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# NI 43-101 Technical Report Mineral Resource Estimate Bullfrog Gold Project Nye County, Nevada

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### 1. EXECUTIVE SUMMARY

This technical report (TR or report) has been prepared for Augusta Gold Corp. (Augusta, or the Company) for the Bullfrog Gold Project (Project, project, or Bullfrog Project) in Nevada. Gold was produced from the Bullfrog Project by various companies, with Barrick Bullfrog Inc. being the most recent. The mine was exploited through open pit and underground methods and ore was processed in a conventional cyanidation mill.

This report has been prepared for the purposes of producing an independent estimation of mineral resources at the site. The report includes a description of additional and ongoing drilling completed during the period of 2020 to present. This included a review of the drilling data for the Project to date, including historical drilling.

This mineral resource report has been prepared by Tetra Tech (Tt) and is based on the previously published TR issued on August 9, 2017. It includes the mineral resources estimated in 2017 and additional information from the 2020-2021 drilling program. Tetra Tech has also updated sections on metallurgical research.

## 1.1 Location, Property Description & Ownership

The Company's wholly-owned Bullfrog Gold Project is located in the Bullfrog Hills of Nye County, Nevada and in the southern half of the Bullfrog Mining District (Figure 1-1). Basic amenities are available in the town of Beatty, which is situated 6.5 km (4 miles) east of the Project. Las Vegas is the largest regional city with full services and is a 260 km drive to the site. Project properties are located in Sections 25, 26, 35 and 36 of T11S, R46E and Sections 1, 2, 3, 4, 5, 6, 8 9, 10, 11, 12, 13, 14, 15, 16, 17, and 23 of T12S, R46E, Mt. Diablo Meridian.



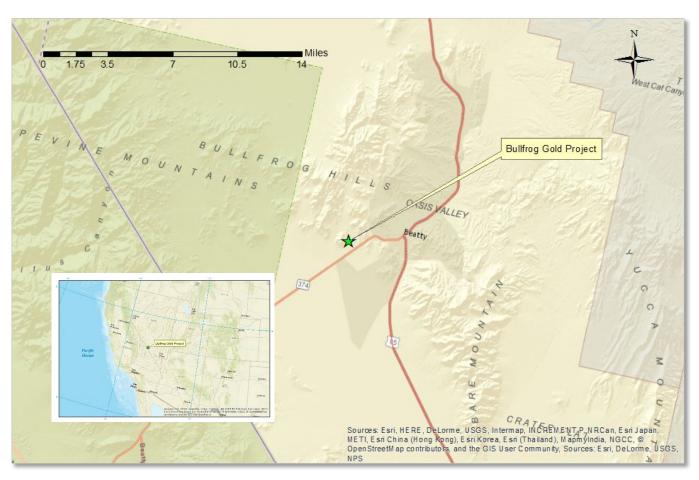


Figure 1-1: Location Map (Scale bar is approximately 22.5 km long)

## 1.2 Geology & Mineralization

The Project is in the southern Walker Lane trend within brittle upper-plate volcanic host rocks that were severely broken from dominant detachment faulting and associated dip-slip and strike-slip displacements. Epithermal solutions permeated the broken host rocks in the Montgomery-Shoshone (M-S) and Bullfrog deposits precipitating micron-sized and relatively high-grade gold (Au) within major quartz-calcite veins and disseminated gold in associated stock-works. The veins contain gangue minerals other than quartz, such as calcite and manganese oxides, the latter of which contributes associated silver (Ag) recoveries and gold. The district geology map is shown below.



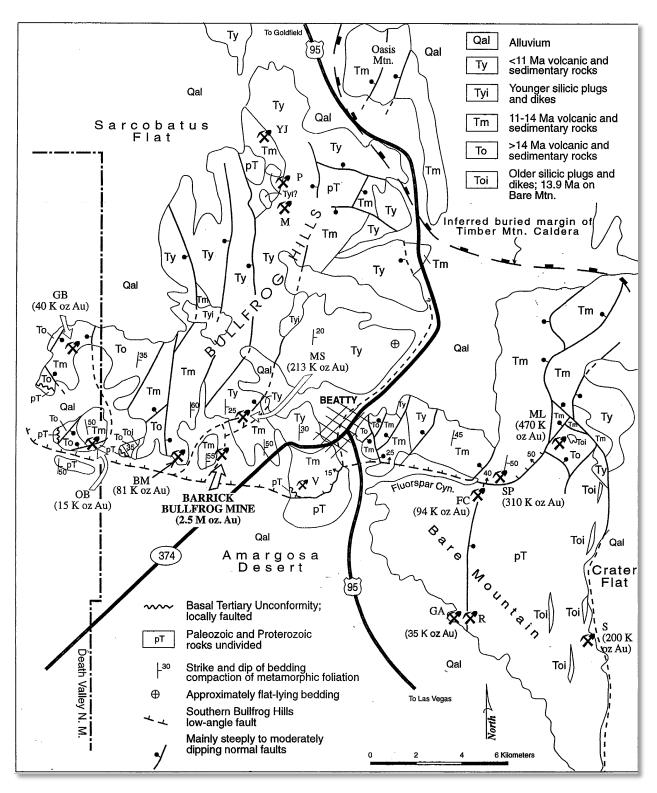


Figure 1-2: District Geology Map

The highest grades in the Bullfrog deposit typically correlate with zones of black manganese-rich material, where much of the early manganiferous calcite has been leached out, rendering the vein a rubble zone of quartz, calcite, and wad. Veins continue up dip and down dip, but the gold grades and thicknesses



diminish rapidly above and below these elevations. The veins and breccia veins associated with the mineralization are generally associated with the MP Fault and its immediate hanging wall. Mineralization also occurs in upper and lower stockwork zones that are subparallel to the high-grade brecciated vein within the main fault structure.

## 1.3 Exploration, Drilling, Sampling & QA/QC

### 1.3.1 Exploration

The Company's exploration activities to date have focused on the following:

- Acquiring, organizing, digitizing and vetting electronic and paper data bases obtained from Barrick mainly related to drill data, metallurgy and project infrastructure; and
- Maintaining and expanding the land holdings.

### 1.3.2 Drilling

The project drilling includes 1,287 holes, for a total of 254,542 meters completed between 1983 and 2020. The holes were drilled using both core and reverse circulation methods, as detailed in the drilling section of this report. **Table 1-1** summarizes the project drilling by year.

Table 1-1:	Proiect	Drilling	bv Year
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Year	Holes	Length (m)
1983	6	975
1984	37	3,560
1985	3	303
1986	29	3,364
1987	163	29,479
1988	321	66,325
1989	71	12,285
1990	154	37,114
1991	79	22,954
1992	23	4,907
1993	9	387
1994	210	31,362
1995	99	22,370
1996	58	15,254
2020	25	3,903
Total	1,287	254,542

25 Reverse Circulation holes were drilled by Augusta in 2020. The purpose of this drilling program was to further define resources and ultimate limits of the Bullfrog and Montgomery-Shoshone pits, and have not been included in the mineral resource estimate in this report. The program also fulfilled a final work



commitment for the Company to purchase a 100% interest in lands under lease from Barrick by mid-September 2020. Two holes were drilled at the Paradise Ridge Target. Section 10 of this report details the results of the 2020 drilling program.

Additional potential has been shown in the drilling results and the drilling was completed in proximity of the resource estimate from 2017. A delineation drilling program should be completed to further define the resource.

### 1.3.3 Sampling

Drilling and coring information used in this resource estimate was obtained from several drill programs that began in 1983 with St. Joe Minerals, continued with Bond Gold and Lac Minerals, and ended by Barrick in late 1996. Of 1,262 total holes drilled in the area, 147 holes included core and 1,243 holes were drilled using reverse circulation methods. Most of the cored holes included intervals of core plus RC segments. Percent recovery and RQD measurements were made on all core intervals. An assessment was made of the quality of the orientation data and the core was marked accordingly. The core was then logged, recording lithological, alteration, mineralization, and structural information including the orientation of faults, fault lineation's, fractures, veins, and bedding. With few exceptions, the entire lengths of the holes were sampled. Sample intervals were 5 feet and occasionally based on the geological logging, separating different lithologies and styles of mineralization and alteration. Samples were marked and tagged in the core box before being photographed, after which the core was sawed in half, with one half sent for assay and one half retained for future reference. Each sample interval was bagged separately and shipped to the lab for analysis.

Cuttings from nearly all reverse circulation drill programs were divided into two streams, one was sampled and the other was disposed during the reclamation of each drill site. Using a Jones splitter, the sample stream was further divided into two sample bags, one designated for assaying and the second duplicate designated as a field reject. Samples were collected at five-foot intervals and bagged at the drill site. Each five-foot sample was sealed at the drill site and not opened until it reached the analytical lab. At each 20-foot rod connection, the hole was blown clean to eliminate material that had fallen into the hole during the connection. The designated assay samples for each five-foot interval were collected by the site geologist and moved to a secure sample collection area for shipment to accredited laboratories off site. When duplicate samples were collected, they were retained at the drill site as a reference sample, if needed. If the duplicate samples were not used, they were blended with site materials during site reclamation.

Additional holes were drilled by the Company in 2020 that are not included in this mineral resource estimate. The sampling for this program is described in Section 11 of this report.

#### 1.3.4 QA/QC

The sampling QA/QC program was originally established by St. Joe Minerals. Subsequent owners followed the procedures with any necessary updates to meet quality assurance standards of the time. The standard practices included the supervision of drilling, logging of core, as well as in-stream sample submittal for blanks, certified standards, and duplicate testing to ensure laboratory performance. All assay testing was completed by outside laboratories, such as Skyline, Legend, Iron King, Barringer, American Assay, and Chemex. Assay certificates are available and have been electronically scanned to complete the project drilling database.



## 1.4 Mineral Processing & Metallurgical Testing

Metallurgical testing programs that are relevant to the development plans of the Project are summarized below.

In 1986 St. Joe American performed two large column tests on 20 t (22 short tons) composites of M-S samples and recovered 56% of the gold after 59 days of leaching material grading 0.034 opt and crushed to -19 mm (-3/4 inch). The other column recovered 49% of the gold after 59 days of leaching minus 304.8 mm (-12-inch) material grading 0.037 opt. Projected 90-day recoveries were 61% and 54% respectively.

Results from leach tests performed in 1994 by Kappes Cassiday of Reno, Nevada on 250 kg of sub-grade material from the Bullfrog mine are shown below:

	Bottle	Column	Column
Size, mesh, & mm (inch)	-100 mesh	-38 mm (-1.5")	-9.5 mm (-3/8")
Calc. Head, opt Au	0.029	0.035	0.029
Rec %	96.6	71.4	75.9
Leach time, days	2.0	41	41
NaCN, kg/t (lb/short ton)	0.5 (0.1)	0.385 (0.77)	5.35 (10.7)
Lime, kg/t (lb/short ton	1.0 (2.0)	0.155 (0.31)	1.75 (0.35)

Table 1-2: 1994 Leach Test Results

In 1995 Barrick performed pilot heap leach tests on 765t (844 short tons) of BF subgrade material and 730 t (805 short tons) from the M-S pit. Both composites were crushed to 0.8 mm (-1/2 inch). Results are shown below.

	BF Low-Grade	M-S Ore
Calc. Head, opt Au	0.019	0.048
Calc. Head, opt Ag	0.108	0.380
Projected Au Rec %	67	74
Projected Ag Rec %	9	32
Leach Time, days	41	37
NaCN, kg/t (lb/short ton)	0.10 (0.20)	0.125 (0.25)
Lime, kg/t (lb/short ton)	Nil (Nil)	Nil (Nil)

Table 1-3: 1995 Pilot Heap Leach Test Results

In 2020, cyanidation bottle rolls tests were conducted on 14 variability composites from the Bullfrog project. Details of this testing can be found in Section 13 of this report.

#### 1.5 Mineral Resource Estimation

Mineral resources have been estimated for the Bullfrog deposit using a block model to fit the deposit strike for each of the areas. Two separate block models were created, one for the Bullfrog Pit (BF) area,



and one of the Montgomery-Shoshone (M-S) area. Sub-blocking was used to help define the vein system. Two wireframe domains were built for the Bullfrog deposit, one for the high grade and one for the low-grade gold. Vein solids were created for Polaris and Montgomery veins in the M-S pit area. Au and Ag grades were estimated using Ordinary Kriging on blocks independently within and outside of wireframe constrained domains. Reporting of estimated blocks has been constrained by a base case pit optimization using input parameters deemed reasonable.

Although the mineral resources are pit constrained using reasonable cost assumptions, detailed costing and economic evaluations have not been performed. The pit optimizations only consider ounces on lands controlled by Augusta, but the pit has been allowed to extend onto non controlled land for planning purposes. The pit optimizations include mineral resources that have not demonstrated economic value and include inferred mineral resources that are too speculative for the definition of mineral reserves.

Estimated mineral resources within the base case pit constraint are shown in **Table 1-4** for the Bullfrog Pit area. Estimated mineral resources within the base case pit constraint is shown in **Table 1-5** for the M-S Pit area. Historically mined ounces were flagged and removed from the model before calculating the mineral resource numbers. A total of ounces for both deposits can be found in **Table 1-6**.

Classification	Cutoff Au g/t	Tonnes (M)	Au g/t	Ag g/t	Au oz (1000)	Ag oz (M)
Measured	0.36	2.05	0.88	2.35	58	0.15
Indicated	0.36	12.9	1.04	2.52	431	1.04
Measured + Indicated	0.36	14.95	1.02	2.50	489	1.2
Inferred	0.36	2.8	1.2	2.58	109	0.24

Table 1-4: Mineral Resource Estimate for the Bullfrog Pit Area

#### NOTES:

- (1) Cutoff grade calculated using a metal price of \$1,200 per troy ounce of Au and a recovery of 72% for Au.
- (2) Mineral Resources have been pit shell constrained using the Lerch Grossman algorithm
- (3) Metal prices do not exceed three-year trailing average as of the end of December 2016, per SEC guidance.

Table 1-5: Mineral Resource Estimate for the M-S Pit Area

Classification	Cutoff Au g/t	Tonnes (M)	Au g/t	Ag g/t	Au oz (1000)	Ag oz (M)
Measured	0.36	0.41	1.03	4.53	13.7	0.06
Indicated	0.36	0.71	0.99	3.72	22.7	0.09
Measured + Indicated	0.36	1.12	1.00	4.02	36.4	0.15
Inferred	0.36	0.045	1.17	5.53	1.69	0.008

#### NOTES

- (1) Cutoff grade calculated using a metal price of \$1,200 per troy ounce of Au and a recovery of 72% for Au.
- (2) Mineral Resources have been pit shell constrained using the Lerch Grossman algorithm
- (3) Metal prices do not exceed three-year trailing average as of the end of December 2016, per SEC guidance.



Table 1-6: Measured and Indicated Mineral Resource Summary for Project

Classification	Cutoff Au g/t	Tonnes (M)	Au g/t	Ag g/t	Au oz (1000)	Ag oz (M)
Bullfrog	0.36	14.95	1.02	2.50	489	1.2
M-S	0.36	1.12	1.00	4.02	36.4	0.15
Total	0.36	16.07	1.02	2.61	525.4	1.35

#### NOTES:

- (1) Cutoff grade calculated using a metal price of \$1,200 per troy ounce of Au and a recovery of 72% for Au.
- (2) Mineral Resources have been pit shell constrained using the Lerch Grossman algorithm
- (3) Metal prices do not exceed three-year trailing average as of the end of December 2016, per SEC guidance.

Additional upside material can be provided by evaluating the low gold grade material between a 0.2 and 0.36 gold cutoff grades. This information is discussed in detail in Section 14. Instead of being stored in the waste rock facility, it is possible to heap leach this uncrushed material to recover additional gold and silver.

## 1.6 Interpretations & Conclusions

Drill hole samples were collected and analyzed using industry standard methods and practices at the time they were drilled, and based on the assay certifications, are sufficient to characterize grade and thickness and support the estimation of mineral resources set out in this report.

The Bullfrog project and deposit have several beneficial attributes that provide opportunities to justify further investigation by way of a PEA:

- The Project is in a jurisdiction amenable to mining. Local permitting authorities and the community are accustomed to mine development and the potential economic benefits.
- The Town of Beatty with a population of approximately 1,000 is 6.4 km (4 miles) away and has adequate amenities and services.
- The Project is near infrastructure, including power lines on site, a paved highway to the site, water below the Bullfrog pit, a network of roads on site, and pit ramps that are in place.
- Years of production data and comprehensive heap leach tests have demonstrated acceptable heap leach recoveries at various crushed and run-of-mine sizes.
- The Project has potential to expand resources around the pits as well as exploration upside in the District.
- Extensive drilling helps defines several targets for expanding the pits and providing exploration upside.
- After 20+ years, existing pit walls remain stable up to 53 degrees.

#### Project risks include:

- Potential permitting and environmental issues may be a concern.
- Mineral resources have been constrained by an optimized pit shell; however, scoping study-level costing for mining and processing have not been undertaken.



#### 1.7 Recommendations

Current estimation of mineral resources indicate the Bullfrog Project warrants further advancement to the Preliminary Economic Assessment (PEA) or Pre-Feasibility Study (PFS) stage. Tetra Tech also recommends updating the resource with the following considerations:

- Land acquired since the 2017 resource report
- 2020-2021 drilling programs
- Gold prices
- Revaluate cutoff grade to include new metallurgical test work

The Project acquired additional land in 2020. It is recommended to calculate the resource to include the newly acquired land package.

It is also recommended that a local environmental consulting firm, experienced in the area of permitting and societal issues in the area, be retained to assist in baseline and background work that will be required as inputs into the feasibility and mine planning process. Some existing Baseline Studies already exist, due to the historic mining, but updates will be required for a minimum of:

- Geochemical characterization of the waste rock.
- Hydrologic characterization of the water in the Bullfrog Pit and in existing wells.
- Plant and wildlife surveys, mainly concerning the Desert Tortoise and bats.
- Meteorological Data.
- Cultural Surveys

Additional exploration holes are recommended to confirm resource estimations and condemn areas ultimately selected for siting Project facilities. These recommendations have an estimated cost of \$19.9 million.



### 2. INTRODUCTION

This report has been prepared for Augusta Gold Corp. for the Bullfrog Gold Project in Nevada with the purpose of detailing drilling data collected by multiple companies during the exploration and exploitation of the deposit in the past and to detail the results of an independent estimation of mineral resources calculated by Tetra Tech. This update to the 2017 resource report also includes the newly acquired land and ownership.

Technical information, including locations, orientations, mapping, and analytical data has been supplied by Augusta. Information pertaining to title, environment, permitting and access has also been supplied by Augusta, and the author of this report have relied on the experts supplying this information. Introductory summaries pertaining to infrastructure, location, geology, and mineralization have been primarily sourced from the historical reports from past producers and by Augusta.

The project site was inspected by Geologist Kira Johnson on August 25, 2020.

#### 2.1 Units of Measure

All references to dollars in this report are to U.S. dollars (US\$) unless otherwise noted. Distances, areas, volumes, and masses are expressed in the metric system unless indicated otherwise. Historic data is expressed in English units, such as feet and tons.

For the purpose of this report, common measurements are given in metric units. All tonnages shown are in Tonnes (t) of 1,000 kilograms, and precious metal grade values are given in grams per tonne (g/t), precious metal quantity values are given in troy ounces (toz). To convert to English units, the following factors should be used:

- 1 short ton = 0.907 tonne (T)
- 1 troy ounce = 31.1035 grams (g)
- 1 troy ounce/short ton = 34.286 grams per tonne (g/t)
- 1 foot = 30.48 centimeters (cm) = 0.3048 meters (m)
- 1 mile = 1.61 kilometer (km)
- 1 acre = 0.405 hectare (ha)



## 2.2 Abbreviations

The following is a list of the abbreviations used in this report:

Abbreviation	Unit or Term
2D	two-dimensional
3D	three-dimensional
Ag	silver
Au	gold
cm	centimeter
cm <sup>3</sup>	cubic centimeters
g	gram
g/t	grams per tonne
g/cm <sup>3</sup>	grams per cubic centimeter
ha	hectare
kg	kilogram
km	kilometer
km <sup>2</sup>	square kilometers
km/h	kilometers per hour
kw-h	kilowatt per hour
m	meter
M	million
Mm	millimeter
mm/yr	millimeters per year
Mya	million years before present
NDEP	Nevada Department of Environmental Projection
NI 43-101	Canadian Securities Administrators' National Instrument 43-101
	Net Smelting Return
Pb	lead
PEA	Preliminary Economic Assessment
ppm	parts per million
	quality assurance/quality control
Т	
toz	
•	Tonnes per day
US\$	United States dollars



## 3. RELIANCE ON OTHER EXPERTS

The author relied on statements by Augusta concerning legal and environmental matters mainly included in Section 4.0 and 5.0 of this report.

The author are relying on statements and documents provided by Augusta regarding:

- Permitting requirements to initiate mining,
- Location of the land holdings,
- Status of the land holdings,
- Surface access per the agreements and US mining law,
- Royalty and purchase agreements relating to the land holdings concessions.



## 4. PROPERTY DESCRIPTION AND LOCATION

The Project is located in the Bullfrog Hills of Nye County, Nevada (**Figure 4-1**). Augusta's property covers approximately 3,157 hectares of patented and unpatented lode mining claims in Sections 25, 26, 35 and 36 of T11S, R46E and Sections 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 15, 16, 17, and 23 of T12S, R46E, Mt. Diablo Meridian. The Project is accessible via a 2½ hour (260 km) drive north of Las Vegas, Nevada along US Highway 95. Las Vegas is serviced by a major international airport and is the closest major hub for providing equipment, supplies, services, and other support to the Project. The Project lies 4 miles west of the Town of Beatty, Nevada, which has a population of approximately 1,000 and contains most basic services, including motels, gasoline stations, schools, and a variety of stores and services. Access around the Project is provided by a series of reasonably good gravel roads that extend to the existing mines and important exploration areas.

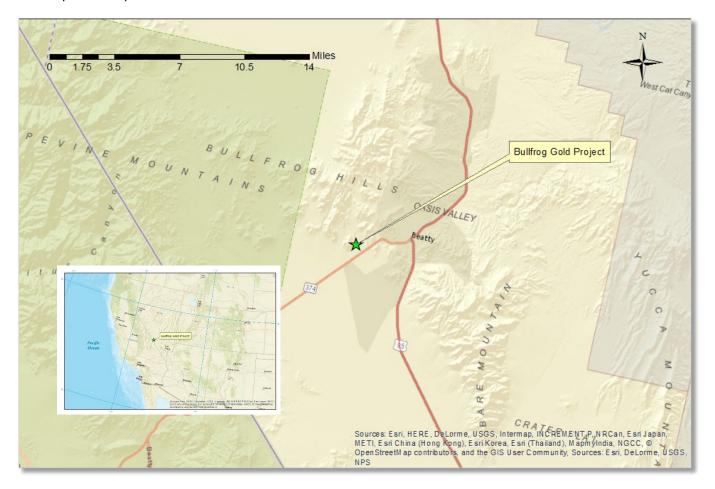


Figure 4-1: Location Map

Augusta has four option/lease/purchase agreements in place and has located 61 claims that give it control of 435 unpatented lode mining claims and mill site claims, and 86 patented. These lands are listed in



**Table 4-1**. A property map with the locations shown in detail can be seen below in **Figure 4-2**. The claims do not have an expiration date, as long as the fees and obligations are maintained.

Table 4-1: Lands Under the Control of Augusta Gold Corp.

Augusta Gold Corp. P	atented Claims	
Standard (	Gold	
Patent Name	Mineral Survey No.	
Providence	2470	
Aurium	2654	
Augusta Gold Corp. P	atented Claims	
Mojave Gold	Mining	
Patent Name	Mineral Survey No.	
Polaris Fraction	2426	
Inaugural Fraction	2426	
Three Peaches	2426	
Little Fraction	2471A	
Indian Johnnie	2471A	
Shoshone	2471A	
Del Monte Fraction	2501A	
Shoshone Two	2471A	
Shoshone Three	2471A	
Oro Grande	2470	
Shoshone Extension	2470	
Greenhorn	2470	
Augusta Gold Corp. P	atented Claims	
Brown Cla	ims	
Patent Name	Mineral Survey No.	
Crystal	2418	
Oliver	2340	
Augusta Gold Corp. P	atented Claims	
Lunar Landing Claims		
Patent Name	Mineral Survey No.	
Elkhorn	2736	
Red Bluff	2540	
Black Bull	2425	
Bell Boy Fraction	2425	
South Fraction	2425	
Lookout	2461	
Molly Gibson #1	3043	
Molly Gibson # 2	3043	
Molly Gibson #3	3043	



	2042
Molly Gibson #4	3043
Molly Gibson #5	3043
Rand #1	2784
	2784
Rand #2	2784
Rand #3	2784
Rand Fraction	2784
Early Bird	2491
Unexpected	2735
Scorpion	2411
St. Anthony	2734
Eva Bell	2576
Gem Fraction	2377
Quartzsite Fraction	2422
Annex	2715
Augusta Gold Corp. Ui	
Claim Name	BLM Serial Number
BFGC 1	NMC1147851
BFGC 2	NMC1147852
BFGC 3	NMC1147853
BFGC 4	NMC1147854
BFGC 5	NMC1147855
BFGC 6	NMC1147856
BFGC 8	NMC1147857
BFGC 9	NMC1147858
BFGC 10	NMC1147859
BFGC 11	NMC1147860
BFGC 12	NMC1147861
	1111111147801
BFGC 13	NMC1147862
BFGC 13 BFGC 14	
	NMC1147862
BFGC 14	NMC1147862 NMC1147863
BFGC 14 BFGC 15	NMC1147862 NMC1147863 NMC1147864
BFGC 14 BFGC 15 BFGC 16	NMC1147862 NMC1147863 NMC1147864 NMC1147865
BFGC 14 BFGC 15 BFGC 16 BFGC 17	NMC1147862 NMC1147863 NMC1147864 NMC1147865 NMC1147866
BFGC 14 BFGC 15 BFGC 16 BFGC 17 BFGC 18	NMC1147862 NMC1147863 NMC1147864 NMC1147865 NMC1147866 NMC1147867
BFGC 14 BFGC 15 BFGC 16 BFGC 17 BFGC 18 BFGC 19	NMC1147862 NMC1147863 NMC1147864 NMC1147865 NMC1147866 NMC1147867 NMC1147868
BFGC 14 BFGC 15 BFGC 16 BFGC 17 BFGC 18 BFGC 19 BFGC 20	NMC1147862 NMC1147863 NMC1147864 NMC1147865 NMC1147866 NMC1147867 NMC1147868 NMC1147869
BFGC 14 BFGC 15 BFGC 16 BFGC 17 BFGC 18 BFGC 19 BFGC 20 BFGC 21	NMC1147862 NMC1147863 NMC1147864 NMC1147865 NMC1147866 NMC1147867 NMC1147868 NMC1147869 NMC1147870
BFGC 14 BFGC 15 BFGC 16 BFGC 17 BFGC 18 BFGC 19 BFGC 20 BFGC 21 BFGC 22	NMC1147862 NMC1147863 NMC1147864 NMC1147865 NMC1147866 NMC1147867 NMC1147868 NMC1147869 NMC1147870 NMC1147871



