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BC Geological Survey Assessment Report 37490

Ministry of Energy and Mines
BC Geological Survey

Assessment Report Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geological, Geochemical, Lidar, Diamond Drilling **TOTAL COST:** $223,926.76

AUTHOR(S): Linda Dandy **SIGNATURE(S):** Linda Dandy

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-1-611 **YEAR OF WORK:** 2017

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5687570/ Feb 27, 2018

PROPERTY NAME: Yellowjacket

CLAIM NAME(S) (on which the work was done): 327903, 364968, 376492, 394473-4,508170, 509377,509387,509382-5, 1030439, 1037085, 1037087, 1037101-2, 1037181-3, 1038397-8, 1038544, 1045959

COMMODITIES SOUGHT: Au

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 104N043

MINING DIVISION: Atlin **NTS/BCGS:** 104N.043/045/052/053/054/063

LATITUDE: 59 ° 32 '52 " **LONGITUDE:** -133 ° 30 '19 " **(at centre of work)**

OWNER(S):
1) African Queen Mines Ltd. 2)

MAILING ADDRESS:
1153 – 56th Street, Delta, BC V4L 2P8

OPERATOR(S) [who paid for the work]:
1) As above 2)

MAILING ADDRESS:
As above

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):
Permian Triassic Cache Creek Group volcanics and ultramafic rocks, serpentinized, carbonatized, listwanite, Pine Creek Fault, Orogenic/Mesothermal gold model

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 10502, 11138, 17295, 18608, 28785, 32608, 34034, 36190, 36977

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	recce 10,000 ha, geologists, reports	364968, 509377,509387,1037085	48576.00
Photo interpretation		1037181,1030439	
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic		508170,509377,509382-5,509387	
Other	LIDAR 138 SQ KM/plots	364968,327903,376492,389658/60	35905.12
Airborne		1030439,1037181-3,1037101-2,	
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock	DRILL CORE - 142 SAMPLES - 35 elem ICP	364968	3677.72
Other	WATER QUALITY - 53 SAMPLES - metals	327903, 509387	12299.50
DRILLING (total metres; number of holes, size)			
Core	278.28 m, NQ/HQ, 4 holes	364968	62286.96
Non-core	Supplies, boxes, supervision, R&B, truck, etc	364968	19665.19
RELATED TECHNICAL			
Sampling/assaying	core cutter, core logger, freight	364968	11555.35
Petrographic	water sampling	327903, 509387	28400.00
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other	reclamation	364968	1560.92
		TOTAL COST:	$223,926.76

GEOLOGICAL, GEOCHEMICAL AND DIAMOND DRILLING REPORT ON THE YELLOWJACKET PROPERTY

ATLIN MINING DIVISION, BC
MAPSHEETS: 104N.043/045/052/053/054/063
UTM (Centre of Work Area): 6602000 NORTH, 584500 EAST, ZONE 8

for

AFRICAN QUEEN MINEES LTD.
1153 – 56th STREET
DELTA, BC
V4L 2P8

by

LINDA DANDY, P.Geo.
Consulting Geologist

May 10, 2018

Linda Dandy, P.Geo., Box 95, Atlin, BC, V0W 1A0 Phone:250-651-7531 Email: lindadandy@telus.net

SUMMARY

The Yellowjacket Property ("the Property"), a gold exploration prospect, is located 3 to 12 kilometres east of Atlin, British Columbia. The claim group consists of 47 mineral tenures totalling 27,377.79 hectares. African Queen Mines Ltd. ("AQ") acquired the core mineral tenures, including the permitted Yellowjacket Mine (currently in "care and maintenance" status) in 2015. Subsequently, additional contiguous ground has been added by staking and purchasing tenures. The current property comprises much of the Pine, Spruce and McKee Creek watersheds.

The Property is underlain by Cache Creek Terrane, consisting largely of an accreted complex of oceanic volcanic and sedimentary strata of Mississippian to Jurassic age and variably altered ultramafic rocks of Late Permian to Triassic age. To the east of the Property these units have been intruded by the Late Cretaceous Surprise Lake Batholith. The Yellowjacket auriferous zone is hosted within an intense 80 metre wide regional shear zone oriented 065^{o} and steeply dipping to the south. Mineralization occurs mainly as free gold grains hosted in intensely sheared, altered and silicified ultramafic and mafic lithologies.

Placer gold in the Atlin area was discovered in 1898 and bedrock gold mineralization at the Yellowjacket zone in 1899. Subsequently additional gold zones in bedrock were found. It was not until the 1980s that modern day exploration work was conducted on the lode gold showings. Renewed interest in the early 2000s led to extensive additional work. Diamond drilling on the Yellowjacket zone from 1984 to 2006 totals 16,153 metres in 108 holes.

From 2006 to 2008 Prize Mining undertook an exploration bulk sampling program in the area of the Yellowjacket Gold Zone; the area of excavation is now referred to as the Pine pit. In 2008, Prize processed 4200 tonnes of material in their onsite bulk sample mill. Of this material, 2880 tonnes were considered to be taken from the main mineralized zone and returned gold bars totaling 18.63 kilograms. In 2009, through a Joint Venture deal between Prize Mining and Eagle Plains Resources, a Small Mines Act permit was obtained. Exploration work programs of reverse circulation drilling and mapping continued on the property through 2012.

There was no activity from 2013 until 2015 when African Queen Mines Ltd. acquired the Yellowjacket property. In 2016, AQ diamond drilled four holes totalling 635.65 metres. Although two of the four holes could not be completed and did not reach their target, significant intersections were obtained in three of the holes including 1.5 metres of 3.2 g/t gold in hole YJ16-01, 9.79 metres of 1.1 g/t and 11 metres of 4.1 g/t gold in hole YJ16-02.

In 2017, African Queen diamond drilled four short holes to test for the extension of Pine Creek fault and the Yellowjacket Pit mineralization along strike to the east. Three of the

holes did not reach their target depth due to intersecting strong clay fault zones. The fourth hole, although stopped shorter than planned, did intercept strongly altered (silicified and carbonatized) ultramafic and andesitic units identical to those in the Yellowjacket Pit. However, gold values were only weakly elevated.

In July 2017, AQ commissioned a LIDAR survey to be flown over a large portion of the Yellowjacket Property. The survey results will assist by providing excellent base map coverage for use in ongoing exploration programs.

Between 2006 and 2009, a water quality baseline and monitoring program was initiated on the Yellowjacket Property. This included stream sampling along Pine Creek, installation of groundwater monitoring wells and construction of field leachate bins for metal leaching/acid rock drainage testing. Between 2010 and 2014, sampling was only conducted intermittently. After AQ acquired the property in late 2015, water quality monitoring was re-initiated.

Three water quality sampling episodes were completed in 2017 with results showing that stream water quality in Pine Creek is acceptable. Groundwater samples show elevations in iron but this does not appear to be migrating from the wells to the stream samples. The leachate data from the field bins indicates that sulphate, Cr, and Se are potential parameters of concern with respect to ML/ARD. As part of ongoing exploration, continued water quality monitoring at the Yellowjacket site will assist in AQ achieving its goal of re-opening the Yellowjacket Mine in the future.

Additional exploration work is warranted for the Yellowjacket Property. As Phase I, a program consisting of detailed ground magnetic surveying to locate alteration (magnetite depleted) zones along the strike of the Pine Creek fault is recommended. Additional strong faults have been regionally mapped in other locations on the Yellowjacket Property. With the assistance of the LIDAR survey plots, the trend of these interpreted faults should be prospected and geochemically sampled. Phase II will include deep diamond drilling under the Yellowjacket deposit and reconnaissance drilling of targets identified in Phase I.

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FIGURES

1) INTRODUCTION

The Yellowjacket Property (the "Property"), a gold prospect, is located 3 kilometres east of Atlin in northwestern British Columbia. The Property was initially acquired by African Queen Mines Ltd. ("AQ") in 2015. Additional tenures were added by staking and purchase to form the current land holding.

Recently, expanded exploration activity in the Atlin area stems from continued interest in the high grade gold found at Yellowjacket plus the discovery of visible gold in bedrock in the Godkin placer pit along Otter Creek in July, 2016 (Pautler, 2016; Mihalynuk et al, 2017).

On the Yellowjacket Property in 2017, AQ completed a Lidar survey, diamond drilled 4 short holes and completed water quality/environmental sampling. The 2017 exploration program is the subject of this report.

2) LOCATION AND ACCESS

The Yellowjacket Property covers much of the Pine, Spruce and McKee Creek drainages, located between Atlin and Surprise Lakes. The Property lies between 3 and 12 kilometres east of Atlin, BC (Figure 1). The claims cover an area of 27,377.79 hectares and are centred at UTM coordinates 6602000 North, 584500 East in Zone 8, within Mapsheets 104N.043, 045, 052, 053, 054 and 063.

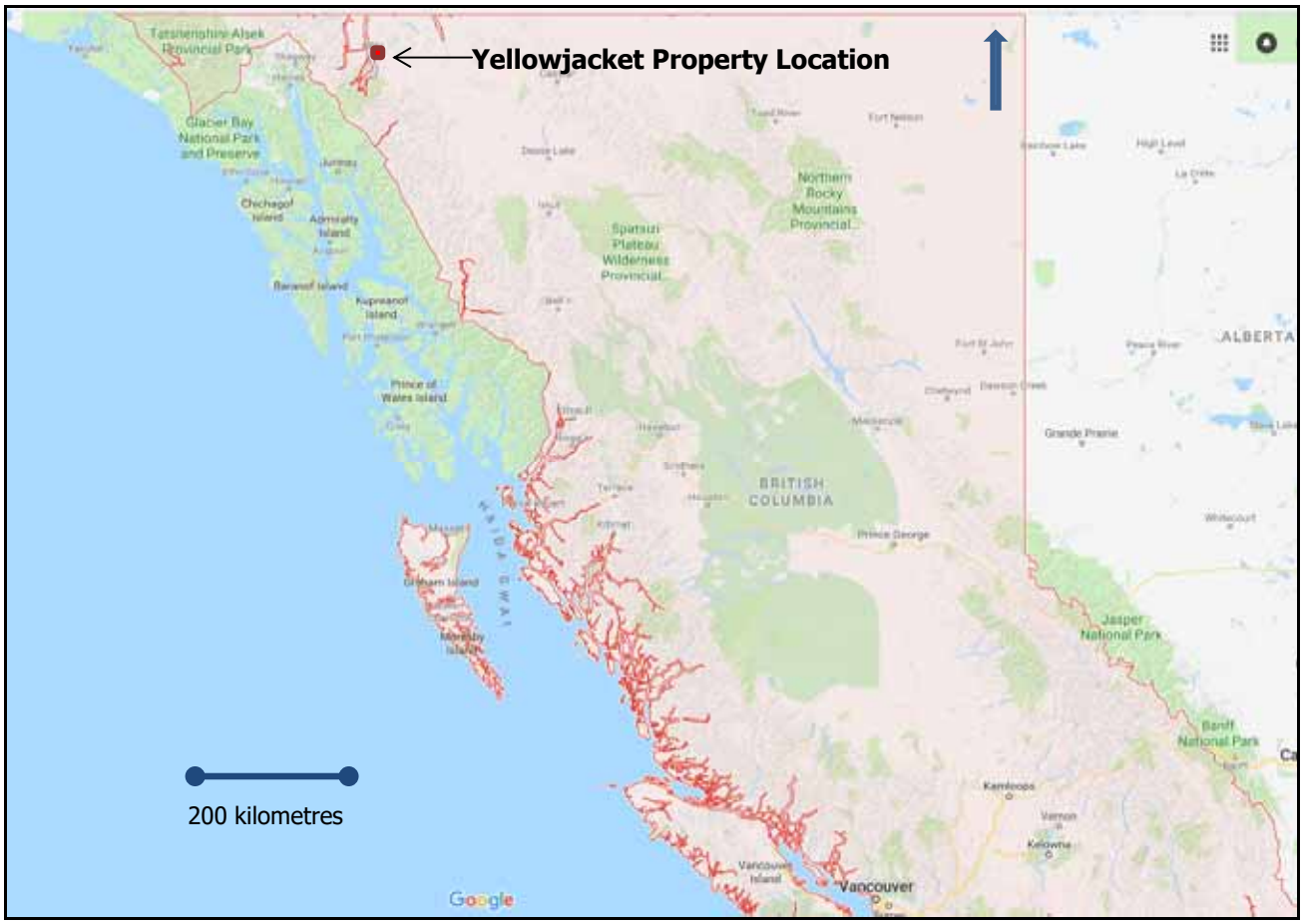
Access to the Property is via the year round Surprise Lake Road east from Atlin, BC. The southern portion of the claim block can be accessed via Spruce Creek Road which heads southeast from Surprise Lake Road 5 kilometres east of Atlin. A network of placer mining roads transects the property in a number of locations.

3) PHYSIOGRAPHY

The Yellowjacket Property lies in an area of moderate relief, with relatively broad valleys between mountains, and elevations ranging between 810 and 1060 metres along the Pine Creek valley. In the far southeastern corner of the Property the elevation increases up slope to 1340 metres. Outcrop is limited, generally confined to creek gullies and high elevations, but occasionally observed in road cuts and along some of the steeper slopes. The main area of mineralization identified to date on the Property is the Yellowjacket Gold Zone (YGZ). This zone lies along the Pine Creek Valley and is completely covered by five or more metres of tailings consisting of boulders from historic placer mining.

The tree line is at approximately 1370 metres on north facing slopes and 1525 metres on south facing slopes. Below 1370 metres the valleys are forested with lodgepole pine,

FIGURE 1
LOCATION MAP



Linda Dandy, P.Geo., Box 95, Atlin, BC, V0W 1A0 Phone: 250-651-7531 Email: lindadandy@telus.net

black spruce and aspen. Mountain alder and willow grow near streams with stunted buckbrush covering the hills above tree line.

Climate is typical of northern British Columbia with winter temperatures averaging -5°C in January with moderate snowfall. A pleasant summer climate has average daytime temperatures of 20°C and little precipitation. Total annual precipitation is measured at 279.4 millimetres of moisture. "Winter" conditions can be expected from October to April.

4) HISTORY

Placer gold was first discovered in the Atlin area in 1897 resulting in a major gold rush to the area. The Atlin placer camp continues to produce gold today. The major placer producing streams are Spruce, Pine, Otter, Boulder, Ruby, McKee, Wright and Birch Creeks. Gold production reported from 1898 to 1946, the last year for which individual creek recoveries were recorded was 634,147 ounces (Holland, 1950). Although the total placer gold production from the Atlin area to date is not available; it probably exceeds one million ounces and could be significantly greater (Ash, 2001).

In 1899, an auriferous vein zone (the Yellowjacket showing) was discovered along Pine Creek by placer miners (BC Ministry of Energy and Mines Minfile Number 104N043). Additional gold zones in bedrock were found during subsequent placer mining operations at the Red Jacket and Rock of Ages showings.

Although gold bearing quartz veins were discovered in the Atlin area in the early 1900s, there was relatively little systematic lode gold exploration activity until Yukon Revenue Mines Ltd. reported a large low grade gold discovery on the Lakeview Property, north of Pine Creek, in 1981. Gold values were reported from quartz veins and stockworks in carbonatized and silicified andesite adjacent to an ultramafic unit (Troup, 1982). In 1983, during this time of enhanced exploration activity, Standard Gold Mines Ltd. discovered a high grade auriferous stockwork, hosted by carbonatized ultramafic rock (listwanite) in the headwaters of Dominion Creek. Assays of up to 330 g/t gold were reported from grab samples (Troup and Wong, 1983).

In 1983, Canova Resources and Tri-Pacific Resources optioned an area that is now part of the Yellowjacket Property and conducted a small diamond drill program that intersected high grade gold mineralization at depth (Downie, 2013). In 1985, Homestake Mineral Development Corp. ("Homestake") optioned the Yellowjacket Property and conducted geological, geophysical and drilling programs until 1989. From 1986 to 1988, Homestake diamond drilled 58 holes on the Yellowjacket Zone, and in 1989, carried out a reverse circulation rotary drilling program their larger Yellowjacket Property. Drilling in 1986 to 1989 identified gold mineralization within broad zones of intensely altered (carbonate, silica, mariposite) ultramafic rocks, and in adjacent silicified volcanic rocks (Marud, 1987, Marud and Southam, 1988).

In 2003, the Yellowjacket Property was optioned by Muskox Minerals Corp. (later renamed Prize Mining Corporation) who did an extensive drilling program with results of 80.3 g/t gold over 38.94 metres, including 513.5 g/t gold over 5.56 metres from YJ-03-01 and 40.1 g/t gold over 6.10 metres in YJ-04-07 (Dandy and Price, 2010).

Renewed interest in the Yellowjacket area occurrences led to drilling programs from 2003 to 2006 which included 14 NQ and 50 HQ size diamond drill holes totaling 7797.26 metres on the Yellowjacket Gold Zone (Evans, 2003, Dandy 2005, 2006). In 2005 and 2006, 10 HQ size diamond drill holes totaling 1481.28 metres were drilled on the Rock of Ages Zone. The drill programs were designed to test for high grade gold mineralization within a large fault zone (the Pine Creek Fault) along the contact between ultramafics and Cache Creek Group volcanic and metasedimentary rocks. The majority of the holes drilled on the Yellowjacket Gold Zone during these programs encountered one or more intervals of gold mineralization. The results of the drilling indicated broad zones of gold values ranging from 0.5 to 5.0 g/t relating to shallowly dipping structural zones. These shallow structures are intersected by two steeply dipping fault zones (the Pine Creek Fault and its associated cross faults). Narrower but higher grade gold mineralization has been identified within these steeply dipping structures.

From 2006 to 2008, Prize Mining undertook an exploration bulk sampling program in the area of the Yellowjacket Gold Zone; the area of excavation is now referred to as Pine pit. In 2008, Prize processed 4200 tonnes of material in their onsite bulk sample mill. Of this material, 2880 tonnes were considered to be taken from the main mineralized zone and returned gold bars totaling 18.63 kilograms (Dandy and Price, 2010). During the course of the excavation of the original pit, the geology of the pit floor was mapped; this provided the first detailed look at the structure along the fault zone, and the in-situ gold relationships.

In 2009, through a joint venture between Prize Mining and Eagle Plains Resources, a Small Mines Act permit was obtained. Pine pit was dewatered and additional material excavated. Geological mapping of new exposures to the immediate east of the original pit was undertaken to add to the geological database.

In the fall of 2010, Eagle Plains carried out a reverse circulation drill program totalling 2181 metres in 64-holes in the area of the proposed East pit extension of the Pine Pit (Downie, 2011). Also during the 2010 season, the Rock of Ages pit was excavated by placer operations. The Pit was progressively uncovered from west to east as overburden was stripped and the pay near bedrock was mined and processed for placer gold extraction. During the 2010 excavation two shafts were uncovered in the central part of the present Rock of Ages pit. The main, deep shaft fits historic descriptions and the approximate location of the 'Rock of Ages' shaft. As placer mining at Rock of Ages progressed in 2010, the exposed bedrock surface was mapped. Continued pit excavation to the east in 2011 was mapped in 2012 (Downie, 2013).

In the summer of 2012, Eagle Plains continued its reverse circulation drill program east of Pine Pit with an additional 21 holes totalling 729 metres (Downie, 2013). They also reverse circulation drilled 15 holes totalling 716.43 metres at Rock of Ages and 12 step out holes from the Yellowjacket Zone totalling 781.11 metres.

There was no activity from 2013 to 2015 when African Queen Mines Ltd. acquired the Yellowjacket property from Athabasca Nuclear Corp. Athabasca obtained the property as a spin off from Eagle Plains called Yellowjacket Resources Ltd., with a subsequent name change to Athabasca Nuclear Corp. Athabasca's primary interests were in uranium exploration in Saskatchewan. Additional mineral claims were acquired by AQ in 2015 and 2016 plus diamond drilling of 1 drill hole on tenure 1037086 in 2015 and 4 holes along the Pine Creek Fault in the vicinity of the Yellowjacket mine area in 2016 (Coster, 2016; Dandy and Archambault, 2017).

Historic Resource Estimates

At the completion of their exploration program, Homestake reported an historic resource estimate of 453,500 tonnes grading 10.26 g/t gold (Schroeter, T.G. and Pinsent, R.H; BC Ministry of Energy and Mines Open File 2000-2: Gold Production and Resources in BC (1858 - 1998)). This estimate was done prior to the establishment of the 43-101 National Instrument.

In 2009, on behalf of Prize Mining Corp. and Eagle Plains Resources Ltd., B.J. Price Geological, conducted an inferred resource estimate of 133,000 tonnes grading 5.8 g/t Au with a cut-off of 1.5 g/t, for a total of 734,000 grams of gold (Dandy and Price, 2010).

5) WORK DONE BY AFRICAN QUEEN MINES LTD. IN 2017

Work completed on the Yellowjacket Property between May 8 and October 30, 2017 consisted of prospecting, LIDAR airborne survey, environmental (water) sampling and diamond drilling of 4 short holes.

Work was conducted by a 3 to 4 person crew working out of the town of Atlin, BC, and was supervised by the author.

6) CLAIM INFORMATION

The Yellowjacket Property is located within the Atlin Mining Division and consists of 47 mineral tenures totalling 27,377.79 hectares (Figure 2). The claims are centred at UTM coordinates 6602000 North, 584500 East in Zone 8, within Mapsheets 104N.043, 045, 052, 053, 054, and 063.

FIGURE 2: CLAIM MAP Yellowjacket Property

Claims are listed in Table I. All the claims are currently in good standing and the next expiry year is shown in the table. The claims have not been surveyed. AQ has 100% ownership of the claims. All of the claims are located on Crown lands.

TABLE I
CLAIM INFORMATION

Title No	Claim Name	Good To Date	Area (ha)
327903	YJ	2023/NOV/30	75.00
364968	EVA 7	2023/NOV/30	375.00
367492	CELESTE	2023/NOV/30	75.00
389658	D-1	2020/APR/20	500.00
389660	D-2	2020/APR/20	500.00
394473	YJ 1	2023/NOV/30	500.00
394474	YJ 2	2023/NOV/30	500.00
508170	PINE	2023/NOV/30	196.56
509377		2023/NOV/30	524.35
509379		2023/NOV/30	491.78
509382		2023/NOV/30	65.51
509383		2023/NOV/30	65.51
509384		2023/NOV/30	32.76
509385		2023/NOV/30	65.51
509387		2023/NOV/30	442.33
985002	YELLOW JACKET	2023/MAY/09	392.95
985003	YELLOW JACKET	2023/MAY/09	409.17
985022	YELLOW JACKET	2023/MAY/09	409.16
985042	YELLOW JACKET	2023/MAY/09	376.28
1030439	PICTOU	2024/FEB/19	704.92
1037079		2020/SEP/02	1082.04
1037085		2020/SEP/02	1525.61
1037086		2020/SEP/02	738.76
1037087		2020/SEP/02	427.06
1037101		2020/SEP/02	443.31
1037102		2020/SEP/02	361.11
1037181		2020/SEP/02	1626.99
1037182		2020/SEP/02	377.67
1037183		2020/SEP/02	394.19
1037417		2020/JUL/05	525.69
1037418		2020/SEP/02	706.43
1038161		2020/SEP/02	1479.24
1038162		2020/SEP/02	1643.31
1038163		2020/SEP/02	1641.16
1038396		2020/SEP/02	1641.99

Title No	Claim Name	Good To Date	Area (ha)
1038397		2020/OCT/02	919.81
1038398		2020/OCT/02	1101.01
1038544		2020/OCT/01	623.28
1040951	YELLOWJACKET	2020/OCT/01	32.77
1040953	YELLOWJACKET	2020/OCT/01	32.78
1040954	YELLOWJACKET	2020/OCT/01	16.38
1045959		2020/JUL/05	394.10
1046371	AQAU1	2020/JUL/05	1644.56
1046372	AQAU2	2020/JUL/05	328.69
1046373	AQAU3	2020/JUL/05	197.34
1046413	AQAU4	2020/JUL/05	279.31
1046793	PARIS	2020/JUL/05	491.40

7) GEOLOGY

REGIONAL GEOLOGY (reproduced from Ash, 2001)

The Atlin region is located in the northwestern corner of the northern Cache Creek (Atlin) Terrane. It contains a fault bounded package of late Paleozoic and early Mesozoic dismembered oceanic lithosphere, intruded by post-collisional Middle Jurassic, Cretaceous and Tertiary felsic plutonic rocks. The terrane is dominated by mixed graphitic argillite and pelagic sedimentary rocks that contain minor pods and slivers of metabasalt and limestone. Remnants of oceanic crust and upper mantle lithologies are concentrated along the western margin. Dismembered ophiolitic assemblages have been described at three localities along this margin: from north to south they are the Atlin, Nahlin and King Mountain assemblages. Each area contains imbricated mantle harzburgite, crustal plutonic ultramafic cumulates, gabbros and diorite, together with hypabyssal and extrusive basaltic volcanic rocks. Thick sections of late Paleozoic shallow-water limestone dominate the western margin of the terrane and are associated with alkali basalts. These are interpreted to be carbonate banks constructed on ancient ocean islands within the former Cache Creek ocean basin.

LOCAL GEOLOGY (reproduced from Ash, 2001)

The geology of the Atlin region is divisible into two distinct lithotectonic elements. A structurally higher, imbricated sequence of oceanic crustal and upper mantle lithologies termed the *"Atlin ophiolitic assemblage"*, is tectonically superimposed over a lower and lithologically diverse sequence of steeply to moderately dipping, tectonically intercalated slices of pelagic metasedimentary rocks with tectonized pods and slivers of metabasalt, limestone and greywacke termed the *"Atlin accretionary complex"*. Locally these elements are intruded by the Middle Jurassic calcalkaline Fourth of July batholith and related quartz-feldspar porphyritic and melanocratic dyke rocks (Figure 3).

FIGURE 3
REGIONAL GEOLOGY MAP
Yellowjacket Property

Legend

Yellowjacket Property mineral claims

ROCK_TYPE

- argillite, greywacke, wacke, conglomerate turbidites
- basaltic volcanic rocks
- chert, siliceous argillite, siliciclastic rocks
- eclogite/mantle tectonite
- gabbroic to dioritic intrusive rocks
- granite, alkali feldspar granite intrusive rocks
- limestone, marble, calcareous sedimentary rocks
- mudstone/laminite fine clastic sedimentary rocks
- tonalite intrusive rocks
- ultramafic rocks
- undivided sedimentary rocks

0 1,000 2,000 4,000 6,000 8,000 Meters

574000 576000 578000 580000 582000 584000 586000 588000 590000 592000 594000 596000 598000 600000 602000 604000 606000 608000 610000

6614000 6612000 6610000 6608000 6606000 6604000 6602000 6600000 6598000 6596000 6594000 6592000

Atlin Ophiolitic Assemblage

The Atlin ophiolitic assemblage comprises an imbricated sequence of relatively flat-lying, coherent thrust slices of obducted oceanic crustal and upper mantle rocks. Mantle lithologies are dominated by harzburgite tectonite containing subordinate dunite and lesser pyroxenite dykes. The unit forms an isolated klippe that underlies the town of Atlin and Monarch Mountain, which is located four kilometres southeast of the town. The harzburgite is also exposed on the northern and southern slopes of Union Mountain, 10 kilometres south of Atlin.

The least serpentinized rocks with well-preserved primary structures and texture crop out at the highest elevations on Monarch Mountain. Primary features are less well preserved toward the base of the body and internally, where high angle fault zones cut it, the unit becomes increasingly serpentinized. Serpentinite mylonite fabrics are locally preserved near the base of the body. Commonly the basal contact of the harzburgite unit is pervasively carbonatized and tectonized over distances of several tens of metres or more.

Oceanic crustal lithologies in the Atlin area, in decreasing order of abundance, include basalt, ultramafic cumulates, diabase and gabbro. They are generally massive, fine grained to aphanitic and weather a characteristic dull green-grey colour. Locally, the unit grades to diabase. Primary textures locally identified in the basalt include flow banding, autobrecciation and rare pillow structures. Although rarely exposed, basalt contacts are commonly sheared or brecciated zones, sometimes intensely carbonatized. Petrographic investigations of these basaltic rocks indicate they are similar in composition to basalts of normal mid ocean-ridge settings and the chemistry also suggests a genetic relationship to the associated depleted metamorphic mantle ultramafic rocks.

Serpentinized peridotite may display ghost cumulate textures. The peridotite forms an isolated thrust sheet that outcrops discontinuously along an east-trending belt 1 to 3 kilometres wide on the south-facing slope of Mount Munroe, located four kilometres northeast of the town of Atlin. Extensive exploration drilling along the base of Mount Monroe at the Yellowjacket Zone indicates that the serpentinized body is in structural contact with basaltic rocks along a gently northwest-dipping thrust. Along the contact zone hanging-wall ultramafics and footwall basalts are tectonically intercalated and carbonatized. Projection of this fault across the Pine Creek valley suggests that carbonatized and serpentinized ultramafic rocks on the summit of Spruce Mountain, immediately south of the Pine Creek valley in the vicinity of the Yellowjacket Zone, represent a remnant above an extension of the same tectonized and altered basal contact.

Meta-gabbro is the least commonly seen ophiolitic component in the Atlin area. It crops out on the northern slope of Union Mountain and along the south-facing slope of Mount Munroe. On Union Mountain, gabbro occurs along the Monarch Mountain thrust as isolated dismembered blocks with faulted contacts.

Atlin Accretionary Complex

The Atlin accretionary complex comprises a series of steeply to moderately dipping lenses and slices of structurally intercalated (meta)sedimentary and volcanic rocks that underlie the southern half and northwest corner of the Atlin region.

Pelagic sedimentary rocks dominate the unit and consist of argillites, cherty argillites, argillaceous cherts and cherts with lesser limestones and greywackes. They range from highly mixed zones with well-developed flattening fabric indicative of tectonic melange to relatively coherent tectonic slices. Individual slices range from metres to several hundreds of metres in width. Indications of internal deformation are moderate or lacking; in a few slices original stratigraphy is well preserved. Contact relationships between many of the individual units of the complex have not been established due to a lack of exposure, however most are inferred to be tectonic. Internal bedding within the individual lenses in some places is parallel to the external contacts, but is more commonly strongly discordant. This argues against simple inter-fingering of different facies.

A common feature throughout the accretionary complex, particularly in areas of moderate overburden, is closely spaced outcroppings of different lithologies with no clearly defined contacts. Such relationships are interpreted to represent areas of melange in which the exposed lithologies that commonly include chert, limestone and basalt are more competent than the intervening, recessive fissile and argillaceous matrix. Such relationships are confirmed where sections are exposed along road cuts and in areas of trenching.

GOLD MINERALIZATION (reproduced from Ash, 2001)

Occurrences of gold quartz vein mineralization throughout the Atlin camp are localized along pervasively carbonatized fissure and fracture zones within and marginal to serpentinized mantle tectonite and ultramafic cumulate rocks of the Atlin ophiolitic assemblage.

Gold quartz veins are poorly and erratically developed within the ultramafic rocks and more commonly occur as random fracture fillings. Wider, more continuous tabular fissure veins have been identified only in the mafic igneous crustal components (gabbro, diabase) of the Atlin ophiolitic assemblage where immediately adjacent to carbonatized ultramafic rocks.

There is also a consistent spatial association between known gold vein occurrences and high level dikes and stocks. Both mineralization and magmatism appear to closely follow Middle Jurassic orogenic activity.

Placer deposits in the camp are situated in stream valleys cutting erosional windows through the carbonatized relatively flat lying thrust faults within the Atlin ophiolitic

assemblage. The placers are considered to be derived from quartz lodes previously contained within the ophiolitic crustal rocks.

Two convincing lines of evidence support the theory that quartz veins are widely accepted as the source of the abundant gold won from Tertiary and Quaternary placer gravels:

- The coarse, free gold in the veins is similar physically and chemically to the gold recovered from the placer gravels.
- The two most productive placer gold streams, Spruce and Pine Creeks, drain erosional windows through the basal fault zones of the ultramafic thrust sheets that are hosts for most of the gold mineralization throughout the camp.

Historically, significant economic concentrations of placer gold are restricted to streams in the Pine Creek and McKee Creek watersheds. It appears that preferential erosion through flat-lying mineralized thrust contacts in both these areas was accelerated along high-angle, post accretionary fault zones. This interpretation is supported by the presence of fault breccia zones within both these valleys.

Lode gold mineralization associated with the thrust sheet of ultramafic cumulate rocks includes showings hosted by faults bounding this thrust sheet, including the Yellowjacket, Imperial, Surprise and Lakeview. The Yellowjacket showing is associated with the basal faulted contact of this ultramafic body along the Pine Creek valley. The contact between the hanging-wall ultramafics and footwall basalts is not exposed but is well defined by exploration drill holes (Marud, 1988). The zone of thrusting is characterized by up to 15 metres of carbonate alteration that contains intermittent zones of quartz-carbonate veining in both hanging-wall and footwall rocks. On the Yellowjacket Property the thrust fault is disrupted by a later, east-trending, steeply dipping structure referred to as the Pine Creek Fault. This high angle fault zone averages approximately 70 metres in width and can be described as a fault breccia. The fault is characterized by strongly broken and fractured rocks, with gouge and rubble zones ranging from centimetres to more than 10 metres wide. The zone contains irregular blocks and lenses of all the lithologies that are typical of the Atlin ophiolitic assemblage, metamorphosed basalt, diabase, gabbro and ultramafics as well as younger felsic rocks. Ultramafic rocks vary from completely serpentinized to completely carbonatized, with or without quartz veining.

Marud (1988) suggests that high-angle faulting might be contemporaneous with mineralization along the fault structure, however Ash (2001) feels it is more likely that the Pine Creek Fault post-dates mineralization. Work to date appears to support the earlier hypothesis by Marud, with high grade gold intercepts in drilling being traced along the Pine Creek Fault. However, it is possible that the fault postdates the original gold emplacement but contains a later concentration of mineralization along its trend.

YELLOWJACKET PROPERTY GEOLOGY

There are eleven distinct lithologies that were previously logged in drill core. These lithologies were originally defined by Homestake (Marud, 1987). In order to maintain consistency in core logging, Prize and AQ followed these rock descriptions and labels as much as possible. In some instances, changes to the lithological nomenclature were necessary for clarity. The following description of each lithological unit is reproduced from the original Homestake reports. *In italics are comments or changes made to the original lithologies during subsequent core logging.*

Unit 1: Basalt
The basalts are generally dark green, weakly to strongly chloritized rocks. They are very fine to fine grained and massive. Original mineralogy consists of approximately 20% plagioclase and 80% pyroxene. Fracturing is ubiquitous with most fractures being coated with dark green serpentine. *In some instances where the rock is faulted and altered, identification between basalt and andesite is not distinguishable, therefore in several instances these two lithologies (Units 1 and 9) are combined during core logging into a single mafic/intermediate volcanic unit.*

Unit 2: Serpentinite
Almost all holes within the Yellowjacket Zone intersect some thickness of completely serpentinized ultramafic rocks. The rocks are typically dark blue-grey to blue-green and massive. Usually they are moderately to strongly magnetic due to the presence of up to 10% magnetite, but nonmagnetic varieties are observed. Stringers, veinlets and spots of talc, calcite and carbonate are common. *Occasionally, unaltered pyroxenite is intersected, often at depth.*

Unit 3: Completely Altered Ultramafic
Most rocks within the Yellowjacket Zone display some alteration. However, some rocks are altered to the point where identification of original minerals and textures is impossible. Such rocks are classified as completely altered. Although serpentinite is a completely altered ultramafic rock, within the Yellowjacket Zone it is considered to be a separate rock type because of its abundance, unique character and early stage of alteration.

Alteration varies widely throughout the zone but carbonatization is by far the most widespread. This alteration results in the replacement of serpentine by magnesian dolomite and/or magnesite with lesser amounts of talc, tremolite and quartz. These rocks are typically light grey, light green or cream in colour and are generally non-magnetic. 2-3% black "flecks" of chromite are regularly observed.

Pervasive silicification is not as common as carbonatization but is extensive enough to be noted. It is usually associated with abundant quartz veining, locally in volcanic rocks but more commonly in serpentinite. Silicification is usually accompanied by 2-3% fine grained pyrite in volcanic rocks and trace disseminated pyrite in serpentinite.

Other alteration minerals noted in the Yellowjacket Zone include calcite, sericite, chlorite, biotite and mariposite.

Whenever possible, distinctions between the various intense alterations within the ultramafic rocks have been made during core logging. In general, the light and dark grey, mottled to spotted completely altered ultramafic unit is called magnesite indicating strong magnesium-carbonate alteration. In many instances this alteration is combined with weak to strong talc or overprinted by silica flooding.

Dark orange, mottled and spotted completely altered ultramafic is moderately to strongly iron carbonate altered. Again this alteration can be combined with weak to strong talc or overprinted by silica flooding. Visible gold has been identified in two intervals of strong iron carbonate and silica alteration.

The third important alteration to identify in the completely altered ultramafic category is listwanite. Listwanite is ultramafic that is carbonatized, strongly silicified (exhibiting both silica flooding and veinlets), mariposite (Cr-mica) rich, and often contains minor amounts of fine grained disseminated pyrite. Occasionally fine specks of visible gold can be identified in the listwanite, and more commonly within the associated quartz veining.

Unit 4: Mafic Intrusive Rocks
4a. Diabase – Diabase dykes have been noted in most of the drill holes in the Yellowjacket Zone. They are typically a fine grained mixture of pyroxene and plagioclase, sometimes exhibiting ophitic texture. Alteration is variable but chlorite, carbonate, serpentine and leucoxene have all been noted. *Hematite is a common fracture coating.*

As with the basalts above, in the intensely faulted zones, distinction between the volcanic units (basalt and andesite) and diabase is not readily visible, therefore these units are sometimes combined.

4b. Gabbro – It seems to occur as thin, long flat lying sills, often cut by numerous dykes. Thickness of the units is estimated at 30 metres. The gabbro is medium to coarse grained and relatively unaltered except for abundant thin unmineralized white quartz veins.

Unit 5: Feldspar Porphyry
Feldspar porphyry has previously been noted in holes YJ86-9, 12 and 17. It was not intersected in subsequent drilling. *This feldspar porphyry unit is likely the same as Unit 9b plagioclase porphyritic andesite.*

Unit 6: Syenite
Syenite was identified in hole YJ86-13 and 16 but was not intersected in subsequent drilling.

Unit 7: Diorite

Rocks logged as diorites are generally dark green with up to 40% white feldspar phenocrysts and 60% chloritized(?) amphibole. They typically have a dioritic texture and often grade in and out of fine grained andesitic rocks. In drill holes they have also been noted to contain hornblende phenocrysts and have been call hornblende andesites (9a).

Unit 8: Greenstone
This unit is used as a field term for any chloritized and/or carbonatized volcanic rock presumably ranging from andesite to basalt. It was only used where a more diagnostic description was not possible. *As mentioned earlier in this section, in the faulted and altered zones, distinction between the intermediate/mafic volcanic units is often difficult. Although, in core logging Homestake used the term Greenstone, the author prefers to identify these units simply as volcanic.*

Unit 9: Andesite
They seem to form irregular shaped pods, lenses and slivers becoming more continuous to the south. They are generally dark grey to green, fine grained volcanic rocks made up primarily of plagioclase feldspar with 10-15% quartz. Mafic minerals include hornblende, chlorite and biotite. Two sub units have been recognized and classified on the basis of their predominant phenocrysts. These are 9a, Hornblende Andesite and 9b, Plagioclase Andesite. *Adjacent to strong fault features, where the ultramafic units are strongly deformed and altered, the more competent andesite tends to shatter. This fractured rock is then stockworked and flooded with quartz-carbonate. The highest grade gold intervals returned from drill core are associated with this portion of the lithology package.*

Unit 10: Lamprophyre (Phlogopite/Biotite Porphyry)
These rocks are dark grey to dark olive green, fine to coarse grained, with brown biotite-phlogopite flakes of less than 1 millimetre in size disseminated in a fine-grained matrix of plagioclase.

Unit 11: Intermediate Extrusive
Although this unit is not that common in the Yellowjacket Zone it does bear mention, as it is quite unusual. It has been noted only in holes YJ88-52 and 55 at depths greater than 100 metres. The unit is typically dark grey to brown and very fine grained. It contains between 1 to 15% white recrystallized knots of quartz. The knots are generally 0.5 to 1.5 centimetres in diameter and often look to be boudined quartz veins. The matrix of the rock however shows no sign of tectonism. The unit is very competent and is highly siliceous. Fracturing is only poorly developed and alteration is weak with only minor amounts of carbonate and calcite being present.

MINERALIZATION

On the Property, the Yellowjacket Zone is the main mineralized zone identified by drilling to date. Diamond drilling has intersected gold mineralization throughout its 350 metre length.

In the Yellowjacket Zone, ophiolite-hosted gold veins are contained within fault-bounded lenses of oceanic igneous crust. Listwanite altered ultramafic rocks are consistently associated with the ophiolite-hosted gold veins, but rarely host them. This deposit type contains very high grade, coarse native gold occurring in quartz veins or flooding hosted by ophiolitic mafic igneous crustal rocks (gabbro, diabase, basalt, andesite) adjacent to listwanite altered ultramafic rocks.

Exploration drilling which encounters coarse native gold is subject to the 'nugget effect' where adjacent samples within the same mineralized zone can have widely varying gold values. This "nugget effect" must be taken in to account when exploring for gold mineralization in this type of system and the importance of structures, veins and associated and indicator element geochemistry must be stressed. The gold values within this mineralized system will often be greatly variable.

8) LIDAR SURVEY

In August 2017, African Queen contracted Eagle Mapping Ltd. to fly a LIDAR survey over a significant portion of the claim block (Figure 4). The 2017 exploration program was largely over when the deliverables were received from Eagle, therefore plots were not utilized during the 2017 exploration season. The digital data will be extremely useful in ongoing exploration programs.

LIDAR uses laser light to measure distance similar to RADAR, but uses light rather than radio waves. The result is the ability to produce accurate, detailed surface models quickly and often at reduced costs over conventional photogrammetric mapping.

Eagle Mapping has engineered a Lidar system based on Riegl's advanced LMQS-Q1560VQ-580 laser scanner. The system provides state of the art high speed, medium-high altitude laser scanning with superior accuracy from Riegl's online waveform analysis.

The LMS-Q1560 has:
•High laser Pulse repetition rate up to 800 kHz
•Innovative forward/backward looking capability
•Digitization electronics for full waveform data
•Single multifaceted polygon mirror for beam deflection
•Integrated multi-megapixel aerial medium format camera
•Integrated secondary camera (e.g. IR-camera)
•Integrated inertial navigation system and GNSS receiver
•Fiber coupled high speed data interface to single RIEGL Data Recorder.

Table II shows the survey specifications as provided to African Queen by Eagle Mapping for the LIDAR survey. A full copy of the digital data is provided along with this report on USB.

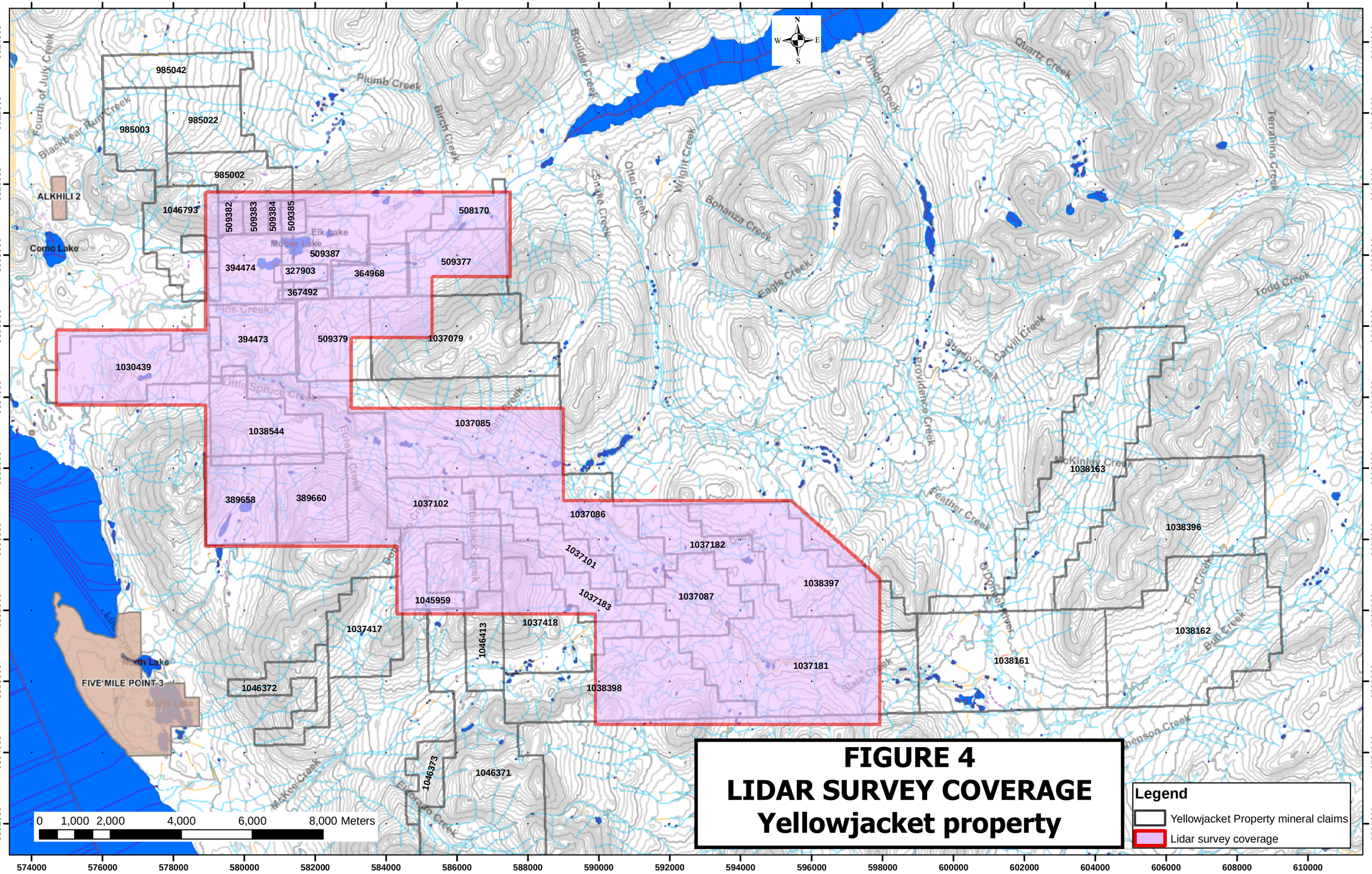


FIGURE 4
LIDAR SURVEY COVERAGE
Yellowjacket property

Legend

- Yellowjacket Property mineral claims
- Lidar survey coverage

TABLE II: LIDAR SURVEY SPECIFICATIONS

Eagle Mapping LiDAR Report

Project Title: Yellowjacket Gold Project
Project Number: 17-073
Client Name: African Queen Resources Ltd.
Client Address: 1153 56th St, Delta, BC V4L 2P8
AOI Area: 138 sq. km

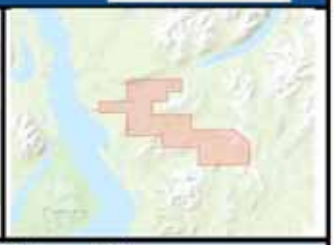


Photo Acquisition		LiDAR Acquisition	
Flight Date(s):	N/A	Flight Date(s):	August 9, 2017
Aircraft:	-	Aircraft:	Piper Navajo
Camera Unit:	-	LiDAR Unit:	Riegl Q1560
Flight Altitude:	-	Flight Altitude:	1400m AGL
Forward Overlap:	-	Flight Speed:	140 kts
Side Overlap:	-	Line Overlap:	30%
Resolution:	-	Field of View:	58°

Trajectory Processing

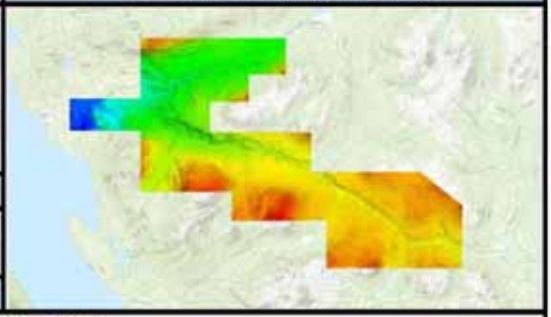
GNSS: Applanix POS AV510
Software: POSPac v 8.1
Satellites: **Min:** 12 / **Max:** 18
PDOP: **Min:** 1.1 / **Max:** 2.0
RMSE: 2.5 cm

LiDAR Accuracy

Horizontal Accuracy: ± 15 cm
Vertical Accuracy: ± 30 cm

Waveform Analysis

Density / Ortho / Point Cloud



Software Used: RiPROCESS v 1.8.4
Calibration Method: Matching tie-planes (Least- squares)
Average Point Density: **All Returns:** 12 pts/m **Last Returns:** 6 pts/m

Map Projection Information		Deliverables; Interval/Resolution; Format		
Projection:	UTM 8N	Point Cloud:	v1.2	LAS (.las)
Horizontal Datum:	NAD83(CSRS)	DEM, DSM:	1m	ArcASCII(.asc)
Vertical Datum:	CGVD2013	Contours:	1m	Shapefile(.shp)
Geoid:	CGG2013	Hillshade Raster	1m	GeoTiff(.tiff)
Units	Meters	DEM, DSM, Conts	1:2,000	Hard copy plots
EPSG:	3155	DEM, DSM	1:10,000	Hard copy plots

Eagle Mapping Ltd.
201 - 2071 Kingsway Ave
Port Coquitlam, B.C. Canada
V3C 6N2

Tel: 1-604-942-5551
Toll Free: 1-877-942-5551
Fax: 1-604-942-5951
www.eaglemapping.com

9) DIAMOND DRILLING

Four diamond drill holes totalling 278.28 metres were drilled on mineral tenures 327903 and 509387 from September 15 to 29, 2017. The objective of the drill program was to expand the mineralization of the Yellowjacket zone along strike to the east. The core is stored at the Yellowjacket site, 581780E / 6607335N.

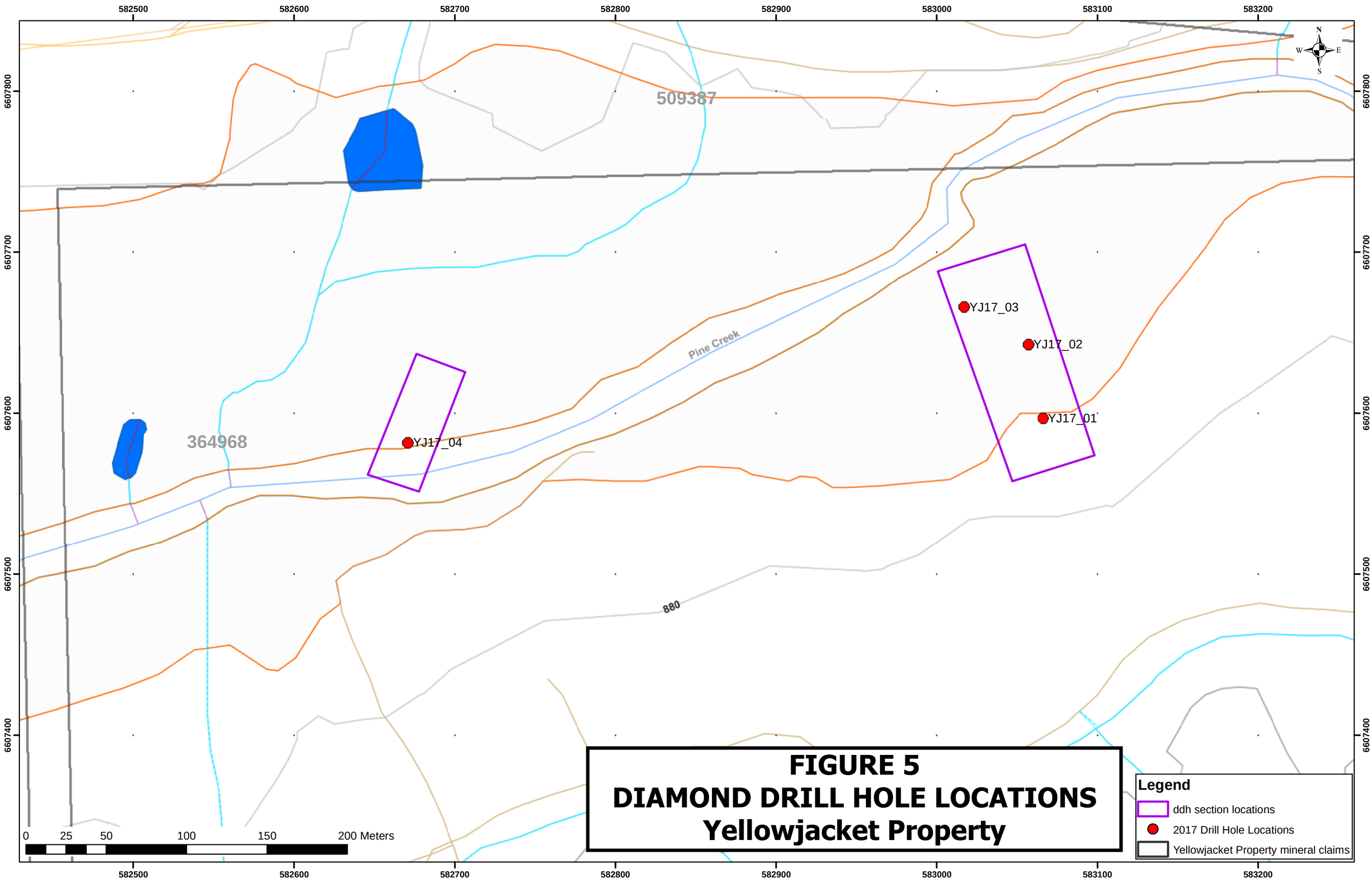
The drill hole positions and orientations are detailed in Table III. Their position and surface projection is presented in Figure 5. Drill logs can be found in Appendix I. Drilling was performed by Zinex Mining Corp. There were no downhole surveys.

TABLE III: Drill Hole Information

HOLE ID	NORTHING	EASTING	AZIMUTH	DIP	LENGTH (m)	DATE DRILLED	DATE LOGGED	LOGGER	CORE SIZE
YJ17-01	6607597	583066	340	-60	102.41	Sep 15-19/17	Sep 18-20/17	Ian Coster	NQ
YJ17-02	6607643	583057	340	-60	69.80	Sep 20-22/17	Sep 21-24/17	Ian Coster	NQ
YJ17-03	6607666	583017	340	-60	38.71	Sep 23-25/17	Sep 24-25/17	Ian Coster	NQ
YJ17-04	6607582	582671	022	-60	67.36	Sep 26-29/17	Sep 27-30/17	Ian Coster/ Linda Dandy	HQ/NQ

Figure 6 shows a section through drill holes YJ17-01 to 03. None of these drill holes intersected significant gold mineralization, although strong faulting and broad zones of intense clay alteration were found. Holes YJ17-02 and 03 were abandoned short of their target depths due to drilling difficulties.

Figure 7 is a drill section showing hole YJ17-04. This hole intersected variably altered ultramafic rocks (Fe and Mg carbonate alteration plus silicification) with sections containing bright green mariposite. Alternating with the altered ultramafics are andesitic volcanic rocks, occasionally bleached, silicified and containing disseminated pyrite and quartz-carbonate stockworks. These lithologic signatures are identical to those seen hosting "ore" at the Yellowjacket mine. Weakly elevated gold values (+/- weakly elevated silver +/- arsenic) were found from 40.84 to 47.45 in hole YJ17-04 indicating potential proximity to favourable mineralization.


582500
582600
582700
582800
582900
583000
583100
583200
6607800
6607700
6607600
6607500
6607400
N
W
E
S
509387
364968
Pine Creek
880
YJ17_03
YJ17_02
YJ17_01
YJ17_04
0
25
50
100
150
200 Meters
FIGURE 5
DIAMOND DRILL HOLE LOCATIONS
Yellowjacket Property
Legend
ddh section locations
2017 Drill Hole Locations
Yellowjacket Property mineral claims

950 m ASL

950 m ASL

YJ17-02

YJ17-02

YJ17-01

YJ17-01

YJ17-03

YJ17-03

900 m ASL

N+6607700.00

N+6607600.00

900 m ASL

YJ17-03

YJ17-02

YJ17-01

850 m ASL

850 m ASL

800 m ASL

800 m ASL

LEGEND

ASSAY : AU_PPB

0.0000 - 0.5000

0.5000 - 1.0000

1.0000 - 2.5000

2.5000 - 5.0000

5.0000 - 10.0000

10.0000 - 25.0000

25.0000 - 50.0000

50.0000 - 500.0000

LITHOLOGY

2: Andesite

3a: Mg-Carb Serpentinite

3b: Fe-Carb Serpentinite

3c: Listwanite

4a: Diabase

9b: Andesite

88: Overburden

89: Lost core

HOLE-ID

XXX

XXX

HOLE-ID

750 m ASL

750 m ASL

-10 0 10 20 30

Scale 1:500

FIGURE 6
DIAMOND DRILL SECTION
YJ17-01to YJ17-03
Yellowjacket Property

Yellow Jacket

2017 Drilling - Section 2017E

Lithology and Gold

1:500 Looking toward 050 Az

950 m ASL

950 m ASL

E+582700.00

YJ17-04

YJ17-04

900 m ASL

900 m ASL

E+582700.00

N+6607600.00

N+6607600.00

YJ17-04

850 m ASL

850 m ASL

1.40
2.40
23.20
2.00
8.30
6.80
3.10
5.90
3.20
40.00
64.40
33.90
4.30
6.90
1.50
4.70
16.60
19.70
4.80
16.90
72.20
65.00
12.40
17.40
86.60
224.60
9.70
4.50
2.00
0.70
1.40
0.25
3.20
46.50
4.40
1.60
0.60
0.25
6.10
0.25
0.25

88

2
2
3b
3a
3b
4a
3b
4a
3b
9b
3c
9b
3a
9b
9b
2
9b
2
9b

YJ17-04

800 m ASL

800 m ASL

LEGEND

ASSAY : AU_PPB

0.0000 - 0.5000
0.5000 - 1.0000
1.0000 - 2.5000
2.5000 - 5.0000
5.0000 - 10.0000
10.0000 - 25.0000
25.0000 - 50.0000
50.0000 - 500.0000

LITHOLOGY

2: Andesite
3a: Mg-Carb Serpentinite
3b: Fe-Carb Serpentinite
3c: Listwanite
4a: Diabase
9b: Andesite
88: Overburden
89: Lost core

HOLE-ID
XXX

XXX
HOLE-ID

750 m ASL

750 m ASL

-10 0 10 20 30

Scale 1:500

FIGURE 7
DIAMOND DRILL HOLE SECTION YJ17-04
Yellowjacket Property

Yellow Jacket

2017 Drilling - Section 2017W

Lithology and Gold

1:500 Looking toward 112 Az

10) GEOCHEMISTRY

10A) Drill Core Samples

Diamond drill core from all 4 holes was logged, split and sampled. Barren, unaltered sections of drill core were not sampled. 0.5 to 2.0 metre long drill sections, selected for sampling, were cut using a diamond saw. One half of the core went into labelled plastic sample bags and the other half retained in the marked core box for future reference.

Core samples were delivered to Bureau Veritas Labs Ltd. in Whitehorse, YT for sample preparation and then shipped to Bureau Veritas facility in Vancouver for analyses. All sample preparation was done at the laboratory by their staff. In the laboratory, rock samples were crushed, then a 250 gram sub-sample was pulverized to –200 mesh and sieved. 50 grams of sieved material was fire assayed for gold and silver, plus a 36 element ICP-MS analyses. Bureau Veritas Certificates of Analyses for the drill core samples can be found in Appendix II.

10B) Water Quality Sampling

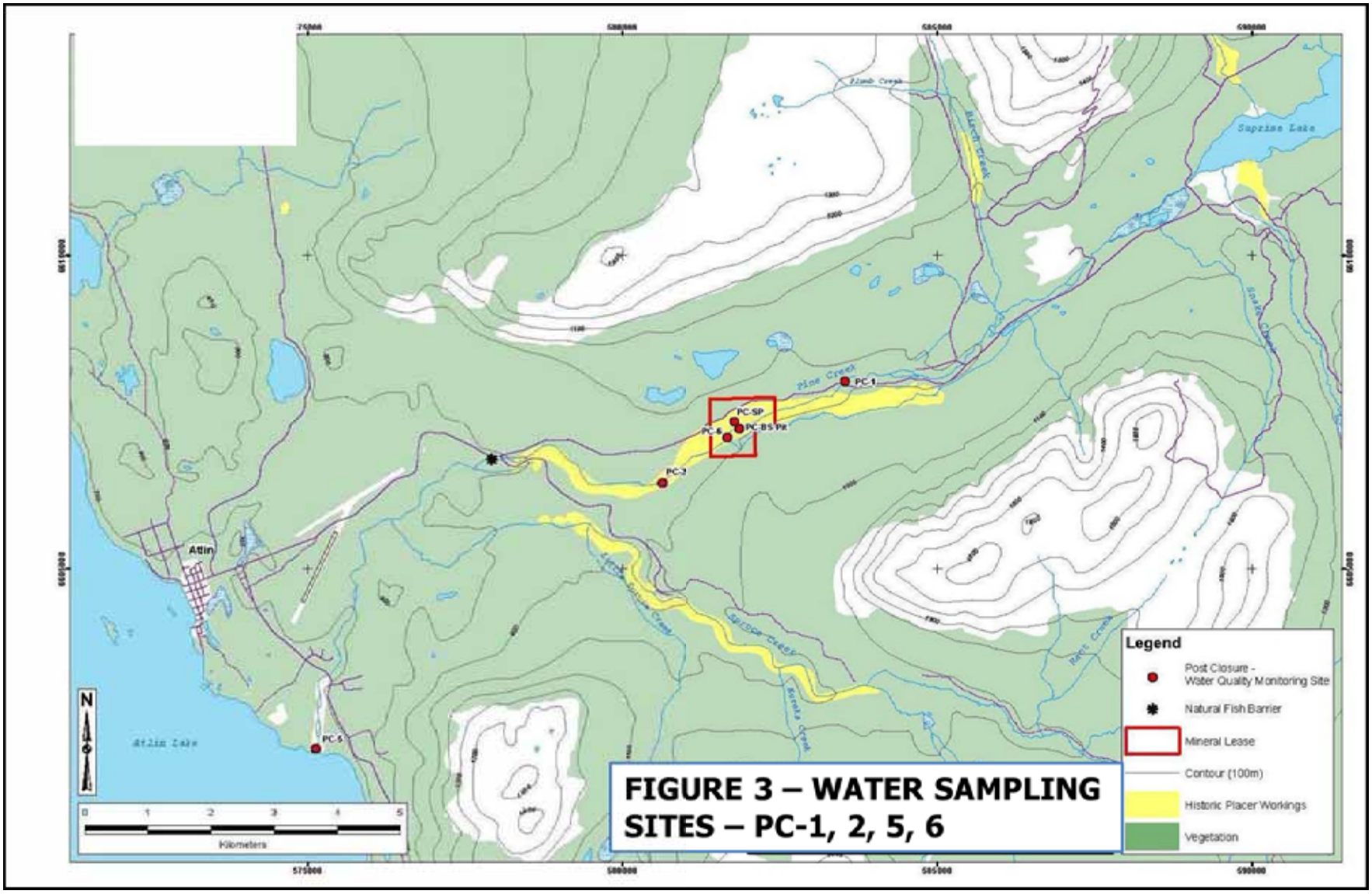
In July, August and October 2017, water quality monitoring was conducted. This program consists of analysis of surface water from Pine Creek, groundwater from several monitoring wells and leachate from 5 kinetic test bins. Baseline water quality data was collected in 2006 and 2007, in conjunction with the bulk sampling program and monitoring has been conducted intermittently between 2009 and 2014. African Queen re-established the monitoring program in 2016 in order to have recent available data as they continue their exploration program with a view to ultimately re-opening the Yellowjacket Gold Mine.

Surface Water Quality Monitoring

Four surface water sample sites (PC-1, PC-2, PC-5 and PC-6) are located along Pine Creek (Figure 8). Each of the 2017 water samples were analysed for: Total Suspended Solids (TSS), total metals, total ammonia (NH3), total nitrogen, dissolved metals plus mercury (Hg), and included analysis for as turbidity, pH, alkalinity, chloride (Cl), fluoride (F), sulphate (SO4) and phosphorous (P).

Water samples were collected on June 25, August 23 and October 23, 2017 from the 4 sites along Pine Creek. Following collection, the samples were kept cool overnight, and then couriered directly to Maxxam's preparatory lab facility at Whitehorse, Yukon. From there, the samples were flown for analysis to Maxxam's Burnaby, British Columbia laboratory.

For each sampling event, a duplicate sample was collected at PC-1 and a field blank sample was also included.



Linda Dandy, P.Geo., Box 95, Atlin, BC, V0W 1A0 Phone: 250-651-7531 Email: lindadandy@telus.net

At each sample site 8 bottles were filled:

- 120 ml plastic preserved with H_2SO_4 (Analysis Ammonia-N)
- 120 ml plastic preserved with H_2SO_4 (Analysis Phosphorus-P Total/Dissolved), field filtered
- 1 litre plastic cold preserved (Analysis Alkalinity, Chloride, Conductance – water, Nitrate + Nitrite (N), Nitrite (N) by CFA, Nitrogen-Nitrate (as N), pH water, Orthophosphate, Sulphate, Total Suspended Solids, Turbidity)
- 250 ml plastic cold preserved (Analysis Fluoride for Mining Clients)
- 40 ml glass preserved with 1 ml 50% HCl (Analysis Mercury dissolved by CVAF), field filtered
- 40 ml glass preserved with 1 ml 50% HCl (Analysis Mercury total by SVAF)
- 120 ml plastic preserved with HNO_3 (Analysis Dissolved Metals – Hardness calculated as $CaCO_3$, Na, K, Ca, Mg, S and elements by CRC ICP-MS diss), field filtered
- 120 ml plastic preserved with HNO_3 (Analysis Total Metals – Hardness total calculated as $CaCO_3$, Na, K, Ca, Mg, S and elements by CRC ICP-MS total).

Sample locations can be seen on Figure 8. Maxxam Laboratory Certificates of Analysis for June 2017 can be found in Appendix III, for August 2017 in Appendix IV and October 2017 in Appendix V.

