# Preliminary Economic Assessment
# NI 43-101 Technical Report on the Independence Heap Leach Project
# Lander County, Nevada, USA

**Prepared for:**

GOLDEN INDEPENDENCE™

**Prepared by:**

KCA
Kappes, Cassiday & Associates

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**Authors:**
James Ashton, PE
Carl Defilippi, RM-SME
Richard Delong, QP-MMSA, PG

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# 1.0 EXECUTIVE SUMMARY

## 1.1 Introduction and Overview

The purposes of this Technical Report are as follows:

- Develop an NI 43-101 compliant Mineral Resource for the Independence deposit,
- Present the results of a Preliminary Economic Analysis (PEA) for the implementation of open pit mining and heap leaching to recover the gold and silver mineralization, and
- Propose additional work required for Preliminary Feasibility or Feasibility level studies.

This PEA is preliminary in nature and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty that the PEA will be realized. The project considers open pit mining of approximately 20 million tonnes of material with an estimated grade of 0.4 g/t gold and 7.36 g/t silver. The majority of the current resource is classified as oxide material, with a minor portion as transitional or sulfide material. The material from the pit will be crushed to 100% passing 57mm, all material will be conveyor stacked onto a heap leach pad and leached using a low concentration sodium cyanide solution. Pregnant solution from the heap leach will be processed in a Merrill Crowe plant, and gold and silver will be recovered to cementation precipitated which is further processed at refinery for final Dore.

The average processing throughput for the Independence project is 9,000 tonnes of material per day. Based on the economic tradeoff, two stage crushing will be utilized in this project, regardless of material type. The scope of this study includes a mine production schedule, as well as costing for all process components and infrastructure required for the operation. This report also presents a mineral resource estimate.

This technical report was written at the request of Golden Independence Mining Corporation ("Golden Independence" or "GIMC" or the "Company") and its wholly owned subsidiary Golden Independence Nevada Corp., in compliance with disclosure and reporting requirements set forth in the Canadian Institute of Mining National Instrument 43-101, Companion Policy 43-101CP as of May 10, 2014, and Form 43-101F1. The effective date of this Technical Report is January 24, 2022.

## 1.2 Property Description and Ownership

The Independence project is located in Lander County, Nevada, adjacent to Nevada Gold Mine's Phoenix Project and approximately 14 miles south of Battle Mountain, Nevada. The Independence property consists of 14 unpatented lode mining claims (96.6 hectares or 239 acres) and 81 millsite claims (156.9 hectares or 388 acres) covering approximately 253.5 hectares (627 acres) of Bureau of Land Management (BLM) administered public lands situated in Sections 20, 28, 29, 32, and 33, Township 31 North, Range 43 East. Golden Independence also owns 190 hectares (470 acres) of private fee surface land exclusive of mineral rights situated in Section 17, Township 30 North, Range 43 East, MDBM, Lander County, Nevada in the Battle Mountain Mining District.

The property is owned under a joint-venture agreement between Americas Gold Exploration Inc. (AGEI) and Golden Independence Mining Corp. (GIMC). Under the terms of the JV, GIMC has an initial 51% interest in the Independence project while AGEI holds an initial 49% interest. GIMC is the operator and is entitled to a 10% operator fee until a production decision is made on the Independence project. Both parties must contribute to funding further development at the Independence project on a pro-rata basis or have their interest diluted as per the standard formula outlined by the Rocky Mountain Mineral Law Foundation. Should either party of the Joint Venture be diluted to a 15% interest that interest will be converted into a 2% NSR on the Independence project of which half (i.e. 1%) can be repurchased for US$4,000,000. The property is also subject to a 2% Net Smelter Return (NSR) Royalty to Independence Gold-Silver Mines (IGSM), a previous property owner.

## 1.3 Geology & Mineralization

### 1.3.1 Geology

The Independence project lies in the Battle Mountain Mining District located on the west side of Pumpernickel Ridge in north central Nevada. The regional geology of north central Nevada is defined by episodic tensional deformation, rifting, sedimentation and erosion, followed by wide spread thrusting resulting from compressional deformation. Episodic tensional events followed by compressional events include the Robert Mountains Allochthon emplaced during the Antler orogeny. The Antler sequence hosts the Golconda Allochthon which was emplaced during the Sonoma orogeny and contains the Havallah Sequence of Mississippian to Permian age rocks, including the Pumpernickel Formation, host for near surface mineralization at the Independence property. Rocks of the Roberts Mountain Allochthon hosted the adjacent Fortitude deposit and are the principal host for the Phoenix deposit and the Independence Deep Skarn Target. These rocks are structurally overlain by the Mississippian, Pennsylvanian, and Permian Havallah sequence of the Golconda allochthon.

The Havallah sequence, which constitutes the upper plate of the Golconda thrust, is a Mississippian, Pennsylvanian, and Permian allochthon consisting of an assemblage of chert, argillite, shale, siltstone, sandstone, conglomerate, limestone, and metavolcanic rocks exposed over much of the western part of the Battle Mountain District. The base of the Havallah sequence is the regionally extensive Golconda thrust, which places the Havallah sequence structurally over the Antler sequence. This structural relationship (the Havallah sequence over the Antler sequence along the Golconda thrust) represents the principal tectonostratigraphic control on the distribution of ore deposits in the Battle Mountain mining district (Doebrich and Theodore, 1996).

Two major rock units are exposed at the Independence project, the Paleozoic age Pumpernickel Formation (Havallah Formation) and Tertiary (Eocene) age intrusive rocks of the Independence Stock. Minor dikes in part appear to be contemporaneous with, and in part younger than the Independence Stock. The oldest rocks exposed on the surface of the Property are silic-clastic sediments of the upper Pennsylvanian – Permian age Pumpernickel Formation, consisting of interbedded chert, siltstone, and argillite, these units generally strike N5$^{o}$E with a general dip of 50$^{o}$ to 60$^{o}$ degree westerly. Locally on the surface and within the old underground Independence Mine these sediments are deformed by folding and faulting.

Three distinct deposit types are present at the Independence property, (1) a near surface epithermal system, (2) a deeper high grade, gold rich skarn hosted system and (3) an intrusive hosted stock work, gold-copper porphyry system located at the northern end of the project.

### 1.3.2 Mineralization

#### Near Surface Chert Hosted Mineralization

The near surface mineralization at Independence is best characterized as a high level epithermal system formed as a leakage halo above the deep Independence gold skarn, both related to emplacement of Eocene age granodiorite porphyry's. The Independence deep gold skarn target is a high grade, gold rich skarn system developed in the carbonate rich portions of the Battle Mountain, Antler Peak and Edna Mountain formations of Roberts Antler Sequence in the lower portion of the Roberts Mountain Allochthon. The Independence Stock, situated at the northern end of the Independence Property, hosts stockwork style gold-silver mineralization and disseminated porphyry style gold-copper mineralization.

The main structural feature on the Property is the Wilson Independence fault zone, a series of sub-parallel N5$^{o}$W striking sub-vertical westerly dipping faults and shear zones. The main zone of gold and silver mineralization and essentially all of the defined near surface resources lie along these north striking structural zones in and near the thick bedded to semi massive chert units where the competency contrast of the massive cherts and intercalated thin bedded shale and chert zones occurring above and below, resulted in refraction of the westerly to sub-vertical Independence faults to steeply east dipping open fractures within the semi-massive cherts with substantial attendant fracturing, developing open spaces, porosity and permeability available for fluid flow. The predominant metal-bearing minerals in the shallow mineralization are oxidation products of the original sulfide minerals and include goethite, hematite, cerargerite, argentiferous plumbojarosite, scorodite, very fine grained native gold and rare native silver and precious metal bearing colloidal clays developed during oxidation of the sulfide mineralization.

Oxidation in the near surface "Chert Hosted" deposit is pervasive and ubiquitous to depths of 120 meters below the surface. A mixed sulfide – oxide zone extends for roughly 30 meters below this, and may extend to more than 300 meters along certain structures and fractures which permit the circulation of oxygen laden meteoric waters. Sulfide material becomes pervasive at a depth of approximately 180 meters below the surface.

**Deep Skarn Hosted Mineralization**

Skarn hosted precious metal mineralization consists of discrete grains of gold ranging from 2 to 20 microns and rarely up to 220 microns deposited on micro-fractures and crystal faces of all prior mineral species developed in brittle skarnified units of the Battle Mountain, Edna Mountain and Antler Peak formations in the Roberts Mountain Allochthon. Here early development of skarn minerals resulted in masses of hard brittle rocks which suffered wide spread brittle fracturing with subsequent tectonic stress. A very late stage high temperature gold only mineralizing event deposited microscopic grains of free gold on these micro fractures and on crystal faces and resulted in wide spread potassic alteration consisting of fine grained potassic feldspar (Larson, 2005). Gold mineralization appears to be independent of earlier mineral species including sulfides. Thin and polished sections do not indicate any encapsulating minerals which would represent potential metallurgical or recovery issues.

**Intrusive Hosted Stock-work and Porphyry Gold – Copper Mineralization**

Stock-work and possible porphyry style mineralization occurs in the Eocene age Independence Stock at the north end of the Independence property. On the Independence Property, quartz stockwork mineralization occurs at the surface and in drill intercepts. In the Sunshine pit contiguous with the north boundary of the property, porphyry style gold-copper mineralization was mined from the Independence stock.

### 1.3.3 Alteration

**Chert Hosted Alteration**

Alteration in the chert sequences within the shallow chert hosted mineralization at the Independence is dominated by intense recrystallization of the thick bedded to semi massive cherts to nearly structureless, amorphous masses of chalcedonic silica cut by hairline to 1 centimeter finely crystalline quartz veinlets. Silica is often remobilized into open spaces as either crystalline quartz ranging from drussy quartz to rare crystals to 1.2 cm on the C axis and as younger iron rich, flinty, chalcedonic silica. Euhedral quartz is early and appears to predate precious metal mineralization whereas the chalcedonic silica often fills and floods spaces around the earlier quartz crystals, and grades imperceptibly into gossanous iron oxides and semi-massive to massive scorodite.

In proximity to mineralization, clastic sediments and intrusive dikes have been argillicaly altered to white to ocherous masses of clays. Locally some intrusive dikes exhibit phyllic alteration with the development of sericite.

**Skarn Hosted Alteration**

Precious metal mineralization in skarnified sediments of the Roberts Mountain Allochthon is associated with intense potassic alteration consisting of widely developed zones of fine grained cream to tan colored potassic feldspars visible in both hand specimen, thin and polished sections.

**Stock-work and Porphyry Alteration**

Alteration in the stock work and porphyry style mineralization typically consists of potassic to phyllic alteration selvages surrounding precious metal bearing quartz veinlets.

Potassic alteration consisting of development of secondary biotite is associated with porphyry gold – copper mineralization in the Independence stock in the Sunshine pit.

## 1.4 Exploration and Mining History

Activity in the Copper Canyon (Battle Mountain) District began in 1866 with the discovery and mining of high-grade silver veins. Gold was discovered in the area in 1912. High grade copper ores from the Glory Hole mine were produced starting in the 1920s.

Mining in the district was sporadic throughout the early part of the twentieth century until Duval Corporation, then a subsidiary of Royal Dutch Shell Minerals, commenced open pit mining of copper in 1966. Duval Corporation changed its name to Battle Mountain Gold Corporation in 1981 when discovery of large bulk mineable gold ores at the Fortitude deposit (2.4M oz. Au) shifted primary production in the district from copper to gold.

The Independence Mine produced intermittently from 1938 through 1987. Production came from several miles of underground workings developed along a 457 meter (1,500 ft.) strike length of the Independence fault zone (Carrington, 1997). Reported historic production by the various operators totaled 750,200 ounces silver and 11,029 ounces gold.

Early prospecting in the Independence area occurred during the late 1800's. The property apparently then lay idle until local rancher Dudley Wilson is reported to have discovered the surface outcrops of the present day ore zone in 1937 and begun sinking a shallow shaft on the mineral showing. Past producers include Wilson (1938 – 1943), local miner Bonner Cole (1945?), Agricola Minerals (1973), APCO Oil Corporation (1974 – 1975), Silver King Mines Inc. (1976 – 1981), United Mining (1981 – 1985), and Harrison Mining (1985 – 1987).

Exploration drilling on the property was first conducted by Union Pacific Minerals Division of the Union Pacific Railroad with two NQ diameter core holes (1973). Subsequent drilling campaigns were completed by APCO Oil Corporation (1974 – 1975), United Mining Corp. (1981 – 1985), Noranda Exploration (1984 – 1987), Battle Mountain Gold Corp. (1988?), Lansdowne Minerals Inc. (1993 – 1994), Teck Corporation (1995 – 1996), Great Basin Gold Corporation (1997), and General Metals Corporation (2007 - 2011). In 2017 to 2018 Americas Gold Exploration Inc. renewed exploration efforts on the property. Golden Independence Mining Corp. via an Exploration Agreement with AGEI continued exploration drilling in 2020 to 2021. The property is now owned under a joint-venture agreement between Americas Gold Exploration Inc. (AGEI) and Golden Independence Mining Corp. (GIMC).

## 1.5 Drilling and Sampling

Table 1-1 below shows the drilling to date by company and type of drilling for the property.

**Table 1-1 Independence Drilling Summary**

| Company – Drilling Type | Holes | Footage | Meters |
|---|---|---|---|
| Union Pacific Minerals – Core | 2 | ?? | ?? |
| APCO Oil Corporation – Core | 2 | ?? | ?? |
| United Mining – Air Track | 24 | 4,075 | 1,242 |
| Noranda – Core | 7 | 19,073 | 5,813.5 |
| Battle Mountain Gold – Reverse Circulation | 22 | 10,835 | 3,302.5 |
| Landsdowne Minerals – Reverse Circulation | 5 | 2,535 | 773 |
| Teck Corporation – Reverse Circulation | 14 | 7,010 | 2,136 |
| Great Basin Gold – RC Pre-collar,2640 – Core,3943 | 2 | 6,583 | 2,006.5 |
| General Metals Corp. Tailings RC | 36 | 600 | 183 |
| General Metals Corp. – Reverse Circulation | 128 | 40,895 | 12,465 |
| General Metals Corp – HQ Core | 3 | 1,072 | 327 |
| Americas Gold Exploration – Reverse Circulation | 12 | 9,840 | 2,999 |
| Golden Independence – Reverse Circulation | 48 | 32,740 | 9,979 |
| Golden Independence – HQ Core | 5 | 1,902.5 | 580 |
| **Totals*** | 306 | 137,160.5 | 41,806.5 |

* Total only includes holes with known footage.

Source: GMC, 2011 & GIMC, 2021

The sampling and quality control procedures used during the different campaigns were highly variable depending on the operator, type of drilling and industry standard practices at the time the drilling was completed. The results from the drilling by Union Pacific, APCO, and United Mining were not of sufficient quality to use for mineral resource calculations under current standards and guidelines; however they were used to help determine where mineralization occurs. The rest of the drilling met or exceeded industry standard practices at the time the drilling was completed.

Golden Independence is continuing exploration drilling on the project, as part of an ongoing program begun in the second half of 2020, consisting of Reverse Circulation (RC) and HQ core drilling on the property. The first phase of this program was completed in 2021 and consisted of 36 RC drill holes with a total of 7,716 meters (25,315 feet) drilled. The second phase started in the winter of 2021 and consisted of drilling five HQ core holes with a total depth of 580 meters (1902.5 feet). The latest phase of drilling was completed in May 2021 and consisted of twelve RC holes with a total depth of 2,263 meters (7,425 feet). This drilling along with all the past drilling has outlined a zone of near surface gold and silver mineralization with a strike length of more than 1,550 meters (5,100 feet), a down dip extent of more than 400 meters (1,300 feet), and ranging from 5 meters (15 feet) to more than 40 meters (130 feet) thick. The mineralized zone remains open to the north and down dip. Golden Independence believes this surface mineralization is rooted in the deep gold skarn below the Golconda Thrust approximately 915 meters (3,000 feet) below the surface.

## 1.6 Metallurgical Test-work

In 2012, General Metal Corporation (GMC) contracted McClelland laboratories (MLI) to conduct bottle roll and column tests on two Independence Project bulk samples, one is classified as surface sample, and the other is classified as underground sample. For each bulk sample, two column tests with different crush sizes and four bottle roll tests with different crush sizes were conducted. In 2021, GIMC contracted Kappes Cassiday and Associates (KCA) for a series of bottle roll tests on a total of 34 different sample composites. This set of samples covers more area of the total resource than the sample collected in 2012. In addition, more data on geological sample assays are available for metallurgical review and analysis.

The geological sample assays indicated variability in gold and silver recovery between oxide, transitional and sulfide material. Coupled with the metallurgical test work, the field gold recovery is estimated at 79% for oxide, 50% for transitional and 22% for sulfide. The silver field recovery is estimated at 27% regardless of material type.

Based on preliminary column test results, gold recovery on oxide material is not very sensitive to crush size. A two-stage crush with a final product size of p80 at 38 mm is recommended due to limited metallurgical test results. The cyanide and lime consumptions of this material are relatively low. No permeability issues were observed, therefore no agglomeration is required. A lift height of 9 meters is recommended. Based on the leaching kinetic curve test, the leach cycle for the Independence material is recommended at 120 days.

## 1.7 Mineral Resource Estimate

Mineral Resources at the Independence Project are currently developed in two distinct zones and deposit types, the Independence Near Surface Mineralization and the Independence Deep Skarn Mineralization. The Independence Near Surface Deposit consists of chert hosted epithermal gold and silver mineralization in the Golconda Allochthon, while the Independence Deep Skarn Deposit consists of gold mineralization in late stage fracturing in skarnified sediments of the Roberts Mountains Allochthon.

### 1.7.1 Independence Near Surface Mineral Resources

The Independence Near Surface deposit lies entirely within the Pumpernickel Formation of the Golconda Allochthon. Golden Independence has identified four units within the Pumpernickel Formation important to the mineral resource estimate, designated the C-1, C-2, C-3 and Slts. These units consist of variably altered interbedded thin to thick bedded cherts, cherty argillaceous sediments, and argillite.

Gold resources at Independence were modeled and estimated by systematically evaluating the drill data statistically, developing three-dimensional lithologic solids on cross sections spaced at irregular intervals (average spacing of 21 meters (70 feet) within the main portion of mineralization), creating three-dimensional domain solids of the mineralization at pre-determined cutoff grades for both gold and silver, analyzing the modeled mineralization statistically to establish estimation parameters, and estimating gold and silver grades by inverse-distance weighted method into an orthogonal block model with dimensions of 6 meters(east) x 6 meters(north) x 6 meters(elev.) (20 feet x 20 feet x 20 feet). All blocks and drill hole assays intervals were coded to the correct mineralization domain prior to grade interpolation. The three-dimensional mineralization domains help constrain the resource estimation to those areas where mineralization is most prevalent.

The main portion of the Near Surface mineralization is roughly 1,550 meters (5,100 feet) long and plunges -2$^{o}$ at an azimuth of 3$^{o}$ with a dip to the west of roughly 50$^{o}$. Silver occurs along with gold but has a larger cross-sectional extent that envelops much of the gold mineralization. The grade location and distribution for silver is different enough from that of the gold that an independent silver model was created. Three dimensional wireframes representing the gold and silver mineral domains were created at various cutoff grades to better define those areas with strong mineralization and prevent the over estimation of the mineral resource.

Two 3-D block models were created, one for gold and one for silver. Fields stored in the block model include percent topography, block percent of each mineral domain, grade for each domain, block- and zone-diluted grades, resource classification, tonnes per block, distance to the nearest composite, number of composites and holes used in each estimate, and rock type. A three-dimensional solid of the underground workings, not including the production stopes due to lack of survey information, was created and the volume and grade of this solid was subtracted from the estimated resource.

A variogram analysis was completed on the 3 meter down hole composites honoring mineral domains. The gold and silver grades were estimated by three different methods, inverse distance weighted, nearest neighbor method, and ordinary Kriging. Resource reporting uses the inverse distance grades while model validation makes use of the nearest-neighbor and Kriging results. Composites from each mineral domain were only used to estimate gold and silver grade into blocks from the same mineral domain.

The Independence near surface mineral resource estimate (Table 1-2) for Measured, Indicated, and Inferred resources are reported diluted, are based on gold-equivalent cutoff grades of 0.175 g/t (0.005 opt) for oxide material, 0.215 g/t (0.006 opt) for transition material, and 0.425 g/t (0.012 opt) for sulfide material, and are constrained within an optimized pit. The cutoff grade was chosen to capture mineralization that is potentially economic for open pit mining and heap-leach processing. The higher cutoff for transition and sulfide material reflects the reduction in recoverable gold. The gold equivalent values are a function of metal price and metal recoveries, with the recoveries varying by oxidation state.

Reasonable prospects of eventual economic extraction were established through the generation of an optimized pit shell. Generous optimization parameters used were (in U.S. Dollars): $2.18/t mining cost, $4.00/t processing cost, and $1.16/t G&A cost (assuming crushing and heap leach operation), 45° pit slopes, $1800/oz. gold less $5.00/oz selling cost, $24/oz. silver, and a 2% NSR royalty. Based on ongoing metallurgical studies, gold recovery was variable depending on oxidation state: 79% for oxide material, 60% for transition material, and 30% for sulfide material. Silver recovery was set at 30% for all oxidation states.

The 2021 updated Independence Project MRE has been classified as comprising Measured, Indicated, and Inferred resources utilizing recent CIM definition standards. The classification of the Independence Resource was based on geological confidence, grade continuity, data quality, data spacing, and very predictable mineralization continuity.

### 1.7.2 Independence Deep Skarn Mineral Resources

Skarn hosted gold mineralization occurs in three distinct geologic units below the Golconda Thrust in the Roberts Mountains Allochthon and is related to the emplacement of Eocene age granodorite stocks. Mineralization is best developed in the carbonate rich sediments of the Antler Sequence including the

Battle Conglomerate, the Antler Peak Limestone and the Edna Mountain Limestone formations. Gold occurs as fine grains of native gold deposited on crystal faces and fracture surfaces. Silver is almost entirely lacking from the Deep Skarn deposit.

Gold mineralization in the Deep Skarn has been encountered in seven deep core drill holes over an area more than 425 meters (1,400 feet) wide and 1,035 meters (3,400 feet) long which occurs as sub horizontal lenses that have been locally modified by post mineral faulting. The majority of the skarn target is roughly 850 to 885 meters (2,800 to 2,900 feet) beneath the surface, except along the eastern margin of the property where faulting displaces the receptive horizon to roughly 790 meters (2,600 feet) beneath the surface. The mineralized zones range from 1.5 to 6 meters (5 to 20 feet) thick with typically shallow dips, rarely up to 30 degrees westerly and south westerly.

The relatively good geologic continuity of the Deep Skarn deposit in conjunction with the limited number of drill holes allows for only an inferred resource classification. No cutoff grade has been applied to the Deep Skarn deposit as a three-dimensional solid was created to capture and constrain the mineralization. During the development of the solid, a grade cutoff of 3.4 g/t (0.100 opt) Au was generally used. The gold grade was estimated by inverse distance weighted method. The Deep Skarn inferred resource is shown in Table 1-2.

This report includes only estimates for mineral resources. No mineral reserves are prepared or reported in this Technical Report.

## Table 1-2 Independence Gold and Silver Resources

| Independence Near Surface Mineralization | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Measured Resources** | | | | | | | |
| **Oxidation (Cutoff)** (gr. Au/tonne) | **Tonnes** | **Grade (g/t)** Gold | Silver | Gold Eq. | **Ounces** Gold | **Ounces** Silver | **Ounces** Gold Eq. |
| Oxide (0.175) | 7,634,000 | 0.38 | 9.71 | 0.43 | 92,500 | 2,382,000 | 105,800 |
| Transition (0.215) | 946,000 | 0.47 | 9.11 | 0.53 | 14,200 | 277,200 | 16,100 |
| Sulfide (0.425) | 133,000 | 0.73 | 16.50 | 0.94 | 3,100 | 70,600 | 4,000 |
| **Indicated Resources** | | | | | | | |
| **Oxidation (Cutoff)** (gr. Au/tonne) | **Tonnes** | **Grade (g/t)** Gold | Silver | Gold Eq. | **Ounces** Gold | **Ounces** Silver | **Ounces** Gold Eq. |
| Oxide (0.175) | 16,466,000 | 0.34 | 6.41 | 0.37 | 178,400 | 3,395,500 | 196,900 |
| Transition (0.215) | 2,382,000 | 0.47 | 6.85 | 0.51 | 35,900 | 524,500 | 39,400 |
| Sulfide (0.425) | 436,000 | 0.73 | 16.88 | 0.95 | 10,200 | 236,600 | 13,300 |
| **Measured & Indicated Resources** | | | | | | | |
| **Oxidation (Cutoff)** (gr. Au/tonne) | **Tonnes** | **Grade (g/t)** Gold | Silver | Gold Eq. | **Ounces** Gold | **Ounces** Silver | **Ounces** Gold Eq. |
| Oxide (0.175) | 24,100,000 | 0.35 | 7.46 | 0.39 | 270,900 | 5,777,500 | 302,700 |
| Transition (0.215) | 3,328,000 | 0.47 | 7.49 | 0.52 | 50,100 | 801,700 | 55,500 |
| Sulfide (0.425) | 569,000 | 0.73 | 16.79 | 0.95 | 13,300 | 307,200 | 17,300 |
| **Total Measured & Indicated Resources** | | | | | | | |
| Total M&I | 27,997,000 | 0.37 | 7.65 | 0.42 | 334,300 | 6,886,400 | 375,500 |
| | | | | | | | |
| **Inferred Resources** | | | | | | | |
| **Oxidation (Cutoff)** (gr. Au/tonne) | **Tonnes** | **Grade (g/t)** Gold | Silver | Gold Eq. | **Ounces** Gold | **Ounces** Silver | **Ounces** Gold Eq. |
| Oxide (0.175) | 4,450,000 | 0.29 | 4.46 | 0.32 | 41,600 | 637,400 | 45,100 |
| Transition (0.215) | 626,000 | 0.34 | 3.63 | 0.37 | 6,900 | 73,000 | 7,400 |
| Sulfide (0.425) | 142,000 | 0.51 | 4.42 | 0.58 | 2,300 | 20,200 | 2,600 |

| Independence Deep Skarn Mineralization | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Inferred Resources** | | | | | | | |
| **Cutoff** (gr. Au/tonne) | **Tonnes** | **Grade (g/t)** Gold | Silver | Gold Eq. | **Ounces** Gold | **Ounces** Silver | **Ounces** Gold Eq. |
| Approx. 3.4 | 3,794,000 | 6.53 | 0 | 6.53 | 796,200 | 0 | 796,200 |

**Notes to Mineral Resource Estimate:**

1. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, changes in global gold markets or other relevant issues. The CIM definitions (2014) were followed for classification of Mineral Resources. The quantity and grade of reported inferred Mineral Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred Mineral Resources as indicated Mineral Resource. It is probable that further exploration drilling will result in upgrading them to the indicated or measured Mineral Resource category.
2. The Mineral Resource Estimate incorporates over 132,000 feet of reverse circulation and core drilling in 246 holes, and outlines both a near surface and a deep skarn resource. The near surface mineralization is primarily based on the reverse circulation drilling, while the deep skarn mineralization is based entirely on core drilling.
3. The resource was prepared by James Ashton, P.E., an independent QP, with an effective date of November 15, 2021.
4. The Near Surface mineral resources are constrained by an optimized pit and presented at variable diluted gold equivalent cutoff grades, which represents mineralization that is potentially available for open-pit mining and heap-leach processing.
5. The undiluted Deep Skarn mineralization resources were quantified based on deep tabular solids representing potentially underground mineable lenses.
6. Gold equivalent values are a function of metal price and metal recoveries.
7. Rounding may result in apparent discrepancies between tonnes, grade, and contained metal content.

## 1.8 Mining Methods

The PEA considers open-pit mining of the Independence gold-silver deposit. A PEA is preliminary in nature and includes Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves. There is no certainty that the economic results of the PEA will be realized.

The methodology used for mine planning to define the economics for the PEA includes definition of economic parameters, pit optimization, creation of pit and waste rock facility designs, creation of production schedules, definition of personnel and equipment requirements, estimation of capital and operating costs, and performance of an economic analysis.

Pit optimization assumed the processing of Independence oxide, transition, and sulfide resources by standard heap leaching with 2-stage crushing of the material. Leach material would be processed at 9,000 tonnes per day, 365 day per year. Agglomeration of the leach material is not anticipated at this time.

The resulting pit optimizations were used as the basis for mineable pit designs. The designs used an inner-ramp slope of 49° and a bench face angle of 63°. Both the South pit and North pit mine schedules utilize single phase top down mining while being mined concurrently.

Waste management facility designs were created for the PEA to contain the waste material mined. Some waste material may also be stored in the form of backfill where and when space is available, although this has not been assumed for the PEA and therefore this is a potential opportunity for the project.

Mine production scheduling was accomplished with leaching material first coming from the higher grade South pit and then from the North pit when additional leach material was needed to maintain the 9,000 mtpd processing rate. The mine life is projected to be 6.6 years including a 6 month pre-production period.

The total project mining rate is given a reasonable ramp-up that starts at an average of 12,700 tonnes per day during pre-production and increases to a life-of-mine maximum of 29,500 tonnes per day in year 2.

The PEA has assumed contract mining due to the short life of the project and in order to keep capital costs lower than it would be with owner mining. Mining anticipates 100-tonne capacity haul trucks loaded by front-end loaders. Golden Independence personnel requirements have been estimated based on the number of people required to supervise, mine planning, surveying, and ore control to achieve the production schedule.

## 1.9 Recovery Methods

The overall process includes crushing, stacking, heap leaching and gold and silver recovery in a Merrill Crowe plant to produce gold/silver dorè bars. An economic evaluation between processing carbon externally, onsite adsorption, desorption, recovery (ADR), and zinc precipitation of precious metals in a Merrill Crowe plant indicated that an onsite Merrill Crowe plant is the most favorable option. With a total resource of approximately 20 million tonnes and an average processing rate of 9,000 tonnes per day, average annual production is 3.29 million tonnes which results in a mine of life of 6.1 years.

The plant will process the material using a two-stage crushing circuit to produce a final product of 100% passing 57mm. The crushed material will be conveyor stacked to leach pad for cyanide leaching. The pregnant solution will be collected in a pond and then pumped to the Merrill Crowe plant to precipitate gold and silver, and the precipitated gold and silver will be smelted to produce the final product dorè.

## 1.10 Infrastructure

Water for the Independence Project is planned to be obtained mainly from a well drilled near the edge of the South Pit. Fresh water will be pumped to a 6,100 $m^3$ (1.6 million gallon) fresh water pond or a 75 $m^3$ (20,000 gallon) storage tank. The fresh water pond will store water for use as process make-up and fire water. The 75 $m^3$ tank will supply water to the potable water system. This requires obtaining a water right to appropriate groundwater.

Electrical power at the Independence project will be supplied by NV Energy, the regional power distribution company. An overhead powerline will be installed connecting the switching station to the Independence Mine. The estimated connected load for the water supply system, the crushing system, the conveying and stacking system, the Merrill Crowe plant and ancillary equipment is estimated to be 3.5 MW, with an average draw of 1.9 MW.

A diesel-fired backup generator will be installed in the process area at the project site to provide emergency power.

Administration, safety, mine operations, assay laboratory/warehouse, process buildings, and truck shop/maintenance buildings are planned for the Independence project. During the time the project will be operated, three trailers of double- and triple-wide sizes will be installed for offices, safety, and conference and training purposes.

A full service laboratory will be established, sized to process 150 solid samples per day. The laboratory will be located in a building that will also be used to house the warehouse.

## 1.11 Environmental Studies, Permitting and Social or Community Impact

Independence is gathering and compiling all of the environmental baseline studies completed on the project to determine which are still relevant. The Independence project is situated entirely within Nevada Gold Mine's Phoenix project EIS and Plan of Operations boundary. This effort being led by EM Strategies, a Westland Resources, Inc. Company, will ultimately lead to the preparation and submittal of permit applications to conduct mining operations. The main portion for the project area has been surveyed for biological and cultural resources. The project access road and powerline route remain to be surveyed. In 2021, Golden Independence began material characterization testing of the mineralized material and waste rock to determine the metal leaching and acid generation potential. Additionally, a hydrologic evaluation of the groundwater resources is in the early stages to determine groundwater supply potential, as well as the potential for pit lake development. Golden Independence had a meeting with the United States Bureau of Land Management ("BLM") in March 2021 to determine baseline data collection needs for the permitting process.

Adjacent to the Project Area there are Greater Sage Grouse and Golden Eagles. These species will have an effect on how the IMP is permitted and what mitigation in required or proposed.

The review and approval process for the Plan Application by the BLM constitutes a federal action under the National Environmental Policy Act ("NEPA") and BLM regulations. Thus, for the BLM to process the Plan Application the BLM is required to comply with the NEPA and prepare either an Environmental Assessment ("EA"), or an Environmental Impact Statement ("EIS"). Golden independence anticipates that the BLM will require an EA, due to the lack of mine dewatering, no potential for a pit lake, and that most of the proposed disturbance occurs within the area previously analyzed in the Phoenix Mine EIS.

There are a number of environmental permits issued by the Nevada Department of Environmental Protection ("NDEP") that are necessary to develop the project and which Golden Independence needs to permit the project. The NDEP issues permits that address water and air pollution, as well as land reclamation. The Nevada Division of Water Resources ("NDWR") issues water rights for the use and management of water.

The Independence Project has seen long periods of non-operation. There are no known ongoing environmental issues with any of the regulatory agencies. Golden Independence is in the early stages of gathering and compiling environmental baseline data to support the Plan Application and permitting process. Initial interpretations of the available data suggest limited cultural issues, air quality impacts appear to be within State of Nevada standards, traffic and noise issues are present but at low levels, and socioeconomic impacts are positive.

Social and community impacts have been and are being considered and evaluated for the Plan Application performed for the project in accordance with the NEPA and other federal laws. Potentially affected Native American tribes, tribal organizations and/or individuals will be consulted during the preparation of the Plan Application to comment on the proposed project that may have an effect on cultural sites, resources, and traditional activities.

Potential community impacts to existing population and demographics, income, employment, economy, public finance, housing, community facilities and community services are evaluated for potential impacts as part of the NEPA process. There are no known social or community issues that would have a material impact on the project's ability to extract mineral resources. Identified socioeconomic issues (employment, payroll, services and supply purchases, and state and local tax payments) are anticipated to be positive.

A Tentative Plan for Permanent Closure ("TPPC") for the project would be submitted to the NEDP with the Water Pollution Control Permit ("WPCP") application. In the TPPC, the proposed heap leach closure approach would consist of fluid management through evaporation, covering the heap leach with growth media, and then revegetating. The design of the process components is not sufficiently advanced to determine the closure costs. Any residual heap leach drainage will be managed with evaporation cells.

## 1.12 Capital and Operating Costs

Capital and operating costs for the process components, except leach pads and ponds, and the laboratory were estimated by KCA. Costs for most of the infrastructure, and general administration and the mining components were provided by Mr. James Ashton, P.E. All costs are presented in fourth quarter 2021 US dollars. Estimated costs are considered to have an accuracy of +/-30% for capital costs and +/-20% for operating costs.

The total capital cost for the Project is US$67.53 million, including US$4.8 million in working capital and not including reclamation and closure costs and salvage value at the end of mine life. Table 1-3 presents the capital requirements for the Independence Project.

**Table 1-3**
**Capital Cost Summary**

| Description | Cost (US$) |
|---|---|
| Pre-Production Capital | 52.74 |
| Working Capital & Initial Fills | 4.67 |
| Mining Contractor Mobilization & Preproduction | 5.65 |
| Sustaining Capital – Mine & Process | 5.57 |
| **Total** | **68.75** |

All equipment and material requirements are based on the design information described in this report. Budgetary capital costs for process related components have been estimated primarily based on recent quotes from similar projects in KCA's database and cost guide data. Where recent quotes were not available, reasonable cost estimates or allowances were made. All capital cost estimates are based on the purchase of equipment quoted new from the manufacturer or to be fabricated new.

The average life of mine operating cost for the Project is US$11.41 per tonne of material processed. Table 1-4 presents the operating cost requirements for the Independence Project.

**Table 1-4**
**Operating Cost Summary**

| Description | LOM Cost (US$/t) |
|---|---|
| Mine | $5.66 |
| Process & Support Services | $4.55 |
| Site G & A | $1.19 |
| **Total** | **$11.41** |

Independence will employ contract mining. Mining operating costs have been estimated by Mr. James Ashton at US$2.18 per tonne of material moved. Based on the strip ratio throughout mine life, the mining cost per tonnes of material to be processed is US$5.66.

Process operating costs have been estimated from first principles. Labor costs were estimated using project specific staffing, salary and wage and benefit requirements. Unit consumptions of materials, supplies, power, water and delivered supply costs were also estimated.

The process operating costs presented are based upon the ownership of all process production equipment and site facilities. The owner will employ and direct all operating maintenance and support personnel for all site activities. Support mobile equipment and light vehicles were assumed to be leased or rented.

## 1.13 Economic Analysis

Based on the estimated production parameters, capital costs, and operating costs, a cash flow model was prepared by KCA for the economic analysis of the Independence Heap Leach project. The project economics were evaluated using a discounted cash flow (DCF) method, which measures the Net Present Value (NPV) of future cash flow streams.

The final economic model was developed by KCA using the following assumptions:

- Period of Analysis of eight years (includes one year of pre-production and investment, six years of production and one year for reclamation and closure).
- Gold price of US$1,700/oz and silver price of US$24/oz.
- Processing rate of 9,000 tonnes per day.
- Gold and silver recoveries as discussed in Section 13.
- Capital and operating costs as developed in Section 21.
- Royalties of 2%.
- Nevada Excise Tax of 0.75%.
- Nevada Proceeds of Minerals Tax of 3.1852%.
- Corporate income taxes of 21%.

The project economics based on these criteria from the cash flow model are summarized in Table 1-5.

**Table 1-5**

**Economic Analysis Summary**

| **Financial Analysis** | | |
|---|---|---|
| Internal Rate of Return (IRR), Pre-Tax | 19.0% | |
| Internal Rate of Return (IRR), After-Tax | 18.0% | |
| Average Annual Cashflow (Pre-Tax) | $18 | M |
| NPV @ 5% (Pre-Tax) | $38 | M |
| Average Annual Cashflow (After-Tax) | $17 | M |
| NPV @ 5% (After-Tax) | $35 | M |
| Gold Price Assumption (US$/Ounce) | $1,700 | /Ounce |
| Pay-Back Period (Rears based on After-Tax) | 4.1 | Years |
| | | |
| **Capital Costs (Excluding VAT)** | | |
| Initial Capital | $58 | M |
| Working Capital & Initial Fills | $5 | M |
| LOM Sustaining Capital | $6 | M |
| | | |
| **Operating Costs (Average LOM)** | | |
| Mining | $5.66 | /tonne ore |
| Processing & Support | $4.55 | /tonne ore |
| G&A | $1.19 | /tonne ore |
| All-in Sustaining Cost | $1,078 | /Ounce |
| | | |
| **Production Data** | | |
| Life of Mine | 6.1 | Years |
| Mine Throughput (Ore), average | 3,197,673 | TPY |
| Metallurgical Recovery Au (Overall) | 75% | |
| Average Annual Gold Production | 32,050 | Ounces |
| Total Gold Produced | 195,443 | Ounces |
| LOM Strip Ratio (Waste:Ore) | 1.64 | |

A sensitivity analysis was performed on the project economics.  Figures 1-1 and 1-2 are charts showing the relative sensitivity to a number of parameters.

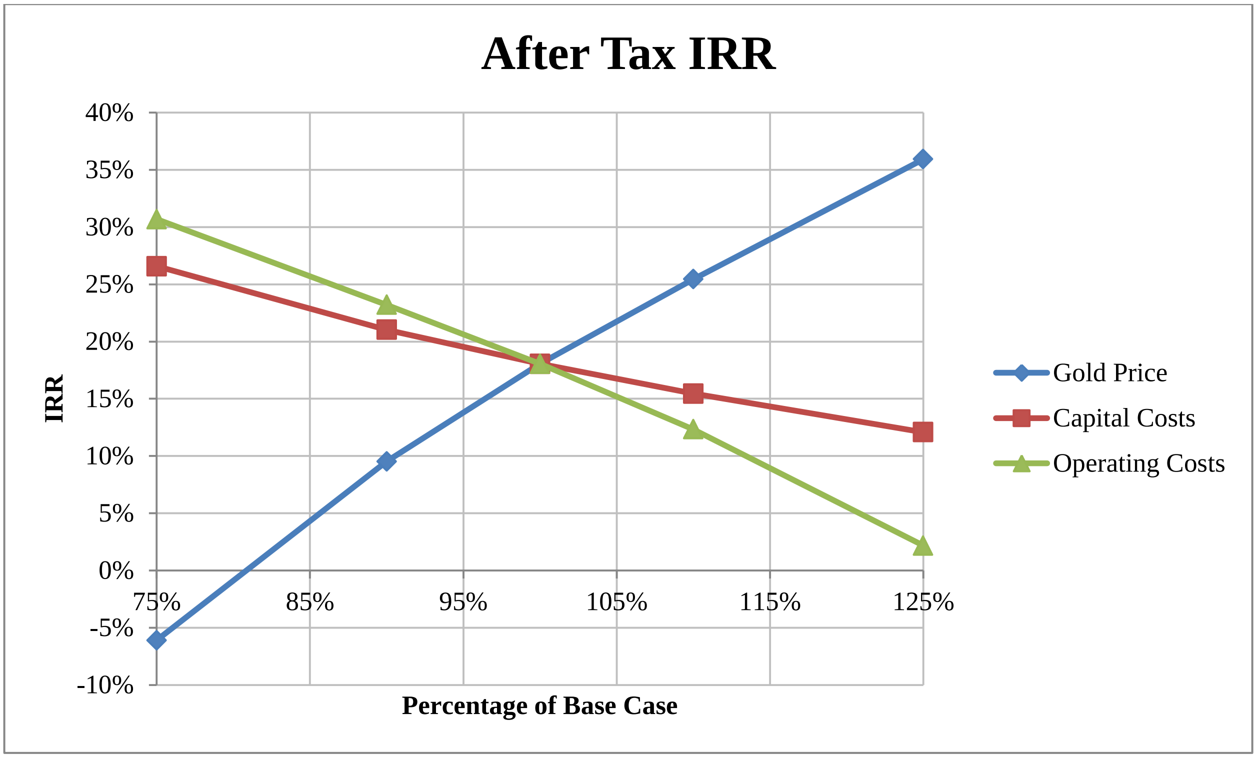



**Figure 1-1 After-Tax IRR vs. Gold Price, Capital Cost, and Operating Cost**

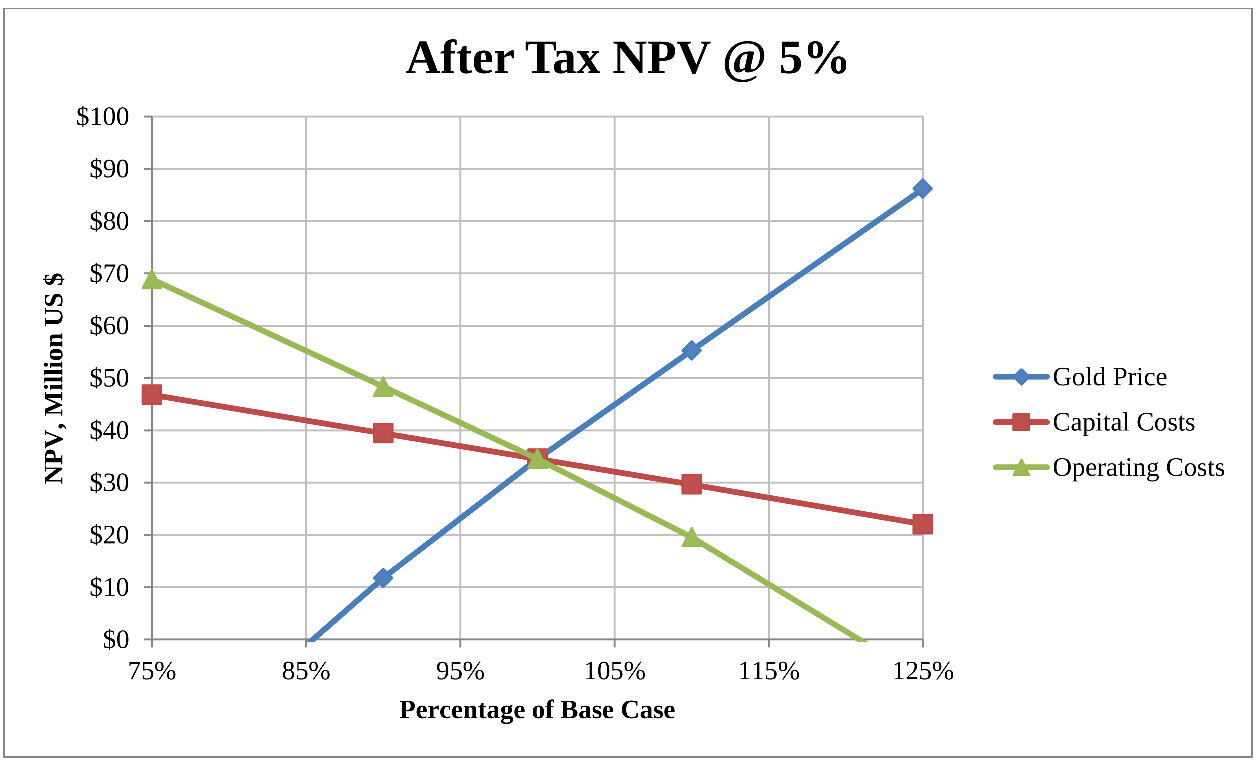



**Figure 1-2 NPV @ 5% vs. Gold Price, Capital Cost, and Operating Cost**

# 1.14 Interpretations and Conclusions

## 1.14.1 Conclusions

The work that has been completed to date has demonstrated that the Independence Heap Leach project is an economical project and justifies additional study work, including further metallurgical test work and economic studies along with the continuation of environmental and permitting activities.

The project has been designed as an open-pit mine with heap leach for recovery of gold and silver from oxide, transition and sulfide material with a life of mine production of 20 million tonnes with an average grade of 0.4 g/t Au and 7.36 g/t Ag. Metallurgical test work on the material to date shows acceptable recoveries for gold and silver with low to moderate reagent consumptions. Cement agglomeration does not appear to be required.

Leachable material will be crushed to 100% passing 57mm, stockpiled, reclaimed and conveyor stacked onto the heap leach pad at an average rate of 9,000 mtpd. Stacked material will be leached using low grade sodium cyanide solution and the resulting pregnant leach solution will be processed in a Merrill-Crowe plant for the recovery of gold and silver by zinc cementation.

## 1.14.2 Opportunities

Key opportunities for the Independence Heap Leach project include:

- Based on test work to date, metal recoveries are relatively insensitive to crush size and the same results may be achievable at coarser material sizes, which would result in lower capital and operating costs.
- Due to its high-grade, the Independence Deep Skarn target warrants special future consideration. With additional drilling into the Deep Skarn deposit the potential exists to advance this deposit to a position where an economic analysis is warranted.

## 1.14.3 Risks

Risks for the Independence Heap Leach project include:

- The possibility of litigious land use issues with Nevada Gold Mines (NGM) pertaining to the potential conflict of GIMC's 100% owned Millsite Claims with the underlying NGM lode mining claims is of concern.

- Metallurgical results for the Independence project are based on information and data that have been extrapolated from results from historical test work and are speculative due to lack of direct confirmatory test work. There is a risk that the results may be overstated.
- Sufficient water rights for a mining and heap leach processing operation are being sought and the required applications have been submitted to the necessary agency. There is no certainty that once the water rights have been received that the water well will be able to produce the required water.

## 1.15 Recommendations

Based on the results of the PEA, KCA and Mr. Ashton recommend the following additional work:

- The project needs further metallurgical test work and studies to verify the project economics;
- Perform geotechnical and hydrogeological studies at the proposed heap, pit and processing areas;
- Continuation of environmental and permitting activities for both federal and state agencies; and
- Advance discussions with Nevada Gold Mines to determine possible synergies that would enhance the projects economics.
- Complete the necessary engineering work to progress the project to the pre-feasibility level.
- Drill a series of three deep RC/core holes through the Deep Skarn deposit to more fully determine the potential of increasing the grade and size of this deposit.

The total estimated cost to complete the recommended work is US$4.2 million.

# 2.0 INTRODUCTION

## 2.1 Introduction and Overview

James Ashton, P.E., an independent consultant, Carl Defilippi of Kappes, Cassiday & Associates (KCA), and Richard DeLong, PG, with EM Strategies (EMS) known collectively as the "Qualified Person(s)" or the "Author(s)" have prepared this Technical Report on the Independence project at the request of Golden Independence Mining Corporation (GIMC). Golden Independence Mining Corporation is a Vancouver-based mineral exploration Company, listed on the Canadian Securities Exchange (CSX: IGLD), on the OTC Markets Group (OTCQB: GIDMF), and on the Frankfurt Stock Exchange (FRA: 6NN).

This report discloses a first-time release of a preliminary economic assessment (PEA) by GIMC for the Independence Project and incorporates recent drilling, geological interpretation and metallurgical data for Independence, developed in 2021. This report updates the technical report "Technical Report of the Independence Gold Project, Battle Mountain Mining District, Lander County, Nevada USA" (Ashton and Defilippi, 2021), which described the initial mineral resource estimate for the project. The information disclosed in that report, dated June 28, 2021, is still current and used in this current report. A notable exception is re-stating the mineral resource estimate due to new metallurgical information, constraining the resource with an optimized pit, and lowering the oxide cutoff grade. All Authors are independent of Golden Independence and are Qualified Persons ("QP"s) as defined by NI 43-101.

The Authors have prepared this report and the estimates provided herein in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1, as well as with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards For Mineral Resources and Reserves, Definitions and Guidelines" ("CIM Standards") adopted by the CIM Council on May 10, 2014.

The effective date of this report is January 24, 2022. The effective date of the mineral resource estimate is November 15, 2021.

## 2.2 Project Scope and Terms of Reference

### 2.2.1 Scope of Work

The purpose of this Technical Report is to provide an updated mineral resource estimate for the Independence deposit and a preliminary economic analysis of a conceptual mining and processing project treating the oxide, transition, and sulfide materials detailed in the mineral resource estimate.

Golden Independence has drilled 12 new holes on the Independence property in 2021, which post-dated the initial Mineral Resource Estimate. That drilling was primarily focused on in-fill and confirmation drilling, obtaining metallurgy samples, or for exploration of additional mineralization. An updated MRE was deemed necessary to incorporate the new drilling and metallurgical test work and to constrain the updated MRE with an optimized pit. Further discussion is given in Section 14.

The updated mineral resources were estimated and classified by James Ashton, P.E., an independent consultant. Mr. Ashton also designed a preliminary mineable pit, developed a mine production schedule based on the mineable pit, designed the preliminary layouts for the heap leach pad and mine waste material dumps, and estimated mine capital and operating costs.

KCA's scope of work for the project is summarized as follows:

- Review of historical metallurgical tests and interpretation,
- Plant and laboratory design and recovery methods,
- Infrastructure process capital and operating costs,
- Economic analysis.

Mr. Richard DeLong, Senior Vice President of EM Strategies, a Westland Resources, Inc. Company, of Reno, Nevada, with special expertise in environmental compliance and permitting of mining projects in Nevada completed a review of environmental and permitting risks and requirements for the Independence project. GIMC relied on Mr. Delong in preparation of Section 4.4 & 4.5 and Section 20 on Environmental Studies, Permitting, and Social or Community Impact.

### 2.2.2 Terms of Reference

The units of measure presented in this report, unless noted otherwise, are in the metric system. The currency used for all costs is presented in US dollars (US$), unless specified otherwise. The costs were estimated based on quotes and cost data as of 4$^{th}$ quarter 2021.

The economic evaluation of the Project has been conducted on a constant dollar basis (Q4 2021) with a gold price of US$1,700/oz and a silver price of US$24/oz for the Base Case. Economic evaluation is done on a Project-basis and from the point of view of a private investor, after deductions for royalties, income taxes, and various mining taxes and duties paid to the federal and local governments.

## 2.3 Sources of Information

The Authors have relied on not only information and data that they themselves have generated but also on the data, summary reports, internal reports, and other information provided by GIMC for the completion of this report, including the supporting assay data for the mineral resource estimate. The information reviewed by the Authors in order to complete this report is the result of work by GIMC and prior owners of the Independence project. The conclusions made in this report are based on the Authors' review of this work and the work of the Authors' themselves.

The Authors' have made such independent investigations and property visits as have been deemed necessary in the professional judgment of the Principal Author to be able to reasonably rely upon the data presented to the Authors by GIMC. The Authors take responsibility for all the information herein, except for certain exclusions as specified in section 3, and deem the data of sufficient quality to proceed with a Mineral Resource Estimate and preliminary economic analysis for the Independence deposit.

## 2.4 Qualified Persons and Site Visits

Mr. James Ashton is a "Qualified Person" under NI 43-101 and has no affiliation with Golden Independence except that of independent consultant/client relationship and is responsible for the publication of this entire Technical Report. Mr. Ashton is licensed Professional Engineer in the State of Nevada and a Registered Member of SME and has over 32 years of experience in the mining industry.

Mr. Ashton visited the property on May 2, 2009 at which time he collected samples to be tested for specific gravity and inspected mineralization exposed in the underground workings. Mr. Ashton again visited the property on March 10, 2011 to witness the first of three HQ core holes being drilled to twin RC drill holes and collect geotechnical data. Mr. Ashton's latest visit occurred on January 20, 2021 at which time he observed both RC and core drilling, examined intervals of the new core, and walked over the site inspecting drill pad locations and geologic exposures in road cuts and outcrops. Mr. Ashton observed the sampling procedure for collecting drill cutting for assaying and how chips were collected to be used in geologic logging.

Mr. Carl Defilippi is a "Qualified Person" as defined under NI 43-101 is an independent consultant and an employee of KCA. Mr. Defilippi has no direct association or ownership with either Golden Independence or the Property. Mr. Defilippi is a Registered Member of SME and has over 38 years of experience in the mining industry.

Mr. Defilippi visited the property on January 19, 2022. Mr. Defilippi met with client personnel, discussed the layout and geology, and toured the proposed areas for the mine and processing facilities.

Mr. Richard Delong is a "Qualified Person" as defined under NI 43-101 is an independent consultant and Senior Vice President of EM Strategies, a Westland Resources, Inc. Company, of Reno, Nevada. Mr. Delong has no direct association or ownership with either Golden Independence or the Property. Mr. Delong is a Qualified Professional with MMSA and a Registered Member of SME and has over 38 Years of experience in the mining industry.

Mr. Delong visited the Independence Project site on March 29 and 30th, 2021.

Table 2-1 lists the primary "Qualified Persons" (as defined in the National Instrument 43-101) that compiled different sections of the report.

**Table 2-1 Table of Responsibilities by Section**

| Section | Section Title | QP |
|---|---|---|
| 1 | Summary | ALL |
| 2 | Introduction | ALL |
| 3 | Reliance on Other Experts | ALL |
| 4 | Property Description and Location | JIM A/EMS |
| 5 | Accessibility, Climate, Local Resources, Infrastructure and Physiography | JIM A |
| 6 | History | JIM A |
| 7 | Geological Setting and Mineralization | JIM A |
| 8 | Deposit Types | JIM A |
| 9 | Exploration | JIM A |
| 10 | Drilling | JIM A |
| 11 | Sample Preparation, Analyses and Security | JIM A |
| 12 | Data Verification | JIM A |
| 13 | Mineral Processing and Metallurgical Testing | KCA |
| 14 | Mineral Resource Estimates | JIM A |
| 15 | Mineral Reserve Estimates | JIM A |
| 16 | Mining Methods | JIM A |
| 17 | Recovery Methods | KCA/JIM A |
| 18 | Project Infrastructure | KCA/JIM A |
| 19 | Market Studies and Contracts | JIM A |
| 20 | Environmental Studies, Permitting and Social or Community Impact | EMS |
| 21 | Capital and Operating Costs | JIM A/ KCA/OTHERS |
| 22 | Economic Analyses | KCA |
| 23 | Adjacent Properties | JIM A |
| 24 | Other Relevant Data and Information | JIM A |
| 25 | Interpretation and Conclusions | ALL |
| 26 | Recommendations | ALL |
| 27 | References | JIM A |

## 2.5 Forward Looking Information

The results of the PEA, and the mineral resource estimates represent forward-looking information that is subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here. Forward-looking statements in this technical report include, but are not limited to, statements with respect to future metal prices, exchange rates; taxation; smelter and refinery terms; assumed mining and metallurgical recovery factors; net present value; internal rate of return; sensitivities on parameters; the estimation of mineral resources; the realization of estimates; the timing and amount of estimated future production, costs of production; capital expenditures; operating costs; technological changes to the mining, processing and waste disposal activities outlined; permitting time lines; requirements for additional capital; government regulation of mining operations; environmental risks; ability to retain social license for operations; unanticipated reclamation expenses; title disputes or claims; upside opportunities, including the upside case, pit wall angles, larger crush size and increase in the recoveries; ability to reach agreement with Fresnillo; and limitations on insurance coverage.

Forward-looking statements are based on the beliefs, estimates and opinions on the date the statements are made. Certain material assumptions regarding such forward-looking statements are discussed in this report. Forward-looking statements involve significant known and unknown risks and uncertainties, which could cause actual results to differ materially from those anticipated. These risks include, but are not limited to: risks related to uncertainties inherent in the preparation of preliminary economic assessments, drill results and the estimation of mineral resources, including changes in the economic parameters; changes in Project parameters as mine, process and closure plans continue to be refined, possible variations in mineral resources, grade, dilution, or recovery rates; geotechnical and hydrogeological considerations during mining; failure of plant, equipment or processes to operate as anticipated; shipping delays and regulations; accidents, labor disputes and other risks of the mining industry; and delays in obtaining governmental approvals; risks relating to not securing agreements with third parties or not receiving required permits.

## 2.6 Frequently Used Acronyms, Abbreviations, Definitions and Units of Measure

All costs are presented in United States dollars. Units of measurement are metric. Only common and standard abbreviations were used wherever possible. A list of abbreviations used is as follows:

| | | |
|---|---|---|
| Distances: | mm | – millimeter |
| | cm | – centimeter |
| | m | – meter |
| | km | – kilometer |
| | mbgl | – meters below ground level |
| Areas: | $m^2$ or sqm | – square meter |
| | ha | – hectare |
| | $km^2$ | – square kilometer |
| Weights: | oz | – troy ounces |
| | Koz | – 1,000 troy ounces |
| | g | – grams |
| | kg | – kilograms |
| | T or t | – tonne (1000 kg) |
| | Kt | – 1,000 tonnes |
| | Mt | – 1,000,000 tonnes |
| Time: | min | – minute |
| | h or hr | – hour |
| | op hr | – operating hour |
| | d | – day |
| | yr | – year |
| Volume/Flow: | $m^3$ or cu m | – cubic meter |
| | $m^3/h$ | – cubic meters per hour |
| | L/s | – liters per second |
| Assay/Grade: | g/t | – grams per tonne |
| | g Au/t | – grams gold per tonne |
| | g Ag/t | – grams silver per tonne |
| | ppm | – parts per million; |
| | ppb | – parts per billion |
| Other: | TPD or tpd | – metric tonnes per day |
| | ktpy | – 1000 tonnes per year |
| | $m^3/h/m^2$ | – cubic meters per hour per square meter |

| | |
|---|---|
| $Lph/m^2$ | – liters per hour per square meter |
| g/L | – grams per liter |
| kph | – kilometers per hour |
| Ag | – silver |
| Au | – gold |
| Hg | – mercury |
| US$ or $ | – United States dollar |
| NaCN | – sodium cyanide |
| TSS | – total suspended solids |
| TDS | – total dissolved solids |
| RAB | – rotary air blast |
| RC | – reverse circulation |
| DDH | – diamond drill boreholes |
| LOM | – Life of Mine |
| kWh | – Kilowatt-hours |
| kN | – Kilonewton |
| P80 | – 80% passing |

**Geographical Coordinates**

Coordinates are projected in the Universal Transverse Mercator (UTM) system, Zone 11 of the North American Datum (NAD) 1983, Ground.

# 3.0 RELIANCE ON OTHER EXPERTS

This report contains information relating to mineral titles, environmental matters, permitting, regulatory matters, and legal agreements. While the Authors are generally knowledgeable concerning these issues in the context of the mineral industry, the Authors do not qualify as legal or regulatory experts. The information in the report concerning these matters is presented as required by Form 43-101F1 but is not a professional opinion.

The Authors have relied on GIMC and AGEI to provide copies of legal documentation regarding agreements between them and Independence Gold Silver Mines Inc. for the unpatented lode mining claims and millsite claims covering the Independence project and documents covering the purchase agreement for the fee surface lands. The Authors are not experts for assessing the legal validity of claims in the United States; the Authors have relied on information provided by GIMC and AGEI in this regard. The Authors have also relied on GIMC and AGEI to provide full information concerning all corporate relationships and other corporate dealings, current legal title, and environmental permitting pertaining to the Independence property.

# 4.0 PROPERTY DESCRIPTION AND LOCATION

## 4.1 Location

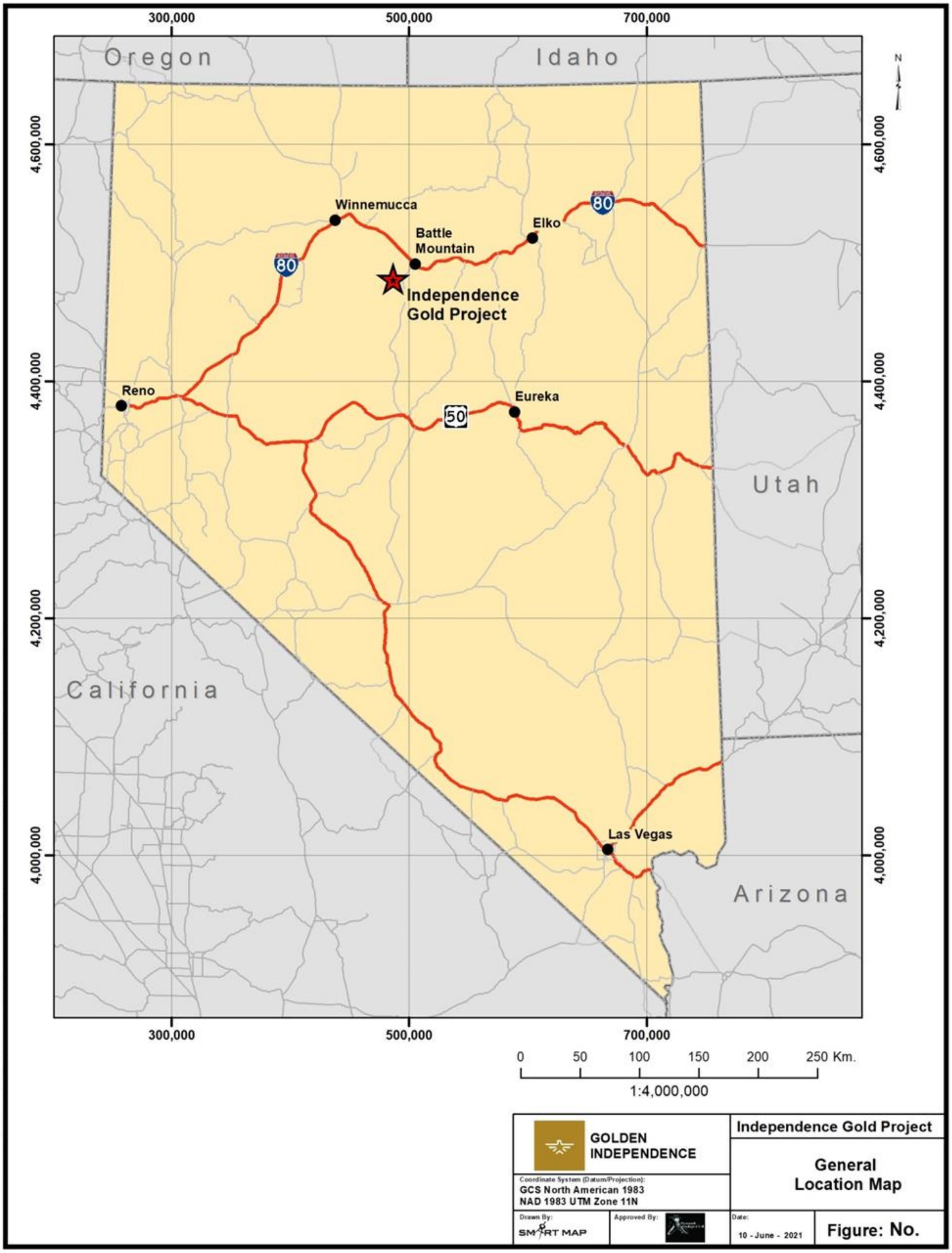
The Independence Property is located in Sections 20, 28, 29, 32, and 33, Township 31 North, Range 43 East, MDBM, Lander County, Nevada. The property is centered at N40$^{o}$ 31' 30.672" Latitude and W117$^{o}$ 08' 45.014" Longitude due south of, and adjacent to Nevada Gold Mines Phoenix Project and approximately 14 miles south of Battle Mountain, Nevada. The location of the Independence project is shown in Figure 4-1.

## 4.2 Claims and Title

The Independence property consists of 14 unpatented load mining claims 96.6 hectares (239 acres) and 84 millsite claims 156.9 hectares (388 acres) covering approximately 253.5 hectares (627 acres) of BLM administered public lands situated in Sections 20, 28, 29, 32, and 33, Township 31 North, Range 43 East, MDBM, Lander County, Nevada, as identified in Table 4-1 below. The mineral property is situated entirely on BLM administered lands in the Battle Mountain Mining District, Lander County, Nevada. GIMC is owner of an additional 480 acres of private fee surface land (parcel # 007-020-12) exclusive of mineral rights and consisting of the W1/2 and the NE1/4 of section 17, Township 30 North, Range 43 East, MDBM, Lander County, Nevada. The property land map is shown in Figure 4-2.

The annual holding costs are $17,291. The holding costs consist of payments of the annual fee to the United States Bureau of Land Management, county claim recording fees, and taxes to Lander County.

## Figure 4-1 Location Map

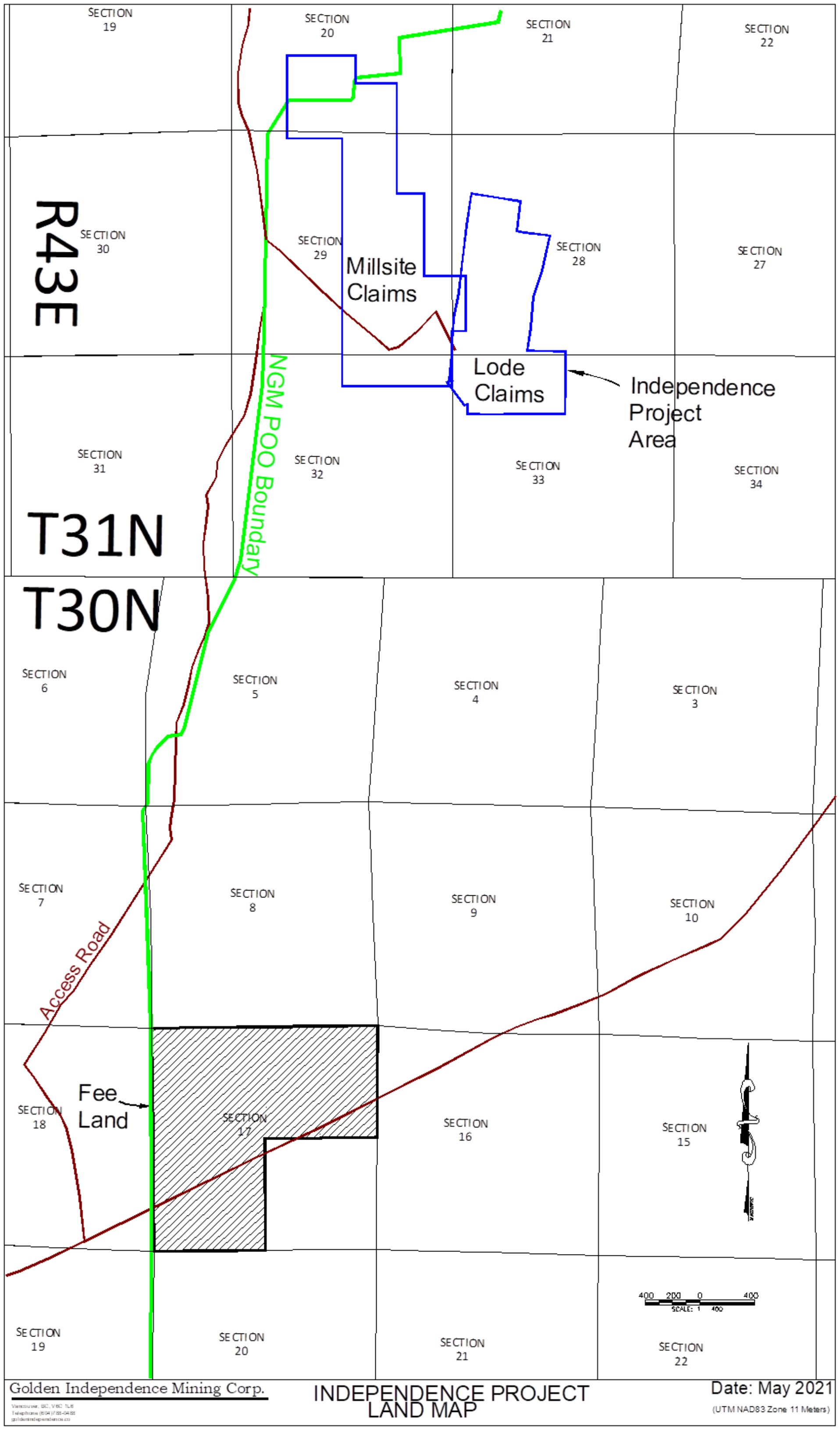


## Table 4-1 Independence Project Claim Holdings

| Claim Name | Serial Number | Year Located | Claim Type |
|---|---|---|---|
| DC # 80 | NV101458162 | 1965 | LODE |
| DC # 81 | NV101349194 | 1965 | LODE |
| DC # 82 | NV101601083 | 1965 | LODE |
| DC # 83 | NV101304327 | 1965 | LODE |
| INDEPENDENCE | NV101605072 | 1937 | LODE |
| INDEPENDENCE #1 | NV101601964 | 1937 | LODE |
| INDEPENDENCE #2 | NV101503258 | 1938 | LODE |
| INDEPENDENCE #3 | NV101603138 | 1938 | LODE |
| INDEPENDENCE #4 | NV101731266 | 1939 | LODE |
| INDEPENDENCE #5 | NV101347154 | 1939 | LODE |
| NORTH INDEPENDENCE | NV101548879 | 1972 | LODE |
| NORTH INDEPENDENCE 1 | NV101401158 | 1972 | LODE |
| NORTH INDEPENDENCE 2 | NV101496672 | 1972 | LODE |
| OLD GLORY | NV101349176 | 1959 | LODE |
| INDEPENDENCE #1 | NV101641558 | 2018 | MILL |
| INDEPENDENCE #2 | NV101641559 | 2018 | MILL |
| INDEPENDENCE #3 | NV101641560 | 2018 | MILL |
| INDEPENDENCE #4 | NV101641561 | 2018 | MILL |
| INDEPENDENCE #5 | NV101641562 | 2018 | MILL |
| INDEPENDENCE #6 | NV101641563 | 2018 | MILL |
| INDEPENDENCE #7 | NV101641564 | 2018 | MILL |
| INDEPENDENCE #8 | NV101641565 | 2018 | MILL |
| INDEPENDENCE# 9 | NV101635516 | 2017 | MILL |
| INDEPENDENCE# 10 | NV101635517 | 2017 | MILL |
| INDEPENDENCE# 11 | NV101635518 | 2017 | MILL |
| INDEPENDENCE# 12 | NV101635519 | 2017 | MILL |
| INDEPENDENCE# 13 | NV101635520 | 2017 | MILL |
| INDEPENDENCE# 14 | NV101635521 | 2017 | MILL |
| INDEPENDENCE# 15 | NV101635522 | 2017 | MILL |
| INDEPENDENCE# 16 | NV101635523 | 2017 | MILL |
| INDEPENDENCE# 17 | NV101635524 | 2017 | MILL |
| INDEPENDENCE# 18 | NV101635525 | 2017 | MILL |
| INDEPENDENCE# 19 | NV101635526 | 2017 | MILL |
| INDEPENDENCE# 20 | NV101636609 | 2017 | MILL |
| INDEPENDENCE# 21 | NV101636610 | 2017 | MILL |
| INDEPENDENCE# 22 | NV101636611 | 2017 | MILL |
| INDEPENDENCE# 23 | NV101636612 | 2017 | MILL |
| INDEPENDENCE# 24 | NV101636613 | 2017 | MILL |
| INDEPENDENCE #25 | NV101641566 | 2018 | MILL |
| INDEPENDENCE #26 | NV101641567 | 2018 | MILL |
| INDEPENDENCE #27 | NV101641568 | 2018 | MILL |
| INDEPENDENCE #28 | NV101641569 | 2018 | MILL |
| INDEPENDENCE #29 | NV101641570 | 2018 | MILL |
| INDEPENDENCE #30 | NV101641571 | 2018 | MILL |
| INDEPENDENCE #31 | NV101641572 | 2018 | MILL |
| INDEPENDENCE #32 | NV101641573 | 2018 | MILL |
| INDEPENDENCE #33 | NV101641574 | 2018 | MILL |
| INDEPENDENCE #34 | NV101641575 | 2018 | MILL |
| INDEPENDENCE #35 | NV101641576 | 2018 | MILL |

| Claim Name | Serial Number | Year Located | Claim Type |
|---|---|---|---|
| INDEPENDENCE #36 | NV101641577 | 2018 | MILL |
| INDEPENDENCE #37 | NV101641578 | 2018 | MILL |
| INDEPENDENCE #38 | NV101642747 | 2018 | MILL |
| INDEPENDENCE #39 | NV101642748 | 2018 | MILL |
| INDEPENDENCE #40 | NV101642749 | 2018 | MILL |
| INDEPENDENCE# 41 | NV101636614 | 2017 | MILL |
| INDEPENDENCE# 42 | NV101636615 | 2017 | MILL |
| INDEPENDENCE# 43 | NV101636616 | 2017 | MILL |
| INDEPENDENCE# 44 | NV101636617 | 2017 | MILL |
| INDEPENDENCE #59 | NV101642750 | 2018 | MILL |
| INDEPENDENCE #60 | NV101642751 | 2018 | MILL |
| INDEPENDENCE #61 | NV101642752 | 2018 | MILL |
| INDEPENDENCE #62 | NV101642753 | 2018 | MILL |
| INDEPENDENCE #63 | NV101642754 | 2018 | MILL |
| INDEPENDENCE #64 | NV101642755 | 2018 | MILL |
| INDEPENDENCE #65 | NV101642756 | 2018 | MILL |
| INDEPENDENCE #66 | NV101642757 | 2018 | MILL |
| INDEPENDENCE #70 | NV101825292 | 2020 | MILL |
| INDEPENDENCE #71 | NV101642758 | 2018 | MILL |
| INDEPENDENCE #72 | NV101642759 | 2018 | MILL |
| INDEPENDENCE #73 | NV101642760 | 2018 | MILL |
| INDEPENDENCE #74 | NV101642761 | 2018 | MILL |
| INDEPENDENCE #75 | NV101642762 | 2018 | MILL |
| INDEPENDENCE #76 | NV101642763 | 2018 | MILL |
| INDEPENDENCE #77 | NV101825293 | 2020 | MILL |
| INDEPENDENCE #78 | NV101825294 | 2020 | MILL |
| INDEPENDENCE #79 | NV101825295 | 2020 | MILL |
| INDEPENDENCE #80 | NV101825296 | 2020 | MILL |
| INDEPENDENCE #81 | NV101825297 | 2020 | MILL |
| INDEPENDENCE #82 | NV101825298 | 2020 | MILL |
| INDEPENDENCE #83 | NV101825299 | 2020 | MILL |
| INDEPENDENCE #84 | NV101826506 | 2020 | MILL |
| INDEPENDENCE #85 | NV101826507 | 2020 | MILL |
| INDEPENDENCE #86 | NV101826508 | 2020 | MILL |
| INDEPENDENCE #87 | NV101826509 | 2020 | MILL |
| INDEPENDENCE #88 | NV101826510 | 2020 | MILL |
| INDEPENDENCE #89 | NV101642764 | 2018 | MILL |
| INDEPENDENCE #90 | NV101642765 | 2018 | MILL |
| INDEPENDENCE #91 | NV101826511 | 2020 | MILL |
| INDEPENDENCE #92 | NV101826512 | 2020 | MILL |
| INDEPENDENCE #93 | NV101826513 | 2020 | MILL |
| INDEPENDENCE #94 | NV101826514 | 2020 | MILL |
| INDEPENDENCE #95 | NV101826515 | 2020 | MILL |
| INDEPENDENCE #96 | NV101826516 | 2020 | MILL |
| INDEPENDENCE #97 | NV101826517 | 2020 | MILL |
| INDEPENDENCE #98 | NV101826518 | 2020 | MILL |
| INDEPENDENCE#99 | NV101826519 | 2020 | MILL |
| INDEPENDENCE#100 | NV101826520 | 2020 | MILL |
| INDEPENDENCE#101 | NV101826521 | 2020 | MILL |

**Figure 4-2 Land Map**



## 4.3 Agreements and Encumbrances

The Authors are not experts for assessing the legal validity of claims in the United States; the Authors have relied on information provided by GIMC and AGEI and the conclusions of the Parsons Behle & Latimer who confirmed title of the Independence property in March 2021. The Authors have also relied on GIMC and AGEI to provide full information concerning all corporate relationships and other corporate dealings, current legal title, and environmental permitting pertaining to the Independence property.

The unpatented claims expire automatically on September 1 of each year unless the maintenance fees have been paid to the BLM. Taxes on the private land holding are to be paid to Lander County by September 30 of every year, but they can be paid late along with the required penalty without losing title. The title to the real property is valid as long as the taxes are paid.

The property is owned under a joint-venture agreement between Americas Gold Exploration Inc. (AGEI) and Golden Independence Mining Corp. (GIMC). Under the terms of the JV, GIMC has an initial 51% interest in the Independence project while AGEI holds an initial 49% interest. GIMC is the operator and is entitled to a 10% operator fee until a production decision is made on the Independence project. Both parties must contribute to funding further development at the Independence project on a pro-rata basis or have their interest diluted as per the standard formula outlined by the Rocky Mountain Mineral Law Foundation. Should either party of the Joint Venture be diluted to a 15% interest that interest will be converted into a 2% NSR on the Independence project of which half (i.e. 1%) can be repurchased for US$4,000,000. The property is also subject to a 2% Net Smelter Return (NSR) Royalty to Independence Gold-Silver Mines (IGSM), a previous property owner.

Independence Gold-Silver Mines Inc., entered into a Temporary Easement and Right – of –Way for the Pioneer Haul Road with Newmont Mining Corporation (Nevada Gold Mines) for access to the Sunshine Pit. This easement, which predates the AGEI and GIMC Agreements, crosses the northwest corner of the property and currently does not impact any known mineralization.

To the extent known, there are no back-in rights, agreements, other encumbrances, or any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property of which the Authors are aware or have not already been disclosed.

## 4.4 Environmental Liability and Significant Factors

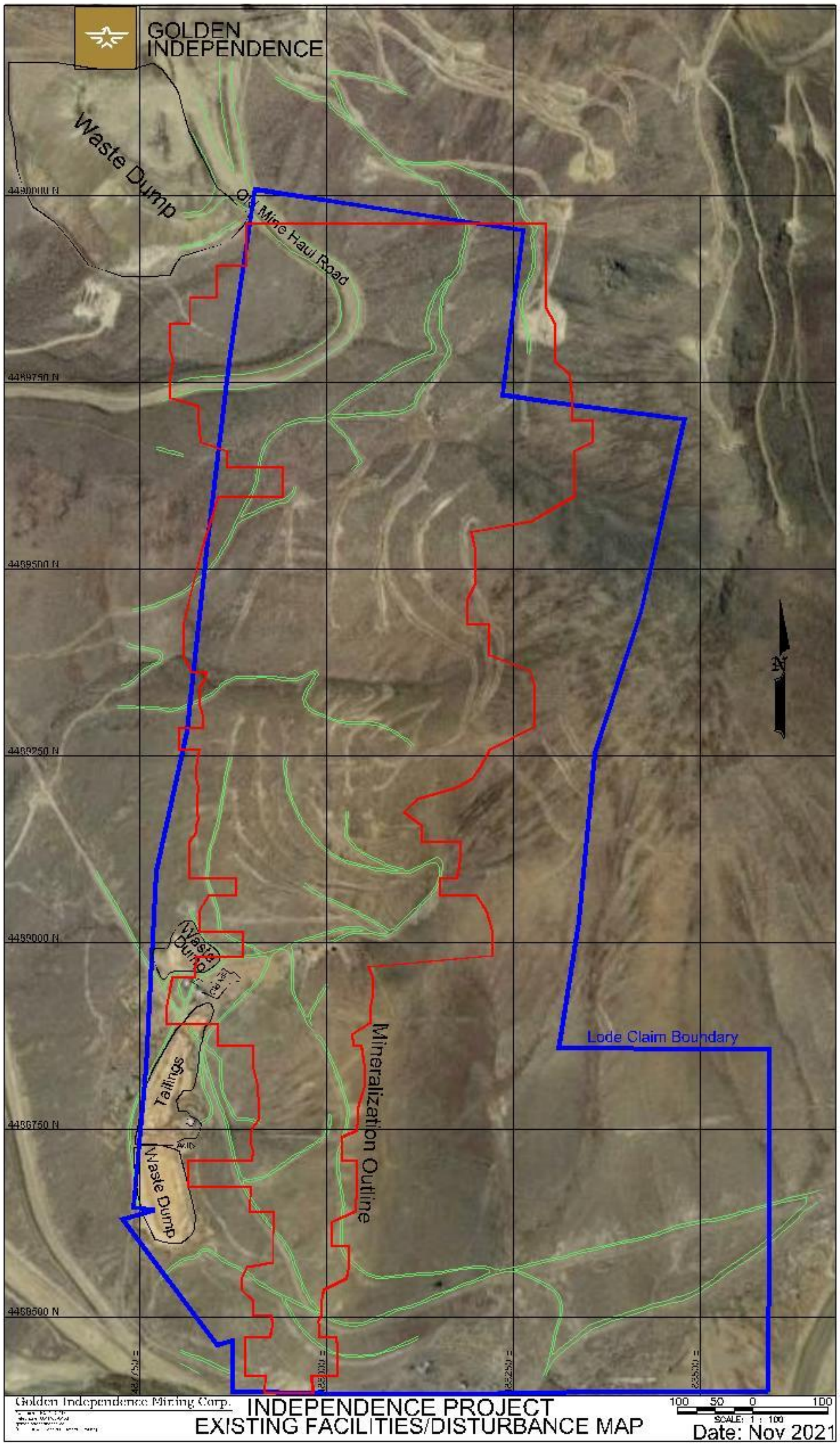
Potential environmental liabilities associated with the project comprise historical mining and milling operations and exist in the form of the mill, associated buildings, the tailings, and waste rock dump. The disposition of these historical environmental liabilities will likely be raised during the permitting process.

Various waste associated with the historic buildings located on the property were identified to include material containers, batteries, transformers, tanks and contaminated soils. In Q2 of 2021 these items were sampled for hazardous characteristics, properly packaged and shipped to the appropriate disposal facilities. The remediation efforts were conducted under the oversight of a Nevada Certified Environmental Manager, a qualified archeologist, and the BLM.

The benign tailings from historic underground mining along with the waste rock, if beneficial, may be incorporated with newly mined leachable material and placed on an approved heap leach pad and containment system. A new mine with an approved operating plan and reclamation permit will result in a reclaimed area that is environmentally clean and ready for post mining use once mining is complete. Figure 4-3 shows the existing site facilities, historic disturbance and area containing the known mineral resource. A portion of these existing mine and milling facilities will be removed as part of the planned mine development. Any inert debris from this removal can be disposed in the waste rock dumps. The tailings material, once tested, can be placed in the waste rock dumps or on the heap leach pad.

Due to the small land package for the project, there is limited potential to expand the near surface resource. The Independence Project is completely surrounded by property held by Nevada Gold Mines (NGM) who has a large active mining operation adjacent to the Independence property boundary to the east and south. The possibility of litigious land use issues with NGM pertaining to the potential conflict of GIMC's 100% owned Millsite Claims with the underlying NGM lode mining claims is of concern. NGM also has an approved Plan of Operations (POO) with the BLM which surround most of the Independence Project area. A portion of NGM approved operations include the placement of waste rock over the area covered by GIMC's Millsite Claims.

**Figure 4-3 Existing Facilities & Disturbance Map**



## 4.5 Permits and Environmental Studies

Presently all exploration and development work is being conducted under two Exploration Notices (Notices) required under Surface Management Regulations 3809 and filed with the BLM as Notice NVN-099411(12-1A), which covers the southern portion of the project and NVN-099412(21-1A), which pertains to the northern portion of the project area and the millsite claims to the west. Notice level exploration activities are limited to five acres (2 hectares) of disturbance. Current permitted disturbance for each Notice is 4.92 acres (1.99 hectares) (NVN-099411(12-1A)) and 4.97 acres (2.0 hectares) (NVN-099412(21-1A)). A reclamation bond is attached to each Notice in the amount of $14,475 for NVN-099411(12-1A) and $18,375 for NVN-099412(21-1A). As exploration activities expand it will likely become necessary for the Company to advance its existing Notices to a Plan of Operations (POO). The Company has begun initial work required for establishing such a POO which will allow expanded exploration/development work on the project.

The Independence mine operated as an underground mine with an onsite cyanide, counter current decantation mill almost continuously from 1973 to 1987. The mine production was an estimated 65,000 tons (58,970 tonnes) containing 11,000 gold ounces. The mine never acquired operating permits during its active operation, since operations commenced prior to any permitting requirements, and no other permits, other than the Notice level exploration permits, have been acquired since the secession of mining.