BFGC 26         NMC1147875           BFGC 27         NMC1147876           BFGC 28         NMC1147877           BFGC 29         NMC1147878           BFGC 30         NMC1147879           BFGC 31         NMC1147880           BFGC 32         NMC1147881           BFGC 33         NMC1147882           BFGC 34         NMC1147883           BFGC 35         NMC1147884           BFGC 36         NMC1147885           BFGC 37         NMC1147887           BFGC 38         NMC1147887           BFGC 39         NMC1147889           BFGC 40         NMC1147890           BFGC 41         NMC1147891           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147897           BFGC 48         NMC1147897           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55		
BFGC 28         NMC1147877           BFGC 29         NMC1147878           BFGC 30         NMC1147879           BFGC 31         NMC1147881           BFGC 32         NMC1147881           BFGC 33         NMC1147882           BFGC 34         NMC1147883           BFGC 35         NMC1147884           BFGC 36         NMC1147885           BFGC 37         NMC1147887           BFGC 38         NMC1147887           BFGC 39         NMC1147889           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 50         NMC1147898           BFGC 51         NMC1147899           BFGC 52         NMC1147900           BFGC 53         NMC1147901           BFGC 54         NMC1147904           BFGC 55         NMC1147905           BFGC 56         NMC1147906           BFGC 57	BFGC 26	NMC1147875
BFGC 29         NMC1147878           BFGC 30         NMC1147879           BFGC 31         NMC1147881           BFGC 32         NMC1147881           BFGC 33         NMC1147882           BFGC 34         NMC1147883           BFGC 35         NMC1147884           BFGC 36         NMC1147885           BFGC 37         NMC1147886           BFGC 38         NMC1147887           BFGC 39         NMC1147889           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147890           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147903           BFGC 54         NMC1147904           BFGC 55         NMC1147907           BFGC 56         NMC1147909           BFGC 59	BFGC 27	NMC1147876
BFGC 30         NMC1147879           BFGC 31         NMC1147880           BFGC 32         NMC1147881           BFGC 33         NMC1147882           BFGC 34         NMC1147883           BFGC 35         NMC1147884           BFGC 36         NMC1147885           BFGC 37         NMC1147886           BFGC 38         NMC1147887           BFGC 39         NMC1147889           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147904           BFGC 55         NMC1147905           BFGC 56         NMC1147907           BFGC 59         NMC1147908           BFGC 60	BFGC 28	NMC1147877
BFGC 31         NMC1147880           BFGC 32         NMC1147881           BFGC 33         NMC1147882           BFGC 34         NMC1147883           BFGC 35         NMC1147884           BFGC 36         NMC1147885           BFGC 37         NMC1147886           BFGC 38         NMC1147887           BFGC 39         NMC1147889           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147894           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 59         NMC1147900           BFGC 59         NMC1147900           BFGC 60	BFGC 29	NMC1147878
BFGC 32         NMC1147881           BFGC 33         NMC1147882           BFGC 34         NMC1147883           BFGC 35         NMC1147884           BFGC 36         NMC1147885           BFGC 37         NMC1147886           BFGC 38         NMC1147887           BFGC 39         NMC1147889           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147897           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 59         NMC1147907           BFGC 59         NMC1147900           BFGC 59         NMC1147900           BFGC 60	BFGC 30	NMC1147879
BFGC 33         NMC1147882           BFGC 34         NMC1147883           BFGC 35         NMC1147884           BFGC 36         NMC1147885           BFGC 37         NMC1147886           BFGC 38         NMC1147887           BFGC 39         NMC1147889           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 50         NMC1147898           BFGC 51         NMC1147898           BFGC 52         NMC1147900           BFGC 53         NMC1147901           BFGC 54         NMC1147902           BFGC 55         NMC1147905           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147909           BFGC 60         NMC1147910           BFGC 62         NMC1147911           BFGC 63	BFGC 31	NMC1147880
BFGC 34 BFGC 35 BFGC 35 BFGC 35 BFGC 36 BFGC 37 BFGC 37 BFGC 38 BFGC 39 BFGC 39 BFGC 40 BFGC 41 BFGC 42 BFGC 42 BFGC 43 BFGC 43 BFGC 44 BFGC 43 BFGC 44 BFGC 45 BFGC 45 BFGC 46 BFGC 47 BFGC 47 BFGC 48 BFGC 48 BFGC 49 BFGC 49 BFGC 49 BFGC 50 BFGC 50 BFGC 51 BFGC 52 BFGC 53 BFGC 54 BFGC 55 BFGC 55 BFGC 56 BFGC 57 BFGC 59 BFGC 50 BFGC 50 BFGC 50 BFGC 50 BFGC 50 BFGC 50 BFGC 51 BFGC 51 BFGC 55 BFGC 56 BFGC 57 BFGC 57 BFGC 58 BFGC 59 BFGC 59 BFGC 59 BFGC 50 BFGC 50 BFGC 50 BFGC 50 BFGC 51 BFGC 51 BFGC 55 BFGC 56 BFGC 57 BFGC 56 BFGC 57 BFGC 57 BFGC 58 BFGC 59 BFGC 50 BFGC 50 BFGC 50 BFGC 50 BFGC 51 BFGC 51 BFGC 51 BFGC 51 BFGC 55 BFGC 56 BFGC 57 BFGC 57 BFGC 58 BFGC 59 BFGC 50 BFGC 61 BFGC 61 BFGC 62 BFGC 63 BFGC 64 NMC1154059	BFGC 32	NMC1147881
BFGC 35         NMC1147884           BFGC 36         NMC1147885           BFGC 37         NMC1147886           BFGC 38         NMC1147887           BFGC 39         NMC1147888           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 50         NMC1147898           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147907           BFGC 58         NMC1147907           BFGC 59         NMC1147909           BFGC 60         NMC1147910           BFGC 61         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 33	NMC1147882
BFGC 36         NMC1147885           BFGC 37         NMC1147886           BFGC 38         NMC1147887           BFGC 39         NMC1147888           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147900           BFGC 51         NMC1147901           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 59         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147909           BFGC 61         NMC1147910           BFGC 62         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 34	NMC1147883
BFGC 37         NMC1147886           BFGC 38         NMC1147887           BFGC 39         NMC1147888           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147897           BFGC 48         NMC1147897           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147907           BFGC 59         NMC1147908           BFGC 59         NMC1147909           BFGC 60         NMC1147910           BFGC 62         NMC1147911           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 35	NMC1147884
BFGC 38         NMC1147887           BFGC 39         NMC1147888           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147900           BFGC 51         NMC1147901           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147909           BFGC 60         NMC1147910           BFGC 61         NMC1147911           BFGC 62         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 36	NMC1147885
BFGC 39         NMC1147888           BFGC 40         NMC1147889           BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 59         NMC1147907           BFGC 60         NMC1147909           BFGC 61         NMC1147910           BFGC 62         NMC1147911           BFGC 63         NMC1154057           BFGC 64         NMC1154059	BFGC 37	NMC1147886
BFGC 40  BFGC 41  NMC1147890  BFGC 42  NMC1147891  BFGC 43  NMC1147892  BFGC 44  NMC1147893  BFGC 45  NMC1147894  BFGC 46  NMC1147895  BFGC 47  NMC1147896  BFGC 48  NMC1147897  BFGC 49  NMC1147898  BFGC 50  NMC1147899  BFGC 51  NMC1147890  BFGC 52  NMC1147900  BFGC 53  NMC1147901  BFGC 54  NMC1147902  BFGC 55  NMC1147904  BFGC 56  NMC1147905  BFGC 57  NMC1147906  BFGC 59  NMC1147907  BFGC 60  NMC1147909  BFGC 61  NMC1147910  BFGC 62  NMC1154057  BFGC 63  NMC1154058  BFGC 64	BFGC 38	NMC1147887
BFGC 41         NMC1147890           BFGC 42         NMC1147891           BFGC 43         NMC1147892           BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 59         NMC1147907           BFGC 59         NMC1147909           BFGC 60         NMC1147910           BFGC 61         NMC1147911           BFGC 62         NMC1147911           BFGC 63         NMC1154057           BFGC 64         NMC1154059	BFGC 39	NMC1147888
BFGC 42  BFGC 43  BFGC 44  BFGC 44  NMC1147892  BFGC 45  NMC1147894  BFGC 46  NMC1147895  BFGC 47  NMC1147896  BFGC 48  NMC1147897  BFGC 49  NMC1147899  BFGC 50  NMC1147899  BFGC 51  NMC1147900  BFGC 52  NMC1147901  BFGC 53  NMC1147902  BFGC 54  NMC1147903  BFGC 55  NMC1147904  BFGC 56  NMC1147905  BFGC 57  NMC1147906  BFGC 59  NMC1147907  BFGC 60  NMC1147909  BFGC 61  NMC1147910  BFGC 62  NMC1154057  BFGC 63  RMC1154059	BFGC 40	NMC1147889
BFGC 43  BFGC 44  NMC1147892  BFGC 45  NMC1147894  BFGC 46  NMC1147895  BFGC 47  NMC1147896  BFGC 48  NMC1147897  BFGC 49  NMC1147898  BFGC 50  NMC1147899  BFGC 51  NMC1147900  BFGC 52  NMC1147901  BFGC 53  NMC1147902  BFGC 54  NMC1147903  BFGC 55  NMC1147904  BFGC 56  NMC1147905  BFGC 57  NMC1147906  BFGC 58  NMC1147907  BFGC 59  NMC1147909  BFGC 60  NMC1147909  BFGC 61  NMC1147910  BFGC 62  NMC1154057  BFGC 63  NMC1154059	BFGC 41	NMC1147890
BFGC 44         NMC1147893           BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147909           BFGC 61         NMC1147910           BFGC 62         NMC1147911           BFGC 63         NMC1154057           BFGC 64         NMC1154059	BFGC 42	NMC1147891
BFGC 45         NMC1147894           BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147910           BFGC 62         NMC1147911           BFGC 63         NMC1154057           BFGC 64         NMC1154059	BFGC 43	NMC1147892
BFGC 46         NMC1147895           BFGC 47         NMC1147896           BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147910           BFGC 61         NMC1147911           BFGC 62         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 44	NMC1147893
BFGC 47       NMC1147896         BFGC 48       NMC1147897         BFGC 49       NMC1147898         BFGC 50       NMC1147899         BFGC 51       NMC1147900         BFGC 52       NMC1147901         BFGC 53       NMC1147902         BFGC 54       NMC1147903         BFGC 55       NMC1147904         BFGC 56       NMC1147905         BFGC 57       NMC1147906         BFGC 59       NMC1147907         BFGC 60       NMC1147909         BFGC 61       NMC1147910         BFGC 62       NMC1147911         BFGC 63       NMC1154057         BFGC 64       NMC1154059	BFGC 45	NMC1147894
BFGC 48         NMC1147897           BFGC 49         NMC1147898           BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147909           BFGC 61         NMC1147910           BFGC 62         NMC1147911           BFGC 63         NMC1154057           BFGC 64         NMC1154059	BFGC 46	NMC1147895
BFGC 49       NMC1147898         BFGC 50       NMC1147899         BFGC 51       NMC1147900         BFGC 52       NMC1147901         BFGC 53       NMC1147902         BFGC 54       NMC1147903         BFGC 55       NMC1147904         BFGC 56       NMC1147905         BFGC 57       NMC1147906         BFGC 58       NMC1147907         BFGC 59       NMC1147908         BFGC 60       NMC1147910         BFGC 62       NMC1147911         BFGC 63       NMC1154057         BFGC 64       NMC1154059	BFGC 47	NMC1147896
BFGC 50         NMC1147899           BFGC 51         NMC1147900           BFGC 52         NMC1147901           BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147910           BFGC 61         NMC1147911           BFGC 62         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 48	NMC1147897
BFGC 51       NMC1147900         BFGC 52       NMC1147901         BFGC 53       NMC1147902         BFGC 54       NMC1147903         BFGC 55       NMC1147904         BFGC 56       NMC1147905         BFGC 57       NMC1147906         BFGC 58       NMC1147907         BFGC 59       NMC1147908         BFGC 60       NMC1147909         BFGC 61       NMC1147910         BFGC 62       NMC1147911         BFGC 63       NMC1154057         BFGC 64       NMC1154059	BFGC 49	NMC1147898
BFGC 52  BFGC 53  NMC1147901  BFGC 53  NMC1147902  BFGC 54  NMC1147903  BFGC 55  NMC1147904  BFGC 56  NMC1147905  BFGC 57  NMC1147906  BFGC 58  NMC1147907  BFGC 59  NMC1147908  BFGC 60  NMC1147909  BFGC 61  NMC1147910  BFGC 62  NMC1147911  BFGC 63  NMC1154057  BFGC 63  NMC1154059	BFGC 50	NMC1147899
BFGC 53         NMC1147902           BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147909           BFGC 61         NMC1147910           BFGC 62         NMC1147911           BFGC 63         NMC1154057           BFGC 64         NMC1154059	BFGC 51	NMC1147900
BFGC 54         NMC1147903           BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147909           BFGC 61         NMC1147910           BFGC 62         NMC1147911           BFGC 7         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 52	NMC1147901
BFGC 55         NMC1147904           BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147909           BFGC 61         NMC1147910           BFGC 62         NMC1147911           BFGC 7         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 53	NMC1147902
BFGC 56         NMC1147905           BFGC 57         NMC1147906           BFGC 58         NMC1147907           BFGC 59         NMC1147908           BFGC 60         NMC1147909           BFGC 61         NMC1147910           BFGC 62         NMC1147911           BFGC 7         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 54	NMC1147903
BFGC 57       NMC1147906         BFGC 58       NMC1147907         BFGC 59       NMC1147908         BFGC 60       NMC1147909         BFGC 61       NMC1147910         BFGC 62       NMC1147911         BFGC 7       NMC1154057         BFGC 63       NMC1154058         BFGC 64       NMC1154059	BFGC 55	NMC1147904
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BFGC 62 NMC1147911 BFGC 7 NMC1154057 BFGC 63 NMC1154058 BFGC 64 NMC1154059	BFGC 60	NMC1147909
BFGC 7         NMC1154057           BFGC 63         NMC1154058           BFGC 64         NMC1154059	BFGC 61	NMC1147910
BFGC 63 NMC1154058 BFGC 64 NMC1154059	BFGC 62	NMC1147911
BFGC 64 NMC1154059	BFGC 7	NMC1154057
	BFGC 63	NMC1154058
BFGC 65 NMC1154060	BFGC 64	NMC1154059
	BFGC 65	NMC1154060



BFGC 66         NMC1154061           BFGC 67         NMC1154062           BFGC 68         NMC1154063           BFGC 69         NMC1154064           BFGC 70         NMC1154065           BFGC 71         NMC1154066           BFGC 72         NMC1154067           BFGC 73         NMC1154068           BFGC 74         NMC1154079           BFGC 75         NMC1154071           BFGC 76         NMC1154072           BFGC 78         NMC1154072           BFGC 79         NMC1154073           BFGC 80         NMC1154074           BFGC 81         NMC1154075           BFGC 82         NMC1154077           BFGC 83         NMC1154077           BFGC 84         NMC1154078           BFGC 85         NMC1154080           BFGC 86         NMC1154080           BFGC 87         NMC1154081           BFGC 88         NMC1154081           BFGC 90         NMC1177610           BFGC 91         NMC1177610           BFGC 92         NMC1177611           BFGC 93         NMC1177615           BFGC 96         NMC1177616           BFGC 97         NMC1177617           BFGC 98		
BFGC 68         NMC1154063           BFGC 69         NMC1154064           BFGC 70         NMC1154065           BFGC 71         NMC1154066           BFGC 72         NMC1154067           BFGC 73         NMC1154068           BFGC 74         NMC1154069           BFGC 75         NMC1154070           BFGC 76         NMC1154071           BFGC 77         NMC1154072           BFGC 78         NMC1154073           BFGC 80         NMC1154074           BFGC 81         NMC1154075           BFGC 82         NMC1154076           BFGC 83         NMC1154077           BFGC 84         NMC1154078           BFGC 85         NMC1154079           BFGC 86         NMC1154080           BFGC 87         NMC1154081           BFGC 88         NMC1154082           BFGC 89         NMC1177609           BFGC 90         NMC1177610           BFGC 91         NMC1177611           BFGC 92         NMC1177612           BFGC 93         NMC1177615           BFGC 96         NMC1177616           BFGC 97         NMC1177618           BFGC 99         NMC1177619           BFGC 10	BFGC 66	NMC1154061
BFGC 69         NMC1154064           BFGC 70         NMC1154065           BFGC 71         NMC1154066           BFGC 72         NMC1154067           BFGC 73         NMC1154068           BFGC 74         NMC1154069           BFGC 75         NMC1154070           BFGC 76         NMC1154071           BFGC 77         NMC1154072           BFGC 78         NMC1154073           BFGC 80         NMC1154074           BFGC 81         NMC1154075           BFGC 82         NMC1154076           BFGC 83         NMC1154078           BFGC 84         NMC1154079           BFGC 85         NMC1154080           BFGC 86         NMC1154081           BFGC 87         NMC1154082           BFGC 88         NMC1154083           BFGC 89         NMC1177609           BFGC 90         NMC1177610           BFGC 91         NMC1177611           BFGC 92         NMC1177613           BFGC 93         NMC1177615           BFGC 96         NMC1177616           BFGC 97         NMC1177617           BFGC 98         NMC1177618           BFGC 100         NMC1177621           BFGC 1	BFGC 67	NMC1154062
BFGC 70         NMC1154065           BFGC 71         NMC1154066           BFGC 72         NMC1154067           BFGC 73         NMC1154068           BFGC 74         NMC1154069           BFGC 75         NMC1154070           BFGC 76         NMC1154071           BFGC 77         NMC1154072           BFGC 78         NMC1154073           BFGC 79         NMC1154074           BFGC 80         NMC1154075           BFGC 81         NMC1154075           BFGC 82         NMC1154078           BFGC 83         NMC1154078           BFGC 84         NMC1154079           BFGC 85         NMC1154080           BFGC 86         NMC1154081           BFGC 87         NMC1154081           BFGC 88         NMC1154083           BFGC 89         NMC1177609           BFGC 90         NMC1177610           BFGC 91         NMC1177611           BFGC 92         NMC1177612           BFGC 93         NMC1177613           BFGC 94         NMC1177615           BFGC 95         NMC1177616           BFGC 97         NMC1177617           BFGC 98         NMC1177618           BFGC 10	BFGC 68	NMC1154063
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BFGC 76         NMC1154071           BFGC 77         NMC1154072           BFGC 78         NMC1154073           BFGC 79         NMC1154074           BFGC 80         NMC1154075           BFGC 81         NMC1154076           BFGC 82         NMC1154077           BFGC 83         NMC1154078           BFGC 84         NMC1154079           BFGC 85         NMC1154080           BFGC 86         NMC1154081           BFGC 87         NMC1154082           BFGC 88         NMC1154083           BFGC 89         NMC1177609           BFGC 90         NMC1177610           BFGC 91         NMC1177611           BFGC 92         NMC1177612           BFGC 93         NMC1177613           BFGC 94         NMC1177614           BFGC 95         NMC1177615           BFGC 96         NMC1177616           BFGC 97         NMC1177617           BFGC 98         NMC1177619           BFGC 100         NMC1177620           BFGC 101         NMC1177621           BFGC 102         NMC1177623           BFGC 103         NMC1177624           BFGC 105         NMC1177625	BFGC 74	NMC1154069
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BFGC 82  BFGC 83  NMC1154077  BFGC 84  NMC1154079  BFGC 85  NMC1154080  BFGC 86  NMC1154081  BFGC 87  NMC1154082  BFGC 88  NMC1154083  BFGC 89  NMC1177609  BFGC 90  NMC1177610  BFGC 91  NMC1177612  BFGC 93  NMC1177613  BFGC 94  NMC1177615  BFGC 96  NMC1177616  BFGC 97  NMC1177617  BFGC 98  BFGC 99  NMC1177618  BFGC 99  NMC1177620  BFGC 100  NMC1177621  BFGC 102  NMC1177623  BFGC 104  NMC1177624  BFGC 105  NMC1177625	BFGC 80	NMC1154075
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BFGC 89       NMC1177609         BFGC 90       NMC1177610         BFGC 91       NMC1177611         BFGC 92       NMC1177612         BFGC 93       NMC1177613         BFGC 94       NMC1177614         BFGC 95       NMC1177615         BFGC 96       NMC1177616         BFGC 97       NMC1177617         BFGC 98       NMC1177618         BFGC 99       NMC1177619         BFGC 100       NMC1177620         BFGC 101       NMC1177621         BFGC 102       NMC1177622         BFGC 103       NMC1177623         BFGC 104       NMC1177625         BFGC 105       NMC1177625	BFGC 87	NMC1154082
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BFGC 92  BFGC 93  NMC1177612  BFGC 93  NMC1177613  BFGC 94  NMC1177614  BFGC 95  NMC1177615  BFGC 96  NMC1177616  BFGC 97  NMC1177617  BFGC 98  NMC1177618  BFGC 99  NMC1177619  BFGC 100  NMC1177620  BFGC 101  NMC1177621  BFGC 102  NMC1177622  BFGC 103  BFGC 104  NMC1177624  BFGC 105  NMC1177625	BFGC 90	NMC1177610
BFGC 93  BFGC 94  NMC1177614  BFGC 95  NMC1177615  BFGC 96  NMC1177616  BFGC 97  NMC1177617  BFGC 98  NMC1177618  BFGC 99  NMC1177619  BFGC 100  NMC1177620  BFGC 101  NMC1177621  BFGC 102  NMC1177622  BFGC 103  NMC1177623  BFGC 104  NMC1177624  BFGC 105  NMC1177625	BFGC 91	NMC1177611
BFGC 94       NMC1177614         BFGC 95       NMC1177615         BFGC 96       NMC1177616         BFGC 97       NMC1177617         BFGC 98       NMC1177618         BFGC 99       NMC1177619         BFGC 100       NMC1177620         BFGC 101       NMC1177621         BFGC 102       NMC1177622         BFGC 103       NMC1177623         BFGC 104       NMC1177624         BFGC 105       NMC1177625	BFGC 92	NMC1177612
BFGC 95       NMC1177615         BFGC 96       NMC1177616         BFGC 97       NMC1177617         BFGC 98       NMC1177618         BFGC 99       NMC1177619         BFGC 100       NMC1177620         BFGC 101       NMC1177621         BFGC 102       NMC1177622         BFGC 103       NMC1177623         BFGC 104       NMC1177624         BFGC 105       NMC1177625	BFGC 93	NMC1177613
BFGC 96       NMC1177616         BFGC 97       NMC1177617         BFGC 98       NMC1177618         BFGC 99       NMC1177619         BFGC 100       NMC1177620         BFGC 101       NMC1177621         BFGC 102       NMC1177622         BFGC 103       NMC1177623         BFGC 104       NMC1177624         BFGC 105       NMC1177625	BFGC 94	NMC1177614
BFGC 97       NMC1177617         BFGC 98       NMC1177618         BFGC 99       NMC1177619         BFGC 100       NMC1177620         BFGC 101       NMC1177621         BFGC 102       NMC1177622         BFGC 103       NMC1177623         BFGC 104       NMC1177624         BFGC 105       NMC1177625	BFGC 95	NMC1177615
BFGC 98 NMC1177618  BFGC 99 NMC1177619  BFGC 100 NMC1177620  BFGC 101 NMC1177621  BFGC 102 NMC1177622  BFGC 103 NMC1177623  BFGC 104 NMC1177624  BFGC 105 NMC1177625	BFGC 96	NMC1177616
BFGC 99 NMC1177619 BFGC 100 NMC1177620 BFGC 101 NMC1177621 BFGC 102 NMC1177622 BFGC 103 NMC1177623 BFGC 104 NMC1177624 BFGC 105 NMC1177625	BFGC 97	NMC1177617
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	BFGC 104	NMC1177624
BFGC 106 NMC1177626	BFGC 105	NMC1177625
	BFGC 106	NMC1177626



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BFGC 133	NMC1185301
BFGC 134	NMC1185302
BEATTY CON # 1	NMC109662
LUCKY QUEEN	NMC109667
BC # 8 BABINGTON	NMC109697
BC # 9 CORNELL	NMC109698
BC # 10 FLIN FLON 2	NMC109699
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BVD 5	NMC987964
BVD 324	NMC987965
BVD 323	NMC987966
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BVD 321	NMC987968
BVD 317	NMC987969
BVD 316	NMC987970



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BVD 314	NMC987972
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BVD 301	NMC987975
BVD 300	NMC987976
BVD 207	NMC987977
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BVD 204	NMC987980
BVD 203	NMC987981
BVD 202	NMC987982
BVD 201	NMC987983
BVD 200	NMC987984
BVD 107	NMC987985
BVD 106	NMC987986
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BVD 29	NMC987993
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BVD 3	NMC988024
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BVD 402	NMC992990
BVD 403	NMC992991
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BVD 405	NMC992993
BVD 406	NMC992994
BVD 407	NMC992995
BVD 408	NMC992996
BVD 409	NMC992997
BVD 410	NMC992998
Augusta Gold Corp. Un	patented Claims
Abitibi Op	tion
Claim Name	BLM Serial Number
AR 1	1209019
AR 2	1209020
AR 3	1209021
AR 4	1209022
AR 5	1209023
AR 6	1209024
AR 7	1209025
AR 8	1209026
AR 9	1209027
AR 10	1209028
AR 11	1209029
AR 12	1209030
AR 13	1209031



	ı	
AR 14	1209032	
AR 15	1209033	
AR 16	1209034	
AR 17	1209035	
AR 18	1209036	
AR 19	1209037	
AR 20	1209038	
AR 21	1209039	
AR 22	1209040	
AR 23	1209041	
AR 24	1209042	
AR 25	1209043	
AR 26	1209044	
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AR 28	1209046	
AR 29	1209047	
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AR 31	1209049	
AR 32	1209050	
AR 33	1209051	
AR 34	1209052	
AR 35	1209053	
AR 36	1209054	
AR 37	1209055	
AR 38	1209056	
AR 39	1209057	
AR 40	1209058	
AR 41	1209059	
AR 42	1209060	
AR 43	1209061	
Augusta Gold Corp. P	atented Claims	
Barrick Claims		
Claim Name	Patent Number	
EMERALD	44862	
RUBY	44862	
NORTHSTAR	45830	
LOUISVILLE	35256	
DENVER FRACTION	45316	
TRAMP NO. 2	46191	
SIDEWINDER	45387	
TIGER	45387	



TRAMP EXTENSION	46171	
TRAMP NO. 1	46171	
НОВО	45253	
VIRGINIA	529024	
DIAMOND HITCH	46187	
COMET	46182	
LE ROI	46181	
UGLY DUCKLING	46180	
LE ROI FRACTION	46179	
DEL MONTE	46173	
POLARIS	46173	
DENVER NO. 2	45348	
VENTURE	45348	
DENVER NO. 3	77975	
SUNSET NO. 1	45371	
SUNSET NO. 2	45371	
CHIEF	45815	
PRINCE	45815	
S.L.	46223	
SPEARHEAD	46223	
SUMMIT	46223	
AURORA	47481	
GRAND PRIZE	47481	
QUARTETTE	47481	
H071 TRACT 37 PATENT		
BULL FROG NO. 2	44644	
BULLFROG	44644	
BULLFROG FRACTION LODE	45120	
DELAWARE NO. 1	46263	
ETHEL	46263	
JUMBO	46263	
NEVADA	88070	
ROOSEVELT	88070	
TEDDY	88070	
TEDDY FRACTION	88070	
PACIFIC PLACER	952102	
NEVADA PLACER	952102	
PARIAN PLACER	952102	
Augusta Gold Corp. Unpatented Claims		
Barrick Claims		
Mine Claims		