TABLE IV: JUNE 25, 2017 WATER QUALITY DATA

Comparison of June 2017 Water Quality Data to BC Water Quality Guidelines for the Protection of Aquatic Life

Parameter	Units	BC WQ Guidelines		PC-1	PC-2	PC-5	PC-6
		Maximum	30 Day	25-Jun-17	25-Jun-17	25-Jun-17	25-Jun-17
Fluoride (F)	mg/L	1.09	NP	0.710	0.710	0.610	0.700
Nitrite (N)	mg/L	0.06	0.02	<0.005	<0.005	<0.005	<0.005
Nitrate (N)	mg/L	32.8	3	<0.020	0.020	<0.020	0.024
Dissolved Sulphate (SO_4)	mg/L	NP	218	4.85	5.10	6.30	4.97
Dissolved Chloride (Cl)	mg/L	600[a]	150[a]	0.51	<0.50	<0.50	<0.50
Ammonia (N)	mg/L	6.75[b]	1.3[b]	0.054	0.061	0.049	0.051
Total Suspended Solids	mg/L	25	5	<4.0	<4.0	4.3	<4.0
Turbidity	NTU	8	2	1.80	2.14	2.40	2.38
Dissolved Metals							
Dissolved Aluminum (Al)	µg/L	100	50	4.6	4.4	4.7	4.4
Dissolved Iron (Fe)	µg/L	350	NP	<5.0	<5.0	<5.0	<5.0
Total Metals by ICPMS							
Total Antimony (Sb)	µg/L	20	NP	<0.50	<0.50	<0.50	<0.50
Total Arsenic (As)	µg/L	5	NP	0.61	0.63	0.59	0.61
Total Barium (Ba)	µg/L	5000	1000	13.5	14.0	17.0	13.7
Total Boron (B)	µg/L	1200	NP	<50	<50	<50	<50
Total Cadmium (Cd)	µg/L	0.0198[c]	NP	0.010	0.011	0.010	0.011
Total Chromium (Cr)	µg/L	1	NP	<1.0	<1.0	<1.0	<1.0
Total Cobalt (Co)	µg/L	110	4	<0.20	<0.20	0.21	<0.20
Total Copper (Cu)	µg/L	7[c]	2[c]	0.73	0.77	0.88	0.75
Total Iron (Fe)	µg/L	1000	NP	81	82	125	83
Total Lead (Pb)	µg/L	38[c]	5	<0.20	<0.20	<0.20	<0.20
Total Lithium (Li)	µg/L	870	96	2.4	2.3	2.1	2.3
Total Manganese (Mn)	µg/L	1146[c]	847[c]	5.6	6.0	8.4	6.0
Total Mercury (Hg)	µg/L	1[d]	0.02	<0.010	<0.010	<0.010	<0.010
Total Molybdenum (Mo)	µg/L	2000	1000	2.6	2.6	2.3	2.6
Total Nickel (Ni)	µg/L	25[c]	NP	3.0	3.2	4.0	3.2
Total Selenium (Se)	µg/L	2	NP	0.11	<0.10	0.10	<0.10
Total Silver (Ag)	µg/L	0.1[c]	0.05[c]	<0.020	<0.020	<0.020	<0.020
Total Thallium (Tl)	µg/L	0.3	NP	<0.010	<0.010	<0.010	<0.010
Total Titanium (Ti)	µg/L	2000	NP	<5.0	<5.0	<5.0	<5.0
Total Uranium (U)	µg/L	300	NP	2.23	2.24	1.92	2.18
Total Vanadium (V)	µg/L	6	NP	<5.0	<5.0	<5.0	<5.0
Total Zinc (Zn)	µg/L	33[c]	8[c]	<5.0	<5.0	<5.0	<5.0

[a] Wildlife guideline

[b] Based on pH = 7.9 and temperature = 15°C

[c] Hardness dependent guideline, based on hardness of 55 mg/L (average hardness for receiving waters from 2009-2013)

[d] Drinking water guideline

TABLE V: AUGUST 23, 2017 WATER QUALITY DATA

Comparison of August 2017 Water Quality Data to BC Water Quality Guidelines for the Protection of Aquatic Life

Parameter	Units	BC WQ Guidelines		PC-1	PC-2	PC-5	PC-6
		Maximum	30 Day	23-Aug-17	23-Aug-17	23-Aug-17	23-Aug-17
Fluoride (F)	mg/L	1.09	NP	0.710	0.710	0.600	0.720
Nitrite (N)	mg/L	0.06	0.02	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate (N)	mg/L	32.8	3	<0.020	<0.020	<0.020	<0.020
Dissolved Sulphate (SO_4)	mg/L	NP	218	4.7	4.9	6.8	4.7
Dissolved Chloride (Cl)	mg/L	600[a]	150[a]	<1.0	<1.0	<1.0	<1.0
Ammonia (N)	mg/L	6.75[b]	1.3[b]	<0.020	<0.020	<0.020	<0.020
Total Suspended Solids	mg/L	25	5	<4.0	<4.0	<4.0	<4.0
Turbidity	NTU	8	2	0.50	0.51	0.93	0.61
Dissolved Metals							
Dissolved Aluminum (Al)	µg/L	100	50	3.8	3.7	<3.0	4.1
Dissolved Iron (Fe)	µg/L	350	NP	8.6	6.7	6.4	7.8
Total Metals by ICPMS							
Total Antimony (Sb)	µg/L	20	NP	<0.50	<0.50	<0.50	<0.50
Total Arsenic (As)	µg/L	5	NP	0.61	0.63	0.54	0.67
Total Barium (Ba)	µg/L	5000	1000	13.4	13.6	18.7	13.6
Total Boron (B)	µg/L	1200	NP	<50	<50	<50	<50
Total Cadmium (Cd)	µg/L	0.0198[c]	NP	<0.010	<0.010	<0.010	<0.010
Total Chromium (Cr)	µg/L	1	NP	<1.0	<1.0	<1.0	<1.0
Total Cobalt (Co)	µg/L	110	4	<0.20	<0.20	<0.20	<0.20
Total Copper (Cu)	µg/L	7[c]	2[c]	0.59	0.52	0.75	0.62
Total Iron (Fe)	µg/L	1000	NP	47	48	123	71
Total Lead (Pb)	µg/L	38[c]	5	<0.20	<0.20	<0.20	<0.20
Total Lithium (Li)	µg/L	870	96	2.4	2.4	2.0	2.3
Total Manganese (Mn)	µg/L	1146[c]	847[c]	3.7	3.7	6.4	3.9
Total Mercury (Hg)	µg/L	1[d]	0.02	<0.010	<0.010	<0.010	<0.010
Total Molybdenum (Mo)	µg/L	2000	1000	2.6	2.6	2.3	2.7
Total Nickel (Ni)	µg/L	25[c]	NP	2.0	2.1	3.1	2.5
Total Selenium (Se)	µg/L	2	NP	<0.10	<0.10	0.11	<0.10
Total Silver (Ag)	µg/L	0.1[c]	0.05[c]	<0.020	<0.020	<0.020	<0.020
Total Thallium (Tl)	µg/L	0.3	NP	<0.010	<0.010	<0.010	<0.010
Total Titanium (Ti)	µg/L	2000	NP	<5.0	<5.0	<5.0	<5.0
Total Uranium (U)	µg/L	300	NP	2.39	2.38	1.91	2.43
Total Vanadium (V)	µg/L	6	NP	<5.0	<5.0	<5.0	<5.0
Total Zinc (Zn)	µg/L	33[c]	8[c]	<5.0	<5.0	<5.0	<5.0

[a] Wildlife guideline

[b] Based on pH = 7.9 and temperature = 15°C

[c] Hardness dependent guideline, based on hardness of 55 mg/L (average hardness for receiving waters from 2009-2013)

[d] Drinking water guideline

TABLE VI: OCTOBER 23, 2017 WATER QUALITY DATA

Comparison of October 2017 Water Quality Data to BC Water Quality Guidelines for the Protection of Aquatic Life

Parameter	Units	BC WQ Guidelines		PC-1	PC-2	PC-5	PC-6
		Maximum	30 Day	23-Oct-17	23-Oct-17	23-Oct-17	23-Oct-17
Fluoride (F)	mg/L	1.09	NP	0.690	0.680	0.570	0.690
Nitrite (N)	mg/L	0.06	0.02	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate (N)	mg/L	32.8	3	<0.020	<0.020	<0.020	<0.020
Dissolved Sulphate (SO_4)	mg/L	NP	218	5.1	5.5	6.8	5.1
Dissolved Chloride (Cl)	mg/L	600[a]	150[a]	<1.0	<1.0	<1.0	<1.0
Ammonia (N)	mg/L	6.75[b]	1.3[b]	<0.020	<0.020	<0.020	<0.020
Total Suspended Solids	mg/L	25	5	<4.0	<4.0	<4.0	<4.0
Turbidity	NTU	8	2	2.76	2.54	1.81	2.81
Dissolved Metals							
Dissolved Aluminum (Al)	µg/L	100	50	<3.0	<3.0	<3.0	<3.0
Dissolved Iron (Fe)	µg/L	350	NP	<5.0	<5.0	<5.0	<5.0
Total Metals by ICPMS							
Total Antimony (Sb)	µg/L	20	NP	<0.50	<0.50	<0.50	<0.50
Total Arsenic (As)	µg/L	5	NP	1.21	1.07	0.77	0.99
Total Barium (Ba)	µg/L	5000	1000	17.5	16.9	19.5	16.2
Total Boron (B)	µg/L	1200	NP	<50	<50	<50	<50
Total Cadmium (Cd)	µg/L	0.0198[c]	NP	0.014	0.011	<0.010	0.011
Total Chromium (Cr)	µg/L	1	NP	<1.0	<1.0	<1.0	<1.0
Total Cobalt (Co)	µg/L	110	4	<0.20	<0.20	<0.20	<0.20
Total Copper (Cu)	µg/L	7[c]	2[c]	1.25	1.04	0.75	1.14
Total Iron (Fe)	µg/L	1000	NP	152	123	97	110
Total Lead (Pb)	µg/L	38[c]	5	<0.20	<0.20	<0.20	<0.20
Total Lithium (Li)	µg/L	870	96	2.3	2.3	<2.0	2.6
Total Manganese (Mn)	µg/L	1146[c]	847[c]	5.5	4.4	3.1	4.1
Total Mercury (Hg)	µg/L	1[d]	0.02	<0.010	<0.010	<0.010	<0.010
Total Molybdenum (Mo)	µg/L	2000	1000	2.6	2.5	2.3	2.5
Total Nickel (Ni)	µg/L	25[c]	NP	3.1	2.7	2.5	2.5
Total Selenium (Se)	µg/L	2	NP	<0.10	<0.10	<0.10	<0.10
Total Silver (Ag)	µg/L	0.1[c]	0.05[c]	<0.020	<0.020	<0.020	<0.020
Total Thallium (Tl)	µg/L	0.3	NP	<0.010	<0.010	<0.010	<0.010
Total Titanium (Ti)	µg/L	2000	NP	<5.0	<5.0	<5.0	<5.0
Total Uranium (U)	µg/L	300	NP	2.18	2.19	1.95	2.10
Total Vanadium (V)	µg/L	6	NP	<5.0	<5.0	<5.0	<5.0
Total Zinc (Zn)	µg/L	33[c]	8[c]	<5.0	<5.0	<5.0	<5.0

[a] Wildlife guideline

[b] Based on pH = 7.9 and temperature = 15°C

[c] Hardness dependent guideline, based on hardness of 55 mg/L (average hardness for receiving waters from 2009-2013)

[d] Drinking water guideline

All results for the 2017 sampling program fall below the allowable limits for all elements in the BC Water Quality guidelines. The pH levels in 2017 were also within the allowable pH range. In June and October, turbidity values are just slightly higher than the 30 day allowable but not higher than the maximum allowable. The elevated turbidity is due to placer mining activities ongoing up drainage from the sampling sites.

In the field, for each sampling sequence a duplicate sample and a field blank were collected. Sample duplicates were collected at PC-1.

The results of the internal Quality Assurance/Quality Control (QA/QC) program provided by Maxxam Analytical Labs for the June, August and October 2017 sampling program are provided in Appendices III, IV, and V, respectively. The QA/QC data indicates a high level of reliability of the data. Tables VII, VIII and IX compare the field QA/QC results for the June, August and October surface water quality sampling, respectively.

TABLE VII
FIELD QA/QC RESULTS – JUNE 2017 WATER QUALITY SAMPLING

Parameter	Units	BC WQ Guidelines		PC-1	DUP-1	FIELD BLANK
		Maximum	30 Day	25-Jun-17	25-Jun-17	25-Jun-17
Fluoride (F)	mg/L	1.09	NP	0.710	0.710	<0.010
Nitrite (N)	mg/L	0.06	0.02	<0.0050	<0.0050	<0.0050
Nitrate (N)	mg/L	32.8	3	<0.020	0.024	<0.020
Dissolved Sulphate (SO_4)	mg/L	NP	218	4.85	5.10	<0.50
Dissolved Chloride (Cl)	mg/L	600[a]	150[a]	0.51	0.66	<0.50
Ammonia (N)	mg/L	6.75[b]	1.3[b]	0.054	0.036	<0.0050
Total Suspended Solids	mg/L	25	5	<4.0	4.3	<4.0
Turbidity	NTU	8	2	1.80	1.68	<0.10
Dissolved Metals						
Dissolved Aluminum (Al)	µg/L	100	50	4.6	4.5	<3.0
Dissolved Iron (Fe)	µg/L	350	NP	<5.0	<5.0	<5.0
Total Metals by ICPMS						
Total Antimony (Sb)	µg/L	20	NP	<0.50	<0.50	<0.50
Total Arsenic (As)	µg/L	5	NP	0.61	0.62	<0.10
Total Barium (Ba)	µg/L	5000	1000	13.5	13.8	<1.0
Total Boron (B)	µg/L	1200	NP	<50	<50	<50
Total Cadmium (Cd)	µg/L	0.0198[c]	NP	0.010	0.012	<0.010
Total Chromium (Cr)	µg/L	1	NP	<1.0	<1.0	<1.0
Total Cobalt (Co)	µg/L	110	4	<0.20	<0.20	<0.20
Total Copper (Cu)	µg/L	7[c]	2[c]	0.73	0.75	<0.50
Total Iron (Fe)	µg/L	1000	NP	81	137	<10
Total Lead (Pb)	µg/L	38[c]	5	<0.20	<0.20	<0.20
Total Lithium (Li)	µg/L	870	96	2.4	2.4	<2.0
Total Manganese (Mn)	µg/L	1146[c]	847[c]	5.6	6.0	<1.0
Total Mercury (Hg)	µg/L	1[d]	0.02	<0.010	<0.010	<0.010
Total Molybdenum (Mo)	µg/L	2000	1000	2.6	2.6	<1.0
Total Nickel (Ni)	µg/L	25[c]	NP	3.0	2.9	<1.0

Total Selenium (Se)	µg/L	2	NP	0.11	<0.10	<0.10
Total Silver (Ag)	µg/L	0.1[c]	0.05[c]	<0.020	<0.020	<0.020
Total Thallium (Tl)	µg/L	0.3	NP	<0.010	<0.010	<0.010
Total Titanium (Ti)	µg/L	2000	NP	<5.0	<5.0	<5.0
Total Uranium (U)	µg/L	300	NP	2.23	2.27	<0.10
Total Vanadium (V)	µg/L	6	NP	<5.0	<5.0	<5.0
Total Zinc (Zn)	µg/L	33[c]	8[c]	<5.0	<5.0	<5.0

In June, the field blank returned below detection limits for all items. Sample Dup-1, collected at site PC-1, had very good correlations for all elements except dissolved Fe where the duplicate value was 40% higher than the original sample.

TABLE VIII
FIELD QA/QC RESULTS – AUGUST 2017 WATER QUALITY SAMPLING

Parameter	Units	BC WQ Guidelines		PC-1	DUP-PC	FIELD BLANK
		Maximum	30 Day	23-Aug-17	23-Aug-17	23-Aug-17
Fluoride (F)	mg/L	1.09	NP	0.710	0.710	<0.020
Nitrite (N)	mg/L	0.06	0.02	<0.0050	<0.0050	<0.0050
Nitrate (N)	mg/L	32.8	3	<0.020	<0.020	<0.020
Dissolved Sulphate (SO_4)	mg/L	NP	218	4.7	4.7	<1.0
Dissolved Chloride (Cl)	mg/L	600[a]	150[a]	<1.0	<1.0	<1.0
Ammonia (N)	mg/L	6.75[b]	1.3[b]	<0.020	<0.020	<0.020
Total Suspended Solids	mg/L	25	5	<4.0	<4.0	<4.0
Turbidity	NTU	8	2	0.50	0.58	<0.10
Dissolved Metals						
Dissolved Aluminum (Al)	µg/L	100	50	3.8	4.0	<3.0
Dissolved Iron (Fe)	µg/L	350	NP	8.6	6.7	<5.0
Total Metals by ICPMS						
Total Antimony (Sb)	µg/L	20	NP	<0.50	<0.50	<0.50
Total Arsenic (As)	µg/L	5	NP	0.61	0.60	<0.10
Total Barium (Ba)	µg/L	5000	1000	13.4	13.1	<1.0
Total Boron (B)	µg/L	1200	NP	<50	<50	<50
Total Cadmium (Cd)	µg/L	0.0198[c]	NP	<0.010	<0.010	<0.010
Total Chromium (Cr)	µg/L	1	NP	<1.0	<1.0	<1.0
Total Cobalt (Co)	µg/L	110	4	<0.20	<0.20	<0.20
Total Copper (Cu)	µg/L	7[c]	2[c]	0.59	0.51	<0.50
Total Iron (Fe)	µg/L	1000	NP	47	47	<10
Total Lead (Pb)	µg/L	38[c]	5	<0.20	<0.20	<0.20
Total Lithium (Li)	µg/L	870	96	2.4	2.4	<2.0
Total Manganese (Mn)	µg/L	1146[c]	847[c]	3.7	3.9	<1.0
Total Mercury (Hg)	µg/L	1[d]	0.02	<0.010	<0.010	<0.010
Total Molybdenum (Mo)	µg/L	2000	1000	2.6	2.7	<1.0
Total Nickel (Ni)	µg/L	25[c]	NP	2.0	2.0	<1.0
Total Selenium (Se)	µg/L	2	NP	<0.10	<0.10	<0.10
Total Silver (Ag)	µg/L	0.1[c]	0.05[c]	<0.020	<0.020	<0.020
Total Thallium (Tl)	µg/L	0.3	NP	<0.010	<0.010	<0.010
Total Titanium (Ti)	µg/L	2000	NP	<5.0	<5.0	<5.0

Total Uranium (U)	µg/L	300	NP	2.39	2.41	<0.10
Total Vanadium (V)	µg/L	6	NP	<5.0	<5.0	<5.0
Total Zinc (Zn)	µg/L	33[c]	8[c]	<5.0	<5.0	<5.0

In August, the field blank returned below detection limits for all items. Sample Dup-1, collected at site PC-1, had very good correlations for all elements.

TABLE IX
FIELD QA/QC RESULTS – OCTOBER 2017 WATER QUALITY SAMPLING

Parameter	Units	BC WQ Guidelines		PC-1	DUP-PC	FIELD BLANK
		Maximum	30 Day	23-Oct-17	23-Oct-17	23-Oct-17
Fluoride (F)	mg/L	1.09	NP	0.690	0.680	<0.020
Nitrite (N)	mg/L	0.06	0.02	<0.0050	<0.0050	<0.0050
Nitrate (N)	mg/L	32.8	3	<0.020	<0.020	<0.020
Dissolved Sulphate (SO_4)	mg/L	NP	218	5.1	5.0	<1.0
Dissolved Chloride (Cl)	mg/L	600[a]	150[a]	<1.0	<1.0	<1.0
Ammonia (N)	mg/L	6.75[b]	1.3[b]	<0.020	<0.020	<0.020
Total Suspended Solids	mg/L	25	5	<4.0	<4.0	<4.0
Turbidity	NTU	8	2	2.76	3.46	<0.10
Dissolved Metals						
Dissolved Aluminum (Al)	µg/L	100	50	<3.0	<3.0	<3.0
Dissolved Iron (Fe)	µg/L	350	NP	<0.20	<0.20	<0.20
Total Metals by ICPMS						
Total Antimony (Sb)	µg/L	20	NP	<0.50	<0.50	<0.50
Total Arsenic (As)	µg/L	5	NP	1.21	1.09	<0.10
Total Barium (Ba)	µg/L	5000	1000	17.5	17.8	<1.0
Total Boron (B)	µg/L	1200	NP	<50	<50	<50
Total Cadmium (Cd)	µg/L	0.0198[c]	NP	0.014	0.012	<0.010
Total Chromium (Cr)	µg/L	1	NP	<1.0	<1.0	<1.0
Total Cobalt (Co)	µg/L	110	4	<0.20	<0.20	<0.20
Total Copper (Cu)	µg/L	7[c]	2[c]	1.25	1.12	<0.50
Total Iron (Fe)	µg/L	1000	NP	152	143	<10
Total Lead (Pb)	µg/L	38[c]	5	<0.20	<0.20	<0.20
Total Lithium (Li)	µg/L	870	96	2.3	2.2	<2.0
Total Manganese (Mn)	µg/L	1146[c]	847[c]	5.5	5.0	<1.0
Total Mercury (Hg)	µg/L	1[d]	0.02	<0.010	<0.010	<0.010
Total Molybdenum (Mo)	µg/L	2000	1000	2.6	2.6	<1.0
Total Nickel (Ni)	µg/L	25[c]	NP	3.1	2.7	<1.0
Total Selenium (Se)	µg/L	2	NP	<0.10	<0.10	<0.10
Total Silver (Ag)	µg/L	0.1[c]	0.05[c]	<0.020	<0.020	<0.020
Total Thallium (Tl)	µg/L	0.3	NP	<0.010	<0.010	<0.010
Total Titanium (Ti)	µg/L	2000	NP	<5.0	<5.0	<5.0
Total Uranium (U)	µg/L	300	NP	2.18	2.19	<0.10
Total Vanadium (V)	µg/L	6	NP	<5.0	<5.0	<5.0
Total Zinc (Zn)	µg/L	33[c]	8[c]	<5.0	<5.0	<5.0

In October all elements in the field blank reported below detection limits. Duplicate sample DUP-PC compared well with PC-1 in all elements. The turbidity measurement in DUP-PC was 20% higher than in the original sample.

The QA/QC results for the surface water quality sampling show good reproducibility and sampling protocols.

Groundwater Sampling

A hydrogeological (groundwater) monitoring program was developed at Yellowjacket to track and assess potential effluent seepage volumes and the fate and transport of effluent plumes. Four monitoring wells were installed by BGC Engineering 2006 to characterize the hydraulic conductivity of the site (Papini, 2006).

Monitoring wells were installed by Lorax at four new locations in August 2009 (Lorax, 2009). Three sets of wells (shallow and deep wells at locations MW09-01, MW09-02 and a single well at MW09-03) were installed in a triangular pattern between the tailings storage facility (TSF) and Pine Creek, with the intention to monitor hydraulic gradients (magnitude and direction), as well as to allow for the collection of groundwater quality samples. An additional monitoring well (nested with shallow and deep wells, MW09-04) was installed upgradient of the TSF to assess background conditions and monitor mine impacts in the event that a shallow groundwater system should develop. Groundwater has since infiltrated into these wells, however subsequent sampling events have shown that recharge is slow.

While grade elevations at MW09-02 and MW09-03 are only 1 to 2 metres above Pine Creek, no water was encountered during drilling in these holes above a depth of more than 12 metres below surface. This implies that there is no direct hydraulic connection between Pine Creek and the near-surface deposits.

In June and October 2017, prior to sampling, depth to water measurements were collected for all wells. All wells were sampled with the exception of MW09-01S which was dry and MW09-4S which had insufficient water for sampling.

It is common practice to evaluate only dissolved concentrations in groundwater samples as the non-dissolved phase constituents are typically immobile in the subsurface (Lorax, 2014). For monitoring well samples 3 bottles were filled:

- 1 litre plastic cold preserved (Analysis Alkalinity, Chloride, Conductance – water, Nitrate + Nitrite (N), Nitrite (N) by CFA, Nitrogen-Nitrate (as N), pH water, Orthophosphate, Sulphate, Total Suspended Solids, Turbidity)
- 40 ml glass preserved with 1 ml 50% HCl (Analysis Mercury dissolved by CVAF), field filtered

- 120 ml plastic preserved with HNO_3 (Analysis Dissolved Metals – Hardness calculated as $CaCO_3$, Na, K, Ca, Mg, S and elements by CRC ICP-MS diss), field filtered.

Table X shows the depth to water for all the wells during the June and October sampling periods. Table XI shows the results of the June groundwater sampling using MW09-4D as the standard. MW09-4D and 4S are upstream and upslope from the tailing impoundment and are considered outside of the mine influence. Table XII shows the results of the October groundwater sampling, again comparing the wells with MW09-4D. Figure 9 shows the locations of the groundwater wells.

Full analytical results for the June sampling can be found in Appendix VI and for the October sampling in Appendix VII.

TABLE X
DEPTH TO WATER IN GROUNDWATER MONITORING WELLS

Station ID	Description	Location	Depth to Water (m)		Depth to bottom of Well (m)
			June	October	
BGC06-02	Baseline well, deep	South of Pine Creek, near the pit	1.22	1.85	10.19
BGC06-04	Baseline well, shallow		0.36	0.77	4.80
MW09-1S	Monitoring well #1, shallow	SW and downgradient of TSF 581789E, 6607412N	Dry	Dry	2.68
MW09-1D	Monitoring well #1, deep		3.36	3.65	13.3
MW09-2S	Monitoring well #2, shallow	North bank of Pine Creek, downgradient of TSF 581862E, 6607393N	1.20	1.50	2.335
MW09-2D	Monitoring well #2, deep		1.36	1.61	13.02
MW09-3	Monitoring well #3 (shallow)	S and downgradient of TSF 581925E, 6607467N	0.80	1.19	3.36
MW09-4S	Monitoring well #4, shallow	reference station, up-gradient of the TSF 581983E, 6607669N	8.37	8.49	9.47
MW09-4D	Monitoring well #4, deep		8.14	8.35	13.75

Shallow well MW09-1S was dry, as it was in prior sampling programs. Shallow well MW09-2S was extremely difficult to sample as the quantity of water in the well was limited and very slow recharging. MW09-4S was not sampled as the small amount of water in the well was extremely muddy.

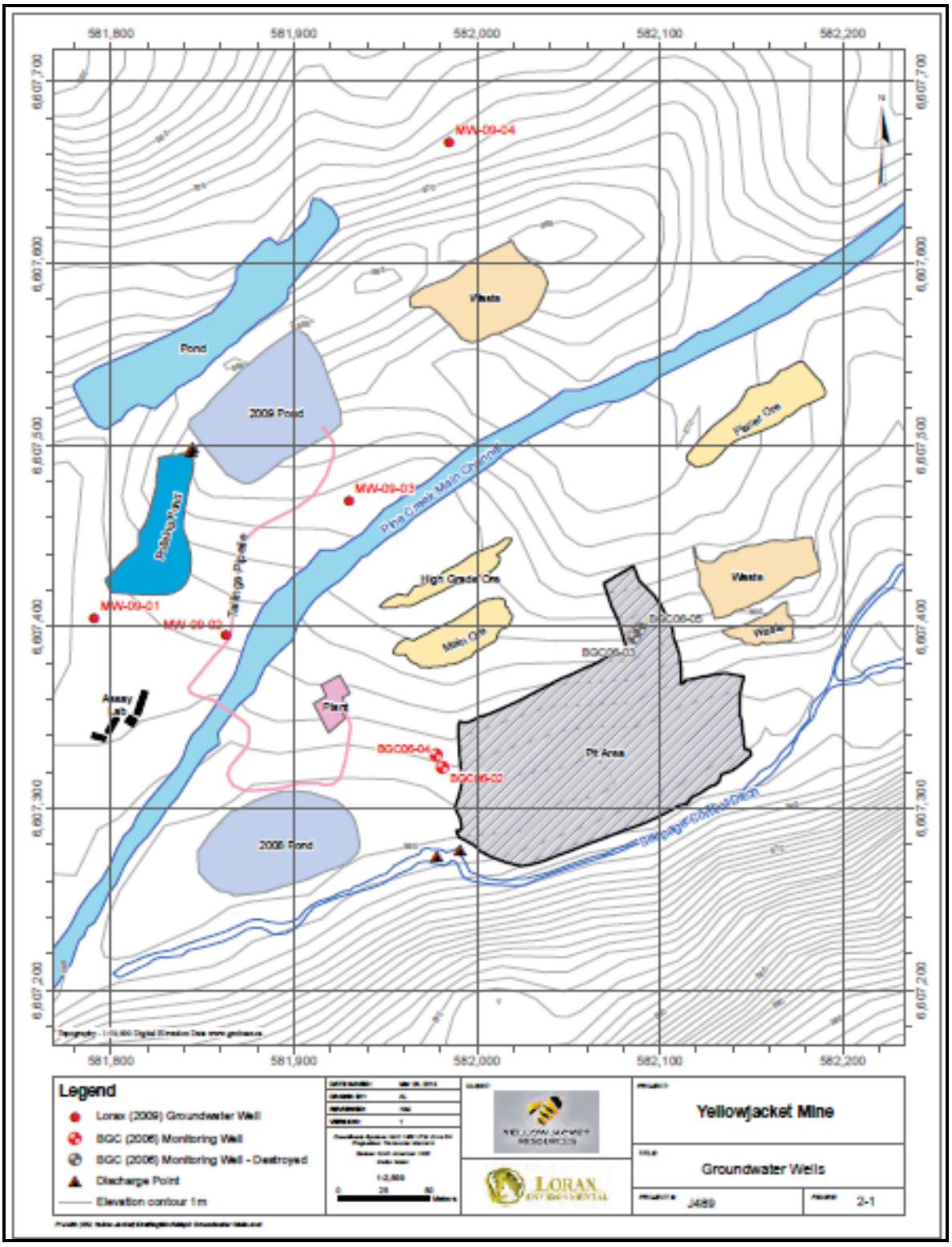


FIGURE 9 – GROUNDWATER WELL LOCATIONS

TABLE XI
RESULTS OF JUNE 2017 GROUNDWATER SAMPLING

PARAMETER	UNITS	Background Well MW09-4D	BGC06-02	BGC06-04	MW09-1D	MW09-2S	MW09-2D	MW09-3
pH		8.32	8.17	8.47	7.83	8.12	8.26	7.86
Alkalinity Total ($CaCO_3$)	mg/L	225	98.4	162	806	77.9	151	433
Fluoride (F)	mg/L	0.064	0.190	0.200	0.140	0.120	0.130	0.100
Dissolved Chloride (Cl)	mg/L	6.7	0.89	0.64	1.2	0.97	2.0	0.90
Dissolved Sulphate (SO4)	mg/L	6.83	11.1	13.4	157	7.53	22.7	283
Dissolved Hardness ($CaCO_3$)	mg/L	225	98.5	148	881	56.9	121	668
Dissolved Metals								
Aluminum (Al)	µg/L	<3.0	<3.0	<3.0	3.9	3.5	<3.0	<3.0
Antimony (Sb)	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Arsenic (As)	µg/L	0.49	0.40	1.09	1.94	1.13	0.70	0.67
Barium (Ba)	µg/L	36.4	11.8	30.2	136	14.2	46.4	71.8
Boron (B)	µg/L	<50	<50	<50	113	<50	<50	<50
Cadmium (Cd)	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.043
Chromium (Cr)	µg/L	<1.0	<1.0	<1.0	<1.0	5.5	<1.0	<1.0
Copper (Cu)	µg/L	1.64	0.22	<0.20	<0.20	0.30	0.39	4.61
Iron (Fe)	µg/L	<5.0	<5.0	<5.0	3330	<5.0	210	8.3
Lead (Pb)	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Manganese (Mn)	µg/L	1.6	<1.0	<1.0	257	<1.0	134	299
Mercury (Hg)	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Molybdenum (Mo)	µg/L	<1.0	<1.0	1.7	1.5	<1.0	<1.0	<1.0
Nickel (Ni)	µg/L	11.3	1.9	<1.0	66.5	1.6	4.8	59.7
Selenium (Se)	µg/L	0.11	<0.10	<0.10	<0.10	0.79	<0.10	0.11
Silicon (Si)	µg/L	9280	10200	9050	38800	16000	22900	14800
Uranium (U)	µg/L	0.56	<0.10	0.38	0.29	0.22	0.21	1.09
Vanadium (V)	µg/L	<5.0	<5.0	6.2	<5.0	<5.0	<5.0	<5.0
Calcium (Ca)	µg/L	47.1	13.0	12.3	53.1	8.52	18.7	79.8
Magnesium (Mg)	µg/L	26.0	16.1	28.4	182	8.65	18.1	114
Potassium (K)	µg/L	0.427	0.676	1.33	4.00	0.450	0.543	2.01
Sodium (Na)	µg/L	2.56	1.93	7.11	20.6	12.2	19.2	6.68
Sulphur (S)	µg/L	<3.0	<3.0	3.8	48.7	<3.0	6.5	84.4

TABLE XII
RESULTS OF OCTOBER 2017 GROUNDWATER WELL SAMPLING

PARAMETER	UNITS	Background Well MW09-4D	BGC06-02	BGC06-04	MW09-1D	MW09-2S	MW09-2D	MW09-3
pH		7.92	8.02	8.34	7.50	7.99	7.98	7.70
Alkalinity Total ($CaCO_3$)	mg/L	224	121	175	838	76.1	150	543
Fluoride (F)	mg/L	0.070	0.210	0.160	0.150	0.130	0.120	0.150
Dissolved Chloride (Cl)	mg/L	4.6	1.1	1.0	1.7	<1.0	1.5	<1.0

PARAMETER	UNITS	Background Well MW09-4D	BGC06-02	BGC06-04	MW09-1D	MW09-2S	MW09-2D	MW09-3
Dissolved Sulphate (SO4)	mg/L	<1.0	8.6	11.8	164	4.1	26.2	219
Dissolved Hardness ($CaCO_3$)	mg/L	225	121	171	892	58.9	121	758
Dissolved Metals								
Aluminum (Al)	µg/L	<3.0	<3.0	3.0	<3.0	3.1	<3.0	<3.0
Antimony (Sb)	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Arsenic (As)	µg/L	0.49	4.47	1.37	2.31	0.98	0.92	1.50
Barium (Ba)	µg/L	37.8	34.6	34.5	139	13.2	52.2	144
Boron (B)	µg/L	<50	<50	<50	102	<50	<50	<50
Cadmium (Cd)	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.048
Chromium (Cr)	µg/L	<1.0	<1.0	<1.0	<1.0	5.1	<1.0	<1.0
Copper (Cu)	µg/L	1.08	<0.20	<0.20	<0.20	0.22	<0.20	0.51
Iron (Fe)	µg/L	<5.0	36.4	<5.0	3400	<5.0	766	589
Lead (Pb)	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Manganese (Mn)	µg/L	<1.0	338	4.2	267	<1.0	192	393
Mercury (Hg)	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Molybdenum (Mo)	µg/L	<1.0	1.4	2.1	1.6	<1.0	<1.0	1.8
Nickel (Ni)	µg/L	12.1	10.4	<1.0	65.2	1.4	3.8	35.8
Selenium (Se)	µg/L	<0.10	<0.10	<0.10	<0.10	0.60	<0.10	<0.10
Silicon (Si)	µg/L	9270	10300	7640	34100	13200	20700	14100
Uranium (U)	µg/L	0.54	0.17	0.30	0.35	0.15	0.17	1.72
Vanadium (V)	µg/L	<5.0	<5.0	5.6	<5.0	<5.0	<5.0	<5.0
Calcium (Ca)	µg/L	48.6	16.6	12.5	53.5	8.52	19.2	84.6
Magnesium (Mg)	µg/L	25.1	19.4	34.0	184	9.14	17.6	133
Potassium (K)	µg/L	0.457	0.872	1.53	4.69	0.527	0.570	3.02
Sodium (Na)	µg/L	2.61	2.01	4.58	21.0	9.91	17.9	8.88
Sulphur (S)	µg/L	<3.0	<3.0	3.9	52.7	<3.0	7.2	81.2

Groundwater well MW09-4D, being the upstream well, is used as comparison with the wells located adjacent and downstream of the TSF. The TSF has been dry since 2009; therefore the effect it is generating on the surrounding water table should be minimal.

As with prior groundwater sampling (Lorax, 2014; Dandy, 2017), several elements and attributes are lower in MW09-4D than in the other groundwater wells. Concentrations of several parameters are higher in the groundwater wells at the mine site compared to the upstream well. It is not clear to what extent this is due to disturbance upstream of the mine site, and to what extent it may be due to the site itself.

The dissolved iron BC Water Quality guideline ("BCWQG") (300 µg/L) was exceeded at MW09-1D in both June (3300 µg/L) and October (3400 µg/L) sampling, as well as MW09-2D (766 µg/L) and MW09-3 (589 µg/L) in October sampling only. Additional weakly elevated values were obtained for cadmium (BCWQG 0.039 µg/L) in MW09-3 of 0.043 µg/L in June and 0.048 µg/L in October. Elevated values were obtained for chromium (BCWQG 1 µg/L) in MW09-2S of 5.5 µg/L in June and 5.5 µg/L in October. Also, dissolved

sulphate (SO_4) exceeded BCWQG (100 mg/L) for MW09-1D (157 mg/L in June, 164 mg/L in October) and MW09-3 (283 mg/L in June, 219 mg/L in October).

It should be noted that these guidelines apply to surface water and not to groundwater directly. Although parameters are elevated above the concentrations found in the background groundwater well, exceedances related to the input from groundwater are not seen at the surface water monitoring stations downstream.

In the field, for each sampling sequence a duplicate sample was collected. Duplicate groundwater samples were collected at MW09-2D. In October a field blank was also collected.

The results of the internal Quality Assurance/Quality Control (QA/QC) program provided by Maxxam Analytical Labs for the June and October 2017 sampling program are provided in Appendices VI and VII, respectively. The QA/QC data indicates an acceptable level of reliability of the data.

Table XIII compares the field QA/QC results for the June and October groundwater quality sampling.

TABLE XIII
FIELD QA/QC RESULTS
JUNE AND OCTOBER 2017 GROUNDWATER WELL SAMPLING

PARAMETER	UNITS	MW09-2D June 2017	MW DUPLICATE June 2017	MW09-2D October 2017	MW DUPLICATE October 2017	MW BLANK October 2017
pH		8.26	8.32	7.98	8.00	5.75
Alkalinity ($CaCO_3$)	mg/L	151	160	150	142	<1.0
Fluoride (F)	mg/L	0.130	0.140	0.120	0.120	<0.020
Chloride (Cl)	mg/L	2.0	1.7	1.5	1.6	<1.0
Sulphate (SO4)	mg/L	22.7	24.5	26.2	26.5	<1.0
Hardness ($CaCO_3$)	mg/L	121	116	121	124	<0.50
Dissolved Metals						
Aluminum (Al)	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0
Antimony (Sb)	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50
Arsenic (As)	µg/L	0.70	0.69	0.92	1.01	<0.10
Barium (Ba)	µg/L	46.4	47.0	52.2	52.6	<1.0
Boron (B)	µg/L	<50	<50	<50	<50	<50
Cadmium (Cd)	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium (Cr)	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Copper (Cu)	µg/L	0.39	0.27	<0.20	<0.20	<0.20
Iron (Fe)	µg/L	210	13.3	766	755	<5.0
Lead (Pb)	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
Manganese (Mn)	µg/L	134	144	192	195	<1.0
Mercury (Hg)	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010

PARAMETER	UNITS	MW09-2D June 2017	MW DUPLICATE June 2017	MW09-2D October 2017	MW DUPLICATE October 2017	MW BLANK October 2017
Dissolved Metals						
Molybdenum (Mo)	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Nickel (Ni)	µg/L	4.8	7.9	3.8	3.8	<1.0
Selenium (Se)	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Silicon (Si)	µg/L	22900	23000	20700	21200	<100
Uranium (U)	µg/L	0.21	0.24	0.17	0.16	<0.10
Vanadium (V)	µg/L	<5.0	<5.0	<5.0	<5.0	<5.0
Calcium (Ca)	µg/L	18.7	18.3	19.2	19.8	<0.050
Magnesium (Mg)	µg/L	18.1	17.0	17.6	18.1	<0.050
Potassium (K)	µg/L	0.543	0.538	0.570	0.583	<0.050
Sodium (Na)	µg/L	19.2	18.8	17.9	18.0	<0.050
Sulphur (S)	µg/L	6.5	6.0	7.2	7.5	<3.0

The field blank, MW-Blank, returned values below detection for all parameters. Duplicate samples, collected at MW09-2D, returned reasonably comparative values except for a variance in iron and nickel in the June sampling.

Field Bin Leachate Sampling

The potential for ML/ARD to occur at the Yellowjacket site was assessed by Lorax (2006, 2009). A field-based kinetic test program was developed by Lorax to further assess waste rock produced at the Yellowjacket Mine (Lorax, 2009). Kinetic testing is used to mimic the natural weathering processes that act on waste material stored in surface impoundments and dumps in order to help predict loadings from geological waste materials.

No new ore, waste rock or tailings were generated in 2017; consequently, no new sampling of stockpiles was undertaken. The same is true of 2010-2016. Sampling to characterize newly generated material will be undertaken when mining resumes.

The collection of drainage from *in situ* materials has not been possible, as leachate goes directly to ground and disperses into the underlying highly porous and permeable placer gravels. Field based kinetic tests provide a proxy for contact water draining from the waste stockpiles. Field leach bin experiments are considered to be useful because they simulate the actual conditions present within natural waste piles, including site-specific climatic conditions, scale, grain size, and water-rock ratios, and provide a cost-effective way to provide long-term monitoring of water quality from geologic materials.

Five field bins have been established at the Yellowjacket Mine, representing the main lithological units:

- YJ-Bin #1 – basalt (+ minor ultramafics)
- YJ-Bin #2 – altered ultramafics
- YJ-Bin #3 – serpentinite

- YJ-Bin #4 – andesite (ore)
- YJ-Bin #5 – diabase

Bins#1 to 3 constitute the majority of the waste rock. Andesite "ore" and diabase dykes form minor lithological components.

In 2017, two leachate samples (in June and October) were obtained from each field-based kinetic test bin. Results are compared to the Canadian Council of Ministers of the Environment (CCME) water quality guidelines for the protection of aquatic life. Results are compared to these guidelines for evaluation purposes only and are used to identify potential parameters of concern since these guidelines do no directly apply to field bin leachate.

During sampling, a duplicate was collected at YJ-Bin#5 and a field blank sample was also included.

For each field bin sample 3 bottles were filled:

- 1 litre plastic cold preserved (Analysis Alkalinity, Chloride, Conductance – water, Nitrate + Nitrite (N), Nitrite (N) by CFA, Nitrogen-Nitrate (as N), pH water, Orthophosphate, Sulphate, Total Suspended Solids, Turbidity)
- 40 ml glass preserved with 1 ml 50% HCl (Analysis Mercury dissolved by CVAF), field filtered
- 120 ml plastic preserved with HNO_3 (Analysis Dissolved Metals – Hardness calculated as $CaCO_3$, Na, K, Ca, Mg, S and elements by CRC ICP-MS diss), field filtered.

Tables XIV and XV show June and October 2017 field bin results, compared to standards. Table XVI shows Field QA/QC Results for Leachate Bin Sampling. Maxxam Laboratory Certificates of Analysis for the June 2017 sampling can be found in Appendix VI and for October 2017 in Appendix VIII.

TABLE XIV
JUNE 2017 - LEACHATE BIN SAMPLE RESULTS

PARAMETER	UNITS	CCME Maximum	YJ-BIN#1 BASALT	YJ-BIN#2 UM	YJ-BIN#3 SERP	YJ-BIN#4 ANDESITE	YJ-BIN#5 DIABASE
pH			8.61	8.24	8.30	8.64	8.54
Alkalinity ($CaCO_3$)	mg/L		116	126	107	119	105
Fluoride (F)	mg/L		0.140	0.150	0.140	0.120	0.140
Chloride (Cl)	mg/L		1.3	1.3	3.4	1.6	1.1
Sulphate (SO4)	mg/L	100	1.49	1.82	2.83	12.1	182
Hardness ($CaCO_3$)	mg/L		106	115	107	116	264
Dissolved Metals							
Aluminum (Al)	µg/L	100	<3.0	<3.0	<3.0	<3.0	<3.0

PARAMETER	UNITS	CCME Maximum	YJ-BIN#1 BASALT	YJ-BIN#2 UM	YJ-BIN#3 SERP	YJ-BIN#4 ANDESITE	YJ-BIN#5 DIABASE
Dissolved Metals							
Antimony (Sb)	µg/L		1.65	1.46	1.63	1.32	7.14
Arsenic (As)	µg/L	5	1.54	1.03	2.85	2.04	7.04
Barium (Ba)	µg/L		19.9	36.1	16.1	13.7	35.9
Boron (B)	µg/L		<50	<50	<50	<50	<50
Cadmium (Cd)	µg/L	0.039[a]	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium (Cr)	µg/L	1[b]	3.1	76.5	398	9.9	<1.0
Copper (Cu)	µg/L	4[c]	<0.20	<0.20	<0.20	4.55	0.46
Iron (Fe)	µg/L	300	<5.0	<5.0	<5.0	<5.0	<5.0
Lead (Pb)	µg/L	2[c]	<0.20	<0.20	<0.20	<0.20	<0.20
Manganese (Mn)	µg/L		<1.0	2.0	<1.0	<1.0	<1.0
Mercury (Hg)	µg/L	.026[e]	<0.010	<0.010	<0.010	<0.010	<0.010
Molybdenum (Mo)	µg/L		2.0	2.5	2.5	5.5	216
Nickel (Ni)	µg/L	65[c]	<1.0	<1.0	1.1	<1.0	<1.0
Selenium (Se)	µg/L	1	<0.10	0.14	0.56	2.95	10.7
Silicon (Si)	µg/L		3580	4380	6000	4300	4710
Uranium (U)	µg/L		0.59	0.97	0.76	1.10	14.3
Vanadium (V)	µg/L		<5.0	<5.0	<5.0	<5.0	65.5
Calcium (Ca)	mg/L		4.57	8.46	15.6	4.99	12.6
Magnesium (Mg)	mg/L		22.9	22.9	16.4	25.0	56.4
Potassium (K)	mg/L		1.10	0.653	0.318	1.13	2.32
Sodium (Na)	mg/L		4.32	2.41	0.595	3.97	6.94
Sulphur (S)	mg/L		<3.0	<3.0	<3.0	3.9	59.1

[a] Wildlife guideline
[b] Based on pH = 7.9 and temperature = 15°C
[c] Hardness dependent guideline, based on hardness of 55 mg/L (average hardness for receiving waters from 2009-2013)
[d] Drinking water guideline

TABLE XV
OCTOBER 2017 - LEACHATE BIN SAMPLE RESULTS

PARAMETER	UNITS	CCME Maximum	YJ-BIN#1 BASALT	YJ-BIN#2 UM	YJ-BIN#4 ANDESITE	YJ-BIN#5 DIABASE
pH			8.27	8.21	8.27	8.16
Alkalinity ($CaCO_3$)	mg/L		125	126	135	115
Fluoride (F)	mg/L		0.130	0.230	0.150	0.150
Chloride (Cl)	mg/L		1.4	1.8	1.8	1.3
Sulphate (SO4)	mg/L	100	1.7	<1.0	12.9	170
Hardness ($CaCO_3$)	mg/L		110	112	131	254
Dissolved Metals						
Aluminum (Al)	µg/L	100	<3.0	<3.0	<3.0	<3.0
Antimony (Sb)	µg/L		1.79	2.54	1.31	8.60
Arsenic (As)	µg/L	5	1.61	1.18	2.74	8.30
Barium (Ba)	µg/L		19.8	37.0	30.4	37.0
Boron (B)	µg/L		<50	<50	<50	<50
Cadmium (Cd)	µg/L	0.039[a]	<0.010	<0.010	<0.010	<0.010
Chromium (Cr)	µg/L	1[b]	2.9	101	15.5	<1.0
Copper (Cu)	µg/L	4[c]	<0.20	<0.20	<0.20	0.65
Iron (Fe)	µg/L	300	<5.0	<5.0	<5.0	<5.0

PARAMETER	UNITS	CCME Maximum	YJ-BIN#1 BASALT	YJ-BIN#2 UM	YJ-BIN#4 ANDESITE	YJ-BIN#5 DIABASE
Dissolved Metals						
Lead (Pb)	µg/L	2[c]	<0.20	<0.20	<0.20	<0.20
Manganese (Mn)	µg/L		<1.0	1.9	<1.0	<1.0
Mercury (Hg)	µg/L	.026[e]	<0.010	<0.010	<0.010	<0.010
Molybdenum (Mo)	µg/L		2.1	4.0	7.0	211
Nickel (Ni)	µg/L	65[c]	<1.0	<1.0	<1.0	<1.0
Selenium (Se)	µg/L	1	<0.10	0.12	3.32	10.3
Silicon (Si)	µg/L		3460	5630	4370	5020
Uranium (U)	µg/L		0.61	0.76	1.08	13.7
Vanadium (V)	µg/L		<5.0	<5.0	<5.0	76.1
Calcium (Ca)	mg/L		4.92	9.11	8.67	13.2
Magnesium (Mg)	mg/L		23.8	21.6	26.5	53.8
Potassium (K)	mg/L		1.25	0.841	1.41	2.71
Sodium (Na)	mg/L		4.50	2.53	4.27	7.00
Sulphur (S)	mg/L		<3.0	<3.0	4.2	54.4

[a] Wildlife guideline
[b] Based on pH = 7.9 and temperature = 15°C
[c] Hardness dependent guideline, based on hardness of 55 mg/L (average hardness for receiving waters from 2009-2013)
[d] Drinking water guideline

In October 2017, insufficient leachate was available for sampling in Bin#3.

Leachate from the Yellowjacket field bins is slightly alkaline (average pH of 8.2) consistent with the non-acid generating designation given to these materials based on ABA results (see Lorax 2006, 2009). Metal concentrations in leachate from the Yellowjacket field bins do not exceed the MMER end-of-pipe guidelines. However, dissolved concentrations of sulphate (in Bin#5 diabase), Cr (in Bins#1 to 4 mafic volcanics and ultramafic rocks) and Se (Bins#4 and 5 volcanic "ore" and diabase) show exceedances of the maximum CCME guidelines. The highest Cr values of 398 and 101 µg are from the ultramafic and serpentinized ultramafic rocks which contain chromium in their matrix. The elevated Se in "ore" is 2.95 and 3.32 µg and in diabase is 10.7 and 10.3 µg. Fortunately, these two lithologies are very minor components in the geological strata of the mine site.

A comparison of the dissolved metals in leachate with the guidelines provides a conservative first glance at the parameters which may become a concern as the neutralization capacity of the waste rock is depleted.

Note that the guidelines are not directly applicable and are used for comparison only in order to determine the parameters of potential concern. From these results it is concluded that in slightly alkaline conditions sulphate is leaching from YJ-FB#5, Se is leaching from YJ-FB#4 and 5, and Cr is leaching from YJ-FB#2 and 3. This is consistent with previous results (Lorax, 2014; Dandy, 2017). The sample from the diabase bin had an anomalously high concentration of total sulphur relative to the larger dataset for the diabase unit when it was sampled in 2009, so the results are considered as upper

estimates for metal leaching. Elevated total sulphur is positively correlated with acid potential, which is typically related to higher metal leaching. Further, the diabase unit occurs as dykes and it is expected that only small quantities will be extracted during the course of mining.

In the field, during sampling, two duplicate samples and a field blank were collected. The duplicate leachate sample was collected at YJ-BIN#5.

The results of the internal Quality Assurance/Quality Control (QA/QC) program provided by Maxxam Analytical Labs are provided in Appendices VI and VIII. The QA/QC data indicates a high level of reliability of the data.

Table XVI compares the field QA/QC results for the leachate field bin sampling.

TABLE XVI
FIELD QA/QC – LEACHATE FIELD BIN SAMPLES

PARAMETER	UNITS	CCME Maximum	YJ-BIN#5 DIABASE	FB DUPLICATE	FB BLANK	YJ-BIN#5 DIABASE	FB DUPLICATE
			25-Jun-17	**25-Jun-17**	**25-Jun-17**	**23-Oct-27**	**23-Oct-17**
pH			8.54	8.52	5.77	8.16	8.22
Alkalinity ($CaCO_3$)	mg/L		105	104	<0.50	115	114
Fluoride (F)	mg/L		0.140	0.130	<0.010	0.150	0.150
Chloride (Cl)	mg/L		1.1	1.0	<0.50	1.3	1.2
Sulphate (SO4)	mg/L	100	182	180	<0.50	170	170
Hardness ($CaC0_3$)	mg/L		264	253	<0.50	254	246
Dissolved Metals							
Aluminum (Al)	µg/L	100	<3.0	<3.0	<3.0	<3.0	<3.0
Antimony (Sb)	µg/L		7.14	6.94	<0.50	8.60	8.47
Arsenic (As)	µg/L	5	7.04	7.09	<0.10	8.30	7.98
Barium (Ba)	µg/L		35.9	35.5	<1.0	37.0	37.1
Boron (B)	µg/L		<50	<50	<50	<50	<50
Cadmium (Cd)	µg/L	0.039[a]	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium (Cr)	µg/L	1[b]	<1.0	<1.0	<1.0	<1.0	<1.0
Copper (Cu)	µg/L	4[c]	0.46	0.43	<0.20	0.65	0.66
Iron (Fe)	µg/L	300	<5.0	<5.0	<5.0	<5.0	<5.0
Lead (Pb)	µg/L	2[c]	<0.20	<0.20	<0.20	<0.20	<0.20
Manganese (Mn)	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Mercury (Hg)	µg/L	.026[e]	<0.010	<0.010	<0.010	<0.010	<0.010
Molybdenum (Mo)	µg/L		216	210	<1.0	211	212
Nickel (Ni)	µg/L	65[c]	<1.0	<1.0	<1.0	<1.0	<1.0
Selenium (Se)	µg/L	1	10.7	10.1	<0.10	10.3	9.75
Silicon (Si)	µg/L		4710	4870	<100	5020	4900
Uranium (U)	µg/L		14.3	14.4	<0.10	13.7	13.5
Vanadium (V)	µg/L		65.5	63.7	<5.0	76.1	73.5
Calcium (Ca)	mg/L		12.6	12.6	<0.050	13.2	13.0
Magnesium (Mg)	mg/L		56.4	53.8	<0.050	53.8	51.8
Potassium (K)	mg/L		2.32	2.27	<0.050	2.71	2.62
Sodium (Na)	mg/L		6.94	6.83	<0.050	7.00	6.96
Sulphur (S)	mg/L		59.1	57.7	<3.0	54.4	51.8

The QA/QC results for the leachate field bin water sampling show good reproducibility and sampling protocols. All parameters for the field blank are below the detection limits. Duplicate samples FB-DUP show strong correlation between all elements.

The QA/QC results for leachate sampling show good reproducibility and sampling protocols.

Conclusions from the surface water quality, hydrogeology and groundwater quality, and ML/ARD monitoring are outlined in the sections below.

SURFACE WATER QUALITY

Results for the surface water quality sampling are as follows:

- No parameters exceeded the BC maximum water quality guidelines for the protection of aquatic life at PC-1, PC-2, PC-5 or PC-6 in 2017.
- The QA/QC data indicates a high level of reliability of the sampling data within this report.

GROUNDWATER QUALITY

Concentrations of several parameters are higher in the groundwater wells at the mine site compared to the upstream well (MW09-04D). It is not clear to what extent this is due to disturbance upstream of the mine site, and to what extent it may be due to activity at the Yellowjacket site itself. Further groundwater sampling will help to determine the trends in the data. With the limited data available, the main potential parameter of concern is dissolved Fe.

ML/ARD

The monitoring program and QA/QC program are deemed adequate to monitor ML/ARD trends at the mine site for the foreseeable future. Overall, the leachate data from the field bins indicates that sulphate, Cr, and Se are potential parameters of concern with respect to ML/ARD. It is concluded that in slightly alkaline conditions sulphate is leaching from YJ-FB#5, Se is leaching from YJ-FB#4 and 5, and Cr is leaching from YJ-FB#2 and 3. These results suggest that metal leaching potential is higher from the andesite (ore) and diabase waste rock, which are minor components of the site lithologies.

11) CONCLUSIONS

The Yellowjacket Property is underlain by volcanic, sedimentary and ultramafic rocks of the accreted Cache Creek Complex, intruded to the east by the Late Cretaceous Surprise Lake batholith. Complex structural associations between lithologies, plus variable alterations relate to gold signatures in lode mineralization throughout the Atlin area.

Although the 2017 diamond drilling program did not return significant gold mineralization, the strong fault features which hindered the drill program confirm the eastern extension of the host Pine Creek Fault. Hole YJ17-04 which intercepted strong positive alteration assemblages could be interpreted as being located marginal to a mineralized zone.

LIDAR survey deliverables were received late in the season but will prove invaluable providing good base map coverage to use for guiding future exploration programs.

Three water quality sampling episodes were completed in 2017 with results showing that stream water quality in Pine Creek is acceptable. Groundwater samples show elevations in iron but this does not appear to be migrating from the wells to the stream samples. The leachate data from the field bins indicates that sulphate, Cr, and Se are potential parameters of concern with respect to ML/ARD. Continued water quality monitoring at the Yellowjacket site will assist in AQ achieving its goal of re-opening the Yellowjacket Mine in the future.

12) RECOMMENDATIONS

Additional exploration work is warranted for the Yellowjacket Property. As Phase I, a program consisting of detailed ground magnetic surveying to locate alteration (magnetite depleted) zones along the strike of the Pine Creek fault is recommended. Additional strong faults have been regionally mapped in other locations on the Yellowjacket Property. With the assistance of the LIDAR survey plots, the trend of these interpreted faults should be prospected and geochemically sampled. Phase II will include deep diamond drilling under the Yellowjacket deposit and reconnaissance drilling of targets identified in Phase I.

Respectfully submitted,

"Linda Dandy"
Linda Dandy, P.Geo.
May 10, 2018

13) REFERENCES

Ash, C.H., 2001; Ophiolite related gold quartz veins in the North American Cordillera: British Columbia Ministry of Energy and Mines, Bulletin 108.

BC Ministry of Energy and Mines; Minfile 104N043.

Coster, I., 2016; Technical Report of Diamond Drilling: BC Ministry of Energy and Mines Assessment Report #36977.

Dandy, L., 2005; Geological, Geochemical, Geophysical and Diamond Drilling Report on the Atlin Gold Property: BC Ministry of Energy and Mines Assessment Report.

Dandy, L., 2005; Technical Report on the Atlin Gold Property; 43-101 Report: Prepared for Muskox Minerals Corp.

Dandy, L., 2006; Geological, Geophysical and Drilling Report on the Atlin Gold Property: BC Ministry of Energy and Mines Assessment Report #28785.

Dandy, L., and Price, B.J., 2010; Technical Report on the Yellowjacket Gold Project: 43-101 Report for Eagle Plains Resources Ltd. and Prize Mining Corporation.

Dandy, L. and Archambault, M.E., 2017; Assessment Report on the Yellowjacket Project: BC Ministry of Energy and Mines Assessment Report #36977.

Downie, C.C., 2011; Reverse Circulation Drilling Report on the Yellowjacket Property: BC Ministry of Energy and Mines Assessment Report #32608.

Downie, C.C., 2013; 2012 Report on the Yellowjacket Gold Property, Atlin Area: BC Ministry of Energy and Mines Assessment Report #34034.

Evans, B.T., 2003; Geological Report on the Muskox Minerals Corp. Yellowjacket Property: 43-101 Technical Report.

Holland, S.S., 1950; Placer Gold Production of British Columbia: BC Ministry of Energy Mines and Petroleum Resources Bulletin 28.

Lorax, 2009(a); Yellowjacket Gold Mine Geochemical Assessment: Prepared by Lorax Environmental Services Ltd. for Yellowjacket Joint-Venture.

Lorax, 2009(b); Yellowjacket Gold Project – Baseline Water Quality Conditions (2006-2007 Monitoring): Prepared by Lorax Environmental Services Ltd. for Prize Mining Corporation.

Lorax, 2014; 2013 Annual Report – Yellowjacket Mine: Prepared by Lorax Environmental Services Ltd. for Yellowjacket Resources.

Marud, D.E., 1987; Surface Drilling North and South Claim Groups, Yellowjacket Property: BC Ministry of Energy and Mines Assessment Report #18608.

Marud, D.E. and Southam, P., 1988; Diamond Drilling North and South Claim Groups, Yellowjacket Property: BC Ministry of Energy and Mines Assessment Report #17295.

Mihalynuk, M.G., Zagorevski, A., Devine, F.A.M. and Humphrey, E., 2017; A New Lode Gold Discovery at Otter Creek: Another Source for the Atlin Placers: BC Ministry of Energy and Mines – Geological Fieldwork 2016.

Papini, G, 2006; Hydrogeological Investigation and Analyses Report: Prepared for Prize Mining Corporation by BGC Engineering.

Pautler, J., 2016; Technical Report on the Surprise Lake Project within the Atlin Placer Camp, British Columbia: 43-101 Report for Gray Rock Resources Ltd.

Schroeter, T.G. and Pinsent, R.H., 2000; Gold Production, Resources and Total Inventories in British Columbia (1858-1998): BC Ministry of Energy and Mines Open File 2000-2.

Troup, A.G., 1982; Prospecting Report on the Shuksan Gold Property: BC Ministry of Energy and Mines Assessment Report #10502.

Troup, A.G. and Wong, C., 1983; Geochemical, Geological and Geophysical Reports on the Shuksan Property: BC Ministry of Energy and Mines Assessment Report #11511 and #11138.

14) COST STATEMENT

Exploration Work type	Comment	Days			Totals
Personnel (Name)* / Position	**Field Days (list actual days)**	**Days**	**Rate**	**Subtotal**	
Reinhard Rahmdor/Senior Geologist	May 16-18,23-25,29-31; June 1,5-8, 12-15, 20-23,26-30;Aug 14-18,21-25,28-31; Sep 1, 4-8,11-15	47	$420.00	$19,740.00	
Marthe Archambault/Geologist	May 16-18,23-25,29-31; June 1,5-8, 12-15, 20-23,26-30;Aug 14-18,21-25,28-31	33	$420.00	$13,860.00	
Linda Dandy/Geologist	May 8,10,12,15,26; June 6,8,14-16,24-28,30; July 11, 22, 25; Aug 11-12,14-16,22-24; Sep 10-11,16, 18,26,30; Oct 1-2, 21-23	35.5	$800.00	$28,400.00	
Ian Coster/Core Logger	Sept 1-20	20	$375.00	$7,500.00	
Jared Postma/Core cutter	Sept 2-6	5	$200.00	$1,000.00	
Roger Gallagher/Core Cutter	Sep 7-29	13	$225.00	$2,925.00	
				$73,425.00	**$73,425.00**
Office Studies	**List Personnel**				
Database compilation	Marthe Archambault	15.0	$420.00	$6,300.00	
General research	Marthe Archambault/Reinhard Rahmdor	12.0	$323.00	$3,876.00	
Report preparation	Linda Dandy	6.0	$800.00	$4,800.00	
				$14,976.00	**$14,976.00**
Airborne Exploration Surveys	**Line Kilometres / Enter total invoiced amount**				
Digital terrain modelling	Lidar 121 km^2	1.0	$28,865.00	$28,865.00	
				$28,865.00	**$28,865.00**
Ground Exploration Surveys	**Area in Hectares/List Personnel**				
Reconnaissance	Marthe Archambault/Reinhard Rahmdor/Linda Dandy	100 km^2			
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Drill (cuttings, core, etc.)	142	142.0	$25.90	$3,677.72	
Water	53	53.0	$232.07	$12,299.50	
				$15,977.22	**$15,977.22**
Drilling	**No. of Holes, Size of Core and Metres**	**No.**	**Rate**	**Subtotal**	
Diamond	4 holes, HQ/NQ 278.28 metres	278.3	$223.81	$62,286.96	
Other (specify)	bulldozer - trail and pad building	14.9	$300.00	$4,467.25	
				$66,754.21	**$66,754.21**
Reclamation	**Clarify**	**No.**	**Rate**	**Subtotal**	
After drilling	re-contour, bulldozer	5.2	$300.00	$1,560.92	
Transportation		**No.**	**Rate**	**Subtotal**	
Airfare		1.00	$1,900.00	$1,900.00	
truck rental	only km charge	2000.00	$0.66	$1,320.00	
				$3,220.00	**$3,220.00**
Accommodation & Food	**Rates per day**				
Cottage rental	$1800 per month	5.00	$1,800.00	$9,000.00	
Meals	$100/wk per person (2 persons)	40.00	$100.00	$4,000.00	
				$13,000.00	**$13,000.00**
Miscellaneous					
Telephone			$136.94	$136.94	
Internet	internet		$401.92	$401.92	
Other (Specify)	field supplies and Lidar plots	1.00	$7,040.12	$7,040.12	
				$7,578.98	**$7,578.98**
Freight, rock samples					
	Atlin Trucking & Cartage		$130.35	$130.35	
				$130.35	**$130.35**
TOTAL Expenditures					**$223,926.76**

15) QUALIFICATIONS

I, Linda Dandy, hereby certify that:

1. I am an independent Consulting Geologist having an office at 4900 Warm Bay Road, Atlin, British Columbia, V0W 1A0.

2. I am a graduate of the University of British Columbia with the degree of Bachelor of Science in Geology (1981).

3. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (Registration No. 19236) and a Fellow of the Geological Association of Canada (Membership No. F5201).

4. I have practiced my profession in North America since 1981, having worked as an employee and consultant for Major Mining Corporations and Junior Resource Companies and Government.

5. This report is based upon a personal examination of available company and government reports pertinent to the subject property, and upon fieldwork undertaken on the property from May to October, 2017.

"Linda Dandy"

May 10, 2018
Atlin, BC

Linda Dandy, P.Geo.
Consulting Geologist

Statement of Qualifications:

I, **Ian P.D.A. Coster,** of P.O. Box 27, Atlin, British Columbia, do hereby certify that:

1. I am a graduate of the University of British Columbia, obtaining a Bachelor of Science degree (Geologic Exploration) in 1981.
2. I am a graduate of the University of British Columbia, obtaining a Bachelor of Education degree (Elementary) in 1991.
3. I am a graduate of Royal Roads University, obtaining a Masters of Arts degree (Leadership and Training) in 2000.
4. I am a Fellow of the Geologic Association of Canada.
5. I have practiced my geology profession in British Columbia, Yukon, NWT, Ontario and Quebec, continuously since 1981 through 1990, discontinuously from 1991 through 2008, and continuously since 2008.
6. I have personally logged drill core described in the report titled, "Geological, Geochemical and Diamond Drilling Report on the Yellowjacket Property", authored by Linda Dandy, and particularly all core from Drillholes YJ17-01, YJ17-02, YJ17-03, and most of YJ16-04.

Dated at Atlin, British Columbia, on this 9th day of May, 2018.