Presently, none of the required permits are in place which will be needed for the development, construction, operation, and closure of the property. GIMC has engaged the services of EM Strategies, a Westland Resources, Inc. Company (EMS) of Reno, Nevada to facilitate the permitting process and oversee the submittal of a Plan of Operations / Reclamation Permit to the BLM in late 2022. As the Independence Project lies within the Plan of Operations boundary and adjacent to the Nevada Gold Mine's Phoenix Mine it is anticipated that the Independence Project can rely on much of the baseline and environmental studies that have already been approved by the BLM and State. Within the project area there are areas that have already been exposed to extensive surface disturbance associated with past underground operations and exploration activities as shown in Figure 4-3.

GIMC hired J-U-B Engineers, Inc. (JUB), to begin work on the Water Pollution Control Permit (WPCP) required by the Nevada Division of Environmental Protection (NDEP). JUB is also working on obtaining the required permits for water rights. GIMC has applied for two water permits with the Nevada Division of Water Resources (NDWR) to obtain water from underground sources for mining, crushing, and process operations. The first application is for a well located on BLM land near the site of the "old Mill" building and is asking for 2.01 cubic feet per second (205 $m^3$/hr.) or 1,428 acre-feet per year (1,760,243 $m^3$/yr). The second application is for a well on the company's private land (Section 17, Township 30 North, Range 43 East, MDBM) and is for 1.34 cubic feet per second (137 $m^3$/hr.) or 970 acre-feet per year (1,195,683 $m^3$/yr). GIMC is confident these two wells, with the incorporation of recycling water and a water storage facility, will be sufficient for a 3,200 gpm (727 $m^3$/hr.) process plant and heap leach operation.

# 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES AND PHYSIOGRAPHY

## 5.1 Accessibility

The property is locally accessed via all-weather paved and gravel roads from the town of Battle Mountain, Nevada. To access the property travel south from Battle Mountain on State Highway 305 approximately 21 kilometers to the turnoff of the Buffalo Valley road, thence south on the Buffalo Valley Road 6.4 kilometers to the Willow Creek Reservoir Road, thence northerly on the Willow Creek Reservoir Road approximately 4.8 kilometers past Nevada Gold Mine's Phoenix project to the Project site and onto the Property after crossing the Sunshine haul road.

Regional access from larger population centers at Elko, Winnemucca and Reno Nevada is via Interstate 80 to Battle Mountain.

## 5.2 Physiography, Climate and Vegetation

The Independence Project lies within the Basin and Range physiographic province and is composed of two relatively flat valleys and steep-sided ranges with approximately 1,128 meters (3,700 feet) of relief. Elevations range from approximately 1,378 meters (4,520 feet) along the Reese River to 2,509 meters (8,232 feet) at Antler Peak. The mountains serve as hydrologic divides that separate drainage basins. The mountain flanks are deeply incised in places, and the resulting canyons collect and discharge runoff to creeks and alluvial fans. The valley floors grade toward the Reese River and Buffalo Valley Playa. The Independence Deposit is located in an area of gently rolling hills and subdued topography on the west side of Pumpernickel Ridge. Elevations on the property range from 1,550 to 1,830 meters (5,100 to 6,000 feet) above mean sea level.

Vegetation is composed of low, sparse desert shrubs, forbs and bunch grasses. Figure 5-1 is a view of the property showing the typical vegetation.

**Figure 5-1 View of Independence Property with typical vegetation**

Source: GIMC, 2020

The climate of the property is typical of the high deserts found in the northern Great Basin, with cool, mild winters and warm dry summers. Maximum summer temperatures occur in July and August rarely exceeding 35 $^{o}$C (95$^{o}$F) and with winter lows usually occurring during the months of December and January. Freezing conditions sufficient to result in operational problems for milling or heap leaching may occur from late November through mid-February. The region is sunny enjoying more than 265 day of sun per year.

Precipitation is light with total average annual precipitation of 19 cm (7.5 inches). Precipitation occurs mostly as snow during the winter and spring months from December through June. Heaviest precipitation occurs during April, May and June, with the lightest precipitation falling in July and August. The region has an annual evaporative deficit exceeding 508 cm (200 inches) per year. The evaporative potential exceeds two inches per day during the warm dry months of July and August and may be aggravated by windy conditions during this time. The following data is from the World Climate web site at www.worldclimate.com

Average Max. Temperature,
Battle Mountain, Nevada

| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Year** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °C | 5.1 | 8.9 | 12.6 | 17.3 | 22.7 | 28.4 | 34 | 32.7 | 27.2 | 20.4 | 11.2 | 5.4 | 18.8 |
| °F | 41.2 | 48 | 54.7 | 63.1 | 72.9 | 83.1 | 93.2 | 90.9 | 81 | 68.7 | 52.2 | 41.7 | 65.8 |

Average Min. Temperature,
Battle Mountain Nevada

| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Year** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| °C | -8.8 | -5.6 | -3.5 | -1.1 | 3.4 | 7.6 | 10.7 | 9.3 | 4.2 | -1 | -4.7 | -8.8 | 0.1 |
| °F | 16.2 | 21.9 | 25.7 | 30 | 38.1 | 45.7 | 51.3 | 48.7 | 39.6 | 30.2 | 23.5 | 16.2 | 32.2 |

Average Monthly Precipitation,
Battle Mountain Nevada

| | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Year** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mm | 16 | 14.1 | 16.5 | 19.8 | 23.6 | 19.5 | 8.3 | 7.4 | 13.2 | 16.5 | 17.1 | 18.1 | 191.2 |
| Inches | 0.6 | 0.6 | 0.6 | 0.8 | 0.9 | 0.8 | 0.3 | 0.3 | 0.5 | 0.6 | 0.7 | 0.7 | 7.5 |

The operating season is year round and is generally unaffected or only slightly affected by extremes in temperature. Precipitation generally does not affect operating conditions.

## 5.3 Local Resources and Infrastructure

The nearest population center is the town of Battle Mountain with a population of approximately 3,600. It is located approximately 24 kilometers (15 miles) north of the property along Interstate 80. The property is easily accessed by car over all-weather county maintained roads from Battle Mountain.

Other larger population centers accessible by car from the property are Elko and Winnemucca, Nevada, with populations of approximately 20,500 and 7,700 respectively. Elko is located 113 kilometers (70 miles) east of the property on Interstate 80 and Winnemucca is located 89 kilometers (55 miles) west of the property on Interstate 80. Reno, Nevada, the largest population center in northern Nevada is situated approximately 350 kilometers (218 miles) southwest of the property along Interstate 80. .

A small regional airport provides air access via private or chartered flights. There is no commercial air service to Battle Mountain.

Commercial power currently services the adjacent Phoenix mine operated by Nevada Gold Mines, LLC. It is believed that commercial power could be extended to the property with no unusual problems. Right-of-ways would be necessary from the BLM and Nevada Gold Mines to extend the power lines to the property.

Mining and ranching are the principal economic activities in the region. An adequate work force of skilled, often experienced personnel is available in the Winnemucca, Battle Mountain and Elko area.

## 5.4 Other Local Issues

The surface of the unpatented lode and millsite claims which comprise the mineral estate of the property is public domain land administered by the BLM. GIMC owns a private, fee surface which consists of the W1/2 and the NE1/4 of Section 17, T 30 N, R 43 E, MDBM. This fee surface is exclusive of mineral rights. Other private and public lands may be available from Nevada Gold Mines LLC., which surrounds the property with a mix of publicly administered lands and private fee lands.

There is generally adequate property to construct and operate a mine and process facilities within the limits of the property. If mineralization continues to expand significantly beyond that presently identified, it may become necessary to acquire additional lands for expanded operations and waste rock disposal.

The area has been classified as a zone 4 seismic risk by the US Corp. of Engineers. There are no other local issues of which the Authors are aware.

# 6.0 HISTORY

## 6.1 Early District History

Activity in the Copper Canyon (Battle Mountain) District began in 1866 with the discovery and mining of high grade silver veins. Gold was discovered in the area in 1912. High-grade copper ores from the Glory Hole mine were produced starting in the 1920s.

Mining in the district was sporadic throughout the early part of the twentieth century until Duval Corporation, then a subsidiary of Royal Dutch Shell Minerals, commenced open pit mining of copper in 1966. Duval Corporation changed its name to Battle Mountain Gold Corporation in 1981, and was divested from Shell Oil as an independent public company, when the large bulk minable gold ores at the Fortitude deposit were discovered. This discovery shifted primary production in the district from copper to gold. Current operations in the district are centered at Nevada Gold Mine's Phoenix Project. This is a multiple open pit, milling/leaching operation recovering gold, silver and copper ores from shallow sulfide mineralization. The Independence Deposit is situated less than one mile west-southwest of the Phoenix open pits and is completely encompassed by the Phoenix Project Boundary.

## 6.2 History - Independence Mine

The Independence Mine produced intermittently from 1938 through 1987. Production came from several miles of underground workings developed along a 460 meters (1,500 ft.) strike length of the Independence fault zone (Carrington, 1997). Reported historic underground mine production, by the various operators, totaled 750,200 ounces silver and 11,029 ounces gold Table 6-1.

**Table 6-1 Reported Production and Operators of the Independence Mine**

| **Wilson Independence Mine Production History** | | | | | |
|---|---|---|---|---|---|
| **Operator** | **Period** | | **Tons Ore** | **Au Oz** | **Ag Oz** |
| Wilson & Broyles | 1938 | 1943 | 1,386 | 996 | 32,705 |
| Bonner Cole | 1954 | 1958 | 2,796 | 2,793 | 110,294 |
| Agricola | 1973 | 1974 | 2,711 | 271 | 42,014 |
| APCO | 1974 | 1976 | 35,517 | 3,856 | 391,989 |
| Silver King | 1976 | 1981 | 7,984 | 531 | 38,437 |
| United Mining | 1982 | 1985 | 3,918 | 843 | 76,263 |
| Harrison Mining | 1985 | 1987 | 10,747 | 1,739 | 58,498 |
| **Total Recorded Production** | | | 65,059 | 11,029 | 750,200 |
| Average recovered grade of all recorded underground production. | | | | 0.170 | 11.53 |
| Source: **Independence Gold - Silver Mines Inc., October 14, 1997, Letter Report to US Bureau of Land Management, Battle Mountain Field Office** | | | | | |
| *Note: In verbal communications circa 1976 with R. Carrington, Bonner Cole reported production of "5000 tons averaging 1 opt shipped to Salt Lake City Smelter" | | | | | |

Early prospecting in the Independence area occurred during the late 1800's. The property apparently then lay idle until local rancher Dudley Wilson is reported to have discovered the surface outcrops of the present day ore zone in 1937 and began sinking a shallow shaft on the mineral occurrence. From 1938 to 1943 Wilson and a partner continued developing the inclined shaft and lateral workings from the shaft producing 1,257 tonnes (1,386 tons) of high-grade ore with an average recovered value of 2.47 g/t (0.072 opt) gold and 809 g/t (23.6 opt) silver. This ore was direct shipped to custom mills or smelters in the region.

After a period of inactivity during and shortly after WW II, local miner Bonner Cole acquired a lease on the property from Wilson. During this period Cole recorded production of 2,537 tonnes (2,796 tons) with an average grade of 34.3 g/t (1.000 opt) Au and 1,351 g/t (39.4 opt) Ag. Bonner Cole in personal communications with Mr. Carrington reported actual production during this period of 4,536 tonnes (5,000 tons) at a similar grade. Cole shipped all of his ore to smelters in Salt Lake City, Utah, and was forced to cease operations when the smelter stopped receiving custom ores.

The property then lay idle from 1958 until 1973, when Union Pacific Railroad's minerals division, Agricola Minerals, acquired a lease on the property from Independence Gold-Silver Mines. Agricola conducted limited exploration and drilling, erected a 50-ton per day cyanide mill, which had been moved from a mill site at Manhattan, Nevada. Agricola produced 2,460 tonnes (2,711 tons) with an average grade of 3.4 g/t (0.100 opt) Au and 530 g/t (15.5 opt) Ag.

In September 1966, Independence Gold-Silver Mines entered into a Mining Lease and Option to Purchase Mining Claims with Don R. Link. In 1972 the North Independence No.1 and No.2 claims were located by Independence Gold-Silver Mines.

In late 1973 and early 1974 APCO Oil Corporation took over the Agricola Lease, rebuilt and expanded the mill to roughly 90 tonnes (100 tons) per day. APCO also drove 365 meters (1,200 feet) of 12% spiral decline and more than 1,220 meters (4,000 feet) of new haulage levels for rubber tired access. APCO conducted surface and underground mapping, sampling and drilling programs developing and expanding reserves, encountering high grade mineralization assaying as high as 3.00 ounces of gold and 19,000 ounce of silver per ton (100 g/t Au and 651,000 g/t Ag) in the ore body that became known as the APCO Stope. From 1974 through 1976 APCO produced 32,220 tonnes (35,517 tons) with an average grade of 3.8 g/t (0.110 opt) Au and 380 g/t (11.0 opt) Ag. During 1975, the peak year of production, APCO produced up to one ton of dorè bullion per month. 1975 production is reported to be 10,890 tonnes (12,000 tons) with an average grade of 6.8 g/t (0.198 opt) Au and 780 g/t (22.75 opt) Ag.

In late 1975 APCO Oil became the subject of a hostile takeover for its oil and related assets. APCO's minerals interests were acquired by Silver King Mines Inc. in 1976. Silver King operated the mine until late 1981 producing 7,243 tonnes (7,984 tons) with an average grade of 2.4 g/t (0.070 opt) Au and 164 g/t (4.8 opt) Ag. Silver King conducted no exploration or new development work.

In 1981 United Mining acquired Silver King's interest in the Property, and purchased the Old Glory, DC80, 81, 82 and DC83 claims which became part of the property under the terms of United Mining Agreement. United operated the property from 1981 through 1985 in much the same manner as Silver King, conducting little or no exploration and minimal development work. United produced 3,555 tonnes (3,918 tons) at an average grade of 7.5 g/t (0.22 opt) Au and 668 g/t (19.5 opt) Ag. United Mining completed 24 open hole "air track" type drill holes using 3.04 meter (10-foot) sample intervals.

In 1985, Earl Harrison, at the time United Mining's, Mine Manager, acquired United's interests as Harrison Mining. Harrison operated the property until late 1987 producing 9,750 tonnes (10,747 tons) of ore with an average grade of 5.5 g/t (0.16 opt) Au and 185 /t (5.4 opt) Ag.

Noranda entered into an exploration lease agreement with Independence Gold-Silver Mines in 1984 to explore the deep skarn gold mineralization on the Independence Property. Between 1984 and 1987, Noranda conducted surface mapping and soil sampling followed by 7 deep drill holes on the property to depths ranging from 884 to 975 meters (2,900 to 3,200 feet), with all holes intersecting mineralization.

Subsequently Battle Mountain Gold acquired a leasehold interest in the property and conducted limited reverse circulation (RC) drilling using a 3.04 meter (10-foot) sample interval for most of the holes. All holes encountered mineralization but did not encounter consistent values comparable to the Fortitude Deposit that Battle Mountain Gold was mining at the time. Battle Mountain subsequently terminated its interest.

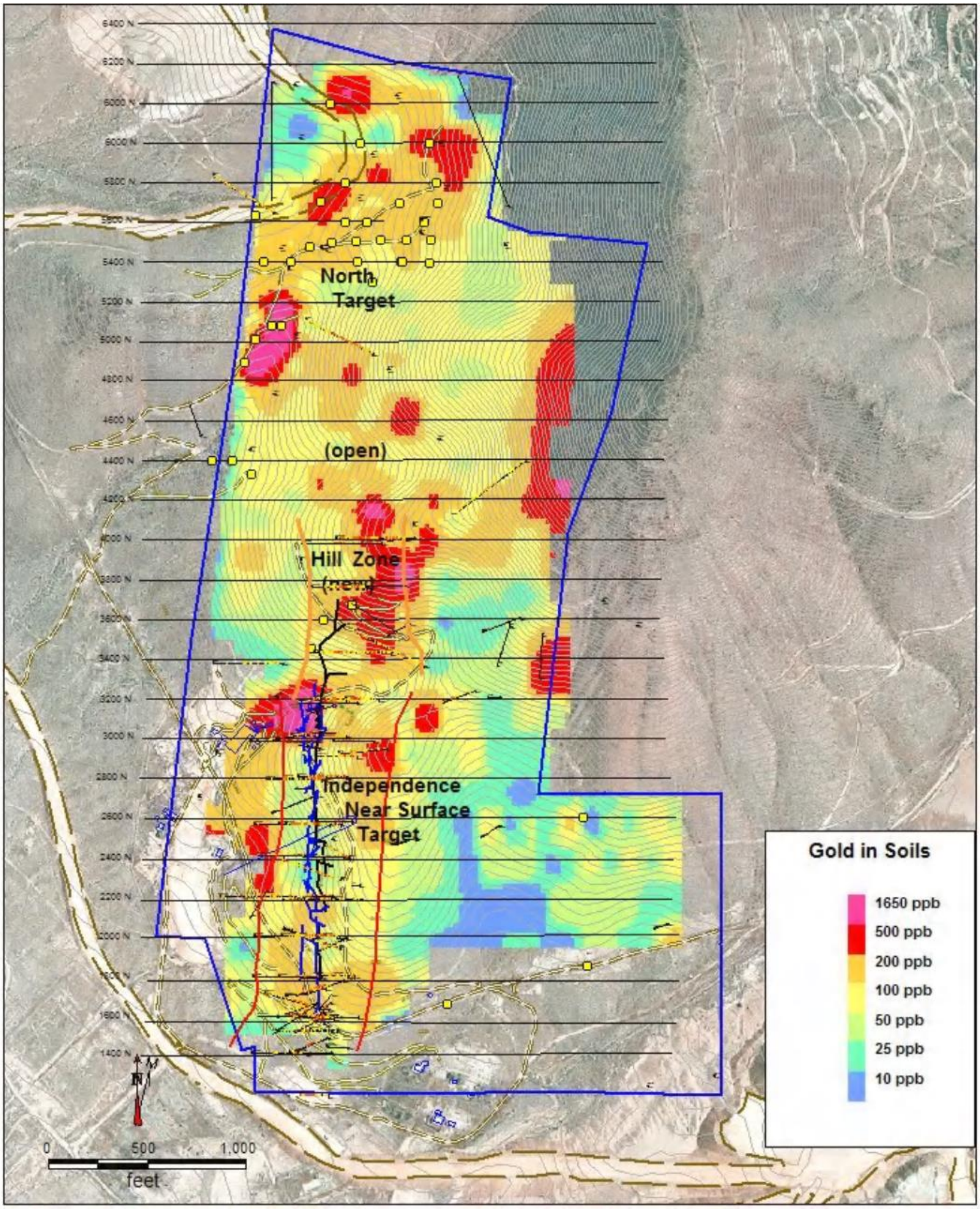
In 1993, Vancouver based, Lansdowne Minerals acquired an option to lease the property from Independence Gold Silver Mines. Lansdowne conducted limited exploration on the property in 1994, which included 5 RC drill holes all of which encountered mineralization. Later in 1994 Independence Gold-Silver Mines terminated Lansdowne's option for failure to fulfill its payment obligations.

In 1995 Teck Corporation acquired a leasehold interest to the property. Teck quickly conducted a widespread program of RC drilling completing 14 drill holes, all of which encountered mineralization. In mid-1996 Teck assigned its interest to Robert G. Carrington terminating Teck's interest.

Carrington subsequently assigned his interest in the property to Great Basin Gold Corporation. Great Basin conducted detailed surface mapping, soil sampling, and extensive trenching. Great Basin subsequently completed two deep drill holes to test the gold skarn that Noranda had identified. In the face of falling metal prices Great Basin re-assigned its leasehold interest to Carrington in early 1998. Unable to attract further attention Carrington terminated his interest in late 1998 returning the property to Independence Gold-Silver Mines.

Noranda (1985-87) and Great Basin Gold (1996) conducted soil programs which when combined provide property wide coverage. A total of 363 samples were collected at nominal 30 meter (100') spacing along grid lines spaced 60 meter (200') apart. Gold values range from nil to 1,750 ppb gold. Gold values were contoured using a weighted inverse distance square grid method to generate the grid with the contour intervals determined using natural breaks in the gold sample population. The results, shown in Figure 6-1, represent the contoured gold soil values.

**Figure 6-1 Contoured Soil Gold Values**




(Source: Rassuchine, 2008)

In 2004 Gold Range Company LLC, a private Nevada Limited Liability Company acquired an option to lease the Independence Property and consummated the lease in 2005. A short while later, on April 29, 2005, Gold Range negotiated an agreement with General Gold Corporation which resulted in Gold Range assigning its interests to General Gold. General Gold was subsequently acquired by General Metals Corporation in January 2006.

GMC completed a drilling program to evaluate the gold potential remaining in the tailings of the Independence mine in 2006. A total of 36 very shallow reverse circulation holes were drilled on nominal 50 foot spacing and preliminary metallurgical leach testing was conducted. This work confirmed the presence of low grade gold-silver mineralization remaining in the tailings tested which may be suitable for inclusion in a larger heap leach operation. From measurements it was estimated that there are 55,300 tonnes (61,000 tons) of material remaining. Historic production figures indicate from 54,400 to 63,500 tonnes (60,000 to 70,000 tons) of material was mined from the underground. The data for this evaluation has not been verified by the Authors.

GMC also collected 30 surface samples to evaluate the old mill crusher reject stockpile. The stockpile consists of an estimated 28,100 tonnes (31,000 tons) of sized, screened material ranging from 1.25 to 3.8 cm (½ to 1 ½ inch) which may be suitable for use as overliner material for a heap leach pad.

In 2007 GMC initiated Reverse Circulation (RC) drilling on the Independence near surface target and completed 3,223 meters (10,575 ft.) of RC drilling in 32 drill holes. The Company continued drilling in 2008 completing 5,311` meters (17,425 feet) of RC drilling in 52 additional drill holes. Additional drilling was done in 2009 – 2010 in which 44 RC drill holes were completed for a total footage of 12,895 feet. In 2011 three HQ core holes 327 meters (1,072 feet) were completed as twins to past RC drilling and to gather geotechnical and geological information as well as samples for additional metallurgical testing. Total footage drilled by GMC is 12,792 meters (41,969 feet) in 131 drill holes.

The drill results to date outline a laterally extensive zone of near surface oxide gold and silver mineralization hosted in brecciated and fractured thick bedded to semi-massive chert members of the C-1 unit of the silciclastic Pennsylvanian age Pumpernickel Formation, within the Golconda Allochthon of the Battle Mountain Mining District. Mineralization identified to date is associated with Eocene age intrusive granodiorite stocks, and is in general, part of the same mineral system which generated the multi-million ounce Upper and Lower Fortitude Deposits, and the giant Phoenix Deposit currently being mined by Nevada Gold Mines. The size of the adjacent NGM deposits is not indicative to the quantity or quality of the mineralization on the Independence property.

The geometry of the Independence near surface deposit is a large west dipping tabular body with excellent continuity along strike and down dip, which appears to potentially be amenable to open pit mining and due to its thoroughly oxidized nature also appears be amenable to low cost heap leaching. This mineralized zone has been defined over a width of 122 meters (400 feet), and for a distance of more than 915 meters (3000 feet) on strike. Mineralization remains open on strike to the north, and down dip. The mineralization is oxidized to depths of 90 to 122 meters (300 to 400 feet) below the surface after which a narrow zone of mixed oxide – sulfide rapidly give way to un-oxidized, sulfide rich primary mineralization.

Independence Gold-Silver Mines terminated the General Gold Corporation, Inc. agreement on November 23, 2015 for certain legal defaults on the agreement.

On February 17, 2017 Americas Gold Exploration, Inc. (AGEI), a privately owned Nevada “C” Corporation executed with Independence Gold-Silver Mines an exclusive Exploration License with Option to Purchase Agreement. AGEI drilled 12 RC holes on the property in 2017-2018, documented in the Drilling section of this Technical Report.

On August 28, 2020 Americas Gold Exploration, Inc. (AGEI), Independence Gold-Silver Mines, Inc. (IGSM) and Golden Independence Mining Corp. (GIMC) entered into the “Independence Gold Option Agreement”. GIMC drilled 36 RC holes and 5 core holes on the property in 2020-2021.

On January 25, 2021 GIMC Purchased 100% of the IGSM Lode & Millsite claims on behalf of Americas Gold Exploration, Inc., subject to a 2% retained NSR by IGSM.

On December 9, 2021, all of the mineral and millsite claims were transferred to Independence Mining LLC, a Nevada limited liability company (the "Company"), which is jointly owned by GIMC (51%) and AGEI (49%). The mineral claims are subject to a 2% NSR in favor of IGSM, the previous property owner.

## 6.3 Exploration and Development History

Table 6-2 below shows the historic drilling to date by company and type of drilling for the property.

**Table 6-2 Independence Historic Drilling Summary**

| Company – Drilling Type | Holes | Footage | Meters |
|---|---|---|---|
| Union Pacific Minerals – Core | 2 | ?? | ?? |
| APCO Oil Corporation – Core | 2 | ?? | ?? |
| United Mining – Air Track | 24 | 4,075 | 1,242 |
| Noranda – Core | 7 | 19,073 | 5,813.5 |
| Battle Mountain Gold – Reverse Circulation | 22 | 10,835 | 3,302.5 |
| Landsdowne Minerals – Reverse Circulation | 5 | 2,535 | 773 |
| Teck Corporation – Reverse Circulation | 14 | 7,010 | 2,136 |
| Great Basin Gold – RC Pre-collar,2640 – Core,3943 | 2 | 6,583 | 2,006.5 |
| General Metals Corp. Tailings RC | 36 | 600 | 183 |
| General Metals Corp. – Reverse Circulation | 128 | 40,895 | 12,465 |
| General Metals Corp – HQ Core | 3 | 1,072 | 327 |
| **Totals*** | 241 | 92,678 | 28,248.5 |

* Total only includes holes with known footage.

Source: GMC, 2011

GMC conducted an assessment of the historic tailings in 2006 which consisted of 36 shallow RC drill holes. Results indicated approximately 55,300 tonnes (61,000 tons) with an average grade of 0.9 g/t (0.026 opt) Au and 17.8 g/t (0.52 opt) Ag. In 2007 – 2008 GMC completed 8,396 meters (27,545 feet) of RC drilling in 84 holes. This drilling outlined a zone of near surface gold and silver mineralization with a strike length of more than 915 meters (3,000 feet) and approximately 122 meters (400 feet) wide. The mineralized zone is open to the north and down dip. GMC believed this surface mineralization is rooted in the gold skarn approximately 915 meters (3,000 feet) below the surface and below the shallower Golconda Thrust. In the 2009 - 2010 drilling program GMC completed 3,930 meters (12,895 feet) of drilling in 44 RC holes. This program was primarily an infill drilling program which confirmed the location, orientation, and continuity of mineralization. In 2011, GMC drilled three HQ core holes with a total footage of 327 meters (1,072 feet). These three holes twined existing GMC RC drill holes. The core from these holes was logged for both geological and geotechnical characteristics.

## 6.4 Historic Resource and Reserve Estimates

There are no previous NI 43-101 compliant mineral resource estimates for the Property. Various groups or individuals have estimated the resource potential for both the near surface deposit and the deep skarn deposit of the property over the years. None of these historic resource estimates are NI 43-101 compliant and are described here to show the reader that past property operators were interested enough in the property to generate mineral resource estimates. It must be clear to the reader that these resource estimates should not be relied upon and only gives the reads a sense of how the project has advanced over the years.

In a 1987 interoffice memorandum, Noranda Exploration estimated the deep gold skarn target potentially contained more than 2 million ounces of gold based on seven widely spaced drill holes. The Company feels the estimate is relevant as it indicates the potential of the deep skarn and is reliable as it was estimated by competent geologists utilizing data acquired using the standards of the day. GIMC does not have any information on key assumptions, parameters, and methods used to prepare the historical estimate. The potential ounces would be similar to a current inferred mineral resource. A more recent estimate was completed by GMC in 2010 utilizing additional drilling by Great Basin Gold in 1998 yielding an Inferred gold resource of 3,794,000 tonnes (4,182,000 tons) grading 6.5 g/t (0.19 opt) Au for 796,200 ounces (Ashton, Carrington and Nunnemaker, 2010). This Inferred Resource for the deep skarn has been brought current in this Technical Report. The Company cautions investors a qualified person has not done sufficient work to classify the historical estimate as current mineral resources and further the Company is not treating the historical estimate as current mineral resources.

In a news release dated November 23, 1993, Lansdowne Minerals estimated resource potential for open pit mining from 2.32 to 6.94 million tonnes (2.56 to 7.65 million tons) grading 2.74 g/t (0.08 opt) Au and containing from 205,000 to 612,000 ounces of gold and 8.5 to 25.4 million ounces of silver. The Company feels the estimate is relevant as it indicated the potential for the shallow oxide and is reliable as it was estimated by competent geologist utilizing data acquired to the standards of the day. Lansdowne based the resource estimate on the perceived geometry and general grades of the deposit at the time. The Lansdowne estimate was not broken into categories, though the Author would consider this estimate compatible to a current Inferred Resource. Subsequent estimates were made as detailed below. Further drilling was required and completed subsequent to this estimate. Again, this estimate is incorporated in the resource estimate documented in this Technical Report. The Company cautions investors a qualified person has not done sufficient work to classify the historical estimate as current mineral resources and further the Company is not treating the historical estimate as current mineral resources.

R. Carrington in 1997 estimated non-compliant inferred resources for both the near surface and deep skarn targets. Carrington estimated the near surface resource to contain an inferred resource with 235,000 ounces of gold and 2.5 million ounces of silver in 6.26 million tonnes (6.9 million tons) with an average grade of 1.17 g/t (0.034 opt) Au and 12.34 g/t (0.36 opt) Ag. Mr. Carrington estimated an inferred resource containing 1.97 million ounces of gold with no silver contained in 9.16 million tonnes (10.1 million tons) in the deep Skarn target with an average grade of 6.69 g/t (0.195 opt) Au using a cutoff of 3.1 g/t (0.09 opt) Au. All Mr. Carrington's estimates were based on 64 widely spaced reverse circulation drill holes and 9 core holes drilled by various operators. The Company was unable to locate the document supporting this estimate. The Company feels the estimate is relevant as it indicated the potential for the shallow oxide and the deeper skarn and is reliable as it was estimated by competent geologist utilizing data acquired to the standards of the day. The inferred resources from this estimate would be compatible with current Inferred Resources. Further drilling was required and completed subsequent to this estimate. Again, this estimate is incorporated in the resource estimate documented in this Technical Report. The Company cautions investors a qualified person has not done sufficient work to classify the historical estimate as current mineral resources and further the Company is not treating the historical estimate as current mineral resources.

In 2011 GMC was working towards completing an NI 43-101 compliant mineral resource estimate for the Independence Deposit. The report was not completed; however the draft form was made available to the current Author (Ashton, Carrington and Nunnemaker, 2010). The non-compliant result from this work was an estimated total mineral resource for the near surface deposit of 270,000 ounces of gold and 4.0 million ounces of silver in 18.73 million tonnes with an average grade of 0.45 g/t Au and 6.63 g/t Ag and a deeper inferred resource of 796,200 ounces in 3.794 million tonnes grading 6.53 g/t Au. The Company feels the estimate is relevant as it indicated the potential for the shallow oxide and the deeper skarn and is reliable as it was estimated by competent geologist utilizing data acquired to the standards of the day. The inferred resources from this estimate would be compatible with current Inferred Resources. Subsequent drilling was completed by GIMC in 2020. Again, this estimate is incorporated in the resource estimate documented in this Technical Report. The Company cautions investors a qualified person has not done sufficient work to classify the historical estimate as current mineral resources and further the Company is not treating the historical estimate as current mineral resources.

In June 2021 GIMC released the initial mineral resource estimate for the Independence property in the NI 43-101 technical report "Technical Report of the Independence gold Project, Battle Mountain Mining District, Lander County, Nevada USA". In this report GIMC reported the unconstrained total Near Surface modelled mineralization for the project at a cutoff grade that would be potentially economic for open pit mining. Table 6-3 lists the Near Surface MRE from the June 2021 technical report. In November 2021 this unconstrained MRE was updated to include 12 new drill holes drilled in mid-2021. With new metallurgical information the unconstrained MRE was divided by oxidation type of oxide, transition, or sulfide material. Appropriate cutoff grades for potentially economic open pit mining were applied to each oxidation state. The resulting MRE is shown in Table 6-4. The Company is not treating either of these two recent MRE as current mineral resources for the Independence project as the Company believes they do not now meet the mineral resource standard of '*reasonable prospects for economic extraction'.*

**Table 6-3 Independence June 2021 MRE Near Surface Deposit**

| Independence Near Surface Mineralization | | | | | | | |
|---|---|---|---|---|---|---|---|
| Measured Resources | | | | | | | |
| **Cutoff** | **Tonnes** | **Grade (g/t)** | | | **Ounces** | **Ounces** | **Ounces** |
| (gr. Au/tonne) | | **Gold** | **Silver** | **Gold Eq.** | **Gold** | **Silver** | **Gold Eq.** |
| 0.2 | 7,519,000 | 0.5 | 9.8 | 0.64 | 119,900 | 2,369,600 | 153,800 |
| Indicated Resources | | | | | | | |
| **Cutoff** | **Tonnes** | **Grade (g/t)** | | | **Ounces** | **Ounces** | **Ounces** |
| (gr. Au/tonne) | | **Gold** | **Silver** | **Gold Eq.** | **Gold** | **Silver** | **Gold Eq.** |
| 0.2 | 32,133,000 | 0.4 | 5.59 | 0.48 | 417,400 | 5,775,700 | 499,000 |
| Measured & Indicated Resources | | | | | | | |
| **Cutoff** | **Tonnes** | **Grade (g/t)** | | | **Ounces** | **Ounces** | **Ounces** |
| (gr. Au/tonne) | | **Gold** | **Silver** | **Gold Eq.** | **Gold** | **Silver** | **Gold Eq.** |
| 0.2 | 39,652,000 | 0.42 | 6.39 | 0.51 | 537,300 | 8,145,300 | 652,800 |
| Inferred Resources | | | | | | | |
| **Cutoff** | **Tonnes** | **Grade (g/t)** | | | **Ounces** | **Ounces** | **Ounces** |
| (gr. Au/tonne) | | **Gold** | **Silver** | **Gold Eq.** | **Gold** | **Silver** | **Gold Eq.** |
| 0.2 | 14,449,000 | 0.32 | 2.62 | 0.36 | 147,300 | 1,219,100 | 164,900 |

**Table 6-4 Independence November 2021 MRE Near Surface Deposit**

| Independence Total Modelled Near Surface Mineralization | | | | | | | |
|---|---|---|---|---|---|---|---|
| Measured Resources | | | | | | | |
| **Oxidation (Cutoff)** | **Tonnes** | **Grade (g/t)** | | | **Ounces** | **Ounces** | **Ounces** |
| (gr. Au/tonne) | | **Gold** | **Silver** | **Gold Eq.** | **Gold** | **Silver** | **Gold Eq.** |
| Oxide (0.175) | 6,247,600 | 0.465 | 9.593 | 0.602 | 93,413 | 1,927,113 | 120,934 |
| Transition (0.215) | 1,335,086 | 0.512 | 7.558 | 0.62 | 21,980 | 324,456 | 26,616 |
| Sulfide (0.425) | 430,261 | 0.839 | 13.757 | 1.036 | 11,607 | 190,325 | 14,333 |
| Indicated Resources | | | | | | | |
| **Oxidation (Cutoff)** | **Tonnes** | **Grade (g/t)** | | | **Ounces** | **Ounces** | **Ounces** |
| (gr. Au/tonne) | | **Gold** | **Silver** | **Gold Eq.** | **Gold** | **Silver** | **Gold Eq.** |
| Oxide (0.175) | 19,470,574 | 0.37 | 5.535 | 0.449 | 231,643 | 3,465,261 | 281,102 |
| Transition (0.215) | 7,160,846 | 0.415 | 4.93 | 0.486 | 95,555 | 1,135,144 | 111,903 |
| Sulfide (0.425) | 2,138,823 | 0.754 | 10.975 | 0.911 | 51,854 | 754,778 | 62,652 |
| Measured & Indicated Resources | | | | | | | |
| **Oxidation (Cutoff)** | **Tonnes** | **Grade (g/t)** | | | **Ounces** | **Ounces** | **Ounces** |
| (gr. Au/tonne) | | **Gold** | **Silver** | **Gold Eq.** | **Gold** | **Silver** | **Gold Eq.** |
| Oxide (0.175) | 25,718,174 | 0.39 | 6.52 | 0.49 | 325,056 | 5,392,375 | 402,037 |
| Transition (0.215) | 8,495,932 | 0.43 | 5.34 | 0.51 | 117,534 | 1,459,600 | 138,518 |
| Sulfide (0.425) | 2,569,084 | 0.77 | 11.44 | 0.93 | 63,462 | 945,102 | 76,985 |
| Inferred Resources | | | | | | | |
| **Oxidation (Cutoff)** | **Tonnes** | **Grade (g/t)** | | | **Ounces** | **Ounces** | **Ounces** |
| (gr. Au/tonne) | | **Gold** | **Silver** | **Gold Eq.** | **Gold** | **Silver** | **Gold Eq.** |
| Oxide (0.175) | 6,832,418 | 0.308 | 3.279 | 0.354 | 67,665 | 720,370 | 77,771 |
| Transition (0.215) | 3,511,990 | 0.319 | 2.4 | 0.353 | 36,023 | 271,022 | 39,863 |
| Sulfide (0.425) | 273,914 | 0.597 | 3.521 | 0.647 | 5,258 | 31,011 | 5,698 |

# 7.0 GEOLOGICAL SETTING AND MINERALIZATION

## 7.1 Regional Geology

The regional geology of north central Nevada is defined by episodic tensional deformation rifting, sedimentation and erosion, followed by wide spread thrusting resulting from compressional deformation. Episodic tensional events followed by compressional events are:

Robert Mountains Allochthon emplaced during the Antler orogeny, erosion and sedimentation followed depositing the overlap sequence (Antler Sequence of Roberts, 1964) in angular unconformity. The Antler sequence hosts the Golconda Allochthon which was emplaced during the Sonoma orogeny and contains the Havallah Sequence of Mississippian to Permian age rocks, including the Pumpernickel Formation, host for near surface mineralization at Independence.

The Roberts Mountains allochthon contains Late Cambrian Harmony Formation, Ordovician Valmy Formation, and Devonian Scott Canyon Formation and was emplaced during the Antler orogeny. This allochthon is overlain in angular unconformity by the overlap assemblage (Antler sequence of Roberts, 1964) containing the Middle Pennsylvanian Battle Formation, Pennsylvanian and Permian Antler Peak Limestone, and Permian Edna Mountain Formation. Rocks of the Roberts Mountain Allochthon host the adjacent 2.2 million ounce Fortitude deposit and are the principle host for the contiguous 12.5 million ounce Phoenix deposit and the Independence Deep Skarn Target. These rocks are structurally overlain by the Mississippian, Pennsylvanian, and Permian Havallah sequence of the Golconda allochthon, the base of which is the regionally extensive Late Permian to Early Triassic Golconda thrust, which was active during the Sonoma orogeny (Doebrich and Theodore, 1996).

The Late Cambrian Harmony Formation crops out over a large area in the eastern part of the Battle Mountain Mining District and structurally overlies the Ordovician Valmy Formation and Devonian Scott Canyon Formation along the Dewitt thrust. The Dewitt thrust is considered a major imbricate thrust or splay of the Roberts Mountains thrust known locally as the Dewitt allochthon. The Harmony Formation consists of locally calcareous, feldspathic to micaceous sandstone and lesser amounts of calcareous shale and limestone (Doebrich and Theodore, 1996).

Calcareous units of the Harmony Formation were converted to biotite hornfels in the Copper Canyon, Copper Basin and Independence areas near intrusions. Locally the more calcareous units were converted to garnet-pyroxene skarn. In the Copper Basin area, the Harmony Formation was host to supergene-enriched porphyry copper mineralization at the Contention, Carissa, Copper Queen, Sweet Marie, and Widow deposits, and to gold-silver skarn and distal disseminated silver-gold deposits at the

Labrador, Surprise, Northern Lights, and Empire deposits. The Harmony Formation also was host for half of the one billion tons of mineralized rock at the Buckingham molybdenum deposit. At the East Deposit in the Copper Canyon area and just south of the Independence, rocks of the Harmony Formation were hosts for porphyry copper mineralization associated with potassic alteration assemblages along the east side of the granodiorite of Copper Canyon (Doebrich and Theodore, 1996).

Early and Middle Ordovician rocks of the Valmy Formation underlie a large area in the northern part of the mining district and are found as small fault-bounded slivers structurally intercalated with Late Devonian Scott Canyon Formation in the Galena Canyon area. The Valmy Formation, particularly quartzarenite units, are hosts to distal disseminated silver-gold ore bodies at the Top Zone deposit at the Marigold Mine and at the Valmy-Trout Creek and Trenton Canyon gold deposits of Santa Fe Pacific Gold's, now Newmont's Trenton Canyon project (Doebrich and Theodore, 1996).

Devonian Scott Canyon Formation is exposed in the southeast part of the district. North and south of Galena Canyon it is structurally overlain by the Late Cambrian Harmony Formation along the Dewitt thrust. The Scott Canyon Formation is host for distal disseminated silver-gold ore at the Iron Canyon Mine, where mineralization is closely associated with an Oligocene granodiorite porphyry dike (Doebrich and Theodore, 1996).

Rocks of the Roberts Mountains allochthon were transported eastward, on the Roberts Mountains thrust, during the late Devonian to Early Mississippian Antler orogeny. The Roberts Mountains thrust is not exposed at the surface in the Battle Mountain district. Deep drilling indicates that it probably underlies the district at depths greater than 1,300 m. A Paleozoic structural fabric, primarily consisting of fold axes, was imparted on rocks of the Roberts Mountains allochthon during the Antler orogeny and generally strikes N 10º W to N 20º E (Doebrich and Theodore, 1996).

The Pennsylvanian and Permian Antler sequence, the overlap assemblage, is exposed at several localities in the district and constitutes the only Paleozoic autochthonous rocks in the district. The sequence consists of the Middle Pennsylvanian Battle Formation, Pennsylvanian and Permian Antler Peak Limestone, and Permian Edna Mountain Formation. Thicknesses of formations are extremely variable throughout the district, and individual formations may be absent from local stratigraphic sections. Rocks of the Antler sequence, the most favorable host for hydrothermal mineral deposits in the Battle Mountain mining district, lie unconformably on rocks of the Roberts Mountains allochthon (Doebrich and Theodore, 1996).

The Middle Pennsylvanian Battle Formation is at the base of the Antler sequence and locally lies unconformably on the Late Cambrian Harmony Formation and Ordovician Valmy Formation. The Battle Formation was deposited in a high energy environment and generally consists of deeply canneled, immature thick-bedded conglomerate and sandstone, along with lesser amounts of siltstone, shale, and limestone. Siliciclastic units are variably calcareous, and clastic components were derived from rocks of the Roberts Mountains allochthon during erosion of the Antler highland. The Battle Formation is the primary host for mineralization in the Independence Skarn mineralization and was the primary host for porphyry copper ore in the East Deposit, for gold-silver skarn ore in the Tomboy-Minnie deposits, for gold-silver replacement ore in the Upper Fortitude deposit, and for the gold-silver skarn ore currently being mined from the Midas pit. In the Copper Basin area, the Battle Formation hosted gold-silver skarn ore at the Labrador and Surprise deposits and hosted distal disseminated silver-gold ore at the Lone Tree deposit and at the East Hill and Red Rock deposits at the Marigold Mine (Doebrich and Theodore, 1996).

The Pennsylvanian and Permian Antler Peak Limestone is the middle formation of the Antler sequence. It consists mostly of medium- to thick-bedded fossiliferous limestone, locally containing quartz sand, with lesser amounts of shale and pebbly conglomerate. The Antler Peak Limestone also hosts part of the mineralization in the Independence Skarn, and was the primary host for gold-silver skarn ore in the Lower Fortitude ore zone, which yielded most of the ore (1.9 million ounces Au) from the 2.2 million ounce Fortitude Mine, and the primary host for gold-silver skarn ore in the Phoenix deposit, a southern extension of the Fortitude deposit (Doebrich and Theodore, 1996).

The Permian Edna Mountain Formation is the uppermost unit of the Antler sequence and is usually found directly below the trace of the Golconda thrust. Its lower contact with the Antler Peak Limestone is depositional and unconformable. The formation consists of calcareous siltstone, sandstone, pebble conglomerate, and limestone. Conglomerate and sandstone are texturally more mature than those in the Battle Formation. Near its base, the Edna Mountain Formation contains a regionally extensive unit of debris flow conglomerates with intercalated siltstone, which is the primary host for distal disseminated silver-gold ore at the 8 South, 8 North, and 5 North deposits at the Marigold Mine. Siltstone and sandstone of the Edna Mountain hosts distal disseminated silver-gold ore at the Lone Tree deposit. The Edna Mountain Formation hosts minor amounts of mineralization in the Independence Skarn, and likewise hosted minor amounts of gold-silver skarn ore in the Lower Fortitude ore body and also hosts gold-silver skarn mineralization in the Phoenix deposit (Doebrich and Theodore, 1996).

The Havallah sequence, which constitutes the upper plate of the Golconda thrust, is a Mississippian, Pennsylvanian, and Permian allochthon consisting of an assemblage of chert, argillite, shale, siltstone, sandstone, conglomerate, limestone, and metavolcanic rocks exposed over a large area throughout the western part of the Battle Mountain District. The base of the Havallah sequence is the regionally extensive Golconda thrust, which places the Havallah sequence structurally over the Antler sequence. This structural relationship (the Havallah sequence over the Antler sequence along the Golconda thrust) represents the most important tectonostratigraphic control on the distribution of ore deposits in the Battle Mountain mining district (Doebrich and Theodore, 1996) (Figure 7-1).

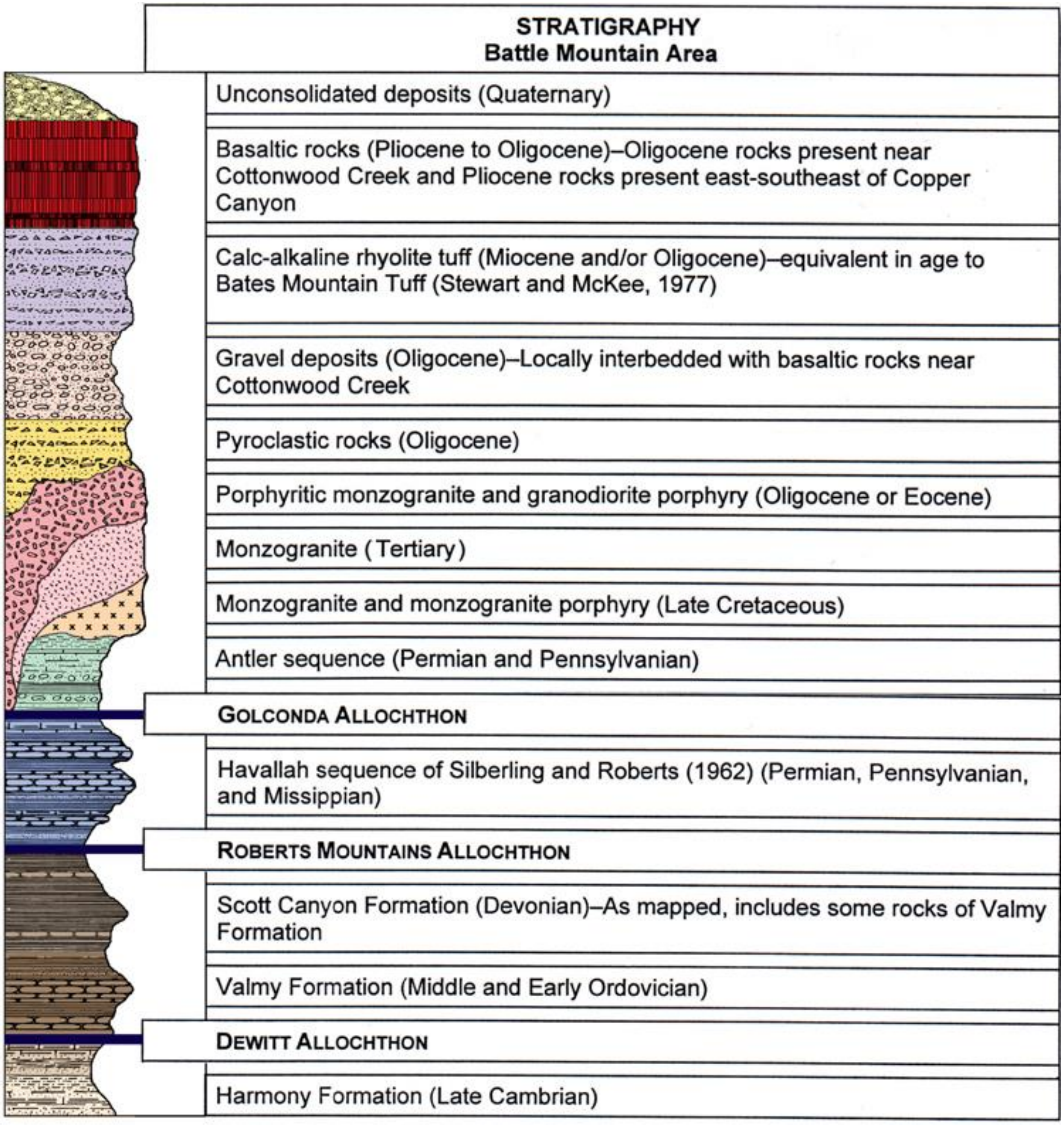
### 7.1.1 Mesozoic and Cenozoic Tectonics and Magmatism

Mesozoic structural and magmatic events in the Battle Mountain mining district are characterized by the development of a northwest-striking structural fabric, including faults, broad open folds and emplacement of Late Cretaceous granodioritic to monzogranitic stocks. Low-fluorine porphyry molybdenum systems developed with the Late Cretaceous stocks in the mining district (Doebrich and Theodore, 1996), porphyry copper deposits developed in the copper zone surrounding the central molybdenum zone related to these Late Cretaceous intrusive events.

Tectonics and magmatism during the Cenozoic in the Battle Mountain mining district changed from one of largely compression to one of extension. The composition of the plutons generally became more intermediate and the plutons were emplaced at higher levels, forming a number of copper, molybdenum – copper and copper – gold porphyry systems with distal related deposits of silver – gold and mixed base and precious metals.

Cenozoic structural and magmatic events in the Battle Mountain district include development of north-striking normal fault zones, emplacement of late Eocene to early Oligocene granodioritic stocks and dikes throughout the region, and eruption of volcanic and volcaniclastic rock, ranging in age from early Oligocene to Pliocene. Periodic change in extension directions during the Cenozoic resulted in several generations of normal fault sets with variable orientations (Doebrich and Theodore, 1996).

**Figure 7-1 Regional Stratigraphy**




(Adapted from Doebrich and Theodore, 1996)

### 7.1.2 Structure

Northwest-striking Mesozoic age structural zones are manifested by granodiorite porphyry dikes and larger elongate intrusive bodies, aeromagnetic lineaments, and regional alignment of mineralized areas related to the emplacement of the Cenozoic intrusive bodies. They form subtle features that trend N 30° to 40° W and are generally not as obvious as the younger north-striking fault zones. Related northwest striking structures are an important ore control in the Wilson Independence Mine, localizing solutions and controlling some of the highest grade gold and silver mineralization known in the historic mine workings.

North-striking (roughly N 20° W to N 20° E) normal faults in the Battle Mountain mining district are abundant. They generally predate late Eocene to early Oligocene dikes and stocks emplaced within them. Renewed movement is clearly indicated in a number of areas including the Independence Stock where such north striking structures are mineralized and cut the intrusive.

### 7.1.3 Tertiary-Intrusive and Volcanic Rocks and Mineral Deposits

All dated Tertiary intrusive rocks in the Battle Mountain mining district are late Eocene to early Oligocene in age (41 to 31 Ma) and mostly monzogranitic to granodioritic in composition. Although Tertiary intrusive rocks are scattered throughout the mining district as small stocks and dikes, the main exposed Tertiary intrusive centers are at the Independence Mine and in the Copper Canyon, Copper Basin, Elder Creek and Buffalo Valley gold mine areas. Associated with each of these intrusive centers are porphyry-style (Cu-Au and/or Mo-Cu) alteration assemblages, mineralized zones, and related base and precious metal deposits (Doebrich and Theodore, 1996).

The Copper Basin area has produced considerable amounts of copper, gold, and silver from supergene-enriched porphyry copper, skarn, replacement, and distal disseminated deposits, all of which are hosted in calcareous rocks of the Late Cambrian Harmony Formation and/or Middle Pennsylvanian Battle Formation. The proximity of the Late Cretaceous Buckingham stockwork molybdenum system, the early Oligocene Paiute Canyon Mo-Cu porphyry system, and other Tertiary dikes and stocks in the area makes it difficult to establish with certainty a direct relationship between deposits and mineral systems from which they were derived. Gold skarn ore at the Surprise Mine and distal disseminated silver-gold ore associated with silica-pyrite alteration at the Empire Mine may be related genetically to the Late Cretaceous Buckingham stockwork molybdenum system. (Doebrich and Theodore, 1996).

The Early Oligocene Caetano Tuff is a rhyolitic ash-flow tuff exposed as a ridge-capping and cliff-forming unit in the southwest and extreme eastern parts of the district (Doebrich and Theodore, 1996).

Oligocene olivine-augite basaltic andesite occurs as thin flows in the northwest part of the mining district (Doebrich and Theodore, 1996).

## 7.2 Local and District Geology

Precious and base metal deposits in the Copper Canyon area are genetically and spatially related to a mid-Tertiary granodiorite intrusive centrally located within Copper Canyon and a smaller related stock, referred to as the Wilson Independence Stock which lies adjacent and immediately to the west (Theodore 1975). Doebrich (1995) considers them to be identical, chemically, texturally and temporally, and describes both as the Copper Canyon Stock. These Tertiary stocks intruded Paleozoic sediments which have undergone recurrent tectonism.

The Golconda Thrust emplaced Pennsylvanian Havallah Formation, locally termed the Pumpernickel Formation, over the Antler Sequence. Subsequent extension has resulted in a number of north-south, northwest, and northeast oriented mineral controlling structures. The dominant host rocks are fine to coarse clastic and carbonate units belonging to the Antler Sequence, also referred to as the Onlap Assemblage (Roberts, 1965).

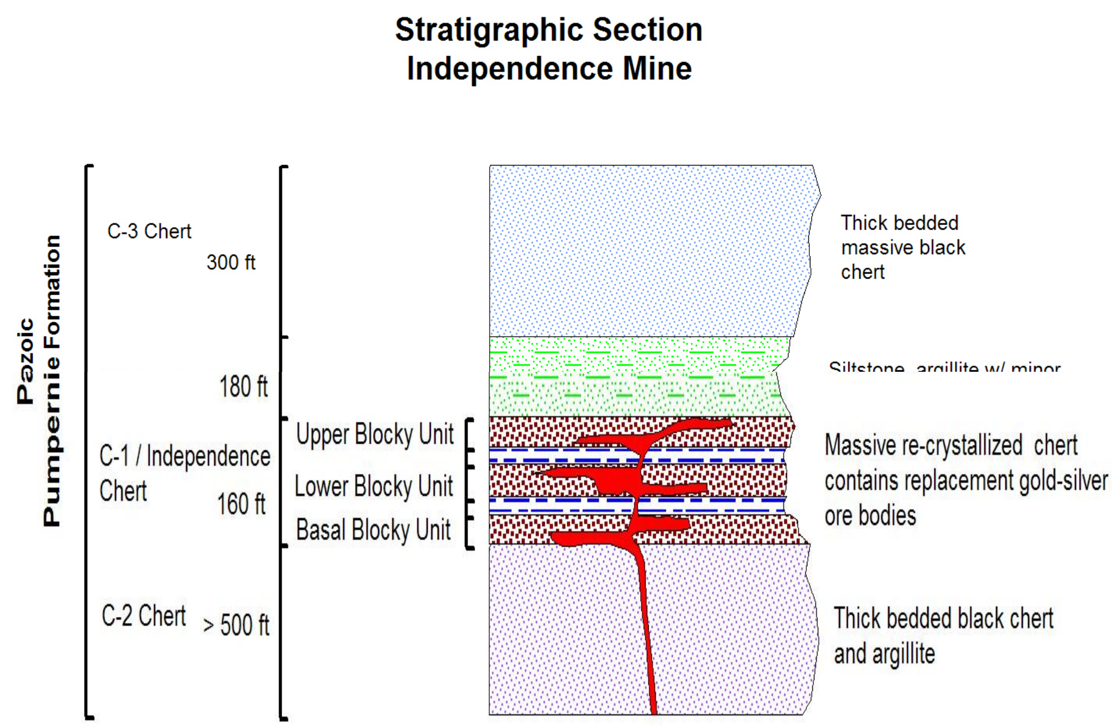
The most important gold and silver occurrences in the immediate area of the Independence Mine is the operating Phoenix Deposit and the now depleted Upper and Lower Fortitude deposits. The Upper and lower Fortitude deposits, discovered in 1981 and mined until 1993 contained combined production of 2.2 million ounces of gold and 9.7 million ounces of silver more than 90% of which was contained in the Antler sequence.

Two major rock units are exposed at Independence, the Paleozoic age Pumpernickel Formation (Havallah Formation) and Tertiary (Eocene) age intrusive rocks of the Independence Stock. Minor dikes in part appear to be contemporaneous with, and in part younger than the Independence Stock. The oldest rocks exposed on the surface of the Property are siliciclastic sediments of the upper Pennsylvanian – Permian age Pumpernickel Formation, consisting of interbedded chert, siltstone, and argillite, these units generally strike N5$^{o}$E with a general dip of 50$^{o}$ to 60$^{o}$ degree towards the west. Locally on the surface and within the Independence Mine these sediments are deformed by folding and faulting.

The Pumpernickel Formation was subdivided into four general units on the Independence Property (Ashton, Carrington and Nunnemaker, 2010). These units, designated the C-1, C-2, C-3 and Slts in the General Metals 2007 – 2008 drill logs, consist of variably altered interbedded thin to thick bedded chert and argillite. Figure 7-2 shows the local stratigraphic profile for the Independence Project.

The upper-most and likely the youngest in this sequence is thick sequence composed of thin to medium-bedded black chert (identified as C-3) with numerous thin discontinuous argillite beds. The total thickness of this unit is unknown but is known to exceed 600 feet (180 meters) in the main decline in the mine. Near the portal of the main Independence decline, the C-3 chert is highly deformed and exhibits intense folding, deformation and dislocation by faulting.

**Figure 7-2 Local Stratigraphic Section**




Stratigraphic Section (After Rassuchine, J. 2008)

Structurally and presumably stratigraphically beneath the C-3 chert is a sequence of siltstone and poorly bedded argillite with minor chert (mapped as Slts). This unit is depositionally discontinuous on the south end of the property, but is relatively continuous north of the Independence decline. It is typically weakly altered and poorly mineralized and varies from 160 to 180 feet (49 to 55 meters) thick. It appears to form an aquiclude or 'cap rock' above the underlying mineralized C-1 chert. Bonanza grade gold and silver mineralization is frequently found constrained to the upmost portion of the underlying C-1 chert and lowest portions of the overlying Slts unit as evidenced by production from the Gold Pillars, APCO, 1+40, and Nigger Heaven stopes where historic, individual samples yielded results to 19,800 ounces of silver per ton and 63 ounces of gold per ton (Carrington, R. per. Communication,

2009) and General Metals drill hole, GM52 where the interval from 90 to 95 feet yielded an uncut average grade of 0.291opt Au and 200.5 opt Ag at this contact.

The C-1 chert hosts the majority of the near surface gold-silver mineralization. The unit varies between 180 and 220 feet (55 to 67 meters) in thickness. The most prominent geologic feature of this unit is three prominent, semi-massive to massive recrystallized chert beds, historically known in the underground mine workings as the Upper, Lower, and Basal blocky chert units. These 10 to 75 foot (3 to 23 meter) beds are separated by 5 to 20 foot (1.5 to 6.1 meters) sections of thin bedded chert and intercalated shale. The C-1 “blocky” chert is strongly altered and bleached due to intense effects of hydrothermal alteration. Intense surface oxidation within this brittle and fractured unit generally extends to 400 feet (120 meters), giving the unit a ubiquitous tan color throughout the existing mine and in most of the General Metals drill holes.

The lowest and presumably oldest of sedimentary sequence in the mine area is a thinly-bedded sequence of chert and argillite beds, mapped as C-2. Most of the C-2 unit south of the Independence shaft is poorly mineralized thin bedded black chert interbedded with fine-grained tan to gray argillite. North of the Independence Shaft, this unit exhibits widespread propylitic alteration (chlorite-epidote-pyrite). The thickness of this unit is unknown, but is likely greater than 500 feet (150 meters). In the mine workings, this unit locally exhibits intense compressional deformation in the form of folding and possible local thrusting. Where observed, deformation is strongest immediately below the C-1 chert member and decreases down sequence.

Petrographic work conducted by U.C. Berkley in 1987 indicated numerous previously unidentified thrust sheets near the Independence Mine based on the identification of radiolarian in the cherts of the Havallah Formation.

The second major rock type at Independence are intrusive rocks of the Independence Stock (38 Ma). These range compositionally from granodiorite to monzonite and occur as a small stock with a large west to northwest-dipping sill-like body. Drill holes by Battle Mountain Gold and Great Basin Gold contain intercepts with up to 680 feet (205 meters) of altered intrusive rocks before encountering the Pumpernickel Formation. The apex of this sill-like mass occurs in the northern portion of the claim block. Numerous smaller dikes and sill-like masses of similar composition are common throughout the property. Also common, and often in spatial association with mineralization, are diatreme breccia locally termed “pebble or breccia dikes”. These are narrow, generally elongate, diatreme breccia of often well heavily milled, rounded chert fragments in an intrusive matrix typically found in dike like masses.

Contact metamorphism is developed well away from the intrusive contact. The upper C-2 and lower C-3 chert beds have been completely recrystallized into a dense white to tan "quartzite-textured" unit. This alteration feature is extremely resistant to weathering and forms the prominent Pumpernickel ridge to the east and unnamed ridges north of the property. Siltstone and argillite of the "Slts" unit has been metamorphosed to a green to brown biotite hornfels. This metamorphic halo can be traced in the above units for up to 1,000 feet (300 meters) from the intrusive contact.

The blocky C-1 chert exhibits the most intense recystalization and alteration effect of all rock types. This is possibility due to the capping feature of the overlying Slts, siltstone and argillite, in combination with numerous sub-parallel striking fractures and faults of the Wilson-Independence Shear Zone. Hydrothermal mineralizing fluids migrating through brecciated and fractured semi massive blocky cherts were ponded below the Slts unit which formed an effective aquiclude in higher concentrations of mineralization locally forming bonanza grade chutes. Figures 7-3 and 7-4 show the local surface geology and a typical geologic section respectively for the project area.

## 7.3 Property Structure

The main structural feature on the Property is the Wilson Independence fault zone, a series of sub-parallel faults and shear zones striking approximately N5$^{o}$W and dipping steeply to the west. Offsets on individual members vary from several hundred feet of normal (west side down) offset to no apparent offset and rarely reverse offset. The combined width of fracturing in the Independence fault system is at least 400 feet (120 meters). This structural zone can be traced for more than 10,000 feet (3,000 meters) south from the Sunshine open-pit gold mine just north of the Independence property to the south property line where the fault zone strikes under gravels of Copper Canyon and Newmont's Phoenix Mine dumps.

The most productive gold-silver zone at the Independence Mine occurs at the structural intersection of this major shear zone with the sub-parallel striking blocky C-1 chert horizon. The semi-parallel strike of the intersection between structure and receptive stratigraphy results in a large mineralized envelope which rakes southerly at approximately 3$^{o}$ - 4$^{o}$ to the south. The combination of structural and stratigraphic control results in a prospective mineralized envelope which can be traced over the entire length of the property, a distance of more than 10,000 feet (3,000 meters). Within this mineralized envelope, additional structural control related to east-west to northwest faults and the ponding of mineralizing fluids beneath the impermeable Slts unit locally resulted in the formation of bonanza grade chutes of mineralization.

The north – south structural zone of the Independence has undergone episodic recurrent movement. Movement in part predates the Eocene intrusion of the Independence stock as evidenced by the strong north – south orientation of many intrusive dikes and diatreme “pebble” dikes and in part postdates emplacement of the bulk of the Independence stock as evidenced by the related north – south trending mineralized fractures in parts of the stock. Late stage volatile fractions appear to have locally moved explosively along certain members of the Independence fault zone as evidenced by the diatreme breccia (pebble dikes). Mineralization encountered in drilling thus far in the stock is generally lower grade than that in the sedimentary units. It should be noted that this may be due to the greater amount of drilling in the sedimentary package to date than in the intrusive rocks.

Locally cross cutting structures resulting in increased porosity and permeability in the receptive chert horizon have further localized bonanza grade mineralization in the cherts. Historic sampling by APCO at the Independence contained values up to 63 ounces of gold per ton and 19,800 ounces of silver per ton from such structural intersections at the C-1 – Slts contact.

**Figure 7-3 Local Geologic Surface Map**

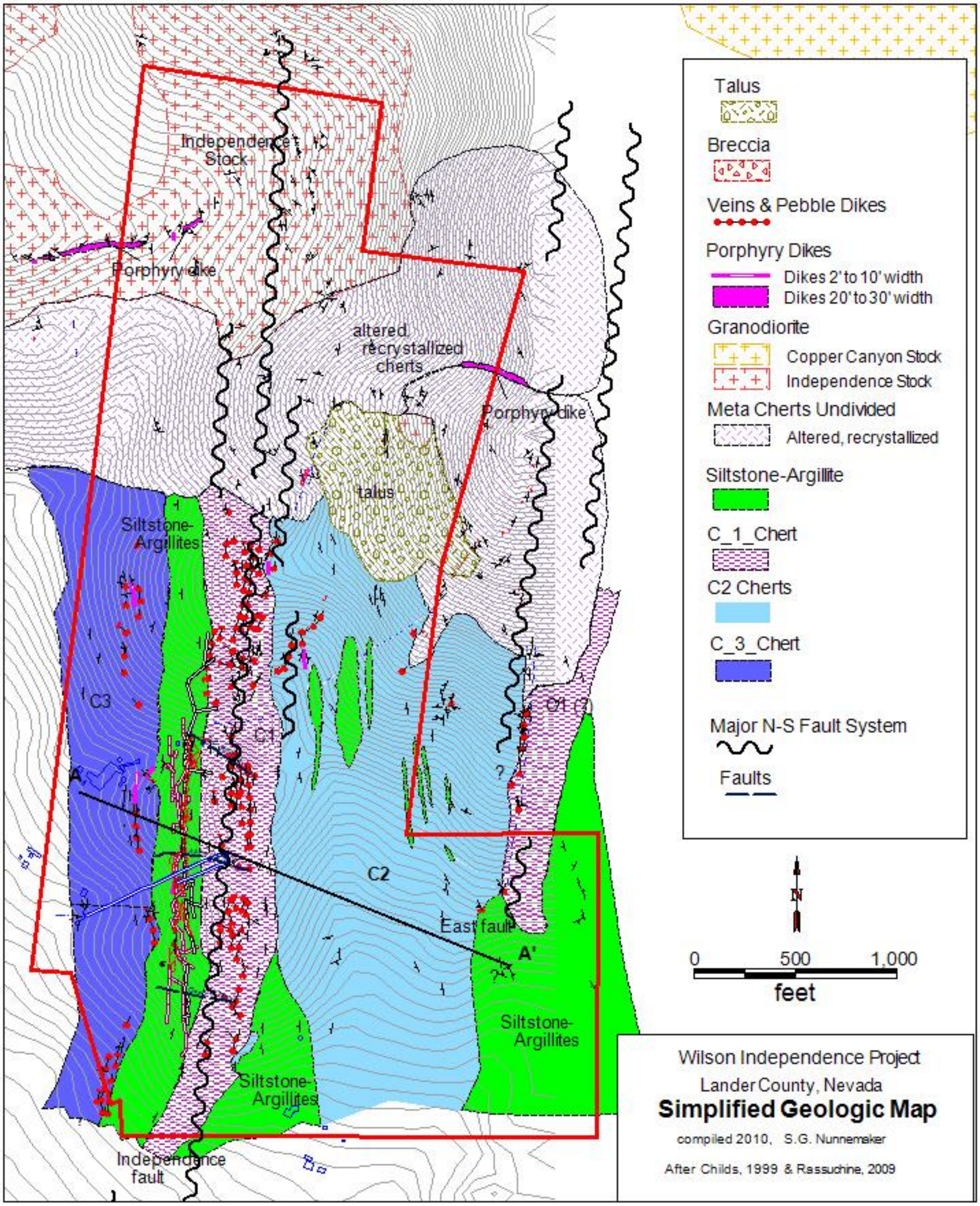
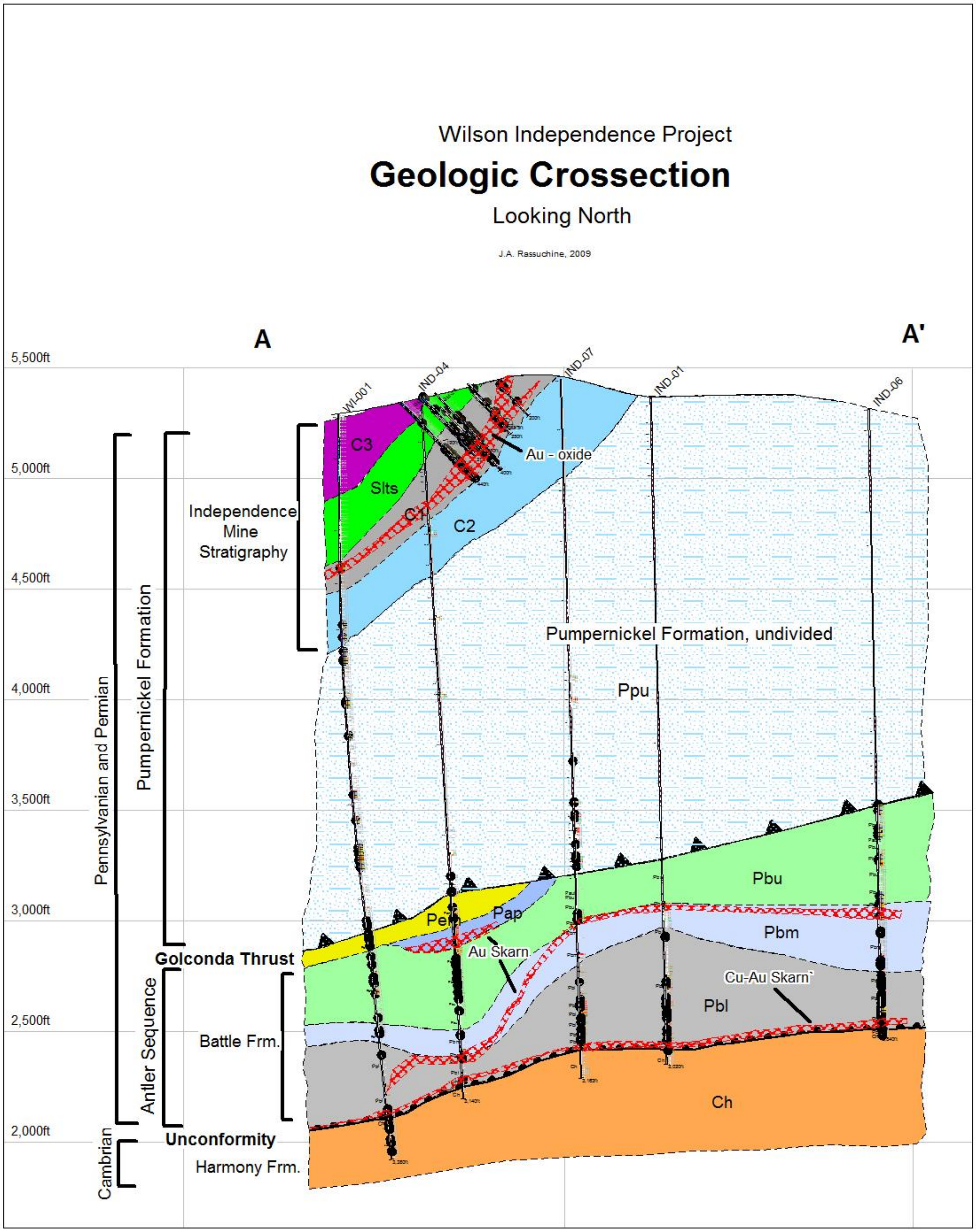


**Figure 7-4 Geologic Section**




Source: Rassuchine, 2009

## 7.4 Mineralization

### 7.4.1 Surface "Chert Hosted" Mineralization

The 2007-2008 drilling confirmed the presence of significant chert hosted gold silver mineralization in the Independence near surface target. The gold silver deposit this drilling identified consists of broad envelopes of gold and silver mineralization grading trace gold (0.1 g/t) to 0.01 opt (0.31 g/t) gold and 0.2 opt to 0.7 opt silver surrounding higher grade cores with values generally ranging from 0.01 opt to 0.06 opt Au and 0.07 opt to 3 opt silver and occasionally to more than 1.0 opt Au and hundreds of ounces of silver per ton in bonanza chutes. The mineralized body broadly strikes N-S and dips 55° – 65° to the west overall, with a very shallow 3 to 5° southerly rake. Along the main mineralized zone, high grade ore chutes are developed at intersections with NW to E-NE trending cross faults and favorable lithology. These intersections historically have yielded ore grades to 1 opt gold and 39.4 opt silver with local bonanza grade to 63 ounce of gold per ton and 19,800 ounces of silver per ton. Several of these types of ore chutes were discovered by past operators and mined from the underground workings present on the property. One such rich ore chute was the Bonner-Cole, mined from 1954 to 1958 that produced 2,796 ounces of gold and 110,294 ounces of silver at average grades of 1.0 opt Au and 39.4 opt Ag, respectively.

Gold and silver mineralization in the Independence Shallow, chert hosted mineralization corresponds largely with elevated levels of the pathfinder elements arsenic, antimony and locally bismuth. Elevated levels of certain Rare Earth Elements (REE's) is indicated in the foot wall of the deposit and is of uncertain correlation pending additional work and better understanding of the relationship with mineralization if any. The mineralization consists of soft friable gossanous oxides and colloidal clays derived from extensive primary sulfide stock works and replacements of the brecciated chert units. These primary sulfide deposits have subsequently been deeply and thoroughly oxidized to form the present day deposit.

### 7.4.2 Deep Skarn Mineralization

Skarn alteration of the Antler Peak Sequence in the Robert Mountain Allochthon is related to the emplacement of Eocene age granodorite stocks and is best developed in carbonate rich sediments of the Antler Sequence including the Battle Conglomerate, the Antler Peak Limestone and the Edna Mountain Limestone formations. The skarn mineralization consisting of various dark and light calc-silicate mineral assemblages is well developed and exhibits extensive retrograde skarn alteration throughout.

The structural, lithological and metallogenic setting of the Independence skarn is nearly identical to that of the nearby Fortitude Gold Skarn Deposit. Both Fortitude and Independence skarns are structurally below the Golconda Thrust, both are developed in the Antler Peak, Edna Mountain and Battle Mountain Formations. Both are related to the emplacement of the Eocene age granodiorite stocks in the area, and in both deposits, thin and polished sections indicate gold mineralization is the last identifiable mineralizing event to occur (Unpublished Petrographic studies for Noranda, St. George Metals Inc. and General Metals Corporation). In both deposits, gold occurs as fine grains of native gold deposited on crystal faces and fracture surfaces of all earlier mineral species. Gold is the dominant economic mineral with minor and probably unrelated copper mineralization. Silver is almost entirely lacking in the skarn deposit.

Gold mineralization is wide spread within the skarn altered zone and is controlled primarily by the apparent intensity of the late stage fracturing event. Significant gold mineralization in the skarn has been encountered in drill holes over an area more than 1,400 feet (425 meters) wide and 3,400 feet (1,035 meters) long which occurs as a sub horizontal blanket which is locally modified by post mineral faulting. The majority of the skarn hosted target is roughly 2,800 to 2,900 feet (850 to 880 meters) beneath the surface, except along the eastern margin of the property where apparent faulting displaces the receptive horizon to within roughly 2,600 feet (790 meters) of the surface.

The highest grade gold mineralization occurs in receptive sand and carbonate filled channels cut in the fluvial Battle Conglomerate by the constantly meandering streams which deposited the Battle Conglomerate.

The relative age of faulting and mineralization are uncertain at this time, but it is thought that movement is likely pre-mineral and the fault structure may in fact be a mineral conduit and therefore mineralized both above and below the Antler Sequence. This is evidenced by a relatively greater thickness and grade of mineralization in drill holes in down dropped blocks relative to the up thrown blocks.

The model proposed is that of high angle structures forming horst and graben structures, with mineralizing fluids circulating in the bounding structures and ponding in the grabens selectively migrating through porous and receptive channels cut into the basal Battle Conglomerate. In such a model the skarn mineralization would develop in the receptive sand and carbonate rich sediments of the Battle Conglomerate and other Antler Sequence rocks, with structurally controlled mineralization developing in the bounding structures and in structurally prepared, receptive zones in the overlying Golconda Allochthon, as is seen in the shallow Independence Mine. Ascending mineralizing fluids encountered differing stability fields while migrating down pressure gradient and transitioned from mesothermal conditions in the skarn zone to epithermal conditions some 3,000 feet (910 meters) shallower in the system.

Intriguing exploration potential exists if the bounding structures are found to be mineralized fluid conduits. These structures project beneath the skarn into the virtually unexplored, underlying Harmony Formation. The sole intercept of a mineralized structure in the Harmony formation at the Independence is in Great Basin Gold drill Hole WI-001 which intersected five feet of 74 g/t (2.160 opt) gold from 3,297.5 to 3,302.7 feet (1005.1 to 1006.7 meters). Potential to develop very high-grade “sub-skarn” mesothermal veins may exist in the autochthonous rocks of Cambrian age Harmony Formation.

### 7.4.3 Gold-Copper Porphyry Mineralization

The Independence Stock and a large related north dipping sill represent a potential significant gold-copper porphyry target. Historic drill hole results in Battle Mountain Gold drill hole number BMG 3975 returned 27 meters (90 feet) with an average grade of 0.55 g/t (0.016 opt) Au. Exposures in the adjacent Sunshine Pit, mined by Battle Mountain Gold Corp. in 1996 confirm the presence of gold-copper porphyry style mineralization associated with strong potassic alteration in and along the northern margin of the Independence Stock.

### 7.4.4 Additional Deep Mineralization

Additional non-skarn hosted mineralization may exist as high angle “feeder structures” between the Independence Shallow mineralization and the Independence Deep Skarn, and below the Independence Skarn as evidenced in Great Basin Gold’s drill hole WI-001 which assayed 74 g/t (2.16 opt) Au over the 5.2 foot (1.58 meter) interval from 3297.5 to3308.1 feet (1005.1 to 1006.7 meters) in non-skarn altered autochthonous rocks of the Roberts Mountains Thrust consisting of the Cambrian Age Harmony Formation.

# 8.0 DEPOSIT TYPES

Three distinct deposit types are present at the Independence Property, a shallow near surface epithermal system, a deeper high gold rich skarn system and an intrusive hosted stock work gold-copper porphyry system.

## 8.1 Shallow "Chert Hosted" Deposit Type

Shallow near surface mineralization at the Independence is best characterized as a high level epithermal system formed as a leakage halo above the deep Independence gold skarn, both related to emplacement of the Eocene age granodiorite porphyry bodies. This deposit type originally consisted of gold – silver rich, polymetallic veins, manto replacements, saddle reef deposits and fracture controlled "stockwork" mineralization occurring along north – south striking faults structures and detachments in the Pumpernickel Formation of the Golconda Allochthon. Subsequent intense surface oxidation has resulted in near total oxidation of all primary sulfides within 400 feet (120 meters) of the surface.

Extensive areas of low-grade "halo" mineralization consisting of fracture controlled mineralization form a pseudo stock work surrounding the higher grade cores historically mined at the Independence. Mineralization is localized along these north striking structural zones in and near the thick bedded to semi massive chert units where competency contrast of the massive cherts and intercalated shale and chert zones occurring above and below, resulted in substantial fracturing, developing open spaces available for fluid flow. Ponding of ascending fluids below the ductile Slts unit resulted in a broad mineralized zone containing local chutes of bonanza grade gold and silver mineralization.

Additional structural enhancement and wide spread fracturing occurs where the north striking mineralized structures intersect a series of pre-existing northwest striking structures resulting in increased permeability and ground preparation in the brittle cherts. Such "triple point" intersections control the highest grade mineralization in the historic Independence mine.

Oxidation in the "Chert Hosted" deposits is pervasive and ubiquitous to depths of 400 feet (120 meters) below the surface. A mixed sulfide – oxide zone extends for roughly 100 feet (30 meters) below this, and may extend to more than 1000 feet (300 meters) along structures and fractures which permit the circulation of oxygen laden meteoric waters.

Previous operators theorized that additional epithermal targets exist in high angle faults which penetrate the surface from the Independence Skarn. Some evidence of mineralization exists in these structures in the form of scattered prospect pits and a few highly anomalous surface rock samples. To date there has been no systematic exploration of these possible targets on the property.

## 8.2 Deep Gold Skarn Deposit Type

The Independence Deep Gold Skarn target is actually a skarn hosted gold system where the principal control is deposition of microscopic free gold on very late stage open fractures. The skarn system is well developed in the permeable and carbonate rich portions of the Battle Mountain, Antler Peak and Edna Mountain formations of Roberts Antler Sequence in the lower portion of the Roberts Mountain Allochthon. Retro grade skarn alteration is wide spread in the deep gold skarn. Thin and polished section studies indicate that gold mineralization is the last mineralizing event to occur and that gold occurs as minute discrete 2 to 20 microns grains deposited in micro fractures on all mineral grains. Importantly the gold in the skarn system appears to be independent of sulfide mineralization.

## 8.3 Gold-Copper Porphyry Target

The Independence Stock, situated at the northern end of the Independence Property hosts stockwork style gold-silver mineralization and exposures in the Sunshine pit, just north of the Property contain disseminated porphyry style gold-copper mineralization. Limited drilling in the Independence stock has returned up to 90 foot intercepts which grade 0.016 opt Au (27 meter at 0.548 g/t Au). 2020-21 drilling by Golden Independence confirmed the earlier results having several holes with intercepts greater than 225 feet (69 meters) with a highlight intersection of 530 feet (161.5 meters) at 0.493 g/t Au and 3.6 g/t Ag.

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# 9.0 EXPLORATION

The bulk of the exploration completed on the Independence property since 2011 has been drilling with programs completed by America's Gold Exploration Inc. in 2017/2018 and Golden Independence Mining Corp. in 2020/2021.

## 9.1 2017 – 2018 Exploration

AGEI drilled 2,999 meters (9,840 feet) in 12 Reverse Circulation drill holes.

## 9.2 2020 – 2021 Exploration

GIMC initiated a drilling program in October 2020 that consisted of 36 RC holes and 5 HQ core holes. The program was completed in January 2021. Total depth drilled was 7,716 meters (25,315 feet) for the RC drilling and 580 meters (1,902.5 feet) for the core drilling.

The March 2021 GIMC drilling program consisted of 12 RC holes. The program was completed in April 2021. Total depth drilled was 2,263 meters (7,425 feet) for the RC drilling.

The AGEI and GIMC drill programs have been documented in the drilling section of this Technical Report.

# 10.0 DRILLING

## 10.1 Summary

Three drilling campaigns have been conducted at the Independence Property since the turn of the 21st century: General Metals Corp. between 2007 and 2011, Americas Gold Exploration Inc., between 2017 and 2018 and Golden Independence Mining Corp., in 2020. Golden Independence completed a second drill program in April 2021, which has been included in this technical report. Most of the drilling conducted by Golden Independence, AGEI, and General Metals has been reverse circulation (RC) style drilling conducted under the supervision of either the owner or a consulting geologists. Golden Independence and AGEI utilized the drilling services of New Frontier Drilling of Fallon, NV to complete all their RC drilling. New Frontier utilized a track-mounted Foremost Reverse Circulation drill. GMC hired Drift Drilling of Calgary, Alberta Canada to complete all of the drilling utilizing an MPD 1000 track mounted RC drill rig with angle drilling capabilities. GIMC utilized the services of Redcor Drilling Corp., to complete the five HQ core holes. Redcor used a track-mounted Boart Longyear LF-90 core drill. GMC contracted with West Core Drilling LLC., to drill three core holes. West Core utilized a Morooka MST-1500 drill rig. All holes drilled on the Independence Project ranged from -45 to -90 (vertical) and most angle holes were drilled with an easterly azimuth. GIMC collected a duplicate sample at 100-foot intervals, with a standard and a blank sample also inserted at 100 foot intervals. A duplicate sample was collected for all intervals for GMC's drilling, with one set sent to commercial laboratories for analysis and the duplicate samples bagged, sealed and warehoused for future reference. Primary sample analysis has been conducted with ALS Chemex Labs and American Assay Labs of Reno, Nevada.

Table 10-1 is a summary of the drilling used to calculate the Near Surface resource in Section 14 of this report. Table 10-2 is a summary of the deep core drilling used in the Deep Skarn resource estimate. This deep drilling was completed in 1985 to 1989 by Noranda and 1998 by Great Basin Gold. The results of the drilling were provided by GIMC to the Authors, which conducted such checks and reviews of the results as they considered necessary as described in Sections 12 and 14. The project drill hole map is shown in Figure 10-1 and a representative cross-section is shown in Figure 10-2. Most of the GIMC, AGEI, and GMC drill holes in the near surface mineralized area were drilled sub-perpendicular to the long axis and prominent dip of the mineralization. Thus the relationship between the sample length and the true thickness of mineralization for the GIMC, AGEI, and GMC holes is within 95% of the true thickness. The vertical holes drilled through the near surface mineralization have a true mineralized thickness of between 65% (Southern deposit area) to 85% (Northern deposit area) depending on which area of the deposit the hole was drilled. In some cases earlier drill holes by previous operators, notably Landsdowne Minerals were drilled nearly parallel to the mineralization.

Those holes that drilled through the Deep Skarn deposit have a true mineral thickness of from 95% to 100% when compared of the sample length. Table 10-3 list significant sample intervals from GMC's 2007-2008 and 2009-2010 drilling campaigns. Both these drilling campaigns helped define the current geologic model and confirmed the expected location of mineralization. Two holes drilled at the end of the 2009-2010 program, GM-127 and GM128, intercepted gold grades that were substantially higher than that typically seen in the deposit. The intercept from GM-128 fit the mineralization model though at a much higher grade. The GM-127 intercept was closer to the surface and possibly defines a new zone of mineralization.