Claim Name	BLM Serial Number
Shorty 1	NMC 1058705
Shorty 2	NMC 1058706
Shorty 3	NMC 1058707
Shorty 4	NMC 1058708
Shorty 5	NMC 1058709
Shorty 6	NMC 1058710
Shorty 7	NMC 1058711
Shorty 8	NMC 1058712
Shorty 10	NMC 1058713
Shorty 11	NMC 1058714
Shorty 12	NMC 1058715
ACE NUMBER 1	NMC 112229
ACE NO. 2*	NMC 112230
ACE NO. 3*	NMC 112231
RHYOLITE NO. 1	NMC 128702
RHYOLITE NO. 5	NMC 128705
WEST SIDE RHYOLITE	NMC 128708
EAST SIDE	NMC 128709
YANKEE GIRL # 2	NMC 128710
FROG EXTENSION	NMC 128711
FROG NO. 1	NMC 128712
BOLIVAR NO. 1	NMC 128713
CASH BOY	NMC 128714
GOLDEN EAGLE # 2*	NMC 298788
GOLDEN EAGLE # 3*	NMC 298789
GOLDEN AGE # 1*	NMC 298790
GOLDEN AGE # 2*	NMC 298791
GOLDEN AGE # 3*	NMC 298792
GOLDEN AGE # 4*	NMC 298793
GOLDEN AGE # 5*	NMC 298794
GOLDEN AGE # 15*	NMC 298802
GOLDEN AGE # 16*	NMC 298803
BEV # 43	NMC 350754
BEV # 44	NMC 350755
BEV # 45	NMC 350756
BEV # 46	NMC 350757
BEV # 53	NMC 350764
BEV # 54	NMC 350765
BEV # 65	NMC 350776
BEV # 73	NMC 350784



RACHAEL # 3	NMC 400293
RACHAEL # 4	NMC 400294
RACHAEL # 5	NMC 400295
MIKE 9	NMC 415141
MIKE 10	NMC 415142
IRBF # 5	NMC 418634
IRBF # 6	NMC 418635
IRBF # 8	NMC 418637
IRISH EYES # 2	NMC 436850
CHERYL MARIE # 3	NMC 436852
GOLDEN SLIVER	NMC 436855
TOTO # 1	NMC 436856
TOTO # 2	NMC 436857
TOTO # 3	NMC 436858
TOTO # 4	NMC 436859
TOTO # 5	NMC 436860
TOTO # 6	NMC 436861
TOTO # 7	NMC 436862
OVERSIGHT	NMC 436870
ERICA ANN # 1	NMC 436876
DINY F	NMC 443898
DOUG'S DESPAIR # 1	NMC 453427
LITTLE BEV # 7	NMC 462038
BEV NO. 17	NMC 507261
BEV NO. 18	NMC 507262
BEV NO. 19	NMC 507263
BEV NO. 20	NMC 507264
BEV NO. 55	NMC 507277
BEV NO. 66	NMC 507287
BEV NO. 67	NMC 507288
LITTLE BEV # 9	NMC 523201
BROTHER 1	NMC 551789
BROTHER 2	NMC 551790
GOLDEN AGE # 6	NMC 583381
GOLDEN AGE # 7*	NMC 583382
GOLDEN AGE # 8*	NMC 583383
GOLDEN AGE # 9*	NMC 583384
GOLDEN AGE # 12*	NMC 583385
GOLDEN AGE # 13*	NMC 583386
GOLDEN AGE # 14*	NMC 583387
GOLDEN AGE # 17*	NMC 583388



BEV 47 A	NMC 819978	
BEV 48 A	NMC 819979	
Augusta Gold Corp. Millsite Claims		
Barrick Claims		
Claim Name	BLM Serial Number	
BFMS NO. 1	NMC 519933	
BFMS NO. 2	NMC 519934	
BFMS NO. 3	NMC 519935	
BFMS NO. 4	NMC 519936	
BFMS NO. 5	NMC 519937	
BFMS NO. 6	NMC 519938	
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BFMS NO. 9	NMC 519941	
BFMS NO. 10	NMC 519942	
BFMS 11	NMC 519943	
BFMS NO. 12	NMC 519944	
BFMS NO. 13	NMC 519945	
BFMS NO. 14	NMC 519946	
BFMS NO. 15	NMC 519947	
BFMS NO. 16	NMC 519948	
BFMS NO. 17	NMC 519949	
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BFMS NO. 21	NMC 519953	
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BFMS NO. 23	NMC 519955	
BFMS NO. 24	NMC 519956	
BFMS NO. 25	NMC 519957	
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BFMS NO. 27	NMC 519959	
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BFMS NO. 29	NMC 519961	
BFMS NO. 30	NMC 519962	
BFMS NO. 31	NMC 519963	
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BFMS NO. 42	NMC 519974
BFMS NO. 43	NMC 519975
BFMS NO. 46	NMC 519978
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BFMS NO. 53	NMC 519985
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BFMS NO. 60	NMC 519992
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BFMS NO. 92	NMC 528611
BFMS NO. 93	NMC 528612
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BFMS NO. 115	NMC 528634
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	-



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BFMS NO. 253	NMC 528772
BFMS NO. 254	NMC 528773
BFMS NO. 255	NMC 528774
BFMS NO. 256	NMC 528775
BFMS 257	NMC 528776
BGMW NO. 1	NMC 551064
BGMW NO. 3	NMC 551065
BGMW NO. 11	NMC 551066
BGMW NO. 13	NMC 551067
BFMS 47 A	NMC 817723



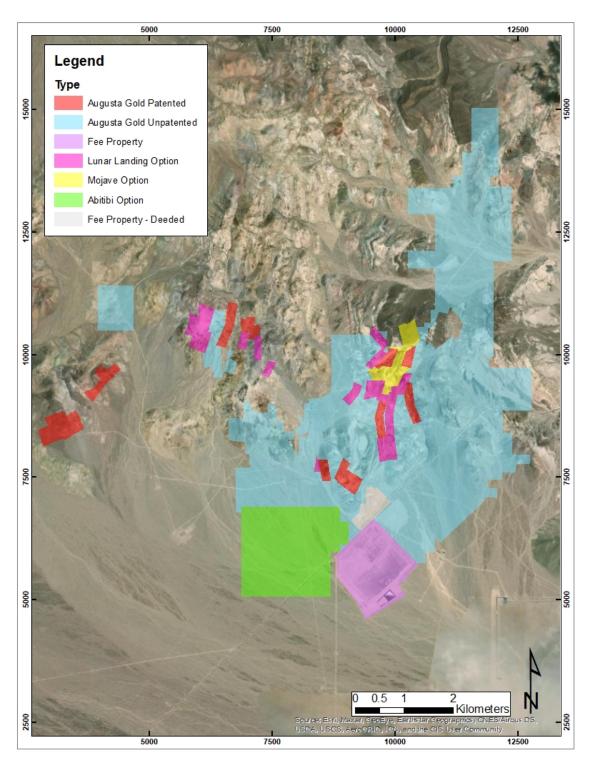


Figure 4-2: Property Map of the Bullfrog Project



## 4.1 NPX Assignment of Lands

In September 2011 the Company issued 14.4 million shares of the Company to the shareholders of Standard Gold Corp. (SGC) to acquire 100% of SGC and its assets. SGC is a private Nevada corporation and now wholly owned by the Company. Concurrently, NPX Metals, Inc. (NPX) and Bull Frog Holding, Inc. (BHI) assigned all title and interests in 79 claims and two patents to Standard Gold Corp. (SGC). The Company granted a production royalty of 3% NSR on the property to NPX and BHI, plus an aggregate 3% NSR cap on any acquired lands within one mile of the 2011 boundary. Thus, NPX and BHI would not receive any royalty on acquisitions having a 3% or greater NSR.

## 4.2 Mojave Gold Option

In March 2014, the Company formed Rocky Mountain Minerals Corp. (RMMC), a private Nevada corporation, as a wholly owned subsidiary specifically for holding and acquiring assets. On October 29, 2014, RMMC exercised an option to purchase from Mojave Gold Mining Co. 12 patents west and adjacent to the Company's initial property and that cover the NE half of the M-S pit. Mojave was paid 750,000 shares of BFGC plus \$16,000. RMMC agreed to make annual payments totaling \$180,000 over nine years to fully exercise the option, and expend as a minimum work commitment for the benefit of the Property \$100,000 per year and a total of \$500,000 over five years on the Properties and surrounding lands within one-half mile of the 12 Mojave patents. Alternatively, RMMC can pay cash to Mojave at 50% of the difference between the minimum required and the actual expenditures. Mojave retained a sliding scale Net Smelter Return royalty ranging from 1% for gold prices below \$1,200/ounce and up to 4% for gold prices above \$3,200 per ounce. For reference, Barrick terminated a lease on the 12 Mojave patents in mid-2000 (then known as the Dees group) and all residual access rights in 2010.

## 4.3 Barrick Bullfrog Inc. Lease and Option

On March 23, 2015, Bullfrog Mines LLC (Bullfrog Mines), the successor by conversion of Barrick Bullfrog Inc., and RMMC, among others, entered into a lease and option to purchase agreement (the Lease and Option Agreement) dated March 23, 2015 for RMMC to acquire six patents, 20 unpatented claims, and eight mill site claims from Bullfrog Mines. The Lease and Option Agreement terminated upon execution of the Membership Interest Purchase Agreement (MIPA).

## 4.4 Lunar Landing Lease

On July 1, 2017, RMMC entered a lease with Lunar Landing LLC on 24 patents in the Bullfrog District:

- Two patents are adjacent and west of the M-S pit that could allow potential expansion of the pit down dip of the Polaris vein and stock work system.
- Ten patents have provided the Company with contiguous and connecting lands between the M-S and Bullfrog pits. These patents will also allow further expansions of the Bullfrog pit to the north and east.
- Four patents are within 0.5 to 1.2 miles west of the Bullfrog pit in the vicinity of the Bonanza Mountain open pit mine.
- Eight patents are in an exploration target area located about 1.5 miles NW of the Bullfrog pit and where the Company has owned the Aurium patent since 2011.



#### The lease includes the following:

- The Company paid \$26,000 on signing and is scheduled to annually pay \$16,000 for years 2-5, \$21,000 for years 6-10, \$25,000 for years 11-15, \$30,000 for years 16-20, \$40,000 for years 21-25 and \$45,000 for years 26-30.
- Production royalty of 5% net smelter returns with the right to buy-down to 2.5%.
- The Company is to expend as a work commitment not less than \$50,000 per year and \$500,000 in total to maintain the lease.
- The Company has rights to commingle ores and the flexibility to operate the Project as a logical land and mining unit.

### 4.5 Brown Claims

On January 29, 2018, RMMC purchased the two patented claims, thereby eliminating minor constraints to expand the Bullfrog pit to the north. As partial consideration for the Brown Claims, RMMC granted the sellers of the Brown Claims a 5% net smelter returns royalty on the Brown Claims, of which 2.5% can be purchased by RMMC for aggregate consideration of US\$37,500.

## 4.6 Barrick Claims (2020)

On October 26, 2020, the Company completed its acquisition of Bullfrog Mines pursuant to the MIPA with Homestake Mining Company of California (Homestake) and Lac Minerals (USA) LLC (Lac Minerals and together with Homestake, the Barrick Parties).

Pursuant to the MIPA, the Company purchased from the Barrick Parties all of the equity interests (the Equity Interests) in Bullfrog Mines for aggregate consideration of (i) 54,600,000 units of the Company, each unit consisting of one share of common stock of the Company and one four-year warrant purchase one share of common stock of the Company at an exercise price of C\$0.30, (ii) a 2% net smelter returns royalty (the Barrick Royalty) granted on all minerals produced from all of the patented and unpatented claims (subject to the adjustments set out below), pursuant to a royalty deed, dated October 26, 2020 by and among Bullfrog Mines and the Barrick Parties (the Royalty Deed), (iii) the Company granting indemnification to the Barrick Parties pursuant to an indemnity deed, dated October 26, 2020 by and among the Company, the Barrick Parties and Bullfrog Mines, and (iv) certain investor rights, including anti-dilution rights, pursuant to the investor rights agreement, dated October 26, 2020, by and among the Company, Augusta Investments Inc., and Barrick.

Through the Company's acquisition of the Equity Interests, the Company acquired rights to the 1,500 acres of claims adjoining the Company's Bullfrog Gold deposit.

Pursuant to the Royalty Deed, the Barrick Royalty is reduced to the extent necessary so that royalties burdening any individual parcel or claim included in the Barrick Properties on October 26, 2020, inclusive of the Barrick Royalty, would not exceed 5.5% in the aggregate, provided that the Barrick Royalty in respect of any parcel or claim would not be less than 0.5%, even if the royalties burdening a parcel or claim included in the Barrick Properties would exceed 5.5%.



# 4.7 Abitibi Royalties Option

On December 9, 2020, Bullfrog Mines entered into a mining option agreement with Abitibi Royalties (USA) Inc. (Abitibi) granting Bullfrog Mines the option (the Abitibi Option) to acquire forty-three unpatented lode mining claims to the south of the Bullfrog deposit. Bullfrog Mines made an initial payment to Abitibi of C\$25,000 and can exercise the Abitibi Option by:

- Paying to Abitibi C\$50,000 in cash or shares of Company common stock by December 9, 2021;
- Paying to Abitibi C\$75,000 in cash or shares of Company common stock by December 9, 2022;
   and
- Granting to Abitibi a 2% net smelter royalty on the claims subject to the Abitibi Option by December 9, 2022, of which Bullfrog Mines would have the option to purchase 0.5% for C\$500,000 on or before December 9, 2030.

In order to exercise the Abitibi Option, Bullfrog Mines is also required to keep the underlying claims in good standing.

# 4.8 Other Property Considerations

All the unpatented lode mining claims are on U.S. public land administered by the Bureau of Land Management ("BLM") and, therefore, are subject to exploration and development permits as required by the several current regulations. The unpatented lode mining claims require annual payments of \$155 per claim to the BLM and \$12 per claim to Nye County.

Total fees paid in 2020 for the lode and mill site claims was \$26,739. Nye County property taxes paid in 2020 was approximately \$1,781.

In summary, the lands controlled by Augusta are in good standing with no significant liens, encumbrances, or title adversities.

# 4.9 Environmental and Permitting

The author is not aware of any outstanding environmental, reclamation or permitting issues that would impact future exploration work. Future exploration work will require a Plan of Operations to be filed with the BLM and the Nevada Department of Environmental Protection.

The following outlines the general framework for permitting a mine in Nevada and the required permits. Many of the permits discussed herein apply to the construction stage and are not currently being pursued.

Exploration activities on Federal mining claims on BLM lands requires a Plan of Operations rather than a Notice of Intent to Drill due to the area being designated desert tortoise habitat. A Plan of Operations is also required with the Nevada Department of Environmental Protection (NDEP) to fulfill the State of Nevada permitting obligations on private and public lands, respectively. Reclamation bonds related to environmental liabilities need to be calculated and posted to cover activities on the Project. Additional permits and bonding will be required for developing, constructing, operating, and reclaiming the Project.

Additional Baseline Studies will be required to update the historical studies completed by Barrick. This will include geochemistry, hydrologic studies of the in-pit water and water in existing wells, plant and wild life surveys, meteorological information, and cultural surveys.



Major permits, not inclusive of the Plan of Operations above, that will be required include:

- Water Pollution Control Permits (WPCP): The WPCP application must address the open pit, heap leach pad, mining activities and water management systems with respect to potentially degrading of the waters of Nevada. Sufficient engineering, design and modeling data must be included in the WPCP. A Tentative Permit Closure Plan must be submitted to the NDEP-BMRR in conjunction with the WPCP. A Final Permanent Closure Plan will be needed two years prior to Project closure.
- Air Quality: An application for a Class II Air Quality Permit must be prepared using Bureau of Air Pollution Control (BAPC) forms. The application must include descriptions of the facilities, a detailed emission inventory, plot plans, process flow diagrams and a fugitive dust control plan for construction and operation of the Project. A Mercury Operating Permit and a Title V Operating permit will also be necessary for processing loaded carbon or electro-winning precipitates.
- Water Right: Additional water rights will need to be acquired from third parties or obtained from the Nevada Division of Water Resources (NDWR) for producing Project water.
- Industrial Artificial Pond: Water storage ponds, which are part of the water management systems, will require Industrial Artificial Pond permits (IAPP) from the Nevada Department of wildlife. Approval from the Nevada State Engineer's Office is also required if embankments exceed specified heights.

Additional minor permits will be required for the project to advance to production and are listed in **Table 4-2** below.

Table 4-2: Additional Minor Permits Required

Notification/Permit	Agency
Mine Registry	Nevada Division of Minerals
Mine Opening Notification	State Inspector of Mines
Solid Waste Landfill	Nevada Bureau of Waste Management
Hazardous Waste Management Permit	Nevada Bureau of Waste Management
General Storm Water Permit	Nevada Bureau of Water Pollution Control
Hazardous Materials Permit	State Fire Marshall
Fire and Life Safety	State Fire Marshall
Explosives Permit	Bureau of Alcohol, Tobacco, Firearms & Explosives
Notification of Commencement of Operation	Mine Safety and Health Administration
Radio License	Federal Communications Commission
Public Water Supply Permit	NV Division of Environmental Protection
MSHA Identification Number and MSHA Coordination	U.S. Department of Labor Mine Safety and Health Administration (MSHA)
Septic Tank	NDEP-Bureau of Water Pollution Control
Petroleum Contaminated Soils	NV Division of Environmental Protection



# 4.10 Significant Risk Factors

The author is not aware of any outstanding environmental, reclamation or permitting issues that would impact future exploration work.

The author is unaware of any other significant risk factors that may affect access, title, or right or ability to perform work on the property.



# 5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

# 5.1 Accessibility

The Bullfrog Project is accessible via a 2½ hour (120 mile) drive north of Las Vegas, Nevada on US Highway 95. Las Vegas, the largest city in Nevada, is serviced by a major international airport, and has ample equipment, supplies and services to support many of the Project's needs. The Project is 4 miles west of the Town of Beatty, Nevada via a paved highway. Beatty has a population of approximately 1,000 and can provide basic housing, services, and supplies. Access around the Project is by a series of reasonably good gravel roads that extend to the open pit mines and most of the significant exploration areas.

# 5.2 Physiography, Climate and Vegetation



Figure 5-1: Photo of Bullfrog Hills at Rhyolite

The Bullfrog Project is in Western Nevada's high desert, which receives about 15 cm of precipitation per year, mostly as modest snowfall in the winter and thunderstorms in the summer. Temperatures typically range from -12°C (10°F) in winter to 43.3°C (110°F) in the summer. Due to the relatively mild climate at the Project, the operating season is year-round.

The hills at the Project are covered with sparse low brush including creosote, four-wing saltbush, rabbit brush, and Nevada ephedra. The Project is in the Basin and Range province, but the local topographic relief is only a few hundred feet. Elevations in the main Project areas range from 1,035 m in the valleys to 1,270 m at the peak of Ladd Mountain and 1,320 m at the peak of Montgomery Mountain. Most of the Project is characterized by low hills separated by modest width valleys. Although the U.S. Fish and Wildlife



Service has designated the area as habitat for desert tortoise—a threatened and endangered species—Barrick and others have successfully coped with this designation, and the rough terrain is not conducive for these species. Additional studies may be required to meet requirements regarding the tortoise habitat.

#### 5.3 Local Resources and Infrastructure

Augusta maintains sufficient surface rights to support mining operations, including areas for potential waste disposal, tailings storage, heap leach pads and potential mill sites. The Company recently located additional mining claims and is pursuing the acquisition of other lands in the area. Most claim blocks are contiguous, and the water rights that Barrick held through Bullfrog Mines were indirectly acquired by Augusta as part of its acquisition of Bullfrog Mines.

The towns of Beatty, Pahrump and Tonopah in Nye County have populations that support mining operations in the area.

Valley Electric Association based in Pahrump, Nevada owns a 138 KV transmission line and a 24.9 KV distribution line that remain on-site and serviced mining at the site previously. The substation connected to the 24.9 KV line remains on-site, but the transformers and switchgear have been removed. Current monthly demand and energy rates are \$4.00/kw and \$0.096/kw-h, respectively.

Pumping from relatively shallow wells completed near the bottom of the Bullfrog pit is required to access deeper mineralization and could produce most of the Project water needs. Water may also be available from Barrick's production wells located a few miles south of Highway 374, possibly from the Town of Beatty wellfield in Section 2, and to a limited extent from deepening the M-S pit.



# 6. HISTORY

The original Bullfrog deposit was discovered in 1904 by Frank "Shorty" Harris and Ernest Cross. This deposit is located 3.5 miles WSW of the Montgomery Shoshone (M-S) mine and initially had un-recorded but minor production. In 1904 the M-S deposit was discovered, and an underground mine was developed to the 700-foot level. A 300-tpd cyanidation mill was constructed for processing the mined material. The M-S operation recovered 67,000 gold equivalent ounces from 141,000 tons or 0.48 gold ounce/ton (opt) during the period 1907 to 1911. The mine was shut down in late 1910 due to declining grades and operating issues at depth. The adjacent Polaris mine produced 4,900 ounces of gold from 9,500 tons, or an average recovery of 0.52 gold opt.

Through 1911 the District produced 94,000 ounces of gold, but thereafter only minor exploration, development, and production activities occurred until St. Joe American successfully initiated modern exploration programs in 1982. In July 1987, Bond International Gold acquired St. Joe and constructed a nominal 9,000-tpd cyanidation mill in July 1989. In November 1989, Lac Minerals acquired Bond's interest. In September 1994, Lac was acquired by Barrick. Recorded Project gold production from 1989 to 1999 is summarized in **Table 6-1**.

Table 6-1: Bullfrog Project Production

Year	Mined Tons	Gold Rec. OPT	Gold Rec. Oz	Silver Rec. Oz	Source Report
1989	1,025,000	0.060	56,771	35,752	Bond Gold
1990	3,036,000	0.080	220,192	228,647	Bond Gold
1991	2,988,000	0.073	198,863	188,824	Lac Min.
1992	3,173,000	0.111	323,825	313,100	Lac Min.
1993	3,080,000	0.125	354,900	469,899	Lac Min.
1994	3,093,000	0.105	301,000	NR	Barrick
1995	3,110,100	0.062	176,307	NR	Barrick
1996	3,008,600	0.073	205,300	NR	Barrick
1997	3,070,700	0.073	206,571	NR	Barrick
1998	3,213,000	0.070	208,123	NR	Barrick
1999	From Stockpiles		77,000	NR	NV G.S.
Total/Avg.	28,797,400	0.081	2,328,852	<b>2,493,591</b> est.	
	Mine	Ore Tonnes	G Gold/T Ore	Gold Oz Rec.	Years Mined
	BF Pit	18,428,840	2.44	1,346,852	1989 – 1994
	BF UG	2,782,077	8.30	690,000	1992 – 1998
	M-S Pit	3,504,309	2.10	220,000	1994 – 1997
	Bonanza Pit	1,416,715	1.70	72,000	1995 – 1996
		26,131,942	2.98	2,328,852	



Open pit mine production began in 1989 and underground mine production started in 1992 in the Bullfrog deposit. Bullfrog pit operations were terminated in late 1994, with the underground mine scheduled to produce the remaining Bullfrog reserves. The M-S deposit was open pit mined between 1994 and 1997, during which time the Bonanza Mountain deposit was also mined. Underground operations were shut down in late 1998 due to adverse economic conditions and depletion of remaining reserves. During the last years of mill operations, all remaining low- and high-grade stockpiles, grading +0.5 gold g/t, were blended with underground ores. For reference, gold prices averaged less than \$290 per ounce during 1998 and 1999 and hit a multi-year low of \$252/oz in August 1999.

By December 2000 Barrick completed all major reclamation and closure requirements, and subsequently removed all mine and processing equipment and buildings. Per Barrick's permit requirements, the deep north part of the Bullfrog pit has now been backfilled with alluvium to an elevation of 927 meters to cover the gradually rising water table, which currently is at an elevation of 906 m. There has been no backfilling in the M-S pit. Since 2000 no significant activities in the south half of the Bullfrog Mining District have been performed, other than reclamation by Barrick.

The Company's initial land position in 2011 consisted of 79 unpatented mining claims and two patented claims located adjacent to Barrick and covering 648 hectares. Since then the Company has acquired several additional land parcels, ultimately acquiring Lac and Homestake from Barrick on 2020.

On October 26, 2020, Augusta acquired Bullfrog Mines LLC (the successor by conversion of Barrick Bullfrog Inc.) from certain wholly owned subsidiaries of Barrick Gold Corporation. This transaction added additional land claims to the project.



# 7. GEOLOGICAL SETTING AND MINERALIZATION

The following Geological Setting and Mineralization section was in large measure excerpted with permission from a paper presented at the Geological Society of Nevada Symposium "Geology and Ore Deposits of the American Cordillera", April 10-13, 1995, titled "Geology and Mineralization of the Bullfrog Mine and Vicinity Nye County, Nevada."

# 7.1 Regional Geology

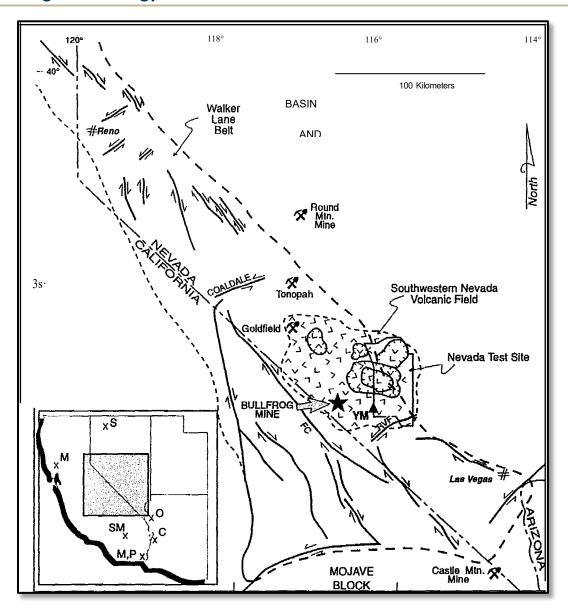


Figure 7-1: Regional Setting of the Bullfrog Mine (Eng et al., 1996)



The Bullfrog Project lies in the southwestern portion of the Great Basin along the southern part of the Walker Lane structural belt (Stewart, 1988) and in the southwestern part of the southwestern Nevada Volcanic Field (Noble et al., 1991). The Walker Lane lies along the western margin of the Great Basin and is bounded to the west by the Sierra Nevada province (**Figure 7-1**). Stewart (1988) divided the north-trending Walker Lane belt into nine blocks characterized by different structural fabric and development. The boundaries between blocks are commonly major strike slip faults or ill-defined transitions of structural fabric. The Bullfrog District lies near the southwestern margin of the Goldfield block. This block shows a general lack of strike slip faults but has locally substantial large-scale Late Tertiary extension faults notably in the Mineral Ridge Weepah Hills area to the north and detachment type faulting in the Bullfrog Hills, and Bare Mountain area to the south.

The Goldfield block is bounded on the west by the northwest-striking right-lateral Death Valley-Furnace Creek fault zone, which is one of the largest strike-slip faults in the Walker Lane with approximately 40-100 km of right-lateral displacement (cf. Stewart, 1967; McKee, 1968), and on the north and south by the east-northeast striking, left-lateral Coaldale fault zone and Mine Mountain-Rock Valley fault zones, respectively. The eastern boundary of the Goldfield block is less well defined; it lies buried under alluvium of Cactus Flat and is further obscured by volcanic centers of the southwest Nevada volcanic field.

The Bullfrog Hills are in the western part of the south-western Nevada volcanic field (**Figure 7-1**) which encompasses a complex of nested and overlapping calderas that developed between about 15 - 11 Ma (see Byers et al., 1989; Sawyer et al., 1994 and references therein). Two additional volcanic centers formed to the northwest at 9.4 Ma and 7.5 Ma (Noble et al., 1984). Many of the Tertiary volcanic rocks in the Bullfrog Hills came from these volcanic centers which collectively erupted >13,500 km³ of magma. Source areas for some of the older volcanic units (>14 Ma) in the Bullfrog Hills are less well known, whereas the younger small-volume tuffs and lavas (11-10 Ma) appear derived mainly from flow domes within the Bullfrog Hills (Noble et al., 1991; Connors, 1995; Weiss et al., 1995).