Ian Coster BSc, BEd, MA, FGAC

APPENDICES

APPENDIX I – DIAMOND DRILL LOGS, RQD, SAMPLE SHEETS

APPENDIX II – DIAMOND DRILL CORE SAMPLES – CERTIFICATES OF ANALYSES

APPENDIX III – JUNE 2107 PINE CREEK WATER QUALITY SAMPLES – CERTIFICATES OF ANALYSES

APPENDIX IV – AUGUST 2107 PINE CREEK WATER QUALITY SAMPLES – CERTIFICATES OF ANALYSES

APPENDIX V – OCTOBER 2107 PINE CREEK WATER QUALITY SAMPLES – CERTIFICATES OF ANALYSES

APPENDIX VI – JUNE 2107 GROUNDWATER AND LEACHATE BIN SAMPLES – CERTIFICATES OF ANALYSES

APPENDIX VII – OCTOBER 2107 GROUNDWATER SAMPLES – CERTIFICATES OF ANALYSES

APPENDIX VIII – OCTOBER 2017 LEACHATE BIN SAMPLES – CERTIFICATES OF ANALYSES

APPENDIX I – DIAMOND DRILL LOGS, RQD, SAMPLE SHEETS

HOLE ID	SAMPLE ID	FILE ID	FROM (m)	TO (m)	WIDTH (m)	Au (ppb)		Ag (g/t)	As (ppm)	LITHOLOGY
YJ17-01	1478201	WHI17000996	16.94	17.94	1.0	4.8		<0.1	5.7	SERPENTINITE
YJ17-01	1478202	WHI17000996	17.94	18.94	1.0	3.4		<0.1	1.4	ANDESITE
YJ17-01	1478203	WHI17000996	18.94	19.94	1.0	2.7		<0.1	0.5	ANDESITE
YJ17-01	1478204	WHI17000996	19.94	20.94	1.0	1.7		<0.1	<0.5	ANDESITE
YJ17-01	1478205	WHI17000996	20.94	21.94	1.0	10.2		<0.1	<0.5	ANDESITE
YJ17-01	1478206	WHI17000996	21.94	22.94	1.0	2.6		<0.1	<0.5	ANDESITE
YJ17-01	1478207	WHI17000996	22.94	23.94	1.0	1.7		<0.1	<0.5	ANDESITE
YJ17-01	1478208	WHI17000996	23.94	24.94	1.0	69.3		<0.1	<0.5	ANDESITE
YJ17-01	1478209	WHI17000996	24.94	25.94	1.0	2.4		<0.1	<0.5	ANDESITE
YJ17-01	1478210	WHI17000996	25.94	27.12	1.2	5.8		<0.1	<0.5	ANDESITE
YJ17-01	1478211	WHI17000996	27.12	28.12	1.0	1.1		<0.1	<0.5	ANDESITE
YJ17-01	1478213	WHI17000996	28.12	29.12	1.0	<0.5		<0.1	1.7	SERPENTINITE
YJ17-01	1478214	WHI17000996	29.12	30.62	1.5	<0.5		<0.1	3	SERPENTINITE
YJ17-01	1478215	WHI17000996	30.62	32.12	1.5	<0.5		<0.1	4.6	SERPENTINITE
YJ17-01	1478216	WHI17000996	32.12	33.62	1.5	<0.5		<0.1	4.3	SERPENTINITE
YJ17-01	1478217	WHI17000996	33.62	35.05	1.4	<0.5		<0.1	2.4	SERPENTINITE
YJ17-01	1478219	WHI17000996	35.05	36.05	1.0	2.1		<0.1	3.9	SERPENTINITE
YJ17-01	1478220	WHI17000996	36.05	37.05	1.0	<0.5		<0.1	4.4	SERPENTINITE
YJ17-01	1478221	WHI17000996	37.05	38.55	1.5	0.5		<0.1	6.1	SERPENTINITE
YJ17-01	1478222	WHI17000996	38.55	40.05	1.5	1.6		<0.1	5	SERPENTINITE
YJ17-01	1478223	WHI17000996	40.05	41.55	1.5	2.2		<0.1	4.8	SERPENTINITE
YJ17-01	1478224	WHI17000996	41.55	43.05	1.5	1.2		<0.1	3.6	SERPENTINITE
YJ17-01	1478226	WHI17000996	43.05	44.55	1.5	0.9		<0.1	6.4	SERPENTINITE
YJ17-01	1478227	WHI17000996	44.55	46.05	1.5	0.8		<0.1	5	SERPENTINITE
YJ17-01	1478228	WHI17000996	46.05	47.40	1.4	<0.5		<0.1	6.3	SERPENTINITE
YJ17-01	1478229	WHI17000996	47.40	48.90	1.5	0.6		<0.1	4.7	SERPENTINITE
YJ17-01	1478230	WHI17000996	48.90	50.40	1.5	<0.5		<0.1	4.8	SERPENTINITE
YJ17-01	1478231	WHI17000996	50.40	51.90	1.5	0.5		<0.1	3.4	SERPENTINITE
YJ17-01	1478232	WHI17000996	51.90	53.28	1.4	1.1		<0.1	1.8	SERPENTINITE
YJ17-01	1478233	WHI17000996	53.28	54.62	1.3	1.7		0.1	<0.5	DIABASE
YJ17-01	1478234	WHI17000996	54.62	56.12	1.5	0.7		<0.1	3.6	DIABASE
YJ17-01	1478235	WHI17000996	56.12	57.40	1.3	2.8		0.2	5	DIABASE
YJ17-01	1478236	WHI17000996	57.40	58.90	1.5	0.9		<0.1	3.1	SERPENTINITE
YJ17-01	1478238	WHI17000996	58.90	60.40	1.5	<0.5		<0.1	5.3	SERPENTINITE
YJ17-01	1478239	WHI17000996	72.05	73.55	1.5	<0.5		<0.1	2.1	SERPENTINITE
YJ17-01	1478240	WHI17000996	73.55	75.05	1.5	2.5		<0.1	<0.5	DIABASE
YJ17-01	1478241	WHI17000996	75.05	76.50	1.5	2.2		0.1	<0.5	DIABASE
YJ17-01	1478243	WHI17000996	76.50	78.00	1.5	<0.5		<0.1	6.7	SERPENTINITE
YJ17-01	1478244	WHI17000996	78.00	79.50	1.5	2.9		<0.1	8.4	SERPENTINITE
YJ17-01	1478245	WHI17000996	79.50	80.50	1.0	<0.5		<0.1	2	SERPENTINITE
YJ17-01	1478246	WHI17000996	80.50	81.50	1.0	<0.5		<0.1	1.9	SERPENTINITE
YJ17-01	1478247	WHI17000996	81.50	83.00	1.5	0.6		<0.1	4.3	SERPENTINITE
YJ17-01	1478248	WHI17000996	83.00	84.50	1.5	13.9		<0.1	17.2	SERPENTINITE
YJ17-01	1478249	WHI17000996	84.50	86.00	1.5	2.9		<0.1	8.6	SERPENTINITE
YJ17-01	1478250	WHI17000996	86.00	87.50	1.5	0.8		<0.1	10.7	SERPENTINITE
YJ17-01	1478251	WHI17000996	87.50	88.20	0.7	0.7		<0.1	14.6	SERPENTINITE
YJ17-01	1478253	WHI17000996	88.20	89.70	1.5	2.4		<0.1	7.9	SERPENTINITE
YJ17-01	1478254	WHI17000996	89.70	91.20	1.5	1.4		<0.1	7.2	SERPENTINITE
YJ17-01	1478255	WHI17000996	91.20	92.50	1.3	4.1		<0.1	11.4	SERPENTINITE
YJ17-01	1478256	WHI17000996	92.50	93.50	1.0	3.3		<0.1	7.4	SERPENTINITE
YJ17-01	1478257	WHI17000996	93.50	94.50	1.0	3.5		<0.1	7.9	SERPENTINITE
YJ17-01	1478258	WHI17000996	94.50	95.86	1.4	<0.5		<0.1	8.4	SERPENTINITE
YJ17-01	1478259	WHI17000996	95.86	96.34	0.5	0.8		<0.1	3.7	DIABASE
YJ17-01	1478260	WHI17000996	96.34	97.30	1.0	<0.5		<0.1	10.1	SERPENTINITE
YJ17-01	1478261	WHI17000996	97.30	98.32	1.0	<0.5		<0.1	7.3	SERPENTINITE
YJ17-01	1478262	WHI17000996	98.32	99.36	1.0	1.4		<0.1	10.5	SERPENTINITE
YJ17-01	1478263	WHI17000996	99.36	100.22	0.9	<0.5		<0.1	9.1	SERPENTINITE
YJ17-01	1478264	WHI17000996	100.22	101.20	1.0	<0.5		<0.1	4.6	SERPENTINITE
YJ17-01	1478265	WHI17000996	101.20	102.41	1.2	<0.5		<0.1	7.5	SERPENTINITE

			HOLE YJ17-01		
FROM (m)	TO (m)	UNIT	LITHOLOGICAL DESCRIPTION	ALTERATION	VEIN %
0.00	10.97	CASING	No core.		
10.97	17.94	SERPENTINITE (2, 3a/b)	10.97-15.12 - initially strongly talcose as myriad chaotic pale green, greasy fracture slips; distinct mottled and subangular from talcose slips, generally accompanied by <2mm chaotic crackles of magnesite>calcite veinlets; grossly mottled dark green to pale green to grey coloured; mod-strongly magnetic throughout with isolated subangular magnetites to 3mm (grades to below over 20cm).	mod talc fracture slips, weak-mod Mg-Fe carb as crackle and slips	1-2% 1mm Fe-Mg carb veinlets, chaotic
			15.12-17.94 - darker green serpentinite, far less chaotic talcose fracture slips, very minor Fe-Mg carbonate stringers and slightly more magnetic; more massive texture.	as above greatly reduced	as above tr-0.5%
			@17.94 - knife-sharp contact, 1cm talc-chlorite shear/crush at 40^{o} tca.		
17.94	28.12	ANDESITE (9b)	Generally medium-dark grey green coloured and massive, fine-medium grained and speckly, from 10-20% very white alteration mineral of (probably) plagioclase sub phenos <<1mm irregular shaped; non-magnetic; cut by approx 4 per metre hairline-1mm Mg carb>calcite>quartz veinlets and crackles with preferred orientation of 35-60^{o} tca.	weak Mg carb in veinlets	1% 1mm Mg-carb stringers (traces quartz)
			Upper 15cm is fine grained, darker and magnetic (chill?).		
			@18.15m is 2-5mm "granular" cream-beige Mg-carb/quartz veinlet at 40^{o} tca with ~5cm bleached envelope (no minerals noted).		
			@21.10 is 4-12mm "shredded" quartz-Mg carb veinlet at 45^{o} tca following rock fabric and weakly bleaching 4cm envelope.		
			@25.11m is "granular" 5mm mg-carb>quartz veinlet at 35^{o} tca, no bleached envelope, no minerals.		
			@27.06m is "granular" 11-15mm mg-carb/quartz veinlet at 35^{o} tca, with 5cm bleached envelope, no minerals.		
			27.87-28.12m - rock becoming finer grained, dark green-grey, weakly magnetic (chill?).		
			@28.12m - contact knife-sharp at 25^{o} tca.		
28.12	53.28	SERPENTINITE (2, 3a/b)	27.18-37.05m - initially dark grey-green coloured, locally mottled, massive; strongly magnetic; cut by chaotic anastomozing hairline fracture fillings and stringers of talc-calcite-(serp)-(quartz) <<2mm (10/m); stringers and gashes range 30-65^{o} tca.	1-2% Mg carb +/- quartz stringers and gashes	
			@28.43m - 5cm of shear/crush at 70^{o} tca.		
			@29.40m - 10cm of shear/crush at 70^{o} tca.		
			37.05-44.95m - is more strongly serpentinized with common medium-dark green mottling; much broken core due to increased chaotic talcose slips and fractures +/- Mg carb.	1-2% Mg carb +/- quartz stringers and gashes	
			44.95-47.40m - is less serpentinized, more massive and unbroken, showing a distinct (relic?) granularity; cut by hairline talc-sericite(?)-Mg carb gashes 55-70^{o} tca.	1-2% Mg carb +/- quartz stringers and gashes	

			HOLE YJ17-01		
FROM (m)	TO (m)	UNIT	LITHOLOGICAL DESCRIPTION	ALTERATION	VEIN %
			@44.93, 45.57 and 46.37m - 7-11mm distinct veins at 25-30° tca of banded Mg carb+/-quartz, sericite; and has "strings" of magnetite dots, as well as traces subhedral pyrite <<1mm.		
			47.40-53.28m - very similar to 37.05-44.95m with distinct med/dark green mottling; with chaotic, anastomozing serp-talcose slips and fractures giving locally an overall "rolled" brecciated appearance.	1-2% Mg carb +/- quartz stringers and gashes	
			51.90-53.29m - serpentinite no longer mottled, is dark grey-green, less serpentinized.		
			@53.28m - contact is very indistinct, fuzzy, lost in broken core (not sheared)		
53.28	54.62	ANDESITE (or DIABASE?)	Probably diabase, dark green-grey (brownish), fine-med grained, equigranualr, massive, non-magnetic, 40% <<1mm subhedral plagioclase in pyroxene groundmass.	1% mg-carb hairline	
			@54.62m - contact sharp, dark green-grey, chilled @70° tca (not sheared)		
54.62	57.40	DIABASE (?)	Upper 8cm bleached, chilled, brecciated and strongly mg-carb silicified - possibly cordierite		
			54.70-57.40m - dark green, weakly serpentinized showing distinct 5mm subhedral sausseritized 8% feldspar(?) "flowers"; weakly magnetic, near massive, much harder than surrounding ultramafic; distinct unit from above - possibly back-to-back sills(?)	1-2% mg-carb +/- quartz stringers	
			@57.40m - sharp irregular and chilled contact at 35° tca.		
57.40	73.55	SERPENTINITE (2)	Dark grey-green, weakly serpentinized ultramafic, fine grained, massive, strongly magnetic.		
			58.00-59-70m - locally weakly brecciated over <10cm with angular serpentinite fragments in a mg-carb, sericite+/-talc matrix; very minor quartz accompanied by <1mm chaotic stringers and sericite-talc coated random fractures.		
			From 60.50-65.00m - higher fracture density given much broken core.		
			@60.24 and 61.80m - 2 cm breccia crush		
			@73.55m - contact is knife sharp at 50° tca with 15cm of chlorite-clay-talc gouge (85%) supporting 15% angular very dark grey chilled(?) andesite.		
73.55	76.50	DIABASE (4a) (or ANDESITE 9b?)	Upper 12cm very fine grained, chilled. Medium-dark grey-green, fine-medium grained, equigranualr and massive; non-magnetic; grain size <<1mm showing 15% white feldspar (irregular white alteration dots - cordierite, leucoxine?) generally sausseritized; hematite along fractures; cut by 1% <1-10mm quartz-mg carb knots and crackles average 50° tca.	1% quartz-Mg carb crackles	
			@76.24m - is 8cm of chlorite gouge fault breccia with 40% angular volcanic fragments.		
			@76.50m - contact is sharp at 40° tca, defined by 8cm chlorite gouge breccia in chilled volc/diabase.		
76.50	93.50	SERPENTINITE (2)	76.50-88.20m - dark grey-green, weakly serpentinized ultramafic, strongly magnetic, generally massive; cut by irregular stringers and veinlets of Mg-carb (rare quartz)-chlorite-talc; up to 1%, locally 3% over 1m.	1% Mg-carb-talc-quartz stringers	

			HOLE YJ17-01		
FROM (m)	TO (m)	UNIT	LITHOLOGICAL DESCRIPTION	ALTERATION	VEIN %
			79.88-80.29m - is fault breccia with true chlorite gouge from 80.07-80.29m at approx 50^{o} tca.		
			80.50-82.70m - serpentinite shows periodic weak brecciation with 50:50 mix of angular dark ultramafic fragments (to 10mm) in chlorite-talc matrix.		
			@85.20m - is 10cm of chlorite-talc crush-breccia		
			87.70-88.20m - is 5% 3-10mm mg-carb +/- quartz stringers/veinlets at no fixed orientation.	5% veinlets	
			88.20-92.30m - limonitic fractures with talc-chlorite.	1% mg carb-talc-quartz stringers	
			@93.50m - contact is irregular, gradational over 15cm.		
93.50	95.86	SERPENTINITE (3a)	Light to medium grey-green, pervasive mg-carb altered proximal to 8cm of pale green gougy fault at 93.70m @ 50^{o} tca, which hosts 20% subangular white quartz fragments; serpeninite is almost listwanite green, hosting 3% irregular knots and vinelet of mg-carb + quartz; traces very fine grained pyrite.	3% mg carb +/- quartz stringers	
			@ 94.60m - 2cm quartz knots		
			@ 95.86m - contact is diffuse and highly variable.		
95.86	96.34	DIABASE? (4b)	Medium grey-buff-green, fine-medium grained, equigranular and massive; weakly pervasive bleached medium buff-green, minor mg-carb veinlets.	1% mg-carb	
			@ 96.34m - contact is sharp, chilled at 70^{o} tca.		
96.34	102.41	SERPENTINITE (2) and (3a)	96.34-98.32m - is weakly altered, serpentinite (2), dark grey-green, strongly magnetic, with chaotic talc-chlorite slips and fractures.		
			98.32-99-36m - is moderately mg-carb altered medium grey-green and pale green to dark green mottled, moderately magnetic.		
			@ 98.96m - is 10mm magnesite-quartz veinlet at 50^{o} tca.		
			99.36-102.41m - is mod-strong pervasive mg-carb (and 99.36-99.70m shows Fe-ox staining around breccia gouge)	2% mg-carb/quartz veinlets, trace pyrite blebs	
			100.22-100.36m - fault gouge and breccia at 70^{o} tca.		

HOLE ID	RUN		INTERVAL (m)		% RECOVERY	RQD	
	FROM	TO	TOTAL	RECOVERED		(m)	%
YJ17-01	10.97	14.02	3.05	2.96	97	1.11	36
YJ17-01	14.02	17.06	3.05	3.05	100	1.41	46
YJ17-01	17.06	20.11	3.05	3.05	100	1.06	35
YJ17-01	20.11	23.16	3.05	2.98	98	1.01	33
YJ17-01	23.16	26.21	3.05	2.96	97	0.99	32
YJ17-01	26.21	29.26	3.05	2.96	97	1.01	33
YJ17-01	29.26	32.30	3.05	2.95	97	1.61	53
YJ17-01	32.30	35.35	3.05	3.03	99	1.43	47
YJ17-01	35.35	38.40	3.05	2.82	92	0.91	30
YJ17-01	38.40	41.45	3.05	2.80	92	0.44	14
YJ17-01	41.45	44.50	3.05	2.90	95	1.16	38
YJ17-01	44.50	57.54	3.05	3.04	100	1.90	62
YJ17-01	57.54	50.59	3.05	2.93	96	1.66	54
YJ17-01	50.59	53.64	3.05	2.96	97	1.72	56
YJ17-01	53.64	56.69	3.05	2.88	94	0.38	12
YJ17-01	56.69	59.74	3.05	2.82	92	0.99	32
YJ17-01	59.74	62.79	3.05	2.88	94	0.21	7
YJ17-01	62.79	65.84	3.05	2.46	81	0.22	7
YJ17-01	65.84	68.88	3.05	2.62	86	0.40	13
YJ17-01	68.88	71.93	3.05	2.96	97	0.44	14
YJ17-01	71.93	74.98	3.05	3.04	100	1.02	33
YJ17-01	74.98	78.03	3.05	2.85	93	0.81	27
YJ17-01	78.03	81.08	3.05	3.01	99	1.64	54
YJ17-01	81.08	84.12	3.05	3.01	99	0.78	26
YJ17-01	84.12	87.17	3.05	3.05	100	1.48	49
YJ17-01	87.17	90.22	3.05	3.02	99	0.23	8
YJ17-01	90.22	93.27	3.05	3.02	99	0.39	13
YJ17-01	93.27	96.32	3.05	3.01	99	0.97	32
YJ17-01	96.32	99.36	3.05	2.93	96	1.23	40
YJ17-01	99.36	102.41	3.05	2.95	97	0.30	10

HOLE ID	SAMPLE ID	FILE ID	FROM (m)	TO (m)	WIDTH (m)	Au (ppb)		Ag (g/t)	As (ppm)	LITHOLOGY
YJ17-02	1478266	WHI17000997	36.52	38.02	1.5	1.8		<0.1	3.8	SERPENTINITE
YJ17-02	1478268	WHI17000997	38.02	39.02	1.0	1.1		<0.1	<0.5	ANDESITE
YJ17-02	1478269	WHI17000997	39.02	40.02	1.0	16.9		<0.1	<0.5	ANDESITE
YJ17-02	1478270	WHI17000997	40.02	41.21	1.2	0.7		<0.1	<0.5	ANDESITE
YJ17-02	1478272	WHI17000997	41.21	42.21	1.0	<0.5		<0.1	<0.5	ANDESITE
YJ17-02	1478273	WHI17000997	42.21	43.23	1.0	<0.5		<0.1	<0.5	SERPENTINITE
YJ17-02	1478274	WHI17000997	43.23	44.73	1.5	0.5		<0.1	1.3	SERPENTINITE
YJ17-02	1478275	WHI17000997	44.73	46.23	1.5	<0.5		<0.1	<0.5	ANDESITE
YJ17-02	1478276	WHI17000997	46.23	47.73	1.5	1.1		<0.1	4.2	SERPENTINITE
YJ17-02	1478277	WHI17000997	58.70	59.90	1.2	<0.5		<0.1	4.7	SERPENTINITE
YJ17-02	1478278	WHI17000997	59.90	61.00	1.1	1.7		<0.1	5.7	SERPENTINITE
YJ17-02	1478279	WHI17000997	61.00	62.40	1.4	1.9		<0.1	6.3	SERPENTINITE
YJ17-02	1478280	WHI17000997	62.40	63.90	1.5	<0.5		<0.1	5.7	SERPENTINITE
YJ17-02	1478281	WHI17000997	63.90	65.40	1.5	<0.5		<0.1	4.9	SERPENTINITE
YJ17-02	1478282	WHI17000997	65.40	66.53	1.1	<0.5		<0.1	5	SERPENTINITE
YJ17-02	1478283	WHI17000997	66.53	68.03	1.5	<0.5		<0.1	2	SERPENTINITE
YJ17-02	1478284	WHI17000997	68.03	69.13	1.1	2.1		<0.1	<0.5	ANDESITE

			HOLE YJ17-02		
FROM (m)	**TO (m)**	**UNIT**	**LITHOLOGICAL DESCRIPTION**	**ALTERATION**	**VEIN %**
0.00	9.14	CASING	No core.		
9.14	38.02	SERPENTINITE (2)	9.14-31.30m - uniform moderate-strongly serpentinized ultramafic; mottled medium green to dark green coloured, strongly magnetic; cut by chaotic hairline talcose slips, fractures and hairline stringers +/- mg-carb.	mod talc, weak mg-carb	1% mg carb stringers
			@ 19.35m - is 10cm of shear-crush.		
			26.10-29.60m - core is very broken from a series of weak shear/crush zones <<10cm wide with chlorite-talc crush and gouge; poor recovery.		
			31.30-38.02m - serpentinite grades (over 10 cm) to unmottled, dark grey-green serpentinite; still strongly magnetic; easily shattered, makes for much broken core.	as above	as above
			37.45-38.02m - serpentinite is weakly brecciated with angular fragments in situ supported by white mg-carb (5-10%).		5% mg-carb stringers
			@38.02m - contact is sharp, irregular, grading from brecciated serpentinite to chlorite fault gouge.		
38.02	42.21	ANDESITE (9b) or DIABASE (4a)	Medium green, equigranular variably very fine grained to fine grained. Speckled andesite(?) or diabase; varibaly weakly bleached proximal to weak shear/crush sections; hematite along fracture; not magnetic. 38.39-39.00 and 39.60m - areas of crush/gouge brecciation with bleaching.	weak mg-carb	2% mg-carb stringers and gashes, trace quartz
			40.55-42.00m - shows increased mg-carb +/- quartz irregular stringers and veinlets up to 12 mm, some at high angle tca.		5% mg-carb +/- quartz knots and veinlets
			42.02-42.21m - contact zone is chloritic gouge 50:50 angular andesite fragments: gouge and veinlets at 55^{o} tca.		
42.21	44.73	SERPENTINITE (2)	Dark grey-green, weakly altered, strongly magnetic; similar to 31.30-38.02m. Includes 20cm fault gouge.	mod talc, weak mg-carb	1% mg carb stringers
			@44.73m - contact is sharp at 25^{o} tca, defined by 2cm of clay-chlorite gouge.		
44.73	46.23	ANDESITE (9b) or DIABASE (4a)	First 8cm is chilled and magnetic. Unit is similar to 38.02-42.21m but now moderately pervasive mg-carb with 2-3% chaotic mg-carb +/- quartz <<2mm stringers.	mod mg-carb	2-3% mg-carb stringers
			@ 46.23m - contact has 8cm chilled and magnetic, breccia with 12cm fault gouge at 50^{o} tca.		
46.23	68.03	SERPENTINITE (2)	46.23-50.40m - is predominantly dark green, uniform, weakly altered serpentinite; similar to 31.30-38.02m.	weak talc, very weak mg-carb	<1% talc + mg-carb fractures and stringers
			50.40-57.65m - is predominantly medium-dark green mottled, weakly altered serpentinite; strongly magnetic; competent "stick-rock" = high RQD; still cut by <1% <2mm talc-mg carb stringers commonly at 40^{o} tca.	weak talc, very weak mg-carb	<1% talc + mg-carb fractures and stringers
			57.65-68.03m - is predominantly dark green, uniform, weakly altered serpentinite (as 46.23-50.40m).		
			58.75-62.30m - is much broken core, wide zone of weak shearing, consisting of several crudely brecciated-crushed serpentinite, often angular fragments >>75% supported in network matrix of talc-chlorite>mg-carb.	weak-mod talc and mg-carb	2-3% talc + mg-carb veinlets
			62.30-68.03m - is predominantly dark green, uniform, weakly altered serpentinite.	weak talc and mg-carb	1-2% talc + mg-carb veinlets
			@ 68.03m - sharp contact is 24 cm of chloritic fault breccia, orientation unclear.		
68.03	69.80	ANDESITE (9b) or DIABASE (4a)	Medium green, equigranular, variably fine grained and speckled with <1mm feldspars; not magnetic.		1-2% talc + mg-carb veinlets

			HOLE YJ17-02		
FROM (m)	**TO (m)**	**UNIT**	**LITHOLOGICAL DESCRIPTION**	**ALTERATION**	**VEIN %**
			69.13-69.80m - no recovery, driller says all in clay and washed away; probable fault gouge.		
69.80		EOH	Drill rods stuck, pinched in "solid clay", cannot advance, hole abandoned.		

HOLE ID	RUN		INTERVAL (m)		% RECOVERY	RQD	
	FROM	TO	TOTAL	RECOVERED		(m)	%
YJ17-02	9.14	10.66	1.52	0.62	41	0.10	7
YJ17-02	10.66	13.71	3.05	2.70	89	0.12	4
YJ17-02	13.71	16.76	3.05	2.75	90	0.22	7
YJ17-02	16.76	19.81	3.05	2.80	92	0.88	29
YJ17-02	19.81	22.86	3.05	2.68	88	1.18	39
YJ17-02	22.86	25.90	3.05	2.81	92	1.03	34
YJ17-02	25.90	28.95	3.05	1.40	46	0.12	4
YJ17-02	28.95	32.00	3.05	2.31	76	0.00	0
YJ17-02	32.00	35.05	3.05	2.80	92	0.20	7
YJ17-02	35.05	38.10	3.05	2.83	93	0.49	16
YJ17-02	38.10	41.14	3.05	2.76	90	0.61	20
YJ17-02	41.14	44.19	3.05	2.50	82	0.37	12
YJ17-02	44.19	47.24	3.05	2.99	98	1.22	40
YJ17-02	47.24	50.29	3.05	2.94	96	0.43	14
YJ17-02	50.29	53.34	3.05	2.92	96	2.11	69
YJ17-02	53.34	56.39	3.05	3.05	100	2.37	78
YJ17-02	56.39	59.44	3.05	2.84	93	1.38	45
YJ17-02	59.44	62.48	3.05	2.36	77	0.18	6
YJ17-02	62.48	65.53	3.05	2.96	97	0.84	28
YJ17-02	65.53	68.58	3.05	2.77	91	0.84	28
YJ17-02	68.58	69.80	1.22	0.54	44	0.14	11

HOLE ID	SAMPLE ID	FILE ID	FROM (m)	TO (m)	WIDTH (m)	Au (ppb)		Ag (g/t)	As (ppm)	LITHOLOGY
YJ17-03	1478285	WHI17000998	8.84	14.94		<0.5		<0.1	6.6	SLUDGE
YJ17-03	1478286	WHI17000998	8.84	14.94		<0.5		<0.1	5.7	SLUDGE
YJ17-03	1478287	WHI17000998	18.43	19.43	1.0	0.7		<0.1	6.5	SERPENTINITE
YJ17-03	1478288	WHI17000998	19.43	20.42	1.0	1.0		<0.1	6.7	SERPENTINITE
YJ17-03	1478289	WHI17000998	20.42	21.92	1.5	<0.5		<0.1	6.1	SERPENTINITE
YJ17-03	1478290	WHI17000998	21.92	23.42	1.5	<0.5		<0.1	5.6	SERPENTINITE
YJ17-03	1478292	WHI17000998	35.51	36.77	1.3	2.7		<0.1	6.8	SERPENTINITE
YJ17-03	1478293	WHI17000998	36.77	37.84	1.1	<0.5		<0.1	5.9	SERPENTINITE

			HOLE YJ17-03		
FROM (m)	**TO (m)**	**UNIT**	**LITHOLOGICAL DESCRIPTION**	**ALTERATION**	**VEIN %**
0.00	8.84	CASING	No recovery. Casing through overburden gravel to 8.84 which is possible bedrock surface.		
8.84	14.94	CASING	No recovery. Tricone bit producing uniform appearing sludge of very fine grained chlorite, serpentinite and bits and grains of magnetite, feldspar, dark minerals (no quartz or bleached andesite fragments).		
			Driller says 20 feet of pure clay, very rare small solid fragments.		
			Two samples taken of sludge cuttings from return water at collar (1478285, 1478286).		
			Conjecture is that we cased through the Pine Creek Fault zone, it being a section of incompetent fault gouge +/- alteration, quartz veining and mineralzation in serpentinite +/- andesite.		
			"@ 14.94m - end of casing, begin coring in very soft "serpentinite appearing" chips and bits; 10cm of ream debris shows serpentinite and andesite and siliceous (quartz vein!) material.		
14.94	18.43	LOST CORE	Potentially fault zone material. Zero recovery, driller says still very soft (clay?) material, all cuttings washed away; rods almost pinched stuck numerous times.		
18.43	38.71	SERPENTINITE (2)	18.43-36.80m - uniform, fairly homogenous moderately serpentinized ultramafic; mottled dark green to light-medium green splotches (to 10mm); very strongly magnetic with 3-5% coarse magnetite in dark splotches; cutting 1-2/m <<4mm chaotic anastomosing talc>chlorite slips and fractures; also cut by rare <10mm talc-chlorite-mg carb veinlets at 40-60^{o} tca, hosting trails of magnetite specks.	weak-moderate talc-chlorite	1-2% talc-chlorite mg-carb
			@ 18.65m - is 5cm crush		
			@ 19.81m - is 10cm crush chlorite gouge at 40^{o} tca.		
			@ 20.95m - is 5cm crush		
			23.85-24.15m - is section of crude brecciation with angular serpentinite fragments supported by lacy talc-chlorite-Mg carb.		
			24.15-36.80m - uniform serpentinized ultramafic, "stick rock".		<1% talc-chlorite-Mg carb
			@ 31.80m - is 7cm crush.		
			36.80-37.20m - degree of serpentinization and crude brecciation and lacy talc-chlorite-mg carb crackling increasing.		1-2% talc-chlorite-Mg carb
			37.84-38.71m - is 0.87m of lost core, driller says rods pinching in clay, probable fault.		

HOLE ID	RUN		INTERVAL (m)		% RECOVERY	RQD	
	FROM	TO	TOTAL	RECOVERED		(m)	%
YJ17-03	14.93	19.20	4.27	0.77	18	0.00	0
YJ17-03	19.20	20.42	1.22	1.15	94	0.13	11
YJ17-03	20.42	23.24	3.05	3.07	101	0.46	15
YJ17-03	23.24	26.52	3.05	2.94	96	1.42	47
YJ17-03	26.52	29.57	3.05	2.96	97	1.68	55
YJ17-03	29.57	32.61	3.05	3.02	99	1.80	59
YJ17-03	32.61	35.66	3.05	2.96	97	2.19	72
YJ17-03	35.66	38.71	3.05	2.16	71	0.71	23

HOLE ID	SAMPLE ID	FILE ID	FROM (m)	TO (m)	WIDTH (m)	Au (ppb)		Ag (g/t)	As (ppm)	LITHOLOGY
YJ17-04	1478295	WHI17000999	17.22	18.22	1.0	1.4		<0.1	2.7	SERPENTINITE
YJ17-04	1478296	WHI17000999	18.22	19.22	1.0	2.4		<0.1	2.0	SERPENTINITE
YJ17-04	1478297	WHI17000999	19.22	20.22	1.0	23.2		<0.1	22.2	SERPENTINITE
YJ17-04	1478298	WHI17000999	20.22	21.28	1.1	2.0		<0.1	12.5	SERPENTINITE
YJ17-04	1478299	WHI17000999	21.28	22.78	1.5	8.3		<0.1	14.0	SERPENTINITE
YJ17-04	1478300	WHI17000999	22.78	24.05	1.3	6.8		<0.1	15.9	FE-CB ULTRAMAFIC
YJ17-04	1478301	WHI17000999	24.05	25.55	1.5	3.1		<0.1	9.7	MG-CB ULTRAMAFIC
YJ17-04	1478302	WHI17000999	25.55	27.05	1.5	5.9		<0.1	9.5	MG-CB ULTRAMAFIC
YJ17-04	1478303	WHI17000999	27.05	28.05	1.0	3.2		<0.1	4.3	MG-CB ULTRAMAFIC
YJ17-04	1478304	WHI17000999	28.05	28.83	0.8	40.0		<0.1	6.3	MG-CB ULTRAMAFIC
YJ17-04	1478305	WHI17000999	28.83	29.93	1.1	64.4		<0.1	8.7	FE-CB ULTRAMAFIC
YJ17-04	1478306	WHI17000999	29.93	30.93	1.0	33.9		<0.1	34.6	FE-CB ULTRAMAFIC
YJ17-04	1478307	WHI17000999	30.93	32.06	1.1	4.3		<0.1	4.3	DIABASE
YJ17-04	1478308	WHI17000999	32.06	33.06	1.0	6.9		<0.1	2.2	DIABASE
YJ17-04	1478309	WHI17000999	33.06	33.50	0.4	8.9		<0.1	7.5	FE-CB ULTRAMAFIC
YJ17-04	1478310	WHI17000999	33.50	34.50	1.0	1.5		<0.1	13.1	FE-CB ULTRAMAFIC
YJ17-04	1478311	WHI17000999	34.50	35.77	1.3	4.7		<0.1	31.8	FE-CB ULTRAMAFIC
YJ17-04	1478313	WHI17000999	35.77	37.04	1.3	16.6		0.2	27.9	DIABASE
YJ17-04	1478314	WHI17000999	37.04	37.94	0.9	19.7		0.1	12.6	FE-CB ULTRAMAFIC
YJ17-04	1478315	WHI17000999	37.94	39.44	1.5	4.8		<0.1	6.4	FE-CB ULTRAMAFIC
YJ17-04	1478316	WHI17000999	39.44	40.84	1.4	16.9		<0.1	19.3	FE-CB ULTRAMAFIC
YJ17-04	1478317	WHI17000999	40.84	41.73	0.9	72.2	64.3	0.1	124.2	LISTWANITE
YJ17-04	1478319	WHI17000999	41.73	42.75	1.0	65.0	66.3	0.2	89.1	BLEACHED ANDESITE
YJ17-04	1478320	WHI17000999	42.75	44.25	1.5	12.4	18.6	<0.1	67.2	LISTWANITE
YJ17-04	1478321	WHI17000999	44.25	45.75	1.5	17.4	26.1	0.1	70.8	LISTWANITE
YJ17-04	1478323	WHI17000999	45.75	46.87	1.1	86.6	97.0	0.1	355.9	LISTWANITE
YJ17-04	1478325	WHI17000999	46.87	47.45	0.6	224.6	130.3	0.3	71.2	BLEACHED ANDESITE
YJ17-04	1478326	WHI17000999	47.45	49.07	1.6	9.7		<0.1	16.1	MG-CB ULTRAMAFIC
YJ17-04	1478327	WHI17000999	49.07	49.82	0.8	4.5		<0.1	16.9	MG-CB ULTRAMAFIC
YJ17-04	1478328	WHI17000999	49.82	50.50	0.7	2.0		<0.1	3.4	ANDESITE
YJ17-04	1478329	WHI17000999	50.50	51.55	1.1	8.1		0.1	2.3	ANDESITE
YJ17-04	1478330	WHI17000999	51.55	52.86	1.3	0.7		<0.1	0.9	ANDESITE
YJ17-04	1478331	WHI17000999	52.86	53.60	0.7	1.4		0.2	1.0	ANDESITE
YJ17-04	1478332	WHI17000999	53.60	55.17	1.6	<0.5		<0.1	1.1	ANDESITE
YJ17-04	1478333	WHI17000999	55.17	56.77	1.6	3.2		<0.1	8.2	ANDESITE
YJ17-04	1478334	WHI17000999	56.77	57.97	1.2	46.5		0.1	197.2	FAULT - UM/ANDESITE
YJ17-04	1478335	WHI17000999	57.97	59.62	1.7	4.4		<0.1	6.9	SERPENTINITE
YJ17-04	1478336	WHI17000999	59.62	60.67	1.1	1.6		<0.1	2.8	SERPENTINITE
YJ17-04	1478337	WHI17000999	60.67	62.00	1.3	0.6		<0.1	<0.5	ANDESITE
YJ17-04	1478339	WHI17000999	62.00	64.16	2.2	<0.5		<0.1	<0.5	ANDESITE
YJ17-04	1478340	WHI17000999	64.16	65.78	1.6	6.1		<0.1	5.5	SERPENTINITE
YJ17-04	1478341	WHI17000999	65.78	66.77	1.0	<0.5		<0.1	4.9	SERPENTINITE
YJ17-04	1478343	WHI17000999	66.77	67.36	0.6	<0.5		<0.1	<0.5	ANDESITE

			HOLE YJ17-04		
FROM (m)	**TO (m)**	**UNIT**	**LITHOLOGICAL DESCRIPTION**	**ALTERATION**	**VEIN %**
0.00	15.38	CASING	No true recovery. 0-6.40m was silt (through historic settling pond). 6.40-15.54m driller says is "pure clay" - fault gouge material(?). Approx 50cm redrilled, reamed rubbed is dark green volcanic in box before 15.54 block.		
15.38	17.22	ANDESITE (9b)? May be DIABASE (4a)	Dark grey-green moderately chloritized intermediate to mafic volcanic; relatively soft, not magnetic, essentially unaltered.	moderate chlorite	nil
			@ 17.22m - major core loss, 40 cm of redrilled recovery, contact uncertain.		
17.22	22.78	SERPENTINITE (2)	17.32-18.12 and 18.91-19.90m - fault breccia and gouge (70%), medium green chlorite-talc-clay gouge, dark green weakly altered clasts of serpentinite (sub angular to sub rounded).	moderate chlorite-talc	traces crackle Fe-carb +/- quartz
			Up to 19.50m - medium dark grey green, weakly altered, strongly magnetic.		
			Up to 22.50m - dark grey-green, altered to orange-brown from combination of moderate pervasive Fe-carb alteration and surface leach oxidation.	moderate chlorite-talc, moderate Fe-carb	traces crackle Fe-carb +/- quartz
			19.90-22.78m - fault zone brecciation (<10% gouge).		
			@ 22.78m - contact fairly sharp over 2cm at irregular angle; contact is an alteration front.		
22.78	24.05	Fe-Carb SERPENTINITE (3b)	Orange to cream coloured, strongly pervasive Fe-carb altered, moderately silicified with rare <3mm quartz-carb veinlets at 65^{o} tca; non to very weakly magnetic. Logger thinks the Fe-carb overprints the Mg-carb event.	strong Fe-carb, weak-moderate silica	1-2% irregular veinlets carb>quartz at 65^{o} tca
			23.10-23.49m - is 70% clay-chlorite-talc gouge hosting subangular polymictic fragments including dark green serpentinite, orange Fe-carb rock and pale green listwanite.		
			@ 24.05m - contact irregular gradational alteration front.		
24.05	28.83	Mg-Carb SERPENTINITE (3a)	Light to medium grey-green, speckly-mottly moderate to strongly mg-carb serpentinite; moderately magnetic; fairly uniform "stick rock" throughout; cut by 3% quartz-carb veinlets; traces very fine grained subhedral pyrite disseminations.	mod-strong Mg-carb	3% <8mm quartz-carb veinlets (4/m)
			@ 26.25m - is fracture at 55^{o} tca with orange Fe-carb altered envelopes for 10cm.		
			28.17-28.83m - intensely Mg-carb altered, swirly textured, brecciated fault(?) melange, general fabric with chaotic angles.	intense Mg-carb	
			@ 28.83m - contact is gradational over 5cm.		
28.83	30.93	Fe-Carb SERPENTINITE (3b)	Essentially as 28.17-28.83m but now bright orange coloured (Fe-carb) and more silicified than above unit; shows mish-mash of subround to subangular orange Fe-carb fragments, vein quartz fragments all in a swirly Fe-carb/silica flooded matrix proximal to orange crush zones at 30.00, 30.20 and 30.44m.	strong Fe-carb, moderate silica	2-3% wormy quartz-carb veinlets, several pulses
			@ 30.93m - knife sharp, sheared contact at 50^{o} tca.		
30.93	33.06	DIABASE (4a)	Medium-dark grey-green, fine grained, speckled with buff leucoxene; not magnetic, hematite on fractures. First 12 cm is sheared.	weak Mg-Fe carb, hematite	<1% mg carb stringers
			31.85-32.35m - is bizarre swirly altered (Fe-carb/silica) incorporated piece of serpentinite (3b); irregular contacts; magnetic.		
			@ 33.06m - odd, swirly, possible 15 cm chill at 45^{o} tca.		

			HOLE YJ17-04		
FROM (m)	**TO (m)**	**UNIT**	**LITHOLOGICAL DESCRIPTION**	**ALTERATION**	**VEIN %**
33.06	35.77	Fe-Carb SERPENTINITE (3b)	Medium to dark grey green, with an orange "lacy" overprint, moderately magnetic; rock is soft and talcy, with Fe-carb overprint.	strong talc, moderate Fe-carb	8% quartz-mg carb decreasing down section to 2-3%
			Up to 33.50m is parallel quartz veinlets.		
			@ 35.77m - contact is sharp at 45° tca with late quartz-carb veinlet along contact at 35° tca, sharp with 5mm chlorite-clay crush.		
35.77	37.04	DIABASE (4a)	Medium grey-buff, fine-medium grained, speckled with 10-15% 1mm black mafic mineral (px?); weakly altered, not magnetic.	weak chlorite-Fe carb	<1% carb stringers
			@ 37.04m - contact sharp at 35° tca with 5mm clay-chlorite crush.		
37.04	40.94	Fe-Carb SERPENTINITE (3b)	Predominantly orange mottled and swirly textured, and sometimes "shredded" (brecciated?); moderate to strongly Fe-carb altered throughout, fairly hard (mod pervasive silification); cut by 2-3% quartz-carb stringers and veins (<5mm) mainly along 50° tca fabric trend; traces subhedral pyrite specks, essentially non-magnetic (occasionally very weak).	strong Fe-carb, moderate silica	2-3% quartz-carb veinlets
			@ 40.94m - gradational contact over 5cm defined by alteration.		
40.94	41.73	LISTWANITE (Mg-carb) (3a, 3c)	Mg-carb and silica altered, black chromite/magnetite specks, chrome mica, <0.5% pyrite as disseminated small patches/veins 1-10mm, 30-80° tca.	strong mg-carb and silica	5-10% quartz +/- carb veinlets
			@ 71.73m - contact sharp, broken at 80° tca.		
41.73	42.75	ANDESITE (9b) bleached	Light grey, quartz stockwork, up to 1% pyrite disseminated, 2% bright green crystals (epidote/mariposite).	bleached, weak-moderate silica	5% irregular quartz veinlets
			@ 42.75m - irregular contact.		
42.75	46.87	LISTWANITE (3c)	Grey-green, decreasing intensity down section. In first metre - quartz veins to 15% have light bluish chalcedonic appearance and occasional vugs, trace pyrite is more abundant (1%) in first 30cm and in occasional 1-2cm bands. Rare tiny, silvery crystals (arsenopyrite?).	Strong Mg-carb, patchy Fe-carb, mod-strong silica	5% quartz-carb veinlets
			@ 43.10m - 20cm strong Fe-carb/silica.		
			@ 44.20m - 15cm strong Fe-carb around fracture.		
			@ 43.40m - 1.5cm vuggy chalcedonic vein, irregular orientation.		
			@ 45.15m - 1.5 cm quartz vein at 30° tca with kink fold.		
			@45.58m - 10cm section of increased quartz offest low angle veins cut by 0.5cm yellow carb vein.		
			@ 46.60m - 10cm increased silica banding at 45 and 80° tca.		
			@ 46.87m - contact is slightly irregular at 70° tca with 2.5cm quartz vein.		
46.87	47.40	ANDESITE (9b) bleached	Light grey, fine grained, brecciated with occasional listwanite clasts, 1-5% pyrite locally around veins.	weak silica	2% quartz veinlets
			@ 47.40m - contact irregular at 70° tca.		
47.40	48.67	Mg-Carb SERPENTINITE (3a)	Grey and weakly green, medium Mg-carb and silica decreasing down section. Pyrite 1-2% on fracture ans as blebs. Mariposite very weak by end of section except last 20cm where increase in quartz to 10%, increase mariposite and pyrite.	moderate-weak mg-carb and silica	1-2% quartz-carb
			@48.67m - contact is faulted with 1cm gouge at 75° tca.		
48.67	49.82	Mg-Carb SERPENTINITE (3a)	As before but less altered (silica), weakly brecciated.	moderate-weak mg-carb and silica	

			HOLE YJ17-04		
FROM (m)	**TO (m)**	**UNIT**	**LITHOLOGICAL DESCRIPTION**	**ALTERATION**	**VEIN %**
			@ 49.10m - 38cm breccia siliceous zone, foliated at 60° tca, with 1cm quartz vein at bottom at 45° tca. 1.2% pyrite in bands and possibly trace arsenopyrite.		
			@ 49.82m - contact broken		
49.82	56.77	ANDESITE	Medium grey, medium to fine grained, variably broken, silicified and faulted. First 15cm is weakly brecciated.	occasional weak silica	1-2% quartz +/- carb veinlets
			50.10-50.45m - broken, gougy fault with 10% pyrite as small cubes locally.		
			50.45-51.00m - broken but competent and more siliceous with quartz veins to 5% and 1 speck chalcopyrite.		
			@ 51.50m - 8cm strong crushed gougy zone with small quartz fragments.		
			53.10-53.40m - brecciated gouge zone with altered ultramafic (listwanite) fragments.	local mod silica and weak chlorite	1-5% quartz-carb
			@ 55.35m - irregular 4cm quartz vein at 80° tca with 5cm brown alteration above vein and moderate silicification below vein to end of section, increased fine grained disseminated pyrite to 1%.		
			@ 56.20m - 15cm broken irregular piece of listwanitic ultramafic.		
			Last 40cm is hornblende porphyritic and relatively unaltered but increased chlorite and clay to contact, broken. Right at contact is strong silica, increased pyrite to 10% on gougy lower side with 50% angular quartz fragments and 10% pyrite.	strong silica	
			@56.77m - contact is sharp, faulted with serpentinite down hole at 60° tca.		
56.77	57.97	FAULT - ULTRAMAFIC-ANDESITE	Fabric at 80° tca. Mg and listwanitic ultramafic > bleached andesite. Section is strongly crushed gouge with breccia fragments often quartz. Pyrite in gouge and wall rock. White quartz veinlets x-cut older grey quartz.	5% pyrite, strong silica, clay gouge	5% quartz veinlets
			@ 57.97m - contact gradational over a few cm at 80° tca parallel to foliation.		
57.97	60.67	SERPENTINITE (2)	Dark green to black, swirly texture, strongly magnetic, hairline calcite on fractures, weak Mg alteration at start of section.	Trace pyrite, weak magnetite, weakly serpentinized	1-2% hairline calcite veinlets
			@ 60.67m - contact is irregular with 1.5cm blebby massive light brown alteration front (soft).		
60.67	64.16	ANDESITE	Relatively unaltered, weakly broken with light grey green clay +/- weak serpentinite on fractures. Rare carb veinlets. Tiny beige leucoxene phenocrysts visible in places.	Weak chlorite	trace carb veinlets
			@64.16m - contact is sharp, faulted at 85° tca.		
64.16	66.77	SERPENTINITE (2)	Dark green/black, relatively competent; strongly magnetic. Hairline calcite veinlets. Last 50cm has 0.5cm massive light green talc clots to 5%	weak to moderate talc	trace carb veinlets
			@66.77m - contact is irregular.		
66.77	67.36	ANDESITE	As from 60.67-64.16m - leucoxene or plagioclase porphyritic.		
			@67.00m - 1cm strong clay gouge at 65° tca with fabric and sealed breccia for 10 cm surrounding.		

HOLE ID	RUN		INTERVAL (m)		% RECOVERY	RQD	
	FROM	TO	TOTAL	RECOVERED		(m)	%
YJ17-04	0.00	15.54	15.54	0.00	0	0.00	0
YJ17-04	15.54	18.59	3.05	1.55	51	0.00	0
YJ17-04	18.59	21.64	3.05	3.05	100	0.30	10
YJ17-04	21.64	24.69	3.05	3.05	100	1.15	38
YJ17-04	24.69	27.74	3.05	3.07	101	2.77	91
YJ17-04	27.74	30.78	3.05	3.06	100	1.74	57
YJ17-04	30.78	33.83	3.05	3.06	100	1.88	62
YJ17-04	33.83	36.88	3.05	3.10	102	0.85	28
YJ17-04	36.88	39.93	3.05	3.05	100	1.98	65
YJ17-04	39.93	42.98	3.05	2.94	96	1.78	58
YJ17-04	42.98	46.02	3.05	3.06	100	2.61	86
YJ17-04	46.02	49.07	3.05	3.01	99	2.44	80
YJ17-04	49.07	53.12	3.05	2.82	92	0.92	30
YJ17-04	53.12	55.17	3.05	2.87	94	1.06	35
YJ17-04	55.17	58.22	3.05	3.04	100	1.20	39
YJ17-04	58.22	61.26	3.05	3.05	100	2.08	68
YJ17-04	61.26	64.31	3.05	2.55	84	0.80	26
YJ17-04	64.31	67.36	3.05	3.01	99	2.27	74

APPENDIX II – DIAMOND DRILL CORE SAMPLES – CERTIFICATES OF ANALYSES

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Submitted By: Irwin Olian
Receiving Lab: Canada-Whitehorse
Received: October 04, 2017
Report Date: November 08, 2017
Page: 1 of 4

CERTIFICATE OF ANALYSIS WHI17000996.1

CLIENT JOB INFORMATION

Project: Yellow Jacket
Shipment ID:
P.O. Number
Number of Samples: 65

SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps
PICKUP-RJT Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	61	Crush, split and pulverize 250 g rock to 200 mesh			WHI
SLBHP	4	Sort, label and box pulps			WHI
AQ200	65	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN
SHP01	65	Per sample shipping charges for branch shipments			VAN
FA530	1	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: African Queen Mines Ltd.
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8
Canada

CC: Reinhard Ramdohr

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Production Manager

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000996.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
1478201	Drill Core	2.40	<0.1	5.6	0.3	18	<0.1	1554.9	66.1	571	3.67	5.7	4.8	<0.1	7	<0.1	<0.1	<0.1	43	0.81	0.003
1478202	Drill Core	2.56	0.1	23.7	0.2	44	<0.1	45.3	22.3	659	4.03	1.4	3.4	<0.1	20	<0.1	<0.1	<0.1	173	2.28	0.053
1478203	Drill Core	2.40	<0.1	44.0	0.9	37	<0.1	11.2	15.3	562	3.31	0.5	2.7	<0.1	15	<0.1	<0.1	<0.1	163	1.95	0.059
1478204	Drill Core	2.41	<0.1	44.9	0.2	44	<0.1	6.7	17.5	554	3.53	<0.5	1.7	<0.1	13	<0.1	<0.1	<0.1	177	2.08	0.062
1478205	Drill Core	2.43	0.1	44.8	0.1	42	<0.1	6.9	16.2	573	3.59	<0.5	10.2	<0.1	14	<0.1	<0.1	<0.1	174	2.19	0.053
1478206	Drill Core	2.49	<0.1	50.4	0.1	42	<0.1	6.7	17.3	569	3.85	<0.5	2.6	<0.1	11	<0.1	<0.1	<0.1	197	2.15	0.052
1478207	Drill Core	2.38	<0.1	37.3	0.1	40	<0.1	6.9	17.9	666	3.98	<0.5	1.7	<0.1	17	<0.1	<0.1	<0.1	186	2.57	0.057
1478208	Drill Core	1.80	<0.1	45.2	0.2	45	<0.1	7.1	17.8	611	4.07	<0.5	69.3	<0.1	9	0.1	<0.1	<0.1	207	2.19	0.058
1478209	Drill Core	2.30	<0.1	51.7	0.2	44	<0.1	6.5	17.8	563	3.81	<0.5	2.4	<0.1	14	<0.1	<0.1	<0.1	202	2.16	0.048
1478210	Drill Core	2.71	0.1	28.2	0.3	41	<0.1	8.1	18.5	604	3.97	<0.5	5.8	<0.1	19	<0.1	<0.1	<0.1	187	2.44	0.055
1478211	Drill Core	2.22	<0.1	19.3	0.1	53	<0.1	39.1	27.1	787	4.44	<0.5	1.1	<0.1	23	<0.1	<0.1	<0.1	189	3.25	0.060
1478212	Rock Pulp	0.06	2.8	65.2	3.6	38	<0.1	7.2	9.1	312	2.66	0.9	0.8	2.3	71	<0.1	<0.1	<0.1	106	0.74	0.077
1478213	Drill Core	2.18	<0.1	13.1	0.2	25	<0.1	1585.7	74.9	713	4.00	1.7	<0.5	<0.1	6	<0.1	<0.1	<0.1	54	1.03	0.005
1478214	Drill Core	3.11	<0.1	6.2	0.2	14	<0.1	1604.4	72.2	456	3.76	3.0	<0.5	<0.1	9	<0.1	0.1	<0.1	36	0.34	0.002
1478215	Drill Core	3.21	<0.1	5.7	0.2	13	<0.1	1639.5	84.9	452	3.63	4.6	<0.5	<0.1	10	<0.1	0.2	<0.1	32	0.57	0.002
1478216	Drill Core	2.98	<0.1	5.4	0.3	15	<0.1	1699.4	89.3	468	3.83	4.3	<0.5	<0.1	10	<0.1	0.1	<0.1	38	0.52	0.003
1478217	Drill Core	3.36	<0.1	28.3	0.3	22	<0.1	1482.8	74.0	627	5.32	2.4	<0.5	<0.1	8	<0.1	0.1	<0.1	114	0.71	0.018
1478218	Rock Pulp	0.06	4.9	81.5	10.0	17	9.7	27.9	12.6	294	15.72	>10000	43411.0	1.5	36	<0.1	3.6	2.4	16	0.82	0.052
1478219	Drill Core	1.97	<0.1	29.1	0.3	18	<0.1	1619.9	83.9	518	4.01	3.9	2.1	<0.1	13	<0.1	0.1	<0.1	42	0.57	0.002
1478220	Drill Core	2.23	<0.1	16.1	0.2	13	<0.1	1691.9	82.4	438	3.91	4.4	<0.5	<0.1	5	<0.1	0.2	<0.1	35	0.20	0.001
1478221	Drill Core	2.94	0.1	8.7	0.2	15	<0.1	1860.5	83.9	708	4.10	6.1	0.5	<0.1	3	<0.1	0.3	<0.1	34	0.12	0.002
1478222	Drill Core	2.31	0.1	6.8	0.2	16	<0.1	1961.4	86.2	644	4.37	5.0	1.6	<0.1	2	<0.1	0.2	<0.1	38	0.07	0.002
1478223	Drill Core	3.20	0.1	11.0	0.2	16	<0.1	1908.7	85.9	590	4.32	4.8	2.2	<0.1	1	<0.1	0.3	<0.1	38	0.12	<0.001
1478224	Drill Core	3.36	0.1	6.5	0.2	14	<0.1	1806.9	82.2	588	4.28	3.6	1.2	<0.1	1	<0.1	0.2	<0.1	38	0.12	<0.001
1478225	Drill Core	1.27	<0.1	5.6	0.1	13	<0.1	1804.4	82.9	542	4.01	4.9	0.9	<0.1	1	<0.1	0.2	<0.1	36	0.14	<0.001
1478226	Drill Core	2.41	0.1	7.5	0.2	15	<0.1	2147.6	100.4	869	4.45	6.4	0.9	<0.1	<1	<0.1	0.3	<0.1	28	0.04	0.002
1478227	Drill Core	3.00	0.1	15.2	0.2	17	<0.1	2151.7	98.1	860	3.90	5.0	0.8	<0.1	<1	<0.1	0.2	<0.1	16	0.05	0.002
1478228	Drill Core	2.68	<0.1	7.2	0.2	16	<0.1	2234.2	91.9	753	3.75	6.3	<0.5	<0.1	<1	<0.1	0.2	<0.1	18	0.02	0.002
1478229	Drill Core	2.97	0.1	5.2	0.2	15	<0.1	1939.8	93.0	692	4.51	4.7	0.6	<0.1	<1	<0.1	0.3	<0.1	26	0.03	0.001
1478230	Drill Core	3.29	<0.1	6.1	0.2	15	<0.1	1922.2	85.4	608	4.20	4.8	<0.5	<0.1	<1	<0.1	0.3	<0.1	31	0.03	0.001

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000996.1

	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
1478201	Drill Core	<1	957	14.79	11	0.007	29	0.74	0.001	0.02	<0.1	<0.01	7.2	<0.1	<0.05	5	<0.5	<0.2		
1478202	Drill Core	1	37	2.50	10	0.299	<20	2.26	0.348	0.08	<0.1	<0.01	12.2	<0.1	<0.05	6	<0.5	<0.2		
1478203	Drill Core	<1	7	1.09	16	0.206	<20	1.58	0.387	0.09	<0.1	<0.01	9.7	<0.1	<0.05	6	<0.5	<0.2		
1478204	Drill Core	<1	5	1.14	12	0.216	<20	1.62	0.431	0.10	<0.1	<0.01	11.4	<0.1	<0.05	6	<0.5	<0.2		
1478205	Drill Core	<1	5	1.16	15	0.226	<20	1.76	0.410	0.10	<0.1	<0.01	11.9	<0.1	<0.05	7	<0.5	<0.2		
1478206	Drill Core	<1	5	1.28	20	0.218	<20	1.83	0.466	0.13	<0.1	<0.01	12.9	<0.1	<0.05	6	<0.5	<0.2		
1478207	Drill Core	<1	5	1.32	13	0.216	<20	1.89	0.437	0.12	<0.1	<0.01	12.4	<0.1	<0.05	6	<0.5	<0.2		
1478208	Drill Core	<1	5	1.34	18	0.218	<20	1.90	0.494	0.17	<0.1	<0.01	15.5	<0.1	<0.05	6	<0.5	<0.2		
1478209	Drill Core	<1	5	1.22	16	0.202	<20	1.80	0.452	0.15	<0.1	<0.01	13.5	<0.1	<0.05	6	<0.5	<0.2		
1478210	Drill Core	<1	6	1.32	12	0.276	<20	1.88	0.442	0.10	<0.1	<0.01	12.9	<0.1	<0.05	6	<0.5	<0.2		
1478211	Drill Core	1	23	3.24	6	0.314	<20	2.67	0.328	0.07	<0.1	<0.01	13.1	<0.1	<0.05	6	<0.5	<0.2		
1478212	Rock Pulp	7	17	0.60	113	0.110	<20	1.34	0.151	0.20	5.9	<0.01	2.1	<0.1	<0.05	4	<0.5	<0.2		
1478213	Drill Core	<1	1108	15.10	4	0.025	27	0.91	0.025	0.02	<0.1	<0.01	8.5	<0.1	<0.05	5	<0.5	<0.2		
1478214	Drill Core	<1	913	14.25	2	0.003	25	0.46	<0.001	0.01	<0.1	<0.01	7.5	<0.1	<0.05	1	<0.5	<0.2		
1478215	Drill Core	<1	960	13.75	1	0.003	33	0.41	<0.001	<0.01	<0.1	<0.01	8.2	<0.1	<0.05	<1	<0.5	<0.2		
1478216	Drill Core	<1	1174	15.13	1	0.003	34	0.51	0.001	0.01	<0.1	<0.01	7.9	<0.1	<0.05	1	<0.5	<0.2		
1478217	Drill Core	<1	965	16.29	3	0.023	29	1.51	0.001	0.01	<0.1	<0.01	13.5	<0.1	<0.05	2	<0.5	<0.2		
1478218	Rock Pulp	6	28	0.80	21	0.020	<20	1.29	0.048	0.21	40.3	0.02	1.6	0.1	6.07	5	2.1	1.2	<20	35.9
1478219	Drill Core	<1	1198	15.44	4	0.006	28	0.65	<0.001	<0.01	<0.1	<0.01	8.8	<0.1	<0.05	2	<0.5	<0.2		
1478220	Drill Core	<1	932	14.37	1	0.003	28	0.47	<0.001	<0.01	<0.1	<0.01	7.1	<0.1	<0.05	<1	<0.5	<0.2		
1478221	Drill Core	<1	1026	16.94	<1	0.003	47	0.49	<0.001	<0.01	0.2	<0.01	7.9	<0.1	<0.05	<1	<0.5	<0.2		
1478222	Drill Core	<1	1122	17.26	<1	0.003	64	0.52	<0.001	<0.01	0.2	<0.01	8.7	<0.1	0.06	<1	<0.5	<0.2		
1478223	Drill Core	<1	1176	16.49	1	0.003	50	0.53	<0.001	<0.01	0.2	<0.01	9.1	<0.1	0.06	<1	<0.5	<0.2		
1478224	Drill Core	<1	1063	16.37	<1	0.003	50	0.53	<0.001	<0.01	0.1	<0.01	8.3	<0.1	0.05	<1	<0.5	<0.2		
1478225	Drill Core	<1	1095	15.50	<1	0.003	45	0.49	<0.001	<0.01	0.1	<0.01	8.6	<0.1	0.05	<1	<0.5	<0.2		
1478226	Drill Core	<1	856	18.54	<1	0.004	66	0.34	<0.001	<0.01	0.2	<0.01	6.3	<0.1	0.07	<1	<0.5	<0.2		
1478227	Drill Core	<1	543	18.67	<1	0.006	95	0.19	<0.001	<0.01	0.2	<0.01	4.3	<0.1	0.07	<1	<0.5	<0.2		
1478228	Drill Core	<1	317	17.64	<1	0.008	70	0.41	<0.001	<0.01	0.1	<0.01	5.9	<0.1	0.07	<1	<0.5	<0.2		
1478229	Drill Core	<1	674	17.40	<1	0.005	67	0.28	<0.001	<0.01	0.2	<0.01	7.5	<0.1	0.06	<1	<0.5	<0.2		
1478230	Drill Core	<1	1034	18.00	<1	0.002	66	0.38	<0.001	<0.01	0.2	<0.01	8.1	<0.1	0.06	<1	<0.5	<0.2		

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000996.1

Method		WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
1478231	Drill Core	3.32	<0.1	4.7	0.1	13	<0.1	1710.7	75.2	524	4.02	3.4	0.5	<0.1	12	<0.1	0.2	<0.1	33	0.49	0.002
1478232	Drill Core	3.12	<0.1	24.2	0.2	22	<0.1	1162.6	59.9	514	3.97	1.8	1.1	<0.1	11	<0.1	0.1	<0.1	83	1.28	0.018
1478233	Drill Core	3.04	<0.1	64.3	0.2	44	0.1	24.8	21.6	525	3.59	<0.5	1.7	<0.1	20	0.1	<0.1	<0.1	142	2.95	0.066
1478234	Drill Core	3.10	<0.1	46.6	0.3	17	<0.1	1364.0	54.0	540	3.12	3.6	0.7	<0.1	5	<0.1	<0.1	<0.1	19	0.81	0.002
1478235	Drill Core	2.82	<0.1	255.8	0.5	23	0.2	1970.7	70.6	701	3.71	5.0	2.8	<0.1	8	0.1	<0.1	<0.1	24	1.02	0.002
1478236	Drill Core	3.33	<0.1	50.6	0.2	21	<0.1	1277.9	72.2	638	5.59	3.1	0.9	0.2	10	<0.1	0.2	<0.1	139	0.80	0.026
1478237	Drill Core	1.01	<0.1	47.6	0.2	21	<0.1	1016.6	66.3	463	6.48	3.5	1.0	<0.1	7	<0.1	0.2	<0.1	184	0.53	0.020
1478238	Drill Core	2.63	<0.1	8.2	0.2	15	<0.1	1799.3	76.3	667	4.01	5.3	<0.5	<0.1	24	<0.1	0.2	<0.1	36	1.05	<0.001
1478239	Drill Core	2.90	<0.1	6.4	0.3	15	<0.1	1658.5	72.2	704	3.55	2.1	<0.5	<0.1	27	<0.1	0.1	<0.1	31	2.23	<0.001
1478240	Drill Core	3.82	<0.1	30.7	0.2	40	<0.1	196.2	23.6	690	3.82	<0.5	2.5	<0.1	13	<0.1	<0.1	<0.1	147	2.77	0.049
1478241	Drill Core	3.69	<0.1	63.0	0.2	52	0.1	115.3	23.9	656	4.55	<0.5	2.2	<0.1	8	<0.1	<0.1	<0.1	183	1.72	0.054
1478242	Rock Pulp	0.06	2.3	59.1	3.3	35	<0.1	7.1	8.1	298	2.57	0.7	<0.5	2.5	60	<0.1	<0.1	<0.1	105	0.74	0.062
1478243	Drill Core	2.92	<0.1	6.5	0.3	16	<0.1	1750.5	71.6	692	3.84	6.7	<0.5	<0.1	7	<0.1	0.1	<0.1	40	1.08	0.001
1478244	Drill Core	3.49	<0.1	5.5	0.3	14	<0.1	1613.5	73.8	630	3.74	8.4	2.9	<0.1	8	<0.1	0.2	<0.1	34	1.15	<0.001
1478245	Drill Core	2.22	<0.1	46.6	0.4	40	<0.1	829.6	53.0	707	4.71	2.0	<0.5	<0.1	23	<0.1	<0.1	<0.1	148	2.28	0.027
1478246	Drill Core	2.43	<0.1	14.9	0.4	41	<0.1	1107.7	63.4	648	4.78	1.9	<0.5	<0.1	11	<0.1	<0.1	<0.1	129	1.61	0.028
1478247	Drill Core	3.23	<0.1	9.3	0.5	14	<0.1	1611.0	80.3	571	3.74	4.3	0.6	<0.1	17	<0.1	0.2	<0.1	40	1.10	0.001
1478248	Drill Core	2.90	<0.1	4.8	0.3	13	<0.1	1798.5	78.1	631	4.09	17.2	13.9	<0.1	13	<0.1	0.3	<0.1	34	1.03	<0.001
1478249	Drill Core	3.20	<0.1	9.5	0.6	13	<0.1	1769.5	84.8	697	3.97	8.6	2.9	<0.1	19	<0.1	0.2	<0.1	33	1.05	0.001
1478250	Drill Core	3.45	<0.1	5.1	0.6	12	<0.1	1785.4	83.8	581	4.22	10.7	0.8	<0.1	5	<0.1	0.3	<0.1	33	0.36	<0.001
1478251	Drill Core	1.68	<0.1	8.1	0.8	13	<0.1	1719.0	74.7	697	3.93	14.6	0.7	<0.1	3	<0.1	0.3	<0.1	32	0.23	<0.001
1478252	Rock Pulp	0.06	3.6	115.5	4.0	42	0.2	8.9	9.6	375	2.72	134.6	317.1	2.6	62	0.1	0.8	0.1	97	0.77	0.058
1478253	Drill Core	3.12	<0.1	9.1	0.8	14	<0.1	1760.0	84.3	608	4.10	7.9	2.4	<0.1	4	<0.1	0.2	<0.1	34	0.25	<0.001
1478254	Drill Core	3.35	<0.1	5.0	0.7	12	<0.1	1841.1	79.5	648	4.16	7.2	1.4	<0.1	3	<0.1	0.2	<0.1	32	0.12	<0.001
1478255	Drill Core	3.05	<0.1	4.0	0.6	13	<0.1	1826.1	80.5	662	4.16	11.4	4.1	<0.1	3	<0.1	0.3	<0.1	32	0.10	<0.001
1478256	Drill Core	1.83	<0.1	3.6	0.8	12	<0.1	1780.1	78.8	760	3.98	7.4	3.3	<0.1	5	<0.1	0.2	<0.1	30	0.25	<0.001
1478257	Drill Core	2.30	<0.1	5.9	0.7	11	<0.1	1622.2	73.8	713	3.49	7.9	3.5	<0.1	19	<0.1	0.1	<0.1	19	0.69	<0.001
1478258	Drill Core	2.86	<0.1	21.5	0.4	17	<0.1	1601.7	76.2	626	3.52	8.4	<0.5	<0.1	14	<0.1	<0.1	<0.1	43	1.27	0.005
1478259	Drill Core	1.04	<0.1	20.5	1.8	103	<0.1	139.4	61.4	2146	11.24	3.7	0.8	0.1	39	0.2	<0.1	<0.1	433	2.26	0.077
1478260	Drill Core	1.97	<0.1	6.0	0.5	22	<0.1	1734.5	79.5	719	3.99	10.1	<0.5	<0.1	10	<0.1	0.1	<0.1	46	1.34	0.001

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PO Box 19040
Delta British Columbia V4L 2P8 Canada

