8895993	1.21	0.050	8895993
Total Iron (Fe)	ug/L	16.6	1.0	8895993	14.2	1.0	8895993	49.3	1.0	8895993
Total Lead (Pb)	ug/L	0.0076	0.0050	8895993	<0.0050	0.0050	8895993	0.0147	0.0050	8895993
Total Lithium (Li)	ug/L	3.58	0.50	8895993	3.50	0.50	8895993	0.92	0.50	8895993
Total Manganese (Mn)	ug/L	13.1	0.050	8895993	12.5	0.050	8895993	2.86	0.050	8895993
Total Molybdenum (Mo)	ug/L	0.406	0.050	8895993	0.407	0.050	8895993	0.211	0.050	8895993
Total Nickel (Ni)	ug/L	0.414	0.020	8895993	0.420	0.020	8895993	0.829	0.020	8895993
Total Phosphorus (P)	ug/L	3.4	2.0	8895993	3.2	2.0	8895993	4.3	2.0	8895993
Total Selenium (Se)	ug/L	0.180	0.040	8895993	0.187	0.040	8895993	0.087	0.040	8895993
Total Silicon (Si)	ug/L	5420	50	8895993	5950	50	8895993	5270	50	8895993
Total Silver (Ag)	ug/L	<0.0050	0.0050	8895993	<0.0050	0.0050	8895993	<0.0050	0.0050	8895993
Total Strontium (Sr)	ug/L	905	0.050	8895993	945	0.050	8895993	151	0.050	8895993
Total Thallium (TI)	ug/L	0.0026	0.0020	8895993	0.0027	0.0020	8895993	<0.0020	0.0020	8895993
Total Tin (Sn)	ug/L	<0.20	0.20	8895993	<0.20	0.20	8895993	<0.20	0.20	8895993
Total Titanium (Ti)	ug/L	0.72	0.50	8895993	0.56	0.50	8895993	1.77	0.50	8895993
Total Uranium (U)	ug/L	33.9	0.0020	8895993	33.5	0.0020	8895993	0.535	0.0020	8895993
RDL = Reportable Detection	Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SW1586			SW1586			SW1590		
Sampling Date		2018/01/21			2018/01/21			2018/01/22		
Sampling Date		15:20			15:20			13:25		
COC Number		545120-01-01			545120-01-01			545120-02-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	IC-4.5	RDL	QC Batch
Total Vanadium (V)	ug/L	0.28	0.20	8895993	0.25	0.20	8895993	0.27	0.20	8895993
Total Zinc (Zn)	ug/L	0.24	0.10	8895993	0.23	0.10	8895993	0.50	0.10	8895993
Total Zirconium (Zr)	ug/L	0.16	0.10	8895993	0.19	0.10	8895993	0.32	0.10	8895993
Total Calcium (Ca)	mg/L	107	0.050	8894477				26.1	0.050	8894477
Total Magnesium (Mg)	mg/L	33.7	0.050	8894477				9.08	0.050	8894477
Total Potassium (K)	mg/L	5.48	0.050	8894477				1.33	0.050	8894477
Total Sodium (Na)	mg/L	6.26	0.050	8894477				3.87	0.050	8894477
Total Sulphur (S)	mg/L	69.0	3.0	8894477				17.5	3.0	8894477

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		SW1591	SW1594	SW1598			SW1598		
Sampling Date		2018/01/22	2018/01/21	2018/01/21			2018/01/21		
Jamping Date		14:00	12:45	19:00			19:00		
COC Number		545120-02-01	545120-02-01	545120-03-01			545120-03-01		
	UNITS	YUK-5.0	LATTE MIX	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	105	265	<0.50	0.50	8893629			
Elements				•					•
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	0.0020	8897455	<0.0020	0.0020	8897455
Total Metals by ICPMS	•				•				•
Total Aluminum (Al)	ug/L	22.6	10.4	<0.50	0.50	8895993			
Total Antimony (Sb)	ug/L	0.074	0.040	<0.020	0.020	8895993			
Total Arsenic (As)	ug/L	0.346	0.273	<0.020	0.020	8895993			
Total Barium (Ba)	ug/L	58.6	99.5	<0.020	0.020	8895993			
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	0.010	8895993			
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	8895993			
Total Boron (B)	ug/L	<10	<10	<10	10	8895993			
Total Cadmium (Cd)	ug/L	0.0265	0.0054	<0.0050	0.0050	8895993			
Total Chromium (Cr)	ug/L	0.11	<0.10	<0.10	0.10	8895993			
Total Cobalt (Co)	ug/L	0.0317	0.0602	<0.0050	0.0050	8895993			
Total Copper (Cu)	ug/L	0.465	0.525	<0.050	0.050	8895993			
Total Iron (Fe)	ug/L	66.7	50.0	<1.0	1.0	8895993			
Total Lead (Pb)	ug/L	0.0215	<0.0050	<0.0050	0.0050	8895993			
Total Lithium (Li)	ug/L	1.67	1.04	<0.50	0.50	8895993			
Total Manganese (Mn)	ug/L	12.6	29.4	<0.050	0.050	8895993			
Total Molybdenum (Mo)	ug/L	1.30	0.475	<0.050	0.050	8895993			
Total Nickel (Ni)	ug/L	0.819	0.387	<0.020	0.020	8895993			
Total Phosphorus (P)	ug/L	2.2	2.6	<2.0	2.0	8895993			
Total Selenium (Se)	ug/L	0.298	0.155	<0.040	0.040	8895993			
Total Silicon (Si)	ug/L	3220	5820	<50	50	8895993			
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	8895993			
Total Strontium (Sr)	ug/L	144	382	<0.050	0.050	8895993			
Total Thallium (TI)	ug/L	<0.0020	<0.0020	<0.0020	0.0020	8895993			
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	8895993			
Total Titanium (Ti)	ug/L	0.71	<0.50	<0.50	0.50	8895993			
Total Uranium (U)	ug/L	1.28	16.6	<0.0020	0.0020	8895993			
RDL = Reportable Detection	Limit								

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SW1591	SW1594	SW1598			SW1598		
Sampling Date		2018/01/22 14:00	2018/01/21 12:45	2018/01/21 19:00			2018/01/21 19:00		
COC Number		545120-02-01	545120-02-01	545120-03-01			545120-03-01		
	UNITS	YUK-5.0	LATTE MIX	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Vanadium (V)	ug/L	0.22	<0.20	<0.20	0.20	8895993			
Total Zinc (Zn)	ug/L	2.47	0.20	<0.10	0.10	8895993			
Total Zirconium (Zr)	ug/L	<0.10	0.14	<0.10	0.10	8895993			
Total Calcium (Ca)	mg/L	29.1	79.8	<0.050	0.050	8894477			
Total Magnesium (Mg)	mg/L	7.82	15.9	<0.050	0.050	8894477			
Total Potassium (K)	mg/L	0.867	2.46	<0.050	0.050	8894477			
Total Sodium (Na)	mg/L	2.10	4.30	<0.050	0.050	8894477			
Total Sulphur (S)	mg/L	7.4	29.4	<3.0	3.0	8894477			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SW1599		
Sampling Date		2018/01/25		
COC Number		545120-03-01		
	UNITS	TRIP BLANK	RDL	QC Batch
Calculated Parameters			*	
Total Hardness (CaCO3)	mg/L	<0.50	0.50	8893629
Elements	•		•	
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8897455
Total Metals by ICPMS	•			
Total Aluminum (Al)	ug/L	<0.50	0.50	8895993
Total Antimony (Sb)	ug/L	<0.020	0.020	8895993
Total Arsenic (As)	ug/L	<0.020	0.020	8895993
Total Barium (Ba)	ug/L	<0.020	0.020	8895993
Total Beryllium (Be)	ug/L	<0.010	0.010	8895993
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	8895993
Total Boron (B)	ug/L	<10	10	8895993
Total Cadmium (Cd)	ug/L	<0.0050	0.0050	8895993
Total Chromium (Cr)	ug/L	<0.10	0.10	8895993
Total Cobalt (Co)	ug/L	<0.0050	0.0050	8895993
Total Copper (Cu)	ug/L	<0.050	0.050	8895993
Total Iron (Fe)	ug/L	<1.0	1.0	8895993
Total Lead (Pb)	ug/L	<0.0050	0.0050	8895993
Total Lithium (Li)	ug/L	<0.50	0.50	8895993
Total Manganese (Mn)	ug/L	<0.050	0.050	8895993
Total Molybdenum (Mo)	ug/L	<0.050	0.050	8895993
Total Nickel (Ni)	ug/L	<0.020	0.020	8895993
Total Phosphorus (P)	ug/L	<2.0	2.0	8895993
Total Selenium (Se)	ug/L	<0.040	0.040	8895993
Total Silicon (Si)	ug/L	<50	50	8895993
Total Silver (Ag)	ug/L	<0.0050	0.0050	8895993
Total Strontium (Sr)	ug/L	<0.050	0.050	8895993
Total Thallium (TI)	ug/L	<0.0020	0.0020	8895993
Total Tin (Sn)	ug/L	<0.20	0.20	8895993
Total Titanium (Ti)	ug/L	<0.50	0.50	8895993
Total Uranium (U)	ug/L	<0.0020	0.0020	8895993
Total Vanadium (V)	ug/L	<0.20	0.20	8895993
RDL = Reportable Detection				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SW1599					
Sampling Date		2018/01/25					
COC Number		545120-03-01					
	UNITS	TRIP BLANK	RDL	QC Batch			
Total Zinc (Zn)	ug/L	<0.10	0.10	8895993			
Total Zirconium (Zr)	ug/L	<0.10	0.10	8895993			
Total Calcium (Ca)	mg/L	<0.050	0.050	8894477			
Total Magnesium (Mg)	mg/L	<0.050	0.050	8894477			
Total Potassium (K)	mg/L	<0.050	0.050	8894477			
Total Sodium (Na)	mg/L	<0.050	0.050	8894477			
Total Sulphur (S)	mg/L	<3.0	3.0	8894477			
RDL = Reportable Detection Limit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SW1585		SW1587	SW1588	SW1589	SW1592		
		2018/01/21		2018/01/21	2018/01/21	2018/01/22	2018/01/23		
Sampling Date		14:05		12:55	14:50	12:30	13:45		
COC Number		545120-01-01		545120-01-01	545120-01-01	545120-01-01	545120-02-01		
	UNITS	CC-0.5	QC Batch	CC-4.5	СС-В	HC-2.5	BARKER U/S S.R.	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	180	8899782	124	374	190	202	0.50	8893629
Elements									
Total Mercury (Hg)	ug/L	<0.0020	8897455	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8897455
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	44.8	8900974	30.5	300	12.8	93.1	3.0	8895644
Total Antimony (Sb)	ug/L	0.021	8900974	0.078	0.125	0.491	0.077	0.020	8895644
Total Arsenic (As)	ug/L	0.385	8900974	0.266	1.11	0.599	22.7	0.020	8895644
Total Barium (Ba)	ug/L	75.8	8900974	84.2	137	60.4	214	0.050	8895644
Total Beryllium (Be)	ug/L	<0.010	8900974	<0.010	0.016	<0.010	0.021	0.010	8895644
Total Bismuth (Bi)	ug/L	<0.010	8900974	<0.010	<0.010	<0.010	<0.010	0.010	8895644
Total Boron (B)	ug/L	<10	8900974	<10	<10	<10	<10	10	8895644
Total Cadmium (Cd)	ug/L	0.0061	8900974	0.0101	0.0156	0.0144	0.0382	0.0050	8895644
Total Chromium (Cr)	ug/L	<0.10	8900974	0.17	1.31	0.11	0.57	0.10	8895644
Total Cobalt (Co)	ug/L	0.168	8900974	0.053	0.255	0.023	1.28	0.010	8895644
Total Copper (Cu)	ug/L	0.42	8900974	1.12	1.72	0.83	1.28	0.10	8895644
Total Iron (Fe)	ug/L	358	8900974	14.4	400	5.4	10200	5.0	8895644
Total Lead (Pb)	ug/L	<0.020	8900974	<0.020	0.186	<0.020	0.086	0.020	8895644
Total Lithium (Li)	ug/L	0.88	8900974	<0.50	1.56	1.69	1.30	0.50	8895644
Total Manganese (Mn)	ug/L	99.0	8900974	1.99	21.5	42.9	838	0.10	8895644
Total Molybdenum (Mo)	ug/L	0.149	8900974	0.505	0.459	1.44	1.04	0.050	8895644
Total Nickel (Ni)	ug/L	0.51	8900974	0.61	1.06	0.49	4.18	0.10	8895644
Total Phosphorus (P)	ug/L	<5.0	8900974	<5.0	15.0	<5.0	125	5.0	8895644
Total Selenium (Se)	ug/L	<0.040	8900974	0.066	0.102	0.067	0.166	0.040	8895644
Total Silicon (Si)	ug/L	3920	8900974	5070	5930	6240	5890	50	8895644
Total Silver (Ag)	ug/L	<0.010	8900974	<0.010	<0.010	<0.010	<0.010	0.010	8895644
Total Strontium (Sr)	ug/L	245	8900974	198	1090	523	316	0.050	8895644
Total Thallium (TI)	ug/L	0.0023	8900974	<0.0020	0.0032	<0.0020	<0.0020	0.0020	8895644
Total Tin (Sn)	ug/L	<0.20	8900974	<0.20	<0.20	<0.20	<0.20	0.20	8895644
Total Titanium (Ti)	ug/L	2.7	8900974	<2.0	17.6	<2.0	4.5	2.0	8895644
Total Uranium (U)	ug/L	3.54	8900974	1.50	34.0	74.2	1.22	0.0050	8895644
Total Vanadium (V)	ug/L	<0.20	8900974	0.22	1.22	<0.20	3.37	0.20	8895644
RDL = Reportable Detection L	imit							•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SW1585		SW1587	SW1588	SW1589	SW1592		
Sampling Date		2018/01/21		2018/01/21	2018/01/21	2018/01/22	2018/01/23		
Jamping Date		14:05		12:55	14:50	12:30	13:45		
COC Number		545120-01-01		545120-01-01	545120-01-01	545120-01-01	545120-02-01		
	UNITS	CC-0.5	QC Batch	CC-4.5	СС-В	HC-2.5	BARKER U/S S.R.	RDL	QC Batch
Total Zinc (Zn)	ug/L	<1.0	8900974	<1.0	1.9	<1.0	1.4	1.0	8895644
Total Zirconium (Zr)	ug/L	<0.10	8900974	0.18	0.26	0.16	0.90	0.10	8895644
Total Calcium (Ca)	mg/L	56.2	8900180	31.0	98.0	45.6	52.0	0.25	8894477
Total Magnesium (Mg)	mg/L	9.68	8900180	11.3	31.4	18.6	17.7	0.25	8894477
Total Potassium (K)	mg/L	1.44	8900180	1.56	5.62	2.80	1.82	0.25	8894477
Total Sodium (Na)	mg/L	3.02	8900180	4.27	5.45	3.84	7.24	0.25	8894477
Total Sulphur (S)	mg/L	23.6	8900180	27.2	75.0	24.9	25.1	3.0	8894477
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SW1593	SW1595		SW1597		
Sampling Date		2018/01/23 13:15					
COC Number		545120-02-01	545120-02-01		545120-03-01		
	UNITS	STEWART D/S M.M.	SAMPLE A	RDL	SAMPLE B	RDL	QC Batch
Calculated Parameters				•		•	
Total Hardness (CaCO3)	mg/L	200	356	0.50	263	0.50	8893629
Elements			1			ı	
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	0.0020	<0.0020	0.0020	8897455
Total Metals by ICPMS			1			ı	
Total Aluminum (Al)	ug/L	42.0	10.1	3.0	2320	15	8895644
Total Antimony (Sb)	ug/L	0.127	0.092	0.020	0.82	0.10	8895644
Total Arsenic (As)	ug/L	0.381	1.33	0.020	490	0.10	8895644
Total Barium (Ba)	ug/L	80.8	68.4	0.050	1270	0.25	8895644
Total Beryllium (Be)	ug/L	<0.010	<0.010	0.010	0.339	0.050	8895644
Total Bismuth (Bi)	ug/L	<0.010	<0.010	0.010	0.103	0.050	8895644
Total Boron (B)	ug/L	<10	<10	10	<50	50	8895644
Total Cadmium (Cd)	ug/L	0.156	0.0081	0.0050	1.34	0.025	8895644
Total Chromium (Cr)	ug/L	<0.10	0.11	0.10	8.09	0.50	8895644
Total Cobalt (Co)	ug/L	0.073	0.021	0.010	4.68	0.050	8895644
Total Copper (Cu)	ug/L	0.63	0.90	0.10	43.8	0.50	8895644
Total Iron (Fe)	ug/L	110	<5.0	5.0	204000	25	8895644
Total Lead (Pb)	ug/L	0.097	<0.020	0.020	2.15	0.10	8895644
Total Lithium (Li)	ug/L	3.86	2.87	0.50	2.6	2.5	8895644
Total Manganese (Mn)	ug/L	12.9	9.82	0.10	814	0.50	8895644
Total Molybdenum (Mo)	ug/L	0.592	0.382	0.050	2.74	0.25	8895644
Total Nickel (Ni)	ug/L	3.14	0.37	0.10	19.2	0.50	8895644
Total Phosphorus (P)	ug/L	9.0	<5.0	5.0	3070	25	8895644
Total Selenium (Se)	ug/L	0.912	0.173	0.040	2.09	0.20	8895644
Total Silicon (Si)	ug/L	3110	5720	50	16100	250	8895644
Total Silver (Ag)	ug/L	<0.010	<0.010	0.010	<0.050	0.050	8895644
Total Strontium (Sr)	ug/L	275	945	0.050	596	0.25	8895644
Total Thallium (TI)	ug/L	<0.0020	<0.0020	0.0020	0.013	0.010	8895644
Total Tin (Sn)	ug/L	<0.20	<0.20	0.20	<1.0	1.0	8895644
Total Titanium (Ti)	ug/L	<2.0	<2.0	2.0	101	10	8895644
Total Uranium (U)	ug/L	1.36	30.2	0.0050	7.08	0.025	8895644
Total Vanadium (V)	ug/L	<0.20	0.24	0.20	67.5	1.0	8895644
RDL = Reportable Detection							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		SW1593	SW1595		SW1597		
Sampling Date		2018/01/23 13:15					
COC Number		545120-02-01	545120-02-01		545120-03-01		
	UNITS	STEWART D/S M.M.	SAMPLE A	RDL	SAMPLE B	RDL	QC Batch
Total Zinc (Zn)	ug/L	13.7	<1.0	1.0	27.1	5.0	8895644
Total Zirconium (Zr)	ug/L	<0.10	0.18	0.10	9.23	0.50	8895644
Total Calcium (Ca)	mg/L	51.9	91.8	0.25	69.1	1.3	8894477
Total Magnesium (Mg)	mg/L	17.0	30.7	0.25	22.0	1.3	8894477
Total Potassium (K)	mg/L	0.69	5.47	0.25	2.5	1.3	8894477
Total Sodium (Na)	mg/L	2.31	5.85	0.25	9.1	1.3	8894477
Total Sulphur (S)	mg/L	32.3	71.4	3.0	33	15	8894477
RDL = Reportable Detection	ı Limit		-		•		•



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample SW1585 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SW1586 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SW1587 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SW1588 [CC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SW1594 [LATTE MIX] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample SW1598 [FIELD BLANK]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

#### LL TOTAL METALS (DIGESTED) WITH CV HG Comments

Sample SW1597 [SAMPLE B] Elements by ICPMS Digested LL (total): RDL raised due to concentration over linear range, sample dilution required. Sample SW1591, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



## **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked	Blank	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8895011	Nitrate plus Nitrite (N)	2018/01/25	NC	80 - 120	112	80 - 120	<0.0020	mg/L	0.24	25
8895012	Nitrite (N)	2018/01/25	104	80 - 120	104	80 - 120	<0.0020	mg/L	0	25
8895024	Nitrate plus Nitrite (N)	2018/01/25	NC	80 - 120	110	80 - 120	<0.0020	mg/L	0.32	25
8895025	Nitrite (N)	2018/01/25	105	80 - 120	105	80 - 120	<0.0020	mg/L	NC	25
8895112	Dissolved Aluminum (Al)	2018/01/26	94	80 - 120	93	80 - 120	<0.50	ug/L	NC	20
8895112	Dissolved Antimony (Sb)	2018/01/26	96	80 - 120	94	80 - 120	<0.020	ug/L	NC	20
8895112	Dissolved Arsenic (As)	2018/01/26	95	80 - 120	92	80 - 120	<0.020	ug/L	NC	20
8895112	Dissolved Barium (Ba)	2018/01/26	NC	80 - 120	96	80 - 120	<0.020	ug/L	NC	20
8895112	Dissolved Beryllium (Be)	2018/01/26	85	80 - 120	84	80 - 120	<0.010	ug/L	NC	20
8895112	Dissolved Bismuth (Bi)	2018/01/26	103	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
8895112	Dissolved Boron (B)	2018/01/26	93	80 - 120	92	80 - 120	<10	ug/L	NC	20
8895112	Dissolved Cadmium (Cd)	2018/01/26	97	80 - 120	96	80 - 120	< 0.0050	ug/L	NC	20
8895112	Dissolved Chromium (Cr)	2018/01/26	98	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
8895112	Dissolved Cobalt (Co)	2018/01/26	97	80 - 120	102	80 - 120	< 0.0050	ug/L	NC	20
8895112	Dissolved Copper (Cu)	2018/01/26	95	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
8895112	Dissolved Iron (Fe)	2018/01/26	97	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
8895112	Dissolved Lead (Pb)	2018/01/26	103	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8895112	Dissolved Lithium (Li)	2018/01/26	82	80 - 120	82	80 - 120	<0.50	ug/L	NC	20
8895112	Dissolved Manganese (Mn)	2018/01/26	NC	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
8895112	Dissolved Molybdenum (Mo)	2018/01/26	104	80 - 120	96	80 - 120	<0.050	ug/L	NC	20
8895112	Dissolved Nickel (Ni)	2018/01/26	97	80 - 120	104	80 - 120	<0.020	ug/L	NC	20
8895112	Dissolved Phosphorus (P)	2018/01/26	105	80 - 120	99	80 - 120	<2.0	ug/L	NC	20
8895112	Dissolved Selenium (Se)	2018/01/26	104	80 - 120	99	80 - 120	<0.040	ug/L	NC	20
8895112	Dissolved Silicon (Si)	2018/01/26	101	80 - 120	103	80 - 120	<50	ug/L	NC	20
8895112	Dissolved Silver (Ag)	2018/01/26	99	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
8895112	Dissolved Strontium (Sr)	2018/01/26	NC	80 - 120	93	80 - 120	<0.050	ug/L	NC	20
8895112	Dissolved Thallium (TI)	2018/01/26	104	80 - 120	103	80 - 120	<0.0020	ug/L	NC	20
8895112	Dissolved Tin (Sn)	2018/01/26	95	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
8895112	Dissolved Titanium (Ti)	2018/01/26	96	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
8895112	Dissolved Uranium (U)	2018/01/26	118	80 - 120	113	80 - 120	<0.0020	ug/L	NC	20
8895112	Dissolved Vanadium (V)	2018/01/26	98	80 - 120	98	80 - 120	<0.20	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method I	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8895112	Dissolved Zinc (Zn)	2018/01/26	95	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
8895112	Dissolved Zirconium (Zr)	2018/01/26	92	80 - 120	96	80 - 120	<0.10	ug/L	NC	20
8895399	Dissolved Organic Carbon (C)	2018/01/26	98	80 - 120	115	80 - 120	<0.50	mg/L	3.0	20
8895400	Total Organic Carbon (C)	2018/01/26	89	80 - 120	115	80 - 120	<0.50	mg/L	2.5	20
8895401	Total Organic Carbon (C)	2018/01/26	104	80 - 120	110	80 - 120	<0.50	mg/L	0.98	20
8895408	Total Suspended Solids	2018/01/29			102	80 - 120	<1.0	mg/L		
8895416	Dissolved Organic Carbon (C)	2018/01/26	104	80 - 120	110	80 - 120	<0.50	mg/L	8.9	20
8895485	Total Dissolved Solids	2018/01/31	101	80 - 120	98	80 - 120	<10	mg/L	2.5	20
8895499	Total Dissolved Solids	2018/01/31	98	80 - 120	91	80 - 120	<10	mg/L	NC	20
8895644	Total Aluminum (Al)	2018/01/30	100	80 - 120	88	80 - 120	<3.0	ug/L		
8895644	Total Antimony (Sb)	2018/01/30	106	80 - 120	90	80 - 120	<0.020	ug/L		
8895644	Total Arsenic (As)	2018/01/30	108	80 - 120	99	80 - 120	<0.020	ug/L		
8895644	Total Barium (Ba)	2018/01/30	NC	80 - 120	86	80 - 120	<0.050	ug/L		
8895644	Total Beryllium (Be)	2018/01/30	105	80 - 120	92	80 - 120	<0.010	ug/L		
8895644	Total Bismuth (Bi)	2018/01/30	96	80 - 120	87	80 - 120	<0.010	ug/L		
8895644	Total Boron (B)	2018/01/30	91	80 - 120	81	80 - 120	<10	ug/L		
8895644	Total Cadmium (Cd)	2018/01/30	102	80 - 120	87	80 - 120	< 0.0050	ug/L		
8895644	Total Chromium (Cr)	2018/01/30	91	80 - 120	90	80 - 120	<0.10	ug/L		
8895644	Total Cobalt (Co)	2018/01/30	90	80 - 120	90	80 - 120	<0.010	ug/L		
8895644	Total Copper (Cu)	2018/01/30	88	80 - 120	91	80 - 120	<0.10	ug/L		
8895644	Total Iron (Fe)	2018/01/30	80	80 - 120	96	80 - 120	<5.0	ug/L		
8895644	Total Lead (Pb)	2018/01/30	100	80 - 120	90	80 - 120	<0.020	ug/L		
8895644	Total Lithium (Li)	2018/01/30	96	80 - 120	88	80 - 120	<0.50	ug/L		
8895644	Total Manganese (Mn)	2018/01/30	NC	80 - 120	93	80 - 120	<0.10	ug/L		
8895644	Total Molybdenum (Mo)	2018/01/30	104	80 - 120	87	80 - 120	<0.050	ug/L		
8895644	Total Nickel (Ni)	2018/01/30	91	80 - 120	93	80 - 120	<0.10	ug/L		
8895644	Total Phosphorus (P)	2018/01/30	111	80 - 120	101	80 - 120	<5.0	ug/L		
8895644	Total Selenium (Se)	2018/01/30	98	80 - 120	102	80 - 120	<0.040	ug/L		
8895644	Total Silicon (Si)	2018/01/30	115	80 - 120	108	80 - 120	<50	ug/L		
8895644	Total Silver (Ag)	2018/01/30	97	80 - 120	86	80 - 120	<0.010	ug/L		
8895644	Total Strontium (Sr)	2018/01/30	NC	80 - 120	98	80 - 120	<0.050	ug/L		



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8895644	Total Thallium (TI)	2018/01/30	99	80 - 120	89	80 - 120	<0.0020	ug/L		
8895644	Total Tin (Sn)	2018/01/30	101	80 - 120	83	80 - 120	<0.20	ug/L		
8895644	Total Titanium (Ti)	2018/01/30	97	80 - 120	95	80 - 120	<2.0	ug/L		
8895644	Total Uranium (U)	2018/01/30	100	80 - 120	87	80 - 120	<0.0050	ug/L		
8895644	Total Vanadium (V)	2018/01/30	97	80 - 120	94	80 - 120	<0.20	ug/L		
8895644	Total Zinc (Zn)	2018/01/30	97	80 - 120	99	80 - 120	<1.0	ug/L		
8895644	Total Zirconium (Zr)	2018/01/30	100	80 - 120	94	80 - 120	<0.10	ug/L		
8895770	рН	2018/01/26			101	97 - 103			1.1	20
8895784	Conductivity	2018/01/26			100	80 - 120	<1.0	uS/cm	0	20
8895785	Alkalinity (PP as CaCO3)	2018/01/26					<0.50	mg/L	NC	20
8895785	Alkalinity (Total as CaCO3)	2018/01/26	NC	80 - 120	96	80 - 120	<0.50	mg/L	NC	20
8895785	Bicarbonate (HCO3)	2018/01/26					<0.50	mg/L	NC	20
8895785	Carbonate (CO3)	2018/01/26					<0.50	mg/L	NC	20
8895785	Hydroxide (OH)	2018/01/26					<0.50	mg/L	NC	20
8895993	Total Aluminum (AI)	2018/01/29	96	80 - 120	104	80 - 120	<0.50	ug/L	9.8	20
8895993	Total Antimony (Sb)	2018/01/29	94	80 - 120	102	80 - 120	<0.020	ug/L	2.2	20
8895993	Total Arsenic (As)	2018/01/29	102	80 - 120	102	80 - 120	<0.020	ug/L	2.9	20
8895993	Total Barium (Ba)	2018/01/29	NC	80 - 120	100	80 - 120	<0.020	ug/L	3.3	20
8895993	Total Beryllium (Be)	2018/01/29	95	80 - 120	112	80 - 120	<0.010	ug/L	NC	20
8895993	Total Bismuth (Bi)	2018/01/29	90	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8895993	Total Boron (B)	2018/01/29	89	80 - 120	97	80 - 120	<10	ug/L	NC	20
8895993	Total Cadmium (Cd)	2018/01/29	92	80 - 120	101	80 - 120	< 0.0050	ug/L	16	20
8895993	Total Chromium (Cr)	2018/01/29	87	80 - 120	94	80 - 120	<0.10	ug/L	7.5	20
8895993	Total Cobalt (Co)	2018/01/29	85	80 - 120	96	80 - 120	< 0.0050	ug/L	0.93	20
8895993	Total Copper (Cu)	2018/01/29	81	80 - 120	94	80 - 120	< 0.050	ug/L	2.0	20
8895993	Total Iron (Fe)	2018/01/29	97	80 - 120	105	80 - 120	<1.0	ug/L	15	20
8895993	Total Lead (Pb)	2018/01/29	94	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
8895993	Total Lithium (Li)	2018/01/29	95	80 - 120	115	80 - 120	<0.50	ug/L	2.2	20
8895993	Total Manganese (Mn)	2018/01/29	83	80 - 120	96	80 - 120	<0.050	ug/L	4.7	20
8895993	Total Molybdenum (Mo)	2018/01/29	100	80 - 120	100	80 - 120	<0.050	ug/L	0.37	20
8895993	Total Nickel (Ni)	2018/01/29	85	80 - 120	96	80 - 120	<0.020	ug/L	1.6	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8895993	Total Phosphorus (P)	2018/01/29	99	80 - 120	101	80 - 120	<2.0	ug/L	5.9	20
8895993	Total Selenium (Se)	2018/01/29	102	80 - 120	99	80 - 120	<0.040	ug/L	3.8	20
8895993	Total Silicon (Si)	2018/01/29	NC	80 - 120	108	80 - 120	<50	ug/L	9.4	20
8895993	Total Silver (Ag)	2018/01/29	91	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
8895993	Total Strontium (Sr)	2018/01/29	NC	80 - 120	102	80 - 120	<0.050	ug/L	4.2	20
8895993	Total Thallium (TI)	2018/01/29	93	80 - 120	99	80 - 120	<0.0020	ug/L	3.8	20
8895993	Total Tin (Sn)	2018/01/29	82	80 - 120	87	80 - 120	<0.20	ug/L	NC	20
8895993	Total Titanium (Ti)	2018/01/29	92	80 - 120	95	80 - 120	<0.50	ug/L	NC	20
8895993	Total Uranium (U)	2018/01/29	90	80 - 120	100	80 - 120	<0.0020	ug/L	1.1	20
8895993	Total Vanadium (V)	2018/01/29	91	80 - 120	96	80 - 120	<0.20	ug/L	8.0	20
8895993	Total Zinc (Zn)	2018/01/29	85	80 - 120	101	80 - 120	<0.10	ug/L	7.3	20
8895993	Total Zirconium (Zr)	2018/01/29	97	80 - 120	97	80 - 120	<0.10	ug/L	14	20
8896147	Total Ammonia (N)	2018/01/26	105	80 - 120	102	80 - 120	< 0.0050	mg/L	NC	20
8896774	Total Suspended Solids	2018/01/30			100	80 - 120	<1.0	mg/L		
8896776	Total Suspended Solids	2018/01/30			104	80 - 120	<1.0	mg/L		
8897282	Dissolved Selenium (Se)	2018/01/30	88	80 - 120	97	80 - 120	<0.040	ug/L	NC	20
8897455	Total Mercury (Hg)	2018/01/30	99	80 - 120	99	80 - 120	< 0.0020	ug/L	NC	20
8897457	Dissolved Chloride (CI)	2018/01/29	116	80 - 120	103	80 - 120	<0.50	mg/L	2.8	20
8897461	Dissolved Sulphate (SO4)	2018/01/29	NC	80 - 120	100	80 - 120	<0.50	mg/L	0.22	20
8897652	ORP	2018/01/31							0	20
8897658	Dissolved Mercury (Hg)	2018/01/30	94	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
8897806	Total Organic Carbon (C)	2018/01/30	100	80 - 120	113	80 - 120	<0.50	mg/L	NC	20
8898072	Weak Acid Dissoc. Cyanide (CN)	2018/01/30	103	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20
8898706	Dissolved Sulphate (SO4)	2018/01/30			101	80 - 120	<0.50	mg/L		
8899108	Fluoride (F)	2018/01/31	104	80 - 120	104	80 - 120	<0.010	mg/L	0	20
8900974	Total Aluminum (AI)	2018/02/03	NC	80 - 120	110	80 - 120	<3.0	ug/L	5.2	20
8900974	Total Antimony (Sb)	2018/02/03	95	80 - 120	95	80 - 120	<0.020	ug/L	7.2	20
8900974	Total Arsenic (As)	2018/02/03	98	80 - 120	99	80 - 120	<0.020	ug/L	4.0	20
8900974	Total Barium (Ba)	2018/02/03	NC	80 - 120	100	80 - 120	<0.050	ug/L	0.16	20
8900974	Total Beryllium (Be)	2018/02/03	99	80 - 120	100	80 - 120	<0.010	ug/L	5.3	20
8900974	Total Bismuth (Bi)	2018/02/03	93	80 - 120	97	80 - 120	<0.010	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8900974	Total Boron (B)	2018/02/03	NC	80 - 120	94	80 - 120	<10	ug/L	4.0	20
8900974	Total Cadmium (Cd)	2018/02/03	94	80 - 120	95	80 - 120	<0.0050	ug/L	NC	20
8900974	Total Chromium (Cr)	2018/02/03	96	80 - 120	101	80 - 120	<0.10	ug/L	11	20
8900974	Total Cobalt (Co)	2018/02/03	96	80 - 120	101	80 - 120	<0.010	ug/L	7.3	20
8900974	Total Copper (Cu)	2018/02/03	94	80 - 120	101	80 - 120	<0.10	ug/L	15	20
8900974	Total Iron (Fe)	2018/02/03	126 (1)	80 - 120	110	80 - 120	<5.0	ug/L	3.8	20
8900974	Total Lead (Pb)	2018/02/03	95	80 - 120	98	80 - 120	<0.020	ug/L	4.1	20
8900974	Total Lithium (Li)	2018/02/03	NC	80 - 120	103	80 - 120	<0.50	ug/L	3.5	20
8900974	Total Manganese (Mn)	2018/02/03	93	80 - 120	101	80 - 120	<0.10	ug/L	11	20
8900974	Total Molybdenum (Mo)	2018/02/03	NC	80 - 120	97	80 - 120	<0.050	ug/L	0.96	20
8900974	Total Nickel (Ni)	2018/02/03	93	80 - 120	101	80 - 120	<0.10	ug/L	6.4	20
8900974	Total Phosphorus (P)	2018/02/03	107	80 - 120	105	80 - 120	<5.0	ug/L		
8900974	Total Selenium (Se)	2018/02/03	99	80 - 120	104	80 - 120	<0.040	ug/L	13	20
8900974	Total Silicon (Si)	2018/02/03	104	80 - 120	103	80 - 120	<50	ug/L	2.3	20
8900974	Total Silver (Ag)	2018/02/03	92	80 - 120	96	80 - 120	<0.010	ug/L	NC	20
8900974	Total Strontium (Sr)	2018/02/03	NC	80 - 120	98	80 - 120	<0.050	ug/L	5.3	20
8900974	Total Thallium (TI)	2018/02/03	91	80 - 120	98	80 - 120	< 0.0020	ug/L	18	20
8900974	Total Tin (Sn)	2018/02/03	91	80 - 120	93	80 - 120	<0.20	ug/L	NC	20
8900974	Total Titanium (Ti)	2018/02/03	111	80 - 120	102	80 - 120	<2.0	ug/L	18	20
8900974	Total Uranium (U)	2018/02/03	101	80 - 120	103	80 - 120	<0.0050	ug/L	3.0	20
8900974	Total Vanadium (V)	2018/02/03	102	80 - 120	101	80 - 120	<0.20	ug/L	3.4	20
8900974	Total Zinc (Zn)	2018/02/03	98	80 - 120	102	80 - 120	<1.0	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPE	)
QC Batch	QC Batch Parameter		% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8900974	Total Zirconium (Zr)	2018/02/03	102	80 - 120	99	80 - 120	<0.10	ug/L	3.8	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		INVOICE TO:				Report In	formati	on						Project le	nformatio	n		<b>I</b>	BITTIS NAVA PLANSFORM		
npany Name	#3604 LORA	X ENVIRONMENTAL SE	RVICES LTD.	Company I	lame						Quo	tation#	- 5	B40231						Ш	ottle Order
tact Name	Aida Piaseczn	y		Contact Na	me David Flat	her					P.O.				1334			Do	MARKET SAN MARK WAS SIGNED WAS	1111	HIMIOTORI
ress	2289 BURRAF	D STREET		Address							Proje	ect#	2	Gold Cor	p Coffe	e Creek	-SW	B8	806180_COC		545120
	VANCOUVER				-						Proje	ect Name	-		_						oject Manag
10	(604) 688-717		688-7175 x	Phone				Fax:			Site	#	-							1	Megan Smith
	aida.piaseczny	@lorax.ca; shukling.ng@	lorax.ca	Email	David.Flat	her@lorax	.ca				Sam	pled By							C#545120-01-01		megan billia
egulatory Crit	eria			Spe	cial Instructions						_	Analysis F	Requested						Turnaround Time (TAT) F		
	No. to English to	l drinking water samples - pleas	a uses the Drinking M	later Chain a	d Custody Form		Drinking Water ? (Y/N)	eld Filtered ? ( Y / N )  (Alk-LL, EC-LL, NH4-TDS)	Level	(LL:CI, F, NO2, NO3,	- WAD			of Dissolved Metals	el Total Metals incl. CV			(will be ap Standard Please no days - col Job Specifi Date Requi		800 and	Dioxins/Furans a
							2	# S +	No.	s (L				Level C CV Hg	Level	1		Rush Confir	rmation Number	(call lab t	tw #I
	Samples	must be kept cool ( < 10°C ) from			sexam			Routine LL, pH,	TSS-Low	Anions SO4)	Cyanide	700	000	Low L	Low 1 Hg	ORP					
-	Barcode Label	Sample (Location) Identific		Sampled	Time Sampled	Matrix	Reg	를 잃그	F	40	0	ř	٥	3.5	3I	0		# of Bottles	Commer	ts	
Si	DW162743	CC-0.5	1/	N. 21	14:05	H20	N	M C	-	_	_	_	-	~	_	V		13			
	0#162744	CC-1.5	JA	V. 21	15:20	1120	N	NV	v	V	~	V	-	/	·	/		13			
	0#162745	CC-3.5		-				-		32mm .						=	-	-	RECEIVED IN W	HITE	HORSE
	0#162746	CC-4.5	51	N. 21	12:55	HIP	N	NU	V	V	c	_	V	~	~	/	X	13	BY: DU	WU	(N) 143
	0#162747	CC-A	-		are gues - es		$\vdash$	-					-	-	_		-	_	2018 -0	11- 2	4
	0#162748	СС-В	JA	. 21	14:50	1120	N	VV	V	1	V	V	1	V	~	1	ix	13	TEMP: 10 ,	9	10
	#149895	CC-X					$\vdash$			-									6 '	6	6
	#149896	HC-2.5	IA	w. 22	12:30	420	N	N /	1	V	~	V	V	V	1	1	X	13	9	8	9
	#149897	IC-0.5	_  -				H			-		-							lo	9	10
Sit	#149898	IC-1.5	-				1	+-					-			_	_				
- REUNQ	UISHED BY: (Signatu	(e/Print)	Pate: (YY/MM/DD			RECE		(Signature/P				te: (YY/MM/		14:15		used and ubmitted	Time Sen	elti-m I	Lab Use Only	d. Coul to	tect on Cooler?
199	5 Word	~	Jan . 20	12:	winey	ma E		SYKO	-			18/01	1					1 en	2,3,5	Yes	No No
R VIEWING	AT WWW.MAXXAM.CA	N WRITING, WORK SUBMITTED O VTERMS. RELINQUISHER TO ENSURE THE											OCUMENT	IS ACKNO	WLEDGME	MT AND AC	CEPTANO	E OF OUR T	TERMS WHICH ARE AVAILABLE VIN	te: Maxxim	Yellow: Cli
- Arm muse	T. SHEET, I. ST. THE	The second secon				A Property of the Park						-							2,4,4	OF ENDER	PRESEN

Maxxam Analytics International Corporation o/a Maxxam Analytics

		VVOICE TO:			Report Inf	formation	n						Project la	nformatio	n.			COUR DO NOT	
pany Name	#3604 LORAX	ENVIRONMENTAL SERVICES LT	D. Company N	ame						Que	tation#	4	B40231					8 / v   111	
ct Name	Aida Piaseczny		Contact Nar	Consider Class	er					P.O.					-320-000		B806180_COC		
15	2289 BURRARD	STREET	Address	W. 18 <del>-11-11-11-11-11-11-11-11-11-11-11-11-11</del>						Proye	ect #	0	Gold Cor	p Coffe	e Creek-	SW	2000100_COC	5	
	VANCOUVER B									Proje	ect Name	-					Orient Of Oddisory reserve	,t	
	(604) 688-7173		X Phone	-			Fax			Site								Megar	
	aida.piaseczny@	lorax ca, shukling ng@lorax ca	Email	David Flath	er@lorax.	ca				Sam	pled By						C#545120-02-01		
ulatory C	riteria		Spec	oal Instructions		~		_			Analysis R	Requested	1	3			Turnaround Time (TAT) Please provide advance notice		
<del></del>	Note: For regulated o	trinking water samples - please use the Drin	iking Water Chain o	f Custody Form		ed Drinking Water ? (Y / N )	(Alk-LL, EC-LL	w Level	Anions (LL.Cl, F, NO2, NO3, SO4)	- WAD	87		vel Dissolved Metals ' Hg	Level Total Metals incl.		Stand Pleas days Job S Date F	flar (Standard) TAT  be applied if Rush TAT is not specified)  rand TAT = 5-7 Working days for most testa.  the noter Standard TAT for carbain tests such a  contact your Project Manager for details.  pecific Rush TAT (if applies to entire submiss  lequired:  Tonfirmation Number	ESCORPANIES O	
	Samples mu	ust be kept cool ( < 10°C ) from time of samplin	ig until delivery to ma	xxam		late is E	E F	유	Suc (t	nide		O	SÉ	Ę	0	0/0550	With the Massace Paper.	(call lab for #)	
	e Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regu	1 5 :	TSS-Low	Anic	Cyanide	100	200	Low	Low Hg	ORP	Wat Bo	Comm	ents	
100100	III III III IIIIIIIIIIIIIIIIIIIIIIIIII	1025 Ic-45			Hio	N	10	-	_	~	~	_	c	-	v	13	- IN WH	ITEHORSE	
		YUK-2.0												-	_	entra di Propinsi	RECEIVED IN WHITEHORSE BY: Sayono @ 12		
	SIDW149901	YUK-5.0	JAN. 22	14:00	H20	NI	1 0	v	_	L	ن	_	<u></u>	-	-	13			
		Ballarat U/S Y.R.								_								- 1 1	
	SID#149903	Barker U/S S.R.	JAN. 23	13:45	1120	N	10	~	V		~	-	v	v	~	13		9 6 6	
	SID#149904	Blackhills U/S S.R.															- 6	6 6	
	SID#094856	MaisyMay U/S S.R.				+	-	_	-	_	-	_	-			_	- 9	8 9	
		Stewart D/S M.M.	JAN. 23	13:15	1120	W A	1	V	1	r	V	~	~	~	~	13	10	9 10	
	SID#176821	Latte Mix	JAN. 21	12:45	1120	NA	v	~	V	1	1	/	1	~	~	13			
	SID#176822	Sample A			1120	NA	10		e	v	~	~	~	·		13			
· RELIV	NOUISHED BY: (Signatur		7	100		-	Signature/Pr	rint)		_	te: (YY/MM/I	-	Time	# jars	used and ubmitted	Time Sansitive	Lab Use Only	stody Seal Intact on C	
M	which	~ Jon.	- /   / -	55 En 89		U4	TKO	YE41			018/01	1	1445				2/3/5	VYes No	
R VIEWIN	G AT WWW.MAXXAM.CA	WRITING, WORK SUBMITTED ON THIS CHAIN OF TERMS. ELINQUISHER TO ENSURE THE ACCURACY OF										OCUMENT	r is acknow	WLEDGME	NT AND ACC	EPTANCE OF O	UR TÉRMS WHICH ARE AVAILABLE	White Maxxem Ye	

Maxxem Analytics International Corporation o/a Maxxem Analytics

		INVOICE TO:				Report in	formati	on						Project I	nformatio	3		THE REPORT OF THE PARTY COURSE.	MICHIGAN.	F = 1.01	
pany Name	#3604 LORAX	ENVIRONMENTAL SERVICES	LTD.	Company N	ame						00	station#		B40231						<i>a</i> III.	Order#:
ect Name	Aida Piaseczny			Contact Na	ne David Flat	her					P.0	),#								8. 1111	
ss	2289 BURRARI	STREET		Address	3407 - 800 - 1						Pro	ject#		Gold Co	rp Coffe	e Creek-SI	٧	B806180_CO	C		1120
	VANCOUVER I										Pro	ect Name							WARRING TO THE	255	Manage
ř	(604) 688-7173	100	75 x	Phone				Fax:			Site									9	Megan Smith
	aida.piaseczny(	@lorax.ca; shukling.ng@lorax.ca		Email	David.Flat	her@lorax	ca	-			Sa	mpled By						C#545120-03-01			
gulatory Cr	iteria	1		Spe	cial Instructions		-	-		_	1	Analysis	Requester	d	3			Turnaround Tin Please provide advan			
		drinking water samples - please use the ust be kept cool ( < 10°C ) from time of sam					gulated Drinking Water 7 ( Y / N )	Routine (Alk-LL, EC-LL, NH4-	LL, pn, 1LS) TSS-Low Level	Anions (LL.CI, F. NO2, NO3, SOA)	Cyanide - WAD	700	DOC	Low Level Dissolved Metals incl. CV Hg	Low Level Total Metals incl. ( Hg	ОКР	Standari Please i days - ci Job Speci Date Req	r (Standard) TAT applied if Rush TAT is not specified if Rush TAT is not specified TAT = 5-7 Working days for mote: Standard TAT for certain te contact your Project Manager for cific Rush TAT (if applies to entin	ied) ost leats est such as BOI details e submission)	D and Diox	nins/Furans a
Sample	Barcode Label	Sample (Location) Identification	Date	a Sampled	Time Sampled	Matrix	Reg	§ 8:	1 2	A C	O.	7	ă	3.5	S.E.	Ö	# of Bottle	95	Comments		
	ID#176823	Sample B				H20	N	Nc			-	~	·	-	_	_	13				
	ID#176824	FIELD BLANK	JA	N. 21	19:00	H20	N	U .	-	- v		v	~	-	_	-	13	RECEIVED IN	WHITE	HORS	E
	D#176825	TRIP BLANK				420	N	Vi	- 4	v	-	_	~	1	_	/	13	BY: Sly	WO C	51.	25.0
	ID#178956	58																201	8 -01- 2	4	
	ID#178957																	TEMP		,	
										$\perp$								TEMP: 10	19	10	<b>)</b>
																		6	6	6	
																		9	8	c	i
																		10	9	1	0
· RELIN	DUINHED BY: Signatur	e/Pgint) Pate:	(YY/MM/DD					(Signatur	(Print)			te: (YY/MM		Time		used and ubmitted		Lab Use (			
Si	In Wi	Jan	~. 2	4/2:	55 and	gha E	VA	SYK	82A		20	18/01	25	14.15	nots	th the	ne Sensitive Te	emperature (°C) on Receipt	Custody		on Cooler?
VIEWING	S AT WWW.MAXXAM.CA	WRITING, WORK SUBMITTED ON THIS CH TERMS. HELINGUISHER TO ENSURE THE ACCURACY											DOCUMEN	IT IS ACKNO	WLEDGME	NT AND ACCE	TANCE OF OUR	TERMS WHICH ARE AVAILABLE	White: N	Maxxam	Yellow: Cit

Maxxam Analytics International Corporation o/a Maxxam Analytics



Your Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER Your C.O.C. #: 546749-01-01, 546749-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/03/02

Report #: R2522759 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B812436 Received: 2018/02/19, 10:40

Sample Matrix: Water # Samples Received: 9

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	9	2018/02/21	2018/02/21	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	9	N/A	2018/02/21	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide WAD (weak acid dissociable)	9	N/A	2018/02/27	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	9	N/A	2018/02/22	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	9	2018/02/21	2018/02/21	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	9	N/A	2018/02/27	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (2)	5	N/A	2018/02/22	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (2)	4	N/A	2018/02/28	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	9	N/A	2018/02/27	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	9	N/A	2018/02/21	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	9	2018/02/21	2018/02/21	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	9	N/A	2018/02/27	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	9	N/A	2018/02/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	4	2018/02/21	2018/02/27	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	N/A	2018/02/22	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2018/02/28	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	5	N/A	2018/02/22	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	8	N/A	2018/02/21	BBY6SOP-00009	EPA 350.1 m
Ammonia-N Low Level (Preserved)	1	N/A	2018/02/27	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	9	N/A	2018/02/20	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	9	N/A	2018/02/20	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	9	N/A	2018/02/21	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	9	N/A	2018/02/21	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	8	N/A	2018/02/21	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	9	2018/02/21	2018/02/21	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	7	N/A	2018/02/21	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	2	N/A	2018/02/22	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	3	2018/02/22	2018/02/23	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	6	2018/02/23	2018/02/27	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (4)	9	N/A	2018/02/22	BBY6SOP-00003	SM 22 5310 C m



Your Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 546749-01-01, 546749-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/03/02

Report #: R2522759 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B812436 Received: 2018/02/19, 10:40

Sample Matrix: Water # Samples Received: 9

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Total Suspended Solids-Low Level	4	2018/02/23	2018/02/26	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	5	2018/02/24	2018/02/26	BBY6SOP-00034	SM 22 2540 D

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.



Your Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER Your C.O.C. #: 546749-01-01, 546749-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/03/02

Report #: R2522759 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B812436 Received: 2018/02/19, 10:40

**Encryption Key** 



Maxxam 02 Mar 2018 17:50:18

Please direct all questions regarding this Certificate of Analysis Project Manager.

Megan Smith, Project Manager Email: msmith@maxxam.ca Phone# (604) 734 7276

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SZ2387			SZ2387			SZ2388		
Sampling Date		2018/02/17 12:30			2018/02/17 12:30			2018/02/17 13:05		
COC Number		546749-01-01			546749-01-01			546749-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Parameter		•	•	•		•	-		•	•
ORP	mV	292		8915849	294		8915849	296		8915849
Calculated Parameters		1		Į.						
Filter and HNO3 Preservation	N/A	LAB		8914275				LAB		8914275
Nitrate (N)	mg/L	0.0712	0.0020	8914568				0.298	0.0020	8914568
Misc. Inorganics		1		Į.						
Weak Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8920768				<0.00050	0.00050	8920768
Fluoride (F)	mg/L	0.061	0.010	8920887				0.110	0.010	8920887
Dissolved Organic Carbon (C)	mg/L	3.91	0.50	8917336				5.59	0.50	8917336
Alkalinity (Total as CaCO3)	mg/L	149	0.50	8916933	153	0.50	8916933	218	0.50	8916891
Total Organic Carbon (C)	mg/L	4.12	0.50	8917338				5.99	0.50	8917340
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8916933	<0.50	0.50	8916933	<0.50	0.50	8916891
Bicarbonate (HCO3)	mg/L	182	0.50	8916933	186	0.50	8916933	266	0.50	8916891
Carbonate (CO3)	mg/L	<0.50	0.50	8916933	<0.50	0.50	8916933	<0.50	0.50	8916891
Hydroxide (OH)	mg/L	<0.50	0.50	8916933	<0.50	0.50	8916933	<0.50	0.50	8916891
Anions	•									
Dissolved Sulphate (SO4)	mg/L	100	0.50	8919113				210 (1)	5.0	8918036
Dissolved Chloride (CI)	mg/L	0.57	0.50	8918023				<0.50	0.50	8918023
Nutrients						•				
Total Ammonia (N)	mg/L	0.019	0.0050	8916343				0.0090	0.0050	8916343
Nitrate plus Nitrite (N)	mg/L	0.0733	0.0020	8915257				0.298	0.0020	8915257
Nitrite (N)	mg/L	0.0021	0.0020	8915258				<0.0020	0.0020	8915258
Physical Properties	•		•	•		•	-		•	•
Conductivity	uS/cm	462	1.0	8916930	465	1.0	8916930	807	1.0	8916889
рН	рН	8.17		8916920	8.21		8916920	8.16		8916887
Physical Properties						•				
Total Suspended Solids	mg/L	1.8 (2)	1.1	8918153				40.3	1.0	8918153
Total Dissolved Solids	mg/L	304	10	8917053				554	10	8917053
			•						•	•

RDL = Reportable Detection Limit

- (1) Detection limits raised due to dilution to bring analyte within the calibrated range.
- (2) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SZ2388			SZ2389		SZ2390		
Sampling Date		2018/02/17 13:05			2018/02/17 10:45		2018/02/17 15:55		
COC Number		546749-01-01			546749-01-01		546749-01-01		
	UNITS	CC-1.5 Lab-Dup	RDL	QC Batch	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Parameter									
ORP	mV				295	8915849	298		8915849
Calculated Parameters	•		•					•	
Filter and HNO3 Preservation	N/A				LAB	8914275	LAB		8914275
Nitrate (N)	mg/L				0.0825	8914568	0.103	0.0020	8914568
Misc. Inorganics	•		•	•		•			
Weak Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	8920768	<0.00050	0.00050	8920768
Fluoride (F)	mg/L	0.110	0.010	8920887	0.120	8920887	0.120	0.010	8920887
Dissolved Organic Carbon (C)	mg/L				2.76	8917336	1.52	0.50	8917336
Alkalinity (Total as CaCO3)	mg/L				89.2	8916891	91.8	0.50	8916933
Total Organic Carbon (C)	mg/L				2.75	8917340	1.11	0.50	8917338
Alkalinity (PP as CaCO3)	mg/L				<0.50	8916891	<0.50	0.50	8916933
Bicarbonate (HCO3)	mg/L				109	8916891	112	0.50	8916933
Carbonate (CO3)	mg/L				<0.50	8916891	<0.50	0.50	8916933
Hydroxide (OH)	mg/L				<0.50	8916891	<0.50	0.50	8916933
Anions		•		Į.				•	
Dissolved Sulphate (SO4)	mg/L				25.7	8919113	26.2	0.50	8918036
Dissolved Chloride (CI)	mg/L				<0.50	8918023	<0.50	0.50	8918023
Nutrients	!		!					•	
Total Ammonia (N)	mg/L				0.045	8916343	0.011	0.0050	8916343
Nitrate plus Nitrite (N)	mg/L				0.0847	8915257	0.103	0.0020	8915257
Nitrite (N)	mg/L				0.0022	8915258	<0.0020	0.0020	8915258
Physical Properties		•		Į.					
Conductivity	uS/cm				220	8916889	227	1.0	8916930
рН	рН				8.13	8916887	8.13		8916920
Physical Properties	•	•	•						<del></del>
Total Suspended Solids	mg/L				<1.0	8918153	87.8	1.0	8918153
Total Dissolved Solids	mg/L				150	8917053	112	10	8918333
RDL = Reportable Detection Limit Lab-Dup = Laboratory Initiated D									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		SZ2390			SZ2397	SZ2398	SZ2399		
Sampling Date		2018/02/17 15:55			2018/02/17 17:05	2018/02/17 12:00	2018/02/17 12:00		
COC Number		546749-01-01			546749-02-01	546749-02-01	546749-02-01		
	UNITS	YUK-5.0 Lab-Dup	RDL	QC Batch	STEWART D/S M.M.	LATTE MIX	SAMPLE B	RDL	QC Batch
Parameter									
ORP	mV				299	300	301		8915849
Calculated Parameters	•		•			•			
Filter and HNO3 Preservation	N/A				LAB	LAB	LAB		8914275
Nitrate (N)	mg/L				0.176	0.409	0.177	0.0020	8914568
Misc. Inorganics						•			
Weak Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	<0.00050	<0.00050	0.00050	8920768
Fluoride (F)	mg/L				0.090	0.078	0.089	0.010	8920887
Dissolved Organic Carbon (C)	mg/L				1.40	3.33	0.75	0.50	8917336
Alkalinity (Total as CaCO3)	mg/L				130	168	129	0.50	8916933
Total Organic Carbon (C)	mg/L				0.87	3.26	0.83	0.50	8917338
Alkalinity (PP as CaCO3)	mg/L				<0.50	<0.50	<0.50	0.50	8916933
Bicarbonate (HCO3)	mg/L				159	205	158	0.50	8916933
Carbonate (CO3)	mg/L				<0.50	<0.50	<0.50	0.50	8916933
Hydroxide (OH)	mg/L				<0.50	<0.50	<0.50	0.50	8916933
Anions	•								
Dissolved Sulphate (SO4)	mg/L				96.4	89.2	93.6	0.50	8918036
Dissolved Chloride (CI)	mg/L				<0.50	0.64	<0.50	0.50	8918023
Nutrients	•		•			•			
Total Ammonia (N)	mg/L				0.018	0.010	0.013	0.0050	8916343
Nitrate plus Nitrite (N)	mg/L	0.104	0.0020	8915257	0.176	0.409	0.177	0.0020	8915257
Nitrite (N)	mg/L	0.0020	0.0020	8915258	<0.0020	<0.0020	<0.0020	0.0020	8915258
Physical Properties									
Conductivity	uS/cm				424	486	423	1.0	8916930
рН	рН				8.16	8.22	8.18		8916920
Physical Properties									
Total Suspended Solids	mg/L				2.1	<1.0	<1.0	1.0	8918286
Total Dissolved Solids	mg/L	104	10	8918333	236	288	248	10	8918333
RDL = Reportable Detection Limit Lab-Dup = Laboratory Initiated D									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## RESULTS OF CHEMICAL ANALYSES OF WATER

	SZ2400		SZ2401			SZ2401		
	2018/02/17 22:00		2018/02/17 22:00			2018/02/17 22:00		
	546749-02-01		546749-02-01			546749-02-01		
UNITS	FIELD BLANK	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
mV	280	8915849	280		8915849			
-								
N/A	LAB	8914275						
mg/L	0.0036	8914568	<0.0020	0.0020	8914568			
		•						
mg/L	<0.00050	8920768	<0.00050	0.00050	8920768			
mg/L	<0.010	8920887	0.010	0.010	8920887			
mg/L	<0.50	8917336	1.12	0.50	8917336	1.12	0.50	8917336
mg/L	0.53	8916891	0.73	0.50	8916891			
mg/L	<0.50	8917338	<0.50	0.50	8917338			
mg/L	<0.50	8916891	<0.50	0.50	8916891			
mg/L	0.65	8916891	0.89	0.50	8916891			
mg/L	<0.50	8916891	<0.50	0.50	8916891			
mg/L	<0.50	8916891	<0.50	0.50	8916891			
mg/L	<0.50	8918036	<0.50	0.50	8918036	<0.50	0.50	8918036
mg/L	<0.50	8918023	<0.50	0.50	8918023	<0.50	0.50	8918023
							!	
mg/L	<0.0050	8921149	0.0070	0.0050	8916343			
mg/L	0.0036	8915257	<0.0020	0.0020	8915257			
mg/L	<0.0020	8915258	<0.0020	0.0020	8915258			
•		•						
uS/cm	1.2	8916889	1.2	1.0	8916889			
рН	5.33	8916887	5.43		8916887			
		•		•				
mg/L	<1.0	8918286	<1.0	1.0	8918286			
mg/L	<10	8918333	<10	10	8918333			
uplicate								
	mV  N/A mg/L  mg/L mg/L mg/L mg/L mg/L mg/L mg/	2018/02/17   22:00   546749-02-01   UNITS   FIELD BLANK	2018/02/17   22:00	2018/02/17   22:00   546749-02-01   546749-02-01   546749-02-01	2018/02/17   22:00   22:00   22:00	2018/02/17   22:00   22:00	2018/02/17   22:00   2018/02/17   22:00   546749-02-01   546749-02-01   546749-02-01   546749-02-01   546749-02-01   546749-02-01   TRIP BLANK   RDL   QC Batch   TRIP BLANK   TRIP	2018/02/17   22:00   2018/02/17   22:00   546749-02-01   546749-



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SZ2387	SZ2388	SZ2389		SZ2390		
Sampling Date		2018/02/17 12:30	2018/02/17 13:05	2018/02/17 10:45		2018/02/17 15:55		
COC Number		546749-01-01	546749-01-01	546749-01-01		546749-01-01		
COC Number								
	UNITS	CC-0.5	CC-1.5	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Calculated Parameters								
Dissolved Hardness (CaCO3)	mg/L	244	475	115	8914387	121	0.50	8914387
Elements					•			
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	8915596	<0.0020	0.0020	8915596
Dissolved Metals by ICPMS					•			
Dissolved Aluminum (AI)	ug/L	3.93	9.72	1.88	8915307	1.19	0.50	8915307
Dissolved Antimony (Sb)	ug/L	0.029	0.113	0.086	8915307	0.089	0.020	8915307
Dissolved Arsenic (As)	ug/L	0.253	1.54	0.354	8915307	0.153	0.020	8915307
Dissolved Barium (Ba)	ug/L	96.1	83.7	49.7	8915307	92.4	0.020	8915307
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	8915307	<0.010	0.010	8915307
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	8915307	<0.0050	0.0050	8915307
Dissolved Boron (B)	ug/L	<10	<10	<10	8915307	<10	10	8915307
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0107	0.0340	8915307	0.0246	0.0050	8915307
Dissolved Chromium (Cr)	ug/L	<0.10	0.11	<0.10	8915307	<0.10	0.10	8915307
Dissolved Cobalt (Co)	ug/L	0.174	0.0280	0.0077	8915307	0.0070	0.0050	8915307
Dissolved Copper (Cu)	ug/L	0.376	1.03	0.480	8915307	0.255	0.050	8915307
Dissolved Iron (Fe)	ug/L	123	3.7	3.0	8915307	<1.0	1.0	8915307
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	8915307	<0.0050	0.0050	8915307
Dissolved Lithium (Li)	ug/L	1.11	4.29 (1)	1.96	8915307	1.28	0.50	8915307
Dissolved Manganese (Mn)	ug/L	106	16.6	1.37	8915307	1.18	0.050	8915307
Dissolved Molybdenum (Mo)	ug/L	0.210	0.384	1.45	8915307	1.35	0.050	8915307
Dissolved Nickel (Ni)	ug/L	0.600	0.467	1.01	8915307	0.303	0.020	8915307
Dissolved Phosphorus (P)	ug/L	3.6	4.9	3.0	8915307	2.6	2.0	8915307
Dissolved Selenium (Se)	ug/L	<0.040	0.219	0.376	8915307	0.500	0.040	8915307
Dissolved Silicon (Si)	ug/L	5450	6120	3350	8915307	2980	50	8922529
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	8915307	<0.0050	0.0050	8915307
Dissolved Strontium (Sr)	ug/L	326	986	142	8915307	138	0.050	8915307
Dissolved Thallium (TI)	ug/L	<0.0020	0.0041	<0.0020	8915307	<0.0020	0.0020	8915307
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	8915307	<0.20	0.20	8915307
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	8915307	<0.50	0.50	8915307
RDL = Reportable Detection Li	mit							

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SZ2387	SZ2388	SZ2389		SZ2390		
Sampling Date		2018/02/17	2018/02/17	2018/02/17		2018/02/17		
		12:30	13:05	10:45		15:55		
COC Number		546749-01-01	546749-01-01	546749-01-01		546749-01-01		
	UNITS	CC-0.5	CC-1.5	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Dissolved Uranium (U)	ug/L	5.53	33.5	1.37	8915307	1.61	0.0020	8915307
Dissolved Vanadium (V)	ug/L	<0.20	0.28	<0.20	8915307	<0.20	0.20	8915307
Dissolved Zinc (Zn)	ug/L	0.28	0.31	3.35	8915307	0.71	0.10	8915307
Dissolved Zirconium (Zr)	ug/L	0.13	0.25	<0.10	8915307	<0.10	0.10	8915307
Dissolved Calcium (Ca)	mg/L	75.3	120	30.9	8914511	32.1	0.050	8914511
Dissolved Magnesium (Mg)	mg/L	13.6	42.6	9.22	8914511	10.0 (1)	0.050	8914511
Dissolved Potassium (K)	mg/L	2.06	6.26	0.930	8914511	0.960	0.050	8914511
Dissolved Sodium (Na)	mg/L	4.27	7.59	2.52	8914511	2.37	0.050	8914511
Dissolved Sulphur (S)	mg/L	35.1	88.3	9.1	8914511	10.0	3.0	8914511

RDL = Reportable Detection Limit

<sup>(1)</sup> Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SZ2397		SZ2398	SZ2399	SZ2400	SZ2401		
Sampling Date		2018/02/17 17:05		2018/02/17 12:00	2018/02/17 12:00	2018/02/17 22:00	2018/02/17 22:00		
COC Number		546749-02-01		546749-02-01	546749-02-01	546749-02-01	546749-02-01		
	UNITS	STEWART D/S M.M.	QC Batch	LATTE MIX	SAMPLE B	FIELD BLANK	TRIP BLANK	RDL	QC Batch
Calculated Parameters			•	•	•	•	•	•	•
Dissolved Hardness (CaCO3)	mg/L	233	8914387	263	244	<0.50	<0.50	0.50	8914387
Elements			1	I	I.	I.	I.	ı	l
Dissolved Mercury (Hg)	ug/L	<0.0020	8915596	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8915596
Dissolved Metals by ICPMS	-		1	I	I.	I.	I.	ı	l
Dissolved Aluminum (AI)	ug/L	1.65	8915307	7.11	0.83	<0.50	<0.50	0.50	8915307
Dissolved Antimony (Sb)	ug/L	0.125	8915307	0.056	0.136	<0.020	<0.020	0.020	8915307
Dissolved Arsenic (As)	ug/L	0.193	8915307	0.298	0.193	<0.020	<0.020	0.020	8915307
Dissolved Barium (Ba)	ug/L	93.2	8915307	101	95.8	<0.020	<0.020	0.020	8915307
Dissolved Beryllium (Be)	ug/L	<0.010	8915307	<0.010	<0.010	<0.010	<0.010	0.010	8915307
Dissolved Bismuth (Bi)	ug/L	<0.0050	8915307	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8915307
Dissolved Boron (B)	ug/L	<10	8915307	<10	<10	<10	<10	10	8915307
Dissolved Cadmium (Cd)	ug/L	0.0493	8915307	0.0056	0.0365	<0.0050	<0.0050	0.0050	8915307
Dissolved Chromium (Cr)	ug/L	<0.10	8915307	0.15	<0.10	<0.10	<0.10	0.10	8915307
Dissolved Cobalt (Co)	ug/L	0.0290	8915307	0.0176	0.0265	<0.0050	<0.0050	0.0050	8915307
Dissolved Copper (Cu)	ug/L	0.247	8915307	0.616	0.265	<0.050	<0.050	0.050	8915307
Dissolved Iron (Fe)	ug/L	2.6	8915307	2.6	4.1	<1.0	<1.0	1.0	8915307
Dissolved Lead (Pb)	ug/L	<0.0050	8915307	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8915307
Dissolved Lithium (Li)	ug/L	3.35	8922529	1.27	3.92 (1)	<0.50	<0.50	0.50	8915307
Dissolved Manganese (Mn)	ug/L	15.0	8915307	0.734	20.1	<0.050	<0.050	0.050	8915307
Dissolved Molybdenum (Mo)	ug/L	0.602	8915307	0.701	0.643	<0.050	<0.050	0.050	8915307
Dissolved Nickel (Ni)	ug/L	0.494	8915307	0.335	0.416	<0.020	<0.020	0.020	8915307
Dissolved Phosphorus (P)	ug/L	2.4	8915307	32.1 (1)	3.1	<2.0	<2.0	2.0	8915307
Dissolved Selenium (Se)	ug/L	1.07	8915307	0.245	1.10	<0.040	<0.040	0.040	8915307
Dissolved Silicon (Si)	ug/L	3130	8915307	5280	3230 (1)	<50	<50	50	8915307
Dissolved Silver (Ag)	ug/L	<0.0050	8915307	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8915307
Dissolved Strontium (Sr)	ug/L	254	8915307	370	259	<0.050	<0.050	0.050	8915307
Dissolved Thallium (TI)	ug/L	<0.0020	8915307	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8915307
Dissolved Tin (Sn)	ug/L	<0.20	8915307	<0.20	<0.20	<0.20	<0.20	0.20	8915307
Dissolved Titanium (Ti)	ug/L	<0.50	8915307	<0.50	<0.50	<0.50	<0.50	0.50	8915307

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		SZ2397		SZ2398	SZ2399	SZ2400	SZ2401		
Sampling Date		2018/02/17 17:05		2018/02/17 12:00	2018/02/17 12:00	2018/02/17 22:00	2018/02/17 22:00		
COC Number		546749-02-01		546749-02-01	546749-02-01	546749-02-01	546749-02-01		
	UNITS	STEWART D/S M.M.	QC Batch	LATTE MIX	SAMPLE B	FIELD BLANK	TRIP BLANK	RDL	QC Batch
Dissolved Uranium (U)	ug/L	1.78	8915307	22.7	1.85	<0.0020	<0.0020	0.0020	8915307
Dissolved Vanadium (V)	ug/L	<0.20	8915307	0.27	<0.20	<0.20	<0.20	0.20	8915307
Dissolved Zinc (Zn)	ug/L	1.42	8915307	0.16	1.18	<0.10	<0.10	0.10	8915307
Dissolved Zirconium (Zr)	ug/L	<0.10	8915307	0.16	<0.10	<0.10	<0.10	0.10	8915307
Dissolved Calcium (Ca)	mg/L	58.8	8914511	70.7	61.4	<0.050	<0.050	0.050	8914511
Dissolved Magnesium (Mg)	mg/L	21.0	8914511	21.0	22.1	<0.050	<0.050	0.050	8914511
Dissolved Potassium (K)	mg/L	0.741	8914511	2.80	0.765	<0.050	<0.050	0.050	8914511
Dissolved Sodium (Na)	mg/L	3.02	8914511	5.37	3.15	<0.050	<0.050	0.050	8914511
Dissolved Sulphur (S)	mg/L	35.5	8914511	33.2	36.5	<3.0	<3.0	3.0	8914511
RDL = Reportable Detection Li	mit		-						

Maxxam ID		SZ2401		
Sampling Date		2018/02/17 22:00		
COC Number		546749-02-01		
	UNITS	TRIP BLANK	RDL	QC Batch
		Lab-Dup		
Elements		Lab-Dup		
Elements Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	8915596



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		SZ2387	SZ2389	SZ2398	SZ2400	SZ2401		
Sampling Date		2018/02/17	2018/02/17	2018/02/17	2018/02/17	2018/02/17		
		12:30	10:45	12:00	22:00	22:00		
COC Number		546749-01-01	546749-01-01	546749-02-01	546749-02-01	546749-02-01		
	UNITS	CC-0.5	YUK-2.0	LATTE MIX	FIELD BLANK	TRIP BLANK	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	232	104	254	<0.50	<0.50	0.50	8914386
Elements								
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8915688
Total Metals by ICPMS							•	
Total Aluminum (Al)	ug/L	8.85	23.6	8.35	<0.50	<0.50	0.50	8914966
Total Antimony (Sb)	ug/L	0.034	0.092	0.058	<0.020	<0.020	0.020	8914966
Total Arsenic (As)	ug/L	0.337	0.421	0.297	0.021	<0.020	0.020	8914966
Total Barium (Ba)	ug/L	104	51.5	104	<0.020	<0.020	0.020	8914966
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8914966
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8914966
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	10	8914966
Total Cadmium (Cd)	ug/L	<0.0050	0.0326	<0.0050	<0.0050	<0.0050	0.0050	8914966
Total Chromium (Cr)	ug/L	<0.10	0.45	0.19	<0.10	<0.10	0.10	8914966
Total Cobalt (Co)	ug/L	0.160	0.0432	0.0160	<0.0050	<0.0050	0.0050	8914966
Total Copper (Cu)	ug/L	0.367	0.579	0.577	<0.050	<0.050	0.050	8914966
Total Iron (Fe)	ug/L	239	83.2	12.7	<1.0	<1.0	1.0	8914966
Total Lead (Pb)	ug/L	<0.0050	0.0434	<0.0050	<0.0050	<0.0050	0.0050	8914966
Total Lithium (Li)	ug/L	0.95	1.53	1.03	<0.50	<0.50	0.50	8914966
Total Manganese (Mn)	ug/L	99.1	5.36	1.65	<0.050	<0.050	0.050	8914966
Total Molybdenum (Mo)	ug/L	0.218	1.34	0.665	<0.050	<0.050	0.050	8914966
Total Nickel (Ni)	ug/L	0.519	0.992	0.289	<0.020	<0.020	0.020	8914966
Total Phosphorus (P)	ug/L	<2.0	4.2	<2.0	<2.0	<2.0	2.0	8914966
Total Selenium (Se)	ug/L	<0.040	0.329	0.244	<0.040	<0.040	0.040	8914966
Total Silicon (Si)	ug/L	4910	3210	4850	<50	<50	50	8914966
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8914966
Total Strontium (Sr)	ug/L	333	142	375	0.056	0.052	0.050	8914966
Total Thallium (TI)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8914966
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8914966
Total Titanium (Ti)	ug/L	<0.50	1.21	<0.50	<0.50	<0.50	0.50	8914966
Total Uranium (U)	ug/L	5.07	1.18	20.2	<0.0020	<0.0020	0.0020	8914966
RDL = Reportable Detection Li	imit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		SZ2387	SZ2389	SZ2398	SZ2400	SZ2401		
Sampling Date		2018/02/17 12:30	2018/02/17 10:45	2018/02/17 12:00	2018/02/17 22:00	2018/02/17 22:00		
COC Number		546749-01-01	546749-01-01	546749-02-01	546749-02-01	546749-02-01		
	UNITS	CC-0.5	YUK-2.0	LATTE MIX	FIELD BLANK	TRIP BLANK	RDL	QC Batch
Total Vanadium (V)	ug/L	<0.20	0.22	0.24	<0.20	<0.20	0.20	8914966
Total Zinc (Zn)	ug/L	0.12	3.98	0.16	<0.10	<0.10	0.10	8914966
Total Zirconium (Zr)	ug/L	0.13	<0.10	0.11	<0.10	<0.10	0.10	8914966
Total Calcium (Ca)	mg/L	73.5	28.5	71.7	<0.050	<0.050	0.050	8914513
Total Magnesium (Mg)	mg/L	11.8	7.86	18.2	<0.050	<0.050	0.050	8914513
Total Potassium (K)	mg/L	1.91	0.877	2.62	<0.050	<0.050	0.050	8914513
Total Sodium (Na)	mg/L	3.67	2.24	4.72	<0.050	<0.050	0.050	8914513
Total Sulphur (S)	mg/L	30.8	7.9	30.4	<3.0	<3.0	3.0	8914513
RDL = Reportable Detection	n Limit			•				

Maxxam ID		SZ2401							
Sampling Date		2018/02/17 22:00							
COC Number		546749-02-01							
	UNITS	TRIP BLANK Lab-Dup	RDL	QC Batch					
Elements									
Elements									
Elements Total Mercury (Hg)	ug/L	<0.0020	0.0020	8915688					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		SZ2388		SZ2390		SZ2397		
Sampling Date		2018/02/17 13:05		2018/02/17 15:55		2018/02/17 17:05		
COC Number		546749-01-01		546749-01-01		546749-02-01		
	UNITS	CC-1.5	QC Batch	YUK-5.0	QC Batch	STEWART D/S M.M.	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	435	8914386	106	8914386	212	0.50	8914386
Elements	,							
Total Mercury (Hg)	ug/L	0.0022	8915725	<0.0020	8915688	<0.0020	0.0020	8915725
Total Metals by ICPMS			Į.				•	Į.
Total Aluminum (Al)	ug/L	265	8915985	397	8915985	57.8	3.0	8915985
Total Antimony (Sb)	ug/L	0.112	8915985	0.114	8915985	0.134	0.020	8915985
Total Arsenic (As)	ug/L	2.29	8915985	0.627	8915985	0.324	0.020	8915985
Total Barium (Ba)	ug/L	87.0	8915985	113	8915985	89.7	0.050	8915985
Total Beryllium (Be)	ug/L	0.015	8915985	0.019	8915985	<0.010	0.010	8915985
Total Bismuth (Bi)	ug/L	<0.010	8915985	<0.010	8915985	<0.010	0.010	8915985
Total Boron (B)	ug/L	<10	8915985	<10	8915985	<10	10	8915985
Total Cadmium (Cd)	ug/L	0.0274	8915985	0.105	8915985	0.0530	0.0050	8915985
Total Chromium (Cr)	ug/L	0.64	8915985	0.83	8915985	0.14	0.10	8915985
Total Cobalt (Co)	ug/L	0.303	8915985	0.414	8915985	0.090	0.010	8915985
Total Copper (Cu)	ug/L	1.38	8915985	1.56	8915985	0.63	0.10	8915985
Total Iron (Fe)	ug/L	365	8915985	809	8915985	164	5.0	8915985
Total Lead (Pb)	ug/L	0.224	8915985	0.431	8915985	0.147	0.020	8915985
Total Lithium (Li)	ug/L	3.02	8915985	1.17	8915985	2.80	0.50	8915985
Total Manganese (Mn)	ug/L	145	8915985	24.8	8915985	15.4	0.10	8915985
Total Molybdenum (Mo)	ug/L	0.611	8915985	1.20	8915985	0.574	0.050	8915985
Total Nickel (Ni)	ug/L	0.83	8915985	1.86	8915985	0.63	0.10	8915985
Total Phosphorus (P)	ug/L	22.0	8915985	60.6	8915985	10.0	5.0	8915985
Total Selenium (Se)	ug/L	0.219	8915985	0.525	8915985	1.09	0.040	8915985
Total Silicon (Si)	ug/L	5700	8915985	3080	8915985	2720	50	8915985
Total Silver (Ag)	ug/L	<0.010	8915985	<0.010	8915985	<0.010	0.010	8915985
Total Strontium (Sr)	ug/L	975	8915985	126	8915985	233	0.050	8915985
Total Thallium (TI)	ug/L	0.0072	8915985	0.0069	8915985	<0.0020	0.0020	8915985
Total Tin (Sn)	ug/L	<0.20	8915985	<0.20	8915985	0.84	0.20	8915985
Total Titanium (Ti)	ug/L	14.8	8915985	14.6	8915985	<2.0	2.0	8915985
Total Uranium (U)	ug/L	29.6	8915985	1.40	8915985	1.57	0.0050	8915985
RDL = Reportable Detection	Limit		•				•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		SZ2388		SZ2390		SZ2397		
Sampling Date		2018/02/17 13:05		2018/02/17 15:55		2018/02/17 17:05		
COC Number		546749-01-01		546749-01-01		546749-02-01		
	UNITS	CC-1.5	QC Batch	YUK-5.0	QC Batch	STEWART D/S M.M.	RDL	QC Batch
Total Vanadium (V)	ug/L	1.04	8915985	1.35	8915985	0.21	0.20	8915985
Total Zinc (Zn)	ug/L	2.4	8915985	8.1	8915985	4.0	1.0	8915985
Total Zirconium (Zr)	ug/L	0.18	8915985	<0.10	8915985	<0.10	0.10	8915985
Total Calcium (Ca)	mg/L	115	8914513	28.9	8914513	55.7	0.25	8914513
Total Magnesium (Mg)	mg/L	36.0	8914513	8.12	8914513	17.8	0.25	8914513
Total Potassium (K)	mg/L	5.85	8914513	0.89	8914513	0.69	0.25	8914513
Total Sodium (Na)	mg/L	6.62	8914513	2.00	8914513	2.70	0.25	8914513
Total Sulphur (S)	mg/L	79.3	8914513	8.4	8914513	31.7	3.0	8914513
RDL = Reportable Detection L	imit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SZ2397			SZ2399		
Sampling Date		2018/02/17 17:05			2018/02/17 12:00		
COC Number		546749-02-01			546749-02-01		
	UNITS	STEWART D/S M.M. Lab-Dup	RDL	QC Batch	SAMPLE B	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L				211	0.50	8914386
Elements			•	•		•	
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8915725	<0.0020	0.0020	8915688
Total Metals by ICPMS			•				
Total Aluminum (AI)	ug/L				14.2	3.0	8915985
Total Antimony (Sb)	ug/L				0.128	0.020	8915985
Total Arsenic (As)	ug/L				0.257	0.020	8915985
Total Barium (Ba)	ug/L				87.9	0.050	8915985
Total Beryllium (Be)	ug/L				<0.010	0.010	8915985
Total Bismuth (Bi)	ug/L				<0.010	0.010	8915985
Total Boron (B)	ug/L				<10	10	8915985
Total Cadmium (Cd)	ug/L				0.0432	0.0050	8915985
Total Chromium (Cr)	ug/L				0.10	0.10	8915985
Total Cobalt (Co)	ug/L				0.037	0.010	8915985
Total Copper (Cu)	ug/L				0.34	0.10	8915985
Total Iron (Fe)	ug/L				61.5	5.0	8915985
Total Lead (Pb)	ug/L				0.040	0.020	8915985
Total Lithium (Li)	ug/L				2.62	0.50	8915985
Total Manganese (Mn)	ug/L				18.6	0.10	8915985
Total Molybdenum (Mo)	ug/L				0.570	0.050	8915985
Total Nickel (Ni)	ug/L				0.45	0.10	8915985
Total Phosphorus (P)	ug/L				<5.0	5.0	8915985
Total Selenium (Se)	ug/L				1.05	0.040	8915985
Total Silicon (Si)	ug/L				2640	50	8915985
Total Silver (Ag)	ug/L				<0.010	0.010	8915985
Total Strontium (Sr)	ug/L				236	0.050	8915985
Total Thallium (TI)	ug/L				<0.0020	0.0020	8915985
Total Tin (Sn)	ug/L				<0.20	0.20	8915985
Total Titanium (Ti)	ug/L				<2.0	2.0	8915985
RDL = Reportable Detection							
Lah-Dun = Lahoratory Initia	tod Dunlic	ato					

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		SZ2397			SZ2399		
Sampling Date		2018/02/17 17:05			2018/02/17 12:00		
COC Number		546749-02-01			546749-02-01		
	UNITS	STEWART D/S M.M. Lab-Dup	RDL	QC Batch	SAMPLE B	RDL	QC Batch
Total Uranium (U)	ug/L				1.59	0.0050	8915985
Total Vanadium (V)	ug/L				<0.20	0.20	8915985
Total Zinc (Zn)	ug/L				1.9	1.0	8915985
Total Zirconium (Zr)	ug/L				<0.10	0.10	8915985
Total Calcium (Ca)	mg/L				54.1	0.25	8914513
Total Magnesium (Mg)	mg/L				18.4	0.25	8914513
Total Potassium (K)	mg/L				0.71	0.25	8914513
Total Sodium (Na)	mg/L				2.78	0.25	8914513
Total Sulphur (S)	mg/L				32.4	3.0	8914513

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### **GENERAL COMMENTS**

Sample SZ2390, Elements by ICPMS Low Level (dissolved): Test repeated. Sample SZ2397, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8914966	Total Aluminum (Al)	2018/02/22	102	80 - 120	108	80 - 120	<0.50	ug/L	1.7	20
8914966	Total Antimony (Sb)	2018/02/22	101	80 - 120	101	80 - 120	<0.020	ug/L	1.5	20
8914966	Total Arsenic (As)	2018/02/22	100	80 - 120	99	80 - 120	<0.020	ug/L	10	20
8914966	Total Barium (Ba)	2018/02/22	100	80 - 120	105	80 - 120	<0.020	ug/L	2.9	20
8914966	Total Beryllium (Be)	2018/02/22	95	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8914966	Total Bismuth (Bi)	2018/02/22	98	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
8914966	Total Boron (B)	2018/02/22	97	80 - 120	100	80 - 120	<10	ug/L	NC	20
8914966	Total Cadmium (Cd)	2018/02/22	98	80 - 120	101	80 - 120	<0.0050	ug/L	2.2	20
8914966	Total Chromium (Cr)	2018/02/22	103	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
8914966	Total Cobalt (Co)	2018/02/22	102	80 - 120	100	80 - 120	<0.0050	ug/L	19	20
8914966	Total Copper (Cu)	2018/02/22	101	80 - 120	100	80 - 120	<0.050	ug/L	0.60	20
8914966	Total Iron (Fe)	2018/02/22	110	80 - 120	98	80 - 120	<1.0	ug/L	9.2	20
8914966	Total Lead (Pb)	2018/02/22	97	80 - 120	100	80 - 120	<0.0050	ug/L	0.27	20
8914966	Total Lithium (Li)	2018/02/22	95	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
8914966	Total Manganese (Mn)	2018/02/22	103	80 - 120	102	80 - 120	<0.050	ug/L	0.76	20
8914966	Total Molybdenum (Mo)	2018/02/22	96	80 - 120	101	80 - 120	<0.050	ug/L	2.1	20
8914966	Total Nickel (Ni)	2018/02/22	104	80 - 120	102	80 - 120	<0.020	ug/L	3.5	20
8914966	Total Phosphorus (P)	2018/02/22	106	80 - 120	101	80 - 120	<2.0	ug/L		
8914966	Total Selenium (Se)	2018/02/22	108	80 - 120	98	80 - 120	<0.040	ug/L	3.2	20
8914966	Total Silicon (Si)	2018/02/22	101	80 - 120	104	80 - 120	<50	ug/L	1.3	20
8914966	Total Silver (Ag)	2018/02/22	99	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8914966	Total Strontium (Sr)	2018/02/22	100	80 - 120	99	80 - 120	<0.050	ug/L	2.8	20
8914966	Total Thallium (TI)	2018/02/22	98	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
8914966	Total Tin (Sn)	2018/02/22	99	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
8914966	Total Titanium (Ti)	2018/02/22	100	80 - 120	98	80 - 120	<0.50	ug/L	NC	20
8914966	Total Uranium (U)	2018/02/22	99	80 - 120	102	80 - 120	<0.0020	ug/L	2.4	20
8914966	Total Vanadium (V)	2018/02/22	103	80 - 120	100	80 - 120	<0.20	ug/L	8.4	20
8914966	Total Zinc (Zn)	2018/02/22	105	80 - 120	102	80 - 120	<0.10	ug/L	1.6	20
8914966	Total Zirconium (Zr)	2018/02/22	100	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
8915257	Nitrate plus Nitrite (N)	2018/02/20	104	80 - 120	112	80 - 120	<0.0020	mg/L	0.87	25
8915258	Nitrite (N)	2018/02/20	98	80 - 120	104	80 - 120	<0.0020	mg/L	0	25



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8915307	Dissolved Aluminum (AI)	2018/02/26	111	80 - 120	113	80 - 120	<0.50	ug/L	0.25	20
8915307	Dissolved Antimony (Sb)	2018/02/26	98	80 - 120	100	80 - 120	<0.020	ug/L	1.2	20
8915307	Dissolved Arsenic (As)	2018/02/26	98	80 - 120	99	80 - 120	<0.020	ug/L	6.4	20
8915307	Dissolved Barium (Ba)	2018/02/26	95	80 - 120	100	80 - 120	<0.020	ug/L	0.18	20
8915307	Dissolved Beryllium (Be)	2018/02/26	111	80 - 120	115	80 - 120	<0.010	ug/L	NC	20
8915307	Dissolved Bismuth (Bi)	2018/02/26	102	80 - 120	106	80 - 120	<0.0050	ug/L	NC	20
8915307	Dissolved Boron (B)	2018/02/26	128 (1)	80 - 120	124 (2)	80 - 120	<10	ug/L	2.2	20
8915307	Dissolved Cadmium (Cd)	2018/02/26	101	80 - 120	106	80 - 120	<0.0050	ug/L	1.0	20
8915307	Dissolved Chromium (Cr)	2018/02/26	106	80 - 120	106	80 - 120	<0.10	ug/L	NC	20
8915307	Dissolved Cobalt (Co)	2018/02/26	103	80 - 120	104	80 - 120	<0.0050	ug/L	11	20
8915307	Dissolved Copper (Cu)	2018/02/26	105	80 - 120	108	80 - 120	<0.050	ug/L	3.6	20
8915307	Dissolved Iron (Fe)	2018/02/26	100	80 - 120	103	80 - 120	<1.0	ug/L	14	20
8915307	Dissolved Lead (Pb)	2018/02/26	104	80 - 120	107	80 - 120	<0.0050	ug/L	5.4	20
8915307	Dissolved Lithium (Li)	2018/02/26	116	80 - 120	120	80 - 120	<0.50	ug/L	2.7	20
8915307	Dissolved Manganese (Mn)	2018/02/26	101	80 - 120	106	80 - 120	<0.050	ug/L	1.8	20
8915307	Dissolved Molybdenum (Mo)	2018/02/26	101	80 - 120	105	80 - 120	<0.050	ug/L	1.6	20
8915307	Dissolved Nickel (Ni)	2018/02/26	107	80 - 120	108	80 - 120	<0.020	ug/L	9.6	20
8915307	Dissolved Phosphorus (P)	2018/02/26	108	80 - 120	107	80 - 120	<2.0	ug/L		
8915307	Dissolved Selenium (Se)	2018/02/26	108	80 - 120	107	80 - 120	<0.040	ug/L	1.8	20
8915307	Dissolved Silicon (Si)	2018/02/26	93	80 - 120	110	80 - 120	<50	ug/L	11	20
8915307	Dissolved Silver (Ag)	2018/02/26	104	80 - 120	105	80 - 120	<0.0050	ug/L	NC	20
8915307	Dissolved Strontium (Sr)	2018/02/26	NC	80 - 120	92	80 - 120	<0.050	ug/L	1.9	20
8915307	Dissolved Thallium (TI)	2018/02/26	104	80 - 120	107	80 - 120	<0.0020	ug/L	6.7	20
8915307	Dissolved Tin (Sn)	2018/02/26	104	80 - 120	106	80 - 120	<0.20	ug/L	NC	20
8915307	Dissolved Titanium (Ti)	2018/02/26	101	80 - 120	107	80 - 120	<0.50	ug/L		
8915307	Dissolved Uranium (U)	2018/02/26	106	80 - 120	109	80 - 120	<0.0020	ug/L	4.0	20
8915307	Dissolved Vanadium (V)	2018/02/26	103	80 - 120	103	80 - 120	<0.20	ug/L	9.2	20
8915307	Dissolved Zinc (Zn)	2018/02/26	103	80 - 120	105	80 - 120	<0.10	ug/L	8.5	20
8915307	Dissolved Zirconium (Zr)	2018/02/26	94	80 - 120	98	80 - 120	<0.10	ug/L		
8915596	Dissolved Mercury (Hg)	2018/02/21	93	80 - 120	93	80 - 120	<0.0020	ug/L	NC	20
8915688	Total Mercury (Hg)	2018/02/21	96	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8915725	Total Mercury (Hg)	2018/02/21	94	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
8915849	ORP	2018/02/21							0.68	20
8915985	Total Aluminum (Al)	2018/02/27	108	80 - 120	104	80 - 120	<3.0	ug/L	3.8	20
8915985	Total Antimony (Sb)	2018/02/27	113	80 - 120	104	80 - 120	<0.020	ug/L	1.4	20
8915985	Total Arsenic (As)	2018/02/27	117	80 - 120	100	80 - 120	<0.020	ug/L	7.2	20
8915985	Total Barium (Ba)	2018/02/27	NC	80 - 120	98	80 - 120	<0.050	ug/L	0.15	20
8915985	Total Beryllium (Be)	2018/02/27	98	80 - 120	96	80 - 120	<0.010	ug/L	15	20
8915985	Total Bismuth (Bi)	2018/02/27	91	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8915985	Total Boron (B)	2018/02/27	NC	80 - 120	93	80 - 120	<10	ug/L	6.3	20
8915985	Total Cadmium (Cd)	2018/02/27	107	80 - 120	103	80 - 120	<0.0050	ug/L	3.9	20
8915985	Total Chromium (Cr)	2018/02/27	103	80 - 120	103	80 - 120	<0.10	ug/L	7.3	20
8915985	Total Cobalt (Co)	2018/02/27	97	80 - 120	102	80 - 120	<0.010	ug/L	1.2	20
8915985	Total Copper (Cu)	2018/02/27	96	80 - 120	103	80 - 120	<0.10	ug/L	0.99	20
8915985	Total Iron (Fe)	2018/02/27	95	80 - 120	102	80 - 120	<5.0	ug/L	2.4	20
8915985	Total Lead (Pb)	2018/02/27	99	80 - 120	101	80 - 120	<0.020	ug/L	5.9	20
8915985	Total Lithium (Li)	2018/02/27	NC	80 - 120	95	80 - 120	<0.50	ug/L	2.7	20
8915985	Total Manganese (Mn)	2018/02/27	103	80 - 120	99	80 - 120	<0.10	ug/L	4.5	20
8915985	Total Molybdenum (Mo)	2018/02/27	NC	80 - 120	103	80 - 120	<0.050	ug/L	2.7	20
8915985	Total Nickel (Ni)	2018/02/27	99	80 - 120	103	80 - 120	<0.10	ug/L	2.9	20
8915985	Total Phosphorus (P)	2018/02/27	120	80 - 120	105	80 - 120	<5.0	ug/L		
8915985	Total Selenium (Se)	2018/02/27	115	80 - 120	104	80 - 120	<0.040	ug/L	5.0	20
8915985	Total Silicon (Si)	2018/02/27	97	80 - 120	100	80 - 120	<50	ug/L	1.2	20
8915985	Total Silver (Ag)	2018/02/27	93	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8915985	Total Strontium (Sr)	2018/02/27	NC	80 - 120	93	80 - 120	<0.050	ug/L	4.4	20
8915985	Total Thallium (TI)	2018/02/27	99	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
8915985	Total Tin (Sn)	2018/02/27	93	80 - 120	105	80 - 120	<0.20	ug/L	NC	20
8915985	Total Titanium (Ti)	2018/02/27	108	80 - 120	101	80 - 120	<2.0	ug/L	NC	20
8915985	Total Uranium (U)	2018/02/27	105	80 - 120	99	80 - 120	<0.0050	ug/L	0.062	20
8915985	Total Vanadium (V)	2018/02/27	107	80 - 120	103	80 - 120	<0.20	ug/L	0.35	20
8915985	Total Zinc (Zn)	2018/02/27	108	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
8915985	Total Zirconium (Zr)	2018/02/27	NC	80 - 120	96	80 - 120	<0.10	ug/L	3.9	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8916343	Total Ammonia (N)	2018/02/21			106	80 - 120	<0.0050	mg/L		
8916887	рН	2018/02/21			101	97 - 103				
8916889	Conductivity	2018/02/21			99	80 - 120	<1.0	uS/cm		
8916891	Alkalinity (PP as CaCO3)	2018/02/21					<0.50	mg/L		
8916891	Alkalinity (Total as CaCO3)	2018/02/21			98	80 - 120	<0.50	mg/L		
8916891	Bicarbonate (HCO3)	2018/02/21					<0.50	mg/L		
8916891	Carbonate (CO3)	2018/02/21					<0.50	mg/L		
8916891	Hydroxide (OH)	2018/02/21					<0.50	mg/L		
8916920	рН	2018/02/21			101	97 - 103			0.49	20
8916930	Conductivity	2018/02/21			100	80 - 120	<1.0	uS/cm	0.65	20
8916933	Alkalinity (PP as CaCO3)	2018/02/21					<0.50	mg/L	NC	20
8916933	Alkalinity (Total as CaCO3)	2018/02/21			99	80 - 120	<0.50	mg/L	2.3	20
8916933	Bicarbonate (HCO3)	2018/02/21					<0.50	mg/L	2.3	20
8916933	Carbonate (CO3)	2018/02/21					<0.50	mg/L	NC	20
8916933	Hydroxide (OH)	2018/02/21					<0.50	mg/L	NC	20
8917053	Total Dissolved Solids	2018/02/23	100	80 - 120	98	80 - 120	<10	mg/L	6.4	20
8917336	Dissolved Organic Carbon (C)	2018/02/22	104	80 - 120	107	80 - 120	<0.50	mg/L	0	20
8917338	Total Organic Carbon (C)	2018/02/22			107	80 - 120	<0.50	mg/L		
8917340	Total Organic Carbon (C)	2018/02/22	103	80 - 120	111	80 - 120	<0.50	mg/L	NC	20
8918023	Dissolved Chloride (CI)	2018/02/21			98	80 - 120	<0.50	mg/L	NC	20
8918036	Dissolved Sulphate (SO4)	2018/02/21			96	80 - 120	<0.50	mg/L	NC	20
8918153	Total Suspended Solids	2018/02/26			96	80 - 120	<1.0	mg/L		
8918286	Total Suspended Solids	2018/02/26			95	80 - 120	<1.0	mg/L		
8918333	Total Dissolved Solids	2018/02/27	98	80 - 120	90	80 - 120	<10	mg/L	7.4	20
8919113	Dissolved Sulphate (SO4)	2018/02/22			102	80 - 120	<0.50	mg/L		
8920768	Weak Acid Dissoc. Cyanide (CN)	2018/02/27	107	80 - 120	103	80 - 120	<0.00050	mg/L	NC	20
8920887	Fluoride (F)	2018/02/27	104	80 - 120	100	80 - 120	0.011, RDL=0.010	mg/L	0	20
8921149	Total Ammonia (N)	2018/02/27	95	80 - 120	93	80 - 120	<0.0050	mg/L	NC	20
8922529	Dissolved Lithium (Li)	2018/03/01			95	80 - 120	<0.50	ug/L		



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

			Matrix	Spike	Spiked	Blank	Method B	lank	RPD	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8922529	Dissolved Silicon (Si)	2018/03/01			100	80 - 120	<50	ug/L		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

- (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
- (2) Blank Spike outside acceptance criteria (10% of analytes failure allowed).



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		INVOICE TO:			Report Int	ormation	1						Project la	nformatio	n			· · · · · · · · · · · · · · · · · · ·		
pany Name		ENVIRONMENTAL SERVICES	LTD. Company N		rige 1	En	rior	Me	ital	Quo	tation#	1	B40231						8 111	rder#:
act Name	Aida Piaseczny 2289 BURRARI	CTREET	Contact Nar	The state of the s		11		11.4		P.O.		-	Gold Cor	m Coffe	o Crook	SW	_	B812436_COC		THE REAL PROPERTY.
ess	VANCOUVER I		Address	44 2	-5 P	1191	im f	lace	_		ect # ect Name	(2	GOIG CO	p cone	e Oreek-	344	$\neg$	D012400_	rrojeci	49 t Manager
ne:	(604) 688-7173		'5 x Phone	867 6	68 62	38	Fac			Site		-							Mani	en Smith
il	aida.piaseczny(	@lorax.ca; shukling.ng@lorax.ca	Email	David Flath	ner@lorax.	ca				Sam	pled By	_						C#546749-01-01	1,50	ar onyur
egulatory Cri	teria		Spec	ial Instructions		_	-				Analysis F	Requested		>		_		Turnaround Time (TAT) Req Please provide advance notice for rus		
		1				2 (Y/N	Ž.		NO3,				s s	incl. C			Regular (3	Standard) TAT	r projects	
						Nater? (	H		ž,	l i			Metals	is in				plied if Rush TAT is not specified) TAT = 5-7 Working days for most tests:		- [
		1				nking Water	EC-LL,		NO2,				Dissolved	Metals			Please no.	te: Standard TAT for certain tests such as BOI	) and Dioxins/f	Furans an
		1				rinking \	<b>3</b> _	<u>@</u>	H.	WAD			sso	Total 1	1 8			itact your Project Manager for details. ic Rush TAT (if applies to entire submission)		
	Note: For regulated	drinking water samples - please use the	Drinking Water Chain of	Custody Form		0 2	150	v Level	LI.O				Hg E		- 8		Date Requi		dniseq:	
		sust be kept cool ( < 10°C ) from time of sam				B 14	w	-Lov	Su.	Cyanide	1220		Level [ CV Hg	Level			Huan Comin	mation Number(c	all (ab for #)	
Sample	Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regular	Routine LL, pH, 7	TSS-Low	Anions (LL.CI, F SO4)	Cya	700	DOG	Low incl.	Low Fig	ORP		# of Bottles	Comments		
LONG BOOK	D#162743	CC-0.5	18/02/17	12:30			/	/	/	/		/					13			
	DW162744	CC-1.5	18/02/17	13:06		П	1	-		/					7	_	13	RECEIVED IN WHI		
	D#162745	CC-3.5																BY: Stycr	00	104
	DW162746	CC-4.5																2018 -02-	19	6
	D#162747	СС-В																TEMP: II / I	1.13	2-
S	D#162748	HC-2.5																7 .		
	D#149695	IC-4.5																3 3	3	3
	D#149896	YUK-2.0	17/02/17	10:45			-	-/	/	/		_				6	3			
	D#149897	YUK-5.0	17/02/17	15:55			/	/	/	/	/	/	/	/			13			
	D#149898	Barker U/S S.R.	- A	WE'S SC																
and the same of the same of	DUISHED BY: (Signatur		(YY/MM/DD) Time	: A	RECEIV		Signature/Pr				te: (YY/MM/		Time		used and ubmitted	Time Sen	- I	Lab Use Only	Seal Intact on C	Control
lite	nell Ni	18/	02/17 22!	12 4	JAN	C DI	LA (	RUT	t	18	102	10 0	1:55	N	tı	Tarme Geld	Tem	became (,r) ou seesbe	fes No	

Maxxam Analytics International Corporation of Maxxam Analytics

		INVOICE TO:			Report Info	ormation	1						Project I	nformatio	n			IIII III III III CALCUI O CALC	LAPEUP III	11
npany Na	Alda Diseases	ENVIRONMENTAL SERVICES	LTD. Company N	D. LIELD	ge E	זעני	ionn	rest	<b>X</b>	Quo	tation#	1	B40231				The same of the sa		:W/W	Order #:
ress	2289 BURRAR		Address	#4	25	P	lgric	7 P	lace		ect #	2	Gold Co	rp Coffe	e Creek-	SW	_ 1	B812436_COC		3749
	(604) 688-7173	100 11 000 717	5 v	867 6	68 68		•			- Prop	ect Name	-				_	_		our I	Manage
ene sit		Ex Fax (604) 688-717 @lorax.ca; shukling.ng@lorax.ca	5 X Phone Email	David.Flath			Fax:			Site	# pled By			22 12				C#546749-02-01	11111	Megan Smith
Regulator	ry Criteria		Spe	cial Instructions							Analysis R	lequested						Turnaround Time (1		
	Samples n	drinking water samples - please use the L nust be kept cool ( < 10/6 ) from time of sam	G 1950 0	oxam	Matrix	Regulated Drinking Water 7 ( Y / N ) Metals Flaid Filland 2 ( Y / N )	Routine (Alk-LL, EC-LL, NH4- LL, pH, TDS)	TSS-Low Level	Anions (LL:CI, F, NO2, NO3, SO4)	Cyanide - WAD	тос	DOC	Low Level Dissolved Metals incl. CV Hg	Low Level Total Metals Incl. CV Hg	ORP		(will be app Standard T Please note days - cont Job Specific Date Require	nation Number	ests uch as 900 an	d Dioxins/Furans a
20.000	mple Barcode Label	Sample (Location) Identification Stewart D/S M.M.	18/62/17	17:05	Manx		1						-	-			(3	RECEIVED IN		IORSE
1001	SID#149899	Latte Mix	18/02/13			N		-		-/	-/	-	-	-/	-		13	BY: 840	no	1040
1101	SID#149900 SID#149901	Sample A	10/02/13	12,0		.0 14												2018	-02- 1	9
1/01	SID#149902	Sample B	18/02/13	12:00		NN	1	-/	-	-/		_	/	/			13	TEMP: (	, 11	112-
1101	SID#149903	FIELD BLANK	18/02/13	9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		N	, -	/	-	/	/	/	/	-/	/		13	7	5	5
1181	SID#149904	TRIP BLANK	18/02/13	22:00		NN	1	/		/	/	/	/	/	/		13	3	3	3
11 730 1	SID#094856	9																		
							8 5													
1) + RE	Chell No		2/17 22	7			Signature/Pr				-02-		J: CT		used and ubmitted	Time San	temp	Lab Use Only perature (*C) on Receipt 8,5/8,5/8	Custody Seal	Intact on Cooler?

Maxxam Analytics International Corporation o/a Maxxam Analytics



Your Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 548606-01-01, 548606-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/03/29

Report #: R2534586 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B821458 Received: 2018/03/21, 11:00

Sample Matrix: Water # Samples Received: 13

" Jumples Received. 15		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Alkalinity - Low Level	13	2018/03/23	2018/03/23	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	13	N/A	2018/03/23	BBY6SOP-00011	SM 22 4500-Cl- E m
Cyanide WAD (weak acid dissociable)	13	N/A	2018/03/27	BBY6SOP-00004	SM 22 4500-CN O m
Carbon (DOC) - field filtered/preserved (1)	13	N/A	2018/03/23	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	13	2018/03/23	2018/03/23	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	13	N/A	2018/03/27	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (2)	4	N/A	2018/03/26	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (2)	9	N/A	2018/03/27	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	13	N/A	2018/03/26	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	13	N/A	2018/03/23	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	13	2018/03/23	2018/03/23	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	13	N/A	2018/03/26	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	13	N/A	2018/03/23	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	4	2018/03/24	2018/03/26	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2018/03/26	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	9	N/A	2018/03/27	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	9	N/A	2018/03/26	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	13	N/A	2018/03/23	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	13	N/A	2018/03/23	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) (low level)	13	N/A	2018/03/23	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	13	N/A	2018/03/24	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	13	N/A	2018/03/26	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	12	N/A	2018/03/23	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (3)	13	2018/03/23	2018/03/23	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	12	N/A	2018/03/23	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	1	N/A	2018/03/26	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	13	2018/03/23	2018/03/26	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (4)	13	N/A	2018/03/23	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	11	2018/03/23	2018/03/26	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	2	2018/03/26	2018/03/27	BBY6SOP-00034	SM 22 2540 D



Your Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 548606-01-01, 548606-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/03/29

Report #: R2534586 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B821458 Received: 2018/03/21, 11:00

**Remarks:** 

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) DOC present in the sample should be considered as non-purgeable DOC.
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (4) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxam 29 Mar 2018 14:06:25

Please direct all questions regarding this Certificate of Analysis Project Manager. Diana Cruz, Junior Project Manager

Email: DCruz@maxxam.ca Phone# (604) 734 7276

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TD7440			TD7440		TD7441		
Sampling Date		2018/03/17			2018/03/17		2018/03/17		
Janipinig Date		14:45			14:45		15:30		
COC Number		548606-01-01			548606-01-01		548606-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	QC Batch	CC-1.5	RDL	QC Batch
Parameter									
ORP	mV	267		8942930	269	8942930	270		8942930
Calculated Parameters	•					•		•	•
Filter and HNO3 Preservation	N/A	LAB		8942206			LAB		8942206
Nitrate (N)	mg/L	0.0387	0.0020	8942112			0.0217	0.0020	8942112
Misc. Inorganics	•							•	•
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00075	0.00050	8945335			0.00076	0.00050	8945335
Fluoride (F)	mg/L	0.053	0.010	8945660			0.110	0.010	8945660
Dissolved Organic Carbon (C)	mg/L	3.65	0.50	8942857			5.69	0.50	8942857
Alkalinity (Total as CaCO3)	mg/L	154	0.50	8943183			139	0.50	8943183
Total Organic Carbon (C)	mg/L	4.00	0.50	8942863			6.22	0.50	8942863
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8943183			<0.50	0.50	8943183
Bicarbonate (HCO3)	mg/L	187	0.50	8943183			170	0.50	8943183
Carbonate (CO3)	mg/L	<0.50	0.50	8943183			<0.50	0.50	8943183
Hydroxide (OH)	mg/L	<0.50	0.50	8943183			<0.50	0.50	8943183
Anions									
Dissolved Sulphate (SO4)	mg/L	88.6	0.50	8944154			153	0.50	8944170
Dissolved Chloride (CI)	mg/L	0.97	0.50	8944150			0.71	0.50	8944167
Nutrients	•	•	•	•	•		•	•	•
Total Ammonia (N)	mg/L	0.021	0.0050	8943141			0.010	0.0050	8943141
Nitrate plus Nitrite (N)	mg/L	0.0387	0.0020	8943402			0.0217	0.0020	8943402
Nitrite (N)	mg/L	<0.0020	0.0020	8943403			<0.0020	0.0020	8943403
Physical Properties									
Conductivity	uS/cm	467	1.0	8943180			570	1.0	8943180
рН	рН	8.13		8943167			7.95		8943167
Physical Properties									
Total Suspended Solids	mg/L	4.1 (1)	1.3	8943233			68.4 (1)	1.1	8943233
Total Dissolved Solids	mg/L	258	10	8942943			334	10	8942943
RDL = Reportable Detection Limit									

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

# **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TD7442	TD7443	TD7444	TD7445		
Sampling Date		2018/03/17	2018/03/17	2018/03/17	2018/03/17		
bamping Date		13:20	16:45	12:30	17:05		
COC Number		548606-01-01	548606-01-01	548606-01-01	548606-01-01		
	UNITS	CC-4.5	HC-2.5	YUK-2.0	YUK-5.0	RDL	QC Batcl
Parameter						•	
ORP	mV	270	272	271	273		8942930
Calculated Parameters							
Filter and HNO3 Preservation	N/A	LAB	LAB	LAB	LAB		8942206
Nitrate (N)	mg/L	0.754	0.473	0.0876	0.0898	0.0020	8942112
Misc. Inorganics	•						
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00088	0.00073	0.00086	0.00058	0.00050	8945335
Fluoride (F)	mg/L	0.046	0.054	0.100	0.095	0.010	8945660
Dissolved Organic Carbon (C)	mg/L	5.09	4.23	1.66	0.86	0.50	894285
Alkalinity (Total as CaCO3)	mg/L	67.4	141	89.2	90.1	0.50	8943183
Total Organic Carbon (C)	mg/L	5.25	4.08	1.69	0.95	0.50	8942863
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	8943183
Bicarbonate (HCO3)	mg/L	82.3	173	109	110	0.50	8943183
Carbonate (CO3)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	8943183
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	8943183
Anions							
Dissolved Sulphate (SO4)	mg/L	79.2	69.7	22.2	23.2	0.50	8944154
Dissolved Chloride (CI)	mg/L	1.1	3.4	0.78	0.68	0.50	8944150
Nutrients					1	Į.	
Гotal Ammonia (N)	mg/L	0.0090	0.018	0.014	0.020	0.0050	8943141
Nitrate plus Nitrite (N)	mg/L	0.754	0.473	0.0876	0.0898	0.0020	8943402
Nitrite (N)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8943403
Physical Properties					ı	ı	
Conductivity	uS/cm	303	408	218	221	1.0	8943180
эН	рН	7.53	7.92	8.01	7.91		8943167
Physical Properties							
Total Suspended Solids	mg/L	2.9	1.1	<1.0	1.7	1.0	8943233
	mg/L		186	96	114	10	894294



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TD7446			TD7447		
Sampling Date		2018/03/17			2018/03/17		
Sampling Date		17:53			14:30		
COC Number		548606-02-01			548606-02-01		
	UNITS	STEWART D/S M.M.	RDL	QC Batch	LATTE MIX	RDL	QC Batch
Parameter							
ORP	mV	273		8942930	274		8942930
Calculated Parameters	-		•	•		•	
Filter and HNO3 Preservation	N/A	LAB		8942206	LAB		8942206
Nitrate (N)	mg/L	0.188	0.0020	8942112	0.335	0.0020	8942112
Misc. Inorganics	•		*	•		•	
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00073	0.00050	8945335	0.00065	0.00050	8945335
Fluoride (F)	mg/L	0.076	0.010	8945660	0.069	0.010	8945660
Dissolved Organic Carbon (C)	mg/L	1.39	0.50	8942857	2.92	0.50	8942857
Alkalinity (Total as CaCO3)	mg/L	128	0.50	8943183	181	0.50	8943183
Total Organic Carbon (C)	mg/L	1.52	0.50	8942863	2.63	0.50	8942863
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183
Bicarbonate (HCO3)	mg/L	157	0.50	8943183	220	0.50	8943183
Carbonate (CO3)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183
Hydroxide (OH)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183
Anions			•				
Dissolved Sulphate (SO4)	mg/L	89.0	0.50	8944170	86.0	0.50	8944154
Dissolved Chloride (Cl)	mg/L	0.94	0.50	8944167	0.94	0.50	8944150
Nutrients			•				
Total Ammonia (N)	mg/L	0.014	0.0050	8943141	0.018	0.0050	8943141
Nitrate plus Nitrite (N)	mg/L	0.188	0.0020	8943402	0.335	0.0020	8943402
Nitrite (N)	mg/L	<0.0020	0.0020	8943403	<0.0020	0.0020	8943403
Physical Properties			•				
Conductivity	uS/cm	424	1.0	8943180	478	1.0	8943180
рН	рН	7.95		8943167	8.09		8943167
Physical Properties				•	•	•	
Total Suspended Solids	mg/L	1.5	1.0	8943233	1.1 (1)	1.1	8943233
Total Dissolved Solids	mg/L	258	10	8942943	292	10	8942943
RDL = Reportable Detection Limit	<u> </u>			•	•		
(1) RDL raised due to sample mat	rix interf	erence.					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TD7448			TD7448		TD7449		
Sampling Date		2018/03/17 14:45			2018/03/17 14:45		2018/03/20 10:00		
COC Number		548606-02-01			548606-02-01		548606-02-01		
	UNITS	SAMPLE A	RDL	QC Batch	SAMPLE A Lab-Dup	QC Batch	FIELD BLANK	RDL	QC Batch
Parameter	-		•			•			•
ORP	mV	275		8942930	275	8942930	267		8942930
Calculated Parameters						!		!	
Filter and HNO3 Preservation	N/A	LAB		8942206			LAB		8942206
Nitrate (N)	mg/L	0.0418	0.0020	8942112			<0.0020	0.0020	8942112
Misc. Inorganics			Į.	<u>.</u>	1		1		Į.
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00074	0.00050	8945335			0.00060	0.00050	8945335
Fluoride (F)	mg/L	0.050	0.010	8945660			0.013	0.010	8945660
Dissolved Organic Carbon (C)	mg/L	3.40	0.50	8942857			<0.50	0.50	8942857
Alkalinity (Total as CaCO3)	mg/L	152	0.50	8943183			0.62	0.50	8943183
Total Organic Carbon (C)	mg/L	3.88	0.50	8942863			<0.50	0.50	8942863
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8943183			<0.50	0.50	8943183
Bicarbonate (HCO3)	mg/L	186	0.50	8943183			0.76	0.50	8943183
Carbonate (CO3)	mg/L	<0.50	0.50	8943183			<0.50	0.50	8943183
Hydroxide (OH)	mg/L	<0.50	0.50	8943183			<0.50	0.50	8943183
Anions	•					•			
Dissolved Sulphate (SO4)	mg/L	85.7	0.50	8944170			<0.50	0.50	8944154
Dissolved Chloride (CI)	mg/L	0.95	0.50	8944167			1.2	0.50	8944150
Nutrients	•		•			•		•	•
Total Ammonia (N)	mg/L	0.026	0.0050	8943141			<0.0050	0.0050	8943141
Nitrate plus Nitrite (N)	mg/L	0.0418	0.0020	8943402			<0.0020	0.0020	8943402
Nitrite (N)	mg/L	<0.0020	0.0020	8943403			<0.0020	0.0020	8943403
Physical Properties			•			•		•	•
Conductivity	uS/cm	467	1.0	8943180			<1.0	1.0	8943180
рН	рН	8.06		8943167			5.59		8943167
Physical Properties	•		•			•			•
Total Suspended Solids	mg/L	2.6 (1)	1.2	8943233			<1.0	1.0	8944619
Total Dissolved Solids	mg/L	292	10	8942943			<10	10	8942943

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TD7449			TD7450			TD7450		
Sampling Date		2018/03/20 10:00			2018/03/20 10:00			2018/03/20 10:00		
COC Number		548606-02-01			548606-02-01			548606-02-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Parameter			<u> </u>	·	·	·				
ORP	mV				272		8942930			
Calculated Parameters	!		<u> </u>	!						
Nitrate (N)	mg/L				<0.0020	0.0020	8942112			
Misc. Inorganics			l.	Į.	1	Į.	<u>.</u>			
Weak Acid Dissoc. Cyanide (CN)	mg/L				0.00058	0.00050	8945335			
Fluoride (F)	mg/L				<0.010	0.010	8945660			
Dissolved Organic Carbon (C)	mg/L				<0.50	0.50	8942857	<0.50	0.50	8942857
Alkalinity (Total as CaCO3)	mg/L	0.55	0.50	8943183	<0.50	0.50	8943183			
Total Organic Carbon (C)	mg/L				<0.50	0.50	8942863	<0.50	0.50	8942863
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183			
Bicarbonate (HCO3)	mg/L	0.67	0.50	8943183	<0.50	0.50	8943183			
Carbonate (CO3)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183			
Hydroxide (OH)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183			
Anions	•		•	•		•				
Dissolved Sulphate (SO4)	mg/L	<0.50	0.50	8944154	0.56	0.50	8944170			
Dissolved Chloride (CI)	mg/L	0.60	0.50	8944150	0.53	0.50	8944167			
Nutrients			•	•		•				
Total Ammonia (N)	mg/L				<0.0050	0.0050	8943141			
Nitrate plus Nitrite (N)	mg/L	<0.0020	0.0020	8943402	<0.0020	0.0020	8943402			
Nitrite (N)	mg/L	<0.0020	0.0020	8943403	<0.0020	0.0020	8943403			
Physical Properties										
Conductivity	uS/cm	<1.0	1.0	8943180	1.2	1.0	8943180			
рН	рН	5.53		8943167	5.49		8943167			
Physical Properties										
Total Suspended Solids	mg/L				<1.1 (1)	1.1	8944619			
Total Dissolved Solids	mg/L				<10	10	8942943			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TD7451			TD7452			TD7452		
Sampling Date										
COC Number		548606-02-01			548606-02-01			548606-02-01		
	UNITS	НС-В	RDL	QC Batch	BLACKHILLS	RDL	QC Batch	BLACKHILLS Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV	279		8942930	279		8942930			
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		8942206	LAB		8942206			
Nitrate (N)	mg/L	0.0036	0.0020	8942112	<0.020	0.020	8942112			
Misc. Inorganics			!	!	-	-	-			
Weak Acid Dissoc. Cyanide (CN)	mg/L	0.00097	0.00050	8945335	0.00097	0.00050	8945335			
Fluoride (F)	mg/L	0.049	0.010	8945660	0.098	0.010	8945660			
Dissolved Organic Carbon (C)	mg/L	16.3	0.50	8942857	28.8	0.50	8942857			
Alkalinity (Total as CaCO3)	mg/L	102	0.50	8943183	229	0.50	8943183			
Total Organic Carbon (C)	mg/L	16.6	0.50	8942863	32.8	0.50	8942863			
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183			
Bicarbonate (HCO3)	mg/L	124	0.50	8943183	279	0.50	8943183			
Carbonate (CO3)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183			
Hydroxide (OH)	mg/L	<0.50	0.50	8943183	<0.50	0.50	8943183			
Anions										
Dissolved Sulphate (SO4)	mg/L	161	0.50	8945250	69.2	0.50	8944170			
Dissolved Chloride (Cl)	mg/L	1.5	0.50	8944167	2.1	0.50	8944167			
Nutrients				Į.	1					
Total Ammonia (N)	mg/L	0.031	0.0050	8943141	0.22	0.0050	8943141	0.22	0.0050	8943141
Nitrate plus Nitrite (N)	mg/L	0.0036	0.0020	8943402	<0.020 (1)	0.020	8943402			
Nitrite (N)	mg/L	<0.0020	0.0020	8943403	<0.020 (1)	0.020	8943403			
Physical Properties										
Conductivity	uS/cm	496	1.0	8943180	574	1.0	8943180			
рН	рН	7.92		8943167	7.54		8943167			
Physical Properties	•		•	•	•	-				
Total Suspended Solids	mg/L	6.8 (1)	1.1	8943233	50.7 (1)	6.7	8943233			
Total Dissolved Solids	mg/L	326	10	8942943	388	10	8942943			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TD7440			TD7440			TD7441		
Sampling Date		2018/03/17			2018/03/17			2018/03/17		
Sampling Date		14:45			14:45			15:30		
COC Number		548606-01-01			548606-01-01			548606-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	216	0.50	8941567				274	0.50	8941567
Elements	•		•	•	•	•	•		•	
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	8942818				<0.0020	0.0020	8942818
Dissolved Metals by ICPMS	•		•	•	•	•	•		•	
Dissolved Aluminum (Al)	ug/L	3.70	0.50	8942507	4.10	0.50	8942507	9.03	0.50	8942507
Dissolved Antimony (Sb)	ug/L	0.024	0.020	8942507	0.025	0.020	8942507	0.026	0.020	8942507
Dissolved Arsenic (As)	ug/L	0.291	0.020	8942507	0.265	0.020	8942507	2.29	0.020	8942507
Dissolved Barium (Ba)	ug/L	93.0	0.020	8942507	101	0.020	8942507	23.9	0.020	8942507
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8942507	<0.010	0.010	8942507	<0.010	0.010	8942507
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Boron (B)	ug/L	<10	10	8942507	<10	10	8942507	<10	10	8942507
Dissolved Cadmium (Cd)	ug/L	0.0119	0.0050	8942507	0.0127	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	8942507	<0.10	0.10	8942507	<0.10	0.10	8942507
Dissolved Cobalt (Co)	ug/L	0.176	0.0050	8942507	0.162	0.0050	8942507	0.0128	0.0050	8942507
Dissolved Copper (Cu)	ug/L	0.287	0.050	8942507	0.261	0.050	8942507	0.801	0.050	8942507
Dissolved Iron (Fe)	ug/L	129	1.0	8942507	136	1.0	8942507	3.7	1.0	8942507
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Lithium (Li)	ug/L	1.00	0.50	8942507	1.08	0.50	8942507	2.54	0.50	8942507
Dissolved Manganese (Mn)	ug/L	123	0.050	8942507	111	0.050	8942507	3.91	0.050	8942507
Dissolved Molybdenum (Mo)	ug/L	0.190	0.050	8942507	0.207	0.050	8942507	0.249	0.050	8942507
Dissolved Nickel (Ni)	ug/L	0.534	0.020	8942507	0.486	0.020	8942507	0.432	0.020	8942507
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	8942507	<2.0	2.0	8942507	3.0	2.0	8942507
Dissolved Selenium (Se)	ug/L	<0.040	0.040	8942507	<0.040	0.040	8942507	<0.040	0.040	8942507
Dissolved Silicon (Si)	ug/L	3850	50	8942507	4070	50	8942507	4370	50	8942507
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Strontium (Sr)	ug/L	374	0.050	8942507	338	0.050	8942507	516	0.050	8942507
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	8942507	<0.0020	0.0020	8942507	0.0043	0.0020	8942507
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8942507	<0.20	0.20	8942507	<0.20	0.20	8942507
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8942507	<0.50	0.50	8942507	<0.50	0.50	8942507
Dissolved Uranium (U)	ug/L	4.44	0.0020	8942507	4.88	0.0020	8942507	17.5	0.0020	8942507
RDL = Reportable Detection Li	mit	•	•		-	•		•	•	
Lab-Dup = Laboratory Initiated	Duplica	ate								

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TD7440			TD7440			TD7441		
Sampling Date		2018/03/17 14:45			2018/03/17 14:45			2018/03/17 15:30		
COC Number		548606-01-01			548606-01-01			548606-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.20	8942507	<0.20	0.20	8942507	<0.20	0.20	8942507
Dissolved Zinc (Zn)	ug/L	0.31	0.10	8942507	0.32	0.10	8942507	0.12	0.10	8942507
Dissolved Zirconium (Zr)	ug/L	0.14	0.10	8942507	0.12	0.10	8942507	0.35	0.10	8942507
Dissolved Calcium (Ca)	mg/L	66.7	0.050	8942110				76.2	0.050	8942110
Dissolved Magnesium (Mg)	mg/L	11.9	0.050	8942110				20.3	0.050	8942110
Dissolved Potassium (K)	mg/L	2.10	0.050	8942110				4.68	0.050	8942110
Dissolved Sodium (Na)	mg/L	3.79	0.050	8942110				6.52	0.050	8942110
Dissolved Sulphur (S)	mg/L	30.8	3.0	8942110				51.1	3.0	8942110

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TD7442	TD7443		TD7444		TD7445		
Sampling Date		2018/03/17	2018/03/17		2018/03/17		2018/03/17		
		13:20	16:45		12:30		17:05		
COC Number		548606-01-01	548606-01-01		548606-01-01		548606-01-01		
	UNITS	CC-4.5	HC-2.5	QC Batch	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Calculated Parameters			*	<u> </u>	*	<u> </u>		•	•
Dissolved Hardness (CaCO3)	mg/L	136	196	8941567	103	8941567	106	0.50	8941567
Elements	•			•		•		•	
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	8942818	<0.0020	8942482	<0.0020	0.0020	8942818
Dissolved Metals by ICPMS				•				•	
Dissolved Aluminum (AI)	ug/L	20.9	8.05	8942507	1.49	8942507	1.86	0.50	8942507
Dissolved Antimony (Sb)	ug/L	0.068	0.324	8942507	0.063	8942507	0.071	0.020	8942507
Dissolved Arsenic (As)	ug/L	0.234	0.527	8942507	0.339	8942507	0.155	0.020	8942507
Dissolved Barium (Ba)	ug/L	80.1	49.0	8942507	42.8	8942507	77.2	0.020	8942507
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	8942507	<0.010	8942507	<0.010	0.010	8942507
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	8942507	<0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Boron (B)	ug/L	<10	<10	8942507	<10	8942507	<10	10	8942507
Dissolved Cadmium (Cd)	ug/L	0.0187	0.0094	8942507	0.0193	8942507	0.0265	0.0050	8942507
Dissolved Chromium (Cr)	ug/L	0.13	<0.10	8942507	<0.10	8942507	<0.10	0.10	8942507
Dissolved Cobalt (Co)	ug/L	0.0210	0.0202	8942507	0.0058	8942507	0.0094	0.0050	8942507
Dissolved Copper (Cu)	ug/L	0.980	0.662	8942507	0.356	8942507	0.338	0.050	8942507
Dissolved Iron (Fe)	ug/L	5.0	3.7	8942507	3.1	8942507	6.2	1.0	8942507
Dissolved Lead (Pb)	ug/L	0.0160	<0.0050	8942507	<0.0050	8942507	0.0155	0.0050	8942507
Dissolved Lithium (Li)	ug/L	<0.50	1.50	8942507	1.46	8942507	1.08	0.50	8942507
Dissolved Manganese (Mn)	ug/L	0.422	48.1	8942507	1.04	8942507	3.71	0.050	8942507
Dissolved Molybdenum (Mo)	ug/L	0.426	1.09	8942507	1.17	8942507	1.17	0.050	8942507
Dissolved Nickel (Ni)	ug/L	0.516	0.425	8942507	0.609	8942507	0.235	0.020	8942507
Dissolved Phosphorus (P)	ug/L	3.5	2.6	8942507	2.6	8942507	21.7 (1)	2.0	8942507
Dissolved Selenium (Se)	ug/L	0.064	0.075	8942507	0.304	8942507	0.384	0.040	8942507
Dissolved Silicon (Si)	ug/L	3820	4790	8942507	2380	8942507	2150	50	8942507
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	8942507	<0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Strontium (Sr)	ug/L	191	507	8942507	146	8942507	134	0.050	8942507
Dissolved Thallium (TI)	ug/L	<0.0020	<0.0020	8942507	<0.0020	8942507	<0.0020	0.0020	8942507
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	8942507	<0.20	8942507	<0.20	0.20	8942507
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	8942507	<0.50	8942507	<0.50	0.50	8942507
Dissolved Uranium (U)	ug/L	1.38	57.0	8942507	1.06	8942507	1.19	0.0020	8942507
RDL = Reportable Detection Li	mit	•	•	•	•		•		

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

	TD7442	TD7443		TD7444		TD7445		
	2018/03/17	2018/03/17		2018/03/17		2018/03/17		
	13:20	16:45		12:30		17:05		
	548606-01-01	548606-01-01		548606-01-01		548606-01-01		
UNITS	CC-4.5	HC-2.5	QC Batch	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
ug/L	0.21	<0.20	8942507	<0.20	8942507	<0.20	0.20	8942507
ug/L	0.83 (1)	0.21	8942507	1.84	8942507	1.55	0.10	8942507
ug/L	0.25	0.21	8942507	<0.10	8942507	<0.10	0.10	8942507
mg/L	34.7	47.0	8942110	28.2	8942110	29.2	0.050	8942110
mg/L	12.0	19.0	8942110	7.95	8942110	7.96	0.050	8942110
mg/L	1.50	2.72	8942110	0.903	8942110	0.855	0.050	8942110
mg/L	4.46	4.13	8942110	2.26	8942110	2.08	0.050	8942110
mg/L	25.5	23.2	8942110	7.5	8942110	7.5	3.0	8942110
	ug/L ug/L ug/L mg/L mg/L mg/L mg/L	2018/03/17 13:20 548606-01-01 UNITS CC-4.5 ug/L 0.21 ug/L 0.83 (1) ug/L 0.25 mg/L 34.7 mg/L 12.0 mg/L 1.50 mg/L 4.46	2018/03/17     2018/03/17       13:20     16:45       548606-01-01     548606-01-01       UNITS     CC-4.5     HC-2.5       ug/L     0.21     <0.20	2018/03/17 13:20     2018/03/17 16:45       548606-01-01     548606-01-01       UNITS     CC-4.5     HC-2.5     QC Batch       ug/L     0.21     <0.20	2018/03/17       2018/03/17       2018/03/17         13:20       16:45       12:30         548606-01-01       548606-01-01       548606-01-01         UNITS       CC-4.5       HC-2.5       QC Batch       YUK-2.0         ug/L       0.21       <0.20	2018/03/17       2018/03/17       2018/03/17       2018/03/17       12:30         548606-01-01       548606-01-01       548606-01-01         UNITS       CC-4.5       HC-2.5       QC Batch       YUK-2.0       QC Batch         ug/L       0.21       <0.20	2018/03/17 13:20         2018/03/17 16:45         2018/03/17 12:30         2018/03/17 17:05           548606-01-01         548606-01-01         548606-01-01         548606-01-01           UNITS         CC-4.5         HC-2.5         QC Batch         YUK-2.0         QC Batch         YUK-5.0           ug/L         0.21         <0.20	2018/03/17 13:20         2018/03/17 16:45         2018/03/17 12:30         2018/03/17 17:05           548606-01-01         548606-01-01         548606-01-01         548606-01-01           UNITS         CC-4.5         HC-2.5         QC Batch         YUK-2.0         QC Batch         YUK-5.0         RDL           ug/L         0.21         <0.20

RDL = Reportable Detection Limit

<sup>(1)</sup> Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TD7446		TD7447		TD7448	TD7449		
o !! D .		2018/03/17		2018/03/17		2018/03/17	2018/03/20		
Sampling Date		17:53		14:30		14:45	10:00		
COC Number		548606-02-01		548606-02-01		548606-02-01	548606-02-01		
	UNITS	STEWART D/S M.M.	QC Batch	LATTE MIX	QC Batch	SAMPLE A	FIELD BLANK	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	206	8941567	230	8941567	192	<0.50	0.50	8941567
Elements	,								
Dissolved Mercury (Hg)	ug/L	<0.0020	8942482	<0.0020	8942482	<0.0020	<0.0020	0.0020	8942482
Dissolved Metals by ICPMS	,								
Dissolved Aluminum (AI)	ug/L	2.02	8942507	5.60	8942507	3.56	<0.50	0.50	8942507
Dissolved Antimony (Sb)	ug/L	0.098	8942507	0.042	8942507	0.022	<0.020	0.020	8942507
Dissolved Arsenic (As)	ug/L	0.243	8942507	0.248	8942507	0.273	<0.020	0.020	8942507
Dissolved Barium (Ba)	ug/L	72.5	8942507	87.8	8942507	92.1	<0.020	0.020	8942507
Dissolved Beryllium (Be)	ug/L	<0.010	8942507	<0.010	8942507	<0.010	<0.010	0.010	8942507
Dissolved Bismuth (Bi)	ug/L	<0.0050	8942507	<0.0050	8942507	<0.0050	<0.0050	0.0050	8942507
Dissolved Boron (B)	ug/L	<10	8942507	<10	8942507	<10	<10	10	8942507
Dissolved Cadmium (Cd)	ug/L	0.0846	8942507	<0.0050	8942507	<0.0050	<0.0050	0.0050	8942507
Dissolved Chromium (Cr)	ug/L	<0.10	8942507	0.14	8942507	<0.10	<0.10	0.10	8942507
Dissolved Cobalt (Co)	ug/L	0.0156	8942507	0.0142	8942507	0.175	<0.0050	0.0050	8942507
Dissolved Copper (Cu)	ug/L	0.321	8942507	0.456	8942507	0.260	<0.050	0.050	8942507
Dissolved Iron (Fe)	ug/L	2.8	8942507	2.8	8946578	116	<1.0	1.0	8942507
Dissolved Lead (Pb)	ug/L	<0.0050	8942507	<0.0050	8942507	<0.0050	<0.0050	0.0050	8942507
Dissolved Lithium (Li)	ug/L	3.87	8942507	1.02	8942507	1.00	<0.50	0.50	8942507
Dissolved Manganese (Mn)	ug/L	6.71	8942507	1.06	8942507	121	<0.050	0.050	8942507
Dissolved Molybdenum (Mo)	ug/L	0.507	8942507	0.600	8942507	0.187	<0.050	0.050	8942507
Dissolved Nickel (Ni)	ug/L	2.14	8942507	0.280	8942507	0.517	<0.020	0.020	8942507
Dissolved Phosphorus (P)	ug/L	<2.0	8942507	<2.0	8942507	2.0	<2.0	2.0	8942507
Dissolved Selenium (Se)	ug/L	0.806	8942507	0.177	8946578	<0.040	<0.040	0.040	8942507
Dissolved Silicon (Si)	ug/L	2120	8942507	3950	8942507	4000	<50	50	8942507
Dissolved Silver (Ag)	ug/L	<0.0050	8942507	<0.0050	8942507	<0.0050	<0.0050	0.0050	8942507
Dissolved Strontium (Sr)	ug/L	265	8942507	389	8942507	361	<0.050	0.050	8942507
Dissolved Thallium (TI)	ug/L	<0.0020	8942507	<0.0020	8942507	<0.0020	<0.0020	0.0020	8942507
Dissolved Tin (Sn)	ug/L	<0.20	8942507	<0.20	8942507	<0.20	<0.20	0.20	8942507
Dissolved Titanium (Ti)	ug/L	<0.50	8942507	<0.50	8942507	<0.50	<0.50	0.50	8942507
Dissolved Uranium (U)	ug/L	1.23	8942507	18.9	8942507	4.45	<0.0020	0.0020	8942507
Dissolved Vanadium (V)	ug/L	<0.20	8942507	0.21	8942507	<0.20	<0.20	0.20	8942507
RDL = Reportable Detection Lir	mit		•		•				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TD7446		TD7447		TD7448	TD7449		
Sampling Date		2018/03/17 17:53		2018/03/17 14:30		2018/03/17 14:45	2018/03/20 10:00		
COC Number		548606-02-01		548606-02-01		548606-02-01	548606-02-01		
	UNITS	STEWART D/S M.M.	QC Batch	LATTE MIX	QC Batch	SAMPLE A	FIELD BLANK	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	8.33	8942507	0.16	8942507	0.11	<0.10	0.10	8942507
Dissolved Zirconium (Zr)	ug/L	<0.10	8942507	0.14	8942507	0.14	<0.10	0.10	8942507
Dissolved Calcium (Ca)	mg/L	53.1	8942110	62.8	8942110	57.8	<0.050	0.050	8942110
Dissolved Magnesium (Mg)	mg/L	17.7	8942110	17.7	8942110	11.6	<0.050	0.050	8942110
Dissolved Potassium (K)	mg/L	0.705	8942110	2.60	8942110	2.00	<0.050	0.050	8942110
Dissolved Sodium (Na)	mg/L	2.66	8942110	4.41	8942110	3.66	<0.050	0.050	8942110
Dissolved Sulphur (S)	mg/L	28.8	8942110	28.1	8942110	29.0	<3.0	3.0	8942110
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

		1	<del></del>			<del></del>			1	
Maxxam ID		TD7449			TD7450			TD7450		
Sampling Date		2018/03/20			2018/03/20			2018/03/20		
		10:00			10:00			10:00		
COC Number		548606-02-01			548606-02-01			548606-02-01	-	
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L				<0.50	0.50	8941567			
Elements			•			•	•		•	
Dissolved Mercury (Hg)	ug/L				<0.0020	0.0020	8942482	<0.0020	0.0020	8942482
Dissolved Metals by ICPMS	•					•				
Dissolved Aluminum (AI)	ug/L	<0.50	0.50	8942507	<0.50	0.50	8942507	<0.50	0.50	8942507
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	8942507	<0.020	0.020	8942507	<0.020	0.020	8942507
Dissolved Arsenic (As)	ug/L	<0.020	0.020	8942507	<0.020	0.020	8942507	<0.020	0.020	8942507
Dissolved Barium (Ba)	ug/L	<0.020	0.020	8942507	<0.020	0.020	8942507	<0.020	0.020	8942507
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8942507	<0.010	0.010	8942507	<0.010	0.010	8942507
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Boron (B)	ug/L	<10	10	8942507	<10	10	8942507	<10	10	8942507
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	8942507	<0.10	0.10	8942507	<0.10	0.10	8942507
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Copper (Cu)	ug/L	<0.050	0.050	8942507	<0.050	0.050	8942507	<0.050	0.050	8942507
Dissolved Iron (Fe)	ug/L	<1.0	1.0	8942507	<1.0	1.0	8942507	<1.0	1.0	8942507
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Lithium (Li)	ug/L	<0.50	0.50	8942507	<0.50	0.50	8942507	<0.50	0.50	8942507
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	8942507	<0.050	0.050	8942507	<0.050	0.050	8942507
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	8942507	<0.050	0.050	8942507	<0.050	0.050	8942507
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	8942507	<0.020	0.020	8942507	<0.020	0.020	8942507
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	8942507	<2.0	2.0	8942507	<2.0	2.0	8942507
Dissolved Selenium (Se)	ug/L	<0.040	0.040	8942507	<0.040	0.040	8942507	<0.040	0.040	8942507
Dissolved Silicon (Si)	ug/L	<50	50	8942507	<50	50	8942507	<50	50	8942507
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507	<0.0050	0.0050	8942507
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	8942507	<0.050	0.050	8942507	<0.050	0.050	8942507
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	8942507	<0.0020	0.0020	8942507	<0.0020	0.0020	8942507
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8942507	<0.20	0.20	8942507	<0.20	0.20	8942507
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8942507	<0.50	0.50	8942507	<0.50	0.50	8942507
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	8942507	<0.0020	0.0020	8942507	<0.0020	0.0020	8942507
RDL = Reportable Detection Li	mit									
Lab-Dup = Laboratory Initiated	l Duplica	ate								
·										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TD7449			TD7450			TD7450		
Sampling Date		2018/03/20			2018/03/20			2018/03/20		
Sampling Date		10:00			10:00			10:00		
COC Number		548606-02-01			548606-02-01			548606-02-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.20	8942507	<0.20	0.20	8942507	<0.20	0.20	8942507
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	8942507	<0.10	0.10	8942507	<0.10	0.10	8942507
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	8942507	<0.10	0.10	8942507	<0.10	0.10	8942507
Dissolved Calcium (Ca)	mg/L				<0.050	0.050	8942110			
Dissolved Magnesium (Mg)	mg/L				<0.050	0.050	8942110			
Dissolved Potassium (K)	mg/L				<0.050	0.050	8942110			
Dissolved Sodium (Na)	mg/L				<0.050	0.050	8942110			
Dissolved Sulphur (S)	mg/L				<3.0	3.0	8942110			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TD7451	TD7452		
Sampling Date					
COC Number		548606-02-01	548606-02-01		
	UNITS	НС-В	BLACKHILLS	RDL	QC Batch
Calculated Parameters	•			•	
Dissolved Hardness (CaCO3)	mg/L	237	266	0.50	8941567
Elements					
Dissolved Mercury (Hg)	ug/L	0.0045	<0.0020	0.0020	8942482
Dissolved Metals by ICPMS				•	
Dissolved Aluminum (AI)	ug/L	25.0	15.3	0.50	8942507
Dissolved Antimony (Sb)	ug/L	0.189	0.089	0.020	8942507
Dissolved Arsenic (As)	ug/L	0.976	1.12	0.020	8942507
Dissolved Barium (Ba)	ug/L	53.9	199	0.020	8942507
Dissolved Beryllium (Be)	ug/L	<0.010	0.032	0.010	8942507
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0050	8942507
Dissolved Boron (B)	ug/L	<10	<10	10	8942507
Dissolved Cadmium (Cd)	ug/L	0.0140	0.0278	0.0050	8942507
Dissolved Chromium (Cr)	ug/L	0.21	0.82	0.10	8942507
Dissolved Cobalt (Co)	ug/L	0.0403	2.22	0.0050	8942507
Dissolved Copper (Cu)	ug/L	1.27	0.281	0.050	8942507
Dissolved Iron (Fe)	ug/L	21.3	3240	1.0	8942507
Dissolved Lead (Pb)	ug/L	0.0136	0.0172	0.0050	8942507
Dissolved Lithium (Li)	ug/L	1.15	2.64	0.50	8942507
Dissolved Manganese (Mn)	ug/L	0.382	2250	0.050	8942507
Dissolved Molybdenum (Mo)	ug/L	0.373	0.467	0.050	8942507
Dissolved Nickel (Ni)	ug/L	0.688	2.54	0.020	8942507
Dissolved Phosphorus (P)	ug/L	26.7	25.3	2.0	8942507
Dissolved Selenium (Se)	ug/L	0.054	0.202	0.040	8942507
Dissolved Silicon (Si)	ug/L	5500	7470	50	8942507
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	8942507
Dissolved Strontium (Sr)	ug/L	565	388	0.050	8942507
Dissolved Thallium (TI)	ug/L	<0.0020	<0.0020	0.0020	8942507
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	0.20	8942507
Dissolved Titanium (Ti)	ug/L	<0.50	2.84	0.50	8942507
Dissolved Uranium (U)	ug/L	37.3	0.615	0.0020	8942507
Dissolved Vanadium (V)	ug/L	0.22	1.41	0.20	8942507
RDL = Reportable Detection Li	nit				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TD7451	TD7452		
Sampling Date					
COC Number		548606-02-01	548606-02-01		
	UNITS	НС-В	BLACKHILLS	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	2.07	3.45	0.10	8942507
Dissolved Zirconium (Zr)	ug/L	0.35	0.86	0.10	8942507
Dissolved Calcium (Ca)	mg/L	56.5	72.7	0.050	8942110
Dissolved Magnesium (Mg)	mg/L	23.3	20.5	0.050	8942110
Dissolved Potassium (K)	mg/L	3.42	2.48	0.050	8942110
Dissolved Sodium (Na)	mg/L	9.55	6.70	0.050	8942110
Dissolved Sulphur (S)	mg/L	51.1	23.2	3.0	8942110
RDL = Reportable Detection L	imit				



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TD7440	TD7442	TD7443	TD7444	TD7446		
Sampling Date		2018/03/17	2018/03/17	2018/03/17	2018/03/17	2018/03/17		
		14:45	13:20	16:45	12:30	17:53		
COC Number		548606-01-01	548606-01-01	548606-01-01	548606-01-01	548606-02-01		
	UNITS	CC-0.5	CC-4.5	HC-2.5	YUK-2.0	STEWART D/S M.M.	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	242	136	200	91.6	196	0.50	8941266
Elements	•							•
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8942323
Total Metals by ICPMS			•					•
Total Aluminum (Al)	ug/L	6.07	38.3	13.8	38.1	11.3	0.50	8944186
Total Antimony (Sb)	ug/L	0.028	0.080	0.442	0.094	0.130	0.020	8944186
Total Arsenic (As)	ug/L	0.408	0.229	0.530	0.433	0.295	0.020	8944186
Total Barium (Ba)	ug/L	102	91.8	62.9	50.5	87.7	0.020	8944186
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8944186
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8944186
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	10	8944186
Total Cadmium (Cd)	ug/L	<0.0050	0.0133	0.0162	0.0262	0.121	0.0050	8944186
Total Chromium (Cr)	ug/L	<0.10	0.13	0.10	0.18	<0.10	0.10	8944186
Total Cobalt (Co)	ug/L	0.224	0.0299	0.0279	0.0352	0.0220	0.0050	8944186
Total Copper (Cu)	ug/L	0.381	0.967	0.706	0.502	0.416	0.050	8944186
Total Iron (Fe)	ug/L	317	23.6	6.7	60.3	26.7	1.0	8944186
Total Lead (Pb)	ug/L	<0.0050	0.0177	<0.0050	0.0283	0.0473	0.0050	8944186
Total Lithium (Li)	ug/L	1.04	<0.50	1.87	1.65	4.37	0.50	8944186
Total Manganese (Mn)	ug/L	140	1.16	51.7	4.32	7.24	0.050	8944186
Total Molybdenum (Mo)	ug/L	0.200	0.477	1.38	1.33	0.620	0.050	8944186
Total Nickel (Ni)	ug/L	0.636	0.534	0.463	0.761	2.33	0.020	8944186
Total Phosphorus (P)	ug/L	3.5	<2.0	4.2	8.3	2.3	2.0	8944186
Total Selenium (Se)	ug/L	<0.040	0.071	0.083	0.269	0.849	0.040	8944186
Total Silicon (Si)	ug/L	4370	3420	5030	2910	2570	50	8944186
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8944186
Total Strontium (Sr)	ug/L	376	175	479	140	258	0.050	8944186
Total Thallium (TI)	ug/L	0.0021	<0.0020	0.0024	<0.0020	0.0021	0.0020	8944186
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8944186
Total Titanium (Ti)	ug/L	<0.50	0.85	<0.50	1.28	<0.50	0.50	8944186
Total Uranium (U)	ug/L	5.05	1.67	73.4	1.24	1.54	0.0020	8944186
Total Vanadium (V)	ug/L	<0.20	0.22	0.21	0.26	<0.20	0.20	8944186



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TD7440	TD7442	TD7443	TD7444	TD7446		
Sampling Date		2018/03/17	2018/03/17	2018/03/17	2018/03/17	2018/03/17		
Sampling Date		14:45	13:20	16:45	12:30	17:53		
COC Number		548606-01-01	548606-01-01	548606-01-01	548606-01-01	548606-02-01		
	UNITS	CC-0.5	CC-4.5	HC-2.5	YUK-2.0	STEWART D/S M.M.	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.26	0.53	0.28	2.62	9.71	0.10	8944186
Total Zirconium (Zr)	ug/L	0.15	0.19	0.15	<0.10	<0.10	0.10	8944186
Total Calcium (Ca)	mg/L	75.0	35.7	48.2	23.7	49.0	0.050	8942111
Total Magnesium (Mg)	mg/L	13.2	11.4	19.2	7.87	17.9	0.050	8942111
Total Potassium (K)	mg/L	2.20	1.40	2.71	0.907	0.689	0.050	8942111
Total Sodium (Na)	mg/L	4.05	4.12	4.03	2.23	2.59	0.050	8942111
Total Sulphur (S)	mg/L	34.7	23.7	21.7	7.1	29.8	3.0	8942111
RDL = Reportable Detection	Limit						•	•



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TD7447	TD7448	TD7449	TD7450		
Sampling Date		2018/03/17	2018/03/17	2018/03/20	2018/03/20		
		14:30	14:45	10:00	10:00		
COC Number		548606-02-01	548606-02-01	548606-02-01	548606-02-01		
	UNITS	LATTE MIX	SAMPLE A	FIELD BLANK	TRIP BLANK	RDL	QC Batch
Calculated Parameters	<u>'</u>	·	·		•	·	
Total Hardness (CaCO3)	mg/L	260	221	<0.50	<0.50	0.50	8941266
Elements							
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8942323
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	8.27	6.93	<0.50	<0.50	0.50	8944186
Total Antimony (Sb)	ug/L	0.064	0.028	<0.020	<0.020	0.020	8944186
Total Arsenic (As)	ug/L	0.351	0.358	<0.020	<0.020	0.020	8944186
Total Barium (Ba)	ug/L	104	102	<0.020	<0.020	0.020	8944186
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	8944186
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8944186
Total Boron (B)	ug/L	<10	<10	<10	<10	10	8944186
Total Cadmium (Cd)	ug/L	0.0056	<0.0050	<0.0050	<0.0050	0.0050	8944186
Total Chromium (Cr)	ug/L	0.18	<0.10	<0.10	<0.10	0.10	8944186
Total Cobalt (Co)	ug/L	0.0210	0.189	<0.0050	<0.0050	0.0050	8944186
Total Copper (Cu)	ug/L	0.624	0.286	<0.050	<0.050	0.050	8944186
Total Iron (Fe)	ug/L	5.3	314	<1.0	<1.0	1.0	8944186
Total Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8944186
Total Lithium (Li)	ug/L	1.17	1.00	<0.50	<0.50	0.50	8944186
Total Manganese (Mn)	ug/L	1.88	121	<0.050	<0.050	0.050	8944186
Total Molybdenum (Mo)	ug/L	0.692	0.209	<0.050	<0.050	0.050	8944186
Total Nickel (Ni)	ug/L	0.390	0.541	<0.020	<0.020	0.020	8944186
Total Phosphorus (P)	ug/L	4.2	2.3	<2.0	<2.0	2.0	8944186
Total Selenium (Se)	ug/L	0.180	<0.040	<0.040	<0.040	0.040	8944186
Total Silicon (Si)	ug/L	3680	4070	<50	<50	50	8944186
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8944186
Total Strontium (Sr)	ug/L	432	332	<0.050	<0.050	0.050	8944186
Total Thallium (TI)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	8944186
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	8944186
Total Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	8944186
Total Uranium (U)	ug/L	23.0	5.08	<0.0020	<0.0020	0.0020	8944186
Total Vanadium (V)	ug/L	0.33	<0.20	<0.20	<0.20	0.20	8944186
RDL = Reportable Detection	Limit				-		-



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TD7447	TD7448	TD7449	TD7450		
Samulius Data		2018/03/17	2018/03/17	2018/03/20	2018/03/20		
Sampling Date		14:30	14:45	10:00	10:00		
COC Number		548606-02-01	548606-02-01	548606-02-01	548606-02-01		
	UNITS	LATTE MIX	SAMPLE A	FIELD BLANK	TRIP BLANK	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.18	<0.10	<0.10	<0.10	0.10	8944186
Total Zirconium (Zr)	ug/L	0.14	0.14	<0.10	<0.10	0.10	8944186
Total Calcium (Ca)	mg/L	68.8	69.2	<0.050	<0.050	0.050	8942111
Total Magnesium (Mg)	mg/L	21.5	11.6	<0.050	<0.050	0.050	8942111
Total Potassium (K)	mg/L	3.16	1.97	<0.050	<0.050	0.050	8942111
Total Sodium (Na)	mg/L	5.48	3.55	<0.050	<0.050	0.050	8942111
Total Sulphur (S)	mg/L	32.4	27.6	<3.0	<3.0	3.0	8942111
RDL = Reportable Detection I	Limit						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TD7441			TD7441			TD7445		
Sampling Date		2018/03/17			2018/03/17			2018/03/17		
		15:30			15:30			17:05		
COC Number		548606-01-01			548606-01-01			548606-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	YUK-5.0	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	281	0.50	8941266				104	0.50	8941266
Elements		•	•	•		•			•	
Total Mercury (Hg)	ug/L	0.0028	0.0020	8942323				<0.0020	0.0020	8942323
Total Metals by ICPMS		•	•							
Total Aluminum (Al)	ug/L	1380 (1)	3.0	8943350	1040 (2)	3.0	8943350	12.9	3.0	8943350
Total Antimony (Sb)	ug/L	0.081	0.020	8943350	0.068	0.020	8943350	0.107	0.020	8943350
Total Arsenic (As)	ug/L	6.76	0.020	8943350	6.43	0.020	8943350	0.182	0.020	8943350
Total Barium (Ba)	ug/L	47.3	0.050	8943350	45.6	0.050	8943350	87.4	0.050	8943350
Total Beryllium (Be)	ug/L	0.069	0.010	8943350	0.065	0.010	8943350	<0.010	0.010	8943350
Total Bismuth (Bi)	ug/L	0.014	0.010	8943350	0.012	0.010	8943350	<0.010	0.010	8943350
Total Boron (B)	ug/L	<10	10	8943350	<10	10	8943350	<10	10	8943350
Total Cadmium (Cd)	ug/L	0.0728	0.0050	8943350	0.0781	0.0050	8943350	0.0675	0.0050	8943350
Total Chromium (Cr)	ug/L	2.21	0.10	8943350	1.94	0.10	8943350	0.16	0.10	8943350
Total Cobalt (Co)	ug/L	1.46	0.010	8943350	1.30	0.010	8943350	0.027	0.010	8943350
Total Copper (Cu)	ug/L	3.19	0.10	8943350	3.07	0.10	8943350	0.70	0.10	8943350
Total Iron (Fe)	ug/L	1990 (3)	5.0	8943350	1620 (2)	5.0	8943350	39.6	5.0	8943350
Total Lead (Pb)	ug/L	1.11	0.020	8943350	0.968	0.020	8943350	0.130	0.020	8943350
Total Lithium (Li)	ug/L	3.53	0.50	8943350	3.30	0.50	8943350	0.99	0.50	8943350
Total Manganese (Mn)	ug/L	772	0.10	8943350	750	0.10	8943350	4.78	0.10	8943350
Total Molybdenum (Mo)	ug/L	0.425	0.050	8943350	0.411	0.050	8943350	1.32	0.050	8943350
Total Nickel (Ni)	ug/L	2.05	0.10	8943350	1.96	0.10	8943350	0.35	0.10	8943350
Total Phosphorus (P)	ug/L	64.7	5.0	8943350	58.4	5.0	8943350	<5.0	5.0	8943350
Total Selenium (Se)	ug/L	0.082	0.040	8943350	0.060	0.040	8943350	0.393	0.040	8943350
Total Silicon (Si)	ug/L	6950	50	8943350	6600	50	8943350	2660	50	8943350
Total Silver (Ag)	ug/L	<0.010	0.010	8943350	<0.010	0.010	8943350	<0.010	0.010	8943350
Total Strontium (Sr)	ug/L	505	0.050	8943350	509	0.050	8943350	134	0.050	8943350
1										

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

<sup>(1)</sup> Duplicate RPD for Aluminum above control limit - Non-homogenous sample - Increased variability of results. Re-analysis yields similar results.

<sup>(2)</sup> Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

<sup>(3)</sup> Duplicate RPD for Iron above control limit - Non-homogenous sample - Increased variability of results. Re-analysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TD7441			TD7441			TD7445		
Sampling Date		2018/03/17 15:30			2018/03/17 15:30			2018/03/17 17:05		
COC Number		548606-01-01			548606-01-01			548606-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	YUK-5.0	RDL	QC Batch
Total Thallium (TI)	ug/L	0.0228	0.0020	8943350	0.0194	0.0020	8943350	<0.0020	0.0020	8943350
Total Tin (Sn)	ug/L	<0.20	0.20	8943350	<0.20	0.20	8943350	<0.20	0.20	8943350
Total Titanium (Ti)	ug/L	68.6 (1)	2.0	8943350	50.2 (2)	2.0	8943350	<2.0	2.0	8943350
Total Uranium (U)	ug/L	23.0	0.0050	8943350	22.7	0.0050	8943350	1.30	0.0050	8943350
Total Vanadium (V)	ug/L	4.11	0.20	8943350	3.61	0.20	8943350	<0.20	0.20	8943350
Total Zinc (Zn)	ug/L	6.6	1.0	8943350	5.5	1.0	8943350	3.9	1.0	8943350
Total Zirconium (Zr)	ug/L	0.32	0.10	8943350	0.31	0.10	8943350	<0.10	0.10	8943350
Total Calcium (Ca)	mg/L	78.0	0.25	8942111				29.1	0.25	8942111
Total Magnesium (Mg)	mg/L	20.9	0.25	8942111				7.71	0.25	8942111
Total Potassium (K)	mg/L	4.67	0.25	8942111				0.83	0.25	8942111
Total Sodium (Na)	mg/L	6.39	0.25	8942111				1.93	0.25	8942111
Total Sulphur (S)	mg/L	53.3	3.0	8942111				7.4	3.0	8942111

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

<sup>(1)</sup> Duplicate RPD for Titanium above control limit - Non-homogenous sample - Increased variability of results. Re-analysis yields similar results.

<sup>(2)</sup> Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Calculated Parameters           Total Hardness (CaCO3)         mg/L         237         283         0.50         894126           Elements         Total Mercury (Hg)         ug/L         0.0051         <0.0020         0.0020         894232           Total Metals by ICPMS           Total Aluminum (Al)         ug/L         32.7         306         3.0         894335           Total Antimony (Sb)         ug/L         0.205         0.135         0.020         894335           Total Arsenic (As)         ug/L         0.953         2.97         0.020         894335           Total Barium (Ba)         ug/L         56.0         248         0.050         894335           Total Beryllium (Be)         ug/L         <0.010         0.081         0.010         894335           Total Beryllium (Be)         ug/L         <0.010         0.081         0.010         894335           Total Beryllium (Be)         ug/L         <0.010         0.081         0.010         894335           Total Beryllium (Be)         ug/L         <0.010         0.010         0.010         894335           Total Boron (B)         ug/L         <0.010         0.010         894335	Maxxam ID		TD7451	TD7452		
Calculated Parameters	Sampling Date					
Calculated Parameters           Total Hardness (CaCO3)         mg/L         237         283         0.50         894126           Elements         Total Mercury (Hg)         ug/L         0.0051         <0.0020         0.0020         894232           Total Metals by ICPMS           Total Aluminum (Al)         ug/L         32.7         306         3.0         894335           Total Antimony (Sb)         ug/L         0.205         0.135         0.020         894335           Total Arsenic (As)         ug/L         0.953         2.97         0.020         894335           Total Barium (Ba)         ug/L         <0.010         0.081         0.010         894335           Total Beryllium (Be)         ug/L         <0.010         0.081         0.010         894335           Total Beryllium (Be)         ug/L         <0.010         <0.010         0.010	COC Number		548606-02-01	548606-02-01		
Total Hardness (CaCO3)         mg/L         237         283         0.50         894126           Elements         Total Mercury (Hg)         ug/L         0.0051         <0.0020		UNITS	НС-В	BLACKHILLS	RDL	QC Batch
Total Mercury (Hg)	Calculated Parameters					
Total Mercury (Hg)         ug/L         0.0051         <0.0020         0.0020         894232           Total Metals by ICPMS           Total Aluminum (Al)         ug/L         32.7         306         3.0         894335           Total Antimony (Sb)         ug/L         0.205         0.135         0.020         894335           Total Arsenic (As)         ug/L         0.953         2.97         0.020         894335           Total Barium (Ba)         ug/L         56.0         248         0.050         894335           Total Beryllium (Be)         ug/L         <0.010	Total Hardness (CaCO3)	mg/L	237	283	0.50	8941266
Total Metals by ICPMS           Total Aluminum (Al)         ug/L         32.7         306         3.0         894335           Total Antimony (Sb)         ug/L         0.205         0.135         0.020         894335           Total Arsenic (As)         ug/L         0.953         2.97         0.020         894335           Total Barium (Ba)         ug/L         56.0         248         0.050         894335           Total Beryllium (Be)         ug/L         <0.010	Elements					
Total Aluminum (AI)         ug/L         32.7         306         3.0         894335           Total Antimony (Sb)         ug/L         0.205         0.135         0.020         894335           Total Arsenic (As)         ug/L         0.953         2.97         0.020         894335           Total Barium (Ba)         ug/L         56.0         248         0.050         894335           Total Beryllium (Be)         ug/L         <0.010	Total Mercury (Hg)	ug/L	0.0051	<0.0020	0.0020	8942323
Total Antimony (Sb)         ug/L         0.205         0.135         0.020         894335           Total Arsenic (As)         ug/L         0.953         2.97         0.020         894335           Total Barium (Ba)         ug/L         56.0         248         0.050         894335           Total Beryllium (Be)         ug/L         <0.010	Total Metals by ICPMS	•				
Total Arsenic (As)         ug/L         0.953         2.97         0.020         894335           Total Barium (Ba)         ug/L         56.0         248         0.050         894335           Total Beryllium (Be)         ug/L         <0.010	Total Aluminum (AI)	ug/L	32.7	306	3.0	8943350
Total Arsenic (As)         ug/L         0.953         2.97         0.020         894335           Total Barium (Ba)         ug/L         56.0         248         0.050         894335           Total Beryllium (Be)         ug/L         <0.010	Total Antimony (Sb)	ug/L	0.205	0.135	0.020	8943350
Total Barium (Ba)         ug/L         56.0         248         0.050         894335           Total Beryllium (Be)         ug/L         <0.010	Total Arsenic (As)		0.953	2.97	0.020	8943350
Total Beryllium (Be)         ug/L         <0.010         0.081         0.010         894335           Total Bismuth (Bi)         ug/L         <0.010	Total Barium (Ba)		56.0	248	0.050	8943350
Total Bismuth (Bi)         ug/L         <0.010         <0.010         0.010         894335           Total Boron (B)         ug/L         <10	Total Beryllium (Be)		<0.010	0.081	0.010	8943350
Total Cadmium (Cd)         ug/L         0.0317         0.145         0.0050         894335           Total Chromium (Cr)         ug/L         0.24         2.05         0.10         894335           Total Cobalt (Co)         ug/L         0.108         2.73         0.010         894335           Total Copper (Cu)         ug/L         1.40         1.10         0.10         894335           Total Iron (Fe)         ug/L         37.1         11300         5.0         894335           Total Lead (Pb)         ug/L         0.042         0.289         0.020         894335           Total Lithium (Li)         ug/L         0.93         2.56         0.50         894335           Total Manganese (Mn)         ug/L         63.4         2360         0.10         894335           Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Tota	Total Bismuth (Bi)	ug/L	<0.010	<0.010	0.010	8943350
Total Chromium (Cr)         ug/L         0.24         2.05         0.10         894335           Total Cobalt (Co)         ug/L         0.108         2.73         0.010         894335           Total Copper (Cu)         ug/L         1.40         1.10         0.10         894335           Total Iron (Fe)         ug/L         37.1         11300         5.0         894335           Total Lead (Pb)         ug/L         0.042         0.289         0.020         894335           Total Lithium (Li)         ug/L         0.93         2.56         0.50         894335           Total Manganese (Mn)         ug/L         63.4         2360         0.10         894335           Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         <0.010	Total Boron (B)	ug/L	<10	11	10	8943350
Total Cobalt (Co)         ug/L         0.108         2.73         0.010         894335           Total Copper (Cu)         ug/L         1.40         1.10         0.10         894335           Total Iron (Fe)         ug/L         37.1         11300         5.0         894335           Total Lead (Pb)         ug/L         0.042         0.289         0.020         894335           Total Lithium (Li)         ug/L         0.93         2.56         0.50         894335           Total Manganese (Mn)         ug/L         63.4         2360         0.10         894335           Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Cadmium (Cd)		0.0317	0.145	0.0050	8943350
Total Copper (Cu)         ug/L         1.40         1.10         0.10         894335           Total Iron (Fe)         ug/L         37.1         11300         5.0         894335           Total Lead (Pb)         ug/L         0.042         0.289         0.020         894335           Total Lithium (Li)         ug/L         0.93         2.56         0.50         894335           Total Manganese (Mn)         ug/L         63.4         2360         0.10         894335           Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Chromium (Cr)	ug/L	0.24	2.05	0.10	8943350
Total Iron (Fe)         ug/L         37.1         11300         5.0         894335           Total Lead (Pb)         ug/L         0.042         0.289         0.020         894335           Total Lithium (Li)         ug/L         0.93         2.56         0.50         894335           Total Manganese (Mn)         ug/L         63.4         2360         0.10         894335           Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Cobalt (Co)	ug/L	0.108	2.73	0.010	8943350
Total Lead (Pb)         ug/L         0.042         0.289         0.020         894335           Total Lithium (Li)         ug/L         0.93         2.56         0.50         894335           Total Manganese (Mn)         ug/L         63.4         2360         0.10         894335           Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Copper (Cu)	ug/L	1.40	1.10	0.10	8943350
Total Lithium (Li)         ug/L         0.93         2.56         0.50         894335           Total Manganese (Mn)         ug/L         63.4         2360         0.10         894335           Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Iron (Fe)	ug/L	37.1	11300	5.0	8943350
Total Manganese (Mn)         ug/L         63.4         2360         0.10         894335           Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Lead (Pb)	ug/L	0.042	0.289	0.020	8943350
Total Molybdenum (Mo)         ug/L         0.389         0.545         0.050         894335           Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Lithium (Li)	ug/L	0.93	2.56	0.50	8943350
Total Nickel (Ni)         ug/L         0.75         3.47         0.10         894335           Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Manganese (Mn)	ug/L	63.4	2360	0.10	8943350
Total Phosphorus (P)         ug/L         38.9         81.0         5.0         894335           Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Molybdenum (Mo)	ug/L	0.389	0.545	0.050	8943350
Total Selenium (Se)         ug/L         0.067         0.205         0.040         894335           Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Nickel (Ni)	ug/L	0.75	3.47	0.10	8943350
Total Silicon (Si)         ug/L         7320         9850         50         894335           Total Silver (Ag)         ug/L         <0.010	Total Phosphorus (P)	ug/L	38.9	81.0	5.0	8943350
Total Silver (Ag) ug/L <0.010 <0.010 0.010 894335	Total Selenium (Se)	ug/L	0.067	0.205	0.040	8943350
	Total Silicon (Si)	ug/L	7320	9850	50	8943350
Total Strontium (Sr) 1974 522 200 0.050 204225	Total Silver (Ag)	ug/L	<0.010	<0.010	0.010	8943350
Total 30   U.050   894335	Total Strontium (Sr)	ug/L	522	380	0.050	8943350
Total Thallium (TI) ug/L 0.0023 0.0024 0.0020 894335	Total Thallium (TI)	ug/L	0.0023	0.0024	0.0020	8943350
Total Tin (Sn) ug/L <0.20 <0.20 0.20 894335	Total Tin (Sn)	ug/L	<0.20	<0.20	0.20	8943350
Total Titanium (Ti) ug/L <2.0 19.7 2.0 894335	Total Titanium (Ti)	ug/L	<2.0	19.7	2.0	8943350
Total Uranium (U) ug/L 36.7 0.711 0.0050 894335	Total Uranium (U)	ug/L	36.7	0.711	0.0050	8943350
Total Vanadium (V) ug/L <0.20 4.26 0.20 894335	Total Vanadium (V)	ug/L	<0.20	4.26	0.20	8943350
Total Zinc (Zn) ug/L 3.6 8.0 1.0 894335	Total Zinc (Zn)	ug/L	3.6	8.0	1.0	8943350
RDL = Reportable Detection Limit	RDL = Reportable Detection	Limit				



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TD7451	TD7452		
Sampling Date					
COC Number		548606-02-01	548606-02-01		
	UNITS	НС-В	BLACKHILLS	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.29	1.29	0.10	8943350
Total Calcium (Ca)	mg/L	57.0	79.6	0.25	8942111
Total Magnesium (Mg)	mg/L	22.9	20.4	0.25	8942111
Total Potassium (K)	mg/L	3.22	2.42	0.25	8942111
Total Sodium (Na)	mg/L	9.01	6.28	0.25	8942111
Total Sulphur (S)	mg/L	51.3	24.7	3.0	8942111
RDL = Reportable Detectio	n Limit				



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample TD7440 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample TD7441 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TD7442 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample TD7443 [HC-2.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample TD7444 [YUK-2.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample TD7445 [YUK-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample TD7446 [STEWART D/S M.M.]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TD7447 [LATTE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample TD7448 [SAMPLE A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample TD7447, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



## **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8942323	Total Mercury (Hg)	2018/03/23	95	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
8942482	Dissolved Mercury (Hg)	2018/03/23	92	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
8942507	Dissolved Aluminum (Al)	2018/03/23	105	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
8942507	Dissolved Antimony (Sb)	2018/03/23	93	80 - 120	90	80 - 120	<0.020	ug/L	NC	20
8942507	Dissolved Arsenic (As)	2018/03/23	106	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
8942507	Dissolved Barium (Ba)	2018/03/23	NC	80 - 120	90	80 - 120	<0.020	ug/L	NC	20
8942507	Dissolved Beryllium (Be)	2018/03/23	98	80 - 120	96	80 - 120	<0.010	ug/L	NC	20
8942507	Dissolved Bismuth (Bi)	2018/03/23	87	80 - 120	89	80 - 120	<0.0050	ug/L	NC	20
8942507	Dissolved Boron (B)	2018/03/23	95	80 - 120	91	80 - 120	<10	ug/L	NC	20
8942507	Dissolved Cadmium (Cd)	2018/03/23	92	80 - 120	89	80 - 120	<0.0050	ug/L	NC	20
8942507	Dissolved Chromium (Cr)	2018/03/23	92	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
8942507	Dissolved Cobalt (Co)	2018/03/23	92	80 - 120	101	80 - 120	< 0.0050	ug/L	NC	20
8942507	Dissolved Copper (Cu)	2018/03/23	84	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
8942507	Dissolved Iron (Fe)	2018/03/23	99	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
8942507	Dissolved Lead (Pb)	2018/03/23	91	80 - 120	91	80 - 120	<0.0050	ug/L	NC	20
8942507	Dissolved Lithium (Li)	2018/03/23	99	80 - 120	94	80 - 120	<0.50	ug/L	NC	20
8942507	Dissolved Manganese (Mn)	2018/03/23	NC	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
8942507	Dissolved Molybdenum (Mo)	2018/03/23	100	80 - 120	90	80 - 120	<0.050	ug/L	NC	20
8942507	Dissolved Nickel (Ni)	2018/03/23	88	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
8942507	Dissolved Phosphorus (P)	2018/03/23	104	80 - 120	104	80 - 120	<2.0	ug/L	NC	20
8942507	Dissolved Selenium (Se)	2018/03/23	109	80 - 120	98	80 - 120	<0.040	ug/L	NC	20
8942507	Dissolved Silicon (Si)	2018/03/23	85	80 - 120	101	80 - 120	<50	ug/L	NC	20
8942507	Dissolved Silver (Ag)	2018/03/23	89	80 - 120	90	80 - 120	<0.0050	ug/L	NC	20
8942507	Dissolved Strontium (Sr)	2018/03/23	NC	80 - 120	104	80 - 120	<0.050	ug/L	NC	20
8942507	Dissolved Thallium (TI)	2018/03/23	92	80 - 120	90	80 - 120	<0.0020	ug/L	NC	20
8942507	Dissolved Tin (Sn)	2018/03/23	91	80 - 120	89	80 - 120	<0.20	ug/L	NC	20
8942507	Dissolved Titanium (Ti)	2018/03/23	96	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
8942507	Dissolved Uranium (U)	2018/03/23	94	80 - 120	89	80 - 120	<0.0020	ug/L	NC	20
8942507	Dissolved Vanadium (V)	2018/03/23	95	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
8942507	Dissolved Zinc (Zn)	2018/03/23	91	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
8942507	Dissolved Zirconium (Zr)	2018/03/23	105	80 - 120	101	80 - 120	<0.10	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	0
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8942818	Dissolved Mercury (Hg)	2018/03/23	91	80 - 120	94	80 - 120	<0.0020	ug/L		
8942857	Dissolved Organic Carbon (C)	2018/03/23	110	80 - 120	116	80 - 120	<0.50	mg/L	NC	20
8942863	Total Organic Carbon (C)	2018/03/23	108	80 - 120	116	80 - 120	<0.50	mg/L	NC	20
8942930	ORP	2018/03/26							0	20
8942943	Total Dissolved Solids	2018/03/26	NC	80 - 120	96	80 - 120	<10	mg/L	NC	20
8943141	Total Ammonia (N)	2018/03/23	NC	80 - 120	103	80 - 120	<0.0050	mg/L	0.90	20
8943167	рН	2018/03/23			101	97 - 103			1.1	20
8943180	Conductivity	2018/03/23			100	80 - 120	<1.0	uS/cm	NC	20
8943183	Alkalinity (PP as CaCO3)	2018/03/23					<0.50	mg/L	NC	20
8943183	Alkalinity (Total as CaCO3)	2018/03/23			102	80 - 120	<0.50	mg/L	12	20
8943183	Bicarbonate (HCO3)	2018/03/23					<0.50	mg/L	12	20
8943183	Carbonate (CO3)	2018/03/23					<0.50	mg/L	NC	20
8943183	Hydroxide (OH)	2018/03/23					<0.50	mg/L	NC	20
8943233	Total Suspended Solids	2018/03/26			94	80 - 120	<1.0	mg/L		
8943350	Total Aluminum (AI)	2018/03/26	NC	80 - 120	103	80 - 120	<3.0	ug/L	28 (1)	20
8943350	Total Antimony (Sb)	2018/03/26	101	80 - 120	103	80 - 120	<0.020	ug/L	17	20
8943350	Total Arsenic (As)	2018/03/26	103	80 - 120	102	80 - 120	<0.020	ug/L	4.9	20
8943350	Total Barium (Ba)	2018/03/26	105	80 - 120	102	80 - 120	<0.050	ug/L	3.7	20
8943350	Total Beryllium (Be)	2018/03/26	89	80 - 120	90	80 - 120	<0.010	ug/L	5.7	20
8943350	Total Bismuth (Bi)	2018/03/26	96	80 - 120	100	80 - 120	<0.010	ug/L	16	20
8943350	Total Boron (B)	2018/03/26	92	80 - 120	92	80 - 120	<10	ug/L	NC	20
8943350	Total Cadmium (Cd)	2018/03/26	101	80 - 120	100	80 - 120	<0.0050	ug/L	7.0	20
8943350	Total Chromium (Cr)	2018/03/26	101	80 - 120	102	80 - 120	<0.10	ug/L	13	20
8943350	Total Cobalt (Co)	2018/03/26	95	80 - 120	98	80 - 120	<0.010	ug/L	11	20
8943350	Total Copper (Cu)	2018/03/26	95	80 - 120	99	80 - 120	<0.10	ug/L	3.8	20
8943350	Total Iron (Fe)	2018/03/26	NC	80 - 120	104	80 - 120	<5.0	ug/L	20	20
8943350	Total Lead (Pb)	2018/03/26	98	80 - 120	101	80 - 120	<0.020	ug/L	14	20
8943350	Total Lithium (Li)	2018/03/26	89	80 - 120	91	80 - 120	<0.50	ug/L	6.7	20
8943350	Total Manganese (Mn)	2018/03/26	NC	80 - 120	102	80 - 120	<0.10	ug/L	3.0	20
8943350	Total Molybdenum (Mo)	2018/03/26	105	80 - 120	104	80 - 120	<0.050	ug/L	3.4	20
8943350	Total Nickel (Ni)	2018/03/26	95	80 - 120	99	80 - 120	<0.10	ug/L	4.4	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8943350	Total Phosphorus (P)	2018/03/26	105	80 - 120	101	80 - 120	<5.0	ug/L	10	20
8943350	Total Selenium (Se)	2018/03/26	101	80 - 120	98	80 - 120	<0.040	ug/L	NC	20
8943350	Total Silicon (Si)	2018/03/26	NC	80 - 120	101	80 - 120	<50	ug/L	5.1	20
8943350	Total Silver (Ag)	2018/03/26	101	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8943350	Total Strontium (Sr)	2018/03/26	NC	80 - 120	102	80 - 120	<0.050	ug/L	0.68	20
8943350	Total Thallium (TI)	2018/03/26	98	80 - 120	100	80 - 120	<0.0020	ug/L	16	20
8943350	Total Tin (Sn)	2018/03/26	98	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
8943350	Total Titanium (Ti)	2018/03/26	NC	80 - 120	102	80 - 120	<2.0	ug/L	31 (1)	20
8943350	Total Uranium (U)	2018/03/26	102	80 - 120	102	80 - 120	<0.0050	ug/L	1.2	20
8943350	Total Vanadium (V)	2018/03/26	104	80 - 120	103	80 - 120	<0.20	ug/L	13	20
8943350	Total Zinc (Zn)	2018/03/26	96	80 - 120	101	80 - 120	<1.0	ug/L	18	20
8943350	Total Zirconium (Zr)	2018/03/26	88	80 - 120	99	80 - 120	<0.10	ug/L	2.0	20
8943402	Nitrate plus Nitrite (N)	2018/03/23	107	80 - 120	102	80 - 120	<0.0020	mg/L	NC	25
8943403	Nitrite (N)	2018/03/23	104	80 - 120	99	80 - 120	<0.0020	mg/L	NC	25
8944150	Dissolved Chloride (CI)	2018/03/23			101	80 - 120	<0.50	mg/L	NC	20
8944154	Dissolved Sulphate (SO4)	2018/03/23			98	80 - 120	<0.50	mg/L	NC	20
8944167	Dissolved Chloride (CI)	2018/03/23	NC	80 - 120	96	80 - 120	<0.50	mg/L	0.24	20
8944170	Dissolved Sulphate (SO4)	2018/03/23	NC	80 - 120	93	80 - 120	<0.50	mg/L	1.4	20
8944186	Total Aluminum (AI)	2018/03/26	103	80 - 120	120	80 - 120	<0.50	ug/L	0.51	20
8944186	Total Antimony (Sb)	2018/03/26	96	80 - 120	107	80 - 120	<0.020	ug/L	0.19	20
8944186	Total Arsenic (As)	2018/03/26	104	80 - 120	97	80 - 120	<0.020	ug/L	4.4	20
8944186	Total Barium (Ba)	2018/03/26	77 (1)	80 - 120	103	80 - 120	<0.020	ug/L	4.8	20
8944186	Total Beryllium (Be)	2018/03/26	92	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
8944186	Total Bismuth (Bi)	2018/03/26	87	80 - 120	103	80 - 120	< 0.0050	ug/L	NC	20
8944186	Total Boron (B)	2018/03/26	84	80 - 120	101	80 - 120	<10	ug/L	4.3	20
8944186	Total Cadmium (Cd)	2018/03/26	92	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
8944186	Total Chromium (Cr)	2018/03/26	95	80 - 120	96	80 - 120	<0.10	ug/L	2.8	20
8944186	Total Cobalt (Co)	2018/03/26	92	80 - 120	97	80 - 120	<0.0050	ug/L	8.3	20
8944186	Total Copper (Cu)	2018/03/26	85	80 - 120	94	80 - 120	<0.050	ug/L	2.9	20
8944186	Total Iron (Fe)	2018/03/26	104	80 - 120	101	80 - 120	<1.0	ug/L	7.4	20
8944186	Total Lead (Pb)	2018/03/26	90	80 - 120	104	80 - 120	<0.0050	ug/L	1.2	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8944186	Total Lithium (Li)	2018/03/26	92	80 - 120	102	80 - 120	<0.50	ug/L	2.0	20
8944186	Total Manganese (Mn)	2018/03/26	93	80 - 120	96	80 - 120	<0.050	ug/L	0.27	20
8944186	Total Molybdenum (Mo)	2018/03/26	96	80 - 120	103	80 - 120	<0.050	ug/L	3.2	20
8944186	Total Nickel (Ni)	2018/03/26	90	80 - 120	98	80 - 120	<0.020	ug/L	8.3	20
8944186	Total Phosphorus (P)	2018/03/26	100	80 - 120	96	80 - 120	<2.0	ug/L	17	20
8944186	Total Selenium (Se)	2018/03/26	113	80 - 120	106	80 - 120	<0.040	ug/L	14	20
8944186	Total Silicon (Si)	2018/03/26	NC	80 - 120	101	80 - 120	<50	ug/L	12	20
8944186	Total Silver (Ag)	2018/03/26	91	80 - 120	103	80 - 120	< 0.0050	ug/L	NC	20
8944186	Total Strontium (Sr)	2018/03/26	NC	80 - 120	94	80 - 120	<0.050	ug/L	2.8	20
8944186	Total Thallium (TI)	2018/03/26	90	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
8944186	Total Tin (Sn)	2018/03/26	94	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
8944186	Total Titanium (Ti)	2018/03/26	97	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
8944186	Total Uranium (U)	2018/03/26	93	80 - 120	104	80 - 120	< 0.0020	ug/L	1.6	20
8944186	Total Vanadium (V)	2018/03/26	96	80 - 120	96	80 - 120	<0.20	ug/L	0.70	20
8944186	Total Zinc (Zn)	2018/03/26	92	80 - 120	98	80 - 120	<0.10	ug/L	4.5	20
8944186	Total Zirconium (Zr)	2018/03/26	104	80 - 120	94	80 - 120	<0.10	ug/L	NC	20
8944619	Total Suspended Solids	2018/03/27			100	80 - 120	<1.0	mg/L		
8945250	Dissolved Sulphate (SO4)	2018/03/26			102	80 - 120	<0.50	mg/L		
8945335	Weak Acid Dissoc. Cyanide (CN)	2018/03/27	99	80 - 120	103	80 - 120	<0.00050	mg/L	13	20
8946578	Dissolved Iron (Fe)	2018/03/28	95	80 - 120	104	80 - 120	<1.0	ug/L	0.61	20
8946578	Dissolved Selenium (Se)	2018/03/28	89	80 - 120	94	80 - 120	<0.040	ug/L	20	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

## **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

3		INVOICE TO:				Report Inf	formation							Project I	nformatic	on .				
company t	tame #3604 LORAX	ENVIRONMENTAL SERVICE	S LTD. Com	pany Nam							Que	otation#	33	B40231						Bottle Order #:
ontact Na			Con	act Name	David Flat	her					P.O	. #	2	0-140-	0.11	- 0	CIA	B82	1458_COC	AN ALONE DAY OF A PARTY DA
ddress	VANCOUVER B		Add	ess.				_	_	_	B/84	ject #		Gold Co	гр Сопе	e Creek	-24V			548606 Project Manager
hone	(604) 688-7173		175 x Pho		-		1	Fax			Site	ject Name				_				
mail		@lorax.ca; shukling.ng@lorax.c			David,Flat	her@lorax.						npled By							C#548605-02-01	Megan Smith
Regulati	ory Criteria			Specia	I Instructions				_	_		Analysis	Requested						Turnaround Time (TAT) Req	
	Note: For regulated	drinking water samples - please use th	e Drinking Water C	hain of C	Sustody Form		ed Drinking Water ? (Y / N )	(Alk-LL, F TDS)	ow Level	Anions (LL.Cl, F, NO2, NO3, SO4)	le - WAD			Level Dissolved Metals CV Hg	evel Total Metals incl. C			(will be appli Standard TA Please note: days - conta	tion Number	D and Dioxins/Furans are
	Samples m	ust the kept cool ( $< 10^{\circ}$ C ) from time of sa	empling until deliver	y to maxica	arri		gulat stats F	Routine LL, pH,	TSS-Low	nions O4)	Cyanide	TOC	000	Low L	Low Le	ORP				all laib for #)
	ample Barcode Label	Sample (Location) Identification	Date Samp	led	Time Sampled	Matrix	8 2	윤크	=	NO.	0	F	0	25	3,5	0	-	# of Bottles	RECEIVED IN WHIT	=110000
8.18	SID#149899	Stewart D/S M.M.	17/03	1181	1:53	H20	NN	1	1	//	1	1'	11	1/	/	1		13		01100
111	SID#149900	Latte Mix	17/03	181	4:30	H <sub>2</sub> O	NN	1	/	1	/	1	/	1	1/	//		13	BY: ayou	
1111	SID#149901	Sample A	17/03/	18	14:45	420	MI	/	/	/	/	/	/	/	/	/		13	2018 -03-	21
1111	SID#149902	Sample B	-	$\exists$				1	-	-	7	/		1	1	7			TEMP: -1/-	11-2
118	SID#149903	FIELD BLANK	20/03	18 1	0.00	H20	NN	1	/	//	1	1	1	1	1	1	/	13	-3 -3	3 -3
111	SID#149904	TRIP BLANK	20/03/	18 1	0:00	H20	NV	/	/	/	/	/	/	/	/	/		13		
111	SID#094856	-		1			Ш													
9																				
0																				
1	ELINOUISHED BY: (Signature		03/21 //	Time 1:00	5		-	iignature/Pr	int)			18763/		14:40		used and submitted	Time Ser	1 empe	and 123 and	Seel Intact on Cooler?

Maxxam Analytics International Corporation ola Maxxam Analytics

/a		NVOICE TO:				Report Inf	omsation							Project Ir	rformatio	n	2000		(E/M-59F20)(Y-63PH57/M07/E/E/EI/III	
mpany Name	#3604 LORAX	ENVIRONMENTAL SER	VIÇES LTD.	Company Na	ame						Quo	tation#		B40231						Bottle Order #
tact Name	Aida Piaseczny			Contact Nam	David Fla	ther				22.	P.O.	#						B82	1458_COC	
Iress	2289 BURRARI	Contract of the contract of th		Address							Proje	ect#		Gold Cor	p Coffe	e Creek-	SW		1975 d	548606
	VANCOUVER E (604) 688-7173		SRR.7175 v								1000	ect Name	9					+	Chain or custody record	Project Manag
ne iii	The state of the s	Norax.ca; shukling.ng@k		Phone Email	David,Fla	ther@lorax		Fax:			Site	# pled By	-						C#548606-01-01	Megan Smith
egulatory Cr		, , , , , , , , , , , , , , , , , , , ,		-	ial Instructions		II			9,5		Analysis	Requested	1					Turnaround Time (TAT) Requir	ed
regulatory Cr	oena:						î	4							ે				Please provide advance notice for rush	projects
							Water?(Y/N)	AT A		NO3,				Metals	ind.			100	(Standard) TAT oplied if Rush TAT is not specified)	
			1 44				(Y)	EC-LL,		NOZ,				∑ p	Metals			Standard	TAT = 5-7 Working days for most tests.	
							Wa 7 by	EC		F.				e Al	₩				ote: Standard TAT for certain tests such as BOD a ntact your Project Manager for details.	and Dioxins/Furans a
							nking	(Alk-LL, TDS)	Level	C,	WAD			Dissolved	Total				fic Rush TAT (if applies to entire submission)	
	Note: For regulated of	drinking water samples - please	use the Drinking	Water Chain of	Custody Form		d Drir	ZŽ.		크	30			E E	Level			Date Requi	ired: Time Required:	ired
	Samples m	ust be kept cool ( < 10°C ) from tir	me of sampling unti	til delivery to max	xam		Jate H	Routine LL, pH,	TSS-Low	Anions SO4)	Cyanide	O	O	. Ce	v Le	a			(cad	tab for #)
Sample	Barcodo Label	Sample (Location) Identifica	ition Da	ate Sampled	Time Sampled	Matrix	Regu	E-3	13	Sol	Š	700	00	Low incl.	ŽĘ,	ORP		# of Bottes	Comments	
	ID#162743	CC-0.5	1	7/03/18	14:45	H20	NN	1	V	V	/	V	1	V	/	430		13		
	ID#162744	CC-1.5	17	1/03/18	15:30	H <sub>Z</sub> O	NN	1	1	/	/	V	/	V	V	131.8		13		
	ID#162745	CC-3.5	_																Frozen to bed	
	D#162746	CC-4.5	17	1/03/18	13:20	H20	NN	1		1	/	/	/	/	V	235.2		13		
	II	CC-B				-	1				,	-	-					_	Frozen to bed	
	I)	HC-2.5	[7]	/03/18	16:45	H20	NN	/	1	V	V		1	V	V	172.4		13	RECEIVED IN WHITEI	O LLAO
	10#149895	IC-4.5	_												_					- 1(00
	10#149896	YUK-2.0	17	1/03/18	12:30	H20	NN	/	/	1	/	/	/	/	/		/	13	2018 -03- 2 - 2 -2	1 -1
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	YUK-5.0	17	103/18	17:05	HZO	NN	/	/	/	/	/	/	/	/	/		13	TEMP: -3/-3	1-3
	10#149898	Barker U/S S.R.	-				-										_			
• RELIN	QUISHED BY: (Signature		Date: (YY/MM/D				ED BY: (5	ignature/Pr	rient)			te: (YY/MM/		Time		used and ubmitted	Thu 5	7.1	Lab Use Only Custody Sa	Intact on Cooler?
	4 con	ec	8/03/2	21 11:0	0 2	REVIN	U	my	_		w	8/63/	6	4:40	4	M	Time Sets	Ten	nperature (°C) on Receipt	The second secon

Maxxam Analytics International Corporation o/a Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention: David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 551215-01-01, 551215-02-01, 551215-03-01, 551215-04-01

Report Date: 2018/05/04 Report #: R2549976 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B830387 Received: 2018/04/23, 11:00

Sample Matrix: Water # Samples Received: 22

# Jampies Neceived. 22					
		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	2	2018/04/25	2018/04/25	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	14	2018/04/25	2018/04/26	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	6	2018/04/26	2018/04/26	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	21	N/A	2018/04/26	BBY6SOP-00011	SM 22 4500-Cl- E m
Chloride - Low Level	1	N/A	2018/05/02	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	21	N/A	2018/04/25	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - field filtered/preserved (2)	1	N/A	2018/05/03	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	1	2018/04/25	2018/04/25	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	15	2018/04/25	2018/04/26	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	6	2018/04/26	2018/04/26	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	22	N/A	2018/04/27	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	13	N/A	2018/04/26	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (3)	9	N/A	2018/04/27	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	22	N/A	2018/04/26	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	19	N/A	2018/04/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	3	N/A	2018/04/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	1	2018/04/26	2018/04/26	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	19	2018/04/27	2018/04/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	2	2018/04/30	2018/04/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	22	N/A	2018/04/26	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	19	N/A	2018/04/25	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (dissolved)	3	N/A	2018/04/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	3	2018/04/26	2018/04/26	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	13	N/A	2018/04/26	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	9	N/A	2018/04/27	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	13	N/A	2018/04/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (total)	6	N/A	2018/04/27	BBY7SOP-00002	EPA 6020b R2 m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention: David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 551215-01-01, 551215-02-01, 551215-03-01, 551215-04-01

Report Date: 2018/05/04 Report #: R2549976 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B830387 Received: 2018/04/23, 11:00

Sample Matrix: Water # Samples Received: 22

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Ammonia-N Low Level (Preserved)	22	N/A	2018/04/27	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	20	N/A	2018/04/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrate+Nitrite (N) (low level)	2	N/A	2018/04/29	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	20	N/A	2018/04/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	2	N/A	2018/04/29	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	20	N/A	2018/04/27	BBY WI-00033	Auto Calc
Nitrogen - Nitrate (as N) Low Level Calc	2	N/A	2018/04/29	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	22	N/A	2018/04/26	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	21	N/A	2018/04/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	1	2018/04/25	2018/04/25	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	15	2018/04/25	2018/04/26	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	6	2018/04/26	2018/04/26	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	14	N/A	2018/04/26	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	7	N/A	2018/04/30	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	1	N/A	2018/05/02	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	9	2018/04/26	2018/04/27	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	11	2018/04/27	2018/04/30	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	2	2018/04/30	2018/05/01	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	14	N/A	2018/04/25	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (5)	1	N/A	2018/04/30	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (5)	7	N/A	2018/05/03	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	1	2018/04/26	2018/04/27	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	11	2018/04/27	2018/04/30	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	10	2018/04/28	2018/04/30	BBY6SOP-00034	SM 22 2540 D
WAD Cyanide Water Subcontract (1)	22	2018/05/03	2018/05/03		

#### Remarks:



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 551215-01-01, 551215-02-01, 551215-03-01, 551215-04-01

Report Date: 2018/05/04 Report #: R2549976

Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B830387 Received: 2018/04/23, 11:00

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

 $Reference\ Method\ suffix\ "m"\ indicates\ test\ methods\ incorporate\ validated\ modifications\ from\ specific\ reference\ methods\ to\ improve\ performance.$ 

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

(5) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 

Diana Cruz Junior Project Manager 04 May 2018 16:00:32

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Diana Cruz, Junior Project Manager

Email: DCruz@maxxam.ca Phone# (604) 734 7276

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TH8809			TH8809			TH8810		
Sampling Date		2018/04/21			2018/04/21			2018/04/21		
ounipining Date		10:30			10:30			12:35		
COC Number		551215-01-01			551215-01-01			551215-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Parameter										
ORP	mV	256		8969275	256		8969275	257		8969275
Subcontract Parameter	N/A	ATTACHED	N/A	8977656				ATTACHED	N/A	8977656
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		8968765				LAB		8968765
Nitrate (N)	mg/L	0.0323	0.0020	8968311				0.380	0.0020	8968311
Misc. Inorganics	•		•			•			•	
Fluoride (F)	mg/L	0.230	0.010	8972276				0.098	0.010	8972276
Dissolved Organic Carbon (C)	mg/L	14.8	0.50	8969686				2.14	0.50	8969686
Alkalinity (Total as CaCO3)	mg/L	207	0.50	8969998				296	0.50	8969998
Total Organic Carbon (C)	mg/L	17.3	0.50	8969690				3.01	0.50	8969690
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8969998				4.06	0.50	8969998
Bicarbonate (HCO3)	mg/L	253	0.50	8969998				351	0.50	8969998
Carbonate (CO3)	mg/L	<0.50	0.50	8969998				4.87	0.50	8969998
Hydroxide (OH)	mg/L	<0.50	0.50	8969998				<0.50	0.50	8969998
Anions	•		•			•			•	
Dissolved Sulphate (SO4)	mg/L	197	0.50	8971351				193	0.50	8971351
Dissolved Chloride (CI)	mg/L	3.1	0.50	8971350				0.82	0.50	8971350
Nutrients										
Total Ammonia (N)	mg/L	0.036	0.0050	8972132				0.051	0.0050	8972132
Nitrate plus Nitrite (N)	mg/L	0.0323	0.0020	8969904				0.380	0.0020	8969904
Nitrite (N)	mg/L	<0.0020	0.0020	8969905				<0.0020	0.0020	8969905
Physical Properties	•		•	•		•			•	
Conductivity	uS/cm	784	1.0	8969999				953	1.0	8969999
рН	рН	8.29		8969995				8.36		8969995
Physical Properties										
Total Suspended Solids	mg/L	7.0 (1)	2.5	8969302				<1.0	1.0	8971852
Total Dissolved Solids	mg/L	508	10	8970511	534	10	8970511	592	10	8970511
RDL = Reportable Detection Lin	nit		•			•			•	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) RDL raised due to sample matrix interference.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

te Location: COFFEE CREEK - SURFACE WATI

Sampler Initials: LE

## RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TH8811		TH8812		TH8813		
Sampling Date		2018/04/21 13:05		2018/04/21 11:05		2018/04/22 11:40		
COC Number		551215-01-01		551215-01-01		551215-01-01		
	UNITS	CC-1.5	RDL	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch
Parameter								
ORP	mV	258		259	8969275	261		8969275
Subcontract Parameter	N/A	ATTACHED	N/A	ATTACHED	8977656	ATTACHED	N/A	8977656
Calculated Parameters			•		•		•	
Filter and HNO3 Preservation	N/A	LAB		LAB	8968765	LAB		8968765
Nitrate (N)	mg/L	0.119	0.0020	<0.0020	8968311	0.760	0.0020	8968311
Misc. Inorganics								
Fluoride (F)	mg/L	0.120	0.010	0.160	8972276	0.055	0.010	8972276
Dissolved Organic Carbon (C)	mg/L	4.38	0.50	17.0	8969686	11.5 (1)	0.50	8978370
Alkalinity (Total as CaCO3)	mg/L	194	0.50	219	8969998	69.6	0.50	8971299
Total Organic Carbon (C)	mg/L	5.71	0.50	18.4	8969690	4.58	0.50	8978372
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	1.30	8969998	<0.50	0.50	8971299
Bicarbonate (HCO3)	mg/L	237	0.50	264	8969998	84.9	0.50	8971299
Carbonate (CO3)	mg/L	<0.50	0.50	1.56	8969998	<0.50	0.50	8971299
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	8969998	<0.50	0.50	8971299
Anions			•				•	
Dissolved Sulphate (SO4)	mg/L	193	0.50	65.0	8975460	74.7	0.50	8971355
Dissolved Chloride (CI)	mg/L	0.63	0.50	2.0	8971350	1.2	0.50	8971354
Nutrients								
Total Ammonia (N)	mg/L	0.028	0.0050	0.035	8972132	0.010	0.0050	8972132
Nitrate plus Nitrite (N)	mg/L	0.119	0.0020	<0.0020	8969904	0.760	0.0020	8969904
Nitrite (N)	mg/L	<0.0020	0.0020	<0.0020	8969905	<0.0020	0.0020	8969905
Physical Properties								
Conductivity	uS/cm	710	1.0	521	8969999	319	1.0	8971300
рН	рН	8.23		8.33	8969995	7.72		8971293
Physical Properties					•			
Total Suspended Solids	mg/L	64.1 (2)	1.1	2.1	8971852	1.4	1.0	8971852
Total Dissolved Solids	mg/L	424	10	282	8970511	162	10	8970511
			•					-

RDL = Reportable Detection Limit

<sup>(1)</sup> Dissolved greater than total. Reanalysis yields similar results.