Large-scale extension of the Bullfrog Hills in the mid- to late-Miocene led to moderate to steep eastward tilting of rocks along listric normal faults in the hanging wall of a major low angle fault zone, recently referred to as a "detachment fault" (e.g. Hamilton, 1988, Maldonado 1990a, b). Most of the extensional faulting and tilting in the Bullfrog Hills temporally overlapped with volcanism in the southwestern Nevada volcanic field and with eruption of local tuffs and lavas in the Bullfrog Hills. Precious metal mineralization in the southern Bullfrog Hills occurred during the final episodes of large-scale extension and tilting.

# 7.2 Local and Property Geology

Rocks in the southern Bullfrog Hills consist of lower- and upper-Proterozoic metamorphic rocks, Paleozoic marine sedimentary rocks, and Cenozoic volcanic and sedimentary rocks; Mesozoic sedimentary rocks are absent. Tertiary volcanic and less abundant sedimentary rocks are exceptionally well exposed and record an episode of major crustal extension and volcanism and are the principal hosts to precious metal deposits. The Proterozoic and Paleozoic rocks are only exposed locally, and because they have limited potential for hosting economic precious metal deposits in the area they were not studied in detail and are only discussed briefly here.



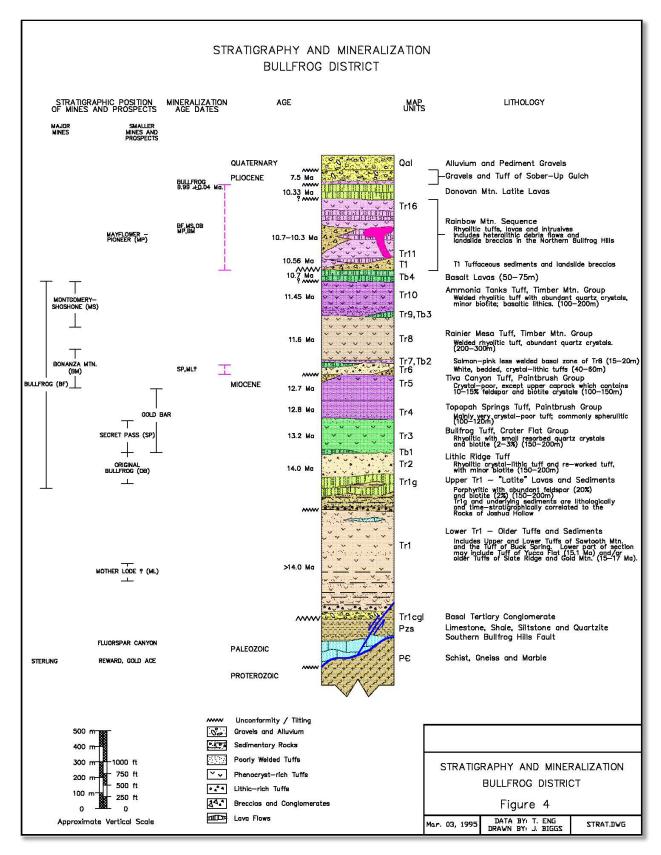


Figure 7-2: Bullfrog District – Stratigraphy and Mineralization



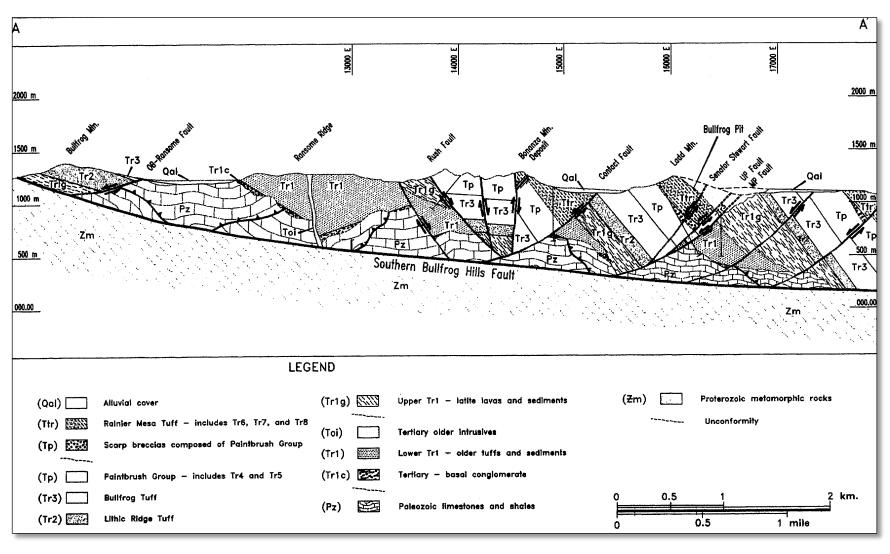


Figure 7-3: Cross Section of the Bullfrog Project Area



#### 7.2.1 Cenozoic Rocks

The Tertiary section in the southern Bullfrog Hills is dominated by volcanic rocks, in particular ash-flow tuffs, and subordinate interbedded volcaniclastic and epiclastic sedimentary rocks. These rocks range in age from >14 Ma to about 7.5 Ma in the southern Bullfrog Hills.

#### 7.2.2 **Pre-14 Ma Rocks**

Pre-14 Ma rocks are a heterogeneous assemblage of variably welded crystal-poor to crystal-rich ash-flow tuffs, conglomerate and fanglomerate, pumiceous gritstones, tuffaceous sedimentary shales (locally carbonaceous and calcareous), and a capping sequence of porphyritic lava flows and associated ruffs. This group of rocks comprises almost half of the Tertiary section (approximately 2.5 km aggregate thickness) and is the least understood because of abrupt facies changes, several nondescript units, and widespread alteration.

## 7.2.2.1 Basal Fanglomerate and Breccia

The unit is discontinuously exposed along the southwest foot of Ransome Ridge, where it forms a clast-supported fanglomerate or breccia, including cobble- to boulder-size clasts of Paleozoic limestone, quartzite, phyllitic shale, and lesser Tertiary porphyritic volcanic rocks. A coarse-grained feldspathic-lithic sandstone comprises the matrix. The unit is interpreted to mark a basal Tertiary fanglomerate shed from nearby highlands underlain mostly by Paleozoic rocks.

## 7.2.2.2 Tuffs and Tuffaceous Sedimentary Rocks of Buck Spring

These rocks are the oldest clearly volcanic and volcaniclastic rocks in the district and are exposed in the immediate footwall of the Ransome fault. Overlying these lower units is a compound cooling unit consisting of a lower poorly to moderately welded crystal-lithic ash-flow tuff overlain by a thick densely welded crystal-rich ash-flow tuff. Total thickness of this unit is about 175 m.

## 7.2.2.3 Tuffs and Tuffaceous Sedimentary Rocks of Sawtooth Mountain

This is also a heterogeneous sequence of rocks, subdivided into the lower and upper tuffs of Sawtooth Mountain following terminology of Maldonado and Hausback (1990). Good sections of these rocks are exposed on Ransome Ridge (Figure 7-3) and on Sawtooth Mountain 3 km to the north where the combined thickness is approximately 1 km. The rocks also crop out on the east side of Beatty, but drilling suggests that the units probably thin to the east. The lower tuff of Sawtooth Mountain is dominated by variably reworked crystal-lithic ruffs and interbedded lacustrine and volcaniclastic sedimentary rocks that have an aggregate thickness of 370 m to 550 m. The upper tuff of Sawtooth Mountain underlies much of Ransome Ridge and is approximately 500 m thick. It has a 10-15 m thick poorly welded base that grades abruptly into densely welded ash-flow tuff. The unit is characterized by hackly fracture and is widely bleached and weakly silicified.

## 7.2.2.4 Thin-Bedded Calcareous to Carbonaceous Shales

These variably carbonaceous to calcareous shales and siltstones are also locally exposed in the footwall of the Bullfrog deposit. The contact with the underlying tuffs of Sawtooth Mountain is poorly exposed; it appears to be an angular unconformity.



## 7.2.2.5 Latitic Flows and Associated Tuffs and Volcaniclastic Rocks (Tr1g)

This sequence of rocks is best exposed in central Box Canyon and in the foot-wall of the mineralized vein zone at the Bullfrog deposit. This unit consists predominantly of porphyritic lava; variably reworked tuff occurs at the base and middle of the unit. The sequence which has an exposed aggregate thickness of about 400 m, is collectively termed Tr1g by exploration staff at the Bullfrog mine following an earlier stratigraphic division of rhyolite unit one of Ransome et al. (1910). The rock has been mapped and described as quartz latite (Maldonado and Hausback, 1990). The sequence of latitic lavas and associated tuffs rests conformably on underlying carbonaceous shales in Box Canyon. Soft sediment deformation in the shales is common in proximity to the contact. At the Bullfrog mine, carbonaceous shales are locally interbedded with flows of latite.

#### 7.2.2.6 Intrusive Rocks

Intrusive rocks of this age group consist of diabase/diorite dikes, silicic porphyry dikes, and porphyritic quartz latite. The diabase/diorite dikes intrude Proterozoic gneiss and schist south and southwest of the Original Bullfrog mine. They consist of fine- to medium-grained, generally equigranular pyroxene-hornblende diabase or diorite. Unlike the rocks they intrude, the diabase dikes are un-foliated and postdate probable Cretaceous age metamorphism (Hoisch et al., in press). The diabase dikes have not been observed to intrude Tertiary volcanic and sedimentary rocks. Silicic porphyry dikes consist of a quartz porphyry and feldspar porphyry. Both rock types contain about 25% phenocrysts of mostly plagioclase and (or) quartz. The dikes are exposed on Ransome Ridge where they intrude the lower tuff of Sawtooth Mountain. The quartz porphyry dikes are typically moderately to strongly propylitized, whereas the feldspar porphyry dikes are relatively fresh suggesting that they may be younger. Porphyritic quartz latite forms dikes that fill faults and small plugs. The rock is only observed intruding porphyritic latite lavas at the top of the pre-14-Ma age group of rocks in central Box Canyon. The rock is lithologically like the intruded latite lavas, but it contains several percent quartz phenocrysts. It may represent the eroded parts of flow domes that fed the latite lavas.

## 7.2.3 14 to 11 Ma Rocks

This age group consists of rocks ranging from the 14.0-Ma Lithic Ridge Tuff to the 11.45-Ma Ammonia Tanks Tuff. Most of the rocks of this age group are units of rhyolite ash flow tuff erupted from calderas in the southwestern Nevada volcanic field and have a total thickness of approximately 1.5 km in the southern Bullfrog Hills.

# 7.2.3.1 14.0-Ma Lithic Ridge Tuff (Tr2) and Basalt Flow One (Tbl)

The Lithic Ridge Tuff is prominently exposed in the hills north of Ransome Ridge and on Bullfrog Mountain, where the total thickness is about 270 m. Most of the unit consists of poorly to moderately welded, crystal-lithic rhyolite ash-flow ruff, containing as much as 20% lithic clasts of mainly intermediate to mafic volcanic rocks.

## 7.2.3.2 Bullfrog Tuff (Tr3)

The Bullfrog Tuff is exposed on Bullfrog Mountain, and more locally on the lower southwest flank of Ladd Mountain and in the Bullfrog open pit. The Bullfrog Tuff is the middle unit of the Crater Flat Group, and is the principal unit exposed in the southern Bullfrog Hills; it corresponds to what Ransome et al. (1910) mapped as rhyolite three. Radiometric age ( $^{40}$ Ar/ $^{39}$ Ar) for the Bullfrog Tuff is 13.25 ± 0.04 Ma (Sawyer et al., 1994).



## 7.2.3.3 Tuffs of the Paintbrush Group (Tr4, Tr5)

The Topopah Spring (Tr4) and overlying Tiva Canyon (Tr5) Tuffs comprise the Paintbrush Group in the southern Bullfrog Hills. These tuffs have  $^{40}$ Ar/ $^{39}$ Ar ages of 12.8 ± 0.03 Ma and 12.7 Ma ± 0.03 Ma, respectively (Sawyer et al., 1994) and broadly correlate with rhyolite units four and five of Ransome et al. (1910). The Topopah Spring Tuff thickens eastward from 25 m on Bullfrog Mountain, to 110 m on the lower western flank of Ladd Mountain. Lithologically, it is a densely welded fine-grained, very crystal-poor ash-flow tuff. The unit contains 1% crystals of feldspar, except in the uppermost 3-5 m where the crystal content increases to 5%. The unit is also shard-rich and fiamme-poor. In many places, the Topopah Spring Tuff is characterized by a vuggy to knobby or pimply appearance due to pronounced spherulitic or lithophysal devitrification.

The Tiva Canyon Tuff (Tr5) is exposed over a wide area from Bullfrog Mountain on the west to Ladd Mountain on the east. It is separated from the underlying Topopah Spring Tuff by a thin layer (<1 m) of reworked tuff. Total thickness of the Tiva Canyon Tuff ranges from about 215 m on Bullfrog Mountain to approximately 120 m along the west side of Ladd Mountain. The Tiva Canyon Tuff consists of two mappable subunits. The lower subunit (Tr5a) consists of a 5 m thick poorly welded devitrified zone that grades upward into densely welded tuff containing dark grey wavy lenticles in its lower part. The lower subunit contains 3-5% crystals of sanidine, and ranges in thickness from about 100 m on Ladd Mountain to 150 m at Bullfrog and Bonanza Mountains. The contact between the lower and upper subunits is marked by a thin (<1.0 m) laterally persistent horizon of spherulitic devitrification. The upper subunit (Tr5b), for most of its extent, forms a lithological distinctive caprock distinguished by 10- 15% crystals of feldspar and conspicuous biotite. The upper subunit of Tr5 ranges in thickness from 70-75 m on Bullfrog Mountain to about 15 m on the west side of Ladd Mountain.

# 7.2.3.4 Monolithic (Paintbrush Group) Scarp Breccia (Tr5c)

Overlying the upper subunit of the Tiva Canyon Tuff is a newly identified, a restricted avalanche or scarp breccia (Tr5). The unit is locally exposed in the hanging wall of the Rush fault in Box Canyon (**Figure 7-3**), where it ranges in thickness from 0-30 m and consists of lenses of mostly monolithic clast supported fragments of Topopah Spring and Tiva Canyon Tuffs.

#### 7.2.3.5 Bedded Tuffs and Local Debris Breccias (Tr6)

This distinct unit consists mostly of an interbedded mixture of light-colored, poorly welded crystal-lithic rhyolite ash-flow tuff and tuffaceous sedimentary rocks. Sanidine from an ash-flow tuff layer at the base of the sequence (Huysken et al., 1994) indicating that deposition of these rocks began almost immediately after eruption of the 12.7-Ma Tiva Canyon Tuff. The unit is about 40-50 m thick on Bonanza and Ladd Mountains, but thickens rapidly eastward to as much as 200 m in the southwest portion of the Bullfrog open pit. West of Box Canyon, however, Tr6 pinches out and it is absent on Bullfrog Mountain.

#### 7.2.3.6 Basalt Flow Number Two (Tb2)

This basalt flow is exposed on Sutherland Mountain (located between Bonanza Mountain and Box Canyon) where it forms the conspicuous dark layer below the summit. The unit is restricted in area as evidenced by its discontinuous presence just to the east on Bonanza Mountain, and its general absence on Ladd Mountain and in the Bullfrog pit Thickness ranges from 0-18 m.



## 7.2.3.7 Tuffs of the Timber Mountain Group (Tr7, 8, 9, 10)

This sequence consists of the Rainier Mesa and Ammonia Tanks Tuffs, which have  $^{40}$ Ar/ $^{39}$ Ar ages of 11.6 Ma ± 0.03 and 11.45 ± 0.03 Ma, respectively (Sawyer et al., 1994). They are well exposed throughout the southern Bullfrog Hills and have an aggregate thickness of about 600 m. The Rainier Mesa Tuff (Tr7, Tr8) consists of a salmon-pink, poorly to moderately welded base (Tr7) that grades upward into a brown purple, densely welded interior that comprises the bulk of the tuff (Tr8). The main densely welded part of the Rainier Mesa Tuff can be sub-divided, in many places, into three subunits—a lower subunit of moderately welded fiamme-rich quartzose tuff, a middle subunit of densely welded quartzose tuff containing 15-20% crystals, and a capping subunit marked by noticeable increase in biotite (I.0-1.5%). Lithics are sparse throughout. The Rainier Mesa Tuff is about 400 m thick on Ladd Mountain and is a main host for ore at the Bullfrog deposit.

In most places the Rainier Mesa Tuff is overlain by a massive to vesicular flow of basalt (Tb3). The basalt forms subdued outcrops but is well exposed in the north wall of the Bullfrog open pit, where the unit is 20-25 m thick. At the Montgomery-Shoshone deposit, the basalt flow is generally absent, and a 1-3 m thick basaltic, chlorite-bearing gritstone and reworked tuff horizon is present.

The Ammonia Tanks Tuff consists of a poorly welded base (Tr9) that grades upward into light-grayish, moderately to densely welded tuff that comprises most of the tuff (Tr10). In and near the Montgomery-Shoshone deposit, a distinctive light green to dark gray vitrophyre is present near the base and is about 5 m thick. The Ammonia Tanks Tuff has a maximum exposed thickness of about 250 m.

#### 7.2.3.8 Intrusive Rocks

Intrusive rocks of this age group are volumetrically minor in the southern Bullfrog Hills and consist of crystal-poor rhyolite and basalt dikes. The rhyolite occurs as small bodies intruding latite lava (Tr1g) and the Topopah Spring Tuff (Tr4) near Box Canyon. The rhyolite is crystal-poor to aphyric and is typically finely flow laminated. Dikes of basalt are the most widespread intrusive rock.

# 7.2.4 Post 11 Ma to 7.6 Ma Rocks

This age group includes a basal flow of basalt overlain by epiclastic breccias and conglomerates, a thick sequence of tuffs and lavas, and locally capping gravels and intercalated ash- flow tuff. The thick sections of tuffs and lavas have been referred to as the tuffs and lavas of the Bullfrog Hills (Noble et al., 1991; Connors, 1995; Weiss et al., 1995) and as the rhyolite tuffs and lavas of Rainbow Mountain (Maldonado and Hausback 1990).

#### 7.2.4.1 Basalt Flow Number Four (Tb4)

This basalt forms subdued exposures north and south of highway 374 south of Burton Mountain (**Figure 7-2**). There, the basalt has an exposed true thickness of about 200 m, but it is thinner elsewhere. A K-Ar age of  $10.3 \pm 0.4$  Ma is reported for this unit (Marvin et al., 1989; Maldonado and Hausback, 1990). A lithological similar basalt flow at the same stratigraphic position in Fluorspar Canyon east of Beatty yielded a K-Ar age of  $10.7 \pm 0.2$  Ma (Monsen et al., 1992). In the southern Bullfrog Hills, angular discordance between the basalt and underlying Ammonia Tanks Tuff (Tr10) is probably minor (<5°).



## 7.2.4.2 Epiclastic Rocks and Breccias

This unit overlies basalt Tb4 and is best exposed north of highway 374 about 1.5 km west of Beatty. These rocks weather into conspicuous pale green to reddish pink northwest-trending hogbacks. Ransome et al. (1910) designated this sequence as tuff unit one (t1), and Maldonado and Hausback (1990) mapped the unit as sedimentary rocks and tuff. The unit thins to the northwest and is absent along the west base of Rainbow Mountain. Near the Mayflower and Pioneer mines in the northern Bullfrog Hills, this sedimentological diverse section of rocks was mapped as an early phase of a debris flow sequence (Conners et al., in Conners, 1995). In areas west of Beatty, the unit is comprised of thinly bedded tuffaceous shale, siltstone, and local pebbly conglomerate, coarse fanglomerates, and mega-breccia slide blocks. Dips of bedding decrease upward through the unit from 45-50° at the base to about 30-35° at the top. Breccia deposits in the unit are heterolytic to monolithic with clasts ranging from <1 m to several meters across. In some breccia deposits, clasts rest in a muddy matrix suggesting deposition into a shallow lake from nearby over-steepened slopes. Stratigraphically lower breccia deposits contain clasts derived from underlying basalt flow four, whereas higher breccia deposits contain clasts from the Rainier Mesa and Ammonia Tanks Tuffs. A megalithic block (-100 m long) of a portion of the Rainier Mesa Tuff and underlying bedded tuffs (Tr6) occurs near the top of the unit just north of highway 374. The upward change of breccia clasts in the unit suggests progressive uplift and erosion of the source rocks from which the breccia deposits were derived.

# 7.2.5 10.6-10.0 Ma Rainbow Mountain Sequence (Trm, Tr11-16 and other units)

This sequence is well exposed on Rainbow Mountain and nearby Black Peak. Total thickness of section exposed in these areas is about 760 m. New <sup>40</sup>Ar/<sup>39</sup>Ar ages from this study indicate most of the sequence was deposited between 10.6 and 10.3 Ma. Unlike the ash-flow tuffs of the 14-11 Ma group which came from calderas to the east, these deposits are locally derived from scattered plugs and volcanic domes in the Bullfrog Hills.

#### 7.2.5.1 Basalt, Gravels of Sober-up Gulch, and Stonewall Flat Tuff

These rocks are exposed mainly in the east-central and northern Bullfrog Hills and are essentially flat lying. The gravels of Sober-up Gulch are loosely consolidated alluvial deposits containing well-rounded pebbles and boulders of pre-dominantly locally derived Tertiary volcanic rocks. The Spearhead Member of the Stonewall Flat Tuff is locally interbedded with the gravels of Sober-up Gulch (Noble et al., 1991) and has a  $^{40}$ Ar/ $^{39}$ Ar age of 7.61  $\pm$  0.3 Ma (Hausback et al., 1990).

#### 7.2.5.2 Intrusive Rocks

Few intrusive rocks of this age group occur in the southern Bullfrog Hills. However, rhyolitic plugs and domes are common in the central and northern Bullfrog Hills where they appear to mark the sources of the flows and ash-flow tuffs of the Rainbow Mountain sequence (Maldonado and Hausback, 1990; Noble et al., 1991; Weiss et al., 1995). They are sparsely to moderately porphyritic and contain phenocrysts of quartz, plagioclase, sanidine, and accessory biotite.



## 7.2.5.3 Timing of Tertiary Deformational Events

The oldest Tertiary structural event is recorded by the basal Tertiary fanglomerate and breccia, which consists of mainly Paleozoic clasts, but also includes Tertiary volcanic rocks. Uplift and erosion that produced these localized deposits of fanglomerate and breccia took place prior to 15 Ma as indicated from previously discussed stratigraphic relationships. Continued episodic structural events between about 15 Ma and 14 Ma are indicated by local angular unconformities, and by variable thicknesses and abrupt lateral fades changes of rock units laid down during this time. East of the district on the lower northeast flank of Bare Mountain, Fridrich, 1999 documents a major angular unconformity between a round stone conglomerate and overlying carbonaceous sedimentary rocks of Joshua Hollow (Monsen et al., 1992), indicating that tectonic activity was widespread in the region prior to 14 Ma.

A significant episode of faulting occurred at about 12.7 Ma as evidenced by (1) fault scarp breccia and coarse conglomerate that directly overlies the 12.7 Ma Tiva Canyon Tuff and underlies the inferred 12.7 Ma base of Tr6 in the hanging wall of the Rush fault, (2) absence of Tonopah Spring and Tiva Canyon Tuffs in the Bullfrog pit and presence instead of volcaniclastic debris breccia whose clasts consist of those units and of older rocks, and (3) a modest angular unconformity (10-20°) between the Tiva Canyon Tuff and overlying bedded tuffs in the lower and middle parts of Tr6 on the west side of Ladd Mountain. This episode of faulting appears to have been quite widespread as evidenced by a major angular unconformity between the Paintbrush and Timber Mountain Groups in upper Fluorspar Canyon (Monsen et al., 1992) and by the presence of landslide breccias intersected in drill holes along the west side of Crater Flat (the valley east of Bare Mountain) that lie between the Paintbrush and Timber Mountain Groups in the hanging wall of the Bare Mountain fault (Fredrich, 1999). The next episode of faulting in the southern Bullfrog Hills is chronicled by a syntectonic sedimentary unit that lies between a 10.7-Ma basalt flow (Tb4) and the lowest part of the Rainbow Mountain sequence dated at 10.56 Ma. During this time 15-20° of eastward tilting occurred. Most of the Rainbow Mountain sequence is tilted uniformly about 30° east. Although negligible differences in tilting are evident, episodes of faulting are recorded by intercalated lenses of fanglomerate and breccia that punctuate the Rainbow Mountain sequence. Between the latite, dated at 10.33 Ma, and the capping quartz-bearing latite, the tilt decreases 10-15° indicating a renewed phase of tilting between 10.3 and about 10 Ma. The final 15° of tilting occurred between about 10 Ma and the time of deposition of an un-tilted basalt dated at 8.1 Ma in the western Bullfrog Hills (Marvin et al., 1989).

# 7.3 Deposit Geology

The District is located in the southern Walker Lane trend within brittle upper plate volcanic host rocks that were severely broken from dominant detachment faulting and associated dip-slip and strike-slip displacements. Epithermal solutions permeating the broken host rocks in the M-S and Bullfrog deposits precipitated micron-sized but relatively high-grade gold within major quartz-calcite veins and disseminated gold in associated stock works. The veins contain very little gangue minerals other than quartz, calcite and manganese oxides, the latter of which contributes to low silver recoveries. The Montgomery system occurs on the east side of the M-S pit, strikes northerly and dips 70-85° west. The Polaris fault occurs on the west side of the pit, strikes nearly due north and dips 50-60° west.

Detachment-related structures and mineral trends are projected to extend onto the Company's lands to the north and east of the M-S open pit and deep drill holes intercepted thick zones of lower-grade mineralization that are 300 meters below the existing pit. Prior to oxidation the veins contained less than 2% sulfides, the low content of which is favorable with respect to processing and environmental concerns. Surface geology is shown in the figure below **Figure 7-4**.



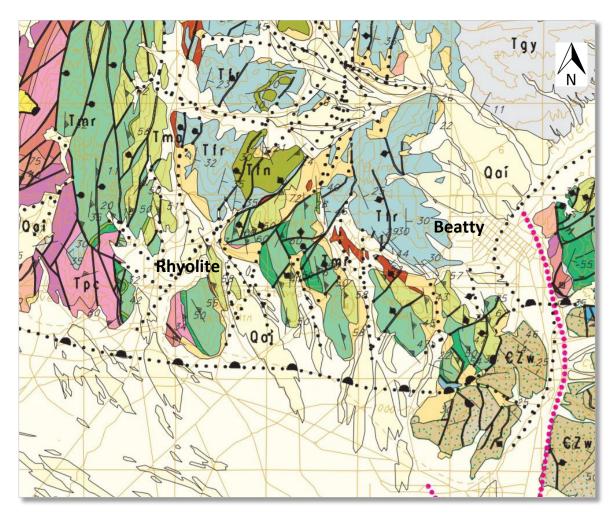


Figure 7-4: Deposit Geology Map—Each Section is 1.6 km, or 1 mile square

# 7.4 Mineralization and Veining

The gold deposits of the southern Bullfrog Hills are contained in epithermal quartz-calcite veins and stockworks. The main host rocks are middle Miocene volcanic rocks ranging from latite lavas (Tr1g, >14 Ma) to rhyolitic Ammonia Tanks Tuff (Tr10, 11.45 Ma).

# 7.4.1 Bullfrog Deposit

The strike length of the Bullfrog deposit is about 1,600 m, including the underground portion which accounts for about 600 m of the strike length. True widths mined in the underground, where the ore cutoff was 3.0 g/t Au, typically average 5-10 m and local zones may be as much as 15-20 m wide. The highest grades typically correlate with zones of black manganese-rich material, where much of the early manganiferous calcite has been leached out, rendering the vein a rubble zone of quartz, calcite, and wad. Veins continue up dip and down dip, but the gold grades and thicknesses diminish rapidly above and below these elevations.