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	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
1478231	Drill Core	<1	996	15.30	4	0.002	35	0.38	<0.001	<0.01	<0.1	<0.01	8.2	<0.1	<0.05	<1	<0.5	<0.2		
1478232	Drill Core	<1	738	11.93	3	0.073	<20	1.45	0.018	0.01	<0.1	<0.01	10.0	<0.1	<0.05	5	<0.5	<0.2		
1478233	Drill Core	1	30	3.68	5	0.258	<20	1.84	0.199	0.04	<0.1	<0.01	15.3	<0.1	<0.05	3	<0.5	<0.2		
1478234	Drill Core	<1	187	11.87	5	0.028	<20	0.65	0.004	0.01	<0.1	<0.01	3.7	<0.1	<0.05	7	<0.5	<0.2		
1478235	Drill Core	<1	177	16.51	5	0.013	32	0.57	0.006	0.02	<0.1	<0.01	4.0	<0.1	<0.05	4	<0.5	<0.2		
1478236	Drill Core	2	772	14.78	5	0.031	21	1.93	<0.001	0.01	<0.1	<0.01	14.6	<0.1	<0.05	2	<0.5	<0.2		
1478237	Drill Core	2	630	12.96	4	0.046	<20	2.63	<0.001	<0.01	<0.1	<0.01	23.2	<0.1	<0.05	2	<0.5	<0.2		
1478238	Drill Core	<1	1228	16.48	4	0.003	40	0.49	<0.001	<0.01	<0.1	<0.01	8.0	<0.1	<0.05	<1	<0.5	<0.2		
1478239	Drill Core	<1	859	14.84	6	0.002	37	0.44	<0.001	0.01	<0.1	<0.01	8.0	<0.1	<0.05	2	<0.5	<0.2		
1478240	Drill Core	<1	160	3.46	10	0.223	<20	2.23	0.327	0.07	<0.1	<0.01	12.5	<0.1	<0.05	8	<0.5	<0.2		
1478241	Drill Core	<1	96	3.93	10	0.220	<20	2.87	0.320	0.08	<0.1	<0.01	13.9	<0.1	<0.05	8	<0.5	<0.2		
1478242	Rock Pulp	7	15	0.60	116	0.097	<20	1.29	0.150	0.21	5.4	<0.01	1.7	<0.1	<0.05	4	<0.5	<0.2		
1478243	Drill Core	<1	961	16.00	2	0.005	34	0.66	0.003	0.01	<0.1	<0.01	7.6	<0.1	0.05	2	<0.5	<0.2		
1478244	Drill Core	<1	894	14.46	2	0.005	37	0.49	0.002	0.01	<0.1	<0.01	8.1	<0.1	0.06	<1	<0.5	<0.2		
1478245	Drill Core	1	566	9.78	4	0.115	<20	2.38	0.066	0.02	<0.1	<0.01	13.2	<0.1	<0.05	6	<0.5	<0.2		
1478246	Drill Core	<1	629	12.00	3	0.061	<20	2.20	0.045	0.02	<0.1	<0.01	11.4	<0.1	<0.05	5	<0.5	<0.2		
1478247	Drill Core	<1	1142	14.74	2	0.004	32	0.57	<0.001	0.01	<0.1	<0.01	8.5	<0.1	0.05	1	<0.5	<0.2		
1478248	Drill Core	<1	948	16.41	2	0.003	46	0.52	<0.001	0.01	<0.1	<0.01	8.0	<0.1	0.05	<1	<0.5	<0.2		
1478249	Drill Core	<1	1031	15.49	2	0.003	34	0.50	<0.001	0.01	<0.1	<0.01	7.4	<0.1	<0.05	<1	<0.5	<0.2		
1478250	Drill Core	<1	1024	16.36	1	0.009	33	0.53	<0.001	<0.01	<0.1	<0.01	7.4	<0.1	<0.05	<1	<0.5	<0.2		
1478251	Drill Core	<1	1116	16.89	1	0.003	27	0.48	<0.001	<0.01	<0.1	<0.01	6.5	<0.1	<0.05	<1	<0.5	<0.2		
1478252	Rock Pulp	7	16	0.78	129	0.120	<20	1.53	0.152	0.23	4.6	<0.01	2.5	<0.1	<0.05	4	<0.5	<0.2		
1478253	Drill Core	<1	1423	17.22	2	0.003	41	0.51	<0.001	<0.01	<0.1	<0.01	8.4	<0.1	<0.05	<1	<0.5	<0.2		
1478254	Drill Core	<1	1280	17.25	2	0.002	43	0.47	<0.001	<0.01	0.4	0.02	7.0	<0.1	<0.05	<1	<0.5	<0.2		
1478255	Drill Core	<1	1283	17.42	3	0.003	29	0.47	<0.001	<0.01	<0.1	<0.01	7.6	<0.1	<0.05	<1	<0.5	<0.2		
1478256	Drill Core	<1	1102	16.65	1	0.002	28	0.40	<0.001	<0.01	<0.1	<0.01	8.0	<0.1	0.06	<1	<0.5	<0.2		
1478257	Drill Core	<1	811	14.33	1	0.001	<20	0.23	<0.001	<0.01	<0.1	0.02	5.8	<0.1	0.11	<1	<0.5	<0.2		
1478258	Drill Core	<1	727	13.15	1	0.006	<20	0.70	<0.001	<0.01	<0.1	<0.01	8.0	<0.1	0.10	2	<0.5	<0.2		
1478259	Drill Core	5	197	10.17	25	0.019	<20	7.42	<0.001	<0.01	<0.1	<0.01	42.5	<0.1	<0.05	11	<0.5	<0.2		
1478260	Drill Core	<1	1342	15.37	2	0.004	<20	0.77	<0.001	<0.01	<0.1	<0.01	10.0	<0.1	0.09	3	<0.5	<0.2		

BUREAU VERITAS MINERAL LABORATORIES Canada

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000996.1

Method		WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
1478261	Drill Core	2.08	<0.1	16.1	0.5	14	<0.1	1810.8	80.6	721	3.29	7.3	<0.5	<0.1	9	<0.1	<0.1	<0.1	21	0.58	<0.001
1478262	Drill Core	2.71	<0.1	35.1	0.3	15	<0.1	1758.9	80.1	774	3.82	10.5	1.4	<0.1	8	<0.1	<0.1	<0.1	36	0.43	<0.001
1478263	Drill Core	2.37	<0.1	76.6	0.5	12	<0.1	1359.3	70.2	549	3.05	9.1	<0.5	<0.1	21	<0.1	0.2	<0.1	30	1.32	0.001
1478264	Drill Core	2.11	0.1	32.1	0.9	16	<0.1	1566.2	75.5	705	3.62	4.6	<0.5	0.1	18	<0.1	0.1	<0.1	37	0.91	0.007
1478265	Drill Core	1.70	<0.1	18.0	0.5	15	<0.1	1891.4	91.2	788	3.78	7.5	<0.5	<0.1	10	<0.1	<0.1	<0.1	29	0.72	<0.001

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Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000996.1

	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
1478261	Drill Core	<1	765	14.23	1	0.002	<20	0.35	<0.001	<0.01	<0.1	<0.01	6.0	<0.1	0.12	<1	<0.5	<0.2		
1478262	Drill Core	<1	1256	15.76	<1	0.003	<20	0.53	<0.001	<0.01	<0.1	<0.01	8.1	<0.1	0.12	<1	<0.5	<0.2		
1478263	Drill Core	<1	1107	8.93	4	0.002	<20	0.51	<0.001	<0.01	<0.1	<0.01	7.1	<0.1	0.39	2	<0.5	<0.2		
1478264	Drill Core	<1	894	12.80	6	0.004	<20	0.89	<0.001	<0.01	<0.1	<0.01	7.4	<0.1	0.18	2	<0.5	<0.2		
1478265	Drill Core	<1	982	16.02	1	0.002	<20	0.47	<0.001	<0.01	<0.1	<0.01	7.3	<0.1	0.12	<1	<0.5	<0.2		

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1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

QUALITY CONTROL REPORT WHI17000996.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
1478233	Drill Core	3.04	<0.1	64.3	0.2	44	0.1	24.8	21.6	525	3.59	<0.5	1.7	<0.1	20	0.1	<0.1	<0.1	142	2.95	0.066
REP 1478233	QC		<0.1	60.6	0.2	42	0.2	24.8	20.6	531	3.60	<0.5	3.4	<0.1	19	<0.1	<0.1	<0.1	141	2.97	0.061
1478265	Drill Core	1.70	<0.1	18.0	0.5	15	<0.1	1891.4	91.2	788	3.78	7.5	<0.5	<0.1	10	<0.1	<0.1	<0.1	29	0.72	<0.001
REP 1478265	QC		<0.1	17.4	0.5	13	<0.1	1767.6	88.8	762	3.54	7.2	<0.5	<0.1	9	<0.1	<0.1	<0.1	28	0.72	<0.001
Core Reject Duplicates																					
1478211	Drill Core	2.22	<0.1	19.3	0.1	53	<0.1	39.1	27.1	787	4.44	<0.5	1.1	<0.1	23	<0.1	<0.1	<0.1	189	3.25	0.060
DUP 1478211	QC		<0.1	17.5	0.2	48	<0.1	33.4	25.1	739	4.35	<0.5	4.3	<0.1	22	<0.1	<0.1	<0.1	187	3.29	0.046
1478245	Drill Core	2.22	<0.1	46.6	0.4	40	<0.1	829.6	53.0	707	4.71	2.0	<0.5	<0.1	23	<0.1	<0.1	<0.1	148	2.28	0.027
DUP 1478245	QC		<0.1	45.7	0.4	37	<0.1	862.0	51.1	666	4.69	2.4	5.8	<0.1	21	<0.1	<0.1	<0.1	142	2.24	0.030
Reference Materials																					
STD AGPROOF	Standard																				
STD DS11	Standard		12.9	142.6	128.1	344	1.9	76.6	15.1	1051	3.01	41.5	50.5	7.4	62	2.5	6.8	10.9	48	1.01	0.073
STD DS11	Standard		14.4	158.5	122.9	325	1.8	79.6	13.7	1022	2.95	43.0	70.2	7.4	58	2.3	5.9	11.0	48	1.01	0.061
STD OREAS45EA	Standard		1.6	683.5	14.7	30	0.3	375.7	53.9	397	21.78	9.6	54.3	10.2	4	<0.1	0.2	0.3	304	0.04	0.029
STD OREAS45EA	Standard		1.5	705.2	14.7	31	0.3	387.4	50.9	372	22.73	10.6	55.8	11.3	4	<0.1	0.2	0.2	311	0.04	0.025
STD SP49	Standard																				
STD SQ70	Standard																				
STD OREAS45EA Expected			1.6	709	14.3	31.4	0.26	381	52	400	23.51	10.3	53	10.7	3.5	0.03	0.32	0.26	303	0.036	0.029
STD DS11 Expected			13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8	79	7.65	67.3	2.37	7.2	12.2	50	1.063	0.0701
STD AGPROOF Expected																					
STD SP49 Expected																					
STD SQ70 Expected																					
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank		1.4	5.9	1.1	35	<0.1	1.3	5.0	550	1.72	5.5	3.6	1.8	41	<0.1	0.2	<0.1	19	0.84	0.043
ROCK-WHI	Prep Blank		1.3	5.0	1.3	40	<0.1	1.4	4.6	596	1.75	4.5	4.2	1.7	37	<0.1	0.2	<0.1	18	0.88	0.047

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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

QUALITY CONTROL REPORT WHI17000996.1

		Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
		Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
		MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
Pulp Duplicates																					
1478233	Drill Core		1	30	3.68	5	0.258	<20	1.84	0.199	0.04	<0.1	<0.01	15.3	<0.1	<0.05	3	<0.5	<0.2		
REP 1478233	QC		1	30	3.74	5	0.242	<20	1.85	0.194	0.04	<0.1	<0.01	15.3	<0.1	<0.05	3	<0.5	<0.2		
1478265	Drill Core		<1	982	16.02	1	0.002	<20	0.47	<0.001	<0.01	<0.1	<0.01	7.3	<0.1	0.12	<1	<0.5	<0.2		
REP 1478265	QC		<1	1049	15.42	1	0.002	<20	0.44	<0.001	<0.01	<0.1	<0.01	6.7	<0.1	0.12	<1	<0.5	<0.2		
Core Reject Duplicates																					
1478211	Drill Core		1	23	3.24	6	0.314	<20	2.67	0.328	0.07	<0.1	<0.01	13.1	<0.1	<0.05	6	<0.5	<0.2		
DUP 1478211	QC		1	19	3.09	6	0.295	<20	2.57	0.329	0.07	<0.1	<0.01	13.7	<0.1	<0.05	5	<0.5	<0.2		
1478245	Drill Core		1	566	9.78	4	0.115	<20	2.38	0.066	0.02	<0.1	<0.01	13.2	<0.1	<0.05	6	<0.5	<0.2		
DUP 1478245	QC		1	567	10.10	5	0.113	<20	2.29	0.068	0.02	<0.1	<0.01	11.7	<0.1	<0.05	5	<0.5	<0.2		
Reference Materials																					
STD AGPROOF	Standard																			95	<0.9
STD DS11	Standard		18	59	0.84	387	0.090	<20	1.10	0.069	0.39	3.0	0.28	3.2	4.8	0.28	5	1.8	4.6		
STD DS11	Standard		18	59	0.84	405	0.091	<20	1.09	0.070	0.40	2.2	0.23	2.9	4.3	0.27	5	1.8	4.3		
STD OREAS45EA	Standard		8	871	0.08	140	0.094	<20	3.21	0.021	0.06	<0.1	<0.01	73.8	<0.1	<0.05	13	<0.5	<0.2		
STD OREAS45EA	Standard		8	880	0.07	162	0.099	<20	3.35	0.022	0.06	<0.1	<0.01	70.4	<0.1	<0.05	13	0.7	<0.2		
STD SP49	Standard																			60	18.5
STD SQ70	Standard																			151	39.5
STD OREAS45EA Expected			7.06	849	0.095	148	0.0984		3.13	0.02	0.053			78	0.072	0.036	12.4	0.78	0.07		
STD DS11 Expected			18.6	61.5	0.85	417	0.0976		1.129	0.0694	0.4	2.9	0.3	3.1	4.9	0.2835	4.7	1.9	4.56		
STD AGPROOF Expected																				94	0
STD SP49 Expected																				60.2	18.34
STD SQ70 Expected																				159.5	39.62
BLK	Blank		<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank		<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank																			<20	<0.9
Prep Wash																					
ROCK-WHI	Prep Blank		5	3	0.54	67	0.059	<20	1.11	0.063	0.09	0.1	<0.01	2.9	<0.1	0.13	5	<0.5	<0.2		
ROCK-WHI	Prep Blank		6	3	0.54	54	0.061	<20	1.25	0.067	0.10	<0.1	<0.01	2.8	<0.1	0.11	5	<0.5	<0.2		

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PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Submitted By: Irwin Olian
Receiving Lab: Canada-Whitehorse
Received: October 04, 2017
Report Date: November 08, 2017
Page: 1 of 2

CERTIFICATE OF ANALYSIS WHI17000997.1

CLIENT JOB INFORMATION

Project: Yellow Jacket
Shipment ID:
P.O. Number
Number of Samples: 19

SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps
PICKUP-RJT Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	18	Crush, split and pulverize 250 g rock to 200 mesh			WHI
SLBHP	1	Sort, label and box pulps			WHI
AQ200	19	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN
SHP01	19	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS

Invoice To: African Queen Mines Ltd.
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8
Canada

CC: Reinhard Ramdohr

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Production Manager

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000997.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
1478266	Drill Core	2.22	<0.1	5.0	0.3	17	<0.1	1443.8	70.7	540	3.37	3.8	1.8	<0.1	7	<0.1	<0.1	<0.1	30	0.99	<0.001
1478267	Rock Pulp	0.06	2.4	58.1	3.5	33	<0.1	7.3	8.0	311	2.61	0.7	0.8	2.2	62	<0.1	<0.1	<0.1	100	0.77	0.057
1478268	Drill Core	2.25	<0.1	17.4	0.2	42	<0.1	98.9	23.4	484	3.41	<0.5	1.1	<0.1	29	<0.1	<0.1	<0.1	92	2.28	0.044
1478269	Drill Core	2.27	<0.1	47.9	0.2	46	<0.1	17.1	19.5	647	3.91	<0.5	16.9	<0.1	22	<0.1	<0.1	<0.1	136	3.17	0.055
1478270	Drill Core	1.96	<0.1	14.0	0.1	51	<0.1	16.1	21.2	743	4.36	<0.5	0.7	<0.1	21	<0.1	<0.1	<0.1	158	2.94	0.056
1478271	Drill Core	1.41	<0.1	11.5	0.2	52	<0.1	15.7	22.1	685	4.36	<0.5	1.4	<0.1	25	<0.1	<0.1	<0.1	157	2.71	0.059
1478272	Drill Core	2.24	<0.1	24.6	0.2	32	<0.1	16.9	15.6	428	2.75	<0.5	<0.5	<0.1	34	<0.1	0.1	<0.1	95	4.80	0.045
1478273	Drill Core	1.55	<0.1	18.6	0.2	22	<0.1	1074.3	55.9	557	3.44	<0.5	<0.5	<0.1	13	<0.1	<0.1	<0.1	38	1.84	0.001
1478274	Drill Core	2.38	<0.1	19.5	0.2	23	<0.1	1266.1	66.1	566	3.85	1.3	0.5	<0.1	3	<0.1	<0.1	<0.1	36	0.38	0.003
1478275	Drill Core	3.31	<0.1	20.8	0.2	33	<0.1	42.1	19.3	592	3.03	<0.5	<0.5	<0.1	33	0.1	<0.1	<0.1	103	5.05	0.051
1478276	Drill Core	2.96	<0.1	44.4	0.2	23	<0.1	1579.2	71.4	622	3.89	4.2	1.1	<0.1	4	<0.1	0.1	<0.1	37	0.66	<0.001
1478277	Drill Core	1.97	<0.1	14.2	0.2	15	<0.1	1614.7	81.9	534	4.12	4.7	<0.5	<0.1	2	<0.1	0.2	<0.1	38	0.29	<0.001
1478278	Drill Core	1.71	<0.1	46.2	0.2	13	<0.1	1493.1	72.3	676	3.79	5.7	1.7	<0.1	39	<0.1	0.3	<0.1	33	1.22	<0.001
1478279	Drill Core	1.61	<0.1	12.1	0.2	13	<0.1	1523.7	77.3	523	3.73	6.3	1.9	<0.1	19	<0.1	0.2	<0.1	31	0.66	<0.001
1478280	Drill Core	2.69	<0.1	8.2	0.2	12	<0.1	1523.6	73.9	561	3.77	5.7	<0.5	<0.1	11	<0.1	0.2	<0.1	33	0.58	<0.001
1478281	Drill Core	3.22	<0.1	8.9	0.3	13	<0.1	1559.3	76.5	549	3.90	4.9	<0.5	<0.1	9	<0.1	0.2	<0.1	33	0.43	<0.001
1478282	Drill Core	2.24	<0.1	2.2	0.3	14	<0.1	1584.9	78.5	493	3.98	5.0	<0.5	<0.1	4	<0.1	0.2	<0.1	31	0.27	<0.001
1478283	Drill Core	2.05	<0.1	5.7	0.4	22	<0.1	1617.2	79.0	655	3.99	2.0	<0.5	<0.1	3	<0.1	<0.1	<0.1	34	0.20	<0.001
1478284	Drill Core	1.82	<0.1	29.9	0.3	44	<0.1	278.1	29.2	649	4.16	<0.5	2.1	<0.1	14	<0.1	<0.1	<0.1	148	2.23	0.053

BUREAU VERITAS MINERAL LABORATORIES Canada

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000997.1

		Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
		Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
1478266	Drill Core		<1	802	14.47	6	0.003	30	0.53	<0.001	<0.01	<0.1	<0.01	6.9	<0.1	<0.05	4	<0.5	<0.2
1478267	Rock Pulp		7	16	0.57	120	0.097	<20	1.33	0.157	0.20	5.7	<0.01	1.7	<0.1	<0.05	4	<0.5	<0.2
1478268	Drill Core		1	60	5.36	21	0.234	<20	2.18	0.095	0.02	<0.1	<0.01	12.5	<0.1	<0.05	6	<0.5	<0.2
1478269	Drill Core		1	25	2.40	15	0.299	<20	2.12	0.378	0.07	<0.1	<0.01	14.3	<0.1	<0.05	5	<0.5	<0.2
1478270	Drill Core		1	24	2.36	16	0.264	<20	2.22	0.355	0.08	<0.1	<0.01	15.0	<0.1	<0.05	6	<0.5	<0.2
1478271	Drill Core		1	24	2.56	16	0.268	<20	2.33	0.349	0.08	<0.1	<0.01	14.5	<0.1	<0.05	6	<0.5	<0.2
1478272	Drill Core		1	21	2.13	5	0.247	<20	1.55	0.145	0.04	<0.1	<0.01	8.1	<0.1	<0.05	4	<0.5	<0.2
1478273	Drill Core		<1	1106	11.35	1	0.011	24	0.97	0.003	<0.01	<0.1	<0.01	7.9	<0.1	<0.05	8	<0.5	<0.2
1478274	Drill Core		<1	872	13.98	1	0.015	20	0.89	0.002	<0.01	<0.1	<0.01	7.8	<0.1	<0.05	4	<0.5	<0.2
1478275	Drill Core		<1	41	2.49	3	0.260	<20	1.90	0.185	0.03	<0.1	<0.01	8.1	<0.1	<0.05	5	<0.5	<0.2
1478276	Drill Core		<1	1136	16.73	1	0.004	31	0.67	0.001	<0.01	<0.1	<0.01	8.4	<0.1	<0.05	3	<0.5	<0.2
1478277	Drill Core		<1	1245	15.94	1	0.004	49	0.56	<0.001	<0.01	<0.1	<0.01	8.7	<0.1	<0.05	<1	<0.5	<0.2
1478278	Drill Core		<1	1098	14.45	4	0.003	43	0.48	<0.001	<0.01	<0.1	<0.01	8.1	<0.1	<0.05	<1	<0.5	<0.2
1478279	Drill Core		<1	1056	13.60	2	0.003	43	0.43	<0.001	<0.01	<0.1	<0.01	7.6	<0.1	<0.05	<1	<0.5	<0.2
1478280	Drill Core		<1	1026	14.16	4	0.003	45	0.48	<0.001	<0.01	<0.1	<0.01	8.3	<0.1	<0.05	<1	<0.5	<0.2
1478281	Drill Core		<1	984	14.42	4	0.003	46	0.47	<0.001	<0.01	<0.1	<0.01	7.3	<0.1	<0.05	<1	<0.5	<0.2
1478282	Drill Core		<1	923	14.94	9	0.003	54	0.47	<0.001	<0.01	<0.1	<0.01	7.7	<0.1	<0.05	<1	<0.5	<0.2
1478283	Drill Core		<1	1079	17.46	10	0.003	26	0.57	<0.001	<0.01	<0.1	<0.01	9.4	<0.1	<0.05	3	<0.5	<0.2
1478284	Drill Core		1	174	5.15	32	0.223	<20	2.40	0.263	0.06	<0.1	<0.01	16.5	<0.1	<0.05	6	<0.5	<0.2

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

QUALITY CONTROL REPORT WHI17000997.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
1478274	Drill Core	2.38	<0.1	19.5	0.2	23	<0.1	1266.1	66.1	566	3.85	1.3	0.5	<0.1	3	<0.1	<0.1	<0.1	36	0.38	0.003
REP 1478274	QC		<0.1	17.6	0.2	23	<0.1	1227.7	64.2	566	3.76	1.4	<0.5	<0.1	3	<0.1	<0.1	<0.1	35	0.37	0.002
Core Reject Duplicates																					
1478275	Drill Core	3.31	<0.1	20.8	0.2	33	<0.1	42.1	19.3	592	3.03	<0.5	<0.5	<0.1	33	0.1	<0.1	<0.1	103	5.05	0.051
DUP 1478275	QC		<0.1	19.1	0.2	31	<0.1	50.8	19.4	605	3.04	<0.5	0.6	<0.1	34	<0.1	<0.1	<0.1	104	4.97	0.048
Reference Materials																					
STD DS11	Standard		12.7	144.3	127.9	324	1.5	75.0	13.4	1026	3.02	43.2	47.9	7.1	63	2.3	6.2	11.8	46	1.03	0.065
STD OREAS45EA	Standard		1.7	661.9	14.0	31	0.3	366.1	50.5	392	21.99	10.9	52.4	9.9	4	<0.1	0.2	0.3	305	0.03	0.027
STD OREAS45EA Expected			1.6	709	14.3	31.4	0.26	381	52	400	23.51	10.3	53	10.7	3.5	0.03	0.32	0.26	303	0.036	0.029
STD DS11 Expected			13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8	79	7.65	67.3	2.37	7.2	12.2	50	1.063	0.0701
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
ROCK-WHI	Prep Blank		0.7	3.5	0.9	34	<0.1	0.9	4.1	576	1.79	2.5	2.7	1.5	32	<0.1	<0.1	<0.1	17	0.77	0.032
ROCK-WHI	Prep Blank		1.0	3.0	1.3	32	<0.1	1.2	3.9	568	1.85	1.8	1.4	1.7	32	<0.1	<0.1	<0.1	18	0.83	0.036

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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

QUALITY CONTROL REPORT WHI17000997.1

	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																		
1478274	Drill Core	<1	872	13.98	1	0.015	20	0.89	0.002	<0.01	<0.1	<0.01	7.8	<0.1	<0.05	4	<0.5	<0.2
REP 1478274	QC	<1	838	13.77	1	0.015	<20	0.86	0.002	<0.01	<0.1	<0.01	7.7	<0.1	<0.05	3	<0.5	<0.2
Core Reject Duplicates																		
1478275	Drill Core	<1	41	2.49	3	0.260	<20	1.90	0.185	0.03	<0.1	<0.01	8.1	<0.1	<0.05	5	<0.5	<0.2
DUP 1478275	QC	<1	48	2.55	3	0.270	<20	1.89	0.186	0.03	<0.1	<0.01	9.0	<0.1	<0.05	5	<0.5	<0.2
Reference Materials																		
STD DS11	Standard	17	57	0.82	402	0.087	<20	1.13	0.071	0.39	2.3	0.24	3.0	4.6	0.27	5	2.6	4.3
STD OREAS45EA	Standard	7	860	0.09	150	0.096	<20	3.11	0.022	0.05	<0.1	0.01	80.5	0.1	<0.05	13	1.0	<0.2
STD OREAS45EA Expected		7.06	849	0.095	148	0.0984		3.13	0.02	0.053			78	0.072	0.036	12.4	0.78	0.07
STD DS11 Expected		18.6	61.5	0.85	417	0.0976		1.129	0.0694	0.4	2.9	0.3	3.1	4.9	0.2835	4.7	1.9	4.56
BLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
ROCK-WHI	Prep Blank	5	6	0.49	203	0.053	<20	1.11	0.061	0.08	<0.1	<0.01	2.3	<0.1	0.09	4	<0.5	<0.2
ROCK-WHI	Prep Blank	5	5	0.51	49	0.058	<20	1.19	0.063	0.08	<0.1	<0.01	2.5	<0.1	0.10	4	<0.5	<0.2

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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Submitted By: Irwin Olian
Receiving Lab: Canada-Whitehorse
Received: October 04, 2017
Report Date: November 08, 2017
Page: 1 of 2

CERTIFICATE OF ANALYSIS WHI17000998.1

CLIENT JOB INFORMATION

Project: Yellow Jacket
Shipment ID:
P.O. Number
Number of Samples: 10

SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps
PICKUP-RJT Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	8	Crush, split and pulverize 250 g rock to 200 mesh			WHI
SLBHP	2	Sort, label and box pulps			WHI
AQ200	10	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN
SHP01	10	Per sample shipping charges for branch shipments			VAN
FA530	1	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: African Queen Mines Ltd.
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8
Canada

CC: Reinhard Ramdohr

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000998.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
1478285	Drill Core	1.57	0.4	14.9	1.1	20	<0.1	1669.2	77.5	625	4.39	6.6	<0.5	0.7	5	<0.1	0.3	<0.1	42	0.29	0.005
1478286	Drill Core	1.31	0.5	15.1	1.0	21	<0.1	1634.0	75.4	598	4.35	5.7	<0.5	0.8	4	<0.1	0.3	<0.1	42	0.28	0.005
1478287	Drill Core	2.01	<0.1	8.2	0.2	14	<0.1	1839.2	78.4	638	4.30	6.5	0.7	<0.1	2	<0.1	0.3	<0.1	32	0.15	0.003
1478288	Drill Core	1.88	<0.1	8.4	0.2	15	<0.1	1866.2	81.4	556	4.39	6.7	1.0	<0.1	2	<0.1	0.2	<0.1	33	0.09	0.004
1478289	Drill Core	3.05	<0.1	13.4	0.2	14	<0.1	1756.3	76.4	590	4.31	6.1	<0.5	<0.1	6	<0.1	0.2	<0.1	29	0.61	0.004
1478290	Drill Core	2.92	<0.1	2.5	0.2	15	<0.1	1711.0	70.7	647	4.08	5.6	<0.5	<0.1	4	<0.1	0.2	<0.1	26	0.88	0.005
1478291	Rock Pulp	0.07	4.0	76.8	8.4	17	10.9	25.9	10.0	320	15.76	>10000	39599.4	1.4	35	<0.1	4.7	2.1	16	0.86	0.050
1478292	Drill Core	2.40	<0.1	11.9	0.2	14	<0.1	1760.5	75.3	583	4.21	6.8	2.7	<0.1	10	<0.1	0.3	<0.1	31	0.41	0.004
1478293	Drill Core	2.02	<0.1	15.4	0.2	15	<0.1	1684.1	71.6	593	4.18	5.9	<0.5	<0.1	13	<0.1	0.3	<0.1	30	0.52	0.005
1478294	Rock Pulp	0.06	3.1	107.8	4.2	41	0.2	7.6	8.9	392	2.71	135.0	816.6	3.1	65	<0.1	1.2	0.1	96	0.76	0.065

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
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1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
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CERTIFICATE OF ANALYSIS WHI17000998.1

	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
1478285	Drill Core	2	1113	14.93	13	0.019	64	0.70	0.009	0.01	0.1	<0.01	10.6	<0.1	<0.05	2	0.9	<0.2		
1478286	Drill Core	2	1070	14.41	15	0.021	82	0.71	0.009	0.01	0.1	<0.01	9.8	<0.1	<0.05	2	<0.5	<0.2		
1478287	Drill Core	<1	1037	16.47	2	0.003	97	0.47	<0.001	<0.01	<0.1	<0.01	9.8	<0.1	<0.05	<1	<0.5	<0.2		
1478288	Drill Core	<1	1039	16.39	2	0.003	84	0.48	<0.001	<0.01	<0.1	<0.01	10.4	<0.1	<0.05	<1	<0.5	<0.2		
1478289	Drill Core	<1	991	16.38	2	0.003	101	0.48	<0.001	<0.01	<0.1	<0.01	9.9	<0.1	<0.05	<1	<0.5	<0.2		
1478290	Drill Core	<1	998	16.22	<1	0.004	106	0.49	<0.001	<0.01	0.1	<0.01	10.0	<0.1	<0.05	<1	<0.5	<0.2		
1478291	Rock Pulp	6	25	0.75	20	0.019	<20	1.26	0.041	0.21	35.6	<0.01	1.9	0.1	5.82	4	2.0	1.1	23	35.9
1478292	Drill Core	<1	1045	15.57	2	0.003	100	0.49	<0.001	<0.01	0.1	<0.01	10.4	<0.1	<0.05	<1	<0.5	<0.2		
1478293	Drill Core	<1	1058	14.95	7	0.003	88	0.44	<0.001	<0.01	<0.1	<0.01	12.0	<0.1	<0.05	<1	<0.5	<0.2		
1478294	Rock Pulp	7	14	0.76	129	0.108	<20	1.47	0.135	0.22	5.0	<0.01	2.2	<0.1	<0.05	4	<0.5	<0.2		

BUREAU VERITAS MINERAL LABORATORIES Canada

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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

QUALITY CONTROL REPORT WHI17000998.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
1478292	Drill Core	2.40	<0.1	11.9	0.2	14	<0.1	1760.5	75.3	583	4.21	6.8	2.7	<0.1	10	<0.1	0.3	<0.1	31	0.41	0.004
REP 1478292	QC		<0.1	12.8	0.2	14	<0.1	1799.0	75.6	568	4.26	6.9	2.2	<0.1	10	<0.1	0.3	<0.1	31	0.41	0.002
Reference Materials																					
STD AGPROOF	Standard																				
STD DS11	Standard		14.3	157.0	146.5	369	1.6	82.6	13.9	1050	3.10	49.1	65.0	8.4	68	2.8	8.2	13.8	49	1.07	0.078
STD OREAS45EA	Standard		1.6	717.1	14.8	34	0.3	398.3	51.7	428	22.00	11.8	48.9	11.2	4	<0.1	0.3	0.3	307	0.03	0.033
STD SP49	Standard																				
STD SQ70	Standard																				
STD OREAS45EA Expected			1.6	709	14.3	31.4	0.26	381	52	400	23.51	10.3	53	10.7	3.5	0.03	0.32	0.26	303	0.036	0.029
STD DS11 Expected			13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8	79	7.65	67.3	2.37	7.2	12.2	50	1.063	0.0701
STD AGPROOF Expected																					
STD SP49 Expected																					
STD SQ70 Expected																					
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank		1.0	6.0	1.0	38	<0.1	1.4	4.5	633	1.72	1.8	<0.5	1.7	29	<0.1	<0.1	<0.1	18	0.71	0.040

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

QUALITY CONTROL REPORT WHI17000998.1

	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
Pulp Duplicates																				
1478292	Drill Core	<1	1045	15.57	2	0.003	100	0.49	<0.001	<0.01	0.1	<0.01	10.4	<0.1	<0.05	<1	<0.5	<0.2		
REP 1478292	QC	<1	1061	15.93	2	0.003	96	0.51	<0.001	<0.01	<0.1	<0.01	10.4	<0.1	<0.05	<1	<0.5	<0.2		
Reference Materials																				
STD AGPROOF	Standard																		94	<0.9
STD DS11	Standard	20	61	0.84	459	0.103	<20	1.14	0.069	0.41	2.8	0.30	3.7	5.1	0.28	5	2.4	4.9		
STD OREAS45EA	Standard	8	829	0.10	148	0.110	<20	3.41	0.016	0.05	<0.1	0.01	85.6	<0.1	<0.05	13	1.6	<0.2		
STD SP49	Standard																		61	18.4
STD SQ70	Standard																		163	40.0
STD OREAS45EA Expected		7.06	849	0.095	148	0.0984		3.13	0.02	0.053			78	0.072	0.036	12.4	0.78	0.07		
STD DS11 Expected		18.6	61.5	0.85	417	0.0976		1.129	0.0694	0.4	2.9	0.3	3.1	4.9	0.2835	4.7	1.9	4.56		
STD AGPROOF Expected																			94	0
STD SP49 Expected																			60.2	18.34
STD SQ70 Expected																			159.5	39.62
BLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank																		<20	<0.9
Prep Wash																				
ROCK-WHI	Prep Blank	6	3	0.56	50	0.066	<20	1.17	0.070	0.10	<0.1	<0.01	2.9	<0.1	0.14	5	<0.5	<0.2		

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Submitted By: Irwin Olian
Receiving Lab: Canada-Whitehorse
Received: October 04, 2017
Report Date: November 08, 2017
Page: 1 of 3

CERTIFICATE OF ANALYSIS WHI17000999.1

CLIENT JOB INFORMATION

Project: Yellow Jacket
Shipment ID:
P.O. Number
Number of Samples: 48

SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps
PICKUP-RJT Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	45	Crush, split and pulverize 250 g rock to 200 mesh			WHI
SLBHP	3	Sort, label and box pulps			WHI
AQ200	48	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN
SHP01	48	Per sample shipping charges for branch shipments			VAN
FA530	1	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: African Queen Mines Ltd.
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8
Canada

CC: Reinhard Ramdohr

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Production Manager

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

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Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000999.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
1478295	Drill Core	3.97	<0.1	16.3	1.2	23	<0.1	1545.7	79.9	808	4.15	2.7	1.4	<0.1	24	<0.1	0.2	<0.1	53	1.42	0.004
1478296	Drill Core	3.44	<0.1	14.1	1.4	18	<0.1	1412.5	74.8	728	3.79	2.0	2.4	<0.1	17	<0.1	0.1	<0.1	31	1.57	0.002
1478297	Drill Core	3.80	0.1	16.1	1.2	16	<0.1	1067.8	88.6	1316	4.20	22.2	23.2	<0.1	34	0.2	<0.1	<0.1	68	2.94	0.009
1478298	Drill Core	3.87	<0.1	7.4	0.7	14	<0.1	1550.7	89.4	885	4.37	12.5	2.0	<0.1	80	<0.1	0.1	<0.1	47	1.49	0.003
1478299	Drill Core	5.69	<0.1	10.8	1.0	12	<0.1	1652.6	84.9	814	4.04	14.0	8.3	<0.1	73	<0.1	0.1	<0.1	37	1.56	0.002
1478300	Drill Core	4.31	0.1	16.4	1.1	15	<0.1	1328.2	72.0	840	4.57	15.9	6.8	0.2	156	<0.1	<0.1	<0.1	63	3.37	0.023
1478301	Drill Core	5.56	<0.1	12.9	0.9	12	<0.1	1643.2	87.9	722	3.75	9.7	3.1	<0.1	24	<0.1	<0.1	<0.1	27	0.25	<0.001
1478302	Drill Core	5.53	<0.1	18.3	0.8	12	<0.1	1893.3	94.1	822	4.28	9.5	5.9	<0.1	47	<0.1	<0.1	<0.1	22	0.55	<0.001
1478303	Drill Core	3.72	<0.1	12.9	0.5	13	<0.1	1756.9	98.3	758	4.33	4.3	3.2	<0.1	6	<0.1	<0.1	<0.1	26	0.14	<0.001
1478304	Drill Core	3.07	<0.1	9.2	1.0	7	<0.1	1265.8	77.4	729	3.75	6.3	40.0	<0.1	66	<0.1	<0.1	<0.1	27	1.42	<0.001
1478305	Drill Core	3.97	0.1	10.7	0.7	7	<0.1	1446.3	62.2	757	3.99	8.7	64.4	<0.1	119	<0.1	0.2	<0.1	26	3.52	0.002
1478306	Drill Core	3.68	0.2	13.0	2.0	10	<0.1	1551.1	69.5	880	4.36	34.6	33.9	<0.1	165	<0.1	1.5	<0.1	38	3.45	0.003
1478307	Drill Core	3.86	<0.1	27.0	0.3	50	<0.1	404.9	47.2	567	6.91	4.3	4.3	<0.1	44	<0.1	0.3	<0.1	211	1.37	0.054
1478308	Drill Core	3.69	<0.1	64.8	1.2	62	<0.1	470.5	48.3	1531	6.12	2.2	6.9	<0.1	100	0.2	0.1	<0.1	190	3.60	0.044
1478309	Drill Core	1.49	<0.1	29.5	0.6	12	<0.1	713.9	40.6	1053	3.44	7.5	8.9	<0.1	199	0.2	0.1	<0.1	57	6.09	0.009
1478310	Drill Core	3.54	<0.1	5.5	0.9	14	<0.1	759.0	55.5	901	3.88	13.1	1.5	<0.1	61	<0.1	<0.1	<0.1	53	2.93	0.004
1478311	Drill Core	4.30	0.1	18.4	1.9	16	<0.1	900.9	57.8	1153	4.25	31.8	4.7	0.3	169	<0.1	0.2	<0.1	53	4.16	0.015
1478312	Rock Pulp	0.07	2.9	68.9	4.4	34	<0.1	6.9	8.5	303	2.78	0.7	1.0	2.8	67	<0.1	<0.1	<0.1	110	0.83	0.067
1478313	Drill Core	4.94	<0.1	77.9	11.0	77	0.2	164.7	35.8	847	5.22	27.9	16.6	16.5	244	0.1	0.6	<0.1	147	4.31	0.478
1478314	Drill Core	3.94	0.1	13.4	1.2	6	0.1	1177.3	61.5	765	3.61	12.6	19.7	<0.1	206	<0.1	0.3	<0.1	23	3.05	0.002
1478315	Drill Core	5.82	<0.1	11.5	0.7	6	<0.1	781.7	66.1	724	3.59	6.4	4.8	<0.1	25	<0.1	<0.1	<0.1	19	0.49	0.002
1478316	Drill Core	5.07	0.1	10.1	1.2	12	<0.1	919.6	60.6	705	3.92	19.3	16.9	0.6	89	<0.1	0.3	<0.1	35	1.81	0.049
1478317	Drill Core	2.86	0.6	33.3	2.1	15	0.1	1009.1	59.3	604	3.12	124.2	72.2	0.5	198	<0.1	4.9	<0.1	15	3.57	0.037
1478318	Rock Pulp	0.08	4.5	86.9	9.4	16	9.8	28.2	11.1	307	15.93	>10000	37203.9	1.5	34	<0.1	3.9	2.3	17	0.87	0.045
1478319	Drill Core	4.22	0.4	44.0	4.1	29	0.2	528.1	47.9	758	4.10	89.1	65.0	3.6	317	0.1	6.5	<0.1	39	5.87	0.242
1478320	Drill Core	6.72	0.3	16.3	1.7	7	<0.1	1402.0	67.6	737	3.85	67.2	12.4	<0.1	141	<0.1	2.9	<0.1	15	3.02	0.001
1478321	Drill Core	3.55	0.2	22.9	0.7	6	0.1	1548.2	84.6	608	3.75	70.8	17.4	<0.1	146	<0.1	6.5	<0.1	16	3.22	0.001
1478322	Drill Core	3.46	0.3	23.2	1.7	7	0.1	1583.3	80.2	670	3.89	65.1	17.6	<0.1	123	<0.1	9.3	<0.1	14	2.70	<0.001
1478323	Drill Core	4.38	0.4	14.2	1.5	9	0.1	1378.7	73.1	723	3.99	355.9	86.6	0.3	101	<0.1	56.3	<0.1	21	1.53	0.018
1478325	Drill Core	1.83	2.1	53.4	6.7	41	0.3	165.6	31.2	768	4.11	71.2	224.6	5.3	361	0.1	7.2	0.2	43	5.49	0.337

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	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
1478295	Drill Core	<1	811	15.08	13	0.010	25	0.94	0.002	0.02	0.2	<0.01	9.7	<0.1	<0.05	3	<0.5	<0.2		
1478296	Drill Core	<1	756	13.34	12	0.004	<20	0.49	<0.001	0.02	<0.1	<0.01	7.0	<0.1	<0.05	2	<0.5	<0.2		
1478297	Drill Core	<1	965	8.81	79	0.011	<20	1.18	0.008	0.02	0.1	<0.01	8.3	<0.1	<0.05	3	<0.5	<0.2		
1478298	Drill Core	<1	1182	12.81	42	0.002	28	0.60	0.001	0.01	0.1	<0.01	8.3	<0.1	<0.05	1	<0.5	<0.2		
1478299	Drill Core	<1	906	12.03	27	0.002	20	0.42	0.001	<0.01	<0.1	<0.01	7.1	<0.1	<0.05	<1	<0.5	<0.2		
1478300	Drill Core	2	551	11.88	37	0.002	<20	1.44	0.002	0.05	<0.1	<0.01	12.3	<0.1	<0.05	3	<0.5	<0.2		
1478301	Drill Core	<1	939	13.87	2	0.001	<20	0.35	<0.001	<0.01	<0.1	<0.01	7.1	<0.1	0.12	<1	<0.5	<0.2		
1478302	Drill Core	<1	707	15.75	8	0.001	<20	0.23	<0.001	<0.01	<0.1	0.02	6.1	<0.1	0.10	<1	<0.5	<0.2		
1478303	Drill Core	<1	831	14.63	3	0.001	<20	0.33	<0.001	<0.01	<0.1	<0.01	6.9	<0.1	0.14	<1	<0.5	<0.2		
1478304	Drill Core	<1	934	12.85	4	<0.001	<20	0.39	0.002	<0.01	<0.1	<0.01	7.0	<0.1	0.13	1	<0.5	<0.2		
1478305	Drill Core	<1	712	12.98	17	<0.001	<20	0.29	0.004	0.02	<0.1	0.02	7.5	<0.1	<0.05	<1	<0.5	<0.2		
1478306	Drill Core	<1	629	13.45	34	<0.001	<20	0.54	0.003	0.03	0.3	0.09	8.9	<0.1	<0.05	1	<0.5	<0.2		
1478307	Drill Core	3	247	9.42	39	0.004	<20	4.92	0.007	0.28	<0.1	0.01	23.1	<0.1	<0.05	10	<0.5	<0.2		
1478308	Drill Core	2	344	8.52	30	0.014	<20	4.05	0.006	0.12	<0.1	<0.01	18.3	<0.1	<0.05	9	<0.5	<0.2		
1478309	Drill Core	<1	836	8.30	25	<0.001	<20	1.21	0.004	0.05	<0.1	<0.01	12.6	<0.1	<0.05	4	<0.5	<0.2		
1478310	Drill Core	<1	1121	8.79	28	0.002	<20	1.05	0.003	0.01	<0.1	<0.01	10.9	<0.1	<0.05	3	<0.5	<0.2		
1478311	Drill Core	2	1093	8.88	38	0.002	<20	1.17	0.004	0.02	<0.1	<0.01	11.8	<0.1	<0.05	4	<0.5	<0.2		
1478312	Rock Pulp	7	18	0.63	126	0.111	<20	1.39	0.166	0.22	5.9	<0.01	1.9	<0.1	<0.05	4	<0.5	<0.2		
1478313	Drill Core	73	421	6.03	60	0.007	<20	3.19	0.035	0.08	<0.1	<0.01	17.3	<0.1	0.05	13	<0.5	<0.2		
1478314	Drill Core	<1	656	13.46	18	<0.001	<20	0.23	0.001	0.02	<0.1	<0.01	6.7	<0.1	<0.05	<1	<0.5	<0.2		
1478315	Drill Core	<1	605	12.35	11	<0.001	<20	0.24	0.004	0.01	<0.1	<0.01	7.3	<0.1	<0.05	<1	<0.5	<0.2		
1478316	Drill Core	3	632	12.04	18	<0.001	<20	0.81	0.003	0.06	<0.1	<0.01	9.7	<0.1	<0.05	2	<0.5	<0.2		
1478317	Drill Core	2	298	9.57	12	<0.001	<20	0.20	0.004	0.05	<0.1	<0.01	6.4	<0.1	0.11	<1	<0.5	<0.2		
1478318	Rock Pulp	6	29	0.81	21	0.021	<20	1.33	0.048	0.22	36.1	<0.01	1.9	0.1	6.41	5	2.0	1.2	<20	36.9
1478319	Drill Core	12	105	8.33	34	0.002	<20	0.62	0.004	0.21	0.2	0.03	10.9	<0.1	0.19	2	<0.5	<0.2		
1478320	Drill Core	<1	312	12.49	13	<0.001	<20	0.11	0.004	0.04	<0.1	<0.01	6.6	<0.1	0.13	<1	<0.5	<0.2		
1478321	Drill Core	<1	350	13.38	8	<0.001	<20	0.10	0.002	0.04	0.1	<0.01	8.0	<0.1	0.22	<1	<0.5	<0.2		
1478322	Drill Core	<1	231	13.74	9	<0.001	<20	0.07	0.003	0.03	0.3	<0.01	6.9	<0.1	0.16	<1	<0.5	<0.2		
1478323	Drill Core	1	414	13.20	13	<0.001	<20	0.18	0.003	0.07	<0.1	<0.01	7.6	<0.1	0.17	<1	<0.5	<0.2		
1478325	Drill Core	18	62	6.21	62	0.002	<20	0.56	0.007	0.28	0.2	0.02	13.5	<0.1	0.45	2	<0.5	<0.2		

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000999.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
1478326	Drill Core	6.68	0.2	23.7	0.9	8	<0.1	1175.5	77.5	693	3.22	16.1	9.7	0.1	284	<0.1	1.8	<0.1	13	3.34	0.007
1478327	Drill Core	2.99	4.4	68.8	3.7	19	<0.1	1151.5	56.9	677	3.49	16.9	4.5	3.0	302	0.2	0.8	0.4	25	4.59	0.083
1478328	Drill Core	2.94	1.9	65.1	11.3	62	<0.1	116.7	34.3	1054	4.88	3.4	2.0	9.3	231	0.2	1.1	0.1	160	5.36	0.390
1478329	Drill Core	4.40	7.7	114.2	10.7	63	0.1	86.3	32.0	1120	4.48	2.3	8.1	6.3	276	0.4	1.6	0.1	113	6.80	0.291
1478330	Drill Core	5.51	0.3	25.9	10.3	75	<0.1	188.1	38.1	1091	4.96	0.9	0.7	4.1	216	0.1	0.8	0.1	172	4.83	0.339
1478331	Drill Core	2.45	2.2	9.4	123.2	72	0.2	323.2	39.6	1526	5.29	1.0	1.4	3.7	256	0.3	0.4	0.6	144	6.77	0.256
1478332	Drill Core	6.72	0.8	43.0	7.2	74	<0.1	198.6	37.2	848	4.95	1.1	<0.5	5.3	144	0.2	0.4	<0.1	156	2.79	0.237
1478333	Drill Core	6.17	0.9	39.5	9.3	61	<0.1	134.1	26.7	781	4.12	8.2	3.2	5.9	197	0.1	1.3	<0.1	79	3.42	0.240
1478334	Drill Core	4.30	0.7	27.3	6.2	16	0.1	990.0	53.3	758	3.45	197.2	46.5	1.4	500	<0.1	21.8	0.1	23	6.09	0.073
1478335	Drill Core	6.67	<0.1	13.0	0.7	12	<0.1	1784.5	80.2	621	3.76	6.9	4.4	<0.1	65	<0.1	0.2	<0.1	24	1.51	0.001
1478336	Drill Core	3.42	<0.1	18.4	0.8	19	<0.1	1885.1	83.6	707	4.03	2.8	1.6	<0.1	28	<0.1	<0.1	<0.1	40	1.06	0.004
1478337	Drill Core	3.39	0.1	19.8	0.6	38	<0.1	20.6	17.4	403	3.40	<0.5	0.6	<0.1	23	0.2	0.3	<0.1	162	1.57	0.057
1478338	Drill Core	3.21	<0.1	17.8	0.4	34	<0.1	15.8	14.3	413	3.27	<0.5	5.6	<0.1	21	<0.1	0.2	<0.1	151	1.50	0.049
1478339	Drill Core	7.41	<0.1	36.8	0.3	40	<0.1	21.8	16.2	470	3.14	<0.5	<0.5	<0.1	18	<0.1	<0.1	<0.1	147	1.63	0.048
1478340	Drill Core	5.48	<0.1	10.8	0.4	13	<0.1	1786.6	68.0	650	3.54	5.5	6.1	<0.1	42	<0.1	0.2	<0.1	27	0.88	0.002
1478341	Drill Core	3.36	<0.1	13.6	0.5	21	<0.1	1727.5	74.1	675	3.75	4.9	<0.5	<0.1	56	<0.1	0.2	<0.1	30	0.63	0.003
1478342	Rock Pulp	0.07	2.5	60.2	4.0	39	<0.1	8.6	8.1	337	2.62	0.7	<0.5	2.8	76	<0.1	<0.1	<0.1	101	0.72	0.070
1478343	Drill Core	2.89	0.1	47.7	0.6	35	<0.1	15.1	16.8	422	3.04	<0.5	<0.5	<0.1	22	<0.1	0.2	<0.1	125	1.90	0.057

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Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

CERTIFICATE OF ANALYSIS WHI17000999.1

		Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
		Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
		MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
1478326	Drill Core		<1	499	11.62	11	<0.001	<20	0.20	0.001	0.02	<0.1	<0.01	5.9	<0.1	0.18	<1	<0.5	<0.2		
1478327	Drill Core		9	337	9.15	38	0.002	<20	0.53	0.005	0.10	<0.1	0.02	7.7	<0.1	0.35	2	<0.5	<0.2		
1478328	Drill Core		54	354	6.05	1117	0.151	<20	2.84	0.033	0.69	<0.1	0.02	26.0	0.2	0.20	11	<0.5	<0.2		
1478329	Drill Core		40	204	5.57	551	0.057	<20	1.79	0.025	0.41	<0.1	0.02	19.7	0.1	0.14	7	<0.5	<0.2		
1478330	Drill Core		36	398	6.00	350	0.064	<20	2.56	0.026	0.43	<0.1	<0.01	17.8	0.1	<0.05	10	<0.5	<0.2		
1478331	Drill Core		31	428	7.58	245	0.043	<20	3.11	0.010	0.33	0.1	<0.01	17.4	<0.1	<0.05	11	<0.5	<0.2		
1478332	Drill Core		46	330	5.94	732	0.166	<20	2.97	0.041	0.68	<0.1	0.02	14.7	0.2	0.08	12	<0.5	<0.2		
1478333	Drill Core		29	145	4.24	288	0.020	<20	1.33	0.033	0.27	<0.1	0.01	10.6	<0.1	0.26	5	<0.5	<0.2		
1478334	Drill Core		4	174	9.37	28	<0.001	<20	0.36	0.004	0.10	<0.1	0.02	6.9	<0.1	0.24	<1	<0.5	<0.2		
1478335	Drill Core		<1	842	12.87	8	0.002	<20	0.37	0.002	0.01	<0.1	0.02	7.1	<0.1	0.13	<1	<0.5	<0.2		
1478336	Drill Core		<1	740	15.27	4	0.011	25	0.97	0.001	<0.01	<0.1	<0.01	6.5	<0.1	0.08	4	<0.5	<0.2		
1478337	Drill Core		2	21	2.32	43	0.206	<20	2.05	0.196	0.07	<0.1	<0.01	9.3	<0.1	<0.05	6	<0.5	<0.2		
1478338	Drill Core		2	21	1.95	52	0.216	<20	1.87	0.197	0.06	<0.1	<0.01	9.2	<0.1	<0.05	5	<0.5	<0.2		
1478339	Drill Core		1	43	1.74	89	0.209	<20	1.85	0.279	0.12	<0.1	<0.01	10.1	<0.1	<0.05	5	<0.5	<0.2		
1478340	Drill Core		<1	449	12.32	4	0.007	43	0.52	<0.001	<0.01	<0.1	<0.01	5.5	<0.1	0.09	1	<0.5	<0.2		
1478341	Drill Core		<1	585	14.48	19	0.005	25	0.54	0.001	<0.01	<0.1	<0.01	6.6	<0.1	<0.05	3	<0.5	<0.2		
1478342	Rock Pulp		7	16	0.59	130	0.106	<20	1.33	0.147	0.20	6.4	<0.01	1.8	<0.1	<0.05	4	<0.5	<0.2		
1478343	Drill Core		1	17	2.39	29	0.239	<20	1.93	0.162	0.04	<0.1	<0.01	12.2	<0.1	<0.05	4	<0.5	<0.2		

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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **African Queen Mines Ltd.**
1153 56th St.
PO Box 19040
Delta British Columbia V4L 2P8 Canada

Project: Yellow Jacket
Report Date: November 08, 2017

QUALITY CONTROL REPORT WHI17000999.1

	Method	WGHT	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
1478314	Drill Core	3.94	0.1	13.4	1.2	6	0.1	1177.3	61.5	765	3.61	12.6	19.7	<0.1	206	<0.1	0.3	<0.1	23	3.05	0.002
REP 1478314	QC		0.1	13.1	1.2	6	0.1	1176.9	58.3	717	3.59	12.9	18.4	<0.1	208	<0.1	0.4	<0.1	23	3.05	0.001
1478343	Drill Core	2.89	0.1	47.7	0.6	35	<0.1	15.1	16.8	422	3.04	<0.5	<0.5	<0.1	22	<0.1	0.2	<0.1	125	1.90	0.057
REP 1478343	QC		0.1	48.0	0.4	38	<0.1	16.2	16.4	449	3.07	<0.5	2.9	<0.1	21	<0.1	0.2	<0.1	128	1.93	0.050
Core Reject Duplicates																					
1478302	Drill Core	5.53	<0.1	18.3	0.8	12	<0.1	1893.3	94.1	822	4.28	9.5	5.9	<0.1	47	<0.1	<0.1	<0.1	22	0.55	<0.001
DUP 1478302	QC		<0.1	19.5	1.3	12	<0.1	1836.2	94.4	811	4.17	9.0	7.3	<0.1	49	<0.1	<0.1	<0.1	22	0.57	<0.001
1478337	Drill Core	3.39	0.1	19.8	0.6	38	<0.1	20.6	17.4	403	3.40	<0.5	0.6	<0.1	23	0.2	0.3	<0.1	162	1.57	0.057
DUP 1478337	QC		0.1	18.8	0.5	37	<0.1	19.3	19.3	417	3.41	<0.5	1.4	<0.1	24	0.1	0.3	<0.1	163	1.60	0.066
Reference Materials																					
STD AGPROOF	Standard																				
STD DS11	Standard		14.0	158.2	134.6	323	1.7	80.3	16.1	1067	3.18	40.0	63.6	7.5	62	2.6	6.2	11.8	50	1.09	0.066
STD DS11	Standard		12.4	143.4	140.8	374	1.8	77.7	13.7	1008	2.96	40.6	108.2	7.8	70	2.9	6.4	12.6	46	1.02	0.072
STD OREAS45EA	Standard		1.7	742.8	16.3	33	0.3	413.4	54.5	419	24.85	11.3	67.8	11.8	4	<0.1	0.3	0.3	326	0.04	0.027
STD OREAS45EA	Standard		1.5	685.2	15.6	36	0.3	380.5	50.4	427	22.88	11.0	55.9	11.6	4	<0.1	0.4	0.3	330	0.03	0.029
STD SP49	Standard																				
STD SQ70	Standard																				
STD AGPROOF Expected																					
STD SP49 Expected																					
STD SQ70 Expected																					
STD OREAS45EA Expected			1.6	709	14.3	31.4	0.26	381	52	400	23.51	10.3	53	10.7	3.5	0.03	0.32	0.26	303	0.036	0.029
STD DS11 Expected			13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8	79	7.65	67.3	2.37	7.2	12.2	50	1.063	0.0701
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank																				
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
ROCK-WHI	Prep Blank		1.1	4.4	2.1	35	<0.1	0.8	4.1	618	1.79	1.6	0.8	1.6	40	<0.1	<0.1	<0.1	18	0.97	0.040
ROCK-WHI	Prep Blank		1.4	9.9	1.0	40	<0.1	2.2	5.4	703	2.05	1.6	0.7	1.6	35	<0.1	<0.1	<0.1	25	0.96	0.037

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1153 56th St.
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	Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	FA530	FA530
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	Ag	Au
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	gm/t	gm/t
	MDL	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	20	0.9
Pulp Duplicates																				
1478314	Drill Core	<1	656	13.46	18	<0.001	<20	0.23	0.001	0.02	<0.1	<0.01	6.7	<0.1	<0.05	<1	<0.5	<0.2		
REP 1478314	QC	<1	637	13.82	19	<0.001	<20	0.24	0.003	0.02	<0.1	<0.01	6.9	<0.1	<0.05	<1	<0.5	<0.2		
1478343	Drill Core	1	17	2.39	29	0.239	<20	1.93	0.162	0.04	<0.1	<0.01	12.2	<0.1	<0.05	4	<0.5	<0.2		
REP 1478343	QC	1	15	2.44	25	0.227	<20	1.96	0.166	0.05	<0.1	<0.01	11.3	<0.1	<0.05	4	<0.5	<0.2		
Core Reject Duplicates																				
1478302	Drill Core	<1	707	15.75	8	0.001	<20	0.23	<0.001	<0.01	<0.1	0.02	6.1	<0.1	0.10	<1	<0.5	<0.2		
DUP 1478302	QC	<1	700	15.53	10	0.001	<20	0.31	0.002	<0.01	<0.1	0.02	6.2	<0.1	0.10	<1	<0.5	<0.2		
1478337	Drill Core	2	21	2.32	43	0.206	<20	2.05	0.196	0.07	<0.1	<0.01	9.3	<0.1	<0.05	6	<0.5	<0.2		
DUP 1478337	QC	2	22	2.35	43	0.208	<20	2.08	0.202	0.07	<0.1	<0.01	9.7	<0.1	<0.05	6	<0.5	<0.2		
Reference Materials																				
STD AGPROOF	Standard																		94	<0.9
STD DS11	Standard	17	61	0.88	409	0.097	<20	1.15	0.072	0.42	2.7	0.31	3.4	4.7	0.30	5	1.9	4.2		
STD DS11	Standard	17	56	0.83	394	0.090	<20	1.08	0.065	0.38	3.1	0.26	2.9	5.2	0.27	5	2.1	4.7		
STD OREAS45EA	Standard	8	951	0.09	155	0.105	<20	3.59	0.017	0.06	<0.1	<0.01	79.1	<0.1	<0.05	13	1.0	<0.2		
STD OREAS45EA	Standard	7	835	0.08	144	0.093	<20	3.25	0.016	0.05	<0.1	0.01	81.2	<0.1	<0.05	14	0.9	<0.2		
STD SP49	Standard																		61	18.1
STD SQ70	Standard																		162	40.0
STD AGPROOF Expected																			94	0
STD SP49 Expected																			60.2	18.34
STD SQ70 Expected																			159.5	39.62
STD OREAS45EA Expected		7.06	849	0.095	148	0.0984		3.13	0.02	0.053			78	0.072	0.036	12.4	0.78	0.07		
STD DS11 Expected		18.6	61.5	0.85	417	0.0976		1.129	0.0694	0.4	2.9	0.3	3.1	4.9	0.2835	4.7	1.9	4.56		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
BLK	Blank																		<20	<0.9
BLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2		
Prep Wash																				
ROCK-WHI	Prep Blank	6	2	0.52	48	0.058	<20	1.30	0.058	0.09	<0.1	<0.01	2.4	<0.1	0.13	4	<0.5	<0.2		
ROCK-WHI	Prep Blank	5	5	0.63	43	0.077	<20	1.27	0.064	0.09	<0.1	<0.01	2.8	<0.1	0.10	4	<0.5	<0.2		

APPENDIX III – JUNE 2107 PINE CREEK WATER QUALITY SAMPLES – CERTIFICATES OF ANALYSES

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Your Project #: YJ
Your C.O.C. #: 527132-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/07/06
Report #: R2408179
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B751882
Received: 2017/06/26, 12:00

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	1	2017/06/28	2017/06/29	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Water	5	2017/06/29	2017/06/29	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	5	N/A	2017/06/28	BBY6SOP-00011	SM 22 4500-Cl- E m
Chloride by Automated Colourimetry	1	N/A	2017/06/29	BBY6SOP-00011	SM 22 4500-Cl- E m
Conductance - water	1	2017/06/28	2017/06/29	BBY6SOP-00026	SM 22 2510 B m
Conductance - water	5	2017/06/29	2017/06/29	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	6	N/A	2017/06/29	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3)	6	N/A	2017/06/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	6	N/A	2017/06/29	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	6	N/A	2017/07/04	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	6	2017/07/04	2017/07/04	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	6	N/A	2017/06/29	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved)	6	N/A	2017/06/29	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	6	2017/06/27	2017/06/30	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total)	6	2017/06/29	2017/06/30	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	6	N/A	2017/06/28	BBY6SOP-00009	SM 22 4500-NH3- G m
Nitrate + Nitrite (N)	1	N/A	2017/06/27	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrate + Nitrite (N)	5	N/A	2017/06/28	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) by CFA	1	N/A	2017/06/27	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) by CFA	5	N/A	2017/06/28	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	1	N/A	2017/06/28	BBY6SOP-00010	SM 22 4500-NO3 I m
Nitrogen - Nitrate (as N)	5	N/A	2017/06/29	BBY6SOP-00010	SM 22 4500-NO3 I m
Filter and HNO3 Preserve for Metals	6	N/A	2017/06/28	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	1	2017/06/28	2017/06/29	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (1)	5	2017/06/29	2017/06/29	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab	6	N/A	2017/06/28	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	5	N/A	2017/06/28	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2017/06/29	BBY6SOP-00017	SM 22 4500-SO42- E m
Phosphorus-P (Total, dissolved) - FF/FP	6	2017/06/28	2017/06/28	BBY6SOP-00013	SM 22 4500-P E m

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your Project #: YJ
Your C.O.C. #: 527132-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/07/06
Report #: R2408179
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B751882
Received: 2017/06/26, 12:00

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Suspended Solids	1	2017/06/28	2017/06/29	BBY6SOP-00034	SM 22 2540 D
Total Suspended Solids	5	2017/06/29	2017/06/30	BBY6SOP-00034	SM 22 2540 D
Turbidity	1	N/A	2017/06/27	BBY6SOP-00027	SM 22 2130 B m
Turbidity	5	N/A	2017/06/28	BBY6SOP-00027	SM 22 2130 B 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.

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) 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.