In 2017–2018 AGEI drilled 3,000 meters (9,840 feet) in 12 RC holes to investigate the down dip extension of the central portion of the independence deposit and to test for deeper higher grade mineralization. GIMC drilled 25,315 feet (7,716 meters) in 36 RC holes in 2020-21 targeting the north area of the deposit and the down dip extension in the central portion of the deposit. GIMC also drilled 1,902.5 feet (580 meters) of HQ core mainly to acquire samples for their waste characterization study as part of their larger environmental permitting program.

The AGEI program was also designed to test the new mineralized zone that was intercepted in GM-127 and to a lesser extent test the continuity of grade with GM-128. Results confirmed the down dip extension of mineralization in GM-127 but the new shallower zone of mineralization with the high-grade intercept, though present, was at a much lower grade than that seen in GM-127. The mineralization down dip of hole GM-128 was not as thick and had a lower grade. Several zones of deeper mineralization were also intercepted with grades similar to those above and typical of the deposit. Table 10-4 lists a summary of significant drill intercepts from the 2017-2018 campaign.

GIMC drilled 48 additional RC holes and 5 HQ core holes in their 2020-2021 drilling programs. These holes were placed to expand the resource in the northern portion of the deposit where gold porphyry mineralization is found in the Independence stock as well as infill drilling. GIMC's drill holes were generally deeper than those of GMC's as GIMC was looking at expanding the resource both at depth and down dip. This program was successful at expanding the resource in the northern porphyry area of the deposit, adding confidence to the mineralization model, and upgrading portions of the resource to a higher classification. A summary of the drilling results for the 2020-2021 GIMC programs are listed in Tables 10-5 and 10-6.

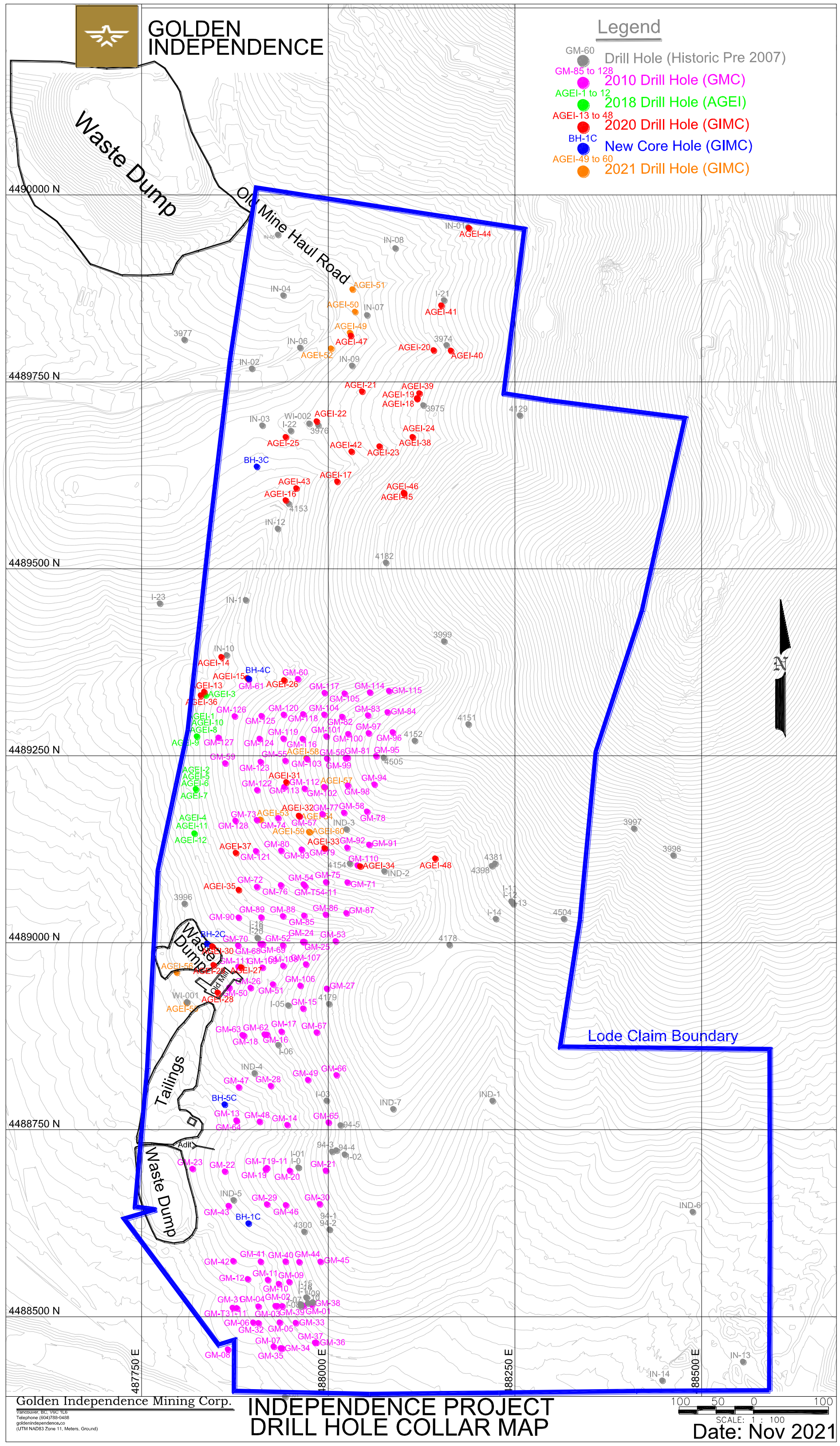
**Table 10-1 Summary of Drilling used in Near Surface Resource Estimation**

| Company – Drilling Type | Year(s) Completed | Holes | Footage | Meters |
|---|---|---|---|---|
| Noranda – Core | 1985 – 1989 | 7 | 19,096 | 5,820 |
| Battle Mountain Gold – Reverse Circulation | 1990 – 1991 | 22 | 10,835 | 3,302.5 |
| Landsdowne Minerals – Reverse Circulation | 1994 | 5 | 2,535 | 773 |
| Teck Corporation – Reverse Circulation | 1995 | 14 | 7,010 | 2,137 |
| Great Basin Gold – RC Pre-collar,2640- Core,3943 | 1998 | 2 | 6,583 | 2,006 |
| General Metals Corporation – Reverse Circulation | 2007 – 2010 | 128 | 40,895 | 12,465 |
| General Metals Corporation – Core | 2011 | 3 | 1,072 | 327 |
| Americas Gold Exploration – Reverse Circulation | 2017 - 2018 | 12 | 9,840 | 2,999 |
| Golden Independence Mining – Reverse Circulation | 2020 – 2021 | 48 | 27,578 | 8,406 |
| Golden Independence Mining - Core | 2021 | 5 | 1,902.5 | 580 |
| Totals | | 246 | 127,347 | 38,815.5 |

**Table 10-2 Summary Deep Skarn Core Drilling**

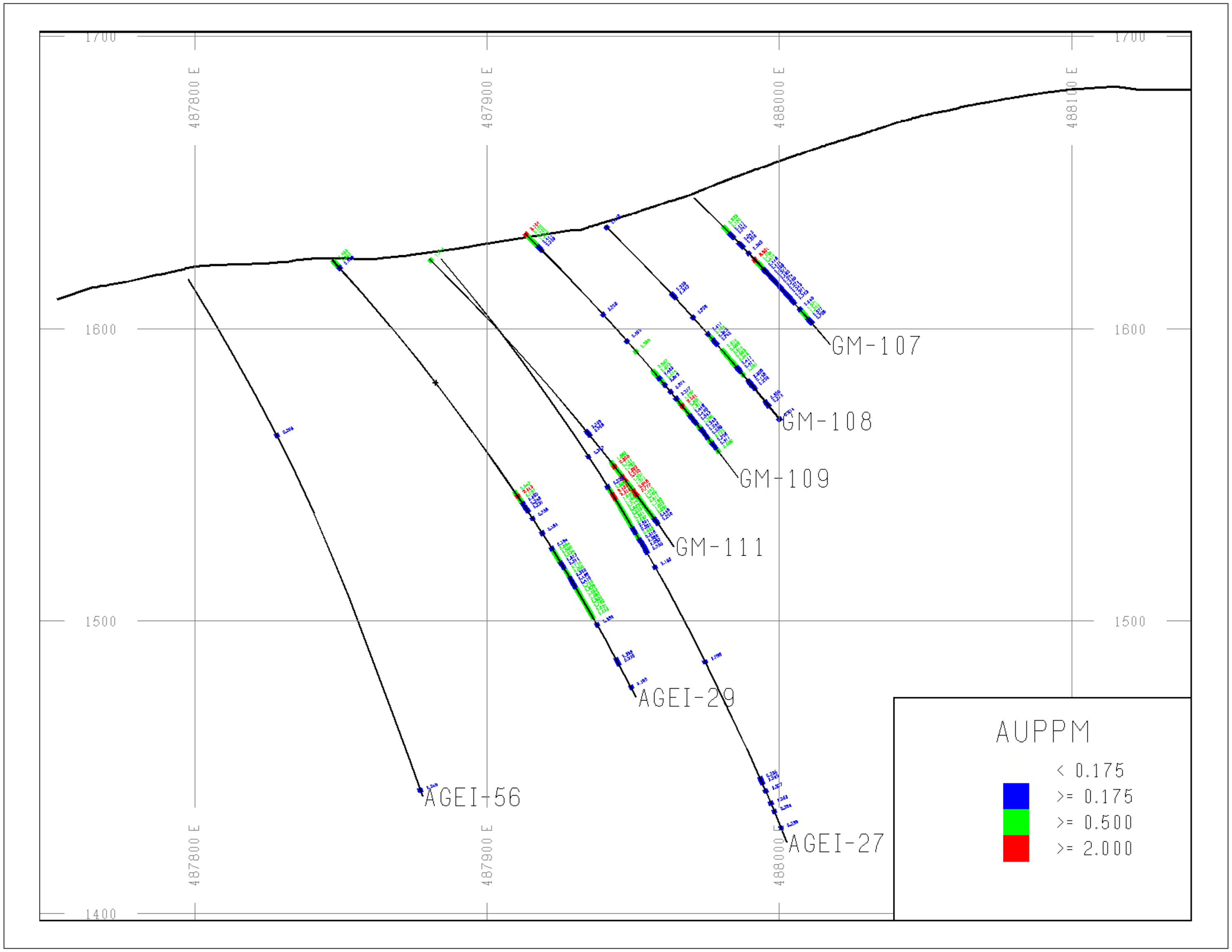
| Dh ID | From (ft) | To (ft) | Length (ft) | Au opt | From (m) | To (m) | Length (m) | Au ppm |
|---|---|---|---|---|---|---|---|---|
| IND-01 | 2277 | 2284 | 7 | 0.100 | 694.0 | 696.2 | 2.1 | 3.43 |
| IND-01 | 2895 | 2940 | 45 | 0.173 | 882.4 | 896.1 | 13.7 | 5.93 |
| Including | 2935 | 2940 | 5 | 0.776 | 894.6 | 896.1 | 1.5 | 26.61 |
| IND-02 | 2965 | 2974 | 9 | 0.151 | 903.7 | 906.5 | 2.7 | 5.18 |
| Including | 2967 | 2970 | 3 | 0.349 | 904.4 | 905.3 | 0.9 | 11.97 |
| IND-04 | 2430 | 2455 | 25 | 0.137 | 740.7 | 748.3 | 7.6 | 4.70 |
| IND-04 | 2920 | 2940 | 20 | 0.391 | 890.0 | 896.1 | 6.1 | 13.41 |
| Including | 2930 | 2940 | 10 | 0.664 | 893.1 | 896.1 | 3.0 | 22.77 |
| IND-04 | 3045 | 3055 | 10 | 0.372 | 928.1 | 931.2 | 3.0 | 12.75 |
| Including | 3050 | 3055 | 5 | 0.651 | 929.7 | 931.2 | 1.5 | 22.32 |
| IND-05 | 2890 | 2900 | 10 | 0.146 | 880.9 | 883.9 | 3.0 | 5.01 |
| IND-05 | 3305 | 3335 | 30 | 0.066 | 1007.4 | 1016.5 | 9.1 | 2.26 |
| IND-06 | 2255 | 2270 | 15 | 0.212 | 687.3 | 691.9 | 4.6 | 7.27 |
| Including | 2265 | 2270 | 5 | 0.232 | 690.4 | 691.9 | 1.5 | 7.95 |
| IND-07 | 2590 | 2610 | 20 | 0.123 | 789.4 | 795.5 | 6.1 | 4.22 |
| Including | 2595 | 2598 | 3 | 0.221 | 791.0 | 791.9 | 0.9 | 7.58 |
| IND-07 | 3023 | 3034.5 | 11.5 | 0.109 | 921.4 | 924.9 | 3.5 | 3.74 |
| WI-001 | 3164.1 | 3175.9 | 11.8 | 0.400 | 964.4 | 968.0 | 3.6 | 13.71 |
| Including | 3164.1 | 3171.3 | 7.2 | 0.606 | 964.4 | 966.6 | 2.2 | 20.78 |

# Figure 10-1 Drill Hole Plan Map




Source: GIMC 2021

**Figure 10-2 Representative cross-section (4488968N) showing drilling in the Independence deposit**




Source: Ashton 2021

## Table 10-3 Summary GMC Drilling 2007-2008 & 2009-2010 Programs

| Hole ID | from (ft) | to (ft) | Length (ft) | Au opt | Ag opt | from (m) | to (m) | Length (m) | Au g/t | Ag g/t |
|---|---|---|---|---|---|---|---|---|---|---|
| GM-01 | 50 | 75 | 25 | 0.077 | 2.008 | 15.2 | 22.9 | 7.6 | 2.623 | 68.9 |
| GM-05 | 155 | 180 | 25 | 0.033 | 2.028 | 47.2 | 54.9 | 7.6 | 1.127 | 69.5 |
| GM-19 | 210 | 275 | 65 | 0.041 | 1.192 | 64.0 | 83.8 | 19.8 | 1.406 | 40.9 |
| GM-22 | 315 | 365 | 50 | 0.048 | 0.573 | 96.0 | 111.3 | 15.2 | 1.662 | 19.7 |
| GM-26 | 255 | 335 | 80 | 0.023 | 0.503 | 77.7 | 102.1 | 24.4 | 0.796 | 17.2 |
| GM-31 | 225 | 315 | 90 | 0.048 | 1.287 | 68.6 | 96.0 | 27.4 | 1.643 | 44.1 |
| GM-43 | 370 | 395 | 25 | 0.039 | 1.412 | 112.8 | 120.4 | 7.6 | 1.333 | 48.4 |
| GM-50 | 415 | 475 | 60 | 0.051 | 0.392 | 126.5 | 144.8 | 18.3 | 1.742 | 13.4 |
| GM-52 | 75 | 100 | 25 | 0.084 | 41.526 | 22.9 | 30.5 | 7.6 | 2.876 | 1423.7 |
| GM-53 | 75 | 105 | 30 | 0.033 | 0.765 | 22.9 | 32.0 | 9.1 | 1.122 | 26.2 |
| GM-54 | 150 | 200 | 50 | 0.033 | 0.171 | 45.7 | 61.0 | 15.2 | 1.125 | 5.8 |
| GM-56 | 355 | 370 | 15 | 0.304 | 0.398 | 108.2 | 112.8 | 4.6 | 10.436 | 13.6 |
| GM-57 | 210 | 255 | 45 | 0.078 | 0.337 | 64.0 | 77.7 | 13.7 | 2.659 | 11.6 |
| GM-57 | 310 | 350 | 40 | 0.044 | 0.304 | 94.5 | 106.7 | 12.2 | 1.503 | 10.4 |
| GM-58 | 100 | 160 | 60 | 0.031 | 0.580 | 30.5 | 48.8 | 18.3 | 1.058 | 19.9 |
| GM-61 | 245 | 295 | 50 | 0.046 | 0.704 | 74.7 | 89.9 | 15.2 | 1.572 | 24.1 |
| GM-68 | 225 | 250 | 25 | 0.046 | 2.159 | 68.6 | 76.2 | 7.6 | 1.563 | 74.0 |
| GM-70 | 375 | 405 | 30 | 0.042 | 1.445 | 114.3 | 123.4 | 9.1 | 1.440 | 49.5 |
| GM-73 | 305 | 385 | 80 | 0.054 | 0.467 | 93.0 | 117.3 | 24.4 | 1.837 | 16.0 |
| GM-74 | 320 | 345 | 25 | 0.034 | 0.489 | 97.5 | 105.2 | 7.6 | 1.157 | 16.8 |
| GM-77 | 70 | 105 | 35 | 0.035 | 0.176 | 21.3 | 32.0 | 10.7 | 1.213 | 6.0 |
| GM-80 | 380 | 415 | 35 | 0.033 | 0.586 | 115.8 | 126.5 | 10.7 | 1.132 | 20.1 |
| GM-82 | 85 | 115 | 30 | 0.036 | 0.434 | 25.9 | 35.1 | 9.1 | 1.241 | 14.9 |
| GM-88 | 95 | 250 | 155 | 0.039 | 0.745 | 29.0 | 76.2 | 47.2 | 1.334 | 25.6 |
| GM-91 | 0 | 50 | 50 | 0.031 | 0.506 | 0.0 | 15.2 | 15.2 | 1.063 | 17.4 |
| GM-98 | 155 | 180 | 25 | 0.030 | 0.569 | 47.2 | 54.9 | 7.6 | 1.022 | 19.5 |
| GM-99 | 115 | 140 | 25 | 0.044 | 1.054 | 35.1 | 42.7 | 7.6 | 1.509 | 36.1 |
| GM-103 | 295 | 325 | 30 | 0.114 | 0.157 | 89.9 | 99.1 | 9.1 | 3.891 | 5.4 |
| GM-109 | 255 | 295 | 40 | 0.033 | 0.915 | 77.7 | 89.9 | 12.2 | 1.144 | 31.4 |
| GM-111 | 305 | 390 | 85 | 0.055 | 0.991 | 93.0 | 118.9 | 25.9 | 1.884 | 34.0 |
| GM-112 | 230 | 265 | 35 | 0.047 | 0.366 | 70.1 | 80.8 | 10.7 | 1.597 | 12.6 |
| GM-113 | 265 | 305 | 40 | 0.041 | 0.182 | 80.8 | 93.0 | 12.2 | 1.410 | 6.3 |
| GM-119 | 265 | 295 | 30 | 0.049 | 0.232 | 80.8 | 89.9 | 9.1 | 1.686 | 8.0 |
| GM-120 | 80 | 115 | 35 | 0.033 | 0.157 | 24.4 | 35.1 | 10.7 | 1.117 | 5.4 |
| GM-124 | 315 | 335 | 20 | 0.066 | 0.195 | 96.0 | 102.1 | 6.1 | 2.246 | 6.7 |
| GM-125 | 100 | 130 | 30 | 0.033 | 0.057 | 30.5 | 39.6 | 9.1 | 1.114 | 2.0 |
| GM-126 | 180 | 200 | 20 | 0.069 | 1.278 | 54.9 | 61.0 | 6.1 | 2.374 | 43.8 |
| GM-127 | 155 | 200 | 45 | 0.278 | 0.131 | 47.2 | 61.0 | 13.7 | 9.516 | 4.5 |
| including | 155 | 175 | 20 | 0.578 | 0.227 | 47.2 | 53.3 | 6.1 | 19.826 | 7.8 |
| GM-128 | 310 | 455 | 145 | 0.122 | 0.302 | 94.5 | 138.7 | 44.2 | 4.188 | 10.4 |
| including | 310 | 330 | 20 | 0.772 | 0.788 | 94.5 | 100.6 | 6.1 | 26.469 | 27.00 |

**Table 10-4 Summary 2017-2018 AGEI Drilling**

| Hole ID | from | to | Length | Au | Ag | from | to | Length | Au | Ag |
|---|---|---|---|---|---|---|---|---|---|---|
| | (ft) | (ft) | (ft) | opt | opt | (m) | (m) | (m) | g/t | g/t |
| AGEI-01 | 155 | 165 | 10 | 0.056 | 0.311 | 47.2 | 50.3 | 3.1 | 1.91 | 10.65 |
| AGEI-01 | 310 | 320 | 10 | 0.052 | 0.349 | 94.5 | 97.5 | 3.0 | 1.78 | 11.95 |
| AGEI-01 | 545 | 605 | 60 | 0.022 | 0.234 | 166.1 | 184.4 | 18.3 | 0.74 | 8.02 |
| AGEI-02 | 440 | 590 | 150 | 0.034 | 0.356 | 134.1 | 179.8 | 45.7 | 1.170 | 12.2 |
| including | 440 | 465 | 25 | 0.099 | 1.170 | 134.1 | 141.7 | 7.6 | 3.410 | 40.1 |
| including | 520 | 555 | 35 | 0.035 | 0.185 | 158.5 | 169.2 | 10.7 | 1.200 | 6.3 |
| AGEI-02 | 635 | 665 | 30 | 0.086 | 1.888 | 193.6 | 202.7 | 9.1 | 2.960 | 64.7 |
| AGEI-03 | 525 | 565 | 40 | 0.049 | 0.386 | 160.0 | 172.2 | 12.2 | 1.664 | 13.3 |
| AGEI-04 | 125 | 145 | 20 | 0.140 | 1.667 | 38.1 | 44.2 | 6.1 | 4.797 | 57.2 |
| AGEI-04 | 525 | 585 | 60 | 0.049 | 0.360 | 160.0 | 178.3 | 18.3 | 1.680 | 12.3 |
| AGEI-05 | 1135 | 1160 | 25 | 0.042 | 0.741 | 345.9 | 353.6 | 7.6 | 1.451 | 25.4 |
| AGEI-06 | 980 | 1015 | 35 | 0.037 | 0.174 | 298.7 | 309.4 | 10.7 | 1.260 | 6.0 |
| AGEI-08 | 585 | 635 | 50 | 0.054 | 0.195 | 178.3 | 193.5 | 15.2 | 1.855 | 6.7 |
| AGEI-09 | 130 | 145 | 15 | 0.044 | 0.107 | 39.6 | 44.2 | 4.6 | 1.500 | 3.7 |
| AGEI-10 | 555 | 575 | 20 | 0.045 | 0.254 | 169.2 | 175.3 | 6.1 | 1.531 | 8.7 |
| AGEI-12 | 210 | 250 | 40 | 0.056 | 0.235 | 64.0 | 76.2 | 12.2 | 1.934 | 8.1 |

**Table 10-5 Summary 2020-2021 GIMC Drilling**

| Hole ID | from (ft) | to (ft) | Length (ft) | Au opt | Ag opt | from (m) | to (m) | Length (m) | Au g/t | Ag g/t |
|---|---|---|---|---|---|---|---|---|---|---|
| AGEI-13 | 350 | 390 | 40 | 0.014 | 0.280 | 106.7 | 118.9 | 12.2 | 0.493 | 9.588 |
| AGEI-14 | 450 | 520 | 70 | 0.015 | 0.097 | 137.2 | 158.5 | 21.3 | 0.500 | 3.3 |
| AGEI-15 | 250 | 360 | 110 | 0.013 | 0.096 | 76.2 | 109.7 | 33.5 | 0.449 | 3.3 |
| including | 335 | 355 | 20 | 0.032 | 0.228 | 102.1 | 108.2 | 6.1 | 1.112 | 7.8 |
| AGEI-16 | 145 | 165 | 20 | 0.034 | 0.300 | 44.2 | 50.3 | 6.1 | 1.161 | 10.3 |
| AGEI-17 | 0 | 115 | 115 | 0.016 | 0.179 | 0.0 | 35.1 | 35.1 | 0.532 | 6.1 |
| AGEI-18 | 0 | 185 | 185 | 0.014 | 0.137 | 0.0 | 56.4 | 56.4 | 0.493 | 4.7 |
| AGEI-19 | 470 | 530 | 60 | 0.065 | 0.385 | 143.3 | 161.5 | 18.3 | 2.214 | 13.2 |
| including | 470 | 490 | 20 | 0.095 | 0.276 | 143.3 | 149.4 | 6.1 | 3.270 | 9.48 |
| AGEI-20 | 0 | 255 | 255 | 0.018 | 0.110 | 0.0 | 77.7 | 77.7 | 0.617 | 3.8 |
| including | 210 | 245 | 35 | 0.074 | 0.088 | 64.0 | 74.7 | 10.7 | 2.528 | 3.0 |
| AGEI-23 | 640 | 680 | 40 | 0.030 | 0.083 | 195.1 | 207.3 | 12.2 | 1.043 | 2.8 |
| AGEI-24 | 360 | 510 | 150 | 0.014 | 0.146 | 109.7 | 155.4 | 45.7 | 0.493 | 5.0 |
| AGEI-26 | 170 | 335 | 165 | 0.015 | 0.137 | 51.8 | 102.1 | 50.3 | 0.521 | 4.7 |
| AGEI-27 | 315 | 430 | 115 | 0.027 | 0.540 | 96.0 | 131.1 | 35.1 | 0.918 | 18.5 |
| including | 320 | 370 | 50 | 0.052 | 0.897 | 97.5 | 112.8 | 15.2 | 1.778 | 30.7 |
| AGEI-28 | 430 | 560 | 130 | 0.025 | 2.684 | 131.1 | 170.7 | 39.6 | 0.845 | 92.0 |
| including | 450 | 515 | 65 | 0.042 | 5.234 | 137.2 | 157.0 | 19.8 | 1.436 | 179.5 |
| including | 490 | 515 | 25 | 0.037 | 1.458 | 149.4 | 157.0 | 7.6 | 1.274 | 50.0 |
| AGEI-29 | 330 | 515 | 185 | 0.015 | 0.287 | 100.6 | 157.0 | 56.4 | 0.515 | 9.8 |
| AGEI-30 | 365 | 535 | 170 | 0.013 | 0.254 | 111.3 | 163.1 | 51.8 | 0.438 | 8.7 |
| AGEI-32 | 430 | 510 | 80 | 0.266 | 0.736 | 131.1 | 155.4 | 24.4 | 9.105 | 25.2 |
| including | 430 | 490 | 60 | 0.352 | 0.894 | 131.1 | 149.4 | 18.3 | 12.061 | 30.7 |
| including | 440 | 470 | 30 | 0.675 | 1.453 | 134.1 | 143.3 | 9.1 | 23.158 | 49.8 |
| AGEI-33 | 0 | 210 | 210 | 0.030 | 0.212 | 0.0 | 64.0 | 64.0 | 1.012 | 7.3 |
| including | 70 | 510 | 440 | 0.040 | 0.285 | 21.3 | 155.4 | 134.1 | 1.373 | 9.8 |
| including | 155 | 200 | 45 | 0.096 | 0.612 | 47.2 | 61.0 | 13.7 | 3.293 | 21.0 |
| AGEI-35 | 370 | 510 | 140 | 0.023 | 1.345 | 112.8 | 155.4 | 42.7 | 0.784 | 46.1 |
| including | 430 | 470 | 40 | 0.041 | 3.421 | 131.1 | 143.3 | 12.2 | 1.417 | 117.3 |
| AGEI-37 | 310 | 550 | 240 | 0.017 | 0.241 | 94.5 | 167.6 | 73.2 | 0.594 | 8.3 |
| including | 415 | 470 | 55 | 0.036 | 0.456 | 126.5 | 143.3 | 16.8 | 1.227 | 15.6 |
| AGEI-38 | 325 | 365 | 40 | 0.042 | 0.380 | 99.1 | 111.3 | 12.2 | 1.446 | 13.0 |
| including | 340 | 350 | 10 | 0.146 | 1.059 | 103.6 | 106.7 | 3.0 | 5.020 | 36.3 |
| AGEI-39 | 0 | 270 | 270 | 0.014 | 0.194 | 0.0 | 82.3 | 82.3 | 0.486 | 6.7 |
| AGEI-42 | 410 | 425 | 15 | 0.072 | 0.077 | 125.0 | 129.5 | 4.6 | 2.482 | 2.6 |
| AGEI-47 | 0 | 530 | 530 | 0.015 | 0.101 | 0.0 | 161.5 | 161.5 | 0.497 | 3.5 |
| including | 370 | 530 | 160 | 0.031 | 0.102 | 112.8 | 161.5 | 48.8 | 1.047 | 3.5 |
| including | 475 | 515 | 40 | 0.079 | 0.102 | 144.8 | 157.0 | 12.2 | 2.724 | 3.5 |

**Table 10-6 Summary 2021 GIMC Drilling**

| Hole ID | from | to | Length | Au | Ag | from | to | Length | Au | Ag |
|---|---|---|---|---|---|---|---|---|---|---|
| | (ft) | (ft) | (ft) | opt | opt | (m) | (m) | (m) | g/t | g/t |
| AGEI-49 | 0 | 405 | 405 | 0.007 | 0.125 | 0.0 | 123.4 | 123.4 | 0.257 | 4.3 |
| including | 380 | 405 | 25 | 0.022 | 0.376 | 115.8 | 123.4 | 7.6 | 0.756 | 12.9 |
| AGEI-50 | 10 | 510 | 500 | 0.007 | 0.181 | 3.0 | 155.4 | 152.4 | 0.252 | 6.2 |
| including | 35 | 125 | 90 | 0.013 | 0.184 | 10.7 | 38.1 | 27.4 | 0.448 | 6.3 |
| AGEI-51 | 125 | 595 | 470 | 0.006 | 0.169 | 38.1 | 181.4 | 143.3 | 0.216 | 5.8 |
| including | 130 | 155 | 25 | 0.016 | 0.102 | 39.6 | 47.2 | 7.6 | 0.552 | 3.5 |
| AGEI-52 | 0 | 400 | 400 | 0.009 | 0.128 | 0.0 | 121.9 | 121.9 | 0.3 | 4.4 |
| AGEI-53 | 210 | 390 | 180 | 0.018 | 0.268 | 64.0 | 118.9 | 54.9 | 0.604 | 9.2 |
| including | 325 | 390 | 65 | 0.027 | 0.268 | 99.1 | 118.9 | 19.8 | 0.937 | 9.2 |
| AGEI-54 | 180 | 375 | 195 | 0.019 | 0.210 | 54.9 | 114.3 | 59.4 | 0.655 | 7.2 |
| including | 235 | 285 | 50 | 0.055 | 0.201 | 71.6 | 86.9 | 15.2 | 1.893 | 6.9 |
| AGEI-57 | 415 | 500 | 85 | 0.031 | 0.260 | 126.5 | 152.4 | 25.9 | 1.064 | 8.9 |
| AGEI-58 | 110 | 355 | 245 | 0.022 | 0.245 | 33.5 | 108.2 | 74.7 | 0.755 | 8.4 |
| including | 235 | 335 | 100 | 0.035 | 0.490 | 71.6 | 102.1 | 30.5 | 1.198 | 16.8 |
| AGEI-59 | 195 | 345 | 150 | 0.020 | 0.146 | 59.4 | 105.2 | 45.7 | 0.68 | 5 |
| including | 210 | 255 | 45 | 0.044 | 0.233 | 64.0 | 77.7 | 13.7 | 1.518 | 8 |
| AGEI-60 | 10 | 330 | 320 | 0.018 | 0.117 | 3.0 | 100.6 | 97.5 | 0.608 | 4 |
| including | 185 | 255 | 70 | 0.050 | 0.175 | 56.4 | 77.7 | 21.3 | 1.705 | 6 |

## 10.2 Drill Hole Collar and Down Hole Surveys

GIMC and AGEI used Farr West Engineering (FWE) to survey in all the drill hole collar locations. FWE also surveyed in any old collar locations for comparison to the database. The collar locations were located in NAD83, UTM zone 11, ground datum. International Directional Services (IDS) performed all the borehole deviation surveys for GIMC and AGEI. All holes had down hole surveys completed except AGEI-13. All of GMC's 131 drill hole collars plus 35 historic drill hole collars were surveyed by Claimstakers, Inc. using a differential GPS. The GMC collar locations were located in NAD83, UTM zone 11, grid datum. The remaining drill hole collar locations were obtained from drill logs or taken from old drill hole location maps. All drill hole collar coordinates have been converted to the NAD83, UTM zone 11, ground datum if needed. All units are in meters.

GMC completed no down hole surveys on any of their drill holes. A majority of these drill holes pass through the mineralization from 30 meters to 100 meters from the collar location. There are several GMC drill holes that pass through the mineralization at a depth from the collar location of up to 150 meters. There is some concern over these holes about the location of the mineralization. An attempt was made at correcting the drill hole deviations as explained in section 14.1.1. It is recommended that all holes drilled at an angle other than vertical and greater than 90 meters (300 feet) deep have a down hole survey completed.

Of the eight holes drilled into the Deep Skarn deposit, all had down hole surveys completed. The surveys for the six Noranda drill holes have not been located and there is no detailed record of these surveys, which are referenced in the Noranda final project report. Records of the down hole surveys completed for the two Great Basin drill holes are located in GIMC files. All of the holes drilled into the Deep Skarn deposit are vertical holes. It is recommended that all future holes drilled into the Deep Skarn deposit have a down hole survey completed.

## 10.3 Reverse Circulation Drilling and Logging

In addition to Golden Independence, six other companies, Americas Gold, General Metals Corp, Battle Mountain Gold Corp, Landsdowne Minerals, Teck and Great Basin Gold conducted RC drilling on the Independence property as summarized in Table 10-1. Results from these drilling campaigns were used in the mineral resource estimation described in section 14 of this report. All holes were sampled, logged and assayed in accordance with then present industry standards. Golden Independence is in possession of all of these logs and original assay certificates. All of Golden Independence RC drilling is in the same area as the other companies' RC holes and results have been substantially similar. The Qualified Person therefore is of the opinion that the quality of the pre-2007 historic drilling is of sufficient quality to be included in the present mineral resource estimate.

Golden Independence and AGEI have conducted 12,977 meters (42,575 feet) (32.6% of total footage) of RC drilling on the Independence Project all of which are used in this mineral resource estimate. All holes were sampled on 5-foot (1.52 m) sample intervals for the entire length. A duplicate sample was collected at 100-foot intervals and was sent along with the initial samples to the lab for analysis. Samples for assay were stored on site under the supervision of Golden Independence consultants and either shipped to the laboratory or picked up on site by the laboratory.

Reverse circulation (RC) chip logging was accomplished by the collection of a small sample of the total amount of material comprising each sample interval. The logging chips are quickly washed and sieved at the drill rig in order to obtain the coarser (>~1/16-1/8in) chips for examination. The chips from each sample interval are placed in compartmentalized plastic trays, each containing 10 or 20 compartments, with the corresponding 5-foot (1.52 m) interval for each compartment marked on the trays lid by permanent marker. Each tray is marked with the drill hole number and relevant intervals represented by the samples within. The trays were sealed and transported to the storage facility for logging by a geologist.

The RC chips for each sample interval are logged for rock type, color, oxidation, oxide minerals, clay minerals, structure, alteration and mineralization. Due to the fact that the chips are representative of a 5-foot interval, there may be more than one lithology present and so the recorded logging data normally incorporates a system, such as percentages or other scaling system, to indicate the relative abundance or intensity of the observed item within the chip sample.

## 10.4 Core Drilling and Logging

Core drilling on the property was first conducted by Union Pacific Railroads Minerals Division (UP). UP drilled two shallow NQ diameter angle core holes on the property, one collared north of the current decline, the other in what is now the Hill Zone. Both holes were targeting very high-grade mineralization similar to the 1+40 and APCO stopes, and both were plagued with low recoveries. Neither hole encountered significant mineralization. APCO Oil Corporation conducted very limited shallow core drilling on the property in 1975 and no records exist of these efforts.

Of the core drilling used in this resource estimate, Noranda Exploration was the first company to conduct serious diamond core drilling on the property. From 1985 to 1987 they completed 19,073 feet (5,814 meters) of HQ and NQ diameter core drilling in seven core holes to test the Independence Deep Skarn Target. These holes were logged by Noranda geologists and GIMC has possession of the Noranda logs, core and pulps from this drilling.

Great Basin Gold (GBG) was the next company to conduct core drilling on the property. Great Basin pre-collared the core holes with RC to depths of 1,380 feet (421 meters) in hole WI-001 and 1260 feet (384 meters) in hole WI-002. The holes were then cased and HQ diameter core drilled from the bottom of the RC drilling. WI-001 was drilled to a total depth of 3,380 feet (1,030.2 meters) and WI-002 was drilled to a total depth of 3,203 feet (976.3 meters). GBG logged both holes in detail and also re-logged Noranda holes 4 and 7. GIMC is in possession of all of GBG's logs, core and pulps from the deep skarn mineralized zones.

GMC conducted geotechnical logging and sampling over a shallow portion of Noranda's core hole IND-4. The logged core was delivered to American Assay Laboratories of Sparks, Nevada where the core was sawn in pre-marked intervals and analyzed in American's analytical lab.

The 2011 drilling program by General Metals consisted of three HQ core holes. The total length drilled was 326.7 meters (1,072 feet). The core was logged for geologic and geotechnical characteristics. The core was transported to American Assay Labs where it was cut in half. One half was prepared for assay analysis and the other half was placed back in the core box for future study. Assay intervals were determined prior to cutting by the geologist based on geologic controls. These three holes were located as twins to previously drilled RC holes by GMC.

In 2021 GIMC drilled five HQ core holes to gain information for their waste characterization study. The total length drilled was 580 meters (1,902.5 feet). The core was collected at the drill rig from the split tube and placed in core boxes for geotechnical and geologic logging. The sample intervals were marked by a consulting geologist and transported to ALS Chemex in Elko for cutting and assay analysis. The sample analyzed was a quarter spilt from the original sample. This leaves ¾ of the core for additional analysis.

## 10.5 Underground Workings- Sampling and Mapping

GIMC has done no sampling from the old underground workings. GMC relied on historic underground data and did not conduct any systematic underground mapping or sampling of the extensive underground mine workings. The historic Independence Mine consists of more than 2,743 meters (9,000 feet) of drifts and cross cuts, an undetermined amount of raises and winzes, a steep inclined shaft more than 90 meters (300 feet) deep, and a 365 meters (1,200 foot) 12% spiral decline. Mined out stopes have not been surveyed in detail, however most workings drifted on ore, and production records indicate maximum production from the mine is 59,020 tonnes (65,059 tons) as summarized in Table 6-1.

Records of the Independence mine contain main haulage way underground surveys, mine maps, geological map, section and underground sampling. This data was relied upon by GMC for its targeting purposes. The underground surveys of the main drifts and cross-cuts were used to create a 3-D model of the underground, which was used in the resource estimation.

- **Drilling Outside of the Resource Area**

Due to the size of the property and the continuity of mineralization seen in the project, all drilling is considered to be within the mineral resource area.

# 11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

## 11.1 Introduction

Golden Independence and the Qualified Person for this section of the Technical Report have compiled and verified to the best of their knowledge a database of all historic and current exploration assay data for the Independence Project. The historic data, that data prior to 2007, has been provided in its entirety. However, there are aspects of the historic assay data that cannot be verified such as sampling procedures, security, analytical profiles, and QA/QC methods. Verification of the historic data has been completed by examination of old geologic cross-sections, drill hole collars were re-surveyed when found and compared to those listed in the database, and the re-assaying of duplicate samples and lab reject samples. For the most part, the Qualified Person found that the historic assay data conforms well to the interpreted project geology and mineralization models which are defined mainly by the exploration data collected from 2007 to the present.

## 11.2 Reverse Circulation Sampling

Golden Independence, AGEI and GMC's procedures for sampling at the drill rig were essentially the same and were as follows: Samples were taken on five-foot (1.52 meters) intervals throughout the entire hole, except where circulation was lost due to intersecting a mine working or natural void. GIMC collected a duplicate sample on 100-foot intervals whereas GMC collected a duplicate sample for every 1.52 meter (5-foot) interval. AGEI did not collect any rig duplicate samples. The 1.52 meter (5-foot) sampling interval was deemed appropriate due to the distribution of mineralization and the generally lower grade of the deposit. Consulting geologists were responsible for overseeing the sampling procedure and making sure quality samples were collected by the driller, drill helper, and drill sampler.

Only a small amount of water was used during drilling for dust suppression and on occasion when water was needed to help drilling progress. All samples were passed through a cyclone and then split using a three-tier Jones riffle splitter into duplicate $1/8^{th}$ slits. Samples were collected in pre-marked sample bags with one split for assay and any duplicates for reference. Both sample sets were stored on site until picked up for analysis. Primary samples to be assayed were picked up by the assay lab or delivered to the lab by the current owner's representative.

No written procedures for the drilling and logging by Battle Mountain Gold, Noranda or Great Basin Gold have been found. Despite this, because of the general agreement between the Golden Independence, AGEI, and General Metals drill holes, the Author is of the opinion that the historic drilling sufficiently complies with industry standard practices and that the data are sufficiently reliable to be used in the mineral resource estimation.

## 11.3 Reverse Circulation Sample Contamination

As part of the Mineral Resource Estimation described in Section 14, cross-sections were drawn through the Near Surface deposit at irregular intervals in order to best capture all the drill holes and the assay information. All the RC holes were carefully reviewed on the cross-section to evaluate the possibility of down-hole contamination from high-grade values and cyclical contamination occurring at rod changes. Evidence of significant sample contamination was not apparent in any of the RC holes. Groundwater was not intercepted in any of the RC holes drilled by GIMC, AGEI, or GMC in any amounts that were noteworthy. Based on deep core drilling the water table is typically intercepted at depths of 245 to 260 meter (800 to 850 feet) vertically below the present surface and possibly deeper.

## 11.4 Core Sampling

The HQ core drilled by GIMC and GMC was collected in a split tube and carefully transferred to waxed cardboard core boxes. The core is examined and logged for both geologic and geotechnical information. The core is photographed and intervals are marked for assaying. Assay intervals for the GIMC core was based on geologic breaks and varied from 0.4 feet (0.12 meters) to 17.0 feet (5.18 meters) with the average assay interval of 5.4 feet (1.64 meters). The assay interval for the GMC HQ core was usually every 5 feet (1.52 meters). After logging, photographing, and marking, the core was stored in a secure facility until it was transported to the assay laboratory for cutting and analysis. The GIMC core was delivered to ALS Minerals in Elko, NV where it was cut and one quarter split was sent for analysis. The GMC core was delivered to American Assay Laboratories in Sparks, NV where it was cut and one half was sent for analysis. The remaining core is stored for future inspection and analysis.

In 2009 GMC conducted limited geotechnical logging and re-sampling of a shallow portion of Noranda’s core hole IND-4. GMC consulting geologists completed the logging. Core was then delivered to American Assay Laboratories of Sparks, Nevada where core was then diamond sawn in pre-marked intervals and analyzed at AAL. There is no record of the core sampling procedures used by Great Basin Gold or Noranda, however due to the quality of the geology logs and that the assays compare well to checks the Author feel the data is reliable to be used in a mineral resource estimate.

## 11.5 Underground Sampling

GIMC, AGEI, nor GMC have conducted any systematic underground sampling as part of their exploration programs. Earlier operators, including APCO, Silver King Mines, United Mining and Harrison Mining conducted various underground rib and back sampling programs in addition to their normal production sampling. These samples were generally taken at five-foot intervals along existing workings, although in some areas the interval was as great as ten feet. Most samples were taken from the ribs, with the orientation being a compromise between vertical and horizontal mineralized fractures. Occasionally back samples were taken where the orientation of the mineralized fractures precluded taking a representative sample from one of the ribs. Geotechnicians took the samples using small pneumatic chippers to cut continuous chip samples, which were collected on plastic sheeting before being transferred to a sample bag.

## 11.6 Soil Sampling

No soil sampling was conducted by GIMC, AGEI, or GMC as part of their exploration programs. Previous operators, Noranda (1985-87) and Great Basin Gold (1996) conducted soil programs which when combined provide property wide coverage. No information is available as to how the samples were collected. The results of this work are shown in Figure 9-1.

## 11.7 Sample Preparation

GIMC and AGEI used ALS Chemex (ALS) for sample preparation for both reverse circulation samples and core samples. The samples were first dried in an oven at a maximum temperature of $60^{o}$ C to eliminate residual moisture. Once dried, all drill samples are prepared by crushing the entire sample to 70% passing 2mm size, splitting out 250 grams of sample and pulverizing this split to 85% passing -75 microns in size. From the 250 gram pulp 30 grams is split out for fusion and fire assay with an atomic absorption (AA) finish.

American Assay Laboratories (AAL) performed the sample preparation for the GMC RC and core drill holes. The samples were first dried, stage crushed to 90% passing 10 mesh, and a 150 to 250 gram sub-sample was split out and pulverized to 80% minus 150 mesh.

There is no written documentation of the sample preparation procedure used by the independent commercial labs that performed the assaying for the companies other than GIMC, AGEI, and GMC drilling and sampling programs. Despite the lack of written documentation for earlier programs and operators, it is the Author's opinion that the assay data are sufficiently reliable to be used for the calculation of Mineral Resources, as outlined in Section 14.

## 11.8 Analytical Procedures

The Author did not review whether all the laboratories used for the historic drilling had any certification at the time they performed the analyses. Most of the analyses relied on for the mineral resource estimation in Section 14 (GIMC, AGEI, and GMC drilling) was completed by laboratories which were certified.

For GMC holes GM-1 thru GM-32 the sub-sample was pulverized and a 100g split of the pulp was sent to the ALS Chemex laboratory (certified to ISO 9001:2008 and accreditation to ISO/IEC 17025:2005) in Reno, Nevada for analysis. ALS analyzed the pulps by 30g fire assay with AA finish. The original pulp of any sample that returned a gold value greater than 10 ppm was re-assayed by 30g fire assay with gravimetric finish.

GMC holes GM-33 to GM-128 were analyzed at American Assay Laboratory in Reno, Nevada. AAL obtained ISO 9002 registration in 2000. RC samples were analyzed for gold by 30-gram FA with AA finish. Pulps returning high values—triggered at 10ppm (0.3 opt) gold or 100 ppm (3.0 opt) silver threshold—were re-analyzed by 30-gram FA with gravimetric finish. Both ALS Chemex and American Assay Laboratory are independent of GIMC, AGEI, and GMC.

The samples from GIMC and AGEI holes AGEI-1 thru AGEI-60 and the 5 core holes were pulverized and a 100g split of the pulp was sent to the ALS Chemex laboratory (certified to ISO 9001:2015 and accreditation to ISO/IEC 17025:2017) in Reno, Nevada for analysis. ALS analyzed the pulps by 30g fire assay with AA finish. The original pulp of any sample that returned a gold value greater than 10 ppm or a silver value greater than 100 ppm was re-assayed by 30g fire assay with gravimetric finish.

GMC conducted a cyanide-soluble gold and silver study on 2,301 pulps taken from their 2007-8 and 2009-10 drilling campaigns. All holes were represented in the study. Intervals selected for analysis had a gold value greater than or equal to 0.01 opt (0.34 ppm) Au. The cyanide-soluble analysis was completed at ALS Chemex laboratory in Reno, NV using a 15g, three-hour, cold-cyanide shake leach test.

GIMC conducted cyanide-soluble tests on 47 pulp samples collected from holes AGEI-1 to AGEI-12. The samples collected represented near surface mineralization with a gold grade of 0.170 ppm (0.005 opt) or greater. Paragon Geochemical Laboratories of Sparks, NV (certified to ISO 9001:2015 and accreditation to ISO/IEC 17025:2017) conducted the analysis using a 10g sample over a 1 hour leach test at room temperature. In 2021 GIMC collected 1,053 samples from AGEI holes 13 to 48 for cyanide leach analysis at ALS Chemex. The results from these tests along with all the other cyanide-soluble tests were used in helping to determine metal recoveries for the project.

## 11.9 QA/QC, Check Samples, Check Assays

GIMC, AGEI, and GMC's Quality Assurance/Quality Control ("QA/QC") program included analyses of standard reference materials (SRM), field reference material (FRM), duplicate pulps, duplicate samples and check assaying on pulps, which was performed by certified independent laboratories. The program was designed to ensure that at least one SRM or FRM was inserted into the drill-sample stream for every 20 drill samples. In addition, duplicate splits for the GIMC and AGEI holes were collected at 100 foot intervals and for the GMC holes duplicate samples were collected at every interval for possible future analysis. The results of these programs are discussed below by year of drilling.

Table 11-1 below summarizes the results of rig duplicate, pulp check, and coarse reject sample results performed by GMC (2007, 2008 & 2009-2010), Battle Mountain Gold (1990-91), and Golden Independence Mining (2020-21). Figures 11-1 through 11-9 are scatter plots displaying the results by metal, type, and year. The scatter plots are drawn using normal scales and the regression lines shown in black are the best fit to the data using the equation $y = ax^b$, where y is the check assay and x is the original assay.

For the 1990-91 Battle Mountain drill program none of the original assay certificates are available. The assays for these holes were taken from geology drill logs. No quality assurance work has been found for the Battle Mountain drill holes. The Author feels comfortable using these holes due to the relatively good agreement with surrounding holes drilled after 2006. For the GMC 2007 drill program (holes GM-01 thru GM-32), the original assaying and pulp check assaying were both done by ALS Chemex (ALS) (Figures 11-1 and 11-2). In 2009 GMC collected approximately ten percent of the mineralized intervals from the stored duplicate samples from their 2007-2008 drill program. The samples were delivered to Société Générale de Surveillance now known as SGS Laboratories for gold and silver analysis along with multi-element analysis. Figures 11-3 and 11-4 display scatter plots for the SGS results compared to the original ALS and AAL 2007-2008 results. As is shown in Table 11-1, the differences between the 2007 ALS data and the 2008 AAL data is minimal and thus combining the data, as seen in Figures 11-3 and 11-4, is acceptable. No duplicate or pulp samples were collected from the 2009-2010 drilling program for analysis.

In 2009 GMC initiated a program to reaffirm assay results from the Deep Skarn deposit. A total of 240 pulps from mineralized intervals that passed through the Deep Skarn deposit were collected and submitted to AAL together with standards and certified reference materials for analysis. The results correlate well with original drill data by Noranda Exploration (Figure 11-5) and Great Basin Gold (Figure 11-6).

Golden Independence instituted a QA/QC program that consisted of collecting a field duplicate sample at 100-foot intervals and inserting a certified reference material (CRM) and a blank sample in with the samples submitted to the analytical laboratory. GIMC also went back through the AGEI drilling from 2017-18 and collected 45 coarse reject samples from the ALS analysis. These coarse reject samples were selected from mineralized material and sent to Paragon Geochemical Laboratories to be re-analyzed for gold and cyanide soluble gold. The field duplicate samples from the GIMC 2020-2021 drill programs were analyzed along with the primary samples at ALS Chemex laboratories. The comparison between the two duplicate samples from the GIMC 2020-21 drilling is shown in Figure 11-7 for gold and Figure 11-8 for silver. The comparison between the two duplicate samples from the GIMC 2021 drilling is shown in Figure 11-9 for gold and Figure 11-10 for silver. The comparison between the AGEI coarse reject result from Paragon and the original result from ALS is shown in Figure 11-19. The correlation between the field duplicate samples A and B and between the original analysis and the coarse reject analysis for gold and silver are good with correlations 70% and above. In general the comparisons represent results consistent with epithermal Au-Ag deposits.

In general, there was good correlation between the original or primary sample and the duplicate assay results for all check assay programs. This can be interpreted as representing good (consistent) assaying by the laboratories, but also that there is very little “sample variance” meaning that there was no evidence of a significant “nugget effect”.

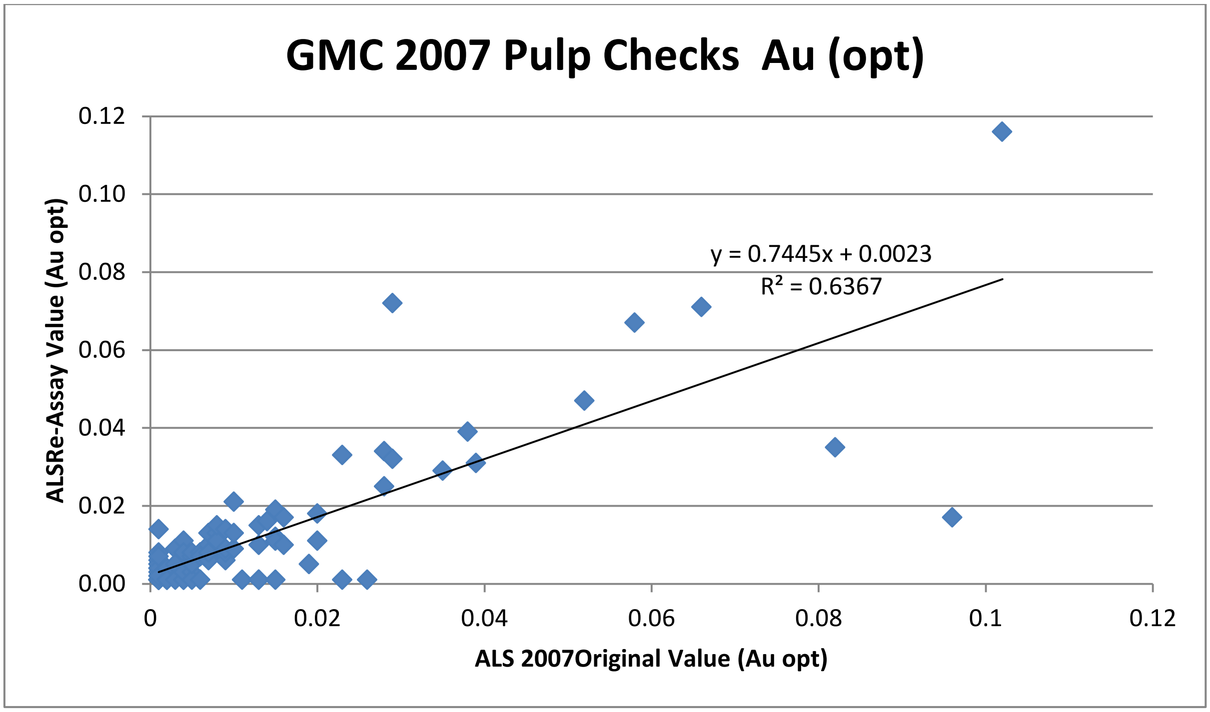
**Table 11-1 Check and Duplicate Samples Summary**

| Year of Check | Description | N | Original (oz./ton) | | | | Check (oz./ton) | | | | Corr. Coef |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Mean | Median | Min | Max | Mean | Median | Min | Max | |
| 1990-91 | BMG 1990-91 Au Check | 256 | 0.014 | 0.01 | 0.00 | 0.119 | 0.014 | 0.01 | 0.001 | 0.084 | 0.88 |
| 1990-91 | BMG 1990-91 Ag Check | 168 | 0.200 | 0.13 | 0.02 | 1.3 | 0.210 | 0.15 | 0.01 | 1.41 | 0.79 |
| 2007 | GMC 2007 Au Pulp Check (ALS vs. ALS ) | 103 | 0.012 | 0.005 | 0.001 | 0.102 | 0.011 | 0.006 | 0.001 | 0.116 | 0.64 |
| 2007 | GMC 2007 Ag Pulp Check (ALS ICP vs. ALS ICP) | 118 | 0.475 | 0.057 | 0.014 | 2.686 | 0.452 | 0.383 | 0.014 | 2.654 | 0.97 |
| 2009 | GMC 2007 Au Duplicate Check (SGS vs. ALS) | 46 | 0.027 | 0.012 | 0.001 | 0.275 | 0.025 | 0.010 | 0.001 | 0.264 | 0.97 |
| 2009 | GMC 2008 Au Duplicate Check (SGS vs. AAL) | 111 | 0.025 | 0.013 | 0.001 | 0.291 | 0.028 | 0.013 | 0.001 | 0.292 | 0.97 |
| 2009 | GMC 2007 Ag Duplicate Check (SGS vs. ALS) | 48 | 1.016 | 0.531 | 0.076 | 6.708 | 1.027 | 0.578 | 0.07 | 7.379 | 0.99 |
| 2009 | GMC 2008 Ag Duplicate Check (SGS vs. AAL) | 111 | 0.446 | 0.188 | 0.034 | 5.848 | 0.442 | 0.184 | 0.032 | 5.221 | 0.99 |
| 2009 | GBG 1998 Au pulp Check (AAL) | 44 | 0.047 | 0.007 | 0.0 | 0.849 | 0.047 | 0.007 | 0.0 | 0.883 | 0.99 |
| 2009 | Noranda 1985-89 Au pulp Check (AAL) | 196 | 0.051 | 0.019 | 0.001 | 0.899 | 0.054 | 0.018 | 0.0 | 1.019 | 0.97 |
| 2021 | AGEI 2017-18 Au Reject Check (ALS vs. Paragon) | 45 | 0.061 | 0.041 | 0.007 | 0.363 | 0.057 | 0.036 | 0.002 | 0.324 | 0.97 |
| 2021 | GIMC 2020-21 Au Duplicate Check (ALS vs. ALS) | 233 | 0.005 | 0.003 | 0.00 | 0.062 | 0.005 | 0.003 | 0.00 | 0.051 | 0.70 |
| 2021 | GIMC 2020-21 Ag Duplicate Check (ALS vs. ALS) | 148 | 0.130 | 0.093 | 0.015 | 0.820 | 0.129 | 0.092 | 0.009 | 0.735 | 0.83 |
| 2021 | GIMC 2021 Au Duplicate Check (ALS vs. ALS) | 66 | .0072 | .0042 | 0.000 | .0543 | .0057 | .0041 | 0.000 | .0373 | 0.77 |
| 2021 | GIMC 2021 Ag Duplicate Check (ALS vs. ALS) | 65 | .1292 | .0758 | 0.015 | .7371 | .1288 | .0758 | 0.009 | .8079 | 0.99 |

**BMG = Battle Mountain Gold, GMC = Genera Metals Corp., SGS = Sierra Geochemical Analysis,**
**GBG = Great Basin Gold, AAL = American Assay Labs, ALS = ALS Chemex,**
**AGEI = Americas Gold Exploration, Paragon = Paragon Geochemical Lab,**
**GIMC = Golden independence Mining Corp.**

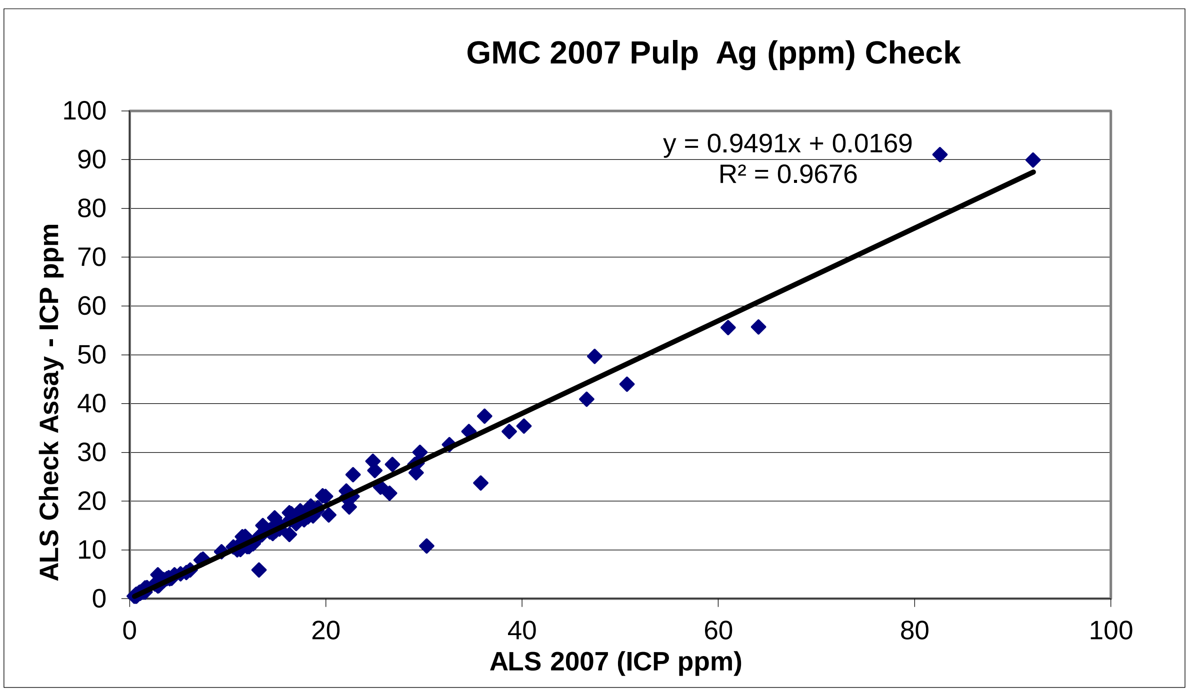
(Source: GMC, 2010 & GIMC, 2021)

**Figure 11-1 GMC 2007 Pulp Gold Check Assay**




Source: GMC, 2010

**Figure 11-2 GMC 2007 Silver Pulp Check Assay**




Source: GMC, 2010

**Figure 11-3 2009 GMC Gold Check Assays on Duplicate Samples**

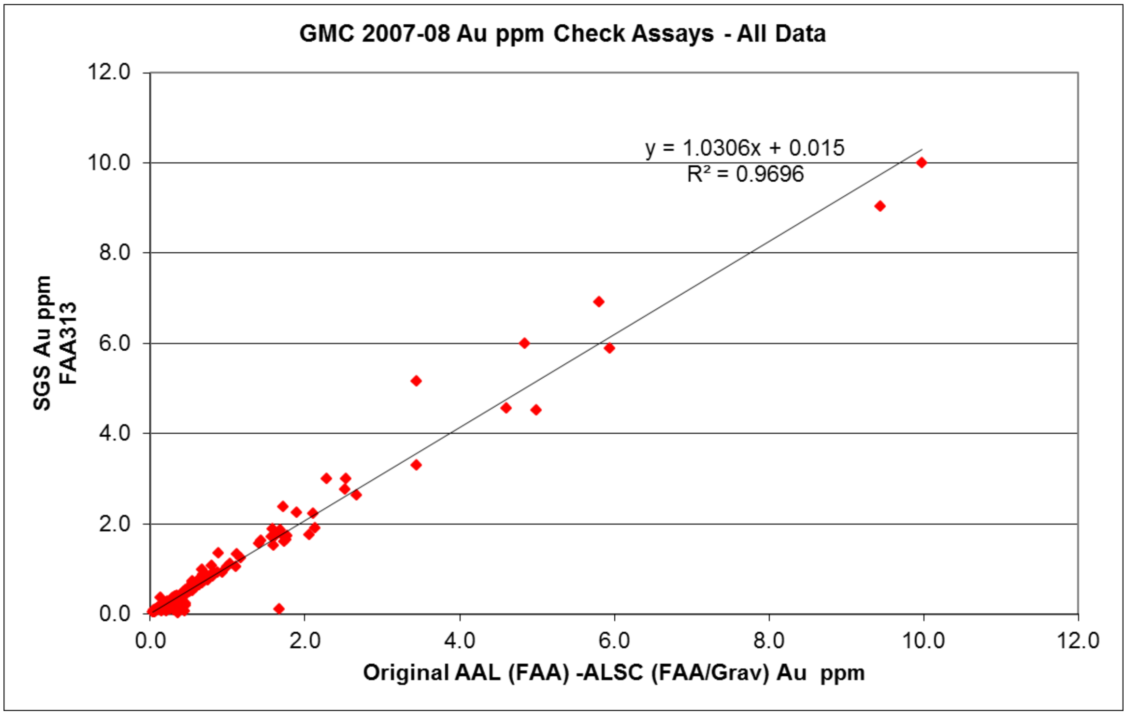



**Figure 11-4 2009 GMC Silver Check Assays on Duplicate Samples**

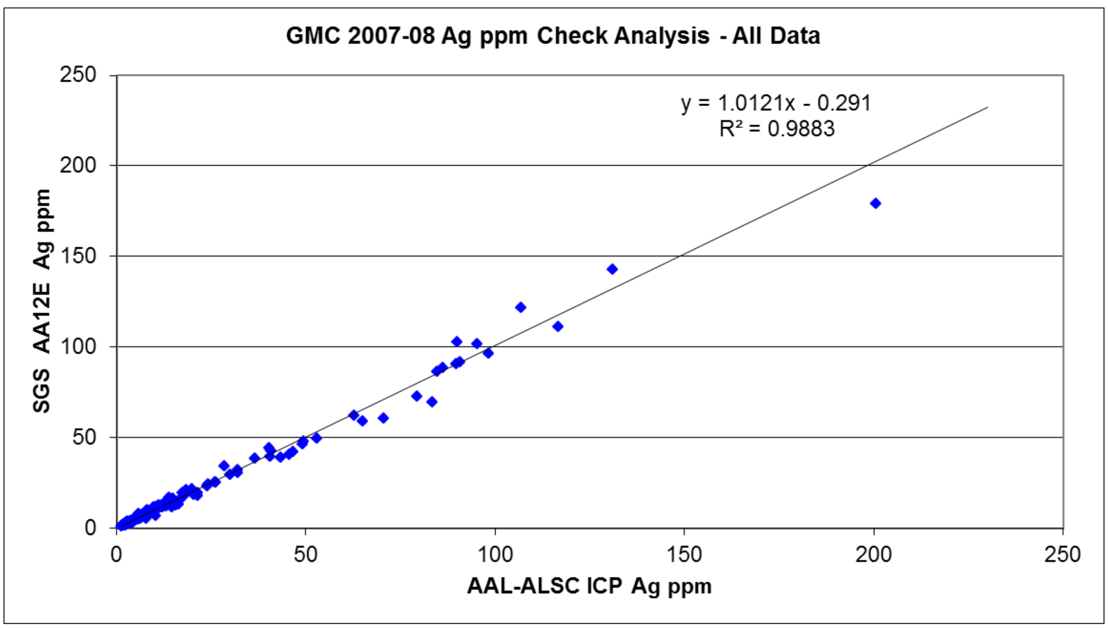


**Figure 11-5 2009 GMC re-assay of the Noranda Deep Skarn Mineralization Pulps**

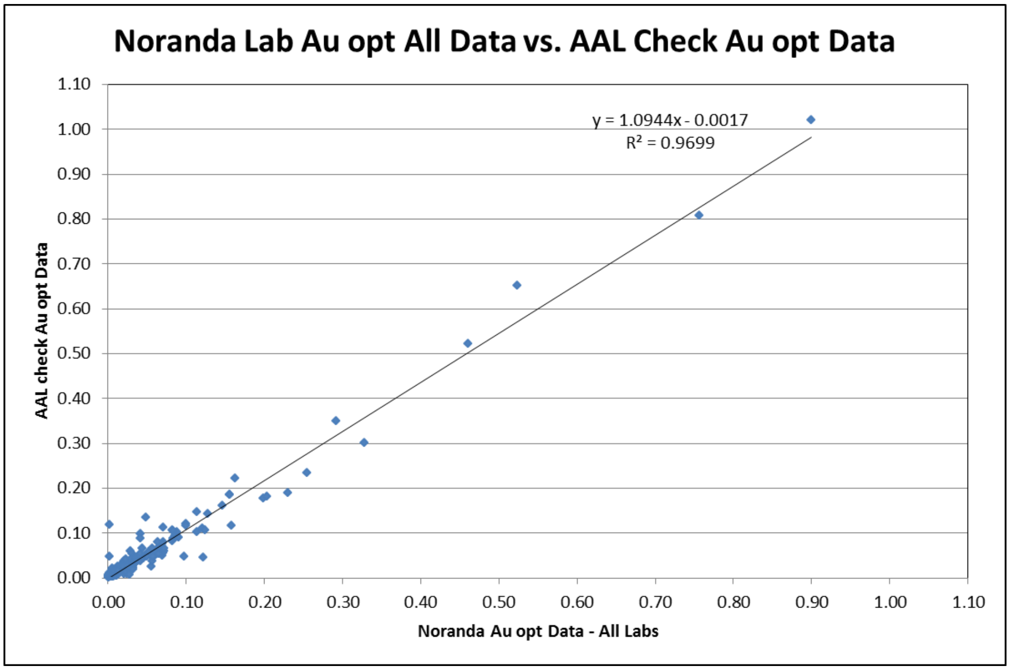



**Figure 11-6 2009 GMC re-assay of Great Basins Deep Skarn Mineralization Pulps**

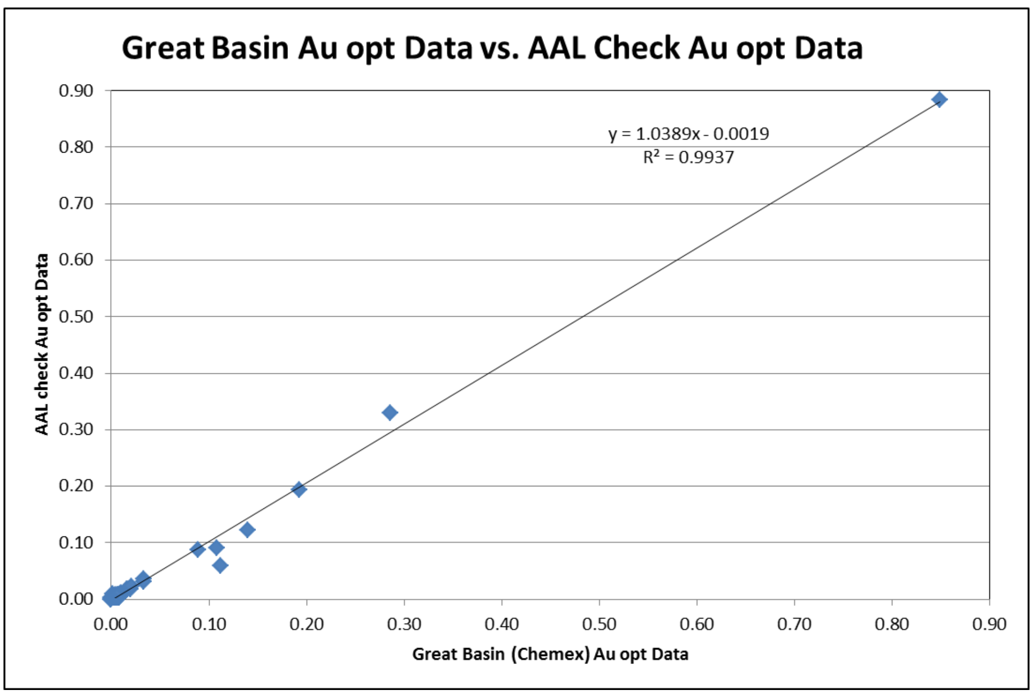


**Figure 11-7 2020-21 GIMC Au Field Duplicates**

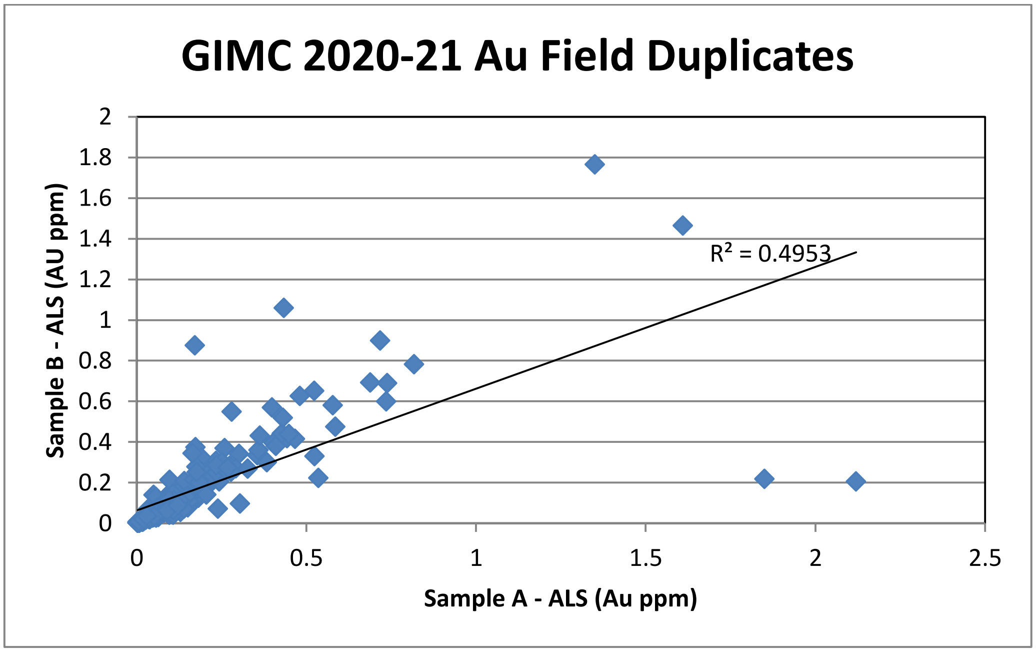



**Figure 11-8 2020-21 GIMC Ag Field Duplicates**

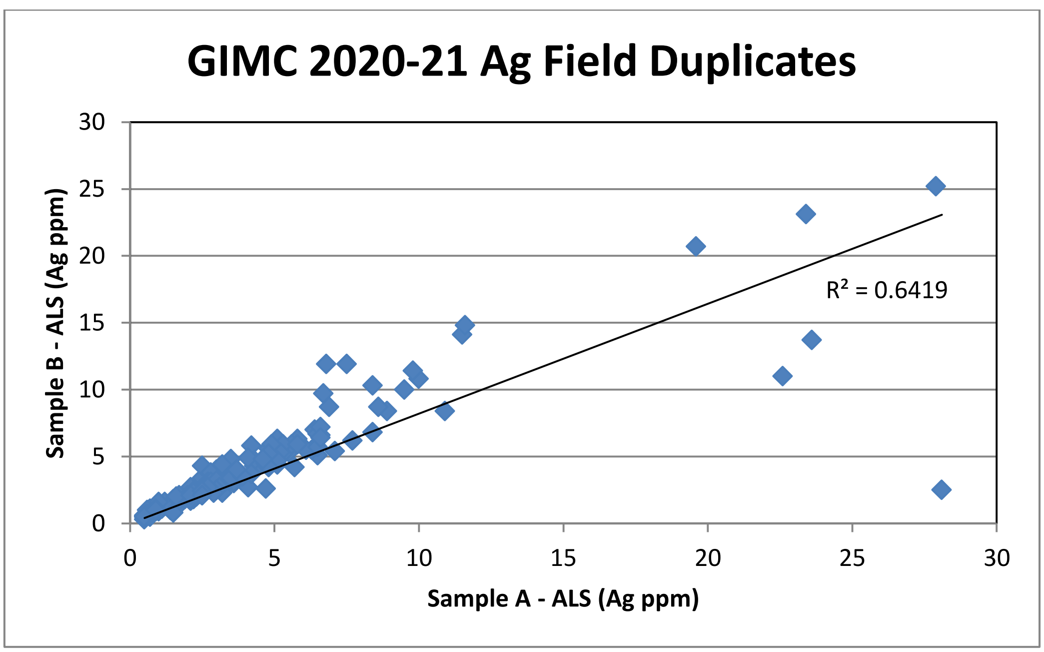


**Figure 11-9 2021 GIMC Au Field Duplicates**

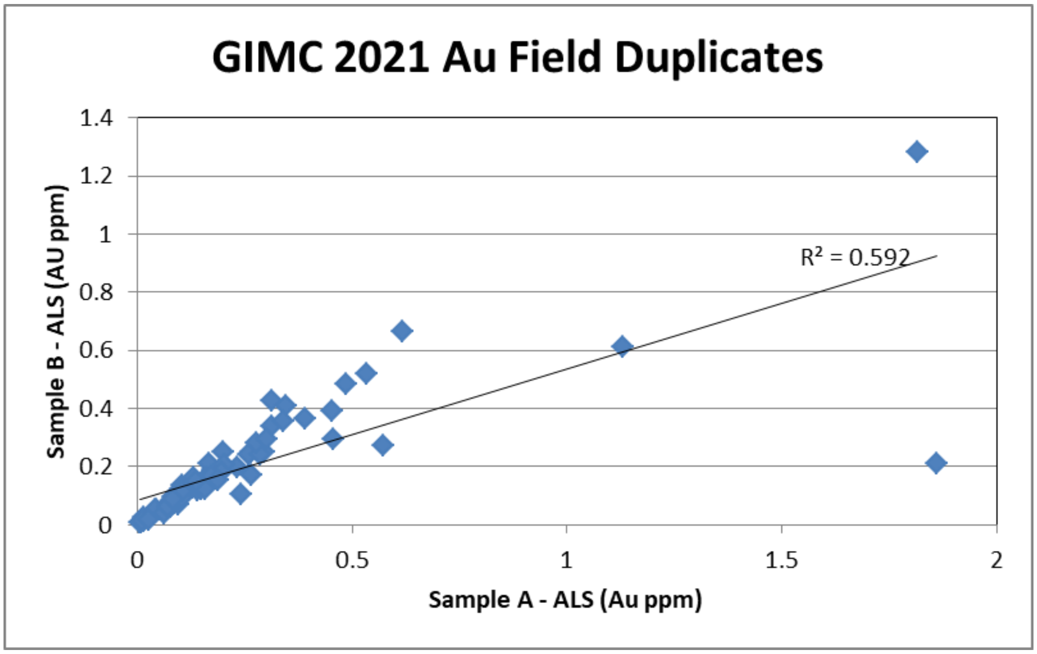



**Figure 11-10 2021 GIMC Ag Field Duplicates**

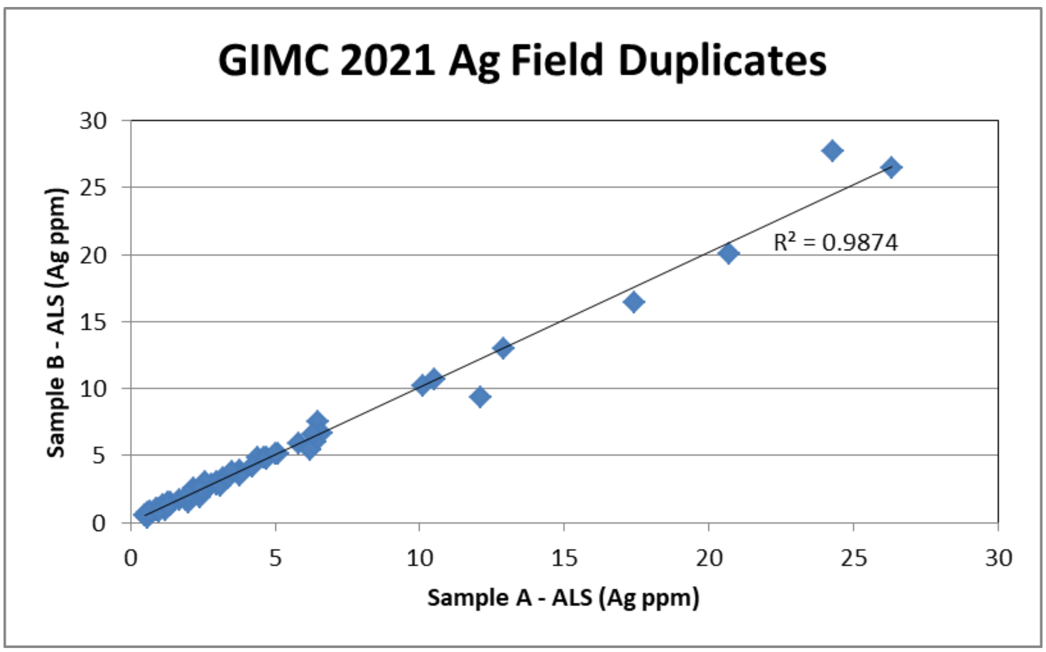
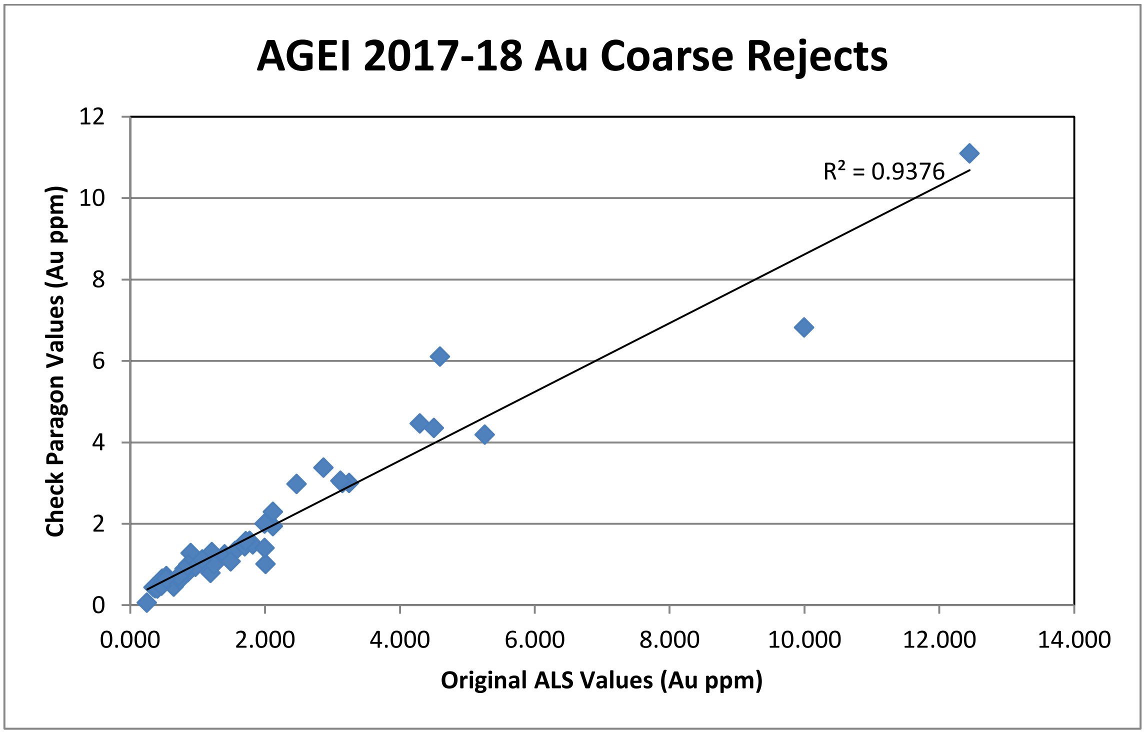


**Figure 11-11 2017-18 AGEI Au Coarse Rejects**



## 11.10 Standard and Field Reference Material

Reference material is used to evaluate the analytical accuracy and precision of the assay laboratory to increase the integrity of the sample handling and analytical process. GIMC and GMC inserted Certified Reference Material (CRM) or Field Reference Material (FRM) into the sample stream at a rate of one QA/QC sample for every 20 drill samples. The CRM reference material for GIMC was obtained from Shea Clark Smith/MEG, Inc., and for GMC the CRM was obtained from the Nevada Bureau of Mines for the 2007 drill program and from Ore Research and Exploration Standards for the 2008 and 2009-2010 drill programs. The Field reference material used by GMC was made internally using material from an onsite stockpile of underground material. The suppliers of the standards also supplied statistics for the certified standards (Table 11-2). The field reference material was collected and prepared by GMC personnel in 2006 and 2008. An analytical database for this material is being compiled over time from each analysis completed on the material. This reference material did not undergo round-robin testing by multiple laboratories, and the accepted values are not certified.

**Table 11-2 Reference Material used at Independence**

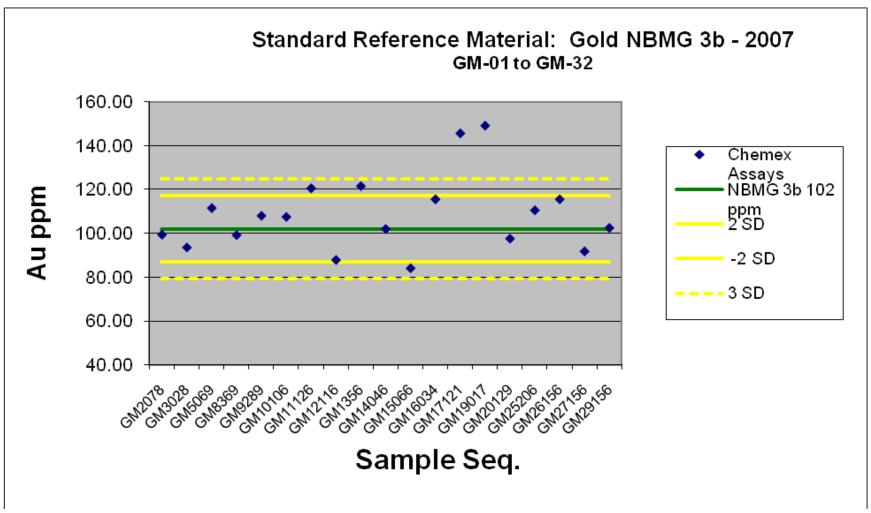
| Standard | Standard Source | Certified Value (Au ppm) | Au Standard Deviation (ppm) | Certified Value ( Ag ppm) | Ag Standard Deviation (ppm) |
|---|---|---|---|---|---|
| NBM-3b | Nevada Bureau of Mines | 102 | | 58.6 | |
| NBM-4a | Nevada Bureau of Mines | 0.075 | | <0.300 | |
| NBM-4b | Nevada Bureau of Mines | 0.41 | | 1.0 | |
| OREAS61d | Ore Research & Exploration Standards | 4.76 | | 9.28 | |
| MEG-Au.19.11 | Shea Clark Smith/MEG, Inc. | 1.263 | 0.029 | 33.61 | 1.581 |
| Uncertified Field Reference Material | | | | | |
| Standard | Standard Source | Accepted Value (Au ppm) | Au Standard Deviation (ppm) | Accepted Value ( Ag ppm) | Ag Standard Deviation (ppm) |
| ROM- 2006 | GMC | 3.50 | 0.74 | 125.92 | 29.34 |
| ROM- 2008 | GMC | 2.78 | 0.68 | 97.77 | 17.61 |

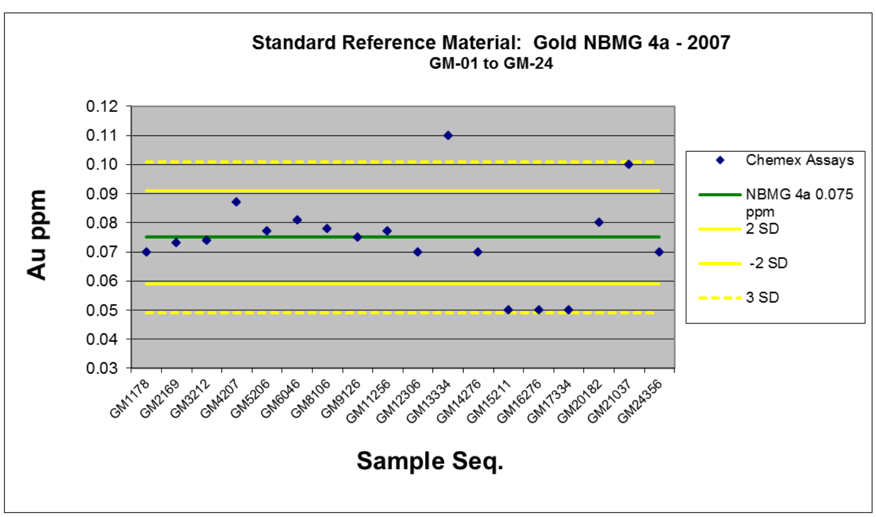
The following discussion of the standard results includes graphical representations of the data. These graphs show the samples in chronological order along the x-axis, the gold grade of the standard assays on the y-axis, the certified or accepted values of the standards as blue lines, and + two and + three standard-deviation limits of the standards as solid yellow and dashed yellow lines, respectively. AAL was used in the 2008 and 2009-2010 drilling programs and ALS Chemex was used in the 2007 and 2017-2018, and 2020-2021drilling programs.