As in the underground mine, the highest grades in the open pit were associated with veins and vein breccias along the MP fault and its immediate hanging wall. Higher ore grades also occurred in veins along



the UP fault, but widths were generally narrow. Zones of quartz stockwork veins and breccia were developed between the MP and UP faults in intensely silicified and adularized wall rocks. The ore zone in the hanging wall of the MP fault, was termed the upper stockwork zone (Jorgensen et al., 1989). Many of the stockwork veins are subparallel in strike to the MP and UP faults, but dip more steeply. A zone of stockwork quartz veins also occurs in the footwall latite lavas (Tr1g) immediately beneath the MP fault, but here the ore zone is usually <10-15 m thick. This was termed the lower stockwork zone (Jorgensen et al., 1989). In this zone individual veins are often subparallel to the MP fault, and vein densities are typically in the range of 5-15%.

In most parts of the open pit, mineralized rock is truncated by the erosional surface and gravels. The ore zone thinned up-dip and only a modest amount of ore was probably lost to erosion. Below the open pit, ore grade values persist.

In the Bullfrog deposit, the high-grade zones do not comprise obvious discrete plunging ore shoots. Instead high-grade ore zones are developed along the plane of the MP fault/vein, within 10-20° of the dip of the fault. The overall geometry of these zones is that of elongate lenses in the plane of the fault, with long dimensions that strike roughly north-south at a low angle of plunge. The highest ore grades roughly coincided with the oxidation-reduction boundary in the deposit and the pre-mining water table, and modest localized supergene enrichment of precious metals near this boundary is suggested.

#### 7.4.1.1 Ore Controls

The zoning patterns of ore grades, veins, and altered rock indicate that the MP-UP fault system was the main ore control and fluid pathway for the Bullfrog deposit. Minor local changes in the strike and (or) dip of these faults created dilatant zones aiding deposition of gold, particularly some of the higher-grade ore. Northeast-trending faults were also an important control, acting as secondary fluid pathways and providing additional ground preparation. This is indicated by changes in ore character and geometry where these faults intersect the MP-UP fault system. As in most epithermal systems, physicochemical conditions limit precious metal ore deposition to a particular vertical interval. In the case of the Bullfrog deposit, the apparent maximum extent is 250-300 m, between about 1,075 and 775 m in elevation. Supergene and (or) hypogene oxidation may have also aided in local enrichment of ore and is supported by the location of higher gold grades near the redox boundary and the pre-mining water table. The common occurrence of visible gold (electrum) in limonitic pyrite casts is also evidence for the concentration of gold during oxidation. However, unlike porphyry copper deposits, the enrichment and redeposition of precious metals was probably over the scale of millimeters or micrometers (Castor and Sjoberg, 1993).

#### 7.4.2 Montgomery-Shoshone Deposit

The main host for the Montgomery-Shoshone deposit is the lowermost part of unit Tr10 (Ammonia Tanks Tuff, 11.45 Ma). The uppermost portion of unit Tr8 (Rainier Mesa Tuff, 11.6 Ma) is a less important host, along with Tb3, basalt dikes, and (or) unit Tb4. Basalt flow Tb4 appears to have acted as a barrier to ore fluids (Jorgensen et al., 1989), as virtually no mineralized rock occurs stratigraphically above unit Tr10 in the rhyolite tuffs and lavas of the Rainbow Mountain sequence, even though these rocks are all premineral in age. The best marker bed is Tb3, which at Montgomery-Shoshone consists mainly of a 1-3 m thick irregular zone of basaltic, chlorite-bearing volcanic gritstone and re-worked tuff; a thin irregular basalt flow is less common at this horizon. The base of Tr10 is often a useful marker and consists of a light greenish or dark gray zone of more densely welded and vitrophyric tuff; the vitrophyric portion is usually less than 5-6 m thick.



Altered rocks are similar to those at the Bullfrog deposit, although rocks are more strongly clay altered and oxidized at Montgomery-Shoshone. Unlike at Bullfrog, carbon-pyrite is absent at depth. In the hanging wall of the deposit, rocks of the Rainbow Mountain sequence are argillized and bleached and contain 1-2% fine-grained disseminated pyrite. Wall rocks adjacent to veins and stockwork zones are typically flooded with silica-adularia, especially in Tr8 (Rainier Mesa Tuff) in the footwall of the deposit. Such silicified and adularized rock is absent, however, in the Rainbow Mountain sequence. Basalts of Tb4 in the hanging wall of the deposit are mostly unaltered, except along their margins near faults where they are argillized and clay altered.

#### 7.4.2.1 Mineralization

Mineralized zones at Montgomery-Shoshone consists mainly of stockwork quartz-calcite veins forming 5-35% of the rock, with less abundant narrow irregular quartz-calcite-Mn oxide veins generally <1-3 m wide. Many of the textures that typify the high-grade veins at the Bullfrog deposit—such as strong banding and chaotic vein breccia—are absent, and it appears that the main-stage event was not as well developed. The widest zones of mineralization developed are along the Montgomery zone north of about 9,900N, and may locally be as much as 60-80 m wide. However, individual ore zones with >0.5 - 1 g/t Au in many portions of the deposit are commonly only 10-30 m wide, and the continuity of mineralization down dip and along strike is relatively poor.

Ransome (1910) noted that most of the higher-grade veins were localized within about 45 m of the basalt (Tb4) at the Contact fault, and that the veins decreased in grade and thickness below the 300 level (1,170 m). The veins were explored in these workings to about 1,050 m in elevation (700 level). The structures and veins continue below the 1,125 m elevation level, but as at the Bullfrog deposit, the grade and thickness of the mineralized zones uniformly diminish, with much of the rock containing only 0.1-0.5 g/t Au. However, deep exploration drilling encountered thick intervals of mineralized rock about 200-250 m in elevation below the current pit; the controls for this mineralized zone are unclear and further evaluation continues.

The veins generally increase in calcite content along strike to the south, as well as down dip, and this corresponds to a general decrease in the grade of mineralized rock; a similar change was noted by Ransome (1910). The Polaris vein zone exposed in the south pit high wall, consists of friable and leached, gray-brown quartz pseudomorphs after calcite, with minor Mn oxides. These types of veins characterize much of the southern half of the deposit and are uniformly of low grade or below pit cutoff (0.50 g/t Au).



# 8. DEPOSIT TYPES

The gold deposits of the southern Bullfrog Hills are contained in epithermal quartz-calcite veins and stockworks. The main host rocks are middle Miocene volcanic rocks ranging from latite lavas (Tr1g, >14 Ma) to rhyolitic Ammonia Tanks Tuff (Tr10, 11.45 Ma). The veins contain little gangue other than quartz, calcite, and manganese oxides; adularia is present in trace to minor amounts, but it is usually microscopic. Fluorite and barite were noted during the development of the Bullfrog deposit (Jorgensen et al., 1989), but these minerals were only rarely observed during mining. The veins are commonly banded and crustiform, and although now mostly oxidized, originally contained minor amounts (<1-2%) of sulfide minerals, principally pyrite. The deposits fit the "adularia-sericite" type classification of Heald et al. (1987), although adularia and sericite (or illite) are only minor or trace constituents in the veins.

The deposits would also fit the "low-sulfidation" or "low-sulfur" classification (Sillitoe, 1993; Bonham, 1988) due to the impoverishment of sulfides and sulfates. The veins and stockworks fill open spaces and are often sheeted. They are hosted and controlled by northerly striking normal faults with modest to large displacements (50-1000 m), and moderate to steep dips (35-85°). Northeast-striking faults are also locally important but are generally less mineralized. Within and adjacent to the veins and stockworks, the volcanic wall rocks are pervasively replaced by very-fine-grained hydrothermal quartz and adularia, and, where unoxidized, may contain 1-3% disseminated pyrite. In proximity to the deposits, clay minerals are not especially pronounced, except in poorly welded portions of the ash-flow tuffs, and in post-mineral fault gouge or oxidized zones.

Latite lavas (Tr1g) in the footwall of the orebody are altered to a propylitic alteration assemblage, characterized in hand specimen by thin fracture fillings or coatings of chlorite, calcite, and quartz, with disseminated or fracture filling pyrite. Petrographic and lithogeochemical data indicate that these rocks become strongly hydrothermally altered as the orebody is approached, with additions of potassium, silica, and rubidium; secondary albite also replaces plagioclase phenocrysts (Lac unpublished data; Weiss et al., 1995). Carbon-pyrite is also present in the footwall lavas; the carbon usually occurs as sooty coatings on fractures, but also locally occurs as glassy carbon in cavities. Laboratory studies show that the carbon is an organic, amorphous phase between bitumen and graphite (Allison, 1993), and it was probably remobilized by hydrothermal solutions from underlying carbonaceous Tertiary sedimentary or Paleozoic rocks.

Stratigraphic offset across the MP and UP fault zone decreases from about 1,000 m at the north end of the pit where the two faults converge, to about 600-800 m at the south end of the pit. As the Southern Bullfrog Hills fault is approached, offset decreases to about 500 m or less; farther south, the faults flatten and merge into or are cut off by the Southern Bullfrog Hills fault. Deep drilling on the southwest flank of Ladd Mountain indicates that the MP-UP faults become listric down dip, flattening to about 25°. Drilling in this area also suggests that the faults merge into or are cut off by the Southern Bullfrog Hills fault. Overall, the MP-UP fault system appears to have a scissored normal displacement, steepening to the north away from the Southern Bullfrog Hills fault, with generally increasing amounts of displacement as far north as the Montgomery South faults.



# 9. EXPLORATION

Several exploration targets are described below and shown overlain in **Figure 9-1**. These areas include existing targets that were partially drilled by previous owners prior to 1996. For reference, the Company's property extends 5 km NE of the M-S pit but only eight holes were drilled in this area by Barrick and its predecessors.

# 9.1 M-S Area

The M-S area has five discernible targets proposed for drilling on a priority basis.

#### 9.1.1 North-East Extension

There is only one weakly mineralized hole on the NE edge of the M-S pit (rdh-660) and only one non-mineralized hole (rdh-662) located 100 meters NE of the pit. The next holes (rdh-697, 699 and 700) had no mineralization but are 1,000 meters NE and spaced 300 meters apart. The Contact fault and related mineral trends are projected a few kilometers further north but there are only four wide-spaced holes in this large area ranging from 2,000 to 3,000 meters NE of the M-S pit. There are 15 more old holes in this far NE area but no data other than locations are available. A 1994 map by Lac Minerals notes that holes FF-1, FF-2 and FF-90-1 contain anomalous mineralization that has not been adequately tested. The NE extension area is several square kilometers and may contain high grade veins and/or disseminated stockworks.

In 1996 a hole was cored to a depth of 549 meters (1,800 feet) in the NW part of the Providence patent (see **Figure 9-2**). Although assays are not available, the hole reportedly had no significant mineralization. Notwithstanding, the core hole location does not test potential extensions of mineralization proposed herein.

## 9.1.2 Down-Dip Polaris Vein

Much of the Polaris vein and stockworks from Sections 9695 N through 10075 N extends down-dip below the existing pit. For example, an intercept of 24.4 m of 1.08 g/t in hole cdh-091 is about 140 meters down-dip from rdh-013. There also is a potentially un-named vein in the hanging wall of the Polaris as indicated by the 10.7 m of 0.72 g/t in rdh-588, 7.6 m of 0.93 g/t in rdh-013, 10.7 m of 1.28 g/t in rdh-601 and 10.7 m of 0.62 g/t in hole rdh-634.

Hole rdh-632 intersected a limited extension of the Polaris vein down-dip on Section 9954, but hole 632 also has 13.7 m of 1.08 in the hanging wall of the Polaris. Hole 717 shows 51.8 m feet of 1.35 g/t down-dip in the Polaris vein approximately 50 meters below an intercept of 33.5 m of 0.49 g/t in hole 603. Hole 733 intersected 19.8 m of 0.85 g/t in the down-dip extension of the Polaris vein and below the strong intercept in rdh 717. Several holes are also planned to define down dip extensions of the Montgomery vein and stock works.



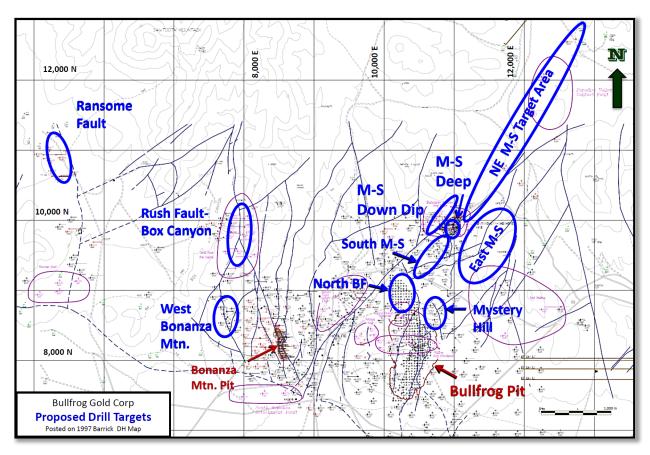


Figure 9-1: Exploration and Mining Targets at the Bullfrog Project

## 9.1.3 South Montgomery

Rdh-444 is located at 9520 N/9780 E and intersected 30.5 m of 0.76 g/t from 117.4 m to 147.9 m, including 4.6 m of 0.74 g/t from 117.4 m to 121.9 m and 15.2 m of 1.17 g/t from 132.6m to 147.9 m. A corridor 75 meters wide and 800 meters long and striking N 41°E and S 41°W has not been tested. Although the geology mapping shows structures south of this hole as striking N 70°E and S 70°W, this corridor and the northernmost structure on the map in **Figure 9-2** (structure # 1) should be drilled, particularly up-dip of the intercept in rdh-444.

The other structures (# 2 and further south) on the geology map were drilled to some degree by Barrick. The closest holes to the corridor are 100 meters N, S, E and W. There are no holes along strike for 200 meters to the NW and 600 meters toward the SW of rdh-444. One or two holes could be reasonably drilled along an existing road 45 meters to the NW to test this area along strike and up-dip.

An angle hole could be drilled 40 meters SW of rdh-444 along with more holes if initial results are acceptable. Rdh-447 is collared at 9375 N and 9500 E and intersected 0.19 g/t from 35.2 to 42.7 m, but it does not cross the south extension of the Montgomery vein. A new 45° angle hole at this location should be drilled with an azimuth of 90° next to rdh-447.



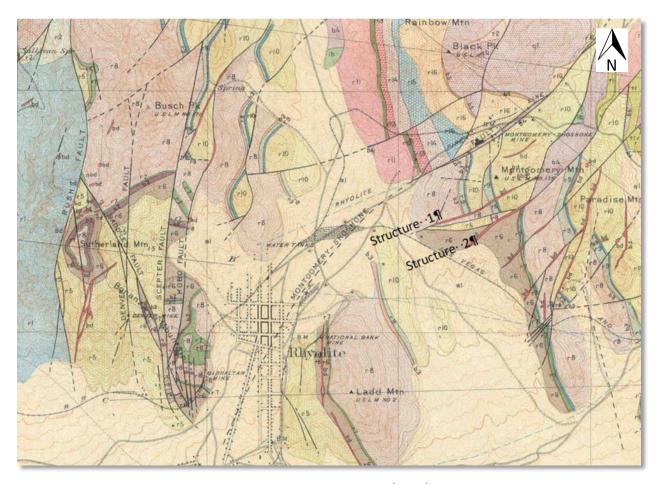


Figure 9-2: Structure Map with Geology

#### 9.1.4 East

East of the M-S pit is an area that is 700 meters by 1,300 meters and only has one shallow historic hole for which no data is available. Only a portion of this area may be prospective, but additional study and exploration drilling is warranted. Lac's 1994 map shows a hole south of this area that had anomalous mineralization (BB-9 with no data available), but holes edh-18 and -19 appear to have tested this to the south.

# 9.1.5 Deep Potential

Deep intercepts were encountered in four of ten deep angle holes drilled by Barrick below the M-S pit. The depths and grades of these intercepts are not foreseeably economic, but they demonstrate that additional gold occurs in a potentially large epithermal system with the potential for expansion and possible high-grade discovery. In this regard, there is no deep drilling northwest of holes rdh-733, 717, 734 and 778, and no drilling south of holes rdh-732, 777 and 779.

These deep intercepts could be part of a feeder zone that created the upper M-S deposit and may range from a limited area, or possibly extend along strike as well as up- and down-dip. A potential mineral inventory cannot be estimated in the deep zone based on the limited amount of drilling completed to



date. Three of the deep holes also had significant shallow intercepts in the Polaris vein/stock-works (52 meters of 1.35 g/t, 12 m of 1.14 g/t and 4.6 m of 6.03 g/t).

Holes rdh-779 and rdh-777 were barren below 900 meters elevation, thereby limiting the down-dip extension of mineralization in rdh-732, but there are not enough holes to fully assess this deep zone.

# 9.1.6 2020 Drilling

In 2020, an additional 25 holes were drilled using reverse circulation methods. The holes totaled 3,903 meters. This program focused on the Mystery Hill area. Drilling will continue at the site in 2021, using a combination of reverse circulation and core methods to attempt to better define the mineral resource at the site.

## 9.2 West Bonanza Mountain

The Bonanza Mountain pit area is located 2 km west of the Bullfrog deposit. Historically the area likely produced about 10,000 ounces in the early 1900's from several underground mines. Barrick's open pit mining began in late 1995 with a resource of 1.3 million tonnes averaging 1.8 g/t, based on a 0.5 g/t cutoff grade and a strip ratio of 4:1. Most of the ore occurs in the Hobo, Lester and Sceptre veins, which had limited widths of adjacent mineralization. Notwithstanding, the Bonanza Mountain area has several veins that have not been thoroughly drilled to the north and south. An estimate of mineralization around the Bonanza pit was not prepared for this report. The Company recently leased three patents and staked two claims to cover an exploration target in the west Bonanza Mountain area (see **Figure 9-1**); further study is required before a drill program can be proposed.

# 9.3 Western Exploration Targets

Several other areas within a few miles west the Bullfrog deposit were drilled previously by Barrick, but still have potential for additional mineralization that may be amenable to heap leaching. These areas include the Rush Fault-Box Canyon, Ransome Fault, and the Original Bullfrog mine.

# 9.3.1 Rush Fault-Box Canyon

This area is 1,500 meters NW of the Bonanza Mountain pit and Barrick et al. drilled 23 holes in the vicinity. Hole rdh-440 was angled -70° toward the SE and intercepted 4.6 meters averaging 1.37 g/t starting at a depth of only 30 meters. Three holes having relatively shallow but low-grade mineralization limit possible extensions to the south. Hole rdh-442 was collared a few meters from 440 and was angled -70° toward the NW but did not intercept mineralization. As there are no drill holes north of hole 440, mineralization could possibly continue. Although Barrick was not interested in further exploration of this area, several faults have been mapped within several square kilometers north of this area. As a result, further study is recommended.

Two adits in the NE ¼ of Section 8 were sampled and assayed by Barrick. Adit #4 had 51 samples in five continuous segments that averaged 2.56 ppm. Adit #5 had four samples in two continuous segments that averaged 2.25 ppm. Maps of these adits and sample locations have not yet been found but may be in Barrick's extensive paper database.



#### 9.3.2 Ransome Fault

The Ransome Fault area is located 3 km west of the Bonanza Mountain area. During the early 1980s through 1996, Barrick et al. drilled 25 holes in this target area. Twenty-three holes had no significant mineralization, but hole rdh-668 had 4.6 meters averaging 1.56 g/t starting at a depth of only 12 meters. Although there are four non-mineralized holes within 300 meters of rdh-668, this area needs to be examined for drilling possible extensions along strike and down-dip. There are old holes a few hundred meters north of rdh-668, but there is no drill data available. The large area between the Ransome Fault and Box Canyon shows several faults that have not been drilled. Surface mapping possibly could generate additional drill targets.

# 9.3.3 Original Bullfrog Mine

The Original Bullfrog deposit is located 4 km west of the Bonanza Pit and is barely within the east boundary of the Death Valley National Park. All National Parks have a ban on open pit mining along with several other impositions. Cross sections through this area show several intercepts of multi-ounce gold but, under the circumstances, the Company is unwilling to explore and develop the Original Bullfrog mine area.



# 10. DRILLING

Between 1983 and 1996, 1,262 reverse circulation (RC) and core holes totaling 253,255 meters were drilled in the Bullfrog and M-S areas by Barrick and three predecessor companies. In 2020, Augusta drilled an additional 25 RC holes in for 3,903 meters. These drill results are summarized in **Table 10-1**. This drilling was completed by major mining companies who conducted sampling and assaying using prevailing and customary industry standards; the operators are detailed in **Table 10-2**. Tom John, Geological Consultant to BFGC, and Barrick Bullfrog's former Exploration Manager from 1995 through 1997, has presented information on the quality control of the data collected under his supervision as well as the data obtained from the exploration departments of St. Joe, Bond International Gold, and Lac Minerals.

The Company initially obtained a partial electronic/digital drill hole database, but eventually scanned Barrick's complete paper drill-hole database stored in Elko, Nevada. These scanned files included assay certificates, geologic logs, surface and down-hole survey data and notes, and maps prepared by site geologists. The data missing from the partial electronic/digital files was used to create a complete digital data on 1,262 holes in the Bullfrog area.

Table 10-1: Drilling Totals by Type

Year <u>Total</u>		Drilling	Orilling Coring		Reverse C	Circulation
rear	Holes	Meters	Holes	Meters	Holes	Meters
1983	6	975	6	975	0	0
1984	37	3,560		0	37	3,560
1985	3	303		0	3	303
1986	29	3,364		0	29	3,364
1987	163	29,479	3	732	163	28,747
1988	321	66,325	32	6121	321	60,204
1989	71	12,285		0	71	12,285
1990	154	37,114	33	3,676	154	33,438
1991	79	22,954	42	3,627	79	19,327
1992	23	4,907		0	23	4,907
1993	9	387		0	9	387
1994	210	31,362	9	1,412	210	29,951
1995	99	22,370	3	248	99	22,122
1996	58	15,254	19	3,329	45	11,924
2020	25	3,903			25	3,903
Total	1,287	254,542	147	20,119	1,268	234,422

<sup>\*</sup> NOTE: Many core holes were pre-collared using RC drilling and a few included deeper RC intervals.



Table 10-2: Active Years by Operator

Operator	Years Active
St. Joe American	August 1983 - July 1987
Bond International Gold	July 1987 - November 1989
Lac Minerals	November 1989 - September 1994
Barrick Bullfrog Inc.	September 1994 - 1999

Bit sizes for the RC drilling ranged from 104.775 mm (4-1/8 inch) to 139.7 mm (5-1/2 inch) diameter, the latter being the typical size. Cores were reported mainly as NC, but included PQ, NX and HQ sizes. Coring was 8% of the total drilling but was closer to 10% in the mine areas, as no coring was performed in outlying exploration holes. **Figure 10-1** shows a plan map of the drilling in the Bullfrog and Montgomery-Shoshone pits.

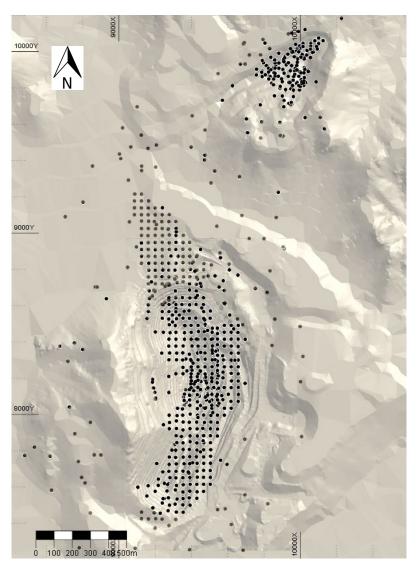


Figure 10-1: Plan map of drill hole collars



A cross section of the deposit is shown below in **Figure 10-2**. The section includes the original topography, drilling with Au grades displayed on the traces, and the post mining topography.

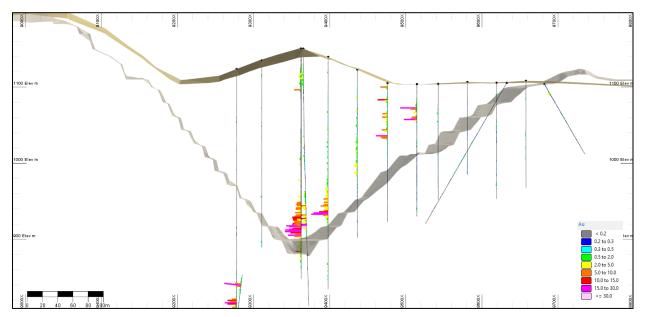


Figure 10-2: Section in the Bullfrog Pit area looking North

# 10.1 2020 Drilling

An additional 25 Reverse Circulation holes were drilled by Augusta in 2020. The purpose of this drilling program was to further define resources and ultimate limits of the Bullfrog and Montgomery-Shoshone pits, and have not been included in the mineral resource estimate in this report. The program also fulfilled a final work commitment for the Company to purchase a 100% interest in lands under lease from Barrick by mid-September 2020. Two holes were drilled at the Paradise Ridge Target. The drilling was completed with 130 mm diameter (5-1/8 inch) drill bits. **Table 10-3** shows the location, azimuth, dip, and total depth of each of the 2020 holes.

Hole ID	Easting	Northing	Elevation	Azimuth	Dip	Total Depth
BM-20-1	10,040	9,995	1,117	135	-70	68.58
BM-20-2	9,979	9,967	1,120	100	-57	89.92
BM-20-3	9,823	9,868	1,139	130	-53	120.4
BH-20-4	9,450	8,910	1,143	90	-60	190.49
BH-20-5	9,431	8,875	1,144	90	-60	220.98
BH-20-6	9,409	8,839	1,138	90	-60	227.08
BH-20-7	9,419	8,790	1,128	90	-60	71.63
BH-20-7A	9,416	8,787	1,128	90	-65	71.63
BH-20-8	9,560	8,864	1,128	90	-57	141.73
BH-20-9	9,491	8,764	1,119	90	-80	193.55
BH-20-10	9,449	8,723	1,116	90	-60	199.64

Table 10-3: Location and depth of 2020 holes



Hole ID	Easting	Northing	Elevation	Azimuth	Dip	Total Depth
BH-20-11	9,530	8,764	1,127	90	-60	199.64
BH-20-12	9,575	8,737	1,127	120	-60	138.68
BH-20-13	9,580	8,613	1,110	285	-70	169.16
BH-20-14	9,584	8,615	1,111	50	-54	120.4
BH-20-15	9,552	8,703	1,117	0	-90	163.07
BH-20-16	9,609	8,797	1,123	90	-60	120.4
BH-20-17	9,656	8,768	1,122	90	-60	114.3
BH-20-18	9,611	8,548	1,109	0	-90	105.16
BH-20-19	9,682	8,494	1,104	90	-60	105.16
BM-20-20	9,805	10,048	1,223	135	-58	211.84
BM-20-21	9,952	10,103	1,226	155	-60	217.93
BM-20-22	10,026	10,122	1,226	155	-57	187.45
BP-20-23	11,560	8,102	1,110	65	-60	187.45
BP-20-24	11,560	8,099	1,110	135	-60	266.7

**Figure 10-3** shows the holes in the Montgomery-Shoshone area, and **Figure 10-4** shows the holes in the Bullfrog area.

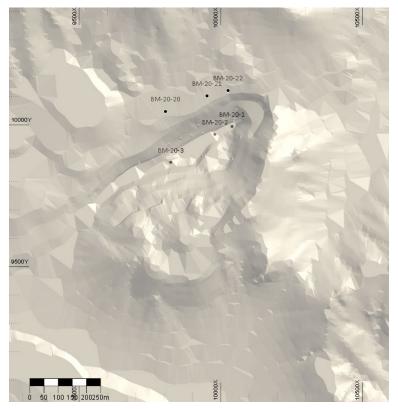


Figure 10-3: Drilling in the Montgomery-Shoshone area from the 2020 drill campaign



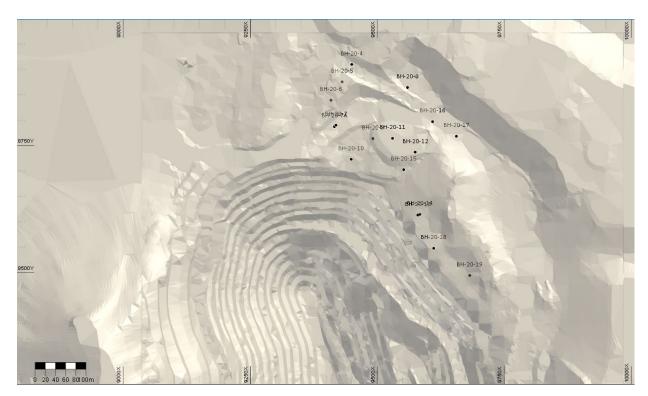


Figure 10-4: Drilling in the Bullfrog area from the 2020 drill campaign

The results of the drilling can be found in **Table 10-4**.

Table 10-4: Drilling results from the 2020 program

	Interval in meters			Au	Ag
Hole ID	From	То	Length	g/t	g/t
BM-20-1	0	41	41	0.42	2.26
includes	0	23	23	0.55	1.95
BM-20-2	0	26	26	0.33	1.04
includes	0	20	20	0.37	1.15
BM-20-3	49	59	11	0.26	0.33
BH-20-4	76	81	5	0.35	1.54
	85	119	34	0.27	0.6
	157	184	27	0.32	0.93
BH-20-5	101	108	8	0.26	1.22
	117	168	50	0.24	0.49
	175	209	34	0.58	0.82
BH-20-8	35	40	5	1.13	0.21
	47	53	6	0.38	0.25
BH-20-6	90	200	110	0.41	0.61
includes	120	146	26	0.91	0.91
BH-20-7	46	53	8	3.23	3.36



	Int	terval in meters		Au	Ag
Hole ID	From	То	Length	g/t	g/t
BH-20-9	23	29	6	0.53	0.91
	37	43	6	0.31	0.45
	46	53	8	0.31	0.33
	104	195	91	0.33	0.32
BH-20-14	0	12	12	0.22	0.3
	23	29	6	0.30	0.21
	49	55	6	0.28	0.2
	67	79	12	0.44	0.47
	84	93	9	0.40	0.16
	116	122	6	0.24	0.46
BH-20-15	11	40	29	0.29	0.26
	96	111	15	0.26	0.19
	120	165	44	0.31	0.39
BH-20-10	41	55	14	2.42	2.19
includes	41	47	6	4.89	4.14
	104	110	6	0.58	0.26
BH-20-11	27	40	12	0.30	0.2
	49	56	8	0.31	0.08
	67	91	24	0.35	0.18
	128	139	11	0.20	0.34
BH-20-12	32	52	20	0.35	0.33
	79	91	12	0.45	0.18
BH-20-13	0	21	21	0.24	0.28
	38	50	12	0.44	0.34
	94	140	46	0.30	0.2
BH-20-18	5	11	6	0.23	0.21
	40	69	29	0.22	0.16
	75	96	21	0.24	0
BH-20-19	0	35	35	0.44	0.3
includes	2	17	15	0.64	0.31
	43	59	17	0.27	0.25
	70	78	8	0.21	0.09
BM-20-20	171	184	12	0.30	0.76

Additional potential has been shown in the drilling results and the drilling was completed in proximity of the resource estimate from 2017. A delineation drilling program should be completed to further define the resource.



# 11. SAMPLE PREPARATION, ANALYSES, AND SECURITY

Drilling and coring information used in this report was obtained from several drill programs that began in 1983 by St. Joe Minerals, continued with Bond Gold and Lac Minerals, and ended by Barrick in late 1996. Augusta drilled an additional 25 reverse circulation holes in 2020. A total of 1,287 holes were drilled in the area using either core or reverse circulation methods. Most of the cored holes included intervals of core plus RC segments. Percent recovery and RQD measurements were made on all core intervals. An assessment was made of the quality of the orientation data and the core was marked accordingly. The core was then logged, recording lithological, alteration, mineralization, and structural information including the orientation of faults, fault lineation's, fractures, veins, and bedding. With few exceptions, the entire lengths of the holes were sampled. Sample intervals were five feet and occasionally based on the geological logging, separating different lithologies and styles of mineralization and alteration. Samples were marked and tagged in the core box before being photographed, after which the core was sawed in half, with one half sent for assay and one half retained for future reference. Each sample interval was bagged separately and shipped to the lab for analysis.

Cuttings from nearly all reverse circulation drill programs were divided into two streams—one was sampled and the other was disposed during the reclamation of each drill hole. Using a Jones splitter, the sample stream was further divided into two sample bags—one designated for assaying and the second duplicate designated as a field reject. Samples were collected at five-foot intervals and bagged at the drill site. Each five-foot sample was sealed at the drill site and not opened until it reached the analytical lab. At each 20-foot rod connection, the hole was blown clean to eliminate material that had fallen into the hole during the connection. The designated assay samples for each five-foot interval were collected by the site geologist and moved to a secure sample collection area for shipment to accredited laboratories off site. When duplicate samples were collected, they were retained at the drill site as a reference sample, if needed. If the duplicate samples were not used prior to the reclamation of the pad, they were interred in the sump at the time of reclamation.

There is no information available about how samples from the historic drilling prior to 1983 were handled, processed, and analyzed, but this data is not available and was not used in the resource estimate that is the subject of this report.

Blank rock and certified standard materials were each inserted at a ratio prevailing in the industry or deemed appropriate by the geologists. Samples for duplicate analysis were identified and given sequential sample numbers at the end of the shipment. In core drilling, once the samples were marked, the core was photographed and then sawed in half using a diamond saw. Half of the core was then sent for assay and half was kept for future reference. Prior to shipment, some of the samples were weighed and most were photographed and then secured in bags. Each hole was sent to accredited laboratories with a chain of custody document to certify that the shipment was received. Nearly all assays were performed by outside laboratories, including Skyline of Tucson, Arizona, Legend of Reno, Nevada, Iron King of Humboldt, Arizona, Barringer of Reno, American assay of Reno and Chemex of Reno.

Duplicate samples were prepared by splitting the crushed sample in half and creating two numbered samples. All samples were assayed for gold and silver using a 1 At (assay ton) or 2 At designation to represent sample charges of 29.2 grams or 58.4 grams, respectively. Select samples from 27 RC holes were analyzed for 29 elements.

The samples were taken from the drill site to the sample prep area where they were placed in order on a concrete slab or tarp to dry. While the samples were drying, control samples were inserted. Pre-bagged



crushed blank material was inserted in most shipments. Commercially prepared standards with a known gold content were inserted throughout the hole. The geologist matched the level of gold standard to the anticipated level of mineralization in the drill hole. The samples to be duplicated were selected by the geologist, recorded in the drill log, and split in the lab. While placing the samples into bags for shipping, many samples were weighed, and the weight was recorded on the drill logs. When the lab received the samples, they weighed each one and placed their identifier label on it and were instructed to incorporate the company's attached tag for sample tracking.

At the accredited laboratories the samples were dried as needed, then crushed, and a 350 to 500 gram split of the crushed material was then pulverized to make the analytical sample. One or two assay tons of material were analyzed by fire assay, with an atomic absorption finish (AuAA24 procedure). Grind tests were reported as a further quality control to ensure that the pulps were sufficiently fine to supply a quality analytical pulp.

Standard RC drilling techniques were used to optimize recovery, minimize contamination, and keep the sampling circuit as clean as possible. Continuous sampling was done on five-foot (1.52m) intervals, and the splitter was thoroughly cleaned prior to the start of drilling of each 20-foot rod. Generally, drilling was dry and only one sample was collected during Barrick's tenure. These procedures were initiated by Barrick's predecessors and were generally followed by Barrick with minor adjustments as deemed appropriate. The primary assay samples were transported to a staging area near the property for subsequent shipment to the respective lab. Each batch of samples was loaded on a truck, with a driver supplied by the assay company. The driver collected the samples, received the sample submittal sheets, and transported the sample to the respective assay laboratories.

The drill cuttings were returned from the assay lab and were stored in a secure site for later reference. Upon closure in 2000, all RC and core reject samples were disposed of by Barrick.

## 11.1 St. Joe Minerals

This section summarizes QA/QC data related to new sampling carried out between 1983 by St. Joe Minerals and followed by Bond Gold, Lac Minerals and Barrick through the completion of drilling in the end of 1996.

## 11.1.1 RC Drilling

An industry-standardized sampling protocol utilizing two sets of pre-marked 20"x24"sample bags with numbered tags was implemented for each drill hole. Most drilling was dry, and a wet rotary splitter was not used. An effort was made to collect approximately 10kg of sample material.

#### 11.1.2 Core Drilling

Industry-standard core sampling protocols were also implemented, whereby the entire length of each hole was sampled with continuous intervals based on careful logging of geological characteristics. In conjunction with the logging, sample intervals are marked in the core box and assigned unique sample numbers in a sequence that includes pre-selected QA/QC samples every tenth sample. Each hole starts with a blank QA/QC sample, and alternates between blanks and reference standard just like the RC holes. Once a hole is logged and tagged for sampling, each box is photographed. Once a hole was photographed, the photos were reviewed for adequacy and the photo files renamed using hole number and box number.



## 11.1.3 Transport and Security

Prior to shipment, all rock and core samples were placed in sealed bags and transported by a representative of the assay company.

## 11.1.4 Duplicates

Duplicates were used when appropriate to monitor the precision of the assays that are incorporated into the mineralization estimate. Duplicates were used to monitor three sources of variation, e.g. sampling, preparation, and assaying. Field duplicates are used to document the precision associated with sampling, prep duplicates are used to monitor the sample preparation process, and pulp duplicates monitor the assaying process. St. Joe used all three types of duplicates to monitor the precision of the gold and silver analyses.

## 11.1.5 Field Duplicates

Field duplicates were only collected for RC samples and were created by placing a Jones splitter into the sample stream and creating two identical samples. There was no specific ratio of field duplicates to normal samples, but field duplicates were selected by the project geologist to represent the geological and grade variation based on the logging and original assays.

For gold samples that lie outside of the analytical precision field there seems to be a very slight tendency for the original sample to report higher value than the duplicate. This may reflect gold particle settling in the duplicate, which is related to the fact that the original sample is shipped wet while the duplicate continues to dry for several weeks before it is finally selected for assaying. Vibration during handling of the dry sample could allow gold particles to preferentially settle, making it more difficult to get a representative split.

#### 11.1.6 Visible Gold Sampling Protocol

No metallic screen fire assays were used to determine a precise assay for such intervals. However, visual gold was most often recorded on the geologic logs.

#### 11.1.7 Blanks

Blank material was used to monitor for carryover contamination and to ensure that there is not a high bias in the assay. Carryover is a process where a small portion of the previous sample contaminates the next sample. Each blank that assays higher than three times the detection limit is evaluated to see if the value reflects carryover or some other problem.

#### 11.1.8 Certified Reference Material

Certified Reference Materials ("CRMs") or "standards" are used to monitor the accuracy of the assay results reported from the various labs. CRMs were inserted into the sample sequence to monitor both accuracy and sample sequence errors. A number of different CRMs covering a range of grades and mineral compositions were used. Each CRM comes with a certified concentration with a stated uncertainty. However, the precision on the assay is ultimately controlled by the 10% analytical precision.



## 11.1.9 Sample Recovery

The sample recovery from drilling has an important effect on how representative the sample is of the volume of rock that has been sampled. Core recovery can be easily measured on site by the length of core recovered. For RC it is much more difficult to determine the actual recovery from the interval because of the way it is collected. As a result, RC recovery is best reflected in the relative weights of the samples submitted for assay.

# 11.1.10 RC Recovery

It is very difficult to monitor RC recovery because the drillers constantly adjust the sample stream to collect an appropriate volume of sample—e.g. try to maintain the target 10 kg sample weight. This means they increase the fraction of the cuttings going to the sample stream when recoveries are lower and cut the fraction when recoveries are higher. Because of this, variations in the sample weight only vaguely reflect the actual sample recovery in any given interval. However, light samples do, in general, indicate that the flow of sample decreased, at least momentarily, possibly reflecting sample loss into cavities around the hole. RC sample dry weights were measured as part of the sample QA/QC program and these weights indicated how consistent the RC sampling has been. Importantly, only a very small number of samples have weights less than 3 kg, which almost certainly reflects major sample loss to the surrounding formations.

# 11.1.11 Laboratory Handling of Samples

Samples are monitored throughout the preparation process with various weights, e.g. shipped weights, received weights, dry weights, and coarse reject weights. This data is used to monitor sample login, layout and sample spillage or mixing. Theoretically, the only difference between the "dry weight" and the "coarse reject weight" should be the weight of the material extracted for pulverizing.

The standard requested pulp size for all drill samples is 1Kg with an acceptable range of values from 0.5 to 1.5Kg. Extracted weights outside of the acceptable range indicate there may be preparation issues such as spillage or blending of two samples. For blending of drill samples, the protocol is to combine and homogenize all the materials from both samples and then split it in half to create two identical samples which are then assigned the original sample numbers. Theoretically, the weights of blended samples will show a symmetric weight gain and loss.

# 11.2 2020 Drilling Program

The 2020 drilling program drilled 25 reverse circulation holes. To ensure reliable sample results, Augusta has a QA/QC program in place that monitors the chain-of-custody of samples and includes the insertion of blanks and certified reference materials (CRMs). Barren coarse-grained blanks ("blanks") were inserted at lithology changes. Three CRMs with variations in gold grade were inserted at the end of each batch by random selection. The following QA/QC program was followed for the 2020 drilling. All testing for the 2020 program was done by American Assay Laboratories (AAL), an independent ISO/IEC 17025 certified laboratory in Sparks, Nevada.



#### 11.2.1 Standards: A74383, B74110, and C73909

A74383, B74110, and C73909 standards were purchased from Legend, a wholesale distributor for mining products. The standards were made by KLEN International, a Western Australian company that specializes in the manufacture and supply of fire assay fluxes. A total of 8 A74383, 8 B74110, and 8 C73909 were inserted with RC drill samples. Expected values for each CRM are listed in **Table 11-1**.

 CRM
 Au (ppm)
 Ag (ppm)

 A 74383
 4.93
 47.6

 B 74110
 0.237
 No certified value

 C 73909
 0.778
 No certified value

Table 11-1: CRM Expected Values

#### 11.2.2 Blanks

Barren coarse-grained blanks were submitted with samples to determine if there has been contamination or sample cross-contamination. Three types of blanks were used with sample submission. BM-20-1 and BM-20-2 used material from an outcrop nearby, BP-20-23 and BP-20-24 used garden pumice obtained from Home Depot, and the remainder of the holes used Black Basalt Cinders provided by AAL. Certificate of Analysis' with Au and Ag thresholds for blank materials used are not available.

A total of 108 blanks were inserted with RC chip samples, blank materials are determined to have failed if the values exceed the maximum threshold of the analyte.

#### 11.2.3 Duplicates

Duplicates were inserted into the sample sequence every 100-ft. RC chip samples were split at the drill rig. The second half of a RC sample is assayed to determine if the reproducibility of assays for different chips, and if there is any sampling bias.

#### 11.3 Conclusions

The principal author has reviewed previous QA/QC programs for the Project contained in previous reports and discussed related topics with Tom John, Barrick's former Exploration Manager. As a result, the author finds the information sufficient to confirm the validity of the sampling carried out between 1983 by St. Joe and followed by Bond Gold, Lac Minerals and Barrick through the completion of drilling in the end of 1996. The QA/QC program was reviewed for the 2020 drilling program and found to be in line with the previous sampling methods, and lab certificates were provided.



## 12. DATA VERIFICATION

The data for this mineral resource estimate comes from historical exploration and operations. The original laboratory certificates were available for most of the drilling. Data collected by previous operators has in part been verified by the corroborating data in the original laboratory certifications, as well as existing physical and digital records. Blind entry spot checks were run against the database and the laboratory certificates to ensure the quality of the database. No additional exploration drilling has been performed since the closure of the Bullfrog Mine, until the program carried out by Augusta in 2020. The quality of data reviewed meets industry-standard practice at the time of sampling and is sufficient to support the estimation of mineral resources at this level. Data from previous explorers, along with an independent estimation of previously mined mineral resources to verify the data, is sufficient to support the estimation of mineral resources; however. QA/QC protocols were followed and reviewed for the 2020 drilling program, including blanks, standards, and duplicates. Lab certificates were available for the 2020 drilling program.

The following section describes steps taken by the author of this report to verify data provided by the company. Data verification conducted during the site visit included observations of remaining mine workings, a drill hole location and ore bounding volcanic beds and fault. Mineralization was witnessed in outcrop and orientations were observed. Historic open pit mining and the site layout were also observed.

Core and chip trays from the original drilling are no longer available. Chips trays for the 2020 drilling were examined during the August 2020 site visit.



## 13. MINERAL PROCESSING AND METALLURGICAL TESTING

Most of the metallurgical tests on the Project were conducted on high-grade ores using conventional milling and agitation leaching methods. Typical processing statistics during 1989 into 1999 are shown in **Table 13-1**.

Table 13-1: Typical Processing Statistics from 1989-1999

91%
65%
48 hours
80%-150 mesh
2.3 lbs/ tonne
2.1 lbs/ tonne
0.5 lbs/ tonne
1.2 lbs/ tonne

Barrick's mill recoveries were good for gold, but silver recoveries were lower mainly due to its refractory association with manganese. As a result, the 26 million tonnes of tailings stored south of NV Hwy 374 currently have little value. Since the silver recovery was only 1.07 times the gold recovered, Barrick used a carbon ADR circuit rather than the Merrill-Crowe process.

#### 13.1 St. Joe

#### 13.1.1 Large Column Leach Test

Reports by St. Joe Minerals provide detailed information on two large column tests on bulk samples of the M-S deposit. The test facility included a carbon adsorption plant and two concrete columns 24-feet high with inside diameters of 5.5 feet.

An area surrounding reverse circulation hole RDH-20 in the M-S deposit was drilled and blasted to produce 250 tons of bulk sample. The mined sample was split to produce 20 tons of uncrushed or run-of-mine column feed and 22 tons of crushed column feed. The columns were then loaded with efforts to minimize compaction and size sorting of the sample. Solution was applied at a rate of 0.004 gpm/sq. ft. Results after 59 days of leaching are shown below. A 90-day projected recovery was 61% Au on 19 mm (3/4") crushed ore and 54% on 305 mm (12") run-of-mine ore. Previous bottle roll tests on drill cuttings in this area averaged 78% gold and 33% silver.

Screen analyses of the -19 mm (-3/4") leached residue shows that the -65 mesh and -10 to + 65 mesh fractions yielded gold recoveries 96% and 86% for respective head assays of 0.074 and 0.057 oz/ton gold. The screen analyses also show that the loss of fines from a sample (which did occur) will not only depress the apparent gold grade but will also cause an even greater depression in the apparent gold recovery.



#### St. Joe came to the following conclusions:

- M-S mineral is permeable and readily heap leachable. Cyanide and lime consumptions were reported as "average", but not quantified.
- Fine fractions yield the highest recovery, and if lost will depress gold recovery.
- Evidence suggests many fines were lost during handling and the recoveries are deemed minimum or conservative.
- There appears to be little correlation between recovery and grade.
- There were no observable chemical or percolation problems with the sample.

## 13.1.2 Bottle Roll Tests on UG Samples

Bottle roll tests on 39 underground sample composites obtained from the glory hole and 200 and 300 levels of the M-S mine recovered 78% of gold from material averaging 0.16 opt and crushed to -8 mesh. Recoveries ranged from 52% to 98% with no obvious correlation between grade and recovery. St. Joe concluded that bottle roll test (presumably for 24 hours) on material crushed to -8 mesh provides good representation as to what may be achieved in a column test sized at 19 mm (3/4-inch).

#### 13.1.3 Column Testing by Kappes Cassiday

Results from leach tests performed in 1994 by Kappes Cassiday from a 250-kg composite of low-grade material from the Bullfrog mine are shown below:

**Bottle** Column Column Size, mesh, & mm (inch) -100 mesh -38 mm (-1.5") -9.5 mm (-3/8") Calc. Head, opt Au 0.029 0.035 0.029 Rec % 96.6 71.4 75.9 Leach time, days 2.0 41 41 NaCn, kg/t (lb/short ton) 0.385 (0.77) 0.5 (0.1) 5.35 (10.7) Lime, kg/t (lb/short ton) 1.0 (2.0) 0.155 (0.31) 1.75 (0.35)

Table 13-2: Leach Test Results



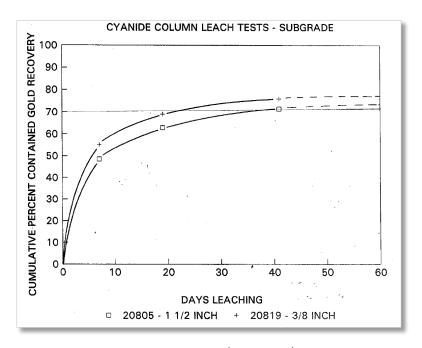


Figure 13-1: Leach Test Results

Note that the recovery in the coarse crush (-38.1 mm [-1.5"] is a 2-stage crush size) is only 4.5% less than the fine crush (-9.5mm [-3/8"] requires 3-stage crushing). The 41-day leach periods are also short and ultimate heap leach recoveries may be greater.

Two 45 kg sample were crushed and loaded into 6-inch diameter columns to heights of five feet. Leach solution was applied at a rate ranging from 0.004 to 0.006 gpm/sq ft and initially contained 1.0 g NaCN/l and 0.5 g/l lime. Input solutions were 0.4 to 0.6 g/l NaCn while maintaining a pH of 9.5 to 10.5. The initial solution was clear and bright yellow, and the final solution was clear and colorless. Column tailings retained 6% to 7.5% moisture after drain down, and each were screened and assayed for size fractions.



# 13.2 Pilot Testing by Barrick

In 1995, Barrick performed pilot heap leach tests on 844 tons of low-grade material from the Bullfrog pit and 805 tons of typical pit ore from the M-S pit. Both materials were crushed to -1/2 inch and leached at an application rate of 0.006 gpm/sq ft. Lift heights were 12 feet. Results are listed below:

BF M-S Low-Grade Ore Calc. Head, opt Au 0.019 0.048 0.108 0.380 Calc. Head, opt Ag Projected Au Rec % 67 74 Projected Ag Rec % 9 32 Leach Time, days 41 37 NaCn, kg/t (lb/short ton) 0.10 (0.20) 0.125 (0.25) Lime, kg/t (lb/short ton) Nil (Nil) Nil (Nil)

Table 13-3: Heap Leach Pilot Tests - Barrick

Low-grade material was stockpiled during pit operations and ranged from a cutoff of 0.5 g/t gold and Barrick's operating mill cutoff of 0.85 g/t. These stockpiles were later blended with underground ore and milled during 1998 and early 1999. All pit material below 0.5 g/t was dumped as waste rock. Based on the source and grade of this material, it is representative of the mineralization remaining in the Bullfrog deposit. The M-S sample represents ore that was in large measure mined by Barrick after this pilot test, but the information on reagent consumption is applicable to remaining mineralization and the recovery has reference value.

Again, acceptable solution grades at the end of the tests and leaching beyond 41 days at lower solution application rates could result in ultimate recoveries that are a few percent higher. Lime and cyanide consumptions were low. The test heap also did not reach maximum recovery due to poor solution distribution in the first couple of feet, which could be recovered from multiple lifts in a production scenario and improved solution distribution.

# 13.3 Conclusions for Heap Leaching

Based on the extensive test work completed to-date that is applicable to the remaining mineralization in the BF and M-S pits, long-term heap leach recoveries are projected as follows:

Table 13-4: Estimated Heap Leach Recovery

Leach Size	80% - 9.5 mm (3/8 inch)	ROM Low Grade
Estimated Recovery	72%	50%

<sup>\*</sup> Silver Recovery is estimated at 1.07 x gold recovered ounces, which is the typical recovery attained by Barrick.



All mineralization known to-date would be heap leached and the pregnant solutions would be processed through a carbon ADR plant to be constructed on site.

The Bullfrog and M-S deposits originally contained less than 2% sulfide minerals that were thoroughly oxidized below existing and proposed mining depths, including the current water table and virtually all deep drill holes. The historic water table was much lower in the geologic past, and the detachment and associated faults allowed epithermal solutions to oxidize the host and adjacent wall rocks to great depths. There is a small volume of mineralization in the footwall stock-works or east side of the central Bullfrog deposit near section 8148 north that contains carbon-pyrite alteration with attendant reductions in leach recoveries. This situation needs to be researched further as to extent and recovery. Additional leach tests are needed to optimize performance versus crush size.

## 13.4 Leach Pad Siting

There are seven areas that potentially could serve as leach pad sites within reasonable trucking or conveying distances from the Bullfrog and M-S pits as described below in **Figure 13-2**:

Priority			30 r 3%	t/m3 m Design Deper	ndent	Comments Swell factor of 35% for in place density of 2.45 As crushed material percolates well with minimum fines and clay, heights likely could be higher subject to confirmation testing.
1	South Rainbow M West of M-S pit an Area: 600 x 600		5%	360,000 10,800,000 <b>19,440,000</b>	m3	Has the shortests conveying/trucking distances and lowest operating costs, but expansion is limited. M-S waste dump is on NE side of area.
2	South Paradise N 1200 m east BF pi Area: 450 x 600		S pit 7%	270,000 8,100,000 <b>14,580,000</b>	m3	Second shortest convey/truck distance. Could be used after No. 1 is filled.
3	South Burton Mtr 2300 m NE BF pit Area: 1300 x 750	<del></del>	it 5%	975,000 29,250,000 <b>52,650,000</b>	m3	
4	NE Barrick Tail P S of Hwy 374 Area:1800 x 2000	ond Typ. Slope	4%	3,600,000 108,000,000 <b>194,400,000</b>	m3	Requires a conveyor or truck bridge over Hwy 374. This area could be substantially expanded, but this not foreseeably needed.
5	Barrick Tail Pond S. of Hwy 374. Co Area:1000 x 1000		nes 1%	1,000,000 30,000,000 <b>54,000,000</b>	m3	Requires a conveyor or truck bridge over Hwy 374 and geotech studies on tailings. Lining this pad would be easy easy, but obtaining a 3+% slope requires earthworks.
6	West Plantsite West of road to Rh Area: 2100 x 2100	yolite and a ceme Typ. Slope	etary 4%	4,410,000 132,300,000 <b>238,140,000</b>	m3	Requires a conveyor/truck bridge to cross the road to Rhyolite. Cannot be easily expanded but this is not foreseeably needed.
7	Indian Springs 3300 m NE BF pit Area:1600 x 1600	& 2300 m NE MS Typ. Slope	pit 4%	2,560,000 76,800,000 <b>138,240,000</b>	m3	Long haul from Buffrog and M-S pits. M-S pit impairs direct route

Figure 13-2: Potential Leach Pad Sites & Approximate Capacities



In all cases, additional drilling is required to adequately explore or condemn these areas, and considerable technical and economic studies are needed to select any site.

## 13.5 Additional Testing

In 2020 a new test program was completed, and this information is summarized as follows:

Cyanidation bottle rolls tests were conducted on 14 variability composites from the Bullfrog project. The composites were generated from coarse assay rejects from a reverse circulation drilling program. Composite gold grades ranged from 0.14 to 0.91 Au g/tonne, with an average grade of 0.42 Au g/tonne. The nominal crush size of 1.7 mm was used for the test work. Summary bottle roll testing results are showed in **Table 13-5**.