Your Project #: YJ
Your C.O.C. #: 527132-01-01

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Report Date: 2017/07/06
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CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B751882
Received: 2017/06/26, 12:00

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@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.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B751882
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		RJ7037	RJ7038	RJ7039		RJ7040		
Sampling Date		2017/06/25 15:20	2017/06/25 14:40	2017/06/25 17:00		2017/06/24 16:30		
COC Number		527132-01-01	527132-01-01	527132-01-01		527132-01-01		
	UNITS	PC-1	PC-2	PC-5	QC Batch	PC-6	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	0.710	0.710	0.610	8680221	0.700	0.010	8680221
ANIONS								
Nitrite (N)	mg/L	<0.0050	<0.0050	<0.0050	8679912	<0.0050	0.0050	8678545
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	0.020	<0.020	8676856	0.024	0.020	8676856
Misc. Inorganics								
Alkalinity (Total as CaCO3)	mg/L	42.4	43.9	56.9	8680747	42.4	0.50	8680065
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	<0.50	8680747	<0.50	0.50	8680065
Bicarbonate (HCO3)	mg/L	51.7	53.6	69.4	8680747	51.7	0.50	8680065
Carbonate (CO3)	mg/L	<0.50	<0.50	<0.50	8680747	<0.50	0.50	8680065
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	8680747	<0.50	0.50	8680065
Anions								
Dissolved Sulphate (SO4)	mg/L	4.85	5.10	6.30	8680063	4.97	0.50	8681329
Dissolved Chloride (Cl)	mg/L	0.51	<0.50	<0.50	8680050	<0.50	0.50	8681324
Nutrients								
Orthophosphate (P)	mg/L	<0.0050	<0.0050	<0.0050	8679184	<0.0050	0.0050	8679184
Dissolved Phosphorus (P)	mg/L	<0.0050	<0.0050	0.0084	8679208	<0.0050	0.0050	8679208
Total Ammonia (N)	mg/L	0.054	0.061	0.049	8678304	0.051	0.0050	8678304
Nitrate plus Nitrite (N)	mg/L	<0.020	0.020	<0.020	8679909	0.024	0.020	8678543
Physical Properties								
Conductivity	uS/cm	94.9	99.0	124	8680746	98.6	1.0	8680064
pH	pH	7.91	7.94	8.02	8680741	7.84		8679938
Physical Properties								
Total Suspended Solids	mg/L	<4.0	<4.0	4.3	8680172	<4.0	4.0	8679223
Turbidity	NTU	1.80	2.14	2.40	8678890	2.38	0.10	8678000

RDL = Reportable Detection Limit

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Maxxam Job #: B751882
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		RJ7041	RJ7042		
Sampling Date		2017/06/25 15:40	2017/06/25 15:30		
COC Number		527132-01-01	527132-01-01		
	UNITS	FIELD BLANK-PC	DUPLICATE-PC	RDL	QC Batch
Misc. Inorganics					
Fluoride (F)	mg/L	<0.010	0.710	0.010	8680221
ANIONS					
Nitrite (N)	mg/L	<0.0050	<0.0050	0.0050	8679912
Calculated Parameters					
Filter and HNO3 Preservation	N/A	FIELD	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	0.024	0.020	8676856
Misc. Inorganics					
Alkalinity (Total as CaCO3)	mg/L	<0.50	41.8	0.50	8680747
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	0.50	8680747
Bicarbonate (HCO3)	mg/L	<0.50	50.9	0.50	8680747
Carbonate (CO3)	mg/L	<0.50	<0.50	0.50	8680747
Hydroxide (OH)	mg/L	<0.50	<0.50	0.50	8680747
Anions					
Dissolved Sulphate (SO4)	mg/L	<0.50	5.10	0.50	8680063
Dissolved Chloride (Cl)	mg/L	<0.50	0.66	0.50	8680050
Nutrients					
Orthophosphate (P)	mg/L	<0.0050	<0.0050	0.0050	8679184
Dissolved Phosphorus (P)	mg/L	<0.0050	<0.0050	0.0050	8679208
Total Ammonia (N)	mg/L	<0.0050	0.036	0.0050	8678304
Nitrate plus Nitrite (N)	mg/L	<0.020	0.024	0.020	8679909
Physical Properties					
Conductivity	uS/cm	1.1	95.2	1.0	8680746
pH	pH	5.81	7.89		8680741
Physical Properties					
Total Suspended Solids	mg/L	<4.0	4.3	4.0	8680172
Turbidity	NTU	<0.10	1.68	0.10	8678890
RDL = Reportable Detection Limit					

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Maxxam Job #: B751882
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR/CCME DISS. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7037	RJ7038	RJ7039	RJ7040	RJ7041	RJ7042		
Sampling Date		2017/06/25 15:20	2017/06/25 14:40	2017/06/25 17:00	2017/06/24 16:30	2017/06/25 15:40	2017/06/25 15:30		
COC Number		527132-01-01	527132-01-01	527132-01-01	527132-01-01	527132-01-01	527132-01-01		
	UNITS	PC-1	PC-2	PC-5	PC-6	FIELD BLANK-PC	DUPLICATE-PC	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	41.4	42.5	57.3	42.4	<0.50	40.6	0.50	8677724
Elements									
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8683389
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	4.6	4.4	4.7	4.4	<3.0	4.5	3.0	8678603
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8678603
Dissolved Arsenic (As)	ug/L	0.42	0.42	0.39	0.42	<0.10	0.42	0.10	8678603
Dissolved Barium (Ba)	ug/L	12.4	13.3	14.8	12.7	<1.0	12.7	1.0	8678603
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8678603
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8678603
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	<50	50	8678603
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8678603
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8678603
Dissolved Cobalt (Co)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8678603
Dissolved Copper (Cu)	ug/L	0.47	0.55	0.52	0.49	<0.20	0.49	0.20	8678603
Dissolved Iron (Fe)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678603
Dissolved Lead (Pb)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8678603
Dissolved Lithium (Li)	ug/L	2.6	2.5	2.2	2.4	<2.0	2.5	2.0	8678603
Dissolved Manganese (Mn)	ug/L	1.3	1.4	1.4	1.4	<1.0	1.3	1.0	8678603
Dissolved Molybdenum (Mo)	ug/L	2.6	2.6	2.3	2.6	<1.0	2.6	1.0	8678603
Dissolved Nickel (Ni)	ug/L	1.6	1.7	1.8	1.8	<1.0	1.6	1.0	8678603
Dissolved Selenium (Se)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8678603
Dissolved Silicon (Si)	ug/L	3850	3850	3930	3710	<100	3820	100	8678603
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8678603
Dissolved Strontium (Sr)	ug/L	28.8	29.3	36.7	29.4	<1.0	27.5	1.0	8678603
Dissolved Thallium (Tl)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8678603
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678603
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678603
Dissolved Uranium (U)	ug/L	2.18	2.20	1.86	2.25	<0.10	2.22	0.10	8678603
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678603
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678603
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8678603

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B751882
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR/CCME DISS. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7037	RJ7038	RJ7039	RJ7040	RJ7041	RJ7042		
Sampling Date		2017/06/25 15:20	2017/06/25 14:40	2017/06/25 17:00	2017/06/24 16:30	2017/06/25 15:40	2017/06/25 15:30		
COC Number		527132-01-01	527132-01-01	527132-01-01	527132-01-01	527132-01-01	527132-01-01		
	UNITS	**PC-1**	**PC-2**	**PC-5**	**PC-6**	**FIELD BLANK-PC**	**DUPLICATE-PC**	**RDL**	**QC Batch**
Dissolved Calcium (Ca)	mg/L	9.89	9.98	13.7	10.0	<0.050	9.65	0.050	8677206
Dissolved Magnesium (Mg)	mg/L	4.06	4.28	5.60	4.20	<0.050	4.00	0.050	8677206
Dissolved Potassium (K)	mg/L	0.563	0.560	0.566	0.574	<0.050	0.559	0.050	8677206
Dissolved Sodium (Na)	mg/L	1.72	1.68	1.66	1.75	<0.050	1.69	0.050	8677206
Dissolved Sulphur (S)	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.0	8677206
RDL = Reportable Detection Limit									

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Maxxam Job #: B751882
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR/CCME TOT. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7037	RJ7038	RJ7039	RJ7040	RJ7041	RJ7042		
Sampling Date		2017/06/25 15:20	2017/06/25 14:40	2017/06/25 17:00	2017/06/24 16:30	2017/06/25 15:40	2017/06/25 15:30		
COC Number		527132-01-01	527132-01-01	527132-01-01	527132-01-01	527132-01-01	527132-01-01		
	UNITS	PC-1	PC-2	PC-5	PC-6	FIELD BLANK-PC	DUPLICATE-PC	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	42.8	44.7	58.9	43.8	<0.50	42.4	0.50	8677361
Elements									
Total Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8683566
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	47.9	52.5	64.4	49.0	<3.0	48.7	3.0	8680437
Total Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8680437
Total Arsenic (As)	ug/L	0.61	0.63	0.59	0.61	<0.10	0.62	0.10	8680437
Total Barium (Ba)	ug/L	13.5	14.0	17.0	13.7	<1.0	13.8	1.0	8680437
Total Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8680437
Total Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8680437
Total Boron (B)	ug/L	<50	<50	<50	<50	<50	<50	50	8680437
Total Cadmium (Cd)	ug/L	0.010	0.011	0.010	0.011	<0.010	0.012	0.010	8680437
Total Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8680437
Total Cobalt (Co)	ug/L	<0.20	<0.20	0.21	<0.20	<0.20	<0.20	0.20	8680437
Total Copper (Cu)	ug/L	0.73	0.77	0.88	0.75	<0.50	0.75	0.50	8680437
Total Iron (Fe)	ug/L	81	82	125	83	<10	137	10	8680437
Total Lead (Pb)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8680437
Total Lithium (Li)	ug/L	2.4	2.3	2.1	2.3	<2.0	2.4	2.0	8680437
Total Manganese (Mn)	ug/L	5.6	6.0	8.4	6.0	<1.0	6.0	1.0	8680437
Total Molybdenum (Mo)	ug/L	2.6	2.6	2.3	2.6	<1.0	2.6	1.0	8680437
Total Nickel (Ni)	ug/L	3.0	3.2	4.0	3.2	<1.0	2.9	1.0	8680437
Total Selenium (Se)	ug/L	0.11	<0.10	0.10	<0.10	<0.10	<0.10	0.10	8680437
Total Silicon (Si)	ug/L	3490	3510	3710	3560	<100	3490	100	8680437
Total Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8680437
Total Strontium (Sr)	ug/L	31.1	32.3	39.0	31.2	<1.0	31.2	1.0	8680437
Total Thallium (Tl)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8680437
Total Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8680437
Total Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8680437
Total Uranium (U)	ug/L	2.23	2.24	1.92	2.18	<0.10	2.27	0.10	8680437
Total Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8680437
Total Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8680437
Total Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8680437

RDL = Reportable Detection Limit

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Client Project #: YJ
Sampler Initials: LD

CSR/CCME TOT. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7037	RJ7038	RJ7039	RJ7040	RJ7041	RJ7042		
Sampling Date		2017/06/25 15:20	2017/06/25 14:40	2017/06/25 17:00	2017/06/24 16:30	2017/06/25 15:40	2017/06/25 15:30		
COC Number		527132-01-01	527132-01-01	527132-01-01	527132-01-01	527132-01-01	527132-01-01		
	UNITS	PC-1	PC-2	PC-5	PC-6	FIELD BLANK-PC	DUPLICATE-PC	RDL	QC Batch
Total Calcium (Ca)	mg/L	10.4	10.8	14.2	10.6	<0.050	10.3	0.050	8677458
Total Magnesium (Mg)	mg/L	4.09	4.32	5.68	4.21	<0.050	4.07	0.050	8677458
Total Potassium (K)	mg/L	0.599	0.604	0.598	0.604	<0.050	0.598	0.050	8677458
Total Sodium (Na)	mg/L	1.67	1.69	1.60	1.67	<0.050	1.65	0.050	8677458
Total Sulphur (S)	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.0	8677458
RDL = Reportable Detection Limit									

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GENERAL COMMENTS

Sample RJ7040 [PC-6] : Sample was analyzed past method specified hold time for Orthophosphate by Konelab. {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.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8678000	WAY	Spiked Blank	Turbidity	2017/06/27		102	%	80 - 120
8678000	WAY	Method Blank	Turbidity	2017/06/27	<0.10		NTU	
8678000	WAY	RPD	Turbidity	2017/06/27	5.8		%	20
8678304	CK	Matrix Spike	Total Ammonia (N)	2017/06/28		97	%	80 - 120
8678304	CK	Spiked Blank	Total Ammonia (N)	2017/06/28		101	%	80 - 120
8678304	CK	Method Blank	Total Ammonia (N)	2017/06/28	<0.0050		mg/L	
8678304	CK	RPD	Total Ammonia (N)	2017/06/28	12		%	20
8678543	IW1	Matrix Spike	Nitrate plus Nitrite (N)	2017/06/27		103	%	80 - 120
8678543	IW1	Spiked Blank	Nitrate plus Nitrite (N)	2017/06/27		108	%	80 - 120
8678543	IW1	Method Blank	Nitrate plus Nitrite (N)	2017/06/27	<0.020		mg/L	
8678543	IW1	RPD	Nitrate plus Nitrite (N)	2017/06/27	NC		%	25
8678545	IW1	Matrix Spike	Nitrite (N)	2017/06/27		98	%	80 - 120
8678545	IW1	Spiked Blank	Nitrite (N)	2017/06/27		104	%	80 - 120
8678545	IW1	Method Blank	Nitrite (N)	2017/06/27	<0.0050		mg/L	
8678545	IW1	RPD	Nitrite (N)	2017/06/27	NC		%	20
8678603	JLP	Matrix Spike [RJ7037-04]	Dissolved Aluminum (Al)	2017/06/29		108	%	80 - 120
			Dissolved Antimony (Sb)	2017/06/29		96	%	80 - 120
			Dissolved Arsenic (As)	2017/06/29		99	%	80 - 120
			Dissolved Barium (Ba)	2017/06/29		NC	%	80 - 120
			Dissolved Beryllium (Be)	2017/06/29		102	%	80 - 120
			Dissolved Bismuth (Bi)	2017/06/29		94	%	80 - 120
			Dissolved Boron (B)	2017/06/29		100	%	80 - 120
			Dissolved Cadmium (Cd)	2017/06/29		95	%	80 - 120
			Dissolved Chromium (Cr)	2017/06/29		94	%	80 - 120
			Dissolved Cobalt (Co)	2017/06/29		93	%	80 - 120
			Dissolved Copper (Cu)	2017/06/29		92	%	80 - 120
			Dissolved Iron (Fe)	2017/06/29		100	%	80 - 120
			Dissolved Lead (Pb)	2017/06/29		95	%	80 - 120
			Dissolved Lithium (Li)	2017/06/29		102	%	80 - 120
			Dissolved Manganese (Mn)	2017/06/29		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/06/29		NC	%	80 - 120
			Dissolved Nickel (Ni)	2017/06/29		96	%	80 - 120
			Dissolved Selenium (Se)	2017/06/29		101	%	80 - 120
			Dissolved Silver (Ag)	2017/06/29		100	%	80 - 120
			Dissolved Strontium (Sr)	2017/06/29		NC	%	80 - 120
			Dissolved Thallium (Tl)	2017/06/29		96	%	80 - 120
			Dissolved Tin (Sn)	2017/06/29		97	%	80 - 120
			Dissolved Titanium (Ti)	2017/06/29		94	%	80 - 120
			Dissolved Uranium (U)	2017/06/29		105	%	80 - 120
			Dissolved Vanadium (V)	2017/06/29		98	%	80 - 120
			Dissolved Zinc (Zn)	2017/06/29		97	%	80 - 120
8678603	JLP	Spiked Blank	Dissolved Aluminum (Al)	2017/06/29		106	%	80 - 120
			Dissolved Antimony (Sb)	2017/06/29		94	%	80 - 120
			Dissolved Arsenic (As)	2017/06/29		96	%	80 - 120
			Dissolved Barium (Ba)	2017/06/29		100	%	80 - 120
			Dissolved Beryllium (Be)	2017/06/29		101	%	80 - 120
			Dissolved Bismuth (Bi)	2017/06/29		94	%	80 - 120
			Dissolved Boron (B)	2017/06/29		98	%	80 - 120
			Dissolved Cadmium (Cd)	2017/06/29		95	%	80 - 120
			Dissolved Chromium (Cr)	2017/06/29		95	%	80 - 120
			Dissolved Cobalt (Co)	2017/06/29		95	%	80 - 120
			Dissolved Copper (Cu)	2017/06/29		95	%	80 - 120
			Dissolved Iron (Fe)	2017/06/29		103	%	80 - 120
			Dissolved Lead (Pb)	2017/06/29		97	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Lithium (Li)	2017/06/29		103	%	80 - 120
			Dissolved Manganese (Mn)	2017/06/29		96	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/06/29		98	%	80 - 120
			Dissolved Nickel (Ni)	2017/06/29		98	%	80 - 120
			Dissolved Selenium (Se)	2017/06/29		99	%	80 - 120
			Dissolved Silver (Ag)	2017/06/29		100	%	80 - 120
			Dissolved Strontium (Sr)	2017/06/29		92	%	80 - 120
			Dissolved Thallium (Tl)	2017/06/29		95	%	80 - 120
			Dissolved Tin (Sn)	2017/06/29		96	%	80 - 120
			Dissolved Titanium (Ti)	2017/06/29		93	%	80 - 120
			Dissolved Uranium (U)	2017/06/29		103	%	80 - 120
			Dissolved Vanadium (V)	2017/06/29		97	%	80 - 120
			Dissolved Zinc (Zn)	2017/06/29		98	%	80 - 120
8678603	JLP	Method Blank	Dissolved Aluminum (Al)	2017/06/29	<3.0		ug/L	
			Dissolved Antimony (Sb)	2017/06/29	<0.50		ug/L	
			Dissolved Arsenic (As)	2017/06/29	<0.10		ug/L	
			Dissolved Barium (Ba)	2017/06/29	<1.0		ug/L	
			Dissolved Beryllium (Be)	2017/06/29	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2017/06/29	<1.0		ug/L	
			Dissolved Boron (B)	2017/06/29	<50		ug/L	
			Dissolved Cadmium (Cd)	2017/06/29	<0.010		ug/L	
			Dissolved Chromium (Cr)	2017/06/29	<1.0		ug/L	
			Dissolved Cobalt (Co)	2017/06/29	<0.20		ug/L	
			Dissolved Copper (Cu)	2017/06/29	<0.20		ug/L	
			Dissolved Iron (Fe)	2017/06/29	<5.0		ug/L	
			Dissolved Lead (Pb)	2017/06/29	<0.20		ug/L	
			Dissolved Lithium (Li)	2017/06/29	<2.0		ug/L	
			Dissolved Manganese (Mn)	2017/06/29	<1.0		ug/L	
			Dissolved Molybdenum (Mo)	2017/06/29	<1.0		ug/L	
			Dissolved Nickel (Ni)	2017/06/29	<1.0		ug/L	
			Dissolved Selenium (Se)	2017/06/29	<0.10		ug/L	
			Dissolved Silicon (Si)	2017/06/29	<100		ug/L	
			Dissolved Silver (Ag)	2017/06/29	<0.020		ug/L	
			Dissolved Strontium (Sr)	2017/06/29	<1.0		ug/L	
			Dissolved Thallium (Tl)	2017/06/29	<0.010		ug/L	
			Dissolved Tin (Sn)	2017/06/29	<5.0		ug/L	
			Dissolved Titanium (Ti)	2017/06/29	<5.0		ug/L	
			Dissolved Uranium (U)	2017/06/29	<0.10		ug/L	
			Dissolved Vanadium (V)	2017/06/29	<5.0		ug/L	
			Dissolved Zinc (Zn)	2017/06/29	<5.0		ug/L	
			Dissolved Zirconium (Zr)	2017/06/29	<0.10		ug/L	
8678603	JLP	RPD [RJ7037-04]	Dissolved Aluminum (Al)	2017/06/29	6.4		%	20
			Dissolved Antimony (Sb)	2017/06/29	NC		%	20
			Dissolved Arsenic (As)	2017/06/29	6.4		%	20
			Dissolved Barium (Ba)	2017/06/29	0.55		%	20
			Dissolved Beryllium (Be)	2017/06/29	NC		%	20
			Dissolved Bismuth (Bi)	2017/06/29	NC		%	20
			Dissolved Boron (B)	2017/06/29	NC		%	20
			Dissolved Cadmium (Cd)	2017/06/29	NC		%	20
			Dissolved Chromium (Cr)	2017/06/29	NC		%	20
			Dissolved Cobalt (Co)	2017/06/29	NC		%	20
			Dissolved Copper (Cu)	2017/06/29	0.21		%	20
			Dissolved Iron (Fe)	2017/06/29	NC		%	20
			Dissolved Lead (Pb)	2017/06/29	NC		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Lithium (Li)	2017/06/29	2.4		%	20
			Dissolved Manganese (Mn)	2017/06/29	2.8		%	20
			Dissolved Molybdenum (Mo)	2017/06/29	0.35		%	20
			Dissolved Nickel (Ni)	2017/06/29	0.18		%	20
			Dissolved Selenium (Se)	2017/06/29	NC		%	20
			Dissolved Silicon (Si)	2017/06/29	2.3		%	20
			Dissolved Silver (Ag)	2017/06/29	NC		%	20
			Dissolved Strontium (Sr)	2017/06/29	1.3		%	20
			Dissolved Thallium (Tl)	2017/06/29	NC		%	20
			Dissolved Tin (Sn)	2017/06/29	NC		%	20
			Dissolved Titanium (Ti)	2017/06/29	NC		%	20
			Dissolved Uranium (U)	2017/06/29	0.73		%	20
			Dissolved Vanadium (V)	2017/06/29	NC		%	20
			Dissolved Zinc (Zn)	2017/06/29	NC		%	20
			Dissolved Zirconium (Zr)	2017/06/29	NC		%	20
8678890	WAY	Spiked Blank	Turbidity	2017/06/28		102	%	80 - 120
8678890	WAY	Method Blank	Turbidity	2017/06/28	<0.10		NTU	
8678890	WAY	RPD	Turbidity	2017/06/28	NC		%	20
8679184	DC6	Matrix Spike	Orthophosphate (P)	2017/06/28		NC	%	80 - 120
8679184	DC6	Spiked Blank	Orthophosphate (P)	2017/06/28		94	%	80 - 120
8679184	DC6	Method Blank	Orthophosphate (P)	2017/06/28	<0.0050		mg/L	
8679184	DC6	RPD	Orthophosphate (P)	2017/06/28	2.2		%	20
8679208	DC6	Matrix Spike [RJ7038-08]	Dissolved Phosphorus (P)	2017/06/28		86	%	80 - 120
8679208	DC6	Spiked Blank	Dissolved Phosphorus (P)	2017/06/28		97	%	80 - 120
8679208	DC6	Method Blank	Dissolved Phosphorus (P)	2017/06/28	<0.0050		mg/L	
8679208	DC6	RPD [RJ7038-08]	Dissolved Phosphorus (P)	2017/06/28	NC		%	20
8679223	BO3	Matrix Spike	Total Suspended Solids	2017/06/29		106	%	80 - 120
8679223	BO3	Spiked Blank	Total Suspended Solids	2017/06/29		100	%	80 - 120
8679223	BO3	Method Blank	Total Suspended Solids	2017/06/29	<4.0		mg/L	
8679223	BO3	RPD	Total Suspended Solids	2017/06/29	NC		%	20
8679909	IW1	Spiked Blank	Nitrate plus Nitrite (N)	2017/06/28		108	%	80 - 120
8679909	IW1	Method Blank	Nitrate plus Nitrite (N)	2017/06/28	<0.020		mg/L	
8679912	IW1	Spiked Blank	Nitrite (N)	2017/06/28		102	%	80 - 120
8679912	IW1	Method Blank	Nitrite (N)	2017/06/28	<0.0050		mg/L	
8679938	MM3	Spiked Blank	pH	2017/06/29		102	%	97 - 103
8680050	BB3	Matrix Spike	Dissolved Chloride (Cl)	2017/06/28		112	%	80 - 120
8680050	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/06/28		100	%	80 - 120
8680050	BB3	Method Blank	Dissolved Chloride (Cl)	2017/06/28	<0.50		mg/L	
8680050	BB3	RPD	Dissolved Chloride (Cl)	2017/06/28	0.18		%	20
8680063	BB3	Matrix Spike	Dissolved Sulphate (SO4)	2017/06/28		114	%	80 - 120
8680063	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/06/28		102	%	80 - 120
8680063	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/06/28	<0.50		mg/L	
8680063	BB3	RPD	Dissolved Sulphate (SO4)	2017/06/28	0.60		%	20
8680064	MM3	Spiked Blank	Conductivity	2017/06/29		101	%	80 - 120
8680064	MM3	Method Blank	Conductivity	2017/06/28	<1.0		uS/cm	
8680064	MM3	RPD [RJ7040-02]	Conductivity	2017/06/29	1.2		%	20
8680065	MM3	Spiked Blank	Alkalinity (Total as CaCO3)	2017/06/29		97	%	80 - 120
8680065	MM3	Method Blank	Alkalinity (Total as CaCO3)	2017/06/28	<0.50		mg/L	
			Alkalinity (PP as CaCO3)	2017/06/28	<0.50		mg/L	
			Bicarbonate (HCO3)	2017/06/28	<0.50		mg/L	
			Carbonate (CO3)	2017/06/28	<0.50		mg/L	
			Hydroxide (OH)	2017/06/28	<0.50		mg/L	
8680065	MM3	RPD [RJ7040-02]	Alkalinity (Total as CaCO3)	2017/06/29	2.3		%	20
			Alkalinity (PP as CaCO3)	2017/06/29	NC		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Bicarbonate (HCO3)	2017/06/29	2.3		%	20
			Carbonate (CO3)	2017/06/29	NC		%	20
			Hydroxide (OH)	2017/06/29	NC		%	20
8680172	BO3	Matrix Spike [RJ7037-01]	Total Suspended Solids	2017/06/30		102	%	80 - 120
8680172	BO3	Spiked Blank	Total Suspended Solids	2017/06/30		101	%	80 - 120
8680172	BO3	Method Blank	Total Suspended Solids	2017/06/30	<4.0		mg/L	
8680172	BO3	RPD	Total Suspended Solids	2017/06/30	6.7		%	20
8680221	IW1	Matrix Spike	Fluoride (F)	2017/06/29		106	%	80 - 120
8680221	IW1	Spiked Blank	Fluoride (F)	2017/06/29		102	%	80 - 120
8680221	IW1	Method Blank	Fluoride (F)	2017/06/29	<0.010		mg/L	
8680221	IW1	RPD	Fluoride (F)	2017/06/29	0		%	20
8680437	AA1	Matrix Spike [RJ7037-03]	Total Aluminum (Al)	2017/06/30		101	%	80 - 120
			Total Antimony (Sb)	2017/06/30		97	%	80 - 120
			Total Arsenic (As)	2017/06/30		102	%	80 - 120
			Total Barium (Ba)	2017/06/30		NC	%	80 - 120
			Total Beryllium (Be)	2017/06/30		95	%	80 - 120
			Total Bismuth (Bi)	2017/06/30		98	%	80 - 120
			Total Boron (B)	2017/06/30		94	%	80 - 120
			Total Cadmium (Cd)	2017/06/30		104	%	80 - 120
			Total Chromium (Cr)	2017/06/30		102	%	80 - 120
			Total Cobalt (Co)	2017/06/30		102	%	80 - 120
			Total Copper (Cu)	2017/06/30		101	%	80 - 120
			Total Iron (Fe)	2017/06/30		118	%	80 - 120
			Total Lead (Pb)	2017/06/30		98	%	80 - 120
			Total Lithium (Li)	2017/06/30		93	%	80 - 120
			Total Manganese (Mn)	2017/06/30		94	%	80 - 120
			Total Molybdenum (Mo)	2017/06/30		NC	%	80 - 120
			Total Nickel (Ni)	2017/06/30		100	%	80 - 120
			Total Selenium (Se)	2017/06/30		108	%	80 - 120
			Total Silver (Ag)	2017/06/30		108	%	80 - 120
			Total Strontium (Sr)	2017/06/30		NC	%	80 - 120
			Total Thallium (Tl)	2017/06/30		96	%	80 - 120
			Total Tin (Sn)	2017/06/30		89	%	80 - 120
			Total Titanium (Ti)	2017/06/30		123 (1)	%	80 - 120
			Total Uranium (U)	2017/06/30		96	%	80 - 120
			Total Vanadium (V)	2017/06/30		100	%	80 - 120
			Total Zinc (Zn)	2017/06/30		107	%	80 - 120
8680437	AA1	Spiked Blank	Total Aluminum (Al)	2017/06/30		104	%	80 - 120
			Total Antimony (Sb)	2017/06/30		96	%	80 - 120
			Total Arsenic (As)	2017/06/30		101	%	80 - 120
			Total Barium (Ba)	2017/06/30		102	%	80 - 120
			Total Beryllium (Be)	2017/06/30		95	%	80 - 120
			Total Bismuth (Bi)	2017/06/30		99	%	80 - 120
			Total Boron (B)	2017/06/30		95	%	80 - 120
			Total Cadmium (Cd)	2017/06/30		104	%	80 - 120
			Total Chromium (Cr)	2017/06/30		107	%	80 - 120
			Total Cobalt (Co)	2017/06/30		107	%	80 - 120
			Total Copper (Cu)	2017/06/30		104	%	80 - 120
			Total Iron (Fe)	2017/06/30		109	%	80 - 120
			Total Lead (Pb)	2017/06/30		101	%	80 - 120
			Total Lithium (Li)	2017/06/30		99	%	80 - 120
			Total Manganese (Mn)	2017/06/30		99	%	80 - 120
			Total Molybdenum (Mo)	2017/06/30		102	%	80 - 120
			Total Nickel (Ni)	2017/06/30		109	%	80 - 120

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Maxxam Job #: B751882
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Selenium (Se)	2017/06/30		104	%	80 - 120
			Total Silver (Ag)	2017/06/30		111	%	80 - 120
			Total Strontium (Sr)	2017/06/30		100	%	80 - 120
			Total Thallium (Tl)	2017/06/30		98	%	80 - 120
			Total Tin (Sn)	2017/06/30		99	%	80 - 120
			Total Titanium (Ti)	2017/06/30		104	%	80 - 120
			Total Uranium (U)	2017/06/30		98	%	80 - 120
			Total Vanadium (V)	2017/06/30		105	%	80 - 120
			Total Zinc (Zn)	2017/06/30		108	%	80 - 120
8680437	AA1	Method Blank	Total Aluminum (Al)	2017/06/30	<3.0		ug/L	
			Total Antimony (Sb)	2017/06/30	<0.50		ug/L	
			Total Arsenic (As)	2017/06/30	<0.10		ug/L	
			Total Barium (Ba)	2017/06/30	<1.0		ug/L	
			Total Beryllium (Be)	2017/06/30	<0.10		ug/L	
			Total Bismuth (Bi)	2017/06/30	<1.0		ug/L	
			Total Boron (B)	2017/06/30	<50		ug/L	
			Total Cadmium (Cd)	2017/06/30	<0.010		ug/L	
			Total Chromium (Cr)	2017/06/30	<1.0		ug/L	
			Total Cobalt (Co)	2017/06/30	<0.20		ug/L	
			Total Copper (Cu)	2017/06/30	<0.50		ug/L	
			Total Iron (Fe)	2017/06/30	<10		ug/L	
			Total Lead (Pb)	2017/06/30	<0.20		ug/L	
			Total Lithium (Li)	2017/06/30	<2.0		ug/L	
			Total Manganese (Mn)	2017/06/30	<1.0		ug/L	
			Total Molybdenum (Mo)	2017/06/30	<1.0		ug/L	
			Total Nickel (Ni)	2017/06/30	<1.0		ug/L	
			Total Selenium (Se)	2017/06/30	<0.10		ug/L	
			Total Silicon (Si)	2017/06/30	<100		ug/L	
			Total Silver (Ag)	2017/06/30	<0.020		ug/L	
			Total Strontium (Sr)	2017/06/30	<1.0		ug/L	
			Total Thallium (Tl)	2017/06/30	<0.010		ug/L	
			Total Tin (Sn)	2017/06/30	<5.0		ug/L	
			Total Titanium (Ti)	2017/06/30	<5.0		ug/L	
			Total Uranium (U)	2017/06/30	<0.10		ug/L	
			Total Vanadium (V)	2017/06/30	<5.0		ug/L	
			Total Zinc (Zn)	2017/06/30	<5.0		ug/L	
			Total Zirconium (Zr)	2017/06/30	<0.10		ug/L	
8680437	AA1	RPD [RJ7037-03]	Total Aluminum (Al)	2017/06/30	10		%	20
			Total Antimony (Sb)	2017/06/30	NC		%	20
			Total Arsenic (As)	2017/06/30	0.66		%	20
			Total Barium (Ba)	2017/06/30	1.4		%	20
			Total Beryllium (Be)	2017/06/30	NC		%	20
			Total Bismuth (Bi)	2017/06/30	NC		%	20
			Total Boron (B)	2017/06/30	NC		%	20
			Total Cadmium (Cd)	2017/06/30	13		%	20
			Total Chromium (Cr)	2017/06/30	NC		%	20
			Total Cobalt (Co)	2017/06/30	NC		%	20
			Total Copper (Cu)	2017/06/30	0.22		%	20
			Total Iron (Fe)	2017/06/30	2.3		%	20
			Total Lead (Pb)	2017/06/30	NC		%	20
			Total Lithium (Li)	2017/06/30	2.1		%	20
			Total Manganese (Mn)	2017/06/30	1.9		%	20
			Total Molybdenum (Mo)	2017/06/30	0.22		%	20
			Total Nickel (Ni)	2017/06/30	2.0		%	20

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Maxxam Job #: B751882
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Selenium (Se)	2017/06/30	8.5		%	20
			Total Silicon (Si)	2017/06/30	0.24		%	20
			Total Silver (Ag)	2017/06/30	NC		%	20
			Total Strontium (Sr)	2017/06/30	0.019		%	20
			Total Thallium (Tl)	2017/06/30	NC		%	20
			Total Tin (Sn)	2017/06/30	NC		%	20
			Total Titanium (Ti)	2017/06/30	NC		%	20
			Total Uranium (U)	2017/06/30	1.8		%	20
			Total Vanadium (V)	2017/06/30	NC		%	20
			Total Zinc (Zn)	2017/06/30	NC		%	20
			Total Zirconium (Zr)	2017/06/30	NC		%	20
8680741	MM3	Spiked Blank	pH	2017/06/29		102	%	97 - 103
8680741	MM3	Method Blank	pH	2017/06/29	5.70		pH	
8680741	MM3	RPD	pH	2017/06/29	0.13		%	N/A
8680746	MM3	Spiked Blank	Conductivity	2017/06/29		101	%	80 - 120
8680746	MM3	Method Blank	Conductivity	2017/06/29	<1.0		uS/cm	
8680746	MM3	RPD	Conductivity	2017/06/29	1.4		%	20
8680747	MM3	Matrix Spike	Alkalinity (Total as CaCO3)	2017/06/29		NC	%	80 - 120
8680747	MM3	Spiked Blank	Alkalinity (Total as CaCO3)	2017/06/29		99	%	80 - 120
8680747	MM3	Method Blank	Alkalinity (Total as CaCO3)	2017/06/29	<0.50		mg/L	
			Alkalinity (PP as CaCO3)	2017/06/29	<0.50		mg/L	
			Bicarbonate (HCO3)	2017/06/29	<0.50		mg/L	
			Carbonate (CO3)	2017/06/29	<0.50		mg/L	
			Hydroxide (OH)	2017/06/29	<0.50		mg/L	
8681324	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/06/29		104	%	80 - 120
8681324	BB3	Method Blank	Dissolved Chloride (Cl)	2017/06/29	<0.50		mg/L	
8681324	BB3	RPD	Dissolved Chloride (Cl)	2017/06/29	0.88		%	20
8681329	BB3	Matrix Spike	Dissolved Sulphate (SO4)	2017/06/29		116	%	80 - 120
8681329	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/06/29		103	%	80 - 120
8681329	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/06/29	<0.50		mg/L	
8681329	BB3	RPD	Dissolved Sulphate (SO4)	2017/06/29	NC		%	20
8683389	EL2	Matrix Spike	Dissolved Mercury (Hg)	2017/07/04		97	%	80 - 120
8683389	EL2	Spiked Blank	Dissolved Mercury (Hg)	2017/07/04		98	%	80 - 120
8683389	EL2	Method Blank	Dissolved Mercury (Hg)	2017/07/04	<0.010		ug/L	
8683389	EL2	RPD	Dissolved Mercury (Hg)	2017/07/04	NC		%	20
8683566	EL2	Matrix Spike [RJ7037-05]	Total Mercury (Hg)	2017/07/04		101	%	80 - 120
8683566	EL2	Spiked Blank	Total Mercury (Hg)	2017/07/04		101	%	80 - 120
8683566	EL2	Method Blank	Total Mercury (Hg)	2017/07/04	<0.010		ug/L	
8683566	EL2	RPD [RJ7037-05]	Total Mercury (Hg)	2017/07/04	NC		%	20

N/A = Not Applicable

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.

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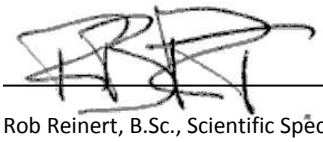
Maxxam Job #: B751882
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

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.

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Maxxam
A Bureau Veritas Group Company

Maxxam Analytics International Corporation o/a Maxxam Analytics
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.maxxam.ca

B751882_COC

Bottle Order #: 527132

C#527132-01-01

Project Manager: Veronica De Guzman

INVOICE TO:		Report Information		Project Information	
Company Name	#12411 AFRICAN QUEEN MINES LTD.	Company Name		Quotation #	B61210
Contact Name	Linda Dandy / JENNIFER TODHUNTER	Contact Name		P.O. #	
Address	1153 56TH STREET BOX 19040	Address		Project #	
	DELTA BC V4L 2P8			Project Name	YJ
Phone	(604) 240-7676 x Fax:	Phone	Fax:	Site #	
Email	lindadandy@telus.net	Email		Sampled By	Linda Dandy

Regulatory Criteria

Special Instructions

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 sampling until delivery to maxxam

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT ✓
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	EC, pH, ALK, F	Cl, SO4, N+N, TURB	TSS	NH4	TOTAL D. PHOS	ORTHOPHOSPHATE	TOTAL METALS W/ CV Hg.	DISSOLVED METALS WITH CV Hg.	# of Bottles	Comments
1		PC-1	June 25/17	3:20 pm		N	Y	✓	✓	✓	✓	✓	✓	✓	✓	8	
2		PC-2	June 25/17	2:40pm		N	Y									8	
3		PC-5	June 25/17	5:00pm		N	Y									8	← NOTE: YELLOW 125ML BOTTLE WAS RINSED & NOT FIELD FILTERED
4		PC-6	JUNE 24/17	430pm		N	Y									8	
5		FIELD BLANK - PC	June 25/17	3:40pm		N	Y									8	
6		DUPLICATE - PC	June 25/17	3:30pm		N	Y	↓	↓	↓	↓	↓	↓	↓	↓	8	RECEIVED IN WHITEHORSE BY: Alyona @ 1200
7																	2017-06-26
8																	8 8 5
9																	TEMP: 6 3 5 / 7 5 4 / 6 3 3
10																	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Linda Dandy	17/06/26	0900	Maxxam Whitehorse	2017/06/27	13:55	

Lab Use Only: Time Sensitive ☐ | Temperature (°C) on Receipt: 5.3 / 4.6 5 | Custody Seal Intact on Cooler? ☑ Yes ☐ No

* UNLESS 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 WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

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Maxxam Analytics International Corporation o/a Maxxam Analytics

APPENDIX IV

AUGUST 2107 PINE CREEK WATER QUALITY SAMPLES
CERTIFICATES OF ANALYSES

Maxxam
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Success Through Science®

Your Project #: YJ
Your C.O.C. #: 532765-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/10/23
Report #: R2464829
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B772731
Received: 2017/08/24, 09:50

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	6	2017/08/28	2017/08/28	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	6	N/A	2017/08/28	BBY6SOP-00011	SM 22 4500-Cl- E m
Conductance - water	6	2017/08/28	2017/08/28	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	6	N/A	2017/08/29	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2017/08/28	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (1)	2	N/A	2017/08/30	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	6	N/A	2017/08/30	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	6	N/A	2017/08/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	6	2017/08/30	2017/08/30	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	6	N/A	2017/08/30	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved)	6	N/A	2017/08/29	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	2017/08/25	2017/08/28	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	2017/08/25	2017/08/30	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total)	4	2017/08/26	2017/08/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by CRC ICPMS (total)	2	2017/08/26	2017/08/29	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	6	N/A	2017/08/31	BBY6SOP-00009	EPA 350.1 m
Nitrate + Nitrite (N)	6	N/A	2017/08/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) by CFA	6	N/A	2017/08/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	6	N/A	2017/08/29	BBY WI-00033	Auto Calc
Filter and HNO3 Preserve for Metals	4	N/A	2017/08/27	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	2	N/A	2017/08/29	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	6	2017/08/28	2017/08/28	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab	6	N/A	2017/08/29	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	4	N/A	2017/08/28	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	2	N/A	2017/08/29	BBY6SOP-00017	SM 22 4500-SO42- E m
Phosphorus-P (Total, dissolved) - FF/FP	6	2017/08/29	2017/08/29	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	6	2017/08/30	2017/08/31	BBY6SOP-00034	SM 22 2540 D
Turbidity	6	N/A	2017/08/28	BBY6SOP-00027	SM 22 2130 B m

Remarks:

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your Project #: YJ
Your C.O.C. #: 532765-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/10/23
Report #: R2464829
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B772731
Received: 2017/08/24, 09:50

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) "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).
(2) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@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.

Maxxam Job #: B772731
Report Date: 2017/10/23

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		RU9676		RU9677		RU9678		RU9679		
Sampling Date		2017/08/23 13:10		2017/08/23 14:30		2017/08/23 15:45		2017/08/23 13:55		
COC Number		532765-01-01		532765-01-01		532765-01-01		532765-01-01		
	UNITS	PC-1	QC Batch	PC-2	QC Batch	PC-5	QC Batch	PC-6	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.710	8742181	0.710	8742181	0.600	8742181	0.720	0.020	8742181
ANIONS										
Nitrite (N)	mg/L	<0.0050	8739685	<0.0050	8739685	<0.0050	8739685	<0.0050	0.0050	8739685
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	8738258	<0.020	8738258	<0.020	8738258	<0.020	0.020	8738258
Misc. Inorganics										
Alkalinity (Total as CaCO3)	mg/L	45.6	8740972	49.4	8740972	67.2	8740972	46.3	1.0	8740972
Alkalinity (PP as CaCO3)	mg/L	<1.0	8740972	<1.0	8740972	<1.0	8740972	<1.0	1.0	8740972
Bicarbonate (HCO3)	mg/L	55.6	8740972	60.3	8740972	82.0	8740972	56.5	1.0	8740972
Carbonate (CO3)	mg/L	<1.0	8740972	<1.0	8740972	<1.0	8740972	<1.0	1.0	8740972
Hydroxide (OH)	mg/L	<1.0	8740972	<1.0	8740972	<1.0	8740972	<1.0	1.0	8740972
Anions										
Dissolved Sulphate (SO4)	mg/L	4.7	8742363	4.9	8741076	6.8	8741079	4.7	1.0	8741076
Dissolved Chloride (Cl)	mg/L	<1.0	8741077	<1.0	8741075	<1.0	8741077	<1.0	1.0	8741075
Nutrients										
Orthophosphate (P)	mg/L	<0.0050	8742303	<0.0050	8742303	<0.0050	8742303	<0.0050	0.0050	8742303
Dissolved Phosphorus (P)	mg/L	<0.0050	8742359	<0.0050	8742359	<0.0050	8742359	<0.0050	0.0050	8742359
Total Ammonia (N)	mg/L	<0.020	8744949	<0.020	8744949	<0.020	8744949	<0.020	0.020	8744949
Nitrate plus Nitrite (N)	mg/L	<0.020	8739684	<0.020	8739684	<0.020	8739684	<0.020	0.020	8739684
Physical Properties										
Conductivity	uS/cm	102	8740974	106	8740974	141	8740974	104	2.0	8740974
pH	pH	7.88	8740973	7.89	8740973	8.04	8740973	7.89		8740973
Physical Properties										
Total Suspended Solids	mg/L	<4.0	8743294	<4.0	8743294	<4.0	8743294	<4.0	4.0	8743294
Turbidity	NTU	0.50	8740682	0.51	8740682	0.93	8740682	0.61	0.10	8740682

RDL = Reportable Detection Limit

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Maxxam Job #: B772731
Report Date: 2017/10/23

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		RU9680		RU9681		
Sampling Date		2017/08/23 12:45		2017/08/23 13:20		
COC Number		532765-01-01		532765-01-01		
	UNITS	FIELD BLANK	QC Batch	DUPLICATE	RDL	QC Batch
Misc. Inorganics						
Fluoride (F)	mg/L	<0.020	8742181	0.710	0.020	8742181
ANIONS						
Nitrite (N)	mg/L	<0.0050	8739685	<0.0050	0.0050	8739685
Calculated Parameters						
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	8738258	<0.020	0.020	8738258
Misc. Inorganics						
Alkalinity (Total as CaCO3)	mg/L	<1.0	8740972	47.5	1.0	8740977
Alkalinity (PP as CaCO3)	mg/L	<1.0	8740972	<1.0	1.0	8740977
Bicarbonate (HCO3)	mg/L	<1.0	8740972	58.0	1.0	8740977
Carbonate (CO3)	mg/L	<1.0	8740972	<1.0	1.0	8740977
Hydroxide (OH)	mg/L	<1.0	8740972	<1.0	1.0	8740977
Anions						
Dissolved Sulphate (SO4)	mg/L	<1.0	8741076	4.7	1.0	8742363
Dissolved Chloride (Cl)	mg/L	<1.0	8741075	<1.0	1.0	8741077
Nutrients						
Orthophosphate (P)	mg/L	<0.0050	8742303	<0.0050	0.0050	8742303
Dissolved Phosphorus (P)	mg/L	<0.0050	8742359	<0.0050	0.0050	8742359
Total Ammonia (N)	mg/L	<0.020	8744949	<0.020	0.020	8744949
Nitrate plus Nitrite (N)	mg/L	<0.020	8739684	<0.020	0.020	8739684
Physical Properties						
Conductivity	uS/cm	<2.0	8740974	105	2.0	8740982
pH	pH	5.75	8740973	7.91		8740981
Physical Properties						
Total Suspended Solids	mg/L	<4.0	8743294	<4.0	4.0	8743294
Turbidity	NTU	<0.10	8740682	0.58	0.10	8740682
RDL = Reportable Detection Limit						

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Report Date: 2017/10/23

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Client Project #: YJ
Sampler Initials: LD

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		RU9676	RU9677	RU9678	RU9679	RU9680		
Sampling Date		2017/08/23 13:10	2017/08/23 14:30	2017/08/23 15:45	2017/08/23 13:55	2017/08/23 12:45		
COC Number		532765-01-01	532765-01-01	532765-01-01	532765-01-01	532765-01-01		
	UNITS	PC-1	PC-2	PC-5	PC-6	FIELD BLANK	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	51.8	53.3	70.1	48.7	<0.50	0.50	8738935
Elements								
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8742496
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	ug/L	3.8	3.7	<3.0	4.1	<3.0	3.0	8740563
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8740563
Dissolved Arsenic (As)	ug/L	0.56	0.57	0.47	0.57	<0.10	0.10	8740563
Dissolved Barium (Ba)	ug/L	13.4	13.9	17.5	13.3	<1.0	1.0	8740563
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8740563
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8740563
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	50	8740563
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8740563
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8740563
Dissolved Cobalt (Co)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8740563
Dissolved Copper (Cu)	ug/L	0.44	0.46	0.43	0.48	<0.20	0.20	8740563
Dissolved Iron (Fe)	ug/L	8.6	6.7	6.4	7.8	<5.0	5.0	8740563
Dissolved Lead (Pb)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8740563
Dissolved Lithium (Li)	ug/L	2.3	2.4	<2.0	2.3	<2.0	2.0	8740563
Dissolved Manganese (Mn)	ug/L	2.1	1.8	1.4	1.9	<1.0	1.0	8740563
Dissolved Molybdenum (Mo)	ug/L	2.8	2.7	2.4	2.6	<1.0	1.0	8740563
Dissolved Nickel (Ni)	ug/L	1.7	1.7	1.8	1.6	<1.0	1.0	8740563
Dissolved Selenium (Se)	ug/L	<0.10	<0.10	<0.10	0.10	<0.10	0.10	8740563
Dissolved Silicon (Si)	ug/L	4090	3830	4050	3740	<100	100	8740563
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8740563
Dissolved Strontium (Sr)	ug/L	34.6	34.7	45.2	33.8	<1.0	1.0	8740563
Dissolved Thallium (Tl)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8740563
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8740563
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8740563
Dissolved Uranium (U)	ug/L	2.48	2.39	1.94	2.38	<0.10	0.10	8740563
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8740563
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8740563
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8740563
RDL = Reportable Detection Limit								

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AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		RU9676	RU9677	RU9678	RU9679	RU9680		
Sampling Date		2017/08/23 13:10	2017/08/23 14:30	2017/08/23 15:45	2017/08/23 13:55	2017/08/23 12:45		
COC Number		532765-01-01	532765-01-01	532765-01-01	532765-01-01	532765-01-01		
	UNITS	**PC-1**	**PC-2**	**PC-5**	**PC-6**	**FIELD BLANK**	**RDL**	**QC Batch**
Dissolved Calcium (Ca)	mg/L	12.9	12.5	16.6	11.6	<0.050	0.050	8738121
Dissolved Magnesium (Mg)	mg/L	4.75	5.39	6.96	4.81	<0.050	0.050	8738121
Dissolved Potassium (K)	mg/L	0.675	0.696	0.683	0.665	<0.050	0.050	8738121
Dissolved Sodium (Na)	mg/L	1.88	1.96	1.87	1.91	<0.050	0.050	8738121
Dissolved Sulphur (S)	mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	3.0	8738121
RDL = Reportable Detection Limit								

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Maxxam Job #: B772731
Report Date: 2017/10/23

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		RU9681		
Sampling Date		2017/08/23 13:20		
COC Number		532765-01-01		
	UNITS	DUPLICATE	RDL	QC Batch
Misc. Inorganics				
Dissolved Hardness (CaCO3)	mg/L	50.1	0.50	8738935
Elements				
Dissolved Mercury (Hg)	ug/L	<0.010	0.010	8742603
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	ug/L	4.0	3.0	8740563
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	8740563
Dissolved Arsenic (As)	ug/L	0.56	0.10	8740563
Dissolved Barium (Ba)	ug/L	13.5	1.0	8740563
Dissolved Beryllium (Be)	ug/L	<0.10	0.10	8740563
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	8740563
Dissolved Boron (B)	ug/L	<50	50	8740563
Dissolved Cadmium (Cd)	ug/L	<0.010	0.010	8740563
Dissolved Chromium (Cr)	ug/L	<1.0	1.0	8740563
Dissolved Cobalt (Co)	ug/L	<0.20	0.20	8740563
Dissolved Copper (Cu)	ug/L	0.44	0.20	8740563
Dissolved Iron (Fe)	ug/L	6.7	5.0	8740563
Dissolved Lead (Pb)	ug/L	<0.20	0.20	8740563
Dissolved Lithium (Li)	ug/L	2.3	2.0	8740563
Dissolved Manganese (Mn)	ug/L	2.0	1.0	8740563
Dissolved Molybdenum (Mo)	ug/L	2.7	1.0	8740563
Dissolved Nickel (Ni)	ug/L	1.6	1.0	8740563
Dissolved Selenium (Se)	ug/L	<0.10	0.10	8740563
Dissolved Silicon (Si)	ug/L	3780	100	8740563
Dissolved Silver (Ag)	ug/L	<0.020	0.020	8740563
Dissolved Strontium (Sr)	ug/L	33.8	1.0	8740563
Dissolved Thallium (Tl)	ug/L	<0.010	0.010	8740563
Dissolved Tin (Sn)	ug/L	<5.0	5.0	8740563
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	8740563
Dissolved Uranium (U)	ug/L	2.45	0.10	8740563
Dissolved Vanadium (V)	ug/L	<5.0	5.0	8740563
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	8740563
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	8740563
RDL = Reportable Detection Limit				

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AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		RU9681		
Sampling Date		2017/08/23 13:20		
COC Number		532765-01-01		
	UNITS	DUPLICATE	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L	11.6	0.050	8738121
Dissolved Magnesium (Mg)	mg/L	5.10	0.050	8738121
Dissolved Potassium (K)	mg/L	0.684	0.050	8738121
Dissolved Sodium (Na)	mg/L	1.91	0.050	8738121
Dissolved Sulphur (S)	mg/L	<3.0	3.0	8738121
RDL = Reportable Detection Limit				

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Maxxam Job #: B772731
Report Date: 2017/10/23

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR TOTAL METALS IN WATER WITH CV HG (WATER)

Maxxam ID		RU9676	RU9677		RU9678	RU9679		RU9680		
Sampling Date		2017/08/23 13:10	2017/08/23 14:30		2017/08/23 15:45	2017/08/23 13:55		2017/08/23 12:45		
COC Number		532765-01-01	532765-01-01		532765-01-01	532765-01-01		532765-01-01		
	UNITS	PC-1	PC-2	QC Batch	PC-5	PC-6	QC Batch	FIELD BLANK	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	48.7	51.6	8738933	70.1	51.8	8738933	<0.50	0.50	8738933
Elements										
Total Mercury (Hg)	ug/L	<0.010	<0.010	8742477	<0.010	<0.010	8742604	<0.010	0.010	8742604
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	22.5	24.8	8739611	77.3	35.1	8739503	<3.0	3.0	8739611
Total Antimony (Sb)	ug/L	<0.50	<0.50	8739611	<0.50	<0.50	8739503	<0.50	0.50	8739611
Total Arsenic (As)	ug/L	0.61	0.63	8739611	0.54	0.67	8739503	<0.10	0.10	8739611
Total Barium (Ba)	ug/L	13.4	13.6	8739611	18.7	13.6	8739503	<1.0	1.0	8739611
Total Beryllium (Be)	ug/L	<0.10	<0.10	8739611	<0.10	<0.10	8739503	<0.10	0.10	8739611
Total Bismuth (Bi)	ug/L	<1.0	<1.0	8739611	<1.0	<1.0	8739503	<1.0	1.0	8739611
Total Boron (B)	ug/L	<50	<50	8739611	<50	<50	8739503	<50	50	8739611
Total Cadmium (Cd)	ug/L	<0.010	<0.010	8739611	<0.010	<0.010	8739503	<0.010	0.010	8739611
Total Chromium (Cr)	ug/L	<1.0	<1.0	8739611	<1.0	<1.0	8739503	<1.0	1.0	8739611
Total Cobalt (Co)	ug/L	<0.20	<0.20	8739611	<0.20	<0.20	8739503	<0.20	0.20	8739611
Total Copper (Cu)	ug/L	0.59	0.52	8739611	0.75	0.62	8739503	<0.50	0.50	8739611
Total Iron (Fe)	ug/L	47	48	8739611	123	71	8739503	<10	10	8739611
Total Lead (Pb)	ug/L	<0.20	<0.20	8739611	<0.20	<0.20	8739503	<0.20	0.20	8739611
Total Lithium (Li)	ug/L	2.4	2.4	8739611	2.0	2.3	8739503	<2.0	2.0	8739611
Total Manganese (Mn)	ug/L	3.7	3.7	8739611	6.4	3.9	8739503	<1.0	1.0	8739611
Total Molybdenum (Mo)	ug/L	2.6	2.6	8739611	2.3	2.7	8739503	<1.0	1.0	8739611
Total Nickel (Ni)	ug/L	2.0	2.1	8739611	3.1	2.5	8739503	<1.0	1.0	8739611
Total Selenium (Se)	ug/L	<0.10	<0.10	8739611	0.11	<0.10	8739503	<0.10	0.10	8739611
Total Silicon (Si)	ug/L	3910	4050	8739611	4080	3990	8739503	<100	100	8739611
Total Silver (Ag)	ug/L	<0.020	<0.020	8739611	<0.020	<0.020	8739503	<0.020	0.020	8739611
Total Strontium (Sr)	ug/L	32.8	34.1	8739611	46.2	34.5	8739503	<1.0	1.0	8739611
Total Thallium (Tl)	ug/L	<0.010	<0.010	8739611	<0.010	<0.010	8739503	<0.010	0.010	8739611
Total Tin (Sn)	ug/L	<5.0	<5.0	8739611	<5.0	<5.0	8739503	<5.0	5.0	8739611
Total Titanium (Ti)	ug/L	<5.0	<5.0	8739611	<5.0	<5.0	8739503	<5.0	5.0	8739611
Total Uranium (U)	ug/L	2.39	2.38	8739611	1.91	2.43	8739503	<0.10	0.10	8739611
Total Vanadium (V)	ug/L	<5.0	<5.0	8739611	<5.0	<5.0	8739503	<5.0	5.0	8739611
Total Zinc (Zn)	ug/L	<5.0	<5.0	8739611	<5.0	<5.0	8739503	<5.0	5.0	8739611
Total Zirconium (Zr)	ug/L	<0.10	<0.10	8739611	<0.10	<0.10	8739503	<0.10	0.10	8739611

RDL = Reportable Detection Limit

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Maxxam Job #: B772731
Report Date: 2017/10/23

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR TOTAL METALS IN WATER WITH CV HG (WATER)

Maxxam ID		RU9676	RU9677		RU9678	RU9679		RU9680		
Sampling Date		2017/08/23 13:10	2017/08/23 14:30		2017/08/23 15:45	2017/08/23 13:55		2017/08/23 12:45		
COC Number		532765-01-01	532765-01-01		532765-01-01	532765-01-01		532765-01-01		
	UNITS	PC-1	PC-2	QC Batch	PC-5	PC-6	QC Batch	FIELD BLANK	RDL	QC Batch
Total Calcium (Ca)	mg/L	11.7	12.4	8738122	16.4	12.1	8738122	<0.050	0.050	8738122
Total Magnesium (Mg)	mg/L	4.72	4.99	8738122	7.06	5.23	8738122	<0.050	0.050	8738122
Total Potassium (K)	mg/L	0.671	0.677	8738122	0.694	0.716	8738122	<0.050	0.050	8738122
Total Sodium (Na)	mg/L	1.80	1.84	8738122	1.78	1.98	8738122	<0.050	0.050	8738122
Total Sulphur (S)	mg/L	<3.0	<3.0	8738122	<3.0	<3.0	8738122	<3.0	3.0	8738122
RDL = Reportable Detection Limit										

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Maxxam Job #: B772731
Report Date: 2017/10/23

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR TOTAL METALS IN WATER WITH CV HG (WATER)

Maxxam ID		RU9681		
Sampling Date		2017/08/23 13:20		
COC Number		532765-01-01		
	UNITS	DUPLICATE	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	48.0	0.50	8738933
Elements				
Total Mercury (Hg)	ug/L	<0.010	0.010	8742604
Total Metals by ICPMS				
Total Aluminum (Al)	ug/L	23.7	3.0	8739611
Total Antimony (Sb)	ug/L	<0.50	0.50	8739611
Total Arsenic (As)	ug/L	0.60	0.10	8739611
Total Barium (Ba)	ug/L	13.1	1.0	8739611
Total Beryllium (Be)	ug/L	<0.10	0.10	8739611
Total Bismuth (Bi)	ug/L	<1.0	1.0	8739611
Total Boron (B)	ug/L	<50	50	8739611
Total Cadmium (Cd)	ug/L	<0.010	0.010	8739611
Total Chromium (Cr)	ug/L	<1.0	1.0	8739611
Total Cobalt (Co)	ug/L	<0.20	0.20	8739611
Total Copper (Cu)	ug/L	0.51	0.50	8739611
Total Iron (Fe)	ug/L	47	10	8739611
Total Lead (Pb)	ug/L	<0.20	0.20	8739611
Total Lithium (Li)	ug/L	2.4	2.0	8739611
Total Manganese (Mn)	ug/L	3.9	1.0	8739611
Total Molybdenum (Mo)	ug/L	2.7	1.0	8739611
Total Nickel (Ni)	ug/L	2.0	1.0	8739611
Total Selenium (Se)	ug/L	<0.10	0.10	8739611
Total Silicon (Si)	ug/L	3790	100	8739611
Total Silver (Ag)	ug/L	<0.020	0.020	8739611
Total Strontium (Sr)	ug/L	33.2	1.0	8739611
Total Thallium (Tl)	ug/L	<0.010	0.010	8739611
Total Tin (Sn)	ug/L	<5.0	5.0	8739611
Total Titanium (Ti)	ug/L	<5.0	5.0	8739611
Total Uranium (U)	ug/L	2.41	0.10	8739611
Total Vanadium (V)	ug/L	<5.0	5.0	8739611
Total Zinc (Zn)	ug/L	<5.0	5.0	8739611
Total Zirconium (Zr)	ug/L	<0.10	0.10	8739611
RDL = Reportable Detection Limit				

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CSR TOTAL METALS IN WATER WITH CV HG (WATER)

Maxxam ID		RU9681		
Sampling Date		2017/08/23 13:20		
COC Number		532765-01-01		
	UNITS	**DUPLICATE**	**RDL**	**QC Batch**
Total Calcium (Ca)	mg/L	11.4	0.050	8738122
Total Magnesium (Mg)	mg/L	4.74	0.050	8738122
Total Potassium (K)	mg/L	0.668	0.050	8738122
Total Sodium (Na)	mg/L	1.81	0.050	8738122
Total Sulphur (S)	mg/L	<3.0	3.0	8738122
RDL = Reportable Detection Limit				

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GENERAL COMMENTS

Sample RU9676 [PC-1] : Sample was analyzed past method specified hold time for Turbidity. {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 Orthophosphate by Konelab.

Sample RU9677 [PC-2] : Sample was analyzed past method specified hold time for Turbidity. {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 Orthophosphate by Konelab.

Sample RU9678 [PC-5] : Sample was analyzed past method specified hold time for Turbidity. {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 Orthophosphate by Konelab.

Sample RU9679 [PC-6] : Sample was analyzed past method specified hold time for Turbidity. {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 Orthophosphate by Konelab.

Sample RU9680 [FIELD BLANK] : Sample was analyzed past method specified hold time for Turbidity. {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 Orthophosphate by Konelab.