<sup>(2)</sup> RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATE

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TH8813		TH8822			TH8823		
Compling Date		2018/04/22		2018/04/21			2018/04/21		
Sampling Date		11:40		13:30			14:45		
COC Number		551215-01-01		551215-02-01			551215-02-01		
	UNITS	CC-4.5 Lab-Dup	QC Batch	CC-C	RDL	QC Batch	HC-2.5	RDL	QC Batch
Parameter									
ORP	mV			262		8969275	262		8969275
Subcontract Parameter	N/A			ATTACHED	N/A	8977656	ATTACHED	N/A	8977656
Calculated Parameters	•		•		•			•	
Filter and HNO3 Preservation	N/A			LAB		8968765	LAB		8968765
Nitrate (N)	mg/L			0.390	0.0020	8968311	0.318	0.0020	8968311
Misc. Inorganics	•				•			•	
Fluoride (F)	mg/L			0.094	0.010	8972276	0.065	0.010	8972276
Dissolved Organic Carbon (C)	mg/L			2.23	0.50	8969686	4.41	0.50	8969686
Alkalinity (Total as CaCO3)	mg/L			298	0.50	8969998	123	0.50	8971299
Total Organic Carbon (C)	mg/L			3.69	0.50	8969690	4.45	0.50	8969690
Alkalinity (PP as CaCO3)	mg/L			4.31	0.50	8969998	<0.50	0.50	8971299
Bicarbonate (HCO3)	mg/L			353	0.50	8969998	151	0.50	8971299
Carbonate (CO3)	mg/L			5.17	0.50	8969998	<0.50	0.50	8971299
Hydroxide (OH)	mg/L			<0.50	0.50	8969998	<0.50	0.50	8971299
Anions	•				•				
Dissolved Sulphate (SO4)	mg/L			270 (1)	5.0	8976714	91.8	0.50	8971355
Dissolved Chloride (Cl)	mg/L			0.78	0.50	8976713	0.83	0.50	8971354
Nutrients	•				•				
Total Ammonia (N)	mg/L			0.037	0.0050	8972132	0.022	0.0050	8972132
Nitrate plus Nitrite (N)	mg/L			0.390	0.0020	8969904	0.318	0.0020	8973073
Nitrite (N)	mg/L			<0.0020	0.0020	8969905	<0.0020	0.0020	8973074
Physical Properties	•				_				
Conductivity	uS/cm			952	1.0	8969999	429	1.0	8971300
рН	рН	7.72	8971293	8.36		8969995	7.96		8971293
Physical Properties					•				
Total Suspended Solids	mg/L			<1.1 (2)	1.1	8971852	<1.1 (2)	1.1	8971852
Total Dissolved Solids	mg/L			564	10	8970511	250	10	8970511
221 2 11 2 11 11	•		•					•	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

- (1) Detection limits raised due to dilution to bring analyte within the calibrated range.
- (2) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TH8823			TH8824		TH8825		
Sampling Date		2018/04/21 14:45			2018/04/21 16:50		2018/04/21 15:30		
COC Number		551215-02-01			551215-02-01		551215-02-01		
	UNITS	HC-2.5 Lab-Dup	RDL	QC Batch	HC-5.0	QC Batch	НС-В	RDL	QC Batch
Parameter		·	<u>-                                      </u>	<u> </u>				<u> </u>	·
ORP	mV				263	8969275	264		8969275
Subcontract Parameter	N/A				ATTACHED	8977656	ATTACHED	N/A	8977656
Calculated Parameters		•							·
Filter and HNO3 Preservation	N/A				LAB	8968765	LAB		8968765
Nitrate (N)	mg/L				0.0032	8968311	0.0020	0.0020	8968311
Misc. Inorganics		•							Į.
Fluoride (F)	mg/L				0.100	8972276	0.069	0.010	8972276
Dissolved Organic Carbon (C)	mg/L				16.9	8969686	8.67	0.50	8969686
Alkalinity (Total as CaCO3)	mg/L				155	8971299	137	0.50	8969998
Total Organic Carbon (C)	mg/L				17.2	8969690	9.08	0.50	8969690
Alkalinity (PP as CaCO3)	mg/L				<0.50	8971299	<0.50	0.50	8969998
Bicarbonate (HCO3)	mg/L				189	8971299	167	0.50	8969998
Carbonate (CO3)	mg/L				<0.50	8971299	<0.50	0.50	8969998
Hydroxide (OH)	mg/L				<0.50	8971299	<0.50	0.50	8969998
Anions									
Dissolved Sulphate (SO4)	mg/L	92.0	0.50	8971355	187	8971355	111	0.50	8971351
Dissolved Chloride (CI)	mg/L	0.70	0.50	8971354	1.7	8971354	0.98	0.50	8971350
Nutrients									
Total Ammonia (N)	mg/L				0.050	8972132	0.040	0.0050	8972132
Nitrate plus Nitrite (N)	mg/L				0.0032	8969904	0.0020	0.0020	8969904
Nitrite (N)	mg/L				<0.0020	8969905	<0.0020	0.0020	8969905
Physical Properties	•					•		•	
Conductivity	uS/cm				687	8971300	473	1.0	8969999
рН	рН				8.11	8971293	8.17		8969995
Physical Properties									
Total Suspended Solids	mg/L				1.4	8971852	<1.0	1.0	8971852
Total Dissolved Solids	mg/L				410	8970511	298	10	8973657
RDL = Reportable Detection Lir Lab-Dup = Laboratory Initiated		te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TH8826			TH8827			TH8827	
Sampling Date		2018/04/22 14:15			2018/04/22 12:20			2018/04/22 12:20	
COC Number		551215-02-01			551215-02-01			551215-02-01	
	UNITS	IC-0.5	RDL	QC Batch	IC-1.5	RDL	QC Batch	IC-1.5 Lab-Dup	QC Batch
Parameter									
ORP	mV	265		8969275	264		8969275	264	8969275
Subcontract Parameter	N/A	ATTACHED	N/A	8977656	ATTACHED	N/A	8977656		
Calculated Parameters									Į.
Filter and HNO3 Preservation	N/A	LAB		8968765	LAB		8968765		
Nitrate (N)	mg/L	0.0185	0.0020	8968311	0.0060	0.0020	8968311		
Misc. Inorganics				-		•			•
Fluoride (F)	mg/L	0.460	0.010	8972276	0.084	0.010	8972276		
Dissolved Organic Carbon (C)	mg/L	16.4	0.50	8969686	7.31	0.50	8969686		
Alkalinity (Total as CaCO3)	mg/L	270	0.50	8969998	141	0.50	8971299		
Total Organic Carbon (C)	mg/L	19.2	0.50	8978372	8.07	0.50	8969690		
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8969998	<0.50	0.50	8971299		
Bicarbonate (HCO3)	mg/L	330	0.50	8969998	172	0.50	8971299		
Carbonate (CO3)	mg/L	<0.50	0.50	8969998	<0.50	0.50	8971299		
Hydroxide (OH)	mg/L	<0.50	0.50	8969998	<0.50	0.50	8971299		
Anions				-		•			•
Dissolved Sulphate (SO4)	mg/L	1030 (1)	5.0	8971351	85.8	0.50	8975460		
Dissolved Chloride (CI)	mg/L	2.0	0.50	8971350	0.91	0.50	8971350		
Nutrients						•			•
Total Ammonia (N)	mg/L	0.058	0.0050	8972132	0.029	0.0050	8972132		
Nitrate plus Nitrite (N)	mg/L	0.0185	0.0020	8969904	0.0060	0.0020	8969904		
Nitrite (N)	mg/L	<0.0020	0.0020	8969905	<0.0020	0.0020	8969905		
Physical Properties	•		•			•			
Conductivity	uS/cm	2080	1.0	8969999	439	1.0	8971300		
рН	рН	8.26		8969995	8.06		8971293		
Physical Properties			•						
Total Suspended Solids	mg/L	1.1	1.0	8971852	<1.0	1.0	8971852		
Total Dissolved Solids	mg/L	1740	10	8971286	248	10	8971286		

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) Detection limits raised due to dilution to bring analyte within the calibrated range.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TH8833			TH8833			TH8834		
Compling Date		2018/04/22			2018/04/22			2018/04/21		
Sampling Date		14:40			14:40			18:20		
COC Number		551215-03-01			551215-03-01			551215-03-01		
	UNITS	IC-4.5	RDL	QC Batch	IC-4.5 Lab-Dup	RDL	QC Batch	YUK-2.0	RDL	QC Batch
Parameter										
ORP	mV	266		8969275				269		8969275
Subcontract Parameter	N/A	ATTACHED	N/A	8977656				ATTACHED	N/A	8977656
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		8968765				LAB		8968765
Nitrate (N)	mg/L	0.190	0.0020	8968311				0.0319	0.0020	8968311
Misc. Inorganics	•		•	•		•	•		•	
Fluoride (F)	mg/L	0.055	0.010	8972276				0.058	0.010	8972276
Dissolved Organic Carbon (C)	mg/L	4.07	0.50	8969686				0.69	0.50	8969686
Alkalinity (Total as CaCO3)	mg/L	66.1	0.50	8969992				35.1	0.50	8971299
Total Organic Carbon (C)	mg/L	7.84	0.50	8969690	7.86	0.50	8969690	1.23	0.50	8978372
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8969992				<0.50	0.50	8971299
Bicarbonate (HCO3)	mg/L	80.6	0.50	8969992				42.8	0.50	8971299
Carbonate (CO3)	mg/L	<0.50	0.50	8969992				<0.50	0.50	8971299
Hydroxide (OH)	mg/L	<0.50	0.50	8969992				<0.50	0.50	8971299
Anions	•		•	•		•	•		•	
Dissolved Sulphate (SO4)	mg/L	60.0	0.50	8975460				9.89	0.50	8971355
Dissolved Chloride (CI)	mg/L	1.0	0.50	8971336				0.73	0.50	8971354
Nutrients			_							
Total Ammonia (N)	mg/L	0.014	0.0050	8972132				0.017	0.0050	8972132
Nitrate plus Nitrite (N)	mg/L	0.190	0.0020	8973073				0.0319	0.0020	8969904
Nitrite (N)	mg/L	<0.0020	0.0020	8973074				<0.0020	0.0020	8969905
Physical Properties	•	-	•	•		•			•	
Conductivity	uS/cm	255	1.0	8969993				97.1	1.0	8971300
рН	рН	8.01		8969989				7.62		8971293
Physical Properties			•				'			
Total Suspended Solids	mg/L	1.8 (1)	1.0	8971851				2.4	1.0	8971851
Total Dissolved Solids	mg/L	144	10	8971286				78	10	8973657
RDL = Reportable Detection Lin	mit	•	•		•	•			•	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TH8834			TH8835			TH8836		
Sampling Date		2018/04/21 18:20			2018/04/22 15:10			2018/04/22 11:10		
COC Number		551215-03-01			551215-03-01			551215-03-01		
	UNITS	YUK-2.0 Lab-Dup	RDL	QC Batch	YUK-5.0	RDL	QC Batch	BALLARAT U/S Y.R.	RDL	QC Batch
Parameter		<u> </u>		·		<u>-</u>	<u> </u>			
ORP	mV				271		8969275	271		8969275
Subcontract Parameter	N/A				ATTACHED	N/A	8977656	ATTACHED	N/A	8977656
Calculated Parameters						-				
Filter and HNO3 Preservation	N/A				LAB		8968765	LAB		8968765
Nitrate (N)	mg/L				0.0648	0.0020	8968311	<0.0020	0.0020	8968311
Misc. Inorganics	•					•			-	
Fluoride (F)	mg/L				0.110	0.010	8972276	0.270	0.010	8972276
Dissolved Organic Carbon (C)	mg/L				<0.50	0.50	8969360	11.1	0.50	8969686
Alkalinity (Total as CaCO3)	mg/L				85.7	0.50	8969992	175	0.50	8971299
Total Organic Carbon (C)	mg/L				<0.50	0.50	8969690	11.4	0.50	8978372
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	8969992	<0.50	0.50	8971299
Bicarbonate (HCO3)	mg/L				105	0.50	8969992	213	0.50	8971299
Carbonate (CO3)	mg/L				<0.50	0.50	8969992	<0.50	0.50	8971299
Hydroxide (OH)	mg/L				<0.50	0.50	8969992	<0.50	0.50	8971299
Anions	•					•			-	
Dissolved Sulphate (SO4)	mg/L				21.6	0.50	8975460	211 (1)	5.0	8971351
Dissolved Chloride (CI)	mg/L				0.55	0.50	8971336	1.8	0.50	8971350
Nutrients						-				
Total Ammonia (N)	mg/L	0.017	0.0050	8972132	0.012	0.0050	8972134	0.038	0.0050	8972134
Nitrate plus Nitrite (N)	mg/L				0.0648	0.0020	8969900	<0.0020	0.0020	8969904
Nitrite (N)	mg/L				<0.0020	0.0020	8969902	<0.0020	0.0020	8969905
Physical Properties	•	-			•	-	•			
Conductivity	uS/cm				209	1.0	8969993	826	1.0	8971300
рН	рН				8.08		8969989	8.17		8971293
Physical Properties										
Total Suspended Solids	mg/L				<1.0	1.0	8971851	<1.0	1.0	8971851
Total Dissolved Solids	mg/L				106	10	8971286	510	10	8971286
DDI - Banartable Detection Lin	ni+									-

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) Detection limits raised due to dilution to bring analyte within the calibrated range.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TH8837		TH8838		TH8839		
Sampling Date		2018/04/22		2018/04/22		2018/04/21		
Sampling Date		16:35		16:20		17:45		
COC Number		551215-03-01		551215-03-01		551215-03-01		
	UNITS	BARKER U/S S.R.	RDL	STEWART D/S M.M.	QC Batch	LATTE MIX	RDL	QC Batch
Parameter								
ORP	mV	271		272	8969275	273		8969275
Subcontract Parameter	N/A	ATTACHED	N/A	ATTACHED	8977656	ATTACHED	N/A	8977656
Calculated Parameters					1		•	
Filter and HNO3 Preservation	N/A	LAB		LAB	8968765	LAB		8968765
Nitrate (N)	mg/L	0.0205	0.0020	0.129	8968311	0.0278	0.0020	8968311
Misc. Inorganics					•		•	•
Fluoride (F)	mg/L	0.200	0.010	0.100	8972276	0.180	0.010	8972533
Dissolved Organic Carbon (C)	mg/L	18.5	0.50	1.38	8969686	14.3	0.50	8969686
Alkalinity (Total as CaCO3)	mg/L	195	0.50	129	8969992	178	0.50	8969992
Total Organic Carbon (C)	mg/L	19.6	0.50	1.69	8978372	12.6	0.50	8974234
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	<0.50	8969992	<0.50	0.50	8969992
Bicarbonate (HCO3)	mg/L	238	0.50	158	8969992	217	0.50	8969992
Carbonate (CO3)	mg/L	<0.50	0.50	<0.50	8969992	<0.50	0.50	8969992
Hydroxide (OH)	mg/L	<0.50	0.50	<0.50	8969992	<0.50	0.50	8969992
Anions					•		•	•
Dissolved Sulphate (SO4)	mg/L	201 (1)	5.0	86.4	8971338	198	0.50	8975460
Dissolved Chloride (CI)	mg/L	4.1	0.50	0.92	8971336	2.5	0.50	8971336
Nutrients								
Total Ammonia (N)	mg/L	0.034	0.0050	0.023	8972134	0.035	0.0050	8972134
Nitrate plus Nitrite (N)	mg/L	0.0205	0.0020	0.129	8969900	0.0278	0.0020	8969900
Nitrite (N)	mg/L	<0.0020	0.0020	<0.0020	8969902	<0.0020	0.0020	8969902
Physical Properties			•		•		•	-
Conductivity	uS/cm	781	1.0	410	8969993	691	1.0	8969993
рН	рН	8.23		8.13	8969989	8.24		8969989
Physical Properties								
Total Suspended Solids	mg/L	1.6	1.0	1.0	8971851	<1.0	1.0	8971851
Total Dissolved Solids	mg/L	530	10	232	8971286	426	10	8970511
					•		•	

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Detection limits raised due to dilution to bring analyte within the calibrated range.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TH8840			TH8840			TH8842		
Sampling Date		2018/04/22			2018/04/22			2018/04/22 18:00		
COC Number		551215-03-01			551215-03-01			551215-04-01		
	UNITS	SAMPLE A	RDL	QC Batch	SAMPLE A Lab-Dup	RDL	QC Batch	FIELD BLANK	RDL	QC Batch
Parameter	-	-	•	•	•	•	•		•	
ORP	mV	273		8969275				270		8969275
Subcontract Parameter	N/A	ATTACHED	N/A	8977656				ATTACHED	N/A	8977656
Calculated Parameters		1		Į.			Į.		•	
Filter and HNO3 Preservation	N/A	LAB		8968765				LAB		8968765
Nitrate (N)	mg/L	0.0046	0.0020	8968311				<0.0020	0.0020	8968311
Misc. Inorganics		I	1	l .			Į.		1	
Fluoride (F)	mg/L	0.082	0.010	8972533	0.080	0.010	8972533	<0.010	0.010	8972533
Dissolved Organic Carbon (C)	mg/L	7.90	0.50	8969686				<0.50	0.50	8969687
Alkalinity (Total as CaCO3)	mg/L	146	0.50	8969992				0.62	0.50	8969976
Total Organic Carbon (C)	mg/L	7.30	0.50	8969690				<0.50	0.50	8978372
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8969992				<0.50	0.50	8969976
Bicarbonate (HCO3)	mg/L	178	0.50	8969992				0.76	0.50	8969976
Carbonate (CO3)	mg/L	<0.50	0.50	8969992				<0.50	0.50	8969976
Hydroxide (OH)	mg/L	<0.50	0.50	8969992				<0.50	0.50	8969976
Anions	1	I	1	l.		1	Į.		1	
Dissolved Sulphate (SO4)	mg/L	86.6	0.50	8975460				<0.50	0.50	8971338
Dissolved Chloride (CI)	mg/L	1.0	0.50	8971336				<0.50	0.50	8971336
Nutrients				ļ.			Į.			
Total Ammonia (N)	mg/L	0.029	0.0050	8972134				<0.0050	0.0050	8972134
Nitrate plus Nitrite (N)	mg/L	0.0046	0.0020	8969904				<0.0020	0.0020	8969904
Nitrite (N)	mg/L	<0.0020	0.0020	8969905				<0.0020	0.0020	8969905
Physical Properties			•			•	!			
Conductivity	uS/cm	441	1.0	8969993				<1.0	1.0	8969977
рН	рН	8.24		8969989				5.42		8969973
Physical Properties		•	•	•		•	•			
Total Suspended Solids	mg/L	1.1	1.0	8971851				<1.0	1.0	8971851
Total Dissolved Solids	mg/L	250	10	8971286				<10	10	8972133
RDL = Reportable Detection Lin Lab-Dup = Laboratory Initiated		te								

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TH8842			TH8843			TH8843		
Sampling Date		2018/04/22			2018/04/23			2018/04/23		
Sampling Date		18:00			11:00			11:00		
COC Number		551215-04-01			551215-04-01			551215-04-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV				278		8969275			
Subcontract Parameter	N/A				ATTACHED	N/A	8977656			
Calculated Parameters										ļ.
Nitrate (N)	mg/L				<0.0020	0.0020	8968311			
Misc. Inorganics	•					•				•
Fluoride (F)	mg/L				0.012	0.010	8972533			
Dissolved Organic Carbon (C)	mg/L	<0.50	0.50	8969687	0.60	0.50	8969686	<0.50	0.50	8969686
Alkalinity (Total as CaCO3)	mg/L				<0.50	0.50	8969992			
Total Organic Carbon (C)	mg/L				0.86	0.50	8969690			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	8969992			
Bicarbonate (HCO3)	mg/L				<0.50	0.50	8969992			
Carbonate (CO3)	mg/L				<0.50	0.50	8969992			
Hydroxide (OH)	mg/L				<0.50	0.50	8969992			
Anions	•									
Dissolved Sulphate (SO4)	mg/L				<0.50	0.50	8971338			
Dissolved Chloride (Cl)	mg/L				<0.50	0.50	8971336			
Nutrients										·
Total Ammonia (N)	mg/L				<0.0050	0.0050	8972134			
Nitrate plus Nitrite (N)	mg/L				<0.0020	0.0020	8969900			
Nitrite (N)	mg/L				<0.0020	0.0020	8969902			
Physical Properties										•
Conductivity	uS/cm				1.6	1.0	8969993			
рН	рН				6.31		8969989			
Physical Properties										ı
Total Suspended Solids	mg/L				<1.0	1.0	8971851			
Total Dissolved Solids	mg/L				<10	10	8972133			
RDL = Reportable Detection Lii	nit									ı
Lab-Dup = Laboratory Initiated	l Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TH8844			TH8844		
Sampling Date		2018/04/22			2018/04/22		
COC Number		551215-04-01			551215-04-01		
	UNITS	BLACK HILLS	RDL	QC Batch	BLACK HILLS Lab-Dup	RDL	QC Batch
Parameter							
ORP	mV	279		8969275	279		8969275
Subcontract Parameter	N/A	ATTACHED	N/A	8977656			
Calculated Parameters			•				
Filter and HNO3 Preservation	N/A	LAB		8968765			
Nitrate (N)	mg/L	0.0356	0.0020	8968311			
Misc. Inorganics					•		
Fluoride (F)	mg/L	0.190	0.010	8972533			
Dissolved Organic Carbon (C)	mg/L	11.1	0.50	8969686			
Alkalinity (Total as CaCO3)	mg/L	169	0.50	8969992			
Total Organic Carbon (C)	mg/L	12.3	0.50	8969690			
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	8969992			
Bicarbonate (HCO3)	mg/L	206	0.50	8969992			
Carbonate (CO3)	mg/L	<0.50	0.50	8969992			
Hydroxide (OH)	mg/L	<0.50	0.50	8969992			
Anions			•		•		
Dissolved Sulphate (SO4)	mg/L	155	0.50	8971338			
Dissolved Chloride (Cl)	mg/L	2.3	0.50	8971336			
Nutrients			•		•	•	
Total Ammonia (N)	mg/L	0.030	0.0050	8972134	0.034	0.0050	8972134
Nitrate plus Nitrite (N)	mg/L	0.0356	0.0020	8969900			
Nitrite (N)	mg/L	<0.0020	0.0020	8969902			
Physical Properties			•		•		
Conductivity	uS/cm	620	1.0	8969993			
рН	рН	8.25		8969989			
Physical Properties			•				
Total Suspended Solids	mg/L	2.6	1.0	8971851			
Total Dissolved Solids	mg/L	376	10	8971286			
RDL = Reportable Detection Li Lab-Dup = Laboratory Initiated		te					
N/A = Not Applicable							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TH8809			TH8809			TH8810		
Sampling Date		2018/04/21			2018/04/21			2018/04/21		
Sampling Date		10:30			10:30			12:35		
COC Number		551215-01-01			551215-01-01			551215-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	404	0.50	8968004				565	0.50	8968004
Elements					•	•				
Dissolved Mercury (Hg)	ug/L	0.0024	0.0020	8971845	0.0025	0.0020	8971845	<0.0020	0.0020	8971845
Dissolved Metals by ICPMS					•	•				
Dissolved Aluminum (AI)	ug/L	20.4	0.50	8969377	21.6	0.50	8969377	2.84	0.50	8969377
Dissolved Antimony (Sb)	ug/L	0.113	0.020	8969377	0.110	0.020	8969377	0.140	0.020	8969377
Dissolved Arsenic (As)	ug/L	1.03	0.020	8969377	1.01	0.020	8969377	1.11	0.020	8969377
Dissolved Barium (Ba)	ug/L	121	0.020	8969377	121	0.020	8969377	111	0.020	8969377
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8969377	0.011	0.010	8969377	<0.010	0.010	8969377
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8969377	<0.0050	0.0050	8969377	<0.0050	0.0050	8969377
Dissolved Boron (B)	ug/L	<10	10	8969377	<10	10	8969377	<10	10	8969377
Dissolved Cadmium (Cd)	ug/L	0.0398	0.0050	8969377	0.0388	0.0050	8969377	<0.0050	0.0050	8969377
Dissolved Chromium (Cr)	ug/L	0.16	0.10	8969377	0.17	0.10	8969377	<0.10	0.10	8969377
Dissolved Cobalt (Co)	ug/L	0.423	0.0050	8969377	0.429	0.0050	8969377	0.0170	0.0050	8969377
Dissolved Copper (Cu)	ug/L	1.34	0.050	8969377	1.33	0.050	8969377	0.351	0.050	8969377
Dissolved Iron (Fe)	ug/L	75.2	1.0	8969377	75.3	1.0	8969377	1.6	1.0	8969377
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8969377	<0.0050	0.0050	8969377	<0.0050	0.0050	8969377
Dissolved Lithium (Li)	ug/L	10.6	0.50	8969377	10.7	0.50	8969377	5.69	0.50	8969377
Dissolved Manganese (Mn)	ug/L	488	0.050	8969377	498	0.050	8969377	0.237	0.050	8969377
Dissolved Molybdenum (Mo)	ug/L	0.888	0.050	8969377	0.911	0.050	8969377	0.285	0.050	8969377
Dissolved Nickel (Ni)	ug/L	1.40	0.020	8969377	1.43	0.020	8969377	0.252	0.020	8969377
Dissolved Phosphorus (P)	ug/L	11.0	2.0	8969377	12.9	2.0	8969377	6.2	2.0	8969377
Dissolved Selenium (Se)	ug/L	0.169	0.040	8969377	0.174	0.040	8969377	0.427	0.040	8969377
Dissolved Silicon (Si)	ug/L	11200	50	8969377	11200	50	8969377	5790	50	8969377
Dissolved Silver (Ag)	ug/L	< 0.0050	0.0050	8969377	<0.0050	0.0050	8969377	<0.0050	0.0050	8969377
Dissolved Strontium (Sr)	ug/L	543	0.050	8969377	554	0.050	8969377	1410	0.050	8969377
Dissolved Thallium (TI)	ug/L	0.0037	0.0020	8969377	0.0042	0.0020	8969377	0.0021	0.0020	8969377
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8969377	<0.20	0.20	8969377	<0.20	0.20	8969377
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8969377	<0.50	0.50	8969377	<0.50	0.50	8969377
RDL = Reportable Detection Li	nit									
Lab-Dup = Laboratory Initiated	Dunlica	ite								

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK SURFACE WATE

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TH8809			TH8809			TH8810		
Sampling Date		2018/04/21 10:30			2018/04/21 10:30			2018/04/21 12:35		
COC Number		551215-01-01			551215-01-01			551215-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Dissolved Uranium (U)	ug/L	176	0.0020	8969377	179	0.0020	8969377	34.8	0.0020	8969377
Dissolved Vanadium (V)	ug/L	0.29	0.20	8969377	0.32	0.20	8969377	<0.20	0.20	8969377
Dissolved Zinc (Zn)	ug/L	2.43	0.10	8969377	2.57	0.10	8969377	0.31	0.10	8969377
Dissolved Zirconium (Zr)	ug/L	0.31	0.10	8969377	0.33	0.10	8969377	<0.10	0.10	8969377
Dissolved Calcium (Ca)	mg/L	94.5	0.050	8968005				135	0.050	8968005
Dissolved Magnesium (Mg)	mg/L	40.9	0.050	8968005				55.0	0.050	8968005
Dissolved Potassium (K)	mg/L	4.47	0.050	8968005				6.43	0.050	8968005
Dissolved Sodium (Na)	mg/L	19.3	0.050	8968005				6.37	0.050	8968005
Dissolved Sulphur (S)	mg/L	77.2	3.0	8968005				93.0	3.0	8968005

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

		T110011	T110010	T110010	T110000	T110000	T11000	l	
Maxxam ID		TH8811	TH8812	TH8813	TH8822	TH8823	TH8824		
Sampling Date		2018/04/21 13:05	2018/04/21 11:05	2018/04/22 11:40	2018/04/21 13:30	2018/04/21 14:45	2018/04/21 16:50		
COC Number		551215-01-01	551215-01-01	551215-01-01	551215-02-01	551215-02-01	551215-02-01		
	UNITS	CC-1.5	CC-3.5	CC-4.5	CC-C	HC-2.5	HC-5.0	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	386	261	157	551	232	356	0.50	8968004
Elements								•	
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0036	0.0020	<0.0020	<0.0020	0.0026	0.0020	8971845
Dissolved Metals by ICPMS									
Dissolved Aluminum (AI)	ug/L	9.58	18.3	21.8	1.75	10.6	27.0	0.50	8969377
Dissolved Antimony (Sb)	ug/L	0.071	0.057	0.067	0.139	0.492	0.221	0.020	8969377
Dissolved Arsenic (As)	ug/L	2.08	0.380	0.234	1.09	0.622	0.975	0.020	8969377
Dissolved Barium (Ba)	ug/L	50.6	84.9	83.6	107	68.6	95.4	0.020	8969377
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8969377
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8969377
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	8969377
Dissolved Cadmium (Cd)	ug/L	0.0092	0.0249	0.0164	<0.0050	0.0130	0.0087	0.0050	8969377
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	0.11	<0.10	0.11	0.17	0.10	8969377
Dissolved Cobalt (Co)	ug/L	0.0390	0.101	0.0250	0.0156	0.0278	0.0507	0.0050	8969377
Dissolved Copper (Cu)	ug/L	0.784	0.950	0.948	0.361	0.608	1.14	0.050	8969377
Dissolved Iron (Fe)	ug/L	4.2	19.3	5.3	1.6	5.4	12.9	1.0	8969377
Dissolved Lead (Pb)	ug/L	<0.0050	0.0081	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8969377
Dissolved Lithium (Li)	ug/L	3.72	3.86	0.55	5.53	1.27	2.25	0.50	8969377
Dissolved Manganese (Mn)	ug/L	27.7	54.6	0.663	0.474	4.51	7.91	0.050	8969377
Dissolved Molybdenum (Mo)	ug/L	0.292	1.11	0.421	0.293	1.67	0.489	0.050	8969377
Dissolved Nickel (Ni)	ug/L	0.442	0.614	0.610	0.251	0.276	0.769	0.020	8969377
Dissolved Phosphorus (P)	ug/L	4.3	13.2	2.6	3.4	5.8	13.9	2.0	8969377
Dissolved Selenium (Se)	ug/L	0.180	0.173	0.054	0.408	0.146	0.100	0.040	8969377
Dissolved Silicon (Si)	ug/L	5570	11100	4990	5550	6140	8000	50	8969377
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8969377
Dissolved Strontium (Sr)	ug/L	766	264	204	1360	548	758	0.050	8969377
Dissolved Thallium (TI)	ug/L	0.0048	0.0023	<0.0020	0.0023	<0.0020	0.0024	0.0020	8969377
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8969377
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8969377
Dissolved Uranium (U)	ug/L	26.3	72.0	1.80	34.3	79.5	46.0	0.0020	8969377
RDL = Reportable Detection Lin	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SUBFACE WATE

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8811	TH8812	TH8813	TH8822	TH8823	TH8824		
Sampling Date		2018/04/21 13:05	2018/04/21 11:05	2018/04/22 11:40	2018/04/21 13:30	2018/04/21 14:45	2018/04/21 16:50		
COC Number		551215-01-01	551215-01-01	551215-01-01	551215-02-01	551215-02-01	551215-02-01		
	UNITS	CC-1.5	CC-3.5	CC-4.5	CC-C	HC-2.5	HC-5.0	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.25	0.28	0.22	<0.20	0.30	0.26	0.20	8969377
Dissolved Zinc (Zn)	ug/L	0.45	2.78	0.38	0.41	0.93	0.87	0.10	8969377
Dissolved Zirconium (Zr)	ug/L	0.24	0.24	0.27	<0.10	0.17	0.31	0.10	8969377
Dissolved Calcium (Ca)	mg/L	98.8	65.6	38.8	133	54.1	84.5	0.050	8968005
Dissolved Magnesium (Mg)	mg/L	33.9	23.7	14.5	53.2	23.4	35.1	0.050	8968005
Dissolved Potassium (K)	mg/L	5.49	8.88	1.57	6.31	3.30	7.11	0.050	8968005
Dissolved Sodium (Na)	mg/L	7.03	11.6	5.10	6.16	5.79	12.7	0.050	8968005
Dissolved Sulphur (S)	mg/L	68.0	22.7	28.8	89.0	34.9	71.2	3.0	8968005
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8825		TH8826		TH8827	TH8833	TH8834					
Sampling Date		2018/04/21		2018/04/22		2018/04/22	2018/04/22	2018/04/21					
Sampling Date		15:30		14:15		12:20	14:40	18:20					
COC Number		551215-02-01		551215-02-01		551215-02-01	551215-03-01	551215-03-01					
	UNITS	НС-В	RDL	IC-0.5	RDL	IC-1.5	IC-4.5	YUK-2.0	RDL	QC Batch			
Calculated Parameters	Calculated Parameters												
Dissolved Hardness (CaCO3)	mg/L	248	0.50	1370	0.50	211	121	43.8	0.50	8968004			
Elements	•		•						•				
Dissolved Mercury (Hg)	ug/L	0.0022	0.0020	0.0026	0.0020	0.0021	<0.0020	<0.0020	0.0020	8971845			
Dissolved Metals by ICPMS	•		•						•				
Dissolved Aluminum (AI)	ug/L	16.0	0.50	21.2	2.5	23.5	19.1	0.85	0.50	8969377			
Dissolved Antimony (Sb)	ug/L	0.262	0.020	0.12	0.10	0.061	0.067	0.055	0.020	8969377			
Dissolved Arsenic (As)	ug/L	0.686	0.020	1.38	0.10	0.270	0.329	0.153	0.020	8969377			
Dissolved Barium (Ba)	ug/L	63.0	0.020	67.7	0.10	70.1	57.3	19.5	0.020	8969377			
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	<0.050	0.050	<0.010	0.011	<0.010	0.010	8969377			
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	<0.025	0.025	<0.0050	<0.0050	<0.0050	0.0050	8969377			
Dissolved Boron (B)	ug/L	<10	10	<50	50	<10	<10	<10	10	8969377			
Dissolved Cadmium (Cd)	ug/L	0.0059	0.0050	0.091	0.025	0.0116	0.0280	0.0247	0.0050	8969377			
Dissolved Chromium (Cr)	ug/L	0.11	0.10	<0.50	0.50	<0.10	0.15	<0.10	0.10	8969377			
Dissolved Cobalt (Co)	ug/L	0.0353	0.0050	0.285	0.025	0.0446	0.0877	0.0325	0.0050	8969377			
Dissolved Copper (Cu)	ug/L	0.694	0.050	1.37	0.25	0.565	1.11	0.332	0.050	8969377			
Dissolved Iron (Fe)	ug/L	6.7	1.0	19.9	5.0	10.3	12.9	1.9	1.0	8969377			
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	<0.025	0.025	<0.0050	<0.0050	<0.0050	0.0050	8969377			
Dissolved Lithium (Li)	ug/L	1.98	0.50	32.4	2.5	3.41	0.81	0.57	0.50	8969377			
Dissolved Manganese (Mn)	ug/L	7.25	0.050	119	0.25	17.3	68.5	9.26	0.050	8969377			
Dissolved Molybdenum (Mo)	ug/L	0.591	0.050	1.21	0.25	0.509	0.165	0.515	0.050	8969377			
Dissolved Nickel (Ni)	ug/L	0.415	0.020	2.30	0.10	0.408	0.777	0.439	0.020	8969377			
Dissolved Phosphorus (P)	ug/L	4.8	2.0	10	10	7.0	6.8	<2.0	2.0	8969377			
Dissolved Selenium (Se)	ug/L	0.066	0.040	3.21	0.20	0.129	0.062	0.123	0.040	8969377			
Dissolved Silicon (Si)	ug/L	6150	50	10600	250	8770	4950	1090	50	8969377			
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	<0.025	0.025	<0.0050	<0.0050	<0.0050	0.0050	8969377			
Dissolved Strontium (Sr)	ug/L	529	0.050	712	0.25	319	175	55.4	0.050	8969377			
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	<0.010	0.010	<0.0020	0.0031	<0.0020	0.0020	8969377			
Dissolved Tin (Sn)	ug/L	<0.20	0.20	<1.0	1.0	<0.20	<0.20	<0.20	0.20	8969377			
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	<2.5	2.5	<0.50	<0.50	<0.50	0.50	8969377			
Dissolved Uranium (U)	ug/L	60.9	0.0020	13.8	0.010	14.6	0.508	0.439	0.0020	8969377			
RDL = Reportable Detection Lir	mit												



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8825		TH8826		TH8827	TH8833	TH8834		
Sampling Date		2018/04/21 15:30		2018/04/22 14:15		2018/04/22 12:20	2018/04/22 14:40	2018/04/21 18:20		
COC Number		551215-02-01		551215-02-01		551215-02-01	551215-03-01	551215-03-01		
	UNITS	НС-В	RDL	IC-0.5	RDL	IC-1.5	IC-4.5	YUK-2.0	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.20	0.20	<1.0	1.0	0.24	0.26	<0.20	0.20	8969377
Dissolved Zinc (Zn)	ug/L	0.85	0.10	5.08	0.50	0.94	2.19	1.72	0.10	8969377
Dissolved Zirconium (Zr)	ug/L	0.25	0.10	<0.50	0.50	0.15	0.34	<0.10	0.10	8969377
Dissolved Calcium (Ca)	mg/L	57.6	0.050	263	0.25	52.7	31.9	11.6	0.050	8968005
Dissolved Magnesium (Mg)	mg/L	25.2	0.050	173	0.25	19.3	10.1	3.58	0.050	8968005
Dissolved Potassium (K)	mg/L	3.09	0.050	8.17	0.25	3.23	1.78	0.398	0.050	8968005
Dissolved Sodium (Na)	mg/L	7.75	0.050	30.4	0.25	10.5	5.03	1.07	0.050	8968005
Dissolved Sulphur (S)	mg/L	39.8	3.0	386	15	28.2	21.0	3.5	3.0	8968005
RDL = Reportable Detection Li	mit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8835		TH8836		TH8837						
Sampling Date		2018/04/22		2018/04/22		2018/04/22						
Sampling Sate		15:10		11:10		16:35	1					
COC Number		551215-03-01		551215-03-01		551215-03-01						
	UNITS	YUK-5.0	QC Batch	BALLARAT U/S Y.R.	QC Batch	BARKER U/S S.R.	RDL	QC Batch				
Calculated Parameters												
Dissolved Hardness (CaCO3)	mg/L	104	8968004	437	8968004	405	0.50	8968004				
Elements							•					
Dissolved Mercury (Hg)	ug/L	<0.0020	8971845	0.0020	8971845	0.0029	0.0020	8971845				
Dissolved Metals by ICPMS							•					
Dissolved Aluminum (AI)	ug/L	1.38	8969377	8.58	8969377	16.4	0.50	8969377				
Dissolved Antimony (Sb)	ug/L	0.089	8969377	0.029	8969377	0.057	0.020	8969377				
Dissolved Arsenic (As)	ug/L	0.191	8969377	0.268	8969377	0.633	0.020	8969377				
Dissolved Barium (Ba)	ug/L	77.4	8969377	58.0	8969377	79.8	0.020	8969377				
Dissolved Beryllium (Be)	ug/L	<0.010	8969377	<0.010	8969377	<0.010	0.010	8969377				
Dissolved Bismuth (Bi)	ug/L	<0.0050	8969377	<0.0050	8969377	<0.0050	0.0050	8969377				
Dissolved Boron (B)	ug/L	<10	8969377	<10	8969377	11	10	8969377				
Dissolved Cadmium (Cd)	ug/L	0.0214	8969377	0.0105	8969377	0.0181	0.0050	8969377				
Dissolved Chromium (Cr)	ug/L	<0.10	8969377	<0.10	8969377	0.14	0.10	8969377				
Dissolved Cobalt (Co)	ug/L	0.0217	8969377	0.0512	8969377	0.345	0.0050	8969377				
Dissolved Copper (Cu)	ug/L	0.312	8969377	1.12	8969377	1.69	0.050	8969377				
Dissolved Iron (Fe)	ug/L	13.0	8969377	11.8	8969377	62.6	1.0	8969377				
Dissolved Lead (Pb)	ug/L	<0.0050	8969377	<0.0050	8969377	<0.0050	0.0050	8969377				
Dissolved Lithium (Li)	ug/L	1.00	8969377	1.61	8969377	4.92	0.50	8969377				
Dissolved Manganese (Mn)	ug/L	15.2	8969377	13.9	8969377	313	0.050	8969377				
Dissolved Molybdenum (Mo)	ug/L	1.29	8969377	0.583	8969377	1.30	0.050	8969377				
Dissolved Nickel (Ni)	ug/L	0.353	8969377	0.369	8969377	1.17	0.020	8969377				
Dissolved Phosphorus (P)	ug/L	5.9	8969377	7.6	8969377	68.1	2.0	8969377				
Dissolved Selenium (Se)	ug/L	0.352	8969377	0.218	8969377	0.378	0.040	8969377				
Dissolved Silicon (Si)	ug/L	2570	8969377	6530	8969377	6630	50	8969377				
Dissolved Silver (Ag)	ug/L	<0.0050	8969377	<0.0050	8969377	<0.0050	0.0050	8969377				
Dissolved Strontium (Sr)	ug/L	124	8969377	782	8969377	593	0.050	8969377				
Dissolved Thallium (TI)	ug/L	<0.0020	8969377	<0.0020	8969377	<0.0020	0.0020	8969377				
Dissolved Tin (Sn)	ug/L	<0.20	8969377	<0.20	8974168	<0.20	0.20	8969377				
Dissolved Titanium (Ti)	ug/L	<0.50	8969377	<0.50	8969377	<0.50	0.50	8969377				
Dissolved Uranium (U)	ug/L	1.19	8969377	4.58	8969377	7.53	0.0020	8969377				
RDL = Reportable Detection Li	nit	-	· '				•	•				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8835		TH8836		TH8837		
Sampling Date		2018/04/22 15:10		2018/04/22 11:10		2018/04/22 16:35		
COC Number		551215-03-01		551215-03-01		551215-03-01		
	UNITS	YUK-5.0	QC Batch	BALLARAT U/S Y.R.	QC Batch	BARKER U/S S.R.	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	8969377	0.21	8969377	0.52	0.20	8969377
Dissolved Zinc (Zn)	ug/L	1.88 (1)	8969377	0.94	8969377	1.55	0.10	8969377
Dissolved Zirconium (Zr)	ug/L	<0.10	8969377	0.11	8969377	0.19	0.10	8969377
Dissolved Calcium (Ca)	mg/L	28.0	8968005	96.9	8968005	88.5	0.050	8968005
Dissolved Magnesium (Mg)	mg/L	8.33	8968005	47.3	8968005	44.8	0.050	8968005
Dissolved Potassium (K)	mg/L	0.882	8968005	5.30	8968005	5.83	0.050	8968005
Dissolved Sodium (Na)	mg/L	2.10	8968005	14.3	8968005	20.6	0.050	8968005
Dissolved Sulphur (S)	mg/L	7.3	8968005	92.8	8968005	81.8	3.0	8968005

RDL = Reportable Detection Limit

<sup>(1)</sup> Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8838	TH8839	TH8840		TH8842					
Sampling Date		2018/04/22 16:20	2018/04/21 17:45	2018/04/22		2018/04/22 18:00					
COC Number		551215-03-01	551215-03-01	551215-03-01		551215-04-01					
	UNITS	STEWART D/S M.M.	LATTE MIX	SAMPLE A	QC Batch	FIELD BLANK	RDL	QC Batch			
Calculated Parameters											
Dissolved Hardness (CaCO3)	mg/L	213	364	215	8968004	<0.50	0.50	8968004			
Elements				I.							
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0027	0.0026	8971845	<0.0020	0.0020	8973744			
Dissolved Metals by ICPMS			•	•							
Dissolved Aluminum (AI)	ug/L	2.65	18.4	25.6	8969377	<0.50	0.50	8969436			
Dissolved Antimony (Sb)	ug/L	0.114	0.095	0.059	8969377	0.020	0.020	8969436			
Dissolved Arsenic (As)	ug/L	0.280	0.882	0.260	8969377	<0.020	0.020	8969436			
Dissolved Barium (Ba)	ug/L	77.0	105	72.7	8969377	<0.020	0.020	8969436			
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	8969377	<0.010	0.010	8969436			
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	8969377	<0.0050	0.0050	8969436			
Dissolved Boron (B)	ug/L	<10	<10	<10	8969377	<10	10	8969436			
Dissolved Cadmium (Cd)	ug/L	0.0958	0.0318	0.0125	8969377	<0.0050	0.0050	8969436			
Dissolved Chromium (Cr)	ug/L	<0.10	0.15	<0.10	8969377	<0.10	0.10	8969436			
Dissolved Cobalt (Co)	ug/L	0.0193	0.342	0.0451	8969377	<0.0050	0.0050	8969436			
Dissolved Copper (Cu)	ug/L	0.459	1.15	0.582	8969377	<0.050	0.050	8969436			
Dissolved Iron (Fe)	ug/L	9.1	70.0	10.4	8969377	<1.0	1.0	8969436			
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	8969377	<0.0050	0.0050	8969436			
Dissolved Lithium (Li)	ug/L	3.74	7.87	3.48	8969377	<0.50	0.50	8969436			
Dissolved Manganese (Mn)	ug/L	9.23	392	17.5	8969377	<0.050	0.050	8969436			
Dissolved Molybdenum (Mo)	ug/L	0.609	0.730	0.544	8969377	<0.050	0.050	8969436			
Dissolved Nickel (Ni)	ug/L	2.22	1.18	0.438	8969377	<0.020	0.020	8969436			
Dissolved Phosphorus (P)	ug/L	4.2	14.2	5.5	8969377	2.9	2.0	8969436			
Dissolved Selenium (Se)	ug/L	0.784	0.167	0.131	8969377	<0.040	0.040	8969436			
Dissolved Silicon (Si)	ug/L	2850	9370	8940	8969377	<50	50	8969436			
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	8969377	<0.0050	0.0050	8969436			
Dissolved Strontium (Sr)	ug/L	257	471	336	8969377	<0.050	0.050	8969436			
Dissolved Thallium (TI)	ug/L	<0.0020	0.0045	<0.0020	8969377	<0.0020	0.0020	8969436			
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	8969377	<0.20	0.20	8969436			
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	8969377	<0.50	0.50	8969436			
Dissolved Uranium (U)	ug/L	1.36	129	14.9	8969377	<0.0020	0.0020	8969436			
RDL = Reportable Detection Lin	mit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8838	TH8839	TH8840		TH8842		
Sampling Date		2018/04/22 16:20	2018/04/21 17:45	2018/04/22		2018/04/22 18:00		
COC Number		551215-03-01	551215-03-01	551215-03-01		551215-04-01		
	UNITS	STEWART D/S M.M.	LATTE MIX	SAMPLE A	QC Batch	FIELD BLANK	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.32	0.22	8969377	<0.20	0.20	8969436
Dissolved Zinc (Zn)	ug/L	8.13	2.04	1.11	8969377	<0.10	0.10	8969436
Dissolved Zirconium (Zr)	ug/L	<0.10	0.25	0.16	8969377	<0.10	0.10	8969436
Dissolved Calcium (Ca)	mg/L	53.7	85.3	53.5	8968005	<0.050	0.050	8968005
Dissolved Magnesium (Mg)	mg/L	19.2	36.7	19.7	8968005	<0.050	0.050	8968005
Dissolved Potassium (K)	mg/L	0.824	4.08	3.30	8968005	<0.050	0.050	8968005
Dissolved Sodium (Na)	mg/L	3.27	16.6	10.8	8968005	<0.050	0.050	8968005
Dissolved Sulphur (S)	mg/L	30.0	71.8	29.1	8968005	<3.0	3.0	8968005
RDL = Reportable Detection Li	mit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TH8842			TH8843			TH8843			
Sampling Date		2018/04/22			2018/04/23			2018/04/23			
. 0		18:00			11:00			11:00			
COC Number		551215-04-01			551215-04-01			551215-04-01			
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch	
Calculated Parameters											
Dissolved Hardness (CaCO3)	mg/L				<0.50	0.50	8968004				
Elements		·	ı	•			•				
Dissolved Mercury (Hg)	ug/L				<0.0020	0.0020	8973744	<0.0020	0.0020	8973744	
Dissolved Metals by ICPMS						•			•		
Dissolved Aluminum (Al)	ug/L	<0.50	0.50	8969436	<0.50	0.50	8969436	<0.50	0.50	8969436	
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	8969436	<0.020	0.020	8969436	<0.020	0.020	8969436	
Dissolved Arsenic (As)	ug/L	<0.020	0.020	8969436	<0.020	0.020	8969436	<0.020	0.020	8969436	
Dissolved Barium (Ba)	ug/L	<0.020	0.020	8969436	<0.020	0.020	8969436	<0.020	0.020	8969436	
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8969436	<0.010	0.010	8969436	<0.010	0.010	8969436	
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	
Dissolved Boron (B)	ug/L	<10	10	8969436	<10	10	8969436	<10	10	8969436	
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	8969436	<0.10	0.10	8969436	<0.10	0.10	8969436	
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	
Dissolved Copper (Cu)	ug/L	<0.050	0.050	8969436	<0.050	0.050	8969436	<0.050	0.050	8969436	
Dissolved Iron (Fe)	ug/L	<1.0	1.0	8969436	<1.0	1.0	8969436	<1.0	1.0	8969436	
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	
Dissolved Lithium (Li)	ug/L	<0.50	0.50	8969436	<0.50	0.50	8969436	<0.50	0.50	8969436	
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	8969436	<0.050	0.050	8969436	<0.050	0.050	8969436	
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	8969436	<0.050	0.050	8969436	<0.050	0.050	8969436	
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	8969436	<0.020	0.020	8969436	<0.020	0.020	8969436	
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	8969436	<2.0	2.0	8969436	<2.0	2.0	8969436	
Dissolved Selenium (Se)	ug/L	<0.040	0.040	8969436	<0.040	0.040	8969436	<0.040	0.040	8969436	
Dissolved Silicon (Si)	ug/L	<50	50	8969436	<50	50	8969436	<50	50	8969436	
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	<0.0050	0.0050	8969436	
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	8969436	<0.050	0.050	8969436	<0.050	0.050	8969436	
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	8969436	<0.0020	0.0020	8969436	<0.0020	0.0020	8969436	
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8969436	<0.20	0.20	8969436	<0.20	0.20	8969436	
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8969436	<0.50	0.50	8969436	<0.50	0.50	8969436	
RDL = Reportable Detection Li	mit										
Lab-Dup = Laboratory Initiated	d Duplica	ate									

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TH8842			TH8843			TH8843		
Sampling Date		2018/04/22 18:00			2018/04/23 11:00			2018/04/23 11:00		
COC Number		551215-04-01			551215-04-01			551215-04-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	8969436	<0.0020	0.0020	8969436	<0.0020	0.0020	8969436
Dissolved Vanadium (V)	ug/L	<0.20	0.20	8969436	<0.20	0.20	8969436	<0.20	0.20	8969436
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	8969436	<0.10	0.10	8969436	<0.10	0.10	8969436
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	8969436	<0.10	0.10	8969436	<0.10	0.10	8969436
Dissolved Calcium (Ca)	mg/L				<0.050	0.050	8968005			
Dissolved Magnesium (Mg)	mg/L				<0.050	0.050	8968005			
Dissolved Potassium (K)	mg/L				<0.050	0.050	8968005			
Dissolved Sodium (Na)	mg/L				<0.050	0.050	8968005			
Dissolved Sulphur (S)	mg/L				<3.0	3.0	8968005			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8844		
Sampling Date		2018/04/22		
COC Number		551215-04-01		
	UNITS	BLACK HILLS	RDL	QC Batch
Calculated Parameters				
Dissolved Hardness (CaCO3)	mg/L	318	0.50	8968004
Elements				
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	8973744
Dissolved Metals by ICPMS			l.	
Dissolved Aluminum (AI)	ug/L	5.71	0.50	8969436
Dissolved Antimony (Sb)	ug/L	0.093	0.020	8969436
Dissolved Arsenic (As)	ug/L	0.816	0.020	8969436
Dissolved Barium (Ba)	ug/L	80.2	0.020	8969436
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	8969436
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	8969436
Dissolved Boron (B)	ug/L	<10	10	8969436
Dissolved Cadmium (Cd)	ug/L	0.0120	0.0050	8969436
Dissolved Chromium (Cr)	ug/L	0.12	0.10	8969436
Dissolved Cobalt (Co)	ug/L	0.422	0.0050	8969436
Dissolved Copper (Cu)	ug/L	1.41	0.050	8969436
Dissolved Iron (Fe)	ug/L	81.4	1.0	8969436
Dissolved Lead (Pb)	ug/L	0.0063	0.0050	8969436
Dissolved Lithium (Li)	ug/L	5.35	0.50	8969436
Dissolved Manganese (Mn)	ug/L	312	0.050	8969436
Dissolved Molybdenum (Mo)	ug/L	1.27	0.050	8969436
Dissolved Nickel (Ni)	ug/L	2.13	0.020	8969436
Dissolved Phosphorus (P)	ug/L	14.2	2.0	8969436
Dissolved Selenium (Se)	ug/L	0.539	0.040	8969436
Dissolved Silicon (Si)	ug/L	7820	50	8969436
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	8969436
Dissolved Strontium (Sr)	ug/L	342	0.050	8969436
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	8969436
Dissolved Tin (Sn)	ug/L	<0.20	0.20	8969436
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	8969436
Dissolved Uranium (U)	ug/L	3.54	0.0020	8969436
RDL = Reportable Detection Li	•		•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TH8844		
Sampling Date		2018/04/22		
COC Number		551215-04-01		
	UNITS	BLACK HILLS	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.45	0.20	8969436
Dissolved Zinc (Zn)	ug/L	0.44	0.10	8969436
Dissolved Zirconium (Zr)	ug/L	0.26	0.10	8969436
Dissolved Calcium (Ca)	mg/L	78.2	0.050	8968005
Dissolved Magnesium (Mg)	mg/L	29.9	0.050	8968005
Dissolved Potassium (K)	mg/L	4.63	0.050	8968005
Dissolved Sodium (Na)	mg/L	12.8	0.050	8968005
Dissolved Sulphur (S)	mg/L	54.8	3.0	8968005
RDL = Reportable Detection Li	mit			•



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

				l		I			
Maxxam ID		TH8809	TH8810	TH8811	TH8813		TH8822		
Sampling Date		2018/04/21 10:30	2018/04/21 12:35	2018/04/21 13:05	2018/04/22 11:40		2018/04/21 13:30		
COC Number		551215-01-01	551215-01-01		551215-01-01		551215-02-01		
						000.1			000.1
	UNITS	CC-0.5	CC-1.0	CC-1.5	CC-4.5	QC Batch	CC-C	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	413	545	379	150	8968003	548	0.50	8968703
Elements	•					•		•	
Total Mercury (Hg)	ug/L	0.0022	<0.0020	0.0022	<0.0020	8971813	<0.0020	0.0020	8971813
Total Metals by ICPMS	,			•				•	
Total Aluminum (Al)	ug/L	25.4	2.52	42.1	22.2	8969596	2.06	0.50	8969596
Total Antimony (Sb)	ug/L	0.115	0.135	0.104	0.080	8969596	0.140	0.020	8969596
Total Arsenic (As)	ug/L	1.12	1.11	2.39	0.268	8969596	1.11	0.020	8969596
Total Barium (Ba)	ug/L	125	109	51.8	83.2	8969596	111	0.020	8969596
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	8969596	<0.010	0.010	8969596
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8969596	<0.0050	0.0050	8969596
Total Boron (B)	ug/L	<10	<10	<10	<10	8969596	<10	10	8969596
Total Cadmium (Cd)	ug/L	0.0424	<0.0050	0.0122	0.0149	8969596	<0.0050	0.0050	8969596
Total Chromium (Cr)	ug/L	0.20	<0.10	0.13	0.11	8969596	<0.10	0.10	8969596
Total Cobalt (Co)	ug/L	0.450	0.0177	0.136	0.0251	8969596	0.0183	0.0050	8969596
Total Copper (Cu)	ug/L	1.40	0.363	0.833	0.957	8969596	0.383	0.050	8969596
Total Iron (Fe)	ug/L	97.2	1.8	61.8	7.9	8969596	1.7	1.0	8969596
Total Lead (Pb)	ug/L	<0.0050	<0.0050	0.0403	<0.0050	8969596	<0.0050	0.0050	8969596
Total Lithium (Li)	ug/L	10.5	5.32	3.60	<0.50	8969596	5.50	0.50	8969596
Total Manganese (Mn)	ug/L	506	0.378	84.9	0.831	8969596	0.585	0.050	8969596
Total Molybdenum (Mo)	ug/L	0.950	0.311	0.299	0.448	8969596	0.320	0.050	8969596
Total Nickel (Ni)	ug/L	1.42	0.250	0.445	0.627	8969596	0.237	0.020	8969596
Total Phosphorus (P)	ug/L	15.9	2.7	5.1	<2.0	8969596	2.7	2.0	8969596
Total Selenium (Se)	ug/L	0.197	0.401	0.176	0.064	8969596	0.413	0.040	8969596
Total Silicon (Si)	ug/L	11200	5460	5600	4700	8969596	5420	50	8969596
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	8969596	<0.0050	0.0050	8969596
Total Strontium (Sr)	ug/L	556	1380	774	201	8969596	1390	0.050	8969596
Total Thallium (TI)	ug/L	0.0054	<0.0020	0.0047	<0.0020	8969596	0.0022	0.0020	8969596
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	8969596	<0.20	0.20	8969596
Total Titanium (Ti)	ug/L	0.51	<0.50	2.20	<0.50	8969596	<0.50	0.50	8969596
Total Uranium (U)	ug/L	178	34.5	25.9	1.79	8969596	34.6	0.0020	8969596
RDL = Reportable Detection	Limit								
			· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8809	TH8810	TH8811	TH8813		TH8822		
Sampling Date		2018/04/21 10:30	2018/04/21 12:35	2018/04/21 13:05	2018/04/22 11:40		2018/04/21 13:30		
COC Number		551215-01-01	551215-01-01	551215-01-01	551215-01-01		551215-02-01		
	UNITS	CC-0.5	CC-1.0	CC-1.5	CC-4.5	QC Batch	CC-C	RDL	QC Batch
Total Vanadium (V)	ug/L	0.30	<0.20	0.30	0.26	8969596	<0.20	0.20	8969596
Total Zinc (Zn)	ug/L	2.71	0.31	0.64	0.40	8969596	0.36	0.10	8969596
Total Zirconium (Zr)	ug/L	0.36	<0.10	0.22	0.26	8969596	<0.10	0.10	8969596
Total Calcium (Ca)	mg/L	97.6	132	96.3	36.6	8968436	130	0.050	8968436
Total Magnesium (Mg)	mg/L	41.1	52.4	33.6	14.3	8968436	54.1	0.050	8968436
Total Potassium (K)	mg/L	4.67	6.25	5.52	1.53	8968436	6.36	0.050	8968436
Total Sodium (Na)	mg/L	19.8	6.13	6.88	5.12	8968436	6.32	0.050	8968436
Total Sulphur (S)	mg/L	75.6	87.5	67.6	27.1	8968436	89.8	3.0	8968436
RDL = Reportable Detection	Limit	•	•						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8823	TH8824	TH8825		TH8826		TH8827		
Sampling Date		2018/04/21 14:45	2018/04/21 16:50	2018/04/21 15:30		2018/04/22 14:15		2018/04/22 12:20		
COC Number		551215-02-01	551215-02-01	551215-02-01		551215-02-01		551215-02-01		
	UNITS	HC-2.5	HC-5.0	НС-В	RDL	IC-0.5	RDL	IC-1.5	RDL	QC Batch
Calculated Parameters				•						
Total Hardness (CaCO3)	mg/L	227	358	236	0.50	1350	0.50	213	0.50	8968703
Elements					•					
Total Mercury (Hg)	ug/L	<0.0020	0.0026	0.0021	0.0020	0.0024	0.0020	0.0023	0.0020	8971813
Total Metals by ICPMS					•					
Total Aluminum (Al)	ug/L	11.6	31.9	17.0	0.50	36.5	2.5	30.8	0.50	8969596
Total Antimony (Sb)	ug/L	0.459	0.211	0.260	0.020	0.17	0.10	0.062	0.020	8969596
Total Arsenic (As)	ug/L	0.600	1.01	0.674	0.020	1.51	0.10	0.277	0.020	8969596
Total Barium (Ba)	ug/L	68.2	97.8	62.5	0.020	69.2	0.10	72.2	0.020	8969596
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	0.010	<0.050	0.050	<0.010	0.010	8969596
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	<0.025	0.025	<0.0050	0.0050	8969596
Total Boron (B)	ug/L	<10	<10	<10	10	<50	50	<10	10	8969596
Total Cadmium (Cd)	ug/L	0.0145	0.0102	0.0080	0.0050	0.103	0.025	0.0151	0.0050	8969596
Total Chromium (Cr)	ug/L	<0.10	0.19	0.11	0.10	<0.50	0.50	<0.10	0.10	8969596
Total Cobalt (Co)	ug/L	0.0376	0.0528	0.0352	0.0050	0.313	0.025	0.0488	0.0050	8969596
Total Copper (Cu)	ug/L	0.616	1.23	0.718	0.050	1.58	0.25	0.625	0.050	8969596
Total Iron (Fe)	ug/L	6.2	16.7	7.3	1.0	33.7	5.0	12.6	1.0	8969596
Total Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	<0.025	0.025	<0.0050	0.0050	8969596
Total Lithium (Li)	ug/L	1.19	2.18	1.79	0.50	30.0	2.5	3.28	0.50	8969596
Total Manganese (Mn)	ug/L	7.09	9.41	14.7	0.050	126	0.25	22.5	0.050	8969596
Total Molybdenum (Mo)	ug/L	1.60	0.494	0.598	0.050	1.40	0.25	0.537	0.050	8969596
Total Nickel (Ni)	ug/L	0.304	0.820	0.416	0.020	2.24	0.10	0.449	0.020	8969596
Total Phosphorus (P)	ug/L	6.9	15.9	5.3	2.0	25	10	10.0	2.0	8969596
Total Selenium (Se)	ug/L	0.151	0.089	0.061	0.040	3.27	0.20	0.140	0.040	8969596
Total Silicon (Si)	ug/L	5770	8080	5820	50	10100	250	8940	50	8969596
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	<0.025	0.025	<0.0050	0.0050	8969596
Total Strontium (Sr)	ug/L	535	760	514	0.050	718	0.25	332	0.050	8969596
Total Thallium (TI)	ug/L	<0.0020	<0.0020	<0.0020	0.0020	<0.010	0.010	<0.0020	0.0020	8969596
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	<1.0	1.0	<0.20	0.20	8969596
Total Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	0.50	<2.5	2.5	<0.50	0.50	8969596
Total Uranium (U)	ug/L	75.5	46.1	58.6	0.0020	13.6	0.010	14.7	0.0020	8969596
RDL = Reportable Detection L	imit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8823	TH8824	TH8825		TH8826		TH8827		
Sampling Date		2018/04/21 14:45	2018/04/21 16:50	2018/04/21 15:30		2018/04/22 14:15		2018/04/22 12:20		
COC Number		551215-02-01	551215-02-01	551215-02-01		551215-02-01		551215-02-01		
	UNITS	HC-2.5	HC-5.0	НС-В	RDL	IC-0.5	RDL	IC-1.5	RDL	QC Batch
Total Vanadium (V)	ug/L	0.26	0.23	<0.20	0.20	<1.0	1.0	0.21	0.20	8969596
Total Zinc (Zn)	ug/L	0.97	1.02	0.95	0.10	6.12	0.50	1.05	0.10	8969596
Total Zirconium (Zr)	ug/L	0.17	0.30	0.24	0.10	<0.50	0.50	0.16	0.10	8969596
Total Calcium (Ca)	mg/L	52.7	85.2	54.5	0.050	257	0.25	53.9	0.050	8968436
Total Magnesium (Mg)	mg/L	23.1	35.4	24.3	0.050	173	0.25	19.0	0.050	8968436
Total Potassium (K)	mg/L	3.28	7.30	2.95	0.050	8.27	0.25	3.32	0.050	8968436
Total Sodium (Na)	mg/L	5.66	12.9	7.51	0.050	30.4	0.25	10.5	0.050	8968436
Total Sulphur (S)	mg/L	30.8	70.7	37.9	3.0	376	15	28.1	3.0	8968436
RDL = Reportable Detection L	imit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TH8833			TH8833			TH8834		
Sampling Date		2018/04/22			2018/04/22			2018/04/21		
Sampling Date		14:40			14:40			18:20		
COC Number		551215-03-01			551215-03-01			551215-03-01		
	UNITS	IC-4.5	RDL	QC Batch	IC-4.5 Lab-Dup	RDL	QC Batch	YUK-2.0	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	121	0.50	8968703				47.0	0.50	8968703
Elements	•									
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8971813				<0.0020	0.0020	8971813
Total Metals by ICPMS	•									
Total Aluminum (Al)	ug/L	22.4	0.50	8969928	21.6	0.50	8969928	79.5	0.50	8969928
Total Antimony (Sb)	ug/L	0.065	0.020	8969928	0.069	0.020	8969928	0.115	0.020	8969928
Total Arsenic (As)	ug/L	0.327	0.020	8969928	0.333	0.020	8969928	0.252	0.020	8969928
Total Barium (Ba)	ug/L	59.0	0.020	8969928	57.2	0.020	8969928	22.9	0.020	8969928
Total Beryllium (Be)	ug/L	<0.010	0.010	8969928	<0.010	0.010	8969928	<0.010	0.010	8969928
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	8969928	<0.0050	0.0050	8969928	<0.0050	0.0050	8969928
Total Boron (B)	ug/L	<10	10	8969928	<10	10	8969928	<10	10	8969928
Total Cadmium (Cd)	ug/L	0.0308	0.0050	8969928	0.0283	0.0050	8969928	0.0400	0.0050	8969928
Total Chromium (Cr)	ug/L	0.17	0.10	8969928	0.15	0.10	8969928	0.21	0.10	8969928
Total Cobalt (Co)	ug/L	0.0924	0.0050	8969928	0.0886	0.0050	8969928	0.116	0.0050	8969928
Total Copper (Cu)	ug/L	1.16	0.050	8969928	1.09	0.050	8969928	0.692	0.050	8969928
Total Iron (Fe)	ug/L	15.4	1.0	8969928	15.3	1.0	8969928	234	1.0	8969928
Total Lead (Pb)	ug/L	<0.0050	0.0050	8969928	<0.0050	0.0050	8969928	0.106	0.0050	8969928
Total Lithium (Li)	ug/L	0.73	0.50	8969928	0.74	0.50	8969928	0.63	0.50	8969928
Total Manganese (Mn)	ug/L	69.1	0.050	8969928	67.4	0.050	8969928	14.7	0.050	8969928
Total Molybdenum (Mo)	ug/L	0.160	0.050	8969928	0.137	0.050	8969928	0.534	0.050	8969928
Total Nickel (Ni)	ug/L	0.742	0.020	8969928	0.776	0.020	8969928	0.682	0.020	8969928
Total Phosphorus (P)	ug/L	5.5	2.0	8969928	6.9	2.0	8969928	10.2	2.0	8969928
Total Selenium (Se)	ug/L	0.064	0.040	8969928	0.062	0.040	8969928	0.163	0.040	8969928
Total Silicon (Si)	ug/L	5230	50	8969928	5100	50	8969928	1350	50	8969928
Total Silver (Ag)	ug/L	<0.0050	0.0050	8969928	<0.0050	0.0050	8969928	<0.0050	0.0050	8969928
Total Strontium (Sr)	ug/L	180	0.050	8969928	175	0.050	8969928	58.1	0.050	8969928
Total Thallium (TI)	ug/L	0.0030	0.0020	8969928	0.0040	0.0020	8969928	<0.0020	0.0020	8969928
Total Tin (Sn)	ug/L	<0.20	0.20	8969928	<0.20	0.20	8969928	<0.20	0.20	8969928
Total Titanium (Ti)	ug/L	<0.50	0.50	8969928	<0.50	0.50	8969928	2.41	0.50	8969928



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TH8833			TH8833			TH8834		
Sampling Date		2018/04/22 14:40			2018/04/22 14:40			2018/04/21 18:20		
COC Number		551215-03-01			551215-03-01			551215-03-01		
	UNITS	IC-4.5	RDL	QC Batch	IC-4.5 Lab-Dup	RDL	QC Batch	YUK-2.0	RDL	QC Batch
Total Uranium (U)	ug/L	0.507	0.0020	8969928	0.489	0.0020	8969928	0.506	0.0020	8969928
Total Vanadium (V)	ug/L	<0.20	0.20	8969928	<0.20	0.20	8969928	0.34	0.20	8969928
Total Zinc (Zn)	ug/L	2.27	0.10	8969928	2.22	0.10	8969928	6.04	0.10	8969928
Total Zirconium (Zr)	ug/L	0.27	0.10	8969928	0.28	0.10	8969928	<0.10	0.10	8969928
Total Calcium (Ca)	mg/L	32.5	0.050	8968436				12.9	0.050	8968436
Total Magnesium (Mg)	mg/L	9.60	0.050	8968436				3.59	0.050	8968436
Total Potassium (K)	mg/L	1.77	0.050	8968436				0.449	0.050	8968436
Total Sodium (Na)	mg/L	4.75	0.050	8968436				1.01	0.050	8968436
Total Sulphur (S)	mg/L	20.3	3.0	8968436				3.4	3.0	8968436

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8835		TH8838		TH8839	TH8840		
Sampling Date		2018/04/22		2018/04/22		2018/04/21	2018/04/22		
Sampling Date		15:10		16:20		17:45			
COC Number		551215-03-01		551215-03-01		551215-03-01	551215-03-01		
	UNITS	YUK-5.0	QC Batch	STEWART D/S M.M.	QC Batch	LATTE MIX	SAMPLE A	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	106	8968703	214	8968003	356	217	0.50	8968703
Elements	•								
Total Mercury (Hg)	ug/L	<0.0020	8971813	<0.0020	8973730	0.0021	0.0024	0.0020	8971813
Total Metals by ICPMS	•								
Total Aluminum (AI)	ug/L	15.6	8969928	16.8	8969928	35.9	32.0	0.50	8969928
Total Antimony (Sb)	ug/L	0.093	8969928	0.159	8969928	0.096	0.066	0.020	8969928
Total Arsenic (As)	ug/L	0.187	8969928	0.341	8969928	0.855	0.281	0.020	8969928
Total Barium (Ba)	ug/L	79.6	8969928	79.6	8969928	106	73.0	0.020	8969928
Total Beryllium (Be)	ug/L	<0.010	8969928	<0.010	8969928	<0.010	<0.010	0.010	8969928
Total Bismuth (Bi)	ug/L	<0.0050	8969928	<0.0050	8969928	<0.0050	<0.0050	0.0050	8969928
Total Boron (B)	ug/L	<10	8969928	<10	8969928	<10	<10	10	8969928
Total Cadmium (Cd)	ug/L	0.0230	8969928	0.0948	8969928	0.0320	0.0099	0.0050	8969928
Total Chromium (Cr)	ug/L	<0.10	8969928	<0.10	8969928	0.15	<0.10	0.10	8969928
Total Cobalt (Co)	ug/L	0.0328	8969928	0.0386	8969928	0.338	0.0450	0.0050	8969928
Total Copper (Cu)	ug/L	0.383	8969928	0.512	8969928	1.13	0.625	0.050	8969928
Total Iron (Fe)	ug/L	59.5	8969928	70.8	8969928	139	14.0	1.0	8969928
Total Lead (Pb)	ug/L	0.0164	8969928	0.0365	8969928	0.0118	<0.0050	0.0050	8969928
Total Lithium (Li)	ug/L	0.97	8969928	3.89	8969928	7.77	3.36	0.50	8969928
Total Manganese (Mn)	ug/L	16.9	8969928	10.9	8969928	370	21.7	0.050	8969928
Total Molybdenum (Mo)	ug/L	1.26	8969928	0.576	8969928	0.734	0.536	0.050	8969928
Total Nickel (Ni)	ug/L	0.370	8969928	2.23	8969928	1.07	0.426	0.020	8969928
Total Phosphorus (P)	ug/L	<2.0	8969928	8.9	8969928	13.5	15.3	2.0	8969928
Total Selenium (Se)	ug/L	0.322	8969928	0.758	8969928	0.159	0.127	0.040	8969928
Total Silicon (Si)	ug/L	2690	8969928	2930	8969928	9570	9250	50	8969928
Total Silver (Ag)	ug/L	<0.0050	8969928	<0.0050	8969928	<0.0050	<0.0050	0.0050	8969928
Total Strontium (Sr)	ug/L	126	8969928	249	8969928	469	331	0.050	8969928
Total Thallium (TI)	ug/L	<0.0020	8969928	<0.0020	8969928	0.0041	0.0023	0.0020	8969928
Total Tin (Sn)	ug/L	<0.20	8969928	<0.20	8969928	<0.20	<0.20	0.20	8969928
Total Titanium (Ti)	ug/L	<0.50	8969928	<0.50	8969928	1.23	<0.50	0.50	8969928
Total Uranium (U)	ug/L	1.20	8969928	1.32	8969928	124	14.9	0.0020	8969928
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

Maxxam ID		TH8835		TH8838		TH8839	TH8840		
Sampling Date		2018/04/22 15:10		2018/04/22 16:20		2018/04/21 17:45	2018/04/22		
COC Number		551215-03-01		551215-03-01		551215-03-01	551215-03-01		
	UNITS	YUK-5.0	QC Batch	STEWART D/S M.M.	QC Batch	LATTE MIX	SAMPLE A	RDL	QC Batch
Total Vanadium (V)	ug/L	<0.20	8969928	<0.20	8969928	0.32	<0.20	0.20	8969928
Total Zinc (Zn)	ug/L	0.78	8969928	9.04	8969928	2.41	1.08	0.10	8969928
Total Zirconium (Zr)	ug/L	<0.10	8969928	<0.10	8969928	0.20	0.14	0.10	8969928
Total Calcium (Ca)	mg/L	29.3	8968436	55.4	8968436	85.5	56.0	0.050	8968436
Total Magnesium (Mg)	mg/L	8.06	8968436	18.3	8968436	34.7	18.8	0.050	8968436
Total Potassium (K)	mg/L	0.898	8968436	0.835	8968436	4.10	3.28	0.050	8968436
Total Sodium (Na)	mg/L	2.01	8968436	3.10	8968436	15.5	10.2	0.050	8968436
Total Sulphur (S)	mg/L	7.1	8968436	28.3	8968436	69.9	28.1	3.0	8968436
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TH8840			TH8842			TH8842		
Sampling Date		2018/04/22			2018/04/22			2018/04/22		
Sampling Date		2010/04/22			18:00			18:00		
COC Number		551215-03-01			551215-04-01			551215-04-01		
	UNITS	SAMPLE A Lab-Dup	RDL	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L				<0.50	0.50	8968703			
Elements	•		•			•				
Total Mercury (Hg)	ug/L	0.0024	0.0020	8971813	<0.0020	0.0020	8971709			
Total Metals by ICPMS	•		•							
Total Aluminum (Al)	ug/L				<0.50	0.50	8969596	<0.50	0.50	8969596
Total Antimony (Sb)	ug/L				0.153	0.020	8969596	0.145	0.020	8969596
Total Arsenic (As)	ug/L				<0.020	0.020	8969596	<0.020	0.020	8969596
Total Barium (Ba)	ug/L				<0.020	0.020	8969596	<0.020	0.020	8969596
Total Beryllium (Be)	ug/L				<0.010	0.010	8969596	<0.010	0.010	8969596
Total Bismuth (Bi)	ug/L				<0.0050	0.0050	8969596	<0.0050	0.0050	8969596
Total Boron (B)	ug/L				<10	10	8969596	<10	10	8969596
Total Cadmium (Cd)	ug/L				<0.0050	0.0050	8969596	<0.0050	0.0050	8969596
Total Chromium (Cr)	ug/L				<0.10	0.10	8969596	<0.10	0.10	8969596
Total Cobalt (Co)	ug/L				<0.0050	0.0050	8969596	<0.0050	0.0050	8969596
Total Copper (Cu)	ug/L				<0.050	0.050	8969596	<0.050	0.050	8969596
Total Iron (Fe)	ug/L				<1.0	1.0	8969596	<1.0	1.0	8969596
Total Lead (Pb)	ug/L				<0.0050	0.0050	8969596	<0.0050	0.0050	8969596
Total Lithium (Li)	ug/L				<0.50	0.50	8969596	<0.50	0.50	8969596
Total Manganese (Mn)	ug/L				<0.050	0.050	8969596	<0.050	0.050	8969596
Total Molybdenum (Mo)	ug/L				<0.050	0.050	8969596	<0.050	0.050	8969596
Total Nickel (Ni)	ug/L				<0.020	0.020	8969596	<0.020	0.020	8969596
Total Phosphorus (P)	ug/L				<2.0	2.0	8969596	<2.0	2.0	8969596
Total Selenium (Se)	ug/L				<0.040	0.040	8969596	<0.040	0.040	8969596
Total Silicon (Si)	ug/L				<50	50	8969596	<50	50	8969596
Total Silver (Ag)	ug/L				<0.0050	0.0050	8969596	<0.0050	0.0050	8969596
Total Strontium (Sr)	ug/L				<0.050	0.050	8969596	<0.050	0.050	8969596
Total Thallium (TI)	ug/L				<0.0020	0.0020	8969596	<0.0020	0.0020	8969596
Total Tin (Sn)	ug/L				<0.20	0.20	8969596	<0.20	0.20	8969596
Total Titanium (Ti)	ug/L				<0.50	0.50	8969596	<0.50	0.50	8969596



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TH8840			TH8842			TH8842		
Sampling Date		2018/04/22			2018/04/22 18:00			2018/04/22 18:00		
COC Number		551215-03-01			551215-04-01			551215-04-01		
	UNITS	SAMPLE A Lab-Dup	RDL	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Uranium (U)	ug/L				<0.0020	0.0020	8969596	<0.0020	0.0020	8969596
Total Vanadium (V)	ug/L				<0.20	0.20	8969596	<0.20	0.20	8969596
Total Zinc (Zn)	ug/L				<0.10	0.10	8969596	<0.10	0.10	8969596
Total Zirconium (Zr)	ug/L				<0.10	0.10	8969596	<0.10	0.10	8969596
Total Calcium (Ca)	mg/L				<0.050	0.050	8968436			
Total Magnesium (Mg)	mg/L				<0.050	0.050	8968436			
Total Potassium (K)	mg/L				<0.050	0.050	8968436			
Total Sodium (Na)	mg/L				<0.050	0.050	8968436			
Total Sulphur (S)	mg/L				<3.0	3.0	8968436			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TH8843			TH8843			TH8844		
Sampling Date		2018/04/23 11:00			2018/04/23 11:00			2018/04/22		
COC Number		551215-04-01			551215-04-01			551215-04-01		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch	BLACK HILLS	RDL	QC Batch
Calculated Parameters	<del>-</del>		-			•			•	
Total Hardness (CaCO3)	mg/L	<0.50	0.50	8968003				320	0.50	8968703
Elements						•				
Total Mercury (Hg)	ug/L	<0.0020	0.0020	8970672				<0.0020	0.0020	8973730
Total Metals by ICPMS						•				
Total Aluminum (AI)	ug/L	<0.50	0.50	8969596	<0.50	0.50	8969596	70.0	0.50	8969596
Total Antimony (Sb)	ug/L	<0.020	0.020	8969596	<0.020	0.020	8969596	0.104	0.020	8969596
Total Arsenic (As)	ug/L	<0.020	0.020	8969596	<0.020	0.020	8969596	1.09	0.020	8969596
Total Barium (Ba)	ug/L	<0.020	0.020	8969596	<0.020	0.020	8969596	88.6	0.020	8969596
Total Beryllium (Be)	ug/L	<0.010	0.010	8969596	<0.010	0.010	8969596	<0.010	0.010	8969596
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	8969596	<0.0050	0.0050	8969596	<0.0050	0.0050	8969596
Total Boron (B)	ug/L	<10	10	8969596	<10	10	8969596	<10	10	8969596
Total Cadmium (Cd)	ug/L	<0.0050	0.0050	8969596	<0.0050	0.0050	8969596	0.0209	0.0050	8969596
Total Chromium (Cr)	ug/L	<0.10	0.10	8969596	<0.10	0.10	8969596	0.23	0.10	8969596
Total Cobalt (Co)	ug/L	<0.0050	0.0050	8969596	<0.0050	0.0050	8969596	0.501	0.0050	8969596
Total Copper (Cu)	ug/L	<0.050	0.050	8969596	<0.050	0.050	8969596	1.63	0.050	8969596
Total Iron (Fe)	ug/L	<1.0	1.0	8969596	<1.0	1.0	8969596	491	1.0	8969596
Total Lead (Pb)	ug/L	<0.0050	0.0050	8969596	<0.0050	0.0050	8969596	0.101	0.0050	8969596
Total Lithium (Li)	ug/L	<0.50	0.50	8969596	<0.50	0.50	8969596	5.44	0.50	8969596
Total Manganese (Mn)	ug/L	<0.050	0.050	8969596	<0.050	0.050	8969596	333	0.050	8969596
Total Molybdenum (Mo)	ug/L	<0.050	0.050	8969596	<0.050	0.050	8969596	1.29	0.050	8969596
Total Nickel (Ni)	ug/L	<0.020	0.020	8969596	<0.020	0.020	8969596	2.28	0.020	8969596
Total Phosphorus (P)	ug/L	<2.0	2.0	8969596	<2.0	2.0	8969596	23.3	2.0	8969596
Total Selenium (Se)	ug/L	<0.040	0.040	8969596	<0.040	0.040	8969596	0.602	0.040	8969596
Total Silicon (Si)	ug/L	<50	50	8969596	<50	50	8969596	8330	50	8969596
Total Silver (Ag)	ug/L	<0.0050	0.0050	8969596	<0.0050	0.0050	8969596	<0.0050	0.0050	8969596
Total Strontium (Sr)	ug/L	<0.050	0.050	8969596	<0.050	0.050	8969596	354	0.050	8969596
Total Thallium (TI)	ug/L	<0.0020	0.0020	8969596	<0.0020	0.0020	8969596	<0.0020	0.0020	8969596
Total Tin (Sn)	ug/L	<0.20	0.20	8969596	<0.20	0.20	8969596	<0.20	0.20	8969596
Total Titanium (Ti)	ug/L	<0.50	0.50	8969596	<0.50	0.50	8969596	2.86	0.50	8969596
RDL = Reportable Detection	Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

#### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TH8843			TH8843			TH8844		
Sampling Date		2018/04/23 11:00			2018/04/23 11:00			2018/04/22		
COC Number		551215-04-01			551215-04-01			551215-04-01		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch	BLACK HILLS	RDL	QC Batch
Total Uranium (U)	ug/L	<0.0020	0.0020	8969596	<0.0020	0.0020	8969596	3.70	0.0020	8969596
Total Vanadium (V)	ug/L	<0.20	0.20	8969596	<0.20	0.20	8969596	0.82	0.20	8969596
Total Zinc (Zn)	ug/L	<0.10	0.10	8969596	<0.10	0.10	8969596	1.03	0.10	8969596
Total Zirconium (Zr)	ug/L	<0.10	0.10	8969596	<0.10	0.10	8969596	0.30	0.10	8969596
Total Calcium (Ca)	mg/L	<0.050	0.050	8968436				80.6	0.050	8968436
Total Magnesium (Mg)	mg/L	<0.050	0.050	8968436				28.9	0.050	8968436
Total Potassium (K)	mg/L	<0.050	0.050	8968436				4.70	0.050	8968436
Total Sodium (Na)	mg/L	<0.050	0.050	8968436				12.5	0.050	8968436
Total Sulphur (S)	mg/L	<3.0	3.0	8968436				56.6	3.0	8968436

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TH8812		TH8836	TH8837		
Sampling Date		2018/04/21 11:05		2018/04/22 11:10	2018/04/22 16:35		
COC Number		551215-01-01		551215-03-01	551215-03-01		
	UNITS	CC-3.5	QC Batch	BALLARAT U/S Y.R.	BARKER U/S S.R.	RDL	QC Batch
Calculated Parameters			•		•	<u> </u>	
Total Hardness (CaCO3)	mg/L	278	8968003	483	422	0.50	8968703
Elements	•					•	
Total Mercury (Hg)	ug/L	0.0033	8971813	<0.0020	0.0025	0.0020	8971813
Total Metals by ICPMS					•		
Total Aluminum (AI)	ug/L	30.9	8970245	10.9	53.9	3.0	8970245
Total Antimony (Sb)	ug/L	0.255	8970245	0.038	0.074	0.020	8970245
Total Arsenic (As)	ug/L	0.421	8970245	0.301	0.690	0.020	8970245
Total Barium (Ba)	ug/L	90.1	8970245	64.3	84.7	0.050	8970245
Total Beryllium (Be)	ug/L	0.013	8970245	<0.010	<0.010	0.010	8970245
Total Bismuth (Bi)	ug/L	<0.010	8970245	<0.010	<0.010	0.010	8970245
Total Boron (B)	ug/L	<10	8970245	<10	11	10	8970245
Total Cadmium (Cd)	ug/L	0.0924	8970245	0.0090	0.0193	0.0050	8970245
Total Chromium (Cr)	ug/L	0.13	8970245	0.10	0.18	0.10	8970245
Total Cobalt (Co)	ug/L	0.110	8970245	0.051	0.368	0.010	8970245
Total Copper (Cu)	ug/L	1.53	8970245	1.35	1.83	0.10	8970245
Total Iron (Fe)	ug/L	36.6	8970245	15.0	134	5.0	8970245
Total Lead (Pb)	ug/L	0.111	8970245	<0.020	0.028	0.020	8970245
Total Lithium (Li)	ug/L	4.15	8970245	1.82	5.20	0.50	8970245
Total Manganese (Mn)	ug/L	56.8	8970245	16.6	303	0.10	8970245
Total Molybdenum (Mo)	ug/L	1.16	8970245	0.672	1.41	0.050	8970245
Total Nickel (Ni)	ug/L	0.66	8970245	0.42	1.22	0.10	8970245
Total Phosphorus (P)	ug/L	23.2	8970245	9.5	81.9	5.0	8970245
Total Selenium (Se)	ug/L	0.209	8970245	0.217	0.412	0.040	8970245
Total Silicon (Si)	ug/L	12500	8970245	7780	7430	50	8970245
Total Silver (Ag)	ug/L	<0.010	8970245	<0.010	<0.010	0.010	8970245
Total Strontium (Sr)	ug/L	273	8970245	866	612	0.050	8970245
Total Thallium (TI)	ug/L	<0.0020	8970245	<0.0020	<0.0020	0.0020	8970245
Total Tin (Sn)	ug/L	<0.20	8970245	<0.20	<0.20	0.20	8970245
Total Titanium (Ti)	ug/L	<2.0	8970245	<2.0	<2.0	2.0	8970245
Total Uranium (U)	ug/L	74.3	8970245	5.05	7.85	0.0050	8970245
RDL = Reportable Detection	Limit		'				



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER Sampler Initials: LE

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TH8812		TH8836	TH8837		
Sampling Date		2018/04/21 11:05		2018/04/22 11:10	2018/04/22 16:35		
COC Number		551215-01-01		551215-03-01	551215-03-01		
	UNITS	CC-3.5	QC Batch	BALLARAT U/S Y.R.	BARKER U/S S.R.	RDL	QC Batch
Total Vanadium (V)	ug/L	0.24	8970245	0.24	0.55	0.20	8970245
Total Zinc (Zn)	ug/L	4.3	8970245	1.2	1.9	1.0	8970245
Total Zirconium (Zr)	ug/L	0.17	8970245	<0.10	0.14	0.10	8970245
Total Calcium (Ca)	mg/L	71.4	8968436	109	93.3	0.25	8968436
Total Magnesium (Mg)	mg/L	24.3	8968436	51.0	46.0	0.25	8968436
Total Potassium (K)	mg/L	9.19	8968436	5.95	6.15	0.25	8968436
Total Sodium (Na)	mg/L	11.6	8968436	15.4	21.0	0.25	8968436
Total Sulphur (S)	mg/L	24.4	8968436	104	87.7	3.0	8968436
RDL = Reportable Detection I	.imit						



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

#### **GENERAL COMMENTS**

Sample TH8809 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8810 [CC-1.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8811 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8812 [CC-3.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8813 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8822 [CC-C]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8823 [HC-2.5] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8824 [HC-5.0] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8825 [HC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8833 [IC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8834 [YUK-2.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TH8839 [LATTE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hol

#### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER) Comments

Sample TH8826 [IC-0.5] Elements by ICPMS Low Level (dissolved): RDL raised due to sample matrix interference.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

#### LOW LEVEL TOTAL METALS WITH CV HG (WATER) Comments

 $Sample\ TH8826\ [IC-0.5]\ Elements\ by\ ICPMS\ Low\ Level\ (total):\ RDL\ raised\ due\ to\ sample\ matrix\ interference.$ 

Sample TH8836, Elements by ICPMS Low Level (dissolved): Test repeated.  $\label{eq:control}$ 

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8969275	ORP	2018/04/26							0	20
8969302	Total Suspended Solids	2018/04/27			105	80 - 120	<1.0	mg/L		
8969360	Dissolved Organic Carbon (C)	2018/04/25	100	80 - 120	111	80 - 120	<0.50	mg/L	NC	20
8969377	Dissolved Aluminum (Al)	2018/04/25	108	80 - 120	112	80 - 120	<0.50	ug/L	5.5	20
8969377	Dissolved Antimony (Sb)	2018/04/25	99	80 - 120	103	80 - 120	<0.020	ug/L	2.7	20
8969377	Dissolved Arsenic (As)	2018/04/25	101	80 - 120	102	80 - 120	<0.020	ug/L	1.5	20
8969377	Dissolved Barium (Ba)	2018/04/25	NC	80 - 120	100	80 - 120	<0.020	ug/L	0.25	20
8969377	Dissolved Beryllium (Be)	2018/04/25	96	80 - 120	100	80 - 120	<0.010	ug/L	11	20
8969377	Dissolved Bismuth (Bi)	2018/04/25	93	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8969377	Dissolved Boron (B)	2018/04/25	97	80 - 120	101	80 - 120	<10	ug/L	NC	20
8969377	Dissolved Cadmium (Cd)	2018/04/25	99	80 - 120	103	80 - 120	<0.0050	ug/L	2.5	20
8969377	Dissolved Chromium (Cr)	2018/04/25	99	80 - 120	101	80 - 120	<0.10	ug/L	5.6	20
8969377	Dissolved Cobalt (Co)	2018/04/25	95	80 - 120	99	80 - 120	<0.0050	ug/L	1.5	20
8969377	Dissolved Copper (Cu)	2018/04/25	94	80 - 120	100	80 - 120	<0.050	ug/L	0.91	20
8969377	Dissolved Iron (Fe)	2018/04/25	98	80 - 120	105	80 - 120	<1.0	ug/L	0.14	20
8969377	Dissolved Lead (Pb)	2018/04/25	96	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8969377	Dissolved Lithium (Li)	2018/04/25	93	80 - 120	97	80 - 120	<0.50	ug/L	0.99	20
8969377	Dissolved Manganese (Mn)	2018/04/25	NC	80 - 120	102	80 - 120	<0.050	ug/L	2.0	20
8969377	Dissolved Molybdenum (Mo)	2018/04/25	103	80 - 120	105	80 - 120	<0.050	ug/L	2.6	20
8969377	Dissolved Nickel (Ni)	2018/04/25	97	80 - 120	103	80 - 120	<0.020	ug/L	1.8	20
8969377	Dissolved Phosphorus (P)	2018/04/25	107	80 - 120	106	80 - 120	<2.0	ug/L	16	20
8969377	Dissolved Selenium (Se)	2018/04/25	101	80 - 120	103	80 - 120	<0.040	ug/L	2.9	20
8969377	Dissolved Silicon (Si)	2018/04/25	NC	80 - 120	111	80 - 120	<50	ug/L	0.046	20
8969377	Dissolved Silver (Ag)	2018/04/25	99	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8969377	Dissolved Strontium (Sr)	2018/04/25	NC	80 - 120	101	80 - 120	<0.050	ug/L	2.1	20
8969377	Dissolved Thallium (TI)	2018/04/25	97	80 - 120	101	80 - 120	<0.0020	ug/L	13	20
8969377	Dissolved Tin (Sn)	2018/04/25	101	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
8969377	Dissolved Titanium (Ti)	2018/04/25	100	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
8969377	Dissolved Uranium (U)	2018/04/25	NC	80 - 120	103	80 - 120	<0.0020	ug/L	1.7	20
8969377	Dissolved Vanadium (V)	2018/04/25	101	80 - 120	103	80 - 120	<0.20	ug/L	9.0	20
8969377	Dissolved Zinc (Zn)	2018/04/25	96	80 - 120	102	80 - 120	<0.10	ug/L	5.7	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8969377	Dissolved Zirconium (Zr)	2018/04/25	101	80 - 120	100	80 - 120	<0.10	ug/L	5.6	20
8969436	Dissolved Aluminum (AI)	2018/04/26	107	80 - 120	113	80 - 120	<0.50	ug/L	NC	20
8969436	Dissolved Antimony (Sb)	2018/04/26	98	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
8969436	Dissolved Arsenic (As)	2018/04/26	98	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
8969436	Dissolved Barium (Ba)	2018/04/26	96	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
8969436	Dissolved Beryllium (Be)	2018/04/26	96	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
8969436	Dissolved Bismuth (Bi)	2018/04/26	94	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8969436	Dissolved Boron (B)	2018/04/26	99	80 - 120	102	80 - 120	<10	ug/L	NC	20
8969436	Dissolved Cadmium (Cd)	2018/04/26	98	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8969436	Dissolved Chromium (Cr)	2018/04/26	98	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
8969436	Dissolved Cobalt (Co)	2018/04/26	95	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8969436	Dissolved Copper (Cu)	2018/04/26	96	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
8969436	Dissolved Iron (Fe)	2018/04/26	98	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
8969436	Dissolved Lead (Pb)	2018/04/26	95	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
8969436	Dissolved Lithium (Li)	2018/04/26	95	80 - 120	98	80 - 120	<0.50	ug/L	NC	20
8969436	Dissolved Manganese (Mn)	2018/04/26	97	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
8969436	Dissolved Molybdenum (Mo)	2018/04/26	97	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
8969436	Dissolved Nickel (Ni)	2018/04/26	98	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
8969436	Dissolved Phosphorus (P)	2018/04/26	103	80 - 120	107	80 - 120	<2.0	ug/L	NC	20
8969436	Dissolved Selenium (Se)	2018/04/26	97	80 - 120	101	80 - 120	<0.040	ug/L	NC	20
8969436	Dissolved Silicon (Si)	2018/04/26	104	80 - 120	110	80 - 120	<50	ug/L	NC	20
8969436	Dissolved Silver (Ag)	2018/04/26	97	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
8969436	Dissolved Strontium (Sr)	2018/04/26	96	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
8969436	Dissolved Thallium (TI)	2018/04/26	95	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
8969436	Dissolved Tin (Sn)	2018/04/26	95	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
8969436	Dissolved Titanium (Ti)	2018/04/26	96	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
8969436	Dissolved Uranium (U)	2018/04/26	97	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20
8969436	Dissolved Vanadium (V)	2018/04/26	98	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
8969436	Dissolved Zinc (Zn)	2018/04/26	99	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
8969436	Dissolved Zirconium (Zr)	2018/04/26	96	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
8969596	Total Aluminum (Al)	2018/04/26	108	80 - 120	112	80 - 120	<0.50	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8969596	Total Antimony (Sb)	2018/04/26	99	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
8969596	Total Arsenic (As)	2018/04/26	97	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
8969596	Total Barium (Ba)	2018/04/26	95	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
8969596	Total Beryllium (Be)	2018/04/26	97	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
8969596	Total Bismuth (Bi)	2018/04/26	93	80 - 120	97	80 - 120	<0.0050	ug/L	NC	20
8969596	Total Boron (B)	2018/04/26	101	80 - 120	109	80 - 120	<10	ug/L	NC	20
8969596	Total Cadmium (Cd)	2018/04/26	99	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
8969596	Total Chromium (Cr)	2018/04/26	100	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
8969596	Total Cobalt (Co)	2018/04/26	96	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8969596	Total Copper (Cu)	2018/04/26	96	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
8969596	Total Iron (Fe)	2018/04/26	99	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
8969596	Total Lead (Pb)	2018/04/26	94	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
8969596	Total Lithium (Li)	2018/04/26	95	80 - 120	106	80 - 120	<0.50	ug/L	NC	20
8969596	Total Manganese (Mn)	2018/04/26	98	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
8969596	Total Molybdenum (Mo)	2018/04/26	100	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
8969596	Total Nickel (Ni)	2018/04/26	98	80 - 120	104	80 - 120	<0.020	ug/L	NC	20
8969596	Total Phosphorus (P)	2018/04/26	100	80 - 120	105	80 - 120	<2.0	ug/L	NC	20
8969596	Total Selenium (Se)	2018/04/26	95	80 - 120	100	80 - 120	<0.040	ug/L	NC	20
8969596	Total Silicon (Si)	2018/04/26	101	80 - 120	110	80 - 120	<50	ug/L	NC	20
8969596	Total Silver (Ag)	2018/04/26	99	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
8969596	Total Strontium (Sr)	2018/04/26	96	80 - 120	98	80 - 120	<0.050	ug/L	NC	20
8969596	Total Thallium (TI)	2018/04/26	94	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
8969596	Total Tin (Sn)	2018/04/26	96	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
8969596	Total Titanium (Ti)	2018/04/26	97	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
8969596	Total Uranium (U)	2018/04/26	98	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20
8969596	Total Vanadium (V)	2018/04/26	99	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
8969596	Total Zinc (Zn)	2018/04/26	98	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
8969596	Total Zirconium (Zr)	2018/04/26	97	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
8969686	Dissolved Organic Carbon (C)	2018/04/25	94	80 - 120	112	80 - 120	<0.50	mg/L	18	20
8969687	Dissolved Organic Carbon (C)	2018/04/25	110	80 - 120	112	80 - 120	<0.50	mg/L	NC	20
8969690	Total Organic Carbon (C)	2018/04/25	95	80 - 120	112	80 - 120	<0.50	mg/L	0.25	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8969900	Nitrate plus Nitrite (N)	2018/04/25	116	80 - 120	104	80 - 120	<0.0020	mg/L	1.4	25
8969902	Nitrite (N)	2018/04/25	115	80 - 120	101	80 - 120	<0.0020	mg/L	NC	25
8969904	Nitrate plus Nitrite (N)	2018/04/25	115	80 - 120	106	80 - 120	<0.0020	mg/L		
8969905	Nitrite (N)	2018/04/25	114	80 - 120	103	80 - 120	<0.0020	mg/L		
8969928	Total Aluminum (AI)	2018/04/27	106	80 - 120	107	80 - 120	<0.50	ug/L	3.7	20
8969928	Total Antimony (Sb)	2018/04/27	96	80 - 120	97	80 - 120	<0.020	ug/L	7.0	20
8969928	Total Arsenic (As)	2018/04/27	99	80 - 120	97	80 - 120	<0.020	ug/L	2.0	20
8969928	Total Barium (Ba)	2018/04/27	NC	80 - 120	97	80 - 120	<0.020	ug/L	3.0	20
8969928	Total Beryllium (Be)	2018/04/27	97	80 - 120	94	80 - 120	<0.010	ug/L	NC	20
8969928	Total Bismuth (Bi)	2018/04/27	93	80 - 120	94	80 - 120	<0.0050	ug/L	NC	20
8969928	Total Boron (B)	2018/04/27	94	80 - 120	93	80 - 120	<10	ug/L	NC	20
8969928	Total Cadmium (Cd)	2018/04/27	96	80 - 120	96	80 - 120	<0.0050	ug/L	8.5	20
8969928	Total Chromium (Cr)	2018/04/27	93	80 - 120	94	80 - 120	<0.10	ug/L	11	20
8969928	Total Cobalt (Co)	2018/04/27	93	80 - 120	94	80 - 120	<0.0050	ug/L	4.2	20
8969928	Total Copper (Cu)	2018/04/27	92	80 - 120	94	80 - 120	<0.050	ug/L	6.3	20
8969928	Total Iron (Fe)	2018/04/27	103	80 - 120	102	80 - 120	<1.0	ug/L	0.12	20
8969928	Total Lead (Pb)	2018/04/27	94	80 - 120	94	80 - 120	<0.0050	ug/L	NC	20
8969928	Total Lithium (Li)	2018/04/27	94	80 - 120	91	80 - 120	<0.50	ug/L	0.94	20
8969928	Total Manganese (Mn)	2018/04/27	NC	80 - 120	95	80 - 120	<0.050	ug/L	2.5	20
8969928	Total Molybdenum (Mo)	2018/04/27	100	80 - 120	99	80 - 120	<0.050	ug/L	15	20
8969928	Total Nickel (Ni)	2018/04/27	95	80 - 120	97	80 - 120	<0.020	ug/L	4.6	20
8969928	Total Phosphorus (P)	2018/04/27	110	80 - 120	104	80 - 120	<2.0	ug/L	NC	20
8969928	Total Selenium (Se)	2018/04/27	99	80 - 120	94	80 - 120	<0.040	ug/L	3.0	20
8969928	Total Silicon (Si)	2018/04/27	NC	80 - 120	108	80 - 120	<50	ug/L	2.6	20
8969928	Total Silver (Ag)	2018/04/27	95	80 - 120	96	80 - 120	<0.0050	ug/L	NC	20
8969928	Total Strontium (Sr)	2018/04/27	NC	80 - 120	98	80 - 120	<0.050	ug/L	2.7	20
8969928	Total Thallium (TI)	2018/04/27	93	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
8969928	Total Tin (Sn)	2018/04/27	94	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
8969928	Total Titanium (Ti)	2018/04/27	92	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
8969928	Total Uranium (U)	2018/04/27	96	80 - 120	96	80 - 120	<0.0020	ug/L	3.6	20
8969928	Total Vanadium (V)	2018/04/27	96	80 - 120	95	80 - 120	<0.20	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8969928	Total Zinc (Zn)	2018/04/27	95	80 - 120	94	80 - 120	<0.10	ug/L	2.4	20
8969928	Total Zirconium (Zr)	2018/04/27	98	80 - 120	95	80 - 120	<0.10	ug/L	4.1	20
8969973	рН	2018/04/25			102	97 - 103			1.6	20
8969976	Alkalinity (PP as CaCO3)	2018/04/25					<0.50	mg/L	NC	20
8969976	Alkalinity (Total as CaCO3)	2018/04/25			99	80 - 120	<0.50	mg/L	5.3	20
8969976	Bicarbonate (HCO3)	2018/04/25					<0.50	mg/L	5.3	20
8969976	Carbonate (CO3)	2018/04/25					<0.50	mg/L	NC	20
8969976	Hydroxide (OH)	2018/04/25					<0.50	mg/L	NC	20
8969977	Conductivity	2018/04/25			100	80 - 120	<1.0	uS/cm	0.92	20
8969989	рН	2018/04/26			101	97 - 103			0.13	20
8969992	Alkalinity (PP as CaCO3)	2018/04/26					<0.50	mg/L		
8969992	Alkalinity (Total as CaCO3)	2018/04/26	NC	80 - 120	101	80 - 120	<0.50	mg/L		
8969992	Bicarbonate (HCO3)	2018/04/26					<0.50	mg/L		
8969992	Carbonate (CO3)	2018/04/26					<0.50	mg/L		
8969992	Hydroxide (OH)	2018/04/26					<0.50	mg/L		
8969993	Conductivity	2018/04/26			100	80 - 120	1.0, RDL=1.0	uS/cm		
8969995	рН	2018/04/26			101	97 - 103			0.12	20
8969998	Alkalinity (PP as CaCO3)	2018/04/26					<0.50	mg/L		
8969998	Alkalinity (Total as CaCO3)	2018/04/26	101	80 - 120	100	80 - 120	<0.50	mg/L		
8969998	Bicarbonate (HCO3)	2018/04/26					<0.50	mg/L		
8969998	Carbonate (CO3)	2018/04/26					<0.50	mg/L		
8969998	Hydroxide (OH)	2018/04/26					<0.50	mg/L		
8969999	Conductivity	2018/04/26			100	80 - 120	<1.0	uS/cm		
8970245	Total Aluminum (AI)	2018/04/27	73 (1)	80 - 120	111	80 - 120	<3.0	ug/L	4.4	20
8970245	Total Antimony (Sb)	2018/04/27	102	80 - 120	100	80 - 120	<0.020	ug/L	4.2	20
8970245	Total Arsenic (As)	2018/04/27	102	80 - 120	100	80 - 120	<0.020	ug/L	2.7	20
8970245	Total Barium (Ba)	2018/04/27	NC	80 - 120	99	80 - 120	<0.050	ug/L	0.34	20
8970245	Total Beryllium (Be)	2018/04/27	102	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
8970245	Total Bismuth (Bi)	2018/04/27	99	80 - 120	99	80 - 120	<0.010	ug/L	NC	20
8970245	Total Boron (B)	2018/04/27	95	80 - 120	106	80 - 120	<10	ug/L	3.3	20
8970245	Total Cadmium (Cd)	2018/04/27	101	80 - 120	102	80 - 120	<0.0050	ug/L	9.2	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8970245	Total Chromium (Cr)	2018/04/27	99	80 - 120	99	80 - 120	<0.10	ug/L	9.1	20
8970245	Total Cobalt (Co)	2018/04/27	99	80 - 120	98	80 - 120	<0.010	ug/L	5.9	20
8970245	Total Copper (Cu)	2018/04/27	98	80 - 120	99	80 - 120	<0.10	ug/L	6.0	20
8970245	Total Iron (Fe)	2018/04/27	NC	80 - 120	107	80 - 120	<5.0	ug/L	0.16	20
8970245	Total Lead (Pb)	2018/04/27	98	80 - 120	99	80 - 120	<0.020	ug/L	2.8	20
8970245	Total Lithium (Li)	2018/04/27	88	80 - 120	103	80 - 120	<0.50	ug/L	0.97	20
8970245	Total Manganese (Mn)	2018/04/27	NC	80 - 120	100	80 - 120	<0.10	ug/L	0.78	20
8970245	Total Molybdenum (Mo)	2018/04/27	99	80 - 120	101	80 - 120	<0.050	ug/L	0.75	20
8970245	Total Nickel (Ni)	2018/04/27	98	80 - 120	99	80 - 120	<0.10	ug/L	6.4	20
8970245	Total Phosphorus (P)	2018/04/26	110	80 - 120	104	80 - 120	<5.0	ug/L		
8970245	Total Selenium (Se)	2018/04/27	100	80 - 120	99	80 - 120	<0.040	ug/L	16	20
8970245	Total Silicon (Si)	2018/04/27	NC	80 - 120	111	80 - 120	<50	ug/L	0.43	20
8970245	Total Silver (Ag)	2018/04/27	101	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
8970245	Total Strontium (Sr)	2018/04/27	NC	80 - 120	100	80 - 120	<0.050	ug/L	0.32	20
8970245	Total Thallium (TI)	2018/04/27	99	80 - 120	99	80 - 120	<0.0020	ug/L	4.3	20
8970245	Total Tin (Sn)	2018/04/27	102	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
8970245	Total Titanium (Ti)	2018/04/27	94	80 - 120	100	80 - 120	<2.0	ug/L	NC	20
8970245	Total Uranium (U)	2018/04/27	102	80 - 120	104	80 - 120	< 0.0050	ug/L	1.1	20
8970245	Total Vanadium (V)	2018/04/27	99	80 - 120	100	80 - 120	<0.20	ug/L	0.30	20
8970245	Total Zinc (Zn)	2018/04/27	98	80 - 120	101	80 - 120	<1.0	ug/L	2.9	20
8970245	Total Zirconium (Zr)	2018/04/27	83	80 - 120	100	80 - 120	<0.10	ug/L	3.0	20
8970511	Total Dissolved Solids	2018/04/27	107	80 - 120	93	80 - 120	<10	mg/L	5.0	20
8970672	Total Mercury (Hg)	2018/04/26	93	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
8971286	Total Dissolved Solids	2018/04/30	100	80 - 120	90	80 - 120	<10	mg/L	1.8	20
8971293	рН	2018/04/26			101	97 - 103			0	20
8971299	Alkalinity (PP as CaCO3)	2018/04/26					<0.50	mg/L		
8971299	Alkalinity (Total as CaCO3)	2018/04/26	NC	80 - 120	92	80 - 120	<0.50	mg/L		
8971299	Bicarbonate (HCO3)	2018/04/26					<0.50	mg/L		
8971299	Carbonate (CO3)	2018/04/26					<0.50	mg/L		
8971299	Hydroxide (OH)	2018/04/26					<0.50	mg/L		
8971300	Conductivity	2018/04/26			100	80 - 120	<1.0	uS/cm		



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8971336	Dissolved Chloride (CI)	2018/04/26			104	80 - 120	<0.50	mg/L		
8971338	Dissolved Sulphate (SO4)	2018/04/26			99	80 - 120	<0.50	mg/L		
8971350	Dissolved Chloride (CI)	2018/04/26	NC	80 - 120	97	80 - 120	<0.50	mg/L	6.1	20
8971351	Dissolved Sulphate (SO4)	2018/04/26			93	80 - 120	0.89, RDL=0.50	mg/L	0.76	20
8971354	Dissolved Chloride (CI)	2018/04/26	116	80 - 120	97	80 - 120	<0.50	mg/L	17	20
8971355	Dissolved Sulphate (SO4)	2018/04/26	NC	80 - 120	94	80 - 120	0.73, RDL=0.50	mg/L	0.31	20
8971709	Total Mercury (Hg)	2018/04/27	91	80 - 120	92	80 - 120	<0.0020	ug/L	NC	20
8971813	Total Mercury (Hg)	2018/04/27	84	80 - 120	96	80 - 120	<0.0020	ug/L	0.42	20
8971845	Dissolved Mercury (Hg)	2018/04/27	106	80 - 120	92	80 - 120	<0.0020	ug/L	2.8	20
8971851	Total Suspended Solids	2018/04/30			106	80 - 120	<1.0	mg/L		
8971852	Total Suspended Solids	2018/04/30			108	80 - 120	<1.0	mg/L		
8972132	Total Ammonia (N)	2018/04/27	115	80 - 120	92	80 - 120	<0.0050	mg/L	0	20
8972133	Total Dissolved Solids	2018/04/30	98	80 - 120	97	80 - 120	<10	mg/L	0.62	20
8972134	Total Ammonia (N)	2018/04/27	NC	80 - 120	108	80 - 120	<0.0050	mg/L	13	20
8972276	Fluoride (F)	2018/04/27	104	80 - 120	102	80 - 120	0.012, RDL=0.010	mg/L	1.0	20
8972533	Fluoride (F)	2018/04/27	100	80 - 120	104	80 - 120	<0.010	mg/L	2.5	20
8973073	Nitrate plus Nitrite (N)	2018/04/29	87	80 - 120	92	80 - 120	<0.0020	mg/L	NC	25
8973074	Nitrite (N)	2018/04/29	102	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
8973657	Total Dissolved Solids	2018/05/01	104	80 - 120	100	80 - 120	<10	mg/L	2.0	20
8973730	Total Mercury (Hg)	2018/04/30	101	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
8973744	Dissolved Mercury (Hg)	2018/04/30	101	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
8974168	Dissolved Tin (Sn)	2018/04/30			100	80 - 120	<0.20	ug/L		
8974234	Total Organic Carbon (C)	2018/04/30	87	80 - 120	105	80 - 120	<0.50	mg/L	2.0	20
8975460	Dissolved Sulphate (SO4)	2018/04/30			95	80 - 120	<0.50	mg/L		
8976713	Dissolved Chloride (CI)	2018/05/02	91	80 - 120	98	80 - 120	<0.50	mg/L	2.2	20
8976714	Dissolved Sulphate (SO4)	2018/05/02	NC	80 - 120	97	80 - 120	<0.50	mg/L	0.28	20
8978370	Dissolved Organic Carbon (C)	2018/05/03			112	80 - 120	<0.50	mg/L		



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

			Matrix	Spike	Spiked	Blank	Method B	lank	RPD	)
QC Batcl	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8978372	Total Organic Carbon (C)	2018/05/03			112	80 - 120	<0.50	mg/L		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: LE

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

Mandheraj Chana, Junior Project Manager

Dhana

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		INVOICE TO:				Report Inf	ormatio	n						Project le	nformation	·				1337	3 11	
ompany Na	ame #3604 LORA	X ENVIRONMENTAL SERV	/ICES LTD.	Company Na	me						Quo	tation#	3	B40231					<b>非国际的</b>	8,652		Bottle Order
ontact Nan		The state of the s		Contact Nan	e David Flat	her					P.O.	#					-	DOGG	TEMPERATURE	WY THE P	8-X-11-	THE REAL PROPERTY.
dress	2289 BURRA	With British Company		Address			-				-	ect#	į.	Gold Cor	p Coffee	creek-	SW	B830	387_COC			551215 Project Mana
	VANCOUVEF (604) 688-717	and the second section of the second section is a second section of the second section of the second section is a second section of the section of the section of the second section of the section of	88-7175 x	-				F			1000	ect Name	-	-			_			name and	-	Project manu
nail	C-100000 C-100000 C-100000	y@lorax.ca; shukling.ng@lo		Phone Email	David.Flat	her@lorax.		Fax:			Site	₽ pled By							C#551215-01-0			Diana Cruz
070	ry Criteria			175 150	al Instructions	NAME OF TAXABLE PARTY.						Analysis F	Requested	1	15-20-				Turnaround T	ime (TAT)	Required	
							finking Water 2 (Y / N )	(AK-LL, EC-LL, NH4-TDS)	Level	.:CI, F, NO2, NO3,	WAD			Dissolved Metals	Total Metals incl. CN			(will be app Standard T Please note days - cont	Flease provide adv. tandard) TAT slied if Rush TAT is not spei AT = 5-AT Working days for s-5-AT Working days for s-5-AT Working days for set your Project Manager is Rush TAT (if applies to eni sd:	cified) most lests, tests such a or details, tire submissi	s 800 and	l Dioxins/Furans
		of drinking water samples - please must be kept cool ( < 10°C ) from tin		VII o			ulated Dr	무구	TSS-Low	Anions (LL SO4)	Cyanide -	D	0	v Level [ . CV Hg	v Level	D.		Rush Confirm	ation Number		(carl lat	for N)
Sa	mple Barcode Lisbel	Sample (Location) Identificat	ion Dat	e Sampled	Time Sampled	Matrix	Regula	중크	TS	So	ð	700	000	Low incl.	Low	ORP	1	# of Bottles		Comm	ents	
1110	SIDW162743	CC-0.5	21	(April	(030	120	MI	4 1	J,	1	/	/	/	/	/	/		13	RECEIVED	IN WH	TEHC	RSE
1110	SiD#162744	CC-1.0	21,	(April	1235	Had	7/1	J /,	1	/	1	/	/	/	/			13	BY: SU	jon	00	2110
1100	\$ID#162745	CC-1.5	21	-April	1305	130	NI	U ~	1	/	/	/	/	/	/	/		13	21	018 -04	- 2 ::	
1100	SID#162746	CC-3.5	21-	April	405	4,3	M	V /	1	/	/	/	,/	1/	. /	/		13	THE NEW	3,	3	3
1100	SID#162747	CC-4.5	22	-April	1140	H20	N	リノ	/	1	1		/	1	1	/		13	· ·	f	3	3
1100	SID#162748	CC-5.0				-														3	3	4
178	SID#149895	CC-5.5					-			-										4	ï	J
1111	SID#149896	00-6.0				-		-	-						HE - 1	1-11	2101			3	3	3
110	SID#149897	CC-A						-								2		911.00				
1111	SID#149898	СС-В																				
* RI	ELINQUISHED BY: (Signa	ture/Print)	15/04/2			_	-	(Signature/P	-	10 X		3 04 2		137.53	# jars nots	used and ubmitted	Time Sen	tem	Lab Us perature (NC) on Receipt E AUTIX	and the same of th	stody Seal	Intact on Cooler

Maxxam Analytics International Corporation o/a Maxxam Analytics

		INVOICE TO:			Report Inf	ormation							Project In	formation	6				200	
impany Name	#3604 LORAX	ENVIRONMENTAL SERVICES	LTD. Company No							Que	ation#	E	340231					SECOND LINE DO	Во	ttle Order#:
ntact Name	Aida Piaseczny		Contact Nan	ne David Flat	ther					P.O.	*	-	Gold Cor	- C-#	Caral	PIAL	B83	0387_COC		
idress	2289 BURRARI VANCOUVER E		Address			_					ect#	-	old Cor	p Conee	creek-	SVV	Dos	0001_000	The second secon	551215 ject Manage
one	(604) 688-7173		5 x Phone				Fax:			Site	ect Name	57							OMILIO	Billion of
ail		@lorax.ca; shukling.ng@lorax.ca	Email	David.Flat	ther@lorax.		100				pled By							C#551215-02-01		Diana Cruz
Regulatory Cr	riteria		Spec	ial Instructions				,			Analysis F	lequested		5 1				Turnaround Time	A COUNTY OF STREET AND A STREET	
	Samples rr	Drinking Water Chain of pling until delivery to ma	osam		Regulated Drinking Water ? (Y / N ) Metals Field Filtered ? (Y / N )	Routine (Alk-LL, EC-LL, NH4- LL, pH, TDS)	TSS-Low Level	Anions (LL:Cl, F, NO2, NO3, SO4)	Cyanide - WAD	тос	DOC	Low Level Dissolved Metals incl. CV Hg	Low Level Total Metals Incl. CV Hg	ORP		(will be ay Standard Please no days - co Job Speci Date Requ Rush Confi	mation Number	tests. such as BOD and Dioxi alts.	ins/Furans a	
The second second	e Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Ø 2	127	1	40	0	-		7 =	71	0		# of Bottles			
	HD#149899	CC-C	21/April	1330	1=0	NL	0	/		)								could be	melt	
	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	CC-D			-	-	-	_								-				
	III)#149901	cc-x												-	-			RECEIVED IN	1100 I	100
	30#149902	HC-2.5	21/2001	1445	CAH	NL	1	1	1	/	//	/ _	/ .	/	//	/	/	201	0 01 53	
	SIDW149903	HC-5.0	21/4801	1650	H20	NY	1	/		/	/	_			-	//		201	3	3
	SD#149904	HC-A									) .					-		TEMP: 4	1-3-	3
	31D#094856	нс-в	2 VAPAI	1230	CSH	NV	1	1	U	/	/	/	/			//			3 1	+
	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	HC-C		and the Parent		-		, ,		/			_	_					3 3 3	5
		IC-0.5	12/April	1415	14.0	NN	1	/	/	1	1			1		/				
	SIDW206059	IC-1.5	22/April	1228	Hzo	NN	/	/	/	/	/	/	/	/	/			inter-aufeis	, goos fla	au.
	QUISHED BY: (Signatur		177/MM/DD) Tim		RECEIV AWEAU		Signature/P				104 2		3143		used and ubmitted	Time Sen	itivs To	Lab Use Onl	Custody Seal Intact	on Coaler?

Maxxam Analytics International Corporation of Maxxam Analytics

		(1)	INVOICE TO:			Report Inf	ormation							Project le	nformation					84/31 H	
Com	pany Name	#3604 LORAX	ENVIRONMENTAL SERVICES I	.TD. Company N							Quot	tation#	E	340231					MELCON MEDICA	2.00	Bottle Order (
on	lact Name	Aida Piaseczny		Contact Nar	ne David Flath	er					P.O.		-				G144	B830	0387_COC		THE REPORT OF THE PERSON NAMED IN
dd	ress	2289 BURRARI		Address	-		_		_	_	Proje	rct#	5	sold Cor	p Coffee	Creek-	SVV				551215 Project Manag
		VANCOUVER E (604) 688-7173	100 () 700 717	50			-	_	-	_	_	oct Name	12			_					Project manag
	ne .	-	X Fax: (604) 688-717 @lorax.ca; shukling.ng@lorax.ca	D X Phone Email	David.Flath	ner@lorax		Fax:			Site	pled By	1 43	BERG	FF	Nu, Z	ONME	NIM	C#561215-03-01		Diana Cruz
mu	Regulatory Crit		guran, or, or animg rigograms		ial Instructions			T			_	Analysis F		3H KU	-	4011		1	Tumaround Time (	(AT) Required	
			drinking water samples - please use the D				sted Drinking Water? (Y/N)	(Alk-LL, EC-L TDS)	Low Level	is (LL:Ci, F, NO2, NO3,	ide - WAD		Fi 9	Level Dissolved Metals CV Hg	Level Total Metals incl. CV			(will be ap Standard Please no days - con Job Specifi Date Requi	Please provide advance in Standard   TAT is not specified) TAT = 5-7 Working days for most its: Standard TAT for certain tests itself your Project Manager for data for Rush TAT (if applies to entire sultred: matten Namber	asts. uch as 800 and	Disxins/Furans (
	Cample	Samples m Barcode Label	rust be kept cool ( < 10°C) from time of samp Sample (Location) identification	ling until delivery to me Date Sampled	Time Sampled	Matrix	Regula	Routine LL, pH, 7	TSS-L	Anions SO4)	Cyanide	TOC	DOC	Low I	Low I	ORP		# of Bottles		comments	
	10011010	######################################	IC-4.5	22/April	1440	420	NA	1	J	)	V	J	7	J	2	)		13	inter-auteis	Sa	mple
100		MINIMINI MINIMINI D#206061	YT-24																BY 84	ma	51100
		D#206062	YT-24-2			14.0					-		mall=	#0±08				_13	201	01 2	Committee of the Commit
		HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	YUK-2.0	ZI/April	1220	1420	NI	1	_	/ _	_	-		~	1		/	13	3	3	3
		######################################	YUK-5,0	22/April	1510	Hza	NK	1	7	)	1	J	/	J	1	~	)	13	TEMP: 4	13	13
		D#206065	Ballarat U/S Y.R.	22/April	1110	H23	M	1	1	J	1	J	1 1		1	J	V	13	inter-aufeis	Som	ple goo
1		######################################	Barker U/S S.R.	22/April	1635	(420	NV	1	ノ	J	J	J	J	, )	<u></u>	, /	~	13	1	١	1
		D#206067	Stewart D/S M.M.	22/Apri	1620	0,4	NV	1	1	V		J	/		)	/		13	3	3	3
		M206068	Latte Mix	21/April	1745	Hzo	NI	1	J	J	J	J				J	1	13			
		D#206069	Sample A	22/April	0	His	M		1		1				$\sim$	1	)	13			
	PAA	UISHED BY: (Signatur		1/22 18			PALCA	Signature/P	rint)			104 24		3111	nots	used and ubmitted	Time See	attive Teg	Lab Use Only poerature (°C) on Receipt		Intact on Cooler?

Maxxam Analytics International Corporation o/a Maxxam Analytics

		INVOICE TO:				Report In	formatio	n							Project In	formation	E)				/SS//S	Only	
mpany Name	#3604 LORA	X ENVIRONMENTAL SER	VICES LTD.	Company Nar								Quoti	ation #		340231		=11=-10				K/2 (S)	E	Bottle Order#
itaci Neme	Aida Piaseczn	The same of the sa		Contact Name	David Flat	her						P.O.	W	-	2.110	0 "		R	83038	7 COC	AND HIS BILL	1	
Iness	2289 BURRAF			Address				_				Proje		2	Gold Cor	p Coffee	Creek-	D	05050	<i>n_</i> coc		- D	551215 roject Manage
	(604) 688-717		88-7175 x	-	-			- ALC					ct Name	7				_	-	***************************************			roject manage
ne ši		3 x Fax (604) 6 (@lorax.ca; shukling.ng@lo		Phone Email	David.Flat	her@lorax	ca	Fax				Site 4	led By	- 5						C#551215-04			Diana Cruz
Regulatory C	Military.				il Instructions		TT						Analysis R	equested						Turnaround	Time (TAT) Req	uired	
						U	inking Water	- 1 4	(Alk-LL, EC-LL, NH4- TDS)	Level	L:CI, F, NO2, NO3,	WAD			rel Dissolved Metals Hg	Total Metals incl. CV			(will be ap) Standard 7 Please not days - com	Standard) TAT  plied if Rush TAT is not s  IAT = 5-7 Working days i  ie: Standard TAT for cert  tact your Project Manage  ic Rush TAT (if applies to	for most tests. ain tests such as BO or for details.	D and Dic	
	Quest of the control of the control	d drinking water samples - please	24-11-11-11-11-11-11-11-11-11-11-11-11-11		hazyetetti ziyasi x		ated Dr	Field	PH, TI	% 0	ns (LL:	- epii	6000		Level CV Hg	Level	965		Rush Confirm	mation Number	- 1	and into for	#7
Samol	e Barcode Label	must be kept cool ( < 10°C ) from tin Sample (Location) Identificat		ate Sampled	Time Sampled	Matrix	Q1 /	Metals	LL. pH, 7	TSS-L	Anions ( SO4)	Cyanide	700	DOC	Low incl.	Low Hg	ORP		# of Bottles	RECEIVE	Comments	HOP	2012
THEFT	SID#206070	Sample B						+	-	_						-	-	* * m		BY:	Lycn	)a	110
	SID#206071	FIELD BLANK	2	4/April	(800	tho	N	N	1	J	)	_	ノ	0	J	_	V	$\mathcal{L}$	13		2018 -04-	2.	
	III III III III III III III III III II	TRIP BLANK					N.	٨	$\sim$	1	_	J	_	_		J	_	_	13		3 3		3
nina	HHTMHIMITUHI? SID#208073	TELS-						V												TEMP:	4/3		3
		Blackhills	2	2/401			N	M	J	7	7	U	1	ب	/	/	/	/	13		3 3		4
	-	Maisy May DIS	Stevent	24/A			N	N	1	/	1	1	1	-		7	1	1	13		. 1 . 1	-	1
																					3	5	3
															- 2								
RELIN	QUISHED BY: (Signato	ure/Print)	15/04/		, ()	RECE AUNT OK			NOU	1)		_	2043		Time 3135	nots	used and ubmitted	Time Sen	Tem	Lab pergture (°C) on Receipt	1	_	No.

Maxxam Analytics International Corporation o/a Maxxam Analytics



Your Project #: B830387

Your C.O.C. #: b830387-ontv-01-01

**Attention: Diana Cruz** 

Maxxam Analytics 4606 Canada Way Burnaby, BC V5G 1K5

Report Date: 2018/05/03

Report #: R5101543 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B895339 Received: 2018/04/26, 10:12

Sample Matrix: Water # Samples Received: 22

		Date	Date		
Analyses	Quantity	y Extracted	Analyzed	<b>Laboratory Method</b>	Reference
Free (WAD) Cyanide	22	N/A	2018/05/03	L CAM SOP-00457	OMOE E3015 m

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

**Encryption Key** 



Nazeema Rahaman Project Manager 03 May 2018 13:21:54

Please direct all questions regarding this Certificate of Analysis to your Project Manager. Nazeema Rahaman, Project Manager

Email: NRahaman@maxxam.ca Phone# (905) 817-5700

-----

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Maxxam Analytics Client Project #: B830387

#### **RESULTS OF ANALYSES OF WATER**

Maxxam ID		GNV924	GNV925		GNV926			
Sampling Date		2018/04/21 10:30	2018/04/21 12:35		2018/04/21 13:05			
COC Number		b830387-ontv-01-01	b830387-ontv-01-01		b830387-ontv-01-01			
	UNITS	TH8809-CC-0.5	TH8810-CC-1.0	QC Batch	TH8811-CC-1.5	RDL	MDL	QC Batch
WAD Cyanide (Free)	mg/L	ND	ND	5505014	ND	0.0010	0.00040	5505420

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

Maxxam ID		GNV926	GNV927	GNV928			
Sampling Date		2018/04/21 13:05	2018/04/21 11:05	2018/04/21 11:40			
COC Number		b830387-ontv-01-01	b830387-ontv-01-01	b830387-ontv-01-01			
	UNITS	TH8811-CC-1.5 Lab-Dup	TH8812-CC-3.5	TH8813-CC-4.5	RDL	MDL	QC Batch
WAD Cyanide (Free)	mg/L	ND	ND	ND	0.0010	0.00040	5505420

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

ND = Not detected

Maxxam ID		GNV929	GNV930	GNV931			
Sampling Date		2018/04/21	2018/04/21	2018/04/21			
Sumpling Date		13:30	14:45	16:50			
COC Number		b830387-ontv-01-01	b830387-ontv-01-01	b830387-ontv-01-01			
	UNITS	TH8822-CC-C	TH8823-HC-2.5	TH8824-HC-5.0	RDL	MDL	QC Batch
WAD Cyanide (Free)	mg/L	ND	ND	ND	0.0010	0.00040	5505420

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

Maxxam ID		GNV932	GNV933	GNV934			
Sampling Date		2018/04/21	2018/04/22	2018/04/22			
Sampling Date		15:30	14:15	12:20			
COC Number		b830387-ontv-01-01	b830387-ontv-01-01	b830387-ontv-01-01			
	UNITS	ТН8825-НС-В	TH8826-IC-0.5	TH8827-IC-1.5	RDL	MDL	QC Batch
WAD Cyanide (Free)	mg/L	ND	ND	ND	0.0010	0.00040	5505420

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected



Maxxam Analytics Client Project #: B830387

#### **RESULTS OF ANALYSES OF WATER**

Maxxam ID		GNV935	GNV936	GNV937			
Sampling Date		2018/04/22 14:40	2018/04/21 18:20	2018/04/22 15:10			
COC Number		b830387-ontv-01-01	b830387-ontv-01-01	b830387-ontv-01-01			
	UNITS	TH8833-IC-4.5	TH8834-YUK-2.0	TH8835-YUK-5.0	RDL	MDL	QC Batch
WAD Cyanide (Free)	mg/L	ND	ND	ND	0.0010	0.00040	5505420

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

Maxxam ID		GNV938	GNV939	GNV940			
Sampling Date		2018/04/22 11:10	2018/04/22 16:35	2018/04/22 16:20			
COC Number		b830387-ontv-01-01	b830387-ontv-01-01	b830387-ontv-01-01			
	UNITS	TH8836-BALLARAT U/S Y.R.	TH8837-BARKER U/S S.R.	TH8838-STEWART D/S M.M.	RDL	MDL	QC Batch
WAD Cyanide (Free)	mg/L	ND	ND	ND	0.0010	0.00040	5505420

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

Maxxam ID		GNV941	GNV942	GNV943			
Sampling Date		2018/04/21 17:45	2018/04/22	2018/04/24 18:00			
COC Number		b830387-ontv-01-01	b830387-ontv-01-01	b830387-ontv-01-01			
	UNITS	TH8839-LATTE MIX	TH8840-SAMPLE A	TH8842-FIELD BLANK	RDL	MDL	QC Batch
WAD Cyanide (Free)	mg/L	ND	ND	ND	0.0010	0.00040	5505420

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected

Maxxam ID		GNV944	GNV945			
Sampling Date		2018/04/24	2018/04/22			
COC Number		b830387-ontv-01-01	b830387-ontv-01-01			
	UNITS	TH8843-TRIP BLANK	TH8844-BLACK HILLS	RDL	MDL	QC Batch
WAD Cyanide (Free)	mg/L	ND	ND	0.0010	0.00040	5505420

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

ND = Not detected



Maxxam Analytics Client Project #: B830387

#### **TEST SUMMARY**

Maxxam ID: **GNV924** 

Sample ID: TH8809-CC-0.5

Matrix: Water

2018/04/21 Collected:

Shipped:

Shipped:

Received: 2018/04/26

**Test Description** Instrumentation **Batch** Extracted **Date Analyzed** Analyst

Free (WAD) Cyanide SKAL/CN 5505014 N/A 2018/05/01 Xuanhong Qiu

Maxxam ID: **GNV925** Collected: 2018/04/21

Sample ID: TH8810-CC-1.0 Shipped:

Matrix: Received: 2018/04/26 Water

**Test Description** Instrumentation Batch **Extracted Date Analyzed Analyst** 

Free (WAD) Cyanide 5505014 2018/05/01 SKAL/CN N/A Xuanhong Qiu

2018/04/21 Maxxam ID: **GNV926** Collected:

Sample ID: TH8811-CC-1.5 Shipped:

Matrix: Water Received: 2018/04/26

**Test Description** Instrumentation Batch **Extracted Date Analyzed** Analyst Free (WAD) Cyanide SKAL/CN 2018/05/01 5505420 N/A Xuanhong Qiu

GNV926 Dup Maxxam ID: Collected: 2018/04/21

Sample ID: TH8811-CC-1.5

2018/04/26 Matrix: Water Received:

**Test Description** Instrumentation Batch **Extracted Date Analyzed** Analyst

Free (WAD) Cyanide SKAL/CN 5505420 2018/05/01 N/A Xuanhong Qiu

Maxxam ID: **GNV927** Collected: 2018/04/21

Sample ID: TH8812-CC-3.5 Shipped:

Received: 2018/04/26 Matrix: Water

**Test Description** Instrumentation **Batch Extracted Date Analyzed** Analyst Free (WAD) Cyanide 2018/05/01 SKAL/CN 5505420 N/A Xuanhong Qiu

Maxxam ID: **GNV928 Collected:** 2018/04/21

Sample ID: TH8813-CC-4.5 Shipped:

Matrix: Water Received: 2018/04/26

**Test Description** Instrumentation Batch **Extracted Date Analyzed** Analyst 2018/05/01 Free (WAD) Cyanide SKAL/CN 5505420 N/A Xuanhong Qiu

Maxxam ID: **GNV929** Collected: 2018/04/21

Sample ID: TH8822-CC-C Shipped:

Matrix: Water Received: 2018/04/26

**Test Description** Instrumentation Batch **Extracted Date Analyzed** Analyst Free (WAD) Cyanide SKAL/CN 5505420 N/A 2018/05/01 Xuanhong Qiu



Maxxam Analytics Client Project #: B830387

#### **TEST SUMMARY**

Maxxam ID: GNV930

Sample ID: TH8823-HC-2.5

Matrix: Water

Collected: 2018/04/21

Shipped:

**Received:** 2018/04/26

Test Description Instrumentation Batch Extracted Date Analyzed Analyst

Free (WAD) Cyanide SKAL/CN 5505420 N/A 2018/05/01 Xuanhong Qiu

**Maxxam ID:** GNV931 **Collected:** 2018/04/21

Sample ID: TH8824-HC-5.0 Shipped:

Matrix: Water Received: 2018/04/26

 Test Description
 Instrumentation
 Batch
 Extracted
 Date Analyzed
 Analyst

 Free (WAD) Cyanide
 SKAL/CN
 5505420
 N/A
 2018/05/01
 Xuanhong Qiu

 Maxxam ID:
 GNV932
 Collected:
 2018/04/21

 Sample ID:
 TH8825-HC-B
 Shipped:

nple ID:TH8825-HC-BShipped:Matrix:WaterReceived:2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu

**Maxxam ID:** GNV933 **Collected:** 2018/04/22

Sample ID: TH8826-IC-0.5 Shipped:

Matrix: Water Received: 2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu

**Maxxam ID:** GNV934 **Collected:** 2018/04/22

Sample ID: TH8827-IC-1.5 Shipped:

Matrix: Water Received: 2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu

**Maxxam ID:** GNV935 **Collected:** 2018/04/22

Sample ID: TH8833-IC-4.5 Shipped:

Matrix: Water Received: 2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu

**Maxxam ID:** GNV936 **Collected:** 2018/04/21

Sample ID: TH8834-YUK-2.0 Shipped:

Matrix: Water Received: 2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu



Maxxam Analytics Client Project #: B830387

#### **TEST SUMMARY**

Maxxam ID: GNV937

Sample ID: TH8835-YUK-5.0

Matrix: Water

Collected: 2018/04/22

Received:

Shipped:

Shipped:

2018/04/26

Test Description Instrumentation Batch Extracted Date Analyzed Analyst

Free (WAD) Cyanide SKAL/CN 5505420 N/A 2018/05/01 Xuanhong Qiu

Maxxam ID: GNV938

Sample ID: TH8836-BALLARAT U/S Y.R.

Matrix: Water

**Collected:** 2018/04/22

Received: 2018/04/26

Test Description Instrumentation Batch Extracted Date Analyzed Analyst

Free (WAD) Cyanide SKAL/CN 5505420 N/A 2018/05/01 Xuanhong Qiu

Maxxam ID: GNV939

Sample ID: TH8837-BARKER U/S S.R.

Matrix: Water

**Collected:** 2018/04/22

Shipped: Received: 2018/04/26

Test Description Instrumentation Batch Extracted Date Analyzed Analyst

Free (WAD) Cyanide SKAL/CN 5505420 N/A 2018/05/01 Xuanhong Qiu

Maxxam ID: GNV940

Sample ID: TH8838-STEWART D/S M.M.

Matrix: Water

**Collected:** 2018/04/22

Shipped: Received: 2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu

Maxxam ID: GNV941

Sample ID: TH8839-LATTE MIX

Matrix: Water

Collected: 2018/04/21 Shipped:

Received: 2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu

Maxxam ID: GNV942

Sample ID: TH8840-SAMPLE A

Matrix: Water

Collected: 2018/04/22 Shipped:

**Received:** 2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu

Maxxam ID: GNV943

Sample ID: TH8842-FIELD BLANK

Matrix: Water

Collected: 2018/04/24 Shipped:

Received: 2018/04/26

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystFree (WAD) CyanideSKAL/CN5505420N/A2018/05/01Xuanhong Qiu



Maxxam Analytics Client Project #: B830387

#### **TEST SUMMARY**

Maxxam ID: GNV944

Sample ID: TH8843-TRIP BLANK

Collected: Shipped:

2018/04/24

Matrix: Water

Received:

2018/04/26

**Test Description** Instrumentation Batch **Extracted Date Analyzed** Analyst Free (WAD) Cyanide SKAL/CN 5505420 N/A 2018/05/01 Xuanhong Qiu

Maxxam ID: GNV945

Sample ID: TH8844-BLACK HILLS Matrix: Water

Collected: 2018/04/22

Shipped:

Received: 2018/04/26

**Test Description** Instrumentation **Extracted Date Analyzed** Analyst Batch Free (WAD) Cyanide 5505420 2018/05/01 SKAL/CN N/A Xuanhong Qiu



Maxxam Analytics Client Project #: B830387

### **GENERAL COMMENTS**

Each to	emperature is the	average of up to th	hree cooler temperatures taken at receipt
	Package 1	7.0°C	
Result	s relate only to the	e items tested.	



#### **QUALITY ASSURANCE REPORT**

Maxxam Analytics Client Project #: B830387

		Matrix Spike		SPIKED	BLANK	Method Blank		RPD		
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5505014	WAD Cyanide (Free)	2018/05/01	85	80 - 120	106	80 - 120	ND, RDL=0.0010	mg/L	NC	20
5505420	WAD Cyanide (Free)	2018/05/01	99	80 - 120	99	80 - 120	ND, RDL=0.0010	mg/L	NC	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



Maxxam Analytics Client Project #: B830387

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 553730-01-01, 553730-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/04

Report #: R2563297 Version: 2 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B839743 Received: 2018/05/23, 13:45

Sample Matrix: Water # Samples Received: 12

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	9	N/A	2018/05/25	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	3	N/A	2018/05/26	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	12	N/A	2018/05/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	12	N/A	2018/05/28	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	9	N/A	2018/05/25	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	3	N/A	2018/05/26	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	12	N/A	2018/05/28	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	12	N/A	2018/05/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	12	N/A	2018/05/28	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	12	N/A	2018/05/25	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	12	2018/05/25	2018/05/25	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	12	N/A	2018/05/28	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	12	N/A	2018/05/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	12	2018/05/28	2018/05/29	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	12	N/A	2018/05/30	BBY WI-00033	Auto Calc
Ammonia-N Low Level (Preserved)	12	N/A	2018/05/25	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	12	N/A	2018/05/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	12	N/A	2018/05/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	12	N/A	2018/05/26	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	12	N/A	2018/05/25	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	12	N/A	2018/05/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	9	N/A	2018/05/25	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	3	N/A	2018/05/26	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	12	N/A	2018/05/25	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	12	2018/05/29	2018/05/30	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	12	N/A	2018/05/28	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	12	2018/05/27	2018/05/28	BBY6SOP-00034	SM 22 2540 D
WAD Cyanide Water Subcontract (1)	12	2018/06/01	2018/06/01		

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted,



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 553730-01-01, 553730-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/04

Report #: R2563297 Version: 2 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B839743 Received: 2018/05/23, 13:45

procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 

Diana Cruz Junior Project Manager 04 Jun 2018 17:07:23

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

aacru

Diana Cruz, Junior Project Manager

Email: DCruz@maxxam.ca Phone# (604) 734 7276

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4589	TM4590		TM4591		TM4592		
Sampling Date		2018/05/22 09:36	2018/05/22 10:18		2018/05/22 09:47		2018/05/22 07:50		l
COC Number		553730-01-01	553730-01-01		553730-01-01		553730-01-01		
	UNITS	CC-0.5	CC-1.5	QC Batch	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch
Parameter	•	•							
ORP	mV	473	475	9001405	354	9001405	361		9001405
Subcontract Parameter	N/A	ATTACHED	ATTACHED	9009842	ATTACHED	9009842	ATTACHED	N/A	9009842
Calculated Parameters		1	•						
Filter and HNO3 Preservation	N/A	LAB	LAB	9000377	LAB	9000377	LAB		9000377
Nitrate (N)	mg/L	0.0533	0.106	8999828	0.116	8999828	0.0798	0.0020	8999828
Misc. Inorganics	•		•	•		•			
Fluoride (F)	mg/L	0.043	0.043	9004026	0.048	9004026	0.046	0.010	9004026
Dissolved Organic Carbon (C)	mg/L	14.0	16.2	9003899	15.4	9003874	15.3	0.50	9003899
Alkalinity (Total as CaCO3)	mg/L	21.2	29.1	9002629	50.6	9002640	27.0	0.50	9002629
Total Organic Carbon (C)	mg/L	16.1	18.8	9003861	17.9	9003908	15.5	0.50	9003908
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	9002629	<0.50	9002640	<0.50	0.50	9002629
Bicarbonate (HCO3)	mg/L	25.8	35.5	9002629	61.7	9002640	32.9	0.50	9002629
Carbonate (CO3)	mg/L	<0.50	<0.50	9002629	<0.50	9002640	<0.50	0.50	9002629
Hydroxide (OH)	mg/L	<0.50	<0.50	9002629	<0.50	9002640	<0.50	0.50	9002629
Anions	•			•		•		-	
Dissolved Sulphate (SO4)	mg/L	19.4	33.4	9002120	53.2	9002120	29.9	0.50	9002120
Dissolved Chloride (CI)	mg/L	0.86	0.72	9002119	0.75	9002119	0.79	0.50	9002119
Nutrients									
Total Ammonia (N)	mg/L	0.011	0.015	9001918	0.018	9001918	0.010	0.0050	9001918
Nitrate plus Nitrite (N)	mg/L	0.0533	0.106	9001417	0.116	9001422	0.0798	0.0020	9001417
Nitrite (N)	mg/L	<0.0020	<0.0020	9001421	<0.0020	9001425	<0.0020	0.0020	9001421
Physical Properties			•			•			
Conductivity	uS/cm	90.1	130	9002630	223	9002641	122	1.0	9002630
рН	рН	7.27	7.41	9002626	7.76	9002635	7.39		9002626
Physical Properties									
Total Suspended Solids	mg/L	7.9	1.5	9002315	2.0	9002315	7.6	1.0	9002315
Total Dissolved Solids	mg/L	78	102	9004438	172	9004438	100	10	9004438
RDL = Reportable Detection Li	nit								
N/A = Not Applicable									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4593		TM4594	TM4595			TM4595		
Sampling Date		2018/05/22		2018/05/22	2018/05/22			2018/05/22		
Sampling Date		10:40		11:07	11:55			11:55		
COC Number		553730-01-01		553730-01-01	553730-01-01			553730-01-01		
	UNITS	HC-2.5	QC Batch	HC-5.0	YT-24	RDL	QC Batch	YT-24 Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV	365	9001405	367	372		9001405			
Subcontract Parameter	N/A	ATTACHED	9009842	ATTACHED	ATTACHED	N/A	9009842			
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB	9000377	LAB	LAB		9000377			
Nitrate (N)	mg/L	0.187	8999828	0.106	0.523	0.0020	8999828			
Misc. Inorganics						•				
Fluoride (F)	mg/L	0.042	9004026	0.048	0.058	0.010	9004026			
Dissolved Organic Carbon (C)	mg/L	26.9	9003899	18.9	18.3	0.50	9003874			
Alkalinity (Total as CaCO3)	mg/L	34.5	9002640	47.4	41.0	0.50	9002629			
Total Organic Carbon (C)	mg/L	28.3	9003861	19.0	20.9	0.50	9003861			
Alkalinity (PP as CaCO3)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629			
Bicarbonate (HCO3)	mg/L	42.1	9002640	57.8	50.0	0.50	9002629			
Carbonate (CO3)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629			
Hydroxide (OH)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629			
Anions						•				
Dissolved Sulphate (SO4)	mg/L	20.7	9002120	31.4	71.1	0.50	9002120			
Dissolved Chloride (CI)	mg/L	0.80	9002119	0.93	1.1	0.50	9002119			
Nutrients	!					•			•	
Total Ammonia (N)	mg/L	0.0080	9001918	0.0080	0.021	0.0050	9001918			
Nitrate plus Nitrite (N)	mg/L	0.187	9001422	0.106	0.523	0.0020	9001417			
Nitrite (N)	mg/L	<0.0020	9001425	<0.0020	<0.0020	0.0020	9001421			
Physical Properties					1					
Conductivity	uS/cm	121	9002641	169	247	1.0	9002630			
рН	рН	7.52	9002635	7.62	7.58		9002626			
Physical Properties					!	•			•	
Total Suspended Solids	mg/L	2.5	9002315	1.1	1.7	1.0	9002315			
Total Dissolved Solids	mg/L	102	9004438	118	208	10	9004438	214	10	9004438
RDL = Reportable Detection Lir	nit				ı					

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4596		TM4597			TM4597	
Sampling Date		2018/05/22 12:10		2018/05/22 12:30			2018/05/22 12:30	
COC Number		553730-01-01		553730-01-01			553730-01-01	
	UNITS	YT-24 MIX	QC Batch	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	QC Batch
Parameter			•		•			
ORP	mV	372	9001405	373		9001405		
Subcontract Parameter	N/A	ATTACHED	9009842	ATTACHED	N/A	9009842		
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	9000377	LAB		9000377		
Nitrate (N)	mg/L	0.0260	8999828	0.0518	0.0020	8999828		
Misc. Inorganics								
Fluoride (F)	mg/L	0.093	9004026	0.071	0.010	9004026		
Dissolved Organic Carbon (C)	mg/L	7.33	9003874	10.1	0.50	9003874		
Alkalinity (Total as CaCO3)	mg/L	61.9	9002629	46.9	0.50	9002629		
Total Organic Carbon (C)	mg/L	8.15	9003861	12.3	0.50	9003908		
Alkalinity (PP as CaCO3)	mg/L	<0.50	9002629	<0.50	0.50	9002629		
Bicarbonate (HCO3)	mg/L	75.5	9002629	57.2	0.50	9002629		
Carbonate (CO3)	mg/L	<0.50	9002629	<0.50	0.50	9002629		
Hydroxide (OH)	mg/L	<0.50	9002629	<0.50	0.50	9002629		
Anions			•					
Dissolved Sulphate (SO4)	mg/L	25.3	9002120	28.3	0.50	9002120		
Dissolved Chloride (CI)	mg/L	0.76	9002119	0.87	0.50	9002119		
Nutrients	!		•		•			
Total Ammonia (N)	mg/L	0.010	9001918	0.011	0.0050	9001918		
Nitrate plus Nitrite (N)	mg/L	0.0260	9001417	0.0518	0.0020	9001417		
Nitrite (N)	mg/L	<0.0020	9001421	<0.0020	0.0020	9001421		
Physical Properties								
Conductivity	uS/cm	180	9002630	155	1.0	9002630		
рН	рН	7.84	9002626	7.65		9002626	7.66	9002626
Physical Properties			•		•	•		
Total Suspended Solids	mg/L	94.5	9002315	56.2	1.0	9002315		
Total Dissolved Solids	mg/L	110	9004438	100	10	9004438		
RDL = Reportable Detection Lir	nit		•					

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4598		TM4604	TM4605		
Sampling Date		2018/05/22		2018/05/22	2018/05/22		
		12:10		08:15	08:15		
COC Number		553730-01-01		553730-02-01	553730-02-01		
	UNITS	HALFWAY MIX	QC Batch	LATTE MIX	DUP	RDL	QC Batch
Parameter							
ORP	mV	369	9001405	373	373		9001405
Subcontract Parameter	N/A	ATTACHED	9009842	ATTACHED	ATTACHED	N/A	9009842
Calculated Parameters							
Filter and HNO3 Preservation	N/A	LAB	9000377	LAB	LAB		9000377
Nitrate (N)	mg/L	0.0326	8999828	0.0565	0.0684	0.0020	8999828
Misc. Inorganics	•					•	
Fluoride (F)	mg/L	0.096	9004026	0.045	0.044	0.010	9004026
Dissolved Organic Carbon (C)	mg/L	6.06	9003899	15.2	13.1	0.50	9003899
Alkalinity (Total as CaCO3)	mg/L	63.2	9002640	24.2	23.2	0.50	9002629
Total Organic Carbon (C)	mg/L	6.85	9003861	16.1	16.8	0.50	9003861
Alkalinity (PP as CaCO3)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629
Bicarbonate (HCO3)	mg/L	77.1	9002640	29.6	28.4	0.50	9002629
Carbonate (CO3)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629
Hydroxide (OH)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629
Anions	•					•	
Dissolved Sulphate (SO4)	mg/L	24.5	9002120	24.2	24.6	0.50	9002120
Dissolved Chloride (Cl)	mg/L	0.85	9002119	0.99	0.83	0.50	9002119
Nutrients							
Total Ammonia (N)	mg/L	0.014	9001918	0.0080	0.013	0.0050	9001918
Nitrate plus Nitrite (N)	mg/L	0.0326	9001422	0.0565	0.0684	0.0020	9001417
Nitrite (N)	mg/L	<0.0020	9001425	<0.0020	<0.0020	0.0020	9001421
Physical Properties							
Conductivity	uS/cm	182	9002641	105	104	1.0	9002630
рН	рН	7.89	9002635	7.31	7.31		9002626
Physical Properties			•				
Total Suspended Solids	mg/L	103	9002315	8.4	8.2	1.0	9002315
Total Dissolved Solids	mg/L	78	9004903	84	80	10	9004903
RDL = Reportable Detection Li	nit					•	
N/A = Not Applicable							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4605								
Sampling Date		2018/05/22 08:15								
COC Number		553730-02-01								
	UNITS	DUP Lab-Dup	RDL	QC Batch						
Nutrients										
Total Ammonia (N)	mg/L	0.013	0.0050	9001918						
Physical Properties										
Total Dissolved Solids	mg/L	84	10	9004903						
RDL = Reportable Detection Li	mit									
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4589	TM4590	TM4591	TM4592	TM4593	TM4594		
Compling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		09:36	10:18	09:47	07:50	10:40	11:07		
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	40.2	66.7	102	54.1	57.8	78.3	0.50	8999174
Elements								•	
Dissolved Mercury (Hg)	ug/L	0.0065	0.0107	0.0058	0.0058	0.0090	0.0060	0.0020	9001267
Dissolved Metals by ICPMS									
Dissolved Aluminum (AI)	ug/L	177	242	134	148	310	141	0.50	9001298
Dissolved Antimony (Sb)	ug/L	0.074	0.093	0.087	0.075	0.190	0.188	0.020	9001298
Dissolved Arsenic (As)	ug/L	0.404	0.483	0.446	0.414	1.06	0.943	0.020	9001298
Dissolved Barium (Ba)	ug/L	31.0	26.4	42.3	35.9	31.2	36.1	0.020	9001298
Dissolved Beryllium (Be)	ug/L	0.017	0.038	0.022	0.018	0.041	0.029	0.010	9001298
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9001298
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9001298
Dissolved Cadmium (Cd)	ug/L	0.0146	0.0122	0.0085	0.0137	0.0113	0.0053	0.0050	9001298
Dissolved Chromium (Cr)	ug/L	0.27	0.32	0.28	0.25	0.51	0.40	0.10	9001298
Dissolved Cobalt (Co)	ug/L	0.135	0.0686	0.123	0.117	0.328	0.141	0.0050	9001298
Dissolved Copper (Cu)	ug/L	2.07	1.98	1.63	1.95	2.11	1.74	0.050	9001298
Dissolved Iron (Fe)	ug/L	143	173	121	120	263	156	1.0	9001298
Dissolved Lead (Pb)	ug/L	0.0080	0.0063	0.0085	0.0085	0.0224	0.0118	0.0050	9001298
Dissolved Lithium (Li)	ug/L	0.62	0.95	0.65	0.54	0.99	0.78	0.50	9001298
Dissolved Manganese (Mn)	ug/L	19.1	6.13	23.7	18.7	55.1	7.84	0.050	9001298
Dissolved Molybdenum (Mo)	ug/L	0.568	0.083	0.192	0.519	0.622	0.577	0.050	9001298
Dissolved Nickel (Ni)	ug/L	1.13	1.06	0.829	1.09	1.27	0.964	0.020	9001298
Dissolved Phosphorus (P)	ug/L	9.2	11.0	9.4	8.9	10.3	9.6	2.0	9001298
Dissolved Selenium (Se)	ug/L	0.055	0.056	0.064	0.062	0.064	0.061	0.040	9001298
Dissolved Silicon (Si)	ug/L	2180	2290	2570	2290	2710	2950	50	9001298
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0250	<0.0050	0.0050	9001298
Dissolved Strontium (Sr)	ug/L	51.7	151	207	80.2	176	206	0.050	9001298
Dissolved Thallium (TI)	ug/L	0.0053	0.0035	0.0034	0.0048	0.0051	0.0029	0.0020	9001298
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9001298
Dissolved Titanium (Ti)	ug/L	1.45	1.70	1.26	1.32	3.17	2.03	0.50	9001298
Dissolved Uranium (U)	ug/L	3.14	4.54	9.14	3.27	17.0	13.6	0.0020	9001298
Dissolved Vanadium (V)	ug/L	0.41	0.31	0.37	0.38	0.62	0.51	0.20	9001298
Dissolved Zinc (Zn)	ug/L	0.58	0.76	0.38	0.54	0.98	0.33	0.10	9001298
RDL = Reportable Detection Lin	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4589	TM4590	TM4591	TM4592	TM4593	TM4594		
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		09:36	10:18	09:47	07:50	10:40	11:07		
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.31	0.59	0.54	0.34	0.71	0.56	0.10	9001298
Dissolved Calcium (Ca)	mg/L	10.2	17.3	26.7	13.6	14.6	19.9	0.050	8999541
Dissolved Magnesium (Mg)	mg/L	3.59	5.74	8.54	4.88	5.20	6.93	0.050	8999541
Dissolved Potassium (K)	mg/L	0.954	1.04	1.61	1.05	1.24	1.57	0.050	8999541
Dissolved Sodium (Na)	mg/L	1.75	1.48	2.58	2.10	1.78	2.38	0.050	8999541
Dissolved Sulphur (S)	mg/L	5.4	9.5	16.2	8.3	5.9	9.3	3.0	8999541
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4595	TM4596	TM4597	TM4598	TM4604	TM4605		
		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		11:55	12:10	12:30	12:10	08:15	08:15		
COC Number		553730-01-01	<u> </u>	553730-01-01	553730-01-01	553730-02-01	553730-02-01		
	UNITS	YT-24	YT-24 MIX	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	114	83.5	70.7	83.6	47.2	46.8	0.50	8999174
Elements			l		I			ı	
Dissolved Mercury (Hg)	ug/L	0.0081	0.0028	0.0044	0.0027	0.0066	0.0065	0.0020	9001267
Dissolved Metals by ICPMS	•							•	
Dissolved Aluminum (AI)	ug/L	105	36.5	76.9	39.4	168	167	0.50	9001298
Dissolved Antimony (Sb)	ug/L	0.224	0.130	0.110	0.135	0.079	0.082	0.020	9001298
Dissolved Arsenic (As)	ug/L	0.673	0.499	0.471	0.501	0.421	0.422	0.020	9001298
Dissolved Barium (Ba)	ug/L	56.0	42.5	40.8	42.9	32.1	32.1	0.020	9001298
Dissolved Beryllium (Be)	ug/L	0.027	<0.010	0.010	<0.010	0.018	0.018	0.010	9001298
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9001298
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9001298
Dissolved Cadmium (Cd)	ug/L	0.0092	0.0574	0.0491	0.0627	0.0158	0.0160	0.0050	9001298
Dissolved Chromium (Cr)	ug/L	0.44	<0.10	0.16	<0.10	0.28	0.25	0.10	9001298
Dissolved Cobalt (Co)	ug/L	0.147	0.0436	0.0905	0.0506	0.136	0.133	0.0050	9001298
Dissolved Copper (Cu)	ug/L	2.31	1.93	1.98	1.96	2.01	1.99	0.050	9001298
Dissolved Iron (Fe)	ug/L	99.8	65.9	92.4	70.6	139	140	1.0	9001298
Dissolved Lead (Pb)	ug/L	0.0097	0.0412	0.0343	0.0488	0.0089	0.0094	0.0050	9001298
Dissolved Lithium (Li)	ug/L	<0.50	1.46	1.00	1.45	0.60	0.61	0.50	9001298
Dissolved Manganese (Mn)	ug/L	11.4	5.83	14.8	7.41	20.9	19.6	0.050	9001298
Dissolved Molybdenum (Mo)	ug/L	0.337	0.962	0.736	0.976	0.532	0.516	0.050	9001298
Dissolved Nickel (Ni)	ug/L	1.01	2.53	1.89	2.56	1.14	1.09	0.020	9001298
Dissolved Phosphorus (P)	ug/L	12.1	5.9	7.5	6.0	10.1	10.5	2.0	9001298
Dissolved Selenium (Se)	ug/L	0.061	0.306	0.179	0.308	0.055	0.057	0.040	9001298
Dissolved Silicon (Si)	ug/L	2790	2380	2370	2440	2200	2170	50	9001298
Dissolved Silver (Ag)	ug/L	0.0053	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	0.0050	9001298
Dissolved Strontium (Sr)	ug/L	180	119	103	116	73.2	72.3	0.050	9001298
Dissolved Thallium (TI)	ug/L	0.0040	0.0040	0.0047	0.0043	0.0047	0.0053	0.0020	9001298
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9001298
Dissolved Titanium (Ti)	ug/L	1.90	0.52	0.86	0.58	1.49	1.54	0.50	9001298
Dissolved Uranium (U)	ug/L	3.46	1.15	2.04	1.28	3.54	3.57	0.0020	9001298
Dissolved Vanadium (V)	ug/L	0.35	0.31	0.35	0.31	0.43	0.42	0.20	9001298
Dissolved Zinc (Zn)	ug/L	0.29	2.00	2.00	2.14	0.61	0.52	0.10	9001298
RDL = Reportable Detection Lin	nit								
<u> </u>									



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4595	TM4596	TM4597	TM4598	TM4604	TM4605		
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		11:55	12:10	12:30	12:10	08:15	08:15		
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-02-01	553730-02-01		
	UNITS	YT-24	YT-24 MIX	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.73	0.12	0.21	0.11	0.36	0.33	0.10	9001298
Dissolved Calcium (Ca)	mg/L	29.6	22.2	18.4	22.2	11.9	11.9	0.050	8999541
Dissolved Magnesium (Mg)	mg/L	9.67	6.79	5.97	6.81	4.21	4.15	0.050	8999541
Dissolved Potassium (K)	mg/L	1.74	0.998	1.03	0.978	1.02	1.00	0.050	8999541
Dissolved Sodium (Na)	mg/L	3.00	1.89	2.04	1.88	1.89	1.86	0.050	8999541
Dissolved Sulphur (S)	mg/L	22.0	7.0	7.9	7.1	6.7	6.6	3.0	8999541
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TM4589			TM4589			TM4590		
Campling Data		2018/05/22			2018/05/22			2018/05/22		
Sampling Date		09:36			09:36			10:18		
COC Number		553730-01-01			553730-01-01			553730-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	44.1	0.50	9000046				69.8	0.50	9000046
Elements	•					•			•	
Total Mercury (Hg)	ug/L	0.0066	0.0020	9000749				0.0115	0.0020	9001116
Total Metals by ICPMS	•					•			•	
Total Aluminum (AI)	ug/L	320	3.0	9003753	308	3.0	9003753	277	3.0	9003753
Total Antimony (Sb)	ug/L	0.083	0.020	9003753	0.078	0.020	9003753	0.081	0.020	9003753
Total Arsenic (As)	ug/L	0.558	0.020	9003753	0.540	0.020	9003753	0.522	0.020	9003753
Total Barium (Ba)	ug/L	34.1	0.050	9003753	32.7	0.050	9003753	26.5	0.050	9003753
Total Beryllium (Be)	ug/L	0.022	0.010	9003753	0.022	0.010	9003753	0.040	0.010	9003753
Total Bismuth (Bi)	ug/L	<0.010	0.010	9003753	<0.010	0.010	9003753	<0.010	0.010	9003753
Total Boron (B)	ug/L	<10	10	9003753	<10	10	9003753	<10	10	9003753
Total Cadmium (Cd)	ug/L	0.0246	0.0050	9003753	0.0215	0.0050	9003753	0.0154	0.0050	9003753
Total Chromium (Cr)	ug/L	0.50	0.10	9003753	0.47	0.10	9003753	0.39	0.10	9003753
Total Cobalt (Co)	ug/L	0.247	0.010	9003753	0.236	0.010	9003753	0.091	0.010	9003753
Total Copper (Cu)	ug/L	2.45	0.10	9003753	2.36	0.10	9003753	2.03	0.10	9003753
Total Iron (Fe)	ug/L	350	5.0	9003753	340	5.0	9003753	222	5.0	9003753
Total Lead (Pb)	ug/L	0.072	0.020	9003753	0.069	0.020	9003753	0.029	0.020	9003753
Total Lithium (Li)	ug/L	0.74	0.50	9003753	0.72	0.50	9003753	1.01	0.50	9003753
Total Manganese (Mn)	ug/L	41.8	0.10	9003753	39.8	0.10	9003753	10.2	0.10	9003753
Total Molybdenum (Mo)	ug/L	0.626	0.050	9003753	0.599	0.050	9003753	0.077	0.050	9003753
Total Nickel (Ni)	ug/L	1.37	0.10	9003753	1.27	0.10	9003753	1.04	0.10	9003753
Total Phosphorus (P)	ug/L	20.2	5.0	9003753	17.1	5.0	9003753	16.2	5.0	9003753
Total Selenium (Se)	ug/L	0.067	0.040	9003753	0.049	0.040	9003753	0.059	0.040	9003753
Total Silicon (Si)	ug/L	2760	50	9003753	2750	50	9003753	2610	50	9003753
Total Silver (Ag)	ug/L	<0.010	0.010	9003753	<0.010	0.010	9003753	<0.010	0.010	9003753
Total Strontium (Sr)	ug/L	58.7	0.050	9003753	57.0	0.050	9003753	151	0.050	9003753
Total Thallium (TI)	ug/L	0.0078	0.0020	9003753	0.0073	0.0020	9003753	0.0030	0.0020	9003753
Total Tin (Sn)	ug/L	<0.20	0.20	9003753	<0.20	0.20	9003753	<0.20	0.20	9003753
Total Titanium (Ti)	ug/L	10.1	2.0	9003753	10.0	2.0	9003753	3.1	2.0	9003753
Total Uranium (U)	ug/L	3.53	0.0050	9003753	3.42	0.0050	9003753	4.87	0.0050	9003753
Total Vanadium (V)	ug/L	0.88	0.20	9003753	0.86	0.20	9003753	0.39	0.20	9003753

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TM4589			TM4589			TM4590		
Sampling Date		2018/05/22 09:36			2018/05/22 09:36			2018/05/22 10:18		
COC Number		553730-01-01			553730-01-01			553730-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Total Zinc (Zn)	ug/L	1.3	1.0	9003753	1.3	1.0	9003753	1.1	1.0	9003753
Total Zirconium (Zr)	ug/L	0.31	0.10	9003753	0.29	0.10	9003753	0.47	0.10	9003753
Total Calcium (Ca)	mg/L	11.2	0.25	8999544				18.3	0.25	8999544
Total Magnesium (Mg)	mg/L	3.90	0.25	8999544				5.85	0.25	8999544
Total Potassium (K)	mg/L	1.04	0.25	8999544				1.09	0.25	8999544
Total Sodium (Na)	mg/L	1.93	0.25	8999544				1.52	0.25	8999544
Total Sulphur (S)	mg/L	5.6	3.0	8999544				9.9	3.0	8999544

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4591	TM4592	TM4593	TM4594	TM4595	TM4596		
Compline Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		09:47	07:50	10:40	11:07	11:55	12:10		
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01		
	UNITS	CC-3.5	CC-4.5	HC-2.5	HC-5.0	YT-24	YT-24 MIX	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	109	56.4	58.5	81.5	118	99.5	0.50	9000046
Elements							•	•	•
Total Mercury (Hg)	ug/L	0.0067	0.0065	0.0100	0.0064	0.0084	0.0028	0.0020	9001116
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	149	294	398	166	136	1380	3.0	9003753
Total Antimony (Sb)	ug/L	0.086	0.076	0.187	0.186	0.238	0.241	0.020	9003753
Total Arsenic (As)	ug/L	0.464	0.578	1.24	0.996	0.733	1.96	0.020	9003753
Total Barium (Ba)	ug/L	42.2	39.3	31.5	37.0	57.7	114	0.050	9003753
Total Beryllium (Be)	ug/L	0.032	0.014	0.050	0.031	0.024	0.079	0.010	9003753
Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.029	0.010	9003753
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9003753
Total Cadmium (Cd)	ug/L	0.0101	0.0242	0.0148	0.0075	0.0116	0.339	0.0050	9003753
Total Chromium (Cr)	ug/L	0.34	0.44	0.62	0.45	0.51	2.76	0.10	9003753
Total Cobalt (Co)	ug/L	0.139	0.240	0.361	0.163	0.177	1.40	0.010	9003753
Total Copper (Cu)	ug/L	1.77	2.18	2.14	1.93	2.38	5.99	0.10	9003753
Total Iron (Fe)	ug/L	152	341	341	201	140	2700	5.0	9003753
Total Lead (Pb)	ug/L	0.021	0.079	0.058	0.025	0.029	1.50	0.020	9003753
Total Lithium (Li)	ug/L	0.68	0.70	1.05	0.90	<0.50	2.91	0.50	9003753
Total Manganese (Mn)	ug/L	31.9	40.3	62.3	13.7	14.0	122	0.10	9003753
Total Molybdenum (Mo)	ug/L	0.201	0.543	0.616	0.647	0.353	1.07	0.050	9003753
Total Nickel (Ni)	ug/L	0.83	1.21	1.27	0.98	1.05	8.19	0.10	9003753
Total Phosphorus (P)	ug/L	14.0	17.5	13.5	14.7	18.4	128	5.0	9003753
Total Selenium (Se)	ug/L	0.064	0.051	0.075	0.052	0.062	0.410	0.040	9003753
Total Silicon (Si)	ug/L	3070	2830	3290	3470	3370	4970	50	9003753
Total Silver (Ag)	ug/L	<0.010	<0.010	0.070	<0.010	<0.010	0.025	0.010	9003753
Total Strontium (Sr)	ug/L	219	82.1	176	218	185	132	0.050	9003753
Total Thallium (TI)	ug/L	0.0031	0.0060	0.0050	0.0030	0.0041	0.0248	0.0020	9003753
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9003753
Total Titanium (Ti)	ug/L	2.1	9.8	5.7	3.8	3.9	46.4	2.0	9003753
Total Uranium (U)	ug/L	9.72	3.61	16.8	14.2	3.65	1.38	0.0050	9003753
Total Vanadium (V)	ug/L	0.46	0.89	0.78	0.58	0.41	5.04	0.20	9003753
Total Zinc (Zn)	ug/L	<1.0	1.2	1.2	<1.0	<1.0	28.5	1.0	9003753
RDL = Reportable Detection L	.imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4591	TM4592	TM4593	TM4594	TM4595	TM4596		
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		09:47	07:50	10:40	11:07	11:55	12:10		
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01		
	UNITS	CC-3.5	CC-4.5	HC-2.5	HC-5.0	YT-24	YT-24 MIX	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.44	0.28	0.60	0.50	0.64	0.49	0.10	9003753
Total Calcium (Ca)	mg/L	28.9	14.5	15.2	21.2	31.3	26.5	0.25	8999544
Total Magnesium (Mg)	mg/L	8.98	4.92	4.97	6.91	9.65	8.11	0.25	8999544
Total Potassium (K)	mg/L	1.74	1.12	1.24	1.62	1.81	1.33	0.25	8999544
Total Sodium (Na)	mg/L	2.71	2.12	1.73	2.41	3.00	2.07	0.25	8999544
Total Sulphur (S)	mg/L	16.9	8.2	5.4	9.5	22.6	7.8	3.0	8999544
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4597	TM4598	TM4604	TM4605		
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Jamping Date		12:30	12:10	08:15	08:15		
COC Number		553730-01-01	553730-01-01	553730-02-01	553730-02-01		
	UNITS	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	80.5	95.1	51.6	49.9	0.50	9000046
Elements						•	
Total Mercury (Hg)	ug/L	0.0048	0.0032	0.0069	0.0073	0.0020	9001116
Total Metals by ICPMS						•	
Total Aluminum (Al)	ug/L	892	1440	357	366	3.0	9003753
Total Antimony (Sb)	ug/L	0.170	0.244	0.083	0.077	0.020	9003753
Total Arsenic (As)	ug/L	1.30	1.95	0.605	0.620	0.020	9003753
Total Barium (Ba)	ug/L	80.3	116	36.2	38.0	0.050	9003753
Total Beryllium (Be)	ug/L	0.051	0.069	0.018	0.025	0.010	9003753
Total Bismuth (Bi)	ug/L	0.015	0.027	<0.010	<0.010	0.010	9003753
Total Boron (B)	ug/L	<10	<10	<10	<10	10	9003753
Total Cadmium (Cd)	ug/L	0.178	0.327	0.0258	0.0261	0.0050	9003753
Total Chromium (Cr)	ug/L	1.76	2.80	0.57	0.62	0.10	9003753
Total Cobalt (Co)	ug/L	0.823	1.35	0.288	0.303	0.010	9003753
Total Copper (Cu)	ug/L	4.15	5.90	2.50	2.45	0.10	9003753
Total Iron (Fe)	ug/L	1630	2790	414	431	5.0	9003753
Total Lead (Pb)	ug/L	0.815	1.49	0.094	0.099	0.020	9003753
Total Lithium (Li)	ug/L	1.78	2.87	0.76	0.72	0.50	9003753
Total Manganese (Mn)	ug/L	78.1	116	48.5	48.5	0.10	9003753
Total Molybdenum (Mo)	ug/L	0.809	1.07	0.559	0.568	0.050	9003753
Total Nickel (Ni)	ug/L	4.78	7.89	1.39	1.45	0.10	9003753
Total Phosphorus (P)	ug/L	71.8	111	20.7	22.8	5.0	9003753
Total Selenium (Se)	ug/L	0.234	0.407	0.063	0.059	0.040	9003753
Total Silicon (Si)	ug/L	4210	4950	2880	2850	50	9003753
Total Silver (Ag)	ug/L	0.016	0.026	<0.010	<0.010	0.010	9003753
Total Strontium (Sr)	ug/L	109	128	76.6	74.8	0.050	9003753
Total Thallium (TI)	ug/L	0.0180	0.0269	0.0072	0.0063	0.0020	9003753
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9003753
Total Titanium (Ti)	ug/L	31.5	47.4	12.0	14.6	2.0	9003753
Total Uranium (U)	ug/L	2.35	1.47	4.19	4.10	0.0050	9003753
Total Vanadium (V)	ug/L	3.18	5.19	1.01	1.06	0.20	9003753
Total Zinc (Zn)	ug/L	15.1	28.3	1.6	1.7	1.0	9003753
RDL = Reportable Detection	Limit						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4597	TM4598	TM4604	TM4605		
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Jamping Date		12:30	12:10	08:15	08:15		
COC Number		553730-01-01	553730-01-01	553730-02-01	553730-02-01		
	UNITS	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.38	0.35	0.31	0.31	0.10	9003753
Total Calcium (Ca)	mg/L	21.3	25.2	13.4	13.0	0.25	8999544
Total Magnesium (Mg)	mg/L	6.62	7.78	4.38	4.24	0.25	8999544
Total Potassium (K)	mg/L	1.25	1.29	1.15	1.10	0.25	8999544
Total Sodium (Na)	mg/L	2.16	2.00	1.97	1.89	0.25	8999544
Total Sulphur (S)	mg/L	7.6	6.9	6.7	6.3	3.0	8999544
RDL = Reportable Detection	ո Limit						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **GENERAL COMMENTS**

Results relate only to the items tested.		



### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	Blank	RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9000749	Total Mercury (Hg)	2018/05/25	94	80 - 120	99	80 - 120	<0.0020	ug/L	17	20
9001116	Total Mercury (Hg)	2018/05/25	96	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
9001267	Dissolved Mercury (Hg)	2018/05/25	100	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
9001298	Dissolved Aluminum (Al)	2018/05/26	99	80 - 120	101	80 - 120	<0.50	ug/L	0.39	20
9001298	Dissolved Antimony (Sb)	2018/05/26	102	80 - 120	103	80 - 120	<0.020	ug/L	2.8	20
9001298	Dissolved Arsenic (As)	2018/05/26	105	80 - 120	106	80 - 120	<0.020	ug/L	1.0	20
9001298	Dissolved Barium (Ba)	2018/05/26	99	80 - 120	103	80 - 120	<0.020	ug/L	0.78	20
9001298	Dissolved Beryllium (Be)	2018/05/26	99	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9001298	Dissolved Bismuth (Bi)	2018/05/26	96	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
9001298	Dissolved Boron (B)	2018/05/26	94	80 - 120	96	80 - 120	<10	ug/L	0.58	20
9001298	Dissolved Cadmium (Cd)	2018/05/26	97	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9001298	Dissolved Chromium (Cr)	2018/05/26	95	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9001298	Dissolved Cobalt (Co)	2018/05/26	99	80 - 120	104	80 - 120	<0.0050	ug/L	0.81	20
9001298	Dissolved Copper (Cu)	2018/05/26	93	80 - 120	103	80 - 120	<0.050	ug/L	0.48	20
9001298	Dissolved Iron (Fe)	2018/05/26	93	80 - 120	95	80 - 120	<1.0	ug/L	15	20
9001298	Dissolved Lead (Pb)	2018/05/26	97	80 - 120	103	80 - 120	<0.0050	ug/L	6.3	20
9001298	Dissolved Lithium (Li)	2018/05/26	101	80 - 120	101	80 - 120	<0.50	ug/L	1.8	20
9001298	Dissolved Manganese (Mn)	2018/05/26	NC	80 - 120	98	80 - 120	<0.050	ug/L	1.3	20
9001298	Dissolved Molybdenum (Mo)	2018/05/26	NC	80 - 120	104	80 - 120	<0.050	ug/L	3.5	20
9001298	Dissolved Nickel (Ni)	2018/05/26	92	80 - 120	102	80 - 120	<0.020	ug/L	7.1	20
9001298	Dissolved Phosphorus (P)	2018/05/26	100	80 - 120	101	80 - 120	<2.0	ug/L	1.5	20
9001298	Dissolved Selenium (Se)	2018/05/26	100	80 - 120	102	80 - 120	<0.040	ug/L	15	20
9001298	Dissolved Silicon (Si)	2018/05/26	103	80 - 120	93	80 - 120	<50	ug/L	1.8	20
9001298	Dissolved Silver (Ag)	2018/05/26	99	80 - 120	102	80 - 120	< 0.0050	ug/L	NC	20
9001298	Dissolved Strontium (Sr)	2018/05/26	NC	80 - 120	98	80 - 120	<0.050	ug/L	3.4	20
9001298	Dissolved Thallium (TI)	2018/05/26	96	80 - 120	101	80 - 120	<0.0020	ug/L	4.2	20
9001298	Dissolved Tin (Sn)	2018/05/26	101	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
9001298	Dissolved Titanium (Ti)	2018/05/26	98	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9001298	Dissolved Uranium (U)	2018/05/26	101	80 - 120	101	80 - 120	<0.0020	ug/L	1.8	20
9001298	Dissolved Vanadium (V)	2018/05/26	98	80 - 120	103	80 - 120	<0.20	ug/L	0.018	20
9001298	Dissolved Zinc (Zn)	2018/05/26	94	80 - 120	103	80 - 120	<0.10	ug/L	0.55	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9001298	Dissolved Zirconium (Zr)	2018/05/26	105	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
9001417	Nitrate plus Nitrite (N)	2018/05/25	122 (1)	80 - 120	111	80 - 120	<0.0020	mg/L	1.0	25
9001421	Nitrite (N)	2018/05/25	120	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9001422	Nitrate plus Nitrite (N)	2018/05/25	118	80 - 120	107	80 - 120	<0.0020	mg/L	4.7	25
9001425	Nitrite (N)	2018/05/25	117	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9001918	Total Ammonia (N)	2018/05/25	85	80 - 120	96	80 - 120	<0.0050	mg/L	0	20
9002119	Dissolved Chloride (CI)	2018/05/25			101	80 - 120	<0.50	mg/L		
9002120	Dissolved Sulphate (SO4)	2018/05/25			103	80 - 120	0.54, RDL=0.50	mg/L		
9002315	Total Suspended Solids	2018/05/28			99	80 - 120	<1.0	mg/L		
9002626	рН	2018/05/25			101	97 - 103			0.13	20
9002629	Alkalinity (PP as CaCO3)	2018/05/25					<0.50	mg/L		
9002629	Alkalinity (Total as CaCO3)	2018/05/25			96	80 - 120	<0.50	mg/L		
9002629	Bicarbonate (HCO3)	2018/05/25					<0.50	mg/L		
9002629	Carbonate (CO3)	2018/05/25					<0.50	mg/L		
9002629	Hydroxide (OH)	2018/05/25					<0.50	mg/L		
9002630	Conductivity	2018/05/25			102	80 - 120	<1.0	uS/cm		
9002635	рН	2018/05/26			101	97 - 103				
9002640	Alkalinity (PP as CaCO3)	2018/05/26					<0.50	mg/L		
9002640	Alkalinity (Total as CaCO3)	2018/05/26			95	80 - 120	<0.50	mg/L		
9002640	Bicarbonate (HCO3)	2018/05/26					<0.50	mg/L		
9002640	Carbonate (CO3)	2018/05/26					<0.50	mg/L		
9002640	Hydroxide (OH)	2018/05/26					<0.50	mg/L		
9002641	Conductivity	2018/05/26			101	80 - 120	<1.0	uS/cm		
9003753	Total Aluminum (AI)	2018/05/29	90	80 - 120	107	80 - 120	<3.0	ug/L	4.0	20
9003753	Total Antimony (Sb)	2018/05/29	102	80 - 120	105	80 - 120	<0.020	ug/L	6.4	20
9003753	Total Arsenic (As)	2018/05/29	101	80 - 120	103	80 - 120	<0.020	ug/L	3.3	20
9003753	Total Barium (Ba)	2018/05/29	101	80 - 120	106	80 - 120	<0.050	ug/L	4.5	20
9003753	Total Beryllium (Be)	2018/05/29	101	80 - 120	102	80 - 120	<0.010	ug/L	0.46	20
9003753	Total Bismuth (Bi)	2018/05/29	98	80 - 120	105	80 - 120	<0.010	ug/L	NC	20
9003753	Total Boron (B)	2018/05/29	100	80 - 120	101	80 - 120	<10	ug/L	NC	20
9003753	Total Cadmium (Cd)	2018/05/29	103	80 - 120	104	80 - 120	<0.0050	ug/L	13	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9003753	Total Chromium (Cr)	2018/05/29	102	80 - 120	107	80 - 120	<0.10	ug/L	5.6	20
9003753	Total Cobalt (Co)	2018/05/29	99	80 - 120	104	80 - 120	<0.010	ug/L	4.6	20
9003753	Total Copper (Cu)	2018/05/29	97	80 - 120	101	80 - 120	<0.10	ug/L	3.6	20
9003753	Total Iron (Fe)	2018/05/29	81	80 - 120	110	80 - 120	<5.0	ug/L	3.1	20
9003753	Total Lead (Pb)	2018/05/29	99	80 - 120	105	80 - 120	<0.020	ug/L	4.1	20
9003753	Total Lithium (Li)	2018/05/29	100	80 - 120	103	80 - 120	<0.50	ug/L	2.8	20
9003753	Total Manganese (Mn)	2018/05/29	100	80 - 120	107	80 - 120	<0.10	ug/L	4.9	20
9003753	Total Molybdenum (Mo)	2018/05/29	102	80 - 120	107	80 - 120	<0.050	ug/L	4.4	20
9003753	Total Nickel (Ni)	2018/05/29	101	80 - 120	105	80 - 120	<0.10	ug/L	7.8	20
9003753	Total Phosphorus (P)	2018/05/29	98	80 - 120	102	80 - 120	<5.0	ug/L	16	20
9003753	Total Selenium (Se)	2018/05/29	103	80 - 120	103	80 - 120	<0.040	ug/L	NC	20
9003753	Total Silicon (Si)	2018/05/29	103	80 - 120	113	80 - 120	<50	ug/L	0.46	20
9003753	Total Silver (Ag)	2018/05/29	102	80 - 120	105	80 - 120	<0.010	ug/L	NC	20
9003753	Total Strontium (Sr)	2018/05/29	NC	80 - 120	106	80 - 120	<0.050	ug/L	2.8	20
9003753	Total Thallium (Tl)	2018/05/29	100	80 - 120	105	80 - 120	<0.0020	ug/L	6.6	20
9003753	Total Tin (Sn)	2018/05/29	102	80 - 120	106	80 - 120	<0.20	ug/L	NC	20
9003753	Total Titanium (Ti)	2018/05/29	98	80 - 120	111	80 - 120	<2.0	ug/L	1.6	20
9003753	Total Uranium (U)	2018/05/29	104	80 - 120	109	80 - 120	<0.0050	ug/L	3.3	20
9003753	Total Vanadium (V)	2018/05/29	104	80 - 120	109	80 - 120	<0.20	ug/L	2.3	20
9003753	Total Zinc (Zn)	2018/05/29	102	80 - 120	105	80 - 120	<1.0	ug/L	2.7	20
9003753	Total Zirconium (Zr)	2018/05/29	101	80 - 120	106	80 - 120	<0.10	ug/L	5.4	20
9003861	Total Organic Carbon (C)	2018/05/28	97	80 - 120	96	80 - 120	<0.50	mg/L	NC	20
9003874	Dissolved Organic Carbon (C)	2018/05/28	98	80 - 120	96	80 - 120	<0.50	mg/L	16	20
9003899	Dissolved Organic Carbon (C)	2018/05/28	98	80 - 120	107	80 - 120	<0.50	mg/L	1.8	20
9003908	Total Organic Carbon (C)	2018/05/28	97	80 - 120	107	80 - 120	<0.50	mg/L	1.7	20
9004026	Fluoride (F)	2018/05/28	NC	80 - 120	102	80 - 120	<0.010	mg/L	9.2	20
9004438	Total Dissolved Solids	2018/05/30	102	80 - 120	100	80 - 120	<10	mg/L	2.8	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9004903	Total Dissolved Solids	2018/05/30	102	80 - 120	92	80 - 120	<10	mg/L	4.9	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Mandheraj Chana, Junior Project Manager

Mandheroj Kour Chana

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

	IN	VOICE TO:				Report in	formation							Project In	formation	Ē	mill BAS	Mariant State and the	ACTION BUT	A HOUR	
mpany Name	#3604 LORAX E	ENVIRONMENTAL SERVICE	CES LTD.	Company N	ame						Qual	Quotation # B40231					A RELIGIO	3.00 00	8	Bottle Orde	
ntact Name	Aida Piaseczny			Contact Nam	ne David Flath	er					P.O.	P.O.#  Project # Gold Corp Coff					_	301002 14710	SERIE S	8 IIII	111111111
dress	2289 BURRARD	STREET		Address	8 <u></u>						Proje				p Coffee	Creek-St	N 98397	43 COC	COC		553730
	VANCOUVER BO										Proje	ct Name	-				_ 50357	43_000		_	Project Man
one	(604) 688-7173 x	1 44		Phone				ак			Site	ø	-							-	Diana Cri
1261	aida piaseczny@	lorax.ca, shukling ng@lorax	x.ca	Email	David Flath	er@lorax	ca	_				pled By						C#553730-01	130		
Regulatory (	criteria			Spec	al Instructions						-	Analysis R	tequested		5	-		Turnaround	d Time (TAT)	1000	uwa.
		3 4			Yer is		d Drinking Water ? (Y/N) eld Filtered ? (Y/N)	(AIK-LL, EC-LL, NH4- TDS)	Level	(LL.CI, F, NO2, NO3,	WAD			Level Dissolved Metals CV Hg	Total Metals incl.		(v Sc.indaro Pletise no Cujá - cor	Standard) TAT  *led if Rush TAT is not s  T = 5-7 Working days:  ste. Standard TAT for certificity our Project Manage fic Rush TAT (if applies to	specified) for most fests ain fests such as er for details entire submissio	s 800 and 1	Dioxins/Furan
	Note: For regulated di	inking water samples - please use	e the Drinking W	/ater Chain o	Custody Form		Field D	S.F.	3	E (C	60			eve >	Level		Rush Confir	mation Number			
	Samples mu	st be kept cool ( < 10°C ) from time o	of sampling until o	delivery to max	кат		4 4	utine pH,	TSS-L	Anions SO4)	Cyanide	ပ္	0	GE GE	w Le	g,				(call lab fi	or ap
Samp	le Barcode Label	Sample (Location) Identification	Date	Sampled	Time Sampled	Matrix	Regi	87	TS	SO	ò	100	DOC	Low	Low Hg	ORP	# of Bottlea		Comme	ents.	
	SID#162743	CC-0.5	22	165/18	9:36	w	NN	1	1	1	/	1	1	1	1	1	13				
	SID#162744	CC-1.5	22	105/18	10:18	w	NN	1	1	1	1	/	/	/	/	1	18				
	SIDW162745	CC-3.5	22/	65/18	9:47	w	NN	1	/	1	/	/	/	/	/	/	13	RECEN	VED IN W	/HITEH	HORSE
	SID#162748	CC-4.5	22,	105/18	7:50	w	NN	1	V	V	/	/	/	V	$\checkmark$	/	13	BY:4	Mu	phy	101
	SID#162747	HC-2.5	22/	05/18	10:40	w	NN	/	/	/	$\checkmark$	V	/	1	/	V	13		2018 -	05-2;	3
	SID#162748	HC-5.0	22/	05/18	11:07	w	NN	V	$\checkmark$	/	V	1	/	V	$\checkmark$	/	13	TEMP:	51	5	,7
	SID#149895	YT-24	22/	05/18	11:55	w	NN	V	/	/	V	V	/	V	V	/	13			-	11
73.000M	SID#149895	YT-24 Mix	221	05/19	12:10	W	NN	1	V	V	V	V	/	V	/	V	13		5	٥	4
The second	S&D#149697	Coffee Mix	22/	05/18	12:50	w	NN	/	V	V	/	V	V	V	1	/	13		3	4	4
III. EXCENTE	SID#149898	Halfway Mix	22/	05/18	15,10	w	NI	/ /	V	V	/	V	/	/	/	/	13	1000	40 W		
	NQUISHED BY: (Signature		Date: (YY/MW/DD		the second second	RECE	//V	Signature/Pr	rint)		_	te: (YY/MM)	-	/ 5' (V)	not a	used and ubmitted	Time Sensitive	77 - 507 - 77 - 77	Use Only Cus	stody Seal tr	ntact on Cook
Miti	hell Nord	10	-		20	MY	140	VV			63	10/41	LET	1.00		14		nperature (°C) on Receipt		Yes	No
OR VIEWI	NG AT WWW.MAXXAM.CA/T	WRITING, WORK SUBMITTED ON THE	IS CHAIN OF CUS										OCUMENT	I IS ACKNO	WLEDGME	NT AND ACC	PTANCE OF OUR 1	7 4 4	ABLE V	White: Maxxim	Yellow
IS THE R	ESPONSIBILITY OF THE RE	LINQUISHER TO ENSURE THE ACCU	UHACY OF THE C	MAIN OF CUS	OUY RECORD. AN INC	COMPLETE	HAIN OF C	USTODY MA	AT RESULT	IN ANALY	IGAL TAT	LIELAYS.	75.					0 1			

Maxxam Analytics International Corporation o/a Maxxam Analytics

		NVOICE TO:			Report in	formatio	n						Project le	nformation	<u> </u>	<b>副</b>	<b>建一种工作,其他工作的</b>	/34	<u> </u>
any Name	#3604 LORAX	ENVIRONMENTAL SERVICES LT	D. Company N	Company Name						Que	Quotation# B40231					100	Parallel March 1991	30	Bottle Order
ot Name	Aida Piaseczny		Contact Nar	David Class	ner					17	P.O.#				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
85	2289 BURRARI	STREET	Address							Project # Gold Corp Coffee Creek-SW			B839743_COC						
	VANCOUVER E		UDOLANIE V.							Proje	ect Name						,	0	Project Manag
	(604) 688-7173	x Fax (604) 688-7175 x	Phone				Fax			Site								11	Diana Cruz
	aida piaseczny@	@lorax.ca; shukling.ng@lorax.ca	Email	David.Flath	ner@lorax	ca	1110-2			Sam	pled By						C#553730-02-01		Cristian Griss
ulatory C	rilena		Spec	sal Instructions		Lance I					Analysis F	Requested					Turnaround Time (TA	T) Required	
						Regulated Drinking Water ? (Y / N.)	(AIK-LL, EC-LL, NH4- TDS)	Level	(LL:CI, F, NO2, NO3,	WAD			Level Dissolved Metals CV Hg	Total Metals incl. CV		(will be app Standard T Please riote days - confi	Please provide advance not Standard) TAT is not specified). TAT = 5-T Working days for most less to: Standard TAT for certain fests sur facel your Project Manager for detains Rush TAT (if applies to entire submud.	ts th as BOD and	d Dicxins/Furains
	Manager Co.	drinkling water samples - please use the Drin	THE STATE OF THE STATE OF	THE RESERVE OF THE PERSON NAMED IN COLUMN 1		I beld	H C	TSS-Low	IS (L	- ep			SV H	Level		Rush Confirm	nation Number	(call lat	NAME OF THE OWNER.
	Samples m	rust be kept cool ( < 10°C ) from time of samplin	g until delivery to ma	oxam		97	Routine LL, pH, 1	55	Anions ( SO4)	Cyanide	TOC	DOG	Low t	Low L	ORP		50		
Батрі	e Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	2 2	23	14:	A (0)	O	F	۵	3.5	3I	0	# of Bottles	Co	riments	
	ID#149899	Latte Mix	22/05/18	8:15	W	NI	V /	1	/	/	/	/	/	/	/	13	RECEIVED IN W	НІТЕНО	RSE
	SID#208506	Dup	22/05/18	8:15	w	NA	/	1	1	/	/	/	/	/	/	13	BY K Many	mg@	13:45
																	2018 -	15-23	
						Н											F 1	-	-1
							_										TEMP: 5 /	5 /	
																	5	5	4
																	3	4	4
										10	CLOU	101724							
	QUISHED BY: (Signatur			the same of the sa			(Signature)P	rint)		Dat	te: (YY/MM	(DD)	Time	# jars	used and ubmitted		Lab Use Only		
Alte	nell Norda	n 18/05	122 14:	30	UFW	1//	UWW			20	10/4	ILY	3.00	THE PARTY	Time 5	orestive Temp	persture (*C) on Receipt	Custody Seal	Intact on Cooler
gs of	HERWISE AGREED TO U	WRITING, WORK SUBMITTED ON THIS CHAIN O	OF CUSTODY IS SUB.	JECT TO MAXXAM'S S	TANDARD TE	RMS AND	CONDITION	S. SIGNIN	G OF THIS	CHAIN OF C	USTODY D	OCUMENT	IS ACKNO	WLEDGME	NT AND ACCEPTA	ICE OF OUR TE	ERMS WHICH ARE AVAILABLE	White Mason	
		VTERMS. RELINQUISHER TO ENSURE THE ACCURACY OF	THE CHAIN OF CUS	TODY RECORD. AN IN	COMPLETE	HAIN OF	CUSTODY M	AY RESUL	T IN ANALY	TICAL TAT	DELAYS.					1	1717		

( - /

Maxxam Analytics International Corporation o/a Maxxam Analytica



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 553730-01-01, 553730-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/04

Report #: R2563297 Version: 2 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B839743 Received: 2018/05/23, 13:45

Sample Matrix: Water # Samples Received: 12

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	9	N/A	2018/05/25	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	3	N/A	2018/05/26	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	12	N/A	2018/05/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	12	N/A	2018/05/28	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	9	N/A	2018/05/25	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	3	N/A	2018/05/26	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	12	N/A	2018/05/28	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	12	N/A	2018/05/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	12	N/A	2018/05/28	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	12	N/A	2018/05/25	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	12	2018/05/25	2018/05/25	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	12	N/A	2018/05/28	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	12	N/A	2018/05/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	12	2018/05/28	2018/05/29	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	12	N/A	2018/05/30	BBY WI-00033	Auto Calc
Ammonia-N Low Level (Preserved)	12	N/A	2018/05/25	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	12	N/A	2018/05/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	12	N/A	2018/05/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	12	N/A	2018/05/26	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	12	N/A	2018/05/25	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	12	N/A	2018/05/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	9	N/A	2018/05/25	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	3	N/A	2018/05/26	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	12	N/A	2018/05/25	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	12	2018/05/29	2018/05/30	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	12	N/A	2018/05/28	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	12	2018/05/27	2018/05/28	BBY6SOP-00034	SM 22 2540 D
WAD Cyanide Water Subcontract (1)	12	2018/06/01	2018/06/01		

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted,



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 553730-01-01, 553730-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/04

Report #: R2563297 Version: 2 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B839743 Received: 2018/05/23, 13:45

procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 

Diana Cruz Junior Project Manager 04 Jun 2018 17:07:23

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

aacru

Diana Cruz, Junior Project Manager

Email: DCruz@maxxam.ca Phone# (604) 734 7276

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4589	TM4590		TM4591		TM4592		
Sampling Date		2018/05/22 09:36	2018/05/22 10:18		2018/05/22 09:47		2018/05/22 07:50		
COC Number		553730-01-01	553730-01-01		553730-01-01		553730-01-01		
	UNITS	CC-0.5	CC-1.5	QC Batch	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch
Parameter		•			•				
ORP	mV	473	475	9001405	354	9001405	361		9001405
Subcontract Parameter	N/A	ATTACHED	ATTACHED	9009842	ATTACHED	9009842	ATTACHED	N/A	9009842
Calculated Parameters	1	·			I				
Filter and HNO3 Preservation	N/A	LAB	LAB	9000377	LAB	9000377	LAB		9000377
Nitrate (N)	mg/L	0.0533	0.106	8999828	0.116	8999828	0.0798	0.0020	8999828
Misc. Inorganics	•		•	•		•			
Fluoride (F)	mg/L	0.043	0.043	9004026	0.048	9004026	0.046	0.010	9004026
Dissolved Organic Carbon (C)	mg/L	14.0	16.2	9003899	15.4	9003874	15.3	0.50	9003899
Alkalinity (Total as CaCO3)	mg/L	21.2	29.1	9002629	50.6	9002640	27.0	0.50	9002629
Total Organic Carbon (C)	mg/L	16.1	18.8	9003861	17.9	9003908	15.5	0.50	9003908
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	9002629	<0.50	9002640	<0.50	0.50	9002629
Bicarbonate (HCO3)	mg/L	25.8	35.5	9002629	61.7	9002640	32.9	0.50	9002629
Carbonate (CO3)	mg/L	<0.50	<0.50	9002629	<0.50	9002640	<0.50	0.50	9002629
Hydroxide (OH)	mg/L	<0.50	<0.50	9002629	<0.50	9002640	<0.50	0.50	9002629
Anions	•			•		•		-	
Dissolved Sulphate (SO4)	mg/L	19.4	33.4	9002120	53.2	9002120	29.9	0.50	9002120
Dissolved Chloride (CI)	mg/L	0.86	0.72	9002119	0.75	9002119	0.79	0.50	9002119
Nutrients									
Total Ammonia (N)	mg/L	0.011	0.015	9001918	0.018	9001918	0.010	0.0050	9001918
Nitrate plus Nitrite (N)	mg/L	0.0533	0.106	9001417	0.116	9001422	0.0798	0.0020	9001417
Nitrite (N)	mg/L	<0.0020	<0.0020	9001421	<0.0020	9001425	<0.0020	0.0020	9001421
Physical Properties	•	•	•	•					
Conductivity	uS/cm	90.1	130	9002630	223	9002641	122	1.0	9002630
рН	рН	7.27	7.41	9002626	7.76	9002635	7.39		9002626
Physical Properties									
Total Suspended Solids	mg/L	7.9	1.5	9002315	2.0	9002315	7.6	1.0	9002315
Total Dissolved Solids	mg/L	78	102	9004438	172	9004438	100	10	9004438
RDL = Reportable Detection Li	mit								
N/A = Not Applicable									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4593		TM4594	TM4595			TM4595		
Sampling Date		2018/05/22		2018/05/22	2018/05/22			2018/05/22		
Sampling Date		10:40		11:07	11:55			11:55		
COC Number		553730-01-01		553730-01-01	553730-01-01			553730-01-01		
	UNITS	HC-2.5	QC Batch	HC-5.0	YT-24	RDL	QC Batch	YT-24 Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV	365	9001405	367	372		9001405			
Subcontract Parameter	N/A	ATTACHED	9009842	ATTACHED	ATTACHED	N/A	9009842			
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB	9000377	LAB	LAB		9000377			
Nitrate (N)	mg/L	0.187	8999828	0.106	0.523	0.0020	8999828			
Misc. Inorganics						•				
Fluoride (F)	mg/L	0.042	9004026	0.048	0.058	0.010	9004026			
Dissolved Organic Carbon (C)	mg/L	26.9	9003899	18.9	18.3	0.50	9003874			
Alkalinity (Total as CaCO3)	mg/L	34.5	9002640	47.4	41.0	0.50	9002629			
Total Organic Carbon (C)	mg/L	28.3	9003861	19.0	20.9	0.50	9003861			
Alkalinity (PP as CaCO3)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629			
Bicarbonate (HCO3)	mg/L	42.1	9002640	57.8	50.0	0.50	9002629			
Carbonate (CO3)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629			
Hydroxide (OH)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629			
Anions						•				
Dissolved Sulphate (SO4)	mg/L	20.7	9002120	31.4	71.1	0.50	9002120			
Dissolved Chloride (CI)	mg/L	0.80	9002119	0.93	1.1	0.50	9002119			
Nutrients	!					•			•	
Total Ammonia (N)	mg/L	0.0080	9001918	0.0080	0.021	0.0050	9001918			
Nitrate plus Nitrite (N)	mg/L	0.187	9001422	0.106	0.523	0.0020	9001417			
Nitrite (N)	mg/L	<0.0020	9001425	<0.0020	<0.0020	0.0020	9001421			
Physical Properties			•			•				
Conductivity	uS/cm	121	9002641	169	247	1.0	9002630			
рН	рН	7.52	9002635	7.62	7.58		9002626			
Physical Properties			•			•	•		•	
Total Suspended Solids	mg/L	2.5	9002315	1.1	1.7	1.0	9002315			
Total Dissolved Solids	mg/L	102	9004438	118	208	10	9004438	214	10	9004438
RDL = Reportable Detection Lir	nit		•		•	•				

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4596		TM4597			TM4597	
Sampling Date		2018/05/22 12:10		2018/05/22 12:30			2018/05/22 12:30	
COC Number		553730-01-01		553730-01-01			553730-01-01	
	UNITS	YT-24 MIX	QC Batch	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	QC Batch
Parameter			•		•			
ORP	mV	372	9001405	373		9001405		
Subcontract Parameter	N/A	ATTACHED	9009842	ATTACHED	N/A	9009842		
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	9000377	LAB		9000377		
Nitrate (N)	mg/L	0.0260	8999828	0.0518	0.0020	8999828		
Misc. Inorganics								
Fluoride (F)	mg/L	0.093	9004026	0.071	0.010	9004026		
Dissolved Organic Carbon (C)	mg/L	7.33	9003874	10.1	0.50	9003874		
Alkalinity (Total as CaCO3)	mg/L	61.9	9002629	46.9	0.50	9002629		
Total Organic Carbon (C)	mg/L	8.15	9003861	12.3	0.50	9003908		
Alkalinity (PP as CaCO3)	mg/L	<0.50	9002629	<0.50	0.50	9002629		
Bicarbonate (HCO3)	mg/L	75.5	9002629	57.2	0.50	9002629		
Carbonate (CO3)	mg/L	<0.50	9002629	<0.50	0.50	9002629		
Hydroxide (OH)	mg/L	<0.50	9002629	<0.50	0.50	9002629		
Anions			•					
Dissolved Sulphate (SO4)	mg/L	25.3	9002120	28.3	0.50	9002120		
Dissolved Chloride (CI)	mg/L	0.76	9002119	0.87	0.50	9002119		
Nutrients	!		•		•			
Total Ammonia (N)	mg/L	0.010	9001918	0.011	0.0050	9001918		
Nitrate plus Nitrite (N)	mg/L	0.0260	9001417	0.0518	0.0020	9001417		
Nitrite (N)	mg/L	<0.0020	9001421	<0.0020	0.0020	9001421		
Physical Properties								
Conductivity	uS/cm	180	9002630	155	1.0	9002630		
рН	рН	7.84	9002626	7.65		9002626	7.66	9002626
Physical Properties			•		•	•		
Total Suspended Solids	mg/L	94.5	9002315	56.2	1.0	9002315		
Total Dissolved Solids	mg/L	110	9004438	100	10	9004438		
RDL = Reportable Detection Lir	nit		•					

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4598		TM4604	TM4605		
Sampling Date		2018/05/22		2018/05/22	2018/05/22		
		12:10		08:15	08:15		
COC Number		553730-01-01		553730-02-01	553730-02-01		
	UNITS	HALFWAY MIX	QC Batch	LATTE MIX	DUP	RDL	QC Batch
Parameter							
ORP	mV	369	9001405	373	373		9001405
Subcontract Parameter	N/A	ATTACHED	9009842	ATTACHED	ATTACHED	N/A	9009842
Calculated Parameters							
Filter and HNO3 Preservation	N/A	LAB	9000377	LAB	LAB		9000377
Nitrate (N)	mg/L	0.0326	8999828	0.0565	0.0684	0.0020	8999828
Misc. Inorganics	•					•	
Fluoride (F)	mg/L	0.096	9004026	0.045	0.044	0.010	9004026
Dissolved Organic Carbon (C)	mg/L	6.06	9003899	15.2	13.1	0.50	9003899
Alkalinity (Total as CaCO3)	mg/L	63.2	9002640	24.2	23.2	0.50	9002629
Total Organic Carbon (C)	mg/L	6.85	9003861	16.1	16.8	0.50	9003861
Alkalinity (PP as CaCO3)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629
Bicarbonate (HCO3)	mg/L	77.1	9002640	29.6	28.4	0.50	9002629
Carbonate (CO3)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629
Hydroxide (OH)	mg/L	<0.50	9002640	<0.50	<0.50	0.50	9002629
Anions	•					•	
Dissolved Sulphate (SO4)	mg/L	24.5	9002120	24.2	24.6	0.50	9002120
Dissolved Chloride (Cl)	mg/L	0.85	9002119	0.99	0.83	0.50	9002119
Nutrients							
Total Ammonia (N)	mg/L	0.014	9001918	0.0080	0.013	0.0050	9001918
Nitrate plus Nitrite (N)	mg/L	0.0326	9001422	0.0565	0.0684	0.0020	9001417
Nitrite (N)	mg/L	<0.0020	9001425	<0.0020	<0.0020	0.0020	9001421
Physical Properties							
Conductivity	uS/cm	182	9002641	105	104	1.0	9002630
рН	рН	7.89	9002635	7.31	7.31		9002626
Physical Properties							
Total Suspended Solids	mg/L	103	9002315	8.4	8.2	1.0	9002315
Total Dissolved Solids	mg/L	78	9004903	84	80	10	9004903
RDL = Reportable Detection Li	nit					•	
N/A = Not Applicable							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM4605									
Sampling Date		2018/05/22 08:15									
COC Number		553730-02-01									
	UNITS	DUP Lab-Dup	RDL	QC Batch							
Nutrients											
Total Ammonia (N)	mg/L	0.013	0.0050	9001918							
Physical Properties											
Total Dissolved Solids	mg/L	84	10	9004903							
RDL = Reportable Detection	n Limit										
	ited Duplica										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4589	TM4590	TM4591	TM4592	TM4593	TM4594		
Compling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		09:36	10:18	09:47	07:50	10:40	11:07		
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	40.2	66.7	102	54.1	57.8	78.3	0.50	8999174
Elements								•	
Dissolved Mercury (Hg)	ug/L	0.0065	0.0107	0.0058	0.0058	0.0090	0.0060	0.0020	9001267
Dissolved Metals by ICPMS									
Dissolved Aluminum (AI)	ug/L	177	242	134	148	310	141	0.50	9001298
Dissolved Antimony (Sb)	ug/L	0.074	0.093	0.087	0.075	0.190	0.188	0.020	9001298
Dissolved Arsenic (As)	ug/L	0.404	0.483	0.446	0.414	1.06	0.943	0.020	9001298
Dissolved Barium (Ba)	ug/L	31.0	26.4	42.3	35.9	31.2	36.1	0.020	9001298
Dissolved Beryllium (Be)	ug/L	0.017	0.038	0.022	0.018	0.041	0.029	0.010	9001298
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9001298
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9001298
Dissolved Cadmium (Cd)	ug/L	0.0146	0.0122	0.0085	0.0137	0.0113	0.0053	0.0050	9001298
Dissolved Chromium (Cr)	ug/L	0.27	0.32	0.28	0.25	0.51	0.40	0.10	9001298
Dissolved Cobalt (Co)	ug/L	0.135	0.0686	0.123	0.117	0.328	0.141	0.0050	9001298
Dissolved Copper (Cu)	ug/L	2.07	1.98	1.63	1.95	2.11	1.74	0.050	9001298
Dissolved Iron (Fe)	ug/L	143	173	121	120	263	156	1.0	9001298
Dissolved Lead (Pb)	ug/L	0.0080	0.0063	0.0085	0.0085	0.0224	0.0118	0.0050	9001298
Dissolved Lithium (Li)	ug/L	0.62	0.95	0.65	0.54	0.99	0.78	0.50	9001298
Dissolved Manganese (Mn)	ug/L	19.1	6.13	23.7	18.7	55.1	7.84	0.050	9001298
Dissolved Molybdenum (Mo)	ug/L	0.568	0.083	0.192	0.519	0.622	0.577	0.050	9001298
Dissolved Nickel (Ni)	ug/L	1.13	1.06	0.829	1.09	1.27	0.964	0.020	9001298
Dissolved Phosphorus (P)	ug/L	9.2	11.0	9.4	8.9	10.3	9.6	2.0	9001298
Dissolved Selenium (Se)	ug/L	0.055	0.056	0.064	0.062	0.064	0.061	0.040	9001298
Dissolved Silicon (Si)	ug/L	2180	2290	2570	2290	2710	2950	50	9001298
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0250	<0.0050	0.0050	9001298
Dissolved Strontium (Sr)	ug/L	51.7	151	207	80.2	176	206	0.050	9001298
Dissolved Thallium (TI)	ug/L	0.0053	0.0035	0.0034	0.0048	0.0051	0.0029	0.0020	9001298
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9001298
Dissolved Titanium (Ti)	ug/L	1.45	1.70	1.26	1.32	3.17	2.03	0.50	9001298
Dissolved Uranium (U)	ug/L	3.14	4.54	9.14	3.27	17.0	13.6	0.0020	9001298
Dissolved Vanadium (V)	ug/L	0.41	0.31	0.37	0.38	0.62	0.51	0.20	9001298
Dissolved Zinc (Zn)	ug/L	0.58	0.76	0.38	0.54	0.98	0.33	0.10	9001298
RDL = Reportable Detection Lin	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4589	TM4590	TM4591	TM4592	TM4593	TM4594			
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22			
Sampling Date		09:36	10:18	09:47	07:50	10:40	11:07			
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01			
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch	
Dissolved Zirconium (Zr)	ug/L	0.31	0.59	0.54	0.34	0.71	0.56	0.10	9001298	
Dissolved Calcium (Ca)	mg/L	10.2	17.3	26.7	13.6	14.6	19.9	0.050	8999541	
Dissolved Magnesium (Mg)	mg/L	3.59	5.74	8.54	4.88	5.20	6.93	0.050	8999541	
Dissolved Potassium (K)	mg/L	0.954	1.04	1.61	1.05	1.24	1.57	0.050	8999541	
Dissolved Sodium (Na)	mg/L	1.75	1.48	2.58	2.10	1.78	2.38	0.050	8999541	
Dissolved Sulphur (S)	mg/L	5.4	9.5	16.2	8.3	5.9	9.3	3.0	8999541	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4595	TM4596	TM4597	TM4598	TM4604	TM4605		
		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		11:55	12:10	12:30	12:10	08:15	08:15		
COC Number		553730-01-01	1	553730-01-01	553730-01-01	553730-02-01	553730-02-01		
	UNITS	YT-24	YT-24 MIX	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	114	83.5	70.7	83.6	47.2	46.8	0.50	8999174
Elements			l		I			ı	
Dissolved Mercury (Hg)	ug/L	0.0081	0.0028	0.0044	0.0027	0.0066	0.0065	0.0020	9001267
Dissolved Metals by ICPMS	•							•	
Dissolved Aluminum (AI)	ug/L	105	36.5	76.9	39.4	168	167	0.50	9001298
Dissolved Antimony (Sb)	ug/L	0.224	0.130	0.110	0.135	0.079	0.082	0.020	9001298
Dissolved Arsenic (As)	ug/L	0.673	0.499	0.471	0.501	0.421	0.422	0.020	9001298
Dissolved Barium (Ba)	ug/L	56.0	42.5	40.8	42.9	32.1	32.1	0.020	9001298
Dissolved Beryllium (Be)	ug/L	0.027	<0.010	0.010	<0.010	0.018	0.018	0.010	9001298
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9001298
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9001298
Dissolved Cadmium (Cd)	ug/L	0.0092	0.0574	0.0491	0.0627	0.0158	0.0160	0.0050	9001298
Dissolved Chromium (Cr)	ug/L	0.44	<0.10	0.16	<0.10	0.28	0.25	0.10	9001298
Dissolved Cobalt (Co)	ug/L	0.147	0.0436	0.0905	0.0506	0.136	0.133	0.0050	9001298
Dissolved Copper (Cu)	ug/L	2.31	1.93	1.98	1.96	2.01	1.99	0.050	9001298
Dissolved Iron (Fe)	ug/L	99.8	65.9	92.4	70.6	139	140	1.0	9001298
Dissolved Lead (Pb)	ug/L	0.0097	0.0412	0.0343	0.0488	0.0089	0.0094	0.0050	9001298
Dissolved Lithium (Li)	ug/L	<0.50	1.46	1.00	1.45	0.60	0.61	0.50	9001298
Dissolved Manganese (Mn)	ug/L	11.4	5.83	14.8	7.41	20.9	19.6	0.050	9001298
Dissolved Molybdenum (Mo)	ug/L	0.337	0.962	0.736	0.976	0.532	0.516	0.050	9001298
Dissolved Nickel (Ni)	ug/L	1.01	2.53	1.89	2.56	1.14	1.09	0.020	9001298
Dissolved Phosphorus (P)	ug/L	12.1	5.9	7.5	6.0	10.1	10.5	2.0	9001298
Dissolved Selenium (Se)	ug/L	0.061	0.306	0.179	0.308	0.055	0.057	0.040	9001298
Dissolved Silicon (Si)	ug/L	2790	2380	2370	2440	2200	2170	50	9001298
Dissolved Silver (Ag)	ug/L	0.0053	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	0.0050	9001298
Dissolved Strontium (Sr)	ug/L	180	119	103	116	73.2	72.3	0.050	9001298
Dissolved Thallium (TI)	ug/L	0.0040	0.0040	0.0047	0.0043	0.0047	0.0053	0.0020	9001298
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9001298
Dissolved Titanium (Ti)	ug/L	1.90	0.52	0.86	0.58	1.49	1.54	0.50	9001298
Dissolved Uranium (U)	ug/L	3.46	1.15	2.04	1.28	3.54	3.57	0.0020	9001298
Dissolved Vanadium (V)	ug/L	0.35	0.31	0.35	0.31	0.43	0.42	0.20	9001298
Dissolved Zinc (Zn)	ug/L	0.29	2.00	2.00	2.14	0.61	0.52	0.10	9001298
RDL = Reportable Detection Lin	nit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4595	TM4596	TM4597	TM4598	TM4604	TM4605			
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22			
Sampling Date		11:55	12:10	12:30	12:10	08:15	08:15			
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-02-01	553730-02-01			
	UNITS	YT-24	YT-24 MIX	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch	
Dissolved Zirconium (Zr)	ug/L	0.73	0.12	0.21	0.11	0.36	0.33	0.10	9001298	
Dissolved Calcium (Ca)	mg/L	29.6	22.2	18.4	22.2	11.9	11.9	0.050	8999541	
Dissolved Magnesium (Mg)	mg/L	9.67	6.79	5.97	6.81	4.21	4.15	0.050	8999541	
Dissolved Potassium (K)	mg/L	1.74	0.998	1.03	0.978	1.02	1.00	0.050	8999541	
Dissolved Sodium (Na)	mg/L	3.00	1.89	2.04	1.88	1.89	1.86	0.050	8999541	
Dissolved Sulphur (S)	mg/L	22.0	7.0	7.9	7.1	6.7	6.6	3.0	8999541	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TM4589			TM4589			TM4590		
Campling Data		2018/05/22			2018/05/22			2018/05/22		
Sampling Date		09:36			09:36			10:18		
COC Number		553730-01-01			553730-01-01			553730-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	44.1	0.50	9000046				69.8	0.50	9000046
Elements	•					•			•	
Total Mercury (Hg)	ug/L	0.0066	0.0020	9000749				0.0115	0.0020	9001116
Total Metals by ICPMS	•					•			•	
Total Aluminum (AI)	ug/L	320	3.0	9003753	308	3.0	9003753	277	3.0	9003753
Total Antimony (Sb)	ug/L	0.083	0.020	9003753	0.078	0.020	9003753	0.081	0.020	9003753
Total Arsenic (As)	ug/L	0.558	0.020	9003753	0.540	0.020	9003753	0.522	0.020	9003753
Total Barium (Ba)	ug/L	34.1	0.050	9003753	32.7	0.050	9003753	26.5	0.050	9003753
Total Beryllium (Be)	ug/L	0.022	0.010	9003753	0.022	0.010	9003753	0.040	0.010	9003753
Total Bismuth (Bi)	ug/L	<0.010	0.010	9003753	<0.010	0.010	9003753	<0.010	0.010	9003753
Total Boron (B)	ug/L	<10	10	9003753	<10	10	9003753	<10	10	9003753
Total Cadmium (Cd)	ug/L	0.0246	0.0050	9003753	0.0215	0.0050	9003753	0.0154	0.0050	9003753
Total Chromium (Cr)	ug/L	0.50	0.10	9003753	0.47	0.10	9003753	0.39	0.10	9003753
Total Cobalt (Co)	ug/L	0.247	0.010	9003753	0.236	0.010	9003753	0.091	0.010	9003753
Total Copper (Cu)	ug/L	2.45	0.10	9003753	2.36	0.10	9003753	2.03	0.10	9003753
Total Iron (Fe)	ug/L	350	5.0	9003753	340	5.0	9003753	222	5.0	9003753
Total Lead (Pb)	ug/L	0.072	0.020	9003753	0.069	0.020	9003753	0.029	0.020	9003753
Total Lithium (Li)	ug/L	0.74	0.50	9003753	0.72	0.50	9003753	1.01	0.50	9003753
Total Manganese (Mn)	ug/L	41.8	0.10	9003753	39.8	0.10	9003753	10.2	0.10	9003753
Total Molybdenum (Mo)	ug/L	0.626	0.050	9003753	0.599	0.050	9003753	0.077	0.050	9003753
Total Nickel (Ni)	ug/L	1.37	0.10	9003753	1.27	0.10	9003753	1.04	0.10	9003753
Total Phosphorus (P)	ug/L	20.2	5.0	9003753	17.1	5.0	9003753	16.2	5.0	9003753
Total Selenium (Se)	ug/L	0.067	0.040	9003753	0.049	0.040	9003753	0.059	0.040	9003753
Total Silicon (Si)	ug/L	2760	50	9003753	2750	50	9003753	2610	50	9003753
Total Silver (Ag)	ug/L	<0.010	0.010	9003753	<0.010	0.010	9003753	<0.010	0.010	9003753
Total Strontium (Sr)	ug/L	58.7	0.050	9003753	57.0	0.050	9003753	151	0.050	9003753
Total Thallium (TI)	ug/L	0.0078	0.0020	9003753	0.0073	0.0020	9003753	0.0030	0.0020	9003753
Total Tin (Sn)	ug/L	<0.20	0.20	9003753	<0.20	0.20	9003753	<0.20	0.20	9003753
Total Titanium (Ti)	ug/L	10.1	2.0	9003753	10.0	2.0	9003753	3.1	2.0	9003753
Total Uranium (U)	ug/L	3.53	0.0050	9003753	3.42	0.0050	9003753	4.87	0.0050	9003753
Total Vanadium (V)	ug/L	0.88	0.20	9003753	0.86	0.20	9003753	0.39	0.20	9003753

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TM4589			TM4589			TM4590		
Sampling Date		2018/05/22 09:36			2018/05/22 09:36			2018/05/22 10:18		
COC Number		553730-01-01			553730-01-01			553730-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Total Zinc (Zn)	ug/L	1.3	1.0	9003753	1.3	1.0	9003753	1.1	1.0	9003753
Total Zirconium (Zr)	ug/L	0.31	0.10	9003753	0.29	0.10	9003753	0.47	0.10	9003753
Total Calcium (Ca)	mg/L	11.2	0.25	8999544				18.3	0.25	8999544
Total Magnesium (Mg)	mg/L	3.90	0.25	8999544				5.85	0.25	8999544
Total Potassium (K)	mg/L	1.04	0.25	8999544				1.09	0.25	8999544
Total Sodium (Na)	mg/L	1.93	0.25	8999544				1.52	0.25	8999544
Total Sulphur (S)	mg/L	5.6	3.0	8999544				9.9	3.0	8999544

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4591	TM4592	TM4593	TM4594	TM4595	TM4596		
Compline Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		09:47	07:50	10:40	11:07	11:55	12:10		
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01		
	UNITS	CC-3.5	CC-4.5	HC-2.5	HC-5.0	YT-24	YT-24 MIX	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	109	56.4	58.5	81.5	118	99.5	0.50	9000046
Elements							•	•	•
Total Mercury (Hg)	ug/L	0.0067	0.0065	0.0100	0.0064	0.0084	0.0028	0.0020	9001116
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	149	294	398	166	136	1380	3.0	9003753
Total Antimony (Sb)	ug/L	0.086	0.076	0.187	0.186	0.238	0.241	0.020	9003753
Total Arsenic (As)	ug/L	0.464	0.578	1.24	0.996	0.733	1.96	0.020	9003753
Total Barium (Ba)	ug/L	42.2	39.3	31.5	37.0	57.7	114	0.050	9003753
Total Beryllium (Be)	ug/L	0.032	0.014	0.050	0.031	0.024	0.079	0.010	9003753
Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.029	0.010	9003753
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9003753
Total Cadmium (Cd)	ug/L	0.0101	0.0242	0.0148	0.0075	0.0116	0.339	0.0050	9003753
Total Chromium (Cr)	ug/L	0.34	0.44	0.62	0.45	0.51	2.76	0.10	9003753
Total Cobalt (Co)	ug/L	0.139	0.240	0.361	0.163	0.177	1.40	0.010	9003753
Total Copper (Cu)	ug/L	1.77	2.18	2.14	1.93	2.38	5.99	0.10	9003753
Total Iron (Fe)	ug/L	152	341	341	201	140	2700	5.0	9003753
Total Lead (Pb)	ug/L	0.021	0.079	0.058	0.025	0.029	1.50	0.020	9003753
Total Lithium (Li)	ug/L	0.68	0.70	1.05	0.90	<0.50	2.91	0.50	9003753
Total Manganese (Mn)	ug/L	31.9	40.3	62.3	13.7	14.0	122	0.10	9003753
Total Molybdenum (Mo)	ug/L	0.201	0.543	0.616	0.647	0.353	1.07	0.050	9003753
Total Nickel (Ni)	ug/L	0.83	1.21	1.27	0.98	1.05	8.19	0.10	9003753
Total Phosphorus (P)	ug/L	14.0	17.5	13.5	14.7	18.4	128	5.0	9003753
Total Selenium (Se)	ug/L	0.064	0.051	0.075	0.052	0.062	0.410	0.040	9003753
Total Silicon (Si)	ug/L	3070	2830	3290	3470	3370	4970	50	9003753
Total Silver (Ag)	ug/L	<0.010	<0.010	0.070	<0.010	<0.010	0.025	0.010	9003753
Total Strontium (Sr)	ug/L	219	82.1	176	218	185	132	0.050	9003753
Total Thallium (TI)	ug/L	0.0031	0.0060	0.0050	0.0030	0.0041	0.0248	0.0020	9003753
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9003753
Total Titanium (Ti)	ug/L	2.1	9.8	5.7	3.8	3.9	46.4	2.0	9003753
Total Uranium (U)	ug/L	9.72	3.61	16.8	14.2	3.65	1.38	0.0050	9003753
Total Vanadium (V)	ug/L	0.46	0.89	0.78	0.58	0.41	5.04	0.20	9003753
Total Zinc (Zn)	ug/L	<1.0	1.2	1.2	<1.0	<1.0	28.5	1.0	9003753
RDL = Reportable Detection L	.imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4591	TM4592	TM4593	TM4594	TM4595	TM4596			
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22	2018/05/22			
Sampling Date		09:47	07:50	10:40	11:07	11:55	12:10			
COC Number		553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01	553730-01-01			
	UNITS	CC-3.5	CC-4.5	HC-2.5	HC-5.0	YT-24	YT-24 MIX	RDL	QC Batch	
Total Zirconium (Zr)	ug/L	0.44	0.28	0.60	0.50	0.64	0.49	0.10	9003753	
Total Calcium (Ca)	mg/L	28.9	14.5	15.2	21.2	31.3	26.5	0.25	8999544	
Total Magnesium (Mg)	mg/L	8.98	4.92	4.97	6.91	9.65	8.11	0.25	8999544	
Total Potassium (K)	mg/L	1.74	1.12	1.24	1.62	1.81	1.33	0.25	8999544	
Total Sodium (Na)	mg/L	2.71	2.12	1.73	2.41	3.00	2.07	0.25	8999544	
Total Sulphur (S)	mg/L	16.9	8.2	5.4	9.5	22.6	7.8	3.0	8999544	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4597	TM4598	TM4604	TM4605		
Compling Data		2018/05/22	2018/05/22	2018/05/22	2018/05/22		
Sampling Date		12:30	12:10	08:15	08:15		
COC Number		553730-01-01	553730-01-01	553730-02-01	553730-02-01		
	UNITS	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	80.5	95.1	51.6	49.9	0.50	9000046
Elements	•					•	•
Total Mercury (Hg)	ug/L	0.0048	0.0032	0.0069	0.0073	0.0020	9001116
Total Metals by ICPMS	•					•	•
Total Aluminum (Al)	ug/L	892	1440	357	366	3.0	9003753
Total Antimony (Sb)	ug/L	0.170	0.244	0.083	0.077	0.020	9003753
Total Arsenic (As)	ug/L	1.30	1.95	0.605	0.620	0.020	9003753
Total Barium (Ba)	ug/L	80.3	116	36.2	38.0	0.050	9003753
Total Beryllium (Be)	ug/L	0.051	0.069	0.018	0.025	0.010	9003753
Total Bismuth (Bi)	ug/L	0.015	0.027	<0.010	<0.010	0.010	9003753
Total Boron (B)	ug/L	<10	<10	<10	<10	10	9003753
Total Cadmium (Cd)	ug/L	0.178	0.327	0.0258	0.0261	0.0050	9003753
Total Chromium (Cr)	ug/L	1.76	2.80	0.57	0.62	0.10	9003753
Total Cobalt (Co)	ug/L	0.823	1.35	0.288	0.303	0.010	9003753
Total Copper (Cu)	ug/L	4.15	5.90	2.50	2.45	0.10	9003753
Total Iron (Fe)	ug/L	1630	2790	414	431	5.0	9003753
Total Lead (Pb)	ug/L	0.815	1.49	0.094	0.099	0.020	9003753
Total Lithium (Li)	ug/L	1.78	2.87	0.76	0.72	0.50	9003753
Total Manganese (Mn)	ug/L	78.1	116	48.5	48.5	0.10	9003753
Total Molybdenum (Mo)	ug/L	0.809	1.07	0.559	0.568	0.050	9003753
Total Nickel (Ni)	ug/L	4.78	7.89	1.39	1.45	0.10	9003753
Total Phosphorus (P)	ug/L	71.8	111	20.7	22.8	5.0	9003753
Total Selenium (Se)	ug/L	0.234	0.407	0.063	0.059	0.040	9003753
Total Silicon (Si)	ug/L	4210	4950	2880	2850	50	9003753
Total Silver (Ag)	ug/L	0.016	0.026	<0.010	<0.010	0.010	9003753
Total Strontium (Sr)	ug/L	109	128	76.6	74.8	0.050	9003753
Total Thallium (TI)	ug/L	0.0180	0.0269	0.0072	0.0063	0.0020	9003753
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9003753
Total Titanium (Ti)	ug/L	31.5	47.4	12.0	14.6	2.0	9003753
Total Uranium (U)	ug/L	2.35	1.47	4.19	4.10	0.0050	9003753
Total Vanadium (V)	ug/L	3.18	5.19	1.01	1.06	0.20	9003753
Total Zinc (Zn)	ug/L	15.1	28.3	1.6	1.7	1.0	9003753
RDL = Reportable Detection	Limit						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM4597	TM4598	TM4604	TM4605					
Sampling Date		2018/05/22	2018/05/22	2018/05/22	2018/05/22					
Jamping Date		12:30	12:10	08:15	08:15					
COC Number		553730-01-01	553730-01-01	553730-02-01	553730-02-01					
	UNITS	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch			
Total Zirconium (Zr)	ug/L	0.38	0.35	0.31	0.31	0.10	9003753			
Total Calcium (Ca)	mg/L	21.3	25.2	13.4	13.0	0.25	8999544			
Total Magnesium (Mg)	mg/L	6.62	7.78	4.38	4.24	0.25	8999544			
Total Potassium (K)	mg/L	1.25	1.29	1.15	1.10	0.25	8999544			
Total Sodium (Na)	mg/L	2.16	2.00	1.97	1.89	0.25	8999544			
Total Sulphur (S)	mg/L	7.6	6.9	6.7	6.3	3.0	8999544			
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Results relate only to the items tested.		



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix Spike		Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9000749	Total Mercury (Hg)	2018/05/25	94	80 - 120	99	80 - 120	<0.0020	ug/L	17	20
9001116	Total Mercury (Hg)	2018/05/25	96	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
9001267	Dissolved Mercury (Hg)	2018/05/25	100	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
9001298	Dissolved Aluminum (Al)	2018/05/26	99	80 - 120	101	80 - 120	<0.50	ug/L	0.39	20
9001298	Dissolved Antimony (Sb)	2018/05/26	102	80 - 120	103	80 - 120	<0.020	ug/L	2.8	20
9001298	Dissolved Arsenic (As)	2018/05/26	105	80 - 120	106	80 - 120	<0.020	ug/L	1.0	20
9001298	Dissolved Barium (Ba)	2018/05/26	99	80 - 120	103	80 - 120	<0.020	ug/L	0.78	20
9001298	Dissolved Beryllium (Be)	2018/05/26	99	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9001298	Dissolved Bismuth (Bi)	2018/05/26	96	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
9001298	Dissolved Boron (B)	2018/05/26	94	80 - 120	96	80 - 120	<10	ug/L	0.58	20
9001298	Dissolved Cadmium (Cd)	2018/05/26	97	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9001298	Dissolved Chromium (Cr)	2018/05/26	95	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9001298	Dissolved Cobalt (Co)	2018/05/26	99	80 - 120	104	80 - 120	<0.0050	ug/L	0.81	20
9001298	Dissolved Copper (Cu)	2018/05/26	93	80 - 120	103	80 - 120	<0.050	ug/L	0.48	20
9001298	Dissolved Iron (Fe)	2018/05/26	93	80 - 120	95	80 - 120	<1.0	ug/L	15	20
9001298	Dissolved Lead (Pb)	2018/05/26	97	80 - 120	103	80 - 120	<0.0050	ug/L	6.3	20
9001298	Dissolved Lithium (Li)	2018/05/26	101	80 - 120	101	80 - 120	<0.50	ug/L	1.8	20
9001298	Dissolved Manganese (Mn)	2018/05/26	NC	80 - 120	98	80 - 120	<0.050	ug/L	1.3	20
9001298	Dissolved Molybdenum (Mo)	2018/05/26	NC	80 - 120	104	80 - 120	<0.050	ug/L	3.5	20
9001298	Dissolved Nickel (Ni)	2018/05/26	92	80 - 120	102	80 - 120	<0.020	ug/L	7.1	20
9001298	Dissolved Phosphorus (P)	2018/05/26	100	80 - 120	101	80 - 120	<2.0	ug/L	1.5	20
9001298	Dissolved Selenium (Se)	2018/05/26	100	80 - 120	102	80 - 120	<0.040	ug/L	15	20
9001298	Dissolved Silicon (Si)	2018/05/26	103	80 - 120	93	80 - 120	<50	ug/L	1.8	20
9001298	Dissolved Silver (Ag)	2018/05/26	99	80 - 120	102	80 - 120	< 0.0050	ug/L	NC	20
9001298	Dissolved Strontium (Sr)	2018/05/26	NC	80 - 120	98	80 - 120	<0.050	ug/L	3.4	20
9001298	Dissolved Thallium (TI)	2018/05/26	96	80 - 120	101	80 - 120	<0.0020	ug/L	4.2	20
9001298	Dissolved Tin (Sn)	2018/05/26	101	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
9001298	Dissolved Titanium (Ti)	2018/05/26	98	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9001298	Dissolved Uranium (U)	2018/05/26	101	80 - 120	101	80 - 120	<0.0020	ug/L	1.8	20
9001298	Dissolved Vanadium (V)	2018/05/26	98	80 - 120	103	80 - 120	<0.20	ug/L	0.018	20
9001298	Dissolved Zinc (Zn)	2018/05/26	94	80 - 120	103	80 - 120	<0.10	ug/L	0.55	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9001298	Dissolved Zirconium (Zr)	2018/05/26	105	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
9001417	Nitrate plus Nitrite (N)	2018/05/25	122 (1)	80 - 120	111	80 - 120	<0.0020	mg/L	1.0	25
9001421	Nitrite (N)	2018/05/25	120	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9001422	Nitrate plus Nitrite (N)	2018/05/25	118	80 - 120	107	80 - 120	<0.0020	mg/L	4.7	25
9001425	Nitrite (N)	2018/05/25	117	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9001918	Total Ammonia (N)	2018/05/25	85	80 - 120	96	80 - 120	<0.0050	mg/L	0	20
9002119	Dissolved Chloride (CI)	2018/05/25			101	80 - 120	<0.50	mg/L		
9002120	Dissolved Sulphate (SO4)	2018/05/25			103	80 - 120	0.54, RDL=0.50	mg/L		
9002315	Total Suspended Solids	2018/05/28			99	80 - 120	<1.0	mg/L		
9002626	рН	2018/05/25			101	97 - 103			0.13	20
9002629	Alkalinity (PP as CaCO3)	2018/05/25					<0.50	mg/L		
9002629	Alkalinity (Total as CaCO3)	2018/05/25			96	80 - 120	<0.50	mg/L		
9002629	Bicarbonate (HCO3)	2018/05/25					<0.50	mg/L		
9002629	Carbonate (CO3)	2018/05/25					<0.50	mg/L		
9002629	Hydroxide (OH)	2018/05/25					<0.50	mg/L		
9002630	Conductivity	2018/05/25			102	80 - 120	<1.0	uS/cm		
9002635	рН	2018/05/26			101	97 - 103				
9002640	Alkalinity (PP as CaCO3)	2018/05/26					<0.50	mg/L		
9002640	Alkalinity (Total as CaCO3)	2018/05/26			95	80 - 120	<0.50	mg/L		
9002640	Bicarbonate (HCO3)	2018/05/26					<0.50	mg/L		
9002640	Carbonate (CO3)	2018/05/26					<0.50	mg/L		
9002640	Hydroxide (OH)	2018/05/26					<0.50	mg/L		
9002641	Conductivity	2018/05/26			101	80 - 120	<1.0	uS/cm		
9003753	Total Aluminum (AI)	2018/05/29	90	80 - 120	107	80 - 120	<3.0	ug/L	4.0	20
9003753	Total Antimony (Sb)	2018/05/29	102	80 - 120	105	80 - 120	<0.020	ug/L	6.4	20
9003753	Total Arsenic (As)	2018/05/29	101	80 - 120	103	80 - 120	<0.020	ug/L	3.3	20
9003753	Total Barium (Ba)	2018/05/29	101	80 - 120	106	80 - 120	<0.050	ug/L	4.5	20
9003753	Total Beryllium (Be)	2018/05/29	101	80 - 120	102	80 - 120	<0.010	ug/L	0.46	20
9003753	Total Bismuth (Bi)	2018/05/29	98	80 - 120	105	80 - 120	<0.010	ug/L	NC	20
9003753	Total Boron (B)	2018/05/29	100	80 - 120	101	80 - 120	<10	ug/L	NC	20
9003753	Total Cadmium (Cd)	2018/05/29	103	80 - 120	104	80 - 120	<0.0050	ug/L	13	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9003753	Total Chromium (Cr)	2018/05/29	102	80 - 120	107	80 - 120	<0.10	ug/L	5.6	20
9003753	Total Cobalt (Co)	2018/05/29	99	80 - 120	104	80 - 120	<0.010	ug/L	4.6	20
9003753	Total Copper (Cu)	2018/05/29	97	80 - 120	101	80 - 120	<0.10	ug/L	3.6	20
9003753	Total Iron (Fe)	2018/05/29	81	80 - 120	110	80 - 120	<5.0	ug/L	3.1	20
9003753	Total Lead (Pb)	2018/05/29	99	80 - 120	105	80 - 120	<0.020	ug/L	4.1	20
9003753	Total Lithium (Li)	2018/05/29	100	80 - 120	103	80 - 120	<0.50	ug/L	2.8	20
9003753	Total Manganese (Mn)	2018/05/29	100	80 - 120	107	80 - 120	<0.10	ug/L	4.9	20
9003753	Total Molybdenum (Mo)	2018/05/29	102	80 - 120	107	80 - 120	<0.050	ug/L	4.4	20
9003753	Total Nickel (Ni)	2018/05/29	101	80 - 120	105	80 - 120	<0.10	ug/L	7.8	20
9003753	Total Phosphorus (P)	2018/05/29	98	80 - 120	102	80 - 120	<5.0	ug/L	16	20
9003753	Total Selenium (Se)	2018/05/29	103	80 - 120	103	80 - 120	<0.040	ug/L	NC	20
9003753	Total Silicon (Si)	2018/05/29	103	80 - 120	113	80 - 120	<50	ug/L	0.46	20
9003753	Total Silver (Ag)	2018/05/29	102	80 - 120	105	80 - 120	<0.010	ug/L	NC	20
9003753	Total Strontium (Sr)	2018/05/29	NC	80 - 120	106	80 - 120	<0.050	ug/L	2.8	20
9003753	Total Thallium (Tl)	2018/05/29	100	80 - 120	105	80 - 120	<0.0020	ug/L	6.6	20
9003753	Total Tin (Sn)	2018/05/29	102	80 - 120	106	80 - 120	<0.20	ug/L	NC	20
9003753	Total Titanium (Ti)	2018/05/29	98	80 - 120	111	80 - 120	<2.0	ug/L	1.6	20
9003753	Total Uranium (U)	2018/05/29	104	80 - 120	109	80 - 120	<0.0050	ug/L	3.3	20
9003753	Total Vanadium (V)	2018/05/29	104	80 - 120	109	80 - 120	<0.20	ug/L	2.3	20
9003753	Total Zinc (Zn)	2018/05/29	102	80 - 120	105	80 - 120	<1.0	ug/L	2.7	20
9003753	Total Zirconium (Zr)	2018/05/29	101	80 - 120	106	80 - 120	<0.10	ug/L	5.4	20
9003861	Total Organic Carbon (C)	2018/05/28	97	80 - 120	96	80 - 120	<0.50	mg/L	NC	20
9003874	Dissolved Organic Carbon (C)	2018/05/28	98	80 - 120	96	80 - 120	<0.50	mg/L	16	20
9003899	Dissolved Organic Carbon (C)	2018/05/28	98	80 - 120	107	80 - 120	<0.50	mg/L	1.8	20
9003908	Total Organic Carbon (C)	2018/05/28	97	80 - 120	107	80 - 120	<0.50	mg/L	1.7	20
9004026	Fluoride (F)	2018/05/28	NC	80 - 120	102	80 - 120	<0.010	mg/L	9.2	20
9004438	Total Dissolved Solids	2018/05/30	102	80 - 120	100	80 - 120	<10	mg/L	2.8	20



#### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPE	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9004903	Total Dissolved Solids	2018/05/30	102	80 - 120	92	80 - 120	<10	mg/L	4.9	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Mandheraj Chana, Junior Project Manager

Mandheroj Kour Chana

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

	IN	VOICE TO:				Report In	formation							Project In	formation	Ē	mill BASE	Marianto-2-10 Walter	VEHACINIO	A MICHIEF	34
mpany Nam	#3604 LORAX E	ENVIRONMENTAL SERVIC	ES LTD.	Company N	ame						Qua	tation #	1	340231				A Park Art	<b>月</b> 000		Bottle Orde
ntact Name	Aida Piaseczny			Contact Nam	ne David Flath	er					P.O.	#						301892 N7N2	SHE	8 IIII	1111111111
dress	2289 BURRARD	STREET		Address	8 <u></u>						Proje	ect #	3	Gold Cor	p Coffee	Creek-St	N 28307	43 COC	T BENEFIT W		553730
	VANCOUVER BO										Proje	ect Name	-				_ 50357	43_000			Project Mana
one	(604) 688-7173 x	1 44		Phone				ак			Site	ø.	-							-	Diana Cru
1261	aida piaseczny@	lorax.ca, shukling.ng@lorax	c.ca	Email	David Flath	er@lorax	ca	_			Sam	pled By						C#553730-01	130	-	
Regulatory	Criteria			Spec	ial Instructions			100				Analysis R	tequested		3			Turnaround Please provide a	t Time (TAT)	1000	acte
		3 4			Year In		d Drinking Water ? (Y/N) eld Filtered ? (Y/N)	(AIK-LL, EC-LL, NH4- TDS)	Level	(LL.CI, F, NO2, NO3,	WAD			Level Dissolved Metals CV Hg	Total Metals incl.		(v Scindaro Pletise no Cuja - cor	Standard) TAT  *led if Rush TAT is not s  F = 5-7 Working days in  tele Standard TAT for certs  ntact your Project Manage  fic Rush TAT (if applies to	pecified) for most fests an fests such as or for details entire submissio	s 800 and l	Dioxins/Furani
	Note: For regulated di	inking water samples - please use	the Drinking W	ater Chain o	Custody Form		Field D	ST.	3	) (C	40			eve >	Level		Rush Confin	mation Number			
	Samples mu	st be kept cool ( < 10°C ) from time o	sampling until o	delivery to max	кат		4 4	utine pH,	TSS-L	Anions SO4)	Cyanide	o l	0	GE GE	w Le	g,				(call lab f	for Ap
Same	ole Barcode Label	Sample (Location) Identification	Date	Sampled	Time Sampled	Matrix	Regi	87	TS	SO	ò	700	DOC	Low	Low Hg	ORP	# of Bottlee		Comme	unts.	
	SID#162743	CC-0.5	22	165/18	9:36	w	NN	1	1	1	/	1	1	1	1	1	13				
	SID#162744	CC-1.5	22	105/18	10:18	w	NN	1	1	1	1	1	/	/	/	1	18				
	SID#162745	CC-3.5	22/	65/18	9:47	w	NN	1	/	1	1	/	/	~	/	/	13	RECEN	VED IN W	/HITEH	HORSE
1000	\$ID#162746	CC-4.5	22,	105/18	7:50	w	NN	1	$\checkmark$	V	/	/	/	V	$\checkmark$	/	13	BY: 4	Mu	phy	101
	SID#162747	HC-2.5	22/	55/18	10:40	w	NN	1	/	1	$\checkmark$	V	1	1	/	V	13		2018 -	05-2;	3
RIMBIO	SID#162748	HC-5.0	22/	05/18	11:07	w	NN	V	$\checkmark$	/	V	1	/	V	$\checkmark$	/	13	TEMP:	51	5	17
1/8///	SID#149895	YT-24	22/	05/18	11:55	W	NN	V	/	/	V	/	/	V	V	/	13				11
A5-00000	SID#149896	YT-24 Mix	22/	05/19	12:10	W	NN	1	V	V	V	V	/	V	/	V	13		5	0	4
III-MANA	S#D#149697	Coffee Mix	22/	05/18	12:30	w	NN	/	V	V	/	V	V	V	1	/	13		3	4	4
III.essexin	SID#149698	Halfway Mix	22/	05/18	15,10	w	NI	/ /	V	V	/	V	/	/	/	/	13	11277			
-	INQUISHED BY: (Signature		Date: (YYMWDD		the second second	RECE	//V	Signature/Pr	rint)			te: (YY/MM)	-	/ 5' (V)	not a	used and ubmitted	ime Sensitiye*	77 - 307 - 777	Use Only Cus	atody Seal In	macr on Coole
Mit	alkna	5 - 19	3/05/2	2	1	CVI			C. Subagonia		- Inc	-LM-L-T-i-		1		14	9	mperature (*C) on Receipt		Yes	No
FOR VIEW	NG AT WWW.MAXXAM.CA/1	WRITING, WORK SUBMITTED ON THE ERMS. ELINQUISHER TO ENSURE THE ACCU											OCUMENT	r (S ACKNO	WLEDGME	NT AND ACCE	PTANCE OF OUR T	21414	BLE W	White: Masoure	r Yellow
													100					3 - 4	734		

Maxxam Analytics International Corporation o/a Maxxam Analytics

		INVOICE TO:			Report In	formatio	n						Project I	nformation	P		<b>使用数据的数据的</b>	//34	<u> </u>
pany Name	#3604 LORAX	ENVIRONMENTAL SERVICES LTI	D. Company N	ime						Que	ation#		340231				Parado Parad	(S)	Bottle Order #
ot Name	Aida Piaseczny		Contact Nar	David Class	er					P.O.						1 75	PARTIES, ESTIMA, ESTA	100	
RS	2289 BURRARI	DISTREET	Address							Proje		(	Gold Cor	rp Coffee	Creek-SW	B83974	43_COC		553730
	VANCOUVER E		Chordination							Proje	ect Name					35 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5		9	Project Manag
	(604) 688-7173	x Fax (604) 688-7175 x	Phone				Fax			Site								III	Diana Cruz
	aida.piaseczny(	@lorax.ca; shukling.ng@lorax.ca	Email	David Flath	er@lorax	ca				Sam	pled By						C#553730-02-01		Diana Grue
ulatory C	rilena		Spec	ial Instructions		Lance I					Analysis F	Requested					Turnaround Time (TA	AT) Required	1
						Regulated Drinking Water ? (Y / N.)	(Alk-LL, EC-LL, NH4-TDS)	Level	(LL:CI, F, NO2, NO3,	WAD			Level Dissolved Metals CV Hg	Total Metals incl. CV		(will be app Standard 7 Please not days - conf	Please provide advance net standard TAT is not specified) TAT = 5-T Working days for most testes. Standard TAT for certain tests surfact your Project Manager for details result TAT (if applies to entire submitted).	sts ch as BOD and	d Dioxins/Furans
	*** **********************************	drinkling water samples - please use the Drin.	CONSTRUCTOR ASSESSMENT	THE STATE OF THE S		sted [	H C	TSS-Low	J) S(	90			SV H	Level		Rush Confirm	mation Number	(cp//at	b for #0
	Samples m	nust be kept cool ( < 10°C ) from time of sampling	A STATE OF THE PARTY OF THE PAR	ance		and a	Routine LL, pH, 1	SS	Anions ( SO4)	Cyanide	TOC	DOC	Low I	Low L	ORP		20		
	le Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	æ 2	2 2	100	< 00	0	F	0	7.5	DI.	0	# of Bottles	Co	mments	
	SID#149899	Latte Mix	22/05/18	8:15	W	NI	V /	1	/	/	/	/	/	/	/	13	RECEIVED IN W	нутено	RSE
	SID#208506	Dup	22/05/18	8:15	w	NA	1/	1	1	/	/	/	/	V	/	13	BY & Many	mg@	13:45
							1					, ,					2018-	15-23	
						Ш													
																	TEMP: 5 /	5 /	
																	5	5	4
																	3	4	4
										10	( ww	101724							
* RELI	NQUISHED BY: (Signatur			and the same of th			(Signatury)P	rint)		Dat	e: (YY/MM/	(DD)	Time	# jars	used and ubmitted		Lab Use Only		
Alle	hell Word	n 18/05	122 14:	30	UFW	1//	UW			200	10/11	ILY	3.00		Time 5	otestive Tamy	persture (C) on Receipt	Custody Seal	Intact on Cooler
LES OF	HERWISE AGREED TO	N-WRITING, WORK SUBMITTED ON THIS CHAIN O	OF CUSTODY IS SUB.	ECT TO MAXXAM'S S	TANDARD TE	RMS AND	CONDITION	S. SIGNIN	G OF THIS	CHAIN OF C	USTODY D	OCUMENT	IS ACKNO	WLEDGME	NT AND ACCEPTA	VCE OF DUR TE	ERMS WHICH ARE AVAILABLE	White Major	
R VIEWI	NG AT WWW.MAXXAM.CA	VTERMS. RELINQUISHER TO ENSURE THE ACCURACY OF														2	1414		

( - /

Maxxam Analytics International Corporation o/a Maxxam Analytica



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 553733-01-01, 553733-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/07

Report #: R2566597 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B840685 Received: 2018/05/28, 13:30

Sample Matrix: Water # Samples Received: 11

" Sumples Received. 11		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	6	N/A	2018/05/29	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	5	N/A	2018/05/30	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry (1)	1	N/A	2018/05/31	AB SOP-00020	SM 22-4500-Cl-E m
Chloride by Automated Colourimetry (1)	10	N/A	2018/06/01	AB SOP-00020	SM 22-4500-CI-E m
Carbon (DOC) - field filtered/preserved (3)	11	N/A	2018/05/30	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	6	N/A	2018/05/29	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	5	N/A	2018/05/30	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	11	N/A	2018/05/29	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (4)	11	N/A	2018/05/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	11	N/A	2018/06/01	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	1	N/A	2018/05/29	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	10	N/A	2018/06/01	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	11	2018/06/01	2018/06/01	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	11	N/A	2018/06/01	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	11	N/A	2018/05/31	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	11	2018/05/29	2018/05/30	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	11	N/A	2018/05/30	BBY WI-00033	Auto Calc
Ammonia-N Low Level (Preserved)	11	N/A	2018/05/29	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	11	N/A	2018/05/29	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	11	N/A	2018/05/29	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	11	N/A	2018/05/30	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	11	N/A	2018/05/29	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	11	N/A	2018/05/29	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (5)	6	N/A	2018/05/29	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (5)	5	N/A	2018/05/30	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	10	N/A	2018/06/05	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	1	N/A	2018/06/07	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	8	2018/05/30	2018/05/31	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	3	2018/05/31	2018/06/01	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (6)	11	N/A	2018/05/30	BBY6SOP-00003	SM 22 5310 C m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 553733-01-01, 553733-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/07

Report #: R2566597 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B840685 Received: 2018/05/28, 13:30

Sample Matrix: Water # Samples Received: 11

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Total Suspended Solids-Low Level	10	2018/05/30	2018/05/31	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	1	2018/05/31	2018/06/01	BBY6SOP-00034	SM 22 2540 D
WAD Cyanide Water Subcontract (2)	11	2018/06/01	2018/06/01		

#### **Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Calgary Environmental
- (2) This test was performed by Maxxam Ontario (From Burnaby)
- (3) DOC present in the sample should be considered as non-purgeable DOC.
- (4) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (5) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (6) TOC present in the sample should be considered as non-purgeable TOC.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 553733-01-01, 553733-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/07

Report #: R2566597 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B840685 Received: 2018/05/28, 13:30

**Encryption Key** 

Letitia Prefontaine Senior Project Manager 07 Jun 2018 18:45:34

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Pujarjan

Diana Cruz, Junior Project Manager

Email: DCruz@maxxam.ca Phone# (604) 734 7276

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM9219			TM9219			TM9220		
Sampling Date		2018/05/24			2018/05/24			2018/05/24		
Jamping Date		12:00			12:00			14:00		
COC Number		553733-01-01			553733-01-01			553733-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Parameter										
ORP	mV	464		9004719	463		9004719	463		9004719
Subcontract Parameter	N/A	ATTACHED	N/A	9009864				ATTACHED	N/A	9009864
Calculated Parameters						•			•	
Filter and HNO3 Preservation	N/A	LAB		9004244				LAB		9004244
Nitrate (N)	mg/L	0.0540	0.0020	9003880				0.119	0.0020	9003880
Misc. Inorganics			•							
Fluoride (F)	mg/L	0.052	0.010	9005558				0.040	0.010	9005558
Dissolved Organic Carbon (C)	mg/L	14.2	0.50	9006396	14.3	0.50	9006396	17.8	0.50	9006396
Alkalinity (Total as CaCO3)	mg/L	28.2	0.50	9005126				32.1	0.50	9005107
Total Organic Carbon (C)	mg/L	16.0	0.50	9006398				19.7	0.50	9006398
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9005126				<0.50	0.50	9005107
Bicarbonate (HCO3)	mg/L	34.4	0.50	9005126				39.1	0.50	9005107
Carbonate (CO3)	mg/L	<0.50	0.50	9005126				<0.50	0.50	9005107
Hydroxide (OH)	mg/L	<0.50	0.50	9005126				<0.50	0.50	9005107
Anions					1					
Dissolved Sulphate (SO4)	mg/L	26.2	0.50	9017539				26.5	0.50	9013838
Dissolved Chloride (CI)	mg/L	1.2	0.50	9009211				1.1	0.50	9009211
Nutrients	•		•			!			•	
Total Ammonia (N)	mg/L	0.015	0.0050	9005054				0.013	0.0050	9005054
Nitrate plus Nitrite (N)	mg/L	0.0577	0.0020	9005400				0.121	0.0020	9005398
Nitrite (N)	mg/L	0.0037	0.0020	9005402				0.0020	0.0020	9005399
Physical Properties					1					
Conductivity	uS/cm	112	1.0	9005127				123	1.0	9005108
рН	рН	7.54		9005113				7.55		9005100
Physical Properties	!		•						•	
Total Suspended Solids	mg/L	2.4	1.0	9006331				10.9	1.0	9006331
Total Dissolved Solids	mg/L	114	10	9006007				126	10	9006007
RDL = Reportable Detection Lir	nit		•		ı					I

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM9221		TM9222		TM9223		
Sampling Date		2018/05/24		2018/05/24		2018/05/24		
Sampling Date		13:00		11:00		15:00		
COC Number		553733-01-01		553733-01-01		553733-01-01		
	UNITS	CC-3.5	QC Batch	CC-4.5	QC Batch	HC-2.5	RDL	QC Batch
Parameter								
ORP	mV	463	9004719	460	9004719	459		9004719
Subcontract Parameter	N/A	ATTACHED	9009864	ATTACHED	9009864	ATTACHED	N/A	9009864
Calculated Parameters			•				•	
Filter and HNO3 Preservation	N/A	LAB	9004244	LAB	9004244	LAB		9004244
Nitrate (N)	mg/L	0.112	9003880	0.0841	9003880	0.208	0.0020	9003880
Misc. Inorganics	•		•		•		•	•
Fluoride (F)	mg/L	0.055	9005558	0.052	9005558	0.039	0.010	9005558
Dissolved Organic Carbon (C)	mg/L	14.0	9006319	12.3	9006319	24.5	0.50	9006396
Alkalinity (Total as CaCO3)	mg/L	62.4	9005107	36.4	9005126	21.0	0.50	9005107
Total Organic Carbon (C)	mg/L	15.0	9006318	12.6	9006318	29.2	0.50	9006398
Alkalinity (PP as CaCO3)	mg/L	<0.50	9005107	<0.50	9005126	<0.50	0.50	9005107
Bicarbonate (HCO3)	mg/L	76.2	9005107	44.4	9005126	25.6	0.50	9005107
Carbonate (CO3)	mg/L	<0.50	9005107	<0.50	9005126	<0.50	0.50	9005107
Hydroxide (OH)	mg/L	<0.50	9005107	<0.50	9005126	<0.50	0.50	9005107
Anions	•		•		•		•	•
Dissolved Sulphate (SO4)	mg/L	66.5	9013838	34.8	9013838	<0.50	0.50	9013838
Dissolved Chloride (Cl)	mg/L	1.1	9009211	1.3	9007789	1.7	0.50	9009211
Nutrients							•	•
Total Ammonia (N)	mg/L	0.041	9005054	0.013	9005054	0.035	0.0050	9005054
Nitrate plus Nitrite (N)	mg/L	0.115	9005398	0.0870	9005400	0.210	0.0020	9005398
Nitrite (N)	mg/L	0.0022	9005399	0.0029	9005402	0.0023	0.0020	9005399
Physical Properties			•		•		•	•
Conductivity	uS/cm	254	9005108	149	9005127	63.8	1.0	9005108
рН	рН	7.89	9005100	7.67	9005113	7.26		9005100
Physical Properties							•	
Total Suspended Solids	mg/L	<1.0	9006331	1.7	9006331	26.0	1.0	9006331
Total Dissolved Solids	mg/L	190	9006007	132	9006007	110	10	9006007
RDL = Reportable Detection Lir	mit		•				•	
N/A = Not Applicable								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Name	Maxxam ID		TM9224			TM9224			TM9225		
15:30	Sampling Date										
Note			<del> </del>			†					
Note	COC Number		553733-01-01						553733-01-01		
ORP         mV         451         9004719         457         90           Subcontract Parameter         N/A         ATTACHED         N/A         9009864         ATTACHED         N/A         90           Calculated Parameters           Filter and HNO3 Preservation         N/A         LAB         9004244         LAB         90           Nitrate (N)         mg/L         0.0915         0.0020         900880         0.523         0.0020         90           Misc. Inorganics           Fluoride (F)         mg/L         0.052         0.010         9005558         0.048         0.010         90           Dissolved Organic Carbon (C)         mg/L         16.0         0.50         9006319         14.6         0.50         90           Alkalinity (Total as CaCO3)         mg/L         49.4         0.50         9005107         50.7         0.50         90           Total Organic Carbon (C)         mg/L         16.8         0.50         9005107         50.7         0.50         90           Total Organic Carbon (C)         mg/L         49.4         0.50         9005107         50.7         0.50         90           Total Organic Carbon (C) </th <th></th> <th>UNITS</th> <th>HC-5.0</th> <th>RDL</th> <th>QC Batch</th> <th></th> <th>RDL</th> <th>QC Batch</th> <th>YT-24</th> <th>RDL</th> <th>QC Batch</th>		UNITS	HC-5.0	RDL	QC Batch		RDL	QC Batch	YT-24	RDL	QC Batch
Subcontract Parameter         N/A         ATTACHED         N/A         9009864         ATTACHED         N/A         90           Calculated Parameters         Filter and HNO3 Preservation         N/A         LAB         9004244         LAB         90           Nitrate (N)         mg/L         0.0915         0.0020         9003880         0.523         0.0020         90           Misc. Inorganics         Fluoride (F)         mg/L         0.052         0.010         9005558         0.048         0.010         90           Dissolved Organic Carbon (C)         mg/L         16.0         0.50         9006319         14.6         0.50         90         41.6         0.50         90           Alkalinity (Total as CaCO3)         mg/L         49.4         0.50         9005107         50.7         0.50         90           Total Organic Carbon (C)         mg/L         49.4         0.50         9005107         50.7         0.50         90           Total Organic Carbon (C)         mg/L         40.5         9005107         50.7         0.50         90           Glashity (PP as CaCO3)         mg/L         <0.50         0.50         9005107         61.8         0.50         90	Parameter										
Calculated Parameters           Filter and HNO3 Preservation (N/A)         LAB         9004244         LAB         0.523         0.0020         9003880         0.523         0.0020         90020         9003880         0.0523         0.0020         90020         9003880         0.0523         0.0020         90020         9003880         0.0523         0.0020         90020         9003880         0.0523         0.0020         90020         9003880         0.0523         0.0020         90020         9003880         0.0523         0.0020         90020         90020         9003880         0.0523         0.0020         90020 <td>ORP</td> <td>mV</td> <td>451</td> <td></td> <td>9004719</td> <td></td> <td></td> <td></td> <td>457</td> <td></td> <td>9004719</td>	ORP	mV	451		9004719				457		9004719
Filter and HNO3 Preservation   N/A   LAB   9004244     0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   900880   0.523   0.0020   9008980   0.523   0.0020   9008980   0.523   0.0020   9008980   0.523   0.0020   9008980   0.523   0.0020   9008980   0.523   0.0028   9008980   0.523   0.0028   9008980   0.523   0.0028   9008980   0.523   0.0028   9008980   0.523   0.0028   9008980   0.523   0.0028   9008980   0.523   0.0028   9008980   0.523   0.0028   9008980   0.0028   9008980   0.0028   9008980   0.0028   0.0028   9008980   0.0028   0.0028   9008980   0.0028   0.0028   9008980   0.0028   0.0028   0.0028   9008980   0.0028	Subcontract Parameter	N/A	ATTACHED	N/A	9009864				ATTACHED	N/A	9009864
Nitrate (N) mg/L 0.0915 0.0020 9003880 0.523 0.0020 90  Misc. Inorganics  Fluoride (F) mg/L 0.052 0.010 9005558 0.050 9006319 14.6 0.50 9006318 17.6 0.50 9006318 17.6 0.50 9006319 17.0 0.0050 9006319 17.0 0.0050	Calculated Parameters										
Misc. Inorganics           Fluoride (F)         mg/L         0.052         0.010         9005558         0.048         0.010         90           Dissolved Organic Carbon (C)         mg/L         16.0         0.50         9006319         14.6         0.50         90           Alkalinity (Total as CaCO3)         mg/L         49.4         0.50         9005107         50.7         0.50         90           Total Organic Carbon (C)         mg/L         16.8         0.50         9006318         17.6         0.50         90           Alkalinity (PP as CaCO3)         mg/L         <0.50	Filter and HNO3 Preservation	N/A	LAB		9004244				LAB		9004244
Fluoride (F) mg/L 0.052 0.010 9005558 0.048 0.048 0.010 90 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000	Nitrate (N)	mg/L	0.0915	0.0020	9003880				0.523	0.0020	9003880
Dissolved Organic Carbon (C)   mg/L   16.0   0.50   9006319   14.6   0.50   9006319   9006319   14.6   0.50   9006319   14.6	Misc. Inorganics			•	•					•	
Alkalinity (Total as CaCO3)       mg/L       49.4       0.50       9005107       50.7       0.50       90         Total Organic Carbon (C)       mg/L       16.8       0.50       9006318       17.6       0.50       90         Alkalinity (PP as CaCO3)       mg/L       <0.50	Fluoride (F)	mg/L	0.052	0.010	9005558				0.048	0.010	9005558
Total Organic Carbon (C) mg/L 16.8 0.50 9006318 17.6 0.50 90  Alkalinity (PP as CaCO3) mg/L <0.50 0.50 9005107   <0.50 0.50 90  Bicarbonate (HCO3) mg/L 60.3 0.50 9005107   61.8 0.50 90  Carbonate (CO3) mg/L <0.50 0.50 9005107   <0.50 0.50 90  Hydroxide (OH) mg/L <0.50 0.50 9005107   <0.50 0.50 90  Anions  Dissolved Sulphate (SO4) mg/L 1.3 0.50 9009211   1.5 0.50 90  Nutrients  Total Ammonia (N) mg/L 0.022 0.0050 9005398   0.0020 90  Nitrite (N) mg/L 0.0028 0.0020 90  Physical Properties	Dissolved Organic Carbon (C)	mg/L	16.0	0.50	9006319	14.6	0.50	9006319	14.6	0.50	9006396
Alkalinity (PP as CaCO3)       mg/L       <0.50	Alkalinity (Total as CaCO3)	mg/L	49.4	0.50	9005107				50.7	0.50	9005107
Bicarbonate (HCO3) mg/L 60.3 0.50 9005107 61.8 0.50 90 Carbonate (CO3) mg/L <0.50 0.50 9005107 <0.50 0.50 90 Hydroxide (OH) mg/L <0.50 0.50 9005107 <0.50 0.50 90 Anions Dissolved Sulphate (SO4) mg/L 28.6 0.50 9013838 93.6 0.50 90 Dissolved Chloride (Cl) mg/L 1.3 0.50 9009211 1.5 0.50 90 Nutrients Total Ammonia (N) mg/L 0.022 0.0050 9005054 0.0022 0.0050 90 Nitrate plus Nitrite (N) mg/L 0.0935 0.0020 9005398 0.526 0.0020 90 Nitrite (N) mg/L 0.0020 0.0020 9005399 0.0028 0.0020 90 Physical Properties	Total Organic Carbon (C)	mg/L	16.8	0.50	9006318				17.6	0.50	9006398
Carbonate (CO3) mg/L <0.50 0.50 9005107 <0.50 0.50 90  Hydroxide (OH) mg/L <0.50 0.50 9005107 <0.50 0.50 90  Anions  Dissolved Sulphate (SO4) mg/L 28.6 0.50 9013838 93.6 0.50 90  Dissolved Chloride (Cl) mg/L 1.3 0.50 9009211 1.5 0.50 90  Nutrients  Total Ammonia (N) mg/L 0.022 0.0050 9005054 0.0022 0.0050 90  Nitrate plus Nitrite (N) mg/L 0.0935 0.0020 9005398 0.526 0.0020 90  Nitrite (N) mg/L 0.0020 0.0020 9005399 0.0028 0.0028 0.0020 90  Physical Properties	Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9005107				<0.50	0.50	9005107
Hydroxide (OH)       mg/L       <0.50       0.50       9005107       <0.50       0.50       90         Anions       Dissolved Sulphate (SO4)       mg/L       28.6       0.50       9013838       93.6       0.50       90         Dissolved Chloride (Cl)       mg/L       1.3       0.50       9009211       1.5       0.50       90         Nutrients       Total Ammonia (N)       mg/L       0.022       0.0050       9005054       0.022       0.0050       90         Nitrate plus Nitrite (N)       mg/L       0.0935       0.0020       9005398       0.526       0.0020       90         Physical Properties	Bicarbonate (HCO3)	mg/L	60.3	0.50	9005107				61.8	0.50	9005107
Anions  Dissolved Sulphate (SO4) mg/L 28.6 0.50 9013838 93.6 0.50 90  Dissolved Chloride (Cl) mg/L 1.3 0.50 9009211 1.5 0.50 90  Nutrients  Total Ammonia (N) mg/L 0.022 0.0050 9005054 0.0022 0.0020 9005398 0.526 0.0020 90  Nitrate plus Nitrite (N) mg/L 0.0020 0.0020 9005399 0.0028 0.0028 0.0020 90  Physical Properties	Carbonate (CO3)	mg/L	<0.50	0.50	9005107				<0.50	0.50	9005107
Dissolved Sulphate (SO4)         mg/L         28.6         0.50         9013838         93.6         0.50         90           Dissolved Chloride (Cl)         mg/L         1.3         0.50         9009211         1.5         0.50         90           Nutrients           Total Ammonia (N)         mg/L         0.022         0.0050         9005054         0.022         0.0050         90           Nitrate plus Nitrite (N)         mg/L         0.0935         0.0020         9005398         0.526         0.0020         90           Nitrite (N)         mg/L         0.0020         0.0020         9005399         0.0028         0.0020         90           Physical Properties	Hydroxide (OH)	mg/L	<0.50	0.50	9005107				<0.50	0.50	9005107
Dissolved Chloride (Cl)         mg/L         1.3         0.50         9009211         1.5         0.50         90           Nutrients           Total Ammonia (N)         mg/L         0.022         0.0050         9005054         0.022         0.0050         90           Nitrate plus Nitrite (N)         mg/L         0.0935         0.0020         9005398         0.526         0.0020         90           Nitrite (N)         mg/L         0.0020         0.0020         9005399         0.0028         0.0020         90           Physical Properties	Anions			•	•					•	
Nutrients           Total Ammonia (N)         mg/L         0.022         0.0050         9005054         0.022         0.0050         90           Nitrate plus Nitrite (N)         mg/L         0.0935         0.0020         9005398         0.526         0.0020         90           Nitrite (N)         mg/L         0.0020         9005399         0.0028         0.0020         90           Physical Properties	Dissolved Sulphate (SO4)	mg/L	28.6	0.50	9013838				93.6	0.50	9013838
Total Ammonia (N)         mg/L         0.022         0.0050         9005054         0.022         0.0050         90           Nitrate plus Nitrite (N)         mg/L         0.0935         0.0020         9005398         0.526         0.0020         90           Nitrite (N)         mg/L         0.0020         0.0020         9005399         0.0028         0.0020         90           Physical Properties	Dissolved Chloride (CI)	mg/L	1.3	0.50	9009211				1.5	0.50	9009211
Nitrate plus Nitrite (N)         mg/L         0.0935         0.0020         9005398         0.526         0.0020         90           Nitrite (N)         mg/L         0.0020         0.0020         9005399         0.0028         0.0020         90           Physical Properties	Nutrients		•	•	•	•	•	•		•	
Nitrite (N) mg/L 0.0020 0.0020 9005399 0.0028 0.0020 90  Physical Properties	Total Ammonia (N)	mg/L	0.022	0.0050	9005054				0.022	0.0050	9005054
Physical Properties	Nitrate plus Nitrite (N)	mg/L	0.0935	0.0020	9005398				0.526	0.0020	9005398
	Nitrite (N)	mg/L	0.0020	0.0020	9005399				0.0028	0.0020	9005399
Conductivity uS/cm 161 1.0 9005108 286 1.0 90	Physical Properties		•	•							
	Conductivity	uS/cm	161	1.0	9005108				286	1.0	9005108
pH pH 7.85 9005100 7.76 90	рН	рН	7.85		9005100				7.76		9005100
Physical Properties	Physical Properties		•	•	•	•	•	•		•	
Total Suspended Solids mg/L 8.5 1.0 9006331 26.0 1.0 90	Total Suspended Solids	mg/L	8.5	1.0	9006331				26.0	1.0	9006331
Total Dissolved Solids mg/L 142 10 9006007 228 10 90	Total Dissolved Solids	mg/L	142	10	9006007				228	10	9006007
RDL = Reportable Detection Limit	RDL = Reportable Detection Lin	nit					•				

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM9226			TM9226			TM9227			
Sampling Date		2018/05/25 10:30			2018/05/25 10:30			2018/05/25 09:30			
COC Number		553733-01-01			553733-01-01			553733-01-01			
	UNITS	YT-24 MIX	RDL	QC Batch	YT-24 MIX Lab-Dup	RDL	QC Batch	COFFEE MIX	RDL	QC Batch	
Parameter											
ORP	mV	457		9004719				453		9004719	
Subcontract Parameter	N/A	ATTACHED	N/A	9009864				ATTACHED	N/A	9009864	
Calculated Parameters											
Filter and HNO3 Preservation	N/A	LAB		9004244				LAB		9004244	
Nitrate (N)	mg/L	0.0276	0.0020	9003880				0.0348	0.0020	9003880	
Misc. Inorganics				Į.	1					<u>.</u>	
Fluoride (F)	mg/L	0.094	0.010	9005558				0.090	0.010	9005558	
Dissolved Organic Carbon (C)	mg/L	7.21	0.50	9006396				8.55	0.50	9006319	
Alkalinity (Total as CaCO3)	mg/L	60.0	0.50	9005107				56.1	0.50	9005126	
Total Organic Carbon (C)	mg/L	8.96	0.50	9006398				10.2	0.50	9006398	
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9005107				<0.50	0.50	9005126	
Bicarbonate (HCO3)	mg/L	73.2	0.50	9005107				68.4	0.50	9005126	
Carbonate (CO3)	mg/L	<0.50	0.50	9005107				<0.50	0.50	9005126	
Hydroxide (OH)	mg/L	<0.50	0.50	9005107				<0.50	0.50	9005126	
Anions											
Dissolved Sulphate (SO4)	mg/L	21.7	0.50	9013838				21.2	0.50	9013838	
Dissolved Chloride (Cl)	mg/L	1.5	0.50	9009211				1.5	0.50	9009211	
Nutrients			•	•		•			•		
Total Ammonia (N)	mg/L	0.017	0.0050	9005054				0.031	0.0050	9005054	
Nitrate plus Nitrite (N)	mg/L	0.0318	0.0020	9005398				0.0368	0.0020	9005400	
Nitrite (N)	mg/L	0.0042	0.0020	9005399				0.0020	0.0020	9005402	
Physical Properties	•		•			•			•		
Conductivity	uS/cm	165	1.0	9005108				155	1.0	9005127	
рН	рН	7.85		9005100				7.88		9005113	
Physical Properties											
Total Suspended Solids	mg/L	98.8	1.0	9006331				81.3 (1)	2.5	9006331	
Total Dissolved Solids	mg/L	128	10	9006007	126	10	9006007	108	10	9006987	
DDI Demontoble Detection Lin	٠		•								

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) RDL raised due to sample matrix interference.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM9228			TM9228			TM9229		
Sampling Date		2018/05/25			2018/05/25			2018/05/24		
Sampling Date		12:00			12:00			11:45		
COC Number		553733-01-01			553733-01-01			553733-02-01		
					HALFWAY					
	UNITS	HALFWAY MIX	RDL	QC Batch	MIX	RDL	QC Batch	LATTE MIX	RDL	QC Batch
_			ļ		Lab-Dup	ļ			<u> </u>	
Parameter		<b></b>		I	Г		I .			
ORP	mV	454		9004719				455		9004719
Subcontract Parameter	N/A	ATTACHED	N/A	9009864				ATTACHED	N/A	9009864
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		9004244				LAB		9004244
Nitrate (N)	mg/L	0.0245	0.0020	9003880				0.0686	0.0020	9003880
Misc. Inorganics	•	•	•	•	•	•			•	
Fluoride (F)	mg/L	0.095	0.010	9005558				0.052	0.010	9005558
Dissolved Organic Carbon (C)	mg/L	6.10	0.50	9006396				14.1	0.50	9006396
Alkalinity (Total as CaCO3)	mg/L	59.3	0.50	9005089				32.5	0.50	9005107
Total Organic Carbon (C)	mg/L	8.38	0.50	9006398				14.3	0.50	9006318
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9005089				<0.50	0.50	9005107
Bicarbonate (HCO3)	mg/L	72.4	0.50	9005089				39.6	0.50	9005107
Carbonate (CO3)	mg/L	<0.50	0.50	9005089				<0.50	0.50	9005107
Hydroxide (OH)	mg/L	<0.50	0.50	9005089				<0.50	0.50	9005107
Anions			!	ļ.	-	!	!		!	
Dissolved Sulphate (SO4)	mg/L	21.6	0.50	9013838				29.6	0.50	9013838
Dissolved Chloride (CI)	mg/L	1.5	0.50	9009211				1.6	0.50	9009211
Nutrients				Į.	I.					
Total Ammonia (N)	mg/L	0.019	0.0050	9005054				0.012	0.0050	9005054
Nitrate plus Nitrite (N)	mg/L	0.0277	0.0020	9005398	0.0278	0.0020	9005398	0.0720	0.0020	9005398
Nitrite (N)	mg/L	0.0032	0.0020	9005399	0.0026	0.0020	9005399	0.0034	0.0020	9005399
Physical Properties		1								
Conductivity	uS/cm	163	1.0	9005090				128	1.0	9005108
рН	рН	7.88		9005079				7.55		9005100
Physical Properties										
Total Suspended Solids	mg/L	78.8 (1)	2.0	9007449				2.1	1.0	9006331
Total Dissolved Solids	mg/L	112	10	9006987				110	10	9006987
DDL - Benertable Detection Liv				I.	l.		1		1	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) RDL raised due to sample matrix interference.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TM9229		
Sampling Date		2018/05/24 11:45		
COC Number		553733-02-01		
	UNITS	LATTE MIX Lab-Dup	RDL	QC Batch

Nutrients				
Total Ammonia (N)	mg/L	0.012	0.0050	9005054
RDL = Reportable Detection Lin	nit			

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9219		TM9220		TM9221	TM9222		
IVIAXAIII ID		2018/05/24		2018/05/24		2018/05/24	2018/05/24		
Sampling Date		12:00		14:00		13:00	11:00		
COC Number		553733-01-01		553733-01-01		553733-01-01	553733-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.5	QC Batch	CC-3.5	CC-4.5	RDL	QC Batch
Calculated Parameters	•			•	•	•	•		
Dissolved Hardness (CaCO3)	mg/L	53.9	9003126	65.4	9003126	125	73.3	0.50	9003126
Elements	O.							l	
Dissolved Mercury (Hg)	ug/L	0.0065	9008763	0.0120	9004431	0.0045	0.0044	0.0020	9008763
Dissolved Metals by ICPMS				1		1	1		
Dissolved Aluminum (AI)	ug/L	143	9005408	287	9005408	95.3	121	0.50	9005408
Dissolved Antimony (Sb)	ug/L	0.082	9005408	0.090	9005408	0.095	0.082	0.020	9005408
Dissolved Arsenic (As)	ug/L	0.429	9005408	0.532	9005408	0.455	0.406	0.020	9005408
Dissolved Barium (Ba)	ug/L	33.2	9005408	25.5	9005408	45.0	40.7	0.020	9005408
Dissolved Beryllium (Be)	ug/L	0.019	9005408	0.036	9005408	0.014	0.016	0.010	9005408
Dissolved Bismuth (Bi)	ug/L	<0.0050	9005408	<0.0050	9005408	<0.0050	<0.0050	0.0050	9005408
Dissolved Boron (B)	ug/L	<10	9005408	<10	9005408	<10	<10	10	9005408
Dissolved Cadmium (Cd)	ug/L	0.0162	9005408	0.0110	9005408	0.0085	0.0132	0.0050	9005408
Dissolved Chromium (Cr)	ug/L	0.30	9005408	0.45	9005408	0.31	0.29	0.10	9005408
Dissolved Cobalt (Co)	ug/L	0.0981	9005408	0.108	9005408	0.104	0.0787	0.0050	9005408
Dissolved Copper (Cu)	ug/L	2.17	9005408	2.32	9005408	1.64	2.07	0.050	9005408
Dissolved Iron (Fe)	ug/L	138	9005408	214	9005408	94.0	109	1.0	9005408
Dissolved Lead (Pb)	ug/L	0.0223	9005408	0.0108	9005408	0.0076	0.0087	0.0050	9005408
Dissolved Lithium (Li)	ug/L	0.77	9005408	1.02	9005408	0.73	0.69	0.50	9005408
Dissolved Manganese (Mn)	ug/L	13.0	9005408	7.37	9005408	18.3	9.91	0.050	9005408
Dissolved Molybdenum (Mo)	ug/L	0.701	9005408	0.087	9005408	0.251	0.660	0.050	9005408
Dissolved Nickel (Ni)	ug/L	1.14	9005408	1.06	9005408	0.897	1.08	0.020	9005408
Dissolved Phosphorus (P)	ug/L	9.6	9005408	12.4	9005408	11.6	11.0	2.0	9005408
Dissolved Selenium (Se)	ug/L	0.064	9005408	0.067	9005408	0.074	0.077	0.040	9005408
Dissolved Silicon (Si)	ug/L	2960	9005408	2670	9005408	3210	3140	50	9005408
Dissolved Silver (Ag)	ug/L	<0.0050	9005408	<0.0050	9005408	<0.0050	<0.0050	0.0050	9005408
Dissolved Strontium (Sr)	ug/L	69.5	9005408	143	9005408	252	104	0.050	9005408
Dissolved Thallium (TI)	ug/L	0.0033	9005408	0.0025	9005408	0.0025	0.0037	0.0020	9005408
Dissolved Tin (Sn)	ug/L	<0.20	9005408	<0.20	9005408	<0.20	<0.20	0.20	9005408
Dissolved Titanium (Ti)	ug/L	1.69	9005408	2.16	9005408	1.69	1.28	0.50	9005408
Dissolved Uranium (U)	ug/L	3.57	9005408	4.11	9005408	11.2	3.93	0.0020	9005408
Dissolved Vanadium (V)	ug/L	0.50	9005408	0.52	9005408	0.46	0.46	0.20	9005408
Dissolved Zinc (Zn)	ug/L	0.54	9005408	0.95	9005408	0.43	0.58	0.10	9005408
RDL = Reportable Detection Lin	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9219		TM9220		TM9221	TM9222		
Sampling Date		2018/05/24		2018/05/24		2018/05/24	2018/05/24		
Sampling Date		12:00		14:00		13:00	11:00		
COC Number		553733-01-01		553733-01-01		553733-01-01	553733-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.5	QC Batch	CC-3.5	CC-4.5	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.37	9005408	0.69	9005408	0.55	0.35	0.10	9005408
Dissolved Calcium (Ca)	mg/L	13.9	9003129	17.1	9003129	33.5	18.8	0.050	9003129
Dissolved Magnesium (Mg)	mg/L	4.65	9003129	5.49	9003129	10.1	6.40	0.050	9003129
Dissolved Potassium (K)	mg/L	0.987	9003129	1.04	9003129	1.96	1.20	0.050	9003129
Dissolved Sodium (Na)	mg/L	2.26	9003129	1.43	9003129	3.04	2.66	0.050	9003129
Dissolved Sulphur (S)	mg/L	7.9	9003129	8.4	9003129	20.3	11.1	3.0	9003129
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9223	TM9224	TM9225		TM9226		
c !! D !		2018/05/24	2018/05/24	2018/05/24		2018/05/25		
Sampling Date		15:00	15:30	16:15		10:30		
COC Number		553733-01-01	553733-01-01	553733-01-01		553733-01-01		
	UNITS	HC-2.5	HC-5.0	YT-24	QC Batch	YT-24 MIX	RDL	QC Batch
Calculated Parameters								
Dissolved Hardness (CaCO3)	mg/L	35.2	80.0	137	9003126	86.1	0.50	9003126
Elements				·	·		l.	
Dissolved Mercury (Hg)	ug/L	0.0111	0.0052	0.0057	9008763	0.0023	0.0020	9008924
Dissolved Metals by ICPMS					•		•	
Dissolved Aluminum (AI)	ug/L	390	109	74.2	9005408	46.9	0.50	9005408
Dissolved Antimony (Sb)	ug/L	0.156	0.186	0.219	9005408	0.148	0.020	9005408
Dissolved Arsenic (As)	ug/L	1.20	0.910	0.608	9005408	0.523	0.020	9005408
Dissolved Barium (Ba)	ug/L	23.1	33.3	58.9	9005408	43.5	0.020	9005408
Dissolved Beryllium (Be)	ug/L	0.044	0.021	0.017	9005408	<0.010	0.010	9005408
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	9005408	<0.0050	0.0050	9005408
Dissolved Boron (B)	ug/L	<10	<10	<10	9005408	<10	10	9005408
Dissolved Cadmium (Cd)	ug/L	0.0124	<0.0050	0.0096	9005408	0.0945	0.0050	9005408
Dissolved Chromium (Cr)	ug/L	0.77	0.40	0.41	9005408	0.14	0.10	9005408
Dissolved Cobalt (Co)	ug/L	0.212	0.101	0.140	9005408	0.0444	0.0050	9005408
Dissolved Copper (Cu)	ug/L	2.43	1.93	2.11	9005408	2.41	0.050	9005408
Dissolved Iron (Fe)	ug/L	324	121	68.0	9005408	80.0	1.0	9005408
Dissolved Lead (Pb)	ug/L	0.0294	0.0100	0.0084	9005408	0.0539	0.0050	9005408
Dissolved Lithium (Li)	ug/L	0.65	0.83	<0.50	9005408	1.43	0.50	9005408
Dissolved Manganese (Mn)	ug/L	15.6	3.93	8.24	9005408	6.64	0.050	9005408
Dissolved Molybdenum (Mo)	ug/L	0.359	0.668	0.411	9005408	1.01	0.050	9005408
Dissolved Nickel (Ni)	ug/L	1.40	0.881	0.969	9005408	2.84	0.020	9005408
Dissolved Phosphorus (P)	ug/L	14.4	12.4	12.6	9005408	29.7	2.0	9005408
Dissolved Selenium (Se)	ug/L	0.055	0.056	0.073	9005408	0.311	0.040	9005408
Dissolved Silicon (Si)	ug/L	2700	3260	3250	9005408	2790	50	9005408
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	9005408	<0.0050	0.0050	9005408
Dissolved Strontium (Sr)	ug/L	110	203	210	9005408	115	0.050	9005408
Dissolved Thallium (TI)	ug/L	0.0047	0.0021	0.0025	9005408	0.0042	0.0020	9005408
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	9005408	<0.20	0.20	9005408
Dissolved Titanium (Ti)	ug/L	3.99	1.73	1.14	9005408	0.93	0.50	9005408
Dissolved Uranium (U)	ug/L	7.44	12.0	4.41	9005408	0.846	0.0020	9005408
Dissolved Vanadium (V)	ug/L	0.88	0.56	0.38	9005408	0.48	0.20	9005408
Dissolved Zinc (Zn)	ug/L	1.17	0.34	0.33	9005408	5.05	0.10	9005408
RDL = Reportable Detection Li	mit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9223	TM9224	TM9225		TM9226		
Sampling Date		2018/05/24	2018/05/24	2018/05/24		2018/05/25		
Sampling Date		15:00	15:30	16:15		10:30		
COC Number		553733-01-01	553733-01-01	553733-01-01		553733-01-01		
	UNITS	HC-2.5	HC-5.0	YT-24	QC Batch	YT-24 MIX	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.90	0.54	0.63	9005408	0.15	0.10	9005408
Dissolved Calcium (Ca)	mg/L	9.76	20.7	36.4	9003129	23.7	0.050	9003129
Dissolved Magnesium (Mg)	mg/L	2.63	6.86	11.3	9003129	6.54	0.050	9003129
Dissolved Potassium (K)	mg/L	1.03	1.63	1.98	9003129	0.957	0.050	9003129
Dissolved Sodium (Na)	mg/L	1.07	2.33	3.35	9003129	1.88	0.050	9003129
Dissolved Sulphur (S)	mg/L	<3.0	8.9	27.6	9003129	9.1	3.0	9003129
RDL = Reportable Detection Lin	mit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9227	TM9228	TM9229		
Sampling Date		2018/05/25	2018/05/25	2018/05/24		
Sampling Date		09:30	12:00	11:45		
COC Number		553733-01-01	553733-01-01	553733-02-01		
	UNITS	COFFEE MIX	HALFWAY MIX	LATTE MIX	RDL	QC Batch
Calculated Parameters						
Dissolved Hardness (CaCO3)	mg/L	78.4	83.9	63.6	0.50	9003126
Elements						
Dissolved Mercury (Hg)	ug/L	0.0038	0.0027	0.0061	0.0020	9008763
Dissolved Metals by ICPMS						
Dissolved Aluminum (AI)	ug/L	82.5	56.0	144	0.50	9005408
Dissolved Antimony (Sb)	ug/L	0.137	0.127	0.092	0.020	9005408
Dissolved Arsenic (As)	ug/L	0.556	0.556	0.437	0.020	9005408
Dissolved Barium (Ba)	ug/L	39.6	39.7	35.4	0.020	9005408
Dissolved Beryllium (Be)	ug/L	0.016	<0.010	0.014	0.010	9005408
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9005408
Dissolved Boron (B)	ug/L	<10	<10	<10	10	9005408
Dissolved Cadmium (Cd)	ug/L	0.0699	0.0668	0.0128	0.0050	9005408
Dissolved Chromium (Cr)	ug/L	0.22	0.13	0.31	0.10	9005408
Dissolved Cobalt (Co)	ug/L	0.0662	0.0509	0.102	0.0050	9005408
Dissolved Copper (Cu)	ug/L	2.47	2.29	2.23	0.050	9005408
Dissolved Iron (Fe)	ug/L	111	84.0	136	1.0	9005408
Dissolved Lead (Pb)	ug/L	0.0535	0.0509	0.0069	0.0050	9005408
Dissolved Lithium (Li)	ug/L	1.27	1.40	0.75	0.50	9005408
Dissolved Manganese (Mn)	ug/L	4.81	4.37	15.2	0.050	9005408
Dissolved Molybdenum (Mo)	ug/L	0.881	0.991	0.664	0.050	9005408
Dissolved Nickel (Ni)	ug/L	2.60	2.67	1.17	0.020	9005408
Dissolved Phosphorus (P)	ug/L	28.3	32.2	10.9	2.0	9005408
Dissolved Selenium (Se)	ug/L	0.284	0.321	0.071	0.040	9005408
Dissolved Silicon (Si)	ug/L	2830	2750	2940	50	9005408
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9005408
Dissolved Strontium (Sr)	ug/L	102	111	91.2	0.050	9005408
Dissolved Thallium (TI)	ug/L	0.0036	0.0038	0.0043	0.0020	9005408
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	9005408
Dissolved Titanium (Ti)	ug/L	1.36	0.75	1.42	0.50	9005408
Dissolved Uranium (U)	ug/L	1.14	1.12	4.39	0.0020	9005408
Dissolved Vanadium (V)	ug/L	0.53	0.49	0.52	0.20	9005408
Dissolved Zinc (Zn)	ug/L	3.26	3.14	0.52	0.10	9005408
RDL = Reportable Detection Li	mit		-		_	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9227	TM9228	TM9229		
Sampling Date		2018/05/25 09:30	2018/05/25 12:00	2018/05/24 11:45		
COC Number		553733-01-01	553733-01-01	553733-02-01		
	UNITS	COFFEE MIX	HALFWAY MIX	LATTE MIX	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.19	0.17	0.38	0.10	9005408
Dissolved Calcium (Ca)	mg/L	21.5	23.0	16.5	0.050	9003129
Dissolved Magnesium (Mg)	mg/L	6.01	6.42	5.45	0.050	9003129
Dissolved Potassium (K)	mg/L	0.935	0.933	1.13	0.050	9003129
Dissolved Sodium (Na)	mg/L	1.77	1.82	2.45	0.050	9003129
Dissolved Sulphur (S)	mg/L	6.7	7.0	9.1	3.0	9003129
RDL = Reportable Detection Li	mit					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9219	TM9220	TM9221	TM9222	TM9223	TM9224		
Campling Data		2018/05/24	2018/05/24	2018/05/24	2018/05/24	2018/05/24	2018/05/24		
Sampling Date		12:00	14:00	13:00	11:00	15:00	15:30		
COC Number		553733-01-01	553733-01-01	553733-01-01	553733-01-01	553733-01-01	553733-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Calculated Parameters	•	•		•	-	•	•	<u> </u>	
Total Hardness (CaCO3)	mg/L	51.2	60.3	125	72.1	39.0	81.8	0.50	9003125
Elements					•				
Total Mercury (Hg)	ug/L	0.0060	0.0113	0.0046	0.0049	0.0095	0.0044	0.0020	9008805
Total Metals by ICPMS					•				
Total Aluminum (Al)	ug/L	190	378	105	142	655	136	3.0	9004235
Total Antimony (Sb)	ug/L	0.102	0.103	0.093	0.090	0.169	0.183	0.020	9004235
Total Arsenic (As)	ug/L	0.494	0.634	0.465	0.456	1.79	1.01	0.020	9004235
Total Barium (Ba)	ug/L	33.3	25.9	44.7	41.4	28.8	34.9	0.050	9004235
Total Beryllium (Be)	ug/L	0.018	0.045	0.016	0.016	0.057	0.024	0.010	9004235
Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9004235
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9004235
Total Cadmium (Cd)	ug/L	0.0177	0.0153	0.0066	0.0152	0.0248	0.0091	0.0050	9004235
Total Chromium (Cr)	ug/L	0.36	0.56	0.29	0.28	1.12	0.42	0.10	9004235
Total Cobalt (Co)	ug/L	0.167	0.151	0.107	0.116	0.523	0.139	0.010	9004235
Total Copper (Cu)	ug/L	2.10	2.26	1.57	2.05	2.79	1.75	0.10	9004235
Total Iron (Fe)	ug/L	213	328	104	151	645	158	5.0	9004235
Total Lead (Pb)	ug/L	0.046	0.079	<0.020	0.022	0.189	0.030	0.020	9004235
Total Lithium (Li)	ug/L	0.81	1.10	0.79	0.75	0.92	0.92	0.50	9004235
Total Manganese (Mn)	ug/L	31.1	18.6	21.0	20.6	65.1	12.5	0.10	9004235
Total Molybdenum (Mo)	ug/L	0.630	0.083	0.218	0.604	0.365	0.612	0.050	9004235
Total Nickel (Ni)	ug/L	1.12	1.16	0.74	1.05	1.65	0.97	0.10	9004235
Total Phosphorus (P)	ug/L	17.7	18.8	13.0	12.5	32.5	17.2	5.0	9004235
Total Selenium (Se)	ug/L	0.064	0.060	0.074	0.079	0.071	0.065	0.040	9004235
Total Silicon (Si)	ug/L	2930	2860	3340	3250	3220	3480	50	9004235
Total Silver (Ag)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9004235
Total Strontium (Sr)	ug/L	66.2	130	251	99.8	115	203	0.050	9004235
Total Thallium (TI)	ug/L	0.0053	0.0035	0.0028	0.0046	0.0065	0.0039	0.0020	9004235
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9004235
Total Titanium (Ti)	ug/L	4.0	6.1	<2.0	<2.0	12.6	2.3	2.0	9004235
Total Uranium (U)	ug/L	3.80	4.18	11.8	4.34	9.54	13.4	0.0050	9004235
Total Vanadium (V)	ug/L	0.60	0.70	0.41	0.47	1.42	0.56	0.20	9004235
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9219	TM9220	TM9221	TM9222	TM9223	TM9224		
Sampling Date		2018/05/24 12:00	2018/05/24 14:00	2018/05/24 13:00	2018/05/24 11:00	2018/05/24 15:00	2018/05/24 15:30		
COC Number		553733-01-01	553733-01-01	553733-01-01	553733-01-01	553733-01-01	553733-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Total Zinc (Zn)	ug/L	1.0	1.7	<1.0	<1.0	2.6	<1.0	1.0	9004235
Total Zirconium (Zr)	ug/L	0.29	0.56	0.44	0.29	0.85	0.43	0.10	9004235
Total Calcium (Ca)	mg/L	13.0	16.0	33.2	18.8	10.8	21.4	0.25	9003132
Total Magnesium (Mg)	mg/L	4.52	4.95	10.3	6.13	2.90	6.87	0.25	9003132
Total Potassium (K)	mg/L	0.94	0.96	1.94	1.16	1.07	1.64	0.25	9003132
Total Sodium (Na)	mg/L	2.19	1.40	3.09	2.63	1.18	2.37	0.25	9003132
Total Sulphur (S)	mg/L	7.6	7.8	20.4	11.1	<3.0	9.6	3.0	9003132
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TM9225	TM9226	TM9227	TM9228			TM9228		
Campling Date		2018/05/24	2018/05/25	2018/05/25	2018/05/25			2018/05/25		
Sampling Date		16:15	10:30	09:30	12:00			12:00		
COC Number		553733-01-01	553733-01-01	553733-01-01	553733-01-01			553733-01-01		
	UNITS	YT-24	YT-24 MIX	COFFEE MIX	HALFWAY MIX	RDL	QC Batch	HALFWAY MIX Lab-Dup	RDL	QC Batch
Calculated Parameters	_	•	•	•	•	·	•		•	
Total Hardness (CaCO3)	mg/L	138	86.5	81.1	87.8	0.50	9003125			
Elements		•	1	•	1	l.				
Total Mercury (Hg)	ug/L	0.0061	0.0031	0.0038	0.0031	0.0020	9008805			
Total Metals by ICPMS		•	1	•	1	l.				
Total Aluminum (AI)	ug/L	401	780	1010	1240	3.0	9004235	1240	3.0	9004235
Total Antimony (Sb)	ug/L	0.230	0.211	0.213	0.269	0.020	9004235	0.259	0.020	9004235
Total Arsenic (As)	ug/L	0.953	1.45	1.59	1.88	0.020	9004235	1.85	0.020	9004235
Total Barium (Ba)	ug/L	65.7	88.2	89.0	102	0.050	9004235	97.7	0.050	9004235
Total Beryllium (Be)	ug/L	0.042	0.067	0.076	0.079	0.010	9004235	0.074	0.010	9004235
Total Bismuth (Bi)	ug/L	<0.010	0.018	0.020	0.023	0.010	9004235	0.023	0.010	9004235
Total Boron (B)	ug/L	<10	<10	<10	<10	10	9004235	<10	10	9004235
Total Cadmium (Cd)	ug/L	0.0173	0.331	0.304	0.355	0.0050	9004235	0.344	0.0050	9004235
Total Chromium (Cr)	ug/L	1.05	1.22	1.63	2.21	0.10	9004235	2.15	0.10	9004235
Total Cobalt (Co)	ug/L	0.399	0.862	1.00	1.20	0.010	9004235	1.16	0.010	9004235
Total Copper (Cu)	ug/L	2.71	4.75	4.91	5.52	0.10	9004235	5.20	0.10	9004235
Total Iron (Fe)	ug/L	552	1390	1780	2330	5.0	9004235	2260	5.0	9004235
Total Lead (Pb)	ug/L	0.285	1.15	1.13	1.38	0.020	9004235	1.34	0.020	9004235
Total Lithium (Li)	ug/L	0.71	2.17	2.23	2.73	0.50	9004235	2.65	0.50	9004235
Total Manganese (Mn)	ug/L	26.2	86.8	88.4	102	0.10	9004235	97.8	0.10	9004235
Total Molybdenum (Mo)	ug/L	0.388	0.947	0.909	1.03	0.050	9004235	1.00	0.050	9004235
Total Nickel (Ni)	ug/L	1.39	5.87	6.05	7.27	0.10	9004235	7.09	0.10	9004235
Total Phosphorus (P)	ug/L	37.2	154	133	114	5.0	9004235	107	5.0	9004235
Total Selenium (Se)	ug/L	0.073	0.352	0.336	0.409	0.040	9004235	0.437	0.040	9004235
Total Silicon (Si)	ug/L	3710	3870	4130	4760	50	9004235	4620	50	9004235
Total Silver (Ag)	ug/L	<0.010	0.019	0.020	0.022	0.010	9004235	0.025	0.010	9004235
Total Strontium (Sr)	ug/L	203	113	103	113	0.050	9004235	111	0.050	9004235
Total Thallium (TI)	ug/L	0.0073	0.0149	0.0184	0.0244	0.0020	9004235	0.0223	0.0020	9004235
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9004235	<0.20	0.20	9004235
Total Titanium (Ti)	ug/L	18.5	17.4	24.4	37.8	2.0	9004235	45.0	2.0	9004235
Total Uranium (U)	ug/L	4.99	1.17	1.34	1.34	0.0050	9004235	1.30	0.0050	9004235
RDL = Reportable Detection	Limit		•	•	•		-		-	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

		1	<del></del>	1	1		<del>i                                    </del>			
Maxxam ID		TM9225	TM9226	TM9227	TM9228			TM9228		
Campling Data		2018/05/24	2018/05/25	2018/05/25	2018/05/25			2018/05/25		
Sampling Date		16:15	10:30	09:30	12:00			12:00		
COC Number		553733-01-01	553733-01-01	553733-01-01	553733-01-01			553733-01-01		
								HALFWAY		
	UNITS	YT-24	YT-24 MIX	COFFEE MIX	HALFWAY MIX	RDL	QC Batch	MIX	RDL	QC Batch
								Lab-Dup		
Total Vanadium (V)	ug/L	1.26	3.07	3.65	4.61	0.20	9004235	4.44	0.20	9004235
Total Zinc (Zn)	ug/L	2.2	28.0	26.4	31.8	1.0	9004235	30.2	1.0	9004235
Total Zirconium (Zr)	ug/L	0.52	0.57	0.55	0.46	0.10	9004235	0.41	0.10	9004235
Total Calcium (Ca)	mg/L	36.2	23.2	21.9	23.5	0.25	9003132			
Total Magnesium (Mg)	mg/L	11.4	6.94	6.42	7.05	0.25	9003132			
Total Potassium (K)	mg/L	1.95	1.08	1.09	1.14	0.25	9003132			
Total Sodium (Na)	mg/L	3.40	1.88	1.85	1.79	0.25	9003132			
Total Sulphur (S)	mg/L	27.5	7.1	6.8	6.8	3.0	9003132			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9229		
Sampling Date		2018/05/24 11:45		
COC Number		553733-02-01		
	UNITS	LATTE MIX	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	59.8	0.50	9003125
Elements				
Total Mercury (Hg)	ug/L	0.0055	0.0020	9008805
Total Metals by ICPMS				
Total Aluminum (AI)	ug/L	168	3.0	9004235
Total Antimony (Sb)	ug/L	0.081	0.020	9004235
Total Arsenic (As)	ug/L	0.469	0.020	9004235
Total Barium (Ba)	ug/L	34.7	0.050	9004235
Total Beryllium (Be)	ug/L	0.011	0.010	9004235
Total Bismuth (Bi)	ug/L	<0.010	0.010	9004235
Total Boron (B)	ug/L	<10	10	9004235
Total Cadmium (Cd)	ug/L	0.0162	0.0050	9004235
Total Chromium (Cr)	ug/L	0.28	0.10	9004235
Total Cobalt (Co)	ug/L	0.154	0.010	9004235
Total Copper (Cu)	ug/L	2.03	0.10	9004235
Total Iron (Fe)	ug/L	177	5.0	9004235
Total Lead (Pb)	ug/L	0.031	0.020	9004235
Total Lithium (Li)	ug/L	0.77	0.50	9004235
Total Manganese (Mn)	ug/L	28.4	0.10	9004235
Total Molybdenum (Mo)	ug/L	0.635	0.050	9004235
Total Nickel (Ni)	ug/L	1.07	0.10	9004235
Total Phosphorus (P)	ug/L	14.0	5.0	9004235
Total Selenium (Se)	ug/L	0.061	0.040	9004235
Total Silicon (Si)	ug/L	2970	50	9004235
Total Silver (Ag)	ug/L	<0.010	0.010	9004235
Total Strontium (Sr)	ug/L	86.4	0.050	9004235
Total Thallium (TI)	ug/L	0.0052	0.0020	9004235
Total Tin (Sn)	ug/L	<0.20	0.20	9004235
Total Titanium (Ti)	ug/L	2.2	2.0	9004235
Total Uranium (U)	ug/L	4.66	0.0050	9004235
Total Vanadium (V)	ug/L	0.52	0.20	9004235
RDL = Reportable Detection	Limit			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TM9229		
Sampling Date		2018/05/24		
Sampling Date		11:45		
COC Number		553733-02-01		
	UNITS	LATTE MIX	RDL	QC Batch
Total Zinc (Zn)	ug/L	1.0	1.0	9004235
Total Zirconium (Zr)	ug/L	0.34	0.10	9004235
Total Calcium (Ca)	mg/L	15.4	0.25	9003132
Total Magnesium (Mg)	mg/L	5.15	0.25	9003132
Total Potassium (K)	mg/L	1.05	0.25	9003132
Total Sodium (Na)	mg/L	2.31	0.25	9003132
Total Sulphur (S)	mg/L	8.6	3.0	9003132
RDL = Reportable Detection L	imit			•



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

### **GENERAL COMMENTS**

Sample TM9219 [CC-0.5]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample TM9220 [CC-1.5]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TM9221 [CC-3.5]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample TM9222 [CC-4.5] : Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample TM9223 [HC-2.5]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample TM9224 [HC-5.0]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TM9225 [YT-24]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample TM9226 [YT-24 MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TM9227 [COFFEE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TM9228 [HALFWAY MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TM9229 [LATTE MIX]: Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Results relate only to the items tested.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER



### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9004235	Total Aluminum (AI)	2018/05/30	NC	80 - 120	105	80 - 120	<3.0	ug/L	0.66	20
9004235	Total Antimony (Sb)	2018/05/30	107	80 - 120	104	80 - 120	<0.020	ug/L	3.6	20
9004235	Total Arsenic (As)	2018/05/30	111	80 - 120	105	80 - 120	<0.020	ug/L	1.4	20
9004235	Total Barium (Ba)	2018/05/30	NC	80 - 120	103	80 - 120	<0.050	ug/L	4.7	20
9004235	Total Beryllium (Be)	2018/05/30	114	80 - 120	107	80 - 120	<0.010	ug/L	7.3	20
9004235	Total Bismuth (Bi)	2018/05/30	106	80 - 120	104	80 - 120	<0.010	ug/L	2.2	20
9004235	Total Boron (B)	2018/05/30	112	80 - 120	105	80 - 120	<10	ug/L	NC	20
9004235	Total Cadmium (Cd)	2018/05/30	110	80 - 120	104	80 - 120	<0.0050	ug/L	3.0	20
9004235	Total Chromium (Cr)	2018/05/30	110	80 - 120	102	80 - 120	<0.10	ug/L	2.7	20
9004235	Total Cobalt (Co)	2018/05/30	106	80 - 120	101	80 - 120	<0.010	ug/L	3.5	20
9004235	Total Copper (Cu)	2018/05/30	104	80 - 120	98	80 - 120	<0.10	ug/L	5.9	20
9004235	Total Iron (Fe)	2018/05/30	NC	80 - 120	106	80 - 120	<5.0	ug/L	3.3	20
9004235	Total Lead (Pb)	2018/05/30	108	80 - 120	103	80 - 120	<0.020	ug/L	3.2	20
9004235	Total Lithium (Li)	2018/05/30	119	80 - 120	109	80 - 120	<0.50	ug/L	3.0	20
9004235	Total Manganese (Mn)	2018/05/30	NC	80 - 120	102	80 - 120	<0.10	ug/L	4.2	20
9004235	Total Molybdenum (Mo)	2018/05/30	117	80 - 120	107	80 - 120	<0.050	ug/L	2.5	20
9004235	Total Nickel (Ni)	2018/05/30	108	80 - 120	101	80 - 120	<0.10	ug/L	2.5	20
9004235	Total Phosphorus (P)	2018/05/30	110	80 - 120	102	80 - 120	<5.0	ug/L	5.8	20
9004235	Total Selenium (Se)	2018/05/30	112	80 - 120	103	80 - 120	<0.040	ug/L	6.8	20
9004235	Total Silicon (Si)	2018/05/30	92	80 - 120	110	80 - 120	<50	ug/L	2.9	20
9004235	Total Silver (Ag)	2018/05/30	109	80 - 120	103	80 - 120	<0.010	ug/L	9.8	20
9004235	Total Strontium (Sr)	2018/05/30	NC	80 - 120	104	80 - 120	<0.050	ug/L	1.6	20
9004235	Total Thallium (TI)	2018/05/30	108	80 - 120	105	80 - 120	<0.0020	ug/L	9.0	20
9004235	Total Tin (Sn)	2018/05/30	108	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
9004235	Total Titanium (Ti)	2018/05/30	93	80 - 120	103	80 - 120	<2.0	ug/L	18	20
9004235	Total Uranium (U)	2018/05/30	114	80 - 120	108	80 - 120	<0.0050	ug/L	2.6	20
9004235	Total Vanadium (V)	2018/05/30	115	80 - 120	103	80 - 120	<0.20	ug/L	3.8	20
9004235	Total Zinc (Zn)	2018/05/30	106	80 - 120	103	80 - 120	<1.0	ug/L	4.9	20
9004235	Total Zirconium (Zr)	2018/05/30	107	80 - 120	102	80 - 120	<0.10	ug/L	11	20
9004431	Dissolved Mercury (Hg)	2018/05/29	91	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
9004719	ORP	2018/05/29							0.17	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9005054	Total Ammonia (N)	2018/05/29	85	80 - 120	92	80 - 120	<0.0050	mg/L	0	20
9005079	рН	2018/05/29			101	97 - 103				
9005089	Alkalinity (PP as CaCO3)	2018/05/29					<0.50	mg/L		
9005089	Alkalinity (Total as CaCO3)	2018/05/29	NC	80 - 120	98	80 - 120	<0.50	mg/L		
9005089	Bicarbonate (HCO3)	2018/05/29					<0.50	mg/L		
9005089	Carbonate (CO3)	2018/05/29					<0.50	mg/L		
9005089	Hydroxide (OH)	2018/05/29					<0.50	mg/L		
9005090	Conductivity	2018/05/29			100	80 - 120	<1.0	uS/cm		
9005100	рН	2018/05/29			101	97 - 103			0.48	20
9005107	Alkalinity (PP as CaCO3)	2018/05/29					<0.50	mg/L		
9005107	Alkalinity (Total as CaCO3)	2018/05/29	NC	80 - 120	102	80 - 120	0.65, RDL=0.50	mg/L		
9005107	Bicarbonate (HCO3)	2018/05/29					0.79, RDL=0.50	mg/L		
9005107	Carbonate (CO3)	2018/05/29					<0.50	mg/L		
9005107	Hydroxide (OH)	2018/05/29					<0.50	mg/L		
9005108	Conductivity	2018/05/29			101	80 - 120	<1.0	uS/cm		
9005113	рН	2018/05/30			101	97 - 103			0.25	20
9005126	Alkalinity (PP as CaCO3)	2018/05/30					<0.50	mg/L		
9005126	Alkalinity (Total as CaCO3)	2018/05/30	NC	80 - 120	96	80 - 120	0.83, RDL=0.50	mg/L		
9005126	Bicarbonate (HCO3)	2018/05/30					1.01, RDL=0.50	mg/L		
9005126	Carbonate (CO3)	2018/05/30					<0.50	mg/L		
9005126	Hydroxide (OH)	2018/05/30					<0.50	mg/L		
9005127	Conductivity	2018/05/30			101	80 - 120	<1.0	uS/cm		
9005398	Nitrate plus Nitrite (N)	2018/05/29	118	80 - 120	108	80 - 120	<0.0020	mg/L	0.36	25
9005399	Nitrite (N)	2018/05/29	116	80 - 120	104	80 - 120	<0.0020	mg/L	21	25
9005400	Nitrate plus Nitrite (N)	2018/05/29	117	80 - 120	107	80 - 120	<0.0020	mg/L	0.29	25
9005402	Nitrite (N)	2018/05/29	117	80 - 120	101	80 - 120	<0.0020	mg/L	NC	25
9005408	Dissolved Aluminum (Al)	2018/05/31	103	80 - 120	104	80 - 120	<0.50	ug/L	2.1	20
9005408	Dissolved Antimony (Sb)	2018/05/31	101	80 - 120	101	80 - 120	<0.020	ug/L	2.5	20
9005408	Dissolved Arsenic (As)	2018/05/31	102	80 - 120	102	80 - 120	<0.020	ug/L	2.7	20
9005408	Dissolved Barium (Ba)	2018/05/31	96	80 - 120	100	80 - 120	<0.020	ug/L	3.0	20
9005408	Dissolved Beryllium (Be)	2018/05/31	102	80 - 120	106	80 - 120	<0.010	ug/L	NC	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	Blank	RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9005408	Dissolved Bismuth (Bi)	2018/05/31	96	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9005408	Dissolved Boron (B)	2018/05/31	NC	80 - 120	104	80 - 120	<10	ug/L	3.6	20
9005408	Dissolved Cadmium (Cd)	2018/05/31	101	80 - 120	105	80 - 120	<0.0050	ug/L	7.2	20
9005408	Dissolved Chromium (Cr)	2018/05/31	104	80 - 120	105	80 - 120	<0.10	ug/L	NC	20
9005408	Dissolved Cobalt (Co)	2018/05/31	99	80 - 120	103	80 - 120	<0.0050	ug/L	12	20
9005408	Dissolved Copper (Cu)	2018/05/31	94	80 - 120	102	80 - 120	<0.050	ug/L	0.053	20
9005408	Dissolved Iron (Fe)	2018/05/31	102	80 - 120	106	80 - 120	<1.0	ug/L	1.1	20
9005408	Dissolved Lead (Pb)	2018/05/31	98	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9005408	Dissolved Lithium (Li)	2018/05/31	101	80 - 120	106	80 - 120	<0.50	ug/L	1.5	20
9005408	Dissolved Manganese (Mn)	2018/05/31	101	80 - 120	104	80 - 120	<0.050	ug/L	7.7	20
9005408	Dissolved Molybdenum (Mo)	2018/05/31	111	80 - 120	109	80 - 120	<0.050	ug/L	6.2	20
9005408	Dissolved Nickel (Ni)	2018/05/31	100	80 - 120	106	80 - 120	<0.020	ug/L	7.6	20
9005408	Dissolved Phosphorus (P)	2018/05/31	99	80 - 120	97	80 - 120	<2.0	ug/L	NC	20
9005408	Dissolved Selenium (Se)	2018/05/31	99	80 - 120	100	80 - 120	<0.040	ug/L	4.0	20
9005408	Dissolved Silicon (Si)	2018/05/31	NC	80 - 120	105	80 - 120	<50	ug/L	2.7	20
9005408	Dissolved Silver (Ag)	2018/05/31	102	80 - 120	105	80 - 120	<0.0050	ug/L	NC	20
9005408	Dissolved Strontium (Sr)	2018/05/31	NC	80 - 120	107	80 - 120	<0.050	ug/L	3.6	20
9005408	Dissolved Thallium (TI)	2018/05/31	99	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
9005408	Dissolved Tin (Sn)	2018/05/31	102	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
9005408	Dissolved Titanium (Ti)	2018/05/31	104	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
9005408	Dissolved Uranium (U)	2018/05/31	105	80 - 120	102	80 - 120	<0.0020	ug/L	12	20
9005408	Dissolved Vanadium (V)	2018/05/31	105	80 - 120	104	80 - 120	<0.20	ug/L	5.9	20
9005408	Dissolved Zinc (Zn)	2018/05/31	96	80 - 120	103	80 - 120	<0.10	ug/L	0.25	20
9005408	Dissolved Zirconium (Zr)	2018/05/31	106	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
9005558	Fluoride (F)	2018/05/29	103	80 - 120	100	80 - 120	<0.010	mg/L	0	20
9006007	Total Dissolved Solids	2018/05/31	101	80 - 120	103	80 - 120	<10	mg/L	1.6	20
9006318	Total Organic Carbon (C)	2018/05/30	105	80 - 120	107	80 - 120	<0.50	mg/L	5.8	20
9006319	Dissolved Organic Carbon (C)	2018/05/30	NC	80 - 120	107	80 - 120	<0.50	mg/L	9.4	20
9006331	Total Suspended Solids	2018/05/31			96	80 - 120	<1.0	mg/L		
9006396	Dissolved Organic Carbon (C)	2018/05/30	97	80 - 120	102	80 - 120	<0.50	mg/L	0.84	20
9006398	Total Organic Carbon (C)	2018/05/30	114	80 - 120	102	80 - 120	<0.50	mg/L	NC	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9006987	Total Dissolved Solids	2018/06/01	NC	80 - 120	94	80 - 120	<10	mg/L	0.31	20
9007449	Total Suspended Solids	2018/06/01			97	80 - 120	<1.0	mg/L		
9007789	Dissolved Chloride (CI)	2018/05/31	110	80 - 120	103	80 - 120	<0.50	mg/L	NC	20
9008763	Dissolved Mercury (Hg)	2018/06/01	95	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
9008805	Total Mercury (Hg)	2018/06/01	98	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
9008924	Dissolved Mercury (Hg)	2018/06/01	91	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
9009211	Dissolved Chloride (CI)	2018/06/01	108	80 - 120	105	80 - 120	<0.50	mg/L	NC	20
9013838	Dissolved Sulphate (SO4)	2018/06/05			101	80 - 120	0.61, RDL=0.50	mg/L		
9017539	Dissolved Sulphate (SO4)	2018/06/07			106	80 - 120	<0.50	mg/L		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Mandheroj Kaur Chana

Mandheraj Chana, Junior Project Manager

Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

	(c)	VOICE TO:			Report In	formation	E						Project I	nformation	G .		■III 脳季性と対象系	从世际行为则	3.00
mpany Name	#3604 LORAX	ENVIRONMENTAL SERVICES	LTD. Company N					- 10		Qual	ation#	7.	B40231					是图形描字时	ttle Order #
ntact Name	Aida Piaseczny		Contact Nan	e David Flath	er	1111				P.O.	#	100	0.110				■Ⅲ 化人类从中心的表表的	S. ESAGE TALA	
dress	2289 BURRARE VANCOUVER B		Address	9	_					Proje		2	Gold Col	p Correc	Creek-S	VV I	B840685_COC		553733 Ject Manager
	(604) 688-7173	Fax (604) 688-717	75 Phone	1		- 4	Fax			Proje Site	ct Name	- 1							
one rail		orax.ca; shukling.ng@lorax.ca	Email	David.Flath	er@lorax		r div.				pled By						C#553733-0		Diana Cruz
Regulatory C	Criteria		Spec	ial Instructions		III			_	12/4	Analysis F	Requested					Turnarour	d Time (TAT) Requ	ired
	Note: For regulated o	trinking weter samples - please use the	Drinking Water Chain o	Custody Form		ited Drinking Water ? (Y / N )	(Alk-LL, EC-LL, NH4- TDS)	w Level	(LL.CI, F, NO2, NO3,	- WAD			vei Dissolved Metals	Level Total Metals incl, CV		(will Stan Plea days Job S Oste	ular (Standard) TAT be applied if Rush TAT is not dard TAT = 5-7 Working days see note: Standard TAT for cer - contact your Project Manag specific Rush TAT (if applies to Required: Confirmation Number	for most tests, tain lests such as BOD per for details.	and Dissins/Furans are
	Samples m	ast be kept cool ( < 10°C ) from time of sam	pling until delivery to ma	xam	1	gulate	Routine LL, pH,	TSS-Low	Anions SO4)	Cyanide	O	Ŏ	w Lev		n,			(b	off into for #)
Samp	le Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Reg Mat	87	\$	SC	õ	100	DOC	Low incl.	Low	ORP	# of B	iotties	Comments	
	SID#162743	CC-0.5	May 24	12:00	W	NH	1	~	V	V	L	V	v	V	-	13	2		
	SiD#162744	CC-1.5	May 24	14:00	w	NN	-	V	-	~	-	1	V	/	V	1.	2		
	SID#162745	CC-3.5	May 24	13:00	w	NA	-/	V	~	~	~	1	V	~	-	13	2		
	SID#162746	CC-4.5	May 24	11:00	W	41	1	V	/	/	/	-	~	V		12	<u>)</u>		
	SID#162747	HC-2.5	May 24	15:00	w	NN	1	V	V	~	V	V	V	V	V	13	2		
	SID#162748	HC-5.0	May 24	15:30	W	MA	IV	V	~	V	V	V	1	~	L	1:	2		
	SID#149895	YT-24	May 24	16:15	W	ML	1	1	V	-	V	V	~	-	L	12	2		
	SID#149896	YT-24 Mix	MAY 25	10:30	w	NI	1	V	V	-	~	~	/	V	·	12	2		
	SID#149897	Coffee Mix	MAY 25	69130	w	NN	1 -	V	/	V	~	-	V	/	~	12			
	SID#149896	Halfway Mix	MAY 25	12100	w	MA	1 -	- ~	L	V	V	V	V	L	-	12	2		
Car	NQUISHED BY: (Signatur	NPrint) Date:	05/26 /2			CHUY	Signature/Pr	int)	1	20	# (YYMM)  &/OS/	25	Time 13. 33	note	used and	TimeSensitive	Temperature (°C) on Receit	10	Seal Intact on Cooler,

0400

Maxxam Analytics International Corporation o/a Maxxam Analytics

		INVOICE TO:				Report fr	nformatio	n				1100			Project Inf	ormation	¥7.			川関が多いたい他の対象のメイモのイナツー製	0.6.0010
npany Name	#3604 LORA	X ENVIRONMENTAL SERVICE	CES LTD.	Company Na	me							Quel	ation#	1	B40231					数字  特殊的字  数分数分值等	le Order#:
act Name	Aida Piaseczr	iy.		Contact Nam	Physical Plants	ner ner						P.O.	#				-			I THE PERSON WHEN SHEET	. S
988	2289 BURRA	RD STREET		Address								Proje	rct #	3	Gold Corp	Coffee	a Creek-	SW	ва	40685 COC	63733
	VANCOUVER		-2000	0.00 - 1.000								Proje	ct Name								ct Manager
No.	(604) 688-717		1-7175	Phone	-			Fax:				Site	#	_							Diana Cruz
ll	aida piaseczn	y@lorax.ca; shukling.ng@lora	x.ca	Email	David Flatt	ner@lorax	cca						pled By	_						C#553733-02-01	
egulatory (	Criteria			Spec	si instructions		-		-				Analysis R	equested		5				Turnaround Time (TAT) Req	
							inking Water ?	Filtered ? ( Y / N )  K-II FC-II NH4-		Level	Anions (LL:Cl, F, NO2, NO3, SO4)	WAD			issolved Metals	Level Total Metals incl. CV			(will be ap Standard Please no days - oor	Please provide advance notice for rul Standard) TAT glied if Rush TAT is not specified) TAT = 5-7 Working days for most lests. to: Standard TAT for certain tests auch as 80 stact your Project Manager for details. Tere Rush TAT (if applies to entire submission) red: Time R	D and Dioxins/Furans are
	Note: For regulate	d drinking water samples - please us	e the Drinking V	Vater Chain of	Custady Form		od Dr	Metals Field Routine (A	32	ow L	) (IT	4			Level C CV Hg	evel			TO SEC. 2005. The	mation Number	
100	Samples	must be kept coal ( < 10°C ) from time	of sampling until	delivery to max	vam		gulat	tals a	LL, pH, T	TSS-Law	olions 34)	Cyanide	700	DOC	Low L	Low Le	ORP			6	cnli (no for #)
Samo	ile Barcode Label	Sample (Location) Identification	Date	Sampled	Time Sampled	Matrix	8	8 8	27	<u>-</u>	A SS	Ú	2	ă	25	3ř	Ö		# of Bottles	Comments	
	SiD#149899	Latte Mix	M	ay 24	11:45	w	N	N	1	V	~	V	V	V	-	0	~		12		
	SID#208506	Dup		1		W		5												(NO DUPTHIS R	(GUND)
																28					
• RELI	NQUISHED BY: (Signa		Date: (YY/MM/DI	) Time					iture/Print)			Dat	e: (YY/MM/I	00)	Time	Wjars	used and			Lab Use Only	
mb	$\bigcirc$ K	EN NORDIN 18	3/05/2	6 120	0	KE VI	N W	WV				20	\$7057	28	13'30	not s	Whitted	Time Sen	oithen Tan	noerarure (*C) on recept	Saul Intact on Cooler? Yes No No

0408

Maxxam Analytics International Corporation of Maxxam Analytics



Your Project #: GOLD CORP COFFEE CREEK-SW Site Location: COFFEE CREEK - SURFACE WATER Your C.O.C. #: 553731-01-01, 553731-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/14 Report #: R2572544

Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B844935 Received: 2018/06/06, 13:30

Sample Matrix: Water # Samples Received: 11

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	4	N/A	2018/06/08	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	7	N/A	2018/06/09	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	11	N/A	2018/06/11	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	11	N/A	2018/06/08	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	4	N/A	2018/06/08	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	7	N/A	2018/06/09	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	11	N/A	2018/06/12	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	11	N/A	2018/06/12	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	11	N/A	2018/06/11	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	11	N/A	2018/06/08	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	11	2018/06/08	2018/06/08	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	11	N/A	2018/06/11	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	11	N/A	2018/06/11	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	10	2018/06/08	2018/06/11	BBY7SOP-00003,	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	1	2018/06/08	2018/06/12	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	11	N/A	2018/06/12	BBY WI-00033	Auto Calc
Ammonia-N Low Level (Preserved)	11	N/A	2018/06/08	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	11	N/A	2018/06/08	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	11	N/A	2018/06/08	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	11	N/A	2018/06/13	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	11	N/A	2018/06/08	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	11	N/A	2018/06/08	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	4	N/A	2018/06/08	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	7	N/A	2018/06/09	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	11	N/A	2018/06/11	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	3	2018/06/08	2018/06/11	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	8	2018/06/12	2018/06/13	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	11	N/A	2018/06/08	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	3	2018/06/11	2018/06/12	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	8	2018/06/12	2018/06/13	BBY6SOP-00034	SM 22 2540 D



Your Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 553731-01-01, 553731-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD. 2289 BURRARD STREET VANCOUVER, BC CANADA V6J 3H9

Report Date: 2018/06/14

Report #: R2572544 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B844935 Received: 2018/06/06, 13:30

Sample Matrix: Water # Samples Received: 11

	Date	Date		
Analyses	Quantity Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
WAD Cyanide Water Subcontract (1)	11 2018/06/13	3 2018/06/1	3	

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.



Your Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 553731-01-01, 553731-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/06/14

Report #: R2572544

Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B844935 Received: 2018/06/06, 13:30

**Encryption Key** 

Diana Cruz Junior Project Manager 14 Jun 2018 16:59:31

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Diana Cruz, Junior Project Manager

Email: DCruz@maxxam.ca Phone# (604) 734 7276

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TP1120		TP1121			TP1121		
Sampling Date		2018/06/05 11:15		2018/06/05 12:20			2018/06/05 12:20		
COC Number		553731-01-01		553731-01-01			553731-01-01		
COC Number	UNITS	CC-0.5	QC Batch	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch
Parameter	•		•		•			•	
ORP	mV	247	9017919	251		9017919			
Subcontract Parameter	N/A	ATTACHED	9023543	ATTACHED	N/A	9023543			
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	9017700	LAB		9017700			
Nitrate (N)	mg/L	0.0623	9016674	0.121	0.0020	9016674			
Misc. Inorganics									
Fluoride (F)	mg/L	0.052	9022656	0.046	0.010	9022656			
Dissolved Organic Carbon (C)	mg/L	22.5	9018943	18.0	0.50	9018943			
Alkalinity (Total as CaCO3)	mg/L	14.0	9019088	32.1	0.50	9019088			
Total Organic Carbon (C)	mg/L	23.4	9018945	22.3	0.50	9018945			
Alkalinity (PP as CaCO3)	mg/L	<0.50	9019088	<0.50	0.50	9019088			
Bicarbonate (HCO3)	mg/L	17.0	9019088	39.1	0.50	9019088			
Carbonate (CO3)	mg/L	<0.50	9019088	<0.50	0.50	9019088			
Hydroxide (OH)	mg/L	<0.50	9019088	<0.50	0.50	9019088			
Anions			•		•			•	
Dissolved Sulphate (SO4)	mg/L	7.03	9022212	26.3	0.50	9022241	26.5	0.50	9022241
Dissolved Chloride (CI)	mg/L	1.5	9022208	1.3	0.50	9022230	1.0	0.50	9022230
Nutrients					•			•	
Total Ammonia (N)	mg/L	0.013	9019027	0.0080	0.0050	9019027			
Nitrate plus Nitrite (N)	mg/L	0.0623	9018992	0.121	0.0020	9018992			
Nitrite (N)	mg/L	<0.0020	9018994	<0.0020	0.0020	9018994			
Physical Properties			•		•			•	
Conductivity	uS/cm	71.9	9019089	129	1.0	9019089			
рН	рН	7.03	9019085	7.45		9019085			
Physical Properties								•	
Total Suspended Solids	mg/L	7.4	9021999	5.1	1.0	9021999			
Total Dissolved Solids	mg/L	76 (1)	9020847	104 (1)	10	9020847			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TP1122		TP1123			TP1123	
Sampling Date		2018/06/05 11:30		2018/06/05 10:40			2018/06/05 10:40	
COC Number		553731-01-01		553731-01-01			553731-01-01	
	UNITS	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch	CC-4.5 Lab-Dup	QC Batch
Parameter								
ORP	mV	255	9017919	257		9017919	258	9017919
Subcontract Parameter	N/A	ATTACHED	9023543	ATTACHED	N/A	9023543		
Calculated Parameters							1	
Filter and HNO3 Preservation	N/A	LAB	9017700	LAB		9017700		
Nitrate (N)	mg/L	0.0981	9016674	0.0717	0.0020	9016674		
Misc. Inorganics							1	
Fluoride (F)	mg/L	0.048	9022656	0.052	0.010	9022656		
Dissolved Organic Carbon (C)	mg/L	21.7	9018943	23.0	0.50	9018943		
Alkalinity (Total as CaCO3)	mg/L	32.1	9019088	22.1	0.50	9019088		
Total Organic Carbon (C)	mg/L	23.1	9018945	22.8	0.50	9018945		
Alkalinity (PP as CaCO3)	mg/L	<0.50	9019088	<0.50	0.50	9019088		
Bicarbonate (HCO3)	mg/L	39.2	9019088	26.9	0.50	9019088		
Carbonate (CO3)	mg/L	<0.50	9019088	<0.50	0.50	9019088		
Hydroxide (OH)	mg/L	<0.50	9019088	<0.50	0.50	9019088		
Anions								
Dissolved Sulphate (SO4)	mg/L	29.7	9022212	17.9	0.50	9022241		
Dissolved Chloride (Cl)	mg/L	1.4	9022208	1.3	0.50	9022230		
Nutrients	•							
Total Ammonia (N)	mg/L	0.0080	9019027	0.010	0.0050	9019027		
Nitrate plus Nitrite (N)	mg/L	0.0981	9018992	0.0717	0.0020	9018992		
Nitrite (N)	mg/L	<0.0020	9018994	<0.0020	0.0020	9018994		
Physical Properties	•		•					
Conductivity	uS/cm	133	9019089	93.0	1.0	9019089		
рН	рН	7.43	9019085	7.25		9019085		
Physical Properties					•			
Total Suspended Solids	mg/L	4.9	9021999	11.9	1.0	9021999		
Total Dissolved Solids	mg/L	126 (1)	9020847	84 (1)	10	9020847		
DDI Damantakia Dataatian ii	٠.							

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TP1124			TP1124			TP1125		
Sampling Date		2018/06/05 12:45			2018/06/05 12:45			2018/06/05 13:15		
COC Number		553731-01-01			553731-01-01			553731-01-01		
	UNITS	HC-2.5	RDL	QC Batch	HC-2.5 Lab-Dup	RDL	QC Batch	HC-5.0	RDL	QC Batch
Parameter										
ORP	mV	259		9017919				260		9017919
Subcontract Parameter	N/A	ATTACHED	N/A	9023543				ATTACHED	N/A	9023543
Calculated Parameters					1					
Filter and HNO3 Preservation	N/A	LAB		9017700				LAB		9017700
Nitrate (N)	mg/L	0.147	0.0020	9016674				0.122	0.0020	9016674
Misc. Inorganics					I.	ı				
Fluoride (F)	mg/L	0.041	0.010	9022656	0.041	0.010	9022656	0.053	0.010	9022656
Dissolved Organic Carbon (C)	mg/L	22.7	0.50	9018943				21.2	0.50	9018943
Alkalinity (Total as CaCO3)	mg/L	16.9	0.50	9019088				29.2	0.50	9019088
Total Organic Carbon (C)	mg/L	26.3	0.50	9018945				29.5	0.50	9018945
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9019088				<0.50	0.50	9019088
Bicarbonate (HCO3)	mg/L	20.6	0.50	9019088				35.6	0.50	9019088
Carbonate (CO3)	mg/L	<0.50	0.50	9019088				<0.50	0.50	9019088
Hydroxide (OH)	mg/L	<0.50	0.50	9019088				<0.50	0.50	9019088
Anions										
Dissolved Sulphate (SO4)	mg/L	0.56	0.50	9022241				11.3	0.50	9022212
Dissolved Chloride (CI)	mg/L	1.6	0.50	9022230				1.5	0.50	9022208
Nutrients									•	
Total Ammonia (N)	mg/L	0.010	0.0050	9019027				0.016	0.0050	9019027
Nitrate plus Nitrite (N)	mg/L	0.147	0.0020	9018992				0.122	0.0020	9018992
Nitrite (N)	mg/L	<0.0020	0.0020	9018994				<0.0020	0.0020	9018994
Physical Properties	•					•			•	
Conductivity	uS/cm	69.3	1.0	9019089				98.6	1.0	9019089
рН	рН	7.15		9019085				7.36		9019085
Physical Properties										
Total Suspended Solids	mg/L	2.0	1.0	9021999				8.5	1.0	9022000
Total Dissolved Solids	mg/L	86 (1)	10	9020847				102 (1)	10	9020847

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TP1126			TP1127		TP1128				
Sampling Date		2018/06/05 13:35			2018/06/04 10:30		2018/06/04 10:00				
COC Number		553731-01-01			553731-01-01		553731-01-01				
- COC HUMBET	UNITS	YT-24	RDL	QC Batch	YT-24 Mix	QC Batch	Coffee Mix	RDL	QC Batch		
	UNITS	11-24	KDL	QC Battii	TI-24 IVIIX	QC Battii	Coffee Wilx	KDL	QC Battii		
Parameter											
ORP	mV	260		9017919	261	9017919	261		9017919		
Subcontract Parameter	N/A	ATTACHED	N/A	9023543	ATTACHED	9023543	ATTACHED	N/A	9023543		
Calculated Parameters											
Filter and HNO3 Preservation	N/A	LAB		9017700	LAB	9017700	LAB		9017700		
Nitrate (N)	mg/L	0.369	0.0020	9016674	0.0452	9016674	0.0427	0.0020	9016674		
Misc. Inorganics			•			•		•			
Fluoride (F)	mg/L	0.054	0.010	9022656	0.100	9022656	0.086	0.010	9022656		
Dissolved Organic Carbon (C)	mg/L	21.1	0.50	9018943	6.88	9018943	13.2	0.50	9018943		
Alkalinity (Total as CaCO3)	mg/L	25.8	0.50	9019081	60.6	9019081	48.2	0.50	9019088		
Total Organic Carbon (C)	mg/L	28.1	0.50	9018945	7.32	9018945	14.1	0.50	9018945		
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9019081	<0.50	9019081	<0.50	0.50	9019088		
Bicarbonate (HCO3)	mg/L	31.5	0.50	9019081	73.9	9019081	58.8	0.50	9019088		
Carbonate (CO3)	mg/L	<0.50	0.50	9019081	<0.50	9019081	<0.50	0.50	9019088		
Hydroxide (OH)	mg/L	<0.50	0.50	9019081	<0.50	9019081	<0.50	0.50	9019088		
Anions			•			•		•			
Dissolved Sulphate (SO4)	mg/L	26.5	0.50	9022212	23.2	9022212	20.4	0.50	9022212		
Dissolved Chloride (CI)	mg/L	2.1	0.50	9022208	0.96	9022208	1.3	0.50	9022208		
Nutrients				Į.					Į.		
Total Ammonia (N)	mg/L	0.0090	0.0050	9019027	0.013	9019027	0.015	0.0050	9019027		
Nitrate plus Nitrite (N)	mg/L	0.373	0.0020	9018992	0.0475	9018992	0.0427	0.0020	9018992		
Nitrite (N)	mg/L	0.0040	0.0020	9018994	0.0023	9018994	<0.0020	0.0020	9018994		
Physical Properties	!!		•					•			
Conductivity	uS/cm	120	1.0	9019082	173	9019082	144	1.0	9019089		
рН	рН	7.36		9019078	7.86	9019078	7.68		9019085		
Physical Properties											
Total Suspended Solids	mg/L	25.6 (1)	1.1	9022000	20.0	9020561	23.0	1.0	9020561		
Total Dissolved Solids	mg/L	102 (2)	10	9020847	106	9019021	108	10	9019021		

RDL = Reportable Detection Limit

N/A = Not Applicable

<sup>(1)</sup> RDL raised due to limited initial sample amount.

<sup>(2)</sup> Particulates < 1.5 um present in sample.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TP1129			TP1129			TP1130		
Sampling Date		2018/06/04			2018/06/04			2018/06/05		
		11:00			11:00			11:55		
COC Number		553731-01-01			553731-01-01			553731-02-01		
	UNITS	Halfway Mix	RDL	QC Batch	Halfway Mix Lab-Dup	RDL	QC Batch	Latte Mix	RDL	QC Batch
Parameter				·	·	<u>-</u>	<u> </u>			<u> </u>
ORP	mV	262		9017919				262		9017919
Subcontract Parameter	N/A	ATTACHED	N/A	9023543				ATTACHED	N/A	9023543
Calculated Parameters						•			•	
Filter and HNO3 Preservation	N/A	LAB		9017700				LAB		9017700
Nitrate (N)	mg/L	0.0425	0.0020	9016674				0.0735	0.0020	9016674
Misc. Inorganics			•		•	•				
Fluoride (F)	mg/L	0.100	0.010	9022656				0.048	0.010	9022656
Dissolved Organic Carbon (C)	mg/L	6.99	0.50	9018943				20.9	0.50	9018943
Alkalinity (Total as CaCO3)	mg/L	57.9	0.50	9019081				20.3	0.50	9019081
Total Organic Carbon (C)	mg/L	9.85	0.50	9018945				24.4	0.50	9018945
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9019081				<0.50	0.50	9019081
Bicarbonate (HCO3)	mg/L	70.7	0.50	9019081				24.8	0.50	9019081
Carbonate (CO3)	mg/L	<0.50	0.50	9019081				<0.50	0.50	9019081
Hydroxide (OH)	mg/L	<0.50	0.50	9019081				<0.50	0.50	9019081
Anions			•	•		•	•		•	
Dissolved Sulphate (SO4)	mg/L	25.7	0.50	9022212	22.5	0.50	9022212	13.1	0.50	9022212
Dissolved Chloride (CI)	mg/L	1.0	0.50	9022208	1.5	0.50	9022208	1.4	0.50	9022208
Nutrients										
Total Ammonia (N)	mg/L	0.019	0.0050	9019027				0.010	0.0050	9019027
Nitrate plus Nitrite (N)	mg/L	0.0500	0.0020	9018992				0.0758	0.0020	9018992
Nitrite (N)	mg/L	0.0075	0.0020	9018994				0.0023	0.0020	9018994
Physical Properties					•	•			•	
Conductivity	uS/cm	168	1.0	9019082				82.6	1.0	9019082
рН	рН	7.87		9019078				7.21		9019078
Physical Properties			•			•			•	
Total Suspended Solids	mg/L	20.0	1.0	9020561				7.3	1.0	9022000
Total Dissolved Solids	mg/L	92	10	9019021				86 (1)	10	9020847

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TP1130		
Sampling Date		2018/06/05 11:55		
COC Number		553731-02-01		
	UNITS	Latte Mix Lab-Dup	RDL	QC Batch

Nutrients												
Total Ammonia (N)	mg/L	0.012	0.0050	9019027								
RDL = Reportable Detection Limit												
Lab-Dup = Laboratory Initiated	Duplica	te		Lab-Dup = Laboratory Initiated Duplicate								



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TP1120	TP1121		TP1122		TP1123		
		2018/06/05	2018/06/05		2018/06/05		2018/06/05		
Sampling Date		11:15	12:20		11:30		10:40		
COC Number		553731-01-01	553731-01-01		553731-01-01		553731-01-01		
	UNITS	CC-0.5	CC-1.5	QC Batch	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch
Calculated Parameters	-		•		•		•		
Dissolved Hardness (CaCO3)	mg/L	37.7	69.0	9016135	68.2	9016135	48.1	0.50	9016135
Elements									
Dissolved Mercury (Hg)	ug/L	0.0127	0.0141	9018162	0.0149	9017897	0.0156	0.0020	9018162
Dissolved Metals by ICPMS	_								
Dissolved Aluminum (AI)	ug/L	384	356	9018735	302	9018735	304	0.50	9018735
Dissolved Antimony (Sb)	ug/L	0.083	0.090	9018735	0.084	9018735	0.086	0.020	9018735
Dissolved Arsenic (As)	ug/L	0.445	0.548	9018735	0.428	9018735	0.431	0.020	9018735
Dissolved Barium (Ba)	ug/L	31.6	29.6	9018735	33.2	9018735	33.8	0.020	9018735
Dissolved Beryllium (Be)	ug/L	0.027	0.053	9018735	0.045	9018735	0.034	0.010	9018735
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	9018735	<0.0050	9018735	<0.0050	0.0050	9018735
Dissolved Boron (B)	ug/L	<10	<10	9018735	<10	9018735	<10	10	9018735
Dissolved Cadmium (Cd)	ug/L	0.0147	0.0147	9018735	0.0121	9018735	0.0176	0.0050	9018735
Dissolved Chromium (Cr)	ug/L	0.48	0.44	9018735	0.46	9018735	0.48	0.10	9018735
Dissolved Cobalt (Co)	ug/L	0.135	0.116	9018735	0.114	9018735	0.118	0.0050	9018735
Dissolved Copper (Cu)	ug/L	3.03	2.17	9018735	2.32	9018735	3.12	0.050	9018735
Dissolved Iron (Fe)	ug/L	293	247	9018735	252	9018735	262	1.0	9018735
Dissolved Lead (Pb)	ug/L	0.0175	0.0170	9018735	0.0175	9018735	0.0189	0.0050	9018735
Dissolved Lithium (Li)	ug/L	0.68	1.16	9018735	0.73	9018735	0.63	0.50	9018735
Dissolved Manganese (Mn)	ug/L	6.45	11.2	9018735	6.47	9018735	5.06	0.050	9018735
Dissolved Molybdenum (Mo)	ug/L	0.522	0.081	9018735	0.126	9018735	0.470	0.050	9018735
Dissolved Nickel (Ni)	ug/L	1.41	1.13	9018735	1.03	9018735	1.34	0.020	9018735
Dissolved Phosphorus (P)	ug/L	10.0	9.5	9018735	8.9	9018735	9.6	2.0	9018735
Dissolved Selenium (Se)	ug/L	0.075	0.079	9018735	0.077	9018735	0.089	0.040	9018735
Dissolved Silicon (Si)	ug/L	2890	2730	9018735	2880	9018735	2920	50	9018735
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	9018735	<0.0050	9018735	<0.0050	0.0050	9018735
Dissolved Strontium (Sr)	ug/L	43.1	143	9018735	125	9018735	61.4	0.050	9018735
Dissolved Thallium (TI)	ug/L	0.0063	0.0041	9018735	0.0045	9018735	0.0053	0.0020	9018735
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	9018735	<0.20	9018735	<0.20	0.20	9018735
Dissolved Titanium (Ti)	ug/L	2.94	2.43	9018735	2.53	9018735	2.89	0.50	9018735
Dissolved Uranium (U)	ug/L	2.15	4.38	9018735	4.22	9018735	2.41	0.0020	9018735
Dissolved Vanadium (V)	ug/L	0.51	0.33	9018735	0.37	9018735	0.48	0.20	9018735
RDL = Reportable Detection Lir	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TP1120	TP1121		TP1122		TP1123			
Sampling Date		2018/06/05	2018/06/05		2018/06/05		2018/06/05			
		11:15	12:20		11:30		10:40			
COC Number		553731-01-01	553731-01-01		553731-01-01		553731-01-01			
	UNITS	CC-0.5	CC-1.5	QC Batch	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	0.84	1.43	9018735	0.63	9018735	1.23	0.10	9018735	
Dissolved Zirconium (Zr)	ug/L	0.54	0.60	9018735	0.80	9018735	0.60	0.10	9018735	
Dissolved Calcium (Ca)	mg/L	10.2	18.2	9016136	18.5	9016136	12.6	0.050	9016136	
Dissolved Magnesium (Mg)	mg/L	2.97	5.72	9016136	5.32	9016136	4.02	0.050	9016136	
Dissolved Potassium (K)	mg/L	0.816	1.16	9016136	1.23	9016136	0.976	0.050	9016136	
Dissolved Sodium (Na)	mg/L	1.58	1.40	9016136	1.88	9016136	1.88	0.050	9016136	
Dissolved Sulphur (S)	mg/L	3.5	7.6	9016136	8.2	9016136	5.2	3.0	9016136	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TP1124	TP1125		TP1126		TP1127		
		2018/06/05	2018/06/05		2018/06/05		2018/06/04		
Sampling Date		12:45	13:15		13:35		10:30		
COC Number		553731-01-01	553731-01-01		553731-01-01		553731-01-01		
	UNITS	HC-2.5	HC-5.0	QC Batch	YT-24	QC Batch	YT-24 Mix	RDL	QC Batch
Calculated Parameters	•				•		•	•	•
Dissolved Hardness (CaCO3)	mg/L	38.0	51.6	9016135	61.0	9016135	83.0	0.50	9016135
Elements									I.
Dissolved Mercury (Hg)	ug/L	0.0140	0.0124	9018162	0.0161	9017897	0.0032	0.0020	9018162
Dissolved Metals by ICPMS									I.
Dissolved Aluminum (Al)	ug/L	441	282	9018735	290	9018735	60.2	0.50	9018735
Dissolved Antimony (Sb)	ug/L	0.149	0.159	9018735	0.215	9018735	0.122	0.020	9018735
Dissolved Arsenic (As)	ug/L	1.02	0.907	9018735	0.840	9018735	0.466	0.020	9018735
Dissolved Barium (Ba)	ug/L	27.0	28.1	9018735	41.7	9018735	38.9	0.020	9018735
Dissolved Beryllium (Be)	ug/L	0.060	0.041	9018735	0.053	9018735	<0.010	0.010	9018735
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	9018735	<0.0050	9018735	<0.0050	0.0050	9018735
Dissolved Boron (B)	ug/L	<10	<10	9018735	<10	9018735	<10	10	9018735
Dissolved Cadmium (Cd)	ug/L	0.0177	0.0067	9018735	0.0187	9018735	0.0364	0.0050	9018735
Dissolved Chromium (Cr)	ug/L	0.73	0.62	9018735	0.74	9018735	0.15	0.10	9018735
Dissolved Cobalt (Co)	ug/L	0.279	0.135	9018735	0.196	9018735	0.0468	0.0050	9018735
Dissolved Copper (Cu)	ug/L	2.41	2.47	9018735	2.76	9018735	1.57	0.050	9018735
Dissolved Iron (Fe)	ug/L	346	250	9018735	252	9018735	70.9	1.0	9018735
Dissolved Lead (Pb)	ug/L	0.0299	0.0188	9018735	0.0322	9018735	0.0283	0.0050	9018735
Dissolved Lithium (Li)	ug/L	0.83	0.75	9018735	<0.50	9018735	1.41	0.50	9018735
Dissolved Manganese (Mn)	ug/L	31.2	5.83	9018735	21.8	9018735	4.43	0.050	9018735
Dissolved Molybdenum (Mo)	ug/L	0.358	0.339	9018735	0.231	9018735	0.913	0.050	9018735
Dissolved Nickel (Ni)	ug/L	1.38	1.23	9018735	1.22	9018735	1.46	0.020	9018735
Dissolved Phosphorus (P)	ug/L	11.5	9.8	9018735	11.3	9018735	6.8	2.0	9018735
Dissolved Selenium (Se)	ug/L	0.090	0.088	9018735	0.098	9018735	0.281	0.040	9018735
Dissolved Silicon (Si)	ug/L	2920	3190	9018735	3180	9018735	2920	50	9018735
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	9018735	0.0062	9018735	<0.0050	0.0050	9018735
Dissolved Strontium (Sr)	ug/L	106	119	9018735	86.1	9018735	104	0.050	9018735
Dissolved Thallium (TI)	ug/L	0.0057	0.0048	9018735	0.0052	9018735	0.0042	0.0020	9018735
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	9018735	<0.20	9018735	<0.20	0.20	9018735
Dissolved Titanium (Ti)	ug/L	4.49	3.44	9018735	3.89	9018735	0.88	0.50	9018735
Dissolved Uranium (U)	ug/L	9.46	6.85	9018735	3.05	9018735	1.30	0.0020	9018735
Dissolved Vanadium (V)	ug/L	0.71	0.56	9018735	0.48	9018735	0.25	0.20	9018735
RDL = Reportable Detection Lir	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TP1124	TP1125		TP1126		TP1127			
Sampling Date		2018/06/05	2018/06/05		2018/06/05		2018/06/04			
Sampling Date		12:45	13:15		13:35		10:30			
COC Number		553731-01-01	553731-01-01		553731-01-01		553731-01-01			
	UNITS	HC-2.5	HC-5.0	QC Batch	YT-24	QC Batch	YT-24 Mix	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	1.33	0.32	9018735	0.70	9018735	2.45	0.10	9018735	
Dissolved Zirconium (Zr)	ug/L	0.84	0.81	9018735	1.04	9018735	0.23	0.10	9018735	
Dissolved Calcium (Ca)	mg/L	10.2	13.9	9016136	16.2	9016136	22.1	0.050	9016136	
Dissolved Magnesium (Mg)	mg/L	3.03	4.08	9016136	4.98	9016136	6.78	0.050	9016136	
Dissolved Potassium (K)	mg/L	1.04	1.28	9016136	1.18	9016136	0.937	0.050	9016136	
Dissolved Sodium (Na)	mg/L	1.27	1.56	9016136	1.71	9016136	1.97	0.050	9016136	
Dissolved Sulphur (S)	mg/L	<3.0	4.0	9016136	7.9	9016136	7.0	3.0	9016136	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

									·
Maxxam ID		TP1127			TP1128	TP1129	TP1130		
Sampling Date		2018/06/04			2018/06/04	2018/06/04	2018/06/05		
. 5		10:30			10:00	11:00	11:55		
COC Number		553731-01-01			553731-01-01	553731-01-01	553731-02-01		
	UNITS	YT-24 Mix Lab-Dup	RDL	QC Batch	Coffee Mix	Halfway Mix	Latte Mix	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L				72.1	81.4	41.3	0.50	9016135
Elements	•			•				•	
Dissolved Mercury (Hg)	ug/L				0.0052	0.0042	0.0135	0.0020	9018162
Dissolved Metals by ICPMS	•			•				•	
Dissolved Aluminum (Al)	ug/L	60.4	0.50	9018735	135	85.3	324	0.50	9018735
Dissolved Antimony (Sb)	ug/L	0.122	0.020	9018735	0.107	0.116	0.083	0.020	9018735
Dissolved Arsenic (As)	ug/L	0.457	0.020	9018735	0.463	0.512	0.464	0.020	9018735
Dissolved Barium (Ba)	ug/L	38.6	0.020	9018735	37.0	38.8	31.0	0.020	9018735
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9018735	0.023	0.015	0.039	0.010	9018735
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9018735	<0.0050	<0.0050	<0.0050	0.0050	9018735
Dissolved Boron (B)	ug/L	<10	10	9018735	<10	<10	<10	10	9018735
Dissolved Cadmium (Cd)	ug/L	0.0349	0.0050	9018735	0.0302	0.0347	0.0169	0.0050	9018735
Dissolved Chromium (Cr)	ug/L	0.15	0.10	9018735	0.24	0.18	0.50	0.10	9018735
Dissolved Cobalt (Co)	ug/L	0.0495	0.0050	9018735	0.0642	0.0447	0.130	0.0050	9018735
Dissolved Copper (Cu)	ug/L	1.57	0.050	9018735	2.04	1.51	3.00	0.050	9018735
Dissolved Iron (Fe)	ug/L	71.0	1.0	9018735	127	80.3	273	1.0	9018735
Dissolved Lead (Pb)	ug/L	0.0279	0.0050	9018735	0.0277	0.0250	0.0199	0.0050	9018735
Dissolved Lithium (Li)	ug/L	1.43	0.50	9018735	1.19	1.42	0.65	0.50	9018735
Dissolved Manganese (Mn)	ug/L	4.44	0.050	9018735	1.73	1.77	6.55	0.050	9018735
Dissolved Molybdenum (Mo)	ug/L	0.900	0.050	9018735	0.752	0.865	0.449	0.050	9018735
Dissolved Nickel (Ni)	ug/L	1.50	0.020	9018735	1.46	1.44	1.35	0.020	9018735
Dissolved Phosphorus (P)	ug/L	6.0	2.0	9018735	7.6	6.1	8.7	2.0	9018735
Dissolved Selenium (Se)	ug/L	0.284	0.040	9018735	0.221	0.278	0.084	0.040	9018735
Dissolved Silicon (Si)	ug/L	2950	50	9018735	2780	2870	2890	50	9018735
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9018735	<0.0050	0.0072	0.0052	0.0050	9018735
Dissolved Strontium (Sr)	ug/L	102	0.050	9018735	91.1	106	55.3	0.050	9018735
Dissolved Thallium (TI)	ug/L	0.0034	0.0020	9018735	0.0044	0.0044	0.0057	0.0020	9018735
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9018735	<0.20	<0.20	<0.20	0.20	9018735
Dissolved Titanium (Ti)	ug/L	0.85	0.50	9018735	1.67	1.30	3.11	0.50	9018735
Dissolved Uranium (U)	ug/L	1.28	0.0020	9018735	1.38	1.69	2.50	0.0020	9018735
RDL = Reportable Detection Li	mit								

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TP1127			TP1128	TP1129	TP1130		
Sampling Date		2018/06/04			2018/06/04	2018/06/04	2018/06/05		
Sampling Date		10:30			10:00	11:00	11:55		
COC Number		553731-01-01			553731-01-01	553731-01-01	553731-02-01		
	UNITS	YT-24 Mix Lab-Dup	RDL	QC Batch	Coffee Mix	Halfway Mix	Latte Mix	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.23	0.20	9018735	0.29	0.21	0.50	0.20	9018735
Dissolved Zinc (Zn)	ug/L	2.44	0.10	9018735	2.23	1.74	0.80	0.10	9018735
Dissolved Zirconium (Zr)	ug/L	0.19	0.10	9018735	0.33	0.25	0.60	0.10	9018735
Dissolved Calcium (Ca)	mg/L				19.5	22.0	10.9	0.050	9016136
Dissolved Magnesium (Mg)	mg/L				5.69	6.41	3.39	0.050	9016136
Dissolved Potassium (K)	mg/L				0.897	0.964	0.905	0.050	9016136
Dissolved Sodium (Na)	mg/L				1.81	1.86	1.62	0.050	9016136
Dissolved Sulphur (S)	mg/L				6.0	6.1	4.3	3.0	9016136

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TP1120			TP1120			TP1121		
Campling Data		2018/06/05			2018/06/05			2018/06/05		
Sampling Date		11:15			11:15			12:20		
COC Number		553731-01-01			553731-01-01			553731-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	36.5	0.50	9016134				66.7	0.50	9016134
Elements										
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9017976				<0.0020	0.0020	9017976
Total Metals by ICPMS						•			•	
Total Aluminum (Al)	ug/L	428	3.0	9015522	446	3.0	9015522	489	3.0	9015522
Total Antimony (Sb)	ug/L	0.088	0.020	9015522	0.096	0.020	9015522	0.102	0.020	9015522
Total Arsenic (As)	ug/L	0.575	0.020	9015522	0.620	0.020	9015522	0.804	0.020	9015522
Total Barium (Ba)	ug/L	33.6	0.050	9015522	35.4	0.050	9015522	31.8	0.050	9015522
Total Beryllium (Be)	ug/L	0.035	0.010	9015522	0.031	0.010	9015522	0.060	0.010	9015522
Total Bismuth (Bi)	ug/L	<0.010	0.010	9015522	<0.010	0.010	9015522	<0.010	0.010	9015522
Total Boron (B)	ug/L	<10	10	9015522	<10	10	9015522	<10	10	9015522
Total Cadmium (Cd)	ug/L	0.0169	0.0050	9015522	0.0180	0.0050	9015522	0.0207	0.0050	9015522
Total Chromium (Cr)	ug/L	0.69	0.10	9015522	0.77	0.10	9015522	0.88	0.10	9015522
Total Cobalt (Co)	ug/L	0.213	0.010	9015522	0.220	0.010	9015522	0.215	0.010	9015522
Total Copper (Cu)	ug/L	3.45	0.10	9015522	3.50	0.10	9015522	2.44	0.10	9015522
Total Iron (Fe)	ug/L	470	5.0	9015522	506	5.0	9015522	523	5.0	9015522
Total Lead (Pb)	ug/L	0.079	0.020	9015522	0.080	0.020	9015522	0.130	0.020	9015522
Total Lithium (Li)	ug/L	0.62	0.50	9015522	0.67	0.50	9015522	1.09	0.50	9015522
Total Manganese (Mn)	ug/L	12.8	0.10	9015522	13.5	0.10	9015522	27.0	0.10	9015522
Total Molybdenum (Mo)	ug/L	0.564	0.050	9015522	0.515	0.050	9015522	0.115	0.050	9015522
Total Nickel (Ni)	ug/L	1.66	0.10	9015522	1.64	0.10	9015522	1.35	0.10	9015522
Total Phosphorus (P)	ug/L	15.7	5.0	9015522	15.8	5.0	9015522	24.7	5.0	9015522
Total Selenium (Se)	ug/L	0.056	0.040	9015522	0.068	0.040	9015522	0.072	0.040	9015522
Total Silicon (Si)	ug/L	3150	50	9015522	3360	50	9015522	3110	50	9015522
Total Silver (Ag)	ug/L	<0.010	0.010	9015522	<0.010	0.010	9015522	<0.010	0.010	9015522
Total Strontium (Sr)	ug/L	47.6	0.050	9015522	49.6	0.050	9015522	148	0.050	9015522
Total Thallium (TI)	ug/L	0.0055	0.0020	9015522	0.0075	0.0020	9015522	0.0048	0.0020	9015522
Total Tin (Sn)	ug/L	<0.20	0.20	9015522	<0.20	0.20	9015522	<0.20	0.20	9015522
Total Titanium (Ti)	ug/L	10.3	2.0	9015522	10.2	2.0	9015522	10.6	2.0	9015522
Total Uranium (U)	ug/L	2.04	0.0050	9015522	2.11	0.0050	9015522	4.33	0.0050	9015522
Total Vanadium (V)	ug/L	1.07	0.20	9015522	1.10	0.20	9015522	0.93	0.20	9015522

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TP1120			TP1120			TP1121		
Sampling Date		2018/06/05			2018/06/05			2018/06/05		
Sampling Date		11:15			11:15			12:20		
COC Number		553731-01-01			553731-01-01			553731-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Total Zinc (Zn)	ug/L	1.5	1.0	9015522	1.5	1.0	9015522	2.0	1.0	9015522
Total Zirconium (Zr)	ug/L	0.52	0.10	9015522	0.53	0.10	9015522	0.92	0.10	9015522
Total Calcium (Ca)	mg/L	9.60	0.25	9016137				17.5	0.25	9016137
Total Magnesium (Mg)	mg/L	3.05	0.25	9016137				5.56	0.25	9016137
Total Potassium (K)	mg/L	0.78	0.25	9016137				1.03	0.25	9016137
Total Sodium (Na)	mg/L	1.63	0.25	9016137				1.37	0.25	9016137
Total Sulphur (S)	mg/L	3.6	3.0	9016137				7.4	3.0	9016137

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TP1122	TP1123		TP1124	TP1125	TP1126		
Committee Date		2018/06/05	2018/06/05		2018/06/05	2018/06/05	2018/06/05		
Sampling Date		11:30	10:40		12:45	13:15	13:35		
COC Number		553731-01-01	553731-01-01		553731-01-01	553731-01-01	553731-01-01		
	UNITS	CC-3.5	CC-4.5	QC Batch	HC-2.5	HC-5.0	YT-24	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	67.4	49.2	9016134	38.0	55.0	63.5	0.50	9016134
Elements				•				•	
Total Mercury (Hg)	ug/L	0.0138	0.0117	9018154	<0.0020	0.0128	0.0154	0.0020	9017976
Total Metals by ICPMS									
Total Aluminum (AI)	ug/L	321	994	9015522	434	366	540	3.0	9015522
Total Antimony (Sb)	ug/L	0.084	0.109	9015522	0.167	0.171	0.243	0.020	9015522
Total Arsenic (As)	ug/L	0.520	1.15	9015522	1.18	1.16	1.29	0.020	9015522
Total Barium (Ba)	ug/L	34.3	51.8	9015522	28.0	31.7	49.7	0.050	9015522
Total Beryllium (Be)	ug/L	0.041	0.065	9015522	0.046	0.050	0.065	0.010	9015522
Total Bismuth (Bi)	ug/L	<0.010	<0.010	9015522	<0.010	<0.010	<0.010	0.010	9015522
Total Boron (B)	ug/L	<10	<10	9015522	<10	<10	<10	10	9015522
Total Cadmium (Cd)	ug/L	0.0112	0.0477	9015522	0.0138	0.0102	0.0181	0.0050	9015522
Total Chromium (Cr)	ug/L	0.59	1.60	9015522	0.76	0.91	1.22	0.10	9015522
Total Cobalt (Co)	ug/L	0.143	0.666	9015522	0.280	0.207	0.384	0.010	9015522
Total Copper (Cu)	ug/L	2.44	4.45	9015522	2.43	2.82	3.34	0.10	9015522
Total Iron (Fe)	ug/L	322	1360	9015522	388	397	650	5.0	9015522
Total Lead (Pb)	ug/L	0.063	0.551	9015522	0.052	0.089	0.315	0.020	9015522
Total Lithium (Li)	ug/L	0.69	1.30	9015522	0.76	0.79	0.53	0.50	9015522
Total Manganese (Mn)	ug/L	11.4	45.9	9015522	34.4	11.5	37.0	0.10	9015522
Total Molybdenum (Mo)	ug/L	0.138	0.515	9015522	0.413	0.381	0.281	0.050	9015522
Total Nickel (Ni)	ug/L	1.10	2.27	9015522	1.38	1.48	1.62	0.10	9015522
Total Phosphorus (P)	ug/L	9.7	52.5	9015522	10.8	15.7	28.8	5.0	9015522
Total Selenium (Se)	ug/L	0.055	0.075	9015522	0.063	0.083	0.078	0.040	9015522
Total Silicon (Si)	ug/L	3150	4040	9015522	3250	3670	3920	50	9015522
Total Silver (Ag)	ug/L	<0.010	<0.010	9015522	<0.010	<0.010	<0.010	0.010	9015522
Total Strontium (Sr)	ug/L	130	72.8	9015522	112	135	98.2	0.050	9015522
Total Thallium (TI)	ug/L	0.0035	0.0133	9015522	0.0046	0.0039	0.0064	0.0020	9015522
Total Tin (Sn)	ug/L	<0.20	<0.20	9015522	<0.20	<0.20	<0.20	0.20	9015522
Total Titanium (Ti)	ug/L	4.9	42.0	9015522	5.5	8.0	17.6	2.0	9015522
Total Uranium (U)	ug/L	4.00	2.85	9015522	9.06	7.34	3.27	0.0050	9015522
Total Vanadium (V)	ug/L	0.62	3.10	9015522	0.84	0.92	1.34	0.20	9015522
Total Zinc (Zn)	ug/L	1.4	5.3	9015522	1.0	<1.0	1.8	1.0	9015522
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TP1122	TP1123		TP1124	TP1125	TP1126		
Sampling Date		2018/06/05	2018/06/05		2018/06/05	2018/06/05	2018/06/05		
Sampling Date		11:30	10:40		12:45	13:15	13:35		
COC Number		553731-01-01	553731-01-01		553731-01-01	553731-01-01	553731-01-01		
	UNITS	CC-3.5	CC-4.5	QC Batch	HC-2.5	HC-5.0	YT-24	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.70	0.61	9015522	0.79	0.79	1.02	0.10	9015522
Total Calcium (Ca)	mg/L	18.1	12.8	9016137	10.3	15.0	16.9	0.25	9016137
Total Magnesium (Mg)	mg/L	5.36	4.21	9016137	2.96	4.26	5.17	0.25	9016137
Total Potassium (K)	mg/L	1.15	1.00	9016137	0.92	1.25	1.18	0.25	9016137
Total Sodium (Na)	mg/L	1.87	2.51	9016137	1.20	1.65	1.81	0.25	9016137
Total Sulphur (S)	mg/L	8.5	4.9	9016137	<3.0	4.4	8.1	3.0	9016137
RDL = Reportable Detection	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TP1127		TP1128	TP1129		TP1130		
Sampling Date		2018/06/04 10:30		2018/06/04 10:00	2018/06/04 11:00		2018/06/05 11:55		
COC Number		553731-01-01		553731-01-01	553731-01-01		553731-02-01		
	UNITS	YT-24 Mix	QC Batch	Coffee Mix	Halfway Mix	QC Batch	Latte Mix	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	88.8	9016134	73.3	85.0	9016134	43.7	0.50	9016134
Elements					•				
Total Mercury (Hg)	ug/L	0.0030	9018154	0.0061	0.0043	9017976	0.0117	0.0020	9018154
otal Metals by ICPMS									
Total Aluminum (Al)	ug/L	329	9015522	382	294	9015522	431	3.0	9015522
Total Antimony (Sb)	ug/L	0.186	9015522	0.158	0.148	9015522	0.096	0.020	9015522
Total Arsenic (As)	ug/L	0.792	9015522	0.783	0.794	9015522	0.588	0.020	9015522
Total Barium (Ba)	ug/L	52.9	9015522	47.9	48.5	9015522	35.7	0.050	9015522
Total Beryllium (Be)	ug/L	0.033	9015522	0.029	0.024	9015522	0.043	0.010	9015522
Total Bismuth (Bi)	ug/L	<0.010	9015522	<0.010	<0.010	9015522	<0.010	0.010	9015522
Total Boron (B)	ug/L	<10	9015522	<10	<10	9015522	<10	10	9015522
Total Cadmium (Cd)	ug/L	0.0763	9015522	0.0677	0.0644	9015522	0.0168	0.0050	9015522
Total Chromium (Cr)	ug/L	0.64	9015522	0.70	0.58	9015522	0.71	0.10	9015522
Total Cobalt (Co)	ug/L	0.280	9015522	0.281	0.245	9015522	0.212	0.010	9015522
Total Copper (Cu)	ug/L	2.34	9015522	2.80	2.15	9015522	3.27	0.10	9015522
Total Iron (Fe)	ug/L	557	9015522	555	460	9015522	471	5.0	9015522
Total Lead (Pb)	ug/L	0.307	9015522	0.267	0.249	9015522	0.079	0.020	9015522
Total Lithium (Li)	ug/L	1.61	9015522	1.28	1.51	9015522	0.70	0.50	9015522
Total Manganese (Mn)	ug/L	28.2	9015522	26.3	24.4	9015522	14.2	0.10	9015522
Total Molybdenum (Mo)	ug/L	0.966	9015522	0.822	0.912	9015522	0.513	0.050	9015522
Total Nickel (Ni)	ug/L	2.65	9015522	2.35	2.25	9015522	1.60	0.10	9015522
Total Phosphorus (P)	ug/L	32.9	9015522	31.3	27.0	9015522	13.2	5.0	9015522
Total Selenium (Se)	ug/L	0.305	9015522	0.208	0.273	9015522	0.062	0.040	9015522
Total Silicon (Si)	ug/L	3500	9015522	3320	3390	9015522	3370	50	9015522
Total Silver (Ag)	ug/L	<0.010	9015522	<0.010	<0.010	9015522	<0.010	0.010	9015522
Total Strontium (Sr)	ug/L	118	9015522	100	118	9015522	65.1	0.050	9015522
Total Thallium (TI)	ug/L	0.0059	9015522	0.0057	0.0041	9015522	0.0060	0.0020	9015522
Total Tin (Sn)	ug/L	<0.20	9015522	<0.20	<0.20	9015522	<0.20	0.20	9015522
Total Titanium (Ti)	ug/L	10.5	9015522	10.7	7.8	9015522	10.4	2.0	9015522
Total Uranium (U)	ug/L	1.32	9015522	1.51	1.71	9015522	2.50	0.0050	9015522
Total Vanadium (V)	ug/L	1.17	9015522	1.24	1.06	9015522	1.09	0.20	9015522
Total Zinc (Zn)	ug/L	8.2	9015522	7.4	6.0	9015522	1.4	1.0	9015522
RDL = Reportable Detection	Limit	-		-	-			•	-



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TP1127		TP1128	TP1129		TP1130		
Sampling Date		2018/06/04		2018/06/04	2018/06/04		2018/06/05		
Jamping Date		10:30		10:00	11:00		11:55		
COC Number		553731-01-01		553731-01-01	553731-01-01		553731-02-01		
	UNITS	YT-24 Mix	QC Batch	Coffee Mix	Halfway Mix	QC Batch	Latte Mix	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.19	9015522	0.29	0.22	9015522	0.56	0.10	9015522
Total Calcium (Ca)	mg/L	23.9	9016137	19.6	23.0	9016137	11.5	0.25	9016137
Total Magnesium (Mg)	mg/L	7.07	9016137	5.94	6.68	9016137	3.65	0.25	9016137
Total Potassium (K)	mg/L	0.97	9016137	0.90	0.97	9016137	0.90	0.25	9016137
Total Sodium (Na)	mg/L	2.05	9016137	1.91	1.94	9016137	1.69	0.25	9016137
Total Sulphur (S)	mg/L	7.3	9016137	6.1	6.3	9016137	4.4	3.0	9016137
RDL = Reportable Detection L	.imit								



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample TP1127 [YT-24 Mix]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TP1128 [Coffee Mix]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TP1129 [Halfway Mix] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

#### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER) Comments

Method Blank Elements by ICPMS Low Level (dissolved): Method Blank exceeds acceptance limits for (Mercury) - 2X RDL acceptable for low level metals determination.

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9015522	Total Aluminum (AI)	2018/06/12	117	80 - 120	102	80 - 120	<3.0	ug/L	4.1	20
9015522	Total Antimony (Sb)	2018/06/12	108	80 - 120	100	80 - 120	<0.020	ug/L	8.7	20
9015522	Total Arsenic (As)	2018/06/12	109	80 - 120	103	80 - 120	<0.020	ug/L	7.5	20
9015522	Total Barium (Ba)	2018/06/12	110	80 - 120	99	80 - 120	<0.050	ug/L	5.4	20
9015522	Total Beryllium (Be)	2018/06/12	112	80 - 120	105	80 - 120	<0.010	ug/L	13	20
9015522	Total Bismuth (Bi)	2018/06/12	102	80 - 120	99	80 - 120	<0.010	ug/L	NC	20
9015522	Total Boron (B)	2018/06/12	110	80 - 120	104	80 - 120	<10	ug/L	NC	20
9015522	Total Cadmium (Cd)	2018/06/12	109	80 - 120	102	80 - 120	<0.0050	ug/L	6.3	20
9015522	Total Chromium (Cr)	2018/06/12	106	80 - 120	100	80 - 120	<0.10	ug/L	11	20
9015522	Total Cobalt (Co)	2018/06/12	101	80 - 120	96	80 - 120	<0.010	ug/L	3.3	20
9015522	Total Copper (Cu)	2018/06/12	104	80 - 120	98	80 - 120	<0.10	ug/L	1.6	20
9015522	Total Iron (Fe)	2018/06/12	112	80 - 120	103	80 - 120	<5.0	ug/L	7.3	20
9015522	Total Lead (Pb)	2018/06/12	104	80 - 120	99	80 - 120	<0.020	ug/L	0.13	20
9015522	Total Lithium (Li)	2018/06/12	111	80 - 120	104	80 - 120	<0.50	ug/L	7.7	20
9015522	Total Manganese (Mn)	2018/06/12	105	80 - 120	101	80 - 120	<0.10	ug/L	5.3	20
9015522	Total Molybdenum (Mo)	2018/06/12	108	80 - 120	103	80 - 120	<0.050	ug/L	9.2	20
9015522	Total Nickel (Ni)	2018/06/12	104	80 - 120	98	80 - 120	<0.10	ug/L	1.6	20
9015522	Total Phosphorus (P)	2018/06/12	103	80 - 120	99	80 - 120	<5.0	ug/L	0.70	20
9015522	Total Selenium (Se)	2018/06/12	106	80 - 120	97	80 - 120	<0.040	ug/L	19	20
9015522	Total Silicon (Si)	2018/06/12	109	80 - 120	102	80 - 120	<50	ug/L	6.5	20
9015522	Total Silver (Ag)	2018/06/12	108	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
9015522	Total Strontium (Sr)	2018/06/12	112	80 - 120	102	80 - 120	<0.050	ug/L	4.1	20
9015522	Total Thallium (TI)	2018/06/12	102	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9015522	Total Tin (Sn)	2018/06/12	108	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9015522	Total Titanium (Ti)	2018/06/12	112	80 - 120	101	80 - 120	<2.0	ug/L	0.030	20
9015522	Total Uranium (U)	2018/06/12	110	80 - 120	107	80 - 120	<0.0050	ug/L	3.3	20
9015522	Total Vanadium (V)	2018/06/12	107	80 - 120	101	80 - 120	<0.20	ug/L	3.7	20
9015522	Total Zinc (Zn)	2018/06/12	107	80 - 120	100	80 - 120	<1.0	ug/L	0.41	20
9015522	Total Zirconium (Zr)	2018/06/12	107	80 - 120	100	80 - 120	<0.10	ug/L	2.2	20
9017897	Dissolved Mercury (Hg)	2018/06/08	95	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
9017919	ORP	2018/06/08							0.39	20



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9017976	Total Mercury (Hg)	2018/06/08	91	80 - 120	91	80 - 120	<0.0020	ug/L	NC	20
9018154	Total Mercury (Hg)	2018/06/08	86	80 - 120	90	80 - 120	<0.0020	ug/L	NC	20
9018162	Dissolved Mercury (Hg)	2018/06/08	91	80 - 120	89	80 - 120	<0.0020	ug/L	NC	20
9018735	Dissolved Aluminum (Al)	2018/06/11	110	80 - 120	109	80 - 120	<0.50	ug/L	0.36	20
9018735	Dissolved Antimony (Sb)	2018/06/11	99	80 - 120	100	80 - 120	<0.020	ug/L	0	20
9018735	Dissolved Arsenic (As)	2018/06/11	101	80 - 120	100	80 - 120	<0.020	ug/L	2.0	20
9018735	Dissolved Barium (Ba)	2018/06/11	98	80 - 120	98	80 - 120	<0.020	ug/L	0.74	20
9018735	Dissolved Beryllium (Be)	2018/06/11	106	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
9018735	Dissolved Bismuth (Bi)	2018/06/11	103	80 - 120	106	80 - 120	< 0.0050	ug/L	NC	20
9018735	Dissolved Boron (B)	2018/06/11	110	80 - 120	108	80 - 120	<10	ug/L	NC	20
9018735	Dissolved Cadmium (Cd)	2018/06/11	96	80 - 120	98	80 - 120	<0.0050	ug/L	4.2	20
9018735	Dissolved Chromium (Cr)	2018/06/11	100	80 - 120	101	80 - 120	<0.10	ug/L	2.5	20
9018735	Dissolved Cobalt (Co)	2018/06/11	101	80 - 120	102	80 - 120	<0.0050	ug/L	5.6	20
9018735	Dissolved Copper (Cu)	2018/06/11	97	80 - 120	99	80 - 120	<0.050	ug/L	0.57	20
9018735	Dissolved Iron (Fe)	2018/06/11	102	80 - 120	103	80 - 120	<1.0	ug/L	0.14	20
9018735	Dissolved Lead (Pb)	2018/06/11	103	80 - 120	105	80 - 120	< 0.0050	ug/L	1.4	20
9018735	Dissolved Lithium (Li)	2018/06/11	111	80 - 120	113	80 - 120	<0.50	ug/L	1.7	20
9018735	Dissolved Manganese (Mn)	2018/06/11	93	80 - 120	95	80 - 120	< 0.050	ug/L	0.21	20
9018735	Dissolved Molybdenum (Mo)	2018/06/11	103	80 - 120	100	80 - 120	<0.050	ug/L	1.4	20
9018735	Dissolved Nickel (Ni)	2018/06/11	94	80 - 120	97	80 - 120	<0.020	ug/L	2.6	20
9018735	Dissolved Phosphorus (P)	2018/06/11	99	80 - 120	98	80 - 120	<2.0	ug/L	12	20
9018735	Dissolved Selenium (Se)	2018/06/11	104	80 - 120	100	80 - 120	<0.040	ug/L	0.99	20
9018735	Dissolved Silicon (Si)	2018/06/11	98	80 - 120	98	80 - 120	<50	ug/L	1.0	20
9018735	Dissolved Silver (Ag)	2018/06/11	100	80 - 120	98	80 - 120	< 0.0050	ug/L	NC	20
9018735	Dissolved Strontium (Sr)	2018/06/11	NC	80 - 120	95	80 - 120	<0.050	ug/L	1.7	20
9018735	Dissolved Thallium (TI)	2018/06/11	102	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20
9018735	Dissolved Tin (Sn)	2018/06/11	98	80 - 120	98	80 - 120	<0.20	ug/L	NC	20
9018735	Dissolved Titanium (Ti)	2018/06/11	98	80 - 120	99	80 - 120	<0.50	ug/L	4.4	20
9018735	Dissolved Uranium (U)	2018/06/11	105	80 - 120	107	80 - 120	<0.0020	ug/L	0.87	20
9018735	Dissolved Vanadium (V)	2018/06/11	103	80 - 120	100	80 - 120	<0.20	ug/L	9.6	20
9018735	Dissolved Zinc (Zn)	2018/06/11	96	80 - 120	98	80 - 120	<0.10	ug/L	0.74	20



Maxxam Job #: B844935 Report Date: 2018/06/14

## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9018735	Dissolved Zirconium (Zr)	2018/06/11	97	80 - 120	99	80 - 120	<0.10	ug/L	19	20
9018943	Dissolved Organic Carbon (C)	2018/06/08	93	80 - 120	98	80 - 120	<0.50	mg/L	13	20
9018945	Total Organic Carbon (C)	2018/06/08	87	80 - 120	98	80 - 120	<0.50	mg/L	NC	20
9018992	Nitrate plus Nitrite (N)	2018/06/08	119	80 - 120	103	80 - 120	<0.0020	mg/L	1.7	25
9018994	Nitrite (N)	2018/06/08			101	80 - 120	<0.0020	mg/L		
9019021	Total Dissolved Solids	2018/06/11	100	80 - 120	83	80 - 120	<10	mg/L	1.5	20
9019027	Total Ammonia (N)	2018/06/08	110	80 - 120	93	80 - 120	<0.0050	mg/L	18	20
9019078	рН	2018/06/08			101	97 - 103				
9019081	Alkalinity (PP as CaCO3)	2018/06/08					<0.50	mg/L		
9019081	Alkalinity (Total as CaCO3)	2018/06/08			91	80 - 120	<0.50	mg/L		
9019081	Bicarbonate (HCO3)	2018/06/08					<0.50	mg/L		
9019081	Carbonate (CO3)	2018/06/08					<0.50	mg/L		
9019081	Hydroxide (OH)	2018/06/08					<0.50	mg/L		
9019082	Conductivity	2018/06/08			101	80 - 120	<1.0	uS/cm		
9019085	рН	2018/06/09			101	97 - 103			0.57	20
9019088	Alkalinity (PP as CaCO3)	2018/06/08					<0.50	mg/L		
9019088	Alkalinity (Total as CaCO3)	2018/06/08	94	80 - 120	91	80 - 120	<0.50	mg/L		
9019088	Bicarbonate (HCO3)	2018/06/08					<0.50	mg/L		
9019088	Carbonate (CO3)	2018/06/08					<0.50	mg/L		
9019088	Hydroxide (OH)	2018/06/08					<0.50	mg/L		
9019089	Conductivity	2018/06/08			101	80 - 120	<1.0	uS/cm		
9020561	Total Suspended Solids	2018/06/12			96	80 - 120	<1.0	mg/L		
9020847	Total Dissolved Solids	2018/06/13	96	80 - 120	97	80 - 120	<10	mg/L	15	20
9021999	Total Suspended Solids	2018/06/13			97	80 - 120	<1.0	mg/L		
9022000	Total Suspended Solids	2018/06/13			99	80 - 120	<1.0	mg/L		
9022208	Dissolved Chloride (Cl)	2018/06/11			98	80 - 120	0.54, RDL=0.50	mg/L	NC	20
9022212	Dissolved Sulphate (SO4)	2018/06/11			106	80 - 120	<0.50	mg/L	13	20
9022230	Dissolved Chloride (Cl)	2018/06/11			100	80 - 120	<0.50	mg/L	NC	20
9022241	Dissolved Sulphate (SO4)	2018/06/11			103	80 - 120	<0.50	mg/L	0.75	20



Maxxam Job #: B844935 Report Date: 2018/06/14

### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPE	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9022656	Fluoride (F)	2018/06/12	108	80 - 120	100	80 - 120	<0.010	mg/L	0	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



Maxxam Job #: B844935 Report Date: 2018/06/14 LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: GOLD CORP COFFEE CREEK-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Mandheraj Chana, Junior Project Manager

Mandheroj Kour Chana

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		VOICE TO:				Report Inf	ormatio	1							nformation	Ď.		開発的な物体は対けなりに対象の	Page 1 of
npany Name		ENVIRONMENTAL SERVICES		Company N	Physical Physic	No. a. V					100	sation#	3	B40231				<b>经产品的特别等的</b>	Bottle Order #:
act Name	Aida Piaseczny 2289 BURRARD	etheet	-	Contact Na	me David Flat	ner					P.0		- 5	Sold Cor	m Coffee	Creek-S	W 201	# A2 E2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
055	VANCOUVER B			Vddress							1000	ect #	- 2	Join Gui	p.Conec	CICONS	884	14935_COC	553731 Project Manage
ne	(604) 688-7173	Fax: (604) 688-717	75	Phone				Fax			Site	ect Name	7						
ii	aida piaseczny@	lorax.ca; shukling.ng@lorax.ca		Email	David, Flat	her@lorax.						m pled By						C#553731-01-01	Diana Cruz
egulatory C	Critéria			Spe	cial Instructions							Analysis F	Requested					Turnaround Time (TAT) Requi	red
			Red bo heve per	HIE (	- ANN	Chartal	Regulated Drinking Water 2 ( Y / N )	S) K	TSS-Low Level	Anions (LL.Cl, F, NO2, NO3, SO4)	Cyanide - WAD	00	DOC	w Level Dissolved Metals	w Level Total Metals incl. CV	ORP	field 6 Stand Pleas days Job Si Date R	Please provide advance notice for rush  that (Standard) TAT  be applied if Plush TAT is not specified)  dard TAT = 5.7 Working days for most fests,  se note: Standard TAT for certain fests such as BOD  - confact your Project Manager for detais,  specific Rush TAT (if applies to entire submission)  Required.  Confirmation Number  (certification of the project of the plush of the confirmation Number  (certification for the project of the project of the plush of the plush of the project of the plush of the project of the plush of the p	ànd Disxins/Furans a
Samp	ele Barcode Label	Sample (Location) Identification	Date S	ampled	Time Sampled	Matrix	Reg	87	12	SCA	ò	100	ă	Low incl.	FE FE	Ö	# of Bo	lottes Comments	
	SiD#162743	CC-0.5	Tues	18	11127	w		X	X	X	X	Х	X	X	X	K	13		TI IODAN
	SID#162744	CC-1.5	1		1330-	w		X	X	×	X	X	X	X	X.	x	1	By Byon	enorse @ 133
	SID#162745	CC-3.5			1630 -	w		X	X	X	X	X	X	X	X	×		2019 -06-	0.6
	SIDW162746	CC-4.5			lortor	w		X	X	×	X	X	X	×	٨	X		2010 00	0.0
	SID#162747	HC-2.5	11		15a2p	W		X	X	Х	X	X	×	V	X	X		TEMP: 7/8	18
	SID#162748	HC-5.0			1312	w	Ц	×	X	X	X	Х	×	X	X	X		9 7	9
	SID#149895	YT-24	1		1332	w		×	X	X	X	X	X	X	X	X		5 =	6
	SID#149896	YT-24 Mix	June	1/18	1030h	W		X	X	X	X	X	X	X	X	X	- 1		
	SID#149897	Coffee Mix	June		1000h	w		X	X	X	X	X	X	X	X	X			
960616	SID#149896.	Halfway Mix	June	1	1100%	w		14	×	X	X	×	×	X	X	×	V		
· RELE	NOURSHED BY: (Signature		P / [8 (AAWWDD)	0800		RECEIV		(Signature/P	rint)			106/6 1706/6		4.08		used and ubmitted	Time Sarrague	Temperatus (CC) on Naceipt	eal Intact on Cooler?