							REAGENT REG	QUIREMENTS
		Interv	erval (ft) Au Rec. Head Grade Au g/tonne kg/tonne		Head Grade Au g/tonne		ne ore	
Composite	Drillhole	From	То	%	Calculated	Assayed	NaCN Cons.	Lime Added
4594-001	BM-20-1	0	40	67.8	0.59	0.80	0.15	1.1
4594-002	BM-50-1	40	75	67.2	0.58	0.50	0.11	1.2
4594-003	BM-20-4	280	335	44.4	0.27	0.26	0.12	1.7
4594-004	BM-20-4	335	390	38.7	0.31	0.30	0.17	1.5
4594-005	BM-20-6	295	395	66.7	0.27	0.29	0.11	1.4
4594-006	BM-20-6	395	485	58.5	1.06	0.86	0.11	1.6
4594-007	BM-20-11	95	185	72.7	0.22	0.18	<0.07	1.1
4594-008	BM-20-14	0	45	58.1	0.31	0.27	<0.07	1.8
4594-009	BM-20-14	90	135	80.0	0.15	0.13	0.14	1.5
4594-010	BM-20-14	170	235	84.2	0.19	0.21	0.14	1.2
4594-011	BM-20-14	235	260	86.8	0.53	0.57	0.09	1.2
4594-012	BM-20-15	35	130	72.3	0.47	0.46	0.17	1.4
4594-013	BM-20-19	0	115	73.3	0.30	0.27	0.08	1.4
4594-014	BM-20-22	305	385	81.0	0.63	0.67	0.09	1.6

Table 13-5: Summary Metallurgical Results – Bottle Roll Tests.

The Bullfrog variability composites generally were amenable to agitated cyanidation treatment at the nominal 1.7 mm feed size. Gold recovery ranged from 38.7% to 86.8% and averaged 68.0%. Recovery was 58.1% or greater for 12 of the 14 composites. Gold recovery was not correlated to gold head grades for these 14 composites. Gold recovery consistently decreased with increasing organic carbon and sulfide sulfur content.

Gold recovery rates were moderate and gold extraction generally was substantially complete in 24 hours of leaching. Silver extractions were 1.4 Ag g/tonne or less for all composites. Silver composites ranged from 14.3% to 66.7%.



Bottle roll test cyanide consumption was consistently low and was 0.17 kg NaCN/tonne ore or less for all 14 composites. Lime requirements for pH control were also low and were 1.8 kg/tonne ore or less. These most recent metallurgical test results will be included in detail the next updated Technical Report.

There are no additional relevant processing factors that the author of this report is aware of that could materially affect the mineral resource estimate presented in this TR.



## 14. MINERAL RESOURCE ESTIMATES

Mineral resources have been estimated for the Bullfrog deposit using a block model to fit the deposit strike for each of the two areas. Two separate block models were created, one for the Bullfrog Pit (BF) area and one for the Montgomery-Shoshone (M-S) area. The Bonanza Mountain Area was not estimated for this report. Sub-blocking was used to help define the veins. Two wireframe domains were built for the Bullfrog deposit, one for the high-grade and one for the low-grade gold. Vein solids were created for Polaris and Montgomery veins in the M-S pit area. Au and Ag grades have been estimated using Ordinary Kriging on blocks independently within and also outside of wireframe-constrained domains. Reporting of estimated blocks has been constrained by a base case pit optimization using reasonable economic parameters. This estimation does not include the current 2020-2021 drilling program and is effective August 2017.

Although the mineral resources are pit-constrained using reasonable cost assumptions, detailed costing and economic evaluations have not been performed. The pit optimization only considers ounces on lands controlled by Augusta, but the pit has been allowed to extend onto non-controlled land for planning purposes. The pit optimization includes resources that have not demonstrated economic value and include inferred resources that are too speculative for definition of reserves.

Estimated mineral resource within the base case pit constraint are shown in **Table 14-1** for the Bullfrog Pit area. Estimated mineral resource within the base case pit constraint are shown in **Table 14-2** for the M-S Pit area. Historically mined ounces, both open pit and underground, were flagged and removed from the model before calculating the resource numbers.

Cutoff **Tonnes** Au oz Ag oz Classification Au g/t Ag g/t (M) (1000)Au g/t (M) Measured 0.36 2.05 0.15 0.88 2.35 58 Indicated 0.36 12.9 1.04 2.52 431 1.04 Measured + Indicated 0.36 14.95 1.02 2.50 489 1.2 Inferred 0.36 1.2 2.58 109 0.24 2.8

Table 14-1: Mineral Resource Estimate for the Bullfrog Pit Area

#### NOTES:

- (1) Cutoff grade calculated using a metal price of \$1,200 per troy ounce of Au and a recovery of 72% for Au.
- (2) Mineral Resources have been pit shell constrained using the Lerch Grossman algorithm
- (3) Metal prices do not exceed three-year trailing average as of the end of December 2016, per SEC guidance

Table 14-2: Mineral Resource Estimate for the M-S Pit Area

Classification	Cutoff Au g/t	Tonnes (M)	Au g/t	Ag g/t	Au oz (1000)	Ag oz (M)
Measured	0.36	0.41	1.03	4.53	13.7	0.06
Indicated	0.36	0.71	0.99	3.72	22.7	0.09
Measured + Indicated	0.36	1.12	1.00	4.02	36.4	0.15
Inferred	0.36	0.045	1.17	5.53	1.69	0.008

#### NOTES.

- (1) Cutoff grade calculated using a metal price of \$1,200 per troy ounce of Au and a recovery of 72% for Au.
- (2) Mineral Resources have been pit shell constrained using the Lerch Grossman algorithm
- (3) Metal prices do not exceed three-year trailing average as of the end of December 2016, per SEC guidance



Table 14-3: Measured and Indicated Resource Summary for Project

Classification	Cutoff Au g/t	Tonnes (M)	Au g/t	Ag g/t	Au oz (1000)	Ag oz (M)
Bullfrog	0.36	14.95	1.02	2.50	489	1.2
M-S	0.36	1.12	1.00	4.02	36.4	0.15
Total	0.36	16.07	1.02	2.61	525.4	1.35

NOTES:

# 14.1 Input Data

The project database for the resource estimate contains 1,262 holes, totaling 250,641 meters of drilling. Of those, 20,119 meters were core drilled, while 230,521 meters were completed using RC drilling. Of those holes, 658 holes are within the relevant resource area and were subsequently used for resource modeling. **Figure 14-1** shows the location of the drill holes in plan view.

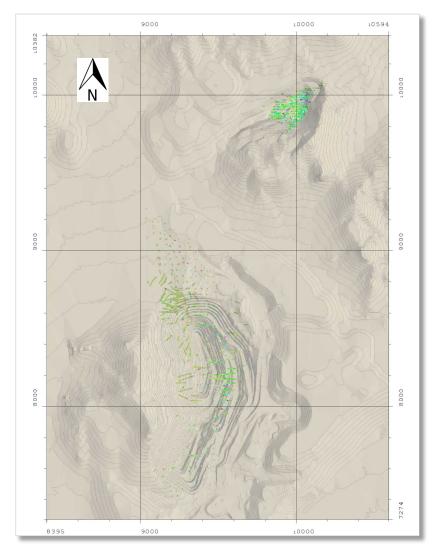


Figure 14-1: Plan View Map of Project Drilling Composites used for Estimation

<sup>(1)</sup> Cutoff grade calculated using a metal price of \$1,200 per troy ounce of Au and a recovery of 72% for Au.



## 14.2 Grade Capping

Intervals from the combined drill database that were within the mineral zones were analyzed as a natural log transformed population to determine upper grade limits. Upper limits were applied to raw sample values prior to compositing. The upper limit chosen for Au was 100 g/t for the high-grade Bullfrog material, and 7 g/t for the Bullfrog low-grade material. The silver was capped at 150 g/t for the high-grade zone, and 15 g/t for the low-grade zone. In the M-S zone, the Au was capped at 12 g/t and the silver was capped at 100 g/t. **Figure 14-2** shows the histogram for Au, while **Figure 14-3** shows the histogram for the Ag grades.

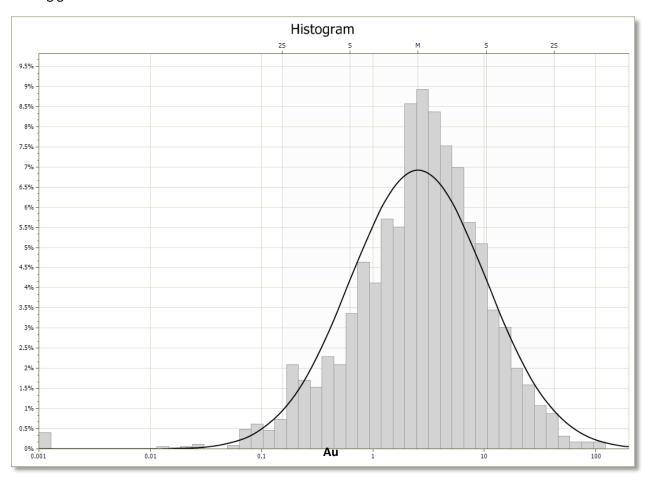


Figure 14-2: Histogram of Gold Grade values



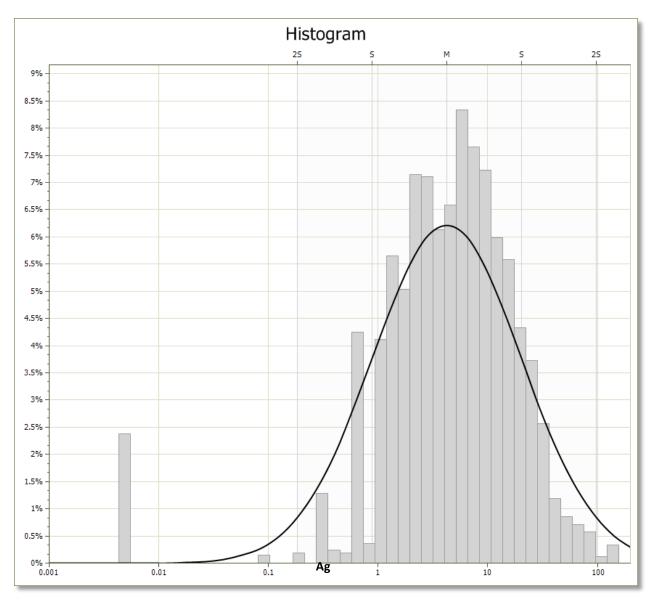


Figure 14-3: Histogram of Silver Grade values

# 14.3 Compositing

Each drill hole that intersected the modeled mineral zones was composited into five-foot (1.52 m) intervals and centroid coordinates were generated. New composites initiate at the mineral zone boundaries.

# 14.4 Mineral Zone Modeling

The Bullfrog Project is interpreted to be an epi-thermal deposit with stockwork and massive veining. Mineral zone solids were constructed separately for the BF and M-S deposits.

The project was first divided into two areas based on previous mining of deposits. This divides the project into the Bullfrog (BF) Pit area, and the Montgomery-Shoshone (M-S) Pit area.



## 14.4.1 Bullfrog Zone Modeling

The BF area was modeled as two wireframed domains. The first is a high-grade wireframe, which was constructed to represent the high-grade vein in the area. There are samples with grades outside of the high-grade wireframe and these grades were modeled into a low-grade wireframe domain. **Figure 14-4** shows the domains described above. All wireframes included the drilling in the mined-out areas to show a better understanding of the system. These areas were estimated only for verification purposes and were not included in the resource estimate.

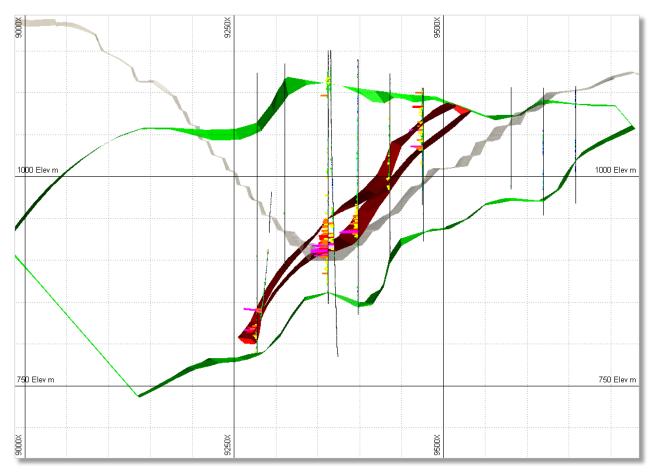


Figure 14-4: Cross-Section Mineral Domains at 8500 North



In the M-S pit area, there are two main veins present in the data: the Polaris and the Montgomery Veins. Each of these vein structures was modeled as a wireframe for use in block estimation. The modeled veins are show below in **Figure 14-5**.

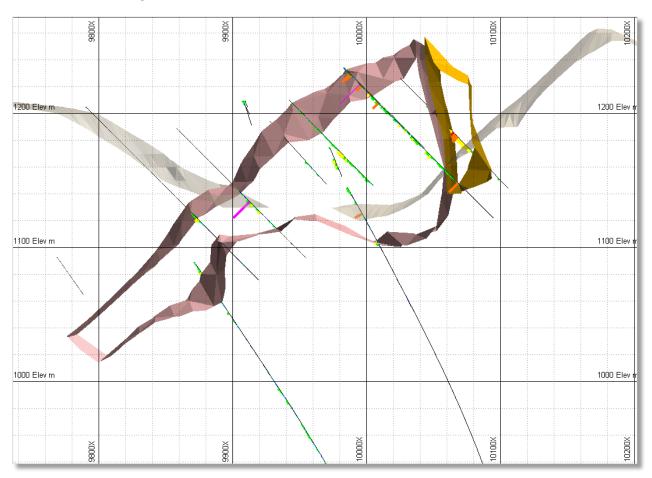


Figure 14-5: Montgomery and Polaris Veins at a Cross Section of 9980 North.

Au Αu Ag Ag Mineral Zone Area Count Mean Variance Mean Variance BF\_HG 3452 5.67 84.4 9.51 211.21 High Grade BF\_LG Low Grade 36323 0.375 0.48 1.07 3.61 0.805 1.63 Polaris Vein 3157 5.16 105.22 Montgomery Vein 675 1.26 2.41 8.96 124.03

Table 14-4: Mineral Domain Information

# 14.4.2 Density Determination

Barrick mined the Bullfrog Pit starting in 1989. They have significant data on specific gravity during mine operations. The density for the Bullfrog and Montgomery areas was 2.45 per bank cubic meters (bcm) when in production. This density was used for the block model.



#### 14.5 Estimation Methods and Parameters

Resources have been estimated for the BF and M-S deposits using a block model rotated to fit the deposit strike. Sub-blocking was used to define the high grade and vein structures. Au and Ag grades were estimated using Ordinary Kriging.

## 14.5.1 Variography and Search

Search orientation and preliminary experimental variography were explored through semivariogram mapping. Composites in the main areas that are within any of the mineral zones were used as input data for the analysis. **Figure 14-6** and **Figure 14-7** show the resulting semivariogram maps for strike and dip. In the figures cooler colors represent lower semivariance, meaning better correlation.

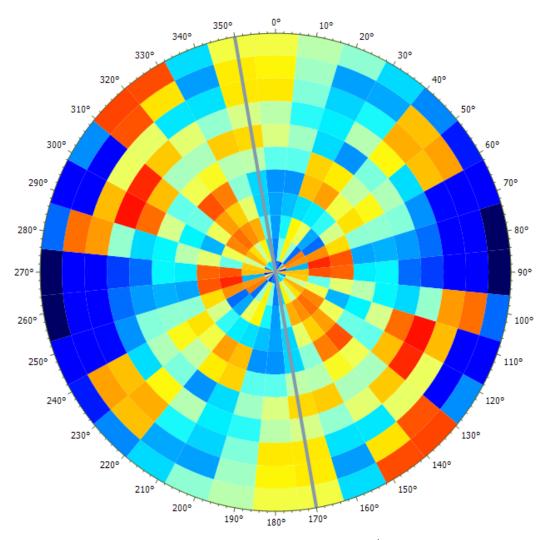


Figure 14-6: Semivariogram Map Strike



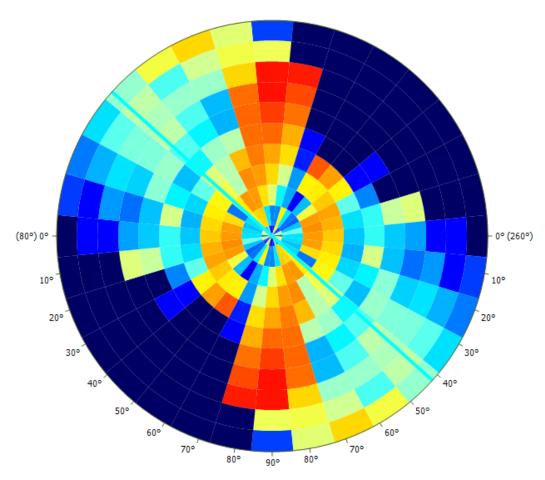


Figure 14-7: Semivariogram Map Dip



## Pairwise semivariograms were used to establish the nugget and can be seen below in Figure 14-8.

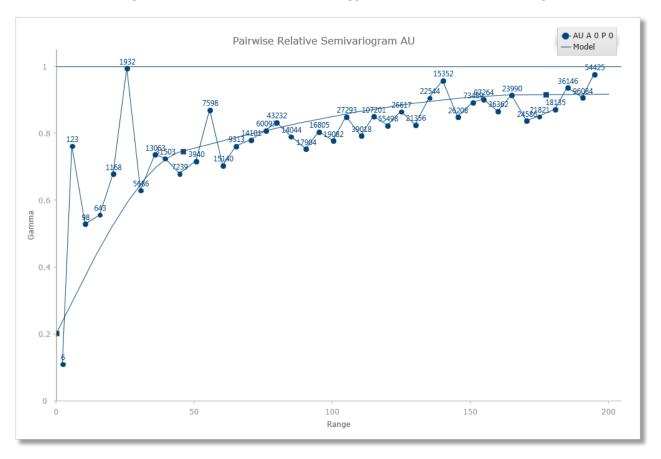


Figure 14-8: Pairwise Relative Variography Au

Orientations determined from the semivariogram maps were used as inputs for semivariogram modeling. The grade distance relationship was investigated for Au and Ag using natural log transformed directional variography on composited intervals. Nugget and sill portions have not been relativized to a total sill of 1 or 100% to correspond with the graphical output presented.

Although grade distance relationships were investigated and used as a guide, the ultimate search distances, classifications, orientations, and anisotropies implemented were based on visual review of the mineralization and professional judgment.



A block model was fit to the extents of the mineral domains for each area with the parameters shown in below in **Table 14-5**. The block model was sub-blocked to help define the wireframes, and the blocks were assigned to domains based on the location of the block centroid relative to the domain wireframe.

Length Origin **Blocks Rotation About** Sub-Block Direction (Corner) **Parent** (Clockwise) m (Min) Bullfrog Χ 8695 1200 20 0 1 Υ 0 7280 2040 20 1 0 Ζ 700 600 20 1 M-S Χ 9450 920 20 0 1 Υ 9410 880 20 0 1 Ζ 970 380 20 1

Table 14-5: Block Model Setup Parameters

Grade attributes were estimated in two passes from small to large. Au and Ag were independently estimated within each modeled domain. **Table 14-6** details the search ellipse sizes and orientations along with sample selection criteria for each estimation pass.

Pass/Area	Mineral Zone	Bearing	Dip	Plunge	Major Axis (m)	Semi Major (m)	Minor Axis (m)	Samples /DH Max	Samples Min	Samples Max
BF_HG1	High Grade	170	42	0	30	20	30	4	3	30
BF_HG2	High Grade	170	42	0	80	60	40	4	3	30
BF_LG1	Low Grade	170	42	0	30	20	30	4	3	20
BF_LG1	Low Grade	170	42	0	60	60	40	4	3	15
MS_1	Montgomery	28	0	0	30	20	30	4	3	30
MS_2	Montgomery	28	0	0	80	60	40	4	3	30
PL_1	Polaris	28	0	0	30	20	30	4	3	30
PL_2	Polaris	28	0	0	80	60	40	4	3	30

Table 14-6: Ordinary Kriging Pass Parameters

#### 14.5.2 Mineral Resource Classification

Mineral resource classification was established by evaluating the drill hole spacing of the composites and the distance to the nearest composite from a block. The kriging variance, which was recorded during the estimation, was also examined. The number of holes contributing to the estimation was also taken into account to classify the blocks. **Table 14-7** below shows the conditions for classification of blocks. Further classification refinement is made when the blocks are constrained by the pit shell optimization; blocks outside of both the base case pit shell optimization are not considered resource.



Table 14-7: Block Classification Parameters

Classification	Kriging Variance	•		Distance to Nearest Sample
Measured	0-0.25	Yes	3+	<15
Indicated	0-0.25	Yes	3+	n/a
Inferred	0.25<	Yes	n/a	n/a

## 14.5.3 Cutoff Grade and Pit Shell Optimization

The base case cutoff grade has been calculated accounting for Au grade and recovery, as well as reasonable cost and metal prices assumptions.

The base and alternative case cutoff grade was determined using the three-year trailing average prices for Au, through May 2017, as mandated by the United States Securities and Exchange Commission (SEC). Additional tonnes and ounces were calculated on an internal cutoff of 0.20 to determine material that would be available for run-of-mine heap leaching.

Estimated blocks were constrained to two pits using the Lerch Grossman algorithm. The cutoff grade was applied to the blocks within the pit optimization base case with the assumptions shown in **Table 14-8**.

Table 14-8: Cutoff Grade and Pit Optimization Assumptions

Assumption	Input	Unit
Mining Cost Ore and Waste	2.25	\$/t
Processing Cost	6	\$/t
General and Administrative (G&A)	1.6	\$/t
Refining Sales	0.05	\$/t
Sell Cost	10	\$/oz
Au Recovery	72	%
Ag Recovery	20	%
Au Price	1,200	\$/oz
Pit Slopes	45	degrees
Calculated Cutoff for Optimization	0.36	g/t

The 45-degree pit slopes are conservative, and additional resource may be achieved through using steeper wall angles. The original mining slopes were 52 degrees and 45 degrees, based on rock properties in the pit areas. They have stood up reasonably well during the period since mining ceased at the pit, and it is reasonable to assume that slopes exceeding 45 degrees can be used, providing project upside. The \$1,200 pit optimization is shown below with the current mined out topography; **Figure 14-9** shows the Bullfrog Deposit Pit and **Figure 14-10** shows the pit for the M-S deposit.



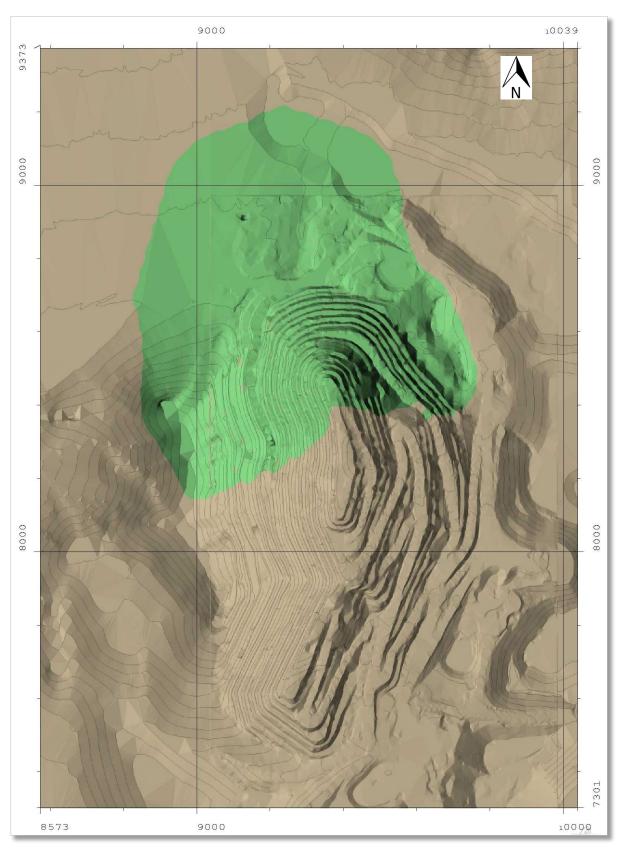


Figure 14-9: Bullfrog Current Pit and Optimized Shell



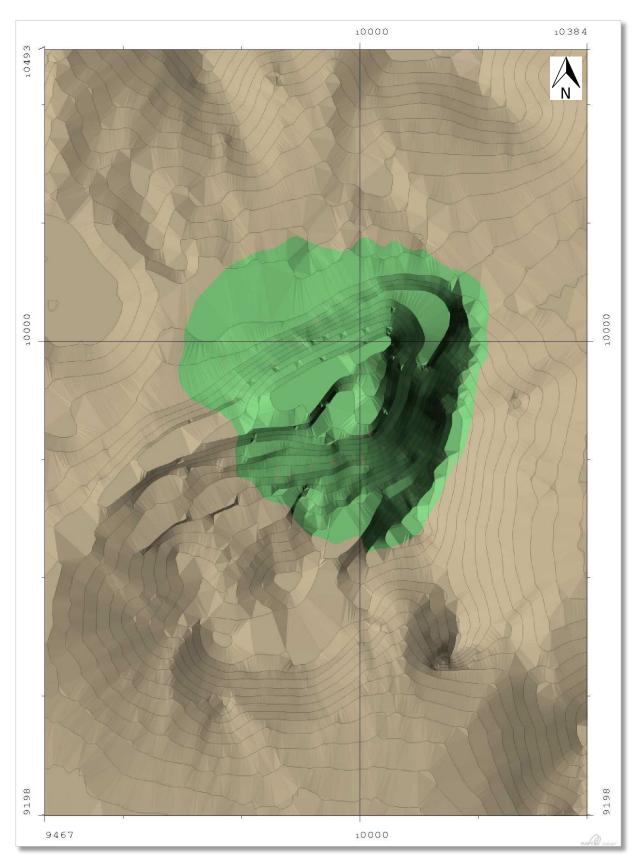


Figure 14-10: M-S Current Pit and Optimized Shell



## 14.6 Model Verification

Resource estimations have been verified by visual review, population analysis, and alternative estimation methods. Cross-section review of composite and block grades verify the estimation respects the input data. The Tetra Tech estimation model was also applied to the deposit before it was pit mined, and it was within 3% of the ounces produced from 1989-1998, thereby providing confidence in the database and the resource model and estimates herein. A nearest neighbor estimation was also performed and compared as an alternate estimation method.

Cross sections of the block models are shown below in **Figure 14-11** through **Figure 14-15**. The current mined-out topography and the \$1,200 pits are displayed on the sections.