Sample RU9681 [DUPLICATE] : Sample was analyzed past method specified hold time for Turbidity. {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 Orthophosphate by Konelab.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8739503	JC8	Matrix Spike [RU9678-03]	Total Aluminum (Al)	2017/08/29		105	%	80 - 120
			Total Antimony (Sb)	2017/08/29		99	%	80 - 120
			Total Arsenic (As)	2017/08/29		105	%	80 - 120
			Total Barium (Ba)	2017/08/29		NC	%	80 - 120
			Total Beryllium (Be)	2017/08/29		107	%	80 - 120
			Total Bismuth (Bi)	2017/08/29		93	%	80 - 120
			Total Boron (B)	2017/08/29		105	%	80 - 120
			Total Cadmium (Cd)	2017/08/29		101	%	80 - 120
			Total Chromium (Cr)	2017/08/29		97	%	80 - 120
			Total Cobalt (Co)	2017/08/29		96	%	80 - 120
			Total Copper (Cu)	2017/08/29		95	%	80 - 120
			Total Iron (Fe)	2017/08/29		NC	%	80 - 120
			Total Lead (Pb)	2017/08/29		98	%	80 - 120
			Total Lithium (Li)	2017/08/29		96	%	80 - 120
			Total Manganese (Mn)	2017/08/29		86	%	80 - 120
			Total Molybdenum (Mo)	2017/08/29		NC	%	80 - 120
			Total Nickel (Ni)	2017/08/29		91	%	80 - 120
			Total Selenium (Se)	2017/08/29		98	%	80 - 120
			Total Silver (Ag)	2017/08/29		106	%	80 - 120
			Total Strontium (Sr)	2017/08/29		NC	%	80 - 120
			Total Thallium (Tl)	2017/08/29		98	%	80 - 120
			Total Tin (Sn)	2017/08/29		96	%	80 - 120
			Total Titanium (Ti)	2017/08/29		93	%	80 - 120
			Total Uranium (U)	2017/08/29		96	%	80 - 120
			Total Vanadium (V)	2017/08/29		94	%	80 - 120
			Total Zinc (Zn)	2017/08/29		96	%	80 - 120
8739503	JC8	Spiked Blank	Total Aluminum (Al)	2017/08/29		114	%	80 - 120
			Total Antimony (Sb)	2017/08/29		103	%	80 - 120
			Total Arsenic (As)	2017/08/29		106	%	80 - 120
			Total Barium (Ba)	2017/08/29		99	%	80 - 120
			Total Beryllium (Be)	2017/08/29		100	%	80 - 120
			Total Bismuth (Bi)	2017/08/29		98	%	80 - 120
			Total Boron (B)	2017/08/29		95	%	80 - 120
			Total Cadmium (Cd)	2017/08/29		102	%	80 - 120
			Total Chromium (Cr)	2017/08/29		98	%	80 - 120
			Total Cobalt (Co)	2017/08/29		98	%	80 - 120
			Total Copper (Cu)	2017/08/29		98	%	80 - 120
			Total Iron (Fe)	2017/08/29		103	%	80 - 120
			Total Lead (Pb)	2017/08/29		98	%	80 - 120
			Total Lithium (Li)	2017/08/29		94	%	80 - 120
			Total Manganese (Mn)	2017/08/29		94	%	80 - 120
			Total Molybdenum (Mo)	2017/08/29		102	%	80 - 120
			Total Nickel (Ni)	2017/08/29		97	%	80 - 120
			Total Selenium (Se)	2017/08/29		108	%	80 - 120
			Total Silver (Ag)	2017/08/29		105	%	80 - 120
			Total Strontium (Sr)	2017/08/29		102	%	80 - 120
			Total Thallium (Tl)	2017/08/29		97	%	80 - 120
			Total Tin (Sn)	2017/08/29		102	%	80 - 120
			Total Titanium (Ti)	2017/08/29		95	%	80 - 120
			Total Uranium (U)	2017/08/29		95	%	80 - 120
			Total Vanadium (V)	2017/08/29		93	%	80 - 120
			Total Zinc (Zn)	2017/08/29		102	%	80 - 120
8739503	JC8	Method Blank	Total Aluminum (Al)	2017/08/29	<3.0		ug/L	
			Total Antimony (Sb)	2017/08/29	<0.50		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Arsenic (As)	2017/08/29	<0.10		ug/L	
			Total Barium (Ba)	2017/08/29	<1.0		ug/L	
			Total Beryllium (Be)	2017/08/29	<0.10		ug/L	
			Total Bismuth (Bi)	2017/08/29	<1.0		ug/L	
			Total Boron (B)	2017/08/29	<50		ug/L	
			Total Cadmium (Cd)	2017/08/29	<0.010		ug/L	
			Total Chromium (Cr)	2017/08/29	<1.0		ug/L	
			Total Cobalt (Co)	2017/08/29	<0.20		ug/L	
			Total Copper (Cu)	2017/08/29	<0.50		ug/L	
			Total Iron (Fe)	2017/08/29	<10		ug/L	
			Total Lead (Pb)	2017/08/29	<0.20		ug/L	
			Total Lithium (Li)	2017/08/29	<2.0		ug/L	
			Total Manganese (Mn)	2017/08/29	<1.0		ug/L	
			Total Molybdenum (Mo)	2017/08/29	<1.0		ug/L	
			Total Nickel (Ni)	2017/08/29	<1.0		ug/L	
			Total Selenium (Se)	2017/08/29	<0.10		ug/L	
			Total Silicon (Si)	2017/08/29	<100		ug/L	
			Total Silver (Ag)	2017/08/29	<0.020		ug/L	
			Total Strontium (Sr)	2017/08/29	<1.0		ug/L	
			Total Thallium (Tl)	2017/08/29	<0.010		ug/L	
			Total Tin (Sn)	2017/08/29	<5.0		ug/L	
			Total Titanium (Ti)	2017/08/29	<5.0		ug/L	
			Total Uranium (U)	2017/08/29	<0.10		ug/L	
			Total Vanadium (V)	2017/08/29	<5.0		ug/L	
			Total Zinc (Zn)	2017/08/29	<5.0		ug/L	
			Total Zirconium (Zr)	2017/08/29	<0.10		ug/L	
8739503	JC8	RPD [RU9678-03]	Total Aluminum (Al)	2017/08/29	9.3		%	20
			Total Antimony (Sb)	2017/08/29	NC		%	20
			Total Arsenic (As)	2017/08/29	5.2		%	20
			Total Barium (Ba)	2017/08/29	4.6		%	20
			Total Beryllium (Be)	2017/08/29	NC		%	20
			Total Bismuth (Bi)	2017/08/29	NC		%	20
			Total Boron (B)	2017/08/29	NC		%	20
			Total Cadmium (Cd)	2017/08/29	NC		%	20
			Total Chromium (Cr)	2017/08/29	NC		%	20
			Total Cobalt (Co)	2017/08/29	NC		%	20
			Total Copper (Cu)	2017/08/29	3.1		%	20
			Total Iron (Fe)	2017/08/29	11		%	20
			Total Lead (Pb)	2017/08/29	NC		%	20
			Total Lithium (Li)	2017/08/29	0.15		%	20
			Total Manganese (Mn)	2017/08/29	2.4		%	20
			Total Molybdenum (Mo)	2017/08/29	4.8		%	20
			Total Nickel (Ni)	2017/08/29	2.7		%	20
			Total Selenium (Se)	2017/08/29	6.8		%	20
			Total Silicon (Si)	2017/08/29	12		%	20
			Total Silver (Ag)	2017/08/29	NC		%	20
			Total Strontium (Sr)	2017/08/29	2.1		%	20
			Total Thallium (Tl)	2017/08/29	NC		%	20
			Total Tin (Sn)	2017/08/29	NC		%	20
			Total Titanium (Ti)	2017/08/29	NC		%	20
			Total Uranium (U)	2017/08/29	5.5		%	20
			Total Vanadium (V)	2017/08/29	NC		%	20
			Total Zinc (Zn)	2017/08/29	NC		%	20
			Total Zirconium (Zr)	2017/08/29	NC		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8739611	JLP	Matrix Spike [RU9676-03]	Total Aluminum (Al)	2017/08/27		108	%	80 - 120
			Total Antimony (Sb)	2017/08/27		100	%	80 - 120
			Total Arsenic (As)	2017/08/27		102	%	80 - 120
			Total Barium (Ba)	2017/08/27		NC	%	80 - 120
			Total Beryllium (Be)	2017/08/27		103	%	80 - 120
			Total Bismuth (Bi)	2017/08/27		101	%	80 - 120
			Total Boron (B)	2017/08/27		102	%	80 - 120
			Total Cadmium (Cd)	2017/08/27		102	%	80 - 120
			Total Chromium (Cr)	2017/08/27		93	%	80 - 120
			Total Cobalt (Co)	2017/08/27		90	%	80 - 120
			Total Copper (Cu)	2017/08/27		89	%	80 - 120
			Total Iron (Fe)	2017/08/27		100	%	80 - 120
			Total Lead (Pb)	2017/08/27		98	%	80 - 120
			Total Lithium (Li)	2017/08/27		100	%	80 - 120
			Total Manganese (Mn)	2017/08/27		98	%	80 - 120
			Total Molybdenum (Mo)	2017/08/27		NC	%	80 - 120
			Total Nickel (Ni)	2017/08/27		89	%	80 - 120
			Total Selenium (Se)	2017/08/27		103	%	80 - 120
			Total Silver (Ag)	2017/08/27		108	%	80 - 120
			Total Strontium (Sr)	2017/08/27		NC	%	80 - 120
			Total Thallium (Tl)	2017/08/27		100	%	80 - 120
			Total Tin (Sn)	2017/08/27		97	%	80 - 120
			Total Titanium (Ti)	2017/08/27		103	%	80 - 120
			Total Uranium (U)	2017/08/27		99	%	80 - 120
			Total Vanadium (V)	2017/08/27		93	%	80 - 120
			Total Zinc (Zn)	2017/08/27		97	%	80 - 120
8739611	JLP	Spiked Blank	Total Aluminum (Al)	2017/08/27		107	%	80 - 120
			Total Antimony (Sb)	2017/08/27		97	%	80 - 120
			Total Arsenic (As)	2017/08/27		99	%	80 - 120
			Total Barium (Ba)	2017/08/27		100	%	80 - 120
			Total Beryllium (Be)	2017/08/27		96	%	80 - 120
			Total Bismuth (Bi)	2017/08/27		99	%	80 - 120
			Total Boron (B)	2017/08/27		101	%	80 - 120
			Total Cadmium (Cd)	2017/08/27		97	%	80 - 120
			Total Chromium (Cr)	2017/08/27		91	%	80 - 120
			Total Cobalt (Co)	2017/08/27		91	%	80 - 120
			Total Copper (Cu)	2017/08/27		90	%	80 - 120
			Total Iron (Fe)	2017/08/27		106	%	80 - 120
			Total Lead (Pb)	2017/08/27		97	%	80 - 120
			Total Lithium (Li)	2017/08/27		97	%	80 - 120
			Total Manganese (Mn)	2017/08/27		98	%	80 - 120
			Total Molybdenum (Mo)	2017/08/27		101	%	80 - 120
			Total Nickel (Ni)	2017/08/27		92	%	80 - 120
			Total Selenium (Se)	2017/08/27		98	%	80 - 120
			Total Silver (Ag)	2017/08/27		104	%	80 - 120
			Total Strontium (Sr)	2017/08/27		95	%	80 - 120
			Total Thallium (Tl)	2017/08/27		98	%	80 - 120
			Total Tin (Sn)	2017/08/27		95	%	80 - 120
			Total Titanium (Ti)	2017/08/27		93	%	80 - 120
			Total Uranium (U)	2017/08/27		96	%	80 - 120
			Total Vanadium (V)	2017/08/27		92	%	80 - 120
			Total Zinc (Zn)	2017/08/27		95	%	80 - 120
8739611	JLP	Method Blank	Total Aluminum (Al)	2017/08/27	<3.0		ug/L	
			Total Antimony (Sb)	2017/08/27	<0.50		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Arsenic (As)	2017/08/27	<0.10		ug/L	
			Total Barium (Ba)	2017/08/27	<1.0		ug/L	
			Total Beryllium (Be)	2017/08/27	<0.10		ug/L	
			Total Bismuth (Bi)	2017/08/27	<1.0		ug/L	
			Total Boron (B)	2017/08/27	<50		ug/L	
			Total Cadmium (Cd)	2017/08/27	<0.010		ug/L	
			Total Chromium (Cr)	2017/08/27	<1.0		ug/L	
			Total Cobalt (Co)	2017/08/27	<0.20		ug/L	
			Total Copper (Cu)	2017/08/27	<0.50		ug/L	
			Total Iron (Fe)	2017/08/27	<10		ug/L	
			Total Lead (Pb)	2017/08/27	<0.20		ug/L	
			Total Lithium (Li)	2017/08/27	<2.0		ug/L	
			Total Manganese (Mn)	2017/08/27	<1.0		ug/L	
			Total Molybdenum (Mo)	2017/08/27	<1.0		ug/L	
			Total Nickel (Ni)	2017/08/27	<1.0		ug/L	
			Total Selenium (Se)	2017/08/27	<0.10		ug/L	
			Total Silicon (Si)	2017/08/27	<100		ug/L	
			Total Silver (Ag)	2017/08/27	<0.020		ug/L	
			Total Strontium (Sr)	2017/08/27	<1.0		ug/L	
			Total Thallium (Tl)	2017/08/27	<0.010		ug/L	
			Total Tin (Sn)	2017/08/27	<5.0		ug/L	
			Total Titanium (Ti)	2017/08/27	<5.0		ug/L	
			Total Uranium (U)	2017/08/27	<0.10		ug/L	
			Total Vanadium (V)	2017/08/27	<5.0		ug/L	
			Total Zinc (Zn)	2017/08/27	<5.0		ug/L	
			Total Zirconium (Zr)	2017/08/27	<0.10		ug/L	
8739611	JLP	RPD [RU9676-03]	Total Aluminum (Al)	2017/08/27	2.3		%	20
			Total Antimony (Sb)	2017/08/27	NC		%	20
			Total Arsenic (As)	2017/08/27	0.66		%	20
			Total Barium (Ba)	2017/08/27	1.2		%	20
			Total Beryllium (Be)	2017/08/27	NC		%	20
			Total Bismuth (Bi)	2017/08/27	NC		%	20
			Total Boron (B)	2017/08/27	NC		%	20
			Total Cadmium (Cd)	2017/08/27	NC		%	20
			Total Chromium (Cr)	2017/08/27	NC		%	20
			Total Cobalt (Co)	2017/08/27	NC		%	20
			Total Copper (Cu)	2017/08/27	4.5		%	20
			Total Iron (Fe)	2017/08/27	4.3		%	20
			Total Lead (Pb)	2017/08/27	NC		%	20
			Total Lithium (Li)	2017/08/27	0.43		%	20
			Total Manganese (Mn)	2017/08/27	0.35		%	20
			Total Molybdenum (Mo)	2017/08/27	2.8		%	20
			Total Nickel (Ni)	2017/08/27	0.56		%	20
			Total Selenium (Se)	2017/08/27	NC		%	20
			Total Silicon (Si)	2017/08/27	0.71		%	20
			Total Silver (Ag)	2017/08/27	NC		%	20
			Total Strontium (Sr)	2017/08/27	1.7		%	20
			Total Thallium (Tl)	2017/08/27	NC		%	20
			Total Tin (Sn)	2017/08/27	NC		%	20
			Total Titanium (Ti)	2017/08/27	NC		%	20
			Total Uranium (U)	2017/08/27	1.5		%	20
			Total Vanadium (V)	2017/08/27	NC		%	20
			Total Zinc (Zn)	2017/08/27	NC		%	20
			Total Zirconium (Zr)	2017/08/27	NC		%	20

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QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8739684	IW1	Matrix Spike	Nitrate plus Nitrite (N)	2017/08/26		NC	%	80 - 120
8739684	IW1	Spiked Blank	Nitrate plus Nitrite (N)	2017/08/26		105	%	80 - 120
8739684	IW1	Method Blank	Nitrate plus Nitrite (N)	2017/08/26	<0.020		mg/L	
8739684	IW1	RPD	Nitrate plus Nitrite (N)	2017/08/26	4.8		%	25
8739685	IW1	Matrix Spike	Nitrite (N)	2017/08/26		98	%	80 - 120
8739685	IW1	Spiked Blank	Nitrite (N)	2017/08/26		98	%	80 - 120
8739685	IW1	Method Blank	Nitrite (N)	2017/08/26	<0.0050		mg/L	
8739685	IW1	RPD	Nitrite (N)	2017/08/26	NC		%	20
8740563	JC8	Matrix Spike	Dissolved Aluminum (Al)	2017/08/29		112	%	80 - 120
			Dissolved Antimony (Sb)	2017/08/29		103	%	80 - 120
			Dissolved Arsenic (As)	2017/08/29		111	%	80 - 120
			Dissolved Barium (Ba)	2017/08/29		NC	%	80 - 120
			Dissolved Beryllium (Be)	2017/08/29		99	%	80 - 120
			Dissolved Bismuth (Bi)	2017/08/29		96	%	80 - 120
			Dissolved Boron (B)	2017/08/29		104	%	80 - 120
			Dissolved Cadmium (Cd)	2017/08/29		99	%	80 - 120
			Dissolved Chromium (Cr)	2017/08/29		97	%	80 - 120
			Dissolved Cobalt (Co)	2017/08/29		98	%	80 - 120
			Dissolved Copper (Cu)	2017/08/29		95	%	80 - 120
			Dissolved Iron (Fe)	2017/08/29		103	%	80 - 120
			Dissolved Lead (Pb)	2017/08/29		99	%	80 - 120
			Dissolved Lithium (Li)	2017/08/29		94	%	80 - 120
			Dissolved Manganese (Mn)	2017/08/29		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/08/29		107	%	80 - 120
			Dissolved Nickel (Ni)	2017/08/29		NC	%	80 - 120
			Dissolved Selenium (Se)	2017/08/29		103	%	80 - 120
			Dissolved Silver (Ag)	2017/08/29		105	%	80 - 120
			Dissolved Strontium (Sr)	2017/08/29		NC	%	80 - 120
			Dissolved Thallium (Tl)	2017/08/29		97	%	80 - 120
			Dissolved Tin (Sn)	2017/08/29		94	%	80 - 120
			Dissolved Titanium (Ti)	2017/08/29		99	%	80 - 120
			Dissolved Uranium (U)	2017/08/29		100	%	80 - 120
			Dissolved Vanadium (V)	2017/08/29		99	%	80 - 120
			Dissolved Zinc (Zn)	2017/08/29		NC	%	80 - 120
8740563	JC8	Spiked Blank	Dissolved Aluminum (Al)	2017/08/29		116	%	80 - 120
			Dissolved Antimony (Sb)	2017/08/29		104	%	80 - 120
			Dissolved Arsenic (As)	2017/08/29		112	%	80 - 120
			Dissolved Barium (Ba)	2017/08/29		103	%	80 - 120
			Dissolved Beryllium (Be)	2017/08/29		103	%	80 - 120
			Dissolved Bismuth (Bi)	2017/08/29		102	%	80 - 120
			Dissolved Boron (B)	2017/08/29		97	%	80 - 120
			Dissolved Cadmium (Cd)	2017/08/29		104	%	80 - 120
			Dissolved Chromium (Cr)	2017/08/29		106	%	80 - 120
			Dissolved Cobalt (Co)	2017/08/29		106	%	80 - 120
			Dissolved Copper (Cu)	2017/08/29		108	%	80 - 120
			Dissolved Iron (Fe)	2017/08/29		104	%	80 - 120
			Dissolved Lead (Pb)	2017/08/29		101	%	80 - 120
			Dissolved Lithium (Li)	2017/08/29		101	%	80 - 120
			Dissolved Manganese (Mn)	2017/08/29		100	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/08/29		103	%	80 - 120
			Dissolved Nickel (Ni)	2017/08/29		104	%	80 - 120
			Dissolved Selenium (Se)	2017/08/29		103	%	80 - 120
			Dissolved Silver (Ag)	2017/08/29		110	%	80 - 120
			Dissolved Strontium (Sr)	2017/08/29		107	%	80 - 120

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AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Thallium (Tl)	2017/08/29		100	%	80 - 120
			Dissolved Tin (Sn)	2017/08/29		99	%	80 - 120
			Dissolved Titanium (Ti)	2017/08/29		106	%	80 - 120
			Dissolved Uranium (U)	2017/08/29		100	%	80 - 120
			Dissolved Vanadium (V)	2017/08/29		103	%	80 - 120
			Dissolved Zinc (Zn)	2017/08/29		103	%	80 - 120
8740563	JC8	Method Blank	Dissolved Aluminum (Al)	2017/08/29	<3.0		ug/L	
			Dissolved Antimony (Sb)	2017/08/29	<0.50		ug/L	
			Dissolved Arsenic (As)	2017/08/29	<0.10		ug/L	
			Dissolved Barium (Ba)	2017/08/29	<1.0		ug/L	
			Dissolved Beryllium (Be)	2017/08/29	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2017/08/29	<1.0		ug/L	
			Dissolved Boron (B)	2017/08/29	<50		ug/L	
			Dissolved Cadmium (Cd)	2017/08/29	<0.010		ug/L	
			Dissolved Chromium (Cr)	2017/08/29	<1.0		ug/L	
			Dissolved Cobalt (Co)	2017/08/29	<0.20		ug/L	
			Dissolved Copper (Cu)	2017/08/29	<0.20		ug/L	
			Dissolved Iron (Fe)	2017/08/29	<5.0		ug/L	
			Dissolved Lead (Pb)	2017/08/29	<0.20		ug/L	
			Dissolved Lithium (Li)	2017/08/29	<2.0		ug/L	
			Dissolved Manganese (Mn)	2017/08/29	<1.0		ug/L	
			Dissolved Molybdenum (Mo)	2017/08/29	<1.0		ug/L	
			Dissolved Nickel (Ni)	2017/08/29	<1.0		ug/L	
			Dissolved Selenium (Se)	2017/08/29	<0.10		ug/L	
			Dissolved Silicon (Si)	2017/08/29	<100		ug/L	
			Dissolved Silver (Ag)	2017/08/29	<0.020		ug/L	
			Dissolved Strontium (Sr)	2017/08/29	<1.0		ug/L	
			Dissolved Thallium (Tl)	2017/08/29	<0.010		ug/L	
			Dissolved Tin (Sn)	2017/08/29	<5.0		ug/L	
			Dissolved Titanium (Ti)	2017/08/29	<5.0		ug/L	
			Dissolved Uranium (U)	2017/08/29	<0.10		ug/L	
			Dissolved Vanadium (V)	2017/08/29	<5.0		ug/L	
			Dissolved Zinc (Zn)	2017/08/29	<5.0		ug/L	
			Dissolved Zirconium (Zr)	2017/08/29	<0.10		ug/L	
8740563	JC8	RPD	Dissolved Aluminum (Al)	2017/08/29	NC		%	20
			Dissolved Antimony (Sb)	2017/08/29	NC		%	20
			Dissolved Arsenic (As)	2017/08/29	NC		%	20
			Dissolved Barium (Ba)	2017/08/29	1.6		%	20
			Dissolved Beryllium (Be)	2017/08/29	NC		%	20
			Dissolved Bismuth (Bi)	2017/08/29	NC		%	20
			Dissolved Boron (B)	2017/08/29	3.3		%	20
			Dissolved Cadmium (Cd)	2017/08/29	1.1		%	20
			Dissolved Chromium (Cr)	2017/08/29	NC		%	20
			Dissolved Cobalt (Co)	2017/08/29	7.7		%	20
			Dissolved Copper (Cu)	2017/08/29	1.0		%	20
			Dissolved Iron (Fe)	2017/08/29	NC		%	20
			Dissolved Lead (Pb)	2017/08/29	NC		%	20
			Dissolved Lithium (Li)	2017/08/29	1.9		%	20
			Dissolved Manganese (Mn)	2017/08/29	3.7		%	20
			Dissolved Molybdenum (Mo)	2017/08/29	NC		%	20
			Dissolved Nickel (Ni)	2017/08/29	3.4		%	20
			Dissolved Selenium (Se)	2017/08/29	3.9		%	20
			Dissolved Silicon (Si)	2017/08/29	5.2		%	20
			Dissolved Silver (Ag)	2017/08/29	NC		%	20

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AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Strontium (Sr)	2017/08/29	3.8		%	20
			Dissolved Thallium (Tl)	2017/08/29	NC		%	20
			Dissolved Tin (Sn)	2017/08/29	NC		%	20
			Dissolved Titanium (Ti)	2017/08/29	NC		%	20
			Dissolved Uranium (U)	2017/08/29	1.7		%	20
			Dissolved Vanadium (V)	2017/08/29	NC		%	20
			Dissolved Zinc (Zn)	2017/08/29	2.8		%	20
			Dissolved Zirconium (Zr)	2017/08/29	NC		%	20
8740682	WAY	Spiked Blank	Turbidity	2017/08/28		103	%	80 - 120
8740682	WAY	Method Blank	Turbidity	2017/08/28	<0.10		NTU	
8740682	WAY	RPD	Turbidity	2017/08/28	7.3		%	20
8740972	WAY	Matrix Spike [RU9679-01]	Alkalinity (Total as CaCO3)	2017/08/28		96	%	80 - 120
8740972	WAY	Spiked Blank	Alkalinity (Total as CaCO3)	2017/08/28		100	%	80 - 120
8740972	WAY	Method Blank	Alkalinity (Total as CaCO3)	2017/08/28	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2017/08/28	<1.0		mg/L	
			Bicarbonate (HCO3)	2017/08/28	<1.0		mg/L	
			Carbonate (CO3)	2017/08/28	<1.0		mg/L	
			Hydroxide (OH)	2017/08/28	<1.0		mg/L	
8740973	WAY	Spiked Blank	pH	2017/08/28		102	%	97 - 103
8740973	WAY	RPD	pH	2017/08/28	0.24		%	20
8740974	WAY	Spiked Blank	Conductivity	2017/08/28		101	%	80 - 120
8740974	WAY	Method Blank	Conductivity	2017/08/28	<2.0		uS/cm	
8740977	WAY	Matrix Spike	Alkalinity (Total as CaCO3)	2017/08/28		99	%	80 - 120
8740977	WAY	Spiked Blank	Alkalinity (Total as CaCO3)	2017/08/28		98	%	80 - 120
8740977	WAY	Method Blank	Alkalinity (Total as CaCO3)	2017/08/28	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2017/08/28	<1.0		mg/L	
			Bicarbonate (HCO3)	2017/08/28	<1.0		mg/L	
			Carbonate (CO3)	2017/08/28	<1.0		mg/L	
			Hydroxide (OH)	2017/08/28	<1.0		mg/L	
8740977	WAY	RPD	Alkalinity (Total as CaCO3)	2017/08/28	0.66		%	20
			Alkalinity (PP as CaCO3)	2017/08/28	NC		%	20
			Bicarbonate (HCO3)	2017/08/28	1.3		%	20
			Carbonate (CO3)	2017/08/28	NC		%	20
			Hydroxide (OH)	2017/08/28	NC		%	20
8740981	WAY	Spiked Blank	pH	2017/08/28		102	%	97 - 103
8740981	WAY	RPD	pH	2017/08/28	0.36		%	20
8740982	WAY	Spiked Blank	Conductivity	2017/08/28		101	%	80 - 120
8740982	WAY	Method Blank	Conductivity	2017/08/28	<2.0		uS/cm	
8740982	WAY	RPD	Conductivity	2017/08/28	0.23		%	20
8741075	DC6	Matrix Spike [RU9679-01]	Dissolved Chloride (Cl)	2017/08/28		96	%	80 - 120
8741075	DC6	Spiked Blank	Dissolved Chloride (Cl)	2017/08/28		97	%	80 - 120
8741075	DC6	Method Blank	Dissolved Chloride (Cl)	2017/08/28	<1.0		mg/L	
8741075	DC6	RPD [RU9679-01]	Dissolved Chloride (Cl)	2017/08/28	NC		%	20
8741076	DC6	Matrix Spike [RU9679-01]	Dissolved Sulphate (SO4)	2017/08/28		98	%	80 - 120
8741076	DC6	Spiked Blank	Dissolved Sulphate (SO4)	2017/08/28		95	%	80 - 120
8741076	DC6	Method Blank	Dissolved Sulphate (SO4)	2017/08/28	<1.0		mg/L	
8741076	DC6	RPD [RU9679-01]	Dissolved Sulphate (SO4)	2017/08/28	0.042		%	20
8741077	DC6	Matrix Spike	Dissolved Chloride (Cl)	2017/08/28		NC	%	80 - 120
8741077	DC6	Spiked Blank	Dissolved Chloride (Cl)	2017/08/28		97	%	80 - 120
8741077	DC6	Method Blank	Dissolved Chloride (Cl)	2017/08/28	<1.0		mg/L	
8741077	DC6	RPD	Dissolved Chloride (Cl)	2017/08/28	1.8		%	20
8741079	DC6	Matrix Spike	Dissolved Sulphate (SO4)	2017/08/28		101	%	80 - 120
8741079	DC6	Spiked Blank	Dissolved Sulphate (SO4)	2017/08/28		96	%	80 - 120
8741079	DC6	Method Blank	Dissolved Sulphate (SO4)	2017/08/28	<1.0		mg/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8741079	DC6	RPD	Dissolved Sulphate (SO4)	2017/08/28	2.9		%	20
8742181	TSO	Matrix Spike	Fluoride (F)	2017/08/29		102	%	80 - 120
8742181	TSO	Spiked Blank	Fluoride (F)	2017/08/29		104	%	80 - 120
8742181	TSO	Method Blank	Fluoride (F)	2017/08/29	<0.020		mg/L	
8742181	TSO	RPD	Fluoride (F)	2017/08/29	4.3		%	20
8742303	BO3	Matrix Spike [RU9679-01]	Orthophosphate (P)	2017/08/29		93	%	80 - 120
8742303	BO3	Spiked Blank	Orthophosphate (P)	2017/08/29		104	%	80 - 120
8742303	BO3	Method Blank	Orthophosphate (P)	2017/08/29	<0.0050		mg/L	
8742359	BO3	Spiked Blank	Dissolved Phosphorus (P)	2017/08/29		98	%	80 - 120
8742359	BO3	Method Blank	Dissolved Phosphorus (P)	2017/08/29	<0.0050		mg/L	
8742363	DC6	Matrix Spike	Dissolved Sulphate (SO4)	2017/08/29		NC	%	80 - 120
8742363	DC6	Spiked Blank	Dissolved Sulphate (SO4)	2017/08/29		101	%	80 - 120
8742363	DC6	Method Blank	Dissolved Sulphate (SO4)	2017/08/29	<1.0		mg/L	
8742363	DC6	RPD	Dissolved Sulphate (SO4)	2017/08/29	1.6		%	20
8742477	EL2	Matrix Spike	Total Mercury (Hg)	2017/08/30		98	%	80 - 120
8742477	EL2	Spiked Blank	Total Mercury (Hg)	2017/08/30		99	%	80 - 120
8742477	EL2	Method Blank	Total Mercury (Hg)	2017/08/30	<0.010		ug/L	
8742477	EL2	RPD	Total Mercury (Hg)	2017/08/30	NC		%	20
8742496	EL2	Matrix Spike	Dissolved Mercury (Hg)	2017/08/30		94	%	80 - 120
8742496	EL2	Spiked Blank	Dissolved Mercury (Hg)	2017/08/30		98	%	80 - 120
8742496	EL2	Method Blank	Dissolved Mercury (Hg)	2017/08/30	<0.010		ug/L	
8742496	EL2	RPD	Dissolved Mercury (Hg)	2017/08/30	NC		%	20
8742603	EL2	Matrix Spike	Dissolved Mercury (Hg)	2017/08/30		96	%	80 - 120
8742603	EL2	Spiked Blank	Dissolved Mercury (Hg)	2017/08/30		95	%	80 - 120
8742603	EL2	Method Blank	Dissolved Mercury (Hg)	2017/08/30	<0.010		ug/L	
8742603	EL2	RPD	Dissolved Mercury (Hg)	2017/08/30	NC		%	20
8742604	EL2	Matrix Spike	Total Mercury (Hg)	2017/08/30		103	%	80 - 120
8742604	EL2	Spiked Blank	Total Mercury (Hg)	2017/08/30		105	%	80 - 120
8742604	EL2	Method Blank	Total Mercury (Hg)	2017/08/30	<0.010		ug/L	
8742604	EL2	RPD	Total Mercury (Hg)	2017/08/30	NC		%	20
8743294	CLR	Matrix Spike	Total Suspended Solids	2017/08/31		100	%	80 - 120
8743294	CLR	Spiked Blank	Total Suspended Solids	2017/08/31		102	%	80 - 120
8743294	CLR	Method Blank	Total Suspended Solids	2017/08/31	<4.0		mg/L	
8743294	CLR	RPD	Total Suspended Solids	2017/08/31	18		%	20
8744949	DC6	Matrix Spike	Total Ammonia (N)	2017/08/31		101	%	80 - 120
8744949	DC6	Spiked Blank	Total Ammonia (N)	2017/08/31		99	%	80 - 120
8744949	DC6	Method Blank	Total Ammonia (N)	2017/08/31	<0.020		mg/L	
8744949	DC6	RPD	Total Ammonia (N)	2017/08/31	4.1		%	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).

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AFRICAN QUEEN MINES LTD.
Client Project #: YJ
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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.

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A Bureau Veritas Group Company

Maxxam Analytics International Corporation o/a Maxxam Analytics
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.maxxam.ca

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B772731_COC

Chain Of Custody Record

C#532765-01-01

Bottle Order #: 532765

Project Manager: Veronica De Guzman

INVOICE TO:		Report Information		Project Information	
Company Name	#12411 AFRICAN QUEEN MINES LTD.	Company Name		Quotation #	B61210
Contact Name	~~Linda Dandy~~ JEN TODHUNTER	Contact Name	LINDA DANDY	P.O. #	
Address	1153 56TH STREET BOX 19040	Address		Project #	
	DELTA BC V4L 2P8			Project Name	YT
Phone	(604) 240-7676 x	Fax:		Site #	
Email	lindadandy@telus.net jen@africanqueenmines.com	Phone / Email	lindadandy@telus.net	Sampled By	LINDA DANDY

Regulatory Criteria

Special Instructions

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 sampling until delivery to maxxam

Analysis Requested

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	EC, pH, ALK, F	Cl, SO4, N+N, TURB	TSS	NH4	TOTAL D. PHOS	ORTHOPHOSPHATE	TOTAL METALS W/ CV Hg.	DISSOLVED METALS WITH CV Hg.	# of Bottles	Comments
1		PC-1	AUG 23/17	1310	H2O	N	Y	✓	✓	✓	✓	✓	✓	✓	✓	8	~~RECEIVED IN WHITEHORSE~~
2		PC-2		1430													BY: Shyono @ 0950
3		PC-5		1545													2017-08-24
4		PC-6		1355													
5		FIELD BLANK		1245		—	—										TEMP: 7 / 8 / 6
6		DUPLICATE		1320													
7																	
8																	
9																	
10																	

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT [X]

(will be applied if Rush TAT is not specified)

Standard TAT = 5-7 Working days for most tests.

Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)

Date Required: _____ Time Required: _____

Rush Confirmation Number: _____ *(call lab for #)*

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
LINDA DANDY Linda Dandy	17/08/24	900	[illegible] Laurel Arthur	2017/08/25	1400	

Lab Use Only: Time Sensitive [ ] | Temperature (°C) on Receipt: 7 7 7 | Custody Seal Intact on Cooler? [✓] Yes [ ] No

* UNLESS 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 WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

APPENDIX V

OCTOBER 2107 PINE CREEK WATER QUALITY SAMPLES
CERTIFICATES OF ANALYSES

Your C.O.C. #: 538098-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/11/01
Report #: R2470365
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B794386
Received: 2017/10/24, 13:00

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	6	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	5	N/A	2017/10/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Chloride by Automated Colourimetry	1	N/A	2017/10/26	BBY6SOP-00011	SM 22 4500-Cl- E m
Conductance - water	6	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 2510 B m
Fluoride - Mining Clients	6	N/A	2017/10/25	BBY6SOP-00048	SM 22 4500-F C m
Hardness Total (calculated as CaCO3) (1)	2	N/A	2017/10/27	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (1)	3	N/A	2017/10/31	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (1)	1	N/A	2017/11/01	BBY WI-00033	Auto Calc
Hardness (calculated as CaCO3)	6	N/A	2017/10/30	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	3	N/A	2017/10/31	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	3	N/A	2017/11/01	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Total) by CVAF	6	2017/10/31	2017/10/31	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	6	N/A	2017/10/30	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved)	6	N/A	2017/10/29	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	2	2017/10/25	2017/10/27	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	2017/10/25	2017/10/31	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	2017/10/25	2017/11/01	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (total)	2	2017/10/26	2017/10/27	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by CRC ICPMS (total)	1	2017/10/27	2017/11/01	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by CRC ICPMS (total)	3	2017/10/30	2017/10/31	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Ammonia-N (Preserved)	6	N/A	2017/10/27	BBY6SOP-00009	EPA 350.1 m
Nitrate + Nitrite (N)	6	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) by CFA	6	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	6	N/A	2017/10/27	BBY WI-00033	Auto Calc
Filter and HNO3 Preserve for Metals	6	N/A	2017/10/31	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (2)	6	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 4500-H+ B m
Orthophosphate by Konelab	6	N/A	2017/10/26	BBY6SOP-00013	SM 22 4500-P E m
Sulphate by Automated Colourimetry	5	N/A	2017/10/25	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2017/10/26	BBY6SOP-00017	SM 22 4500-SO42- E m

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: 538098-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/11/01
Report #: R2470365
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B794386
Received: 2017/10/24, 13:00

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Phosphorus-P (Total, dissolved) - FF/FP	6	2017/10/27	2017/10/27	BBY6SOP-00013	SM 22 4500-P E m
Total Suspended Solids	6	2017/10/26	2017/10/27	BBY6SOP-00034	SM 22 2540 D
Turbidity	6	N/A	2017/10/25	BBY6SOP-00027	SM 22 2130 B 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.

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) "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).
(2) 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.

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Your C.O.C. #: 538098-01-01

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Report Date: 2017/11/01
Report #: R2470365
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B794386
Received: 2017/10/24, 13:00

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@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.

Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SH7968		SH7969		SH7970		SH7971		
Sampling Date		2017/10/23 10:00		2017/10/23 12:00		2017/10/23 11:30		2017/10/23 13:30		
COC Number		538098-01-01		538098-01-01		538098-01-01		538098-01-01		
	UNITS	PC-1	QC Batch	PC-2	QC Batch	PC-5	QC Batch	PC-6	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.690	8807365	0.680	8807365	0.570	8807365	0.690	0.020	8807365
ANIONS										
Nitrite (N)	mg/L	<0.0050	8809760	<0.0050	8809760	<0.0050	8809760	<0.0050	0.0050	8809760
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	8806343	<0.020	8806343	<0.020	8806343	<0.020	0.020	8806343
Misc. Inorganics										
Alkalinity (Total as CaCO3)	mg/L	46.9	8809064	51.0	8809064	69.8	8809064	49.2	1.0	8809064
Alkalinity (PP as CaCO3)	mg/L	<1.0	8809064	<1.0	8809064	<1.0	8809064	<1.0	1.0	8809064
Bicarbonate (HCO3)	mg/L	57.2	8809064	62.2	8809064	85.1	8809064	60.0	1.0	8809064
Carbonate (CO3)	mg/L	<1.0	8809064	<1.0	8809064	<1.0	8809064	<1.0	1.0	8809064
Hydroxide (OH)	mg/L	<1.0	8809064	<1.0	8809064	<1.0	8809064	<1.0	1.0	8809064
Anions										
Dissolved Sulphate (SO4)	mg/L	5.1	8808270	5.5	8809929	6.8	8808292	5.1	1.0	8808270
Dissolved Chloride (Cl)	mg/L	<1.0	8808266	<1.0	8809889	<1.0	8808286	<1.0	1.0	8808266
Nutrients										
Orthophosphate (P)	mg/L	<0.0050	8808915	<0.0050	8808915	<0.0050	8808915	<0.0050	0.0050	8808915
Dissolved Phosphorus (P)	mg/L	<0.0050	8810249	<0.0050	8810249	<0.0050	8810249	<0.0050	0.0050	8810249
Total Ammonia (N)	mg/L	<0.020	8809201	<0.020	8809201	<0.020	8809200	<0.020	0.020	8809201
Nitrate plus Nitrite (N)	mg/L	<0.020	8809759	<0.020	8809759	<0.020	8809759	<0.020	0.020	8809759
Physical Properties										
Conductivity	uS/cm	106	8809063	111	8809063	152	8809063	107	2.0	8809063
pH	pH	7.83	8809061	7.86	8809061	8.00	8809061	7.81		8809061
Physical Properties										
Total Suspended Solids	mg/L	<4.0	8808160	<4.0	8808160	<4.0	8808160	<4.0	4.0	8808160
Turbidity	NTU	2.76	8807491	2.54	8807491	1.81	8807491	2.81	0.10	8807491
RDL = Reportable Detection Limit										

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Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SH7972		SH7973		
Sampling Date		2017/10/23 10:45		2017/10/23 10:30		
COC Number		538098-01-01		538098-01-01		
	UNITS	PC-FB	QC Batch	PC-DUP	RDL	QC Batch
Misc. Inorganics						
Fluoride (F)	mg/L	<0.020	8807365	0.680	0.020	8807365
ANIONS						
Nitrite (N)	mg/L	<0.0050	8809760	<0.0050	0.0050	8809760
Calculated Parameters						
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	8806343	<0.020	0.020	8806343
Misc. Inorganics						
Alkalinity (Total as CaCO3)	mg/L	<1.0	8809053	46.1	1.0	8809064
Alkalinity (PP as CaCO3)	mg/L	<1.0	8809053	<1.0	1.0	8809064
Bicarbonate (HCO3)	mg/L	<1.0	8809053	56.2	1.0	8809064
Carbonate (CO3)	mg/L	<1.0	8809053	<1.0	1.0	8809064
Hydroxide (OH)	mg/L	<1.0	8809053	<1.0	1.0	8809064
Anions						
Dissolved Sulphate (SO4)	mg/L	<1.0	8808270	5.0	1.0	8808292
Dissolved Chloride (Cl)	mg/L	<1.0	8808266	<1.0	1.0	8808286
Nutrients						
Orthophosphate (P)	mg/L	<0.0050	8808915	0.0069	0.0050	8808915
Dissolved Phosphorus (P)	mg/L	<0.0050	8810249	<0.0050	0.0050	8810249
Total Ammonia (N)	mg/L	<0.020	8809200	<0.020	0.020	8809200
Nitrate plus Nitrite (N)	mg/L	<0.020	8809759	<0.020	0.020	8809759
Physical Properties						
Conductivity	uS/cm	<2.0	8809051	106	2.0	8809063
pH	pH	5.77	8809049	7.83		8809061
Physical Properties						
Total Suspended Solids	mg/L	<4.0	8808160	<4.0	4.0	8808160
Turbidity	NTU	<0.10	8807491	3.46	0.10	8807491
RDL = Reportable Detection Limit						

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Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH7968	SH7969	SH7970		SH7971	SH7972		
Sampling Date		2017/10/23 10:00	2017/10/23 12:00	2017/10/23 11:30		2017/10/23 13:30	2017/10/23 10:45		
COC Number		538098-01-01	538098-01-01	538098-01-01		538098-01-01	538098-01-01		
	UNITS	PC-1	PC-2	PC-5	QC Batch	PC-6	PC-FB	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	46.6	49.8	71.8	8806906	48.4	<0.50	0.50	8806906
Elements									
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	8814334	<0.010	<0.010	0.010	8814138
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	<3.0	<3.0	<3.0	8808708	<3.0	<3.0	3.0	8808708
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	8808708	<0.50	<0.50	0.50	8808708
Dissolved Arsenic (As)	ug/L	0.62	0.68	0.55	8808708	0.70	<0.10	0.10	8808708
Dissolved Barium (Ba)	ug/L	14.9	15.6	17.4	8808708	15.2	<1.0	1.0	8808708
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	8808708	<0.10	<0.10	0.10	8808708
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	8808708	<1.0	<1.0	1.0	8808708
Dissolved Boron (B)	ug/L	<50	<50	<50	8808708	<50	<50	50	8808708
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	<0.010	8808708	<0.010	<0.010	0.010	8808708
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	8808708	<1.0	<1.0	1.0	8808708
Dissolved Cobalt (Co)	ug/L	<0.20	<0.20	<0.20	8808708	<0.20	<0.20	0.20	8808708
Dissolved Copper (Cu)	ug/L	0.59	0.86	0.51	8808708	0.64	<0.20	0.20	8808708
Dissolved Iron (Fe)	ug/L	<5.0	<5.0	<5.0	8808708	<5.0	<5.0	5.0	8808708
Dissolved Lead (Pb)	ug/L	<0.20	<0.20	<0.20	8808708	<0.20	<0.20	0.20	8808708
Dissolved Lithium (Li)	ug/L	2.3	2.3	2.1	8808708	2.5	<2.0	2.0	8808708
Dissolved Manganese (Mn)	ug/L	1.6	1.5	<1.0	8808708	1.6	<1.0	1.0	8808708
Dissolved Molybdenum (Mo)	ug/L	2.5	2.6	2.2	8808708	2.5	<1.0	1.0	8808708
Dissolved Nickel (Ni)	ug/L	1.8	2.0	1.9	8808708	1.8	<1.0	1.0	8808708
Dissolved Selenium (Se)	ug/L	0.11	<0.10	<0.10	8808708	<0.10	<0.10	0.10	8808708
Dissolved Silicon (Si)	ug/L	3320	3300	3480	8808708	3300	<100	100	8808708
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	8808708	<0.020	<0.020	0.020	8808708
Dissolved Strontium (Sr)	ug/L	31.5	33.8	44.0	8808708	32.4	<1.0	1.0	8808708
Dissolved Thallium (Tl)	ug/L	<0.010	<0.010	<0.010	8808708	<0.010	<0.010	0.010	8808708
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	8808708	<5.0	<5.0	5.0	8808708
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	8808708	<5.0	<5.0	5.0	8808708
Dissolved Uranium (U)	ug/L	2.00	2.15	1.92	8808708	2.05	<0.10	0.10	8808708
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	8808708	<5.0	<5.0	5.0	8808708
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	8808708	<5.0	<5.0	5.0	8808708
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	8808708	<0.10	<0.10	0.10	8808708
Dissolved Calcium (Ca)	mg/L	10.9	11.3	16.9	8806542	11.3	<0.050	0.050	8806542
Dissolved Magnesium (Mg)	mg/L	4.71	5.22	7.18	8806542	4.91	<0.050	0.050	8806542
RDL = Reportable Detection Limit									

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Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH7968	SH7969	SH7970		SH7971	SH7972		
Sampling Date		2017/10/23 10:00	2017/10/23 12:00	2017/10/23 11:30		2017/10/23 13:30	2017/10/23 10:45		
COC Number		538098-01-01	538098-01-01	538098-01-01		538098-01-01	538098-01-01		
	UNITS	**PC-1**	**PC-2**	**PC-5**	**QC Batch**	**PC-6**	**PC-FB**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.623	0.647	0.644	8806542	0.645	<0.050	0.050	8806542
Dissolved Sodium (Na)	mg/L	1.86	1.86	1.73	8806542	1.85	<0.050	0.050	8806542
Dissolved Sulphur (S)	mg/L	<3.0	<3.0	<3.0	8806542	<3.0	<3.0	3.0	8806542
RDL = Reportable Detection Limit									

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Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH7973		
Sampling Date		2017/10/23 10:30		
COC Number		538098-01-01		
	UNITS	PC-DUP	RDL	QC Batch
Misc. Inorganics				
Dissolved Hardness (CaCO3)	mg/L	46.1	0.50	8806906
Elements				
Dissolved Mercury (Hg)	ug/L	<0.010	0.010	8814138
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	ug/L	<3.0	3.0	8808708
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	8808708
Dissolved Arsenic (As)	ug/L	0.65	0.10	8808708
Dissolved Barium (Ba)	ug/L	15.1	1.0	8808708
Dissolved Beryllium (Be)	ug/L	<0.10	0.10	8808708
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	8808708
Dissolved Boron (B)	ug/L	<50	50	8808708
Dissolved Cadmium (Cd)	ug/L	<0.010	0.010	8808708
Dissolved Chromium (Cr)	ug/L	<1.0	1.0	8808708
Dissolved Cobalt (Co)	ug/L	<0.20	0.20	8808708
Dissolved Copper (Cu)	ug/L	0.62	0.20	8808708
Dissolved Iron (Fe)	ug/L	6.2	5.0	8808708
Dissolved Lead (Pb)	ug/L	<0.20	0.20	8808708
Dissolved Lithium (Li)	ug/L	2.4	2.0	8808708
Dissolved Manganese (Mn)	ug/L	1.6	1.0	8808708
Dissolved Molybdenum (Mo)	ug/L	2.7	1.0	8808708
Dissolved Nickel (Ni)	ug/L	1.7	1.0	8808708
Dissolved Selenium (Se)	ug/L	<0.10	0.10	8808708
Dissolved Silicon (Si)	ug/L	3310	100	8808708
Dissolved Silver (Ag)	ug/L	<0.020	0.020	8808708
Dissolved Strontium (Sr)	ug/L	31.4	1.0	8808708
Dissolved Thallium (Tl)	ug/L	<0.010	0.010	8808708
Dissolved Tin (Sn)	ug/L	<5.0	5.0	8808708
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	8808708
Dissolved Uranium (U)	ug/L	2.07	0.10	8808708
Dissolved Vanadium (V)	ug/L	<5.0	5.0	8808708
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	8808708
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	8808708
Dissolved Calcium (Ca)	mg/L	10.9	0.050	8806542
Dissolved Magnesium (Mg)	mg/L	4.56	0.050	8806542
RDL = Reportable Detection Limit				

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Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH7973		
Sampling Date		2017/10/23 10:30		
COC Number		538098-01-01		
	UNITS	**PC-DUP**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.615	0.050	8806542
Dissolved Sodium (Na)	mg/L	1.76	0.050	8806542
Dissolved Sulphur (S)	mg/L	<3.0	3.0	8806542
RDL = Reportable Detection Limit				

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Maxxam Job #: B794386
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AFRICAN QUEEN MINES LTD.

CSR TOTAL METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH7968		SH7969		SH7970		SH7971		
Sampling Date		2017/10/23 10:00		2017/10/23 12:00		2017/10/23 11:30		2017/10/23 13:30		
COC Number		538098-01-01		538098-01-01		538098-01-01		538098-01-01		
	UNITS	PC-1	QC Batch	PC-2	QC Batch	PC-5	QC Batch	PC-6	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	51.5	8806308	53.5	8806308	75.8	8806308	51.5	0.50	8806308
Elements										
Total Mercury (Hg)	ug/L	<0.010	8813799	<0.010	8813799	<0.010	8813799	<0.010	0.010	8813799
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	89.0	8812375	68.3	8810389	51.1	8812375	67.7	3.0	8809087
Total Antimony (Sb)	ug/L	<0.50	8812375	<0.50	8810389	<0.50	8812375	<0.50	0.50	8809087
Total Arsenic (As)	ug/L	1.21	8812375	1.07	8810389	0.77	8812375	0.99	0.10	8809087
Total Barium (Ba)	ug/L	17.5	8812375	16.9	8810389	19.5	8812375	16.2	1.0	8809087
Total Beryllium (Be)	ug/L	<0.10	8812375	<0.10	8810389	<0.10	8812375	<0.10	0.10	8809087
Total Bismuth (Bi)	ug/L	<1.0	8812375	<1.0	8810389	<1.0	8812375	<1.0	1.0	8809087
Total Boron (B)	ug/L	<50	8812375	<50	8810389	<50	8812375	<50	50	8809087
Total Cadmium (Cd)	ug/L	0.014	8812375	0.011	8810389	<0.010	8812375	0.011	0.010	8809087
Total Chromium (Cr)	ug/L	<1.0	8812375	<1.0	8810389	<1.0	8812375	<1.0	1.0	8809087
Total Cobalt (Co)	ug/L	<0.20	8812375	<0.20	8810389	<0.20	8812375	<0.20	0.20	8809087
Total Copper (Cu)	ug/L	1.25	8812375	1.04	8810389	0.75	8812375	1.14	0.50	8809087
Total Iron (Fe)	ug/L	152	8812375	123	8810389	97	8812375	110	10	8809087
Total Lead (Pb)	ug/L	<0.20	8812375	<0.20	8810389	<0.20	8812375	<0.20	0.20	8809087
Total Lithium (Li)	ug/L	2.3	8812375	2.3	8810389	<2.0	8812375	2.6	2.0	8809087
Total Manganese (Mn)	ug/L	5.5	8812375	4.4	8810389	3.1	8812375	4.1	1.0	8809087
Total Molybdenum (Mo)	ug/L	2.6	8812375	2.5	8810389	2.3	8812375	2.5	1.0	8809087
Total Nickel (Ni)	ug/L	3.1	8812375	2.7	8810389	2.5	8812375	2.5	1.0	8809087
Total Selenium (Se)	ug/L	<0.10	8812375	<0.10	8810389	<0.10	8812375	<0.10	0.10	8809087
Total Silicon (Si)	ug/L	3930	8812375	4080	8810389	3930	8812375	3750	100	8809087
Total Silver (Ag)	ug/L	<0.020	8812375	<0.020	8810389	<0.020	8812375	<0.020	0.020	8809087
Total Strontium (Sr)	ug/L	34.8	8812375	34.4	8810389	47.1	8812375	32.3	1.0	8809087
Total Thallium (Tl)	ug/L	<0.010	8812375	<0.010	8810389	<0.010	8812375	<0.010	0.010	8809087
Total Tin (Sn)	ug/L	<5.0	8812375	<5.0	8810389	<5.0	8812375	<5.0	5.0	8809087
Total Titanium (Ti)	ug/L	<5.0	8812375	<5.0	8810389	<5.0	8812375	<5.0	5.0	8809087
Total Uranium (U)	ug/L	2.18	8812375	2.19	8810389	1.95	8812375	2.10	0.10	8809087
Total Vanadium (V)	ug/L	<5.0	8812375	<5.0	8810389	<5.0	8812375	<5.0	5.0	8809087
Total Zinc (Zn)	ug/L	<5.0	8812375	<5.0	8810389	<5.0	8812375	<5.0	5.0	8809087
Total Zirconium (Zr)	ug/L	<0.10	8812375	<0.10	8810389	<0.10	8812375	<0.10	0.10	8809087
Total Calcium (Ca)	mg/L	12.2	8806838	12.9	8806838	17.9	8806838	12.3	0.050	8806838
Total Magnesium (Mg)	mg/L	5.14	8806838	5.19	8806838	7.54	8806838	5.04	0.050	8806838

RDL = Reportable Detection Limit

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Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

CSR TOTAL METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH7968		SH7969		SH7970		SH7971		
Sampling Date		2017/10/23 10:00		2017/10/23 12:00		2017/10/23 11:30		2017/10/23 13:30		
COC Number		538098-01-01		538098-01-01		538098-01-01		538098-01-01		
	UNITS	PC-1	QC Batch	PC-2	QC Batch	PC-5	QC Batch	PC-6	RDL	QC Batch
Total Potassium (K)	mg/L	0.716	8806838	0.668	8806838	0.686	8806838	0.665	0.050	8806838
Total Sodium (Na)	mg/L	1.90	8806838	1.71	8806838	1.77	8806838	1.85	0.050	8806838
Total Sulphur (S)	mg/L	<3.0	8806838	<3.0	8806838	<3.0	8806838	<3.0	3.0	8806838
RDL = Reportable Detection Limit										

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AFRICAN QUEEN MINES LTD.

CSR TOTAL METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH7972		SH7973		
Sampling Date		2017/10/23 10:45		2017/10/23 10:30		
COC Number		538098-01-01		538098-01-01		
	UNITS	PC-FB	QC Batch	PC-DUP	RDL	QC Batch
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	<0.50	8806308	50.3	0.50	8806308
Elements						
Total Mercury (Hg)	ug/L	<0.010	8813799	<0.010	0.010	8813799
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	<3.0	8809087	82.6	3.0	8812375
Total Antimony (Sb)	ug/L	<0.50	8809087	<0.50	0.50	8812375
Total Arsenic (As)	ug/L	<0.10	8809087	1.09	0.10	8812375
Total Barium (Ba)	ug/L	<1.0	8809087	17.8	1.0	8812375
Total Beryllium (Be)	ug/L	<0.10	8809087	<0.10	0.10	8812375
Total Bismuth (Bi)	ug/L	<1.0	8809087	<1.0	1.0	8812375
Total Boron (B)	ug/L	<50	8809087	<50	50	8812375
Total Cadmium (Cd)	ug/L	<0.010	8809087	0.012	0.010	8812375
Total Chromium (Cr)	ug/L	<1.0	8809087	<1.0	1.0	8812375
Total Cobalt (Co)	ug/L	<0.20	8809087	<0.20	0.20	8812375
Total Copper (Cu)	ug/L	<0.50	8809087	1.12	0.50	8812375
Total Iron (Fe)	ug/L	<10	8809087	143	10	8812375
Total Lead (Pb)	ug/L	<0.20	8809087	<0.20	0.20	8812375
Total Lithium (Li)	ug/L	<2.0	8809087	2.2	2.0	8812375
Total Manganese (Mn)	ug/L	<1.0	8809087	5.0	1.0	8812375
Total Molybdenum (Mo)	ug/L	<1.0	8809087	2.6	1.0	8812375
Total Nickel (Ni)	ug/L	<1.0	8809087	2.7	1.0	8812375
Total Selenium (Se)	ug/L	<0.10	8809087	<0.10	0.10	8812375
Total Silicon (Si)	ug/L	<100	8809087	3840	100	8812375
Total Silver (Ag)	ug/L	<0.020	8809087	<0.020	0.020	8812375
Total Strontium (Sr)	ug/L	<1.0	8809087	34.5	1.0	8812375
Total Thallium (Tl)	ug/L	<0.010	8809087	<0.010	0.010	8812375
Total Tin (Sn)	ug/L	<5.0	8809087	<5.0	5.0	8812375
Total Titanium (Ti)	ug/L	<5.0	8809087	<5.0	5.0	8812375
Total Uranium (U)	ug/L	<0.10	8809087	2.19	0.10	8812375
Total Vanadium (V)	ug/L	<5.0	8809087	<5.0	5.0	8812375
Total Zinc (Zn)	ug/L	<5.0	8809087	<5.0	5.0	8812375
Total Zirconium (Zr)	ug/L	<0.10	8809087	<0.10	0.10	8812375
Total Calcium (Ca)	mg/L	<0.050	8806838	12.1	0.050	8806838
Total Magnesium (Mg)	mg/L	<0.050	8806838	4.87	0.050	8806838
RDL = Reportable Detection Limit						

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AFRICAN QUEEN MINES LTD.

CSR TOTAL METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH7972		SH7973		
Sampling Date		2017/10/23 10:45		2017/10/23 10:30		
COC Number		538098-01-01		538098-01-01		
	UNITS	PC-FB	QC Batch	PC-DUP	RDL	QC Batch
Total Potassium (K)	mg/L	<0.050	8806838	0.688	0.050	8806838
Total Sodium (Na)	mg/L	<0.050	8806838	1.80	0.050	8806838
Total Sulphur (S)	mg/L	<3.0	8806838	<3.0	3.0	8806838
RDL = Reportable Detection Limit						

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AFRICAN QUEEN MINES LTD.

GENERAL COMMENTS

CSR TOTAL METALS IN WATER WITH CV HG (WATER) Comments

Matrix Spike Elements by CRC ICPMS (total): RDL raised due to concentration over linear range, sample dilution required

Results relate only to the items tested.

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AFRICAN QUEEN MINES LTD.

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8807365	TSO	Matrix Spike	Fluoride (F)	2017/10/25		94	%	80 - 120
8807365	TSO	Spiked Blank	Fluoride (F)	2017/10/25		100	%	80 - 120
8807365	TSO	Method Blank	Fluoride (F)	2017/10/25	<0.020		mg/L	
8807365	TSO	RPD	Fluoride (F)	2017/10/25	17		%	20
8807491	CGP	Spiked Blank	Turbidity	2017/10/25		98	%	80 - 120
8807491	CGP	Method Blank	Turbidity	2017/10/25	<0.10		NTU	
8807491	CGP	RPD	Turbidity	2017/10/25	2.8		%	20
8808160	CLR	Matrix Spike	Total Suspended Solids	2017/10/27		100	%	80 - 120
8808160	CLR	Spiked Blank	Total Suspended Solids	2017/10/27		102	%	80 - 120
8808160	CLR	Method Blank	Total Suspended Solids	2017/10/27	<4.0		mg/L	
8808160	CLR	RPD	Total Suspended Solids	2017/10/27	NC		%	20
8808266	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/10/25		97	%	80 - 120
8808266	BB3	Method Blank	Dissolved Chloride (Cl)	2017/10/25	<1.0		mg/L	
8808270	BB3	Matrix Spike	Dissolved Sulphate (SO4)	2017/10/25		112	%	80 - 120
8808270	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/10/25		97	%	80 - 120
8808270	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/10/25	<1.0		mg/L	
8808270	BB3	RPD	Dissolved Sulphate (SO4)	2017/10/25	1.4		%	20
8808286	BB3	Matrix Spike [SH7970-02]	Dissolved Chloride (Cl)	2017/10/25		117	%	80 - 120
8808286	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/10/25		97	%	80 - 120
8808286	BB3	Method Blank	Dissolved Chloride (Cl)	2017/10/25	<1.0		mg/L	
8808286	BB3	RPD [SH7970-02]	Dissolved Chloride (Cl)	2017/10/25	NC		%	20
8808292	BB3	Matrix Spike [SH7970-02]	Dissolved Sulphate (SO4)	2017/10/25		117	%	80 - 120
8808292	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/10/25		96	%	80 - 120
8808292	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/10/25	<1.0		mg/L	
8808292	BB3	RPD [SH7970-02]	Dissolved Sulphate (SO4)	2017/10/25	0.81		%	20
8808708	JT3	Matrix Spike [SH7968-04]	Dissolved Aluminum (Al)	2017/10/29		107	%	80 - 120
			Dissolved Antimony (Sb)	2017/10/29		98	%	80 - 120
			Dissolved Arsenic (As)	2017/10/29		105	%	80 - 120
			Dissolved Barium (Ba)	2017/10/29		NC	%	80 - 120
			Dissolved Beryllium (Be)	2017/10/29		102	%	80 - 120
			Dissolved Bismuth (Bi)	2017/10/29		95	%	80 - 120
			Dissolved Boron (B)	2017/10/29		96	%	80 - 120
			Dissolved Cadmium (Cd)	2017/10/29		96	%	80 - 120
			Dissolved Chromium (Cr)	2017/10/29		95	%	80 - 120
			Dissolved Cobalt (Co)	2017/10/29		97	%	80 - 120
			Dissolved Copper (Cu)	2017/10/29		98	%	80 - 120
			Dissolved Iron (Fe)	2017/10/29		96	%	80 - 120
			Dissolved Lead (Pb)	2017/10/29		95	%	80 - 120
			Dissolved Lithium (Li)	2017/10/29		97	%	80 - 120
			Dissolved Manganese (Mn)	2017/10/29		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/10/29		NC	%	80 - 120
			Dissolved Nickel (Ni)	2017/10/29		96	%	80 - 120
			Dissolved Selenium (Se)	2017/10/29		106	%	80 - 120
			Dissolved Silver (Ag)	2017/10/29		101	%	80 - 120
			Dissolved Strontium (Sr)	2017/10/29		NC	%	80 - 120
			Dissolved Thallium (Tl)	2017/10/29		94	%	80 - 120
			Dissolved Tin (Sn)	2017/10/29		96	%	80 - 120
			Dissolved Titanium (Ti)	2017/10/29		103	%	80 - 120
			Dissolved Uranium (U)	2017/10/29		95	%	80 - 120
			Dissolved Vanadium (V)	2017/10/29		98	%	80 - 120
			Dissolved Zinc (Zn)	2017/10/29		106	%	80 - 120
			Dissolved Zirconium (Zr)	2017/10/29		94	%	80 - 120
8808708	JT3	Spiked Blank	Dissolved Aluminum (Al)	2017/10/29		108	%	80 - 120
			Dissolved Antimony (Sb)	2017/10/29		95	%	80 - 120
			Dissolved Arsenic (As)	2017/10/29		101	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Barium (Ba)	2017/10/29		94	%	80 - 120
			Dissolved Beryllium (Be)	2017/10/29		94	%	80 - 120
			Dissolved Bismuth (Bi)	2017/10/29		100	%	80 - 120
			Dissolved Boron (B)	2017/10/29		94	%	80 - 120
			Dissolved Cadmium (Cd)	2017/10/29		94	%	80 - 120
			Dissolved Chromium (Cr)	2017/10/29		88	%	80 - 120
			Dissolved Cobalt (Co)	2017/10/29		97	%	80 - 120
			Dissolved Copper (Cu)	2017/10/29		95	%	80 - 120
			Dissolved Iron (Fe)	2017/10/29		95	%	80 - 120
			Dissolved Lead (Pb)	2017/10/29		98	%	80 - 120
			Dissolved Lithium (Li)	2017/10/29		88	%	80 - 120
			Dissolved Manganese (Mn)	2017/10/29		93	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/10/29		91	%	80 - 120
			Dissolved Nickel (Ni)	2017/10/29		94	%	80 - 120
			Dissolved Selenium (Se)	2017/10/29		100	%	80 - 120
			Dissolved Silver (Ag)	2017/10/29		101	%	80 - 120
			Dissolved Strontium (Sr)	2017/10/29		95	%	80 - 120
			Dissolved Thallium (Tl)	2017/10/29		95	%	80 - 120
			Dissolved Tin (Sn)	2017/10/29		87	%	80 - 120
			Dissolved Titanium (Ti)	2017/10/29		98	%	80 - 120
			Dissolved Uranium (U)	2017/10/29		96	%	80 - 120
			Dissolved Vanadium (V)	2017/10/29		94	%	80 - 120
			Dissolved Zinc (Zn)	2017/10/29		95	%	80 - 120
			Dissolved Zirconium (Zr)	2017/10/29		90	%	80 - 120
8808708	JT3	Method Blank	Dissolved Aluminum (Al)	2017/10/29	<3.0		ug/L	
			Dissolved Antimony (Sb)	2017/10/29	<0.50		ug/L	
			Dissolved Arsenic (As)	2017/10/29	<0.10		ug/L	
			Dissolved Barium (Ba)	2017/10/29	<1.0		ug/L	
			Dissolved Beryllium (Be)	2017/10/29	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2017/10/29	<1.0		ug/L	
			Dissolved Boron (B)	2017/10/29	<50		ug/L	
			Dissolved Cadmium (Cd)	2017/10/29	<0.010		ug/L	
			Dissolved Chromium (Cr)	2017/10/29	<1.0		ug/L	
			Dissolved Cobalt (Co)	2017/10/29	<0.20		ug/L	
			Dissolved Copper (Cu)	2017/10/29	<0.20		ug/L	
			Dissolved Iron (Fe)	2017/10/29	<5.0		ug/L	
			Dissolved Lead (Pb)	2017/10/29	<0.20		ug/L	
			Dissolved Lithium (Li)	2017/10/29	<2.0		ug/L	
			Dissolved Manganese (Mn)	2017/10/29	<1.0		ug/L	
			Dissolved Molybdenum (Mo)	2017/10/29	<1.0		ug/L	
			Dissolved Nickel (Ni)	2017/10/29	<1.0		ug/L	
			Dissolved Selenium (Se)	2017/10/29	<0.10		ug/L	
			Dissolved Silicon (Si)	2017/10/29	<100		ug/L	
			Dissolved Silver (Ag)	2017/10/29	<0.020		ug/L	
			Dissolved Strontium (Sr)	2017/10/29	<1.0		ug/L	
			Dissolved Thallium (Tl)	2017/10/29	<0.010		ug/L	
			Dissolved Tin (Sn)	2017/10/29	<5.0		ug/L	
			Dissolved Titanium (Ti)	2017/10/29	<5.0		ug/L	
			Dissolved Uranium (U)	2017/10/29	<0.10		ug/L	
			Dissolved Vanadium (V)	2017/10/29	<5.0		ug/L	
			Dissolved Zinc (Zn)	2017/10/29	<5.0		ug/L	
			Dissolved Zirconium (Zr)	2017/10/29	<0.10		ug/L	
8808708	JT3	RPD [SH7968-04]	Dissolved Aluminum (Al)	2017/10/29	NC		%	20
			Dissolved Antimony (Sb)	2017/10/29	NC		%	20
			Dissolved Arsenic (As)	2017/10/29	5.5		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Barium (Ba)	2017/10/29	0.51		%	20
			Dissolved Beryllium (Be)	2017/10/29	NC		%	20
			Dissolved Bismuth (Bi)	2017/10/29	NC		%	20
			Dissolved Boron (B)	2017/10/29	NC		%	20
			Dissolved Cadmium (Cd)	2017/10/29	NC		%	20
			Dissolved Chromium (Cr)	2017/10/29	NC		%	20
			Dissolved Cobalt (Co)	2017/10/29	NC		%	20
			Dissolved Copper (Cu)	2017/10/29	11		%	20
			Dissolved Iron (Fe)	2017/10/29	NC		%	20
			Dissolved Lead (Pb)	2017/10/29	NC		%	20
			Dissolved Lithium (Li)	2017/10/29	7.2		%	20
			Dissolved Manganese (Mn)	2017/10/29	9.7		%	20
			Dissolved Molybdenum (Mo)	2017/10/29	7.5		%	20
			Dissolved Nickel (Ni)	2017/10/29	5.2		%	20
			Dissolved Selenium (Se)	2017/10/29	10		%	20
			Dissolved Silicon (Si)	2017/10/29	2.7		%	20
			Dissolved Silver (Ag)	2017/10/29	NC		%	20
			Dissolved Strontium (Sr)	2017/10/29	4.0		%	20
			Dissolved Thallium (Tl)	2017/10/29	NC		%	20
			Dissolved Tin (Sn)	2017/10/29	NC		%	20
			Dissolved Titanium (Ti)	2017/10/29	NC		%	20
			Dissolved Uranium (U)	2017/10/29	2.1		%	20
			Dissolved Vanadium (V)	2017/10/29	NC		%	20
			Dissolved Zinc (Zn)	2017/10/29	NC		%	20
			Dissolved Zirconium (Zr)	2017/10/29	NC		%	20
8808915	BO3	Spiked Blank	Orthophosphate (P)	2017/10/26		99	%	80 - 120
8808915	BO3	Method Blank	Orthophosphate (P)	2017/10/26	<0.0050		mg/L	
8809049	CGP	Spiked Blank	pH	2017/10/26		102	%	97 - 103
8809049	CGP	RPD [SH7972-02]	pH	2017/10/26	7.4		%	20
8809051	CGP	Spiked Blank	Conductivity	2017/10/26		101	%	80 - 120
8809051	CGP	Method Blank	Conductivity	2017/10/26	<2.0		uS/cm	
8809051	CGP	RPD [SH7972-02]	Conductivity	2017/10/26	NC		%	20
8809053	CGP	Matrix Spike [SH7972-02]	Alkalinity (Total as CaCO3)	2017/10/26		102	%	80 - 120
8809053	CGP	Spiked Blank	Alkalinity (Total as CaCO3)	2017/10/26		101	%	80 - 120
8809053	CGP	Method Blank	Alkalinity (Total as CaCO3)	2017/10/26	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2017/10/26	<1.0		mg/L	
			Bicarbonate (HCO3)	2017/10/26	<1.0		mg/L	
			Carbonate (CO3)	2017/10/26	<1.0		mg/L	
			Hydroxide (OH)	2017/10/26	<1.0		mg/L	
8809053	CGP	RPD [SH7972-02]	Alkalinity (Total as CaCO3)	2017/10/26	NC		%	20
			Alkalinity (PP as CaCO3)	2017/10/26	NC		%	20
			Bicarbonate (HCO3)	2017/10/26	NC		%	20
			Carbonate (CO3)	2017/10/26	NC		%	20
			Hydroxide (OH)	2017/10/26	NC		%	20
8809061	CGP	Spiked Blank	pH	2017/10/26		102	%	97 - 103
8809061	CGP	RPD	pH	2017/10/26	0.49		%	20
8809063	CGP	Spiked Blank	Conductivity	2017/10/26		99	%	80 - 120
8809063	CGP	Method Blank	Conductivity	2017/10/26	<2.0		uS/cm	
8809064	CGP	Matrix Spike [SH7969-02]	Alkalinity (Total as CaCO3)	2017/10/26		NC	%	80 - 120
8809064	CGP	Spiked Blank	Alkalinity (Total as CaCO3)	2017/10/26		102	%	80 - 120
8809064	CGP	Method Blank	Alkalinity (Total as CaCO3)	2017/10/26	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2017/10/26	<1.0		mg/L	
			Bicarbonate (HCO3)	2017/10/26	<1.0		mg/L	
			Carbonate (CO3)	2017/10/26	<1.0		mg/L	
			Hydroxide (OH)	2017/10/26	<1.0		mg/L	

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8809064	CGP	RPD	Alkalinity (Total as CaCO3)	2017/10/26	0.15		%	20
			Alkalinity (PP as CaCO3)	2017/10/26	NC		%	20
			Bicarbonate (HCO3)	2017/10/26	0.15		%	20
			Carbonate (CO3)	2017/10/26	NC		%	20
			Hydroxide (OH)	2017/10/26	NC		%	20
8809087	JLP	Matrix Spike	Total Aluminum (Al)	2017/10/27		106	%	80 - 120
			Total Antimony (Sb)	2017/10/27		95	%	80 - 120
			Total Arsenic (As)	2017/10/27		NC	%	80 - 120
			Total Barium (Ba)	2017/10/27		96	%	80 - 120
			Total Beryllium (Be)	2017/10/27		100	%	80 - 120
			Total Bismuth (Bi)	2017/10/27		89	%	80 - 120
			Total Boron (B)	2017/10/27		NC	%	80 - 120
			Total Cadmium (Cd)	2017/10/27		96	%	80 - 120
			Total Chromium (Cr)	2017/10/27		90	%	80 - 120
			Total Cobalt (Co)	2017/10/27		91	%	80 - 120
			Total Copper (Cu)	2017/10/27		87	%	80 - 120
			Total Iron (Fe)	2017/10/27		103	%	80 - 120
			Total Lead (Pb)	2017/10/27		92	%	80 - 120
			Total Lithium (Li)	2017/10/27		87	%	80 - 120
			Total Manganese (Mn)	2017/10/27		87	%	80 - 120
			Total Molybdenum (Mo)	2017/10/27		106	%	80 - 120
			Total Nickel (Ni)	2017/10/27		87	%	80 - 120
			Total Selenium (Se)	2017/10/27		93	%	80 - 120
			Total Silver (Ag)	2017/10/27		88	%	80 - 120
			Total Strontium (Sr)	2017/10/27		NC	%	80 - 120
			Total Thallium (Tl)	2017/10/27		91	%	80 - 120
			Total Tin (Sn)	2017/10/27		91	%	80 - 120
			Total Titanium (Ti)	2017/10/27		96	%	80 - 120
			Total Uranium (U)	2017/10/27		96	%	80 - 120
			Total Vanadium (V)	2017/10/27		96	%	80 - 120
			Total Zinc (Zn)	2017/10/27		91	%	80 - 120
			Total Zirconium (Zr)	2017/10/27		99	%	80 - 120
8809087	JLP	Spiked Blank	Total Aluminum (Al)	2017/10/27		115	%	80 - 120
			Total Antimony (Sb)	2017/10/27		100	%	80 - 120
			Total Arsenic (As)	2017/10/27		96	%	80 - 120
			Total Barium (Ba)	2017/10/27		99	%	80 - 120
			Total Beryllium (Be)	2017/10/27		108	%	80 - 120
			Total Bismuth (Bi)	2017/10/27		102	%	80 - 120
			Total Boron (B)	2017/10/27		110	%	80 - 120
			Total Cadmium (Cd)	2017/10/27		100	%	80 - 120
			Total Chromium (Cr)	2017/10/27		100	%	80 - 120
			Total Cobalt (Co)	2017/10/27		101	%	80 - 120
			Total Copper (Cu)	2017/10/27		102	%	80 - 120
			Total Iron (Fe)	2017/10/27		108	%	80 - 120
			Total Lead (Pb)	2017/10/27		101	%	80 - 120
			Total Lithium (Li)	2017/10/27		103	%	80 - 120
			Total Manganese (Mn)	2017/10/27		100	%	80 - 120
			Total Molybdenum (Mo)	2017/10/27		103	%	80 - 120
			Total Nickel (Ni)	2017/10/27		100	%	80 - 120
			Total Selenium (Se)	2017/10/27		102	%	80 - 120
			Total Silver (Ag)	2017/10/27		107	%	80 - 120
			Total Strontium (Sr)	2017/10/27		95	%	80 - 120
			Total Thallium (Tl)	2017/10/27		100	%	80 - 120
			Total Tin (Sn)	2017/10/27		100	%	80 - 120
			Total Titanium (Ti)	2017/10/27		100	%	80 - 120