16

Maxxam Analytics International Corporation o/a Maxxam Analytics

		INVOICE TO:			Report In	formatio	ř.						Project t	nformation	ř		111111111111111111111111111111111111111	多のExplosion (Action Profession Machines III)
mpany N	me #3604 LORAX	ENVIRONMENTAL SERVICES	.TD. Company Na							Que	itation#		B40231					ENDING PROPERTY OF THE
ntact Na	ne Aida Piaseczny		Contact Nam	David Fla	ther					P.O.	a						IIII R Y	CENTRAL PROPERTY OF THE PROPER
ress	2289 BURRAR		Address	-						Pro	ect#	1.0	Gold Co	rp Coffee	creek-S	VV	B8449	935_COC
	(604) 688-7173		E				#14 D		_	-	ect Name	9					-1	aject
ne		Fax (604) 688-717 @lorax.ca; shukling.ng@lorax.ca	Phone Email	David Fla	her@lorax		Fax	_	7.7	Site	# opled By	9			_		-	Dian
ait		gioraxios, snakinging grecorios		al Instructions	are Great	T	Ť			San	2011/10	Requested					_	Turnaround Time (TAT) Required
Regulato	ry Criteria	dree			NIL	ĝ	4						200	3				Please provide advance notice for rush projects
						7) 6	N TA		NO3.				Metals	inct.		1	Victorial Control of the	Bandard) TAT ofed if Rush TAT is not specified)
						Water 2 ( Y / N )	13		NO2.				ž	Metals				FAT = 5-7 Working days for most tests
						Wa C	( iii	505	ž	160			S ve	Me				<ul> <li>Standard TAT for certain lests such as BOD and Dioxins/F tact your Project Manager for details</li> </ul>
		Of the Association is a				King		Level	2	WAD			Dissolved 3	otal				c Rush TAT (if applies to entire submission)
	Note: For regulated	drinking water samples - please use the L	Irinking Water Chain of	Custody Form		Dud in			크	0.0			Level E CV Hg	Level Total		- 1	Date Require	ed: Time Required:
- 11	Samples r	nust be kept cool ( < 10°C ) from time of same	oling until delivery to max	xam		ulated	E F	TSS-Low	Suc (	Cyanide	200	()	SÈ	Le.	0.00		Musi Commi	(call (ub for it)
s	mple Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regu	Routine LL, pH, 1	TSS	Anions SO4)	Cya	TOC	000	Low	Hg Hg	ORP		# of Bottles	Comments
111	SID#149899	Latte Mix	ane5/18	1155 L	w		X	X	X	×	X	X	)	(X	X		13	
IIII	SID#208506	Dup		_	W.													
	dismediates				1		+	1									- 1	RECEIVED IN WHITEHORSE
																		BY SU(000 1330
-				_	-	-	+	+-	+			-		_	_	-	-	2010 06 0 6
																		TEMP: 7/8/8
																		979
																		576
	ELINQUISHED BY: (Signatu		YY/MM/DD) Time				Signature/	Print)	*		ite: [YY/MM		Time		used and		-2	Lab Use Only
al.	Lecale 12	illow (	118 0800	1 1	am	U	ww			2	0/8/0	6/0/	14:0	O note	ubenitted	Time Sens	Temp	persture (%) on Receipt Cuttody Segl-fintact on

ak

Maxxam Analytics International Corporation o/a Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW

#### **Attention: David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 555908-01-01, 555908-02-01, 555908-03-01, 555908-04-01, 555908-05-01

Report Date: 2018/07/03 Report #: R2582461 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B848821 Received: 2018/06/18, 10:40

Sample Matrix: Water # Samples Received: 34

# 3dillpics Received. 34		D-1-	D-1-		
Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	32	N/A		BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	2	N/A	2018/06/24	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	34	N/A	2018/06/21	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	34	N/A	2018/06/22	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	32	N/A	2018/06/21	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	2	N/A	2018/06/24	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	34	N/A	2018/06/21	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	3	N/A	2018/06/21	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (3)	13	N/A	2018/06/22	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (3)	18	N/A	2018/06/26	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	32	N/A	2018/06/21	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	2	N/A	2018/06/26	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	19	N/A	2018/06/20	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	15	N/A	2018/06/21	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	5	2018/06/20	2018/06/20	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	29	2018/06/21	2018/06/21	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	32	N/A	2018/06/21	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	2	N/A	2018/06/26	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	32	N/A	2018/06/20	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (dissolved)	2	N/A	2018/06/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	13	2018/06/20	2018/06/21	BBY7SOP-00003,	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	5	2018/06/20	2018/06/25	BBY7SOP-00003,	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	13	2018/06/20	2018/06/26	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2018/06/21	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	13	N/A	2018/06/22	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	18	N/A	2018/06/26	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	3	N/A	2018/06/20	BBY7SOP-00002	EPA 6020b R2 m



Your Project #: Gold Corp Coffee Creek-SW

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 555908-01-01, 555908-02-01, 555908-03-01, 555908-04-01, 555908-05-01

Report Date: 2018/07/03 Report #: R2582461

Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B848821 Received: 2018/06/18, 10:40

Sample Matrix: Water # Samples Received: 34

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Ammonia-N Low Level (Preserved)	34	N/A	2018/06/20	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	34	N/A	2018/06/20	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	34	N/A	2018/06/20	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	34	N/A	2018/06/21	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	34	N/A	2018/06/21	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	33	N/A	2018/06/20	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	32	N/A	2018/06/21	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	2	N/A	2018/06/24	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	33	N/A	2018/06/27	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate - Low Level	1	N/A	2018/06/29	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	12	2018/06/21	2018/06/23	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	22	2018/06/22	2018/06/23	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	34	N/A	2018/06/22	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	1	2018/06/20	2018/06/21	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	33	2018/06/21	2018/06/22	BBY6SOP-00034	SM 22 2540 D
Free (WAD) Cyanide (1)	34	N/A	2018/06/25	CAM SOP-00457	OMOE E3015 5 m

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise



Your Project #: Gold Corp Coffee Creek-SW

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 555908-01-01, 555908-02-01, 555908-03-01, 555908-04-01, 555908-05-01

Report Date: 2018/07/03 Report #: R2582461

Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B848821 Received: 2018/06/18, 10:40

agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

#### **Encryption Key**



Maxxa

03 Jul 2018 19:51:14

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Diana Cruz, Junior Project Manager Email: DCruz@maxxam.ca

Phone# (604) 734 7276

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Calculated Parameters  Filter and HNO3 Preservation N Nitrate (N) m  Misc. Inorganics  Fluoride (F) m Free Cyanide m Dissolved Organic Carbon (C) m Alkalinity (Total as CaCO3) m Total Organic Carbon (C) m	MITC	2018/06/16 12:31 555908-01-01			2018/06/16 12:31		2018/06/16		
Parameter  ORP n  Calculated Parameters  Filter and HNO3 Preservation N  Nitrate (N) m  Misc. Inorganics  Fluoride (F) m  Free Cyanide m  Dissolved Organic Carbon (C) m  Alkalinity (Total as CaCO3) m  Total Organic Carbon (C) m	MITC	555908-01-01				1	14:55		I
Parameter  ORP n  Calculated Parameters  Filter and HNO3 Preservation N  Nitrate (N) m  Misc. Inorganics  Fluoride (F) m  Free Cyanide m  Dissolved Organic Carbon (C) m  Alkalinity (Total as CaCO3) m  Total Organic Carbon (C) m	ште				555908-01-01		555908-01-01		
ORP n  Calculated Parameters  Filter and HNO3 Preservation N  Nitrate (N) m  Misc. Inorganics  Fluoride (F) m  Free Cyanide m  Dissolved Organic Carbon (C) m  Alkalinity (Total as CaCO3) m  Total Organic Carbon (C) m	VIII	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	QC Batch	CC-1.0	RDL	QC Batch
Calculated Parameters  Filter and HNO3 Preservation N Nitrate (N) m  Misc. Inorganics  Fluoride (F) m  Free Cyanide m  Dissolved Organic Carbon (C) m  Alkalinity (Total as CaCO3) m  Total Organic Carbon (C) m									
Filter and HNO3 Preservation Nitrate (N) m  Misc. Inorganics  Fluoride (F) m  Free Cyanide m  Dissolved Organic Carbon (C) m  Alkalinity (Total as CaCO3) m  Total Organic Carbon (C) m	nV	297		9033860	299	9033860	289		9033860
Nitrate (N) m  Misc. Inorganics  Fluoride (F) m  Free Cyanide m  Dissolved Organic Carbon (C) m  Alkalinity (Total as CaCO3) m  Total Organic Carbon (C) m	•								
Misc. Inorganics  Fluoride (F) m  Free Cyanide m  Dissolved Organic Carbon (C) m  Alkalinity (Total as CaCO3) m  Total Organic Carbon (C) m	I/A	LAB		9031787			LAB		9031787
Fluoride (F) m Free Cyanide m Dissolved Organic Carbon (C) m Alkalinity (Total as CaCO3) m Total Organic Carbon (C) m	ng/L	0.105	0.0020	9030795			0.547	0.0020	9030795
Free Cyanide m Dissolved Organic Carbon (C) m Alkalinity (Total as CaCO3) m Total Organic Carbon (C) m									
Dissolved Organic Carbon (C) m Alkalinity (Total as CaCO3) m Total Organic Carbon (C) m	ng/L	0.056	0.010	9033986			0.080	0.010	9033986
Alkalinity (Total as CaCO3) m  Total Organic Carbon (C) m	ng/L	<0.0010	0.0010	9041541			<0.0010	0.0010	9041541
Total Organic Carbon (C) m	ng/L	19.4	0.50	9036009			7.94	0.50	9036008
	ng/L	30.0	0.50	9034704			198	0.50	9034704
/22 2 222	ng/L	20.1	0.50	9036013			8.02	0.50	9036013
Alkalinity (PP as CaCO3) m	ng/L	<0.50	0.50	9034704			<0.50	0.50	9034704
Bicarbonate (HCO3) m	ng/L	36.6	0.50	9034704			241	0.50	9034704
Carbonate (CO3) m	ng/L	<0.50	0.50	9034704			<0.50	0.50	9034704
Hydroxide (OH) m	ng/L	<0.50	0.50	9034704			<0.50	0.50	9034704
Anions		-							
Dissolved Sulphate (SO4) m	ng/L	22.8	0.50	9043098			142	0.50	9043093
Dissolved Chloride (CI) m	ng/L	1.1	0.50	9035705			0.60	0.50	9035705
Nutrients									
Total Ammonia (N) m	ng/L	0.045	0.0050	9032514			<0.0050	0.0050	9032514
Nitrate plus Nitrite (N) m	ng/L	0.107	0.0020	9032986			0.547	0.0020	9032986
Nitrite (N) m	ng/L	0.0020	0.0020	9032988			<0.0020	0.0020	9032988
Physical Properties									
Conductivity uS,	/cm	109	1.0	9034694			612	1.0	9034694
рН	рН	7.38		9034692			8.30		9034692
Physical Properties									
Total Suspended Solids m	ng/L	2.1	1.0	9034141			1.3	1.0	9034141
Total Dissolved Solids m	ng/L	94	10	9034470			398	10	9034470
RDL = Reportable Detection Limit Lab-Dup = Laboratory Initiated Du			۱ ــــــا		·				



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3183			TR3184		TR3185		
Sampling Date		2018/06/16 14:55			2018/06/16 15:13		2018/06/16 12:57		
COC Number		555908-01-01			555908-01-01		555908-01-01		
		CC-1.0							
	UNITS	Lab-Dup	RDL	QC Batch	CC-1.5	QC Batch	CC-3.5	RDL	QC Batch
Parameter									
ORP	mV				295	9033860	292		9033860
Calculated Parameters	•							•	
Filter and HNO3 Preservation	N/A				LAB	9031787	LAB		9031787
Nitrate (N)	mg/L				0.151	9030795	0.148	0.0020	9030795
Misc. Inorganics	•							•	
Fluoride (F)	mg/L				0.045	9033986	0.048	0.010	9033986
Free Cyanide	mg/L				<0.0010	9041541	<0.0010	0.0010	9041541
Dissolved Organic Carbon (C)	mg/L				15.3	9036008	15.2	0.50	9036009
Alkalinity (Total as CaCO3)	mg/L				52.4	9032633	56.0	0.50	9032633
Total Organic Carbon (C)	mg/L				16.0	9036013	17.8	0.50	9036012
Alkalinity (PP as CaCO3)	mg/L				<0.50	9032633	<0.50	0.50	9032633
Bicarbonate (HCO3)	mg/L				63.9	9032633	68.3	0.50	9032633
Carbonate (CO3)	mg/L				<0.50	9032633	<0.50	0.50	9032633
Hydroxide (OH)	mg/L				<0.50	9032633	<0.50	0.50	9032633
Anions									
Dissolved Sulphate (SO4)	mg/L	142	0.50	9043093	42.6	9043093	48.8	0.50	9043093
Dissolved Chloride (CI)	mg/L				0.71	9035702	0.83	0.50	9035702
Nutrients	•							•	
Total Ammonia (N)	mg/L				0.0070	9032514	0.088	0.0050	9032514
Nitrate plus Nitrite (N)	mg/L				0.154	9032979	0.150	0.0020	9032979
Nitrite (N)	mg/L				0.0021	9032982	0.0021	0.0020	9032982
Physical Properties									
Conductivity	uS/cm				192	9032635	214	1.0	9032635
рН	рН				7.67	9032627	7.73		9032627
Physical Properties									
Total Suspended Solids	mg/L				1.7	9034141	3.7	1.0	9034141
Total Dissolved Solids	mg/L				146	9034470	142	10	9034470
RDL = Reportable Detection Lir	nit								
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3186			TR3186			TR3187		
Sampling Date		2018/06/16 10:35			2018/06/16 10:35			2018/06/16 16:19		
COC Number		555908-01-01			555908-01-01			555908-01-01		
	UNITS	CC-4.5	RDL	QC Batch	CC-4.5 Lab-Dup	RDL	QC Batch	CC-6.0	RDL	QC Batch
Parameter										
ORP	mV	302		9033860				302		9033860
Calculated Parameters				Į.						
Filter and HNO3 Preservation	N/A	LAB		9031787				LAB		9031787
Nitrate (N)	mg/L	0.119	0.0020	9030795				0.0270	0.0020	9030795
Misc. Inorganics				Į.						
Fluoride (F)	mg/L	0.055	0.010	9033986				0.026	0.010	9033986
Free Cyanide	mg/L	<0.0010	0.0010	9041541				0.0012	0.0010	9041489
Dissolved Organic Carbon (C)	mg/L	17.6	0.50	9036008				16.2	0.50	9036009
Alkalinity (Total as CaCO3)	mg/L	35.2	0.50	9037500				4.96	0.50	9032633
Total Organic Carbon (C)	mg/L	20.0	0.50	9036013				17.8	0.50	9036012
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9037500				<0.50	0.50	9032633
Bicarbonate (HCO3)	mg/L	42.9	0.50	9037500				6.05	0.50	9032633
Carbonate (CO3)	mg/L	<0.50	0.50	9037500				<0.50	0.50	9032633
Hydroxide (OH)	mg/L	<0.50	0.50	9037500				<0.50	0.50	9032633
Anions	•		•	•		•	•			
Dissolved Sulphate (SO4)	mg/L	27.4	0.50	9043089	30.0	0.50	9043089	<0.50	0.50	9043089
Dissolved Chloride (Cl)	mg/L	0.84	0.50	9035705				0.72	0.50	9035702
Nutrients			•	•		•				
Total Ammonia (N)	mg/L	0.013	0.0050	9032514				<0.0050	0.0050	9032514
Nitrate plus Nitrite (N)	mg/L	0.119	0.0020	9032983				0.0314	0.0020	9032979
Nitrite (N)	mg/L	<0.0020	0.0020	9032985				0.0044	0.0020	9032982
Physical Properties						•				
Conductivity	uS/cm	131	1.0	9037496				20.3	1.0	9032635
рН	рН	7.54		9037490				6.51		9032627
Physical Properties										
Total Suspended Solids	mg/L	2.8	1.0	9034141				1.4	1.0	9034141
Total Dissolved Solids	mg/L	102	10	9034470				20	10	9034470
RDL = Reportable Detection Li	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3187			TR3188	TR3189		
Sampling Date		2018/06/16 16:19			2018/06/16 15:52	2018/06/16 14:30		
COC Number		555908-01-01			555908-01-01	555908-01-01		
	UNITS	CC-6.0 Lab-Dup	RDL	QC Batch	CC-A	СС-В	RDL	QC Batch
Parameter								
ORP	mV				306	309		9033860
Calculated Parameters								
Filter and HNO3 Preservation	N/A				LAB	LAB		9031787
Nitrate (N)	mg/L				0.0702	0.164	0.0020	9030795
Misc. Inorganics				Į.	1	1		
Fluoride (F)	mg/L				0.032	0.048	0.010	9033986
Free Cyanide	mg/L	<0.0010	0.0010	9041489	<0.0010	<0.0010	0.0010	9041489
Dissolved Organic Carbon (C)	mg/L				16.8	13.1	0.50	9036008
Alkalinity (Total as CaCO3)	mg/L				15.3	57.2	0.50	9032633
Total Organic Carbon (C)	mg/L				18.5	15.1	0.50	9036013
Alkalinity (PP as CaCO3)	mg/L				<0.50	<0.50	0.50	9032633
Bicarbonate (HCO3)	mg/L				18.6	69.7	0.50	9032633
Carbonate (CO3)	mg/L				<0.50	<0.50	0.50	9032633
Hydroxide (OH)	mg/L				<0.50	<0.50	0.50	9032633
Anions	!		•				•	
Dissolved Sulphate (SO4)	mg/L				14.0	49.1	0.50	9043089
Dissolved Chloride (CI)	mg/L				0.73	0.89	0.50	9035702
Nutrients								
Total Ammonia (N)	mg/L				<0.0050	<0.0050	0.0050	9032514
Nitrate plus Nitrite (N)	mg/L				0.0728	0.171	0.0020	9032979
Nitrite (N)	mg/L				0.0026	0.0077	0.0020	9032982
Physical Properties	•			•				
Conductivity	uS/cm				70.3	209	1.0	9032635
рН	рН				7.10	7.77		9032627
Physical Properties					ı	1		
Total Suspended Solids	mg/L				2.9	43.8	1.0	9034141
Total Dissolved Solids	mg/L				60	144	10	9034470
RDL = Reportable Detection Lir	nit			•	•	•		
Lab-Dup = Laboratory Initiated	Duplica	te						



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TR3189			TR3192			TR3193		
Sampling Date		2018/06/16 14:30			2018/06/16 11:26			2018/06/16 11:50		
COC Number		555908-01-01			555908-02-01			555908-02-01		
	UNITS	CC-B Lab-Dup	RDL	QC Batch	сс-х	RDL	QC Batch	LATTE MIX	RDL	QC Batch
Parameter										
ORP	mV				310		9033860	300		9033860
Calculated Parameters										
Filter and HNO3 Preservation	N/A				LAB		9031787	LAB		9031787
Nitrate (N)	mg/L				0.119	0.0020	9030795	0.100	0.0020	9030795
Misc. Inorganics			•			•				
Fluoride (F)	mg/L				0.058	0.010	9033989	0.056	0.010	9033989
Free Cyanide	mg/L				<0.0010	0.0010	9041489	<0.0010	0.0010	9041541
Dissolved Organic Carbon (C)	mg/L				17.3	0.50	9036008	19.7	0.50	9036009
Alkalinity (Total as CaCO3)	mg/L				34.8	0.50	9032633	32.6	0.50	9034704
Total Organic Carbon (C)	mg/L	15.6	0.50	9036013	20.2	0.50	9036012	22.9	0.50	9036012
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9032633	<0.50	0.50	9034704
Bicarbonate (HCO3)	mg/L				42.4	0.50	9032633	39.8	0.50	9034704
Carbonate (CO3)	mg/L				<0.50	0.50	9032633	<0.50	0.50	9034704
Hydroxide (OH)	mg/L				<0.50	0.50	9032633	<0.50	0.50	9034704
Anions				•						
Dissolved Sulphate (SO4)	mg/L				28.4	0.50	9043093	26.0	0.50	9043093
Dissolved Chloride (CI)	mg/L				0.89	0.50	9035702	1.3	0.50	9035705
Nutrients				•						
Total Ammonia (N)	mg/L				0.014	0.0050	9032514	0.071	0.0050	9032514
Nitrate plus Nitrite (N)	mg/L				0.123	0.0020	9032979	0.100	0.0020	9032986
Nitrite (N)	mg/L				0.0040	0.0020	9032982	<0.0020	0.0020	9032988
Physical Properties			•			•				
Conductivity	uS/cm				132	1.0	9032635	124	1.0	9034694
рН	рН				7.48		9032627	7.49		9034692
Physical Properties	•		•	•		•		•		
Total Suspended Solids	mg/L				2.8	1.0	9034141	2.5 (1)	1.1	9034141
Total Dissolved Solids	mg/L				104	10	9034470	98	10	9034470
RDL = Reportable Detection Lir						_				
Lab-Dup = Laboratory Initiated	Duplica	te								

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3193			TR3194			TR3194		
Sampling Date		2018/06/16 11:50			2018/06/17 09:45			2018/06/17 09:45		
COC Number		555908-02-01			555908-02-01			555908-02-01		
	UNITS	LATTE MIX Lab-Dup	RDL	QC Batch	HC-2.5	RDL	QC Batch	HC-2.5 Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV	305		9033860	304		9033860			
Calculated Parameters										
Filter and HNO3 Preservation	N/A				LAB		9031787			
Nitrate (N)	mg/L				0.244	0.0020	9030795			
Misc. Inorganics									l.	
Fluoride (F)	mg/L	0.054	0.010	9033989	0.048	0.010	9033989			
Free Cyanide	mg/L				<0.0010	0.0010	9041541			
Dissolved Organic Carbon (C)	mg/L				15.9	0.50	9036009			
Alkalinity (Total as CaCO3)	mg/L				47.0	0.50	9034704			
Total Organic Carbon (C)	mg/L				17.6	0.50	9036012			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9034704			
Bicarbonate (HCO3)	mg/L				57.3	0.50	9034704			
Carbonate (CO3)	mg/L				<0.50	0.50	9034704			
Hydroxide (OH)	mg/L				<0.50	0.50	9034704			
Anions	•		•						•	
Dissolved Sulphate (SO4)	mg/L				22.0	0.50	9043093			
Dissolved Chloride (CI)	mg/L				0.80	0.50	9035705			
Nutrients	•								•	
Total Ammonia (N)	mg/L				<0.0050	0.0050	9032514	<0.0050	0.0050	9032514
Nitrate plus Nitrite (N)	mg/L				0.244	0.0020	9032986			
Nitrite (N)	mg/L				<0.0020	0.0020	9032988			
Physical Properties						•				
Conductivity	uS/cm				137	1.0	9034694			
рН	рН				7.66		9034692			
Physical Properties										
Total Suspended Solids	mg/L				<1.0	1.0	9034141			
Total Dissolved Solids	mg/L				106	10	9034470			
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3195		TR3196	TR3197	TR3198		
Sampling Date		2018/06/17 07:45		2018/06/17 08:35	2018/06/17 08:55	2018/06/17 09:20		
COC Number		555908-02-01		555908-02-01	555908-02-01	555908-02-01		
	UNITS	HC-5.0	QC Batch	HC-A	НС-В	HC-C	RDL	QC Batch
Parameter								
ORP	mV	308	9033860	305	309	309		9033860
Calculated Parameters	•		•					
Filter and HNO3 Preservation	N/A	LAB	9031787	LAB	LAB	LAB		9031787
Nitrate (N)	mg/L	0.167	9030795	0.169	0.205	0.218	0.0020	9030795
Misc. Inorganics			Į.	•	•			
Fluoride (F)	mg/L	0.061	9033989	0.051	0.050	0.053	0.010	9033989
Free Cyanide	mg/L	<0.0010	9041541	<0.0010	<0.0010	<0.0010	0.0010	9041541
Dissolved Organic Carbon (C)	mg/L	14.8	9036008	13.0	13.4	13.2	0.50	9036009
Alkalinity (Total as CaCO3)	mg/L	54.3	9034704	54.4	50.9	51.7	0.50	9034704
Total Organic Carbon (C)	mg/L	16.4	9036012	14.1	15.3	16.2	0.50	9036012
Alkalinity (PP as CaCO3)	mg/L	<0.50	9034704	<0.50	<0.50	<0.50	0.50	9034704
Bicarbonate (HCO3)	mg/L	66.2	9034704	66.3	62.1	63.1	0.50	9034704
Carbonate (CO3)	mg/L	<0.50	9034704	<0.50	<0.50	<0.50	0.50	9034704
Hydroxide (OH)	mg/L	<0.50	9034704	<0.50	<0.50	<0.50	0.50	9034704
Anions			Į.					
Dissolved Sulphate (SO4)	mg/L	30.2	9043093	31.2	27.8	28.3	0.50	9043098
Dissolved Chloride (CI)	mg/L	0.62	9035705	0.66	0.65	0.96	0.50	9035705
Nutrients			Į.	•	•			
Total Ammonia (N)	mg/L	<0.0050	9032514	<0.0050	0.030	0.12	0.0050	9032514
Nitrate plus Nitrite (N)	mg/L	0.167	9032986	0.169	0.205	0.218	0.0020	9032986
Nitrite (N)	mg/L	<0.0020	9032988	<0.0020	<0.0020	<0.0020	0.0020	9032988
Physical Properties	!						•	
Conductivity	uS/cm	173	9034694	176	160	158	1.0	9034694
рН	рН	7.76	9034692	7.75	7.72	7.69		9034692
Physical Properties								
Total Suspended Solids	mg/L	1.3	9034141	1.3	<1.0	1.0	1.0	9034141
Total Dissolved Solids	mg/L	132	9034470	118	102	106	10	9034470
RDL = Reportable Detection Lir			1					



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3198			TR3199		TR3200		
Sampling Date		2018/06/17 09:20			2018/06/17 09:23		2018/06/17 13:23		
COC Number		555908-02-01			555908-02-01		555908-03-01		
	UNITS	HC-C Lab-Dup	RDL	QC Batch	HALFWAY MIX	QC Batch	IC-0.5	RDL	QC Batch
Parameter									
ORP	mV				306	9033860	309		9033860
Calculated Parameters	•		•	•		•			
Filter and HNO3 Preservation	N/A				LAB	9031787	LAB		9031787
Nitrate (N)	mg/L				0.0184	9030795	0.0868	0.0020	9030795
Misc. Inorganics							•		
Fluoride (F)	mg/L				0.100	9033989	0.069	0.010	9033989
Free Cyanide	mg/L				<0.0010	9041489	<0.0010	0.0010	9041541
Dissolved Organic Carbon (C)	mg/L				3.42	9036008	19.2	0.50	9036008
Alkalinity (Total as CaCO3)	mg/L				70.7	9032654	26.7	0.50	9032654
Total Organic Carbon (C)	mg/L				4.68	9036012	20.8	0.50	9036013
Alkalinity (PP as CaCO3)	mg/L				<0.50	9032654	<0.50	0.50	9032654
Bicarbonate (HCO3)	mg/L				86.3	9032654	32.5	0.50	9032654
Carbonate (CO3)	mg/L				<0.50	9032654	<0.50	0.50	9032654
Hydroxide (OH)	mg/L				<0.50	9032654	<0.50	0.50	9032654
Anions	!						•	ļ.	
Dissolved Sulphate (SO4)	mg/L				23.8	9043093	29.6	0.50	9043098
Dissolved Chloride (CI)	mg/L				<0.50	9035702	0.90	0.50	9035702
Nutrients							•		
Total Ammonia (N)	mg/L				0.0050	9032514	0.0060	0.0050	9032517
Nitrate plus Nitrite (N)	mg/L				0.0206	9032983	0.0906	0.0020	9032979
Nitrite (N)	mg/L				0.0022	9032985	0.0038	0.0020	9032982
Physical Properties	•		•	•		•	•	•	
Conductivity	uS/cm				183	9032655	118	1.0	9032655
рН	рН				7.95	9032641	7.41		9032641
Physical Properties		•	•	•	-		•	•	
Total Suspended Solids	mg/L				18.6	9034141	1.9	1.0	9034141
Total Dissolved Solids	mg/L	114	10	9034470	100	9034470	104	10	9034470
RDL = Reportable Detection Lir	nit		•		•	ı			
Lab-Dup = Laboratory Initiated	Duplica	te							



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TR3201		TR3202		TR3203			TR3203	
THURACH ID		2018/06/17		2018/06/17		2018/06/17			2018/06/17	
Sampling Date		13:10		13:50		14:20			14:20	
COC Number		555908-03-01		555908-03-01		555908-03-01			555908-03-01	
	UNITS	IC-1.5	QC Batch	IC-2.5	QC Batch	IC-3.0	RDL	QC Batch	IC-3.0 Lab-Dup	QC Batch
Parameter										
ORP	mV	310	9033860	309	9033860	303		9033860	310	9033860
Calculated Parameters		•				•				
Filter and HNO3 Preservation	N/A	LAB	9031787	LAB	9031787	LAB		9031787		
Nitrate (N)	mg/L	0.0640	9030795	0.0449	9030795	0.343	0.0020	9030795		
Misc. Inorganics		•				•				
Fluoride (F)	mg/L	0.041	9033989	0.035	9033989	0.059	0.010	9033989		
Free Cyanide	mg/L	<0.0010	9041489	<0.0010	9041541	<0.0010	0.0010	9041541		
Dissolved Organic Carbon (C)	mg/L	16.2	9036008	19.3	9036008	15.4	0.50	9036008		
Alkalinity (Total as CaCO3)	mg/L	27.7	9032633	8.94	9032633	53.5	0.50	9032654		
Total Organic Carbon (C)	mg/L	18.1	9036012	20.3	9036013	17.0	0.50	9036013		
Alkalinity (PP as CaCO3)	mg/L	<0.50	9032633	<0.50	9032633	<0.50	0.50	9032654		
Bicarbonate (HCO3)	mg/L	33.8	9032633	10.9	9032633	65.3	0.50	9032654		
Carbonate (CO3)	mg/L	<0.50	9032633	<0.50	9032633	<0.50	0.50	9032654		
Hydroxide (OH)	mg/L	<0.50	9032633	<0.50	9032633	<0.50	0.50	9032654		
Anions	•	•	•		-	•				
Dissolved Sulphate (SO4)	mg/L	2.32	9043093	<0.50	9043093	48.8	0.50	9043093		
Dissolved Chloride (Cl)	mg/L	2.3	9035702	0.85	9035702	0.68	0.50	9035702		
Nutrients			•							
Total Ammonia (N)	mg/L	0.015	9032517	<0.0050	9032517	0.023	0.0050	9032517		
Nitrate plus Nitrite (N)	mg/L	0.0661	9032979	0.0483	9032979	0.346	0.0020	9032979		
Nitrite (N)	mg/L	0.0021	9032982	0.0034	9032982	0.0024	0.0020	9032982		
Physical Properties	•	•	•		-	•				
Conductivity	uS/cm	78.0	9032635	30.9	9032635	210	1.0	9032655		
рН	рН	7.48	9032627	6.87	9032627	7.89		9032641		
Physical Properties										
Total Suspended Solids	mg/L	1.9	9034141	1.4	9034304	7.9	1.0	9034304		
Total Dissolved Solids	mg/L	66	9034470	40	9034470	160	10	9034737		
RDL = Reportable Detection Lir Lab-Dup = Laboratory Initiated		te								

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3204		TR3205		TR3206		
Sampling Date		2018/06/17 14:45		2018/06/17 11:45		2018/06/17 12:10		
COC Number		555908-03-01		555908-03-01		555908-03-01		
	UNITS	IC-4.5	QC Batch	ML-A	QC Batch	ML-B	RDL	QC Batch
Parameter				•		•		
ORP	mV	302	9033860	309	9033860	304		9033860
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	9031787	LAB	9031787	LAB		9031787
Nitrate (N)	mg/L	0.141	9030795	0.451	9030795	0.572	0.0020	9030795
Misc. Inorganics			•		•		•	
Fluoride (F)	mg/L	0.057	9033989	0.049	9033989	0.039	0.010	9033989
Free Cyanide	mg/L	<0.0010	9041489	<0.0010	9041489	0.0010	0.0010	9041489
Dissolved Organic Carbon (C)	mg/L	16.5	9036009	16.8	9036009	18.5	0.50	9036008
Alkalinity (Total as CaCO3)	mg/L	33.6	9032633	49.1	9032654	24.3	0.50	9032633
Total Organic Carbon (C)	mg/L	18.4	9036013	21.2	9036013	22.6	0.50	9036013
Alkalinity (PP as CaCO3)	mg/L	<0.50	9032633	<0.50	9032654	<0.50	0.50	9032633
Bicarbonate (HCO3)	mg/L	40.9	9032633	59.9	9032654	29.6	0.50	9032633
Carbonate (CO3)	mg/L	<0.50	9032633	<0.50	9032654	<0.50	0.50	9032633
Hydroxide (OH)	mg/L	<0.50	9032633	<0.50	9032654	<0.50	0.50	9032633
Anions	•							
Dissolved Sulphate (SO4)	mg/L	19.8	9043093	67.3	9043093	24.4	0.50	9043089
Dissolved Chloride (CI)	mg/L	1.1	9035676	0.87	9035702	0.95	0.50	9035702
Nutrients			•		•		•	
Total Ammonia (N)	mg/L	0.023	9032517	0.0060	9032517	0.024	0.0050	9032517
Nitrate plus Nitrite (N)	mg/L	0.151	9032979	0.453	9032979	0.578	0.0020	9032979
Nitrite (N)	mg/L	0.0103	9032982	0.0020	9032982	0.0069	0.0020	9032982
Physical Properties	-							
Conductivity	uS/cm	109	9032635	235	9032655	111	1.0	9032635
рН	рН	7.45	9032627	7.72	9032641	7.31		9032627
Physical Properties								
Total Suspended Solids	mg/L	1.4	9034304	131	9034304	75.6	1.0	9034304
Total Dissolved Solids	mg/L	98	9034737	170	9034737	108	10	9034737
RDL = Reportable Detection Lir	nit							



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3207		TR3208		TR3209		
Sampling Date		2018/06/17 11:15		2018/06/17 12:30		2018/06/16 11:05		
COC Number		555908-03-01		555908-03-01		555908-03-01		
	UNITS	YT-24-1 (OR ML-1.0)	QC Batch	YT-24-2 (OLD ML-C)	QC Batch	YUK-2.0	RDL	QC Batch
Parameter								
ORP	mV	302	9033860	302	9033860	311		9033860
Calculated Parameters	•					•	•	
Filter and HNO3 Preservation	N/A	LAB	9031787	LAB	9031787	LAB		9031787
Nitrate (N)	mg/L	0.486	9030795	0.689	9030795	0.0170	0.0020	9030795
Misc. Inorganics						•	l.	
Fluoride (F)	mg/L	0.060	9033989	0.035	9033989	0.110	0.010	9033989
Free Cyanide	mg/L	<0.0010	9041541	0.0010	9041541	<0.0010	0.0010	9041541
Dissolved Organic Carbon (C)	mg/L	14.8	9036008	17.6	9036008	3.32	0.50	9036009
Alkalinity (Total as CaCO3)	mg/L	49.8	9032654	10.6	9032633	70.8	0.50	9034704
Total Organic Carbon (C)	mg/L	17.2	9036013	21.7	9036012	4.14	0.50	9036012
Alkalinity (PP as CaCO3)	mg/L	<0.50	9032654	<0.50	9032633	<0.50	0.50	9034704
Bicarbonate (HCO3)	mg/L	60.8	9032654	13.0	9032633	86.3	0.50	9034704
Carbonate (CO3)	mg/L	<0.50	9032654	<0.50	9032633	<0.50	0.50	9034704
Hydroxide (OH)	mg/L	<0.50	9032654	<0.50	9032633	<0.50	0.50	9034704
Anions					<u> </u>	•		L.
Dissolved Sulphate (SO4)	mg/L	61.9	9043093	<0.50	9043093	28.4	0.50	9043093
Dissolved Chloride (CI)	mg/L	0.83	9035702	0.87	9035702	0.54	0.50	9035705
Nutrients			•		•	•	•	
Total Ammonia (N)	mg/L	0.0060	9032517	0.015	9032517	<0.0050	0.0050	9032517
Nitrate plus Nitrite (N)	mg/L	0.486	9032983	0.692	9032979	0.0192	0.0020	9032986
Nitrite (N)	mg/L	<0.0020	9032985	0.0026	9032982	0.0022	0.0020	9032988
Physical Properties			'		•	•		
Conductivity	uS/cm	230	9032655	39.2	9032635	196	1.0	9034694
рН	рН	7.76	9032641	6.99	9032627	7.89		9034692
Physical Properties			<u> </u>		•	•	•	
Total Suspended Solids	mg/L	2.3	9034304	2.1	9034304	20.7	1.0	9034304
Total Dissolved Solids	mg/L	164	9034737	48	9034737	130	10	9034737
RDL = Reportable Detection Lir	nit				•	•	•	



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3209			TR3214		TR3215		
Sampling Date		2018/06/16 11:05			2018/06/17 15:05		2018/06/17		
COC Number		555908-03-01			555908-04-01		555908-04-01		
	UNITS	YUK-2.0 Lab-Dup	RDL	QC Batch	YUK-5.0	QC Batch	SAMPLE A	RDL	QC Batch
Parameter									
ORP	mV				313	9033860	298		9033860
Calculated Parameters	•		•	•				•	
Filter and HNO3 Preservation	N/A				LAB	9031787	LAB		9031787
Nitrate (N)	mg/L				0.0381	9030795	0.162	0.0020	9030795
Misc. Inorganics	•			•					
Fluoride (F)	mg/L				0.110	9033989	0.059	0.010	9033989
Free Cyanide	mg/L				<0.0010	9041489	<0.0010	0.0010	9041541
Dissolved Organic Carbon (C)	mg/L				3.27	9036009	13.9	0.50	9036008
Alkalinity (Total as CaCO3)	mg/L				70.3	9034704	55.3	0.50	9032654
Total Organic Carbon (C)	mg/L	3.70	0.50	9036012	4.85	9036012	15.2	0.50	9036012
Alkalinity (PP as CaCO3)	mg/L				<0.50	9034704	<0.50	0.50	9032654
Bicarbonate (HCO3)	mg/L				85.8	9034704	67.4	0.50	9032654
Carbonate (CO3)	mg/L				<0.50	9034704	<0.50	0.50	9032654
Hydroxide (OH)	mg/L				<0.50	9034704	<0.50	0.50	9032654
Anions	•		•	•				•	
Dissolved Sulphate (SO4)	mg/L				24.4	9043093	30.1	0.50	9043093
Dissolved Chloride (CI)	mg/L				<0.50	9035705	0.82	0.50	9035702
Nutrients		•	•	•				•	
Total Ammonia (N)	mg/L				<0.0050	9032517	0.036	0.0050	9032517
Nitrate plus Nitrite (N)	mg/L				0.0409	9032986	0.162	0.0020	9032979
Nitrite (N)	mg/L				0.0028	9032988	<0.0020	0.0020	9032982
Physical Properties	•		•	•	•		•	•	-
Conductivity	uS/cm				180	9034694	178	1.0	9032655
рН	рН				7.90	9034692	7.79		9032641
Physical Properties		•	•	•				•	
Total Suspended Solids	mg/L				16.3	9034304	<1.0	1.0	9034304
Total Dissolved Solids	mg/L				102	9034737	140	10	9034737
RDL = Reportable Detection Lir	nit		•						
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TR3216			TR3216			TR3217		
Sampling Date		2018/06/17			2018/06/17			2018/06/16 17:00		
COC Number		555908-04-01			555908-04-01			555908-04-01		
	UNITS	SAMPLE B	RDL	QC Batch	SAMPLE B Lab-Dup	RDL	QC Batch	FIELD BLANK	RDL	QC Batch
Parameter										
ORP	mV	291		9033860	296		9033860	305		9033860
Calculated Parameters					1				l.	
Filter and HNO3 Preservation	N/A	LAB		9031787				LAB		9031787
Nitrate (N)	mg/L	0.555	0.0020	9030795				0.0043	0.0020	9030795
Misc. Inorganics					·				l.	
Fluoride (F)	mg/L	0.045	0.010	9033991				<0.010	0.010	9033991
Free Cyanide	mg/L	0.0011	0.0010	9041541	0.0011	0.0010	9041541	<0.0010	0.0010	9041489
Dissolved Organic Carbon (C)	mg/L	19.7	0.50	9036008	19.3	0.50	9036008	0.62	0.50	9036008
Alkalinity (Total as CaCO3)	mg/L	23.0	0.50	9032633				0.60	0.50	9032654
Total Organic Carbon (C)	mg/L	22.6	0.50	9036012				<0.50	0.50	9036013
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9032633				<0.50	0.50	9032654
Bicarbonate (HCO3)	mg/L	28.0	0.50	9032633				0.73	0.50	9032654
Carbonate (CO3)	mg/L	<0.50	0.50	9032633				<0.50	0.50	9032654
Hydroxide (OH)	mg/L	<0.50	0.50	9032633				<0.50	0.50	9032654
Anions									•	
Dissolved Sulphate (SO4)	mg/L	24.9	0.50	9043098				<0.50	0.50	9043098
Dissolved Chloride (CI)	mg/L	1.0	0.50	9035702				<0.50	0.50	9035705
Nutrients									•	
Total Ammonia (N)	mg/L	0.029	0.0050	9032517				<0.0050	0.0050	9032517
Nitrate plus Nitrite (N)	mg/L	0.558	0.0020	9032979				0.0064	0.0020	9032986
Nitrite (N)	mg/L	0.0037	0.0020	9032982				0.0021	0.0020	9032988
Physical Properties										
Conductivity	uS/cm	111	1.0	9032635				1.1	1.0	9032655
рН	рН	7.29		9032627				5.54		9032641
Physical Properties										
Total Suspended Solids	mg/L	88.5	1.0	9034304				<1.3 (1)	1.3	9034304
Total Dissolved Solids	mg/L	92	10	9034737				<10	10	9034737
RDL = Reportable Detection Lir	nit									

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TR3217			TR3218			TR3218		
Sampling Date		2018/06/16			2018/06/17			2018/06/17		
- Sampling Date		17:00			17:00			17:00		
COC Number		555908-04-01			555908-05-01			555908-05-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV				302		9033860			
Calculated Parameters			•							
Nitrate (N)	mg/L				0.0031	0.0020	9030795			
Misc. Inorganics										
Fluoride (F)	mg/L				<0.010	0.010	9033991	< 0.010	0.010	9033991
Free Cyanide	mg/L				<0.0010	0.0010	9041489			
Dissolved Organic Carbon (C)	mg/L				<0.50	0.50	9036008			
Alkalinity (Total as CaCO3)	mg/L				0.74	0.50	9032654	0.81	0.50	9032654
Total Organic Carbon (C)	mg/L				<0.50	0.50	9036013			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9032654	<0.50	0.50	9032654
Bicarbonate (HCO3)	mg/L				0.90	0.50	9032654	0.99	0.50	9032654
Carbonate (CO3)	mg/L				<0.50	0.50	9032654	<0.50	0.50	9032654
Hydroxide (OH)	mg/L				<0.50	0.50	9032654	<0.50	0.50	9032654
Anions			•							
Dissolved Sulphate (SO4)	mg/L				<0.50	0.50	9045883			
Dissolved Chloride (CI)	mg/L				<0.50	0.50	9035702	0.74	0.50	9035702
Nutrients	•		•	-		•			-	
Total Ammonia (N)	mg/L				<0.0050	0.0050	9032517			
Nitrate plus Nitrite (N)	mg/L	0.0047	0.0020	9032986	0.0031	0.0020	9032983	<0.0020	0.0020	9032983
Nitrite (N)	mg/L	<0.0020	0.0020	9032988	<0.0020	0.0020	9032985	<0.0020	0.0020	9032985
Physical Properties										
Conductivity	uS/cm				1.2	1.0	9032655	1.1	1.0	9032655
рН	рН				5.66		9032641	5.61		9032641
Physical Properties										
Total Suspended Solids	mg/L				1.1 (1)	1.1	9034304			
Total Dissolved Solids	mg/L				<10	10	9035544			
RDL = Reportable Detection Lir	nit			-						

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3219		TR3220		TR3242		
Sampling Date		2018/06/17 09:30		2018/06/17 10:00				
COC Number		555908-05-01		555908-05-01		555908-05-01		
	UNITS	COFFEE MIX	QC Batch	YT-24 MIX	QC Batch	SAMPLE C	RDL	QC Batch
Parameter								
ORP	mV	297	9033860	298	9033860	300		9033860
Calculated Parameters	•							
Filter and HNO3 Preservation	N/A	LAB	9031787	LAB	9031787	LAB		9031787
Nitrate (N)	mg/L	0.0227	9030795	0.0280	9030795	0.0882	0.0020	9030795
Misc. Inorganics							l.	
Fluoride (F)	mg/L	0.100	9033991	0.100	9033991	0.058	0.010	9033991
Free Cyanide	mg/L	<0.0010	9041489	<0.0010	9041489	<0.0010	0.0010	9041541
Dissolved Organic Carbon (C)	mg/L	3.13	9036009	3.26	9036009	18.1	0.50	9036008
Alkalinity (Total as CaCO3)	mg/L	72.5	9032633	69.5	9032633	32.7	0.50	9037500
Total Organic Carbon (C)	mg/L	4.37	9036013	4.15	9036012	20.5	0.50	9036012
Alkalinity (PP as CaCO3)	mg/L	<0.50	9032633	<0.50	9032633	<0.50	0.50	9037500
Bicarbonate (HCO3)	mg/L	88.5	9032633	84.8	9032633	39.9	0.50	9037500
Carbonate (CO3)	mg/L	<0.50	9032633	<0.50	9032633	<0.50	0.50	9037500
Hydroxide (OH)	mg/L	<0.50	9032633	<0.50	9032633	<0.50	0.50	9037500
Anions	•							
Dissolved Sulphate (SO4)	mg/L	23.0	9043098	23.7	9043093	19.7	0.50	9043093
Dissolved Chloride (Cl)	mg/L	0.73	9035702	<0.50	9035702	0.95	0.50	9035705
Nutrients							•	
Total Ammonia (N)	mg/L	0.015	9032517	0.0080	9032517	<0.0050	0.0050	9032517
Nitrate plus Nitrite (N)	mg/L	0.0264	9032979	0.0325	9032979	0.0882	0.0020	9032986
Nitrite (N)	mg/L	0.0037	9032982	0.0045	9032982	<0.0020	0.0020	9032988
Physical Properties	-							
Conductivity	uS/cm	185	9032635	184	9032635	110	1.0	9037496
рН	рН	7.96	9032627	7.92	9032627	7.47		9037490
Physical Properties								
Total Suspended Solids	mg/L	20.4	9034304	24.5	9034304	2.2	1.0	9031504
Total Dissolved Solids	mg/L	106	9034470	94	9034737	100	10	9035544
RDL = Reportable Detection Lir	nit							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TR3242		
Sampling Date				
COC Number		555908-05-01		
	UNITS	SAMPLE C Lab-Dup	RDL	QC Batch
Nutrients				
Total Ammonia (N)	mg/L	0.0050	0.0050	9032517

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TR3182	TR3183			TR3183		
Sampling Date		2018/06/16 12:31	2018/06/16 14:55			2018/06/16 14:55		
COC Number		555908-01-01	555908-01-01			555908-01-01		
	UNITS	CC-0.5	CC-1.0	RDL	QC Batch	CC-1.0 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Dissolved Hardness (CaCO3)	mg/L	53.2	328	0.50	9030106			
Elements				l.	Į.			
Dissolved Mercury (Hg)	ug/L	0.0030	<0.0020	0.0020	9032110	<0.0020	0.0020	9032110
Dissolved Metals by ICPMS					!		ł	
Dissolved Aluminum (AI)	ug/L	215	19.8	0.50	9032129			
Dissolved Antimony (Sb)	ug/L	0.095	0.204	0.020	9032129			
Dissolved Arsenic (As)	ug/L	0.438	1.12	0.020	9032129			
Dissolved Barium (Ba)	ug/L	35.4	78.0	0.020	9032129			
Dissolved Beryllium (Be)	ug/L	0.023	<0.010	0.010	9032129			
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0050	9032129			
Dissolved Boron (B)	ug/L	<10	<10	10	9032129			
Dissolved Cadmium (Cd)	ug/L	0.0094	<0.0050	0.0050	9032129			
Dissolved Chromium (Cr)	ug/L	0.49	0.14	0.10	9032129			
Dissolved Cobalt (Co)	ug/L	0.0778	0.0454	0.0050	9032129			
Dissolved Copper (Cu)	ug/L	3.19	1.06	0.050	9032129			
Dissolved Iron (Fe)	ug/L	164	18.9	1.0	9032129			
Dissolved Lead (Pb)	ug/L	0.0092	<0.0050	0.0050	9032129			
Dissolved Lithium (Li)	ug/L	0.78	3.89	0.50	9032129			
Dissolved Manganese (Mn)	ug/L	2.05	0.660	0.050	9032129			
Dissolved Molybdenum (Mo)	ug/L	0.619	0.304	0.050	9032129			
Dissolved Nickel (Ni)	ug/L	1.44	0.564	0.020	9032129			
Dissolved Phosphorus (P)	ug/L	8.4	4.0	2.0	9032129			
Dissolved Selenium (Se)	ug/L	0.069	0.224	0.040	9032129			
Dissolved Silicon (Si)	ug/L	4080	5140	50	9032129			
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	9032129			
Dissolved Strontium (Sr)	ug/L	70.8	865	0.050	9032129			
Dissolved Thallium (TI)	ug/L	0.0043	0.0020	0.0020	9032129			
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	0.20	9032129			
Dissolved Titanium (Ti)	ug/L	1.99	0.63	0.50	9032129			
Dissolved Uranium (U)	ug/L	3.14	22.8	0.0020	9032129			
Dissolved Vanadium (V)	ug/L	0.53	0.33	0.20	9032129			
RDL = Reportable Detection Li	mit							

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3182	TR3183			TR3183		
Sampling Date		2018/06/16 12:31	2018/06/16 14:55			2018/06/16 14:55		
COC Number		555908-01-01	555908-01-01			555908-01-01		
	UNITS	CC-0.5	CC-1.0	RDL	QC Batch	CC-1.0 Lab-Dup	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.62	0.15	0.10	9032129			
Dissolved Zirconium (Zr)	ug/L	0.64	0.17	0.10	9032129			
Dissolved Calcium (Ca)	mg/L	13.9	83.4	0.050	9030107			
Dissolved Magnesium (Mg)	mg/L	4.49	29.2	0.050	9030107			
Dissolved Potassium (K)	mg/L	0.981	4.64	0.050	9030107			
Dissolved Sodium (Na)	mg/L	2.32	4.19	0.050	9030107			
Dissolved Sulphur (S)	mg/L	7.7	44.3	3.0	9030107			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TR3184			TR3184			TR3185		
Sampling Date		2018/06/16 15:13			2018/06/16 15:13			2018/06/16 12:57		
COC Number		555908-01-01			555908-01-01			555908-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	CC-3.5	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	95.6	0.50	9030106				104	0.50	9030106
Elements						•				
Dissolved Mercury (Hg)	ug/L	0.0093	0.0020	9032110				0.0069	0.0020	9032110
Dissolved Metals by ICPMS				•		•	-		•	
Dissolved Aluminum (AI)	ug/L	212	0.50	9032129				125	0.50	9032129
Dissolved Antimony (Sb)	ug/L	0.103	0.020	9032129				0.100	0.020	9032129
Dissolved Arsenic (As)	ug/L	0.583	0.020	9032129				0.433	0.020	9032129
Dissolved Barium (Ba)	ug/L	32.0	0.020	9032129				42.8	0.020	9032129
Dissolved Beryllium (Be)	ug/L	0.033	0.010	9032129				0.022	0.010	9032129
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9032129				<0.0050	0.0050	9032129
Dissolved Boron (B)	ug/L	<10	10	9032129				<10	10	9032129
Dissolved Cadmium (Cd)	ug/L	0.0075	0.0050	9032129				0.0055	0.0050	9032129
Dissolved Chromium (Cr)	ug/L	0.41	0.10	9032129				0.38	0.10	9032129
Dissolved Cobalt (Co)	ug/L	0.0629	0.0050	9032129				0.0770	0.0050	9032129
Dissolved Copper (Cu)	ug/L	1.85	0.050	9032129				1.93	0.050	9032129
Dissolved Iron (Fe)	ug/L	139	1.0	9032129				106	1.0	9032129
Dissolved Lead (Pb)	ug/L	0.0083	0.0050	9032129				0.0102	0.0050	9032129
Dissolved Lithium (Li)	ug/L	1.47	0.50	9032129				0.77	0.50	9032129
Dissolved Manganese (Mn)	ug/L	4.35	0.050	9032129				4.19	0.050	9032129
Dissolved Molybdenum (Mo)	ug/L	0.108	0.050	9032129				0.184	0.050	9032129
Dissolved Nickel (Ni)	ug/L	0.900	0.020	9032129				0.761	0.020	9032129
Dissolved Phosphorus (P)	ug/L	6.4	2.0	9032129				4.6	2.0	9032129
Dissolved Selenium (Se)	ug/L	0.071	0.040	9032129				0.079	0.040	9032129
Dissolved Silicon (Si)	ug/L	3910	50	9032129				3910	50	9032129
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9032129				<0.0050	0.0050	9032129
Dissolved Strontium (Sr)	ug/L	220	0.050	9032129				215	0.050	9032129
Dissolved Thallium (TI)	ug/L	0.0022	0.0020	9032129				0.0022	0.0020	9032129
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9032129				<0.20	0.20	9032129
Dissolved Titanium (Ti)	ug/L	1.32	0.50	9032129				1.43	0.50	9032129
Dissolved Uranium (U)	ug/L	5.48	0.0020	9032129				5.31	0.0020	9032129
Dissolved Vanadium (V)	ug/L	0.40	0.20	9032129				0.49	0.20	9032129
RDL = Reportable Detection Lin	mit					-				

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3184			TR3184			TR3185		
Sampling Date		2018/06/16 15:13			2018/06/16 15:13			2018/06/16 12:57		
COC Number		555908-01-01			555908-01-01			555908-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	CC-3.5	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.63	0.10	9032129				0.27	0.10	9032129
Dissolved Zirconium (Zr)	ug/L	0.84	0.10	9042281	0.81	0.10	9042281	0.67	0.10	9040541
Dissolved Calcium (Ca)	mg/L	25.1	0.050	9030107				27.9	0.050	9030107
Dissolved Magnesium (Mg)	mg/L	7.98	0.050	9030107				8.27	0.050	9030107
Dissolved Potassium (K)	mg/L	1.47	0.050	9030107				1.69	0.050	9030107
Dissolved Sodium (Na)	mg/L	2.03	0.050	9030107				2.79	0.050	9030107
Dissolved Sulphur (S)	mg/L	14.1	3.0	9030107				15.7	3.0	9030107

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3186	TR3187	TR3188	TR3189	TR3192	TR3193		
Sampling Date		2018/06/16	2018/06/16	2018/06/16	2018/06/16	2018/06/16	2018/06/16		
Jamping Date		10:35	16:19	15:52	14:30	11:26	11:50		
COC Number		555908-01-01	555908-01-01	555908-01-01	555908-01-01	555908-02-01	555908-02-01		
	UNITS	CC-4.5	CC-6.0	CC-A	СС-В	CC-X	LATTE MIX	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	64.1	10.4	32.8	101	61.4	58.2	0.50	9030106
Elements									-
Dissolved Mercury (Hg)	ug/L	0.0065	0.0082	0.0076	0.0074	0.0076	0.0088	0.0020	9032110
Dissolved Metals by ICPMS									
Dissolved Aluminum (AI)	ug/L	184	300	255	171	165	201	0.50	9032129
Dissolved Antimony (Sb)	ug/L	0.094	0.064	0.086	0.096	0.091	0.099	0.020	9032129
Dissolved Arsenic (As)	ug/L	0.420	0.412	0.458	0.537	0.419	0.427	0.020	9032129
Dissolved Barium (Ba)	ug/L	38.3	14.2	17.9	32.9	38.7	35.4	0.020	9032129
Dissolved Beryllium (Be)	ug/L	0.017	0.034	0.041	0.030	0.017	0.023	0.010	9032129
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9032129
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9032129
Dissolved Cadmium (Cd)	ug/L	0.0098	0.0179	0.0090	0.0076	0.0089	0.0095	0.0050	9032129
Dissolved Chromium (Cr)	ug/L	0.42	0.46	0.46	0.39	0.40	0.45	0.10	9032129
Dissolved Cobalt (Co)	ug/L	0.0694	0.0659	0.0626	0.0616	0.0645	0.0814	0.0050	9032129
Dissolved Copper (Cu)	ug/L	2.93	1.96	1.99	1.85	2.85	2.95	0.050	9032129
Dissolved Iron (Fe)	ug/L	136	230	146	126	126	157	1.0	9032129
Dissolved Lead (Pb)	ug/L	0.0083	0.0116	0.0108	0.0059	0.0077	0.0074	0.0050	9032129
Dissolved Lithium (Li)	ug/L	0.63	<0.50	0.76	1.17	0.61	0.70	0.50	9032129
Dissolved Manganese (Mn)	ug/L	2.27	14.1	5.28	5.87	1.28	3.02	0.050	9032129
Dissolved Molybdenum (Mo)	ug/L	0.570	<0.050	<0.050	0.145	0.534	0.570	0.050	9032129
Dissolved Nickel (Ni)	ug/L	1.25	1.10	0.945	0.771	1.19	1.33	0.020	9032129
Dissolved Phosphorus (P)	ug/L	6.8	9.7	6.8	5.6	4.9	6.9	2.0	9032129
Dissolved Selenium (Se)	ug/L	0.080	<0.040	0.046	0.071	0.077	0.080	0.040	9032129
Dissolved Silicon (Si)	ug/L	4010	3000	3380	3730	3790	3800	50	9032129
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9032129
Dissolved Strontium (Sr)	ug/L	92.5	16.9	59.5	242	89.3	86.6	0.050	9032129
Dissolved Thallium (TI)	ug/L	0.0042	<0.0020	<0.0020	0.0023	0.0031	0.0027	0.0020	9032129
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9032129
Dissolved Titanium (Ti)	ug/L	2.02	1.72	1.96	1.48	1.81	1.87	0.50	9032129
Dissolved Uranium (U)	ug/L	2.80	0.617	2.19	5.58	2.73	3.39	0.0020	9032129
Dissolved Vanadium (V)	ug/L	0.52	0.53	0.46	0.42	0.61	0.59	0.20	9032129
Dissolved Zinc (Zn)	ug/L	0.51	1.40	0.75	0.38	0.47	0.50	0.10	9032129
RDL = Reportable Detection Lin									



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3186	TR3187	TR3188	TR3189	TR3192	TR3193			
Sampling Date		2018/06/16	2018/06/16	2018/06/16	2018/06/16	2018/06/16	2018/06/16			
Sampling Date		10:35	16:19	15:52	14:30	11:26	11:50			
COC Number		555908-01-01	555908-01-01	555908-01-01	555908-01-01	555908-02-01	555908-02-01			
	UNITS	CC-4.5	CC-6.0	CC-A	СС-В	сс-х	LATTE MIX	RDL	QC Batch	
Dissolved Zirconium (Zr)	ug/L	0.63	0.75	0.80	0.65	0.62	0.67	0.10	9032129	
Dissolved Calcium (Ca)	mg/L	16.6	2.89	9.19	27.0	16.1	15.1	0.050	9030107	
Dissolved Magnesium (Mg)	mg/L	5.48	0.783	2.38	8.10	5.17	4.97	0.050	9030107	
Dissolved Potassium (K)	mg/L	1.10	0.194	0.507	1.86	1.05	1.04	0.050	9030107	
Dissolved Sodium (Na)	mg/L	2.47	0.740	1.32	2.11	2.42	2.34	0.050	9030107	
Dissolved Sulphur (S)	mg/L	9.3	<3.0	4.3	14.5	8.5	7.8	3.0	9030107	
RDL = Reportable Detection Limit										



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3194	TR3195	TR3196	TR3197		TR3198		
Compling Date		2018/06/17	2018/06/17	2018/06/17	2018/06/17		2018/06/17		
Sampling Date		09:45	07:45	08:35	08:55		09:20		
COC Number		555908-02-01	555908-02-01	555908-02-01	555908-02-01		555908-02-01		
	UNITS	HC-2.5	HC-5.0	HC-A	НС-В	QC Batch	HC-C	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	68.1	85.1	86.9	79.1	9030106	78.6	0.50	9030106
Elements									
Dissolved Mercury (Hg)	ug/L	0.0070	0.0050	0.0048	0.0059	9032110	0.0058	0.0020	9032110
Dissolved Metals by ICPMS									
Dissolved Aluminum (AI)	ug/L	177	79.5	90.0	106	9032129	119	0.50	9032131
Dissolved Antimony (Sb)	ug/L	0.223	0.197	0.214	0.237	9032129	0.244	0.020	9032131
Dissolved Arsenic (As)	ug/L	0.942	0.660	0.734	0.792	9032129	0.841	0.020	9032131
Dissolved Barium (Ba)	ug/L	30.4	37.1	39.7	32.5	9032129	32.3	0.020	9032131
Dissolved Beryllium (Be)	ug/L	0.019	0.013	0.019	0.019	9032129	0.020	0.010	9032131
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	9032129	<0.0050	0.0050	9032131
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	9032129	<10	10	9032131
Dissolved Cadmium (Cd)	ug/L	0.0056	<0.0050	<0.0050	<0.0050	9032129	<0.0050	0.0050	9032131
Dissolved Chromium (Cr)	ug/L	0.54	0.34	0.36	0.41	9032129	0.44	0.10	9032131
Dissolved Cobalt (Co)	ug/L	0.0854	0.0569	0.0616	0.0646	9032129	0.0654	0.0050	9032131
Dissolved Copper (Cu)	ug/L	1.92	1.87	1.81	1.73	9032129	1.78	0.050	9032131
Dissolved Iron (Fe)	ug/L	144	62.5	69.6	83.8	9032129	95.2	1.0	9032131
Dissolved Lead (Pb)	ug/L	0.0080	<0.0050	<0.0050	0.0050	9032129	0.0050	0.0050	9032131
Dissolved Lithium (Li)	ug/L	0.94	0.84	0.73	0.81	9032129	0.96	0.50	9032131
Dissolved Manganese (Mn)	ug/L	3.55	0.560	0.806	1.74	9032129	2.94	0.050	9032131
Dissolved Molybdenum (Mo)	ug/L	0.829	0.562	0.594	0.686	9032129	0.783	0.050	9032131
Dissolved Nickel (Ni)	ug/L	0.998	0.847	0.808	0.847	9032129	0.828	0.020	9032131
Dissolved Phosphorus (P)	ug/L	3.8	5.1	5.3	3.6	9032129	5.7	2.0	9032131
Dissolved Selenium (Se)	ug/L	0.069	0.058	0.067	0.066	9032129	0.077	0.040	9032131
Dissolved Silicon (Si)	ug/L	4220	4070	4130	4150	9032129	4160	50	9032131
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	9032129	<0.0050	0.0050	9032131
Dissolved Strontium (Sr)	ug/L	214	207	226	213	9032129	218	0.050	9032131
Dissolved Thallium (TI)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	9032129	<0.0020	0.0020	9032131
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	9032129	<0.20	0.20	9032131
Dissolved Titanium (Ti)	ug/L	2.39	0.67	1.37	1.61	9032129	1.97	0.50	9032131
Dissolved Uranium (U)	ug/L	14.2	7.94	11.3	13.2	9032129	14.2	0.0020	9032131
Dissolved Vanadium (V)	ug/L	0.56	0.41	0.47	0.49	9032129	0.47	0.20	9032131
Dissolved Zinc (Zn)	ug/L	0.26	0.17	0.18	0.18	9032129	0.21	0.10	9032131
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3194	TR3195	TR3196	TR3197		TR3198		
Sampling Date		2018/06/17 09:45	2018/06/17 07:45	2018/06/17 08:35	2018/06/17 08:55		2018/06/17 09:20		
COC Number		555908-02-01	555908-02-01	555908-02-01	555908-02-01		555908-02-01		
	UNITS	HC-2.5	HC-5.0	HC-A	НС-В	QC Batch	HC-C	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.78	0.58	0.59	0.64	9032129	0.66	0.10	9032131
Dissolved Calcium (Ca)	mg/L	17.6	22.7	22.7	20.3	9030107	20.2	0.050	9030107
Dissolved Magnesium (Mg)	mg/L	5.85	6.88	7.32	6.92	9030107	6.85	0.050	9030107
Dissolved Potassium (K)	mg/L	1.41	1.77	1.76	1.37	9030107	1.41	0.050	9030107
Dissolved Sodium (Na)	mg/L	2.05	2.54	2.63	2.42	9030107	2.39	0.050	9030107
Dissolved Sulphur (S)	mg/L	6.4	9.4	10.3	8.5	9030107	8.6	3.0	9030107
RDL = Reportable Detection Li	mit								



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3199		TR3200		TR3201		TR3202		
Complies Data		2018/06/17		2018/06/17		2018/06/17		2018/06/17		
Sampling Date		09:23		13:23		13:10		13:50		
COC Number		555908-02-01		555908-03-01		555908-03-01		555908-03-01		
	UNITS	HALFWAY MIX	QC Batch	IC-0.5	QC Batch	IC-1.5	QC Batch	IC-2.5	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	91.6	9030106	61.4	9039888	39.3	9030106	17.0	0.50	9039888
Elements	•				•		•			
Dissolved Mercury (Hg)	ug/L	<0.0020	9032110	0.0070	9032110	0.0070	9032110	0.0069	0.0020	9032110
Dissolved Metals by ICPMS							•			
Dissolved Aluminum (AI)	ug/L	30.4	9032131	253	9040541	196	9032131	280	0.50	9040541
Dissolved Antimony (Sb)	ug/L	0.101	9032131	0.079	9040541	0.074	9032131	0.127	0.020	9040541
Dissolved Arsenic (As)	ug/L	0.450	9032131	0.486	9040541	0.258	9032131	0.961	0.020	9040541
Dissolved Barium (Ba)	ug/L	40.8	9032131	25.7	9040541	27.3	9032131	16.8	0.020	9040541
Dissolved Beryllium (Be)	ug/L	<0.010	9032131	0.040	9040541	0.014	9032131	0.046	0.010	9040541
Dissolved Bismuth (Bi)	ug/L	<0.0050	9032131	<0.0050	9040541	<0.0050	9032131	<0.0050	0.0050	9040541
Dissolved Boron (B)	ug/L	<10	9032131	<10	9040541	<10	9032131	<10	10	9040541
Dissolved Cadmium (Cd)	ug/L	0.0405	9032131	0.0347	9040541	0.0077	9032131	0.0070	0.0050	9040541
Dissolved Chromium (Cr)	ug/L	<0.10	9032131	0.60	9040541	0.37	9032131	0.63	0.10	9040541
Dissolved Cobalt (Co)	ug/L	0.0281	9032131	0.147	9040541	0.0545	9032131	0.0802	0.0050	9040541
Dissolved Copper (Cu)	ug/L	0.963	9032131	3.70	9040541	2.31	9032131	2.12	0.050	9040541
Dissolved Iron (Fe)	ug/L	21.9	9032131	201	9040541	139	9032131	325	1.0	9040541
Dissolved Lead (Pb)	ug/L	0.0184	9032131	0.0116	9040541	0.0079	9032131	0.0101	0.0050	9040541
Dissolved Lithium (Li)	ug/L	1.45	9032131	1.40	9040541	1.37	9032131	0.78	0.50	9040541
Dissolved Manganese (Mn)	ug/L	2.49	9032131	6.12	9040541	1.44	9032131	3.12	0.050	9040541
Dissolved Molybdenum (Mo)	ug/L	1.05	9032131	0.234	9040541	0.182	9032131	0.074	0.050	9040541
Dissolved Nickel (Ni)	ug/L	1.13	9032131	2.79	9040541	1.11	9032131	1.19	0.020	9040541
Dissolved Phosphorus (P)	ug/L	5.0	9032131	7.1	9040541	5.7	9032131	8.1	2.0	9040541
Dissolved Selenium (Se)	ug/L	0.309	9032131	0.129	9040541	0.062	9032131	0.041	0.040	9040541
Dissolved Silicon (Si)	ug/L	3050	9032131	4150	9040541	3560	9032131	4110	50	9040541
Dissolved Silver (Ag)	ug/L	<0.0050	9032131	<0.0050	9040541	<0.0050	9032131	<0.0050	0.0050	9040541
Dissolved Strontium (Sr)	ug/L	122	9032131	55.2	9040541	64.3	9032131	23.5	0.050	9040541
Dissolved Thallium (TI)	ug/L	<0.0020	9032131	<0.0020	9040541	0.0021	9032131	<0.0020	0.0020	9040541
Dissolved Tin (Sn)	ug/L	<0.20	9032131	<0.20	9040541	<0.20	9032131	<0.20	0.20	9040541
Dissolved Titanium (Ti)	ug/L	<0.50	9032131	2.45	9040541	1.73	9032131	2.04	0.50	9040541
Dissolved Uranium (U)	ug/L	1.09	9032131	1.32	9040541	1.78	9032131	1.19	0.0020	9040541
Dissolved Vanadium (V)	ug/L	0.25	9032131	0.63	9040541	0.46	9032131	0.61	0.20	9040541
Dissolved Zinc (Zn)	ug/L	1.79	9032131	1.99	9040541	0.46	9032131	0.79	0.10	9040541
RDL = Reportable Detection Lin					•		•			



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3199		TR3200		TR3201		TR3202		
Sampling Date		2018/06/17 09:23		2018/06/17 13:23		2018/06/17 13:10		2018/06/17 13:50		
COC Number		555908-02-01		555908-03-01		555908-03-01		555908-03-01		
	UNITS	HALFWAY MIX	QC Batch	IC-0.5	QC Batch	IC-1.5	QC Batch	IC-2.5	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	<0.10	9032131	0.76	9040541	0.63	9032131	1.22	0.10	9040541
Dissolved Calcium (Ca)	mg/L	24.8	9030107	15.8	9039891	10.9	9030107	4.69	0.050	9039891
Dissolved Magnesium (Mg)	mg/L	7.18	9030107	5.34	9039891	2.95	9030107	1.29	0.050	9039891
Dissolved Potassium (K)	mg/L	0.803	9030107	0.804	9039891	0.864	9030107	0.265	0.050	9039891
Dissolved Sodium (Na)	mg/L	1.97	9030107	1.82	9039891	1.90	9030107	1.16	0.050	9039891
Dissolved Sulphur (S)	mg/L	7.6	9030107	9.1	9039891	<3.0	9030107	<3.0	3.0	9039891
RDL = Reportable Detection Li	mit									



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3203	TR3204		TR3205	TR3206	TR3207		
Compline Date		2018/06/17	2018/06/17		2018/06/17	2018/06/17	2018/06/17		
Sampling Date		14:20	14:45		11:45	12:10	11:15		
COC Number		555908-03-01	555908-03-01		555908-03-01	555908-03-01	555908-03-01		
	UNITS	IC-3.0	IC-4.5	QC Batch	ML-A	ML-B	YT-24-1 (OR ML-1.0)	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	101	52.3	9030106	112	54.9	108	0.50	9031531
Elements				•		-		•	
Dissolved Mercury (Hg)	ug/L	0.0051	0.0063	9033916	0.0079	0.0092	0.0051	0.0020	9033916
Dissolved Metals by ICPMS						'			
Dissolved Aluminum (Al)	ug/L	87.1	162	9032131	142	179	96.9	0.50	9032131
Dissolved Antimony (Sb)	ug/L	0.287	0.094	9032131	0.243	0.323	0.205	0.020	9032131
Dissolved Arsenic (As)	ug/L	1.16	0.416	9032131	0.719	0.949	0.586	0.020	9032131
Dissolved Barium (Ba)	ug/L	33.0	28.8	9032131	58.9	45.2	57.0	0.020	9032131
Dissolved Beryllium (Be)	ug/L	0.021	0.021	9032131	0.031	0.039	0.026	0.010	9032131
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	9032131	<0.0050	<0.0050	<0.0050	0.0050	9032131
Dissolved Boron (B)	ug/L	<10	<10	9032131	<10	<10	<10	10	9032131
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0107	9032131	0.0095	0.0067	0.0060	0.0050	9032131
Dissolved Chromium (Cr)	ug/L	0.34	0.41	9032131	0.50	0.61	0.40	0.10	9032131
Dissolved Cobalt (Co)	ug/L	0.0708	0.0622	9032131	0.116	0.228	0.0876	0.0050	9032131
Dissolved Copper (Cu)	ug/L	2.06	2.59	9032131	2.07	2.52	2.14	0.050	9032131
Dissolved Iron (Fe)	ug/L	64.3	121	9032131	120	274	77.4	1.0	9032131
Dissolved Lead (Pb)	ug/L	<0.0050	0.0069	9032131	0.0143	0.0291	0.0053	0.0050	9032131
Dissolved Lithium (Li)	ug/L	<0.50	1.11	9032131	<0.50	<0.50	<0.50	0.50	9032131
Dissolved Manganese (Mn)	ug/L	2.77	3.16	9032131	7.65	29.2	4.10	0.050	9032131
Dissolved Molybdenum (Mo)	ug/L	0.366	0.178	9032131	0.374	0.273	0.366	0.050	9032131
Dissolved Nickel (Ni)	ug/L	0.843	1.43	9032131	0.999	1.14	0.893	0.020	9032131
Dissolved Phosphorus (P)	ug/L	3.9	5.0	9032131	7.0	5.6	4.8	2.0	9032131
Dissolved Selenium (Se)	ug/L	0.060	0.084	9032131	0.070	0.067	0.064	0.040	9032131
Dissolved Silicon (Si)	ug/L	4230	3730	9032131	3720	3900	3790	50	9032131
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	9032131	<0.0050	<0.0050	<0.0050	0.0050	9032131
Dissolved Strontium (Sr)	ug/L	183	74.9	9032131	189	68.7	184	0.050	9032131
Dissolved Thallium (TI)	ug/L	0.0032	<0.0020	9032131	<0.0020	<0.0020	<0.0020	0.0020	9032131
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	9032131	<0.20	<0.20	<0.20	0.20	9032131
Dissolved Titanium (Ti)	ug/L	1.03	1.42	9032131	1.98	2.61	1.37	0.50	9032131
Dissolved Uranium (U)	ug/L	5.27	1.58	9032131	10.1	2.69	3.56	0.0020	9032131
Dissolved Vanadium (V)	ug/L	0.46	0.45	9032131	0.54	1.20	0.38	0.20	9032131
Dissolved Zinc (Zn)	ug/L	0.18	0.57	9032131	0.28	0.19	0.23	0.10	9032131
RDL = Reportable Detection Lir	nit			•				•	



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3203	TR3204		TR3205	TR3206	TR3207				
Sampling Date		2018/06/17 14:20	2018/06/17 14:45		2018/06/17 11:45	2018/06/17 12:10	2018/06/17 11:15				
COC Number		555908-03-01	555908-03-01		555908-03-01	555908-03-01	555908-03-01				
	UNITS	IC-3.0	IC-4.5	QC Batch	ML-A	ML-B	YT-24-1 (OR ML-1.0)	RDL	QC Batch		
Dissolved Zirconium (Zr)	ug/L	0.65	0.71	9032131	0.89	1.04	0.76	0.10	9032131		
Dissolved Calcium (Ca)	mg/L	31.5	14.3	9030107	28.2	16.3	29.2	0.050	9030107		
Dissolved Magnesium (Mg)	mg/L	5.43	4.06	9030107	10.0	3.43	8.54	0.050	9030107		
Dissolved Potassium (K)	mg/L	1.88	0.927	9030107	1.28	0.840	1.73	0.050	9030107		
Dissolved Sodium (Na)	mg/L	3.00	2.13	9030107	2.91	1.43	2.92	0.050	9030107		
Dissolved Sulphur (S)	mg/L	15.5	6.3	9030107	19.0	7.5	18.1	3.0	9030107		
RDL = Reportable Detection Limit											



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3208	TR3209	TR3214	TR3215	TR3216		
Sampling Date		2018/06/17 12:30	2018/06/16 11:05	2018/06/17 15:05	2018/06/17	2018/06/17		
COC Number		555908-03-01	555908-03-01	555908-04-01	555908-04-01	555908-04-01		
	UNITS	YT-24-2 (OLD ML-C)	YUK-2.0	YUK-5.0	SAMPLE A	SAMPLE B	RDL	QC Batch
Calculated Parameters								
Dissolved Hardness (CaCO3)	mg/L	20.9	93.7	91.0	84.8	53.7	0.50	9031531
Elements							•	
Dissolved Mercury (Hg)	ug/L	0.0110	<0.0020	<0.0020	0.0045	0.0086	0.0020	9033916
Dissolved Metals by ICPMS				•			•	
Dissolved Aluminum (AI)	ug/L	302	32.7	32.5	78.4	170	0.50	9032131
Dissolved Antimony (Sb)	ug/L	0.427	0.110	0.105	0.194	0.326	0.020	9032131
Dissolved Arsenic (As)	ug/L	0.985	0.440	0.457	0.684	0.998	0.020	9032131
Dissolved Barium (Ba)	ug/L	21.4	40.5	40.3	37.5	45.0	0.020	9032131
Dissolved Beryllium (Be)	ug/L	0.047	<0.010	<0.010	0.022	0.042	0.010	9032131
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9032131
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	10	9032131
Dissolved Cadmium (Cd)	ug/L	0.0093	0.0312	0.0257	<0.0050	0.0058	0.0050	9032131
Dissolved Chromium (Cr)	ug/L	0.72	<0.10	<0.10	0.36	0.61	0.10	9032131
Dissolved Cobalt (Co)	ug/L	0.120	0.0166	0.0222	0.0560	0.224	0.0050	9032131
Dissolved Copper (Cu)	ug/L	2.30	0.912	0.942	1.86	2.45	0.050	9032131
Dissolved Iron (Fe)	ug/L	212	22.3	20.8	61.8	284	1.0	9032131
Dissolved Lead (Pb)	ug/L	0.0223	0.0171	0.0145	<0.0050	0.0306	0.0050	9032131
Dissolved Lithium (Li)	ug/L	<0.50	1.74	1.50	0.92	<0.50	0.50	9032131
Dissolved Manganese (Mn)	ug/L	5.38	1.36	2.50	0.544	31.4	0.050	9032131
Dissolved Molybdenum (Mo)	ug/L	0.113	1.00	1.05	0.562	0.269	0.050	9032131
Dissolved Nickel (Ni)	ug/L	1.10	1.27	1.12	0.916	1.09	0.020	9032131
Dissolved Phosphorus (P)	ug/L	6.3	2.2	3.7	3.4	7.4	2.0	9032131
Dissolved Selenium (Se)	ug/L	0.055	0.393	0.335	0.076	0.060	0.040	9032131
Dissolved Silicon (Si)	ug/L	3700	2930	2990	3940	3750	50	9032131
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9032131
Dissolved Strontium (Sr)	ug/L	21.2	120	120	209	67.8	0.050	9032131
Dissolved Thallium (TI)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	9032131
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9032131
Dissolved Titanium (Ti)	ug/L	3.16	0.74	0.79	1.32	2.54	0.50	9032131
Dissolved Uranium (U)	ug/L	0.344	0.913	1.01	8.00	2.57	0.0020	9032131
Dissolved Vanadium (V)	ug/L	0.73	0.35	0.34	0.47	1.34	0.20	9032131
Dissolved Zinc (Zn)	ug/L	0.45	1.10	0.92	0.17	0.18	0.10	9032131
RDL = Reportable Detection Lir			•	•			•	



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3208	TR3209	TR3214	TR3215	TR3216				
Sampling Date		2018/06/17 12:30	2018/06/16 11:05	2018/06/17 15:05	2018/06/17	2018/06/17				
COC Number		555908-03-01	555908-03-01	555908-04-01	555908-04-01	555908-04-01				
	UNITS	YT-24-2 (OLD ML-C)	YUK-2.0	YUK-5.0	SAMPLE A	SAMPLE B	RDL	QC Batch		
Dissolved Zirconium (Zr)	ug/L	0.95	<0.10	<0.10	0.56	1.04	0.10	9032131		
Dissolved Calcium (Ca)	mg/L	6.49	25.2	24.5	22.3	15.9	0.050	9030107		
Dissolved Magnesium (Mg)	mg/L	1.13	7.48	7.25	7.06	3.37	0.050	9030107		
Dissolved Potassium (K)	mg/L	0.603	0.759	0.785	1.76	0.834	0.050	9030107		
Dissolved Sodium (Na)	mg/L	0.903	1.86	1.92	2.60	1.41	0.050	9030107		
Dissolved Sulphur (S)	mg/L	<3.0	9.1	8.2	10.0	7.7	3.0	9030107		
RDL = Reportable Detection Limit										



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TR3217			TR3217			TR3218			
Sampling Date		2018/06/16			2018/06/16			2018/06/17			
Sampling Date		17:00			17:00			17:00			
COC Number		555908-04-01			555908-04-01			555908-05-01			
	UNITS	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	
Calculated Parameters											
Dissolved Hardness (CaCO3)	mg/L	<0.50	0.50	9031531				<0.50	0.50	9031531	
Elements											
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	9033916				<0.0020	0.0020	9033916	
Dissolved Metals by ICPMS	•		•	•		•			•		
Dissolved Aluminum (AI)	ug/L	<0.50	0.50	9032131	<0.50	0.50	9032131	<0.50	0.50	9032131	
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	9032131	<0.020	0.020	9032131	<0.020	0.020	9032131	
Dissolved Arsenic (As)	ug/L	<0.020	0.020	9032131	<0.020	0.020	9032131	<0.020	0.020	9032131	
Dissolved Barium (Ba)	ug/L	<0.020	0.020	9032131	<0.020	0.020	9032131	<0.020	0.020	9032131	
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9032131	<0.010	0.010	9032131	<0.010	0.010	9032131	
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	
Dissolved Boron (B)	ug/L	<10	10	9032131	<10	10	9032131	<10	10	9032131	
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	9032131	<0.10	0.10	9032131	<0.10	0.10	9032131	
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	
Dissolved Copper (Cu)	ug/L	<0.050	0.050	9032131	<0.050	0.050	9032131	<0.050	0.050	9032131	
Dissolved Iron (Fe)	ug/L	<1.0	1.0	9032131	<1.0	1.0	9032131	<1.0	1.0	9032131	
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	
Dissolved Lithium (Li)	ug/L	<0.50	0.50	9032131	<0.50	0.50	9032131	<0.50	0.50	9032131	
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	9032131	<0.050	0.050	9032131	<0.050	0.050	9032131	
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	9032131	<0.050	0.050	9032131	<0.050	0.050	9032131	
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	9032131	<0.020	0.020	9032131	<0.020	0.020	9032131	
Dissolved Phosphorus (P)	ug/L	2.2	2.0	9032131	2.5	2.0	9032131	<2.0	2.0	9032131	
Dissolved Selenium (Se)	ug/L	<0.040	0.040	9032131	<0.040	0.040	9032131	<0.040	0.040	9032131	
Dissolved Silicon (Si)	ug/L	<50	50	9032131	<50	50	9032131	<50	50	9032131	
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	9032131	<0.050	0.050	9032131	<0.050	0.050	9032131	
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	9032131	<0.0020	0.0020	9032131	<0.0020	0.0020	9032131	
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9032131	<0.20	0.20	9032131	<0.20	0.20	9032131	
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9032131	<0.50	0.50	9032131	<0.50	0.50	9032131	
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	9032131	<0.0020	0.0020	9032131	<0.0020	0.0020	9032131	
Dissolved Vanadium (V)	ug/L	<0.20	0.20	9032131	<0.20	0.20	9032131	<0.20	0.20	9032131	
RDL = Reportable Detection Lir											

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3217			TR3217			TR3218		
Sampling Date		2018/06/16			2018/06/16			2018/06/17		
Sumpling Bute		17:00			17:00			17:00		
COC Number		555908-04-01			555908-04-01			555908-05-01		
	UNITS	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	9032131	<0.10	0.10	9032131	<0.10	0.10	9032131
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	9032131	<0.10	0.10	9032131	<0.10	0.10	9032131
Dissolved Calcium (Ca)	mg/L	<0.050	0.050	9030107				<0.050	0.050	9030107
Dissolved Magnesium (Mg)	mg/L	<0.050	0.050	9030107				<0.050	0.050	9030107
Dissolved Potassium (K)	mg/L	<0.050	0.050	9030107				<0.050	0.050	9030107
Dissolved Sodium (Na)	mg/L	<0.050	0.050	9030107			·	<0.050	0.050	9030107
Dissolved Sulphur (S)	mg/L	<3.0	3.0	9030107				<3.0	3.0	9030107

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TR3218			TR3219			TR3219		
Sampling Date		2018/06/17 17:00			2018/06/17 09:30			2018/06/17 09:30		
COC Number		555908-05-01			555908-05-01			555908-05-01		
	UNITS	TRIP BLANK Lab-Dup	RDL	QC Batch	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L				87.8	0.50	9031531			
Elements					•			•		
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	9033916	<0.0020	0.0020	9033916			
Dissolved Metals by ICPMS	•		•			•			•	
Dissolved Aluminum (Al)	ug/L	<0.50	0.50	9032131	26.0	0.50	9032131	26.1	0.50	9032131
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	9032131	0.102	0.020	9032131	0.099	0.020	9032131
Dissolved Arsenic (As)	ug/L	<0.020	0.020	9032131	0.433	0.020	9032131	0.441	0.020	9032131
Dissolved Barium (Ba)	ug/L	<0.020	0.020	9032131	39.2	0.020	9032131	40.0	0.020	9032131
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9032131	<0.010	0.010	9032131	<0.010	0.010	9032131
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131
Dissolved Boron (B)	ug/L	<10	10	9032131	<10	10	9032131	<10	10	9032131
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	9032131	0.0314	0.0050	9032131	0.0336	0.0050	9032131
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	9032131	<0.10	0.10	9032131	<0.10	0.10	9032131
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	9032131	0.0207	0.0050	9032131	0.0188	0.0050	9032131
Dissolved Copper (Cu)	ug/L	<0.050	0.050	9032131	0.998	0.050	9032131	0.993	0.050	9032131
Dissolved Iron (Fe)	ug/L	<1.0	1.0	9032131	18.3	1.0	9032131	19.2	1.0	9032131
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9032131	0.0175	0.0050	9032131	0.0165	0.0050	9032131
Dissolved Lithium (Li)	ug/L	<0.50	0.50	9032131	1.40	0.50	9032131	1.46	0.50	9032131
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	9032131	1.80	0.050	9032131	1.83	0.050	9032131
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	9032131	1.01	0.050	9032131	1.03	0.050	9032131
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	9032131	1.02	0.020	9032131	1.08	0.020	9032131
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	9032131	2.6	2.0	9032131	2.7	2.0	9032131
Dissolved Selenium (Se)	ug/L	<0.040	0.040	9032131	0.300	0.040	9032131	0.325	0.040	9032131
Dissolved Silicon (Si)	ug/L	<50	50	9032131	2930	50	9032131	3060	50	9032131
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131	<0.0050	0.0050	9032131
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	9032131	117	0.050	9032131	121	0.050	9032131
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	9032131	<0.0020	0.0020	9032131	<0.0020	0.0020	9032131
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9032131	<0.20	0.20	9032131	<0.20	0.20	9032131
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9032131	0.97	0.50	9032131	0.82	0.50	9032131
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	9032131	0.979	0.0020	9032131	1.02	0.0020	9032131
Dissolved Vanadium (V)	ug/L	<0.20	0.20	9032131	0.34	0.20	9032131	0.33	0.20	9032131
RDL = Reportable Detection Li	mit									

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3218			TR3219			TR3219		
Sampling Date		2018/06/17 17:00			2018/06/17 09:30			2018/06/17 09:30		
COC Number		555908-05-01			555908-05-01			555908-05-01		
	UNITS	TRIP BLANK Lab-Dup	RDL	QC Batch	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	9032131	3.92	0.10	9032131	4.03	0.10	9032131
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	9032131	<0.10	0.10	9032131	<0.10	0.10	9032131
Dissolved Calcium (Ca)	mg/L				23.9	0.050	9030107			
Dissolved Magnesium (Mg)	mg/L				6.83	0.050	9030107			
Dissolved Potassium (K)	mg/L				0.811	0.050	9030107			
Dissolved Sodium (Na)	mg/L				1.92	0.050	9030107			
Dissolved Sulphur (S)	mg/L				7.2	3.0	9030107			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3220	TR3242		
Sampling Date		2018/06/17 10:00			
COC Number		555908-05-01	555908-05-01		
	UNITS	YT-24 MIX	SAMPLE C	RDL	QC Batch
Calculated Parameters					
Dissolved Hardness (CaCO3)	mg/L	92.7	54.2	0.50	9031531
Elements	•		•	•	
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0072	0.0020	9033916
Dissolved Metals by ICPMS	•		•		
Dissolved Aluminum (AI)	ug/L	33.1	165	0.50	9032131
Dissolved Antimony (Sb)	ug/L	0.106	0.094	0.020	9032131
Dissolved Arsenic (As)	ug/L	0.440	0.439	0.020	9032131
Dissolved Barium (Ba)	ug/L	40.8	30.0	0.020	9032131
Dissolved Beryllium (Be)	ug/L	<0.010	0.024	0.010	9032131
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0050	9032131
Dissolved Boron (B)	ug/L	<10	<10	10	9032131
Dissolved Cadmium (Cd)	ug/L	0.0372	0.0111	0.0050	9032131
Dissolved Chromium (Cr)	ug/L	<0.10	0.42	0.10	9032131
Dissolved Cobalt (Co)	ug/L	0.0204	0.0643	0.0050	9032131
Dissolved Copper (Cu)	ug/L	0.973	2.70	0.050	9032131
Dissolved Iron (Fe)	ug/L	24.2	124	1.0	9032131
Dissolved Lead (Pb)	ug/L	0.0188	0.0076	0.0050	9032131
Dissolved Lithium (Li)	ug/L	1.48	1.23	0.50	9032131
Dissolved Manganese (Mn)	ug/L	2.00	3.14	0.050	9032131
Dissolved Molybdenum (Mo)	ug/L	1.06	0.189	0.050	9032131
Dissolved Nickel (Ni)	ug/L	1.13	1.47	0.020	9032131
Dissolved Phosphorus (P)	ug/L	<2.0	7.1	2.0	9032131
Dissolved Selenium (Se)	ug/L	0.324	0.091	0.040	9032131
Dissolved Silicon (Si)	ug/L	3110	3890	50	9032131
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	9032131
Dissolved Strontium (Sr)	ug/L	122	77.5	0.050	9032131
Dissolved Thallium (TI)	ug/L	<0.0020	<0.0020	0.0020	9032131
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	0.20	9032131
Dissolved Titanium (Ti)	ug/L	0.66	1.82	0.50	9032131
Dissolved Uranium (U)	ug/L	1.11	1.63	0.0020	9032131
Dissolved Vanadium (V)	ug/L	0.35	0.48	0.20	9032131
Dissolved Zinc (Zn)	ug/L	1.44	0.55	0.10	9032131
RDL = Reportable Detection Li			•	•	



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3220	TR3242						
Sampling Date		2018/06/17 10:00							
COC Number		555908-05-01	555908-05-01						
	UNITS	YT-24 MIX	SAMPLE C	RDL	QC Batch				
Dissolved Zirconium (Zr)	ug/L	<0.10	0.73	0.10	9032131				
Dissolved Calcium (Ca)	mg/L	25.5	14.8	0.050	9030107				
Dissolved Magnesium (Mg)	mg/L	7.06	4.18	0.050	9030107				
Dissolved Potassium (K)	mg/L	0.804	0.958	0.050	9030107				
Dissolved Sodium (Na)	mg/L	1.96	2.18	0.050	9030107				
Dissolved Sulphur (S)	mg/L	7.4	6.2	3.0	9030107				
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TR3183		TR3217			TR3217		
Sampling Date		2018/06/16 14:55		2018/06/16 17:00			2018/06/16 17:00		
COC Number		555908-01-01		555908-04-01			555908-04-01		
	UNITS	CC-1.0	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	332	9031526	<0.50	0.50	9031526			
Elements			•	•	•			•	
Total Mercury (Hg)	ug/L	0.0025	9034463	<0.0020	0.0020	9031949			
Total Metals by ICPMS	,			•	!			!	
Total Aluminum (Al)	ug/L	60.8	9031890	0.56	0.50	9031890	<0.50	0.50	9031890
Total Antimony (Sb)	ug/L	0.206	9031890	<0.020	0.020	9031890	<0.020	0.020	9031890
Total Arsenic (As)	ug/L	1.32	9031890	<0.020	0.020	9031890	<0.020	0.020	9031890
Total Barium (Ba)	ug/L	81.8	9031890	<0.020	0.020	9031890	<0.020	0.020	9031890
Total Beryllium (Be)	ug/L	<0.010	9031890	<0.010	0.010	9031890	<0.010	0.010	9031890
Total Bismuth (Bi)	ug/L	<0.0050	9031890	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Boron (B)	ug/L	<10	9031890	<10	10	9031890	<10	10	9031890
Total Cadmium (Cd)	ug/L	0.0077	9031890	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Chromium (Cr)	ug/L	0.25	9031890	<0.10	0.10	9031890	<0.10	0.10	9031890
Total Cobalt (Co)	ug/L	0.0732	9031890	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Copper (Cu)	ug/L	1.21	9031890	<0.050	0.050	9031890	<0.050	0.050	9031890
Total Iron (Fe)	ug/L	70.4	9031890	<1.0	1.0	9031890	<1.0	1.0	9031890
Total Lead (Pb)	ug/L	0.0376	9031890	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Lithium (Li)	ug/L	4.28	9031890	<0.50	0.50	9031890	<0.50	0.50	9031890
Total Manganese (Mn)	ug/L	5.98	9031890	<0.050	0.050	9031890	<0.050	0.050	9031890
Total Molybdenum (Mo)	ug/L	0.311	9031890	<0.050	0.050	9031890	<0.050	0.050	9031890
Total Nickel (Ni)	ug/L	0.625	9031890	<0.020	0.020	9031890	<0.020	0.020	9031890
Total Phosphorus (P)	ug/L	5.4	9031890	<2.0	2.0	9031890	<2.0	2.0	9031890
Total Selenium (Se)	ug/L	0.242	9031890	<0.040	0.040	9031890	<0.040	0.040	9031890
Total Silicon (Si)	ug/L	5340	9031890	<50	50	9031890	<50	50	9031890
Total Silver (Ag)	ug/L	<0.0050	9031890	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Strontium (Sr)	ug/L	892	9031890	<0.050	0.050	9031890	<0.050	0.050	9031890
Total Thallium (TI)	ug/L	0.0032	9031890	<0.0020	0.0020	9031890	<0.0020	0.0020	9031890
Total Tin (Sn)	ug/L	<0.20	9031890	<0.20	0.20	9031890	<0.20	0.20	9031890
Total Titanium (Ti)	ug/L	2.34	9031890	<0.50	0.50	9031890	<0.50	0.50	9031890
Total Uranium (U)	ug/L	23.1	9031890	<0.0020	0.0020	9031890	<0.0020	0.0020	9031890
Total Vanadium (V)	ug/L	0.44	9031890	<0.20	0.20	9031890	<0.20	0.20	9031890
RDL = Reportable Detection	Limit								

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TR3183		TR3217			TR3217		
Sampling Date		2018/06/16 14:55		2018/06/16 17:00			2018/06/16 17:00		
COC Number		555908-01-01		555908-04-01			555908-04-01		
	UNITS	CC-1.0	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.47	9031890	<0.10	0.10	9031890	<0.10	0.10	9031890
Total Zirconium (Zr)	ug/L	0.17	9031890	<0.10	0.10	9031890	<0.10	0.10	9031890
Total Calcium (Ca)	mg/L	83.8	9030108	<0.050	0.050	9030108			
Total Magnesium (Mg)	mg/L	29.7	9030108	<0.050	0.050	9030108			
Total Potassium (K)	mg/L	4.74	9030108	<0.050	0.050	9030108			
Total Sodium (Na)	mg/L	4.25	9030108	<0.050	0.050	9030108			
Total Sulphur (S)	mg/L	47.3	9030108	<3.0	3.0	9030108			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TR3218			TR3218		
Sampling Date		2018/06/17			2018/06/17		
Jamping Date		17:00			17:00		
COC Number		555908-05-01			555908-05-01		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	<0.50	0.50	9031526			
Elements	•		•	•			
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9031949			
Total Metals by ICPMS	•		•	•		•	
Total Aluminum (AI)	ug/L	<0.50	0.50	9031890	<0.50	0.50	9031890
Total Antimony (Sb)	ug/L	<0.020	0.020	9031890	<0.020	0.020	9031890
Total Arsenic (As)	ug/L	<0.020	0.020	9031890	<0.020	0.020	9031890
Total Barium (Ba)	ug/L	<0.020	0.020	9031890	<0.020	0.020	9031890
Total Beryllium (Be)	ug/L	<0.010	0.010	9031890	<0.010	0.010	9031890
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Boron (B)	ug/L	<10	10	9031890	<10	10	9031890
Total Cadmium (Cd)	ug/L	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Chromium (Cr)	ug/L	<0.10	0.10	9031890	<0.10	0.10	9031890
Total Cobalt (Co)	ug/L	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Copper (Cu)	ug/L	<0.050	0.050	9031890	<0.050	0.050	9031890
Total Iron (Fe)	ug/L	<1.0	1.0	9031890	<1.0	1.0	9031890
Total Lead (Pb)	ug/L	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Lithium (Li)	ug/L	<0.50	0.50	9031890	<0.50	0.50	9031890
Total Manganese (Mn)	ug/L	<0.050	0.050	9031890	<0.050	0.050	9031890
Total Molybdenum (Mo)	ug/L	<0.050	0.050	9031890	<0.050	0.050	9031890
Total Nickel (Ni)	ug/L	<0.020	0.020	9031890	<0.020	0.020	9031890
Total Phosphorus (P)	ug/L	<2.0	2.0	9031890	<2.0	2.0	9031890
Total Selenium (Se)	ug/L	<0.040	0.040	9031890	<0.040	0.040	9031890
Total Silicon (Si)	ug/L	<50	50	9031890	<50	50	9031890
Total Silver (Ag)	ug/L	<0.0050	0.0050	9031890	<0.0050	0.0050	9031890
Total Strontium (Sr)	ug/L	<0.050	0.050	9031890	<0.050	0.050	9031890
Total Thallium (TI)	ug/L	<0.0020	0.0020	9031890	<0.0020	0.0020	9031890
Total Tin (Sn)	ug/L	<0.20	0.20	9031890	<0.20	0.20	9031890
Total Titanium (Ti)	ug/L	<0.50	0.50	9031890	<0.50	0.50	9031890
Total Uranium (U)	ug/L	<0.0020	0.0020	9031890	<0.0020	0.0020	9031890
Total Vanadium (V)	ug/L	<0.20	0.20	9031890	<0.20	0.20	9031890
RDL = Reportable Detection	Limit						

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

	TR3218			TR3218		
	2018/06/17 17:00			2018/06/17 17:00		
	555908-05-01			555908-05-01		
UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
ug/L	<0.10	0.10	9031890	<0.10	0.10	9031890
ug/L	<0.10	0.10	9031890	<0.10	0.10	9031890
mg/L	<0.050	0.050	9030108			
mg/L	<0.050	0.050	9030108			
mg/L	<0.050	0.050	9030108			
mg/L	<0.050	0.050	9030108			
mg/L	<3.0	3.0	9030108			
	ug/L ug/L mg/L mg/L mg/L	2018/06/17 17:00 555908-05-01 UNITS TRIP BLANK ug/L <0.10 ug/L <0.10 mg/L <0.050 mg/L <0.050 mg/L <0.050 mg/L <0.050	2018/06/17   17:00	2018/06/17   17:00	2018/06/17   17:00   2018/06/17   17:00   555908-05-01   555908-05-01   TRIP BLANK   RDL   QC Batch   TRIP BLANK   Lab-Dup   Ug/L   <0.10   0.10   9031890   <0.10   ug/L   <0.10   0.10   9031890   <0.10   one of the control of th	2018/06/17   17:00   2018/06/17   17:00   555908-05-01   555908-05-01

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3182		TR3184	TR3185	TR3186	TR3187		
IVIAAXAIII ID						2018/06/16	2018/06/16		
Sampling Date		2018/06/16 12:31		2018/06/16 15:13	2018/06/16 12:57	10:35	16:19		
COC Number		555908-01-01		555908-01-01	555908-01-01	555908-01-01	555908-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.5	CC-3.5	CC-4.5	CC-6.0	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	54.6	9031526	96.0	99.6	61.8	11.2	0.50	9031526
Elements	!							!	
Total Mercury (Hg)	ug/L	0.0069	9033715	0.0073	0.0058	0.0062	0.0089	0.0020	9034080
Total Metals by ICPMS							•	•	
Total Aluminum (Al)	ug/L	255	9033022	253	176	271	357	3.0	9033022
Total Antimony (Sb)	ug/L	0.096	9033022	0.107	0.102	0.096	0.074	0.020	9033022
Total Arsenic (As)	ug/L	0.454	9033022	0.654	0.466	0.434	0.462	0.020	9033022
Total Barium (Ba)	ug/L	37.6	9033022	33.8	44.4	40.6	16.2	0.050	9033022
Total Beryllium (Be)	ug/L	0.023	9033022	0.032	0.026	0.023	0.046	0.010	9033022
Total Bismuth (Bi)	ug/L	<0.010	9033022	<0.010	<0.010	<0.010	<0.010	0.010	9033022
Total Boron (B)	ug/L	<10	9033022	<10	<10	<10	<10	10	9033022
Total Cadmium (Cd)	ug/L	0.0135	9033022	0.0124	0.0126	0.0127	0.0185	0.0050	9033022
Total Chromium (Cr)	ug/L	0.52	9033022	0.43	0.51	0.55	0.53	0.10	9033022
Total Cobalt (Co)	ug/L	0.094	9033022	0.078	0.109	0.132	0.125	0.010	9033022
Total Copper (Cu)	ug/L	3.30	9033022	2.07	2.06	3.15	2.12	0.10	9033022
Total Iron (Fe)	ug/L	214	9033022	178	175	257	337	5.0	9033022
Total Lead (Pb)	ug/L	0.029	9033022	0.033	0.064	0.062	0.045	0.020	9033022
Total Lithium (Li)	ug/L	0.84	9033022	1.53	0.78	0.74	<0.50	0.50	9033022
Total Manganese (Mn)	ug/L	4.96	9033022	7.03	9.66	7.26	27.2	0.10	9033022
Total Molybdenum (Mo)	ug/L	0.671	9033022	0.121	0.208	0.562	<0.050	0.050	9033022
Total Nickel (Ni)	ug/L	1.48	9033022	0.95	0.87	1.37	1.20	0.10	9033022
Total Phosphorus (P)	ug/L	5.4	9033022	<5.0	<5.0	7.0	8.3	5.0	9033022
Total Selenium (Se)	ug/L	0.088	9033022	0.083	0.072	0.079	0.042	0.040	9033022
Total Silicon (Si)	ug/L	4320	9033022	4200	3810	4040	3940	50	9033022
Total Silver (Ag)	ug/L	<0.010	9033022	<0.010	<0.010	<0.010	<0.010	0.010	9033022
Total Strontium (Sr)	ug/L	71.4	9033022	214	201	87.4	17.6	0.050	9033022
Total Thallium (TI)	ug/L	0.0067	9033022	0.0035	0.0036	0.0069	0.0031	0.0020	9033022
Total Tin (Sn)	ug/L	<0.20	9033022	<0.20	<0.20	<0.20	<0.20	0.20	9033022
Total Titanium (Ti)	ug/L	3.3	9033022	2.6	3.7	7.0	3.4	2.0	9033022
Total Uranium (U)	ug/L	3.52	9033022	6.09	5.38	3.16	0.690	0.0050	9033022
Total Vanadium (V)	ug/L	0.56	9033022	0.38	0.48	0.66	0.58	0.20	9033022
Total Zinc (Zn)	ug/L	1.0	9033022	<1.0	<1.0	<1.0	1.6	1.0	9033022
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3182		TR3184	TR3185	TR3186	TR3187			
Sampling Date		2018/06/16		2018/06/16	2018/06/16	2018/06/16	2018/06/16			
Sampling Date		12:31		15:13	12:57	10:35	16:19			
COC Number		555908-01-01		555908-01-01	555908-01-01	555908-01-01	555908-01-01			
	UNITS	CC-0.5	QC Batch	CC-1.5	CC-3.5	CC-4.5	CC-6.0	RDL	QC Batch	
Total Zirconium (Zr)	ug/L	0.55	9033022	0.55	0.52	0.50	0.59	0.10	9033022	
Total Calcium (Ca)	mg/L	14.3	9030108	25.4	26.9	16.1	3.09	0.25	9030108	
Total Magnesium (Mg)	mg/L	4.60	9030108	7.91	7.90	5.23	0.83	0.25	9030108	
Total Potassium (K)	mg/L	0.98	9030108	1.56	1.71	1.09	<0.25	0.25	9030108	
Total Sodium (Na)	mg/L	2.37	9030108	2.05	2.66	2.42	0.76	0.25	9030108	
Total Sulphur (S)	mg/L	7.0	9030108	13.3	14.5	8.3	<3.0	3.0	9030108	
RDL = Reportable Detection Limit										



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

# LL TOTAL METALS (DIGESTED) WITH CV HG

		TD2407	1	I	TD2400	TD2400	TD2402	TD2402		
Maxxam ID		TR3187			TR3188	TR3189	TR3192	TR3193		
Sampling Date		2018/06/16 16:19			2018/06/16 15:52	2018/06/16 14:30	2018/06/16 11:26	2018/06/16 11:50		
COC Number		555908-01-01			555908-01-01	555908-01-01	555908-02-01	555908-02-01		
	UNITS	CC-6.0 Lab-Dup	RDL	QC Batch	CC-A	СС-В	сс-х	LATTE MIX	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L				34.6	98.1	63.8	59.2	0.50	9031526
Elements				Į.		1				
Total Mercury (Hg)	ug/L	0.0090	0.0020	9034080	0.0087	0.0061	0.0062	0.0080	0.0020	9034080
Total Metals by ICPMS		•	,							
Total Aluminum (Al)	ug/L				300	213	311	250	3.0	9033022
Total Antimony (Sb)	ug/L				0.087	0.102	0.103	0.093	0.020	9033022
Total Arsenic (As)	ug/L				0.544	0.574	0.471	0.436	0.020	9033022
Total Barium (Ba)	ug/L				19.4	34.2	42.9	37.3	0.050	9033022
Total Beryllium (Be)	ug/L				0.043	0.033	0.024	0.023	0.010	9033022
Total Bismuth (Bi)	ug/L				<0.010	<0.010	<0.010	<0.010	0.010	9033022
Total Boron (B)	ug/L				<10	<10	<10	<10	10	9033022
Total Cadmium (Cd)	ug/L				0.0123	0.0102	0.0153	0.0129	0.0050	9033022
Total Chromium (Cr)	ug/L				0.55	0.41	0.60	0.51	0.10	9033022
Total Cobalt (Co)	ug/L				0.087	0.090	0.166	0.108	0.010	9033022
Total Copper (Cu)	ug/L				2.37	1.97	3.43	3.21	0.10	9033022
Total Iron (Fe)	ug/L				226	186	319	219	5.0	9033022
Total Lead (Pb)	ug/L				0.032	0.030	0.096	0.027	0.020	9033022
Total Lithium (Li)	ug/L				0.82	1.24	0.77	0.77	0.50	9033022
Total Manganese (Mn)	ug/L				8.10	8.53	9.23	6.03	0.10	9033022
Total Molybdenum (Mo)	ug/L				0.060	0.172	0.578	0.579	0.050	9033022
Total Nickel (Ni)	ug/L				1.07	0.83	1.47	1.45	0.10	9033022
Total Phosphorus (P)	ug/L				6.9	5.1	10.6	6.2	5.0	9033022
Total Selenium (Se)	ug/L				0.044	0.065	0.080	0.074	0.040	9033022
Total Silicon (Si)	ug/L				3490	3920	4130	4170	50	9033022
Total Silver (Ag)	ug/L				<0.010	<0.010	<0.010	<0.010	0.010	9033022
Total Strontium (Sr)	ug/L				64.1	232	88.2	85.4	0.050	9033022
Total Thallium (Tl)	ug/L				0.0027	0.0045	0.0079	0.0062	0.0020	9033022
Total Tin (Sn)	ug/L				<0.20	<0.20	<0.20	<0.20	0.20	9033022
Total Titanium (Ti)	ug/L				3.4	4.2	9.3	3.8	2.0	9033022
Total Uranium (U)	ug/L				2.36	5.87	3.14	3.65	0.0050	9033022
Total Vanadium (V)	ug/L				0.53	0.38	0.84	0.57	0.20	9033022
RDL = Reportable Detection	Limit						·			. <u></u>

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TR3187			TR3188	TR3189	TR3192	TR3193		
Sampling Date		2018/06/16			2018/06/16	2018/06/16	2018/06/16	2018/06/16		
Sampling Date		16:19			15:52	14:30	11:26	11:50		
COC Number		555908-01-01			555908-01-01	555908-01-01	555908-02-01	555908-02-01		
	UNITS	CC-6.0 Lab-Dup	RDL	QC Batch	CC-A	СС-В	сс-х	LATTE MIX	RDL	QC Batch
Total Zinc (Zn)	ug/L				1.1	<1.0	1.7	<1.0	1.0	9033022
Total Zirconium (Zr)	ug/L				0.71	0.48	0.49	0.53	0.10	9033022
Total Calcium (Ca)	mg/L				9.45	26.0	16.6	15.5	0.25	9030108
Total Magnesium (Mg)	mg/L				2.66	8.06	5.43	4.99	0.25	9030108
Total Potassium (K)	mg/L				0.60	1.88	1.13	1.07	0.25	9030108
Total Sodium (Na)	mg/L				1.47	2.10	2.49	2.37	0.25	9030108
Total Sulphur (S)	mg/L				4.8	14.1	8.2	7.7	3.0	9030108

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Sampling Date	Sampling Date
Calculated Parameters	
Calculated Parameters	COC Number
Total Hardness (CaCO3)   mg/L   66.1   83.2   83.6   80.7   78.2   90.0   0.50   9031	
Elements   Total Mercury (Hg)   ug/L   0.0061   0.0043   0.0040   0.0047   0.0052   <0.0020   0.0020   9034	Calculated Parameters
Total Mercury (Hg)         ug/L         0.0061         0.0043         0.0040         0.0047         0.0052         <0.0020         0.0020         9034           Total Metals by ICPMS         Total Aluminum (Al)         ug/L         188         88.7         94.6         120         127         213 (1)         3.0         9033           Total Antimony (Sb)         ug/L         0.235         0.196         0.208         0.236         0.239         0.119         0.020         9033           Total Arsenic (As)         ug/L         0.953         0.662         0.720         0.813         0.805         0.625         0.020         9033           Total Barium (Ba)         ug/L         31.0         38.1         38.7         34.2         33.3         50.8         0.050         9033           Total Beryllium (Be)         ug/L         0.028         0.019         0.021         0.028         0.028         0.017         0.010         9033           Total Bismuth (Bi)         ug/L         <0.010	Гotal Hardness (CaCO3)
Total Metals by ICPMS           Total Aluminum (Al)         ug/L         188         88.7         94.6         120         127         213 (1)         3.0         9033           Total Antimony (Sb)         ug/L         0.235         0.196         0.208         0.236         0.239         0.119         0.020         9033           Total Arsenic (As)         ug/L         0.953         0.662         0.720         0.813         0.805         0.625         0.020         9033           Total Barium (Ba)         ug/L         31.0         38.1         38.7         34.2         33.3         50.8         0.050         9033           Total Beryllium (Be)         ug/L         0.028         0.019         0.021         0.028         0.028         0.017         0.010         9033           Total Bismuth (Bi)         ug/L         <0.010	Elements
Total Aluminum (Al)         ug/L         188         88.7         94.6         120         127         213 (1)         3.0         9033           Total Antimony (Sb)         ug/L         0.235         0.196         0.208         0.236         0.239         0.119         0.020         9033           Total Arsenic (As)         ug/L         0.953         0.662         0.720         0.813         0.805         0.625         0.020         9033           Total Barium (Ba)         ug/L         31.0         38.1         38.7         34.2         33.3         50.8         0.050         9033           Total Beryllium (Be)         ug/L         0.028         0.019         0.021         0.028         0.028         0.017         0.010         9033           Total Bismuth (Bi)         ug/L         <0.010	Гotal Mercury (Hg)
Total Antimony (Sb)         ug/L         0.235         0.196         0.208         0.236         0.239         0.119         0.020         9033           Total Arsenic (As)         ug/L         0.953         0.662         0.720         0.813         0.805         0.625         0.020         9033           Total Barium (Ba)         ug/L         31.0         38.1         38.7         34.2         33.3         50.8         0.050         9033           Total Beryllium (Be)         ug/L         0.028         0.019         0.021         0.028         0.028         0.017         0.010         9033           Total Bismuth (Bi)         ug/L         <0.010	Total Metals by ICPMS
Total Arsenic (As)         ug/L         0.953         0.662         0.720         0.813         0.805         0.625         0.020         9033           Total Barium (Ba)         ug/L         31.0         38.1         38.7         34.2         33.3         50.8         0.050         9033           Total Beryllium (Be)         ug/L         0.028         0.019         0.021         0.028         0.028         0.017         0.010         9033           Total Bismuth (Bi)         ug/L         <0.010	Гotal Aluminum (Al)
Total Barium (Ba)         ug/L         31.0         38.1         38.7         34.2         33.3         50.8         0.050         9033           Total Beryllium (Be)         ug/L         0.028         0.019         0.021         0.028         0.028         0.017         0.010         9033           Total Bismuth (Bi)         ug/L         <0.010	Гotal Antimony (Sb)
Total Beryllium (Be)         ug/L         0.028         0.019         0.021         0.028         0.028         0.017         0.010         9033           Total Bismuth (Bi)         ug/L         <0.010	Гotal Arsenic (As)
Total Bismuth (Bi)         ug/L         <0.010         <0.010         <0.010         <0.010         <0.010         <0.010         0.010         9033           Total Boron (B)         ug/L         <10	Гotal Barium (Ba)
Total Boron (B)         ug/L         <10         <10         <10         <10         <10         <10         10         9033           Total Cadmium (Cd)         ug/L         0.0089         0.0066         0.0056         0.0050         0.0066         0.0691         0.0050         9033           Total Chromium (Cr)         ug/L         0.51         0.35         0.36         0.41         0.43         0.40         0.10         9033           Total Cobalt (Co)         ug/L         0.096         0.066         0.064         0.070         0.070         0.207         0.010         9033           Total Copper (Cu)         ug/L         1.91         1.96         1.82         1.83         1.81         1.56         0.10         9033           Total Iron (Fe)         ug/L         158         77.6         80.4         98.5         104         364 (2)         5.0         9033           Total Lead (Pb)         ug/L         <0.020	Гotal Beryllium (Be)
Total Cadmium (Cd)         ug/L         0.0089         0.0066         0.0056         0.0050         0.0066         0.0691         0.0050         9033           Total Chromium (Cr)         ug/L         0.51         0.35         0.36         0.41         0.43         0.40         0.10         9033           Total Cobalt (Co)         ug/L         0.096         0.066         0.064         0.070         0.070         0.207         0.010         9033           Total Copper (Cu)         ug/L         1.91         1.96         1.82         1.83         1.81         1.56         0.10         9033           Total Iron (Fe)         ug/L         158         77.6         80.4         98.5         104         364 (2)         5.0         9033           Total Lead (Pb)         ug/L         <0.020	Гotal Bismuth (Bi)
Total Chromium (Cr)         ug/L         0.51         0.35         0.36         0.41         0.43         0.40         0.10         9033           Total Cobalt (Co)         ug/L         0.096         0.066         0.064         0.070         0.070         0.207         0.010         9033           Total Copper (Cu)         ug/L         1.91         1.96         1.82         1.83         1.81         1.56         0.10         9033           Total Iron (Fe)         ug/L         158         77.6         80.4         98.5         104         364 (2)         5.0         9033           Total Lead (Pb)         ug/L         <0.020	Гotal Boron (B)
Total Cobalt (Co)         ug/L         0.096         0.066         0.064         0.070         0.070         0.207         0.010         9033           Total Copper (Cu)         ug/L         1.91         1.96         1.82         1.83         1.81         1.56         0.10         9033           Total Iron (Fe)         ug/L         158         77.6         80.4         98.5         104         364 (2)         5.0         9033           Total Lead (Pb)         ug/L         <0.020	Fotal Cadmium (Cd)
Total Copper (Cu)         ug/L         1.91         1.96         1.82         1.83         1.81         1.56         0.10         9033           Total Iron (Fe)         ug/L         158         77.6         80.4         98.5         104         364 (2)         5.0         9033           Total Lead (Pb)         ug/L         <0.020	Гotal Chromium (Сr)
Total Iron (Fe)         ug/L         158         77.6         80.4         98.5         104         364 (2)         5.0         9033           Total Lead (Pb)         ug/L         <0.020	Fotal Cobalt (Co)
Total Lead (Pb)         ug/L         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         <0.020         0.91         0.97         1.65         0.50         9033	Fotal Copper (Cu)
Total Lithium (Li) ug/L 0.98 0.86 0.78 0.91 0.97 1.65 0.50 9033	Гotal Iron (Fe)
7, 38,7 5155 5155 5157 5157 5155 5155	Гotal Lead (Pb)
Total Manganese (Mn) 119/1 5.07 1.37 1.50 2.88 4.56 21.2 0.10 9033	Гotal Lithium (Li)
1130   113	Total Manganese (Mn)
Total Molybdenum (Mo) ug/L 0.813 0.563 0.608 0.706 0.707 1.06 0.050 9033	Гotal Molybdenum (Mo)
Total Nickel (Ni) ug/L 0.94 0.93 0.84 0.85 0.83 1.84 0.10 9033	Fotal Nickel (Ni)
Total Phosphorus (P)	Гotal Phosphorus (Р)
Total Selenium (Se)	Гotal Selenium (Se)
Total Silicon (Si) ug/L 4220 3880 4060 4410 4270 3390 50 9033	Гotal Silicon (Si)
Total Silver (Ag) ug/L <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 0.010 9033	Гotal Silver (Ag)
Total Strontium (Sr)	Гotal Strontium (Sr)
Total Thallium (TI)	Гotal Thallium (Tl)
Total Tin (Sn) ug/L <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 0.20	Гotal Tin (Sn)
Total Titanium (Ti)	Гotal Titanium (Ті)

RDL = Reportable Detection Limit

<sup>(1)</sup> Duplicate RPD for Aluminum above control limit - Non-homogenous sample - Increased variability of results. Re-analysis yields similar results. Matrix Spike for Aluminum outside acceptance criteria due to sample matrix interference, re-analysis yields similar results

<sup>(2)</sup> Matrix Spike for Iron outside acceptance criteria due to sample matrix interference, re-analysis yields similar results



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3194	TR3195	TR3196	TR3197	TR3198	TR3199				
Sampling Date		2018/06/17 09:45	2018/06/17 07:45	2018/06/17 08:35	2018/06/17 08:55	2018/06/17 09:20	2018/06/17 09:23				
COC Number		555908-02-01	555908-02-01	555908-02-01	555908-02-01	555908-02-01	555908-02-01				
	UNITS	HC-2.5	HC-5.0	НС-А	НС-В	нс-с	HALFWAY MIX	RDL	QC Batch		
Total Uranium (U)	ug/L	15.3	8.40	11.7	14.3	15.0	1.16	0.0050	9033022		
Total Vanadium (V)	ug/L	0.47	0.41	0.32	0.38	0.37	0.80	0.20	9033022		
Total Zinc (Zn)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	5.7	1.0	9033022		
Total Zirconium (Zr)	ug/L	0.60	0.46	0.46	0.53	0.53	0.10	0.10	9033022		
Total Calcium (Ca)	mg/L	17.1	22.5	22.0	20.9	20.2	24.1	0.25	9030108		
Total Magnesium (Mg)	mg/L	5.66	6.59	7.00	6.95	6.74	7.24	0.25	9030108		
Total Potassium (K)	mg/L	1.45	1.78	1.69	1.48	1.48	0.83	0.25	9030108		
Total Sodium (Na)	mg/L	1.99	2.50	2.47	2.48	2.36	2.04	0.25	9030108		
Total Sulphur (S)	mg/L	6.1	9.0	9.3	8.6	8.0	7.2	3.0	9030108		
RDL = Reportable Detection Limit											



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3199			TR3200	TR3201	TR3202		
Sampling Date		2018/06/17 09:23			2018/06/17 13:23	2018/06/17 13:10	2018/06/17 13:50		
COC Number		555908-02-01			555908-03-01	555908-03-01	555908-03-01		
	UNITS	HALFWAY MIX Lab-Dup	RDL	QC Batch	IC-0.5	IC-1.5	IC-2.5	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L				42.5	37.9	11.0	0.50	9031526
Elements				Į.					
Total Mercury (Hg)	ug/L				0.0050	0.0075	0.0062	0.0020	9034080
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	262 (1)	3.0	9033022	162	214	152	3.0	9033022
Total Antimony (Sb)	ug/L	0.115	0.020	9033022	0.037	0.070	0.065	0.020	9033022
Total Arsenic (As)	ug/L	0.693	0.020	9033022	0.419	0.241	0.666	0.020	9033022
Total Barium (Ba)	ug/L	49.0	0.050	9033022	13.5	27.1	8.89	0.050	9033022
Total Beryllium (Be)	ug/L	0.012	0.010	9033022	0.017	0.025	0.013	0.010	9033022
Total Bismuth (Bi)	ug/L	<0.010	0.010	9033022	<0.010	<0.010	<0.010	0.010	9033022
Total Boron (B)	ug/L	<10	10	9033022	<10	<10	<10	10	9033022
Total Cadmium (Cd)	ug/L	0.0690	0.0050	9033022	0.0179	0.0113	<0.0050	0.0050	9033022
Total Chromium (Cr)	ug/L	0.50	0.10	9033022	0.56	0.37	0.41	0.10	9033022
Total Cobalt (Co)	ug/L	0.234	0.010	9033022	0.194	0.067	0.067	0.010	9033022
Total Copper (Cu)	ug/L	1.59	0.10	9033022	3.25	2.29	1.51	0.10	9033022
Total Iron (Fe)	ug/L	434	5.0	9033022	193	168	258	5.0	9033022
Total Lead (Pb)	ug/L	0.254	0.020	9033022	0.026	0.022	<0.020	0.020	9033022
Total Lithium (Li)	ug/L	1.62	0.50	9033022	0.70	1.34	<0.50	0.50	9033022
Total Manganese (Mn)	ug/L	21.8	0.10	9033022	11.7	2.92	3.31	0.10	9033022
Total Molybdenum (Mo)	ug/L	1.01	0.050	9033022	0.119	0.180	<0.050	0.050	9033022
Total Nickel (Ni)	ug/L	1.96	0.10	9033022	2.38	1.13	0.77	0.10	9033022
Total Phosphorus (P)	ug/L	21.1	5.0	9033022	6.1	<5.0	<5.0	5.0	9033022
Total Selenium (Se)	ug/L	0.353	0.040	9033022	0.094	0.052	<0.040	0.040	9033022
Total Silicon (Si)	ug/L	3440	50	9033022	2210	3360	2310	50	9033022
Total Silver (Ag)	ug/L	<0.010	0.010	9033022	<0.010	<0.010	<0.010	0.010	9033022
Total Strontium (Sr)	ug/L	117	0.050	9033022	42.8	58.4	15.4	0.050	9033022
Total Thallium (TI)	ug/L	0.0073	0.0020	9033022	0.0027	0.0042	<0.0020	0.0020	9033022
Total Tin (Sn)	ug/L	<0.20	0.20	9033022	<0.20	<0.20	<0.20	0.20	9033022
Total Titanium (Ti)	ug/L	8.6	2.0	9033022	4.6	2.8	2.0	2.0	9033022
Total Uranium (U)	ug/L	1.12	0.0050	9033022	0.692	1.76	0.639	0.0050	9033022

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

<sup>(1)</sup> Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3199			TR3200	TR3201	TR3202		
Sampling Date		2018/06/17 09:23			2018/06/17 13:23	2018/06/17 13:10	2018/06/17 13:50		
COC Number		555908-02-01			555908-03-01	555908-03-01	555908-03-01		
	UNITS	HALFWAY MIX Lab-Dup	RDL	QC Batch	IC-0.5	IC-1.5	IC-2.5	RDL	QC Batch
Total Vanadium (V)	ug/L	0.98	0.20	9033022	0.59	0.38	0.32	0.20	9033022
Total Zinc (Zn)	ug/L	5.9	1.0	9033022	2.3	<1.0	<1.0	1.0	9033022
Total Zirconium (Zr)	ug/L	0.14	0.10	9033022	0.57	0.47	0.63	0.10	9033022
Total Calcium (Ca)	mg/L				9.89	10.5	2.96	0.25	9030108
Total Magnesium (Mg)	mg/L				4.33	2.86	0.86	0.25	9030108
Total Potassium (K)	mg/L				0.65	0.84	<0.25	0.25	9030108
Total Sodium (Na)	mg/L				1.48	1.81	0.79	0.25	9030108
Total Sulphur (S)	mg/L				6.1	<3.0	<3.0	3.0	9030108

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3203		TR3204	TR3205		TR3206		
Sampling Date		2018/06/17		2018/06/17	2018/06/17		2018/06/17		
. 0		14:20		14:45	11:45		12:10		
COC Number		555908-03-01		555908-03-01	555908-03-01		555908-03-01		
	UNITS	IC-3.0	QC Batch	IC-4.5	ML-A	QC Batch	ML-B	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	99.5	9031526	53.1	112	9031526	58.7	0.50	9031526
Elements	•		-			-			-
Total Mercury (Hg)	ug/L	0.0044	9034080	0.0060	0.0059	9034463	0.0066	0.0020	9034080
Total Metals by ICPMS	•					•			•
Total Aluminum (Al)	ug/L	212	9032976	187	570	9032976	1510	3.0	9032976
Total Antimony (Sb)	ug/L	0.300	9032976	0.096	0.284	9032976	0.370	0.020	9032976
Total Arsenic (As)	ug/L	1.58	9032976	0.455	1.16	9032976	2.00	0.020	9032976
Total Barium (Ba)	ug/L	35.6	9032976	30.9	69.8	9032976	76.4	0.050	9032976
Total Beryllium (Be)	ug/L	0.031	9032976	0.032	0.057	9032976	0.120	0.010	9032976
Total Bismuth (Bi)	ug/L	<0.010	9032976	<0.010	<0.010	9032976	0.018	0.010	9032976
Total Boron (B)	ug/L	<10	9032976	<10	<10	9032976	<10	10	9032976
Total Cadmium (Cd)	ug/L	0.0098	9032976	0.0134	0.0212	9032976	0.0395	0.0050	9032976
Total Chromium (Cr)	ug/L	0.63	9032976	0.46	1.24	9032976	2.99	0.10	9032976
Total Cobalt (Co)	ug/L	0.166	9032976	0.077	0.417	9032976	1.17	0.010	9032976
Total Copper (Cu)	ug/L	2.33	9032976	2.78	2.84	9032976	5.66	0.10	9032976
Total Iron (Fe)	ug/L	232	9032976	149	705	9032976	2220	5.0	9032976
Total Lead (Pb)	ug/L	0.091	9032976	0.023	0.382	9032976	1.05	0.020	9032976
Total Lithium (Li)	ug/L	0.57	9032976	1.25	0.80	9032976	1.08	0.50	9032976
Total Manganese (Mn)	ug/L	9.65	9032976	4.78	22.2	9032976	53.2	0.10	9032976
Total Molybdenum (Mo)	ug/L	0.399	9032976	0.213	0.418	9032976	0.290	0.050	9032976
Total Nickel (Ni)	ug/L	1.04	9032976	1.47	1.65	9032976	3.51	0.10	9032976
Total Phosphorus (P)	ug/L	9.2	9032976	5.2	27.0	9032976	58.8	5.0	9032976
Total Selenium (Se)	ug/L	0.074	9032976	0.105	0.077	9032976	0.092	0.040	9032976
Total Silicon (Si)	ug/L	4440	9032976	3950	4380	9032976	5640	50	9032976
Total Silver (Ag)	ug/L	<0.010	9032976	<0.010	<0.010	9032976	0.017	0.010	9032976
Total Strontium (Sr)	ug/L	185	9032976	74.0	184	9032976	73.0	0.050	9032976
Total Thallium (TI)	ug/L	0.0071	9032976	0.0048	0.0088	9032976	0.0140	0.0020	9032976
Total Tin (Sn)	ug/L	<0.20	9032976	<0.20	<0.20	9032976	<0.20	0.20	9032976
Total Titanium (Ti)	ug/L	8.9	9032976	2.3	22.2	9032976	56.9	2.0	9032976
Total Uranium (U)	ug/L	5.83	9032976	1.77	11.3	9032976	3.61	0.0050	9032976
Total Vanadium (V)	ug/L	0.68	9032976	0.45	1.61	9032976	4.87	0.20	9032976
Total Zinc (Zn)	ug/L	<1.0	9032976	<1.0	2.2	9032976	5.6	1.0	9032976
RDL = Reportable Detection I	₋imit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3203		TR3204	TR3205		TR3206		
Sampling Date		2018/06/17		2018/06/17	2018/06/17		2018/06/17		
Sampling Date		14:20		14:45	11:45		12:10		
COC Number		555908-03-01		555908-03-01	555908-03-01		555908-03-01		
	UNITS	IC-3.0	QC Batch	IC-4.5	ML-A	QC Batch	ML-B	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.54	9032976	0.67	0.78	9032976	1.10	0.10	9032976
Total Calcium (Ca)	mg/L	30.8	9030108	14.3	28.1	9030108	17.1	0.25	9030108
Total Magnesium (Mg)	mg/L	5.47	9030108	4.19	10.1	9030108	3.89	0.25	9030108
Total Potassium (K)	mg/L	1.90	9030108	0.99	1.37	9030108	0.98	0.25	9030108
Total Sodium (Na)	mg/L	2.98	9030108	2.18	2.87	9030108	1.54	0.25	9030108
Total Sulphur (S)	mg/L	14.9	9030108	6.2	19.2	9030108	7.3	3.0	9030108
RDL = Reportable Detection	Limit								



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3207	TR3208	TR3209		TR3214		
Sampling Date		2018/06/17 11:15	2018/06/17 12:30	2018/06/16 11:05		2018/06/17 15:05		
COC Number		555908-03-01	555908-03-01	555908-03-01		555908-04-01		
	UNITS	YT-24-1 (OR ML-1.0)	YT-24-2 (OLD ML-C)	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	108	21.2	95.1	9031526	93.0	0.50	9031526
Elements	<del>,</del>	-					!	
Total Mercury (Hg)	ug/L	0.0052	0.0115	<0.0020	9034463	<0.0020	0.0020	9031949
Total Metals by ICPMS	Į.			•				
Total Aluminum (Al)	ug/L	153	341	321	9032976	386	3.0	9032976
Total Antimony (Sb)	ug/L	0.222	0.422	0.129	9032976	0.126	0.020	9032976
Total Arsenic (As)	ug/L	0.736	1.12	0.721	9032976	0.807	0.020	9032976
Total Barium (Ba)	ug/L	61.5	23.6	57.5	9032976	59.5	0.050	9032976
Total Beryllium (Be)	ug/L	0.028	0.046	0.020	9032976	0.024	0.010	9032976
Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	9032976	<0.010	0.010	9032976
Total Boron (B)	ug/L	<10	<10	<10	9032976	<10	10	9032976
Total Cadmium (Cd)	ug/L	0.0096	0.0123	0.0868	9032976	0.0758	0.0050	9032976
Total Chromium (Cr)	ug/L	0.53	0.82	0.52	9032976	0.68	0.10	9032976
Total Cobalt (Co)	ug/L	0.137	0.150	0.273	9032976	0.325	0.010	9032976
Total Copper (Cu)	ug/L	2.37	2.56	1.64	9032976	1.85	0.10	9032976
Total Iron (Fe)	ug/L	158	273	455	9032976	567	5.0	9032976
Total Lead (Pb)	ug/L	0.068	0.062	0.307	9032976	0.330	0.020	9032976
Total Lithium (Li)	ug/L	0.55	<0.50	1.98	9032976	1.81	0.50	9032976
Total Manganese (Mn)	ug/L	7.78	6.49	25.1	9032976	28.1	0.10	9032976
Total Molybdenum (Mo)	ug/L	0.417	0.130	1.03	9032976	1.05	0.050	9032976
Total Nickel (Ni)	ug/L	0.96	1.17	2.33	9032976	2.34	0.10	9032976
Total Phosphorus (P)	ug/L	7.1	8.4	26.5	9032976	28.0	5.0	9032976
Total Selenium (Se)	ug/L	0.078	0.064	0.415	9032976	0.363	0.040	9032976
Total Silicon (Si)	ug/L	4020	3720	3490	9032976	3610	50	9032976
Total Silver (Ag)	ug/L	<0.010	<0.010	<0.010	9032976	<0.010	0.010	9032976
Total Strontium (Sr)	ug/L	186	21.5	126	9032976	126	0.050	9032976
Total Thallium (Tl)	ug/L	0.0052	0.0049	0.0073	9032976	0.0087	0.0020	9032976
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	9032976	<0.20	0.20	9032976
Total Titanium (Ti)	ug/L	4.5	4.7	9.6	9032976	12.5	2.0	9032976
Total Uranium (U)	ug/L	3.93	0.371	0.979	9032976	1.10	0.0050	9032976
Total Vanadium (V)	ug/L	0.48	0.71	1.19	9032976	1.41	0.20	9032976
Total Zinc (Zn)	ug/L	<1.0	<1.0	7.3	9032976	7.2	1.0	9032976
RDL = Reportable Detection Li	mit							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3207	TR3208	TR3209		TR3214		
Sampling Date		2018/06/17 11:15	2018/06/17 12:30	2018/06/16 11:05		2018/06/17 15:05		
COC Number		555908-03-01	555908-03-01	555908-03-01		555908-04-01		
	UNITS	YT-24-1 (OR ML-1.0)	YT-24-2 (OLD ML-C)	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.64	0.88	0.13	9032976	0.18	0.10	9032976
Total Calcium (Ca)	mg/L	28.9	6.47	25.5	9030108	25.0	0.25	9030108
Total Magnesium (Mg)	mg/L	8.78	1.22	7.64	9030108	7.43	0.25	9030108
Total Potassium (K)	mg/L	1.79	0.63	0.85	9030108	0.88	0.25	9030108
Total Sodium (Na)	mg/L	3.02	0.93	1.88	9030108	1.97	0.25	9030108
Total Sulphur (S)	mg/L	18.7	<3.0	8.6	9030108	7.7	3.0	9030108
RDL = Reportable Detection	n Limit		•	•	•			



#### LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3215	TR3216		TR3219	TR3220	TR3242		
Sampling Date		2018/06/17	2018/06/17		2018/06/17 09:30	2018/06/17 10:00			
COC Number		555908-04-01	555908-04-01		555908-05-01	555908-05-01	555908-05-01		
	UNITS	SAMPLE A	SAMPLE B	QC Batch	COFFEE MIX	YT-24 MIX	SAMPLE C	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	86.8	60.2	9031526	87.6	91.1	51.5	0.50	9031526
Elements	!							<u> </u>	
Total Mercury (Hg)	ug/L	0.0046	0.0060	9031949	<0.0020	<0.0020	0.0067	0.0020	9034463
Total Metals by ICPMS				Į.	1	1		l.	
Total Aluminum (Al)	ug/L	91.6	1970	9032976	310	399	181	3.0	9032976
Total Antimony (Sb)	ug/L	0.208	0.387	9032976	0.128	0.122	0.097	0.020	9032976
Total Arsenic (As)	ug/L	0.743	2.30	9032976	0.708	0.799	0.457	0.020	9032976
Total Barium (Ba)	ug/L	40.5	85.2	9032976	51.3	54.7	30.8	0.050	9032976
Total Beryllium (Be)	ug/L	0.022	0.140	9032976	0.021	0.023	0.030	0.010	9032976
Total Bismuth (Bi)	ug/L	<0.010	0.024	9032976	<0.010	<0.010	<0.010	0.010	9032976
Total Boron (B)	ug/L	<10	<10	9032976	<10	<10	<10	10	9032976
Total Cadmium (Cd)	ug/L	0.0062	0.0410	9032976	0.0731	0.0775	0.0132	0.0050	9032976
Total Chromium (Cr)	ug/L	0.41	3.79	9032976	0.61	1.00	0.47	0.10	9032976
Total Cobalt (Co)	ug/L	0.067	1.40	9032976	0.279	0.333	0.078	0.010	9032976
Total Copper (Cu)	ug/L	2.03	6.55	9032976	1.80	1.90	2.79	0.10	9032976
Total Iron (Fe)	ug/L	81.4	2860	9032976	473	583	142	5.0	9032976
Total Lead (Pb)	ug/L	<0.020	1.33	9032976	0.283	0.342	0.021	0.020	9032976
Total Lithium (Li)	ug/L	0.95	1.36	9032976	1.65	1.75	1.21	0.50	9032976
Total Manganese (Mn)	ug/L	1.45	61.4	9032976	25.4	29.6	4.68	0.10	9032976
Total Molybdenum (Mo)	ug/L	0.610	0.313	9032976	1.03	1.04	0.209	0.050	9032976
Total Nickel (Ni)	ug/L	0.96	4.33	9032976	2.08	2.31	1.46	0.10	9032976
Total Phosphorus (P)	ug/L	<5.0	61.1	9032976	26.1	26.3	5.2	5.0	9032976
Total Selenium (Se)	ug/L	0.074	0.121	9032976	0.337	0.372	0.092	0.040	9032976
Total Silicon (Si)	ug/L	4150	6700	9032976	3570	3620	3800	50	9032976
Total Silver (Ag)	ug/L	<0.010	0.022	9032976	<0.010	<0.010	<0.010	0.010	9032976
Total Strontium (Sr)	ug/L	213	76.1	9032976	121	123	73.7	0.050	9032976
Total Thallium (TI)	ug/L	0.0045	0.0171	9032976	0.0074	0.0088	0.0048	0.0020	9032976
Total Tin (Sn)	ug/L	<0.20	<0.20	9032976	<0.20	<0.20	<0.20	0.20	9032976
Total Titanium (Ti)	ug/L	<2.0	68.6	9032976	10.7	13.9	2.4	2.0	9032976
Total Uranium (U)	ug/L	9.13	3.78	9032976	1.03	1.17	1.77	0.0050	9032976
Total Vanadium (V)	ug/L	0.39	6.35	9032976	1.14	1.41	0.43	0.20	9032976
Total Zinc (Zn)	ug/L	<1.0	6.8	9032976	11.5	7.6	<1.0	1.0	9032976
RDL = Reportable Detection L	.imit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3215	TR3216		TR3219	TR3220	TR3242		
Sampling Date		2018/06/17	2018/06/17		2018/06/17 09:30	2018/06/17 10:00			
COC Number		555908-04-01	555908-04-01		555908-05-01	555908-05-01	555908-05-01		
	UNITS	SAMPLE A	SAMPLE B	QC Batch	COFFEE MIX	YT-24 MIX	SAMPLE C	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.49	1.24	9032976	0.15	0.26	0.67	0.10	9032976
Total Calcium (Ca)	mg/L	23.0	17.5	9030108	23.6	24.5	13.7	0.25	9030108
Total Magnesium (Mg)	mg/L	7.14	4.00	9030108	6.97	7.29	4.17	0.25	9030108
Total Potassium (K)	mg/L	1.87	1.00	9030108	0.89	0.90	1.00	0.25	9030108
Total Sodium (Na)	mg/L	2.63	1.49	9030108	1.96	2.00	2.19	0.25	9030108
Total Sulphur (S)	mg/L	10.0	7.5	9030108	7.0	7.5	6.2	3.0	9030108
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Maxxam ID		TR3242		
Sampling Date				
COC Number		555908-05-01		
	UNITS	SAMPLE C Lab-Dup	RDL	QC Batch
Total Metals by ICPMS				
Total Aluminum (AI)	ug/L	200	3.0	9032976
Total Antimony (Sb)	ug/L	0.097	0.020	9032976
Total Arsenic (As)	ug/L	0.464	0.020	9032976
Total Barium (Ba)	ug/L	32.4	0.050	9032976
Total Beryllium (Be)	ug/L	0.034	0.010	9032976
Total Bismuth (Bi)	ug/L	<0.010	0.010	9032976
Total Boron (B)	ug/L	<10	10	9032976
Total Cadmium (Cd)	ug/L	0.0149	0.0050	9032976
Total Chromium (Cr)	ug/L	0.45	0.10	9032976
Total Cobalt (Co)	ug/L	0.080	0.010	9032976
Total Copper (Cu)	ug/L	2.80	0.10	9032976
Total Iron (Fe)	ug/L	145	5.0	9032976
Total Lead (Pb)	ug/L	0.024	0.020	9032976
Total Lithium (Li)	ug/L	1.34	0.50	9032976
Total Manganese (Mn)	ug/L	4.55	0.10	9032976
Total Molybdenum (Mo)	ug/L	0.229	0.050	9032976
Total Nickel (Ni)	ug/L	1.43	0.10	9032976
Total Phosphorus (P)	ug/L	5.5	5.0	9032976
Total Selenium (Se)	ug/L	0.096	0.040	9032976
Total Silicon (Si)	ug/L	3710	50	9032976
Total Silver (Ag)	ug/L	<0.010	0.010	9032976
Total Strontium (Sr)	ug/L	73.4	0.050	9032976
Total Thallium (TI)	ug/L	0.0046	0.0020	9032976
Total Tin (Sn)	ug/L	<0.20	0.20	9032976
Total Titanium (Ti)	ug/L	2.5	2.0	9032976
Total Uranium (U)	ug/L	1.83	0.0050	9032976
Total Vanadium (V)	ug/L	0.42	0.20	9032976
Total Zinc (Zn)	ug/L	<1.0	1.0	9032976
Total Zirconium (Zr)	ug/L	0.68	0.10	9032976
RDL = Reportable Detection L	imit			
Lab-Dup = Laboratory Initiate	d Duplic	cate		



# LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

#### **GENERAL COMMENTS**

Sample TR3182 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3183 [CC-1.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3184 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3185 [CC-3.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3186 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3187 [CC-6.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3188 [CC-A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3189 [CC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3192 [CC-X]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3193 [LATTE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3209 [YUK-2.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3217 [FIELD BLANK]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample TR3184, Elements by ICPMS Low Level (dissolved): Test repeated. Sample TR3185, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.





#### **QUALITY ASSURANCE REPORT**

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9031504	Total Suspended Solids	2018/06/21			109	80 - 120	<1.0	mg/L		
9031890	Total Aluminum (Al)	2018/06/20	97	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
9031890	Total Antimony (Sb)	2018/06/20	97	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
9031890	Total Arsenic (As)	2018/06/20	98	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
9031890	Total Barium (Ba)	2018/06/20	95	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
9031890	Total Beryllium (Be)	2018/06/20	97	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
9031890	Total Bismuth (Bi)	2018/06/20	96	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9031890	Total Boron (B)	2018/06/20	94	80 - 120	97	80 - 120	<10	ug/L	NC	20
9031890	Total Cadmium (Cd)	2018/06/20	98	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9031890	Total Chromium (Cr)	2018/06/20	92	80 - 120	96	80 - 120	<0.10	ug/L	NC	20
9031890	Total Cobalt (Co)	2018/06/20	94	80 - 120	98	80 - 120	< 0.0050	ug/L	NC	20
9031890	Total Copper (Cu)	2018/06/20	93	80 - 120	96	80 - 120	<0.050	ug/L	NC	20
9031890	Total Iron (Fe)	2018/06/20	97	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
9031890	Total Lead (Pb)	2018/06/20	95	80 - 120	100	80 - 120	< 0.0050	ug/L	NC	20
9031890	Total Lithium (Li)	2018/06/20	94	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
9031890	Total Manganese (Mn)	2018/06/20	96	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
9031890	Total Molybdenum (Mo)	2018/06/20	97	80 - 120	101	80 - 120	<0.050	ug/L	NC	20
9031890	Total Nickel (Ni)	2018/06/20	95	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
9031890	Total Phosphorus (P)	2018/06/20	97	80 - 120	99	80 - 120	<2.0	ug/L	NC	20
9031890	Total Selenium (Se)	2018/06/20	96	80 - 120	99	80 - 120	<0.040	ug/L	NC	20
9031890	Total Silicon (Si)	2018/06/20	99	80 - 120	103	80 - 120	<50	ug/L	NC	20
9031890	Total Silver (Ag)	2018/06/20	96	80 - 120	99	80 - 120	< 0.0050	ug/L	NC	20
9031890	Total Strontium (Sr)	2018/06/20	98	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9031890	Total Thallium (TI)	2018/06/20	96	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9031890	Total Tin (Sn)	2018/06/20	97	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
9031890	Total Titanium (Ti)	2018/06/20	98	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
9031890	Total Uranium (U)	2018/06/20	99	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20
9031890	Total Vanadium (V)	2018/06/20	96	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
9031890	Total Zinc (Zn)	2018/06/20	NC	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9031890	Total Zirconium (Zr)	2018/06/20	96	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
9031949	Total Mercury (Hg)	2018/06/20	91	80 - 120	94	80 - 120	<0.0020	ug/L	NC	20
9032110	Dissolved Mercury (Hg)	2018/06/20	94	80 - 120	88	80 - 120	<0.0020	ug/L	NC	20



### QUALITY ASSURANCE REPORT(CONT'D)

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9032129	Dissolved Aluminum (Al)	2018/06/20	97	80 - 120	103	80 - 120	<0.50	ug/L	3.4	20
9032129	Dissolved Antimony (Sb)	2018/06/20	99	80 - 120	102	80 - 120	<0.020	ug/L	0.088	20
9032129	Dissolved Arsenic (As)	2018/06/20	101	80 - 120	104	80 - 120	<0.020	ug/L	0.36	20
9032129	Dissolved Barium (Ba)	2018/06/20	98	80 - 120	102	80 - 120	<0.020	ug/L	3.9	20
9032129	Dissolved Beryllium (Be)	2018/06/20	101	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
9032129	Dissolved Bismuth (Bi)	2018/06/20	96	80 - 120	103	80 - 120	< 0.0050	ug/L	11	20
9032129	Dissolved Boron (B)	2018/06/20	96	80 - 120	99	80 - 120	<10	ug/L	NC	20
9032129	Dissolved Cadmium (Cd)	2018/06/20	101	80 - 120	105	80 - 120	< 0.0050	ug/L	1.6	20
9032129	Dissolved Chromium (Cr)	2018/06/20	94	80 - 120	99	80 - 120	<0.10	ug/L	10	20
9032129	Dissolved Cobalt (Co)	2018/06/20	96	80 - 120	100	80 - 120	<0.0050	ug/L	6.8	20
9032129	Dissolved Copper (Cu)	2018/06/20	93	80 - 120	98	80 - 120	<0.050	ug/L	2.7	20
9032129	Dissolved Iron (Fe)	2018/06/20	98	80 - 120	104	80 - 120	<1.0	ug/L	4.5	20
9032129	Dissolved Lead (Pb)	2018/06/20	97	80 - 120	104	80 - 120	< 0.0050	ug/L	3.4	20
9032129	Dissolved Lithium (Li)	2018/06/20	98	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
9032129	Dissolved Manganese (Mn)	2018/06/20	98	80 - 120	103	80 - 120	<0.050	ug/L	7.8	20
9032129	Dissolved Molybdenum (Mo)	2018/06/20	101	80 - 120	105	80 - 120	<0.050	ug/L	5.3	20
9032129	Dissolved Nickel (Ni)	2018/06/20	97	80 - 120	101	80 - 120	<0.020	ug/L	5.4	20
9032129	Dissolved Phosphorus (P)	2018/06/20	99	80 - 120	102	80 - 120	<2.0	ug/L	NC	20
9032129	Dissolved Selenium (Se)	2018/06/20	98	80 - 120	102	80 - 120	<0.040	ug/L	8.3	20
9032129	Dissolved Silicon (Si)	2018/06/20	102	80 - 120	107	80 - 120	<50	ug/L	0.81	20
9032129	Dissolved Silver (Ag)	2018/06/20	99	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
9032129	Dissolved Strontium (Sr)	2018/06/20	102	80 - 120	108	80 - 120	<0.050	ug/L	3.1	20
9032129	Dissolved Thallium (TI)	2018/06/20	97	80 - 120	104	80 - 120	<0.0020	ug/L	2.6	20
9032129	Dissolved Tin (Sn)	2018/06/20	100	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
9032129	Dissolved Titanium (Ti)	2018/06/20	97	80 - 120	102	80 - 120	<0.50	ug/L	7.0	20
9032129	Dissolved Uranium (U)	2018/06/20	101	80 - 120	109	80 - 120	<0.0020	ug/L	NC	20
9032129	Dissolved Vanadium (V)	2018/06/20	98	80 - 120	103	80 - 120	<0.20	ug/L	6.5	20
9032129	Dissolved Zinc (Zn)	2018/06/20	102	80 - 120	104	80 - 120	<0.10	ug/L	1.6	20
9032129	Dissolved Zirconium (Zr)	2018/06/20	99	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
9032131	Dissolved Aluminum (AI)	2018/06/20	103	80 - 120	102	80 - 120	<0.50	ug/L	0.33	20
9032131	Dissolved Antimony (Sb)	2018/06/20	103	80 - 120	101	80 - 120	<0.020	ug/L	2.4	20
9032131	Dissolved Arsenic (As)	2018/06/20	106	80 - 120	103	80 - 120	<0.020	ug/L	1.9	20



### QUALITY ASSURANCE REPORT(CONT'D)

			Matrix	Spike	Spiked	Blank	Method B	lank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9032131	Dissolved Barium (Ba)	2018/06/20	100	80 - 120	99	80 - 120	<0.020	ug/L	2.1	20
9032131	Dissolved Beryllium (Be)	2018/06/20	105	80 - 120	103	80 - 120	<0.010	ug/L	NC	20
9032131	Dissolved Bismuth (Bi)	2018/06/20	100	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9032131	Dissolved Boron (B)	2018/06/20	101	80 - 120	101	80 - 120	<10	ug/L	NC	20
9032131	Dissolved Cadmium (Cd)	2018/06/20	105	80 - 120	103	80 - 120	<0.0050	ug/L	6.8	20
9032131	Dissolved Chromium (Cr)	2018/06/20	98	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
9032131	Dissolved Cobalt (Co)	2018/06/20	100	80 - 120	99	80 - 120	<0.0050	ug/L	9.6	20
9032131	Dissolved Copper (Cu)	2018/06/20	97	80 - 120	97	80 - 120	<0.050	ug/L	0.55	20
9032131	Dissolved Iron (Fe)	2018/06/20	102	80 - 120	103	80 - 120	<1.0	ug/L	4.7	20
9032131	Dissolved Lead (Pb)	2018/06/20	102	80 - 120	100	80 - 120	<0.0050	ug/L	5.9	20
9032131	Dissolved Lithium (Li)	2018/06/20	102	80 - 120	102	80 - 120	<0.50	ug/L	3.8	20
9032131	Dissolved Manganese (Mn)	2018/06/20	102	80 - 120	102	80 - 120	<0.050	ug/L	1.4	20
9032131	Dissolved Molybdenum (Mo)	2018/06/20	112	80 - 120	104	80 - 120	<0.050	ug/L	1.4	20
9032131	Dissolved Nickel (Ni)	2018/06/20	100	80 - 120	100	80 - 120	<0.020	ug/L	6.1	20
9032131	Dissolved Phosphorus (P)	2018/06/20	106	80 - 120	100	80 - 120	<2.0	ug/L	2.1	20
9032131	Dissolved Selenium (Se)	2018/06/20	104	80 - 120	101	80 - 120	<0.040	ug/L	8.1	20
9032131	Dissolved Silicon (Si)	2018/06/20	105	80 - 120	105	80 - 120	<50	ug/L	4.3	20
9032131	Dissolved Silver (Ag)	2018/06/20	103	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9032131	Dissolved Strontium (Sr)	2018/06/20	NC	80 - 120	105	80 - 120	<0.050	ug/L	3.3	20
9032131	Dissolved Thallium (TI)	2018/06/20	102	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
9032131	Dissolved Tin (Sn)	2018/06/20	102	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
9032131	Dissolved Titanium (Ti)	2018/06/20	104	80 - 120	104	80 - 120	<0.50	ug/L	17	20
9032131	Dissolved Uranium (U)	2018/06/20	106	80 - 120	104	80 - 120	<0.0020	ug/L	4.0	20
9032131	Dissolved Vanadium (V)	2018/06/20	104	80 - 120	100	80 - 120	<0.20	ug/L	3.0	20
9032131	Dissolved Zinc (Zn)	2018/06/20	103	80 - 120	104	80 - 120	<0.10	ug/L	2.8	20
9032131	Dissolved Zirconium (Zr)	2018/06/20	107	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
9032514	Total Ammonia (N)	2018/06/20	115	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20
9032517	Total Ammonia (N)	2018/06/20	100	80 - 120	104	80 - 120	<0.0050	mg/L	0	20
9032627	рН	2018/06/20			101	97 - 103			0.79	20
9032633	Alkalinity (PP as CaCO3)	2018/06/20					<0.50	mg/L	NC	20
9032633	Alkalinity (Total as CaCO3)	2018/06/20	NC	80 - 120	97	80 - 120	0.54, RDL=0.50	mg/L	1.7	20
9032633	Bicarbonate (HCO3)	2018/06/20					0.66, RDL=0.50	mg/L	1.7	20



### QUALITY ASSURANCE REPORT(CONT'D)

			Matrix	Spike	Spiked	Blank	Method B	Blank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9032633	Carbonate (CO3)	2018/06/20					<0.50	mg/L	NC	20
9032633	Hydroxide (OH)	2018/06/20					<0.50	mg/L	NC	20
9032635	Conductivity	2018/06/20			99	80 - 120	1.0, RDL=1.0	uS/cm	0.14	20
9032641	рН	2018/06/21			101	97 - 103			0.89	20
9032654	Alkalinity (PP as CaCO3)	2018/06/21					<0.50	mg/L	NC	20
9032654	Alkalinity (Total as CaCO3)	2018/06/21	NC	80 - 120	100	80 - 120	<0.50	mg/L	9.0	20
9032654	Bicarbonate (HCO3)	2018/06/21					<0.50	mg/L	9.0	20
9032654	Carbonate (CO3)	2018/06/21					<0.50	mg/L	NC	20
9032654	Hydroxide (OH)	2018/06/21					<0.50	mg/L	NC	20
9032655	Conductivity	2018/06/21			99	80 - 120	1.1, RDL=1.0	uS/cm	2.6	20
9032976	Total Aluminum (AI)	2018/06/21	109	80 - 120	107	80 - 120	<3.0	ug/L	10	20
9032976	Total Antimony (Sb)	2018/06/21	107	80 - 120	107	80 - 120	<0.020	ug/L	0.52	20
9032976	Total Arsenic (As)	2018/06/21	111	80 - 120	112	80 - 120	<0.020	ug/L	1.5	20
9032976	Total Barium (Ba)	2018/06/21	105	80 - 120	106	80 - 120	<0.050	ug/L	5.3	20
9032976	Total Beryllium (Be)	2018/06/21	108	80 - 120	109	80 - 120	<0.010	ug/L	13	20
9032976	Total Bismuth (Bi)	2018/06/21	102	80 - 120	105	80 - 120	<0.010	ug/L	NC	20
9032976	Total Boron (B)	2018/06/21	106	80 - 120	108	80 - 120	<10	ug/L	NC	20
9032976	Total Cadmium (Cd)	2018/06/21	107	80 - 120	106	80 - 120	<0.0050	ug/L	12	20
9032976	Total Chromium (Cr)	2018/06/21	102	80 - 120	107	80 - 120	<0.10	ug/L	3.0	20
9032976	Total Cobalt (Co)	2018/06/21	108	80 - 120	110	80 - 120	<0.010	ug/L	1.8	20
9032976	Total Copper (Cu)	2018/06/21	106	80 - 120	105	80 - 120	<0.10	ug/L	0.49	20
9032976	Total Iron (Fe)	2018/06/21	109	80 - 120	107	80 - 120	<5.0	ug/L	2.2	20
9032976	Total Lead (Pb)	2018/06/21	107	80 - 120	109	80 - 120	<0.020	ug/L	14	20
9032976	Total Lithium (Li)	2018/06/21	109	80 - 120	107	80 - 120	<0.50	ug/L	10	20
9032976	Total Manganese (Mn)	2018/06/21	105	80 - 120	109	80 - 120	<0.10	ug/L	2.9	20
9032976	Total Molybdenum (Mo)	2018/06/21	112	80 - 120	110	80 - 120	<0.050	ug/L	9.0	20
9032976	Total Nickel (Ni)	2018/06/21	104	80 - 120	107	80 - 120	<0.10	ug/L	2.5	20
9032976	Total Phosphorus (P)	2018/06/21	102	80 - 120	103	80 - 120	<5.0	ug/L	5.4	20
9032976	Total Selenium (Se)	2018/06/21	111	80 - 120	107	80 - 120	<0.040	ug/L	4.5	20
9032976	Total Silicon (Si)	2018/06/21	105	80 - 120	105	80 - 120	<50	ug/L	2.6	20
9032976	Total Silver (Ag)	2018/06/21	107	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
9032976	Total Strontium (Sr)	2018/06/21	NC	80 - 120	106	80 - 120	<0.050	ug/L	0.37	20



### QUALITY ASSURANCE REPORT(CONT'D)

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9032976	Total Thallium (TI)	2018/06/21	104	80 - 120	106	80 - 120	<0.0020	ug/L	4.3	20
9032976	Total Tin (Sn)	2018/06/21	107	80 - 120	106	80 - 120	<0.20	ug/L	NC	20
9032976	Total Titanium (Ti)	2018/06/21	108	80 - 120	111	80 - 120	<2.0	ug/L	3.8	20
9032976	Total Uranium (U)	2018/06/21	107	80 - 120	110	80 - 120	<0.0050	ug/L	3.4	20
9032976	Total Vanadium (V)	2018/06/21	106	80 - 120	107	80 - 120	<0.20	ug/L	2.2	20
9032976	Total Zinc (Zn)	2018/06/21	106	80 - 120	107	80 - 120	<1.0	ug/L	NC	20
9032976	Total Zirconium (Zr)	2018/06/21	110	80 - 120	107	80 - 120	<0.10	ug/L	1.0	20
9032979	Nitrate plus Nitrite (N)	2018/06/20	114	80 - 120	103	80 - 120	<0.0020	mg/L	3.2	25
9032982	Nitrite (N)	2018/06/20	109	80 - 120	103	80 - 120	<0.0020	mg/L	22	25
9032983	Nitrate plus Nitrite (N)	2018/06/20	109	80 - 120	102	80 - 120	<0.0020	mg/L	NC	25
9032985	Nitrite (N)	2018/06/20	107	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9032986	Nitrate plus Nitrite (N)	2018/06/20	109	80 - 120	105	80 - 120	<0.0020	mg/L	NC	25
9032988	Nitrite (N)	2018/06/20	103	80 - 120	103	80 - 120	<0.0020	mg/L	4.9	25
9033022	Total Aluminum (Al)	2018/06/26	148 (1)	80 - 120	105	80 - 120	<3.0	ug/L	21 (1)	20
9033022	Total Antimony (Sb)	2018/06/26	102	80 - 120	100	80 - 120	<0.020	ug/L	3.5	20
9033022	Total Arsenic (As)	2018/06/26	106	80 - 120	101	80 - 120	<0.020	ug/L	10	20
9033022	Total Barium (Ba)	2018/06/26	NC	80 - 120	101	80 - 120	<0.050	ug/L	3.5	20
9033022	Total Beryllium (Be)	2018/06/26	105	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
9033022	Total Bismuth (Bi)	2018/06/26	101	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9033022	Total Boron (B)	2018/06/26	103	80 - 120	103	80 - 120	<10	ug/L	NC	20
9033022	Total Cadmium (Cd)	2018/06/26	102	80 - 120	100	80 - 120	<0.0050	ug/L	0.14	20
9033022	Total Chromium (Cr)	2018/06/26	97	80 - 120	95	80 - 120	<0.10	ug/L	NC	20
9033022	Total Cobalt (Co)	2018/06/26	95	80 - 120	95	80 - 120	<0.010	ug/L	13	20
9033022	Total Copper (Cu)	2018/06/26	94	80 - 120	95	80 - 120	<0.10	ug/L	1.7	20
9033022	Total Iron (Fe)	2018/06/26	122 (1)	80 - 120	105	80 - 120	<5.0	ug/L	18	20
9033022	Total Lead (Pb)	2018/06/26	105	80 - 120	102	80 - 120	<0.020	ug/L	4.6	20
9033022	Total Lithium (Li)	2018/06/26	104	80 - 120	105	80 - 120	<0.50	ug/L	1.4	20
9033022	Total Manganese (Mn)	2018/06/26	92	80 - 120	96	80 - 120	<0.10	ug/L	2.7	20
9033022	Total Molybdenum (Mo)	2018/06/26	105	80 - 120	103	80 - 120	<0.050	ug/L	5.3	20
9033022	Total Nickel (Ni)	2018/06/26	98	80 - 120	96	80 - 120	<0.10	ug/L	6.4	20
9033022	Total Phosphorus (P)	2018/06/26	103	80 - 120	94	80 - 120	<5.0	ug/L	18	20
9033022	Total Selenium (Se)	2018/06/26	105	80 - 120	99	80 - 120	<0.040	ug/L	6.1	20



# QUALITY ASSURANCE REPORT(CONT'D)

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9033022	Total Silicon (Si)	2018/06/26	115	80 - 120	107	80 - 120	<50	ug/L	1.5	20
9033022	Total Silver (Ag)	2018/06/26	102	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9033022	Total Strontium (Sr)	2018/06/26	NC	80 - 120	97	80 - 120	<0.050	ug/L	0.013	20
9033022	Total Thallium (TI)	2018/06/26	103	80 - 120	101	80 - 120	<0.0020	ug/L	12	20
9033022	Total Tin (Sn)	2018/06/26	100	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9033022	Total Titanium (Ti)	2018/06/26	116	80 - 120	96	80 - 120	<2.0	ug/L	NC	20
9033022	Total Uranium (U)	2018/06/26	107	80 - 120	103	80 - 120	< 0.0050	ug/L	4.1	20
9033022	Total Vanadium (V)	2018/06/26	102	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
9033022	Total Zinc (Zn)	2018/06/26	100	80 - 120	97	80 - 120	<1.0	ug/L	3.3	20
9033022	Total Zirconium (Zr)	2018/06/26	107	80 - 120	96	80 - 120	<0.10	ug/L	NC	20
9033715	Total Mercury (Hg)	2018/06/21	92	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
9033860	ORP	2018/06/21							1.9	20
9033916	Dissolved Mercury (Hg)	2018/06/21	103	80 - 120	92	80 - 120	<0.0020	ug/L	NC	20
9033986	Fluoride (F)	2018/06/21	102	80 - 120	100	80 - 120	0.010, RDL=0.010	mg/L	2.0	20
9033989	Fluoride (F)	2018/06/21	104	80 - 120	100	80 - 120	<0.010	mg/L	3.6	20
9033991	Fluoride (F)	2018/06/21	101	80 - 120	100	80 - 120	<0.010	mg/L	NC	20
9034080	Total Mercury (Hg)	2018/06/21	88	80 - 120	97	80 - 120	<0.0020	ug/L	1.4	20
9034141	Total Suspended Solids	2018/06/22			99	80 - 120	<1.0	mg/L		
9034304	Total Suspended Solids	2018/06/22			98	80 - 120	<1.0	mg/L		
9034463	Total Mercury (Hg)	2018/06/21	87	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
9034470	Total Dissolved Solids	2018/06/23	100	80 - 120	95	80 - 120	<10	mg/L	7.3	20
9034692	рН	2018/06/21			102	97 - 103				
9034694	Conductivity	2018/06/21			98	80 - 120	<1.0	uS/cm		
9034704	Alkalinity (PP as CaCO3)	2018/06/21					<0.50	mg/L		
9034704	Alkalinity (Total as CaCO3)	2018/06/21	95	80 - 120	92	80 - 120	<0.50	mg/L		
9034704	Bicarbonate (HCO3)	2018/06/21					<0.50	mg/L		
9034704	Carbonate (CO3)	2018/06/21					<0.50	mg/L		
9034704	Hydroxide (OH)	2018/06/21					<0.50	mg/L		
9034737	Total Dissolved Solids	2018/06/23	100	80 - 120	103	80 - 120	<10	mg/L	1.6	20
9035544	Total Dissolved Solids	2018/06/23	98	80 - 120	100	80 - 120	<10	mg/L	2.5	20
9035676	Dissolved Chloride (CI)	2018/06/21			102	80 - 120	<0.50	mg/L	0.47	20



### QUALITY ASSURANCE REPORT(CONT'D)

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9035702	Dissolved Chloride (Cl)	2018/06/21	99	80 - 120	103	80 - 120	<0.50	mg/L	NC	20
9035705	Dissolved Chloride (Cl)	2018/06/21			106	80 - 120	<0.50	mg/L		
9036008	Dissolved Organic Carbon (C)	2018/06/22	NC	80 - 120	104	80 - 120	<0.50	mg/L	1.9	20
9036009	Dissolved Organic Carbon (C)	2018/06/22	105	80 - 120	107	80 - 120	<0.50	mg/L	3.9	20
9036012	Total Organic Carbon (C)	2018/06/22	104	80 - 120	116	80 - 120	<0.50	mg/L	11	20
9036013	Total Organic Carbon (C)	2018/06/22	NC	80 - 120	109	80 - 120	<0.50	mg/L	3.3	20
9037490	рН	2018/06/24			102	97 - 103			0.37	20
9037496	Conductivity	2018/06/24			101	80 - 120	1.0, RDL=1.0	uS/cm		
9037500	Alkalinity (PP as CaCO3)	2018/06/24					<0.50	mg/L		
9037500	Alkalinity (Total as CaCO3)	2018/06/24			96	80 - 120	0.71, RDL=0.50	mg/L		
9037500	Bicarbonate (HCO3)	2018/06/24					0.87, RDL=0.50	mg/L		
9037500	Carbonate (CO3)	2018/06/24					<0.50	mg/L		
9037500	Hydroxide (OH)	2018/06/24					<0.50	mg/L		
9040541	Dissolved Aluminum (Al)	2018/06/26			102	80 - 120	<0.50	ug/L		
9040541	Dissolved Antimony (Sb)	2018/06/26			101	80 - 120	<0.020	ug/L		
9040541	Dissolved Arsenic (As)	2018/06/26			103	80 - 120	<0.020	ug/L		
9040541	Dissolved Barium (Ba)	2018/06/26			102	80 - 120	<0.020	ug/L		
9040541	Dissolved Beryllium (Be)	2018/06/26			101	80 - 120	<0.010	ug/L		
9040541	Dissolved Bismuth (Bi)	2018/06/26			101	80 - 120	<0.0050	ug/L		
9040541	Dissolved Boron (B)	2018/06/26			97	80 - 120	<10	ug/L		
9040541	Dissolved Cadmium (Cd)	2018/06/26			102	80 - 120	<0.0050	ug/L		
9040541	Dissolved Chromium (Cr)	2018/06/26			99	80 - 120	<0.10	ug/L		
9040541	Dissolved Cobalt (Co)	2018/06/26			98	80 - 120	<0.0050	ug/L		
9040541	Dissolved Copper (Cu)	2018/06/26			96	80 - 120	<0.050	ug/L		
9040541	Dissolved Iron (Fe)	2018/06/26			103	80 - 120	<1.0	ug/L		
9040541	Dissolved Lead (Pb)	2018/06/26			101	80 - 120	<0.0050	ug/L		
9040541	Dissolved Lithium (Li)	2018/06/26			103	80 - 120	<0.50	ug/L		
9040541	Dissolved Manganese (Mn)	2018/06/26			102	80 - 120	<0.050	ug/L		
9040541	Dissolved Molybdenum (Mo)	2018/06/26			105	80 - 120	<0.050	ug/L		
9040541	Dissolved Nickel (Ni)	2018/06/26			100	80 - 120	<0.020	ug/L		
9040541	Dissolved Phosphorus (P)	2018/06/26			98	80 - 120	<2.0	ug/L		
9040541	Dissolved Selenium (Se)	2018/06/26			100	80 - 120	<0.040	ug/L		



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9040541	Dissolved Silicon (Si)	2018/06/26			105	80 - 120	<50	ug/L		
9040541	Dissolved Silver (Ag)	2018/06/26			100	80 - 120	<0.0050	ug/L		
9040541	Dissolved Strontium (Sr)	2018/06/26			103	80 - 120	<0.050	ug/L		
9040541	Dissolved Thallium (TI)	2018/06/26			102	80 - 120	<0.0020	ug/L		
9040541	Dissolved Tin (Sn)	2018/06/26			83	80 - 120	<0.20	ug/L		
9040541	Dissolved Titanium (Ti)	2018/06/26			103	80 - 120	<0.50	ug/L		
9040541	Dissolved Uranium (U)	2018/06/26			104	80 - 120	<0.0020	ug/L		
9040541	Dissolved Vanadium (V)	2018/06/26			101	80 - 120	<0.20	ug/L		
9040541	Dissolved Zinc (Zn)	2018/06/26			101	80 - 120	<0.10	ug/L		
9040541	Dissolved Zirconium (Zr)	2018/06/26			102	80 - 120	<0.10	ug/L		
9041489	Free Cyanide	2018/06/25	109	80 - 120	106	80 - 120	<0.0010	mg/L	18	20
9041541	Free Cyanide	2018/06/25	114	80 - 120	110	80 - 120	< 0.0010	mg/L	0	20
9042281	Dissolved Zirconium (Zr)	2018/06/28	105	80 - 120	101	80 - 120	<0.10	ug/L	3.6	20
9043089	Dissolved Sulphate (SO4)	2018/06/27			106	80 - 120	<0.50	mg/L	9.0	20
9043093	Dissolved Sulphate (SO4)	2018/06/27	NC	80 - 120	95	80 - 120	<0.50	mg/L	0.25	20
9043098	Dissolved Sulphate (SO4)	2018/06/27	NC	80 - 120	96	80 - 120	<0.50	mg/L	1.2	20
9045883	Dissolved Sulphate (SO4)	2018/06/29			102	80 - 120	<0.50	mg/L		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

mely to
Andy Lu, Ph.D., P.Chem., Scientific Specialist
., ., ,
Cristina Carriere
Carrie - Carriere
Cristina Carriere, Scientific Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

	IN.	IVOICE TO:			Report in	formation	8						Project le	nformation	1			以表现少据这位的社会多种的。
mpany Name	#3604 LORAX	ENVIRONMENTAL SERVICES	LTD. Company							Quo	ation#	3	B40231					CONTACTOR OF THE STATE OF THE S
intact Name	Aida Piaseczny	Total Andreas	Contact N	ame David Flath	er					P.0	ú	-				5111		MILL SUPERSTONE SUPERSTONE SUPERING THE SUPERING
dress	2289 BURRARD		Address	÷						Proje	ct#	2	Gold Cor	p Coffee	e Creek-	SW	B84	8821_COC
	VANCOUVER B			-			i Pr			- 1000	ct Name	-					-	/oject
eno	(604) 688-7173	fax (604) 688-717 llorax.ca; shukling.ng@lorax.ca	5 Phone Email	David Flath	en@lorax		Fax			Site		2					_	Ce555908-01-01
Regulatory (		Jorax.cu, Srianing.ng@iorax.cu		ecial Instructions	or agree and		T			5811	pled By Analysis f	Requested	1				_	Turnaround Time (TAT) Required
						Drinking Water ? (Y / N ) d Filtered ? (Y / N )	1	Level	LCI, F, NO2, NO3,	WAD			el Dissolved Metals Hg	l Total Metals incl. CV			(will be ap Standard 1 Please not days - con	Please provide advance notice for rush projects Standard) TAT plied if Rush TAT is not specified) TAT = 5-T Working days for most tests tes Standard TAT for certain tests such as BOD and Dioxins/ Test your Project Manager for details. It Rush TAT (if applies to entire submission) red:  Time Required
		rinking water samples - please use the l at be kept cool ( < 10°C ) from time of sam	and the same of th	The state of the s		ulated	Routine (Alk-I LL, pH, TDS)	TSS-Low	Anions (LL SO4)	Cyanide -	roc	DOC	Low Level Incl. CV Hg	Low Level	ORP		Rush Confer	mattoo Number (call tab for it)
Samp	le Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regi	EZ	52	A S	o ,	, μ	ď	25	3 F	0		# of Bottles	RECEIVED IN COMPTUELLORSE
	SID#162743	CC-0.5	18/06/16	12:31	w	NN	/	/	/	/	/	/	/	/	/		13	BY: 84000@104
	SID#162744	CC-1.0	18/06/16	14:55	w	NA	1/	/	/	/	/	/	/	/			13	2018 -06- 1.9
	SID#162745	CC-1.5	18/06/16	15:13	W	NN	/	/	/	/	/	/	/	/	/		13	61917
110010	SID#162746	CC-3.5	18/86/14	12:57	W	NA	1/	/	/	/	/	/	/	/	/		13	TEMP: 9 19 19
10000	SID#162747	CC-4.5	18/06/14	10:36	W	NA	/	/	1	/	/	/	/	/	/		13	5/3/6
	SID#162748	CC-5.0	18/06/11		w	NA	1/	/	1	/	/	1	/	/	/		13	Discontinued
HIER	SID#149895	CC-5.5	18/06/11		W.	NV	1	/	1	/	/	/	1	/	1	-	13	Discontinued
DIG	SID#149896	CC-6.0	18/06/11	16:19	W	NA	/	/	/	/	/	/	/	/	/	2	13	5 / 4 /3
110111	SID#149897	CC-A	18/06/14	15:52	w	NA	/	/	/	/	/	1	/	/			13	10/10/10
HMIII	SID#149898	СС-В	18/86/16	14:30	w	NA	/	/	/	/	/	/	/	/	/		13	cooling media pre
* REL	NOUISHEDBY: (Signatur	e(Print) Date:	(YYMM/DD) T	·40 A	HAN	JA	Signature/P LOB	Jol	/	D#	US 10	6/19	Time 14.3		used and ubmitted	Time Ser	ntive Terr	Lab Use Only  Cuelody Seal Intact on  Yes No

	INV	OICE TO:			Report Inf	ormation	10						Project i	nformation	16			附是《为少报》在15公司的《数据》,则以 <b>第</b> 000	5.00
ompany Name	#3604 LORAX E	NVIRONMENTAL SERVICES	LTD. Company Na							Que	tation#	1	B40231					\$\$\$\$P\$	attle Order #:
ontact Name	Aida Piaseczny		Contact Nam	<ul> <li>David Flathe</li> </ul>	er:					P.0	#						204	・ におみあたこのはようななままは、高・■ □	THE REAL PROPERTY.
ddress	2289 BURRARD		Address							Pro	ect#	2	Gold Cor	p Coffe	e Creek-S	W	584	8821_COC	555908
	VANCOUVER BC	722.00.222.2.0	75			_					ect Name						-	with a contract of the contrac	oject Manager
hane	(604) 688-7173	Fax: (604) 688-71 orax.ca; shukling.ng@lorax.ca	C. S. Flat. Feb.	David Flath	ar@loray		Fax	_	_	Site		-	_					C#55598-02-01	Diana Cruz
nail		orax.ca, snuking.nggporax.ca		al Instructions	CI (GIOTAX		1			San	Analysis F	Sequested				-		Turnaround Time (TAT) Required	
Regulatory C	enny o					Drinking Water 2 (Y / N )	-	Level	.CI, F, NO2, NO3,	WAD			Dissolved Metals	Total Metals incl. CV		- 1	(will be ap) Standard Please not days - con	Please provide advance notice for rush proje standard) TAT is not specified) "AT = 5-7 Working days for most tests is: Standard TAT for certain tests such as BOD and D for your Project Manager for details." is Rush TAT (if applies to entire submission)	
W	2000/400/2007/1400/2000	nking water samples - please use the t be kept cool ( < 10°C ) from time of sar		206402(8))(881)		Regulated Drinki	Routine (A LL, pH, TD	SS-Low I	Anions (LL:0 SO4)	Cyanide -		O	CV Hg	Level	0.		Rush Centin	nation Number (cell lap to	r A)
Samo	le Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regi	R8.	158	SO	Ç	TOC	DOG	Low	Low	ORP		# of Bottles	Comments	
	SID#149699	CC-C			w	Н	-									_		Discontinued	
	SID#149900 -	CC-D			w		-											DIRECTALINGS	RSE
	SID#149901	CC-X	18/06/16	11:26	w	NI	1/	/	/	/	/	/	/	/			13	BY: Slycma 1	
	SIDW149902	Latte Mix	48/06/16	11:50	.wc	NA	1/	/	/	/		/	/		/		13	2018 -06- 1 8	
	SID#149903	HC-2.5	18/06/17	9:45	W	NI	1/	/	/	/				/			13	69	7
	SID#149904	HC-5.0	18/06/17	7:45	W	NI	1	/	/	/	/	/	/	/			13	TEMP: 9 / 9 /	13
	51DW094856	HC-A	18/06/17	8:35	W	NN	/	/	/	/		/	/	/			13	5 3	6
	SID#206057	HC-B	18/06/17	8:55	W	NA	/	/	/	/	/	/	/	/	/		13	65 84	193
LIMITU	SID#206058	HC-C	18/06/17	9:20	W	NI	1/	/	/	/				/			13	10 10	10
	SID#206059	Halfway Mix	18/06/17	9:23	W.	NA	1/	/	/	/	/	/	/	/			13	cooling media po	resent
M	tchel No	Print) Date	66/17 16	10 -8}	SHLA	-	Signature/F		рч		IR/OL	11-20-6	Time 1 /4 ! 30		used and ubmitted	Time Sens	ties Ten	Lab Use Only  perature (°C) on Receipt Custody Seal Int  Yes	act on Cooler?

		NVOICE TO:			Report Info	rmation	ř.						Project In	formation				東京本   年   小松かと行うよ師	<b>対処研集制の開刊</b>	
impany Name	#3604 LORAX	ENVIRONMENTAL SERVICES L'	TD. Company N	arne						Que	etation #		B40231					ME WAY AND A	<b>分表/除</b>	le Order#:
ntact Name	Aida Piaseczny		Contact Nar	ne David Flath	er					P.0	#							100		
fress	2289 BURRARE	Wild Control of the C	Address							Pro	ect#	2	Gold Cor	p Coffee	Creek-	sw	- 85	848821_COC		55908
	VANCOUVER B		-				. 500			100000	oct Name	-					- , <sup></sup>		CHOOSEDS III	uct Manager
ine .	(604) 688-7173	Fax: (604) 688-7175 @lorax.ca; shukling.ng@lorax.ca		David.Flath	or@lorny a		Fax			Site		- 2					-			Diana Cruz
ail .	aida piasecznyc	giorax ca, sriuking rig@iorax.ca	Email	ial Instructions	CI (LE) OTAX. C		T =			San	npled By Applusis I	Requested					_	C#555908-03-01	ne (TAT) Required	NAME AND 1995
Regulatory C	Criteria		Spec	set a terrocutor is		î	13		T		T			3					ne (TAT) Required so notice for rush project	8
						Regulated Drinking Water 2 ( Y / I Metals Field Fittered 2 ( Y / N )	EC-LL, NH4-		NO2, NO3,				ved Metals	Metals incl. (			(will be ap Standard Please no	Standard) TAT plied if Rush TAT is not specif TAT = 5-7 Working days for m te: Standard TAT for certain te	lied) lost fests lists such as 800 and Dic	
						king	4_	0	IL.	WAD			Dissolved	(al				stact your Project Manager for ic Rush TAT (if applies to entin		
	Note: For regulatori	drinking water samples - please use the Dr	inking Water Chain o	Custody Form		Drin d Fir	(Alk-LL TDS)	Level	(LL.CI, F.	100			H <sub>D</sub>	Level Total		- 1	Date Requi		Time Required	
	TO THE LOCAL PROPERTY OF THE PARTY OF THE PA	ust be kept coal (< 10°C) from time of sample	WORKS W.			ated Fiel	pH. T	Low	St _	g			Level D CV Hg	E E		1	Rush Confin	mation Number	(call lab for	e)
		Contract to the contract of th			227.00	Regul	Rout LL. p	TSS-Low	Anions SO4)	Cyanide	100	900	Low incl.	Low	ORP		of Battles		Comments	
LINE	ole Barcode Label	Sample (Location) Identification	18/66/17	13:23	Matrix W	NA	1 0	/	/	/	7	/	7	7	7	ľ	13	RECEIVED	IN WHITEHO	RSE
110111	SIDW206061	IC-1.5	18/06/17	13:16	w	N	/	/	/	/	/	/			/		13	DY. Oli	tonole t	040
	SID#206062	IC-2.5	18/06/17	13:50	w	NA	/	/	/	/	/	/	/	/			13	20	018 -06- 18	
10010	SID#206063	IC-3.0	18/06/17	14:20	w	NA	/	/	/		/	/					13	TEMP: 6	191	7
	SID#206064	IC-4.5	18/06/17	14:45	W	NA	1/	/	/	/	/	/	/	/			13	9	9	3
8 (00 6) 0	SID#206865	ML-A	18/06/17	N:45	w	NA	//	/	/	/	/			/.			13		p 8	6
	SID#206066	ML-B	18/06/17	12:10	w	NA	/	/	/	/	/	/	/			9	13		5 4	3
700700	SID#206067	YT-24-1 (or ML-1.0)	18/06/17	11:15	W	NA	1/	/,	4	/		/	/,				13	C	octing medi	a prese
1000	SIDW206068	YT-24-2 (old ML-C)	18/06/17	12:30	W	NK	/	/	/	/,	/	/		/			13			
(8//8/20	SID#206069	YUK-2.0	18/06/16	11:05	W	NI	1/	/	/	/	/	/	/	/			13			
1,000	INQUISHED BY: (Signatur	10/6	Y/MM/DD) Tim	19.6		-	Signature/F		to to	100	ete: (YY/MM	(00)	Time	note	used and ubmitted	Time Sensit	ion I	Lab Use	Only Custody Seel Inte	et ou Coolect
M	tchell 1	lordin 18/0	0/1/ 16.2	087	SHA	V	ALD	5 0	104	20	18/0	77	14:3	U			Ten	nperature (°C) on Receipt	Yas [	No No
UNLESS OF	THERWISE AGREED TO IT	N WRITING, WORK SUBMITTED ON THIS CHAIR	N OF CUSTODY IS SUB	JECT TO MAXXAM'S S	TANDARD TER	MS AND	CONDITION	IS. SIGNIN	IG OF THIS	CHAIN OF	CUSTODY	DOCUMEN	T IS ACKNO	WLEDGME	NT AND AC	CEPTANCE	OF OUR T	ERMS WHICH ARE AVAILABLE	,	Yellow: Clare

	IN	VOICE TO:			Report In	formatio	n						Project I	nformatio	n			Bit 10. 1-41-4 12.	
any Name	#3604 LORAX E	ENVIRONMENTAL SERVICES I	TD. Company Nan	tie:						Que	tation#	1	B40231					翻走(大)(10/5/大)(大)(表)(2.10)	ottle Order#:
	Aida Piaseczny		Contact Name	Charles Co. and	ner					P.O.		- 2						<b>《尼尼尼尼亚斯 图 图 图 图 图 图 图 图 图 图 图 图 图 图 图 图 图 图 图</b>	
iš.	2289 BURRARD	STREET	Address			_				Proj	ect#		Gold Co	rp Coffe	e Creek	-SW	20/	2. (2.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10.20.10	555908
	VANCOUVER BO									Proj	ect Name	_					204	8821_COC	oject Manager
	(604) 688-7173	Fax (604) 688-717	5 Phone				Fac			Site		-							Diana Cruz
	aida piaseczny@	lorax.ca; shukling.ng@lorax.ca	Email	David Flath	ner@lorax	CB				San	rpled By							C#555908-04-01	
gulatory Cris	eria		Specia	i Instructions		_			-		Analysis f	equested	-	5	-	_		Turnaround Time (TAT) Required	
						ster 7	Routine (Alk-LL, EC-LL, NH4-LL, pH, TDS)	Level	Anions (LL.Cl, F, NO2, NO3, SO4)	WAD			I Dissolved Metals	Level Total Metals incl. CN			(will be a Standard Please n days - co	Please provide advance notice for risk prov (Standard) TAT openied if Plush TAT is not specified)  TAT = 5-7 Wanking days for most tests, one; Standard TAT for certain tests such as BOO and intention of the standard tat for certain tests such as BOO and intention of the standard tat (if applies to entire submission) sited  Time Required.	Noxins/Furans are
		irinking water samples - please use the D ust be kept cool ( < 10°C ) from time of samp	SAL SCHOOL STATE		400	lated C	tine (A	TSS-Low Level	ms (Ll	Cyanide -	200	0	Level D CV Hg	Level			Rush Confi	rmation Number (call lab )	or 6)
	Barcode Label	Sample (Location) Identification		Time Sampled	Matrix	Regu	Routir LL, pt	TSS	SOA	Cya	700	DOC	Low incl.	ÀB.	ORP	>	# of Botton	Comments	
1001000		YUK-5,0	18/06/17	15:05	w	N	1 /	/	/	/	/	/	/	/	/		13		
	11111111111111111111111111111111111111	Ballarat U/S Y.R.			w												_	Discontinued	
	D#210858	Barker U/S S.R.			vv		_					_					_	Discontinued	
	UNITED 1111 D#210859	Black Hills Creek	-		W													Discontinued	
SI	D#210860	Maisy May U/S S.R.	-		W													Discontinued Discontinued	
	D#210861	Stewart D/S M.M.			W	$\pm$												Discontinued	
SI	D#210862	Sample A	18/06/17	7748	w	N	V/	/	/	/	/	/	/	/	/		13		
SI	D#210663	Sample B	18/06/17	Melson	w	N	1/	K,	/	/		_	/		/	-	13		
SI	D#210864	Sample C	18/06/17		W		10	-	1	/		-	1	1		_ =1	10	Pracont invest	
21	D#210865	FIELD BLANK	18/06/16	17:00	w	N	1/	/	/	/	/	/	/		/		13		
REKING	LISHED BY: (Signature	900-0149)	YY/MM/DD) Time	- 21	-		(Signature/F		12011		te: (YY/MM	-	Time	net e	used and submitted	1		Lab Use Only	
/fa	200	18/	06/18/0:4	0 1	SHA	N	JALL	013 -	104	0	OLRIO	6/19	415	20		Time Sia:	Te	reperature (-t-) on Recept	tact on Cooler?
								in every		mutus mr	The contract of the		T 10 A CHILL		TAUT AND A	0000711	1	∠ Yes	No
R VIEWING	AT WWW.MAXXAM.CA/	WRITING, WORK SUBMITTED ON THIS CHATERMS.										OCUMEN	RECEI	VED 1	NWH	TEH	HSE	TERMS WHICH ARE AVAILABLE White: Maxxien	Yellow: Clien
IS THE RES	PONSIBILITY OF THE R	ELINQUISHER TO ENSURE THE ACCURACY	OF THE CHAIN OF CUSTO	DOY RECORD. AN IN	COMPLETE	CHAIN OF	CUSTODY N	AY RESUL	T IN ANALY	TICAL TAT	DELAYS.			1 1110	Ma	10	UD		
													BY:	Lyv	10		10		
														20	18 -08	1.0		. / ~ /	
														70	10 00	_	7	5/4/3	
															2	9	7	5/4/2	Davidage

		INVOICE TO:				Report In	formation							Project In	formation	9			<b>性的概念[[[254]]]</b>	を 世紀 製の 種目	111
npany Nam	#3604 LORAX	ENVIRONMENTAL SER	VICES LTD.	Company Na	me:						Quot	ation #		B40231				100			tle Order #:
act Name	Aida Piaseczny			Contact Name	David Flath	er					P.0:	#							CONTRACTOR		
155	2289 BURRAR	D STREET		Address							Proje	ict#	(	Gold Cor	p Coffee	e Creek-	SW	B84882	1 COC		555908
	VANCOUVER I			37			_				Proje	ct Name	=					1/2/05/200		1000000	ect Manage
ne	(604) 688-7173		88-7175	Phone	David.Flath	a see la see		Fax			Site		2								Diana Cruz
ili)	aida piasecznyi	@lorax.ca; shukling ng@lo	rax,ca	Email		er@iorax.	Car	_				pled By Analysis R						13.500000	C#555908-05-01		2
egulatory	ritoria			Speci	al Instructions		2					Апакузю К	equested		3	7			Turnaround Tim Please provide advance		
							Drinking Water ? (Y / N.)	(Alk-LL, EC-LL, NH4- TDS)	Level	L.CI, F, NO2, NO3,	WAD			el Dissolved Metals Hg	Total Metals incl.			Regular (Standar (will be applied if F Standard TAT = 5 Please note: Stand days - contact you	STATE OF THE PARTY	ed) et fests its such as BOD an fetalis.	l Dioxina/Furans a
	22/10/00 minutes	drinking water samples - please	200	Marin Control of			8 4	H, T	Low	us (III	epi			Level CV Hg	Level			Rush Confirmation No.	mber	(cell (a	r for #)
Sam	Samples in Barcode Label	must be kept cool ( < 10°C ) from fit Sample (Location) Identifica		Date Sampled	Time Sampled	Matrix	Regula	Routine LL, pH, 7	TSS-Low	Anions SO4)	Cyanide	T0C	000	Low incl.	Low Hg	ORP		# of Bottles	DECEIVED !	Comments EH	ORSE
11111	SIDW210866	TRIP BLANK		18/06/17	17:00	w	NA	1	/	/	/	1	/	/	/	/		13	BY Su	1000	1640
11111		COFFE MI	× /	12/06/17	09:30	w	NI	10	~		-		_	_	-	-		13	21	118 -06- 1	8
		YT-24 M	X	18/06/19	10:00	W	NA	1	_	~	~	~	_	-	-	-		13			
		3.23																	TEMP:	919	17
																			1	11 11	12
																			))	5 3	6
																				50 40	3
									,										0	ooling me	dia pre
																				)	
• RE	INQUISHED BY: (Signat	ure/Print)	Date: (YY/M		64			Signature/P	-			e: (YYIMM		Time	mot s	used and			Lab Use C		
H	tchell	Vordin	18/06	12 170	10 8	SHAI	1 1	ALOB.	Jp	1	20	18/04	119	14130	2 mots	ubmitted	Time Sen	Temperature	(°C) on Receipt	Custody Seel	Intact on Cooler?



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention: David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 559732-01-01, 559732-02-01, 559732-03-01, 559732-04-01

Report Date: 2018/08/01 Report #: R2598257 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B861486 Received: 2018/07/24, 09:00

Sample Matrix: Water # Samples Received: 24

# Jampies Neceived. 24					
		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	2	N/A	2018/07/26	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	21	N/A	2018/07/27	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	1	N/A	2018/07/28	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	24	N/A	2018/07/27	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) (1, 3)	12	N/A	2018/07/27	EENVSOP-00060	MMCW 119 1996 m
Carbon (DOC) (1, 3)	12	N/A	2018/07/31	EENVSOP-00060	MMCW 119 1996 m
Conductance - Low Level	2	N/A	2018/07/26	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	21	N/A	2018/07/27	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	1	N/A	2018/07/28	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	24	N/A	2018/07/27	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (4)	1	N/A	2018/07/26	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (4)	19	N/A	2018/07/27	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (4)	4	N/A	2018/07/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	24	N/A	2018/07/26	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	23	N/A	2018/07/26	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	1	N/A	2018/07/31	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	23	2018/07/26	2018/07/26	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	1	2018/07/31	2018/07/31	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	24	N/A	2018/07/26	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	20	N/A	2018/07/25	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (dissolved)	4	N/A	2018/07/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	11	2018/07/26	2018/07/26	BBY7SOP-00003,	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	4	2018/07/27	2018/07/28	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2018/07/26	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	19	N/A	2018/07/27	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2018/07/30	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	9	N/A	2018/07/26	BBY7SOP-00002	EPA 6020b R2 m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention: David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 559732-01-01, 559732-02-01, 559732-03-01, 559732-04-01

Report Date: 2018/08/01 Report #: R2598257

Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B861486 Received: 2018/07/24, 09:00

Sample Matrix: Water # Samples Received: 24

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Ammonia-N Low Level (Preserved)	24	N/A	2018/07/26	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	24	N/A	2018/07/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	24	N/A	2018/07/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	24	N/A	2018/07/26	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	24	N/A	2018/07/30	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	24	N/A	2018/07/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (5)	2	N/A	2018/07/26	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (5)	21	N/A	2018/07/27	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (5)	1	N/A	2018/07/28	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	24	N/A	2018/07/27	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	2	2018/07/26	2018/07/27	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	22	2018/07/27	2018/07/28	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (1, 6)	12	N/A	2018/07/27	EENVSOP-00060	MMCW 119 1996 m
Carbon (Total Organic) (1, 6)	12	N/A	2018/07/31	EENVSOP-00060	MMCW 119 1996 m
Total Suspended Solids-Low Level	24	2018/07/28	2018/07/30	BBY6SOP-00034	SM 22 2540 D
Free (WAD) Cyanide (2)	5	N/A	2018/07/27	CAM SOP-00457	OMOE E3015 5 m
Free (WAD) Cyanide (2)	19	N/A	2018/07/30	CAM SOP-00457	OMOE E3015 5 m

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed



Your Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD. 2289 BURRARD STREET VANCOUVER, BC CANADA V6J 3H9

Your C.O.C. #: 559732-01-01, 559732-02-01, 559732-03-01, 559732-04-01

> Report Date: 2018/08/01 Report #: R2598257

> > Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B861486 Received: 2018/07/24, 09:00

or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Edmonton Environmental
- (2) This test was performed by Maxxam Ontario (From Burnaby)
- (3) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: Whenever applicable, Dissolved > Total for any parameter that falls within method uncertainty for duplicates is likely equivalent. If RPD is >20% samples were reanalyzed and confirmed.
- (4) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (5) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (6) TOC present in the sample should be considered as non-purgeable TOC.

#### **Encryption Key**



01 Aug 2018 15:03:32

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Diana Cruz, Project Manager Email: DCruz@maxxam.ca

Phone# (604) 734 7276

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9050			TX9050			TX9051		
Sampling Date		2018/07/22			2018/07/22			2018/07/22		
Sampling Bate		16:12			16:12			16:35		
COC Number		559732-01-01			559732-01-01			559732-01-01		
	UNITS	CC-1.0	RDL	QC Batch	CC-1.0 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Parameter			•			•	•		•	
ORP	mV	308		9080217	303		9080217	322		9080217
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		9077640				LAB		9077640
Nitrate (N)	mg/L	0.657	0.0020	9078683				0.235	0.0020	9078683
Misc. Inorganics	•		!			ļ.	!			
Fluoride (F)	mg/L	0.084	0.010	9081538				0.041	0.010	9081538
Free Cyanide	mg/L	<0.0010	0.0010	9085576	<0.0010	0.0010	9085576	<0.0010	0.0010	9085576
Dissolved Organic Carbon (C)	mg/L	4.6	0.50	9081709	4.4	0.50	9081709	10	0.50	9081709
Alkalinity (Total as CaCO3)	mg/L	242	0.50	9081779				59.8	0.50	9081779
Total Organic Carbon (C)	mg/L	5.1	0.50	9081703	4.6	0.50	9081703	10	0.50	9081703
Alkalinity (PP as CaCO3)	mg/L	3.50	0.50	9081779				<0.50	0.50	9081779
Bicarbonate (HCO3)	mg/L	287	0.50	9081779				73.0	0.50	9081779
Carbonate (CO3)	mg/L	4.20	0.50	9081779				<0.50	0.50	9081779
Hydroxide (OH)	mg/L	<0.50	0.50	9081779				<0.50	0.50	9081779
Anions	•									
Dissolved Sulphate (SO4)	mg/L	185	0.50	9081303				56.8	0.50	9081303
Dissolved Chloride (CI)	mg/L	0.86	0.50	9081299				1.4	0.50	9081299
Nutrients										
Total Ammonia (N)	mg/L	<0.0050	0.0050	9081440				<0.0050	0.0050	9081440
Nitrate plus Nitrite (N)	mg/L	0.657	0.0020	9079097				0.235	0.0020	9079097
Nitrite (N)	mg/L	<0.0020	0.0020	9079098				<0.0020	0.0020	9079098
Physical Properties										
Conductivity	uS/cm	773	1.0	9081809				239	1.0	9081809
рН	рН	8.34		9081808				7.80		9081808
Physical Properties										
Total Suspended Solids	mg/L	<1.0	1.0	9082474				<1.0	1.0	9082474
Total Dissolved Solids	mg/L	506	10	9080723				156	10	9080722
RDL = Reportable Detection Lir	mit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9051			TX9052		TX9053		
Sampling Date		2018/07/22			2018/07/22		2018/07/22		
		16:35			17:41		17:17		
COC Number		559732-01-01			559732-01-01		559732-01-01		
	UNITS	CC-1.5 Lab-Dup	RDL	QC Batch	CC-6.0	QC Batch	CC-A	RDL	QC Batch
Parameter	-		-	•	•	-	•	•	•
ORP	mV				342	9080217	333		9080217
Calculated Parameters				•		-		•	
Filter and HNO3 Preservation	N/A				LAB	9077640	LAB		9077640
Nitrate (N)	mg/L				0.0061	9078683	0.182	0.0020	9078683
Misc. Inorganics	•							•	
Fluoride (F)	mg/L				0.025	9081538	0.039	0.010	9081538
Free Cyanide	mg/L				<0.0010	9085574	<0.0010	0.0010	9085576
Dissolved Organic Carbon (C)	mg/L				13	9081709	12	0.50	9081709
Alkalinity (Total as CaCO3)	mg/L				7.58	9081779	27.9	0.50	9081779
Total Organic Carbon (C)	mg/L				13	9081703	11	0.50	9081703
Alkalinity (PP as CaCO3)	mg/L				<0.50	9081779	<0.50	0.50	9081779
Bicarbonate (HCO3)	mg/L				9.25	9081779	34.0	0.50	9081779
Carbonate (CO3)	mg/L				<0.50	9081779	<0.50	0.50	9081779
Hydroxide (OH)	mg/L				<0.50	9081779	<0.50	0.50	9081779
Anions									
Dissolved Sulphate (SO4)	mg/L				<0.50	9081303	28.7	0.50	9081303
Dissolved Chloride (CI)	mg/L				0.79	9081299	1.9	0.50	9081299
Nutrients									
Total Ammonia (N)	mg/L				0.048	9081440	<0.0050	0.0050	9081440
Nitrate plus Nitrite (N)	mg/L				0.0061	9079097	0.182	0.0020	9079097
Nitrite (N)	mg/L				<0.0020	9079098	<0.0020	0.0020	9079098
Physical Properties									
Conductivity	uS/cm				23.0	9081809	118	1.0	9081809
рН	рН				6.86	9081808	7.47		9081808
Physical Properties									
Total Suspended Solids	mg/L				1.8	9082474	<1.0	1.0	9082474
Total Dissolved Solids	mg/L	170	10	9080722	46	9080723	80	10	9080573
RDL = Reportable Detection Li	mit								
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Sampling Date COC Number		2018/07/22 17:17 559732-01-01			2018/07/21			2040/07/22		
. •								2018/07/22		
COC Number		559732-01-01			15:40			14:25		
		333732 01 01			559732-01-01			559732-02-01		
	UNITS	CC-A Lab-Dup	RDL	QC Batch	COFFEE MIX	RDL	QC Batch	HC-2.5	RDL	QC Batch
Parameter										
ORP	mV				317		9080217	319		9080217
Calculated Parameters	!		<u> </u>			•				
Filter and HNO3 Preservation	N/A				LAB		9077640	LAB		9077640
Nitrate (N)	mg/L				0.0114	0.0020	9078683	0.436	0.0020	9078683
Misc. Inorganics			l.	<u>.                                    </u>						
Fluoride (F)	mg/L	0.039	0.010	9081538	0.099	0.010	9081538	0.043	0.010	9081538
Free Cyanide	mg/L				<0.0010	0.0010	9085576	<0.0010	0.0010	9085574
Dissolved Organic Carbon (C)	mg/L				3.0	0.50	9081709	10	0.50	9081709
Alkalinity (Total as CaCO3)	mg/L				70.9	0.50	9081853	65.0	0.50	9081779
Total Organic Carbon (C)	mg/L				2.7	0.50	9081703	9.9	0.50	9081703
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9081853	<0.50	0.50	9081779
Bicarbonate (HCO3)	mg/L				86.5	0.50	9081853	79.3	0.50	9081779
Carbonate (CO3)	mg/L				<0.50	0.50	9081853	<0.50	0.50	9081779
Hydroxide (OH)	mg/L				<0.50	0.50	9081853	<0.50	0.50	9081779
Anions	•		•			•				
Dissolved Sulphate (SO4)	mg/L				23.6	0.50	9081297	32.6	0.50	9081297
Dissolved Chloride (CI)	mg/L				0.65	0.50	9081293	0.64	0.50	9081293
Nutrients										
Total Ammonia (N)	mg/L				<0.0050	0.0050	9081440	<0.0050	0.0050	9081440
Nitrate plus Nitrite (N)	mg/L	0.179	0.0020	9079097	0.0114	0.0020	9079095	0.436	0.0020	9079095
Nitrite (N)	mg/L	<0.0020	0.0020	9079098	<0.0020	0.0020	9079096	<0.0020	0.0020	9079096
Physical Properties										
Conductivity	uS/cm				189	1.0	9081854	198	1.0	9081809
рН	рН				8.01		9081847	7.89		9081808
Physical Properties										
Total Suspended Solids	mg/L				13.0 (1)	1.1	9082474	<1.0	1.0	9082474
Total Dissolved Solids	mg/L	88	10	9080573	98	10	9080722	128	10	9080722

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9103			TX9104		TX9105	TX9106		
Sampling Date		2018/07/22			2018/07/21		2018/07/22	2018/07/22		
		14:25			17:38		15:45	15:30		
COC Number		559732-02-01			559732-02-01		559732-02-01	559732-02-01		
	UNITS	HC-2.5 Lab-Dup	RDL	QC Batch	HC-5.0	QC Batch	HC-A	НС-В	RDL	QC Batch
Parameter	-	-	•		•	•	•	•	•	
ORP	mV				311	9080217	306	307		9080217
Calculated Parameters				Į.	•		•	•		
Filter and HNO3 Preservation	N/A				LAB	9077640	LAB	LAB		9077640
Nitrate (N)	mg/L				0.318	9078683	0.234	0.368	0.0020	9078683
Misc. Inorganics	*		!			•	•	•	!	
Fluoride (F)	mg/L				0.064	9081538	0.054	0.054	0.010	9081538
Free Cyanide	mg/L	<0.0010	0.0010	9085574	<0.0010	9085576	<0.0010	<0.0010	0.0010	9085576
Dissolved Organic Carbon (C)	mg/L				11	9081709	11	11	0.50	9081709
Alkalinity (Total as CaCO3)	mg/L				69.7	9081779	70.0	69.1	0.50	9080287
Total Organic Carbon (C)	mg/L				10	9081703	9.7	9.8	0.50	9081703
Alkalinity (PP as CaCO3)	mg/L				<0.50	9081779	<0.50	<0.50	0.50	9080287
Bicarbonate (HCO3)	mg/L				85.0	9081779	85.4	84.3	0.50	9080287
Carbonate (CO3)	mg/L				<0.50	9081779	<0.50	<0.50	0.50	9080287
Hydroxide (OH)	mg/L				<0.50	9081779	<0.50	<0.50	0.50	9080287
Anions										
Dissolved Sulphate (SO4)	mg/L				36.4	9081297	39.4	36.1	0.50	9081297
Dissolved Chloride (CI)	mg/L				0.78	9081293	0.80	0.82	0.50	9081293
Nutrients										
Total Ammonia (N)	mg/L				0.019	9081440	<0.0050	<0.0050	0.0050	9081440
Nitrate plus Nitrite (N)	mg/L				0.318	9079095	0.234	0.368	0.0020	9079095
Nitrite (N)	mg/L				<0.0020	9079096	<0.0020	<0.0020	0.0020	9079096
Physical Properties										
Conductivity	uS/cm				215	9081809	222	211	1.0	9080288
рН	рН				8.05	9081808	7.85	7.83		9080278
Physical Properties										
Total Suspended Solids	mg/L				<1.0	9082474	<1.0	<1.0	1.0	9082474
Total Dissolved Solids	mg/L				148	9080722	158	142	10	9080722
RDL = Reportable Detection Li Lab-Dup = Laboratory Initiated		te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TX9107			TX9108			TX9108	
Sampling Date		2018/07/22 15:09			2018/07/21 18:07			2018/07/21 18:07	
COC Number		559732-02-01			559732-02-01			559732-02-01	
	UNITS	нс-с	RDL	QC Batch	HALFWAY MIX	RDL	QC Batch	HALFWAY MIX Lab-Dup	QC Batch
Parameter		•	•	•	-	•	-		•
ORP	mV	301		9080217	256		9080217	255	9080217
Calculated Parameters		!	ļ		•		<u>!</u>	!	
Filter and HNO3 Preservation	N/A	LAB		9077640	LAB		9077640		
Nitrate (N)	mg/L	0.418	0.0020	9078683	0.0143	0.0020	9078683		
Misc. Inorganics		·		I.				I.	l
Fluoride (F)	mg/L	0.056	0.010	9081538	0.110	0.010	9081538		
Free Cyanide	mg/L	<0.0010	0.0010	9085576	<0.0010	0.0010	9085576		
Dissolved Organic Carbon (C)	mg/L	10	0.50	9081709	3.0	0.50	9081709		
Alkalinity (Total as CaCO3)	mg/L	68.5	0.50	9080287	69.1	0.50	9081779		
Total Organic Carbon (C)	mg/L	9.7	0.50	9081703	3.5	0.50	9081703		
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9080287	<0.50	0.50	9081779		
Bicarbonate (HCO3)	mg/L	83.5	0.50	9080287	84.4	0.50	9081779		
Carbonate (CO3)	mg/L	<0.50	0.50	9080287	<0.50	0.50	9081779		
Hydroxide (OH)	mg/L	<0.50	0.50	9080287	<0.50	0.50	9081779		
Anions		•			•	•			•
Dissolved Sulphate (SO4)	mg/L	33.8	0.50	9081297	23.8	0.50	9081297		
Dissolved Chloride (Cl)	mg/L	0.78	0.50	9081293	0.72	0.50	9081293		
Nutrients		•	•		•	•			•
Total Ammonia (N)	mg/L	0.0050	0.0050	9081440	0.025	0.0050	9081440		
Nitrate plus Nitrite (N)	mg/L	0.418	0.0020	9079095	0.0143	0.0020	9079097		
Nitrite (N)	mg/L	<0.0020	0.0020	9079096	<0.0020	0.0020	9079098		
Physical Properties	•			•		-	-		•
Conductivity	uS/cm	207	1.0	9080288	186	1.0	9081809		
рН	рН	7.79		9080278	7.93		9081808		
Physical Properties									
Total Suspended Solids	mg/L	<1.1 (1)	1.1	9082476	7.7	1.0	9082474		
Total Dissolved Solids	mg/L	138	10	9080722	100	10	9080722		
RDL = Reportable Detection Li	mit	•	•		-	-	-	-	•
Lab-Dup = Laboratory Initiated	l Duplica	te							

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9109		TX9110			TX9110		
Sampling Date		2018/07/22		2018/07/22			2018/07/22		
Sampling Date		09:29		09:08			09:08		
COC Number		559732-02-01		559732-02-01			559732-02-01		
	UNITS	IC-0.5	QC Batch	IC-1.5	RDL	QC Batch	IC-1.5 Lab-Dup	RDL	QC Batch
Parameter		<u> </u>	<u> </u>	·	<u> </u>	<u> </u>	<u> </u>		<u> </u>
ORP	mV	263	9080217	264		9080217			
Calculated Parameters				1					
Filter and HNO3 Preservation	N/A	LAB	9077640	LAB		9077640			
Nitrate (N)	mg/L	0.317	9078683	0.0026	0.0020	9078683			
Misc. Inorganics	•		•		•				
Fluoride (F)	mg/L	0.062	9081538	0.053	0.010	9081538			
Free Cyanide	mg/L	<0.0010	9085574	<0.0010	0.0010	9085576			
Dissolved Organic Carbon (C)	mg/L	16	9081709	12	0.50	9085201	13	0.50	9085201
Alkalinity (Total as CaCO3)	mg/L	47.9	9080287	50.1	0.50	9080287			
Total Organic Carbon (C)	mg/L	14	9081703	12	0.50	9084974	12	0.50	9084974
Alkalinity (PP as CaCO3)	mg/L	<0.50	9080287	<0.50	0.50	9080287			
Bicarbonate (HCO3)	mg/L	58.5	9080287	61.1	0.50	9080287			
Carbonate (CO3)	mg/L	<0.50	9080287	<0.50	0.50	9080287			
Hydroxide (OH)	mg/L	<0.50	9080287	<0.50	0.50	9080287			
Anions	•								
Dissolved Sulphate (SO4)	mg/L	70.4	9081297	16.0	0.50	9081297			
Dissolved Chloride (CI)	mg/L	0.70	9081293	0.79	0.50	9081293			
Nutrients	•								
Total Ammonia (N)	mg/L	<0.0050	9081440	<0.0050	0.0050	9081440			
Nitrate plus Nitrite (N)	mg/L	0.317	9079095	0.0026	0.0020	9079095			
Nitrite (N)	mg/L	<0.0020	9079096	<0.0020	0.0020	9079096			
Physical Properties									
Conductivity	uS/cm	134	9080288	135	1.0	9080288			
рН	рН	7.68	9080278	7.70		9080278			
Physical Properties									
Total Suspended Solids	mg/L	<1.0	9082476	<1.0	1.0	9082476			
Total Dissolved Solids	mg/L	156	9080722	86	10	9080722			
RDL = Reportable Detection Li	mit								
Lab-Dup = Laboratory Initiated	l Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9111		TX9112		TX9145		
Sampling Date		2018/07/22		2018/07/22		2018/07/22		
Janipinig Date		10:01		11:35		13:00		
COC Number		559732-02-01		559732-02-01		559732-03-01		
	UNITS	IC-2.5	QC Batch	IC-3.0	QC Batch	IC-4.5	RDL	QC Batch
Parameter								
ORP	mV	291	9080217	277	9080217	283		9080217
Calculated Parameters							•	
Filter and HNO3 Preservation	N/A	LAB	9077640	LAB	9077640	LAB		9077640
Nitrate (N)	mg/L	0.0038	9078683	0.528	9078683	0.207	0.0020	9078683
Misc. Inorganics			•		•		•	
Fluoride (F)	mg/L	0.039	9081538	0.060	9081538	0.066	0.010	9081538
Free Cyanide	mg/L	<0.0010	9085574	<0.0010	9085576	<0.0010	0.0010	9085576
Dissolved Organic Carbon (C)	mg/L	16	9085201	13	9085201	13	0.50	9085201
Alkalinity (Total as CaCO3)	mg/L	11.4	9080287	55.7	9080287	44.5	0.50	9080287
Total Organic Carbon (C)	mg/L	16	9084974	13	9084974	13	0.50	9084974
Alkalinity (PP as CaCO3)	mg/L	<0.50	9080287	<0.50	9080287	<0.50	0.50	9080287
Bicarbonate (HCO3)	mg/L	13.9	9080287	67.9	9080287	54.3	0.50	9080287
Carbonate (CO3)	mg/L	<0.50	9080287	<0.50	9080287	<0.50	0.50	9080287
Hydroxide (OH)	mg/L	<0.50	9080287	<0.50	9080287	<0.50	0.50	9080287
Anions			-		-		•	
Dissolved Sulphate (SO4)	mg/L	<0.50	9081297	43.0	9081297	30.0	0.50	9081297
Dissolved Chloride (CI)	mg/L	1.0	9081293	0.97	9081293	0.99	0.50	9081293
Nutrients								
Total Ammonia (N)	mg/L	<0.0050	9081440	<0.0050	9081440	0.051	0.0050	9081440
Nitrate plus Nitrite (N)	mg/L	0.0038	9079095	0.528	9079095	0.207	0.0020	9079095
Nitrite (N)	mg/L	<0.0020	9079096	<0.0020	9079096	<0.0020	0.0020	9079096
Physical Properties							•	
Conductivity	uS/cm	34.5	9080288	212	9080288	152	1.0	9080288
рН	рН	7.07	9080278	7.71	9080278	7.71		9080278
Physical Properties								
Total Suspended Solids	mg/L	1.3	9082476	2.9	9082476	<1.0	1.0	9082476
Total Dissolved Solids	mg/L	62	9080720	150	9080720	98	10	9080722
RDL = Reportable Detection Lin	nit							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9146			TX9146			TX9147		
Sampling Date		2018/07/21			2018/07/21			2018/07/21		
		16:38			16:38			17:06		
COC Number		559732-03-01			559732-03-01			559732-03-01		
	UNITS	ML-1.0 (YT-24-1)	RDL	QC Batch	ML-1.0 (YT-24-1) Lab-Dup	RDL	QC Batch	YT-24-MIX	RDL	QC Batch
Parameter	•	·	•							
ORP	mV	279		9080217				270		9080217
Calculated Parameters	l	l	l						l	
Filter and HNO3 Preservation	N/A	LAB		9077640				LAB		9077640
Nitrate (N)	mg/L	0.857	0.0020	9078683				0.0032	0.0020	9078683
Misc. Inorganics	-	ı	ı							
Fluoride (F)	mg/L	0.070	0.010	9081538				0.087	0.010	9081538
Free Cyanide	mg/L	<0.0010	0.0010	9085576				<0.0010	0.0010	9085574
Dissolved Organic Carbon (C)	mg/L	11	0.50	9085201				3.2	0.50	9085201
Alkalinity (Total as CaCO3)	mg/L	62.4	0.50	9080287				67.7	0.50	9080287
Total Organic Carbon (C)	mg/L	11	0.50	9084974				3.4	0.50	9084974
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9080287				<0.50	0.50	9080287
Bicarbonate (HCO3)	mg/L	76.1	0.50	9080287				82.6	0.50	9080287
Carbonate (CO3)	mg/L	<0.50	0.50	9080287				<0.50	0.50	9080287
Hydroxide (OH)	mg/L	<0.50	0.50	9080287				<0.50	0.50	9080287
Anions	,	•								
Dissolved Sulphate (SO4)	mg/L	73.3	0.50	9081297				28.8	0.50	9081297
Dissolved Chloride (CI)	mg/L	1.3	0.50	9081293				0.91	0.50	9081293
Nutrients	•	•	•			-			•	
Total Ammonia (N)	mg/L	<0.0050	0.0050	9081440				0.011	0.0050	9081440
Nitrate plus Nitrite (N)	mg/L	0.857	0.0020	9079095	0.843	0.0020	9079095	0.0032	0.0020	9079095
Nitrite (N)	mg/L	<0.0020	0.0020	9079096	<0.0020	0.0020	9079096	<0.0020	0.0020	9079096
Physical Properties			•			•				
Conductivity	uS/cm	274	1.0	9080288				192	1.0	9080288
рН	рН	7.87		9080278				7.83		9080278
Physical Properties	•		•						-	
Total Suspended Solids	mg/L	<1.0	1.0	9082474				9.0	1.0	9082474
Total Dissolved Solids	mg/L	156	10	9080573				124	10	9080722



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9148	TX9149			TX9149		
Sampling Date		2018/07/21	2018/07/21			2018/07/21		
COC Number		15:41 559732-03-01	18:35 559732-03-01			18:35 559732-03-01		
COC Number		559/32-03-01	559/32-03-01			559/32-03-01		
	UNITS	YUK-2.0	YUK-5.0	RDL	QC Batch	YUK-5.0 Lab-Dup	RDL	QC Batch
Parameter			•	<u> </u>			<u> </u>	
ORP	mV	259	265		9080217			
Calculated Parameters	•			•			•	
Filter and HNO3 Preservation	N/A	LAB	LAB		9077640			
Nitrate (N)	mg/L	0.0075	0.0173	0.0020	9078683			
Misc. Inorganics	•		•	•			•	
Fluoride (F)	mg/L	0.110	0.110	0.010	9081538			
Free Cyanide	mg/L	<0.0010	<0.0010	0.0010	9085576			
Dissolved Organic Carbon (C)	mg/L	2.7	2.7	0.50	9085201			
Alkalinity (Total as CaCO3)	mg/L	73.2	71.4	0.50	9080287			
Total Organic Carbon (C)	mg/L	2.5	2.7	0.50	9084974			
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	0.50	9080287			
Bicarbonate (HCO3)	mg/L	89.4	87.1	0.50	9080287			
Carbonate (CO3)	mg/L	<0.50	<0.50	0.50	9080287			
Hydroxide (OH)	mg/L	<0.50	<0.50	0.50	9080287			
Anions	•			•			•	
Dissolved Sulphate (SO4)	mg/L	27.0	28.6	0.50	9081297			
Dissolved Chloride (CI)	mg/L	1.6	1.9	0.50	9081293			
Nutrients								
Total Ammonia (N)	mg/L	<0.0050	<0.0050	0.0050	9081440	0.0050	0.0050	9081440
Nitrate plus Nitrite (N)	mg/L	0.0075	0.0173	0.0020	9079095			
Nitrite (N)	mg/L	<0.0020	<0.0020	0.0020	9079096			
Physical Properties								
Conductivity	uS/cm	196	195	1.0	9080288			
рН	рН	7.90	7.83		9080278			
Physical Properties								
Total Suspended Solids	mg/L	13.9	11.0	1.0	9082474			
Total Dissolved Solids	mg/L	108	102	10	9080722			
RDL = Reportable Detection Li	mit							
Lab-Dup = Laboratory Initiated	l Duplica	te						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TX9150			TX9150		TX9179		
Sampling Date		2018/07/21 18:35			2018/07/21 18:35		2018/07/22 16:12		
COC Number		559732-03-01			559732-03-01		559732-04-01		
	UNITS	SAMPLE A	RDL	QC Batch	SAMPLE A Lab-Dup	QC Batch	SAMPLE B	RDL	QC Batch
Parameter	•		•					•	
ORP	mV	244		9080217	242	9080217	239		9080217
Calculated Parameters					!			ļ	
Filter and HNO3 Preservation	N/A	LAB		9077640			LAB		9077640
Nitrate (N)	mg/L	0.0087	0.0020	9078683			0.658	0.0020	9078683
Misc. Inorganics			l.		1				
Fluoride (F)	mg/L	0.110	0.010	9081541			0.085	0.010	9081541
Free Cyanide	mg/L	<0.0010	0.0010	9085576			<0.0010	0.0010	9085576
Dissolved Organic Carbon (C)	mg/L	2.8	0.50	9085201			4.3	0.50	9085201
Alkalinity (Total as CaCO3)	mg/L	73.2	0.50	9080287			249	0.50	9080287
Total Organic Carbon (C)	mg/L	2.2	0.50	9084974			4.0	0.50	9084974
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9080287			4.02	0.50	9080287
Bicarbonate (HCO3)	mg/L	89.3	0.50	9080287			294	0.50	9080287
Carbonate (CO3)	mg/L	<0.50	0.50	9080287			4.82	0.50	9080287
Hydroxide (OH)	mg/L	<0.50	0.50	9080287			<0.50	0.50	9080287
Anions									
Dissolved Sulphate (SO4)	mg/L	25.7	0.50	9081297			190	0.50	9081290
Dissolved Chloride (CI)	mg/L	0.60	0.50	9081293			0.86	0.50	9081289
Nutrients									
Total Ammonia (N)	mg/L	<0.0050	0.0050	9081446			<0.0050	0.0050	9081446
Nitrate plus Nitrite (N)	mg/L	0.0087	0.0020	9079095			0.658	0.0020	9079095
Nitrite (N)	mg/L	<0.0020	0.0020	9079096			<0.0020	0.0020	9079096
Physical Properties									
Conductivity	uS/cm	194	1.0	9080288			767	1.0	9080288
рН	рН	7.91		9080278			8.38		9080278
Physical Properties						· —	-		
Total Suspended Solids	mg/L	9.3 (1)	1.1	9082474			<1.0	1.0	9082476
Total Dissolved Solids	mg/L	102	10	9080722			514	10	9080722

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9179			TX9180			TX9180		
Compling Date		2018/07/22			2018/07/23			2018/07/23		
Sampling Date		16:12			08:30			08:30		
COC Number		559732-04-01			559732-04-01			559732-04-01		
	UNITS	SAMPLE B Lab-Dup	RDL	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Parameter	-			-	•	•	-		•	-
ORP	mV				330		9080217			
Calculated Parameters					I.				ı	
Filter and HNO3 Preservation	N/A				LAB		9077640			
Nitrate (N)	mg/L				<0.0020	0.0020	9078683			
Misc. Inorganics			!			•			!	
Fluoride (F)	mg/L				<0.010	0.010	9081541	<0.010	0.010	9081541
Free Cyanide	mg/L				<0.0010	0.0010	9085576			
Dissolved Organic Carbon (C)	mg/L				<0.50	0.50	9085201			
Alkalinity (Total as CaCO3)	mg/L				<0.50	0.50	9080225			
Total Organic Carbon (C)	mg/L				<0.50	0.50	9084974			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9080225			
Bicarbonate (HCO3)	mg/L				<0.50	0.50	9080225			
Carbonate (CO3)	mg/L				<0.50	0.50	9080225			
Hydroxide (OH)	mg/L				<0.50	0.50	9080225			
Anions										
Dissolved Sulphate (SO4)	mg/L	193	0.50	9081290	<0.50	0.50	9082404			
Dissolved Chloride (CI)	mg/L	1.1	0.50	9081289	<0.50	0.50	9081289			
Nutrients										
Total Ammonia (N)	mg/L				<0.0050	0.0050	9081446			
Nitrate plus Nitrite (N)	mg/L				<0.0020	0.0020	9079095			
Nitrite (N)	mg/L				<0.0020	0.0020	9079096			
Physical Properties										
Conductivity	uS/cm				1.2	1.0	9080234			
рН	рН				5.17		9080227			
Physical Properties										
Total Suspended Solids	mg/L				<1.0	1.0	9082476			
Total Dissolved Solids	mg/L				<10	10	9080720			
RDL = Reportable Detection Lir	mit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Parameter  DRP  Calculated Parameters  Filter and HNO3 Preservation in the parameter in the parameters  Filter and HNO3 Preservation in the parameter in the pa	mV  N/A mg/L mg/L	2018/07/23 08:30 559732-04-01 TRAVEL BLANK 310 LAB <0.0020	RDL 0.0020	9080217 9077640 9078683
Parameter  ORP  Calculated Parameters  Filter and HNO3 Preservation  Nitrate (N)  Misc. Inorganics  Fluoride (F)  Free Cyanide  Dissolved Organic Carbon (C)  Alkalinity (Total as CaCO3)	mV  N/A mg/L mg/L	310 LAB <0.0020		9080217
Parameter  ORP  Calculated Parameters  Filter and HNO3 Preservation  Nitrate (N)  Misc. Inorganics  Fluoride (F)  Free Cyanide  Dissolved Organic Carbon (C)  Alkalinity (Total as CaCO3)	mV  N/A mg/L mg/L	310  LAB <0.0020		9080217
Parameter  DRP  Calculated Parameters  Filter and HNO3 Preservation in the parameter in the parameters  Filter and HNO3 Preservation in the parameter in the pa	mV  N/A mg/L mg/L	310 LAB <0.0020		9080217
Calculated Parameters  Filter and HNO3 Preservation   Invitrate (N)   Invitrate (N)   Invitrate (F)   Invitrat	N/A mg/L mg/L mg/L	LAB <0.0020	0.0020	9077640
Calculated Parameters  Filter and HNO3 Preservation     Nitrate (N)     Nisc. Inorganics  Fluoride (F)     Free Cyanide     Dissolved Organic Carbon (C)     Alkalinity (Total as CaCO3)	N/A mg/L mg/L mg/L	LAB <0.0020	0.0020	9077640
Filter and HNO3 Preservation Nitrate (N)  Misc. Inorganics Fluoride (F)  Free Cyanide Dissolved Organic Carbon (C)  Alkalinity (Total as CaCO3)	mg/L mg/L mg/L	<0.0020	0.0020	
Nitrate (N)  Misc. Inorganics  Fluoride (F)  Free Cyanide  Dissolved Organic Carbon (C)  Alkalinity (Total as CaCO3)	mg/L mg/L mg/L	<0.0020	0.0020	
Misc. Inorganics Fluoride (F) n Free Cyanide n Dissolved Organic Carbon (C) n Alkalinity (Total as CaCO3) n	mg/L mg/L		0.0020	0079692
Fluoride (F) n Free Cyanide n Dissolved Organic Carbon (C) n Alkalinity (Total as CaCO3)	ng/L	<0.010		3070003
Free Cyanide n Dissolved Organic Carbon (C) n Alkalinity (Total as CaCO3) n	ng/L	<0.010		
Dissolved Organic Carbon (C) n Alkalinity (Total as CaCO3) n	-		0.010	9081541
Alkalinity (Total as CaCO3)	7.	<0.0010	0.0010	9085576
	ng/L	<0.50	0.50	9085201
Total Organic Carbon (C)	ng/L	0.54	0.50	9080225
	ng/L	<0.50	0.50	9084974
Alkalinity (PP as CaCO3)	ng/L	<0.50	0.50	9080225
Bicarbonate (HCO3)	ng/L	0.66	0.50	9080225
Carbonate (CO3)	ng/L	<0.50	0.50	9080225
Hydroxide (OH)	ng/L	<0.50	0.50	9080225
Anions				
Dissolved Sulphate (SO4)	mg/L	0.66	0.50	9081297
Dissolved Chloride (CI)	ng/L	0.72	0.50	9081293
Nutrients				
Total Ammonia (N)	mg/L	<0.0050	0.0050	9081446
Nitrate plus Nitrite (N)	ng/L	<0.0020	0.0020	9079095
Nitrite (N)	ng/L	<0.0020	0.0020	9079096
Physical Properties				
Conductivity	S/cm	1.3	1.0	9080234
H	рН	5.20		9080227
Physical Properties				
Total Suspended Solids n	mg/L	<1.1 (1)	1.1	9082476
Total Dissolved Solids n	ng/L	<10	10	9080722
RDL = Reportable Detection Limit	t			
1) RDL raised due to limited initia	ما ممیر-	_		



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9050			TX9050			TX9051		
Sampling Date		2018/07/22			2018/07/22			2018/07/22		
Sampling Date		16:12			16:12			16:35		
COC Number		559732-01-01			559732-01-01			559732-01-01		
	UNITS	CC-1.0	RDL	QC Batch	CC-1.0 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	407	0.50	9078181				109	0.50	9078181
Elements			•							
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	9084893				0.0051	0.0020	9079940
Dissolved Metals by ICPMS			•							
Dissolved Aluminum (AI)	ug/L	9.35	0.50	9078961	9.55	0.50	9078961	90.3	0.50	9078961
Dissolved Antimony (Sb)	ug/L	0.155	0.020	9078961	0.149	0.020	9078961	0.093	0.020	9078961
Dissolved Arsenic (As)	ug/L	1.13	0.020	9078961	1.09	0.020	9078961	0.528	0.020	9078961
Dissolved Barium (Ba)	ug/L	92.5	0.020	9078961	93.2	0.020	9078961	33.4	0.020	9078961
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9078961	<0.010	0.010	9078961	0.022	0.010	9078961
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9078961	<0.0050	0.0050	9078961	<0.0050	0.0050	9078961
Dissolved Boron (B)	ug/L	<10	10	9078961	<10	10	9078961	<10	10	9078961
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	9078961	<0.0050	0.0050	9078961	0.0070	0.0050	9078961
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	9078961	0.12	0.10	9078961	0.34	0.10	9078961
Dissolved Cobalt (Co)	ug/L	0.0257	0.0050	9078961	0.0259	0.0050	9078961	0.0433	0.0050	9078961
Dissolved Copper (Cu)	ug/L	0.768	0.050	9078961	0.768	0.050	9078961	1.61	0.050	9078961
Dissolved Iron (Fe)	ug/L	3.3	1.0	9078961	3.4	1.0	9078961	52.4	1.0	9078961
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9078961	<0.0050	0.0050	9078961	<0.0050	0.0050	9078961
Dissolved Lithium (Li)	ug/L	4.40	0.50	9078961	4.35	0.50	9078961	1.33	0.50	9078961
Dissolved Manganese (Mn)	ug/L	0.301	0.050	9078961	0.289	0.050	9078961	3.93	0.050	9078961
Dissolved Molybdenum (Mo)	ug/L	0.316	0.050	9078961	0.298	0.050	9078961	0.138	0.050	9078961
Dissolved Nickel (Ni)	ug/L	0.453	0.020	9078961	0.432	0.020	9078961	0.603	0.020	9078961
Dissolved Phosphorus (P)	ug/L	2.3	2.0	9078961	2.6	2.0	9078961	3.8	2.0	9078961
Dissolved Selenium (Se)	ug/L	0.284	0.040	9078961	0.284	0.040	9078961	0.073	0.040	9078961
Dissolved Silicon (Si)	ug/L	4960	50	9078961	4900	50	9078961	4850	50	9078961
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9078961	<0.0050	0.0050	9078961	<0.0050	0.0050	9078961
Dissolved Strontium (Sr)	ug/L	1140	0.050	9078961	1130	0.050	9078961	237	0.050	9078961
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	9078961	0.0036	0.0020	9078961	0.0022	0.0020	9078961
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9078961	<0.20	0.20	9078961	<0.20	0.20	9078961
Dissolved Titanium (Ti)	ug/L	0.61	0.50	9078961	<0.50	0.50	9078961	1.12	0.50	9078961
RDL = Reportable Detection Lir	mit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9050			TX9050			TX9051		
Sampling Date		2018/07/22			2018/07/22			2018/07/22		
Sampling Date		16:12			16:12			16:35		
COC Number		559732-01-01			559732-01-01			559732-01-01		
	UNITS	CC-1.0	RDL	QC Batch	CC-1.0 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Dissolved Uranium (U)	ug/L	27.2	0.0020	9078961	27.2	0.0020	9078961	5.24	0.0020	9078961
Dissolved Vanadium (V)	ug/L	0.32	0.20	9078961	0.33	0.20	9078961	0.35	0.20	9078961
Dissolved Zinc (Zn)	ug/L	0.12	0.10	9078961	0.14	0.10	9078961	0.29	0.10	9078961
Dissolved Zirconium (Zr)	ug/L	0.13	0.10	9078961	0.11	0.10	9078961	0.69	0.10	9078961
Dissolved Calcium (Ca)	mg/L	103	0.050	9078673				29.4	0.050	9078673
Dissolved Magnesium (Mg)	mg/L	36.5	0.050	9078673				8.75	0.050	9078673
Dissolved Potassium (K)	mg/L	5.52	0.050	9078673				1.74	0.050	9078673
Dissolved Sodium (Na)	mg/L	4.77	0.050	9078673				2.62	0.050	9078673
Dissolved Sulphur (S)	mg/L	61.1	3.0	9078673				18.1	3.0	9078673

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9052		TX9053		TX9054	TX9103		
		2018/07/22		2018/07/22		2018/07/21	2018/07/22		
Sampling Date		17:41		17:17		15:40	14:25		
COC Number		559732-01-01		559732-01-01		559732-01-01	559732-02-01		
	UNITS	CC-6.0	QC Batch	CC-A	QC Batch	COFFEE MIX	HC-2.5	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	10.7	9078181	53.1	9078181	86.5	94.1	0.50	9078181
Elements								•	
Dissolved Mercury (Hg)	ug/L	0.0052	9079940	0.0076	9079940	<0.0020	0.0058	0.0020	9079940
Dissolved Metals by ICPMS					•	•	•		
Dissolved Aluminum (AI)	ug/L	185	9078961	116	9078961	13.7	75.0	0.50	9078961
Dissolved Antimony (Sb)	ug/L	0.066	9078961	0.093	9078961	0.131	0.405	0.020	9078961
Dissolved Arsenic (As)	ug/L	0.572	9078961	0.507	9078961	0.533	0.945	0.020	9078961
Dissolved Barium (Ba)	ug/L	11.9	9078961	21.5	9078961	40.2	37.1	0.020	9078961
Dissolved Beryllium (Be)	ug/L	0.024	9078961	0.027	9078961	<0.010	0.013	0.010	9078961
Dissolved Bismuth (Bi)	ug/L	<0.0050	9078961	<0.0050	9078961	<0.0050	<0.0050	0.0050	9078961
Dissolved Boron (B)	ug/L	<10	9078961	<10	9078961	<10	<10	10	9078961
Dissolved Cadmium (Cd)	ug/L	0.0092	9078961	0.0084	9078961	0.0274	0.0056	0.0050	9078961
Dissolved Chromium (Cr)	ug/L	0.50	9078961	0.38	9078961	<0.10	0.34	0.10	9078961
Dissolved Cobalt (Co)	ug/L	0.127	9078961	0.0460	9078961	0.0091	0.0469	0.0050	9078961
Dissolved Copper (Cu)	ug/L	1.65	9078961	3.85	9085909	0.851	1.46	0.050	9078961
Dissolved Iron (Fe)	ug/L	181	9078961	69.3	9078961	8.2	47.1	1.0	9078961
Dissolved Lead (Pb)	ug/L	0.0132	9078961	0.0104	9078961	0.0161	<0.0050	0.0050	9078961
Dissolved Lithium (Li)	ug/L	<0.50	9078961	1.00	9078961	1.36	1.05	0.50	9078961
Dissolved Manganese (Mn)	ug/L	29.7	9078961	2.92	9078961	0.417	1.89	0.050	9078961
Dissolved Molybdenum (Mo)	ug/L	<0.050	9078961	0.107	9078961	1.23	1.28	0.050	9078961
Dissolved Nickel (Ni)	ug/L	0.874	9078961	0.733	9078961	0.742	0.692	0.020	9078961
Dissolved Phosphorus (P)	ug/L	6.5	9078961	4.5	9078961	8.3	<2.0	2.0	9078961
Dissolved Selenium (Se)	ug/L	0.060	9078961	0.054	9078961	0.289	0.076	0.040	9078961
Dissolved Silicon (Si)	ug/L	4690	9078961	5150	9078961	2720	5060	50	9078961
Dissolved Silver (Ag)	ug/L	<0.0050	9078961	<0.0050	9078961	<0.0050	<0.0050	0.0050	9078961
Dissolved Strontium (Sr)	ug/L	17.0	9078961	97.8	9078961	115	278	0.050	9078961
Dissolved Thallium (TI)	ug/L	<0.0020	9078961	0.0023	9078961	0.0023	0.0026	0.0020	9078961
Dissolved Tin (Sn)	ug/L	<0.20	9078961	0.22	9078961	<0.20	<0.20	0.20	9078961
Dissolved Titanium (Ti)	ug/L	1.68	9078961	0.63	9078961	0.71	1.57	0.50	9078961
Dissolved Uranium (U)	ug/L	0.474	9078961	2.00	9078961	0.867	23.7	0.0020	9078961
RDL = Reportable Detection Lin	mit				•	·	•		•



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9052		TX9053		TX9054	TX9103		
Sampling Date		2018/07/22		2018/07/22		2018/07/21	2018/07/22		
Sampling Date		17:41		17:17		15:40	14:25		
COC Number		559732-01-01		559732-01-01		559732-01-01	559732-02-01		
	UNITS	CC-6.0	QC Batch	CC-A	QC Batch	COFFEE MIX	HC-2.5	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.55	9078961	0.39	9078961	0.30	0.46	0.20	9078961
Dissolved Zinc (Zn)	ug/L	0.62	9078961	0.49	9078961	2.36	0.20	0.10	9078961
Dissolved Zirconium (Zr)	ug/L	0.87	9078961	0.80	9078961	<0.10	0.55	0.10	9078961
Dissolved Calcium (Ca)	mg/L	2.96	9078673	15.1	9078673	24.1	24.0	0.050	9078673
Dissolved Magnesium (Mg)	mg/L	0.811	9078673	3.73	9078673	6.37	8.27	0.050	9078673
Dissolved Potassium (K)	mg/L	0.080	9078673	0.768	9078673	0.763	1.74	0.050	9078673
Dissolved Sodium (Na)	mg/L	0.901	9078673	2.03	9078673	1.86	2.60	0.050	9078673
Dissolved Sulphur (S)	mg/L	<3.0	9078673	8.3	9078673	8.0	10.7	3.0	9078673
RDL = Reportable Detection Lir	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9104	TX9105		TX9106		TX9107		
Carrellina Data		2018/07/21	2018/07/22		2018/07/22		2018/07/22		
Sampling Date		17:38	15:45		15:30		15:09		
COC Number		559732-02-01	559732-02-01		559732-02-01		559732-02-01		
	UNITS	HC-5.0	НС-А	QC Batch	нс-в	QC Batch	нс-с	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	103	100	9078181	97.8	9078181	99.0	0.50	9078181
Elements	•			•		•		•	
Dissolved Mercury (Hg)	ug/L	0.0031	0.0069	9079940	0.0054	9079940	0.0031	0.0020	9079940
Dissolved Metals by ICPMS	•			•		•		•	
Dissolved Aluminum (Al)	ug/L	42.3	42.0	9078961	46.8	9078961	56.5	0.50	9078961
Dissolved Antimony (Sb)	ug/L	0.227	0.244	9078961	0.316	9078961	0.358	0.020	9078961
Dissolved Arsenic (As)	ug/L	0.638	0.672	9078961	0.750	9078961	0.821	0.020	9078961
Dissolved Barium (Ba)	ug/L	45.3	45.0	9078961	39.1	9078961	38.1	0.020	9078961
Dissolved Beryllium (Be)	ug/L	0.010	0.011	9078961	0.011	9078961	0.016	0.010	9078961
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	9078961	<0.0050	9078961	<0.0050	0.0050	9078961
Dissolved Boron (B)	ug/L	<10	<10	9078961	<10	9078961	<10	10	9078961
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0052	9078961	0.0084	9078961	0.0077	0.0050	9078961
Dissolved Chromium (Cr)	ug/L	0.28	0.25	9078961	0.28	9078961	0.30	0.10	9078961
Dissolved Cobalt (Co)	ug/L	0.0435	0.0407	9078961	0.0429	9078961	0.0447	0.0050	9078961
Dissolved Copper (Cu)	ug/L	1.68	1.58	9078961	1.82	9078961	1.65	0.050	9078961
Dissolved Iron (Fe)	ug/L	24.1	21.5	9078961	25.2	9078961	30.5	1.0	9078961
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	9078961	0.0230	9078961	0.0102	0.0050	9078961
Dissolved Lithium (Li)	ug/L	0.83	0.74	9078961	0.80	9078961	1.00	0.50	9078961
Dissolved Manganese (Mn)	ug/L	0.299	0.342	9078961	1.22	9078961	0.653	0.050	9078961
Dissolved Molybdenum (Mo)	ug/L	0.640	0.654	9078961	0.812	9078961	1.06	0.050	9078961
Dissolved Nickel (Ni)	ug/L	0.718	0.594	9078961	0.586	9078961	0.632	0.020	9078961
Dissolved Phosphorus (P)	ug/L	2.6	<2.0	9078961	<2.0	9078961	<2.0	2.0	9078961
Dissolved Selenium (Se)	ug/L	0.070	0.051	9078961	0.052	9078961	0.061	0.040	9078961
Dissolved Silicon (Si)	ug/L	4670	4550	9078961	4710	9078961	4970	50	9078961
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	9078961	<0.0050	9078961	<0.0050	0.0050	9078961
Dissolved Strontium (Sr)	ug/L	244	265	9078961	255	9078961	273	0.050	9078961
Dissolved Thallium (TI)	ug/L	0.0020	0.0027	9078961	<0.0020	9078961	<0.0020	0.0020	9078961
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	9078961	<0.20	9078961	<0.20	0.20	9078961
Dissolved Titanium (Ti)	ug/L	0.75	0.83	9078961	1.23	9078961	1.12	0.50	9078961
Dissolved Uranium (U)	ug/L	9.87	13.4	9078961	17.6	9078961	20.0	0.0020	9078961
RDL = Reportable Detection Lir	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9104	TX9105		TX9106		TX9107			
IVIAXXAIII ID									ļ	
Sampling Date		2018/07/21	2018/07/22		2018/07/22		2018/07/22			
Sampling Date		17:38	15:45		15:30		15:09			
COC Number		559732-02-01	559732-02-01		559732-02-01		559732-02-01			
	UNITS	HC-5.0	нс-а	QC Batch	нс-в	QC Batch	нс-с	RDL	QC Batch	
Dissolved Vanadium (V)	ug/L	0.45	0.41	9078961	0.38	9078961	0.38	0.20	9078961	
Dissolved Zinc (Zn)	ug/L	0.11	0.39	9078961	1.75	9084644	1.78	0.10	9078961	
Dissolved Zirconium (Zr)	ug/L	0.46	0.48	9078961	0.49	9078961	0.50	0.10	9078961	
Dissolved Calcium (Ca)	mg/L	27.6	26.3	9078673	25.1	9078673	25.3	0.050	9078673	
Dissolved Magnesium (Mg)	mg/L	8.33	8.44	9078673	8.51	9078673	8.70	0.050	9078673	
Dissolved Potassium (K)	mg/L	2.03	1.96	9078673	1.57	9078673	1.72	0.050	9078673	
Dissolved Sodium (Na)	mg/L	3.08	3.08	9078673	3.03	9078673	2.83	0.050	9078673	
Dissolved Sulphur (S)	mg/L	12.1	12.4	9078673	11.9	9078673	11.4	3.0	9078673	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9108		TX9109	TX9110			TX9110		
Sampling Date		2018/07/21		2018/07/22	2018/07/22			2018/07/22		
		18:07		09:29	09:08			09:08		
COC Number		559732-02-01		559732-02-01	559732-02-01			559732-02-01		
	UNITS	HALFWAY MIX	QC Batch	IC-0.5	IC-1.5	RDL	QC Batch	IC-1.5 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	88.8	9078181	106	60.9	0.50	9078181			
Elements		•	Į.	1	1		Į.	1		
Dissolved Mercury (Hg)	ug/L	<0.0020	9079940	0.0039	0.0060	0.0020	9079943	0.0058	0.0020	9079943
Dissolved Metals by ICPMS		•	Į.	1	1		Į.	1		
Dissolved Aluminum (Al)	ug/L	16.8	9078961	100	82.5	0.50	9078961			
Dissolved Antimony (Sb)	ug/L	0.126	9078961	0.090	0.109	0.020	9078961			
Dissolved Arsenic (As)	ug/L	0.475	9078961	0.576	0.298	0.020	9078961			
Dissolved Barium (Ba)	ug/L	42.3	9078961	33.6	34.0	0.020	9078961			
Dissolved Beryllium (Be)	ug/L	<0.010	9078961	0.019	0.010	0.010	9078961			
Dissolved Bismuth (Bi)	ug/L	<0.0050	9078961	<0.0050	<0.0050	0.0050	9078961			
Dissolved Boron (B)	ug/L	<10	9078961	<10	<10	10	9078961			
Dissolved Cadmium (Cd)	ug/L	0.0430	9078961	0.0251	<0.0050	0.0050	9078961			
Dissolved Chromium (Cr)	ug/L	<0.10	9078961	0.42	0.33	0.10	9078961			
Dissolved Cobalt (Co)	ug/L	0.0089	9078961	0.0783	0.0384	0.0050	9078961			
Dissolved Copper (Cu)	ug/L	1.29	9078961	2.94	1.81	0.050	9078961			
Dissolved Iron (Fe)	ug/L	7.5	9078961	67.6	51.9	1.0	9078961			
Dissolved Lead (Pb)	ug/L	0.0196	9078961	<0.0050	0.0064	0.0050	9078961			
Dissolved Lithium (Li)	ug/L	1.33	9078961	2.07	2.34	0.50	9078961			
Dissolved Manganese (Mn)	ug/L	0.564	9078961	4.80	0.569	0.050	9078961			
Dissolved Molybdenum (Mo)	ug/L	1.19	9078961	0.316	0.290	0.050	9078961			
Dissolved Nickel (Ni)	ug/L	0.903	9078961	2.45	0.807	0.020	9078961			
Dissolved Phosphorus (P)	ug/L	4.2	9078961	2.8	2.9	2.0	9078961			
Dissolved Selenium (Se)	ug/L	0.296	9078961	0.198	0.062	0.040	9078961			
Dissolved Silicon (Si)	ug/L	2760	9078961	4920	5140	50	9078961			
Dissolved Silver (Ag)	ug/L	<0.0050	9078961	<0.0050	<0.0050	0.0050	9078961			
Dissolved Strontium (Sr)	ug/L	119	9078961	83.1	106	0.050	9078961			
Dissolved Thallium (TI)	ug/L	0.0024	9078961	0.0048	0.0028	0.0020	9078961			
Dissolved Tin (Sn)	ug/L	<0.20	9078961	<0.20	<0.20	0.20	9078961			
Dissolved Titanium (Ti)	ug/L	0.75	9078961	1.40	0.86	0.50	9078961			
RDL = Reportable Detection Lin	mit	-		•	•	•		•	•	•
Lab Dun - Laboratory Initiated	l Donalia									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9108		TX9109	TX9110			TX9110		
Sampling Date		2018/07/21 18:07		2018/07/22 09:29	2018/07/22 09:08			2018/07/22 09:08		
COC Number		559732-02-01		559732-02-01	559732-02-01			559732-02-01		
	UNITS	HALFWAY MIX	QC Batch	IC-0.5	IC-1.5	RDL	QC Batch	IC-1.5 Lab-Dup	RDL	QC Batch
Dissolved Uranium (U)	ug/L	0.928	9078961	0.956	2.27	0.0020	9078961			
Dissolved Vanadium (V)	ug/L	0.33	9078961	0.47	0.44	0.20	9078961			
Dissolved Zinc (Zn)	ug/L	7.25	9078961	1.87	0.25	0.10	9078961			
Dissolved Zirconium (Zr)	ug/L	<0.10	9078961	0.70	0.70	0.10	9078961			
Dissolved Calcium (Ca)	mg/L	24.6	9078673	25.5	16.5	0.050	9078673			
Dissolved Magnesium (Mg)	mg/L	6.62	9078673	10.3	4.80	0.050	9078673			
Dissolved Potassium (K)	mg/L	0.878	9078673	1.01	0.974	0.050	9078673			_
Dissolved Sodium (Na)	mg/L	2.28	9078673	3.07	3.63	0.050	9078673			
Dissolved Sulphur (S)	mg/L	8.7	9078673	21.3	5.2	3.0	9078673			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9111	TX9112	TX9145	TX9146	TX9147	TX9148		
Carrallian Bata		2018/07/22	2018/07/22	2018/07/22	2018/07/21	2018/07/21	2018/07/21		
Sampling Date		10:01	11:35	13:00	16:38	17:06	15:41		
COC Number		559732-02-01	559732-02-01	559732-03-01	559732-03-01	559732-03-01	559732-03-01		
	UNITS	IC-2.5	IC-3.0	IC-4.5	ML-1.0 (YT-24-1)	YT-24-MIX	YUK-2.0	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	16.4	96.6	66.4	126	88.4	92.3	0.50	9078181
Elements				1					
Dissolved Mercury (Hg)	ug/L	0.0052	0.0035	0.0037	0.0030	<0.0020	0.0039	0.0020	9079943
Dissolved Metals by ICPMS				•					
Dissolved Aluminum (AI)	ug/L	175	53.7	76.2	40.9	16.8	18.1	0.50	9078961
Dissolved Antimony (Sb)	ug/L	0.128	0.320	0.102	0.180	0.115	0.100	0.020	9078961
Dissolved Arsenic (As)	ug/L	0.968	1.14	0.429	0.448	0.537	0.447	0.020	9078961
Dissolved Barium (Ba)	ug/L	14.6	32.0	35.9	67.0	41.4	42.0	0.020	9078961
Dissolved Beryllium (Be)	ug/L	0.025	0.018	0.010	<0.010	<0.010	<0.010	0.010	9078961
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9078961
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9078961
Dissolved Cadmium (Cd)	ug/L	0.0052	<0.0050	0.0095	0.0053	0.0338	0.0229	0.0050	9078961
Dissolved Chromium (Cr)	ug/L	0.62	0.31	0.37	0.23	<0.10	<0.10	0.10	9078961
Dissolved Cobalt (Co)	ug/L	0.0726	0.0679	0.0486	0.0638	0.0070	0.0118	0.0050	9078961
Dissolved Copper (Cu)	ug/L	2.15	1.83	2.12	1.80	1.15	0.762	0.050	9078961
Dissolved Iron (Fe)	ug/L	267	37.1	48.4	23.1	8.3	8.5	1.0	9078961
Dissolved Lead (Pb)	ug/L	0.0191	<0.0050	<0.0050	<0.0050	0.0211	0.0161	0.0050	9078961
Dissolved Lithium (Li)	ug/L	0.60	<0.50	1.04	<0.50	1.37	1.39	0.50	9078961
Dissolved Manganese (Mn)	ug/L	2.69	20.9	2.48	0.717	0.294	1.33	0.050	9078961
Dissolved Molybdenum (Mo)	ug/L	0.096	0.431	0.242	0.450	1.21	1.15	0.050	9078961
Dissolved Nickel (Ni)	ug/L	0.949	0.758	1.10	0.706	0.887	0.868	0.020	9078961
Dissolved Phosphorus (P)	ug/L	6.2	3.4	8.5	2.4	11.9	2.6	2.0	9078961
Dissolved Selenium (Se)	ug/L	0.046	0.067	0.086	0.065	0.281	0.345	0.040	9078961
Dissolved Silicon (Si)	ug/L	4920	4630	4730	4000	2750	2700	50	9078961
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9078961
Dissolved Strontium (Sr)	ug/L	22.2	167	97.2	229	118	120	0.050	9078961
Dissolved Thallium (TI)	ug/L	<0.0020	0.0031	0.0032	0.0024	0.0025	<0.0020	0.0020	9078961
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9078961
Dissolved Titanium (Ti)	ug/L	2.10	1.14	0.63	1.01	0.52	1.11	0.50	9078961
Dissolved Uranium (U)	ug/L	0.780	3.86	1.00	2.09	0.889	0.927	0.0020	9078961
RDL = Reportable Detection Lin	mit			-					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9111	TX9112	TX9145	TX9146	TX9147	TX9148				
Sampling Date		2018/07/22	2018/07/22	2018/07/22	2018/07/21	2018/07/21	2018/07/21				
Sampling Date		10:01	11:35	13:00	16:38	17:06	15:41				
COC Number		559732-02-01	559732-02-01	559732-03-01	559732-03-01	559732-03-01	559732-03-01				
	UNITS	IC-2.5	IC-3.0	IC-4.5	ML-1.0 (YT-24-1)	YT-24-MIX	YUK-2.0	RDL	QC Batch		
Dissolved Vanadium (V)	ug/L	0.67	0.49	0.37	0.38	0.35	0.37	0.20	9078961		
Dissolved Zinc (Zn)	ug/L	0.58	0.11	0.41	0.20	5.98	2.29	0.10	9078961		
Dissolved Zirconium (Zr)	ug/L	1.31	0.69	0.73	0.53	<0.10	<0.10	0.10	9078961		
Dissolved Calcium (Ca)	mg/L	4.56	30.3	18.2	35.5	24.6	25.4	0.050	9078673		
Dissolved Magnesium (Mg)	mg/L	1.22	5.07	5.08	9.04	6.54	7.02	0.050	9078673		
Dissolved Potassium (K)	mg/L	0.170	1.75	1.09	1.97	0.858	0.764	0.050	9078673		
Dissolved Sodium (Na)	mg/L	1.16	2.93	2.93	3.47	2.43	1.87	0.050	9078673		
Dissolved Sulphur (S)	mg/L	<3.0	13.8	9.4	22.0	8.4	8.1	3.0	9078673		
RDL = Reportable Detection Limit											



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9149		TX9150			TX9150		
Compling Date		2018/07/21		2018/07/21			2018/07/21		
Sampling Date		18:35		18:35			18:35		
COC Number		559732-03-01		559732-03-01			559732-03-01		
	UNITS	YUK-5.0	QC Batch	SAMPLE A	RDL	QC Batch	SAMPLE A Lab-Dup	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	91.2	9078181	91.6	0.50	9078181			
Elements	,				•				
Dissolved Mercury (Hg)	ug/L	<0.0020	9079943	0.0025	0.0020	9079943			
Dissolved Metals by ICPMS			•		•			•	
Dissolved Aluminum (AI)	ug/L	19.8	9078961	20.6	0.50	9079393	20.7	0.50	9079393
Dissolved Antimony (Sb)	ug/L	0.102	9078961	0.118	0.020	9079393	0.115	0.020	9079393
Dissolved Arsenic (As)	ug/L	0.479	9078961	0.466	0.020	9079393	0.505	0.020	9079393
Dissolved Barium (Ba)	ug/L	42.7	9078961	42.5	0.020	9079393	42.0	0.020	9079393
Dissolved Beryllium (Be)	ug/L	<0.010	9078961	<0.010	0.010	9079393	<0.010	0.010	9079393
Dissolved Bismuth (Bi)	ug/L	<0.0050	9078961	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393
Dissolved Boron (B)	ug/L	<10	9078961	<10	10	9079393	<10	10	9079393
Dissolved Cadmium (Cd)	ug/L	0.0251	9078961	0.0282	0.0050	9079393	0.0252	0.0050	9079393
Dissolved Chromium (Cr)	ug/L	<0.10	9078961	<0.10	0.10	9079393	<0.10	0.10	9079393
Dissolved Cobalt (Co)	ug/L	0.0092	9078961	0.0072	0.0050	9079393	0.0090	0.0050	9079393
Dissolved Copper (Cu)	ug/L	0.842	9078961	0.833	0.050	9079393	0.852	0.050	9079393
Dissolved Iron (Fe)	ug/L	8.5	9078961	8.4	1.0	9079393	9.3	1.0	9079393
Dissolved Lead (Pb)	ug/L	0.0143	9078961	0.0186	0.0050	9079393	0.0194	0.0050	9079393
Dissolved Lithium (Li)	ug/L	1.42	9078961	1.72	0.50	9079393	1.71	0.50	9079393
Dissolved Manganese (Mn)	ug/L	0.589	9078961	0.533	0.050	9079393	0.600	0.050	9079393
Dissolved Molybdenum (Mo)	ug/L	1.21	9078961	1.22	0.050	9079393	1.20	0.050	9079393
Dissolved Nickel (Ni)	ug/L	0.859	9078961	0.809	0.020	9079393	0.839	0.020	9079393
Dissolved Phosphorus (P)	ug/L	10.0	9078961	18.2	2.0	9079393	16.0	2.0	9079393
Dissolved Selenium (Se)	ug/L	0.316	9078961	0.324	0.040	9079393	0.340	0.040	9079393
Dissolved Silicon (Si)	ug/L	2720	9078961	2900	50	9079393	2820	50	9079393
Dissolved Silver (Ag)	ug/L	<0.0050	9078961	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393
Dissolved Strontium (Sr)	ug/L	122	9078961	117	0.050	9079393	121	0.050	9079393
Dissolved Thallium (TI)	ug/L	<0.0020	9078961	0.0020	0.0020	9079393	0.0023	0.0020	9079393
Dissolved Tin (Sn)	ug/L	<0.20	9078961	<0.20	0.20	9079393	<0.20	0.20	9079393
Dissolved Titanium (Ti)	ug/L	0.56	9078961	<0.50	0.50	9079393	<0.50	0.50	9079393
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9149		TX9150			TX9150		
Sampling Date		2018/07/21		2018/07/21			2018/07/21		
Sampling Date		18:35		18:35			18:35		
COC Number		559732-03-01		559732-03-01			559732-03-01		
	UNITS	YUK-5.0	QC Batch	SAMPLE A	RDL	QC Batch	SAMPLE A Lab-Dup	RDL	QC Batch
Dissolved Uranium (U)	ug/L	0.939	9078961	0.997	0.0020	9079393	1.00	0.0020	9079393
Dissolved Vanadium (V)	ug/L	0.31	9078961	0.29	0.20	9079393	0.28	0.20	9079393
Dissolved Zinc (Zn)	ug/L	1.58	9078961	1.83	0.10	9079393	1.87	0.10	9079393
Dissolved Zirconium (Zr)	ug/L	<0.10	9078961	<0.10	0.10	9079393	<0.10	0.10	9079393
Dissolved Calcium (Ca)	mg/L	25.1	9078673	25.4	0.050	9078673			
Dissolved Magnesium (Mg)	mg/L	6.92	9078673	6.87	0.050	9078673			
Dissolved Potassium (K)	mg/L	0.774	9078673	0.782	0.050	9078673			
Dissolved Sodium (Na)	mg/L	1.92	9078673	1.97	0.050	9078673			
Dissolved Sulphur (S)	mg/L	8.1	9078673	8.3	3.0	9078673			
1									

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9179	TX9180			TX9180		
Sampling Date		2018/07/22 16:12	2018/07/23 08:30			2018/07/23 08:30		
COC Number		559732-04-01	559732-04-01			559732-04-01		
	UNITS	SAMPLE B	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters	•						·	
Dissolved Hardness (CaCO3)	mg/L	380	<0.50	0.50	9078181			
Elements								
Dissolved Mercury (Hg)	ug/L	0.0022	<0.0020	0.0020	9079943			
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	ug/L	9.34	<0.50	0.50	9079393	<0.50	0.50	9079393
Dissolved Antimony (Sb)	ug/L	0.162	<0.020	0.020	9079393	<0.020	0.020	9079393
Dissolved Arsenic (As)	ug/L	1.12	<0.020	0.020	9079393	<0.020	0.020	9079393
Dissolved Barium (Ba)	ug/L	92.7	<0.020	0.020	9079393	<0.020	0.020	9079393
Dissolved Beryllium (Be)	ug/L	<0.010	0.026	0.010	9079393	0.013	0.010	9079393
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393
Dissolved Boron (B)	ug/L	<10	<10	10	9079393	<10	10	9079393
Dissolved Cadmium (Cd)	ug/L	<0.0050	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393
Dissolved Chromium (Cr)	ug/L	0.11	<0.10	0.10	9079393	<0.10	0.10	9079393
Dissolved Cobalt (Co)	ug/L	0.0257	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393
Dissolved Copper (Cu)	ug/L	0.705	1.21 (1)	0.050	9079393	0.862 (2)	0.050	9079393
Dissolved Iron (Fe)	ug/L	3.0	<1.0	1.0	9079393	<1.0	1.0	9079393
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393
Dissolved Lithium (Li)	ug/L	5.25	<0.50	0.50	9079393	<0.50	0.50	9079393
Dissolved Manganese (Mn)	ug/L	0.302	<0.050	0.050	9079393	<0.050	0.050	9079393
Dissolved Molybdenum (Mo)	ug/L	0.328	<0.050	0.050	9079393	<0.050	0.050	9079393
Dissolved Nickel (Ni)	ug/L	0.374	<0.020	0.020	9079393	<0.020	0.020	9079393
Dissolved Phosphorus (P)	ug/L	2.9	2.2	2.0	9079393	<2.0	2.0	9079393
Dissolved Selenium (Se)	ug/L	0.268	<0.040	0.040	9079393	<0.040	0.040	9079393
Dissolved Silicon (Si)	ug/L	5010	<50	50	9079393	<50	50	9079393
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393
Dissolved Strontium (Sr)	ug/L	1120	<0.050	0.050	9079393	<0.050	0.050	9079393
Dissolved Thallium (TI)	ug/L	0.0046	<0.0020	0.0020	9079393	<0.0020	0.0020	9079393

RDL = Reportable Detection Limit

<sup>(1)</sup> Duplicate RPD for Copper above control limit - (10% of analytes failure allowed).

<sup>(2)</sup> Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

	1		i	1				
Maxxam ID		TX9179	TX9180			TX9180		
Sampling Date		2018/07/22	2018/07/23			2018/07/23		
Sampling Date		16:12	08:30			08:30		
COC Number		559732-04-01	559732-04-01			559732-04-01		
	UNITS	SAMPLE B	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	0.20	9079393	<0.20	0.20	9079393
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	0.50	9079393	<0.50	0.50	9079393
Dissolved Uranium (U)	ug/L	28.5	<0.0020	0.0020	9079393	<0.0020	0.0020	9079393
Dissolved Vanadium (V)	ug/L	0.29	<0.20	0.20	9079393	<0.20	0.20	9079393
Dissolved Zinc (Zn)	ug/L	0.16	<0.10	0.10	9079393	<0.10	0.10	9079393
Dissolved Zirconium (Zr)	ug/L	0.11	<0.10	0.10	9079393	<0.10	0.10	9079393
Dissolved Calcium (Ca)	mg/L	92.6	<0.050	0.050	9078673			
Dissolved Magnesium (Mg)	mg/L	36.1	<0.050	0.050	9078673			
Dissolved Potassium (K)	mg/L	5.49	<0.050	0.050	9078673			
Dissolved Sodium (Na)	mg/L	4.82	<0.050	0.050	9078673			
Dissolved Sulphur (S)	mg/L	56.2	<3.0	3.0	9078673			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9181			TX9181							
Sampling Date		2018/07/23			2018/07/23							
		08:30			08:30							
COC Number		559732-04-01			559732-04-01							
	UNITS	TRAVEL BLANK	RDL	QC Batch	TRAVEL BLANK Lab-Dup	RDL	QC Batch					
Calculated Parameters												
Dissolved Hardness (CaCO3)	mg/L	<0.50	0.50	9078181								
Elements		•					Į.					
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	9079943								
Dissolved Metals by ICPMS	•						•					
Dissolved Aluminum (Al)	ug/L	<0.50	0.50	9079393	<0.50	0.50	9079393					
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	9079393	<0.020	0.020	9079393					
Dissolved Arsenic (As)	ug/L	<0.020	0.020	9079393	<0.020	0.020	9079393					
Dissolved Barium (Ba)	ug/L	<0.020	0.020	9079393	<0.020	0.020	9079393					
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9079393	<0.010	0.010	9079393					
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393					
Dissolved Boron (B)	ug/L	<10	10	9079393	<10	10	9079393					
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393					
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	9079393	<0.10	0.10	9079393					
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393					
Dissolved Copper (Cu)	ug/L	0.072	0.050	9079393	0.097	0.050	9079393					
Dissolved Iron (Fe)	ug/L	<1.0	1.0	9079393	<1.0	1.0	9079393					
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393					
Dissolved Lithium (Li)	ug/L	<0.50	0.50	9079393	<0.50	0.50	9079393					
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	9079393	<0.050	0.050	9079393					
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	9079393	<0.050	0.050	9079393					
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	9079393	<0.020	0.020	9079393					
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	9079393	<2.0	2.0	9079393					
Dissolved Selenium (Se)	ug/L	<0.040	0.040	9079393	<0.040	0.040	9079393					
Dissolved Silicon (Si)	ug/L	<50	50	9079393	<50	50	9079393					
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9079393	<0.0050	0.0050	9079393					
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	9079393	<0.050	0.050	9079393					
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	9079393	<0.0020	0.0020	9079393					
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9079393	<0.20	0.20	9079393					
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9079393	<0.50	0.50	9079393					
RDL = Reportable Detection Li	RDL = Reportable Detection Limit											
Lab-Dup = Laboratory Initiated	l Duplica	ate										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9181			TX9181	İ	
IVIAAAAIII ID							
Sampling Date		2018/07/23			2018/07/23		
oumpling Dute		08:30			08:30		
COC Number		559732-04-01			559732-04-01		
		TD 43/51 DI 451/		005.1	TRAVEL		000.1
	UNITS	TRAVEL BLANK	RDL	QC Batch	BLANK Lab-Dup	RDL	QC Batch
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	9079393	<0.0020	0.0020	9079393
Dissolved Vanadium (V)	ug/L	<0.20	0.20	9079393	<0.20	0.20	9079393
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	9079393	<0.10	0.10	9079393
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	9079393	<0.10	0.10	9079393
Dissolved Calcium (Ca)	mg/L	<0.050	0.050	9078673			
Dissolved Magnesium (Mg)	mg/L	<0.050	0.050	9078673			
Dissolved Potassium (K)	mg/L	<0.050	0.050	9078673			
Dissolved Sodium (Na)	mg/L	<0.050	0.050	9078673			
Dissolved Sulphur (S)	mg/L	<3.0	3.0	9078673			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9104		TX9105		TX9106		
Compling Date		2018/07/21		2018/07/22		2018/07/22		
Sampling Date		17:38		15:45		15:30		
COC Number		559732-02-01		559732-02-01		559732-02-01		
	UNITS	HC-5.0	QC Batch	НС-А	QC Batch	нс-в	RDL	QC Batch
Calculated Parameters			•					
Total Hardness (CaCO3)	mg/L	104	9077955	104	9077955	98.6	0.50	9077955
Elements			Į.					
Total Mercury (Hg)	ug/L	0.0031	9079762	0.0033	9079921	0.0035	0.0020	9079862
Total Metals by ICPMS			<u>!</u>					
Total Aluminum (Al)	ug/L	60.7	9079922	66.8	9079922	59.5	0.50	9079922
Total Antimony (Sb)	ug/L	0.241	9079922	0.262	9079922	0.320	0.020	9079922
Total Arsenic (As)	ug/L	0.708	9079922	0.717	9079922	0.792	0.020	9079922
Total Barium (Ba)	ug/L	45.8	9079922	47.3	9079922	39.0	0.020	9079922
Total Beryllium (Be)	ug/L	0.015	9079922	0.019	9079922	0.018	0.010	9079922
Total Bismuth (Bi)	ug/L	<0.0050	9079922	<0.0050	9079922	<0.0050	0.0050	9079922
Total Boron (B)	ug/L	<10	9079922	<10	9079922	<10	10	9079922
Total Cadmium (Cd)	ug/L	<0.0050	9079922	<0.0050	9079922	0.0076	0.0050	9079922
Total Chromium (Cr)	ug/L	0.30	9079922	0.33	9079922	0.30	0.10	9079922
Total Cobalt (Co)	ug/L	0.0628	9079922	0.0641	9079922	0.0541	0.0050	9079922
Total Copper (Cu)	ug/L	1.71	9079922	1.57	9079922	1.54	0.050	9079922
Total Iron (Fe)	ug/L	51.3	9079922	56.1	9079922	45.2	1.0	9079922
Total Lead (Pb)	ug/L	0.0158	9079922	0.0162	9079922	0.0239	0.0050	9079922
Total Lithium (Li)	ug/L	1.01	9079922	0.93	9079922	0.97	0.50	9079922
Total Manganese (Mn)	ug/L	2.02	9079922	1.90	9079922	2.63	0.050	9079922
Total Molybdenum (Mo)	ug/L	0.614	9079922	0.706	9079922	0.774	0.050	9079922
Total Nickel (Ni)	ug/L	0.848	9079922	0.656	9079922	0.638	0.020	9079922
Total Phosphorus (P)	ug/L	2.1	9079922	2.4	9079922	5.0	2.0	9079922
Total Selenium (Se)	ug/L	0.072	9079922	0.051	9079922	0.066	0.040	9079922
Total Silicon (Si)	ug/L	4780	9079922	4630	9079922	4820	50	9079922
Total Silver (Ag)	ug/L	<0.0050	9079922	<0.0050	9079922	<0.0050	0.0050	9079922
Total Strontium (Sr)	ug/L	249	9079922	271	9079922	257	0.050	9079922
Total Thallium (TI)	ug/L	0.0041	9079922	0.0034	9079922	0.0026	0.0020	9079922
Total Tin (Sn)	ug/L	<0.20	9079922	<0.20	9079922	<0.20	0.20	9079922
Total Titanium (Ti)	ug/L	2.06	9079922	2.49	9079922	1.86	0.50	9079922
Total Uranium (U)	ug/L	10.3	9079922	13.5	9079922	17.6	0.0020	9079922
RDL = Reportable Detection I	Limit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9104		TX9105		TX9106		
Sampling Data		2018/07/21		2018/07/22		2018/07/22		
Sampling Date		17:38		15:45		15:30		
COC Number		559732-02-01		559732-02-01		559732-02-01		
	UNITS	HC-5.0	QC Batch	НС-А	QC Batch	нс-в	RDL	QC Batch
Total Vanadium (V)	ug/L	0.45	9079922	0.44	9079922	0.41	0.20	9079922
Total Zinc (Zn)	ug/L	0.22	9079922	0.22	9079922	1.24	0.10	9079922
Total Zirconium (Zr)	ug/L	0.42	9079922	0.41	9079922	0.42	0.10	9079922
Total Calcium (Ca)	mg/L	27.9	9078676	27.0	9078676	25.3	0.050	9078676
Total Magnesium (Mg)	mg/L	8.37	9078676	8.78	9078676	8.60	0.050	9078676
Total Potassium (K)	mg/L	2.06	9078676	2.06	9078676	1.57	0.050	9078676
Total Sodium (Na)	mg/L	3.10	9078676	3.09	9078676	2.96	0.050	9078676
Total Sulphur (S)	mg/L	12.0	9078676	11.8	9078676	11.2	3.0	9078676
RDL = Reportable Detection	Limit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9106			TX9107		TX9109	TX9112		
Sampling Date		2018/07/22 15:30			2018/07/22 15:09		2018/07/22 09:29	2018/07/22 11:35		
COC Number		559732-02-01			559732-02-01		559732-02-01	559732-02-01		
	UNITS	HC-B Lab-Dup	RDL	QC Batch	нс-с	QC Batch	IC-0.5	IC-3.0	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L				100	9077955	107	98.6	0.50	9077955
Elements				·		•	•		ı	·
Total Mercury (Hg)	ug/L				0.0035	9079762	0.0038	0.0043	0.0020	9079921
Total Metals by ICPMS	•		•			•	•			•
Total Aluminum (AI)	ug/L	61.7	0.50	9079922	74.0	9079922	108	163	0.50	9079922
Total Antimony (Sb)	ug/L	0.336	0.020	9079922	0.380	9079922	0.099	0.335	0.020	9079922
Total Arsenic (As)	ug/L	0.819	0.020	9079922	0.867	9079922	0.607	1.42	0.020	9079922
Total Barium (Ba)	ug/L	41.6	0.020	9079922	39.2	9079922	34.8	34.7	0.020	9079922
Total Beryllium (Be)	ug/L	0.020	0.010	9079922	0.017	9079922	0.025	0.031	0.010	9079922
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9079922	< 0.0050	9079922	<0.0050	<0.0050	0.0050	9079922
Total Boron (B)	ug/L	<10	10	9079922	<10	9079922	<10	<10	10	9079922
Total Cadmium (Cd)	ug/L	0.0094	0.0050	9079922	0.0114	9079922	0.0308	0.0070	0.0050	9079922
Total Chromium (Cr)	ug/L	0.30	0.10	9079922	0.35	9079922	0.45	0.58	0.10	9079922
Total Cobalt (Co)	ug/L	0.0553	0.0050	9079922	0.0643	9079922	0.0848	0.167	0.0050	9079922
Total Copper (Cu)	ug/L	1.66	0.050	9079922	1.76	9079922	2.99	2.08	0.050	9079922
Total Iron (Fe)	ug/L	42.9	1.0	9079922	57.9	9079922	76.0	188	1.0	9079922
Total Lead (Pb)	ug/L	0.0228	0.0050	9079922	0.0348	9079922	0.0058	0.0850	0.0050	9079922
Total Lithium (Li)	ug/L	1.02	0.50	9079922	1.18	9079922	2.54	<0.50	0.50	9079922
Total Manganese (Mn)	ug/L	2.54	0.050	9079922	3.00	9079922	5.45	28.7	0.050	9079922
Total Molybdenum (Mo)	ug/L	0.813	0.050	9079922	1.00	9079922	0.321	0.388	0.050	9079922
Total Nickel (Ni)	ug/L	0.672	0.020	9079922	0.676	9079922	2.47	0.920	0.020	9079922
Total Phosphorus (P)	ug/L	2.2	2.0	9079922	3.1	9079922	<2.0	5.2	2.0	9079922
Total Selenium (Se)	ug/L	0.059	0.040	9079922	0.072	9079922	0.225	0.059	0.040	9079922
Total Silicon (Si)	ug/L	4910	50	9079922	5040	9079922	5280	4720	50	9079922
Total Silver (Ag)	ug/L	<0.0050	0.0050	9079922	<0.0050	9079922	<0.0050	<0.0050	0.0050	9079922
Total Strontium (Sr)	ug/L	272	0.050	9079922	279	9079922	87.2	180	0.050	9079922
Total Thallium (TI)	ug/L	0.0020	0.0020	9079922	0.0025	9079922	0.0048	0.0066	0.0020	9079922
Total Tin (Sn)	ug/L	<0.20	0.20	9079922	<0.20	9079922	<0.20	<0.20	0.20	9079922
Total Titanium (Ti)	ug/L	1.54	0.50	9079922	1.91	9079922	1.24	9.64	0.50	9079922

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9106			TX9107		TX9109	TX9112		
Sampling Date		2018/07/22 15:30			2018/07/22 15:09		2018/07/22 09:29	2018/07/22 11:35		
COC Number		559732-02-01			559732-02-01		559732-02-01	559732-02-01		
	UNITS	HC-B Lab-Dup	RDL	QC Batch	нс-с	QC Batch	IC-0.5	IC-3.0	RDL	QC Batch
Total Uranium (U)	ug/L	18.8	0.0020	9079922	20.8	9079922	1.13	4.04	0.0020	9079922
Total Vanadium (V)	ug/L	0.42	0.20	9079922	0.42	9079922	0.44	0.75	0.20	9079922
Total Zinc (Zn)	ug/L	1.27	0.10	9079922	2.07	9079922	2.19	0.57	0.10	9079922
Total Zirconium (Zr)	ug/L	0.45	0.10	9079922	0.43	9079922	0.67	0.58	0.10	9079922
Total Calcium (Ca)	mg/L				25.5	9078676	25.5	30.8	0.050	9078676
Total Magnesium (Mg)	mg/L				8.82	9078676	10.6	5.29	0.050	9078676
Total Potassium (K)	mg/L				1.78	9078676	1.02	1.94	0.050	9078676
Total Sodium (Na)	mg/L				2.87	9078676	3.09	3.04	0.050	9078676
Total Sulphur (S)	mg/L				10.9	9078676	22.8	13.1	3.0	9078676

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

		_		_		_			_
Maxxam ID		TX9179		TX9180			TX9180		
Sampling Date		2018/07/22		2018/07/23			2018/07/23		
Jumping Butc		16:12		08:30			08:30		
COC Number		559732-04-01		559732-04-01			559732-04-01		
	UNITS	SAMPLE B	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters							•		
Total Hardness (CaCO3)	mg/L	417	9077955	<0.50	0.50	9077955			
Elements	'	•		•					•
Total Mercury (Hg)	ug/L	<0.0020	9079762	<0.0020	0.0020	9079921			
Total Metals by ICPMS	'	•		•					•
Total Aluminum (Al)	ug/L	92.3	9079922	1.52	0.50	9079922	1.32	0.50	9079922
Total Antimony (Sb)	ug/L	0.158	9079922	<0.020	0.020	9079922	<0.020	0.020	9079922
Total Arsenic (As)	ug/L	1.34	9079922	<0.020	0.020	9079922	<0.020	0.020	9079922
Total Barium (Ba)	ug/L	95.8	9079922	0.025	0.020	9079922	<0.020	0.020	9079922
Total Beryllium (Be)	ug/L	<0.010	9079922	<0.010	0.010	9079922	<0.010	0.010	9079922
Total Bismuth (Bi)	ug/L	<0.0050	9079922	<0.0050	0.0050	9079922	<0.0050	0.0050	9079922
Total Boron (B)	ug/L	<10	9079922	<10	10	9079922	<10	10	9079922
Total Cadmium (Cd)	ug/L	0.0066	9079922	<0.0050	0.0050	9079922	<0.0050	0.0050	9079922
Total Chromium (Cr)	ug/L	0.34	9079922	<0.10	0.10	9079922	<0.10	0.10	9079922
Total Cobalt (Co)	ug/L	0.109	9079922	<0.0050	0.0050	9079922	<0.0050	0.0050	9079922
Total Copper (Cu)	ug/L	1.01	9079922	<0.050	0.050	9079922	<0.050	0.050	9079922
Total Iron (Fe)	ug/L	140	9079922	1.3	1.0	9079922	<1.0	1.0	9079922
Total Lead (Pb)	ug/L	0.0714	9079922	<0.0050	0.0050	9079922	0.0070	0.0050	9079922
Total Lithium (Li)	ug/L	5.16	9079922	<0.50	0.50	9079922	<0.50	0.50	9079922
Total Manganese (Mn)	ug/L	7.29	9079922	0.060	0.050	9079922	<0.050	0.050	9079922
Total Molybdenum (Mo)	ug/L	0.305	9079922	<0.050	0.050	9079922	<0.050	0.050	9079922
Total Nickel (Ni)	ug/L	0.696	9079922	<0.020	0.020	9079922	<0.020	0.020	9079922
Total Phosphorus (P)	ug/L	4.1	9079922	<2.0	2.0	9079922	<2.0	2.0	9079922
Total Selenium (Se)	ug/L	0.281	9079922	<0.040	0.040	9079922	<0.040	0.040	9079922
Total Silicon (Si)	ug/L	5160	9079922	<50	50	9079922	<50	50	9079922
Total Silver (Ag)	ug/L	<0.0050	9079922	<0.0050	0.0050	9079922	<0.0050	0.0050	9079922
Total Strontium (Sr)	ug/L	1130	9079922	<0.050	0.050	9079922	<0.050	0.050	9079922
Total Thallium (TI)	ug/L	0.0062	9079922	<0.0020	0.0020	9079922	<0.0020	0.0020	9079922
Total Tin (Sn)	ug/L	<0.20	9079922	<0.20	0.20	9079922	<0.20	0.20	9079922
Total Titanium (Ti)	ug/L	6.12	9079922	0.57	0.50	9079922	0.54	0.50	9079922
RDL = Reportable Detection	Limit								
l									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

-									
Maxxam ID		TX9179		TX9180			TX9180		
Sampling Date		2018/07/22		2018/07/23			2018/07/23		
Sampling Date		16:12		08:30			08:30		
COC Number		559732-04-01		559732-04-01			559732-04-01		
	UNITS	SAMPLE B	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Uranium (U)	ug/L	28.4	9079922	<0.0020	0.0020	9079922	<0.0020	0.0020	9079922
Total Vanadium (V)	ug/L	0.54	9079922	<0.20	0.20	9079922	<0.20	0.20	9079922
Total Zinc (Zn)	ug/L	0.60	9079922	<0.10	0.10	9079922	<0.10	0.10	9079922
Total Zirconium (Zr)	ug/L	<0.10	9079922	<0.10	0.10	9079922	<0.10	0.10	9079922
Total Calcium (Ca)	mg/L	106	9078676	<0.050	0.050	9078676			
Total Magnesium (Mg)	mg/L	37.0	9078676	<0.050	0.050	9078676			
Total Potassium (K)	mg/L	5.61	9078676	<0.050	0.050	9078676			
Total Sodium (Na)	mg/L	4.78	9078676	<0.050	0.050	9078676			_
Total Sulphur (S)	mg/L	60.3	9078676	<3.0	3.0	9078676			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9181			TX9181		
Sampling Date		2018/07/23			2018/07/23		
		08:30			08:30		
COC Number		559732-04-01			559732-04-01		
	UNITS	TRAVEL BLANK	RDL	QC Batch	TRAVEL BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	<0.50	0.50	9077955			
Elements		•	•			•	
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9079862	<0.0020	0.0020	9079862
Total Metals by ICPMS	•		•			•	
Total Aluminum (Al)	ug/L	<0.50	0.50	9079922			
Total Antimony (Sb)	ug/L	<0.020	0.020	9079922			
Total Arsenic (As)	ug/L	<0.020	0.020	9079922			
Total Barium (Ba)	ug/L	<0.020	0.020	9079922			
Total Beryllium (Be)	ug/L	<0.010	0.010	9079922			
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9079922			
Total Boron (B)	ug/L	<10	10	9079922			
Total Cadmium (Cd)	ug/L	<0.0050	0.0050	9079922			
Total Chromium (Cr)	ug/L	<0.10	0.10	9079922			
Total Cobalt (Co)	ug/L	<0.0050	0.0050	9079922			
Total Copper (Cu)	ug/L	<0.050	0.050	9079922			
Total Iron (Fe)	ug/L	<1.0	1.0	9079922			
Total Lead (Pb)	ug/L	<0.0050	0.0050	9079922			
Total Lithium (Li)	ug/L	<0.50	0.50	9079922			
Total Manganese (Mn)	ug/L	<0.050	0.050	9079922			
Total Molybdenum (Mo)	ug/L	<0.050	0.050	9079922			
Total Nickel (Ni)	ug/L	<0.020	0.020	9079922			
Total Phosphorus (P)	ug/L	<2.0	2.0	9079922			
Total Selenium (Se)	ug/L	<0.040	0.040	9079922			
Total Silicon (Si)	ug/L	<50	50	9079922			
Total Silver (Ag)	ug/L	<0.0050	0.0050	9079922			
Total Strontium (Sr)	ug/L	<0.050	0.050	9079922			
Total Thallium (TI)	ug/L	<0.0020	0.0020	9079922			
Total Tin (Sn)	ug/L	<0.20	0.20	9079922			
Total Titanium (Ti)	ug/L	<0.50	0.50	9079922			
RDL = Reportable Detection Lab-Dup = Laboratory Initia		cate					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9181			TX9181		
Sampling Date		2018/07/23 08:30			2018/07/23 08:30		
COC Number		559732-04-01			559732-04-01		
	UNITS	TRAVEL BLANK	RDL	QC Batch	TRAVEL BLANK Lab-Dup	RDL	QC Batch
Total Uranium (U)	ug/L	<0.0020	0.0020	9079922			
Total Vanadium (V)	ug/L	<0.20	0.20	9079922			
Total Zinc (Zn)	ug/L	<0.10	0.10	9079922			
Total Zirconium (Zr)	ug/L	<0.10	0.10	9079922			
Total Calcium (Ca)	mg/L	<0.050	0.050	9078676			
Total Magnesium (Mg)	mg/L	<0.050	0.050	9078676			
Total Potassium (K)	mg/L	<0.050	0.050	9078676			
Total Sodium (Na)	mg/L	<0.050	0.050	9078676			
Total Sulphur (S)	mg/L	<3.0	3.0	9078676			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9050		TX9051		TX9052		TX9053		
Sampling Date		2018/07/22		2018/07/22		2018/07/22		2018/07/22		
Sampling Date		16:12		16:35		17:41		17:17		
COC Number		559732-01-01		559732-01-01		559732-01-01		559732-01-01		
	UNITS	CC-1.0	QC Batch	CC-1.5	QC Batch	CC-6.0	QC Batch	CC-A	RDL	QC Batch
Calculated Parameters	-	•						•	•	
Total Hardness (CaCO3)	mg/L	441	9077955	117	9077955	11.5	9077955	54.5	0.50	9077955
Elements		1					Į.	1	l.	
Total Mercury (Hg)	ug/L	<0.0020	9084971	0.0056	9079921	0.0056	9079862	0.0062	0.0020	9079921
Total Metals by ICPMS		1					Į.	1	l.	
Total Aluminum (Al)	ug/L	30.7	9081520	106	9081520	234	9081520	136	3.0	9081520
Total Antimony (Sb)	ug/L	0.174	9081520	0.112	9081520	0.077	9081520	0.108	0.020	9081520
Total Arsenic (As)	ug/L	1.68	9081520	0.606	9081520	0.644	9081520	0.552	0.020	9081520
Total Barium (Ba)	ug/L	99.0	9081520	35.5	9081520	13.4	9081520	22.9	0.050	9081520
Total Beryllium (Be)	ug/L	<0.010	9081520	0.026	9081520	0.029	9081520	0.029	0.010	9081520
Total Bismuth (Bi)	ug/L	<0.010	9081520	<0.010	9081520	<0.010	9081520	<0.010	0.010	9081520
Total Boron (B)	ug/L	<10	9081520	<10	9081520	<10	9081520	<10	10	9081520
Total Cadmium (Cd)	ug/L	0.0051	9081520	0.0069	9081520	0.0132	9081520	0.0073	0.0050	9081520
Total Chromium (Cr)	ug/L	0.19	9081520	0.38	9081520	0.61	9081520	0.44	0.10	9081520
Total Cobalt (Co)	ug/L	0.040	9081520	0.047	9081520	0.157	9081520	0.053	0.010	9081520
Total Copper (Cu)	ug/L	0.86	9081520	1.71	9081520	1.85	9081520	1.81	0.10	9081520
Total Iron (Fe)	ug/L	36.4	9081520	69.8	9081520	309	9081520	89.7	5.0	9081520
Total Lead (Pb)	ug/L	<0.020	9081520	<0.020	9081520	0.033	9081520	<0.020	0.020	9081520
Total Lithium (Li)	ug/L	5.27	9081520	1.48	9081520	<0.50	9081520	1.10	0.50	9081520
Total Manganese (Mn)	ug/L	1.25	9081520	4.59	9081520	36.6	9081520	3.67	0.10	9081520
Total Molybdenum (Mo)	ug/L	0.348	9081520	0.160	9081520	<0.050	9081520	0.098	0.050	9081520
Total Nickel (Ni)	ug/L	0.46	9081520	0.61	9081520	0.97	9081520	0.69	0.10	9081520
Total Phosphorus (P)	ug/L	<5.0	9081520	<5.0	9081520	7.7	9081520	5.0	5.0	9081520
Total Selenium (Se)	ug/L	0.338	9081520	0.085	9081520	<0.040	9081520	0.051	0.040	9081520
Total Silicon (Si)	ug/L	5380	9081520	5270	9081520	5250	9081520	5390	50	9081520
Total Silver (Ag)	ug/L	<0.010	9081520	<0.010	9081520	<0.010	9081520	<0.010	0.010	9081520
Total Strontium (Sr)	ug/L	1210	9081520	245	9081520	18.0	9081520	99.0	0.050	9081520
Total Thallium (TI)	ug/L	0.0049	9081520	0.0022	9081520	<0.0020	9081520	0.0022	0.0020	9081520
Total Tin (Sn)	ug/L	<0.20	9081520	<0.20	9081520	<0.20	9081520	<0.20	0.20	9081520
Total Titanium (Ti)	ug/L	<2.0	9081520	<2.0	9081520	2.3	9081520	<2.0	2.0	9081520
Total Uranium (U)	ug/L	30.9	9081520	6.21	9081520	0.548	9081520	2.58	0.0050	9081520
Total Vanadium (V)	ug/L	0.33	9081520	0.36	9081520	0.63	9081520	0.40	0.20	9081520
RDL = Reportable Detection L	imit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9050		TX9051		TX9052		TX9053		
Sampling Date		2018/07/22		2018/07/22		2018/07/22		2018/07/22		
Sampling Date		16:12		16:35		17:41		17:17		
COC Number		559732-01-01		559732-01-01		559732-01-01		559732-01-01		
	UNITS	CC-1.0	QC Batch	CC-1.5	QC Batch	CC-6.0	QC Batch	CC-A	RDL	QC Batch
Total Zinc (Zn)	ug/L	<1.0	9081520	<1.0	9081520	<1.0	9081520	<1.0	1.0	9081520
Total Zirconium (Zr)	ug/L	<0.10	9081520	0.53	9081520	0.71	9081520	0.62	0.10	9081520
Total Calcium (Ca)	mg/L	111	9078676	31.2	9078676	3.09	9078676	15.3	0.25	9078676
Total Magnesium (Mg)	mg/L	39.4	9078676	9.61	9078676	0.92	9078676	3.98	0.25	9078676
Total Potassium (K)	mg/L	5.93	9078676	1.85	9078676	<0.25	9078676	0.79	0.25	9078676
Total Sodium (Na)	mg/L	5.30	9078676	2.87	9078676	0.97	9078676	2.16	0.25	9078676
Total Sulphur (S)	mg/L	65.4	9078676	19.7	9078676	<3.0	9078676	8.8	3.0	9078676
RDL = Reportable Detection L	imit		•		•		•			·



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TX9054			TX9054			TX9103		
Campling Data		2018/07/21			2018/07/21			2018/07/22		
Sampling Date		15:40			15:40			14:25		
COC Number		559732-01-01			559732-01-01			559732-02-01		
	UNITS	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	RDL	QC Batch	HC-2.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	87.0	0.50	9077955				95.7	0.50	9077955
Elements	-									
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9079762				0.0040	0.0020	9079921
Total Metals by ICPMS	•								•	
Total Aluminum (Al)	ug/L	252	3.0	9079676	252	3.0	9079676	91.3	3.0	9079676
Total Antimony (Sb)	ug/L	0.160	0.020	9079676	0.160	0.020	9079676	0.414	0.020	9079676
Total Arsenic (As)	ug/L	0.760	0.020	9079676	0.743	0.020	9079676	1.03	0.020	9079676
Total Barium (Ba)	ug/L	47.5	0.050	9079676	48.3	0.050	9079676	37.1	0.050	9079676
Total Beryllium (Be)	ug/L	0.016	0.010	9079676	0.011	0.010	9079676	0.012	0.010	9079676
Total Bismuth (Bi)	ug/L	<0.010	0.010	9079676	<0.010	0.010	9079676	<0.010	0.010	9079676
Total Boron (B)	ug/L	<10	10	9079676	<10	10	9079676	<10	10	9079676
Total Cadmium (Cd)	ug/L	0.0621	0.0050	9079676	0.0627	0.0050	9079676	0.0073	0.0050	9079676
Total Chromium (Cr)	ug/L	0.47	0.10	9079676	0.52	0.10	9079676	0.35	0.10	9079676
Total Cobalt (Co)	ug/L	0.188	0.010	9079676	0.186	0.010	9079676	0.056	0.010	9079676
Total Copper (Cu)	ug/L	1.40	0.10	9079676	1.38	0.10	9079676	1.46	0.10	9079676
Total Iron (Fe)	ug/L	367	5.0	9079676	371	5.0	9079676	64.1	5.0	9079676
Total Lead (Pb)	ug/L	0.263	0.020	9079676	0.259	0.020	9079676	<0.020	0.020	9079676
Total Lithium (Li)	ug/L	1.68	0.50	9079676	1.65	0.50	9079676	1.23	0.50	9079676
Total Manganese (Mn)	ug/L	18.5	0.10	9079676	18.6	0.10	9079676	2.86	0.10	9079676
Total Molybdenum (Mo)	ug/L	1.14	0.050	9079676	1.14	0.050	9079676	1.39	0.050	9079676
Total Nickel (Ni)	ug/L	1.48	0.10	9079676	1.58	0.10	9079676	0.65	0.10	9079676
Total Phosphorus (P)	ug/L	31.8	5.0	9079676	32.3	5.0	9079676	<5.0	5.0	9079676
Total Selenium (Se)	ug/L	0.295	0.040	9079676	0.299	0.040	9079676	0.066	0.040	9079676
Total Silicon (Si)	ug/L	3140	50	9079676	3150	50	9079676	5260	50	9079676
Total Silver (Ag)	ug/L	<0.010	0.010	9079676	<0.010	0.010	9079676	<0.010	0.010	9079676
Total Strontium (Sr)	ug/L	113	0.050	9079676	115	0.050	9079676	286	0.050	9079676
Total Thallium (TI)	ug/L	0.0065	0.0020	9079676	0.0059	0.0020	9079676	0.0025	0.0020	9079676
Total Tin (Sn)	ug/L	<0.20	0.20	9079676	<0.20	0.20	9079676	<0.20	0.20	9079676
Total Titanium (Ti)	ug/L	8.7	2.0	9079676	11.3	2.0	9079676	<2.0	2.0	9079676
Total Uranium (U)	ug/L	0.977	0.0050	9079676	0.974	0.0050	9079676	24.7	0.0050	9079676
RDL = Reportable Detection	Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TX9054			TX9054			TX9103		
Sampling Date		2018/07/21			2018/07/21			2018/07/22		
Sampling Date		15:40			15:40			14:25		
COC Number		559732-01-01			559732-01-01			559732-02-01		
	UNITS	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	RDL	QC Batch	HC-2.5	RDL	QC Batch
Total Vanadium (V)	ug/L	0.95	0.20	9079676	0.97	0.20	9079676	0.38	0.20	9079676
Total Zinc (Zn)	ug/L	7.6	1.0	9079676	7.7	1.0	9079676	<1.0	1.0	9079676
Total Zirconium (Zr)	ug/L	0.11	0.10	9079676	0.15	0.10	9079676	0.49	0.10	9079676
Total Calcium (Ca)	mg/L	24.2	0.25	9078676				24.4	0.25	9078676
Total Magnesium (Mg)	mg/L	6.45	0.25	9078676				8.44	0.25	9078676
Total Potassium (K)	mg/L	0.83	0.25	9078676				1.86	0.25	9078676
Total Sodium (Na)	mg/L	1.83	0.25	9078676				2.64	0.25	9078676
Total Sulphur (S)	mg/L	7.0	3.0	9078676				10.4	3.0	9078676

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9108		TX9110	TX9111		TX9145		
Sampling Date		2018/07/21		2018/07/22	2018/07/22		2018/07/22		
Sampling Date		18:07		09:08	10:01		13:00		
COC Number		559732-02-01		559732-02-01	559732-02-01		559732-03-01		
	UNITS	HALFWAY MIX	QC Batch	IC-1.5	IC-2.5	QC Batch	IC-4.5	RDL	QC Batch
Calculated Parameters		<u> </u>	<u> </u>	·	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Hardness (CaCO3)	mg/L	89.7	9077955	61.3	17.1	9077955	67.3	0.50	9077955
Elements									
Total Mercury (Hg)	ug/L	<0.0020	9079862	0.0054	0.0048	9079762	0.0041	0.0020	9079862
Total Metals by ICPMS									
Total Aluminum (AI)	ug/L	133	9079676	106	212	9079676	88.3	3.0	9079676
Total Antimony (Sb)	ug/L	0.161	9079676	0.122	0.152	9079676	0.111	0.020	9079676
Total Arsenic (As)	ug/L	0.625	9079676	0.325	1.15	9079676	0.477	0.020	9079676
Total Barium (Ba)	ug/L	46.8	9079676	35.4	15.2	9079676	36.8	0.050	9079676
Total Beryllium (Be)	ug/L	<0.010	9079676	0.018	0.037	9079676	0.019	0.010	9079676
Total Bismuth (Bi)	ug/L	<0.010	9079676	<0.010	<0.010	9079676	<0.010	0.010	9079676
Total Boron (B)	ug/L	<10	9079676	<10	<10	9079676	<10	10	9079676
Total Cadmium (Cd)	ug/L	0.0730	9079676	0.0075	0.0057	9079676	0.0079	0.0050	9079676
Total Chromium (Cr)	ug/L	0.29	9079676	0.35	0.67	9079676	0.36	0.10	9079676
Total Cobalt (Co)	ug/L	0.120	9079676	0.049	0.086	9079676	0.050	0.010	9079676
Total Copper (Cu)	ug/L	1.71	9079676	1.78	2.00	9079676	2.12	0.10	9079676
Total Iron (Fe)	ug/L	235	9079676	73.8	391	9079676	64.7	5.0	9079676
Total Lead (Pb)	ug/L	0.198	9079676	<0.020	0.038	9079676	<0.020	0.020	9079676
Total Lithium (Li)	ug/L	1.64	9079676	2.74	0.73	9079676	1.25	0.50	9079676
Total Manganese (Mn)	ug/L	14.0	9079676	1.07	4.34	9079676	3.24	0.10	9079676
Total Molybdenum (Mo)	ug/L	1.17	9079676	0.272	0.093	9079676	0.243	0.050	9079676
Total Nickel (Ni)	ug/L	1.35	9079676	0.78	1.04	9079676	1.15	0.10	9079676
Total Phosphorus (P)	ug/L	27.8	9079676	<5.0	6.3	9079676	<5.0	5.0	9079676
Total Selenium (Se)	ug/L	0.310	9079676	0.070	0.065	9079676	0.086	0.040	9079676
Total Silicon (Si)	ug/L	3060	9079676	5330	5430	9079676	4910	50	9079676
Total Silver (Ag)	ug/L	<0.010	9079676	<0.010	<0.010	9079676	<0.010	0.010	9079676
Total Strontium (Sr)	ug/L	118	9079676	108	23.1	9079676	101	0.050	9079676
Total Thallium (TI)	ug/L	0.0040	9079676	0.0045	<0.0020	9079676	0.0024	0.0020	9079676
Total Tin (Sn)	ug/L	0.60	9079676	<0.20	<0.20	9079676	<0.20	0.20	9079676
Total Titanium (Ti)	ug/L	2.5	9079676	<2.0	3.2	9079676	<2.0	2.0	9079676
Total Uranium (U)	ug/L	1.00	9079676	2.55	0.827	9079676	1.02	0.0050	9079676
Total Vanadium (V)	ug/L	0.61	9079676	0.42	0.73	9079676	0.32	0.20	9079676
RDL = Reportable Detection I	imit						-		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9108		TX9110	TX9111		TX9145		
Campling Date		2018/07/21		2018/07/22	2018/07/22		2018/07/22		
Sampling Date		18:07		09:08	10:01		13:00		
COC Number		559732-02-01		559732-02-01	559732-02-01		559732-03-01		
	UNITS	HALFWAY MIX	QC Batch	IC-1.5	IC-2.5	QC Batch	IC-4.5	RDL	QC Batch
Total Zinc (Zn)	ug/L	11.2	9079676	<1.0	<1.0	9079676	<1.0	1.0	9079676
Total Zirconium (Zr)	ug/L	<0.10	9079676	0.63	1.21	9079676	0.64	0.10	9079676
Total Calcium (Ca)	mg/L	24.9	9078676	16.7	4.80	9078676	18.4	0.25	9078676
Total Magnesium (Mg)	mg/L	6.67	9078676	4.75	1.25	9078676	5.16	0.25	9078676
Total Potassium (K)	mg/L	0.91	9078676	0.99	<0.25	9078676	1.11	0.25	9078676
Total Sodium (Na)	mg/L	2.25	9078676	3.58	1.23	9078676	2.92	0.25	9078676
Total Sulphur (S)	mg/L	7.9	9078676	4.7	<3.0	9078676	9.1	3.0	9078676
RDL = Reportable Detection	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9146		TX9147	TX9148		TX9149		
Sampling Date		2018/07/21		2018/07/21	2018/07/21		2018/07/21		
Sampling Date		16:38		17:06	15:41		18:35		
COC Number		559732-03-01		559732-03-01	559732-03-01		559732-03-01		
	UNITS	ML-1.0 (YT-24-1)	QC Batch	YT-24-MIX	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Calculated Parameters	_	•	•		-	•		•	•
Total Hardness (CaCO3)	mg/L	123	9077955	94.8	96.6	9077955	92.2	0.50	9077955
Elements									
Total Mercury (Hg)	ug/L	0.0029	9079762	<0.0020	<0.0020	9079862	<0.0020	0.0020	9079762
Total Metals by ICPMS									
Total Aluminum (AI)	ug/L	47.1	9079676	171	254	9079676	249	3.0	9079676
Total Antimony (Sb)	ug/L	0.181	9079676	0.168	0.132	9079676	0.144	0.020	9079676
Total Arsenic (As)	ug/L	0.459	9079676	0.702	0.719	9079676	0.703	0.020	9079676
Total Barium (Ba)	ug/L	64.3	9079676	49.5	53.5	9079676	51.6	0.050	9079676
Total Beryllium (Be)	ug/L	0.015	9079676	0.013	0.012	9079676	0.017	0.010	9079676
Total Bismuth (Bi)	ug/L	<0.010	9079676	<0.010	<0.010	9079676	<0.010	0.010	9079676
Total Boron (B)	ug/L	<10	9079676	<10	<10	9079676	<10	10	9079676
Total Cadmium (Cd)	ug/L	0.0071	9079676	0.0559	0.0670	9079676	0.0694	0.0050	9079676
Total Chromium (Cr)	ug/L	0.26	9079676	0.32	0.43	9079676	0.45	0.10	9079676
Total Cobalt (Co)	ug/L	0.062	9079676	0.140	0.192	9079676	0.191	0.010	9079676
Total Copper (Cu)	ug/L	1.72	9079676	1.71	1.31	9079676	1.48	0.10	9079676
Total Iron (Fe)	ug/L	36.1	9079676	234	359	9079676	350	5.0	9079676
Total Lead (Pb)	ug/L	<0.020	9079676	0.203	0.238	9079676	0.248	0.020	9079676
Total Lithium (Li)	ug/L	0.52	9079676	1.73	1.89	9079676	1.79	0.50	9079676
Total Manganese (Mn)	ug/L	1.60	9079676	16.1	19.1	9079676	19.4	0.10	9079676
Total Molybdenum (Mo)	ug/L	0.416	9079676	1.23	1.23	9079676	1.20	0.050	9079676
Total Nickel (Ni)	ug/L	0.66	9079676	1.38	1.87	9079676	1.67	0.10	9079676
Total Phosphorus (P)	ug/L	<5.0	9079676	37.5	17.9	9079676	42.8	5.0	9079676
Total Selenium (Se)	ug/L	0.072	9079676	0.319	0.369	9079676	0.345	0.040	9079676
Total Silicon (Si)	ug/L	4060	9079676	3280	3270	9079676	3300	50	9079676
Total Silver (Ag)	ug/L	<0.010	9079676	<0.010	<0.010	9079676	<0.010	0.010	9079676
Total Strontium (Sr)	ug/L	223	9079676	125	127	9079676	121	0.050	9079676
Total Thallium (TI)	ug/L	0.0028	9079676	0.0060	0.0056	9079676	0.0058	0.0020	9079676
Total Tin (Sn)	ug/L	<0.20	9079676	<0.20	<0.20	9079676	<0.20	0.20	9079676
Total Titanium (Ti)	ug/L	<2.0	9079676	4.4	10.8	9079676	7.6	2.0	9079676
Total Uranium (U)	ug/L	2.03	9079676	1.01	0.939	9079676	0.909	0.0050	9079676
Total Vanadium (V)	ug/L	0.25	9079676	0.69	0.95	9079676	1.00	0.20	9079676
RDL = Reportable Detection	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9146		TX9147	TX9148		TX9149		
Sampling Date		2018/07/21		2018/07/21	2018/07/21		2018/07/21		
Sampling Date		16:38		17:06	15:41		18:35		
COC Number		559732-03-01		559732-03-01	559732-03-01		559732-03-01		
	UNITS	ML-1.0 (YT-24-1)	QC Batch	YT-24-MIX	YUK-2.0	QC Batch	YUK-5.0	RDL	QC Batch
Total Zinc (Zn)	ug/L	<1.0	9079676	9.6	5.8	9079676	7.8	1.0	9079676
Total Zirconium (Zr)	ug/L	0.42	9079676	<0.10	0.12	9079676	0.16	0.10	9079676
Total Calcium (Ca)	mg/L	35.0	9078676	26.3	26.7	9078676	25.6	0.25	9078676
Total Magnesium (Mg)	mg/L	8.67	9078676	7.05	7.27	9078676	6.86	0.25	9078676
Total Potassium (K)	mg/L	1.98	9078676	0.94	0.83	9078676	0.84	0.25	9078676
Total Sodium (Na)	mg/L	3.32	9078676	2.83	1.91	9078676	1.96	0.25	9078676
Total Sulphur (S)	mg/L	21.8	9078676	9.4	8.5	9078676	8.0	3.0	9078676
RDL = Reportable Detection L	imit					•			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9150		
Sampling Date		2018/07/21 18:35		
COC Number		559732-03-01		
	UNITS	SAMPLE A	RDL	QC Batch
Calculated Parameters			•	
Total Hardness (CaCO3)	mg/L	96.4	0.50	9077955
Elements				
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9079762
Total Metals by ICPMS	•			
Total Aluminum (AI)	ug/L	191	3.0	9079676
Total Antimony (Sb)	ug/L	0.137	0.020	9079676
Total Arsenic (As)	ug/L	0.677	0.020	9079676
Total Barium (Ba)	ug/L	52.2	0.050	9079676
Total Beryllium (Be)	ug/L	0.016	0.010	9079676
Total Bismuth (Bi)	ug/L	<0.010	0.010	9079676
Total Boron (B)	ug/L	<10	10	9079676
Total Cadmium (Cd)	ug/L	0.0625	0.0050	9079676
Total Chromium (Cr)	ug/L	0.42	0.10	9079676
Total Cobalt (Co)	ug/L	0.157	0.010	9079676
Total Copper (Cu)	ug/L	1.40	0.10	9079676
Total Iron (Fe)	ug/L	268	5.0	9079676
Total Lead (Pb)	ug/L	0.217	0.020	9079676
Total Lithium (Li)	ug/L	1.79	0.50	9079676
Total Manganese (Mn)	ug/L	17.4	0.10	9079676
Total Molybdenum (Mo)	ug/L	1.21	0.050	9079676
Total Nickel (Ni)	ug/L	1.51	0.10	9079676
Total Phosphorus (P)	ug/L	35.5	5.0	9079676
Total Selenium (Se)	ug/L	0.353	0.040	9079676
Total Silicon (Si)	ug/L	3260	50	9079676
Total Silver (Ag)	ug/L	<0.010	0.010	9079676
Total Strontium (Sr)	ug/L	125	0.050	9079676
Total Thallium (TI)	ug/L	0.0042	0.0020	9079676
Total Tin (Sn)	ug/L	<0.20	0.20	9079676
Total Titanium (Ti)	ug/L	5.4	2.0	9079676
Total Uranium (U)	ug/L	0.941	0.0050	9079676
Total Vanadium (V)	ug/L	0.75	0.20	9079676
RDL = Reportable Detection			•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TX9150		
Sampling Date		2018/07/21 18:35		
COC Number		559732-03-01		
	UNITS	SAMPLE A	RDL	QC Batch
Total Zinc (Zn)	ug/L	7.0	1.0	9079676
Total Zirconium (Zr)	ug/L	<0.10	0.10	9079676
Total Calcium (Ca)	mg/L	26.8	0.25	9078676
Total Magnesium (Mg)	mg/L	7.13	0.25	9078676
Total Potassium (K)	mg/L	0.85	0.25	9078676
Total Sodium (Na)	mg/L	2.01	0.25	9078676
Total Sulphur (S)	mg/L	8.5	3.0	9078676
RDL = Reportable Detection L	imit			



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample TX9054 [COFFEE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9104 [HC-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9108 [HALFWAY MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9146 [ML-1.0 (YT-24-1)] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9147 [YT-24-MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9148 [YUK-2.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9149 [YUK-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9150 [SAMPLE A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9053, Elements by ICPMS Low Level (dissolved): Test repeated. Sample TX9106, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9078961	Dissolved Aluminum (Al)	2018/07/25	101	80 - 120	99	80 - 120	<0.50	ug/L	2.1	20
9078961	Dissolved Antimony (Sb)	2018/07/25	102	80 - 120	100	80 - 120	<0.020	ug/L	3.7	20
9078961	Dissolved Arsenic (As)	2018/07/25	107	80 - 120	102	80 - 120	<0.020	ug/L	3.5	20
9078961	Dissolved Barium (Ba)	2018/07/25	NC	80 - 120	102	80 - 120	<0.020	ug/L	0.68	20
9078961	Dissolved Beryllium (Be)	2018/07/25	90	80 - 120	88	80 - 120	<0.010	ug/L	NC	20
9078961	Dissolved Bismuth (Bi)	2018/07/25	98	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9078961	Dissolved Boron (B)	2018/07/25	88	80 - 120	88	80 - 120	<10	ug/L	NC	20
9078961	Dissolved Cadmium (Cd)	2018/07/25	102	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9078961	Dissolved Chromium (Cr)	2018/07/25	100	80 - 120	102	80 - 120	<0.10	ug/L	16	20
9078961	Dissolved Cobalt (Co)	2018/07/25	96	80 - 120	101	80 - 120	<0.0050	ug/L	0.78	20
9078961	Dissolved Copper (Cu)	2018/07/25	95	80 - 120	102	80 - 120	<0.050	ug/L	0.013	20
9078961	Dissolved Iron (Fe)	2018/07/25	100	80 - 120	104	80 - 120	<1.0	ug/L	2.0	20
9078961	Dissolved Lead (Pb)	2018/07/25	103	80 - 120	104	80 - 120	< 0.0050	ug/L	NC	20
9078961	Dissolved Lithium (Li)	2018/07/25	88	80 - 120	89	80 - 120	<0.50	ug/L	1.0	20
9078961	Dissolved Manganese (Mn)	2018/07/25	100	80 - 120	102	80 - 120	<0.050	ug/L	4.0	20
9078961	Dissolved Molybdenum (Mo)	2018/07/25	108	80 - 120	104	80 - 120	<0.050	ug/L	5.6	20
9078961	Dissolved Nickel (Ni)	2018/07/25	96	80 - 120	102	80 - 120	<0.020	ug/L	4.8	20
9078961	Dissolved Phosphorus (P)	2018/07/25	106	80 - 120	100	80 - 120	<2.0	ug/L	10	20
9078961	Dissolved Selenium (Se)	2018/07/25	104	80 - 120	100	80 - 120	<0.040	ug/L	0.11	20
9078961	Dissolved Silicon (Si)	2018/07/25	97	80 - 120	103	80 - 120	<50	ug/L	1.3	20
9078961	Dissolved Silver (Ag)	2018/07/25	100	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
9078961	Dissolved Strontium (Sr)	2018/07/25	NC	80 - 120	103	80 - 120	<0.050	ug/L	1.2	20
9078961	Dissolved Thallium (TI)	2018/07/25	103	80 - 120	103	80 - 120	<0.0020	ug/L	NC	20
9078961	Dissolved Tin (Sn)	2018/07/25	101	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
9078961	Dissolved Titanium (Ti)	2018/07/25	109	80 - 120	103	80 - 120	<0.50	ug/L	20	20
9078961	Dissolved Uranium (U)	2018/07/25	104	80 - 120	103	80 - 120	<0.0020	ug/L	0.20	20
9078961	Dissolved Vanadium (V)	2018/07/25	102	80 - 120	101	80 - 120	<0.20	ug/L	1.2	20
9078961	Dissolved Zinc (Zn)	2018/07/25	96	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
9078961	Dissolved Zirconium (Zr)	2018/07/25	107	80 - 120	102	80 - 120	<0.10	ug/L	14	20
9079095	Nitrate plus Nitrite (N)	2018/07/25	NC	80 - 120	113	80 - 120	<0.0020	mg/L	1.7	25
9079096	Nitrite (N)	2018/07/25	99	80 - 120	102	80 - 120	<0.0020	mg/L	NC	25



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9079097	Nitrate plus Nitrite (N)	2018/07/25	112	80 - 120	114	80 - 120	<0.0020	mg/L	1.8	25
9079098	Nitrite (N)	2018/07/25	95	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9079393	Dissolved Aluminum (Al)	2018/07/26	100	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
9079393	Dissolved Antimony (Sb)	2018/07/26	101	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
9079393	Dissolved Arsenic (As)	2018/07/26	107	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
9079393	Dissolved Barium (Ba)	2018/07/26	96	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
9079393	Dissolved Beryllium (Be)	2018/07/26	102	80 - 120	103	80 - 120	<0.010	ug/L	NC	20
9079393	Dissolved Bismuth (Bi)	2018/07/26	98	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
9079393	Dissolved Boron (B)	2018/07/26	100	80 - 120	100	80 - 120	<10	ug/L	NC	20
9079393	Dissolved Cadmium (Cd)	2018/07/26	100	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9079393	Dissolved Chromium (Cr)	2018/07/26	99	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
9079393	Dissolved Cobalt (Co)	2018/07/26	97	80 - 120	98	80 - 120	< 0.0050	ug/L	NC	20
9079393	Dissolved Copper (Cu)	2018/07/26	95	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
9079393	Dissolved Iron (Fe)	2018/07/26	102	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
9079393	Dissolved Lead (Pb)	2018/07/26	102	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9079393	Dissolved Lithium (Li)	2018/07/26	100	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
9079393	Dissolved Manganese (Mn)	2018/07/26	99	80 - 120	99	80 - 120	<0.050	ug/L	NC	20
9079393	Dissolved Molybdenum (Mo)	2018/07/26	106	80 - 120	103	80 - 120	< 0.050	ug/L	NC	20
9079393	Dissolved Nickel (Ni)	2018/07/26	97	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
9079393	Dissolved Phosphorus (P)	2018/07/26	103	80 - 120	99	80 - 120	<2.0	ug/L	NC	20
9079393	Dissolved Selenium (Se)	2018/07/26	105	80 - 120	101	80 - 120	<0.040	ug/L	NC	20
9079393	Dissolved Silicon (Si)	2018/07/26	96	80 - 120	103	80 - 120	<50	ug/L	NC	20
9079393	Dissolved Silver (Ag)	2018/07/26	101	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9079393	Dissolved Strontium (Sr)	2018/07/26	NC	80 - 120	101	80 - 120	<0.050	ug/L	NC	20
9079393	Dissolved Thallium (TI)	2018/07/26	100	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
9079393	Dissolved Tin (Sn)	2018/07/26	102	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
9079393	Dissolved Titanium (Ti)	2018/07/26	104	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
9079393	Dissolved Uranium (U)	2018/07/26	104	80 - 120	103	80 - 120	<0.0020	ug/L	NC	20
9079393	Dissolved Vanadium (V)	2018/07/26	101	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9079393	Dissolved Zinc (Zn)	2018/07/26	96	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
9079393	Dissolved Zirconium (Zr)	2018/07/26	105	80 - 120	99	80 - 120	<0.10	ug/L	NC	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9079676	Total Aluminum (AI)	2018/07/26	120	80 - 120	99	80 - 120	<3.0	ug/L	0.19	20
9079676	Total Antimony (Sb)	2018/07/26	102	80 - 120	100	80 - 120	<0.020	ug/L	0.063	20
9079676	Total Arsenic (As)	2018/07/26	106	80 - 120	103	80 - 120	<0.020	ug/L	2.2	20
9079676	Total Barium (Ba)	2018/07/26	106	80 - 120	101	80 - 120	<0.050	ug/L	1.7	20
9079676	Total Beryllium (Be)	2018/07/26	105	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
9079676	Total Bismuth (Bi)	2018/07/26	102	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9079676	Total Boron (B)	2018/07/26	105	80 - 120	99	80 - 120	<10	ug/L	NC	20
9079676	Total Cadmium (Cd)	2018/07/26	103	80 - 120	101	80 - 120	< 0.0050	ug/L	0.96	20
9079676	Total Chromium (Cr)	2018/07/26	102	80 - 120	100	80 - 120	<0.10	ug/L	8.5	20
9079676	Total Cobalt (Co)	2018/07/26	98	80 - 120	97	80 - 120	<0.010	ug/L	1.1	20
9079676	Total Copper (Cu)	2018/07/26	97	80 - 120	96	80 - 120	<0.10	ug/L	1.3	20
9079676	Total Iron (Fe)	2018/07/26	105	80 - 120	103	80 - 120	<5.0	ug/L	1.0	20
9079676	Total Lead (Pb)	2018/07/26	104	80 - 120	101	80 - 120	<0.020	ug/L	1.5	20
9079676	Total Lithium (Li)	2018/07/26	108	80 - 120	103	80 - 120	<0.50	ug/L	1.3	20
9079676	Total Manganese (Mn)	2018/07/26	97	80 - 120	100	80 - 120	<0.10	ug/L	0.30	20
9079676	Total Molybdenum (Mo)	2018/07/26	108	80 - 120	101	80 - 120	<0.050	ug/L	0.48	20
9079676	Total Nickel (Ni)	2018/07/26	100	80 - 120	99	80 - 120	<0.10	ug/L	6.7	20
9079676	Total Phosphorus (P)	2018/07/26	104	80 - 120	101	80 - 120	<5.0	ug/L	1.8	20
9079676	Total Selenium (Se)	2018/07/26	100	80 - 120	100	80 - 120	<0.040	ug/L	1.1	20
9079676	Total Silicon (Si)	2018/07/26	105	80 - 120	103	80 - 120	<50	ug/L	0.12	20
9079676	Total Silver (Ag)	2018/07/26	104	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9079676	Total Strontium (Sr)	2018/07/26	NC	80 - 120	101	80 - 120	<0.050	ug/L	1.9	20
9079676	Total Thallium (TI)	2018/07/26	104	80 - 120	101	80 - 120	<0.0020	ug/L	9.7	20
9079676	Total Tin (Sn)	2018/07/26	102	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
9079676	Total Titanium (Ti)	2018/07/26	116	80 - 120	102	80 - 120	<2.0	ug/L	NC	20
9079676	Total Uranium (U)	2018/07/26	103	80 - 120	98	80 - 120	<0.0050	ug/L	0.31	20
9079676	Total Vanadium (V)	2018/07/26	104	80 - 120	100	80 - 120	<0.20	ug/L	2.1	20
9079676	Total Zinc (Zn)	2018/07/26	98	80 - 120	101	80 - 120	<1.0	ug/L	1.4	20
9079676	Total Zirconium (Zr)	2018/07/26	105	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
9079762	Total Mercury (Hg)	2018/07/26	97	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9079862	Total Mercury (Hg)	2018/07/26	98	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9079921	Total Mercury (Hg)	2018/07/26	100	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9079922	Total Aluminum (AI)	2018/07/27	93	80 - 120	99	80 - 120	<0.50	ug/L	14	20
9079922	Total Antimony (Sb)	2018/07/27	97	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9079922	Total Arsenic (As)	2018/07/27	101	80 - 120	104	80 - 120	<0.020	ug/L	NC	20
9079922	Total Barium (Ba)	2018/07/27	94	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9079922	Total Beryllium (Be)	2018/07/27	101	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
9079922	Total Bismuth (Bi)	2018/07/27	93	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Boron (B)	2018/07/27	102	80 - 120	107	80 - 120	<10	ug/L	NC	20
9079922	Total Cadmium (Cd)	2018/07/27	99	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Chromium (Cr)	2018/07/27	94	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9079922	Total Cobalt (Co)	2018/07/27	92	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Copper (Cu)	2018/07/27	91	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
9079922	Total Iron (Fe)	2018/07/27	89	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
9079922	Total Lead (Pb)	2018/07/27	95	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Lithium (Li)	2018/07/27	100	80 - 120	108	80 - 120	<0.50	ug/L	NC	20
9079922	Total Manganese (Mn)	2018/07/27	92	80 - 120	101	80 - 120	<0.050	ug/L	19	20
9079922	Total Molybdenum (Mo)	2018/07/27	97	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
9079922	Total Nickel (Ni)	2018/07/27	92	80 - 120	99	80 - 120	0.029, RDL=0.020 (2)	ug/L	NC	20
9079922	Total Phosphorus (P)	2018/07/27	101	80 - 120	102	80 - 120	<2.0	ug/L	NC	20
9079922	Total Selenium (Se)	2018/07/27	97	80 - 120	99	80 - 120	<0.040	ug/L	NC	20
9079922	Total Silicon (Si)	2018/07/27	94	80 - 120	103	80 - 120	<50	ug/L	NC	20
9079922	Total Silver (Ag)	2018/07/27	95	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Strontium (Sr)	2018/07/27	NC	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
9079922	Total Thallium (TI)	2018/07/27	95	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
9079922	Total Tin (Sn)	2018/07/27	96	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
9079922	Total Titanium (Ti)	2018/07/27	96	80 - 120	106	80 - 120	<0.50	ug/L	6.4	20
9079922	Total Uranium (U)	2018/07/27	96	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20
9079922	Total Vanadium (V)	2018/07/27	96	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9079922	Total Zinc (Zn)	2018/07/27	96	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
9079922	Total Zirconium (Zr)	2018/07/27	96	80 - 120	99	80 - 120	<0.10	ug/L	NC	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9079940	Dissolved Mercury (Hg)	2018/07/26	92	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
9079943	Dissolved Mercury (Hg)	2018/07/26	96	80 - 120	106	80 - 120	<0.0020	ug/L	3.7	20
9080217	ORP	2018/07/30							0.82	20
9080225	Alkalinity (PP as CaCO3)	2018/07/26					<0.50	mg/L		
9080225	Alkalinity (Total as CaCO3)	2018/07/26	NC	80 - 120	99	80 - 120	<0.50	mg/L		
9080225	Bicarbonate (HCO3)	2018/07/26					<0.50	mg/L		
9080225	Carbonate (CO3)	2018/07/26					<0.50	mg/L		
9080225	Hydroxide (OH)	2018/07/26					<0.50	mg/L		
9080227	рН	2018/07/26			101	97 - 103			0.14	20
9080234	Conductivity	2018/07/26			100	80 - 120	<1.0	uS/cm		
9080278	рН	2018/07/27			101	97 - 103			1.3	20
9080287	Alkalinity (PP as CaCO3)	2018/07/27					<0.50	mg/L		
9080287	Alkalinity (Total as CaCO3)	2018/07/27	NC	80 - 120	100	80 - 120	0.69, RDL=0.50	mg/L		
9080287	Bicarbonate (HCO3)	2018/07/27					0.84, RDL=0.50	mg/L		
9080287	Carbonate (CO3)	2018/07/27					<0.50	mg/L		
9080287	Hydroxide (OH)	2018/07/27					<0.50	mg/L		
9080288	Conductivity	2018/07/27			100	80 - 120	1.2, RDL=1.0	uS/cm		
9080573	Total Dissolved Solids	2018/07/27	103	80 - 120	91	80 - 120	<10	mg/L	9.5	20
9080720	Total Dissolved Solids	2018/07/28	98	80 - 120	101	80 - 120	<10	mg/L	12	20
9080722	Total Dissolved Solids	2018/07/28	99	80 - 120	101	80 - 120	<10	mg/L	8.6	20
9080723	Total Dissolved Solids	2018/07/28	101	80 - 120	96	80 - 120	<10	mg/L	2.1	20
9081289	Dissolved Chloride (Cl)	2018/07/27	105	80 - 120	100	80 - 120	<0.50	mg/L	NC	20
9081290	Dissolved Sulphate (SO4)	2018/07/27	NC	80 - 120	98	80 - 120	0.52, RDL=0.50	mg/L	1.9	20
9081293	Dissolved Chloride (Cl)	2018/07/27	99	80 - 120	99	80 - 120	<0.50	mg/L	14	20
9081297	Dissolved Sulphate (SO4)	2018/07/27	NC	80 - 120	98	80 - 120	<0.50	mg/L	2.6	20
9081299	Dissolved Chloride (Cl)	2018/07/27	89	80 - 120	99	80 - 120	<0.50	mg/L	12	20
9081303	Dissolved Sulphate (SO4)	2018/07/27	102	80 - 120	98	80 - 120	<0.50	mg/L	16	20
9081440	Total Ammonia (N)	2018/07/26	115	80 - 120	103	80 - 120	<0.0050	mg/L	0	20
9081446	Total Ammonia (N)	2018/07/26			108	80 - 120	<0.0050	mg/L		
9081520	Total Aluminum (AI)	2018/07/28	111	80 - 120	105	80 - 120	<3.0	ug/L		
9081520	Total Antimony (Sb)	2018/07/28	NC	80 - 120	108	80 - 120	<0.020	ug/L		



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9081520	Total Arsenic (As)	2018/07/28	NC	80 - 120	108	80 - 120	<0.020	ug/L	3.6	20
9081520	Total Barium (Ba)	2018/07/28	108	80 - 120	107	80 - 120	<0.050	ug/L		
9081520	Total Beryllium (Be)	2018/07/28	100	80 - 120	104	80 - 120	<0.010	ug/L		
9081520	Total Bismuth (Bi)	2018/07/28	98	80 - 120	105	80 - 120	<0.010	ug/L		
9081520	Total Boron (B)	2018/07/28	NC	80 - 120	97	80 - 120	<10	ug/L		
9081520	Total Cadmium (Cd)	2018/07/28	102	80 - 120	108	80 - 120	<0.0050	ug/L		
9081520	Total Chromium (Cr)	2018/07/28	103	80 - 120	105	80 - 120	<0.10	ug/L		
9081520	Total Cobalt (Co)	2018/07/28	99	80 - 120	105	80 - 120	<0.010	ug/L		
9081520	Total Copper (Cu)	2018/07/28	93	80 - 120	104	80 - 120	<0.10	ug/L		
9081520	Total Iron (Fe)	2018/07/28	NC	80 - 120	109	80 - 120	<5.0	ug/L	3.4	20
9081520	Total Lead (Pb)	2018/07/28	107	80 - 120	109	80 - 120	<0.020	ug/L		
9081520	Total Lithium (Li)	2018/07/28	101	80 - 120	102	80 - 120	<0.50	ug/L		
9081520	Total Manganese (Mn)	2018/07/28	NC	80 - 120	104	80 - 120	<0.10	ug/L		
9081520	Total Molybdenum (Mo)	2018/07/28	121 (1)	80 - 120	110	80 - 120	<0.050	ug/L		
9081520	Total Nickel (Ni)	2018/07/28	96	80 - 120	105	80 - 120	<0.10	ug/L		
9081520	Total Phosphorus (P)	2018/07/28	111	80 - 120	106	80 - 120	<5.0	ug/L		
9081520	Total Selenium (Se)	2018/07/28	110	80 - 120	105	80 - 120	<0.040	ug/L		
9081520	Total Silicon (Si)	2018/07/28	NC	80 - 120	105	80 - 120	<50	ug/L		
9081520	Total Silver (Ag)	2018/07/28	100	80 - 120	103	80 - 120	<0.010	ug/L		
9081520	Total Strontium (Sr)	2018/07/28	NC	80 - 120	105	80 - 120	<0.050	ug/L		
9081520	Total Thallium (TI)	2018/07/28	101	80 - 120	100	80 - 120	<0.0020	ug/L		
9081520	Total Tin (Sn)	2018/07/28	107	80 - 120	108	80 - 120	<0.20	ug/L		
9081520	Total Titanium (Ti)	2018/07/28	109	80 - 120	102	80 - 120	<2.0	ug/L		
9081520	Total Uranium (U)	2018/07/28	114	80 - 120	111	80 - 120	<0.0050	ug/L		
9081520	Total Vanadium (V)	2018/07/28	107	80 - 120	107	80 - 120	<0.20	ug/L		
9081520	Total Zinc (Zn)	2018/07/28	93	80 - 120	106	80 - 120	<1.0	ug/L		
9081520	Total Zirconium (Zr)	2018/07/28	115	80 - 120	104	80 - 120	<0.10	ug/L		
9081538	Fluoride (F)	2018/07/27	90	80 - 120	98	80 - 120	<0.010	mg/L	0	20
9081541	Fluoride (F)	2018/07/27	92	80 - 120	96	80 - 120	<0.010	mg/L	NC	20
9081703	Total Organic Carbon (C)	2018/07/27	107	80 - 120	116	80 - 120	<0.50	mg/L	12	20
9081709	Dissolved Organic Carbon (C)	2018/07/27	112	80 - 120	115	80 - 120	<0.50	mg/L	2.5	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	lank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9081779	Alkalinity (PP as CaCO3)	2018/07/27					<0.50	mg/L	NC	20
9081779	Alkalinity (Total as CaCO3)	2018/07/27	100	80 - 120	93	80 - 120	<0.50	mg/L	NC	20
9081779	Bicarbonate (HCO3)	2018/07/27					<0.50	mg/L	NC	20
9081779	Carbonate (CO3)	2018/07/27					<0.50	mg/L	NC	20
9081779	Hydroxide (OH)	2018/07/27					<0.50	mg/L	NC	20
9081808	рН	2018/07/27			102	97 - 103			1.4	20
9081809	Conductivity	2018/07/27			99	80 - 120	<1.0	uS/cm	0	20
9081847	рН	2018/07/28			101	97 - 103				
9081853	Alkalinity (PP as CaCO3)	2018/07/28					<0.50	mg/L		
9081853	Alkalinity (Total as CaCO3)	2018/07/28			95	80 - 120	<0.50	mg/L		
9081853	Bicarbonate (HCO3)	2018/07/28					<0.50	mg/L		
9081853	Carbonate (CO3)	2018/07/28					<0.50	mg/L		
9081853	Hydroxide (OH)	2018/07/28					<0.50	mg/L		
9081854	Conductivity	2018/07/28			100	80 - 120	1.1, RDL=1.0	uS/cm		
9082404	Dissolved Sulphate (SO4)	2018/07/27			104	80 - 120	<0.50	mg/L		
9082474	Total Suspended Solids	2018/07/30			103	80 - 120	<1.0	mg/L		
9082476	Total Suspended Solids	2018/07/30			102	80 - 120	<1.0	mg/L		
9084644	Dissolved Zinc (Zn)	2018/07/30			98	80 - 120	<0.10	ug/L		
9084893	Dissolved Mercury (Hg)	2018/07/31	95	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
9084971	Total Mercury (Hg)	2018/07/31	101	80 - 120	107	80 - 120	<0.0020	ug/L	NC	20
9084974	Total Organic Carbon (C)	2018/07/31	NC	80 - 120	110	80 - 120	<0.50	mg/L	3.9	20
9085201	Dissolved Organic Carbon (C)	2018/07/31	NC	80 - 120	105	80 - 120	<0.50	mg/L	4.7	20
9085574	Free Cyanide	2018/07/27	106	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20
9085576	Free Cyanide	2018/07/30	98	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20



#### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPD	,
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9085909	Dissolved Copper (Cu)	2018/07/31			92	80 - 120	<0.050	ug/L		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

- (1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
- (2) Method blank exceeds acceptance limits for Ni- 2X RDL acceptable for low level metals determination.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cistin Camere
Cristina Carriere, Scientific Services
Rob Reinert, B.Sc., Scientific Specialist
12 From
Winnie Au, B.Sc., QP, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		NVOICE TO:			Report In	formatio	1						Project Ir	formation	8:			//3	
mpany Name		ENVIRONMENTAL SERVICES L	TD. Company N							Que	station #	ŧ	340231					136	Bottle Order #:
react Name	Aida Piaseczny 2289 BURRARD	STREET	Contact Na	me David Flat	ner		_	-		P.O		7	Sold Cor	n Coffee	Creek-SV	- E	8861486_COC	DISA IIII	
fress	VANCOUVER B	- Andrews - Andr	Address					-			ect # ect Name	2	3010 001	p conte	Olock-01	-67	Grant or Guarday record		559732 Project Manager
ene ene	(604) 688-7173	Fax (604) 688-7175	Phone				Fax			Site		-						(1111	Diana Cruz
iil.	aida piaseczny@	plorax.ca; shukling.ng@lorax.ca	Email	David Flat	her@lorax	ca				San	pled By						C#559732-01-01		Diana Cruz
Regulatory C	riteria		Spe	cial Instructions		î	10		1		Analysis F	Requested		3	1	_	Turnaround Time ( Please provide advance n	to the second second second second	
		trinking water samples - please use the D			<u> </u>	Drinking Water ? ( Y /	ne (Alk-LL, EC-LL, NH4- H, TDS)	TSS-Low Level	Anions (LL:C), F, NO2, NO3, SO4)	de - WAD			Level Dissolved Metals CV Hg	Level Total Metals Incl. (		(w St Pi de Joi De	egular (Standard) TAT  il be applied if Flush TAT is not specified)  landard TAT = 5-7 Working days for most is  lease note: Standard TAT for certain tests is  gis - contact your Project Manager for defail  is Specific Rush TAT (if applies to entire sus  the Required.  an Confirmation Number	uch as BOD and Vs.	·[
23	-275 (77.00) (19.00)	ust be kept cool ( < 10°C ) from time of samp	CHERTAGONOMICA	=======================================		Regulated I	Routine LL, pH, 1	SS	O4)	Cyanide	700	DOC	Low I	F P	ORP		1900/5	Commenta	277. 37
10010	e Barcode Label	Sample (Location) Identification  CC-0.5	Date Sampled	Time Sampled	Matrix	œ 2			40	U				-1-4-		20	RECEIVED IN	WHITEHO	ORSE 0 0900
	31 111 111 11 11 11 11 11 11 11 11 11 11	CC-1.0	22/07/18	16:12	SW	NA	1/	/	/	/	/	/	/	/		- 1	3	1100	Ope
	SID#162745	CC-1.5	2/07/18	16:35	SW	NI	1/	/	/	/	/	/	/	/	/	1	3 3	13	12
	31DW162746	CC-3.5			SW												TEMP: 13	13 /	13
	III III III III III III III III III II	CC-4.5			SW	Ш											13	12	10
	SID#162748	CC-6.0	24/07/18	17:41	SW	NA	1/	/	/	/	/	/	/	/	/	1	3 12	11	12
	III ##################################	CC-A	22/07/18	17:17	SW	NA	/				/						13 10	11	11
	SID#149896	CC-B			SW												cooling media	present	- thaw
	SID#149897	CC-X			sw												3	,	
	SID#149858	Coffee Mix	21/07/18	15:40	sw	NN	/	/	/	/	/	/	/		/		13		
_	QUISHED BY: (Signature	oiPrint) Date: (1	Y/MM/DD) Tin	No.	-	VED BY:	Signature/P	rint)			te: (YY/MM/		18:40		used and ubmitted	nt Padit	Lab Use Only		Intest on Cooler?
MITC	H NORDIN	18/0	1/23 15:0	00	(qm	Cu	V			60	\$7671	-1	0.40	-	u l'	na Barishiva	See ACL	Yes	No No

1548

		NVOICE TO:			Report In	formatic	n						Project le	nformation	1		<b>就是以及1997年</b>	10 //S		
mpany Name		ENVIRONMENTAL SERVICES	LTD. Company N							Que	itation #	1	340231			_	15 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	(8)	Bottle Ore	-0106-
stact Name	Aida Piaseczny	CTREET	Contact Nar	David Flath	er					P.O	ø	7	2-14 (2-4	- Calla	Creek-SV	- B8	61486 COC		1 11 11 11 11 11	
ress	2289 BURRARI VANCOUVER E	- Andrews Control of the Control of	Address					_	_		ect#	4	3010 COI	р Сопе	Creek-SV		Linain Of Gustody Re	cont i	55973 Project Ma	-
	(604) 688-7173		75 Phone	-			Fax			Proj	ect Name	- 2						AVEURUSO I	- Industrial Control	
nii nii		@lorax.ca; shukling.ng@lorax.ca	199	David Flath	er@lorax	.ca	rax.				pled By	-				0	C#559732-02-01		Diana C	71.12
Regulatory Cr	charin .	Z. Z	Spec	oal instructions		T	18.	rg -	N = 1		Analysis F	Requested		ia:	W - W-		Turnaround Ti	ne (TAT) Requir	red	
	W. Carlotte	drinking water samples - please use the				rinking Water 7	Metals Field Filtered 7 ( T.C.N.) Routine (Alk-LL, EC-LL, NH4-LL, pH, TDS)	Level	(LL.CI, F, NO2, NO3,	WAD			el Dissolved Metals Hg	Level Total Metals incl. CN		Stan Plea: days Job S	Please provide airra ular (Standard) TAT be applied if Push TAT is not spec dard TAT = 5-Y Working days for is se note. Standard TAT for certain it - contact your Project Manager for ppecific Rush TAT (if applies to enti-	fied) vost fests ests such as 800 i defails	and Dioxins/Five	us are
	2000000000000 <del>0</del>	annum $\mu$ water samples - please use the lust be kept cool ( < 10°C ) from time of sa			Desir.	9	Routine ( LL, pH, T	TSS-Low	Anions (L SO4)	Cyanide -	O	000	SE	w Leve	2	Rush	Confirmation Number	(cel	(at) for #)	
Sample	e Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	8	8 2	1 5	S A	ò	200	ă	Find	Low Hg	GRP.	# of 8		Comments		
	SID#146899	HC-2.5	22/07/18	14:25	SW	N	V/	/		/		/				13	RECEIVED IN	WHITEHO	OFFICE	)
	SID#208506	HC-5.0	21/07/18	17:38	SW	N	V/	/	/	/		/		/		1	3 BY: al	unde	0,0	
	MD#214039	HC-A	22/07/18	15:45	SW	N	1/	/	/	/	/	/	/	/		· t.	3 201	8 -07- 24		
	SID#214640	нс-в	22/01/18	15:30	SW	N	1/	/	/	/		/	/			12	2 13	113	112	
	SID#214041	HC-C	22/07/18	15:09	SW	N	1/	/	/	/	/					13	3 1200	13	13	
	SID#214042	Halfway Mix	21/07/18	18:07	SW	N	5/	/	/	/		/	/	/		1	3 12	12	10	
10000	SID#214043	IC-0.5	22/07/18	9:29	SW	N	V/	/	/	/		/		/		· Ł	3 13	11	12	
	SID#214044	IC-1.5	22/01/18	9:08	SW	N	4/	/	1	/	/	/		1		1:	3 10	11	11	
	3ID#214045	IC-2.5	22/01/18	10:01	SW	N	1/	/	/	/	/	/		/	/	13	5 cooling med	a ones	ent-th	Cup
	SID#214046	IC-3.0	22/07/18	11:35	SW	N	1/	/	1	/	/		/	/		1	3	P		9
• RELIN	QUISHED BY: (Signatur	oriental Date 18/	07/23 13:0	00 1	RECEI		(Signature)	Print)		-	(87671	-	0 . 4 c	nots	used and ubmitted	me Sergifive	Temperature (*C) on Receipt	The state of the s	egi Intect on Cor	sier?

	C in	NVOICE TO:			Report Inf	formation	iĝ.						Project in	formation	Y.		BEECH OF SE			
mpany Nam	#3604 LORAX	ENVIRONMENTAL SERVICES	LTD. Company N							Que	tation#	3	B40231				100	100	3.0	Bottle Order #:
ntaci Name	Aida Piaseczny		Contact Nar	David Flath	ner					P.0	*	5	0-140	- C-#-	Comple CIAL	- DO	61486_COC	A SECURITY	Whi w = i i	
dress	2289 BURRARD VANCOUVER B		Address	-		_		_	_	10.37	ect #	3	Gold Cor	p Corre	creek-SW	_ Do		amoug move	200 10	559732 Project Manager
	(604) 688-7173	Fax (604) 688-71	75 Phone				Fax			Site	ect Name									
one ali		@lorax.ca; shukling.ng@lorax.ca	11000	David.Flath	ner@lorax		-			V-1	pled By	-					C#559	732-03-01	1011111111	Diana Cruz
Regulatory (	Criteria		Spec	ial Instructions							Analysis F	Requested					Turn	around Time	(TAT) Requi	red
	Note: For regulated o	drinking water samples - please use the	Drinking Water Chain o	Custody Form		d Drinking Water 7 (Y / N	(AIK-LL, EC-LL TDS)	ow Level	(LL:CI, F, NO2, NO3,	- WAD			vel Dissolved Metals Hg	Level Total Metals incl. CV		(will to Stark Please days Job S Date I	ilar (Standard) TAT the applied if Rush TAT dard TAT = 5-7 Workin; the note: Standard TAT : - contact your Project if pecific Rush TAT (if ap Required. Confirmation Number	g days for mos for certain test Manager for di	st fests s such as BOD stails	and Dixxins/Furans are
-0.0	Samples m	ust be kept cool ( < 10°C ) from time of sar	mpling until delivery to ma	oan		ulate Ple F	불표	TSS-Lo	Anions (	Cyanide	o	DOC	. Cev	w Le	0,				(Cat	(liab har #)
Same	ole Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Reg	용크	TS.	SCA	ें	100	ă	Low	Fg.	ORP	# of B	otties		Comments	
	SID#214047	IC-4.5	22/07/18	13:00	SW	NA	/	/	/	/			/	/	/	13	RECEI	ED IN	WHITEH(	ORSE
10000	SID#214048	Latte Mix			SW.	Ш											BY:	ay	m/00	0100
1000	SID#214049	ML-1.0 (YT-24-1)	21/07/18	16:38	SW	NI	1/	/	/	/	/	/		/		13	3	2018	-07-24	
BURBU	SID#214050	ML-A			SW													13	13	12
	SID#214051	ML-B			SW												JEMP:	13	13	13
DIE	SID#214052	ML-C (YT-24-2)			sw													13	12	10
HIRD	SID#214053	YT-24-Mix	21/07/18	17:06	sw	NN	//	/	/	/		/		/	/	_	3	12	- 11	12
1100	SIDW214054	YUK-2.0	21/07/18	15:41	sw	NI	1/	/	/	/	/	/	/	/	/	1.	3	10	11	11
11000	SID#214055	YUK-5.0	21/07/18	18:35	sw	NA	1/	/	/				/	/	/	1	3 0001	ing m	edia	present the
UIII	SIDW214056	Sample A	21/07/18	18:35	sw	V	/	/	/	/	/	/	/		/		3	2		A CONTRACTOR OF THE PARTY OF TH
* REL	INCUISHED BY: (Signatur	the state of the s	(YYMMIDD) Tim	10	RECEI	1 11	Signature/F	rint)			te: (YY/MM		Time	note	used and ubmitted	Semilive	Received and Alberta	Lab Use O		eal intact on Cooler?
100	A MI	CH NORDIN 18/	08/23 /3:0	0 21	UM	1 cm	IV I			0	1101	77	10:40	/	MI		Temperature (C) on	Receipt	Custody S	

		INVOICE TO:				Report Ini	formatio	n.						Project In	formation	10%		
pany Name	#3604 LORAX	ENVIRONMENTAL SERVICE	SLTD. Co	ripeny Nan	e						Quo	ation#	1	340231				
ct Name	Aida Piaseczny		Co	ntact Name	David Flath	er					P.0	#	24					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
15	2289 BURRAR		Ad	dress							Prop	ect #	4	Gold Cor	p Coffee	Creek-S	٧	8861486 COC 59732
	VANCOUVER I	100 11 200 1	175		=						FF 0.005	act Name	27					Ct manage
F 1	(604) 688-7173	Fax (604) 688-7 @lorax.ca; shukling.ng@lorax.c		one	David Flath	an@loray		Fax:	_		Site							C#559732-04-01 Diana Cruz
and the second		giorax.ca, situkiing.nggjorax.c	ia En		Instructions	engiorax.	T				Sam	Analysis F	Tem sested	В				Turnaround Time (TAT) Required
gulatory Crit	0.0419						inking Water	S)	Level	CI, F. NO2, NO3,	WAD			Dissolved Metals	Levei Total Metals incl. CV		Stan Plea days Job S	Please provide advance notice for rush projects jular (Standard) TAT be applied if Rush TAT is not specified) andard TAT = 5-7 Working days for most tests. ase note: Standard TAT for certain tests such as BOD and Dioxins/Furans as a condext your Project Manager for details. Specific Rush TAT (if applies to entire submission) Required. The Required
		drinking water samples - please use the just be kept cool ( < 10°C) from time of s	Maria and American	PARTITION OF THE PARTIT	A STATE OF THE PARTY OF		D 3	Routine (A LL, pH, TD	TSS-Low Level	Anions (LL:Cl, F SO4)	Cyanide -	T0C	DOC	Low Level C incl. CV Hg	Low Level Hg	ORP	1000	Confirmation Number (call lab for #)
	Barcode Label	Sample (Location) Identification	Date San	1	Time Sampled	Matrix	ž :	1 2	F	K (0)	0	-	0	3.5	21	0		Bottes Comments
SII	0#214057	Sample B	2401	/18	16:12	SW	NI	/	1								1.	3
	)#214058	Sample C		_		SW				ļ.,								RECEIVED IN WHITE @ 0900
	0#214059	Field Blank	23/07	/18	8:30	SW	NA	1/	/		/	/			/		17	3 BY: 2019 07-74
	0#214060	Travel Blank	23/0	7/18	8:30	SW	NA	1/	/	/	/	/	/	/	/	/	13	\$ 10.00 -0.1
	0#214061	(A				SW												TEMP: 13 / 13 / 12
																		13 13 13
		E+-																13 12 10
							94											12 11 12
																		10 11 11
· RELING	UJSHED BY: (Signatu	re/Print) Da	le: (YY/MM/DD)	Time		RECE	VED BY;	(Signature/	Priet)	V -		to: (YYIMM		Time	Wjare	used and		cooling medica present = that
21/	XE M	ITCH NORTH			9	CEVUI	m				0	(8701	121	10:4	0 mots	ill in the state of the state o	me Sentitive	Temperature (*C) on Receipt Custody Seel Intact on Cooler?  Yes No



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560074-01-01, 560074-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/01

Report #: R2597924 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B861510 Received: 2018/07/24, 09:00

Sample Matrix: Water # Samples Received: 8

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	7	N/A	2018/07/27	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	1	N/A	2018/07/28	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	8	N/A	2018/07/27	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) (1, 3)	8	N/A	2018/07/31	EENVSOP-00060	MMCW 119 1996 m
Conductance - Low Level	7	N/A	2018/07/27	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	1	N/A	2018/07/28	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	8	N/A	2018/07/27	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (4)	5	N/A	2018/07/27	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (4)	3	N/A	2018/07/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	8	N/A	2018/07/26	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	2	N/A	2018/07/26	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	6	N/A	2018/07/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	8	2018/07/26	2018/07/26	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	8	N/A	2018/07/26	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	8	N/A	2018/07/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	3	2018/07/26	2018/07/28	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	N/A	2018/07/27	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2018/07/30	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	4	N/A	2018/07/26	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Low Level (total)	1	N/A	2018/07/30	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	8	N/A	2018/07/26	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	7	N/A	2018/07/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrate+Nitrite (N) (low level)	1	N/A	2018/07/26	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	8	N/A	2018/07/25	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	8	N/A	2018/07/26	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	8	N/A	2018/07/26	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	8	N/A	2018/07/25	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (5)	7	N/A	2018/07/27	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (5)	1	N/A	2018/07/28	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	8	N/A	2018/07/27	BBY6SOP-00017	SM 22 4500-SO42- E m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560074-01-01, 560074-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/01

Report #: R2597924 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B861510 Received: 2018/07/24, 09:00

Sample Matrix: Water # Samples Received: 8

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Total Dissolved Solids (Filt. Residue)	5	2018/07/27	2018/07/28	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	3	2018/07/28	2018/07/31	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (1, 6)	8	N/A	2018/07/31	EENVSOP-00060	MMCW 119 1996 m
Total Suspended Solids-Low Level	8	2018/07/28	2018/07/30	BBY6SOP-00034	SM 22 2540 D
Free (WAD) Cyanide (2)	7	N/A	2018/07/27	CAM SOP-00457	OMOE E3015 5 m
Free (WAD) Cyanide (2)	1	N/A	2018/07/30	CAM SOP-00457	OMOE E3015 5 m

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560074-01-01, 560074-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/01

Report #: R2597924 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

#### MAXXAM JOB #: B861510 Received: 2018/07/24, 09:00

- (1) This test was performed by Maxxam Edmonton Environmental
- (2) This test was performed by Maxxam Ontario (From Burnaby)
- (3) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: Whenever applicable, Dissolved > Total for any parameter that falls within method uncertainty for duplicates is likely equivalent. If RPD is > 20% samples were reanalyzed and confirmed.
- (4) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (5) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (6) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxam

01 Aug 2018 10:30:23

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Diana Cruz, Project Manager Email: DCruz@maxxam.ca Phone# (604) 734 7276

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		TX9302			TX9302			TX9303		
Sampling Date		2018/07/22			2018/07/22			2018/07/22		
Janipinia Date		16:35			16:35			14:25		
COC Number		560074-01-01			560074-01-01			560074-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	HC-2.5	RDL	QC Batch
Parameter										
ORP	mV	261		9080222	261		9080222	317		9080222
Calculated Parameters	•					•				
Filter and HNO3 Preservation	N/A	LAB		9077640				LAB		9077640
Nitrate (N)	mg/L	0.227	0.0020	9078683				0.435	0.0020	9078683
Misc. Inorganics	•		•			•				
Fluoride (F)	mg/L	0.053	0.010	9081541				0.059	0.010	9081683
Free Cyanide	mg/L	<0.0010	0.0010	9085574				<0.0010	0.0010	9085574
Dissolved Organic Carbon (C)	mg/L	9.7	0.50	9085201				9.9	0.50	9085201
Alkalinity (Total as CaCO3)	mg/L	61.5	0.50	9081779				66.4	0.50	9081853
Total Organic Carbon (C)	mg/L	10	0.50	9084974				10	0.50	9084974
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9081779				<0.50	0.50	9081853
Bicarbonate (HCO3)	mg/L	75.0	0.50	9081779				81.0	0.50	9081853
Carbonate (CO3)	mg/L	<0.50	0.50	9081779				<0.50	0.50	9081853
Hydroxide (OH)	mg/L	<0.50	0.50	9081779				<0.50	0.50	9081853
Anions			•		•	•				
Dissolved Sulphate (SO4)	mg/L	60.2	0.50	9081297	61.8	0.50	9081297	32.2	0.50	9081303
Dissolved Chloride (CI)	mg/L	0.80	0.50	9081293	0.92	0.50	9081293	0.92	0.50	9081299
Nutrients	•			•		•	•		•	
Total Ammonia (N)	mg/L	0.014	0.0050	9081446				<0.0050	0.0050	9081446
Nitrate plus Nitrite (N)	mg/L	0.227	0.0020	9079097				0.435	0.0020	9079097
Nitrite (N)	mg/L	<0.0020	0.0020	9079098				<0.0020	0.0020	9079098
Physical Properties	•		•	•	•	•	•		•	
Conductivity	uS/cm	245	1.0	9081809				202	1.0	9081854
рН	рН	7.89		9081808				7.88		9081847
Physical Properties	•	•	•		•	•		•	•	
Total Suspended Solids	mg/L	2.3	1.0	9082476				<1.1 (1)	1.1	9082476
Total Dissolved Solids	mg/L	172	10	9080723				158	10	9080723
RDL = Reportable Detection Lir	nit		•	•	•	•	•	•	•	
Lab D Labanatan Luitiatad	D 12									

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TX9304		TX9305	TX9306		TX9307		
Sampling Date		2018/07/21		2018/07/21	2018/07/21		2018/07/21		
		17:38		16:38	17:06		15:40		
COC Number		560074-01-01		560074-01-01	560074-01-01		560074-01-01		
	UNITS	HC-5.0	QC Batch	YT-24	YT-24 MIX	QC Batch	COFFEE MIX	RDL	QC Batch
Parameter									
ORP	mV	293	9080222	285	288	9080222	304		9080222
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	9077640	LAB	LAB	9077640	LAB		9077640
Nitrate (N)	mg/L	0.307	9078683	0.872	<0.0020	9078683	0.0079	0.0020	9078683
Misc. Inorganics									
Fluoride (F)	mg/L	0.072	9081683	0.074	0.110	9081683	0.120	0.010	9081683
Free Cyanide	mg/L	<0.0010	9085574	<0.0010	<0.0010	9085574	<0.0010	0.0010	9085574
Dissolved Organic Carbon (C)	mg/L	11	9085201	11	2.6	9085201	2.3	0.50	9085201
Alkalinity (Total as CaCO3)	mg/L	69.3	9081779	61.4	70.5	9081779	68.4	0.50	9081779
Total Organic Carbon (C)	mg/L	11	9084974	11	3.4	9084974	3.1	0.50	9084974
Alkalinity (PP as CaCO3)	mg/L	<0.50	9081779	<0.50	<0.50	9081779	<0.50	0.50	9081779
Bicarbonate (HCO3)	mg/L	84.6	9081779	74.9	86.0	9081779	83.4	0.50	9081779
Carbonate (CO3)	mg/L	<0.50	9081779	<0.50	<0.50	9081779	<0.50	0.50	9081779
Hydroxide (OH)	mg/L	<0.50	9081779	<0.50	<0.50	9081779	<0.50	0.50	9081779
Anions									
Dissolved Sulphate (SO4)	mg/L	37.0	9081303	71.6	23.4	9081303	23.4	0.50	9081303
Dissolved Chloride (CI)	mg/L	1.5	9081299	1.7	1.0	9081299	1.9	0.50	9081299
Nutrients									
Total Ammonia (N)	mg/L	<0.0050	9081446	0.019	<0.0050	9081446	<0.0050	0.0050	9081446
Nitrate plus Nitrite (N)	mg/L	0.307	9079097	0.872	<0.0020	9079097	0.0099	0.0020	9080494
Nitrite (N)	mg/L	<0.0020	9079098	<0.0020	<0.0020	9079098	0.0020	0.0020	9079098
Physical Properties									
Conductivity	uS/cm	217	9081809	270	186	9081809	184	1.0	9081809
рН	рН	7.92	9081808	7.85	7.95	9081808	7.96		9081808
Physical Properties					· · · · · · · · · · · · · · · · · · ·	· —			
Total Suspended Solids	mg/L	<1.0	9082474	2.1	9.7	9082474	12.9	1.0	9082474
Total Dissolved Solids	mg/L	152	9080723	184	104	9082969	106	10	9082969
RDL = Reportable Detection Lir	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

	TX9308		TX9309			TX9309		
	2018/07/21		2018/07/23			2018/07/23		
	18:07		08:30					
	560074-01-01		560074-02-01			560074-02-01		
UNITS	HALFWAY MIX	QC Batch	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
mV	298	9080222	364		9080222			
•							•	
N/A	LAB	9077640	LAB		9077640			
mg/L	0.0144	9078683	<0.0020	0.0020	9078683			
•							•	
mg/L	0.110	9081683	<0.010	0.010	9081683			
mg/L	<0.0010	9085575	<0.0010	0.0010	9085574			
mg/L	3.2	9085201	<0.50	0.50	9085201			
mg/L	72.5	9080287	<0.50	0.50	9081779	<0.50	0.50	9081779
mg/L	2.7	9084974	<0.50	0.50	9084974			
mg/L	<0.50	9080287	<0.50	0.50	9081779	<0.50	0.50	9081779
mg/L	88.5	9080287	<0.50	0.50	9081779	<0.50	0.50	9081779
mg/L	<0.50	9080287	<0.50	0.50	9081779	<0.50	0.50	9081779
mg/L	<0.50	9080287	<0.50	0.50	9081779	<0.50	0.50	9081779
	1	<u>.                                    </u>						
mg/L	24.6	9081297	<0.50	0.50	9081303			
mg/L	0.85	9081293	<0.50	0.50	9081299			
*								
mg/L	0.010	9081446	<0.0050	0.0050	9081446			
mg/L	0.0144	9079095	<0.0020	0.0020	9079097			
mg/L	<0.0020	9079096	<0.0020	0.0020	9079098			
uS/cm	190	9080288	1.2	1.0	9081809	1.2	1.0	9081809
рН	7.87	9080278	5.08		9081808	5.01		9081808
•			•	•	-	•		-
mg/L	6.3	9082474	<1.0	1.0	9082476			
mg/L	124	9080722	<10	10	9080723			
mit								
l Duplica	te							
	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2018/07/21   18:07   560074-01-01   UNITS   HALFWAY MIX   MV   298	2018/07/21   18:07	2018/07/21	2018/07/21	2018/07/21   2018/07/23   08:30     560074-01-01   560074-02-01	2018/07/21	2018/07/21



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9302			TX9302			TX9303		
Sampling Date		2018/07/22 16:35			2018/07/22 16:35			2018/07/22 14:25		
COC Number		560074-01-01			560074-01-01			560074-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	HC-2.5	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	115	0.50	9078181				94.1	0.50	9078181
Elements							Į.	I.		
Dissolved Mercury (Hg)	ug/L	0.0050	0.0020	9079943				0.0038	0.0020	9079943
Dissolved Metals by ICPMS						l.	Į.	1		
Dissolved Aluminum (AI)	ug/L	93.1	0.50	9078975	93.0	0.50	9078975	78.0	0.50	9078975
Dissolved Antimony (Sb)	ug/L	0.106	0.020	9078975	0.107	0.020	9078975	0.421	0.020	9078975
Dissolved Arsenic (As)	ug/L	0.541	0.020	9078975	0.513	0.020	9078975	0.882	0.020	9078975
Dissolved Barium (Ba)	ug/L	34.6	0.020	9078975	34.5	0.020	9078975	36.2	0.020	9078975
Dissolved Beryllium (Be)	ug/L	0.020	0.010	9078975	0.021	0.010	9078975	0.016	0.010	9078975
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975
Dissolved Boron (B)	ug/L	<10	10	9078975	<10	10	9078975	<10	10	9078975
Dissolved Cadmium (Cd)	ug/L	0.0073	0.0050	9078975	0.0070	0.0050	9078975	0.0074	0.0050	9078975
Dissolved Chromium (Cr)	ug/L	0.35	0.10	9078975	0.32	0.10	9078975	0.34	0.10	9078975
Dissolved Cobalt (Co)	ug/L	0.0438	0.0050	9078975	0.0441	0.0050	9078975	0.0514	0.0050	9078975
Dissolved Copper (Cu)	ug/L	1.59	0.050	9078975	1.61	0.050	9078975	1.42	0.050	9078975
Dissolved Iron (Fe)	ug/L	51.2	1.0	9078975	51.4	1.0	9078975	45.6	1.0	9078975
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975
Dissolved Lithium (Li)	ug/L	1.67	0.50	9078975	1.63	0.50	9078975	1.24	0.50	9078975
Dissolved Manganese (Mn)	ug/L	4.08	0.050	9078975	4.04	0.050	9078975	1.96	0.050	9078975
Dissolved Molybdenum (Mo)	ug/L	0.154	0.050	9078975	0.161	0.050	9078975	1.29	0.050	9078975
Dissolved Nickel (Ni)	ug/L	0.581	0.020	9078975	0.523	0.020	9078975	0.628	0.020	9078975
Dissolved Phosphorus (P)	ug/L	3.0	2.0	9078975	2.7	2.0	9078975	2.7	2.0	9078975
Dissolved Selenium (Se)	ug/L	0.073	0.040	9078975	0.064	0.040	9078975	0.060	0.040	9078975
Dissolved Silicon (Si)	ug/L	5430	50	9078975	5500	50	9078975	5080	50	9078975
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975
Dissolved Strontium (Sr)	ug/L	255	0.050	9078975	250	0.050	9078975	285	0.050	9078975
Dissolved Thallium (TI)	ug/L	0.0031	0.0020	9078975	0.0030	0.0020	9078975	0.0032	0.0020	9078975
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9078975	<0.20	0.20	9078975	<0.20	0.20	9078975
Dissolved Titanium (Ti)	ug/L	0.76	0.50	9078975	0.66	0.50	9078975	0.89	0.50	9078975
RDL = Reportable Detection Lin	mit									
Lah-Dun = Lahoratory Initiated	Dunlica	nto.								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9302			TX9302			TX9303		
Sampling Date		2018/07/22 16:35			2018/07/22 16:35			2018/07/22 14:25		
COC Number		560074-01-01			560074-01-01			560074-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	HC-2.5	RDL	QC Batch
Dissolved Uranium (U)	ug/L	5.84	0.0020	9078975	5.90	0.0020	9078975	24.8	0.0020	9078975
Dissolved Vanadium (V)	ug/L	0.33	0.20	9078975	0.34	0.20	9078975	0.42	0.20	9078975
Dissolved Zinc (Zn)	ug/L	0.26	0.10	9078975	0.26	0.10	9078975	0.15	0.10	9078975
Dissolved Zirconium (Zr)	ug/L	0.63	0.10	9078975	0.61	0.10	9078975	0.49	0.10	9078975
Dissolved Calcium (Ca)	mg/L	30.2	0.050	9078673				23.7	0.050	9078673
Dissolved Magnesium (Mg)	mg/L	9.49	0.050	9078673				8.50	0.050	9078673
Dissolved Potassium (K)	mg/L	1.82	0.050	9078673				1.78	0.050	9078673
Dissolved Sodium (Na)	mg/L	2.80	0.050	9078673				2.65	0.050	9078673
Dissolved Sulphur (S)	mg/L	18.7	3.0	9078673				9.6	3.0	9078673

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

		I	I	1	1			1	
Maxxam ID		TX9304	TX9305	TX9306			TX9306		
Sampling Date		2018/07/21 17:38	2018/07/21 16:38	2018/07/21 17:06			2018/07/21 17:06		
COC Number		560074-01-01	560074-01-01	560074-01-01			560074-01-01		
	UNITS	HC-5.0	YT-24	YT-24 MIX	RDL	QC Batch	YT-24 MIX Lab-Dup	RDL	QC Batch
Calculated Parameters		·	·	<u> </u>	<u> </u>		•	·	
Dissolved Hardness (CaCO3)	mg/L	101	124	89.2	0.50	9078181			
Elements	·	•	•			L.	•		l.
Dissolved Mercury (Hg)	ug/L	0.0052	0.0031	<0.0020	0.0020	9081162	<0.0020	0.0020	9081162
Dissolved Metals by ICPMS	· ·	1	•				1		
Dissolved Aluminum (Al)	ug/L	42.7	41.2	15.0	0.50	9078975			
Dissolved Antimony (Sb)	ug/L	0.225	0.181	0.119	0.020	9078975			
Dissolved Arsenic (As)	ug/L	0.594	0.429	0.472	0.020	9078975			
Dissolved Barium (Ba)	ug/L	43.9	64.7	40.6	0.020	9078975			
Dissolved Beryllium (Be)	ug/L	0.012	0.013	<0.010	0.010	9078975			
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9078975			
Dissolved Boron (B)	ug/L	<10	<10	<10	10	9078975			
Dissolved Cadmium (Cd)	ug/L	0.0053	0.0080	0.0302	0.0050	9078975			
Dissolved Chromium (Cr)	ug/L	0.26	0.25	<0.10	0.10	9078975			
Dissolved Cobalt (Co)	ug/L	0.0446	0.0633	0.0069	0.0050	9078975			
Dissolved Copper (Cu)	ug/L	1.63	1.76	0.881	0.050	9078975			
Dissolved Iron (Fe)	ug/L	22.9	21.6	8.2	1.0	9078975			
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	0.0150	0.0050	9078975			
Dissolved Lithium (Li)	ug/L	1.00	0.55	1.64	0.50	9078975			
Dissolved Manganese (Mn)	ug/L	0.419	1.24	0.582	0.050	9078975			
Dissolved Molybdenum (Mo)	ug/L	0.626	0.455	1.16	0.050	9078975			
Dissolved Nickel (Ni)	ug/L	0.665	0.648	0.791	0.020	9078975			
Dissolved Phosphorus (P)	ug/L	2.3	3.2	6.2	2.0	9078975			
Dissolved Selenium (Se)	ug/L	0.056	0.072	0.289	0.040	9078975			
Dissolved Silicon (Si)	ug/L	4750	4260	2810	50	9078975			
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9078975			
Dissolved Strontium (Sr)	ug/L	241	222	116	0.050	9078975			
Dissolved Thallium (TI)	ug/L	0.0033	0.0029	0.0027	0.0020	9078975			
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	9078975			
Dissolved Titanium (Ti)	ug/L	0.75	0.50	<0.50	0.50	9078975			
RDL = Reportable Detection Li	mit	•	•	•	•		•	•	
Lab-Dup = Laboratory Initiated	d Duplica	ate							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9304	TX9305	TX9306			TX9306		
Sampling Date		2018/07/21 17:38	2018/07/21 16:38	2018/07/21 17:06			2018/07/21 17:06		
COC Number		560074-01-01	560074-01-01	560074-01-01			560074-01-01		
	UNITS	HC-5.0	YT-24	YT-24 MIX	RDL	QC Batch	YT-24 MIX Lab-Dup	RDL	QC Batch
Dissolved Uranium (U)	ug/L	10.2	1.62	0.852	0.0020	9078975			
Dissolved Vanadium (V)	ug/L	0.44	0.31	0.30	0.20	9078975			
Dissolved Zinc (Zn)	ug/L	0.11	0.47	3.52	0.10	9078975			
Dissolved Zirconium (Zr)	ug/L	0.44	0.48	<0.10	0.10	9078975			
Dissolved Calcium (Ca)	mg/L	26.9	34.5	24.3	0.050	9078673			
Dissolved Magnesium (Mg)	mg/L	8.36	9.19	6.91	0.050	9078673			
Dissolved Potassium (K)	mg/L	2.00	1.98	0.812	0.050	9078673			
Dissolved Sodium (Na)	mg/L	3.16	3.58	2.04	0.050	9078673			İ
Dissolved Sulphur (S)	mg/L	11.4	23.6	9.7	3.0	9078673			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9307	TX9308	TX9309			TX9309		
Sampling Date		2018/07/21 15:40	2018/07/21 18:07	2018/07/23 08:30			2018/07/23 08:30		
COC Number		560074-01-01	560074-01-01	560074-02-01			560074-02-01		
	UNITS	COFFEE MIX	HALFWAY MIX	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters		•	•	•	•	•	•	•	-
Dissolved Hardness (CaCO3)	mg/L	88.5	88.5	<0.50	0.50	9078181			
Elements			l			I		ı	
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	0.0020	9081162			
Dissolved Metals by ICPMS			l			I		ı	
Dissolved Aluminum (Al)	ug/L	17.2	18.3	<0.50	0.50	9078975	<0.50	0.50	9078975
Dissolved Antimony (Sb)	ug/L	0.120	0.133	<0.020	0.020	9078975	<0.020	0.020	9078975
Dissolved Arsenic (As)	ug/L	0.460	0.432	<0.020	0.020	9078975	<0.020	0.020	9078975
Dissolved Barium (Ba)	ug/L	40.0	41.5	<0.020	0.020	9078975	<0.020	0.020	9078975
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	0.010	9078975	<0.010	0.010	9078975
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975
Dissolved Boron (B)	ug/L	<10	<10	<10	10	9078975	<10	10	9078975
Dissolved Cadmium (Cd)	ug/L	0.0251	0.0342	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975
Dissolved Chromium (Cr)	ug/L	<0.10	<0.10	<0.10	0.10	9078975	<0.10	0.10	9078975
Dissolved Cobalt (Co)	ug/L	0.0194	0.0110	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975
Dissolved Copper (Cu)	ug/L	0.768	1.17	<0.050	0.050	9078975	<0.050	0.050	9078975
Dissolved Iron (Fe)	ug/L	8.6	7.0	<1.0	1.0	9078975	<1.0	1.0	9078975
Dissolved Lead (Pb)	ug/L	0.0190	0.0196	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975
Dissolved Lithium (Li)	ug/L	1.66	1.58	<0.50	0.50	9078975	<0.50	0.50	9078975
Dissolved Manganese (Mn)	ug/L	2.27	0.467	<0.050	0.050	9078975	<0.050	0.050	9078975
Dissolved Molybdenum (Mo)	ug/L	1.19	1.18	<0.050	0.050	9078975	<0.050	0.050	9078975
Dissolved Nickel (Ni)	ug/L	0.729	0.894	<0.020	0.020	9078975	<0.020	0.020	9078975
Dissolved Phosphorus (P)	ug/L	14.0	2.3	<2.0	2.0	9078975	<2.0	2.0	9078975
Dissolved Selenium (Se)	ug/L	0.285	0.284	<0.040	0.040	9078975	<0.040	0.040	9078975
Dissolved Silicon (Si)	ug/L	3010	2940	<50	50	9078975	<50	50	9078975
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9078975	<0.0050	0.0050	9078975
Dissolved Strontium (Sr)	ug/L	120	119	<0.050	0.050	9078975	<0.050	0.050	9078975
Dissolved Thallium (TI)	ug/L	0.0021	0.0027	<0.0020	0.0020	9078975	<0.0020	0.0020	9078975
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	9078975	<0.20	0.20	9078975
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	0.50	9078975	<0.50	0.50	9078975
RDL = Reportable Detection Li	mit	•		•	•		•	•	



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TX9307	TX9308	TX9309			TX9309		
Sampling Date		2018/07/21 15:40	2018/07/21 18:07	2018/07/23 08:30			2018/07/23 08:30		
COC Number		560074-01-01	560074-01-01	560074-02-01			560074-02-01		
	UNITS	COFFEE MIX	HALFWAY MIX	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Dissolved Uranium (U)	ug/L	1.03	0.956	<0.0020	0.0020	9078975	<0.0020	0.0020	9078975
Dissolved Vanadium (V)	ug/L	0.25	0.28	<0.20	0.20	9078975	<0.20	0.20	9078975
Dissolved Zinc (Zn)	ug/L	1.79	5.26	<0.10	0.10	9078975	<0.10	0.10	9078975
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	0.10	9078975	<0.10	0.10	9078975
Dissolved Calcium (Ca)	mg/L	24.3	24.2	<0.050	0.050	9078673			
Dissolved Magnesium (Mg)	mg/L	6.75	6.82	<0.050	0.050	9078673			
Dissolved Potassium (K)	mg/L	0.805	0.884	<0.050	0.050	9078673			
Dissolved Sodium (Na)	mg/L	1.96	2.25	<0.050	0.050	9078673			
Dissolved Sulphur (S)	mg/L	7.5	8.1	<3.0	3.0	9078673			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9302	TX9303		TX9304		TX9305		
Sampling Date		2018/07/22 16:35	2018/07/22 14:25		2018/07/21 17:38		2018/07/21 16:38		
COC Number		560074-01-01	560074-01-01		560074-01-01		560074-01-01		
	UNITS	CC-1.5	HC-2.5	QC Batch	HC-5.0	QC Batch	YT-24	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	118	97.0	9077955	104	9077955	129	0.50	9077955
Elements		•			•			•	
Total Mercury (Hg)	ug/L	0.0051	0.0038	9079862	0.0028	9079921	0.0031	0.0020	9079862
Total Metals by ICPMS		•	1	Į.	•	Į.			
Total Aluminum (Al)	ug/L	109	94.5	9079922	73.7	9079922	72.6	0.50	9079922
Total Antimony (Sb)	ug/L	0.115	0.425	9079922	0.237	9079922	0.192	0.020	9079922
Total Arsenic (As)	ug/L	0.565	1.03	9079922	0.700	9079922	0.505	0.020	9079922
Total Barium (Ba)	ug/L	36.5	38.6	9079922	45.9	9079922	69.4	0.020	9079922
Total Beryllium (Be)	ug/L	0.026	0.020	9079922	0.013	9079922	0.015	0.010	9079922
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	9079922	<0.0050	9079922	<0.0050	0.0050	9079922
Total Boron (B)	ug/L	<10	<10	9079922	<10	9079922	<10	10	9079922
Total Cadmium (Cd)	ug/L	0.0071	0.0052	9079922	<0.0050	9079922	0.0061	0.0050	9079922
Total Chromium (Cr)	ug/L	0.42	0.39	9079922	0.32	9079922	0.30	0.10	9079922
Total Cobalt (Co)	ug/L	0.0536	0.0581	9079922	0.0735	9079922	0.0883	0.0050	9079922
Total Copper (Cu)	ug/L	1.69	1.54	9079922	1.71	9079922	1.87	0.050	9079922
Total Iron (Fe)	ug/L	84.9	67.3	9079922	72.3	9079922	80.3	1.0	9079922
Total Lead (Pb)	ug/L	0.0261	0.0097	9079922	0.0274	9079922	0.0413	0.0050	9079922
Total Lithium (Li)	ug/L	1.66	1.33	9079922	1.03	9079922	0.58	0.50	9079922
Total Manganese (Mn)	ug/L	5.58	3.33	9079922	3.40	9079922	3.05	0.050	9079922
Total Molybdenum (Mo)	ug/L	0.147	1.27	9079922	0.619	9079922	0.434	0.050	9079922
Total Nickel (Ni)	ug/L	0.573	0.670	9079922	0.797	9079922	0.758	0.020	9079922
Total Phosphorus (P)	ug/L	3.3	4.1	9079922	<2.0	9079922	<2.0	2.0	9079922
Total Selenium (Se)	ug/L	0.084	0.063	9079922	0.061	9079922	0.074	0.040	9079922
Total Silicon (Si)	ug/L	5180	5110	9079922	4720	9079922	4190	50	9079922
Total Silver (Ag)	ug/L	<0.0050	<0.0050	9079922	<0.0050	9079922	<0.0050	0.0050	9079922
Total Strontium (Sr)	ug/L	257	298	9079922	251	9079922	237	0.050	9079922
Total Thallium (TI)	ug/L	0.0034	0.0033	9079922	0.0045	9079922	0.0028	0.0020	9079922
Total Tin (Sn)	ug/L	<0.20	<0.20	9079922	<0.20	9079922	<0.20	0.20	9079922
Total Titanium (Ti)	ug/L	1.84	1.64	9079922	2.47	9079922	2.70	0.50	9079922
Total Uranium (U)	ug/L	5.93	25.4	9079922	10.5	9079922	2.27	0.0020	9079922
RDL = Reportable Detection	Limit			•	-	•		•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9302	TX9303		TX9304		TX9305		
Sampling Date		2018/07/22 16:35	2018/07/22 14:25		2018/07/21 17:38		2018/07/21 16:38		
COC Number		560074-01-01	560074-01-01		560074-01-01		560074-01-01		
	UNITS	CC-1.5	HC-2.5	QC Batch	HC-5.0	QC Batch	YT-24	RDL	QC Batch
Total Vanadium (V)	ug/L	0.40	0.44	9079922	0.48	9079922	0.44	0.20	9079922
Total Zinc (Zn)	ug/L	0.51	0.22	9079922	0.32	9079922	0.34	0.10	9079922
Total Zirconium (Zr)	ug/L	0.62	0.53	9079922	0.42	9079922	0.43	0.10	9079922
Total Calcium (Ca)	mg/L	31.7	24.7	9078676	27.6	9078676	36.3	0.050	9078676
Total Magnesium (Mg)	mg/L	9.35	8.59	9078676	8.42	9078676	9.26	0.050	9078676
Total Potassium (K)	mg/L	1.87	1.88	9078676	2.07	9078676	2.05	0.050	9078676
Total Sodium (Na)	mg/L	2.72	2.70	9078676	3.14	9078676	3.51	0.050	9078676
Total Sulphur (S)	mg/L	18.6	10.0	9078676	12.0	9078676	21.7	3.0	9078676
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9309			TX9309		
Sampling Date		2018/07/23 08:30			2018/07/23 08:30		
COC Number		560074-02-01			560074-02-01		
	UNITS	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters		·	<u> </u>	·	•	·	·
Total Hardness (CaCO3)	mg/L	<0.50	0.50	9077955			
Elements		•		Į.	•		l.
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9079921	<0.0020	0.0020	9079921
Total Metals by ICPMS		•		Į.	•		l.
Total Aluminum (Al)	ug/L	3.86	0.50	9084642			
Total Antimony (Sb)	ug/L	<0.020	0.020	9084642			
Total Arsenic (As)	ug/L	<0.020	0.020	9084642			
Total Barium (Ba)	ug/L	0.062	0.020	9084642			
Total Beryllium (Be)	ug/L	<0.010	0.010	9084642			
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9084642			
Total Boron (B)	ug/L	<10	10	9084642			
Total Cadmium (Cd)	ug/L	<0.0050	0.0050	9084642			
Total Chromium (Cr)	ug/L	<0.10	0.10	9084642			
Total Cobalt (Co)	ug/L	<0.0050	0.0050	9084642			
Total Copper (Cu)	ug/L	<0.050	0.050	9084642			
Total Iron (Fe)	ug/L	4.6	1.0	9084642			
Total Lead (Pb)	ug/L	0.0065	0.0050	9084642			
Total Lithium (Li)	ug/L	<0.50	0.50	9084642			
Total Manganese (Mn)	ug/L	0.085	0.050	9084642			
Total Molybdenum (Mo)	ug/L	<0.050	0.050	9084642			
Total Nickel (Ni)	ug/L	<0.020	0.020	9084642			
Total Phosphorus (P)	ug/L	<2.0	2.0	9084642			
Total Selenium (Se)	ug/L	<0.040	0.040	9084642			
Total Silicon (Si)	ug/L	<50	50	9084642			
Total Silver (Ag)	ug/L	<0.0050	0.0050	9084642			
Total Strontium (Sr)	ug/L	<0.050	0.050	9084642			
Total Thallium (TI)	ug/L	<0.0020	0.0020	9084642			
Total Tin (Sn)	ug/L	<0.20	0.20	9084642			
Total Titanium (Ti)	ug/L	<0.50	0.50	9084642			
RDL = Reportable Detection Lab-Dup = Laboratory Initial		cate					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TX9309			TX9309		
Sampling Date		2018/07/23 08:30			2018/07/23 08:30		
COC Number		560074-02-01			560074-02-01		
	UNITS	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Uranium (U)	ug/L	<0.0020	0.0020	9084642			
Total Vanadium (V)	ug/L	<0.20	0.20	9084642			
Total Zinc (Zn)	ug/L	0.16	0.10	9084642			
Total Zirconium (Zr)	ug/L	<0.10	0.10	9084642			
Total Calcium (Ca)	mg/L	<0.050	0.050	9078676			
Total Magnesium (Mg)	mg/L	<0.050	0.050	9078676			
Total Potassium (K)	mg/L	<0.050	0.050	9078676			
Total Sodium (Na)	mg/L	<0.050	0.050	9078676			
Total Sulphur (S)	mg/L	<3.0	3.0	9078676			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TX9306	TX9307	TX9308		
Sampling Date		2018/07/21 17:06	2018/07/21 15:40	2018/07/21 18:07		
COC Number		560074-01-01	560074-01-01	560074-01-01		
	UNITS	YT-24 MIX	COFFEE MIX	HALFWAY MIX	RDL	QC Batch
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	94.8	96.1	112	0.50	9077955
Elements						
Total Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	0.0020	9079921
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	104	286	179	3.0	9080183
Total Antimony (Sb)	ug/L	0.122	0.158	0.162	0.020	9080183
Total Arsenic (As)	ug/L	0.583	0.812	0.687	0.020	9080183
Total Barium (Ba)	ug/L	47.6	55.4	62.2	0.050	9080183
Total Beryllium (Be)	ug/L	<0.010	0.012	0.010	0.010	9080183
Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	0.010	9080183
Total Boron (B)	ug/L	<10	<10	<10	10	9080183
Total Cadmium (Cd)	ug/L	0.0484	0.0684	0.0578	0.0050	9080183
Total Chromium (Cr)	ug/L	0.22	0.58	0.42	0.10	9080183
Total Cobalt (Co)	ug/L	0.095	0.243	0.157	0.010	9080183
Total Copper (Cu)	ug/L	1.10	1.55	1.43	0.10	9080183
Total Iron (Fe)	ug/L	147	469	247	5.0	9080183
Total Lead (Pb)	ug/L	0.125	0.313	0.181	0.020	9080183
Total Lithium (Li)	ug/L	1.63	1.70	1.84	0.50	9080183
Total Manganese (Mn)	ug/L	11.9	23.3	16.9	0.10	9080183
Total Molybdenum (Mo)	ug/L	1.29	1.33	1.60	0.050	9080183
Total Nickel (Ni)	ug/L	1.16	1.80	1.59	0.10	9080183
Total Phosphorus (P)	ug/L	13.5	21.3	14.0	5.0	9080183
Total Selenium (Se)	ug/L	0.318	0.323	0.367	0.040	9080183
Total Silicon (Si)	ug/L	3170	3470	3700	50	9080183
Total Silver (Ag)	ug/L	<0.010	<0.010	<0.010	0.010	9080183
Total Strontium (Sr)	ug/L	126	128	156	0.050	9080183
Total Thallium (TI)	ug/L	0.0035	0.0059	0.0053	0.0020	9080183
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	9080183
Total Titanium (Ti)	ug/L	3.3	10.4	5.4	2.0	9080183
Total Uranium (U)	ug/L	1.08	1.08	1.35	0.0050	9080183
Total Vanadium (V)	ug/L	0.47	1.02	0.72	0.20	9080183
RDL = Reportable Detection	Limit					



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TX9306	TX9307	TX9308		
Sampling Date		2018/07/21 17:06	2018/07/21 15:40	2018/07/21 18:07		
COC Number		560074-01-01	560074-01-01	560074-01-01		
	UNITS	YT-24 MIX	COFFEE MIX	HALFWAY MIX	RDL	QC Batch
Total Zinc (Zn)	ug/L	4.9	7.0	5.6	1.0	9080183
Total Zirconium (Zr)	ug/L	0.11	0.12	<0.10	0.10	9080183
Total Calcium (Ca)	mg/L	26.2	26.5	30.4	0.25	9078676
Total Magnesium (Mg)	mg/L	7.17	7.28	8.79	0.25	9078676
Total Potassium (K)	mg/L	0.86	0.89	1.10	0.25	9078676
Total Sodium (Na)	mg/L	2.08	2.05	2.52	0.25	9078676
Total Sulphur (S)	mg/L	8.0	7.9	10.3	3.0	9078676
RDL = Reportable Detection	imit		-			



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

#### **GENERAL COMMENTS**

Sample TX9304 [HC-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9305 [YT-24]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9306 [YT-24 MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample TX9307 [COFFEE MIX]: Sample was analyzed past method specified hold time for Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample TX9308 [HALFWAY MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.} Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9078975	Dissolved Aluminum (AI)	2018/07/26	99	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
9078975	Dissolved Antimony (Sb)	2018/07/26	102	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
9078975	Dissolved Arsenic (As)	2018/07/26	104	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
9078975	Dissolved Barium (Ba)	2018/07/26	96	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9078975	Dissolved Beryllium (Be)	2018/07/26	103	80 - 120	108	80 - 120	<0.010	ug/L	NC	20
9078975	Dissolved Bismuth (Bi)	2018/07/26	98	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9078975	Dissolved Boron (B)	2018/07/26	104	80 - 120	108	80 - 120	<10	ug/L	NC	20
9078975	Dissolved Cadmium (Cd)	2018/07/26	100	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9078975	Dissolved Chromium (Cr)	2018/07/26	101	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
9078975	Dissolved Cobalt (Co)	2018/07/26	99	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9078975	Dissolved Copper (Cu)	2018/07/26	97	80 - 120	99	80 - 120	<0.050	ug/L	NC	20
9078975	Dissolved Iron (Fe)	2018/07/26	99	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
9078975	Dissolved Lead (Pb)	2018/07/26	99	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9078975	Dissolved Lithium (Li)	2018/07/26	103	80 - 120	112	80 - 120	<0.50	ug/L	NC	20
9078975	Dissolved Manganese (Mn)	2018/07/26	101	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
9078975	Dissolved Molybdenum (Mo)	2018/07/26	105	80 - 120	104	80 - 120	<0.050	ug/L	NC	20
9078975	Dissolved Nickel (Ni)	2018/07/26	100	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
9078975	Dissolved Phosphorus (P)	2018/07/26	102	80 - 120	101	80 - 120	<2.0	ug/L	NC	20
9078975	Dissolved Selenium (Se)	2018/07/26	103	80 - 120	100	80 - 120	<0.040	ug/L	NC	20
9078975	Dissolved Silicon (Si)	2018/07/26	NC	80 - 120	108	80 - 120	<50	ug/L	NC	20
9078975	Dissolved Silver (Ag)	2018/07/26	100	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9078975	Dissolved Strontium (Sr)	2018/07/26	NC	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
9078975	Dissolved Thallium (TI)	2018/07/26	96	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
9078975	Dissolved Tin (Sn)	2018/07/26	101	80 - 120	123 (1)	80 - 120	<0.20	ug/L	NC	20
9078975	Dissolved Titanium (Ti)	2018/07/26	102	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
9078975	Dissolved Uranium (U)	2018/07/26	104	80 - 120	103	80 - 120	<0.0020	ug/L	NC	20
9078975	Dissolved Vanadium (V)	2018/07/26	103	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
9078975	Dissolved Zinc (Zn)	2018/07/26	100	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
9078975	Dissolved Zirconium (Zr)	2018/07/26	103	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
9079095	Nitrate plus Nitrite (N)	2018/07/25	NC	80 - 120	113	80 - 120	<0.0020	mg/L	1.7	25
9079096	Nitrite (N)	2018/07/25	99	80 - 120	102	80 - 120	<0.0020	mg/L	NC	25



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9079097	Nitrate plus Nitrite (N)	2018/07/25	112	80 - 120	114	80 - 120	<0.0020	mg/L	1.8	25
9079098	Nitrite (N)	2018/07/25	95	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9079862	Total Mercury (Hg)	2018/07/26	98	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9079921	Total Mercury (Hg)	2018/07/26	100	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9079922	Total Aluminum (Al)	2018/07/27	93	80 - 120	99	80 - 120	<0.50	ug/L	14	20
9079922	Total Antimony (Sb)	2018/07/27	97	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9079922	Total Arsenic (As)	2018/07/27	101	80 - 120	104	80 - 120	<0.020	ug/L	NC	20
9079922	Total Barium (Ba)	2018/07/27	94	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9079922	Total Beryllium (Be)	2018/07/27	101	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
9079922	Total Bismuth (Bi)	2018/07/27	93	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Boron (B)	2018/07/27	102	80 - 120	107	80 - 120	<10	ug/L	NC	20
9079922	Total Cadmium (Cd)	2018/07/27	99	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Chromium (Cr)	2018/07/27	94	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9079922	Total Cobalt (Co)	2018/07/27	92	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Copper (Cu)	2018/07/27	91	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
9079922	Total Iron (Fe)	2018/07/27	89	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
9079922	Total Lead (Pb)	2018/07/27	95	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Lithium (Li)	2018/07/27	100	80 - 120	108	80 - 120	<0.50	ug/L	NC	20
9079922	Total Manganese (Mn)	2018/07/27	92	80 - 120	101	80 - 120	<0.050	ug/L	19	20
9079922	Total Molybdenum (Mo)	2018/07/27	97	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
9079922	Total Nickel (Ni)	2018/07/27	92	80 - 120	99	80 - 120	0.029, RDL=0.020 (2)	ug/L	NC	20
9079922	Total Phosphorus (P)	2018/07/27	101	80 - 120	102	80 - 120	<2.0	ug/L	NC	20
9079922	Total Selenium (Se)	2018/07/27	97	80 - 120	99	80 - 120	<0.040	ug/L	NC	20
9079922	Total Silicon (Si)	2018/07/27	94	80 - 120	103	80 - 120	<50	ug/L	NC	20
9079922	Total Silver (Ag)	2018/07/27	95	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9079922	Total Strontium (Sr)	2018/07/27	NC	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
9079922	Total Thallium (TI)	2018/07/27	95	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
9079922	Total Tin (Sn)	2018/07/27	96	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
9079922	Total Titanium (Ti)	2018/07/27	96	80 - 120	106	80 - 120	<0.50	ug/L	6.4	20
9079922	Total Uranium (U)	2018/07/27	96	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9079922	Total Vanadium (V)	2018/07/27	96	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9079922	Total Zinc (Zn)	2018/07/27	96	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
9079922	Total Zirconium (Zr)	2018/07/27	96	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
9079943	Dissolved Mercury (Hg)	2018/07/26	96	80 - 120	106	80 - 120	<0.0020	ug/L	3.7	20
9080183	Total Aluminum (AI)	2018/07/27	121 (3)	80 - 120	104	80 - 120	<3.0	ug/L	1.5	20
9080183	Total Antimony (Sb)	2018/07/27	105	80 - 120	104	80 - 120	<0.020	ug/L	1.1	20
9080183	Total Arsenic (As)	2018/07/27	108	80 - 120	105	80 - 120	<0.020	ug/L	4.6	20
9080183	Total Barium (Ba)	2018/07/27	108	80 - 120	106	80 - 120	<0.050	ug/L	0.18	20
9080183	Total Beryllium (Be)	2018/07/27	99	80 - 120	99	80 - 120	<0.010	ug/L	NC	20
9080183	Total Bismuth (Bi)	2018/07/27	105	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
9080183	Total Boron (B)	2018/07/27	94	80 - 120	94	80 - 120	<10	ug/L	2.3	20
9080183	Total Cadmium (Cd)	2018/07/27	107	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
9080183	Total Chromium (Cr)	2018/07/27	106	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
9080183	Total Cobalt (Co)	2018/07/27	104	80 - 120	103	80 - 120	<0.010	ug/L	0.51	20
9080183	Total Copper (Cu)	2018/07/27	102	80 - 120	101	80 - 120	<0.10	ug/L	9.9	20
9080183	Total Iron (Fe)	2018/07/27	120	80 - 120	107	80 - 120	<5.0	ug/L	0.084	20
9080183	Total Lead (Pb)	2018/07/27	106	80 - 120	105	80 - 120	<0.020	ug/L	1.3	20
9080183	Total Lithium (Li)	2018/07/27	100	80 - 120	101	80 - 120	<0.50	ug/L	3.0	20
9080183	Total Manganese (Mn)	2018/07/27	118	80 - 120	104	80 - 120	<0.10	ug/L	1.6	20
9080183	Total Molybdenum (Mo)	2018/07/27	116	80 - 120	109	80 - 120	<0.050	ug/L	2.4	20
9080183	Total Nickel (Ni)	2018/07/27	104	80 - 120	103	80 - 120	<0.10	ug/L	4.2	20
9080183	Total Phosphorus (P)	2018/07/27	107	80 - 120	103	80 - 120	<5.0	ug/L		
9080183	Total Selenium (Se)	2018/07/27	103	80 - 120	100	80 - 120	<0.040	ug/L	NC	20
9080183	Total Silicon (Si)	2018/07/27	NC	80 - 120	106	80 - 120	<50	ug/L	0.77	20
9080183	Total Silver (Ag)	2018/07/27	107	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
9080183	Total Strontium (Sr)	2018/07/27	NC	80 - 120	106	80 - 120	<0.050	ug/L	2.1	20
9080183	Total Thallium (TI)	2018/07/27	107	80 - 120	105	80 - 120	<0.0020	ug/L	15	20
9080183	Total Tin (Sn)	2018/07/27	103	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
9080183	Total Titanium (Ti)	2018/07/27	117	80 - 120	106	80 - 120	<2.0	ug/L	NC	20
9080183	Total Uranium (U)	2018/07/27	108	80 - 120	103	80 - 120	<0.0050	ug/L	1.5	20
9080183	Total Vanadium (V)	2018/07/27	107	80 - 120	103	80 - 120	<0.20	ug/L	3.9	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9080183	Total Zinc (Zn)	2018/07/27	105	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
9080183	Total Zirconium (Zr)	2018/07/27	110	80 - 120	107	80 - 120	<0.10	ug/L	NC	20
9080222	ORP	2018/07/26							0	20
9080278	рН	2018/07/27			101	97 - 103			1.3	20
9080287	Alkalinity (PP as CaCO3)	2018/07/27					<0.50	mg/L		
9080287	Alkalinity (Total as CaCO3)	2018/07/27	NC	80 - 120	100	80 - 120	0.69, RDL=0.50	mg/L		
9080287	Bicarbonate (HCO3)	2018/07/27					0.84, RDL=0.50	mg/L		
9080287	Carbonate (CO3)	2018/07/27					<0.50	mg/L		
9080287	Hydroxide (OH)	2018/07/27					<0.50	mg/L		
9080288	Conductivity	2018/07/27			100	80 - 120	1.2, RDL=1.0	uS/cm		
9080494	Nitrate plus Nitrite (N)	2018/07/26	103	80 - 120	109	80 - 120	<0.0020	mg/L	1.7	25
9080722	Total Dissolved Solids	2018/07/28	99	80 - 120	101	80 - 120	<10	mg/L	8.6	20
9080723	Total Dissolved Solids	2018/07/28	101	80 - 120	96	80 - 120	<10	mg/L	2.1	20
9081162	Dissolved Mercury (Hg)	2018/07/27	95	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9081293	Dissolved Chloride (CI)	2018/07/27	99	80 - 120	99	80 - 120	<0.50	mg/L	14	20
9081297	Dissolved Sulphate (SO4)	2018/07/27	NC	80 - 120	98	80 - 120	<0.50	mg/L	2.6	20
9081299	Dissolved Chloride (CI)	2018/07/27	89	80 - 120	99	80 - 120	<0.50	mg/L	12	20
9081303	Dissolved Sulphate (SO4)	2018/07/27	102	80 - 120	98	80 - 120	<0.50	mg/L	16	20
9081446	Total Ammonia (N)	2018/07/26			108	80 - 120	<0.0050	mg/L		
9081541	Fluoride (F)	2018/07/27	92	80 - 120	96	80 - 120	<0.010	mg/L	NC	20
9081683	Fluoride (F)	2018/07/27	100	80 - 120	104	80 - 120	<0.010	mg/L	1.4	20
9081779	Alkalinity (PP as CaCO3)	2018/07/27					<0.50	mg/L	NC	20
9081779	Alkalinity (Total as CaCO3)	2018/07/27	100	80 - 120	93	80 - 120	<0.50	mg/L	NC	20
9081779	Bicarbonate (HCO3)	2018/07/27					<0.50	mg/L	NC	20
9081779	Carbonate (CO3)	2018/07/27					<0.50	mg/L	NC	20
9081779	Hydroxide (OH)	2018/07/27					<0.50	mg/L	NC	20
9081808	pH	2018/07/27			102	97 - 103			1.4	20
9081809	Conductivity	2018/07/27			99	80 - 120	<1.0	uS/cm	0	20
9081847	pH	2018/07/28			101	97 - 103				
9081853	Alkalinity (PP as CaCO3)	2018/07/28					<0.50	mg/L		
9081853	Alkalinity (Total as CaCO3)	2018/07/28			95	80 - 120	<0.50	mg/L		



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9081853	Bicarbonate (HCO3)	2018/07/28					<0.50	mg/L		
9081853	Carbonate (CO3)	2018/07/28					<0.50	mg/L		
9081853	Hydroxide (OH)	2018/07/28					<0.50	mg/L		
9081854	Conductivity	2018/07/28			100	80 - 120	1.1, RDL=1.0	uS/cm		
9082474	Total Suspended Solids	2018/07/30			103	80 - 120	<1.0	mg/L		
9082476	Total Suspended Solids	2018/07/30			102	80 - 120	<1.0	mg/L		
9082969	Total Dissolved Solids	2018/07/31	99	80 - 120	96	80 - 120	<10	mg/L	0.33	20
9084642	Total Aluminum (Al)	2018/07/30			103	80 - 120	<0.50	ug/L		
9084642	Total Antimony (Sb)	2018/07/30			99	80 - 120	<0.020	ug/L		
9084642	Total Arsenic (As)	2018/07/30			103	80 - 120	<0.020	ug/L		
9084642	Total Barium (Ba)	2018/07/30			98	80 - 120	<0.020	ug/L		
9084642	Total Beryllium (Be)	2018/07/30			102	80 - 120	<0.010	ug/L		
9084642	Total Bismuth (Bi)	2018/07/30			94	80 - 120	<0.0050	ug/L		
9084642	Total Boron (B)	2018/07/30			110	80 - 120	<10	ug/L		
9084642	Total Cadmium (Cd)	2018/07/30			99	80 - 120	<0.0050	ug/L		
9084642	Total Chromium (Cr)	2018/07/30			97	80 - 120	<0.10	ug/L		
9084642	Total Cobalt (Co)	2018/07/30			98	80 - 120	<0.0050	ug/L		
9084642	Total Copper (Cu)	2018/07/30			96	80 - 120	<0.050	ug/L		
9084642	Total Iron (Fe)	2018/07/30			101	80 - 120	<1.0	ug/L		
9084642	Total Lead (Pb)	2018/07/30			96	80 - 120	<0.0050	ug/L		
9084642	Total Lithium (Li)	2018/07/30			105	80 - 120	<0.50	ug/L		
9084642	Total Manganese (Mn)	2018/07/30			101	80 - 120	<0.050	ug/L		
9084642	Total Molybdenum (Mo)	2018/07/30			103	80 - 120	<0.050	ug/L		
9084642	Total Nickel (Ni)	2018/07/30			97	80 - 120	<0.020	ug/L		
9084642	Total Phosphorus (P)	2018/07/30			103	80 - 120	<2.0	ug/L		
9084642	Total Selenium (Se)	2018/07/30			102	80 - 120	<0.040	ug/L		
9084642	Total Silicon (Si)	2018/07/30			113	80 - 120	<50	ug/L		
9084642	Total Silver (Ag)	2018/07/30			98	80 - 120	<0.0050	ug/L		
9084642	Total Strontium (Sr)	2018/07/30			104	80 - 120	<0.050	ug/L		
9084642	Total Thallium (TI)	2018/07/30			93	80 - 120	<0.0020	ug/L		
9084642	Total Tin (Sn)	2018/07/30			99	80 - 120	<0.20	ug/L		



#### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	O
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9084642	Total Titanium (Ti)	2018/07/30			101	80 - 120	<0.50	ug/L		
9084642	Total Uranium (U)	2018/07/30			99	80 - 120	<0.0020	ug/L		
9084642	Total Vanadium (V)	2018/07/30			98	80 - 120	<0.20	ug/L		
9084642	Total Zinc (Zn)	2018/07/30			98	80 - 120	<0.10	ug/L		
9084642	Total Zirconium (Zr)	2018/07/30			100	80 - 120	<0.10	ug/L		
9084974	Total Organic Carbon (C)	2018/07/31	NC	80 - 120	110	80 - 120	<0.50	mg/L	3.9	20
9085201	Dissolved Organic Carbon (C)	2018/07/31	NC	80 - 120	105	80 - 120	<0.50	mg/L	4.7	20
9085574	Free Cyanide	2018/07/27	106	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20
9085575	Free Cyanide	2018/07/30	98	80 - 120	98	80 - 120	<0.0010	mg/L		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

- (1) Blank Spike for Tin outside acceptance criteria (10% of analytes failure allowed).
- (2) Method blank exceeds acceptance limits for Ni- 2X RDL acceptable for low level metals determination.
- (3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Clistia Camere	
Cristina Carriere, Scientific Services	
Rob Reinert, B.Sc., Scientific Specialist	
12 Mil	
Winnie Au, B.Sc., QP, Scientific Specialist	

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

	INV	OICE TO:			Report Inf	ormation	N'			- 6			Project is	nformation				4
mpany Name	#3604 LORAX E	NVIRONMENTAL SERVICES	LTD. Company No							Que	station #	1	B40231					Bottle Order #:
intact Name	Aida Piaseczny		Contact Nan	David Flath	er					P.0	W					- B861	510_COC	
ktress	2289 BURRARD S		Address			_	_			Proj	ect#		Gold Cor	p Coffe	e Creek-SV		Chain Of Custody Record	560074 Project Manager
	VANCOUVER BC (604) 688-7173	100 () 000 747	15				Fax				ect Name	2				-		Project Manager
one uall	A Committee of the Comm	orax.ca; shukling.ng@lorax.ca	Phone Email	David.Flath	er@lorax.		Pax:			Site	mpled By						C#560074-01-01	Diana Cruz
Regulatory C				ial Instructions		T				1000	Analysis F	Requested		Sal .			Turnaround Time (TAT) Requi	red
		nking water samples - please use the				sted Drinking Water ? (Y / N.)	ie (Alk-LL, EC (, TDS)	TSS-Low Level	ns (LL:Cl, F, NO2, NO3,	iide - WAD			Level Dissolved Metals CV Hg	Level Total Metals incl. CV		(will be Standa Please days - Job Sp Date Re	rifirmation Number	and Dioxins/Furans are
	0.000	be kept cool ( < 10°C ) from time of san Sample (Location) Identification	Date Sampled	Time Sampled	Metrix	Regular	Routine LL, pH, 7	188	Anions SO4)	Cyanide	100	000	Low ind.	Low Hg W	ORP	# of Bot	tes Comments	
13000	e Barcode Label	CC-0.5	Crisis Serriging	Title Spriged	w													
10110	11111111111111111111111111111111111111	CC-1.5	22/07/18	16:35	W	NI	/	/	/	/	/	/	/	1	/	13	?	
10000	SID#162745	CC-3.5			W.			-									RECEIVED IN WHITE	W 0900
	III 1111 II II II II II II II II II II I	CC-4.5			W												BY: Supprise	7 .
	GD#162747	HC-2.5	22/07/13	14:25	W	NN	/	/	/	/	/	/	/	/	/	13	3 2018 -07-	L h
	SID#162748	HC-5.0	21/07/18	17:38	W.	NA	/	/	/	/	/	/	/	/		13	TEMP: 15 / 10	111
	III III III III III III III III III II	YT-24	21/07/18	16:38	W	NA	/			/		/	/	/	/	13	13 13	3 12
	SID#149896	YT-24 Mix	21/07/18	17:06	W	NI	/	/	/	/	/	/	/	/	/	13	cooling media pres	ent - than
	SID#149897	Coffee Mix	21/07/18	15:40	W	NA	/	/		/		/	/	/		13		
		Halfway Mix	21/01/18	18:07	W	NA	1/	/		/	/	/	/	/	/	13	ř.	
* RELI	QUISHED BY: (Signature)	Print) Date:	07/24 9:1	19	RECEI	VED BY:	Signature/P	rint)		Di	ate: (YY/MM		O Time	# jars	used and ubmitted	me Sangtive	Lab Use Only Temperature (*S1) on Receipt Custody 2	eal Intact on Cooler?



Maxxam Analytics International Corporation ola Maxxam Analytics

		INVOICE TO:				Report in	formation							Project In	formation			BEE SHIPS		
rpany Nam	#3604 LORA	ENVIRONMENTAL SER	RVICES LTD.	Company Na	me						Quat	tation#	1	340231				1500		Bottle Order #.
oct Name	Aida Piaseczn	/		Contact Nam	<ul> <li>David Flatt</li> </ul>	ier					P.0.	#	- 8				_	III N. N. MONANA	CONTRACTOR SOUTH A MILL	
iss	2289 BURRAR	No. of Contract of		Address							Proje	sct #	1	Gold Con	p Coffee	Creek-SV	A B	861510_CO		560074
	VANCOUVER	Control of the Contro									Proje	ct Name						-	л сизтову месета	Project Manage
e	(604) 688-7173	1 300	688-7175	Phone		-		Fax			Site	el .	-							Diana Cruz
ii	aida piaseczny	@lorax.ca; shukling ng@l	orax.ca	Email	David Flatt	ner@lorax	ca	-			Sam	pled By	2					-	560074-02-01	OUT WHEEVE
gulatory	Criteria			Speci	al Instructions		-	-		1		Analysis F	lequested	1	>	-	_		umaround Time (TAT) Requi e provide advance notice for rush	
	Note: For moulable	l drinking water samples - pleases	e use the Drinkina W	Vater Chain of	Custady Farm		Regulated Drinking Water ? (Y / N Metals Field Filtered ? (Y / N)	Routine (Alk-LL, EC-LL, NH4- LL, pH, TDS)	TSS-Low Level	(LL.CI, F, NO2, NO3,	- WAD			Level Dissolved Metals CV Hg	Level Total Metals incl. C'		(will Sta Ple day Job Date	gular (Standard) TA' The applied if Rush T indurd TAT = 5-7 Wo- ase note: Standard T is - contact your Proje Specific Rush TAT (if is Required:	Lan voi sew	and Dicwins/Furans a
	The state of the s	must be kept cool ( < 10°C ) from to				E.	ated s Fiel	the T	-Low	SII (	Cyanide	287	0	Se	Leve		Flust	Confirmation Number	(ca	l lab for #J
Same	le Barcode Label	Sample (Location) Identifica	Satring 1 1 1 1 1 2 2 2 2	Sampled	Time Sampled	Matrix	Regu	Rou LL,	188	Anions SO4)	Cya	TOC	DOC	Low incl.	₹	ORP	# of	Bottles	Comments	
	SID#149899	Latte Mix		201035		w	П										, according to			
1 (0.11)	SID#208506	Dup				w												REC	DEIVED IN WHITEH	ann-
	SiD#214391	Field Blank	23/	07/18	8:30	will	NN	1	/	/	/	/	/	/	/	/	}	3 BY:	sym)	0100
																			2018 -07- 2	f <sub>6</sub>
				ĺ														TEN	AP. 10,10	111
																		-	13 13	12
																		(01	line media por	esent - the
																			1	
* REL	NQUISHED BY: (Signati	greiPrint)	Date: (YY/MM/DD	) Time		RECE	VED BY: (	Signature/P	Print)		Da	te: (YY/MM	(00)	Time		used and ubpritted			Lab Use Only	
5	100	MEGALT	24/07/	9.0	0	10544	lind	4			- 1	180671	15	10:00	1	A I	ime Sanattv6	Tempunglure (C)	Concept —	ger Intact on Cooler?

Maxxam Analytics International Corporation o/a Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560074-01-01, 560074-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/03

Report #: R2599622 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B862160 Received: 2018/07/25, 10:20

Sample Matrix: Water # Samples Received: 5

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	5	N/A	2018/07/30	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	5	N/A	2018/07/27	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) (1, 3)	1	N/A	2018/07/30	CAL SOP-00077	MMCW 119 1996 m
Carbon (DOC) (1, 3)	4	N/A	2018/07/31	CAL SOP-00077	MMCW 119 1996 m
Conductance - Low Level	5	N/A	2018/07/30	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	5	N/A	2018/07/27	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (4)	5	N/A	2018/07/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	5	N/A	2018/07/31	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	4	N/A	2018/07/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	1	N/A	2018/07/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	5	2018/07/27	2018/07/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	5	N/A	2018/07/31	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	5	N/A	2018/07/30	BBY7SOP-00002	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	N/A	2018/07/30	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	5	N/A	2018/07/28	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	5	N/A	2018/07/27	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	5	N/A	2018/07/27	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	5	N/A	2018/07/27	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	5	N/A	2018/07/28	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	5	N/A	2018/07/30	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	5	N/A	2018/07/27	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (5)	5	N/A	2018/07/30	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	5	N/A	2018/07/27	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	3	2018/07/30	2018/07/31	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	2	2018/07/31	2018/08/03	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (1, 6)	4	N/A	2018/07/31	CAL SOP-00077	MMCW 119 1996 m
Carbon (Total Organic) (1, 6)	1	N/A	2018/08/01	CAL SOP-00077	MMCW 119 1996 m
Total Suspended Solids-Low Level	5	2018/07/28	2018/07/30	BBY6SOP-00034	SM 22 2540 D
Free (WAD) Cyanide (2)	5	N/A	2018/08/01	CAM SOP-00457	OMOE E3015 5 m

#### Remarks:



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560074-01-01, 560074-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/03

Report #: R2599622 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

#### MAXXAM JOB #: B862160 Received: 2018/07/25, 10:20

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Calgary Environmental
- (2) This test was performed by Maxxam Ontario (From Burnaby)
- (3) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: Whenever applicable, Dissolved > Total for any parameter that falls within method uncertainty for duplicates is likely equivalent. If RPD is > 20% samples were reanalyzed and confirmed.
- (4) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (5) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (6) TOC present in the sample should be considered as non-purgeable TOC.

#### **Encryption Key**



Maxxam

03 Aug 2018 14:45:05

 ${\it Please direct all questions regarding this Certificate of Analysis to your Project Manager.}$ 

Diana Cruz, Project Manager Email: DCruz@maxxam.ca Phone# (604) 734 7276

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2542			TY2542			TY2543		
Sampling Date		2018/07/24 11:30			2018/07/24 11:30			2018/07/24 11:50		
COC Number		560074-01-01			560074-01-01			560074-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-3.5	RDL	QC Batch
Parameter										
ORP	mV	291		9081594	287		9081594	283		9081594
Calculated Parameters	l				-			-		
Filter and HNO3 Preservation	N/A	LAB		9080871				LAB		9080871
Nitrate (N)	mg/L	0.205	0.0020	9080295				0.247	0.0020	9080295
Misc. Inorganics										
Fluoride (F)	mg/L	0.076	0.010	9081683				0.064	0.010	9081683
Free Cyanide	mg/L	<0.0010	0.0010	9088593	<0.0010	0.0010	9088593	<0.0010	0.0010	9088593
Dissolved Organic Carbon (C)	mg/L	13	0.50	9083820				10	0.50	9083820
Alkalinity (Total as CaCO3)	mg/L	43.3	0.50	9084497				72.9	0.50	9084497
Total Organic Carbon (C)	mg/L	13	0.50	9083817				11	0.50	9083817
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9084497				<0.50	0.50	9084497
Bicarbonate (HCO3)	mg/L	52.9	0.50	9084497				88.9	0.50	9084497
Carbonate (CO3)	mg/L	<0.50	0.50	9084497				<0.50	0.50	9084497
Hydroxide (OH)	mg/L	<0.50	0.50	9084497				<0.50	0.50	9084497
Anions										
Dissolved Sulphate (SO4)	mg/L	36.6	0.50	9081615				68.6	0.50	9081615
Dissolved Chloride (CI)	mg/L	0.98	0.50	9081614				0.91	0.50	9081614
Nutrients										
Total Ammonia (N)	mg/L	<0.0050	0.0050	9082946				<0.0050	0.0050	9082946
Nitrate plus Nitrite (N)	mg/L	0.205	0.0020	9081470				0.247	0.0020	9081470
Nitrite (N)	mg/L	<0.0020	0.0020	9081475				<0.0020	0.0020	9081475
Physical Properties										
Conductivity	uS/cm	176	1.0	9084498				284	1.0	9084498
рН	рН	7.55		9084496				7.90		9084496
Physical Properties										
Total Suspended Solids	mg/L	1.5	1.0	9082478				2.6	1.0	9082478
Total Dissolved Solids	mg/L	124	10	9082983				190	10	9082980
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2544		TY2555		TY2556		
Sampling Date		2018/07/24 10:15		2018/07/24 10:40		2018/07/24 09:15		
COC Number		560074-01-01		560074-02-01		560074-02-01		
	UNITS	CC-4.5	QC Batch	LATTE MIX	QC Batch	DUP	RDL	QC Batch
Parameter								
ORP	mV	287	9081594	290	9081594	294		9081594
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	9080871	LAB	9080871	LAB		9080871
Nitrate (N)	mg/L	0.187	9080295	0.217	9080295	0.187	0.0020	9080295
Misc. Inorganics								
Fluoride (F)	mg/L	0.071	9081683	0.074	9081683	0.071	0.010	9081683
Free Cyanide	mg/L	<0.0010	9088593	<0.0010	9088593	<0.0010	0.0010	9088593
Dissolved Organic Carbon (C)	mg/L	12	9083309	13	9083820	12	0.50	9083820
Alkalinity (Total as CaCO3)	mg/L	48.9	9084497	47.8	9084497	45.7	0.50	9084497
Total Organic Carbon (C)	mg/L	12	9086567	12	9083817	12	0.50	9083821
Alkalinity (PP as CaCO3)	mg/L	<0.50	9084497	<0.50	9084497	<0.50	0.50	9084497
Bicarbonate (HCO3)	mg/L	59.6	9084497	58.4	9084497	55.8	0.50	9084497
Carbonate (CO3)	mg/L	<0.50	9084497	<0.50	9084497	<0.50	0.50	9084497
Hydroxide (OH)	mg/L	<0.50	9084497	<0.50	9084497	<0.50	0.50	9084497
Anions								
Dissolved Sulphate (SO4)	mg/L	42.3	9081615	44.6	9081615	42.3	0.50	9081615
Dissolved Chloride (CI)	mg/L	1.0	9081614	1.0	9081614	1.1	0.50	9081614
Nutrients								
Total Ammonia (N)	mg/L	<0.0050	9082946	<0.0050	9082946	<0.0050	0.0050	9082946
Nitrate plus Nitrite (N)	mg/L	0.187	9081470	0.217	9081470	0.187	0.0020	9081470
Nitrite (N)	mg/L	<0.0020	9081475	<0.0020	9081475	<0.0020	0.0020	9081475
Physical Properties								
Conductivity	uS/cm	189	9084498	193	9084498	190	1.0	9084498
рН	рН	7.64	9084496	7.71	9084496	7.71		9084496
Physical Properties								
Total Suspended Solids	mg/L	1.0	9082478	1.0	9082478	<1.0	1.0	9082478
Total Dissolved Solids	mg/L	138	9082983	126	9082980	124	10	9082980
RDL = Reportable Detection Lir	nit			-		· ·	· — —	· ·
<u> </u>								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2556							
Sampling Date		2018/07/24 09:15							
COC Number		560074-02-01							
	UNITS	DUP Lab-Dup	RDL	QC Batch					
Misc. Inorganics									
Fluoride (F)	mg/L	0.070	0.010	9081683					
RDL = Reportable Detection Limit									
NDL - Reportable Detection Lif	IIIC								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TY2542		TY2543	TY2544	TY2555		
		2018/07/24		2018/07/24	2018/07/24	2018/07/24		
Sampling Date		11:30		11:50	10:15	10:40		
COC Number		560074-01-01		560074-01-01	560074-01-01	560074-02-01		
	UNITS	CC-0.5	QC Batch	CC-3.5	CC-4.5	LATTE MIX	RDL	QC Batch
Calculated Parameters								
Dissolved Hardness (CaCO3)	mg/L	83.6	9079797	135	88.4	88.5	0.50	9079797
Elements					•		•	
Dissolved Mercury (Hg)	ug/L	0.0041	9081286	0.0039	0.0035	0.0040	0.0020	9081311
Dissolved Metals by ICPMS					•		•	
Dissolved Aluminum (Al)	ug/L	86.0	9083578	51.7	72.3	81.2	0.50	9083578
Dissolved Antimony (Sb)	ug/L	0.124	9083578	0.097	0.116	0.124	0.020	9083578
Dissolved Arsenic (As)	ug/L	0.439	9083578	0.323	0.419	0.443	0.020	9083578
Dissolved Barium (Ba)	ug/L	43.5	9083578	53.3	50.6	45.4	0.020	9083578
Dissolved Beryllium (Be)	ug/L	0.014	9083578	0.014	0.014	0.013	0.010	9083578
Dissolved Bismuth (Bi)	ug/L	<0.0050	9083578	<0.0050	<0.0050	<0.0050	0.0050	9083578
Dissolved Boron (B)	ug/L	<10	9083578	<10	<10	<10	10	9083578
Dissolved Cadmium (Cd)	ug/L	0.0088	9083578	0.0058	0.0097	0.0086	0.0050	9083578
Dissolved Chromium (Cr)	ug/L	0.35	9083578	0.23	0.28	0.32	0.10	9083578
Dissolved Cobalt (Co)	ug/L	0.0571	9083578	0.0414	0.0502	0.0521	0.0050	9083578
Dissolved Copper (Cu)	ug/L	2.52	9083578	1.47	2.31	2.44	0.050	9083578
Dissolved Iron (Fe)	ug/L	56.3	9083578	23.7	42.7	52.3	1.0	9083578
Dissolved Lead (Pb)	ug/L	<0.0050	9083578	<0.0050	<0.0050	<0.0050	0.0050	9083578
Dissolved Lithium (Li)	ug/L	1.23	9083578	0.59	0.73	1.05	0.50	9083578
Dissolved Manganese (Mn)	ug/L	3.79	9083578	0.564	3.81	3.21	0.050	9083578
Dissolved Molybdenum (Mo)	ug/L	0.670	9083578	0.287	0.637	0.643	0.050	9083578
Dissolved Nickel (Ni)	ug/L	1.11	9083578	0.534	0.950	0.982	0.020	9083578
Dissolved Phosphorus (P)	ug/L	<2.0	9083578	<2.0	<2.0	<2.0	2.0	9083578
Dissolved Selenium (Se)	ug/L	0.085	9083578	0.081	0.082	0.090	0.040	9083578
Dissolved Silicon (Si)	ug/L	5590	9083578	4860	5190	5220	50	9083578
Dissolved Silver (Ag)	ug/L	<0.0050	9083578	<0.0050	<0.0050	<0.0050	0.0050	9083578
Dissolved Strontium (Sr)	ug/L	104	9083578	269	126	125	0.050	9083578
Dissolved Thallium (TI)	ug/L	0.0046	9083578	0.0031	0.0041	0.0044	0.0020	9083578
Dissolved Tin (Sn)	ug/L	<0.20	9083578	<0.20	<0.20	<0.20	0.20	9083578
Dissolved Titanium (Ti)	ug/L	0.85	9083578	<0.50	0.84	0.90	0.50	9083578
Dissolved Uranium (U)	ug/L	4.91	9083578	6.22	3.17	4.80	0.0020	9083578
Dissolved Vanadium (V)	ug/L	0.46	9083578	0.32	0.39	0.48	0.20	9083578
RDL = Reportable Detection Li	mit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TY2542		TY2543	TY2544	TY2555		
Sampling Date		2018/07/24		2018/07/24	2018/07/24	2018/07/24		
Sampling Date		11:30		11:50	10:15	10:40		
COC Number		560074-01-01		560074-01-01	560074-01-01	560074-02-01		
	UNITS	CC-0.5	QC Batch	CC-3.5	CC-4.5	LATTE MIX	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.31	9083578	0.18	0.36	0.36	0.10	9083578
Dissolved Zirconium (Zr)	ug/L	0.47	9083578	0.52	0.48	0.47	0.10	9083578
Dissolved Calcium (Ca)	mg/L	20.7	9079994	36.4	22.4	22.4	0.050	9079994
Dissolved Magnesium (Mg)	mg/L	7.75	9079994	10.8	7.87	7.93	0.050	9079994
Dissolved Potassium (K)	mg/L	1.23	9079994	2.11	1.36	1.32	0.050	9079994
Dissolved Sodium (Na)	mg/L	3.92	9079994	3.74	3.71	3.84	0.050	9079994
Dissolved Sulphur (S)	mg/L	12.7	9079994	20.8	13.0	13.5	3.0	9079994
RDL = Reportable Detection Li	mit		-					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TY2556			TY2556		
Sampling Date		2018/07/24 09:15			2018/07/24 09:15		
COC Number		560074-02-01			560074-02-01		
	UNITS	DUP	RDL	QC Batch	DUP Lab-Dup	RDL	QC Batch
Calculated Parameters		·	<u> </u>	·	<u> </u>	<u> </u>	·
Dissolved Hardness (CaCO3)	mg/L	88.2	0.50	9079797			
Elements							•
Dissolved Mercury (Hg)	ug/L	0.0039	0.0020	9083569	0.0035	0.0020	9083569
Dissolved Metals by ICPMS		1		Į.			
Dissolved Aluminum (Al)	ug/L	70.8	0.50	9083578			
Dissolved Antimony (Sb)	ug/L	0.116	0.020	9083578			
Dissolved Arsenic (As)	ug/L	0.425	0.020	9083578			
Dissolved Barium (Ba)	ug/L	50.7	0.020	9083578			
Dissolved Beryllium (Be)	ug/L	0.015	0.010	9083578			
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9083578			
Dissolved Boron (B)	ug/L	<10	10	9083578			
Dissolved Cadmium (Cd)	ug/L	0.0086	0.0050	9083578			
Dissolved Chromium (Cr)	ug/L	0.28	0.10	9083578			
Dissolved Cobalt (Co)	ug/L	0.0582	0.0050	9083578			
Dissolved Copper (Cu)	ug/L	2.32	0.050	9083578			
Dissolved Iron (Fe)	ug/L	41.7	1.0	9083578			
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9083578			
Dissolved Lithium (Li)	ug/L	0.66	0.50	9083578			
Dissolved Manganese (Mn)	ug/L	3.09	0.050	9083578			
Dissolved Molybdenum (Mo)	ug/L	0.626	0.050	9083578			
Dissolved Nickel (Ni)	ug/L	0.961	0.020	9083578			
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	9083578			
Dissolved Selenium (Se)	ug/L	0.080	0.040	9083578			
Dissolved Silicon (Si)	ug/L	5070	50	9083578			
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9083578			
Dissolved Strontium (Sr)	ug/L	123	0.050	9083578			
Dissolved Thallium (TI)	ug/L	0.0043	0.0020	9083578			
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9083578			
Dissolved Titanium (Ti)	ug/L	0.80	0.50	9083578			
Dissolved Uranium (U)	ug/L	2.76	0.0020	9083578			
RDL = Reportable Detection Li		•	•	•		•	•
Lab-Dup = Laboratory Initiated	l Duplica	ite					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TY2556			TY2556		
Sampling Date		2018/07/24 09:15			2018/07/24 09:15		
COC Number		560074-02-01			560074-02-01		
	UNITS	DUP	RDL	QC Batch	DUP Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.42	0.20	9083578			
Dissolved Zinc (Zn)	ug/L	0.28	0.10	9083578			
Dissolved Zirconium (Zr)	ug/L	0.43	0.10	9083578			
Dissolved Calcium (Ca)	mg/L	22.3	0.050	9079994			
Dissolved Magnesium (Mg)	mg/L	7.89	0.050	9079994			
Dissolved Potassium (K)	mg/L	1.38	0.050	9079994			
Dissolved Sodium (Na)	mg/L	3.62	0.050	9079994			
Dissolved Sulphur (S)	mg/L	13.3	3.0	9079994			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TY2542		TY2543	TY2544		TY2555		
Sampling Date		2018/07/24		2018/07/24	2018/07/24		2018/07/24		
		11:30		11:50	10:15		10:40		
COC Number		560074-01-01		560074-01-01	560074-01-01		560074-02-01		
	UNITS	CC-0.5	QC Batch	CC-3.5	CC-4.5	QC Batch	LATTE MIX	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	80.8	9080811	133	85.9	9080811	85.6	0.50	9080811
Elements									
Total Mercury (Hg)	ug/L	0.0046	9081280	0.0079	0.0041	9081330	0.0039	0.0020	9081256
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	158	9081512	54.1	96.4	9081512	111	0.50	9081512
Total Antimony (Sb)	ug/L	0.116	9081512	0.096	0.112	9081512	0.113	0.020	9081512
Total Arsenic (As)	ug/L	0.552	9081512	0.349	0.460	9081512	0.488	0.020	9081512
Total Barium (Ba)	ug/L	45.2	9081512	52.0	49.3	9081512	45.0	0.020	9081512
Total Beryllium (Be)	ug/L	0.017	9081512	0.012	0.013	9081512	0.014	0.010	9081512
Total Bismuth (Bi)	ug/L	<0.0050	9081512	<0.0050	<0.0050	9081512	<0.0050	0.0050	9081512
Total Boron (B)	ug/L	<10	9081512	<10	<10	9081512	<10	10	9081512
Total Cadmium (Cd)	ug/L	0.0118	9081512	0.0051	0.0092	9081512	0.0094	0.0050	9081512
Total Chromium (Cr)	ug/L	0.47	9081512	0.23	0.37	9081512	0.39	0.10	9081512
Total Cobalt (Co)	ug/L	0.123	9081512	0.0478	0.0827	9081512	0.0729	0.0050	9081512
Total Copper (Cu)	ug/L	2.72	9081512	1.46	2.30	9081512	2.40	0.050	9081512
Total Iron (Fe)	ug/L	189	9081512	35.1	101	9081512	110	1.0	9081512
Total Lead (Pb)	ug/L	0.0591	9081512	0.0076	0.0231	9081512	0.0238	0.0050	9081512
Total Lithium (Li)	ug/L	1.22	9081512	0.66	0.79	9081512	1.10	0.50	9081512
Total Manganese (Mn)	ug/L	10.5	9081512	1.52	6.37	9081512	6.38	0.050	9081512
Total Molybdenum (Mo)	ug/L	0.684	9081512	0.269	0.623	9081512	0.628	0.050	9081512
Total Nickel (Ni)	ug/L	1.18	9081512	0.601	0.987	9081512	1.06	0.020	9081512
Total Phosphorus (P)	ug/L	7.7	9081512	<2.0	2.1	9081512	2.6	2.0	9081512
Total Selenium (Se)	ug/L	0.096	9081512	0.076	0.087	9081512	0.090	0.040	9081512
Total Silicon (Si)	ug/L	5250	9081512	4660	4930	9081512	4990	50	9081512
Total Silver (Ag)	ug/L	<0.0050	9081512	<0.0050	<0.0050	9081512	<0.0050	0.0050	9081512
Total Strontium (Sr)	ug/L	103	9081512	263	120	9081512	120	0.050	9081512
Total Thallium (TI)	ug/L	0.0067	9081512	0.0026	0.0052	9081512	0.0059	0.0020	9081512
Total Tin (Sn)	ug/L	<0.20	9081512	<0.20	<0.20	9081512	<0.20	0.20	9081512
Total Titanium (Ti)	ug/L	6.15	9081512	0.68	3.49	9081512	2.66	0.50	9081512
Total Uranium (U)	ug/L	5.13	9081512	5.97	3.11	9081512	4.97	0.0020	9081512
Total Vanadium (V)	ug/L	0.77	9081512	0.27	0.51	9081512	0.59	0.20	9081512
RDL = Reportable Detection	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2542		TY2543	TY2544		TY2555		
Sampling Date		2018/07/24		2018/07/24	2018/07/24		2018/07/24		
Sampling Date		11:30		11:50	10:15		10:40		
COC Number		560074-01-01		560074-01-01	560074-01-01		560074-02-01		
	UNITS	CC-0.5	QC Batch	CC-3.5	CC-4.5	QC Batch	LATTE MIX	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.75	9081512	0.19	0.44	9081512	0.53	0.10	9081512
Total Zirconium (Zr)	ug/L	0.48	9081512	0.48	0.47	9081512	0.46	0.10	9081512
Total Calcium (Ca)	mg/L	20.6	9079937	36.3	22.3	9079937	22.0	0.050	9079937
Total Magnesium (Mg)	mg/L	7.15	9079937	10.4	7.35	9079937	7.43	0.050	9079937
Total Potassium (K)	mg/L	1.22	9079937	2.12	1.31	9079937	1.29	0.050	9079937
Total Sodium (Na)	mg/L	3.64	9079937	3.47	3.42	9079937	3.57	0.050	9079937
Total Sulphur (S)	mg/L	13.0	9079937	21.0	13.6	9079937	13.6	3.0	9079937
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2556		
Sampling Date		2018/07/24		
		09:15		
COC Number		560074-02-01		
	UNITS	DUP	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	87.5	0.50	9080811
Elements				
Total Mercury (Hg)	ug/L	0.0033	0.0020	9081280
Total Metals by ICPMS				
Total Aluminum (AI)	ug/L	153	0.50	9081512
Total Antimony (Sb)	ug/L	0.115	0.020	9081512
Total Arsenic (As)	ug/L	0.521	0.020	9081512
Total Barium (Ba)	ug/L	52.2	0.020	9081512
Total Beryllium (Be)	ug/L	0.021	0.010	9081512
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9081512
Total Boron (B)	ug/L	<10	10	9081512
Total Cadmium (Cd)	ug/L	0.0106	0.0050	9081512
Total Chromium (Cr)	ug/L	0.44	0.10	9081512
Total Cobalt (Co)	ug/L	0.138	0.0050	9081512
Total Copper (Cu)	ug/L	2.53	0.050	9081512
Total Iron (Fe)	ug/L	188	1.0	9081512
Total Lead (Pb)	ug/L	0.0704	0.0050	9081512
Total Lithium (Li)	ug/L	0.80	0.50	9081512
Total Manganese (Mn)	ug/L	10.7	0.050	9081512
Total Molybdenum (Mo)	ug/L	0.644	0.050	9081512
Total Nickel (Ni)	ug/L	1.05	0.020	9081512
Total Phosphorus (P)	ug/L	12.7	2.0	9081512
Total Selenium (Se)	ug/L	0.088	0.040	9081512
Total Silicon (Si)	ug/L	5070	50	9081512
Total Silver (Ag)	ug/L	<0.0050	0.0050	9081512
Total Strontium (Sr)	ug/L	119	0.050	9081512
Total Thallium (TI)	ug/L	0.0071	0.0020	9081512
Total Tin (Sn)	ug/L	<0.20	0.20	9081512
Total Titanium (Ti)	ug/L	6.72	0.50	9081512
Total Uranium (U)	ug/L	2.87	0.0020	9081512
Total Vanadium (V)	ug/L	0.79	0.20	9081512
RDL = Reportable Detection	Limit			
<u> </u>				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2556		
Sampling Date		2018/07/24 09:15		
COC Number		560074-02-01		
	UNITS	DUP	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.86	0.10	9081512
Total Zirconium (Zr)	ug/L	0.45	0.10	9081512
Total Calcium (Ca)	mg/L	22.7	0.050	9079937
Total Magnesium (Mg)	mg/L	7.50	0.050	9079937
Total Potassium (K)	mg/L	1.36	0.050	9079937
Total Sodium (Na)	mg/L	3.46	0.050	9079937
Total Sulphur (S)	mg/L	13.2	3.0	9079937
RDL = Reportable Detection L	imit			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

and a location. Correct Chilese Soni A

Sampler Initials: MN

#### **GENERAL COMMENTS**

Results relate only to the items tested.



# **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9081256	Total Mercury (Hg)	2018/07/27	111	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9081280	Total Mercury (Hg)	2018/07/27	100	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9081286	Dissolved Mercury (Hg)	2018/07/27	95	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
9081311	Dissolved Mercury (Hg)	2018/07/27	103	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9081330	Total Mercury (Hg)	2018/07/27	99	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9081470	Nitrate plus Nitrite (N)	2018/07/27	105	80 - 120	108	80 - 120	<0.0020	mg/L	NC	25
9081475	Nitrite (N)	2018/07/27	98	80 - 120	105	80 - 120	<0.0020	mg/L	NC	25
9081512	Total Aluminum (Al)	2018/07/28	98	80 - 120	101	80 - 120	<0.50	ug/L	0.18	20
9081512	Total Antimony (Sb)	2018/07/28	96	80 - 120	100	80 - 120	<0.020	ug/L	2.6	20
9081512	Total Arsenic (As)	2018/07/28	101	80 - 120	102	80 - 120	<0.020	ug/L	0.14	20
9081512	Total Barium (Ba)	2018/07/28	90	80 - 120	98	80 - 120	<0.020	ug/L	1.9	20
9081512	Total Beryllium (Be)	2018/07/28	93	80 - 120	97	80 - 120	<0.010	ug/L	14	20
9081512	Total Bismuth (Bi)	2018/07/28	93	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9081512	Total Boron (B)	2018/07/28	93	80 - 120	97	80 - 120	<10	ug/L	NC	20
9081512	Total Cadmium (Cd)	2018/07/28	98	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9081512	Total Chromium (Cr)	2018/07/28	97	80 - 120	99	80 - 120	<0.10	ug/L	9.6	20
9081512	Total Cobalt (Co)	2018/07/28	93	80 - 120	97	80 - 120	<0.0050	ug/L	2.3	20
9081512	Total Copper (Cu)	2018/07/28	92	80 - 120	97	80 - 120	<0.050	ug/L	0.062	20
9081512	Total Iron (Fe)	2018/07/28	95	80 - 120	101	80 - 120	<1.0	ug/L	3.6	20
9081512	Total Lead (Pb)	2018/07/28	95	80 - 120	99	80 - 120	<0.0050	ug/L	15	20
9081512	Total Lithium (Li)	2018/07/28	95	80 - 120	98	80 - 120	<0.50	ug/L	1.3	20
9081512	Total Manganese (Mn)	2018/07/28	95	80 - 120	100	80 - 120	<0.050	ug/L	0.70	20
9081512	Total Molybdenum (Mo)	2018/07/28	101	80 - 120	103	80 - 120	<0.050	ug/L	2.5	20
9081512	Total Nickel (Ni)	2018/07/28	93	80 - 120	98	80 - 120	<0.020	ug/L	2.4	20
9081512	Total Phosphorus (P)	2018/07/28	102	80 - 120	102	80 - 120	<2.0	ug/L	NC	20
9081512	Total Selenium (Se)	2018/07/28	98	80 - 120	97	80 - 120	<0.040	ug/L	4.9	20
9081512	Total Silicon (Si)	2018/07/28	NC	80 - 120	102	80 - 120	<50	ug/L	3.7	20
9081512	Total Silver (Ag)	2018/07/28	97	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
9081512	Total Strontium (Sr)	2018/07/28	NC	80 - 120	101	80 - 120	<0.050	ug/L	1.5	20
9081512	Total Thallium (TI)	2018/07/28	96	80 - 120	100	80 - 120	<0.0020	ug/L	12	20
9081512	Total Tin (Sn)	2018/07/28	96	80 - 120	100	80 - 120	<0.20	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9081512	Total Titanium (Ti)	2018/07/28	98	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9081512	Total Uranium (U)	2018/07/28	98	80 - 120	101	80 - 120	<0.0020	ug/L	1.0	20
9081512	Total Vanadium (V)	2018/07/28	98	80 - 120	100	80 - 120	<0.20	ug/L	4.6	20
9081512	Total Zinc (Zn)	2018/07/28	97	80 - 120	99	80 - 120	<0.10	ug/L	11	20
9081512	Total Zirconium (Zr)	2018/07/28	98	80 - 120	98	80 - 120	<0.10	ug/L	2.4	20
9081594	ORP	2018/07/30							1.4	20
9081614	Dissolved Chloride (CI)	2018/07/27	96	80 - 120	96	80 - 120	0.64, RDL=0.50	mg/L	5.8	20
9081615	Dissolved Sulphate (SO4)	2018/07/27	NC	80 - 120	97	80 - 120	<0.50	mg/L	4.0	20
9081683	Fluoride (F)	2018/07/27	100	80 - 120	104	80 - 120	<0.010	mg/L	1.4	20
9082478	Total Suspended Solids	2018/07/30			100	80 - 120	<1.0	mg/L		
9082946	Total Ammonia (N)	2018/07/27			101	80 - 120	<0.0050	mg/L		
9082980	Total Dissolved Solids	2018/07/31	103	80 - 120	97	80 - 120	<10	mg/L	9.5	20
9082983	Total Dissolved Solids	2018/08/03	101	80 - 120	93	80 - 120	<10	mg/L	NC	20
9083309	Dissolved Organic Carbon (C)	2018/07/30	115	80 - 120	101	80 - 120	<0.50	mg/L	9.9	20
9083569	Dissolved Mercury (Hg)	2018/07/30	92	80 - 120	98	80 - 120	<0.0020	ug/L	9.8	20
9083578	Dissolved Aluminum (Al)	2018/07/30	100	80 - 120	102	80 - 120	<0.50	ug/L	6.4	20
9083578	Dissolved Antimony (Sb)	2018/07/30	98	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
9083578	Dissolved Arsenic (As)	2018/07/30	103	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
9083578	Dissolved Barium (Ba)	2018/07/30	94	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
9083578	Dissolved Beryllium (Be)	2018/07/30	97	80 - 120	98	80 - 120	<0.010	ug/L	NC	20
9083578	Dissolved Bismuth (Bi)	2018/07/30	92	80 - 120	94	80 - 120	<0.0050	ug/L	NC	20
9083578	Dissolved Boron (B)	2018/07/30	105	80 - 120	106	80 - 120	<10	ug/L	NC	20
9083578	Dissolved Cadmium (Cd)	2018/07/30	97	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9083578	Dissolved Chromium (Cr)	2018/07/30	96	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
9083578	Dissolved Cobalt (Co)	2018/07/30	95	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9083578	Dissolved Copper (Cu)	2018/07/30	90	80 - 120	98	80 - 120	<0.050	ug/L	4.7 (1)	20
9083578	Dissolved Iron (Fe)	2018/07/30	94	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
9083578	Dissolved Lead (Pb)	2018/07/30	95	80 - 120	96	80 - 120	<0.0050	ug/L	NC	20
9083578	Dissolved Lithium (Li)	2018/07/30	97	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
9083578	Dissolved Manganese (Mn)	2018/07/30	NC	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9083578	Dissolved Molybdenum (Mo)	2018/07/30	107	80 - 120	102	80 - 120	<0.050	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9083578	Dissolved Nickel (Ni)	2018/07/30	93	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
9083578	Dissolved Phosphorus (P)	2018/07/30	104	80 - 120	102	80 - 120	<2.0	ug/L	NC	20
9083578	Dissolved Selenium (Se)	2018/07/30	101	80 - 120	100	80 - 120	<0.040	ug/L	NC	20
9083578	Dissolved Silicon (Si)	2018/07/30	103	80 - 120	108	80 - 120	<50	ug/L	NC	20
9083578	Dissolved Silver (Ag)	2018/07/30	96	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
9083578	Dissolved Strontium (Sr)	2018/07/30	NC	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9083578	Dissolved Thallium (TI)	2018/07/30	93	80 - 120	92	80 - 120	<0.0020	ug/L	NC	20
9083578	Dissolved Tin (Sn)	2018/07/30	99	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9083578	Dissolved Titanium (Ti)	2018/07/30	102	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
9083578	Dissolved Uranium (U)	2018/07/30	101	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9083578	Dissolved Vanadium (V)	2018/07/30	98	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9083578	Dissolved Zinc (Zn)	2018/07/30	90	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
9083578	Dissolved Zirconium (Zr)	2018/07/30	106	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9083817	Total Organic Carbon (C)	2018/07/31	118	80 - 120	102	80 - 120	<0.50	mg/L	1.2	20
9083820	Dissolved Organic Carbon (C)	2018/07/31	114	80 - 120	96	80 - 120	<0.50	mg/L	11	20
9083821	Total Organic Carbon (C)	2018/07/31	109	80 - 120	103	80 - 120	<0.50	mg/L		
9084496	рН	2018/07/30			101	97 - 103			0	20
9084497	Alkalinity (PP as CaCO3)	2018/07/30					<0.50	mg/L		
9084497	Alkalinity (Total as CaCO3)	2018/07/30			94	80 - 120	<0.50	mg/L		
9084497	Bicarbonate (HCO3)	2018/07/30					<0.50	mg/L		
9084497	Carbonate (CO3)	2018/07/30					<0.50	mg/L		
9084497	Hydroxide (OH)	2018/07/30					<0.50	mg/L		
9084498	Conductivity	2018/07/30			99	80 - 120	<1.0	uS/cm		
9086567	Total Organic Carbon (C)	2018/08/01	105	80 - 120	102	80 - 120	<0.50	mg/L	0.31	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

			Matrix	Spike	Spiked	Blank	Method B	lank	RPE	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9088593	Free Cyanide	2018/08/01	101	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Test repeated.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Specialist

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Harry (Peng) Liang, Senior Analyst

Rob Reinert, B.Sc., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

	in	VOICE TO:			Report to	formation	111						Project la	sformation	n			Stan Lake Medical	9 H X	
ompany Name	#3604 LORAX E	NVIRONMENTAL SERVICES	LTD. Company /							Duo	tation#	3	B40231					STANKER KANDAN	W 15	Bottle Order #
ontact Name	Aida Piaseczny		Contact Na	me David Flat	her					P.O.		-		-			B8621	160_COC		I THE REAL PROPERTY AND ADDRESS.
ddreis	2289 BURRARD		Address					_		Proje	ent#	7	Gold Cot	p Coffee	e Creek-S	SVV		Chain Of Custody Re		560074
	VANCOUVER BO		76	-		_		_		5 1000	ect Name	-	_		_	_	_	manuscraws congressions	504/2	Project Manage
tione	(604) 688-7173	Fax. (604) 688-71 lorax.ca; shukling.ng@lorax.ca		David Flat	her@loray		Fax:		_	Site		-						C#560074-01-01	HILLIAN	Diena Cruz
mail		surax.ca, anukung ngggurax.ca		icial Instructions	HOTE WHAT	T I	10	_		Sam	Arcalysia F	Persented	0				_	Turnaround Ti	me /TAT) Reno	ired
Regulatory (	7.1111.11					Regulated Drinking Water 7 (Y / N )	K-LL, EC-LL, NH4-	evel	(LL.C), F, NO2, NO3,	WAD			Level Dissolved Metals CV Hg	fotal Metals incl. CV			(will be app Standard 1 Please not days - con Jeb Specifi	Please provide seven Standard) TAT pried if Frush TAT is not spec- TAT = 5.7 Working days for a le Standard TAT for certain is lact your Project Manager to ic Rush TAT (If applies to emi-	fied) your rears sets such as 8-00 r details re submission)	and Disknist warn a
	ALLEN MAN CONTRACTOR	inking water samples - please use the				sted Dr	ne (Alk-LI H, TDS)	TSS-Low Leve	us (LL	4.5		1005	Level CV Hg	Level Total			Date Requir	nation Number	Time Re-	all the for #
Samo	e Barcode Label	t be kept cool ( < 19°C ) from time of sa Spiriple (Location) Identification	Date Sampord	Time Sampled	Matrix	Regulated	Routine LL, pH, 7	TSS	Artions SO4)	Cyanide	TOC	DOG	Low	Low	GRP.		# of Bottes		Comments	
	Sit)#162743	CC-0.5	24/07/18	11:30	w	NN	/	/	/		/	/	/	/	/		13			
	SIDN162744	CC-1.5			W								56							
	######################################	CC-3.5	24/07/18	11:50	w	NA	1/	/	/	/	/	/	/	/	/	_	13	RECEIVED	IN WHIT	EHORSE
	SID#162746	CC-4.5	24/07/18	10:15	w	NA	1/	/	/	/	/	/	/	/			13	BY:_SI	you	00 102
	01 10 11 10 10 10 10 10 10 10 10 10 10 1	HC-2.5	1874		W.														2018 -07-	23
	SID#152748	HC-5.0			w													77747	1 . 0	-
	SID#149895	YT-24			w													TEMP;	1 -1 - 7	15
		YT-24 Mix			Wil															
13010		Coffee Mix			w															
	510#149898	Halfway Mix			w	П														
- RELI	VQUISHEB'SY: (Signature		(YY/MM/DD) Til	186	RECE	WED BY:	Signature/	Print)		Da	ite: (YY/MM	(00)	Time		used and submitted			Lab Use		
Agr.	MITCHNI	TEDIN 187	37/25 9:	20 111	LIDEC	20	TA	nk		20	1810	FDH	15:0	5		Time Sen	Terr	H. 6.5	Custody 1	South Intact on Cooler?

0076

Mazzam Analytics International Corporation old Mazzam Analytics

		4606 Canada Way, Burnaby, E				Report In	formatio	m						Project le	formation	E .			IN SIZE		
mpany Nam	-	ENVIRONMENTAL SERV	/ICES LTD.	Company Na								otation#		B40231			_		200	31.0	Bottle Order #:
act Name	Aida Piaseczny			Contact Nam	David Fla	ather					P	0.#		0.110	0.11	0 15	-	D0631	60_COC	1001	
155	2289 BURRAR			Address				-		-	Pr	oject #		Gold Cor	p Coffee	Creek-S	VV	30021			560074 Project Manager
	VANCOUVER I		00 7475	-	-				_	_		oject Name						-	Gram or Custody Reco		Project manager
	(604) 688-7173	Fax (604) 6		Phone Email	David Els	ather@lorax	ca	Fax				e#	1.5					-	C#560074-02-01		Diana Cruz
ALAS CLASS AS	Carrier Commission	grorax.ca, anaking.nggro	TOTAL CHAI		ial Instructions	attici (grotan	T			din	30	mpled By Analysis I	Requested	1			1	_	Turnaround Time	e (TAT) Requir	nd
gulatory (	riteria			apeo	at a red uscorrie		î	.1			13.	T			3				Please provide advanc		
							-	NH4		NO3,				<u>m</u>	incl. (		- 1	Regular (S	Standard) TAT		
							126	Z Z		Z				Metals	E S		- 1		olled if Rush TAT is not specifie		J
							Water	EC-LL,		NO2,		1		P	Metals				TAT = 5-7 Working days for mo is: Standard TAT for certain fes		ind Dioxins/Furans a
							V gn	L, E	70	1153	0			Dissolved	≥ =		-		tect your Project Manager for d		
	Var. 10 - 10110			707 - 20 THE	CONTRACTOR OF THE PARTY OF THE		Drinki	(Alk-LL,	Level	Ö	WAD	1		S B	10			Job Specific Date Require	c Rush TAT (if applies to entire ed	Time Requ	red
	Note: For regulated	drinking water samples - please	use the Drinking W	Nater Chain of	Custody Form		D D	B A	No.	15	4			Level CV Hg	Level Total			Rush Confirm	nellon Number	75.1476-7803	
	Samples n	nust be kept coal ( < 10°C ) from tim	e of sampling until	delivery to max	xam	1	gulat	Metals Fie Routine	TSS-Lo	Anions (LL:Cl, F SO4)	Cyanide	20	DOC	Low L	Low Li	ORP	- 1			4277070m03677m	(NO Nor #)
TRUMBUS I	le Barcode Label	Sample (Location) Identificat	ion Date	e Sampled	Time Sampled	Matrix	Reg	ž ~:	1 12	A S	6	1 4	ā	3.5	3f	0	-	f of Bottles		Comments	
1.000	SID#149899	Latte Mix	24	107/18	10:40	W	N	V /	/	/	/		/	/		/		13			
110110	SID#208506	Dup	24	107/18	9:15	w	NI	1/	/	/	/	/	/	/	/			13			
11010	SID#214391	Field Blank				w	П												DECEMED !	NIMBITE	HORSE
									1										EV. De	100x	00/0:
																			20	10 07 7	-
							T	T	1	1									- 20	110 -07- 1	9
											1								TEMP: 4	14	15
										+		1									
								+	+	7.0		1									
4 001	yQUISHED BY: (Signatu	en(Belot)	Date: (YY/MM/DD	D) Time		BECE	WED BY	(Signatu	n/Print!		day :	Date: (YY/MN	I (OO)	Time	#jpre	used and	$\rightarrow$		Lab Use C	3mlv	
HELD I Left Vo	H NARD	V	VS/07/25	5 9:3	The state of the s	IL DH	NO.		VK	_		OBUT		15:0	note	ubmitted	Time Sensi	Ive Town	operature (*C) on Receipt		al Intact on Cooler?

0F00

Maxxem Analytics International Corporation o/a Maxxem Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 559732-01-01, 559732-03-01, 559732-04-01

Report Date: 2018/08/03

Report #: R2599619 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B862188 Received: 2018/07/25, 10:20

Sample Matrix: Water # Samples Received: 10

·		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	<b>Analytical Method</b>
Alkalinity - Low Level	10	N/A	2018/07/30	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	10	N/A	2018/07/27	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) (1, 3)	10	N/A	2018/08/01	EENVSOP-00060	MMCW 119 1996 m
Conductance - Low Level	10	N/A	2018/07/30	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	10	N/A	2018/07/27	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (4)	8	N/A	2018/07/30	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (4)	2	N/A	2018/07/31	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	10	N/A	2018/07/30	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	7	N/A	2018/07/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	2	N/A	2018/07/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	1	N/A	2018/08/02	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	8	2018/07/27	2018/07/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	1	2018/07/30	2018/07/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	1	2018/08/02	2018/08/02	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	10	N/A	2018/07/30	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	10	N/A	2018/07/27	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	2	2018/07/27	2018/07/30	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	8	N/A	2018/07/30	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	N/A	2018/07/31	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	8	N/A	2018/07/28	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	9	N/A	2018/07/27	BBY6SOP-00009	EPA 350.1 m
Ammonia-N Low Level (Preserved)	1	N/A	2018/08/01	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	10	N/A	2018/07/27	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	10	N/A	2018/07/27	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	10	N/A	2018/07/28	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	10	N/A	2018/07/30	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	10	N/A	2018/07/27	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (5)	10	N/A	2018/07/30	BBY6SOP-00026	SM 22 4500-H+ B m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 559732-01-01, 559732-03-01, 559732-04-01

Report Date: 2018/08/03

Report #: R2599619 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B862188 Received: 2018/07/25, 10:20

Sample Matrix: Water # Samples Received: 10

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Sulphate - Low Level	10	N/A	2018/07/27	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	6	2018/07/30	2018/08/03	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	4	2018/07/31	2018/08/03	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (1, 6)	10	N/A	2018/08/01	EENVSOP-00060	MMCW 119 1996 m
Total Suspended Solids-Low Level	9	2018/07/28	2018/07/30	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	1	2018/07/31	2018/08/01	BBY6SOP-00034	SM 22 2540 D
Free (WAD) Cyanide (2)	10	N/A	2018/08/01	CAM SOP-00457	OMOE E3015 5 m

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 559732-01-01, 559732-03-01, 559732-04-01

Report Date: 2018/08/03

Report #: R2599619 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

#### MAXXAM JOB #: B862188 Received: 2018/07/25, 10:20

- (1) This test was performed by Maxxam Edmonton Environmental
- (2) This test was performed by Maxxam Ontario (From Burnaby)
- (3) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: Whenever applicable, Dissolved > Total for any parameter that falls within method uncertainty for duplicates is likely equivalent. If RPD is > 20% samples were reanalyzed and confirmed.
- (4) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (5) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (6) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxar

03 Aug 2018 14:45:05

Please direct all questions regarding this Certificate of Analysis to your Project Manager. Diana Cruz, Project Manager

Email: DCruz@maxxam.ca Phone# (604) 734 7276

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

2018/07/24 11:30 559732-01-01 S CC-0.5 287 LAB - 0.209 - 0.078 - <0.0010 - 12 - 42.1 - 12	0.0020 0.010 0.0010 0.50 0.50	9081598 9080871 9080295 9082409 9088593 9087439 9084491	2018/07/24 11:30 559732-01-01 CC-0.5 Lab-Dup	RDL	<b>QC Batch</b> 9081598	2018/07/24 11:50 559732-01-01 <b>CC-3.5</b> 278 LAB 0.250 0.062 <0.0010	RDL 0.0020 0.010 0.0010	9081598 9080871 9080295 9082409
287  LAB  0.209  0.078  <0.0010  12  42.1  12	0.0020 0.010 0.0010 0.50 0.50	9081598 9080871 9080295 9082409 9088593 9087439 9084491	290 290		9081598	CC-3.5  278  LAB 0.250  0.062	0.0020	9081598 9080871 9080295 9082409
287  LAB  0.209  0.078  <0.0010  12  42.1  12	0.0020 0.010 0.0010 0.50 0.50	9081598 9080871 9080295 9082409 9088593 9087439 9084491	290 13		9081598	278 LAB 0.250	0.0020	9081598 9080871 9080295 9082409
LAB 0.209 0.078 <0.0010 12 42.1 12	0.010 0.0010 0.50 0.50	9080871 9080295 9082409 9088593 9087439 9084491	13	0.50		LAB 0.250	0.010	9080871 9080295 9082409
LAB 0.209 0.078 <0.0010 12 42.1 12	0.010 0.0010 0.50 0.50	9080871 9080295 9082409 9088593 9087439 9084491	13	0.50		LAB 0.250	0.010	9080871 9080295 9082409
0.209 0.078 <0.0010 12 42.1 12	0.010 0.0010 0.50 0.50	9080295 9082409 9088593 9087439 9084491		0.50		0.250	0.010	9080295
0.209 0.078 <0.0010 12 42.1 12	0.010 0.0010 0.50 0.50	9080295 9082409 9088593 9087439 9084491		0.50		0.250	0.010	9080295
- 0.078 - <0.0010 - 12 - 42.1 - 12	0.010 0.0010 0.50 0.50	9082409 9088593 9087439 9084491		0.50	2007453	0.062	0.010	9082409
<0.0010 - 12 - 42.1 - 12	0.0010 0.50 0.50	9088593 9087439 9084491		0.50	0007455			
<0.0010 - 12 - 42.1 - 12	0.0010 0.50 0.50	9088593 9087439 9084491		0.50	0007400			
12 42.1 12	0.50 0.50	9087439 9084491		0.50	0007400	<0.0010	0.0010	
42.1	0.50	9084491		0.50	0007400		0.0010	9088593
. 12	<del> </del>			0.50	9087439	10	0.50	9087439
_	0.50	000=000	44.3	0.50	9084491	71.0	0.50	9084491
	-	9087668	12	0.50	9087668	11	0.50	9087668
< 0.50	0.50	9084491	<0.50	0.50	9084491	<0.50	0.50	9084491
51.3	0.50	9084491	54.1	0.50	9084491	86.6	0.50	9084491
<0.50	0.50	9084491	<0.50	0.50	9084491	<0.50	0.50	9084491
<0.50	0.50	9084491	<0.50	0.50	9084491	<0.50	0.50	9084491
	•							
39.6	0.50	9081611	35.0	0.50	9081611	66.0	0.50	9081611
0.90	0.50	9081609	1.0	0.50	9081609	0.77	0.50	9081609
-	•							
0.0080	0.0050	9082946				<0.0050	0.0050	9082946
0.209	0.0020	9081462				0.250	0.0020	9081462
<0.0020	0.0020	9081464				<0.0020	0.0020	9081464
-	•	•	•			•		
n 174	1.0	9084492	175	1.0	9084492	278	1.0	9084492
7.54		9084488	7.60		9084488	7.86		9084488
							-	
1.5	1.0	9082478				1.1	1.0	9082478
116	10	9082981				180	10	9082983
1	- 0.90 - 0.0080 - 0.209 - <0.0020 m 174 7.54	0.90 0.50  0.0080 0.0050  0.209 0.0020  0.0020 0.0020  174 1.0  7.54  1.5 1.0  116 10	0.90 0.50 9081609  0.0080 0.0050 9082946 0.209 0.0020 9081462 0.0020 0.0020 9081464  174 1.0 9084492 7.54 9084488  1.5 1.0 9082478 116 10 9082981	1.0 0.90 0.50 9081609 1.0 0.0080 0.0050 9082946 0.209 0.0020 9081462 0.0020 0.0020 9081464 0.209 0.0020 9081464 0.209 0.0020 9081464 0.209	0.90 0.50 9081609 1.0 0.50  0.0080 0.0050 9082946  0.209 0.0020 9081462  <0.0020 0.0020 9081464  n 174 1.0 9084492 175 1.0  7.54 9084488 7.60  1.5 1.0 9082478  1.6 10 9082981	0.90     0.50     9081609     1.0     0.50     9081609       0.0080     0.0050     9082946     0.209     0.0020     9081462       0.0020     0.0020     9081464     0.0020     0.0020     9081464       0.0020     0.0020     9084492     175     1.0     9084492       0.0020     0.0020     9084488     7.60     9084488       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     9082478     0.0020     0.0020       0.0020     0.0020     0.0020     0.0020     0.0020     0.0020       0.0020     0.0020     0.0020     0.0020     0.0020     0.0020     0.0020       0.0020     0.0020     0.0020 </td <td>0.90       0.50       9081609       1.0       0.50       9081609       0.77         0.0080       0.0050       9082946       &lt;0.0050</td> 0.250         0.209       0.0020       9081462       <0.0020	0.90       0.50       9081609       1.0       0.50       9081609       0.77         0.0080       0.0050       9082946       <0.0050	0.90     0.50     9081609     1.0     0.50     9081609     0.77     0.50       0.0080     0.0050     9082946     <0.0050



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

					,					
Maxxam ID		TY2659			TY2659			TY2660		
Sampling Date		2018/07/24 10:15			2018/07/24 10:15			2018/07/24 12:25		
COC Number		559732-01-01			559732-01-01			559732-01-01		
	UNITS	CC-4.5	RDL	QC Batch	CC-4 5	RDL	QC Batch	СС-В	RDL	QC Batch
Parameter		ļ	!	<u>!</u>	!		<u> </u>			<u>.</u>
ORP	mV	286		9081598				273		9081598
Calculated Parameters		!	ļ		!					
Filter and HNO3 Preservation	N/A	LAB		9080871				LAB		9080871
Nitrate (N)	mg/L	0.191	0.0020	9080295				0.243	0.0020	9080295
Misc. Inorganics		I.		I.						
Fluoride (F)	mg/L	0.071	0.010	9082409	0.070	0.010	9082409	0.069	0.010	9082409
Free Cyanide	mg/L	<0.0010	0.0010	9088593				<0.0010	0.0010	9088593
Dissolved Organic Carbon (C)	mg/L	11	0.50	9087439				8.4	0.50	9087439
Alkalinity (Total as CaCO3)	mg/L	47.6	0.50	9084471				94.0	0.50	9084491
Total Organic Carbon (C)	mg/L	12	0.50	9087668				8.8	0.50	9087668
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9084471				<0.50	0.50	9084491
Bicarbonate (HCO3)	mg/L	58.0	0.50	9084471				115	0.50	9084491
Carbonate (CO3)	mg/L	<0.50	0.50	9084471				<0.50	0.50	9084491
Hydroxide (OH)	mg/L	<0.50	0.50	9084471				<0.50	0.50	9084491
Anions					•					
Dissolved Sulphate (SO4)	mg/L	41.8	0.50	9081611				95.0	0.50	9081615
Dissolved Chloride (Cl)	mg/L	0.96	0.50	9081609				0.82	0.50	9081614
Nutrients	•		•	•	•	•			•	
Total Ammonia (N)	mg/L	<0.0050	0.0050	9082946				<0.0050	0.0050	9082946
Nitrate plus Nitrite (N)	mg/L	0.191	0.0020	9081462				0.243	0.0020	9081470
Nitrite (N)	mg/L	<0.0020	0.0020	9081464				<0.0020	0.0020	9081475
Physical Properties			•	•		•				
Conductivity	uS/cm	188	1.0	9084473				367	1.0	9084492
рН	рН	7.68		9084452				7.98		9084488
Physical Properties										
Total Suspended Solids	mg/L	1.3	1.0	9082478				<1.0	1.0	9082478
Total Dissolved Solids	mg/L	122	10	9082981				232	10	9082981
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Parameter  ORP   mv   281   9081598   284   9081598   287   303   9081598   286   9081598   287   303   9081598   286   9081598   287   303   9081598   286   9081598   287   303   9081598   288   9081598	Maxxam ID		TY2661		TY2664		TY2665	TY2666		
10.40	Sampling Date		2018/07/24		2018/07/24		2018/07/24	2018/07/24		
Parameter	Sampling Date		09:15		10:40		14:15	14:05		
Parameter  ORP   mV   281   9081598   284   9081598   287   303   9081598   281   28	COC Number		559732-01-01		559732-03-01		559732-03-01	559732-03-01		
DRP		UNITS	CC-X	QC Batch	LATTE MIX	QC Batch	ML-A	ML-B	RDL	QC Batch
Calculated Parameters  Filter and HN03 Preservation N/A LAB 9080871 LAB 9080871 LAB LAB LAB 9080871 Nitrate (N) mg/L 0.186 9080295 0.220 9080295 0.749 0.930 0.0020 9080295 Misc. Inorganics  Filteriade (F) mg/L 0.069 9082409 0.073 9082409 0.059 0.046 0.010 9082409 Nitrate (P) mg/L 0.0010 9088593 0.0010 0.0059 0.046 0.010 9088593 0.0010 0.0010 0.0010 9088593 0.0010 0.0010 0.0010 0.0010 9088593 0.0010	Parameter									
Process   Proc	ORP	mV	281	9081598	284	9081598	287	303		9081598
Nitrate (N) mg/L 0.186 9080295 0.220 9080295 0.749 0.930 0.0020 9080295 Misc. Inorganics  Fluoride (F) mg/L 0.069 9082409 0.073 9082409 0.059 0.046 0.010 9082409	Calculated Parameters									
Misc. Inorganics Fluoride (F)	Filter and HNO3 Preservation	N/A	LAB	9080871	LAB	9080871	LAB	LAB		9080871
Fluoride (F)	Nitrate (N)	mg/L	0.186	9080295	0.220	9080295	0.749	0.930	0.0020	9080295
Free Cyanide	Misc. Inorganics									
Dissolved Organic Carbon (C) mg/L 11 9087439 12 9087439 11 12 0.50 9087439  Alkalinity (Total as CaCO3) mg/L 48.6 9084491 47.3 9084491 68.3 34.7 0.50 9084491  Total Organic Carbon (C) mg/L 12 9087668 13 9087668 11 13 0.50 9087668  Alkalinity (PP as CaCO3) mg/L <0.50 9084491 <0.50 9084491 <0.50 <0.50 0.50 0.50 9084491  Bicarbonate (HCO3) mg/L 59.3 9084491 57.7 9084491 83.3 42.3 0.50 9084491  Carbonate (CO3) mg/L <0.50 9084491 <0.50 9084491 <0.50 <0.50 0.50 0.50 9084491  Carbonate (CO3) mg/L <0.50 9084491 <0.50 9084491 <0.50 <0.50 0.50 0.50 9084491  Anions  Dissolved Sulphate (SO4) mg/L 0.90 9081609 1.1 9081601 96.4 48.5 0.50 9081615  Dissolved Chloride (Cl) mg/L 0.90 9081609 1.1 9081609 0.89 1.2 0.50 9081614  Nutrients  Total Ammonia (N) mg/L <0.0050 9082946 0.0050 9082946 0.0070 0.034 0.0050 9082946  Nitrate plus Nitrite (N) mg/L <0.0020 9081462 0.220 9081462 0.749 0.930 0.0020 9081470  Nitrite (N) mg/L <0.0020 9081492 190 9084492 333 183 1.0 9084492  Physical Properties  Conductivity us/cm 187 9084492 190 9084492 333 183 1.0 9084488  Physical Properties  Total Suspended Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082478  Total Dissolved Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082488  Total Dissolved Solids mg/L 132 9082983 126 9082981 222 124 10 9082981	Fluoride (F)	mg/L	0.069	9082409	0.073	9082409	0.059	0.046	0.010	9082409
Alkalinity (Total as CaCO3)	Free Cyanide	mg/L	<0.0010	9088593	<0.0010	9088593	<0.0010	<0.0010	0.0010	9088593
Total Organic Carbon (C)	Dissolved Organic Carbon (C)	mg/L	11	9087439	12	9087439	11	12	0.50	9087439
Alkalinity (PP as CaCO3) mg/L <0.50 9084491 <0.50 9084491 <0.50 <0.50 0.50 0.50 9084491 Bicarbonate (HCO3) mg/L 59.3 9084491 57.7 9084491 83.3 42.3 0.50 9084491 Carbonate (CO3) mg/L <0.50 9084491 <0.50 9084491 <0.50 <0.50 0.50 0.50 9084491 Hydroxide (OH) mg/L <0.50 9084491 <0.50 9084491 <0.50 <0.50 0.50 0.50 9084491 Hydroxide (OH) mg/L <0.50 9084491 <0.50 9084491 <0.50 0.50 0.50 0.50 9084491 Anions  Dissolved Sulphate (SO4) mg/L 44.0 9081611 46.1 9081611 96.4 48.5 0.50 9081615 Dissolved Chloride (Cl) mg/L 0.90 9081609 1.1 9081609 0.89 1.2 0.50 9081614 Nutrients  Total Ammonia (N) mg/L <0.0050 9082946 <0.0050 9082946 0.0070 0.034 0.0050 9082946 Nitrate plus Nitrite (N) mg/L 0.186 9081462 0.220 9081462 0.749 0.930 0.0020 9081470 Nitrite (N) mg/L <0.0020 9081464 <0.0020 9081464 <0.0020 <0.0020 0.0020 9081475 Physical Properties  Conductivity uS/cm 187 9084492 190 9084492 333 183 1.0 9084488 Physical Properties  Total Suspended Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082478 Total Dissolved Solids mg/L 132 9082983 126 9082981 222 124 10 9082981	Alkalinity (Total as CaCO3)	mg/L	48.6	9084491	47.3	9084491	68.3	34.7	0.50	9084491
Bicarbonate (HCO3)	Total Organic Carbon (C)	mg/L	12	9087668	13	9087668	11	13	0.50	9087668
Carbonate (CO3) mg/L <0.50 9084491 <0.50 9084491 <0.50 <0.50 0.50 0.50 9084491  Hydroxide (OH) mg/L <0.50 9084491 <0.50 9084491 <0.50 <0.50 0.50 0.50 9084491  Anions  Dissolved Sulphate (SO4) mg/L 0.90 9081611 46.1 9081611 96.4 48.5 0.50 9081615  Dissolved Chloride (Cl) mg/L 0.90 9081609 1.1 9081609 0.89 1.2 0.50 9081614  Nutrients  Total Ammonia (N) mg/L <0.0050 9082946 <0.0050 9082946 0.0070 0.034 0.0050 9082946  Nitrate plus Nitrite (N) mg/L 0.186 9081462 0.220 9081462 0.749 0.930 0.0020 9081470  Nitrite (N) mg/L <0.0020 9081464 <0.0020 9081464 <0.0020 <0.0020 0.0020 0.0020 9081475  Physical Properties  Conductivity us/cm 187 9084492 190 9084492 333 183 1.0 9084492  pH 7.68 9084488 7.66 9084488 7.85 7.51 9084488  Physical Properties  Total Suspended Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082478  Total Dissolved Solids mg/L 132 9082981 126 9082981 222 124 10 9082981	Alkalinity (PP as CaCO3)	mg/L	<0.50	9084491	<0.50	9084491	<0.50	<0.50	0.50	9084491
Hydroxide (OH)	Bicarbonate (HCO3)	mg/L	59.3	9084491	57.7	9084491	83.3	42.3	0.50	9084491
Anions Dissolved Sulphate (SO4)	Carbonate (CO3)	mg/L	<0.50	9084491	<0.50	9084491	<0.50	<0.50	0.50	9084491
Dissolved Sulphate (SO4) mg/L 44.0 9081611 46.1 9081611 96.4 48.5 0.50 9081615 Dissolved Chloride (Cl) mg/L 0.90 9081609 1.1 9081609 0.89 1.2 0.50 9081614  Nutrients  Total Ammonia (N) mg/L <0.0050 9082946 <0.0050 9082946 0.0070 0.034 0.0050 9082946  Nitrate plus Nitrite (N) mg/L 0.186 9081462 0.220 9081462 0.749 0.930 0.0020 9081470  Nitrite (N) mg/L <0.0020 9081464 <0.0020 9081464 <0.0020 <0.0020 0.0020 0.0020 9081475  Physical Properties  Conductivity uS/cm 187 9084492 190 9084492 333 183 1.0 9084492 Phy T.68 9084488 7.66 9084488 7.85 7.51 9084488  Physical Properties  Total Suspended Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082981  Total Dissolved Solids mg/L 132 9082981 126 9082981 222 124 10 9082981	Hydroxide (OH)	mg/L	<0.50	9084491	<0.50	9084491	<0.50	<0.50	0.50	9084491
Dissolved Chloride (Cl) mg/L 0.90 9081609 1.1 9081609 0.89 1.2 0.50 9081614  Nutrients  Total Ammonia (N) mg/L <0.0050 9082946 <0.0050 9082946 0.0070 0.034 0.0050 9082946 0.10070 0.0014 0.0010 0.0014 0.10010 0.0014 0.	Anions									
Nutrients  Total Ammonia (N)	Dissolved Sulphate (SO4)	mg/L	44.0	9081611	46.1	9081611	96.4	48.5	0.50	9081615
Total Ammonia (N)	Dissolved Chloride (CI)	mg/L	0.90	9081609	1.1	9081609	0.89	1.2	0.50	9081614
Nitrate plus Nitrite (N) mg/L	Nutrients									
Nitrite (N) mg/L <0.0020 9081464 <0.0020 9081464 <0.0020 0.0020 0.0020 9081475    Physical Properties	Total Ammonia (N)	mg/L	< 0.0050	9082946	<0.0050	9082946	0.0070	0.034	0.0050	9082946
Physical Properties  Conductivity uS/cm 187 9084492 190 9084492 333 183 1.0 9084492 ph 7.68 9084488 7.66 9084488 7.85 7.51 9084488 Physical Properties  Total Suspended Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082478 Total Dissolved Solids mg/L 132 9082983 126 9082981 222 124 10 9082981	Nitrate plus Nitrite (N)	mg/L	0.186	9081462	0.220	9081462	0.749	0.930	0.0020	9081470
Conductivity uS/cm 187 9084492 190 9084492 333 183 1.0 9084492 pH 7.68 9084488 7.66 9084488 7.85 7.51 9084488 Physical Properties  Total Suspended Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082478 Total Dissolved Solids mg/L 132 9082983 126 9082981 222 124 10 9082981	Nitrite (N)	mg/L	<0.0020	9081464	<0.0020	9081464	<0.0020	<0.0020	0.0020	9081475
pH 7.68 9084488 7.66 9084488 7.85 7.51 9084488  Physical Properties  Total Suspended Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082478  Total Dissolved Solids mg/L 132 9082983 126 9082981 222 124 10 9082981	Physical Properties									
Physical Properties         mg/L         <1.0         9082478         1.0         9082478         6.6         93.8         1.0         9082478           Total Dissolved Solids         mg/L         132         9082983         126         9082981         222         124         10         9082981	Conductivity	uS/cm	187	9084492	190	9084492	333	183	1.0	9084492
Total Suspended Solids mg/L <1.0 9082478 1.0 9082478 6.6 93.8 1.0 9082478  Total Dissolved Solids mg/L 132 9082983 126 9082981 222 124 10 9082981	рН	рН	7.68	9084488	7.66	9084488	7.85	7.51		9084488
Total Dissolved Solids mg/L 132 9082983 126 9082981 222 124 10 9082981	Physical Properties					·				
	Total Suspended Solids	mg/L	<1.0	9082478	1.0	9082478	6.6	93.8	1.0	9082478
RDL = Reportable Detection Limit	Total Dissolved Solids	mg/L	132	9082983	126	9082981	222	124	10	9082981
	RDL = Reportable Detection Lir	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2666			TY2667		TY2668		
Sampling Date		2018/07/24 14:05			2018/07/24 13:15		2018/07/24 11:50		
COC Number		559732-03-01			559732-03-01		559732-04-01		
	UNITS	ML-B Lab-Dup	RDL	QC Batch	ML-C (YT-24-2)	QC Batch	SAMPLE C	RDL	QC Batch
Parameter									
ORP	mV				295	9081598	292		9081598
Calculated Parameters	•			•		•		•	
Filter and HNO3 Preservation	N/A				LAB	9080871	LAB		9080871
Nitrate (N)	mg/L				1.25	9080295	0.249	0.0020	9080295
Misc. Inorganics									
Fluoride (F)	mg/L				0.037	9082409	0.061	0.010	9082409
Free Cyanide	mg/L				<0.0010	9088593	<0.0010	0.0010	9088593
Dissolved Organic Carbon (C)	mg/L				12	9087439	10	0.50	9087439
Alkalinity (Total as CaCO3)	mg/L				22.3	9084491	72.9	0.50	9084491
Total Organic Carbon (C)	mg/L				12	9087668	10	0.50	9087668
Alkalinity (PP as CaCO3)	mg/L				<0.50	9084491	<0.50	0.50	9084491
Bicarbonate (HCO3)	mg/L				27.3	9084491	89.0	0.50	9084491
Carbonate (CO3)	mg/L				<0.50	9084491	<0.50	0.50	9084491
Hydroxide (OH)	mg/L				<0.50	9084491	<0.50	0.50	9084491
Anions									
Dissolved Sulphate (SO4)	mg/L	46.6	0.50	9081615	<0.50	9081611	66.7	0.50	9081611
Dissolved Chloride (Cl)	mg/L	1.1	0.50	9081614	0.93	9081609	0.75	0.50	9081609
Nutrients	•			•		•		•	
Total Ammonia (N)	mg/L				<0.0050	9082946	0.0090	0.0050	9087332
Nitrate plus Nitrite (N)	mg/L				1.25	9081462	0.249	0.0020	9081462
Nitrite (N)	mg/L				<0.0020	9081464	<0.0020	0.0020	9081464
Physical Properties	•		•	•				•	
Conductivity	uS/cm				62.4	9084492	279	1.0	9084492
рН	рН				7.29	9084488	7.87		9084488
Physical Properties	•		-	•					
Total Suspended Solids	mg/L				8.2	9082478	<1.0	1.0	9085002
Total Dissolved Solids	mg/L				56	9082983	180	10	9082983
RDL = Reportable Detection Lir	nit	•	•		-	•		•	
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# **RESULTS OF CHEMICAL ANALYSES OF WATER**

	UNITS	SAMPLE C Lab-Dup	RDL	QC Batch
COC Number		559732-04-01		
Sampling Date		2018/07/24 11:50		
Maxxam ID		TY2668		

Total Ammonia (N) mg/L <0.0050 0.00	9087332

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2657	TY2658		TY2659		TY2660		
		2018/07/24	2018/07/24		2018/07/24		2018/07/24		
Sampling Date		11:30	11:50		10:15		12:25		
COC Number		559732-01-01	559732-01-01		559732-01-01		559732-01-01		
	UNITS	CC-0.5	CC-3.5	QC Batch	CC-4.5	QC Batch	СС-В	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	83.9	142	9079797	91.6	9079797	192	0.50	9079797
Elements									
Dissolved Mercury (Hg)	ug/L	0.0043	0.0038	9081311	<0.0020	9088411	0.0039	0.0020	9081311
Dissolved Metals by ICPMS									
Dissolved Aluminum (AI)	ug/L	82.8	49.9	9081287	69.1	9081287	58.4	0.50	9081287
Dissolved Antimony (Sb)	ug/L	0.133	0.108	9081287	0.125	9081287	0.120	0.020	9081287
Dissolved Arsenic (As)	ug/L	0.461	0.347	9081287	0.412	9081287	0.577	0.020	9081287
Dissolved Barium (Ba)	ug/L	41.7	53.5	9081287	49.8	9081287	50.0	0.020	9081287
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	9081287	<0.010	9081287	0.021	0.010	9081287
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	9081287	<0.0050	9081287	<0.0050	0.0050	9081287
Dissolved Boron (B)	ug/L	<10	<10	9081287	<10	9081287	<10	10	9081287
Dissolved Cadmium (Cd)	ug/L	0.0083	<0.0050	9081287	0.0109	9081287	0.0066	0.0050	9081287
Dissolved Chromium (Cr)	ug/L	0.31	0.24	9081287	0.31	9081287	0.22	0.10	9081287
Dissolved Cobalt (Co)	ug/L	0.0558	0.0427	9081287	0.0539	9081287	0.0406	0.0050	9081287
Dissolved Copper (Cu)	ug/L	2.44	1.51	9081287	2.29	9081287	1.45	0.050	9081287
Dissolved Iron (Fe)	ug/L	59.5	24.8	9081287	44.3	9081287	30.7	1.0	9081287
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	9081287	0.0066	9081287	<0.0050	0.0050	9081287
Dissolved Lithium (Li)	ug/L	1.24	0.71	9081287	0.89	9081287	1.67	0.50	9081287
Dissolved Manganese (Mn)	ug/L	3.57	0.529	9081287	3.76	9081287	4.93	0.050	9081287
Dissolved Molybdenum (Mo)	ug/L	0.668	0.282	9081287	0.635	9081287	0.313	0.050	9081287
Dissolved Nickel (Ni)	ug/L	1.12	0.592	9081287	0.957	9081287	0.517	0.020	9081287
Dissolved Phosphorus (P)	ug/L	<2.0	2.4	9081287	3.9	9081287	<2.0	2.0	9081287
Dissolved Selenium (Se)	ug/L	0.090	0.072	9081287	0.094	9081287	0.088	0.040	9081287
Dissolved Silicon (Si)	ug/L	5450	4880	9081287	5220	9081287	5450	50	9081287
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	9081287	<0.0050	9081287	<0.0050	0.0050	9081287
Dissolved Strontium (Sr)	ug/L	98.6	266	9081287	120	9081287	427	0.050	9081287
Dissolved Thallium (TI)	ug/L	0.0052	0.0020	9081287	0.0036	9081287	0.0042	0.0020	9081287
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	9081287	<0.20	9081287	<0.20	0.20	9081287
Dissolved Titanium (Ti)	ug/L	0.99	<0.50	9081287	<0.50	9081287	<0.50	0.50	9081287
Dissolved Uranium (U)	ug/L	4.38	6.04	9081287	2.59	9081287	10.5	0.0020	9081287
Dissolved Vanadium (V)	ug/L	0.51	0.31	9081287	0.42	9081287	0.35	0.20	9081287
RDL = Reportable Detection Lir	nit								
L									



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER Sampler Initials: MN

Maxxam ID		TY2657	TY2658		TY2659		TY2660			
Campling Data		2018/07/24	2018/07/24		2018/07/24		2018/07/24			
Sampling Date		11:30	11:50		10:15		12:25			
COC Number		559732-01-01	559732-01-01		559732-01-01		559732-01-01			
	UNITS	CC-0.5	CC-3.5	QC Batch	CC-4.5	QC Batch	СС-В	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	0.33	0.22	9081287	0.31	9081287	0.24	0.10	9081287	
Dissolved Zirconium (Zr)	ug/L	0.48	0.54	9081287	0.49	9081287	0.47	0.10	9081287	
Dissolved Calcium (Ca)	mg/L	21.2	38.0	9079994	23.4	9079994	51.0	0.050	9079994	
Dissolved Magnesium (Mg)	mg/L	7.48	11.3	9079994	8.07	9079994	15.7	0.050	9079994	
Dissolved Potassium (K)	mg/L	1.15	2.10	9079994	1.33	9079994	3.27	0.050	9079994	
Dissolved Sodium (Na)	mg/L	3.84	3.88	9079994	3.79	9079994	3.79	0.050	9079994	
Dissolved Sulphur (S)	mg/L	13.3	23.0	9079994	13.8	9079994	31.3	3.0	9079994	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2661	TY2664		TY2665		TY2666		
Sampling Data		2018/07/24	2018/07/24		2018/07/24		2018/07/24		
Sampling Date		09:15	10:40		14:15		14:05		
COC Number		559732-01-01	559732-03-01		559732-03-01		559732-03-01		
	UNITS	CC-X	LATTE MIX	QC Batch	ML-A	QC Batch	ML-B	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	91.1	90.8	9079797	164	9079797	85.6	0.50	9079797
Elements									
Dissolved Mercury (Hg)	ug/L	0.0047	0.0056	9081311	0.0030	9083569	0.0047	0.0020	9081311
Dissolved Metals by ICPMS						•			
Dissolved Aluminum (Al)	ug/L	71.0	80.3	9081287	40.3	9081287	37.7	0.50	9081287
Dissolved Antimony (Sb)	ug/L	0.124	0.121	9081287	0.227	9081287	0.316	0.020	9081287
Dissolved Arsenic (As)	ug/L	0.402	0.437	9081287	0.563	9081287	1.02	0.020	9081287
Dissolved Barium (Ba)	ug/L	50.8	43.4	9081287	83.2	9081287	66.2	0.020	9081287
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	9081287	0.013	9081287	0.021	0.010	9081287
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	9081287	<0.0050	9081287	<0.0050	0.0050	9081287
Dissolved Boron (B)	ug/L	<10	<10	9081287	<10	9081287	<10	10	9081287
Dissolved Cadmium (Cd)	ug/L	0.0081	0.0066	9081287	<0.0050	9081287	<0.0050	0.0050	9081287
Dissolved Chromium (Cr)	ug/L	0.31	0.30	9081287	0.30	9081287	0.36	0.10	9081287
Dissolved Cobalt (Co)	ug/L	0.0503	0.0537	9081287	0.109	9081287	0.227	0.0050	9081287
Dissolved Copper (Cu)	ug/L	2.29	2.33	9081287	1.58	9081287	1.83	0.050	9081287
Dissolved Iron (Fe)	ug/L	42.5	53.6	9081287	60.9	9081287	200	1.0	9081287
Dissolved Lead (Pb)	ug/L	<0.0050	0.0051	9081287	0.0117	9081287	0.0477	0.0050	9081287
Dissolved Lithium (Li)	ug/L	0.84	1.24	9081287	0.64	9081287	<0.50	0.50	9081287
Dissolved Manganese (Mn)	ug/L	2.99	3.04	9081287	9.44	9081287	33.2	0.050	9081287
Dissolved Molybdenum (Mo)	ug/L	0.645	0.603	9081287	0.619	9081287	0.536	0.050	9081287
Dissolved Nickel (Ni)	ug/L	1.01	1.03	9081287	0.730	9081287	0.808	0.020	9081287
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	9081287	3.0	9081287	7.8	2.0	9081287
Dissolved Selenium (Se)	ug/L	0.092	0.083	9081287	0.049	9081287	0.050	0.040	9081287
Dissolved Silicon (Si)	ug/L	5210	5380	9081287	4360	9081287	4490	50	9081287
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	9081287	<0.0050	9081287	<0.0050	0.0050	9081287
Dissolved Strontium (Sr)	ug/L	121	118	9081287	303	9081287	115	0.050	9081287
Dissolved Thallium (TI)	ug/L	0.0042	0.0052	9081287	0.0029	9081287	0.0024	0.0020	9081287
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	9081287	<0.20	9081287	<0.20	0.20	9081287
Dissolved Titanium (Ti)	ug/L	<0.50	0.69	9081287	<0.50	9081287	0.99	0.50	9081287
Dissolved Uranium (U)	ug/L	2.42	4.69	9081287	8.24	9081287	1.58	0.0020	9081287
Dissolved Vanadium (V)	ug/L	0.38	0.44	9081287	0.54	9081287	1.50	0.20	9081287
RDL = Reportable Detection Lin	mit								
L									



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER Sampler Initials: MN

Maxxam ID		TY2661	TY2664		TY2665		TY2666			
Sampling Date		2018/07/24	2018/07/24		2018/07/24		2018/07/24			
		09:15	10:40		14:15		14:05			
COC Number		559732-01-01	559732-03-01		559732-03-01		559732-03-01			
	UNITS	CC-X	LATTE MIX	QC Batch	ML-A	QC Batch	ML-B	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	0.32	0.30	9081287	0.30	9081287	0.12	0.10	9081287	
Dissolved Zirconium (Zr)	ug/L	0.49	0.49	9081287	0.62	9081287	0.73	0.10	9081287	
Dissolved Calcium (Ca)	mg/L	23.1	23.0	9079994	42.9	9079994	25.6	0.050	9079994	
Dissolved Magnesium (Mg)	mg/L	8.09	8.09	9079994	13.7	9079994	5.26	0.050	9079994	
Dissolved Potassium (K)	mg/L	1.34	1.27	9079994	1.66	9079994	0.988	0.050	9079994	
Dissolved Sodium (Na)	mg/L	3.84	3.91	9079994	4.37	9079994	2.09	0.050	9079994	
Dissolved Sulphur (S)	mg/L	14.9	14.7	9079994	31.6	9079994	15.5	3.0	9079994	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2667		TY2668		
Sampling Date		2018/07/24 13:15		2018/07/24 11:50		
COC Number		559732-03-01		559732-04-01		
	UNITS		QC Batch	SAMPLE C	RDL	QC Batch
Calculated Parameters	•		•		•	
Dissolved Hardness (CaCO3)	mg/L	30.2	9079797	133	0.50	9079797
Elements			I			
Dissolved Mercury (Hg)	ug/L	0.0061	9083569	0.0042	0.0020	9081311
Dissolved Metals by ICPMS			Į.			
Dissolved Aluminum (Al)	ug/L	114	9081287	48.0	0.50	9081287
Dissolved Antimony (Sb)	ug/L	0.622	9081287	0.104	0.020	9081287
Dissolved Arsenic (As)	ug/L	0.712	9081287	0.353	0.020	9081287
Dissolved Barium (Ba)	ug/L	24.8	9081287	53.1	0.020	9081287
Dissolved Beryllium (Be)	ug/L	0.021	9081287	<0.010	0.010	9081287
Dissolved Bismuth (Bi)	ug/L	<0.0050	9081287	<0.0050	0.0050	9081287
Dissolved Boron (B)	ug/L	<10	9081287	<10	10	9081287
Dissolved Cadmium (Cd)	ug/L	0.0059	9081287	0.0055	0.0050	9081287
Dissolved Chromium (Cr)	ug/L	0.49	9081287	0.26	0.10	9081287
Dissolved Cobalt (Co)	ug/L	0.0780	9081287	0.0440	0.0050	9081287
Dissolved Copper (Cu)	ug/L	1.84	9081287	1.51	0.050	9081287
Dissolved Iron (Fe)	ug/L	70.7	9081287	24.9	1.0	9081287
Dissolved Lead (Pb)	ug/L	0.0089	9081287	0.0120	0.0050	9081287
Dissolved Lithium (Li)	ug/L	<0.50	9081287	0.67	0.50	9081287
Dissolved Manganese (Mn)	ug/L	1.63	9081287	0.541	0.050	9081287
Dissolved Molybdenum (Mo)	ug/L	0.158	9081287	0.279	0.050	9081287
Dissolved Nickel (Ni)	ug/L	0.815	9081287	0.599	0.020	9081287
Dissolved Phosphorus (P)	ug/L	<2.0	9081287	3.4	2.0	9081287
Dissolved Selenium (Se)	ug/L	0.053	9081287	0.076	0.040	9081287
Dissolved Silicon (Si)	ug/L	4360	9081287	4670	50	9081287
Dissolved Silver (Ag)	ug/L	<0.0050	9081287	<0.0050	0.0050	9081287
Dissolved Strontium (Sr)	ug/L	29.1	9081287	267	0.050	9081287
Dissolved Thallium (TI)	ug/L	0.0025	9081287	0.0025	0.0020	9081287
Dissolved Tin (Sn)	ug/L	<0.20	9081287	<0.20	0.20	9081287
Dissolved Titanium (Ti)	ug/L	0.87	9081287	<0.50	0.50	9081287
Dissolved Uranium (U)	ug/L	0.206	9081287	5.81	0.0020	9081287
Dissolved Vanadium (V)	ug/L	0.45	9081287	0.29	0.20	9081287
RDL = Reportable Detection Li	nit					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2667		TY2668		
Sampling Date		2018/07/24 13:15		2018/07/24 11:50		
COC Number		559732-03-01		559732-04-01		
	UNITS	ML-C (YT-24-2)	QC Batch	SAMPLE C	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.27	9081287	0.53 (1)	0.10	9081287
Dissolved Zirconium (Zr)	ug/L	0.67	9081287	0.56	0.10	9081287
Dissolved Calcium (Ca)	mg/L	9.28	9079994	36.2	0.050	9079994
Dissolved Magnesium (Mg)	mg/L	1.71	9079994	10.5	0.050	9079994
Dissolved Potassium (K)	mg/L	0.657	9079994	2.12	0.050	9079994
Dissolved Sodium (Na)	mg/L	1.16	9079994	3.54	0.050	9079994
Dissolved Sulphur (S)	mg/L	<3.0	9079994	22.0	3.0	9079994

RDL = Reportable Detection Limit

<sup>(1)</sup> Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2657		TY2658		TY2659		TY2660		
Sampling Date		2018/07/24 11:30		2018/07/24 11:50		2018/07/24 10:15		2018/07/24 12:25		
COC Number		559732-01-01		559732-01-01		559732-01-01		559732-01-01		
	UNITS	CC-0.5	QC Batch	CC-3.5	QC Batch	CC-4.5	QC Batch	СС-В	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	81.1	9079298	138	9079298	88.9	9079298	181	0.50	9079298
Elements							•			
Total Mercury (Hg)	ug/L	0.0035	9081256	0.0038	9081280	<0.0020	9086916	0.0039	0.0020	9081256
Total Metals by ICPMS							•			
Total Aluminum (Al)	ug/L	131	9081512	55.7	9081512	92.4	9081512	60.8	0.50	9081512
Total Antimony (Sb)	ug/L	0.121	9081512	0.096	9081512	0.107	9081512	0.112	0.020	9081512
Total Arsenic (As)	ug/L	0.545	9081512	0.353	9081512	0.449	9081512	0.578	0.020	9081512
Total Barium (Ba)	ug/L	44.2	9081512	54.5	9081512	51.5	9081512	49.4	0.020	9081512
Total Beryllium (Be)	ug/L	0.019	9081512	<0.010	9081512	0.011	9081512	0.014	0.010	9081512
Total Bismuth (Bi)	ug/L	<0.0050	9081512	<0.0050	9081512	<0.0050	9081512	<0.0050	0.0050	9081512
Total Boron (B)	ug/L	<10	9081512	<10	9081512	<10	9081512	<10	10	9081512
Total Cadmium (Cd)	ug/L	0.0148	9081512	0.0050	9081512	0.0088	9081512	<0.0050	0.0050	9081512
Total Chromium (Cr)	ug/L	0.43	9081512	0.29	9081512	0.32	9081512	0.22	0.10	9081512
Total Cobalt (Co)	ug/L	0.102	9081512	0.0450	9081512	0.0729	9081512	0.0421	0.0050	9081512
Total Copper (Cu)	ug/L	2.63	9081512	1.48	9081512	2.40	9081512	1.46	0.050	9081512
Total Iron (Fe)	ug/L	164	9081512	35.9	9081512	88.4	9081512	38.1	1.0	9081512
Total Lead (Pb)	ug/L	0.0695	9081512	0.0102	9081512	0.0202	9081512	0.0087	0.0050	9081512
Total Lithium (Li)	ug/L	1.25	9081512	0.66	9081512	0.81	9081512	1.55	0.50	9081512
Total Manganese (Mn)	ug/L	8.15	9081512	1.58	9081512	5.65	9081512	5.23	0.050	9081512
Total Molybdenum (Mo)	ug/L	0.672	9081512	0.290	9081512	0.605	9081512	0.320	0.050	9081512
Total Nickel (Ni)	ug/L	1.17	9081512	0.598	9081512	0.986	9081512	0.490	0.020	9081512
Total Phosphorus (P)	ug/L	5.2	9081512	<2.0	9081512	<2.0	9081512	<2.0	2.0	9081512
Total Selenium (Se)	ug/L	0.088	9081512	0.071	9081512	0.083	9081512	0.077	0.040	9081512
Total Silicon (Si)	ug/L	5330	9081512	4690	9081512	4920	9081512	5030	50	9081512
Total Silver (Ag)	ug/L	<0.0050	9081512	<0.0050	9081512	<0.0050	9081512	<0.0050	0.0050	9081512
Total Strontium (Sr)	ug/L	103	9081512	270	9081512	123	9081512	432	0.050	9081512
Total Thallium (TI)	ug/L	0.0065	9081512	0.0030	9081512	0.0048	9081512	0.0031	0.0020	9081512
Total Tin (Sn)	ug/L	<0.20	9081512	<0.20	9081512	<0.20	9081512	<0.20	0.20	9081512
Total Titanium (Ti)	ug/L	4.29	9081512	0.94	9081512	2.47	9081512	1.02	0.50	9081512
Total Uranium (U)	ug/L	4.89	9081512	6.09	9081512	2.72	9081512	10.3	0.0020	9081512
Total Vanadium (V)	ug/L	0.82	9081512	0.37	9081512	0.51	9081512	0.36	0.20	9081512
RDL = Reportable Detection I	imit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2657		TY2658		TY2659		TY2660		
Sampling Date		2018/07/24 11:30		2018/07/24 11:50		2018/07/24 10:15		2018/07/24 12:25		
COC Number		559732-01-01		559732-01-01		559732-01-01		559732-01-01		
	UNITS	CC-0.5	QC Batch	CC-3.5	QC Batch	CC-4.5	QC Batch	CC-B	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.60	9081512	0.25	9081512	0.44	9081512	0.28	0.10	9081512
Total Zirconium (Zr)	ug/L	0.49	9081512	0.52	9081512	0.46	9081512	0.41	0.10	9081512
Total Calcium (Ca)	mg/L	20.7	9079937	37.5	9079937	22.7	9079937	48.7	0.050	9079937
Total Magnesium (Mg)	mg/L	7.13	9079937	10.7	9079937	7.80	9079937	14.5	0.050	9079937
Total Potassium (K)	mg/L	1.19	9079937	2.17	9079937	1.37	9079937	3.32	0.050	9079937
Total Sodium (Na)	mg/L	3.63	9079937	3.64	9079937	3.57	9079937	3.53	0.050	9079937
Total Sulphur (S)	mg/L	13.0	9079937	20.9	9079937	13.4	9079937	29.4	3.0	9079937
RDL = Reportable Detection L	imit	•		•	•		•			



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TY2660			TY2661		TY2664		
Sampling Date		2018/07/24			2018/07/24		2018/07/24		
Sampling Date		12:25			09:15		10:40		
COC Number		559732-01-01			559732-01-01		559732-03-01		
	UNITS	CC-B Lab-Dup	RDL	QC Batch	CC-X	QC Batch	LATTE MIX	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L				86.4	9079298	88.5	0.50	9079298
Elements								•	•
Total Mercury (Hg)	ug/L				0.0073	9081330	0.0035	0.0020	9081256
Total Metals by ICPMS	•			•		•			•
Total Aluminum (Al)	ug/L	60.7	0.50	9081512	93.2	9081512	97.1	0.50	9081512
Total Antimony (Sb)	ug/L	0.115	0.020	9081512	0.110	9081512	0.119	0.020	9081512
Total Arsenic (As)	ug/L	0.577	0.020	9081512	0.440	9081512	0.476	0.020	9081512
Total Barium (Ba)	ug/L	50.4	0.020	9081512	51.0	9081512	44.9	0.020	9081512
Total Beryllium (Be)	ug/L	0.016	0.010	9081512	<0.010	9081512	0.014	0.010	9081512
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9081512	<0.0050	9081512	<0.0050	0.0050	9081512
Total Boron (B)	ug/L	<10	10	9081512	<10	9081512	<10	10	9081512
Total Cadmium (Cd)	ug/L	0.0066	0.0050	9081512	0.0091	9081512	0.0075	0.0050	9081512
Total Chromium (Cr)	ug/L	0.24	0.10	9081512	0.62	9081512	0.34	0.10	9081512
Total Cobalt (Co)	ug/L	0.0431	0.0050	9081512	0.0809	9081512	0.0753	0.0050	9081512
Total Copper (Cu)	ug/L	1.46	0.050	9081512	2.42	9081512	2.50	0.050	9081512
Total Iron (Fe)	ug/L	36.8	1.0	9081512	101	9081512	95.1	1.0	9081512
Total Lead (Pb)	ug/L	0.0075	0.0050	9081512	0.0240	9081512	0.0152	0.0050	9081512
Total Lithium (Li)	ug/L	1.57	0.50	9081512	0.74	9081512	1.11	0.50	9081512
Total Manganese (Mn)	ug/L	5.20	0.050	9081512	5.75	9081512	5.42	0.050	9081512
Total Molybdenum (Mo)	ug/L	0.313	0.050	9081512	0.646	9081512	0.639	0.050	9081512
Total Nickel (Ni)	ug/L	0.502	0.020	9081512	1.08	9081512	1.06	0.020	9081512
Total Phosphorus (P)	ug/L	<2.0	2.0	9081512	<2.0	9081512	2.3	2.0	9081512
Total Selenium (Se)	ug/L	0.074	0.040	9081512	0.087	9081512	0.091	0.040	9081512
Total Silicon (Si)	ug/L	5210	50	9081512	4900	9081512	5000	50	9081512
Total Silver (Ag)	ug/L	<0.0050	0.0050	9081512	<0.0050	9081512	<0.0050	0.0050	9081512
Total Strontium (Sr)	ug/L	425	0.050	9081512	119	9081512	120	0.050	9081512
Total Thallium (TI)	ug/L	0.0035	0.0020	9081512	0.0046	9081512	0.0053	0.0020	9081512
Total Tin (Sn)	ug/L	<0.20	0.20	9081512	<0.20	9081512	<0.20	0.20	9081512
Total Titanium (Ti)	ug/L	0.68	0.50	9081512	3.13	9081512	2.05	0.50	9081512
Total Uranium (U)	ug/L	10.2	0.0020	9081512	2.67	9081512	4.49	0.0020	9081512
RDL = Reportable Detection	Limit								

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TY2660			TY2661		TY2664		
Sampling Date		2018/07/24 12:25			2018/07/24 09:15		2018/07/24 10:40		
COC Number		559732-01-01			559732-01-01		559732-03-01		
	UNITS	CC-B Lab-Dup	RDL	QC Batch	сс-х	QC Batch	LATTE MIX	RDL	QC Batch
Total Vanadium (V)	ug/L	0.34	0.20	9081512	0.51	9081512	0.61	0.20	9081512
Total Zinc (Zn)	ug/L	0.31	0.10	9081512	0.46	9081512	0.45	0.10	9081512
Total Zirconium (Zr)	ug/L	0.42	0.10	9081512	0.45	9081512	0.46	0.10	9081512
Total Calcium (Ca)	mg/L				22.4	9079937	22.8	0.050	9079937
Total Magnesium (Mg)	mg/L				7.41	9079937	7.65	0.050	9079937
Total Potassium (K)	mg/L				1.36	9079937	1.36	0.050	9079937
Total Sodium (Na)	mg/L				3.45	9079937	3.75	0.050	9079937
Total Sulphur (S)	mg/L				13.5	9079937	13.7	3.0	9079937

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2665	TY2668		
Sampling Date		2018/07/24	2018/07/24		
Sampling Date		14:15	11:50		
COC Number		559732-03-01	559732-04-01		
	UNITS	ML-A	SAMPLE C	RDL	QC Batch
Calculated Parameters					
Total Hardness (CaCO3)	mg/L	166	138	0.50	9079298
Elements					
Total Mercury (Hg)	ug/L	<0.0020	0.0034	0.0020	9081280
Total Metals by ICPMS	•			•	
Total Aluminum (Al)	ug/L	423	59.2	0.50	9081512
Total Antimony (Sb)	ug/L	0.232	0.097	0.020	9081512
Total Arsenic (As)	ug/L	0.919	0.366	0.020	9081512
Total Barium (Ba)	ug/L	93.6	53.9	0.020	9081512
Total Beryllium (Be)	ug/L	0.043	<0.010	0.010	9081512
Total Bismuth (Bi)	ug/L	0.0092	<0.0050	0.0050	9081512
Total Boron (B)	ug/L	<10	<10	10	9081512
Total Cadmium (Cd)	ug/L	0.0206	<0.0050	0.0050	9081512
Total Chromium (Cr)	ug/L	1.13	0.26	0.10	9081512
Total Cobalt (Co)	ug/L	0.479	0.0483	0.0050	9081512
Total Copper (Cu)	ug/L	3.07	1.50	0.050	9081512
Total Iron (Fe)	ug/L	784	40.4	1.0	9081512
Total Lead (Pb)	ug/L	0.413	0.0129	0.0050	9081512
Total Lithium (Li)	ug/L	0.81	0.63	0.50	9081512
Total Manganese (Mn)	ug/L	20.8	1.49	0.050	9081512
Total Molybdenum (Mo)	ug/L	0.593	0.254	0.050	9081512
Total Nickel (Ni)	ug/L	1.77	0.631	0.020	9081512
Total Phosphorus (P)	ug/L	16.3	<2.0	2.0	9081512
Total Selenium (Se)	ug/L	0.056	0.070	0.040	9081512
Total Silicon (Si)	ug/L	4580	4730	50	9081512
Total Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	9081512
Total Strontium (Sr)	ug/L	319	265	0.050	9081512
Total Thallium (TI)	ug/L	0.0049	0.0025	0.0020	9081512
Total Tin (Sn)	ug/L	<0.20	<0.20	0.20	9081512
Total Titanium (Ti)	ug/L	21.9	1.28	0.50	9081512
Total Uranium (U)	ug/L	9.11	5.96	0.0020	9081512
Total Vanadium (V)	ug/L	1.86	0.33	0.20	9081512
RDL = Reportable Detection					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

Maxxam ID		TY2665	TY2668		
Campling Data		2018/07/24	2018/07/24		
Sampling Date		14:15	11:50		
COC Number		559732-03-01	559732-04-01		
	UNITS	ML-A	SAMPLE C	RDL	QC Batch
Total Zinc (Zn)	ug/L	2.41	0.27	0.10	9081512
Total Zirconium (Zr)	ug/L	0.65	0.51	0.10	9081512
Total Calcium (Ca)	mg/L	44.1	37.7	0.050	9079937
Total Magnesium (Mg)	mg/L	13.7	10.8	0.050	9079937
Total Potassium (K)	mg/L	1.76	2.16	0.050	9079937
Total Sodium (Na)	mg/L	4.39	3.63	0.050	9079937
Total Sulphur (S)	mg/L	29.2	20.4	3.0	9079937
RDL = Reportable Detection	imit				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LL TOTAL METALS (DIGESTED) WITH CV HG

Calculated Parameters Total Hardness (CaCO3) m Elements Total Mercury (Hg) u Total Metals by ICPMS Total Aluminum (Al) u Total Antimony (Sb) u Total Barium (Ba) u Total Beryllium (Be) u Total Bismuth (Bi) u Total Cadmium (Cd) u Total Cadmium (Cr) u	mg/L ug/L	2018/07/24 14:05 559732-03-01 ML-B	<b>QC Batch</b> 9079298	2018/07/24 13:15 559732-03-01 ML-C (YT-24-2)	RDL							
Calculated Parameters Total Hardness (CaCO3) m Elements Total Mercury (Hg) u Total Metals by ICPMS Total Aluminum (Al) u Total Antimony (Sb) u Total Barium (Ba) u Total Beryllium (Be) u Total Bismuth (Bi) u Total Cadmium (Cd) u Total Chromium (Cr) u	ng/L ug/L	559732-03-01 ML-B 89.4		559732-03-01	RDL							
Calculated Parameters Total Hardness (CaCO3) m Elements Total Mercury (Hg) u Total Metals by ICPMS Total Aluminum (Al) u Total Antimony (Sb) u Total Barium (Ba) u Total Beryllium (Be) u Total Bismuth (Bi) u Total Cadmium (Cd) u Total Chromium (Cr) u	ng/L ug/L	<b>ML-B</b> 89.4			RDL							
Calculated Parameters Total Hardness (CaCO3) m Elements Total Mercury (Hg) u Total Metals by ICPMS Total Aluminum (Al) u Total Antimony (Sb) u Total Barium (Ba) u Total Beryllium (Be) u Total Bismuth (Bi) u Total Cadmium (Cd) u Total Cadmium (Cr) u	ng/L ug/L	89.4		WIL-C (11-24-2)	NDL	QC Batch						
Total Hardness (CaCO3) m  Elements  Total Mercury (Hg) u  Total Metals by ICPMS  Total Aluminum (Al) u  Total Antimony (Sb) u  Total Arsenic (As) u  Total Barium (Ba) u  Total Beryllium (Be) u  Total Bismuth (Bi) u  Total Boron (B) u  Total Cadmium (Cd) u  Total Chromium (Cr) u	ug/L		9079298			QC Battii						
Elements  Total Mercury (Hg) u  Total Metals by ICPMS  Total Aluminum (Al) u  Total Antimony (Sb) u  Total Arsenic (As) u  Total Barium (Ba) u  Total Beryllium (Be) u  Total Bismuth (Bi) u  Total Boron (B) u  Total Cadmium (Cd) u  Total Chromium (Cr) u	ug/L		9079298									
Total Mercury (Hg)  Total Metals by ICPMS  Total Aluminum (Al)  Total Antimony (Sb)  Total Arsenic (As)  Total Barium (Ba)  Total Beryllium (Be)  Total Bismuth (Bi)  Total Boron (B)  Total Cadmium (Cd)  Total Chromium (Cr)		0.0000		29.8	0.50	9079298						
Total Metals by ICPMS  Total Aluminum (Al) u Total Antimony (Sb) u Total Arsenic (As) u Total Barium (Ba) u Total Beryllium (Be) u Total Bismuth (Bi) u Total Boron (B) u Total Cadmium (Cd) u Total Chromium (Cr) u												
Total Aluminum (AI)  Total Antimony (Sb)  Total Arsenic (As)  Total Barium (Ba)  Total Beryllium (Be)  Total Bismuth (Bi)  Total Boron (B)  Total Cadmium (Cd)  Total Chromium (Cr)	/!	0.0022	9083485	0.0058	0.0020	9081256						
Total Antimony (Sb)  Total Arsenic (As)  Total Barium (Ba)  Total Beryllium (Be)  Total Bismuth (Bi)  Total Boron (B)  Total Cadmium (Cd)  Total Chromium (Cr)	/:											
Total Arsenic (As)  Total Barium (Ba)  Total Beryllium (Be)  Total Bismuth (Bi)  Total Boron (B)  Total Cadmium (Cd)  Total Chromium (Cr)	ug/L	1630	9082293	176	3.0	9082293						
Total Barium (Ba) u Total Beryllium (Be) u Total Bismuth (Bi) u Total Boron (B) u Total Cadmium (Cd) u Total Chromium (Cr) u	ug/L	0.337	9082293	0.632	0.020	9082293						
Total Beryllium (Be) u Total Bismuth (Bi) u Total Boron (B) u Total Cadmium (Cd) u Total Chromium (Cr) u	ug/L	2.20	9082293	0.810	0.020	9082293						
Total Bismuth (Bi) u Total Boron (B) u Total Cadmium (Cd) u Total Chromium (Cr) u	ug/L	114	9082293	26.6	0.050	9082293						
Total Boron (B) u Total Cadmium (Cd) u Total Chromium (Cr) u	ug/L	0.142	9082293	0.032	0.010	9082293						
Total Cadmium (Cd) u Total Chromium (Cr) u	ug/L	0.015	9082293	<0.010	0.010	9082293						
Total Chromium (Cr) u	ug/L	<10	9082293	<10	10	9082293						
· · ·	ug/L	0.0496	9082293	0.0089	0.0050	9082293						
Total Cobalt (Co)	ug/L	3.16	9082293	0.63	0.10	9082293						
` '	ug/L	1.62	9082293	0.108	0.010	9082293						
Total Copper (Cu) u	ug/L	6.66	9082293	2.08	0.10	9082293						
Total Iron (Fe) u	ug/L	2800	9082293	143	5.0	9082293						
Total Lead (Pb)	ug/L	1.50	9082293	0.058	0.020	9082293						
Total Lithium (Li) u	ug/L	1.24	9082293	<0.50	0.50	9082293						
Total Manganese (Mn) u	ug/L	70.9	9082293	3.29	0.10	9082293						
Total Molybdenum (Mo) u	ug/L	0.532	9082293	0.164	0.050	9082293						
Total Nickel (Ni) u	ug/L	4.34	9082293	0.91	0.10	9082293						
Total Phosphorus (P) u	ug/L	67.8	9082293	8.0	5.0	9082293						
Total Selenium (Se) u	ug/L	0.079	9082293	0.051	0.040	9082293						
Total Silicon (Si) u	ug/L	6690	9082293	4410	50	9082293						
Total Silver (Ag) u	ug/L	0.011	9082293	<0.010	0.010	9082293						
Total Strontium (Sr) u	ug/L	125	9082293	30.1	0.050	9082293						
Total Thallium (TI) u	ug/L	0.0107	9082293	0.0031	0.0020	9082293						
Total Tin (Sn) u	ug/L	<0.20	9082293	<0.20	0.20	9082293						
Total Titanium (Ti) u	ug/L	54.1	9082293	3.7	2.0	9082293						
	ug/L	3.82	9082293	0.245	0.0050	9082293						
Total Vanadium (V) u	ıσ/ι			0.00		0002202						
RDL = Reportable Detection Limi	3,											



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		TY2666		TY2667		
Sampling Date		2018/07/24 14:05		2018/07/24 13:15		
COC Number		559732-03-01		559732-03-01		
	UNITS	ML-B	QC Batch	ML-C (YT-24-2)	RDL	QC Batch
Total Zinc (Zn)	ug/L	7.5	9082293	<1.0	1.0	9082293
Total Zirconium (Zr)	ug/L	0.81	9082293	0.55	0.10	9082293
Total Calcium (Ca)	mg/L	26.5	9079937	9.02	0.25	9079937
Total Magnesium (Mg)	mg/L	5.62	9079937	1.76	0.25	9079937
Total Potassium (K)	mg/L	1.04	9079937	0.67	0.25	9079937
Total Sodium (Na)	mg/L	2.07	9079937	1.20	0.25	9079937
Total Sulphur (S)	mg/L	15.1	9079937	<3.0	3.0	9079937
RDL = Reportable Detection	Limit	-				-



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

#### **GENERAL COMMENTS**

Results relate only to the items tested.



# **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9081256	Total Mercury (Hg)	2018/07/27	111	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9081280	Total Mercury (Hg)	2018/07/27	100	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9081287	Dissolved Aluminum (AI)	2018/07/27	106	80 - 120	105	80 - 120	<0.50	ug/L	2.4	20
9081287	Dissolved Antimony (Sb)	2018/07/27	101	80 - 120	101	80 - 120	<0.020	ug/L	2.7	20
9081287	Dissolved Arsenic (As)	2018/07/27	105	80 - 120	103	80 - 120	<0.020	ug/L	1.2	20
9081287	Dissolved Barium (Ba)	2018/07/27	NC	80 - 120	101	80 - 120	<0.020	ug/L	2.9	20
9081287	Dissolved Beryllium (Be)	2018/07/27	103	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
9081287	Dissolved Bismuth (Bi)	2018/07/27	99	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9081287	Dissolved Boron (B)	2018/07/27	97	80 - 120	96	80 - 120	<10	ug/L	1.6	20
9081287	Dissolved Cadmium (Cd)	2018/07/27	105	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
9081287	Dissolved Chromium (Cr)	2018/07/27	104	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
9081287	Dissolved Cobalt (Co)	2018/07/27	100	80 - 120	101	80 - 120	<0.0050	ug/L	9.1	20
9081287	Dissolved Copper (Cu)	2018/07/27	NC	80 - 120	99	80 - 120	<0.050	ug/L	0.22	20
9081287	Dissolved Iron (Fe)	2018/07/27	105	80 - 120	104	80 - 120	<1.0	ug/L	4.3	20
9081287	Dissolved Lead (Pb)	2018/07/27	101	80 - 120	103	80 - 120	<0.0050	ug/L	0.88	20
9081287	Dissolved Lithium (Li)	2018/07/27	102	80 - 120	103	80 - 120	<0.50	ug/L	0.13	20
9081287	Dissolved Manganese (Mn)	2018/07/27	103	80 - 120	103	80 - 120	<0.050	ug/L	0.35	20
9081287	Dissolved Molybdenum (Mo)	2018/07/27	110	80 - 120	104	80 - 120	<0.050	ug/L	2.1	20
9081287	Dissolved Nickel (Ni)	2018/07/27	100	80 - 120	101	80 - 120	<0.020	ug/L	0.21	20
9081287	Dissolved Phosphorus (P)	2018/07/27	109	80 - 120	103	80 - 120	<2.0	ug/L		
9081287	Dissolved Selenium (Se)	2018/07/27	103	80 - 120	101	80 - 120	<0.040	ug/L	4.5	20
9081287	Dissolved Silicon (Si)	2018/07/27	105	80 - 120	107	80 - 120	<50	ug/L	0.35	20
9081287	Dissolved Silver (Ag)	2018/07/27	104	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
9081287	Dissolved Strontium (Sr)	2018/07/27	NC	80 - 120	102	80 - 120	<0.050	ug/L	1.7	20
9081287	Dissolved Thallium (Tl)	2018/07/27	103	80 - 120	103	80 - 120	<0.0020	ug/L	4.9	20
9081287	Dissolved Tin (Sn)	2018/07/27	105	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
9081287	Dissolved Titanium (Ti)	2018/07/27	109	80 - 120	106	80 - 120	<0.50	ug/L	NC	20
9081287	Dissolved Uranium (U)	2018/07/27	107	80 - 120	105	80 - 120	<0.0020	ug/L	0.62	20
9081287	Dissolved Vanadium (V)	2018/07/27	105	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
9081287	Dissolved Zinc (Zn)	2018/07/27	100	80 - 120	101	80 - 120	<0.10	ug/L	0.62	20
9081287	Dissolved Zirconium (Zr)	2018/07/27	105	80 - 120	100	80 - 120	<0.10	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9081311	Dissolved Mercury (Hg)	2018/07/27	103	80 - 120	99	80 - 120	<0.0020	ug/L	NC	20
9081330	Total Mercury (Hg)	2018/07/27	99	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9081462	Nitrate plus Nitrite (N)	2018/07/27	108	80 - 120	106	80 - 120	<0.0020	mg/L	12	25
9081464	Nitrite (N)	2018/07/27	101	80 - 120	105	80 - 120	<0.0020	mg/L	NC	25
9081470	Nitrate plus Nitrite (N)	2018/07/27	105	80 - 120	108	80 - 120	<0.0020	mg/L	NC	25
9081475	Nitrite (N)	2018/07/27	98	80 - 120	105	80 - 120	<0.0020	mg/L	NC	25
9081512	Total Aluminum (Al)	2018/07/28	98	80 - 120	101	80 - 120	<0.50	ug/L	0.18	20
9081512	Total Antimony (Sb)	2018/07/28	96	80 - 120	100	80 - 120	<0.020	ug/L	2.6	20
9081512	Total Arsenic (As)	2018/07/28	101	80 - 120	102	80 - 120	<0.020	ug/L	0.14	20
9081512	Total Barium (Ba)	2018/07/28	90	80 - 120	98	80 - 120	<0.020	ug/L	1.9	20
9081512	Total Beryllium (Be)	2018/07/28	93	80 - 120	97	80 - 120	<0.010	ug/L	14	20
9081512	Total Bismuth (Bi)	2018/07/28	93	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9081512	Total Boron (B)	2018/07/28	93	80 - 120	97	80 - 120	<10	ug/L	NC	20
9081512	Total Cadmium (Cd)	2018/07/28	98	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9081512	Total Chromium (Cr)	2018/07/28	97	80 - 120	99	80 - 120	<0.10	ug/L	9.6	20
9081512	Total Cobalt (Co)	2018/07/28	93	80 - 120	97	80 - 120	<0.0050	ug/L	2.3	20
9081512	Total Copper (Cu)	2018/07/28	92	80 - 120	97	80 - 120	<0.050	ug/L	0.062	20
9081512	Total Iron (Fe)	2018/07/28	95	80 - 120	101	80 - 120	<1.0	ug/L	3.6	20
9081512	Total Lead (Pb)	2018/07/28	95	80 - 120	99	80 - 120	<0.0050	ug/L	15	20
9081512	Total Lithium (Li)	2018/07/28	95	80 - 120	98	80 - 120	<0.50	ug/L	1.3	20
9081512	Total Manganese (Mn)	2018/07/28	95	80 - 120	100	80 - 120	<0.050	ug/L	0.70	20
9081512	Total Molybdenum (Mo)	2018/07/28	101	80 - 120	103	80 - 120	<0.050	ug/L	2.5	20
9081512	Total Nickel (Ni)	2018/07/28	93	80 - 120	98	80 - 120	<0.020	ug/L	2.4	20
9081512	Total Phosphorus (P)	2018/07/28	102	80 - 120	102	80 - 120	<2.0	ug/L	NC	20
9081512	Total Selenium (Se)	2018/07/28	98	80 - 120	97	80 - 120	<0.040	ug/L	4.9	20
9081512	Total Silicon (Si)	2018/07/28	NC	80 - 120	102	80 - 120	<50	ug/L	3.7	20
9081512	Total Silver (Ag)	2018/07/28	97	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
9081512	Total Strontium (Sr)	2018/07/28	NC	80 - 120	101	80 - 120	<0.050	ug/L	1.5	20
9081512	Total Thallium (TI)	2018/07/28	96	80 - 120	100	80 - 120	<0.0020	ug/L	12	20
9081512	Total Tin (Sn)	2018/07/28	96	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9081512	Total Titanium (Ti)	2018/07/28	98	80 - 120	103	80 - 120	<0.50	ug/L	NC	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9081512	Total Uranium (U)	2018/07/28	98	80 - 120	101	80 - 120	<0.0020	ug/L	1.0	20
9081512	Total Vanadium (V)	2018/07/28	98	80 - 120	100	80 - 120	<0.20	ug/L	4.6	20
9081512	Total Zinc (Zn)	2018/07/28	97	80 - 120	99	80 - 120	<0.10	ug/L	11	20
9081512	Total Zirconium (Zr)	2018/07/28	98	80 - 120	98	80 - 120	<0.10	ug/L	2.4	20
9081598	ORP	2018/07/30							1.0	20
9081609	Dissolved Chloride (CI)	2018/07/27	94	80 - 120	97	80 - 120	0.57, RDL=0.50	mg/L	11	20
9081611	Dissolved Sulphate (SO4)	2018/07/27	NC	80 - 120	101	80 - 120	<0.50	mg/L	12	20
9081614	Dissolved Chloride (CI)	2018/07/27	96	80 - 120	96	80 - 120	0.64, RDL=0.50	mg/L	5.8	20
9081615	Dissolved Sulphate (SO4)	2018/07/27	NC	80 - 120	97	80 - 120	<0.50	mg/L	4.0	20
9082293	Total Aluminum (AI)	2018/07/30	NC	80 - 120	100	80 - 120	<3.0	ug/L		
9082293	Total Antimony (Sb)	2018/07/30	107	80 - 120	100	80 - 120	<0.020	ug/L		
9082293	Total Arsenic (As)	2018/07/30	110	80 - 120	101	80 - 120	<0.020	ug/L	2.9	20
9082293	Total Barium (Ba)	2018/07/30	108	80 - 120	100	80 - 120	<0.050	ug/L		
9082293	Total Beryllium (Be)	2018/07/30	104	80 - 120	96	80 - 120	<0.010	ug/L		
9082293	Total Bismuth (Bi)	2018/07/30	108	80 - 120	101	80 - 120	<0.010	ug/L		
9082293	Total Boron (B)	2018/07/30	104	80 - 120	97	80 - 120	<10	ug/L		
9082293	Total Cadmium (Cd)	2018/07/30	108	80 - 120	99	80 - 120	<0.0050	ug/L		
9082293	Total Chromium (Cr)	2018/07/30	106	80 - 120	99	80 - 120	<0.10	ug/L		
9082293	Total Cobalt (Co)	2018/07/30	104	80 - 120	98	80 - 120	<0.010	ug/L		
9082293	Total Copper (Cu)	2018/07/30	102	80 - 120	97	80 - 120	<0.10	ug/L		
9082293	Total Iron (Fe)	2018/07/30	NC	80 - 120	101	80 - 120	<5.0	ug/L		
9082293	Total Lead (Pb)	2018/07/30	107	80 - 120	100	80 - 120	<0.020	ug/L		
9082293	Total Lithium (Li)	2018/07/30	107	80 - 120	96	80 - 120	<0.50	ug/L		
9082293	Total Manganese (Mn)	2018/07/30	111	80 - 120	102	80 - 120	<0.10	ug/L		
9082293	Total Molybdenum (Mo)	2018/07/30	111	80 - 120	101	80 - 120	<0.050	ug/L		
9082293	Total Nickel (Ni)	2018/07/30	106	80 - 120	102	80 - 120	<0.10	ug/L		
9082293	Total Phosphorus (P)	2018/07/30	108	80 - 120	101	80 - 120	<5.0	ug/L		
9082293	Total Selenium (Se)	2018/07/30	105	80 - 120	97	80 - 120	<0.040	ug/L		
9082293	Total Silicon (Si)	2018/07/30	115	80 - 120	101	80 - 120	<50	ug/L		
9082293	Total Silver (Ag)	2018/07/30	107	80 - 120	97	80 - 120	<0.010	ug/L		
9082293	Total Strontium (Sr)	2018/07/30	115	80 - 120	100	80 - 120	<0.050	ug/L		



## QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

			Matrix	Spike	Spiked	Blank	Method E	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9082293	Total Thallium (TI)	2018/07/30	109	80 - 120	102	80 - 120	<0.0020	ug/L		
9082293	Total Tin (Sn)	2018/07/30	107	80 - 120	100	80 - 120	<0.20	ug/L		
9082293	Total Titanium (Ti)	2018/07/30	119	80 - 120	102	80 - 120	<2.0	ug/L		
9082293	Total Uranium (U)	2018/07/30	111	80 - 120	103	80 - 120	<0.0050	ug/L		
9082293	Total Vanadium (V)	2018/07/30	108	80 - 120	101	80 - 120	<0.20	ug/L		
9082293	Total Zinc (Zn)	2018/07/30	107	80 - 120	108	80 - 120	<1.0	ug/L		
9082293	Total Zirconium (Zr)	2018/07/30	106	80 - 120	100	80 - 120	<0.10	ug/L		
9082409	Fluoride (F)	2018/07/27	106	80 - 120	100	80 - 120	<0.010	mg/L	1.4	20
9082478	Total Suspended Solids	2018/07/30			100	80 - 120	<1.0	mg/L		
9082946	Total Ammonia (N)	2018/07/27			101	80 - 120	<0.0050	mg/L		
9082981	Total Dissolved Solids	2018/08/03	NC	80 - 120	93	80 - 120	<10	mg/L		
9082983	Total Dissolved Solids	2018/08/03	101	80 - 120	93	80 - 120	<10	mg/L	NC	20
9083485	Total Mercury (Hg)	2018/07/30	98	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
9083569	Dissolved Mercury (Hg)	2018/07/30	92	80 - 120	98	80 - 120	<0.0020	ug/L	9.8	20
9084452	рН	2018/07/30			101	97 - 103				
9084471	Alkalinity (PP as CaCO3)	2018/07/30					<0.50	mg/L		
9084471	Alkalinity (Total as CaCO3)	2018/07/30			93	80 - 120	<0.50	mg/L		
9084471	Bicarbonate (HCO3)	2018/07/30					<0.50	mg/L		
9084471	Carbonate (CO3)	2018/07/30					<0.50	mg/L		
9084471	Hydroxide (OH)	2018/07/30					<0.50	mg/L		
9084473	Conductivity	2018/07/30			98	80 - 120	<1.0	uS/cm		
9084488	рН	2018/07/30			102	97 - 103			0.79	20
9084491	Alkalinity (PP as CaCO3)	2018/07/30					<0.50	mg/L	NC	20
9084491	Alkalinity (Total as CaCO3)	2018/07/30			92	80 - 120	<0.50	mg/L	5.2	20
9084491	Bicarbonate (HCO3)	2018/07/30					<0.50	mg/L	5.2	20
9084491	Carbonate (CO3)	2018/07/30					<0.50	mg/L	NC	20
9084491	Hydroxide (OH)	2018/07/30					<0.50	mg/L	NC	20
9084492	Conductivity	2018/07/30			98	80 - 120	<1.0	uS/cm	1.1	20
9085002	Total Suspended Solids	2018/08/01			100	80 - 120	<1.0	mg/L		
9086916	Total Mercury (Hg)	2018/08/02	87	80 - 120	101	80 - 120	<0.0020	ug/L	9.1	20
9087332	Total Ammonia (N)	2018/08/01	100	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

			Matrix	Spike	Spiked	Blank	Method B	lank	RPD	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9087439	Dissolved Organic Carbon (C)	2018/08/01	NC	80 - 120	105	80 - 120	<0.50	mg/L	4.5	20
9087668	Total Organic Carbon (C)	2018/08/01	NC	80 - 120	110	80 - 120	<0.50	mg/L	3.8	20
9088411	Dissolved Mercury (Hg)	2018/08/02	85	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
9088593	Free Cyanide	2018/08/01	101	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: MN

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Specialist
Rob Reinert, B.Sc., Scientific Specialist
12 Find
Winnie Au B Sc. OP Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		INVOICE TO:			Report In	formation	1						Project l	oformatio	n		配を持た	数数数数数数数数数	関係を	
mpany Na	me #3604 LORAX	ENVIRONMENTAL SERVICES	LTD. Company N							Que	bation #	7.2	B40231			-33		的物質。例如		Bottle Order #
dact Name			Contact Ne	ne David Flath	er					P.0	W	115	0-14.0-		. 6 60	-	III PASIONS	NOT IN ACCOUNT OF	THE STATE OF	
munis	2289 BURRAR		Address							111	ect.#	100	GOID CO	p Cotte	e Creek-SV	Y E	3862188_0	coc		559732 Project Manage
	(604) 688-7173	Taxable man	15							1,000	ect Name	-					10000	***	manus I	Project Manag
one añ	The second secon	Fax: (604) 688-71  @lorax.ca; shukling.ng@lorax.ca	75 Phone Email	David Flath	er@lorax		Fax			S/te	mpled By						_	C#569732-01-01		Diana Gruz
Regulator		I	5.2117/	al tratructions		IT	T					Requested	( .					Turnaround Time	e (TAT) Requi	red
EX.		drinking water samples - please use the	Prinklina Water Phain o	Controls Securi		Regulated Drinking Water 7 [Y / N )	(Alk-LL, EC-LL, NH4- TDS)	Level	Anions (LL.Cl. F, NO2, NO3, SO4)	- WAD			Level Dissolved Metals CV Hg	il Total Metals incl. C			Regular (Standa (will be applied if Standard TAT = 1 Please note: Star days - contact you Job Specific Rush Date Required:	Push TAT is not specific 5-T Working days for into udard TAT for certain tes or Project Manager for d TAT (# applies to entire	nd) ar fests fa such as BOD lotalis	and Dioxins/Furans e
		sust be kept cool ( < 10°C ) from time of sar	-		, E-1	Regulated Dr.	Rouline ( LL, pH, T	TSS-Low Level	nions (t D4)	Cyanide	700	000	Low Leve incl. CV i	Low Level	ORP		Rush Confirmation N	lumber	jes	l liab Ase W
Sar	mple Barçode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Re A	E	12	A X	6	F	ă	23	3 £	ō	_	W of Bottles		Comments	
TIME	SID#162749	CC-0.5	24/07/18	11:30	SW	NY	/	/	/			/		/			13			
1100	SIDe162744	CC-1.0			SW															
1 101	510#102745	CC-1.5			8 <b>5W</b> ()													RECEIVED	IN WHITE	1116 10
1111	SID#162746	CC-3.5	24/07/18	11:50	sw	NA	1/	/	/		/	/	/	/			13	BY:	vacific	
1300	SIDW162747	CC-4.5	24/07/18	10:15	SW	NN	/	/	/	/	/	/	/	/			13	2	16 -17-	20
UNE	51D#162748	CC-6.0	1.50		sw													TEUP 4	16	15
E 188 8	#1 IF ## #1#############################	CC-A			sw						2							4	6	4
11101	SID#149895	сс-в	24/07/18	12:25	sw	NN	//	/	/	/	/	/	/	/	/		13			
8181	510#149897	CC-X	24/07/18	9:15	sw	NA	1/	/	/	/	/	/	/	/			13			
0.003	SICW149890	Coffee Mix			sw												_			
· RE	LINDUSHED BY: (Signatu	The state of the s	(YY/MM/DD) Tim		RECE	VED BY:	Signatured	100000	age .	-	ite: (YY/MN		Time	- mote	used and		Will I	Lab Use C	****	
TITI	CH NOKDIN	18/0	7/25 9:	50	SH	BN	JA	UI3	ZOA	20	\$/03/	26	5'.00	>	SUCCESSION EN	me Serse	Temperatur	TALAZ		ss No

0075

160:405

Maxiem Analytics International Corporation ola Maxxem Analytics

	- 1	NVOICE TO:				Report In	formation	Ý						Project Ir	formation	1	-00	<b></b>	然為自然的	
npany N	Maring .	ENVIRONMENTAL SERVICES I	TD. Com	pany N							Quo	tation#	1	B40231			10		24 A 1 A 1	Bottle Order
sact Na			Cont	act Nan	David Flath	er					P.O.		112	0.110	0.11	0 1 00	- 1	III H MANAGEMEN AT	AASTRA (B) Z IIII	TILL THE STREET STREET
iress	2289 BURRARD		Add	035						37	Proj	ect#	3	Gold Cor	p Coffee	e Creek-SV		B862188_COC		559732 Project Manag
	VANCOUVER B (604) 688-7173		5 7200					417 T		_	10000	ect Name	115							Project Manag
ne iit		Fax: (604) 688-717 Blorax.ca; shukling.ng@lorax.ca	Phor Ema		David Flath	er@lorax		Fax.			Site	# ipled By	-				_	C#559732		Diana Cruz
·		T	1 5000		al Instructions	-		T				Analysis f	equested	6					and Time (TAT) Rec	puired
egulato	ry Criteria		ZII ,				Regulated Drinking Water ? (Y / N ) Matais Flaid Fillerad ? (Y / N )	(AIK-LL, EC-LL, NH4-	Level	(LL.CI, F, NO2, NO3,	WAD			Level Dissolved Metals CV Hg	Level Total Metals Incl. CV				e advance notice for n if specified) ys for most tests erfain tests such as 80 ager for detaits to entire submissaion)	ish pro <del>je</del> cts
×	- Alberta	frinking water samples - please use the D ust be kept cool ( < 10°C) from time of samp	FOR MIX DE SO	-	_		Regulated Dri	Routine (A	TSS-Low	Anions (LL SO4)	Cyanide -	100	200	Low Level incl. CV H	Low Level Hg	ORP	,	Rush Confirmation Number	-1 5	(ced lati for #)
	ample Barcode Latral	Sample (Location) Identification	Date Samp	led	Time Sampled	Matrix	R W	02.3	1 22	40	0	¥.	۵	2.0	3±	0		of Bottles	Comments	
111	SID#214047	IC-4.5				SW					e :									
110	SID#214048	Latte Mix	24/07	118	10:40	sw	NN	/	/		/	/	/	/	/	/		13	Name (N. 1944)	TELIODSE
111	SID#214049	ML-1.0 (YT-24-1)				SW												HE C	Myshica	1020
111	SID#214060	ML-A	24/01	/18	14:15	SW	NA	/	/	/	/	/	/		/			13	2019 -07	-2-
1111	SiDw214061	ML-B	24/07	/18	14:05	sw	NA	/		/	/	/	/	/	/			13	2010 97	
1111	SID#214052	ML-C (YT-24-2)	24/07	18	13:15	SW	NN	/	/	/		/	/		/			13 TEMP	416	15
	SID#214053	YT-24-Mix				SW													4 6	2 4
1111	SID#214054	YUK-2,0				SW														
EII	SID#214055	YUK-5.0				SW														
11,500.00	SIDW214056	Sample A				SW														
ij	ELINGUISHED BY: (Signature		7/25	9.5		SHE		Signature	ARCHIOCHE .	You		18/07		15'-06		used and ubmitted	nie Sensit		erpt	Yes No

ILE !YES

0075

Maxxam Analytics International Corporation o/a Maxxam Analytics

		NVOICE TO:				Report in	formatio	1						Project In	formation	ří .	- H	是,在4000克尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚尼亚	100.70
npany Na	me #3604 LORAX	ENVIRONMENTAL SERVI	CES LTD.	Company N	sme						Que	station#	1	340231			#3		Bottle Order #:
act Name				Contact Nar	David Flat	ner					P.0	#					MILL He	KT IET GEGET EEL MENGGET HAN HAT AF HILL I	, INTERNITOR
oss	2289 BURRARD			Address							Pro	ect #	3	Gold Cor	p Coffee	Creek-SW	B862	188_COC	559732
	VANCOUVER B	220.00	0.7476		9			70.00	_		10.20	ject Name	-				-+	Gillion or obstood record	Project Manage
nee	(604) 688-7173	Fax (604) 68 Dlorax.ca; shukling.ng@lora		Phone Email	David,Flat	ner@inray		Fax:	_	_	Site		-	-				C#559732-04-01	Diana Cruz
all		giorax.ca, situkiing.ng@iore	ix.ua		ial Instructions	iei @ioi ax	T	T .			5ar	npled By Analysis F	Requested					Turnaround Time (TAT) Red	uirad
Regulatory		frinking water samples - please us	se the Drinkina W		Į.		Drinking Water ? (Y / N )		DS)	(LL:CI, F, NO2, NO3,	- WAD			Level Dissolved Metals CV Hg	el Total Metals incl. CV		(will be a Standard Please n days - or Job Spec Date Req	Presse provide advance notice for ru (Standard) TAT spipled if Rush TAT is not specified) of TAT = 57 Working days for most feets note: Standard TAT for certain tests such as BC ordical your Project Manager for details.  Time R Time R	sh projects D and Dioxins/Furans a
		ust be kept cool ( < 10°C ) from time	an announcement	-	NAME OF TAXABLE PARTY.		julated Drink	tine (	TSS-Low	Anions (I SO4)	Cyanide	0	O	C C E	Level	D.	Rush Con	firmation Number	cell lab for #)
San	rpie Barcode Label	Sample (Location) Identification	n Date	Sampled	Time Sampled	Matrix	Regi	Rou	TSS TSS	So	Š	100	DOC	Low incl.	Low Hg	ORP	# of Bottle	os Comments	
IIIII	SID#214057	Sample B		- 8		SW			1										
1181	SID#214058	Sample C	24)	67/18	11:50	SW	NA	1/	//		/	/	/		/		13	5	
100	SJD#214059	Field Blank				sw													
1110	SID#214060	Travel Blank				sw												RECEIVED IN WHITEH	IORSE
1111	SID#214061	2				SW					_							BY: K Muy	441020
							Ш		1									2018 -07- 2	5
																		TENO: 4 6	-
																		TEMP: 1/6	4
							$\sqcup$											7 6	1
()T	CH DIPP		8/07/25		0 85	- SH	PN	JA.		JOY		018 07		Time		used and ubmitted Tir	e Sensitive	emperature (15) on resource	Seal Intact on Cooler?

168:465

0075

Maxxam Analytics International Corporation o/a Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560075-01-01, 560075-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/14

Report #: R2603892 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B864578 Received: 2018/08/01, 12:00

Sample Matrix: Water # Samples Received: 13

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	3	N/A	2018/08/02	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	10	N/A	2018/08/03	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	13	N/A	2018/08/03	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) (1, 3)	13	N/A	2018/08/08	CAL SOP-00077	MMCW 119 1996 m
Conductance - Low Level	3	N/A	2018/08/02	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	10	N/A	2018/08/03	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	13	N/A	2018/08/03	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (4)	7	N/A	2018/08/03	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (4)	1	N/A	2018/08/08	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (4)	5	N/A	2018/08/09	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	13	N/A	2018/08/07	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	13	N/A	2018/08/03	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	12	2018/08/03	2018/08/03	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	1	2018/08/07	2018/08/07	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	13	N/A	2018/08/07	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	13	N/A	2018/08/04	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	1	2018/08/03	2018/08/08	BBY7SOP-00003,	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	5	2018/08/07	2018/08/09	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	7	N/A	2018/08/03	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2018/08/08	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	N/A	2018/08/09	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	7	N/A	2018/08/03	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	13	N/A	2018/08/03	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	13	N/A	2018/08/02	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	13	N/A	2018/08/02	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	13	N/A	2018/08/03	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	13	N/A	2018/08/07	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	13	N/A	2018/08/03	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (5)	3	N/A	2018/08/02	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (5)	10	N/A	2018/08/03	BBY6SOP-00026	SM 22 4500-H+ B m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560075-01-01, 560075-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD. 2289 BURRARD STREET VANCOUVER, BC CANADA V6J 3H9

Report Date: 2018/08/14

Report #: R2603892 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B864578 Received: 2018/08/01, 12:00

Sample Matrix: Water # Samples Received: 13

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Sulphate - Low Level	13	N/A	2018/08/03	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	13	2018/08/03	2018/08/07	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (1, 6)	13	N/A	2018/08/08	CAL SOP-00077	MMCW 119 1996 m
Total Suspended Solids-Low Level	13	2018/08/03	2018/08/07	BBY6SOP-00034	SM 22 2540 D
WAD Cyanide Water Subcontract (2)	13	2018/08/10	2018/08/10		

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560075-01-01, 560075-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/14

Report #: R2603892 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

#### MAXXAM JOB #: B864578 Received: 2018/08/01, 12:00

- (1) This test was performed by Maxxam Calgary Environmental
- (2) This test was performed by Maxxam Ontario (From Burnaby)
- (3) DOC present in the sample should be considered as non-purgeable DOC. Dissolved > Total Imbalance: Whenever applicable, Dissolved > Total for any parameter that falls within method uncertainty for duplicates is likely equivalent. If RPD is > 20% samples were reanalyzed and confirmed.
- (4) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (5) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (6) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 

Veronica De Guzman Project Manager 14 Aug 2018 15:52:56

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Diana Cruz, Project Manager Email: DCruz@maxxam.ca Phone# (604) 734 7276

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TZ5978			TZ5978		TZ5979		
		2018/07/30			2018/07/30		2018/07/30		
Sampling Date		09:40			09:40		10:15		
COC Number		560075-01-01			560075-01-01		560075-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	QC Batch	CC-1.5	RDL	QC Batch
Parameter	-			•	•			•	
ORP	mV	248		9089010	249	9089010	254		9089010
Subcontract Parameter	N/A	ATTACHED	N/A	9098487			ATTACHED	N/A	9098487
Calculated Parameters				Į.	•				<u>.</u>
Filter and HNO3 Preservation	N/A	LAB		9090295			LAB		9090295
Nitrate (N)	mg/L	0.197	0.0020	9088400			0.267	0.0020	9088400
Misc. Inorganics					•			•	
Fluoride (F)	mg/L	0.080	0.010	9090997			0.067	0.010	9090997
Dissolved Organic Carbon (C)	mg/L	9.7	0.50	9093472			6.8	0.50	9093472
Alkalinity (Total as CaCO3)	mg/L	48.4	0.50	9089602			103	0.50	9089607
Total Organic Carbon (C)	mg/L	10	0.50	9093469			7.1	0.50	9093469
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9089602			<0.50	0.50	9089607
Bicarbonate (HCO3)	mg/L	59.0	0.50	9089602			126	0.50	9089607
Carbonate (CO3)	mg/L	<0.50	0.50	9089602			<0.50	0.50	9089607
Hydroxide (OH)	mg/L	<0.50	0.50	9089602			<0.50	0.50	9089607
Anions									
Dissolved Sulphate (SO4)	mg/L	53.1	0.50	9090879			114	0.50	9090879
Dissolved Chloride (CI)	mg/L	0.80	0.50	9090876			<0.50	0.50	9090876
Nutrients			•	-	•	•		•	-
Total Ammonia (N)	mg/L	<0.0050	0.0050	9091364			<0.0050	0.0050	9091364
Nitrate plus Nitrite (N)	mg/L	0.197	0.0020	9089153			0.267	0.0020	9089153
Nitrite (N)	mg/L	<0.0020	0.0020	9089156			<0.0020	0.0020	9089156
Physical Properties									
Conductivity	uS/cm	212	1.0	9089603			414	1.0	9089608
рН	рН	7.57		9089599			7.81		9089604
Physical Properties						·			
Total Suspended Solids	mg/L	14.2	1.0	9090371			<1.0	1.0	9090371
Total Dissolved Solids	mg/L	144	10	9090351			264	10	9090351
RDL = Reportable Detection Lir	mit								
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TZ5979			TZ5980		TZ5981		
Sampling Date		2018/07/30 10:15			2018/07/30 09:55		2018/07/30 08:55		
COC Number		560075-01-01			560075-01-01		560075-01-01		
	UNITS	CC-1.5 Lab-Dup	RDL	QC Batch	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch
Parameter									
ORP	mV				273	9089010	283		9089010
Subcontract Parameter	N/A				ATTACHED	9098487	ATTACHED	N/A	9098487
Calculated Parameters									
Filter and HNO3 Preservation	N/A				LAB	9090295	LAB		9090295
Nitrate (N)	mg/L				0.257	9088400	0.181	0.0020	9088400
Misc. Inorganics		•							
Fluoride (F)	mg/L				0.061	9090997	0.067	0.010	9090997
Dissolved Organic Carbon (C)	mg/L				8.9	9093472	9.7	0.50	9093472
Alkalinity (Total as CaCO3)	mg/L	103	0.50	9089607	83.5	9089607	50.9	0.50	9089607
Total Organic Carbon (C)	mg/L				9.1	9093469	10	0.50	9093469
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9089607	<0.50	9089607	<0.50	0.50	9089607
Bicarbonate (HCO3)	mg/L	126	0.50	9089607	102	9089607	62.1	0.50	9089607
Carbonate (CO3)	mg/L	<0.50	0.50	9089607	<0.50	9089607	<0.50	0.50	9089607
Hydroxide (OH)	mg/L	<0.50	0.50	9089607	<0.50	9089607	<0.50	0.50	9089607
Anions		1							
Dissolved Sulphate (SO4)	mg/L				78.2	9090879	54.4	0.50	9093014
Dissolved Chloride (Cl)	mg/L				0.58	9090876	0.69	0.50	9090876
Nutrients			!			,			
Total Ammonia (N)	mg/L				<0.0050	9091364	<0.0050	0.0050	9091364
Nitrate plus Nitrite (N)	mg/L				0.257	9089153	0.181	0.0020	9089153
Nitrite (N)	mg/L				<0.0020	9089156	<0.0020	0.0020	9089156
Physical Properties		•							
Conductivity	uS/cm	415	1.0	9089608	312	9089608	213	1.0	9089608
рН	рН	7.84		9089604	7.80	9089604	7.62		9089604
Physical Properties	•	•						•	
Total Suspended Solids	mg/L				5.3	9090371	<1.0	1.0	9090371
Total Dissolved Solids	mg/L				216	9090351	140	10	9090351
RDL = Reportable Detection Lir	mit			•		•			
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TZ5982			TZ5982			TZ5983		
Sampling Date		2018/07/30			2018/07/30			2018/07/30		
Jamping Date		10:45			10:45			16:30		
COC Number		560075-01-01			560075-01-01			560075-01-01		
	UNITS	HC-2.5	RDL	QC Batch	HC-2.5 Lab-Dup	RDL	QC Batch	HC-5.0	RDL	QC Batch
Parameter										
ORP	mV	279		9089010				275		9089010
Subcontract Parameter	N/A	ATTACHED	N/A	9098487				ATTACHED	N/A	9098487
Calculated Parameters			•	•	•	•				
Filter and HNO3 Preservation	N/A	LAB		9090295				LAB		9090295
Nitrate (N)	mg/L	0.418	0.0020	9088400				0.260	0.0020	9088400
Misc. Inorganics			•		•	•			•	
Fluoride (F)	mg/L	0.057	0.010	9090997				0.072	0.010	9091206
Dissolved Organic Carbon (C)	mg/L	7.4	0.50	9093472				9.0	0.50	9093472
Alkalinity (Total as CaCO3)	mg/L	83.9	0.50	9089602				80.5	0.50	9089607
Total Organic Carbon (C)	mg/L	7.7	0.50	9093469				9.4	0.50	9093469
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9089602				<0.50	0.50	9089607
Bicarbonate (HCO3)	mg/L	102	0.50	9089602				98.3	0.50	9089607
Carbonate (CO3)	mg/L	<0.50	0.50	9089602				<0.50	0.50	9089607
Hydroxide (OH)	mg/L	<0.50	0.50	9089602				<0.50	0.50	9089607
Anions					•					
Dissolved Sulphate (SO4)	mg/L	44.3	0.50	9090879	44.2	0.50	9090879	45.8	0.50	9090879
Dissolved Chloride (Cl)	mg/L	<0.50	0.50	9090876	0.68	0.50	9090876	0.91	0.50	9090876
Nutrients	!!		!		•	!			•	
Total Ammonia (N)	mg/L	<0.0050	0.0050	9091364				<0.0050	0.0050	9091364
Nitrate plus Nitrite (N)	mg/L	0.418	0.0020	9089153				0.260	0.0020	9089153
Nitrite (N)	mg/L	<0.0020	0.0020	9089156				<0.0020	0.0020	9089156
Physical Properties					•					
Conductivity	uS/cm	253	1.0	9089603				251	1.0	9089608
рН	рН	7.78		9089599				7.83		9089604
Physical Properties				•	•		•		•	-
Total Suspended Solids	mg/L	<1.0	1.0	9090371				<1.0	1.0	9090371
Total Dissolved Solids	mg/L	160	10	9090351				162	10	9090351
RDL = Reportable Detection Lir	nit		•			•	<u>.                                      </u>		1	

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TZ5984			TZ5984			TZ5985		
Compling Date		2018/07/30			2018/07/30			2018/07/30		
Sampling Date		16:00			16:00			15:42		
COC Number		560075-01-01			560075-01-01			560075-01-01		
	UNITS	YT-24	RDL	QC Batch	YT-24 Lab-Dup	RDL	QC Batch	YT-24 MIX	RDL	QC Batch
Parameter			<u>.                                      </u>	<u> </u>	·	·			<u> </u>	
ORP	mV	288		9089010	283		9089010	295		9089010
Subcontract Parameter	N/A	ATTACHED	N/A	9098487				ATTACHED	N/A	9098487
Calculated Parameters					1					
Filter and HNO3 Preservation	N/A	LAB		9090295				LAB		9090295
Nitrate (N)	mg/L	0.787	0.0020	9088400				0.0023	0.0020	9088400
Misc. Inorganics					1					
Fluoride (F)	mg/L	0.075	0.010	9091206	0.074	0.010	9091206	0.110	0.010	9091206
Dissolved Organic Carbon (C)	mg/L	9.1	0.50	9093472				2.9	0.50	9093472
Alkalinity (Total as CaCO3)	mg/L	62.2	0.50	9089607				71.3	0.50	9089607
Total Organic Carbon (C)	mg/L	9.3	0.50	9093469				2.9	0.50	9093469
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9089607				<0.50	0.50	9089607
Bicarbonate (HCO3)	mg/L	75.9	0.50	9089607				87.0	0.50	9089607
Carbonate (CO3)	mg/L	<0.50	0.50	9089607				<0.50	0.50	9089607
Hydroxide (OH)	mg/L	<0.50	0.50	9089607				<0.50	0.50	9089607
Anions					1					
Dissolved Sulphate (SO4)	mg/L	75.6	0.50	9090879				24.3	0.50	9090879
Dissolved Chloride (Cl)	mg/L	0.94	0.50	9090876				<0.50	0.50	9090876
Nutrients				!	-		<del> </del>			
Total Ammonia (N)	mg/L	0.056	0.0050	9091364				0.014	0.0050	9091364
Nitrate plus Nitrite (N)	mg/L	0.787	0.0020	9089153				0.0023	0.0020	9089153
Nitrite (N)	mg/L	<0.0020	0.0020	9089156				<0.0020	0.0020	9089156
Physical Properties					•		l. U			L.
Conductivity	uS/cm	288	1.0	9089608				184	1.0	9089608
рН	рН	7.72		9089604				7.84		9089604
Physical Properties							·		-	
Total Suspended Solids	mg/L	1.2	1.0	9090371				6.3	1.0	9090371
Total Dissolved Solids	mg/L	194	10	9090351				102	10	9090351
RDL = Reportable Detection Lir	nit		•	•	•	•		•	•	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TZ5986			TZ5986			TZ5987		
Sampling Date		2018/07/30			2018/07/30			2018/07/30		
		14:55			14:55			17:00		
COC Number		560075-01-01			560075-01-01			560075-01-01		
	UNITS	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	RDL	QC Batch	HALFWAY MIX	RDL	QC Batch
Parameter										
ORP	mV	302		9089010				285		9089010
Subcontract Parameter	N/A	ATTACHED	N/A	9098487				ATTACHED	N/A	9098487
Calculated Parameters					•	•				
Filter and HNO3 Preservation	N/A	LAB		9090295				LAB		9090295
Nitrate (N)	mg/L	0.0062	0.0020	9088400				0.0072	0.0020	9088400
Misc. Inorganics			•	•						
Fluoride (F)	mg/L	0.110	0.010	9091206				0.110	0.010	9091206
Dissolved Organic Carbon (C)	mg/L	2.1	0.50	9094250				2.0	0.50	9094250
Alkalinity (Total as CaCO3)	mg/L	71.9	0.50	9089602				71.9	0.50	9089607
Total Organic Carbon (C)	mg/L	2.4	0.50	9094253	2.4	0.50	9094253	2.4	0.50	9094253
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9089602				<0.50	0.50	9089607
Bicarbonate (HCO3)	mg/L	87.8	0.50	9089602				87.7	0.50	9089607
Carbonate (CO3)	mg/L	<0.50	0.50	9089602				<0.50	0.50	9089607
Hydroxide (OH)	mg/L	<0.50	0.50	9089602				<0.50	0.50	9089607
Anions			•	•						
Dissolved Sulphate (SO4)	mg/L	24.7	0.50	9093014				24.8	0.50	9090879
Dissolved Chloride (CI)	mg/L	<0.50	0.50	9090876				<0.50	0.50	9090876
Nutrients	•		•	•	•	•	•		•	
Total Ammonia (N)	mg/L	<0.0050	0.0050	9091364				<0.0050	0.0050	9091364
Nitrate plus Nitrite (N)	mg/L	0.0062	0.0020	9089153				0.0072	0.0020	9089153
Nitrite (N)	mg/L	<0.0020	0.0020	9089156				<0.0020	0.0020	9089156
Physical Properties					•					
Conductivity	uS/cm	182	1.0	9089603				185	1.0	9089608
рН	рН	7.87		9089599				7.84		9089604
Physical Properties	•				•	•			•	
Total Suspended Solids	mg/L	9.7	1.0	9090371				3.0	1.0	9090371
Total Dissolved Solids	mg/L	108	10	9090351				104	10	9090351
RDL = Reportable Detection Lir	nit		•	•	•					

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		TZ6011	TZ6012		TZ6013		
Sampling Date		2018/07/30 09:25	2018/07/30 17:00		2018/07/30 08:40		
COC Number		560075-02-01	560075-02-01		560075-02-01		
	UNITS	LATTE MIX	DUP	QC Batch	FIELD BLANK	RDL	QC Batch
Parameter							
ORP	mV	298	289	9089010	345		9089010
Subcontract Parameter	N/A	ATTACHED	ATTACHED	9098487	ATTACHED	N/A	9098487
Calculated Parameters			1				
Filter and HNO3 Preservation	N/A	LAB	LAB	9090295	LAB		9090295
Nitrate (N)	mg/L	0.205	0.0116	9088400	<0.0020	0.0020	9088400
Misc. Inorganics						•	
Fluoride (F)	mg/L	0.074	0.110	9091206	<0.010	0.010	9091206
Dissolved Organic Carbon (C)	mg/L	9.5	2.1	9094250	<0.50	0.50	9094250
Alkalinity (Total as CaCO3)	mg/L	53.0	72.7	9089607	<0.50	0.50	9089633
Total Organic Carbon (C)	mg/L	9.8	3.8	9094253	<0.50	0.50	9094253
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	9089607	<0.50	0.50	9089633
Bicarbonate (HCO3)	mg/L	64.7	88.6	9089607	<0.50	0.50	9089633
Carbonate (CO3)	mg/L	<0.50	<0.50	9089607	<0.50	0.50	9089633
Hydroxide (OH)	mg/L	<0.50	<0.50	9089607	<0.50	0.50	9089633
Anions	•			•		•	
Dissolved Sulphate (SO4)	mg/L	53.7	24.0	9090879	<0.50	0.50	9090879
Dissolved Chloride (Cl)	mg/L	1.1	<0.50	9090876	<0.50	0.50	9090876
Nutrients							
Total Ammonia (N)	mg/L	<0.0050	0.047	9091364	<0.0050	0.0050	9091364
Nitrate plus Nitrite (N)	mg/L	0.205	0.0116	9089153	<0.0020	0.0020	9089153
Nitrite (N)	mg/L	<0.0020	<0.0020	9089156	<0.0020	0.0020	9089156
Physical Properties				•		•	
Conductivity	uS/cm	220	185	9089608	1.1	1.0	9089634
рН	рН	7.65	7.82	9089604	4.99		9089630
Physical Properties							
Total Suspended Solids	mg/L	<1.0	15.9	9090371	<1.0	1.0	9090371
Total Dissolved Solids	mg/L	146	106	9090351	<10	10	9090351
RDL = Reportable Detection Li	nit						
N/A = Not Applicable							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TZ5978	TZ5979		TZ5980			TZ5980		
Sampling Date		2018/07/30	2018/07/30		2018/07/30			2018/07/30		
Jamping Date		09:40	10:15		09:55			09:55		
COC Number		560075-01-01	560075-01-01		560075-01-01			560075-01-01		
	UNITS	CC-0.5	CC-1.5	QC Batch	CC-3.5	RDL	QC Batch	CC-3.5 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	96.3	208	9088394	156	0.50	9088394			
Elements				•			•			
Dissolved Mercury (Hg)	ug/L	0.0033	0.0033	9090383	0.0030	0.0020	9090233	0.0031	0.0020	9090233
Dissolved Metals by ICPMS	,			•		•				
Dissolved Aluminum (AI)	ug/L	50.8	37.2	9090654	34.4	0.50	9090654			
Dissolved Antimony (Sb)	ug/L	0.111	0.109	9090654	0.094	0.020	9090654			
Dissolved Arsenic (As)	ug/L	0.411	0.525	9090654	0.322	0.020	9090654			
Dissolved Barium (Ba)	ug/L	48.7	55.2	9090654	61.5	0.020	9090654			
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	9090654	0.015	0.010	9090654			
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	9090654	<0.0050	0.0050	9090654			
Dissolved Boron (B)	ug/L	<10	<10	9090654	<10	10	9090654			
Dissolved Cadmium (Cd)	ug/L	0.0051	0.0058	9090654	<0.0050	0.0050	9090654			
Dissolved Chromium (Cr)	ug/L	0.26	0.21	9090654	0.19	0.10	9090654			
Dissolved Cobalt (Co)	ug/L	0.0446	0.0397	9090654	0.0421	0.0050	9090654			
Dissolved Copper (Cu)	ug/L	2.30	1.46	9090654	1.39	0.050	9090654			
Dissolved Iron (Fe)	ug/L	37.9	21.1	9090654	17.8	1.0	9090654			
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	9090654	<0.0050	0.0050	9090654			
Dissolved Lithium (Li)	ug/L	1.25	1.76	9090654	0.53	0.50	9090654			
Dissolved Manganese (Mn)	ug/L	3.76	5.76	9090654	0.344	0.050	9090654			
Dissolved Molybdenum (Mo)	ug/L	0.791	0.265	9090654	0.323	0.050	9090654			
Dissolved Nickel (Ni)	ug/L	0.968	0.470	9090654	0.529	0.020	9090654			
Dissolved Phosphorus (P)	ug/L	<2.0	<2.0	9090654	<2.0	2.0	9090654			
Dissolved Selenium (Se)	ug/L	0.103	0.089	9090654	0.093	0.040	9090654			
Dissolved Silicon (Si)	ug/L	5220	5290	9090654	4680	50	9090654			
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	9090654	<0.0050	0.0050	9090654			
Dissolved Strontium (Sr)	ug/L	118	440	9090654	296	0.050	9090654			
Dissolved Thallium (TI)	ug/L	0.0048	0.0031	9090654	<0.0020	0.0020	9090654			
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	9090654	<0.20	0.20	9090654			
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	9090654	<0.50	0.50	9090654			
Dissolved Uranium (U)	ug/L	5.78	9.97	9090654	7.04	0.0020	9090654			
RDL = Reportable Detection Lin	nit									

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		TZ5978	TZ5979		TZ5980			TZ5980		
Sampling Date		2018/07/30	2018/07/30		2018/07/30			2018/07/30		
Sampling Date		09:40	10:15		09:55			09:55		
COC Number		560075-01-01	560075-01-01		560075-01-01			560075-01-01		
	UNITS	CC-0.5	CC-1.5	QC Batch	CC-3.5	RDL	QC Batch	CC-3.5 Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.44	0.24	9090654	0.26	0.20	9090654			
Dissolved Zinc (Zn)	ug/L	0.38	0.33	9090654	0.23	0.10	9090654			
Dissolved Zirconium (Zr)	ug/L	0.40	0.41	9090654	0.47	0.10	9090654			
Dissolved Calcium (Ca)	mg/L	25.0	56.6	9088396	43.2	0.050	9088396			
Dissolved Magnesium (Mg)	mg/L	8.24	16.3	9088396	11.6	0.050	9088396			
Dissolved Potassium (K)	mg/L	1.32	3.24	9088396	2.18	0.050	9088396			
Dissolved Sodium (Na)	mg/L	4.23	4.16	9088396	3.87	0.050	9088396			
Dissolved Sulphur (S)	mg/L	15.0	35.5	9088396	24.7	3.0	9088396			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

		1	i	i	†		i	<b>.</b>	
Maxxam ID		TZ5981	TZ5982	TZ5983	TZ5984		TZ5985		
Sampling Date		2018/07/30	2018/07/30	2018/07/30	2018/07/30		2018/07/30		
COC November		08:55	10:45	16:30	16:00		15:42		
COC Number		560075-01-01	560075-01-01	560075-01-01	560075-01-01		560075-01-01		
	UNITS	CC-4.5	HC-2.5	HC-5.0	YT-24	QC Batch	YT-24 MIX	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	99.2	124	124	134	9088394	92.0	0.50	9088394
Elements									
Dissolved Mercury (Hg)	ug/L	0.0029	0.0028	0.0025	0.0030	9090383	<0.0020	0.0020	9090233
Dissolved Metals by ICPMS	•					-		•	
Dissolved Aluminum (Al)	ug/L	47.1	41.7	30.1	33.7	9090654	16.3	0.50	9090654
Dissolved Antimony (Sb)	ug/L	0.109	0.501	0.230	0.155	9090654	0.122	0.020	9090654
Dissolved Arsenic (As)	ug/L	0.376	0.869	0.570	0.375	9090654	0.486	0.020	9090654
Dissolved Barium (Ba)	ug/L	56.9	42.6	52.1	68.3	9090654	44.5	0.020	9090654
Dissolved Beryllium (Be)	ug/L	0.015	0.013	<0.010	<0.010	9090654	<0.010	0.010	9090654
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	9090654	<0.0050	0.0050	9090654
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	9090654	<10	10	9090654
Dissolved Cadmium (Cd)	ug/L	0.0063	<0.0050	<0.0050	0.0056	9090654	0.0197	0.0050	9090654
Dissolved Chromium (Cr)	ug/L	0.24	0.25	0.21	0.22	9090654	<0.10	0.10	9090654
Dissolved Cobalt (Co)	ug/L	0.0456	0.0457	0.0434	0.0544	9090654	0.0118	0.0050	9090654
Dissolved Copper (Cu)	ug/L	2.14	1.22	4.03 (1)	1.70	9090654	1.32	0.050	9090654
Dissolved Iron (Fe)	ug/L	29.8	23.3	17.0	17.4	9090654	6.8	1.0	9090654
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	9090654	0.0101	0.0050	9090654
Dissolved Lithium (Li)	ug/L	0.70	1.10	0.90	<0.50	9090654	1.29	0.50	9090654
Dissolved Manganese (Mn)	ug/L	3.44	1.86	0.410	0.370	9090654	0.237	0.050	9090654
Dissolved Molybdenum (Mo)	ug/L	0.694	1.61	0.635	0.423	9090654	1.31	0.050	9090654
Dissolved Nickel (Ni)	ug/L	0.894	0.517	0.816	0.668	9090654	0.709	0.020	9090654
Dissolved Phosphorus (P)	ug/L	<2.0	<2.0	<2.0	<2.0	9090654	<2.0	2.0	9090654
Dissolved Selenium (Se)	ug/L	0.096	0.074	0.082	0.074	9090654	0.301	0.040	9090654
Dissolved Silicon (Si)	ug/L	4990	5240	4800	3970	9090654	2750	50	9090654
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	9090654	<0.0050	0.0050	9090654
Dissolved Strontium (Sr)	ug/L	132	338	281	234	9090654	117	0.050	9090654
Dissolved Thallium (TI)	ug/L	0.0042	<0.0020	0.0031	<0.0020	9090654	0.0040	0.0020	9090654
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	9090654	<0.20	0.20	9090654
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	9090654	<0.50	0.50	9090654
Dissolved Uranium (U)	ug/L	2.57	35.6	12.3	1.61	9090654	0.978	0.0020	9090654

RDL = Reportable Detection Limit

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TZ5981	TZ5982	TZ5983	TZ5984		TZ5985		
Sampling Date		2018/07/30	2018/07/30	2018/07/30	2018/07/30		2018/07/30		
		08:55	10:45	16:30	16:00		15:42		
COC Number		560075-01-01	560075-01-01	560075-01-01	560075-01-01		560075-01-01		
	UNITS	CC-4.5	HC-2.5	HC-5.0	YT-24	QC Batch	YT-24 MIX	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.38	0.30	0.37	0.23	9090654	0.32	0.20	9090654
Dissolved Zinc (Zn)	ug/L	0.29	0.16	1.26 (1)	0.22	9090654	2.91	0.10	9090654
Dissolved Zirconium (Zr)	ug/L	0.41	0.39	0.39	0.41	9090654	<0.10	0.10	9090654
Dissolved Calcium (Ca)	mg/L	26.0	31.5	33.9	38.7	9088396	26.1	0.050	9088396
Dissolved Magnesium (Mg)	mg/L	8.33	10.9	9.57	9.07	9088396	6.53	0.050	9088396
Dissolved Potassium (K)	mg/L	1.43	2.04	2.32	2.03	9088396	0.997	0.050	9088396
Dissolved Sodium (Na)	mg/L	3.87	3.22	3.67	3.66	9088396	2.09	0.050	9088396
Dissolved Sulphur (S)	mg/L	16.0	13.9	15.1	23.8	9088396	7.4	3.0	9088396

RDL = Reportable Detection Limit

<sup>(1)</sup> Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TZ5986	TZ5987	TZ6011	TZ6012	TZ6013		
Sampling Date		2018/07/30	2018/07/30	2018/07/30	2018/07/30	2018/07/30		
Jamping Date		14:55	17:00	09:25	17:00	08:40		
COC Number		560075-01-01	560075-01-01	560075-02-01	560075-02-01	560075-02-01		
	UNITS	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	FIELD BLANK	RDL	QC Batch
Calculated Parameters					•			
Dissolved Hardness (CaCO3)	mg/L	88.2	90.7	102	91.9	<0.50	0.50	9088394
Elements	•							
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	0.0030	<0.0020	<0.0020	0.0020	9090383
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	ug/L	15.7	19.2	48.8	16.1	0.76	0.50	9090654
Dissolved Antimony (Sb)	ug/L	0.114	0.113	0.117	0.126	<0.020	0.020	9090654
Dissolved Arsenic (As)	ug/L	0.474	0.481	0.394	0.476	<0.020	0.020	9090654
Dissolved Barium (Ba)	ug/L	42.3	43.2	49.7	43.3	<0.020	0.020	9090654
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9090654
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9090654
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	10	9090654
Dissolved Cadmium (Cd)	ug/L	0.0255	0.0193	0.0061	0.0204	<0.0050	0.0050	9090654
Dissolved Chromium (Cr)	ug/L	<0.10	<0.10	0.25	<0.10	<0.10	0.10	9090654
Dissolved Cobalt (Co)	ug/L	0.0213	0.0086	0.0412	0.0071	<0.0050	0.0050	9090654
Dissolved Copper (Cu)	ug/L	0.871	0.786	2.12	0.852	<0.050	0.050	9090654
Dissolved Iron (Fe)	ug/L	6.6	5.0	35.2	3.8	<1.0	1.0	9090654
Dissolved Lead (Pb)	ug/L	0.0089	<0.0050	<0.0050	0.0063	<0.0050	0.0050	9090654
Dissolved Lithium (Li)	ug/L	1.27	1.29	1.15	1.32	<0.50	0.50	9090654
Dissolved Manganese (Mn)	ug/L	0.237	0.255	2.94	0.239	<0.050	0.050	9090654
Dissolved Molybdenum (Mo)	ug/L	1.27	1.29	0.736	1.28	<0.050	0.050	9090654
Dissolved Nickel (Ni)	ug/L	0.729	0.634	0.945	0.709	<0.020	0.020	9090654
Dissolved Phosphorus (P)	ug/L	26.5	<2.0	<2.0	<2.0	<2.0	2.0	9090654
Dissolved Selenium (Se)	ug/L	0.309	0.296	0.101	0.296	<0.040	0.040	9090654
Dissolved Silicon (Si)	ug/L	2640	2690	5130	2700	<50	50	9090654
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9090654
Dissolved Strontium (Sr)	ug/L	114	116	132	116	<0.050	0.050	9090654
Dissolved Thallium (TI)	ug/L	0.0023	0.0027	0.0039	0.0027	<0.0020	0.0020	9090654
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9090654
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	9090654
Dissolved Uranium (U)	ug/L	0.924	0.957	6.02	0.971	<0.0020	0.0020	9090654
Dissolved Vanadium (V)	ug/L	0.30	0.28	0.39	0.29	<0.20	0.20	9090654
RDL = Reportable Detection Li	mit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TZ5986	TZ5987	TZ6011	TZ6012	TZ6013				
Sampling Date		2018/07/30	2018/07/30	2018/07/30	2018/07/30	2018/07/30				
Sampling Date		14:55	17:00	09:25	17:00	08:40				
COC Number		560075-01-01	560075-01-01	560075-02-01	560075-02-01	560075-02-01				
	UNITS	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	FIELD BLANK	RDL	QC Batch		
Dissolved Zinc (Zn)	ug/L	3.27	2.31	0.38	2.86	<0.10	0.10	9090654		
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	0.39	<0.10	<0.10	0.10	9090654		
Dissolved Calcium (Ca)	mg/L	24.7	25.7	26.5	25.9	<0.050	0.050	9088396		
Dissolved Magnesium (Mg)	mg/L	6.44	6.47	8.62	6.60	<0.050	0.050	9088396		
Dissolved Potassium (K)	mg/L	0.788	0.804	1.39	1.09	<0.050	0.050	9088396		
Dissolved Sodium (Na)	mg/L	2.02	1.91	4.25	2.05	<0.050	0.050	9088396		
Dissolved Sulphur (S)	mg/L	7.4	7.3	16.4	7.4	<3.0	3.0	9088396		
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TZ6013		
Sampling Date		2018/07/30		
Jumping Dute		08:40		
COC Number		560075-02-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch
Elements				
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	9090383
Dissolved Metals by ICPMS				
Dissolved Aluminum (AI)	ug/L	0.89	0.50	9090654
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	9090654
Dissolved Arsenic (As)	ug/L	<0.020	0.020	9090654
Dissolved Barium (Ba)	ug/L	<0.020	0.020	9090654
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9090654
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9090654
Dissolved Boron (B)	ug/L	<10	10	9090654
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	9090654
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	9090654
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	9090654
Dissolved Copper (Cu)	ug/L	<0.050	0.050	9090654
Dissolved Iron (Fe)	ug/L	<1.0	1.0	9090654
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9090654
Dissolved Lithium (Li)	ug/L	<0.50	0.50	9090654
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	9090654
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	9090654
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	9090654
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	9090654
Dissolved Selenium (Se)	ug/L	<0.040	0.040	9090654
Dissolved Silicon (Si)	ug/L	<50	50	9090654
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9090654
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	9090654
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	9090654
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9090654
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9090654
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	9090654
Dissolved Vanadium (V)	ug/L	<0.20	0.20	9090654
RDL = Reportable Detection Li	mit			
Lab-Dup = Laboratory Initiated	d Duplica	ate		
<u> </u>				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TZ6013		
Sampling Date		2018/07/30 08:40		
COC Number		560075-02-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch
		0.40	0.40	0000054
Dissolved Zinc (Zn)	ug/L	< 0.10	0.10	9090654

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TZ5979			TZ5979			TZ5980		
Sampling Date		2018/07/30			2018/07/30			2018/07/30		
Jampinia Date		10:15			10:15			09:55		
COC Number		560075-01-01			560075-01-01			560075-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	CC-3.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	200	0.50	9088392				151	0.50	9088392
Elements		•			•				•	
Total Mercury (Hg)	ug/L	0.0028	0.0020	9090118	0.0029	0.0020	9090118	0.0029	0.0020	9090118
Total Metals by ICPMS		•			•				•	
Total Aluminum (AI)	ug/L	46.5	0.50	9089187				41.0	0.50	9089187
Total Antimony (Sb)	ug/L	0.102	0.020	9089187				0.095	0.020	9089187
Total Arsenic (As)	ug/L	0.557	0.020	9089187				0.323	0.020	9089187
Total Barium (Ba)	ug/L	53.4	0.020	9089187				60.8	0.020	9089187
Total Beryllium (Be)	ug/L	<0.010	0.010	9089187				<0.010	0.010	9089187
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9089187				<0.0050	0.0050	9089187
Total Boron (B)	ug/L	<10	10	9089187				<10	10	9089187
Total Cadmium (Cd)	ug/L	0.0078	0.0050	9089187				0.0053	0.0050	9089187
Total Chromium (Cr)	ug/L	0.25	0.10	9089187				0.21	0.10	9089187
Total Cobalt (Co)	ug/L	0.0417	0.0050	9089187				0.0458	0.0050	9089187
Total Copper (Cu)	ug/L	1.39	0.050	9089187				1.35	0.050	9089187
Total Iron (Fe)	ug/L	34.3	1.0	9089187				25.5	1.0	9089187
Total Lead (Pb)	ug/L	0.0121	0.0050	9089187				0.0123	0.0050	9089187
Total Lithium (Li)	ug/L	1.86	0.50	9089187				0.63	0.50	9089187
Total Manganese (Mn)	ug/L	7.55	0.050	9089187				1.19	0.050	9089187
Total Molybdenum (Mo)	ug/L	0.216	0.050	9089187				0.279	0.050	9089187
Total Nickel (Ni)	ug/L	0.449	0.020	9089187				0.563	0.020	9089187
Total Phosphorus (P)	ug/L	2.4	2.0	9089187				<2.0	2.0	9089187
Total Selenium (Se)	ug/L	0.093	0.040	9089187				0.081	0.040	9089187
Total Silicon (Si)	ug/L	5040	50	9089187				4390	50	9089187
Total Silver (Ag)	ug/L	<0.0050	0.0050	9089187				<0.0050	0.0050	9089187
Total Strontium (Sr)	ug/L	435	0.050	9089187				294	0.050	9089187
Total Thallium (TI)	ug/L	0.0029	0.0020	9089187				0.0020	0.0020	9089187
Total Tin (Sn)	ug/L	<0.20	0.20	9089187				<0.20	0.20	9089187
Total Titanium (Ti)	ug/L	0.93	0.50	9089187				0.67	0.50	9089187
Total Uranium (U)	ug/L	9.69	0.0020	9089187				7.15	0.0020	9089187
RDL = Reportable Detection	Limit									

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TZ5979			TZ5979			TZ5980		
Sampling Date		2018/07/30			2018/07/30			2018/07/30		
Sampling Date		10:15			10:15			09:55		
COC Number		560075-01-01			560075-01-01			560075-01-01		
	UNITS	CC-1.5	RDL	QC Batch	CC-1.5 Lab-Dup	RDL	QC Batch	CC-3.5	RDL	QC Batch
Total Vanadium (V)	ug/L	0.31	0.20	9089187				0.31	0.20	9089187
Total Zinc (Zn)	ug/L	0.36	0.10	9089187				0.23	0.10	9089187
Total Zirconium (Zr)	ug/L	0.39	0.10	9089187				0.44	0.10	9089187
Total Calcium (Ca)	mg/L	53.1	0.050	9088398				40.7	0.050	9088398
Total Magnesium (Mg)	mg/L	16.4	0.050	9088398				12.1	0.050	9088398
Total Potassium (K)	mg/L	3.27	0.050	9088398				2.27	0.050	9088398
Total Sodium (Na)	mg/L	4.27	0.050	9088398				3.96	0.050	9088398
Total Sulphur (S)	mg/L	36.1	3.0	9088398				23.9	3.0	9088398

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TZ5982	TZ5983	TZ5984		TZ6011	TZ6013		
Sampling Date		2018/07/30	2018/07/30	2018/07/30		2018/07/30	2018/07/30		
Jamping Date		10:45	16:30	16:00		09:25	08:40		
COC Number		560075-01-01	560075-01-01	560075-01-01		560075-02-01	560075-02-01		
	UNITS	HC-2.5	HC-5.0	YT-24	QC Batch	LATTE MIX	FIELD BLANK	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	119	119	133	9088392	100	<0.50	0.50	9088392
Elements	•				•			•	
Total Mercury (Hg)	ug/L	0.0023	0.0021	0.0026	9090118	0.0027	<0.0020	0.0020	9090093
Total Metals by ICPMS	•				•				
Total Aluminum (AI)	ug/L	59.2	38.8	107	9089187	54.3	0.98	0.50	9089187
Total Antimony (Sb)	ug/L	0.503	0.208	0.158	9089187	0.113	<0.020	0.020	9089187
Total Arsenic (As)	ug/L	0.925	0.583	0.472	9089187	0.423	<0.020	0.020	9089187
Total Barium (Ba)	ug/L	42.2	50.9	69.8	9089187	50.4	0.027	0.020	9089187
Total Beryllium (Be)	ug/L	0.013	0.015	0.011	9089187	<0.010	<0.010	0.010	9089187
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	9089187	<0.0050	<0.0050	0.0050	9089187
Total Boron (B)	ug/L	<10	<10	<10	9089187	<10	<10	10	9089187
Total Cadmium (Cd)	ug/L	<0.0050	<0.0050	0.0093	9089187	0.0061	<0.0050	0.0050	9089187
Total Chromium (Cr)	ug/L	0.26	0.25	0.35	9089187	0.29	<0.10	0.10	9089187
Total Cobalt (Co)	ug/L	0.0493	0.0440	0.121	9089187	0.0460	<0.0050	0.0050	9089187
Total Copper (Cu)	ug/L	1.20	1.53	1.68	9089187	2.09	0.066	0.050	9089187
Total Iron (Fe)	ug/L	45.2	26.0	128	9089187	40.5	2.5	1.0	9089187
Total Lead (Pb)	ug/L	0.0163	0.0114	0.0575	9089187	0.0055	0.0167	0.0050	9089187
Total Lithium (Li)	ug/L	1.17	0.98	0.55	9089187	1.24	<0.50	0.50	9089187
Total Manganese (Mn)	ug/L	4.35	0.927	3.69	9089187	4.37	<0.050	0.050	9089187
Total Molybdenum (Mo)	ug/L	1.60	0.617	0.428	9089187	0.711	<0.050	0.050	9089187
Total Nickel (Ni)	ug/L	0.526	0.816	0.724	9089187	0.877	<0.020	0.020	9089187
Total Phosphorus (P)	ug/L	2.3	3.2	2.9	9089187	<2.0	2.5	2.0	9089187
Total Selenium (Se)	ug/L	0.061	0.076	0.086	9089187	0.090	<0.040	0.040	9089187
Total Silicon (Si)	ug/L	4970	4420	3980	9089187	5120	<50	50	9089187
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	9089187	<0.0050	<0.0050	0.0050	9089187
Total Strontium (Sr)	ug/L	342	275	248	9089187	137	<0.050	0.050	9089187
Total Thallium (TI)	ug/L	0.0027	0.0033	<0.0020	9089187	0.0044	<0.0020	0.0020	9089187
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	9089187	<0.20	<0.20	0.20	9089187
Total Titanium (Ti)	ug/L	0.89	0.68	5.75	9089187	<0.50	<0.50	0.50	9089187
Total Uranium (U)	ug/L	35.4	11.9	1.70	9089187	6.46	<0.0020	0.0020	9089187
Total Vanadium (V)	ug/L	0.40	0.39	0.48	9089187	0.45	<0.20	0.20	9089187
RDL = Reportable Detection I	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TZ5982	TZ5983	TZ5984		TZ6011	TZ6013		
Sampling Date		2018/07/30	2018/07/30	2018/07/30		2018/07/30	2018/07/30		
Jamping Date		10:45	16:30	16:00		09:25	08:40		
COC Number		560075-01-01	560075-01-01	560075-01-01		560075-02-01	560075-02-01		
	UNITS	HC-2.5	HC-5.0	YT-24	QC Batch	LATTE MIX	FIELD BLANK	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.21	0.12	0.53	9089187	0.29	0.11	0.10	9089187
Total Zirconium (Zr)	ug/L	0.38	0.37	0.40	9089187	0.37	<0.10	0.10	9089187
Total Calcium (Ca)	mg/L	29.3	31.7	37.3	9088398	25.4	<0.050	0.050	9088398
Total Magnesium (Mg)	mg/L	11.2	9.71	9.60	9088398	9.01	<0.050	0.050	9088398
Total Potassium (K)	mg/L	2.10	2.36	2.15	9088398	1.46	<0.050	0.050	9088398
Total Sodium (Na)	mg/L	3.27	3.67	3.75	9088398	4.34	<0.050	0.050	9088398
Total Sulphur (S)	mg/L	13.8	14.7	24.8	9088398	17.7	<3.0	3.0	9088398
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

COC Number   560075-02-01	Maxxam ID		TZ6013		
COC Number   UNITS   FIELD BLANK   RDL   QC Batch	Sampling Date				
UNITS   FIELD BLANK   Lab-Dup   RDL   QC Batch	COC Number				
Company   Comp	COC Number				
Total Mercury (Hg)         ug/L         <0.0020		UNITS		RDL	QC Batch
Total Metals by ICPMS           Total Aluminum (Al)         ug/L         0.71         0.50         9089187           Total Antimony (Sb)         ug/L         <0.020	Elements				
Total Aluminum (Al)	Total Mercury (Hg)	ug/L	<0.0020	0.0020	9090093
Total Antimony (Sb)         ug/L         <0.020         0.020         9089187           Total Arsenic (As)         ug/L         <0.020	Total Metals by ICPMS				
Total Arsenic (As)         ug/L         <0.020         0.020         9089187           Total Barium (Ba)         ug/L         0.027         0.020         9089187           Total Beryllium (Be)         ug/L         <0.010	Total Aluminum (AI)	ug/L	0.71	0.50	9089187
Total Barium (Ba)         ug/L         0.027         0.020         9089187           Total Beryllium (Be)         ug/L         <0.010	Total Antimony (Sb)	ug/L	<0.020	0.020	9089187
Total Beryllium (Be)         ug/L         <0.010         0.010         9089187           Total Bismuth (Bi)         ug/L         <0.0050	Total Arsenic (As)	ug/L	<0.020	0.020	9089187
Total Bismuth (Bi)	Total Barium (Ba)	ug/L	0.027	0.020	9089187
Total Boron (B)	Total Beryllium (Be)	ug/L	<0.010	0.010	9089187
Total Cadmium (Cd)	Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9089187
Total Chromium (Cr)         ug/L         <0.10         9089187           Total Cobalt (Co)         ug/L         <0.0050	Total Boron (B)	ug/L	<10	10	9089187
Total Cobalt (Co)         ug/L         <0.0050         9089187           Total Copper (Cu)         ug/L         0.060         0.050         9089187           Total Iron (Fe)         ug/L         1.5         1.0         9089187           Total Lead (Pb)         ug/L         0.0156         0.0050         9089187           Total Lead (Pb)         ug/L         <0.50	Total Cadmium (Cd)	ug/L	<0.0050	0.0050	9089187
Total Copper (Cu) ug/L 0.060 0.050 9089187  Total Iron (Fe) ug/L 1.5 1.0 9089187  Total Lead (Pb) ug/L 0.0156 0.0050 9089187  Total Lithium (Li) ug/L <0.50 0.50 9089187  Total Manganese (Mn) ug/L <0.050 0.050 9089187  Total Molybdenum (Mo) ug/L <0.050 0.050 9089187  Total Nickel (Ni) ug/L <0.020 0.020 9089187  Total Phosphorus (P) ug/L <2.0 2.0 9089187  Total Selenium (Se) ug/L <0.040 0.040 9089187  Total Silicon (Si) ug/L <50 50 9089187  Total Silver (Ag) ug/L <0.0050 0.0050 9089187  Total Strontium (Sr) ug/L <0.0050 0.0050 9089187  Total Strontium (Sr) ug/L <0.0050 0.0050 9089187  Total Thallium (TI) ug/L <0.0050 0.0050 9089187  Total Titanium (Ti) ug/L <0.0020 0.0020 9089187  Total Titanium (Ti) ug/L <0.0020 0.0020 9089187  Total Titanium (Ti) ug/L <0.0020 0.0020 9089187  Total Uranium (U) ug/L <0.0020 0.0020 9089187  Total Vanadium (V) ug/L <0.20 0.20 9089187	Total Chromium (Cr)	ug/L	<0.10	0.10	9089187
Total Iron (Fe)         ug/L         1.5         1.0         9089187           Total Lead (Pb)         ug/L         0.0156         0.0050         9089187           Total Lithium (Li)         ug/L         <0.50	Total Cobalt (Co)	ug/L	<0.0050	0.0050	9089187
Total Lead (Pb)         ug/L         0.0156         0.0050         9089187           Total Lithium (Li)         ug/L         <0.50	Total Copper (Cu)	ug/L	0.060	0.050	9089187
Total Lithium (Li)         ug/L         <0.50         0.50         9089187           Total Manganese (Mn)         ug/L         <0.050	Total Iron (Fe)	ug/L	1.5	1.0	9089187
Total Manganese (Mn)         ug/L         <0.050         9089187           Total Molybdenum (Mo)         ug/L         <0.050	Total Lead (Pb)	ug/L	0.0156	0.0050	9089187
Total Molybdenum (Mo)         ug/L         <0.050         9089187           Total Nickel (Ni)         ug/L         <0.020	Total Lithium (Li)	ug/L	<0.50	0.50	9089187
Total Nickel (Ni)         ug/L         <0.020         0.020         9089187           Total Phosphorus (P)         ug/L         <2.0	Total Manganese (Mn)	ug/L	<0.050	0.050	9089187
Total Phosphorus (P)         ug/L         <2.0         2.0         9089187           Total Selenium (Se)         ug/L         <0.040	Total Molybdenum (Mo)	ug/L	<0.050	0.050	9089187
Total Selenium (Se)         ug/L         <0.040         9089187           Total Silicon (Si)         ug/L         <50	Total Nickel (Ni)	ug/L	<0.020	0.020	9089187
Total Silicon (Si)         ug/L         <50         50         9089187           Total Silver (Ag)         ug/L         <0.0050	Total Phosphorus (P)	ug/L	<2.0	2.0	9089187
Total Silver (Ag)         ug/L         <0.0050         0.0050         9089187           Total Strontium (Sr)         ug/L         <0.050	Total Selenium (Se)	ug/L	<0.040	0.040	9089187
Total Strontium (Sr)         ug/L         <0.050         0.050         9089187           Total Thallium (TI)         ug/L         <0.0020	Total Silicon (Si)	ug/L	<50	50	9089187
Total Thallium (TI)         ug/L         <0.0020         0.0020         9089187           Total Tin (Sn)         ug/L         <0.20	Total Silver (Ag)	ug/L	<0.0050	0.0050	9089187
Total Tin (Sn)         ug/L         <0.20         0.20         9089187           Total Titanium (Ti)         ug/L         <0.50	Total Strontium (Sr)	ug/L	<0.050	0.050	9089187
Total Titanium (Ti)         ug/L         <0.50         0.50         9089187           Total Uranium (U)         ug/L         <0.0020	Total Thallium (TI)	ug/L	<0.0020	0.0020	9089187
Total Uranium (U)         ug/L         <0.0020         0.0020         9089187           Total Vanadium (V)         ug/L         <0.20	Total Tin (Sn)	ug/L	<0.20	0.20	9089187
Total Vanadium (V) $ug/L$ <0.20 0.20 9089187 RDL = Reportable Detection Limit	Total Titanium (Ti)	ug/L	<0.50	0.50	9089187
RDL = Reportable Detection Limit	Total Uranium (U)	ug/L	<0.0020	0.0020	9089187
·	Total Vanadium (V)	ug/L	<0.20	0.20	9089187
Lab-Dup = Laboratory Initiated Duplicate	RDL = Reportable Detection	Limit			
	Lab-Dup = Laboratory Initiat	ed Duplio	cate		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		TZ6013		
Sampling Date		2018/07/30 08:40		
COC Number		560075-02-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Zinc (Zn)	UNITS ug/L		<b>RDL</b> 0.10	<b>QC Batch</b> 9089187

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TZ5978		TZ5981		TZ5985		TZ5986		
		2018/07/30		2018/07/30		2018/07/30		2018/07/30		
Sampling Date		09:40		08:55		15:42		14:55		
COC Number		560075-01-01		560075-01-01		560075-01-01		560075-01-01		
	UNITS	CC-0.5	QC Batch	CC-4.5	QC Batch	YT-24 MIX	QC Batch	COFFEE MIX	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	98.0	9088392	97.8	9088392	92.8	9088392	92.0	0.50	9088392
Elements		•	•				•			
Total Mercury (Hg)	ug/L	<0.0020	9093205	0.0028	9090118	<0.0020	9090093	<0.0020	0.0020	9090118
Total Metals by ICPMS		•	•				•			
Total Aluminum (AI)	ug/L	220	9093773	63.0	9093773	266	9093773	234	3.0	9093773
Total Antimony (Sb)	ug/L	0.125	9093773	0.127	9093773	0.140	9093773	0.149	0.020	9093773
Total Arsenic (As)	ug/L	0.564	9093773	0.410	9093773	0.707	9093773	0.669	0.020	9093773
Total Barium (Ba)	ug/L	54.0	9093773	59.0	9093773	53.7	9093773	51.7	0.050	9093773
Total Beryllium (Be)	ug/L	0.012	9093773	0.013	9093773	0.012	9093773	0.013	0.010	9093773
Total Bismuth (Bi)	ug/L	<0.010	9093773	<0.010	9093773	<0.010	9093773	<0.010	0.010	9093773
Total Boron (B)	ug/L	<10	9093773	<10	9093773	<10	9093773	<10	10	9093773
Total Cadmium (Cd)	ug/L	0.0113	9093773	0.0091	9093773	0.0527	9093773	0.0521	0.0050	9093773
Total Chromium (Cr)	ug/L	0.48	9093773	0.29	9093773	0.52	9093773	0.52	0.10	9093773
Total Cobalt (Co)	ug/L	0.153	9093773	0.051	9093773	0.200	9093773	0.192	0.010	9093773
Total Copper (Cu)	ug/L	2.39	9093773	2.05	9093773	1.33	9093773	1.28	0.10	9093773
Total Iron (Fe)	ug/L	258	9093773	44.4	9093773	391	9093773	353	5.0	9093773
Total Lead (Pb)	ug/L	0.082	9093773	<0.020	9093773	0.214	9093773	0.218	0.020	9093773
Total Lithium (Li)	ug/L	1.62	9093773	0.85	9093773	1.84	9093773	1.75	0.50	9093773
Total Manganese (Mn)	ug/L	12.3	9093773	4.80	9093773	20.7	9093773	17.9	0.10	9093773
Total Molybdenum (Mo)	ug/L	0.760	9093773	0.671	9093773	1.29	9093773	1.31	0.050	9093773
Total Nickel (Ni)	ug/L	1.21	9093773	0.91	9093773	1.44	9093773	1.36	0.10	9093773
Total Phosphorus (P)	ug/L	13.1	9093773	<5.0	9093773	24.9	9093773	53.3	5.0	9093773
Total Selenium (Se)	ug/L	0.103	9093773	0.079	9093773	0.322	9093773	0.335	0.040	9093773
Total Silicon (Si)	ug/L	5520	9093773	5060	9093773	3240	9093773	3080	50	9093773
Total Silver (Ag)	ug/L	<0.010	9093773	<0.010	9093773	<0.010	9093773	<0.010	0.010	9093773
Total Strontium (Sr)	ug/L	125	9093773	138	9093773	124	9093773	122	0.050	9093773
Total Thallium (TI)	ug/L	0.0081	9093773	0.0041	9093773	0.0075	9093773	0.0063	0.0020	9093773
Total Tin (Sn)	ug/L	<0.20	9093773	<0.20	9093773	<0.20	9093773	<0.20	0.20	9093773
Total Titanium (Ti)	ug/L	10.9	9093773	<2.0	9093773	10.0	9093773	6.8	2.0	9093773
Total Uranium (U)	ug/L	6.87	9093773	3.17	9093773	1.06	9093773	1.03	0.0050	9093773
Total Vanadium (V)	ug/L	0.93	9093773	0.39	9093773	1.02	9093773	1.01	0.20	9093773
Total Zinc (Zn)	ug/L	1.1	9093773	<1.0	9093773	6.5	9093773	5.6	1.0	9093773
RDL = Reportable Detection	Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TZ5978		TZ5981		TZ5985		TZ5986		
Campling Data		2018/07/30		2018/07/30		2018/07/30		2018/07/30		
Sampling Date		09:40		08:55		15:42		14:55		
COC Number		560075-01-01		560075-01-01		560075-01-01		560075-01-01		
	UNITS	CC-0.5	QC Batch	CC-4.5	QC Batch	YT-24 MIX	QC Batch	COFFEE MIX	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.33	9093773	0.32	9093773	0.13	9093773	<0.10	0.10	9093773
Total Calcium (Ca)	mg/L	24.3	9088398	24.7	9088398	25.0	9088398	25.1	0.25	9088398
Total Magnesium (Mg)	mg/L	9.03	9088398	8.75	9088398	7.36	9088398	7.13	0.25	9088398
Total Potassium (K)	mg/L	1.41	9088398	1.50	9088398	0.97	9088398	0.90	0.25	9088398
Total Sodium (Na)	mg/L	4.50	9088398	4.21	9088398	2.07	9088398	2.11	0.25	9088398
Total Sulphur (S)	mg/L	16.7	9088398	16.5	9088398	7.7	9088398	7.6	3.0	9088398
RDL = Reportable Detection L	imit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampling Date						
sampling Date		2018/07/30		2018/07/30		
		17:00		17:00		
COC Number		560075-01-01		560075-02-01		
	UNITS	HALFWAY MIX	QC Batch	DUP	RDL	QC Batch
Calculated Parameters						
Fotal Hardness (CaCO3)	mg/L	92.7	9088392	92.6	0.50	9088392
Elements	•				•	
Total Mercury (Hg)	ug/L	<0.0020	9090118	<0.0020	0.0020	9090093
Total Metals by ICPMS						
Fotal Aluminum (Al)	ug/L	187	9093773	184	3.0	9090443
Fotal Antimony (Sb)	ug/L	0.173	9093773	0.242	0.020	9090443
Total Arsenic (As)	ug/L	0.657	9093773	0.759	0.020	9090443
Гotal Barium (Ba)	ug/L	51.8	9093773	53.2	0.050	9090443
Гotal Beryllium (Be)	ug/L	<0.010	9093773	0.011	0.010	9090443
Fotal Bismuth (Bi)	ug/L	<0.010	9093773	<0.010	0.010	9090443
Гotal Boron (B)	ug/L	<10	9093773	<10	10	9090443
Fotal Cadmium (Cd)	ug/L	0.0456	9093773	0.0553	0.0050	9090443
Fotal Chromium (Cr)	ug/L	0.36	9093773	0.42	0.10	9090443
Fotal Cobalt (Co)	ug/L	0.128	9093773	0.192	0.010	9090443
Fotal Copper (Cu)	ug/L	1.16	9093773	1.81	0.10	9090443
Гotal Iron (Fe)	ug/L	247	9093773	296	5.0	9090443
Fotal Lead (Pb)	ug/L	0.140	9093773	0.270	0.020	9090443
Fotal Lithium (Li)	ug/L	1.78	9093773	1.79	0.50	9090443
Total Manganese (Mn)	ug/L	14.9	9093773	21.7	0.10	9090443
Fotal Molybdenum (Mo)	ug/L	1.29	9093773	1.32	0.050	9090443
Total Nickel (Ni)	ug/L	1.39	9093773	1.46	0.10	9090443
Fotal Phosphorus (P)	ug/L	26.3	9093773	38.5	5.0	9090443
Fotal Selenium (Se)	ug/L	0.332	9093773	0.325	0.040	9090443
Total Silicon (Si)	ug/L	3070	9093773	3130	50	9090443
Total Silver (Ag)	ug/L	<0.010	9093773	0.071	0.010	9090443
Fotal Strontium (Sr)	ug/L	122	9093773	130	0.050	9090443
Total Thallium (Tl)	ug/L	0.0054	9093773	0.0061	0.0020	9090443
Fotal Tin (Sn)	ug/L	<0.20	9093773	0.22	0.20	9090443
Fotal Titanium (Ti)	ug/L	5.3	9093773	7.2	2.0	9090443
Гotal Uranium (U)	ug/L	1.03	9093773	1.05	0.0050	9090443
Fotal Vanadium (V)	ug/L	0.80	9093773	0.82	0.20	9090443
Fotal Zinc (Zn)	ug/L	5.5	9093773	12.8	1.0	9090443
RDL = Reportable Detection	Limit				•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		TZ5987		TZ6012		
Sampling Date		2018/07/30		2018/07/30		
		17:00		17:00		
COC Number		560075-01-01		560075-02-01		
	UNITS	HALFWAY MIX	QC Batch	DUP	RDL	QC Batch
Total Zirconium (Zr)	ug/L	<0.10	9093773	<0.10	0.10	9090443
Total Calcium (Ca)	mg/L	25.3	9088398	25.5	0.25	9088398
Total Magnesium (Mg)	mg/L	7.17	9088398	7.03	0.25	9088398
Total Potassium (K)	mg/L	0.89	9088398	1.31	0.25	9088398
Total Sodium (Na)	mg/L	2.09	9088398	2.32	0.25	9088398
Total Sulphur (S)	mg/L	7.7	9088398	8.1	3.0	9088398
RDL = Reportable Detection	Limit					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **GENERAL COMMENTS**

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER) Comments

Matrix Spike Elements by ICPMS Low Level (dissolved): Detection limits raised due to dilution to bring analyte within the calibrated range.

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix Spike		Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9089010	ORP	2018/08/07							1.8	20
9089153	Nitrate plus Nitrite (N)	2018/08/02	107	80 - 120	102	80 - 120	<0.0020	mg/L	3.9	25
9089156	Nitrite (N)	2018/08/02	99	80 - 120	101	80 - 120	<0.0020	mg/L	NC	25
9089187	Total Aluminum (Al)	2018/08/03	99	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
9089187	Total Antimony (Sb)	2018/08/03	98	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9089187	Total Arsenic (As)	2018/08/03	99	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9089187	Total Barium (Ba)	2018/08/03	98	80 - 120	98	80 - 120	<0.020	ug/L	0.37	20
9089187	Total Beryllium (Be)	2018/08/03	91	80 - 120	92	80 - 120	<0.010	ug/L	NC	20
9089187	Total Bismuth (Bi)	2018/08/03	90	80 - 120	99	80 - 120	< 0.0050	ug/L	NC	20
9089187	Total Boron (B)	2018/08/03	91	80 - 120	94	80 - 120	<10	ug/L	NC	20
9089187	Total Cadmium (Cd)	2018/08/03	101	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9089187	Total Chromium (Cr)	2018/08/03	98	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9089187	Total Cobalt (Co)	2018/08/03	97	80 - 120	99	80 - 120	< 0.0050	ug/L	NC	20
9089187	Total Copper (Cu)	2018/08/03	98	80 - 120	99	80 - 120	<0.050	ug/L	8.4	20
9089187	Total Iron (Fe)	2018/08/03	97	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
9089187	Total Lead (Pb)	2018/08/03	98	80 - 120	100	80 - 120	< 0.0050	ug/L	6.8	20
9089187	Total Lithium (Li)	2018/08/03	92	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
9089187	Total Manganese (Mn)	2018/08/03	98	80 - 120	100	80 - 120	< 0.050	ug/L	NC	20
9089187	Total Molybdenum (Mo)	2018/08/03	97	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
9089187	Total Nickel (Ni)	2018/08/03	98	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9089187	Total Phosphorus (P)	2018/08/03	101	80 - 120	101	80 - 120	<2.0	ug/L	NC	20
9089187	Total Selenium (Se)	2018/08/03	99	80 - 120	100	80 - 120	<0.040	ug/L	NC	20
9089187	Total Silicon (Si)	2018/08/03	97	80 - 120	101	80 - 120	<50	ug/L	NC	20
9089187	Total Silver (Ag)	2018/08/03	91	80 - 120	101	80 - 120	< 0.0050	ug/L	NC	20
9089187	Total Strontium (Sr)	2018/08/03	99	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
9089187	Total Thallium (TI)	2018/08/03	98	80 - 120	99	80 - 120	< 0.0020	ug/L	NC	20
9089187	Total Tin (Sn)	2018/08/03	100	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
9089187	Total Titanium (Ti)	2018/08/03	97	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
9089187	Total Uranium (U)	2018/08/03	99	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
9089187	Total Vanadium (V)	2018/08/03	99	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
9089187	Total Zinc (Zn)	2018/08/03	102	80 - 120	100	80 - 120	<0.10	ug/L	5.1	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	<u></u>
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9089187	Total Zirconium (Zr)	2018/08/03	99	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
9089599	рН	2018/08/02			101	97 - 103			1.8	20
9089602	Alkalinity (PP as CaCO3)	2018/08/02					<0.50	mg/L		
9089602	Alkalinity (Total as CaCO3)	2018/08/02	NC	80 - 120	101	80 - 120	<0.50	mg/L		
9089602	Bicarbonate (HCO3)	2018/08/02					<0.50	mg/L		
9089602	Carbonate (CO3)	2018/08/02					<0.50	mg/L		
9089602	Hydroxide (OH)	2018/08/02					<0.50	mg/L		
9089603	Conductivity	2018/08/02			99	80 - 120	1.0, RDL=1.0	uS/cm		
9089604	рН	2018/08/03			101	97 - 103			0.38	20
9089607	Alkalinity (PP as CaCO3)	2018/08/03					<0.50	mg/L	NC	20
9089607	Alkalinity (Total as CaCO3)	2018/08/03	NC	80 - 120	102	80 - 120	<0.50	mg/L	0.35	20
9089607	Bicarbonate (HCO3)	2018/08/03					<0.50	mg/L	0.35	20
9089607	Carbonate (CO3)	2018/08/03					<0.50	mg/L	NC	20
9089607	Hydroxide (OH)	2018/08/03					<0.50	mg/L	NC	20
9089608	Conductivity	2018/08/03			99	80 - 120	1.0, RDL=1.0	uS/cm	0.24	20
9089630	рН	2018/08/03			101	97 - 103				
9089633	Alkalinity (PP as CaCO3)	2018/08/03					<0.50	mg/L		
9089633	Alkalinity (Total as CaCO3)	2018/08/03			95	80 - 120	<0.50	mg/L		
9089633	Bicarbonate (HCO3)	2018/08/03					<0.50	mg/L		
9089633	Carbonate (CO3)	2018/08/03					<0.50	mg/L		
9089633	Hydroxide (OH)	2018/08/03					<0.50	mg/L		
9089634	Conductivity	2018/08/03			99	80 - 120	<1.0	uS/cm		
9090093	Total Mercury (Hg)	2018/08/03	100	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9090118	Total Mercury (Hg)	2018/08/03	90	80 - 120	94	80 - 120	< 0.0020	ug/L	2.5	20
9090233	Dissolved Mercury (Hg)	2018/08/03	92	80 - 120	98	80 - 120	<0.0020	ug/L	4.6	20
9090351	Total Dissolved Solids	2018/08/07	103	80 - 120	98	80 - 120	<10	mg/L	0.70	20
9090371	Total Suspended Solids	2018/08/07			101	80 - 120	<1.0	mg/L		
9090383	Dissolved Mercury (Hg)	2018/08/03	99	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9090443	Total Aluminum (AI)	2018/08/08	167 (1)	80 - 120	106	80 - 120	<3.0	ug/L	29 (1)	20
9090443	Total Antimony (Sb)	2018/08/08	109	80 - 120	106	80 - 120	<0.020	ug/L	4.0	20
9090443	Total Arsenic (As)	2018/08/08	119	80 - 120	111	80 - 120	<0.020	ug/L	1.1	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPE	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9090443	Total Barium (Ba)	2018/08/08	111	80 - 120	109	80 - 120	<0.050	ug/L	4.0	20
9090443	Total Beryllium (Be)	2018/08/08	111	80 - 120	105	80 - 120	<0.010	ug/L	6.1	20
9090443	Total Bismuth (Bi)	2018/08/08	103	80 - 120	103	80 - 120	<0.010	ug/L	NC	20
9090443	Total Boron (B)	2018/08/08	106	80 - 120	102	80 - 120	<10	ug/L	NC	20
9090443	Total Cadmium (Cd)	2018/08/08	110	80 - 120	105	80 - 120	<0.0050	ug/L	9.3	20
9090443	Total Chromium (Cr)	2018/08/08	106	80 - 120	103	80 - 120	<0.10	ug/L	32 (1)	20
9090443	Total Cobalt (Co)	2018/08/08	103	80 - 120	102	80 - 120	<0.010	ug/L	26 (1)	20
9090443	Total Copper (Cu)	2018/08/08	101	80 - 120	101	80 - 120	<0.10	ug/L	38 (1)	20
9090443	Total Iron (Fe)	2018/08/08	149 (1)	80 - 120	107	80 - 120	<5.0	ug/L	33 (1)	20
9090443	Total Lead (Pb)	2018/08/08	107	80 - 120	106	80 - 120	<0.020	ug/L	18	20
9090443	Total Lithium (Li)	2018/08/08	111	80 - 120	104	80 - 120	<0.50	ug/L	7.6	20
9090443	Total Manganese (Mn)	2018/08/08	109	80 - 120	104	80 - 120	<0.10	ug/L	17	20
9090443	Total Molybdenum (Mo)	2018/08/08	112	80 - 120	108	80 - 120	<0.050	ug/L	3.0	20
9090443	Total Nickel (Ni)	2018/08/08	102	80 - 120	101	80 - 120	<0.10	ug/L	17	20
9090443	Total Phosphorus (P)	2018/08/08	113	80 - 120	104	80 - 120	<5.0	ug/L		
9090443	Total Selenium (Se)	2018/08/08	114	80 - 120	108	80 - 120	<0.040	ug/L	11	20
9090443	Total Silicon (Si)	2018/08/08	129 (1)	80 - 120	108	80 - 120	<50	ug/L	6.6	20
9090443	Total Silver (Ag)	2018/08/08	108	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
9090443	Total Strontium (Sr)	2018/08/08	NC	80 - 120	113	80 - 120	<0.050	ug/L	0.60	20
9090443	Total Thallium (TI)	2018/08/08	105	80 - 120	104	80 - 120	<0.0020	ug/L	9.7	20
9090443	Total Tin (Sn)	2018/08/08	106	80 - 120	105	80 - 120	<0.20	ug/L	NC	20
9090443	Total Titanium (Ti)	2018/08/08	134 (1)	80 - 120	108	80 - 120	<2.0	ug/L	32 (1)	20
9090443	Total Uranium (U)	2018/08/08	110	80 - 120	110	80 - 120	<0.0050	ug/L	1.4	20
9090443	Total Vanadium (V)	2018/08/08	109	80 - 120	105	80 - 120	<0.20	ug/L	NC	20
9090443	Total Zinc (Zn)	2018/08/08	106	80 - 120	102	80 - 120	<1.0	ug/L	18	20
9090443	Total Zirconium (Zr)	2018/08/08	120	80 - 120	107	80 - 120	<0.10	ug/L	NC	20
9090654	Dissolved Aluminum (AI)	2018/08/04	87	80 - 120	98	80 - 120	<0.50	ug/L	16	20
9090654	Dissolved Antimony (Sb)	2018/08/04	91	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
9090654	Dissolved Arsenic (As)	2018/08/04	89	80 - 120	97	80 - 120	<0.020	ug/L	NC	20
9090654	Dissolved Barium (Ba)	2018/08/04	NC	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
9090654	Dissolved Beryllium (Be)	2018/08/04	83	80 - 120	91	80 - 120	<0.010	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method B	lank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9090654	Dissolved Bismuth (Bi)	2018/08/04	83	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
9090654	Dissolved Boron (B)	2018/08/04	NC	80 - 120	86	80 - 120	<10	ug/L	NC	20
9090654	Dissolved Cadmium (Cd)	2018/08/04	89	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9090654	Dissolved Chromium (Cr)	2018/08/04	90	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
9090654	Dissolved Cobalt (Co)	2018/08/04	90	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
9090654	Dissolved Copper (Cu)	2018/08/04	90	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
9090654	Dissolved Iron (Fe)	2018/08/04	95	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
9090654	Dissolved Lead (Pb)	2018/08/04	86	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9090654	Dissolved Lithium (Li)	2018/08/04	NC	80 - 120	87	80 - 120	<0.50	ug/L	NC	20
9090654	Dissolved Manganese (Mn)	2018/08/04	91	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
9090654	Dissolved Molybdenum (Mo)	2018/08/04	NC	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9090654	Dissolved Nickel (Ni)	2018/08/04	88	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
9090654	Dissolved Phosphorus (P)	2018/08/04	87	80 - 120	93	80 - 120	<2.0	ug/L	NC	20
9090654	Dissolved Selenium (Se)	2018/08/04	93	80 - 120	100	80 - 120	<0.040	ug/L	NC	20
9090654	Dissolved Silicon (Si)	2018/08/04	98	80 - 120	102	80 - 120	<50	ug/L	NC	20
9090654	Dissolved Silver (Ag)	2018/08/04	84	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9090654	Dissolved Strontium (Sr)	2018/08/04	NC	80 - 120	96	80 - 120	<0.050	ug/L	NC	20
9090654	Dissolved Thallium (Tl)	2018/08/04	87	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
9090654	Dissolved Tin (Sn)	2018/08/04	89	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
9090654	Dissolved Titanium (Ti)	2018/08/04	93	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9090654	Dissolved Uranium (U)	2018/08/04	88	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
9090654	Dissolved Vanadium (V)	2018/08/04	92	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
9090654	Dissolved Zinc (Zn)	2018/08/04	91	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
9090654	Dissolved Zirconium (Zr)	2018/08/04	91	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
9090876	Dissolved Chloride (CI)	2018/08/03	97	80 - 120	97	80 - 120	<0.50	mg/L	NC	20
9090879	Dissolved Sulphate (SO4)	2018/08/03	NC	80 - 120	98	80 - 120	0.52, RDL=0.50	mg/L	0.36	20
9090997	Fluoride (F)	2018/08/03	96	80 - 120	98	80 - 120	<0.010	mg/L	1.6	20
9091206	Fluoride (F)	2018/08/03	96	80 - 120	98	80 - 120	<0.010	mg/L	1.3	20
9091364	Total Ammonia (N)	2018/08/03			114	80 - 120	<0.0050	mg/L		
9093014	Dissolved Sulphate (SO4)	2018/08/03			103	80 - 120	<0.50	mg/L		
9093205	Total Mercury (Hg)	2018/08/07	82	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9093469	Total Organic Carbon (C)	2018/08/08	NC	80 - 120	98	80 - 120	<0.50	mg/L	16	20
9093472	Dissolved Organic Carbon (C)	2018/08/08	NC	80 - 120	98	80 - 120	<0.50	mg/L	2.1	20
9093773	Total Aluminum (AI)	2018/08/09	106	80 - 120	109	80 - 120	<3.0	ug/L	40 (1)	20
9093773	Total Antimony (Sb)	2018/08/09	106	80 - 120	106	80 - 120	<0.020	ug/L	5.6	20
9093773	Total Arsenic (As)	2018/08/09	110	80 - 120	107	80 - 120	<0.020	ug/L	0.68	20
9093773	Total Barium (Ba)	2018/08/09	104	80 - 120	106	80 - 120	<0.050	ug/L	0.56	20
9093773	Total Beryllium (Be)	2018/08/09	105	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
9093773	Total Bismuth (Bi)	2018/08/09	99	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
9093773	Total Boron (B)	2018/08/09	106	80 - 120	105	80 - 120	<10	ug/L	0.067	20
9093773	Total Cadmium (Cd)	2018/08/09	104	80 - 120	104	80 - 120	<0.0050	ug/L	0	20
9093773	Total Chromium (Cr)	2018/08/09	101	80 - 120	101	80 - 120	<0.10	ug/L	6.0	20
9093773	Total Cobalt (Co)	2018/08/09	98	80 - 120	99	80 - 120	<0.010	ug/L	16	20
9093773	Total Copper (Cu)	2018/08/09	95	80 - 120	98	80 - 120	<0.10	ug/L	4.3	20
9093773	Total Iron (Fe)	2018/08/09	102	80 - 120	105	80 - 120	<5.0	ug/L	NC	20
9093773	Total Lead (Pb)	2018/08/09	102	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
9093773	Total Lithium (Li)	2018/08/09	104	80 - 120	105	80 - 120	<0.50	ug/L	3.2	20
9093773	Total Manganese (Mn)	2018/08/09	103	80 - 120	102	80 - 120	<0.10	ug/L	15	20
9093773	Total Molybdenum (Mo)	2018/08/09	112	80 - 120	106	80 - 120	<0.050	ug/L	0.69	20
9093773	Total Nickel (Ni)	2018/08/09	97	80 - 120	100	80 - 120	<0.10	ug/L	11	20
9093773	Total Phosphorus (P)	2018/08/09	108	80 - 120	104	80 - 120	<5.0	ug/L	NC	20
9093773	Total Selenium (Se)	2018/08/09	108	80 - 120	105	80 - 120	<0.040	ug/L	3.0	20
9093773	Total Silicon (Si)	2018/08/09	NC	80 - 120	98	80 - 120	<50	ug/L	0.77	20
9093773	Total Silver (Ag)	2018/08/09	105	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
9093773	Total Strontium (Sr)	2018/08/09	NC	80 - 120	104	80 - 120	<0.050	ug/L	0.30	20
9093773	Total Thallium (TI)	2018/08/09	102	80 - 120	102	80 - 120	<0.0020	ug/L	NC	20
9093773	Total Tin (Sn)	2018/08/09	105	80 - 120	105	80 - 120	<0.20	ug/L	NC	20
9093773	Total Titanium (Ti)	2018/08/09	110	80 - 120	104	80 - 120	<2.0	ug/L	NC	20
9093773	Total Uranium (U)	2018/08/09	108	80 - 120	104	80 - 120	<0.0050	ug/L	0.14	20
9093773	Total Vanadium (V)	2018/08/09	104	80 - 120	101	80 - 120	<0.20	ug/L	11	20
9093773	Total Zinc (Zn)	2018/08/09	99	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
9093773	Total Zirconium (Zr)	2018/08/09	111	80 - 120	105	80 - 120	<0.10	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9094250	Dissolved Organic Carbon (C)	2018/08/08	106	80 - 120	96	80 - 120	<0.50	mg/L	NC	20
9094253	Total Organic Carbon (C)	2018/08/08	106	80 - 120	96	80 - 120	<0.50	mg/L	1.3	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

## **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Snelf tu
Andy Lu, Ph.D., P.Chem., Scientific Specialist
CAn at SW. Oliver
Moudhers Kour Chana
Mandheraj Chana, Junior Project Manager
Teny Way
Harry (Peng) Liang, Senior Analyst

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		NVOICE TO:				Report In	formatio	n						Project In	formation	ni (i	_	III ENZ	はからない 神経の神経 はずる	W/5 #1111	Page 1 c
many Name	#3604 LORAX	ENVIRONMENTAL SER	VICES LTD.	Company N	tame						Que	tation#	3	B40231					A PARTY WAS IN A	#21 III	Bottle Order #
ct Name	Aida Piaseczny			Contact Na	me David Flath	er					P.0			-					ARMS TANKS		
59	2289 BURRARE			Address	VOSA 57.						Pro	ect#		Gold Cor	p Coffe	e Creek-S	W B	8645	78 COC	C1353000001111	.560075
	VANCOUVER E	Section and Control of the Control o								7	Proj	ect Name							,0_000		Project Manage
N:	(604) 688-7173	The second secon	688-7175	Phone	-			Fax:			Site	ø	- 9					1 6			Diana Cruz
	aida.piaseczny@	@lorax.ca; shukling.ng@l	orax.ca	Email	David.Flath	er@lorax	ca				San	npled By						_	C#560075-01-01		Diditio Stug.
julatory Crit	toria			Spe	cial instructions		î	-				Analysis F	requested	1	>				Turnaround Time Please provide advance		
	Note: For regulated	drinking water samples - plosses	use the Drinking	Water Chain c	of Custody Form		inking Water? (Y)	Neutrine (Alk-LL, EC-LL, NH4- LL, pH, TDS)	/ Level	(LL:CI, F, NO2, NO3,	- WAD			el Dissolved Metals Hg	Level Total Metals incl. C		(M Si A) di Jo	nil be app andard T ease not lys - cont b Specific te Requin	standard) TAT  slied if Rush TAT is not specified AT = 5-7 Working days for most e e: Standard TAT for certain for act your Project Manager for del Rush TAT (if applies to entire so	) fesfs, such as BOD ar falls,	nd Dioxins/Furans a
	Negrobal Water	ust be kept cool ( < 10°C ) from to	(122 SERVE) 1 (12 (12 (12 (12 (12 (12 (12 (12 (12 (	2010 044 1104			lated	ifine (A pH, TD	TSS-Low	ns (I	apir	12	724	52	Leve	Egy: 1	Ru	sh Confirm	sation Number	(ced ii	sti for #)
Sample	Barcode Label	Sample (Location) Identifica	THE REAL PROPERTY.	te Sampled	Time Sampled	Matrix	Regu	Rour LL, F	TSS	Anions ( SO4)	Cyanide	100	DOC	Low incl.	Low	ORP	***	f. Batties		Comments	
BIRTHAN	W162743	CC-0.5		1430/18	09401	w	N	1 X	X	X	X	X	X	X	X	X	-	3		Jacob Market Services	
	D#162744	CC-1.5		(	1015h	. w	11	1 X	X	X	X	x	X	X	X	X		7			
	0#162745	CC-3.5		)	0955/	w		X	X	X	X	Х	X	×.	×	x	- 1		RECEIVED IN	WHITEH	ORSE
	DW162746	CC-4.5			08552	w		×	X	X	×	X	X	X	X	×		7	BY: FMin	My a	1200
	D#162747	HC-2.5		1	10451	W	Ш	X	X	X	×	X	X	X	X	X			201	8 -08- 0	1
58	D#162748	HC-5.0		5	1630h	w	Ш	X	X	X	X	X	X	X	X	X			TEMP. //	. 10	. 11
SI	DW149895	YT-24		1	1600h	W		X	X	X	X	X	X	X	X	X			TEMP:	9	9
SI	D#149896	YT-24 Mix		>	\$ 154DL	w	11	X	X	X	X	X	X	X	X	×			Ч	6	9
51	D#149897	Coffee Mix		4	1455/	w	1	X	X	X	X	X	×	X	X	У		47			
	D#149898	Halfway Mix		W	itoun	w	V	X	X	X	У	X	X	Y	X	×		W			
- 1	UISHED BY: (Signatur	Series .	Date: [YY/MM/D					(Signature/P	rint)			te: (YY/MM/		Time		used and ubmitted		_	Lab Use On		
13 6	1010		Ay 1/18	080	ch /	am	/ (	Hoh			10	13/08/	00	10:30	1 1	Ol .	Time Senyfive	1 alu	perature (°C) on Receipt	13	I Intact on Cooler?
	//		J												1 W	M	Ш	, 6	10/0/	Yes	
N VIEWING	AT WWW.MAXXAM.CA/	WRITING, WORK SUBMITTED ON TERMS. TELINQUISHER TO ENSURE THE A							n characteristics				OCUMEN	T IS ACKNO	WLEDGME	INT AND ACC	EPTANCE O	-	RMS WHICH ARE AVAILABLE	White Maco	am Yellow C
																			C F F		

Maxxam Analytics International Corporation o/a Maxxam Analytics

		INVOICE TO:	1		Report tr	formation	É						Project 1	nformatio	n	_		LE DE CHE CONTRACTOR SHADE (ALCOHOL)	Page 2 of 2
ompany Nam	#3604 LORA	ENVIRONMENTAL SERVICES	LTD. Company	Name						Our	tation#	1	B40231						Bottle Order#:
intact Name	Aida Piaseczny		Contact N	Ph. 14 P.	lather					P.O.							11 62		
ldréss	2289 BURRAR		Address	4						Proj	ect#	- 8	Gold Co	p Coffe	e Creek-	SW	B864	578_COC	560075
	VANCOUVER									Proj	ect Name								Project Manager
ione	(604) 688-7173	1400		D-145			Fax:			Site									Diana Cruz
sail	aida.piaseczny	@lorax.ca; shukling.ng@lorax.c			lather@lorax	.ca	-			San	pled By					_		C#560075-02-01	200000000000000000000000000000000000000
Regulatory	Criteria		Sp	ecial Instructions		-	Fage 1				Analysis F	dequested	1	ે				Turnargund Time (TAT) Please provide advance notice	111111111111111111111111111111111111111
	THE RESERVE OF THE PERSON NAMED IN	drinking water samples - please use th nust be kept cool ( < 18°C ) from time of sa	A DESCRIPTION OF THE PERSON OF	Wanted to the latest to the la		guisted Drinking Water ? (Y/N)	utine (Alk-LL, EC-LL pH, TDS)	TSS-Low Level	Anions (LL:Cl, F, NO2, NO3, SO4)	Cyanide - WAD	тос	DOC	Low Level Dissolved Metals incl. CV Hg	Low Level Total Metals incl. ( Hg	ORP		(will be ap Standard Please not days - con Job Specifi Date Requir	Standard) TAT  plied if Reuth TAT is not apecified) TAT = 5-7 Working days for most tests.  te: Standard TAT for certain tests such a tack your Project Manager for details.  Ic Rush TAT (if applies to entire submissi  red:  TI  miston Number	as BOD and Dioxins/Furans are > tion) time Required:
	le Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Reg Me	@ I	1 1	4 W	0	Ĕ,	۵	3.5	3Ĭ	ō		# of Bottles	Comm	ents
11111111	SID#149899	Latte Mix	30/130/18	0925h	w	NI	X	X	X	X	X	X	X	V	X		13		
0.000000		Dup	1	- 1	w	NI	1	V	1	1	V	V	V	×	×		13		
110000000	SID#208506	23/2//		1-100h	- "	1.	17	1	1	X	1	x	-		- 1				
118119	SID#214493	Field Blank	V	0840h	w	NN	X	X	X	X	X	¥	X	X	X		13	Field Blonk Botel 1	074
			111111111111111111111111111111111111111					-	/~		40.1								07248-672
									_										01410-014
					-													BECEIVED IN WHIT	EHORSE
									$\vdash$									my Me a	0/100
						-		-	-									Br. J. Hungeles	
						1-10												2018 -08-	11.7
8																		2001 100B	e 101
							-	-									_	TEMP: 1 0	70
-							_						_	- 6				5 9	
		1								1				-				4 6	9
. RELI	NOUISHED BY: (Signatu	Date	(YY/MM/DD) 11	me		-	Signature/F	rint)	200	_	te: (YY/MM/		Time	# jars	used and		·	Lab Use Only	
here	CLOTH	Aug	1/18 080	Ch /	U	100	HUM			20	11/08/	20	10.10	nots	ubmitted	Time Sers	Ten	The state of the s	stody Seal Intact on Cooler?
111121	1	U	200 00 33											1	VV.		-	6,6,61	Yes No
31131	4	N WRITING, WORK SUBMITTED ON THIS C									Section 1991								White Massam Yalique Chard

571

Maxxam Analytics International Corporation ola Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 555303-01-01, 555303-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/23

Report #: R2608223 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B868088 Received: 2018/08/13, 09:30

Sample Matrix: Water # Samples Received: 13

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Alkalinity - Low Level	13	N/A	2018/08/14	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	13	N/A	2018/08/15	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	13	N/A	2018/08/17	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	12	N/A	2018/08/14	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	1	N/A	2018/08/17	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	13	N/A	2018/08/16	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	1	N/A	2018/08/17	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (3)	12	N/A	2018/08/22	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	13	N/A	2018/08/17	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	7	N/A	2018/08/15	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	6	N/A	2018/08/16	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	13	2018/08/17	2018/08/17	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	13	N/A	2018/08/17	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	13	N/A	2018/08/16	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	12	2018/08/20	2018/08/22	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2018/08/17	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	12	N/A	2018/08/22	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	1	N/A	2018/08/17	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	13	N/A	2018/08/16	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	13	N/A	2018/08/15	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	13	N/A	2018/08/15	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	13	N/A	2018/08/15	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	13	N/A	2018/08/15	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	13	N/A	2018/08/15	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	13	N/A	2018/08/14	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	13	N/A	2018/08/15	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	12	2018/08/15	2018/08/16	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2018/08/15	2018/08/17	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	13	N/A	2018/08/17	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	13	2018/08/15	2018/08/15	BBY6SOP-00034	SM 22 2540 D



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 555303-01-01, 555303-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD. 2289 BURRARD STREET VANCOUVER, BC CANADA V6J 3H9

Report Date: 2018/08/23

Report #: R2608223 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B868088 Received: 2018/08/13, 09:30

Sample Matrix: Water # Samples Received: 13

		Date	Date		
Analyses	Quantity	/ Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Free (WAD) Cyanide (1)	13	N/A	2018/08/23	3 CAM SOP-00457	OMOE E3015 5 m

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 555303-01-01, 555303-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/23

Report #: R2608223 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B868088 Received: 2018/08/13, 09:30

**Encryption Key** 



Maxxam

23 Aug 2018 13:37:01

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Diana Cruz, Project Manager Email: DCruz@maxxam.ca Phone# (604) 734 7276

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6062			UB6062			UB6063		
Sampling Date		2018/08/11			2018/08/11			2018/08/11		
Sampling Bate		10:55			10:55			12:00		
COC Number		555303-01-01			555303-01-01			555303-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Parameter										
ORP	mV	316		9103622	320		9103622	314		9103622
Calculated Parameters	•		•	-		•	-		•	-
Filter and HNO3 Preservation	N/A	LAB		9102731				LAB		9102731
Nitrate (N)	mg/L	0.334	0.0020	9102544				0.349	0.0020	9102544
Misc. Inorganics										
Fluoride (F)	mg/L	0.058	0.010	9104843				0.045	0.010	9104843
Free Cyanide	mg/L	<0.0010	0.0010	9114571	<0.0010	0.0010	9114571	<0.0010	0.0010	9114571
Dissolved Organic Carbon (C)	mg/L	17.5	0.50	9106804				12.5	0.50	9106804
Alkalinity (Total as CaCO3)	mg/L	26.2	0.50	9105616				48.6	0.50	9105616
Total Organic Carbon (C)	mg/L	18.7	0.50	9106806				13.1	0.50	9106806
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Bicarbonate (HCO3)	mg/L	32.0	0.50	9105616				59.3	0.50	9105616
Carbonate (CO3)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Hydroxide (OH)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Anions										
Dissolved Sulphate (SO4)	mg/L	19.7	0.50	9103764				35.9	0.50	9103764
Dissolved Chloride (CI)	mg/L	1.1	0.50	9103763				0.78	0.50	9103763
Nutrients	•					•				
Total Ammonia (N)	mg/L	0.0060	0.0050	9106525				0.030	0.0050	9106525
Nitrate plus Nitrite (N)	mg/L	0.334	0.0020	9103724				0.349	0.0020	9103724
Nitrite (N)	mg/L	<0.0020	0.0020	9103727				<0.0020	0.0020	9103727
Physical Properties	•		•			•				
Conductivity	uS/cm	113	1.0	9105620				184	1.0	9105620
рН	рН	7.16		9105618				7.53		9105618
Physical Properties	•		•			•				
Total Suspended Solids	mg/L	11.8	1.0	9103086				6.2	1.0	9103086
Total Dissolved Solids	mg/L	80	10	9103256				128	10	9103256
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6064			UB6064			UB6065		
Sampling Date		2018/08/11 11:20			2018/08/11 11:20			2018/08/11 09:45		
COC Number		555303-01-01			555303-01-01			555303-01-01		
	UNITS	CC-3.5	RDL	QC Batch	CC-3.5 Lab-Dup	RDL	QC Batch	CC-4.5	RDL	QC Batch
Parameter		•		•	•	•	-			
ORP	mV	311		9103622				315		9103622
Calculated Parameters		•	!		•	,				
Filter and HNO3 Preservation	N/A	LAB		9102731				LAB		9102731
Nitrate (N)	mg/L	0.371	0.0020	9102544				0.358	0.0020	9102544
Misc. Inorganics		•			•		<u>.</u>			
Fluoride (F)	mg/L	0.056	0.010	9104843	0.055	0.010	9104843	0.062	0.010	9104843
Free Cyanide	mg/L	<0.0010	0.0010	9114571				<0.0010	0.0010	9114571
Dissolved Organic Carbon (C)	mg/L	16.2	0.50	9106804				18.1	0.50	9106804
Alkalinity (Total as CaCO3)	mg/L	42.5	0.50	9105616				30.4	0.50	9105616
Total Organic Carbon (C)	mg/L	16.9	0.50	9106806				18.1	0.50	9106806
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Bicarbonate (HCO3)	mg/L	51.9	0.50	9105616				37.1	0.50	9105616
Carbonate (CO3)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Hydroxide (OH)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Anions		•	•		•					
Dissolved Sulphate (SO4)	mg/L	35.4	0.50	9103764				23.9	0.50	9104180
Dissolved Chloride (Cl)	mg/L	0.87	0.50	9103763				0.99	0.50	9103763
Nutrients						•				
Total Ammonia (N)	mg/L	0.0060	0.0050	9106525				<0.0050	0.0050	9106525
Nitrate plus Nitrite (N)	mg/L	0.371	0.0020	9103724				0.358	0.0020	9103793
Nitrite (N)	mg/L	<0.0020	0.0020	9103727				<0.0020	0.0020	9103794
Physical Properties			•	•		•				
Conductivity	uS/cm	171	1.0	9105620				119	1.0	9105620
рН	рН	7.40		9105618				7.21		9105618
Physical Properties	•					•				
Total Suspended Solids	mg/L	12.3	1.0	9103086				12.9	1.0	9103086
Total Dissolved Solids	mg/L	118	10	9103256				90	10	9103256
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6066			UB6066			UB6067		
Sampling Date		2018/08/11 13:50			2018/08/11 13:50			2018/08/11 17:50		
COC Number		555303-01-01			555303-01-01			555303-01-01		
	UNITS	HC-2.5	RDL	QC Batch	HC-2.5 Lab-Dup	RDL	QC Batch	HC-5.0	RDL	QC Batch
Parameter			•			•			•	
ORP	mV	307		9103622				301		9103622
Calculated Parameters	1	-	!	!	<del>!</del>		!	<u>!</u>	!	
Filter and HNO3 Preservation	N/A	LAB		9102731				LAB		9102731
Nitrate (N)	mg/L	0.492	0.0020	9102544				0.465	0.0020	9102544
Misc. Inorganics							·	I.		
Fluoride (F)	mg/L	0.045	0.010	9104843				0.062	0.010	9104843
Free Cyanide	mg/L	<0.0010	0.0010	9114571				<0.0010	0.0010	9114571
Dissolved Organic Carbon (C)	mg/L	16.0	0.50	9106804				16.9	0.50	9106804
Alkalinity (Total as CaCO3)	mg/L	38.3	0.50	9105616				46.9	0.50	9105616
Total Organic Carbon (C)	mg/L	15.4	0.50	9106806				17.2	0.50	9106806
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Bicarbonate (HCO3)	mg/L	46.8	0.50	9105616				57.3	0.50	9105616
Carbonate (CO3)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Hydroxide (OH)	mg/L	<0.50	0.50	9105616				<0.50	0.50	9105616
Anions	•			•			•			
Dissolved Sulphate (SO4)	mg/L	14.5	0.50	9103762	13.8	0.50	9103762	22.2	0.50	9103762
Dissolved Chloride (CI)	mg/L	0.71	0.50	9103761	0.59	0.50	9103761	0.96	0.50	9103761
Nutrients	•		•	•	•	•	•		•	
Total Ammonia (N)	mg/L	<0.0050	0.0050	9106525				0.0090	0.0050	9106525
Nitrate plus Nitrite (N)	mg/L	0.492	0.0020	9103722				0.465	0.0020	9103724
Nitrite (N)	mg/L	<0.0020	0.0020	9103723				<0.0020	0.0020	9103727
Physical Properties	•		•	•			•			
Conductivity	uS/cm	129	1.0	9105620				162	1.0	9105620
рН	рН	7.59		9105618				7.46		9105618
Physical Properties										
Total Suspended Solids	mg/L	10.2	1.0	9103086				6.8	1.0	9103086
Total Dissolved Solids	mg/L	92	10	9103256				118	10	9103256
RDL = Reportable Detection Lir Lab-Dup = Laboratory Initiated		te	_							



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

## **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		UB6068			UB6068		UB6069	UB6070		
Sampling Date		2018/08/11 18:45			2018/08/11 18:45		2018/08/11 18:15	2018/08/11 17:00		
COC Number		555303-01-01			555303-01-01		555303-01-01	555303-01-01		
	UNITS	YT-24	RDL	QC Batch	YT-24 Lab-Dup	QC Batch	YT-24MIX	COFFEE MIX	RDL	QC Batch
Parameter	-	-	•	•		•				
ORP	mV	316		9103622	319	9103622	299	288		9103622
Calculated Parameters	•		•	•	•	•				
Filter and HNO3 Preservation	N/A	LAB		9102731			LAB	LAB		9102731
Nitrate (N)	mg/L	0.850	0.0020	9102544			0.0512	0.0500	0.0020	9102544
Misc. Inorganics			•	•						
Fluoride (F)	mg/L	0.063	0.010	9104843			0.110	0.120	0.010	9104843
Free Cyanide	mg/L	<0.0010	0.0010	9114571			<0.0010	<0.0010	0.0010	9114571
Dissolved Organic Carbon (C)	mg/L	15.3	0.50	9106804			5.20	5.16	0.50	9106804
Alkalinity (Total as CaCO3)	mg/L	40.9	0.50	9105616			65.9	65.3	0.50	9105616
Total Organic Carbon (C)	mg/L	16.8	0.50	9106806			5.34	4.98	0.50	9106806
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9105616			<0.50	<0.50	0.50	9105616
Bicarbonate (HCO3)	mg/L	49.9	0.50	9105616			80.4	79.7	0.50	9105616
Carbonate (CO3)	mg/L	<0.50	0.50	9105616			<0.50	<0.50	0.50	9105616
Hydroxide (OH)	mg/L	<0.50	0.50	9105616			<0.50	<0.50	0.50	9105616
Anions										
Dissolved Sulphate (SO4)	mg/L	29.0	0.50	9103764			25.1	26.2	0.50	9103764
Dissolved Chloride (CI)	mg/L	1.3	0.50	9103763			0.59	0.58	0.50	9103763
Nutrients										
Total Ammonia (N)	mg/L	0.11	0.0050	9106525			0.010	0.028	0.0050	9106525
Nitrate plus Nitrite (N)	mg/L	0.850	0.0020	9103724			0.0512	0.0500	0.0020	9103724
Nitrite (N)	mg/L	<0.0020	0.0020	9103727			<0.0020	<0.0020	0.0020	9103727
Physical Properties										
Conductivity	uS/cm	166	1.0	9105620			183	185	1.0	9105620
рН	рН	7.34		9105618			7.68	7.69		9105618
Physical Properties										
Total Suspended Solids	mg/L	14.7	1.0	9103086			18.4	22.6	1.0	9103086
Total Dissolved Solids	mg/L	100	10	9103256			112	112	10	9103256
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6071		UB6072		UB6073		UB6074		
Sampling Date		2018/08/11 17:30		2018/08/11 10:20		2018/08/11 18:15		2018/08/11 16:00		
COC Number		555303-01-01		555303-02-01		555303-02-01		555303-02-01		
	UNITS	HALFWAY MIX	QC Batch	LATTE MIX	QC Batch	DUP	QC Batch	FIELD BLANK	RDL	QC Batch
Parameter		-	•	•	•	-	•	•		
ORP	mV	282	9103622	308	9103622	295	9103622	327		9103622
Calculated Parameters			ı				I		ı	
Filter and HNO3 Preservation	N/A	LAB	9102731	LAB	9102731	LAB	9102731	LAB		9102731
Nitrate (N)	mg/L	0.0991	9102544	0.337	9102544	0.0471	9102544	<0.0020	0.0020	9102544
Misc. Inorganics			Į.				Į.			
Fluoride (F)	mg/L	0.110	9104843	0.058	9104843	0.110	9104843	<0.010	0.010	9104843
Free Cyanide	mg/L	<0.0010	9114571	<0.0010	9114571	<0.0010	9114571	<0.0010	0.0010	9114571
Dissolved Organic Carbon (C)	mg/L	6.32	9106804	17.0	9106804	4.89	9106804	0.55	0.50	9106804
Alkalinity (Total as CaCO3)	mg/L	63.4	9105616	28.1	9105616	64.1	9105616	<0.50	0.50	9105605
Total Organic Carbon (C)	mg/L	6.14	9106806	17.7	9106806	5.41	9106806	1.41	0.50	9106806
Alkalinity (PP as CaCO3)	mg/L	<0.50	9105616	<0.50	9105616	<0.50	9105616	<0.50	0.50	9105605
Bicarbonate (HCO3)	mg/L	77.3	9105616	34.2	9105616	78.1	9105616	<0.50	0.50	9105605
Carbonate (CO3)	mg/L	<0.50	9105616	<0.50	9105616	<0.50	9105616	<0.50	0.50	9105605
Hydroxide (OH)	mg/L	<0.50	9105616	<0.50	9105616	<0.50	9105616	<0.50	0.50	9105605
Anions			•				•		•	
Dissolved Sulphate (SO4)	mg/L	25.3	9103764	21.8	9103762	25.7	9103762	<0.50	0.50	9103764
Dissolved Chloride (CI)	mg/L	0.75	9103763	0.96	9103761	0.66	9103761	<0.50	0.50	9103763
Nutrients			•				•		•	
Total Ammonia (N)	mg/L	0.010	9106525	0.013	9106525	<0.0050	9106525	<0.0050	0.0050	9106525
Nitrate plus Nitrite (N)	mg/L	0.0991	9103724	0.340	9103724	0.0509	9103722	<0.0020	0.0020	9103724
Nitrite (N)	mg/L	<0.0020	9103727	0.0033	9103727	0.0038	9103723	<0.0020	0.0020	9103727
Physical Properties					•					
Conductivity	uS/cm	183	9105620	128	9105620	202	9105620	1.3	1.0	9105607
рН	рН	7.64	9105618	7.25	9105618	7.67	9105618	4.95		9105606
Physical Properties										
Total Suspended Solids	mg/L	8.9	9103086	11.2	9103086	17.5	9103086	<1.0	1.0	9103086
Total Dissolved Solids	mg/L	102	9103256	76	9103256	104	9103256	<10	10	9103500
RDL = Reportable Detection Lir	nit		•	-			•	-	,	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6062		UB6063		UB6064		UB6065		
		2018/08/11		2018/08/11		2018/08/11		2018/08/11		
Sampling Date		10:55		12:00		11:20		09:45		
COC Number		555303-01-01		555303-01-01		555303-01-01		555303-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.5	QC Batch	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch
Calculated Parameters	-		-				-		·	
Dissolved Hardness (CaCO3)	mg/L	45.3	9101737	95.4	9101737	81.0	9101737	55.5	0.50	9101737
Elements					•					
Dissolved Mercury (Hg)	ug/L	0.0060	9103406	0.0058	9105186	0.0061	9103406	0.0055	0.0020	9105186
Dissolved Metals by ICPMS	•		•		•		•		•	
Dissolved Aluminum (AI)	ug/L	205	9103314	168	9103314	137	9103314	180	0.50	9103314
Dissolved Antimony (Sb)	ug/L	0.122	9103314	0.118	9103314	0.107	9103314	0.125	0.020	9103314
Dissolved Arsenic (As)	ug/L	0.550	9103314	0.652	9103314	0.469	9103314	0.540	0.020	9103314
Dissolved Barium (Ba)	ug/L	34.2	9103314	32.2	9103314	34.7	9103314	37.6	0.020	9103314
Dissolved Beryllium (Be)	ug/L	0.020	9103314	0.030	9103314	0.021	9103314	0.020	0.010	9103314
Dissolved Bismuth (Bi)	ug/L	<0.0050	9103314	<0.0050	9103314	<0.0050	9103314	<0.0050	0.0050	9103314
Dissolved Boron (B)	ug/L	<10	9103314	<10	9103314	<10	9103314	<10	10	9103314
Dissolved Cadmium (Cd)	ug/L	0.0115	9103314	0.0077	9103314	0.0065	9103314	0.0099	0.0050	9103314
Dissolved Chromium (Cr)	ug/L	0.62	9103314	0.50	9103314	0.56	9103314	0.60	0.10	9103314
Dissolved Cobalt (Co)	ug/L	0.129	9103314	0.0897	9103314	0.0954	9103314	0.111	0.0050	9103314
Dissolved Copper (Cu)	ug/L	3.17	9103314	1.71	9103314	2.05	9103314	3.00	0.050	9103314
Dissolved Iron (Fe)	ug/L	190	9103314	124	9103314	118	9103314	162	1.0	9103314
Dissolved Lead (Pb)	ug/L	0.0132	9103314	0.0098	9103314	0.0173	9103314	0.0151	0.0050	9103314
Dissolved Lithium (Li)	ug/L	0.60	9103314	1.27	9103314	0.63	9103314	0.57	0.50	9103314
Dissolved Manganese (Mn)	ug/L	5.94	9103314	11.1	9103314	4.25	9103314	5.22	0.050	9103314
Dissolved Molybdenum (Mo)	ug/L	0.540	9103314	0.119	9103314	0.171	9103314	0.512	0.050	9103314
Dissolved Nickel (Ni)	ug/L	1.37	9103314	0.785	9103314	0.785	9103314	1.27	0.020	9103314
Dissolved Phosphorus (P)	ug/L	4.3	9103314	5.1	9103314	3.8	9103314	4.0	2.0	9103314
Dissolved Selenium (Se)	ug/L	0.091	9103314	0.099	9103314	0.074	9103314	0.083	0.040	9103314
Dissolved Silicon (Si)	ug/L	4880	9103314	5020	9103314	4900	9103314	4860	50	9103314
Dissolved Silver (Ag)	ug/L	<0.0050	9103314	<0.0050	9103314	<0.0050	9103314	<0.0050	0.0050	9103314
Dissolved Strontium (Sr)	ug/L	55.3	9103314	205	9103314	155	9103314	74.6	0.050	9103314
Dissolved Thallium (TI)	ug/L	0.0047	9103314	0.0022	9103314	0.0022	9103314	0.0046	0.0020	9103314
Dissolved Tin (Sn)	ug/L	<0.20	9103314	<0.20	9103314	<0.20	9103314	<0.20	0.20	9103314
Dissolved Titanium (Ti)	ug/L	2.25	9103314	1.26	9103314	1.31	9103314	1.57	0.50	9103314
Dissolved Uranium (U)	ug/L	1.63	9103314	5.82	9103314	2.87	9103314	1.80	0.0020	9103314
Dissolved Vanadium (V)	ug/L	0.66	9103314	0.38	9103314	0.44	9103314	0.64	0.20	9103314
RDL = Reportable Detection Li	mit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SUBFACE WATE

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6062		UB6063		UB6064		UB6065		
Sampling Date		2018/08/11 10:55		2018/08/11 12:00		2018/08/11 11:20		2018/08/11 09:45		
COC Number		555303-01-01		555303-01-01		555303-01-01		555303-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.5	QC Batch	CC-3.5	QC Batch	CC-4.5	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.49	9103314	0.49	9103314	0.27	9103314	0.51	0.10	9103314
Dissolved Zirconium (Zr)	ug/L	0.85	9103314	0.84	9103314	1.01	9103314	0.87	0.10	9103314
Dissolved Calcium (Ca)	mg/L	11.8	9101805	24.9	9101805	21.7	9101805	14.6	0.050	9101805
Dissolved Magnesium (Mg)	mg/L	3.82	9101805	8.06	9101805	6.53	9101805	4.65	0.050	9101805
Dissolved Potassium (K)	mg/L	0.792	9101805	1.32	9101805	1.38	9101805	0.930	0.050	9101805
Dissolved Sodium (Na)	mg/L	2.30	9101805	1.99	9101805	2.47	9101805	2.48	0.050	9101805
Dissolved Sulphur (S)	mg/L	5.3	9101805	12.5	9101805	11.3	9101805	6.8	3.0	9101805
RDL = Reportable Detection Li	mit	•				•				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6066		UB6067	UB6068	UB6069		
Sampling Date		2018/08/11 13:50		2018/08/11 17:50	2018/08/11 18:45	2018/08/11 18:15		
COC Number		555303-01-01		555303-01-01	555303-01-01	555303-01-01		
	UNITS	HC-2.5	QC Batch	HC-5.0	YT-24	YT-24MIX	RDL	QC Batch
Calculated Parameters	•		•	•	•	•	•	
Dissolved Hardness (CaCO3)	mg/L	51.7	9101737	70.1	74.3	86.0	0.50	9101737
Elements				1	•	1		
Dissolved Mercury (Hg)	ug/L	0.0059	9105186	0.0046	0.0049	<0.0020	0.0020	9103406
Dissolved Metals by ICPMS	•		•		•		•	
Dissolved Aluminum (AI)	ug/L	192	9103314	105	86.0	27.8	0.50	9103314
Dissolved Antimony (Sb)	ug/L	0.291	9103314	0.246	0.274	0.106	0.020	9103314
Dissolved Arsenic (As)	ug/L	1.14	9103314	0.789	0.671	0.519	0.020	9103314
Dissolved Barium (Ba)	ug/L	30.0	9103314	35.2	43.5	41.7	0.020	9103314
Dissolved Beryllium (Be)	ug/L	0.023	9103314	0.017	0.022	<0.010	0.010	9103314
Dissolved Bismuth (Bi)	ug/L	<0.0050	9103314	<0.0050	<0.0050	<0.0050	0.0050	9103314
Dissolved Boron (B)	ug/L	<10	9103314	<10	<10	<10	10	9103314
Dissolved Cadmium (Cd)	ug/L	0.0075	9103314	<0.0050	<0.0050	0.0201	0.0050	9103314
Dissolved Chromium (Cr)	ug/L	0.68	9103314	0.53	0.46	0.13	0.10	9103314
Dissolved Cobalt (Co)	ug/L	0.132	9103314	0.0808	0.118	0.0139	0.0050	9103314
Dissolved Copper (Cu)	ug/L	1.95	9103314	2.18	2.19	0.998	0.050	9103314
Dissolved Iron (Fe)	ug/L	172	9103314	88.8	103	18.9	1.0	9103314
Dissolved Lead (Pb)	ug/L	0.0149	9103314	0.0076	0.0161	0.0137	0.0050	9103314
Dissolved Lithium (Li)	ug/L	0.74	9103314	0.73	<0.50	1.34	0.50	9103314
Dissolved Manganese (Mn)	ug/L	6.11	9103314	1.08	6.56	0.514	0.050	9103314
Dissolved Molybdenum (Mo)	ug/L	0.628	9103314	0.556	0.454	1.24	0.050	9103314
Dissolved Nickel (Ni)	ug/L	0.954	9103314	0.950	0.894	0.763	0.020	9103314
Dissolved Phosphorus (P)	ug/L	4.8	9103314	3.9	8.0	<2.0	2.0	9103314
Dissolved Selenium (Se)	ug/L	0.061	9103314	0.067	0.073	0.232	0.040	9103314
Dissolved Silicon (Si)	ug/L	4830	9103314	4660	4140	2770	50	9103314
Dissolved Silver (Ag)	ug/L	<0.0050	9103314	<0.0050	<0.0050	<0.0050	0.0050	9103314
Dissolved Strontium (Sr)	ug/L	142	9103314	157	111	117	0.050	9103314
Dissolved Thallium (TI)	ug/L	0.0032	9103314	0.0030	0.0027	0.0024	0.0020	9103314
Dissolved Tin (Sn)	ug/L	<0.20	9103314	<0.20	<0.20	<0.20	0.20	9103314
Dissolved Titanium (Ti)	ug/L	2.40	9103314	1.49	1.25	<0.50	0.50	9103314
Dissolved Uranium (U)	ug/L	8.84	9103314	5.73	1.97	1.30	0.0020	9103314
Dissolved Vanadium (V)	ug/L	0.62	9103314	0.51	0.60	0.29	0.20	9103314
RDL = Reportable Detection Li	nit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6066		UB6067	UB6068	UB6069		
Sampling Date		2018/08/11		2018/08/11	2018/08/11	2018/08/11		
Sampling Date		13:50		17:50	18:45	18:15		
COC Number		555303-01-01		555303-01-01	555303-01-01	555303-01-01		
	UNITS	HC-2.5	QC Batch	HC-5.0	YT-24	YT-24MIX	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.38	9103314	0.18	0.39	0.72	0.10	9103314
Dissolved Zirconium (Zr)	ug/L	0.94	9103314	0.78	0.83	<0.10	0.10	9103314
Dissolved Calcium (Ca)	mg/L	14.1	9101805	19.0	20.8	23.6	0.050	9101805
Dissolved Magnesium (Mg)	mg/L	4.01	9101805	5.47	5.40	6.59	0.050	9101805
Dissolved Potassium (K)	mg/L	1.16	9101805	1.51	1.25	0.818	0.050	9101805
Dissolved Sodium (Na)	mg/L	1.67	9101805	2.17	2.25	2.16	0.050	9101805
Dissolved Sulphur (S)	mg/L	3.8	9101805	6.0	8.9	7.2	3.0	9101805
RDL = Reportable Detection Lin	nit		-					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UB6069			UB6070	UB6071		UB6072		
Sampling Date		2018/08/11			2018/08/11	2018/08/11		2018/08/11		
- Jampinig Date		18:15			17:00	17:30		10:20		
COC Number		555303-01-01			555303-01-01	555303-01-01		555303-02-01		
	UNITS	YT-24MIX Lab-Dup	RDL	QC Batch	COFFEE MIX	HALFWAY MIX	QC Batch	LATTE MIX	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L				86.3	84.8	9101737	52.0	0.50	9101737
Elements	•		•	•						
Dissolved Mercury (Hg)	ug/L				<0.0020	<0.0020	9105186	0.0055	0.0020	9103406
Dissolved Metals by ICPMS	•		•	•						
Dissolved Aluminum (AI)	ug/L	28.0	0.50	9103314	25.9	36.0	9103314	200	0.50	9103314
Dissolved Antimony (Sb)	ug/L	0.109	0.020	9103314	0.113	0.128	9103314	0.126	0.020	9103314
Dissolved Arsenic (As)	ug/L	0.497	0.020	9103314	0.499	0.516	9103314	0.526	0.020	9103314
Dissolved Barium (Ba)	ug/L	41.8	0.020	9103314	41.8	41.8	9103314	35.7	0.020	9103314
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9103314	<0.010	<0.010	9103314	0.022	0.010	9103314
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9103314	<0.0050	<0.0050	9103314	<0.0050	0.0050	9103314
Dissolved Boron (B)	ug/L	<10	10	9103314	<10	<10	9103314	<10	10	9103314
Dissolved Cadmium (Cd)	ug/L	0.0189	0.0050	9103314	0.0183	0.0178	9103314	0.0090	0.0050	9103314
Dissolved Chromium (Cr)	ug/L	0.12	0.10	9103314	0.12	0.16	9103314	0.64	0.10	9103314
Dissolved Cobalt (Co)	ug/L	0.0175	0.0050	9103314	0.0176	0.0241	9103314	0.134	0.0050	9103314
Dissolved Copper (Cu)	ug/L	0.968	0.050	9103314	0.993	1.15	9103314	3.09	0.050	9103314
Dissolved Iron (Fe)	ug/L	18.1	1.0	9103314	18.1	22.6	9103314	184	1.0	9103314
Dissolved Lead (Pb)	ug/L	0.0147	0.0050	9103314	0.0110	0.0091	9103314	0.0154	0.0050	9103314
Dissolved Lithium (Li)	ug/L	1.33	0.50	9103314	1.31	1.26	9103314	0.63	0.50	9103314
Dissolved Manganese (Mn)	ug/L	0.540	0.050	9103314	0.582	1.04	9103314	5.74	0.050	9103314
Dissolved Molybdenum (Mo)	ug/L	1.19	0.050	9103314	1.21	1.19	9103314	0.517	0.050	9103314
Dissolved Nickel (Ni)	ug/L	0.733	0.020	9103314	0.695	0.796	9103314	1.30	0.020	9103314
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	9103314	2.4	2.8	9103314	7.0	2.0	9103314
Dissolved Selenium (Se)	ug/L	0.240	0.040	9103314	0.241	0.213	9103314	0.100	0.040	9103314
Dissolved Silicon (Si)	ug/L	2730	50	9103314	2810	2890	9103314	5010	50	9103314
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9103314	<0.0050	<0.0050	9103314	<0.0050	0.0050	9103314
Dissolved Strontium (Sr)	ug/L	117	0.050	9103314	118	122	9103314	72.7	0.050	9103314
Dissolved Thallium (TI)	ug/L	0.0026	0.0020	9103314	0.0023	0.0024	9103314	0.0042	0.0020	9103314
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9103314	<0.20	<0.20	9103314	<0.20	0.20	9103314
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9103314	<0.50	<0.50	9103314	1.95	0.50	9103314
Dissolved Uranium (U)	ug/L	1.31	0.0020	9103314	1.21	1.80	9103314	1.95	0.0020	9103314
PDI - Papartable Detection Lin	ni+	•				•			•	

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UB6069			UB6070	UB6071		UB6072		
Sampling Date		2018/08/11 18:15			2018/08/11 17:00	2018/08/11 17:30		2018/08/11 10:20		
COC Number		555303-01-01			555303-01-01	555303-01-01		555303-02-01		
	UNITS	YT-24MIX Lab-Dup	RDL	QC Batch	COFFEE MIX	HALFWAY MIX	QC Batch	LATTE MIX	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.29	0.20	9103314	0.26	0.34	9103314	0.65	0.20	9103314
Dissolved Zinc (Zn)	ug/L	0.70	0.10	9103314	0.68	1.24	9103314	0.55	0.10	9103314
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	9103314	<0.10	0.15	9103314	0.96	0.10	9103314
Dissolved Calcium (Ca)	mg/L				23.8	23.2	9101805	13.7	0.050	9101805
Dissolved Magnesium (Mg)	mg/L				6.54	6.50	9101805	4.34	0.050	9101805
Dissolved Potassium (K)	mg/L				0.809	0.925	9101805	0.906	0.050	9101805
Dissolved Sodium (Na)	mg/L				2.13	2.20	9101805	2.40	0.050	9101805
Dissolved Sulphur (S)	mg/L				7.2	7.3	9101805	6.2	3.0	9101805

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6073		UB6074		
Sampling Date		2018/08/11		2018/08/11		
		18:15		16:00		
COC Number		555303-02-01		555303-02-01		
	UNITS	DUP	QC Batch	FIELD BLANK	RDL	QC Batch
Calculated Parameters						
Dissolved Hardness (CaCO3)	mg/L	90.1	9101737	<0.50	0.50	9101737
Elements						
Dissolved Mercury (Hg)	ug/L	<0.0020	9105186	<0.0020	0.0020	9103406
Dissolved Metals by ICPMS						
Dissolved Aluminum (AI)	ug/L	31.2	9103314	<0.50	0.50	9103314
Dissolved Antimony (Sb)	ug/L	0.118	9103314	<0.020	0.020	9103314
Dissolved Arsenic (As)	ug/L	0.513	9103314	<0.020	0.020	9103314
Dissolved Barium (Ba)	ug/L	43.0	9103314	<0.020	0.020	9103314
Dissolved Beryllium (Be)	ug/L	<0.010	9103314	<0.010	0.010	9103314
Dissolved Bismuth (Bi)	ug/L	<0.0050	9103314	<0.0050	0.0050	9103314
Dissolved Boron (B)	ug/L	<10	9103314	<10	10	9103314
Dissolved Cadmium (Cd)	ug/L	0.0193	9103314	<0.0050	0.0050	9103314
Dissolved Chromium (Cr)	ug/L	0.12	9103314	<0.10	0.10	9103314
Dissolved Cobalt (Co)	ug/L	0.0161	9103314	<0.0050	0.0050	9103314
Dissolved Copper (Cu)	ug/L	1.15	9103314	<0.050	0.050	9103314
Dissolved Iron (Fe)	ug/L	20.5	9103314	<1.0	1.0	9103314
Dissolved Lead (Pb)	ug/L	0.0132	9103314	<0.0050	0.0050	9103314
Dissolved Lithium (Li)	ug/L	1.42	9103314	<0.50	0.50	9103314
Dissolved Manganese (Mn)	ug/L	0.582	9103314	<0.050	0.050	9103314
Dissolved Molybdenum (Mo)	ug/L	1.26	9103314	<0.050	0.050	9103314
Dissolved Nickel (Ni)	ug/L	0.733	9103314	<0.020	0.020	9103314
Dissolved Phosphorus (P)	ug/L	18.2	9103314	<2.0	2.0	9103314
Dissolved Selenium (Se)	ug/L	0.233	9103314	<0.040	0.040	9103314
Dissolved Silicon (Si)	ug/L	2850	9103314	<50	50	9103314
Dissolved Silver (Ag)	ug/L	<0.0050	9103314	<0.0050	0.0050	9103314
Dissolved Strontium (Sr)	ug/L	120	9103314	<0.050	0.050	9103314
Dissolved Thallium (TI)	ug/L	0.0027	9103314	<0.0020	0.0020	9103314
Dissolved Tin (Sn)	ug/L	<0.20	9103314	<0.20	0.20	9103314
Dissolved Titanium (Ti)	ug/L	<0.50	9103314	<0.50	0.50	9103314
Dissolved Uranium (U)	ug/L	1.35	9103314	<0.0020	0.0020	9103314
Dissolved Vanadium (V)	ug/L	0.35	9103314	<0.20	0.20	9103314
RDL = Reportable Detection Li						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6073		UB6074		
Sampling Date		2018/08/11 18:15		2018/08/11 16:00		
COC Number		555303-02-01		555303-02-01		
	UNITS	DUP	QC Batch	FIELD BLANK	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.75	9103314	<0.10	0.10	9103314
Dissolved Zirconium (Zr)	ug/L	0.11	9103314	<0.10	0.10	9103314
Dissolved Calcium (Ca)	mg/L	24.7	9101805	<0.050	0.050	9101805
Dissolved Magnesium (Mg)	mg/L	6.91	9101805	<0.050	0.050	9101805
Dissolved Potassium (K)	mg/L	0.840	9101805	<0.050	0.050	9101805
Dissolved Sodium (Na)	mg/L	2.31	9101805	<0.050	0.050	9101805
Dissolved Sulphur (S)	mg/L	7.7	9101805	<3.0	3.0	9101805
RDL = Reportable Detection Li	mit	•				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UB6074			UB6074		
Sampling Date		2018/08/11			2018/08/11		
		16:00			16:00		
COC Number		555303-02-01			555303-02-01		
	UNITS	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	<0.50	0.50	9102541			
Elements	•						
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9106444			
Total Metals by ICPMS	,		•			•	
Total Aluminum (Al)	ug/L	1.01	0.50	9105754	0.69	0.50	9105754
Total Antimony (Sb)	ug/L	<0.020	0.020	9105754	<0.020	0.020	9105754
Total Arsenic (As)	ug/L	<0.020	0.020	9105754	<0.020	0.020	9105754
Total Barium (Ba)	ug/L	<0.020	0.020	9105754	<0.020	0.020	9105754
Total Beryllium (Be)	ug/L	<0.010	0.010	9105754	<0.010	0.010	9105754
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9105754	<0.0050	0.0050	9105754
Total Boron (B)	ug/L	<10	10	9105754	<10	10	9105754
Total Cadmium (Cd)	ug/L	<0.0050	0.0050	9105754	<0.0050	0.0050	9105754
Total Chromium (Cr)	ug/L	<0.10	0.10	9105754	<0.10	0.10	9105754
Total Cobalt (Co)	ug/L	<0.0050	0.0050	9105754	<0.0050	0.0050	9105754
Total Copper (Cu)	ug/L	<0.050	0.050	9105754	<0.050	0.050	9105754
Total Iron (Fe)	ug/L	<1.0	1.0	9105754	<1.0	1.0	9105754
Total Lead (Pb)	ug/L	<0.0050	0.0050	9105754	<0.0050	0.0050	9105754
Total Lithium (Li)	ug/L	<0.50	0.50	9105754	<0.50	0.50	9105754
Total Manganese (Mn)	ug/L	<0.050	0.050	9105754	<0.050	0.050	9105754
Total Molybdenum (Mo)	ug/L	<0.050	0.050	9105754	<0.050	0.050	9105754
Total Nickel (Ni)	ug/L	<0.020	0.020	9105754	<0.020	0.020	9105754
Total Phosphorus (P)	ug/L	4.2	2.0	9105754	4.7	2.0	9105754
Total Selenium (Se)	ug/L	<0.040	0.040	9105754	<0.040	0.040	9105754
Total Silicon (Si)	ug/L	<50	50	9105754	<50	50	9105754
Total Silver (Ag)	ug/L	<0.0050	0.0050	9105754	<0.0050	0.0050	9105754
Total Strontium (Sr)	ug/L	<0.050	0.050	9105754	<0.050	0.050	9105754
Total Thallium (TI)	ug/L	<0.0020	0.0020	9105754	<0.0020	0.0020	9105754
Total Tin (Sn)	ug/L	<0.20	0.20	9105754	<0.20	0.20	9105754
Total Titanium (Ti)	ug/L	<0.50	0.50	9105754	<0.50	0.50	9105754
RDL = Reportable Detection	Limit						
Lab-Dup = Laboratory Initia	ted Duplic	cate					

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UB6074			UB6074		
Sampling Date		2018/08/11 16:00			2018/08/11 16:00		
COC Number		555303-02-01			555303-02-01		
	UNITS	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Uranium (U)	ug/L	<0.0020	0.0020	9105754	<0.0020	0.0020	9105754
Total Vanadium (V)	ug/L	<0.20	0.20	9105754	<0.20	0.20	9105754
Total Zinc (Zn)	ug/L	<0.10	0.10	9105754	<0.10	0.10	9105754
Total Zirconium (Zr)	ug/L	<0.10	0.10	9105754	<0.10	0.10	9105754
Total Calcium (Ca)	mg/L	<0.050	0.050	9101807			
Total Magnesium (Mg)	mg/L	<0.050	0.050	9101807			
Total Potassium (K)	mg/L	<0.050	0.050	9101807			
Total Sodium (Na)	mg/L	<0.050	0.050	9101807			
Total Sulphur (S)	mg/L	<3.0	3.0	9101807			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6062	UB6063	UB6064	UB6065	UB6066	UB6067		
Sampling Date		2018/08/11 10:55	2018/08/11 12:00	2018/08/11 11:20	2018/08/11 09:45	2018/08/11 13:50	2018/08/11 17:50		
COC Number		555303-01-01	555303-01-01	555303-01-01	555303-01-01	555303-01-01	555303-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	42.4	90.4	73.1	53.0	45.8	68.4	0.50	9102541
Elements	•							•	
Total Mercury (Hg)	ug/L	0.0051	0.0054	0.0057	0.0049	0.0046	0.0045	0.0020	9106444
Total Metals by ICPMS	•						•	•	
Total Aluminum (AI)	ug/L	448	266	364	425	347	210	3.0	9110037
Total Antimony (Sb)	ug/L	0.108	0.109	0.093	0.114	0.265	0.250	0.020	9110037
Total Arsenic (As)	ug/L	0.682	0.778	0.699	0.699	1.38	0.942	0.020	9110037
Total Barium (Ba)	ug/L	37.5	33.2	36.3	41.2	30.4	37.1	0.050	9110037
Total Beryllium (Be)	ug/L	0.030	0.021	0.029	0.017	0.019	0.022	0.010	9110037
Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9110037
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9110037
Total Cadmium (Cd)	ug/L	0.0167	0.0095	0.0101	0.0171	0.0105	0.0060	0.0050	9110037
Total Chromium (Cr)	ug/L	0.97	0.75	1.01	0.95	0.91	0.74	0.10	9110037
Total Cobalt (Co)	ug/L	0.296	0.152	0.244	0.283	0.209	0.151	0.010	9110037
Total Copper (Cu)	ug/L	3.31	1.74	2.10	3.31	1.93	2.29	0.10	9110037
Total Iron (Fe)	ug/L	518	257	419	484	325	223	5.0	9110037
Total Lead (Pb)	ug/L	0.132	0.087	0.222	0.128	0.115	0.073	0.020	9110037
Total Lithium (Li)	ug/L	0.80	1.39	0.80	0.75	0.80	0.84	0.50	9110037
Total Manganese (Mn)	ug/L	16.6	16.8	20.6	16.6	12.9	5.67	0.10	9110037
Total Molybdenum (Mo)	ug/L	0.546	0.117	0.179	0.516	0.605	0.555	0.050	9110037
Total Nickel (Ni)	ug/L	1.49	0.95	1.07	1.52	1.06	1.16	0.10	9110037
Total Phosphorus (P)	ug/L	12.2	12.3	16.0	9.8	7.8	12.2	5.0	9110037
Total Selenium (Se)	ug/L	0.087	0.095	0.066	0.104	0.061	0.062	0.040	9110037
Total Silicon (Si)	ug/L	5350	5400	5160	5390	4870	5000	50	9110037
Total Silver (Ag)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9110037
Total Strontium (Sr)	ug/L	57.4	214	157	79.8	142	169	0.050	9110037
Total Thallium (TI)	ug/L	0.0066	0.0044	0.0051	0.0060	0.0031	0.0030	0.0020	9110037
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9110037
Total Titanium (Ti)	ug/L	20.2	7.0	13.6	17.5	11.1	7.4	2.0	9110037
Total Uranium (U)	ug/L	1.75	5.58	3.07	1.96	8.71	5.70	0.0050	9110037
Total Vanadium (V)	ug/L	1.57	0.67	1.09	1.44	0.91	0.78	0.20	9110037
RDL = Reportable Detection	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6062	UB6063	UB6064	UB6065	UB6066	UB6067		
Sampling Date		2018/08/11 10:55	2018/08/11 12:00	2018/08/11 11:20	2018/08/11 09:45	2018/08/11 13:50	2018/08/11 17:50		
COC Number		555303-01-01	555303-01-01	555303-01-01	555303-01-01	555303-01-01	555303-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Total Zinc (Zn)	ug/L	1.6	1.4	1.3	1.5	1.1	<1.0	1.0	9110037
Total Zirconium (Zr)	ug/L	0.72	0.72	0.76	0.77	0.71	0.66	0.10	9110037
Total Calcium (Ca)	mg/L	10.9	23.8	19.4	13.6	12.2	18.4	0.25	9101807
Total Magnesium (Mg)	mg/L	3.66	7.53	5.96	4.65	3.75	5.42	0.25	9101807
Total Potassium (K)	mg/L	0.76	1.26	1.27	0.92	1.06	1.49	0.25	9101807
Total Sodium (Na)	mg/L	2.03	1.82	2.13	2.24	1.43	2.11	0.25	9101807
Total Sulphur (S)	mg/L	5.0	12.6	11.0	7.1	3.7	6.5	3.0	9101807
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

18.45   18.15   17.00   17.30   17.30   17.30   18.15   18.15   17.00   17.30   17.30   17.30   18.15   18.1	Maxxam ID		UB6068	UB6069	UB6070	UB6071	UB6072	UB6073		
Color   Colo	Sampling Date									
Total Hardness (CaCO3)   mg/L   73.0   84.9   83.5   80.5   46.3   88.2   0.50   9102541	COC Number		555303-01-01	555303-01-01	555303-01-01	555303-01-01	555303-02-01	555303-02-01		
Total Hardness (CaCO3)   mg/L   73.0   84.9   83.5   80.5   46.3   88.2   0.50   9102541		UNITS	YT-24	YT-24MIX	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch
Total Mercury (Hg)	Calculated Parameters									
Total Mercury (Hg)	Total Hardness (CaCO3)	mg/L	73.0	84.9	83.5	80.5	46.3	88.2	0.50	9102541
Total Aluminum (Al) ug/L 370 453 371 215 377 409 3.0 9110037 Total Antimory (Sb) ug/L 0.273 0.144 0.121 0.141 0.114 0.141 0.020 9110037 Total Antimory (Sb) ug/L 0.945 0.819 0.799 0.653 0.641 0.848 0.020 9110037 Total Barium (Ba) ug/L 49.3 56.7 52.3 47.1 36.4 57.7 0.050 9110037 Total Beryllium (Be) ug/L 0.040 0.029 0.023 <0.010 0.022 0.023 0.010 9110037 Total Beryllium (Be) ug/L 0.040 0.029 0.023 <0.010 0.022 0.023 0.010 9110037 Total Beryllium (Bi) ug/L <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 0.010 9110037 Total Bornum (Bi) ug/L <10 <10 <10 <10 <10 <10 <10 <10 <10 <10	Elements									
Total Aluminum (Ai)	Total Mercury (Hg)	ug/L	0.0042	<0.0020	<0.0020	<0.0020	0.0054	<0.0020	0.0020	9106444
Total Antimony (Sb)         ug/L         0.273         0.144         0.121         0.141         0.141         0.041         0.020         9110037           Total Arsenic (As)         ug/L         0.945         0.819         0.799         0.653         0.641         0.848         0.020         9110037           Total Baryllium (Ba)         ug/L         49.3         56.7         52.3         47.1         36.4         57.7         0.050         9110037           Total Baryllium (Be)         ug/L         0.040         0.029         0.023         <0.010	Total Metals by ICPMS									
Total Arsenic (As)         ug/L         0.945         0.819         0.799         0.653         0.641         0.848         0.020         9110037           Total Barium (Ba)         ug/L         49.3         56.7         52.3         47.1         36.4         57.7         0.050         9110037           Total Beryllium (Be)         ug/L         0.040         0.029         0.023         <0.010	Total Aluminum (Al)	ug/L	370	453	371	215	377	409	3.0	9110037
Total Barium (Ba)   Ug/L   49.3   56.7   52.3   47.1   36.4   57.7   0.050   9110037	Total Antimony (Sb)	ug/L	0.273	0.144	0.121	0.141	0.114	0.141	0.020	9110037
Total Beryllium (Be)   Ug/L   0.040   0.029   0.023   <0.010   0.022   0.023   0.010   9110037	Total Arsenic (As)	ug/L	0.945	0.819	0.799	0.653	0.641	0.848	0.020	9110037
Total Bismuth (Bi)	Total Barium (Ba)	ug/L	49.3	56.7	52.3	47.1	36.4	57.7	0.050	9110037
Total Coper (Cu) ug/L 0.308 0.315 0.283 0.154 0.239 0.310 0.010 9110037 Total Coper (Cu) ug/L 0.79 1.87 1.74 1.46 3.02 1.92 0.10 9110037 Total Led (Pb) ug/L 0.238 0.388 0.327 0.152 0.115 0.389 0.020 9110037 Total Led (Pb) ug/L 0.54 1.82 1.74 1.44 0.75 1.86 0.50 9110037 Total Manganese (Mn) ug/L 1.50 28.2 24.8 15.1 15.0 28.2 0.10 9110037 Total Molybdenum (Mo) ug/L 1.33 1.95 1.74 1.24 1.45 1.99 0.10 9110037 Total Selenium (Se) ug/L 0.083 0.253 0.243 0.240 0.079 0.255 0.040 9110037 Total Selenium (Se) ug/L 4.700 3680 3.40 3.10 2.24 1.30 70.15 1.01 1.01 1.01 1.01 1.01 1.01 1.01	Total Beryllium (Be)	ug/L	0.040	0.029	0.023	<0.010	0.022	0.023	0.010	9110037
Total Cadmium (Cd)         ug/L         0.0139         0.0705         0.0556         0.0357         0.0147         0.0709         0.0050         9110037           Total Chromium (Cr)         ug/L         1.00         0.94         0.77         0.50         0.88         0.84         0.10         9110037           Total Cobalt (Co)         ug/L         0.308         0.315         0.283         0.154         0.239         0.310         0.010         9110037           Total Copper (Cu)         ug/L         2.79         1.87         1.74         1.46         3.02         1.92         0.10         9110037           Total Iron (Fe)         ug/L         477         665         555         278         426         622         5.0         9110037           Total Lithium (Li)         ug/L         0.54         1.82         1.74         1.44         0.75         1.86         0.50         9110037           Total Manganese (Mn)         ug/L         15.0         28.2         24.8         15.1         15.0         28.2         0.10         9110037           Total Molybdenum (Mo)         ug/L         0.479         1.17         1.17         1.13         0.453         1.25         0.050         9	Total Bismuth (Bi)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9110037
Total Chromium (Cr)         ug/L         1.00         0.94         0.77         0.50         0.88         0.84         0.10         9110037           Total Cobalt (Co)         ug/L         0.308         0.315         0.283         0.154         0.239         0.310         0.010         9110037           Total Copper (Cu)         ug/L         2.79         1.87         1.74         1.46         3.02         1.92         0.10         9110037           Total Iron (Fe)         ug/L         477         665         555         278         426         622         5.0         9110037           Total Lead (Pb)         ug/L         0.238         0.388         0.327         0.152         0.115         0.389         0.020         9110037           Total Lithium (Li)         ug/L         0.54         1.82         1.74         1.44         0.75         1.86         0.50         9110037           Total Manganese (Mn)         ug/L         15.0         28.2         24.8         15.1         15.0         28.2         0.10         9110037           Total Molybdenum (Mo)         ug/L         0.479         1.17         1.17         1.13         0.453         1.25         0.050         9110037 <td>Total Boron (B)</td> <td>ug/L</td> <td>&lt;10</td> <td>&lt;10</td> <td>&lt;10</td> <td>&lt;10</td> <td>&lt;10</td> <td>&lt;10</td> <td>10</td> <td>9110037</td>	Total Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9110037
Total Cobalt (Co)	Total Cadmium (Cd)	ug/L	0.0139	0.0705	0.0556	0.0357	0.0147	0.0709	0.0050	9110037
Total Copper (Cu)	Total Chromium (Cr)	ug/L	1.00	0.94	0.77	0.50	0.88	0.84	0.10	9110037
Total Iron (Fe)         ug/L         477         665         555         278         426         622         5.0         9110037           Total Lead (Pb)         ug/L         0.238         0.388         0.327         0.152         0.115         0.389         0.020         9110037           Total Lithium (Li)         ug/L         0.54         1.82         1.74         1.44         0.75         1.86         0.50         9110037           Total Manganese (Mn)         ug/L         15.0         28.2         24.8         15.1         15.0         28.2         0.10         9110037           Total Molybdenum (Mo)         ug/L         0.479         1.17         1.17         1.13         0.453         1.25         0.050         9110037           Total Nickel (Ni)         ug/L         1.33         1.95         1.74         1.24         1.45         1.99         0.10         9110037           Total Phosphorus (P)         ug/L         21.7         30.0         28.4         16.3         14.2         31.7         5.0         9110037           Total Selenium (Se)         ug/L         0.083         0.253         0.243         0.240         0.079         0.255         0.040         9110037 </td <td>Total Cobalt (Co)</td> <td>ug/L</td> <td>0.308</td> <td>0.315</td> <td>0.283</td> <td>0.154</td> <td>0.239</td> <td>0.310</td> <td>0.010</td> <td>9110037</td>	Total Cobalt (Co)	ug/L	0.308	0.315	0.283	0.154	0.239	0.310	0.010	9110037
Total Lead (Pb) ug/L 0.238 0.388 0.327 0.152 0.115 0.389 0.020 9110037   Total Lithium (Li) ug/L 0.54 1.82 1.74 1.44 0.75 1.86 0.50 9110037   Total Manganese (Mn) ug/L 15.0 28.2 24.8 15.1 15.0 28.2 0.10 9110037   Total Molybdenum (Mo) ug/L 0.479 1.17 1.17 1.13 0.453 1.25 0.050 9110037   Total Nickel (Ni) ug/L 1.33 1.95 1.74 1.24 1.45 1.99 0.10 9110037   Total Phosphorus (P) ug/L 21.7 30.0 28.4 16.3 14.2 31.7 5.0 9110037   Total Selenium (Se) ug/L 0.083 0.253 0.243 0.240 0.079 0.255 0.040 9110037   Total Silicon (Si) ug/L 4700 3680 3440 3310 5250 3700 50 9110037   Total Silver (Ag) ug/L <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010    Total Strontium (Sr) ug/L 120 123 124 130 70.7 131 0.050 9110037   Total Thallium (TI) ug/L 0.0036 0.0079 0.0061 0.0036 0.0047 0.0060 0.0020 9110037   Total Tital Tin (Sn) ug/L 4.9 13.2 12.2 5.9 13.3 11.0 2.0 9110037   Total Titanium (Ti) ug/L 1.31 1.61 1.48 0.82 1.21 1.46 0.20 9110037   Total Vanadium (V) ug/L 1.31 1.61 1.48 0.82 1.21 1.46 0.20 9110037	Total Copper (Cu)	ug/L	2.79	1.87	1.74	1.46	3.02	1.92	0.10	9110037
Total Lithium (Li)	Total Iron (Fe)	ug/L	477	665	555	278	426	622	5.0	9110037
Total Manganese (Mn) ug/L 15.0 28.2 24.8 15.1 15.0 28.2 0.10 9110037  Total Molybdenum (Mo) ug/L 0.479 1.17 1.17 1.13 0.453 1.25 0.050 9110037  Total Nickel (Ni) ug/L 1.33 1.95 1.74 1.24 1.45 1.99 0.10 9110037  Total Phosphorus (P) ug/L 21.7 30.0 28.4 16.3 14.2 31.7 5.0 9110037  Total Selenium (Se) ug/L 0.083 0.253 0.243 0.240 0.079 0.255 0.040 9110037  Total Silicon (Si) ug/L 4700 3680 3440 3310 5250 3700 50 9110037  Total Silver (Ag) ug/L <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 0 0.010 9110037  Total Strontium (Sr) ug/L 120 123 124 130 70.7 131 0.050 9110037  Total Thallium (TI) ug/L 0.0036 0.0079 0.0061 0.0036 0.0047 0.0060 0.0020 9110037  Total Tin (Sn) ug/L <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 0.20	Total Lead (Pb)	ug/L	0.238	0.388	0.327	0.152	0.115	0.389	0.020	9110037
Total Molybdenum (Mo)         ug/L         0.479         1.17         1.17         1.13         0.453         1.25         0.050         9110037           Total Nickel (Ni)         ug/L         1.33         1.95         1.74         1.24         1.45         1.99         0.10         9110037           Total Phosphorus (P)         ug/L         21.7         30.0         28.4         16.3         14.2         31.7         5.0         9110037           Total Selenium (Se)         ug/L         0.083         0.253         0.243         0.240         0.079         0.255         0.040         9110037           Total Silicon (Si)         ug/L         4700         3680         3440         3310         5250         3700         50         9110037           Total Silver (Ag)         ug/L         <0.010	Total Lithium (Li)	ug/L	0.54	1.82	1.74	1.44	0.75	1.86	0.50	9110037
Total Nickel (Ni)         ug/L         1.33         1.95         1.74         1.24         1.45         1.99         0.10         9110037           Total Phosphorus (P)         ug/L         21.7         30.0         28.4         16.3         14.2         31.7         5.0         9110037           Total Selenium (Se)         ug/L         0.083         0.253         0.243         0.240         0.079         0.255         0.040         9110037           Total Silicon (Si)         ug/L         4700         3680         3440         3310         5250         3700         50         9110037           Total Silver (Ag)         ug/L         <0.010	Total Manganese (Mn)	ug/L	15.0	28.2	24.8	15.1	15.0	28.2	0.10	9110037
Total Phosphorus (P)         ug/L         21.7         30.0         28.4         16.3         14.2         31.7         5.0         9110037           Total Selenium (Se)         ug/L         0.083         0.253         0.243         0.240         0.079         0.255         0.040         9110037           Total Silicon (Si)         ug/L         4700         3680         3440         3310         5250         3700         50         9110037           Total Silver (Ag)         ug/L         <0.010	Total Molybdenum (Mo)	ug/L	0.479	1.17	1.17	1.13	0.453	1.25	0.050	9110037
Total Selenium (Se)         ug/L         0.083         0.253         0.243         0.240         0.079         0.255         0.040         9110037           Total Silicon (Si)         ug/L         4700         3680         3440         3310         5250         3700         50         9110037           Total Silver (Ag)         ug/L         <0.010	Total Nickel (Ni)	ug/L	1.33	1.95	1.74	1.24	1.45	1.99	0.10	9110037
Total Silicon (Si)         ug/L         4700         3680         3440         3310         5250         3700         50         9110037           Total Silver (Ag)         ug/L         <0.010	Total Phosphorus (P)	ug/L	21.7	30.0	28.4	16.3	14.2	31.7	5.0	9110037
Total Silver (Ag)	Total Selenium (Se)	ug/L	0.083	0.253	0.243	0.240	0.079	0.255	0.040	9110037
Total Strontium (Sr)         ug/L         120         123         124         130         70.7         131         0.050         9110037           Total Thallium (TI)         ug/L         0.0036         0.0079         0.0061         0.0036         0.0047         0.0060         0.0020         9110037           Total Tin (Sn)         ug/L         <0.20	Total Silicon (Si)	ug/L	4700	3680	3440	3310	5250	3700	50	9110037
Total Thallium (TI)         ug/L         0.0036         0.0079         0.0061         0.0036         0.0047         0.0060         0.0020         9110037           Total Tin (Sn)         ug/L         <0.20	Total Silver (Ag)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9110037
Total Tin (Sn)         ug/L         <0.20         <0.20         <0.20         <0.20         <0.20         <0.20         <0.20         9110037           Total Titanium (Ti)         ug/L         14.9         13.2         12.2         5.9         13.3         11.0         2.0         9110037           Total Uranium (U)         ug/L         2.16         1.27         1.17         1.74         1.87         1.34         0.0050         9110037           Total Vanadium (V)         ug/L         1.31         1.61         1.48         0.82         1.21         1.46         0.20         9110037	Total Strontium (Sr)	ug/L	120	123	124	130	70.7	131	0.050	9110037
Total Titanium (Ti)         ug/L         14.9         13.2         12.2         5.9         13.3         11.0         2.0         9110037           Total Uranium (U)         ug/L         2.16         1.27         1.17         1.74         1.87         1.34         0.0050         9110037           Total Vanadium (V)         ug/L         1.31         1.61         1.48         0.82         1.21         1.46         0.20         9110037	Total Thallium (TI)	ug/L	0.0036	0.0079	0.0061	0.0036	0.0047	0.0060	0.0020	9110037
Total Uranium (U)	Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9110037
Total Vanadium (V) ug/L 1.31 1.61 1.48 0.82 1.21 1.46 0.20 9110037	Total Titanium (Ti)	ug/L	14.9	13.2	12.2	5.9	13.3	11.0	2.0	9110037
	Total Uranium (U)	ug/L	2.16	1.27	1.17	1.74	1.87	1.34	0.0050	9110037
RDL = Reportable Detection Limit	Total Vanadium (V)	ug/L	1.31	1.61	1.48	0.82	1.21	1.46	0.20	9110037
	RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

Maxxam ID		UB6068	UB6069	UB6070	UB6071	UB6072	UB6073		
Sampling Date		2018/08/11 18:45	2018/08/11 18:15	2018/08/11 17:00	2018/08/11 17:30	2018/08/11 10:20	2018/08/11 18:15		
COC Number		555303-01-01	555303-01-01	555303-01-01	555303-01-01	555303-02-01	555303-02-01		
	UNITS	YT-24	YT-24MIX	COFFEE MIX	HALFWAY MIX	LATTE MIX	DUP	RDL	QC Batch
Total Zinc (Zn)	ug/L	1.8	6.6	5.8	3.9	1.4	7.2	1.0	9110037
Total Zirconium (Zr)	ug/L	0.69	0.76	0.17	0.15	0.74	0.19	0.10	9110037
Total Calcium (Ca)	mg/L	20.3	23.1	22.8	21.7	12.1	24.1	0.25	9101807
Total Magnesium (Mg)	mg/L	5.40	6.63	6.43	6.39	3.92	6.82	0.25	9101807
Total Potassium (K)	mg/L	1.27	0.87	0.82	0.92	0.81	0.91	0.25	9101807
Total Sodium (Na)	mg/L	2.17	1.93	1.94	2.00	1.99	2.12	0.25	9101807
Total Sulphur (S)	mg/L	9.6	7.7	7.5	7.6	6.2	7.6	3.0	9101807
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

#### **GENERAL COMMENTS**

Sample UB6062 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6063 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6064 [CC-3.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6065 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6066 [HC-2.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6067 [HC-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6068 [YT-24]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6069 [YT-24MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6070 [COFFEE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6071 [HALFWAY MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6072 [LATTE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6073 [DUP]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UB6074 [FIELD BLANK]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Results relate only to the items tested.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER



## **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method Blank		RPI	ס
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9103086	Total Suspended Solids	2018/08/15			101	80 - 120	<1.0	mg/L		
9103256	Total Dissolved Solids	2018/08/16	102	80 - 120	100	80 - 120	<10	mg/L	NC	20
9103314	Dissolved Aluminum (AI)	2018/08/16	104	80 - 120	99	80 - 120	<0.50	ug/L	0.72	20
9103314	Dissolved Antimony (Sb)	2018/08/16	103	80 - 120	99	80 - 120	<0.020	ug/L	3.3	20
9103314	Dissolved Arsenic (As)	2018/08/16	106	80 - 120	100	80 - 120	0.023, RDL=0.020 (1)	ug/L	4.3	20
9103314	Dissolved Barium (Ba)	2018/08/16	97	80 - 120	97	80 - 120	<0.020	ug/L	0.20	20
9103314	Dissolved Beryllium (Be)	2018/08/16	105	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9103314	Dissolved Bismuth (Bi)	2018/08/16	101	80 - 120	96	80 - 120	<0.0050	ug/L	NC	20
9103314	Dissolved Boron (B)	2018/08/16	103	80 - 120	96	80 - 120	<10	ug/L	NC	20
9103314	Dissolved Cadmium (Cd)	2018/08/16	101	80 - 120	97	80 - 120	<0.0050	ug/L	6.2	20
9103314	Dissolved Chromium (Cr)	2018/08/16	104	80 - 120	100	80 - 120	<0.10	ug/L	13	20
9103314	Dissolved Cobalt (Co)	2018/08/16	101	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9103314	Dissolved Copper (Cu)	2018/08/16	101	80 - 120	99	80 - 120	<0.050	ug/L	3.0	20
9103314	Dissolved Iron (Fe)	2018/08/16	103	80 - 120	101	80 - 120	<1.0	ug/L	4.0	20
9103314	Dissolved Lead (Pb)	2018/08/16	104	80 - 120	98	80 - 120	<0.0050	ug/L	7.0	20
9103314	Dissolved Lithium (Li)	2018/08/16	99	80 - 120	95	80 - 120	<0.50	ug/L	0.84	20
9103314	Dissolved Manganese (Mn)	2018/08/16	101	80 - 120	98	80 - 120	<0.050	ug/L	5.0	20
9103314	Dissolved Molybdenum (Mo)	2018/08/16	108	80 - 120	100	80 - 120	<0.050	ug/L	3.7	20
9103314	Dissolved Nickel (Ni)	2018/08/16	102	80 - 120	100	80 - 120	<0.020	ug/L	4.1	20
9103314	Dissolved Phosphorus (P)	2018/08/16	100	80 - 120	95	80 - 120	<2.0	ug/L	NC	20
9103314	Dissolved Selenium (Se)	2018/08/16	105	80 - 120	99	80 - 120	<0.040	ug/L	3.5	20
9103314	Dissolved Silicon (Si)	2018/08/16	93	80 - 120	91	80 - 120	<50	ug/L	1.1	20
9103314	Dissolved Silver (Ag)	2018/08/16	103	80 - 120	97	80 - 120	<0.0050	ug/L	NC	20
9103314	Dissolved Strontium (Sr)	2018/08/16	NC	80 - 120	96	80 - 120	<0.050	ug/L	0.045	20
9103314	Dissolved Thallium (TI)	2018/08/16	102	80 - 120	96	80 - 120	<0.0020	ug/L	8.0	20
9103314	Dissolved Tin (Sn)	2018/08/16	104	80 - 120	98	80 - 120	<0.20	ug/L	NC	20
9103314	Dissolved Titanium (Ti)	2018/08/16	103	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
9103314	Dissolved Uranium (U)	2018/08/16	109	80 - 120	101	80 - 120	<0.0020	ug/L	1.0	20
9103314	Dissolved Vanadium (V)	2018/08/16	104	80 - 120	99	80 - 120	<0.20	ug/L	0.58	20
9103314	Dissolved Zinc (Zn)	2018/08/16	104	80 - 120	100	80 - 120	<0.10	ug/L	3.2	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9103314	Dissolved Zirconium (Zr)	2018/08/16	103	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
9103406	Dissolved Mercury (Hg)	2018/08/15	90	80 - 120	85	80 - 120	<0.0020	ug/L	NC	20
9103500	Total Dissolved Solids	2018/08/17	104	80 - 120	94	80 - 120	<10	mg/L	4.2	20
9103622	ORP	2018/08/15							0.94	20
9103722	Nitrate plus Nitrite (N)	2018/08/15	110	80 - 120	106	80 - 120	<0.0020	mg/L	0.12	25
9103723	Nitrite (N)	2018/08/15	102	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9103724	Nitrate plus Nitrite (N)	2018/08/15			105	80 - 120	<0.0020	mg/L		
9103727	Nitrite (N)	2018/08/15			104	80 - 120	<0.0020	mg/L		
9103761	Dissolved Chloride (CI)	2018/08/15	101	80 - 120	103	80 - 120	<0.50	mg/L	19	20
9103762	Dissolved Sulphate (SO4)	2018/08/15	99	80 - 120	103	80 - 120	<0.50	mg/L	5.2	20
9103763	Dissolved Chloride (CI)	2018/08/15	87	80 - 120	103	80 - 120	<0.50	mg/L	0.89	20
9103764	Dissolved Sulphate (SO4)	2018/08/15			106	80 - 120	<0.50	mg/L		
9103793	Nitrate plus Nitrite (N)	2018/08/15			104	80 - 120	<0.0020	mg/L		
9103794	Nitrite (N)	2018/08/15			102	80 - 120	<0.0020	mg/L		
9104180	Dissolved Sulphate (SO4)	2018/08/15			102	80 - 120	<0.50	mg/L		
9104843	Fluoride (F)	2018/08/16	99	80 - 120	104	80 - 120	<0.010	mg/L	1.8	20
9105186	Dissolved Mercury (Hg)	2018/08/16	88	80 - 120	92	80 - 120	<0.0020	ug/L	NC	20
9105605	Alkalinity (PP as CaCO3)	2018/08/14					<0.50	mg/L		
9105605	Alkalinity (Total as CaCO3)	2018/08/14			97	80 - 120	<0.50	mg/L		
9105605	Bicarbonate (HCO3)	2018/08/14					<0.50	mg/L		
9105605	Carbonate (CO3)	2018/08/14					<0.50	mg/L		
9105605	Hydroxide (OH)	2018/08/14					<0.50	mg/L		
9105606	рН	2018/08/14			101	97 - 103				
9105607	Conductivity	2018/08/14			98	80 - 120	1.2, RDL=1.0	uS/cm		
9105616	Alkalinity (PP as CaCO3)	2018/08/14					<0.50	mg/L		
9105616	Alkalinity (Total as CaCO3)	2018/08/14	98	80 - 120	97	80 - 120	<0.50	mg/L		
9105616	Bicarbonate (HCO3)	2018/08/14					<0.50	mg/L		
9105616	Carbonate (CO3)	2018/08/14					<0.50	mg/L		
9105616	Hydroxide (OH)	2018/08/14					<0.50	mg/L		
9105618	рН	2018/08/14			101	97 - 103				
9105620	Conductivity	2018/08/14			108	80 - 120	21.3, RDL=1.0	uS/cm		



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9105754	Total Aluminum (AI)	2018/08/17	102	80 - 120	103	80 - 120	<0.50	ug/L	1.3	20
9105754	Total Antimony (Sb)	2018/08/17	98	80 - 120	97	80 - 120	<0.020	ug/L	NC	20
9105754	Total Arsenic (As)	2018/08/17	99	80 - 120	98	80 - 120	<0.020	ug/L	4.8	20
9105754	Total Barium (Ba)	2018/08/17	96	80 - 120	96	80 - 120	<0.020	ug/L	0.18	20
9105754	Total Beryllium (Be)	2018/08/17	96	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9105754	Total Bismuth (Bi)	2018/08/17	96	80 - 120	97	80 - 120	<0.0050	ug/L	NC	20
9105754	Total Boron (B)	2018/08/17	92	80 - 120	95	80 - 120	<10	ug/L	NC	20
9105754	Total Cadmium (Cd)	2018/08/17	100	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9105754	Total Chromium (Cr)	2018/08/17	95	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
9105754	Total Cobalt (Co)	2018/08/17	97	80 - 120	97	80 - 120	<0.0050	ug/L	18	20
9105754	Total Copper (Cu)	2018/08/17	96	80 - 120	97	80 - 120	<0.050	ug/L	6.3	20
9105754	Total Iron (Fe)	2018/08/17	98	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
9105754	Total Lead (Pb)	2018/08/17	96	80 - 120	96	80 - 120	<0.0050	ug/L	8.0	20
9105754	Total Lithium (Li)	2018/08/17	96	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9105754	Total Manganese (Mn)	2018/08/17	97	80 - 120	99	80 - 120	<0.050	ug/L	2.7	20
9105754	Total Molybdenum (Mo)	2018/08/17	104	80 - 120	104	80 - 120	<0.050	ug/L	6.4	20
9105754	Total Nickel (Ni)	2018/08/17	98	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
9105754	Total Phosphorus (P)	2018/08/17	99	80 - 120	100	80 - 120	2.5, RDL=2.0 (2)	ug/L	NC	20
9105754	Total Selenium (Se)	2018/08/17	98	80 - 120	98	80 - 120	<0.040	ug/L	NC	20
9105754	Total Silicon (Si)	2018/08/17	98	80 - 120	104	80 - 120	<50	ug/L	2.9	20
9105754	Total Silver (Ag)	2018/08/17	100	80 - 120	98	80 - 120	<0.0050	ug/L	NC	20
9105754	Total Strontium (Sr)	2018/08/17	99	80 - 120	99	80 - 120	<0.050	ug/L	7.1	20
9105754	Total Thallium (TI)	2018/08/17	97	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9105754	Total Tin (Sn)	2018/08/17	98	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
9105754	Total Titanium (Ti)	2018/08/17	96	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
9105754	Total Uranium (U)	2018/08/17	101	80 - 120	101	80 - 120	<0.0020	ug/L	NC	20
9105754	Total Vanadium (V)	2018/08/17	98	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
9105754	Total Zinc (Zn)	2018/08/17	100	80 - 120	100	80 - 120	<0.10	ug/L	12	20
9105754	Total Zirconium (Zr)	2018/08/17	100	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
9106444	Total Mercury (Hg)	2018/08/17	98	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
9106525	Total Ammonia (N)	2018/08/16			106	80 - 120	<0.0050	mg/L		



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method I	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9106804	Dissolved Organic Carbon (C)	2018/08/17	105	80 - 120	108	80 - 120	<0.50	mg/L	12	20
9106806	Total Organic Carbon (C)	2018/08/17	104	80 - 120	97	80 - 120	<0.50	mg/L	NC	20
9110037	Total Aluminum (Al)	2018/08/22	129 (3)	80 - 120	97	80 - 120	<3.0	ug/L	7.9	20
9110037	Total Antimony (Sb)	2018/08/22	104	80 - 120	100	80 - 120	<0.020	ug/L	5.4	20
9110037	Total Arsenic (As)	2018/08/22	109	80 - 120	103	80 - 120	<0.020	ug/L	4.7	20
9110037	Total Barium (Ba)	2018/08/22	105	80 - 120	100	80 - 120	<0.050	ug/L	0.20	20
9110037	Total Beryllium (Be)	2018/08/22	99	80 - 120	99	80 - 120	<0.010	ug/L	8.0	20
9110037	Total Bismuth (Bi)	2018/08/22	104	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
9110037	Total Boron (B)	2018/08/22	97	80 - 120	99	80 - 120	<10	ug/L	0.45	20
9110037	Total Cadmium (Cd)	2018/08/22	103	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9110037	Total Chromium (Cr)	2018/08/22	103	80 - 120	101	80 - 120	<0.10	ug/L	9.1	20
9110037	Total Cobalt (Co)	2018/08/22	100	80 - 120	98	80 - 120	<0.010	ug/L	6.5	20
9110037	Total Copper (Cu)	2018/08/22	101	80 - 120	98	80 - 120	<0.10	ug/L	2.9	20
9110037	Total Iron (Fe)	2018/08/22	NC	80 - 120	98	80 - 120	<5.0	ug/L	0.88	20
9110037	Total Lead (Pb)	2018/08/22	104	80 - 120	99	80 - 120	<0.020	ug/L	1.8	20
9110037	Total Lithium (Li)	2018/08/22	95	80 - 120	98	80 - 120	<0.50	ug/L	0.31	20
9110037	Total Manganese (Mn)	2018/08/22	103	80 - 120	101	80 - 120	<0.10	ug/L	0.97	20
9110037	Total Molybdenum (Mo)	2018/08/22	105	80 - 120	103	80 - 120	<0.050	ug/L	2.8	20
9110037	Total Nickel (Ni)	2018/08/22	101	80 - 120	99	80 - 120	<0.10	ug/L	0.23	20
9110037	Total Phosphorus (P)	2018/08/22	102	80 - 120	97	80 - 120	<5.0	ug/L		
9110037	Total Selenium (Se)	2018/08/22	102	80 - 120	98	80 - 120	<0.040	ug/L	6.4	20
9110037	Total Silicon (Si)	2018/08/22	104	80 - 120	98	80 - 120	<50	ug/L	0.62	20
9110037	Total Silver (Ag)	2018/08/22	101	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9110037	Total Strontium (Sr)	2018/08/22	NC	80 - 120	104	80 - 120	<0.050	ug/L	0.42	20
9110037	Total Thallium (TI)	2018/08/22	104	80 - 120	101	80 - 120	<0.0020	ug/L	8.9	20
9110037	Total Tin (Sn)	2018/08/22	100	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9110037	Total Titanium (Ti)	2018/08/22	107	80 - 120	107	80 - 120	<2.0	ug/L	13	20
9110037	Total Uranium (U)	2018/08/22	107	80 - 120	102	80 - 120	<0.0050	ug/L	0.095	20
9110037	Total Vanadium (V)	2018/08/22	105	80 - 120	101	80 - 120	<0.20	ug/L	1.3	20
9110037	Total Zinc (Zn)	2018/08/22	101	80 - 120	99	80 - 120	<1.0	ug/L	6.9	20
9110037	Total Zirconium (Zr)	2018/08/22	106	80 - 120	100	80 - 120	<0.10	ug/L	4.4	20



#### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

			Matrix	Spike	Spiked	Blank	Method B	lank	RPE	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9114571	Free Cyanide	2018/08/23	99	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

- (1) Method Blank exceeds acceptance limits for (As) 2X RDL acceptable for low level metals determination.
- (2) Method blank exceeds acceptance limits for P- 2X RDL acceptable for low level metals determination.
- (3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampler Initials: AC

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

David Huang, M.Sc., P.Chem., QP, Scientific Services Manager



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		VOICE TO:			Benort In	formation							Project b	nformatio				age 1
Town week	PROPERTY OF STREET	NVIRONMENTAL SERVICES	TD		risport in								340231				_	BILL BAS PACKETS OF TO PACKETS AND BUTCH BILLION OF THE PACKETS
mpany Nam	Aida Piaseczny	NVIRONWENTAL SERVICES		David Flori	ner						tation #	-	340231				_	BECKEN AND CARACTERS OF THE COMMENT OF THE COMENT OF THE COMMENT OF THE COMMENT OF THE COMMENT OF THE COMMENT O
ntect Name	2289 BURRARD	STREET	Contact Nam	e David i lati	ioi			_		P.O.		7	Gold Co	ro Coffe	e Creek-	SW	_	
dress	VANCOUVER BC	Management of the Control of the Con	Address							Proje		12		4		-		868088 COC
6187-71	(604) 688-7173	Fax. (604) 688-717	5 Phone				Fac			Site	ect Name	_					14	
orie mil		orax.ca; shukling.ng@lorax.ca	Email	David Flath	ner@lorax		rac			-	reled By	7	Nex	Chav	Va-			C#555303-01-01
Regulatory)				al Instructions	NAME AND ADDRESS OF THE OWNER, WHEN	TT	1		v 0	_	Analysis F				/A 102			Turnaround Time (TAT) Required
		nking water samples - please use the L	Drinking Water Chain of	Custody Form		d Drinking Water ? ( Y / N )	(Alk-LL, EC-LL TDS)	ow Level	(LL.C), F, NO2, NO3,	e - WAD			Level Dissolved Metals CV Hg	Level Total Metals incl. CV			(will be app Standard T Please note days - cont Job Specific Date Require	Please provide advance notice for rush proports  aled if Rush TAT is not specified;  FAT = 5-7 Working days for most tests.  Standard TAT for cordain tests such as BOD and Dioxins/Furans a lack your Project Manager for detains.  Rush TAT (if applies to entire submission)  Time Required.
	Samples mus ple Barcode Label	be kept cool ( < 10°C) from time of sam.  Sample (Location) Identification	Date Sampled	X8m	Matrix	Regulate Metals E	Routine LL, pH,	iSS-Lo	Anions SO4)	Cyanide	TOC	DOG	Low Le	Low Le	ORP		W of Bottisa	(call tab for #) Comments
	SID#162743	CC-0.5	2018-08-11	10:55	w	N	1	-	~	~	~	/	~	~	レ		13	-
100	SID#162744	CC-1.5	701808-11	12:00	W	NY	1	1	_	~	~	-	~	-	_		13	
inim	SID#162745	CC-3.5	2018-08-11	11:70	w	NY	1	~	-	~	/	/	/	~	/		13	RECEIVED IN WHITEHORSE
110111	SIDW162746	CC-4.5	201803-11	9:45	w	NY	1	~	1	~	~	~	$\checkmark$	~	/		13	BY LAMINGUIJA 075
HILLI	SID#162747	HC-2.5	101808105	13:50	w	NX	/	V	/	1	/	1	V	1	1		13	2018 -08- 13
1000	SIDW16274B	HC-5.0	7018-08-11	17:50	10	Ux	1	/	/	/	/	~	/	V	/		13	TEMP: 5,5,4
1000	SID#149895	YT-24	7018-08-11	18:45	w	NY	1	V	~	V	~	1	レ	1	~		13	4 5 5
131111	SID#149695	YT-24 Mix	11-80-8105	18:15	W	NY	1	~	~	/	1	/	/	V	V		13	3 6 5
IIIIII	SID#149897	Coffee Mix	TOP-OB11	17:00	W	10	10	/	-	V	1	/	/	V	/		13	
1000	SID#149898	Halfway Mix	1018-08-15	17:30	3W 1	NY	10	~	~	4	~	1	-	1	-		13	
PEL	INQUISHED BY: (Signature/	The second secon	(YY/MM/DD) Time	-		A CONTRACTOR OF THE PARTY OF TH	Signature/F	rint)		-	te: (YY/MM	1000000	Time	0.00	used and submitted	-		Lab Use Only
10	La Au	EX CHAPPOS 18/C	08/12 10:3	0 30	ANDU	A Y	IAN6		_	7.0	8 Aug	314	0:20	-		Time Sans	Tem	perature (*C) on Receipt Custody Seal Intact on Cooler

1164

Maxxam Analytics International Corporation o/a Maxxam Analytics

Analysis Requiested  Special Instructions  Special Instructions  Special Instructions  Special Instructions  Special Instructions  (N / N / N / N / N / N / N / N / N / N /	Ca655503-02-01  Tumaround Time (TAT) Required asse provide advence notice for rush projects
Alda Piaseczny  288 Burkar Rand STREET  VANCOUVER BC V6J 3H9  (604) 688-7173	Secot Manu  Cat555303-02-01  Turnaround Time (TAT) Required ass provide advance notice for rush projects  TAT  In TAT is not specified)  Working days for most fests of TAT for certain fests such as BOD and Dioxins/Furant
2289 BURRARD STREET VANCOUVER BC V6J 3H9 (604) 688-7173  ida piaseczny@lorax.ca; shukling.ng@lorax.ca  Special instructions  Special	Secot Manu  Cat555303-02-01  Turnaround Time (TAT) Required ass provide advance notice for rush projects  TAT  In TAT is not specified)  Working days for most fests of TAT for certain fests such as BOD and Dioxins/Furant
Figure   Flax	Ce555303-02-01  Turnaround Time (TAT) Required assa provide advance notice for rush projects  TAT th TAT is not specified) Working days for most (ests of TAT for certain fests such as BOD and Dioxins/Furant rigord Manager for data/sis
aida-piaseczny@lorax.ca: shukling.ng@lorax.ca  Sampled By  Alack CLouds  Analysis Requiested  Analysis Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  Analysis Analysis  A	C#555303-02-01  Turnaround Time (TAT) Required  ###################################
Analysis Requested  Special Instructions  Special Instructions  Analysis Requested  Analysis Requested  Analysis Requested  Regular (Standard 7AT = 5-7 Pieses note: Standard 7AT = 5-7 Pieses	Turnaround Time (TAT) Required  asse provide advance notice for rush projects  TAT  In TAT is not specified)  Working days for most fests  of TAT for certain fests such as BOD and Dioxins/Furant roject Manager for details.
And the property of the sample of the property	TAT  the Target of the Target of the Trush projects  the TAT is not specified)  Working days for most fests  of TAT for certain fests such as BOD and Dioxins/Furant  troject Manager for details.
Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) from time of sempling until delivery to maxism   Samples must be kept cool (<10°C) fr	TAT  In 7AT is not specified)  Working days for most fests  of 1AT for certain fests such as BOD and Dioxins/Furant rioped Manager for defails.
Samples must be kept cool ( < 10°C) from time of sampling until delivery to maxosm   Sample (Location) Identification   Data Sampled   Time Sampled   Matrix   Data Sample (Location) Identification   Data Sampled   Time Sampled   Matrix   Data Sample (Location) Identification   Data Sampled   Data Sample	
Sample Barcode Label   Sample (Location) Identification   Data Sampled   Time Sampled   Matrix   Sample   Data Sampled   Dat	Time Required:
Latte Mix   Zo12-oc-11   10:20   W   N   V   V   V   V   V   V   V   V   V	(call (ab for #)
Latte Mix   Zo18-ob-11   10:20   W N Y / / / / / / / / / /   13	Comments
SIDE208506 308-08-/1 18 / /5	THE CONTRACT
	DECEMENTAL MARKET AND ASSESSMENT OF THE PROPERTY OF THE PROPER
560071 Field Blank 2018-08-11 16:00 W NYV V V V V V 13	BY K Minghy (20 0)
	2018 -08- 1 3
	TEMP: 5 / 5 / T
	3 6 5
	W 80 8
RELINGUISHED BY: (Signature/Print) Date: (YY/MM/DD) Time RECEIVED BY: (Signature/Print) Date: (YY/MM/DD) Time # jers used and not submitted	Lab Use Only
	Controlly Seal Intact on Coole  4.5.2.3.5 Pres No
ESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT. TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHITING AT WAVE MAXXAM CATERINS.	

Maxxam Analytics International Corporation of Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560076-01-01, 560076-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/27

Report #: R2610152 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B870087 Received: 2018/08/17, 09:20

Sample Matrix: Water # Samples Received: 13

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	13	N/A	2018/08/23	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	13	N/A	2018/08/21	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	13	N/A	2018/08/22	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	13	N/A	2018/08/23	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	13	N/A	2018/08/21	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	1	N/A	2018/08/21	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (3)	12	N/A	2018/08/24	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	13	N/A	2018/08/22	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	13	N/A	2018/08/21	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	7	2018/08/21	2018/08/21	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	6	2018/08/22	2018/08/22	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	13	N/A	2018/08/22	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	13	N/A	2018/08/21	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	1	2018/08/21	2018/08/23	BBY7SOP-00003,	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	11	2018/08/23	2018/08/24	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2018/08/21	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	12	N/A	2018/08/24	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	1	N/A	2018/08/21	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	13	N/A	2018/08/22	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	13	N/A	2018/08/21	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	13	N/A	2018/08/21	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	13	N/A	2018/08/22	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	13	N/A	2018/08/24	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	13	N/A	2018/08/21	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	13	N/A	2018/08/23	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	13	N/A	2018/08/21	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	13	2018/08/21	2018/08/22	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	13	N/A	2018/08/22	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	13	2018/08/21	2018/08/22	BBY6SOP-00034	SM 22 2540 D
Free (WAD) Cyanide (1)	13	N/A	2018/08/23	CAM SOP-00457	OMOE E3015 5 m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560076-01-01, 560076-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/27

Report #: R2610152 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B870087 Received: 2018/08/17, 09:20

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

#### **Encryption Key**



27 Aug 2018 19:16:31

Please direct all questions regarding this Certificate of Analysis to your Project Manager. Diana Cruz, Project Manager Email: DCruz@maxxam.ca

Phone# (604) 734 7276

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E),



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560076-01-01, 560076-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/27

Report #: R2610152 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B870087 Received: 2018/08/17, 09:20

signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		UC6927			UC6927			UC6928		
Sampling Date		2018/08/16			2018/08/16			2018/08/16		
Sampling Date		09:45			09:45			10:30		
COC Number		560076-01-01			560076-01-01			560076-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Parameter										
ORP	mV	272		9111785	273		9111785	276		9111785
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		9110456				LAB		9110456
Nitrate (N)	mg/L	0.289	0.0020	9109848				0.392	0.0020	9109848
Misc. Inorganics	•		•			•			•	
Fluoride (F)	mg/L	0.069	0.010	9110781				0.057	0.010	9110781
Free Cyanide	mg/L	<0.0010	0.0010	9114776	<0.0010	0.0010	9114776	<0.0010	0.0010	9114776
Dissolved Organic Carbon (C)	mg/L	13.1	0.50	9113175				10.1	0.50	9113175
Alkalinity (Total as CaCO3)	mg/L	35.9	0.50	9115085				70.2	0.50	9115085
Total Organic Carbon (C)	mg/L	15.9	0.50	9113177				11.0	0.50	9113177
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Bicarbonate (HCO3)	mg/L	43.8	0.50	9115085				85.7	0.50	9115085
Carbonate (CO3)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Hydroxide (OH)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Anions										
Dissolved Sulphate (SO4)	mg/L	29.2	0.50	9111170				58.8	0.50	9111170
Dissolved Chloride (CI)	mg/L	1.0	0.50	9111168				1.9	0.50	9111168
Nutrients										
Total Ammonia (N)	mg/L	<0.0050	0.0050	9113226				<0.0050	0.0050	9113226
Nitrate plus Nitrite (N)	mg/L	0.289	0.0020	9111622				0.392	0.0020	9111622
Nitrite (N)	mg/L	<0.0020	0.0020	9111624				<0.0020	0.0020	9111624
Physical Properties										
Conductivity	uS/cm	136	1.0	9115086				264	1.0	9115086
рН	рН	7.52		9115079				7.77		9115079
Physical Properties										
Total Suspended Solids	mg/L	2.6	1.0	9110908				4.4	1.0	9110908
Total Dissolved Solids	mg/L	116	10	9110974				174	10	9110974
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		UC6929			UC6929			UC6930		
Sampling Date		2018/08/16			2018/08/16			2018/08/16		
Sampling Date		10:00			10:00			08:50		
COC Number		560076-01-01			560076-01-01			560076-01-01		
	UNITS	CC-3.5	RDL	QC Batch	CC-3.5 Lab-Dup	RDL	QC Batch	CC-4.5	RDL	QC Batch
Parameter										
ORP	mV	278		9111785				277		9111785
Calculated Parameters				•		•	•		•	
Filter and HNO3 Preservation	N/A	LAB		9110456				LAB		9110456
Nitrate (N)	mg/L	0.368	0.0020	9109848				0.279	0.0020	9109848
Misc. Inorganics						•				
Fluoride (F)	mg/L	0.065	0.010	9110781				0.071	0.010	9110781
Free Cyanide	mg/L	<0.0010	0.0010	9114776				<0.0010	0.0010	9114776
Dissolved Organic Carbon (C)	mg/L	10.9	0.50	9113175				12.6	0.50	9113175
Alkalinity (Total as CaCO3)	mg/L	63.3	0.50	9115085				39.4	0.50	9115085
Total Organic Carbon (C)	mg/L	12.4	0.50	9113178	12.3	0.50	9113178	14.5	0.50	9113177
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Bicarbonate (HCO3)	mg/L	77.2	0.50	9115085				48.1	0.50	9115085
Carbonate (CO3)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Hydroxide (OH)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Anions										
Dissolved Sulphate (SO4)	mg/L	54.5	0.50	9111170				32.8	0.50	9111170
Dissolved Chloride (CI)	mg/L	0.53	0.50	9111168				1.2	0.50	9111168
Nutrients										
Total Ammonia (N)	mg/L	0.0080	0.0050	9113226				0.025	0.0050	9113226
Nitrate plus Nitrite (N)	mg/L	0.368	0.0020	9111622				0.279	0.0020	9111622
Nitrite (N)	mg/L	<0.0020	0.0020	9111624				<0.0020	0.0020	9111624
Physical Properties										
Conductivity	uS/cm	245	1.0	9115086				158	1.0	9115086
рН	рН	7.77		9115079				7.58		9115079
Physical Properties										
Total Suspended Solids	mg/L	1.5	1.0	9110908				1.0	1.0	9110908
Total Dissolved Solids	mg/L	174	10	9110974				124	10	9110974
RDL = Reportable Detection Lir	mit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		UC6931		UC6932	UC6933			UC6933		
Sampling Date		2018/08/16 11:15		2018/08/16 13:15	2018/08/16 14:05			2018/08/16 14:05		
COC Number		560076-01-01		560076-01-01	560076-01-01			560076-01-01		
	UNITS	HC-2.5	QC Batch	HC-5.0	YT-24	RDL	QC Batch	YT-24 Lab-Dup	RDL	QC Batch
Parameter		•	•	•	•	•	-	•		
ORP	mV	274	9111785	269	300		9111785	299		9111785
Calculated Parameters	· ·	•			•			·		
Filter and HNO3 Preservation	N/A	LAB	9110456	LAB	LAB		9110456			
Nitrate (N)	mg/L	0.486	9109848	0.433	0.843	0.0020	9109848			
Misc. Inorganics	•		•	•	•	•			•	
Fluoride (F)	mg/L	0.061	9110789	0.073	0.072	0.010	9110789	0.072	0.010	9110789
Free Cyanide	mg/L	<0.0010	9114776	<0.0010	<0.0010	0.0010	9114776			
Dissolved Organic Carbon (C)	mg/L	11.5	9113174	12.4	12.2	0.50	9113175			
Alkalinity (Total as CaCO3)	mg/L	55.8	9115085	61.3	48.7	0.50	9115085			
Total Organic Carbon (C)	mg/L	11.5	9113178	13.2	13.1	0.50	9113178			
Alkalinity (PP as CaCO3)	mg/L	<0.50	9115085	<0.50	<0.50	0.50	9115085			
Bicarbonate (HCO3)	mg/L	68.1	9115085	74.8	59.4	0.50	9115085			
Carbonate (CO3)	mg/L	<0.50	9115085	<0.50	<0.50	0.50	9115085			
Hydroxide (OH)	mg/L	<0.50	9115085	<0.50	<0.50	0.50	9115085			
Anions										
Dissolved Sulphate (SO4)	mg/L	23.7	9111170	29.8	40.5	0.50	9111170	39.0	0.50	9111170
Dissolved Chloride (CI)	mg/L	1.4	9111168	0.85	2.2	0.50	9111168	1.9	0.50	9111168
Nutrients										
Total Ammonia (N)	mg/L	0.021	9113226	<0.0050	0.011	0.0050	9113226			
Nitrate plus Nitrite (N)	mg/L	0.486	9111622	0.433	0.843	0.0020	9111622	0.848	0.0020	9111622
Nitrite (N)	mg/L	<0.0020	9111624	<0.0020	<0.0020	0.0020	9111624	<0.0020	0.0020	9111624
Physical Properties										
Conductivity	uS/cm	161	9115086	183	196	1.0	9115086			
рН	рН	7.69	9115079	7.76	7.64		9115079			
Physical Properties										
Total Suspended Solids	mg/L	<1.0	9110908	1.4	6.1	1.0	9110908			
Total Dissolved Solids	mg/L	118	9110974	138	138	10	9110974			
RDL = Reportable Detection Lin Lab-Dup = Laboratory Initiated		te								

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		UC6934		UC6935	UC6936		UC6959		
Sampling Date		2018/08/16		2018/08/16	2018/08/16		2018/08/16		
Sampling Date		14:35		12:45	13:45		09:15		
COC Number		560076-01-01		560076-01-01	560076-01-01		560076-02-01		
	UNITS	YT-24 MIX	QC Batch	COFFEE MIX	HALFWAY MIX	QC Batch	LATTE MIX	RDL	QC Batch
Parameter									
ORP	mV	290	9111785	285	282	9111785	283		9111785
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	9110456	LAB	LAB	9110456	LAB		9110456
Nitrate (N)	mg/L	0.171	9109848	0.0143	0.135	9109848	0.293	0.0020	9109848
Misc. Inorganics									
Fluoride (F)	mg/L	0.110	9110789	0.120	0.110	9110789	0.070	0.010	9110789
Free Cyanide	mg/L	<0.0010	9114776	<0.0010	<0.0010	9114776	<0.0010	0.0010	9114776
Dissolved Organic Carbon (C)	mg/L	4.98	9113174	1.96	5.19	9113175	14.0	0.50	9113175
Alkalinity (Total as CaCO3)	mg/L	60.2	9115085	64.3	61.2	9115103	39.2	0.50	9115085
Total Organic Carbon (C)	mg/L	6.16	9113177	3.23	6.87	9113178	15.2	0.50	9113178
Alkalinity (PP as CaCO3)	mg/L	<0.50	9115085	<0.50	<0.50	9115103	<0.50	0.50	9115085
Bicarbonate (HCO3)	mg/L	73.4	9115085	78.5	74.7	9115103	47.8	0.50	9115085
Carbonate (CO3)	mg/L	<0.50	9115085	<0.50	<0.50	9115103	<0.50	0.50	9115085
Hydroxide (OH)	mg/L	<0.50	9115085	<0.50	<0.50	9115103	<0.50	0.50	9115085
Anions	•			•		•	•		
Dissolved Sulphate (SO4)	mg/L	27.4	9111170	27.8	29.4	9111170	29.0	0.50	9111170
Dissolved Chloride (CI)	mg/L	1.8	9111168	0.60	1.4	9111168	0.56	0.50	9111168
Nutrients									
Total Ammonia (N)	mg/L	<0.0050	9113226	<0.0050	<0.0050	9113226	<0.0050	0.0050	9113228
Nitrate plus Nitrite (N)	mg/L	0.171	9111622	0.0143	0.135	9111622	0.293	0.0020	9111622
Nitrite (N)	mg/L	<0.0020	9111624	<0.0020	<0.0020	9111624	<0.0020	0.0020	9111624
Physical Properties									
Conductivity	uS/cm	191	9115086	184	187	9115106	149	1.0	9115086
рН	рН	7.75	9115079	7.76	7.68	9115099	7.53		9115079
Physical Properties									
Total Suspended Solids	mg/L	25.5	9110908	26.8	17.2	9110908	1.7	1.0	9110908
Total Dissolved Solids	mg/L	118	9110974	120	138	9110974	128	10	9110974
RDL = Reportable Detection Lin	nit								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		UC6960			UC6960			UC6961		
Sampling Date		2018/08/16			2018/08/16			2018/08/16		
Sampling Date		14:05			14:05			15:25		
COC Number		560076-02-01			560076-02-01			560076-02-01		
	UNITS	DUP	RDL	QC Batch	DUP Lab-Dup	RDL	QC Batch	FIELD BLANK	RDL	QC Batch
Parameter										
ORP	mV	282		9111785				272		9111785
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB		9110456				LAB		9110456
Nitrate (N)	mg/L	0.843	0.0020	9109848				0.0041	0.0020	9109848
Misc. Inorganics	•		•		•	•	-		•	
Fluoride (F)	mg/L	0.073	0.010	9110789				<0.010	0.010	9110789
Free Cyanide	mg/L	<0.0010	0.0010	9114776				<0.0010	0.0010	9114776
Dissolved Organic Carbon (C)	mg/L	13.2	0.50	9113174				<0.50	0.50	9113174
Alkalinity (Total as CaCO3)	mg/L	50.9	0.50	9115085				0.89	0.50	9115085
Total Organic Carbon (C)	mg/L	13.4	0.50	9113178				<0.50	0.50	9113178
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Bicarbonate (HCO3)	mg/L	62.1	0.50	9115085				1.09	0.50	9115085
Carbonate (CO3)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Hydroxide (OH)	mg/L	<0.50	0.50	9115085				<0.50	0.50	9115085
Anions	•		•			•				
Dissolved Sulphate (SO4)	mg/L	40.2	0.50	9111170				<0.50	0.50	9111170
Dissolved Chloride (CI)	mg/L	1.1	0.50	9111168				<0.50	0.50	9111168
Nutrients	•		•			•				
Total Ammonia (N)	mg/L	<0.0050	0.0050	9113228				<0.0050	0.0050	9113228
Nitrate plus Nitrite (N)	mg/L	0.843	0.0020	9111622				0.0041	0.0020	9111622
Nitrite (N)	mg/L	<0.0020	0.0020	9111624				<0.0020	0.0020	9111624
Physical Properties										
Conductivity	uS/cm	196	1.0	9115086				1.5	1.0	9115086
рН	рН	7.67		9115079				5.55		9115079
Physical Properties							'			
Total Suspended Solids	mg/L	7.2	1.0	9110908				<1.0	1.0	9110908
Total Dissolved Solids	mg/L	144	10	9110974	148	10	9110974	<10	10	9110974
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

		UC6927			UC6927			UC6928		
Sampling Date		2018/08/16			2018/08/16			2018/08/16		
Sampling Date		09:45			09:45			10:30		
COC Number		560076-01-01			560076-01-01			560076-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	59.6	0.50	9109066				122	0.50	9109066
Elements										
Dissolved Mercury (Hg)	ug/L	0.0052	0.0020	9110951				0.0045	0.0020	9110951
Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	110	0.50	9111143	114	0.50	9111143	94.6	0.50	9111143
Dissolved Antimony (Sb)	ug/L	0.122	0.020	9111143	0.125	0.020	9111143	0.121	0.020	9111143
Dissolved Arsenic (As)	ug/L	0.457	0.020	9111143	0.465	0.020	9111143	0.605	0.020	9111143
Dissolved Barium (Ba)	ug/L	36.7	0.020	9111143	37.3	0.020	9111143	36.2	0.020	9111143
Dissolved Beryllium (Be)	ug/L	0.015	0.010	9111143	0.012	0.010	9111143	0.018	0.010	9111143
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9111143	<0.0050	0.0050	9111143	<0.0050	0.0050	9111143
Dissolved Boron (B)	ug/L	<10	10	9111143	<10	10	9111143	<10	10	9111143
Dissolved Cadmium (Cd)	ug/L	0.0078	0.0050	9111143	0.0086	0.0050	9111143	0.0261 (1)	0.0050	9111143
Dissolved Chromium (Cr)	ug/L	0.46	0.10	9111143	0.42	0.10	9111143	0.38	0.10	9111143
Dissolved Cobalt (Co)	ug/L	0.0756	0.0050	9111143	0.0788	0.0050	9111143	0.0696	0.0050	9111143
Dissolved Copper (Cu)	ug/L	2.87	0.050	9111143	2.83	0.050	9111143	1.80	0.050	9111143
Dissolved Iron (Fe)	ug/L	95.8	1.0	9111143	94.9	1.0	9111143	65.8	1.0	9111143
Dissolved Lead (Pb)	ug/L	0.0076	0.0050	9111143	0.0072	0.0050	9111143	0.0057	0.0050	9111143
Dissolved Lithium (Li)	ug/L	0.76	0.50	9111143	0.84	0.50	9111143	1.61	0.50	9111143
Dissolved Manganese (Mn)	ug/L	3.59	0.050	9111143	3.54	0.050	9111143	5.41	0.050	9111143
Dissolved Molybdenum (Mo)	ug/L	0.652	0.050	9111143	0.670	0.050	9111143	0.157	0.050	9111143
Dissolved Nickel (Ni)	ug/L	1.23	0.020	9111143	1.21	0.020	9111143	0.656	0.020	9111143
Dissolved Phosphorus (P)	ug/L	3.6	2.0	9111143	3.4	2.0	9111143	66.5 (1)	2.0	9111143
Dissolved Selenium (Se)	ug/L	0.095	0.040	9111143	0.120	0.040	9111143	0.118	0.040	9111143
Dissolved Silicon (Si)	ug/L	4370	50	9111143	4330	50	9111143	4450	50	9111143
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9111143	<0.0050	0.0050	9111143	<0.0050	0.0050	9111143
Dissolved Strontium (Sr)	ug/L	74.6	0.050	9111143	74.6	0.050	9111143	280	0.050	9111143
Dissolved Thallium (TI)	ug/L	0.0047	0.0020	9111143	0.0050	0.0020	9111143	0.0023	0.0020	9111143
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9111143	<0.20	0.20	9111143	<0.20	0.20	9111143
Dissolved Titanium (Ti)	ug/L	1.35	0.50	9111143	1.19	0.50	9111143	0.66	0.50	9111143
Dissolved Uranium (U)	ug/L	2.74	0.0020	9111143	2.77	0.0020	9111143	7.36	0.0020	9111143

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) Dissolved greater than total. Reanalysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

	LICCO27			LICCO27			LICCO20		
				000927			000928		
	2018/08/16			2018/08/16			2018/08/16		
	09:45			09:45			10:30		
	560076-01-01			560076-01-01			560076-01-01		
UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
ug/L	0.62	0.20	9111143	0.59	0.20	9111143	0.37	0.20	9111143
ug/L	0.47	0.10	9111143	0.45	0.10	9111143	1.04	0.10	9111143
ug/L	0.63	0.10	9111143	0.63	0.10	9111143	0.63	0.10	9111143
mg/L	15.6	0.050	9109067				32.8	0.050	9109067
mg/L	5.00	0.050	9109067				9.80	0.050	9109067
mg/L	0.986	0.050	9109067				1.93	0.050	9109067
mg/L	2.73	0.050	9109067				2.53	0.050	9109067
mg/L	7.6	3.0	9109067				17.1	3.0	9109067
	ug/L ug/L ug/L mg/L mg/L mg/L mg/L	UNITS CC-0.5  ug/L 0.62  ug/L 0.47  ug/L 0.63  mg/L 15.6  mg/L 5.00  mg/L 0.986  mg/L 2.73	2018/08/16   09:45	2018/08/16   09:45	2018/08/16   2018/08/16   09:45   560076-01-01   560076-01-01   CC-0.5   Lab-Dup   UNITS   CC-0.5   RDL   QC Batch   CC-0.5   Lab-Dup   Ug/L   0.62   0.20   9111143   0.59   Ug/L   0.63   0.10   9111143   0.45   Ug/L   0.63   0.10   9111143   0.63   Mg/L   15.6   0.050   9109067   Mg/L   5.00   0.050   9109067   Mg/L   0.986   0.050   9109067   Mg/L   2.73   0.050   9109067	2018/08/16   2018/08/16   09:45     2018/08/16   09:45	2018/08/16   2018/08/16   09:45   2018/08/16   09:45	2018/08/16	2018/08/16   2018/08/16   09:45   2018/08/16   10:30

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Mayyam ID	i	LICEO2O	LICENZO	LICE021	LICEO22		LICEO22		
Maxxam ID		UC6929	UC6930	UC6931	UC6932		UC6933		
Sampling Date		2018/08/16 10:00	2018/08/16 08:50	2018/08/16 11:15	2018/08/16 13:15		2018/08/16 14:05		
COC Number		560076-01-01	560076-01-01	560076-01-01	560076-01-01		560076-01-01		
	UNITS	CC-3.5	CC-4.5	HC-2.5	HC-5.0	QC Batch	YT-24	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	113	68.0	74.5	84.8	9109066	90.2	0.50	9109066
Elements		1							
Dissolved Mercury (Hg)	ug/L	0.0043	0.0042	0.0037	0.0029	9110951	0.0030	0.0020	9110807
Dissolved Metals by ICPMS	•								
Dissolved Aluminum (AI)	ug/L	63.7	91.6	101	58.7	9111143	54.6	0.50	9111143
Dissolved Antimony (Sb)	ug/L	0.109	0.119	0.365	0.242	9111143	0.250	0.020	9111143
Dissolved Arsenic (As)	ug/L	0.373	0.454	1.04	0.690	9111143	0.493	0.020	9111143
Dissolved Barium (Ba)	ug/L	46.2	42.2	33.5	41.0	9111143	49.0	0.020	9111143
Dissolved Beryllium (Be)	ug/L	0.014	<0.010	0.016	0.015	9111143	0.017	0.010	9111143
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	9111143	<0.0050	0.0050	9111143
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	9111143	<10	10	9111143
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0091	<0.0050	<0.0050	9111143	<0.0050	0.0050	9111143
Dissolved Chromium (Cr)	ug/L	0.33	0.44	0.43	0.37	9111143	0.36	0.10	9111143
Dissolved Cobalt (Co)	ug/L	0.0520	0.0720	0.0688	0.0626	9111143	0.0939	0.0050	9111143
Dissolved Copper (Cu)	ug/L	1.70	2.73	1.94	2.04	9111143	2.05	0.050	9111143
Dissolved Iron (Fe)	ug/L	40.4	69.9	72.7	45.8	9111143	60.9	1.0	9111143
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	0.0324	<0.0050	9111143	0.0078	0.0050	9111143
Dissolved Lithium (Li)	ug/L	0.63	0.68	0.98	0.78	9111143	<0.50	0.50	9111143
Dissolved Manganese (Mn)	ug/L	0.683	3.00	2.45	0.590	9111143	3.64	0.050	9111143
Dissolved Molybdenum (Mo)	ug/L	0.236	0.602	1.04	0.602	9111143	0.484	0.050	9111143
Dissolved Nickel (Ni)	ug/L	0.669	1.08	0.815	0.876	9111143	0.780	0.020	9111143
Dissolved Phosphorus (P)	ug/L	2.9	2.6	4.5	2.3	9111143	4.7	2.0	9111143
Dissolved Selenium (Se)	ug/L	0.076	0.098	0.064	0.066	9111143	0.077	0.040	9111143
Dissolved Silicon (Si)	ug/L	4320	4260	4380	4170	9111143	3680	50	9111143
Dissolved Silver (Ag)	ug/L	<0.0050	< 0.0050	<0.0050	<0.0050	9111143	<0.0050	0.0050	9111143
Dissolved Strontium (Sr)	ug/L	221	94.6	219	196	9111143	145	0.050	9111143
Dissolved Thallium (TI)	ug/L	0.0022	0.0042	0.0023	0.0028	9111143	0.0024	0.0020	9111143
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	9111143	<0.20	0.20	9111143
Dissolved Titanium (Ti)	ug/L	0.67	1.01	1.25	0.83	9111143	0.73	0.50	9111143
Dissolved Uranium (U)	ug/L	4.54	2.52	18.0	7.75	9111143	2.62	0.0020	9111143
Dissolved Vanadium (V)	ug/L	0.31	0.52	0.42	0.38	9111143	0.40	0.20	9111143
Dissolved Zinc (Zn)	ug/L	0.24	0.39	0.25	0.16	9111143	0.17	0.10	9111143
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6929	UC6930	UC6931	UC6932		UC6933		
Sampling Date		2018/08/16	2018/08/16	2018/08/16	2018/08/16		2018/08/16		
Sampling Date		10:00	08:50	11:15	13:15		14:05		
COC Number		560076-01-01	560076-01-01	560076-01-01	560076-01-01		560076-01-01		
	UNITS	CC-3.5	CC-4.5	HC-2.5	HC-5.0	QC Batch	YT-24	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.64	0.63	0.64	0.59	9111143	0.67	0.10	9111143
Dissolved Calcium (Ca)	mg/L	30.9	17.9	19.8	22.9	9109067	25.2	0.050	9109067
Dissolved Magnesium (Mg)	mg/L	8.66	5.65	6.11	6.71	9109067	6.62	0.050	9109067
Dissolved Potassium (K)	mg/L	1.90	1.15	1.57	1.79	9109067	1.46	0.050	9109067
Dissolved Sodium (Na)	mg/L	3.02	2.82	2.10	2.57	9109067	2.52	0.050	9109067
Dissolved Sulphur (S)	mg/L	17.1	9.5	6.8	8.6	9109067	12.1	3.0	9109067
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampling Date			UC6935	UC6936	UC6959		UC6960	1	
Sampling Date		2018/08/16	2018/08/16	2018/08/16	2018/08/16		2018/08/16		
		14:35	12:45	13:45	09:15		14:05		
COC Number		560076-01-01	560076-01-01	560076-01-01	560076-02-01		560076-02-01		
	UNITS	YT-24 MIX	COFFEE MIX	HALFWAY MIX	LATTE MIX	QC Batch	DUP	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	86.7	86.7	85.8	66.5	9109066	89.7	0.50	9109066
Elements									
Dissolved Mercury (Hg)	ug/L	<0.0020	<0.0020	<0.0020	0.0045	9110951	0.0035	0.0020	9110807
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	42.4	40.8	44.2	104	9111143	54.5	0.50	9111143
Dissolved Antimony (Sb)	ug/L	0.145	0.123	0.168	0.124	9111143	0.243	0.020	9111143
Dissolved Arsenic (As)	ug/L	0.477	0.472	0.509	0.460	9111143	0.522	0.020	9111143
Dissolved Barium (Ba)	ug/L	43.9	41.8	42.8	39.1	9111143	50.1	0.020	9111143
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	0.014	9111143	0.017	0.010	9111143
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	9111143	<0.0050	0.0050	9111143
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	9111143	<10	10	9111143
Dissolved Cadmium (Cd)	ug/L	0.0331	0.0386	0.0440	0.0071	9111143	0.0066	0.0050	9111143
Dissolved Chromium (Cr)	ug/L	0.13	<0.10	0.16	0.45	9111143	0.38	0.10	9111143
Dissolved Cobalt (Co)	ug/L	0.0422	0.0197	0.0406	0.0804	9111143	0.0962	0.0050	9111143
Dissolved Copper (Cu)	ug/L	1.27	1.03	1.45	2.69	9111143	2.15	0.050	9111143
Dissolved Iron (Fe)	ug/L	20.3	15.9	23.8	91.0	9111143	63.0	1.0	9111143
Dissolved Lead (Pb)	ug/L	0.0127	0.0131	0.0119	<0.0050	9111143	0.0129	0.0050	9111143
Dissolved Lithium (Li)	ug/L	1.27	1.48	1.20	0.72	9111143	<0.50	0.50	9111143
Dissolved Manganese (Mn)	ug/L	2.29	1.19	3.50	3.25	9111143	3.63	0.050	9111143
Dissolved Molybdenum (Mo)	ug/L	1.09	1.22	1.03	0.628	9111143	0.490	0.050	9111143
Dissolved Nickel (Ni)	ug/L	1.05	1.06	1.10	1.26	9111143	0.863	0.020	9111143
Dissolved Phosphorus (P)	ug/L	<2.0	2.1	<2.0	2.6	9111143	2.7	2.0	9111143
Dissolved Selenium (Se)	ug/L	0.275	0.381	0.274	0.099	9111143	0.085	0.040	9111143
Dissolved Silicon (Si)	ug/L	2640	2310	2960	4550	9111143	3660	50	9111143
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	9111143	<0.0050	0.0050	9111143
Dissolved Strontium (Sr)	ug/L	123	115	137	94.5	9111143	145	0.050	9111143
Dissolved Thallium (TI)	ug/L	0.0027	0.0029	0.0030	0.0041	9111143	0.0028	0.0020	9111143
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	9111143	<0.20	0.20	9111143
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	0.90	9111143	0.85	0.50	9111143
Dissolved Uranium (U)	ug/L	1.46	1.01	2.97	3.04	9111143	2.62	0.0020	9111143
Dissolved Vanadium (V)	ug/L	0.26	0.24	0.27	0.48	9111143	0.45	0.20	9111143
Dissolved Zinc (Zn)	ug/L	1.54	1.91	2.05	0.44	9111143	0.31	0.10	9111143
RDL = Reportable Detection Lim	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6934	UC6935	UC6936	UC6959		UC6960		
Sampling Date		2018/08/16	2018/08/16	2018/08/16	2018/08/16		2018/08/16		
Sampling Date		14:35	12:45	13:45	09:15		14:05		
COC Number		560076-01-01	560076-01-01	560076-01-01	560076-02-01		560076-02-01		
	UNITS	YT-24 MIX	COFFEE MIX	HALFWAY MIX	LATTE MIX	QC Batch	DUP	RDL	QC Batch
Dissolved Zirconium (Zr)	ug/L	0.16	<0.10	0.18	0.67	9111143	0.65	0.10	9111143
Dissolved Calcium (Ca)	mg/L	24.2	24.6	23.8	17.5	9109067	25.5	0.050	9109067
Dissolved Magnesium (Mg)	mg/L	6.35	6.16	6.40	5.57	9109067	6.35	0.050	9109067
Dissolved Potassium (K)	mg/L	0.886	0.800	1.08	1.10	9109067	1.48	0.050	9109067
Dissolved Sodium (Na)	mg/L	2.74	1.75	2.12	2.78	9109067	2.53	0.050	9109067
Dissolved Sulphur (S)	mg/L	9.0	7.9	8.4	9.1	9109067	11.9	3.0	9109067
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6961							
C !! D !		2018/08/16							
Sampling Date		15:25							
COC Number		560076-02-01							
	UNITS	FIELD BLANK	RDL	QC Batch					
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	<0.50	0.50	9109066					
Elements									
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	9110807					
Dissolved Metals by ICPMS	•		•						
Dissolved Aluminum (Al)	ug/L	<0.50	0.50	9111143					
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	9111143					
Dissolved Arsenic (As)	ug/L	<0.020	0.020	9111143					
Dissolved Barium (Ba)	ug/L	<0.020	0.020	9111143					
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9111143					
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9111143					
Dissolved Boron (B)	ug/L	<10	10	9111143					
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	9111143					
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	9111143					
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	9111143					
Dissolved Copper (Cu)	ug/L	<0.050	0.050	9111143					
Dissolved Iron (Fe)	ug/L	<1.0	1.0	9111143					
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9111143					
Dissolved Lithium (Li)	ug/L	<0.50	0.50	9111143					
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	9111143					
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	9111143					
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	9111143					
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	9111143					
Dissolved Selenium (Se)	ug/L	<0.040	0.040	9111143					
Dissolved Silicon (Si)	ug/L	<50	50	9111143					
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9111143					
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	9111143					
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	9111143					
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9111143					
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9111143					
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	9111143					
Dissolved Vanadium (V)	ug/L	<0.20	0.20	9111143					
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	9111143					
RDL = Reportable Detection Li	RDL = Reportable Detection Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6961						
Sampling Date		2018/08/16 15:25						
COC Number		560076-02-01						
	UNITS	FIELD BLANK	RDL	QC Batch				
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	9111143				
Dissolved Calcium (Ca)	mg/L	<0.050	0.050	9109067				
Dissolved Magnesium (Mg)	mg/L	<0.050	0.050	9109067				
Dissolved Potassium (K)	mg/L	<0.050	0.050	9109067				
Dissolved Sodium (Na)	mg/L	<0.050	0.050	9109067				
Dissolved Sulphur (S)	mg/L	<3.0	3.0	9109067				
RDL = Reportable Detection Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LOW LEVEL TOTAL METALS WITH CV HG (WATER)

·	_						
Maxxam ID		UC6961			UC6961		
Sampling Date		2018/08/16			2018/08/16		
ounipining Dutc		15:25			15:25		
COC Number		560076-02-01			560076-02-01		
	UNITS	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	<0.50	0.50	9109065			
Elements						•	
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9112476	<0.0020	0.0020	9112476
Total Metals by ICPMS						•	
Total Aluminum (Al)	ug/L	<0.50	0.50	9111374	<0.50	0.50	9111374
Total Antimony (Sb)	ug/L	<0.020	0.020	9111374	<0.020	0.020	9111374
Total Arsenic (As)	ug/L	<0.020	0.020	9111374	<0.020	0.020	9111374
Total Barium (Ba)	ug/L	0.033	0.020	9111374	0.033	0.020	9111374
Total Beryllium (Be)	ug/L	<0.010	0.010	9111374	<0.010	0.010	9111374
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9111374	<0.0050	0.0050	9111374
Total Boron (B)	ug/L	<10	10	9111374	<10	10	9111374
Total Cadmium (Cd)	ug/L	<0.0050	0.0050	9111374	<0.0050	0.0050	9111374
Total Chromium (Cr)	ug/L	<0.10	0.10	9111374	<0.10	0.10	9111374
Total Cobalt (Co)	ug/L	<0.0050	0.0050	9111374	<0.0050	0.0050	9111374
Total Copper (Cu)	ug/L	<0.050	0.050	9111374	<0.050	0.050	9111374
Total Iron (Fe)	ug/L	<1.0	1.0	9111374	<1.0	1.0	9111374
Total Lead (Pb)	ug/L	<0.0050	0.0050	9111374	<0.0050	0.0050	9111374
Total Lithium (Li)	ug/L	<0.50	0.50	9111374	<0.50	0.50	9111374
Total Manganese (Mn)	ug/L	<0.050	0.050	9111374	<0.050	0.050	9111374
Total Molybdenum (Mo)	ug/L	<0.050	0.050	9111374	<0.050	0.050	9111374
Total Nickel (Ni)	ug/L	0.021	0.020	9111374	0.021	0.020	9111374
Total Phosphorus (P)	ug/L	2.7	2.0	9111374	2.7	2.0	9111374
Total Selenium (Se)	ug/L	<0.040	0.040	9111374	<0.040	0.040	9111374
Total Silicon (Si)	ug/L	<50	50	9111374	<50	50	9111374
Total Silver (Ag)	ug/L	<0.0050	0.0050	9111374	<0.0050	0.0050	9111374
Total Strontium (Sr)	ug/L	<0.050	0.050	9111374	<0.050	0.050	9111374
Total Thallium (TI)	ug/L	<0.0020	0.0020	9111374	<0.0020	0.0020	9111374
Total Tin (Sn)	ug/L	<0.20	0.20	9111374	<0.20	0.20	9111374
Total Titanium (Ti)	ug/L	<0.50	0.50	9111374	<0.50	0.50	9111374
Total Uranium (U)	ug/L	<0.0020	0.0020	9111374	<0.0020	0.0020	9111374
RDL = Reportable Detection	Limit						
Lab-Dup = Laboratory Initiat	ted Duplic	cate					

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UC6961			UC6961		
Sampling Date		2018/08/16			2018/08/16		
Sampling Date		15:25			15:25		
COC Number		560076-02-01			560076-02-01		
	UNITS	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Vanadium (V)	ug/L	<0.20	0.20	9111374	<0.20	0.20	9111374
Total Zinc (Zn)	ug/L	<0.10	0.10	9111374	<0.10	0.10	9111374
Total Zirconium (Zr)	ug/L	<0.10	0.10	9111374	<0.10	0.10	9111374
Total Calcium (Ca)	mg/L	<0.050	0.050	9109068			
Total Magnesium (Mg)	mg/L	<0.050	0.050	9109068			
Total Potassium (K)	mg/L	<0.050	0.050	9109068			
Total Sodium (Na)	mg/L	<0.050	0.050	9109068			
Total Sulphur (S)	mg/L	<3.0	3.0	9109068			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6927		UC6928	UC6929	UC6930	UC6931		
o !! D .		2018/08/16		2018/08/16	2018/08/16	2018/08/16	2018/08/16		
Sampling Date		09:45		10:30	10:00	08:50	11:15		
COC Number		560076-01-01		560076-01-01	560076-01-01	560076-01-01	560076-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.5	CC-3.5	CC-4.5	HC-2.5	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	63.9	9109065	130	115	74.3	79.5	0.50	9109065
Elements							•	•	•
Total Mercury (Hg)	ug/L	0.0038	9112731	0.0041	0.0040	0.0040	0.0036	0.0020	9110952
Total Metals by ICPMS							•	•	•
Total Aluminum (AI)	ug/L	179	9114514	127	81.9	133	157	3.0	9114514
Total Antimony (Sb)	ug/L	0.129	9114514	0.123	0.109	0.124	0.355	0.020	9114514
Total Arsenic (As)	ug/L	0.557	9114514	0.706	0.423	0.490	1.17	0.020	9114514
Total Barium (Ba)	ug/L	41.1	9114514	40.1	47.2	45.2	36.0	0.050	9114514
Total Beryllium (Be)	ug/L	0.019	9114514	0.023	0.015	0.015	0.023	0.010	9114514
Total Bismuth (Bi)	ug/L	<0.010	9114514	<0.010	<0.010	<0.010	<0.010	0.010	9114514
Total Boron (B)	ug/L	<10	9114514	<10	<10	<10	<10	10	9114514
Total Cadmium (Cd)	ug/L	0.0128	9114514	0.0074	0.0062	0.0113	0.0071	0.0050	9114514
Total Chromium (Cr)	ug/L	0.55	9114514	0.44	0.38	0.44	0.53	0.10	9114514
Total Cobalt (Co)	ug/L	0.115	9114514	0.074	0.066	0.104	0.093	0.010	9114514
Total Copper (Cu)	ug/L	2.96	9114514	1.65	1.69	2.89	1.72	0.10	9114514
Total Iron (Fe)	ug/L	197	9114514	109	71.0	134	137	5.0	9114514
Total Lead (Pb)	ug/L	0.041	9114514	0.027	0.021	0.025	0.028	0.020	9114514
Total Lithium (Li)	ug/L	0.91	9114514	1.85	0.67	0.77	1.09	0.50	9114514
Total Manganese (Mn)	ug/L	6.24	9114514	7.32	2.02	5.78	3.64	0.10	9114514
Total Molybdenum (Mo)	ug/L	0.703	9114514	0.158	0.241	0.631	1.06	0.050	9114514
Total Nickel (Ni)	ug/L	1.22	9114514	0.68	0.64	1.16	0.73	0.10	9114514
Total Phosphorus (P)	ug/L	7.2	9114514	5.8	5.0	6.4	5.6	5.0	9114514
Total Selenium (Se)	ug/L	0.133	9114514	0.093	0.093	0.117	0.065	0.040	9114514
Total Silicon (Si)	ug/L	5360	9114514	5450	4720	5270	5340	50	9114514
Total Silver (Ag)	ug/L	<0.010	9114514	<0.010	<0.010	<0.010	<0.010	0.010	9114514
Total Strontium (Sr)	ug/L	80.2	9114514	315	230	103	237	0.050	9114514
Total Thallium (TI)	ug/L	0.0061	9114514	0.0042	0.0031	0.0050	0.0037	0.0020	9114514
Total Tin (Sn)	ug/L	<0.20	9114514	<0.20	<0.20	<0.20	<0.20	0.20	9114514
Total Titanium (Ti)	ug/L	5.1	9114514	2.1	<2.0	3.4	3.5	2.0	9114514
Total Uranium (U)	ug/L	3.02	9114514	8.12	4.55	2.73	18.2	0.0050	9114514
Total Vanadium (V)	ug/L	0.71	9114514	0.40	0.39	0.61	0.55	0.20	9114514
Total Zinc (Zn)	ug/L	<1.0	9114514	<1.0	<1.0	<1.0	<1.0	1.0	9114514
RDL = Reportable Detection L	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6927		UC6928	UC6929	UC6930	UC6931		
Sampling Data		2018/08/16		2018/08/16	2018/08/16	2018/08/16	2018/08/16		
Sampling Date		09:45		10:30	10:00	08:50	11:15		
COC Number		560076-01-01		560076-01-01	560076-01-01	560076-01-01	560076-01-01		
	UNITS	CC-0.5	QC Batch	CC-1.5	CC-3.5	CC-4.5	HC-2.5	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.53	9114514	0.53	0.57	0.53	0.58	0.10	9114514
Total Calcium (Ca)	mg/L	16.4	9109068	33.3	31.0	19.1	20.6	0.25	9109068
Total Magnesium (Mg)	mg/L	5.59	9109068	11.4	9.20	6.43	6.81	0.25	9109068
Total Potassium (K)	mg/L	1.04	9109068	1.98	1.93	1.22	1.66	0.25	9109068
Total Sodium (Na)	mg/L	3.01	9109068	2.77	3.15	3.20	2.27	0.25	9109068
Total Sulphur (S)	mg/L	8.4	9109068	19.7	17.2	10.5	7.1	3.0	9109068
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6932		UC6933		UC6934		UC6935		
		2018/08/16		2018/08/16		2018/08/16		2018/08/16		
Sampling Date		13:15		14:05		14:35		12:45		
COC Number		560076-01-01		560076-01-01		560076-01-01		560076-01-01		
	UNITS	HC-5.0	QC Batch	YT-24	QC Batch	YT-24 MIX	QC Batch	COFFEE MIX	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	86.3	9109065	92.5	9109065	93.3	9109065	90.6	0.50	9109065
Elements		1	Į.		Į.	1		1	ı	
Total Mercury (Hg)	ug/L	0.0025	9110952	0.0035	9112476	<0.0020	9112731	<0.0020	0.0020	9110952
Total Metals by ICPMS	•		•		•		•		•	
Total Aluminum (AI)	ug/L	75.1	9114514	193	9114514	469	9114514	606	3.0	9114514
Total Antimony (Sb)	ug/L	0.244	9114514	0.238	9114514	0.212	9114514	0.194	0.020	9114514
Total Arsenic (As)	ug/L	0.700	9114514	0.687	9114514	0.914	9114514	1.12	0.020	9114514
Total Barium (Ba)	ug/L	42.0	9114514	54.3	9114514	67.4	9114514	75.1	0.050	9114514
Total Beryllium (Be)	ug/L	0.018	9114514	0.023	9114514	0.032	9114514	0.045	0.010	9114514
Total Bismuth (Bi)	ug/L	<0.010	9114514	<0.010	9114514	<0.010	9114514	0.011	0.010	9114514
Total Boron (B)	ug/L	<10	9114514	<10	9114514	<10	9114514	<10	10	9114514
Total Cadmium (Cd)	ug/L	<0.0050	9114514	0.0071	9114514	0.119	9114514	0.183	0.0050	9114514
Total Chromium (Cr)	ug/L	0.41	9114514	0.59	9114514	0.78	9114514	1.03	0.10	9114514
Total Cobalt (Co)	ug/L	0.070	9114514	0.187	9114514	0.458	9114514	0.661	0.010	9114514
Total Copper (Cu)	ug/L	1.96	9114514	2.33	9114514	2.35	9114514	2.75	0.10	9114514
Total Iron (Fe)	ug/L	74.7	9114514	276	9114514	714	9114514	1020	5.0	9114514
Total Lead (Pb)	ug/L	<0.020	9114514	0.110	9114514	0.400	9114514	0.602	0.020	9114514
Total Lithium (Li)	ug/L	0.85	9114514	0.53	9114514	1.87	9114514	2.26	0.50	9114514
Total Manganese (Mn)	ug/L	1.53	9114514	7.42	9114514	32.4	9114514	47.6	0.10	9114514
Total Molybdenum (Mo)	ug/L	0.596	9114514	0.485	9114514	1.15	9114514	1.28	0.050	9114514
Total Nickel (Ni)	ug/L	0.87	9114514	0.99	9114514	2.84	9114514	3.64	0.10	9114514
Total Phosphorus (P)	ug/L	<5.0	9114514	10.7	9114514	28.0	9114514	62.1	5.0	9114514
Total Selenium (Se)	ug/L	0.070	9114514	0.081	9114514	0.328	9114514	0.397	0.040	9114514
Total Silicon (Si)	ug/L	4670	9114514	4400	9114514	3720	9114514	3500	50	9114514
Total Silver (Ag)	ug/L	<0.010	9114514	<0.010	9114514	0.017	9114514	0.021	0.010	9114514
Total Strontium (Sr)	ug/L	201	9114514	151	9114514	134	9114514	123	0.050	9114514
Total Thallium (TI)	ug/L	0.0030	9114514	0.0045	9114514	0.0096	9114514	0.0131	0.0020	9114514
Total Tin (Sn)	ug/L	<0.20	9114514	<0.20	9114514	<0.20	9114514	<0.20	0.20	9114514
Total Titanium (Ti)	ug/L	<2.0	9114514	9.3	9114514	12.3	9114514	17.3	2.0	9114514
Total Uranium (U)	ug/L	7.71	9114514	2.81	9114514	1.59	9114514	1.12	0.0050	9114514
Total Vanadium (V)	ug/L	0.43	9114514	0.76	9114514	1.74	9114514	2.34	0.20	9114514
Total Zinc (Zn)	ug/L	<1.0	9114514	<1.0	9114514	12.9	9114514	20.1	1.0	9114514
RDL = Reportable Detection	Limit	•				•	•	•	•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6932		UC6933		UC6934		UC6935		
Sampling Date		2018/08/16		2018/08/16		2018/08/16		2018/08/16		
Sampling Date		13:15		14:05		14:35		12:45		
COC Number		560076-01-01		560076-01-01		560076-01-01		560076-01-01		
	UNITS	HC-5.0	QC Batch	YT-24	QC Batch	YT-24 MIX	QC Batch	COFFEE MIX	RDL	QC Batch
Total Zirconium (Zr)	ug/L	0.47	9114514	0.56	9114514	0.23	9114514	0.23	0.10	9114514
Total Calcium (Ca)	mg/L	23.1	9109068	25.5	9109068	25.3	9109068	24.4	0.25	9109068
Total Magnesium (Mg)	mg/L	6.95	9109068	7.00	9109068	7.32	9109068	7.20	0.25	9109068
Total Potassium (K)	mg/L	1.79	9109068	1.56	9109068	1.07	9109068	0.98	0.25	9109068
Total Sodium (Na)	mg/L	2.61	9109068	2.72	9109068	3.10	9109068	2.01	0.25	9109068
Total Sulphur (S)	mg/L	8.1	9109068	12.8	9109068	10.0	9109068	8.3	3.0	9109068
RDL = Reportable Detection L	imit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6936		UC6959	UC6960		
Complian Date		2018/08/16		2018/08/16	2018/08/16		
Sampling Date		13:45		09:15	14:05		
COC Number		560076-01-01		560076-02-01	560076-02-01		
	UNITS	HALFWAY MIX	QC Batch	LATTE MIX	DUP	RDL	QC Batch
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	93.9	9109065	70.0	93.2	0.50	9109065
Elements							
Total Mercury (Hg)	ug/L	<0.0020	9110952	0.0038	0.0030	0.0020	9112476
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	381	9111403	156	230	3.0	9114514
Total Antimony (Sb)	ug/L	0.217	9111403	0.121	0.245	0.020	9114514
Total Arsenic (As)	ug/L	0.923	9111403	0.531	0.726	0.020	9114514
Total Barium (Ba)	ug/L	62.8	9111403	41.7	57.1	0.050	9114514
Total Beryllium (Be)	ug/L	0.031	9111403	0.018	0.029	0.010	9114514
Total Bismuth (Bi)	ug/L	<0.010	9111403	<0.010	<0.010	0.010	9114514
Total Boron (B)	ug/L	<10	9111403	<10	<10	10	9114514
Total Cadmium (Cd)	ug/L	0.106	9111403	0.0103	0.0104	0.0050	9114514
Total Chromium (Cr)	ug/L	0.76	9111403	0.50	0.67	0.10	9114514
Total Cobalt (Co)	ug/L	0.423	9111403	0.099	0.220	0.010	9114514
Total Copper (Cu)	ug/L	2.42	9111403	2.71	2.38	0.10	9114514
Total Iron (Fe)	ug/L	609	9111403	159	321	5.0	9114514
Total Lead (Pb)	ug/L	0.360	9111403	0.035	0.153	0.020	9114514
Total Lithium (Li)	ug/L	1.87	9111403	0.92	0.58	0.50	9114514
Total Manganese (Mn)	ug/L	29.4	9111403	5.27	9.13	0.10	9114514
Total Molybdenum (Mo)	ug/L	1.11	9111403	0.636	0.510	0.050	9114514
Total Nickel (Ni)	ug/L	2.69	9111403	1.15	1.07	0.10	9114514
Total Phosphorus (P)	ug/L	39.7	9111403	6.8	13.5	5.0	9114514
Total Selenium (Se)	ug/L	0.329	9111403	0.118	0.092	0.040	9114514
Total Silicon (Si)	ug/L	4130	9111403	5380	4390	50	9114514
Total Silver (Ag)	ug/L	0.014	9111403	<0.010	<0.010	0.010	9114514
Total Strontium (Sr)	ug/L	151	9111403	96.3	152	0.050	9114514
Total Thallium (TI)	ug/L	0.0101	9111403	0.0053	0.0052	0.0020	9114514
Total Tin (Sn)	ug/L	<0.20	9111403	<0.20	<0.20	0.20	9114514
Total Titanium (Ti)	ug/L	10.3	9111403	3.7	10.1	2.0	9114514
Total Uranium (U)	ug/L	3.12	9111403	3.25	2.77	0.0050	9114514
Total Vanadium (V)	ug/L	1.57	9111403	0.67	0.86	0.20	9114514
Total Zinc (Zn)	ug/L	13.3	9111403	<1.0	<1.0	1.0	9114514
RDL = Reportable Detection L	imit						_



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UC6936		UC6959	UC6960						
Sampling Date		2018/08/16		2018/08/16	2018/08/16						
		13:45		09:15	14:05						
COC Number		560076-01-01		560076-02-01	560076-02-01						
	UNITS	HALFWAY MIX	QC Batch	LATTE MIX	DUP	RDL	QC Batch				
Total Zirconium (Zr)	ug/L	0.51	9111403	0.56	0.49	0.10	9114514				
Total Calcium (Ca)	mg/L	25.2	9109068	18.0	25.7	0.25	9109068				
Total Magnesium (Mg)	mg/L	7.51	9109068	6.06	7.07	0.25	9109068				
Total Potassium (K)	mg/L	1.27	9109068	1.14	1.55	0.25	9109068				
Total Sodium (Na)	mg/L	2.43	9109068	3.01	2.70	0.25	9109068				
Total Sulphur (S)	mg/L	9.4	9109068	9.5	12.5	3.0	9109068				
RDL = Reportable Detection L	RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample UC6927 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6928 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6929 [CC-3.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6930 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6931 [HC-2.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6932 [HC-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6933 [YT-24]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6934 [YT-24 MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6935 [COFFEE MIX]: Sample was analyzed past method specified hold time for Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level).

Sample UC6936 [HALFWAY MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6959 [LATTE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6960 [DUP]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UC6961 [FIELD BLANK]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

#### LL TOTAL METALS (DIGESTED) WITH CV HG Comments

Matrix Spike Elements by ICPMS Digested LL (total): RDL raised due to concentration over linear range, sample dilution required. Matrix Spike Elements by ICPMS Digested LL (total): RDL raised due to concentration over linear range, sample dilution required.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Results relate only to the items tested.



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9110781	Fluoride (F)	2018/08/21	103	80 - 120	106	80 - 120	<0.010	mg/L	2.7	20
9110789	Fluoride (F)	2018/08/21	104	80 - 120	106	80 - 120	<0.010	mg/L	0	20
9110807	Dissolved Mercury (Hg)	2018/08/21	89	80 - 120	92	80 - 120	<0.0020	ug/L	NC	20
9110908	Total Suspended Solids	2018/08/22			99	80 - 120	<1.0	mg/L		
9110951	Dissolved Mercury (Hg)	2018/08/21	97	80 - 120	93	80 - 120	<0.0020	ug/L	NC	20
9110952	Total Mercury (Hg)	2018/08/21	93	80 - 120	95	80 - 120	<0.0020	ug/L	NC	20
9110974	Total Dissolved Solids	2018/08/22	100	80 - 120	104	80 - 120	<10	mg/L	2.7	20
9111143	Dissolved Aluminum (Al)	2018/08/21	99	80 - 120	106	80 - 120	<0.50	ug/L	3.1	20
9111143	Dissolved Antimony (Sb)	2018/08/21	104	80 - 120	107	80 - 120	<0.020	ug/L	2.4	20
9111143	Dissolved Arsenic (As)	2018/08/21	104	80 - 120	106	80 - 120	<0.020	ug/L	1.6	20
9111143	Dissolved Barium (Ba)	2018/08/21	99	80 - 120	105	80 - 120	<0.020	ug/L	1.6	20
9111143	Dissolved Beryllium (Be)	2018/08/21	96	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
9111143	Dissolved Bismuth (Bi)	2018/08/21	97	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
9111143	Dissolved Boron (B)	2018/08/21	94	80 - 120	95	80 - 120	<10	ug/L	NC	20
9111143	Dissolved Cadmium (Cd)	2018/08/21	101	80 - 120	104	80 - 120	< 0.0050	ug/L	9.8	20
9111143	Dissolved Chromium (Cr)	2018/08/21	103	80 - 120	108	80 - 120	<0.10	ug/L	9.5	20
9111143	Dissolved Cobalt (Co)	2018/08/21	103	80 - 120	107	80 - 120	<0.0050	ug/L	4.1	20
9111143	Dissolved Copper (Cu)	2018/08/21	101	80 - 120	107	80 - 120	<0.050	ug/L	1.1	20
9111143	Dissolved Iron (Fe)	2018/08/21	99	80 - 120	107	80 - 120	<1.0	ug/L	0.94	20
9111143	Dissolved Lead (Pb)	2018/08/21	101	80 - 120	105	80 - 120	< 0.0050	ug/L	5.4	20
9111143	Dissolved Lithium (Li)	2018/08/21	98	80 - 120	102	80 - 120	<0.50	ug/L	9.4	20
9111143	Dissolved Manganese (Mn)	2018/08/21	102	80 - 120	106	80 - 120	<0.050	ug/L	1.5	20
9111143	Dissolved Molybdenum (Mo)	2018/08/21	103	80 - 120	106	80 - 120	<0.050	ug/L	2.8	20
9111143	Dissolved Nickel (Ni)	2018/08/21	103	80 - 120	107	80 - 120	<0.020	ug/L	1.4	20
9111143	Dissolved Phosphorus (P)	2018/08/21	97	80 - 120	98	80 - 120	<2.0	ug/L	4.1	20
9111143	Dissolved Selenium (Se)	2018/08/21	105	80 - 120	105	80 - 120	<0.040	ug/L	NC	20
9111143	Dissolved Silicon (Si)	2018/08/21	94	80 - 120	88	80 - 120	<50	ug/L	0.92	20
9111143	Dissolved Silver (Ag)	2018/08/21	100	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
9111143	Dissolved Strontium (Sr)	2018/08/21	NC	80 - 120	101	80 - 120	<0.050	ug/L	0.043	20
9111143	Dissolved Thallium (TI)	2018/08/21	98	80 - 120	102	80 - 120	<0.0020	ug/L	6.2	20
9111143	Dissolved Tin (Sn)	2018/08/21	101	80 - 120	105	80 - 120	<0.20	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9111143	Dissolved Titanium (Ti)	2018/08/21	104	80 - 120	110	80 - 120	<0.50	ug/L	13	20
9111143	Dissolved Uranium (U)	2018/08/21	105	80 - 120	108	80 - 120	<0.0020	ug/L	1.1	20
9111143	Dissolved Vanadium (V)	2018/08/21	105	80 - 120	108	80 - 120	<0.20	ug/L	5.0	20
9111143	Dissolved Zinc (Zn)	2018/08/21	105	80 - 120	108	80 - 120	<0.10	ug/L	4.2	20
9111143	Dissolved Zirconium (Zr)	2018/08/21	103	80 - 120	104	80 - 120	<0.10	ug/L	0.62	20
9111168	Dissolved Chloride (Cl)	2018/08/21	100	80 - 120	103	80 - 120	0.59, RDL=0.50	mg/L	17	20
9111170	Dissolved Sulphate (SO4)	2018/08/21	NC	80 - 120	105	80 - 120	0.53, RDL=0.50	mg/L	3.6	20
9111374	Total Aluminum (Al)	2018/08/21	93	80 - 120	97	80 - 120	<0.50	ug/L	8.9	20
9111374	Total Antimony (Sb)	2018/08/21	97	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
9111374	Total Arsenic (As)	2018/08/21	97	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
9111374	Total Barium (Ba)	2018/08/21	95	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9111374	Total Beryllium (Be)	2018/08/21	92	80 - 120	94	80 - 120	<0.010	ug/L	NC	20
9111374	Total Bismuth (Bi)	2018/08/21	95	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9111374	Total Boron (B)	2018/08/21	93	80 - 120	93	80 - 120	<10	ug/L	NC	20
9111374	Total Cadmium (Cd)	2018/08/21	100	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
9111374	Total Chromium (Cr)	2018/08/21	99	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
9111374	Total Cobalt (Co)	2018/08/21	97	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9111374	Total Copper (Cu)	2018/08/21	97	80 - 120	101	80 - 120	<0.050	ug/L	NC	20
9111374	Total Iron (Fe)	2018/08/21	97	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
9111374	Total Lead (Pb)	2018/08/21	95	80 - 120	99	80 - 120	<0.0050	ug/L	NC	20
9111374	Total Lithium (Li)	2018/08/21	90	80 - 120	92	80 - 120	<0.50	ug/L	NC	20
9111374	Total Manganese (Mn)	2018/08/21	99	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9111374	Total Molybdenum (Mo)	2018/08/21	98	80 - 120	106	80 - 120	<0.050	ug/L	NC	20
9111374	Total Nickel (Ni)	2018/08/21	98	80 - 120	104	80 - 120	<0.020	ug/L	NC	20
9111374	Total Phosphorus (P)	2018/08/21	92	80 - 120	97	80 - 120	3.2, RDL=2.0 (1)	ug/L	NC	20
9111374	Total Selenium (Se)	2018/08/21	98	80 - 120	100	80 - 120	<0.040	ug/L	NC	20
9111374	Total Silicon (Si)	2018/08/21	99	80 - 120	101	80 - 120	<50	ug/L	NC	20
9111374	Total Silver (Ag)	2018/08/21	98	80 - 120	101	80 - 120	<0.0050	ug/L	NC	20
9111374	Total Strontium (Sr)	2018/08/21	98	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9111374	Total Thallium (TI)	2018/08/21	97	80 - 120	100	80 - 120	<0.0020	ug/L	NC	20
9111374	Total Tin (Sn)	2018/08/21	97	80 - 120	102	80 - 120	<0.20	ug/L	NC	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9111374	Total Titanium (Ti)	2018/08/21	98	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
9111374	Total Uranium (U)	2018/08/21	99	80 - 120	104	80 - 120	<0.0020	ug/L	NC	20
9111374	Total Vanadium (V)	2018/08/21	99	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
9111374	Total Zinc (Zn)	2018/08/21	97	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
9111374	Total Zirconium (Zr)	2018/08/21	96	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
9111403	Total Aluminum (Al)	2018/08/23	NC	80 - 120	104	80 - 120	<3.0	ug/L	4.3	20
9111403	Total Antimony (Sb)	2018/08/23	104	80 - 120	108	80 - 120	<0.020	ug/L	2.2	20
9111403	Total Arsenic (As)	2018/08/23	111	80 - 120	110	80 - 120	<0.020	ug/L	9.9	20
9111403	Total Barium (Ba)	2018/08/23	NC	80 - 120	110	80 - 120	<0.050	ug/L	0.90	20
9111403	Total Beryllium (Be)	2018/08/23	99	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
9111403	Total Bismuth (Bi)	2018/08/23	98	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
9111403	Total Boron (B)	2018/08/23	NC	80 - 120	104	80 - 120	<10	ug/L	6.3	20
9111403	Total Cadmium (Cd)	2018/08/23	102	80 - 120	107	80 - 120	<0.0050	ug/L	NC	20
9111403	Total Chromium (Cr)	2018/08/23	98	80 - 120	103	80 - 120	<0.10	ug/L	2.6	20
9111403	Total Cobalt (Co)	2018/08/23	97	80 - 120	104	80 - 120	<0.010	ug/L	0.14	20
9111403	Total Copper (Cu)	2018/08/23	95	80 - 120	102	80 - 120	<0.10	ug/L	5.4	20
9111403	Total Iron (Fe)	2018/08/23	128 (2)	80 - 120	108	80 - 120	<5.0	ug/L	2.5	20
9111403	Total Lead (Pb)	2018/08/23	99	80 - 120	108	80 - 120	<0.020	ug/L	11	20
9111403	Total Lithium (Li)	2018/08/23	NC	80 - 120	108	80 - 120	<0.50	ug/L	2.0	20
9111403	Total Manganese (Mn)	2018/08/23	99	80 - 120	102	80 - 120	<0.10	ug/L	3.7	20
9111403	Total Molybdenum (Mo)	2018/08/23	NC	80 - 120	109	80 - 120	<0.050	ug/L	3.8	20
9111403	Total Nickel (Ni)	2018/08/23	95	80 - 120	103	80 - 120	<0.10	ug/L	16	20
9111403	Total Phosphorus (P)	2018/08/23	103	80 - 120	104	80 - 120	<5.0	ug/L		
9111403	Total Selenium (Se)	2018/08/23	104	80 - 120	108	80 - 120	<0.040	ug/L	10	20
9111403	Total Silicon (Si)	2018/08/23	129 (2)	80 - 120	102	80 - 120	<50	ug/L	5.9	20
9111403	Total Silver (Ag)	2018/08/23	98	80 - 120	106	80 - 120	<0.010	ug/L	NC	20
9111403	Total Strontium (Sr)	2018/08/23	NC	80 - 120	108	80 - 120	<0.050	ug/L	4.0	20
9111403	Total Thallium (TI)	2018/08/23	98	80 - 120	105	80 - 120	<0.0020	ug/L	NC	20
9111403	Total Tin (Sn)	2018/08/23	101	80 - 120	107	80 - 120	<0.20	ug/L	NC	20
9111403	Total Titanium (Ti)	2018/08/23	108	80 - 120	102	80 - 120	<2.0	ug/L	5.8	20
9111403	Total Uranium (U)	2018/08/23	105	80 - 120	110	80 - 120	<0.0050	ug/L	2.4	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9111403	Total Vanadium (V)	2018/08/23	103	80 - 120	104	80 - 120	<0.20	ug/L	0.84	20
9111403	Total Zinc (Zn)	2018/08/23	99	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
9111403	Total Zirconium (Zr)	2018/08/23	120	80 - 120	105	80 - 120	<0.10	ug/L	0.63	20
9111622	Nitrate plus Nitrite (N)	2018/08/21	NC	80 - 120	108	80 - 120	<0.0020	mg/L	0.58	25
9111624	Nitrite (N)	2018/08/21	90	80 - 120	103	80 - 120	<0.0020	mg/L	NC	25
9111785	ORP	2018/08/24							0.33	20
9112476	Total Mercury (Hg)	2018/08/22	88	80 - 120	106	80 - 120	<0.0020	ug/L	NC	20
9112731	Total Mercury (Hg)	2018/08/22	101	80 - 120	98	80 - 120	<0.0020	ug/L	NC	20
9113174	Dissolved Organic Carbon (C)	2018/08/22	99	80 - 120	108	80 - 120	<0.50	mg/L	NC	20
9113175	Dissolved Organic Carbon (C)	2018/08/22	NC	80 - 120	101	80 - 120	<0.50	mg/L	2.4	20
9113177	Total Organic Carbon (C)	2018/08/22	95	80 - 120	110	80 - 120	<0.50	mg/L	9.0	20
9113178	Total Organic Carbon (C)	2018/08/22	99	80 - 120	109	80 - 120	<0.50	mg/L	0.97	20
9113226	Total Ammonia (N)	2018/08/22			94	80 - 120	<0.0050	mg/L		
9113228	Total Ammonia (N)	2018/08/22	115	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20
9114514	Total Aluminum (AI)	2018/08/24	NC	80 - 120	102	80 - 120	<3.0	ug/L	4.4	20
9114514	Total Antimony (Sb)	2018/08/24	105	80 - 120	102	80 - 120	<0.020	ug/L	0.75	20
9114514	Total Arsenic (As)	2018/08/24	110	80 - 120	107	80 - 120	0.026, RDL=0.020 (3)	ug/L	3.7	20
9114514	Total Barium (Ba)	2018/08/24	NC	80 - 120	107	80 - 120	<0.050	ug/L	1.2	20
9114514	Total Beryllium (Be)	2018/08/24	99	80 - 120	99	80 - 120	<0.010	ug/L	14	20
9114514	Total Bismuth (Bi)	2018/08/24	98	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
9114514	Total Boron (B)	2018/08/24	NC	80 - 120	99	80 - 120	<10	ug/L	0.080	20
9114514	Total Cadmium (Cd)	2018/08/24	102	80 - 120	103	80 - 120	<0.0050	ug/L	NC	20
9114514	Total Chromium (Cr)	2018/08/24	105	80 - 120	103	80 - 120	<0.10	ug/L	0.26	20
9114514	Total Cobalt (Co)	2018/08/24	97	80 - 120	102	80 - 120	<0.010	ug/L	4.9	20
9114514	Total Copper (Cu)	2018/08/24	94	80 - 120	101	80 - 120	<0.10	ug/L	18	20
9114514	Total Iron (Fe)	2018/08/24	NC	80 - 120	103	80 - 120	<5.0	ug/L	0.70	20
9114514	Total Lead (Pb)	2018/08/24	100	80 - 120	104	80 - 120	<0.020	ug/L	4.5	20
9114514	Total Lithium (Li)	2018/08/24	NC	80 - 120	98	80 - 120	<0.50	ug/L	1.7	20
9114514	Total Manganese (Mn)	2018/08/24	NC	80 - 120	101	80 - 120	<0.10	ug/L	2.1	20
9114514	Total Molybdenum (Mo)	2018/08/24	NC	80 - 120	105	80 - 120	<0.050	ug/L	2.0	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9114514	Total Nickel (Ni)	2018/08/24	98	80 - 120	101	80 - 120	<0.10	ug/L	0.48	20
9114514	Total Phosphorus (P)	2018/08/24	102	80 - 120	101	80 - 120	<5.0	ug/L		
9114514	Total Selenium (Se)	2018/08/24	107	80 - 120	105	80 - 120	<0.040	ug/L	2.4	20
9114514	Total Silicon (Si)	2018/08/24	NC	80 - 120	100	80 - 120	<50	ug/L	1.3	20
9114514	Total Silver (Ag)	2018/08/24	100	80 - 120	103	80 - 120	<0.010	ug/L	NC	20
9114514	Total Strontium (Sr)	2018/08/24	NC	80 - 120	104	80 - 120	0.069, RDL=0.050 (4)	ug/L	0.60	20
9114514	Total Thallium (TI)	2018/08/24	99	80 - 120	101	80 - 120	<0.0020	ug/L	5.0	20
9114514	Total Tin (Sn)	2018/08/24	101	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
9114514	Total Titanium (Ti)	2018/08/24	NC	80 - 120	105	80 - 120	<2.0	ug/L	7.3	20
9114514	Total Uranium (U)	2018/08/24	105	80 - 120	107	80 - 120	<0.0050	ug/L	3.2	20
9114514	Total Vanadium (V)	2018/08/24	108	80 - 120	102	80 - 120	<0.20	ug/L	4.0	20
9114514	Total Zinc (Zn)	2018/08/24	102	80 - 120	102	80 - 120	<1.0	ug/L	2.6	20
9114514	Total Zirconium (Zr)	2018/08/24	NC	80 - 120	102	80 - 120	<0.10	ug/L	13	20
9114776	Free Cyanide	2018/08/23	101	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20
9115079	рH	2018/08/23			100	97 - 103			1.1	20
9115085	Alkalinity (PP as CaCO3)	2018/08/23					<0.50	mg/L	NC	20
9115085	Alkalinity (Total as CaCO3)	2018/08/23	102	80 - 120	94	80 - 120	0.70, RDL=0.50	mg/L	0.77	20
9115085	Bicarbonate (HCO3)	2018/08/23					0.85, RDL=0.50	mg/L	0.77	20
9115085	Carbonate (CO3)	2018/08/23					<0.50	mg/L	NC	20
9115085	Hydroxide (OH)	2018/08/23					<0.50	mg/L	NC	20
9115086	Conductivity	2018/08/23			99	80 - 120	<1.0	uS/cm	0.48	20
9115099	рН	2018/08/23			100	97 - 103				
9115103	Alkalinity (PP as CaCO3)	2018/08/23					<0.50	mg/L		
9115103	Alkalinity (Total as CaCO3)	2018/08/23			93	80 - 120	0.64, RDL=0.50	mg/L		
9115103	Bicarbonate (HCO3)	2018/08/23					0.78, RDL=0.50	mg/L		
9115103	Carbonate (CO3)	2018/08/23					<0.50	mg/L		
9115103	Hydroxide (OH)	2018/08/23					<0.50	mg/L		



#### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method B	lank	RPD	)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9115106	Conductivity	2018/08/23			100	80 - 120	<1.0	uS/cm		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

- (1) Method blank exceeds acceptance limits for P- 2X RDL acceptable for low level metals determination.
- (2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
- (3) Method Blank exceeds acceptance limits for (As) 2X RDL acceptable for low level metals determination.
- (4) Method Blank exceeds acceptance limits for (Sr) 2X RDL acceptable for low level metals determination.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist

Brad Newman, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

	10	WOICE TO:			Report In	nformatio	ın			-1			Project Ir	formation	Ľ		\$.P5.16 PGA3: C 2027 PSG-06(S BUZ) BH HI	
any Name	#3604 LORAX	ENVIRONMENTAL SERVICE	S LTD. Company	Name						Quo	tation#	1	B40231				SPACE ASSEMBLE NOW HAVE BEEN AND AND AND AND AND AND AND AND AND AN	Bottle Order #:
act Name	Alda Piaseczny		Contact No	me David Flat	ther					P.O.	W						2 PEX BEST ME2 JUST LESS MEST	
155	2289 BURRARD	The state of the s	Address							Proj	ect#	1	Gold Cor	p Coffee	Creek-SV	_ B8700	087_COC	560076
	VANCOUVER B						_			Proj	ect Name	16				_		Project Manage
0	(604) 688-7173	Fax. (604) 688-7		David Flat	ther@lorax		Fax:			Site		110				_		Diana Cruz
	aida piaseczny@	lorax.ca; shukling.ng@lorax.c			mer@ibrax	La	-			- Sam	pled By Analysis F	Zan natad		_		_	C#560076-01-01	2232
egulatory C	riteria		50	icial Instructions		-	70	T	T		Allerysis P	vednesied		3			Turnaround Time (TAT) Requirements provide advance notice for rust	27.00
						ding Water ? (Y/N)	LL, E(	9	I, F, NO2, NO3,	9			Dissolved Metals	Total Metals incl. (		(will be Standa Please days - c	ir (Standard) TAT is not specified) in applied if Rush TAT is not specified) in of TAT = 5-7 Working days for most feets note: Standard TAT for certain feets such as BOD contact your Project Manager for details office Rush TAT (if applies to entire submission).	
	Note: For regulated of	trinking water samples - please use ti	he Drinking Water Chain	of Custody Form	_	- Fig	e (Alk-I	v Level	(LL.Cl,	- WAD			Level Di CV Hg	el To		Date Res	트레이크 [18] 그렇게 어려워 가게 얼룩하셨다면 빠워 아래지지 않아 살아들었다.	puired
Ī	Samples mu	st be kept cool ( < 10°C ) from time of s	sampling until delivery to m	axxam		<u>a</u>		TSS-Low	Anions ( SO4)	Cyanide	O	Q	. Cev	v Level	0,	Num Gu		O lab for #ij
Samp	e Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regula	RS H	1S	So	ð	100	000	Low incl.	Fow	ORP	# of Batt	les Comments	
	SID#162743	CC-0.5	2018-08-16	9:45	W	N	10	-	レ	~	-	-	-	-	-	13		
	III III III III III III III III III II	CC-1.5	2018-08-16	10:30	w	WY	1	-	-	~	-	-	-	-	-	13	DECEMED DA MARTE	HODGE
	SID#215375	CC-3.5	2018-08-16	10:00	W	WX	1-	-	-	-	_	-	-	_	-	13	Ry 16 Munh	@ 092
	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	CC-4.5	2018-08-16	8:50	w	WY	1	~	~	~	-	_	1	)	_	13	7019 _00_ 1	79
	SID#215377	HC-2.5	CO18-08-16	11:15	w	N	11	~	~	/	~	>	)	~	_	13	1010 09.1	
	SiD#215378	HC-5.0	2018-08-16	13:15	W	W	rV	1	/	~	~	1	~	/	~	13	TEMP: 4 / 4	14
	BID#215379	YT-24	2018-08-16		w	N	(~	-	/	1	~	~	1	/	~	13	6 4	4
	SID#21538G	YT-24 Mix	20180016	14:35	w	N	1	V	~	/	~	~	V	~	~	13	7 6	3
	SID#215381	Coffee Mix	2018-08-16	12:45	w	N	1	1	V	V	1	V	~	-	-	13		
	SID#215382	Halfway Mix	2018-08-16	13:45	w	N	1	/	/	V	1	~	~	V	<u> </u>	13		
RELE	MAISHED BY: (Signature		te: (YY/MM/DD) Ti		RECE	IVED BY:	(Signature)	rint)	_		te: (YY/MM		Time	- make	used and ubmitted	ne Serselive .	Lab Use Only	Seal Intact on Cooler
-	LL_A	LEX CHARRON 18	-00-16/6i	00 11	I Ha	KU	LHU	-		_20	18/08	PCD I	9:4	2	11		Temperature (°C) on Receipt Custody s	

1673

Maxxam Analytics International Corporation of Maxxam Analytics

		INVOICE TO:			Report In	fsirmation	)						Project le	Mormatice	Ĥ.		間をい	oral care and was the state of	HI	
npan	A page ties	AX ENVIRONMENTAL SERVICES	Company I		ear-aille					Quet	ation#	E	340231							Bottle Order#:
act	Name Aida Plaseca		Contact Na	ome David Fla	ther					P.O	W	7	Tald Car	- C-#-	Const. Ct.		HAZM	<b>であるとはり スタイと 8を</b> せって ■	111	THE PROPERTY OF
ORS		R BC V6J 3H9	Address							Proje		1	sola Cal	p Conex	Creek-SV	- B87	70087	_coc		560078 Project Manage
	(604) 688-71		76	-			Fac			Projet Solo	ct Name	-							1	r copect manage
in:		ny@lorax.ca; shukling.ng@lorax.c	Phone Emell	David Fla	ther@lorax					11 (00000)	oled By	_	0				- 1	C#560076-02-01		Diana Cruz
-	destory Criteria			scur Instructions				,			Analysis R	begunsted					_	Turnaround Time (TAT)	Required	1
						Regulated Drinking Water 7 ( Y./ N.)	IK-LL, EC-LL, NH4-	evel	Anions (LL.CI, F, NO2, NO3, SO4)	WAD			Low Leyel Dissolved Metals incl. CV Hg	Total Metals Incl. CV		St Ch	nll be appli landard TA lease note sys - contai	Piesse provide sixvance notice indard; TAT is not specified; T = 5-7 Working days for most tests. Standard TAT for certain feats such a d your Project Manager for details. Plush TAT (if applies to entire submiss.	s BDD an	a Diaxins#-wahs a
	- /U	ied drinking water samples - please use the smust be kept cost ( < 10°C ) from time of se	THE RESIDENCE			Regulated Drinkin	Routine (Alk-LI LL, pH, TDS)	TSS-Low Level	ons (LL 4)	Cyanide - 1	25	o	CVHg	Level	Δ.	100	sh Confirmat	100	(cell list	
	Sample Boroode Label	Sample (Location) (dentification	Date Sampled	Time Sampled	Matrix	Regi	8 7	185	SO	cya	700	000	T Co	FG.	ORP	# e	f Doties	Comm	erta	
1	SID#2150B0	Latte Mix	808-08-16	9:15	w	W	1	-	~	1	1	1	_	<b>L</b>	-	1	3			
Į	5/D#215384	Dup	2080816	14:05	w	NY	1	-	-	~	/	-	-	1	-	1	3			
7.1	SiDw215585	Field Blank	TO18-08-16	15:25	w	WY	-	-	~	-	-	/	~	-	-	1	3			
																		BY: Alter	At A	6 092
						Ш											_	2010 0	0 17	
_																		TEMP: 4 /	4	1 4
																		6	4	4
																		7	6	3
										Ĺ,										
	RELINDINSHED BY: (Sign	ALLER CHARRY 18-	18-16 Mail		I DET R		Signature/F	rint)		Da	te: (YY/MM)		7 Time		used and ubmitted	në Sambliye	1 2	Lab Use Only	utudy Sewi	Intact on Cooler?
_	a A	CEN CITALINA	O TO Mais	- CAAA	A LUK	Δ/	VIII			-WW			11.00	_1		П	0	scarries full our seaccept	₹ Yes	

412,2

1673

Maxxam Analytics International Corporation of Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560077-01-01, 560077-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/30

Report #: R2612099 Version: 1 - Final

# **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B871313 Received: 2018/08/22, 12:00

Sample Matrix: Water # Samples Received: 13

·		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Alkalinity - Low Level	2	N/A	2018/08/25	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	3	N/A	2018/08/29	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	8	N/A	2018/08/30	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	13	N/A	2018/08/27	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	13	N/A	2018/08/24	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	2	N/A	2018/08/25	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	3	N/A	2018/08/29	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	8	N/A	2018/08/30	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	13	N/A	2018/08/24	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	10	N/A	2018/08/24	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (3)	3	N/A	2018/08/28	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	13	N/A	2018/08/24	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	13	N/A	2018/08/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	9	2018/08/24	2018/08/24	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	4	2018/08/27	2018/08/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	13	N/A	2018/08/24	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	13	N/A	2018/08/23	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	3	2018/08/24	2018/08/27	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	10	N/A	2018/08/24	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2018/08/28	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	10	N/A	2018/08/24	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	13	N/A	2018/08/28	BBY6SOP-00009	EPA 350.1 m
Nitrate+Nitrite (N) (low level)	13	N/A	2018/08/23	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	13	N/A	2018/08/23	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	13	N/A	2018/08/24	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	13	N/A	2018/08/24	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	13	N/A	2018/08/23	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	2	N/A	2018/08/25	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	3	N/A	2018/08/29	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	8	N/A	2018/08/30	BBY6SOP-00026	SM 22 4500-H+ B m



Your Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

Your C.O.C. #: 560077-01-01, 560077-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD. 2289 BURRARD STREET VANCOUVER, BC CANADA V6J 3H9

Report Date: 2018/08/30

Report #: R2612099 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B871313** Received: 2018/08/22, 12:00

Sample Matrix: Water # Samples Received: 13

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	<b>Analytical Method</b>
Sulphate - Low Level	13	N/A	2018/08/27	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	3	2018/08/23	2018/08/24	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	4	2018/08/24	2018/08/27	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2018/08/24	2018/08/28	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2018/08/27	2018/08/28	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	4	2018/08/28	2018/08/29	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	13	N/A	2018/08/27	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	13	2018/08/23	2018/08/24	BBY6SOP-00034	SM 22 2540 D
Free (WAD) Cyanide (1)	13	N/A	2018/08/29	CAM SOP-00457	OMOE E3015 5 m

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER
Your C.O.C. #: 560077-01-01, 560077-02-01

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Report Date: 2018/08/30

Report #: R2612099 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

# MAXXAM JOB #: B871313

Received: 2018/08/22, 12:00

- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key** 



Maxxam

30 Aug 2018 17:40:46

 ${\it Please direct all questions regarding this Certificate of Analysis to your Project Manager.}$ 

Diana Cruz, Project Manager Email: DCruz@maxxam.ca Phone# (604) 734 7276

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3810			UD3810		UD3811		
Sampling Date		2018/08/21			2018/08/21		2018/08/20		
Sampling Date		07:55			07:55		13:50		
COC Number		560077-01-01			560077-01-01		560077-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	QC Batch	CC-1.5	RDL	QC Batch
Parameter									
ORP	mV	278		9115008	277	9115008	283		9115008
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB		9113745			LAB		9113745
Nitrate (N)	mg/L	0.276	0.0020	9114285			0.421	0.0020	9114285
Misc. Inorganics									
Fluoride (F)	mg/L	0.075	0.010	9115711			0.066	0.010	9115711
Free Cyanide	mg/L	<0.0010	0.0010	9123888			<0.0010	0.0010	9123869
Dissolved Organic Carbon (C)	mg/L	13.3	0.50	9116196			8.79	0.50	9116196
Alkalinity (Total as CaCO3)	mg/L	40.2	0.50	9124608			92.0	0.50	9124608
Total Organic Carbon (C)	mg/L	12.4	0.50	9116200			9.56	0.50	9116200
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9124608			<0.50	0.50	9124608
Bicarbonate (HCO3)	mg/L	49.0	0.50	9124608			112	0.50	9124608
Carbonate (CO3)	mg/L	<0.50	0.50	9124608			<0.50	0.50	9124608
Hydroxide (OH)	mg/L	<0.50	0.50	9124608			<0.50	0.50	9124608
Anions									
Dissolved Sulphate (SO4)	mg/L	30.7	0.50	9119538			76.1	0.50	9119538
Dissolved Chloride (CI)	mg/L	0.71	0.50	9119537			<0.50	0.50	9119537
Nutrients									
Total Ammonia (N)	mg/L	<0.0050	0.0050	9120183			0.015	0.0050	9120183
Nitrate plus Nitrite (N)	mg/L	0.276	0.0020	9114977			0.421	0.0020	9114977
Nitrite (N)	mg/L	<0.0020	0.0020	9114978			<0.0020	0.0020	9114978
Physical Properties									
Conductivity	uS/cm	154	1.0	9124609			332	1.0	9124609
рН	рН	7.68		9124595			7.95		9124595
Physical Properties					•		•		
Total Suspended Solids	mg/L	1.0	1.0	9114257			<1.0	1.0	9114257
Total Dissolved Solids	mg/L	118	10	9118716			214	10	9118699
RDL = Reportable Detection Lin	nit								
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3811			UD3812		UD3813	UD3814		
Sampling Date		2018/08/20 13:50			2018/08/21 08:05		2018/08/21 06:35	2018/08/21 08:45		
COC Number		560077-01-01			560077-01-01		560077-01-01	560077-01-01		
	UNITS	CC-1.5 Lab-Dup	RDL	QC Batch	CC-3.5	QC Batch	CC-4.5	HC-2.5	RDL	QC Batch
Parameter										
ORP	mV				285	9115008	282	279		9115008
Calculated Parameters						•				
Filter and HNO3 Preservation	N/A				LAB	9113745	LAB	LAB		9113745
Nitrate (N)	mg/L				0.362	9114285	0.265	0.495	0.0020	9114285
Misc. Inorganics										
Fluoride (F)	mg/L	0.064	0.010	9115711	0.072	9115711	0.070	0.059	0.010	9115711
Free Cyanide	mg/L				<0.0010	9123869	<0.0010	<0.0010	0.0010	9123888
Dissolved Organic Carbon (C)	mg/L				10.2	9116196	11.5	10.7	0.50	9116196
Alkalinity (Total as CaCO3)	mg/L				73.3	9122646	45.5	68.3	0.50	9124608
Total Organic Carbon (C)	mg/L				12.7	9116200	13.3	11.5	0.50	9116200
Alkalinity (PP as CaCO3)	mg/L				<0.50	9122646	<0.50	<0.50	0.50	9124608
Bicarbonate (HCO3)	mg/L				89.4	9122646	55.5	83.3	0.50	9124608
Carbonate (CO3)	mg/L				<0.50	9122646	<0.50	<0.50	0.50	9124608
Hydroxide (OH)	mg/L				<0.50	9122646	<0.50	<0.50	0.50	9124608
Anions						•				
Dissolved Sulphate (SO4)	mg/L				64.3	9119538	34.4	27.1	0.50	9119538
Dissolved Chloride (CI)	mg/L				0.65	9119537	0.69	<0.50	0.50	9119537
Nutrients						•				
Total Ammonia (N)	mg/L				<0.0050	9120183	0.0050	0.011	0.0050	9120183
Nitrate plus Nitrite (N)	mg/L				0.362	9114977	0.265	0.495	0.0020	9114977
Nitrite (N)	mg/L				<0.0020	9114978	<0.0020	<0.0020	0.0020	9114978
Physical Properties						•				
Conductivity	uS/cm				286	9122647	173	196	1.0	9124609
рН	рН				7.90	9122643	9.44	7.87		9124595
Physical Properties										
Total Suspended Solids	mg/L				<1.0	9114257	<1.0	<1.0	1.0	9114257
Total Dissolved Solids	mg/L				188	9114887	78	148	10	9118716
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3815		UD3816			UD3816	
Sampling Date		2018/08/20		2018/08/20			2018/08/20	
Samping Date		09:30		10:35			10:35	
COC Number		560077-01-01		560077-01-01			560077-01-01	
	UNITS	HC-5.0	QC Batch	YT-24	RDL	QC Batch	YT-24 Lab-Dup	QC Batch
Parameter								
ORP	mV	285	9115008	289		9115008	287	9115008
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	9113745	LAB		9113745		
Nitrate (N)	mg/L	0.407	9114285	0.857	0.0020	9114285		
Misc. Inorganics	•				<u> </u>			
Fluoride (F)	mg/L	0.071	9115711	0.070	0.010	9115711		
Free Cyanide	mg/L	<0.0010	9123888	<0.0010	0.0010	9123888		
Dissolved Organic Carbon (C)	mg/L	12.7	9116196	12.2	0.50	9116196		
Alkalinity (Total as CaCO3)	mg/L	65.7	9116858	56.5	0.50	9124608		
Total Organic Carbon (C)	mg/L	12.3	9116200	12.1	0.50	9116200		
Alkalinity (PP as CaCO3)	mg/L	<0.50	9116858	<0.50	0.50	9124608		
Bicarbonate (HCO3)	mg/L	80.1	9116858	68.9	0.50	9124608		
Carbonate (CO3)	mg/L	<0.50	9116858	<0.50	0.50	9124608		
Hydroxide (OH)	mg/L	<0.50	9116858	<0.50	0.50	9124608		
Anions								
Dissolved Sulphate (SO4)	mg/L	28.6	9119538	44.7	0.50	9119538		
Dissolved Chloride (CI)	mg/L	0.75	9119537	1.1	0.50	9119537		
Nutrients	•		•		•			
Total Ammonia (N)	mg/L	0.0050	9120183	<0.0050	0.0050	9120183		
Nitrate plus Nitrite (N)	mg/L	0.407	9114977	0.857	0.0020	9114977		
Nitrite (N)	mg/L	<0.0020	9114978	<0.0020	0.0020	9114978		
Physical Properties	•		•		•			
Conductivity	uS/cm	204	9116866	215	1.0	9124609		
рН	рН	7.62	9116863	7.78		9124595		
Physical Properties	-							
Total Suspended Solids	mg/L	<1.0	9114257	2.0	1.0	9114257		
Total Dissolved Solids	mg/L	150	9114887	154	10	9118699		
RDL = Reportable Detection Lir	nit			•	•			
Lab-Dup = Laboratory Initiated		te						



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3817	UD3818		UD3819			UD3819		
Sampling Date		2018/08/20	2018/08/20		2018/08/20			2018/08/20		
Jampinig Date		10:20	08:35		09:15			09:15		
COC Number		560077-01-01	560077-01-01		560077-01-01			560077-01-01		
	LINUTC	VT 24 BAIV	COFFEE NAIV	00 D-4-1	IIAI FIA/AV BAIV	<b>DD</b> 1	000-4-6	HALFWAY		000-4-1-
	UNITS	YT-24 MIX	COFFEE MIX	QC Batch	HALFWAY MIX	RDL	QC Batch	MIX Lab-Dup	KDL	QC Batch
Parameter		•		•			-		•	
ORP	mV	284	290	9115008	297		9115008			
Calculated Parameters	!									
Filter and HNO3 Preservation	N/A	LAB	LAB	9113745	LAB		9113745			
Nitrate (N)	mg/L	0.0263	0.0179	9114285	0.116	0.0020	9114285			
Misc. Inorganics		•								
Fluoride (F)	mg/L	0.120	0.120	9115711	0.110	0.010	9115711			
Free Cyanide	mg/L	<0.0010	<0.0010	9123888	<0.0010	0.0010	9123869			
Dissolved Organic Carbon (C)	mg/L	2.48	2.96	9116196	5.83	0.50	9116196			
Alkalinity (Total as CaCO3)	mg/L	65.7	67.8	9124608	66.3	0.50	9124608			
Total Organic Carbon (C)	mg/L	5.34	5.44	9116200	6.20	0.50	9116200	6.09	0.50	9116200
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	9124608	<0.50	0.50	9124608			
Bicarbonate (HCO3)	mg/L	80.1	82.7	9124608	80.9	0.50	9124608			
Carbonate (CO3)	mg/L	<0.50	<0.50	9124608	<0.50	0.50	9124608			
Hydroxide (OH)	mg/L	<0.50	<0.50	9124608	<0.50	0.50	9124608			
Anions										
Dissolved Sulphate (SO4)	mg/L	27.5	26.6	9119538	28.2	0.50	9119538			
Dissolved Chloride (CI)	mg/L	<0.50	<0.50	9119537	0.54	0.50	9119537			
Nutrients	•	•		•			-		•	-
Total Ammonia (N)	mg/L	0.0070	<0.0050	9120183	0.0090	0.0050	9120183			
Nitrate plus Nitrite (N)	mg/L	0.0291	0.0205	9114977	0.119	0.0020	9114977			
Nitrite (N)	mg/L	0.0028	0.0026	9114978	0.0025	0.0020	9114978			
Physical Properties										
Conductivity	uS/cm	184	183	9124609	189	1.0	9124609			
рН	рН	7.86	7.87	9124595	7.86		9124595			
Physical Properties		·			-		·			
Total Suspended Solids	mg/L	34.5	29.3	9114257	21.1	1.0	9114257			
Total Dissolved Solids	mg/L	116	108	9116336	126	10	9116336			
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3895		UD3896		UD3897		
Sampling Date		2018/08/21		2018/08/21		2018/08/20		
Jamping Date		09:55		08:55		13:00		
COC Number		560077-02-01		560077-02-01		560077-02-01		
	UNITS	LATTE MIX	QC Batch	DUP	QC Batch	FIELD BLANK	RDL	QC Batch
Parameter	-	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
ORP	mV	307	9115008	312	9115008	319		9115008
Calculated Parameters								
Filter and HNO3 Preservation	N/A	LAB	9113745	LAB	9113745	LAB		9113745
Nitrate (N)	mg/L	0.287	9114285	0.485	9114285	0.0030	0.0020	9114285
Misc. Inorganics	-							
Fluoride (F)	mg/L	0.072	9115711	0.059	9115711	<0.010	0.010	9115711
Free Cyanide	mg/L	<0.0010	9123888	<0.0010	9123888	<0.0010	0.0010	9123888
Dissolved Organic Carbon (C)	mg/L	14.4	9116196	8.01	9116196	<0.50	0.50	9116196
Alkalinity (Total as CaCO3)	mg/L	44.1	9116854	67.3	9122646	0.75	0.50	9122646
Total Organic Carbon (C)	mg/L	13.0	9116200	10.1	9116200	<0.50	0.50	9116200
Alkalinity (PP as CaCO3)	mg/L	<0.50	9116854	<0.50	9122646	<0.50	0.50	9122646
Bicarbonate (HCO3)	mg/L	53.8	9116854	82.1	9122646	0.92	0.50	9122646
Carbonate (CO3)	mg/L	<0.50	9116854	<0.50	9122646	<0.50	0.50	9122646
Hydroxide (OH)	mg/L	<0.50	9116854	<0.50	9122646	<0.50	0.50	9122646
Anions	•			•	•			
Dissolved Sulphate (SO4)	mg/L	32.7	9119538	29.9	9119538	0.73	0.50	9119538
Dissolved Chloride (CI)	mg/L	<0.50	9119537	0.53	9119537	<0.50	0.50	9119537
Nutrients	•			•	•			
Total Ammonia (N)	mg/L	0.0080	9120183	0.010	9120183	<0.0050	0.0050	9120183
Nitrate plus Nitrite (N)	mg/L	0.287	9114977	0.485	9114977	0.0030	0.0020	9114977
Nitrite (N)	mg/L	<0.0020	9114978	<0.0020	9114978	<0.0020	0.0020	9114978
Physical Properties	•			•	•			
Conductivity	uS/cm	172	9116856	204	9122647	1.6	1.0	9122647
рН	рН	7.55	9116845	7.92	9122643	5.81		9122643
Physical Properties	•							
Total Suspended Solids	mg/L	<1.0	9114257	<1.0	9114257	<1.0	1.0	9114257
Total Dissolved Solids	mg/L	132	9114887	142	9118716	<10	10	9116336
RDL = Reportable Detection Lir	nit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3897		
Sampling Date		2018/08/20 13:00		
COC Number		560077-02-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch
Nutrients				
Nitrate plus Nitrite (N)	mg/L	<0.0020	0.0020	9114977
Nitrite (N)	mg/L	<0.0020	0.0020	9114978
PDI - Panartable Detection	Limit			
RDL = Reportable Detection	LIIIII			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3810	UD3811	UD3812	UD3813	UD3814	UD3815		
		2018/08/21	2018/08/20	2018/08/21	2018/08/21	2018/08/21	2018/08/20		
Sampling Date		07:55	13:50	08:05	06:35	08:45	09:30		
COC Number		560077-01-01	560077-01-01	560077-01-01	560077-01-01	560077-01-01	560077-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Calculated Parameters		<u> </u>	<u> </u>	<u> </u>	·	<u> </u>	·		<u> </u>
Dissolved Hardness (CaCO3)	mg/L	71.5	165	136	77.8	93.9	99.9	0.50	9114275
Elements					I		I		
Dissolved Mercury (Hg)	ug/L	0.0077	0.0042	0.0077	0.0061	0.0029	0.0034	0.0020	9118427
Dissolved Metals by ICPMS	_				I.		I.		
Dissolved Aluminum (Al)	ug/L	83.5	66.2	44.6	69.9	65.0	45.2	0.50	9114531
Dissolved Antimony (Sb)	ug/L	0.117	0.108	0.098	0.110	0.399	0.236	0.020	9114531
Dissolved Arsenic (As)	ug/L	0.512	0.652	0.401	0.446	1.02	0.656	0.020	9114531
Dissolved Barium (Ba)	ug/L	39.2	43.1	52.7	44.0	36.1	41.4	0.020	9114531
Dissolved Beryllium (Be)	ug/L	<0.010	0.013	0.016	0.010	0.011	<0.010	0.010	9114531
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9114531
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9114531
Dissolved Cadmium (Cd)	ug/L	0.0085	<0.0050	<0.0050	0.0057	<0.0050	<0.0050	0.0050	9114531
Dissolved Chromium (Cr)	ug/L	0.38	0.29	0.25	0.34	0.34	0.29	0.10	9114531
Dissolved Cobalt (Co)	ug/L	0.0572	0.0395	0.0410	0.0570	0.0512	0.0479	0.0050	9114531
Dissolved Copper (Cu)	ug/L	2.50	1.41	1.46	2.27	1.40	1.82	0.050	9114531
Dissolved Iron (Fe)	ug/L	69.5	40.8	24.3	50.2	45.5	34.8	1.0	9114531
Dissolved Lead (Pb)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	<0.0050	0.0050	9114531
Dissolved Lithium (Li)	ug/L	0.94	1.97	0.65	0.70	1.07	0.85	0.50	9114531
Dissolved Manganese (Mn)	ug/L	3.95	3.95	0.469	3.49	2.10	0.373	0.050	9114531
Dissolved Molybdenum (Mo)	ug/L	0.680	0.178	0.271	0.624	1.23	0.604	0.050	9114531
Dissolved Nickel (Ni)	ug/L	1.05	0.533	0.558	0.947	0.629	0.835	0.020	9114531
Dissolved Phosphorus (P)	ug/L	6.7	7.5	7.1	6.0	4.5	7.3	2.0	9114531
Dissolved Selenium (Se)	ug/L	0.106	0.116	0.081	0.098	0.070	0.081	0.040	9114531
Dissolved Silicon (Si)	ug/L	5520	5560	4980	5120	5270	4810	50	9114531
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9114531
Dissolved Strontium (Sr)	ug/L	87.0	378	258	105	270	215	0.050	9114531
Dissolved Thallium (TI)	ug/L	0.0043	0.0022	0.0021	0.0034	0.0023	0.0036	0.0020	9114531
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9114531
Dissolved Titanium (Ti)	ug/L	1.14	0.63	0.62	0.83	0.76	0.93	0.50	9114531
Dissolved Uranium (U)	ug/L	3.18	8.74	5.41	2.39	22.7	8.19	0.0020	9114531
Dissolved Vanadium (V)	ug/L	0.53	0.36	0.32	0.45	0.40	0.42	0.20	9114531
RDL = Reportable Detection Lir	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3810	UD3811	UD3812	UD3813	UD3814	UD3815		
Sampling Date		2018/08/21	2018/08/20	2018/08/21	2018/08/21	2018/08/21	2018/08/20		
Sampling Date		07:55	13:50	08:05	06:35	08:45	09:30		
COC Number		560077-01-01	560077-01-01	560077-01-01	560077-01-01	560077-01-01	560077-01-01		
	UNITS	CC-0.5	CC-1.5	CC-3.5	CC-4.5	HC-2.5	HC-5.0	RDL	QC Batch
Dissolved Zinc (Zn)	ug/L	0.41	0.31	0.21	0.29	0.18	0.19	0.10	9114531
Dissolved Zirconium (Zr)	ug/L	0.59	0.59	0.58	0.55	0.54	0.55	0.10	9114531
Dissolved Calcium (Ca)	mg/L	18.4	44.0	37.2	20.2	23.9	27.2	0.050	9114279
Dissolved Magnesium (Mg)	mg/L	6.20	13.4	10.5	6.62	8.34	7.74	0.050	9114279
Dissolved Potassium (K)	mg/L	1.07	2.33	2.03	1.18	1.79	1.90	0.050	9114279
Dissolved Sodium (Na)	mg/L	3.28	3.08	3.48	3.22	2.61	2.90	0.050	9114279
Dissolved Sulphur (S)	mg/L	10.5	24.8	20.9	11.2	9.2	9.9	3.0	9114279
RDL = Reportable Detection Li	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD3816	UD3817	UD3818			UD3818		
Compling Date		2018/08/20	2018/08/20	2018/08/20			2018/08/20		
Sampling Date		10:35	10:20	08:35			08:35		
COC Number		560077-01-01	560077-01-01	560077-01-01			560077-01-01		
	UNITS	YT-24	YT-24 MIX	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	102	86.9	92.3	0.50	9114275			
Elements	,			•					
Dissolved Mercury (Hg)	ug/L	0.0092	<0.0020	0.0026	0.0020	9118427			
Dissolved Metals by ICPMS	,			•					
Dissolved Aluminum (AI)	ug/L	45.0	33.0	31.3	0.50	9114531	32.6	0.50	9114531
Dissolved Antimony (Sb)	ug/L	0.194	0.099	0.103	0.020	9114531	0.112	0.020	9114531
Dissolved Arsenic (As)	ug/L	0.522	0.504	0.479	0.020	9114531	0.504	0.020	9114531
Dissolved Barium (Ba)	ug/L	50.3	39.7	40.9	0.020	9114531	41.3	0.020	9114531
Dissolved Beryllium (Be)	ug/L	0.013	<0.010	<0.010	0.010	9114531	<0.010	0.010	9114531
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9114531	<0.0050	0.0050	9114531
Dissolved Boron (B)	ug/L	<10	<10	<10	10	9114531	<10	10	9114531
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0374	0.0332	0.0050	9114531	0.0335	0.0050	9114531
Dissolved Chromium (Cr)	ug/L	0.30	<0.10	<0.10	0.10	9114531	<0.10	0.10	9114531
Dissolved Cobalt (Co)	ug/L	0.0703	0.0197	0.0175	0.0050	9114531	0.0198	0.0050	9114531
Dissolved Copper (Cu)	ug/L	1.91	1.02	0.941	0.050	9114531	0.920	0.050	9114531
Dissolved Iron (Fe)	ug/L	37.1	17.3	17.1	1.0	9114531	17.4	1.0	9114531
Dissolved Lead (Pb)	ug/L	<0.0050	0.0156	0.0140	0.0050	9114531	0.0155	0.0050	9114531
Dissolved Lithium (Li)	ug/L	<0.50	1.51	1.56	0.50	9114531	1.55	0.50	9114531
Dissolved Manganese (Mn)	ug/L	2.15	2.18	1.58	0.050	9114531	1.56	0.050	9114531
Dissolved Molybdenum (Mo)	ug/L	0.475	1.16	1.17	0.050	9114531	1.24	0.050	9114531
Dissolved Nickel (Ni)	ug/L	0.735	1.15	1.11	0.020	9114531	1.20	0.020	9114531
Dissolved Phosphorus (P)	ug/L	5.3	5.2	2.5	2.0	9114531	2.3	2.0	9114531
Dissolved Selenium (Se)	ug/L	0.082	0.338	0.350	0.040	9114531	0.356	0.040	9114531
Dissolved Silicon (Si)	ug/L	4110	2720	2840	50	9114531	2890	50	9114531
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9114531	<0.0050	0.0050	9114531
Dissolved Strontium (Sr)	ug/L	161	115	119	0.050	9114531	120	0.050	9114531
Dissolved Thallium (TI)	ug/L	0.0021	0.0022	0.0022	0.0020	9114531	0.0032	0.0020	9114531
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	9114531	<0.20	0.20	9114531
Dissolved Titanium (Ti)	ug/L	0.72	<0.50	0.51	0.50	9114531	<0.50	0.50	9114531
Dissolved Uranium (U)	ug/L	2.41	1.02	0.966	0.0020	9114531	0.958	0.0020	9114531
RDL = Reportable Detection Lir	nit								

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

	UD3816	UD3817	UD3818			UD3818		
	2018/08/20	2018/08/20	2018/08/20			2018/08/20		
	10:35	10:20	08:35			08:35		
	560077-01-01	560077-01-01	560077-01-01			560077-01-01		
UNITS	YT-24	YT-24 MIX	COFFEE MIX	RDL	QC Batch	COFFEE MIX Lab-Dup	RDL	QC Batch
ug/L	0.39	0.32	0.31	0.20	9114531	0.28	0.20	9114531
ug/L	0.17	1.74	1.35	0.10	9114531	1.40	0.10	9114531
ug/L	0.61	<0.10	<0.10	0.10	9114531	<0.10	0.10	9114531
mg/L	28.4	23.7	25.4	0.050	9114279			
mg/L	7.49	6.71	6.99	0.050	9114279			
mg/L	1.55	0.723	0.734	0.050	9114279			
mg/L	2.79	1.87	1.91	0.050	9114279			
mg/L	14.6	9.1	8.4	3.0	9114279			
	ug/L ug/L ug/L mg/L mg/L mg/L mg/L	10:35 560077-01-01 UNITS YT-24  ug/L 0.39 ug/L 0.17 ug/L 0.61 mg/L 28.4 mg/L 7.49 mg/L 1.55 mg/L 2.79	2018/08/20   2018/08/20   10:35   10:20       560077-01-01   560077-01-01     UNITS   YT-24   YT-24 MIX     Ug/L   0.39   0.32       ug/L   0.17   1.74       ug/L   0.61   <0.10       mg/L   28.4   23.7       mg/L   7.49   6.71       mg/L   1.55   0.723       mg/L   2.79   1.87	2018/08/20         2018/08/20         2018/08/20         2018/08/20           10:35         10:20         08:35           560077-01-01         560077-01-01         560077-01-01           UNITS         YT-24         YT-24 MIX         COFFEE MIX           ug/L         0.39         0.32         0.31           ug/L         0.17         1.74         1.35           ug/L         0.61         <0.10	2018/08/20         2018/08/20         2018/08/20         2018/08/20           10:35         10:20         08:35           560077-01-01         560077-01-01         560077-01-01           UNITS         YT-24         YT-24 MIX         COFFEE MIX         RDL           ug/L         0.39         0.32         0.31         0.20           ug/L         0.17         1.74         1.35         0.10           ug/L         0.61         <0.10	2018/08/20	2018/08/20   2018/08/20   2018/08/20   08:35   2018/08/20   08:35   560077-01-01   560077-01-01   560077-01-01   560077-01-01   COFFEE MIX Lab-Dup	2018/08/20   2018/08/20   2018/08/20   08:35   2018/08/20   08:35   2018/08/20   08:35   2018/08/20   08:35   2018/08/20   08:35   2018/08/20   08:35   2018/08/20   08:35   2018/08/20   08:35   2018/08/20   08:35   2018/08/20   2018/08/2

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3819	UD3895	UD3896	UD3897		
Sampling Date		2018/08/20	2018/08/21	2018/08/21	2018/08/20		
Jamping Date		09:15	09:55	08:55	13:00		
COC Number		560077-01-01	560077-02-01	560077-02-01	560077-02-01		
	UNITS	HALFWAY MIX	LATTE MIX	DUP	FIELD BLANK	RDL	QC Batch
Calculated Parameters	•		·	<u>-                                      </u>	·		
Dissolved Hardness (CaCO3)	mg/L	92.8	77.1	92.4	<0.50	0.50	9114275
Elements				•			
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0076	0.0064	<0.0020	0.0020	9118486
Dissolved Metals by ICPMS				•			
Dissolved Aluminum (AI)	ug/L	33.4	83.1	64.5	<0.50	0.50	9114531
Dissolved Antimony (Sb)	ug/L	0.144	0.108	0.380	<0.020	0.020	9114531
Dissolved Arsenic (As)	ug/L	0.559	0.498	1.01	<0.020	0.020	9114531
Dissolved Barium (Ba)	ug/L	41.6	40.3	34.4	<0.020	0.020	9114531
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	0.014	<0.010	0.010	9114531
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9114531
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	10	9114531
Dissolved Cadmium (Cd)	ug/L	0.0351	0.0075	<0.0050	<0.0050	0.0050	9114531
Dissolved Chromium (Cr)	ug/L	0.13	0.36	0.41	<0.10	0.10	9114531
Dissolved Cobalt (Co)	ug/L	0.0366	0.0594	0.0515	<0.0050	0.0050	9114531
Dissolved Copper (Cu)	ug/L	1.25	2.37	1.39	<0.050	0.050	9114531
Dissolved Iron (Fe)	ug/L	21.7	61.6	45.1	1.8	1.0	9114531
Dissolved Lead (Pb)	ug/L	0.0115	<0.0050	<0.0050	<0.0050	0.0050	9114531
Dissolved Lithium (Li)	ug/L	1.37	0.88	1.09	<0.50	0.50	9114531
Dissolved Manganese (Mn)	ug/L	2.83	3.45	2.05	<0.050	0.050	9114531
Dissolved Molybdenum (Mo)	ug/L	1.05	0.657	1.23	<0.050	0.050	9114531
Dissolved Nickel (Ni)	ug/L	1.17	1.03	0.612	<0.020	0.020	9114531
Dissolved Phosphorus (P)	ug/L	6.8	6.9	5.3	2.3	2.0	9114531
Dissolved Selenium (Se)	ug/L	0.275	0.094	0.069	<0.040	0.040	9114531
Dissolved Silicon (Si)	ug/L	3380	5270	5080	<50	50	9114531
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9114531
Dissolved Strontium (Sr)	ug/L	141	103	257	<0.050	0.050	9114531
Dissolved Thallium (TI)	ug/L	0.0022	0.0042	<0.0020	<0.0020	0.0020	9114531
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9114531
Dissolved Titanium (Ti)	ug/L	<0.50	0.87	1.03	<0.50	0.50	9114531
Dissolved Uranium (U)	ug/L	2.71	3.33	21.4	<0.0020	0.0020	9114531
Dissolved Vanadium (V)	ug/L	0.35	0.52	0.42	<0.20	0.20	9114531
RDL = Reportable Detection Lii	mit	-					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD3819	UD3895	UD3896	UD3897				
Sampling Date		2018/08/20	2018/08/21	2018/08/21	2018/08/20				
Sampling Date		09:15	09:55	08:55	13:00				
COC Number		560077-01-01	560077-02-01	560077-02-01	560077-02-01				
	UNITS	HALFWAY MIX	LATTE MIX	DUP	FIELD BLANK	RDL	QC Batch		
Dissolved Zinc (Zn)	ug/L	1.55	0.39	0.19	<0.10	0.10	9114531		
Dissolved Zirconium (Zr)	ug/L	0.17	0.59	0.54	<0.10	0.10	9114531		
Dissolved Calcium (Ca)	mg/L	25.5	19.8	23.8	<0.050	0.050	9114279		
Dissolved Magnesium (Mg)	mg/L	7.07	6.70	8.02	<0.050	0.050	9114279		
Dissolved Potassium (K)	mg/L	1.05	1.17	1.73	<0.050	0.050	9114279		
Dissolved Sodium (Na)	mg/L	2.11	3.36	2.59	<0.050	0.050	9114279		
Dissolved Sulphur (S)	mg/L	8.7	12.0	9.4	<3.0	3.0	9114279		
RDL = Reportable Detection Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampling Date         2018/08/20 13:00         COC Number           COC Number         560077-02-01         FIELD BLANK Lab-Dup         RDL         QC Batch           Elements         Units         FIELD BLANK Lab-Dup         RDL         QC Batch           Elements         Usystem Lab-Dup         PIELD BLANK Lab-Dup         RDL         QC Batch           Dissolved Mercury (Hg)         ug/L         0.0036         0.0020         9114866           Dissolved Metals by ICPMS         Usystem Label Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         <0.50	Maxxam ID		UD3897		
COC Number   S60077-02-01	Sampling Date		2018/08/20		
UNITS   FIELD BLANK Lab-Dup   QC Batch					
DISSOLVED METALS   Ug/L   0.0036   0.0020   9118486	COC Number		560077-02-01		
Elements         Ug/L         0.0036         0.0020         9118486           Dissolved Metals by ICPMS         Ug/L         0.0036         0.0020         9118486           Dissolved Aluminum (Al)         Ug/L         <0.50         0.50         9114531           Dissolved Antimony (Sb)         Ug/L         <0.020         0.020         9114531           Dissolved Arsenic (As)         Ug/L         <0.020         0.020         9114531           Dissolved Barium (Ba)         Ug/L         <0.020         0.020         9114531           Dissolved Beryllium (Be)         Ug/L         <0.010         0.010         9114531           Dissolved Bismuth (Bi)         Ug/L         <0.0050         0.0050         9114531           Dissolved Boron (B)         Ug/L         <10         10         9114531           Dissolved Cadmium (Cd)         Ug/L         <0.0050         0.0050         9114531           Dissolved Chromium (Cr)         Ug/L         <0.0050         0.0050         9114531           Dissolved Copper (Cu)         Ug/L         <0.050         0.050         9114531           Dissolved Iron (Fe)         Ug/L         <1.0         9114531           Dissolved Lead (Pb)         Ug/L         <0		UNITS		RDL	QC Batch
Dissolved Metals by ICPMS         ug/L         0.0036         0.0020         9118486           Dissolved Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         <0.50         0.50         9114531           Dissolved Antimony (Sb)         ug/L         <0.020         0.020         9114531           Dissolved Arsenic (As)         ug/L         <0.020         0.020         9114531           Dissolved Barium (Ba)         ug/L         <0.010         0.010         9114531           Dissolved Beryllium (Be)         ug/L         <0.0050         0.0050         9114531           Dissolved Beryllium (Be)         ug/L         <0.0050         0.0050         9114531           Dissolved Beryllium (Be)         ug/L         <0.0050         0.0050         9114531           Dissolved Cadmium (Cd)         ug/L         <0.0050         0.0050         9114531           Dissolved Cadmium (Cr)         ug/L         <0.050         0.050	Elomonto	<u> </u>	Lab-Dup		
Dissolved Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         <0.50		/1	0.0036	0.0020	0110406
Dissolved Aluminum (Al)         ug/L         <0.50         0.50         9114531           Dissolved Antimony (Sb)         ug/L         <0.020	,	ug/L	0.0036	0.0020	9118486
Dissolved Antimony (Sb)         ug/L         <0.020         0.020         9114531           Dissolved Arsenic (As)         ug/L         <0.020		/1	<0.F0	0.50	0114521
Dissolved Arsenic (As)         ug/L         <0.020         0.020         9114531           Dissolved Barium (Ba)         ug/L         <0.020					
Dissolved Barium (Ba)         ug/L         <0.020         0.020         9114531           Dissolved Beryllium (Be)         ug/L         <0.010	,				
Dissolved Beryllium (Be)         ug/L         <0.010         0.010         9114531           Dissolved Bismuth (Bi)         ug/L         <0.0050	` '	<b>†</b>			
Dissolved Bismuth (Bi)         ug/L         <0.0050         0.0050         9114531           Dissolved Boron (B)         ug/L         <10				-	
Dissolved Boron (B)         ug/L         <10         10         9114531           Dissolved Cadmium (Cd)         ug/L         <0.0050					
Dissolved Cadmium (Cd)         ug/L         <0.0050         0.0050         9114531           Dissolved Chromium (Cr)         ug/L         <0.10	` ′	<b>†</b>			
Dissolved Chromium (Cr)         ug/L         <0.10         9114531           Dissolved Cobalt (Co)         ug/L         <0.0050					
Dissolved Cobalt (Co)         ug/L         <0.0050         0.0050         9114531           Dissolved Copper (Cu)         ug/L         <0.050		<b>†</b>			
Dissolved Copper (Cu)         ug/L         <0.050         0.050         9114531           Dissolved Iron (Fe)         ug/L         <1.0					
Dissolved Iron (Fe)         ug/L         <1.0         9114531           Dissolved Lead (Pb)         ug/L         <0.0050		<b>†</b>	<0.0050	0.0050	
Dissolved Lead (Pb)         ug/L         <0.0050         0.0050         9114531           Dissolved Lithium (Li)         ug/L         <0.50			<0.050	0.050	9114531
Dissolved Lithium (Li)         ug/L         <0.50         9.50         9114531           Dissolved Manganese (Mn)         ug/L         <0.050		ug/L	<1.0	1.0	9114531
Dissolved Manganese (Mn)         ug/L         <0.050         0.050         9114531           Dissolved Molybdenum (Mo)         ug/L         <0.050		ug/L	<0.0050	0.0050	9114531
Dissolved Molybdenum (Mo)         ug/L         <0.050         0.050         9114531           Dissolved Nickel (Ni)         ug/L         <0.020		ug/L	<0.50	0.50	9114531
Dissolved Nickel (Ni)         ug/L         <0.020         0.020         9114531           Dissolved Phosphorus (P)         ug/L         2.1         2.0         9114531           Dissolved Selenium (Se)         ug/L         <0.040	Dissolved Manganese (Mn)	ug/L	<0.050	0.050	9114531
Dissolved Phosphorus (P)         ug/L         2.1         2.0         9114531           Dissolved Selenium (Se)         ug/L         <0.040	Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	9114531
Dissolved Selenium (Se)         ug/L         <0.040         9.040         9114531           Dissolved Silicon (Si)         ug/L         <50	Dissolved Nickel (Ni)	ug/L	<0.020	0.020	9114531
Dissolved Silicon (Si)         ug/L         <50         50         9114531           Dissolved Silver (Ag)         ug/L         <0.0050	Dissolved Phosphorus (P)	ug/L	2.1	2.0	9114531
Dissolved Silver (Ag)         ug/L         <0.0050         0.0050         9114531           Dissolved Strontium (Sr)         ug/L         <0.050	Dissolved Selenium (Se)	ug/L	<0.040	0.040	9114531
Dissolved Strontium (Sr)         ug/L         <0.050         0.050         9114531           Dissolved Thallium (Tl)         ug/L         <0.0020	Dissolved Silicon (Si)	ug/L	<50	50	9114531
Dissolved Thallium (TI)         ug/L         <0.0020         0.0020         9114531           Dissolved Tin (Sn)         ug/L         <0.20	Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9114531
Dissolved Tin (Sn) ug/L <0.20 0.20 9114531	Dissolved Strontium (Sr)	ug/L	<0.050	0.050	9114531
	Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	9114531
	Dissolved Tin (Sn)	ug/L	<0.20	0.20	9114531
	Dissolved Titanium (Ti)	I .		0.50	
Dissolved Uranium (U)	Dissolved Uranium (U)	ug/L	<0.0020	0.0020	9114531
Dissolved Vanadium (V)	Dissolved Vanadium (V)	<b>†</b>	<0.20	0.20	9114531
RDL = Reportable Detection Limit	RDL = Reportable Detection Li	mit			
Lab-Dup = Laboratory Initiated Duplicate	Lab-Dup = Laboratory Initiated	l Duplica	ate		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD3897		
Sampling Date		2018/08/20 13:00		
COC Number		560077-02-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch
Dissolved Zinc (Zn)	UNITS ug/L		<b>RDL</b> 0.10	<b>QC Batch</b> 9114531

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD3810			UD3810			UD3811		
Sampling Date		2018/08/21			2018/08/21			2018/08/20		
Sampling Date		07:55			07:55			13:50		
COC Number		560077-01-01			560077-01-01			560077-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	71.1	0.50	9114271				160	0.50	9114271
Elements	-									
Total Mercury (Hg)	ug/L	0.0034	0.0020	9115669				0.0034	0.0020	9115669
Total Metals by ICPMS	-									
Total Aluminum (AI)	ug/L	118	0.50	9116071	105	0.50	9116071	77.8	0.50	9116071
Total Antimony (Sb)	ug/L	0.126	0.020	9116071	0.126	0.020	9116071	0.120	0.020	9116071
Total Arsenic (As)	ug/L	0.502	0.020	9116071	0.486	0.020	9116071	0.603	0.020	9116071
Total Barium (Ba)	ug/L	40.2	0.020	9116071	40.6	0.020	9116071	44.0	0.020	9116071
Total Beryllium (Be)	ug/L	0.012	0.010	9116071	0.011	0.010	9116071	0.019	0.010	9116071
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9116071	<0.0050	0.0050	9116071	<0.0050	0.0050	9116071
Total Boron (B)	ug/L	<10	10	9116071	<10	10	9116071	<10	10	9116071
Total Cadmium (Cd)	ug/L	0.0080	0.0050	9116071	0.0067	0.0050	9116071	<0.0050	0.0050	9116071
Total Chromium (Cr)	ug/L	0.38	0.10	9116071	0.40	0.10	9116071	0.28	0.10	9116071
Total Cobalt (Co)	ug/L	0.0689	0.0050	9116071	0.0686	0.0050	9116071	0.0486	0.0050	9116071
Total Copper (Cu)	ug/L	2.53	0.050	9116071	2.49	0.050	9116071	1.45	0.050	9116071
Total Iron (Fe)	ug/L	96.7	1.0	9116071	96.1	1.0	9116071	56.1	1.0	9116071
Total Lead (Pb)	ug/L	0.0144	0.0050	9116071	0.0139	0.0050	9116071	0.0102	0.0050	9116071
Total Lithium (Li)	ug/L	1.02	0.50	9116071	1.00	0.50	9116071	2.05	0.50	9116071
Total Manganese (Mn)	ug/L	4.90	0.050	9116071	4.82	0.050	9116071	4.89	0.050	9116071
Total Molybdenum (Mo)	ug/L	0.718	0.050	9116071	0.720	0.050	9116071	0.186	0.050	9116071
Total Nickel (Ni)	ug/L	1.08	0.020	9116071	1.13	0.020	9116071	0.570	0.020	9116071
Total Phosphorus (P)	ug/L	2.9	2.0	9116071	<2.0	2.0	9116071	3.1	2.0	9116071
Total Selenium (Se)	ug/L	0.106	0.040	9116071	0.108	0.040	9116071	0.104	0.040	9116071
Total Silicon (Si)	ug/L	5280	50	9116071	5490	50	9116071	5250	50	9116071
Total Silver (Ag)	ug/L	<0.0050	0.0050	9116071	<0.0050	0.0050	9116071	<0.0050	0.0050	9116071
Total Strontium (Sr)	ug/L	91.7	0.050	9116071	89.6	0.050	9116071	376	0.050	9116071
Total Thallium (TI)	ug/L	0.0050	0.0020	9116071	0.0055	0.0020	9116071	0.0030	0.0020	9116071
Total Tin (Sn)	ug/L	<0.20	0.20	9116071	<0.20	0.20	9116071	<0.20	0.20	9116071
Total Titanium (Ti)	ug/L	1.88	0.50	9116071	1.74	0.50	9116071	1.05	0.50	9116071
Total Uranium (U)	ug/L	3.61	0.0020	9116071	3.52	0.0020	9116071	9.48	0.0020	9116071
RDL = Reportable Detection	Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD3810			UD3810			UD3811		
Sampling Date		2018/08/21 07:55			2018/08/21 07:55			2018/08/20 13:50		
COC Number		560077-01-01			560077-01-01			560077-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.5	RDL	QC Batch
Total Vanadium (V)	ug/L	0.54	0.20	9116071	0.45	0.20	9116071	0.33	0.20	9116071
Total Zinc (Zn)	ug/L	0.41	0.10	9116071	0.46	0.10	9116071	0.31	0.10	9116071
Total Zirconium (Zr)	ug/L	0.52	0.10	9116071	0.53	0.10	9116071	0.53	0.10	9116071
Total Calcium (Ca)	mg/L	18.2	0.050	9114282				41.7	0.050	9114282
Total Magnesium (Mg)	mg/L	6.26	0.050	9114282				13.7	0.050	9114282
Total Potassium (K)	mg/L	1.10	0.050	9114282				2.37	0.050	9114282
Total Sodium (Na)	mg/L	3.30	0.050	9114282				3.15	0.050	9114282
Total Sulphur (S)	mg/L	10.5	3.0	9114282				25.0	3.0	9114282

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD3812		UD3813	UD3814	UD3815	UD3816		
Sampling Date		2018/08/21		2018/08/21	2018/08/21	2018/08/20	2018/08/20		
Jamping Date		08:05		06:35	08:45	09:30	10:35		
COC Number		560077-01-01		560077-01-01	560077-01-01	560077-01-01	560077-01-01		
	UNITS	CC-3.5	QC Batch	CC-4.5	HC-2.5	HC-5.0	YT-24	RDL	QC Batch
Calculated Parameters		<u> </u>	<u> </u>	<u> </u>	·	<u> </u>	·	· ·	<u> </u>
Total Hardness (CaCO3)	mg/L	131	9114271	79.0	92.1	93.2	101	0.50	9114271
Elements	•								
Total Mercury (Hg)	ug/L	0.0036	9118589	0.0030	0.0033	0.0025	0.0027	0.0020	9115669
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	48.3	9116071	89.6	95.8	51.9	69.8	0.50	9116071
Total Antimony (Sb)	ug/L	0.100	9116071	0.115	0.406	0.237	0.213	0.020	9116071
Total Arsenic (As)	ug/L	0.373	9116071	0.447	1.07	0.633	0.523	0.020	9116071
Total Barium (Ba)	ug/L	53.5	9116071	46.8	36.9	43.4	55.1	0.020	9116071
Total Beryllium (Be)	ug/L	<0.010	9116071	0.015	0.017	0.015	0.018	0.010	9116071
Total Bismuth (Bi)	ug/L	<0.0050	9116071	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116071
Total Boron (B)	ug/L	<10	9116071	<10	<10	<10	<10	10	9116071
Total Cadmium (Cd)	ug/L	<0.0050	9116071	0.0060	<0.0050	<0.0050	<0.0050	0.0050	9116071
Total Chromium (Cr)	ug/L	0.28	9116071	0.34	0.37	0.30	0.38	0.10	9116071
Total Cobalt (Co)	ug/L	0.0430	9116071	0.0715	0.0555	0.0527	0.113	0.0050	9116071
Total Copper (Cu)	ug/L	1.49	9116071	2.37	1.47	1.86	2.10	0.050	9116071
Total Iron (Fe)	ug/L	28.1	9116071	78.3	70.6	41.5	78.8	1.0	9116071
Total Lead (Pb)	ug/L	0.0080	9116071	0.0171	0.0168	0.0068	0.0304	0.0050	9116071
Total Lithium (Li)	ug/L	0.66	9116071	0.78	1.17	0.88	<0.50	0.50	9116071
Total Manganese (Mn)	ug/L	0.937	9116071	4.91	2.84	0.838	3.37	0.050	9116071
Total Molybdenum (Mo)	ug/L	0.271	9116071	0.662	1.28	0.612	0.491	0.050	9116071
Total Nickel (Ni)	ug/L	0.544	9116071	1.00	0.625	0.837	0.855	0.020	9116071
Total Phosphorus (P)	ug/L	2.7	9116071	3.9	<2.0	3.8	3.4	2.0	9116071
Total Selenium (Se)	ug/L	0.065	9116071	0.096	0.070	0.065	0.072	0.040	9116071
Total Silicon (Si)	ug/L	4730	9116071	5210	5450	4840	4230	50	9116071
Total Silver (Ag)	ug/L	<0.0050	9116071	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116071
Total Strontium (Sr)	ug/L	266	9116071	112	278	222	173	0.050	9116071
Total Thallium (TI)	ug/L	0.0026	9116071	0.0045	0.0028	0.0034	0.0026	0.0020	9116071
Total Tin (Sn)	ug/L	<0.20	9116071	<0.20	<0.20	<0.20	<0.20	0.20	9116071
Total Titanium (Ti)	ug/L	0.66	9116071	1.93	1.99	0.97	1.83	0.50	9116071
Total Uranium (U)	ug/L	5.76	9116071	2.88	24.8	8.74	2.73	0.0020	9116071
Total Vanadium (V)	ug/L	0.30	9116071	0.50	0.42	0.40	0.39	0.20	9116071
RDL = Reportable Detection I	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD3812		UD3813	UD3814	UD3815	UD3816			
Sampling Date		2018/08/21		2018/08/21	2018/08/21	2018/08/20	2018/08/20			
Sampling Date		08:05		06:35	08:45	09:30	10:35			
COC Number		560077-01-01		560077-01-01	560077-01-01	560077-01-01	560077-01-01			
	UNITS	CC-3.5	QC Batch	CC-4.5	HC-2.5	HC-5.0	YT-24	RDL	QC Batch	
Total Zinc (Zn)	ug/L	0.18	9116071	0.32	0.22	0.17	0.28	0.10	9116071	
Total Zirconium (Zr)	ug/L	0.52	9116071	0.53	0.57	0.45	0.66	0.10	9116071	
Total Calcium (Ca)	mg/L	35.0	9114282	20.2	23.2	24.8	27.6	0.050	9114282	
Total Magnesium (Mg)	mg/L	10.6	9114282	6.93	8.33	7.61	7.74	0.050	9114282	
Total Potassium (K)	mg/L	2.12	9114282	1.25	1.83	1.96	1.69	0.050	9114282	
Total Sodium (Na)	mg/L	3.55	9114282	3.32	2.60	2.92	2.96	0.050	9114282	
Total Sulphur (S)	mg/L	21.0	9114282	11.7	9.4	10.1	15.4	3.0	9114282	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD3895	UD3896	UD3897			UD3897		
Carrallia - Data		2018/08/21	2018/08/21	2018/08/20			2018/08/20		
Sampling Date		09:55	08:55	13:00			13:00		
COC Number		560077-02-01	560077-02-01	560077-02-01			560077-02-01		
	UNITS	LATTE MIX	DUP	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	76.2	93.0	<0.50	0.50	9114271			
Elements									
Total Mercury (Hg)	ug/L	0.0077	0.0067	<0.0020	0.0020	9118589	<0.0020	0.0020	9118589
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	96.2	94.4	<0.50	0.50	9116071			
Total Antimony (Sb)	ug/L	0.113	0.410	<0.020	0.020	9116071			
Total Arsenic (As)	ug/L	0.470	1.07	<0.020	0.020	9116071			
Total Barium (Ba)	ug/L	42.0	37.3	<0.020	0.020	9116071			
Total Beryllium (Be)	ug/L	<0.010	0.015	<0.010	0.010	9116071			
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9116071			
Total Boron (B)	ug/L	<10	<10	<10	10	9116071			
Total Cadmium (Cd)	ug/L	0.0079	<0.0050	<0.0050	0.0050	9116071			
Total Chromium (Cr)	ug/L	0.39	0.38	<0.10	0.10	9116071			
Total Cobalt (Co)	ug/L	0.0717	0.0602	<0.0050	0.0050	9116071			
Total Copper (Cu)	ug/L	2.47	1.46	<0.050	0.050	9116071			
Total Iron (Fe)	ug/L	87.6	68.6	<1.0	1.0	9116071			
Total Lead (Pb)	ug/L	0.0118	0.0151	<0.0050	0.0050	9116071			
Total Lithium (Li)	ug/L	0.96	1.19	<0.50	0.50	9116071			
Total Manganese (Mn)	ug/L	4.34	2.73	<0.050	0.050	9116071			
Total Molybdenum (Mo)	ug/L	0.705	1.28	<0.050	0.050	9116071			
Total Nickel (Ni)	ug/L	1.08	0.670	<0.020	0.020	9116071			
Total Phosphorus (P)	ug/L	3.2	3.1	<2.0	2.0	9116071			
Total Selenium (Se)	ug/L	0.096	0.057	<0.040	0.040	9116071			
Total Silicon (Si)	ug/L	5210	5470	<50	50	9116071			
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	0.0050	9116071			
Total Strontium (Sr)	ug/L	108	278	<0.050	0.050	9116071			
Total Thallium (TI)	ug/L	0.0045	0.0029	<0.0020	0.0020	9116071			
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.20	9116071			
Total Titanium (Ti)	ug/L	1.47	1.94	<0.50	0.50	9116071			
Total Uranium (U)	ug/L	3.81	24.3	<0.0020	0.0020	9116071			
RDL = Reportable Detection	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD3895	UD3896	UD3897			UD3897		
Sampling Date		2018/08/21 09:55	2018/08/21 08:55	2018/08/20 13:00			2018/08/20 13:00		
COC Number		560077-02-01	560077-02-01	560077-02-01			560077-02-01		
	UNITS	LATTE MIX	DUP	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Total Vanadium (V)	ug/L	0.53	0.41	<0.20	0.20	9116071			
Total Zinc (Zn)	ug/L	0.38	0.21	<0.10	0.10	9116071			
Total Zirconium (Zr)	ug/L	0.55	0.51	<0.10	0.10	9116071			
Total Calcium (Ca)	mg/L	19.4	23.6	<0.050	0.050	9114282			
Total Magnesium (Mg)	mg/L	6.74	8.28	<0.050	0.050	9114282			
Total Potassium (K)	mg/L	1.23	1.85	<0.050	0.050	9114282			
Total Sodium (Na)	mg/L	3.38	2.65	<0.050	0.050	9114282			
Total Sulphur (S)	mg/L	11.8	9.7	<3.0	3.0	9114282			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		UD3817			UD3817			UD3818		
Sampling Date		2018/08/20			2018/08/20			2018/08/20		
. 0		10:20			10:20			08:35		
COC Number		560077-01-01			560077-01-01			560077-01-01		
	UNITS	YT-24 MIX	RDL	QC Batch	YT-24 MIX Lab-Dup	RDL	QC Batch	COFFEE MIX	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	91.5	0.50	9114271				90.5	0.50	9114271
Elements										
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9115669				<0.0020	0.0020	9115669
Total Metals by ICPMS										
Total Aluminum (AI)	ug/L	776 (1)	3.0	9116416	568 (2)	3.0	9116416	671	3.0	9116416
Total Antimony (Sb)	ug/L	0.193	0.020	9116416	0.224	0.020	9116416	0.174	0.020	9116416
Total Arsenic (As)	ug/L	1.06 (1)	0.020	9116416	0.850 (2)	0.020	9116416	0.998	0.020	9116416
Total Barium (Ba)	ug/L	80.0	0.050	9116416	66.8	0.050	9116416	74.7	0.050	9116416
Total Beryllium (Be)	ug/L	0.040	0.010	9116416	0.028	0.010	9116416	0.034	0.010	9116416
Total Bismuth (Bi)	ug/L	0.010	0.010	9116416	<0.010	0.010	9116416	<0.010	0.010	9116416
Total Boron (B)	ug/L	<10	10	9116416	<10	10	9116416	<10	10	9116416
Total Cadmium (Cd)	ug/L	0.153 (1)	0.0050	9116416	0.124 (2)	0.0050	9116416	0.154	0.0050	9116416
Total Chromium (Cr)	ug/L	1.25 (1)	0.10	9116416	0.91 (2)	0.10	9116416	1.02	0.10	9116416
Total Cobalt (Co)	ug/L	0.582 (1)	0.010	9116416	0.402 (2)	0.010	9116416	0.583	0.010	9116416
Total Copper (Cu)	ug/L	2.65	0.10	9116416	2.24	0.10	9116416	2.61	0.10	9116416
Total Iron (Fe)	ug/L	941 (1)	5.0	9116416	667 (2)	5.0	9116416	830	5.0	9116416
Total Lead (Pb)	ug/L	0.572 (1)	0.020	9116416	0.402 (2)	0.020	9116416	0.537	0.020	9116416
Total Lithium (Li)	ug/L	2.17	0.50	9116416	1.89	0.50	9116416	2.05	0.50	9116416
Total Manganese (Mn)	ug/L	44.5 (3)	0.10	9116416	29.9 (2)	0.10	9116416	45.0	0.10	9116416
Total Molybdenum (Mo)	ug/L	1.26	0.050	9116416	1.20	0.050	9116416	1.24	0.050	9116416
Total Nickel (Ni)	ug/L	3.79 (1)	0.10	9116416	2.91 (2)	0.10	9116416	3.61	0.10	9116416
Total Phosphorus (P)	ug/L	44.7 (1)	5.0	9116416	32.0 (2)	5.0	9116416	49.3	5.0	9116416
Total Selenium (Se)	ug/L	0.423	0.040	9116416	0.395	0.040	9116416	0.394	0.040	9116416
Total Silicon (Si)	ug/L	4090	50	9116416	3860	50	9116416	3820	50	9116416

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

- (1) Duplicate RPD above control limit. Non-homogenous sample; increased variability of results. Re-analysis yields similar results.
- (2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
- (3) Matrix Spike for (Mn) outside acceptance criteria (10% of analytes failure allowed).

Duplicate RPD above control limit. Non-homogenous sample; increased variability of results. Re-analysis yields similar results.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		UD3817			UD3817			UD3818		
Sampling Date		2018/08/20 10:20			2018/08/20 10:20			2018/08/20 08:35		
COC Number		560077-01-01			560077-01-01			560077-01-01		
	UNITS	YT-24 MIX	RDL	QC Batch	YT-24 MIX Lab-Dup	RDL	QC Batch	COFFEE MIX	RDL	QC Batch
Total Silver (Ag)	ug/L	0.017	0.010	9116416	0.011	0.010	9116416	0.016	0.010	9116416
Total Strontium (Sr)	ug/L	126	0.050	9116416	125	0.050	9116416	127	0.050	9116416
Total Thallium (TI)	ug/L	0.0113	0.0020	9116416	0.0103	0.0020	9116416	0.0112	0.0020	9116416
Total Tin (Sn)	ug/L	<0.20	0.20	9116416	<0.20	0.20	9116416	<0.20	0.20	9116416
Total Titanium (Ti)	ug/L	28.7 (1)	2.0	9116416	16.1 (2)	2.0	9116416	23.6	2.0	9116416
Total Uranium (U)	ug/L	1.18	0.0050	9116416	1.15	0.0050	9116416	1.11	0.0050	9116416
Total Vanadium (V)	ug/L	2.89	0.20	9116416	2.39	0.20	9116416	2.37	0.20	9116416
Total Zinc (Zn)	ug/L	18.9 (1)	1.0	9116416	14.5 (2)	1.0	9116416	16.6	1.0	9116416
Total Zirconium (Zr)	ug/L	0.88 (1)	0.10	9116416	0.37 (2)	0.10	9116416	0.31	0.10	9116416
Total Calcium (Ca)	mg/L	24.7	0.25	9114282				24.3	0.25	9114282
Total Magnesium (Mg)	mg/L	7.24	0.25	9114282				7.22	0.25	9114282
Total Potassium (K)	mg/L	0.97	0.25	9114282				0.91	0.25	9114282
Total Sodium (Na)	mg/L	2.09	0.25	9114282				2.03	0.25	9114282
Total Sulphur (S)	mg/L	8.8	3.0	9114282				8.5	3.0	9114282

RDL = Reportable Detection Limit

<sup>(1)</sup> Duplicate RPD above control limit. Non-homogenous sample; increased variability of results. Re-analysis yields similar results.

<sup>(2)</sup> Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		UD3819		
Sampling Date		2018/08/20		
Jumphing Dute		09:15		
COC Number		560077-01-01		
	UNITS	HALFWAY MIX	RDL	QC Batch
Calculated Parameters	<u> </u>		<u>-                                    </u>	
Total Hardness (CaCO3)	mg/L	94.7	0.50	9114271
Elements				
Total Mercury (Hg)	ug/L	<0.0020	0.0020	9115669
Total Metals by ICPMS				
Total Aluminum (Al)	ug/L	500	3.0	9116416
Total Antimony (Sb)	ug/L	0.203	0.020	9116416
Total Arsenic (As)	ug/L	0.916	0.020	9116416
Total Barium (Ba)	ug/L	66.3	0.050	9116416
Total Beryllium (Be)	ug/L	0.027	0.010	9116416
Total Bismuth (Bi)	ug/L	<0.010	0.010	9116416
Total Boron (B)	ug/L	<10	10	9116416
Total Cadmium (Cd)	ug/L	0.111	0.0050	9116416
Total Chromium (Cr)	ug/L	0.90	0.10	9116416
Total Cobalt (Co)	ug/L	0.409	0.010	9116416
Total Copper (Cu)	ug/L	2.53	0.10	9116416
Total Iron (Fe)	ug/L	608	5.0	9116416
Total Lead (Pb)	ug/L	0.404	0.020	9116416
Total Lithium (Li)	ug/L	1.79	0.50	9116416
Total Manganese (Mn)	ug/L	31.8	0.10	9116416
Total Molybdenum (Mo)	ug/L	1.09	0.050	9116416
Total Nickel (Ni)	ug/L	2.85	0.10	9116416
Total Phosphorus (P)	ug/L	29.0	5.0	9116416
Total Selenium (Se)	ug/L	0.343	0.040	9116416
Total Silicon (Si)	ug/L	4020	50	9116416
Total Silver (Ag)	ug/L	0.013	0.010	9116416
Total Strontium (Sr)	ug/L	155	0.050	9116416
Total Thallium (TI)	ug/L	0.0105	0.0020	9116416
Total Tin (Sn)	ug/L	<0.20	0.20	9116416
Total Titanium (Ti)	ug/L	16.1	2.0	9116416
Total Uranium (U)	ug/L	3.06	0.0050	9116416
Total Vanadium (V)	ug/L	1.83	0.20	9116416
RDL = Reportable Detection	Limit			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		UD3819						
Sampling Date		2018/08/20						
Jamping Bate		09:15						
COC Number		560077-01-01						
	UNITS	HALFWAY MIX	RDL	QC Batch				
Total Zinc (Zn)	ug/L	12.3	1.0	9116416				
Total Zirconium (Zr)	ug/L	0.33	0.10	9116416				
Total Calcium (Ca)	mg/L	25.5	0.25	9114282				
Total Magnesium (Mg)	mg/L	7.52	0.25	9114282				
Total Potassium (K)	mg/L	1.23	0.25	9114282				
Total Sodium (Na)	mg/L	2.35	0.25	9114282				
Total Sulphur (S)	mg/L	9.3	3.0	9114282				
RDL = Reportable Detection Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Results relate only to the items tested.		



#### **QUALITY ASSURANCE REPORT**

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9114257	Total Suspended Solids	2018/08/24			99	80 - 120	<1.0	mg/L		
9114531	Dissolved Aluminum (Al)	2018/08/23	96	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
9114531	Dissolved Antimony (Sb)	2018/08/23	94	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
9114531	Dissolved Arsenic (As)	2018/08/23	98	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
9114531	Dissolved Barium (Ba)	2018/08/23	97	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
9114531	Dissolved Beryllium (Be)	2018/08/23	95	80 - 120	97	80 - 120	<0.010	ug/L	NC	20
9114531	Dissolved Bismuth (Bi)	2018/08/23	94	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
9114531	Dissolved Boron (B)	2018/08/23	93	80 - 120	97	80 - 120	<10	ug/L	NC	20
9114531	Dissolved Cadmium (Cd)	2018/08/23	96	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9114531	Dissolved Chromium (Cr)	2018/08/23	94	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9114531	Dissolved Cobalt (Co)	2018/08/23	92	80 - 120	99	80 - 120	< 0.0050	ug/L	NC	20
9114531	Dissolved Copper (Cu)	2018/08/23	91	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
9114531	Dissolved Iron (Fe)	2018/08/23	92	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
9114531	Dissolved Lead (Pb)	2018/08/23	94	80 - 120	104	80 - 120	<0.0050	ug/L	NC	20
9114531	Dissolved Lithium (Li)	2018/08/23	100	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
9114531	Dissolved Manganese (Mn)	2018/08/23	94	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9114531	Dissolved Molybdenum (Mo)	2018/08/23	100	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9114531	Dissolved Nickel (Ni)	2018/08/23	93	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
9114531	Dissolved Phosphorus (P)	2018/08/23	100	80 - 120	103	80 - 120	<2.0	ug/L	8.2	20
9114531	Dissolved Selenium (Se)	2018/08/23	92	80 - 120	99	80 - 120	<0.040	ug/L	NC	20
9114531	Dissolved Silicon (Si)	2018/08/23	93	80 - 120	105	80 - 120	<50	ug/L	NC	20
9114531	Dissolved Silver (Ag)	2018/08/23	94	80 - 120	99	80 - 120	< 0.0050	ug/L	NC	20
9114531	Dissolved Strontium (Sr)	2018/08/23	NC	80 - 120	103	80 - 120	<0.050	ug/L	NC	20
9114531	Dissolved Thallium (TI)	2018/08/23	94	80 - 120	104	80 - 120	< 0.0020	ug/L	NC	20
9114531	Dissolved Tin (Sn)	2018/08/23	94	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
9114531	Dissolved Titanium (Ti)	2018/08/23	96	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
9114531	Dissolved Uranium (U)	2018/08/23	100	80 - 120	105	80 - 120	<0.0020	ug/L	NC	20
9114531	Dissolved Vanadium (V)	2018/08/23	95	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
9114531	Dissolved Zinc (Zn)	2018/08/23	91	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
9114531	Dissolved Zirconium (Zr)	2018/08/23	101	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
9114887	Total Dissolved Solids	2018/08/24	100	80 - 120	100	80 - 120	<10	mg/L	4.8	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix	Matrix Spike		Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9114977	Nitrate plus Nitrite (N)	2018/08/23	104	80 - 120	105	80 - 120	<0.0020	mg/L	NC	25
9114978	Nitrite (N)	2018/08/23	97	80 - 120	101	80 - 120	<0.0020	mg/L	NC	25
9115008	ORP	2018/08/24							0.69	20
9115669	Total Mercury (Hg)	2018/08/24	88	80 - 120	91	80 - 120	<0.0020	ug/L	NC	20
9115711	Fluoride (F)	2018/08/24	NC	80 - 120	106	80 - 120	<0.010	mg/L	3.1	20
9116071	Total Aluminum (Al)	2018/08/24	98	80 - 120	102	80 - 120	<0.50	ug/L	11	20
9116071	Total Antimony (Sb)	2018/08/24	102	80 - 120	101	80 - 120	<0.020	ug/L	0.079	20
9116071	Total Arsenic (As)	2018/08/24	103	80 - 120	105	80 - 120	<0.020	ug/L	3.3	20
9116071	Total Barium (Ba)	2018/08/24	98	80 - 120	99	80 - 120	<0.020	ug/L	0.79	20
9116071	Total Beryllium (Be)	2018/08/24	103	80 - 120	102	80 - 120	<0.010	ug/L	9.6	20
9116071	Total Bismuth (Bi)	2018/08/24	98	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
9116071	Total Boron (B)	2018/08/24	101	80 - 120	99	80 - 120	<10	ug/L	NC	20
9116071	Total Cadmium (Cd)	2018/08/24	101	80 - 120	99	80 - 120	< 0.0050	ug/L	18	20
9116071	Total Chromium (Cr)	2018/08/24	99	80 - 120	101	80 - 120	<0.10	ug/L	4.7	20
9116071	Total Cobalt (Co)	2018/08/24	99	80 - 120	100	80 - 120	<0.0050	ug/L	0.44	20
9116071	Total Copper (Cu)	2018/08/24	97	80 - 120	98	80 - 120	<0.050	ug/L	1.4	20
9116071	Total Iron (Fe)	2018/08/24	96	80 - 120	101	80 - 120	<1.0	ug/L	0.68	20
9116071	Total Lead (Pb)	2018/08/24	99	80 - 120	99	80 - 120	< 0.0050	ug/L	3.5	20
9116071	Total Lithium (Li)	2018/08/24	101	80 - 120	97	80 - 120	<0.50	ug/L	2.2	20
9116071	Total Manganese (Mn)	2018/08/24	99	80 - 120	101	80 - 120	<0.050	ug/L	1.6	20
9116071	Total Molybdenum (Mo)	2018/08/24	102	80 - 120	101	80 - 120	<0.050	ug/L	0.31	20
9116071	Total Nickel (Ni)	2018/08/24	97	80 - 120	99	80 - 120	<0.020	ug/L	4.5	20
9116071	Total Phosphorus (P)	2018/08/24	100	80 - 120	100	80 - 120	<2.0	ug/L	NC	20
9116071	Total Selenium (Se)	2018/08/24	101	80 - 120	98	80 - 120	<0.040	ug/L	1.8	20
9116071	Total Silicon (Si)	2018/08/24	NC	80 - 120	100	80 - 120	<50	ug/L	4.0	20
9116071	Total Silver (Ag)	2018/08/24	99	80 - 120	98	80 - 120	< 0.0050	ug/L	NC	20
9116071	Total Strontium (Sr)	2018/08/24	NC	80 - 120	102	80 - 120	<0.050	ug/L	2.3	20
9116071	Total Thallium (TI)	2018/08/24	98	80 - 120	99	80 - 120	<0.0020	ug/L	9.5	20
9116071	Total Tin (Sn)	2018/08/24	100	80 - 120	115	80 - 120	<0.20	ug/L	NC	20
9116071	Total Titanium (Ti)	2018/08/24	103	80 - 120	105	80 - 120	<0.50	ug/L	7.5	20
9116071	Total Uranium (U)	2018/08/24	103	80 - 120	103	80 - 120	<0.0020	ug/L	2.5	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9116071	Total Vanadium (V)	2018/08/24	102	80 - 120	103	80 - 120	<0.20	ug/L	18	20
9116071	Total Zinc (Zn)	2018/08/24	101	80 - 120	103	80 - 120	<0.10	ug/L	12	20
9116071	Total Zirconium (Zr)	2018/08/24	101	80 - 120	104	80 - 120	<0.10	ug/L	2.4	20
9116196	Dissolved Organic Carbon (C)	2018/08/24	105	80 - 120	114	80 - 120	<0.50	mg/L	10	20
9116200	Total Organic Carbon (C)	2018/08/27	109	80 - 120	109	80 - 120	<0.50	mg/L	1.8	20
9116336	Total Dissolved Solids	2018/08/27	101	80 - 120	96	80 - 120	<10	mg/L	4.9	20
9116416	Total Aluminum (AI)	2018/08/27	NC	80 - 120	106	80 - 120	<3.0	ug/L	31 (1)	20
9116416	Total Antimony (Sb)	2018/08/27	107	80 - 120	105	80 - 120	<0.020	ug/L	15	20
9116416	Total Arsenic (As)	2018/08/27	108	80 - 120	108	80 - 120	<0.020	ug/L	22 (1)	20
9116416	Total Barium (Ba)	2018/08/27	NC	80 - 120	103	80 - 120	<0.050	ug/L	18	20
9116416	Total Beryllium (Be)	2018/08/27	103	80 - 120	103	80 - 120	<0.010	ug/L	NC	20
9116416	Total Bismuth (Bi)	2018/08/27	103	80 - 120	100	80 - 120	< 0.010	ug/L	2.0	20
9116416	Total Boron (B)	2018/08/27	103	80 - 120	102	80 - 120	<10	ug/L	NC	20
9116416	Total Cadmium (Cd)	2018/08/27	105	80 - 120	102	80 - 120	< 0.0050	ug/L	21 (1)	20
9116416	Total Chromium (Cr)	2018/08/27	105	80 - 120	105	80 - 120	<0.10	ug/L	32 (1)	20
9116416	Total Cobalt (Co)	2018/08/27	104	80 - 120	104	80 - 120	<0.010	ug/L	37 (1)	20
9116416	Total Copper (Cu)	2018/08/27	101	80 - 120	102	80 - 120	<0.10	ug/L	17	20
9116416	Total Iron (Fe)	2018/08/27	NC	80 - 120	105	80 - 120	<5.0	ug/L	34 (1)	20
9116416	Total Lead (Pb)	2018/08/27	105	80 - 120	101	80 - 120	<0.020	ug/L	35 (1)	20
9116416	Total Lithium (Li)	2018/08/27	99	80 - 120	99	80 - 120	<0.50	ug/L	14	20
9116416	Total Manganese (Mn)	2018/08/27	77 (1)	80 - 120	105	80 - 120	<0.10	ug/L	39 (1)	20
9116416	Total Molybdenum (Mo)	2018/08/27	108	80 - 120	102	80 - 120	<0.050	ug/L	4.9	20
9116416	Total Nickel (Ni)	2018/08/27	103	80 - 120	105	80 - 120	<0.10	ug/L	26 (1)	20
9116416	Total Phosphorus (P)	2018/08/27	101	80 - 120	99	80 - 120	<5.0	ug/L	33 (1)	20
9116416	Total Selenium (Se)	2018/08/27	105	80 - 120	104	80 - 120	<0.040	ug/L	6.8	20
9116416	Total Silicon (Si)	2018/08/27	99	80 - 120	98	80 - 120	<50	ug/L	5.8	20
9116416	Total Silver (Ag)	2018/08/27	104	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
9116416	Total Strontium (Sr)	2018/08/27	NC	80 - 120	105	80 - 120	<0.050	ug/L	1.1	20
9116416	Total Thallium (TI)	2018/08/27	103	80 - 120	98	80 - 120	<0.0020	ug/L	9.3	20
9116416	Total Tin (Sn)	2018/08/27	102	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
9116416	Total Titanium (Ti)	2018/08/27	88	80 - 120	107	80 - 120	<2.0	ug/L	56 (1)	20



# QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW

			Matrix Spike		Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9116416	Total Uranium (U)	2018/08/27	106	80 - 120	104	80 - 120	<0.0050	ug/L	2.5	20
9116416	Total Vanadium (V)	2018/08/27	108	80 - 120	107	80 - 120	<0.20	ug/L	19	20
9116416	Total Zinc (Zn)	2018/08/27	96	80 - 120	105	80 - 120	<1.0	ug/L	26 (1)	20
9116416	Total Zirconium (Zr)	2018/08/27	97	80 - 120	105	80 - 120	<0.10	ug/L	81 (1)	20
9116845	pH	2018/08/24			99	97 - 103				
9116854	Alkalinity (PP as CaCO3)	2018/08/24					<0.50	mg/L		
9116854	Alkalinity (Total as CaCO3)	2018/08/24			96	80 - 120	<0.50	mg/L		
9116854	Bicarbonate (HCO3)	2018/08/24					<0.50	mg/L		
9116854	Carbonate (CO3)	2018/08/24					<0.50	mg/L		
9116854	Hydroxide (OH)	2018/08/24					<0.50	mg/L		
9116856	Conductivity	2018/08/24			100	80 - 120	<1.0	uS/cm		
9116858	Alkalinity (PP as CaCO3)	2018/08/25					<0.50	mg/L	NC	20
9116858	Alkalinity (Total as CaCO3)	2018/08/25	NC	80 - 120	96	80 - 120	<0.50	mg/L	2.0	20
9116858	Bicarbonate (HCO3)	2018/08/25					<0.50	mg/L	2.0	20
9116858	Carbonate (CO3)	2018/08/25					<0.50	mg/L	NC	20
9116858	Hydroxide (OH)	2018/08/25					<0.50	mg/L	NC	20
9116863	pH	2018/08/25			99	97 - 103			0.26	20
9116866	Conductivity	2018/08/25			101	80 - 120	<1.0	uS/cm	0.92	20
9118427	Dissolved Mercury (Hg)	2018/08/27	84	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20
9118486	Dissolved Mercury (Hg)	2018/08/27	111	80 - 120	92	80 - 120	<0.0020	ug/L	NC	20
9118589	Total Mercury (Hg)	2018/08/27	91	80 - 120	96	80 - 120	<0.0020	ug/L	NC	20
9118699	Total Dissolved Solids	2018/08/28	104	80 - 120	95	80 - 120	<10	mg/L	6.8	20
9118716	Total Dissolved Solids	2018/08/29	101	80 - 120	103	80 - 120	<10	mg/L		
9119537	Dissolved Chloride (CI)	2018/08/27	96	80 - 120	102	80 - 120	<0.50	mg/L	9.0	20
9119538	Dissolved Sulphate (SO4)	2018/08/27	NC	80 - 120	100	80 - 120	0.55, RDL=0.50	mg/L	3.3	20
9120183	Total Ammonia (N)	2018/08/28	95	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20
9122643	рН	2018/08/29			101	97 - 103			1.6	20
9122646	Alkalinity (PP as CaCO3)	2018/08/29					<0.50	mg/L		
9122646	Alkalinity (Total as CaCO3)	2018/08/29			93	80 - 120	<0.50	mg/L		
9122646	Bicarbonate (HCO3)	2018/08/29					<0.50	mg/L		
9122646	Carbonate (CO3)	2018/08/29					<0.50	mg/L		



### QUALITY ASSURANCE REPORT(CONT'D)

LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

			Matrix	Spike	Spiked	Blank	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9122646	Hydroxide (OH)	2018/08/29					<0.50	mg/L		
9122647	Conductivity	2018/08/29			99	80 - 120	<1.0	uS/cm		
9123869	Free Cyanide	2018/08/29	111	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20
9123888	Free Cyanide	2018/08/29	109	80 - 120	104	80 - 120	<0.0010	mg/L		
9124595	рН	2018/08/30			101	97 - 103			0.79	20
9124608	Alkalinity (PP as CaCO3)	2018/08/30					<0.50	mg/L		
9124608	Alkalinity (Total as CaCO3)	2018/08/30	NC	80 - 120	97	80 - 120	<0.50	mg/L		
9124608	Bicarbonate (HCO3)	2018/08/30					<0.50	mg/L		
9124608	Carbonate (CO3)	2018/08/30					<0.50	mg/L		
9124608	Hydroxide (OH)	2018/08/30					<0.50	mg/L		
9124609	Conductivity	2018/08/30			99	80 - 120	<1.0	uS/cm		

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **VALIDATION SIGNATURE PAGE**

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Snelften	
Andy Lu, Ph.D., P.Chem., Scientific Specialist	•
Cristina Carriere	
Cristina Carriere, Scientific Services	-

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

		WOICE TO:			Ri	eport Info	rmation							Project ir	formation	n		2545.00				
any Name	#3604 LORAX	ENVIRONMENTAL SERVICES	LTD. Compan								000	tanon #	3	B40231					使为SPARE	经国际		Order #
2 Name	Aida Piaseczny		Contact	Name Davi	i Flather	_		_	_		P.O.	0	- 1			a Paris II.	2147	-				( DOMESTI
88	2289 BURRARD VANCOUVER B		Address	_						_	Proje		-	Gold Car	p Cone	e Creek-S	SVV.	0071	1313 COC	SCIENT PORT	海海 無用	Manag
e:	(604) 688-7173	Fax: (604) 688-717	5 Phone	_			.,	an:			Site	ect Name								ADDIM DOUBLE STORY		***************************************
	management of the same of the	lorax.ca; shukling.ng@lorax.ca	Email	Davi	d.Flather@	glorax.c		-			171 551000	pled By							C#560077-0			Diena Cruz
gulatery C	100x15ia			ipecial Instruction	iń		is a second seco			p 0		Analysis I	Requested		5					d Time (TAT)	and the second second second	
	THE RESERVE THE PARTY.	(V D) = 44 (20010) 5-20	r samples - please use the Orloking Water Chain of Custody Form of ( < 10°C ) from time of sampling until delivery to marksam					Routine (Alk-LL, EC-LL, NH4- LL, pH, TDS)	TSS-Low Lavel	Anions (LL.Cl, F, NO2, NO3, SO4)	Cyanide - WAD	5	v	v Level Dissolved Metals , CV Hg	v Level Total Metals Incl. Ct	a,	Chi Chi	andiwd TAT ease note: 3 ys - dontad	d if Rivish TAT is not = 5-7 Working days Standard TAT for cent your Project Manag- ush TAT (if applies to	specified) for most texts ton texts such se or for details settine submission	s BOD and Diss	ma#wava j
Samp	e Bercode Label	Sample (Location) Identification	Date Sampled	Time Sam	olect N	Matrix	Regulated Drinking Water ? ( Y Motals Field Filtered ? ( Y / N )	F &	TS.	SOS	Ď	700	900	Low incl.	Low Hg	QRO	N o	Buttlen		Comme	ints	
	B)	CC-0.5	As Zet Z	18 7:5	5	W	NN	1	-	/	~	1	V	-	/	~	1	3				
	RDA215755	CC-1.5	A=2014	00/3:5	ō	W	NN	1	~	-	-	-	~	~	~	-	1	3				
	11114W 80114W 831 109215766	CC-3.5	Az 25\$20	18 8:0	5	W	NN	1	1	V	1	/	1	~	-	V	1	3				
	HD4215757	CC-4.5	A521,4	18 613E	5	w	NN	V	1	1	1	V	-	/	~	~	1	3	1 - 4	DINWH		集
	SID#215758	HC-2.5	A5217	W 8:4	5	W	NN	V	1	/	V	V	1	1	-	_	1	3	BY: JCAT	John	-	20
	1510100 1111 11 11 11 11 11 11 11 11 11 11	HC-5.0	ALZOTLE	ne 9:30	>	W	N	1	~	1	V	/	1	/	~	~	1	3		2018 -08	- 22	
	HAND BUILDING BUILDIN	YT-24	A57070	VE 10:3	5	w	UN	~	1	/	U	1	~	/	100	~	1	3	TEMP	4	4 ,	4
	SID#215761	YT-24 MIX	A570151	18/0:20	3	w	NN	~	~	V	V	1	V	/	-	~	1	3			5 3	5
	11111111111111111111111111111111111111	Coffee Mix	A3254	og 8:3	5	w	NN	1	~	1	~	2	/	~	-	-	1	3		5	4 4	F
DWG-WG	BD#215763	Halfway Mix	ASTOT, &	10 9:15	5	W	NL	) ~	~	-	~	/	1	~	سا	_	1	3				
PELV	QUISHEDEY (Signiture			Time :00	twi	RECEIV		PACK	rint)		1000	18[02	CONTRACTOR OF THE PERSON NAMED IN	08-30		used and submitted	Time Sunuttin	3	union (90) on Receiv	8	tody Seal Intest	No

1942

Maxxam Analytics International Corporation of Maxxam Analytics

		INVOICE TO:				Report la	nformat	noi							Project In	formatio	n					
ny Name	#3604 LORAX	ENVIRONMENTAL SERV	ICES LTD.	Company N	n.m.u							0.00	itation #	144	B40231						<b>第5個意動為</b> 自由	der #;
Name	Aida Piaseczny			Contact Na	Devide Cla	ther		=				P.0		2.0						TO THE PARTY OF TH	N 147, 143	
9	2289 BURRARD	STREET		Address		will-inle i							ect #		Gold Con	p Coffe	e Creek-	SW		IIII REPORT VALVE E	757 Bull # 12	7
*	VANCOUVER E	BC V6J 3H9		5339990000								100	ect Name							B871313_COC		anage
	(604) 688-7173	Fax: (604) 6	88-7175	Phone				Fa	ar.			Site									mmone in its	477777747777
	aida.piaseczny@	@lorax.ca; shukling.ng@lor		Email	David,Fla	ther@lorax	x.ca		4835			1 1 2 2 2 2	gled By	- 22						C#560077-02-01	omarin .	Diana Cruz
ulatory Cri	teria			Sper	cial Instructions		T	П					Analysis i	Requested	1					Turnaround Time	(TAT) Required	
100	Note: For regulated	drinking water samples - please	use the Drinking W	ater Chain o	f Custody Farm		Drinking Water ? (Y / N.)	Id Filtered ? (Y/N)	(AIK-LL, EC-LL, NH4- TDS)	v Level	(LL:Cl, F, NO2, NO3,	- WAD	7		el Dissolved Metals Hg	Level Total Metals incl. C\			(will be Standar Please days - 1 Job Spe Date Re	ir (Standard) TAT applied if Rush TAT is not specifie int TAT = 5-T Working days for mo- nols: Standard TAT for certain tes contact your Project Manager for di- cettic Rush TAT (if applies to entire	st fests. ts such as BOD and Diox etaits.	
11	Samples m	ust be kept cool ( < 10°C ) from time	e of sampling until	delivery to ma	xxam .	L HY V	urated	als Fle	Routine (AIK-I LL, pH, TDS)	TSS-Low	Anions (	Cyanide -	O	ပ	v Level D	v Lev	α,		Haish Go	rimaton Number	(set lab for A)	
Sample	Barcode Label	Sample (Location) Identificati	on Date	Sampled	Time Sampled	Matrix	Reg	Metals	Roi LL,	125	Sol	Õ	700	DOC	Low incl.	Low	ORP		# of Bott	ies	Comments	
	D#215764	Latte Mix	As	2157 2018	9:55	w	N	N	~	-	V	~	~	v	~	~	~		13			
	D#215765	Dup	95	25,7018	8:55	w	N	N	V	~	~	/	レ	/	-	/	/		13			
	D#215766	Field Blank	As	MUE	13:00	w	N	N	/	1	~	-	-	/	~	~	-		13			
																				RECEIVED IN	WHITEHORS	SE
																				BY: EMer	prope 12	00
											1									201	8 -08- 22	
																				Trans. U	. 4 . 4	
																				2	5 3	
																				5	4 4	
RELIN	JUISHED BY: (Signatur		Date: (YY/MM/DD			RECI	EIVED B	<b>CONTRACT</b>	gnature/Pr	int)	W T		ste: (YY/MM		Time		used and submitted		1	Lab Use O		
	U AL	EXCHARROW !	18-08-7	1 14:0	1 de	NHED	20	T	tok			20	18/06	163	DB 30	2	- Committee	Time Ser	sitive	Temperature (°C) on Receipt —	Custody Seal Intact	on Coolers

1942

Maxxam Analytics International Corporation of Maxxam Analytics



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **Attention: David Flather**

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 562348-01-01, 562348-02-01, 562348-03-01, 562348-04-01

Report Date: 2018/08/31 Report #: R2612669 Version: 2 - Final

## **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B871373 Received: 2018/08/22, 09:00

Sample Matrix: Water # Samples Received: 32

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Alkalinity - Low Level	19	N/A	2018/08/25	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	5	N/A	2018/08/27	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	1	N/A	2018/08/29	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Low Level	7	N/A	2018/08/30	BBY6SOP-00026	SM 22 2320 B m
Chloride - Low Level	32	N/A	2018/08/27	BBY6SOP-00011	SM 22 4500-Cl- E m
Carbon (DOC) - field filtered/preserved (2)	1	N/A	2018/08/24	BBY6SOP-00003	SM 22 5310 C m
Carbon (DOC) - field filtered/preserved (2)	31	N/A	2018/08/27	BBY6SOP-00003	SM 22 5310 C m
Conductance - Low Level	19	N/A	2018/08/25	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	5	N/A	2018/08/27	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	1	N/A	2018/08/29	BBY6SOP-00026	SM 22 2510 B m
Conductance - Low Level	7	N/A	2018/08/30	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Low Level	32	N/A	2018/08/24	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (3)	15	N/A	2018/08/24	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (3)	17	N/A	2018/08/28	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	32	N/A	2018/08/28	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	31	N/A	2018/08/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	1	N/A	2018/08/31	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	31	2018/08/27	2018/08/27	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	1	2018/08/28	2018/08/28	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	32	N/A	2018/08/28	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (dissolved)	32	N/A	2018/08/27	BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS Digested LL (total)	17	2018/08/24	2018/08/27	BBY7SOP-00003,	EPA 6020b R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	15	N/A	2018/08/24	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	17	N/A	2018/08/28	BBY WI-00033	Auto Calc
Elements by ICPMS Low Level (total)	15	N/A	2018/08/24	BBY7SOP-00002	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	27	N/A	2018/08/28	BBY6SOP-00009	EPA 350.1 m
Ammonia-N Low Level (Preserved)	5	N/A	2018/08/30	BBY6SOP-00009	EPA 350.1 m



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 562348-01-01, 562348-02-01, 562348-03-01, 562348-04-01

Report Date: 2018/08/31 Report #: R2612669 Version: 2 - Final

### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B871373
Received: 2018/08/22, 09:00
Sample Matrix: Water

Sample Matrix: Water # Samples Received: 32

•		Date	Date		
Analyses	Quantity	Extracted	Analyzed	Laboratory Method	Analytical Method
Nitrate+Nitrite (N) (low level)	32	N/A	2018/08/23	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) (low level)	32	N/A	2018/08/23	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N) Low Level Calc	32	N/A	2018/08/24	BBY WI-00033	Auto Calc
ORP Analysis on Water by ARD LAB	32	N/A	2018/08/24	BBY0SOP-00004	SM 22 2580 B
Filter and HNO3 Preserve for Metals	31	N/A	2018/08/24	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (4)	19	N/A	2018/08/25	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	5	N/A	2018/08/27	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	1	N/A	2018/08/29	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (4)	7	N/A	2018/08/30	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate - Low Level	32	N/A	2018/08/27	BBY6SOP-00017	SM 22 4500-SO42- E m
Total Dissolved Solids (Filt. Residue)	14	2018/08/23	2018/08/24	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	17	2018/08/24	2018/08/27	BBY6SOP-00033	SM 22 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2018/08/28	2018/08/29	BBY6SOP-00033	SM 22 2540 C m
Carbon (Total Organic) (5)	30	N/A	2018/08/27	BBY6SOP-00003	SM 22 5310 C m
Carbon (Total Organic) (5)	2	N/A	2018/08/29	BBY6SOP-00003	SM 22 5310 C m
Total Suspended Solids-Low Level	10	2018/08/23	2018/08/24	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	20	2018/08/24	2018/08/27	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids-Low Level	2	2018/08/24	2018/08/28	BBY6SOP-00034	SM 22 2540 D
Free (WAD) Cyanide (1)	18	N/A	2018/08/28	CAM SOP-00457	OMOE E3015 5 m
Free (WAD) Cyanide (1)	14	N/A	2018/08/29	CAM SOP-00457	OMOE E3015 5 m

#### Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless



Your Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

**Attention: David Flather** 

LORAX ENVIRONMENTAL SERVICES LTD.
2289 BURRARD STREET
VANCOUVER, BC
CANADA V6J 3H9

Your C.O.C. #: 562348-01-01, 562348-02-01, 562348-03-01, 562348-04-01

Report Date: 2018/08/31 Report #: R2612669

Version: 2 - Final

#### **CERTIFICATE OF ANALYSIS**

MAXXAM JOB #: B871373 Received: 2018/08/22, 09:00

indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Maxxam Ontario (From Burnaby)
- (2) DOC present in the sample should be considered as non-purgeable DOC.
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

### **Encryption Key**



Maxxam

31 Aug 2018 17:06:50

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Diana Cruz, Project Manager Email: DCruz@maxxam.ca Phone# (604) 734 7276

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total Cover Pages: 3 Page 3 of 73



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampling Date	UNITS	2018/08/18 14:25 562348-01-01 CC-0.5			2018/08/18 14:25		2018/08/19 09:30		
COC Number	UNITS	562348-01-01					09:30		
	UNITS								
	UNITS	CC-0.5			562348-01-01		562348-01-01		
			RDL	QC Batch	CC-0.5 Lab-Dup	QC Batch	CC-1.0	RDL	QC Batch
Parameter									
ORP	mV	238		9116555	246	9116555	230		9116555
Calculated Parameters									
ilter and HNO3 Preservation	N/A	LAB		9115436			LAB		9115436
Nitrate (N)	mg/L	0.285	0.0020	9114285			0.957	0.0020	9114285
Misc. Inorganics						-			
·luoride (F)	mg/L	0.066	0.010	9115711			0.088	0.010	9115711
ree Cyanide	mg/L	<0.0010	0.0010	9123868			<0.0010	0.0010	9123868
Dissolved Organic Carbon (C)	mg/L	13.1	0.50	9116197			4.28	0.50	9116197
Alkalinity (Total as CaCO3)	mg/L	37.4	0.50	9122635			233	0.50	9116858
otal Organic Carbon (C)	mg/L	13.8	0.50	9116201			4.98	0.50	9116201
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9122635			<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L	45.6	0.50	9122635			285	0.50	9116858
Carbonate (CO3)	mg/L	<0.50	0.50	9122635			<0.50	0.50	9116858
lydroxide (OH)	mg/L	<0.50	0.50	9122635			<0.50	0.50	9116858
Anions									
Dissolved Sulphate (SO4)	mg/L	25.7	0.50	9119542			170	0.50	9119538
Dissolved Chloride (CI)	mg/L	1.1	0.50	9119541			0.81	0.50	9119537
Nutrients									
otal Ammonia (N)	mg/L	0.058	0.0050	9120183			0.061	0.0050	9120183
Nitrate plus Nitrite (N)	mg/L	0.285	0.0020	9115002			0.957	0.0020	9114986
Nitrite (N)	mg/L	<0.0020	0.0020	9115003			<0.0020	0.0020	9114989
Physical Properties									
Conductivity	uS/cm	145	1.0	9122637			741	1.0	9116866
Н	рН	7.59		9122623			8.20		9116863
Physical Properties									
otal Suspended Solids	mg/L	<1.0	1.0	9115015			<1.0	1.0	9115015
otal Dissolved Solids	mg/L	110	10	9116336			482	10	9116336
RDL = Reportable Detection Lir	nit								
ab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4234			UD4235		UD4236		
Sampling Date		2018/08/19 09:30			2018/08/19 09:50		2018/08/18 15:10		
COC Number		562348-01-01			562348-01-01		562348-01-01		
COC NUMBER	_	CC-1.0							
	UNITS	Lab-Dup	RDL	QC Batch	CC-1.5	QC Batch	CC-3.5	RDL	QC Batch
Parameter									
ORP	mV				235	9116555	240		9116555
Calculated Parameters						-			
Filter and HNO3 Preservation	N/A				LAB	9115436	LAB		9115436
Nitrate (N)	mg/L				0.413	9114285	0.367	0.0020	9114285
Misc. Inorganics									
Fluoride (F)	mg/L				0.060	9115711	0.061	0.010	9115711
Free Cyanide	mg/L				<0.0010	9123868	<0.0010	0.0010	9123869
Dissolved Organic Carbon (C)	mg/L				8.55	9116197	10.7	0.50	9116197
Alkalinity (Total as CaCO3)	mg/L				78.8	9116858	68.5	0.50	9116858
Total Organic Carbon (C)	mg/L				8.98	9116201	13.7	0.50	9116201
Alkalinity (PP as CaCO3)	mg/L				<0.50	9116858	<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L				96.1	9116858	83.6	0.50	9116858
Carbonate (CO3)	mg/L				<0.50	9116858	<0.50	0.50	9116858
Hydroxide (OH)	mg/L				<0.50	9116858	<0.50	0.50	9116858
Anions						-			
Dissolved Sulphate (SO4)	mg/L				66.8	9119538	57.7	0.50	9119540
Dissolved Chloride (CI)	mg/L				0.65	9119537	0.89	0.50	9119539
Nutrients									
Total Ammonia (N)	mg/L				0.011	9120183	0.012	0.0050	9120183
Nitrate plus Nitrite (N)	mg/L				0.413	9114986	0.367	0.0020	9114986
Nitrite (N)	mg/L				<0.0020	9114989	<0.0020	0.0020	9114989
Physical Properties									
Conductivity	uS/cm				300	9116866	266	1.0	9116866
рН	рН				7.75	9116863	7.67		9116863
Physical Properties			•			-			
Total Suspended Solids	mg/L				1.2	9115015	4.1	1.0	9115015
Total Dissolved Solids	mg/L	506	10	9116336	196	9114887	190	10	9114887
RDL = Reportable Detection Lir	nit								
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4236			UD4237			UD4237		
Compling Data		2018/08/18			2018/08/18			2018/08/18		
Sampling Date		15:10			13:20			13:20		
COC Number		562348-01-01			562348-01-01			562348-01-01		
	UNITS	CC-3.5 Lab-Dup	RDL	QC Batch	CC-4.5	RDL	QC Batch	CC-4.5 Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV				254		9116555			
Calculated Parameters	•		•	•						
Filter and HNO3 Preservation	N/A				LAB		9115436			
Nitrate (N)	mg/L				0.268	0.0020	9114285			
Misc. Inorganics	•		•	•						
Fluoride (F)	mg/L				0.067	0.010	9115908			
Free Cyanide	mg/L	<0.0010	0.0010	9123869	<0.0010	0.0010	9123868			
Dissolved Organic Carbon (C)	mg/L				13.5	0.50	9116196	15.0	0.50	9116196
Alkalinity (Total as CaCO3)	mg/L				45.5	0.50	9124608			
Total Organic Carbon (C)	mg/L				13.9	0.50	9116200			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9124608			
Bicarbonate (HCO3)	mg/L				55.5	0.50	9124608			
Carbonate (CO3)	mg/L				<0.50	0.50	9124608			
Hydroxide (OH)	mg/L				<0.50	0.50	9124608			
Anions										
Dissolved Sulphate (SO4)	mg/L				31.5	0.50	9119542			
Dissolved Chloride (CI)	mg/L				1.2	0.50	9119541			
Nutrients	•		•	•						
Total Ammonia (N)	mg/L				0.0070	0.0050	9120183			
Nitrate plus Nitrite (N)	mg/L				0.268	0.0020	9115002			
Nitrite (N)	mg/L				<0.0020	0.0020	9115003			
Physical Properties										
Conductivity	uS/cm				165	1.0	9124609			
рН	рН				7.65		9124595			
Physical Properties										
Total Suspended Solids	mg/L				<1.0	1.0	9115015			
Total Dissolved Solids	mg/L				128	10	9116336			
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

	UD4238			UD4238			UD4239		
	2018/08/18			2018/08/18			2018/08/18		
	16:30			16:30			15:50		
	562348-01-01			562348-01-01			562348-01-01		
UNITS	CC-A	RDL	QC Batch	CC-A Lab-Dup	RDL	QC Batch	СС-В	RDL	QC Batch
mV	244		9116555				236		9116555
N/A	LAB		9115436				LAB		9115436
mg/L	0.243	0.0020	9114285				0.350	0.0020	9114285
					•			-	
mg/L	0.045	0.010	9115908				0.064	0.010	9115908
mg/L	<0.0010	0.0010	9123869				<0.0010	0.0010	9123869
mg/L	9.68	0.50	9116198				8.36	0.50	9116198
mg/L	26.1	0.50	9124615				84.3	0.50	9116858
mg/L	10.9	0.50	9116202				9.29	0.50	9122515
mg/L	<0.50	0.50	9124615				<0.50	0.50	9116858
mg/L	31.9	0.50	9124615				103	0.50	9116858
mg/L	<0.50	0.50	9124615				<0.50	0.50	9116858
mg/L	<0.50	0.50	9124615				<0.50	0.50	9116858
mg/L	24.7	0.50	9119540	24.5	0.50	9119540	71.9	0.50	9119540
mg/L	0.75	0.50	9119539	0.87	0.50	9119539	0.74	0.50	9119539
mg/L	<0.0050	0.0050	9120183				<0.0050	0.0050	9120183
mg/L	0.243	0.0020	9115002	0.242	0.0020	9115002	0.350	0.0020	9114986
mg/L	<0.0020	0.0020	9115003	<0.0020	0.0020	9115003	<0.0020	0.0020	9114989
uS/cm	114	1.0	9124616				322	1.0	9116866
рН	7.41		9124613				7.82		9116863
mg/L	1.0	1.0	9115015				<1.0	1.0	9115015
mg/L	86	10	9116336				206	10	9114887
nit									
Duplica	te								
	mV  N/A mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	2018/08/18   16:30   562348-01-01   UNITS   CC-A	2018/08/18   16:30	2018/08/18   16:30	2018/08/18   16:30   562348-01-01   562348-01-01   CC-A   RDL   QC Batch   CC-A   Lab-Dup	2018/08/18   16:30   16:30   16:30	2018/08/18   16:30   16:30   16:30     16:30	2018/08/18   16:30	2018/08/18   16:30   2018/08/18   16:30   562348-01-01   562348-01-01   562348-01-01   562348-01-01   562348-01-01



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		UD4239			UD4240			UD4241		
Compline Date		2018/08/18			2018/08/18			2018/08/20		
Sampling Date		15:50			13:05			08:45		
COC Number		562348-01-01			562348-01-01			562348-01-01		
	UNITS	CC-B Lab-Dup	RDL	QC Batch	сс-х	RDL	QC Batch	Coffee Mix	RDL	QC Batch
Parameter										
ORP	mV				260		9116555	258		9116555
Calculated Parameters	,	•	!			ļ.	!			
Filter and HNO3 Preservation	N/A				LAB		9115436	LAB		9115436
Nitrate (N)	mg/L				0.268	0.0020	9114285	0.0179	0.0020	9114285
Misc. Inorganics		•			1		Į.			
Fluoride (F)	mg/L	0.064	0.010	9115908	0.066	0.010	9115908	0.110	0.010	9115908
Free Cyanide	mg/L				<0.0010	0.0010	9123868	<0.0010	0.0010	9123868
Dissolved Organic Carbon (C)	mg/L				12.7	0.50	9116197	2.73	0.50	9116197
Alkalinity (Total as CaCO3)	mg/L				40.5	0.50	9119364	65.4	0.50	9116858
Total Organic Carbon (C)	mg/L				13.3	0.50	9116201	3.91	0.50	9116201
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9119364	<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L				49.4	0.50	9119364	79.7	0.50	9116858
Carbonate (CO3)	mg/L				<0.50	0.50	9119364	<0.50	0.50	9116858
Hydroxide (OH)	mg/L				<0.50	0.50	9119364	<0.50	0.50	9116858
Anions	·	•			•		Į.			
Dissolved Sulphate (SO4)	mg/L				30.4	0.50	9119540	26.6	0.50	9119540
Dissolved Chloride (CI)	mg/L				0.82	0.50	9119539	1.1	0.50	9119539
Nutrients						•				
Total Ammonia (N)	mg/L	<0.0050	0.0050	9120183	0.0090	0.0050	9120271	0.026	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L				0.268	0.0020	9115002	0.0209	0.0020	9114986
Nitrite (N)	mg/L				<0.0020	0.0020	9115003	0.0030	0.0020	9114989
Physical Properties		•			1		Į.			
Conductivity	uS/cm				164	1.0	9119365	188	1.0	9116866
рН	рН				7.40		9119357	7.70		9116863
Physical Properties		!								
Total Suspended Solids	mg/L				<1.1 (1)	1.1	9115015	33.1	1.0	9115015
Total Dissolved Solids	mg/L				118	10	9116336	114	10	9114887
RDI - Reportable Detection Lin				1	1	1	I.	1	1	<u> </u>

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4241			UD4245		UD4246		
Sampling Date		2018/08/20			2018/08/18		2018/08/19		
		08:45			14:00		11:40		
COC Number		562348-01-01			562348-02-01		562348-02-01		
	UNITS	Coffee Mix Lab-Dup	RDL	QC Batch	LATTE MIX	QC Batch	HC-2.5	RDL	QC Batch
Parameter									
ORP	mV				272	9116555	239		9116555
Calculated Parameters									
Filter and HNO3 Preservation	N/A				LAB	9115436	LAB		9115436
Nitrate (N)	mg/L				0.297	9114285	0.493	0.0020	9114285
Misc. Inorganics	•				•	•			
Fluoride (F)	mg/L				0.064	9115908	0.057	0.010	9115908
Free Cyanide	mg/L				<0.0010	9123869	<0.0010	0.0010	9123869
Dissolved Organic Carbon (C)	mg/L				12.7	9116197	9.42	0.50	9116197
Alkalinity (Total as CaCO3)	mg/L				40.9	9116858	62.5	0.50	9116858
Total Organic Carbon (C)	mg/L				12.7	9116201	10.6	0.50	9116201
Alkalinity (PP as CaCO3)	mg/L				<0.50	9116858	<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L				49.9	9116858	76.3	0.50	9116858
Carbonate (CO3)	mg/L				<0.50	9116858	<0.50	0.50	9116858
Hydroxide (OH)	mg/L				<0.50	9116858	<0.50	0.50	9116858
Anions					•	•			
Dissolved Sulphate (SO4)	mg/L				28.3	9119540	28.1	0.50	9119540
Dissolved Chloride (CI)	mg/L				1.0	9119539	0.79	0.50	9119539
Nutrients					•	•			
Total Ammonia (N)	mg/L				<0.0050	9120271	0.0060	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L	0.0204	0.0020	9114986	0.297	9114986	0.493	0.0020	9115002
Nitrite (N)	mg/L	0.0028	0.0020	9114989	<0.0020	9114989	<0.0020	0.0020	9115003
Physical Properties	•					•			
Conductivity	uS/cm				157	9116866	188	1.0	9116866
рН	рН				7.41	9116863	7.67		9116863
Physical Properties	•								
Total Suspended Solids	mg/L				<1.0	9115015	<1.0	1.0	9116671
Total Dissolved Solids	mg/L				118	9114887	126	10	9116336
RDL = Reportable Detection Lir	nit								
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4246		UD4247		UD4248		UD4249		
Compling Date		2018/08/19		2018/08/19		2018/08/19		2018/08/19		
Sampling Date		11:40		13:40		13:20		13:00		
COC Number		562348-02-01		562348-02-01		562348-02-01		562348-02-01		
	UNITS	HC-2.5 Lab-Dup	QC Batch	HC-5.0	QC Batch	HC-A	QC Batch	НС-В	RDL	QC Batch
Parameter	<u> </u>		<u></u>		<u> </u>	<u> </u>	<u> </u>		!	
ORP	mV	236	9116555	238	9116555	241	9116555	247		9116555
Calculated Parameters	ļ.				1				l .	
Filter and HNO3 Preservation	N/A			LAB	9115436	LAB	9115436	LAB		9115436
Nitrate (N)	mg/L			0.415	9114285	0.425	9114285	0.462	0.0020	9114285
Misc. Inorganics					<u>!</u>	!				
Fluoride (F)	mg/L			0.068	9115908	0.059	9115908	0.058	0.010	9115908
Free Cyanide	mg/L			<0.0010	9123868	<0.0010	9123869	<0.0010	0.0010	9123868
Dissolved Organic Carbon (C)	mg/L			12.7	9116197	9.90	9116197	9.79	0.50	9116197
Alkalinity (Total as CaCO3)	mg/L			64.6	9116858	62.7	9119364	65.3	0.50	9124608
Total Organic Carbon (C)	mg/L			14.9	9116201	15.5	9116201	9.77	0.50	9116201
Alkalinity (PP as CaCO3)	mg/L			<0.50	9116858	<0.50	9119364	<0.50	0.50	9124608
Bicarbonate (HCO3)	mg/L			78.8	9116858	76.4	9119364	79.7	0.50	9124608
Carbonate (CO3)	mg/L			<0.50	9116858	<0.50	9119364	<0.50	0.50	9124608
Hydroxide (OH)	mg/L			<0.50	9116858	<0.50	9119364	<0.50	0.50	9124608
Anions	•				-				•	
Dissolved Sulphate (SO4)	mg/L			27.6	9119540	28.0	9119540	27.9	0.50	9119540
Dissolved Chloride (CI)	mg/L			0.86	9119539	0.76	9119539	0.51	0.50	9119539
Nutrients										
Total Ammonia (N)	mg/L			0.057	9120271	<0.0050	9120271	<0.0050	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L			0.415	9114986	0.425	9115002	0.462	0.0020	9115002
Nitrite (N)	mg/L			<0.0020	9114989	<0.0020	9115003	<0.0020	0.0020	9115003
Physical Properties										
Conductivity	uS/cm			199	9116866	199	9119365	200	1.0	9124609
рН	рН			7.67	9116863	7.67	9119357	7.81		9124595
Physical Properties										
Total Suspended Solids	mg/L			<1.0	9116671	<1.0	9116671	<1.0	1.0	9116671
Total Dissolved Solids	mg/L			140	9114887	128	9116336	138	10	9116336
RDL = Reportable Detection Lin	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4250			UD4250			UD4251		
Sampling Date		2018/08/19 12:20			2018/08/19 12:20			2018/08/20 09:30		
COC Number		562348-02-01			562348-02-01			562348-02-01		
	UNITS	нс-с	RDL	QC Batch	HC-C Lab-Dup	RDL	QC Batch	HALFWAY MIX	RDL	QC Batch
Parameter				-	•		-			-
ORP	mV	249		9116555				251		9116555
Calculated Parameters			ı		I.				ı	
Filter and HNO3 Preservation	N/A	LAB		9115436				LAB		9115436
Nitrate (N)	mg/L	0.502	0.0020	9114285				0.124	0.0020	9114285
Misc. Inorganics					!	!				
Fluoride (F)	mg/L	0.058	0.010	9115908				0.098	0.010	9115908
Free Cyanide	mg/L	<0.0010	0.0010	9123869				<0.0010	0.0010	9123868
Dissolved Organic Carbon (C)	mg/L	9.99	0.50	9116197				5.56	0.50	9116197
Alkalinity (Total as CaCO3)	mg/L	65.7	0.50	9116858				65.5	0.50	9116858
Total Organic Carbon (C)	mg/L	11.1	0.50	9116201	10.5	0.50	9116201	6.56	0.50	9116201
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9116858				<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L	80.2	0.50	9116858				79.9	0.50	9116858
Carbonate (CO3)	mg/L	<0.50	0.50	9116858				<0.50	0.50	9116858
Hydroxide (OH)	mg/L	<0.50	0.50	9116858				<0.50	0.50	9116858
Anions					•	•				
Dissolved Sulphate (SO4)	mg/L	29.1	0.50	9119540				28.2	0.50	9119540
Dissolved Chloride (CI)	mg/L	1.2	0.50	9119539				1.3	0.50	9119539
Nutrients					•	•				
Total Ammonia (N)	mg/L	<0.0050	0.0050	9120271				0.026	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L	0.502	0.0020	9114986				0.128	0.0020	9114986
Nitrite (N)	mg/L	<0.0020	0.0020	9114989				0.0046	0.0020	9114989
Physical Properties										
Conductivity	uS/cm	204	1.0	9116866				195	1.0	9116866
рН	рН	7.68		9116863				7.69		9116863
Physical Properties										
Total Suspended Solids	mg/L	1.1	1.0	9116671				21.8	1.0	9116671
Total Dissolved Solids	mg/L	138	10	9114887				120	10	9116342
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4252		UD4253		UD4254		
Campling Data		2018/08/19		2018/08/19		2018/08/19		
Sampling Date		16:35		16:10		16:50		
COC Number		562348-02-01		562348-02-01		562348-02-01		
	UNITS	IC-0.5	QC Batch	IC-1.5	QC Batch	IC-2.5	RDL	QC Batch
Parameter	<u>-                                      </u>			<u> </u>		<u> </u>	<u> </u>	
ORP	mV	267	9116555	254	9116555	260		9116555
Calculated Parameters							•	
Filter and HNO3 Preservation	N/A	LAB	9115436	LAB	9115436	LAB		9115436
Nitrate (N)	mg/L	0.442	9114285	0.274	9114285	0.128	0.0020	9114285
Misc. Inorganics	-						•	
Fluoride (F)	mg/L	0.091	9115908	0.058	9115908	0.043	0.010	9115908
Free Cyanide	mg/L	<0.0010	9123869	<0.0010	9123868	<0.0010	0.0010	9123868
Dissolved Organic Carbon (C)	mg/L	14.9	9116197	11.4	9116197	14.6	0.50	9116198
Alkalinity (Total as CaCO3)	mg/L	31.9	9119364	42.9	9124615	11.3	0.50	9124615
Total Organic Carbon (C)	mg/L	16.0	9116201	11.8	9116202	15.4	0.50	9116202
Alkalinity (PP as CaCO3)	mg/L	<0.50	9119364	<0.50	9124615	<0.50	0.50	9124615
Bicarbonate (HCO3)	mg/L	38.9	9119364	52.3	9124615	13.8	0.50	9124615
Carbonate (CO3)	mg/L	<0.50	9119364	<0.50	9124615	<0.50	0.50	9124615
Hydroxide (OH)	mg/L	<0.50	9119364	<0.50	9124615	<0.50	0.50	9124615
Anions								
Dissolved Sulphate (SO4)	mg/L	42.4	9119540	13.1	9119542	<0.50	0.50	9119542
Dissolved Chloride (CI)	mg/L	0.87	9119539	0.87	9119541	1.0	0.50	9119541
Nutrients								
Total Ammonia (N)	mg/L	0.013	9120271	0.0070	9120271	0.0060	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L	0.442	9115002	0.274	9115002	0.128	0.0020	9115002
Nitrite (N)	mg/L	<0.0020	9115003	<0.0020	9115003	<0.0020	0.0020	9115003
Physical Properties							•	
Conductivity	uS/cm	174	9119365	117	9124616	34.5	1.0	9124616
рН	рН	7.29	9119357	7.70	9124613	7.07		9124613
Physical Properties								
Total Suspended Solids	mg/L	<1.0	9116671	1.1	9116671	1.9	1.0	9116671
Total Dissolved Solids	mg/L	126	9116336	90	9116336	46	10	9116336
RDL = Reportable Detection Lir	nit						•	



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4254			UD4257			UD4257		
Sampling Date		2018/08/19 16:50			2018/08/19 17:15			2018/08/19 17:15		
COC Number		562348-02-01			562348-03-01			562348-03-01		
	UNITS	IC-2.5 Lab-Dup	RDL	QC Batch	IC-3.0	RDL	QC Batch	IC-3.0 Lab-Dup	RDL	QC Batch
Parameter	•					•	•			
ORP	mV				257		9116555			
Calculated Parameters				Į.				I.		I.
Filter and HNO3 Preservation	N/A				LAB		9115436			
Nitrate (N)	mg/L				0.657	0.0020	9114285			
Misc. Inorganics	l			!			-	-	!	!
Fluoride (F)	mg/L				0.070	0.010	9115908			
Free Cyanide	mg/L				<0.0010	0.0010	9123869			
Dissolved Organic Carbon (C)	mg/L	15.7	0.50	9116198	13.4	0.50	9116197	13.6	0.50	9116197
Alkalinity (Total as CaCO3)	mg/L				58.3	0.50	9116858			
Total Organic Carbon (C)	mg/L	15.6	0.50	9116202	14.8	0.50	9116201			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9116858			
Bicarbonate (HCO3)	mg/L				71.2	0.50	9116858			
Carbonate (CO3)	mg/L				<0.50	0.50	9116858			
Hydroxide (OH)	mg/L				<0.50	0.50	9116858			
Anions	•			•						•
Dissolved Sulphate (SO4)	mg/L				29.7	0.50	9119538			
Dissolved Chloride (Cl)	mg/L				0.89	0.50	9119537			
Nutrients				•						•
Total Ammonia (N)	mg/L				0.0050	0.0050	9120271			
Nitrate plus Nitrite (N)	mg/L				0.657	0.0020	9114986			
Nitrite (N)	mg/L				<0.0020	0.0020	9114989			
Physical Properties	•			•						•
Conductivity	uS/cm				196	1.0	9116866			
рН	рН				7.61		9116863			
Physical Properties										
Total Suspended Solids	mg/L				2.2	1.0	9116671			
Total Dissolved Solids	mg/L				154	10	9114887			
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4258			UD4258		UD4259		
Sampling Date		2018/08/19			2018/08/19		2018/08/19		
Samping Sate		17:35			17:35		15:20		
COC Number		562348-03-01			562348-03-01		562348-03-01		
	UNITS	IC-4.5	RDL	QC Batch	IC-4.5 Lab-Dup	QC Batch	ML-A	RDL	QC Batch
Parameter									
ORP	mV	258		9116555	259	9116555	264		9116555
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB		9115436			LAB		9115436
Nitrate (N)	mg/L	0.353	0.0020	9114285			0.827	0.0020	9114285
Misc. Inorganics	•				•	•			
Fluoride (F)	mg/L	0.072	0.010	9115908			0.057	0.010	9115908
Free Cyanide	mg/L	<0.0010	0.0010	9123869			<0.0010	0.0010	9123869
Dissolved Organic Carbon (C)	mg/L	13.2	0.50	9116198			12.3	0.50	9116198
Alkalinity (Total as CaCO3)	mg/L	40.5	0.50	9116858			49.3	0.50	9116858
Total Organic Carbon (C)	mg/L	13.7	0.50	9116202			12.3	0.50	9116202
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9116858			<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L	49.5	0.50	9116858			60.1	0.50	9116858
Carbonate (CO3)	mg/L	<0.50	0.50	9116858			<0.50	0.50	9116858
Hydroxide (OH)	mg/L	<0.50	0.50	9116858			<0.50	0.50	9116858
Anions					•	•			
Dissolved Sulphate (SO4)	mg/L	25.9	0.50	9119538			36.7	0.50	9119540
Dissolved Chloride (CI)	mg/L	1.1	0.50	9119537			1.1	0.50	9119539
Nutrients					•	•			
Total Ammonia (N)	mg/L	0.0070	0.0050	9120271			0.034	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L	0.353	0.0020	9114986			0.827	0.0020	9114986
Nitrite (N)	mg/L	<0.0020	0.0020	9114989			<0.0020	0.0020	9114989
Physical Properties						•			
Conductivity	uS/cm	144	1.0	9116866			198	1.0	9116866
рН	рН	7.41		9116863			7.48		9116863
Physical Properties	•							•	
Total Suspended Solids	mg/L	1.0	1.0	9116671			17.3	1.0	9116671
Total Dissolved Solids	mg/L	112	10	9114887			148	10	9114887
RDL = Reportable Detection Lir	nit								
Lab-Dup = Laboratory Initiated	Duplica	te							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4260			UD4260			UD4261		
Sampling Date		2018/08/19			2018/08/19			2018/08/19		
Sampling Date		15:35			15:35			14:40		
COC Number		562348-03-01			562348-03-01			562348-03-01		
	UNITS	ML-B	RDL	QC Batch	ML-B Lab-Dup	RDL	QC Batch	ML-1.0 (OR YT-24-1)	RDL	QC Batch
Parameter										
ORP	mV	260		9116555				260		9116555
Calculated Parameters						•			•	•
Filter and HNO3 Preservation	N/A	LAB		9115436				LAB		9115436
Nitrate (N)	mg/L	0.992	0.0020	9114285				0.867	0.0020	9114285
Misc. Inorganics						<u> </u>	!!		- !	
Fluoride (F)	mg/L	0.042	0.010	9115908				0.067	0.010	9115908
Free Cyanide	mg/L	<0.0010	0.0010	9123868	<0.0010	0.0010	9123868	<0.0010	0.0010	9123869
Dissolved Organic Carbon (C)	mg/L	12.6	0.50	9116198				12.3	0.50	9116198
Alkalinity (Total as CaCO3)	mg/L	30.9	0.50	9116858				52.6	0.50	9116858
Total Organic Carbon (C)	mg/L	13.5	0.50	9116202				11.5	0.50	9116202
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9116858				<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L	37.6	0.50	9116858				64.1	0.50	9116858
Carbonate (CO3)	mg/L	<0.50	0.50	9116858				<0.50	0.50	9116858
Hydroxide (OH)	mg/L	<0.50	0.50	9116858				<0.50	0.50	9116858
Anions							'		'	
Dissolved Sulphate (SO4)	mg/L	22.2	0.50	9119540				42.0	0.50	9119538
Dissolved Chloride (CI)	mg/L	0.96	0.50	9119539				1.2	0.50	9119537
Nutrients						•			•	•
Total Ammonia (N)	mg/L	0.020	0.0050	9120271				<0.0050	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L	0.992	0.0020	9114986				0.867	0.0020	9114986
Nitrite (N)	mg/L	<0.0020	0.0020	9114989				<0.0020	0.0020	9114989
Physical Properties										
Conductivity	uS/cm	127	1.0	9116866				215	1.0	9116866
рН	рН	7.28		9116863				7.59		9116863
Physical Properties							'		•	
Total Suspended Solids	mg/L	63.8	1.0	9116671				2.3	1.0	9116671
Total Dissolved Solids	mg/L	96	10	9116336				156	10	9114887
RDL = Reportable Detection Lir	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

#### **RESULTS OF CHEMICAL ANALYSES OF WATER**

Maxxam ID		UD4261			UD4262			UD4263		
Sampling Date		2018/08/19			2018/08/20			2018/08/18		
Sampling Date		14:40			10:50			12:50		
COC Number		562348-03-01			562348-03-01			562348-03-01		
	UNITS	ML-1.0 (OR YT-24-1) Lab-Dup	RDL	QC Batch	YT-24 MIX	RDL	QC Batch	YUK-2.0	RDL	QC Batch
Parameter	•		•		•					
ORP	mV				258		9116555	258		9116555
Calculated Parameters			<del>'</del>		<u> </u>	!				
Filter and HNO3 Preservation	N/A				LAB		9115436	LAB		9115436
Nitrate (N)	mg/L				0.0276	0.0020	9114285	0.0125	0.0020	9114285
Misc. Inorganics				<u>.</u>	•					
Fluoride (F)	mg/L				0.120	0.010	9115911	0.120	0.010	9115911
Free Cyanide	mg/L				<0.0010	0.0010	9123869	<0.0010	0.0010	9123868
Dissolved Organic Carbon (C)	mg/L				2.76	0.50	9116198	2.69	0.50	9116198
Alkalinity (Total as CaCO3)	mg/L	51.5	0.50	9116858	64.3	0.50	9116858	66.9	0.50	9116858
Total Organic Carbon (C)	mg/L				3.86	0.50	9116202	4.74	0.50	9116202
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	9116858	<0.50	0.50	9116858	<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L	62.8	0.50	9116858	78.4	0.50	9116858	81.6	0.50	9116858
Carbonate (CO3)	mg/L	<0.50	0.50	9116858	<0.50	0.50	9116858	<0.50	0.50	9116858
Hydroxide (OH)	mg/L	<0.50	0.50	9116858	<0.50	0.50	9116858	<0.50	0.50	9116858
Anions										
Dissolved Sulphate (SO4)	mg/L	43.5	0.50	9119538	26.3	0.50	9119538	28.1	0.50	9119538
Dissolved Chloride (CI)	mg/L	1.3	0.50	9119537	0.87	0.50	9119537	0.52	0.50	9119537
Nutrients										
Total Ammonia (N)	mg/L				0.010	0.0050	9120271	0.0050	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L				0.0335	0.0020	9114986	0.0165	0.0020	9114986
Nitrite (N)	mg/L				0.0059	0.0020	9114989	0.0040	0.0020	9114989
Physical Properties	·		•	•	•	•	•	•		
Conductivity	uS/cm	217	1.0	9116866	188	1.0	9116866	197	1.0	9116866
рН	рН	7.57		9116863	7.71		9116863	7.75		9116863
Physical Properties										
Total Suspended Solids	mg/L				26.8	1.0	9118527	38.6 (1)	1.1	9116671
Total Dissolved Solids	mg/L				118	10	9114887	114	10	9116336
RDL = Reportable Detection Lim	nit									

Lab-Dup = Laboratory Initiated Duplicate

(1) RDL raised due to limited initial sample amount.



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4263			UD4264			UD4264		
Sampling Date		2018/08/18 12:50			2018/08/21 10:20			2018/08/21 10:20		
COC Number		562348-03-01			562348-03-01			562348-03-01		
	UNITS	YUK-2.0 Lab-Dup	RDL	QC Batch	YUK-5.0	RDL	QC Batch	YUK-5.0 Lab-Dup	RDL	QC Batch
Parameter										
ORP	mV				263		9116555			
Calculated Parameters			ı					1		
Filter and HNO3 Preservation	N/A				LAB		9115436			
Nitrate (N)	mg/L				0.0072	0.0020	9114285			
Misc. Inorganics	•		!			!			!	
Fluoride (F)	mg/L	0.120	0.010	9115911	0.120	0.010	9115911			
Free Cyanide	mg/L				<0.0010	0.0010	9123868			
Dissolved Organic Carbon (C)	mg/L				2.34	0.50	9116198			
Alkalinity (Total as CaCO3)	mg/L				64.3	0.50	9119364			
Total Organic Carbon (C)	mg/L				2.57	0.50	9122515			
Alkalinity (PP as CaCO3)	mg/L				<0.50	0.50	9119364			
Bicarbonate (HCO3)	mg/L				78.5	0.50	9119364			
Carbonate (CO3)	mg/L				<0.50	0.50	9119364			
Hydroxide (OH)	mg/L				<0.50	0.50	9119364			
Anions	•		•			•			•	
Dissolved Sulphate (SO4)	mg/L				27.2	0.50	9119540			
Dissolved Chloride (Cl)	mg/L				0.67	0.50	9119539			
Nutrients	•		•							
Total Ammonia (N)	mg/L				0.011	0.0050	9120271	0.017	0.0050	9120271
Nitrate plus Nitrite (N)	mg/L				0.0120	0.0020	9115002			
Nitrite (N)	mg/L				0.0048	0.0020	9115003			
Physical Properties										
Conductivity	uS/cm				187	1.0	9119365			
рН	рН				7.66		9119357			
Physical Properties										
Total Suspended Solids	mg/L				18.8	1.0	9118527			
Total Dissolved Solids	mg/L				116	10	9118716			
RDL = Reportable Detection Lin	nit		•							
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4278		UD4279		UD4280			UD4280	
Sampling Date										
COC Number		562348-03-01		562348-04-01		562348-04-01			562348-04-01	
	UNITS	SAMPLE A	QC Batch	SAMPLE B	QC Batch	SAMPLE C	RDL	QC Batch	SAMPLE C Lab-Dup	QC Batch
Parameter										
ORP	mV	247	9116555	258	9116555	260		9116555	253	9116555
Calculated Parameters										
Filter and HNO3 Preservation	N/A	LAB	9115436	LAB	9115436	LAB		9115436		
Nitrate (N)	mg/L	0.907	9114285	0.860	9114285	0.0603	0.0020	9114285		
Misc. Inorganics										
Fluoride (F)	mg/L	0.085	9115911	0.068	9115911	0.110	0.010	9115911		
Free Cyanide	mg/L	<0.0010	9123868	<0.0010	9123868	<0.0010	0.0010	9123868		
Dissolved Organic Carbon (C)	mg/L	4.26	9116198	12.7	9116197	3.70	0.50	9116197		
Alkalinity (Total as CaCO3)	mg/L	238	9124615	53.9	9119364	64.6	0.50	9116858		
Total Organic Carbon (C)	mg/L	5.18	9116202	13.5	9116200	5.24	0.50	9116200		
Alkalinity (PP as CaCO3)	mg/L	<0.50	9124615	<0.50	9119364	<0.50	0.50	9116858		
Bicarbonate (HCO3)	mg/L	290	9124615	65.7	9119364	78.8	0.50	9116858		
Carbonate (CO3)	mg/L	<0.50	9124615	<0.50	9119364	<0.50	0.50	9116858		
Hydroxide (OH)	mg/L	<0.50	9124615	<0.50	9119364	<0.50	0.50	9116858		
Anions										
Dissolved Sulphate (SO4)	mg/L	173	9119542	42.6	9119540	28.1	0.50	9119540		
Dissolved Chloride (CI)	mg/L	0.96	9119541	1.3	9119539	0.82	0.50	9119539		
Nutrients										
Total Ammonia (N)	mg/L	0.017	9123865	0.011	9123865	<0.0050	0.0050	9123865		
Nitrate plus Nitrite (N)	mg/L	0.907	9115002	0.860	9115002	0.0631	0.0020	9114986		
Nitrite (N)	mg/L	<0.0020	9115003	<0.0020	9115003	0.0028	0.0020	9114989		
Physical Properties										
Conductivity	uS/cm	726	9124616	216	9119365	189	1.0	9116866		
рН	рН	8.27	9124613	7.56	9119357	7.72		9116863		
Physical Properties										
Total Suspended Solids	mg/L	<1.0	9116671	2.1	9116671	25.5	1.0	9116671		
Total Dissolved Solids	mg/L	498	9116336	148	9116336	116	10	9114887		
RDL = Reportable Detection Lin	nit									
Lab-Dup = Laboratory Initiated	Duplica	te								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4281		UD4359		
Sampling Date		2018/08/18		2018/08/22		
Sampling Date		21:00		09:00		
COC Number		562348-04-01		562348-04-01		
	UNITS	FIELD BLANK	QC Batch	TRIP BLANK	RDL	QC Batch
Parameter						
ORP	mV	280	9116555	250		9116555
Calculated Parameters						
Filter and HNO3 Preservation	N/A	LAB	9115436			
Nitrate (N)	mg/L	0.0023	9114285	<0.0020	0.0020	9114285
Misc. Inorganics			-			
Fluoride (F)	mg/L	<0.010	9115911	<0.010	0.010	9115911
Free Cyanide	mg/L	<0.0010	9123868	<0.0010	0.0010	9123869
Dissolved Organic Carbon (C)	mg/L	<0.50	9116197	<0.50	0.50	9116197
Alkalinity (Total as CaCO3)	mg/L	<0.50	9124615	<0.50	0.50	9116858
Total Organic Carbon (C)	mg/L	<0.50	9116201	<0.50	0.50	9116201
Alkalinity (PP as CaCO3)	mg/L	<0.50	9124615	<0.50	0.50	9116858
Bicarbonate (HCO3)	mg/L	<0.50	9124615	<0.50	0.50	9116858
Carbonate (CO3)	mg/L	<0.50	9124615	<0.50	0.50	9116858
Hydroxide (OH)	mg/L	<0.50	9124615	<0.50	0.50	9116858
Anions	•		<del>-</del>		•	
Dissolved Sulphate (SO4)	mg/L	0.96	9119540	1.25	0.50	9119540
Dissolved Chloride (CI)	mg/L	0.63	9119539	<0.50	0.50	9119539
Nutrients						
Total Ammonia (N)	mg/L	<0.0050	9123865	0.012	0.0050	9123865
Nitrate plus Nitrite (N)	mg/L	0.0023	9115002	<0.0020	0.0020	9114986
Nitrite (N)	mg/L	<0.0020	9115003	<0.0020	0.0020	9114989
Physical Properties	•	•	-	•		
Conductivity	uS/cm	1.1	9124616	1.2	1.0	9116866
рН	рН	5.22	9124613	5.37		9116863
Physical Properties						
Total Suspended Solids	mg/L	<1.1 (1)	9116671	<1.1 (1)	1.1	9116671
Total Dissolved Solids	mg/L	<10	9116336	<10	10	9114887
RDL = Reportable Detection Lir	mit					
(1) RDL raised due to limited in	itial sam	ple amount.				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD4233	UD4234			UD4234		
Sampling Date		2018/08/18 14:25	2018/08/19 09:30			2018/08/19 09:30		
COC Number		562348-01-01	562348-01-01			562348-01-01		
	UNITS	CC-0.5	CC-1.0	RDL	QC Batch	CC-1.0 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Dissolved Hardness (CaCO3)	mg/L	65.9	413	0.50	9114275			
Elements	•			•			•	
Dissolved Mercury (Hg)	ug/L	0.0039	<0.0020	0.0020	9118486			
Dissolved Metals by ICPMS								
Dissolved Aluminum (AI)	ug/L	101	8.69	0.50	9116745	8.68	0.50	9116745
Dissolved Antimony (Sb)	ug/L	0.121	0.161	0.020	9116745	0.162	0.020	9116745
Dissolved Arsenic (As)	ug/L	0.507	0.909	0.020	9116745	0.892	0.020	9116745
Dissolved Barium (Ba)	ug/L	38.3	92.0	0.020	9116745	93.0	0.020	9116745
Dissolved Beryllium (Be)	ug/L	0.013	<0.010	0.010	9116745	<0.010	0.010	9116745
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0050	9116745	<0.0050	0.0050	9116745
Dissolved Boron (B)	ug/L	<10	<10	10	9116745	<10	10	9116745
Dissolved Cadmium (Cd)	ug/L	0.0081	<0.0050	0.0050	9116745	<0.0050	0.0050	9116745
Dissolved Chromium (Cr)	ug/L	0.43	<0.10	0.10	9116745	0.13	0.10	9116745
Dissolved Cobalt (Co)	ug/L	0.0713	0.0270	0.0050	9116745	0.0277	0.0050	9116745
Dissolved Copper (Cu)	ug/L	2.80	0.828	0.050	9116745	0.809	0.050	9116745
Dissolved Iron (Fe)	ug/L	82.0	4.3	1.0	9116745	4.3	1.0	9116745
Dissolved Lead (Pb)	ug/L	0.0052	<0.0050	0.0050	9116745	<0.0050	0.0050	9116745
Dissolved Lithium (Li)	ug/L	0.88	4.66	0.50	9116745	4.75	0.50	9116745
Dissolved Manganese (Mn)	ug/L	3.00	0.875	0.050	9116745	0.863	0.050	9116745
Dissolved Molybdenum (Mo)	ug/L	0.710	0.301	0.050	9116745	0.307	0.050	9116745
Dissolved Nickel (Ni)	ug/L	1.23	0.464	0.020	9116745	0.492	0.020	9116745
Dissolved Phosphorus (P)	ug/L	6.5	4.7	2.0	9116745	3.5	2.0	9116745
Dissolved Selenium (Se)	ug/L	0.104	0.282	0.040	9116745	0.294	0.040	9116745
Dissolved Silicon (Si)	ug/L	5260	5200	50	9116745	5150	50	9116745
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	9116745	<0.0050	0.0050	9116745
Dissolved Strontium (Sr)	ug/L	83.9	1100	0.050	9116745	1140	0.050	9116745
Dissolved Thallium (TI)	ug/L	0.0040	0.0025	0.0020	9116745	0.0035	0.0020	9116745
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	0.20	9116745	<0.20	0.20	9116745
Dissolved Titanium (Ti)	ug/L	1.03	<0.50	0.50	9116745	<0.50	0.50	9116745
Dissolved Uranium (U)	ug/L	2.79	26.7	0.0020	9116745	26.9	0.0020	9116745
RDL = Reportable Detection Li	mit							

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD4233	UD4234			UD4234		
Sampling Date		2018/08/18 14:25	2018/08/19 09:30			2018/08/19 09:30		
COC Number		562348-01-01	562348-01-01			562348-01-01		
	UNITS	CC-0.5	CC-1.0	RDL	QC Batch	CC-1.0 Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.48	0.23	0.20	9116745	0.22	0.20	9116745
Dissolved Zinc (Zn)	ug/L	0.45	0.15	0.10	9116745	0.15	0.10	9116745
Dissolved Zirconium (Zr)	ug/L	0.69	<0.10	0.10	9116745	0.11	0.10	9116745
Dissolved Calcium (Ca)	mg/L	16.8	105	0.050	9114279			
Dissolved Magnesium (Mg)	mg/L	5.80	36.3	0.050	9114279			
Dissolved Potassium (K)	mg/L	1.07	5.31	0.050	9114279			
Dissolved Sodium (Na)	mg/L	3.15	4.62	0.050	9114279			
Dissolved Sulphur (S)	mg/L	8.9	52.6	3.0	9114279			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Sampling Date         2018/08/19 09:50         2018/08/18 15:10         2018/08/18 16:30         2018/08/18 15:50         2018/08/18 16:30         2018/08/18 15:50           COC Number         562348-01-01         66.0         60.0         912
COC Number   562348-01-01   562348-0
Calculated Parameters         CC-3.5         CC-4.5         CC-A         CC-B         RDL         QC           Calculated Parameters           Dissolved Hardness (CaCO3)         mg/L         159         131         79.2         53.7         164         0.50         91:           Elements           Dissolved Mercury (Hg)         ug/L         0.0041         0.0075         0.0044         0.0056         0.0094         0.0020         91:           Dissolved Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         77.6         54.4         87.0         110         65.6         0.50         91:           Dissolved Antimony (Sb)         ug/L         0.126         0.104         0.116         0.107         0.118         0.020         91:           Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         91:           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         91:           Dissolved Bismuth (Bi)         ug/L         <0.0050
Calculated Parameters           Dissolved Hardness (CaCO3)         mg/L         159         131         79.2         53.7         164         0.50         91:           Elements           Dissolved Mercury (Hg)         ug/L         0.0041         0.0075         0.0044         0.0056         0.0094         0.0020         91:           Dissolved Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         77.6         54.4         87.0         110         65.6         0.50         91:           Dissolved Antimony (Sb)         ug/L         0.126         0.104         0.116         0.107         0.118         0.020         91:           Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         91:           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         91:           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Hardness (CaCO3)         mg/L         159         131         79.2         53.7         164         0.50         91:           Elements         Dissolved Mercury (Hg)         ug/L         0.0041         0.0075         0.0044         0.0056         0.0094         0.0020         91:           Dissolved Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         77.6         54.4         87.0         110         65.6         0.50         91:           Dissolved Antimony (Sb)         ug/L         0.126         0.104         0.116         0.107         0.118         0.020         91:           Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         91:           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         91:           Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         91:           Dissolved Bismuth (Bi)         ug/L         <0.0050         <0.0050         <0.0050         <0.0050         <0.0050         <0.0050         <0.0050         <0
Elements           Dissolved Mercury (Hg)         ug/L         0.0041         0.0075         0.0044         0.0056         0.0094         0.0020         91:           Dissolved Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         77.6         54.4         87.0         110         65.6         0.50         91:           Dissolved Antimony (Sb)         ug/L         0.126         0.104         0.116         0.107         0.118         0.020         91:           Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         91:           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         91:           Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         91:           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Mercury (Hg)         ug/L         0.0041         0.0075         0.0044         0.0056         0.0094         0.0020         913           Dissolved Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         77.6         54.4         87.0         110         65.6         0.50         913           Dissolved Antimony (Sb)         ug/L         0.126         0.104         0.116         0.107         0.118         0.020         913           Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         913           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         913           Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         913           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Metals by ICPMS           Dissolved Aluminum (Al)         ug/L         77.6         54.4         87.0         110         65.6         0.50         91:           Dissolved Antimony (Sb)         ug/L         0.126         0.104         0.116         0.107         0.118         0.020         91:           Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         91:           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         91:           Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         91:           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Aluminum (Al)         ug/L         77.6         54.4         87.0         110         65.6         0.50         91:           Dissolved Antimony (Sb)         ug/L         0.126         0.104         0.116         0.107         0.118         0.020         91:           Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         91:           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         91:           Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         91:           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Antimony (Sb)         ug/L         0.126         0.104         0.116         0.107         0.118         0.020         913           Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         913           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         913           Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         913           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Arsenic (As)         ug/L         0.597         0.362         0.423         0.546         0.586         0.020         913           Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         913           Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         913           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Barium (Ba)         ug/L         41.9         50.5         44.0         20.3         42.8         0.020         91.7           Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         91.7           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Beryllium (Be)         ug/L         0.018         0.013         0.011         0.027         0.015         0.010         913           Dissolved Bismuth (Bi)         ug/L         <0.0050
Dissolved Bismuth (Bi) ug/L <0.0050 <0.0050 <0.0050 <0.0050 0.0050 91:
Dissolved Boron (B)   ug/L   <10   <10   <10   <10   10   91:
Dissolved Cadmium (Cd)
Dissolved Chromium (Cr)
Dissolved Cobalt (Co) ug/L 0.0464 0.0419 0.0627 0.0524 0.0474 0.0050 91:
Dissolved Copper (Cu) ug/L 1.51 1.69 2.68 1.73 1.55 0.050 91:
Dissolved Iron (Fe) ug/L 52.2 28.7 64.2 68.2 39.9 1.0 91:
Dissolved Lead (Pb) ug/L <0.0050 <0.0050 0.0053 <0.0050 <0.0050 91:
Dissolved Lithium (Li) ug/L 1.90 0.69 0.74 1.12 1.55 0.50 91:
Dissolved Manganese (Mn) ug/L 3.88 0.308 2.69 4.52 4.96 0.050 91:
Dissolved Molybdenum (Mo) ug/L 0.167 0.252 0.634 0.113 0.248 0.050 91:
Dissolved Nickel (Ni) ug/L 0.628 0.605 1.09 0.669 0.564 0.020 91:
Dissolved Phosphorus (P)
Dissolved Selenium (Se)
Dissolved Silicon (Si) ug/L 5470 4680 5080 5690 5240 50 91:
Dissolved Silver (Ag) ug/L <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 0.0050 913
Dissolved Strontium (Sr)
Dissolved Thallium (TI) ug/L 0.0034 0.0029 0.0047 0.0025 0.0032 0.0020 913
Dissolved Tin (Sn) ug/L <0.20 <0.20 <0.20 <0.20 <0.20 0.20 91:
Dissolved Titanium (Ti) ug/L 0.79 0.69 0.61 1.03 <0.50 0.50 91:
Dissolved Uranium (U)
Dissolved Vanadium (V)
RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4235	UD4236	UD4237	UD4238	UD4239					
Carrallina Data		2018/08/19	2018/08/18	2018/08/18	2018/08/18	2018/08/18					
Sampling Date		09:50	15:10	13:20	16:30	15:50					
COC Number		562348-01-01	562348-01-01	562348-01-01	562348-01-01	562348-01-01					
	UNITS	CC-1.5	CC-3.5	CC-4.5	CC-A	СС-В	RDL	QC Batch			
Dissolved Zinc (Zn)	ug/L	0.38	0.30	0.38	0.32	0.24	0.10	9116745			
Dissolved Zirconium (Zr)	ug/L	0.65	0.64	0.66	0.90	0.57	0.10	9116745			
Dissolved Calcium (Ca)	mg/L	42.0	35.0	20.3	15.1	43.9	0.050	9114279			
Dissolved Magnesium (Mg)	mg/L	13.0	10.6	6.93	3.90	13.2	0.050	9114279			
Dissolved Potassium (K)	mg/L	2.24	2.08	1.25	0.765	2.68	0.050	9114279			
Dissolved Sodium (Na)	mg/L	3.09	3.51	3.38	2.19	3.22	0.050	9114279			
Dissolved Sulphur (S)	mg/L	21.1	17.9	10.3	8.2	22.8	3.0	9114279			
RDL = Reportable Detection Limit											



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4240	UD4241	UD4245	UD4246	UD4247	UD4248		
Compline Date		2018/08/18	2018/08/20	2018/08/18	2018/08/19	2018/08/19	2018/08/19		
Sampling Date		13:05	08:45	14:00	11:40	13:40	13:20		
COC Number		562348-01-01	562348-01-01	562348-02-01	562348-02-01	562348-02-01	562348-02-01		
	UNITS	сс-х	Coffee Mix	LATTE MIX	HC-2.5	HC-5.0	HC-A	RDL	QC Batch
Calculated Parameters	·				•		•	-	
Dissolved Hardness (CaCO3)	mg/L	77.9	94.7	72.7	96.0	102	100	0.50	9114275
Elements					I.		I.		
Dissolved Mercury (Hg)	ug/L	0.0085	<0.0020	0.0046	0.0037	0.0059	0.0026	0.0020	9118619
Dissolved Metals by ICPMS	_				I.		I.		
Dissolved Aluminum (Al)	ug/L	85.0	35.5	98.1	76.4	51.2	50.6	0.50	9116745
Dissolved Antimony (Sb)	ug/L	0.117	0.129	0.121	0.402	0.239	0.272	0.020	9116745
Dissolved Arsenic (As)	ug/L	0.446	0.470	0.472	0.981	0.627	0.674	0.020	9116745
Dissolved Barium (Ba)	ug/L	44.2	43.8	39.0	36.5	43.8	43.1	0.020	9116745
Dissolved Beryllium (Be)	ug/L	0.012	<0.010	0.011	0.016	0.015	0.014	0.010	9116745
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116745
Dissolved Boron (B)	ug/L	<10	<10	<10	<10	<10	<10	10	9116745
Dissolved Cadmium (Cd)	ug/L	0.0098	0.0403	0.0068	<0.0050	<0.0050	<0.0050	0.0050	9116745
Dissolved Chromium (Cr)	ug/L	0.41	<0.10	0.44	0.40	0.35	0.33	0.10	9116745
Dissolved Cobalt (Co)	ug/L	0.0628	0.0150	0.0671	0.0540	0.0517	0.0546	0.0050	9116745
Dissolved Copper (Cu)	ug/L	2.67	1.15	2.65	1.61	1.94	1.84	0.050	9116745
Dissolved Iron (Fe)	ug/L	61.2	12.4	76.6	51.4	35.6	33.9	1.0	9116745
Dissolved Lead (Pb)	ug/L	<0.0050	0.0128	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116745
Dissolved Lithium (Li)	ug/L	0.72	1.62	0.83	1.08	0.87	0.82	0.50	9116745
Dissolved Manganese (Mn)	ug/L	2.28	0.876	3.01	1.87	0.351	0.671	0.050	9116745
Dissolved Molybdenum (Mo)	ug/L	0.633	1.24	0.676	1.27	0.632	0.703	0.050	9116745
Dissolved Nickel (Ni)	ug/L	1.09	1.26	1.17	0.693	0.945	0.772	0.020	9116745
Dissolved Phosphorus (P)	ug/L	6.8	5.8	5.7	5.2	5.0	6.5	2.0	9116745
Dissolved Selenium (Se)	ug/L	0.101	0.327	0.103	0.070	0.065	0.066	0.040	9116745
Dissolved Silicon (Si)	ug/L	5130	2710	5220	5190	4780	4940	50	9116745
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116745
Dissolved Strontium (Sr)	ug/L	105	123	97.3	275	228	243	0.050	9116745
Dissolved Thallium (TI)	ug/L	0.0035	0.0031	0.0043	0.0035	0.0032	0.0029	0.0020	9116745
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9116745
Dissolved Titanium (Ti)	ug/L	0.65	<0.50	0.91	0.89	0.72	0.77	0.50	9116745
Dissolved Uranium (U)	ug/L	2.38	0.942	2.97	21.9	8.64	11.3	0.0020	9116745
Dissolved Vanadium (V)	ug/L	0.48	0.29	0.48	0.41	0.40	0.40	0.20	9116745
RDL = Reportable Detection Lir	nit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4240	UD4241	UD4245	UD4246	UD4247	UD4248			
Sampling Date		2018/08/18	2018/08/20	2018/08/18	2018/08/19	2018/08/19	2018/08/19			
Sampling Date		13:05	08:45	14:00	11:40	13:40	13:20			
COC Number		562348-01-01	562348-01-01	562348-02-01	562348-02-01	562348-02-01	562348-02-01			
	UNITS	сс-х	Coffee Mix	LATTE MIX	HC-2.5	HC-5.0	HC-A	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	0.45	2.16	0.47	0.25	0.17	0.14	0.10	9116745	
Dissolved Zirconium (Zr)	ug/L	0.66	<0.10	0.63	0.62	0.57	0.58	0.10	9116745	
Dissolved Calcium (Ca)	mg/L	20.1	26.3	18.6	24.7	27.3	26.2	0.050	9114279	
Dissolved Magnesium (Mg)	mg/L	6.69	7.07	6.35	8.31	8.15	8.40	0.050	9114279	
Dissolved Potassium (K)	mg/L	1.20	1.06	1.13	1.88	2.02	1.97	0.050	9114279	
Dissolved Sodium (Na)	mg/L	3.32	2.08	3.18	2.69	3.05	3.08	0.050	9114279	
Dissolved Sulphur (S)	mg/L	10.2	8.0	9.3	8.3	9.4	9.7	3.0	9114279	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4249		UD4250		UD4251	UD4252		
		2018/08/19		2018/08/19		2018/08/20	2018/08/19		
Sampling Date		13:00		12:20		09:30	16:35		
COC Number		562348-02-01		562348-02-01		562348-02-01	562348-02-01		
	UNITS	НС-В	QC Batch	HC-C	QC Batch	HALFWAY MIX	IC-0.5	RDL	QC Batch
Calculated Parameters			•		•			•	
Dissolved Hardness (CaCO3)	mg/L	102	9114275	103	9114275	95.7	82.4	0.50	9114275
Elements			•						
Dissolved Mercury (Hg)	ug/L	0.0062	9118619	0.0030	9118486	<0.0020	0.0043	0.0020	9118486
Dissolved Metals by ICPMS				1	Į.				
Dissolved Aluminum (AI)	ug/L	49.2	9116745	52.8	9116745	36.4	127	0.50	9116745
Dissolved Antimony (Sb)	ug/L	0.331	9116745	0.361	9116745	0.155	0.120	0.020	9116745
Dissolved Arsenic (As)	ug/L	0.817	9116745	0.827	9116745	0.525	0.605	0.020	9116745
Dissolved Barium (Ba)	ug/L	37.0	9116745	36.4	9116745	42.9	28.6	0.020	9116745
Dissolved Beryllium (Be)	ug/L	0.012	9116745	0.014	9116745	<0.010	0.018	0.010	9116745
Dissolved Bismuth (Bi)	ug/L	<0.0050	9116745	<0.0050	9116745	<0.0050	<0.0050	0.0050	9116745
Dissolved Boron (B)	ug/L	<10	9116745	<10	9116745	<10	<10	10	9116745
Dissolved Cadmium (Cd)	ug/L	<0.0050	9116745	<0.0050	9116745	0.0395	0.0417	0.0050	9116745
Dissolved Chromium (Cr)	ug/L	0.35	9116745	0.35	9116745	0.17	0.58	0.10	9116745
Dissolved Cobalt (Co)	ug/L	0.0476	9116745	0.0423	9116745	0.0319	0.133	0.0050	9116745
Dissolved Copper (Cu)	ug/L	1.57	9116745	1.53	9116745	1.47	3.50	0.050	9116745
Dissolved Iron (Fe)	ug/L	30.8	9116745	30.4	9116745	18.9	87.4	1.0	9116745
Dissolved Lead (Pb)	ug/L	<0.0050	9116745	<0.0050	9116745	0.0091	0.0061	0.0050	9116745
Dissolved Lithium (Li)	ug/L	0.92	9116745	1.02	9116745	1.42	1.84	0.50	9116745
Dissolved Manganese (Mn)	ug/L	1.52	9116745	2.62	9116745	1.50	8.72	0.050	9116745
Dissolved Molybdenum (Mo)	ug/L	0.871	9116745	0.973	9116745	0.985	0.353	0.050	9116745
Dissolved Nickel (Ni)	ug/L	0.653	9116745	0.644	9116745	1.21	2.65	0.020	9116745
Dissolved Phosphorus (P)	ug/L	3.7	9126080	4.5	9126080	4.1	5.6	2.0	9116745
Dissolved Selenium (Se)	ug/L	0.056	9116745	0.055	9116745	0.266	0.218	0.040	9116745
Dissolved Silicon (Si)	ug/L	5000	9116745	5070	9116745	3590	5640	50	9116745
Dissolved Silver (Ag)	ug/L	<0.0050	9116745	<0.0050	9116745	<0.0050	<0.0050	0.0050	9116745
Dissolved Strontium (Sr)	ug/L	244	9116745	250	9116745	151	66.4	0.050	9116745
Dissolved Thallium (TI)	ug/L	0.0024	9116745	0.0022	9116745	0.0033	0.0053	0.0020	9116745
Dissolved Tin (Sn)	ug/L	<0.20	9116745	<0.20	9116745	<0.20	<0.20	0.20	9116745
Dissolved Titanium (Ti)	ug/L	<0.50	9116745	0.93	9116745	<0.50	1.15	0.50	9116745
Dissolved Uranium (U)	ug/L	16.2	9116745	18.0	9116745	3.19	0.915	0.0020	9116745
Dissolved Vanadium (V)	ug/L	0.38	9116745	0.34	9116745	0.31	0.52	0.20	9116745
RDL = Reportable Detection Lir	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4249		UD4250		UD4251	UD4252			
Sampling Date		2018/08/19		2018/08/19		2018/08/20	2018/08/19			
Sampling Date		13:00		12:20		09:30	16:35			
COC Number		562348-02-01		562348-02-01		562348-02-01	562348-02-01			
	UNITS	НС-В	QC Batch	нс-с	QC Batch	HALFWAY MIX	IC-0.5	RDL	QC Batch	
Dissolved Zinc (Zn)	ug/L	0.15	9116745	0.25	9116745	1.54	3.04	0.10	9116745	
Dissolved Zirconium (Zr)	ug/L	0.52	9116745	0.53	9116745	0.18	0.89	0.10	9116745	
Dissolved Calcium (Ca)	mg/L	26.3	9114279	26.3	9114279	26.1	20.0	0.050	9114279	
Dissolved Magnesium (Mg)	mg/L	8.85	9114279	9.00	9114279	7.43	7.86	0.050	9114279	
Dissolved Potassium (K)	mg/L	1.64	9114279	1.66	9114279	1.12	0.903	0.050	9114279	
Dissolved Sodium (Na)	mg/L	3.10	9114279	3.04	9114279	2.74	2.67	0.050	9114279	
Dissolved Sulphur (S)	mg/L	9.5	9114279	10.1	9114279	10.1	15.0	3.0	9114279	
RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4253	UD4254	UD4257		UD4258	UD4259		
IVIAXXIII ID		2018/08/19	2018/08/19	2018/08/19		2018/08/19	2018/08/19		
Sampling Date		16:10	16:50	17:15		17:35	15:20		
COC Number		562348-02-01		562348-03-01		562348-03-01	562348-03-01		
	UNITS	IC-1.5	IC-2.5	IC-3.0	QC Batch	IC-4.5	ML-A	RDL	QC Batch
Calculated Parameters	•			•					
Dissolved Hardness (CaCO3)	mg/L	56.3	17.5	97.1	9114275	66.4	94.5	0.50	9114275
Elements				1					
Dissolved Mercury (Hg)	ug/L	0.0054	0.0043	0.0098	9118486	0.0044	0.0040	0.0020	9118486
Dissolved Metals by ICPMS				•					L.
Dissolved Aluminum (AI)	ug/L	85.0	175	64.5	9116745	84.4	48.8	0.50	9116755
Dissolved Antimony (Sb)	ug/L	0.128	0.131	0.377	9116745	0.123	0.260	0.020	9116755
Dissolved Arsenic (As)	ug/L	0.308	1.09	1.23	9116745	0.487	0.658	0.020	9116755
Dissolved Barium (Ba)	ug/L	31.0	14.3	30.6	9116745	34.7	51.6	0.020	9116755
Dissolved Beryllium (Be)	ug/L	0.018	0.028	0.025	9116745	0.021	0.016	0.010	9116755
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	9116745	<0.0050	<0.0050	0.0050	9116755
Dissolved Boron (B)	ug/L	<10	<10	<10	9116745	<10	<10	10	9116755
Dissolved Cadmium (Cd)	ug/L	0.0084	<0.0050	<0.0050	9116745	0.0111	<0.0050	0.0050	9116755
Dissolved Chromium (Cr)	ug/L	0.41	0.69	0.41	9116745	0.44	0.38	0.10	9116755
Dissolved Cobalt (Co)	ug/L	0.0463	0.105	0.0664	9116745	0.0616	0.113	0.0050	9116755
Dissolved Copper (Cu)	ug/L	1.93	2.00	2.27	9116745	2.39	1.90	0.050	9116755
Dissolved Iron (Fe)	ug/L	52.5	258	42.4	9116745	65.5	99.8	1.0	9116755
Dissolved Lead (Pb)	ug/L	0.0092	0.0213	0.0084	9116745	0.0053	0.0200	0.0050	9116755
Dissolved Lithium (Li)	ug/L	2.28	0.70	<0.50	9116745	1.26	<0.50	0.50	9116755
Dissolved Manganese (Mn)	ug/L	0.791	4.25	3.04	9116745	3.64	10.1	0.050	9116755
Dissolved Molybdenum (Mo)	ug/L	0.281	0.099	0.501	9116745	0.287	0.557	0.050	9116755
Dissolved Nickel (Ni)	ug/L	0.889	1.08	0.864	9116745	1.29	0.779	0.020	9116755
Dissolved Phosphorus (P)	ug/L	5.9	7.5	2.3	9116745	<2.0	5.1	2.0	9116755
Dissolved Selenium (Se)	ug/L	0.069	0.058	0.070	9116745	0.073	0.068	0.040	9116755
Dissolved Silicon (Si)	ug/L	5540	5870	5080	9116745	5130	4230	50	9116755
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	9116745	<0.0050	<0.0050	0.0050	9116755
Dissolved Strontium (Sr)	ug/L	93.2	23.0	162	9116745	96.0	156	0.050	9116755
Dissolved Thallium (TI)	ug/L	0.0036	<0.0020	0.0059	9116745	0.0033	<0.0020	0.0020	9116755
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	9116745	<0.20	<0.20	0.20	9116755
Dissolved Titanium (Ti)	ug/L	0.98	1.97	0.76	9116745	0.92	0.88	0.50	9116755
Dissolved Uranium (U)	ug/L	1.89	0.760	4.37	9116745	1.13	4.28	0.0020	9116755
Dissolved Vanadium (V)	ug/L	0.41	0.68	0.40	9116745	0.44	0.72	0.20	9116755
RDL = Reportable Detection Lir	mit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4253	UD4254	UD4257		UD4258	UD4259				
Sampling Date		2018/08/19	2018/08/19	2018/08/19		2018/08/19	2018/08/19				
Sampling Date		16:10	16:50	17:15		17:35	15:20				
COC Number		562348-02-01	562348-02-01	562348-03-01		562348-03-01	562348-03-01				
	UNITS	IC-1.5	IC-2.5	IC-3.0	QC Batch	IC-4.5	ML-A	RDL	QC Batch		
Dissolved Zinc (Zn)	ug/L	0.30	0.64	0.15	9116745	0.45	0.13	0.10	9116755		
Dissolved Zirconium (Zr)	ug/L	0.84	1.41	0.76	9116745	0.87	0.75	0.10	9116755		
Dissolved Calcium (Ca)	mg/L	15.0	4.75	30.1	9114279	18.2	25.3	0.050	9114279		
Dissolved Magnesium (Mg)	mg/L	4.56	1.36	5.31	9114279	5.11	7.60	0.050	9114279		
Dissolved Potassium (K)	mg/L	0.910	0.171	1.90	9114279	1.08	1.14	0.050	9114279		
Dissolved Sodium (Na)	mg/L	3.25	1.34	3.09	9114279	2.83	2.63	0.050	9114279		
Dissolved Sulphur (S)	mg/L	4.3	<3.0	10.8	9114279	7.3	11.5	3.0	9114279		
RDL = Reportable Detection Limit											



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4260		UD4261	UD4262	UD4263	UD4264		
Campling Data		2018/08/19		2018/08/19	2018/08/20	2018/08/18	2018/08/21		
Sampling Date		15:35		14:40	10:50	12:50	10:20		
COC Number		562348-03-01		562348-03-01	562348-03-01	562348-03-01	562348-03-01		
	UNITS	ML-B	QC Batch	ML-1.0 (OR YT-24-1)	YT-24 MIX	YUK-2.0	YUK-5.0	RDL	QC Batch
Calculated Parameters									
Dissolved Hardness (CaCO3)	mg/L	60.1	9114275	105	94.3	100	95.1	0.50	9114275
Elements					•				
Dissolved Mercury (Hg)	ug/L	0.0047	9118486	0.0055	0.0048	<0.0020	0.0071	0.0020	9118619
Dissolved Metals by ICPMS					•	1	1	l.	
Dissolved Aluminum (Al)	ug/L	56.8	9116755	49.3	36.3	35.9	37.7	0.50	9116755
Dissolved Antimony (Sb)	ug/L	0.346	9116755	0.220	0.120	0.115	0.119	0.020	9116755
Dissolved Arsenic (As)	ug/L	0.808	9116755	0.489	0.459	0.470	0.494	0.020	9116755
Dissolved Barium (Ba)	ug/L	43.1	9116755	53.9	44.2	45.8	44.1	0.020	9116755
Dissolved Beryllium (Be)	ug/L	0.027	9116755	0.021	<0.010	<0.010	<0.010	0.010	9116755
Dissolved Bismuth (Bi)	ug/L	<0.0050	9116755	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116755
Dissolved Boron (B)	ug/L	<10	9116755	<10	<10	<10	<10	10	9116755
Dissolved Cadmium (Cd)	ug/L	<0.0050	9116755	0.0055	0.0368	0.0390	0.0395	0.0050	9116755
Dissolved Chromium (Cr)	ug/L	0.44	9116755	0.33	<0.10	<0.10	<0.10	0.10	9116755
Dissolved Cobalt (Co)	ug/L	0.151	9116755	0.0741	0.0175	0.0168	0.0160	0.0050	9116755
Dissolved Copper (Cu)	ug/L	1.94	9116755	2.07	1.09	1.04	1.01	0.050	9116755
Dissolved Iron (Fe)	ug/L	137	9116755	34.3	12.8	14.2	12.7	1.0	9116755
Dissolved Lead (Pb)	ug/L	0.0253	9116755	<0.0050	0.0114	0.0174	0.0136	0.0050	9116755
Dissolved Lithium (Li)	ug/L	<0.50	9116755	<0.50	1.57	1.89	1.65	0.50	9116755
Dissolved Manganese (Mn)	ug/L	16.6	9116755	1.15	1.39	1.11	1.24	0.050	9116755
Dissolved Molybdenum (Mo)	ug/L	0.339	9116755	0.537	1.25	1.19	1.23	0.050	9116755
Dissolved Nickel (Ni)	ug/L	0.842	9116755	0.840	1.27	1.45	1.25	0.020	9116755
Dissolved Phosphorus (P)	ug/L	6.8	9116755	7.4	3.7	2.9	5.2	2.0	9116755
Dissolved Selenium (Se)	ug/L	0.054	9116755	0.076	0.328	0.414	0.359	0.040	9116755
Dissolved Silicon (Si)	ug/L	4500	9116755	4120	2760	2740	2810	50	9116755
Dissolved Silver (Ag)	ug/L	<0.0050	9116755	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116755
Dissolved Strontium (Sr)	ug/L	75.1	9116755	174	127	130	127	0.050	9116755
Dissolved Thallium (TI)	ug/L	0.0025	9116755	0.0023	0.0024	0.0027	<0.0020	0.0020	9116755
Dissolved Tin (Sn)	ug/L	<0.20	9116755	<0.20	<0.20	<0.20	<0.20	0.20	9116755
Dissolved Titanium (Ti)	ug/L	1.14	9116755	<0.50	<0.50	<0.50	<0.50	0.50	9116755
Dissolved Uranium (U)	ug/L	2.14	9116755	2.61	1.08	0.909	0.976	0.0020	9116755
Dissolved Vanadium (V)	ug/L	1.16	9116755	0.35	0.28	0.31	0.28	0.20	9116755
RDL = Reportable Detection Lir					1	ı	1		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4260		UD4261	UD4262	UD4263	UD4264				
Sampling Date		2018/08/19		2018/08/19	2018/08/20	2018/08/18	2018/08/21				
Sampling Date		15:35		14:40	10:50	12:50	10:20				
COC Number		562348-03-01		562348-03-01	562348-03-01	562348-03-01	562348-03-01				
	UNITS	ML-B	QC Batch	ML-1.0 (OR YT-24-1)	YT-24 MIX	YUK-2.0	YUK-5.0	RDL	QC Batch		
Dissolved Zinc (Zn)	ug/L	0.16	9116755	0.19	1.40	1.79	1.31	0.10	9116755		
Dissolved Zirconium (Zr)	ug/L	0.80	9116755	0.66	<0.10	<0.10	<0.10	0.10	9116755		
Dissolved Calcium (Ca)	mg/L	17.9	9114279	29.2	25.8	27.5	26.1	0.050	9114279		
Dissolved Magnesium (Mg)	mg/L	3.76	9114279	7.82	7.26	7.72	7.29	0.050	9114279		
Dissolved Potassium (K)	mg/L	0.824	9114279	1.66	0.799	0.764	0.775	0.050	9114279		
Dissolved Sodium (Na)	mg/L	1.72	9114279	2.94	2.05	1.91	1.98	0.050	9114279		
Dissolved Sulphur (S)	mg/L	6.0	9114279	14.0	8.4	9.7	8.4	3.0	9114279		
RDL = Reportable Detection Li	RDL = Reportable Detection Limit										



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD4278			UD4278			UD4279		
Sampling Date										
COC Number		562348-03-01			562348-03-01			562348-04-01		
	UNITS	SAMPLE A	RDL	QC Batch	SAMPLE A Lab-Dup	RDL	QC Batch	SAMPLE B	RDL	QC Batcl
Calculated Parameters										
Dissolved Hardness (CaCO3)	mg/L	397	0.50	9114275				103	0.50	911427
Elements		-	ł.	!						
Dissolved Mercury (Hg)	ug/L	<0.0020	0.0020	9118619				0.0061	0.0020	912573
Dissolved Metals by ICPMS		I.		Į.						
Dissolved Aluminum (Al)	ug/L	8.29	0.50	9116755	8.46	0.50	9116755	48.1	0.50	911675
Dissolved Antimony (Sb)	ug/L	0.168	0.020	9116755	0.162	0.020	9116755	0.205	0.020	911675
Dissolved Arsenic (As)	ug/L	0.919	0.020	9116755	0.901	0.020	9116755	0.468	0.020	911675
Dissolved Barium (Ba)	ug/L	88.9	0.020	9116755	89.7	0.020	9116755	52.9	0.020	911675
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9116755	<0.010	0.010	9116755	0.018	0.010	911675
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755	<0.0050	0.0050	911675
Dissolved Boron (B)	ug/L	<10	10	9116755	<10	10	9116755	<10	10	911675
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755	<0.0050	0.0050	911675
Dissolved Chromium (Cr)	ug/L	0.12	0.10	9116755	<0.10	0.10	9116755	0.35	0.10	911675
Dissolved Cobalt (Co)	ug/L	0.0264	0.0050	9116755	0.0259	0.0050	9116755	0.0731	0.0050	911675
Dissolved Copper (Cu)	ug/L	0.776	0.050	9116755	0.810	0.050	9116755	2.03	0.050	911675
Dissolved Iron (Fe)	ug/L	4.2	1.0	9116755	4.2	1.0	9116755	34.2	1.0	911675
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755	<0.0050	0.0050	911675
Dissolved Lithium (Li)	ug/L	4.77	0.50	9116755	4.73	0.50	9116755	<0.50	0.50	911675
Dissolved Manganese (Mn)	ug/L	0.850	0.050	9116755	0.832	0.050	9116755	1.00	0.050	911675
Dissolved Molybdenum (Mo)	ug/L	0.296	0.050	9116755	0.285	0.050	9116755	0.471	0.050	911675
Dissolved Nickel (Ni)	ug/L	0.431	0.020	9116755	0.460	0.020	9116755	0.768	0.020	911675
Dissolved Phosphorus (P)	ug/L	3.9	2.0	9116755	<2.0	2.0	9116755	5.4	2.0	911675
Dissolved Selenium (Se)	ug/L	0.295	0.040	9116755	0.293	0.040	9116755	0.076	0.040	911675
Dissolved Silicon (Si)	ug/L	5250	50	9116755	5180	50	9116755	4220	50	911675
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755	<0.0050	0.0050	911675
Dissolved Strontium (Sr)	ug/L	1080	0.050	9116755	1080	0.050	9116755	169	0.050	911675
Dissolved Thallium (TI)	ug/L	0.0021	0.0020	9116755	0.0026	0.0020	9116755	0.0023	0.0020	911675
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9116755	<0.20	0.20	9116755	<0.20	0.20	911675
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9116755	<0.50	0.50	9116755	0.78	0.50	911675
Dissolved Uranium (U)	ug/L	25.8	0.0020	9116755	25.6	0.0020	9116755	2.56	0.0020	911675

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD4278			UD4278			UD4279		
Sampling Date										
COC Number		562348-03-01			562348-03-01			562348-04-01		
	UNITS	SAMPLE A	RDL	QC Batch	SAMPLE A Lab-Dup	RDL	QC Batch	SAMPLE B	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.21	0.20	9116755	0.21	0.20	9116755	0.34	0.20	9116755
Dissolved Zinc (Zn)	ug/L	0.15	0.10	9116755	0.16	0.10	9116755	0.18	0.10	9116755
Dissolved Zirconium (Zr)	ug/L	0.10	0.10	9116755	0.11	0.10	9116755	0.60	0.10	9116755
Dissolved Calcium (Ca)	mg/L	100	0.050	9114279				28.9	0.050	9114279
Dissolved Magnesium (Mg)	mg/L	35.4	0.050	9114279				7.63	0.050	9114279
Dissolved Potassium (K)	mg/L	5.21	0.050	9114279				1.64	0.050	9114279
Dissolved Sodium (Na)	mg/L	4.46	0.050	9114279				2.87	0.050	9114279
Dissolved Sulphur (S)	mg/L	53.0	3.0	9114279				14.1	3.0	9114279

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD4280	UD4281			UD4281		
Sampling Date			2018/08/18			2018/08/18		
COC Normalia and		562240.04.04	21:00			21:00		
COC Number		562348-04-01	562348-04-01			562348-04-01		
	UNITS	SAMPLE C	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters		•	•	•			•	•
Dissolved Hardness (CaCO3)	mg/L	92.4	<0.50	0.50	9114275			
Elements		1	1	l.	Į.			l.
Dissolved Mercury (Hg)	ug/L	0.0036	0.0028	0.0020	9118619			
Dissolved Metals by ICPMS		•	•	l.	Į.			Į.
Dissolved Aluminum (Al)	ug/L	36.9	<0.50	0.50	9116755	0.54	0.50	9116755
Dissolved Antimony (Sb)	ug/L	0.133	<0.020	0.020	9116755	<0.020	0.020	9116755
Dissolved Arsenic (As)	ug/L	0.485	<0.020	0.020	9116755	<0.020	0.020	9116755
Dissolved Barium (Ba)	ug/L	43.2	<0.020	0.020	9116755	<0.020	0.020	9116755
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	0.010	9116755	<0.010	0.010	9116755
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Boron (B)	ug/L	<10	<10	10	9116755	<10	10	9116755
Dissolved Cadmium (Cd)	ug/L	0.0408	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Chromium (Cr)	ug/L	0.11	<0.10	0.10	9116755	<0.10	0.10	9116755
Dissolved Cobalt (Co)	ug/L	0.0215	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Copper (Cu)	ug/L	1.18	<0.050	0.050	9116755	<0.050	0.050	9116755
Dissolved Iron (Fe)	ug/L	15.9	<1.0	1.0	9116755	<1.0	1.0	9116755
Dissolved Lead (Pb)	ug/L	0.0128	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Lithium (Li)	ug/L	1.51	<0.50	0.50	9116755	<0.50	0.50	9116755
Dissolved Manganese (Mn)	ug/L	1.51	<0.050	0.050	9116755	<0.050	0.050	9116755
Dissolved Molybdenum (Mo)	ug/L	1.15	<0.050	0.050	9116755	<0.050	0.050	9116755
Dissolved Nickel (Ni)	ug/L	1.23	<0.020	0.020	9116755	<0.020	0.020	9116755
Dissolved Phosphorus (P)	ug/L	2.8	4.4	2.0	9116755	4.2	2.0	9116755
Dissolved Selenium (Se)	ug/L	0.306	<0.040	0.040	9116755	<0.040	0.040	9116755
Dissolved Silicon (Si)	ug/L	2950	<50	50	9116755	<50	50	9116755
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Strontium (Sr)	ug/L	134	<0.050	0.050	9116755	<0.050	0.050	9116755
Dissolved Thallium (TI)	ug/L	0.0034	<0.0020	0.0020	9116755	<0.0020	0.0020	9116755
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	0.20	9116755	<0.20	0.20	9116755
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	0.50	9116755	<0.50	0.50	9116755
Dissolved Uranium (U)	ug/L	1.83	<0.0020	0.0020	9116755	<0.0020	0.0020	9116755
RDL = Reportable Detection Li	mit			· · · · · ·				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD4280	UD4281			UD4281		
Sampling Date			2018/08/18			2018/08/18		
Sampling Date			21:00			21:00		
COC Number		562348-04-01	562348-04-01			562348-04-01		
	UNITS	SAMPLE C	FIELD BLANK	RDL	QC Batch	FIELD BLANK Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	0.34	<0.20	0.20	9116755	<0.20	0.20	9116755
Dissolved Zinc (Zn)	ug/L	1.50	<0.10	0.10	9116755	<0.10	0.10	9116755
Dissolved Zirconium (Zr)	ug/L	0.11	<0.10	0.10	9116755	<0.10	0.10	9116755
Dissolved Calcium (Ca)	mg/L	25.3	<0.050	0.050	9114279			
Dissolved Magnesium (Mg)	mg/L	7.11	<0.050	0.050	9114279			
Dissolved Potassium (K)	mg/L	0.904	<0.050	0.050	9114279			
Dissolved Sodium (Na)	mg/L	2.15	<0.050	0.050	9114279			
Dissolved Sulphur (S)	mg/L	8.3	<3.0	3.0	9114279			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

#### LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD4359			UD4359		
Sampling Date		2018/08/22			2018/08/22		
Janipinig Date		09:00			09:00		
COC Number		562348-04-01			562348-04-01		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters							
Dissolved Hardness (CaCO3)	mg/L	<0.50	0.50	9114275			
Elements			•			•	
Dissolved Mercury (Hg)	ug/L	0.0031	0.0020	9118619	0.0028	0.0020	9118619
Dissolved Metals by ICPMS							
Dissolved Aluminum (AI)	ug/L	<0.50	0.50	9116755	<0.50	0.50	9116755
Dissolved Antimony (Sb)	ug/L	<0.020	0.020	9116755	<0.020	0.020	9116755
Dissolved Arsenic (As)	ug/L	<0.020	0.020	9116755	<0.020	0.020	9116755
Dissolved Barium (Ba)	ug/L	<0.020	0.020	9116755	<0.020	0.020	9116755
Dissolved Beryllium (Be)	ug/L	<0.010	0.010	9116755	<0.010	0.010	9116755
Dissolved Bismuth (Bi)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Boron (B)	ug/L	<10	10	9116755	<10	10	9116755
Dissolved Cadmium (Cd)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Chromium (Cr)	ug/L	<0.10	0.10	9116755	<0.10	0.10	9116755
Dissolved Cobalt (Co)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Copper (Cu)	ug/L	<0.050	0.050	9116755	<0.050	0.050	9116755
Dissolved Iron (Fe)	ug/L	<1.0	1.0	9116755	<1.0	1.0	9116755
Dissolved Lead (Pb)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Lithium (Li)	ug/L	<0.50	0.50	9116755	<0.50	0.50	9116755
Dissolved Manganese (Mn)	ug/L	<0.050	0.050	9116755	<0.050	0.050	9116755
Dissolved Molybdenum (Mo)	ug/L	<0.050	0.050	9116755	<0.050	0.050	9116755
Dissolved Nickel (Ni)	ug/L	<0.020	0.020	9116755	<0.020	0.020	9116755
Dissolved Phosphorus (P)	ug/L	<2.0	2.0	9116755	<2.0	2.0	9116755
Dissolved Selenium (Se)	ug/L	<0.040	0.040	9116755	<0.040	0.040	9116755
Dissolved Silicon (Si)	ug/L	<50	50	9116755	<50	50	9116755
Dissolved Silver (Ag)	ug/L	<0.0050	0.0050	9116755	<0.0050	0.0050	9116755
Dissolved Strontium (Sr)	ug/L	<0.050	0.050	9116755	<0.050	0.050	9116755
Dissolved Thallium (TI)	ug/L	<0.0020	0.0020	9116755	<0.0020	0.0020	9116755
Dissolved Tin (Sn)	ug/L	<0.20	0.20	9116755	<0.20	0.20	9116755
Dissolved Titanium (Ti)	ug/L	<0.50	0.50	9116755	<0.50	0.50	9116755
Dissolved Uranium (U)	ug/L	<0.0020	0.0020	9116755	<0.0020	0.0020	9116755
RDL = Reportable Detection Li	mit						
Lab-Dup = Laboratory Initiated	Duplica	te					



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL DISSOLVED METALS WITH CV HG (WATER)

Maxxam ID		UD4359			UD4359		
Sampling Date		2018/08/22 09:00			2018/08/22 09:00		
COC Number		562348-04-01			562348-04-01		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Dissolved Vanadium (V)	ug/L	<0.20	0.20	9116755	<0.20	0.20	9116755
Dissolved Zinc (Zn)	ug/L	<0.10	0.10	9116755	<0.10	0.10	9116755
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	9116755	<0.10	0.10	9116755
Dissolved Calcium (Ca)	mg/L	<0.050	0.050	9114279			
Dissolved Magnesium (Mg)	mg/L	<0.050	0.050	9114279			
Dissolved Potassium (K)	mg/L	<0.050	0.050	9114279			
Dissolved Sodium (Na)	mg/L	<0.050	0.050	9114279			
Dissolved Sulphur (S)	mg/L	<3.0	3.0	9114279			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD4233			UD4233			UD4234		
Sampling Date		2018/08/18			2018/08/18			2018/08/19		
Jamping Date		14:25			14:25			09:30		
COC Number		562348-01-01			562348-01-01			562348-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	62.1	0.50	9114271				383	0.50	9114271
Elements	-					•			•	
Total Mercury (Hg)	ug/L	0.0069	0.0020	9118589				<0.0020	0.0020	9118589
Total Metals by ICPMS	-					•			•	
Total Aluminum (Al)	ug/L	132	0.50	9116053	132	0.50	9116053	22.8	0.50	9116053
Total Antimony (Sb)	ug/L	0.120	0.020	9116053	0.121	0.020	9116053	0.166	0.020	9116053
Total Arsenic (As)	ug/L	0.563	0.020	9116053	0.510	0.020	9116053	0.971	0.020	9116053
Total Barium (Ba)	ug/L	37.4	0.020	9116053	36.8	0.020	9116053	88.0	0.020	9116053
Total Beryllium (Be)	ug/L	0.015	0.010	9116053	0.013	0.010	9116053	<0.010	0.010	9116053
Total Bismuth (Bi)	ug/L	<0.0050	0.0050	9116053	<0.0050	0.0050	9116053	<0.0050	0.0050	9116053
Total Boron (B)	ug/L	<10	10	9116053	<10	10	9116053	<10	10	9116053
Total Cadmium (Cd)	ug/L	0.0109	0.0050	9116053	0.0122	0.0050	9116053	<0.0050	0.0050	9116053
Total Chromium (Cr)	ug/L	0.51	0.10	9116053	0.49	0.10	9116053	0.18	0.10	9116053
Total Cobalt (Co)	ug/L	0.0876	0.0050	9116053	0.0914	0.0050	9116053	0.0454	0.0050	9116053
Total Copper (Cu)	ug/L	2.68	0.050	9116053	2.71	0.050	9116053	0.782	0.050	9116053
Total Iron (Fe)	ug/L	125	1.0	9116053	125	1.0	9116053	23.6	1.0	9116053
Total Lead (Pb)	ug/L	0.0651	0.0050	9116053	0.0625	0.0050	9116053	0.0135	0.0050	9116053
Total Lithium (Li)	ug/L	0.94	0.50	9116053	0.91	0.50	9116053	4.79	0.50	9116053
Total Manganese (Mn)	ug/L	5.84	0.050	9116053	5.59	0.050	9116053	1.96	0.050	9116053
Total Molybdenum (Mo)	ug/L	0.690	0.050	9116053	0.701	0.050	9116053	0.294	0.050	9116053
Total Nickel (Ni)	ug/L	1.24	0.020	9116053	1.20	0.020	9116053	0.493	0.020	9116053
Total Phosphorus (P)	ug/L	8.4	2.0	9116053	7.8	2.0	9116053	<2.0	2.0	9116053
Total Selenium (Se)	ug/L	0.100	0.040	9116053	0.095	0.040	9116053	0.309	0.040	9116053
Total Silicon (Si)	ug/L	5100	50	9116053	4970	50	9116053	5110	50	9116053
Total Silver (Ag)	ug/L	<0.0050	0.0050	9116053	0.0053	0.0050	9116053	<0.0050	0.0050	9116053
Total Strontium (Sr)	ug/L	80.5	0.050	9116053	77.5	0.050	9116053	1020	0.050	9116053
Total Thallium (TI)	ug/L	0.0053	0.0020	9116053	0.0048	0.0020	9116053	0.0034	0.0020	9116053
Total Tin (Sn)	ug/L	<0.20	0.20	9116053	<0.20	0.20	9116053	<0.20	0.20	9116053
Total Titanium (Ti)	ug/L	3.57	0.50	9116053	3.38	0.50	9116053	1.29	0.50	9116053
Total Uranium (U)	ug/L	3.00	0.0020	9116053	3.03	0.0020	9116053	27.7	0.0020	9116053
RDL = Reportable Detection	Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

# LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD4233			UD4233			UD4234		
Sampling Date		2018/08/18 14:25			2018/08/18 14:25			2018/08/19 09:30		
COC Number		562348-01-01			562348-01-01			562348-01-01		
	UNITS	CC-0.5	RDL	QC Batch	CC-0.5 Lab-Dup	RDL	QC Batch	CC-1.0	RDL	QC Batch
Total Vanadium (V)	ug/L	0.71	0.20	9116053	0.77	0.20	9116053	0.32	0.20	9116053
Total Zinc (Zn)	ug/L	0.68	0.10	9116053	0.64	0.10	9116053	0.19	0.10	9116053
Total Zirconium (Zr)	ug/L	0.59	0.10	9116053	0.55	0.10	9116053	<0.10	0.10	9116053
Total Calcium (Ca)	mg/L	15.6	0.050	9114282				96.3	0.050	9114282
Total Magnesium (Mg)	mg/L	5.60	0.050	9114282				34.6	0.050	9114282
Total Potassium (K)	mg/L	1.03	0.050	9114282				5.03	0.050	9114282
Total Sodium (Na)	mg/L	3.04	0.050	9114282				4.41	0.050	9114282
Total Sulphur (S)	mg/L	9.5	3.0	9114282				53.6	3.0	9114282

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4235	UD4236	UD4237	UD4238	UD4239		
Sampling Date		2018/08/19	2018/08/18	2018/08/18	2018/08/18	2018/08/18		
Sampling Date		09:50	15:10	13:20	16:30	15:50		
COC Number		562348-01-01	562348-01-01	562348-01-01	562348-01-01	562348-01-01		
	UNITS	CC-1.5	CC-3.5	CC-4.5	CC-A	СС-В	RDL	QC Batch
Calculated Parameters	<u>-</u>	-		•	•		<u> </u>	•
Total Hardness (CaCO3)	mg/L	142	121	70.4	48.1	149	0.50	9114271
Elements								
Total Mercury (Hg)	ug/L	0.0069	0.0066	0.0110	0.0084	0.0062	0.0020	9118589
Total Metals by ICPMS		•			•			
Total Aluminum (AI)	ug/L	90.5	59.4	100	126	70.2	0.50	9116053
Total Antimony (Sb)	ug/L	0.119	0.106	0.115	0.097	0.120	0.020	9116053
Total Arsenic (As)	ug/L	0.649	0.373	0.455	0.584	0.589	0.020	9116053
Total Barium (Ba)	ug/L	40.9	48.8	42.8	19.6	42.5	0.020	9116053
Total Beryllium (Be)	ug/L	0.025	0.014	0.013	0.024	0.015	0.010	9116053
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116053
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	10	9116053
Total Cadmium (Cd)	ug/L	0.0064	0.0059	0.0105	0.0074	0.0060	0.0050	9116053
Total Chromium (Cr)	ug/L	0.38	0.32	0.43	0.48	0.33	0.10	9116053
Total Cobalt (Co)	ug/L	0.0575	0.0530	0.0719	0.0674	0.0473	0.0050	9116053
Total Copper (Cu)	ug/L	1.50	1.53	2.42	1.62	1.50	0.050	9116053
Total Iron (Fe)	ug/L	74.2	36.2	90.3	107	48.6	1.0	9116053
Total Lead (Pb)	ug/L	0.0186	0.0094	0.0173	0.0199	0.0104	0.0050	9116053
Total Lithium (Li)	ug/L	1.92	0.70	0.73	1.10	1.46	0.50	9116053
Total Manganese (Mn)	ug/L	5.38	1.58	4.62	6.14	6.32	0.050	9116053
Total Molybdenum (Mo)	ug/L	0.176	0.248	0.618	0.097	0.248	0.050	9116053
Total Nickel (Ni)	ug/L	0.551	0.592	0.996	0.662	0.494	0.020	9116053
Total Phosphorus (P)	ug/L	4.4	2.0	2.8	3.7	<2.0	2.0	9116053
Total Selenium (Se)	ug/L	0.109	0.080	0.099	0.064	0.085	0.040	9116053
Total Silicon (Si)	ug/L	5350	4700	4820	5310	5030	50	9116053
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116053
Total Strontium (Sr)	ug/L	327	240	101	88.4	353	0.050	9116053
Total Thallium (TI)	ug/L	0.0035	0.0023	0.0046	0.0030	0.0030	0.0020	9116053
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9116053
Total Titanium (Ti)	ug/L	1.65	1.19	1.82	1.90	1.42	0.50	9116053
Total Uranium (U)	ug/L	8.57	5.17	2.73	2.22	8.76	0.0020	9116053
Total Vanadium (V)	ug/L	0.43	0.39	0.63	0.52	0.43	0.20	9116053
RDL = Reportable Detection	Limit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4235	UD4236	UD4237	UD4238	UD4239		
Sampling Date		2018/08/19	2018/08/18	2018/08/18	2018/08/18	2018/08/18		
Sampling Date		09:50	15:10	13:20	16:30	15:50		
COC Number		562348-01-01	562348-01-01	562348-01-01	562348-01-01	562348-01-01		
	UNITS	CC-1.5	CC-3.5	CC-4.5	CC-A	СС-В	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.35	0.20	0.44	0.37	0.24	0.10	9116053
Total Zirconium (Zr)	ug/L	0.54	0.53	0.60	0.77	0.50	0.10	9116053
Total Calcium (Ca)	mg/L	37.1	32.4	18.0	13.5	39.4	0.050	9114282
Total Magnesium (Mg)	mg/L	12.0	9.64	6.17	3.50	12.3	0.050	9114282
Total Potassium (K)	mg/L	2.09	1.95	1.12	0.707	2.57	0.050	9114282
Total Sodium (Na)	mg/L	3.00	3.27	3.06	1.97	3.02	0.050	9114282
Total Sulphur (S)	mg/L	21.4	18.3	9.9	7.3	22.6	3.0	9114282
RDL = Reportable Detection	n Limit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4247	UD4248	UD4249	UD4250	UD4252		
Sampling Date		2018/08/19	2018/08/19	2018/08/19	2018/08/19	2018/08/19		
Jamping Date		13:40	13:20	13:00	12:20	16:35		
COC Number		562348-02-01	562348-02-01	562348-02-01	562348-02-01	562348-02-01		
	UNITS	HC-5.0	HC-A	НС-В	HC-C	IC-0.5	RDL	QC Batch
Calculated Parameters								•
Total Hardness (CaCO3)	mg/L	90.0	88.3	90.3	92.1	78.9	0.50	9114271
Elements								
Total Mercury (Hg)	ug/L	0.0056	<0.0020	0.0059	0.0068	0.0035	0.0020	9118673
Total Metals by ICPMS								
Total Aluminum (AI)	ug/L	56.2	58.7	57.6	62.7	136	0.50	9116053
Total Antimony (Sb)	ug/L	0.230	0.259	0.334	0.343	0.115	0.020	9116053
Total Arsenic (As)	ug/L	0.642	0.730	0.818	0.856	0.636	0.020	9116053
Total Barium (Ba)	ug/L	41.1	40.5	35.4	35.4	28.2	0.020	9116053
Total Beryllium (Be)	ug/L	0.014	0.015	0.014	0.012	0.022	0.010	9116053
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116053
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	10	9116053
Total Cadmium (Cd)	ug/L	<0.0050	0.0054	<0.0050	<0.0050	0.0378	0.0050	9116053
Total Chromium (Cr)	ug/L	0.36	0.37	0.31	0.35	0.56	0.10	9116053
Total Cobalt (Co)	ug/L	0.0619	0.0608	0.0553	0.0600	0.145	0.0050	9116053
Total Copper (Cu)	ug/L	1.82	1.68	1.46	1.42	3.29	0.050	9116053
Total Iron (Fe)	ug/L	44.1	47.2	41.3	40.7	106	1.0	9116053
Total Lead (Pb)	ug/L	0.0097	0.0149	0.0109	0.0148	0.0221	0.0050	9116053
Total Lithium (Li)	ug/L	0.86	0.79	0.88	1.02	1.80	0.50	9116053
Total Manganese (Mn)	ug/L	0.946	1.55	2.74	3.77	9.97	0.050	9116053
Total Molybdenum (Mo)	ug/L	0.615	0.675	0.853	0.932	0.340	0.050	9116053
Total Nickel (Ni)	ug/L	0.825	0.646	0.613	0.560	2.51	0.020	9116053
Total Phosphorus (P)	ug/L	<2.0	3.4	2.8	2.4	5.5	2.0	9116053
Total Selenium (Se)	ug/L	0.064	0.058	0.061	0.058	0.234	0.040	9116053
Total Silicon (Si)	ug/L	4570	4280	4700	4860	5250	50	9116053
Total Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9116053
Total Strontium (Sr)	ug/L	211	220	231	241	65.2	0.050	9116053
Total Thallium (TI)	ug/L	0.0032	0.0030	0.0022	<0.0020	0.0058	0.0020	9116053
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9116053
Total Titanium (Ti)	ug/L	1.40	1.32	1.16	1.44	1.75	0.50	9116053
Total Uranium (U)	ug/L	8.78	11.4	16.7	18.4	0.984	0.0020	9116053
Total Vanadium (V)	ug/L	0.45	0.49	0.44	0.46	0.62	0.20	9116053
RDL = Reportable Detection L	imit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4247	UD4248	UD4249	UD4250	UD4252		
Sampling Date		2018/08/19	2018/08/19	2018/08/19	2018/08/19	2018/08/19		
Sampling Date		13:40	13:20	13:00	12:20	16:35		
COC Number		562348-02-01	562348-02-01	562348-02-01	562348-02-01	562348-02-01		
	UNITS	HC-5.0	HC-A	НС-В	нс-с	IC-0.5	RDL	QC Batch
Total Zinc (Zn)	ug/L	0.19	0.19	0.19	0.16	2.89	0.10	9116053
Total Zirconium (Zr)	ug/L	0.50	0.48	0.47	0.48	0.79	0.10	9116053
Total Calcium (Ca)	mg/L	24.4	22.9	23.2	23.1	19.5	0.050	9114282
Total Magnesium (Mg)	mg/L	7.08	7.57	7.90	8.36	7.35	0.050	9114282
Total Potassium (K)	mg/L	1.83	1.80	1.54	1.57	0.891	0.050	9114282
Total Sodium (Na)	mg/L	2.71	2.69	2.77	2.80	2.52	0.050	9114282
Total Sulphur (S)	mg/L	9.2	9.5	9.5	9.9	14.1	3.0	9114282
RDL = Reportable Detection	n Limit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4254			UD4257		UD4281		
Sampling Date		2018/08/19			2018/08/19		2018/08/18		
Sampling Date		16:50			17:15		21:00		
COC Number		562348-02-01			562348-03-01		562348-04-01		
	UNITS	IC-2.5	RDL	QC Batch	IC-3.0	QC Batch	FIELD BLANK	RDL	QC Batch
Calculated Parameters	_	•	<u> </u>		•	•		•	•
Total Hardness (CaCO3)	mg/L	16.8	0.50	9114271	86.8	9114271	<0.50	0.50	9114271
Elements	•		•						•
Total Mercury (Hg)	ug/L	0.0070	0.0020	9118673	0.0070	9118673	<0.0020	0.0020	9118673
Total Metals by ICPMS	•							•	
Total Aluminum (AI)	ug/L				89.1	9116053	<0.50	0.50	9116071
Total Antimony (Sb)	ug/L				0.346	9116053	<0.020	0.020	9116071
Total Arsenic (As)	ug/L				1.28	9116053	<0.020	0.020	9116071
Total Barium (Ba)	ug/L				30.0	9116053	<0.020	0.020	9116071
Total Beryllium (Be)	ug/L				0.021	9116053	<0.010	0.010	9116071
Total Bismuth (Bi)	ug/L				<0.0050	9116053	<0.0050	0.0050	9116071
Total Boron (B)	ug/L				<10	9116053	<10	10	9116071
Total Cadmium (Cd)	ug/L				0.0052	9116053	<0.0050	0.0050	9116071
Total Chromium (Cr)	ug/L				0.49	9116053	<0.10	0.10	9116071
Total Cobalt (Co)	ug/L				0.0963	9116053	<0.0050	0.0050	9116071
Total Copper (Cu)	ug/L				2.22	9116053	<0.050	0.050	9116071
Total Iron (Fe)	ug/L				82.0	9116053	<1.0	1.0	9116071
Total Lead (Pb)	ug/L				0.0301	9116053	<0.0050	0.0050	9116071
Total Lithium (Li)	ug/L				<0.50	9116053	<0.50	0.50	9116071
Total Manganese (Mn)	ug/L				5.39	9116053	<0.050	0.050	9116071
Total Molybdenum (Mo)	ug/L				0.471	9116053	<0.050	0.050	9116071
Total Nickel (Ni)	ug/L				0.807	9116053	<0.020	0.020	9116071
Total Phosphorus (P)	ug/L				3.2	9116053	<2.0	2.0	9116071
Total Selenium (Se)	ug/L				0.064	9116053	<0.040	0.040	9116071
Total Silicon (Si)	ug/L				4560	9116053	<50	50	9116071
Total Silver (Ag)	ug/L				<0.0050	9116053	<0.0050	0.0050	9116071
Total Strontium (Sr)	ug/L				156	9116053	<0.050	0.050	9116071
Total Thallium (TI)	ug/L				0.0049	9116053	<0.0020	0.0020	9116071
Total Tin (Sn)	ug/L				<0.20	9116053	<0.20	0.20	9116071
Total Titanium (Ti)	ug/L				3.08	9116053	<0.50	0.50	9116071
Total Uranium (U)	ug/L				4.43	9116053	<0.0020	0.0020	9116071
Total Vanadium (V)	ug/L				0.57	9116053	<0.20	0.20	9116071
RDL = Reportable Detection	Limit	-			-		-		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4254			UD4257		UD4281		
Sampling Date		2018/08/19			2018/08/19		2018/08/18		
Sampling Date		16:50			17:15		21:00		
COC Number		562348-02-01			562348-03-01		562348-04-01		
	UNITS	IC-2.5	RDL	QC Batch	IC-3.0	QC Batch	FIELD BLANK	RDL	QC Batch
Total Zinc (Zn)	ug/L				0.23	9116053	<0.10	0.10	9116071
Total Zirconium (Zr)	ug/L				0.68	9116053	<0.10	0.10	9116071
Total Calcium (Ca)	mg/L	4.59	0.25	9114282	26.8	9114282	<0.050	0.050	9114282
Total Magnesium (Mg)	mg/L	1.30	0.25	9114282	4.81	9114282	<0.050	0.050	9114282
Total Potassium (K)	mg/L	<0.25	0.25	9114282	1.83	9114282	<0.050	0.050	9114282
Total Sodium (Na)	mg/L	1.28	0.25	9114282	2.80	9114282	<0.050	0.050	9114282
Total Sulphur (S)	mg/L	<3.0	3.0	9114282	10.1	9114282	<3.0	3.0	9114282
RDL = Reportable Detection I	imit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

2018/08/22	Maxxam ID		UD4281	1		UD4359			UD4359		
COC Number   Se348-04-01   Se2348-04-01   Se2348-	IVIAXXAIII ID										
Second   S	Sampling Date										
Calculated Parameters	COC Number										
Lab-Dup       Lab-Dup       Lab-Dup       Lab-Dup       Lab-Dup         Lab-Dup		UNITS	FIELD BLANK	RDL	QC Batch		RDL	QC Batch	TRIP BLANK	RDL	QC Batch
Total Hardness (CaCO3)   mg/L			Lab-Dup						Lab-Dup		
Total Mercury (Hg)	Calculated Parameters										
Total Mercury (Hg)	Total Hardness (CaCO3)	mg/L				<0.50	0.50	9114271			
Total Aluminum (AI)	Elements										
Total Aluminum (AI)	Total Mercury (Hg)	ug/L	0.0026	0.0020	9118673	<0.0020	0.0020	9119817	<0.0020	0.0020	9119817
Total Antimony (Sb)   ug/L	Total Metals by ICPMS										
Total Arsenic (As)   Ug/L	Total Aluminum (Al)	ug/L				<0.50	0.50	9116071			
Total Barium (Ba)   Ug/L	Total Antimony (Sb)	ug/L				<0.020	0.020	9116071			
Total Beryllium (Be)	Total Arsenic (As)	ug/L				<0.020	0.020	9116071			
Total Bismuth (Bi)	Total Barium (Ba)	ug/L				<0.020	0.020	9116071			
Total Boron (B)	Total Beryllium (Be)	ug/L				<0.010	0.010	9116071			
Total Cadmium (Cd)	Total Bismuth (Bi)	ug/L				<0.0050	0.0050	9116071			
Total Chromium (Cr)	Total Boron (B)	ug/L				<10	10	9116071			
Total Cobalt (Co) ug/L	Total Cadmium (Cd)	ug/L				<0.0050	0.0050	9116071			
Total Copper (Cu)	Total Chromium (Cr)	ug/L				<0.10	0.10	9116071			
Total Iron (Fe) ug/L	Total Cobalt (Co)	ug/L				<0.0050	0.0050	9116071			
Total Lead (Pb)	Total Copper (Cu)	ug/L				<0.050	0.050	9116071			
Total Lithium (Li) ug/L	Total Iron (Fe)	ug/L				<1.0	1.0	9116071			
Total Manganese (Mn)	Total Lead (Pb)	ug/L				<0.0050	0.0050	9116071			
Total Molybdenum (Mo) ug/L	Total Lithium (Li)	ug/L				<0.50	0.50	9116071			
Total Nickel (Ni)	Total Manganese (Mn)	ug/L				<0.050	0.050	9116071			
Total Phosphorus (P) ug/L	Total Molybdenum (Mo)	ug/L				<0.050	0.050	9116071			
Total Selenium (Se)   ug/L	Total Nickel (Ni)	ug/L				<0.020	0.020	9116071			
Total Silicon (Si) ug/L	Total Phosphorus (P)	ug/L				<2.0	2.0	9116071			
Total Silver (Ag)   ug/L	Total Selenium (Se)	ug/L				<0.040	0.040	9116071			
Total Strontium (Sr)   ug/L	Total Silicon (Si)	ug/L				<50	50	9116071			
Total Thallium (TI)   ug/L	Total Silver (Ag)	ug/L				<0.0050	0.0050	9116071			
Total Thallium (TI)   ug/L	Total Strontium (Sr)	_				<0.050	0.050	9116071			
Total Tin (Sn)   ug/L   <0.20   0.20   9116071	Total Thallium (TI)										
Total Titanium (Ti)	Total Tin (Sn)					<0.20	0.20	9116071			
Total Uranium (U)	Total Titanium (Ti)										
RDL = Reportable Detection Limit	Total Uranium (U)	_					<del>                                     </del>				
·	RDL = Reportable Detection		ı		1	ı	1	1		1	1
	•		cate								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LOW LEVEL TOTAL METALS WITH CV HG (WATER)

Maxxam ID		UD4281			UD4359			UD4359		
Sampling Date		2018/08/18			2018/08/22			2018/08/22		
		21:00			09:00			09:00		
COC Number		562348-04-01			562348-04-01			562348-04-01		
	UNITS	FIELD BLANK Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Total Vanadium (V)	ug/L				<0.20	0.20	9116071			
Total Zinc (Zn)	ug/L				<0.10	0.10	9116071			
Total Zirconium (Zr)	ug/L				<0.10	0.10	9116071			
Total Calcium (Ca)	mg/L				<0.050	0.050	9114282			
Total Magnesium (Mg)	mg/L				<0.050	0.050	9114282			
Total Potassium (K)	mg/L				<0.050	0.050	9114282			
Total Sodium (Na)	mg/L				<0.050	0.050	9114282			
Total Sulphur (S)	mg/L				<3.0	3.0	9114282			

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD. Client Project #: Gold Corp Coffee Creek-SW Site Location: COFFEE CREEK - SURFACE WATER

# LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		UD4240			UD4240			UD4241		
Sampling Date		2018/08/18			2018/08/18			2018/08/20		
Jamping Date		13:05			13:05			08:45		
COC Number		562348-01-01			562348-01-01			562348-01-01		
	UNITS	сс-х	RDL	QC Batch	CC-X Lab-Dup	RDL	QC Batch	Coffee Mix	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	73.3	0.50	9114271				88.0	0.50	9114271
Elements										
Total Mercury (Hg)	ug/L	0.0070	0.0020	9118589				<0.0020	0.0020	9118589
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	102	3.0	9116608	100	3.0	9116608	657	3.0	9116608
Total Antimony (Sb)	ug/L	0.137	0.020	9116608	0.127	0.020	9116608	0.247	0.020	9116608
Total Arsenic (As)	ug/L	0.481	0.020	9116608	0.453	0.020	9116608	1.06	0.020	9116608
Total Barium (Ba)	ug/L	43.7	0.050	9116608	43.5	0.050	9116608	72.9	0.050	9116608
Total Beryllium (Be)	ug/L	0.011	0.010	9116608	0.012	0.010	9116608	0.034	0.010	9116608
Total Bismuth (Bi)	ug/L	<0.010	0.010	9116608	<0.010	0.010	9116608	<0.010	0.010	9116608
Total Boron (B)	ug/L	<10	10	9116608	<10	10	9116608	<10	10	9116608
Total Cadmium (Cd)	ug/L	0.0093	0.0050	9116608	0.0090	0.0050	9116608	0.146	0.0050	9116608
Total Chromium (Cr)	ug/L	0.46	0.10	9116608	0.43	0.10	9116608	1.14	0.10	9116608
Total Cobalt (Co)	ug/L	0.075	0.010	9116608	0.074	0.010	9116608	0.593	0.010	9116608
Total Copper (Cu)	ug/L	2.60	0.10	9116608	2.56	0.10	9116608	2.96	0.10	9116608
Total Iron (Fe)	ug/L	90.2	5.0	9116608	89.3	5.0	9116608	950	5.0	9116608
Total Lead (Pb)	ug/L	<0.020	0.020	9116608	<0.020	0.020	9116608	0.640	0.020	9116608
Total Lithium (Li)	ug/L	0.57	0.50	9116608	0.58	0.50	9116608	1.91	0.50	9116608
Total Manganese (Mn)	ug/L	4.52	0.10	9116608	4.29	0.10	9116608	44.2	0.10	9116608
Total Molybdenum (Mo)	ug/L	0.626	0.050	9116608	0.634	0.050	9116608	1.27	0.050	9116608
Total Nickel (Ni)	ug/L	1.12	0.10	9116608	1.03	0.10	9116608	3.85	0.10	9116608
Total Phosphorus (P)	ug/L	<5.0	5.0	9116608	<5.0	5.0	9116608	55.6	5.0	9116608
Total Selenium (Se)	ug/L	0.095	0.040	9116608	0.100	0.040	9116608	0.402	0.040	9116608
Total Silicon (Si)	ug/L	4420	50	9116608	4450	50	9116608	3380	50	9116608
Total Silver (Ag)	ug/L	<0.010	0.010	9116608	<0.010	0.010	9116608	0.041	0.010	9116608
Total Strontium (Sr)	ug/L	105	0.050	9116608	104	0.050	9116608	121	0.050	9116608
Total Thallium (TI)	ug/L	0.0040	0.0020	9116608	0.0046	0.0020	9116608	0.0142	0.0020	9116608
Total Tin (Sn)	ug/L	<0.20	0.20	9116608	<0.20	0.20	9116608	<0.20	0.20	9116608
Total Titanium (Ti)	ug/L	2.2	2.0	9116608	2.2	2.0	9116608	20.0	2.0	9116608
Total Uranium (U)	ug/L	2.49	0.0050	9116608	2.50	0.0050	9116608	1.02	0.0050	9116608
RDL = Reportable Detection	Limit									



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

## LL TOTAL METALS (DIGESTED) WITH CV HG

Maxxam ID		UD4240			UD4240			UD4241		
Sampling Date		2018/08/18			2018/08/18			2018/08/20		
Sampling Date		13:05			13:05			08:45		
COC Number		562348-01-01			562348-01-01			562348-01-01		
	UNITS	сс-х	RDL	QC Batch	CC-X Lab-Dup	RDL	QC Batch	Coffee Mix	RDL	QC Batch
Total Vanadium (V)	ug/L	0.54	0.20	9116608	0.49	0.20	9116608	2.76	0.20	9116608
Total Zinc (Zn)	ug/L	<1.0	1.0	9116608	<1.0	1.0	9116608	17.5	1.0	9116608
Total Zirconium (Zr)	ug/L	0.55	0.10	9116608	0.58	0.10	9116608	0.25	0.10	9116608
Total Calcium (Ca)	mg/L	19.0	0.25	9114282				24.1	0.25	9114282
Total Magnesium (Mg)	mg/L	6.29	0.25	9114282				6.76	0.25	9114282
Total Potassium (K)	mg/L	1.17	0.25	9114282				1.16	0.25	9114282
Total Sodium (Na)	mg/L	3.11	0.25	9114282				2.00	0.25	9114282
Total Sulphur (S)	mg/L	10.5	3.0	9114282				8.1	3.0	9114282

RDL = Reportable Detection Limit



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4245	UD4246		UD4251	UD4253		
Sampling Date		2018/08/18	2018/08/19		2018/08/20	2018/08/19		
Janipinig Date		14:00	11:40		09:30	16:10		
COC Number		562348-02-01	562348-02-01		562348-02-01	562348-02-01		
	UNITS	LATTE MIX	HC-2.5	QC Batch	HALFWAY MIX	IC-1.5	RDL	QC Batch
Calculated Parameters							•	
Total Hardness (CaCO3)	mg/L	70.4	89.1	9114271	91.6	52.5	0.50	9114271
Elements								
Total Mercury (Hg)	ug/L	0.0042	0.0033	9118589	0.0039	0.0050	0.0020	9118673
Total Metals by ICPMS	•							
Total Aluminum (Al)	ug/L	121	109	9116608	586	190	3.0	9116608
Total Antimony (Sb)	ug/L	0.119	0.382	9116608	0.204	0.123	0.020	9116608
Total Arsenic (As)	ug/L	0.507	1.04	9116608	0.968	0.350	0.020	9116608
Total Barium (Ba)	ug/L	39.7	35.2	9116608	67.3	30.5	0.050	9116608
Total Beryllium (Be)	ug/L	<0.010	0.015	9116608	0.036	0.016	0.010	9116608
Total Bismuth (Bi)	ug/L	<0.010	<0.010	9116608	<0.010	<0.010	0.010	9116608
Total Boron (B)	ug/L	<10	<10	9116608	<10	<10	10	9116608
Total Cadmium (Cd)	ug/L	0.0112	0.0060	9116608	0.0989	0.0070	0.0050	9116608
Total Chromium (Cr)	ug/L	0.49	0.41	9116608	1.05	0.48	0.10	9116608
Total Cobalt (Co)	ug/L	0.086	0.068	9116608	0.457	0.069	0.010	9116608
Total Copper (Cu)	ug/L	2.80	1.50	9116608	2.47	1.90	0.10	9116608
Total Iron (Fe)	ug/L	117	88.4	9116608	752	150	5.0	9116608
Total Lead (Pb)	ug/L	<0.020	<0.020	9116608	0.395	0.060	0.020	9116608
Total Lithium (Li)	ug/L	0.73	0.94	9116608	1.61	2.11	0.50	9116608
Total Manganese (Mn)	ug/L	5.05	2.90	9116608	31.6	2.99	0.10	9116608
Total Molybdenum (Mo)	ug/L	0.673	1.20	9116608	1.05	0.274	0.050	9116608
Total Nickel (Ni)	ug/L	1.14	0.69	9116608	2.95	0.87	0.10	9116608
Total Phosphorus (P)	ug/L	<5.0	<5.0	9116608	35.0	<5.0	5.0	9116608
Total Selenium (Se)	ug/L	0.104	0.068	9116608	0.321	0.059	0.040	9116608
Total Silicon (Si)	ug/L	4760	4420	9116608	3930	4810	50	9116608
Total Silver (Ag)	ug/L	<0.010	<0.010	9116608	0.013	<0.010	0.010	9116608
Total Strontium (Sr)	ug/L	97.7	272	9116608	152	87.5	0.050	9116608
Total Thallium (TI)	ug/L	0.0048	0.0032	9116608	0.0122	0.0040	0.0020	9116608
Total Tin (Sn)	ug/L	<0.20	<0.20	9116608	<0.20	<0.20	0.20	9116608
Total Titanium (Ti)	ug/L	2.4	2.3	9116608	16.7	4.7	2.0	9116608
Total Uranium (U)	ug/L	3.18	22.6	9116608	3.32	1.91	0.0050	9116608
Total Vanadium (V)	ug/L	0.55	0.41	9116608	2.30	0.55	0.20	9116608
RDL = Reportable Detection	Limit		-	-			•	-



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4245	UD4246		UD4251	UD4253		
Sampling Date		2018/08/18	2018/08/19		2018/08/20	2018/08/19		
Sampling Date		14:00	11:40		09:30	16:10		
COC Number		562348-02-01	562348-02-01		562348-02-01	562348-02-01		
	UNITS	LATTE MIX	HC-2.5	QC Batch	HALFWAY MIX	IC-1.5	RDL	QC Batch
Total Zinc (Zn)	ug/L	<1.0	<1.0	9116608	11.4	<1.0	1.0	9116608
Total Zirconium (Zr)	ug/L	0.60	0.61	9116608	0.47	0.82	0.10	9116608
Total Calcium (Ca)	mg/L	18.2	23.5	9114282	24.8	14.2	0.25	9114282
Total Magnesium (Mg)	mg/L	6.06	7.38	9114282	7.21	4.15	0.25	9114282
Total Potassium (K)	mg/L	1.10	1.70	9114282	1.22	0.85	0.25	9114282
Total Sodium (Na)	mg/L	3.14	2.33	9114282	2.60	2.96	0.25	9114282
Total Sulphur (S)	mg/L	9.9	8.1	9114282	8.7	3.8	3.0	9114282
RDL = Reportable Detection I	imit							



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4254			UD4258	UD4259	UD4260		
Sampling Date		2018/08/19			2018/08/19	2018/08/19	2018/08/19		
Sampling Date		16:50			17:35	15:20	15:35		
COC Number		562348-02-01			562348-03-01	562348-03-01	562348-03-01		
	UNITS	IC-2.5	RDL	QC Batch	IC-4.5	ML-A	ML-B	RDL	QC Batch
Calculated Parameters			•					•	
Total Hardness (CaCO3)	mg/L				64.0	94.1	61.4	0.50	9114271
Elements	•		•					•	
Total Mercury (Hg)	ug/L				0.0042	0.0071	0.0067	0.0020	9118673
Total Metals by ICPMS	•		•					•	
Total Aluminum (AI)	ug/L	251	3.0	9116608	126	355	990	3.0	9116608
Total Antimony (Sb)	ug/L	0.135	0.020	9116608	0.124	0.287	0.395	0.020	9116608
Total Arsenic (As)	ug/L	1.29	0.020	9116608	0.552	0.946	1.45	0.020	9116608
Total Barium (Ba)	ug/L	15.1	0.050	9116608	34.7	58.5	66.9	0.050	9116608
Total Beryllium (Be)	ug/L	0.032	0.010	9116608	0.019	0.038	0.083	0.010	9116608
Total Bismuth (Bi)	ug/L	<0.010	0.010	9116608	<0.010	<0.010	0.010	0.010	9116608
Total Boron (B)	ug/L	<10	10	9116608	<10	<10	<10	10	9116608
Total Cadmium (Cd)	ug/L	0.0073	0.0050	9116608	0.0119	0.0118	0.0478	0.0050	9116608
Total Chromium (Cr)	ug/L	0.82	0.10	9116608	0.54	0.94	2.16	0.10	9116608
Total Cobalt (Co)	ug/L	0.157	0.010	9116608	0.089	0.384	0.886	0.010	9116608
Total Copper (Cu)	ug/L	2.04	0.10	9116608	2.45	2.76	4.60	0.10	9116608
Total Iron (Fe)	ug/L	483	5.0	9116608	135	606	1570	5.0	9116608
Total Lead (Pb)	ug/L	0.077	0.020	9116608	0.035	0.253	0.794	0.020	9116608
Total Lithium (Li)	ug/L	0.73	0.50	9116608	1.18	0.59	0.74	0.50	9116608
Total Manganese (Mn)	ug/L	9.09	0.10	9116608	6.72	18.6	35.0	0.10	9116608
Total Molybdenum (Mo)	ug/L	0.108	0.050	9116608	0.262	0.546	0.336	0.050	9116608
Total Nickel (Ni)	ug/L	1.10	0.10	9116608	1.30	1.51	2.79	0.10	9116608
Total Phosphorus (P)	ug/L	8.7	5.0	9116608	<5.0	13.2	34.2	5.0	9116608
Total Selenium (Se)	ug/L	0.055	0.040	9116608	0.084	0.073	0.077	0.040	9116608
Total Silicon (Si)	ug/L	5300	50	9116608	4770	4390	5200	50	9116608
Total Silver (Ag)	ug/L	<0.010	0.010	9116608	<0.010	<0.010	0.013	0.010	9116608
Total Strontium (Sr)	ug/L	23.1	0.050	9116608	92.8	165	79.1	0.050	9116608
Total Thallium (TI)	ug/L	<0.0020	0.0020	9116608	0.0039	0.0041	0.0079	0.0020	9116608
Total Tin (Sn)	ug/L	<0.20	0.20	9116608	<0.20	<0.20	<0.20	0.20	9116608
Total Titanium (Ti)	ug/L	5.1	2.0	9116608	3.9	14.9	41.7	2.0	9116608
Total Uranium (U)	ug/L	0.822	0.0050	9116608	1.20	4.75	3.28	0.0050	9116608
Total Vanadium (V)	ug/L	0.95	0.20	9116608	0.57	1.52	3.92	0.20	9116608
RDL = Reportable Detection I	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4254			UD4258	UD4259	UD4260		
Sampling Date		2018/08/19			2018/08/19	2018/08/19	2018/08/19		
Sampling Date		16:50			17:35	15:20	15:35		
COC Number		562348-02-01			562348-03-01	562348-03-01	562348-03-01		
	UNITS	IC-2.5	RDL	QC Batch	IC-4.5	ML-A	ML-B	RDL	QC Batch
Total Zinc (Zn)	ug/L	<1.0	1.0	9116608	<1.0	1.3	3.9	1.0	9116608
Total Zirconium (Zr)	ug/L	1.43	0.10	9116608	0.81	0.64	0.85	0.10	9116608
Total Calcium (Ca)	mg/L				17.3	25.0	18.0	0.25	9114282
Total Magnesium (Mg)	mg/L				5.02	7.69	3.98	0.25	9114282
Total Potassium (K)	mg/L				1.04	1.13	0.85	0.25	9114282
Total Sodium (Na)	mg/L				2.86	2.65	1.70	0.25	9114282
Total Sulphur (S)	mg/L				8.1	12.3	6.7	3.0	9114282
RDL = Reportable Detection I	Limit								



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4261	UD4262	UD4263	UD4264	UD4278		
Sampling Date		2018/08/19	2018/08/20	2018/08/18	2018/08/21			
Jamping Date		14:40	10:50	12:50	10:20			
COC Number		562348-03-01	562348-03-01	562348-03-01	562348-03-01	562348-03-01		
	UNITS	ML-1.0 (OR YT-24-1)	YT-24 MIX	YUK-2.0	YUK-5.0	SAMPLE A	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	98.3	88.6	93.0	89.0	388	0.50	9114271
Elements			•					
Total Mercury (Hg)	ug/L	0.0069	0.0079	<0.0020	0.0084	<0.0020	0.0020	9118673
Total Metals by ICPMS			•					
Total Aluminum (AI)	ug/L	72.5	527	910	564	30.0	3.0	9116608
Total Antimony (Sb)	ug/L	0.213	0.213	0.189	0.162	0.163	0.020	9116608
Total Arsenic (As)	ug/L	0.530	0.923	1.07	0.923	0.994	0.020	9116608
Total Barium (Ba)	ug/L	53.4	67.7	81.9	68.2	90.5	0.050	9116608
Total Beryllium (Be)	ug/L	0.017	0.037	0.044	0.028	<0.010	0.010	9116608
Total Bismuth (Bi)	ug/L	<0.010	<0.010	0.011	<0.010	<0.010	0.010	9116608
Total Boron (B)	ug/L	<10	<10	<10	<10	<10	10	9116608
Total Cadmium (Cd)	ug/L	0.0061	0.124	0.171	0.120	<0.0050	0.0050	9116608
Total Chromium (Cr)	ug/L	0.41	0.88	1.55	1.03	0.16	0.10	9116608
Total Cobalt (Co)	ug/L	0.102	0.462	0.708	0.464	0.054	0.010	9116608
Total Copper (Cu)	ug/L	2.09	2.30	2.94	2.14	0.85	0.10	9116608
Total Iron (Fe)	ug/L	78.0	679	1090	708	33.1	5.0	9116608
Total Lead (Pb)	ug/L	0.033	0.427	0.672	0.403	<0.020	0.020	9116608
Total Lithium (Li)	ug/L	<0.50	1.89	2.36	1.96	4.42	0.50	9116608
Total Manganese (Mn)	ug/L	2.71	36.6	49.6	34.9	2.28	0.10	9116608
Total Molybdenum (Mo)	ug/L	0.506	1.20	1.23	1.24	0.305	0.050	9116608
Total Nickel (Ni)	ug/L	0.87	3.07	4.23	3.32	0.54	0.10	9116608
Total Phosphorus (P)	ug/L	<5.0	37.3	41.9	26.0	<5.0	5.0	9116608
Total Selenium (Se)	ug/L	0.083	0.366	0.473	0.398	0.306	0.040	9116608
Total Silicon (Si)	ug/L	3730	3280	3710	3490	4640	50	9116608
Total Silver (Ag)	ug/L	<0.010	0.029	0.021	0.015	<0.010	0.010	9116608
Total Strontium (Sr)	ug/L	164	121	123	120	1060	0.050	9116608
Total Thallium (TI)	ug/L	0.0031	0.0101	0.0175	0.0115	0.0032	0.0020	9116608
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9116608
Total Titanium (Ti)	ug/L	2.4	14.0	24.7	20.0	<2.0	2.0	9116608
Total Uranium (U)	ug/L	2.73	1.15	0.966	1.01	27.3	0.0050	9116608
Total Vanadium (V)	ug/L	0.42	1.89	3.37	2.44	<0.20	0.20	9116608
RDL = Reportable Detection	Limit			•	•			



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4261	UD4262	UD4263	UD4264	UD4278		
Sampling Date		2018/08/19 14:40	2018/08/20 10:50	2018/08/18 12:50	2018/08/21 10:20			
COC Number		562348-03-01	562348-03-01	562348-03-01	562348-03-01	562348-03-01		
	UNITS	ML-1.0 (OR YT-24-1)	YT-24 MIX	YUK-2.0	YUK-5.0	SAMPLE A	RDL	QC Batch
Total Zinc (Zn)	ug/L	<1.0	13.2	18.3	12.6	<1.0	1.0	9116608
Total Zirconium (Zr)	ug/L	0.54	0.32	0.47	0.31	<0.10	0.10	9116608
Total Calcium (Ca)	mg/L	27.1	24.2	24.8	24.1	98.1	0.25	9114282
Total Magnesium (Mg)	mg/L	7.44	6.83	7.56	6.99	34.7	0.25	9114282
Total Potassium (K)	mg/L	1.55	0.87	0.96	0.87	4.92	0.25	9114282
Total Sodium (Na)	mg/L	2.86	1.98	1.82	1.87	4.40	0.25	9114282
Total Sulphur (S)	mg/L	14.2	8.1	9.6	8.4	53.8	3.0	9114282
RDL = Reportable Detection	Limit		•			•		



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4279	UD4280		
Sampling Date					
COC Number		562348-04-01	562348-04-01		
	UNITS	SAMPLE B	SAMPLE C	RDL	QC Batch
Calculated Parameters	-	<u> </u>	<u>-                                      </u>	<u> </u>	<u> </u>
Total Hardness (CaCO3)	mg/L	97.7	91.5	0.50	9114271
Elements				•	
Total Mercury (Hg)	ug/L	0.0039	0.0068	0.0020	9118673
Total Metals by ICPMS	•		•	•	
Total Aluminum (Al)	ug/L	72.8	533	3.0	9116608
Total Antimony (Sb)	ug/L	0.221	0.187	0.020	9116608
Total Arsenic (As)	ug/L	0.502	0.986	0.020	9116608
Total Barium (Ba)	ug/L	53.5	72.7	0.050	9116608
Total Beryllium (Be)	ug/L	0.018	0.030	0.010	9116608
Total Bismuth (Bi)	ug/L	<0.010	<0.010	0.010	9116608
Total Boron (B)	ug/L	<10	<10	10	9116608
Total Cadmium (Cd)	ug/L	<0.0050	0.142	0.0050	9116608
Total Chromium (Cr)	ug/L	0.36	0.94	0.10	9116608
Total Cobalt (Co)	ug/L	0.102	0.538	0.010	9116608
Total Copper (Cu)	ug/L	2.08	2.53	0.10	9116608
Total Iron (Fe)	ug/L	74.6	824	5.0	9116608
Total Lead (Pb)	ug/L	0.032	0.501	0.020	9116608
Total Lithium (Li)	ug/L	<0.50	1.97	0.50	9116608
Total Manganese (Mn)	ug/L	2.80	41.0	0.10	9116608
Total Molybdenum (Mo)	ug/L	0.476	1.14	0.050	9116608
Total Nickel (Ni)	ug/L	0.80	3.34	0.10	9116608
Total Phosphorus (P)	ug/L	<5.0	39.4	5.0	9116608
Total Selenium (Se)	ug/L	0.083	0.344	0.040	9116608
Total Silicon (Si)	ug/L	3770	3510	50	9116608
Total Silver (Ag)	ug/L	<0.010	0.016	0.010	9116608
Total Strontium (Sr)	ug/L	165	137	0.050	9116608
Total Thallium (TI)	ug/L	0.0022	0.0096	0.0020	9116608
Total Tin (Sn)	ug/L	<0.20	<0.20	0.20	9116608
Total Titanium (Ti)	ug/L	2.2	15.7	2.0	9116608
Total Uranium (U)	ug/L	2.70	1.95	0.0050	9116608
Total Vanadium (V)	ug/L	0.27	2.02	0.20	9116608
RDL = Reportable Detection L	imit				



LORAX ENVIRONMENTAL SERVICES LTD.

Client Project #: Gold Corp Coffee Creek-SW

Site Location: COFFEE CREEK - SURFACE WATER

Maxxam ID		UD4279	UD4280		
Sampling Date					
COC Number		562348-04-01	562348-04-01		
	UNITS	SAMPLE B	SAMPLE C	RDL	QC Batch
Total Zinc (Zn)	ug/L	<1.0	14.4	1.0	9116608
Total Zirconium (Zr)	ug/L	0.51	0.23	0.10	9116608
Total Calcium (Ca)	mg/L	26.9	24.9	0.25	9114282
Total Magnesium (Mg)	mg/L	7.44	7.12	0.25	9114282
Total Potassium (K)	mg/L	1.54	0.99	0.25	9114282
Total Sodium (Na)	mg/L	2.83	2.14	0.25	9114282
Total Sulphur (S)	mg/L	14.1	8.4	3.0	9114282
RDL = Reportable Detection	Limit				



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

#### **GENERAL COMMENTS**

Sample UD4233 [CC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4234 [CC-1.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4235 [CC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4236 [CC-3.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4237 [CC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4238 [CC-A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4239 [CC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4240 [CC-X]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4245 [LATTE MIX]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4246 [HC-2.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4247 [HC-5.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4248 [HC-A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER

Sample UD4249 [HC-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4250 [HC-C]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4252 [IC-0.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4253 [IC-1.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4254 [IC-2.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4257 [IC-3.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4258 [IC-4.5]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4259 [ML-A]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4260 [ML-B]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4261 [ML-1.0 (OR YT-24-1)] : Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level).

Sample UD4263 [YUK-2.0]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate+Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4281 [FIELD BLANK]: Sample was analyzed past method specified hold time for Nitrate+Nitrite (N) (low level). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrite (N) (low level). Sample was analyzed past method specified hold time for Nitrite (N) (low level). Sample received past method specified hold time for Nitrite (N) (low level).

Sample UD4249, Elements by ICPMS Low Level (dissolved): Test repeated. Sample UD4250, Elements by ICPMS Low Level (dissolved): Test repeated.

Results relate only to the items tested.



LORAX ENVIRONMENTAL SERVICES LTD.
Client Project #: Gold Corp Coffee Creek-SW
Site Location: COFFEE CREEK - SURFACE WATER



APPENDIX B. PHOTOGRAPHS





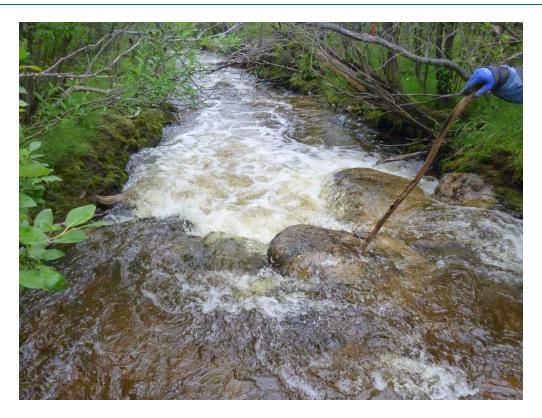


Photo 1. Example of a cascade habitat unit on Latte Creek, August 2018.



Photo 2. Example of a cascade habitat unit on Latte Creek, August 2018.



Photo 3. Example of a glide habitat unit on Latte Creek, August 2018.



Photo 4. Example of a glide habitat unit on Latte Creek, August 2018.



Photo 5. Example of a pool habitat unit on Latte Creek, August 2018.



Photo 6. Example of pool habitat unit on Latte Creek, August 2018.



Photo 7. Example of riffle habitat unit on Latte Creek, August 2018.



Photo 8. Example of riffle habitat unit on Latte Creek, August 2018.



Photo 9. Example of riffle plus habitat unit on Latte Creek, August 2018.



Photo 10. Example of riffle plus habitat unit on Latte Creek, August 2018.