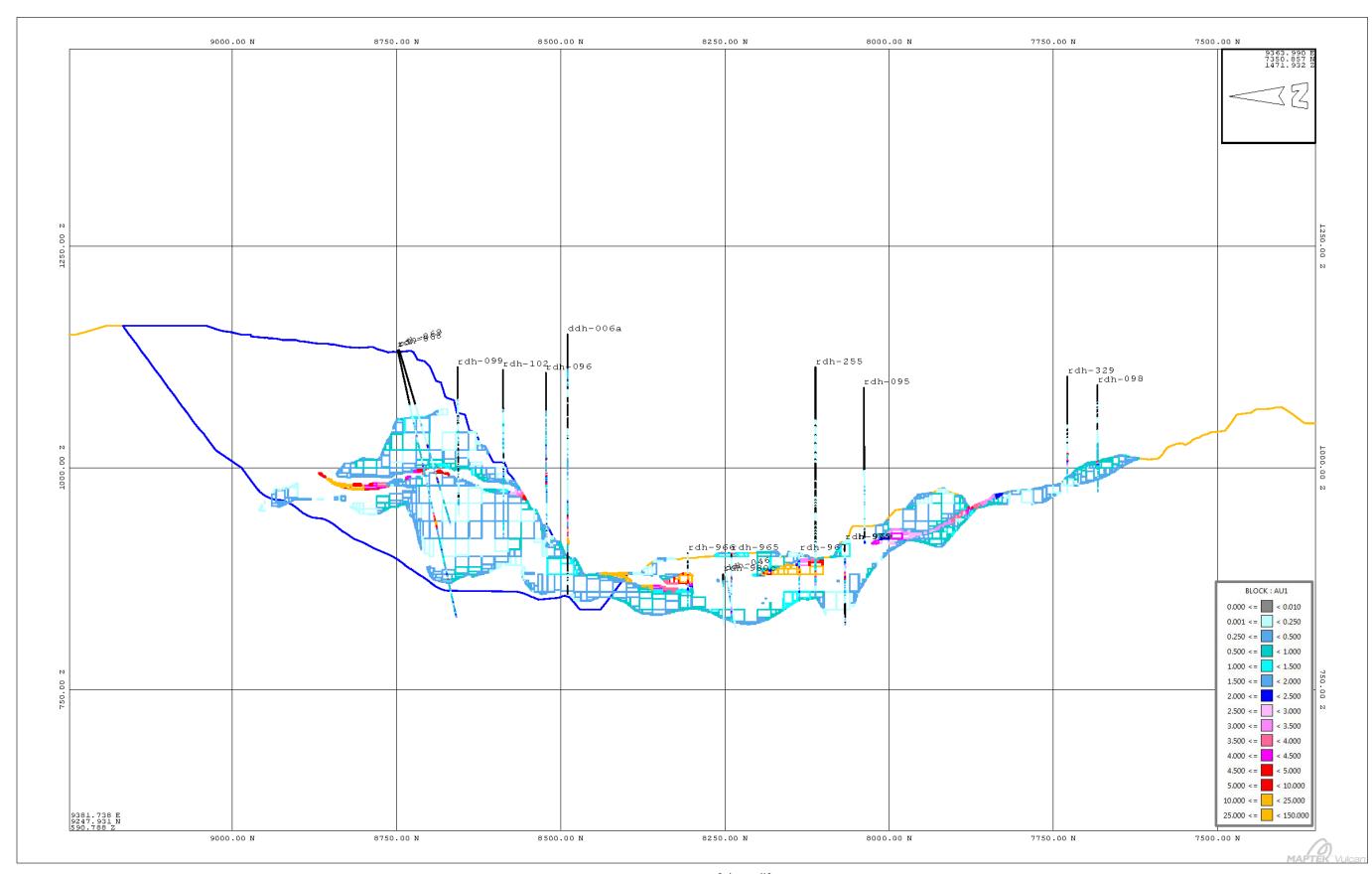


Figure 14-11: Long Section of the Bullfrog Deposit



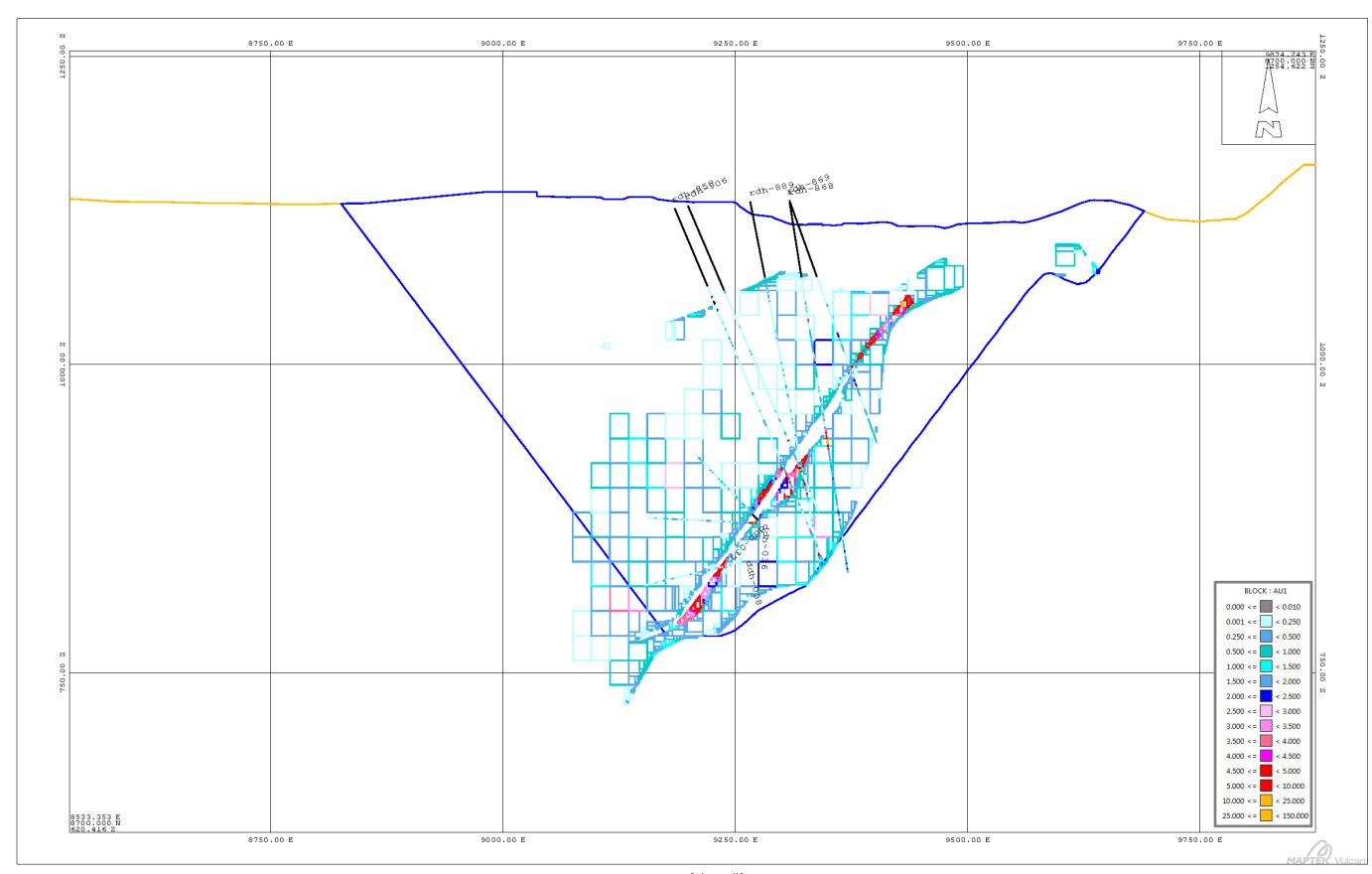


Figure 14-12: Cross Section of the Bullfrog Deposit at 8700 N



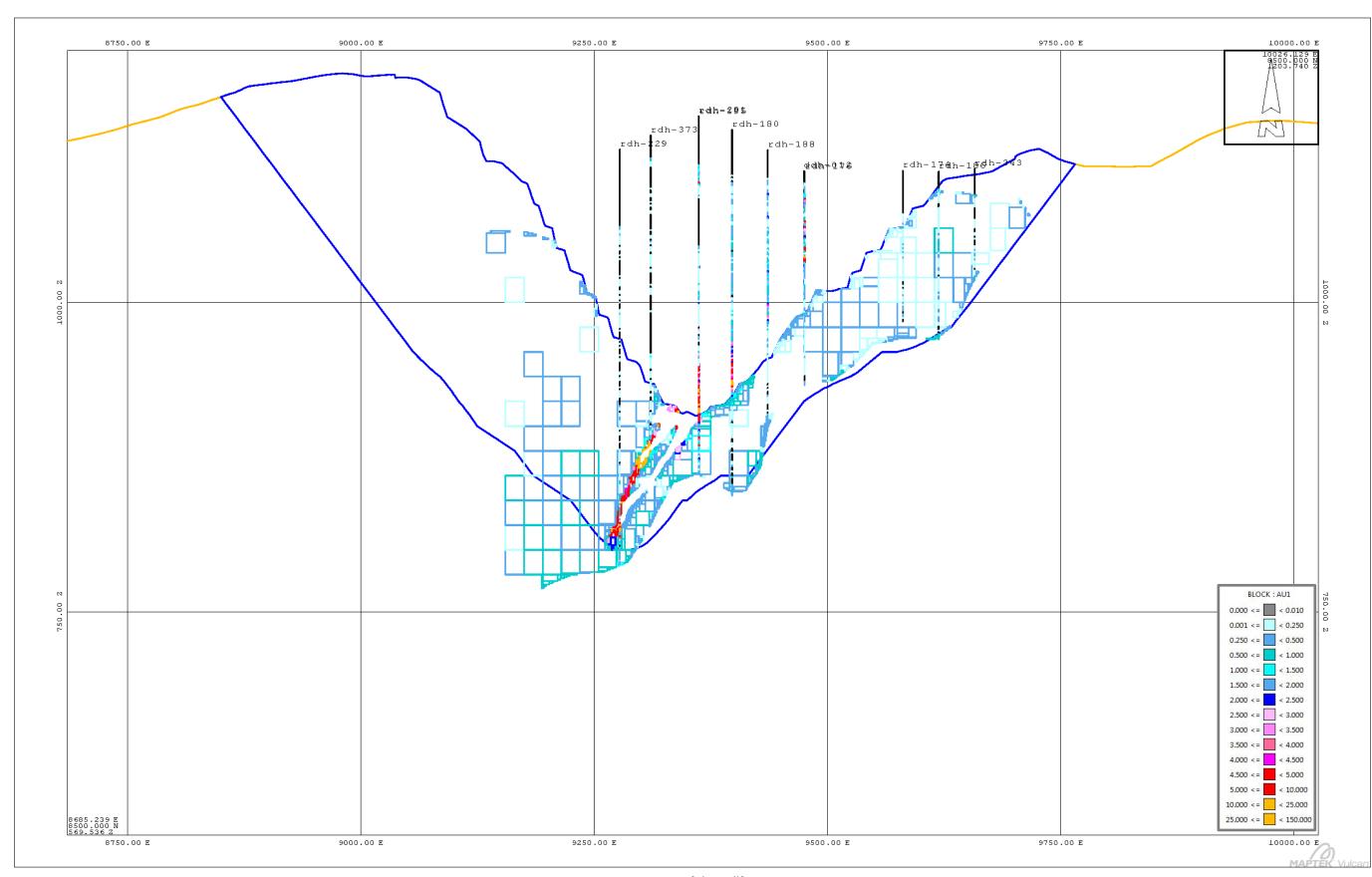


Figure 14-13: Cross Section of the Bullfrog Deposit at 8500 N



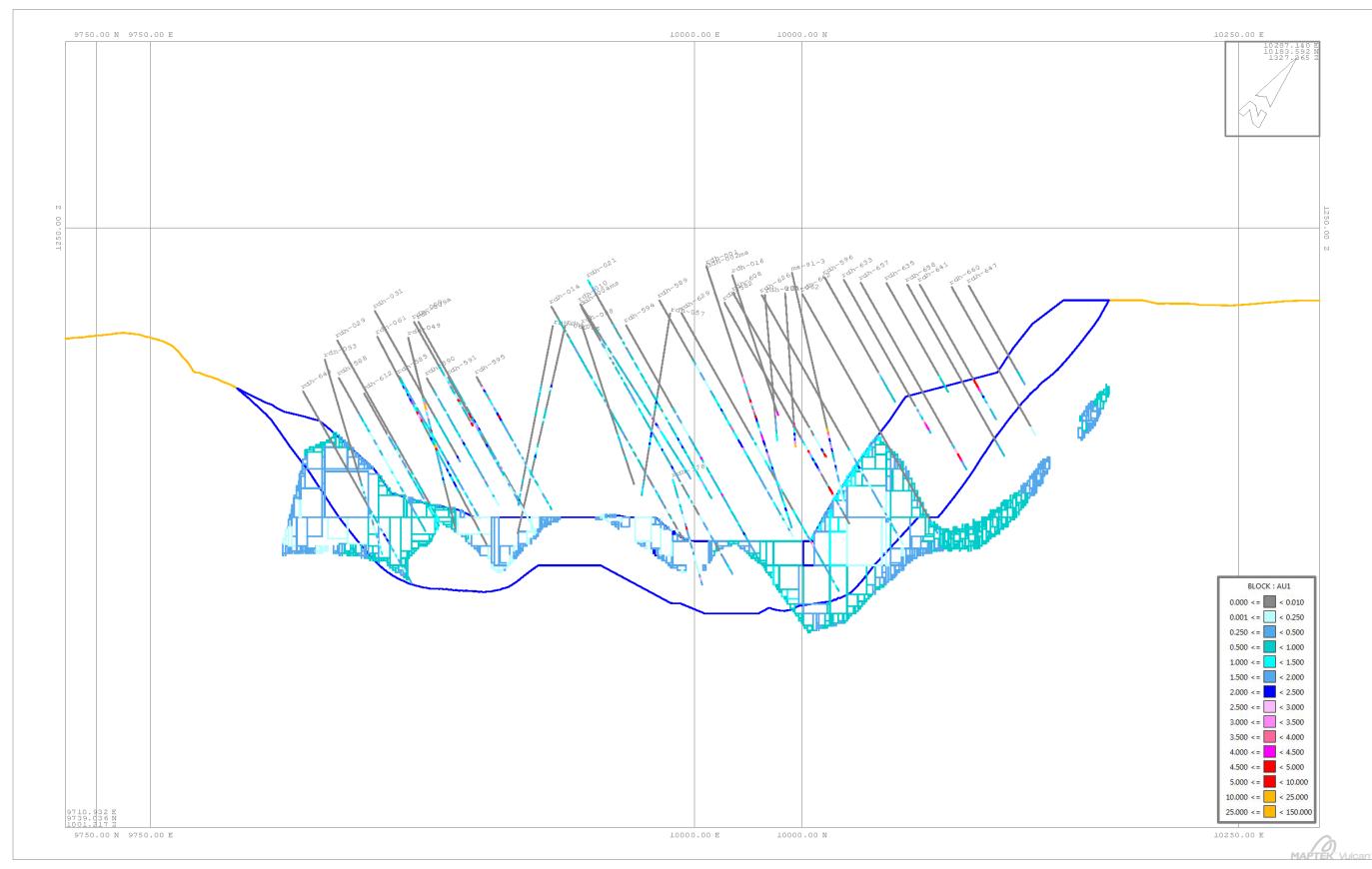


Figure 14-14: Long Section of the M-S Deposit



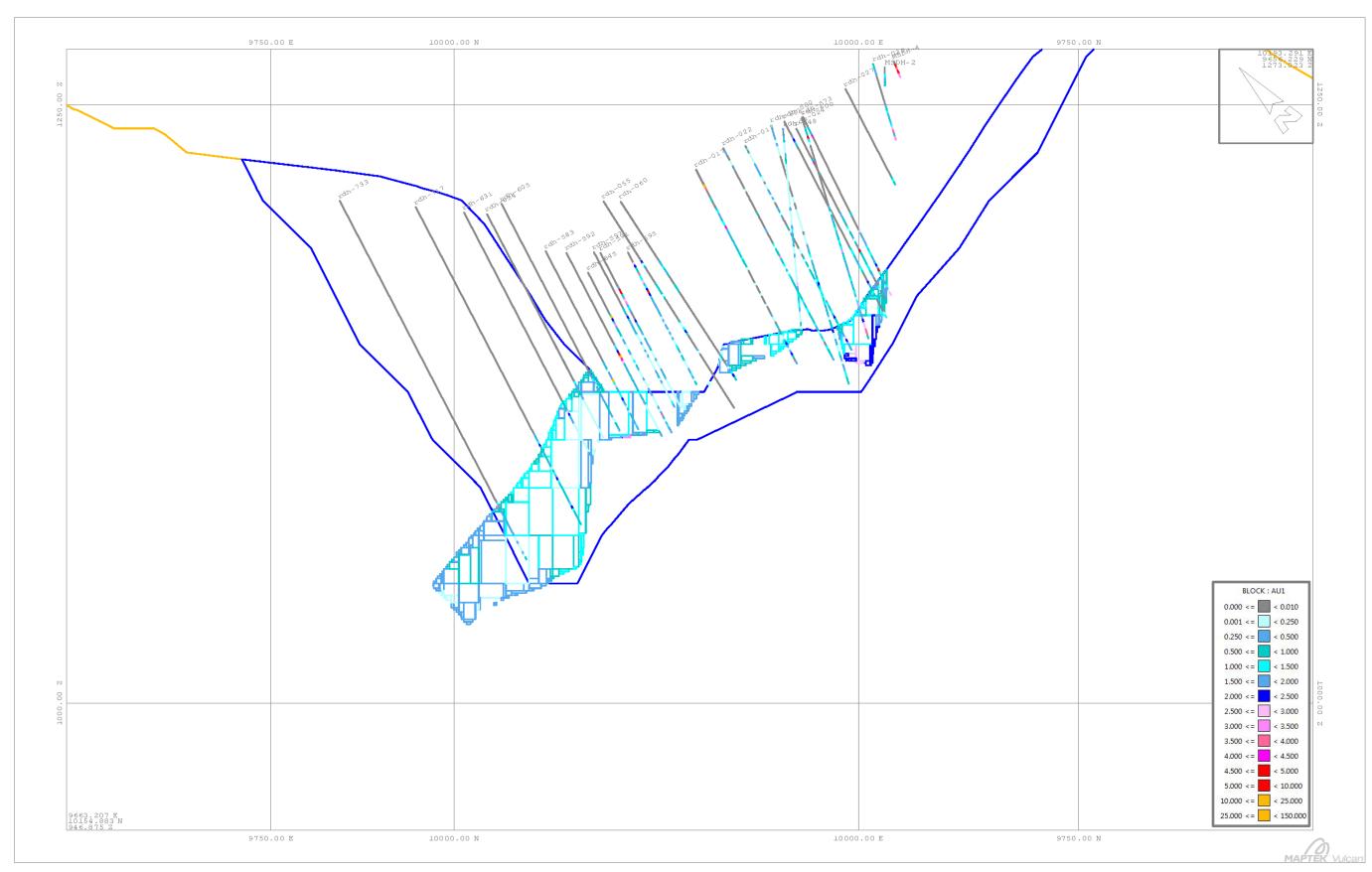


Figure 14-15: Cross Section of the M-S Deposit



# 14.7 Heap Leap Run-of-Mine

An internal gold cutoff grade of 0.2 g/t within the base case pit was also used to determine the amount of low grade that would be available for heap leaching at a run-of-mine or uncrushed size. For reference, this lower cutoff is also used at many other heap leach projects as the incremental or direct mining, crushing and G&A costs are not applicable. This low-grade material is processed using heap leach, instead of being deposited on the waste dump.

As a result, an additional 11.8 million tonnes averaging 0.26 g/t gold grade and containing 99,000 ounces of gold are contained within the base case pit at a 0.20 g/t gold grade cutoff. This material can provide project upside, as no incremental or direct mining, crushing and administrative costs would apply to this low-grade material, which otherwise would be dumped as waste rather than placed on a leach pad to potentially supplement Project performance.

#### 14.8 Relevant Factors

Additional infill drilling could lead to improved understanding of stockwork veining and preferred mineralization horizons, which could alter the interpretation of the mineralizing controls and the estimation of resources.

The mining and processing costs used to constrain the resources by a pit shell are generalized industry costs. Mining, metallurgical, and geotechnical studies could materially alter the costs used to generate the pit constraints either positively or negatively.

There are no additional environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that the author of this report is aware of that could materially affect the mineral resource estimate. It is possible that, with detailed investigation, complications with any or all the above-mentioned factors could arise, but currently no material complications are known.

Sections 15 through 22 apply to advanced properties only and have not been addressed in this report.

15.	MINERAL RESERVE ESTIMATES
16.	MINING METHODS
17.	RECOVERY METHODS
18.	PROJECT INFRASTRUCTURE
19.	MARKET STUDIES AND CONTRACTS
20.	ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT
21.	CAPITAL AND OPERATING COSTS
22.	ECONOMIC ANALYSIS



# 23. ADJACENT PROPERTIES

Corvus Gold Corp (Corvus) controls most of the northern half of the Bullfrog Mining District. Corvus' southern land boundary is 2.4 km (1.5 miles) north of the Company's northern land boundary, or 8 km (5 miles) north of the M-S pit. Corvus released results in its technical report titled "Technical Report and Preliminary Economic Assessment for Biox Mill and Heap Leach Processing At The Mother Lode Project, Bullfrog Mining District, Nye County, Nevada", with an effective date of October 7, 2020. The QP has been unable to verify the information in the foregoing technical report and the information is not necessarily indicative of the mineralization at the Bullfrog Gold Project.

Figure 23-1 below shows the land positions of Augusta, Corvus and other properties in the area.

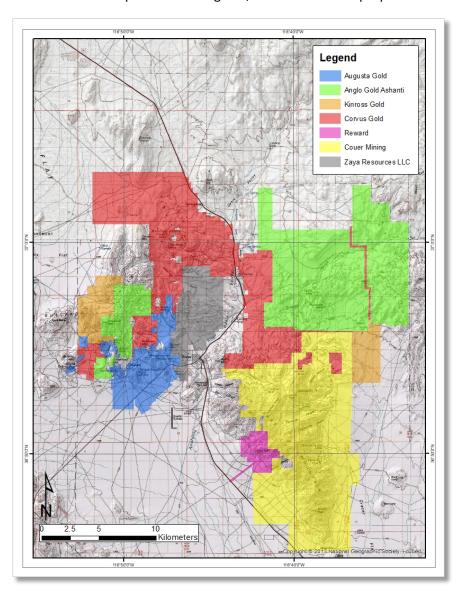


Figure 23-1: Land Positions of the Bullfrog Project and Adjacent Properties



# 24. OTHER RELEVANT DATA AND INFORMATION

Relevant data and information have been included within the respective sections.



# 25. INTERPRETATION AND CONCLUSIONS

Drillhole samples were collected and analyzed using industry-standard methods and practices at the time they were collected and are sufficient to support the estimation of mineral resources set out in this report.

The Bullfrog Project has several attributes that are beneficial and provide opportunities for Augusta Gold Corp., and justify further investigation by way of a Preliminary Economic Analysis:

- The Project is in a jurisdiction that is amenable to mining. Local permitting authorities and the community are accustomed to mine development and the potential economic benefits.
- The Town of Beatty with a population of 1,000 is only four miles away and has adequate amenities and services.
- The project site was open-pit mined extensively from 1989-1999 and has remaining infrastructure that includes power lines on site, a paved highway to the site, water below the Bullfrog pit, a network of roads on site, and pit ramps that are still in place.
- Years of production data and comprehensive heap leach tests have demonstrated acceptable heap leach recoveries at various crushed and run-of-mine sizes.
- The Project has potential to expand resources around the pits as well as exploration upside in the District.
- Nearly all mine waste can be backfilled in the Bullfrog pit, which reduces waste haulage costs and avoids environmental impacts related to new waste dumps.
- After 20+ years, existing pit walls remain stable up to 53 degrees.
- 25 Reverse Circulation holes were drilled by Augusta in 2020. The purpose of this drilling program was to further define resources and ultimate limits of the Bullfrog and Montgomery-Shoshone pits, and have not been included in the mineral resource estimate in this report.
- Additional potential has been shown in the drilling results and the drilling was completed in proximity of the resource estimate from 2017. A delineation drilling program should be completed to further define the resource.

# **25.1** Significant Risk Factors

#### Project risks include:

- Mineral resources have been constrained by an optimized pit shell; however, scoping study-level costing for mining and processing have not been undertaken.
- A pit shell constrained resource at a lower cutoff grade, assuming heap leaching, is supported by inferred resources.
- Timely acquisition of funding and permits for advancing the Project.



## 26. RECOMMENDATIONS

Tetra Tech recommends the following tasks to advance the Project.

## 26.1 Exploration

Tetra Tech recommends updating the mineral resource estimate for the Project to include the claims acquired since the 2017 technical report, the results of the Company's ongoing drilling program, the results of recent metallurgical test work and updated cut-off grade and gold price assumptions. Tetra Tech further recommends the Company complete a resource expansion and delineation drilling program and conduct ground geophysics and field mapping at its more prospective Project targets. The resource expansion and delineation drilling should cover 35,5000 meters of core drilling and 44,000 meters of reverse circulation drilling. In addition, the Company may consider additional district scale exploration of 17,500 meters to explore targets in the district.

#### 26.2 Baseline Studies

In addition, Tetra Tech recommends a local environmental consulting firm experienced in permitting and societal issues be retained to assist in baseline and background work that will be required for a prefeasibility and mine planning process. Existing baseline studies should be updated to include:

- Geochemical characterization of the waste rock.
- Hydrologic characterization of the water in the Bullfrog Pit and in existing wells.
- Plant and wildlife surveys, mainly concerning the Desert Tortoise and bats.
- Meteorological data; and
- Cultural surveys.

## 26.3 Additional Studies

Based on the results this mineral resource estimate, Tetra Tech recommends the Company complete either a Preliminary Economic Assessment or Pre-feasibility Study for the Project. The anticipated cost for preparing such a report is shown in the Estimated Costs section.

#### **26.4 Estimated Costs**

Estimated costs for the recommended tasks are listed in **Table 26-1**, in USD.

Table 26-1: Estimated costs

Task	Cost USD (000)
Resource Expansion and Delineation Drilling (1), Geophysics and Mapping	12,900
District Exploration (2)	2,100
Environmental	2,600
Engineering and Studies	2,300
Total	19,900

<sup>1</sup> Comprised of 35,500 meters of core drilling at \$120/m and 44,000 meters of reverse circulation drilling at \$75/meters

<sup>2</sup> Comprised of 17,500 meters of core drilling at \$120/m



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## 28. DATE AND SIGNATURE PAGE

## CERTIFICATE OF AUTHOR

Kira Lyn Johnson, MMSAQP Senior Geological Engineer of Tetra Tech 350 Indiana Street, Suite 500 Golden, Colorado 80401 Telephone: (303) 217-5700

#### I, Kira Lyn Johnson, MMSAQP, of Golden, Colorado do hereby certify:

- a) I am a Senior Geological Engineer with Tetra Tech, Inc. with a business address of 350 Indiana St., Suite 500, Golden, CO 80401.
- b) This certificate applies to the Technical Report titled "NI 43-101 Technical Report Mineral Resource Estimate Bullfrog Gold Project Nye County, Nevada" with an effective date of February 22<sup>nd</sup>, 2021.
- c) I have a bachelor's degree in Geological Engineering from South Dakota School of Mines and Technology. I am a QP member for the Mining and Metallurgical Society of America (Member No. 01539). I have worked on Resource Estimations since my graduation from the South Dakota School of Mines in 2007. This includes a variety of commodities, including gold, silver, nickel, taconite, oil sands, coal, potash, phosphates, aggregates, and other industrial minerals. I have over 13 years of professional experience, including nearly 9 years of consulting in the mining industry for Tetra Tech. I am a "Qualified Person" for purposes of National Instrument 43-101 (the "Instrument").
- d) I have inspected the property August 25, 2020.
- e) I am responsible for all sections of this report.
- f) I satisfy all the requirements of independence according to NI 43-101.
- g) I have read NI 43-101, Form 43-101 F1, and the Companion Policy to NI 43-101 (43-101 CP) and this Technical Report has been prepared in compliance with NI 43-101, Form 43-101 F1, and 43-101 CP.
- h) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- i) I consent to the filing of the Technical Report with any stock exchanges or other regulatory authority and any publication by them, including electronic publication in the public company files on the websites accessible by the public, of the Technical Report.

"Kira Lyn Johnson, MMSAQP" - Signed

Signature of Qualified Person

Kira Lyn Johnson, MMSAQP

Print name of Qualified Person

Dated March 16, 2021