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			Total Uranium (U)	2017/10/27		98	%	80 - 120
			Total Vanadium (V)	2017/10/27		100	%	80 - 120
			Total Zinc (Zn)	2017/10/27		100	%	80 - 120
			Total Zirconium (Zr)	2017/10/27		100	%	80 - 120
8809087	JLP	Method Blank	Total Aluminum (Al)	2017/10/27	<3.0		ug/L	
			Total Antimony (Sb)	2017/10/27	<0.50		ug/L	
			Total Arsenic (As)	2017/10/27	<0.10		ug/L	
			Total Barium (Ba)	2017/10/27	<1.0		ug/L	
			Total Beryllium (Be)	2017/10/27	<0.10		ug/L	
			Total Bismuth (Bi)	2017/10/27	<1.0		ug/L	
			Total Boron (B)	2017/10/27	<50		ug/L	
			Total Cadmium (Cd)	2017/10/27	<0.010		ug/L	
			Total Chromium (Cr)	2017/10/27	<1.0		ug/L	
			Total Cobalt (Co)	2017/10/27	<0.20		ug/L	
			Total Copper (Cu)	2017/10/27	<0.50		ug/L	
			Total Iron (Fe)	2017/10/27	<10		ug/L	
			Total Lead (Pb)	2017/10/27	<0.20		ug/L	
			Total Lithium (Li)	2017/10/27	<2.0		ug/L	
			Total Manganese (Mn)	2017/10/27	<1.0		ug/L	
			Total Molybdenum (Mo)	2017/10/27	<1.0		ug/L	
			Total Nickel (Ni)	2017/10/27	<1.0		ug/L	
			Total Selenium (Se)	2017/10/27	<0.10		ug/L	
			Total Silicon (Si)	2017/10/27	<100		ug/L	
			Total Silver (Ag)	2017/10/27	<0.020		ug/L	
			Total Strontium (Sr)	2017/10/27	<1.0		ug/L	
			Total Thallium (Tl)	2017/10/27	<0.010		ug/L	
			Total Tin (Sn)	2017/10/27	<5.0		ug/L	
			Total Titanium (Ti)	2017/10/27	<5.0		ug/L	
			Total Uranium (U)	2017/10/27	<0.10		ug/L	
			Total Vanadium (V)	2017/10/27	<5.0		ug/L	
			Total Zinc (Zn)	2017/10/27	<5.0		ug/L	
			Total Zirconium (Zr)	2017/10/27	<0.10		ug/L	
8809087	JLP	RPD	Total Arsenic (As)	2017/10/27	4.6		%	20
8809200	CK	Matrix Spike	Total Ammonia (N)	2017/10/27		97	%	80 - 120
8809200	CK	Spiked Blank	Total Ammonia (N)	2017/10/27		102	%	80 - 120
8809200	CK	Method Blank	Total Ammonia (N)	2017/10/27	<0.020		mg/L	
8809200	CK	RPD	Total Ammonia (N)	2017/10/27	NC		%	20
8809201	CK	Matrix Spike	Total Ammonia (N)	2017/10/27		88	%	80 - 120
8809201	CK	Spiked Blank	Total Ammonia (N)	2017/10/27		97	%	80 - 120
8809201	CK	Method Blank	Total Ammonia (N)	2017/10/27	<0.020		mg/L	
8809201	CK	RPD	Total Ammonia (N)	2017/10/27	NC		%	20
8809759	IW1	Matrix Spike	Nitrate plus Nitrite (N)	2017/10/26		NC	%	80 - 120
8809759	IW1	Spiked Blank	Nitrate plus Nitrite (N)	2017/10/26		106	%	80 - 120
8809759	IW1	Method Blank	Nitrate plus Nitrite (N)	2017/10/26	<0.020		mg/L	
8809759	IW1	RPD	Nitrate plus Nitrite (N)	2017/10/26	0.45		%	25
8809760	IW1	Matrix Spike	Nitrite (N)	2017/10/26		101	%	80 - 120
8809760	IW1	Spiked Blank	Nitrite (N)	2017/10/26		100	%	80 - 120
8809760	IW1	Method Blank	Nitrite (N)	2017/10/26	<0.0050		mg/L	
8809760	IW1	RPD	Nitrite (N)	2017/10/26	NC		%	20
8809889	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/10/26		98	%	80 - 120
8809889	BB3	Method Blank	Dissolved Chloride (Cl)	2017/10/26	<1.0		mg/L	
8809929	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/10/26		100	%	80 - 120
8809929	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/10/26	<1.0		mg/L	
8810249	BO3	Spiked Blank	Dissolved Phosphorus (P)	2017/10/27		105	%	80 - 120
8810249	BO3	Method Blank	Dissolved Phosphorus (P)	2017/10/27	<0.0050		mg/L	

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8810389	JLP	Matrix Spike [SH7969-03]	Total Aluminum (Al)	2017/11/01		116	%	80 - 120
			Total Antimony (Sb)	2017/11/01		103	%	80 - 120
			Total Arsenic (As)	2017/11/01		100	%	80 - 120
			Total Barium (Ba)	2017/11/01		NC	%	80 - 120
			Total Beryllium (Be)	2017/11/01		102	%	80 - 120
			Total Bismuth (Bi)	2017/11/01		100	%	80 - 120
			Total Boron (B)	2017/11/01		91	%	80 - 120
			Total Cadmium (Cd)	2017/11/01		101	%	80 - 120
			Total Chromium (Cr)	2017/11/01		92	%	80 - 120
			Total Cobalt (Co)	2017/11/01		90	%	80 - 120
			Total Copper (Cu)	2017/11/01		89	%	80 - 120
			Total Iron (Fe)	2017/11/01		NC	%	80 - 120
			Total Lead (Pb)	2017/11/01		98	%	80 - 120
			Total Lithium (Li)	2017/11/01		94	%	80 - 120
			Total Manganese (Mn)	2017/11/01		101	%	80 - 120
			Total Molybdenum (Mo)	2017/11/01		NC	%	80 - 120
			Total Nickel (Ni)	2017/11/01		90	%	80 - 120
			Total Selenium (Se)	2017/11/01		101	%	80 - 120
			Total Silver (Ag)	2017/11/01		102	%	80 - 120
			Total Strontium (Sr)	2017/11/01		NC	%	80 - 120
			Total Thallium (Tl)	2017/11/01		98	%	80 - 120
			Total Tin (Sn)	2017/11/01		96	%	80 - 120
			Total Titanium (Ti)	2017/11/01		96	%	80 - 120
			Total Uranium (U)	2017/11/01		98	%	80 - 120
			Total Vanadium (V)	2017/11/01		97	%	80 - 120
			Total Zinc (Zn)	2017/11/01		99	%	80 - 120
			Total Zirconium (Zr)	2017/11/01		94	%	80 - 120
8810389	JLP	Spiked Blank	Total Aluminum (Al)	2017/11/01		106	%	80 - 120
			Total Antimony (Sb)	2017/11/01		103	%	80 - 120
			Total Arsenic (As)	2017/11/01		99	%	80 - 120
			Total Barium (Ba)	2017/11/01		101	%	80 - 120
			Total Beryllium (Be)	2017/11/01		100	%	80 - 120
			Total Bismuth (Bi)	2017/11/01		103	%	80 - 120
			Total Boron (B)	2017/11/01		95	%	80 - 120
			Total Cadmium (Cd)	2017/11/01		100	%	80 - 120
			Total Chromium (Cr)	2017/11/01		95	%	80 - 120
			Total Cobalt (Co)	2017/11/01		93	%	80 - 120
			Total Copper (Cu)	2017/11/01		93	%	80 - 120
			Total Iron (Fe)	2017/11/01		108	%	80 - 120
			Total Lead (Pb)	2017/11/01		101	%	80 - 120
			Total Lithium (Li)	2017/11/01		93	%	80 - 120
			Total Manganese (Mn)	2017/11/01		100	%	80 - 120
			Total Molybdenum (Mo)	2017/11/01		107	%	80 - 120
			Total Nickel (Ni)	2017/11/01		91	%	80 - 120
			Total Selenium (Se)	2017/11/01		104	%	80 - 120
			Total Silver (Ag)	2017/11/01		105	%	80 - 120
			Total Strontium (Sr)	2017/11/01		97	%	80 - 120
			Total Thallium (Tl)	2017/11/01		100	%	80 - 120
			Total Tin (Sn)	2017/11/01		99	%	80 - 120
			Total Titanium (Ti)	2017/11/01		90	%	80 - 120
			Total Uranium (U)	2017/11/01		99	%	80 - 120
			Total Vanadium (V)	2017/11/01		91	%	80 - 120
			Total Zinc (Zn)	2017/11/01		98	%	80 - 120
			Total Zirconium (Zr)	2017/11/01		82	%	80 - 120
8810389	JLP	Method Blank	Total Aluminum (Al)	2017/11/01	<3.0		ug/L	

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			Total Antimony (Sb)	2017/11/01	<0.50		ug/L	
			Total Arsenic (As)	2017/11/01	<0.10		ug/L	
			Total Barium (Ba)	2017/11/01	<1.0		ug/L	
			Total Beryllium (Be)	2017/11/01	<0.10		ug/L	
			Total Bismuth (Bi)	2017/11/01	<1.0		ug/L	
			Total Boron (B)	2017/11/01	<50		ug/L	
			Total Cadmium (Cd)	2017/11/01	<0.010		ug/L	
			Total Chromium (Cr)	2017/11/01	<1.0		ug/L	
			Total Cobalt (Co)	2017/11/01	<0.20		ug/L	
			Total Copper (Cu)	2017/11/01	<0.50		ug/L	
			Total Iron (Fe)	2017/11/01	<10		ug/L	
			Total Lead (Pb)	2017/11/01	<0.20		ug/L	
			Total Lithium (Li)	2017/11/01	<2.0		ug/L	
			Total Manganese (Mn)	2017/11/01	<1.0		ug/L	
			Total Molybdenum (Mo)	2017/11/01	<1.0		ug/L	
			Total Nickel (Ni)	2017/11/01	<1.0		ug/L	
			Total Selenium (Se)	2017/11/01	<0.10		ug/L	
			Total Silicon (Si)	2017/11/01	<100		ug/L	
			Total Silver (Ag)	2017/11/01	<0.020		ug/L	
			Total Strontium (Sr)	2017/11/01	<1.0		ug/L	
			Total Thallium (Tl)	2017/11/01	<0.010		ug/L	
			Total Tin (Sn)	2017/11/01	<5.0		ug/L	
			Total Titanium (Ti)	2017/11/01	<5.0		ug/L	
			Total Uranium (U)	2017/11/01	<0.10		ug/L	
			Total Vanadium (V)	2017/11/01	<5.0		ug/L	
			Total Zinc (Zn)	2017/11/01	<5.0		ug/L	
			Total Zirconium (Zr)	2017/11/01	<0.10		ug/L	
8810389	JLP	RPD [SH7969-03]	Total Aluminum (Al)	2017/11/01	1.7		%	20
			Total Antimony (Sb)	2017/11/01	NC		%	20
			Total Arsenic (As)	2017/11/01	0.66		%	20
			Total Barium (Ba)	2017/11/01	5.1		%	20
			Total Beryllium (Be)	2017/11/01	NC		%	20
			Total Bismuth (Bi)	2017/11/01	NC		%	20
			Total Boron (B)	2017/11/01	NC		%	20
			Total Cadmium (Cd)	2017/11/01	8.7		%	20
			Total Chromium (Cr)	2017/11/01	NC		%	20
			Total Cobalt (Co)	2017/11/01	NC		%	20
			Total Copper (Cu)	2017/11/01	17		%	20
			Total Iron (Fe)	2017/11/01	1.9		%	20
			Total Lead (Pb)	2017/11/01	NC		%	20
			Total Lithium (Li)	2017/11/01	3.8		%	20
			Total Manganese (Mn)	2017/11/01	4.5		%	20
			Total Molybdenum (Mo)	2017/11/01	7.5		%	20
			Total Nickel (Ni)	2017/11/01	6.0		%	20
			Total Selenium (Se)	2017/11/01	NC		%	20
			Total Silicon (Si)	2017/11/01	8.3		%	20
			Total Silver (Ag)	2017/11/01	NC		%	20
			Total Strontium (Sr)	2017/11/01	3.7		%	20
			Total Thallium (Tl)	2017/11/01	NC		%	20
			Total Tin (Sn)	2017/11/01	NC		%	20
			Total Titanium (Ti)	2017/11/01	NC		%	20
			Total Uranium (U)	2017/11/01	5.8		%	20
			Total Vanadium (V)	2017/11/01	NC		%	20
			Total Zinc (Zn)	2017/11/01	NC		%	20
			Total Zirconium (Zr)	2017/11/01	NC		%	20

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8812375	JLP	Matrix Spike	Total Aluminum (Al)	2017/10/31		111	%	80 - 120
			Total Antimony (Sb)	2017/10/31		NC	%	80 - 120
			Total Arsenic (As)	2017/10/31		110	%	80 - 120
			Total Barium (Ba)	2017/10/31		NC	%	80 - 120
			Total Beryllium (Be)	2017/10/31		101	%	80 - 120
			Total Bismuth (Bi)	2017/10/31		102	%	80 - 120
			Total Boron (B)	2017/10/31		103	%	80 - 120
			Total Cadmium (Cd)	2017/10/31		105	%	80 - 120
			Total Chromium (Cr)	2017/10/31		99	%	80 - 120
			Total Cobalt (Co)	2017/10/31		97	%	80 - 120
			Total Copper (Cu)	2017/10/31		93	%	80 - 120
			Total Iron (Fe)	2017/10/31		113	%	80 - 120
			Total Lead (Pb)	2017/10/31		102	%	80 - 120
			Total Lithium (Li)	2017/10/31		103	%	80 - 120
			Total Manganese (Mn)	2017/10/31		NC	%	80 - 120
			Total Molybdenum (Mo)	2017/10/31		NC	%	80 - 120
			Total Nickel (Ni)	2017/10/31		NC	%	80 - 120
			Total Selenium (Se)	2017/10/31		105	%	80 - 120
			Total Silver (Ag)	2017/10/31		108	%	80 - 120
			Total Strontium (Sr)	2017/10/31		NC	%	80 - 120
			Total Thallium (Tl)	2017/10/31		107	%	80 - 120
			Total Tin (Sn)	2017/10/31		101	%	80 - 120
			Total Titanium (Ti)	2017/10/31		105	%	80 - 120
			Total Uranium (U)	2017/10/31		105	%	80 - 120
			Total Vanadium (V)	2017/10/31		103	%	80 - 120
			Total Zinc (Zn)	2017/10/31		94	%	80 - 120
			Total Zirconium (Zr)	2017/10/31		99	%	80 - 120
8812375	JLP	Spiked Blank	Total Aluminum (Al)	2017/10/31		115	%	80 - 120
			Total Antimony (Sb)	2017/10/31		107	%	80 - 120
			Total Arsenic (As)	2017/10/31		107	%	80 - 120
			Total Barium (Ba)	2017/10/31		106	%	80 - 120
			Total Beryllium (Be)	2017/10/31		99	%	80 - 120
			Total Bismuth (Bi)	2017/10/31		104	%	80 - 120
			Total Boron (B)	2017/10/31		98	%	80 - 120
			Total Cadmium (Cd)	2017/10/31		103	%	80 - 120
			Total Chromium (Cr)	2017/10/31		98	%	80 - 120
			Total Cobalt (Co)	2017/10/31		97	%	80 - 120
			Total Copper (Cu)	2017/10/31		95	%	80 - 120
			Total Iron (Fe)	2017/10/31		117	%	80 - 120
			Total Lead (Pb)	2017/10/31		103	%	80 - 120
			Total Lithium (Li)	2017/10/31		92	%	80 - 120
			Total Manganese (Mn)	2017/10/31		104	%	80 - 120
			Total Molybdenum (Mo)	2017/10/31		103	%	80 - 120
			Total Nickel (Ni)	2017/10/31		97	%	80 - 120
			Total Selenium (Se)	2017/10/31		109	%	80 - 120
			Total Silver (Ag)	2017/10/31		110	%	80 - 120
			Total Strontium (Sr)	2017/10/31		104	%	80 - 120
			Total Thallium (Tl)	2017/10/31		104	%	80 - 120
			Total Tin (Sn)	2017/10/31		102	%	80 - 120
			Total Titanium (Ti)	2017/10/31		108	%	80 - 120
			Total Uranium (U)	2017/10/31		100	%	80 - 120
			Total Vanadium (V)	2017/10/31		99	%	80 - 120
			Total Zinc (Zn)	2017/10/31		106	%	80 - 120
			Total Zirconium (Zr)	2017/10/31		101	%	80 - 120
8812375	JLP	Method Blank	Total Aluminum (Al)	2017/10/31	<3.0		ug/L	

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Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Antimony (Sb)	2017/10/31	<0.50		ug/L	
			Total Arsenic (As)	2017/10/31	<0.10		ug/L	
			Total Barium (Ba)	2017/10/31	<1.0		ug/L	
			Total Beryllium (Be)	2017/10/31	<0.10		ug/L	
			Total Bismuth (Bi)	2017/10/31	<1.0		ug/L	
			Total Boron (B)	2017/10/31	<50		ug/L	
			Total Cadmium (Cd)	2017/10/31	<0.010		ug/L	
			Total Chromium (Cr)	2017/10/31	<1.0		ug/L	
			Total Cobalt (Co)	2017/10/31	<0.20		ug/L	
			Total Copper (Cu)	2017/10/31	<0.50		ug/L	
			Total Iron (Fe)	2017/10/31	<10		ug/L	
			Total Lead (Pb)	2017/10/31	<0.20		ug/L	
			Total Lithium (Li)	2017/10/31	<2.0		ug/L	
			Total Manganese (Mn)	2017/10/31	<1.0		ug/L	
			Total Molybdenum (Mo)	2017/10/31	<1.0		ug/L	
			Total Nickel (Ni)	2017/10/31	<1.0		ug/L	
			Total Selenium (Se)	2017/10/31	<0.10		ug/L	
			Total Silicon (Si)	2017/10/31	<100		ug/L	
			Total Silver (Ag)	2017/10/31	<0.020		ug/L	
			Total Strontium (Sr)	2017/10/31	<1.0		ug/L	
			Total Thallium (Tl)	2017/10/31	<0.010		ug/L	
			Total Tin (Sn)	2017/10/31	<5.0		ug/L	
			Total Titanium (Ti)	2017/10/31	<5.0		ug/L	
			Total Uranium (U)	2017/10/31	<0.10		ug/L	
			Total Vanadium (V)	2017/10/31	<5.0		ug/L	
			Total Zinc (Zn)	2017/10/31	<5.0		ug/L	
			Total Zirconium (Zr)	2017/10/31	<0.10		ug/L	
8812375	JLP	RPD	Total Aluminum (Al)	2017/10/31	2.7		%	20
			Total Antimony (Sb)	2017/10/31	1.4		%	20
			Total Arsenic (As)	2017/10/31	2.5		%	20
			Total Barium (Ba)	2017/10/31	1.7		%	20
			Total Beryllium (Be)	2017/10/31	NC		%	20
			Total Bismuth (Bi)	2017/10/31	NC		%	20
			Total Boron (B)	2017/10/31	NC		%	20
			Total Cadmium (Cd)	2017/10/31	NC		%	20
			Total Chromium (Cr)	2017/10/31	NC		%	20
			Total Cobalt (Co)	2017/10/31	1.1		%	20
			Total Copper (Cu)	2017/10/31	NC		%	20
			Total Iron (Fe)	2017/10/31	NC		%	20
			Total Lead (Pb)	2017/10/31	NC		%	20
			Total Lithium (Li)	2017/10/31	NC		%	20
			Total Manganese (Mn)	2017/10/31	0.67		%	20
			Total Molybdenum (Mo)	2017/10/31	3.4		%	20
			Total Nickel (Ni)	2017/10/31	0.49		%	20
			Total Selenium (Se)	2017/10/31	NC		%	20
			Total Silicon (Si)	2017/10/31	4.4		%	20
			Total Silver (Ag)	2017/10/31	NC		%	20
			Total Strontium (Sr)	2017/10/31	0.52		%	20
			Total Thallium (Tl)	2017/10/31	NC		%	20
			Total Tin (Sn)	2017/10/31	NC		%	20
			Total Titanium (Ti)	2017/10/31	NC		%	20
			Total Uranium (U)	2017/10/31	0.27		%	20
			Total Vanadium (V)	2017/10/31	NC		%	20
			Total Zinc (Zn)	2017/10/31	NC		%	20
			Total Zirconium (Zr)	2017/10/31	NC		%	20

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Maxxam Job #: B794386
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8813799	RM3	Matrix Spike	Total Mercury (Hg)	2017/10/31		108	%	80 - 120
8813799	RM3	Spiked Blank	Total Mercury (Hg)	2017/10/31		98	%	80 - 120
8813799	RM3	Method Blank	Total Mercury (Hg)	2017/10/31	<0.010		ug/L	
8813799	RM3	RPD	Total Mercury (Hg)	2017/10/31	NC		%	20
8814138	RM3	Matrix Spike	Dissolved Mercury (Hg)	2017/10/31		94	%	80 - 120
8814138	RM3	Spiked Blank	Dissolved Mercury (Hg)	2017/10/31		93	%	80 - 120
8814138	RM3	Method Blank	Dissolved Mercury (Hg)	2017/10/31	<0.010		ug/L	
8814138	RM3	RPD	Dissolved Mercury (Hg)	2017/10/31	NC		%	20
8814334	EL2	Matrix Spike [SH7968-06]	Dissolved Mercury (Hg)	2017/11/01		103	%	80 - 120
8814334	EL2	Spiked Blank	Dissolved Mercury (Hg)	2017/11/01		94	%	80 - 120
8814334	EL2	Method Blank	Dissolved Mercury (Hg)	2017/11/01	<0.010		ug/L	
8814334	EL2	RPD [SH7968-06]	Dissolved Mercury (Hg)	2017/11/01	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).

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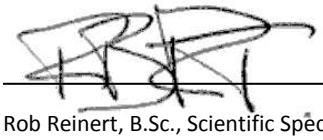
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.

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.

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Maxxam Analytics International Corporation o/a Maxxam Analytics
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.maxxam.ca

B794386 COC

Bottle Order #: 538098

C#538098-01-01

Project Manager: Veronica De Guzman

INVOICE TO:		Report Information		Project Information	
Company Name	#12411 AFRICAN QUEEN MINES LTD.	Company Name		Quotation #	B61210
Contact Name	~~Linda Dandy~~ JEN TODHUNTER	Contact Name	LINDA DANDY	P.O. #	
Address	1153 56TH STREET BOX 19040	Address		Project #	
	DELTA BC V4L 2P8			Project Name	
Phone	(604) 240-7676 x Fax:	Phone	Fax:	Site #	
Email	lindadandy@telus.net	Email		Sampled By	

Regulatory Criteria

Special Instructions

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 sampling until delivery to maxxam

Analysis Requested

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT ✓
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	EC, pH, ALK, F	Cl, SO4, N+N, TURB	TSS	NH4	TOTAL D. PHOS	ORTHOPHOSPHATE	TOTAL METALS W/ CV Hg.	DISSOLVED METALS WITH CV Hg.	# of Bottles	Comments
1		PC-1	OCT 23	1000	H_2O	N	Y	✓	✓	✓	✓	✓	✓	✓	✓		RECEIVED IN ~~WHITEHORSE~~
2		PC-2		1200													BY: Jeremy @ 1300
3		PC-5		1130													2017-10-24
4		PC-6		1330													
5		PC-FB Field Blank		1045													TEMP: 5 1 3 3
6		PC-DUP Duplicate		1030													1 1 2
7																	
8																	
9																	
10																	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
LINDA DANDY	17/10/24	1300	KEW CHAN	2017/10/25	09:30	NIL	✓	4.4.5	✓ Yes ☐ No

* UNLESS 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 WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

APPENDIX VI

JUNE 2107 GROUNDWATER AND LEACHATE BIN SAMPLES
CERTIFICATES OF ANALYSES

Your Project #: YJ
Your C.O.C. #: 527135-01-01, 527135-02-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/07/06
Report #: R2408180
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B751877
Received: 2017/06/26, 12:00

Sample Matrix: Water
Samples Received: 15

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	12	2017/06/28	2017/06/29	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Water	1	2017/06/28	2017/06/30	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Water	1	2017/06/29	2017/06/30	BBY6SOP-00026	SM 22 2320 B m
Alkalinity - Water	1	2017/06/29	2017/07/01	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	14	N/A	2017/06/28	BBY6SOP-00011	SM 22 4500-Cl- E m
Chloride by Automated Colourimetry	1	N/A	2017/06/29	BBY6SOP-00011	SM 22 4500-Cl- E m
Fluoride - Mining Clients	15	N/A	2017/06/29	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	15	N/A	2017/06/29	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	15	N/A	2017/07/04	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Bromide as Bromine (Br) by ICPMS	15	N/A	2017/06/28	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	15	N/A	2017/06/29	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved)	15	N/A	2017/06/29	BBY7SOP-00002	EPA 6020B R2 m
Nitrate + Nitrite (N)	15	N/A	2017/06/27	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) by CFA	15	N/A	2017/06/27	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	15	N/A	2017/06/28	BBY6SOP-00010	SM 22 4500-NO3 I m
Filter and HNO3 Preserve for Metals	15	N/A	2017/06/28	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	12	2017/06/28	2017/06/29	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (1)	1	2017/06/28	2017/06/30	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (1)	1	2017/06/29	2017/06/30	BBY6SOP-00026	SM 22 4500-H+ B m
pH Water (1)	1	2017/06/29	2017/07/01	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	12	N/A	2017/06/28	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	3	N/A	2017/06/29	BBY6SOP-00017	SM 22 4500-SO42- E 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.

Your Project #: YJ
Your C.O.C. #: 527135-01-01, 527135-02-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/07/06
Report #: R2408180
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B751877
Received: 2017/06/26, 12:00

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) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@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.

Maxxam Job #: B751877
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		RJ7005		RJ7006		RJ7007		RJ7008		
Sampling Date		2017/06/24 17:00		2017/06/24 17:20		2017/06/25 09:10		2017/06/25 09:20		
COC Number		527135-01-01		527135-01-01		527135-01-01		527135-01-01		
	UNITS	YJ-BIN#1	QC Batch	YJ-BIN#2	QC Batch	YJ-BIN#3	QC Batch	YJ-BIN#4	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.140	8680217	0.150	8680217	0.140	8680217	0.120	0.010	8680217
ANIONS										
Nitrite (N)	mg/L	<0.0050	8678545	<0.0050	8678545	<0.0050	8678542	<0.0050	0.0050	8678545
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	0.895	8676856	<0.020	8676856	<0.020	8676856	<0.020	0.020	8676856
Misc. Inorganics										
Alkalinity (Total as CaCO3)	mg/L	116	8681663	126	8682536	107	8680107	119	0.50	8681663
Alkalinity (PP as CaCO3)	mg/L	4.58	8681663	<0.50	8682536	<0.50	8680107	4.74	0.50	8681663
Bicarbonate (HCO3)	mg/L	131	8681663	153	8682536	131	8680107	133	0.50	8681663
Carbonate (CO3)	mg/L	5.50	8681663	<0.50	8682536	<0.50	8680107	5.69	0.50	8681663
Hydroxide (OH)	mg/L	<0.50	8681663	<0.50	8682536	<0.50	8680107	<0.50	0.50	8681663
Anions										
Dissolved Sulphate (SO4)	mg/L	1.49	8679959	1.82	8679959	2.83	8679959	12.1	0.50	8681329
Dissolved Chloride (Cl)	mg/L	1.3	8679952	1.3	8679952	3.4	8679952	1.6	0.50	8681324
Nutrients										
Nitrate plus Nitrite (N)	mg/L	0.895	8678543	<0.020	8678543	<0.020	8678541	<0.020	0.020	8678543
Physical Properties										
pH	pH	8.61	8681675	8.24	8682840	8.30	8680097	8.64		8681675

RDL = Reportable Detection Limit

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Maxxam Job #: B751877
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		RJ7009		RJ7010		RJ7011		RJ7012		
Sampling Date		2017/06/24 17:30		2017/06/25 10:30		2017/06/25 10:45		2017/06/24 16:00		
COC Number		527135-01-01		527135-01-01		527135-01-01		527135-01-01		
	UNITS	YJ-BIN#5	QC Batch	BGC06-02	QC Batch	BGC06-04	QC Batch	MW09-1D	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.140	8680217	0.190	8680217	0.200	8680217	0.140	0.010	8680221
ANIONS										
Nitrite (N)	mg/L	<0.0050	8678545	<0.0050	8678545	<0.0050	8678545	<0.0050	0.0050	8678545
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	LAB	8678399	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	0.216	8676856	<0.020	8676856	0.029	8676856	<0.020	0.020	8676856
Misc. Inorganics										
Alkalinity (Total as CaCO3)	mg/L	105	8680107	98.4	8680107	162	8680107	806	0.50	8680107
Alkalinity (PP as CaCO3)	mg/L	4.20	8680107	<0.50	8680107	4.15	8680107	<0.50	0.50	8680107
Bicarbonate (HCO3)	mg/L	117	8680107	120	8680107	187	8680107	984	0.50	8680107
Carbonate (CO3)	mg/L	5.04	8680107	<0.50	8680107	4.98	8680107	<0.50	0.50	8680107
Hydroxide (OH)	mg/L	<0.50	8680107	<0.50	8680107	<0.50	8680107	<0.50	0.50	8680107
Anions										
Dissolved Sulphate (SO4)	mg/L	182	8679959	11.1	8679959	13.4	8679959	157	0.50	8681329
Dissolved Chloride (Cl)	mg/L	1.1	8679952	0.89	8679952	0.64	8679952	1.2	0.50	8679952
Nutrients										
Nitrate plus Nitrite (N)	mg/L	0.216	8678543	<0.020	8678543	0.029	8678543	<0.020	0.020	8678543
Physical Properties										
pH	pH	8.54	8680097	8.17	8680097	8.47	8680097	7.83		8680097

RDL = Reportable Detection Limit

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B751877
Report Date: 2017/07/06

AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		RJ7013		RJ7014			RJ7021		
Sampling Date		2017/06/25 12:40		2017/06/25 12:50			2017/06/25 11:30		
COC Number		527135-01-01		527135-01-01			527135-02-01		
	UNITS	MW09-2D	QC Batch	MW09-2S	RDL	QC Batch	MW09-3	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.130	8680221	0.120	0.010	8680221	0.100	0.010	8680221
ANIONS									
Nitrite (N)	mg/L	<0.0050	8678545	<0.0050	0.0050	8678545	<0.0050	0.0050	8678545
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	8678399	FIELD		ONSITE	LAB		8678399
Nitrate (N)	mg/L	<0.020	8676856	0.389	0.020	8676856	<0.020	0.020	8676856
Misc. Inorganics									
Alkalinity (Total as CaCO3)	mg/L	151	8680107	77.9	0.50	8680107	433	0.50	8680107
Alkalinity (PP as CaCO3)	mg/L	<0.50	8680107	<0.50	0.50	8680107	<0.50	0.50	8680107
Bicarbonate (HCO3)	mg/L	184	8680107	95.1	0.50	8680107	529	0.50	8680107
Carbonate (CO3)	mg/L	<0.50	8680107	<0.50	0.50	8680107	<0.50	0.50	8680107
Hydroxide (OH)	mg/L	<0.50	8680107	<0.50	0.50	8680107	<0.50	0.50	8680107
Anions									
Dissolved Sulphate (SO4)	mg/L	22.7	8681329	7.53	0.50	8679959	283 (1)	5.0	8679959
Dissolved Chloride (Cl)	mg/L	2.0	8679952	0.97	0.50	8679952	0.90	0.50	8679952
Nutrients									
Nitrate plus Nitrite (N)	mg/L	<0.020	8678543	0.389	0.020	8678543	<0.020	0.020	8678543
Physical Properties									
pH	pH	8.26	8680097	8.12		8680097	7.86		8680097

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

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AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		RJ7022		RJ7023	RJ7024		RJ7025		
Sampling Date		2017/06/25 13:55		2017/06/24 17:45	2017/06/24 17:30		2017/06/25 12:50		
COC Number		527135-02-01		527135-02-01	527135-02-01		527135-02-01		
	UNITS	MW09-4D	QC Batch	FIELD BLANK	DUPLICATE 1	QC Batch	DUPLICATE 2	RDL	QC Batch
Misc. Inorganics									
Fluoride (F)	mg/L	0.064	8680221	<0.010	0.130	8680221	0.140	0.010	8680221
ANIONS									
Nitrite (N)	mg/L	<0.0050	8678542	<0.0050	<0.0050	8678545	<0.0050	0.0050	8678542
Calculated Parameters									
Filter and HNO3 Preservation	N/A	LAB	8678399	FIELD	FIELD	ONSITE	LAB		8678399
Nitrate (N)	mg/L	0.206	8676856	<0.020	0.215	8676856	<0.020	0.020	8676856
Misc. Inorganics									
Alkalinity (Total as CaCO3)	mg/L	225	8680107	<0.50	104	8680107	160	0.50	8680107
Alkalinity (PP as CaCO3)	mg/L	2.54	8680107	<0.50	4.00	8680107	1.73	0.50	8680107
Bicarbonate (HCO3)	mg/L	269	8680107	<0.50	118	8680107	191	0.50	8680107
Carbonate (CO3)	mg/L	3.05	8680107	<0.50	4.80	8680107	2.08	0.50	8680107
Hydroxide (OH)	mg/L	<0.50	8680107	<0.50	<0.50	8680107	<0.50	0.50	8680107
Anions									
Dissolved Sulphate (SO4)	mg/L	6.83	8679959	<0.50	180	8679959	24.5	0.50	8679959
Dissolved Chloride (Cl)	mg/L	6.7	8679952	<0.50	1.0	8679952	1.7	0.50	8679952
Nutrients									
Nitrate plus Nitrite (N)	mg/L	0.206	8678541	<0.020	0.215	8678543	<0.020	0.020	8678541
Physical Properties									
pH	pH	8.32	8680097	5.77	8.52	8680097	8.32		8680097
RDL = Reportable Detection Limit									

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AFRICAN QUEEN MINES LTD.
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		RJ7005	RJ7006	RJ7007	RJ7008	RJ7009	RJ7010		
Sampling Date		2017/06/24 17:00	2017/06/24 17:20	2017/06/25 09:10	2017/06/25 09:20	2017/06/24 17:30	2017/06/25 10:30		
COC Number		527135-01-01	527135-01-01	527135-01-01	527135-01-01	527135-01-01	527135-01-01		
	UNITS	YJ-BIN#1	YJ-BIN#2	YJ-BIN#3	YJ-BIN#4	YJ-BIN#5	BGC06-02	RDL	QC Batch
ANIONS									
Bromide (Br)	mg/L	<0.010	<0.010	0.019	<0.010	<0.010	<0.010	0.010	8678479
RDL = Reportable Detection Limit									

Maxxam ID		RJ7011		RJ7012		RJ7013	RJ7014		RJ7021		
Sampling Date		2017/06/25 10:45		2017/06/24 16:00		2017/06/25 12:40	2017/06/25 12:50		2017/06/25 11:30		
COC Number		527135-01-01		527135-01-01		527135-01-01	527135-01-01		527135-02-01		
	UNITS	BGC06-04	RDL	MW09-1D	RDL	MW09-2D	MW09-2S	RDL	MW09-3	RDL	QC Batch
ANIONS											
Bromide (Br)	mg/L	<0.010	0.010	<0.10	0.10	<0.010	<0.010	0.010	<0.10	0.10	8678479
RDL = Reportable Detection Limit											

Maxxam ID		RJ7022	RJ7023	RJ7024		RJ7025		
Sampling Date		2017/06/25 13:55	2017/06/24 17:45	2017/06/24 17:30		2017/06/25 12:50		
COC Number		527135-02-01	527135-02-01	527135-02-01		527135-02-01		
	UNITS	MW09-4D	FIELD BLANK	DUPLICATE 1	RDL	DUPLICATE 2	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	0.107	<0.010	<0.010	0.010	<0.10	0.10	8678479
RDL = Reportable Detection Limit								

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AFRICAN QUEEN MINES LTD.
Client Project #: YJ
Sampler Initials: LD

CSR/CCME DISS. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7005	RJ7006	RJ7007	RJ7008	RJ7009	RJ7010		
Sampling Date		2017/06/24 17:00	2017/06/24 17:20	2017/06/25 09:10	2017/06/25 09:20	2017/06/24 17:30	2017/06/25 10:30		
COC Number		527135-01-01	527135-01-01	527135-01-01	527135-01-01	527135-01-01	527135-01-01		
	UNITS	YJ-BIN#1	YJ-BIN#2	YJ-BIN#3	YJ-BIN#4	YJ-BIN#5	BGC06-02	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	106	115	107	116	264	98.5	0.50	8677724
Elements									
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8683409
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.0	8678606
Dissolved Antimony (Sb)	ug/L	1.65	1.46	1.63	1.32	7.14	<0.50	0.50	8678606
Dissolved Arsenic (As)	ug/L	1.54	1.03	2.85	2.04	7.04	0.40	0.10	8678606
Dissolved Barium (Ba)	ug/L	19.9	36.1	16.1	13.7	35.9	11.8	1.0	8678606
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8678606
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8678606
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	<50	50	8678606
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8678606
Dissolved Chromium (Cr)	ug/L	3.1	76.5	398	9.9	<1.0	<1.0	1.0	8678606
Dissolved Cobalt (Co)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8678606
Dissolved Copper (Cu)	ug/L	<0.20	<0.20	<0.20	4.55	0.46	0.22	0.20	8678606
Dissolved Iron (Fe)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Lead (Pb)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8678606
Dissolved Lithium (Li)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	8678606
Dissolved Manganese (Mn)	ug/L	<1.0	2.0	<1.0	<1.0	<1.0	<1.0	1.0	8678606
Dissolved Molybdenum (Mo)	ug/L	2.0	2.5	2.5	5.5	216	<1.0	1.0	8678606
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	1.1	<1.0	<1.0	1.9	1.0	8678606
Dissolved Selenium (Se)	ug/L	<0.10	0.14	0.56	2.95	10.7	<0.10	0.10	8678606
Dissolved Silicon (Si)	ug/L	3580	4380	6000	4300	4710	10200	100	8678606
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8678606
Dissolved Strontium (Sr)	ug/L	88.9	125	58.3	57.6	216	49.4	1.0	8678606
Dissolved Thallium (Tl)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8678606
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Uranium (U)	ug/L	0.59	0.97	0.76	1.10	14.3	<0.10	0.10	8678606
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	65.5	<5.0	5.0	8678606
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8678606
RDL = Reportable Detection Limit									

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CSR/CCME DISS. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7005	RJ7006	RJ7007	RJ7008	RJ7009	RJ7010		
Sampling Date		2017/06/24 17:00	2017/06/24 17:20	2017/06/25 09:10	2017/06/25 09:20	2017/06/24 17:30	2017/06/25 10:30		
COC Number		527135-01-01	527135-01-01	527135-01-01	527135-01-01	527135-01-01	527135-01-01		
	UNITS	**YJ-BIN#1**	**YJ-BIN#2**	**YJ-BIN#3**	**YJ-BIN#4**	**YJ-BIN#5**	**BGC06-02**	**RDL**	**QC Batch**
Dissolved Calcium (Ca)	mg/L	4.57	8.46	15.6	4.99	12.6	13.0	0.050	8677206
Dissolved Magnesium (Mg)	mg/L	22.9	22.9	16.4	25.0	56.4	16.1	0.050	8677206
Dissolved Potassium (K)	mg/L	1.10	0.653	0.318	1.13	2.32	0.676	0.050	8677206
Dissolved Sodium (Na)	mg/L	4.32	2.41	0.595	3.97	6.94	1.93	0.050	8677206
Dissolved Sulphur (S)	mg/L	<3.0	<3.0	<3.0	3.9	59.1	<3.0	3.0	8677206
RDL = Reportable Detection Limit									

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CSR/CCME DISS. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7011	RJ7012	RJ7013	RJ7014	RJ7021	RJ7022		
Sampling Date		2017/06/25 10:45	2017/06/24 16:00	2017/06/25 12:40	2017/06/25 12:50	2017/06/25 11:30	2017/06/25 13:55		
COC Number		527135-01-01	527135-01-01	527135-01-01	527135-01-01	527135-02-01	527135-02-01		
	UNITS	**BGC06-04**	**MW09-1D**	**MW09-2D**	**MW09-2S**	**MW09-3**	**MW09-4D**	**RDL**	**QC Batch**
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	148	881	121	56.9	668	225	0.50	8677724
Elements									
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8683409
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	<3.0	3.9	<3.0	3.5	<3.0	<3.0	3.0	8678606
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8678606
Dissolved Arsenic (As)	ug/L	1.09	1.94	0.70	1.13	0.67	0.49	0.10	8678606
Dissolved Barium (Ba)	ug/L	30.2	136	46.4	14.2	71.8	36.4	1.0	8678606
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8678606
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8678606
Dissolved Boron (B)	ug/L	<50	113	<50	<50	<50	<50	50	8678606
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	<0.010	<0.010	0.043	<0.010	0.010	8678606
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	5.5	<1.0	<1.0	1.0	8678606
Dissolved Cobalt (Co)	ug/L	<0.20	2.03	0.57	<0.20	2.67	<0.20	0.20	8678606
Dissolved Copper (Cu)	ug/L	<0.20	<0.20	0.39	0.30	4.61	1.64	0.20	8678606
Dissolved Iron (Fe)	ug/L	<5.0	3330	210	<5.0	8.3	<5.0	5.0	8678606
Dissolved Lead (Pb)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8678606
Dissolved Lithium (Li)	ug/L	<2.0	20.8	4.0	2.6	19.8	<2.0	2.0	8678606
Dissolved Manganese (Mn)	ug/L	<1.0	257	134	<1.0	299	1.6	1.0	8678606
Dissolved Molybdenum (Mo)	ug/L	1.7	1.5	<1.0	<1.0	<1.0	<1.0	1.0	8678606
Dissolved Nickel (Ni)	ug/L	<1.0	66.5	4.8	1.6	59.7	11.3	1.0	8678606
Dissolved Selenium (Se)	ug/L	<0.10	<0.10	<0.10	0.79	0.11	0.11	0.10	8678606
Dissolved Silicon (Si)	ug/L	9050	38800	22900	16000	14800	9280	100	8678606
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	0.031	<0.020	0.020	8678606
Dissolved Strontium (Sr)	ug/L	99.6	349	61.0	32.7	259	108	1.0	8678606
Dissolved Thallium (Tl)	ug/L	<0.010	<0.010	<0.010	<0.010	0.027	<0.010	0.010	8678606
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Uranium (U)	ug/L	0.38	0.29	0.21	0.22	1.09	0.56	0.10	8678606
Dissolved Vanadium (V)	ug/L	6.2	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Zirconium (Zr)	ug/L	<0.10	0.14	<0.10	<0.10	0.35	<0.10	0.10	8678606
RDL = Reportable Detection Limit									

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CSR/CCME DISS. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7011	RJ7012	RJ7013	RJ7014	RJ7021	RJ7022		
Sampling Date		2017/06/25 10:45	2017/06/24 16:00	2017/06/25 12:40	2017/06/25 12:50	2017/06/25 11:30	2017/06/25 13:55		
COC Number		527135-01-01	527135-01-01	527135-01-01	527135-01-01	527135-02-01	527135-02-01		
	UNITS	BGC06-04	MW09-1D	MW09-2D	MW09-2S	MW09-3	MW09-4D	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L	12.3	53.1	18.7	8.52	79.8	47.1	0.050	8677206
Dissolved Magnesium (Mg)	mg/L	28.4	182	18.1	8.65	114	26.0	0.050	8677206
Dissolved Potassium (K)	mg/L	1.33	4.00	0.543	0.450	2.01	0.427	0.050	8677206
Dissolved Sodium (Na)	mg/L	7.11	20.6	19.2	12.2	6.68	2.56	0.050	8677206
Dissolved Sulphur (S)	mg/L	3.8	48.7	6.5	<3.0	84.4	<3.0	3.0	8677206

RDL = Reportable Detection Limit

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Client Project #: YJ
Sampler Initials: LD

CSR/CCME DISS. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7023	RJ7024	RJ7025		
Sampling Date		2017/06/24 17:45	2017/06/24 17:30	2017/06/25 12:50		
COC Number		527135-02-01	527135-02-01	527135-02-01		
	UNITS	FIELD BLANK	DUPLICATE 1	DUPLICATE 2	RDL	QC Batch
Misc. Inorganics						
Dissolved Hardness (CaCO3)	mg/L	<0.50	253	116	0.50	8677724
Elements						
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	0.010	8683409
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	ug/L	<3.0	<3.0	<3.0	3.0	8678606
Dissolved Antimony (Sb)	ug/L	<0.50	6.94	<0.50	0.50	8678606
Dissolved Arsenic (As)	ug/L	<0.10	7.09	0.69	0.10	8678606
Dissolved Barium (Ba)	ug/L	<1.0	35.5	47.0	1.0	8678606
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	0.10	8678606
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	1.0	8678606
Dissolved Boron (B)	ug/L	<50	<50	<50	50	8678606
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	<0.010	0.010	8678606
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	1.0	8678606
Dissolved Cobalt (Co)	ug/L	<0.20	<0.20	0.98	0.20	8678606
Dissolved Copper (Cu)	ug/L	<0.20	0.43	0.27	0.20	8678606
Dissolved Iron (Fe)	ug/L	<5.0	<5.0	13.3	5.0	8678606
Dissolved Lead (Pb)	ug/L	<0.20	<0.20	<0.20	0.20	8678606
Dissolved Lithium (Li)	ug/L	<2.0	<2.0	3.8	2.0	8678606
Dissolved Manganese (Mn)	ug/L	<1.0	<1.0	144	1.0	8678606
Dissolved Molybdenum (Mo)	ug/L	<1.0	210	<1.0	1.0	8678606
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	7.9	1.0	8678606
Dissolved Selenium (Se)	ug/L	<0.10	10.1	<0.10	0.10	8678606
Dissolved Silicon (Si)	ug/L	<100	4870	23000	100	8678606
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	0.020	8678606
Dissolved Strontium (Sr)	ug/L	<1.0	219	63.1	1.0	8678606
Dissolved Thallium (Tl)	ug/L	<0.010	<0.010	<0.010	0.010	8678606
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Uranium (U)	ug/L	<0.10	14.4	0.24	0.10	8678606
Dissolved Vanadium (V)	ug/L	<5.0	63.7	<5.0	5.0	8678606
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	5.0	8678606
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	0.10	8678606
RDL = Reportable Detection Limit						

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CSR/CCME DISS. METALS IN WATER W/ CV HG (WATER)

Maxxam ID		RJ7023	RJ7024	RJ7025		
Sampling Date		2017/06/24 17:45	2017/06/24 17:30	2017/06/25 12:50		
COC Number		527135-02-01	527135-02-01	527135-02-01		
	UNITS	FIELD BLANK	DUPLICATE 1	DUPLICATE 2	RDL	QC Batch
Dissolved Calcium (Ca)	mg/L	<0.050	12.6	18.3	0.050	8677206
Dissolved Magnesium (Mg)	mg/L	<0.050	53.8	17.0	0.050	8677206
Dissolved Potassium (K)	mg/L	<0.050	2.27	0.538	0.050	8677206
Dissolved Sodium (Na)	mg/L	<0.050	6.83	18.8	0.050	8677206
Dissolved Sulphur (S)	mg/L	<3.0	57.7	6.0	3.0	8677206
RDL = Reportable Detection Limit						

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GENERAL COMMENTS

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample RJ7012 [MW09-1D] Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample RJ7021 [MW09-3] Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8678479	JT3	Matrix Spike [RJ7025-01]	Bromide (Br)	2017/06/28		101	%	78 - 120
8678479	JT3	Spiked Blank	Bromide (Br)	2017/06/28		100	%	80 - 120
8678479	JT3	Method Blank	Bromide (Br)	2017/06/28	<0.010		mg/L	
8678479	JT3	RPD [RJ7025-01]	Bromide (Br)	2017/06/28	NC		%	20
8678541	IW1	Matrix Spike	Nitrate plus Nitrite (N)	2017/06/27		NC	%	80 - 120
8678541	IW1	Spiked Blank	Nitrate plus Nitrite (N)	2017/06/27		107	%	80 - 120
8678541	IW1	Method Blank	Nitrate plus Nitrite (N)	2017/06/27	<0.020		mg/L	
8678541	IW1	RPD	Nitrate plus Nitrite (N)	2017/06/27	0.46		%	25
8678542	IW1	Matrix Spike	Nitrite (N)	2017/06/27		NC	%	80 - 120
8678542	IW1	Spiked Blank	Nitrite (N)	2017/06/27		105	%	80 - 120
8678542	IW1	Method Blank	Nitrite (N)	2017/06/27	<0.0050		mg/L	
8678542	IW1	RPD	Nitrite (N)	2017/06/27	0.59		%	20
8678543	IW1	Matrix Spike [RJ7013-01]	Nitrate plus Nitrite (N)	2017/06/27		103	%	80 - 120
8678543	IW1	Spiked Blank	Nitrate plus Nitrite (N)	2017/06/27		108	%	80 - 120
8678543	IW1	Method Blank	Nitrate plus Nitrite (N)	2017/06/27	<0.020		mg/L	
8678543	IW1	RPD [RJ7013-01]	Nitrate plus Nitrite (N)	2017/06/27	NC		%	25
8678545	IW1	Matrix Spike [RJ7013-01]	Nitrite (N)	2017/06/27		98	%	80 - 120
8678545	IW1	Spiked Blank	Nitrite (N)	2017/06/27		104	%	80 - 120
8678545	IW1	Method Blank	Nitrite (N)	2017/06/27	<0.0050		mg/L	
8678545	IW1	RPD [RJ7013-01]	Nitrite (N)	2017/06/27	NC		%	20
8678606	JLP	Matrix Spike [RJ7005-02]	Dissolved Aluminum (Al)	2017/06/28		107	%	80 - 120
			Dissolved Antimony (Sb)	2017/06/28		NC	%	80 - 120
			Dissolved Arsenic (As)	2017/06/28		100	%	80 - 120
			Dissolved Barium (Ba)	2017/06/28		NC	%	80 - 120
			Dissolved Beryllium (Be)	2017/06/28		104	%	80 - 120
			Dissolved Bismuth (Bi)	2017/06/28		96	%	80 - 120
			Dissolved Boron (B)	2017/06/28		103	%	80 - 120
			Dissolved Cadmium (Cd)	2017/06/28		98	%	80 - 120
			Dissolved Chromium (Cr)	2017/06/28		99	%	80 - 120
			Dissolved Cobalt (Co)	2017/06/28		93	%	80 - 120
			Dissolved Copper (Cu)	2017/06/28		93	%	80 - 120
			Dissolved Iron (Fe)	2017/06/28		93	%	80 - 120
			Dissolved Lead (Pb)	2017/06/28		98	%	80 - 120
			Dissolved Lithium (Li)	2017/06/28		105	%	80 - 120
			Dissolved Manganese (Mn)	2017/06/28		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/06/28		NC	%	80 - 120
			Dissolved Nickel (Ni)	2017/06/28		96	%	80 - 120
			Dissolved Selenium (Se)	2017/06/28		98	%	80 - 120
			Dissolved Silver (Ag)	2017/06/28		102	%	80 - 120
			Dissolved Strontium (Sr)	2017/06/28		NC	%	80 - 120
			Dissolved Thallium (Tl)	2017/06/28		98	%	80 - 120
			Dissolved Tin (Sn)	2017/06/28		98	%	80 - 120
			Dissolved Titanium (Ti)	2017/06/28		98	%	80 - 120
			Dissolved Uranium (U)	2017/06/28		106	%	80 - 120
			Dissolved Vanadium (V)	2017/06/28		99	%	80 - 120
			Dissolved Zinc (Zn)	2017/06/28		99	%	80 - 120
8678606	JLP	Spiked Blank	Dissolved Aluminum (Al)	2017/06/28		108	%	80 - 120
			Dissolved Antimony (Sb)	2017/06/28		97	%	80 - 120
			Dissolved Arsenic (As)	2017/06/28		93	%	80 - 120
			Dissolved Barium (Ba)	2017/06/28		103	%	80 - 120
			Dissolved Beryllium (Be)	2017/06/28		100	%	80 - 120
			Dissolved Bismuth (Bi)	2017/06/28		97	%	80 - 120
			Dissolved Boron (B)	2017/06/28		100	%	80 - 120
			Dissolved Cadmium (Cd)	2017/06/28		97	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Chromium (Cr)	2017/06/28		94	%	80 - 120
			Dissolved Cobalt (Co)	2017/06/28		92	%	80 - 120
			Dissolved Copper (Cu)	2017/06/28		93	%	80 - 120
			Dissolved Iron (Fe)	2017/06/28		99	%	80 - 120
			Dissolved Lead (Pb)	2017/06/28		99	%	80 - 120
			Dissolved Lithium (Li)	2017/06/28		104	%	80 - 120
			Dissolved Manganese (Mn)	2017/06/28		96	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/06/28		97	%	80 - 120
			Dissolved Nickel (Ni)	2017/06/28		96	%	80 - 120
			Dissolved Selenium (Se)	2017/06/28		98	%	80 - 120
			Dissolved Silver (Ag)	2017/06/28		100	%	80 - 120
			Dissolved Strontium (Sr)	2017/06/28		88	%	80 - 120
			Dissolved Thallium (Tl)	2017/06/28		97	%	80 - 120
			Dissolved Tin (Sn)	2017/06/28		100	%	80 - 120
			Dissolved Titanium (Ti)	2017/06/28		90	%	80 - 120
			Dissolved Uranium (U)	2017/06/28		102	%	80 - 120
			Dissolved Vanadium (V)	2017/06/28		95	%	80 - 120
			Dissolved Zinc (Zn)	2017/06/28		97	%	80 - 120
8678606	JLP	Method Blank	Dissolved Aluminum (Al)	2017/06/29	<3.0		ug/L	
			Dissolved Antimony (Sb)	2017/06/29	<0.50		ug/L	
			Dissolved Arsenic (As)	2017/06/29	<0.10		ug/L	
			Dissolved Barium (Ba)	2017/06/29	<1.0		ug/L	
			Dissolved Beryllium (Be)	2017/06/29	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2017/06/29	<1.0		ug/L	
			Dissolved Boron (B)	2017/06/29	<50		ug/L	
			Dissolved Cadmium (Cd)	2017/06/29	<0.010		ug/L	
			Dissolved Chromium (Cr)	2017/06/29	<1.0		ug/L	
			Dissolved Cobalt (Co)	2017/06/29	<0.20		ug/L	
			Dissolved Copper (Cu)	2017/06/29	<0.20		ug/L	
			Dissolved Iron (Fe)	2017/06/29	<5.0		ug/L	
			Dissolved Lead (Pb)	2017/06/29	<0.20		ug/L	
			Dissolved Lithium (Li)	2017/06/29	<2.0		ug/L	
			Dissolved Manganese (Mn)	2017/06/29	<1.0		ug/L	
			Dissolved Molybdenum (Mo)	2017/06/29	<1.0		ug/L	
			Dissolved Nickel (Ni)	2017/06/29	<1.0		ug/L	
			Dissolved Selenium (Se)	2017/06/29	<0.10		ug/L	
			Dissolved Silicon (Si)	2017/06/29	<100		ug/L	
			Dissolved Silver (Ag)	2017/06/29	<0.020		ug/L	
			Dissolved Strontium (Sr)	2017/06/29	<1.0		ug/L	
			Dissolved Thallium (Tl)	2017/06/29	<0.010		ug/L	
			Dissolved Tin (Sn)	2017/06/29	<5.0		ug/L	
			Dissolved Titanium (Ti)	2017/06/29	<5.0		ug/L	
			Dissolved Uranium (U)	2017/06/29	<0.10		ug/L	
			Dissolved Vanadium (V)	2017/06/29	<5.0		ug/L	
			Dissolved Zinc (Zn)	2017/06/29	<5.0		ug/L	
			Dissolved Zirconium (Zr)	2017/06/29	<0.10		ug/L	
8678606	JLP	RPD [RJ7005-02]	Dissolved Aluminum (Al)	2017/06/29	NC		%	20
			Dissolved Antimony (Sb)	2017/06/29	4.0		%	20
			Dissolved Arsenic (As)	2017/06/29	1.0		%	20
			Dissolved Barium (Ba)	2017/06/29	2.0		%	20
			Dissolved Beryllium (Be)	2017/06/29	NC		%	20
			Dissolved Bismuth (Bi)	2017/06/29	NC		%	20
			Dissolved Boron (B)	2017/06/29	NC		%	20
			Dissolved Cadmium (Cd)	2017/06/29	NC		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Chromium (Cr)	2017/06/29	0.33		%	20
			Dissolved Cobalt (Co)	2017/06/29	NC		%	20
			Dissolved Copper (Cu)	2017/06/29	NC		%	20
			Dissolved Iron (Fe)	2017/06/29	NC		%	20
			Dissolved Lead (Pb)	2017/06/29	NC		%	20
			Dissolved Lithium (Li)	2017/06/29	NC		%	20
			Dissolved Manganese (Mn)	2017/06/29	NC		%	20
			Dissolved Molybdenum (Mo)	2017/06/29	2.0		%	20
			Dissolved Nickel (Ni)	2017/06/29	NC		%	20
			Dissolved Selenium (Se)	2017/06/29	NC		%	20
			Dissolved Silicon (Si)	2017/06/29	1.0		%	20
			Dissolved Silver (Ag)	2017/06/29	NC		%	20
			Dissolved Strontium (Sr)	2017/06/29	1.0		%	20
			Dissolved Thallium (Tl)	2017/06/29	NC		%	20
			Dissolved Tin (Sn)	2017/06/29	NC		%	20
			Dissolved Titanium (Ti)	2017/06/29	NC		%	20
			Dissolved Uranium (U)	2017/06/29	1.0		%	20
			Dissolved Vanadium (V)	2017/06/29	NC		%	20
			Dissolved Zinc (Zn)	2017/06/29	NC		%	20
			Dissolved Zirconium (Zr)	2017/06/29	NC		%	20
8679952	BB3	Matrix Spike	Dissolved Chloride (Cl)	2017/06/28		116	%	80 - 120
8679952	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/06/28		97	%	80 - 120
8679952	BB3	Method Blank	Dissolved Chloride (Cl)	2017/06/28	<0.50		mg/L	
8679952	BB3	RPD	Dissolved Chloride (Cl)	2017/06/28	3.5		%	20
8679959	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/06/28		99	%	80 - 120
8679959	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/06/28	<0.50		mg/L	
8680097	MM3	Spiked Blank	pH	2017/06/29		102	%	97 - 103
8680107	MM3	Matrix Spike [RJ7007-01]	Alkalinity (Total as CaCO3)	2017/06/29		NC	%	80 - 120
8680107	MM3	Spiked Blank	Alkalinity (Total as CaCO3)	2017/06/29		97	%	80 - 120
8680107	MM3	Method Blank	Alkalinity (Total as CaCO3)	2017/06/29	<0.50		mg/L	
			Alkalinity (PP as CaCO3)	2017/06/29	<0.50		mg/L	
			Bicarbonate (HCO3)	2017/06/29	<0.50		mg/L	
			Carbonate (CO3)	2017/06/29	<0.50		mg/L	
			Hydroxide (OH)	2017/06/29	<0.50		mg/L	
8680107	MM3	RPD	Alkalinity (Total as CaCO3)	2017/06/29	1.6		%	20
			Alkalinity (PP as CaCO3)	2017/06/29	NC		%	20
			Bicarbonate (HCO3)	2017/06/29	1.6		%	20
			Carbonate (CO3)	2017/06/29	NC		%	20
			Hydroxide (OH)	2017/06/29	NC		%	20
8680217	IW1	Matrix Spike	Fluoride (F)	2017/06/29		100	%	80 - 120
8680217	IW1	Spiked Blank	Fluoride (F)	2017/06/29		102	%	80 - 120
8680217	IW1	Method Blank	Fluoride (F)	2017/06/29	<0.010		mg/L	
8680217	IW1	RPD	Fluoride (F)	2017/06/29	4.5		%	20
8680221	IW1	Matrix Spike [RJ7013-01]	Fluoride (F)	2017/06/29		106	%	80 - 120
8680221	IW1	Spiked Blank	Fluoride (F)	2017/06/29		102	%	80 - 120
8680221	IW1	Method Blank	Fluoride (F)	2017/06/29	<0.010		mg/L	
8680221	IW1	RPD [RJ7013-01]	Fluoride (F)	2017/06/29	0		%	20
8681324	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/06/29		104	%	80 - 120
8681324	BB3	Method Blank	Dissolved Chloride (Cl)	2017/06/29	<0.50		mg/L	
8681324	BB3	RPD	Dissolved Chloride (Cl)	2017/06/29	0.88		%	20
8681329	BB3	Matrix Spike	Dissolved Sulphate (SO4)	2017/06/29		116	%	80 - 120
8681329	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/06/29		103	%	80 - 120
8681329	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/06/29	<0.50		mg/L	
8681329	BB3	RPD	Dissolved Sulphate (SO4)	2017/06/29	NC		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8681663	MM3	Spiked Blank	Alkalinity (Total as CaCO3)	2017/06/30		98	%	80 - 120
8681663	MM3	Method Blank	Alkalinity (Total as CaCO3)	2017/06/30	<0.50		mg/L	
			Alkalinity (PP as CaCO3)	2017/06/30	<0.50		mg/L	
			Bicarbonate (HCO3)	2017/06/30	<0.50		mg/L	
			Carbonate (CO3)	2017/06/30	<0.50		mg/L	
			Hydroxide (OH)	2017/06/30	<0.50		mg/L	
8681675	MM3	Spiked Blank	pH	2017/06/30		101	%	97 - 103
8682536	MM3	Matrix Spike	Alkalinity (Total as CaCO3)	2017/07/01		NC	%	80 - 120
8682536	MM3	Spiked Blank	Alkalinity (Total as CaCO3)	2017/07/01		103	%	80 - 120
8682536	MM3	Method Blank	Alkalinity (Total as CaCO3)	2017/07/01	<0.50		mg/L	
			Alkalinity (PP as CaCO3)	2017/07/01	<0.50		mg/L	
			Bicarbonate (HCO3)	2017/07/01	<0.50		mg/L	
			Carbonate (CO3)	2017/07/01	<0.50		mg/L	
			Hydroxide (OH)	2017/07/01	<0.50		mg/L	
8682536	MM3	RPD	Alkalinity (Total as CaCO3)	2017/07/01	0.67		%	20
			Alkalinity (PP as CaCO3)	2017/07/01	NC		%	20
			Bicarbonate (HCO3)	2017/07/01	0.67		%	20
			Carbonate (CO3)	2017/07/01	NC		%	20
			Hydroxide (OH)	2017/07/01	NC		%	20
8682840	MM3	Spiked Blank	pH	2017/07/01		102	%	97 - 103
8683409	EL2	Matrix Spike	Dissolved Mercury (Hg)	2017/07/04		96	%	80 - 120
8683409	EL2	Spiked Blank	Dissolved Mercury (Hg)	2017/07/04		96	%	80 - 120
8683409	EL2	Method Blank	Dissolved Mercury (Hg)	2017/07/04	<0.010		ug/L	
8683409	EL2	RPD	Dissolved Mercury (Hg)	2017/07/04	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).

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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.

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Maxxam Analytics International Corporation o/a Maxxam Analytics
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.maxxam.ca

Page 1 of 2

B751877_COC

Bottle Order #: 527135

Project Manager: Veronica De Guzman

C#527135-01-01

INVOICE TO:		Report Information		Project Information	
Company Name	#12411 AFRICAN QUEEN MINES LTD.	Company Name		Quotation #	B61210
Contact Name	Linda Dandy / JENNIFER TODHUNTER	Contact Name		P.O. #	
Address	1153 56TH STREET BOX 19040	Address		Project #	
	DELTA BC V4L 2P8			Project Name	YJ
Phone	(604) 240-7676 x Fax:	Phone	Fax:	Site #	
Email	lindadandy@telus.net	Email		Sampled By	Linda Dandy

Regulatory Criteria

Special Instructions

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 sampling until delivery to maxxam

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT ☑
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____
Rush Confirmation Number _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	pH, ALK, F	Cl, SO4, NITRATE, NITRITE	DISSOLVED METALS WITH CV Hg.	BROMIDE	# of Bottles	Comments
1		YJ-BIN#1	JUNE 24/17	5:00pm		N	Y	✓	✓	✓	✓	3	RECEIVED IN WHITEHORSE BY: @1200
2		YJ-BIN#2	June 24/17	5:20pm								3	
3		YJ-BIN#3	June 25/17	9:10am								3	2017-06-26 8 8 5
4		YJ-BIN#4	June 25/17	9:20am								3	TEMP: 6 1 3 1 5 / 7 6 5 3 4 3
5		YJ-BIN#5	June 24/17	5:30pm								3	
6		BGC06-02	June 25/17	10:30am								3	NOTE: 125ml Metals bottle was rinsed + not filtered - need lab to d
7		BGC06-04	June 25/17	10:45am								3	
8		MW09-1D	June 24/17	4:00pm								3	
9		MW09-2D	June 25/17	12:40pm								3	NOTE: 125ml metals bottle was rinsed + not filtered - need lab to do
10		MW09-2S	June 25/17	12:50pm								3	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Linda Dandy	17/06/26	0900	Maxxam Partner	17/06/27	15:55	

Lab Use Only: Time Sensitive ☐ | Temperature (°C) on Receipt 5 3 3 / 4 6 5 | Custody Seal Intact on Cooler? ☑ Yes ☐ No

35.4

* UNLESS 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 WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam
A Bureau Veritas Group Company

Maxxam Analytics International Corporation o/a Maxxam Analytics
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.maxxam.ca

B751877_COC

C#527135-02-01

INVOICE TO:		Report Information		Project Information	
Company Name	#12411 AFRICAN QUEEN MINES LTD.	Company Name		Quotation #	B61210
Contact Name	Linda Dandy / JENNIFER TODHUNTER	Contact Name		P.O. #	
Address	1153 56TH STREET BOX 19040	Address		Project #	
	DELTA BC V4L 2P8			Project Name	YT
Phone	(604) 240-7676 x Fax:	Phone	Fax:	Site #	
Email	lindadandy@telus.net	Email		Sampled By	Linda Dandy

tle Order #: 527135
ect Manager: Veronica De Guzman

Regulatory Criteria

Special Instructions

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 sampling until delivery to maxxam

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT ✓
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	pH, ALK, F	Cl, SO4, NITRATE, NITRITE	DISSOLVED METALS WITH CV Hg.	BROMIDE	# of Bottles	Comments
1		MW09-3	June25/17	11:30am		N	Y	✓	✓	✓	✓	3	NOTE: Neithers matl bottles were filtered, they were rinsed. Lab to filter as per
2		MW09-4D	June25/17	1:55pm								3	Note: 125 ml metals bottle was rinsed not filtered - need lab to do
3		MW09-4S	NO SAMPLE										NO SAMPLE
4		FIELD BLANK	June24/17	5:45pm								3	
5		DUPLICATE 1	June24/17	5:30 pm								3	
6		DUPLICATE 2	June25/17	12:50pm								3	Note: 125ml metals bottle was rinsed not filtered - need lab to do.
7													
8													RECEIVED IN WHITEHORSE
9													BY: Beyond @ 1200
10													2017-06-26

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Linda Dandy	17/06/26	0900	[illegible]	2017/06/27	13:55	

Lab Use Only: Time Sensitive ☐ | Temperature Upon Receipt: TEMP 5.33/4.65 | Custody Seal Intact on Cooler? ☑ Yes ☐ No

3.54

8/8/5
6/3/5
7/5/4
6/3/3

* UNLESS 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 WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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Maxxam Analytics International Corporation o/a Maxxam Analytics

APPENDIX VII

OCTOBER 2107 GROUNDWATER SAMPLES
CERTIFICATES OF ANALYSES

Your C.O.C. #: 538417-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/11/01
Report #: R2470233
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B794715
Received: 2017/10/24, 13:00

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	9	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	9	N/A	2017/10/26	BBY6SOP-00011	SM 22 4500-Cl- E m
Fluoride - Mining Clients	9	N/A	2017/10/26	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	9	N/A	2017/10/31	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	8	N/A	2017/10/31	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	1	N/A	2017/11/01	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Bromide as Bromine (Br) by ICPMS	9	N/A	2017/10/28	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	9	N/A	2017/10/31	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved)	9	N/A	2017/10/31	BBY7SOP-00002	EPA 6020B R2 m
Nitrate + Nitrite (N)	9	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) by CFA	9	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	9	N/A	2017/10/27	BBY WI-00033	Auto Calc
Filter and HNO3 Preserve for Metals	2	N/A	2017/10/26	BBY7 WI-00004	BCMOE Reqs 08/14
Filter and HNO3 Preserve for Metals	7	N/A	2017/10/31	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	9	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	8	N/A	2017/10/26	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate by Automated Colourimetry	1	N/A	2017/10/27	BBY6SOP-00017	SM 22 4500-SO42- E 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.