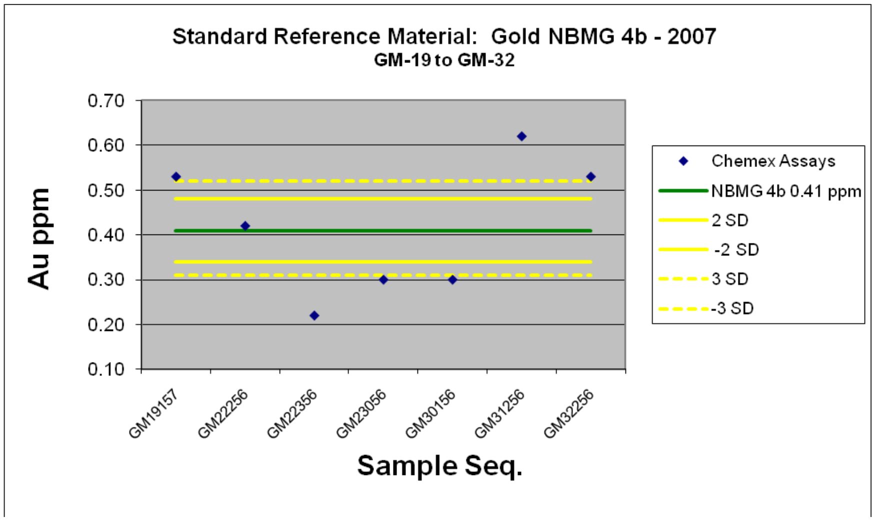
In the case of normally distributed data (note that most assay datasets from metal deposits are positively skewed), 95% of the standard analyses should lie within the two standard deviation limits of the certified/accepted value, while only 0.3% of the analyses should lie outside of the three standard deviation limits. As it is statistically unlikely that two consecutive samples would lie outside of the two standard deviation limits, such samples are considered failures unless further investigation proves otherwise. All samples outside of the three standard deviation limits are considered to be failures. Failures should trigger laboratory notification of potential problems and a re-run of all samples included with the failed standard result.

The assays from the 2007 program for the NBM CRM are presented in Figure 11-12 for gold and Figure 11-13 for silver.

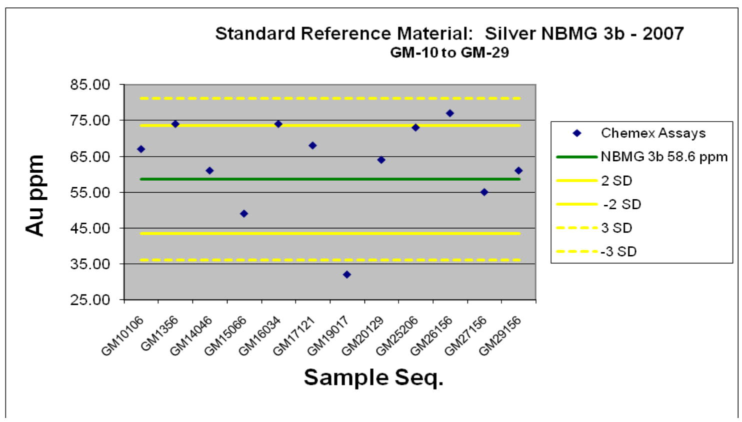
**Figure 11-12 Nevada Bureau of Mines CRM Results - Gold**



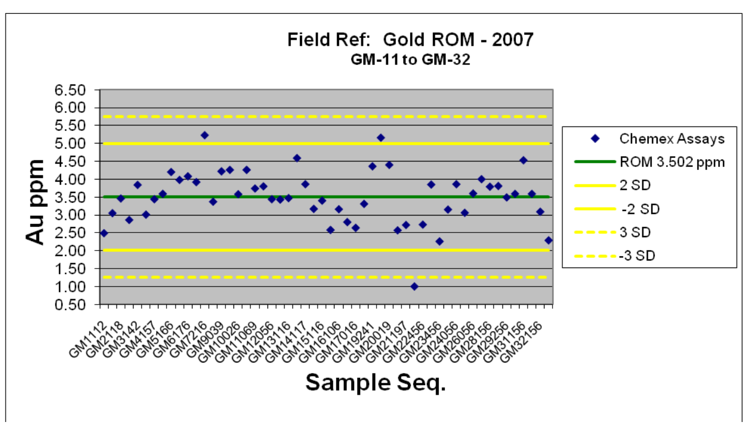



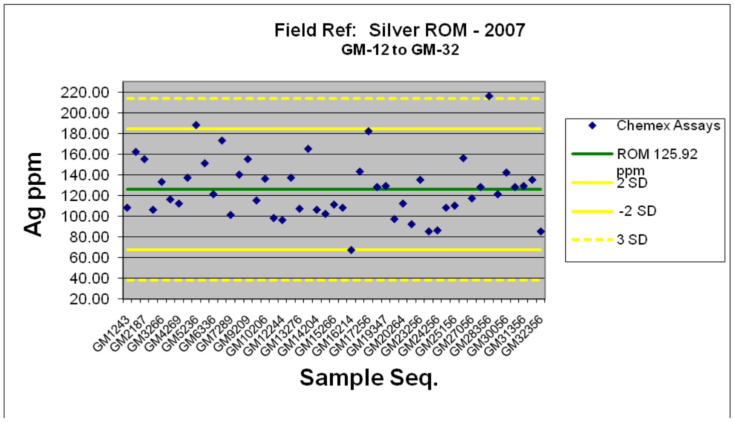



## Figure 11-13 Nevada Bureau of Mines SRM Results – Silver




## Figure 11-14 Uncertified GMC FRM 2007 Results – Gold & Silver

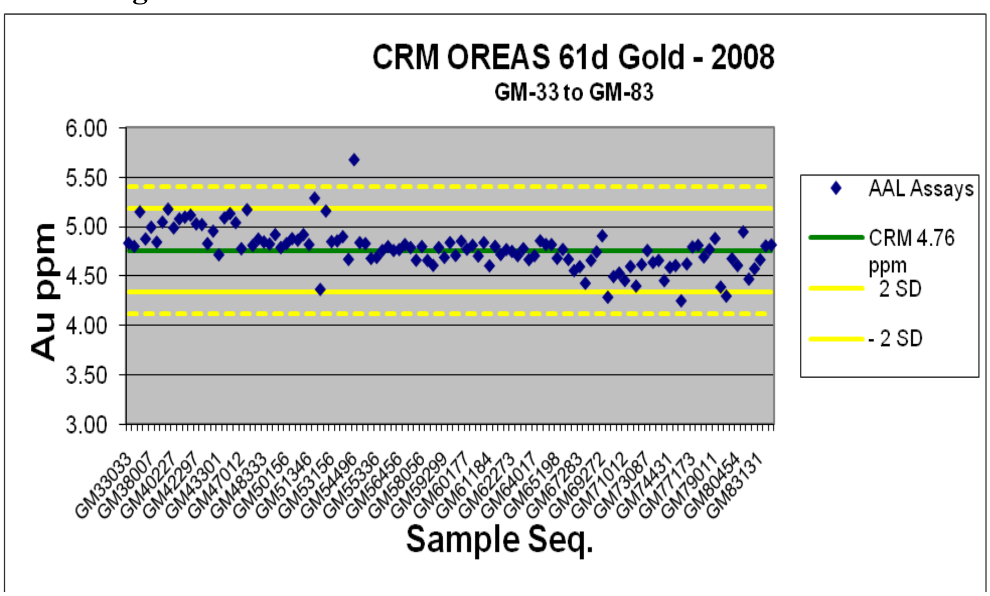


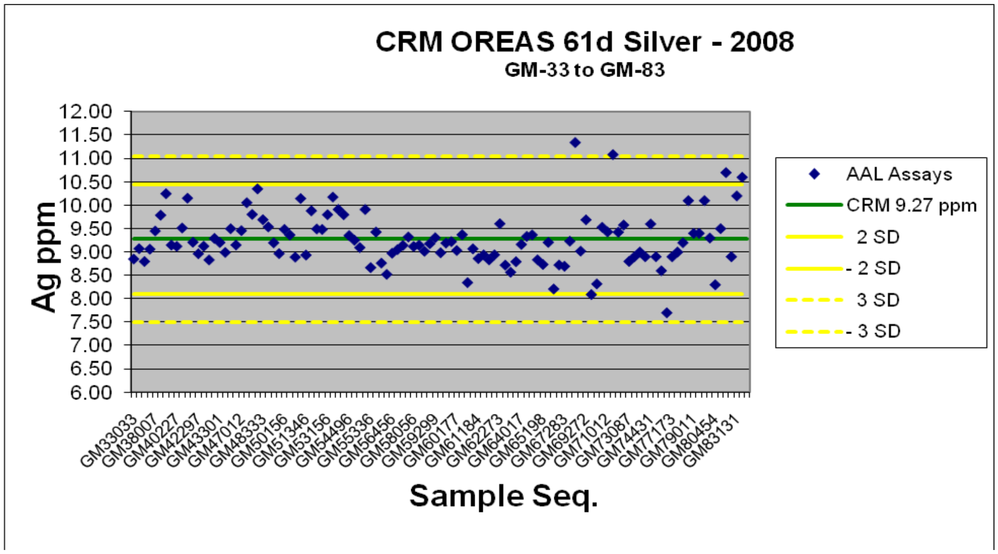


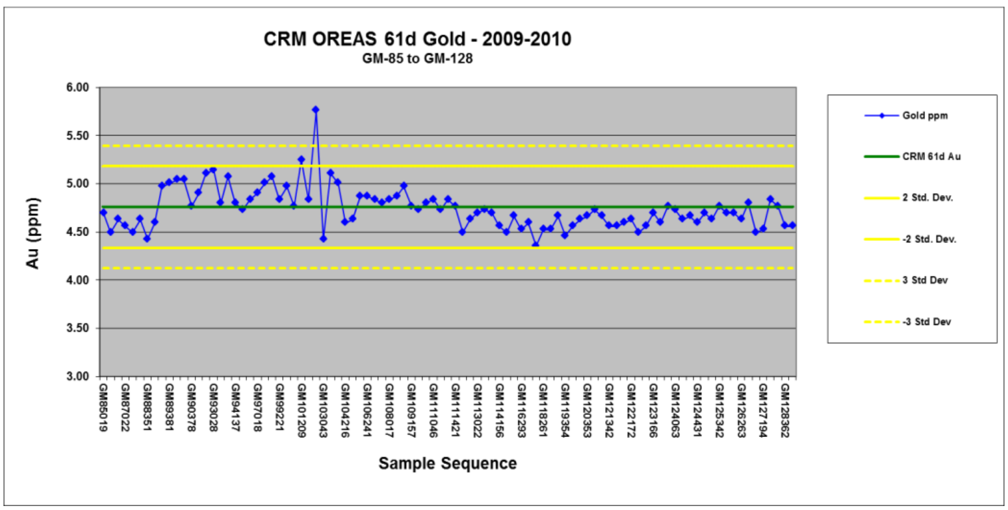

Review of the results shows a reasonably good success rate with many of the failures occurring towards the end of the drilling program. There is a slight bias to the high side with respect to the certified value. CRM NBM-4b did not perform well at all. Whether this is due to laboratory analysis or a bad standard has not been determined. Results for silver were generally good with one failure. The uncertified field reference material performed well with only two failures between the gold and silver results. It is important to remember that the GMC field reference material did not undergo round-robin testing and are not certified. Figure 11-14 shows the standard results for both gold and silver.

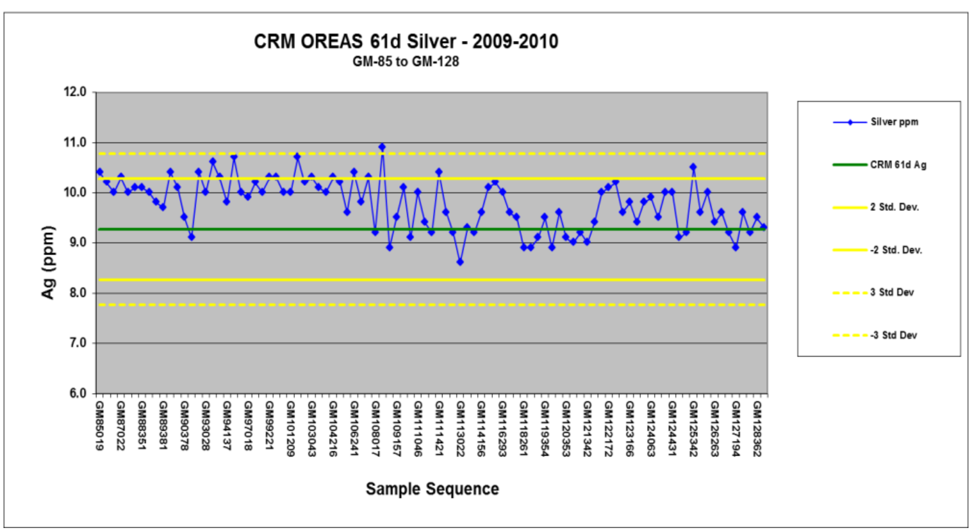
Figure 11-15 show the standard results for the 2008 and 2009-2010 drilling programs for both gold and silver in which the standard used was provided by Ore Research and Exploration Standards.

**Figure 11-15 Ore Research CRM Results – Gold & Silver**




CRM OREAS 61d Silver - 2008
GM-33 to GM-83
Ag ppm
Sample Seq.
AAL Assays
CRM 9.27 ppm
2 SD
- 2 SD
3 SD
- 3 SD

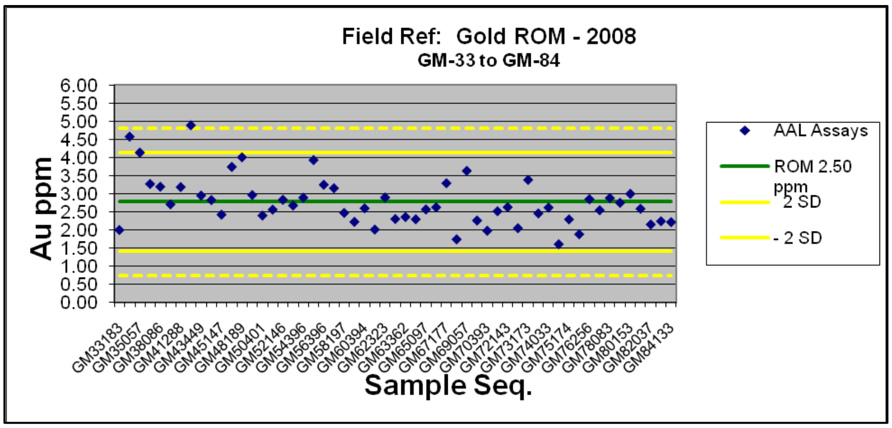

CRM OREAS 61d Gold - 2009-2010
GM-85 to GM-128
Au (ppm)
Sample Sequence
Gold ppm
CRM 61d Au
2 Std. Dev.
-2 Std. Dev.
3 Std Dev
-3 Std Dev

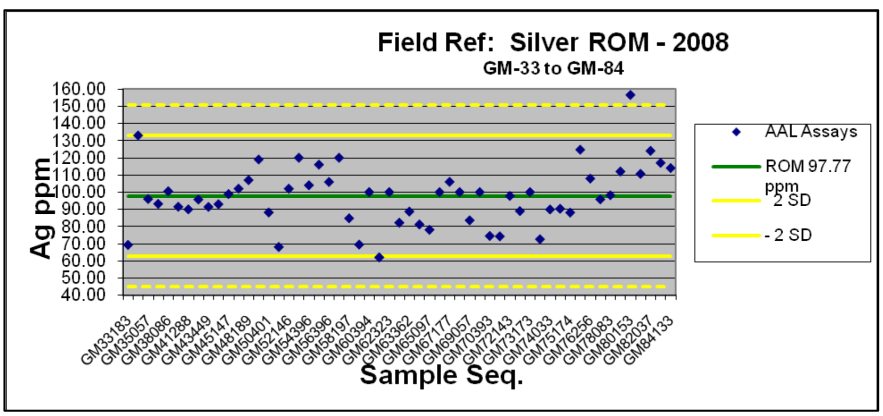

CRM OREAS 61d Silver - 2009-2010
GM-85 to GM-128
Ag (ppm)
Sample Sequence
Silver ppm
CRM 61d Ag
2 Std. Dev.
-2 Std. Dev.
3 Std Dev
-3 Std Dev

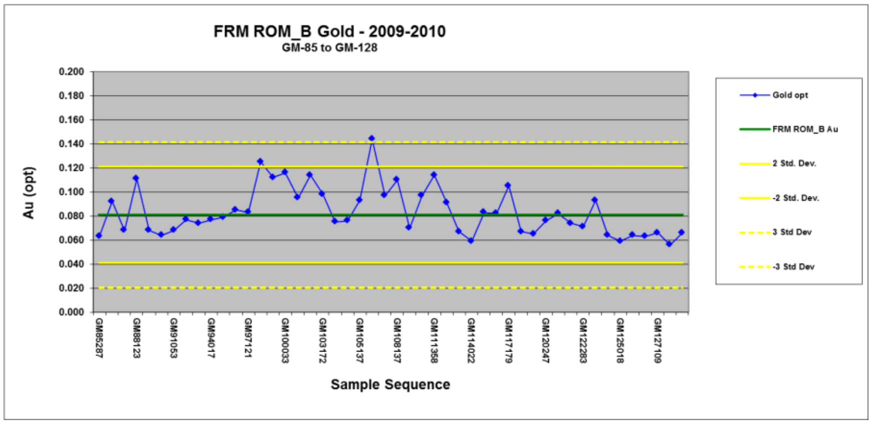
The results are good with only two failures for gold and three for silver. There seems to be a downward trend leading to a bias to values less than the certified value for both gold and silver as the drill programs advanced.

Figure 11-16 shows the 2008 and 2009-2010 results for the uncertified field reference material for both gold and silver. The results are again good with one failure for gold and one for silver. This material seems to perform quite well and probably warrants certification.

**Figure 11-16 Uncertified GMC FRM 2008 and 2009-2010 Results – Gold & Silver**





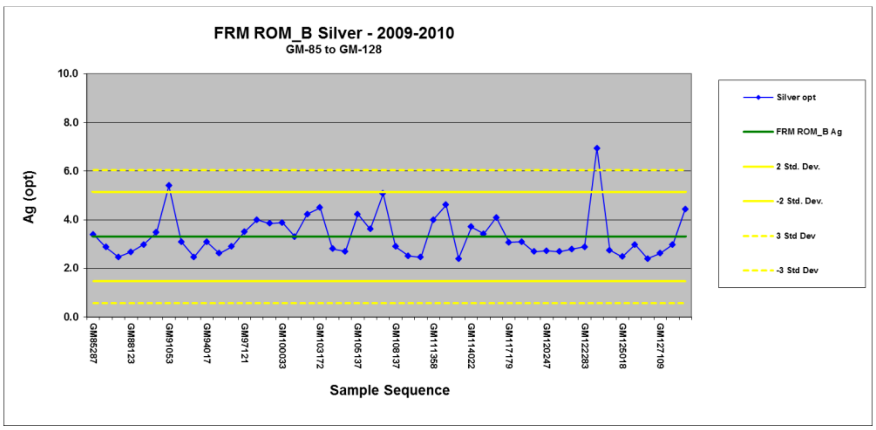
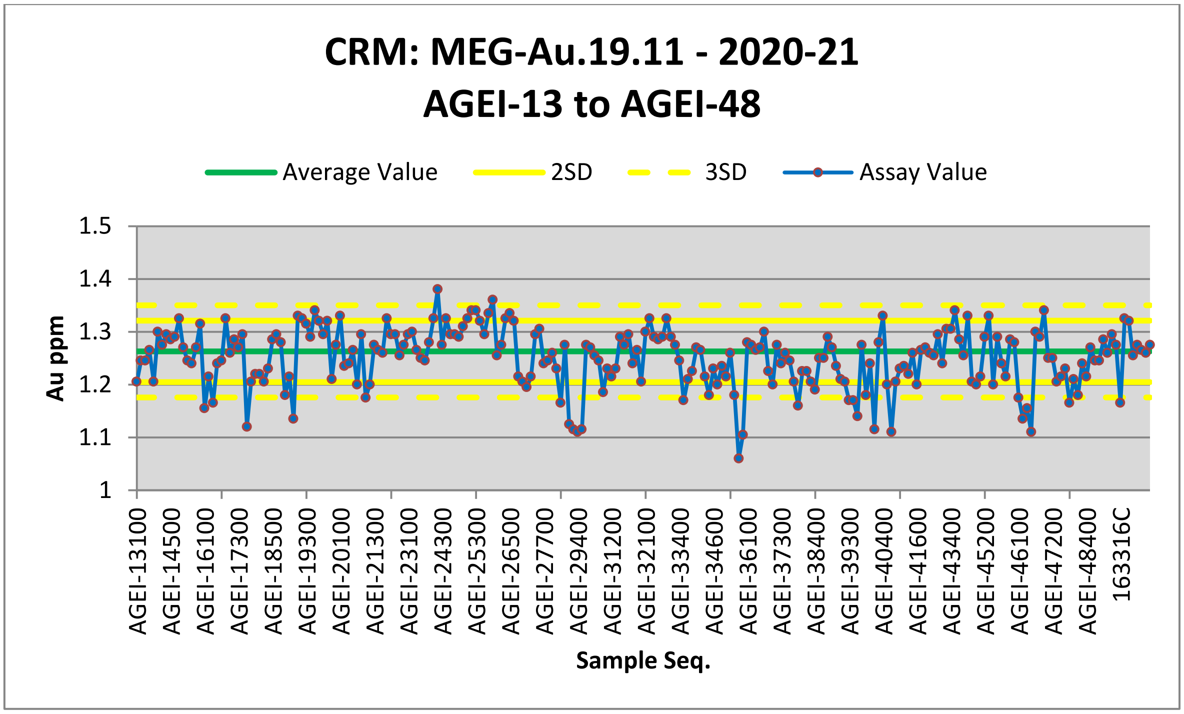




Figure 11-17 show the CRM results for the 2020-2021 drilling program for both gold and silver in which the standard used was provided by Shea Clark Smith/MEG, Inc. The results for gold are generally poor with 23 failures. 21 of the failures were due to low results and two were due to high results. The standard performed much better for the aqua regia analysis for silver with only four failures all on the low side. The results for both gold and silver show a strong bias to the low side. GIMC will need to evaluate the use of this standard for future drilling.

Figure 11-18 show the CRM results for the 2021 drilling program for both gold and silver in which the standard used was provided by Shea Clark Smith/MEG, Inc. The results for gold and silver are similar to the results seen in the 2020-21 drill program. For gold the results were generally poor with eight failures. Six of the failures were due to low results and two were due to high results. The standard performed much better for the aqua regia analysis for silver with no failures. The results for both gold and silver show a strong bias to the low side. Once again GIMC will need to evaluate the use of this standard for future drilling.

**Figure 11-17 CRM - GIMC 2020-2021 Results – Gold & Silver**



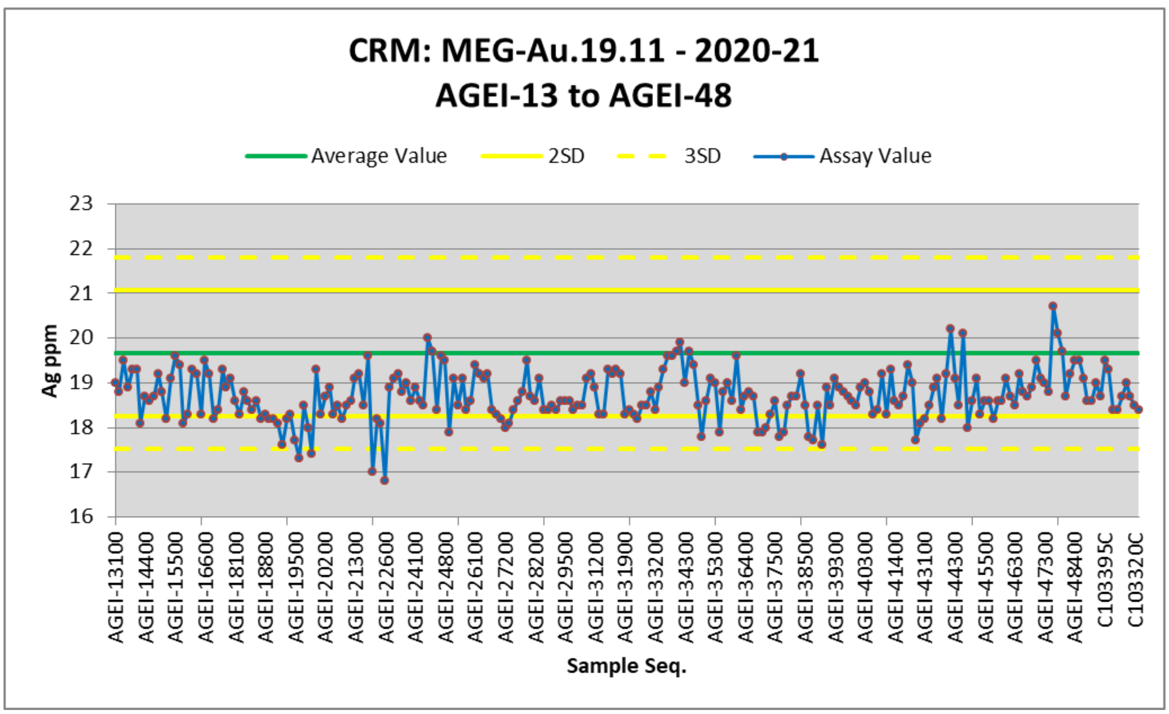
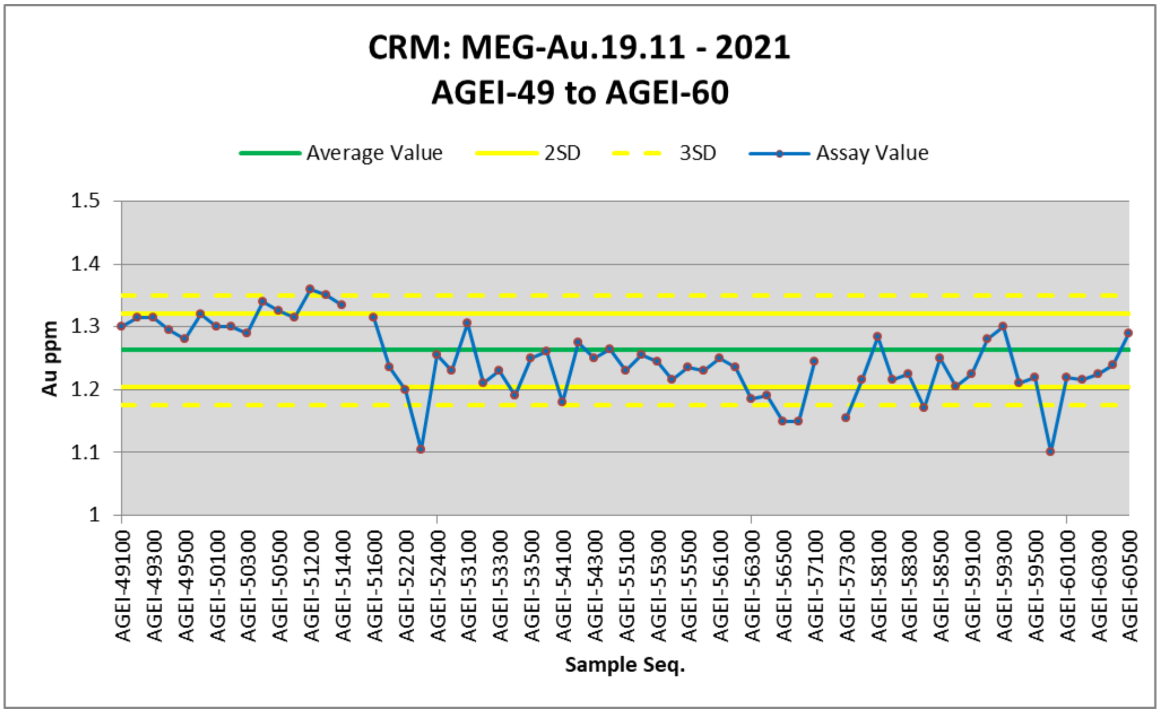
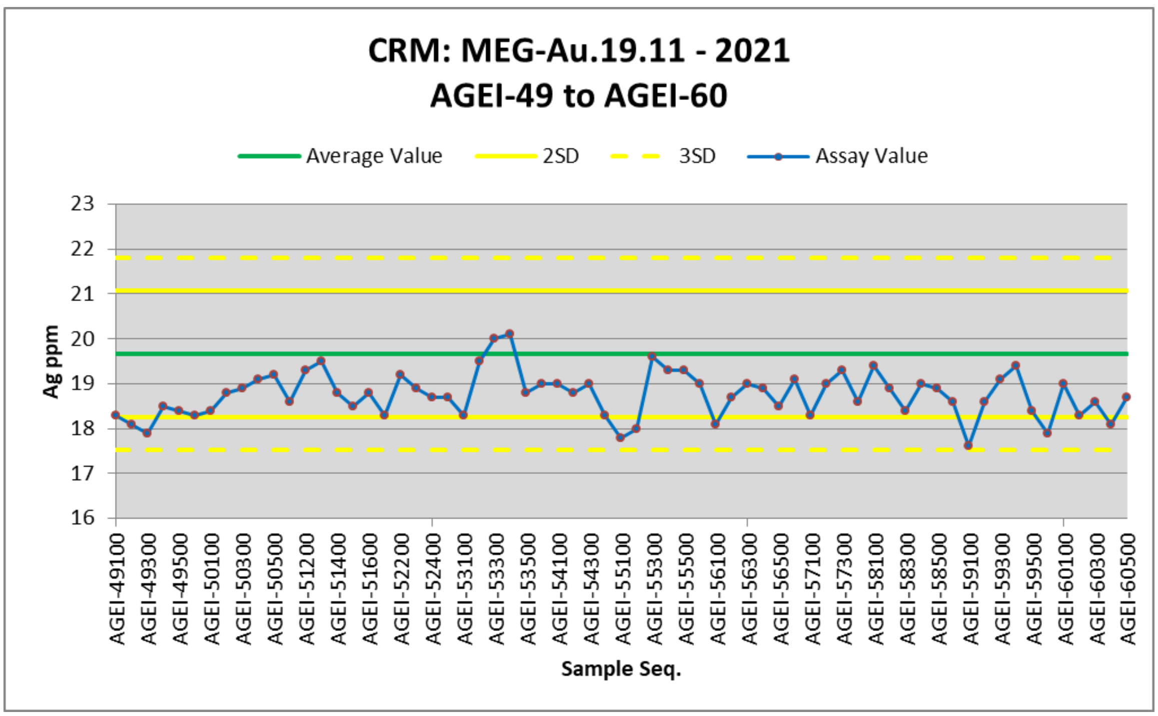



**Figure 11-18 CRM - GIMC 2021 Results – Gold & Silver**

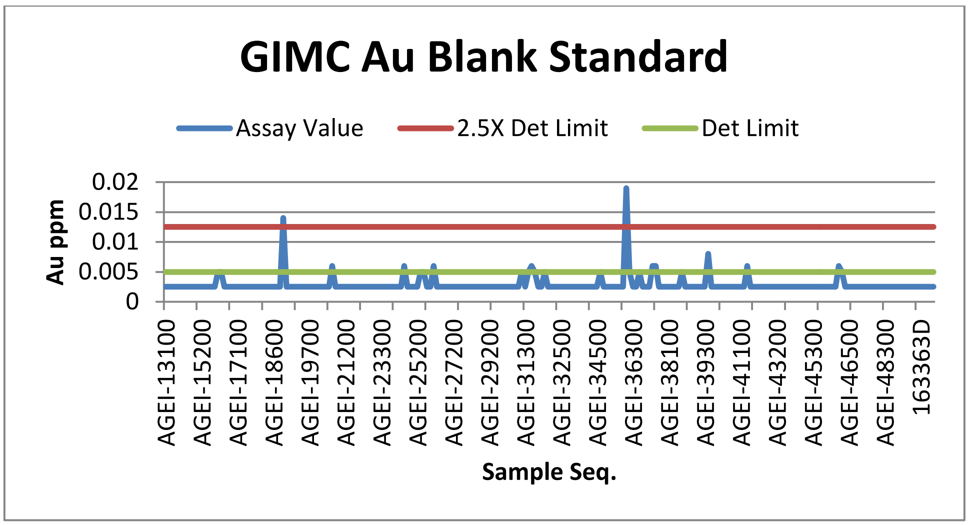


## 11.11 Analysis of Blank Standards

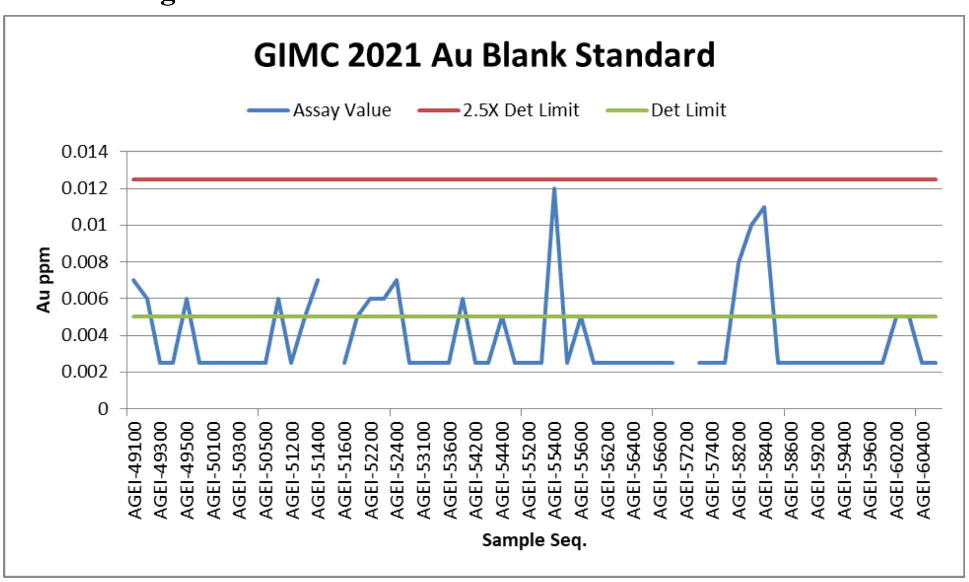
Blank standards are used to evaluate the potential for contamination during the sample preparation and during the analytical process. For the 2020-21 drill program GIMC inserted into the sample stream 240 blank samples (commercially prepared pulps) during the time of drilling. All analysis was done at ALS Chemex. Figure 11-19 shows the results of the GIMC 2020-21 gold blank sample assay analysis. Only two samples exceeded the 2.5 times detection limit and none exceeded the 5 times detection limit. GIMC inserted 60 blank samples into the sample stream for the 2021 drill program. No results exceeded the 2.5 times detection limit. Results are shown in Figure 11-20. The blank assay data does not show any issues with potential lab contamination.

**Figure 11-19 2020-21 Gold Blank Standard Results**




4

**Figure 11-20 2020-21 Gold Blank Standard Results**



## 11.12 Security

The entire Independence property lies behind a locked gate with no public access and the entire property is considered secure. Samples from the GIMC, AGEI, and GMC RC drill holes were stored at the drill site until periodically picked up by the analytical laboratory or employees of GIMC, AGEI, or GMC would deliver them to the designated laboratory. No samples were left in the field over a drill break. Apart from being temporarily stored behind a locked gate at the entrance to the property, the samples were not otherwise secured. There are no known indications of any security problems during the drilling at Independence.

## 11.13 Conclusion and Author's Opinion

Approximately 75 percent of the data that defines the Independence Project was obtained after 2006 at which time proper and verifiable QA/QC programs for the collection of drill hole data were established. This data is spread throughout the project area and is used to define a mineral resource with the potential to deliver eventual economic benefit. Based upon a thorough review of all of the available analytical data for the Independence Project, it can be concluded that the current sample preparation, analysis, and security practices are appropriate for the type of mineralization that has been/is being evaluated. Furthermore, from an examination of the analytical QA/QC data available for the Project, it can be concluded that there has been reasonable accuracy in the project's gold and silver assays and that there is no significant evidence of sample bias or the "nugget effect". As a result, it can be concluded that the project's drilling assay database is appropriate for use in a mineral resource estimate.

# 12.0 DATA VERIFICATION

## 12.1 Database Audit

An audit was performed by the Principal Author on the database used for the mineral resource estimation described in Section 14. Approximately 10% of the data used in the estimate were checked. Drill hole collar coordinates, down hole survey information, sample location and assay values were all checked against either the original data and certificates, or against typewritten drill records and drafted assay plans and sections. Samples for checking were selected to give a balance between core and reverse circulation drilling and between drilling campaigns. The investigation of the historic data was minimal. Most of the verification effort was directed at activities after 2006.

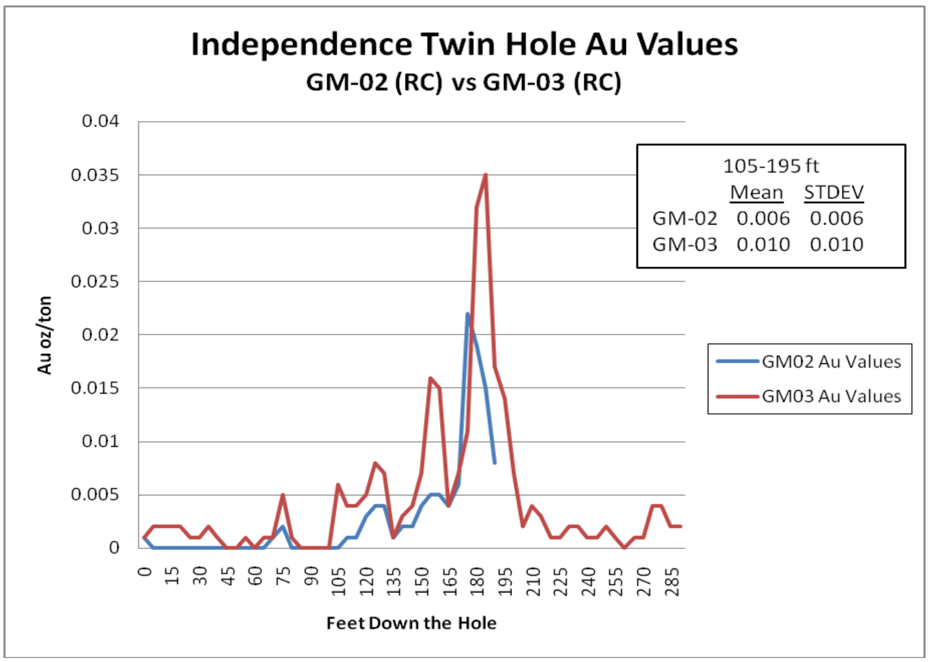
During the Qualified Person's site visits he was able to identify and verify evidence for approximate collar locations for 42 drill holes with regard to their reported location. In some cases, recent disturbance of the drill pad prevented the confirmation of the exact location of the drill hole collar. Based on this site visit there is no evidence to suggest that the drill hole collars are incorrectly located in the drill hole database.

A total of 2,315 samples were checked in 28 drill holes. The error rate was an acceptable 0.4%. Where an error was found it was corrected. In the course of completing the resource estimate, other errors or inconsistencies that were found were corrected.

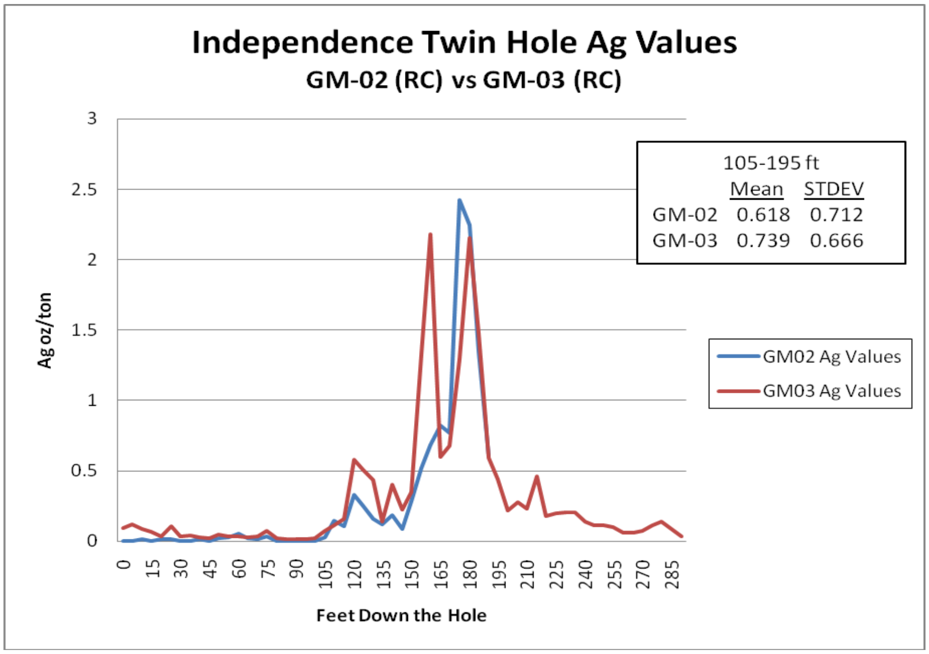
## 12.2 Twin Hole Comparisons: Independence 2007-2008 and 2011 Drilling Programs

The Author has reviewed seven sets of twin holes from the 2007-2008 and 2011 drilling campaigns. The 2007-2008 twin sets are between RC holes drilled by GMC and the 2011 twin sets are between core holes and RC holes. All twin pairs were within 10 feet (3.04 meters) of each other. One twin pair set, GM-16 vs. GM-62, was drilled through an underground stope and thus the mean and standard deviation data listed for the interval listed is not an exact comparison. The GMC RC-RC twin pairs were drilled and assayed under essentially identical conditions and therefore can be used to examine grade variability in the Independence mineralization. In the GMC 2011 core versus RC drilling, the core holes were geotechnical logged along with the geological logging. The sample intervals were on 5 foot intervals to match the selected twin hole. The core was sawn in half and only one half was analyzed for mineral content. The other half was stored for future use. The overall low-grade nature of the deposit makes statistical comparisons difficult as the deposit does contain a number of relatively high-grade values. No down-hole surveys were completed for any of the GMC holes, many of which were dilled at a dip of -45 degrees. The short length of the holes and the similar geology drilled through add confidence that the comparisons made between the drill holes is valid. The down-hole grade curves for each of these seven twin pairs for both gold and silver are shown in Figures 12-1 to 12-5. While the twin-hole pairs clearly sampled the same mineralization, as shown by the similar overall morphologies of the grade curves, the peak values of the higher-grade zones differ and this difference is significant for the silver values. This is not surprising given the variability in grades in some of the higher-grade zones, especially for silver, in the Independence deposit. The three core holes all had lower grades than did their twin hole. Core hole GM-T31-11 had the largest disparity with its twin but it was 19 feet (5.8 meters) away and really is not a twin hole.

**Figure 12-1 GMC RC-RC Twin Sets: Down-Hole Plot of 2007 GMC Holes**

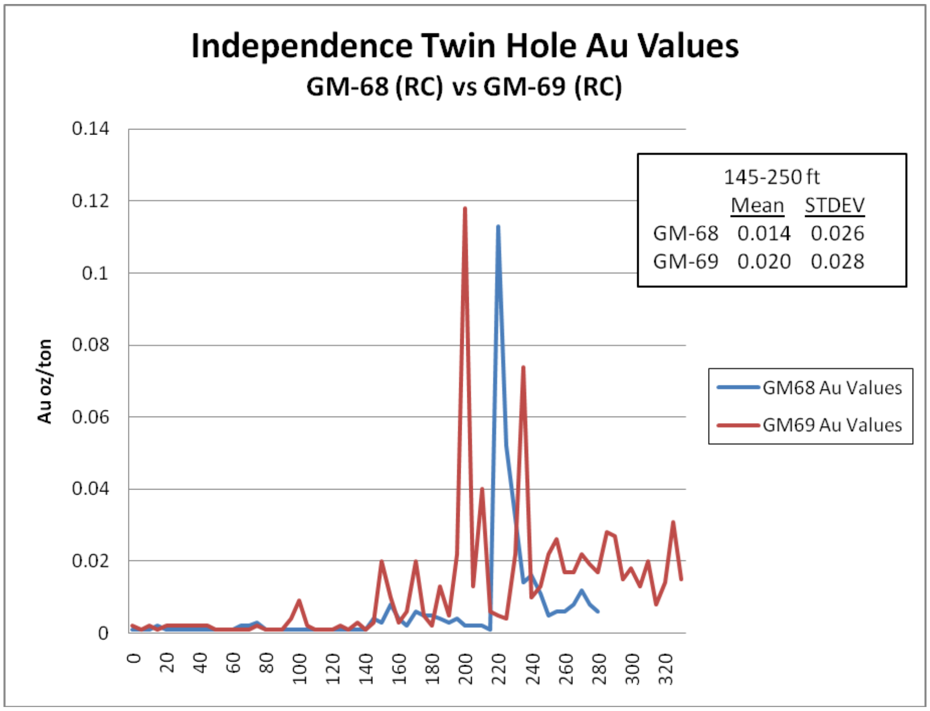



(a)

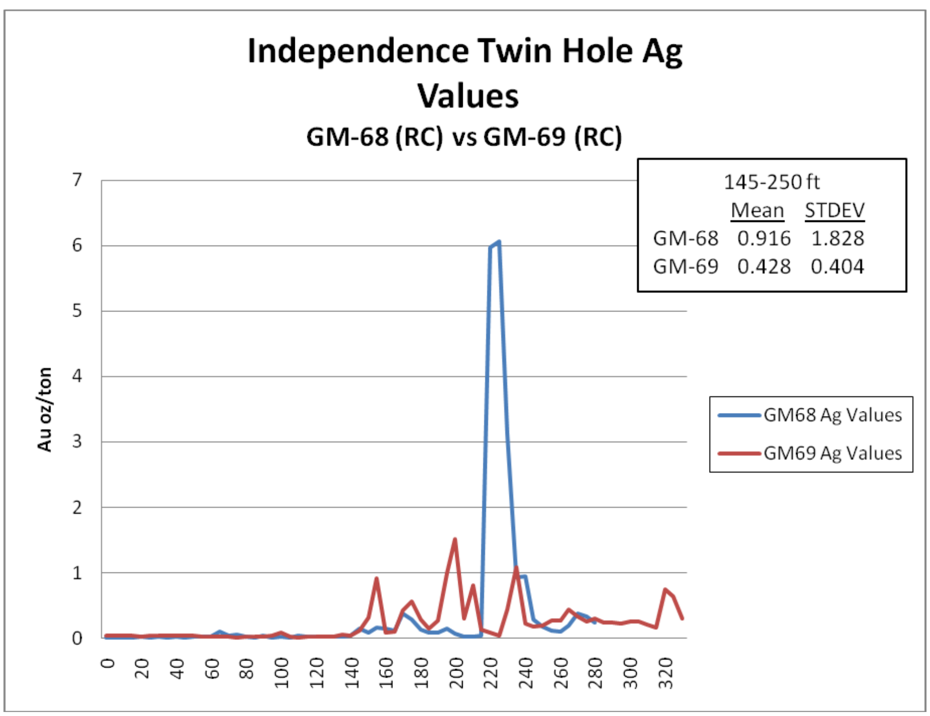

Independence Twin Hole Ag Values
GM-02 (RC) vs GM-03 (RC)
105-195 ft
Mean STDEV
GM-02 0.618 0.712
GM-03 0.739 0.666
GM02 Ag Values
GM03 Ag Values
Ag oz/ton
Feet Down the Hole
3
2.5
2
1.5
1
0.5
0
0 15 30 45 60 75 90 105 120 135 150 165 180 195 210 225 240 255 270 285

(b)

**Figure 12-2 GMC RC-RC Twin Sets: Down-Hole Plot of 2008 GMC Holes**

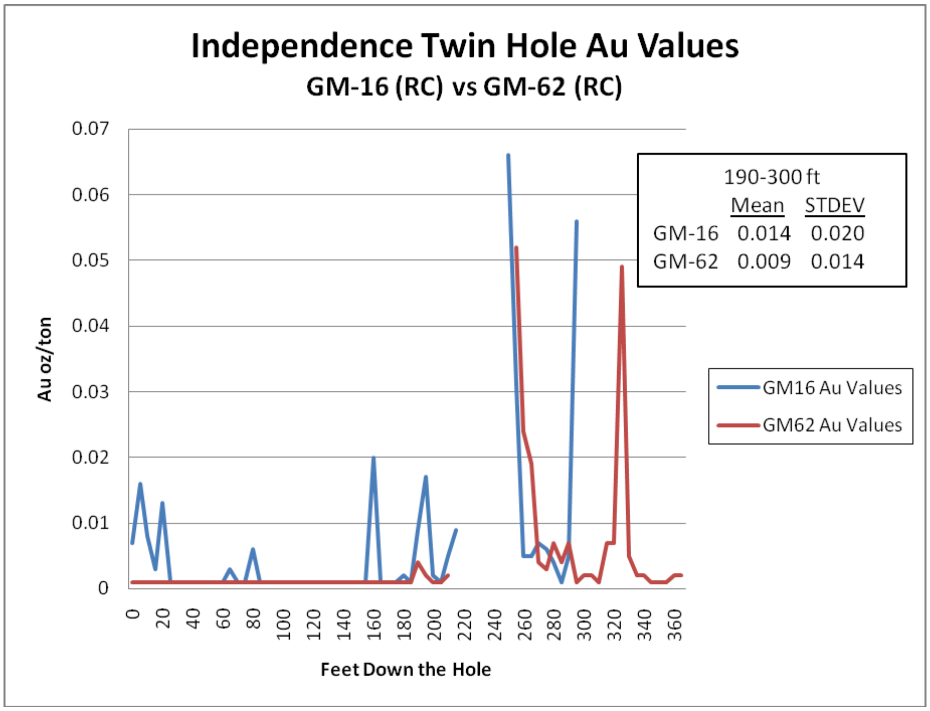



(a)

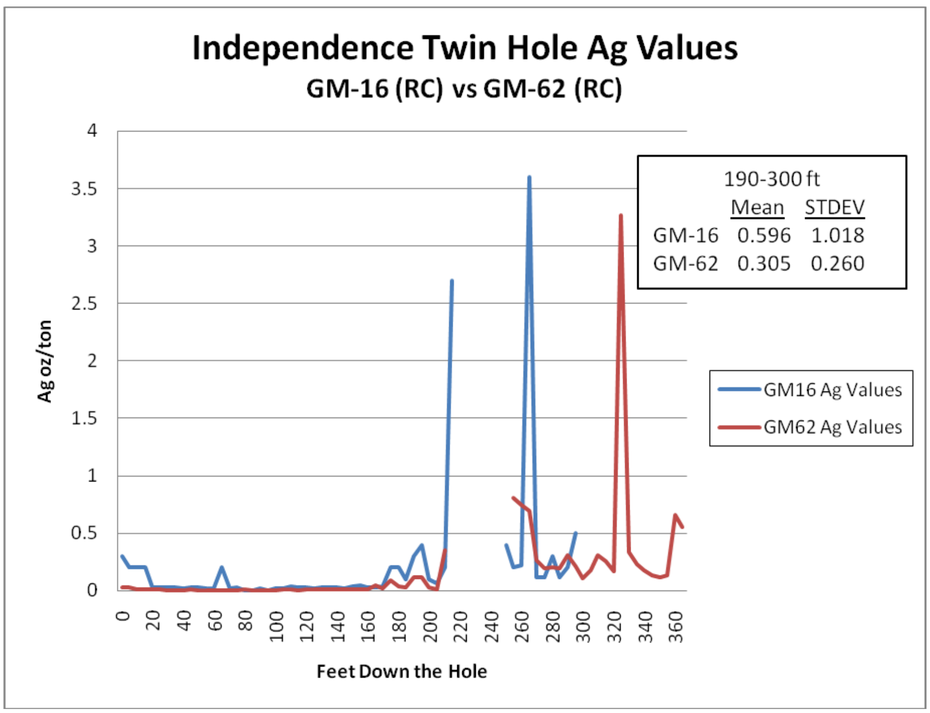



(b)

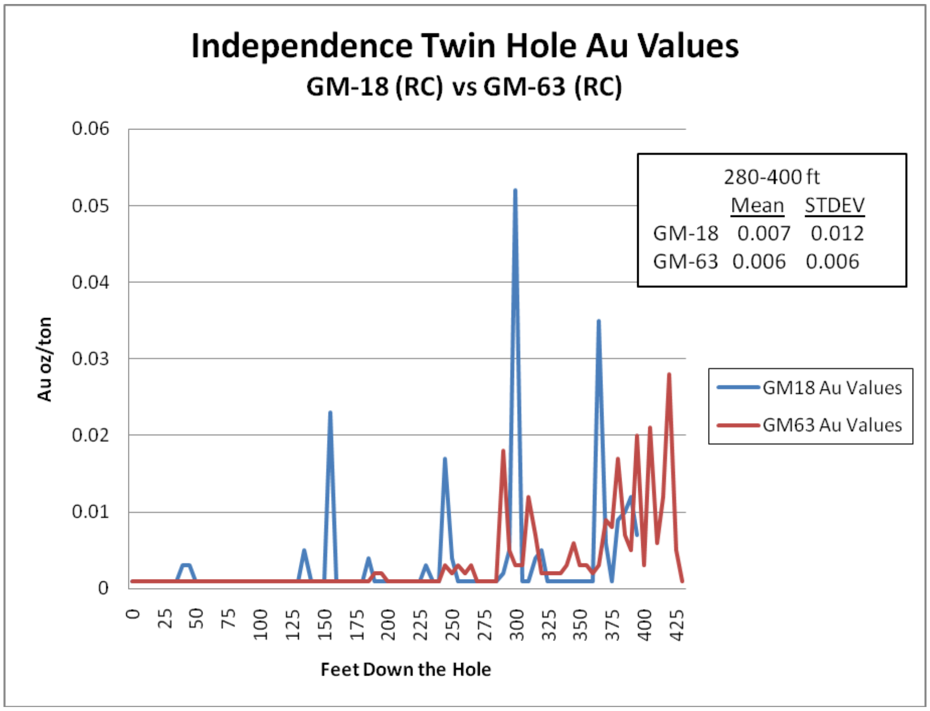
**Figure 12-3 GMC RC-RC Twin Sets: Down-Hole Plot of 2007 vs. 2008 GMC Holes**



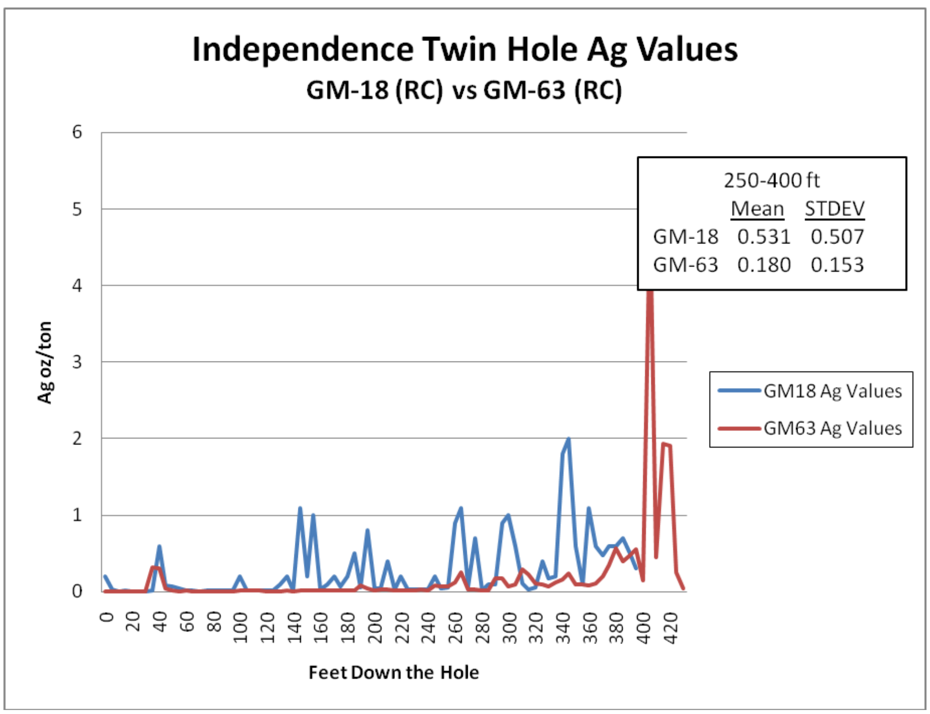

(a)




(b)

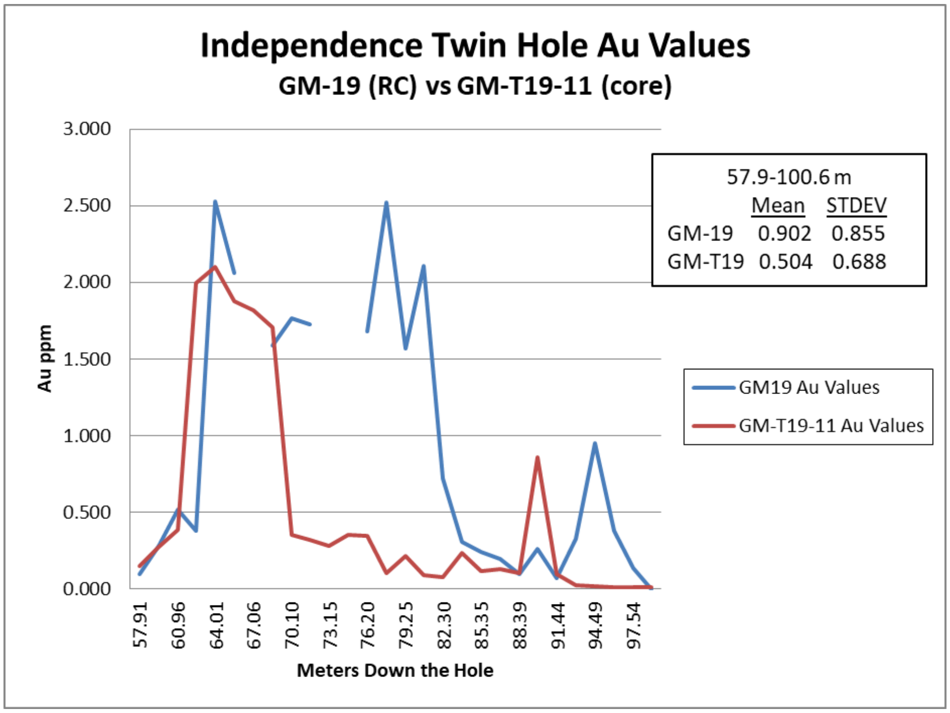

Independence Twin Hole Au Values
GM-18 (RC) vs GM-63 (RC)
Au oz/ton
0.06
0.05
0.04
0.03
0.02
0.01
0
0
25
50
75
100
125
150
175
200
225
250
275
300
325
350
375
400
425
Feet Down the Hole
280-400 ft
Mean STDEV
GM-18 0.007 0.012
GM-63 0.006 0.006
GM18 Au Values
GM63 Au Values

(c)

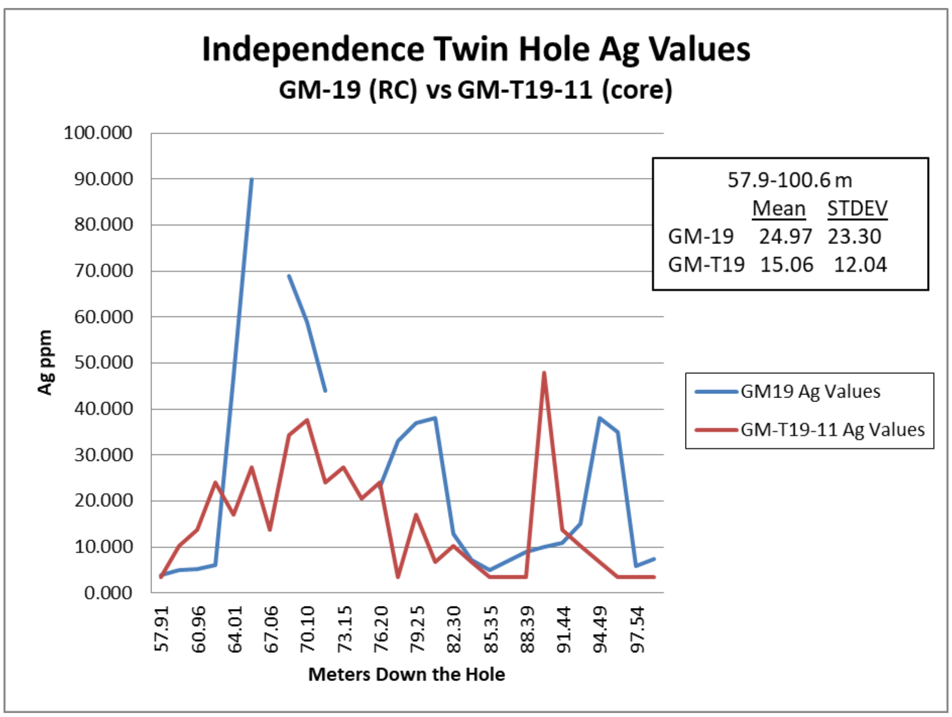

Independence Twin Hole Ag Values
GM-18 (RC) vs GM-63 (RC)
Ag oz/ton
6
5
4
3
2
1
0
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
Feet Down the Hole
250-400 ft
Mean STDEV
GM-18 0.531 0.507
GM-63 0.180 0.153
GM18 Ag Values
GM63 Ag Values

(d)

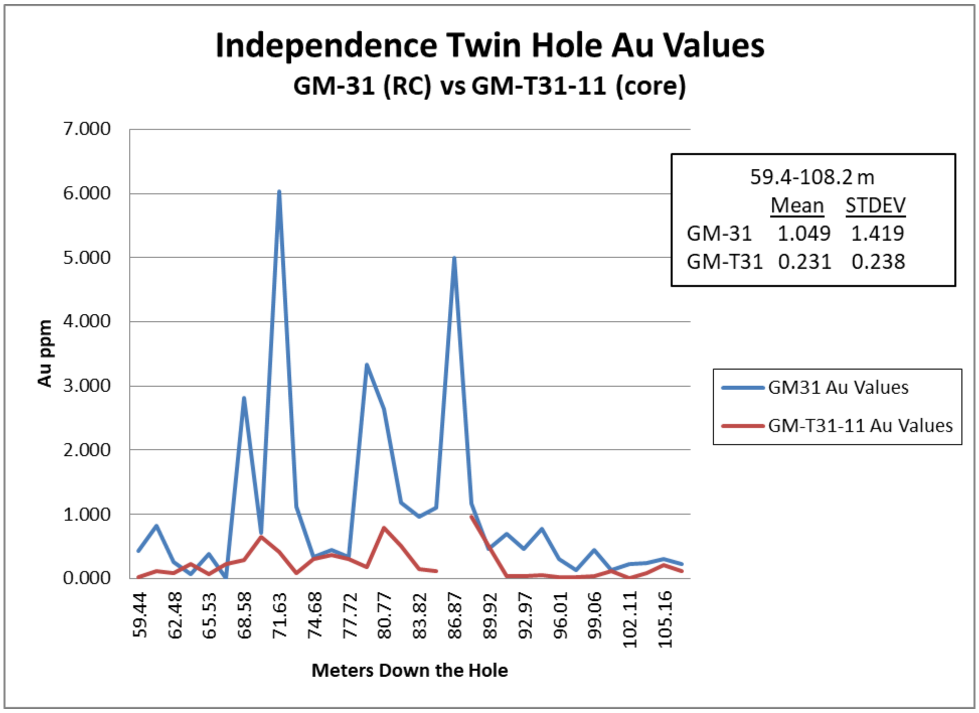
**Figure 12-4 GMC Core-RC Twin Sets: Down-Hole Plot of 2007 RC vs. 2011 Core**



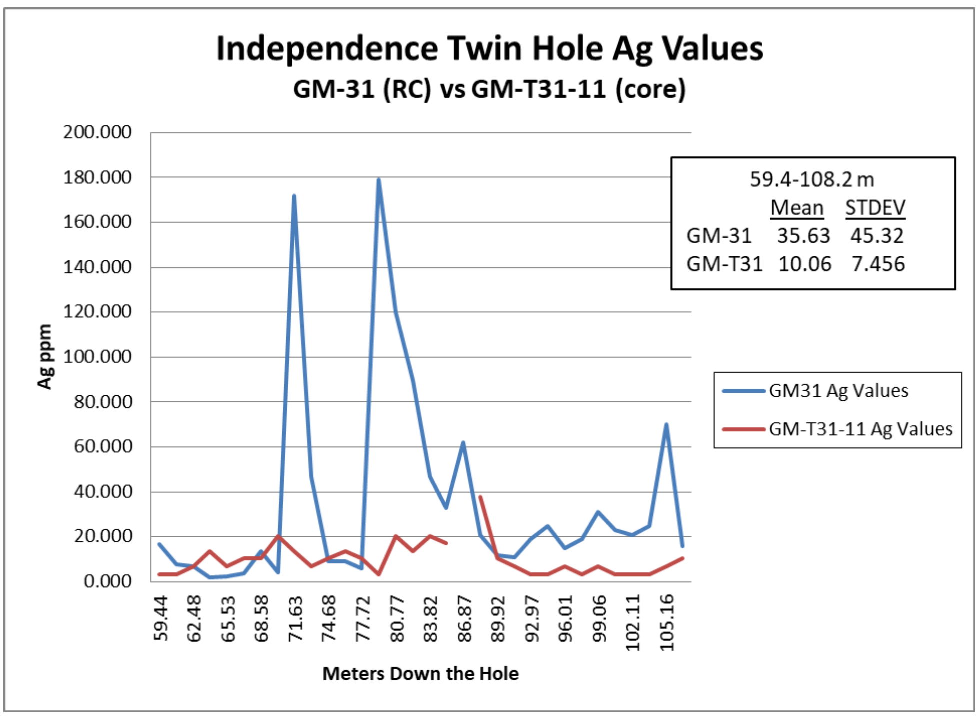

(a)




(b)

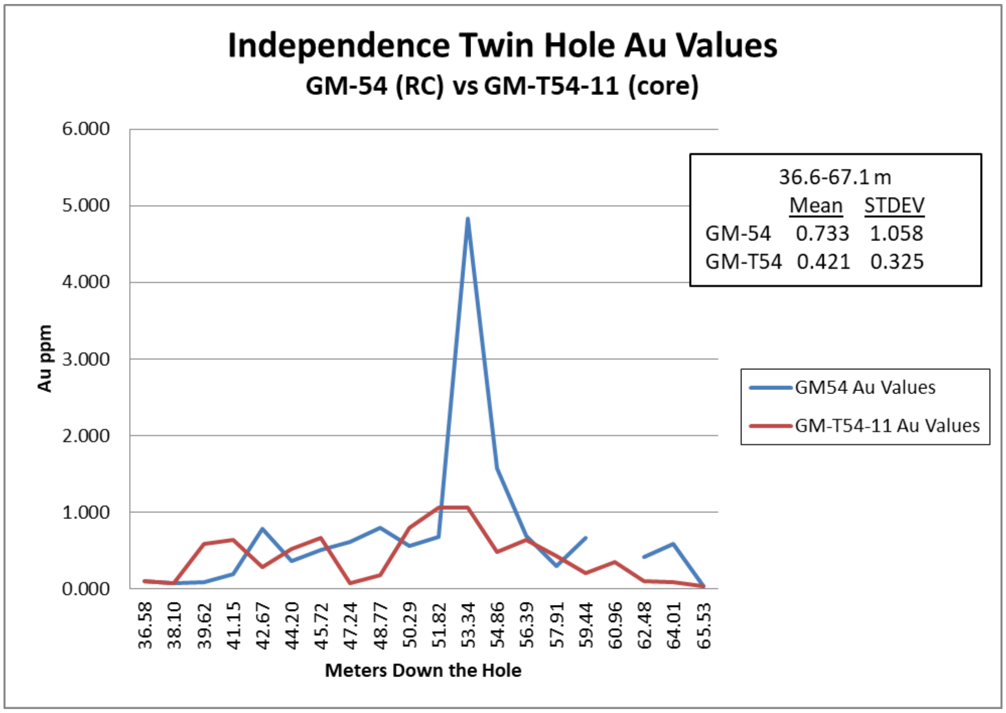

Independence Twin Hole Au Values
GM-31 (RC) vs GM-T31-11 (core)
59.4-108.2 m
Mean STDEV
GM-31 1.049 1.419
GM-T31 0.231 0.238
GM31 Au Values
GM-T31-11 Au Values
Au ppm
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
59.44
62.48
65.53
68.58
71.63
74.68
77.72
80.77
83.82
86.87
89.92
92.97
96.01
99.06
102.11
105.16
Meters Down the Hole

(c)

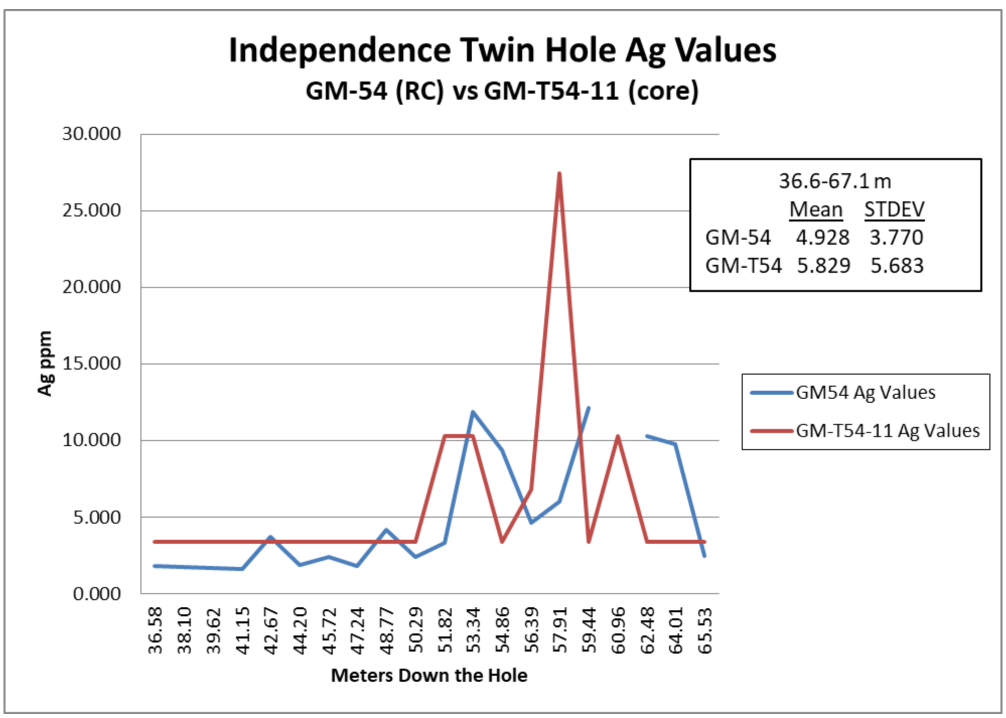

Independence Twin Hole Ag Values
GM-31 (RC) vs GM-T31-11 (core)
59.4-108.2 m
Mean STDEV
GM-31 35.63 45.32
GM-T31 10.06 7.456
GM31 Ag Values
GM-T31-11 Ag Values
Ag ppm
200.000
180.000
160.000
140.000
120.000
100.000
80.000
60.000
40.000
20.000
0.000
59.44
62.48
65.53
68.58
71.63
74.68
77.72
80.77
83.82
86.87
89.92
92.97
96.01
99.06
102.11
105.16
Meters Down the Hole

(d)

## Figure 12-5 GMC Core-RC Twin Sets: Down-Hole Plot of 2008 RC vs. 2011 Core




(a)




(b)

## 12.3 Sample Recovery

Based on the Principal Author's review of core drill logs, sample recovery information was systematically logged and was "generally good". Where there was poor recovery it was mainly due to fractured ground. Overall core recovery was acceptable. The effect of core recovery on sample bias was not investigated. As is common practice in the industry, sample recovery for RC drilling was not systematically measured. However, because of an acceptable comparison between the reverse circulation drill holes (Section 12.2), sample recovery for the reverse circulation drilling is judged to be adequate. Drilling wet RC was not uncommon and contamination would be very difficult to establish due to the consistent geology. Most of the drilling done on the property was done dry with water only added as circulation was lost or to control dust.

## 12.4 Data Verification by Author

The Principal Author has reviewed and audited the database used to estimate the mineral resource. He has reviewed the drilling, sampling and logging procedures used. He has collected samples for density testing and mineralization verification. The Author has verified the relative location of drill hole collars to one another. Based on the results of the many duplicate and check assays completed and the twin hole comparisons, while not perfect, the general patterns of gold distribution are similar which gives the Author a measure of confidence in the quality of the drill hole database. The review of the database has not identified any major issues or discrepancies between the original data and what is found in the provided drill hole database. The Principal Author considers the drill hole database and the processes that went into creating it to be essentially accurate and representative of the Independence deposit. The Author also believes the data is of a quality suitable to be used for the mineral resource estimation stated in this report.

# 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

A metallurgical test work program that included bottle roll and column leach testing on bulk samples from the Independence project was commissioned by the prior operator of the project, General Metals Corporation (GMC). A more recent metallurgical study incorporating cyanide soluble and bottle roll test results has been conducted by Golden Independence Mining Group. Test work and results from the programs conducted to date for Independence are summarized chronologically below.

## 13.1 General Metals Corporation (2012)

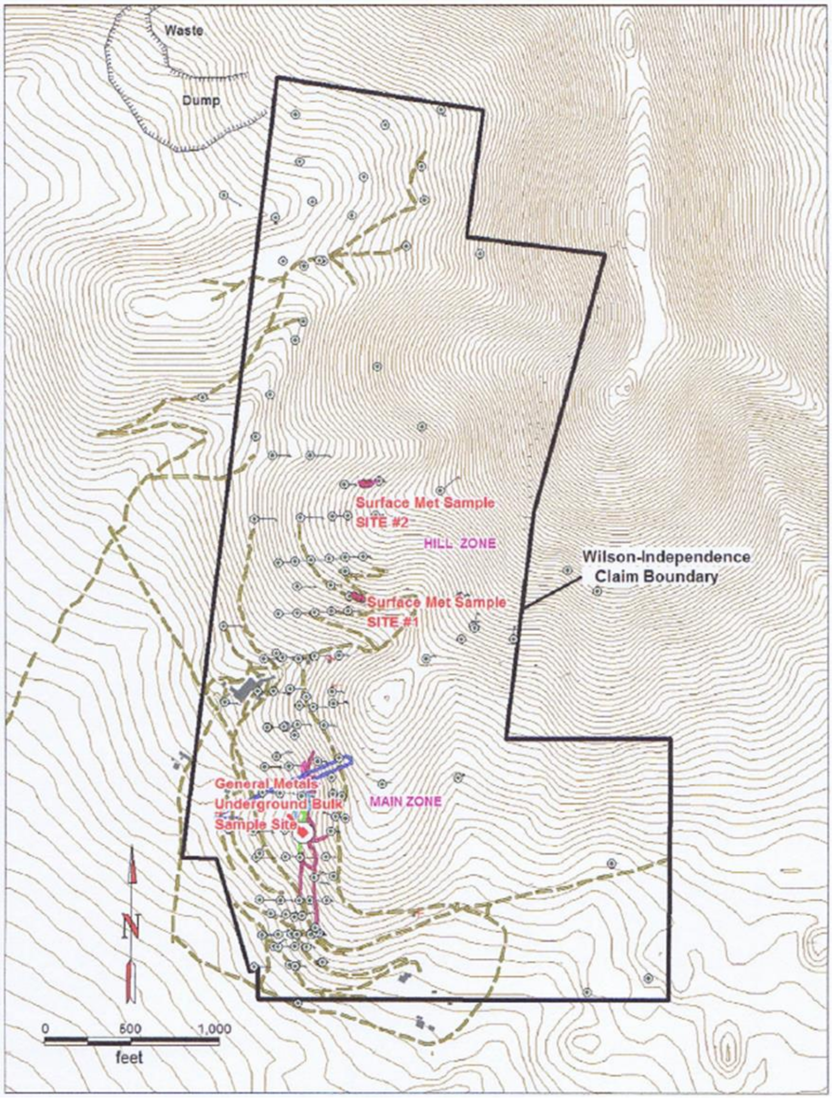
General Metals Corporation (GMC) commissioned McClelland Laboratories of Sparks, Nevada to conduct bottle roll and column leach tests on two Independence Project bulk samples. The results summarized herein are extracted from the General Metals Corporation 2011 technical report (Independence Heap Leach Testing MLI Job No. 3371, April 30, 2012, by Jeffrey L. Olson, Metallurgist/Project Manager).

### 13.1.1 Sample Collection and Preparation

A total of 20 barrels containing bulk samples from the Independence project arrived at McClelland Laboratories Inc. for test work on August 13, 2009. The barrels contained two bulk samples coming from surface and underground sampling sites. The samples were labeled as #1 Surface and #2 Underground.

Samples were thoroughly blended by repeated coning and then were quartered to obtain a 200-lb (91 kg) split. Samples were crushed to 80% passing 50 mm, 25 mm, 12.5 mm, and 10 mesh. Splits were taken at each crush size for bottle roll analysis. Remaining uncrushed material from the surface sample was crushed to 100% passing 150 mm and 100% passing 75 mm. Underground sample material was crushed to 100% passing 75 mm and 100% passing 50 mm.

The surface samples were taken from two locations: location 1 was in the south part of Hill Zone near drill hole 4454, and location 2 was in the north part of Hill Zone near the drill hole GM83. The underground bulk sample was collected from a break of mine stockpile located on level 2 at the north end of Gold pillar stope. The approximate sampling location for each material type is illustrated in Figure 13-1.




Source: KCA 2021

**Figure 13-1 Sample Collection Locations for 2012 McClelland Laboratory Test Program**

### 13.1.2 Sample Characterization

The Independence Project mineralized material has demonstrated variability in material from both metallurgical test work and geological sample assays. The most important parameter of this material is the sulfide content and total sulfur content. Figure 13-2 plots the total sulfur content versus percent of cyanide soluble gold in the available drill hole samples. It shows that the total sulfur varies from zero up to 12% throughput the deposit. The cyanide soluble data are variable, but there is a trend that indicates cyanide soluble gold decreases with the increase of total sulfur.

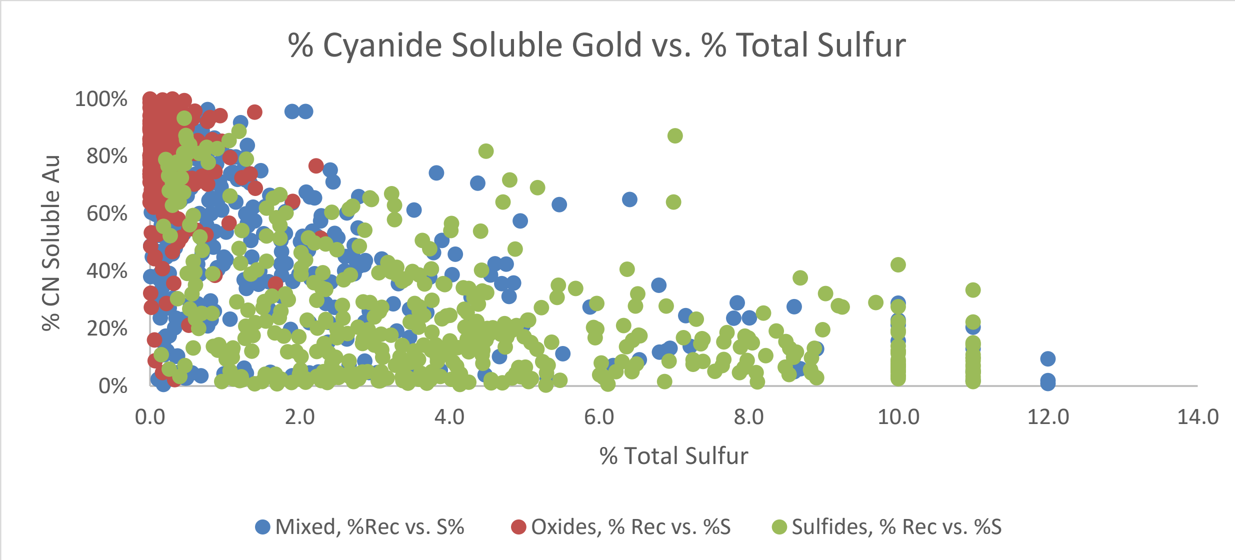



**Figure 13-2 Percent of Cyanide Soluble Gold versus Total Sulfur in Drill Hole Samples**

From all the drill hole samples, geologist visually classified the material to oxide, mixed, and sulfide material, which is shown in Figure 13-2. The sample material used in the MLI 2012 program was classified as a surface sample and an underground sample. Based on the column test recovery and total sulfur content, the surface sample belongs to oxide material (0.13% total sulfur, 0.01% sulfides), while the underground sample represents a transitional and sulfide material (0.49% total sulfur, 0.05% sulfides).

Based on Inductively Coupled Plasma Analysis (ICP), the material has elevated arsenic and copper content, the surface material contains 2000 ppm of arsenic and 206 ppm of copper, while the underground material contains over 10,000 ppm of arsenic and 79 ppm of copper. For both material types, the content of mercury is negligible, either around or lower than 0.1 ppm. Based on the cyanide shake test, the cyanide soluble gold for the surface material is 93%, and the cyanide soluble gold for the underground material is 83%. Based on the preliminary test results, copper is not expected to cause high cyanide consumptions or inhibit gold and silver recovery.

### 13.1.3 Bottle Roll Tests

For both surface material and underground material, the bottle roll tests were conducted on crush sizes at 80%-passing 50 mm, 25 mm, 12.5 mm, and 10 mesh. The bottle roll test results and column test results are summarized in Table 13-1.

**Table 13-1**
**Bottle Roll and Column Leach Test Results Summary (McClelland, 2012)**

| Sample lot | Test Type | Feed Size | Leach days | Au rec% | Ag rec% | Calculated Head Grade | | Consumption | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Au, opt | Ag, opt | NaCN, lb/st | Lime, lb/st |
| Surface Sample | CLT | 100 mm | 131 | 82.1% | 24.0% | 0.028 | 0.25 | 1.12 | 6 |
| | CLT | 50 mm | 134 | 81.5% | 30.0% | 0.027 | 0.2 | 2.68 | 6 |
| | BRT | 50 mm | 4 | 82.5% | 22.2% | 0.04 | 0.27 | 0.15 | 5.9 |
| | BRT | 25 mm | 4 | 84.2% | 23.1% | 0.038 | 0.26 | 0.15 | 6 |
| | BRT | 12.5 mm | 4 | 81.0% | 23.1% | 0.042 | 0.26 | 0.27 | 5.2 |
| | BRT | 10# | 4 | 82.2% | 48.1% | 0.045 | 0.27 | 0.29 | 6.3 |
| Underground Sample | CLT | 50 mm | 111 | 44.4% | 24.3% | 0.027 | 1.11 | 0.65 | 11 |
| | CLT | 25 mm | 110 | 50.0% | 31.1% | 0.03 | 1.03 | 1.3 | 11 |
| | BRT | 50 mm | 4 | 63.0% | 22.2% | 0.027 | 0.99 | 0.75 | 7.2 |
| | BRT | 25 mm | 4 | 58.8% | 27.6% | 0.034 | 1.34 | 0.73 | 7.5 |
| | BRT | 12.5 mm | 4 | 46.2% | 30.8% | 0.026 | 1.2 | 0.75 | 8 |
| | BRT | 10# | 4 | 63.6% | 46.3% | 0.033 | 1.08 | 0.74 | 8.3 |

Each bottle roll feed has approximately 2 kg of solid sample, which was mixed with water to achieve 40% solids by weight. The solution pH was maintained with lime around 11 during the tests, and NaCN concentration in the solution was maintained around 1 kg/tonne of solution. The total test duration was 96 hours or 4 days.

For the surface sample, the gold recovery does not have any trend with the crush size, they are all in the similar range from 81% to 84% of gold recovery. For the silver recovery, between 50 mm, 25 mm, and 12.5 mm, there was very little difference in the recovery. Only with 10 mesh crush size, the silver recovery was significantly higher.

For the underground sample, the gold recovery again does not show to have a relationship with crush size, however for the silver, the recovery did increase with the finer crush size.

### 13.1.4 Column Tests

For the surface sample, the material was crushed to 80%-passing 100 mm and 50 mm respectively for the column tests; for the underground sample, the material was crushed to 80%-passing 50 mm and 25 mm respectively. Lime was mixed with the sample material before column loading procedures. The barren solution contains 1.0 gpL of sodium cyanide, and was applied to the column at a rate of 10L/hr/$m^2$. Pregnant solution was collected each 24 hours for gold and silver assay.

For the surface sample, the gold recovery was 82.1% for the 100 mm crush material and 81.5% for the 50 mm crush material; the difference is negligible. Silver recovery was noticeably higher for the finer crush at 50 mm material, between 24% for 100 mm crush and 30% for 50 mm crush.

For the underground sample, the 25 mm crush size had higher metal recovery both in gold and silver than the 50 mm crush size, with gold recovery almost 6% higher and silver recovery 7% higher.

## 13.2 Golden Independence Mining Corp. (2021)

Golden Independence Mining Corporation (GIMC) commissioned Kappes, Cassiday and Associates (KCA) to conduct a bottle roll test work program on Independence project drill core samples in 2021 and disclosed the results of 34 bottle roll tests.

In July 2021, KCA received a total of 34 sample composites from the Independence project. Each sample was a composite from drill hole intervals. A summary of results for this test work program is shown in Table 13-2. Figure 13-33 illustrates the drill hole sample collection locations. This set of samples was primarily taken from the northern end and the central parts of the property.

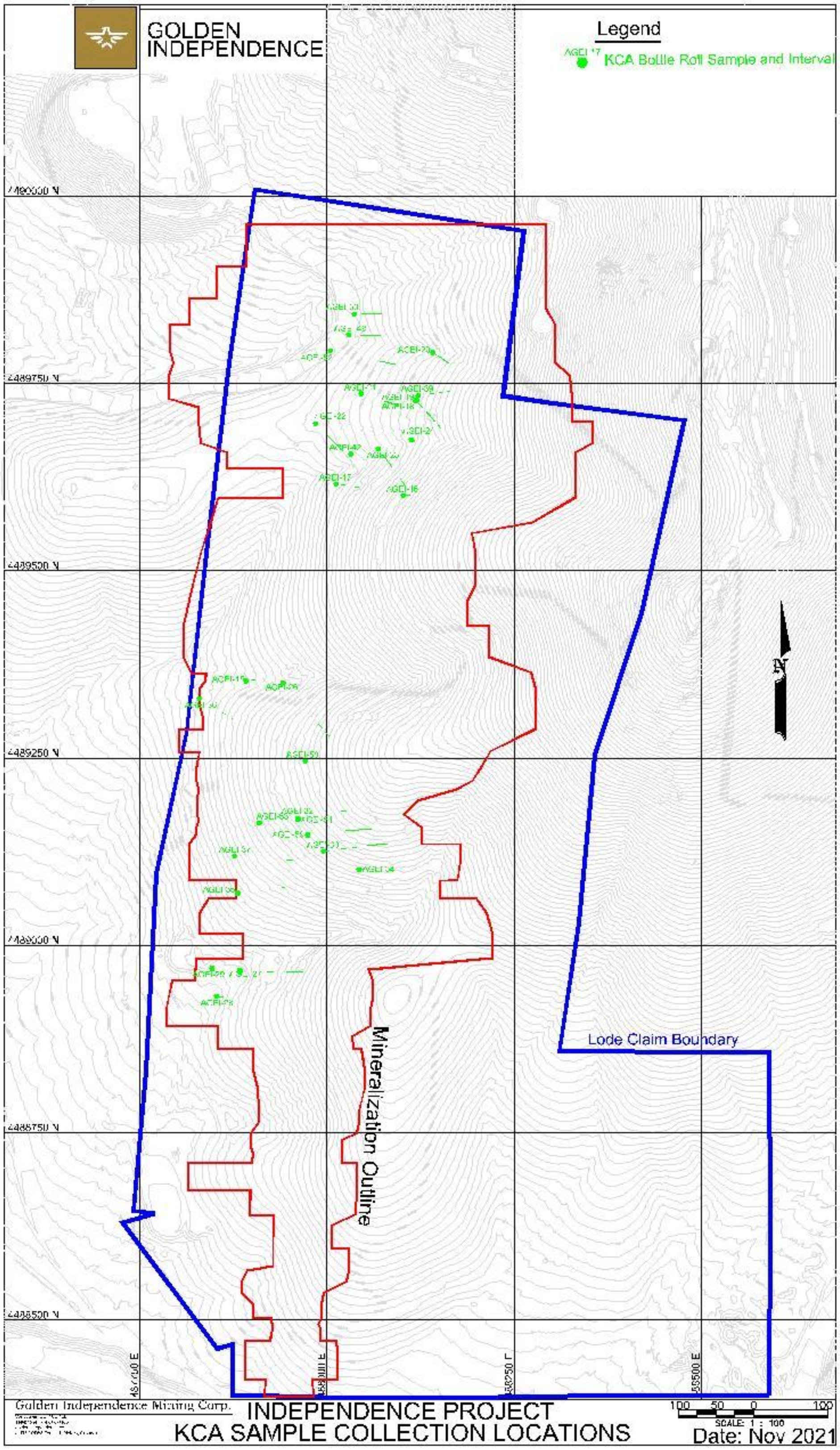
This set of samples demonstrated much larger variability than expected. The bottle roll gold recovery varied from 34% to 94%, averaged at 74%, with a standard deviation of 11%; and the bottle roll silver recovery varied from 17% to 74%, averaged at 51%, with standard deviation of 12%.

From the cyanide shake test, the cyanide soluble gold varied from 37% to 99%, averaged at 86% with a standard deviation of 13%, while the cyanide soluble silver varied from 37% to 100%, and averaged 78% with a standard deviation of 14%. It is suspected that this variation may be related to material type or sulfide content. The sulfide sulfur in the samples varied from 0.01% to 3.61%, with an average at 0.37%.

## Table 13-2
## KCA Bottle Roll Test and Cyanide Shake Test Summary

| KCA Sample No. | Description | Sulfur Analysis | | Head Assay, Average | | Calculated Head, Au, ppm | Au Extracted, % | Calculated Head, Ag, ppm | Ag Extracted, % | Reagent Consumption | | Cyanide Shake, Average | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total S,% | Sulfide Sulfur, % | Au, ppm | Ag, ppm | | | | | NaCN, kg/mt | Ca(OH)2, kg/mt | CNAu, % | CNAg, % |
| 92521 A | AGEI-17, 0' - 100' | 0.10 | 0.01 | 0.566 | 5.84 | 0.520 | 73.1% | 6.99 | 48.6% | 0.45 | 1 | 84.0% | 89.0% |
| 92522 A | AGEI-18, 0' - 95' | 0.04 | 0.01 | 0.496 | 3.93 | 0.523 | 75.1% | 4.92 | 51.5% | 0.16 | 1.5 | 95.0% | 80.5% |
| 92523 A | AGEI-19, 0' - 90' | 0.06 | 0.01 | 0.319 | 4.93 | 0.329 | 72.4% | 5.62 | 43.2% | 0.19 | 1.5 | 76.5% | 60.0% |
| 92524 A | AGEI-20, 0' - 40' | 0.03 | 0.01 | 0.459 | 3.33 | 0.537 | 68.1% | 3.89 | 55.9% | 0.22 | 1.25 | 91.5% | 90.0% |
| 92525 A | AGEI-22, 10' - 120' | 0.03 | 0.01 | 0.515 | 2.93 | 0.467 | 79.4% | 3.41 | 63.3% | 0.42 | 1 | 76.0% | 87.0% |
| 92526 A | AGEI-23, 25' - 75' | 0.01 | 0.01 | 0.440 | 3.07 | 0.433 | 79.4% | 3.62 | 58.3% | 0.27 | 1.25 | 79.0% | 86.0% |
| 92527 A | AGEI-28, 0' - 10', AGEI-29, 0' - 15' | 0.49 | 0.05 | 0.979 | 46.43 | 1.011 | 49.0% | 56.43 | 58.9% | 0.13 | 0.5 | 73.0% | 92.5% |
| 92528 A | AGEI-29, 330' - 350' | 2.55 | 2.39 | 1.157 | 23.15 | 1.143 | 72.9% | 21.96 | 16.6% | 5.10 | 1 | 82.5% | 72.5% |
| 92529 A | AGEI-32, 200' - 280' | 0.18 | 0.09 | 0.565 | 6.54 | 0.656 | 73.3% | 5.74 | 43.9% | 0.34 | 1 | 97.5% | 61.5% |
| 92530 A | AGEI-15, 5' - 20', AGEI-33, 0' - 15' | 0.11 | 0.01 | 0.543 | 3.78 | 0.526 | 84.7% | 4.58 | 37.4% | 0.18 | 1 | 94.0% | 57.0% |
| 92531 A | AGEI-33, 60' - 135' | 0.15 | 0.08 | 0.518 | 3.70 | 0.567 | 74.9% | 3.88 | 40.8% | 0.67 | 0.75 | 95.5% | 59.0% |
| 92532 A | AGEI-33, 155' - 210' | 0.53 | 0.27 | 1.416 | 13.01 | 1.496 | 76.6% | 14.71 | 41.3% | 0.19 | 1.25 | 95.0% | 75.5% |
| 92533 A | AGEI-34, 0' - 40' | 0.13 | 0.02 | 0.708 | 15.58 | 0.657 | 87.0% | 16.63 | 42.6% | 0.28 | 0.75 | 87.5% | 80.0% |
| 92534 A | AGEI-35, 320' - 335' | 1.08 | 0.81 | 0.291 | 4.72 | 0.291 | 61.7% | 4.23 | 48.1% | 1.68 | 1 | 83.0% | 94.5% |
| 92535 A | AGEI-37, 165' - 205' | 0.35 | 0.12 | 0.567 | 2.32 | 0.525 | 82.2% | 1.96 | 59.8% | 0.28 | 1.5 | 99.0% | 81.5% |
| 92536 A | AGEI-37, 310' - 375' | 0.93 | 0.72 | 0.701 | 6.72 | 0.713 | 62.2% | 6.60 | 54.8% | 0.85 | 0.75 | 91.5% | 84.0% |
| 92537 A | AGEI-39, 0' - 105' | 0.12 | 0.01 | 0.362 | 6.03 | 0.385 | 72.9% | 5.59 | 51.8% | 0.19 | 1.75 | 91.0% | 75.5% |
| 92538 A | AGEI-18, 115' - 130', AGEI-39, 105' - 145' | 0.04 | 0.01 | 0.585 | 7.09 | 0.582 | 73.2% | 7.69 | 57.2% | 0.30 | 1.75 | 94.0% | 88.0% |
| 92539 A | AGEI-42, 70' - 100' | 0.74 | 0.51 | 0.634 | 9.69 | 0.621 | 82.3% | 9.78 | 74.4% | 0.40 | 2.75 | 95.0% | 88.5% |
| 92540 A | AGEI-46, 0' - 20' | 0.12 | 0.01 | 0.702 | 4.40 | 0.886 | 94.0% | 4.29 | 26.1% | 0.34 | 0.75 | 78.5% | 37.0% |
| 92546 A | AGEI-21, 95' - 170' | 0.27 | 0.13 | 0.369 | 3.73 | 0.380 | 76.1% | 3.60 | 42.9% | 0.21 | 1.5 | 91.5% | 73.0% |

| KCA Sample No. | Description | Sulfur Analysis | | Head Assay, Average | | Calculated Head, Au, ppm | Au Extracted, % | Calculated Head, Ag, ppm | Ag Extracted, % | Reagent Consumption | | Cyanide Shake, Average | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total S,% | Sulfide Sulfur, % | Au, ppm | Ag, ppm | | | | | NaCN, kg/mt | Ca(OH)2, kg/mt | CNAu, % | CNAg, % |
| 92547 A | AGEI-23, 90' - 135' | 1.44 | 1.16 | 0.650 | 8.59 | 0.651 | 57.6% | 8.49 | 68.7% | 1.49 | 1.75 | 80.0% | 87.5% |
| 92548 A | AGEI-24, 25' - 85' | 0.02 | 0.01 | 0.304 | 2.44 | 0.303 | 75.1% | 2.78 | 67.3% | 0.28 | 1.25 | 93.0% | 100.0% |
| 92549 A | AGEI-26, 165' - 285' | | | 0.411 | 3.09 | 0.413 | 69.7% | 2.15 | 57.8% | 0.10 | 1.25 | 83.0% | 47.5% |
| 92563 A | AGEI-49, 50' - 140' | 0.20 | 0.09 | 0.342 | 5.05 | 0.334 | 79.0% | 4.51 | 60.1% | 0.52 | 1.25 | 96.0% | 87.5% |
| 92564 A | AGEI-50, 20' - 130' | 0.01 | 0.01 | 0.467 | 5.62 | 0.394 | 80.9% | 5.27 | 62.2% | 0.19 | 1.75 | 58.0% | 90.5% |
| 92565 A | AGEI-52, 185' - 320' | 0.61 | 0.40 | 0.373 | 3.27 | 0.329 | 71.9% | 2.75 | 49.0% | 0.31 | 1.25 | 83.5% | 73.0% |
| 92566 A | AGEI-53, 235' - 395' | 0.42 | 0.32 | 0.604 | 8.67 | 0.604 | 80.4% | 8.43 | 53.9% | 0.19 | 1 | 97.5% | 80.0% |
| 92567 A | AGEI-54, 215' - 275' | 0.25 | 0.13 | 1.638 | 5.47 | 1.377 | 81.7% | 6.43 | 47.2% | 0.10 | 1.25 | 96.5% | 92.0% |
| 92568 A | AGEI-58, 105' - 190' | 0.55 | 0.40 | 0.614 | 2.28 | 0.616 | 78.3% | 2.03 | 51.1% | 0.27 | 1 | 73.5% | 65.0% |
| 92569 A | AGEI-58, 205' - 305' | 0.35 | 0.23 | 0.825 | 11.52 | 0.782 | 78.3% | 10.11 | 60.5% | 0.16 | 1.25 | 96.0% | 88.0% |
| 92570 A | AGEI-59, 155' - 285' | 0.69 | 0.51 | 0.736 | 4.54 | 0.729 | 69.4% | 4.33 | 44.5% | 0.21 | 1.5 | 91.0% | 69.5% |
| 92571 A | AGEI-27, 315' - 360' | 0.29 | 0.17 | 1.823 | 29.11 | 1.737 | 79.2% | 26.67 | 48.7% | 0.15 | 1.25 | 98.0% | 73.5% |
| 92572 A | AGEI-36, 390' - 395, 485' - 520', 545' - 560' | 3.73 | 3.61 | 0.737 | 6.54 | 0.588 | 33.9% | 6.02 | 55.1% | 3.68 | 1 | 37.0% | 76.5% |




Source: KCA 2021

**Figure 13-3 Sample Collection Locations for KCA Test work Program**

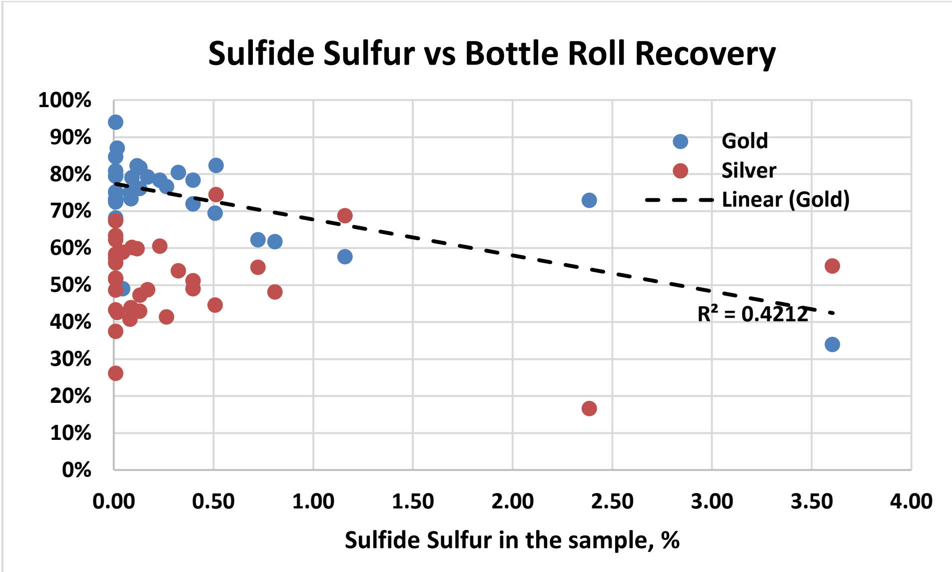



**Figure 13-4 Sulfide Sulfur vs. Bottle Roll Recovery**

## 13.3 Geological Sample Assays

Due to the significant material variability, besides 2012 MLI test data and 2021 KCA bottle roll test data, original geological sample assay data was also analyzed. The original geological sample data includes all the drill hole sample, and historical GMC drill hole samples are marked "GM-xx" while GIMC drill hole samples are marked "AGEI-xx". The information includes gold and silver head assays, cyanide soluble gold and silver, total sulfur content, visually classified material types, and geological locations of each sample. All the samples with a head grade equal to or above 0.2 ppm gold were selected for analysis, which is the cutoff grade for this project.

The correlations between several parameters were studied, including total sulfur content, depth of sample, and cyanide soluble gold and silver. Each correlation has significant amount of noise, however it is found that visually classified material type has the best correlation with the cyanide soluble gold, which is shown in Figure 13-5.

From the plot, though there is a significant amount of variation in the data, however, it still shows that each material type has quite distinct average cyanide soluble gold. The oxide material has the highest average recovery and is mostly located within 100 meters of depth, while the sulfide material has the lowest recovery and mostly located below 150 meters of depth, and the mixed material is in between.

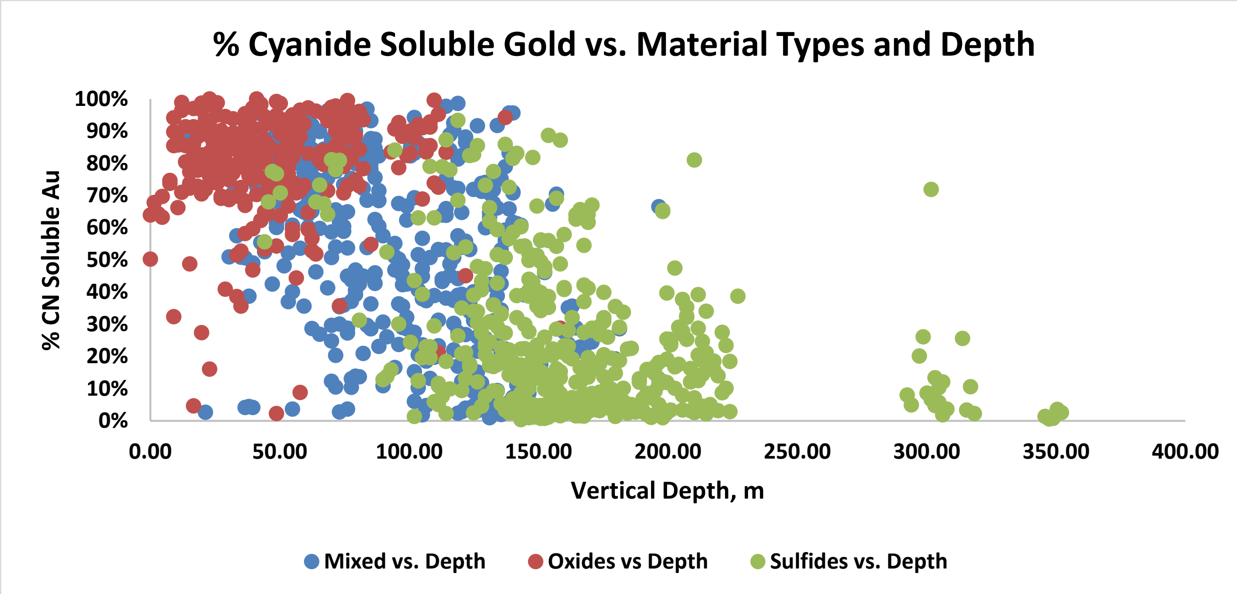



**Figure 13-5 Cyanide Soluble Gold vs. Material Types from Geological Samples**

## 13.4 Conclusions

Based on data from the historical and recent test work completed to date, key design parameters including metal recoveries, reagent consumptions, and other process design criteria items have been assigned for use in this study and are discussed in the following sections. Metallurgical samples were taken from bulk sampling methods and drill core. These samples show distinct recovery differences based on oxidation: oxide, transitional, and sulfide material. Future test programs should be performed to confirm or refine these results as a part of future studies.

### 13.4.1 Crush Size and Recovery

In the MLI 2012 test work program, test samples were categorized as "surface" and "underground" material. After reviewing the new sample collected for KCA bottle roll tests, and sulfide content of drill hole samples, the material was categorized into oxide, transitional and sulfide. Surface material best represents the oxide material. Underground material best represents transitional and sulfide material. There is also a distinct geological trend between percent sulfide and drill hole depth.

A crush size versus recovery analysis was conducted for the 2012 MLI test work. The relationship of crush size versus gold recovery is shown in Figure 13-6. The data shows that there is no relationship between crush size and gold recovery for surface (oxide) material. For the underground (transitional and sulfide) material, the gold recovery does show a slight trend that gold recovery decreases with increasing crush size. Silver recoveries versus crush size were also analyzed. From Figure 13-7, silver shows a stronger size versus recovery trend suggesting crushing to a smaller crush size will improve silver recovery for oxide, transitional, and sulfide material types.

However, the percent of transitional and sulfide ore is only approximately 8% of the total resource. Based on the economic evaluation between two-stage crushing and three-stage crushing with their estimated recoveries, two-stage crushing is economically more favorable and recommended for the whole resource. The material will be crushed 80%-passing 1.5" (38 mm) regardless of material type.

Additional column tests at variable crush sizes and material types should be considered as part of future test programs.

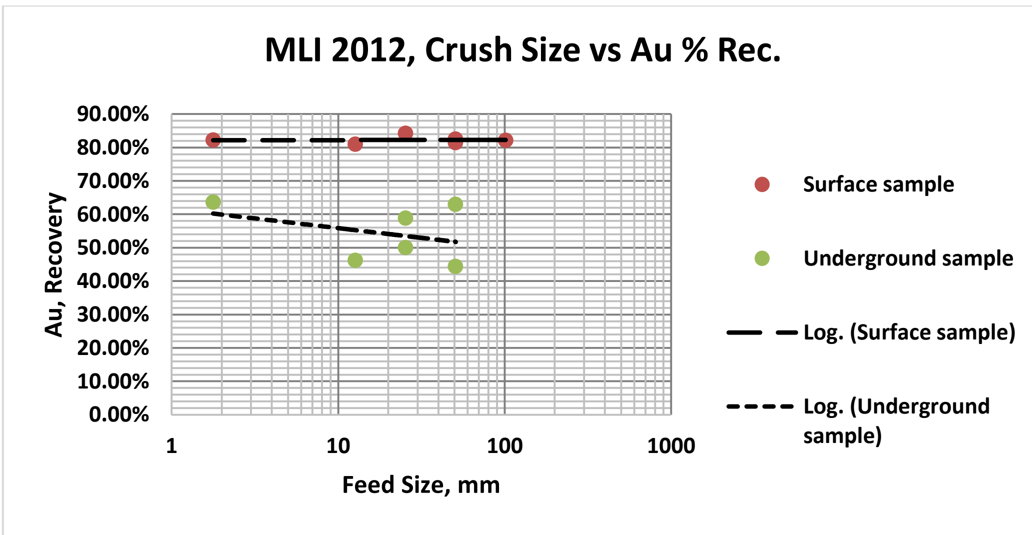



**Figure 13-6 MLI 2012 Crush Size vs Gold Recovery**

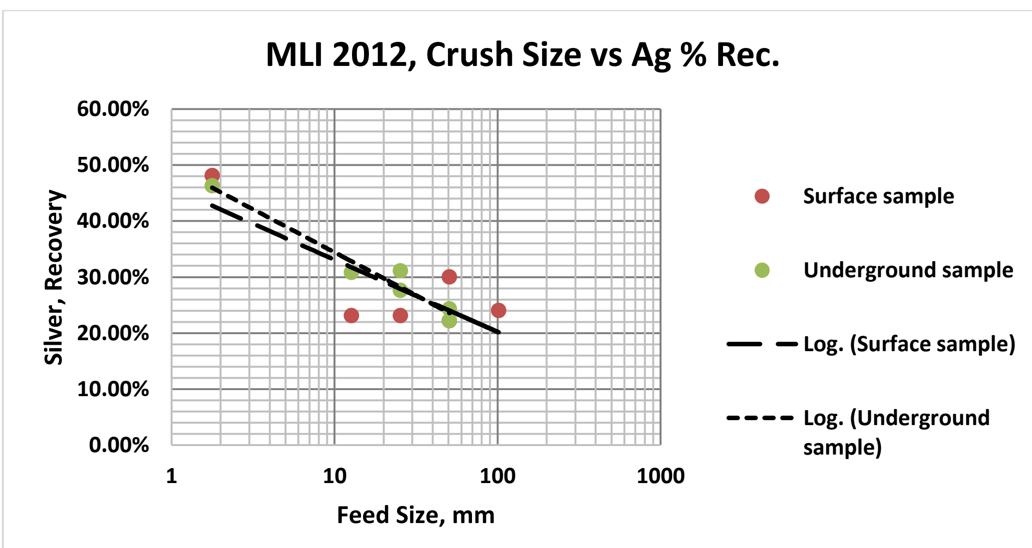



**Figure 13-7 MLI 2012 Crush Size vs Silver Recovery**

### 13.4.2 Recovery Estimates and Reagent Consumptions

Based on the MLI tests, KCA bottle roll tests, and the original geological sample assay data, it has been determined that the best approach to estimate the field recovery is to be based on the visually classified material types.

The field metal recoveries are estimated based on MLI 2012 lab test (including both column tests and bottle roll tests), KCA bottle roll test with different material types conducted in 2021, and drill hole sample assays provided by a geologist. Based on all the available data, KCA estimated the gold recovery in the field is approximately 79% for oxide sample, 50% for mixed sample and 22% for sulfide material at the crush size of P80 at 38 mm. For the silver recovery, as the column tests from McClelland Laboratories did not indicate significant difference between material types, the silver recoveries are estimated around 27% regardless of material types.

Based on the column tests conducted by MLI in 2012, the crush size did not have significant impact on the gold recovery for surface material, which is equivalent to oxide material as visually classified by geologist. For the underground material, which is more similar to mixed material or sulfide material, the crush size does show the impact of crush size to metal recoveries. However, due to the small percentage of transitional and sulfide material in the total resource, the economics favors a crush size at P80 at 38 mm.

The cyanide consumption for each material type is estimated from KCA bottle roll tests. The lime consumption for each material type considers both KCA bottle roll data and column test data. The estimated metal recovery and reagents consumption in field is summarized in Table 13-3.

**Table 13-3**
**Estimated Metal Recoveries and Reagent Consumptions**

| Material type | Crush size, P80% mm | Field metal recovery | | Consumption, kg/mt | |
|---|---|---|---|---|---|
| | | Au Rec,% | Ag Rec,% | NaCN | Lime |
| Oxide | 38.1 | 79% | 27% | 0.27 | 2 |
| Transitional | 38.1 | 50% | 27% | 0.41 | 3 |
| Sulfide | 38.1 | 22% | 27% | 0.26 | 4 |

### 13.4.3 Leach Cycle

The Independence leach cycle has been estimated based on the column test work by evaluating the leach curves for gold and silver. The leach cycle considers tonnes of solution per tonne of material as well as total time required to reach the ultimate recovery in the column leach tests. Based on this data, the estimated leach cycle for the Independence material is 120 days.

#### 13.4.4 Lift Height

During the column test, both the surface and underground material did not show any permeability issue. KCA recommends lift heights of 9 meters. Additional compacted permeability testing should be conducted in future test programs to confirm these results.

### 13.5 Future Recommendations

Based on the current metallurgical tests and related information, it is sufficient to conduct a preliminary economic analysis study. Due to the material variability, it is recommended to consider the following items in the next stage of project study.

- Collect samples from different material types, (oxide, mixed and sulfide) and composite the samples for column tests. This will help to estimate the production recovery more accurately than bottle roll test.

- As the gold recovery from the oxide material is less dependent on crush size, it is recommended to test oxide material with larger crush size.

- Due to the significant material variability, it is recommended to conduct full sulfur speciation test (LECO), and diagnostic leach test. These tests would help to investigate the issue of large difference in metal recoveries.

- Though previous column tests did not indicate any permeability issue, it is recommended to conduct further permeability tests under different compaction conditions.

# 14.0 MINERAL RESOURCE ESTIMATES

This Technical Report details the maiden mineral resource estimate (MRE) reported for the Independence Project and follows the guidelines of Canadian National Instrument 43-101. The modeling and estimate of gold and silver resources at the Independence deposit, which were completed in August 2021 through November 2021, were done by James Ashton, P.E. who is considered a Qualified Person by the definitions and criteria set forth in NI 43-101. No new drilling has taken place for the Deep Skarn deposit, and these resources remain unchanged. There is no affiliation between Mr. Ashton and Golden Independence except that of an independent consultant/client relationship. The effective date of this mineral resource is November 15, 2021. No mineral reserves were estimated for the Independence project.

The MRE was calculated using a block model size of 6 m (19.68 ft; X) by 6 m (19.68 ft; Y) by 6 m (19.68 ft; Z). The Author estimated the gold and silver grade for each block using Inverse Distance Weighted (IDW) with locally varying anisotropy to ensure grade continuity in various directions is reproduced in the block model. The final MRE is the total resource within the mineralized domains as defined by the drilling, is constrained by an optimized pit, is further constrained by reporting at economic cutoff grades, and is reported diluted. Details regarding the methodology used to calculate the mineral resource are documented in this section.

## 14.1 Data

GIMC and other operators of the property have spent much time and resources compiling the data used in this mineral resource estimate (MRE). This data has subsequently and continually been updated, added to, and refined. The database used in the estimation of gold and silver mineral resources for Independence contains assay and geological information for 234 drill holes. New digital topography, completed in 2020 by GSP Consulting/Synergy Mapping, Inc., with 0.5 meter contour interval, of the current surface was used in the resource model that includes all historic waste dumps and tailings impoundments. Modelling and Project coordinates are UTM NAD83, Zone 11, Ground. The MRE was completed using the mine planning software Minsight® (v3.50).

## 14.2 Down Hole Survey Correction

Included in the 246 drill holes used to calculate the mineral resource estimate are 211 drill holes that were drilled at an angle other than vertical. Of the 211 holes only 63 have down hole surveys completed. In order to make the drill hole database as meaningful as possible the Author decided to add an estimated down hole survey to those angled drill holes that do not have a down hole survey by using the holes with a down hole survey as a guide. Only RC holes were used to adjust RC holes and only core holes were used to adjust core holes. The dip angles needing adjustment for the non-down hole surveyed holes are $-45^0$, $-60^0$, $-65^0$, $-68^0$, and $-70^0$. Table 14-1 displays the dip ranges used from the holes with a down hole survey to estimate a specific dip for a non-down hole survey hole. For example: Holes with a down hole survey with a dip of $-43^0$ to $-47^0$ were used to adjust the non-down hole surveyed holes with a dip of $-45^0$. The drill hole azimuth was not adjusted.

**Table 14-1 Down Hole Survey Data used for Adjustment**

| Down hole Survey Dip Range (degrees) | Adjusted Down Hole Survey Dip (Degrees) | # Holes with Down Hole Survey | # Holes Adjusted Down Hole Survey |
|---|---|---|---|
| -43 to -47 | -45 | 13 | 137 |
| -48 to -52.5 | NA | 13 | - |
| -53 to -57.5 | NA | 10 | - |
| -58 to -62 | -60 | 14 | 2 |
| -63 to -66.5 | -65 | 4 | 1 |
| -71 to -72 | -68 & -70 | 3 | 3 |
| -88 to -90 | NA | 2 | - |
| Core -48 to -51 | -45 & -55 | 4 | 5 |

Table 14-2 shows the down hole survey adjustments applied to those holes lacking a down hole survey.

**Table 14-2 Calculated Down Hole Survey Adjustments**

| Down Hole Survey | | | Adjustment | Adjustment | Adjustment | Adjustment | Adjustment | Core Adj. | Core Adj. |
|---|---|---|---|---|---|---|---|---|---|
| FROM | TO | Interval | Dip | Dip | Dip | Dip | Dip | Dip | Dip |
| (m) | (m) | (m) | (degrees) | (degrees) | (degrees) | (degrees) | (degrees) | (degrees) | (degrees) |
| | | | -45 | -60 | -65 | -68 | -70 | -45 | -55 |
| 0.00 | 15.24 | 15.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15.24 | 30.48 | 15.24 | -1.35 | -1.06 | -1.13 | -0.49 | -0.49 | -0.17 | -0.17 |
| 30.48 | 45.72 | 15.24 | -1.18 | -1.22 | -1.11 | -0.08 | -0.08 | -0.07 | -0.07 |
| 45.72 | 60.96 | 15.24 | -1.09 | -1.03 | -0.96 | 0.29 | 0.29 | -0.08 | -0.08 |
| 60.96 | 76.20 | 15.24 | -1.32 | -1.10 | -1.42 | -0.08 | -0.08 | -0.12 | -0.12 |
| 76.20 | 91.44 | 15.24 | -1.15 | -1.23 | -1.32 | -0.33 | -0.33 | -0.11 | -0.11 |
| 91.44 | 106.68 | 15.24 | -1.21 | -1.11 | -1.13 | 0.03 | 0.03 | -0.16 | -0.16 |
| 106.68 | 121.92 | 15.24 | -1.19 | -1.00 | -1.17 | -0.29 | -0.29 | -0.07 | -0.07 |
| 121.92 | 137.16 | 15.24 | -0.88 | -0.86 | -0.86 | -0.25 | -0.25 | -0.15 | -0.15 |
| 137.16 | 152.40 | 15.24 | -0.73 | -0.74 | -0.70 | -0.21 | -0.21 | -0.26 | -0.26 |
| 152.40 | 167.64 | 15.24 | -0.82 | -0.72 | -1.10 | -0.24 | -0.24 | -0.36 | -0.36 |
| 167.64 | 182.88 | 15.24 | -0.84 | -0.74 | -0.43 | -0.44 | -0.44 | | |
| 182.88 | 198.12 | 15.24 | -0.88 | -0.71 | -0.36 | 0.11 | 0.11 | | |
| 198.12 | 213.36 | 15.24 | -0.62 | -0.52 | -0.25 | -0.11 | -0.11 | | |
| 213.36 | 228.60 | 15.24 | -0.40 | -0.73 | | 0.12 | 0.12 | | |
| 228.60 | 243.84 | 15.24 | -0.58 | -1.01 | | -0.47 | -0.47 | | |
| 243.84 | 259.08 | 15.24 | -0.03 | -0.18 | | 0.22 | 0.22 | | |
| 259.08 | 274.32 | 15.24 | -0.39 | -0.18 | | -0.19 | -0.19 | | |
| 274.32 | 289.56 | 15.24 | -0.48 | -0.18 | | -0.07 | -0.07 | | |
| 289.56 | 304.80 | 15.24 | -0.48 | -0.17 | | -0.02 | -0.02 | | |
| 304.80 | 320.04 | 15.24 | -0.47 | | | -0.04 | -0.04 | | |
| 320.04 | 335.28 | 15.24 | | | | 0.00 | 0.00 | | |
| 335.28 | 350.52 | 15.24 | | | | -0.01 | -0.01 | | |

## 14.3 Deposit Geology Pertinent to Resource Estimation

The current level of geological understanding of the gold and silver mineralization at the Independence property is understood quite well given the relatively high concentration of drilling. Three distinct deposit types are present at the Independence property, a near surface epithermal system, a deep high-grade gold rich skarn hosted system and a shallow intrusive hosted gold-silver-copper porphyry system located on the northern portion of the property.

### 14.3.1 Independence Near Surface Mineralization

The near surface mineralization at Independence is best characterized as a high level epithermal system, hosted in the Pennsylvanian – Permian age Pumpernickel Formation, formed as a leakage halo above the deep Independence gold skarn, both related to emplacement of Eocene age granodiorite porphyry's. The Independence deep gold skarn target is high-grade, gold rich mineralization hosted in skarn altered sediments of the Battle Mountain, Antler Peak and Edna Mountain Formations of the Antler Sequence in the lower portion of the Roberts Mountain Allochthon. The Independence Stock, situated at the northern end of the Independence Property hosts stockwork style gold-silver mineralization and a small pit, just north of the Property, contain disseminated porphyry style gold-silver-copper mineralization along the north margin of the Independence Stock.

The main structural feature evident at the surface on the property is the Wilson-Independence fault zone, a series of sub-parallel faults and shear zones which strike roughly N5$^{o}$W, with sub-vertical to steeply west dips. The main zone of gold and silver mineralization and containing essentially all of the defined near surface resources lie along and proximal to these north striking structural zones in and near the thick bedded to semi massive chert units where competency contrast of the massive cherts and intercalated shale and chert zones occurring above and below, resulted in substantial fracturing, developing open spaces available for fluid flow. The predominant gold and silver-bearing minerals in the near surface deposit are oxidation products of the original sulfide minerals and include goethite, hematite, cerargerite, argentiferous plumbojarosite, scorodite, very fine grained native gold, rare native silver, and precious metal bearing colloidal clays developed during oxidation of the sulfide mineralization. The principal gold bearing minerals identified in the Independence Skarn mineralization are native gold and the gold telluride, lillianite. Oxidation in the near surface "Chert Hosted" deposit is pervasive and ubiquitous to depths of 400 feet (120 meters) below the surface. A mixed sulfide – oxide zone extends for roughly 100 feet (30 meters) below this, and may extend to more than 1000 feet (300 meters) along structures and fractures which permit the circulation of oxygen laden meteoric waters.

The Pumpernickel Formation has been broken down by previous property operators into four general units on the Independence Property. These units, designated the Slts, C-3, C-1, and C-2 in all drill logs from 2007 onward consist of variably altered interbedded thin to thick bedded chert and argillite.

The C-1 chert hosts the majority of the near surface gold-silver mineralization. The unit varies between 180 and 220 feet (55 and 67 meters) in thickness. The most prominent geologic feature of this unit is three prominent, semi-massive to massive recrystallized chert beds, historically known in the underground mine workings as the Upper, Lower, and Basal blocky chert units. These 10 to 75 foot (3 to 23 meter) beds are separated by narrow 5 to 20 foot (1.5 to 6 meter) thick layers of thin bedded chert and intercalated shale. The C-1 "blocky" chert is strongly altered and bleached due to intense effects of hydrothermal alteration. Intense surface oxidation within this brittle and fractured unit generally extends to 400 feet (120 meters), giving the unit a ubiquitous tan color throughout the existing mine and in most of the General Metals drill holes.

The northern portion of the near surface mineralization occurs within an intrusive hosted gold-silver porphyry system. This area is characterized by lower gold and silver grades, a shallower dip to the west, and a much broader and thicker occurrence of mineralization. The break between the southern mineralization and the northern mineralization occurs approximately at a northing of 4,489,430 meters. This area makes up roughly one third of the deposit within the Independence Project boundary.

Domains of mineralization were broken out to control the grade estimate. The mineralized body strikes N-S and dips 50° –to the west and rakes 1 - 2° to the south. Along the main mineralized zone, high grade ore chutes are developed at intersections with NW to E-NE trending cross faults and favorable lithology. A broad low-grade halo was defined at Independence around a grade of ~0.005 oz. Au/ton (0.175 ppm). This main mineralized body as presently defined is roughly 5,000 ft. (1,525 m) in length along strike and 450 ft. (140 m) in down dip extent.

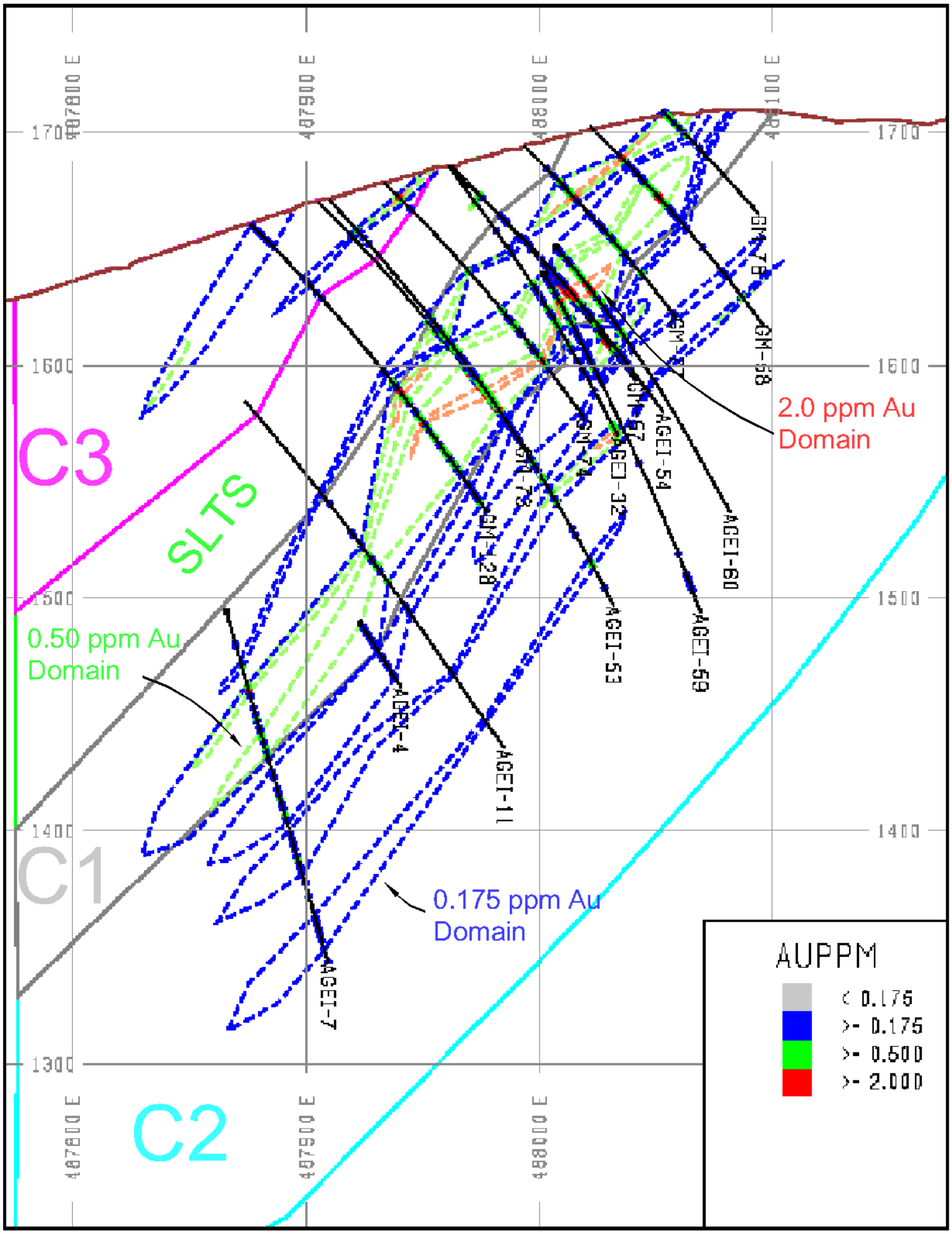
Internal to this low-grade domains are irregular domains defined at approximately ~0.015 oz. Au/ton (0.50 g/t) and at ~0.06 oz. Au/ton (2.00 g/t). The mid-grade domain most likely is a result of increased fracturing, and results in zones with irregular shapes that are parallel to the main low-grade domain. Although the shapes of the zones in the highest-grade domain appear odd and have little specific geologic support, these higher-grade zones are similar to the shapes, sizes, and orientations of historic mining stopes developed on higher-grade chutes.

The near surface deposit model used separate domains because there are discrete higher-grade zones as demonstrated by historic mining. In addition, some holes had an anomalously high number of higher-grade intersections, possibly the result of drilling down mineralized structures, and these needed constraining. Figure 14-1 presents a representative section with the geologic interpretation and the gold domains.

Silver mineralization is positively related to the gold mineralization, but the silver grade is only partially correlated with the gold grade having a correlation coefficient of 0.22 and a $R^2$ coefficient of 0.11 (Figure 14-6). The silver mineralization for the most part, surrounds much of the gold mineralization and is substantially larger in size than the gold mineralization. The zones of higher grade silver mineralization do not necessarily occur in the same location as the higher grade gold zones. Because of the above observations, a separate silver model was created. The broad low-grade silver zone is about 5,000 feet (1,500 meters) long along strike, 885 feet (270 meters) (wide perpendicular to the strike) and 1,100 feet (340 meters) long parallel to the dip. Two grade domains 3.5 ppm Ag and 20.0 ppm Ag (0.100 opt Ag and 0.600 opt Ag) were used to model the silver mineralization. Figure 14-2 presents a representative section with the geologic interpretation and the silver domains.

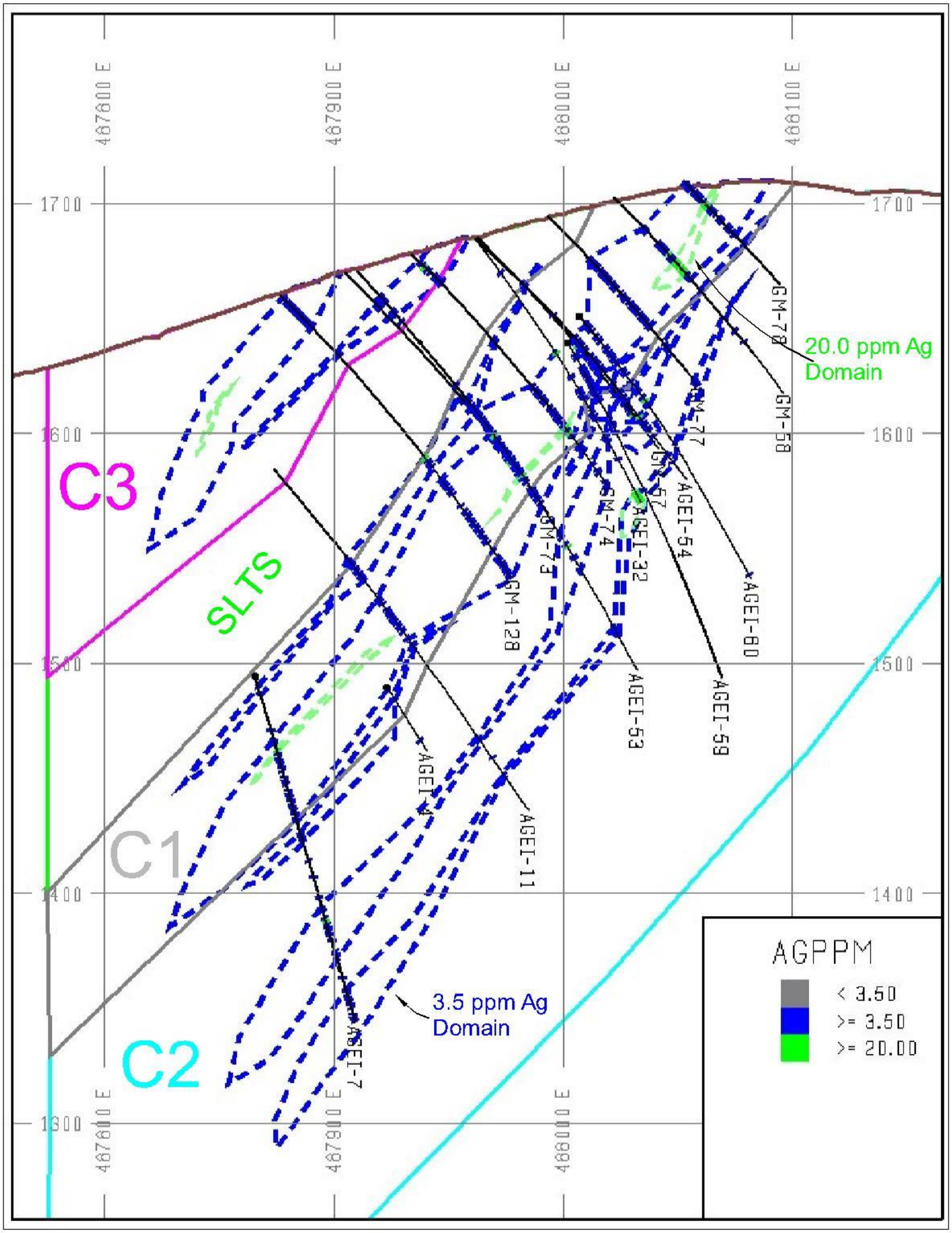
Figures 14-3 and 14-4 illustrate the mineralization domain solids created from the outlines for gold and silver respectively. The higher grade domains are obscured by the low grade domain for both gold and silver. Figure 14-5 displays the extent of gold mineralization for both the Near Surface deposit and the Deep Skarn deposit.

**Figure 14-1 Gold Domains and Geology**




Source: Ashton, 2021

**Figure 14-2 Silver Domains and Geology**




Source: Ashton, 2021

**Figure 14-3 Gold Low-Grade Solid and Drilling (Source: Ashton, 2021)**

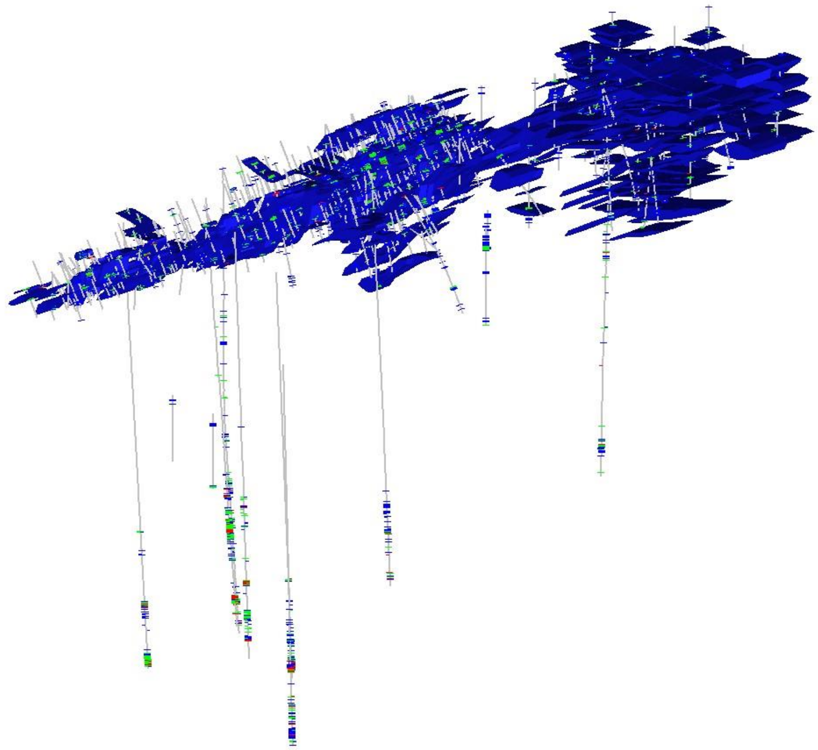


**Figure 14-4 Silver Low-Grade Solid and Drilling (Source: Ashton, 2021)**

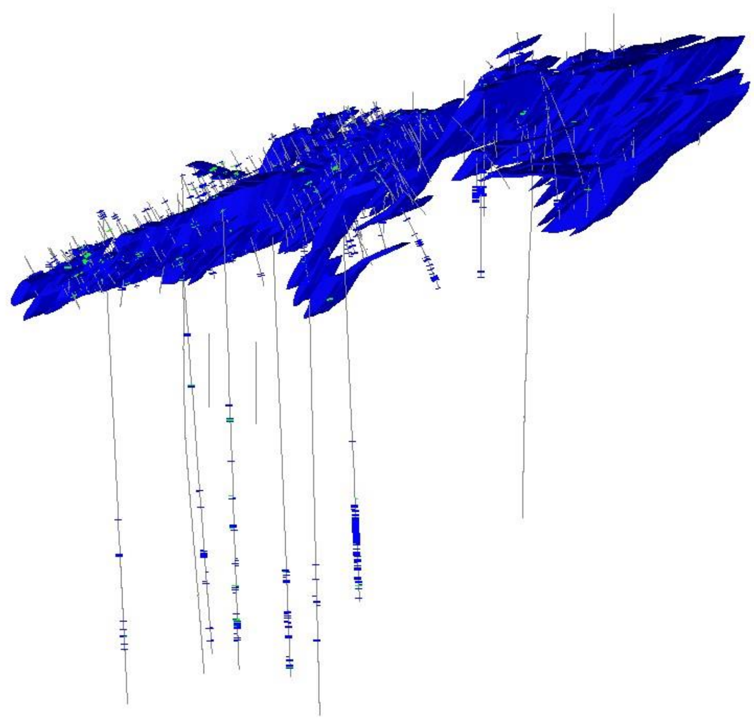
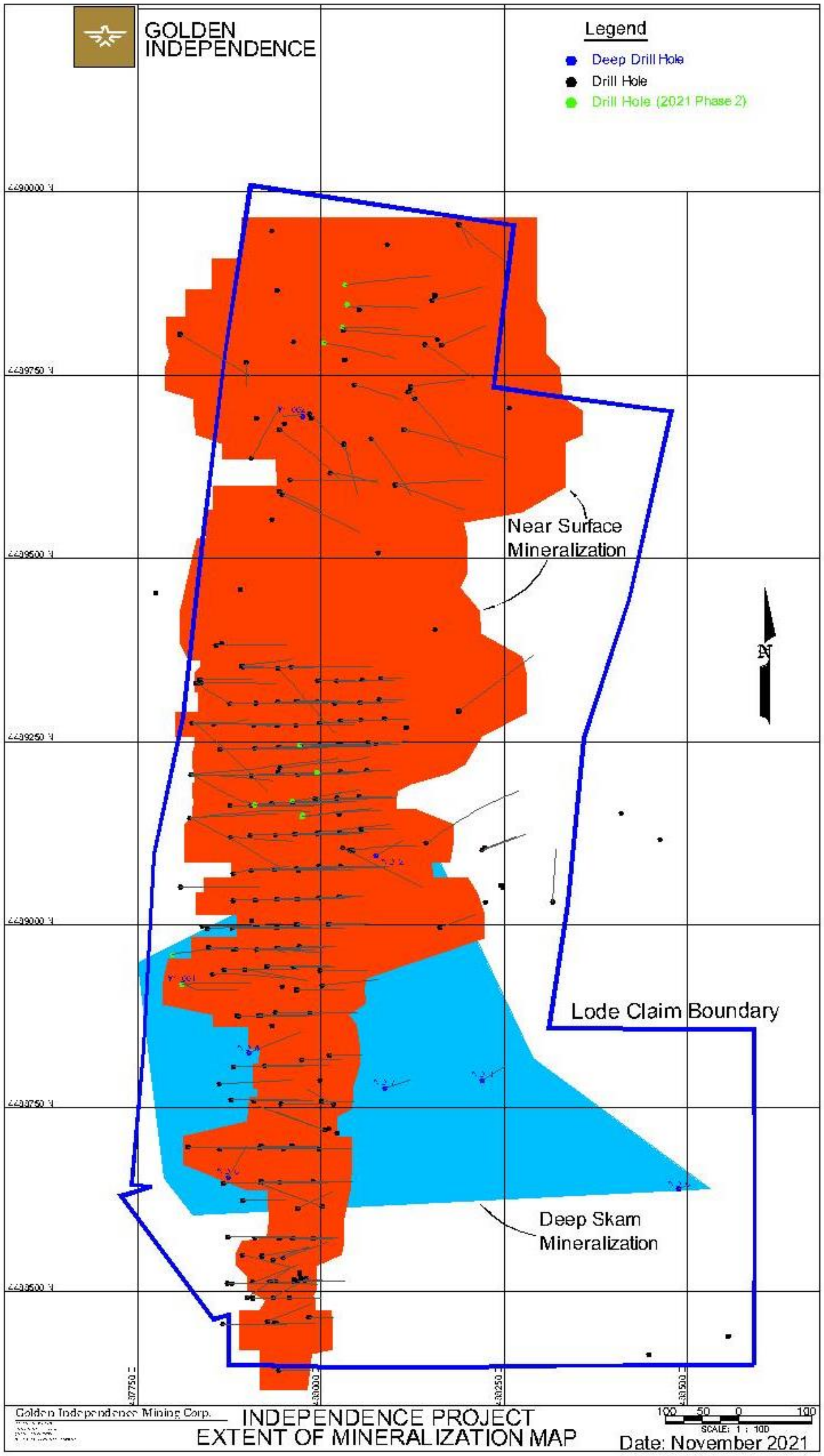
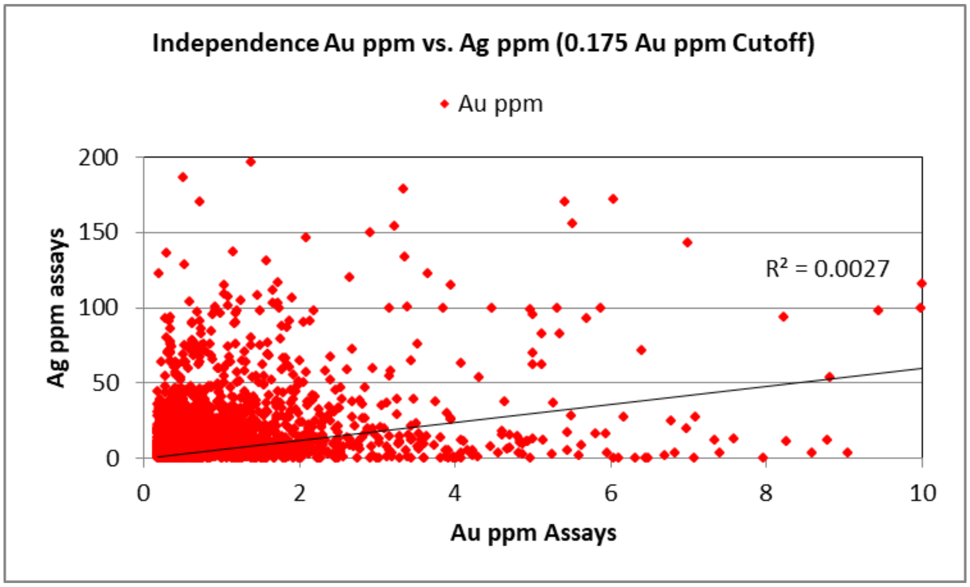


**Figure 14-5 Extent of Gold Mineralization for the Near Surface and Deep Skarn deposits**




(Source: Ashton, 2021)

**Figure 14-6 Gold Assays vs. Silver Assays (0.175 Au ppm Cutoff)**



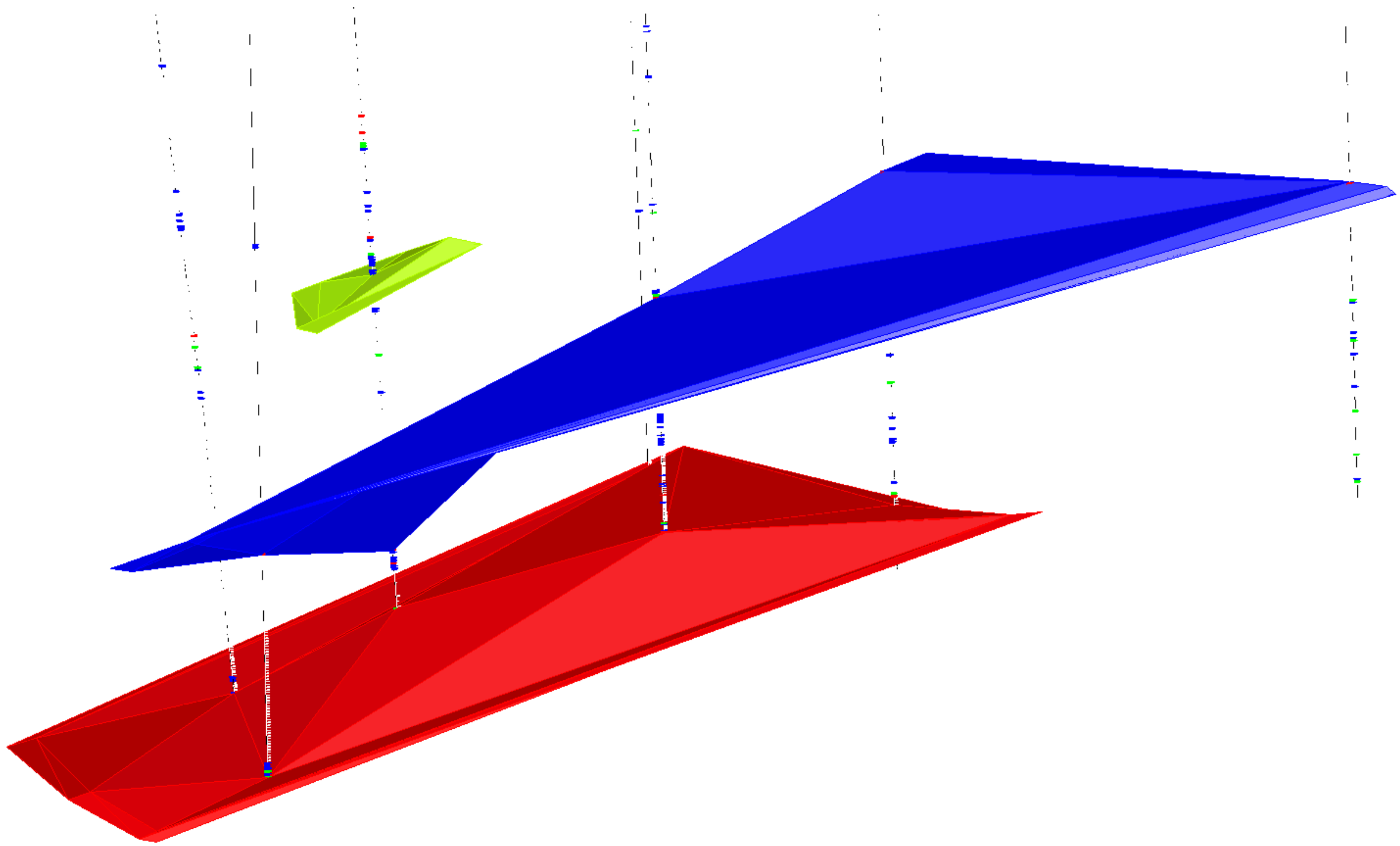

### 14.3.2 Independence Deep Skarn Mineralization

Geology which controls the Deep Skarn mineral resource estimate includes the continuity of structure, lithology and the extent of the skarn development. The Independence Deep Gold Skarn mineralization contains high-grade, gold mineralization hosted in a large skarn system developed in the carbonate rich portions of the Battle Mountain, Antler Peak and Edna Mountain formations of the Antler Sequence in the lower portion of the Roberts Mountain Allochthon sandwiched between the Roberts Mountains and the Golconda Thrusts. Skarn alteration is dominated by light and dark calcsilicate minerals with minor quartz. Retro grade skarn alteration is wide spread in the deep gold skarn. Skarn alteration is developed over an area more than 1800 feet (550 meters) wide and over 7,000 feet (2,100 meters) long. Skarn alteration extends beyond the limits of the deep drilling in all directions.

The gold mineralization in the deep skarn occurs in three sub-horizontal layers. Each layer has a thickness that varies from 5 feet to 25 feet (1.5 to 7.6 meters). The top layer is located at an elevation 2980 ft. (908.4 meters) MSL which is approximately 2,350 feet (716 meters) below the surface. The current extent of the top layer covers an area of roughly 2.0 acres (0.8 hectares). The middle layer is located at an elevation of 2780 ft. (847.3 meters) MSL which places the layer 2,550 feet (777 meters) below the surface. The area covered by the middle layer currently extends for approximately 34.5 acres (14 hectares). The bottom layer is located at an elevation of 2,380 ft. (725.4 meters) MSL which places the layer approximately 2,950 feet (899 meters) below the surface. The current area extent of the bottom layer is 54.2 acres (21.9 hectares). The layers generally dip at -20 degrees to the south-southwest. Figure 14-7 shows the solids created for the three sub-horizontal layers.

Thin and polished section studies indicate that gold mineralization is the last mineralizing event to occur and that gold occurs as minute discrete grains deposited in late stage micro fractures on all mineral grain boundaries. The gold in the skarn system appears to be independent of sulfide mineralization with only a slight preference for sulfide related depositional sites versus all other sites. Gold mineralization is closely associated with strong potassic alteration consisting mostly of potassic feldspar development.

**Figure 14-7 Deep Skarn Mineralized Zone Solids**



Source: Ashton, 2021

## 14.4 Density

A total of 91 representative samples were collected for specific gravity testing from the shallow mineralization. The samples were collected from the historic underground workings and the five core holes drilled in 2021. Samples were selected so as to get representative samples from each of the main lithology types. The 37 samples from the underground workings were collected and delivered to American Assay Laboratories for specific gravity measurements. The specific gravity determinations for the 54 core samples were done using the water immersion method using samples coated with wax. 18 samples were analyzed for specific gravity for the Deep Skarn mineralization. 10 samples, taken from split core, were collected from the Deep Skarn deposit and delivered to American Assay Laboratories for specific gravity testing. Eight additional specific gravity results from the Noranda drilling, which had similar results to the 10 samples tested, were included in the data set.

The specific gravity results vary principally by lithology though the variance is relatively minor. These values were assigned to the Independence lithologic model. The data from the shallow deposit showed no meaningful distinction between mineralized and un-mineralized rock. All samples from the Deep Skarn deposit were from mineralized material. The specific gravity values used in the resource calculation were decreased by 2% for the shallow deposit and 1% in Deep Skarn deposit in order to account for naturally occurring void spaces and fractures. Table 14-3 lists the specific gravity results and the adjusted values used in the MRE (Source: GIMC, 2021).

**Table 14-3 Specific Gravity Results by Lithology**

| Lithology | No | SG | Adj. SG |
|---|---|---|---|
| C1 | 27 | 2.577 | 2.525 |
| C2 | 12 | 2.568 | 2.517 |
| C3 | 15 | 2.572 | 2.521 |
| Slts | 18 | 2.612 | 2.560 |
| Stock | 19 | 2.607 | 2.555 |
| Deep Skarn | 18 | 2.970 | 2.940 |
| *Totals* | 109 | | |

## 14.5 Resource Model

The Independence modeling constructed geologic and mineral domains on cross sections. These interpretations were then used to make both geologic solids and mineral domain solids for both gold and silver. These minerals domains were not strictly grade domains but made use of the geologic model as well during the interpretation. The domain construction utilized the majority-in/majority-out rule rather than absolute grade shells. All modeling of the Independence deposit resource was performed using Minesight®.

The Deep Skarn deposit was modeled from four cross-sections at various orientations. The top of mineralization from each of the three layers was made into a surface and then combined with the bottom surface from each respective layer to make a solid of the mineralization for each layer.
Summary statistics of the Independence assay database are shown in Table 14-4.

**Table 14-4 Summary Descriptive Statistics of Mineral Domains - Gold & Silver**

| Description | Gold Domain (ppm) | Silver Domain (ppm) | Deep Skarn (ppm) |
|---|---|---|---|
| # Samples | 6,724 | 7,203 | 214 |
| Min. | 0.000 | 0.25 | 0.34 |
| Max. | 99.325 | 6875 | 30.27 |
| Mean | 0.578 | 12.11 | 6.548 |
| Std. Dev. | 1.81 | 85.35 | 7.07 |
| C.V. | 3.126 | 7.05 | 1.079 |

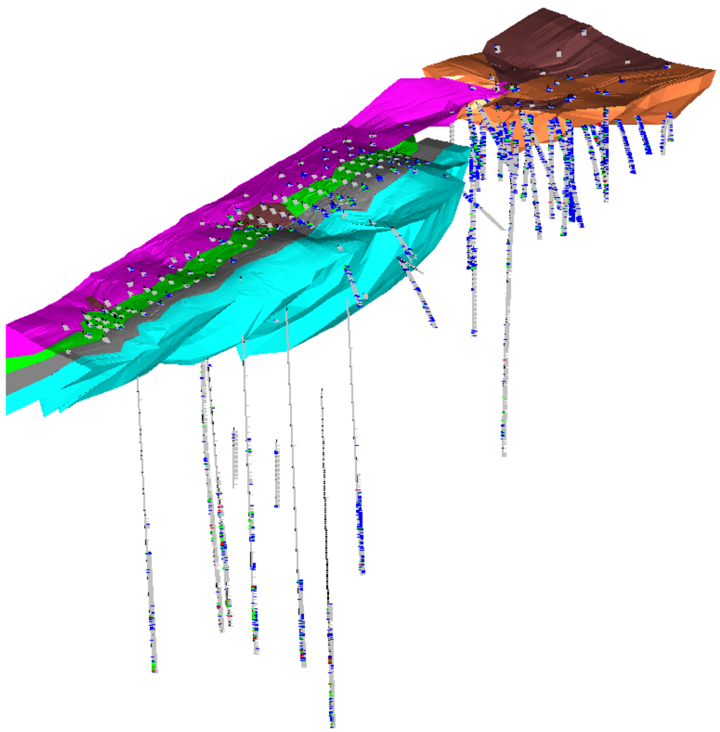
Source: Ashton, 2021

The grade distributions for all assays in the Independence deposit database were examined in order to identify population breaks for the shallow deposit (Figures 14-10 (Au), & 14-11 (Ag)). The gold distribution shows very subtle breaks at about 0.175, 0.50, and 2.0 g/t Au. The silver distribution shows breaks at about 3.4, 20.0, 48, and 100.0 g/t Ag.

Project cross-sections oriented west to east (looking north) were drawn along the strike of the deposit at irregular intervals to best fit the drilling. The sections show topography, current and historic drill holes with assays, and lithology codes that were assigned from the drill logs. Simplified geology consisting of the four units of the Pumpernickel Formation, the intrusive stock, and alluvium were drawn on the sections using data from drill logs and surface and underground mapping. These interpreted geologic outlines from each section were digitized and used to create geologic solids. The solids were used to code the geologic information into the model. The geologic solids are shown in (Figure 14-8).

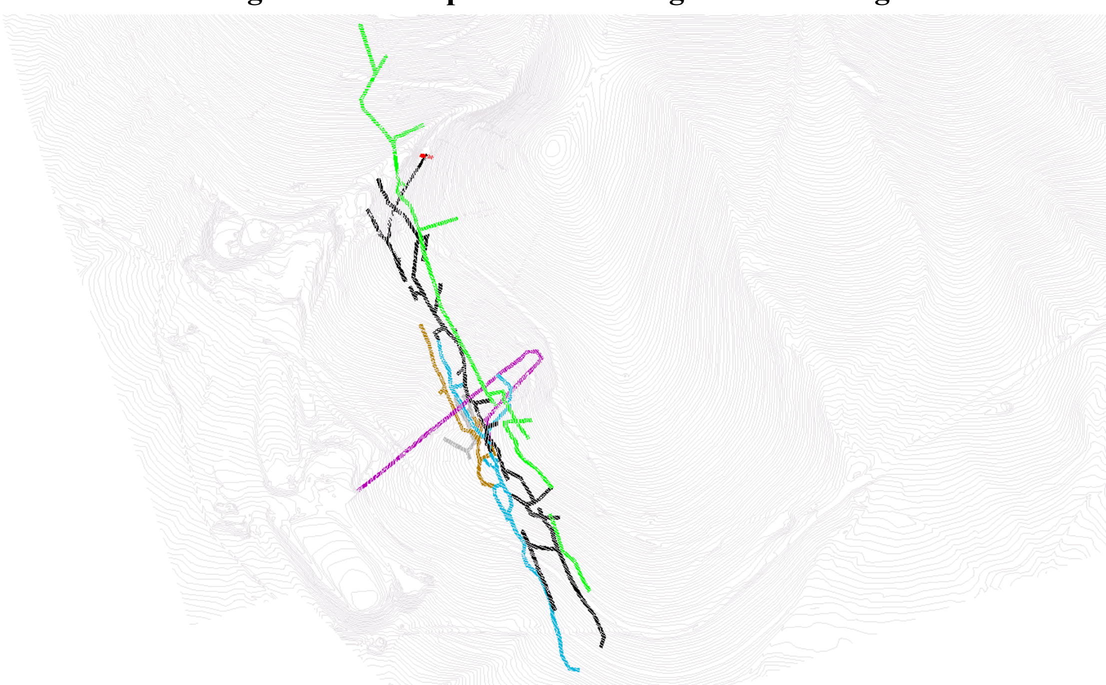
Underground level surveys were used to create a solid of the underground drifts and cross-cuts (Figure 14-9). There are no existing surveys of the stopes or production raises thus these items were not included in the solid. The underground solids have a total volume of 14,929 cubic meters or 37,700 tonnes. That portion of the underground which fall inside the mineral envelopes used in the resource estimation is 35,800 tonnes. Historic records indicate that approximately 59,000 tonnes of ore were removed from the underground mine. This has been taken into account in the resource estimation.

**Figure 14-8 Independence Geologic Solid**



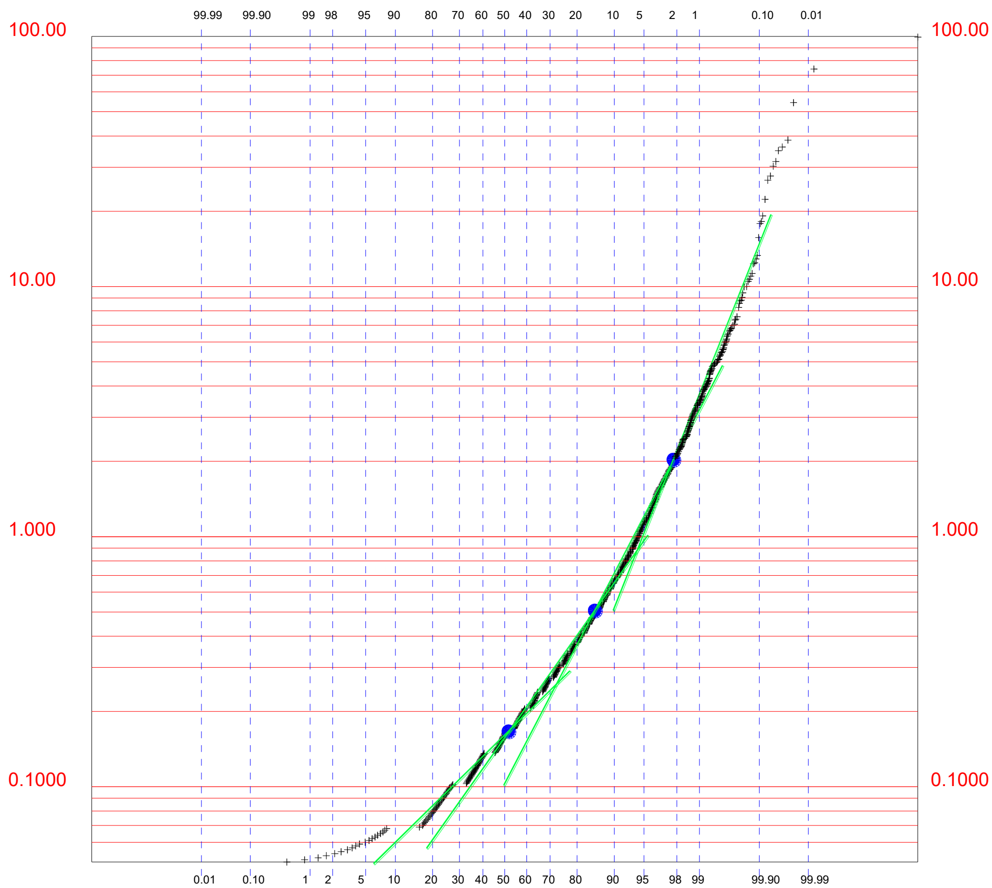
Source: Ashton 2021

**Figure 14-9 Independence Underground workings Solid**



Source: Ashton 2021

# Figure 14-10 Log Probability Plot Gold Sample Data

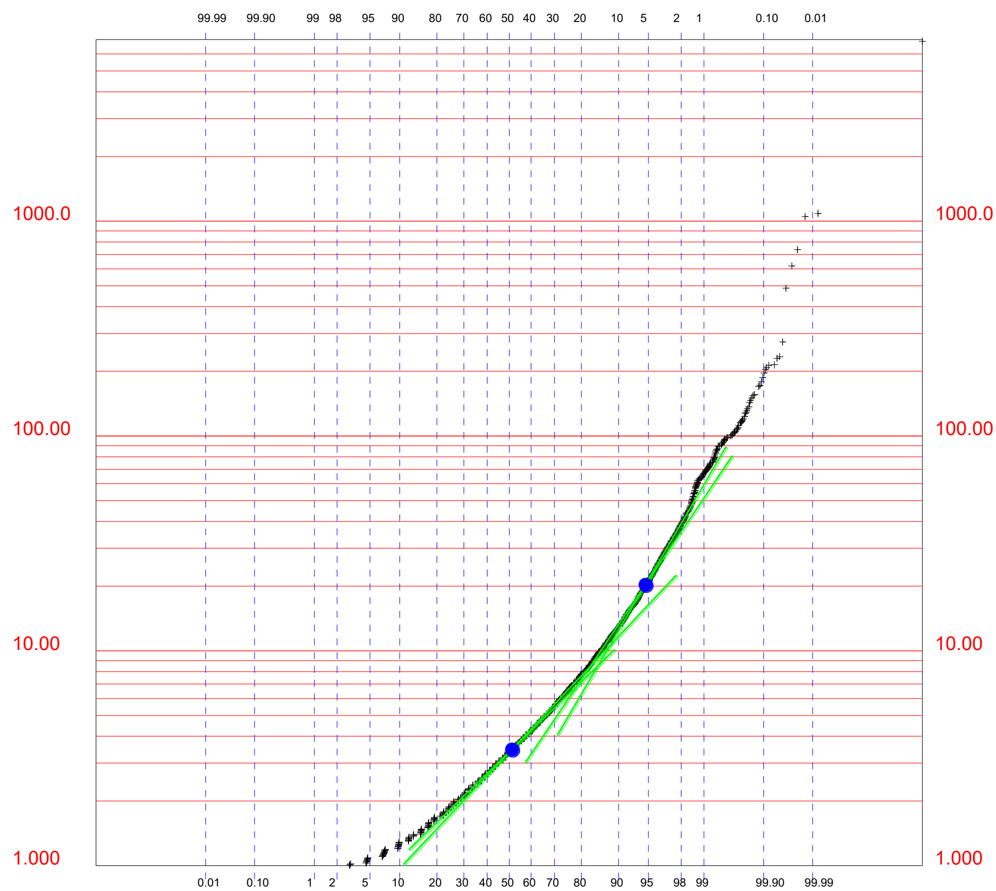



** PROBABILITY DISTRIBUTION PLOT OF AUPPM **

| ITEM | AUPPM | NATURAL LOGS | |
|---|---|---|---|
| NUMBER | 14515 | NUMBER | 14515 |
| MEAN | 0.3820 | MEAN | -1.6640 |
| MINIMUM | 0.0500 | MINIMUM | -2.9960 |
| MAXIMUM | 99.3250 | MAXIMUM | 4.5980 |
| VARIANCE | 2.7040 | VARIANCE | 0.8850 |
| ST.DEV. | 1.6440 | ST.DEV. | 0.9410 |

AUPPM All

## Figure 14-11 Log Probability Plot Silver Sample Data




** PROBABILITY DISTRIBUTION PLOT OF AGPPM **

| ITEM | AGPPM | NATURAL LOGS | |
|---|---|---|---|
| NUMBER | 14174 | NUMBER | 14174 |
| MEAN | 7.4580 | MEAN | 1.3410 |
| MINIMUM | 1.0000 | MINIMUM | 0.0000 |
| MAXIMUM | 6874.3000 | MAXIMUM | 8.8360 |
| VARIANCE | 3729.1680 | VARIANCE | 0.8660 |
| ST.DEV. | 61.0670 | ST.DEV. | 0.9310 |

AGPPM ALL

The project sections were reviewed to determine if any of the gold grade and silver grade populations identified in the grade distribution plots (Figure 14-10 and 14-11) represented continuous zones of mineralization. It was determined that gold grade domains of 0.175 to 0.50 g/t, 0.50 to 2.0 g/t, and greater than 2.0 g/t Au showed the best continuity, and these grade ranges were assigned to gold mineral domains 1, 2 and 3, respectively. For the silver mineralization, grade domains at 3.5 to 20.0 g/t and greater than 20.0 g/t Ag were chosen. Outlines of these mineral domains were drawn on the project cross-sections using the drill hole assays as a guide. The higher-grade domains served to limit the extrapolation of these higher grades into the surrounding lower-grade mineralization. The geometry of the high-grade domains generally fit well with the overall mineralization model interpretation. Further drilling in these high-grade areas will provide more information as to whether they are related to high angle structures or random areas of high-grade. The cross sectional grade domain outlines were then used to create a solid for each grade domain.

The grade domain solids were "speared" by each drill hole in order to code each drill hole assay interval as to the appropriate grade domain for both gold and silver. Descriptive statistics and grade distributions of the assays were prepared for each grade domain and were examined and based on the statistics and a grade decile analysis (section 14.4.1) search restrictions and assay caps for each domain were chosen.

### 14.5.1 Evaluation of Outlier Grades

The presence of extreme sample grades was evaluated on the histograms and log-probability plots shown in Figures 14-10 and 14-11. There are few indications of anomalous values other than a few data points in the upper grade ranges of the high-grade gold and silver domains.

A decile analysis of the data was conducted in order to identify the possible existence of anomalous values. If the top-decile of the database contains more than 40% of the contained gold, or there is more than twice the contained gold than the previous (90th) decile, then some form of top-cutting may be required and the data must then be evaluated on a finer (percentile) scale. At this stage, if there is >10% of the contained gold in a single percentile category, or there is more than twice the contained gold than the previous category, then some form of top-cutting may be required (Parish, 1997). The proportion of gold and silver in the various mineralized domains is summarized in table 14-5.

**Table 14-5 Proportion of Contained Gold in Decile/Percentage of Samples**

| | Percent of contained metal (%) | | | | |
|---|---|---|---|---|---|
| **Decile/Percentage** | **Au LG Domain** | **Au MG Domain** | **Au HG Domain** | **Ag LG Domain** | **Ag HG Domain** |
| 80 | 14.05 | 15.88 | 12.87 | 15.34 | 12.43 |
| 90 | 21.72 | 25.69 | 43.26 | 28.96 | 46.63 |
| 98 | 2.77 | 2.93 | 7.64 | 3.38 | 3.39 |
| 99 | 4.45 | 4.56 | 16.12 | 7.98 | 27.35 |

Source: Ashton, 2021

The results in the table above show that for gold there are no anomalous values in the two lower grade domains. There are indications of the presence of outliers for the high-grade gold and the two domains for silver in which all three evaluations have met the threshold and probably should be capped. Review of the middle domain for gold using probability plots identified possible outliers. The potential outliers were reviewed in conjunction with their spatial relationships to surrounding assay value. Table 14-6 shows the assay capping implemented for gold and silver by domain.

**Table 14-6 Assay Caps by Mineral Domain**

| Domain | **GOLD DOMAINS** | | **SILVER DOMAINS** | |
|---|---|---|---|---|
| | g/t Au | Number Capped (% of samples) | g/t Ag | Number Capped (% of samples) |
| LG | No cap applied | | 100.0 ppm | 4 (<1%) |
| MG | 5.0 ppm | 7 (<1%) | 300.0 ppm | 5 (<1%) |
| HG | 22.0 ppm | 5 (3%) | | |

Source: Ashton, 2021

Visual inspection of the outliers revealed no spatial continuity across sections or along sections with each other. Due to the overall good distribution of the assays and restrictions placed on the assays by the grade domains and the implementation of capping certain outlier assays it was deemed that no search restriction would be applied during the grade interpolation process. Tables 14-7 and 14-8 show the summary statistics for the original data and the capped data by domain.

**Table 14-7 Summary Descriptive Statistics by Domain for Gold & Silver**

| Description | Gold (0.175 ppm) Domain | Gold (0.50 ppm) Domain | Gold (2.0 ppm) Domain | Silver (3.5 ppm) Domain | Silver (20.0 ppm) Domain |
|---|---|---|---|---|---|
| # Samples | 4,939 | 1,606 | 179 | 6,564 | 639 |
| Min. | 0.000 | 0.003 | 0.239 | 0.25 | 1.37 |
| Max. | 2.37 | 11.006 | 99.325 | 736.0 | 6874 |
| Mean | 0.285 | 0.916 | 5.627 | 7.32 | 61.27 |
| Std. Dev. | 0.182 | 0.719 | 9.415 | 11.10 | 279.84 |
| C.V. | 0.64 | 0.79 | 1.67 | 1.52 | 4.57 |

**Table 14-8 Summary Descriptive Statistics by Domain for Capped Gold & Silver**

| Description | Gold (0.175 ppm) Domain | Gold (0.50 ppm) Domain | Gold (2.0 ppm) Domain | Silver (3.5 ppm) Domain | Silver (20.0 ppm) Domain |
|---|---|---|---|---|---|
| # Samples | 4,939 | 1,606 | 179 | 6,564 | 639 |
| Min. | 0.000 | 0.003 | 0.239 | 0.25 | 1.37 |
| Max. | 2.37 | 5.0 | 22.0 | 100 | 300 |
| Mean | 0.285 | 0.902 | 4.789 | 7.22 | 47.78 |
| Std. Dev. | 0.182 | 0.600 | 4.209 | 6.42 | 43.21 |
| C.V. | 0.64 | 0.66 | 0.88 | 0.89 | 0.90 |

## 14.6 Near Surface Mineralization Block Model

Two block models were made to estimate the near surface resource, one for gold and one for silver. These were later combined, using the gold domains, for reporting and for future economic studies. The block models were created with 6 m (X) x 6 m (Y) x 6 m (Z), (20 ft. x 20 ft. x 20 ft.) blocks. There are 275 rows (East), 125 columns (North), and 110 benches (Elev.). The mineral domain solids were used to calculate the percent of each domain in each block. The percentage area of each grade domain within each block was stored and these were used to weight average the grades of each domain into a zone (undiluted) and block-diluted grade models. Block-diluted refers to those grades that are fully block-diluted; in other words, all zones including the un-mineralized waste "outside" the domains are weight-averaged. Zone-diluted refers to that grade that is the weight average of the zones only, and does not take into account external dilution. The pit optimization process will incorporate a waste grade model for blocks outside the grade domains to create a true block-diluted model; this report presents the resource as block-diluted grades and tonnes.

Each block is assigned a specific gravity based on geologic formation, as listed in Table 14-3. The percentage of each block that lies below the topographic surface is stored for use in the calculation of block tonnages. The geologic model (see Section 14.4) was used to code the blocks on a partial percentage basis. If 50% or more of a block is within a specific formation code the block is coded with that formation code and then that block is assigned the corresponding specific gravity value.

Fields stored in the block model include percent topography, percent of each domain, grade for each domain, whole block and zone-diluted block grades, resource classification, tonnes per block, distance to the nearest composite, number of composites and holes used in each block estimate, underground workings, and rock type.

## 14.7 Composites

The capped assays were composited at 3 meter (10 foot) down-hole intervals respecting the mineral domains. Over 86% of the composites had a length equal to or greater than 1.5 meters. 65% of the composites had a length equal to 3 meters. Descriptive statistics for both gold and silver composites are shown in Table 14-9.

**Table 14-9 Summary Composite Statistics by Domain – Gold and Silver**

| Description | Gold (0.175 ppm) Domain | Gold (0.50 ppm) Domain | Gold (2.0 ppm) Domain | Silver (3.5 ppm) Domain | Silver (20.0 ppm) Domain |
|---|---|---|---|---|---|
| # Samples | 3,132 | 1,100 | 127 | 4,004 | 445 |
| Min. | 0.000 | 0.07 | 1.28 | 0.4 | 6.6 |
| Max. | 2.37 | 5.0 | 22.0 | 69.81 | 300 |
| Mean | 0.283 | 0.904 | 5.00 | 7.12 | 45.15 |
| Std. Dev. | 0.153 | 0.517 | 3.81 | 5.06 | 35.53 |
| C.V. | 0.54 | 0.57 | 0.76 | 0.71 | 0.79 |

## 14.8 Variogram Analysis

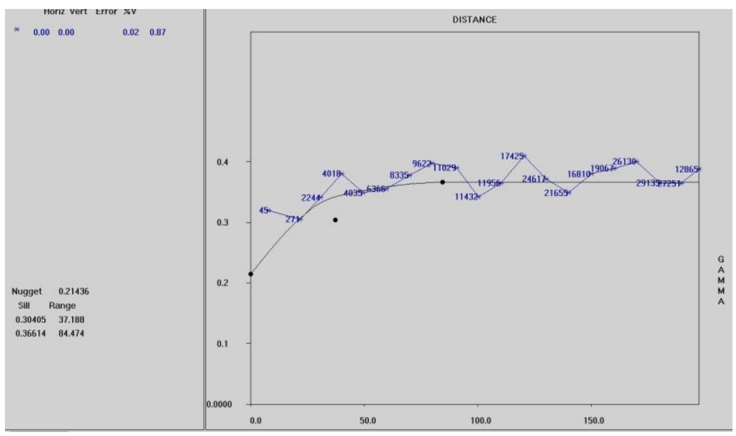
Experimental semi-variograms for each domain were calculated along the major, minor, and vertical principal directions of continuity that are defined by the domain solids. The Author calculated and modelled semi-variograms for gold and silver using the 3.0 m (10 ft) composites within each of the mineralization domains. The northern gold-silver porphyry area was modelled separately. Only the low grade domains for both gold and silver had enough composite data to yield any useable variograms. Thus all the domains for gold were combined for the purpose of modelling gold and likewise for silver. The principal axis of mineralization is roughly N2$^{o}$E with a plunge of 2$^{o}$ and a dip to the west of -50$^{o}$. Modelling parameters from the variogram analysis are listed in Table 14-10, and the calculated experimental semi-variogram and models used for resource estimation for the southern and northern areas are illustrated in Figures 14-12 to 14-15. Variogram calculation and modeling was done in Minesight®. Variable lag lengths, directions, and variogram types were used.

**Table 14-10 Gold and Silver variogram model parameters used for resource estimation**

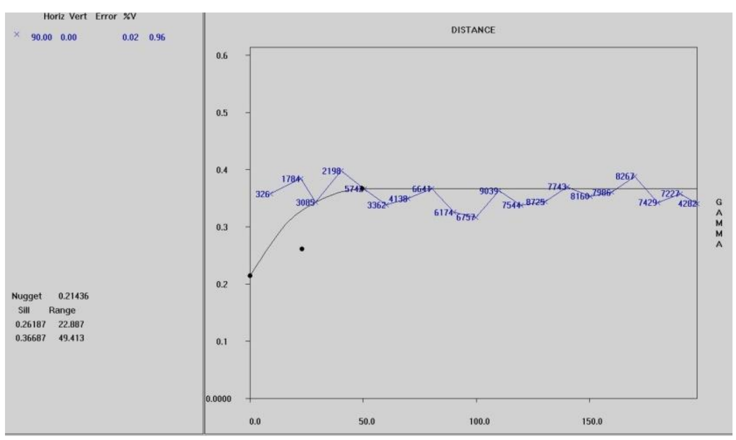
| Area | C0 | Sill | Azi | Plunge | Dipe | Structure 1 | | | | | Structure 2 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Type | C1 | Ranges (m) | | | Type | C2 | Ranges (m) | | |
| | | | | | | | | Major | Minor | Vert. | | | Major | Minor | Vert. |
| Au_South | 0.21 | 0.37 | 1.0 | 2.0 | 45 | Sph | 0.09 | 38 | 23 | 11 | Sph | 0.07 | 84 | 49 | 20 |
| Au_North | 0.09 | | 0.0 | 0.0 | 25 | Sph | 0.13 | 75 | 75 | 57 | Sph | | | | |
| Ag_South | 0.11 | 0.21 | 2.0 | 2.0 | 50 | Sph | 0.08 | 69 | 50 | 54 | Sph | 0.02 | 163 | 91 | 80 |
| Ag_North | 0.03 | 0.08 | 0.0 | 0.0 | 35 | Sph | .03 | 146 | 73 | 26 | Sph | 0.02 | 146 | 73 | 45 |

(Azi: Azimuth, Sph: spherical, C0: nugget effect, C1: covariance contribution of structure 1, C2: covariance contribution of structure 2, Plunge: dip of main axis, Dipe: easterly dip of main axis)

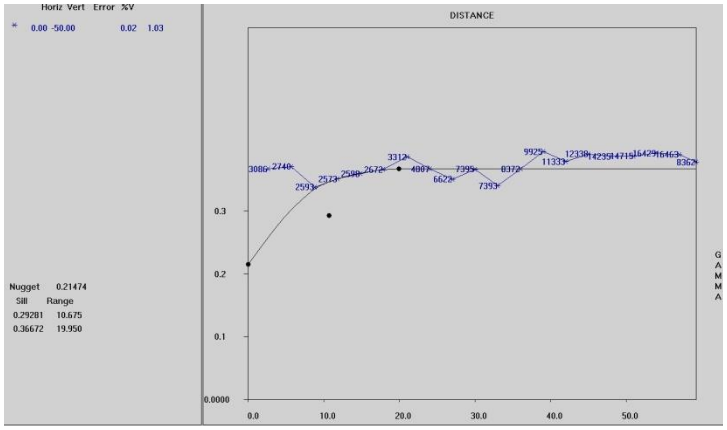
**Figure 14-12 Modelled Semi-variograms for Gold Composites within the Gold Domains of the Southern Portion of the Independence Deposit**




Major Direction

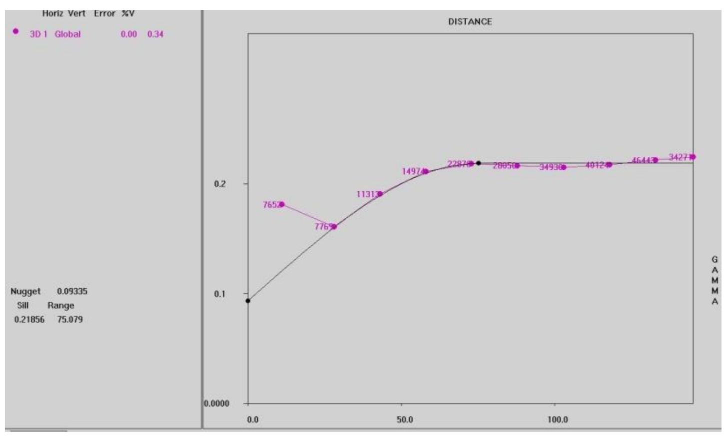



Minor Direction

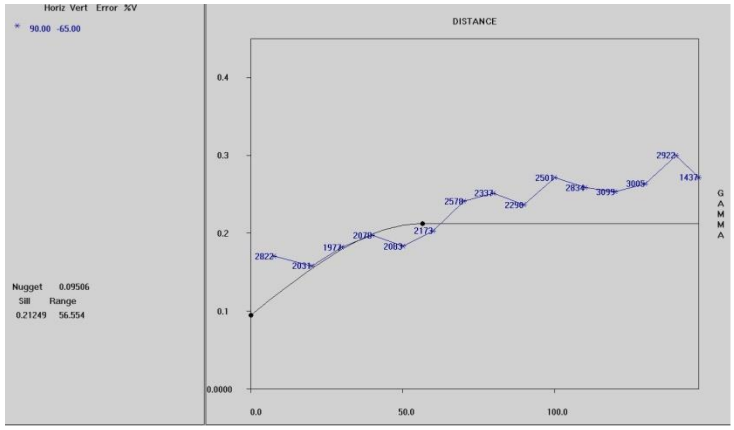



Down Hole (Nugget)

**Figure 14-13 Modelled Semi-variograms for Gold Composites within the Gold Domains of the Northern Portion of the Independence Deposit**

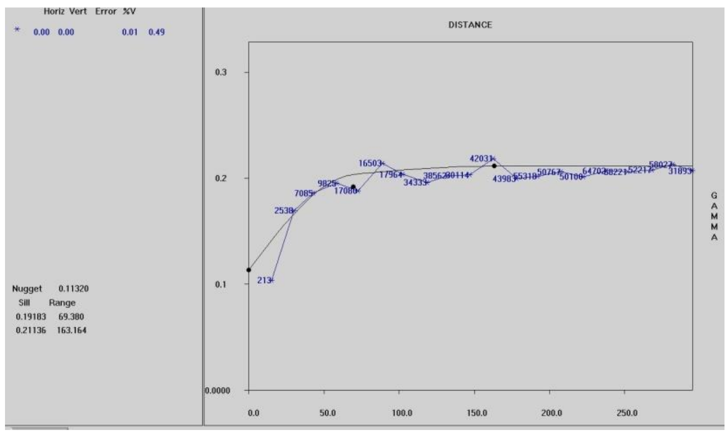



Omni-Directional

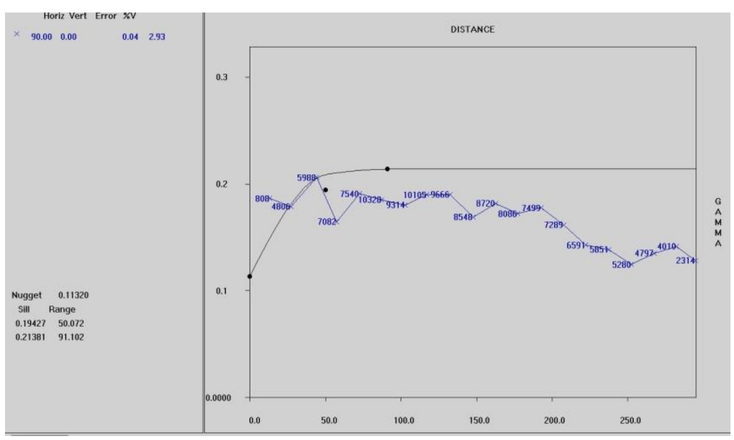



Down Hole (Nugget)

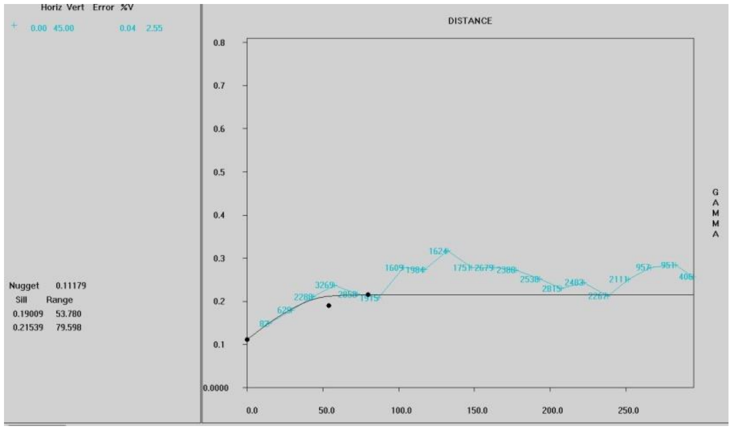
**Figure 14-14 Modelled Semi-variograms for Silver Composites within the Silver Domains of the Southern Portion of the Independence Deposit**




Major Direction

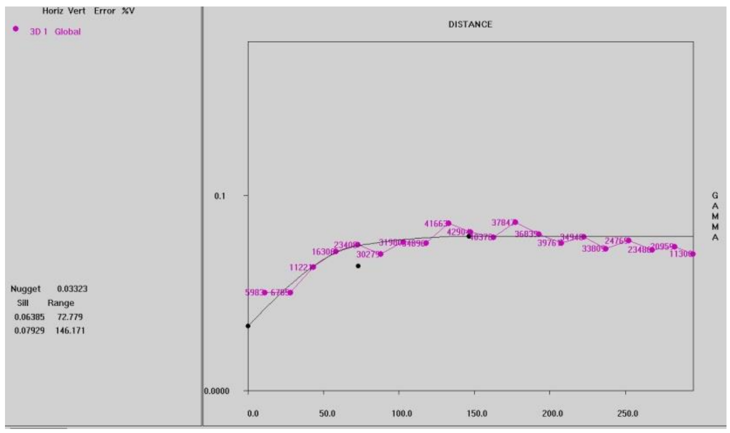



Minor Direction

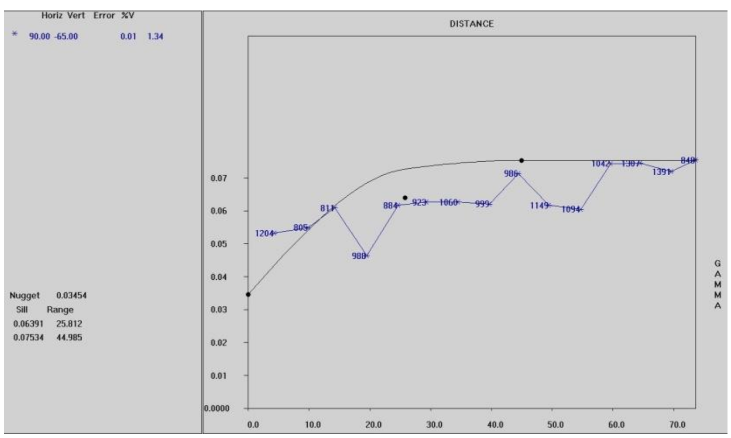



Down Hole (Nugget)

**Figure 14-15 Modelled Semi-variograms for Silver Composites within the Silver Domains of the Northern Portion of the Independence Deposit**




Omni-Directional



## 14.9 Estimation Parameters for the Near Surface Deposit

The gold and silver grades were estimated using three different methods: ordinary kriging, inverse distance weighted and the nearest neighbor method. Resource reporting uses the inverse distance weighted grades while the checking and validation of the estimation results made use of the nearest neighbor results. Estimation parameters are given in Table 14-11 for gold and Table 14-12 for silver. The estimation of grade into each block for both the gold model and the silver model was completed in two passes. The first pass used search parameters roughly 25% greater than that of the respective variogram. This was done to interpolate a grade value into every block within the defined mineral domain. The second over-writing pass was run with a search distance equal to approximately 75% of the variogram. Both passes used the same variogram parameters. Only those composites from each domain for both gold and silver were used to estimate into blocks from the same domain. Parameters obtained from the variogram analysis were used in the ordinary krige interpolation and also provided the modelling parameters used in the inverse distance weighted interpolation. Cross sections of the block model grades are shown in Figures 14-16 and 14-17 for gold and silver respectively.

**Table 14-11 Near Surface Deposit Gold Estimation Parameters**

| **Near Surface Deposit Gold South Area mineralized domains** | |
|---|---|
| Minimum/Maximum composites – Pass 1, All Domains | 2 / 16 |
| Minimum/Maximum composites – Pass 2, LG domain | 2 / 16 |
| Minimum/Maximum composites – Pass 2, MG domain | 2 / 8 |
| Minimum/Maximum composites – Pass 2, HG domain | 1 / 8 |
| Maximum composites per hole Pass 1, All Domains | 4 |
| Maximum composites per hole Pass 2, LG/MG/HG | 4 / 4 / 3 |
| Primary Estimation method (power) | IDW (3) |
| Nugget ($C_0$) | 0.215 |
| First sill ($C_1$): ranges (maj, min, up) | 0.090: 38 / 23 / 11 |
| Second sill ($C_2$): ranges (maj, min, up) | 0.062: 85 / 49 / 20 |
| Axis Rotation ($^o$) (Azi, plunge, dip easterly) | 1 / 2 / 45 |
| Search distances – Pass 1 | 100 / 80 / 40 |
| Search distances – Pass 2 | 50 / 40 / 20 |
| Search directions ($^o$) (Bearing, Plunge, Dipe) | 1 / 2 / 45 |
| Length-weighting of composites | Yes |
| **Near Surface Deposit Gold North Area mineralized domains** | |
| Minimum/Maximum composites – Pass 1, All domains | 2 / 16 |
| Minimum/Maximum composites – Pass 2, LG domain | 2 / 16 |
| Minimum/Maximum composites – Pass 2, MG domain | 2 / 8 |
| Minimum/Maximum composites – Pass 2, HG domain | 1 / 8 |
| Maximum composites per hole Pass 1, All domains | 4 |
| Maximum composites per hole Pass 2, LG/MG/HG | 4 / 4 / 3 |
| Primary Estimation method (power) | IDW (3) |
| Nugget ($C_0$) | 0.095 |
| Sill ($C_1$): ranges (maj, min, up) | 0.124: 75 / 75 / 57 |
| | |
| Axis Rotation ($^o$) (Azi, plunge, dip easterly) | 0 / 0 / 25 |
| Search distances – Pass 1 | 100 / 100 / 60 |
| Search distances – Pass 2 | 50 / 50 / 30 |
| Search directions ($^o$) (Bearing, Plunge, Dipe) | 0 / 0 / 25 |
| Length-weighting of composites | Yes |

**Table 14-12 Near Surface Deposit Silver Estimation Parameters**

| | |
|---|---|
| **Near Surface Deposit Silver South Area Mineralized domains** | |
| Minimum/Maximum composites – Pass 1, All domains | 2 / 16 |
| Minimum/Maximum composites – Pass 2, LG | 2 / 16 |
| Minimum/Maximum composites – Pass 2, MG | 2 / 8 |
| Maximum composites per hole Pass 1, All domains | 4 |
| Maximum composites per hole Pass 2, LG/MG | 4 / 3 |
| Primary Estimation method (power) | IDW (3) |
| Nugget ($C_0$) | 0.113 |
| First sill ($C_1$) and ranges | 0.080: 69 / 50 / 53 |
| Second sill ($C_2$) and ranges | 0.020: 169 /91 / 80 |
| Axis Rotation ($^o$) (Azi, plunge, dip easterly) | 2 / 2 / 50 |
| Search distances – Pass 1 | 100 / 80 / 50 |
| Search distances – Pass 2 | 50 / 40 / 25 |
| Search directions ($^o$) (Bearing, Plunge, Dipe) | 2 / 2 / 50 |
| Length-weighting of composites | Yes |
| **Near Surface Deposit Silver North Area Mineralized domains** | |
| Minimum/Maximum composites – Pass 1, All domains | 2 / 16 |
| Minimum/Maximum composites – Pass 2, LG | 2 / 16 |
| Minimum/Maximum composites – Pass 2, MG | 2 / 8 |
| Maximum composites per hole Pass 1, All domains | 4 |
| Maximum composites per hole Pass 2, LG/MG | 4 / 3 |
| Primary Estimation method | IDW-3 |
| Nugget ($C_0$) | 0.034 |
| First sill ($C_1$) and ranges | 0.030: 73 / 73 / 25 |
| Second sill ($C_2$) and ranges | 0.012: 146 / 146 / 45 |
| Directions ($^o$) | 0 / 0 / 35 |
| Search distances – Pass 1 | 100 / 80 / 50 |
| Search distances – Pass 2 | 50 / 40 / 25 |
| Search directions ($^o$) | 0 / 0 / 35 |
| Length-weighting | Yes |

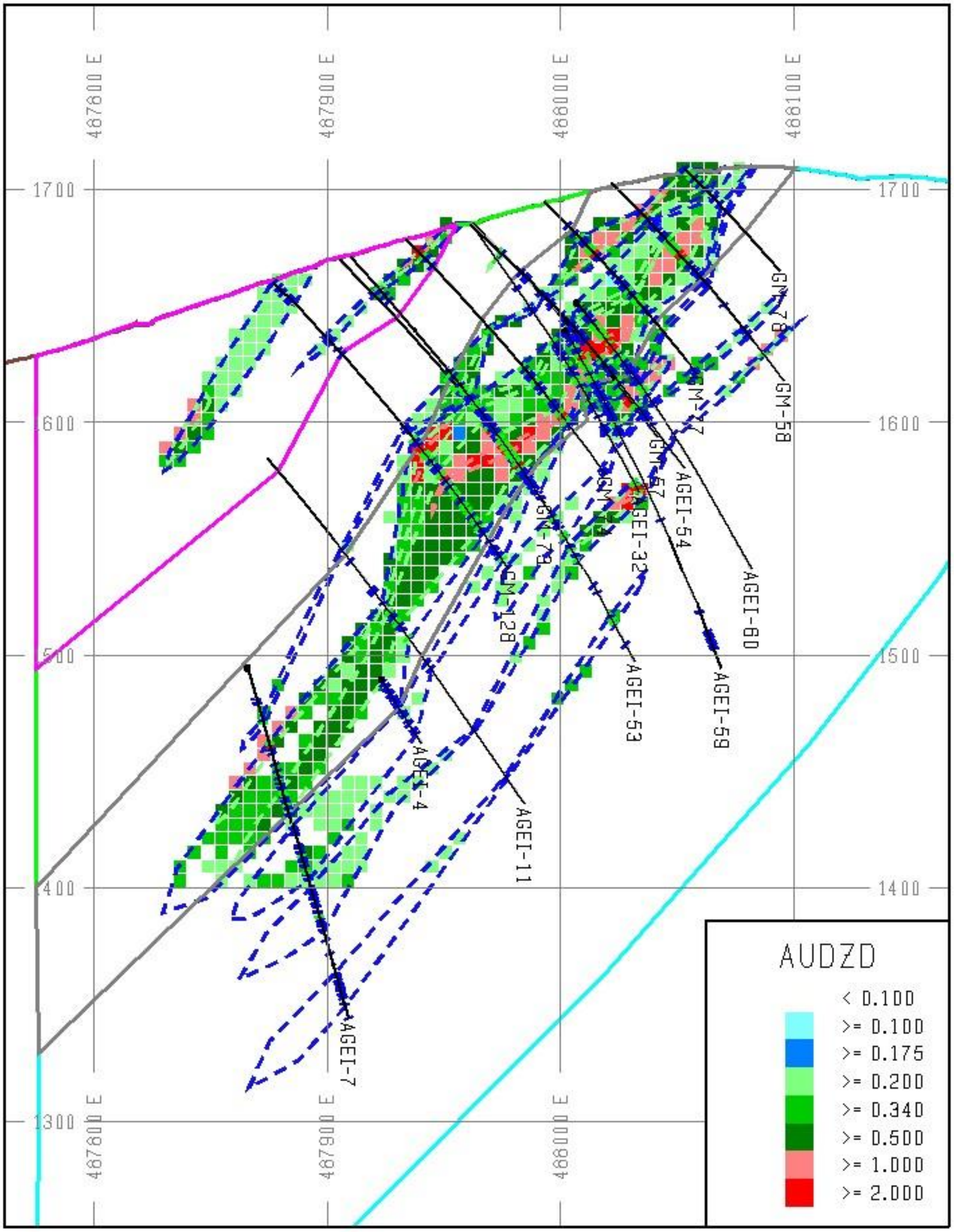
## 14.10 Block Model and Estimation Parameters for the Deep Skarn Deposit

The block model for the Deep Skarn deposit consisted of 3 m (E-W) X 3 m. (N-S) X 1.5 m (elev.) (10 ft. X 10 ft. X 5 ft.) blocks. Due to the relatively "flat" geometry of each of the three lenses of the deposit and generally good grade continuity between drill hole penetrations and that only seven holes define the mineralization, an inverse distance weighted method, with a relatively large search, was used to estimate gold values into each block. Table 14-13 lists the estimation parameters used. Only those composites from each lens were used to estimate gold values into blocks from the same lens. Grade shells made from the block model using a 0.100 oz./ton (3.4 g/t) Au cutoff are shown in Figure 14-18.

**Table 14-13 Summary of Deep Skarn Deposit Gold Estimation Parameters**

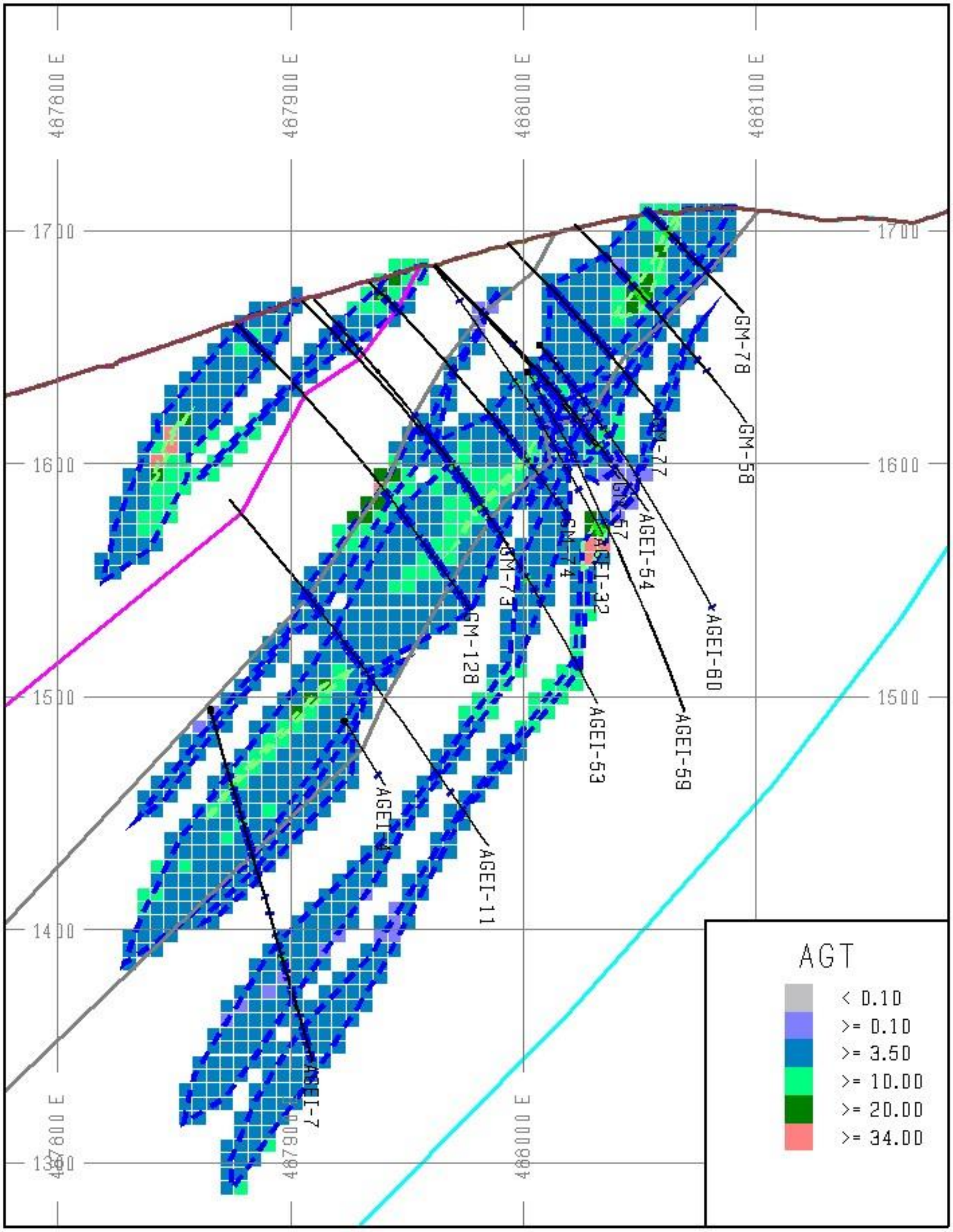
| | |
|---|---|
| **Deep Skarn Gold Deposit high-grade zone** | |
| Minimum/Maximum samples | 2 / 12 |
| Maximum samples per hole | 3 |
| Estimation method | IDW-3 |
| Search distances – Pass 1 | 500 / 550 / 175 |
| Search distances – Pass 2 | 150 / 200 / 75 |
| Search directions ($^o$) | 0 / 0 / 0 |
| Length-weighting | Yes |

**Figure 14-16 Near Surface Deposit Cross-section along 4489184N illustrating the gold estimated block model**



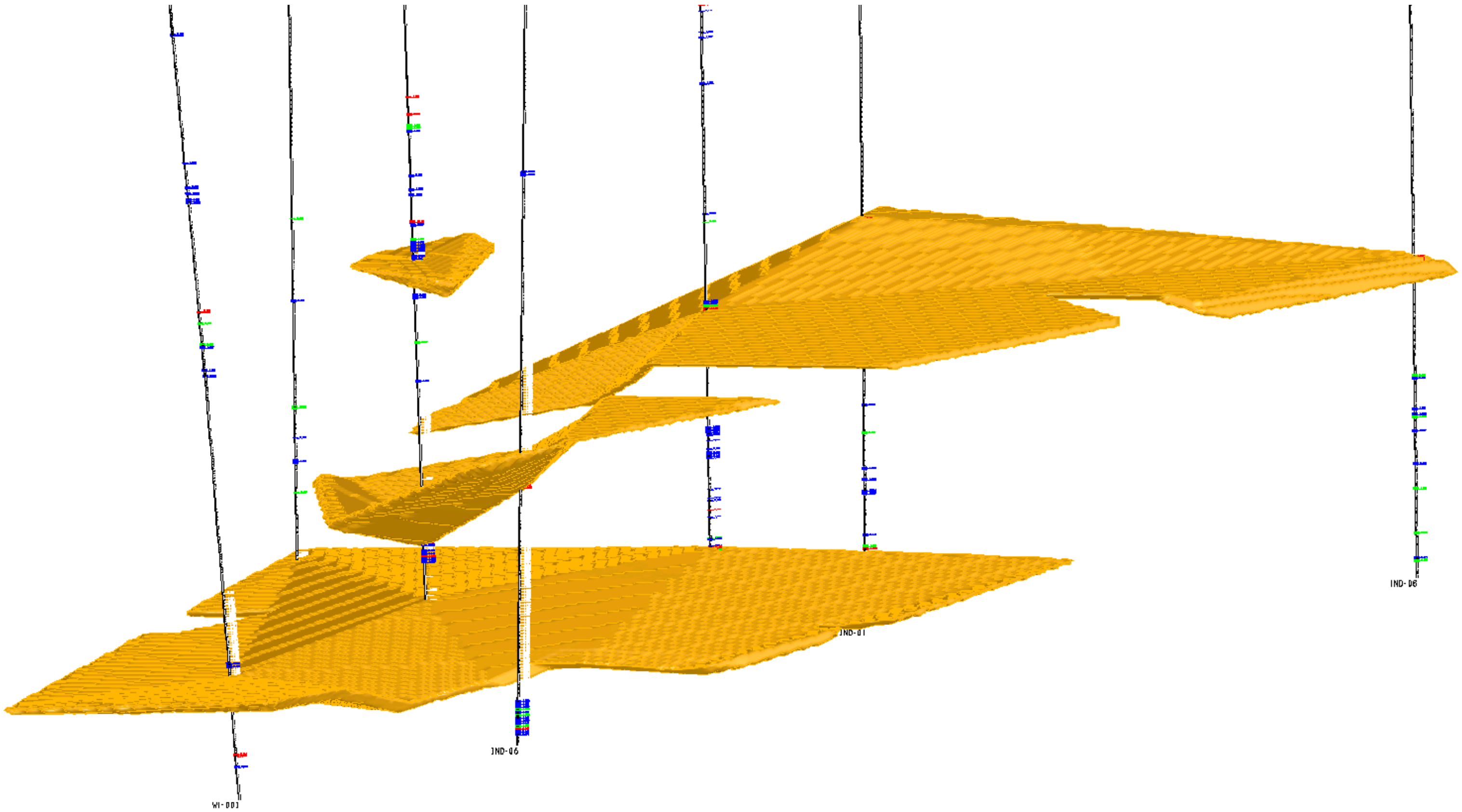

Source: Ashton 2021

**Figure 14-17 Near Surface Deposit Cross-section along 4489184N illustrating the silver estimated block model**




Source: Ashton 2021

**Figure 14-18 Deep Skarn Deposit Isometric View of 3.4 g/t (0.100 opt) Au Grade Shell**




Source: Ashton 2021

## 14.11 Definitions

The Mineral Resources stated in this report for the Independence project conform to the definitions and categories set out in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on Mineral Resources and Mineral Reserves adopted by the CIM Council on May 10, 2014. The CIM definitions are provided below for reference:

**Mineral Resource**

*Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.*

*A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.*

*The location, quantity, grade, or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.*

*The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase 'reasonable prospects for economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports.*

**Inferred Mineral Resource**

*An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.*

*An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*

**Indicated Mineral Resource**

*An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of technical and economic parameters in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.*

*Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.*

*An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to Probable Mineral Reserves.*

*Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.*

**Measured Mineral Resource**

*A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.*

*Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such* *that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.*

## 14.12 Recovery Model

As there is no clear definable redox boundary between oxide, transition, and sulfide material, an alternate method for determining gold and silver recoveries for each block within the model was needed. Available data to use in developing a recovery model were cyanide soluble ratio, total percent sulfur, and the recoveries from the 34 bottle roll tests. Recoveries for silver were held constant at 27% for all oxidation states. For the gold recovery model 3717 cyanide-soluble ratio results were compared to total percent sulfur for the same assay interval with results shown in Figure 14-19. From the figure is it seen that generally as the total percent sulfur increases the cyanide-soluble ratio decreases. For modelling purposes there were not enough cyanide-soluble results to reasonably estimate a value into all the blocks within the mineralized gold envelopes. There is however enough total percent sulfur data to cover the entirety of the gold mineralization envelopes. A total percent sulfur value was interpolated into each block using the inverse distance weighted method with interpolation parameters and strategies similar to that used for the gold grade interpolation. Using the results from the 34 bottle roll tests two equations were used to calculate a gold recovery for each block. Figures 14-20 and 14-21 show the correlation of bottle roll recoveries to total percent sulfur and the formulas used.

Visually comparing the block estimated gold recoveries to the oxidation state interpreted from geological logging the following block model oxidation states were made: blocks with an interpolated recovery of from 100% to 65% are considered oxide, blocks with an interpolated recovery from 64% to 50% are considered transition, and blocks with an interpolated recovery less than 50% are considered sulfide.

Based on the work completed by KCA oxide material would have an overall gold recovery of 79%, transition material would have an overall recovery of 50%, and sulfide material would have an overall recovery of 22%.

**Figure 14-19 Cyanide-Soluble Ratio vs. Total % Sulfur**

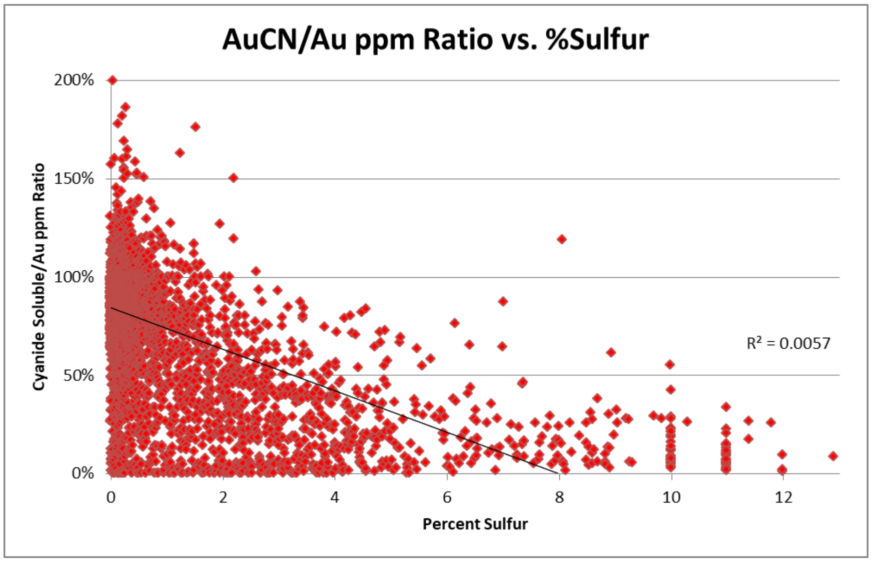



**Figure 14-20 Bottle Roll Recoveries for Total % Sulfur (< 0.05)**

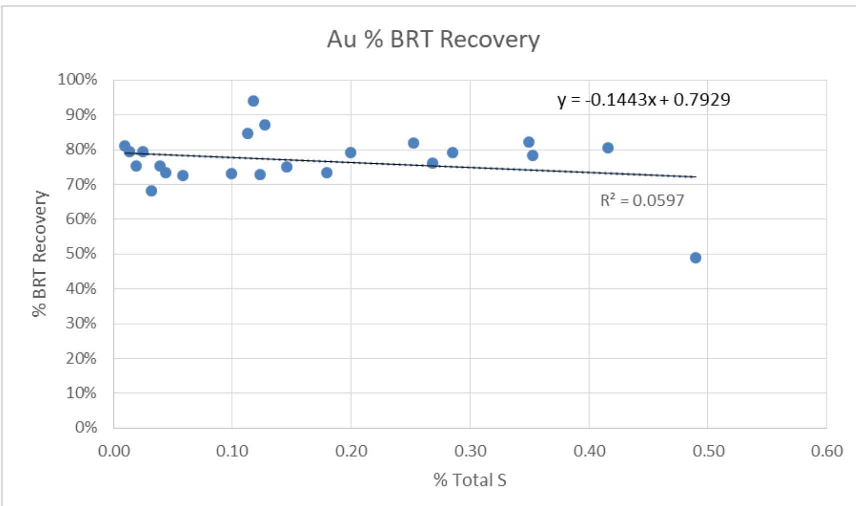
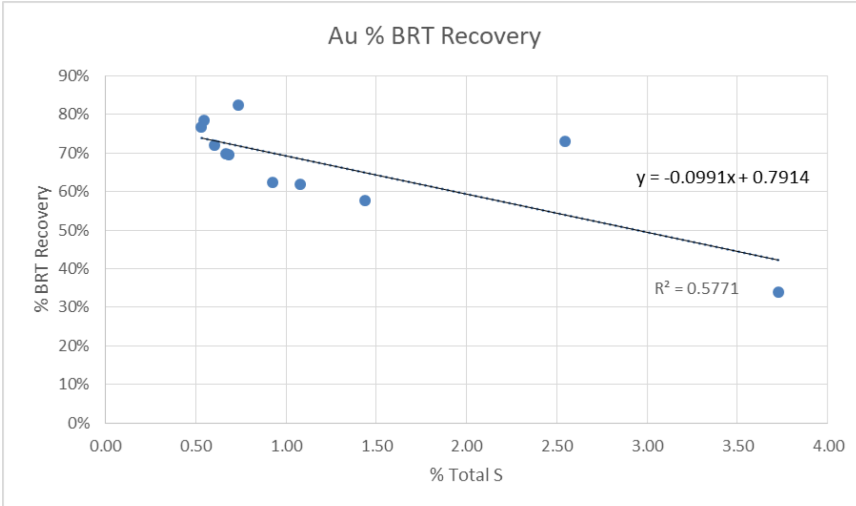


**Figure 14-21  Bottle Roll Recoveries for Total % Sulfur (>= 0.05)**




## 14.13 Classification

The Independence resources are classified on the basis of the distance of the model block to the nearest composite, a minimum number of composites, and minimum number of drill holes. Two isotropic estimation passes were used to classify the resources (Table 14-14). All blocks that 'found' at least three composites with the nearest being less than 38 meters away and a minimum of two drill holes (Pass 1) are classified as indicated. The measured category (Pass 2) required a minimum of six composites with the nearest being less than 15 meters away and a minimum of two drill holes. All remaining blocks are classified as Inferred. All resources from the Deep Skarn deposit are classified as inferred due to the wide spacing and low number of drill holes. It is probable that with additional infill drilling the inferred resources will be upgraded to the indicated or even measured classification.

**Table 14-14 Independence Classification Parameters**

| CLASS | Within Mineral Domain | Min. No. Composites | Min. No. Drill Holes | Max Dist. (m) To Nearest Composite | Additional Restrictions |
|---|---|---|---|---|---|
| Measured | YES | 6 | 2 | 15 | None |
| Indicated | YES | 3 | 2 | 38 | None |
| Inferred | YES | 1 | 1 | Remaining Modeled Mineralization | All Alluvium, All Deep Skarn Deposit |

## 14.14 Independence Project Mineral Resources

The Independence project mineral resources have been estimated to reflect potential open-pit extraction and potential processing by heap leaching and Merrill Crowe extraction. To meet the requirement of the in-pit resources having reasonable prospects for eventual economic extraction, open pit optimizations for the Independence project were developed from the resource block model estimate using Minesight's Lerchs-Grossman pit optimization algorithm. Reasonable mining assumptions were applied to evaluate the portions of the block model (Measured, Indicated, and Inferred blocks) that could be "reasonably expected" to be mined from an open pit. The optimization parameters presented in Table 14-15 were selected based on experience and benchmarking against similar projects. The results are used as a guide to assist in the preparation of a mineral resource statement and to select appropriate resource reporting cutoff grades.

**Table 14-15 Pit Optimization Parameters for Mineral Resources**

| Pit Optimization Economic Parameters | | |
|---|---|---|
| Parameter | Independence | Unit |
| Mining Cost - Ore | $ 2.18 | $/tonne mined |
| Mining Cost - Waste | $ 2.18 | $/tonne mined |
| Heap Leach Processing (Oxide) | $4.00 | $/Tonne processed |
| Heap Leach Processing (Transition) | $4.00 | $/Tonne processed |
| Heap Leach Processing (sulfide) | $4.00 | $/Tonne processed |
| G&A Cost | 3,800 | $1,000s/year |
| Tonnes per Day | 9,000 | tonnes/day processed |
| Tonnes per Year | 3,285,000 | tonnes/year processed |
| G&A per Tonne | $1.09 | $/tonnes processed |
| Au Refining Cost | $ 5.00 | $/oz produced |
| NSR Royalty | 2% | |
| Au Price | $ 1,800 | $/oz produced |
| Ag price | $ 24 | $/oz produced |
| Au Leach Recovery - Oxide | 79% | |
| Au Leach Recovery - Mixed | 60% | |
| Au Leach Recovery - Sulfide | 30% | |
| Ag Leach Recovery - Oxide | 27% | |
| Ag Leach Recovery - Mixed | 27% | |
| Ag Leach Recovery - Sulfide | 27% | |

The pit shells created using these optimization parameters were applied to constrain the project resources for the Independence deposit. The in-pit resources were further constrained by the application of a gold-equivalent cutoff of 0.175 g/t for oxide material, 0.215 g/t for transition material, and 0.425 for sulfide material. Gold equivalency, as used in the application of the resource cutoffs, is a function of metal prices and metal recoveries. These variables, combined with the estimated gold and silver grades, are used to calculate a gold equivalent grade for every block in the model. An example of the calculation of the gold-equivalent grade ("g AuEq/t") of an oxidized block is as follows:

$$\text{g AuEq/t} = \text{g Au/t} + (\text{g Ag/t} \div ((1{,}800 \times \text{Au Recovery}) \div (24 \times 0.27))$$

where "g Au/t" and "g Ag/t" are the estimated gold and silver block-diluted grades, respectively, and the other parameters are the metal prices and recoveries.

The total Independence project resources, which include the resources for both the Near Surface mineralization and the Deep Skarn mineralization, are summarized in Table 14-16. The Near Surface Independence mineral resource estimate is the fully block diluted Inverse Distance Weighted estimate and is reported at variable cutoffs for open-pit mining. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

It is reasonably expected that the majority of Inferred mineral resources could be upgraded to the Indicated or Measured classification with continued exploration.

Mineralized materials at various cutoff grades are shown in Table 14-17, Table 14-18, and Table 14-19, for the Near Surface oxide, mixed, and sulfide material, respectively. These block-diluted resources are tabulated at additional cutoffs in order to provide grade-distribution information, as well as to provide for economic conditions other than those envisioned by the reported resource cutoffs. It should be noted that the estimated resources include the PEA mine schedule tonnes discussed in Sections 16 and 22 of this report.

The Deep Skarn Inferred resources are listed at various cutoff grades in Table 14-20.

# Table 14-16 Independence Gold and Silver Mineral Resources

| Independence Near Surface Mineralization | | | | | | | |
|---|---|---|---|---|---|---|---|
| Measured Resources | | | | | | | |
| Oxidation (Cutoff) (gr. Au/tonne) | Tonnes | Grade (g/t) Gold | Grade (g/t) Silver | Grade (g/t) Gold Eq. | Ounces Gold | Ounces Silver | Ounces Gold Eq. |
| Oxide (0.175) | 7,634,000 | 0.38 | 9.71 | 0.43 | 92,500 | 2,382,000 | 105,800 |
| Transition (0.215) | 946,000 | 0.47 | 9.11 | 0.53 | 14,200 | 277,200 | 16,100 |
| Sulfide (0.425) | 133,000 | 0.73 | 16.50 | 0.94 | 3,100 | 70,600 | 4,000 |
| Indicated Resources | | | | | | | |
| Oxidation (Cutoff) (gr. Au/tonne) | Tonnes | Grade (g/t) Gold | Grade (g/t) Silver | Grade (g/t) Gold Eq. | Ounces Gold | Ounces Silver | Ounces Gold Eq. |
| Oxide (0.175) | 16,466,000 | 0.34 | 6.41 | 0.37 | 178,400 | 3,395,500 | 196,900 |
| Transition (0.215) | 2,382,000 | 0.47 | 6.85 | 0.51 | 35,900 | 524,500 | 39,400 |
| Sulfide (0.425) | 436,000 | 0.73 | 16.88 | 0.95 | 10,200 | 236,600 | 13,300 |
| Measured & Indicated Resources | | | | | | | |
| Oxidation (Cutoff) (gr. Au/tonne) | Tonnes | Grade (g/t) Gold | Grade (g/t) Silver | Grade (g/t) Gold Eq. | Ounces Gold | Ounces Silver | Ounces Gold Eq. |
| Oxide (0.175) | 24,100,000 | 0.35 | 7.46 | 0.39 | 270,900 | 5,777,500 | 302,700 |
| Transition (0.215) | 3,328,000 | 0.47 | 7.49 | 0.52 | 50,100 | 801,700 | 55,500 |
| Sulfide (0.425) | 569,000 | 0.73 | 16.79 | 0.95 | 13,300 | 307,200 | 17,300 |
| Total Measured & Indicated Resources | | | | | | | |
| Total M&I | 27,997,000 | 0.37 | 7.65 | 0.42 | 334,300 | 6,886,400 | 375,500 |
| | | | | | | | |
| Inferred Resources | | | | | | | |
| Oxidation (Cutoff) (gr. Au/tonne) | Tonnes | Grade (g/t) Gold | Grade (g/t) Silver | Grade (g/t) Gold Eq. | Ounces Gold | Ounces Silver | Ounces Gold Eq. |
| Oxide (0.175) | 4,450,000 | 0.29 | 4.46 | 0.32 | 41,600 | 637,400 | 45,100 |
| Transition (0.215) | 626,000 | 0.34 | 3.63 | 0.37 | 6,900 | 73,000 | 7,400 |
| Sulfide (0.425) | 142,000 | 0.51 | 4.42 | 0.58 | 2,300 | 20,200 | 2,600 |

| Independence Deep Skarn Mineralization | | | | | | | |
|---|---|---|---|---|---|---|---|
| Inferred Resources | | | | | | | |
| Cutoff (gr. Au/tonne) | Tonnes | Grade (g/t) Gold | Grade (g/t) Silver | Grade (g/t) Gold Eq. | Ounces Gold | Ounces Silver | Ounces Gold Eq. |
| Approx. 3.4 | 3,794,000 | 6.53 | 0 | 6.53 | 796,200 | 0 | 796,200 |

**Notes to Mineral Resource Estimate:**

1. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, changes in global gold markets or other relevant issues. The CIM definitions (2014) were followed for classification of Mineral Resources. The quantity and grade of reported inferred Mineral Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred Mineral Resources as indicated Mineral Resource. It is probable that further exploration drilling will result in upgrading them to the indicated or measured Mineral Resource category.
2. The Mineral Resource Estimate incorporates over 132,000 feet of reverse circulation and core drilling in 246 holes, and outlines both a near surface and a deep skarn resource. The near surface mineralization is primarily based on the reverse circulation drilling, while the deep skarn mineralization is based entirely on core drilling.
3. The resource was prepared by James Ashton, P.E., an independent QP, with an effective date of November 15, 2021.
4. The Near Surface mineral resources are constrained by an optimized pit and presented at variable diluted gold equivalent cutoff grades, which represents mineralization that is potentially available for open-pit mining and heap-leach processing.
5. The undiluted Deep Skarn mineralization resources were quantified based on deep tabular solids representing potentially underground mineable lenses.
6. Gold equivalent values are a function of metal price and metal recoveries.
7. Rounding may result in apparent discrepancies between tonnes, grade, and contained metal content.

## Table 14-17 Independence Oxide Mineralized Material

| Cutoff (gr. Au/tonne) | Tonnes | Grade (g/t) Gold | Grade (g/t) Silver | Grade (g/t) Gold Eq. | Ounces Gold | Ounces Silver | Ounces Gold Eq. |
|---|---|---|---|---|---|---|---|
| **Measured Resources - Oxide** | | | | | | | |
| 0.150 | 8,922,000 | 0.34 | 9.11 | 0.39 | 97,800 | 2,613,500 | 112,200 |
| **0.175** | **7,634,200** | **0.38** | **9.71** | **0.43** | **92,500** | **2,382,000** | **105,800** |
| 0.200 | 6,570,700 | 0.42 | 10.23 | 0.47 | 87,700 | 2,160,300 | 99,700 |
| 0.225 | 6,067,900 | 0.44 | 10.55 | 0.49 | 85,100 | 2,057,400 | 96,400 |
| 0.250 | 5,389,200 | 0.47 | 11.07 | 0.53 | 80,700 | 1,917,400 | 91,500 |
| 0.300 | 4,327,500 | 0.52 | 12.20 | 0.59 | 72,800 | 1,697,300 | 82,200 |
| 0.500 | 1,871,500 | 0.78 | 17.37 | 0.87 | 46,600 | 1,044,900 | 52,500 |
| 0.700 | 955,500 | 1.03 | 22.37 | 1.15 | 31,500 | 687,100 | 35,400 |
| **Indicated Resources - Oxide** | | | | | | | |
| 0.150 | 17,616,600 | 0.32 | 6.29 | 0.36 | 183,500 | 3,560,300 | 202,800 |
| **0.175** | **16,466,400** | **0.34** | **6.41** | **0.37** | **178,400** | **3,395,600** | **196,900** |
| 0.200 | 14,826,600 | 0.36 | 6.62 | 0.39 | 170,200 | 3,156,100 | 187,800 |
| 0.225 | 13,704,800 | 0.37 | 6.77 | 0.41 | 163,500 | 2,981,700 | 180,200 |
| 0.250 | 11,790,900 | 0.40 | 7.06 | 0.44 | 151,300 | 2,677,100 | 166,000 |
| 0.300 | 8,503,400 | 0.46 | 7.85 | 0.50 | 125,500 | 2,145,600 | 137,500 |
| 0.500 | 2,594,300 | 0.75 | 11.70 | 0.82 | 62,900 | 975,500 | 68,400 |
| 0.700 | 1,153,300 | 1.04 | 15.18 | 1.12 | 38,400 | 563,000 | 41,600 |
| **Measured & Indicated Resources - Oxide** | | | | | | | |
| 0.150 | 26,538,600 | 0.33 | 7.24 | 0.37 | 281,300 | 6,173,800 | 315,000 |
| **0.175** | **24,100,600** | **0.35** | **7.46** | **0.39** | **270,900** | **5,777,600** | **302,700** |
| 0.200 | 21,397,300 | 0.37 | 7.73 | 0.42 | 257,900 | 5,316,400 | 287,500 |
| 0.225 | 19,772,700 | 0.39 | 7.93 | 0.44 | 248,600 | 5,039,100 | 276,600 |
| 0.250 | 17,180,100 | 0.42 | 8.32 | 0.47 | 232,000 | 4,594,500 | 257,500 |
| 0.300 | 12,830,900 | 0.48 | 9.32 | 0.53 | 198,300 | 3,842,900 | 219,700 |
| 0.500 | 4,465,800 | 0.76 | 14.07 | 0.84 | 109,500 | 2,020,400 | 120,900 |
| 0.700 | 2,108,800 | 1.03 | 18.44 | 1.14 | 69,900 | 1,250,100 | 77,000 |
| **Inferred Resources - Oxide** | | | | | | | |
| 0.150 | 4,766,900 | 0.28 | 4.42 | 0.30 | 42,900 | 676,900 | 46,600 |
| **0.175** | **4,450,100** | **0.29** | **4.46** | **0.32** | **41,600** | **637,400** | **45,100** |
| 0.200 | 3,947,200 | 0.31 | 4.49 | 0.33 | 39,100 | 569,300 | 42,100 |
| 0.225 | 3,612,400 | 0.32 | 4.52 | 0.34 | 37,000 | 525,400 | 40,000 |
| 0.250 | 3,024,800 | 0.34 | 4.61 | 0.37 | 33,200 | 448,300 | 35,600 |
| 0.300 | 1,935,500 | 0.39 | 4.78 | 0.42 | 24,500 | 297,300 | 26,100 |
| 0.500 | 377,200 | 0.66 | 4.99 | 0.69 | 8,000 | 60,600 | 8,400 |
| 0.700 | 134,000 | 0.88 | 5.49 | 0.91 | 3,800 | 23,600 | 3,900 |

# Table 14-18 Independence Transition Mineralized Material

| Cutoff (gr. Au/tonne) | Tonnes | Grade (g/t) Gold | Grade (g/t) Silver | Grade (g/t) Gold Eq. | Ounces Gold | Ounces Silver | Ounces Gold Eq. |
|---|---|---|---|---|---|---|---|
| **Measured Resources - Transition** | | | | | | | |
| 0.175 | 1,319,000 | 0.38 | 7.93 | 0.43 | 16,100 | 336,300 | 18,300 |
| 0.200 | 1,084,300 | 0.43 | 8.54 | 0.49 | 15,000 | 297,800 | 16,900 |
| **0.215** | **945,700** | **0.47** | **9.11** | **0.53** | **14,200** | **277,100** | **16,100** |
| 0.225 | 945,700 | 0.47 | 9.11 | 0.53 | 14,200 | 277,100 | 16,100 |
| 0.250 | 808,100 | 0.51 | 9.80 | 0.58 | 13,300 | 254,600 | 15,000 |
| 0.300 | 587,500 | 0.62 | 11.44 | 0.70 | 11,700 | 216,100 | 13,100 |
| 0.500 | 278,400 | 0.95 | 15.20 | 1.05 | 8,500 | 136,100 | 9,400 |
| 0.700 | 154,200 | 1.31 | 19.31 | 1.43 | 6,500 | 95,700 | 7,100 |
| **Indicated Resources - Transition** | | | | | | | |
| 0.175 | 2,829,800 | 0.42 | 6.45 | 0.46 | 38,200 | 586,500 | 42,100 |
| 0.200 | 2,558,500 | 0.45 | 6.68 | 0.49 | 36,900 | 549,600 | 40,600 |
| **0.215** | **2,381,800** | **0.47** | **6.85** | **0.51** | **35,900** | **524,500** | **39,400** |
| 0.225 | 2,381,800 | 0.47 | 6.85 | 0.51 | 35,900 | 524,500 | 39,400 |
| 0.250 | 2,082,900 | 0.51 | 7.16 | 0.56 | 34,000 | 479,300 | 37,200 |
| 0.300 | 1,598,000 | 0.59 | 7.86 | 0.64 | 30,300 | 403,700 | 33,000 |
| 0.500 | 663,200 | 0.95 | 10.84 | 1.03 | 20,300 | 231,200 | 21,900 |
| 0.700 | 333,300 | 1.38 | 13.34 | 1.47 | 14,700 | 143,000 | 15,700 |
| **Measured & Indicated Resources - Transition** | | | | | | | |
| 0.175 | 4,148,800 | 0.41 | 6.92 | 0.45 | 54,300 | 922,800 | 60,400 |
| 0.200 | 3,642,800 | 0.44 | 7.24 | 0.49 | 51,900 | 847,400 | 57,500 |
| **0.215** | **3,327,500** | **0.47** | **7.49** | **0.52** | **50,100** | **801,600** | **55,500** |
| 0.225 | 3,327,500 | 0.47 | 7.49 | 0.52 | 50,100 | 801,600 | 55,500 |
| 0.250 | 2,891,000 | 0.51 | 7.90 | 0.56 | 47,300 | 733,900 | 52,200 |
| 0.300 | 2,185,500 | 0.60 | 8.82 | 0.66 | 42,000 | 619,800 | 46,100 |
| 0.500 | 941,600 | 0.95 | 12.13 | 1.03 | 28,800 | 367,300 | 31,300 |
| 0.700 | 487,500 | 1.35 | 15.23 | 1.45 | 21,200 | 238,700 | 22,800 |
| **Inferred Resources - Transition** | | | | | | | |
| 0.175 | 742,900 | 0.32 | 3.61 | 0.34 | 7,600 | 86,100 | 8,100 |
| 0.200 | 674,400 | 0.33 | 3.61 | 0.36 | 7,200 | 78,300 | 7,700 |
| **0.215** | **626,400** | **0.34** | **3.63** | **0.37** | **6,900** | **73,000** | **7,400** |
| 0.225 | 626,400 | 0.34 | 3.63 | 0.37 | 6,900 | 73,000 | 7,400 |
| 0.250 | 533,500 | 0.37 | 3.69 | 0.39 | 6,300 | 63,200 | 6,700 |
| 0.300 | 372,400 | 0.42 | 3.75 | 0.44 | 5,000 | 44,900 | 5,300 |
| 0.500 | 63,700 | 0.73 | 5.82 | 0.77 | 1,500 | 11,900 | 1,600 |
| 0.700 | 26,800 | 1.04 | 6.80 | 1.09 | 900 | 5,900 | 900 |

## Table 14-19 Independence Sulfide Mineralized Material

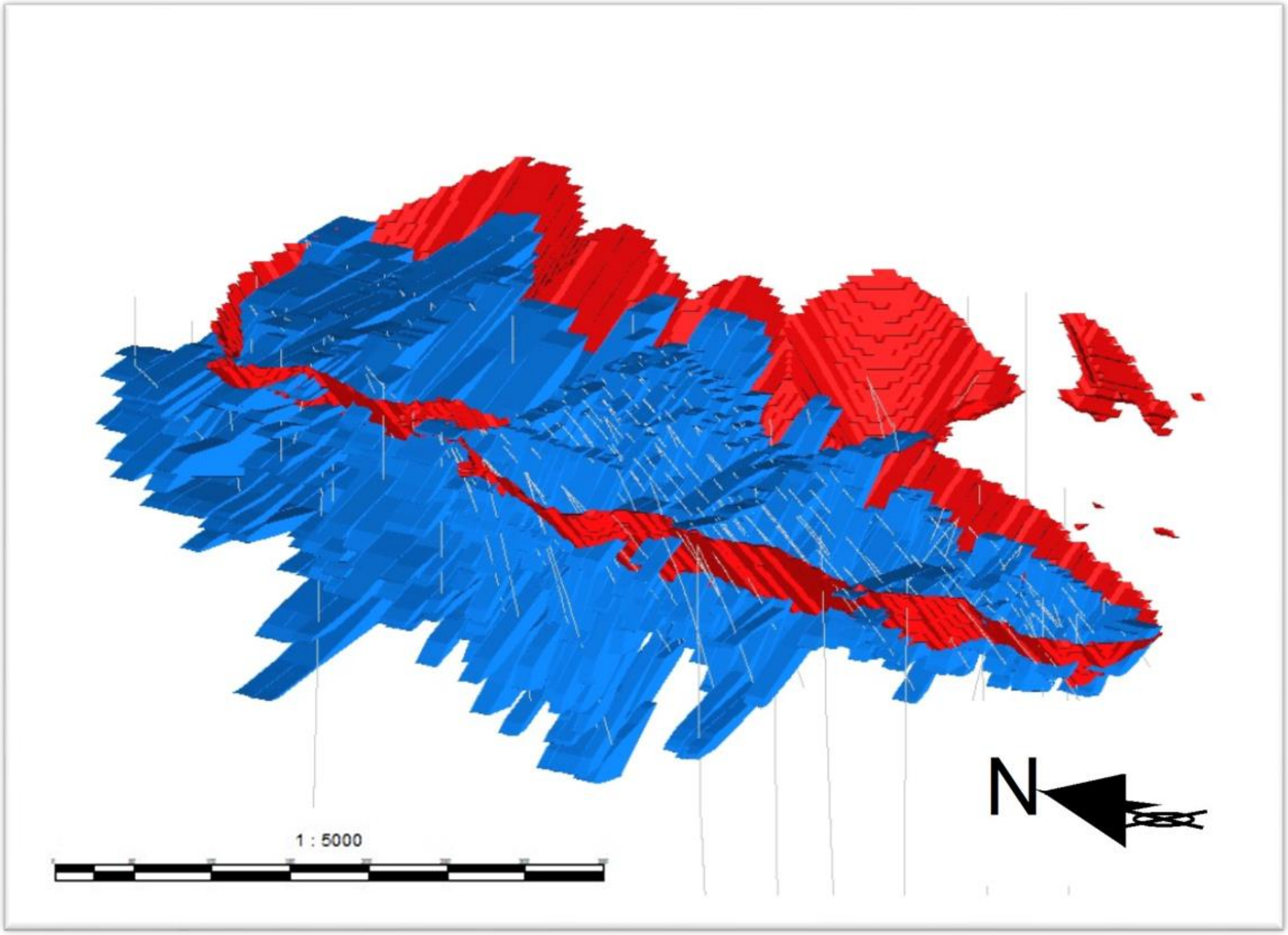
| Cutoff (gr. Au/tonne) | Tonnes | Grade (g/t) Gold | Grade (g/t) Silver | Grade (g/t) Gold Eq. | Ounces Gold | Ounces Silver | Ounces Gold Eq. |
|---|---|---|---|---|---|---|---|
| **Measured Resources - Sulfide** | | | | | | | |
| 0.250 | 214,400 | 0.54 | 13.72 | 0.70 | 3,700 | 94,600 | 4,800 |
| 0.300 | 187,500 | 0.58 | 14.78 | 0.77 | 3,500 | 89,100 | 4,600 |
| **0.425** | **132,500** | **0.73** | **16.50** | **0.99** | **3,100** | **70,300** | **4,200** |
| 0.500 | 112,000 | 0.80 | 18.00 | 1.02 | 2,900 | 64,800 | 3,700 |
| 0.700 | 64,800 | 1.04 | 22.19 | 1.33 | 2,200 | 46,200 | 2,800 |
| **Indicated Resources - Sulfide** | | | | | | | |
| 0.250 | 707,000 | 0.54 | 12.60 | 0.71 | 12,300 | 286,300 | 16,100 |
| 0.300 | 603,000 | 0.60 | 14.00 | 0.78 | 11,600 | 271,400 | 15,200 |
| **0.425** | **436,100** | **0.73** | **16.88** | **0.95** | **10,200** | **236,700** | **13,300** |
| 0.500 | 372,800 | 0.79 | 18.50 | 1.03 | 9,500 | 221,700 | 12,400 |
| 0.700 | 225,300 | 1.02 | 22.88 | 1.33 | 7,400 | 165,800 | 9,600 |
| **Measured & Indicated Resources - Sulfide** | | | | | | | |
| 0.250 | 921,400 | 0.54 | 12.86 | 0.71 | 16,000 | 380,900 | 20,900 |
| 0.300 | 790,500 | 0.59 | 14.18 | 0.78 | 15,100 | 360,500 | 19,800 |
| **0.425** | **568,600** | **0.73** | **16.79** | **0.96** | **13,300** | **307,000** | **17,500** |
| 0.500 | 484,800 | 0.80 | 18.38 | 1.03 | 12,400 | 286,500 | 16,100 |
| 0.700 | 290,100 | 1.03 | 22.73 | 1.33 | 9,600 | 212,000 | 12,400 |
| **Inferred Resources - Sulfide** | | | | | | | |
| 0.250 | 349,800 | 0.35 | 4.37 | 0.42 | 3,900 | 49,200 | 4,700 |
| 0.300 | 258,300 | 0.40 | 4.50 | 0.47 | 3,300 | 37,400 | 3,900 |
| **0.425** | **141,800** | **0.51** | **4.42** | **0.58** | **2,300** | **20,200** | **2,600** |
| 0.500 | 89,300 | 0.58 | 4.44 | 0.65 | 1,700 | 12,800 | 1,900 |
| 0.700 | 21,900 | 0.85 | 5.48 | 0.93 | 600 | 3,900 | 700 |

## Table 14-20 Independence Undiluted Inferred Gold Resources Deep Skarn Deposit by varying Cutoff Grade

| Au Cutoff (g/t) | Au Cutoff (opt) | Tonnes (000) | Tons (000) | Au Grade (g/t) | Au Grade (opt) | Contained Au (oz) |
|---|---|---|---|---|---|---|
| <3.400 | <0.100 | 3,794 | 4,182 | 6.53 | 0.190 | 796,200 |
| 3.429 | 0.100 | 2,702 | 2,978 | 8.30 | 0.242 | 720,800 |
| 4.114 | 0.120 | 2,215 | 2,441 | 9.29 | 0.271 | 661,816 |
| 4.800 | 0.140 | 1,703 | 1,877 | 10.80 | 0.315 | 590,422 |
| 5.486 | 0.160 | 1,516 | 1,671 | 11.49 | 0.335 | 560,236 |
| 6.171 | 0.180 | 1,461 | 1,611 | 11.69 | 0.341 | 549,942 |
| 6.857 | 0.200 | 1,382 | 1,523 | 12.00 | 0.350 | 533,232 |
| 7.714 | 0.225 | 1,032 | 1,137 | 13.58 | 0.396 | 450,469 |
| 8.571 | 0.250 | 988 | 1,089 | 13.82 | 0.403 | 439,147 |

In addition to the mineral resources reported herein, there is mineralization that continues beyond, and is contiguous with the reported mineral resources. The reported mineral resource estimate is pit-constrained and therefore some of the estimated mineralization (tonnes, grade and ounces) is unreported. That additional mineralization is shown graphically in Figure 14-22.

**Figure 14-22 Independence Optimized Pit ad Additional Mineralization**




(gray lines are drill holes; blue solid is the 0.175 g Au/t mineral envelope; red is the optimized resource pit shell)
Source: Ashton 2021

Previously reported mineral resources for Independence were larger than what is reported herein. The total modelled mineralization is similar to the previously total modelled mineralization but due to applied constrains is not reported as a mineral resource. The new constraints placed on the estimated tonnes and grade in order to determine "…*reasonable prospects for eventual economic extraction*" are substantially more rigorous in this Technical Report than were used previously, mainly the application of economics and an optimizing pit constraint.

The Authors are unaware of any unusual title, taxation, marketing, or other such factors that may impact the potential development of the Independence project. As discussed in Section 12.3, down-hole contamination does not appear to be an issue. However, the Authors' recommend that diamond-core drilling methods be used in the future as part of an infill drilling program at Independence with several of the holes drilled as twins to existing holes.

## 14.15 Validation

Validation of this model was done by comparing:

- Cross sectional interpreted domain volumes with calculated domain solid volumes,
- The IDW model to the nearest neighbor and ordinary kriging models,
- Grade distributions of composites and the model,
- Swath plots along the northing for gold and silver, and
- Visually reviewing the block grades to the composite grades.

### 14.15.1 Model Volume Check

As a check that the model has not over stated the volume of mineralized material a comparison was made to the mineral domains for both gold and silver. Table 14-21 shows the results of this comparison. Generally the blocks had a higher volume than the solids but all were very close.

**Table 14-21 Model-Solid Volume Comparison**

| | Low-Grade Gold Domain | Mid-Grade Gold Domain | High-Grade Gold Domain | Low-Grade Silver Domain | High-Grade Silver domain |
|---|---|---|---|---|---|
| Volume of Solid ($m^3$) | 23,449,922 | 2,714,242 | 116,571 | 31,318,370 | 724,860 |
| Volume of Blocks ($m^3$) | 23,615,521 | 2,735,916 | 116,161 | 31,587,416 | 731,434 |
| % Difference | 0.71% | 0.80% | -0.35% | 0.86% | 0.91% |

### 14.15.2 Comparison of Interpolation Methods

The Inverse Distance Weighted, Ordinary Kriging and Nearest Neighbor models are tabulated for comparison purposed in Table 14-22 for the shallow deposit.

**Table 14-22 Comparison of Interpolated Methods**

| Cutoff | IDW Model | | Krige Model | | NN Model | |
|---|---|---|---|---|---|---|
| Au (g/t) | Tonnes | Au (g/t) | Tonnes | Au (g/t) | Tonnes | Au (g/t) |
| 0.000 | 59,238,900 | 0.37 | 59,238,900 | 0.31 | 59,238,900 | 0.33 |
| 0.175 | 57,577,800 | 0.38 | 43,624,100 | 0.38 | 40,515,300 | 0.44 |
| 0.275 | 34,527,700 | 0.48 | 23,107,600 | 0.52 | 25,673,000 | 0.56 |
| 0.350 | 19,366,100 | 0.61 | 13,982,800 | 0.66 | 18,677,600 | 0.65 |
| 0.500 | 8,955,200 | 0.85 | 7,574,500 | 0.88 | 9,052,600 | 0.91 |
| 0.750 | 3,425,200 | 1.27 | 3,144,700 | 1.27 | 3,983,700 | 1.31 |
| 1.000 | 1,578,800 | 1.76 | 1,427,600 | 1.78 | 2,141,400 | 1.70 |
| Ag (g/t) | Tonnes | Ag (g/t) | Tonnes | Ag (g/t) | Tonnes | Ag (g/t) |
| 0.00 | 45,952,000 | 8.39 | 45,952,000 | 8.31 | 45,952,000 | 8.27 |
| 3.00 | 44,964,800 | 8.55 | 45,164,300 | 8.44 | 43,009,600 | 8.70 |
| 6.00 | 26,700,300 | 11.14 | 27,572,100 | 10.73 | 21,709,300 | 12.92 |
| 9.00 | 11,536,400 | 16.39 | 11,276,700 | 15.89 | 11,963,300 | 17.50 |
| 15.00 | 3,889,800 | 26.76 | 3,441,100 | 27.02 | 4,891,800 | 26.48 |
| 30.00 | 1,001,800 | 46.75 | 976,800 | 43.72 | 1,116,400 | 49.74 |
| 50.00 | 287,300 | 69.44 | 239,800 | 62.65 | 352,200 | 76.09 |

### 14.15.3 Grade Distribution of Composites versus Models

The relative degree of smoothing in the block model estimates were evaluated by comparing the model grade distribution to the distribution of the underlying composites. The comparison is made using grade/volume curves. Comparisons between the IDW and Krige models to the composites are shown for the near surface deposit resource and the high-grade domains for both gold and silver in Figures 14-23 to 14-26. The grade/volume curve comparison for the Deep Skarn deposit is shown in Figure 14-27. In general the curves for the entire resource domains for both gold and silver have a good comparison in the lower grade ranges though additional refinement to the modeling parameters may be warranted. The high-grade domain curves show that for the highest grades the models may have slightly under estimated both the gold grade and volume in these areas.

**Figure 14-23 Grade/Volume Curves for All Gold Domains**

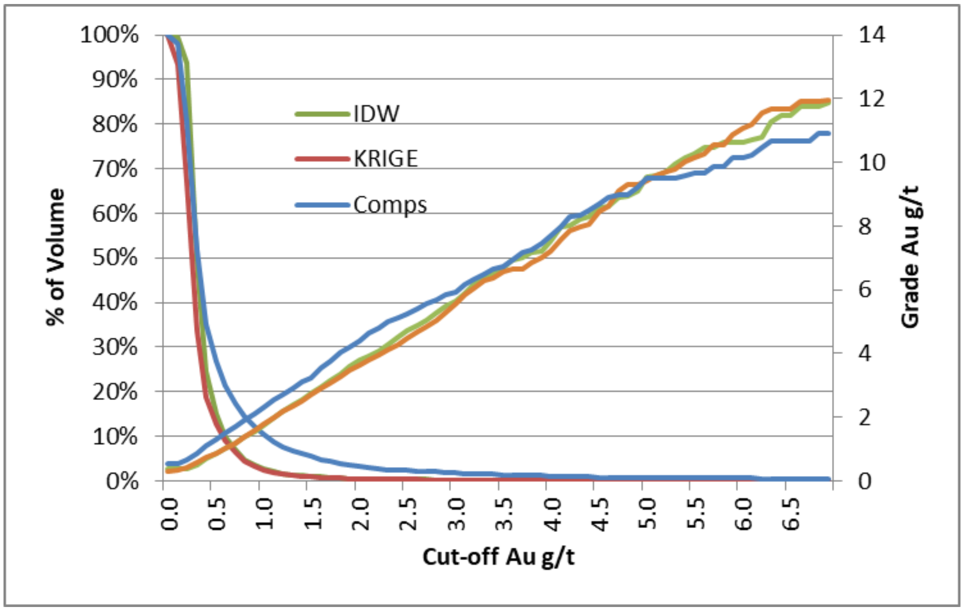



**Figure 14-24 Grade/Volume Curves for High-Grade Gold Domain**

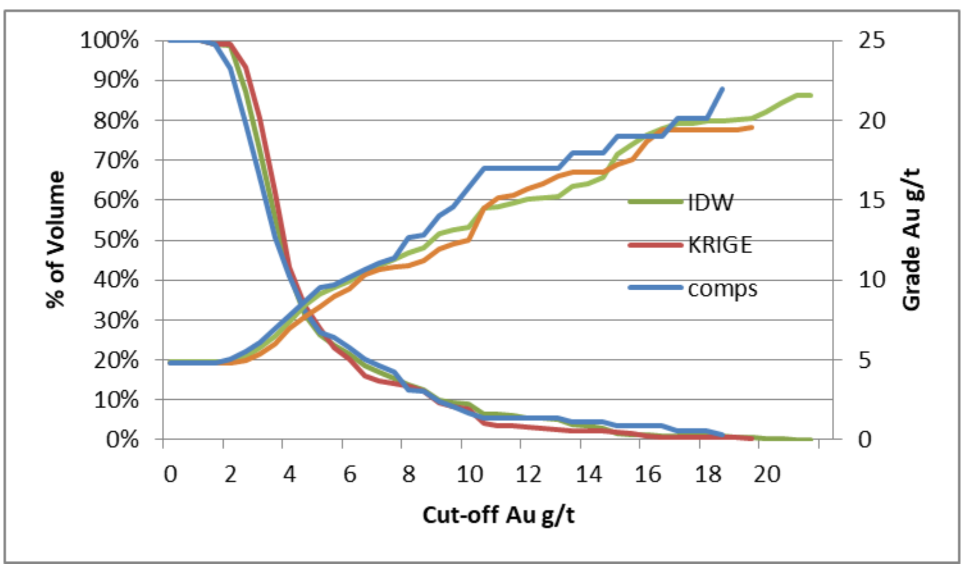


**Figure 14-25 Grade/Volume Curves for All Silver Domains**

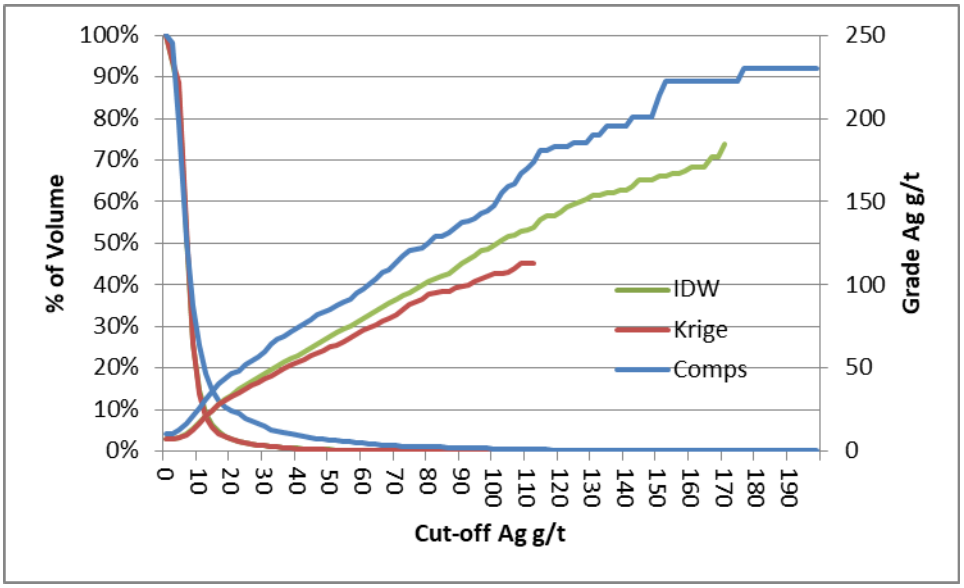



**Figure 14-26 Grade/Volume Curves for High-Grade Silver Domain**

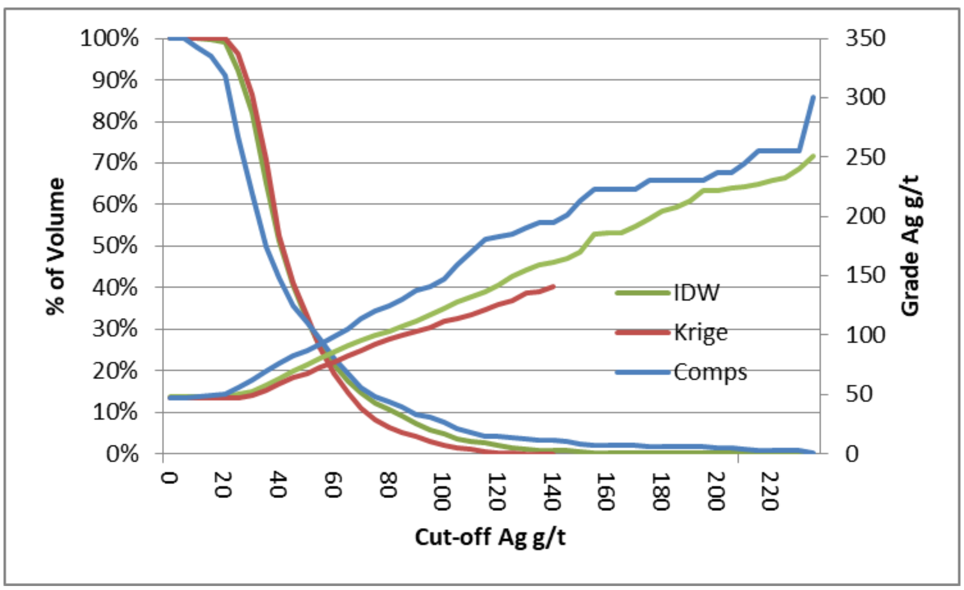
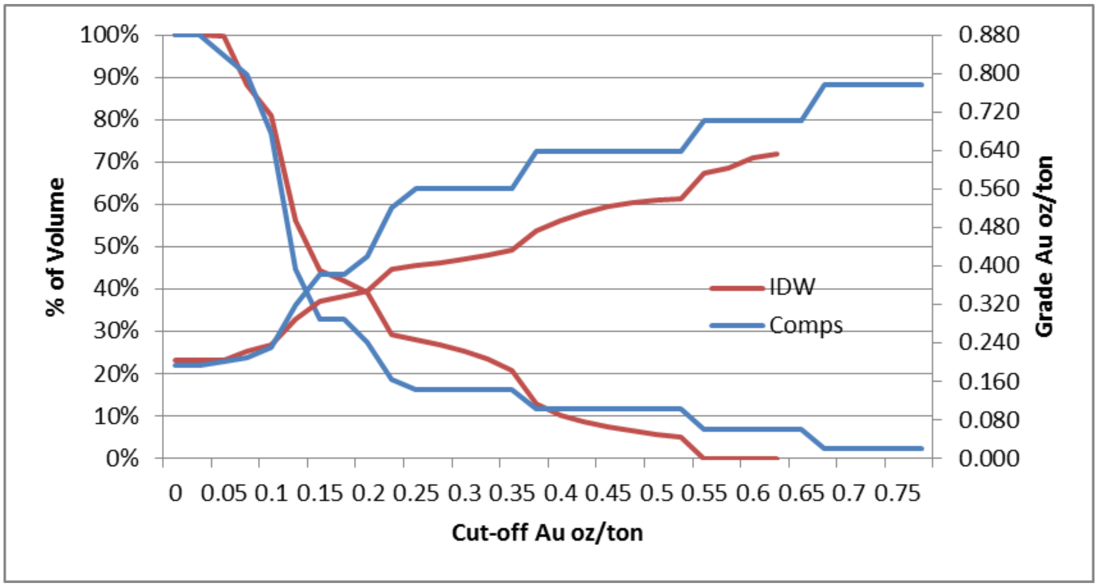


**Figure 14-27 Grade/Volume Curves for Deep Skarn Deposit**




### 14.15.4 Swath Plot Analysis

Swath plots are an important validation tool for providing comparisons between sample points (composited or un-composited) and estimated values to identify any bias towards under-estimation or over-estimation or any smoothing in the results. The swath plot is a one-dimensional graph in a specific direction of interest. A swath is a sectional slice through the block model with a specified thickness. The swath plot shows the average grade for the blocks in the swath, along with the averaged sample values in the swath.

They are generated by calculating the average gold and silver grades of composites and the estimated block model gold and silver grades within directional slices through the length of mineralization. For the Independence deposit swaths were generated along the northings with a swath window of 95 m (312 ft.). Swath plots for the near surface deposit for gold and silver estimates are illustrated in Figures 14-28 and 14-29, respectively. There are minor instances of localized over- and under-estimation within the block models; however, overall the block model adequately reproduces the trends observed in both gold and silver composites.

**Figure 14-28 Swath Plot comparing composites versus estimated block model gold grade**

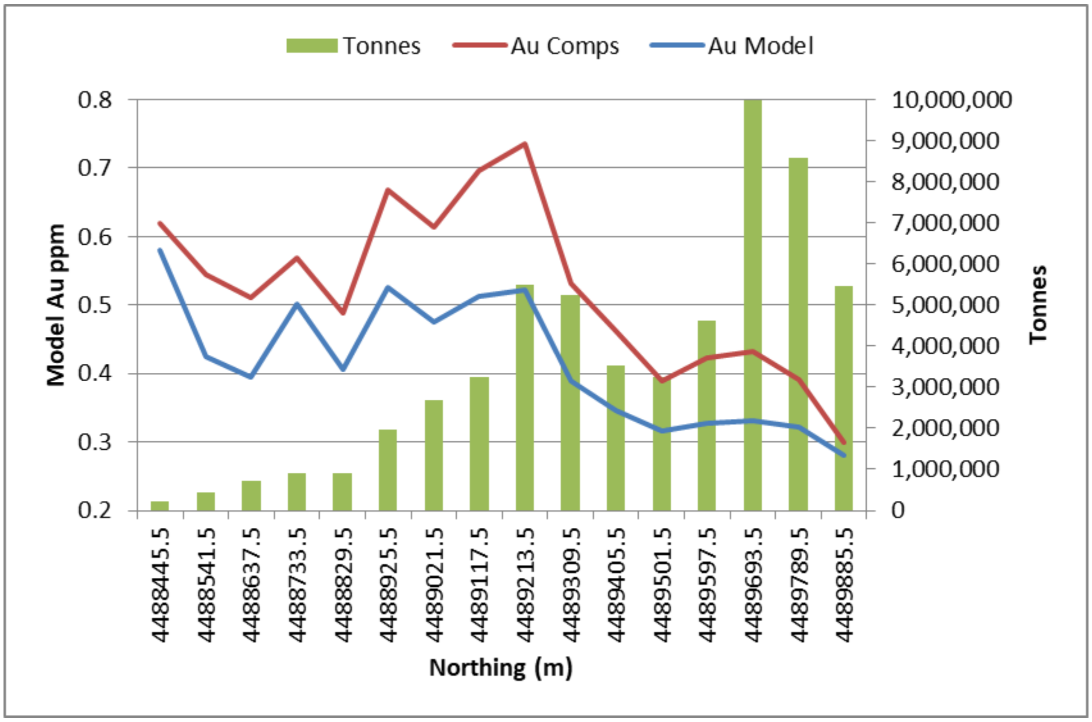
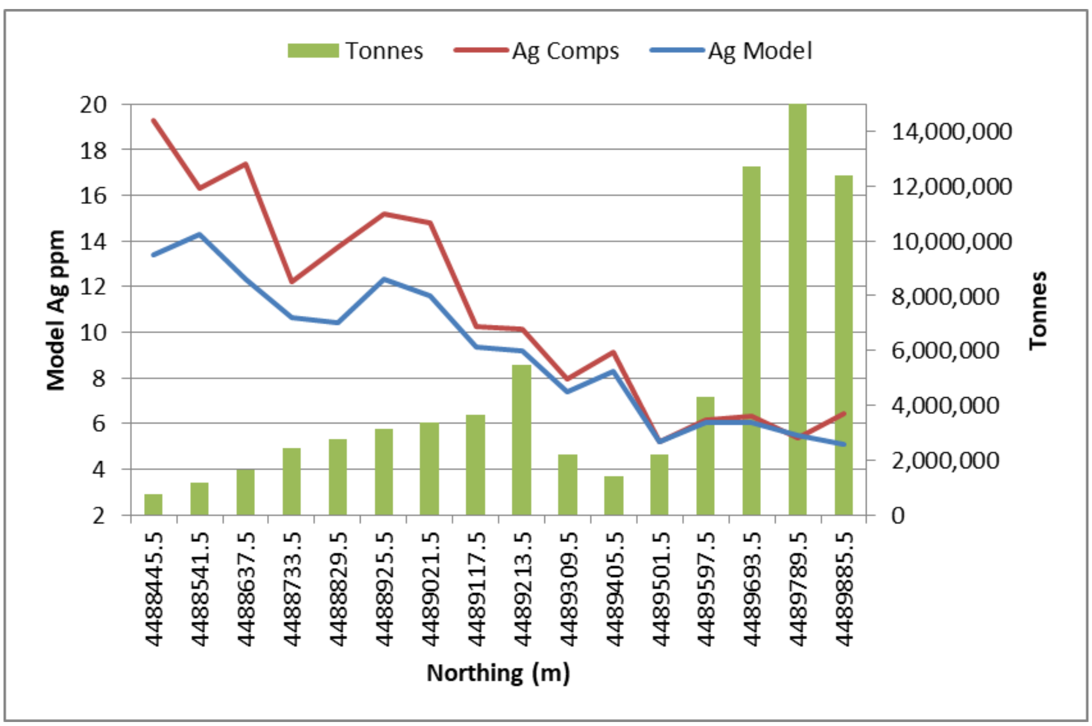



**Figure 14-29 Swath Plot comparing composites versus estimated block model silver grade**



### 14.15.5 Visual Review

Detailed visual review of the block models has been conducted in both cross section and long section. The review included checking that blocks were coded properly and calculations were made correctly. Of particular importance was the checking that domain percentages were coded properly to each block. The visual review of the model block grades compared to surrounding composite values was a major factor in selecting the inverse distance weighted method over other methods.

## 14.16 Comments on the Mineral Resource Estimate

During a review of the Independence Project data and mineral resource estimation, the Authors noted several issues that should be addressed in all future estimates and economic studies. It is believed that any changes that might occur from improving these parameters and data will not have a significant impact on the total resources but will affect the ability to better predict mineralization and make the model more precise. The issues that require additional study and review include:

**Density:** Additional density testing should be done in order to support the existing density being used. The results from the testing thus far show a fairly consistent density for the various rock types and the Authors do not envision any major changes to the resource from additional testing.

**Controls on mineralization:** Presently the controls on high-grade mineralization are not fully understood and are represented by domains based principally on mineral grade and not on geologic interpretation. While tons, grade and ounces might vary with a more detailed model, significant changes to the resource are not expected.

**Review oxide, transition, and sulfide zones with respect to metallurgy:** Currently the oxidation state and associated recoveries are based on total percent sulfide in an assay sample. For future models it would be helpful to better investigate the effects of oxidation on recovery and incorporate the results in future models and economic studies.

**Additional drilling:** Drilling in the future will primarily be infill drilling. This additional drilling should incorporate as many core holes as feasible. Several of the higher-grade areas should be investigated to try and determine the geologic controls. Down hole surveys should be recorded for all future RC and core drill holes especially if the hole is an angle hole. This would greatly enhance the confidence in the MRE.

# 15.0 MINERAL RESERVE ESTIMATE

No mineral reserves have been estimated for the Independence project as of the date of this report.

# 16.0 MINING METHODS

The Independence Project contains two mining areas: the South Pit and the North Pit. The two pits will be mined simultaneously with mining beginning in the South Pit. This PEA for the Independence Project is based on standard open-pit mining methods, with drill and blast rock breakage, and truck and loader materials handling all performed by a mining contractor. Note that a PEA is preliminary in nature and includes Inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves. There is no certainty that the economic results of the PEA will be realized.

The methodology used to create a mine design, site layout, and scheduling to determine the economics for the PEA includes:

- Define geometric parameters and constraints;
- Define assumptions for the economic parameters;
- Run pit optimizations;
- Define road and ramp parameters;
- Create pit designs;
- Create leach pad and dump designs;
- Produce mine and process production schedules;
- Define personnel and equipment requirements;
- Estimate mining costs; and
- Perform an economic analysis.

Section 16 summarizes the above topics, except for the economic analysis discussed in Section 22.

The global resource model described in Section 14 was the basis for developing the final mineable pit using the floating cone algorithm in the MineSight software package. The mine production schedule was based on an average of 9,000 tonnes/day ore delivered to the crusher. The production schedule was designed to provide a constant feed of mineralized material to the crusher and onto the heap leach pad via conveyor loading.

The term "ore" generally implies that sufficient technical feasibility and economic viability studies have been completed to classify the material as mineral reserve. A Qualified Person has not done sufficient work to classify the mineral resource at the Independence Gold Project as current mineral reserve and the issuer is not treating the mineral resource as mineral reserve. The term "ore" is used in this report section to describe mining methods in standard mining terms.

## 16.1 Geometric Design Parameters

Geometric parameters include pit design parameters and land constraints. The author is not aware of any geotechnical studies that have been completed to date for the Independence deposit. Generally, the stability of open pit slopes developed to the same height and at the same slope angles in the same geologic units is expected to be similar to past open pits providing the material properties, groundwater, and structural geology conditions are also similar. There are two open pits very near to the two proposed Independence pits which have similar material, structural, and groundwater properties, the Sunshine pit (mined in 1995-96), and the large Phoenix pit (currently in production). Using geometric measurements from these two nearby pits the pit design parameters used for the Independence pits were developed and are shown in Table 16-1. A 45° overall pit slope was used for pit optimization prior to final pit design.

**Table 16-1 Independence Pit Design Parameters**

| Pit Geometric Parameters: | Metric Units | Design Values |
|---|---|---|
| Rock Face (triple Bench) | meters | 18 |
| Nominal Bench Height | meters | 6 |
| Safety Bench width | meters | 6.5 |
| Bench Face Angle | degrees | 0.51:1.0 (H:V), 63.º |
| Interramp Slope Angle | degrees | 0.87:1 (H:V), 49º |
| Haul Road Width - Two Way | meters | 25 |
| Haul Road Grade - Two Way | percent | 10% |
| Haul Road Width - Single Lane | meters | 18 |
| Haul Road Grade - Single Lane | percent | 12% |

One other geometric parameter to include is Independence's lode claim boundary. This boundary is taken into account while reporting In-Pit resources and scheduling of mineralized material.

All mining is anticipated to be above the water table, so no dewatering wells will be required. No significant amounts of groundwater have been intersected in the Near Surface drilling and a consistent water table has not been identified in the exploration drilling at Independence Near Surface deposit to date. All project resources therefore appear to be above the water table. Storm water that enters the pit will be handled using in-pit sumps as needed. Any excess water that doesn't naturally infiltrate into the ground will be placed in water trucks using a portable pump and then used for dust control on haul roads.

## 16.2 Economic Parameters

Economic parameters were used to generate optimized pits using a Lerchs-Grossman algorithm within MineSight software. The economic parameters include mining costs, processing costs, general and administrative costs ("G&A"), refining costs, royalties, and metal recoveries. Mine planning is an iterative process, and initial costs and recoveries were assumed to determine how large pits would be. The economic parameters were refined as concepts were developed on how material would be processed based on the oxidation state of the material. The methods for processing that were determined include:

- Use of two-stage crushing and cyanide heap leaching for oxide material; and

- Use of the Merrill Crowe process for gold recovery.

The economic parameters used are shown in Table 16-2. The project process rate is assumed to be 9,000 tonnes per day or 3,285,000 tonnes per year. This process rate is used here to convert the fixed G&A component to a cost per tonne for the purpose of pit optimization. The G&A cost applied as a fixed cost in the cash-flow model.

**Table 16-2 Independence Economic Parameters**

| Pit Optimiation Economic Parameters | | |
|---|---|---|
| Parameter | Independence | Unit |
| Mining Cost - Ore | $ 2.18 | $/tonne mined |
| Mining Cost - Waste | $ 2.18 | $/tonne mined |
| Heap Leach Processing (Oxide) | $4.52 | $/Tonne processed |
| Heap Leach Processing (Transition | $4.99 | $/Tonne processed |
| Heap Leach Processing (sulfide) | $4.78 | $/Tonne processed |
| G&A Cost | 3,800 | $1,000s/year |
| Tonnes per Day | 9,000 | tonnes/day processed |
| Tonnes per Year | 3,285,000 | tonnes/year processed |
| G&A per Tonne | $1.09 | $/tonnes processed |
| Au Refining Cost | $ 5.00 | $/oz produced |
| NSR Royalty | 2% | |

Recoveries were applied based on recommendations by Mr. Carl Defilippi (KCA), as summarized in Section 13 and applied to the Recovery Model as described in Section 14.12. Recoveries are shown in Table 16-3. The oxide, transition, and sulfide recoveries assume crushed leaching for all material. There are 107,600 tonnes of economical sulfide material within the final pits that would be placed on the leach pad.

**Table 16-3 Independence Recoveries**

| | Independence | | |
|---|---|---|---|
| | Oxide | Transition | Sulfide |
| Gold Recovery | 79% | 50% | 22% |
| Silver Recovery | 27% | 27% | 27% |

## 16.3 Cutoff Grades

Cutoff grades were calculated based on the economic parameters shown in Table 16-2. These were calculated for the different material types and crushing method. Cutoff grades were calculated for both break-even and internal cutoffs. The internal cutoff grade calculation eliminates the mining cost in the calculation. The pit designs are based on economical pits and the materials inside of the pits are assumed to be mined whether the material is waste or ore. Thus, the decision on whether to process the material is made at the point where the truck needs to turn either to the waste dump or the crushing facility. The mining cost is therefore a sunk cost. The basic equation for the cutoff grade calculation is shown in Equation 1.

**Equation 1: Breakeven Cutoff Grade Calculation (g Au/t)**

$$\frac{Costs}{(\text{Au\$/oz} - \text{RefCst}) \; * \; \text{1oz/31.10348g} \; * \; (1 - \text{Roy\%}) \; * \; \text{Rec\%}}$$

Where costs are all processing costs plus G&A costs in $/t, RefCst is the refining cost in $/oz gold produced, Roy% is the NSR royalty, and Rec% is the recommended recovery.

Cutoff grades are calculated in terms of g Au/t, and are applied to a gold equivalent grade. The calculation for the gold equivalent grade for the PEA is shown in Equation 2.

**Equation 2: Gold Equivalent Calculation**

$$Au_{Equivalent} = Au\ g/t + Ag\ g/t\ /\ AuEq_{Fact}$$

Where:

$$AuEq_{Fact} = (Au_{Price}\ /\ Ag_{Price}) * (Au_{Recovery}\ /\ Ag_{Recovery})$$

Table 16-4 shows the cutoff grades for Independence at various gold prices. The economic analysis in this PEA has been done based on a gold price of $1,700 per ounce Au and $24 per ounce Ag. Because these cutoff grades are fairly low with respect to assay detection levels, a minimum cutoff grade for leaching oxide material of 0.175 g Au/t has been applied.

**Table 16-4 Independence Cutoff Grades (g Au/t)**

| | Breakeven | Internal | Breakeven | Internal | Breakeven | Internal |
|---|---|---|---|---|---|---|
| $/0z Au | Oxide | Oxide | Transition | Transition | Sulfide | Sulfide |
| $ 1,400 | 0.223 | 0.160 | 0.372 | 0.274 | 0.815 | 0.594 |
| $ 1,500 | 0.208 | 0.150 | 0.347 | 0.256 | 0.761 | 0.555 |
| $ 1,600 | 0.195 | 0.140 | 0.326 | 0.240 | 0.714 | 0.521 |
| $ 1,700 | 0.184 | 0.132 | 0.307 | 0.226 | 0.673 | 0.491 |
| $ 1,800 | 0.173 | 0.125 | 0.290 | 0.213 | 0.636 | 0.464 |
| $ 1,900 | 0.164 | 0.118 | 0.275 | 0.202 | 0.603 | 0.440 |
| $ 2,000 | 0.156 | 0.112 | 0.261 | 0.192 | 0.573 | 0.418 |

## 16.4 Pit Optimization

Pit optimizations were run using MineSight. Inputs into the pit optimization include the resource block model along with the economic and geometric parameters previously discussed. Ultimate pit shells were selected from the optimization results to be used as a guide for designing the mineable pits used in the economic analysis.

The selection of ultimate pits is based on a simple economic analysis of the results of a set of optimized pit shells based on varying gold price. A set of seven optimized pit shells, using a Lerchs-Grossman ("LG") algorithm, were created starting with a gold price of $1400/oz. gold and proceeding at $100/oz. increments to $2000/oz. gold. Tables 16-5 and 16-6 summarize the Independence pit optimization results for the South Pit and North Pit respectively. Results for the $1600/oz gold equivalent optimization from which the pit designs were based are highlighted. The values presented in the tables below are not to be misconstrued as a mineral resource as they are intended for the sole purpose of demonstrating the sensitivity of the resource estimate with respect to gold price.

A plan view of the final pit optimization shells for the Independence Gold Project is shown on Figure 16-1.

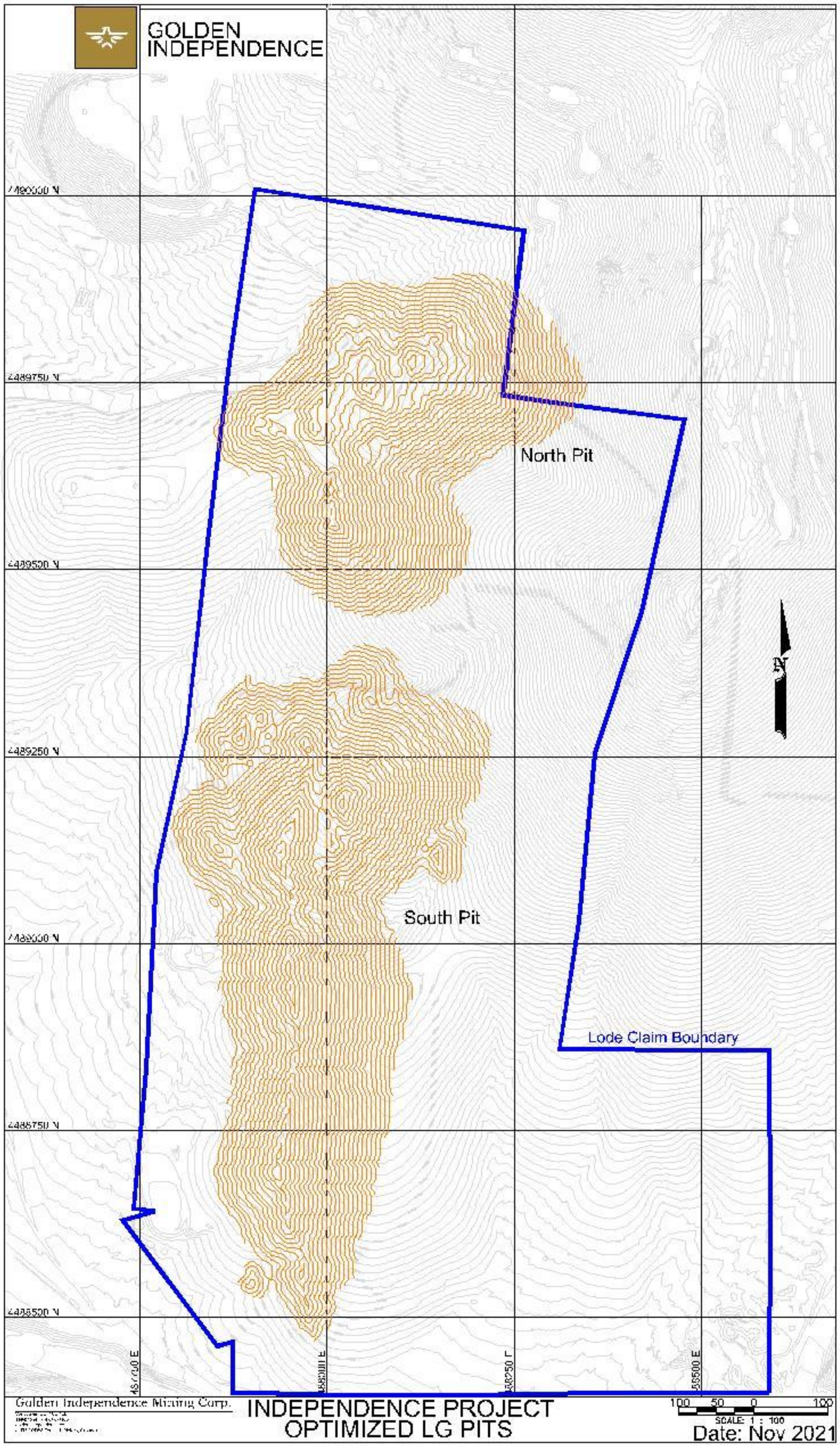
## Table 16-5 Pit Optimization Results – South Pit

| South Pit | Material Processed | | | | | Waste | Total | Strip | Cash Flow | Years |
|---|---|---|---|---|---|---|---|---|---|---|
| $/oz Au | Tonnes | g Au/t | Ounces Au | g Ag/t | Ounces Ag | Tonnes | Tonnes | Ratio | $ | Process |
| 1400 | 9,194,240 | 0.505 | 149,416 | 10.67 | 3,152,716 | 24,518,592 | 33,712,832 | 2.67 | $25,845,869 | 2.80 |
| 1500 | 10,364,204 | 0.483 | 160,873 | 10.78 | 3,591,639 | 26,833,720 | 37,197,924 | 2.59 | $35,345,244 | 3.16 |
| 1600 | 12,518,138 | 0.459 | 184,714 | 10.60 | 4,265,745 | 31,575,918 | 44,094,056 | 2.52 | $44,949,890 | 3.81 |
| 1700 | 13,396,327 | 0.447 | 192,335 | 10.37 | 4,467,640 | 32,259,601 | 45,655,928 | 2.41 | $57,523,522 | 4.08 |
| 1800 | 14,670,956 | 0.434 | 204,691 | 10.02 | 4,724,005 | 34,277,092 | 48,948,048 | 2.34 | $69,736,302 | 4.47 |
| 1900 | 15,777,701 | 0.418 | 212,018 | 9.78 | 4,960,438 | 34,615,251 | 50,392,952 | 2.19 | $82,886,076 | 4.80 |
| 2000 | 16,397,466 | 0.414 | 218,494 | 9.72 | 5,124,939 | 35,935,870 | 52,333,336 | 2.19 | $97,149,306 | 4.99 |

## Table 16-6 Pit Optimization Results – North Pit

| North Pit | Material Processed | | | | | Waste | Total | Strip | Cash Flow | Years |
|---|---|---|---|---|---|---|---|---|---|---|
| $/oz Au | Tonnes | g Au/t | Ounces Au | g Ag/t | Ounces Ag | Tonnes | Tonnes | Ratio | $ | Process |
| 1400 | 7,404,721 | 0.322 | 76,575 | 4.66 | 1,110,497 | 4,111,231 | 11,515,952 | 0.56 | $6,569,348 | 2.25 |
| 1500 | 9,498,582 | 0.324 | 98,934 | 4.74 | 1,448,973 | 8,622,100 | 18,120,682 | 0.91 | $9,166,585 | 2.89 |
| 1600 | 10,598,821 | 0.313 | 106,597 | 4.75 | 1,618,787 | 8,570,917 | 19,169,738 | 0.81 | $16,145,246 | 3.23 |
| 1700 | 12,821,971 | 0.312 | 128,433 | 4.72 | 1,944,763 | 12,516,749 | 25,338,720 | 0.98 | $22,545,364 | 3.90 |
| 1800 | 14,377,586 | 0.305 | 140,844 | 4.66 | 2,155,409 | 13,911,938 | 28,289,524 | 0.97 | $31,290,350 | 4.38 |
| 1900 | 16,719,118 | 0.294 | 157,809 | 4.64 | 2,494,188 | 15,179,532 | 31,898,650 | 0.91 | $41,331,976 | 5.09 |
| 2000 | 17,738,584 | 0.292 | 166,292 | 4.62 | 2,632,896 | 16,717,444 | 34,456,028 | 0.94 | $51,457,431 | 5.40 |

**Figure 16-1 Final Optimized Pits, South Pit ($1600/Au oz.) and North Pit ($1700/Au oz.)**




Source: Ashton 2021

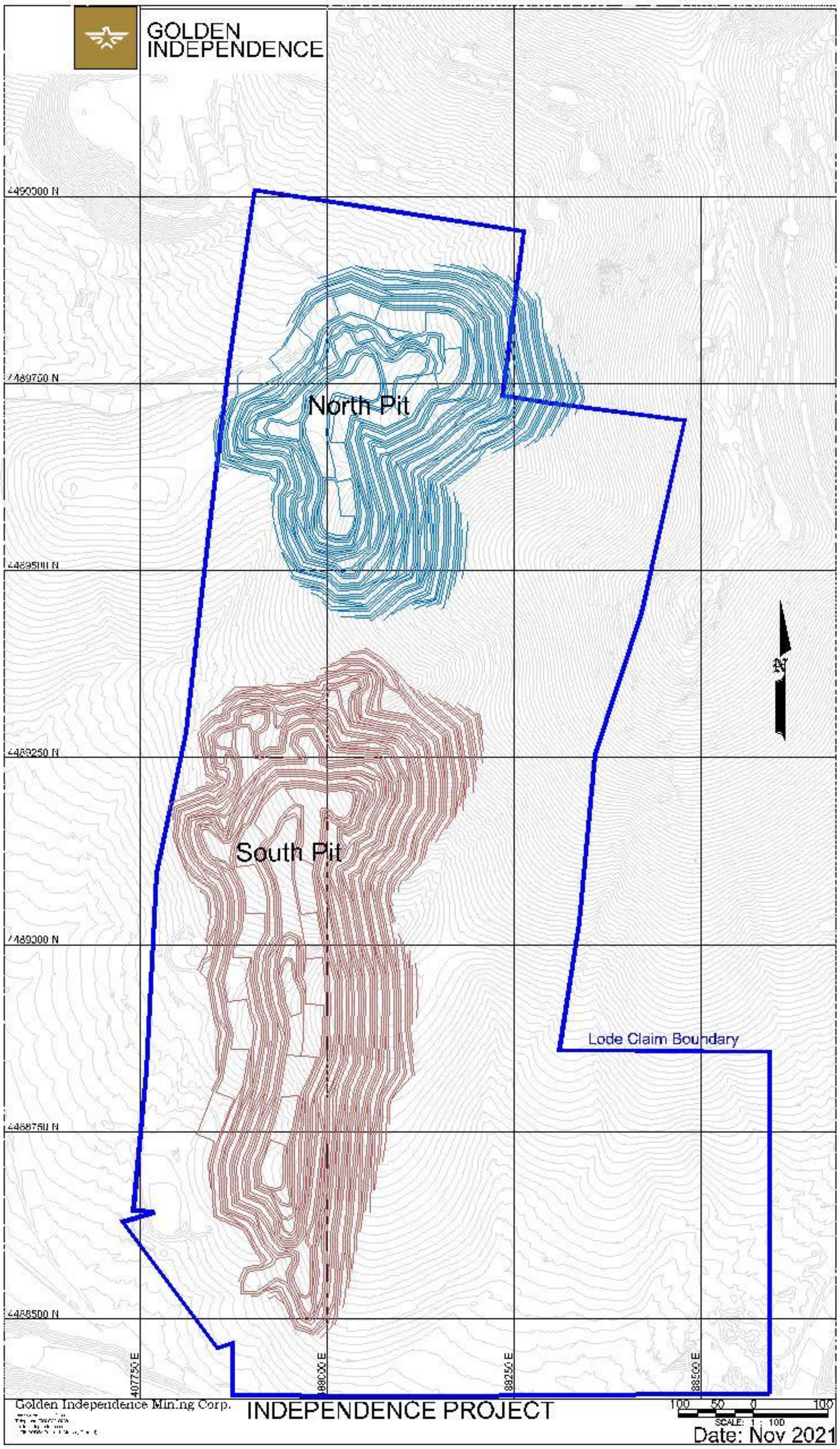
## 16.5 Open Pit Mine Design

Mine design and planning for the two Independence pits (South pit and North pit) was carried out based on the economic pit optimization shells. The bench volumes of mined resources and waste rock were generated using the MineSight block model. Dilution has been accounted for in the resource block model and included in the In-Pit Resource.

Open pit design parameters used in the design of the two pits are shown in Table 16-1 and the final mineable pits used in the economic analysis are shown in Figure 16-2.

Road designs have been completed for the PEA to allow primary access for people, equipment, and consumables to the site. This includes haul roads between the designed pits, dumps, and proposed leach facility. Within the pit designs, ramps have been established for haul truck and equipment access. The initial pit access roads for the top benches will eventually be mined out and only the final ramps to the bottom of the pits will remain. The in-pit ramps will only require a single berm. Ramps outside of the pit will require two safety berms. One-lane traffic ramps are also utilized near the bottom of the two pits where the strip ratio is minimal, and the traffic requirements are low.

**Figure 16-2 Final Mineable Pits, South Pit and North Pit**




Source: Ashton 2021

## 16.6 In-Pit Resources

In-pit mineral resources were estimated for both the South pit and North pit designs. The South Pit, North Pit, and Total in-pit resources are shown in Tables 16-7, 16-8, and 16-9 respectively. There are a total of 32.9 million tonnes of waste associated with the 20.1 million tonnes of material to be processed, and thus have an overall strip ratio of 1.64 tonnes of waste per tonne processed. The in-pit oxide, transition, and sulfide resources are reported using cutoff grade of 0.175g Au/t, 0.225g Au/t, and 0.5g Au/t respectively.

**Table 16-7 In-Pit Resource for the South Pit**

| | Units | Measured | Indicated | M&I | Inferred |
|---|---|---|---|---|---|
| Oxide | Tonnes | 4,490,400 | 4,750,500 | 9,240,900 | 110,700 |
| | g Au/t | 0.46 | 0.43 | 0.44 | 0.27 |
| | Au Ozs | 66,200 | 65,400 | 131,600 | 1,000 |
| | g Ag/t | 10.22 | 9.51 | 9.86 | 5.00 |
| | Ag Ozs | 1,476,300 | 1,453,200 | 2,929,500 | 17,800 |
| Transition | Tonnes | 524,600 | 695,900 | 1,220,500 | 10,300 |
| | g Au/t | 0.56 | 0.68 | 0.63 | 0.31 |
| | Au Ozs | 9,400 | 15,300 | 24,700 | 100 |
| | g Ag/t | 9.50 | 8.82 | 9.12 | 3.15 |
| | Ag Ozs | 160,300 | 197,500 | 357,800 | 1,000 |
| Sulfide | Tonnes | 40,700 | 64,200 | 104,900 | 0 |
| | g Au/t | 1.03 | 1.42 | 1.25 | 0.00 |
| | Au Ozs | 1,300 | 2,900 | 4,200 | 0 |
| | g Ag/t | 15.25 | 15.14 | 15.21 | 0.00 |
| | Ag Ozs | 20,000 | 31,300 | 51,300 | 0 |
| Total South Pit In-Pit Resources | Tonnes | 5,055,700 | 5,510,600 | 10,566,300 | 121,000 |
| | g Au/t | 0.47 | 0.47 | 0.47 | 0.28 |
| | Au Ozs | 76,900 | 83,600 | 160,500 | 1,100 |
| | g Ag/t | 10.19 | 9.49 | 9.83 | 4.83 |
| | Ag Ozs | 1,656,600 | 1,682,000 | 3,338,600 | 18,800 |
| Total Waste | Tonnes | 24,833,100 | | | |
| Total In-Pit Tonnes | Tonnes | 35,520,400 | | | |
| Strip Ratio | W:O | 2.32 | | | |

**Table 16-8 In-Pit Resource for the North Pit**

| | Units | Measured | Indicated | M&I | Inferred |
|---|---|---|---|---|---|
| Oxide | Tonnes | 1,300,500 | 5,937,900 | 7,238,400 | 1,867,400 |
| | g Au/t | 0.33 | 0.33 | 0.33 | 0.32 |
| | Au Ozs | 13,800 | 62,600 | 76,400 | 19,500 |
| | g Ag/t | 4.39 | 4.48 | 4.46 | 4.94 |
| | Ag Ozs | 183,600 | 855,200 | 1,038,800 | 296,500 |
| Transition | Tonnes | 22,000 | 203,900 | 225,900 | 33,900 |
| | g Au/t | 0.32 | 0.37 | 0.36 | 0.42 |
| | Au Ozs | 230 | 2,400 | 2,630 | 460 |
| | g Ag/t | 7.01 | 6.20 | 6.28 | 5.99 |
| | Ag Ozs | 5,000 | 40,600 | 45,600 | 6,500 |
| Sulfide | Tonnes | 100 | 1,600 | 1,700 | 980 |
| | g Au/t | 0.84 | 0.71 | 0.74 | 0.67 |
| | Au Ozs | 3 | 38 | 40 | 21 |
| | g Ag/t | 30.13 | 17.03 | 18.29 | 10.27 |
| | Ag Ozs | 100 | 900 | 1,000 | 320 |
| Total North Pit In-Pit Resources | Tonnes | 1,322,600 | 6,143,400 | 7,466,000 | 1,902,300 |
| | g Au/t | 0.33 | 0.33 | 0.33 | 0.33 |
| | Au Ozs | 14,000 | 65,000 | 79,100 | 20,000 |
| | g Ag/t | 4.44 | 4.54 | 4.52 | 4.96 |
| | Ag Ozs | 188,700 | 896,700 | 1,085,400 | 303,300 |
| Total Waste | Tonnes | 8,108,200 | | | |
| Total In-Pit Tonnes | Tonnes | 17,476,500 | | | |
| Strip Ratio | W:O | 0.87 | | | |

**Table 16-9 Total In-Pit Resources for the Independence Project**

| | Units | Measured | Indicated | M&I | Inferred |
|---|---|---|---|---|---|
| Oxide | Tonnes | 5,790,900 | 10,688,400 | 16,479,300 | 1,978,100 |
| | g Au/t | 0.43 | 0.37 | 0.39 | 0.32 |
| | Au Ozs | 80,000 | 128,000 | 208,000 | 20,500 |
| | g Ag/t | 8.91 | 6.72 | 7.49 | 4.94 |
| | Ag Ozs | 1,659,900 | 2,308,400 | 3,968,300 | 314,300 |
| Transition | Tonnes | 546,600 | 899,800 | 1,446,400 | 44,200 |
| | g Au/t | 0.55 | 0.61 | 0.59 | 0.39 |
| | Au Ozs | 9,630 | 17,700 | 27,330 | 560 |
| | g Ag/t | 9.41 | 8.23 | 8.67 | 5.28 |
| | Ag Ozs | 165,300 | 238,100 | 403,400 | 7,500 |
| Sulfide | Tonnes | 40,800 | 65,800 | 106,600 | 980 |
| | g Au/t | 0.99 | 1.39 | 1.24 | 0.67 |
| | Au Ozs | 1,303 | 2,938 | 4,240 | 21 |
| | g Ag/t | 15.32 | 15.22 | 15.26 | 10.16 |
| | Ag Ozs | 20,100 | 32,200 | 52,300 | 320 |
| Total PEA In-Pit Resources | Tonnes | 6,378,300 | 11,654,000 | 18,032,300 | 2,023,300 |
| | g Au/t | 0.44 | 0.40 | 0.41 | 0.32 |
| | Au Ozs | 90,900 | 148,600 | 239,600 | 21,100 |
| | g Ag/t | 9.00 | 6.88 | 7.63 | 4.95 |
| | Ag Ozs | 1,845,300 | 2,578,700 | 4,424,000 | 322,100 |
| Total Waste | Tonnes | 32,941,300 | | | |
| Total In-Pit Tonnes | Tonnes | 52,996,900 | | | |
| Strip Ratio | W:O | 1.64 | | | |

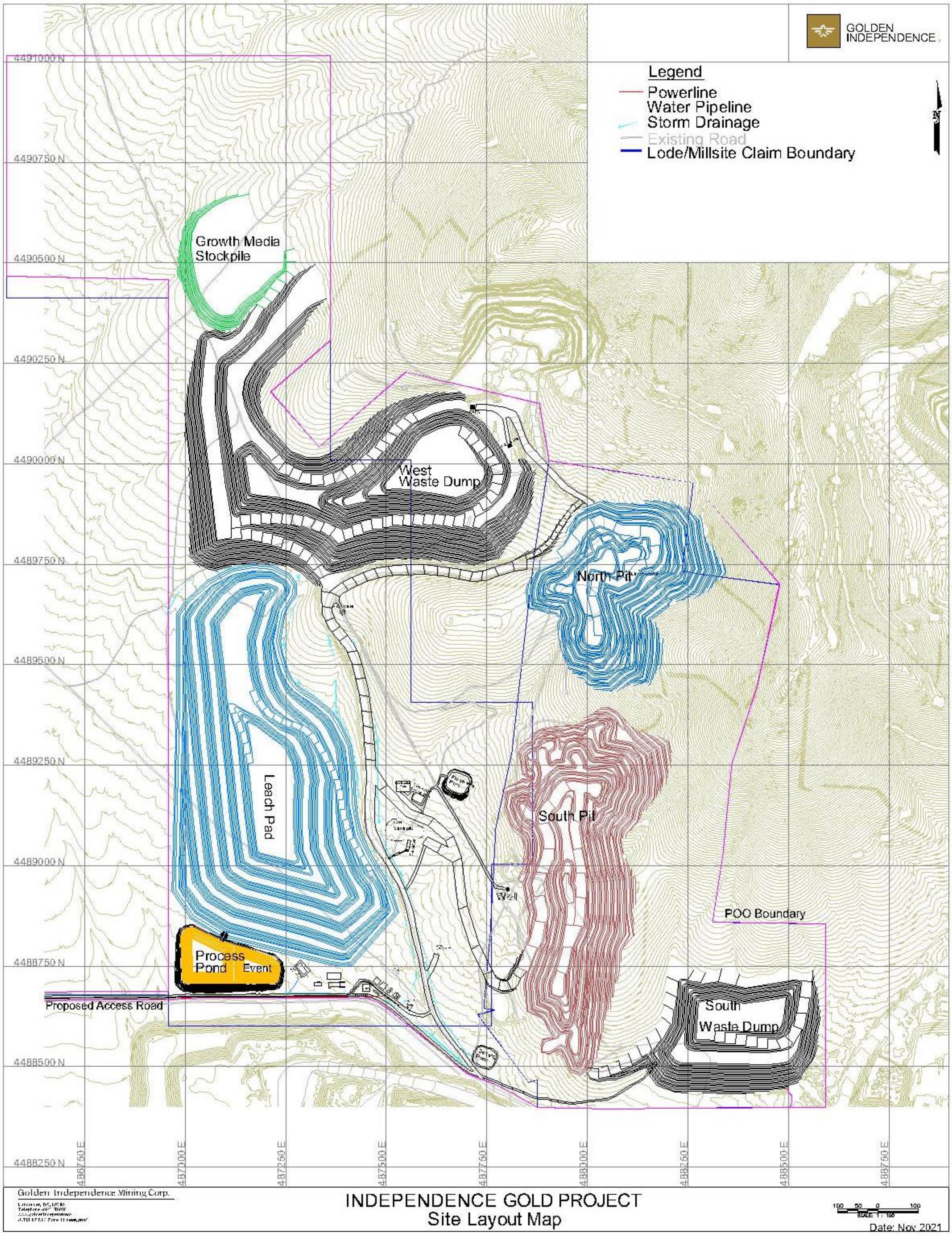
## 16.7 Leach Pad and Waste Dump Design

Waste dump and leach pad designs were created for the PEA to contain the waste and heap-leach material mined. A 32% swell factor and 3% in-situ moisture was assumed for the waste material which provides for both swell when mined and compaction when placed into the dump facility. The total volume requirements for containment of waste with a specific gravity of 1.892 and crushed leach material with a specific gravity of 1.666 is 17.4 million cubic meters for waste material and 12.0 million cubic meters for leach material.

Both the waste dumps and Leach heap were designed with angle of repose of 35.5$^o$ and ultimate reclaimed slopes of 21.8$^o$ (2.5H to 1V).

Mineable pits, waste dumps, the leach pad, and roads and facilities are shown in the general site arrangement drawing in Figure 16-3. The two waste dumps (West and South dumps) have a combined capacity of 17.6 million cubic meters. The leach pad has a capacity of 13.1 million cubic meters.

**Figure 16-3 General Site Arrangement Map**



## 16.8 Mine Production Schedule

Measured, Indicated, and Inferred resources inside of the two pit designs previously discussed were used to schedule mine production. The production schedule considers the processing of Independence ore material by 2-stage crushing and heap leaching.

Half-year periods were used to create the production schedule with a 6 month pre-production period. Mining is to begin in the South Pit. Start of leach processing is in the beginning of year 1, though a total of 547,600 tonnes of leach material is to be mined during pre-production. It is assumed that this material will be crushed and used as over liner on top of the leach pad liner. The maximum rate for leach processing will be 9,000 tonnes per day or 3,285,000 tonnes per year. Note that during the first year, a total of 2,737,200 tonnes will be processed along with the stockpiled material mined during preproduction. This represents a ramp up to full processing.

Leaching starts with material from the higher grade South Pit and in year 2 material from the North Pit will begin to be leached concurrently with the South Pit material. The daily mining rate will ramp up from an average of 12,700 tonnes per day during the pre-production mining period to a maximum of 29,500 tonnes per day in year 2. The yearly mining production schedule for Independence is summarized in Table 16-10.

## Table 16-10 Independence Mine Production Schedule

| | Units | Pre-Prod | Year1 | Year2 | Year3 | Year4 | Year5 | Year6 | Year7 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **Leach Oxide** | Tonnes | 546,000 | 2,557,000 | 2,988,200 | 3,036,900 | 2,940,600 | 2,985,600 | 3,116,400 | 286,900 | **18,457,600** |
| | g Au/t | 0.32 | 0.37 | 0.42 | 0.37 | 0.41 | 0.40 | 0.35 | 0.34 | **0.39** |
| | Au Ozs | 5,600 | 30,800 | 40,000 | 36,600 | 38,400 | 38,900 | 35,000 | 3,200 | **228,500** |
| | g Ag/t | 7.36 | 6.14 | 6.93 | 6.71 | 9.00 | 9.44 | 5.24 | 4.76 | **7.22** |
| | Ag Ozs | 129,300 | 505,200 | 665,600 | 655,500 | 851,400 | 906,100 | 525,600 | 43,900 | **4,282,600** |
| **Leach Transition** | Tonnes | 1,634 | 178,600 | 270,500 | 240,100 | 319,400 | 259,400 | 185,700 | 35,300 | **1,490,600** |
| | g Au/t | 0.34 | 0.40 | 0.51 | 0.46 | 0.83 | 0.77 | 0.38 | 0.39 | **0.58** |
| | Au Ozs | 20 | 2,300 | 4,400 | 3,500 | 8,500 | 6,500 | 2,300 | 400 | **27,900** |
| | g Ag/t | 5.24 | 6.96 | 8.29 | 7.64 | 8.85 | 12.08 | 6.82 | 6.33 | **8.57** |
| | Ag Ozs | 300 | 40,000 | 72,100 | 59,000 | 90,900 | 100,700 | 40,700 | 7,200 | **410,900** |
| **Leach Sulfide** | Tonnes | 0 | 1,636 | 26,600 | 8,900 | 26,700 | 40,900 | 2,900 | 0 | **107,600** |
| | g Au/t | 0.00 | 0.71 | 0.79 | 0.73 | 1.01 | 1.88 | 0.76 | 0.00 | **1.27** |
| | Au Ozs | 0 | 40 | 680 | 210 | 870 | 2,500 | 100 | 0 | **4,400** |
| | g Ag/t | 0.00 | 17.50 | 17.84 | 11.46 | 11.71 | 16.45 | 15.32 | 0.00 | **15.17** |
| | Ag Ozs | 0 | 900 | 15,300 | 3,300 | 10,000 | 21,600 | 1,400 | 0 | **52,500** |
| **Total Leach Mined** | Tonnes | 547,600 | 2,737,200 | 3,285,300 | 3,285,900 | 3,286,700 | 3,285,900 | 3,305,000 | 322,200 | **20,055,800** |
| | g Au/t | 0.32 | 0.38 | 0.43 | 0.38 | 0.45 | 0.45 | 0.35 | 0.35 | **0.40** |
| | Au Ozs | 5,600 | 33,100 | 45,100 | 40,300 | 47,800 | 47,900 | 37,400 | 3,600 | **260,800** |
| | g Ag/t | 7.36 | 6.20 | 7.13 | 6.79 | 9.01 | 9.73 | 5.34 | 4.93 | **7.36** |
| | Ag Ozs | 129,600 | 546,100 | 753,000 | 717,800 | 952,300 | 1,028,400 | 567,700 | 51,100 | **4,746,000** |
| **Oxide Wst** | Tonnes | 1,668,700 | 5,616,100 | 7,035,400 | 6,544,900 | 4,804,200 | 2,478,400 | 1,836,600 | 113,700 | **30,098,000** |
| **Transition Wst** | Tonnes | 83,600 | 541,600 | 427,700 | 506,500 | 498,800 | 275,700 | 151,900 | 0 | **2,485,800** |
| **Sulfide Wst** | Tonnes | 14,804 | 48,200 | 19,900 | 64,800 | 87,900 | 104,100 | 17,500 | 0 | **357,200** |
| **Total Waste** | Tonnes | 1,767,100 | 6,206,000 | 7,483,000 | 7,116,200 | 5,391,000 | 2,858,100 | 2,005,900 | 113,700 | **32,941,000** |
| **Total Mined** | Tonnes | 2,314,700 | 8,943,200 | 10,768,300 | 10,402,100 | 8,677,700 | 6,144,000 | 5,310,900 | 435,900 | **52,996,800** |
| **Strip Ratio** | W:O | 3.23 | 2.27 | 2.28 | 2.17 | 1.64 | 0.87 | 0.61 | 0.35 | **1.64** |
| **Ave Prod/day** | tonnes | 12,700 | 24,500 | 29,500 | 28,500 | 23,800 | 16,800 | 14,600 | 12,100 | |

The leach process production schedule was created by KCA based on the mine production schedule, metal recoveries and lag times. The recoveries used to estimate recoverable gold are those shown in Table 16-3. The lag time is generated by estimating the extraction of the recoverable ounces on a month by month basis after placement of material. The lag time for material placed in the stockpile during pre-production mining is delayed to start beginning in year 1. Table 16-11 shows the yearly process production schedule for the Independence Project.

The PEA total life-of-mine ("LOM") gold production is estimated to be 195,400 ounces, with a LOM average recovery of 75%. Silver production is estimated to be 1,281,400 ounces, with an average LOM recovery of 27%.

**Table 16-11 Independence Process Production Schedule**

| Ore Processed | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Total Ore Processed, tonne** | | 3,284,800 | 3,285,300 | 3,285,900 | 3,286,700 | 3,285,900 | 3,305,000 | 322,200 | 20,055,800 |
| Au grade | | 0.366 | 0.427 | 0.381 | 0.452 | 0.453 | 0.352 | 0.348 | 0.404 |
| Ag grade | | 6.40 | 7.129 | 6.795 | 9.012 | 9.735 | 5.343 | 4.933 | 7.36 |
| contained Au, oz | | 38,700 | 45,100 | 40,300 | 47,800 | 47,900 | 37,400 | 3,600 | 260,800 |
| contained Ag, oz | | 675,700 | 753,000 | 717,800 | 952,300 | 1,028,400 | 567,700 | 51,100 | 4,746,000 |
| **Recoverable Gold, oz** | | | | | | | | | |
| Total Recoverable Gold, oz | | 29,924 | 33,936 | 30,706 | 34,760 | 34,481 | 28,820 | 2,728 | **195,355** |
| | Oxide | 28,756 | 31,600 | 28,914 | 30,336 | 30,731 | 27,650 | 2,528 | |
| | Transition | 1,160 | 2,200 | 1,750 | 4,250 | 3,250 | 1,150 | 200 | |
| | Sulfide | 8 | 136 | 42 | 174 | 500 | 20 | 0 | |
| Ultimate Recovery, Au | | **77%** | **75%** | **76%** | **73%** | **72%** | **77%** | **76%** | **75%** |
| **Recoverable Silver, oz** | | | | | | | | | |
| Total Recoverable Silver, oz | | 182,439 | 203,310 | 193,806 | 257,121 | 277,668 | 153,279 | 13,797 | **1,281,420** |
| | Oxide | 171,315 | 179,712 | 176,985 | 229,878 | 244,647 | 141,912 | 11,853 | |
| | Transition | 10,881 | 19,467 | 15,930 | 24,543 | 27,189 | 10,989 | 1,944 | |
| | Sulfide | 243 | 4,131 | 891 | 2,700 | 5,832 | 378 | 0 | |
| **Ultimate Recovery, Ag** | | **27%** | **27%** | **27%** | **27%** | **27%** | **27%** | **27%** | **27%** |
| **Recoverable Gold Delayed** | | 4,489 | 5,090 | 4,606 | 5,214 | 5,172 | 4,323 | | |
| **Recoverable Silver Delayed** | | 27,366 | 30,497 | 29,071 | 38,568 | 41,650 | 22,992 | | |
| **Total Gold Produced Profile, oz** | | 25,435 | 33,334 | 31,191 | 34,152 | 34,523 | 29,669 | 7,051 | 195,355 |
| **Total Silver Produced Profile, oz** | | 155,073 | 200,179 | 195,232 | 247,624 | 274,586 | 171,937 | 36,789 | 1,281,420 |
| **TOTAL EQUIVALENT Au oz PRODUCED** | | **27,625** | **36,160** | **33,947** | **37,648** | **38,399** | **32,097** | **7,570** | **213,446** |

## 16.9 Mine Operations and Equipment

This PEA assumes that mining operations at Independence will be performed by a mine contractor thus eliminating the large capital expense of purchasing mine equipment. These costs however are reflected in higher mine operating costs. The relatively short mine makes contract mining an economic and lower risk choice.

A mine contractor will be used for most mining activities including site preparation, haul road construction and maintenance, ore and waste drilling and blasting, excavation and haulage of ore and waste, and management of waste dumps. The mine contractor will provide all the required open pit mining equipment. The mine contractor will also provide operator training, safety training, supervision, and maintenance and office facilities for contractor's operations.

Independence will provide pit technical services including overall mine management, blasting design, blasthole layout, ore grade control, mine planning, surveying, and blasthole sampling.

The mine operation will be by conventional open pit mining methods utilizing rubber tired wheel-loaders and 90-tonne haul trucks. Productivity and cost analysis assumed a fleet of Caterpillar 992 wheel-loaders to load Caterpillar 777 haul trucks. Drilling will be by conventional rotary drills drilling 16-cm diameter holes on a 4-m burden by 4-m spacing blast pattern.

At the crusher stockpile area, Independence will provide a front-end loader to feed the crusher from the coarse ore stockpile when trucks are not direct dumping into the primary crusher.

The mine operating schedule assumes 2-shifts, 12-hours per shift, 365 days per year. The operating schedule assumes 8 days for holidays and two weather delay days per year.

The Independence project will require a maximum of approximately 91 personnel to carry out the proposed mine plan including mine contractor personnel. At its peak, Mine Operations will require 24 people per each of the two crews. Similarly, Mine Maintenance will require a maximum of 12 people on each of its two crews. Mine management, operations supervision and technical services will require 18 total people – some working shift work and others working a regular week day schedule.

## 16.10 Mining above Underground Workings

Historic underground mining has occurred in the mineralized areas of the South Pit. This mining was generally performed manually by excavating drifts (tunnels) underneath the ore zones and selectively extracting the mineralized rock from underneath – creating an open manmade cave (stope). Sometimes, mine timbers and rock bolts were used to brace the sides of the drifts and stopes, but after several decades the support is no longer effective. The unsupported openings often have no surface expression and may cave in if mining equipment gets too close.

Experience at numerous open pit mines in Nevada has shown that mining over historic underground mines can be performed safely without significantly disrupting the mining schedule; however the presence of underground workings requires additional safety precautions to avoid ground collapse under men or equipment. Typically, a blast hole drill is used to advance probe holes to a depth of 20 meters below a mining level to determine the presence of a mining cavity. When a cavity is located, additional probe holes are drilled to determine the extent of the cavity. Then a blasting plan is developed to fill the void with blasted rock prior to mining over the area. If additional voids are exposed during mining, additional probing, drilling and blasting will be performed until the area is safe and normal mining activities can be resumed.

# 17.0 RECOVERY METHODS

The overall process includes crushing, material stacking, heap leach, Merrill Crowe plant and Refinery. The total resource is around 20 million tonnes including measured, indicated and inferred resources. A crushing circuit at a nominal rate of 9,000 tonnes per day is recommended at this stage, which is equivalent to an annual production of 3.29 million tonnes and allows for over six years of mine life.

Based on the mine plan, the material feed in each year contains a majority of oxide, with minor amounts of transition and sulfide. A two-stage open crushing circuit will produce a final product with 100 % passing 57 mm material. An overall process flowsheet is shown in Figure 17-1.

## 17.1 Process Design Basis

The total utilization and availability of the primary crushing circuit is assumed 80%, and the downstream secondary crushing and conveying is assumed to have 85% total utilization and availability. Based on the nominal daily rate, approximately 470 metric tonnes per hour (mtph) for the primary crushing circuit and 440 mtph for the downstream crushing circuit.

Run-of-mine material from the open pits is delivered to the primary crusher station in 90-tonne capacity haul trucks. The material is dumped directly into the primary crusher feed hopper which is covered with a fixed grizzly with 500 mm x 500 mm openings. Any oversize will be further broken by a hydraulic rock breaker. The hopper volume is able to hold 200 tonnes. An apron feeder transfers the material from the hopper to a vibrating grizzly with 80 mm aperture. The vibrating grizzly screen oversize feeds a primary jaw crusher. The primary crusher open side setting is controlled around 4 inches or 100 mm. The primary crusher product will join with the vibrating grizzly undersize on the primary crusher discharge conveyor, and then discharged to a primary stockpile through a fixed stacking conveyor.

The primary stockpile has total capacity of 21,200 metric tonnes allowing 48 hours of downstream crushing operation. Based on the nominal crushing circuit rate of 440 mtph, the total material in the primary stockpile is around 21,200 metric tonnes at the maximum, which corresponds to a stockpile at 51 meters in diameter and 19 meters high.

The material is reclaimed by belt feeders to the secondary screen feed hopper. The screen is a double deck vibrating screen, with the top panel cut at 100 mm and bottom panel cut at 50 mm. The screen oversize from two decks feeds to one unit of secondary cone crusher with the close side setting at 33 mm. The secondary cone crusher product joins the secondary screen undersize and is conveyed to a series of grass hoppers through overland conveyor, and eventually stacked to the leach pad.

Lime will be dosed to the material at the secondary crushing product conveyor. One lime silo and lime screw conveyor system is designed to meter lime onto the conveyor, maintaining the leaching solution pH at the target level during heap leach. The lime silo will hold total 100 tonnes of lime which will allow approximately three days of consumption.

From the metallurgical test data and engineering experience, the bulk density of active lift is estimated at 1.66 metric tonnes per cubic meter. The lift height is 9 meters, with an irrigation rate of 10 L/hr/$m^2$. The material stacking at the pad has the same utilization and availability at 85% as with the secondary crushing circuit, while the solution handling system and Merrill Crowe plant has utilization and availability of around 98%.

Based on nominal stacking rate of 9,000 metric tonnes per day (mtpd), and bulk density of 1.66 tonne/$m^3$, a lift height of 9 meters, and a leach cycle of 120 days; the active leaching area 72,030 $m^2$, which corresponds to the total barren solution flow of 720 $m^3$/hr.

The pregnant solution will gravity flow to a pregnant solution pond, which is further pumped to the Merrill Crowe plant.

The Merrill Crowe plant includes clarification filters with diatomaceous earth as filter media. The clarified pregnant solution will be pumped through a de-aeration tower to remove the dissolved oxygen below 0.5 ppm. The de-aerated solution will be pumped through plate and frame press filters with zinc addition, which precipitates gold and silver out to the filter cake. The filter cake will be dried and retorted, then mixed with fluxes and smelted in an electric induction furnace to produce the final dorè. The barren solution from the filter press will flow to a barren solution tank, and cyanide will be added so the cyanide concentration in the barren solution will be adjusted to the appropriate level for leaching.

Figure 17-1 shows the overall process flowsheet. Figure 17-2 shows the general arrangement of the process facilities.

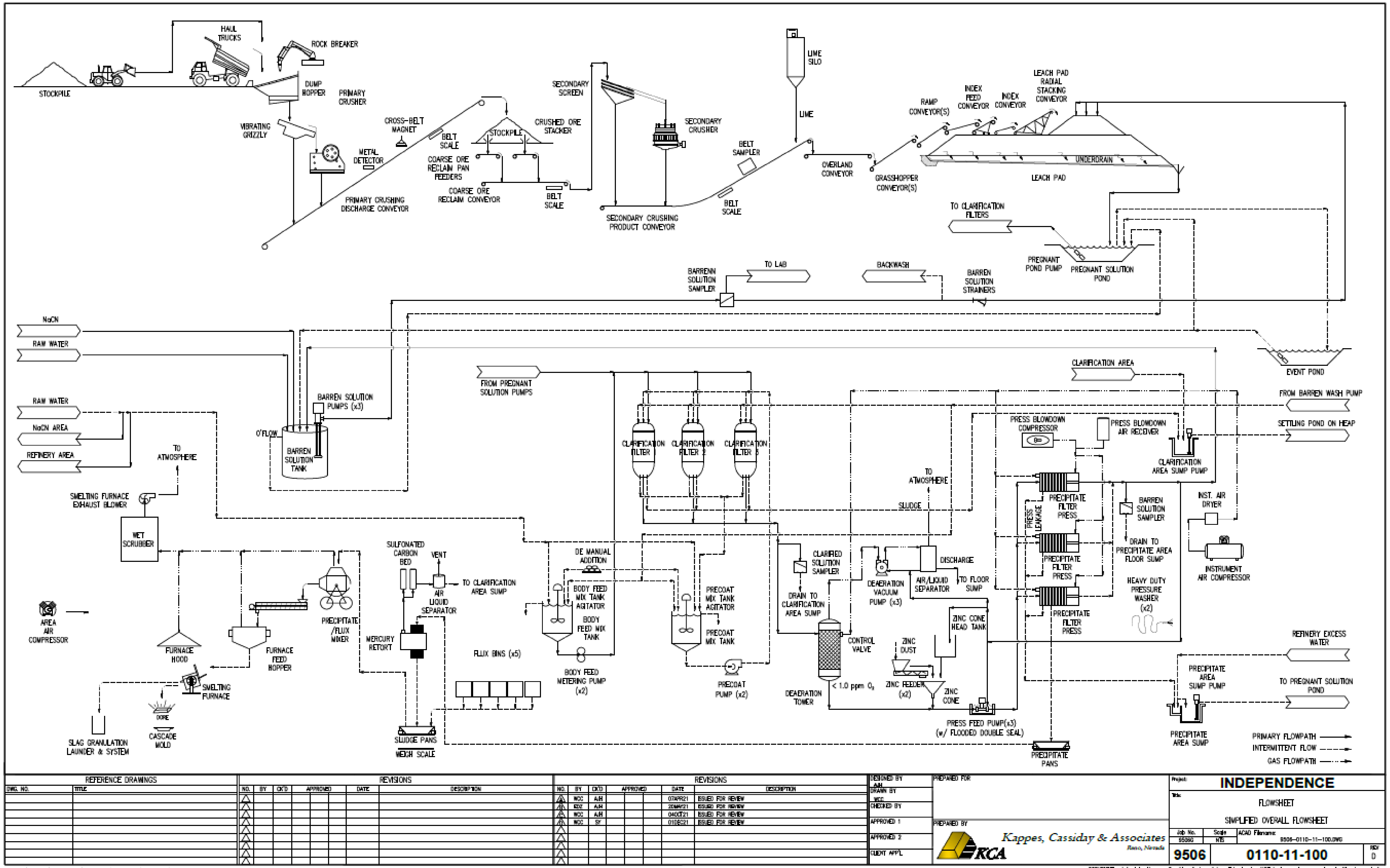



**Figure 17-1 Process Overall Flowsheet**

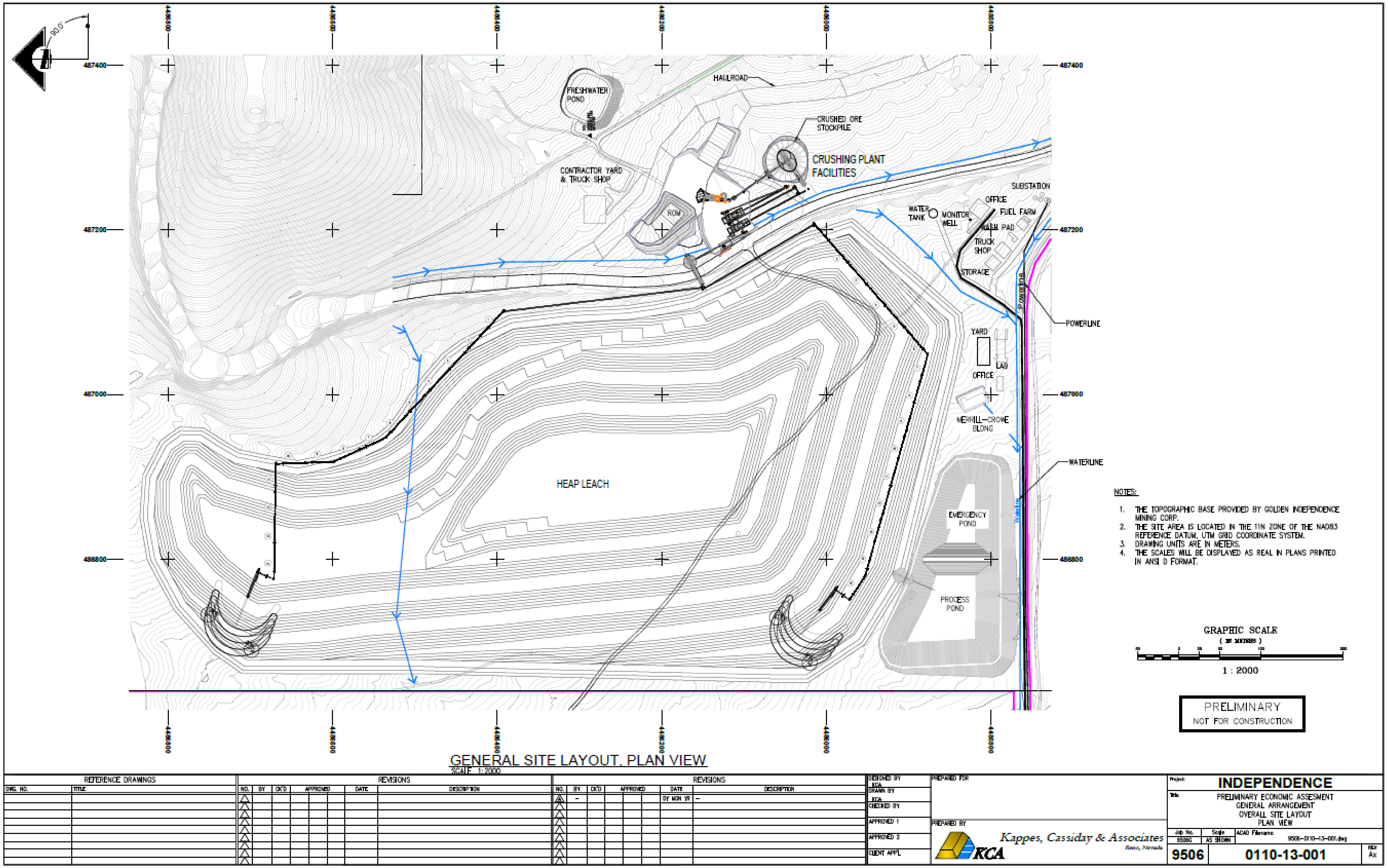



**Figure 17-2 Process Facilities Layout**

## 17.2 Crushing

ROM material will be transported from the mine in 90-tonne surface haul trucks and dumped in the dump hopper or stockpiled in a ROM stockpile. Stockpiled material will be reclaimed by a front-end loader and fed to the dump hopper as needed. Oversized rocks or large lumps will be broken using a rock breaker.

Material will be fed from the ROM dump hopper to a vibrating grizzly feeder via an apron feeder. The grizzly oversize will be fed to the jaw crusher and the grizzly undersize will be recombined with the jaw crusher product on the primary crusher discharge conveyor. The primary crusher discharge conveyor transfers the material to the primary stockpile, where it will be reclaimed by two belt feeders and fed to the secondary crusher feed bin by the secondary crushing feed conveyor. A tramp metal electromagnet and metal detector will be installed on the secondary crushing feed conveyor to protect the secondary crusher.

Material from the secondary feed bin will be fed to the double deck vibrating secondary screen by a belt feeder with oversize material being fed to the secondary cone crusher and undersize being fed onto the crushed product conveyor. The secondary screen undersize and secondary crusher product will both report to secondary crushing product conveyor, the size will be 100% passing 57 mm or p80 around 38 mm. Lime for pH control will be added to the secondary crushing product conveyor at an average rate of 2, 3, or 4 kg per tonne of material depending on oxidation category oxide, transitional, or sulfide, respectively. Lime will be fed from one 100-tonne silo equipped with a bin activator, variable speed screw feeder, and dust collector.

All of the conveyors will be interlocked so that if one conveyor trips out, all upstream conveyors and the vibrating grizzly feeder will also trip. This interlocking is designed to prevent large spills and equipment damage. Both of these features are considered necessary to meet the design utilization for the system.

## 17.3 Conveying and Stacking

The heap will be constructed in 9.0m-high lifts, using a mobile conveyor stacking system. The heap stacking system consists of mobile field conveyors (grasshoppers) that transfer the material to the conveyor stacking system, which includes an index feed, horizontal index, and radial stacker conveyors. The mobile grasshopper conveyor chain transfers material from the overland conveyor to the index feed conveyor which feeds the horizontal index conveyor which feeds the radial stacker. The horizontal index and radial stacker are able to advance and stack material onto the heap. The number of grasshopper conveyors required varies depending on the area of the heap being stacked.

Once a lift of cells has finished leaching and is sufficiently drained and dry, a new lift can be stacked over the top of the old lift. The old lift will be cross-ripped prior to stacking new material on top of any old heap area or access road/ramp to break up any compacted or cemented sections.

## 17.4 Leach Pad Design

The leach pad would be designed as a double-lined facility and would consists of a layer of geosynthetic clay liner (GCL) having a hydraulic conductivity less than or equal to $1x10^{-6}$ centimeters per second (cm/s) which acts as the secondary liner system. A layer of 2.0 mm thick linear low-density polyethylene (LLDPE) material with the bottom side textured to provide an intimate bond with the underlying GCL. LLDPE has been chosen for its superior resistance to puncturing; overall durability; and proven performance in heap leach applications. A leak detection system would be installed between the GCL and the LLDPE liner to alert operations to any potential leaks in the primary liner. A series of pregnant solution collection pipes would be installed in a “herring bone” arrangement to collect the solution and direct it into the pregnant solution pond. Overliner, consisting of crushed mineralized material to provide both liner protection and a hydraulic conductivity of at least $1x10^{-1}$ cm/s, would be screened to 100% passing 51 mm and limited to a maximum of 10% passing 200 Mesh. The overliner would be placed in a 0.6 m thick layer over the LLDPE liner and solution collection piping.

The crushed ore would be stacked in lifts averaging 9 m high to a maximum of 81 m at a nominal rate of 9,000 mtpd. The leach pad would be constructed in two-phases. The total pad would have an area of approximately 386,800 $m^2$ with a capacity to hold 21.9 million tonnes of mineralized material.

## 17.5 Solution Application

Material will be leached in a single stage using barren solution consisting of a dilute sodium cyanide solution. Barren solution will be pumped from the barren solution tank to the active leach area using a vertical turbine pump and will be applied to the heap by a system of drip emitters. Drip emitters will be used as they generate less evaporation than sprinklers and will minimize the make-up water requirements. Barren solution will be applied to the heap and an average rate of 10 $L/h/m^2$. Based on metallurgical test work completed to date, a leach cycle of 120 days has been estimated. Concentrated cyanide will be added to the barren solution tank by metering pumps to maintain the target cyanide concentration. The barren solution tank is sized for 30 minutes of residence time at the nominal flow rate of 720 $m^3/h$. The barren solution tank will be near the Merrill Crowe building.

Pregnant solution containing gold and silver values from the heap drains by gravity to solution collection piping to a pregnant solution pond from the heap. Perforated corrugated polyethylene pipes will be placed on the geomembrane liner to facilitate the collection and transport of pregnant leach solution to the pregnant tank.

Antiscalant polymer will continuously be added to the leach solutions to reduce the potential for scaling problems within the irrigation system.

## 17.6 Process Water Balance and Pond Sizing

To estimate water usage for the Independence project, a conceptual deterministic site wide water balance was developed. The water balance considered water consumption for dust-control watering, heap leaching of ore, construction water, process water, and additional minor consumers. Considering the arid climate, the leach pad as designed is predicted to have a "net-negative" water balance during operation, consuming more water than it develops through rainfall, except during short-duration severe precipitation periods or events.

Based on the water balance, site wide water requirements are highest during Phase 1 operations when water is required for construction of the Phase 2 leach pad, and the heap leach pad area will be its smallest, thereby reducing the amount of precipitation developing from the lined pad and the need for increased makeup water.

Site wide water demands for the mine are estimated at an average annual requirement of 521,300 $m^3$ (262 gpm) with the highest demand during July with a monthly water demand of 69,800 $m^3$ (421 gpm). During construction of the Phase 2 leach pad make up water requirements will increase to 556,500 $m^3$ (333 gpm) over the three month construction period with a maximum demand during July of the construction year of 84,200 $m^3$ (508 gpm).

Of the total water demand for the site during normal non-construction operations, and under average climate conditions, mine personnel water is estimated to be <1%, process plant is 5%, heap leach facility make-up water is 76%, and access and haul road dust suppression is 18%.

The conceptual water balance was also used to conceptually size lined event ponds for leach pad operations. The Event pond and Pregnant Pond were sized to contain the combined volume of fluids produced from the precipitation falling on all lined areas from the 1 in 100-year, 24-hour storm event of 63.2 mm occurring over the lined pad and pond areas the 48-hour pump outage drain down event, and the minimum operational fluid level in the Pregnant Pond. One event pond and one Pregnant Solution Pond were sized to contain a total upset conditions volume of 150,100 $m^3$.

## Table 17-1 Independence Water Balance and Pond Sizing

| Leach Pad/ Pond Inflows | Average Annual Requirement m$^3$/year | Average Annual Requirement Average gpm | Peak Monthly Requirement m$^3$/month | Peak Monthly Requirement Average gpm |
|---|---|---|---|---|
| Barren Solution Application | 6,307,200 | 3,170.1 | 518,400 | 3,126.7 |
| Rainfall | 82,975 | 41.7 | 2,663 | 16.1 |
| | | | | |
| **Leach Pad/ Pond Outflows** | | | | |
| Solution Application Evaporation Loss | 108,639 | 54.6 | 20,400 | 123.0 |
| Precipitation Loss on inactive Heap area | 12,195 | 6.1 | 391 | 2.4 |
| Evaporation of Solution in Pond | 13,185 | 6.6 | 2,476 | 14.9 |
| Loss due to Ore Wetting | 345,240 | 173.5 | 28,770 | 173.5 |
| | | | | |
| **Net Solution Balance** | | | | |
| Net Loss of Solution | -396,285 | -199.2 | -49,373 | -297.8 |
| Make up water to maintain Solution Pond | 396,285 | 199.2 | 49,373 | 297.8 |
| Dust Control Make up water | 95,759 | 48.1 | 17,981 | 108.5 |
| Mine Personnel make up water | 3,011 | 1.5 | 251 | 1.5 |
| Process Plant make up water | 26,280 | 13.2 | 2,189 | 13.2 |
| **Cummulative Make up Water Required** | 521,335 | 262.0 | 69,794 | 421.0 |
| | | | | |
| **Phase 2 Construction Water Required (3-months)** | 35,189 | 70.7 | 14,382 | 86.7 |
| **Make up Water Required with Construction** | 556,524 | 333 | 84,176 | 508 |

| Required Pond Capacity | m$^3$ | gallons |
|---|---|---|
| Operating Solution Storage | 44,894 | 11,859,738 |
| 24-Hour 100-Year Staorm Event | 25,507 | 6,738,265 |
| 48-Hour Power Outage Draindown | 34,560 | 9,129,784 |
| Total | 104,961 | 27,727,787 |
| **Available Pond Capacity** | m$^3$ | gallons |
| Pregnant Pond | 87,309 | 23,064,593 |
| Emergency Pond | 39,786 | 10,510,347 |
| 1-meter Free board | 22,978 | 6,070,144 |
| Total | 150,073 | 39,645,085 |

## 17.7 Ponds

The heap leach facility would initially include two ponds – the pregnant solution pond and the event pond. The pregnant solution pond would receive the pregnant solution from the leach pad as described above. Solution would enter the pond on the north side. Any entrained solids would settle out of the solution before overflowing an internal divider berm. Pumps would then transfer the clarified pregnant solution into the Merrill Crowe plant. The flow could be diverted directly into the pregnant pond bypassing the internal divider berm so that the settled solids could periodically be removed. The operating volume of the pond would be approximately 44.8k $m^3$ (11.86 million gallons) with an additional 1-meter of freeboard. This pond would consist of a 30.5 cm (12 in) prepared subbase layer with a hydraulic conductivity less than or equal to $1x10^{-5}$ cm/s, followed by two layers of 60-mil geosynthetic liner, with geonet and a leak detection system installed between the two geosynthetic layers.

The pregnant solution will be pumped from the pond into the Merrill Crowe plant using a permanent pumping system. The pumping system would consist of three submersible pumps with two operating and one standby. The pumps would feed into a common solution header.

The event pond is designed as an emergency pond. This pond was sized to capture inflow from a 100-year, 24-hour storm event plus a 48-hour drain down from the leach pad if needed. The pregnant solution pond would be connected to the event pond so that during upset conditions, any overflow would be directed into the event pond avoiding any release to the environment. The event pond would have a capacity of approximately 39.8k $m^3$ (10.5 million gallons). The event pond would consist of a layer of a 30.5 cm (12 in) prepared subbase layer with a hydraulic conductivity less than or equal to $1x10^{-5}$ cm/s and a double layer of 2 mm (60-mil) geosynthetic liner with a leak detection between the two of geosynthetic so as this pond could be used as a pregnant solution storage pond if necessary. Any solution accumulated in the pond would be evacuated via a temporary submersible pump and reclaimed into the pregnant solution pond.

The freshwater piping would be configured such that water can be added to the event pond and the pregnant pond. This was intended to accommodate water testing of the ponds prior to startup, as well as offering additional storage volume for the initial wetting of the mineralized material on the leach pad. During operations, fresh water would generally be added to the barren solution tank.

## 17.8 Merrill Crowe Plant

The gold and silver from the pregnant solution will be recovered by the Merrill Crowe process. The Merrill Crowe circuit will contain the following major components.

- 3 units of clarification filters (two operating and one standby) with a total nominal flow of 712 $m^3$/h and a design flow capacity of 854 $m^3$/h.
- One de-aeration tower handling a total nominal flow of 712 $m^3$/h and a design flow capacity of 854 $m^3$/h.
- 3 units of filter press (two operating and one standby) handling a total nominal flow of 712 $m^3$/h and a design flow capacity of 854 $m^3$/h.
- Diatomaceous earth precoat system and bodyfeed system
- Zinc addition system

Pregnant solution from the pregnant solution pond will be pumped to the circuit at a rate of 712 $m^3$/hr. Magnetic flow meters equipped with totalizers will measure the flow to the plant; an online DO (dissolved oxygen) meter will be installed on the feed pipe to the filter presses to ensure the solution DO level is below 0.5 ppm. The pregnant solution will be pumped through the clarifiers, de-aeration tower and precipitate filters. The barren solution out of precipitate filters will report to the barren solution tank for cyanide addition. The filter cake containing precious metals will be collected in a bin and then smelted. Solution samples will be used to measure pregnant and barren solution gold and silver concentrations.

## 17.9 Process Reagents and Consumables

### 17.9.1 Process Reagents and Consumables

Average estimated annual reagent and consumable consumption quantities for the process area are shown in Table 17-2.

**Table 17-2 Projected Annual Reagents and Consumables**

| Item | Form | Storage Capacity | Average Annual Consumption |
|---|---|---|---|
| Sodium Cyanide | Liquid | 50 $m^3$ | 900 mt |
| Lime | Bulk Delivery (35 tonne) | 100 mt | 6,700 mt |
| Antiscalant | Liquid Tote 1 $m^3$ | 2 months | 32 mt |

#### *17.9.1.1 Lime*

Lime is assumed to be delivered in 20-tonne pneumatic trucks. Storage will be provided in one 100-tonne silo and the estimated consumption is 2, 3, and 4 kg/tonne material for oxide, transitional, and sulfide material, respectively. The average annual consumption is around 6,700 tonnes.

Lime from the silos will be metered directly onto the overland conveyor via screw feeder.

#### *17.9.1.2 Sodium Cyanide*

Cyanide used for leaching and other process applications will be delivered onsite in liquid form, with cyanide concentration approximately at 30% by weight. The average annual cyanide consumption is around 900 tonnes, or around 2,200 $m^3$ of concentrated cyanide in liquid form.

Based on the test work, the estimated sodium cyanide consumption is 0.27, 0.405, 0.255 kg/tonne for oxide, transitional, and sulfide material, respectively.

#### *17.9.1.3 Antiscalant*

Antiscalant agents will be used to prevent the build-up of scale in the process solution and heap irrigation lines. Antiscalant agent will normally be added to the process pump intakes, or directly into pipelines. Consumption varies depending on the concentration of scale-forming species in the process stream. Delivery will be in liquid form in 1 $m^3$ (1-tonne) bulk containers.

Antiscalant will be added directly from the supplier bulk containers into the pregnant and barren pumping systems using variable speed, chemical-metering pumps. On average, antiscalant consumption is expected to be about 5 kilograms per 1,000 $m^3$ (5 ppm) of process solution to be treated (pregnant and barren).

# 18.0 PROJECT INFRASTRUCTURE

## 18.1 Infrastructure

The infrastructure for Independence project has been developed to support mining and heap leaching operations. This includes the access road to the facility, power supply, communication, heap leach pad, process plant and ancillary buildings. Water supply to the site including tanks, pipelines, ponds, and diversions are described in Section 18.3. Haul roads within the mining area as well as the mine waste dumps are described in Section 16. The Leach Pad and Process/Event Pond are discussed in Section 17. A general site arraignment map covering the proposed facilities is shown in Figure 16-3.

### 18.1.1 Existing Installations

Other than access roads, no infrastructure currently exists at site.

### 18.1.2 Access and Site Roads

The Independence property is located approximately 37 kilometers (23 miles) by road from Battle Mountain, Nevada on State and County roads. To access the property beginning at Battle Mountain is to travel south on Nevada Route 305 for 19 kilometers (12 miles). Then turn right onto the Copper Basin County road and travel 10.5 kilometers (6.5 miles) to the intersection with the Willow Creek road. Turn right on to the Willow Creek road and travel 6.9 kilometers (4.3 miles) to the proposed mine access road. Turn right onto the proposed mine access road and travel 0.5 kilometers (0.3 miles) to the mine office location. Figure 18-1 shows the access to the proposed mine beginning at the Nevada Route 305 intersection with the Copper Canyon road. The Willow Creek road and the mine access road will be constructed or upgraded to a surface width of 10 meters. Magnesium Chloride (MgCl) or equivalent will be applied as needed to the access roads to control dust.


Source: Ashton 2021

### 18.1.3 Project Buildings

Buildings located on the proposed mine site will include a site security building, Administrative offices, truck shop, warehouse, process buildings, laboratory, crushing building, and mine contractor facilities.

The site Security Building is located south of the process pond, approximately 0.3 kilometers (0.2 miles) from the intersection with the Willow Creek road. The Security Building includes an entry access gate that will control all site ingress egress. From the entry gate a security fence will surround the active mine and facilities.

The administration building will be a double- or triple-wide office trailer with sufficient room for up to eight offices and one conference room, as well as a first aid clinic. A second trailer will be used for mine operations to house the mining supervision, engineering, and geology departments. A third trailer will be used for safety and training facilities. Each of the buildings will be placed in service with electrical, water, and leach field sewage.

The truck shop will include maintenance bays to support mobile equipment maintenance. The mining contractor will provide the mine shop facilities. Lubricants and antifreeze will be managed and stored in the area as required by MSHA and other state and federal regulations. A truck wash facility will be located adjacent to the truck shop. Wash water will be directed to a settling basin where water and solids will be separated. Water will be treated with an oil-water separator and re-circulated.

### 18.1.4 Laboratory and Warehouse

A laboratory facility will be constructed near the Merrill Crowe plant and will process samples from the mine and process facilities. The lab includes a wet lab, atomic adsorption, and fire assay capability with the capacity to process up to 150 samples per day. The warehouse for the mine will be located in the same building as the laboratory.

### 18.1.5 Fuel Storage and Dispensing

A fuel storage depot will be located near the truck shop. It will include separate diesel aboveground tanks for fueling of light/intermediate and heavy vehicles as well as aboveground gasoline storage tanks. Spill containment will be designed for 110 percent of the largest tank or tanker within the containment. A sump will be located a one end of the containment so that spilled fuels can be pumped from the containment, using a portable pump, for appropriate disposal.

### 18.1.6 Explosive Storage

Explosive agents will be purchased, transported, stored, and used in accordance with the Bureau of Alcohol, Tobacco, and Firearms, Department of Homeland Security provisions, MSHA regulations and other applicable federal, state, or local legal requirements. The primary explosive used will be ANFO. Ammonium nitrate prill will be stored in a silo in a secure area and other explosive agents, boosters, and blasting caps will be stored in magazines within a separate secured area near the west waste dump. The explosives storage magazines and ANFO silo will be provided by the mining contractor.

## 18.2 Power Supply

### 18.2.1 Power Supply

High voltage grid power is available near the intersection of the Copper Canyon and Willow Creek roads approximately 5 miles from the project. A new power line is planned for the Independence mine.

A Kva rating for the power line will be selected by NV Energy based on the results of a power study that is being conducted prior to determine energy availability from existing sources. The right-of-way alignment for the power line will also be selected by the NV Energy but is expected to generally follow the access roads to the property. A standby generator will be provided at the mine site to operate pumps in the case of power supply interruptions.

The estimated attached load for the water supply system, crushing system, conveying and stacking system, Merrill Crowe plant including the reagents area, and ancillary equipment at the Independence mine site is 3.5 MW, with an average draw of 1.9 MW and a peak demand of 2.5 MW. The estimated process-mine electrical power consumption by project area is depicted in Table 18-1.

**Figure 18-1 Independence Mine Power Requirement**

| Phase 1 Operations | Attached Power (kW) | Demand (kW) | kwh/day | Peak Demand (kW) | Period kWh | kwh/t Ore |
|---|---|---|---|---|---|---|
| Crushing | 749 | 353 | 8,480 | 545 | 3,095,120 | 0.9411 |
| Crushed Ore Stockpile, Reclaim & Stacking | 546 | 234 | 5,572 | 409 | 2,033,875 | 0.6184 |
| Heap Leach Pad & Ponds | 456 | 244 | 5,854 | 367 | 2,136,742 | 0.6497 |
| Merrill-Crowe | 763 | 561 | 13,454 | 572 | 4,910,582 | 1.4931 |
| Refinery | 303 | 170 | 3,066 | 227 | 1,118,924 | 0.3402 |
| Reagents | 15 | 8 | 201 | 11 | 73,203 | 0.0223 |
| Laboratory | 206 | 116 | 2,784 | 155 | 1,016,297 | 0.3090 |
| Process Emergency Power | 1 | 1 | 14 | 1 | 4,928 | 0.0015 |
| Water Supply, Storage & Distribution | 93 | 58 | 1,401 | 68 | 511,398 | 0.1555 |
| Compressed Air | 85 | 26 | 612 | 64 | 223,380 | 0.0679 |
| Facilities | 270 | 81 | 1,944 | 90 | 709,560 | 0.2157 |
| **Total** | **3,486** | **1,851** | **43,381** | **2,509** | **15,834,008** | **4.81** |

### 18.2.2 Site Power Distribution

On-site electricity will be routed to equipment at 4,160V via overhead power lines. Transformers will reduce the voltage from 4,160V to 480V to feed the MCC(s) and distribution panels. Ancillary loads, i.e. lighting, instruments, etc. will be fed through small, dry type transformers which will step down from 480V to a range of 220-127V.

### 18.2.3 Backup Power

A 750kW, 480V diesel-powered backup generator will be installed in the process area for emergency power for those parts of the processing system that need to run continuously, which include the process solution pumps to maintain solution circulation, certain items of small equipment within the plant, and plant lighting. A diesel fuel tank will provide a minimum of 24 hours of fuel necessary to fulfill the attached equipment power requirements.

## 18.3 Water

### 18.3.1 Water Supply and Requirements

As discussed in Section 17.6, the average water demand estimate is 521,300 $m^3$/year (262 gpm) which includes water for crusher dust suppression and heap leach operations, road dust control, and miscellaneous uses. Peak monthly demand is estimated at 69,800 $m^3$/month (421 gpm). During the three months of phase 2 leach pad construction water usage is expected to increase to 84,200 $m^3$/month (508 gpm).

Water for the project is planned to be obtained from groundwater wells near the mine. The primary water supply well will be located between the South Pit and the Leach Pad approximately 550 meters east of the process facilities. A second well, located in section 17, approximately 8 km south of the mine site could also supply water to the mine. This PEA has made the assumption that all water would be supplied by the primary well. Fresh water is planned to be stored in a 6,000 $m^3$ (1.6 million gallon) freshwater pond and a 76 $m^3$ (20,000 gallon) freshwater tank.

Application for water rights for the two wells has been submitted to the Nevada State Engineer. The combined water rights will total 2,957,890 $m^3$/year (1,486 gpm), which will be sufficient for the size of operation contemplated at Independence.

### 18.3.2 Potable Water

Potable water demands have been estimated at 0.34 $m^3$/hr (1.5 gpm). Potable water will be required at the administration buildings, laboratory, warehouse, truck shop, and Merrill Crowe building. Given that the source of potable water will be from a 76 $m^3$ (20,000 gallon) storage tank, treatment of the potable water is required to meet drinking water quality standards. Treatment will be achieved by installation and operation of a 0.57 $m^3$/hr (2.5 gpm) packaged reverse osmosis (RO) system. From the tank potable water will be pumped to the mine facilities via a pressurized system.

### 18.3.3 Fire Water and Protection

The source of fire-fighting water for the Independence mine will be the 6,000 $m^3$ (1.6 million gallon) fresh water pond. The water transmission systems supplying the mine will be designed to meet the pressure and volume requirements to meet fire codes based on the equipment and building types constructed at the mine. Based on the current building sizing and construction, the required fire-fighting water requirement is estimated at 340 $m^3$/hr (1,500 gpm) for 2 hours with a minimum pressure of 138 kPa (20 psi).

### 18.3.4 Domestic Wastewater Disposal

Domestic wastewater will be disposed of in various septic systems: one located at the process building, another at the Administration Buildings and the third at the laboratory/warehouse. Based on the estimated domestic wastewater flow rate, each septic system will be designed with a capacity of 5.6 $m^3$ (1,500 gallons). Portable toilets will be used where septic systems are not available.

# 19.0 MARKET STUDIES AND CONTRACTS

## 19.1 Metal Pricing

No market studies have been undertaken for this PEA. Gold doré will be the commercial product from the Independence operation. Gold doré is readily sold on the global market to commercial smelters and refineries, and it is reasonable to assume that doré from the project will also be salable.

To determine appropriate metal prices to be used for economic analysis and cutoff grades, the Authors have considered spot prices in the months prior to the effective date of this report and reviewed current metal prices used in recent NI 43-101 technical reports. In addition, three-year trailing gold and silver prices were reviewed along with one-year forward pricing.

Economic analysis is discussed in Section 22 and uses a gold price of $1,700 per ounce and a silver price of $24.00. This project is not to the level of an advanced property as of the date of this report thus no market studies or contacts are discussed.

# 20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

EM Strategies, a WestLand Resources, Inc. Company (EMS), a permit acquisition strategy and government relations consulting firm, provided the following information on environmental considerations, permitting, and social and community impacts.

## 20.1 Introduction

As environmental consultants to Golden Independence Mining Corporation, (GIMC) and at the request of GIMC, EMS has completed the following assessment of environmental studies, permitting, and social or community impacts for the proposed GIMC's Independence Mine Project (IMP). The IMP has been defined for permitting purposes and is now approximately 283 hectares in size. The IMP is a hard rock precious-metal development project. GIMC is planning to submit a Plan of Operations (under 43 Code of Federal Regulations [CFR] 3809) and a Nevada Reclamation Permit (NRP) Application (under Nevada Administrative Code [NAC] 519A) (Plan Application) to the Bureau of Land Management (BLM) Battle Mountain District, Mount Lewis Field Office, and the Nevada Division of Environmental Protection, (NDEP) Bureau of Mining Regulation and Reclamation (BMRR) in the near future.

The IMP is located on public lands administered by the BLM in Sections 20, and 28 through 33, Township 31 North, Range 43 East (T31N, R43E) Section 25 and 36, T31N, R42E, Sections 5 through 7,17,18, and 20, T30N, R43E, and Sections 1 and 12, T30N, R42E, Mount Diablo Base and Meridian. In general, the proposed mine operations will consist of an open pit mining operations and the processing of the ore will use a heap leaching method. GIMC plans for the construction, operation, reclamation, and closure of this mining operation. Major components include:

- Two open pits;
- Two rock storage areas;
- Ore crushing and conveying system;
- One heap leach pad and processing facility;
- Reagent storage area;
- Exploration activities;
- Laydown areas;
- A water delivery and distribution system;
- A power delivery and distribution system;
- Storm water diversion ditches and storm water sediment basins; and,

- Haul and access roads.

GIMC proposes to mine approximately 20.1 million tonnes of heap-leachable mineralized material and 32.9 million tonnes of waste rock (total of 53.0 million tonnes). The mineralized material and waste would be extracted from the open pit using conventional surface mining methods of drilling, blasting, loading, and hauling. GIMC would use hydraulic shovels or front-end loaders to load the blasted mineralized material and waste into the haul trucks. The haul trucks would transport the waste rock to the rock disposal areas near the open pit and transport the mineralized material to the crushing facility where the mineralized material would be crushed to a nominal size between ¼ and ¾ inch. The crushed mineralized material would be conveyed to the heap leach pad. The heap leach would use a dilute sodium cyanide (NaCN) solution to liberate precious metals. A carbon absorption process would be used to collect the precious metals onto the carbon. The carbon would be processed offsite to produce doré bars for shipment to a refinery. The project facilities would disturb approximately 170.0 hectares. There are two existing Notices which authorize up to 4.0 hectares of exploration surface disturbance within the IMP. Exploration activities, estimated to disturb up to 6.1 additional hectares, would also occur within the IMP. The exploration activities would be based on work plans submitted to the BLM for review and concurrence that the activities are consistent with the Plan.

The review and approval process for the Plan Application by the BLM constitutes a federal action under the NEPA and BLM regulations. Thus, for the BLM to process the Plan Application the BLM is required to comply with the NEPA by either preparing an Environmental Assessment, (EA), or an Environmental Impact Statement, (EIS). GIMC anticipates that the BLM will require an EA, due to the lack of mine dewatering, no potential for a pit lake, and that most of the proposed disturbance occurs within the area previously analyzed in the Phoenix Mine EIS.

The BLM Battle Mountain District issued an Instruction Memorandum (BMD-2018-IM 003) implementing a new permitting and National Environmental Policy Act (NEPA) process. The process commences with the submittal of a brief project description and map and followed by a meeting to discuss the scope of necessary baseline data collection. Following the completion of the baseline reports the BLM reviews and approves them. The Plan Application is then completed and submitted to the BLM for review and a determination by the BLM that it is complete. If the Plan Application is determined to be complete, the BLM will make a decision whether an EA or EIS will need to be prepared to comply with NEPA.  Prior to initiating the NEPA document (EA or EIS), the NEPA contractor will prepare Resource Reports for each environmental resource, which will evaluate the potential effect of the project on each environmental resource. Each Resource Report is then reviewed and approved by the BLM. The NEPA contractor then uses the Resource Reports to complete the NEPA document.

The following sections provide additional detailed information on the principal permits necessary to develop each phase of the project and the NEPA process, as well as the status relative to each permit process.

## 20.2 Environmental Baseline Studies

GIMC has been conducting environmental baseline studies during 2021 as part of their ongoing permitting efforts and in preparation for the submittal of permit applications to conduct mining operations. This work has included geochemical characterization of mineralized materials and waste rock, groundwater assessment and biological resource surveys. The IMP powerline route and portions of the mining area remain to be surveyed for cultural and biological resources. In addition, the further evaluation of the groundwater resources is planned to begin in 2022 to determine groundwater supply potential, as well as the potential for pit lake development. GIMC met with the BLM in March 2021 as their initial Kickoff Meeting to determine any additional baseline data collection needs for the permitting process.

Adjacent to the Project Area there are Greater Sage Grouse and Golden Eagles. These species will have an effect on how the IMP is permitted and what mitigation in required or proposed.

## 20.3 Bureau of Land Management Plan of Operations / Nevada Bureau of Mining Regulation and Reclamation, Nevada Reclamation permit

The BLM and the BMRR have implemented a process for the Plan Application that commences prior to the submittal and continues through the review and approval process for the Plan Application. GIMC will submit a Plan Application for the project and BLM approval of this Plan Application will likely occur in 2023, assuming the BLM uses the EA process.

### 20.3.1 Bureau of Land Management Pre-Application Planning

As part of the pre-Plan Application planning process with the BLM, an initial meeting is scheduled between the proponent and the BLM to discuss the anticipated scope of the mining operation and review the likely environmental resource baseline data needs required for the processing of the Plan Application by the BLM. This initial meeting generally occurs some time prior to the submittal of the Plan Application, depending on the anticipated complexity of the mining operations and baseline data needs, which varies for each project. The initial meeting between GIMC and the BLM Mount Lewis Field Office occurred in March 2021.

The process for collecting baseline data generally includes the development of baseline data collection work plans, which are submitted to the BLM for review and approval prior to initiating the baseline data collection. Following approval, field surveys are carried out to collect relevant baseline data. Depending on the environmental resource to be evaluated, desktop studies may be utilized in lieu of field surveys. Findings of the field surveys are then summarized in a report that documents the data collected. This Technical Report is then submitted to the BLM for review and approval. In some cases, the baseline data collection process will also involve the State of Nevada, depending on the resource being assessed, particularly for geochemical and hydrological surveys. Baseline data for the project is being collected and the reports have yet to be submitted and reviewed or accepted by the BLM. The required environmental baseline data include the following: mineralized material and waste rock geochemical characterization; hydrogeological characterization; a pit lake evaluation; an assessment of ecological risk; air quality modeling; and cultural and biological resources.

Initial cultural resource and biology surveys have been completed over the IMP by past operators of the project but will need to be updated to a current status. Cultural and biological resources will be completed over the powerline route in 2022. Sample collection for the characterization of the mineralized material and waste has been completed and analysis of those samples is underway. The characterization report will be completed in the first half of 2022. The further hydrogeological evaluation is expected to commence in the second quarter of 2022 and the report will be completed in the second quarter of 2023.

### 20.3.2 Plan of Operations Processing

The Plan Application is submitted to the BLM and the BMRR for any surface disturbance in excess of five acres. The single application utilizes the format of the Plan Application document accepted by the BLM and the BMRR. The Plan Application describes the operational procedures for the construction, operation, and closure of the project. As required by the BLM and BMRR, the Plan Application includes a waste rock management plan, quality assurance plan, a storm water plan, a spill prevention plan, reclamation plan, a monitoring plan, and an interim management plan. In addition, a reclamation report with a Reclamation Cost Estimate (RCE) for the closure of the project is required. The content of the Plan Application is based on the mine plan design and the data gathered as part of the environmental baseline studies. The Plan Application includes all mine and processing design information and mining methods. The BLM determines the completeness of the Plan Application and, when the completeness letter is submitted to the proponent, the NEPA process begins. The RCE is reviewed by both agencies and the bond is determined prior to the BLM issuing a decision record (DR) on the Plan Application and BMRR issuing the NRP.

The Plan Application will be submitted for the project when operational and baseline surveys are complete and operations and design for the project are at a level where a Plan Application can be developed to the necessary level of detail. Submittal of the Plan Application is likely to occur in the second quarter of 2023. Key baseline reports for the project will be included in the Plan Application submittal to the BLM and NDEP/BMRR. These reports have yet to be reviewed by the agencies. The BLM will need to complete their review of the baseline reports in the Plan Application and approve the final version of the reports prior to moving on to the NEPA process.

## 20.4 Right-Of-Way Permit

GIMC will work with NV Energy to complete a right-of-way (ROW) application for the powerline from the NV energy substation to the Project Area. In addition, GIMC will complete a ROW application for the waterline from Section 17, T30N, R43E, to the project area. The ROW applications are submitted to the BLM for review and processing. The BLM will need to complete their review of the baseline reports and approve the final version of the reports prior to moving on to the NEPA process.

## 20.5 National Environmental Policy Act

The NEPA process is triggered by a federal action. In this case, the issuance of a completeness letter for the Plan Application, as well as the ROW application, triggers the federal action. The NEPA review process is completed with either an EA or an EIS. GIMC anticipates that the BLM will require an EA for this project. In addition, GIMC anticipates that the BLM will be the lead federal agency for the completion of the NEPA process.

The EA process is conducted in accordance with NEPA regulations (40 CFR 1500 et. seq.), BLM, as lead federal agency, guidelines for implementing the NEPA in BLM Handbook H-1790-1 (updated January 2008), and BLM Washington Office Bulletin 94-310. The intent of the EA is to assess the direct, indirect, residual, and cumulative effects of the project and to determine the significance of those effects. Scoping is conducted by the BLM and includes a determination of the environmental resources to be analyzed in the EA, as well as the degree of analysis for each environmental resource. The scope of the cumulative analysis is also addressed during the scoping process. Following scoping and baseline information collection, the Draft EA is prepared for the BLM by a third-party contractor. When the BLM determines the Draft EA is complete, it will be distributed to the public for review and comment. Comments received from the public will be incorporated into a Final EA, which would in turn be reviewed by the BLM and the public prior to a DR. Under an EA there can be no significant impacts. By comparison, the preparation of an EIS is a longer and more expensive process than an EA. The project proponent pays for the third-party contractor to prepare the EA.

If the BLM requires the preparation of an EIS to comply with the NEPA for the IMP, then under BMD-2018-IM 003, the EIS needs to be completed in 365 days (from the Notice of Intent publication in the Federal Register to the signing of the Record of Decision).

## 20.6 State of Nevada Permits

There are a number of environmental permits issued by the NDEP that are necessary to develop the IMP and which GIMC needs to permit the IMP etc. The NDEP issues permits that address water and air pollution, as well as land reclamation. The Nevada Division of Water Resources (NDWR) issues water rights for the use and management of water.

### 20.6.1 Water Pollution Control Permit

A Water Pollution Control Permit (WPCP) from the NDEP Bureau of Mining Regulation and Reclamation (BMRR) is needed to construct, operate, and close a mining facility in the State of Nevada. The contents of the application are prescribed in the NAC Section 445A.394 through 445A.399. A WPCP application for the project will be prepared and will be based on the following:

- Open pit mining, with no post-mining pit lake formation;
- Storage of non-acid and acid generating waste rock;
- Exploration:
- Water management;
- Heap leach and process plant management; and
- Ancillary facilities that include storm water diversions and sediment control basin.

WPCP applications will include an engineering design for waste rock storage areas and mill/tailings facilities, waste rock characterization reports, hydrogeological summary reports, engineering design for process components including methods for the control of storm water runoff, and containment reports detailing specifications for containment of process fluids. The application will include the appropriate WPCP plans, including a process fluid management plan, a monitoring plan, an emergency response plan, a temporary closure plan, and a tentative plan for permanent closure of the mine.

### 20.6.2 Air Quality Operating Permit

GIMC will need air quality operating permits from the Nevada Bureau of Air Pollution Control (BAPC). The permits will likely be a Class II permit, where the emissions of each criteria pollutant would be less than 90.7 tonnes per year, as well as a Class I Operating permit and a Mercury Permit for the mercury emitting sources. The applications would include specifics on each process component that could emit air pollutants and a detailed emissions inventory, as well as air quality modeling. The application preparation and processing time frame would be approximately three months.

### 20.6.3 Water Rights

GIMC will need to obtain water rights from the NDWR. Water and water rights need to come from the Buffalo Valley designated hydrologic basin. This basin is essentially over appropriated. The likelihood of obtaining new water rights is good and the purchase or leasing of existing rights will likely not be necessary. GIMC will need to secure Permits to Appropriate the Public Waters from the State of Nevada approved by the State Engineers office.

GIMC will need a Special Use Permit and Building/Grading Permits issued by Lander County. The Special Use Permit will need to include a road maintenance agreement for any county road to be used to access the project.

## 20.7 Other Permits

In addition to the principal environmental permits outlined above, Table 20-1 lists other notifications or ministerial permits likely necessary to operate the project.

**Table 20-1 Ministerial Permits, Plans, and Notifications**

| Notification/Permit | Agency | Timeframe | Comments |
|---|---|---|---|
| Plan of Operations | Bureau of Land Managemen | Dependent on NEPA | |
| Nevada Reclamation Permit | Nevada Bureau of Mining, Regulation, ane Reclamation | Four Months | |
| Water Pollution Control Permit | Nevada Bureau of Mining, Regulation, ane Reclamation | Eight Months | |
| Air Quality Operating Permit | Nevada Bureau of Air Pollution Control | Three Months | |
| Industrial Artificial Pond Permit | Nevada Department of Wildlife | Three weeks | |
| Water Rights Nevada Division of Water | Nevada Division of Water Resources | | |
| Mine Registry | Nevada Division of Minerals | 30 days after mine operations Begin | |
| Mine Opening Notification | State Inspector of Mines | Before mine operations begin | |
| Solid Waste Landfill | Nevada Bureau of Waste Management | 180 days prior to landfill Operations | |
| Hazardous Waste Management Permit | Nevada Bureau of Waste Management | Prior to the management or recycling of hazardous waste | |
| General Storm Water Permit | Nevada Bureau of Water Pollution Control | Prior to construction activities | |
| Hazardous Materials Permit | State Fire Marshall | 30 days after the start of operations | |
| Fire and Life Safety | State Fire Marshall | Prior to construction | |
| Explosives Permit | Bureau of Alcohol, Tobacco, and Firearms | Prior to purchasing explosives | Mining contractor may be responsible for permit |
| Mine Identification Number | MSHA | Prior to start-up | |
| Notification of Commencement of Operation | MSHA | Prior to start-up | |
| Radio License | Federal Communications Commission | Prior to radio use | |

## 20.8 Environmental Study Results and Known Issues

As previously outlined, the IMP is a previously explored minerals property with exploration related disturbance. However, there have been very long periods of non-operation. There are no known ongoing environmental issues with any of the regulatory agencies. Golden Independence will begin conducting baseline data collection in 2022 for environmental studies required to support the Plan Application and permitting process. The waste and mineralized material characterization evaluation is currently in its latter stages of development. The hydrogeologic study will begin in 2022. Preliminary results from the waste material characterization indicate that a small portion of the waste rock as potentially acid generating and therefore a waste management plan will be required. Additional results to date indicate limited cultural issues, air quality impacts appear to be within State of Nevada standards, traffic and noise issues are present but at low levels, and socioeconomic impacts are positive. There are golden eagle and Greater sage-grouse in the vicinity of the IMP, which will need to be addressed in the permitting of the project.

## 20.9 Waste Disposal and Monitoring

Waste rock characterization is being conducted and it is anticipated that the results will indicate that a small portion of the waste rock and mineralized material are likely to be reactive, acid generating, and would leach metals. As a result, a detailed waste rock management plan and waste rock management strategy will need to be developed. This strategy and plan will be developed once the characterization work is completed.

## 20.10 Social and Community Issues

Social and community impacts have been and are being considered and evaluated for the Plan Application for the project in accordance with the NEPA and other federal laws. Potentially affected Native American tribes, tribal organizations, and/or individuals are consulted during the preparation of all plans to advise on the proposed projects that may have an effect on cultural sites, resources, and traditional activities.

Potential community impacts to existing population and demographics, income, employment, economy, public finance, housing, community facilities, and community services are evaluated for potential impacts as part of the NEPA process. There are no known social or community issues that would have a material impact on the project's ability to extract mineral resources. Identified socioeconomic issues (employment, payroll, services and supply purchases, and state and local tax payments) are anticipated to be positive.

## 20.11 Mine Closure

A Tentative Plan for Permanent Closure ("TPPC") for the project would be submitted to the BMRR with the WPCP application. In the TPPC, the proposed heap leach closure approach would consist of fluid management through evaporation, covering the heap leach with growth media, and then revegetating. The design of the process components is not sufficiently advanced to determine the closure costs. Any residual heap leach drainage will be managed with evaporation cells.

The current exploration bond for the IMP is approximately $32,850 to reclaim the exploration related disturbance.

# 21.0 CAPITAL AND OPERATING COSTS

This PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty that the PEA will be realized.

Capital and operating costs for the process, except leach pad and ponds, and the laboratory of the Independence project PEA were estimated by KCA; General and Administration and mining components of the project costs were estimated by Mr. Ashton. The estimated costs are considered to have an accuracy of +/-30% for capital costs and +/-20% for operating costs and are discussed in greater detail in this section.

The total capital cost for the Project is US$68.8 million, including US$4.7 million in working capital and US$6.0 million for reclamation and closure costs, and deducted expected salvage value by the end of mine life. Table 21-1 presents the capital requirements for the Independence Project.

**Table 21-1 Capital Cost Summary**

| Description | Cost (US$) |
|---|---|
| Pre-Production Capital | 52.74 |
| Working Capital & Initial Fills | 4.67 |
| Mining Contractor Mobilization & Preproduction | 5.65 |
| Sustaining Capital – Mine & Process | 5.57 |
| **Total** | **68.75** |

The average life of mine operating cost for the Project is US$11.41 per tonne of material processed. Table 21-2 presents the LOM operating cost requirements for the Independence Project.

**Table 21-2 LOM Operating Cost Summary**

| Description | LOM Cost (US$/t) |
|---|---|
| Mine | 5.66 |
| Process & Support Services | 4.55 |
| Site G & A | 1.19 |
| **Total** | **11.41** |

## 21.1 Capital Expenditures

Capital costs were developed based on contract mining and owner operated crushing and processing. The total pre-production capital cost estimate for the Independence Project is estimated at US$63.2 million including all process equipment and infrastructure, construction indirect costs, mine contractor mobilization and working capital. All costs are presented in fourth quarter 2021 US dollars. The estimated capital costs are discussed in this section.

Pre-production capital costs required for the Independence Project are presented in Table 21-3.

## Table 21-3 Summary of Pre-Production Capital Costs by Area

| Process & Infrastructure Direct Costs | Total Supply Cost | Freight & Sales Tax | Install | Grand Total |
|---|---|---|---|---|
| | US$ | US$ | US$ | US$ |
| Crushing | $4,016,768 | $404,206 | $1,154,664 | $5,575,638 |
| Crushed Ore Stockpile, Reclaim & Stacking | $4,049,745 | $554,619 | $1,557,292 | $6,161,657 |
| Heap Leach Pad & Ponds | $1,189,081 | $143,833 | $6,854,395 | $8,187,309 |
| Merrill-Crowe | $6,386,902 | $216,864 | $147,738 | $6,751,503 |
| Reagents | $207,675 | $30,321 | $169,574 | $407,570 |
| Laboratory | $1,662,144 | $125,022 | $30,663 | $1,817,828 |
| Process Emergency Power | $402,500 | $34,265 | $74,002 | $510,767 |
| Water Supply, Storage & Distribution | $306,361 | $0 | $21,685 | $328,045 |
| Compressed Air | $24,651 | $3,600 | $19,183 | $47,434 |
| Facilities | $8,595,761 | $188,444 | $438,336 | $9,222,541 |
| Plant Mobile Equipment | $68,000 | $5,168 | $0 | $73,168 |
| **Process & Infrastructure Total Direct Costs** | **$26,909,588** | **$1,706,342** | **$10,467,529** | **$39,083,460** |
| Spare Parts | $241,667 | | | $241,667 |
| **Sub Total with Spare Parts** | | | | **$39,325,126** |
| Contingency | $7,069,150 | | | $7,069,150 |
| **Process & Infrastructure Total Direct Costs with Contingency** | | | | **$46,394,276** |
| **Mining Costs** | | | | $5,646,546 |
| **Indirect Cost** | | | | $1,560,252 |
| **Other Owner's Cost** | | | | $1,660,000 |
| **Initial Fills- Process** | | | | $125,000 |
| **EPCM** | | | | $3,126,677 |
| **Sub Total Costs before Working Capital** | | | | **$58,512,751** |
| **Working Capital (45 days)** | | | | $4,673,520 |
| **TOTAL COSTS (Phase 1)** | | | | **$63,186,272** |

**Note: Columns may not sum exactly due to rounding**

### 21.1.1 Mining Capital Costs

Projected mining capital is minimized by planning to use a contractor for mining operations. Mining capital costs includes mobilization, demobilization, pre-production mining capital, mining software, surveying equipment, and office equipment. Pre-production mining capital includes contract mining costs for the 6-month pre-production period. All pre-production mining costs are included in the cash flow as initial capital.

Mining capital is summarized in Table 21-4. Estimated mining capital costs were based on the authors experience, estimating guides, and costs from similar mining projects within Nevada. Costs for light vehicle are included in the process mobile equipment section.

**Table 21-4 Summary of Mining Capital Costs**

| Mining Capital Costs | Units | Initial | Sustaining | Total LOM |
|---|---|---|---|---|
| Capitalized Preproduction Mining | K USD | $ 5,046 | | $ 5,046 |
| Mob/Demob | K USD | $ 225 | $ 150 | $ 375 |
| Mining Support | K USD | $ 300 | | $ 300 |
| Contingency | K USD | $ 75 | $ 23 | $ 97 |
| **Total Costs** | **K USD** | **$ 5,646** | **$ 173** | **$ 5,818** |

### 21.1.2 Process and Infrastructure Capital Cost Estimate

#### *21.1.2.1 Process and Infrastructure Capital Cost Basis*

Process costs have been estimated by KCA. All equipment and material requirements are based on the design information described in previous sections of this study. Budgetary capital costs have been estimated primarily based on recent quotes from similar projects in KCA’s database and cost guide data. Where recent quotes were not available, reasonable cost estimates or allowances were made.

Each area in the process cost build-up has been separated into the following disciplines, as applicable:

- Major earthworks & liner;
- Civil (concrete);
- Structural steel;
- Platework;
- Mechanical equipment;
- Piping;
- Electrical;

- Instrumentation; and
- Infrastructure.

Pre-production, non-mining capital costs by discipline are presented in **Table 21-5**.

**Table 21-5 Summary of Pre-Production Capital Costs by Discipline**

| Plant Totals | Cost @ Source | Freight | Customs Fees & Duties | Total Supply Cost | Install | Grand Total |
|---|---|---|---|---|---|---|
| | US$ | US$ | US$ | US$ | US$ | US$ |
| Major Earthworks | | | | | $6,214,698 | $6,214,698 |
| Civils (Supply & Install) | $1,442,765 | | | $1,442,765 | | $1,442,765 |
| Structural Steelwork (Supply & Install) | | | | | | |
| Platework (Supply & Install) | $284,701 | | | $284,701 | $31,685 | $316,386 |
| Mechanical Equipment | $14,032,271 | $403,828 | $788,078 | $15,224,177 | $2,136,097 | $17,360,273 |
| Piping | $1,191,139 | $83,380 | $90,527 | $1,365,045 | $969,716 | $2,334,760 |
| Electrical | $2,539,714 | $177,780 | $96,775 | $2,814,270 | $960,015 | $3,774,285 |
| Instrumentation | $146,879 | $10,282 | $11,163 | $168,324 | $155,320 | $323,643 |
| Infrastructure & Buildings | $7,266,117 | $24,228 | $26,305 | $7,316,650 | | $7,316,650 |
| Spare Parts | $241,667 | | | $241,667 | | $241,667 |
| Contingency | $7,069,150 | | | $7,069,150 | | $7,069,150 |
| | | | | | | |
| **Plant Total Direct Costs** | **$34,214,402** | **$699,497** | **$1,012,848** | **$35,926,747** | **$10,467,529** | **$46,394,276** |

Freight, customs fees and duties, and installation costs are also considered and are discussed in the following sections.

Engineering, procurement, and construction management (EPCM), indirect costs, and initial fills inventory are also considered as part of the capital cost estimate.

### *21.1.2.2 Freight*

Estimates for process equipment freight costs are based on loads as bulk freight and have been estimated at 7% of the equipment cost. The freight of piping, electrical, instrumentation and part of infrastructure, are all estimated at 7% of the supplied cost.

### *21.1.2.3 Sales Tax*

Estimates for sales tax are estimated at 7.6% of the mechanical equipment cost. The sales tax of piping, electrical, instrumentation and part of infrastructure, are also estimated at 7.6% of the supplied cost

*21.1.2.4 Installation*

Installation estimates for the equipment are based on the equipment type and include all installation labor and equipment usage. Average installation costs are estimated at US$111.50 per hour.

*21.1.2.5 Major Earthworks and Liner*

Earthworks quantities for the crushing area have been estimated by KCA based on the overall area requirements. Costs for the earthwork and geomembrane liners for the leach pad and process solution ponds are included in this category and were estimated by Mr. Ashton.

*21.1.2.6 Civils*

Civils include detailed earthworks and concrete. Concrete quantities have been estimated based on similar equipment installations, major equipment weights and on slab areas. Unit costs for concrete are based on recent contractor quotes in KCA's files.

*21.1.2.7 Structural Steel*

Costs for structural steel, including steel grating, structural steel, and handrails have been estimated based on general layouts and structural steel requirements for similar installations. Unit rates for structural steel are based on recent contractor quotes in KCA's files.

*21.1.2.8 Platework*

The platework discipline includes costs for the supply and installation of steel tanks, bins, and chutes. Platework costs are primarily based on similar items from recent projects in KCA's files.

*21.1.2.9 Mechanical Equipment*

Costs for mechanical equipment are based on an equipment list developed of all major equipment for the process. Costs are based on recent quotes from KCA's files for similar items and cost guide information. Where recent quotes were not available, reasonable allowances have been made. All costs assume equipment purchased new from the manufacturer or to be fabricated new.

Installation hours for mechanical equipment is factored based on the equipment supply cost and includes installation labor and equipment usage.

*21.1.2.10 Piping, Electrical and Instrumentation*

Major piping, including heap irrigation and gravity drain pipes are based on recent estimates from similar sized projects. Additional ancillary piping, fittings, and valve costs have been estimated on a percentage basis of the mechanical equipment costs.

Electrical and instrumentation costs have been estimated primarily as percentages of the mechanical equipment supply cost for each process area.

*21.1.2.11 Infrastructure*

Infrastructure for the Independence Project includes the construction of an administration building, mine truck shop, warehouse, guard house, on-site clinic and powder magazine. A 150 sample per day laboratory, Merrill Crowe plant and Refinery are also included.

Approximately US$3 million allowance is included in the electrical estimate for running a 5.6 km power line to the project site.

Water supply to the main water tank will be by production wells. The production wells including pumps, site distribution pipe and miscellaneous water supply equipment consider an allowance of US$1 million.

*21.1.2.12 Process Mobile Equipment*

Mobile equipment detailed in Table 21-6 below are considered to be leased or contracted when needed. Capital costs for mobile equipment are considered to be lease contracts while the reoccurring lease costs are considered to be operating costs.

**Table 21-6 Process Mobile Equipment**

| Description | Quantity |
|---|---|
| CAT 992 Loader or Equiv. | 1 |
| CAT D6 Dozer or Equiv. | 1 |
| Mechanical Service Truck | 1 |
| Forklift, 2.5 ton | 2 |
| Telehandler, 4 ton | 1 |
| Pickup Truck, ¾ ton | 17 |
| Backhoe w/ Fork Attachment, 1.1 cu. yd. | 1 |
| Crane, 45 ton | As Needed |
| Flatbed truck | 1 |

#### 21.1.2.13 *Spare Parts*

Spare parts costs are estimated at 2% of the mechanical equipment supply costs.

### 21.1.3 Construction Indirect and Other Owner's Costs

Indirect field costs include temporary construction facilities, construction services, quality control, survey support, warehouse and fenced yards, support equipment, etc. These costs have been estimated at US$1.56 million, or 5% of the total direct costs. Owner's costs are estimated at US$1.66 million, which includes the cost associated with site communications, fresh water monitor wells, and process pre-production cost.

Engineering, procurement and construction management costs are estimated at US$3.13 million, or 8% of the total direct costs without contingency and spare parts.

### 21.1.4 Initial Fills Inventory

The initial fills consist of consumable items stored on site at the outset of operations, which includes sodium cyanide (NaCN), lime, zinc, diatomaceous earth (DE), and fluxes. The inventory of initial fills is estimated at US$125,000 and is to ensure that adequate consumables are available for the first stage of operation.

### 21.1.5 Contingency

Contingency is included in the capital cost estimate and has been considered by discipline as a percentage of the direct capital costs. The overall contingency is approximately US$7.1 million, or approximately 18% of the direct costs without contingency and spare parts.

### 21.1.6 Working Capital

Working capital is money that is used to cover operating costs from start-up until a positive cash flow is achieved. Once a positive cash flow is attained, project expenses will be paid from earnings. Working capital for the Project is estimated to be approximately US$4.7 million based on 45 days of operation and includes all mine, process and G&A operating costs.

### 21.1.7 Sustaining Capital

Major sustaining capital for project includes the expansion of the heap leach pad and addition of an overland conveyor in Year 3 of operation, pickup truck leases, mining haul road and site access road. Total sustaining capital is estimated around US$5.6 million.

## 21.2 Operating Costs

Process operating costs for the Independence project have been primarily estimated by KCA based upon unit consumptions and, where possible, have been broken down by area. Mining costs were provided by Mr. Ashton at US$2.18 per tonne moved (LOM US$5.66 per tonne of material processed) and assumes contract mining. LOM average processing costs are estimated at US$4.55 per tonne processed. G&A costs are estimated at US$1.19 per tonne processed.

Process operating costs have been estimated from first principles. Labor costs were estimated using project specific staffing, salary and wage and benefit requirements. Unit consumptions of materials, supplies, power, water and delivered supply costs were also estimated.

The process operating costs presented are based upon the ownership of all process production equipment and site facilities. The owner will employ and direct all operating maintenance and support personnel for all site activities.

Operating costs were estimated based on 4$^{th}$ quarter 2021 US dollars and are presented with no added contingency based upon the design and operating criteria present in this report. Operating costs are considered to have an accuracy of +/- 20%.

Operating costs estimates have been based upon information obtained from the following sources:

- Contractor mining costs from Mr. Ashton;
- Some G&A costs from Mr. Ashton;
- Project metallurgical test work and process engineering;
- Recent KCA project file data; and
- Experience of KCA staff with other similar operations.

Where specific data does not exist, cost allowances have been based upon consumption and operating requirements from other similar properties for which reliable data exists. Freight costs have been estimated where delivered prices were not available.

### 21.2.1 Mining Operating Costs

Mr. Ashton used benchmark equipment operating costs and labor costs to develop the mine operating costs from equipment hours derived from first principles and information obtained from similar scale surface mining operations using heap leach processing in northern Nevada. Truck haul profiles for each pit were derived for the leach pad and waste hauls, and a diesel cost of $3.75/US gallon was also assumed for all mine equipment.

The resulting life-of-mine operating costs for the PEA mine plan is $110.5M or an average of $5.66/t leached ($517/oz produced).

### 21.2.2 Process and G&A Operating Costs

Average process and G&A operating costs based on 9,000 mtpd material being processed in presented in Table 21-7.

## Table 21-7 Process, Support & G&A Operating Cost

| | Oxide | | Mixed | | Sulfide | |
|---|---|---|---|---|---|---|
| | Annual Costs, US$ | US$ per Tonne Ore | Annual Costs, US$ | US$ per Tonne Ore | Annual Costs, US$ | US$ per Tonne Ore |
| **Labor - All Process Areas** | | | | | | |
| SUBTOTAL | $5,265,467 | $1.601 | $5,265,467 | $1.601 | $5,265,467 | $1.601 |
| **Crushing** | | | | | | |
| SUBTOTAL | $2,651,888 | $0.806 | $2,651,888 | $0.806 | $2,651,888 | $0.806 |
| **Crushed Ore Stockpile, Reclaim & Stacking** | | | | | | |
| SUBTOTAL | $359,831 | $0.109 | $385,549 | $0.117 | $385,549 | $0.117 |
| **Heap Leach Pad & Ponds** | | | | | | |
| SUBTOTAL | $407,499 | $0.124 | $407,499 | $0.124 | $407,499 | $0.124 |
| **Merrill-Crowe** | | | | | | |
| SUBTOTAL | $1,158,281 | $0.352 | $1,155,753 | $0.351 | $1,155,569 | $0.351 |
| **Refinery** | | | | | | |
| SUBTOTAL | $184,831 | $0.056 | $184,300 | $0.056 | $184,300 | $0.056 |
| **Reagents** | | | | | | |
| SUBTOTAL | $3,685,057 | $1.120 | $5,233,184 | $1.591 | $4,538,792 | $1.380 |
| **Laboratory** | | | | | | |
| SUBTOTAL | $542,029 | $0.165 | $542,029 | $0.165 | $542,029 | $0.165 |
| **Process Emergency Power** | | | | | | |
| SUBTOTAL | $16,789 | $0.005 | $16,789 | $0.005 | $16,789 | $0.005 |
| **Compressed Air** | | | | | | |
| SUBTOTAL | $24,697 | $0.008 | $24,697 | $0.008 | $24,697 | $0.008 |
| **Facilities** | | | | | | |
| SUBTOTAL | $49,669 | $0.015 | $49,669 | $0.015 | $49,669 | $0.015 |
| **Plant Mobile Equipment** | | | | | | |
| SUBTOTAL | $503,700 | $0.153 | $492,332 | $0.160 | $492,332 | $0.160 |
| **TOTAL** | **$14,849,740** | **$4.52** | **$16,409,158** | **$5.00** | **$15,714,582** | **$4.79** |

#### *21.2.2.1 Personnel and Staffing*

Staffing requirements for process and administration personnel have been estimated by KCA based on experience with similar sized operations. Total process personnel are estimated at 49 persons including 8 laboratory workers. G&A labor is estimated at 25 persons. Mining labor will be provided by the mining contractor and is considered in the mining cost estimate.

#### *21.2.2.2 Power*

Power usage for the process and process-related infrastructure was derived from estimated connected loads assigned to powered equipment from the mechanical equipment list. Equipment power demands under normal operation were assigned and coupled with estimated on-stream times to determine the average energy usage and cost.

The total attached power for the process and infrastructure is estimated at 3.5 MW, with an average draw of 1.8 MW. The total consumed power for these areas is approximately 4.66 kWh/t material processed. Power will be supplied to the project site by an overhead power line with an average estimated cost of US$0.07/kWh.

#### *21.2.2.3 Consumable Items*

Operating supplies have been estimated based upon unit costs and consumption rates predicted by metallurgical tests and have been broken down by area. Freight costs are included in all operating supply and reagent estimates. Reagent consumptions have been derived from test work and from design criteria considerations. Other consumable items have been estimated by KCA based on KCA's experience with other similar operations.

Operating costs for consumable items have been distributed based on tonnage and gold/silver production or smelting batches, as appropriate.

## 21.3 Reclamation & Closure Costs

Costs for concurrent reclamation and closure costs have been estimated at US$ 6 million over the life of the project, which is equivalent to US$0.30 per tonne of material processed.

# 22.0 ECONOMIC ANALYSIS

This PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty that the PEA will be realized.

## 22.1 Summary

Based on the estimated production schedule, capital costs and operating costs, a cash flow model was prepared by KCA for the economic analysis of the Independence project. All of the information used in this economic evaluation has been taken from work completed by KCA and other consultants working on this project as described in previous sections of this study.

The project economics were evaluated using a discounted cash flow (DCF) method, which measures the Net Present Value (NPV) of future cash flow streams. The results of the economic analyses represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here.

The final economic model was developed by KCA based on the following:

- The cash flow model is based on the preliminary mine production schedule developed by Mr. Ashton.
- The period of analysis is 8 years including one year of pre-production, and six years of production and one year of reclamation.
- Gold Price of US$1,700/oz
- Silver Price of US$24/oz
- Processing rate of 9,000 mtpd
- Overall recoveries of 79% for gold and 27% for silver
- Capital and operating costs as developed in Section 21.0 of this Report

A summary of the key economic parameters is shown in Table 22-1. The economic summary is presented in Table 22-2.

**Table 22-1 Key Economic Parameters**

| Item | Value | unit |
|---|---|---|
| Au Price | 1,700 | US$/oz |
| Ag Price | 24 | US$/oz |
| Au Avg. Recovery | 75 | % |
| Ag Avg. Recovery | 27 | % |
| Treatment Rate | 9000 | t/d |
| Refining & Transportation Cost, Au | 2.13 | US$/oz |
| Refining & Transportation Cost, Ag | 2.13 | US$/oz |
| Payable Factor, Au | 99.9 | % |
| Payable Factor, Ag | 99.8 | % |
| | | |
| Annual Produced eqAu, Avg. | 35 | koz |
| Income & Corporate Tax Rate | 21 | % |
| Royalties | 2.00 | % |
| Nevada Au & Ag Mine Royalty | 0.75 | % |
| Nevada Net Proceeds Tax | 3.19 | % |

**Table 22-2 Economic Analysis Summary**

| **Financial Analysis** | | |
|---|---|---|
| Internal Rate of Return (IRR), Pre-Tax | 19.0% | |
| Internal Rate of Return (IRR), After-Tax | 18.0% | |
| Average Annual Cashflow (Pre-Tax) | $18 | M |
| NPV @ 5% (Pre-Tax) | $38 | M |
| Average Annual Cashflow (After-Tax) | $17 | M |
| NPV @ 5% (After-Tax) | $35 | M |
| Gold Price Assumption (US$/Ounce) | $1,700 | /Ounce |
| Pay-Back Period (Rears based on After-Tax) | 4.1 | Years |
| | | |
| **Capital Costs (Excluding VAT)** | | |
| Initial Capital | $58.4 | M |
| Working Capital & Initial Fills | $4.8 | M |
| LOM Sustaining Capital | $5.6 | M |
| | | |
| **Operating Costs (Average LOM)** | | |
| Mining | $5.66 | /tonne ore |
| Processing & Support | $4.55 | /tonne ore |
| G&A | $1.19 | /tonne ore |
| All-in Sustaining Cost | $1,071 | /Ounce |
| | | |
| **Production Data** | | |
| Life of Mine | 6.1 | Years |
| Mine Throughput (Ore), average | 3,197,673 | TPY |
| Metallurgical Recovery Au (Overall) | 75.0% | |
| Average Annual Gold Production | 32,050 | Ounces |
| Total Gold Produced | 195,443 | Ounces |
| LOM Strip Ratio (Waste:Ore) | 1.64 | |

## 22.2 Methodology

The Independence project economics are evaluated using a discounted cash flow (DCF) method. The DCF method requires that annual cash inflows and outflows are projected, from which the resulting net annual cash flows are estimated and then discounted back to the project financing date. Considerations for this analysis include the following:

- The cash flow model has been developed by KCA with input from Mr. Ashton.
- The cash flow model is based on the preliminary mine production schedule from Mr. Ashton.
- Gold and silver production and revenue in the model are delayed from the time material is stacked to account for the time required for metal values to be recovered from the heap.

- The period of analysis is 8 years including one year of pre-production, 6.1 years of production and Year 7 for reclamation and closure.
- All cash flow amounts are in US dollars (US$). All costs are considered to be 4th quarter 2021 costs. Inflation is not considered in this model.
- The Internal Rate of Return (IRR) is calculated as the discount rate that yields a zero Net Present Value (NPV).
- The NPV is calculated by discounting the annual cash back to Year 0 at different discount rates. All annual cash flows are assumed to occur at the end of each respective year.
- The payback period is the amount of time, in years, required to recover the initial construction capital cost.
- Working capital is considered in this model and includes mining, processing and general administrative operating costs. The model assumes working capital is recovered during the final two years of operation.
- A sales tax of 7.6% on goods and machinery.
- Royalties and government taxes are included in the model and are constructed as follows:
  - Proceeds of Minerals Tax – variable, with a maximum of 3.1852% of Net Proceeds
  - Nevada gold and silver mine royalty – 0.75% of gross revenue
  - Net Smelter Royalty of 2.0%
- Corporate income taxes of 21%.
- 100% equity financing is assumed.
- Salvage value for process equipment is considered and is applied at the end of the project.
- Reclamation and closure costs are included.

The economic analysis is performed on a before and after-tax basis in constant dollar terms, with the cash flows estimated on a project basis.

## 22.3 General Assumptions

General assumptions for the model, including cost inputs, parameters, royalties and taxes are as follows:

- Gold price of US$1,700/oz.
- Silver prize of US$24/oz.
- Gold and silver production and revenue in the model are delayed from the time material is stacked to account for time required for gold to be recovered from the heap. This results in an estimated 15% of the recoverable gold and silver values being delayed until the following year.

- Pre-production capital costs for the project are spent entirely in Year 0. Sustaining capital for the heap leach pad expansion is spent in Year 3. Capital cost estimates are presented in greater detail in Section 0 of this report.
- Working capital equal to 45 days of operating costs during the pre-production and ramp up period is included for mining, process and G&A costs as well as initial fill for process reagents and consumables. It is assumed that all working capital and initial fills can be recovered in the final two years of operation and the effective sum of working capital and initial fills over the life of mine is zero.
- Closure and reclamation costs of US$6 million are included
- LOM average operating costs of US$11.41/t processed including a mining cost of US$5.66/t, processing cost of US$4.55/t and G&A cost of US$1.19/t.
- A 2% royalty is included and payable to the prior property owner.
- A 0.75% Nevada gold and silver mine royalty (Excise Tax) is included.
- Taxes have been applied based on information associated with Nevada operations. Key tax assumptions include:
    - Linear depreciation schedule is applied to all processing direct capital costs.
    - Salvage value is assumed 10% of infrastructure cost, 20% of process equipment cost, and 15% of electrical.
- A refinery and transportation cost of US$2.13/oz for gold and US$2.13/oz for silver is used in the model, including insurance. Gold and silver are assumed to be 99.9% and 99.8% payable, respectively.
- By-product cash operating costs per payable ounce represent the mine site operating costs including mining, processing, metal transport, refining, administration costs and royalties with a credit for silver produced. Operating costs are presented in greater detail in Section 21 of this report.
- All in sustaining costs per payable ounce represent the mine site operating costs including mining, processing, metal transport, refining, administration costs and royalties with a credit for silver produced as well as the LOM sustaining capital and reclamation and closure costs.
- The cash flow analysis evaluates the project on a stand-alone basis. No withholding taxes or dividends are included. No head office or overheads for the parent company are included.

## 22.4 Economic Model & Cash Flow

The discounted cash flow model for the Independence Heap Leach project is presented in Table 22-3 and is based on the inputs and assumptions detailed in this section.

The Independence cash flows are net of royalties and taxes. The project yields an after-tax return of 18.2% and a pre-tax return of 19.3%.

## Table 22-3 Cash Flow Model

| | | | | Year 1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Item** | **UNITS** | **TOTAL** | **Year -1** | **Q1** | **Q2** | **Q3** | **Q4** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** | **Year 7** |
| **Total Mined** | | | | | | | | | | | | | |
| Total Mineralized Material, tonnes | | **20,055,870** | **547,634** | **684,309** | **684,309** | **684,309** | **684,309** | **3,285,300** | **3,285,900** | **3,286,700** | **3,285,900** | **3,305,000** | **322,200** |
| Au, g/mt | | 0.40 | 0.329 | 0.493 | 0.493 | 0.493 | 0.493 | 0.572 | 0.519 | 0.748 | 1.020 | 0.495 | 0.246 |
| Ag, g/mt | | 7.36 | | | | | | | | | | | |
| Waste Mined | | 32,941,000 | 1,767,100 | 1,551,500 | 1,551,500 | 1,551,500 | 1,551,500 | 7,483,000 | 7,116,200 | 5,391,000 | 2,858,100 | 2,005,900 | 113,700 |
| Total mined | | 52,996,870 | 2,314,734 | 2,235,809 | 2,235,809 | 2,235,809 | 2,235,809 | 10,768,300 | 10,402,100 | 8,677,700 | 6,144,000 | 5,310,900 | 435,900 |
| Strip Ratio (W:O) | | 1.64 | 3.23 | 2.27 | 2.27 | 2.27 | 2.27 | 2.28 | 2.17 | 1.64 | 0.87 | 0.61 | 0.35 |
| **Ore Processed** | | | | | | | | | | | | | |
| Ore Processed to Heap Leach | | 20,055,870 | | 821,218 | 821,218 | 821,218 | 821,218 | 3,285,300 | 3,285,900 | 3,286,700 | 3,285,900 | 3,305,000 | 322,200 |
| Au grade | | 0.404 | | 0.366 | 0.366 | 0.366 | 0.366 | 0.427 | 0.382 | 0.452 | 0.453 | 0.352 | 0.348 |
| Ag grade | | 7.36 | | 6.40 | 6.40 | 6.40 | 6.40 | 7.129 | 6.795 | 9.012 | 9.735 | 5.343 | 4.933 |
| Contained Au, oz | | 260,737 | | 9,669 | 9,669 | 9,669 | 9,669 | 45,080 | 40,310 | 47,770 | 47,900 | 37,400 | 3,600 |
| Contained Ag, oz | | 4,745,877 | | 168,894 | 168,894 | 168,894 | 168,894 | 753,000 | 717,800 | 952,300 | 1,028,400 | 567,700 | 51,100 |
| **Total Recoverable Gold, oz** | | **195,443** | | 7,481 | 7,481 | 7,481 | 7,481 | 33,950 | 30,710 | 34,777 | 34,531 | 28,822 | 2,728 |
| **Total Recoverable Silver, oz** | | **1,281,420** | | 45,610 | 45,610 | 45,610 | 45,610 | 203,310 | 193,806 | 257,121 | 277,668 | 153,279 | 13,797 |
| **Recoverable Gold Delayed** | | | | 1,122 | 1,122 | 1,122 | 1,122 | 5,092 | 4,607 | 5,217 | 5,180 | 4,323 | |
| **Recoverable Silver Delayed** | | | | 6,841 | 6,841 | 6,841 | 6,841 | 30,497 | 29,071 | 38,568 | 41,650 | 22,992 | |
| **TOTAL EQUIVALENT Au oz PRODUCED** | | **213,534** | | **6,906** | **8,125** | **8,125** | **8,125** | **32,516** | **33,952** | **37,663** | **38,444** | **32,106** | **7,571** |
| Equivalent Au payable oz | | **213,293** | | 6,899 | 8,116 | 8,116 | 8,116 | 32,479 | 33,914 | 37,620 | 38,400 | 32,070 | 7,562 |
| Refining & Transportation Charge | | **3,136,841** | | $95,851 | $112,766 | $112,766 | $112,766 | $445,268 | $480,934 | $598,511 | $656,619 | $428,239 | $93,120 |
| **NET REVENUE** | | **$359,461,201** | | **$11,631,785.32** | **$13,684,453** | **$13,684,453** | **$13,684,453** | **$54,769,585** | **$57,173,264** | **$63,355,961** | **$64,623,735** | **$54,090,683** | **$12,762,828** |
| **Operating Costs** | **$/tonne mineralized** | | | | | | | | | | | | |
| Mining Cost | $5.66 | $110,486,978 | | $4,874,044 | $4,874,044 | $4,874,044 | $4,874,044 | $23,474,894 | $22,676,578 | $18,917,386 | $13,393,920 | $11,577,762 | $950,262 |
| Processing Cost | $4.55 | $88,833,425 | | $3,111,502 | $3,111,502 | $3,111,502 | $3,111,502 | $14,971,945 | $14,955,088 | $15,001,985 | $14,973,184 | $15,013,332 | $1,471,884 |
| G&A Cost | $1.19 | $23,190,000 | | $894,750 | $894,750 | $894,750 | $894,750 | $3,579,000 | $3,579,000 | $3,579,000 | $3,579,000 | $3,579,000 | $1,716,000 |
| **TOTAL OPERATING COSTS** | **$11.41** | **$222,510,403** | **$0.00** | **$8,880,295.71** | **$8,880,295.71** | **$8,880,295.71** | **$8,880,295.71** | **$42,025,839** | **$41,210,666** | **$37,498,371** | **$31,946,104** | **$30,170,094** | **$4,138,146** |
| **OPERATNG CASH FLOW** | | **$136,950,798** | **$0** | **$2,751,490** | **$4,804,158** | **$4,804,158** | **$4,804,158** | **$12,743,746** | **$15,962,598** | **$25,857,590** | **$32,677,630** | **$23,920,589** | **$8,624,682** |
| **Taxes** | | | | | | | | | | | | | |
| Income Tax Payable | | $3,954,639 | $0 | $0 | $0 | $109,039 | $173,695 | $0 | $0 | $382,117 | $2,793,731 | $496,057 | $0 |
| **TOTAL TAXES** | | **$3,954,639** | **$0** | **$0** | **$0** | **$109,039** | **$173,695** | **$0** | **$0** | **$382,117** | **$2,793,731** | **$496,057** | **$0** |
| **Capital Costs** | | | | | | | | | | | | | |
| Capital Costs | | $63,952,980 | $58,387,751 | $0 | $0 | $0 | $0 | $172,500 | $5,169,560 | $73,168 | $0 | $0 | $150,000 |
| Working Capital (Initial Fills) | | **$125,000** | $125,000 | | | | | | | | | | |
| Reclamation Bonding | | | $0 | | | | | | | | | | $0 |
| Working Capital Process, Mining, G&A | | **$4,673,520** | $4,673,520 | | | | | | | | | | |
| Less: Working Capital Recovery | | **$4,798,520** | | | | | | | | | | $3,598,890 | $1,199,630 |
| **Subtotal** | | **$63,952,980** | **$63,186,272** | **$0** | **$0** | **$0** | **$0** | **$172,500** | **$5,169,560** | **$73,168** | **$0** | **($3,598,890)** | **($1,049,630)** |
| Reclamation & Closure | | $6,000,000 | | | | | | | | | | $1,500,000 | $4,500,000 |
| Less: Salvage Value | | $5,503,465 | | | | | | | | | | | $5,503,465 |
| **TOTAL CAPITAL** | | **$64,449,515** | **$63,186,272** | **$0** | **$0** | **$0** | **$0** | **$172,500** | **$5,169,560** | **$73,168** | **$0** | **($2,098,890)** | **($2,053,095)** |
| **After-Tax net annual Cash Flow, $** | | $58,661,461 | ($63,186,272) | $2,431,616 | $4,427,835 | $4,318,796 | $4,254,140 | $11,065,082 | $9,220,773 | $23,660,016 | $28,106,746 | $24,035,929 | $10,326,800 |
| **Cumulative** | | | **($63,186,272)** | **($60,754,656)** | **($56,326,821)** | **($52,008,025)** | **($47,753,885)** | **($36,688,803)** | **($27,468,030)** | **($3,808,014)** | **$24,298,732** | **$48,334,662** | **$58,661,461** |

## 22.5 Sensitivity

To estimate the relative strength of the project, base case sensitivity analyses have been completed analyzing the economic sensitivity to several parameters including changes in gold price, capital costs and average operating cash cost per tonne of material processed. The sensitivities are based on +/- 25% of the base case. The after-tax analysis is presented in Table 22-4. Figure 22-1 and Figure 22-2 present graphical representations of the after-tax sensitivities for IRR and NPR, respectively.

The economic indicators chosen for sensitivity evaluation are the internal rate of return (IRR) and NPV at 5% discount rates.

**Table 22-4 Sensitivity Analysis Results**

| | | | NPV | | |
|---|---|---|---|---|---|
| | **Variation** | **IRR** | **0%** | **5%** | **10%** |
| **Gold Price** | 1,700.00 | 18.0% | $58,661,461 | $34,548,014 | $17,631,540 |
| 75% | $1,275 | -6.1% | -$18,082,156 | -$26,919,790 | -$32,455,545 |
| 90% | $1,530 | 9.5% | $30,336,798 | $11,756,758 | -$1,021,811 |
| 100% | $1,700 | 18.0% | $58,661,461 | $34,548,014 | $17,631,540 |
| 110% | $1,870 | 25.4% | $84,518,266 | $55,250,408 | $34,499,587 |
| 125% | $2,125 | 35.9% | $123,303,473 | $86,187,649 | $59,613,187 |
| **Capital Costs** | $64,449,515 | 18.0% | $58,661,461 | $34,548,014 | $17,631,540 |
| 75% | $48,461,270 | 26.6% | $71,061,115 | $46,796,804 | $29,633,920 |
| 90% | $58,054,217 | 21.0% | $63,621,323 | $39,447,530 | $22,432,492 |
| 100% | $64,449,515 | 18.0% | $58,661,461 | $34,548,014 | $17,631,540 |
| 110% | $70,844,813 | 15.5% | $53,701,600 | $29,638,308 | $12,815,173 |
| 125% | $80,437,760 | 12.1% | $46,003,482 | $22,033,142 | $5,367,655 |
| **Operating Costs** | $222,510,403 | 18.0% | $58,661,461 | $34,548,014 | $17,631,540 |
| 75% | $166,882,802 | 30.7% | $101,085,620 | $68,890,397 | $45,888,844 |
| 90% | $200,259,363 | 23.2% | $75,631,125 | $48,331,508 | $29,009,850 |
| 100% | $222,510,403 | 18.0% | $58,661,461 | $34,548,014 | $17,631,540 |
| 110% | $244,761,443 | 12.3% | $40,365,060 | $19,552,305 | $5,153,292 |
| 125% | $278,138,004 | 2.2% | $6,988,499 | -$7,430,923 | -$17,017,789 |

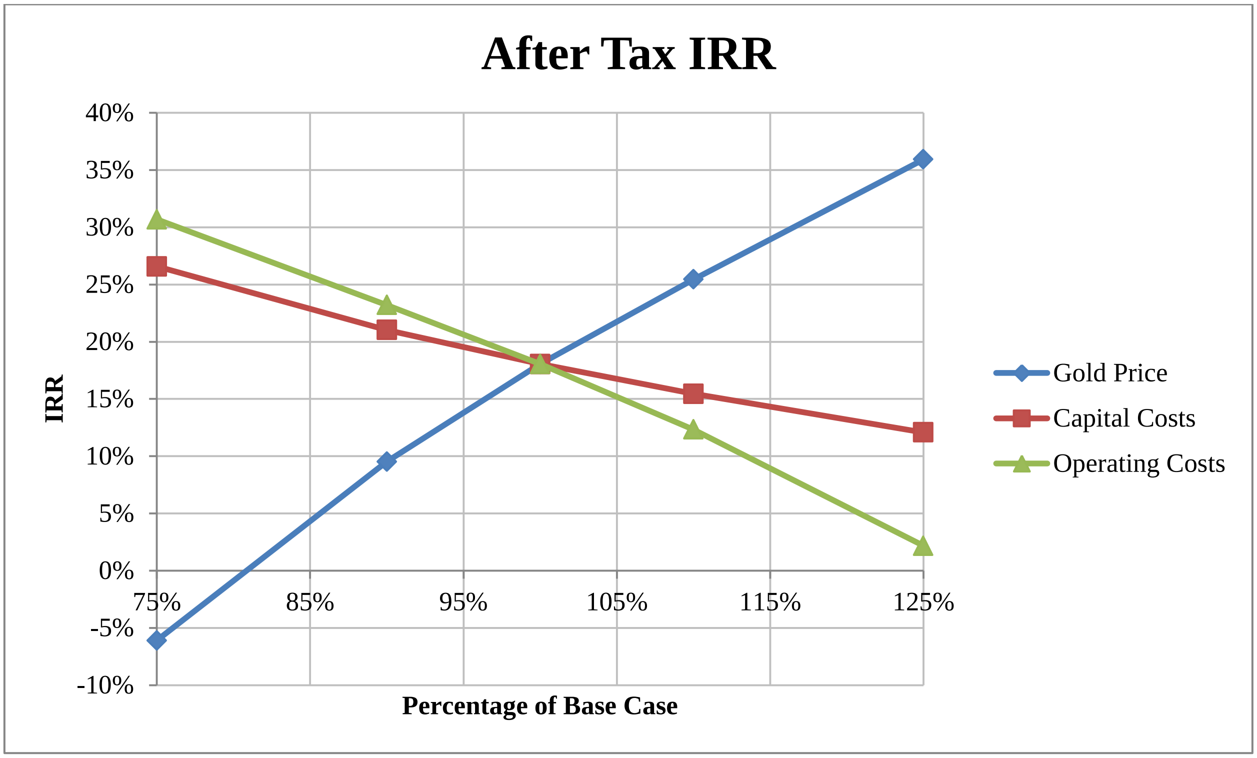



**Figure 22-1 After-Tax Sensitivity IRR**

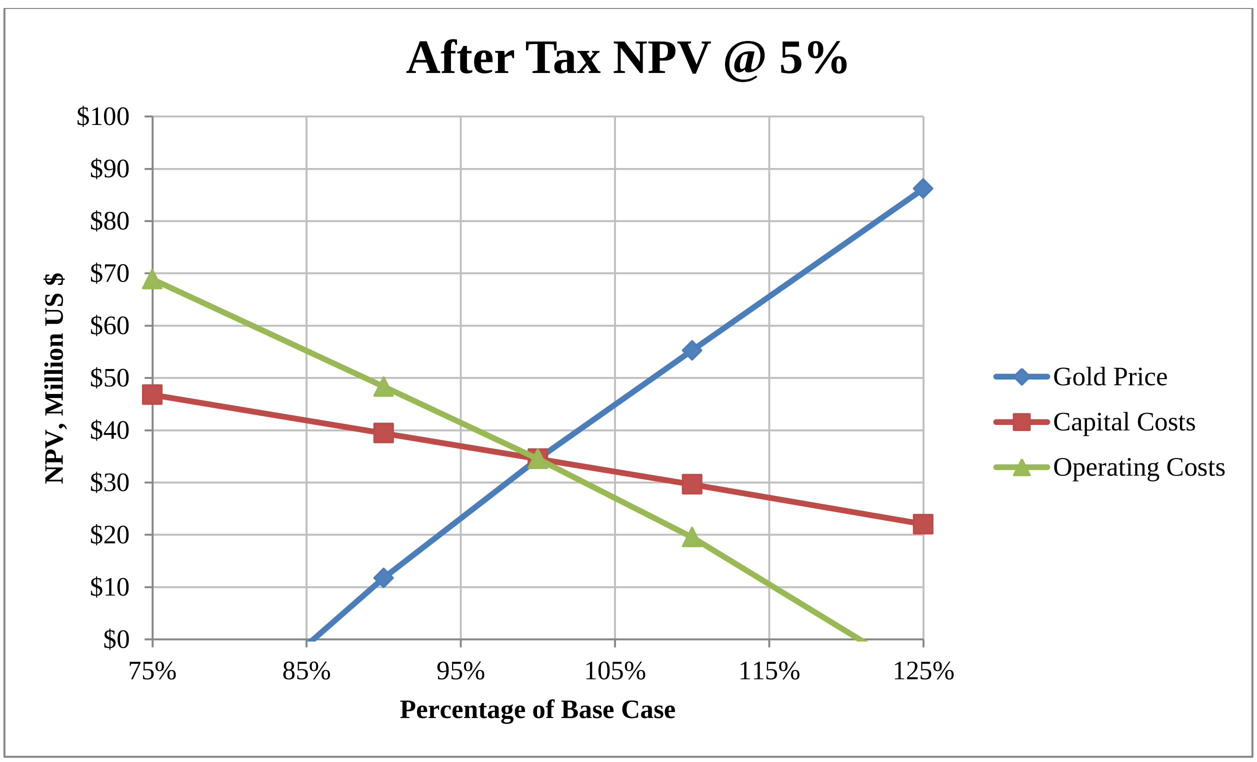



**Figure 22-2 After-Tax Sensitivity NPV @ 5%**

# 23.0 ADJACENT PROPERTIES

Numerous deposits occur adjacent to the Independence Mine including the Filippini Patent, Eldorado Patent, Tomboy, Minnie, Fortitude, Phoenix, Sunshine and the Natomas Placer deposit (Figure 23-1). The Independence Property is bordered on all sides by Fee land and mineral claims held mostly by Nevada Gold Mines.

The Eldorado Patent is a short distance to the northwest of the Independence mineralization. The property has potential for near surface gold and deeper gold-copper skarn similar to that found on the Independence property. Two deep RC-core holes have been drilled on the patent by Newmont who has not released the information. (Maynard, 2014, NI 43-101 Technical Report)

The Filippini Patent hosts both shallow oxide gold potential and a deep gold-copper bearing mineralized skarn deposit situated in the Antler Peak Limestone and Battle Mountain Conglomerate. This deep skarn mineralization is similar to that found on the Independence property and that which was mined in the nearby Phoenix-Fortitude pit. Seven deep holes were drilled on the property by Barrick and Homestake from 1987-1990. All seven of the holes intersected the deep gold-copper skarn mineralization. (Maynard, 2014, NI 43-101 Technical Report)

The Tomboy and Minne deposits were situated just east and southeast of the Independence Mine in Copper Canyon. These deposits were first identified by Duval Corporation in the early 1970’s and were placed into production during the winter of 1978 – 1979. In both deposits gold mineralization is contained in the lower Pennsylvanian age Battle Formation in carbonate rich conglomerates. Gold mineralization was contained in closely spaced fractures. Alteration products recognized at the time included silica flooding, epidote, chlorite and clay minerals, quartz veining was rarely noted. (Blake, D. & Kretschmer, E., 1980, Gold Deposits at Copper Canyon, Nevada).

The Deep Skarn deposit on the Independence Property is similar to material mined from the lower Fortitude deposit of the nearby Phoenix mine. The large Phoenix open pit gold and copper mine, operated by NGM, is located less than one mile east-northeast of the Independence project in Copper Canyon. Lithologically and structurally-controlled Copper Canyon mineralization can be considered to be the low-grade “halo” mineralization surrounding the old Fortitude Mine, both located in Copper Canyon on the east border of the Independence Property. Mineralization in Copper Canyon “is part of a large porphyry-skarn Au-Cu-Ag system developed around the 38 Ma Copper Canyon granodiorite porphyry stock. A 3-mile long north-south zone of Au-Cu-Ag is centered on several known and inferred stocks that are part of a larger buried pluton based on hornfelsing, dike swarms, metal zoning and a broad aeromagnetic anomaly. High-angle, west-dipping NS-striking normal faults served as the primary hydrothermal fluid conduits, particularly the Virgin fault zone (currently referred to as the Master fault). Stratabound mineralization is hosted predominantly by carbonate-rich sedimentary rocks of the Pennsylvanian/Permian Antler sequence, including the Antler Peak, Edna Mountain and Battle Formations. The fractured and deeply oxidized siliciclastic Cambrian Harmony Formation and Pennsylvanian Havallah Sequence are locally mineralized where strongly structurally broken." (Saderholm, E., GSN Presentation February 17, 2006). The Phoenix Mine was acquired by Newmont in 2001 and began production in 2006 as a large open pit, milling operation recovering gold, silver and copper ores from shallow sulfide mineralization. In 2019 Newmont and Barrick established the Nevada Gold Mines joint venture.

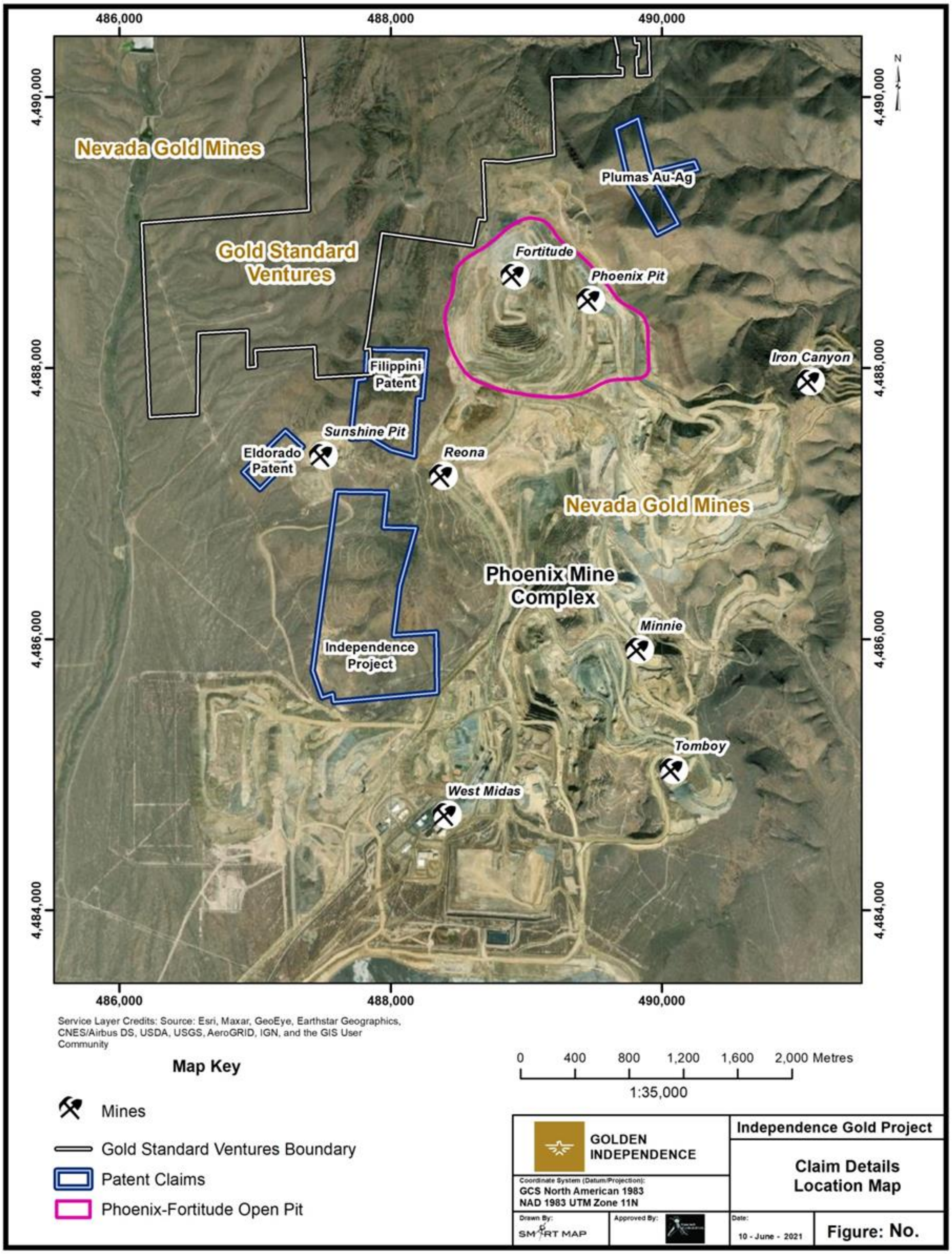
Newmont characterized Phoenix as a skarn-hosted polymetallic massive sulphide replacement deposit. The Phoenix Mine produces approximately 241,000 oz. gold and 32 million lbs. of copper annually. As of December 31, 2018, the Proven and Probable Reserves at the Phoenix Mine were 146.4 million tons (132.8 million tonnes) at 0.019 oz/t (0.66 g/t) Au for 2,820,000 total ounces gold, 243,100,000 tons (220,536,000 tonnes) at 0.18% Cu for 890 million lbs. Cu and 146,400,000 tons (132,812,000 tonnes) at 0.22 opt (7.54 g/t) Ag for 31,910,000 oz. Ag (Newmont Goldcorp Corporation, 2019a; 2019b). The Authors of this Technical Report have not verified the mineral reserves and resources reported for the Phoenix Property. However, the resources were prepared by qualified persons in accordance with NI43-101 guidelines and the Authors have no reason to question their validity. The reserves presented above are not necessarily indicative of the mineralization at the Independence Resource area or on the Independence Property.

The Sunshine deposit, mined by Battle Mountain Gold in 1995 and 1996, produced 32,000 ounces of oxide gold which was treated by heap leaching. Sunshine mineralization was hosted in cherts of the Havallah / Pumpernickel Formation of the Golconda Allochthon, and portions of the Independence Stock along its northern margin.

The Natomas Company operated a bucket line dredge in the mouth of Copper Canyon from 1947 through 1955 when the dredge was sunk in an accident. These operations were situated on and just south of the current Independence Mine Property. According to Johnson (1973, p37 – 38) Natomas recovered 100,000 ounces of alluvial gold from this deposit. (Johnson, M., 1973, Placer Deposits of Nevada, USGS Bull. 1356, p118)

The Qualified Person has been unable to verify the above information and that the information is not necessarily indicative of the mineralization on the Independence property that is the subject of this technical report.

# Figure 23-1 Location of Adjacent Properties




Source: GIMC 2021

# 24.0 OTHER RELEVANT DATA AND INFORMATION

The Authors are not aware of any other relevant data or information related to the Property that is not described or discussed in the preceding sections of this Technical Report.

# 25.0 INTERPRETATIONS AND CONCLUSIONS

This report provides a summary of the results and findings to the level that would be expected for a Preliminary Economic Assessment. Standard industry practices and assumptions have been applied in this PEA. Based upon the results and studies of the Independence project PEA, the following conclusions, opportunities, and risks have been identified that merit further consideration during future studies and project development:

## 25.1 Conclusions

The work that has been completed to date has demonstrated that Independence is a potentially technically and economically viable project based upon the estimated Mineral Resources for the Independence project and justifies additional work, including prefeasibility or feasibility analysis. More specific and detailed conclusions are presented in the sections below.

### 25.1.1 Economic Study

This PEA is preliminary in nature and is based on technical and economic assumptions which will be evaluated in more advanced studies. The PEA is based on the Mineral Resource estimate in Section 14. The PEA is based on a production plan that includes material in Measured, Indicated and Inferred classifications from the Independence Resource model. This report validates that the Project would support an open pit mining operation that recovers gold and silver metals from the ground to be sold at a profit.

The estimated mineral resources are assumed to be processed using heap leaching and the Merrill Crowe recovery method which are in operation throughout the state of Nevada. Mineralized material would be processed through a 9,000 mtpd 2-stage crushing circuit before being placed on the heap leach pad.

Under the base case assumptions for the Project, the PEA indicates an undiscounted pre-tax cash flow of $62.6 M, and a post-tax NPV at 5% discount of $34.5 M. The resulting post-tax IRR is 18.2% for an initial capital investment of $63.2 M.

The results of sensitivity analyses of post-tax cash flow and post-tax IRR show that the project is most sensitive to recovery and gold price while the Project is least sensitive to changes in capital costs. An approximately 25% decrease in gold price to $1,275 per ounce results in a negative NPV at 5% discount of $26.9 M and at a gold price 25% higher ($2,125), the NPV at 5% discount is $86.2 M.

The base case assumptions demonstrate that the Project would produce an average of 35 thousand gold-equivalent ounces per year, over the LOM. The Project would produce 213 thousand gold-equivalent ounces total through the entire life of the mine.

### 25.1.2 Mineral Resource Estimate

This Technical Report describes an updated MRE for the Independence Gold Project based on a compilation of recent and historic drilling, modelling, and new metallurgical data. As more exploration and infill drilling is completed on the project, refinements to the modeling parameters may be required and incorporated into future resource estimates. The Authors' believe the Independence data provided to them by Golden Independence are of sufficient quality for use in the updated MRE described in this Technical Report.

The Independence project near surface resources are tabulated using gold-equivalent cutoff grades of 0.175 g/t, 0.215 g/t, and 0.425 g/t for the oxide, transition, and sulfide material respective. This cutoff grade were calculated based on liberal economic parameters developed to capture mineralization that is potentially available to open-pit extraction and can reasonably be assumed to be amenable to heap-leach processing. Measured and Indicated resources for the Near Surface mineralization total 27,997,000 tonnes averaging 0.37 g/t Au (334,300 ounces), and 7.65 g/t Ag (6,886,400 ounces) with an additional 5,218,000 tonnes averaging 0.30 g/t Au (50,800 ounces), and 4.35 g/t Ag (730,600 ounces) assigned to the Inferred category. The undiluted Deep Skarn resource is categorized as Inferred and contains 3,794,000 tonnes averaging 6.53 g/t Au (796,200 ounces).

### 25.1.3 Mining and Operations

The Independence Mine is to be an open pit truck-loader operation feeding a heap leach facility at a rate of 9,000 t/day. The resource is sufficient for a 6.1-year mine life. The conceptual design of the heap leach pad provides suitable capacity to store and leach up to 21.9 Mt of leach material. The project currently has defined 20.1 Mt of leachable material with an average grade of 0.4 g/t Au and 7.36 g/t Ag. The heap would be stacked to a maximum height of 80 meters. Permeability tests are needed to confirm this height.

Due to the small land area for which to build the open pits, leach pad, waste dumps, and mine facilities any increase in the size of the pit, amount of leachable material, or strip ratio would necessitate a redesign of the project and possibly moving some facilities off the current site.

### 25.1.4 Metallurgy and Process

The project has been designed as an open-pit mine with heap leach for recovery of gold and silver from oxide and transition material. Leachable material will be crushed to P80 38mm, stockpiled, reclaimed and conveyor stacked onto the heap leach pad at an average rate of 9,000 mtpd. Stacked material will be leached using low grade sodium cyanide solution and the resulting pregnant leach solution will be processed in a Merrill Crowe plant for the recovery of gold and silver.

Metallurgical test work completed on samples to date shows that the material is amenable to cyanide leaching for the recovery of precious metals with acceptable recoveries for gold and silver with low to moderate reagent consumptions.

### 25.1.5 Exploration

There are several target areas within the Independence project that are worthy of additional exploration. The Independence Deep Skarn deposit has the most potential for expansion. Additional infill drilling exists in expanding the Independence near surface mineralization down dip and between the two identified open pits. Continued infill drilling of the stock work and porphyry style mineralization hosted in the Independence Stock (northern project area) has the potential to provide incremental increases to resources. Additional potential exists in high angle, structurally controlled mineralization both above and below the Independence Deep Skarn target. Target potential below the Deep Skarn is verified by Great Basin Gold’s hole WI-001 which intersected 1.52 meters assaying 75 g/t Au in the Harmony formation below the Roberts Mountains Thrust.

## 25.2 Opportunities

### 25.2.1 Mineral Resource

Additional drilling to the west of the Independence deposits has the potential to extend the resources down dip to the west. Such expansion could improve the project economics by increasing in-pit mineralization but with potentially increasing waste. With only seven holes defining the Deep Skarn mineralization, there is high potential to expand this resource and possibly increase the grade. Additional drilling could also result in reclassification of resources from Inferred to Indicated and from Indicated to Measured.

### 25.2.2 Mining

Due to its high-grade, the Independence Deep Skarn target warrants special future consideration. The difficulty in evaluating this mineralization is that the target is deep and generally beyond the limits of RC drilling. With additional drilling into the Deep Skarn deposit the potential exists to advance this deposit to a position where an economic analysis is warranted with preliminary mine designs being completed.

### 25.2.3 Metallurgy and Process

From the preliminary test work conducted so far, the gold recovery for oxide ore is not impacted by crush size. A coarser crush which will further reduce the capital and operating cost can be further investigated in the future studies.

## 25.3 Risks

### 25.3.1 Water

Sufficient water rights for a mining and heap leach processing operation are being sought and the required applications have been submitted to the necessary agency. There is no certainty that once the water rights have been received that the water well will be able to produce the required water.

### 25.3.2 Metallurgy and Process

The estimated field recovery of gold and silver for transitional ore and sulfide ore are mainly based on the cyanide soluble gold and silver from geological samples, which may over-estimate the field metal recoveries. It is recommended to collect representative transitional material and sulfide material for column test in future, which will provide better indication of gold and silver recovery for transitional material and sulfide material.

### 25.3.3 Other Risks

Due to the small land package for the project, there is limited potential to expand the near surface resource. The Independence Project is completely surrounded by property held by Nevada Gold Mines (NGM) who has a large active mining operation adjacent to the Independence property boundary to the east and south. The possibility of litigious land use issues with NGM pertaining to the potential conflict of GIMC's 100% owned Millsite Claims with the underlying NGM lode mining claims is of concern. NGM also has an approved Plan of Operations (POO) with the BLM which surround most of the Independence Project area. A portion of NGM approved operations include the placement of waste rock over the area covered by GIMC's Millsite Claims.

# 26.0 RECOMMENDATIONS

The PEA presents an economical project. Based on the results of the preliminary economic analysis the Authors believe that the Independence deposit represents a project of merit and warrants the proposed program and level of expenditures outlined below. The Authors recommends the following future work to advance the project to pre-feasibility level:

## 26.1 Infill and Confirmation Drilling

Infill and confirmation drilling is justified to potentially upgrade the near surface Inferred mineral resources within the Independence mineral resource to Measured or Indicated mineral resource classification. This drilling will total 6,290 m and can be done with RC and core methods at an estimated cost of $740,000.

## 26.2 Condemnation Drilling

In order to validate GIMC's millsite claims, which cover lode claims owned by NGM, the Authors' recommend that GIMC drill a series of RC condemnation holes within the millsite claims to confirm that a shallow potentially open pit mineable resource does not exist under them. Condemnation drilling of 2,600 m in 13 drill holes is recommended within and near the footprints of the planned leach pad, west waste dump, and process pond. The estimated total cost is $260,000.

## 26.3 Metallurgical Test Work

Metallurgical work requirements for advancing the Independence deposits to pre-feasibility study level are estimated at $940,000, which includes additional metallurgical test work (column leach tests and compacted permeability tests), PQ diameter core drilling to obtain the test samples, and crusher work index testing. Representative samples of the three material types (oxide, transitions, and sulfide) need to be collected and tested.

## 26.4 Permitting and Baseline Studies

In GIMC's effort to advance the project in a time efficient manner they have initiated the permitting process with the BLM. One of the more time consuming requirements in the permitting process is the characterization of waste rock. A waste rock characterization study was begun in early 2021 and is ongoing with results expected in mid-2022. The Authors recommend that work continue on the preparation of the Plan-of-Operations Application for the BLM and the initiation of environmental baseline studies as needed. Another key aspect of the permitting process is the development of an accurate hydrogeological model of the resource area. To help in this effort, the Authors' recommend that a deep groundwater monitoring well be installed. The estimated total cost for environmental studies and permitting is $455,000.

## 26.5 Geotechnical Studies

Geotechnical studies are recommended for assessing pit designs at a feasibility level as well as for permitting purposes. Geotechnical study of the process site, leach pad, and waste dumps is also recommended in order to determine the geotechnical design parameters needed for foundation and slope stability. Estimated costs including drilling, field work, testing, and reporting are estimated to be $130,000.

## 26.6 Engineering Studies and Pre-Feasibility Report

The current PEA considers the Independence project as potentially economic. Additional work is required to optimize the mineral resources and to develop a mineral reserve, including trade off studies, engineering to pre-feasibility level, and geotechnical work in support of facilities. It is expected that the additional work required to progress to a pre-feasibility and complete a PFS report will be approximately $400,000.

## 26.7 Deep Skarn Resource

The Authors see significant potential of increasing the grade and size of the Deep Skarn deposit. This deposit currently only has seven core holes defining it. The mineralization appears to be continuous with an average grade of 6.53 g/t Au. With this in mind, the Authors' recommend that GIMC drill a series of three deep RC/core holes through this deposit. These three holes can be located as to benefit the Near Surface deposit as well. Estimated cost is $1,046,000.

The Deep Skarn drilling should be "pre-collared" using RC drilling to depths of approximately 310 meters, and setting surface casing to permit HQ core drilling for the remainder of the hole. The core should be carefully logged, and all mineralized intervals above and below the Golconda Thrust should be sawn, sampled and assayed for both gold and geochemical values. All holes should be left in a condition which would allow them to be re-entered for future wedge drilling.

## 26.8 Total Cost of Recommendations

Table 26-1 lists the activities and budget costs for the near term items discussed above to advance the project to the pre-feasibility level. Table 26-2 displays a budget for drilling the two Deep Skarn holes.

### Table 26-1 Cost Estimate for Near Term Project Advancement

| **Drilling** | **# Units** | **Unit Cost** | **Item Cost** |
|---|---|---|---|
| RC Drilling (26 holes) In-fill (m) | 4,810 | $100.00 | $481,000.00 |
| Core Drilling (8 holes) In-fill and Confirmation (m) | 1,480 | $175.00 | $259,000.00 |
| Condemnation (13 holes) RC Drilling (m) | 2,600 | $100.00 | $260,000.00 |
| Geotechnical Drilling (13 Auger holes) (m) | 400 | $75.00 | $30,000.00 |
| Metallurgical PQ core (17 holes) (m) | 1,950 | $200.00 | $390,000.00 |
| **Total** | | | **$1,420,000.00** |
| **Environmental and Permitting** | **# Units** | **Unit Cost** | **Item Cost** |
| Plan-of-Operations Application Document | 1 | | $90,000.00 |
| Environmental Baseline Studies | 1 | | $150,000.00 |
| Waste Characterization Study (finish) | 1 | | $150,000.00 |
| Hydrology Study (initial) | 1 | | $200,000.00 |
| Monitor/Test Well (260m) | 260 | $250.00 | $65,000.00 |
| **Total** | | | **$655,000.00** |
| **Metallurgical Work** | **# Units** | **Unit Cost** | **Item Cost** |
| Column Leach Tests | 25 | $20,000.00 | $500,000.00 |
| Compacted Permeability testing | 16 | $3,125.00 | $50,000.00 |
| **Total** | | | **$550,000.00** |
| **Preliminary Feasibility Study (PFS)** | **# Units** | **Unit Cost** | **Item Cost** |
| Resource Update, Metallurgical Modelling, Mine Design | 1 | | $70,000.00 |
| KCA Report Sections (Metallurgy, Recovery, Financial Analysis) | 1 | | $190,000.00 |
| J-U-B Engineering (Leach Pad, Water Balance, Geotechnical) | 1 | | $240,000.00 |
| **Total** | | | **$500,000.00** |
| **Grand Total for Near Term Items** | | | **$3,125,000.00** |

### Table 26-2 Cost Estimate for Deep Skarn Deposit

| **Exploration Deep Skarn** | **# Units** | **Unit Cost** | **Item Cost** |
|---|---|---|---|
| Site Construction | 3 | $1,000.00 | $3,000.00 |
| Drilling 3 Pre-collar holes to 310 meters (m) | 930 | $175.00 | $162,750.00 |
| Drill 3 HQ diameter Core holes (m) | 2,070 | $300.00 | $621,000.00 |
| Sample Analyses (1.52 m sample length + standards) | 1,974 | $35.00 | $69,090.00 |
| Management (man days) | 120 | $300.00 | $36,000.00 |
| Splitting, Sawing, Sampling | 125 | $300.00 | $37,500.00 |
| Supplies | 1,974 | $3.50 | $6,909.00 |
| Field Costs (man day) | 125 | $800.00 | $100,000.00 |
| Misc. | 1 | | $10,000.00 |
| **Total** | | | **$1,046,249.00** |
| All new holes to be left in condition to re-enter and wedge drill. | | | |

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# 28.0 DATE AND SIGNATURE PAGE

This report, entitled Preliminary Economic Assessment NI 43-101 Technical Report on the Independence Heap Leach Project, Battle Mountain, Nevada, has the following report dates:

Report Date is:
January 24, 2022

Mineral Resource Effective Date is:
November 15, 2021

The report was prepared and signed by the Qualified Persons as presented in the following certificates: The undersigned have prepared this technical report in accordance with the Nation Instrument 43-101F1 guidelines for Technical Reports.

| | |
|---|---|
| *(Signed) "James Ashton"* | Date Signed: |
| James Ashton, P.E., SME-RM | January 24, 2022 |
| *(Signed) "Carl E. Defilippi"* | Date Signed: |
| Carl E. Defilippi, SME-RM | January 24, 2022 |
| *(Signed) "Richard Delong"* | Date Signed: |
| Richard Delong, QP-MMSA, PG | January 24, 2022 |

# 29.0 CERTIFICATE OF QUALIFIED PERSONS

CERTIFICATE OF QUALIFIED PERSON

I, James Ashton, P.E., do hereby certify that I am an independent consulting mining engineer with office at 14425 Sitting Bull Circle, Reno, Nevada, 89521 and further certify that:

1) I am the Principal Author of the report titled "Preliminary Economic Assessment NI 43-101 Technical Report on the Independence Heap Leach Project, Lander County, Nevada, USA" (the "Technical Report") prepared for Golden Independence Mining Corp. with an effective date of November 15, 2021 and a report date of January 24, 2022.
2) I graduated from the University of Nevada, Reno, Mackey School of Mines with a Bachelor of Science Degree in Mining Engineering in 1984.
3) I am a Professional Engineer in the State of Nevada (# 9126) since 1989 and a Registered Member (#00097056) in good standing with the Society of Mining, Metallurgy and Exploration (SME) since its inception.
4) I practiced my profession continuously for 32 years since graduation taking an early retirement in 2017. I now work, as I see fit, as an independent consulting mining engineer. I have worked in mineral production, development, engineering and evaluation of mineral resources the entire duration of my professional career and, as a resident of Nevada, the last 26 years. A large portion of my career has dealt with precious metal properties in the western US.
5) I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43 - 101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6) I have personally conducted site visits to the Independence Gold Project on May 2, 2009, March 10, 2011 and most recently January 20, 2021.
7) I am responsible for all sections of the Technical Report except Sections 1.6, 1.9, 1.11, 1.12, 1.13, 4.4, 4.5, 13, 17.1, 17.2, 17.3, 17.5, 17.8, 17.9, 18.1.4, 20, 21 (except 21.1.1, 21.1.3, 21.2.1, 21.3), 22, 25.0, 25.1, 25.1.1, 25.1.4, 25.2.3, 25.3.2, 26.0 and 26.3.
8) 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 portion of the Technical Report for which I am responsible not misleading.
9) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
10) I am independent of the Issuer and the Property applying all of the tests in section 1.5 of both NI 43-101 and 43-101CP.
11) I have been involved with this property prior to Golden Independence's involvement with an earlier owner of the property working on a Technical Report that was not completed. My most recent involvement was as a co-author of the previous technical report entitled "Technical Report of the Independence Gold Project, Battle Mountain Mining District, Lander County, Nevada USA" dated June 28, 2021.
12) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication and the public company files or their websites.

Dated this 24th Day of January 2022

"James Ashton"

James Ashton, P.E. (Mining - #9126)

## CERTIFICATE OF QUALIFIED PERSON

I, Carl E. Defilippi, SME-RM, of Reno, Nevada, USA, Sr. Project Engineer at Kappes, Cassiday & Associates, as an Author of this report entitled "Preliminary Economic Assessment NI 43-101 Technical Report on the Independence Heap Leach Project, Lander County, Nevada, USA" dated January 24, 2022, prepared for Golden Independence Mining Corporation (the "**Issuer**") do hereby certify that:

1. I am employed as a Sr. Project Engineer at Kappes, Cassiday & Associates, an independent metallurgical consulting firm, whose address is 7950 Security Circle, Reno, Nevada 89506.

2. This certificate applies to the technical report "Preliminary Economic Assessment NI 43-101 Technical Report on the Independence Heap Leach, Lander County, Nevada, USA" dated January 24, 2022 (the "**Technical Report**").

3. I am a registered member with the Society of Mining, Metallurgy and Exploration (SME) since 2011 and my qualifications include experience applicable to the subject matter of the Technical Report. In particular, I am a graduate of the University of Nevada with a B.S. in Chemical Engineering (1978) and a M.S. in Metallurgical Engineering (1981). I have practiced my profession continuously since 1982. Most of my professional practice has focused on the development of gold-silver leaching projects. I have successfully managed numerous studies at all levels on various cyanidation projects.

4. I am familiar with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**") and by reason of education, experience and professional registration, I fulfill the requirements of a "qualified person" as defined in NI 43-101.

5. I visited the Independence property for a total of one day on January 19, 2022.

6. I am responsible for Sections 1.6, 1.9, 1.12, 1.13, 13, 17 (except 17.4, 17.6, 17.7), 18.1.4, 21 (except 21.1.1, 21.1.3, 21.2.1, 21.3), 22, 25.0, 25.1, 25.1.1, 25.1.4, 25.2.3, 25.3.2, 26.0, and 26.3 of the Technical Report.

7. I am independent of the Issuer as described in section 1.5 of NI 43-101.

8. I have had no prior involvement with the property that is the subject of the Technical Report, other than as a co-author of the previous technical report entitled "Technical Report of the Independence Gold Project, Battle Mountain Mining District, Lander County, Nevada USA" dated June 28, 2021.

9. I have read NI 43-101 and the Technical Report has been prepared in compliance with NI 43-101.

10. 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 portion of the Technical Report for which I am responsible not misleading.

Dated this 24th day of January 2022.

***"Carl Defilippi"***

Carl Defilippi, RM SME
Sr. Project Engineer at
Kappes, Cassiday & Associates

## CERTIFICATE OF QUALIFIED PERSON

I, Richard DeLong, M.S., P.G., do hereby certify that:

1. I am Senior Vice President of:
EM Strategies, Inc., a Westland Resources, Inc. Company
1650 Meadow Wood Lane, Reno, Nevada 89502

2. I graduated with a Masters Degree in Geology and a Masters Degree in Resource Management from the University of Idaho.

3. I am a Professional Geologist in good standing in the State of Idaho in the area of Geology (No. 727). I am also recognized as a Qualified Person Member with special expertise in Environmental Permitting and Compliance with the Mining and Metallurgical Society of America (No. 01471QP).

4. I have worked as an environmental permitting and compliance specialist for a total of 38 years. My experience includes permit acquisition of state and federal permits and baseline data acquisition programs for mining and exploration operations.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am a contributing author for the preparation of the technical report titled "Preliminary Economic Assessment NI 43-101 Technical Report on the Independence Heap Leach, Lander County, Nevada, USA" dated January 24, 2022, (the "Technical Report"), prepared for Golden Independence Mining Corp. I am responsible for the preparation of Sections 1.11, 4.4, 4.5, and 20. I visited the project site on March 29 and 30th, 2021.

7. I have prior involvement with the project or property that is the subject of the Technical Report. My involvement with the property is the ongoing work associated with environmental baseline data collection and the acquisition of the necessary state and federal permits for the development of the mining operation.

8. As at 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 portion of the Technical Report for which I am responsible not misleading.

9. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.

10. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 24th day of January 2022.

"*Richard DeLong*"
Richard DeLong, QP-MMSA, PG
Sr. Vice President
EM Strategies