Your C.O.C. #: 538417-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/11/01
Report #: R2470233
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B794715
Received: 2017/10/24, 13:00

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.

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) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@maxxam.ca
Phone# (604) 734 7276

==========

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Maxxam Job #: B794715
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SH9773		SH9774		SH9775		SH9776		
Sampling Date		2017/10/22 16:55		2017/10/22 16:00		2017/10/22 10:50		2017/10/22 12:30		
COC Number		538417-01-01		538417-01-01		538417-01-01		538417-01-01		
	UNITS	BGC06-02	QC Batch	BGC06-04	QC Batch	MW09-1D	QC Batch	MW09-2D	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.210	8808972	0.160	8809036	0.150	8809036	0.120	0.020	8809036
ANIONS										
Nitrite (N)	mg/L	<0.0050	8809763	<0.0050	8809763	<0.0050	8809763	<0.0050	0.0050	8809763
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	LAB	8807537	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	8807934	<0.020	8807934	<0.020	8807934	<0.020	0.020	8807934
Misc. Inorganics										
Alkalinity (Total as CaCO3)	mg/L	121	8809179	175	8809179	838	8809179	150	1.0	8809179
Alkalinity (PP as CaCO3)	mg/L	<1.0	8809179	1.6	8809179	<1.0	8809179	<1.0	1.0	8809179
Bicarbonate (HCO3)	mg/L	148	8809179	210	8809179	1020	8809179	183	1.0	8809179
Carbonate (CO3)	mg/L	<1.0	8809179	1.9	8809179	<1.0	8809179	<1.0	1.0	8809179
Hydroxide (OH)	mg/L	<1.0	8809179	<1.0	8809179	<1.0	8809179	<1.0	1.0	8809179
Anions										
Dissolved Sulphate (SO4)	mg/L	8.6	8809842	11.8	8809884	164	8812609	26.2	1.0	8809842
Dissolved Chloride (Cl)	mg/L	1.1	8809839	1.0	8809866	1.7	8809839	1.5	1.0	8809839
Nutrients										
Nitrate plus Nitrite (N)	mg/L	<0.020	8809762	<0.020	8809762	<0.020	8809762	<0.020	0.020	8809762
Physical Properties										
pH	pH	8.02	8809177	8.34	8809177	7.50	8809177	7.98		8809177

RDL = Reportable Detection Limit

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Maxxam Job #: B794715
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SH9777			SH9778			SH9779		
Sampling Date		2017/10/22 11:50			2017/10/22 15:15			2017/10/22 14:00		
COC Number		538417-01-01			538417-01-01			538417-01-01		
	UNITS	MW09-2S	RDL	QC Batch	MW09-3	RDL	QC Batch	MW09-4D	RDL	QC Batch
Misc. Inorganics										
Fluoride (F)	mg/L	0.130	0.020	8809036	0.150	0.020	8809036	0.070	0.020	8809036
ANIONS										
Nitrite (N)	mg/L	<0.0050	0.0050	8809763	<0.0050	0.0050	8809763	0.0071	0.0050	8809763
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD		ONSITE	FIELD		ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	0.285	0.020	8807934	<0.020	0.020	8807934	0.049	0.020	8807934
Misc. Inorganics										
Alkalinity (Total as CaCO3)	mg/L	76.1	1.0	8809179	543	1.0	8809179	224	1.0	8809179
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	8809179	<1.0	1.0	8809179	<1.0	1.0	8809179
Bicarbonate (HCO3)	mg/L	92.8	1.0	8809179	662	1.0	8809179	273	1.0	8809179
Carbonate (CO3)	mg/L	<1.0	1.0	8809179	<1.0	1.0	8809179	<1.0	1.0	8809179
Hydroxide (OH)	mg/L	<1.0	1.0	8809179	<1.0	1.0	8809179	<1.0	1.0	8809179
Anions										
Dissolved Sulphate (SO4)	mg/L	4.1	1.0	8809884	219 (1)	10	8809842	<1.0	1.0	8809884
Dissolved Chloride (Cl)	mg/L	<1.0	1.0	8809866	<1.0	1.0	8809839	4.6	1.0	8809866
Nutrients										
Nitrate plus Nitrite (N)	mg/L	0.285	0.020	8809762	<0.020	0.020	8809762	0.056	0.020	8809762
Physical Properties										
pH	pH	7.99		8809177	7.70		8809177	7.92		8809177

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

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Maxxam Job #: B794715
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SH9780	SH9781		
Sampling Date		2017/10/22 12:30	2017/10/22 12:50		
COC Number		538417-01-01	538417-01-01		
	UNITS	MW-FB	MW-DUP	RDL	QC Batch
Misc. Inorganics					
Fluoride (F)	mg/L	<0.020	0.120	0.020	8809036
ANIONS					
Nitrite (N)	mg/L	<0.0050	<0.0050	0.0050	8809763
Calculated Parameters					
Filter and HNO3 Preservation	N/A	FIELD	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	<0.020	0.020	8807934
Misc. Inorganics					
Alkalinity (Total as CaCO3)	mg/L	<1.0	142	1.0	8809179
Alkalinity (PP as CaCO3)	mg/L	<1.0	<1.0	1.0	8809179
Bicarbonate (HCO3)	mg/L	<1.0	173	1.0	8809179
Carbonate (CO3)	mg/L	<1.0	<1.0	1.0	8809179
Hydroxide (OH)	mg/L	<1.0	<1.0	1.0	8809179
Anions					
Dissolved Sulphate (SO4)	mg/L	<1.0	26.5	1.0	8809884
Dissolved Chloride (Cl)	mg/L	<1.0	1.6	1.0	8809866
Nutrients					
Nitrate plus Nitrite (N)	mg/L	<0.020	<0.020	0.020	8809762
Physical Properties					
pH	pH	5.75	8.00		8809177
RDL = Reportable Detection Limit					

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Maxxam Job #: B794715
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		SH9773	SH9774		SH9775		SH9776	SH9777		
Sampling Date		2017/10/22 16:55	2017/10/22 16:00		2017/10/22 10:50		2017/10/22 12:30	2017/10/22 11:50		
COC Number		538417-01-01	538417-01-01		538417-01-01		538417-01-01	538417-01-01		
	UNITS	BGC06-02	BGC06-04	RDL	MW09-1D	RDL	MW09-2D	MW09-2S	RDL	QC Batch
ANIONS										
Bromide (Br)	mg/L	<0.010	<0.010	0.010	<0.050	0.050	<0.010	<0.010	0.010	8811141
RDL = Reportable Detection Limit										

Maxxam ID		SH9778	SH9779	SH9780	SH9781		
Sampling Date		2017/10/22 15:15	2017/10/22 14:00	2017/10/22 12:30	2017/10/22 12:50		
COC Number		538417-01-01	538417-01-01	538417-01-01	538417-01-01		
	UNITS	MW09-3	MW09-4D	MW-FB	MW-DUP	RDL	QC Batch
ANIONS							
Bromide (Br)	mg/L	<0.010	0.090	<0.010	<0.010	0.010	8811141
RDL = Reportable Detection Limit							

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B794715
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH9773		SH9774		SH9775	SH9776		
Sampling Date		2017/10/22 16:55		2017/10/22 16:00		2017/10/22 10:50	2017/10/22 12:30		
COC Number		538417-01-01		538417-01-01		538417-01-01	538417-01-01		
	UNITS	BGC06-02	QC Batch	BGC06-04	QC Batch	MW09-1D	MW09-2D	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	121	8807885	171	8807885	892	121	0.50	8807885
Elements									
Dissolved Mercury (Hg)	ug/L	<0.010	8813773	<0.010	8814334	<0.010	<0.010	0.010	8813773
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	<3.0	8808710	3.0	8808710	<3.0	<3.0	3.0	8808710
Dissolved Antimony (Sb)	ug/L	<0.50	8808710	<0.50	8808710	<0.50	<0.50	0.50	8808710
Dissolved Arsenic (As)	ug/L	4.47	8808710	1.37	8808710	2.31	0.92	0.10	8808710
Dissolved Barium (Ba)	ug/L	34.6	8808710	34.5	8808710	139	52.2	1.0	8808710
Dissolved Beryllium (Be)	ug/L	<0.10	8808710	<0.10	8808710	<0.10	<0.10	0.10	8808710
Dissolved Bismuth (Bi)	ug/L	<1.0	8808710	<1.0	8808710	<1.0	<1.0	1.0	8808710
Dissolved Boron (B)	ug/L	<50	8808710	<50	8808710	102	<50	50	8808710
Dissolved Cadmium (Cd)	ug/L	<0.010	8808710	<0.010	8808710	<0.010	<0.010	0.010	8808710
Dissolved Chromium (Cr)	ug/L	<1.0	8808710	<1.0	8808710	<1.0	<1.0	1.0	8808710
Dissolved Cobalt (Co)	ug/L	0.58	8808710	<0.20	8808710	2.09	0.33	0.20	8808710
Dissolved Copper (Cu)	ug/L	<0.20	8808710	<0.20	8808710	<0.20	<0.20	0.20	8808710
Dissolved Iron (Fe)	ug/L	36.4	8808710	<5.0	8808710	3400	766	5.0	8808710
Dissolved Lead (Pb)	ug/L	<0.20	8808710	<0.20	8808710	<0.20	<0.20	0.20	8808710
Dissolved Lithium (Li)	ug/L	<2.0	8808710	<2.0	8808710	18.9	3.4	2.0	8808710
Dissolved Manganese (Mn)	ug/L	338	8808710	4.2	8808710	267	192	1.0	8808710
Dissolved Molybdenum (Mo)	ug/L	1.4	8808710	2.1	8808710	1.6	<1.0	1.0	8808710
Dissolved Nickel (Ni)	ug/L	10.4	8808710	<1.0	8808710	65.2	3.8	1.0	8808710
Dissolved Selenium (Se)	ug/L	<0.10	8808710	<0.10	8808710	<0.10	<0.10	0.10	8808710
Dissolved Silicon (Si)	ug/L	10300	8808710	7640	8808710	34100	20700	100	8808710
Dissolved Silver (Ag)	ug/L	<0.020	8808710	<0.020	8808710	<0.020	<0.020	0.020	8808710
Dissolved Strontium (Sr)	ug/L	69.2	8808710	118	8808710	380	70.4	1.0	8808710
Dissolved Thallium (Tl)	ug/L	<0.010	8808710	<0.010	8808710	<0.010	<0.010	0.010	8808710
Dissolved Tin (Sn)	ug/L	<5.0	8808710	<5.0	8808710	<5.0	<5.0	5.0	8808710
Dissolved Titanium (Ti)	ug/L	<5.0	8808710	<5.0	8808710	<5.0	<5.0	5.0	8808710
Dissolved Uranium (U)	ug/L	0.17	8808710	0.30	8808710	0.35	0.17	0.10	8808710
Dissolved Vanadium (V)	ug/L	<5.0	8808710	5.6	8808710	<5.0	<5.0	5.0	8808710
Dissolved Zinc (Zn)	ug/L	<5.0	8808710	<5.0	8808710	<5.0	<5.0	5.0	8808710
Dissolved Zirconium (Zr)	ug/L	<0.10	8808710	<0.10	8808710	0.15	<0.10	0.10	8808710
Dissolved Calcium (Ca)	mg/L	16.6	8807933	12.5	8807933	53.5	19.2	0.050	8807933

RDL = Reportable Detection Limit

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AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH9773		SH9774		SH9775	SH9776		
Sampling Date		2017/10/22 16:55		2017/10/22 16:00		2017/10/22 10:50	2017/10/22 12:30		
COC Number		538417-01-01		538417-01-01		538417-01-01	538417-01-01		
	UNITS	BGC06-02	QC Batch	BGC06-04	QC Batch	MW09-1D	MW09-2D	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	19.4	8807933	34.0	8807933	184	17.6	0.050	8807933
Dissolved Potassium (K)	mg/L	0.872	8807933	1.53	8807933	4.69	0.570	0.050	8807933
Dissolved Sodium (Na)	mg/L	2.01	8807933	4.58	8807933	21.0	17.9	0.050	8807933
Dissolved Sulphur (S)	mg/L	<3.0	8807933	3.9	8807933	52.7	7.2	3.0	8807933
RDL = Reportable Detection Limit									

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CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH9777	SH9778	SH9779	SH9780	SH9781		
Sampling Date		2017/10/22 11:50	2017/10/22 15:15	2017/10/22 14:00	2017/10/22 12:30	2017/10/22 12:50		
COC Number		538417-01-01	538417-01-01	538417-01-01	538417-01-01	538417-01-01		
	UNITS	MW09-2S	MW09-3	MW09-4D	MW-FB	MW-DUP	RDL	QC Batch
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	58.9	758	225	<0.50	124	0.50	8807885
Elements								
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8813773
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	ug/L	3.1	<3.0	<3.0	<3.0	<3.0	3.0	8808710
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8808710
Dissolved Arsenic (As)	ug/L	0.98	1.50	0.49	<0.10	1.01	0.10	8808710
Dissolved Barium (Ba)	ug/L	13.2	144	37.8	<1.0	52.6	1.0	8808710
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8808710
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	8808710
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	50	8808710
Dissolved Cadmium (Cd)	ug/L	<0.010	0.048	<0.010	<0.010	<0.010	0.010	8808710
Dissolved Chromium (Cr)	ug/L	5.1	<1.0	<1.0	<1.0	<1.0	1.0	8808710
Dissolved Cobalt (Co)	ug/L	<0.20	3.23	<0.20	<0.20	0.33	0.20	8808710
Dissolved Copper (Cu)	ug/L	0.22	0.51	1.08	<0.20	<0.20	0.20	8808710
Dissolved Iron (Fe)	ug/L	<5.0	589	<5.0	<5.0	755	5.0	8808710
Dissolved Lead (Pb)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8808710
Dissolved Lithium (Li)	ug/L	2.7	24.0	<2.0	<2.0	3.3	2.0	8808710
Dissolved Manganese (Mn)	ug/L	<1.0	393	<1.0	<1.0	195	1.0	8808710
Dissolved Molybdenum (Mo)	ug/L	<1.0	1.8	<1.0	<1.0	<1.0	1.0	8808710
Dissolved Nickel (Ni)	ug/L	1.4	35.8	12.1	<1.0	3.8	1.0	8808710
Dissolved Selenium (Se)	ug/L	0.60	<0.10	<0.10	<0.10	<0.10	0.10	8808710
Dissolved Silicon (Si)	ug/L	13200	14100	9270	<100	21200	100	8808710
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8808710
Dissolved Strontium (Sr)	ug/L	34.0	358	113	<1.0	68.6	1.0	8808710
Dissolved Thallium (Tl)	ug/L	<0.010	0.031	<0.010	<0.010	<0.010	0.010	8808710
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8808710
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8808710
Dissolved Uranium (U)	ug/L	0.15	1.72	0.54	<0.10	0.16	0.10	8808710
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8808710
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	8808710
Dissolved Zirconium (Zr)	ug/L	<0.10	0.65	<0.10	<0.10	<0.10	0.10	8808710
Dissolved Calcium (Ca)	mg/L	8.52	84.6	48.6	<0.050	19.8	0.050	8807933
RDL = Reportable Detection Limit								

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CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH9777	SH9778	SH9779	SH9780	SH9781		
Sampling Date		2017/10/22 11:50	2017/10/22 15:15	2017/10/22 14:00	2017/10/22 12:30	2017/10/22 12:50		
COC Number		538417-01-01	538417-01-01	538417-01-01	538417-01-01	538417-01-01		
	UNITS	MW09-2S	MW09-3	MW09-4D	MW-FB	MW-DUP	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	9.14	133	25.1	<0.050	18.1	0.050	8807933
Dissolved Potassium (K)	mg/L	0.527	3.02	0.457	<0.050	0.583	0.050	8807933
Dissolved Sodium (Na)	mg/L	9.91	8.88	2.61	<0.050	18.0	0.050	8807933
Dissolved Sulphur (S)	mg/L	<3.0	81.2	<3.0	<3.0	7.5	3.0	8807933
RDL = Reportable Detection Limit								

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GENERAL COMMENTS

Sample SH9773 [BGC06-02] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

Sample SH9774 [BGC06-04] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

Sample SH9775 [MW09-1D] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

Sample SH9776 [MW09-2D] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

Sample SH9777 [MW09-2S] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

Sample SH9778 [MW09-3] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

Sample SH9779 [MW09-4D] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

Sample SH9780 [MW-FB] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

Sample SH9781 [MW-DUP] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). {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) by CFA.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER) Comments

Sample SH9775 [MW09-1D] Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.
Sample SH9778 [MW09-3] Bromide as Bromine (Br) by ICPMS: RDL raised due to sample matrix interference.

Results relate only to the items tested.

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Sampler Initials: LD

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8808710	JLP	Matrix Spike [SH9773-03]	Dissolved Aluminum (Al)	2017/10/30		106	%	80 - 120
			Dissolved Antimony (Sb)	2017/10/30		104	%	80 - 120
			Dissolved Arsenic (As)	2017/10/30		104	%	80 - 120
			Dissolved Barium (Ba)	2017/10/30		NC	%	80 - 120
			Dissolved Beryllium (Be)	2017/10/30		95	%	80 - 120
			Dissolved Bismuth (Bi)	2017/10/30		96	%	80 - 120
			Dissolved Boron (B)	2017/10/30		87	%	80 - 120
			Dissolved Cadmium (Cd)	2017/10/30		101	%	80 - 120
			Dissolved Chromium (Cr)	2017/10/30		97	%	80 - 120
			Dissolved Cobalt (Co)	2017/10/30		95	%	80 - 120
			Dissolved Copper (Cu)	2017/10/30		93	%	80 - 120
			Dissolved Iron (Fe)	2017/10/30		109	%	80 - 120
			Dissolved Lead (Pb)	2017/10/30		98	%	80 - 120
			Dissolved Lithium (Li)	2017/10/30		85	%	80 - 120
			Dissolved Manganese (Mn)	2017/10/30		NC	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/10/30		NC	%	80 - 120
			Dissolved Nickel (Ni)	2017/10/30		NC	%	80 - 120
			Dissolved Selenium (Se)	2017/10/30		103	%	80 - 120
			Dissolved Silver (Ag)	2017/10/30		107	%	80 - 120
			Dissolved Strontium (Sr)	2017/10/30		NC	%	80 - 120
			Dissolved Thallium (Tl)	2017/10/30		100	%	80 - 120
			Dissolved Tin (Sn)	2017/10/30		95	%	80 - 120
			Dissolved Titanium (Ti)	2017/10/30		97	%	80 - 120
			Dissolved Uranium (U)	2017/10/30		97	%	80 - 120
			Dissolved Vanadium (V)	2017/10/30		100	%	80 - 120
			Dissolved Zinc (Zn)	2017/10/30		99	%	80 - 120
			Dissolved Zirconium (Zr)	2017/10/30		96	%	80 - 120
8808710	JLP	Spiked Blank	Dissolved Aluminum (Al)	2017/10/30		104	%	80 - 120
			Dissolved Antimony (Sb)	2017/10/30		98	%	80 - 120
			Dissolved Arsenic (As)	2017/10/30		99	%	80 - 120
			Dissolved Barium (Ba)	2017/10/30		99	%	80 - 120
			Dissolved Beryllium (Be)	2017/10/30		93	%	80 - 120
			Dissolved Bismuth (Bi)	2017/10/30		97	%	80 - 120
			Dissolved Boron (B)	2017/10/30		89	%	80 - 120
			Dissolved Cadmium (Cd)	2017/10/30		96	%	80 - 120
			Dissolved Chromium (Cr)	2017/10/30		94	%	80 - 120
			Dissolved Cobalt (Co)	2017/10/30		92	%	80 - 120
			Dissolved Copper (Cu)	2017/10/30		93	%	80 - 120
			Dissolved Iron (Fe)	2017/10/30		107	%	80 - 120
			Dissolved Lead (Pb)	2017/10/30		95	%	80 - 120
			Dissolved Lithium (Li)	2017/10/30		85	%	80 - 120
			Dissolved Manganese (Mn)	2017/10/30		94	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/10/30		94	%	80 - 120
			Dissolved Nickel (Ni)	2017/10/30		96	%	80 - 120
			Dissolved Selenium (Se)	2017/10/30		100	%	80 - 120
			Dissolved Silver (Ag)	2017/10/30		103	%	80 - 120
			Dissolved Strontium (Sr)	2017/10/30		95	%	80 - 120
			Dissolved Thallium (Tl)	2017/10/30		97	%	80 - 120
			Dissolved Tin (Sn)	2017/10/30		93	%	80 - 120
			Dissolved Titanium (Ti)	2017/10/30		91	%	80 - 120
			Dissolved Uranium (U)	2017/10/30		92	%	80 - 120
			Dissolved Vanadium (V)	2017/10/30		92	%	80 - 120
			Dissolved Zinc (Zn)	2017/10/30		97	%	80 - 120
			Dissolved Zirconium (Zr)	2017/10/30		93	%	80 - 120
8808710	JLP	Method Blank	Dissolved Aluminum (Al)	2017/10/31	<3.0		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Antimony (Sb)	2017/10/31	<0.50		ug/L	
			Dissolved Arsenic (As)	2017/10/31	<0.10		ug/L	
			Dissolved Barium (Ba)	2017/10/31	<1.0		ug/L	
			Dissolved Beryllium (Be)	2017/10/31	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2017/10/31	<1.0		ug/L	
			Dissolved Boron (B)	2017/10/31	<50		ug/L	
			Dissolved Cadmium (Cd)	2017/10/31	<0.010		ug/L	
			Dissolved Chromium (Cr)	2017/10/31	<1.0		ug/L	
			Dissolved Cobalt (Co)	2017/10/31	<0.20		ug/L	
			Dissolved Copper (Cu)	2017/10/31	<0.20		ug/L	
			Dissolved Iron (Fe)	2017/10/31	<5.0		ug/L	
			Dissolved Lead (Pb)	2017/10/31	<0.20		ug/L	
			Dissolved Lithium (Li)	2017/10/31	<2.0		ug/L	
			Dissolved Manganese (Mn)	2017/10/31	<1.0		ug/L	
			Dissolved Molybdenum (Mo)	2017/10/31	<1.0		ug/L	
			Dissolved Nickel (Ni)	2017/10/31	<1.0		ug/L	
			Dissolved Selenium (Se)	2017/10/31	<0.10		ug/L	
			Dissolved Silicon (Si)	2017/10/31	<100		ug/L	
			Dissolved Silver (Ag)	2017/10/31	<0.020		ug/L	
			Dissolved Strontium (Sr)	2017/10/31	<1.0		ug/L	
			Dissolved Thallium (Tl)	2017/10/31	<0.010		ug/L	
			Dissolved Tin (Sn)	2017/10/31	<5.0		ug/L	
			Dissolved Titanium (Ti)	2017/10/31	<5.0		ug/L	
			Dissolved Uranium (U)	2017/10/31	<0.10		ug/L	
			Dissolved Vanadium (V)	2017/10/31	<5.0		ug/L	
			Dissolved Zinc (Zn)	2017/10/31	<5.0		ug/L	
			Dissolved Zirconium (Zr)	2017/10/31	<0.10		ug/L	
8808710	JLP	RPD [SH9773-03]	Dissolved Aluminum (Al)	2017/10/31	NC		%	20
			Dissolved Antimony (Sb)	2017/10/31	NC		%	20
			Dissolved Arsenic (As)	2017/10/31	0.11		%	20
			Dissolved Barium (Ba)	2017/10/31	0.77		%	20
			Dissolved Beryllium (Be)	2017/10/31	NC		%	20
			Dissolved Bismuth (Bi)	2017/10/31	NC		%	20
			Dissolved Boron (B)	2017/10/31	NC		%	20
			Dissolved Cadmium (Cd)	2017/10/31	NC		%	20
			Dissolved Chromium (Cr)	2017/10/31	NC		%	20
			Dissolved Cobalt (Co)	2017/10/31	2.9		%	20
			Dissolved Copper (Cu)	2017/10/31	NC		%	20
			Dissolved Iron (Fe)	2017/10/31	2.2		%	20
			Dissolved Lead (Pb)	2017/10/31	NC		%	20
			Dissolved Lithium (Li)	2017/10/31	NC		%	20
			Dissolved Manganese (Mn)	2017/10/31	0.40		%	20
			Dissolved Molybdenum (Mo)	2017/10/31	2.7		%	20
			Dissolved Nickel (Ni)	2017/10/31	1.3		%	20
			Dissolved Selenium (Se)	2017/10/31	NC		%	20
			Dissolved Silicon (Si)	2017/10/31	3.6		%	20
			Dissolved Silver (Ag)	2017/10/31	NC		%	20
			Dissolved Strontium (Sr)	2017/10/31	1.5		%	20
			Dissolved Thallium (Tl)	2017/10/31	NC		%	20
			Dissolved Tin (Sn)	2017/10/31	NC		%	20
			Dissolved Titanium (Ti)	2017/10/31	NC		%	20
			Dissolved Uranium (U)	2017/10/31	0.58		%	20
			Dissolved Vanadium (V)	2017/10/31	NC		%	20
			Dissolved Zinc (Zn)	2017/10/31	NC		%	20
			Dissolved Zirconium (Zr)	2017/10/31	NC		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8808972	TSO	Matrix Spike	Fluoride (F)	2017/10/26		100	%	80 - 120
8808972	TSO	Spiked Blank	Fluoride (F)	2017/10/26		102	%	80 - 120
8808972	TSO	Method Blank	Fluoride (F)	2017/10/26	<0.020		mg/L	
8808972	TSO	RPD	Fluoride (F)	2017/10/26	NC		%	20
8809036	TSO	Matrix Spike [SH9776-01]	Fluoride (F)	2017/10/26		104	%	80 - 120
8809036	TSO	Spiked Blank	Fluoride (F)	2017/10/26		100	%	80 - 120
8809036	TSO	Method Blank	Fluoride (F)	2017/10/26	<0.020		mg/L	
8809036	TSO	RPD [SH9775-01]	Fluoride (F)	2017/10/26	0		%	20
8809177	WAY	Spiked Blank	pH	2017/10/26		102	%	97 - 103
8809177	WAY	RPD [SH9781-01]	pH	2017/10/26	0		%	20
8809179	WAY	Matrix Spike	Alkalinity (Total as CaCO3)	2017/10/26		NC	%	80 - 120
8809179	WAY	Spiked Blank	Alkalinity (Total as CaCO3)	2017/10/26		97	%	80 - 120
8809179	WAY	Method Blank	Alkalinity (Total as CaCO3)	2017/10/26	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2017/10/26	<1.0		mg/L	
			Bicarbonate (HCO3)	2017/10/26	<1.0		mg/L	
			Carbonate (CO3)	2017/10/26	<1.0		mg/L	
			Hydroxide (OH)	2017/10/26	<1.0		mg/L	
8809179	WAY	RPD [SH9781-01]	Alkalinity (Total as CaCO3)	2017/10/26	1.6		%	20
			Alkalinity (PP as CaCO3)	2017/10/26	NC		%	20
			Bicarbonate (HCO3)	2017/10/26	1.6		%	20
			Carbonate (CO3)	2017/10/26	NC		%	20
			Hydroxide (OH)	2017/10/26	NC		%	20
8809762	IW1	Matrix Spike	Nitrate plus Nitrite (N)	2017/10/26		NC	%	80 - 120
8809762	IW1	Spiked Blank	Nitrate plus Nitrite (N)	2017/10/26		106	%	80 - 120
8809762	IW1	Method Blank	Nitrate plus Nitrite (N)	2017/10/26	<0.020		mg/L	
8809762	IW1	RPD	Nitrate plus Nitrite (N)	2017/10/26	1.6		%	25
8809763	IW1	Matrix Spike	Nitrite (N)	2017/10/26		100	%	80 - 120
8809763	IW1	Spiked Blank	Nitrite (N)	2017/10/26		100	%	80 - 120
8809763	IW1	Method Blank	Nitrite (N)	2017/10/26	<0.0050		mg/L	
8809763	IW1	RPD	Nitrite (N)	2017/10/26	NC		%	20
8809839	BB3	Matrix Spike	Dissolved Chloride (Cl)	2017/10/26		NC	%	80 - 120
8809839	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/10/26		100	%	80 - 120
8809839	BB3	Method Blank	Dissolved Chloride (Cl)	2017/10/26	<1.0		mg/L	
8809839	BB3	RPD	Dissolved Chloride (Cl)	2017/10/26	0.60		%	20
8809842	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/10/26		102	%	80 - 120
8809842	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/10/26	<1.0		mg/L	
8809866	BB3	Matrix Spike	Dissolved Chloride (Cl)	2017/10/26		97	%	80 - 120
8809866	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/10/26		101	%	80 - 120
8809866	BB3	Method Blank	Dissolved Chloride (Cl)	2017/10/26	<1.0		mg/L	
8809866	BB3	RPD	Dissolved Chloride (Cl)	2017/10/26	NC		%	20
8809884	BB3	Matrix Spike	Dissolved Sulphate (SO4)	2017/10/26		98	%	80 - 120
8809884	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/10/26		101	%	80 - 120
8809884	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/10/26	<1.0		mg/L	
8809884	BB3	RPD	Dissolved Sulphate (SO4)	2017/10/26	NC		%	20
8811141	JT3	Matrix Spike	Bromide (Br)	2017/10/28		NC	%	78 - 120
8811141	JT3	Spiked Blank	Bromide (Br)	2017/10/28		93	%	80 - 120
8811141	JT3	Method Blank	Bromide (Br)	2017/10/28	<0.010		mg/L	
8811141	JT3	RPD	Bromide (Br)	2017/10/28	1.8		%	20
8812609	BB3	Matrix Spike	Dissolved Sulphate (SO4)	2017/10/27		117	%	80 - 120
8812609	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/10/27		101	%	80 - 120
8812609	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/10/27	<1.0		mg/L	
8813773	RM3	Matrix Spike	Dissolved Mercury (Hg)	2017/10/31		86	%	70 - 130
8813773	RM3	Spiked Blank	Dissolved Mercury (Hg)	2017/10/31		90	%	80 - 120
8813773	RM3	Method Blank	Dissolved Mercury (Hg)	2017/10/31	<0.010		ug/L	
8813773	RM3	RPD	Dissolved Mercury (Hg)	2017/10/31	NC		%	20

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Maxxam Job #: B794715
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8814334	EL2	Matrix Spike	Dissolved Mercury (Hg)	2017/11/01		103	%	80 - 120
8814334	EL2	Spiked Blank	Dissolved Mercury (Hg)	2017/11/01		94	%	80 - 120
8814334	EL2	Method Blank	Dissolved Mercury (Hg)	2017/11/01	<0.010		ug/L	
8814334	EL2	RPD	Dissolved Mercury (Hg)	2017/11/01	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).

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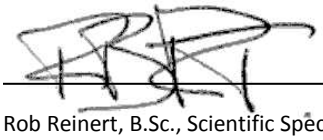
Maxxam Job #: B794715
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

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

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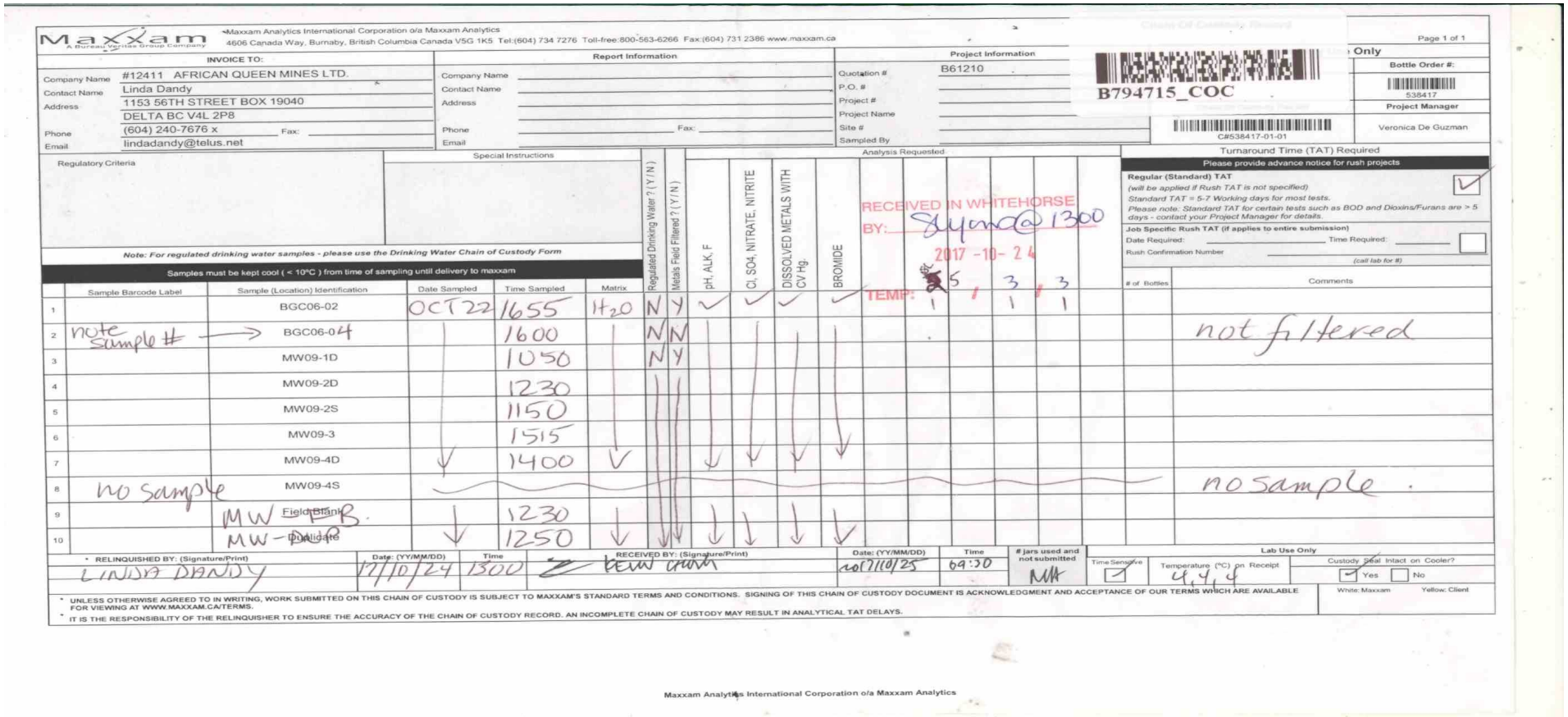

Maxxam
A Bureau Veritas Group Company

Maxxam Analytics International Corporation o/a Maxxam Analytics
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.maxxam.ca

Page 1 of 1

B794715_COC

C#538417-01-01

INVOICE TO:
Company Name: #12411 AFRICAN QUEEN MINES LTD.
Contact Name: Linda Dandy
Address: 1153 56TH STREET BOX 19040
DELTA BC V4L 2P8
Phone: (604) 240-7676 x Fax:
Email: lindadandy@telus.net

Report Information
Company Name
Contact Name
Address
Phone Fax:
Email

Project Information
Quotation #: B61210
P.O. #
Project #
Project Name
Site #
Sampled By

Lab Use Only
Bottle Order #: 538417
Project Manager: Veronica De Guzman

Regulatory Criteria

Special Instructions

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 sampling until delivery to maxxam

Analysis Requested

RECEIVED IN WHITEHORSE
BY: Shyanda @ 1300
2017 -10- 24
TEMP: 5 / 3 / 3

Turnaround Time (TAT) Required
Please provide advance notice for rush projects
Regular (Standard) TAT
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	pH, ALK, F	Cl, SO4, NITRATE, NITRITE	DISSOLVED METALS WITH CV Hg	BROMIDE	# of Bottles	Comments
1		BGC06-02	OCT 22	1655	H_2O	N	Y	✓	✓	✓	✓	1	
2	note sample # →	BGC06-04		1600		N	N					1	not filtered
3		MW09-1D		1050		N	Y					1	
4		MW09-2D		1230									
5		MW09-2S		1150									
6		MW09-3		1515									
7		MW09-4D		1400	✓								
8	no sample	MW09-4S											no sample.
9		MW Field Blank		1230									
10		MW-Duplicate		1250									

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
LINDA DANDY	17/10/24	1300	[illegible]	2017/10/25	09:30	N/A	✓	4, 4, 4	✓ Yes ☐ No

* UNLESS 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 WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

APPENDIX VIII

OCTOBER 2017 LEACHATE BIN SAMPLES
CERTIFICATES OF ANALYSES

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Your C.O.C. #: 538095-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/11/01
Report #: R2470244
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B794417
Received: 2017/10/24, 13:00

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	5	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	5	N/A	2017/10/25	BBY6SOP-00011	SM 22 4500-Cl- E m
Fluoride - Mining Clients	5	N/A	2017/10/25	BBY6SOP-00048	SM 22 4500-F C m
Hardness (calculated as CaCO3)	5	N/A	2017/10/30	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CVAF	4	N/A	2017/10/31	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Mercury (Dissolved) by CVAF	1	N/A	2017/11/01	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Bromide as Bromine (Br) by ICPMS	5	N/A	2017/10/28	BBY7SOP-00002	EPA 6020B R2 m
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	5	N/A	2017/10/30	BBY7SOP-00002	EPA 6020B R2 m
Elements by CRC ICPMS (dissolved)	5	N/A	2017/10/29	BBY7SOP-00002	EPA 6020B R2 m
Nitrate + Nitrite (N)	5	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) by CFA	5	N/A	2017/10/26	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	5	N/A	2017/10/27	BBY WI-00033	Auto Calc
Filter and HNO3 Preserve for Metals	5	N/A	2017/10/29	BBY7 WI-00004	BCMOE Reqs 08/14
pH Water (1)	5	2017/10/26	2017/10/26	BBY6SOP-00026	SM 22 4500-H+ B m
Sulphate by Automated Colourimetry	5	N/A	2017/10/25	BBY6SOP-00017	SM 22 4500-SO42- E 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.

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: 538095-01-01

Attention:Linda Dandy

AFRICAN QUEEN MINES LTD.
1153 56TH STREET
BOX 19040
DELTA, BC
CANADA V4L 2P8

Report Date: 2017/11/01
Report #: R2470244
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B794417
Received: 2017/10/24, 13:00

Results relate to samples tested.

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) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Veronica De Guzman, B.Sc., Project Manager
Email: VDeGuzman@maxxam.ca
Phone# (604) 734 7276

==========

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Maxxam Job #: B794417
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SH8090	SH8091	SH8092		SH8093		
Sampling Date		2017/10/23 14:00	2017/10/23 14:15	2017/10/23 14:30		2017/10/23 15:45		
COC Number		538095-01-01	538095-01-01	538095-01-01		538095-01-01		
	UNITS	YJ-BIN#1	YJ-BIN#2	YJ-BIN#4	QC Batch	YJ-BIN#5	RDL	QC Batch
Misc. Inorganics								
Fluoride (F)	mg/L	0.130	0.230	0.150	8807365	0.150	0.020	8807365
ANIONS								
Nitrite (N)	mg/L	<0.0050	<0.0050	<0.0050	8809760	<0.0050	0.0050	8809760
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	ONSITE	FIELD		ONSITE
Nitrate (N)	mg/L	0.909	<0.020	<0.020	8806343	<0.020	0.020	8806343
Misc. Inorganics								
Alkalinity (Total as CaCO3)	mg/L	125	126	135	8809053	115	1.0	8809064
Alkalinity (PP as CaCO3)	mg/L	<1.0	<1.0	<1.0	8809053	<1.0	1.0	8809064
Bicarbonate (HCO3)	mg/L	153	154	165	8809053	140	1.0	8809064
Carbonate (CO3)	mg/L	<1.0	<1.0	<1.0	8809053	<1.0	1.0	8809064
Hydroxide (OH)	mg/L	<1.0	<1.0	<1.0	8809053	<1.0	1.0	8809064
Anions								
Dissolved Sulphate (SO4)	mg/L	1.7	<1.0	12.9	8808270	170	1.0	8808270
Dissolved Chloride (Cl)	mg/L	1.4	1.8	1.8	8808266	1.3	1.0	8808266
Nutrients								
Nitrate plus Nitrite (N)	mg/L	0.909	<0.020	<0.020	8809759	<0.020	0.020	8809759
Physical Properties								
pH	pH	8.27	8.21	8.27	8809049	8.16		8809061
RDL = Reportable Detection Limit								

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Maxxam Job #: B794417
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		SH8094		
Sampling Date		2017/10/23 15:15		
COC Number		538095-01-01		
	UNITS	FB-DUP	RDL	QC Batch
Misc. Inorganics				
Fluoride (F)	mg/L	0.150	0.020	8807365
ANIONS				
Nitrite (N)	mg/L	<0.0050	0.0050	8809760
Calculated Parameters				
Filter and HNO3 Preservation	N/A	FIELD		ONSITE
Nitrate (N)	mg/L	<0.020	0.020	8806343
Misc. Inorganics				
Alkalinity (Total as CaCO3)	mg/L	114	1.0	8809053
Alkalinity (PP as CaCO3)	mg/L	<1.0	1.0	8809053
Bicarbonate (HCO3)	mg/L	138	1.0	8809053
Carbonate (CO3)	mg/L	<1.0	1.0	8809053
Hydroxide (OH)	mg/L	<1.0	1.0	8809053
Anions				
Dissolved Sulphate (SO4)	mg/L	170	1.0	8808270
Dissolved Chloride (Cl)	mg/L	1.2	1.0	8808266
Nutrients				
Nitrate plus Nitrite (N)	mg/L	<0.020	0.020	8809759
Physical Properties				
pH	pH	8.22		8809049
RDL = Reportable Detection Limit				

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Maxxam Job #: B794417
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		SH8090	SH8091	SH8092	SH8093	SH8094		
Sampling Date		2017/10/23 14:00	2017/10/23 14:15	2017/10/23 14:30	2017/10/23 15:45	2017/10/23 15:15		
COC Number		538095-01-01	538095-01-01	538095-01-01	538095-01-01	538095-01-01		
	UNITS	YJ-BIN#1	YJ-BIN#2	YJ-BIN#4	YJ-BIN#5	FB-DUP	RDL	QC Batch
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8811105
RDL = Reportable Detection Limit								

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Maxxam Job #: B794417
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH8090	SH8091		SH8092		SH8093		
Sampling Date		2017/10/23 14:00	2017/10/23 14:15		2017/10/23 14:30		2017/10/23 15:45		
COC Number		538095-01-01	538095-01-01		538095-01-01		538095-01-01		
	UNITS	YJ-BIN#1	YJ-BIN#2	QC Batch	YJ-BIN#4	QC Batch	YJ-BIN#5	RDL	QC Batch
Misc. Inorganics									
Dissolved Hardness (CaCO3)	mg/L	110	112	8806906	131	8806906	254	0.50	8806906
Elements									
Dissolved Mercury (Hg)	ug/L	<0.010	<0.010	8813773	<0.010	8814334	<0.010	0.010	8813773
Dissolved Metals by ICPMS									
Dissolved Aluminum (Al)	ug/L	<3.0	<3.0	8808708	<3.0	8808708	<3.0	3.0	8808708
Dissolved Antimony (Sb)	ug/L	1.79	2.54	8808708	1.31	8808708	8.60	0.50	8808708
Dissolved Arsenic (As)	ug/L	1.61	1.18	8808708	2.74	8808708	8.30	0.10	8808708
Dissolved Barium (Ba)	ug/L	19.8	37.0	8808708	30.4	8808708	37.0	1.0	8808708
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	8808708	<0.10	8808708	<0.10	0.10	8808708
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	8808708	<1.0	8808708	<1.0	1.0	8808708
Dissolved Boron (B)	ug/L	<50	<50	8808708	<50	8808708	<50	50	8808708
Dissolved Cadmium (Cd)	ug/L	<0.010	<0.010	8808708	<0.010	8808708	<0.010	0.010	8808708
Dissolved Chromium (Cr)	ug/L	2.9	101	8808708	15.5	8808708	<1.0	1.0	8808708
Dissolved Cobalt (Co)	ug/L	<0.20	<0.20	8808708	<0.20	8808708	<0.20	0.20	8808708
Dissolved Copper (Cu)	ug/L	<0.20	<0.20	8808708	<0.20	8808708	0.65	0.20	8808708
Dissolved Iron (Fe)	ug/L	<5.0	<5.0	8808708	<5.0	8808708	<5.0	5.0	8808708
Dissolved Lead (Pb)	ug/L	<0.20	<0.20	8808708	<0.20	8808708	<0.20	0.20	8808708
Dissolved Lithium (Li)	ug/L	<2.0	<2.0	8808708	<2.0	8808708	<2.0	2.0	8808708
Dissolved Manganese (Mn)	ug/L	<1.0	1.9	8808708	<1.0	8808708	<1.0	1.0	8808708
Dissolved Molybdenum (Mo)	ug/L	2.1	4.0	8808708	7.0	8808708	211	1.0	8808708
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	8808708	<1.0	8808708	<1.0	1.0	8808708
Dissolved Selenium (Se)	ug/L	<0.10	0.12	8808708	3.32	8808708	10.3	0.10	8808708
Dissolved Silicon (Si)	ug/L	3460	5630	8808708	4370	8808708	5020	100	8808708
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	8808708	<0.020	8808708	<0.020	0.020	8808708
Dissolved Strontium (Sr)	ug/L	92.9	129	8808708	120	8808708	216	1.0	8808708
Dissolved Thallium (Tl)	ug/L	<0.010	<0.010	8808708	<0.010	8808708	<0.010	0.010	8808708
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	8808708	<5.0	8808708	<5.0	5.0	8808708
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	8808708	<5.0	8808708	<5.0	5.0	8808708
Dissolved Uranium (U)	ug/L	0.61	0.76	8808708	1.08	8808708	13.7	0.10	8808708
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	8808708	<5.0	8808708	76.1	5.0	8808708
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	8808708	<5.0	8808708	<5.0	5.0	8808708
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	8808708	<0.10	8808708	<0.10	0.10	8808708
Dissolved Calcium (Ca)	mg/L	4.92	9.11	8806542	8.67	8806542	13.2	0.050	8806542
RDL = Reportable Detection Limit									

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AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH8090	SH8091		SH8092		SH8093		
Sampling Date		2017/10/23 14:00	2017/10/23 14:15		2017/10/23 14:30		2017/10/23 15:45		
COC Number		538095-01-01	538095-01-01		538095-01-01		538095-01-01		
	UNITS	YJ-BIN#1	YJ-BIN#2	QC Batch	YJ-BIN#4	QC Batch	YJ-BIN#5	RDL	QC Batch
Dissolved Magnesium (Mg)	mg/L	23.8	21.6	8806542	26.5	8806542	53.8	0.050	8806542
Dissolved Potassium (K)	mg/L	1.25	0.841	8806542	1.41	8806542	2.71	0.050	8806542
Dissolved Sodium (Na)	mg/L	4.50	2.53	8806542	4.27	8806542	7.00	0.050	8806542
Dissolved Sulphur (S)	mg/L	<3.0	<3.0	8806542	4.2	8806542	54.4	3.0	8806542
RDL = Reportable Detection Limit									

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CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH8094		
Sampling Date		2017/10/23 15:15		
COC Number		538095-01-01		
	UNITS	FB-DUP	RDL	QC Batch
Misc. Inorganics				
Dissolved Hardness (CaCO3)	mg/L	246	0.50	8806906
Elements				
Dissolved Mercury (Hg)	ug/L	<0.010	0.010	8813773
Dissolved Metals by ICPMS				
Dissolved Aluminum (Al)	ug/L	<3.0	3.0	8808708
Dissolved Antimony (Sb)	ug/L	8.47	0.50	8808708
Dissolved Arsenic (As)	ug/L	7.98	0.10	8808708
Dissolved Barium (Ba)	ug/L	37.1	1.0	8808708
Dissolved Beryllium (Be)	ug/L	<0.10	0.10	8808708
Dissolved Bismuth (Bi)	ug/L	<1.0	1.0	8808708
Dissolved Boron (B)	ug/L	<50	50	8808708
Dissolved Cadmium (Cd)	ug/L	<0.010	0.010	8808708
Dissolved Chromium (Cr)	ug/L	<1.0	1.0	8808708
Dissolved Cobalt (Co)	ug/L	<0.20	0.20	8808708
Dissolved Copper (Cu)	ug/L	0.66	0.20	8808708
Dissolved Iron (Fe)	ug/L	<5.0	5.0	8808708
Dissolved Lead (Pb)	ug/L	<0.20	0.20	8808708
Dissolved Lithium (Li)	ug/L	<2.0	2.0	8808708
Dissolved Manganese (Mn)	ug/L	<1.0	1.0	8808708
Dissolved Molybdenum (Mo)	ug/L	212	1.0	8808708
Dissolved Nickel (Ni)	ug/L	<1.0	1.0	8808708
Dissolved Selenium (Se)	ug/L	9.75	0.10	8808708
Dissolved Silicon (Si)	ug/L	4900	100	8808708
Dissolved Silver (Ag)	ug/L	<0.020	0.020	8808708
Dissolved Strontium (Sr)	ug/L	214	1.0	8808708
Dissolved Thallium (Tl)	ug/L	<0.010	0.010	8808708
Dissolved Tin (Sn)	ug/L	<5.0	5.0	8808708
Dissolved Titanium (Ti)	ug/L	<5.0	5.0	8808708
Dissolved Uranium (U)	ug/L	13.5	0.10	8808708
Dissolved Vanadium (V)	ug/L	73.5	5.0	8808708
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	8808708
Dissolved Zirconium (Zr)	ug/L	<0.10	0.10	8808708
Dissolved Calcium (Ca)	mg/L	13.0	0.050	8806542
RDL = Reportable Detection Limit				

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CSR DISSOLVED METALS IN WATER WITH CV HG (WATER)

Maxxam ID		SH8094		
Sampling Date		2017/10/23 15:15		
COC Number		538095-01-01		
	UNITS	**FB-DUP**	**RDL**	**QC Batch**
Dissolved Magnesium (Mg)	mg/L	51.8	0.050	8806542
Dissolved Potassium (K)	mg/L	2.62	0.050	8806542
Dissolved Sodium (Na)	mg/L	6.96	0.050	8806542
Dissolved Sulphur (S)	mg/L	51.8	3.0	8806542
RDL = Reportable Detection Limit				

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GENERAL COMMENTS

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8807365	TSO	Matrix Spike	Fluoride (F)	2017/10/25		94	%	80 - 120
8807365	TSO	Spiked Blank	Fluoride (F)	2017/10/25		100	%	80 - 120
8807365	TSO	Method Blank	Fluoride (F)	2017/10/25	<0.020		mg/L	
8807365	TSO	RPD	Fluoride (F)	2017/10/25	17		%	20
8808266	BB3	Spiked Blank	Dissolved Chloride (Cl)	2017/10/25		97	%	80 - 120
8808266	BB3	Method Blank	Dissolved Chloride (Cl)	2017/10/25	<1.0		mg/L	
8808270	BB3	Matrix Spike	Dissolved Sulphate (SO4)	2017/10/25		112	%	80 - 120
8808270	BB3	Spiked Blank	Dissolved Sulphate (SO4)	2017/10/25		97	%	80 - 120
8808270	BB3	Method Blank	Dissolved Sulphate (SO4)	2017/10/25	<1.0		mg/L	
8808270	BB3	RPD	Dissolved Sulphate (SO4)	2017/10/25	1.4		%	20
8808708	JT3	Matrix Spike	Dissolved Aluminum (Al)	2017/10/29		107	%	80 - 120
			Dissolved Antimony (Sb)	2017/10/29		98	%	80 - 120
			Dissolved Arsenic (As)	2017/10/29		105	%	80 - 120
			Dissolved Barium (Ba)	2017/10/29		NC	%	80 - 120
			Dissolved Beryllium (Be)	2017/10/29		102	%	80 - 120
			Dissolved Bismuth (Bi)	2017/10/29		95	%	80 - 120
			Dissolved Boron (B)	2017/10/29		96	%	80 - 120
			Dissolved Cadmium (Cd)	2017/10/29		96	%	80 - 120
			Dissolved Chromium (Cr)	2017/10/29		95	%	80 - 120
			Dissolved Cobalt (Co)	2017/10/29		97	%	80 - 120
			Dissolved Copper (Cu)	2017/10/29		98	%	80 - 120
			Dissolved Iron (Fe)	2017/10/29		96	%	80 - 120
			Dissolved Lead (Pb)	2017/10/29		95	%	80 - 120
			Dissolved Lithium (Li)	2017/10/29		97	%	80 - 120
			Dissolved Manganese (Mn)	2017/10/29		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/10/29		NC	%	80 - 120
			Dissolved Nickel (Ni)	2017/10/29		96	%	80 - 120
			Dissolved Selenium (Se)	2017/10/29		106	%	80 - 120
			Dissolved Silver (Ag)	2017/10/29		101	%	80 - 120
			Dissolved Strontium (Sr)	2017/10/29		NC	%	80 - 120
			Dissolved Thallium (Tl)	2017/10/29		94	%	80 - 120
			Dissolved Tin (Sn)	2017/10/29		96	%	80 - 120
			Dissolved Titanium (Ti)	2017/10/29		103	%	80 - 120
			Dissolved Uranium (U)	2017/10/29		95	%	80 - 120
			Dissolved Vanadium (V)	2017/10/29		98	%	80 - 120
			Dissolved Zinc (Zn)	2017/10/29		106	%	80 - 120
			Dissolved Zirconium (Zr)	2017/10/29		94	%	80 - 120
8808708	JT3	Spiked Blank	Dissolved Aluminum (Al)	2017/10/29		108	%	80 - 120
			Dissolved Antimony (Sb)	2017/10/29		95	%	80 - 120
			Dissolved Arsenic (As)	2017/10/29		101	%	80 - 120
			Dissolved Barium (Ba)	2017/10/29		94	%	80 - 120
			Dissolved Beryllium (Be)	2017/10/29		94	%	80 - 120
			Dissolved Bismuth (Bi)	2017/10/29		100	%	80 - 120
			Dissolved Boron (B)	2017/10/29		94	%	80 - 120
			Dissolved Cadmium (Cd)	2017/10/29		94	%	80 - 120
			Dissolved Chromium (Cr)	2017/10/29		88	%	80 - 120
			Dissolved Cobalt (Co)	2017/10/29		97	%	80 - 120
			Dissolved Copper (Cu)	2017/10/29		95	%	80 - 120
			Dissolved Iron (Fe)	2017/10/29		95	%	80 - 120
			Dissolved Lead (Pb)	2017/10/29		98	%	80 - 120
			Dissolved Lithium (Li)	2017/10/29		88	%	80 - 120
			Dissolved Manganese (Mn)	2017/10/29		93	%	80 - 120
			Dissolved Molybdenum (Mo)	2017/10/29		91	%	80 - 120
			Dissolved Nickel (Ni)	2017/10/29		94	%	80 - 120
			Dissolved Selenium (Se)	2017/10/29		100	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Silver (Ag)	2017/10/29		101	%	80 - 120
			Dissolved Strontium (Sr)	2017/10/29		95	%	80 - 120
			Dissolved Thallium (Tl)	2017/10/29		95	%	80 - 120
			Dissolved Tin (Sn)	2017/10/29		87	%	80 - 120
			Dissolved Titanium (Ti)	2017/10/29		98	%	80 - 120
			Dissolved Uranium (U)	2017/10/29		96	%	80 - 120
			Dissolved Vanadium (V)	2017/10/29		94	%	80 - 120
			Dissolved Zinc (Zn)	2017/10/29		95	%	80 - 120
			Dissolved Zirconium (Zr)	2017/10/29		90	%	80 - 120
8808708	JT3	Method Blank	Dissolved Aluminum (Al)	2017/10/29	<3.0		ug/L	
			Dissolved Antimony (Sb)	2017/10/29	<0.50		ug/L	
			Dissolved Arsenic (As)	2017/10/29	<0.10		ug/L	
			Dissolved Barium (Ba)	2017/10/29	<1.0		ug/L	
			Dissolved Beryllium (Be)	2017/10/29	<0.10		ug/L	
			Dissolved Bismuth (Bi)	2017/10/29	<1.0		ug/L	
			Dissolved Boron (B)	2017/10/29	<50		ug/L	
			Dissolved Cadmium (Cd)	2017/10/29	<0.010		ug/L	
			Dissolved Chromium (Cr)	2017/10/29	<1.0		ug/L	
			Dissolved Cobalt (Co)	2017/10/29	<0.20		ug/L	
			Dissolved Copper (Cu)	2017/10/29	<0.20		ug/L	
			Dissolved Iron (Fe)	2017/10/29	<5.0		ug/L	
			Dissolved Lead (Pb)	2017/10/29	<0.20		ug/L	
			Dissolved Lithium (Li)	2017/10/29	<2.0		ug/L	
			Dissolved Manganese (Mn)	2017/10/29	<1.0		ug/L	
			Dissolved Molybdenum (Mo)	2017/10/29	<1.0		ug/L	
			Dissolved Nickel (Ni)	2017/10/29	<1.0		ug/L	
			Dissolved Selenium (Se)	2017/10/29	<0.10		ug/L	
			Dissolved Silicon (Si)	2017/10/29	<100		ug/L	
			Dissolved Silver (Ag)	2017/10/29	<0.020		ug/L	
			Dissolved Strontium (Sr)	2017/10/29	<1.0		ug/L	
			Dissolved Thallium (Tl)	2017/10/29	<0.010		ug/L	
			Dissolved Tin (Sn)	2017/10/29	<5.0		ug/L	
			Dissolved Titanium (Ti)	2017/10/29	<5.0		ug/L	
			Dissolved Uranium (U)	2017/10/29	<0.10		ug/L	
			Dissolved Vanadium (V)	2017/10/29	<5.0		ug/L	
			Dissolved Zinc (Zn)	2017/10/29	<5.0		ug/L	
			Dissolved Zirconium (Zr)	2017/10/29	<0.10		ug/L	
8808708	JT3	RPD	Dissolved Aluminum (Al)	2017/10/29	NC		%	20
			Dissolved Antimony (Sb)	2017/10/29	NC		%	20
			Dissolved Arsenic (As)	2017/10/29	5.5		%	20
			Dissolved Barium (Ba)	2017/10/29	0.51		%	20
			Dissolved Beryllium (Be)	2017/10/29	NC		%	20
			Dissolved Bismuth (Bi)	2017/10/29	NC		%	20
			Dissolved Boron (B)	2017/10/29	NC		%	20
			Dissolved Cadmium (Cd)	2017/10/29	NC		%	20
			Dissolved Chromium (Cr)	2017/10/29	NC		%	20
			Dissolved Cobalt (Co)	2017/10/29	NC		%	20
			Dissolved Copper (Cu)	2017/10/29	11		%	20
			Dissolved Iron (Fe)	2017/10/29	NC		%	20
			Dissolved Lead (Pb)	2017/10/29	NC		%	20
			Dissolved Lithium (Li)	2017/10/29	7.2		%	20
			Dissolved Manganese (Mn)	2017/10/29	9.7		%	20
			Dissolved Molybdenum (Mo)	2017/10/29	7.5		%	20
			Dissolved Nickel (Ni)	2017/10/29	5.2		%	20
			Dissolved Selenium (Se)	2017/10/29	10		%	20

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Silicon (Si)	2017/10/29	2.7		%	20
			Dissolved Silver (Ag)	2017/10/29	NC		%	20
			Dissolved Strontium (Sr)	2017/10/29	4.0		%	20
			Dissolved Thallium (Tl)	2017/10/29	NC		%	20
			Dissolved Tin (Sn)	2017/10/29	NC		%	20
			Dissolved Titanium (Ti)	2017/10/29	NC		%	20
			Dissolved Uranium (U)	2017/10/29	2.1		%	20
			Dissolved Vanadium (V)	2017/10/29	NC		%	20
			Dissolved Zinc (Zn)	2017/10/29	NC		%	20
			Dissolved Zirconium (Zr)	2017/10/29	NC		%	20
8809049	CGP	Spiked Blank	pH	2017/10/26		102	%	97 - 103
8809049	CGP	RPD	pH	2017/10/26	7.4		%	20
8809053	CGP	Matrix Spike	Alkalinity (Total as CaCO3)	2017/10/26		102	%	80 - 120
8809053	CGP	Spiked Blank	Alkalinity (Total as CaCO3)	2017/10/26		101	%	80 - 120
8809053	CGP	Method Blank	Alkalinity (Total as CaCO3)	2017/10/26	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2017/10/26	<1.0		mg/L	
			Bicarbonate (HCO3)	2017/10/26	<1.0		mg/L	
			Carbonate (CO3)	2017/10/26	<1.0		mg/L	
			Hydroxide (OH)	2017/10/26	<1.0		mg/L	
8809053	CGP	RPD	Alkalinity (Total as CaCO3)	2017/10/26	NC		%	20
			Alkalinity (PP as CaCO3)	2017/10/26	NC		%	20
			Bicarbonate (HCO3)	2017/10/26	NC		%	20
			Carbonate (CO3)	2017/10/26	NC		%	20
			Hydroxide (OH)	2017/10/26	NC		%	20
8809061	CGP	Spiked Blank	pH	2017/10/26		102	%	97 - 103
8809061	CGP	RPD [SH8093-01]	pH	2017/10/26	0.49		%	20
8809064	CGP	Matrix Spike	Alkalinity (Total as CaCO3)	2017/10/26		NC	%	80 - 120
8809064	CGP	Spiked Blank	Alkalinity (Total as CaCO3)	2017/10/26		102	%	80 - 120
8809064	CGP	Method Blank	Alkalinity (Total as CaCO3)	2017/10/26	<1.0		mg/L	
			Alkalinity (PP as CaCO3)	2017/10/26	<1.0		mg/L	
			Bicarbonate (HCO3)	2017/10/26	<1.0		mg/L	
			Carbonate (CO3)	2017/10/26	<1.0		mg/L	
			Hydroxide (OH)	2017/10/26	<1.0		mg/L	
8809064	CGP	RPD [SH8093-01]	Alkalinity (Total as CaCO3)	2017/10/26	0.15		%	20
			Alkalinity (PP as CaCO3)	2017/10/26	NC		%	20
			Bicarbonate (HCO3)	2017/10/26	0.15		%	20
			Carbonate (CO3)	2017/10/26	NC		%	20
			Hydroxide (OH)	2017/10/26	NC		%	20
8809759	IW1	Matrix Spike [SH8090-01]	Nitrate plus Nitrite (N)	2017/10/26		NC	%	80 - 120
8809759	IW1	Spiked Blank	Nitrate plus Nitrite (N)	2017/10/26		106	%	80 - 120
8809759	IW1	Method Blank	Nitrate plus Nitrite (N)	2017/10/26	<0.020		mg/L	
8809759	IW1	RPD [SH8090-01]	Nitrate plus Nitrite (N)	2017/10/26	0.45		%	25
8809760	IW1	Matrix Spike [SH8090-01]	Nitrite (N)	2017/10/26		101	%	80 - 120
8809760	IW1	Spiked Blank	Nitrite (N)	2017/10/26		100	%	80 - 120
8809760	IW1	Method Blank	Nitrite (N)	2017/10/26	<0.0050		mg/L	
8809760	IW1	RPD [SH8090-01]	Nitrite (N)	2017/10/26	NC		%	20
8811105	JT3	Matrix Spike	Bromide (Br)	2017/10/28		93	%	78 - 120
8811105	JT3	Spiked Blank	Bromide (Br)	2017/10/28		92	%	80 - 120
8811105	JT3	Method Blank	Bromide (Br)	2017/10/28	<0.010		mg/L	
8811105	JT3	RPD	Bromide (Br)	2017/10/28	NC		%	20
8813773	RM3	Matrix Spike	Dissolved Mercury (Hg)	2017/10/31		86	%	70 - 130
8813773	RM3	Spiked Blank	Dissolved Mercury (Hg)	2017/10/31		90	%	80 - 120
8813773	RM3	Method Blank	Dissolved Mercury (Hg)	2017/10/31	<0.010		ug/L	
8813773	RM3	RPD	Dissolved Mercury (Hg)	2017/10/31	NC		%	20
8814334	EL2	Matrix Spike	Dissolved Mercury (Hg)	2017/11/01		103	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8814334	EL2	Spiked Blank	Dissolved Mercury (Hg)	2017/11/01		94	%	80 - 120
8814334	EL2	Method Blank	Dissolved Mercury (Hg)	2017/11/01	<0.010		ug/L	
8814334	EL2	RPD	Dissolved Mercury (Hg)	2017/11/01	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).

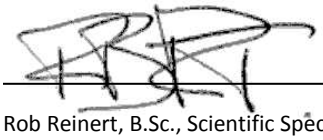
Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Maxxam Job #: B794417
Report Date: 2017/11/01

AFRICAN QUEEN MINES LTD.
Sampler Initials: LD

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.

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Maxxam Analytics International Corporation o/a Maxxam Analytics
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.maxxam.ca

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B794417_COC

Bottle Order #: 538095

C#538095-01-01

Project Manager: Veronica De Guzman

INVOICE TO:		Report Information		Project Information	
Company Name	#12411 AFRICAN QUEEN MINES LTD.	Company Name		Quotation #	B61210
Contact Name	~~Linda Dandy~~ Jen Ted hunter	Contact Name	LINDA DANDY	P.O. #	
Address	1153 56TH STREET BOX 19040 DELTA BC V4L 2P8	Address		Project #	
				Project Name	
Phone	(604) 240-7676 x Fax:	Phone	Fax:	Site #	
Email	lindadandy@telus.net	Email		Sampled By	

Regulatory Criteria

Special Instructions

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 sampling until delivery to maxxam

RECEIVED IN WHITEHORSE
BY: Sycho @ 1300
2017 -10- 24
TEMP: 1 1 \ 1 0

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT ☑
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	pH, ALK, F	Cl, SO4, NITRATE, NITRITE	DISSOLVED METALS WITH CV Hg	BROMIDE	# of Bottles	Comments
1		YJ-BIN#1	OCT 23	1400	H_2O	N	Y	✓	✓	✓	✓		
2		YJ-BIN#2	↓	1415	↓	N	Y	✓	✓	✓	✓		partial sample - no sample
3		YJ-BIN#3	no Sample										
4		YJ-BIN#4	OCT 23	1430	H_2O	N	Y	✓	✓	✓	✓		
5		YJ-BIN#5	↓	1545	↓	N	Y	↓	↓	↓	↓		
6		FB-DUPLICATE	↓	~~20~~ 1515	↓	N	Y	↓	↓	↓	↓		
7													
8													
9													
10													

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
LINDA DANDY	17/10/24	1300	KELW CHUK	2017/10/25	~~10:00~~ 09:30	25	☑	4, 4, 4	☑ Yes ☐ No

* UNLESS 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 WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics